Rockland County

FACILITIES MANAGEMENT

HON. EDWIN J. DAY
COUNTY EXECUTIVE

ROBERT H. GRUFFI, P.E., LEED AP
DIRECTOR, FACILITIES MANAGEMENT

CAPITAL PROJECT 1483

CONSTRUCT NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DRIVE
POMONA, NEW YORK 10970

Rockland County
FACILITIES MANAGEMENT
ROBERT H. GRUFFI, P.E., LEED AP
DIRECTOR
FACILITIES MANAGEMENT
DR. ROBERT L. YEAGER HEALTH CENTER
50 SANATORIUM ROAD
BUILDING A, 2ND FLOOR
POMONA, NY 10970

DESIGN PROFESSIONAL:
RAUHAUS FREEDENFELD & ASSOCIATES, INC.
97 BROADWAY
BOSTON, MA 02116
PHONE: 617.338.0050
FAX: 617.426.2557

rf&a
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23121 Moulton Pkwy #105
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.8858
rauhaus freedenfeld & associates

CIVIL/LANDSCAPE ENGINEER
LANGAN
1 N. BROADWAY, SUITE 910
WHITE PLAINS, NY 10601
PHONE: 914.923.7400

STRUCTURAL ENGINEER
MPP ENGINEERS, LLC
34 S. MAIN STREET
ALLENTOWN, NJ 08501
PHONE: 609.489.5511

MEP ENGINEERS
COMFORT DESIGN
620 PENNSYLVANIA AVE.
WINDCHESTER, VA 22604
PHONE: 540.665.2846

LEED CONSULTANT
THE COTOCON GROUP
41 BETHPAGE RD.,
HICKSVILLE, NY
PHONE: 516.595.7474

ISSUE	DATE	DESCRIPTION
1	10/20/2021	ISSUED FOR BID

PROJECT NAME

CAPITAL PROJECT 1483

CONSTRUCT NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DRIVE
POMONA, NY 10970

SHEET TITLE

COUNTY TITLE SHEET

DWG INFO.	
SCALE	XXX
PRJ. NO.	1483
DRAWN	XXX
CHECKED	XXX
DATE	XXX

DWG NO.

G0.00

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DR., POMONA, NY 10970

Rockland County

BID SET

CONTACT

CLIENT:
HON. EDWIN J. DAY
COUNTY EXECUTIVE
50 SANATORIUM ROAD
POMONA, NY 10970
PHONE:

ROBERT H. GRUFFI, P.E., LEED AP
DIRECTOR, FACILITIES MANAGEMENT
50 SANATORIUM ROAD
POMONA, NY 10970
PHONE: 845.364.2958

ARCHITECT:
RAUHAUS FREEDENFELD & ASSOCIATES, INC.
97 BROADWAY
BOSTON, MA 02116
PHONE: 617.338.0050

CIVIL / LANDSCAPE ENGINEER:
LANGAN
1 N. BROADWAY, SUITE 910
WHITE PLAINS, NY 10601
914.323.7400

STRUCTURAL ENGINEER:
MPP ENGINEERS, LLC
34 S. MAIN STREET
ALLENTOWN, NJ 08501
PHONE: 609.489.5511

MEP ENGINEER:
COMFORT DESIGN
620 PENNSYLVANIA
WINDCHESTER, VA
PHONE: 540.665.2846

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THE COTOCON GROUP
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HICKSVILLE, NY
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MATERIALS

- ACOUSTIC TILE
- BATT INSULATION
- BRICK
- CEMENT BOARD
- CONCRETE MASONRY UNIT
- EARTH
- GRAVEL
- GYPSUM WALL BOARD
- PLASTIC LAMINATE
- PLYWOOD
- RIGID INSULATION
- SEALANT
- WOOD BLOCKING
- WOOD FRAMING
- FINISH WOOD
- CERAMIC TILE

SYMBOLS

- GRID LINES
- DETAIL & SHEET NUMBER
- PARTITION TYPE
- ROOM IDENTIFICATION
- SECTION & SHEET NUMBER
- INTERIOR ELEVATION & SHEET NUMBER
- DOOR NUMBER
- WINDOW TYPES
- EQUIPMENT
- CRITICAL DIMENSION
- FINISH
- REVISION NUMBER
- EXTERIOR ELEVATION NUMBER & SHEET NUMBER
- INTERIOR ELEVATION NUMBER & SHEET NUMBER
- DETAIL SECTION NUMBER & SHEET NUMBER
- BUILDING SECTION NUMBER & SHEET NUMBER
- WALL SECTION NUMBER & SHEET NUMBER

BUILDING CODE DATA

APPLICABLE CODES:

2020 BUILDING CODE OF NEW YORK STATE
2020 PLUMBING CODE OF NEW YORK STATE
2020 MECHANICAL CODE OF NEW YORK STATE
2020 FUEL GAS CODE OF NEW YORK STATE
2020 FIRE CODE OF NEW YORK STATE
2020 PROPERTY MAINTENANCE CODE OF NEW YORK STATE
2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE
2009 ANSI A117.1
2010 ADA STANDARDS

PROJECT DESCRIPTION

THE PROPOSED PROJECT IS A NEW USE, NEW CONSTRUCTION, GROUND UP 13,900 S.F. ANIMAL SHELTER FOR THE ROCKLAND COUNTY, NEW YORK STATE. IT IS A FULLY SPRINKLERED TYPE VB SINGLE STORY STRUCTURE.

NEW CONSTRUCTION							**(CODE SECTION)**
SPRINKLERED - A FULLY AUTOMATIC NFPA 13 SPRINKLER SYSTEM WILL BE PROVIDED							
USE GROUP:	"B" BUSINESS - ANIMAL HOSPITALS, KENNELS, AND POUNDS "S-1" STORAGE - MODERATE-HAZARD STORAGE (SUPPLIES)						(NYS BC 2020 TABLE 304.1) (NYS BC 2020 TABLE 311.2)
TYPE OF CONSTRUCTION:	TYPE VB						(NYS BC 2020 TABLE 504.3)
GEN, HEIGHT & AREA LIMITS:	**ALLOWABLE:**			**PROVIDED:**			**(CODE SECTION)**
	HEIGHT (FT):	# STORIES:	AREA:	HEIGHT:	# STORIES:	AREA:	
TOTAL BUILDING HEIGHT & AREA:	(60 FEET)	(3 STORIES)	(36,000 S.F.)	(± 30 FEET)	(1 STORY)	(12,855 S.F.)	(NYS BC 2020 TABLE 504.3/504.4/506.2)
OCCUPANCY LOAD: "SEE EGRESS PLAN"	BUSINESS FUNCTION CONC. BUSINESS FUNCTION WAITING AREA FIXED SEATS ACTUAL OCCUPANTS STORAGE/MECH. FUNCTION ASSEMBLY FUNCTION TOTAL OCCUPANTS	- - - - - -	10,310 S.F./150 GROSS S.F. PER OCC. = 69 OCC. 235 S.F./50 GROSS S.F. PER OCC. = 5 OCC. 120"/18" SEATING PER OCC. = 7 OCC. ACTUAL# EXCEEDS CALCULATED = 9 OCC. 1,453 S.F./300 GROSS S.F. PER OCC. = 5 OCC. 205 S.F./15 NET S.F. PER OCC. = 14 OCC. = 109 OCC.				(NYS BC 2020 TABLE 1004.1.2)
EXIT ACCESS:	**REQUIRED:**			**ACTUAL:**			**(CODE SECTION)**
COMMON PATH OF TRAVEL:	100' - FULLY SPRINKLERED			73'-0" MAX.			(NYS BC 2020 TABLE 1006.2.1)
EXIT ACCESS TRAVEL DISTANCE:	B OCCUPANCY = 300' - FULLY SPRINKLERED S-1 OCCUPANCY = 250' - FULLY SPRINKLERED			102'-7" MAX.			(NYS BC 2020 TABLE 1017.2)

MEANS OF EGRESS SIZING:

BUILDING ELEMENT:	**REQUIRED:**	**PROVIDED:**	**(CODE SECTION)**
EGRESS WIDTH STAIRS:	N/A	N/A	
EGRESS WIDTH OTHER CCOMPONENTS:	97' OCCUPANTS X 0.2" = 20"	(SEE BELOW FOR INDIVIDUAL COMPONENTS)	(NYS BC 2020 TABLE 1005.3.2)
EGRESS WIDTH DOORS:	MINIMUM WIDTH SHALL BE 32"	34" MINIMUM PROVIDED	(NYS BC 2020 TABLE 1010.1.1)
EGRESS WIDTH CORRIDORS:	MINIMUM WIDTH SHALL BE 44"	60" MINIMUM PROVIDED	(NYS BC 2020 TABLE 1010.2)
DEAD END CORRIDORS:	MAXIMUM DISTANCE OF 50'	31'-6" MAXIMUM PROVIDED - FULLY SPRINKLERED	(NYS BC 2020 TABLE 1020.4 EXC)
NUMBER OF EXITS:	1-500 OCCUPANTS = 2 MIN. PER FLOOR	9 EXITS PROVIDED	(NYS BC 2020 TABLE 1006.3.2)
CEILING HEIGHT:	MINIMUM HEIGHT SHALL BE 7'-6"	9'-0" PROVIDED	(NYS BC 2020 TABLE 1003.2)

FIRE RESISTANCE RATINGS:

BUILDING ELEMENT:	**FIRE RESISTANCE RATINGS (HRS)**	**(CODE SECTION)**
PRIMARY STRUCTURAL FRAME:	(0 HRS)	(NYS BC 2020 TABLE 601)
BEARING WALLS EXTERIOR: INTERIOR:	 (0 HRS) (0 HRS)	(NYS BC 2020 TABLE 601)
NONBEARING EXTERIOR WALLS:	SEE TABLE 602 (>30' = 0HRS)	(NYS BC 2020 TABLE 602)
NONBEARING INTERIOR WALLS:	(0 HRS)	(NYS BC 2020 TABLE 601)
FLOOR CONSTRUCTION:	(0 HRS)	(NYS BC 2020 TABLE 601)
ROOF CONSTRUCTION:	(0 HRS)	(NYS BC 2020 TABLE 601)
SHAFT ENCLOSURES:	N/A	
CORRIDORS:	(0 HRS) - FULLY SPRINKLERED	(NYS BC 2020 TABLE 1020.1)
STAIR ENCLOSURES < 4 STORIES:	N/A	
INCIDENTAL USES	(0 HRS) - FULLY SPRINKLERED	(NYS BC 2020 TABLE 509)
FIRE EXTINGUISHERS FOR CLASS A FIRE HAZARDS:		**(CODE SECTION)**
LIGHT (LOW) HAZARD OCCUPANCY	11,250 SF	(NYS BC 2020 TABLE 906.3(1))

PLUMBING CODE SUMMARY: (LIST APPLICABLE CODES)

USE GROUP:	TOILETS				LAVATORIES (MALE / FEMALE)				DRINKING FOUNTAINS	
	# OCCUPANTS		REQUIRED	PROPOSED	REQUIRED		PROPOSED		REQUIRED	PROPOSED
	MALE	MALE	MALE / FEMALE	MALE	MALE	MALE / FEMALE	MALE	MALE		
BUSINESS:	55	55	(1 PER 25 FOR FIRST 50 AND 1 PER 50 FOR THE REMAINDER EXCEEDING 50 = 3/3)	3	3	(1 PER 40 FOR THE FIRST 80 AND 1 PER 80 FOR THE REMAINDER EXCEEDING 80 = 2/2)	3	3	(1 PER100)	2

ABBREVIATIONS

A.B.	ANCHOR BOLT	C.J.	CONTROL JOINT	EA.	EACH	G.W.B.	GYPSUM WALL BOARD (DRYWALL)	K.D.	KILN DRIED	N.I.C.	NOT IN CONTRACT	PLYWD.	PLYWOOD	SECT.	SECTION	TYP.	TYPICAL
A.C.	AIR CONDITIONING	CLG.	CEILING	E.J.	EXPANSION JOINT					N.T.S.	NOT TO SCALE			S.F.	SQUARE FOOT		
A.C.T.	ACOUSTICAL CEILING TILE	CLR.	CLEAR	ELEC.	ELECTRICAL	H.P.	HIGH POINT	LAV.	LAVATORY			Q.T.	QUARRY TILE	SIM.	SIMILAR	U.O.N.	UNLESS OTHERWISE NOTED
A.F.F.	ABOVE FINISH FLOOR	C.M.U.	CONCRETE MASONARY UNIT	ELEV.	ELEVATION	HGT.	HEIGHT	L.P.	LOW POINT	O.A.	OVERALL			SPEC.	SPECIFICATION		
ALUM.	ALUMINUM	COL.	COLUMN	EQ.	EQUAL	HORZ.	HORIZONTAL	LVR.	LOUVER	O.C.	ON CENTER	R.	RADIUS	S.S.	STAINLESS STEEL	V.B.	VAPOR BARRIER
A.H.J.	AUTHORITY HAVING JURISDICTION	COORD	COORDINATE	EXIST.	EXISTING	H.M.	HOLLOW METAL			O.D.	OUTSIDE DIAMETER	R.D.	ROOF DRAIN	STL.	STEEL	V.C.T.	VINYL COMPOSITE TILE
		CONT.	CONTINUE / CONTINOUS	EXP. JT.	EXPANSION JOINT	HT.	HEAVY TIMBER			OPG.	OPENING	RE.	REGARDING	STR.	STRUCTURE	VERT.	VERTICAL
				EXT.	EXTERIOR	H.V.A.C.	HEATING VENTILATION & AIR CONDITIONING			OPP.	OPPOSITE	REF.	REFER TO	S.V.F.	SHEET VINYL FLOORING	V.I.F.	VERIFY IN FIELD
BLDG.	BUILDING	DIA.	DIAMETER					MRBL.	MARBLE			REINF.	REINFORCED			V.W.C.	VINYL WALL COVERING
BLKG.	BLOCKING	DET.	DETAIL	F.D.	FLOOR DRAIN	I.D.	INTERIOR DIAMETER	MAX.	MAXIMUM			REQD.	REQUIRED	T&G	TOUNGE & GROOVE		
BOT.	BOTTOM	DIM.	DIMENSION	F.E.C.	FIRE EXTINGUISHER CABINET	INSUL.	INSULATION	MECH.	MECHANICAL			RM.	ROOM	TEMP. GL.	TEMPERED GLASS	W.	WEST
BYND.	BEYOND	DN.	DOWN	F.H.C.	FIRE HOSE CABINET	INT.	INTERIOR	MFR.	MANUFACTURER	P.	PLATE			THK.	THICK	WD.	WOOD
		DR.	DRAWING	F.T.	FIRE RETARDANT TREATED			MIN.	MINIMUM	PAR.	PARALLEL	R.O.	ROUGH OPENING	T.O.C.	TOP OF CONCRETE	W/	WITH
CL.	CENTER LINE	DWG.	DRAWING	F.F.	FINISHED FLOOR	J.C.	JANITOR'S CLOSET	M.O.	MASONARY OPENING	PERP.	PERPENDICULAR			T.O.M.	TOP OF MASONARY	W/O	WITHOUT
CANT.	CANTILEVER	D.F.	DRINKING FOUNTAIN	FL.	FLOOR	JT.	JOINT	MTL.	METAL	P.LAM.	PLASTIC LAMINATE			T.O.P.	TOP OF PARAPET	WC	WAINSCOT
CPT.	CARPET	E.	EAST	F.P.	FILLER PANEL					P.M.	PRESSED METAL	SEAL.	SEALANT	T.O.W.	TOP OF WALL	WP	WATER PROOF
CHR.	CHROME							N.	NORTH	PTD.	PAINTED	S.	SOUTH			W.GL.	WIRE GLASS
								NAT. FIN.	NATURAL FINISH	P.T.	PRESSURE TREATED	SCP.	SKIM COAT PLASTER				

GENERAL NOTES

1. ALL WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE NEW YORK STATE 2020 UNIFORM FIRE PREVENTION AND BUILDING CODE, THE NEW YORK STATE 2020 ENERGY CONSERVATION CODE AND ALL APPLICABLE CODES, ORDINANCES, REGULATIONS AND ANY ADDITIONAL REQUIREMENTS SO STATED BY ANY LAW, ORDINANCE OR REGULATION PERTAINING TO CONSTRUCTION WITHIN SAID LIMITS OF THE AUTHORITY (COUNTY) HAVING JURISDICTION (AHJ).
2. THE CONTRACTOR SHALL VERIFY AND FIELD CHECK ALL DIMENSIONS AND CONDITIONS PRIOR TO THE START, FABRICATION AND INSTALLATION OF THE WORK. THE CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR ANY CONDITIONS THAT MAY AFFECT THE WORK AND SHALL REPORT TO THE ARCHITECT ANY DISCREPANCIES FOR CLARIFICATION PRIOR TO THE START OF ANY WORK. DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION, SUPERVISION AND LAYOUT OF ALL WORK AND FOR THE COMPLETION OF ALL INSTALLATIONS, INCLUDING BUT NOT LIMITED TO ALLOWING ADEQUATE SPACE FOR OTHER STRUCTURE AND EQUIPMENT (INCLUDING HVAC), PIPING, WIRING, ETC.
4. THE CONTRACTOR SHALL FURNISH A PROGRESS SCHEDULE TO THE ARCHITECT, AS REQUIRED BY DIVISION 1 SPECIFICATIONS,INDICATING PROJECTED COMPLETION DATES FOR ALL MAJOR PHASES OF THE WORK. THE CONTRACTOR SHALL PERIODICALLY UPDATE AND ADVISE THE ARCHITECT OF PROGRESS IN RELATION TO THE SAID SCHEDULE.
5. ALL MATERIALS, COMPONENTS, SYSTEMS AND FINISHES SHALL BE INSTALLED, ASSEMBLED, OPERATED AND/OR APPLIED IN STRICT ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND WITH THE MANUFACTURER'S PRINTED AND OR ELECTRONIC DATA. SPECIFICATIONS, RECOMMENDATIONS AND/OR INSTRUCTIONS.
6. THE USE OF THE WORD "PROVIDE" OR "PROVIDED" IN CONNECTION WITH ANY ITEM SPECIFIED AS INTENDED TO MEAN SHALL BE FURNISHED, INTEGRATED AND INSTALLED WITH ALL REQUIRED SUB-ASSEMBLIES, ACCESSORIES AND MANUFACTURER SUGGESTIONS WHERE SO NOTED.
7. THE CONTRACTOR SHALL DO ALL CUTTING, FITTING AND PATCHING OF WORK THAT MAY BE REQUIRED TO MAKE ALL PARTS COME TOGETHER PROPERLY AND FIT TO RECEIVE OR TO BE RECEIVED BY WORK OF OTHERS SHOWN UPON OR REASONABLY IMPLIED BY THE DRAWINGS AND NOTES, AS SPECIFIED IN DIVISION 1 SPECIFICATIONS.
8. WHERE APPLICABLE, DETAILS AND NOTES SHOWN IN ANY SECTION APPLY TO ALL SIMILAR SECTIONS UNLESS OTHERWISE NOTED.
9. PROVIDE BLOCKING AS INDICATED IN DRAWINGS AND /OR SPECIFICATIONS.
10. CONTRACTOR SHALL PATCH/MATCH EXISTING OR NEW WORK DAMAGED DURING CONSTRUCTION AS SPECIFIED IN DIVISION 1 SPECIFICATIONS.
11. CONTRACTOR SHALL PROVIDE ALL REQUIRED OR REASONABLY INFERRED MECHANICAL, ELECTRICAL AND PLUMBING CONNECTIONS FOR ALL EQUIPMENT INDICATED ON DRAWINGS, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE ALL M.E.P. ITEMS WITH ARCHITECTURAL DRAWINGS & SPECIFICATIONS, IF DISCREPANCIES OCCUR, CONSULT ARCHITECT FOR RESOLUTION BEFORE INSTALLATION.
12. COVER PLATES AT ELECTRICAL RECEPTACLES, DIFFUSERS AND REGISTERS SHALL MATCH FINISH COLOR OF ADJACENT WALL OR CEILING SURFACE, UNLESS OTHERWISE INDICATED.
13. PROVIDE FIRE STOPPING / FIRE SAFING AT ALL EXISTING AND/OR NEW OPENINGS THROUGH FIRE RESISTANT RATED AND SMOKE TIGHT CONSTRUCTION.
14. WALL DIMENSIONS ARE TO FACE OF STUD AND/OR STRUCTURE UNLESS OTHERWISE INDICATED. WINDOW AND DOOR DIMENSIONS ARE TO CENTERLINE EXCEPT AT MASONRY OPENINGS. COORDINATE ROUGH OPENING REQUIREMENTS WITH SCHEDULE INFORMATION.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL NECESSARY OPENINGS OPENINGS OR ADJUSTMENTS REQUIRED FOR ELECTRICAL INTERFACING. ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NFPA 70 ELECTRICAL CODE AND LOCAL ORDINANCES.
16. PROVIDE SUBMITTALS IN ACCORDANCE WITH DIVISION 1 SPECIFICATION REQUIREMENTS.

DRAWING LIST

GENERAL

Sheet Number	Sheet Name
G0.00	COUNTY TITLE SHEET
G0.01	COVER SHEET
G0.02	ACCESSIBILITY NOTES AND DIAGRAMS
G0.03	EGRESS PLAN

CIVIL

CD101	EXISTING CONDITIONS & DEMOLITION PLAN
CE101	EROSION & SEDIMENT CONTROL PLAN
CG101	GRADING & DRAINAGE PLAN
CS101	SITE PLAN
CS501	SITE DETAILS (1 OF 3)
CS502	SITE DETAILS (2 OF 3)
CS503	SITE DETAILS (3 OF 3)
CU101	UTILITY PLAN
LL101	SITE LIGHTING PLAN
LL501	SITE LIGHTING DETAILS
LP101	PLANTING PLAN
LP501	PLANTING DETAILS

STRUCTURAL

S0.1	GENERAL NOTES
S0.2	GENERAL NOTES & SPECIAL INSPECTION SCHEDULE
S1.1	FOUNDATION/SLAB PLAN & SECTIONS
S1.2	ROOF FRAMING PLAN
S3.0	ROOF SECTIONS
S4.0	TYPICAL DETAILS
S4.1	TYPICAL DETAILS

ARCHITECTURE

A1.01	FLOOR PLAN - DIMENSIONS
A1.02	FLOOR PLAN - PARTITIONS
A1.03	FLOOR PLAN - MILLWORK / FURNISHING
A1.04	FLOOR PLAN - EQUIPMENT
A1.05	FLOOR PLAN - FINISHES
A1.06	FLOOR PLAN - REFLECTED CEILING PLAN
A1.07	ROOF PLAN
A1.08	RESTROOM BLOWUP PLANS / ELEVATIONS
A2.00	EXTERIOR ELEVATIONS
A2.01	AXONOMETRICS
A3.00	BUILDING SECTIONS
A3.01	BUILDING SECTIONS
A3.02	BUILDING SECTIONS
A4.01	WALL SECTIONS
A4.02	WALL SECTIONS
A4.03	WALL SECTIONS
A4.04	WALL SECTIONS
A4.10	EXTERIOR DETAIL
A6.00	INTERIOR ELEVATIONS
A6.01	INTERIOR ELEVATIONS
A6.02	INTERIOR ELEVATIONS
A6.03	INTERIOR ELEVATIONS
A6.04	INTERIOR ELEVATIONS
A6.05	INTERIOR ELEVATIONS
A7.00	PARTITION TYPES - METAL & MISC. DETAILS
A7.01	DETAILS - MOP SINK, CEILING & FLOOR TRANSITION
A7.02	DETAILS - GENERAL RUN CONSTRUCTION
A7.03	DETAILS - GENERAL MILLWORK
A7.04	DETAILS - SPECIALTY MILLWORK & CAGE
A8.00	WINDOW ELEVATION
A8.01	DOOR SCHEDULE
A8.02	INTERIOR DOOR / WINDOW DETAILS
A8.03	EXTERIOR DOOR / WINDOW DETAILS
A9.00	FINISH SCHEDULE, LEGEND & INTERIOR SIGNAGE
A9.01	EQUIPMENT SCHEDULE
A9.02	INTERIOR SIGNAGE

MECHANICAL

M1.00	MECHANICAL NOTES
M1.01	MECHANICAL DETAILS
M2.00	MECHANICAL FLOOR PLAN
M2.01	MECHANICAL ZOING PLAN
M2.02	MECHANICAL ROOF PLAN

PLUMBING

P0.01	PLUMBING SCHEDULES & DETAILS
P0.02	PLUMBING NOTES
P0.03	SMT ROUGH-IN DETAILS
P0.04	SANITARY WASTE & NATURAL GAS RISER DIAGRAMS
P1.01	SANITARY PLAN
P2.01	WATER PLAN
P3.01	NATURAL/MEDICAL GAS & STORM DRAINAGE PLAN
P3.02	ROOF NATURAL GAS & STORM DRAINAGE PLAN

ELECTRICAL

E1.01	LIGHTING PLAN
E2.01	POWER PLAN
E2.02	ROOF TOP POWER PLAN
E3.00	ELECTRICAL DETAILS
E4.00	ELECTRICAL NOTES

FIRE ALARM

FA1.01	FIRE ALARM PLAN

SPRINKLER

1 OF 2	SITE PLAN - NOTES
2 OF 2	SPRINKLER PLAN

REVISION NO. | DESCRIPTION | DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2537
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author | CHECKED BY: Checker | SCALE: 12" = 1'-0" | DATE: 20 OCT 2021 | PROJECT NO: # 2019

PROGRESS SET ☐ | BID SET ■ | PERMIT SET ☐ | CONSTRUCTION SET ☐

COVER SHEET

BID SET

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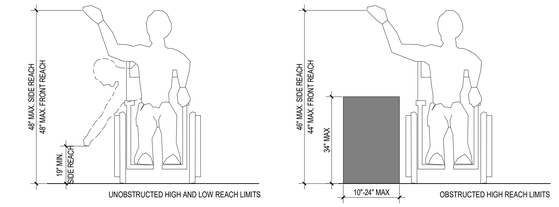
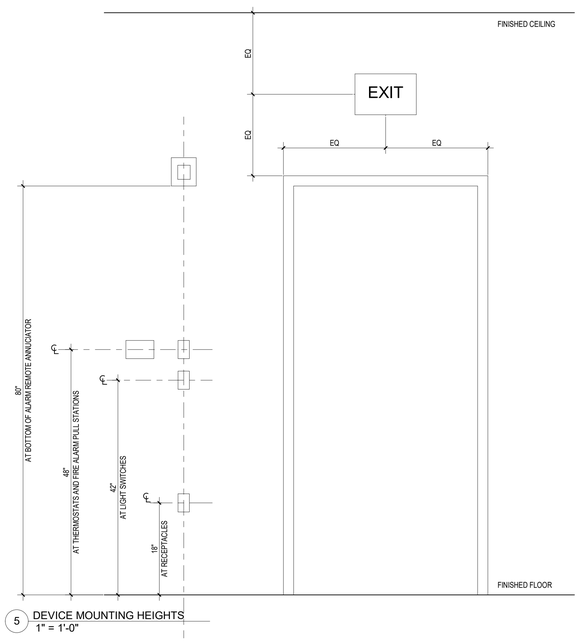
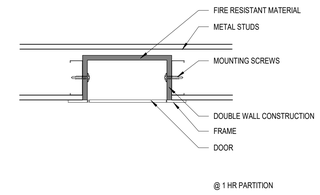
G0.01



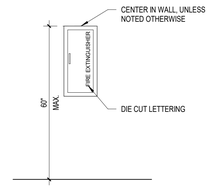
6 REACH LIMITATIONS (2009 ANSI 117.1 SECTION 308.3.2)
1/2" = 1'-0"



5 DEVICE MOUNTING HEIGHTS
1" = 1'-0"

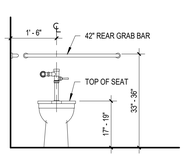


2 FIRE EXTINGUISHER CABINET - PLAN
1 1/2" = 1'-0"

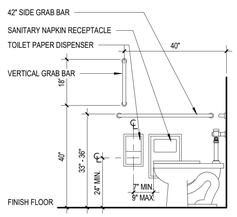


3 FIRE EXTINGUISHER CABINET MOUNTING HEIGHT (NYSUFP SECTION 906.9)
1/2" = 1'-0"

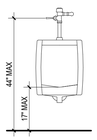
FOR ROOM SIGN INFORMATION SEE SHEET A9.02



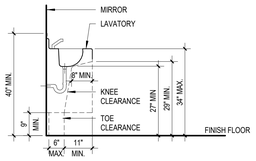
FRONT ELEVATION - WATER CLOSET (2009 ANSI 117.1 SECTION 604.1) AND GRAB BAR (2009 ANSI 117.1 SECTION 604.5.2)



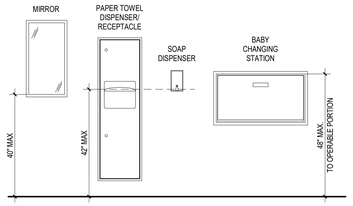
SIDE ELEVATION - WATER CLOSET AND GRAB BAR (2009 ANSI 117.1 SECTION 604.5.1)



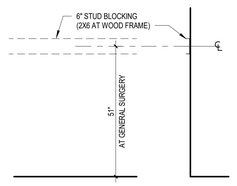
ELEVATION - URINAL (2009 ANSI 117.1 SECTION 605.1)



SECTION VIEW - LAVATORY (2009 ANSI 117.1 SECTION 606.3)

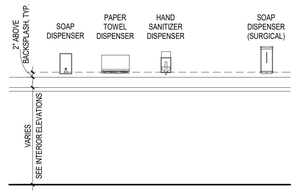


MOUNTING HEIGHTS



ELEVATION - WALL BLOCKING

SECTION - WALL BLOCKING



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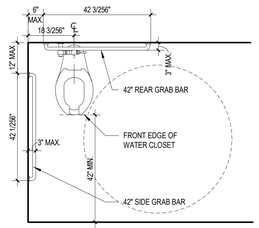
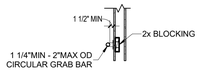
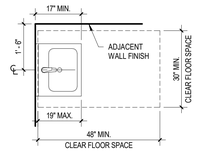


PLAN VIEW - WATER CLOSET (2009 ANSI 117.1 SECTION 604.3) AND GRAB BAR CLEARANCE (2009 ANSI 117.1 SECTION 604.5)



SECTION - GRAB BAR MOUNTING 2009 ANSI 117.1 SECTION 604.5.1 & 604.5.2)



PLAN VIEW - LAVATORY (2009 ANSI 117.1 SECTION 606.2)

BID SET

REVISION NO.	DESCRIPTION	DATE

ARCHITECTS SEAL:

rf&a rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.720.0555
F: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author	CHECKED BY: Checker	SCALE:	DATE: 20 OCT 2021	PROJECT NO: # 2019

ACCESSIBILITY NOTES AND DIAGRAMS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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G0.02

TOTAL TRAVEL DISTANCE (T.T.D.)

COMMON PATH (C.P.)

EXTERIOR TRAVEL DISTANCE

2 HOUR RATED WALL

OCCUPANT LOAD CALCULATION

- BUSINESS AREAS 1/150 GROSS
- CONCERTRATED BUSINESS AREAS 1/50 GROSS
- WAITING AREAS 1 OCC./18" SEATING
- ACCESSORY STOR./MECH. 1/300 GROSS
- ASSEMBLY 1/15 NET
- ACTUAL # OF SEATS (EXCEEDS CALCULATED METHOD)

OCCUPANCY TAG LEGEND

ROOM NAME	(ROOM NAME)
ROOM NO.	(ROOM NUMBER)
SQ. FT.	(GROSS SQUARE FOOTAGE OF ROOM OR AREA = GSF.)
OCC. TYPE	(FUNCTION OF SPACE)
OCC. CALC	(OCCUPANT LOAD FACTOR)
OCC. TOTAL	(OCCUPANCT TOTAL CALCULATED OR ACTUAL)

EXIT CAPACITY CHART

MAX. CAPACITY WIDTH = 0.2"/OCCUPANT

EXIT #	CLEAR DOOR WIDTH	DOOR CAPACITY (MAX.)
1	34"	170
2	34"	170
3	34"	170
4	34"	170
5	34"	170
6	34"	170
7	34"	170
8	34"	170
9	34"	170

TOTAL EGRESS CAPACITY = 1530

EGRESS PLAN LEGEND

- NON RATED PARTITION
- 1 HR RATED PARTITION
- FEC — FIRE EXTINGUISHER AND CABINET
- FE — FIRE EXTINGUISHER

NOTE:
REFER TO PARTITION PLAN FOR ADDITIONAL RATED SEPARATION PARTITION LOCATIONS

EXIT #6 34" 199 OCC.
EXIT #7 34" 180 OCC.
EXIT #8 34" 180 OCC.
EXIT #9 34" 180 OCC.
EXIT #1 34" 97 OCC.
EXIT #2 34" 97 OCC.
EXIT #3 34" 180 OCC.
EXIT #4 34" 180 OCC.
EXIT #5 34" 180 OCC.

EXTERIOR EXERCISE RUNS

EXTERIOR TTD 33'-1"
EXTERIOR TTD 16'-11"
C.P = 29'-9" TTD 67'-3"
C.P = 41'-2" TTD 122'-6"
C.P = 35'-6" TTD 89'-6"
TTD 100'
TTD 122'-10"
TTD 118'

ADOPTABLE DOG HOUSING - WARD 1 (25)
ADOPTABLE DOG HOUSING - WARD 2 (25)
COMMUNAL CAT PLAY PORCH 7
COMMUNAL CAT PLAY PORCH 6
COMMUNAL CAT PLAY PORCH 5
COMMUNAL CAT PLAY PORCH 4
COMMUNAL CAT PLAY PORCH 3
COMMUNAL CAT PLAY PORCH 2
COMMUNAL CAT PLAY PORCH 1

1 FIRST FLOOR_EGRESS PLAN
3/16" = 1'-0"

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.3557
F: 617.426.3557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9959

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	
DATE:	20 OCT 2021
PROJECT NO:	# 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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EGRESS PLAN

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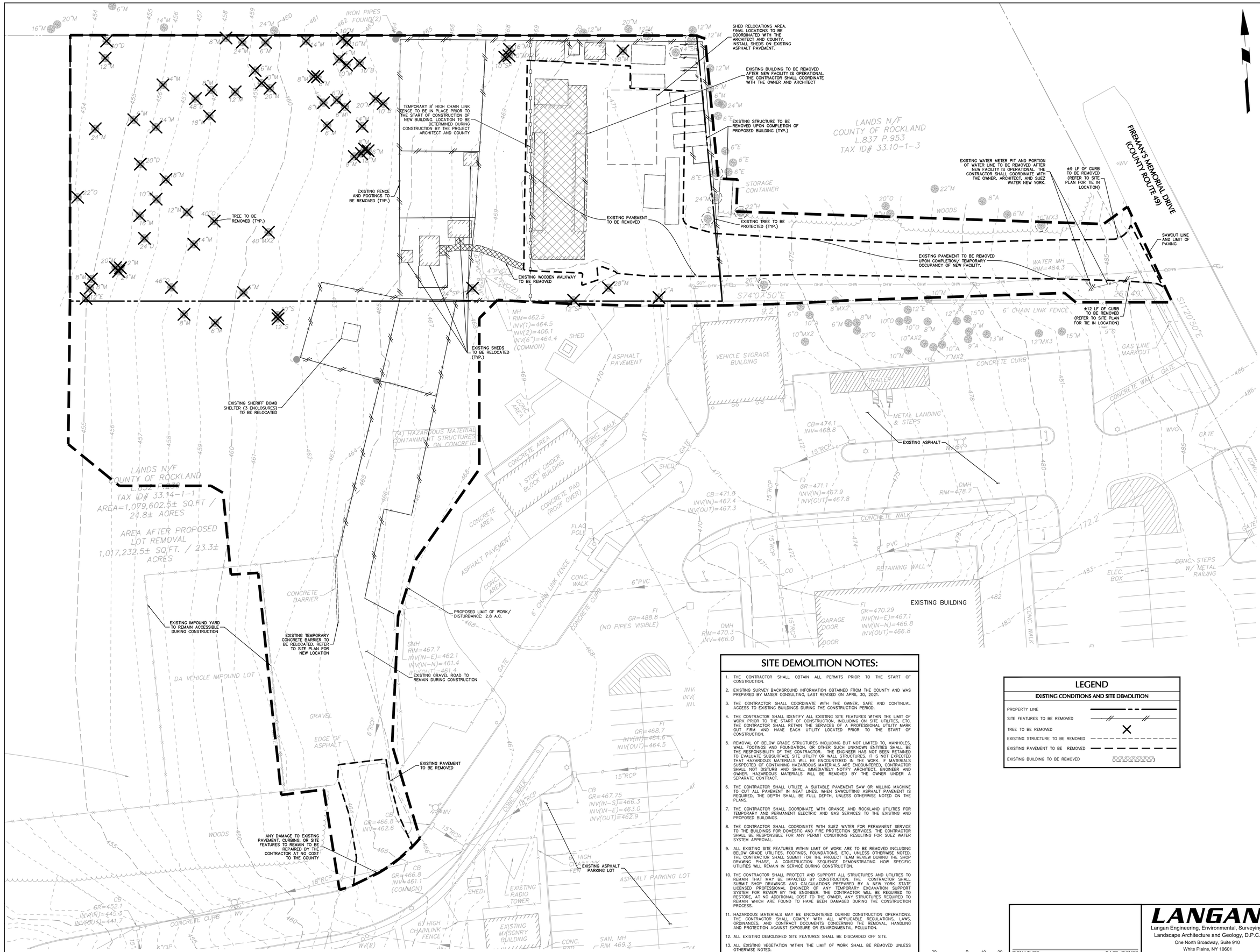

SITE DEMOLITION NOTES:

1. THE CONTRACTOR SHALL OBTAIN ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
2. EXISTING SURVEY BACKGROUND INFORMATION OBTAINED FROM THE COUNTY AND WAS PREPARED BY MASER CONSULTING, LAST REVISED ON APRIL 30, 2021.
3. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER, SAFE AND CONTINUAL ACCESS TO EXISTING BUILDINGS DURING THE CONSTRUCTION PERIOD.
4. THE CONTRACTOR SHALL IDENTIFY ALL EXISTING SITE FEATURES WITHIN THE LIMIT OF WORK PRIOR TO THE START OF CONSTRUCTION, INCLUDING ON SITE UTILITIES, ETC. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL UTILITY MARK OUT FIRM AND HAVE EACH UTILITY LOCATED PRIOR TO THE START OF CONSTRUCTION.
5. REMOVAL OF BELOW GRADE STRUCTURES INCLUDING BUT NOT LIMITED TO, MANHOLES, WALL FOOTINGS AND FOUNDATION, OR OTHER SUCH UNKNOWN ENTITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER HAS NOT BEEN RETAINED TO EVALUATE SUBSURFACE SITE UTILITY OR WALL STRUCTURES. IT IS NOT EXPECTED THAT HAZARDOUS MATERIALS WILL BE ENCOUNTERED IN THE WORK. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, CONTRACTOR SHALL NOT DISTURB AND SHALL IMMEDIATELY NOTIFY ARCHITECT, ENGINEER AND OWNER. HAZARDOUS MATERIALS WILL BE REMOVED BY THE OWNER UNDER A SEPARATE CONTRACT.
6. THE CONTRACTOR SHALL UTILIZE A SUITABLE PAVEMENT SAW OR MILLING MACHINE TO CUT ALL PAVEMENT IN NEAT LINES. WHEN SAWCUTTING ASPHALT PAVEMENT IS REQUIRED, THE DEPTH SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS.
7. THE CONTRACTOR SHALL COORDINATE WITH ORANGE AND ROCKLAND UTILITIES FOR TEMPORARY AND PERMANENT ELECTRIC AND GAS SERVICES TO THE EXISTING AND PROPOSED BUILDINGS.
8. THE CONTRACTOR SHALL COORDINATE WITH SUEZ WATER FOR PERMANENT SERVICE TO THE BUILDINGS FOR DOMESTIC AND FIRE PROTECTION SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PERMIT CONDITIONS RESULTING FOR SUEZ WATER SYSTEM APPROVAL.
9. ALL EXISTING SITE FEATURES WITHIN LIMIT OF WORK ARE TO BE REMOVED INCLUDING BELOW GRADE UTILITIES, FOOTINGS, FOUNDATIONS, ETC., UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL SUBMIT FOR THE PROJECT TEAM REVIEW DURING THE SHOP DRAWING PHASE, A CONSTRUCTION SEQUENCE DEMONSTRATING HOW SPECIFIC UTILITIES WILL REMAIN IN SERVICE DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL STRUCTURES AND UTILITIES TO REMAIN THAT MAY BE IMPACTED BY CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS PREPARED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER OF ANY TEMPORARY EXCAVATION SUPPORT SYSTEM FOR REVIEW BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO RESTORE, AT NO ADDITIONAL COST TO THE OWNER, ANY STRUCTURES REQUIRED TO REMAIN WHICH ARE FOUND TO HAVE BEEN DAMAGED DURING THE CONSTRUCTION PROCESS.
11. HAZARDOUS MATERIALS MAY BE ENCOUNTERED DURING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS, LAWS, ORDINANCES, AND CONTRACT DOCUMENTS CONCERNING THE REMOVAL, HANDLING AND PROTECTION AGAINST EXPOSURE OR ENVIRONMENTAL POLLUTION.
12. ALL EXISTING DEMOLISHED SITE FEATURES SHALL BE DISCARDED OFF SITE.
13. ALL EXISTING VEGETATION WITHIN THE LIMIT OF WORK SHALL BE REMOVED UNLESS OTHERWISE NOTED.

LEGEND

EXISTING CONDITIONS AND SITE DEMOLITION

- PROPERTY LINE
- SITE FEATURES TO BE REMOVED
- TREE TO BE REMOVED
- EXISTING STRUCTURE TO BE REMOVED
- EXISTING PAVEMENT TO BE REMOVED
- EXISTING BUILDING TO BE REMOVED

SIGNATURE DATE SIGNED
MICHAEL FINAN, PE, LEED-AP
PROFESSIONAL ENGINEER NY Lic. No. 081473

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

REVISION NO.	DESCRIPTION

ARCHITECTS SEAL:

rf&a rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	SS
CHECKED BY:	JK
SCALE:	1" = 20'
DATE:	20 OCT. 2021
PROJECT NO:	#2019

PROGRESS SET ☐ BID SET ☐ PERMIT SET ■ CONSTRUCTION SET ☐

EXISTING CONDITIONS & DEMOLITION PLAN

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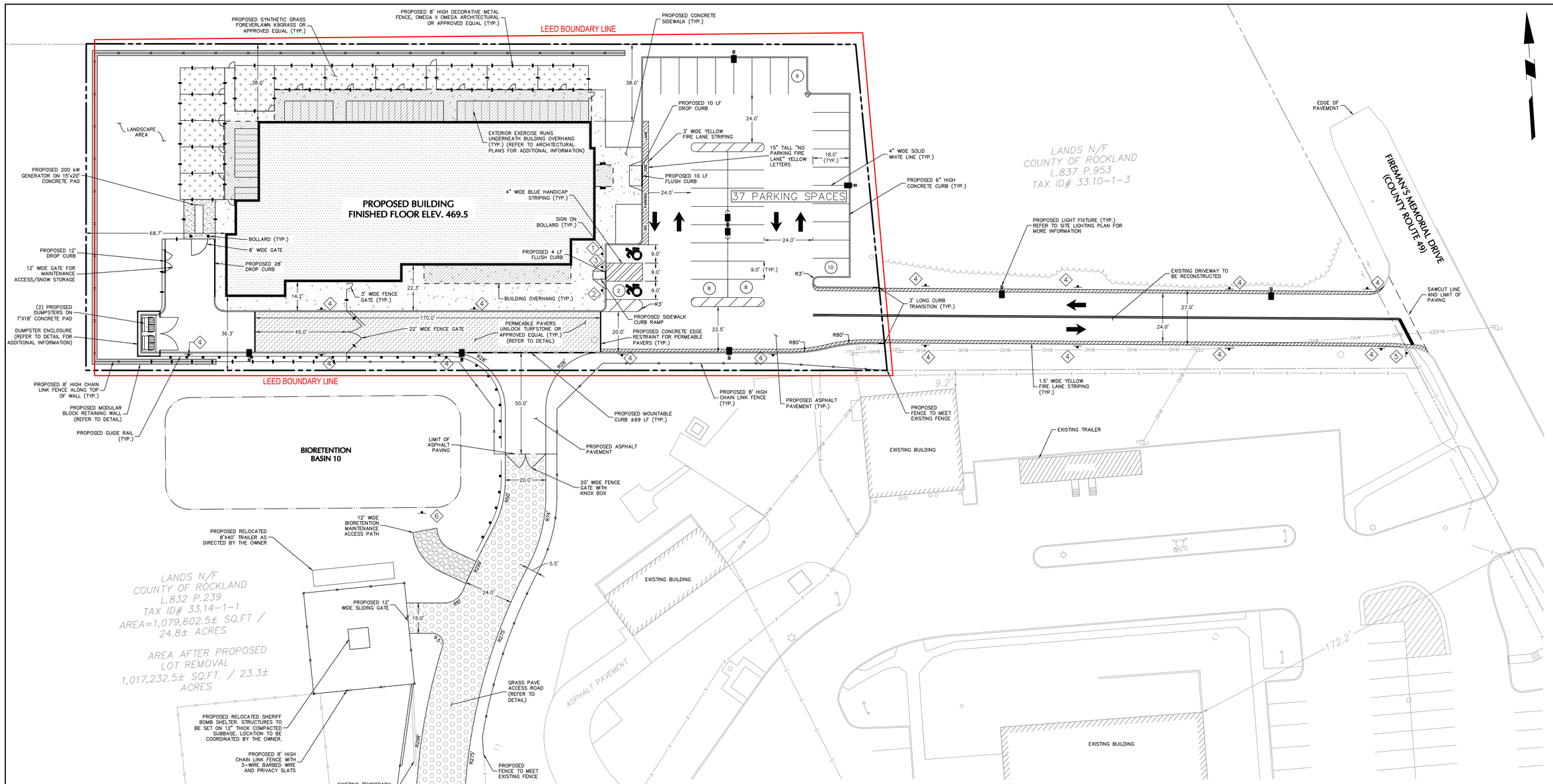

GENERAL SITE NOTES

1. THE CONTRACTOR SHALL CALL "DIG SAFELY NEW YORK" AT 1-800-962-7962 OR 811 FOR STAKE OUT REQUESTS AT LEAST 72 HOURS PRIOR TO EXCAVATION IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL SAFETY CODES.
2. EXISTING SURVEY BACKGROUND INFORMATION OBTAINED FROM A SURVEY PREPARED BY MASER CONSULTING, LAST REVISED ON APRIL 30, 2021.
3. THE PROPOSED BUILDING OUTLINE, OVERHANG, AND DOORWAYS WERE PROVIDED BY THE ARCHITECT, RAHAUS, FREEDENFELD & ASSOCIATES. REFER TO THEIR DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO THESE FEATURES.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO THE START OF CONSTRUCTION.
5. THE CONTRACTOR OR CONSTRUCTION MANAGER SHALL CONTACT THE OWNERS OF ALL UTILITIES AFFECTING THE SITE PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE EXACT LOCATION OF ALL UTILITIES FROM THE OWNERS PRIOR TO CONSTRUCTION.
6. TREES, ROOT SYSTEMS AND OTHER VEGETATION REMOVED FOR CONSTRUCTION PURPOSES SHALL BE CHIPPED OR REMOVED FROM SITE. NO ON-SITE BURIAL OR BURNING SHALL BE PERMITTED.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO TAKE THOSE STEPS NECESSARY TO PREVENT ILLEGAL DUMPING TO TAKE PLACE ON THE SITE. ANY MATERIAL FOUND UNSATISFACTORY TO THE OWNER WILL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE.
8. IN THIS DOCUMENT SET THERE ARE SEVERAL REFERENCES TO DOCUMENTS PRODUCED BY OTHERS. THE CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND CROSS CHECK PRIOR TO ORDERING MATERIALS. ANY DISCREPANCIES SHOULD BE IDENTIFIED AND THE RESPECTIVE PARTIES NOTIFIED.

LEGEND

PROPOSED SITE PLAN

- PROPOSED PROPERTY LINE
- PROPOSED 8' CHAIN LINK FENCE
- PROPOSED 8' ARCHITECTURAL FENCE
- PROPOSED GUIDE RAIL
- PROPOSED DIRECTION OF TRAVEL
- PROPOSED MODULAR BLOCK RETAINING WALL
- PROPOSED TRAFFIC SIGN
- PROPOSED PERMEABLE PAVERS
- PROPOSED BUILDING OVERHANG
- PROPOSED GRASS PAVE ACCESS ROAD

GENERAL CONTRACTOR SITE NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL: MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.

SIGNAGE LEGEND

1. RESERVED PARKING — R7-8, 12"x18"
2. RESERVED PARKING / VAN ACCESSIBLE — R7-8 (TOP) 12"x18", R7-8P (BOTTOM) 9"x18"
3. NO PARKING ANY TIME — R7-1, 18"x24"
4. NO PARKING FIRE LANE — R7-1, 18"x24"
5. STOP — R1-1, 30"x30"
6. STORMWATER MANAGEMENT PRACTICE – SMP NAME / Project Identification – PROJECT NAME / Must Be Maintained In Accordance With O & M Plan / DO NOT REMOVE OR ALTER — STORMWATER PRACTICE MAINTENANCE SIGN, 24"x18"

NOTE: "NO PARKING FIRE LANE" SIGNS SHALL BE MOUNTED AT A HEIGHT OF 7 FEET ABOVE GRADE TO THE BOTTOM OF THE SIGN AND SPACED A DISTANCE OF 75-FT MAX.

20 0 10 20
SCALE: 1 INCH = 20 FEET

SIGNATURE DATE SIGNED
MICHAEL FINAN, PE, LEED-AP
PROFESSIONAL ENGINEER NY Lic. No. 081473

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

REVISION / NO. / DESCRIPTION

ARCHITECT'S SEAL:

rf& rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	SS
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SCALE:	1" = 20'
DATE:	20 OCT, 2021
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PROGRESS SET ☐ BID SET ☐ PERMIT SET ■ CONSTRUCTION SET ☐

SITE PLAN

CS101

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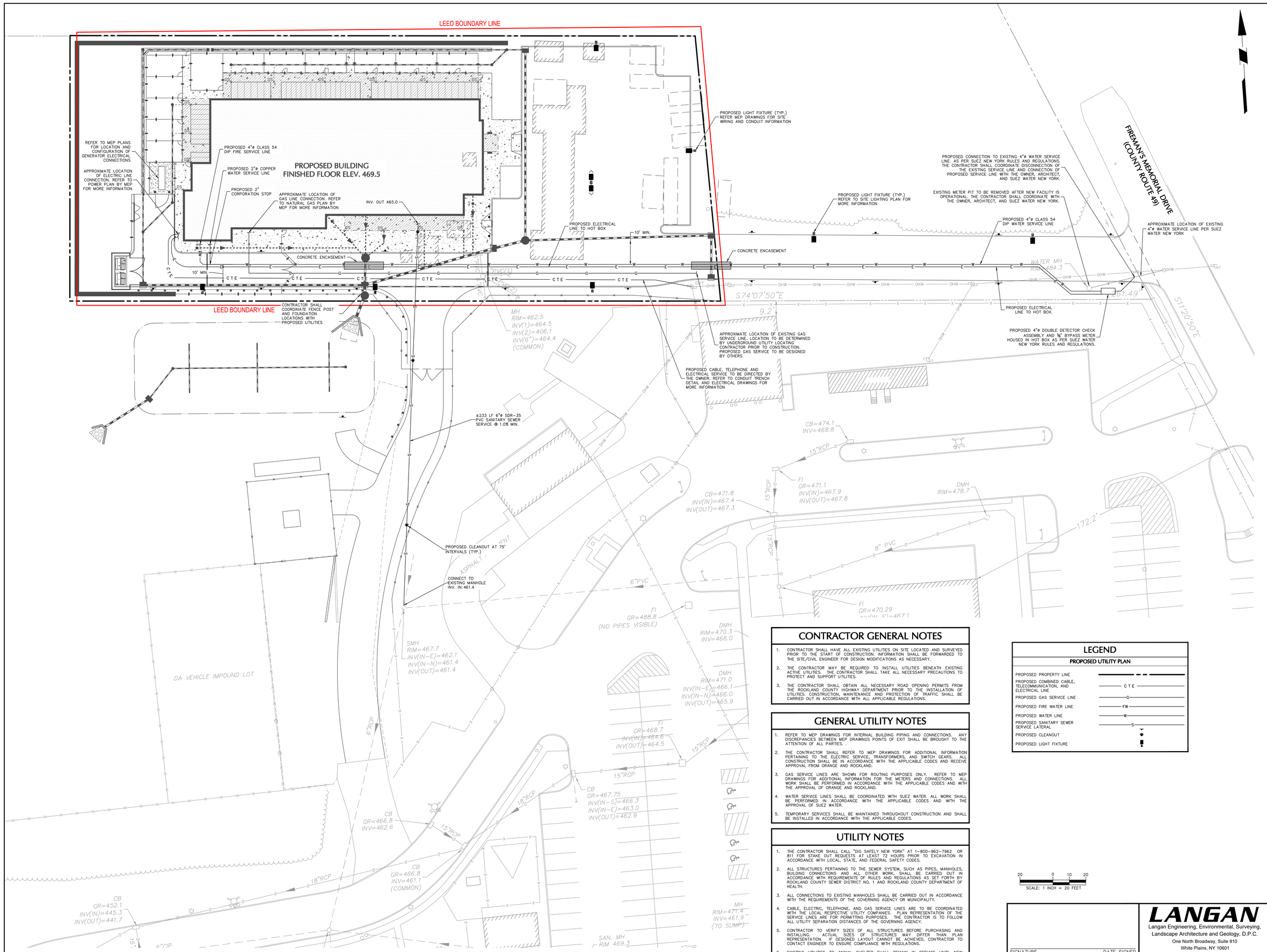

CONTRACTOR GENERAL NOTES

1. CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES ON SITE LOCATED AND SURVEYED PRIOR TO THE START OF CONSTRUCTION. INFORMATION SHALL BE FORWARDED TO THE SITE/CIVIL ENGINEER FOR DESIGN MODIFICATIONS AS NECESSARY.
2. THE CONTRACTOR MAY BE REQUIRED TO INSTALL UTILITIES BENEATH EXISTING ACTIVE UTILITIES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT AND SUPPORT UTILITIES.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY ROAD OPENING PERMITS FROM THE ROCKLAND COUNTY HIGHWAY DEPARTMENT PRIOR TO THE INSTALLATION OF UTILITIES. CONSTRUCTION, MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE CARRIED OUT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

GENERAL UTILITY NOTES

1. REFER TO MEP DRAWINGS FOR INTERNAL BUILDING PIPING AND CONNECTIONS. ANY DISCREPANCIES BETWEEN MEP DRAWINGS POINTS OF EXIT SHALL BE BROUGHT TO THE ATTENTION OF ALL PARTIES. .
2. THE CONTRACTOR SHALL REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO THE ELECTRIC SERVICE, TRANSFORMERS, AND SWITCH GEARS. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE CODES AND RECEIVE APPROVAL FROM ORANGE AND ROCKLAND.
3. GAS SERVICE LINES ARE SHOWN FOR ROUTING PURPOSES ONLY. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION FOR THE METERS AND CONNECTIONS. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE CODES AND WITH THE APPROVAL OF ORANGE AND ROCKLAND.
4. WATER SERVICE LINES SHALL BE COORDINATED WITH SUEZ WATER. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE CODES AND WITH THE APPROVAL OF SUEZ WATER.
5. TEMPORARY SERVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE CODES.

UTILITY NOTES

1. THE CONTRACTOR SHALL CALL "DIG SAFELY NEW YORK" AT 1-800-962-7962 OR 811 FOR STAKE OUT REQUESTS AT LEAST 72 HOURS PRIOR TO EXCAVATION IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL SAFETY CODES.
2. ALL STRUCTURES PERTAINING TO THE SEWER SYSTEM, SUCH AS PIPES, MANHOLES, BUILDING CONNECTIONS AND ALL OTHER WORK, SHALL BE CARRIED OUT IN ACCORDANCE WITH REQUIREMENTS OF RULES AND REGULATIONS AS SET FORTH BY ROCKLAND COUNTY SEWER DISTRICT NO. 1 AND ROCKLAND COUNTY DEPARTMENT OF HEALTH.
3. ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING AGENCY OR MUNICIPALITY.
4. CABLE, ELECTRIC, TELEPHONE, AND GAS SERVICE LINES ARE TO BE COORDINATED WITH THE LOCAL RESPECTIVE UTILITY COMPANIES. PLAN REPRESENTATION OF THE SERVICE LINES ARE FOR PERMITTING PURPOSES. THE CONTRACTOR IS TO FOLLOW ALL UTILITY SEPARATION DISTANCES OF THE GOVERNING AGENCY.
5. CONTRACTOR TO VERIFY SIZES OF ALL STRUCTURES BEFORE PURCHASING AND INSTALLING. ACTUAL SIZES OF STRUCTURES MAY DIFFER THAN PLAN REPRESENTATION. IF DESIGNED LAYOUT CANNOT BE ACHIEVED, CONTRACTOR TO CONTACT ENGINEER TO ENSURE COMPLIANCE WITH REGULATIONS.
6. EXISTING UTILITIES TO ANIMAL SHELTER SHALL REMAIN IN SERVICE UNTIL NEW FACILITY IS OPERATIONAL.

LEGEND

PROPOSED UTILITY PLAN

PROPOSED PROPERTY LINE	
PROPOSED COMBINED CABLE, TELECOMMUNICATION, AND ELECTRICAL LINE	C T E
PROPOSED GAS SERVICE LINE	G
PROPOSED FIRE WATER LINE	FW
PROPOSED WATER LINE	W
PROPOSED SANITARY SEWER SERVICE LATERAL	S
PROPOSED CLEANOUT	
PROPOSED LIGHT FIXTURE	

SIGNATURE DATE SIGNED
MICHAEL FINAN, PE, LEED-AP
PROFESSIONAL ENGINEER NY Lic. No. 081473

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

NO.	REVISION DESCRIPTION

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8999
F: 949.716.8959

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	SS
CHECKED BY:	JK
SCALE:	1" = 20'
DATE:	20 OCT. 2021
PROJECT NO:	#2019

PROGRESS SET ☐ BID SET ☐ PERMIT SET ■ CONSTRUCTION SET ☐

UTILITY PLAN

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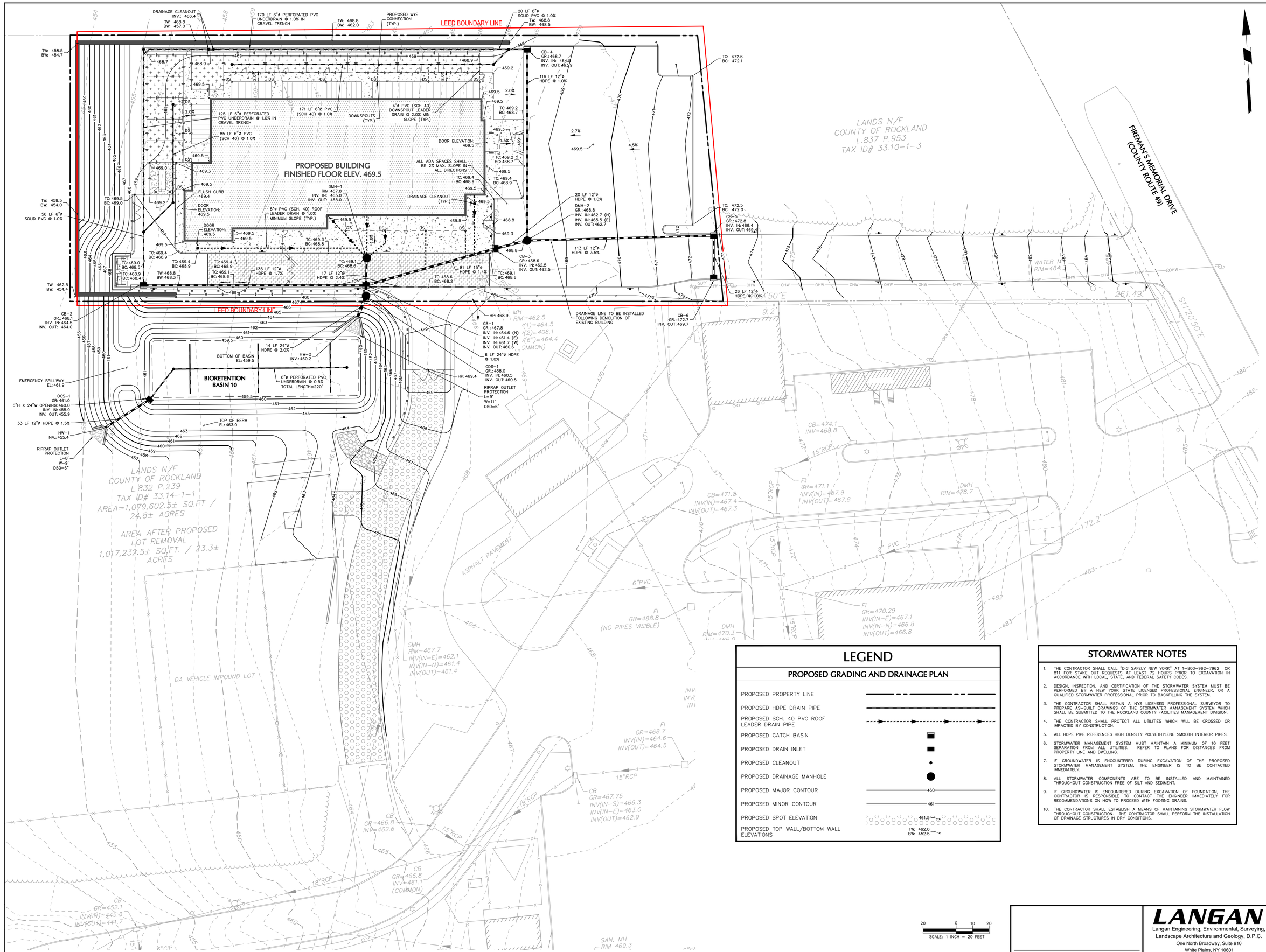

LEGEND

PROPOSED GRADING AND DRAINAGE PLAN

- PROPOSED PROPERTY LINE
- PROPOSED HDPE DRAIN PIPE
- PROPOSED SCH. 40 PVC ROOF LEADER DRAIN PIPE
- PROPOSED CATCH BASIN
- PROPOSED DRAIN INLET
- PROPOSED CLEANOUT
- PROPOSED DRAINAGE MANHOLE
- PROPOSED MAJOR CONTOUR (460)
- PROPOSED MINOR CONTOUR (461)
- PROPOSED SPOT ELEVATION (461.5)
- PROPOSED TOP WALL/BOTTOM WALL ELEVATIONS (TW: 462.0 / BW: 452.5)

STORMWATER NOTES

1. THE CONTRACTOR SHALL CALL "DIG SAFELY NEW YORK" AT 1-800-962-7962 OR 811 FOR STAKE OUT REQUESTS AT LEAST 72 HOURS PRIOR TO EXCAVATION IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL SAFETY CODES.
2. DESIGN, INSPECTION, AND CERTIFICATION OF THE STORMWATER SYSTEM MUST BE PERFORMED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, OR A QUALIFIED STORMWATER PROFESSIONAL PRIOR TO BACKFILLING THE SYSTEM.
3. THE CONTRACTOR SHALL RETAIN A NYS LICENSED PROFESSIONAL SURVEYOR TO PREPARE AS-BUILT DRAWINGS OF THE STORMWATER MANAGEMENT SYSTEM WHICH SHALL BE SUBMITTED TO THE ROCKLAND COUNTY FACILITIES MANAGEMENT DIVISION.
4. THE CONTRACTOR SHALL PROTECT ALL UTILITIES WHICH WILL BE CROSSED OR IMPACTED BY CONSTRUCTION.
5. ALL HDPE PIPE REFERENCES HIGH DENSITY POLYETHYLENE SMOOTH INTERIOR PIPES.
6. STORMWATER MANAGEMENT SYSTEM MUST MAINTAIN A MINIMUM OF 10 FEET SEPARATION FROM ALL UTILITIES. REFER TO PLANS FOR DISTANCES FROM PROPERTY LINE AND DWELLING.
7. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION OF THE PROPOSED STORMWATER MANAGEMENT SYSTEM, THE ENGINEER IS TO BE CONTACTED IMMEDIATELY.
8. ALL STORMWATER COMPONENTS ARE TO BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION FREE OF SILT AND SEDIMENT.
9. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION OF FOUNDATION, THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE ENGINEER IMMEDIATELY FOR RECOMMENDATIONS ON HOW TO PROCEED WITH FOOTING DRAINS.
10. THE CONTRACTOR SHALL ESTABLISH A MEANS OF MAINTAINING STORMWATER FLOW THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL PERFORM THE INSTALLATION OF DRAINAGE STRUCTURES IN DRY CONDITIONS.

SIGNATURE DATE SIGNED
MICHAEL FINAN, PE, LEED-AP
PROFESSIONAL ENGINEER NY Lic. No. 081473

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T: 949.716.9899
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CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	SS
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GRADING & DRAINAGE PLAN

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CG101

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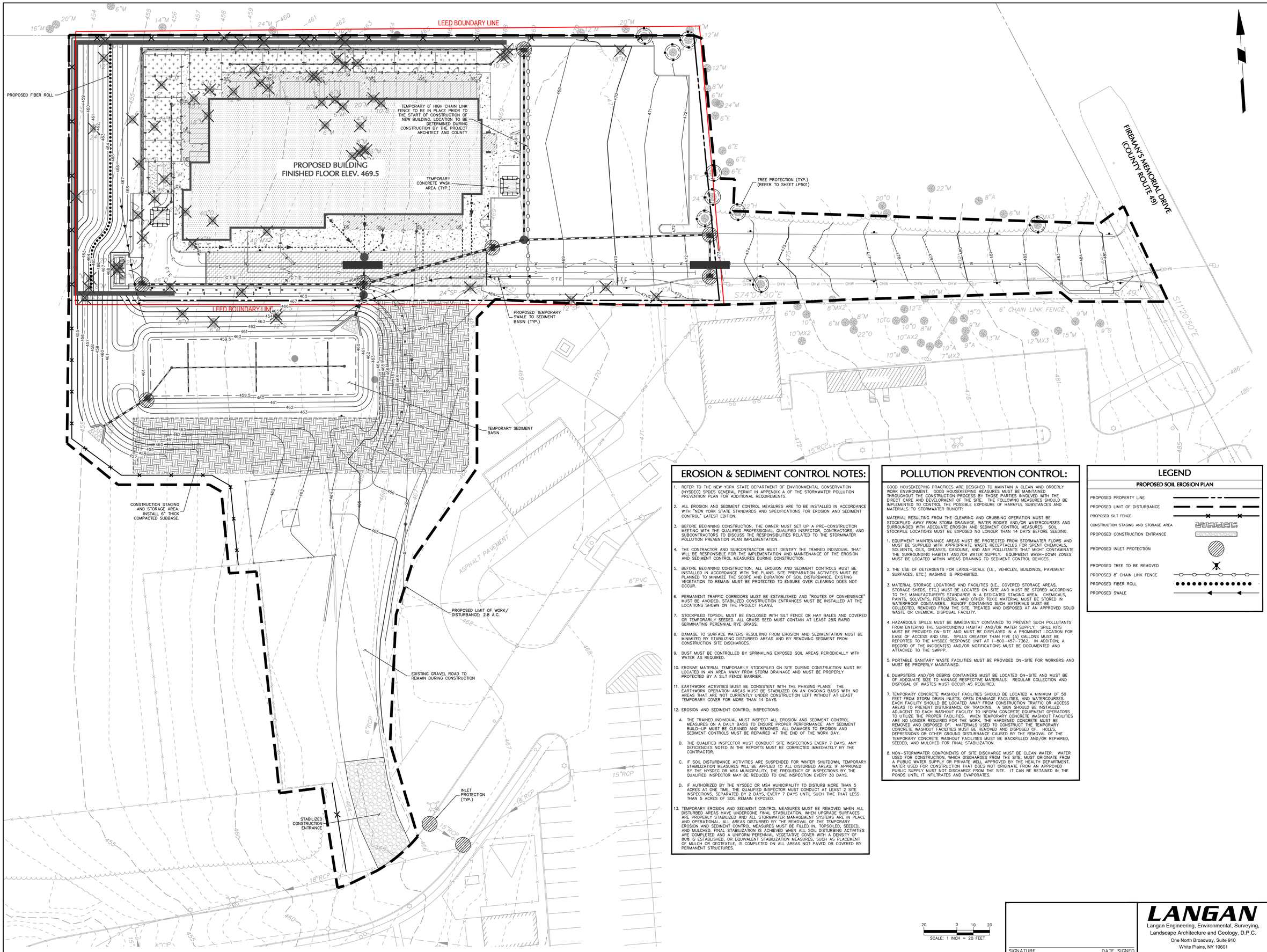

SCALE: 1 INCH = 20 FEET

EROSION & SEDIMENT CONTROL NOTES:

1. REFER TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) SPDES GENERAL PERMIT IN APPENDIX A OF THE STORMWATER POLLUTION PREVENTION PLAN FOR ADDITIONAL REQUIREMENTS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IN ACCORDANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" LATEST EDITION.
3. BEFORE BEGINNING CONSTRUCTION, THE OWNER MUST SET UP A PRE–CONSTRUCTION MEETING WITH THE QUALIFIED PROFESSIONAL, QUALIFIED INSPECTOR, CONTRACTORS, AND SUBCONTRACTORS TO DISCUSS THE RESPONSIBILITIES RELATED TO THE STORMWATER POLLUTION PREVENTION PLAN IMPLEMENTATION.
4. THE CONTRACTOR AND SUBCONTRACTOR MUST IDENTIFY THE TRAINED INDIVIDUAL THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
5. BEFORE BEGINNING CONSTRUCTION, ALL EROSION AND SEDIMENT CONTROLS MUST BE INSTALLED IN ACCORDANCE WITH THE PLANS. SITE PREPARATION ACTIVITIES MUST BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISTURBANCE. EXISTING VEGETATION TO REMAIN MUST BE PROTECTED TO ENSURE OVER CLEARING DOES NOT OCCUR.
6. PERMANENT TRAFFIC CORRIDORS MUST BE ESTABLISHED AND "ROUTES OF CONVENIENCE" MUST BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES MUST BE INSTALLED AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
7. STOCKPILED TOPSOIL MUST BE ENCLOSED WITH SILT FENCE OR HAY BALES AND COVERED OR TEMPORARILY SEEDED. ALL GRASS SEED MUST CONTAIN AT LEAST 25% RAPID GERMINATING PERENNIAL RYE GRASS.
8. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION MUST BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
9. DUST MUST BE CONTROLLED BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED.
10. EROSIVE MATERIAL TEMPORARILY STOCKPILED ON SITE DURING CONSTRUCTION MUST BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND MUST BE PROPERLY PROTECTED BY A SILT FENCE BARRIER.
11. EARTHWORK ACTIVITIES MUST BE CONSISTENT WITH THE PHASING PLANS. THE EARTHWORK OPERATION AREAS MUST BE STABILIZED ON AN ONGOING BASIS WITH NO AREAS THAT ARE NOT CURRENTLY UNDER CONSTRUCTION LEFT WITHOUT AT LEAST TEMPORARY COVER FOR MORE THAN 14 DAYS.
12. EROSION AND SEDIMENT CONTROL INSPECTIONS:
    - A. THE TRAINED INDIVIDUAL MUST INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS TO ENSURE PROPER PERFORMANCE. ANY SEDIMENT BUILD–UP MUST BE CLEANED AND REMOVED. ALL DAMAGES TO EROSION AND SEDIMENT CONTROLS MUST BE REPAIRED AT THE END OF THE WORK DAY.
    - B. THE QUALIFIED INSPECTOR MUST CONDUCT SITE INSPECTIONS EVERY 7 DAYS. ANY DEFICIENCIES NOTED IN THE REPORTS MUST BE CORRECTED IMMEDIATELY BY THE CONTRACTOR.
    - C. IF SOIL DISTURBANCE ACTIVITIES ARE SUSPENDED FOR WINTER SHUTDOWN, TEMPORARY STABILIZATION MEASURES WILL BE APPLIED TO ALL DISTURBED AREAS. IF APPROVED BY THE NYSDEC OR MS4 MUNICIPALITY, THE FREQUENCY OF INSPECTIONS BY THE QUALIFIED INSPECTOR MAY BE REDUCED TO ONE INSPECTION EVERY 30 DAYS.
    - D. IF AUTHORIZED BY THE NYSDEC OR MS4 MUNICIPALITY TO DISTURB MORE THAN 5 ACRES AT ONE TIME, THE QUALIFIED INSPECTOR MUST CONDUCT AT LEAST 2 SITE INSPECTIONS, SEPARATED BY 2 DAYS, EVERY 7 DAYS UNTIL SUCH TIME THAT LESS THAN 5 ACRES OF SOIL REMAIN EXPOSED.
13. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE REMOVED WHEN ALL DISTURBED AREAS HAVE UNDERGONE FINAL STABILIZATION, WHEN UPGRADE SURFACES ARE PROPERLY STABILIZED AND ALL STORMWATER MANAGEMENT SYSTEMS ARE IN PLACE AND OPERATIONAL. ALL AREAS DISTURBED BY THE REMOVAL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE FILLED IN, TOPSOILED, SEEDED, AND MULCHED. FINAL STABILIZATION IS ACHIEVED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 80% IS ESTABLISHED, OR EQUIVALENT STABILIZATION MEASURES, SUCH AS PLACEMENT OF MULCH OR GEOTEXTILE, IS COMPLETED ON ALL AREAS NOT PAVED OR COVERED BY PERMANENT STRUCTURES.

POLLUTION PREVENTION CONTROL:

GOOD HOUSEKEEPING PRACTICES ARE DESIGNED TO MAINTAIN A CLEAN AND ORDERLY WORK ENVIRONMENT. GOOD HOUSEKEEPING MEASURES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS BY THOSE PARTIES INVOLVED WITH THE DIRECT CARE AND DEVELOPMENT OF THE SITE. THE FOLLOWING MEASURES SHOULD BE IMPLEMENTED TO CONTROL THE POSSIBLE EXPOSURE OF HARMFUL SUBSTANCES AND MATERIALS TO STORMWATER RUNOFF:

MATERIAL RESULTING FROM THE CLEARING AND GRUBBING OPERATION MUST BE STOCKPILED AWAY FROM STORM DRAINAGE, WATER BODIES AND/OR WATERCOURSES AND SURROUNDED WITH ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES. SOIL STOCKPILE LOCATIONS MUST BE EXPOSED NO LONGER THAN 14 DAYS BEFORE SEEDING.

1. EQUIPMENT MAINTENANCE AREAS MUST BE PROTECTED FROM STORMWATER FLOWS AND MUST BE SUPPLIED WITH APPROPRIATE WASTE RECEPTACLES FOR SPENT CHEMICALS, SOLVENTS, OILS, GREASES, GASOLINE, AND ANY POLLUTANTS THAT MIGHT CONTAMINATE THE SURROUNDING HABITAT AND/OR WATER SUPPLY. EQUIPMENT WASH–DOWN ZONES MUST BE LOCATED WITHIN AREAS DRAINING TO SEDIMENT CONTROL DEVICES.
2. THE USE OF DETERGENTS FOR LARGE–SCALE (I.E., VEHICLES, BUILDINGS, PAVEMENT SURFACES, ETC.) WASHING IS PROHIBITED.
3. MATERIAL STORAGE LOCATIONS AND FACILITIES (I.E., COVERED STORAGE AREAS, STORAGE SHEDS, ETC.) MUST BE LOCATED ON–SITE AND MUST BE STORED ACCORDING TO THE MANUFACTURER'S STANDARDS IN A DEDICATED STAGING AREA. CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER TOXIC MATERIAL MUST BE STORED IN WATERPROOF CONTAINERS. RUNOFF CONTAINING SUCH MATERIALS MUST BE COLLECTED, REMOVED FROM THE SITE, TREATED AND DISPOSED AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL FACILITY.
4. HAZARDOUS SPILLS MUST BE IMMEDIATELY CONTAINED TO PREVENT SUCH POLLUTANTS FROM ENTERING THE SURROUNDING HABITAT AND/OR WATER SUPPLY. SPILL KITS MUST BE PROVIDED ON–SITE AND MUST BE DISPLAYED IN A PROMINENT LOCATION FOR EASE OF ACCESS AND USE. SPILLS GREATER THAN FIVE (5) GALLONS MUST BE REPORTED TO THE NYSDEC RESPONSE UNIT AT 1–800–457–7362. IN ADDITION, A RECORD OF THE INCIDENT(S) AND/OR NOTIFICATIONS MUST BE DOCUMENTED AND ATTACHED TO THE SWPPP.
5. PORTABLE SANITARY WASTE FACILITIES MUST BE PROVIDED ON–SITE FOR WORKERS AND MUST BE PROPERLY MAINTAINED.
6. DUMPSTERS AND/OR DEBRIS CONTAINERS MUST BE LOCATED ON–SITE AND MUST BE OF ADEQUATE SIZE TO MANAGE RESPECTIVE MATERIALS. REGULAR COLLECTION AND DISPOSAL OF WASTES MUST OCCUR AS REQUIRED.
7. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING. A SIGN SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE MUST BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT THE TEMPORARY CONCRETE WASHOUT FACILITIES MUST BE REMOVED AND DISPOSED OF. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES MUST BE BACKFILLED AND/OR REPAIRED, SEEDED, AND MULCHED FOR FINAL STABILIZATION.
8. NON–STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION, WHICH DISCHARGES FROM THE SITE, MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE. IT CAN BE RETAINED IN THE PONDS UNTIL IT INFILTRATES AND EVAPORATES.

LEGEND

PROPOSED SOIL EROSION PLAN

- PROPOSED PROPERTY LINE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED SILT FENCE
- CONSTRUCTION STAGING AND STORAGE AREA
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED INLET PROTECTION
- PROPOSED TREE TO BE REMOVED
- PROPOSED 8' CHAIN LINK FENCE
- PROPOSED FIBER ROLL
- PROPOSED SWALE

SIGNATURE DATE SIGNED
MICHAEL FINAN, PE, LEED–AP
PROFESSIONAL ENGINEER NY Lic. No. 081473

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

CE101

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ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2557
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	SS
CHECKED BY:	JK
SCALE:	1"= 20'
DATE:	20 OCT. 2021
PROJECT NO:	#20119

EROSION & SEDIMENT CONTROL PLAN

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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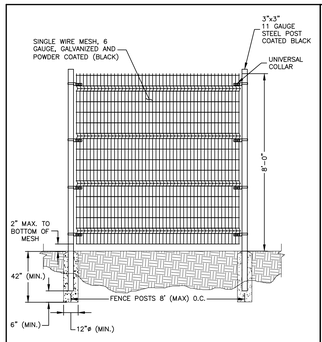
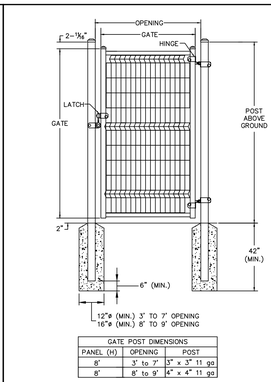


NOTES:

1. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO THE CIVIL ENGINEER ILLUSTRATING THE HEIGHTS & LAYOUT OF FENCING AND GATES REQUIRED FOR THE PROJECT.
2. SHOP DRAWINGS SHALL INCLUDE MANUFACTURER CUTS AND SPECIFICATIONS.
3. FENCE SHALL BE OMEGA II ARCHITECTURAL OR APPROVED EQUAL.

8' HIGH ARCHITECTURAL FENCE

SCALE: NTS

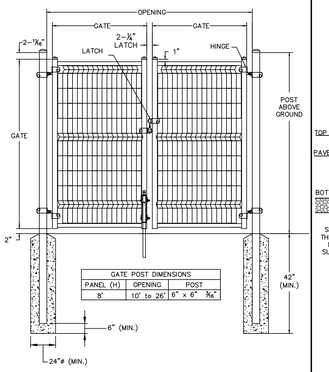


GATE POST DIMENSIONS		
PANEL (H)	OPENING	POST
6'	3' to 7'	3" x 3" 11 ga
8'	8' to 9'	4" x 4" 11 ga

NOTE: GATES SHALL BE OMEGA II ARCHITECTURAL GATE MODEL GPM20 OR APPROVED EQUAL

ARCHITECTURAL SINGLE SWING GATE

SCALE: NTS

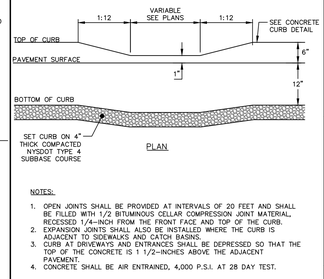


GATE POST DIMENSIONS		
PANEL (H)	OPENING	POST
8'	10' to 26'	6" x 6" .316

NOTE: GATES SHALL BE OMEGA II ARCHITECTURAL GATE MODEL GPDM20 OR APPROVED EQUAL.

ARCHITECTURAL DOUBLE SWING GATE

SCALE: NTS

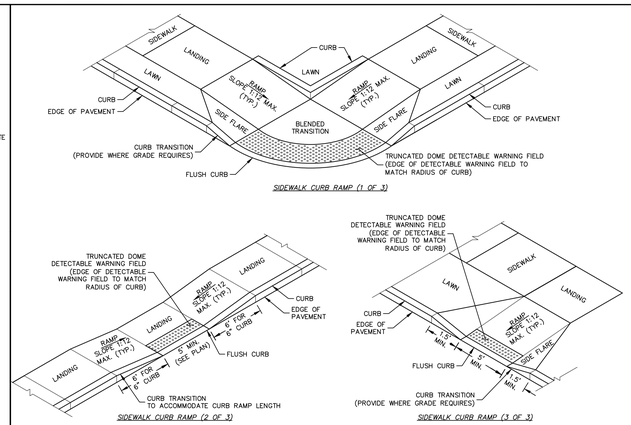


NOTES:

1. OPEN JOINTS SHALL BE PROVIDED AT INTERVALS OF 20 FEET AND SHALL BE FILLED WITH 1/2 BITUMINOUS CELLAR COMPRESSION JOINT MATERIAL, RECESSED 1/4-INCH FROM THE FRONT FACE AND TOP OF THE CURB.
2. EXPANSION JOINTS SHALL ALSO BE INSTALLED WHERE THE CURB IS ADJACENT TO SIDEWALKS AND CATCH BASINS.
3. CURB AT DRIVEWAYS AND ENTRANCES SHALL BE DEPRESSED SO THAT THE TOP OF THE CONCRETE IS 1 1/2-INCHES ABOVE THE ADJACENT PAVEMENT.
4. CONCRETE SHALL BE AIR ENTRAINED, 4,000 P.S.I. AT 28 DAY TEST.

DROP CURB

SCALE: NTS

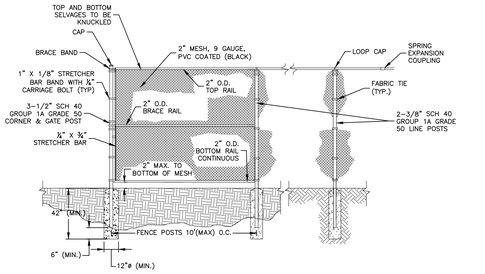


SIDEWALK CURB RAMP NOTES:

1. THERE SHALL BE A LANDING AT THE TOP OF EACH CURB RAMP.
2. LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF 5 FEET BY 5 FEET SQUARE. THE MAXIMUM CROSS SLOPE AT LANDINGS IS 2 PERCENT IN ANY DIRECTION. LANDINGS MAY OVERLAP WITH ADJACENT LANDINGS OR A SINGLE LANDING MAY SERVE MULTIPLE CURB RAMPS OR PARALLEL/PERPENDICULAR RAMPS.
3. THE MAXIMUM CROSS SLOPE OF CURB RAMPS SHALL BE 2 PERCENT. CURB RAMPS SURFACES SHALL GENERALLY LIE IN CONTINUOUS PLANES WITH A MINIMUM OF SURFACE WARP.
4. THE RUNNING GRADE OF CURB RAMPS SHOULD BE AS FLAT AS PRACTICABLE. THE MAXIMUM RUNNING GRADE OF ANY PORTION OF ANY CURB SHALL BE 1:12 (8.3%).
5. CURB RAMPS LOCATED WHERE PEDESTRIANS MAY WALK ACROSS THE CURB RAMP SHALL HAVE FLARED SIDES. THE LENGTH OF THE FLARES SHALL BE AT LEAST TEN (10) TIMES THE CURB HEIGHT, MEASURED ALONG THE CURB LINE. WHEN INFEASIBLE OR IMPRACTICABLE TO PROVIDE A LANDING THAT IS AT LEAST 5 FEET WIDE (MEASURED FORM THE TOP OF THE RAMP TO THE BACK OF THE SIDEWALK), THE LENGTH OF THE FLARES SHALL BE TWELVE (12) TIME THE CURB HEIGHT MEASURED ALONG THE CURB LINE.
6. THE SURFACE OF ALL CURB RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE IS RECOMMENDED ON CONCRETE RAMP SURFACES, EXCLUSIVE OF THE DETECTABLE WARNING FIELDS.
7. RAMP TRANSITIONS BETWEEN WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES.
8. COORDINATE ALL TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS. GUIDANCE FOR CROSSWALK MARKINGS AND TRAFFIC CONTROL DEVICES IS PROVIDED IN THE MUTCD. DRAINAGE GRATES AND UTILITY ACCESS COVERS ARE NOTE ALLOWED IN RAMP WALKING SURFACES OR LANDINGS UNLESS APPROVE BY THE DESIGN ENGINEER.
9. AT MARKED CROSSINGS, THE FULL WIDTH OF THE RAMP SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS. THE SIDES OF THE RAMP (THE FLARES) NEED NOT BE WITHIN THE WIDTH OF THE MARKINGS.
10. DETAILS ILLUSTRATE THAT DETECTABLE WARNINGS ARE REQUIRED. SEE THE CURRENT DETECTABLE WARNING STANDARD DETAIL AND NOTES FOR SPECIFIC DETECTABLE WARNING REQUIREMENTS.
11. SLOPES ON BLENDED TRANSITIONS SHALL NOT BE STEEPER THAN 2% (1 ON 50) IN ANY DIRECTION).
12. REFER TO THE SIDEWALK DETAIL FOR REQUIRED CONCRETE STRENGTH.

SIDEWALK CURB RAMP

SCALE: NTS



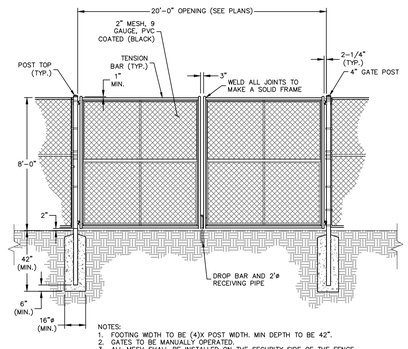
FENCE SECTION

NOTES:

1. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO THE CIVIL ENGINEER ILLUSTRATING THE HEIGHTS & LAYOUT OF FENCING AND GATES REQUIRED FOR THE PROJECT.
2. SHOP DRAWINGS SHALL INCLUDE MANUFACTURE CUTS AND SPECIFICATIONS.

8' HIGH CHAIN LINK FENCE

SCALE: NTS

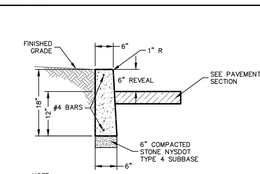


NOTES:

1. FOOTING WIDTH TO BE (4)X POST WIDTH. MIN DEPTH TO BE 42".
2. GATES TO BE MANUALLY OPERATED.
3. ALL MESH SHALL BE INSTALLED ON THE SECURITY SIDE OF THE FENCE.

20' WIDE DOUBLE SWING GATE

SCALE: NTS

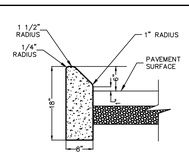


NOTE:

1. CONCRETE SHALL BE 4,000 PSI.

CONCRETE CURB

SCALE: NTS

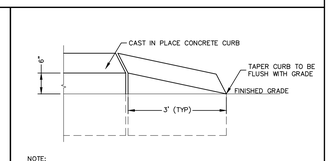


NOTES:

1. MOUNTABLE CURB IS LOCATED IN EMERGENCY TURNAROUND.
2. CONCRETE SHALL BE 4,000 PSI CLASS 'B' AIR-ENTRAINED CONCRETE.
3. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB AT 20 FOOT INTERVALS AND SHALL BE FILLED WITH PREFORMED BITUMINOUS JOINT FILLER.
4. ALL CURBS SHALL BE INSTALLED ON AN APPROVED, COMPACTED SUBGRADE.

MOUNTABLE CURB

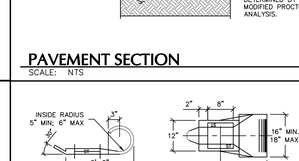
SCALE: NTS



NOTE:
SEE CAST IN PLACE CURB DETAIL FOR ADDITIONAL INFORMATION.

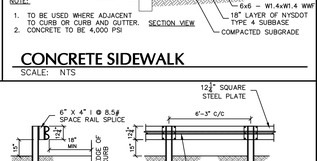
CAST IN PLACE CONCRETE CURB TERMINATION

SCALE: NTS



PAVEMENT SECTION

SCALE: NTS

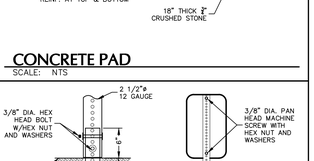


NOTE:

1. TO BE USED WHERE ADJACENT TO CURB OR CURB AND GUTTER.
2. CONCRETE TO BE 4,000 PSI

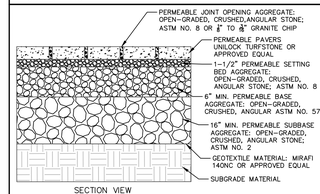
CONCRETE SIDEWALK

SCALE: NTS



CONCRETE PAD

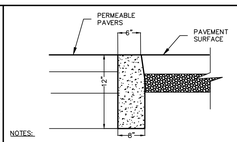
SCALE: NTS



SECTION VIEW

PERMEABLE PAVERS

SCALE: NTS

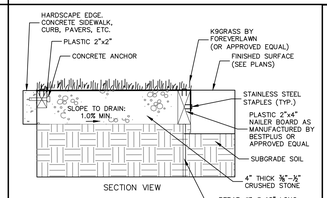


NOTES:

1. CONCRETE SHALL BE 4,000 PSI CLASS 'B' AIR-ENTRAINED CONCRETE.
2. EDGE RESTRAINT SHALL BE INSTALLED ON AN APPROVED, COMPACTED SUBGRADE.

CONCRETE EDGE RESTRAINT FOR PERMEABLE PAVERS

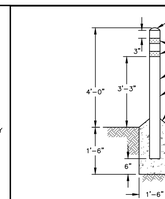
SCALE: NTS



SECTION VIEW

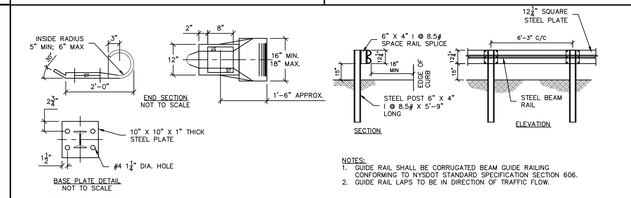
SYNTHETIC GRASS

SCALE: NTS



TYPICAL BOLLARD DETAIL

SCALE: NTS

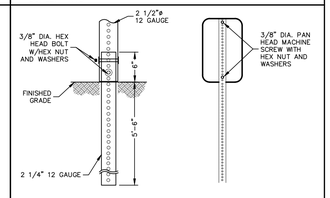


NOTES:

1. GUIDE RAIL SHALL BE CORRUGATED BEAM GUIDE RAILING CONFORMING TO NYSDOT STANDARD SPECIFICATION SECTION 606.
2. GUIDE RAIL LAPS TO BE IN DIRECTION OF TRAFFIC FLOW.

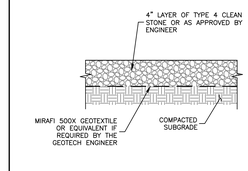
STEEL GUIDE RAIL

SCALE: NTS



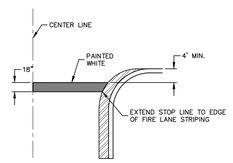
BREAKAWAY SIGN POST

SCALE: NTS



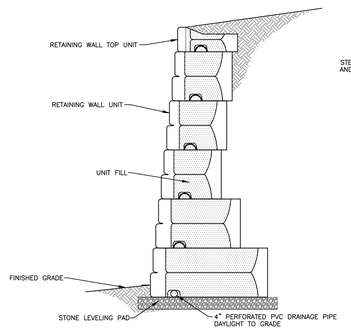
MAINTENANCE ACCESS PATH

SCALE: NTS

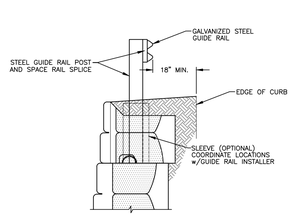


STOP BAR STRIPING

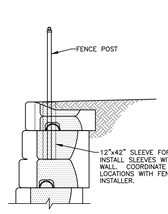
SCALE: NTS



SECTION VIEW



WALL W/GUIDE RAIL



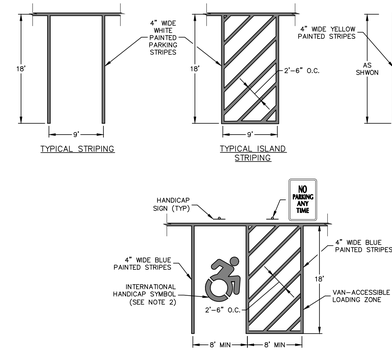
FENCE SLEEVE

NOTES:

1. ALL RETAINING WALLS SHALL BE DESIGNED, SIGNED AND SEALED BY A STRUCTURAL ENGINEER LICENSED BY THE STATE OF NEW YORK AND RETAINED BY THE CONTRACTOR. ALL RETAINING WALL DESIGNS SHALL BE SUBMITTED TO THE CIVIL ENGINEER FOR REVIEW.
2. SOIL, ROCK AND GROUNDWATER CONDITIONS SHALL BE DETERMINED BY THE CONTRACTOR OR CONTRACTOR'S ENGINEER.
3. A SAFETY BARRIER (FENCING) IS REQUIRED ON ALL WALLS WHERE THE WALL HEIGHT EXCEEDS 30". THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE FENCE PLACEMENT AND INSTALLATION METHOD.

MODULAR BLOCK RETAINING WALL

SCALE: NTS



NOTES:

1. ALL DISTANCES SUBJECT TO CURRENT ZONING AND SITE REGULATIONS.
2. PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE W/ ADA STANDARDS.
3. STRIPING WORK SHALL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.

PAVEMENT STRIPING

SCALE: NTS

REVISION	
NO.	DESCRIPTION

ARCHITECT'S SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	SS
CHECKED BY:	JK
SCALE:	N.T.S.
DATE:	20 OCT. 2021
PROJECT NO:	#2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

SITE DETAILS (1 OF 3)

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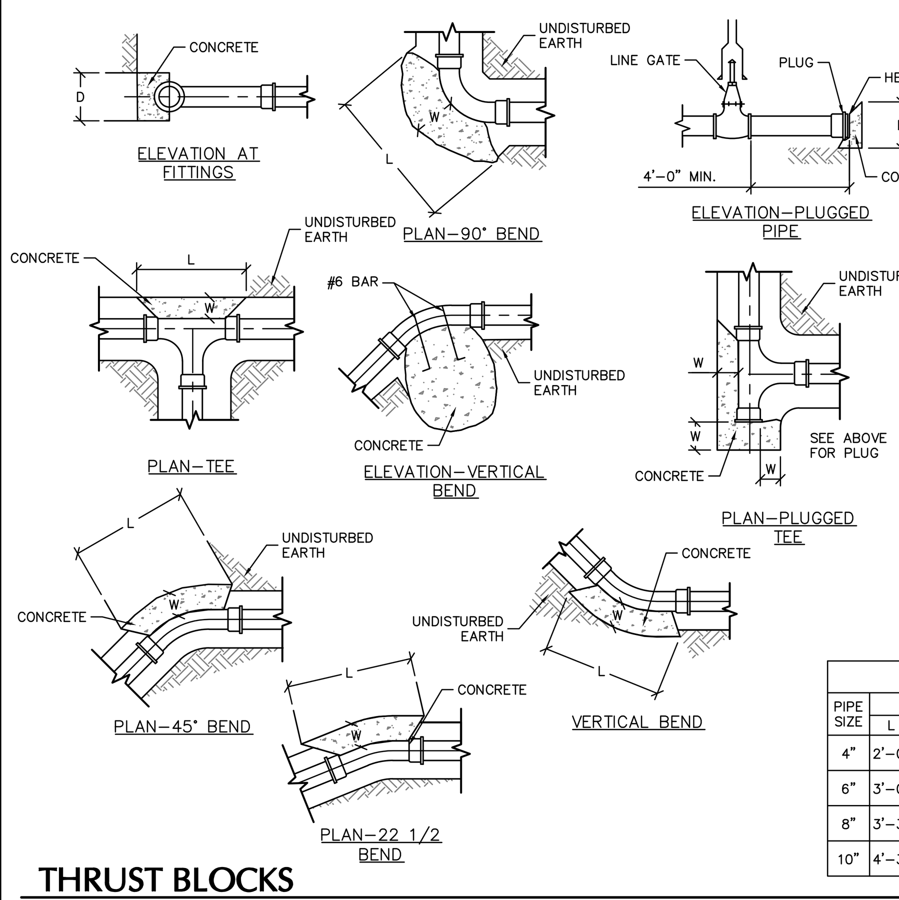
CS501

SIGNATURE
MICHAEL FINAN, PE, LEED-AP
PROFESSIONAL ENGINEER NY Lic. No. 081473
DATE SIGNED

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Filename: \\langan.com\data\WPW\data01\190070001\Project Data\CAD\01\SheetFiles\Site Plan Approval\190070001-CS501-0101.dwg Date: 10/19/2021 Time: 20:02 User: lmcmahon Style Table: Langan.stb Layout: SITE DETAILS (1 OF 3)

THRUST BLOCKS



NOTES:

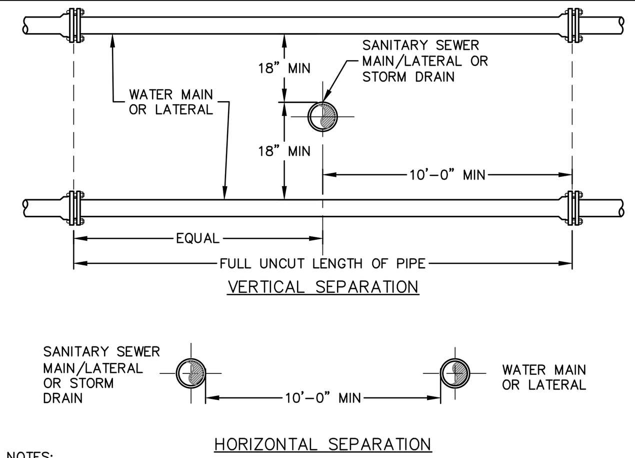
1. DIMENSIONS SHOWN ARE FOR BOTH DIP AND PVC PIPES.
2. IF SOFT MATERIALS ARE ENCOUNTERED, THE THRUST BLOCKS SIZES SHALL BE ADJUSTED ACCORDINGLY.
3. CONCRETE TO BE 5,000 PSI.
4. THRUST BLOCK SIZES AND MINIMUM RESTRAINED LENGTHS SHOWN ON THESE SHEETS ARE BASED UPON THE FOLLOWING STANDARD CONDITIONS:
   1.5 – SAFETY FACTOR
   4'–0" – DEPTH OF COVER
   200 PSI – WATER SYSTEM TEST PRESSURE
   14 PSI – SOIL BEARING CAPACITY
   90 LB/CF – SOIL UNIT WEIGHT

THRUST BLOCK SCHEDULE

PIPE SIZE	TEE		11¼ & 22½		45		90		W
	L	D	L	D	L	D	L	D	
4"	2'–0"	1'–0"	1'–3"	9"	2'–0"	9"	2'–3"	1'–3"	12"
6"	3'–0"	1'–3"	2'–0"	9"	2'–6"	1'–3"	3'–3"	1'–9"	12"
8"	3'–3"	2'–0"	2'–3"	1'–3"	3'–3"	1'–9"	4'–3"	2'–3"	12"
10"	4'–3"	2'–3"	3'–0"	1'–3"	4'–0"	2'–0"	5'–3"	2'–6"	12"

SCALE: NTS

SANITARY/STORM & WATER MAIN SEPARATION

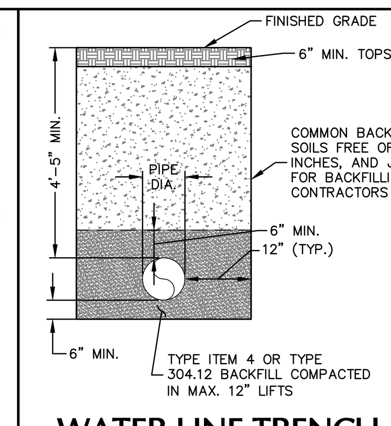


NOTES:

1. IF 18" VERTICAL SEPARATION CANNOT BE ACHIEVED AT LOCATIONS OF WATER MAIN & SEWER CROSSINGS, CONTRACTOR SHALL CONSTRUCT EITHER OF THE FOLLOWING OPTIONS:
   1.1. CONSTRUCT SEWER OF PVC PRESSURE PIPE MATERIAL 10' ON EACH SIDE OF THE WATER MAIN/SEWER.
   1.2. ENCASE SEWER PIPE IN CONCRETE, 4' DISTANCE ON EACH SIDE OF WATER MAIN/SEWER CROSSING. CONCRETE ENCASEMENT SHALL BE MINIMUM 6" ALL AROUND PROPOSED SEWER PIPE.
2. IF 10' HORIZONTAL SEPARATION CANNOT BE ACHIEVED AT LOCATIONS OF WATER MAIN & SEWER CROSSINGS, THE CONTRACTOR SHALL CONSTRUCT EITHER OF THE FOLLOWING OPTIONS:
   2.1. THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THE 10' HORIZONTAL SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE (REFER TO THE WATER LINE OFFSET DETAIL).
   2.2. BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT CAST IRON PIPE AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS, OR ENCASED IN CONCRETE IN ACCORDANCE WITH THE NYS HEALTH DEPARTMENT REQUIREMENTS.

SCALE: NTS

WATER LINE TRENCH



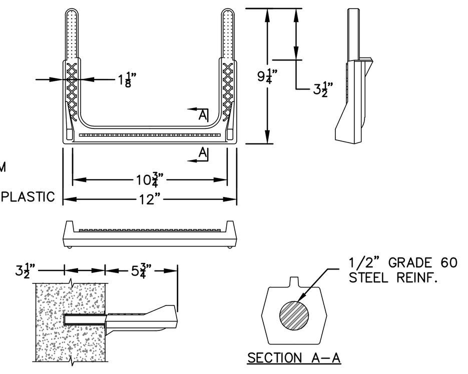
COMMON BACKFILL CONSISTING OF COMPATIBLE SOILS FREE OF COBBLES GREATER THAN 4 INCHES, AND JAGGED RIPPED ROCK. THE COST FOR BACKFILLING SHALL BE INCLUDED IN THE CONTRACTORS COST OF EXCAVATION.

NOTES:

1. BACKFILL SHALL BE PLACED IN MINIMUM 12" LIFTS AND COMPACTED USING MECHANICAL MEANS OF COMPACTING OR AS APPROVED BY SUEZ WATER.
2. WOOD BLOCKING SHALL NOT BE USED BENEATH THE PIPE AS A MEANS OF SETTING GRADE.

SCALE: NTS

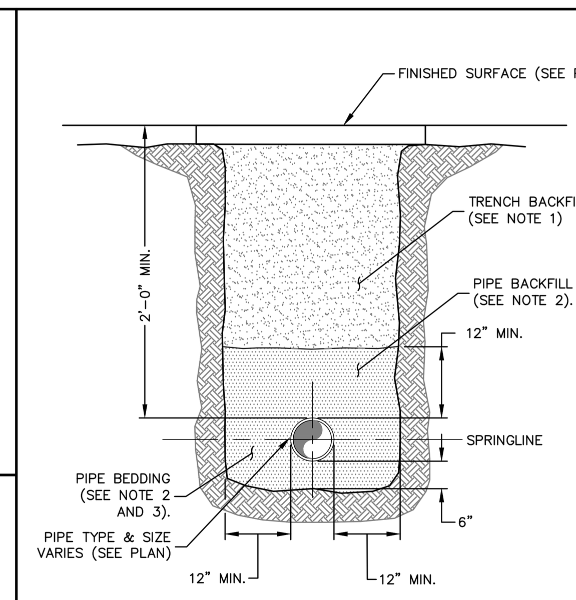
POLYPROPYLENE MANHOLE STEP



NOTE:
STEPS TO BE FABRICATED FROM COPOLYMER POLYPROPYLENE PLASTIC

SCALE: NTS

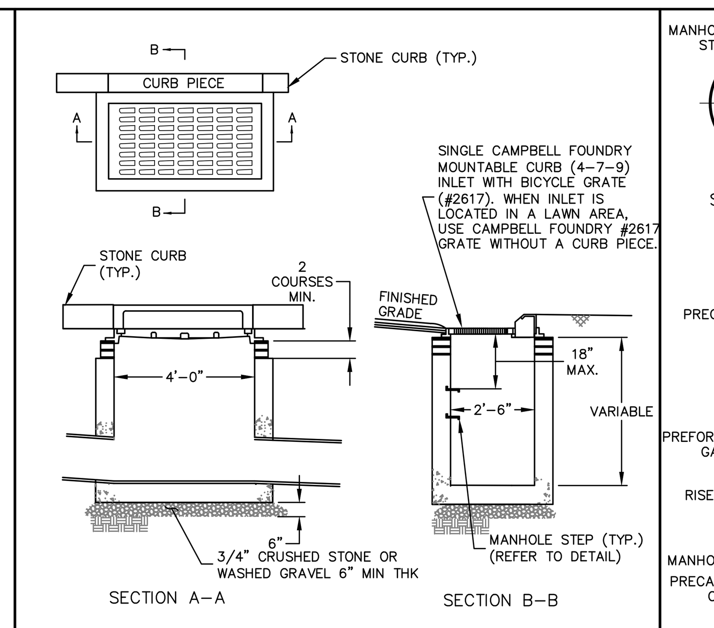
DRAINAGE PIPE TRENCH



NOTES:
1. PREDOMINATELY GRANULAR FILL MATERIAL. MAX. PARTICLE SIZE 4". COMPACT IN MAX. 8" LOOSE LIFTS TO 95% MODIFIED PROCTOR DENSITY USING ONSITE MATERIALS.
2. MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES. MAX. PARTICLE SIZE ¾". COMPACT IN MAX. 6" LOOSE LIFTS.
3. WHEN IN LEDGE, USE AASHTO NO. 67 OR EQUAL PROCESSED SAND AND GRAVEL FREE OF DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELETERIOUS MATERIAL. COMPACT TO THE SPRINGLINE IN MAX. 6" LOOSE LIFTS.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

SCALE: NTS

CATCH BASIN

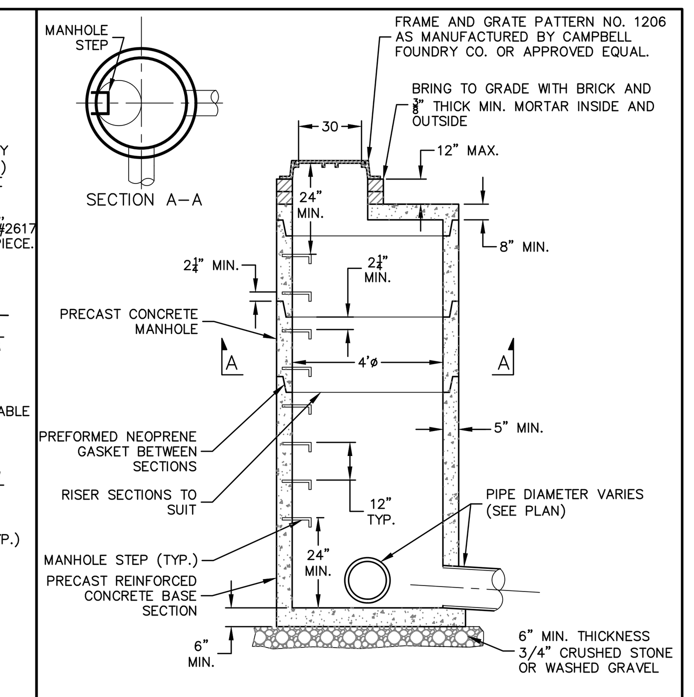


NOTES:

1. THE CONTRACTOR SHALL SUBMIT SHOP DWGS. FOR EACH STRUCTURE FOR THE ENGINEERS APPROVAL PRIOR TO FABRICATION.
2. STRUCTURE SHALL BE CERTIFIED AS CONFORMING TO ASTM-C913 LATEST REVISION.
3. STEPS NOT REQUIRED FOR STRUCTURES LESS THAN 4' DEEP.
4. FOR STRUCTURES WITH PIPE DIAMETERS EXCEEDING MAXIMUMS, PROVIDE CONCRETE SLAB AS NOTED.
5. STRUCTURAL DESIGN (WALL AND SLAB THICKNESS AND ALL REINFORCING) BY PRECASTER AND SHALL MEET STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SUPPORT HS-20 LOADING AS REQUIRED

SCALE: NTS

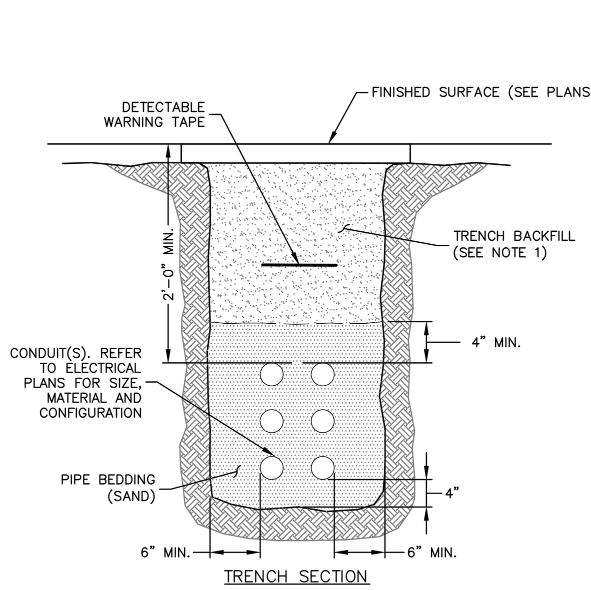
STORMWATER MANHOLE - SHALLOW



NOTES:
1. MANHOLE TO BE DESIGNED FOR H-20 LOADING.
2. SEE THE SPECIFICATIONS FOR LENGTH OF PIPE CONNECTIONS TO MANHOLE.
3. CONCRETE TO TEST 4,000 PSI MINIMUM @ 28 DAYS IN CONFORMANCE WITH ASTM C-478.
4. INSTALL BUTYL RUBBER BETWEEN ALL SECTIONS OF MANHOLE.
5. STEPS TO ALUMINUM ALLOY WITH DEPRESSED TREAD. STEEL REINFORCED POLYPROPYLENE IS OPTIONAL.
6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER'S APPROVAL.
7. SOIL CONDITIONS BELOW STRUCTURE DEEMED UNSUITABLE BY THE FIELD ENGINEER SHALL BE EXCAVATED TO A SUITABLE MATERIAL OR A MAXIMUM OF TWO ADDITIONAL FEET AND BACKFILLED WITH 3/4" CLEAN CRUSHED STONE.

SCALE: NTS

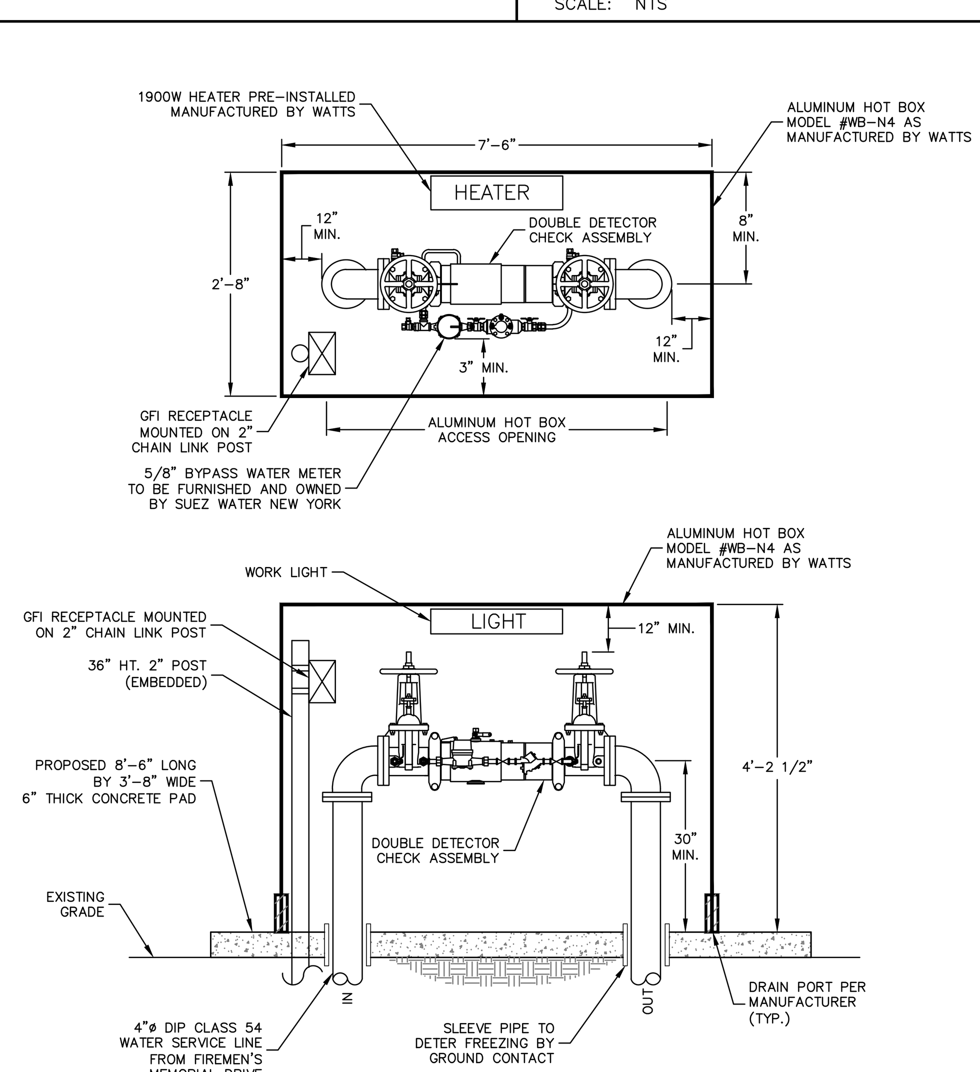
CABLE / TELEPHONE / COMMUNICATION ELECTRICAL CONDUIT TRENCH



NOTES:
1. PREDOMINATELY GRANULAR FILL MATERIAL. MAX. PARTICLE SIZE 4". COMPACT IN MAX. 8" LOOSE LIFTS TO 95% MODIFIED PROCTOR DENSITY USING ONSITE MATERIALS.
2. SURFACE MATERIAL TO BE AS SPECIFIED ON DRAWINGS.
3. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

SCALE: NTS

4" FIRE SERVICE DOUBLE DETECTOR CHECK ASSEMBLY & HOT BOX

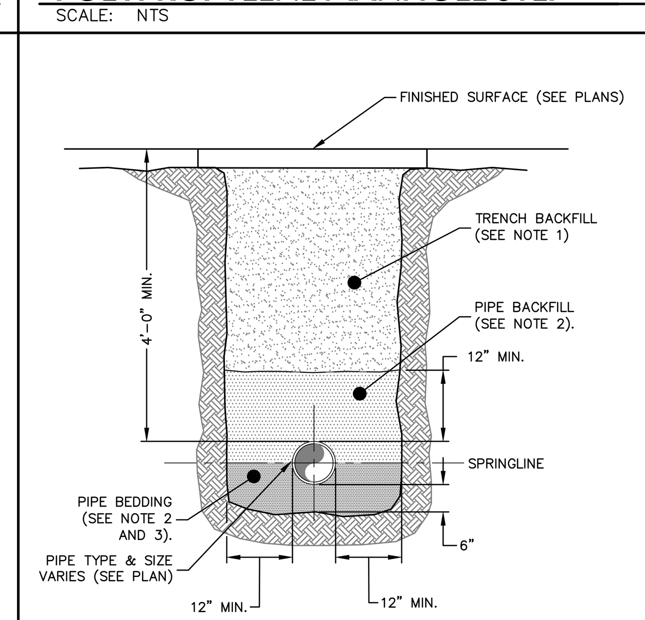


NOTES:

1. THE WATER METER AND BACKFLOW PREVENTER SHALL BE INSTALLED IN ACCORDANCE WITH SUEZ WATER NEW YORK INC. RULES AND REGULATIONS.
2. ALL METERING ELEMENTS AND APPURTENANCES SHALL BE INSTALLED HORIZONTALLY.
3. THE 5/8" BYPASS METER SHALL BE FURNISHED AND OWNED BY SUEZ WATER NEW YORK. ALL OTHER EQUIPMENT AND APPURTENANCES SHALL BE FURNISHED AND INSTALLED BY THE OWNER.
4. THE DISTANCE FROM THE FLOOR TO THE PIPE CENTERLINE SHALL BE 30" MINIMUM.
5. FREEZE PROTECTION ENCLOSURES SHALL HAVE REMOVABLE ACCESS PANELS THAT ALLOW ADEQUATE SPACE TO PERFORM MAINTENANCE DUTIES ON ALL COMPONENTS WITHOUT COMPLETELY ENTERING THE ENCLOSURE.
6. THE ENCLOSURE SHALL BE ANCHORED TO THE CONCRETE PAD TO SECURE ITS LOCATION AND IMPEDE THEFT AND VANDALISM.
7. A POWER INDICATING LIGHT SHALL BE INSTALLED ON THE OUTSIDE OF THE HOT BOX AS REQUESTED BY THE JOINT FIRE CHIEFS.
8. ADEQUATE DRAINAGE IN THE HOT BOX MUST BE PROVIDED.

SCALE: NTS SUEZ WATER

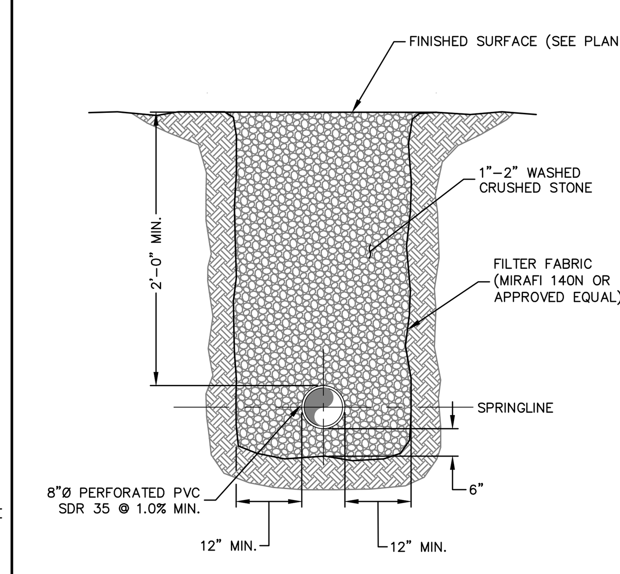
SEWER PIPE TRENCH



NOTES:
1. PREDOMINATELY GRANULAR FILL MATERIAL. MAX. PARTICLE SIZE 4". COMPACT IN MAX. 8" LOOSE LIFTS TO 95% MODIFIED PROCTOR DENSITY USING ONSITE MATERIALS.
2. MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES. MAX. PARTICLE SIZE ¾". COMPACT IN MAX. 6" LOOSE LIFTS.
3. WHEN IN LEDGE, USE AASHTO NO. 67 OR EQUAL PROCESSED SAND AND GRAVEL FREE OF DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELETERIOUS MATERIAL. COMPACT TO THE SPRINGLINE IN MAX. 6" LOOSE LIFTS.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

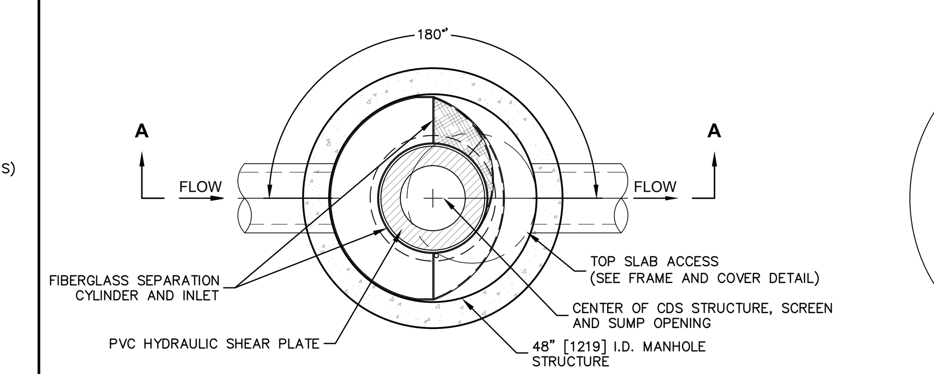
SCALE: NTS

DRAINAGE PIPE IN GRAVEL TRENCH

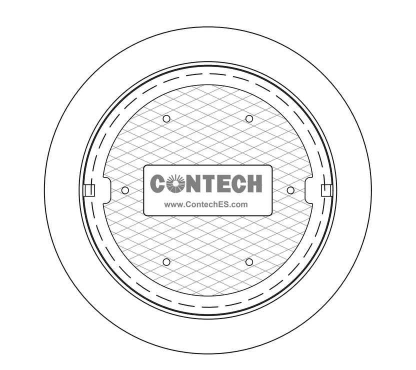


SCALE: NTS

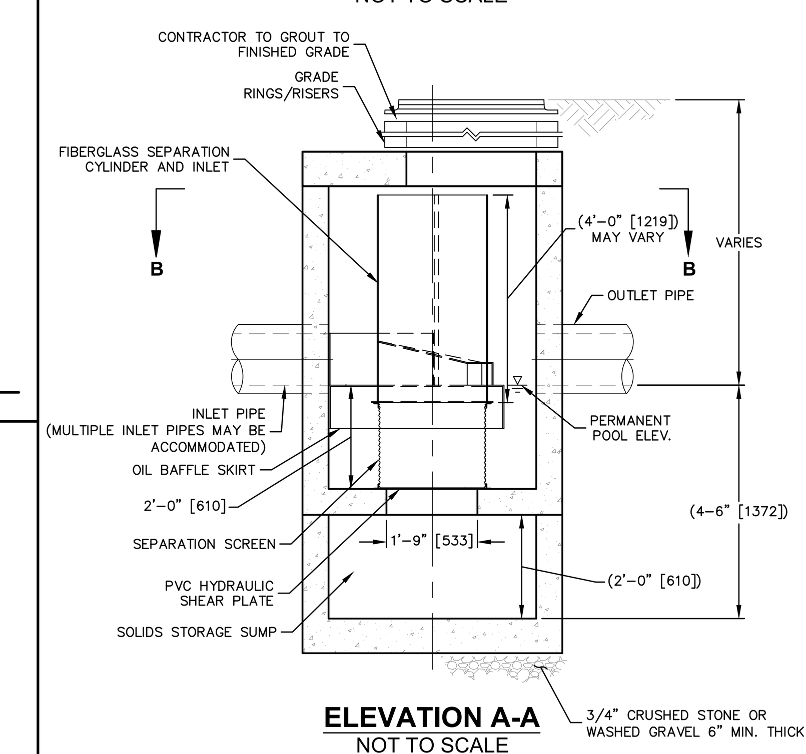
CDS-4-C



PLAN VIEW B-B
NOT TO SCALE



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET HS20 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
6. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

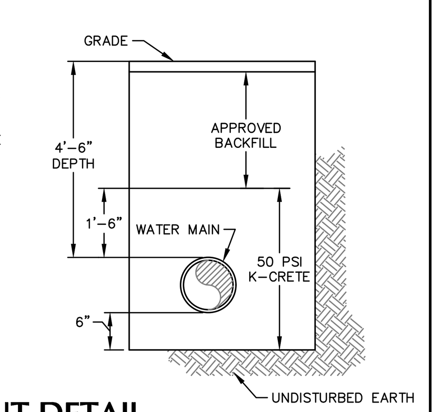
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

SCALE: NTS

ENCASEMENT DETAIL

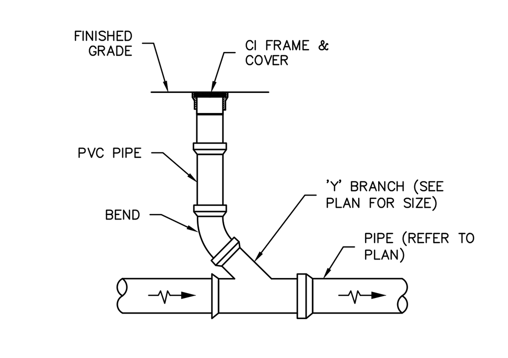
NOTES:

1. ENCASE WATERMAIN IN 50 PSI CONCRETE IN AREAS WHERE VERTICAL CLEARANCE IS LESS THAN 18" AND HORIZONTAL CLEARANCE IS LESS THAN 10'.



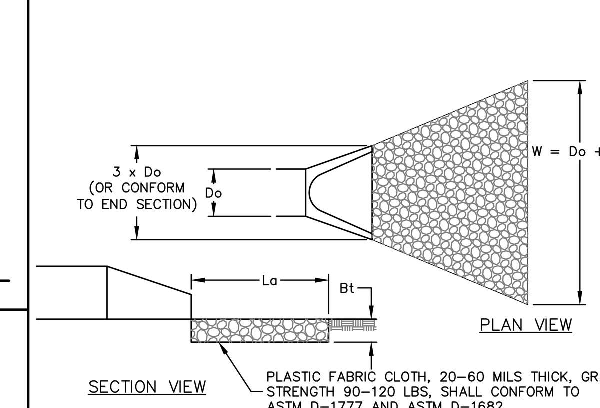
SCALE: NTS

CLEANOUT



SCALE: NTS

RIP RAP OUTLET PROTECTION

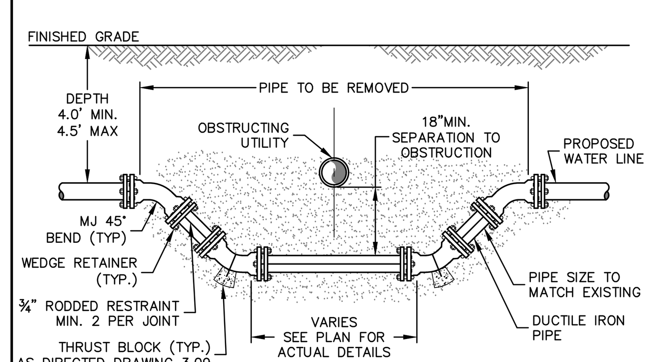


PIPE OUTLET TO FLAT AREA
WITH NO DEFINED CHANNEL
NOT TO SCALE

OUTLET	Q (CFs)	Do (IN)	TOP APRON (FT)	La (FT)	W (FT)	d50 (IN)	Bt (IN)
HW-1	3.8	12	3	6	7	6	12
HW-2	6.1	18	4.5	9	10.5	6	12
HW-3	1.4	12	3	6	7	6	12
HW-4	1.4	12	3	6	7	6	12

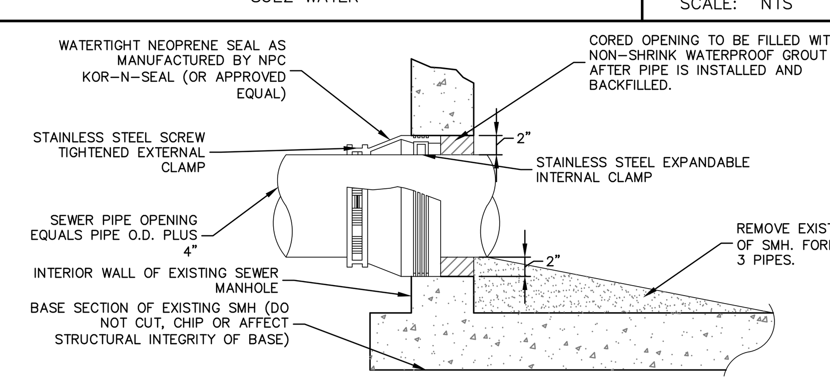
SCALE: NTS

TYPICAL WATER MAIN OFFSET



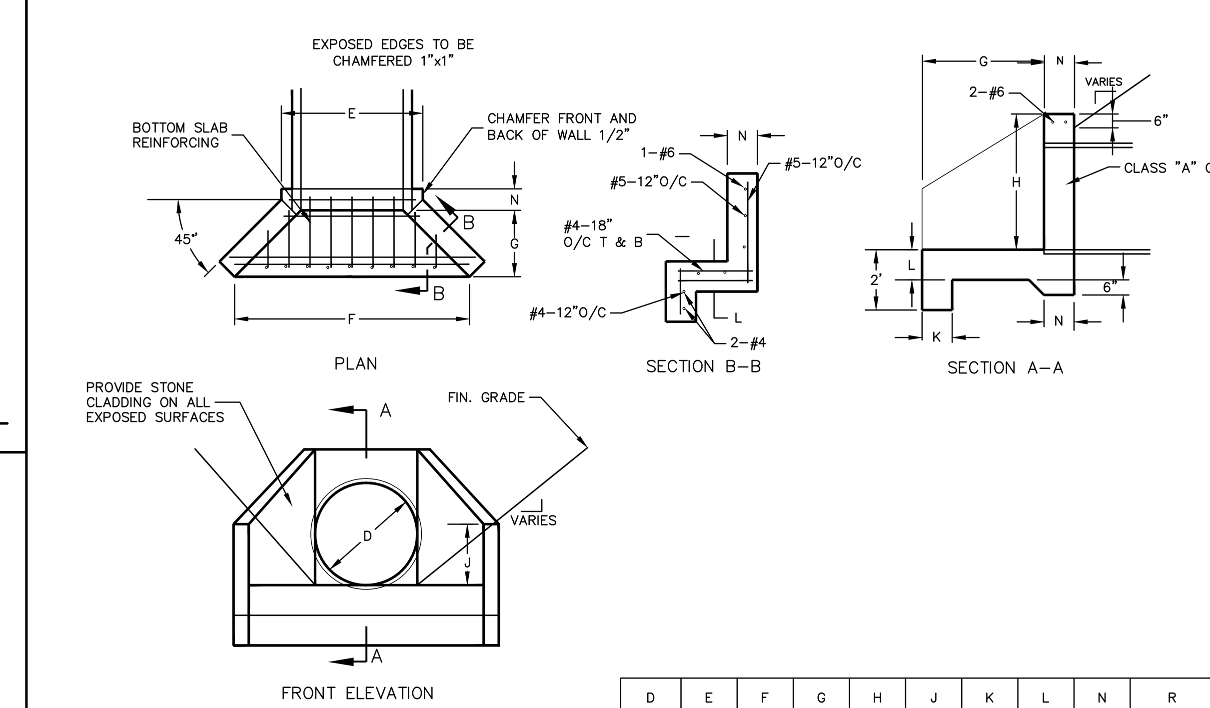
SCALE: NTS

PROPOSED SEWER CONNECTION TO EXISTING SEWER MANHOLE DETAIL



SCALE: NTS

HEAD WALL



D	E	F	G	H	J	K	L	N	R	△ VOL. C.Y.
15"–18"	3'–0"	8'–6"	3'–0"	3'–0"	2'–0"	8"	8"	8"	#5–12"o/c	1.70

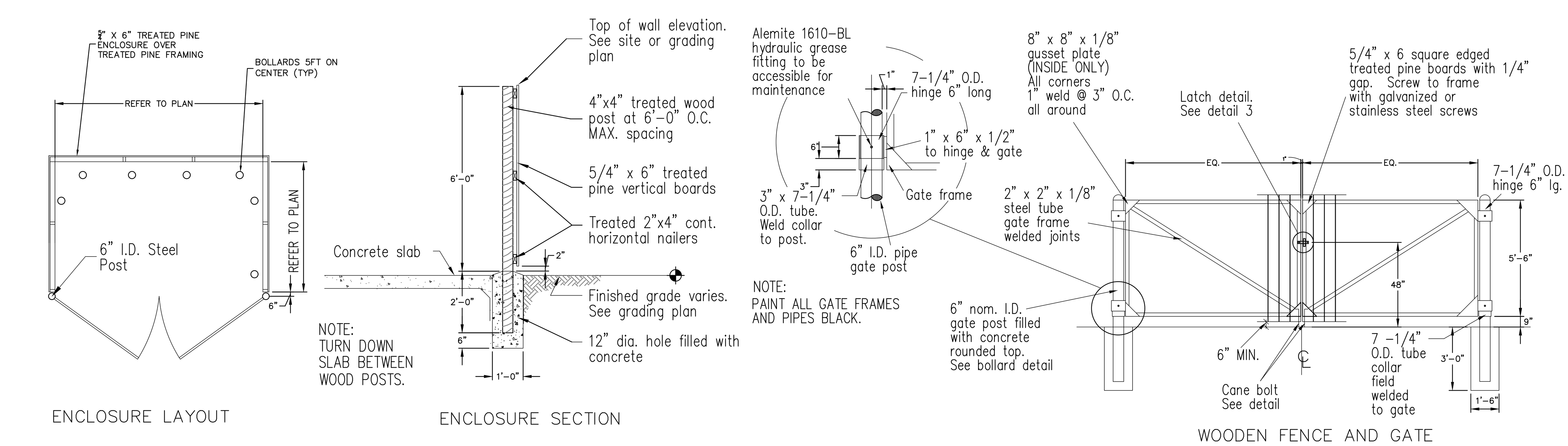
NOTES:

1. HEAD WALLS MAY BE PRECAST OR CAST IN PLACE WITH STONE FACING.
2. STRUCTURAL DESIGN (WALL AND SLAB THICKNESS AND ALL REINFORCING) BY STANDARDS AND SUPPORT HS-20 LOADING AS REQUIRED.

△ BASED ON 2:1 CHANNEL SIDE SLOPES.

SCALE: NTS

WOODEN DUMPSTER ENCLOSURE



NOTE: CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO INSTALLATION

SIGNATURE DATE SIGNED
MICHAEL FINAN, PE, LEED-AP
PROFESSIONAL ENGINEER NY Lic. No. 081473

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

REVISION
NO. | DESCRIPTION

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.9959

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

SITE DETAILS (2 OF 3)

PROGRESS SET ☐ BID SET ☐ PERMIT SET ■ CONSTRUCTION SET ☐

DRAWN BY:	SS
CHECKED BY:	JK
SCALE:	N.T.S.
DATE:	20 OCT. 2021
PROJECT NO:	#2019

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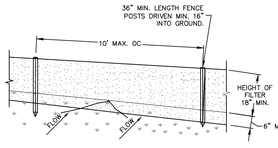
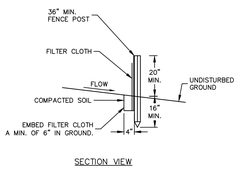


PERSPECTIVE VIEW



SECTION VIEW

CONSTRUCTION SPECIFICATIONS

1. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT THAT MEETS THE MINIMUM REQUIREMENTS SHOWN.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

DETAIL NOTES

1. INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL ("THE BLUE BOOK").
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE, BUT AT LEAST 10 FEET FROM THE TOE OF A SLOPE STEEPER THAN 3H:1V, TO ALLOW FOR MAINTENANCE AND ROLL DOWN. THE AREA BEYOND THE FENCE MUST BE UNDISTURBED OR STABILIZED.
3. THE TYPE OF SILT FENCE SPECIFIED FOR EACH LOCATION ON THE PLAN SHALL NOT EXCEED THE MAXIMUM SLOPE LENGTH AND MAXIMUM FENCE LENGTH REQUIREMENTS SHOWN IN THE TABLE BELOW. IF A TYPE SILT FENCE IS NOT SPECIFIED ON THE PLANS, THE CRITERIA FOR STANDARD SILT FENCE CAN BE APPLIED.
4. SILT FENCE SHALL BE REMOVED AS SOON AS THE DISTURBED AREA HAS ACHIEVED FINAL STABILIZATION.

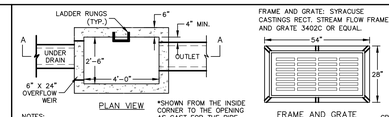
		SLOPE LENGTH/FENCE LENGTH (FT.)		
SLOPE	STEEPNESS	STANDARD	REINFORCED	SUPER
<2%	<50:1	300/1500	N/A	N/A
2–10%	50:1 TO 10:1	125/1000	250/2000	300/2500
10–20%	10:1 TO 5:1	100/750	150/1000	200/1000
20–33%	5:1 TO 3:1	60/500	80/750	100/1000
33–50%	3:1 TO 2:1	40/250	70/350	100/500
>50%	>2:1	20/125	30/175	50/250

STANDARD SILT FENCE:
FABRIC ROLLS STAPLED TO WOODEN STAKES DRIVEN 16 INCHES IN THE GROUND.

REINFORCED SILT FENCE:
FABRIC PLACED AGAINST WELDED WIRE FABRIC WITH ANCHORED STEEL POSTS DRIVEN 16 INCHES IN THE GROUND.

SUPER SILT FENCE:
FABRIC PLACED AGAINST CHAIN LINK FENCE AS SUPPORT BACKING WITH POSTS DRIVEN 3 FEET IN THE GROUND.

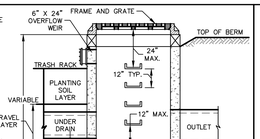
SILT FENCE
SCALE: NTS



PLAN VIEW

*SHOWN FROM THE INSIDE CORNER TO THE OPENING AS CAST FOR THE PIPE.

FRAME AND GRATE

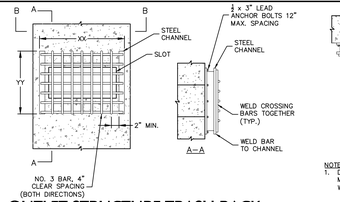


A–A VIEW

NOTES:

1. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
2. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENED PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
3. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCH BASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.
4. SEE PLANS FOR OVERFLOW WEIR OPENING SIZE AND ELEVATION, UNDERDRAIN ELEVATION, AND OUTLET PIPE ELEVATION.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR APPROVAL PRIOR TO ORDERING MATERIALS.

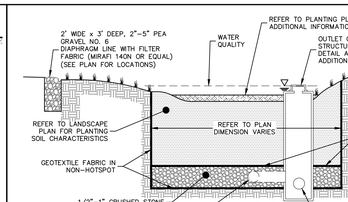
OUTLET CONTROL STRUCTURE FOR BIORETENTION
SCALE: NTS



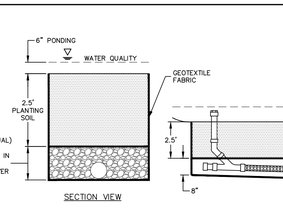
TYPICAL TRASH RACK DIMENSIONS TABLE		
ORIFICE/SLOT	XX (IN)	YY (IN)
24"L x6"H SLOT	32	14

NOTE:
1. DIMENSION XX CAN BE ADJUSTED WHEN THE SEPARATION DISTANCE BETWEEN MULTIPLE ORIFICES PROHIBITS INDIVIDUAL TRASH RACKS OVER EACH ORIFICE OR WHEN SLOT(S) ARE CLOSE TO THE TOP OF THE OUTLET CONTROL STRUCTURE.

OUTLET STRUCTURE TRASH RACK
SCALE: NTS

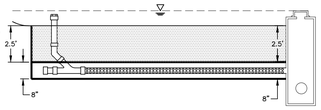


PROFILE VIEW



SECTION VIEW

SECTION VIEW – SLOPED MAIN COLLECTOR LATERAL



SECTION VIEW – NON-SLOPED MAIN COLLECTOR LATERAL

NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL APPENDIX C NOTES:

1. ALL BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR pH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOP SOIL WAS EXCAVATED.
2. SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHALL COME FROM THE SAME TESTING FACILITY.
3. SHOULD THE pH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.
4. IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND STORAGE VOLUMES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.
5. COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTIONS FROM HEAVY EQUIPMENT.
6. ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE REQUIRED SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.
7. WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.
8. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" OR GREATER. DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS BY HAND OR WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.
9. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE.
10. ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.
11. THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH IS USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.
12. UNDER DRAINS TO BE PLACED ON A 3'–0" WIDE SECTION OF FILTER CLOTH. PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.
13. THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).
14. THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

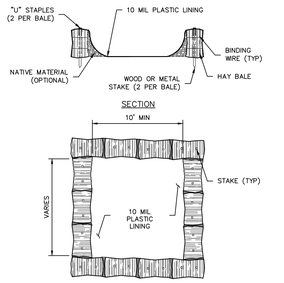
BIORETENTION AREA MANAGEMENT:

1. ANNUAL INSPECTION AND REPAIR OF OR REPLACEMENT OF TREATMENT COMPONENTS.
2. TWICE PER YEAR (SPRING AND FALL) INSPECT TREES AND SHRUBS TO EVALUATE HEALTH, REMOVE AND REPLACE DEAD OR DYING PLANTS, AND PRUNE DISEASED OR BROKEN PLANTS.
3. WEED ANNUALLY AND PRUNE SHRUB VEGETATION UNTIL VEGETATION IS ESTABLISHED TO IMPROVE APPEARANCE.
4. REPLACE MULCH TO COVER EXPOSED SOIL AREAS. REMOVE AND REPLACE MULCH EVERY TWO TO THREE YEARS. MULCH DEPTH NOT TO EXCEED 3–INCHES.
5. SAMPLE SOIL FOR FERTILITY EVERY THREE YEARS. ADDITION OF LIMESTONE ONE OR TWO TIMES PER YEAR TO MAINTAIN PROPER PH IS RECOMMENDED. FIELD OR LABORATORY TESTING FOR PH IS ACCEPTABLE.
6. CHECK BASIN FOR SEDIMENT BUILD UP AND REMOVE SEDIMENT IF GREATER THAN ONE INCH.
7. CHECK BASIN AFTER STORM EVENT TO ENSURE THAT IT DEWATERS PROPERLY (DRAINS WITHIN 48–HOURS).
8. CHECK OUTLET OVERFLOW FOR EVIDENCE OF BLOCKAGE AND SOIL EROSION AT DISCHARGE POINTS. CLEAN BLOCKAGES AS REQUIRED AND STABILIZE EROSIVE AREAS AS NEEDED.

CONSTRUCTION INSTALLATION:

1. STAKE THE LIMITS AND PROVIDE OFFSETS OF THE PROPOSED BIORETENTION AREA AND SET ACCESSIBLE REFERENCE ELEVATIONS, AS NEEDED.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES CONSISTENT WITH OVERALL DEVELOPMENT E&S PLAN.
3. STABILIZE THE GRADING AROUND THE PROPOSED AREA AND DIVERT RUNOFF AWAY FROM THE PROPOSED EXCAVATIONS.
4. EXCAVATE THE BIORETENTION AREA TO THE PROPOSED LINES AND GRADES SHOWN ON THE SITE PLANS, AND SCARIFY THE EXISTING SOIL SURFACES, TAKING CARE NOT TO COMPACT THE IN–SITU SOILS.
5. INSTALL THE UNDERDRAIN SYSTEM AND OVERFLOW STRUCTURES. INSTALL THE FABRIC ON THE SIDEWALLS AND STAKE IN PLACE.
6. BACKFILL THE EXCAVATIONS WITH THE SOIL MIXTURE AS SHOWN ON THE PLANS AND SPECIFIED HEREIN.
7. FINISH GRADING THE SURFACE OF THE BIORETENTION AREA. LEAVE ROOM FOR 3–INCHES OF SHREDDED HARDWOOD MULCH.
8. PLANT VEGETATION WITHIN THE BIORETENTION AREA AS SPECIFIED IN THE PLANTING NOTES AND LANDSCAPE PLANS.
9. MULCH THE SURFACE WITH NOT MORE THAN 3–INCHES OF SINGLE PASS. REMOVE TEMPORARY SEDIMENT CONTROLS AND ANY ENTRANCE BLOCKS TO THE BIORETENTION AREA AFTER ACCEPTANCE BY THE DESIGN PROFESSIONAL AND THE LOCAL REGULATORY AUTHORITY.
10. BIORETENTION SOIL MEDIA SHALL BE IMPORTED AND NOT MIXED ON SITE. MATERIAL SHALL BE APPROVED BY THE ENGINEER.

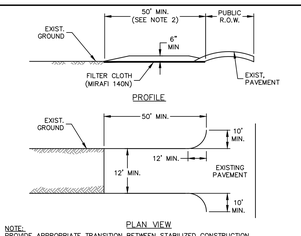
BIORETENTION WITH UNDERDRAIN
SCALE: NTS



NOTES:

1. CONCRETE WASHOUT SIGN TO BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
2. REMOVE HARDEN CONCRETE WHEN WITHIN 4" FROM TOP OF STRUCTURE.
3. CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITIES ARE TWO–THIRDS FULL.
4. LINERS, HAY BALES, ET.C SHALL BE INSPECTED FOR DAMAGE. ANY DAMAGE SHALL BE REPAIR PROMPTLY.

ABOVE GROUND TEMPORARY CONCRETE WASHOUT FACILITY
SCALE: NTS



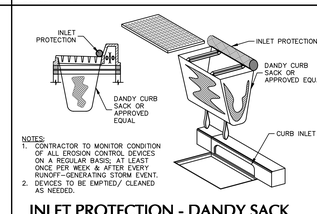
PLAN VIEW

NOTE:
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.

CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE – USE 3" STONE (NYSDOT ITEM #623.11 SIZE DESIGNATION #2, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50–FEET (EXCEPT ON SINGLE FAMILY LOT, 30–FEET MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY–FOUR (24) FOOT IF SINGLE ENTRANCE TO SIGHT.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

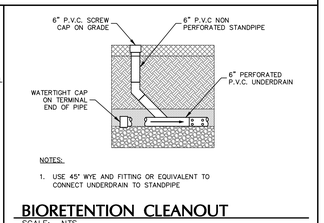
STABILIZED CONSTR. ENTRANCE
SCALE: NTS



NOTES:

1. CONTRACTOR TO MONITOR CONDITION OF ALL EROSION CONTROL DEVICES ON A REGULAR BASIS, AT LEAST ONCE PER WEEK & AFTER EVERY RUNOFF–GENERATING STORM EVENT.
2. DEVICES TO BE EMPTIED/ CLEANED AS NEEDED.

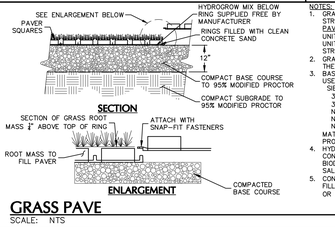
INLET PROTECTION - DANDY SACK
SCALE: NTS



NOTES:

1. USE 45° WYE AND FITTING OR EQUIVALENT TO CONNECT UNDERDRAIN TO STANDPIPE

BIORETENTION CLEANOUT
SCALE: NTS



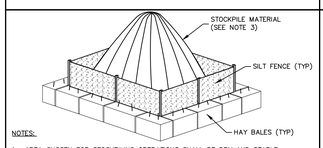
NOTES:

1. GRASS PAVERS SHALL BE GRASSPAVE2 MANUFACTURED BY INVISIBLE STRUCTURES, INC. OR APPROVED EQUAL.
   PAVER SPECIFICATIONS:
   UNIT SIZE: 20"x20"x1"
   UNIT WEIGHT: 18 OZ. OR 4.5 LBS.
   STRENGTH: 5,720 PSI
2. GRASS/PLANT TYPES SHALL BE AS SPECIFIED ON THE LANDSCAPING PLANS BY THE LANDSCAPE ARCHITECT.
3. BASE COURSE: SANDY GRAVEL MATERIAL FROM LOCAL SOURCES, COMMONLY USED FOR ROAD BASE CONSTRUCTION MEETING THE FOLLOWING:

SIEVE SIZE	% PASSING
3/4"	100
3/8"	85
NO. 4	60
NO. 40	30
NO. 200	3

   MATERIALS SHALL BE NEARLY NEUTRAL IN pH (RANGE FROM 6.5 – 7.2) TO PROVIDE ADEQUATE ROOT ZONE DEVELOPMENT FOR TURF.
4. HYDROGROW MIXTURE: A MIXTURE OF ZEOPRO, POZZALAN AND HUMATE SOIL CONDITIONERS. COMPONENTS ARE NON–TOXIC, pH NEUTRAL AND SLOW TO BIODEGRADE. HYDROGROW IS ANIONIC AND NOT AFFECTED BY MINERALS OR SALTS IN SOIL OR WATER.
5. CONCRETE SAND: OBTAIN CLEAN, SHARP SAND (WASHED CONCRETE SAND) TO FILL THE 1 INCH HIGH RINGS AND SPACES BETWEEN THE RINGS WHEN SEEDING OR USING 1/2 INCH THICK SOD.

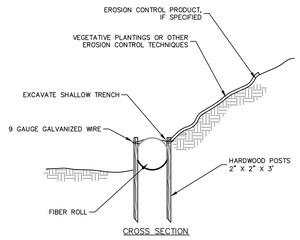
GRASS PAVE
SCALE: NTS



NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH STOCKPILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH TEMPORARY VEGETATION OR COVERED ENTIRELY BY AN ANCHORED PLASTIC COVER.
4. REFER TO SILT FENCE DETAIL FOR SILT FENCE INSTALLATION SPECIFICATIONS.
5. MAINTAIN 1' SEPARATION SILT FENCE AND HAY BALES FROM MATERIAL.

TEMPORARY STOCKPILE
SCALE: NTS



CROSS SECTION

CONSTRUCTION SPECIFICATIONS:

1. EXCAVATE A SHALLOW TRENCH SLIGHTLY BELOW BASEFLOW OR A 4" TRENCH ON SLOPE CONTOURS.
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2" X 2" POSTS PLACED ON BOTH SIDES OF THE ROLL AND SPACED LATERALLY ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IN NECESSARY.
3. NOTCH THE POSTS AND TIE TOGETHER, ACROSS THE ROLL, WITH 9 GAUGE GALVANIZED WIRE OR ½" DIAMETER BRAIDED NYLON ROPE.
4. PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP. PLANT WITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER. HERBACEOUS VEGETATION, IF SPECIFIED, SHALL BE PLANTED INTO THE FIBER ROLL.

FIBER ROLL
SCALE: NTS

NO.	REVISION DESCRIPTION

ARCHITECT'S SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2855
F: 617.426.2857

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	SS
CHECKED BY:	JK
SCALE:	N.T.S.
DATE:	20 OCT. 2021
PROJECT NO:	#2019

SITE DETAILS (3 OF 3)

PROGRESS SET ☐ BID SET ☐ PERMIT SET ■ CONSTRUCTION SET ☐

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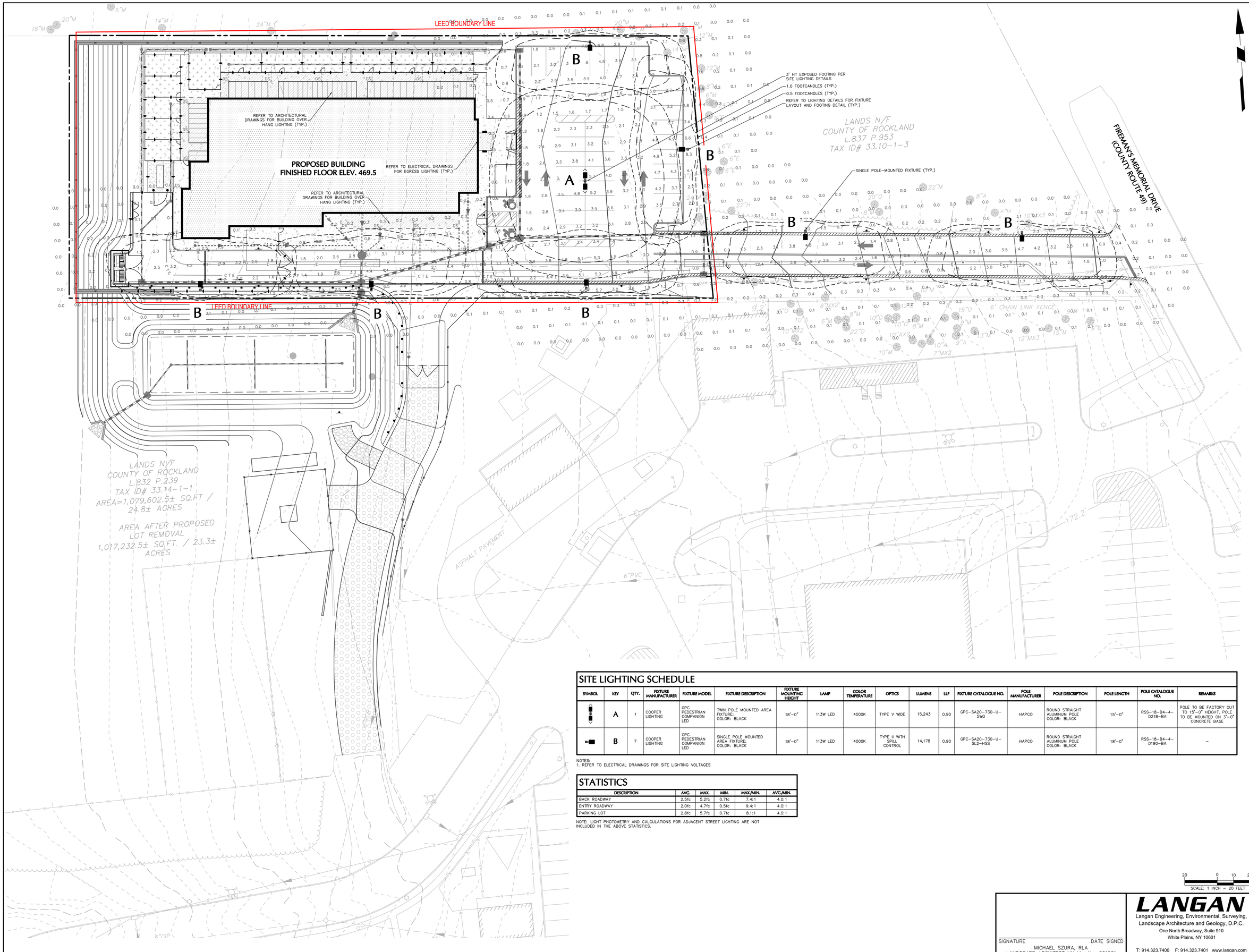
CS503

SIGNATURE DATE SIGNED
MICHAEL FINAN, PE, LEED–AP
PROFESSIONAL ENGINEER NY Lic. No. 081473

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Filename: \\langan.com\data\WPW\data\0190070001\Project Data\CAD\01Sheetfiles\Site Plan Approval\190070001-CS501-0101.dwg Date: 10/19/2021 Time: 20:02 User: lmcmahon Style Table: Langan.stb Layout: SITE DETAILS (3 OF 3)



SITE LIGHTING SCHEDULE

SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	COLOR TEMPERATURE	OPTICS	LUMENS	LLF	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.	REMARKS
	A	1	COOPER LIGHTING	GPC PEDESTRIAN COMPANION LED	TWIN POLE MOUNTED AREA FIXTURE; COLOR: BLACK	18'-0"	113W LED	4000K	TYPE V WIDE	15,243	0.90	GPC-SA2C-730-U-5WQ	HAPCO	ROUND STRAIGHT ALUMINUM POLE COLOR: BLACK	15'-0"	RSS-18-B4-4-D218-BA	POLE TO BE FACTORY CUT TO 15'-0" HEIGHT, POLE TO BE MOUNTED ON 3'-0" CONCRETE BASE
	B	7	COOPER LIGHTING	GPC PEDESTRIAN COMPANION LED	SINGLE POLE MOUNTED AREA FIXTURE; COLOR: BLACK	18'-0"	113W LED	4000K	TYPE II WITH SPILL CONTROL	14,178	0.90	GPC-SA2C-730-U-SL2-HSS	HAPCO	ROUND STRAIGHT ALUMINUM POLE COLOR: BLACK	18'-0"	RSS-18-B4-4-D190-BA	–

NOTES:
1. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING VOLTAGES

STATISTICS

DESCRIPTION	AVG.	MAX.	MIN.	MAX./MIN.	AVG./MIN.
BACK ROADWAY	2.5fc	5.2fc	0.7fc	7.4:1	4.0:1
ENTRY ROADWAY	2.0fc	4.7fc	0.5fc	9.4:1	4.0:1
PARKING LOT	2.8fc	5.7fc	0.7fc	8.1:1	4.0:1

NOTE: LIGHT PHOTOMETRY AND CALCULATIONS FOR ADJACENT STREET LIGHTING ARE NOT INCLUDED IN THE ABOVE STATISTICS.

20 0 10 20
SCALE: 1 INCH = 20 FEET

SIGNATURE DATE SIGNED
MICHAEL SZURA, RLA
LANDSCAPE ARCHITECT NY Lic. No. 001901

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

NO.	REVISION DESCRIPTION

ARCHITECTS SEAL

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.420.2537
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8689
F: 949.716.8690

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

SITE LIGHTING PLAN

DRAWN BY:	AC
CHECKED BY:	MH
SCALE:	1" = 20'
DATE:	20 OCT. 2021
PROJECT NO:	#2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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LIGHTING NOTES:

GENERAL

1. POINT-BY-POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY STANDARD LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP/ DIRT DEGRADATION ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY STANDARD LLF IN ACCORDANCE WITH GUIDANCE AS PROVIDED BY IESNA. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS-BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS.NO GUARANTEE OF LIGHT LEVELS IS EXPRESSED OR IMPLIED BY THE POINT BY POINT CALCULATIONS SHOWN ON THESE PLANS.

2. LIGHT LEVEL POINT SPACING IS 10 FT. LEFT TO RIGHT AND 10 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.

COMPLIANCE

3. ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.

4. LIGHTING LAYOUT COMPLIES WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) SAFETY STANDARDS FOR LIGHT LEVELS.

COORDINATION

5. CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.

6. REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.

7. CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.

8. INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.

9. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING EXCAVATIONS.

POLES AND FOOTINGS

10. PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND/OR IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST-IN-PLACE CONCRETE. THE USE OF ALTERNATE LIGHTING FOUNDATIONS, SUCH AS PRECAST, MAY CHANGE THE SIZING AND REINFORCEMENT REQUIREMENTS FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.

11. CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERTED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.

12. POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.

13. ALL POLES 25 FT OR GREATER SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.

WALL MOUNTED FIXTURES

14. CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING MEP, ARCHITECT, AND/OR OWNER.

15. INSTALLATION AND ELECTRICAL CONNECTIONS FOR WALL MOUNTED FIXTURES TO BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, UTILITY AND SITE PLANS AND TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES.

ADJUSTMENT AND INSPECTION

16. CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.

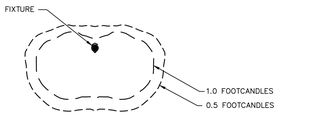
17. CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.

18. CONTRACTOR TO CONFIRM THAT LIGHT FIXTURES, TILT ANGLE AND AIMING MATCH SPECIFICATIONS ON THE PLANS.

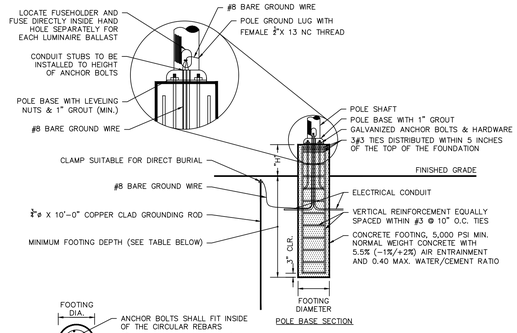
REQUIREMENTS FOR ALTERNATES

19. ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:
   A. ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR
   B. COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES, BY ISOFOOTCANDLE, THE SYSTEM'S PERFORMANCE.
   C. A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS; IES CALCULATIONS, POINT BY POINT FOOT CANDLE PLAN, STATISTIC ZONES SHOWING AVERAGE, MAXIMUM, MINIMUM AND UNIFORMITY RATIOS, SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, WATTAGE, VOLTAGE, FINISH HOUSING DESCRIPTION AND ALL OTHER PERTINENT INFORMATION.
   D. POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
   E. THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE UTILIZED.
   F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.

20. PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE. IT DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.



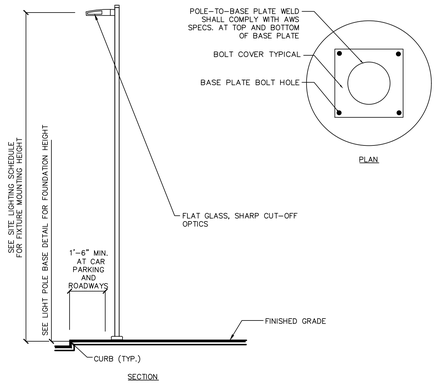
FIXTURE TYPE	MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	EXPOSED HEIGHT "H"	VERTICAL REINFORCEMENT
A	18'	6'-6"	2'-0"	3'-0"	6#5 BARS
B	18'	6'-6"	2'-0"	0'-0"	6#5 BARS

NOTES:

1. FIXTURE POLE, FOOTING AND CONDUIT INSTALLATION IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
2. SHAFT CAP, ARMS, BASE FLANGE, ANCHOR BOLTS, LEVELING NUTS, CONNECTION HARDWARE, BOLT COVERS, HANDHOLE COVER, AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED BY POLE MANUFACTURER.
3. EACH STANDARD TO BE PROTECTED AGAINST LIGHTNING WITH AN INTERCONNECTED GROUND ROD. THIS ROD SHALL BE BONDED PER SECTION NUMBER 250-86, N.E.C.
4. CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENT OF ACI 318. CAST-IN-PLACE SHALL HAVE UNCONFINED COMPRESSIVE STRENGTH OF AT LEAST 5,000 PSI AT 28-DAYS. DEFORMED REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60.
5. CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL.
6. IF POLE BASE IS CAST-IN-PLACE, POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND-RUBBED SMOOTH.
7. CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE PER EARTHWORK SPECIFICATIONS / GEOTECH REPORT.
8. THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER RETAINED BY THE CONTRACTOR BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.
9. CONTRACTOR TO CONFIRM GROUNDING DESIGN WITH THE PROJECT MEP.

1 LIGHT FIXTURE FOOTING

N.T.S

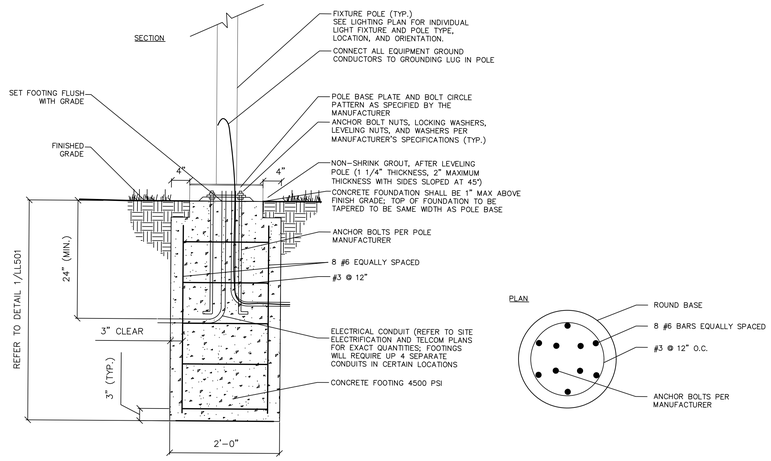


NOTES:

1. CURB LOCATION IS SHOWN FOR SCHEMATIC PURPOSE. LIGHT POLES SHALL BE LOCATED PER THE LIGHTING PLANS.

2 LIGHT FIXTURE AND POLE LAYOUT

N.T.S



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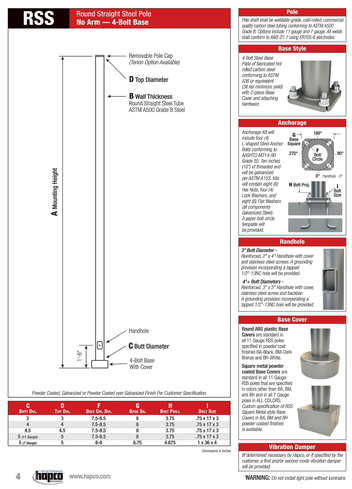
4. CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL.
5. POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND-RUBBED SMOOTH.
6. CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE.
7. THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.

3 LIGHT FIXTURE TYPE B FOOTING

N.T.S

4 PARKING LOT FIXTURE

N.T.S



5 PARKING LOT POLE

N.T.S

SIGNATURE DATE SIGNED
MICHAEL SZURA, RLA
LANDSCAPE ARCHITECT NY Lic. No. 001901

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

REVISION

NO.	DESCRIPTION

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.482.2937
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.8909

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

SITE LIGHTING DETAILS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

DRAWN BY: AC
CHECKED BY: MH
SCALE: 1" = 20'
DATE: 20 OCT. 2021
PROJECT NO.: #2019

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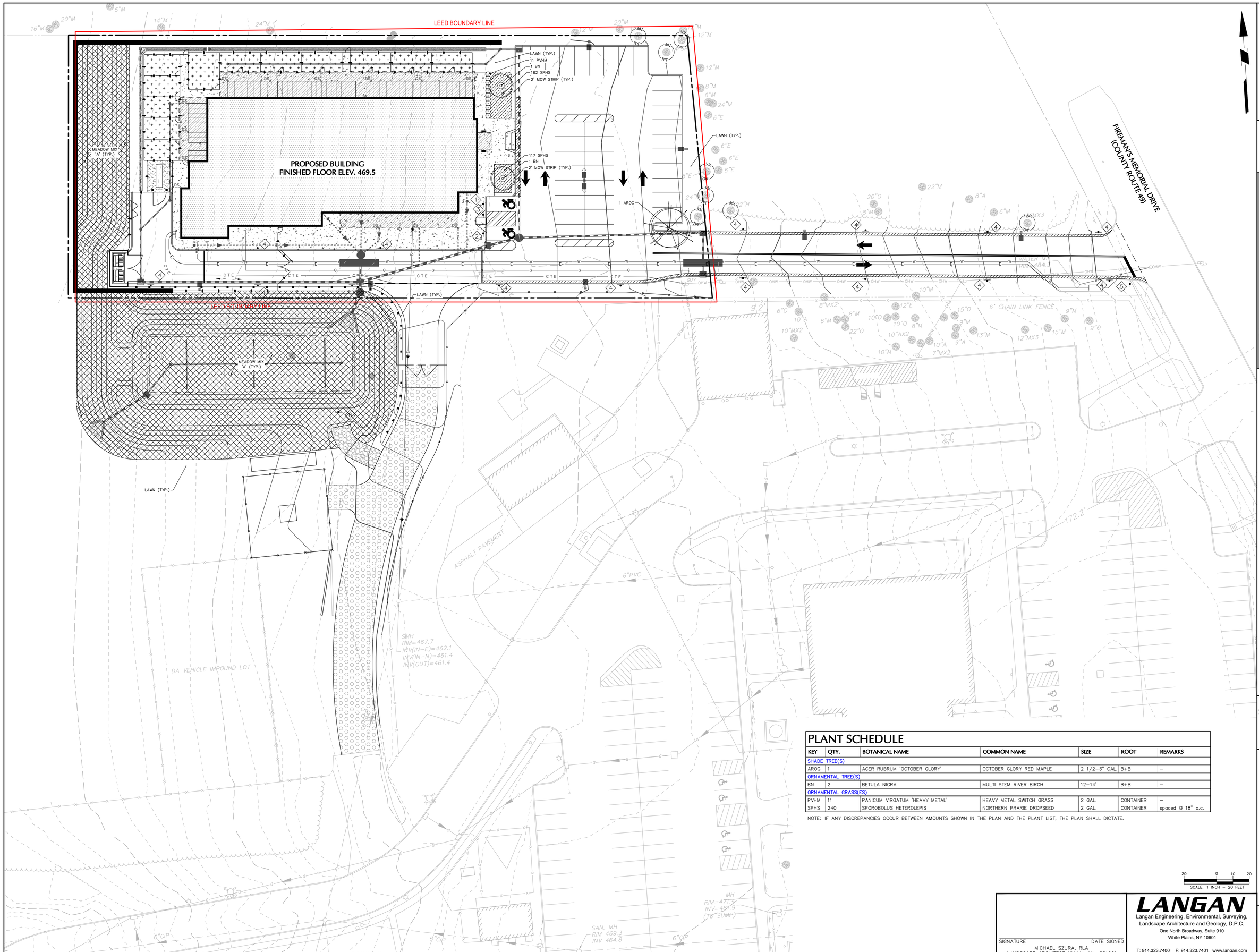

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREE(S)						
AROG	1	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2–3" CAL.	B+B	–
ORNAMENTAL TREE(S)						
BN	2	BETULA NIGRA	MULTI STEM RIVER BIRCH	12–14'	B+B	–
ORNAMENTAL GRASS(ES)						
PVHM	11	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	2 GAL.	CONTAINER	–
SPHS	240	SPOROBOLUS HETEROLEPIS	NORTHERN PRARIE DROPSEED	2 GAL.	CONTAINER	spaced @ 18" o.c.

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

20 0 10 20
SCALE: 1 INCH = 20 FEET

SIGNATURE DATE SIGNED
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LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

REVISION
NO. DESCRIPTION

ARCHITECTS SEAL

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8888
F: 949.716.8858

CAPITOL PROJECT 1483
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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

PLANTING PLAN

DRAWN BY: AC
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LP101

GENERAL LANDSCAPE PLANTING NOTES

1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
2. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL MULCH THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST.
3. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
4. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.
5. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES.
6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES PRIOR TO THE START OF EXCAVATION ACTIVITIES. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
7. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER, TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.
8. LANDSCAPE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
9. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE, BEFORE PLANTING, FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
10. DELIVERY, STORAGE, AND HANDLING
    A. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT SITE.
    B. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP BALLED AND BURLAPPED STOCK DURING DELIVERY OR HANDLING.
    C. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOTBALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8 INCHES INTO THE PLANTING HOLE. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.
    D. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
11. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.
12. ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.
13. NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF ONE YEAR FOLLOWING ACCEPTANCE BY THE OWNER. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
14. THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF-SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.
15. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.
16. THE BACKFILL MIXTURE AND SOIL MIXES TO BE INSTALLED PER THE SPECIFICATIONS.
17. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.
18. MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR. MULCH SHALL BE 100% HARDWOOD BARK MULCH.
19. ALL FENCE INSTALLATION SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.
20. FOR ANY DISCREPANCIES BETWEEN THE PLANT SCHEDULE AND PLANTING PLAN THE GRAPHIC QUANTITY SHOWN SHALL GOVERN.
21. PLANT MATERIALS SHALL NOT BE PLANTED UNTIL THE FINISHED GRADING HAS BEEN COMPLETED.
22. ALL PLANT INSTALLATIONS SHALL BE COMPLETED EITHER BETWEEN APRIL 1 – JUNE 15 OR AUGUST 15 – NOVEMBER 1, UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT. SEE LAWN SEEDING DATES IN SEEDING NOTES.

LANDSCAPE MAINTENANCE NOTES

1. MAINTENANCE OPERATIONS BEFORE APPROVAL:
   A. PLANT CARE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS SATISFACTORILY INSTALLED AND SHALL CONTINUE THROUGHOUT THE LIFE OF THE CONTRACT UNTIL FINAL ACCEPTANCE OF THE PROJECT.
   B. CARE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RINGS OR SAUCERS, MAINTAINING STAKES AND GUYS AS ORIGINALLY INSTALLED, WATERING WHEN NEEDED OR DIRECTED, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.
   C. CONTRACTOR SHALL REMOVE AND REPLACE ALL DEAD, DEFECTIVE AND/OR REJECTED PLANTS AS REQUIRED BEFORE FINAL ACCEPTANCE.
2. MAINTENANCE DURING CONSTRUCTION:
   A. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING. PLANTS SHALL BE WATERED, MULCHED, WEEDED, PRUNED, SPRAYED, FERTILIZED, CULTIVATED, AND OTHERWISE MAINTAINED AND PROTECTED UNTIL PROVISIONAL ACCEPTANCE. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE AND POSITION, PLANTING SAUCER RESTORED AND DEAD MATERIAL REMOVED. STAKES AND WIRES SHALL BE TIGHTENED AND REPAIRED. DEFECTIVE WORK SHALL BE CORRECTED AS SOON AS POSSIBLE AFTER IT BECOMES APPARENT AND WEATHER AND SEASON PERMIT.
   B. IF A SUBSTANTIAL NUMBER OF PLANTS ARE SICKLY OR DEAD AT THE TIME OF INSPECTION, ACCEPTANCE SHALL NOT BE GRANTED AND THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF ALL PLANTS SHALL BE EXTENDED FROM THE TIME REPLACEMENTS ARE MADE OR EXISTING PLANTS ARE DEEMED ACCEPTABLE BY THE LANDSCAPE ARCHITECT.
   C. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE SPECIFIED ON THE PLANT LIST OR THAT WHICH WAS TO REMAIN OR BE RELOCATED. THEY SHALL BE FURNISHED AND PLANTED AS SPECIFIED. THE COST SHALL BE BORNE BY THE CONTRACTOR. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART, VANDALISM, PHYSICAL DAMAGE BY ANIMALS, VEHICLES, ETC., AND LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE OWNER.
   D. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER INSPECTION AND PROVISIONAL ACCEPTANCE.
   E. AT THE END OF THE ESTABLISHMENT PERIOD, INSPECTION SHALL BE MADE AGAIN. ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR UNSATISFACTORY TO THE LANDSCAPE ARCHITECT OR OWNER SHALL BE REMOVED FROM THE SITE AND REPLACED DURING THE NORMAL PLANTING SEASON.
3. LAWN MAINTENANCE:
   A. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH PORTION OF LAWN IS PLANTED AND CONTINUE FOR 8 WEEKS AFTER ALL LAWN PLANTING IS COMPLETED.
   B. WATER TO KEEP SURFACE SOIL MOIST, REPAIR WASHED OUT AREAS BY FILLING WITH TOPSOIL, LIMING, FERTILIZING AND RE-SEEDING; MOW TO 2 1/2 – 3 INCHES AFTER GRASS REACHES 3 1/2 INCHES IN HEIGHT, AND MOW FREQUENTLY ENOUGH TO KEEP GRASS FROM EXCEEDING 3 1/2 INCHES. WEED BY LOCAL SPOT APPLICATION OF SELECTIVE HERBICIDE ONLY AFTER GRASS IS WELL-ESTABLISHED.

LAWN WATERING SCHEDULE

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SEED. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RESEEDED AND REESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER.

IMPORTANT ASPECTS TO ATTAINING AND SUSTAINING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SEED BED PREPARATION, ATTAINING OPTIMAL pH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

1. SEEDING SHALL BE DONE DURING THE SEASONS SPECIFIED IN THE LAWN SEED MIX NOTES AND/OR PROJECT SPECIFICATIONS.
2. AFTER THE SEEDBED IS PREPARED, SEED IS INSTALLED, AND MULCH IS APPLIED, WATER LIGHTLY TO KEEP THE TOP 2 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED.
3. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT.
4. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6 INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.
5. BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT. MOW TO A HEIGHT OF NO LESS THAN 2-½ INCHES. AFTER 2 TO 3 WEEKS OF MOWING, CONTINUE TO WATER TO A 6 INCH MINIMUM SOIL DEPTH AS NECESSARY PER WEATHER CONDITIONS, AND SOIL MOISTURE SENSORS IF APPLICABLE.

PLANTING SOIL SPECIFICATIONS

1. PLANTING SOIL, ALTERNATELY MAY BE REFERRED TO AS TOPSOIL, SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF DEBRIS, TOXINS, TRASH AND STONES OVER 1/2" DIA., IT SHOULD HAVE A HIGH ORGANIC CONTENT SUITABLE TO SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVING NO NOXIOUS ODORS.
2. PLANTING SOIL:

   REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOD, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON-SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON-SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS AND SPECIFICATIONS.

   SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.

   CONTRACTOR SHALL TEST SOILS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE UNOPENED BAGS OR CONTAINERS, EACH BEARING A NAME, GUARANTEE, AND TRADEMARK OF THE PRODUCER, MATERIAL COMPOSITION, MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS. SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM INTRUSION OF CONTAMINANTS AND EROSION. AFTER MIXING, SOIL MATERIALS SHALL BE COVERED WITH A TARPAULIN UNTIL TIME OF ACTUAL USE.

   ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED EQUAL, PRIOR TO DELIVERY TO THE SITE. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS, THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.

   A. THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION:
      a. PARTICLE SIZE ANALYSIS – LOAMY SAND: 60-75% SAND, 25-40% SILT, AND 5-15% CLAY.
      b. FERTILITY ANALYSIS: pH (5.5-6.5), SOLUBLE SALTS (LESS THAN 2 MMHO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM
      c. ORGANIC MATTER CONTENT: 2.5-5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS
      d. TOXIC SUBSTANCE ANALYSIS
      e. MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED
      f. NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE
3. SOIL AMENDMENT FOR PLANT MATERIAL:
   IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPOSTED, PH RANGE OF 6-8; MOISTURE CONTENT 35-55% BY WEIGHT 100% PASSING THROUGH 1" SIEVE; SOLUBLE SALT CONTENT LESS THAN 0.5 MM HOS/CM; MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL.

   A. ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MOLD WITH 60-90% ORGANIC CONTENT BY WEIGHT. SHREDDED LEAF LITTER, COMPOSTED FOR A MINIMUM OF 1 YR. SHOULD BE FREE OF DEBRIS, STONES OVER 1/2", WOOD CHIPS OVER 1".

   B. SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.

   C. AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PITS:
      a. GROUND LIMESTONE (WITH A MIN. OF 88% OF CALCIUM AND MAGNESIUM CARBONATES) USED PENDING RESULTS OF SOIL ANALYSIS.
         – BRING pH LEVELS TO 5.5 MIN. TO 6.5 FOR NON-ERICACEOUS PLANTS
         – BRING pH LEVELS TO 4.5 MIN. TO 5.5 FOR ERICACEOUS PLANTS
      b. TERRA-SORB BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE WITH TREES AND SHRUBS.
      c. MYCOR-ROOT SAVER BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.
4. WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.
5. CLEAN SOIL FILL IN LANDSCAPE AREAS:
   LANDSCAPE FILL MATERIAL, BELOW PLANTING SOILS, SHALL HAVE THE PHYSICAL PROPERTIES OF A SANDY LOAM WITH AN ORGANIC CONTENT OF LESS THAN 2% AND A PH BETWEEN 5 – 7.
6. SOIL PLACEMENT:
   A. CONTRACTOR TO PROVIDE SIX INCHES (6") MINIMUM DEPTH PLANTING SOIL LAYER IN LAWN AREAS, TWELVE INCHES (12") MINIMUM DEPTH PLANTING SOIL LAYER IN GROUNDCOVER AND PERENNIAL AREAS, EIGHTEEN INCHES (18") MINIMUM DEPTH PLANTING SOIL LAYER IN SHRUB AREAS, AND THIRTY-SIX INCHES (36") MINIMUM DEPTH PLANTING SOIL LAYER IN TREE PLANTING AREAS.

   B. SCARIFY AND/OR TILL COMPACTED SUBSOILS TO A MINIMUM DEPTH OF 6 INCHES. THOROUGHLY MIX A 6 INCH DEPTH LAYER OF PLANTING SOIL INTO THE SUBSOIL PRIOR TO PLACING PLANTING SOIL AT THE DEPTHS INDICATED ABOVE. PLANTING SOIL SHALL BE PLACED IN 12-18" LIFTS AND WATER THOROUGHLY BEFORE INSTALLING NEXT LIFT. REPEAT UNTIL DEPTHS AND FINISH GRADES HAVE BEEN ACHIEVED. NO SOILS SHALL BE PLACED IN A FROZEN OR MUDDY CONDITION.

   C. PLANTING SOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON-SITE PLANTING SOIL UTILIZED IN ALL PLANTING AREAS.
7. SOIL CONDITIONING:
   A. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM. LOWER pH USING ELEMENTAL SULFUR ONLY. PEAT MOSS OR COPPER SULFATE MAY NOT BE USED. GROUND LIMESTONE AS A SOIL AMENDMENT MATERIAL WILL ONLY BE USED PENDING RESULTS OF SOIL ANALYSIS. PROVIDE WITH MINIMUM 88% CALCIUM AND MAGNESIUM CARBONATES AND SHALL HAVE TOTAL 100% PASSING THE 10 MESH SIEVE, MINIMUM 90% PASSING 20 MESH SIEVE, AND MINIMUM 60% PASSING 100 MESH SIEVE.

   B. ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

   C. SOIL MODIFICATIONS (PENDING RESULTS OF SOIL ANALYSIS):
      a. THOROUGHLY TILL ORGANIC MATTER (LEAF COMPOST) INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.0. PEAT MOSS MAY NOT BE USED AS ORGANIC MATTER AMENDMENT.

      b. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.

      c. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

LAWN SEED MIX:

1. LAWN SEED MIX; LESCO GRASS SEED – ALL PRO TRANSITION MIX (3 TURF-TYPE TALL-FESCUE GRASSES)

   NOTES:
   A) SEED RATE:
      1) NEW ESTABLISHMENT: SEED AT A RATE OF 6-8 LBS/1000 SQ FT @ 100% PURE LIVE SEED
      2) RENOVATION: 20-50% EXISTING COVER: 5-7 LBS/1000 SQ FT
         50-75% EXISTING COVER: 4-6 LBS/1000 SQ FT
2. GENERAL SEED NOTES:
   A) FINAL SEED MIXTURES, RATES, AND SPECIES TO BE DETERMINED BASED ON PROJECT LANDSCAPE ARCHITECT REVIEW.
   B) SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 15) OR THE FALL (SEPTEMBER 1 TO OCTOBER 15).
   C) ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A GLYPHOSATE-BASED HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
   D) IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL SEEDER WHERE APPLICABLE.
   E) THERE MUST BE CONTINUOUS SOIL MOISTURE FOR 4-6 WEEKS TO ALLOW FOR PROPER GERMINATION.

MEADOW SEED NOTES

MEADOW SEED MIX A ERNST SEED MIX ERNMX-183 "NATIVE DETENTION AREA MIX"

32%	PANICUM CLANDESTINUM, 'TIOGA'	DEERTONGUE, 'TIOGA'
20%	CAREX VULPINOIDEA	FOX SEDGE
20%	ELYMUS VIRGINICUS	VIRGINIA WILDRYE
20%	PANICUM VIRGATUM, 'SHAWNEE'	SWITCHGRASS, 'SHAWNEE'
4%	AGROSTIS PERENNANS, ALBANY PINE BUSH	AUTUMN BENTGRASS, ALBANY PINE BUSH
2%	JUNCUS TENUIS	PATH RUSH
1%	JUNCUS EFFUSUS	SOFT RUSH
1%	PANICUM RIGIDULUM	REDTOP PANICGRASS

NOTES:
1. SEED AT A RATE OF 20 LBS/ACRE OF 100% PURE LIVE SEED.
2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 30 LBS/ACRE.
3. FOR FALL SEEDING, APPLY A NURSE CROP OF WINTER RYE AT A RATE OF 30 LBS/ACRE.

GENERAL SEEDING NOTES:

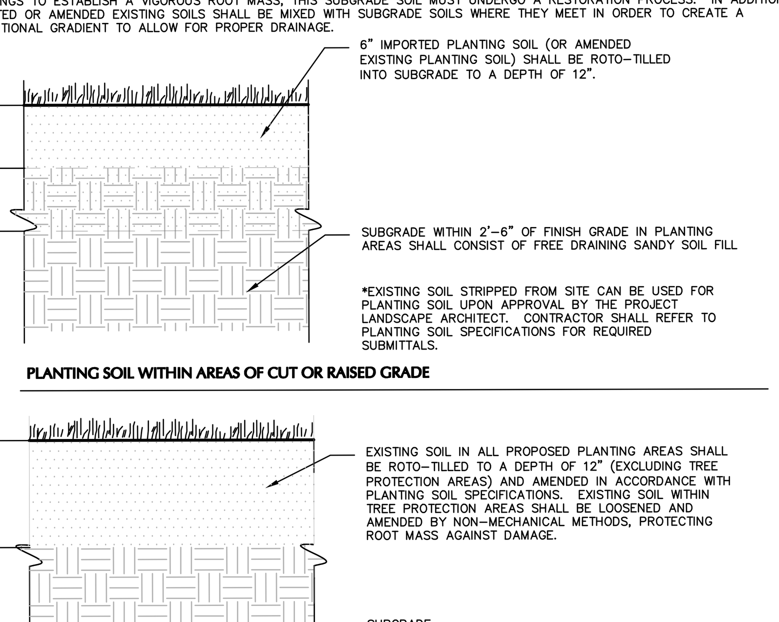
1. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 15) OR THE FALL (SEPTEMBER 1 TO OCTOBER 15).
2. ELIMINATE UNWANTED SHRUB AND BRUSH IN AREAS TO BE SEEDED PRIOR TO INSTALLATION. ELIMINATED REMAINING VEGETATION PRIOR TO SEEDING USING A NON-SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
3. IN ALL LAWN AREAS TO BE SEEDED, IT IS RECOMMENDED TO APPLY HERBICIDE PER MANUFACTURER'S SPECIFICATIONS, MOW LAWN AREA TO GRADE, AND DRILL SEED.
4. ALL AREAS NOT DISTURBED DUE TO SITE GRADING SHALL NOT BE TILLED. A TRUAX-TYPE DRILL SEEDER SHALL BE USED IN THOSE LOCATIONS.
5. PROTECT ALL EXISTING TREES AND SHRUBS TO REMAIN PER TREE PROTECTION DETAILS. NO DRILL SEEDING OR HERBICIDE USE WITHIN DRIPLINE OF EXISTING TREES TO REMAIN.
6. THERE MUST BE CONTINUOUS SOIL MOISTURE FOR 4-6 WEEKS TO ALLOW PROPER GERMINATION.

WEED CONTROL / MAINTENANCE

1. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NOT MOW CLOSE, AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
2. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.
3. IN THE EVENT THAT INVASIVE SPECIES ARE PRESENT AFTER THE ESTABLISHMENT PERIOD, MEADOW AREAS ARE TO BE TRIMMED TO A HEIGHT OF 8". ANY TRIMMING SHOULD CEASE BY MID-SEPTEMBER.

GENERAL NOTE:

DUE TO GENERAL CONSTRUCTION ACTIVITIES AND ADJACENT SITE COMPACTION REQUIREMENTS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS TEND TO BECOME HIGHLY COMPACTED. IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS, THIS SUBGRADE SOIL MUST UNDERGO A RESTORATION PROCESS. IN ADDITION, IMPORTED OR AMENDED EXISTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE.

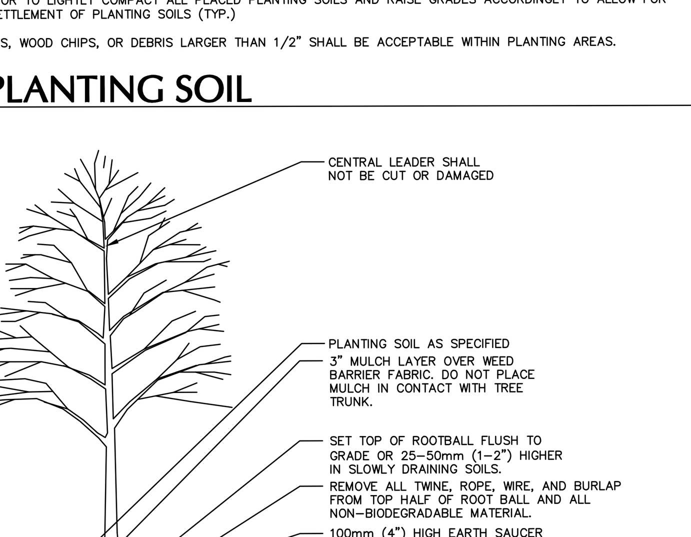


NOTES:

1. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING SOILS INTENDED FOR USE IN PLANTING AREAS (1 PER 500 CY.) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE.
2. RECYCLED CRUSHED CONCRETE AND ASPHALT MILLINGS SHALL NOT BE PLACED WITHIN 2'-6" OF FINISH GRADE IN PROPOSED LANDSCAPE AREAS.
3. IMPORTED FILL SHALL CONTAIN NO CONTAMINATION IN EXCEEDENCE OF THE APPLICABLE STATE ENVIRONMENTAL STANDARDS AND MEET THE ENVIRONMENTAL REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF COMPLIANCE PRIOR TO DELIVERY OF ANY FILL TO THE SITE.
4. CONTRACTOR TO LIGHTLY COMPACT ALL PLACED PLANTING SOILS AND RAISE GRADES ACCORDINGLY TO ALLOW FOR FUTURE SETTLEMENT OF PLANTING SOILS (TYP.)
5. NO STONES, WOOD CHIPS, OR DEBRIS LARGER THAN 1/2" SHALL BE ACCEPTABLE WITHIN PLANTING AREAS.

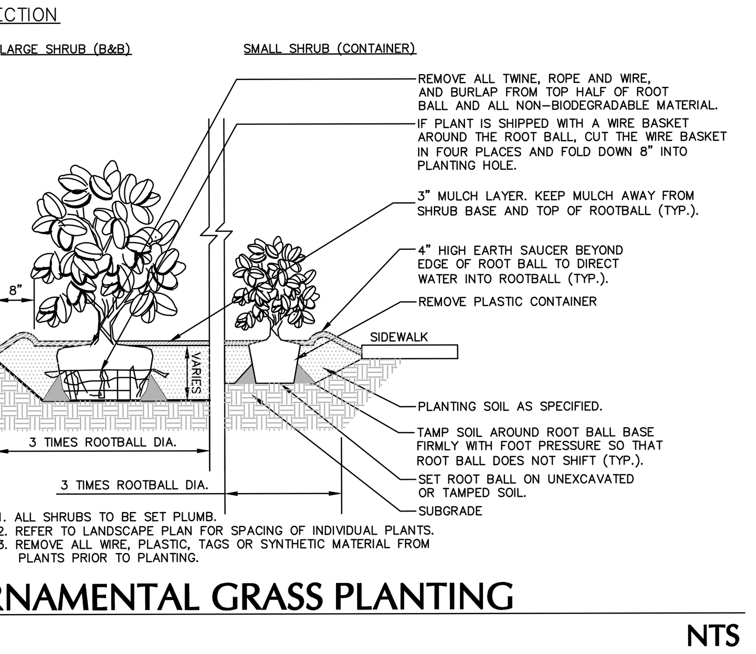
1 PLANTING SOIL

NTS



2 TREE PLANTING

NTS



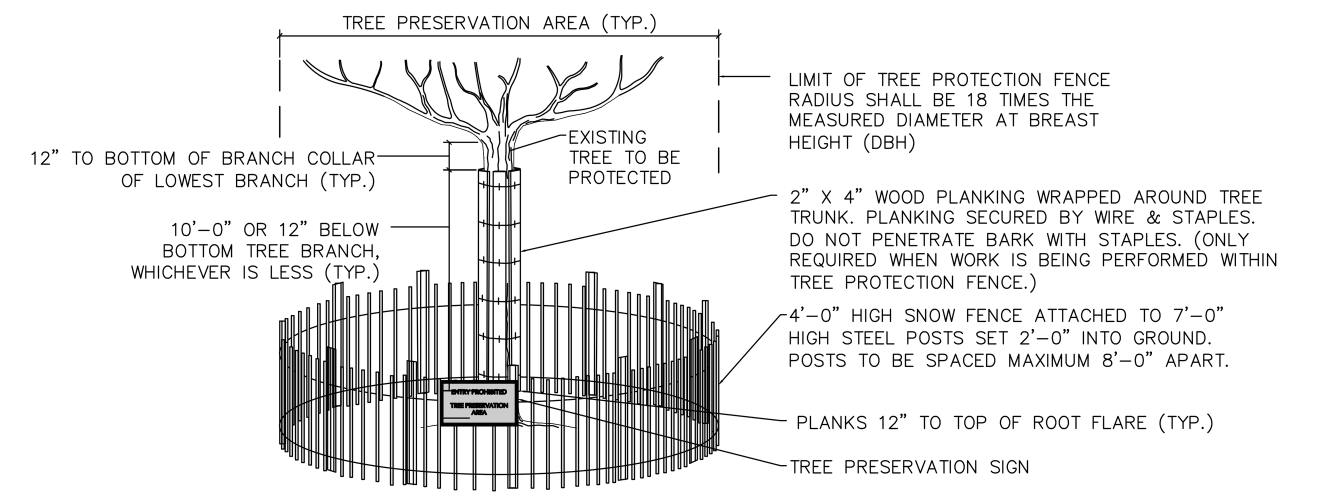
NOTES:
1. ALL SHRUBS TO BE SET PLUMB.
2. REFER TO LANDSCAPE PLAN FOR SPACING OF INDIVIDUAL PLANTS.
3. REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM PLANTS PRIOR TO PLANTING.

3 ORNAMENTAL GRASS PLANTING

NTS

TREE PROTECTION NOTES:

1. ALL EXISTING TREES WITHIN THE LIMITS OF TREE PROTECTION FENCING. SHALL BE PROTECTED THOUGHOUT THE DURATION OF WORK. TREE PROTECTION FENCING SHALL BE INSTALLED AT THE DRIP-LINE OF THE PROTECTED TREE UNLESS CONDITIONS WARRANT THE FENCE TO BE LOCATED WITHIN THE LIMIT OF BRANCHING. THE PROJECT LANDSCAPE ARCHITECT TO APPROVE THE LOCATION OF ALL FENCING PRIOR TO EXCAVATION.
2. TREE PROTECTION PLANKING SHALL BE INSTALLED AROUND ALL EXISTING TREES AS NOTED ON THIS DRAWING. REFER TO DETAIL ON THIS SHEET.
3. TREE PROTECTION FENCING SHALL BE MAINTAINED TO PROTECT TREES AT ALL TIMES. ANY DAMAGED FENCING SHALL BE IMMEDIATELY REPLACED WHEN DAMAGED.
4. IF TREE PROTECTION FENCING NEEDS TO BE MOVED OR BREACHED DUE TO TEMPORARY CONSTRUCTION ACTIVITY WITHIN THE TREE PROTECTION ZONE, THE FENCING WILL BE RESET TO ITS ORIGINAL LOCATION IMMEDIATELY AFTER CONSTRUCTION WITHIN THE TREE PROTECTION ZONE IS COMPLETE.
5. DEMOLITION WORK ADJACENT TO PROTECTED TREES SHALL BE PERFORMED BY NON-MECHANICAL METHODS. CONTRACTOR TO PROTECT ROOT MASS AGAINST DAMAGE DURING EXCAVATION. ANY TREE ROOTS THAT ARE DISTURBED, BROKEN, OR CUT SHALL BE PRUNED BACK WITH CLEAN SHARP TOOLS.
6. ALL EXPOSED TREE ROOTS SHALL BE THOROUGHLY IRRIGATED ON A DAILY BASIS AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
7. ALL WORK TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF EITHER THE OWNER'S REPRESENTATIVE OR THE PROJECT LANDSCAPE ARCHITECT.



4 TREE PROTECTION FENCE AND PLANKING

NTS

SIGNATURE DATE SIGNED
MICHAEL SZURA, RLA
LANDSCAPE ARCHITECT NY Lic. No. 001901

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

REVISION
NO.. DESCRIPTION

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.9959

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: AC
CHECKED BY: MH
SCALE: 1" = 20'
DATE: 20 OCT. 2021
PROJECT NO: #2019

PLANTING DETAILS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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LP501

GENERAL STRUCTURAL AND CONSTRUCTION NOTES

1.0 GENERAL

1. All work shall conform to the "2020 New York Building code" and to all other applicable Federal, State, and Local regulations.
2. In case of conflict between the General Notes, Specifications, and details, the most rigid requirements shall govern.
3. Work not indicated on a part of the drawings but reasonably implied to be similar to that shown at corresponding places shall be repeated.
4. Job site safety and construction procedures are the sole responsibility of the Contractor.
5. The Contractor shall provide for dewatering as required during excavation and construction.
6. The Contractor shall coordinate openings, sleeves, concrete housekeeping pads, inserts, and depressions shown on the Architectural, Structural, Mechanical, Electrical, and Plumbing Drawings.
7. See Architectural Drawings for locations of masonry and drywall non-load bearing partitions. Provide slip connections that allow vertical movement at the heads of all such partitions. Connections shall be designed to support the top of the walls laterally for the code-required lateral load.
8. All costs of investigation and/or redesign due to Contractor improper installation of structural elements or other items not in conformance with the Contract Documents shall be at the Contractor's expense.
9. The structural drawings shall be used in conjunction with the specifications, architectural and mechanical drawings. If there is a discrepancy between drawings, it is the Contractor's responsibility to notify the Architect prior to performing the work.
10. The Contractor shall verify and/or establish all existing conditions and dimensions at the site. Failure to notify Architect/Engineer of unsatisfactory conditions constitutes acceptance of unsatisfactory conditions.
11. If the existing field conditions do not permit the installation of the work in accordance with the details shown, the Contractor shall notify the Architect/Engineer immediately and provide a sketch of the condition with his proposed modification of the details given on the Contract Documents. Do not commence work until condition is resolved and modification is approved by the Architect.
12. Where alterations involve the existing supporting structure, the Contractor shall provide shoring and protection required to ensure the structural integrity of the existing structure.
13. The Contractor shall be responsible to determine allowable construction loads and to provide design and construction of falsework, formwork, stagings, bracing, sheeting, and shoring, etc.
14. Contractor to provide sheeting, bracing, and underpinning as necessary to prevent any lateral or vertical movements of existing buildings, streets, and any existing utility lines.
15. Bracing, sheeting, shoring, etc., required to insure the structural integrity of the existing buildings or new construction, sidewalks, utilities, etc., shall be designed by a Professional Engineer engaged by the Contractor. Detailed signed and sealed shop drawings shall be prepared indicating all work to be performed. Submit the shop drawings in accordance with the Contract requirements.
16. In no case shall heavy equipment be permitted closer than 8'-0" from any foundation wall. If it is necessary to operate such equipment closer than 8'-0" to the wall, the Contractor shall be the sole responsible party and, at his own expense, shall provide adequate supports or brace the wall to withstand the additional loads superimposed from such equipment.
17. No blasting shall be permitted without written approval.
18. The Contractor shall submit, for review, drawings and calculations for all performance assemblies identified in the General Notes and listed below: The design of these assemblies is the responsibility of the Contractor's Engineer registered in the Project's jurisdiction. All submittals shall bear this Engineer's seal and signature. Review shall be for general conformance with the project requirements as indicated on the Drawings and in the General Notes.
    A. Non-load bearing stud wall and curtain wall systems and related connections: Designs shall take into account all vertical and lateral loads required by applicable building codes. Back up system and curtain wall shall be designed for a maximum deflection of 1/600 of the span, or 3/8", whichever is less, at the applicable design wind load without the code applied reduction factors.
    B. Metal stairs and metal railings: Designs shall take into account all vertical and lateral loads required by applicable building codes. Where headers or other types of structural members have been designated by the Structural Engineer of Record to support the stairs, the connections from the stairs shall be designed so that no eccentric or torsional forces are induced in these structural members. The Contractor shall be responsible for furnishing and installing hardware as required by the stair design.
19. Shop drawings for all structural materials to be submitted to Architect for review prior to the start of fabrication or commencement of work. Review period shall be a minimum of two (2) weeks.
20. Reproduction of any portion of the Structural Contract Drawings for resubmittal as shop drawings is prohibited. Shop drawings produced in such a manner will be rejected and returned.
21. Shop drawings shall bear the Contractor's stamp of approval which shall constitute certification that the Contractor has verified all construction criteria, materials, and similar data and has checked each drawing for completeness, coordination, and compliance with the Contract Documents.
22. The shop drawings shall include dimensioned floor and roof edges, openings and sleeves at all floors required for all trades.
23. The drawings have been produced entirely on MPP Engineers Cadd System. Any other lettering, lines or symbols, other than professional stamps and signatures, have been made without the authorization of MPP Engineers are invalid.
24. The structural drawings shall govern the work for all structural features, unless noted otherwise. The architectural drawings shall govern the work for all dimensions.
25. Inspection is required of all construction delineated on the Structural Drawings and/or specifications. The Owner shall employ a Testing/Inspection Agency which shall provide personnel with the following minimum qualifications:
    A. Certified by Institute of Certified Engineering Technicians, or other recognized comparable organization, and,
1. For inspection, sampling, testing concrete and masonry: ACI Certified Concrete Field-Testing Technician, Grade I; and Construction Inspector, Level II.
2. Structural Steel Inspection: AWS Certified Welding Inspector.
26. Submit periodic reports within one business day after receipt by the Contractor to Architect/Engineer and the construction code official during construction. Submit final inspection report summary for each division of work, certified by a licensed professional Engineer, that inspections were performed and that work was performed in accordance with Contract Documents.
27. All materials shall be stored to protect them from exposure to the elements.

2.0 EARTHWORK

1. Engineered (controlled compacted) fill within the building area shall be constructed prior to footing excavation
2. Excavation shall be performed so as not to disturb existing adjacent buildings, streets, and utility lines. Verify location of all utilities prior to commencement of work. Hand excavate around utilities as required.
3. See the specifications and geotechnical report for excavation, backfill and preparation of the foundation and slab-on-grade subgrade, including compaction requirements.
4. Satisfactory fill materials are those complying with ASTM D2487, groups GW, GP, GM, SM, SW, and SP. On site borrow material shall be tested to determine suitability for use as fill material.
5. Compact soil to not less than the following percentages of maximum density of modified proctor (ASTM D1557):
    Under building foundations – 98%
    Under building slabs, steps, pavements – 95%
6. Remove existing vegetation, topsoil, and unsatisfactory soil materials. Proof roll subgrade to obtain uniformly densified substrata prior to placing fill material evenly in 8" thick (maximum) layers and compacting to required density.
7. The Owner shall retain the services of a Professional Geotechnical Engineer, subject to the approval of the Architect, to perform soil testing and inspection. The engineer shall inspect the subgrade to verify bearing levels and ensure that the safe bearing capacity meets or exceeds the design value indicated below. Reports shall be submitted to the Architect outlining the work performed and test results.
8. Backfill shall be brought up simultaneously on each side of walls and grade beams, with a grade difference not to exceed 2'-0" at any time.

3.0 FOUNDATIONS

1. Foundations have been designed and footing elevations established on the basis of a Subsurface Investigation Report and recommendations prepared by Melick-Tully & Associates Dated September 14th 2021. See the report for additional requirements. The requirements contained in the geotechnical report are part of the Construction Documents.
2. Footings shall bear on undisturbed stratum or engineered fill with a minimum bearing capacity of 4000 psf.
3. Prior to footing concrete placement, the footing subgrade shall be approved by the inspecting Geotechnical Engineer (County of Rockland). If conditions prove to be unacceptable at elevations shown, footing bottoms shall be lowered to acceptable subgrade material. Fill over-excavation with lean concrete (2,500 psi).
4. The bottom of exterior footings shall be a minimum of 3'-6" below finished grade, or as required by Local building codes.
5. The bearing elevations of new footings adjacent to existing footings are to match the adjacent existing footing bearing elevations unless indicated otherwise on plans.
6. Slabs on grade shall bear on mechanically compacted soil capable of supporting 150 psf. Drainage fill under slabs shall be compacted gravel or crushed stone.
7. Concrete for foundations shall be poured on the same day the subgrade is approved by the Geotechnical Engineer.
8. Utility lines shall not be placed through or below foundations without the Structural Engineer's approval.
9. Provide a continuous waterstop at all horizontal and vertical construction joints in the elevator pit and all other pit walls.
10. The Contractor shall observe water conditions at the site and take the necessary precautions to ensure that the foundation excavations remain dry during construction. Any sheeting or shoring required for dewatering shall be the responsibility of the Contractor.

4.0 CAST-IN-PLACE CONCRETE

1. Concrete shall be designed and detailed in accordance with the Building Code Requirements for Structural Concrete (ACI-318-14), and constructed in accordance with the CRSI Manual of Standard Practice.
2. Concrete for foundation and exterior concrete foundation wall shall have a minimum compressive 28-day strength of 4,500 psi, all other concrete shall be 4000 psi; Air Entrainment 4% to 6% in all exposed concrete work.
3. Maximum water/cement ratios:
    A. Foundations 0.44
    B. Interior Slabs 0.47
    C. Exterior Slabs 0.44
4. All concrete shall be normal weight concrete (144 pcf +) with all cement conforming to ASTM C150, Type I. Maximum aggregate size shall be 1½" for footings and ¾" for walls and slabs, conforming to ASTM C33.
5. Reinforcing steel: ASTM A615 Grade 60.
6. Welded Wire Reinforcement: (WWR) ASTM A-185.
7. Leveling Grout shall be non-shrink, non-metallic type, factory pre-mixed grout in accordance with CE-CRD-C621 or ASTM C109, with a minimum compressive 28-day strength of 5,000 psi.
8. Reinforcing steel clear cover shall be as follows unless noted otherwise:
    A. Concrete cast against and permanently exposed to earth 3".
    B. Concrete exposed to earth or weather
        #6 bars and larger 2"
        #5 bars and smaller 1½"
    C. Concrete not exposed to weather or in contact with ground
        Slabs, walls, joists
        #11 bars and smaller ¾"
        Beams and columns
        Primary reinforcement, ties, stirrups, or spirals 1½"
9. Submit to Architect/Engineer reinforcing steel shop drawings for approval and mix designs for review prior to placing any concrete.
10. All reinforcement shall be securely held in place while placing concrete. If required, additional bars, stirrups or chairs shall be provided by the Contractor to furnish support for all bars.
11. Lap welded wire reinforcement two (2) full wire spaces at splices and wire together.
12. Provide plastic tipped bolsters and chairs at all locations where the concrete surface in contact with the bolsters or chairs is exposed.
13. Placing of concrete shall not start until the placement of reinforcing has been approved by the Inspection Agency.
14. Bonding agent shall be used where new concrete is placed against existing concrete.
15. Epoxy adhesive shall be used where dowels are to be installed into existing concrete. Submit manufacturer information for engineer review.
16. No sleeve shall be placed through any concrete element unless shown on the approved shop drawings or specifically authorized in writing by the Structural Engineer. The Contractor shall verify dimensions and locations of all slots, pipe sleeves, etc. as required for mechanical trades before concrete is placed.
17. Pipes or conduits placed in slabs shall not have an outside diameter larger than ⅓ the slab thickness and shall not be spaced closer than 3 diameters on center. Aluminum conduits shall not be placed in concrete. No conduits shall be placed in slabs within 12 inches of column face or face of bearing wall. No conduits may be placed in exterior slabs or slabs subjected to fluids.
18. Prior to placing concrete, the Contractor shall submit for review by the structural engineer, a concrete pour schedule showing location of all proposed construction joints and waterstops.
19. Prior to concrete placement, the Contractor shall submit to the structural engineer for review, concrete mix designs prepared in accordance with the specifications and requirements indicated in the general notes.
20. Concrete shall not be pumped through aluminum pipes and shall not be placed in contact with aluminum forms, mixing drums, buggies, chutes, conveyors or other equipment made of aluminum.
21. All inserts and sleeves shall be cast-in-place whenever feasible. Drilled or powder driven fasteners will be permitted when proven to the satisfaction of the Structural Engineer that the fasteners will not spall the concrete and have the same capacity as cast-in-place inserts.
22. When installing expansion bolts or adhesive anchors, the Contractor shall take measures to avoid drilling or cutting of any existing reinforcing and destruction of concrete. Holes shall be blown clean prior to placing bolts or adhesive anchors.
23. Chamfer all exposed concrete corners unless noted otherwise on Architectural Drawings.
24. Early drying out of concrete, especially during the first 24 hours, shall be carefully guarded against. All surfaces shall be moist cured or protected using a membrane curing agent applied as soon as forms are removed. If membrane curing agent is used, exercise care not to damage coating.
25. Cold weather concreting shall be in accordance with ACI-306. Hot weather concreting shall be in accordance with ACI-305R.
26. Throughout construction, the concrete work shall be adequately protected against damage due to excessive loading, construction equipment, materials or methods, ice, rain, snow, excessive heat, and freezing temperatures.
27. Prepare concrete test cylinders from each day's pour. Cylinders shall be properly cured and stored. Sample fresh concrete in accordance with ASTM C172.
28. Retain laboratory (County of Rockland) to provide testing service. Slump per ASTM C143l air content per ASTM C231 or C173, cylinder tests per ASTM C31 and C39. One set of six (6) cylinders for each 50 cubic yards for each mix used. Reports of all tests to be submitted to the Architect.

5.0 CONCRETE ANCHORS

1. All headed concrete anchors shall be manufactured from material which conforms to ASTM A108 for low carbon steel.
2. All welds shall be made in accordance with the structural welding code, ANSI/AWS D1.4, latest edition and with the recommendations of the stud manufacturer.
3. All adhesive anchors shall be anchored using the "Hilti HY200 Max" system by Hilti Fastening Systems, Inc. or an approved equal.
4. The spacing, minimum embedment, and installation of the anchors shall be in accordance with the manufacturer's recommended procedures.
5. Anchor rods used in adhesive anchorage systems shall conform to the manufacturer's recommended steel.
6. Stud anchors shall conform to ASTM A108 and the nuts shall conform to ASTM A563.

6.0 MASONRY

1. Masonry has been designed in accordance with the Building Code Requirements for Masonry Structures (TMS 402-2016) and shall be constructed in accordance with the Specifications for Masonry Structures (TMS 602-2016), except where otherwise modified by these General Notes and Specifications.
2. Mortar shall conform to ASTM C270, Type M or S. All Portland cement shall conform to ASTM C150, Type I. Lime shall conform to ASTM C207 and masonry cement shall conform to ASTM C91.
3. Grout shall conform to ASTM C476 and shall have a minimum 28 day compressive strength of 3000 psi. Slump of grout shall be 8 to 10 inches and the maximum aggregate size shall be ⅜" (aggregate graded to produce fine grout in conformance with ASTM C476 and C404).
4. Concrete Block Units:
    A. Solid and hollow load bearing units per ASTM C90, Type N-1, as required to provide 28 day compressive strength, f'm as noted below.
5. Minimum 28-day compressive strength of masonry, f'm shall be 1,500 psi, unless noted otherwise.
6. Full bed and head joints shall be provided.
7. Horizontal Joint Reinforcing: ASTM A82; 9-gage ladder-type, galvanized.
8. Deformed bar reinforcement shall conform to ASTM A615, Grade 60 and shall be full height of walls unless otherwise noted. Provide bar spacers and positioners as required to properly locate and stabilize reinforcing during grouting operations. Grout all reinforced cells solid with grout.
9. Hollow concrete units below grade and slab on grade shall be normal weight and have all cells grouted solid.
10. Provide and install temporary bracing required insuring stability of all walls during construction and until erection of attached structural framing is completed.
11. Provide galvanized horizontal joint reinforcement in all walls and partitions at 16" o.c. unless otherwise shown or noted. Provide one (1) piece prefabricated units at 8" o.c. at all wall corners and intersections.
12. Lap splices for deformed reinforcing bars used in masonry construction shall be 50 bar diameters.
13. Submit grout mix design and masonry unit certifications to the Architect for review.
14. Grout placement shall not start until the placement of reinforcing has been approved by the Inspection Agency.
15. Fill all cells in top two courses below finished floor, CMU lintels, bond beams, and beam bearings and cells with reinforcement full height solid with grout.
16. Allow grout in reinforced CMU walls to cure a minimum of 48 hours before imposing concentrated or other loads from above.
17. Provide masonry anchors set on coursing and attached to all beams at 32" o.c. horizontal, columns at 24" o.c. vertical, partitions and walls at 16" o.c at all beams, columns, partitions and walls abutting or embedded in masonry unless noted otherwise on Architectural and Structural drawings.
18. Provide bond beams with two (2) #4 horizontal reinforcement continuous in all masonry walls at each framing level. Provide a minimum of two (2) #4 bars at the ends of all walls and on each side of each opening.
19. All piers and partitions shall be bonded or anchored to adjacent masonry walls. Provide ties to adjacent floor and roof construction in accordance with details on drawings.
20. The Contractor shall verify all openings below lintels indicated are adequate to accept doorframes, louvers, etc. as shown on the Architectural and Mechanical Drawings. Notify the Architect and Structural Engineer of any discrepancies prior to lintel installation.
21. No openings shall be placed above any lintel within a height less than or equal to the width of the clear opening below the lintel, unless specifically shown or approved by the Structural Engineer.
22. All masonry work to be executed in cold weather shall be in conformance with the recommendations for cold weather construction found in the Building Code Requirements for Masonry Structures (TMS 402-2016) and shall be constructed in accordance with the Specifications for Masonry Structures (TMS 602-2016) with the following additions: For all conditions when temperatures fall below 40 degrees F, the temperature of the newly laid masonry or newly grouted masonry shall be maintained above 32 degrees F for a minimum of 24 hours using the methods described in ACI 530.1.
23. The Testing and Inspection Agency (County of Rockland) shall monitor the proportioning, mixing, and consistency of mortar and grout; the placement of mortar, grout, and masonry units; and the placement of reinforcing steel for compliance with the Contract Documents.
24. All wall sections and piers less than two square feet in cross-sectional area shall be fully grouted.
25. Provide vertical masonry control joints at maximum 25'-0" on center unless detailed on Architectural drawings, coordinate locations with Architect.

7.0 STRUCTURAL STEEL

1. Fabrication and erection of structural steel shall conform to the "Steel Construction Manual", 15th Edition, American Institute of Steel Construction including Specifications for Structural Steel Buildings, Specification for Structural Joints Using ASTM A325 or A490 Bolts, and AISC Code of Standard Practice except Sections 4.2 and 7.9 which shall not be applicable to this project.
2. All welding shall be performed by certified welders and shall conform to "Structural Welding Code ANSI/AWS D1.4-17", American Welding Society.
3. Wide flange shapes: ASTM A992 or A572, Grade 50.
4. Structural shapes & plates: ASTM A36, A572 or A992.
5. Steel pipe: ASTM A53, GRADE B.
6. Steel tubing (square, rect. or round): ASTM A500, Grade B.
7. Galvanized structural steel:
    A. Structural shapes and rods ASTM A123.
    B. Bolts, fasteners and hardware ASTM A153.
8. All bolted connections shall be with ASTM A325 high strength bolts ¾" minimum diameter, unless noted otherwise.
9. All bolted connections on wind bracing members and columns shall be slip critical connections.
10. Anchor rods shall conform to ASTM F1554, Grade 36, unless noted otherwise.
11. Welding electrodes shall be E70XX for manual arc welding and F7X-EXXX for submerged arc welding. All welders shall be certified by the AWS. Minimum weld size shall be 3/16" unless noted otherwise.
12. Welding of reinforcing bars to other bars or structural steel: E90-XX electrode.
13. Cuts, holes, coping, etc. required for other trades or field conditions shall be shown on the shop drawings and made in the shop. Cutting or burning of main structural members in the field will not be permitted.
14. Submit shop drawings for fabrication and erection of structural steel. Clearly indicate coordinated dimensions of mechanical unit and roof penetration sizes. Shop and Erection drawings must show all shop/floor and field welds. Initial shop drawing submittal shall include proposed connection details and job standards. Provide signed and sealed calculations for all non-standard connection details, braced bay connections and moment connections showing design capacities.
15. Steel members shown on plan shall be equally spaced unless noted otherwise.
16. Camber indicated on these drawings is the required camber after final erection and includes all mill tolerances.
17. The General Contractor and Steel Erector shall notify the Structural Engineer of any fabrication or erection errors or deviations and receive written approval before any field corrections are made.
18. Alternate connection details may be used if such details are submitted to the engineer for review and approval. However, the engineer shall be the sole judge of acceptance and the Contractor's bid shall anticipate the use of those details shown on the drawings. The Contractor is responsible for the design of such alternate details which he proposes.
19. Main support members for the metal deck are shown. During preparation, submission, and review of shop drawings, any additional angles or miscellaneous attachment details required to support the metal deck at the required elevation shall be provided by the Structural Steel Contractor.
20. All steel shall be painted with shop standard primer unless noted otherwise.
21. Steel angles and plates along with bolts and washers, in direct contact with exterior finish masonry, and all exterior exposed structural steel, shall be hot-dipped galvanized.
22. All exterior exposed structural steel shall be hot-dipped galvanized per ASTM A123.
23. Spandrels and columns adjacent to masonry shall have adjustable masonry ties.
24. Existing framing requiring welding shall be thoroughly cleaned to ensure proper welding. Provide temporary shoring when welding to existing steel.
25. Field welded surfaces within four (4) inches of weld shall be cleaned and ground smooth. After welding coat the exposed area with appropriate primer/paints as specified.
26. Guys and other bracing required to provide lateral stability to steel frame shall be adequately sized and anchored. This bracing shall remain until permanent bracing elements and attached construction is installed.
27. The steel structure is a non-self-supporting steel frame and is dependent upon diaphragm action of the metal (roof/floor) deck and attachment to the masonry walls and braced bays 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.
28. All connections shall be "Framed Beam Connections" designed in accordance with the AISC Manual and the ends reactions from the "Uniform Load Tables", but not less than 6 kips. Provide double angle connections or knife plates connections full depth of supporting beam, unless otherwise approved. Minimum two (2) bolts per connection. Unless otherwise noted, composite beams to be designed for 80% of the "total" uniform load capacity. Single angle or shear tab connections are not acceptable. All beam to column connections shall be designed for the minimum shear reaction indicated above in combination with a 10 kip axial force (acting in both tension and compression).
29. Visually inspect all fillet welds. 10% of all field fillet welds in primary connections and multi-pass welds shall be tested by the magnetic particle method, complying with E109, performed on the root pass and on the finished weld.
30. 100% of full penetration welds shall have ultrasonic inspection, complying with ASTM E164.
31. 100% of welds in beam and column moment connections shall have ultrasonic inspection, complying with ASTM E164.
32. Field test bolted connections and shear studs in accordance with AISC.
33. Delete paint on all steel to receive sprayed-on fireproofing or concrete encasement.
34. All steel shall be thoroughly cleaned by power tool cleaning prior to painting. All architecturally exposed structural steel shall be cleaned with commercial blast cleaning.
35. All dissimilar metals shall be treated or properly separated to prevent galvanic and/or corrosive effects.
36. All connections shall be symmetrical about the axis of the member connected. Provide only one grade of bolt for each bolt diameter to be used in the connections. Do not mix grade of bolts.
37. The contractor shall prepare a written erection plan & calculations to be submitted to the engineer for review. This plan is to indicate, as a minimum, sequence of erection operations, calculations indicating erection stresses, field splice locations, field splice details, and location of temporary shoring, scaffolding, bracing, etc. The stresses caused during erection and handling shall not exceed allowable member stresses. The erection plan and calculations shall be prepared and stamped by a registered professional engineer in the project's jurisdiction.

8.0 METAL DECK

1. Metal deck shall be designed and detailed in accordance with "Design Manual for Floor Decks and Roof Decks- SDI-NC-2017 & SDI-R-2017", Steel Deck Institute. All composite steel floor deck shall be in conformance with the "Specifications for Composite Steel Floor Deck SDI-C-2017" of the Steel Deck Institute, latest edition.
2. Deck properties are based on products manufactured by United Steel Deck, Inc. (USD). Decks by other manufacturer's may be supplied provided load carrying capacity based on manufacturer's standard load tables, deflection characteristics, and UL fire ratings equal or exceed those of materials specified and if approved by the Architect and Structural Engineer.
3. Install in accordance with SDI suggested Specifications unless noted otherwise on the drawings. Individual deck sheets shall extend over at least three spans, with laps to be placed over supports.
4. Deck supplier shall provide all additional framing, closure angles and plates, pour stops, screed angles, and roof sump pans as required at the edges of all openings and at all slab depressions, or changes of deck direction, including those which have not been detailed.
5. Roof and non-composite decks shall be welded to steel supports, including the edge support parallel to the deck span with 5/8" diameter (effective fusion diameter) plug welds at 12" on center interior and 6" on center at edge of deck sheet. Fasten side laps with #10 self-tapping screws at 36" o.c. maximum spacing.
6. All steel floor deck shall be welded to all supporting steel elements. Welding washers shall be used as required by the deck manufacturer.
7. No mechanical or electrical piping, fixtures, units or systems may be hung directly from the roof deck.

9.0 LIGHT GAGE METAL FRAMING

1. Light gage metal framing shall be designed and detailed according with "Specification for the Design of Cold-Formed Steel Structural Members – AISI S100-16", American Iron and Steel Institute.
2. All stud and/or joist framing members shall be of the type, size, and gage as required by design. Size and gage shall not be less than shown on drawings.
3. The first set of numbers indicate the web size (nominal member depth):
    6" member = 600
    3-5/8" member = 362
4. Flange Designations:

C stud	=	1⅝" Flange	S162	
C-Stud	=	2" Flange	S200	
C-Stud	=	2½" Flange	S250	
Runner Track	=	1¼" Leg	T125	

5. The last two numbers indicate the steel thickness:

Gauge	Design Thickness	Minimum Thickness	SSMA
20	0.0346"	0.0329"	33 mils
18	0.0451"	0.0428"	43 mils
16	0.0566"	0.0538"	54 mils
14	0.0713"	0.0677"	68 mils
12	0.1017"	0.0966"	97 mils

6. All galvanized studs, joists, track, bridging, and accessories, 12, 14, and 16 gage, shall be formed from steel that corresponds to the requirements of ASTM A653, Grade 50, with a minimum yield of 50,000 psi.
7. All galvanized studs, joist, and track, bridging and accessories, 18 and 20 gage, shall be formed from steel that corresponds to the requirements of ASTM A653, Grade 33, with a minimum yield of 33,000 psi.
8. All studs, joist, and accessories, shall be formed from steel having a G60 galvanized coating in conformance with ASTM C955.
9. Prior to prefabrication of framing, the Contractor shall submit signed and sealed fabrication and erection drawings to the Architect for review. Include with the drawings cross sections, plans and/or elevations depicting components types and locations for each unique framing application, connection details depicting fastener type, and quantity. Submit signed and sealed Calculations prepared by an Engineer registered in the Project's jurisdiction.
10. Framing components may be preassembled into panels prior to erecting. Prefabricated panels shall be square with components attached in a manner as to prevent racking and to minimize distortion while lifting and transporting.
11. Cutting of steel framing shall be by saw, shear or plasma cutting equipment only.
12. Temporary bracing shall be provided until erection is complete and all attached adjacent framing is complete.
13. Insulation shall be placed in components inaccessible to the insulation contractor after their installation.
14. Splices in axially loaded studs are not permitted.
15. Where splicing of track is necessary between stud spacing, a piece of stud shall be placed between adjacent tracks and fastened by welds or screws to each side of the track, each end.
16. Studs shall be plumbed, aligned, and securely attached to the flanges or webs of both upper and lower tracks.
17. Axially loaded studs shall be installed in a manner which will assure that ends of the studs are positioned against the inside track web, prior to stud and track attachment. Studs shall be squarely cut and positively clamped and positioned until properly fastened.
18. Wall stud bridging shall be attached in a manner to prevent stud rotation. Bridging, of the type and spacing shown on the Contract or Shop Drawings shall be installed prior to loading. Bridging spacing shall be as required by design but shall not exceed 5'-0" on center.
19. Provision for structure vertical movement shall be provided where indicated on the plans using vertical slide clips or other means. Frame both sides of expansion joints with separate studs; do not bridge the expansion joints with stud system components.
20. Framed wall openings shall include headers and supporting studs as shown on the plans and shop drawings. Provide additional jack and king studs as required at all openings which exceed 24 inches.
21. Joists shall be located directly over bearing studs or a load distribution member to be provided at the top track.
22. Provide an additional joist under parallel, non-load bearing partitions that run more than ⅓ the span of the joist.
23. Connections shall be by welding, riveting, bolting or other approved fastening devices or methods providing positive attachment and resistance to loosening. Fasteners shall be of compatible material.
24. Welded connections shall be performed in accordance with AWS Specification for Welding Sheet Steel in Structures, D1.4.
25. Contractor shall refer to installation instructions published by the screw manufacturer and ASTM C954 for minimum spacing and edge distances requirements and torque requirements.
26. Design of trusses, truss bracing, and detailing of truss connections in accordance with the requirements of the Contract Documents shall be the responsibility of the Fabricator's Engineer registered in the Project's jurisdiction. Calculations and shop drawings consisting of truss layout plans and truss details, shall be submitted bearing the Engineer's seal and signature.
27. Exterior stud walls directly resisting the lateral and/or gravity forces as well as curtain wall systems and related connections: Designs shall take into account all vertical and lateral loads required by applicable building codes. Back up system and curtain wall shall be designed for a maximum deflection of 1/600 of the span, or 3/8", whichever is less, at the applicable design wind load without the code applied reduction factors.

10.0 DESIGN DATA

1. Governing Code: 2020 New York State Building code/2018 International Building code
2. Floor Live Load:
    A. Uniform..... 150 PSF
    B. Concentrated..... 2000 PSF
    C. Live Load Reduction..... As Per Code
3. Roof Live Load
    A. Live Load..... 30 PSF
    B. Snow Load:
        Pg (Ground Snow Load)..... 30 PSF
        Pf (Flat Snow Load)..... 25.2 PSF
        Ce (Snow Exposure Factor)..... 1.0
        I (Snow Load Importance Factor)..... 1.2
        Ct (Thermal Factor)..... 1.0
4. Roof Dead Load:
    A. Truss Self weight 6 PSF
    B. Sheathing and Insulation..... 5 PSF
    C. Ceiling..... 3 PSF
    D. Misc. Mech/Elec/Plumbing/Collateral..... 5 PSF
    E. Roofing..... 4 PSF
    Total Dead Load..... 23 PSF
5. Wind Load:
    A. Ultimate Wind Speed..... 127 MPH
    B. I (Wind Importance Factor)..... 1.0
    C. Wind Exposure..... B
    D. Internal Pressure Coefficient..... +/- 0.18
    E. Components & Cladding Wind Pressure:..... As per the Code
6. Earthquake Design Data:
    A. Seismic Occupancy Category..... IV
    B. Seismic Importance Factor, I..... 1.5
    C. Ss (Mapped Spectral Response Acc. at Short Period)..... 0.29
    D. S1 (Mapped Spectral Response Acc. at 1 Second Period)..... 0.061
    E. Seismic Site Classification..... D
    F. Sds (Spectral Response Coefficient)..... 0.303
    G. Sd1 (Spectral Response Coefficient)..... 0.098
    H. Seismic Design Category..... c
    I. Basic Seismic Force Resisting System:..... Intermediate Masonry Shear Walls
    J. R..... 3.5
    K. Cs..... 0.130
    L. Analysis Procedure..... Equivalent Lateral Force Procedure
7. ALL FIRE RATED ASSEMBLIES TO BE CONSIDERED UNRESTRAINED.

MPP Engineers LLC
34 S. Main Street, Suite D
Allentown, NJ 08501
Phone: (609) 489-5511

SCOTT W. McCONNELL
PROFESSIONAL ENGINEER, N.Y. LIC. No. 081887-1

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0600
F: 617.482.0637

West Coast Office
23191 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.8999

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

GENERAL NOTES

DRAWN BY: MPP
CHECKED BY: SWM
SCALE: AS NOTED
DATE 20 OCT 2021
PROJECT NO. # 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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SPECIAL INSPECTION DETAILS

REQUIRED VERIFICATION AND INSPECTION	CONTINUOS	PERIODIC	REFERENCE STANDARD
STEEL CONSTRUCTION			
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS	–	X	AISC 360, Section A3.3
INSPECTION OF HIGH STRENGTH BOLTING	–	X	AISC 360-16, Section N5.6
INSPECTION OF WELDING – VISUAL SINGLE PASS WELDS 5/16" AND LESS	–	X	AWS D1.1 AISC 360-16 Section N5.4
COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	X	–	AISC 360-16 Section N5.4
ROOF DECK WELDS	–	X	AWS D1.3
REINFORCING STEEL	X	–	AWS D1.4 ACI 318: CHAP 26
PLACEMENT AND INSTALLATION OF HEADED ANCHORS	X	–	AISC 360-16 Section N5.4
CONCRETE CONSTRUCTION			
. INSPECT REINFORCING STEEL, INCLUDING PLACEMENT	–	X	ACI 318: CHP.20, 25.2, 25.3, 26.6.1-26.6.3
REINFORCING BAR WELDING:			
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	–	X	AWS D1.4 ACI 318: 26.6.4
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	–	X	AWS D1.4 ACI 318: 26.6.4
C. INSPECT ALL OTHER WELDS	X	–	AWS D1.4 ACI 318: 26.6.4
. INSPECT ANCHORS CAST IN CONCRETE	–	X	ACI 318: 17.8.2
. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS			
a. ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	X	ACI 318:17.8.2.4 ACI 318: 17.8.2
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A	X	X	ACI 318:17.8.2.4 ACI 318: 17.8.2
. VERIFYING USE OF REQUIRED DESIGN MIX	–	X	ACI 318: Ch.19, 26.4.3, 26.4.4
. CONCRETE SAMPLING FOR STRENGTH, SLUMP, TEMPERATURE AND AIR CONTENT	X	–	ASTM C172, ASTM C31, ACI 318: 26.5, 26.12
. INSPECTION OF FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF MEMBERS BEING FORMED	–	X	ACI 318: 26.11.2(b)
. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	–	X	ACI 318:26.5.3-26.5.5/IBC 1908.9
MASONRY CONSTRUCTION			
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED FOR COMPLIANCE:			
. PROPORTIONS OF SITE-PREPARED MORTAR	–	X	TMS 402-16 TMS 602-16
. CONSTRUCTION OF MORTAR JOINTS.	–	X	TMS 402-16 TMS 602-16
. LOCATION OF REINFORCEMENT, CONNECTORS, ANCHORAGES	–	X	TMS 402-16 TMS 602-16
2. THE INSPECTION PROGRAM SHALL VERIFY:			
. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	–	X	TMS 402-16 TMS 602-16
. TYPE, SIZE, AND LOCATION OF ANCHORS	–	X	TMS 402-16 TMS 602-16
. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT	–	X	TMS 402-16 TMS 602-16
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED FOR COMPLIANCE:			
. GROUT SPACE IS CLEAN	–	X	TMS 402-16 TMS 602-16
. PLACEMENT OF REINFORCEMENT AND CONNECTORS	–	X	TMS 402-16 TMS 602-16
. PREPARATION OF GROUT AND MORTAR SPECIMENS	X	–	TMS 402-16 TMS 602-16
SOIL			
. VERIFY MATERIALS BELOW SHALLOW FOOTINGS ARE ADEQUATE TO ACHIEVE DESIGN BEARING CAPACITY	–	X	
. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	–	X	
. PERFORM CLASSIFICATION & TESTING OF COMPACTED FILL MATERIAL	–	X	
. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL	X	–	
. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVED SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	–	X	
EPOXY ANCHORS	–	X	
COLD FORMED STEEL FRAMING			
MEMBER SIZES	–	X	
MATERIAL THICKNESS	–	X	
MECHANICAL CONNECTIONS	–	X	
WELDING	–	X	
FRAMING DETAILS	–	X	

TYPICAL ABBREVIATIONS

NOTES:
1. ALL ABBREVIATIONS MAY NOT BE USED.
2. THESE ABBREVIATIONS APPLY TO STRUCTURAL DWGS ONLY. SEE ARCH & MEP DWGS FOR SEPARATE SYMBOLS AND ABBREVIATIONS LISTS.

@	AT	FV	FIELD VERIFY
ABV	ABOVE		
ACI	AMERICAN CONCRETE INSTITUTE	GA	GAUGE, GAGE
ADH	ADHESIVE	GALV	GALVANIZE
ADDL	ADDITIONAL	GB	GRADE BEAM
ADJ	ADJUSTABLE	GC	GENERAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR	GLUM	GLUED LAMINATED
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	GR	GRADE
AL	ALUMINUM	GYP	GYPSUM
ALT	ALTERNATE		
APPROX	APPROXIMATELY	H&V	HORIZONTAL AND VERTICAL
AR	ANCHOR ROD	HEF	HORIZONTAL EACH FACE
ARCH	ARCHITECT	HI	HIGH
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	HIF	HORIZONTAL INSIDE FACE
ASTM	AMERICAN SOCIETY OF TESTING & MATERIALS	HK	HOOK
AWS	AMERICAN WELDING SOCIETY	HOF	HORIZONTAL OUTSIDE FACE
		HORIZ	HORIZONTAL
BCX	BOTTOM CHORD EXTENSION	HP	HIGH POINT
BLDG	BUILDING	HNGR	HANGER
BLKG	BLOCKING	HT	HEIGHT
BM	BEAM		
BOCA	BUILDING OFFICIALS & CODE ADMINISTRATORS	IBC	INTERNATIONAL BUILDING CODE
BOT	BOTTOM	ID	INSIDE DIAMETER
BPL	BEARING PLATE/BASE PLATE	I/F	INSIDE FACE
BT	BENT	INCL	INCLUSIVE
		INT	INTERIOR
CANT	CANTILEVER		
CJ	CONTROL JOINT	JST	JOIST
CJT	CONSTRUCTION JOINT	JT	JOINT
CL	CENTER LINE		
CLR	CLEAR/CLEARANCE	K	KIPS
CM	CONSTRUCTION MANAGER	KB	KNEE BRACE
CMU	CONCRETE MASONRY UNIT(S)		
COL	COLUMN	L	LONG; LENGTH
CONC	CONCRETE	LAM	LAMINATED
CONN	CONNECTION	LAT	LATERAL
CONSTR	CONSTRUCTION	LF	LINEAR FOOT
CONT	CONTINUOUS	LL	LIVE LOAD
COORD	COORDINATE	LLH	LONG LEG HORIZONTAL
CR	CRACK	LLV	LONG LEG VERTICAL
CSK/S	COUNTERSUNK SCREW	LO	LOW
CTRD	CENTERED	LP	LOW POINT
		LS	LAG SCREW
d(penny)	NAILS	LTL	LINTEL
D	DEPTH	LTW	LIGHTWEIGHT
DBE	DECK BEARING ELEVATION	LWB	LONG WAY BOTTOM
DBL	DOUBLE	LWC	LIGHTWEIGHT CONCRETE
DEMO	DEMOLITION	LWT	LONG WAY TOP
DET	DETAIL		
DEG	DEGREE	MAS	MASONRY
DIA	DIAMETER	MAX	MAXIMUM
DIAG	DIAGONAL	MBR	MEMBER
DIM	DIMENSION	MECH	MECHANICAL
DIR	DIRECTION	MEP	MECHANICAL, ELECTRICAL & PLUMBING
DL	DEAD LOAD	MFR	MANUFACTURER
DN	DOWN	MIN	MINIMUM
DWG	DRAWING(S)	MISC	MISCELLANEOUS
DWLS	DOWELS	MO	MASONRY OPENING
		MTL	METAL
EA	EACH		
EF	EACH FACE	#	NUMBER
EL	ELEVATION	NIC	NOT IN CONTACT
ELEV	ELEVATOR	NOM	NOMINAL
EMBED	EMBEDMENT	NS	NEAR SIDE
ENGR	ENGINEER	NTS	NOT TO SCALE
EOD	EDGE OF DECK		
EOR	ENGINEER OF RECORD	OA	OVERALL
EOS	EDGE OF SLAB	OC	ON CENTER
EQ	EQUAL	OD	OUTSIDE DIAMETER
EQUIP	EQUIPMENT	O/F	OUTSIDE FACE
EW	EACH WAY	OPH	OPPOSITE HAND
EWEF	EACH WAY EACH FACE	OPNG	OPENING
EXIST	EXISTING	OPP	OPPOSITE
EXP	EXPANSION		
EXT	EXTERIOR	PART	PARTITION
		PC	PIECE
FD	FLOOR DRAIN	PCC	PRECAST CONCRETE
FDN	FOUNDATION	PCF	POUNDS PER CUBIC FOOT
FF	FINISHED FLOOR	PEN	PENETRATION
FIN	FINISH	PFB	PREFABRICATE(D)
FLG	FLASHING	PL	PLATE
FLR	FLOOR	PLAS	PLASTER
FO	FACE OF	PLF	POUNDS PER LINEAR FOOT
FRMG	FRAMING	PLYWD	PLYWOOD
FS	FAR SIDE	PRESS	PRESSURE
FT	FOOT	PROJ	PROJECT; PROJECTED; PROJECTION
FTG	FOOTING	PSF	POUNDS PER SQUARE FOOT
		PSI	POUNDS PER SQUARE INCH
		PT	POST-TENSIONED
		PTD	PRESSURE TREATED
		R	RADIUS
		RC	REINFORCED CONCRETE
		RD	ROOF DRAIN
		RECT	RECTANGULAR
		REF	REFER(ENCE)
		REINF	REINFORCING
		REQD	REQUIRED
		REV	REVISE; REVISION
		RF	ROOF
		RFTR	RAFTER
		SC	SLIP CRITICAL
		SCH	SCHEDULE
		SDL	SUPERIMPOSED DEAD LOAD
		SECT	SECTION
		SEIS	SEISMIC
		SHT	SHEET
		SHTG	SHEATHING
		SIM	SIMILAR
		SL	SLOPE
		SNT	SEALANT
		SOG	SLAB ON GRADE
		SP	SPIRAL
		SPCG	SPACING
		SPEC	SPECIFICATION
		SQ	SQUARE
		SSPC	STEEL STRUCTURES PAINTING COUNCIL
		SST	STAINLESS STEEL
		STD	STANDARD
		STGR	STAGGER
		STIFF	STIFFENER
		STIRR	STIRRUP
		STL	STEEL
		STRUCT	STRUCTURAL
		SWB	SHORT WAY BOTTOM
		SWT	SHORT WAY TOP
		SYM	SYMMETRICAL
		T	TOP
		T/	TOP OF
		T&B	TOP AND BOTTOM
		T&G	TONGUE AND GROOVE
		TCX	TOP CHORD EXTENSION
		TEMP	TEMPORARY
		THK	THICK
		THRU	THROUGH
		TOS	TOP OF STEEL
		T/SL	TOP OF SLAB
		TU	TILTUP
		T/W	TOP OF WALL
		TYP	TYPICAL
		UBC	UNIFORM BUILDING CODE
		UON	UNLESS OTHERWISE NOTED
		USACE	UNITED STATES ARMY CORPS OF ENGINEERS
		VEF	VERTICAL EACH FACE
		VERT	VERTICAL
		VIF	VERTICAL INSIDE FACE
		VOF	VERTICAL OUTSIDE FACE
		VSC	VERTICAL SLOTTED CONNECTION
		W	WIDTH, WIDE
		W/	WITH
		WD	WOOD
		WF	WIDE FLANGE
		W/O	WITHOUT
		WPRF	WATERPROOF
		WP	WORKING POINT
		WS	WATERSTOP
		WT	WEIGHT
		WWR	WELDED WIRE REINFORCING

MATERIAL INDICATIONS

SYMBOL	DESCRIPTION
	– EARTH
	– DRAINAGE FILL/GRAVEL/STONE
	– CONCRETE
	– CMU GROUTED SOLID
	– MASONRY BLOCK (CMU)
	– BRICK
	– GRATING
	– STEEL
	– RIGID INSULATION
	– PLYWOOD
	– BATT INSULATION
	– LAMINATED WOOD
	– CONT SOLID WOOD
	– WOOD BLOCKING
	– BED ROCK

MPP Engineers LLC
34 S. Main Street, Suite D
Allentown, NJ 08501
Phone: (609) 489-5511

SCOTT W. McCONNELL
PROFESSIONAL ENGINEER, N.Y. LIC. No. 081887-1

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0500
F: 617.482.0557
West Coast Office
23191 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.8959

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: MPP
CHECKED BY: SWM
SCALE: AS NOTED
DATE: 20 OCT 2021
PROJECT NO: # 2019

PROGRESS SET ☐ 95D SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

GENERAL NOTES & SPECIAL INSPECTION SCHEDULE

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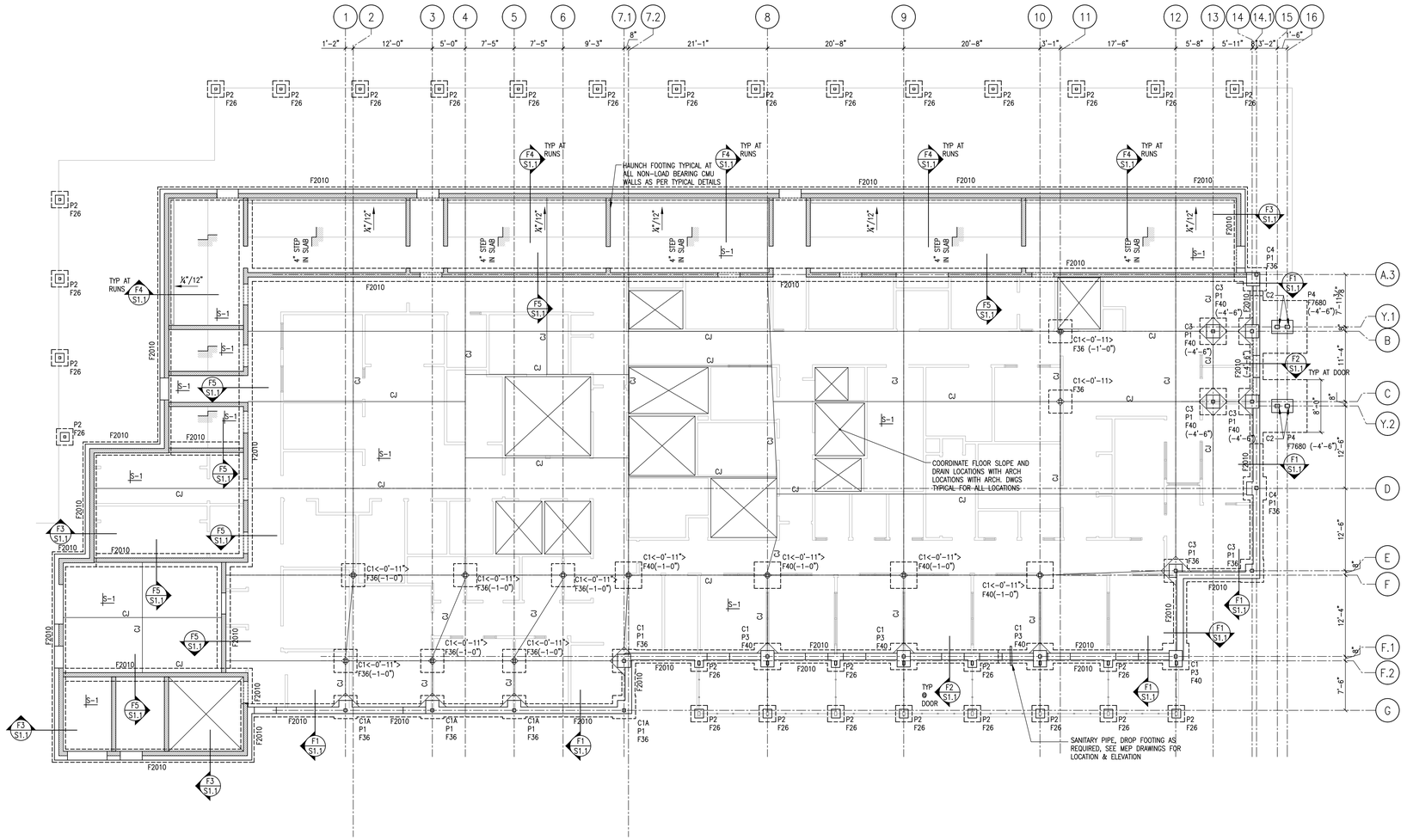


FOUNDATION PLAN

SCALE: 1/8" = 1'-0" (DO NOT SCALE PLAN)

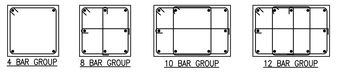
NOTES

1. TOP OF FINISHED FLOOR SLAB ELEVATION 469.5' REFERENCED AS DATUM EL 0'-0".
2. TOP OF SLAB ELEVATION IS AT DATUM UNLESS NOTED THUS ⊏ ON PLAN FROM DATUM.
3. TOP OF PROPOSED FOOTING ELEVATION IS -3'-0" BELOW DATUM UNLESS NOTED THUS ON ( ) ON PLAN FROM DATUM.
4. CJ – DENOTES CONTROL/CONSTRUCTION JOINT. MAXIMUM SPACING OF JOINTS NOT TO EXCEED 20'-0".
5. S-1 – DENOTES 5" SLAB ON GRADE. REINFORCED W/ 6x6 W2.0xW2.0 WWR ON 10 MIL VAPOR BARRIER ON 6" DRAINAGE FILL. (¾" CRUSHED STONE)
6. DENOTES CHANGE IN FLOOR ELEVATION.
7. SLOPE – DENOTES SLOPE TO LOW POINT.
8. F_ – DENOTES CONCRETE FOOTING. SEE SCHEDULE FOR SIZE & REINFORCEMENT.
9. COORDINATE SLAB DEPRESSIONS WITH ARCHITECTURAL AND MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
10. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
11. SEE TYPICAL DETAIL DRAWINGS FOR TYPICAL DETAILS NOT REFERENCED ON PLANS.
12. FOR ADDITIONAL INFORMATION, SEE GENERAL NOTES.
13. P1 – DENOTES 24"x24" CONCRETE PIER REINFORCED W/ (8) #7 VERT. AND #3 TIES (6) AT 3" OC TOP & BALANCE AT 12" OC.

    P2 – DENOTES 16"x16" CONCRETE PIER REINFORCED W/ (4) #7 VERT. AND #3 TIES (6) AT 3" OC TOP & BALANCE AT 12" OC.

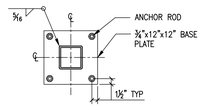
    P3 – DENOTES 24"x30" CONCRETE PIER REINFORCED W/ (10) #7 VERT. AND #4 TIES (6) AT 3" OC TOP & BALANCE AT 12" OC.

    P4 – DENOTES 24"x48" CONCRETE PIER REINFORCED W/ (12) #7 VERT. AND #4 TIES (6) AT 3" OC TOP & BALANCE AT 12" OC.

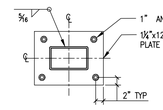


TIE ARRANGMENT

NOTES
1. ALL PIERS TO HAVE #3 TIES, (3) @ 3" TOP & BOTTOM, BALANCE @ 12".
2. ALL PIER TO BE CENTERED UNDER COLUMN UNLESS DETAILED OTHERWISE.



BP1



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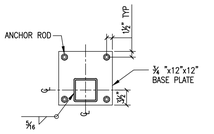

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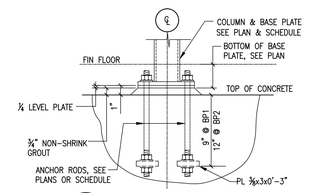
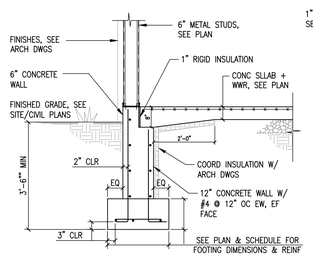


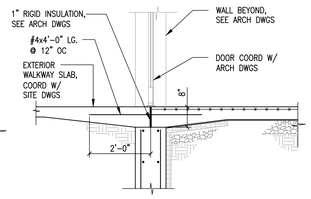
AR ANCHOR ROD DETAIL

COLUMN SCHEDULE		
MARK	COLUMN SIZE	BASE PLATE
C1	HSSS⅝x5½x5/16	BP1
C1A	HSSS⅝x3½x5/16	BP3
C2	HSS8x6x½	BP2
C3	HSSS⅝"x½"x⅜"	BP1
C4	HSS6x6x⅜	BP3

COLUMN SCHEDULE NOTES:
1. ALL COLUMNS TO HAVE (4) ¾" DIA HEADED ANCHOR RODS UNLESS OTHERWISE NOTED.
2. ALL COLUMNS THAT HAVE CAP PLATES:
   ¾" THICK @ BEAM BEARING
   ½" THICK @ JOIST BEARING
   ALL OTHERS ¼" THICK UNLESS NOTED OTHERWISE
3. ALL HSS COLUMNS TO HAVE ¼" THICK CAP PLATE UNLESS OTHERWISE DETAILED OR NOTED.
4. ALL STEEL COLUMNS SUPPORTING CANTILEVER MEMBERS TO HAVE ¾" TOP PLATES W/ (4) ¾" DIA A325 BOLTS UNLESS NOTED OTHERWISE.
5. IF PIER IS REQUIRED DUE TO FIELD CONDITION AND NONE IS INDICATED ON PLAN OR SCHEDULE: PROVIDE 24" x 24" CONC PIER W/ (8) #8 VERT + #3 TIES @12.
6. ALL WF COLUMNS TO BE GRADE 50 KSI.
7. ALL HSS COLUMNS TO BE GRADE 46 KSI.
8. SEE TYPICAL DETAIL DRAWINGS FOR CONNECTIONS TO HSS COLUMNS.
9. PROVIDE ASPHALTIC/EPOXY COATING FOR BELOW GRADE PORTION OF STEEL COLUMNS.



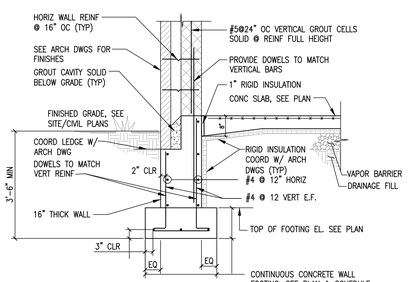
F1 S1.1 SECTION



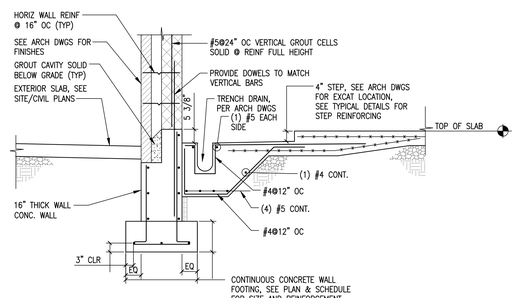
TYP @ DOORS

F2 S1.1 SECTION

NOTE: SEE SECTION F1 FOR ADDITIONAL INFO NOT SHOWN

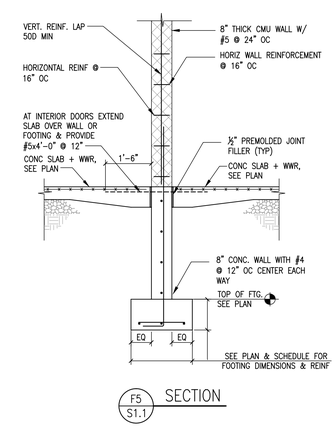


F3 S1.1 SECTION



F4 S1.1 SECTION

SEE SECTION F3 FOR ADDITIONAL INFO NOT SHOWN



F5 S1.1 SECTION

FOOTING SCHEDULE			
MARK	SIZE	DEPTH	REINFORCEMENT
F2010	2'-0" CONT.	1'-0"	#5 @ 24" OC. SHORT BOT. (3) #5 CONT. BOT
F7680	7'-6"x8'-0"	1-8"	(8) #7 EW T&B
F36	3'-6"x3'-6"	1'-0"	(4) #5 EW, BOT
F26	2'-6"x2'-6"	1'-0"	(3) #5 EW. BOT.
F40	4'-0"x4'-0"	1'-0"	(5) #5 EW. BOT.

MPP Engineers LLC
34 S. Main Street, Suite D
Allentown, NJ 08501
Phone: (609) 489-5511

SCOTT W. McCONNELL
PROFESSIONAL ENGINEER, N.Y. LIC. No. 081887-1

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0500
F: 617.450.0537

West Coast Office
23191 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8888
F: 949.716.8887

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: MPP
CHECKED BY: SWM
SCALE: AS NOTED
DATE: 20 OCT 2021
PROJECT NO: # 2019

FOUNDATION/SLAB PLAN AND SECTIONS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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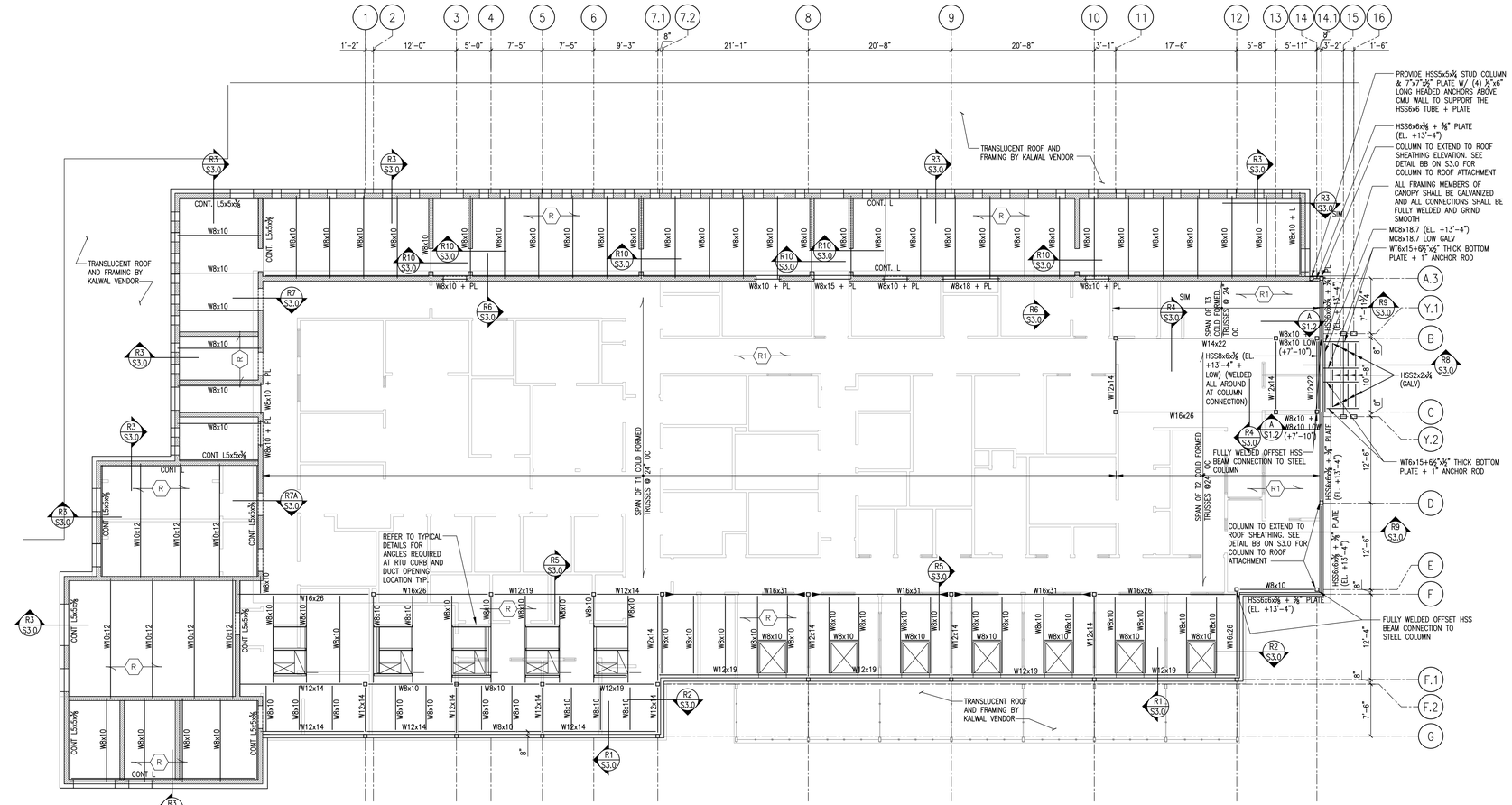
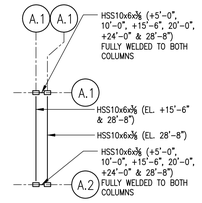
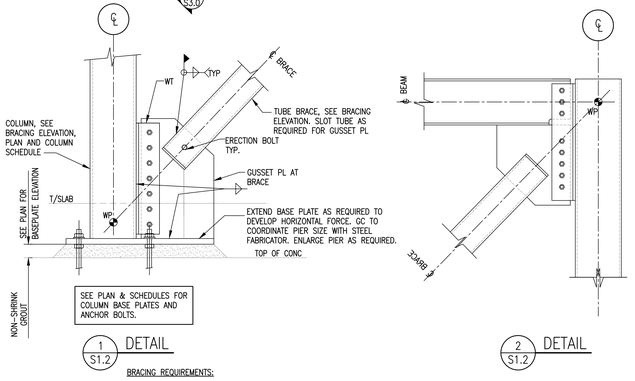
S1.1





SIGNAGE FRAMING BLOW UP

ALL BEAMS TO COLUMN CONNECTIONS SHALL BE FULLY WELDED ALL AROUND.



1 S1.2 DETAIL

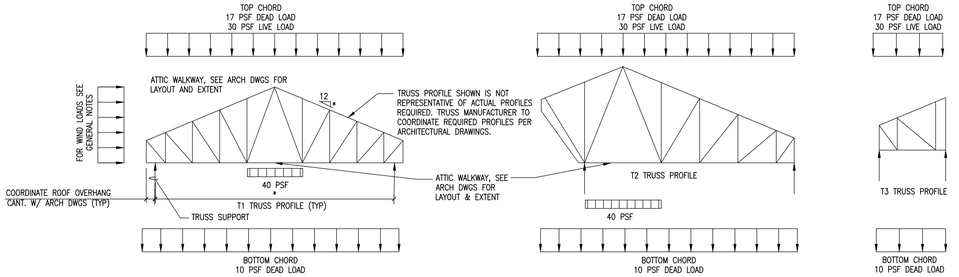
2 S1.2 DETAIL

ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0" (DO NOT SCALE PLAN)

NOTES:

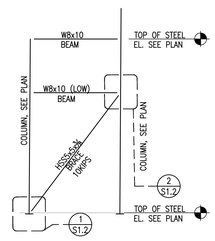
1. TOP OF STEEL/UNDERSIDE OF DECK ELEVATION IS +11'-4" NOTED THUS (+) ON PLAN ABOVE DATUM ELEVATION 0'-0"
2. (R) DENOTES SPAN OF 1½" TYPE B, 20GA FACTORY PAINTED WHITE METAL ROOF DECK.
   (R1) DENOTES ¾" THICK PLYWOOD ROOF SHEATHING, ATTACH TO TRUSSES USING #10 SCREWS @ 8" OC.
3. (S) DENOTES DENOTES SLOPING STEEL, BEAMS FRAME FLUSH TOP.
4. SLOPE DENOTES SLOPE TO LOW POINT.
5. ALL WIDE FLANGE SHAPES SHALL BE ASTM-A572 OR ASTM A992 GRADE 50 (50 KSI YIELD)
6. PROVIDE FRAME AROUND ALL ROOF DRAINS & AT ALL OTHER ROOF OPENINGS LARGER THAN 8" AS PER TYP DETAIL.
7. THE GC/CM SHALL COORDINATE ALL OPENINGS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL & PLUMBING DRAWING & TYPICAL DETAILS.
8. SEE TYPICAL DETAIL DRAWINGS FOR TYPICAL DETAILS NOT REFERENCED IN PLAN.
9. FOR ADDITIONAL INFORMATION, SEE GENERAL NOTES.
10. PLEASE PROVIDE 7"x8"x⅜" THICK BEARING PLATE W/ (2) ¾" DIA x 6" LONG HEADED STUDS AT ALL STEEL BEAM BEARING UNLESS NOTED OTHERWISE ON PLAN.
11. ——► DENOTES MOMENT CONNECTION TO DEVELOP FULL CAPACITY OF BEAM



PREFABRICATED ROOF TRUSS LOADING PROFILE

NOTES:

1. COORDINATE ROOF SLOPE AND ROOF OVERHANGS W/ ARCH DRAWINGS.
2. COORDINATE DIMENSIONS INDICATED THUS (*) W/ ARCH DRAWINGS.
3. DESIGN ALL TRUSSES IN ACCORDANCE WITH THE LOADS INDICATED ABOVE UNLESS OTHERWISE NOTED.
4. ROOF TRUSSES TO BE DESIGNED TO SUPPORT HVAC EQUIPMENT AS REQUIRED. COORDINATE W/ MECH DRAWINGS FOR LOCATION.



ELEVATION AA

NON-LOAD BEARING EXTERIOR METAL STUD SCHEDULE			
WALL CLADING	NOMINAL STUD DEPTH	STUD DESIGNATION	MAX SPAN
METAL PANEL	0'-6"	600S162-43	13'-0"
		600S162-43	14'-0"

NOTES:

1. STUDS DESIGNATIONS AND SPANS ARE BASED ON A MAXIMUM STUD SPACING OF 16". STUD SPACING SHALL BE REDUCED TO 12" AT BUILDING CORNERS.
2. STUD DESIGNATIONS ARE MINIMUMS FOR THE GIVEN SPANS AND TYPE OF WALL CLADDING.
3. THIS TABLE IS PROVIDED FOR BIDDING PURPOSE ONLY. FINAL STUD DESIGNS AND CONNECTION DETAILS ARE TO BE PROVIDED BY THE CONTRACTORS ENGINEER, SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS SHOWING ALL CONNECTION DETAILS AND FRAMING CONFIGURATIONS SHALL BE PROVIDED BY THE CONTRACTORS ENGINEERS PRIOR TO CONSTRUCTION.
4. ALL STUDS PROVIDED AS BACK-UP FOR MASONRY VENEER SHALL BE 18 GAUGE MINIMUM AND SHALL BE DESIGNED TO LIMIT WALL DEFLECTION UNDER FULL LOADING TO H/600.
5. ALL STUDS PROVIDED AS BACKUP TO METAL PANELS OR OTHER NON-BRITTLE FINISHES SHALL BE 20 GAUGE MINIMUM AND SHALL BE DESIGNED TO LIMIT WALL DEFLECTIONS UNDER FULL LOADING TO H/360

BRACING REQUIREMENTS:

1. ALL BRACING CONNECTIONS FOR THE BRACING ELEVATIONS ON THIS SHEET WHICH HAVE NOT BEEN SPECIFICALLY DETAILED SHALL BE DESIGNED USING THE UNIFORM FORCE METHOD PER "AISC" BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY FOR THE FORCES NOTED ON THE ELEVATIONS AND DETAILS. THIS SHALL INCLUDE ALL GUSSET PLATES, FILLER PLATES, ANGLES, STIFFENERS, BOLTS OR WELDS, OR OTHER MATERIAL REQUIRED FOR THE CONNECTION. STAMPED CALCULATIONS FOR THE CONNECTION DESIGN SHALL BE SUBMITTED PRIOR TO THE SHOP DRAWINGS FOR THE REVIEW OF THE ENGINEER.
2. ALL BOLTED MEMBER CONNECTIONS SHALL BE SLIP CRITICAL CONNECTIONS WITH A MAXIMUM BOLT DIAMETER OF ONE INCH.
3. GUSSET PLATE CONNECTIONS SHALL BE SIZED FOR 100% OF THE AXIAL FORCES INDICATED ON THE ELEVATIONS. DESIGN ALL GUSSET PLATES AND CONNECTORS AS REQUIRED FOR COMPLIANCE WITH AISC. PROVIDE STIFFENER PLATES AS REQUIRED AT THE GUSSET PLATE CONNECTIONS.
4. THE NET AREA (REFER TO AISC SECTION B2 & B3) AT THE CONNECTION OF ANY BRACING MEMBER SHALL NOT BE LESS THAN 85 PERCENT OF THE GROSS CROSS SECTIONAL AREA OF THE MEMBER ADDITIONAL PLATES SHALL BE ADDED AS NECESSARY TO MAINTAIN THE MINIMUM NET CROSS SECTIONAL AREA. SUCH PLATES SHALL EXTEND A MINIMUM DISTANCE EQUAL TO THE DEPTH OF THE MEMBER PAST THE LAST ROW OF BOLTS.
5. ALL CONNECTIONS SHALL BE SYMMETRICAL ABOUT THE AXIS OF THE MEMBER CONNECTED. PROVIDE ONLY ONE GRADE OF BOLT FOR EACH BOLT DIAMETER USED IN THE CONNECTIONS. DO NOT MIX GRADE OF BOLTS.
6. BOLT AND WELD TESTING:
   a. ALL SHOP AND FIELD BOLTS SHALL BE TESTED PER AISC REQUIREMENTS.
   b. ALL WELDS SHOULD BE VISUALLY INSPECTED.
   c. FIFTY PERCENT OF ALL WELDS AT GUSSET PLATE AND WEB MEMBER CONNECTIONS SHALL BE RANDOMLY INSPECTED BY MAGNETIC PARTICLE METHOD, COMPLYING WITH ASTM E109, PERFORMED ON ROOT PASS AND ON FINISHED WELD.
   d. ONE HUNDRED PERCENT OF FULL PENETRATION WELDS SHALL HAVE ULTRASONIC INSPECTION, COMPLYING WITH ASTM E164.
7. THE STEEL FABRICATOR MAY SUBMIT ALTERNATE CONNECTION DETAILS FOR THE REVIEW OF THE ENGINEER FOR POSSIBLE SUBSTITUTION OF DETAILS INDICATED ON THE STRUCTURAL DRAWINGS. SUBMISSIONS OF ALTERNATES SHALL INCLUDE CALCULATIONS TO VERIFY THE CONNECTION CAPACITY. CONTRACTOR SHOULD NOTE THAT ACCEPTANCE OF THE ALTERNATE CONNECTIONS IS BASED SOLELY ON THE JUDGEMENT OF THE ENGINEER AND THE CONTRACTOR SHALL ANTICIPATE USING THE CONNECTIONS SHOWN FOR BIDDING PURPOSES.
8. ALL RECTANGULAR HSS TO BE INSTALLED WITH THE LONG DIMENSION VERTICAL.
9. (±XXX) DENOTES AXIAL FORCE IN MEMBER TENSION OR COMPRESSION IN KIPS. LOADS SHOWN ARE RESULTING FROM SERVICE LOAD COMBINATION AND INCLUDE ALLOWABLE REDUCTION FOR TRANSIENT LOADING. ANY FURTHER LOAD REDUCTION IS NOT ALLOWED.
10. SEE PLAN FOR ALL BEAM SIZES.
11. SEE COLUMN SCHEDULE FOR ALL COLUMN SIZES.

MPP Engineers LLC
34 S. Main Street, Suite D
Allentown, NJ 08501
Phone: (609) 489-5511

SCOTT W. McCONNELL
PROFESSIONAL ENGINEER, N.Y. LIC. No. 081887-1

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0500
F: 617.450.0557

West Coast Office
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T: 949.716.8888
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ROOF FRAMING PLAN

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S1.2

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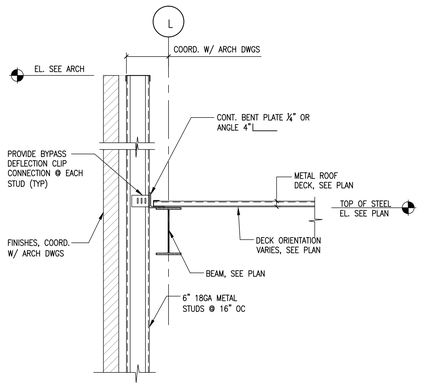
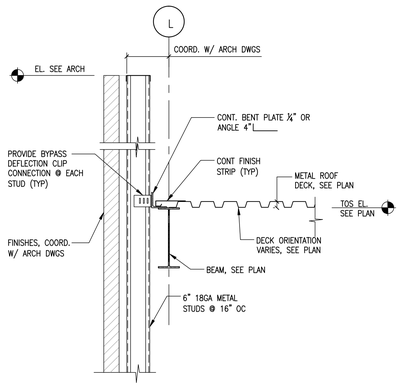
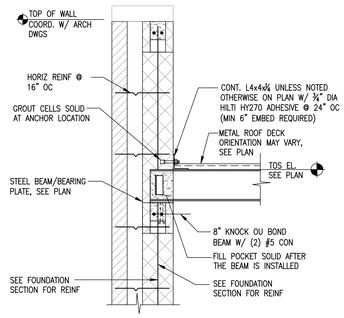


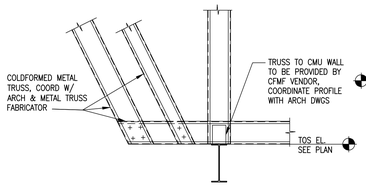
R1 / S3.0 SECTION



R2 / S3.0 SECTION



R3 / S3.0 SECTION



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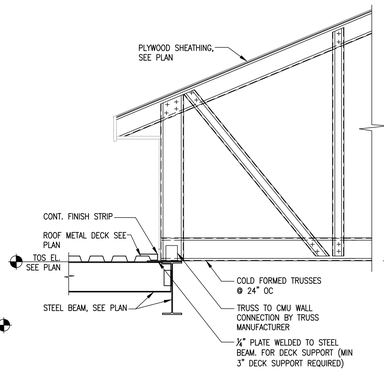

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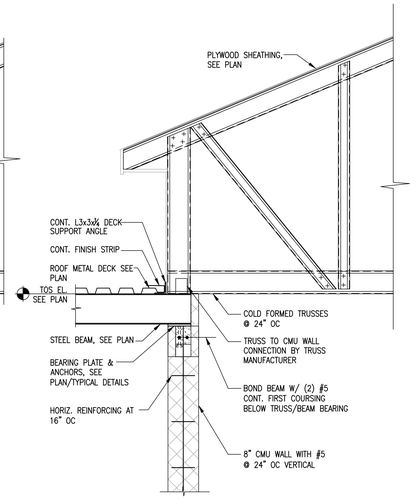

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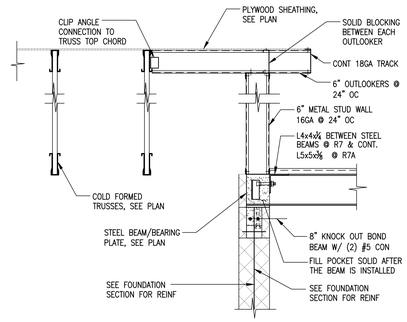
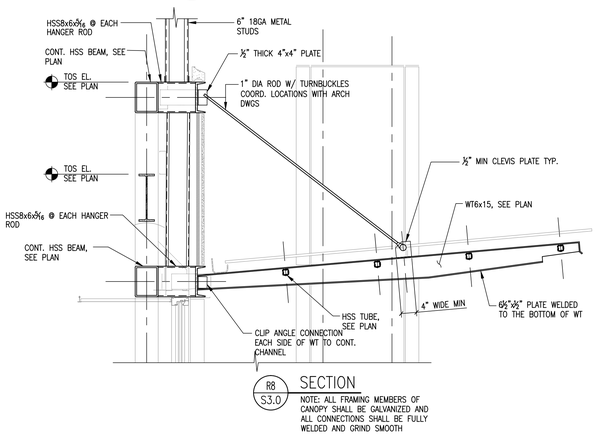


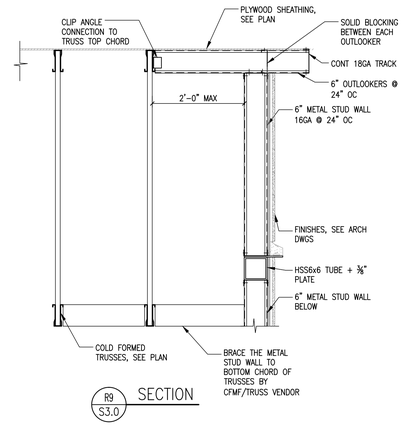
R7/R7A / S3.0 SECTION

NOTE: SEE SECTION R3 & R6 FOR ADDITIONAL INFO NOT SHOWN



R8 / S3.0 SECTION

NOTE: ALL FRAMING MEMBERS OF CANOPY SHALL BE GALVANIZED AND ALL CONNECTIONS SHALL BE FULLY WELDED AND GRIND SMOOTH



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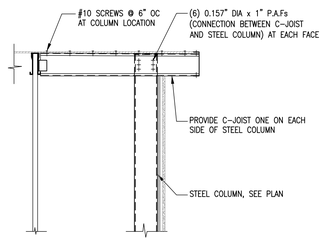
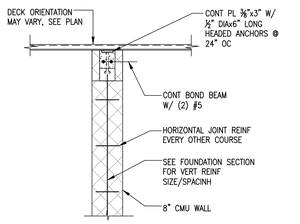


DETAIL BB



R10 / S3.0 SECTION

MPP Engineers LLC
34 S. Main Street, Suite D
Allentown, NJ 08501
Phone: (609) 489-5511

SCOTT W. McCONNELL
PROFESSIONAL ENGINEER, N.Y. LIC. No. 081887-1

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0500
F: 617.482.0637

West Coast Office
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T: 949.716.8888
F: 949.716.8889

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ROOF SECTIONS

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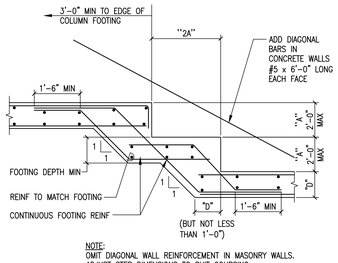
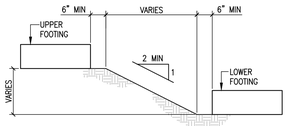
S3.0

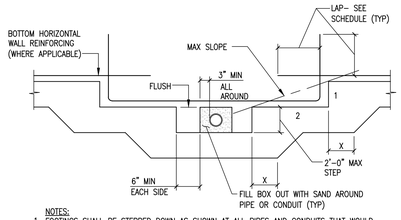


NOTE:
OMIT DIAGONAL WALL REINFORCEMENT IN MASONRY WALLS. ADJUST STEP DIMENSIONS TO SUIT COURSING.

TD1 / S4.0 TYPICAL DETAIL
STEPPED WALL FOOTING

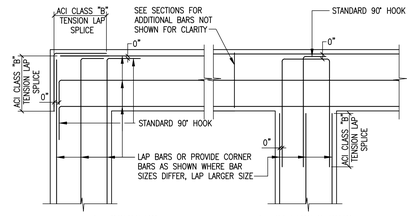


TD2 / S4.0 TYPICAL DETAIL
SLOPE BETWEEN FOOTINGS



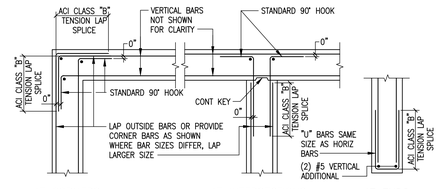
NOTES:
1. FOOTINGS SHALL BE STEPPED DOWN AS SHOWN AT ALL PIPES AND CONDUITS THAT WOULD PASS THROUGH OR HAVE 4'–0" OR LESS COVER BELOW THE BOTTOM OF THE FOOTINGS WHETHER THE PIPES, CONDUITS OR STEPS ARE SHOWN IN THE STRUCTURAL CONTRACT PLANS OR NOT. REFER TO ALL THE DRAWINGS IN THE SET, INCLUDING ARCHITECTURAL, CIVIL, MEP & FIRE PROTECTION FOR SIZES AND LOCATIONS OF ALL PIPES AND CONDUITS.
2. IF THE COVER BETWEEN THE BOTTOM OF FOOTING AND THE TOP OF THE PIPE OR CONDUIT IS GREATER THAN 4'–0", THEN THE FOOTING NEED NOT STEP DOWN AS SHOWN.
3. REFER TO PLANS, SECTIONS, AND OTHER DETAILS FOR WALL REINFORCING, DOWELS, ADDITIONAL FOOTING REINFORCING AND OTHER INFORMATION AND REQUIREMENTS.
4. SEE TYPICAL DETAIL – STEPPED WALL FOOTING FOR FOOTING REINFORCEMENT DETAILS.

TD3 / S4.0 TYPICAL DETAIL
FOUNDATION WALL PIPE AND CONDUIT PENETRATION



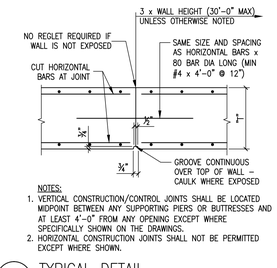
NOTE:
ALL DOWELS, CORNER BARS AND "U" BARS SHALL BE SAME SIZE AND SPACING AS CONTINUOUS FOOTING REINFORCING.

TD5 / S4.0 TYPICAL DETAIL
REINFORCEMENT IN CONCRETE FOOTINGS



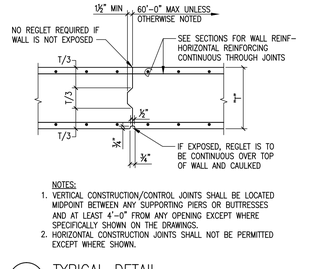
NOTE:
ALL DOWELS, CORNER BARS AND "U" BARS SHALL BE SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.

TD6 / S4.0 TYPICAL DETAIL
HORIZONTAL REINFORCEMENT IN CONCRETE WALLS



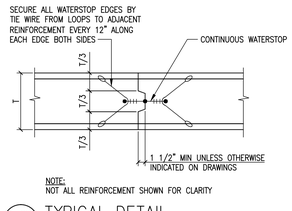
NOTES:
1. VERTICAL CONSTRUCTION/CONTROL JOINTS SHALL BE LOCATED MIDPOINT BETWEEN ANY SUPPORTING PIERS OR BUTTRESSES AND AT LEAST 4'–0" FROM ANY OPENING EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS.
2. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED EXCEPT WHERE SHOWN.

TD7 / S4.0 TYPICAL DETAIL
CONCRETE WALL CONTROL JOINT
(TWO LAYERS OF REINFORCEMENT)



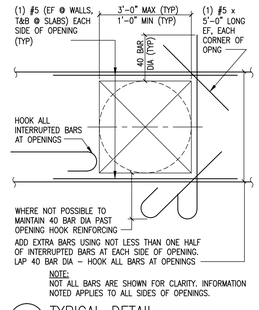
NOTES:
1. VERTICAL CONSTRUCTION/CONTROL JOINTS SHALL BE LOCATED MIDPOINT BETWEEN ANY SUPPORTING PIERS OR BUTTRESSES AND AT LEAST 4'–0" FROM ANY OPENING EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS.
2. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED EXCEPT WHERE SHOWN.

TD8 / S4.0 TYPICAL DETAIL
CONCRETE WALL CONSTRUCTION JOINT
(TWO LAYERS OF REINFORCEMENT)



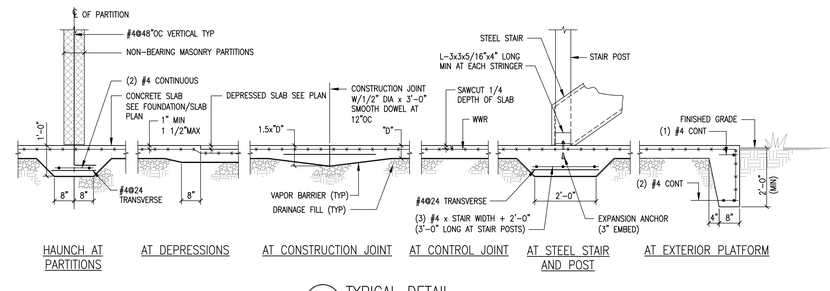
NOTE:
NOT ALL REINFORCEMENT SHOWN FOR CLARITY

TD9 / S4.0 TYPICAL DETAIL
CONSTRUCTION JOINT WITH WATERSTOP

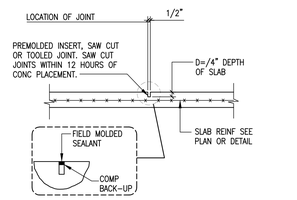


NOTE:
NOT ALL BARS ARE SHOWN FOR CLARITY. INFORMATION NOTED APPLIES TO ALL SIDES OF OPENINGS.

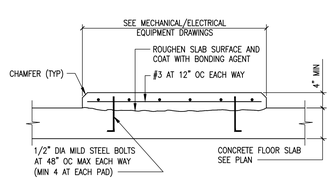
TD10 / S4.0 TYPICAL DETAIL
REINFORCING AT OPENINGS



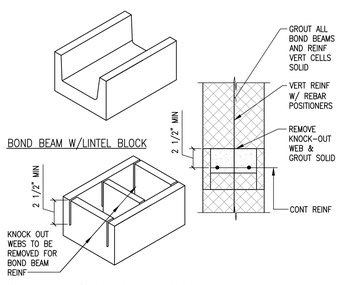
TD11 / S4.0 TYPICAL DETAIL
SLAB ON GRADE



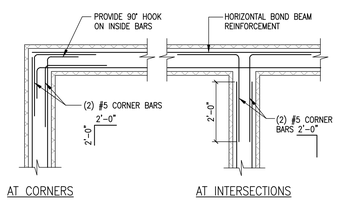
TD12 / S4.0 TYPICAL CONTRACTION JOINT IN SLAB ON GRADE DETAIL



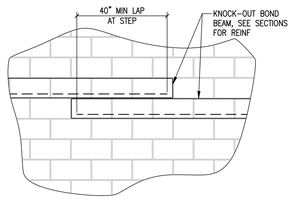
TD13 / S4.0 TYPICAL DETAIL
MECHANICAL EQUIPMENT PAD



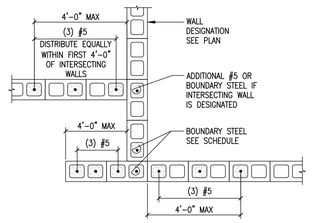
TD15 / S4.0 TYPICAL DETAIL
MASONRY BOND BEAMS



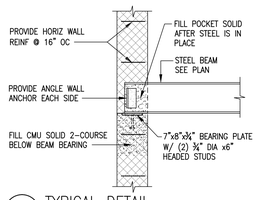
TD16 / S4.0 TYPICAL DETAIL
HORIZONTAL REINFORCEMENT IN BOND BEAMS



TD17 / S4.0 TYPICAL DETAIL
STEPPED BOND BEAM

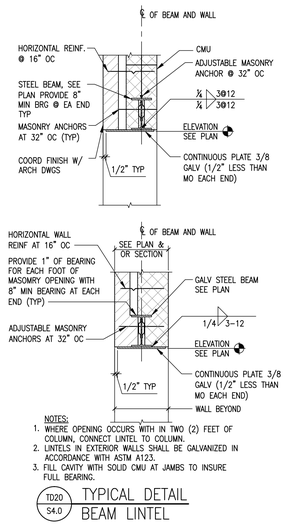


TD18 / S4.0 TYPICAL DETAIL
WALL REINFORCEMENT AT CORNERS AND AT WALL INTERSECTIONS



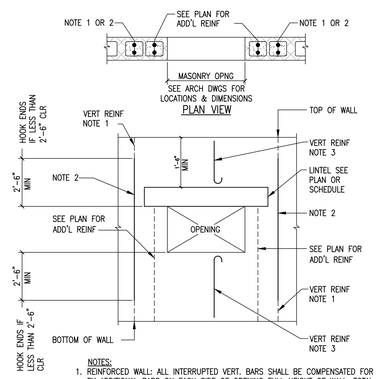
TD19 / S4.0 TYPICAL DETAIL
BEAM POCKET IN CMU WALL

NOTES:
UNLESS OTHERWISE SPECIFIED ON DRAWINGS, PROVIDE AND INSTALL STEEL LINTELS FOR ALL SQUARE HEAD MASONRY OPENINGS IN ACCORDANCE WITH THE FOLLOWING SCHEDULES AND COMMENTS UNLESS OTHERWISE SHOWN ON ARCH. DWG'S.



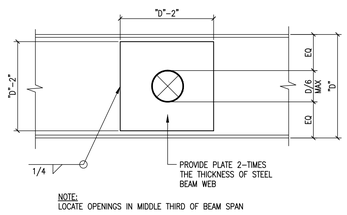
NOTES:
1. WHERE OPENING OCCURS WITH IN TWO (2) FEET OF COLUMN, CONNECT LINTEL TO COLUMN.
2. LINTELS IN EXTERIOR WALLS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
3. FILL CAVITY WITH SOLID CMU AT JAMBS TO INSURE FULL BEARING.

TD20 / S4.0 TYPICAL DETAIL
BEAM LINTEL



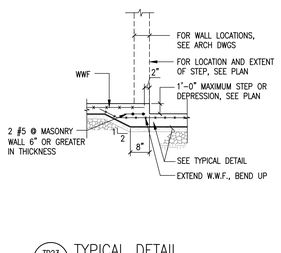
NOTES:
1. REINFORCED WALL: ALL INTERRUPTED VERT. BARS SHALL BE COMPENSATED FOR BY ADDITIONAL BARS ON EACH SIDE OF OPENING FULL HEIGHT OF WALL. TOTAL AREA OF ADD'L BARS SHALL EQUAL AREA OF INTERRUPTED BARS. PROVIDE MIN (2)#5 EACH SIDE OF OPENING.
2. UNREINFORCED WALL: PROVIDE MIN (2)#5 EACH SIDE OF OPENING.
3. REINFORCED WALL: SIZE & SPACING OF REINF INDICATED ON PLAN. PROVIDE HOOKED ENDS ON ALL DISCONTINUOUS BARS.

TD21 / S3.1 TYPICAL DETAIL
MASONRY WALL OPENING REINFORCING



NOTE:
LOCATE OPENINGS IN MIDDLE THIRD OF BEAM SPAN

TD22 / S4.0 TYPICAL DETAIL
REINFORCING FOR CIRCULAR OPENINGS IN STEEL BEAMS



TD23 / S4.0 TYPICAL DETAIL
SLAB ON GRADE STEP OR DEPRESSION 1'–0" OR LESS

MPP Engineers LLC
34 S. Main Street, Suite D
Allentown, NJ 08501
Phone: (609) 489–5511

SCOTT W. McCONNELL
PROFESSIONAL ENGINEER, N.Y. LIC. No. 081887–1

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0500
F: 617.450.0557

West Coast Office
23191 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.8897

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

TYPICAL DETAILS

DRAWN BY: MPP
CHECKED BY: SWM
SCALE: AS NOTED
DATE: 20 OCT 2021
PROJECT NO: # 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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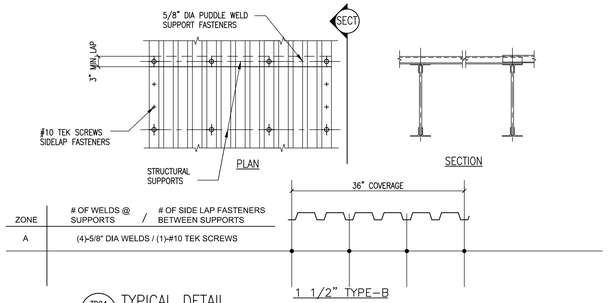
S4.0



TD24 / S4.1 TYPICAL DETAIL
ROOF DECK ATTACHMENT

1. DECK SHALL BE ATTACHED TO ALL STRUCTURAL SUPPORTS WITH 5/8" DIA PUDDLE WELDS.
2. SIDE LAPS BETWEEN STRUCTURAL SUPPORTS SHALL BE FASTENED BY #10 TEK SCREWS.
3. DECK SHALL BE ATTACHED TO ALL PERIMETER SUPPORTS WITH 5/8" DIA PUDDLE WELDS @ 6" OC MAX
4. END LAPS SHALL BE A MINIMUM OF 3" AND SHALL OCCUR OVER SUPPORTS.
5. CAPACITY BASED ON 6'-0" DECK SPAN.

MISCELLANEOUS STEEL ANGLE MASONRY WALL LINTEL SCHEDULE

WALL THICKNESS	MASONRY OPENING UP TO 4'-0"	MASONRY OPENING 4'-1" TO 6'-0"	MASONRY OPENING 6'-1" TO 8'-0"
4" WALL	L 3 1/2x3 1/2x5/16	L 4x3 1/2x5/16	L 6x3 1/2x5/16
6" WALL	JL 3 1/2x2 1/2x5/16	JL 3 1/2x2 1/2x5/16	JL 3 1/2x2 1/2x3/8
8" WALL	JL 3 1/2x3 1/2x5/16	JL 4x3 1/2x5/16	JL 6x3 1/2x5/16
10" WALL	L 5x3 1/2x1/4(*) + L 4x3 1/2x1/4(*)	L 5x3 1/2x1/4(*) + L 4x3 1/2x1/4(*)	L 5x5x5/16(*) + L 4x4x5/16(*)
12" WALL	JL L 3 1/2x3 1/2x5/16	JL L 4x3 1/2x5/16	JL L 6x3 1/2x5/16
16" WALL	JL JL 3 1/2x3 1/2x5/16	JL JL 4x3 1/2x5/16	JL JL 6x3 1/2x5/16

NOTES
1. THIS SCHEDULE IS FOR THOSE OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCH AND MECH DRAWINGS FOR LOCATION AND SIZE OF OPENINGS FOR NON-BEARING MASONRY WALLS.
2. PROVIDE MINIMUM 6" BEARING ON BRICK, SOLID OR GROUTED SOLID CONCRETE BLOCK, BUT NOT LESS THAN 1" OF BEARING PER FOOT OF SPAN.
3. WHERE OPENINGS ARE LOCATED NEXT TO COLUMNS OR BEAMS, ATTACH TO STRUCTURAL STEEL, CONNECTION NOT TO PROTRUDE INTO OPENING.
4. ALL EXTERIOR LINTELS SHALL BE HOT DIPPED GALVANIZED PER ASTM 123.
5. ALL ANGLES LONG LEG VERTICAL UNLESS NOTED BY (*) WHEN NOTED BY (*) USE LONG LEG HORIZONTAL.
6. AT CAVITY WALLS, INCREASE THE HORIZONTAL LEG OF EXTERIOR ANGLE BY WIDTH OF CAVITY.

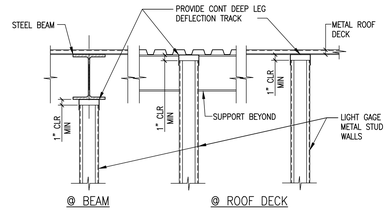
TD25 / S4.1 TYPICAL DETAIL
MISCELLANEOUS STEEL ANGLE MASONRY WALL LINTEL SCHEDULE

MISCELLANEOUS BOND OR PRECAST MASONRY LINTEL SCHEDULE

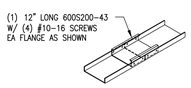
WALL THICKNESS	MASONRY OPENING UP TO 6'-0"	MASONRY OPENING 6'-1" TO 8'-0"	MASONRY OPENING 8'-1" TO 10'-0"
8" WALL	8"x8" CONC W/(2) #4 TOP & BOT OR 8"x8" BOND BEAM W/(1) #5 TOP & BOT	8"x8" CONC W/(2) #4 TOP & BOT OR 8"x16" BOND BEAM W/(1) #6 TOP & BOT	8"x12" CONC W/(2) #5 TOP & BOT OR 8"x16" BOND BEAM W/(2) #5 TOP & BOT
10" WALL	10"x8" CONC W/(2) #4 TOP & BOT OR 10"x8" BOND BEAM W/(2) #4 TOP & BOT	10"x8" CONC W/(2) #4 TOP & BOT OR 10"x16" BOND BEAM W/(2) #5 TOP & BOT	10"x12" CONC W/(2) #6 TOP & BOT OR 10"x16" BOND BEAM W/(2) #6 TOP & BOT
12" WALL	12"x8" CONC W/(2) #4 TOP & BOT OR 12"x8" BOND BEAM W/(2) #5 TOP & BOT	12"x8" CONC W/(2) #4 TOP & BOT OR 12"x16" BOND BEAM W/(2) #5 TOP & BOT	12"x12" CONC W/(2) #6 TOP & BOT OR 12"x16" BOND BEAM W/(2) #6 TOP & BOT

NOTES:
1. PROVIDE MINIMUM 6" BEARING ON BRICK, SOLID OR GROUTED SOLID CONCRETE BLOCK.
2. THIS SCHEDULE IS FOR THOSE OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCH & MECH DRAWINGS FOR LOCATION AND SIZE OF FOR NON-BEARING MASONRY WALL

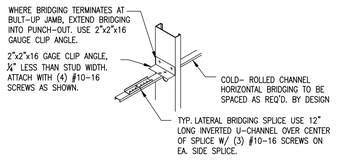
TD26 / S4.1 TYPICAL DETAIL
MISCELLANEOUS BOND OR PRECAST MASONRY LINTEL SCHEDULE
FOR NON-LOAD BEARING WALLS



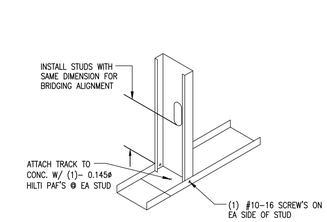
TD27 / S4.1 TYPICAL DETAIL
METAL STUD BRACING AT BEAM/DECK



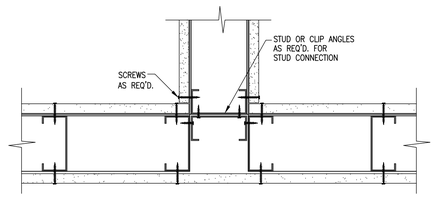
TD28 / S4.1 TYPICAL TRACK SPLICE



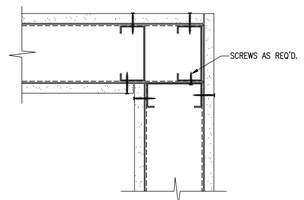
TD29 / S4.1 TYPICAL WALL BRIDGING



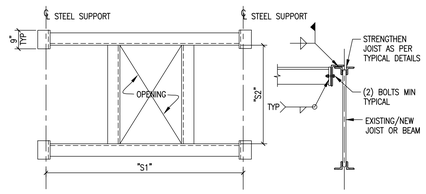
TD30 / S4.1 TYPICAL STUD TO TRACK CONNECTION



TD31 / S4.1 TYPICAL DETAIL
WALL INTERSECTION FRAMING

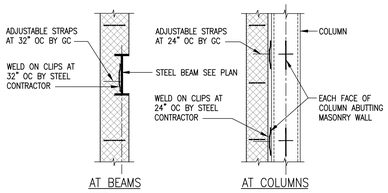


TD32 / S4.1 TYPICAL DETAIL
CORNER FRAMING



NOTES:
1. FOR SIZE AND LOCATION OF OPENINGS SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. STEEL CONTRACTOR SHALL VERIFY ALL OPENINGS AND EXACT LOCATIONS WITH THE TRADE CONTRACTOR REQUIRING OPENINGS PRIOR TO FABRICATION AND ERECTION OF STEEL FRAMES.
3. PROVIDE STEEL FRAMING AS SHOWN AROUND ALL OPENINGS LARGER THAN 8" AT THE ROOF.
4. WHEN JOIST SPACING EXCEEDS 6'-0", VERIFY ALL ANGLES SIZES W/ENGINEER.
5. WHERE ROOF STEEL SLOPES, CURB HEIGHTS MUST VARY TO PROVIDE A LEVEL SURFACE.
6. PROVIDE BRIDGING FOR ONE BAY ON BOTH SIDES OF OPENING WHEN BRIDGING IS INTERRUPTED.
7. PROVIDE STEEL ANGLES ON ALL SIDES OF OPENINGS UNLESS BEAM IS SHOWN ON PLAN. ANGLE SIZES TO BE:
   FOR "S1" OR "S2" ≤ 4'-0" – L 4x4x1/4
   FOR "S1" OR "S2" > 4'-0" – L 6x6x3/8
   FOR "S1" OR "S2" > 9'-0" – L 7x4x3/8 (LLV)

TD33 / S4.1 TYPICAL DETAIL
FRAMING AT ROOF OPENING



NOTES:
1. PROVIDE WELD ON ADJUSTABLE MASONRY ANCHORS ON ALL BEAMS AND COLUMNS ABUTTING MASONRY WALLS.
2. USE HECKMAN (OR APPROVED EQUAL) #316 ADJUSTABLE STRAPS BY G.C. & #315 WELD ON CLIPS BY STEEL CONTRACTOR.
3. ANCHORS TO BE KEPT IN BLOCK COURSING.
4. STEEL CONTRACTOR SHALL COORDINATE ANCHOR LOCATION WITH ARCHL. DRAWINGS PRIOR TO FABRICATION.

TD34 / S4.1 TYPICAL DETAIL
MASONRY ANCHORS

MPP Engineers LLC
34 S. Main Street, Suite D
Allentown, NJ 08501
Phone: (609) 489-5511

SCOTT W. McCONNELL
PROFESSIONAL ENGINEER, N.Y. LIC. No. 081887-1

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0500
F: 617.482.0637

West Coast Office
23191 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8888
F: 949.716.8999

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY : MPP
CHECKED BY : SWM
SCALE: AS NOTED
DATE 20 OCT 2021
PROJECT NO: # 2019

PROGRESS SET ☐ | BID SET ■ | PERMIT SET ☐ | CONSTRUCTION SET ☐

TYPICAL DETAILS

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S4.1

WALL TYPES

- EXISTING WALL
- NEW WALL
- 1 HR RATED WALL
- ACOUSTIC INSULATION - REFER TO PARTITION TYPES

NOTE:

1. ALL INTERIOR DIMENSIONS ARE TAKEN FROM CENTERLINE OF STUD AND/OR STRUCTURE UNESS OTHERWISE NOTED.
2. ALL EXTERIOR DIMENSIONS ARE TAKEN FROM FACE OF FOUNDATION WALL UNLESS OTHERWISE NOTED.
3. ALL INTERIOR DOOR OPENINGS SHOULD BE LOCATED 4" (ROUGH) MIN. FROM THE JAM TO THE NEAREST ADJACENT WALL UNLESS OTHERWISE NOTED

DIMENSION KEY:

1 — OVERALL
2 — STRUCTURAL GRID
3 — JOGS
4 — OPENINGS

LEGEND

- FD — FLOOR DRAIN
- FFD — FLUSHING FLOOR DRAIN
- FTD — FLUSHING TRENCH DRAIN
- FS — FLOOR SINK
- DEPRESSED SLAB
- XXX — DOOR TAG
- XXX — WINDOW TAG

N W E S

1 FIRST FLOOR_DIMENSION PLAN
3/16" = 1'-0"

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.826.3600
F: 617.826.3537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.3600
F: 949.716.9899

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	JY
CHECKED BY:	XX
SCALE:	
DATE:	20 OCT 2021
PROJECT NO:	# 2019

FLOOR PLAN - DIMENSIONS

PROGRESS SET ☐ BID SET ▩ PERMIT SET ☐ CONSTRUCTION SET ☐

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A1.01

BID SET

1 FIRST FLOOR PARTITION PLAN
3/16" = 1'-0"

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557

West Coast Office
2301f Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8689
F: 949.716.9859

rauhaus freedenfeld & associates

ARCHITECT'S SEAL:

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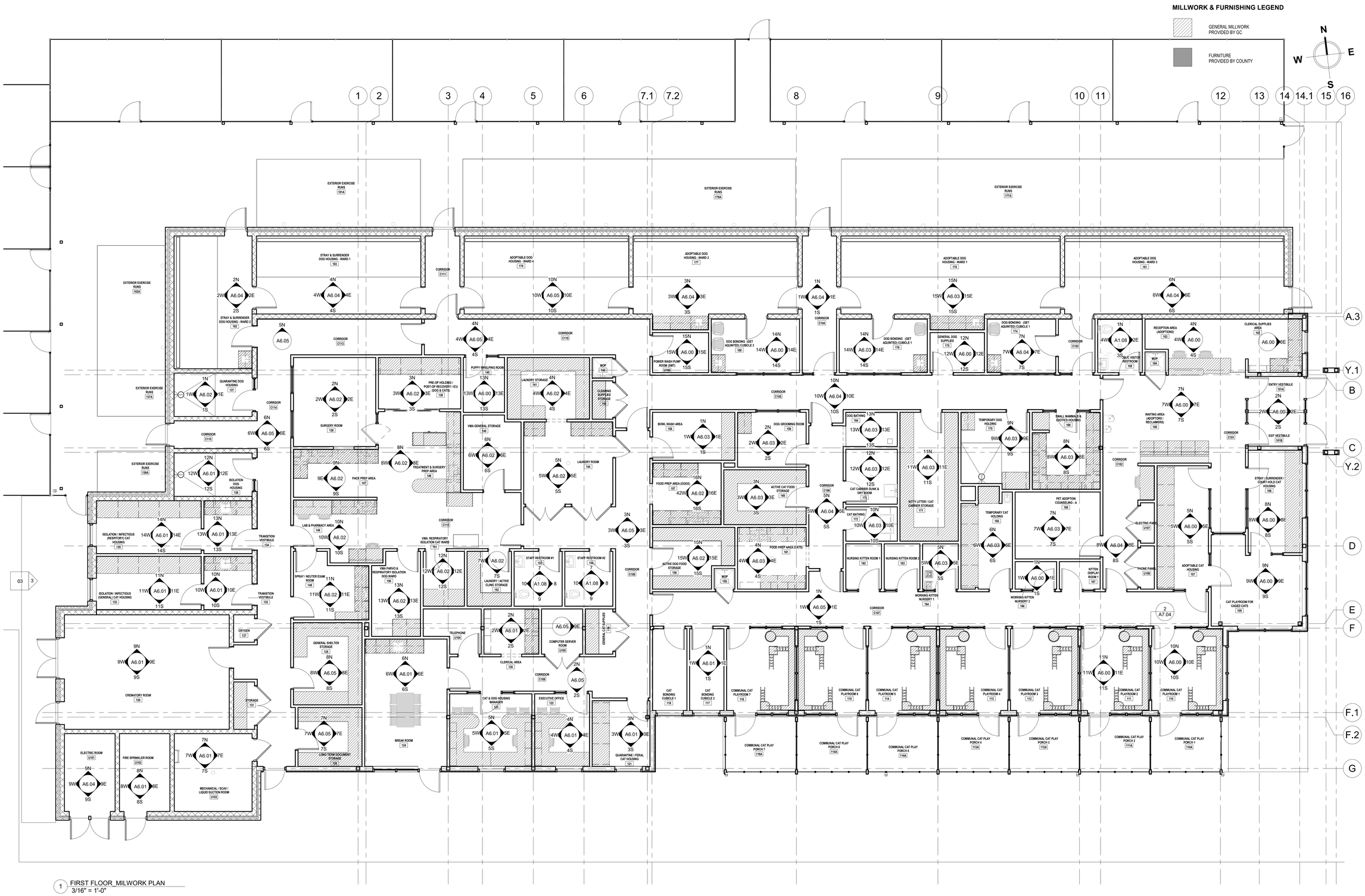
FLOOR PLAN - PARTITIONS

A1.02

MILLWORK & FURNISHING LEGEND

- GENERAL MILLWORK PROVIDED BY GC
- FURNITURE PROVIDED BY COUNTY



1 FIRST FLOOR MILWORK PLAN
3/16" = 1'-0"

BID SET

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rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9959

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FLOOR PLAN - MILLWORK / FURNISHING

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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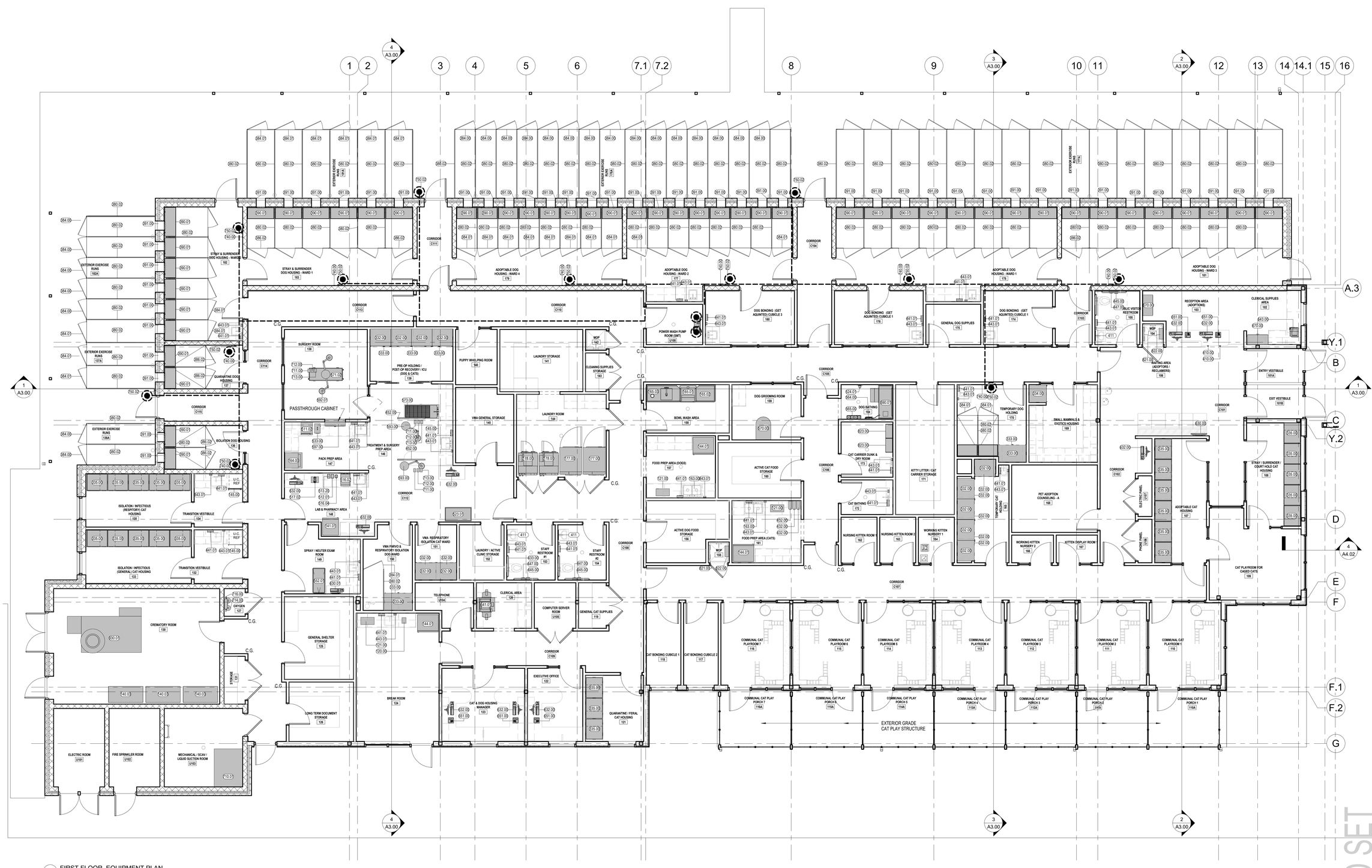
A1.03

EQUIPMENT LEGEND

- GENERAL EQUIPMENT PROVIDED BY GC
- C.G. — CORNER GUARD PROVIDED BY GC
- SMT PRESSURE WASHING SYSTEM LAYOUT
- SMT PRESSURE WASHER REMOTE (OUTLET)

N / W / E / S



1 FIRST FLOOR_EQUIPMENT PLAN
3/16" = 1'-0"

BID SET

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rf&a rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.3557
F: 617.426.3557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9999

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NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

FLOOR PLAN - EQUIPMENT

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A1.04

FINISH LEGEND

- PORCELAIN TILE (PT-1)
- SHEET VINYL (SV-1)
- RESINOUS EPOXY (RS-1)
- SEALED CONCRETE (SC-1)

N / W / E / S

1 FIRST FLOOR_FINISHES PLAN
3/16" = 1'-0"

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rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.3557
F: 617.426.3557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

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65 FIREMENS MEMORIAL DR., POMONA, NY 10970

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PROJECT NO:	# 2019

FLOOR PLAN - FINISHES

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A1.05

REFLECTED CEILING PLAN LEGEND

(REFER TO SPECIFICATION AND EQUIPMENT SCHEDULE FOR MANUFACTURER'S INFORMATION)

CEILING / ROOF MATERIAL

- ACT-1 (2 x 2)
- ACT-2 - MOISTURE-RESISTANT (2x2)
- METAL CEILING PANELLING
- G.W.B. HARD DROP CEILING ON MTL. STUDS
- WIRE MESH ENCLOSURE
- SLOPPED GLAZING (SG)

REFER TO SPECS

HVAC FIXTURES

- EXHAUST FAN
- HVAC DIFFUSER
- HVAC RETURN REGISTER

REFER TO MECHANICAL DRAWING

LIGHTING FIXTURES

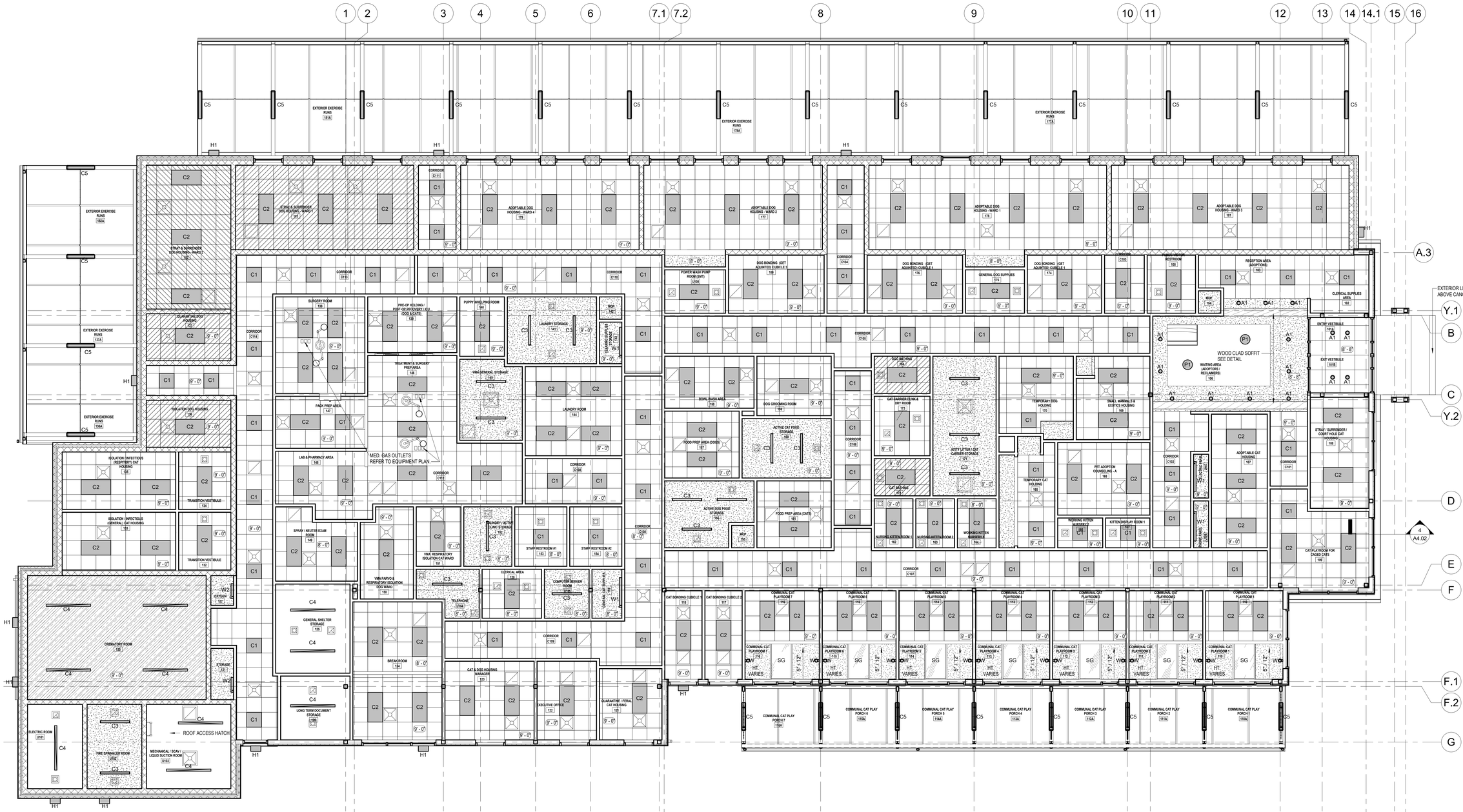
- RECESSED DOWNLIGHT LED — A1 — AD1 - DIMMER — A3 - ON SLOPED CEILING
- C1 — 2' X 2' RECESSED LED LIGHT FIXTURE - FLAT LENS
- C2 — 2' X 4' RECESSED LED LIGHT FIXTURE - FLAT LENS
- C3 — 4' INTERIOR SURFACE MOUNT LED LINEAR FIXTURE
- C4 — 4' INTERIOR PENDANT MOUNT LED LINEAR FIXTURE
- C5 — 4' EXTERIOR SURFACE MOUNT LED LINEAR FIXTURE
- W — INTERIOR WALL SCONCE
- W1 - 4'-0" / W2 - 2'-0" — WALL MOUNT LED STRIP LIGHT FIXTURE (ABOVE DOOR - INTERIOR)
- H1 — EXTERIOR LIGHT
- P1 — DECORATIVE PEDANT LIGHT 1
- U — UNDER CABINET LIGHT

NOTE -
REFER TO SPRINKLER PLAN SHEET 2 OF 2 FOR SPRINKLER LOCATIONS AND LAYOUT.
REFER TO ELECTRICAL DRAWINGS

CEILING MOUNT EQUIPMENT

- CEILING-MOUNTED, ARTICULATED EXAMINATION LIGHT FIXTURE - SINGLE-ARMED
- CEILING-MOUNTED, MED GAS OUTLETS. INCLUDING OXYGEN, SUCTION AND SCAVENGER
- HOSE REEL - REFER TO DETAILS FOR MOUNTING TYPE
- IV TRACK
- RETRACTABLE POWER CORD AND POWER OUTLET

N / W / E / S



1 FIRST FLOOR_ REFLECTED CEILING PLAN
3/16" = 1'-0"

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
87 Broadway,
Boston, MA 02116
T: 617.426.2557
F: 617.426.2557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

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BID SET

FLOOR PLAN - REFLECTED CEILING PLAN

A1.06

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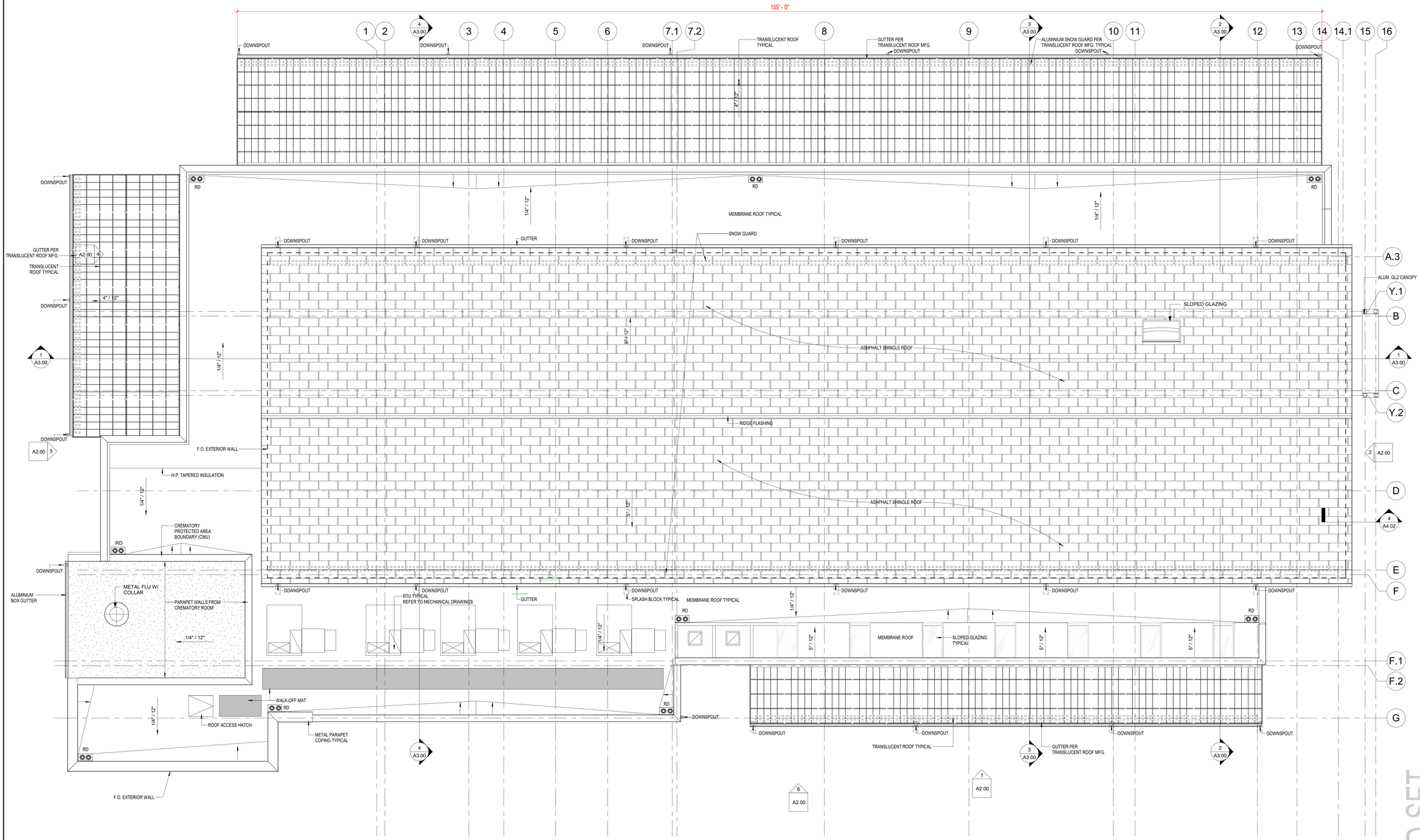
ROOF LEGEND

- WALK PAD
- MEMBRANE ROOFING
- TRANSLUCENT ROOF
- ASPHALT SHINGLE
- SLOPED GLAZING



1 ROOF PLAN
3/16" = 1'-0"

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rf&a rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.482.2500
F: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

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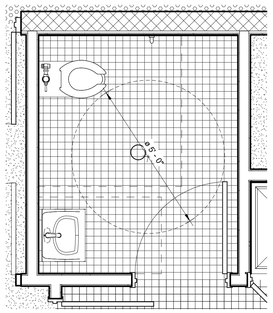
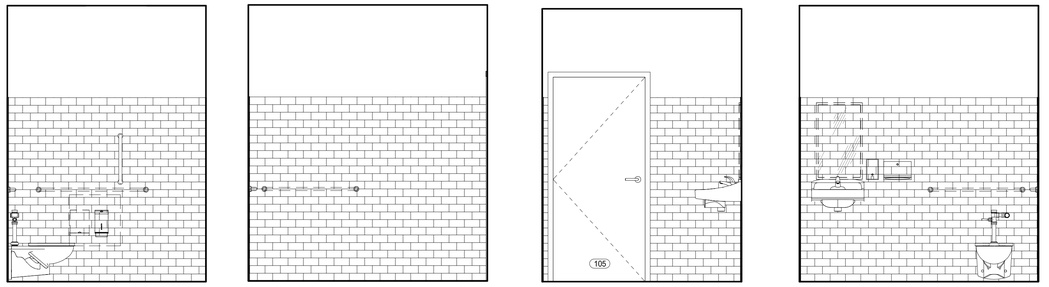
ROOF PLAN

A1.07



1 105 PUBLIC RESTROOM (UNISEX)
1/2" = 1'-0"

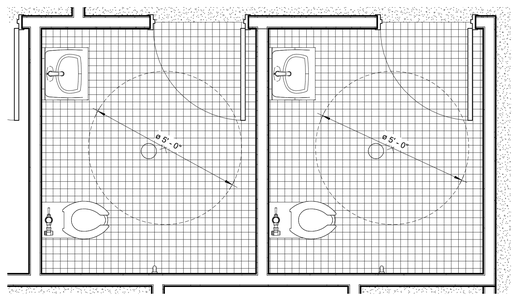


1N 105 PUBLIC RESTROOM (UNISEX) - N
1/2" = 1'-0"

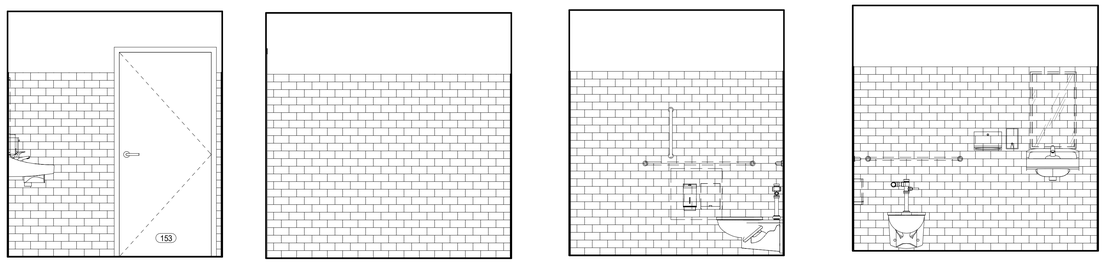
2E

3S

4W



2 STAFF RESTROOM #1,2 PLAN
1/2" = 1'-0"



7 153 UNISEX STAFF RESTROOM #1,2 - N
1/2" = 1'-0"

8

9

10

BID SET

RESTROOM BLOWUP PLANS / ELEVATIONS

A1.08

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rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.720.9500
F: 617.426.2537
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9500
F: 949.716.9899

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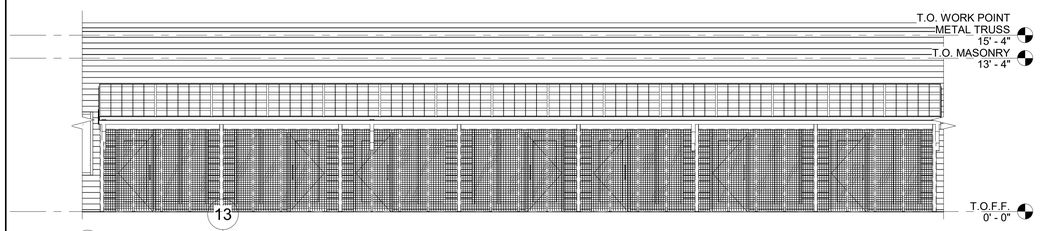
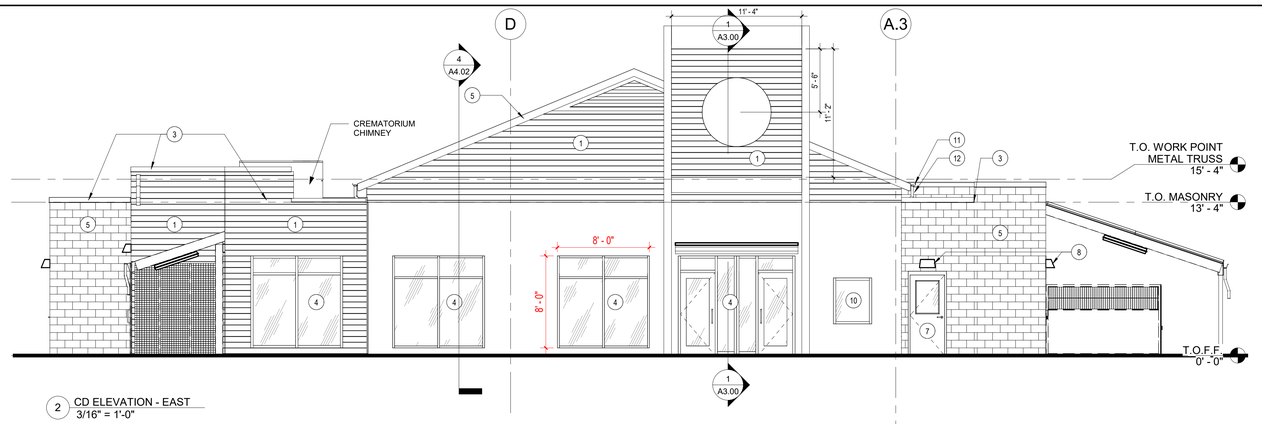
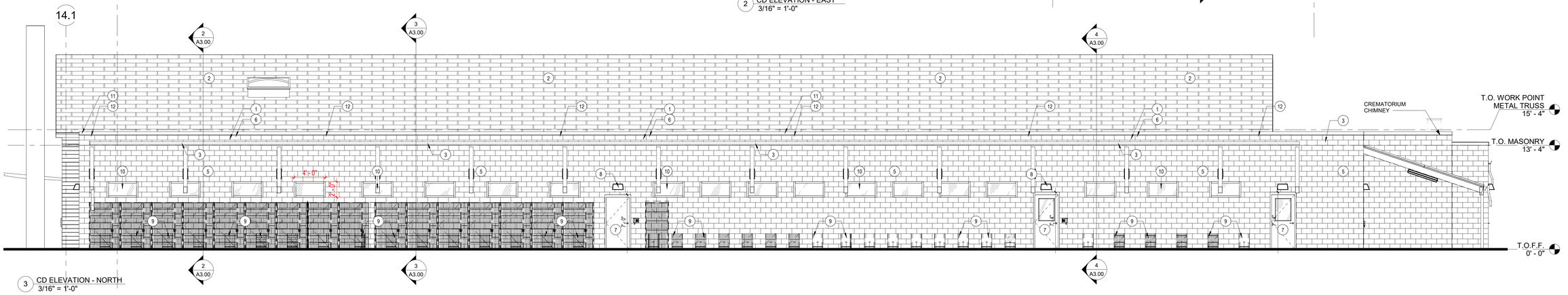


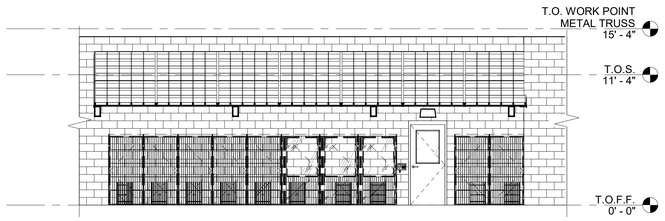
1 CD EXTERIOR EXERCISE RUNS ELEVATION - EAST
3/16" = 1'-0"



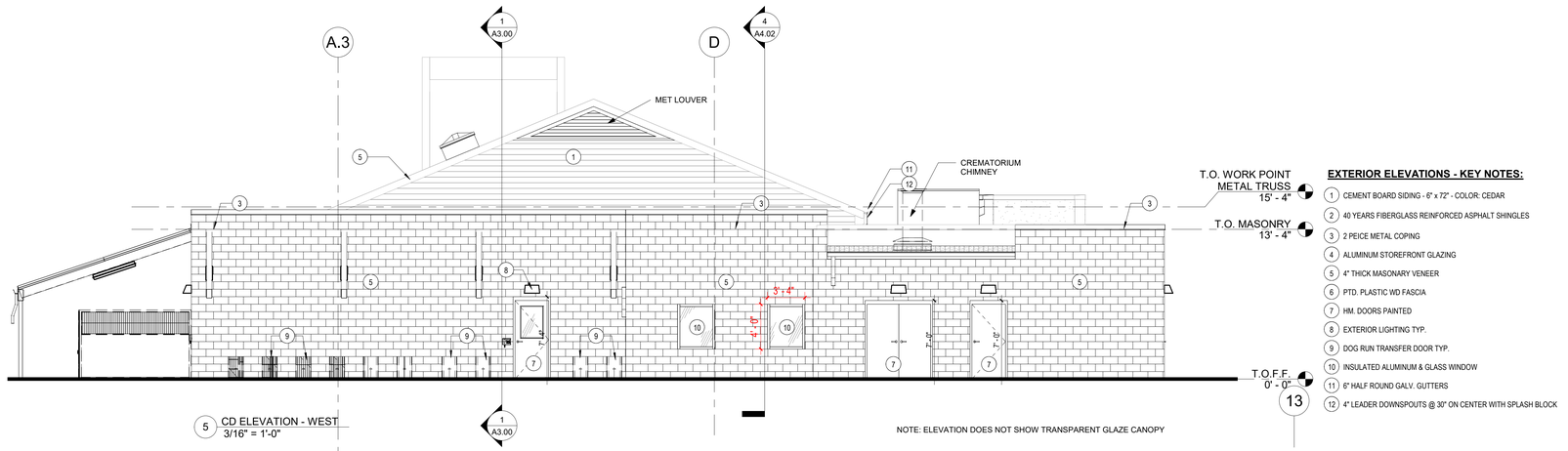
2 CD ELEVATION - EAST
3/16" = 1'-0"



3 CD ELEVATION - NORTH
3/16" = 1'-0"



4 CD COMMUNAL CAT PLAY PORCH 5 ELEVATION - NORTH
3/16" = 1'-0"

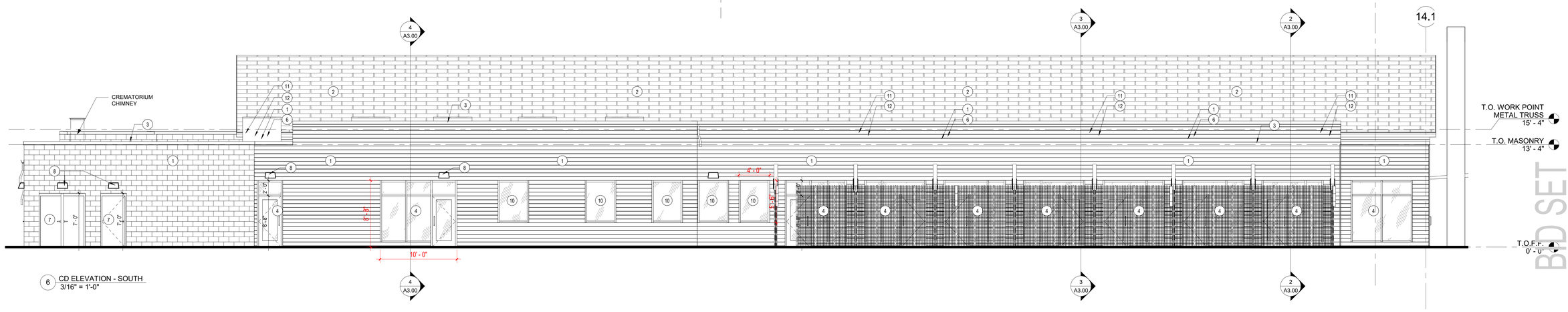


5 CD ELEVATION - WEST
3/16" = 1'-0"

NOTE: ELEVATION DOES NOT SHOW TRANSPARENT GLAZE CANOPY

EXTERIOR ELEVATIONS - KEY NOTES:

1. CEMENT BOARD SIDING - 6" x 72" - COLOR: CEDAR
2. 40 YEARS FIBERGLASS REINFORCED ASPHALT SHINGLES
3. 2 PEICE METAL COPING
4. ALUMINUM STOREFRONT GLAZING
5. 4" THICK MASONARY VENEER
6. PTD. PLASTIC WD FASCIA
7. HM. DOORS PAINTED
8. EXTERIOR LIGHTING TYP.
9. DOG RUN TRANSFER DOOR TYP.
10. INSULATED ALUMINUM & GLASS WINDOW
11. 6" HALF ROUND GALV. GUTTERS
12. 4" LEADER DOWNSPOUTS @ 30" ON CENTER WITH SPLASH BLOCK



6 CD ELEVATION - SOUTH
3/16" = 1'-0"

BD SET

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ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.720.3555
F: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

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PROJECT NO: # 2019			

CONSTRUCTION SET ☐
PERMIT SET ☐
BID SET ■
PROGRESS SET ☐

EXTERIOR ELEVATIONS

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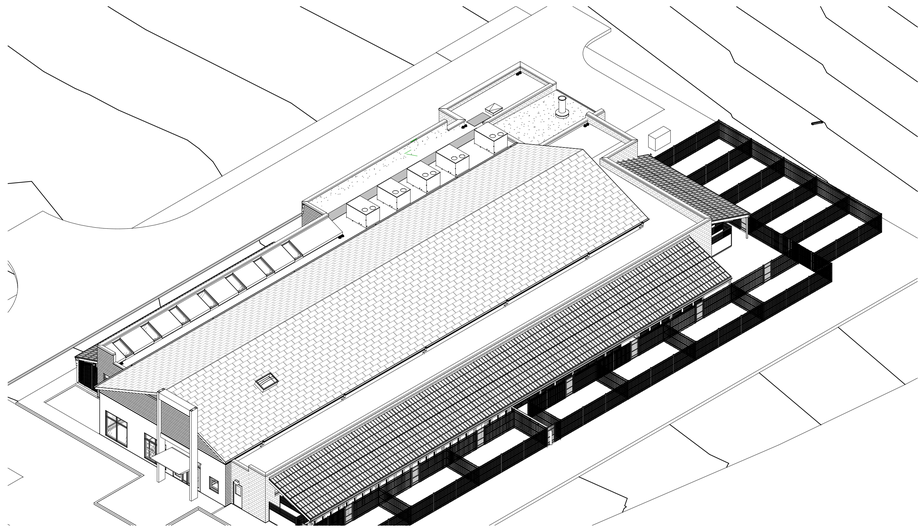
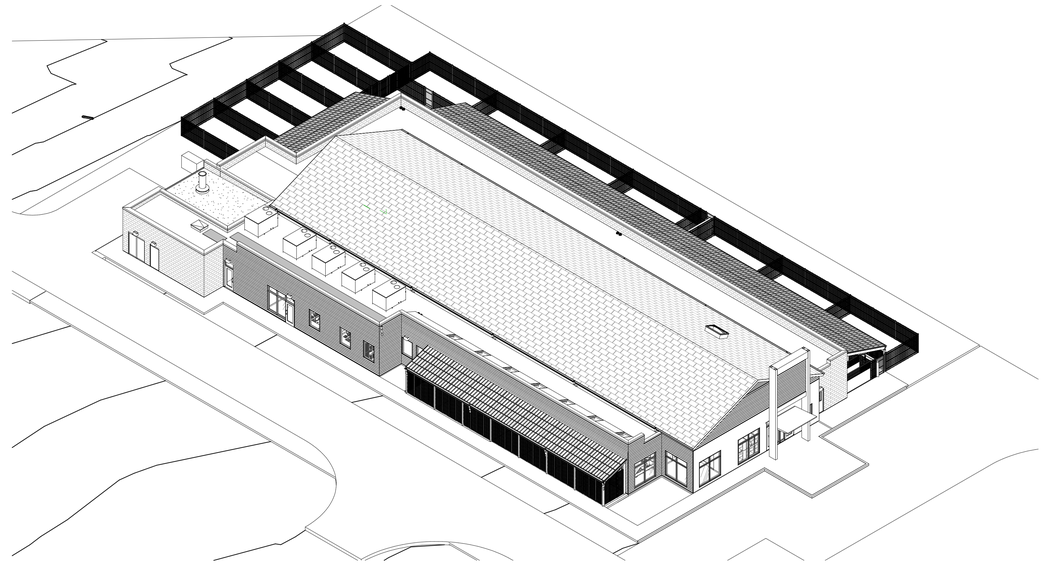
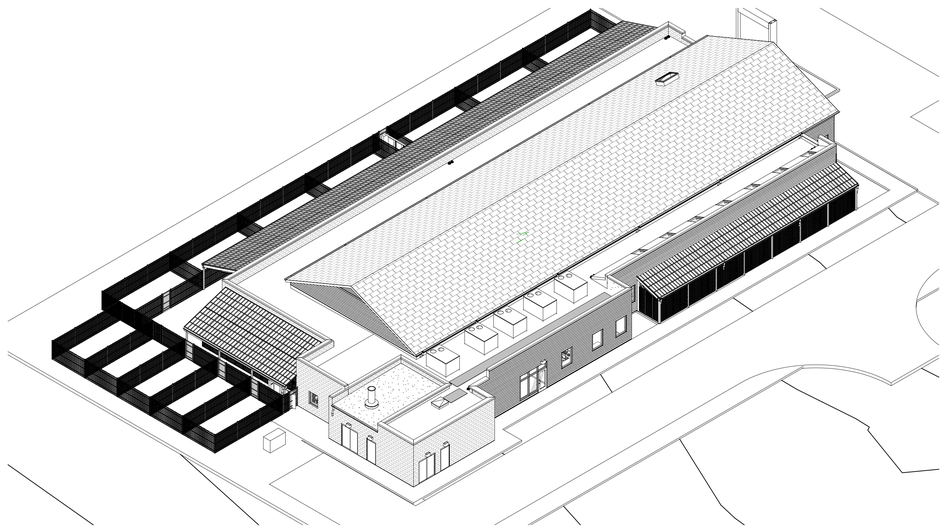
A2.00



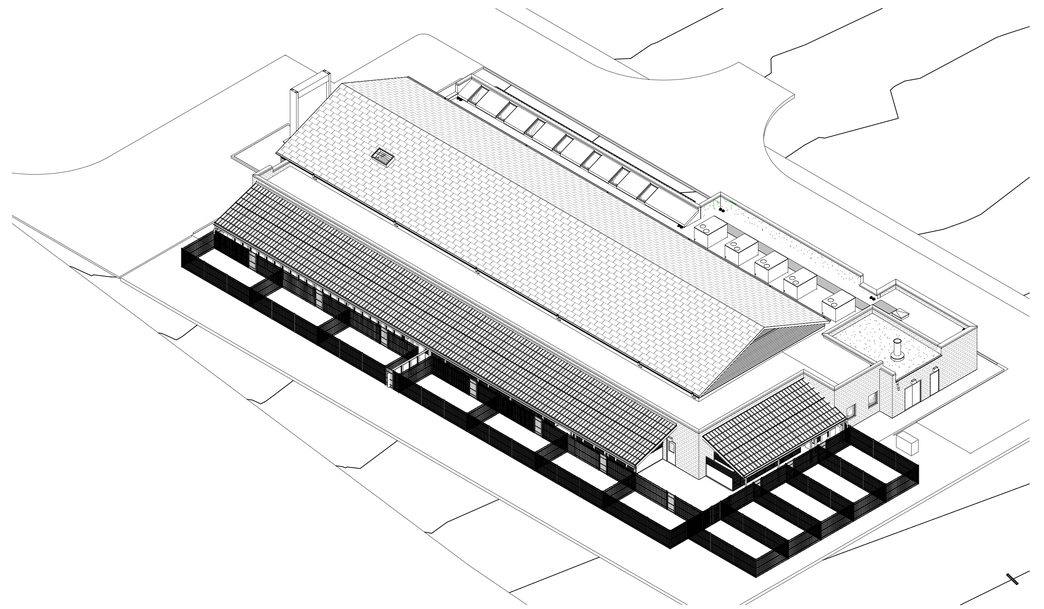
1 Axon - North East



2 Axon - South East



3 Axon - South West



4 Axon - North West

BID SET

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NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DR., POMONA, NY 10970

REVISION		
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rf&a

rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.3500
F: 617.426.3537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9900
F: 949.716.9999

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AXONOMETRICS

A2.01

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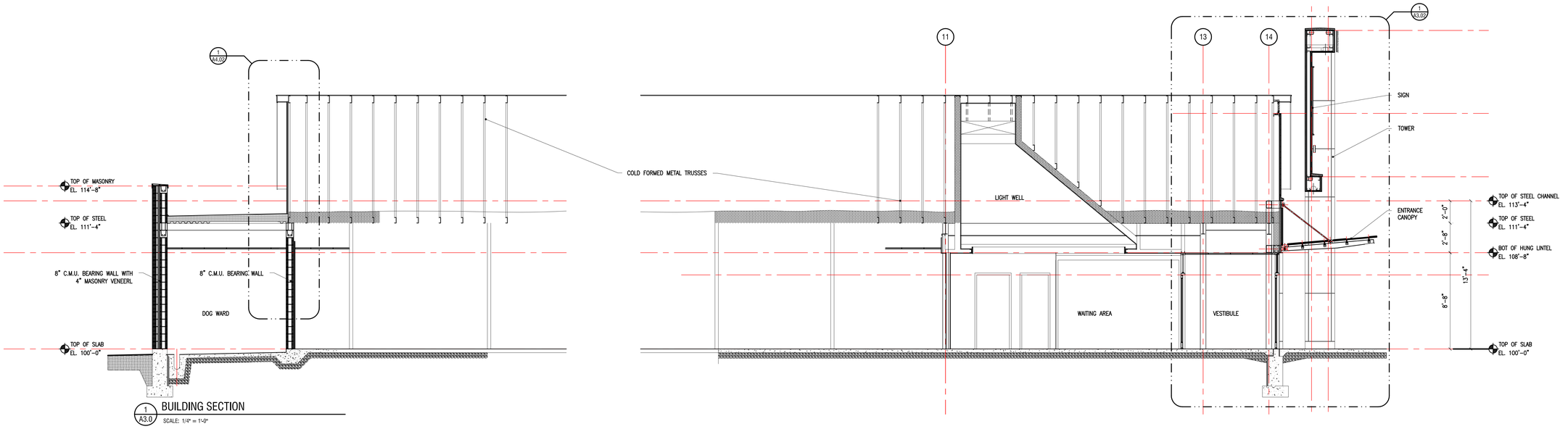
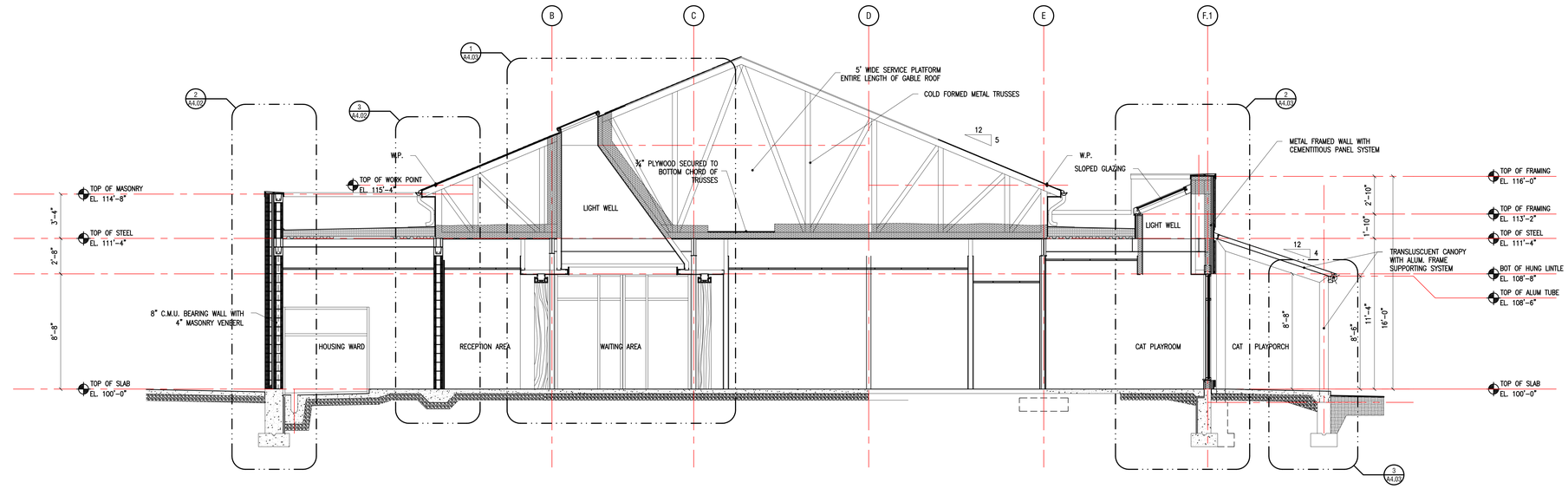


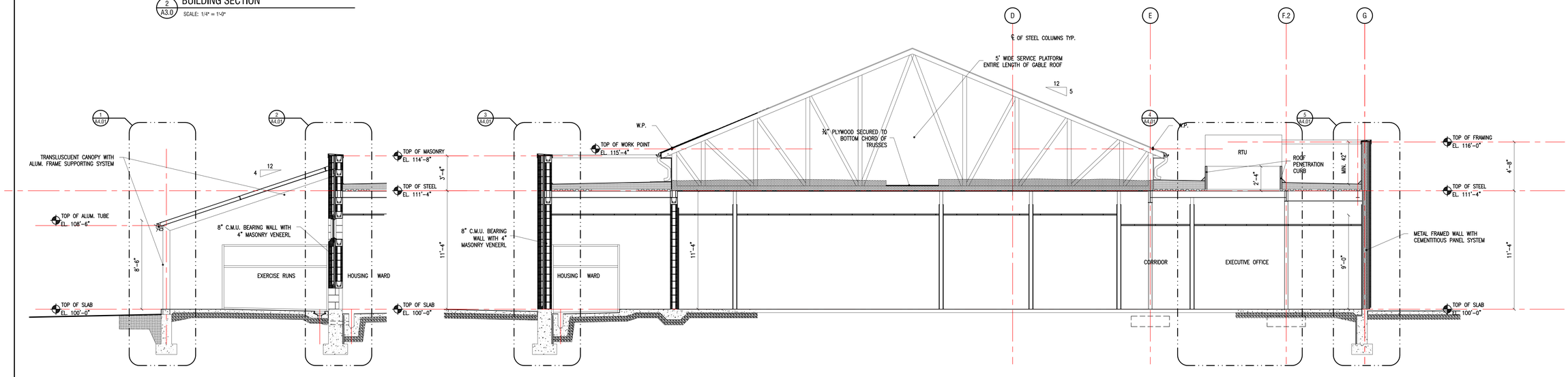
1 A3.0 BUILDING SECTION

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



2 A3.0 BUILDING SECTION

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



3 A3.0 BUILDING SECTION

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

4 A3.0 BUILDING SECTION

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

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
67 Broadway
Boston, MA 02116
T: 617.208.2552
F: 617.208.2557

West Coast Office
23151 Mcintyre Pkwy #105
Lake Forest, CA 92653
T: 949.716.9550
F: 949.716.9559

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: RL
CHECKED BY: RL
SCALE:
DATE: 20 OCT. 2021
PROJECT NO: # 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

BUILDING SECTIONS

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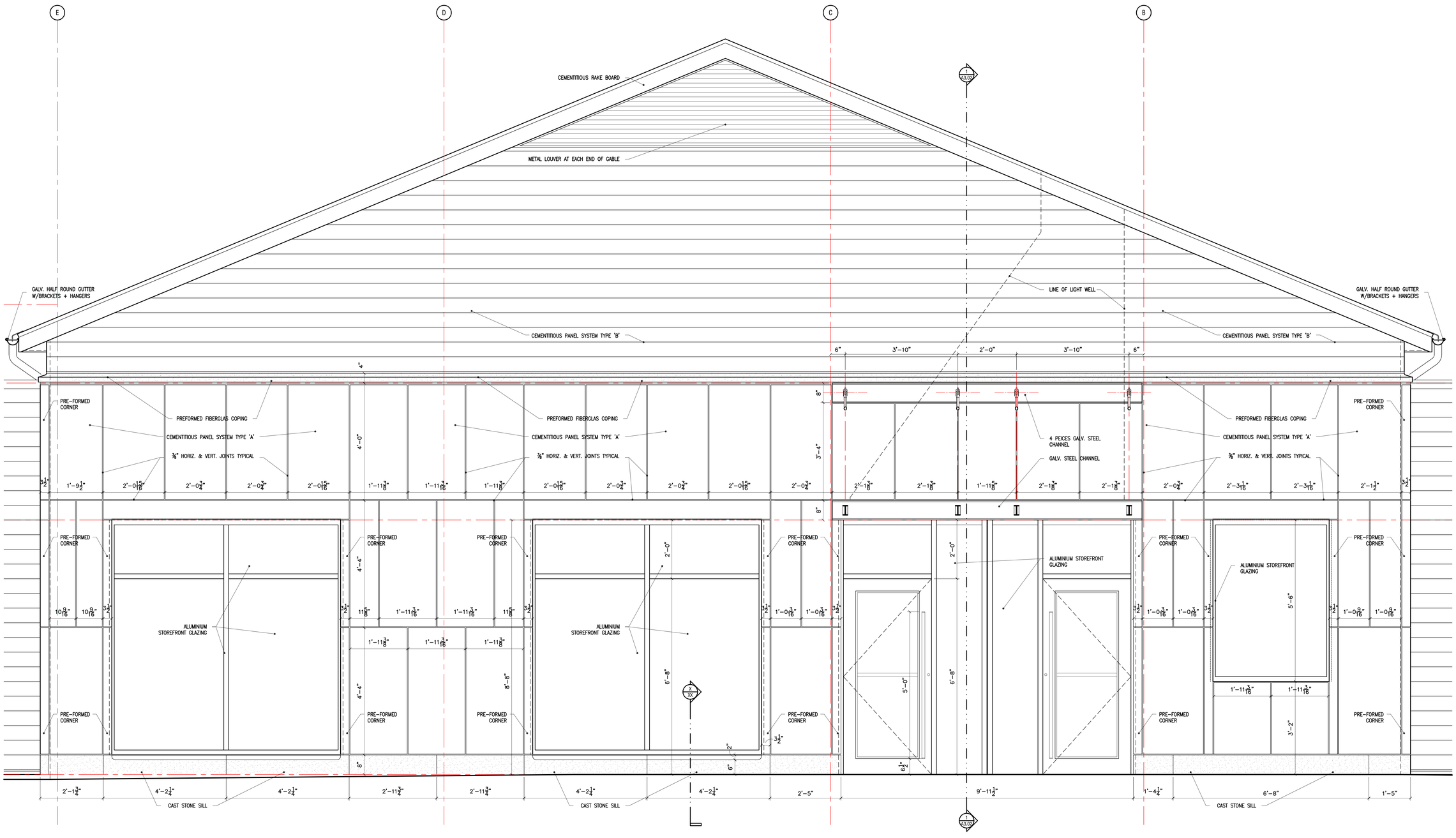
A3.00



1 A3.01 ENLARGED EAST ELEVATION

SCALE: ¾" = 1'-0"

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rauhaus freedenfeld & associates

East Coast Office
67 Broadway
Boston, MA 02116
T: 617.720.2525
F: 617.720.2527

West Coast Office
23151 Mcintyre Pkwy #105
Lake Forest, CA 92653
T: 949.716.9600
F: 949.716.9659

CAPITOL PROJECT 1483

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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

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WALL SECTIONS

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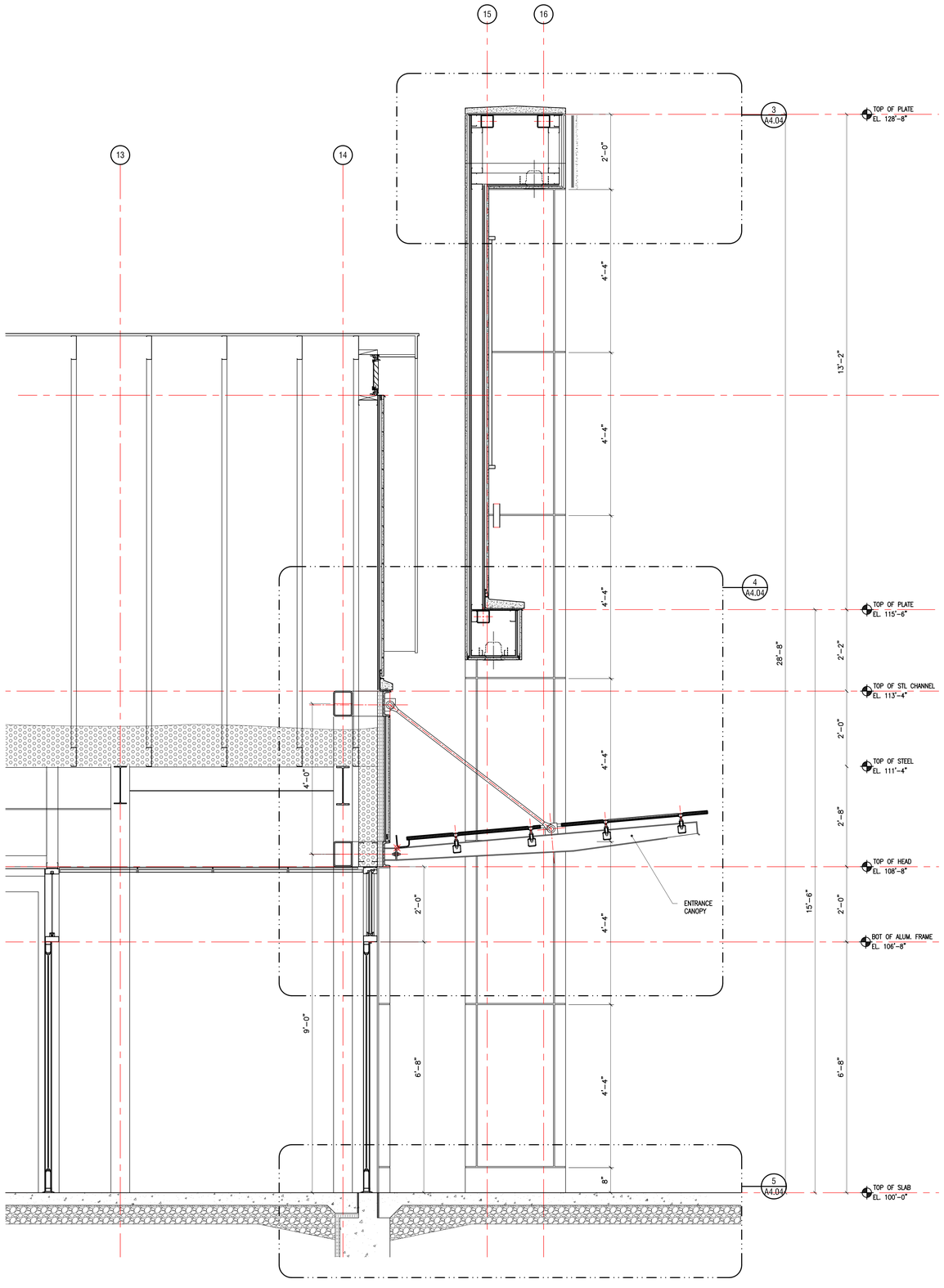
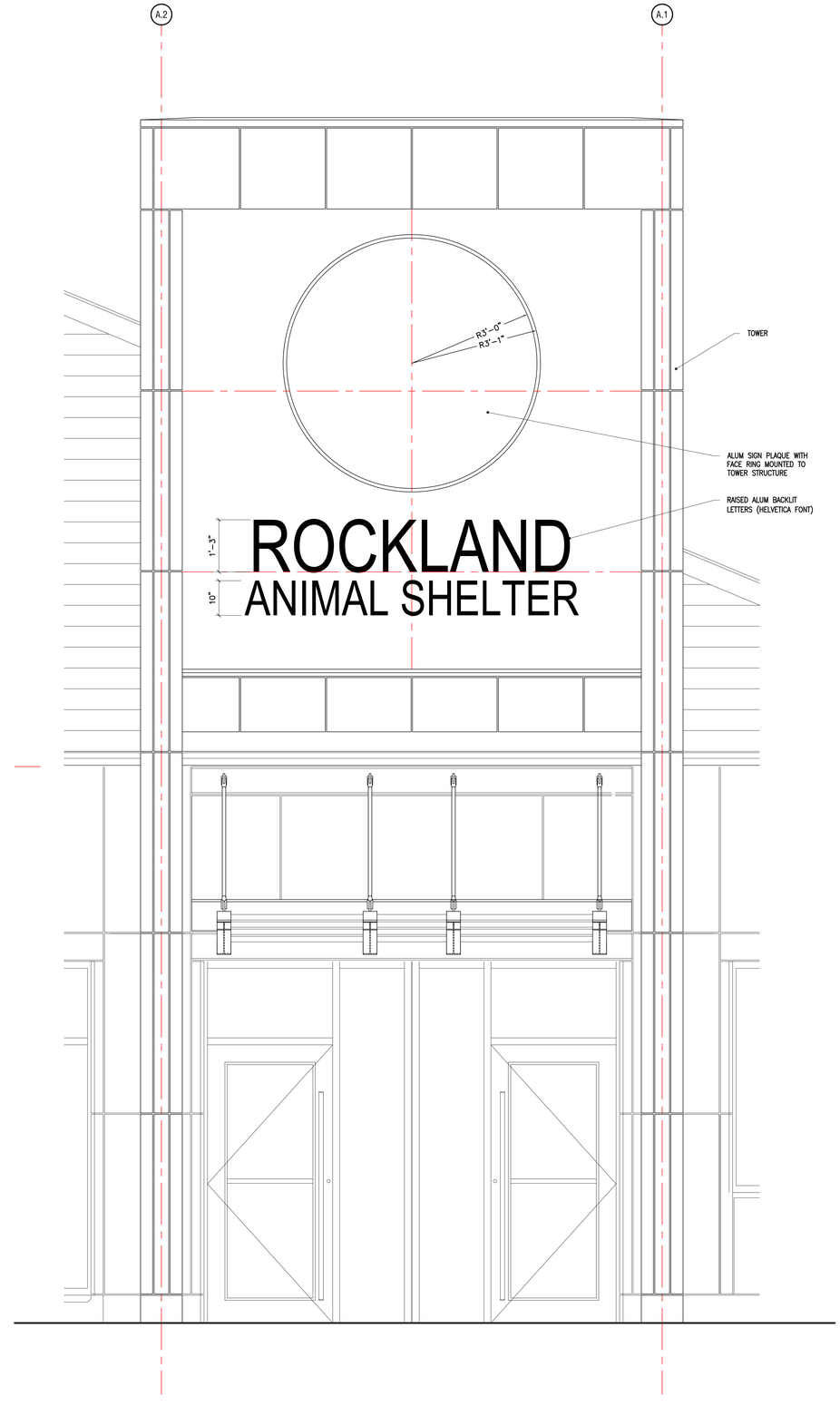
A3.01



1 A3.02 WALL SECTION @ CANOPY

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



2 A3.02 TOWER ELEVATION

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

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
67 Broadway
Boston, MA 02116
T: 617.720.2555
F: 617.208.2557

West Coast Office
23151 Moulton Pkwy #105
Laguna Hills, CA 92653
T: 949.716.8900
F: 949.716.8939

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	RL
CHECKED BY:	RL
SCALE:	
DATE:	20 OCT. 2021
PROJECT NO:	# 2019

WALL SECTIONS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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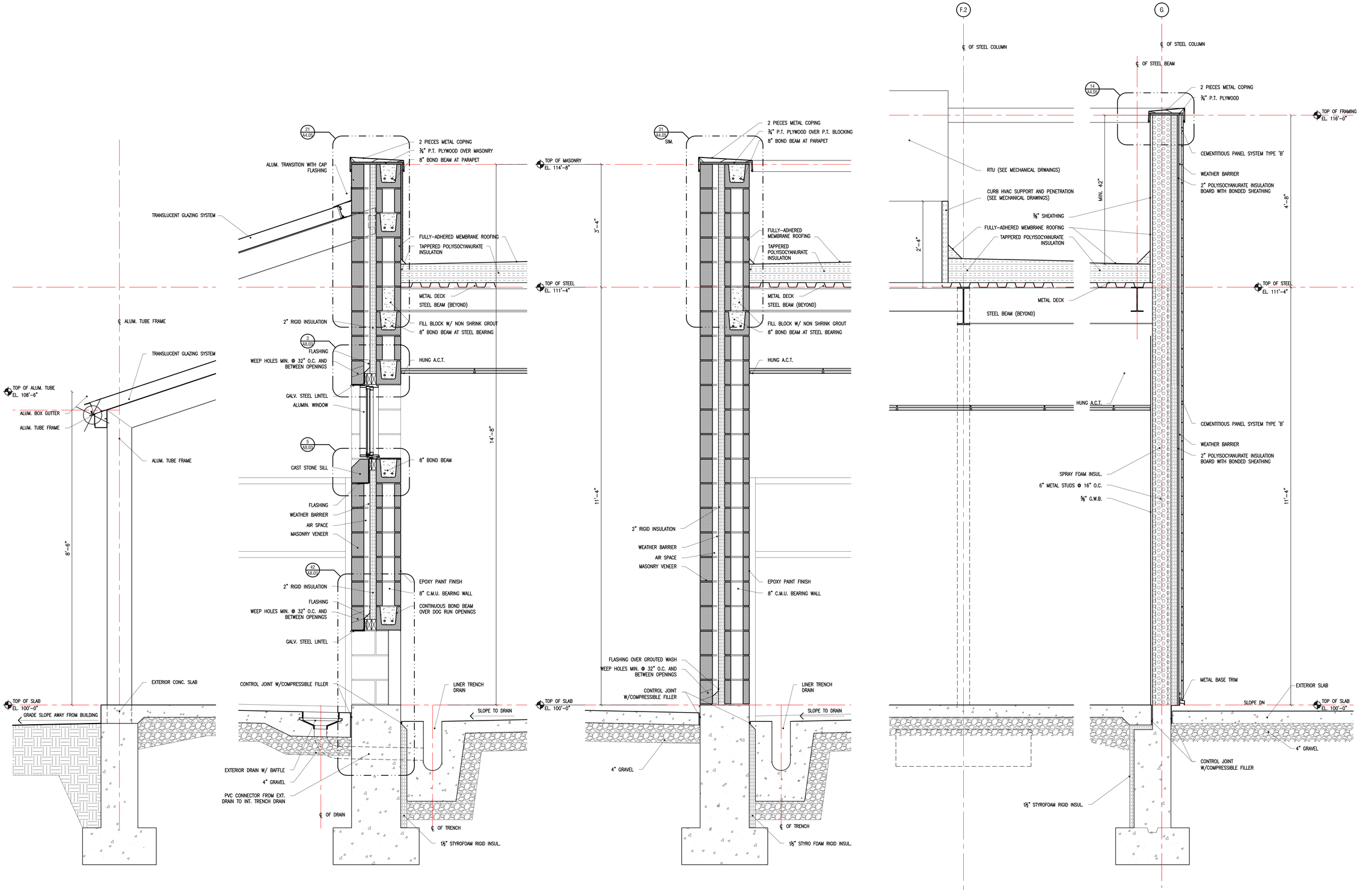
A3.02



1 A4.01 WALL SECTION
SCALE: 1" = 1'-0"

2 A4.01 WALL SECTION
SCALE: 1" = 1'-0"

3 A4.01 WALL SECTION
SCALE: 1" = 1'-0"

4 A4.01 WALL SECTION
SCALE: 1" = 1'-0"

5 A4.01 WALL SECTION
SCALE: 1" = 1'-0"

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
67 Broadway
Boston MA 02116
T: 617.208.2552
F: 617.208.2571

West Coast Office
23151 Mcintyre Pkwy #105
Laguna Hills, CA 92653
T: 949.716.9550
F: 949.716.9559

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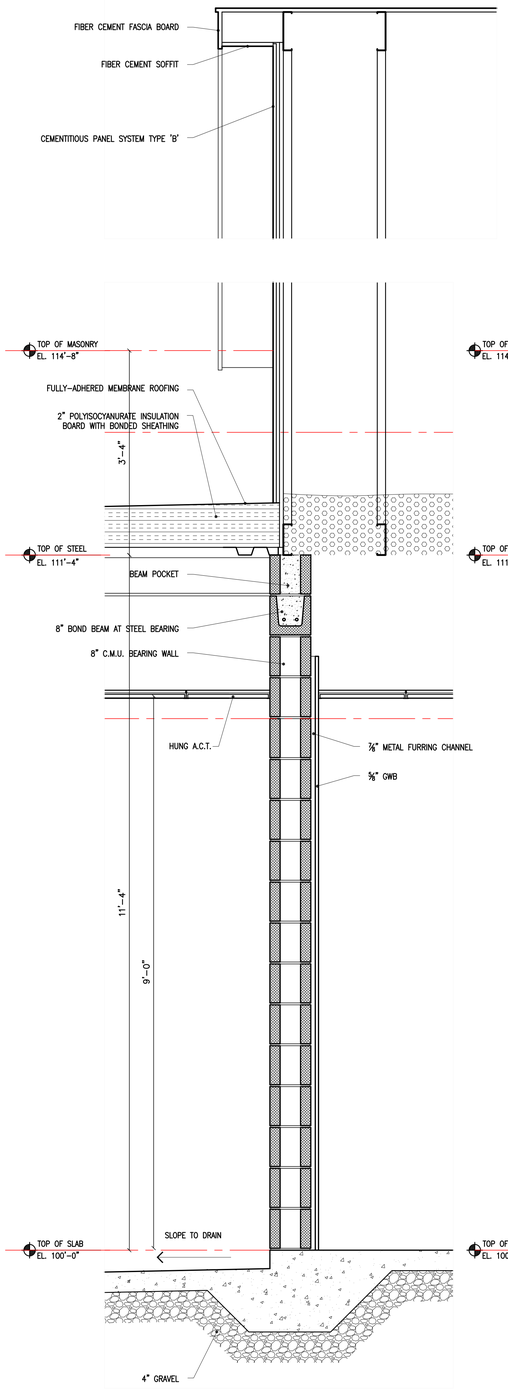
A4.01



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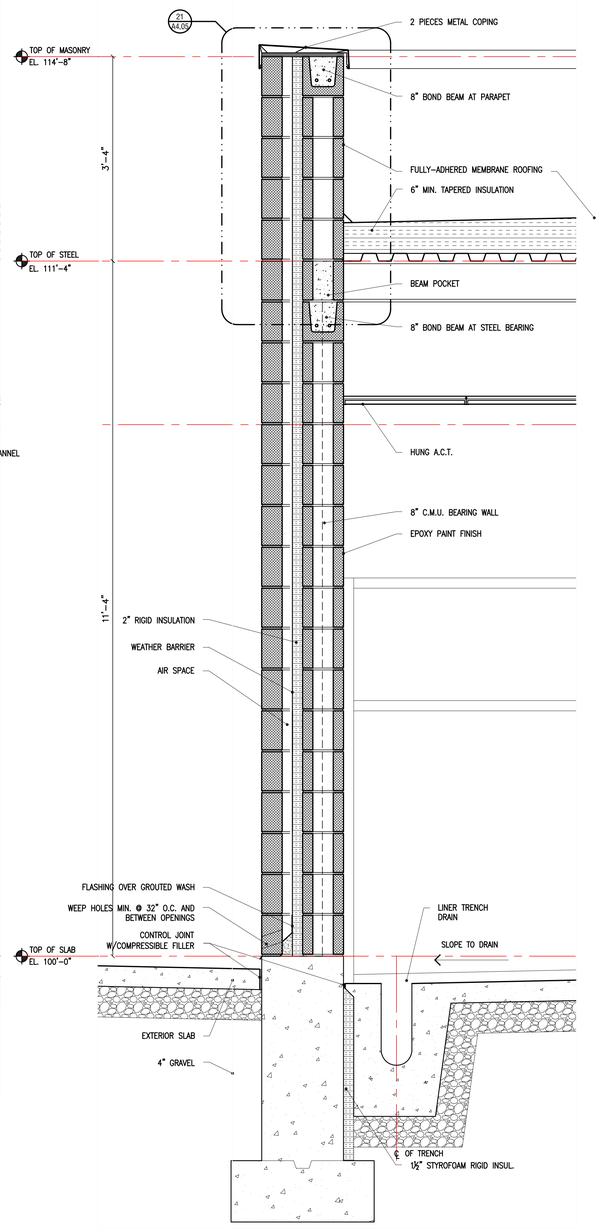

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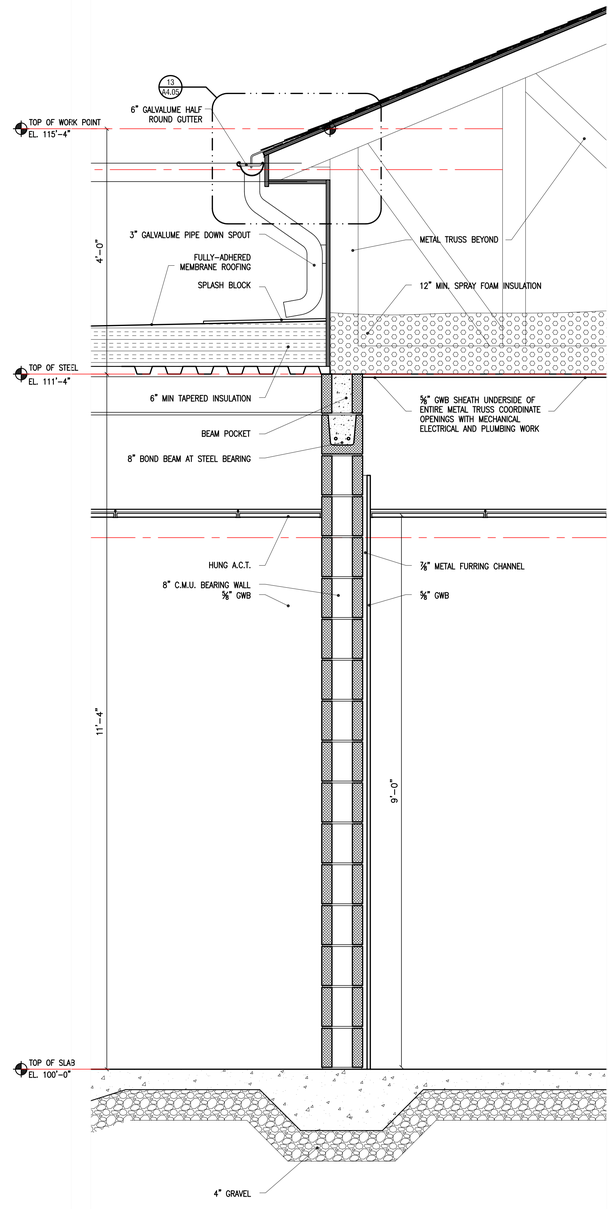

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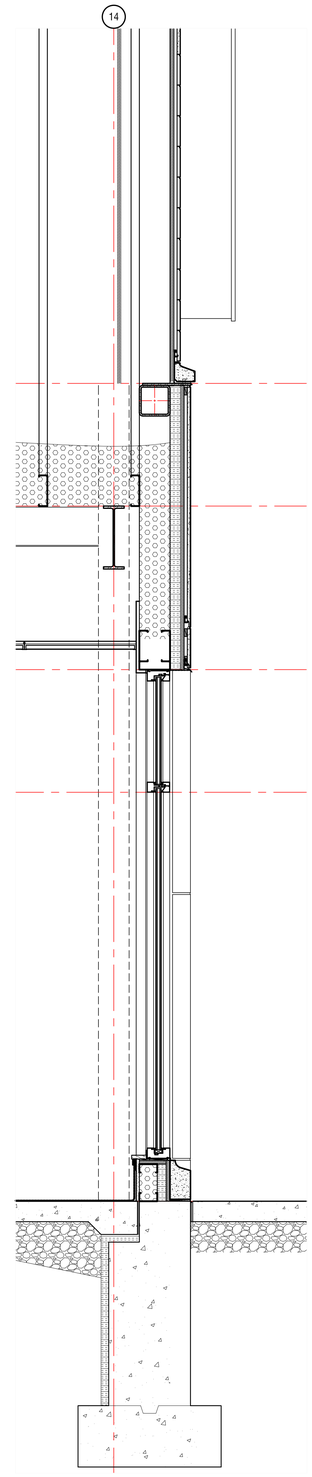

4 A4.02 WALL SECTION
SCALE: 1" = 1'-0"

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ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
67 Broadway
Boston, MA 02116
T: 617.720.2555
F: 617.208.2557
West Coast Office
23151 Mcintyre Pkwy #105
Laguna Hills, CA 92653
T: 949.716.9966
F: 949.716.9939

CAPITOL PROJECT 1483

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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

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WALL SECTIONS

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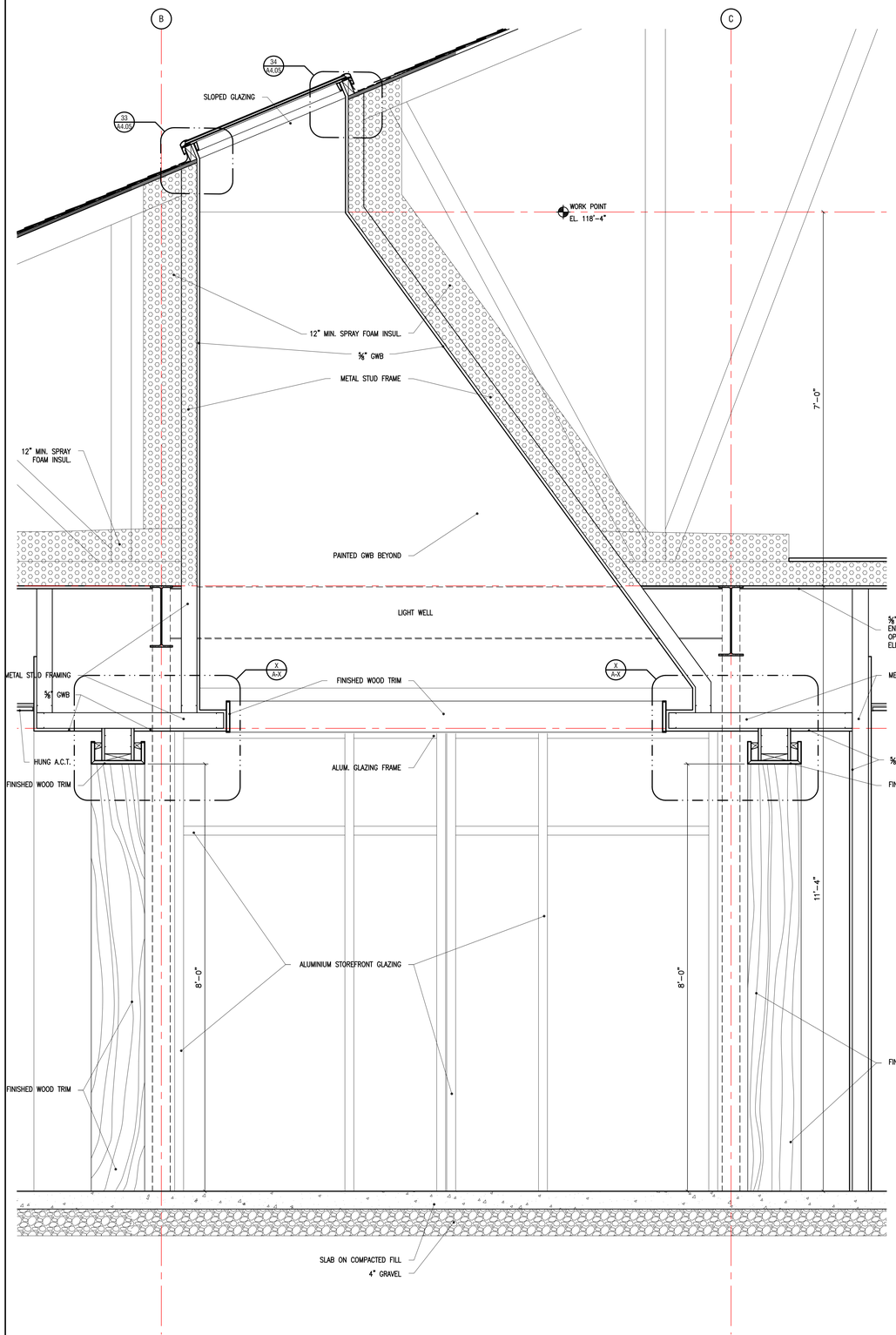

1 A4.03 WALL SECTION
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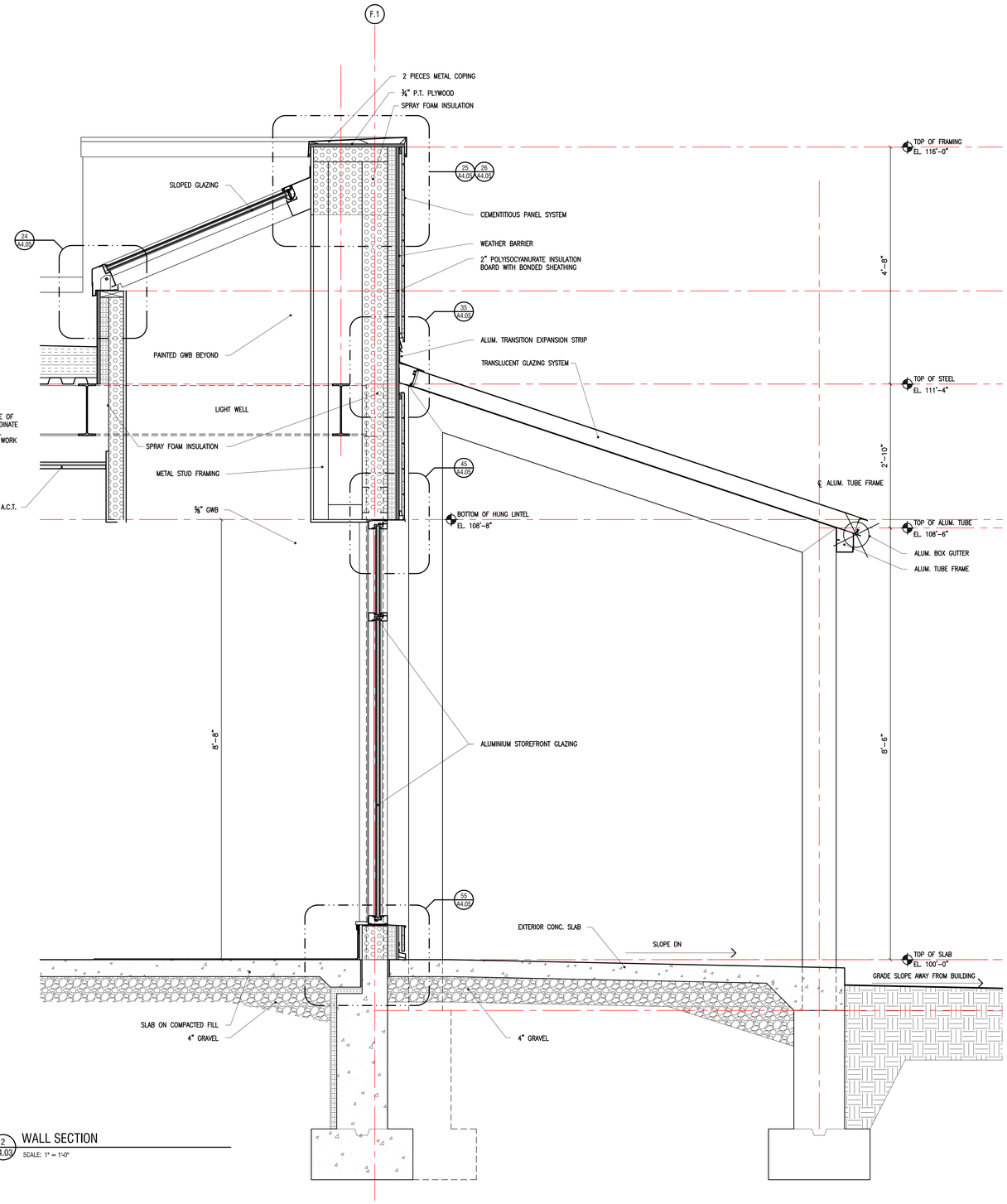

2 A4.03 WALL SECTION
SCALE: 1" = 1'-0"

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ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
67 Broadway
Boston, MA 02116
T: 617.208.3570
F: 617.208.3571

West Coast Office
23161 Mill Creek Drive #105
Laguna Hills, CA 92653
T: 949.716.3570
F: 949.716.9959

CAPITOL PROJECT 1483

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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

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WALL SECTIONS

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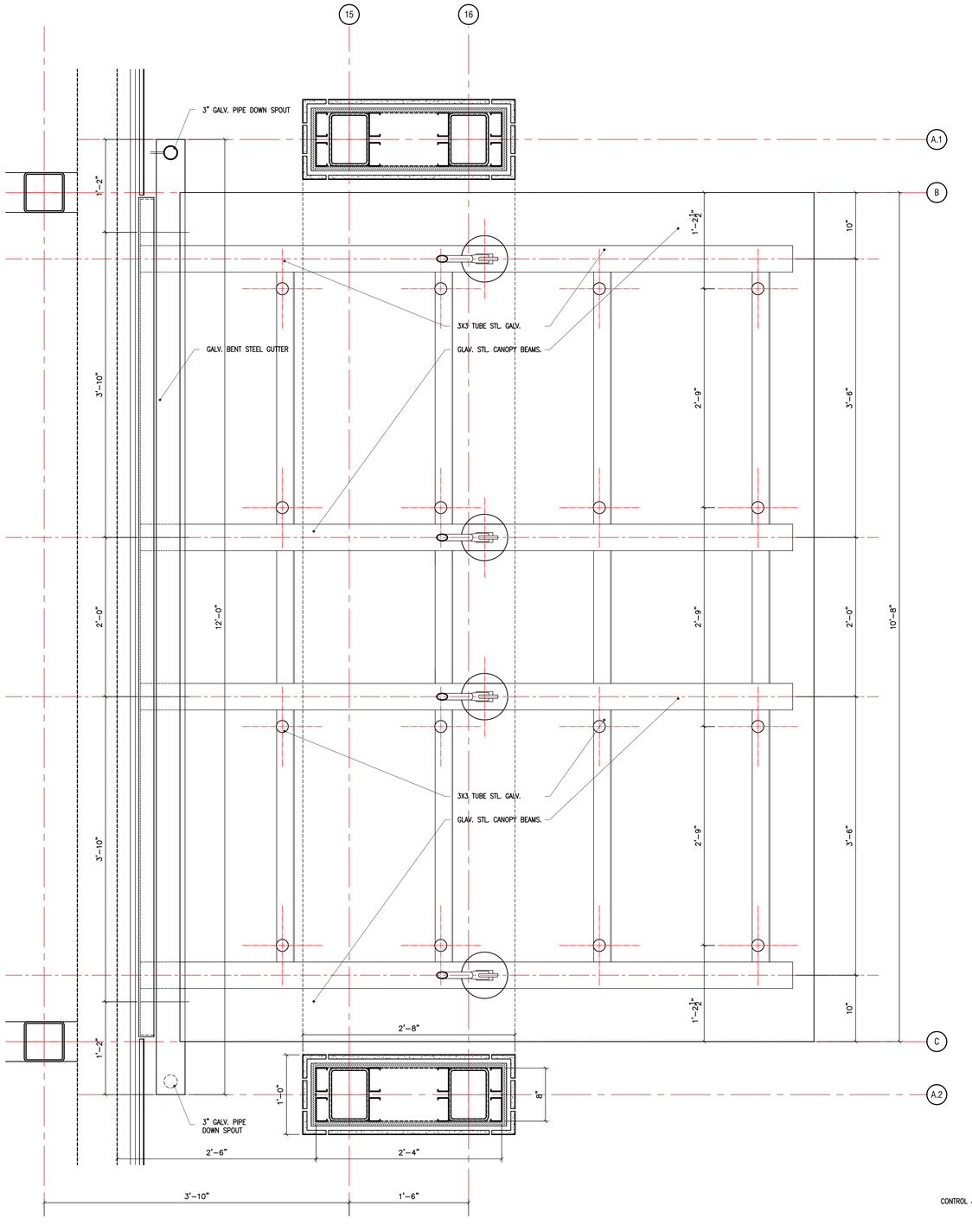
A4.03



2 A4.04 PLAN DETAIL @ CANOPY
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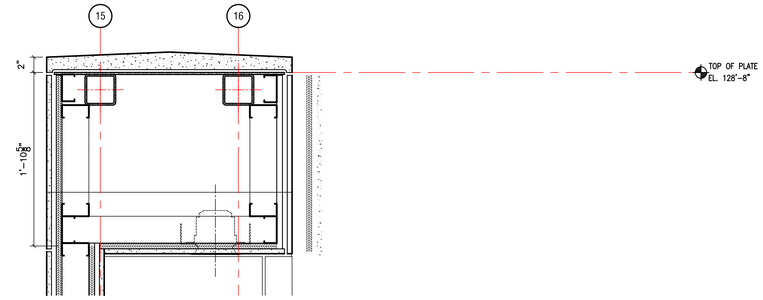

3 A4.04 DETAIL @ CANOPY
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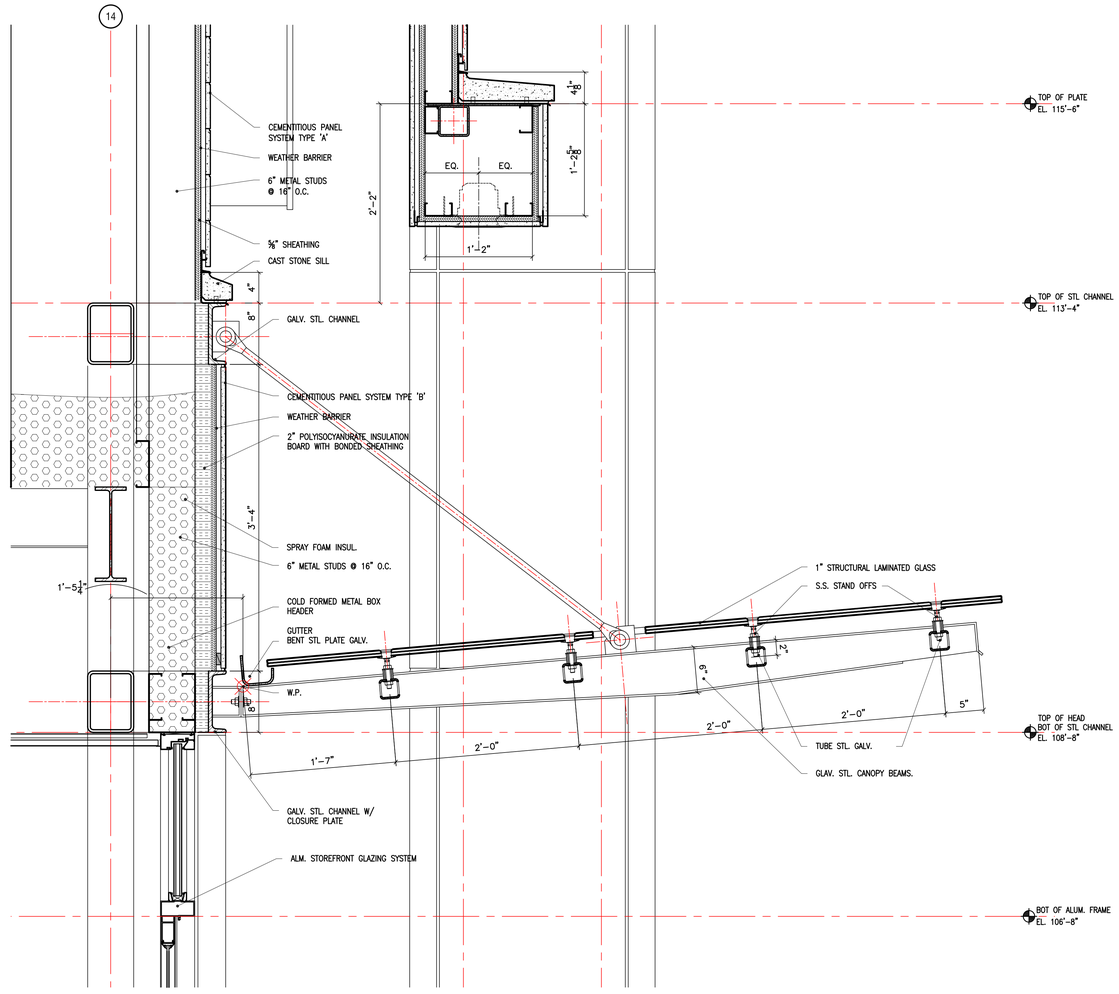

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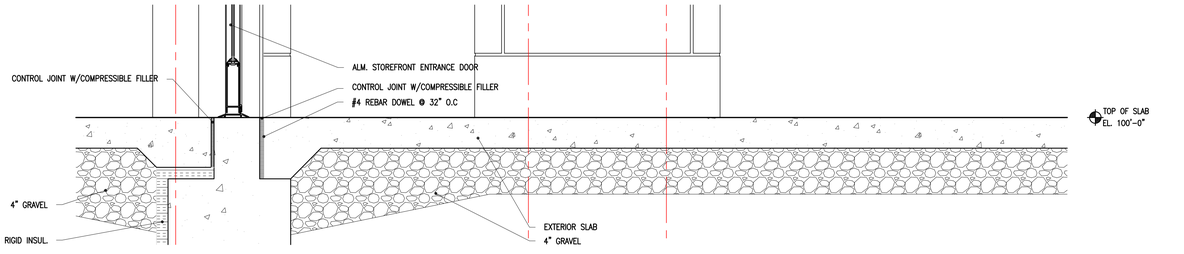

5 A4.04 DETAIL @ CANOPY
SCALE: 1½" = 1'-0"

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
67 Broadway
Boston, MA 02116
T: 617.208.2552
F: 617.208.2557
West Coast Office
23151 Mcintyre Pkwy #105
Lake Forest, CA 92653
T: 949.716.3566
F: 949.716.9939

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	RL
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WALL SECTIONS

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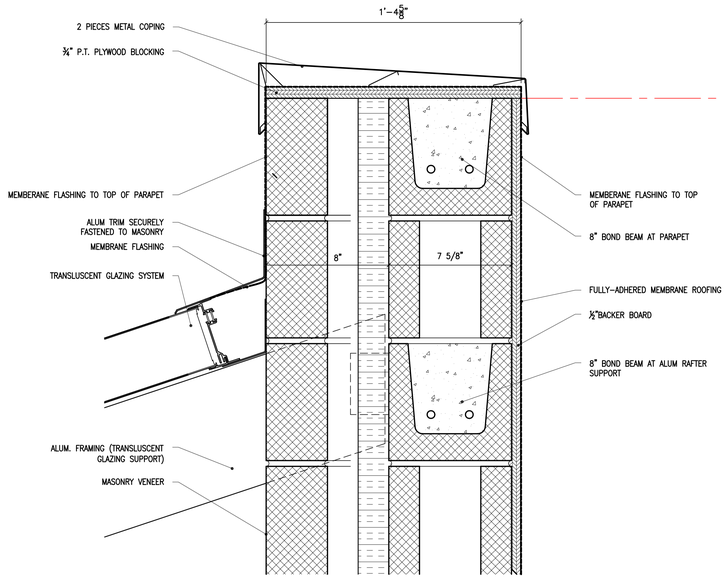
A4.04



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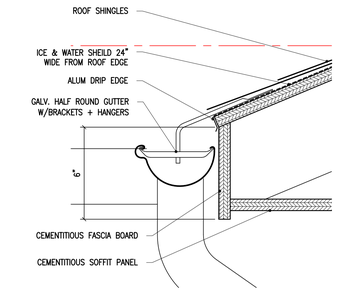

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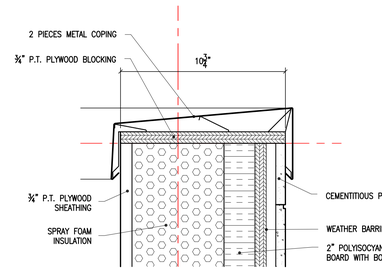

14 A4.05 DETAIL
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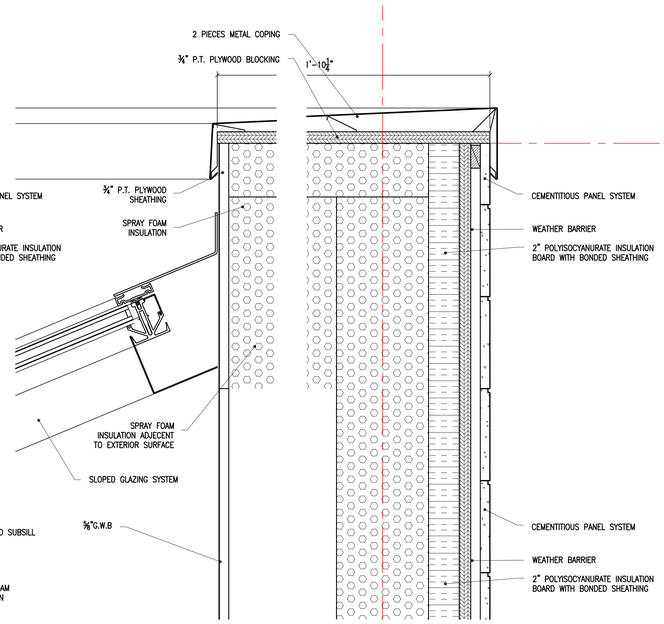

25 A4.05 DETAIL
SCALE: 3" = 1'-0"

26 A4.05 DETAIL
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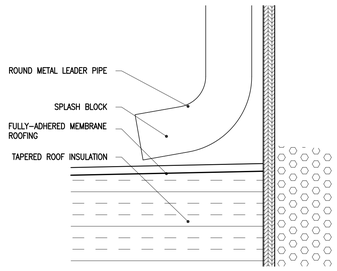

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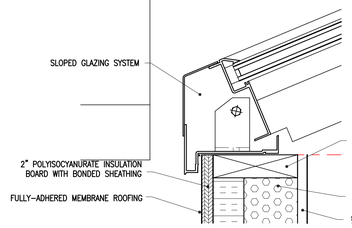

24 A4.05 DETAIL
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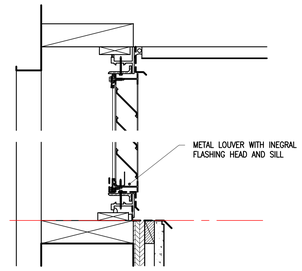

32 A4.05 DETAIL
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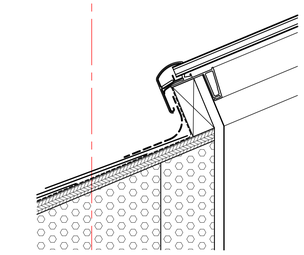

33 A4.05 DETAIL
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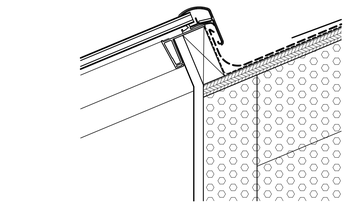

34 A4.05 DETAIL
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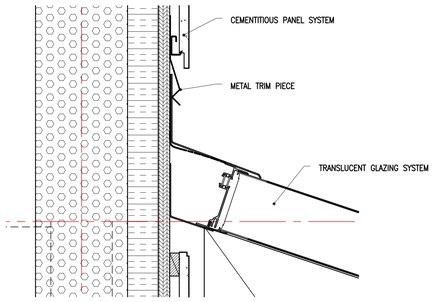

35 A4.05 DETAIL
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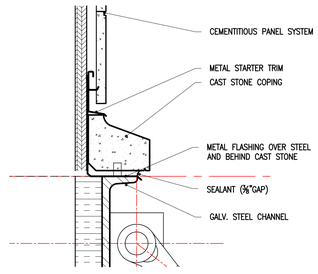

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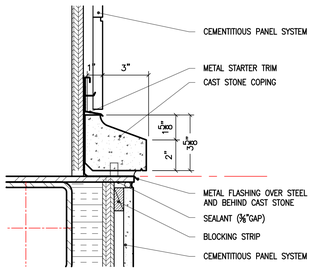
SCALE: 3" = 1'-0"



42 A4.05 DETAIL
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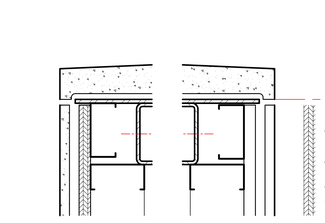

43 A4.05 DETAIL
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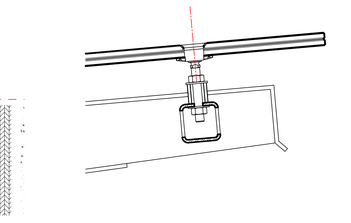

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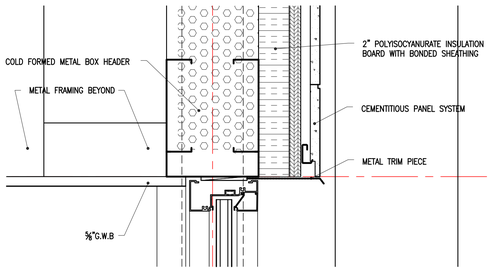

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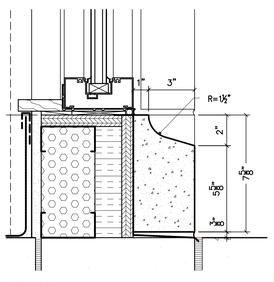

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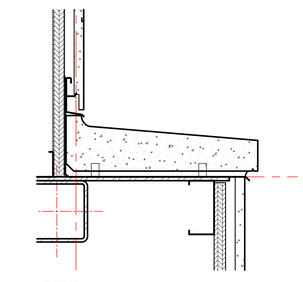

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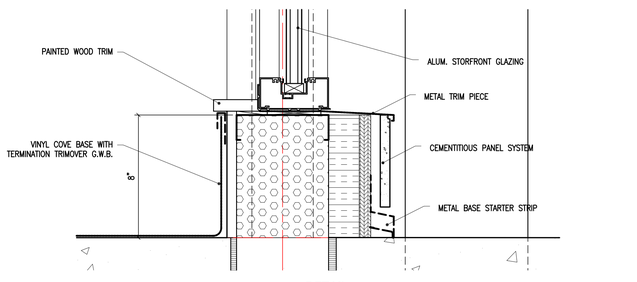

55 A4.05 DETAIL
SCALE: 3" = 1'-0"

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NO. | DESCRIPTION | DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
67 Broadway
Boston MA 02116
T: 617.720.2850
F: 617.720.2857
West Coast Office
23161 Mcintyre Pkwy #105
Lake Forest, CA 92653
T: 949.716.9660
F: 949.716.9659

CAPITOL PROJECT 1483
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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: RL
CHECKED BY: RL
SCALE:
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EXTERIOR DETAILS

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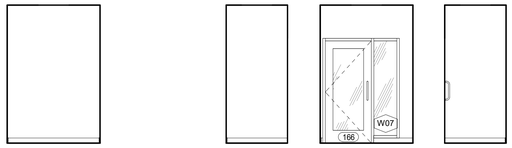
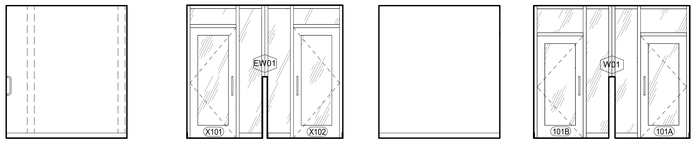
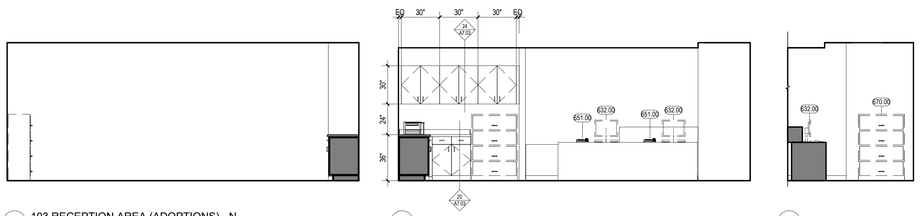
A4.05



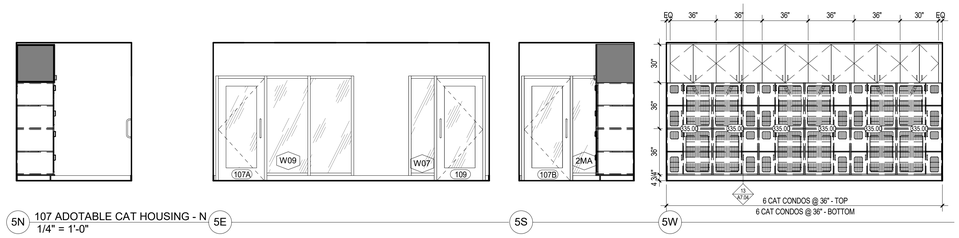
1N 166 WORKING KITTEN NURSERY - N
1/4" = 1'-0"
1E
1S
1W



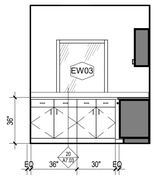
2N 101A ENTRY VESTIBULE - N
1/4" = 1'-0"
2E
2S
2W



4N 103 RECEPTION AREA (ADOPTIONS) - N
1/4" = 1'-0"
4S
4W



5N 107 ADOTABLE CAT HOUSING - N
1/4" = 1'-0"
5E
5S
5W



6E 102 CLERICAL SUPPLIES AREA - E
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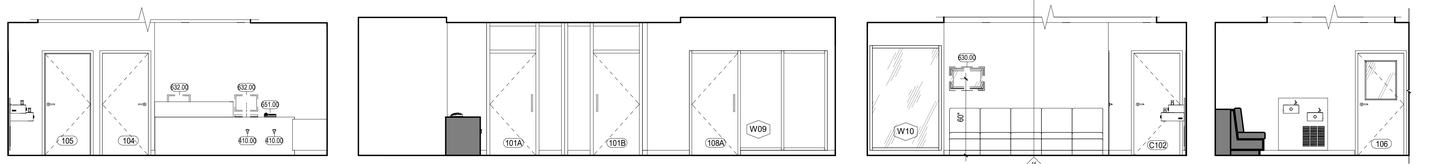
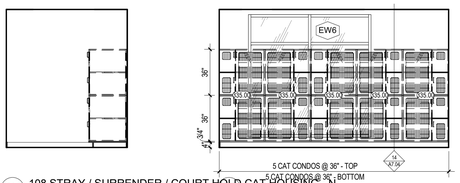
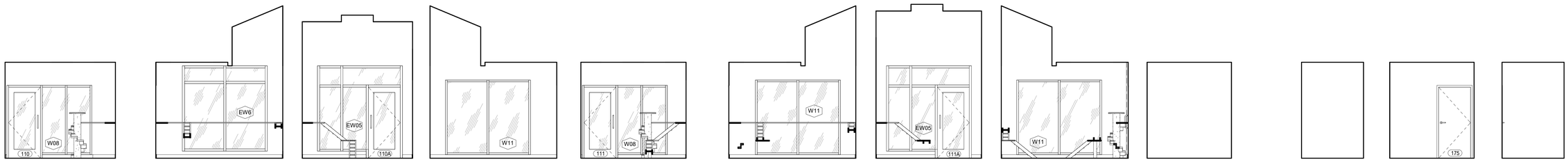


7N 106 WAITING AREA (ADOPTORS/RECLAIMERS) - N
1/4" = 1'-0"
7E
7S
7W



8N 108 STRAY / SURRENDER / COURT HOLD CAT HOUSING - N
1/4" = 1'-0"
8E
8S
8W

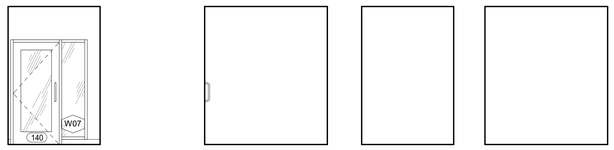
9N 109 CAT PLAYROOM FOR CAGED CATS - N
1/4" = 1'-0"
9E
9S
9W



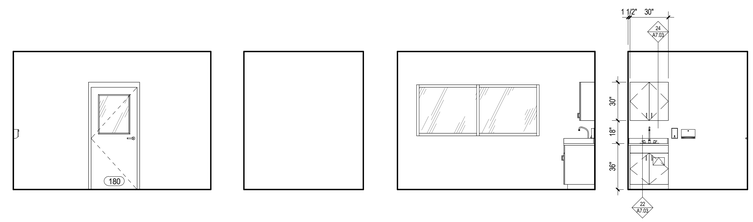
10N 110 COMMUNAL CAT PLAYROOM 1 - N
1/4" = 1'-0"
10E
10S
10W

11N 111 COMMUNAL CAT PLAYROOM 2 - N
1/4" = 1'-0"
11E
11S
11W

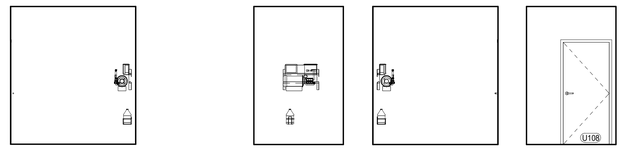
12N 175 GENERAL DOG SUPPLIES -OFFICIAL- N
1/4" = 1'-0"
12E
12S
12W



13N 140 PUPPY WHELPING ROOM - N
1/4" = 1'-0"
13E
13S
13W



14N 180 DOG BONDING (GET AQUINTED) CUBICLE 3 - N
1/4" = 1'-0"
14E
14S
14W



15N U108 POWER WASH PUMP ROOM (SMT) - N
1/4" = 1'-0"
15E
15S
15W

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.3557
F: 617.426.3557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	
DATE:	20 OCT 2021
PROJECT NO:	# 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

INTERIOR ELEVATIONS

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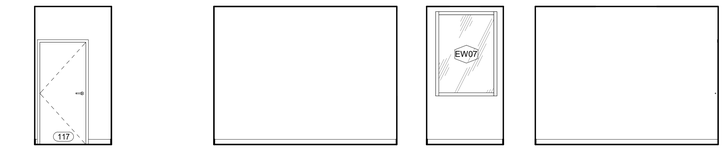
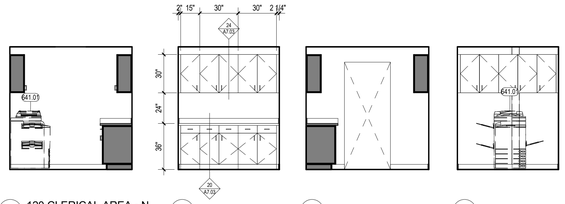
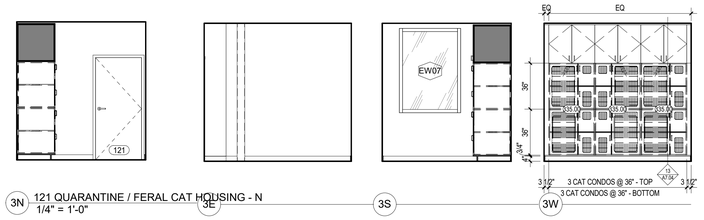


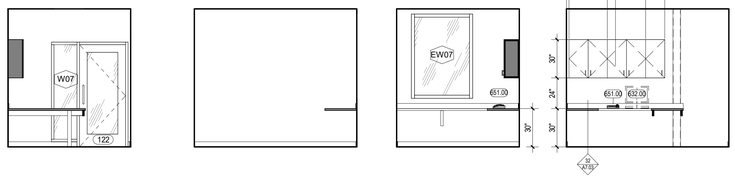
1N 117 CAT BONDING CUBICLE 2 - N
1/4" = 1'-0"
1E
1S
1W



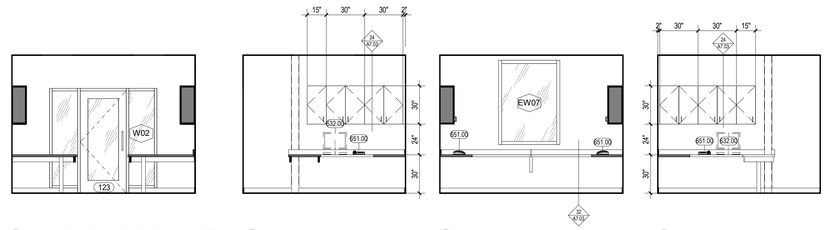
2N 120 CLERICAL AREA - N
1/4" = 1'-0"
2E
2S
2W



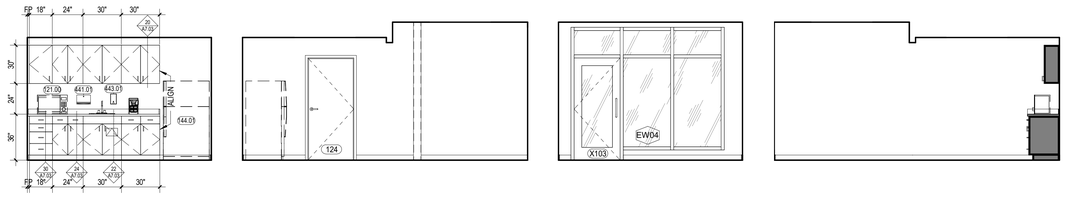
3N 121 QUARANTINE / FERAL CAT HOUSING - N
1/4" = 1'-0"
3E
3S
3W



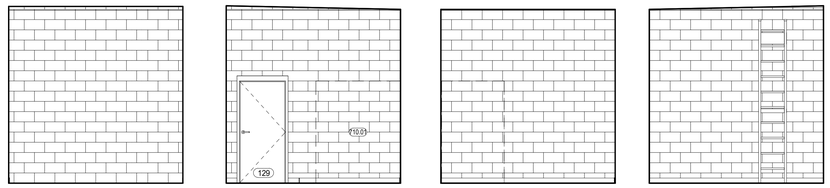
4N 122 EXECUTIVE OFFICE - N
1/4" = 1'-0"
4E
4S
4W



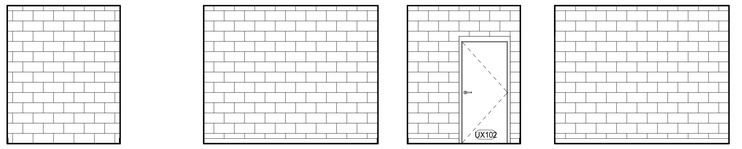
5N 123 CAT & DOG HOUSING MANAGER - N
1/4" = 1'-0"
5E
5S
5W



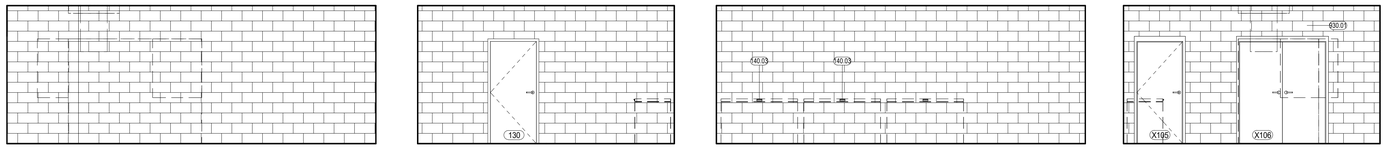
6N 124 BREAK ROOM - N
1/4" = 1'-0"
6E
6S
6W



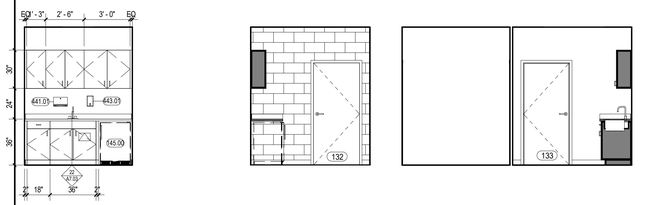
7N 129 MECHANICAL ROOM - N
1/4" = 1'-0"
7E
7S
7W



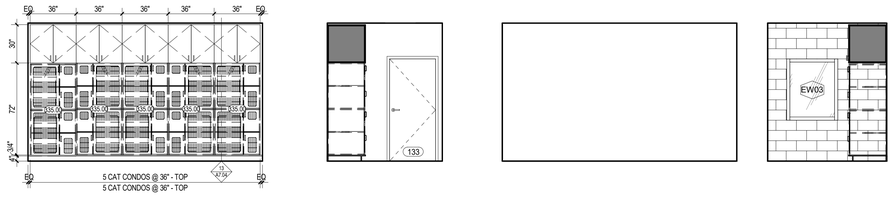
8N U102 FIRE SPRINKLER ROOM - N
1/4" = 1'-0"
8E
8S
8W



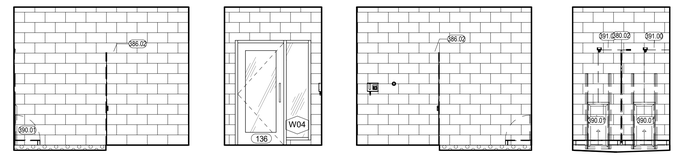
9N 130 CREMATORY ROOM - N
1/4" = 1'-0"
9E
9S
9W



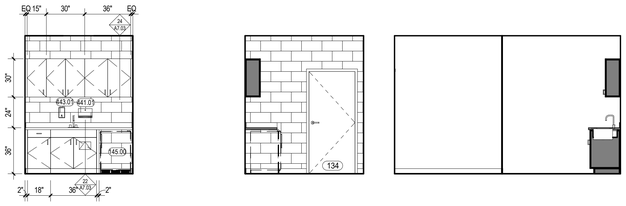
10N 132 TRANSITION VESTIBULE - N
1/4" = 1'-0"
10E
10S
10W



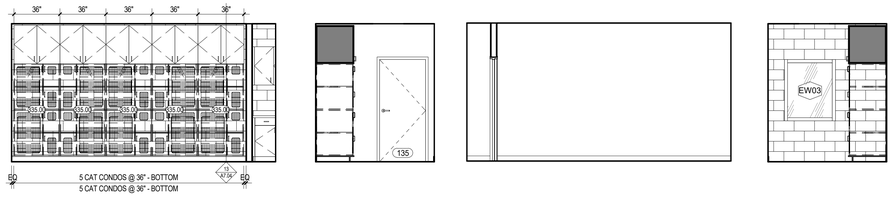
11N 133 ISOLATION / INFECTIOUS (GENERAL) CAT HOUSING - N
1/4" = 1'-0"
11E
11S
11W



12N 136 ISOLATION DOG HOUSING - N
1/4" = 1'-0"
12E
12S
12W



13N 134 TRANSITION VESTIBULE - N
1/4" = 1'-0"
13E
13S
13W



14N 135 ISOLATION / INFECTIOUS (RESPITORY) CAT HOUSING - N
1/4" = 1'-0"
14E
14S
14W

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rf&
rauhaus freedenfeld & associates

East Coast Office
87 Broadway
Boston, MA 02116
T: 617.426.2557
F: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	Author
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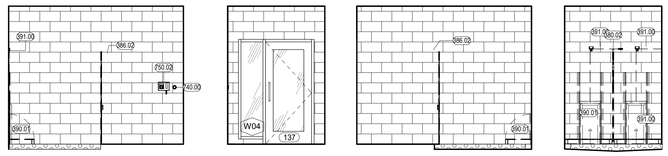
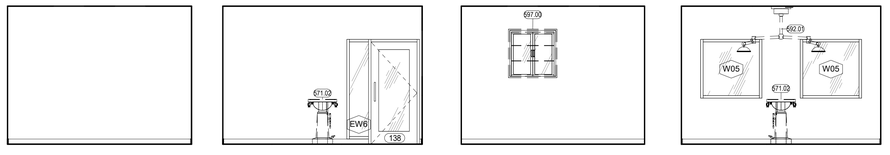
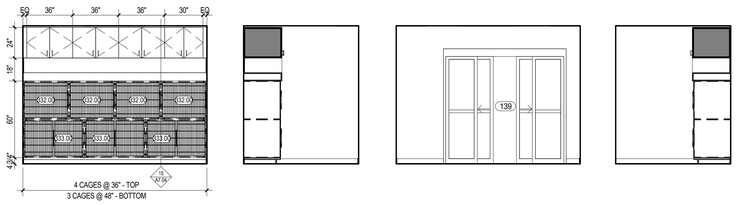


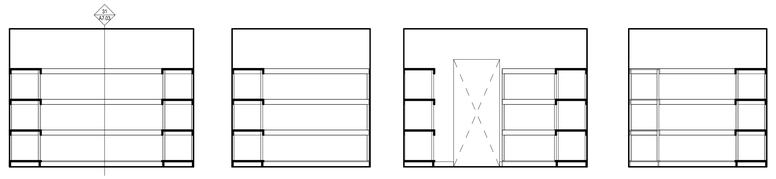
1N 137 QUARANTINE DOG HOUSING - N
1/4" = 1'-0"
1E
1S
1W



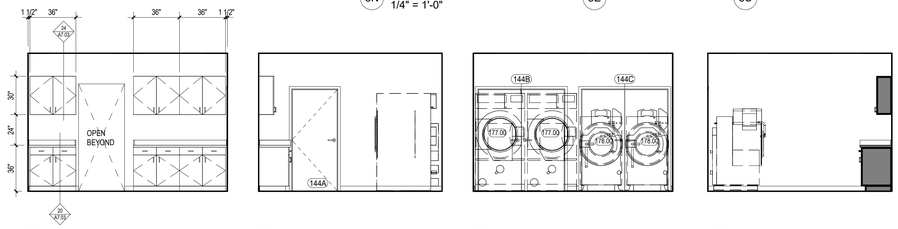
2N 138 SURGERY ROOM - N
1/4" = 1'-0"
2E
2S
2W



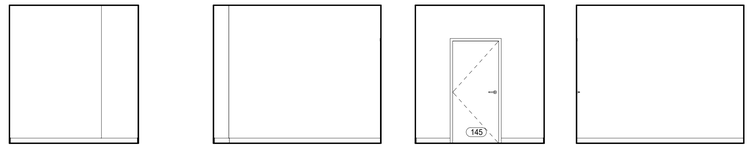
3N 139 PRE-OP HOLDING / POST-OP RECOVERY / ICU (DOG & CATS) - N
1/4" = 1'-0"
3E
3S
3W



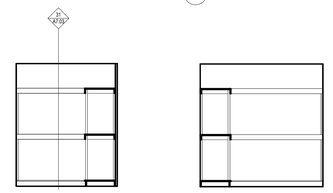
4N 141 LAUNDRY STORAGE - N
1/4" = 1'-0"
4E
4S
4W



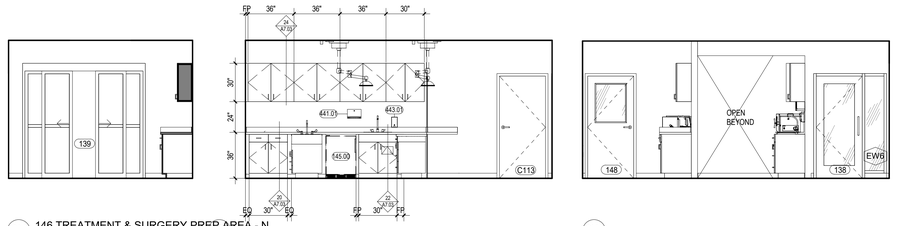
5N 144 LAUNDRY ROOM - N
1/4" = 1'-0"
5E
5S
5W



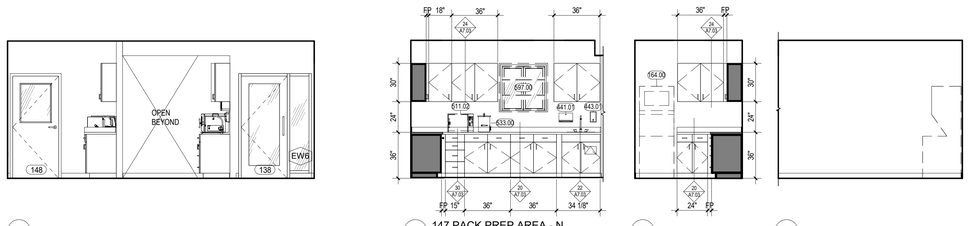
6N 145 VMA GENERAL STORAGE - N
1/4" = 1'-0"
6E
6S
6W



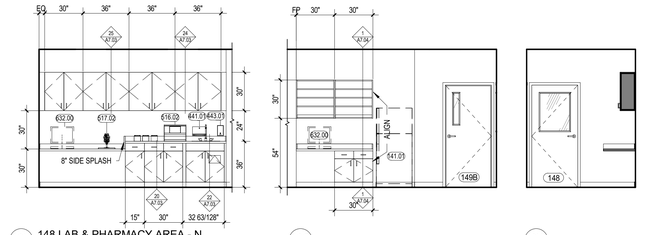
7S 152 LAUNDRY / ACTIVE CLINIC STORAGE - S
1/4" = 1'-0"
7W



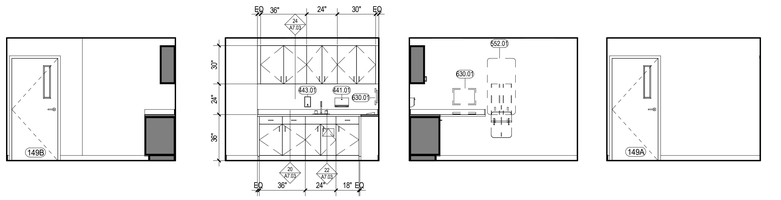
8N 146 TREATMENT & SURGERY PREP AREA - N
1/4" = 1'-0"
8E
8W



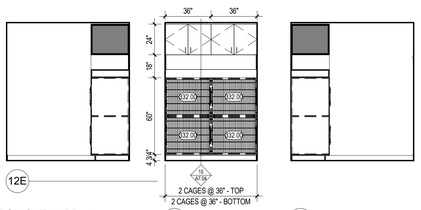
9N 147 PACK PREP AREA - N
1/4" = 1'-0"
9E
9S



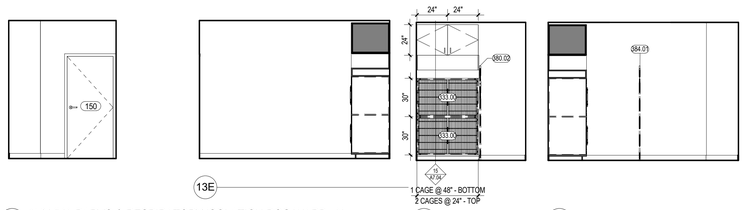
10N 148 LAB & PHARMACY AREA - N
1/4" = 1'-0"
10S
10W



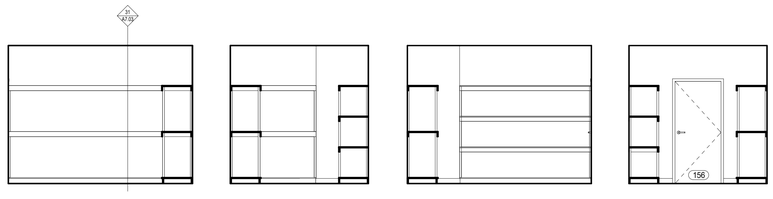
11N 149 SPRAY / NEUTER EXAM ROOM - N
1/4" = 1'-0"
11E
11S
11W



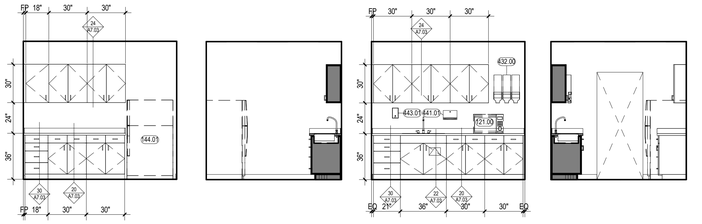
12N 151 VMA RESPIRATORY ISOLATION CATWARD - N
1/4" = 1'-0"
12E
12S
12W



13N 150 VMA PARVO & RESPIRATORY ISOLATION DOG WARD - N
1/4" = 1'-0"
13E
13S
13W



15N 156 ACTIVE DOG FOOD STORAGE - N
1/4" = 1'-0"
15E
15S
15W



16N 157 FOOD PREP AREA (DOGS) - N
1/4" = 1'-0"
16E
16S
42W

BID SET

REVISION DESCRIPTION	NO.	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.482.0900
F: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author	CHECKED BY: Checker	SCALE:	
PROGRESS SET ☐	BID SET ■	PERMIT SET ☐	CONSTRUCTION SET ☐
DATE: 20 OCT 2021			
PROJECT NO: # 2019			

INTERIOR ELEVATIONS

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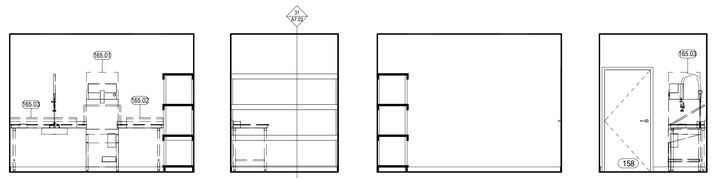
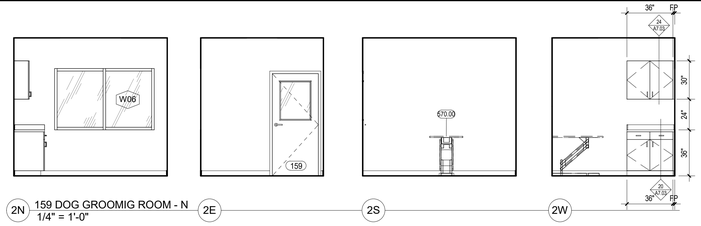
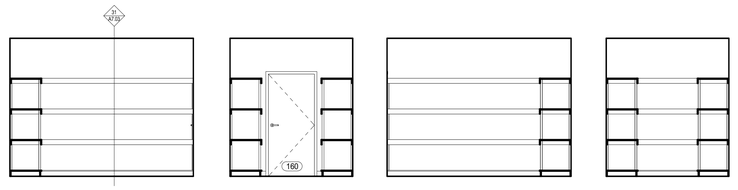


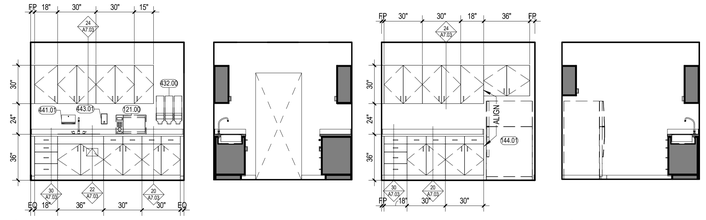
1N 158 BOWL WASH AREA - N
1/4" = 1'-0"
1E 1S 1W



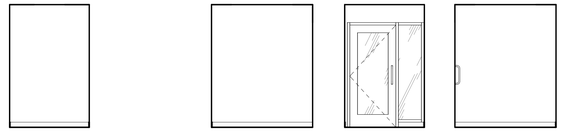
2N 159 DOG GROOMIG ROOM - N
1/4" = 1'-0"
2E 2S 2W



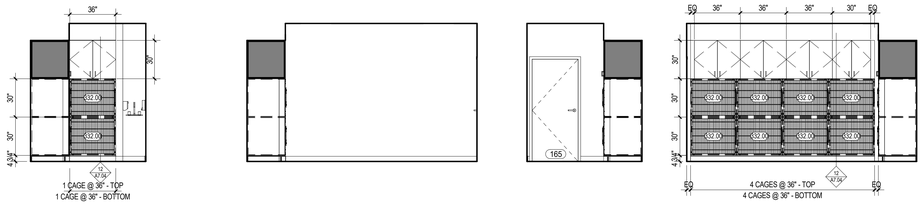
3N 160 ACTIVE CAT FOOD STORAGE - N
1/4" = 1'-0"
3E 3S 3W



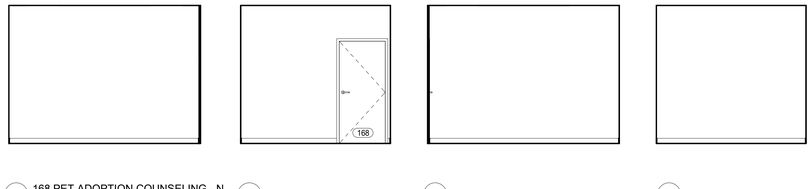
4N 161 FOOD PREP AREA (CATS) - N
1/4" = 1'-0"
4E 4S 4W



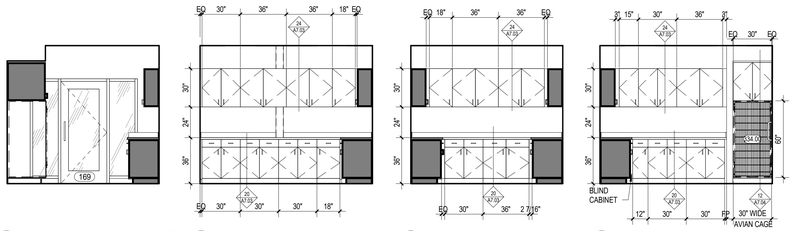
5N 164 WORKING KITTEN NURSEY - N
1/4" = 1'-0"
5E 5S 5W



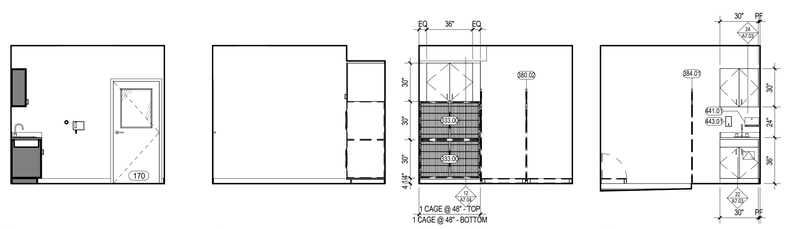
6N 165 TEMPORARY CAT HOLDING - N
1/4" = 1'-0"
6E 6S 6W



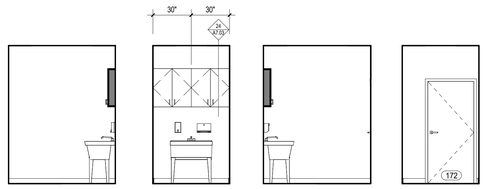
7N 168 PET ADOPTION COUNSELING - N
1/4" = 1'-0"
7E 7S 7W



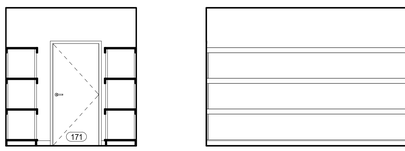
8N 169 SMALL MAMMALS & EXOTICS HOUSING - N
1/4" = 1'-0"
8E 8S 8W



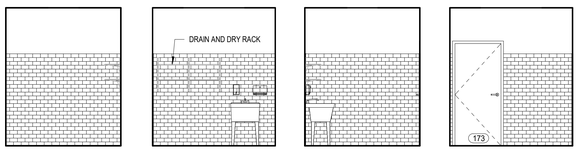
9N 170 TEMPORARY DOG HOLDING - N
1/4" = 1'-0"
9E 9S 9W



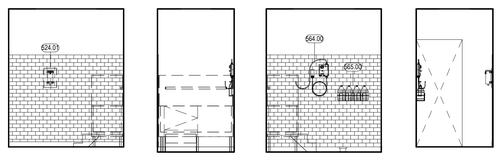
10N 172 CAT BATHING - N
1/4" = 1'-0"
10E 10S 10W



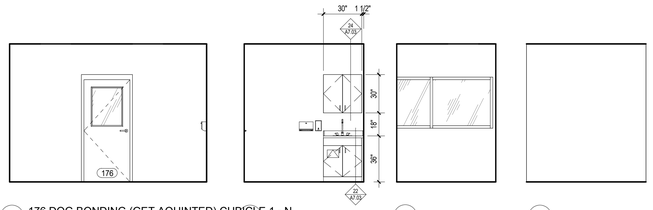
11N 171 KITTY LITTER / CAT CARRIER STORAGE - N
1/4" = 1'-0"
11E 11S 11W



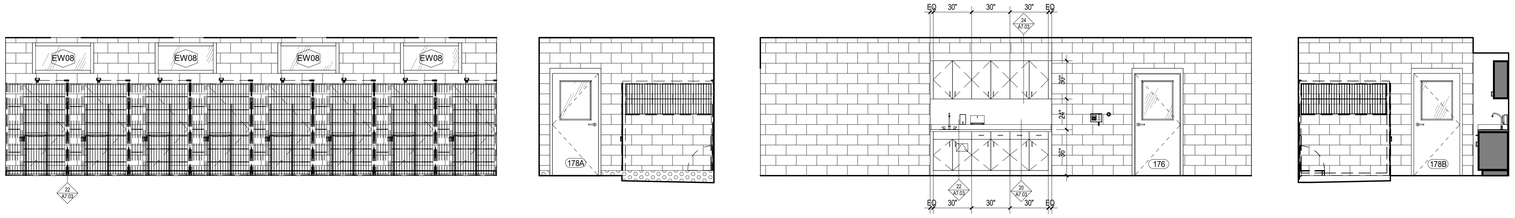
12N 173 CAT CARRIER DUNK & DRY ROOM - N
1/4" = 1'-0"
12E 12S 12W



13N 184 DOG BATHING - N
1/4" = 1'-0"
13E 13S 13W



14N 176 DOG BONDING (GET AQUINTED) CUBICLE 1 - N
1/4" = 1'-0"
14E 14S 14W



15N 178 ADOPTABLE DOG HOUSING - WARD 1 - N
1/4" = 1'-0"
15W 15S 15E

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.3557
F: 617.426.3557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	Author	PROJECT NO:	# 2019
CHECKED BY:	Checker	DATE:	20 OCT 2021
SCALE:	1/4" = 1'-0"	CONSTRUCTION SET	
		PERMIT SET	
PROGRESS SET	BID SET		

INTERIOR ELEVATIONS

A6.03

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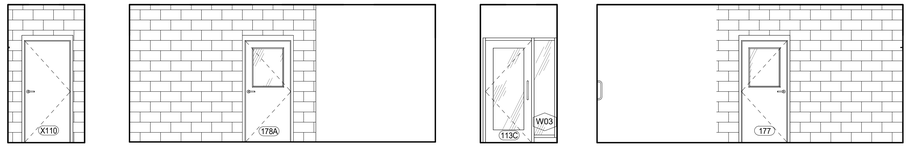
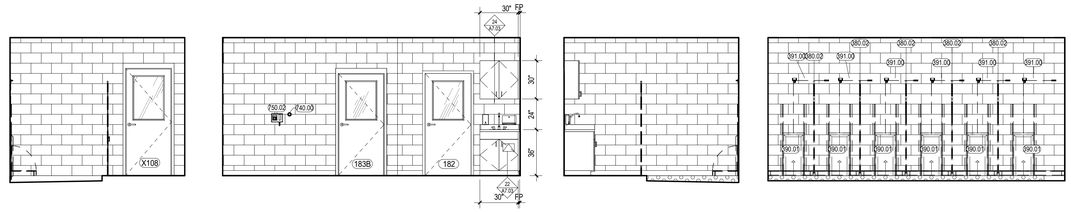
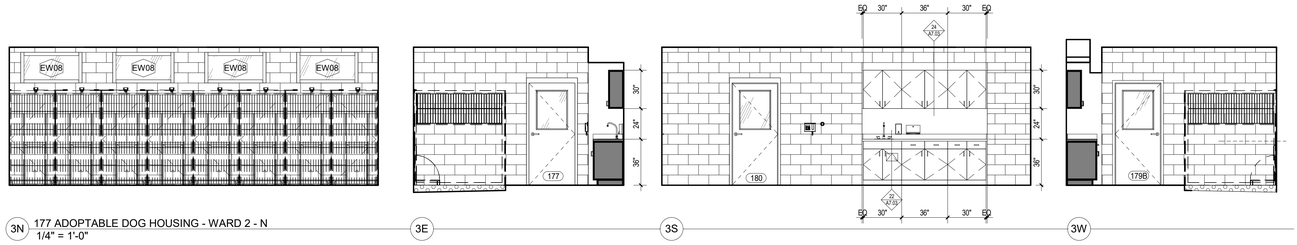


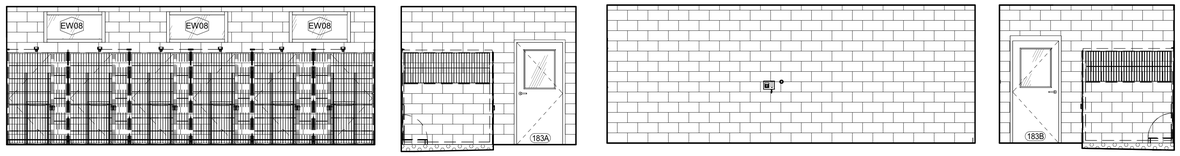
1N CORRIDOR N
1/4" = 1'-0"
1E
1S
1W



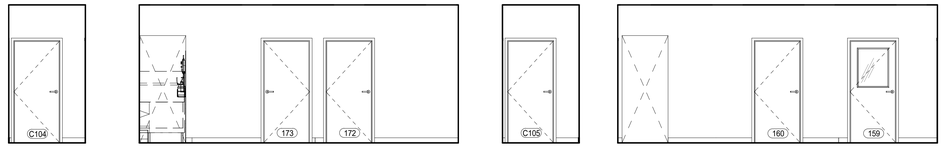
2N 182 STRAY & SURRENDER DOG HOUSING - WARD 2 - N
1/4" = 1'-0"
2E
2S
2W



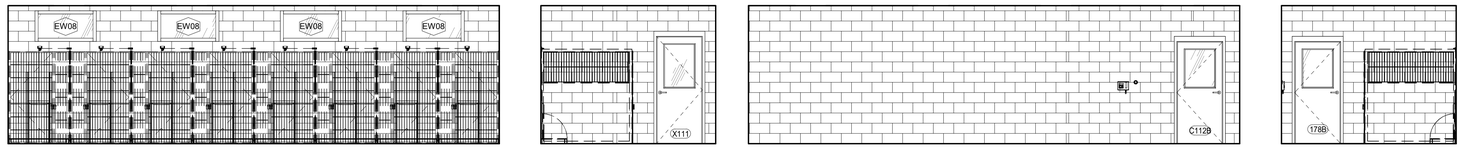
3N 177 ADOPTABLE DOG HOUSING - WARD 2 - N
1/4" = 1'-0"
3E
3S
3W



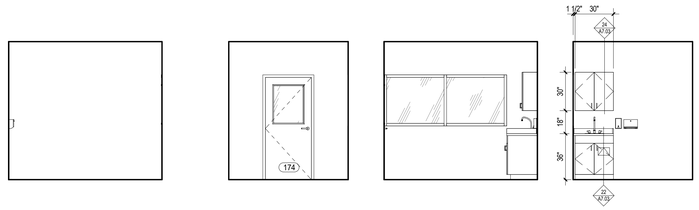
4N STRAY & SURRENDER DOG HOUSING - WARD 1 - N
1/4" = 1'-0"
4E
4S
4W



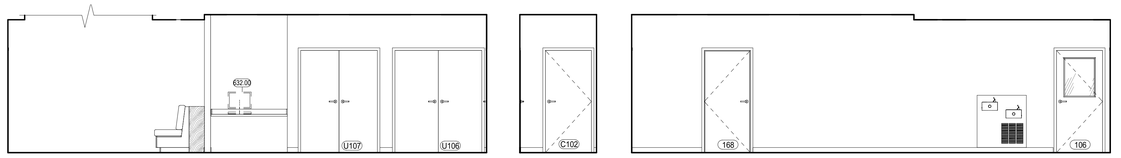
5N C104 CORRIDOR - N
1/4" = 1'-0"
5E
5S
5W



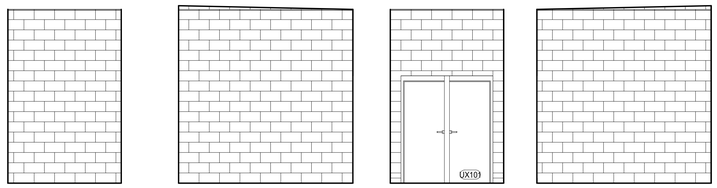
6N 181 - ADOPTABLE DOG HOUSING - WARD 3 - N
1/4" = 1'-0"
6E
6S
6W



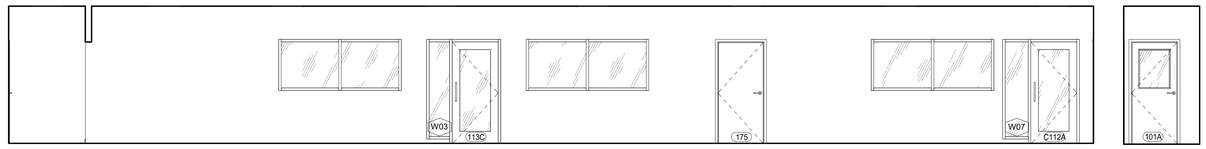
7N 174 - DOG BONDING (GET AQUINTED) CUBICLE 1 - N
1/4" = 1'-0"
7E
7S
7W



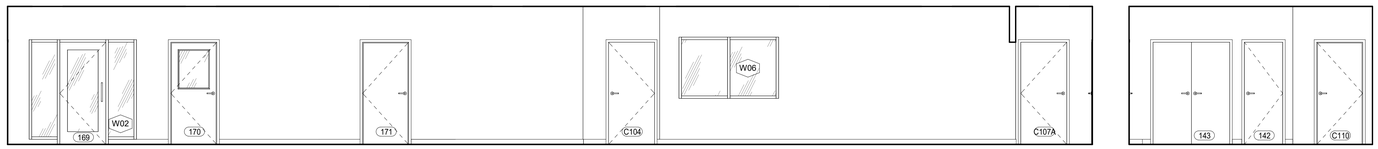
8E C102 CORRIDOR - E
1/4" = 1'-0"
8S
8W



9N U101 ELECTRIC ROOM - N
1/4" = 1'-0"
9E
9S
9W



10N C105 CORRIDOR - N
1/4" = 1'-0"
10E



10S
10W

BID SET

REVISION
NO. DESCRIPTION DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.482.3500
F: 617.426.2857
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author
CHECKED BY: Checker
SCALE:
DATE: 20 OCT 2021
PROJECT NO: # 2019

INTERIOR ELEVATIONS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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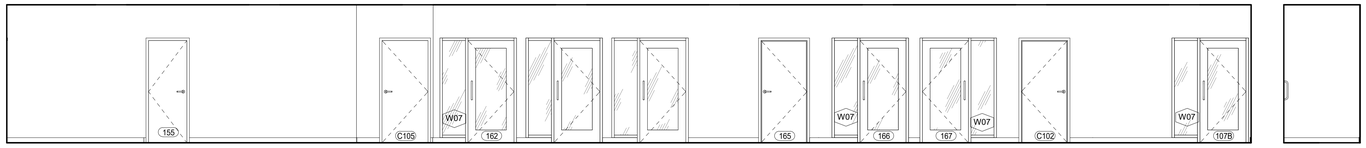
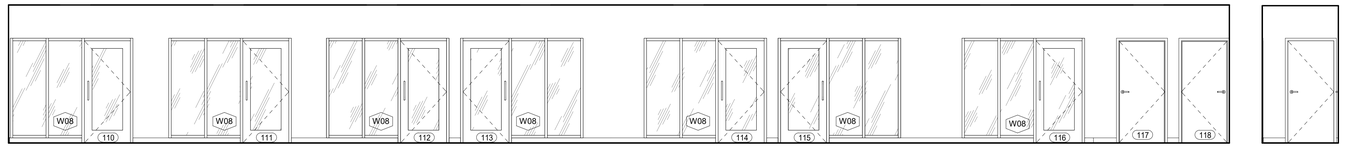
A6.04



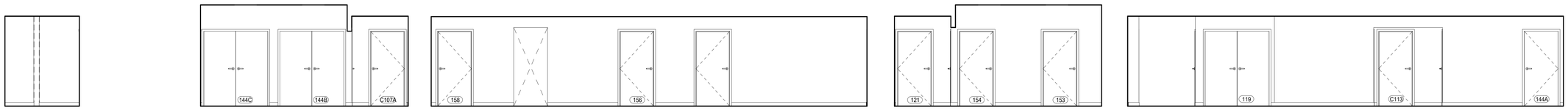
1N C107 CORRIDOR - N
1/4" = 1'-0"

1E



1S

1W



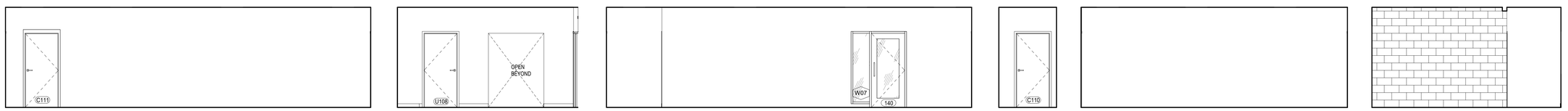
9E U105 COMPUTER SERVER ROOM - E
1/4" = 1'-0"

3N C108 CORRIDOR - N
1/4" = 1'-0"

3E

3S

3W



4N C110 CORRIDOR - N
1/4" = 1'-0"

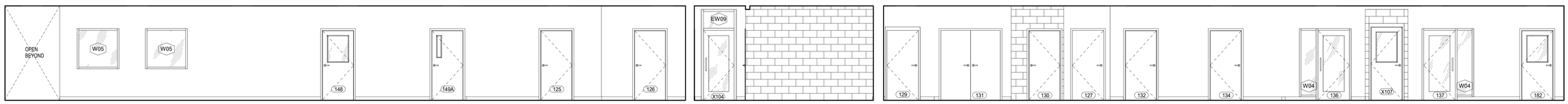
4E

4S

4W

5N C113 CORRIDOR - N
1/4" = 1'-0"

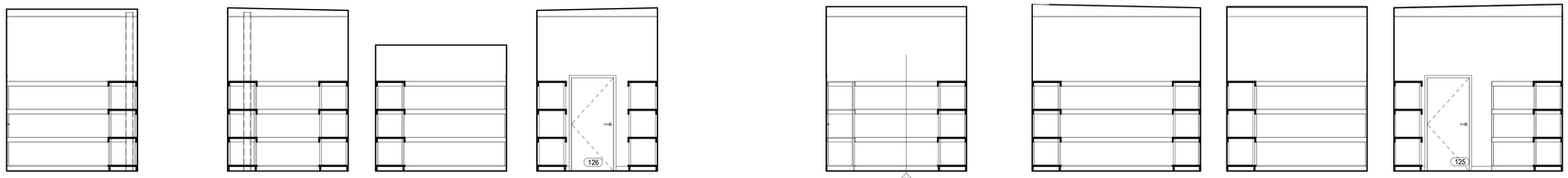
6N C114 CORRIDOR - N
1/4" = 1'-0"



6E

6S

6W



7N 126 LONG TERM DOCUMENT STORAGE - N
1/4" = 1'-0"

7E

7S

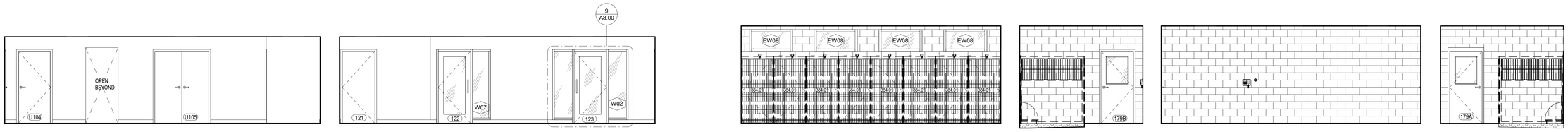
7W

8N 125 GENERAL SHELTER STORAGE - N
1/4" = 1'-0"

8E

8S

8W



2N C109 CORRIDOR - N
1/4" = 1'-0"

2S

10N 179 ADOPTABLE DOG HOUSING - WARD 4 - N
1/4" = 1'-0"

10E

10S

10W

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rf&a rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.720.3555
F: 617.426.3537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	
DATE:	20 OCT 2021
PROJECT NO:	# 2019

INTERIOR ELEVATIONS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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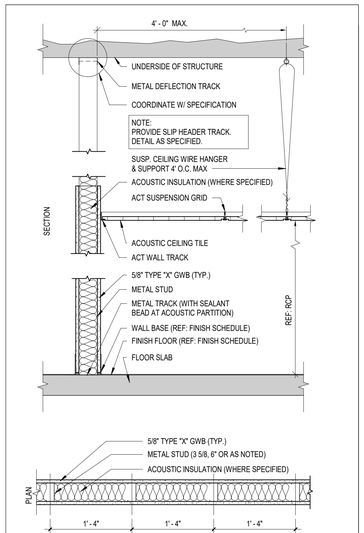
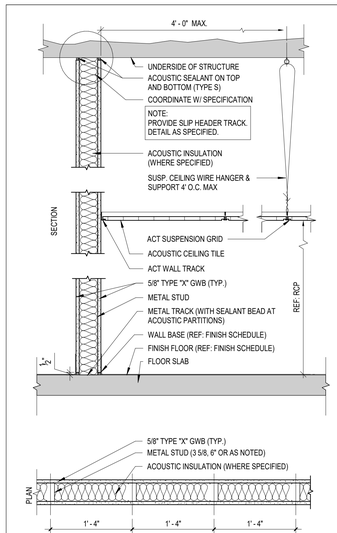
A6.05



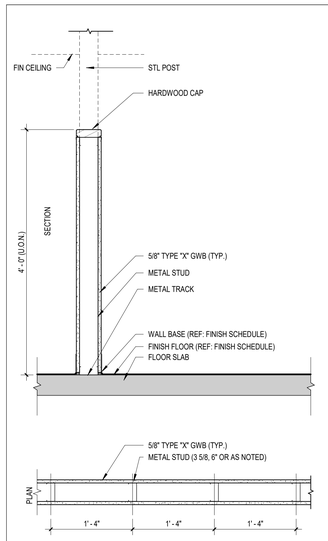
TYPE	DESCRIPTION	STC	RATING	UL#	WIDTH
1MA	3 5/8" METAL STUD PARTITION	-	-	-	4 7/8"
1MB	6" METAL STUD PARTITION	-	-	-	7 1/4"
1MC	OTHER SIZE STUD PARTITION AS NOTED	-	-	-	-
-T	PARTITION TYPE INDICATED WITH TILE	-	-	-	VARIES
-F	PARTITION TYPE INDICATED WITH FIBERGLASS REINFORCED PANEL	-	-	-	VARIES

PARTITION TYPE 1 - PARTIAL HEIGHT



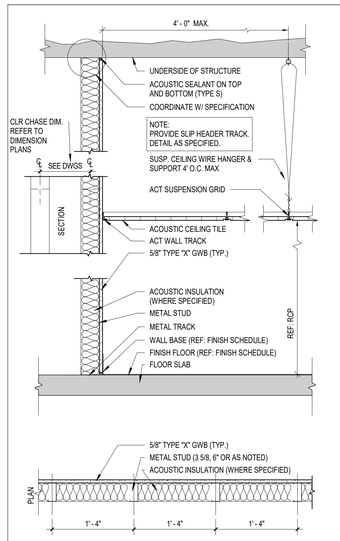
TYPE	DESCRIPTION	STC	RATING	UL#	WIDTH
2MA	3 5/8" METAL STUD PARTITION	-	-	-	4 7/8"
2MB	6" METAL STUD PARTITION	-	-	-	7 1/4"
2MC	OTHER SIZE STUD PARTITION AS NOTED	-	-	-	-
-L	PARTITION TYPE INDICATED WITH LEAD LINED GWB	-	-	-	VARIES
-T	PARTITION TYPE INDICATED WITH TILE	-	-	-	VARIES
-F	PARTITION TYPE INDICATED WITH FIBERGLASS REINFORCED PANEL	-	-	-	-

PARTITION TYPE 2 - FULL HEIGHT



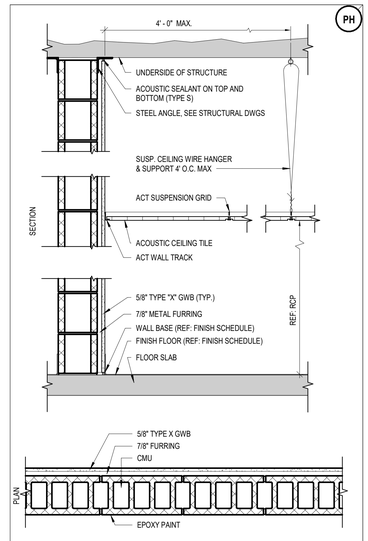
TYPE	DESCRIPTION	STC	RATING	UL#	WIDTH
4MA	3 5/8" METAL STUD PARTITION	-	-	-	4 7/8"
4MB	6" METAL STUD PARTITION	-	-	-	7 1/4"
4MC	OTHER SIZE STUD PARTITION AS NOTED	-	-	-	-

PARTITION TYPE 4 - KNEE WALL



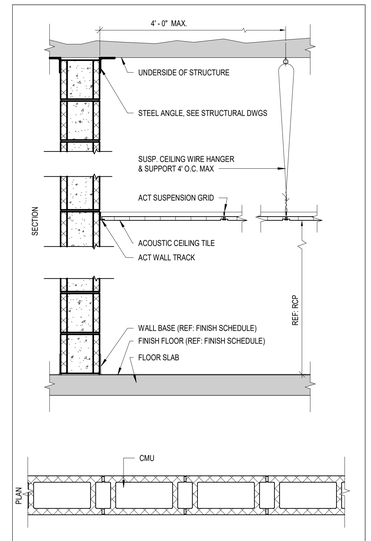
TYPE	DESCRIPTION	STC	RATING	UL#	WIDTH
6MA	3 5/8" METAL STUD PARTITION	-	-	-	4 1/4"
6MB	6" METAL STUD PARTITION	-	-	-	6 5/8"
6MC	2 1/2" STUD PARTITION	-	-	-	-
-L	PARTITION TYPE INDICATED WITH LEAD LINED GWB	-	-	-	VARIES
-T	PARTITION TYPE INDICATED WITH TILE	-	-	-	VARIES
-F	PARTITION TYPE INDICATED WITH FIBERGLASS REINFORCED PANEL	-	-	-	-

PARTITION TYPE 6 - CHASE



TYPE	DESCRIPTION	STC	RATING	UL#	WIDTH
5MA	8" CMU PARTITION	-	-	-	10 5/8"
5MB	12" CMU PARTITION	-	-	-	1'-2 5/8"
5MC	OTHER SIZE STUD PARTITION AS NOTED	-	-	-	-
-S	PARTITION TYPE INDICATED WITH SOUND CONTROL	-	-	-	-
-L	PARTITION TYPE INDICATED WITH LEAD LINED GWB	-	-	-	VARIES
-T	PARTITION TYPE INDICATED WITH TILE	-	-	-	VARIES
-F	PARTITION TYPE INDICATED WITH FIBERGLASS REINFORCED PANEL	-	-	-	VARIES

PARTITION TYPE 5M - FURRING



TYPE	DESCRIPTION	STC	RATING	UL#	WIDTH
8MA	8" CMU PARTITION W/ EPOXY PAINT	-	-	-	7 5/8"
8MB	12" CMU PARTITION W/ EPOXY PAINT	-	-	-	11 5/8"
8MC	OTHER SIZE STUD PARTITION AS NOTED	-	-	-	-
-S	PARTITION TYPE INDICATED WITH SOUND CONTROL	-	-	-	-
-L	PARTITION TYPE INDICATED WITH LEAD LINED GWB	-	-	-	VARIES
-T	PARTITION TYPE INDICATED WITH TILE	-	-	-	VARIES
-F	PARTITION TYPE INDICATED WITH FIBERGLASS REINFORCED PANEL	-	-	-	VARIES

PARTITION TYPE 8M

NOTE: SEE DRAWINGS A1.02 FOR PARTITIONS

PARTITION TYPE LEGEND
METAL STUD SUBSTRATE

TYPE	SIZE	FIRE RATING	SPECIALTY
1 PART. HEIGHT	REFER TO PARTITION TYPE DETAILS FOR FRAMING DESIGN TYPE AND SIZE	.75 = 45 MIN.	-T TILE
2 FULL HEIGHT		1 = 1 HOUR	-F FIBERGLASS REINFORCED PANEL
3 FIRE RATED		1.5 = 90 MIN.	-L LEAD LINED
4 KNEE WALL		2 = 2 HOUR	
5 FURRING			
6 CHASE			
7 SHAFT			
8 SPECIAL			

EXAMPLE: 2MAT-S = PARTITION TYPE #, 1 HOUR, METAL STUD, 3-5/8" STUD, ACOUSTIC INSULATION

NOTE:
PROVIDE BLOCKING BETWEEN STUDS FOR WALL CABINETS ABOVE ALL OFFICE DESK LOCATIONS
PROVIDE 48" H HIGH IMPACT GWB @ STAIRS AND CORRIDORS W / BUMPER GUARDS

PARTITION LEGEND - METAL STUD SUBSTRATE

SECTION - P-LAM WALL CAP

NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE
1	Revision 1	Date 1

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2537
F: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9899
F: 949.716.9899

rauhaus freedenfeld & associates

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	GS
CHECKED BY:	EN & RR
SCALE:	
DATE:	20 OCT 2021
PROJECT NO:	# 20119

PARTITION TYPES - METAL & MISC. DETAILS

PROGRESS SET ■ BID SET □ PERMIT SET □ CONSTRUCTION SET □

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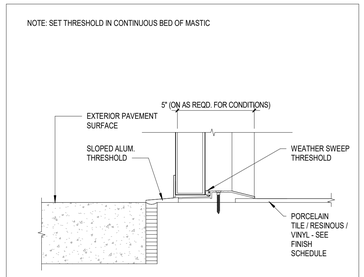
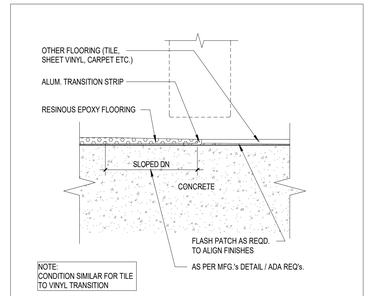
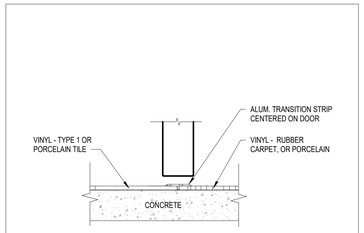
A7.00



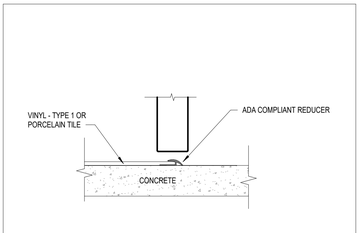
12 THRESHOLD EXTERIOR TO PAVEMENT
3" = 1'-0"



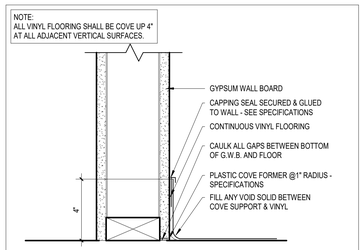
13 EPOXY TO VINYL/ TILE TRANSITION
6" = 1'-0"



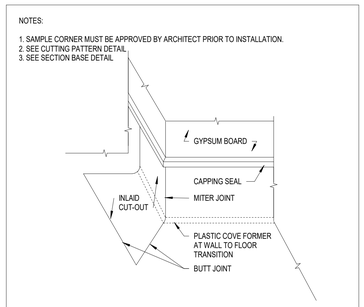
14 PORCELAIN TILE TO VINYL FLOORING
3" = 1'-0"



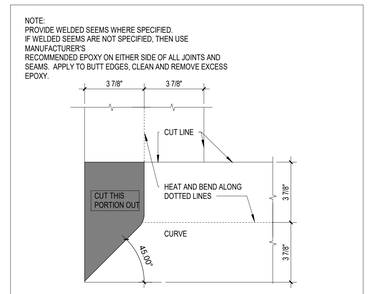
15 FIN. FLOOR TO CONCRETE TRANSITION
3" = 1'-0"



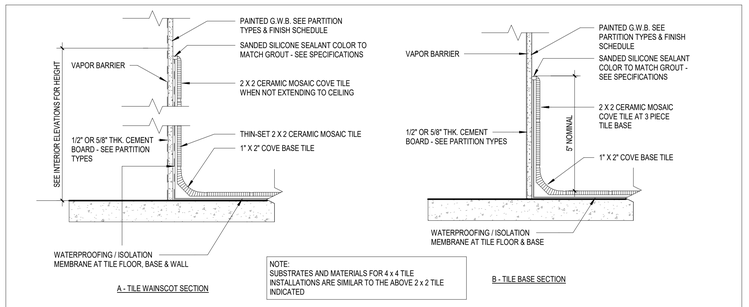
20 VINYL FLOOR @ BASE (SECTION)
3" = 1'-0"



21 VINYL FLOOR @ OUTSIDE CORNER (AXON)
3" = 1'-0"



22 VINYL FLOOR CORNER CUTTING PATTERN
3" = 1'-0"



23 CERAMIC MOSAIC TILE DETAILS FOR STUD WALLS
1 1/2" = 1'-0"

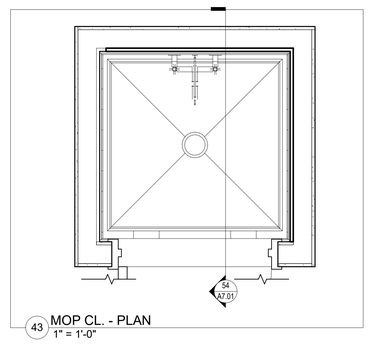
31 CEILING TRANSITION - A.C.T. UP TO GYP. BOARD
1 1/2" = 1'-0"

32 CEILING TRANSITION - GYP. BOARD UP TO A.C.T.
1 1/2" = 1'-0"

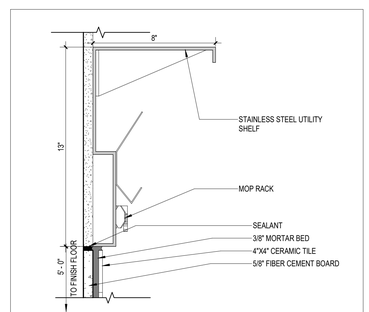
33 SURGICAL/TREATMENT LIGHT SUPPORT
3/4" = 1'-0"

34 SUSPENDED ACT GRID SYSTEM
1 1/2" = 1'-0"

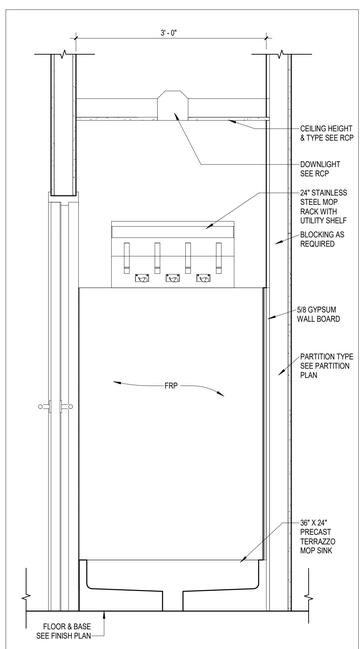
35 SUSPENDED GYP. BOARD GRID SYSTEM
1 1/2" = 1'-0"



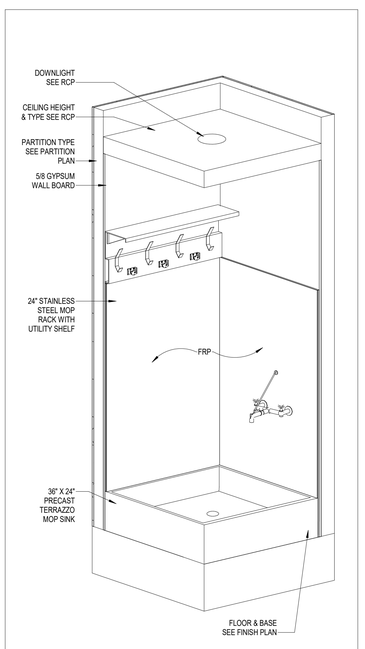
43 MOP CL. - PLAN
1" = 1'-0"



53 MOP CL. - UTILITY SHELF
3" = 1'-0"



54 MOP CL. - SECTION
1" = 1'-0"



55 MOP CL. - AXON
1" = 1'-0"

BID SET

REVISION | NO. | DESCRIPTION | DATE

ARCHITECTS SEAL:

rf&a rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.830.5000
F: 617.426.2537
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DETAILS - MOP SINK, CEILING & FLOOR TRANSITION

DRAWN BY: Author | CHECKED BY: Checker | SCALE: | DATE: 20 OCT 2021 | PROJECT NO: # 2019

PROGRESS SET ☐ | BID SET ■ | PERMIT SET ☐ | CONSTRUCTION SET ☐

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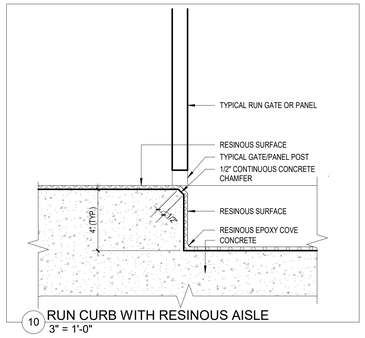
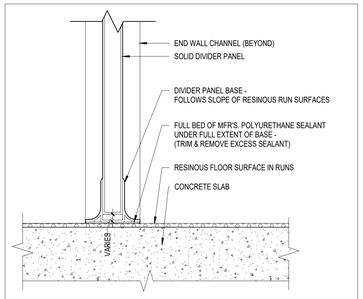
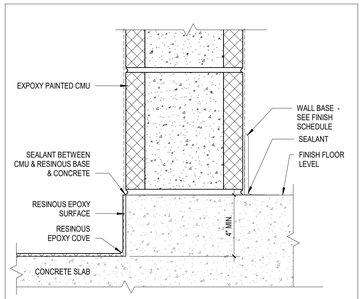


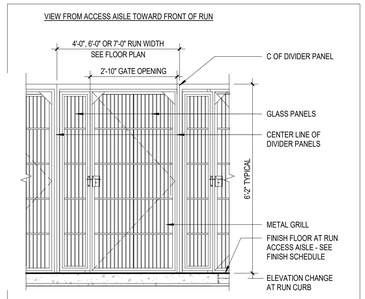
10 RUN CURB WITH RESINOUS AISLE
3" = 1'-0"



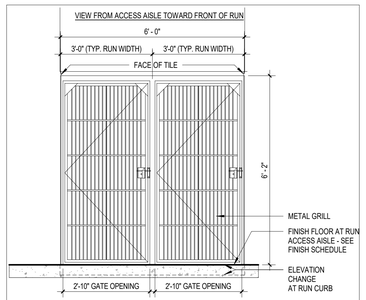
11 RUN DIVIDER PANEL
3" = 1'-0"



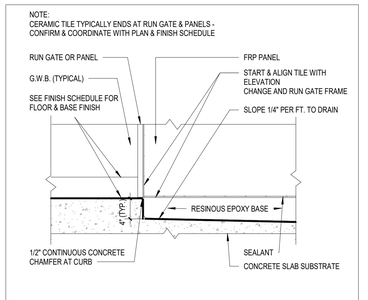
12 RUN CURB @ CMU
3" = 1'-0"



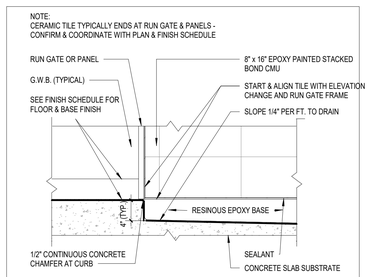
13 RUN GATE ELEVATION - BOARDING
1/2" = 1'-0"



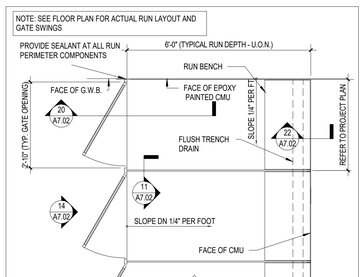
14 RUN GATE ELEVATION - TYPE 2
1/2" = 1'-0"



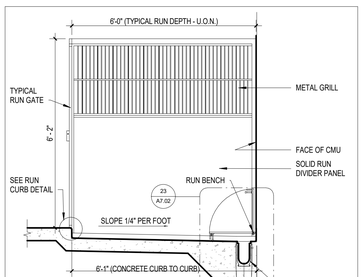
15 RUN CURB, WALL - FRP
1" = 1'-0"



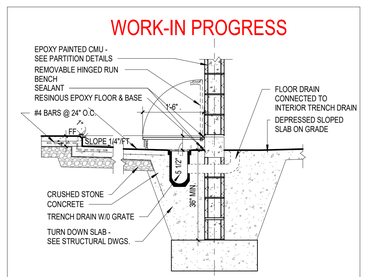
20 RUN CURB, WALL - CMU
1" = 1'-0"



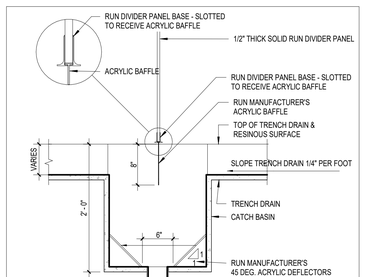
21 RUN PLAN W/ FTD
1/2" = 1'-0"



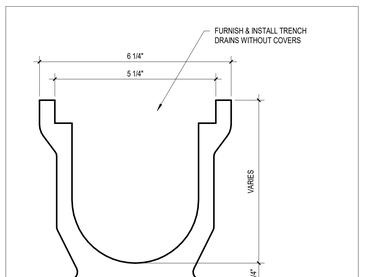
22 RUN SECTION W/ TRENCH DRAIN
1/2" = 1'-0"



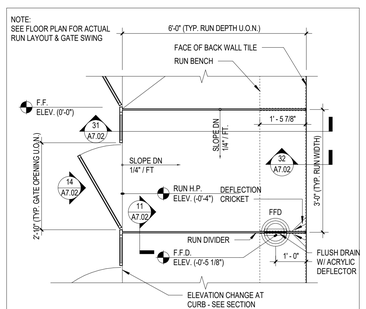
23 TRENCH DRAIN @ REAR EXTERIOR WALL CMU
1/2" = 1'-0"



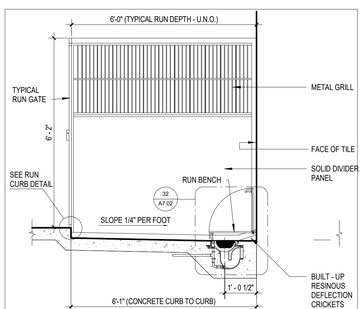
24 TRENCH DRAIN CATCH BASIN / DROP BOX
1" = 1'-0"



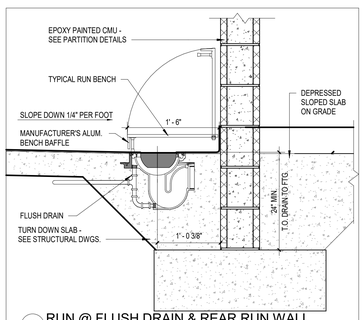
25 TRENCH DRAIN SECTION - STRONGWELL
6" = 1'-0"



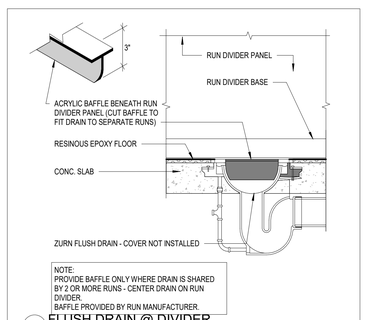
30 RUN PLAN W/ FLUSH DRAIN
1/2" = 1'-0"



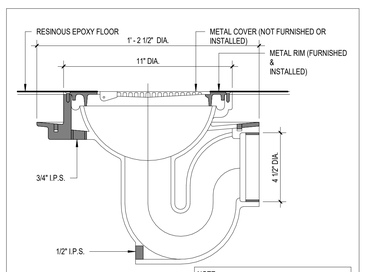
31 RUN SECTION WITH FLUSH DRAIN
1/2" = 1'-0"



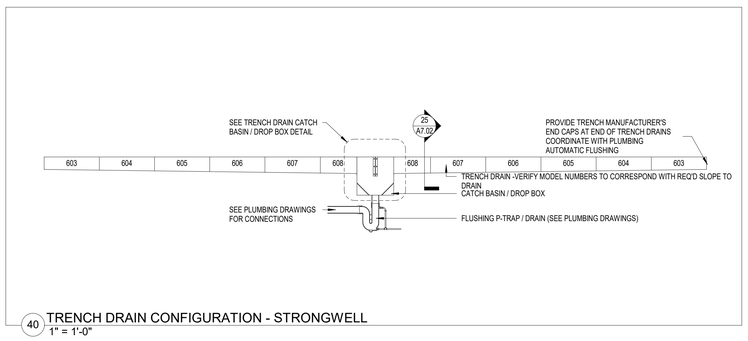
32 RUN @ FLUSH DRAIN & REAR RUN WALL
1" = 1'-0"



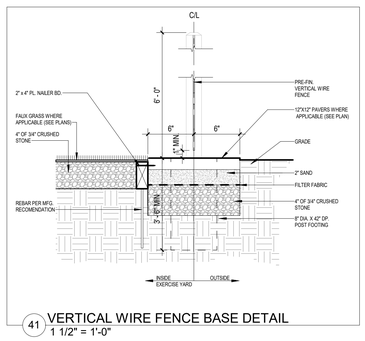
33 FLUSH DRAIN @ DIVIDER
1" = 1'-0"



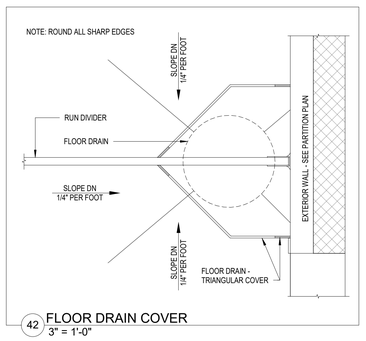
34 FLUSH DRAIN (ZURN)
3" = 1'-0"



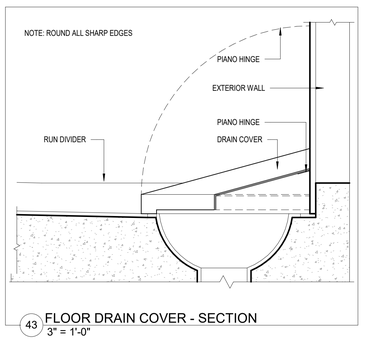
40 TRENCH DRAIN CONFIGURATION - STRONGWELL
1" = 1'-0"



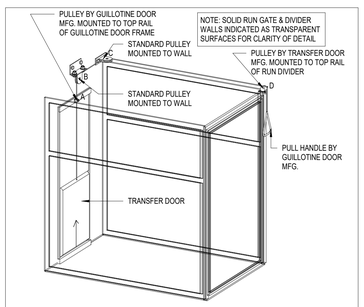
41 VERTICAL WIRE FENCE BASE DETAIL
1 1/2" = 1'-0"



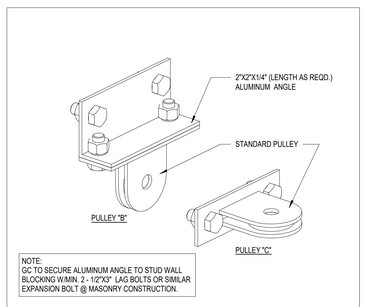
42 FLOOR DRAIN COVER
3" = 1'-0"



43 FLOOR DRAIN COVER - SECTION
3" = 1'-0"



52 TRANSFER DOOR PULLEY CONFIGURATION
1/2" = 1'-0"



53 GILLOTINE DOOR PULLEY BRACKETS
3" = 1'-0"

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.778.9000
F: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

rauhaus freedenfeld & associates

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author	CHECKED BY: Checker	SCALE:	DATE: 20 OCT 2021
PROJECT NO: # 2019			

DETAILS - GENERAL RUN CONSTRUCTION

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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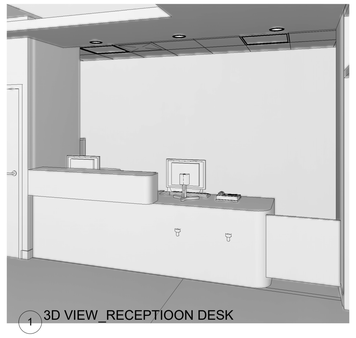
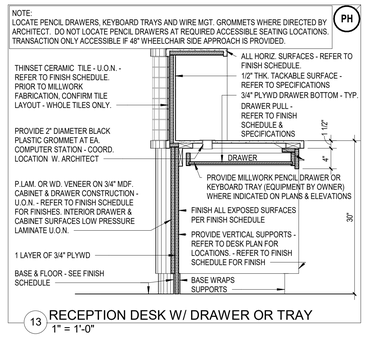
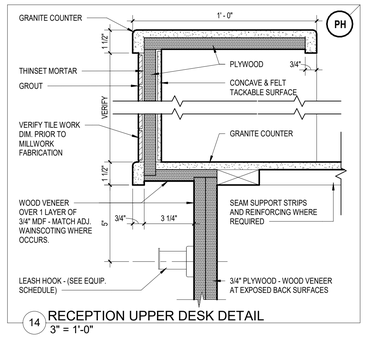


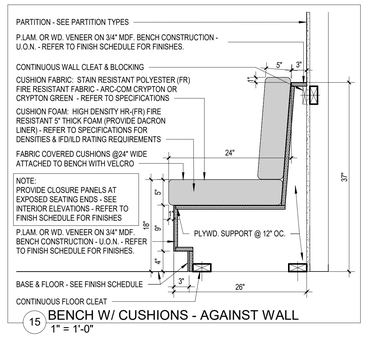
1 3D VIEW_ RECEPTIOON DESK



13 RECEPTION DESK W/ DRAWER OR TRAY
1" = 1'-0"



14 RECEPTION UPPER DESK DETAIL
3" = 1'-0"

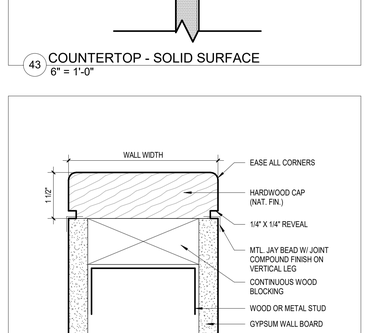


15 BENCH W/ CUSHIONS - AGAINST WALL
1" = 1'-0"

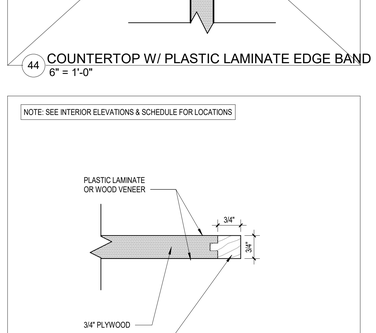
20 FULL HEIGHT BASE CABINET
1" = 1'-0"

21 FOOD STORAGE CABINET W/ PULL OUT SHELVES
1" = 1'-0"

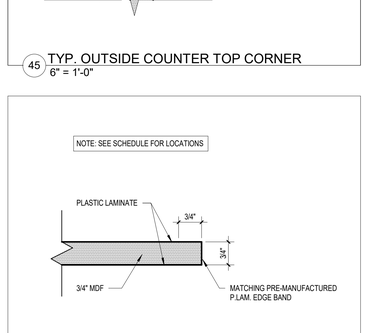
22 SINK BASE CABINET W/ FLIPPER DOOR
1" = 1'-0"



23 CONTROLLED SUBSTANCE CABINET - 4 DRAWER
1" = 1'-0"



24 STANDARD WALL CABINET
1" = 1'-0"



25 WALL CABINET W/ LIGHT
1" = 1'-0"

30 4 DRAWER BASE CABINET
1" = 1'-0"

31 STORAGE ROOM SHELVING
1" = 1'-0"

32 COUNTERTOP W/ BRACKET
1" = 1'-0"

33 TREATMENT TABLE - WET
1" = 1'-0"

35 CLOSET SHELF - COAT
1" = 1'-0"

43 COUNTERTOP - SOLID SURFACE
6" = 1'-0"

44 COUNTERTOP W/ PLASTIC LAMINATE EDGE BAND
6" = 1'-0"

45 TYP. OUTSIDE COUNTER TOP CORNER
6" = 1'-0"

53 WALL CAP - WOOD
6" = 1'-0"

54 SHELF W/ HARDWOOD NOSING
6" = 1'-0"

55 SHELF W/ PLASTIC LAMINATE EDGE BAND
6" = 1'-0"

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.3557
F: 617.426.3557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9899
F: 949.716.9899

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	
DATE:	20 OCT 2021
PROJECT NO:	# 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

DETAILS - GENERAL MILLWORK

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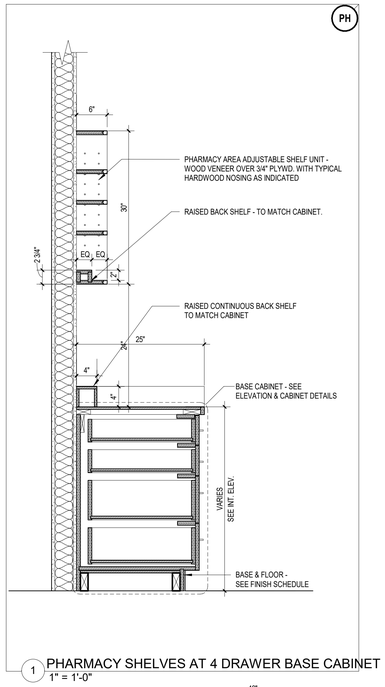
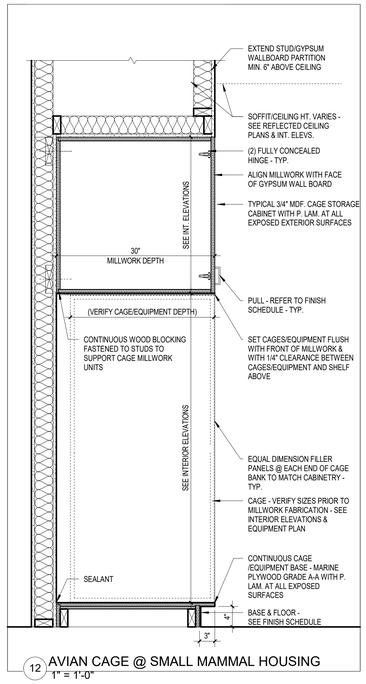
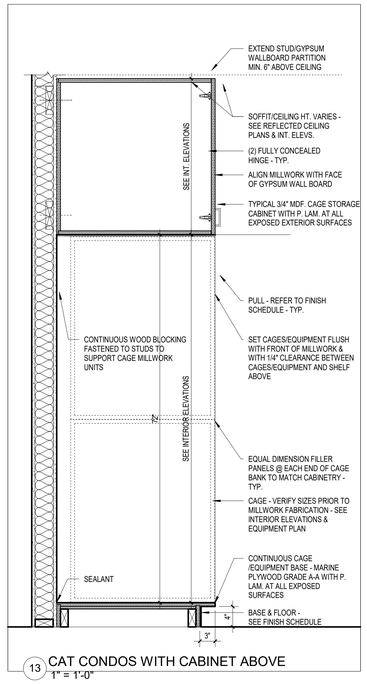
A7.03



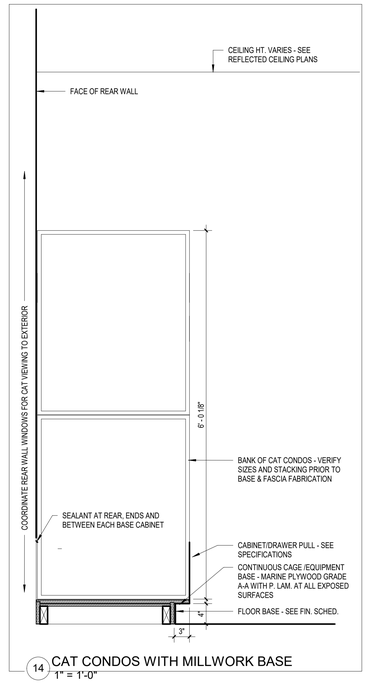
1 PHARMACY SHELVES AT 4 DRAWER BASE CABINET
1" = 1'-0"



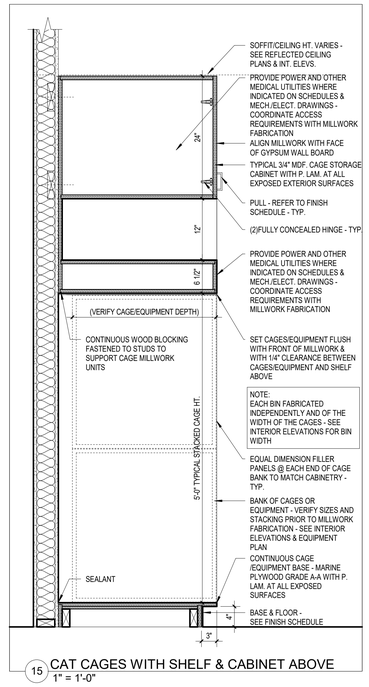
12 AVIAN CAGE @ SMALL MAMMAL HOUSING
1" = 1'-0"



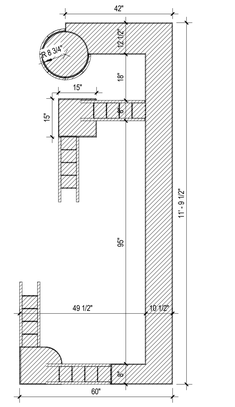
13 CAT CONDOS WITH CABINET ABOVE
1" = 1'-0"



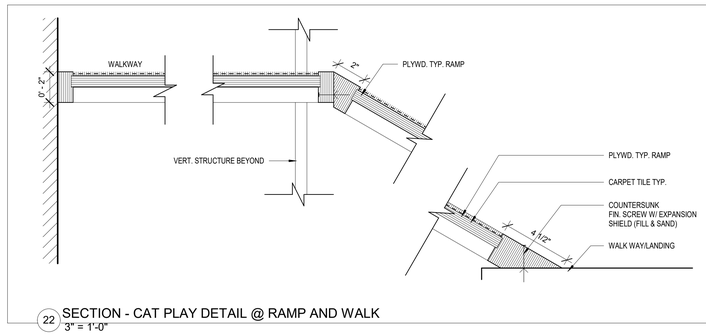
14 CAT CONDOS WITH MILLWORK BASE
1" = 1'-0"



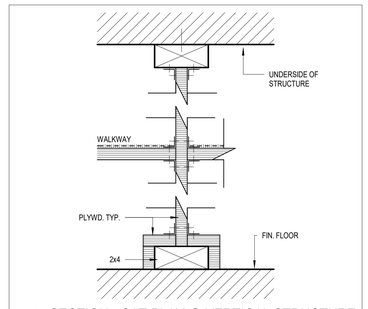
15 CAT CAGES WITH SHELF & CABINET ABOVE
1" = 1'-0"



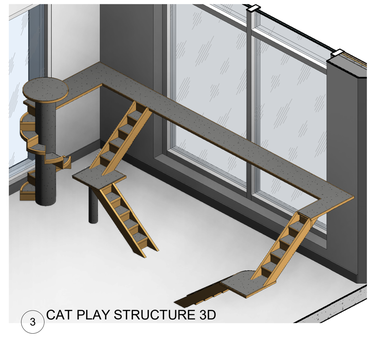
2 DIMENSION_CAT PLAY STRUCTURE
1/2" = 1'-0"



22 SECTION - CAT PLAY DETAIL @ RAMP AND WALK
3" = 1'-0"



21 SECTION - CAT PLAY @ VERTICAL STRUCTURE
3" = 1'-0"



3 CAT PLAY STRUCTURE 3D

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.778.9000
F: 617.426.2537
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	Author	DATE:	20 OCT 2021
CHECKED BY:	Checker	PROJECT NO:	# 2019
SCALE:			

DETAILS - SPECIALTY MILLWORK & CAGE

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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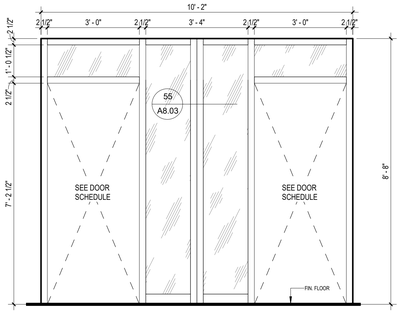
A7.04

EXTERIOR



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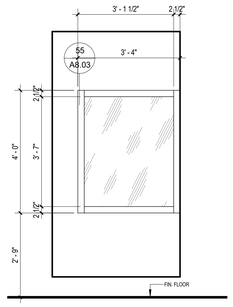

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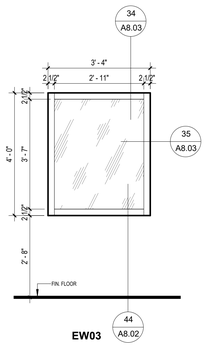

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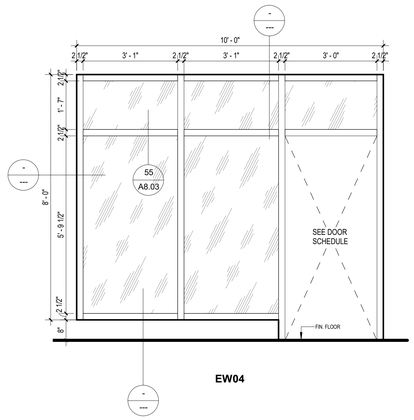

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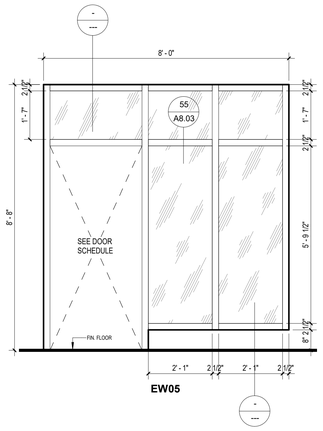

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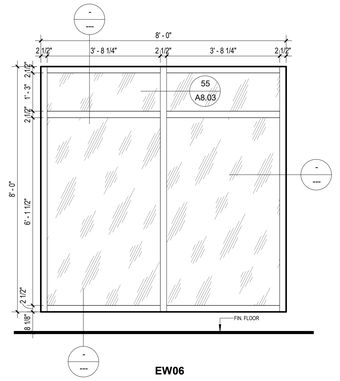

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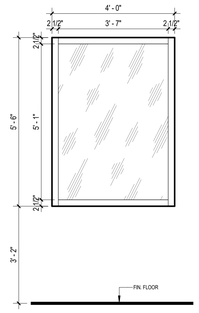

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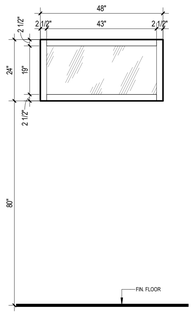

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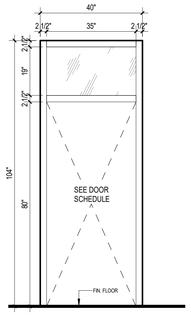
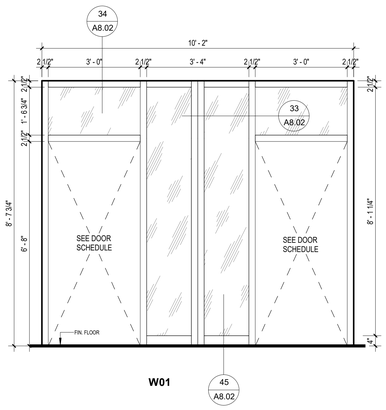


EW09

NOTES:
ALL EXTERIOR AND INTERIOR ALUMINIUM FRAME SHOWN SHALL BE CLEAR ANODIZED ALUMINIUM.

INTERIOR



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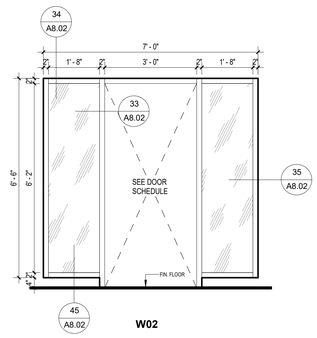

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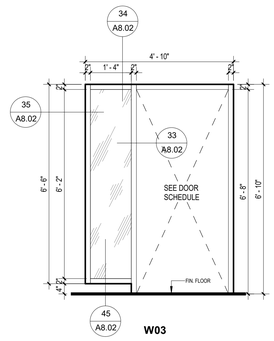

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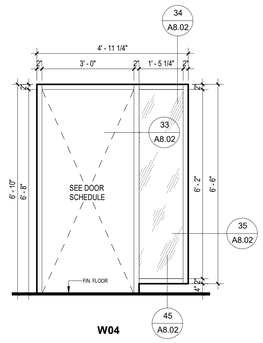

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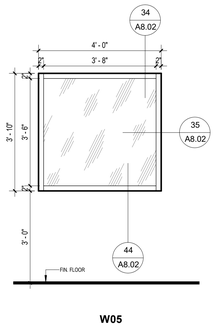

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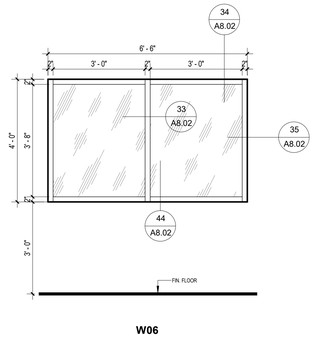

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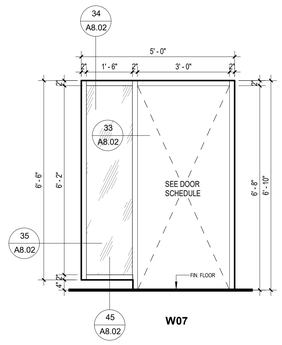

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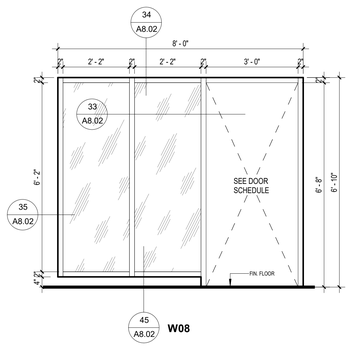

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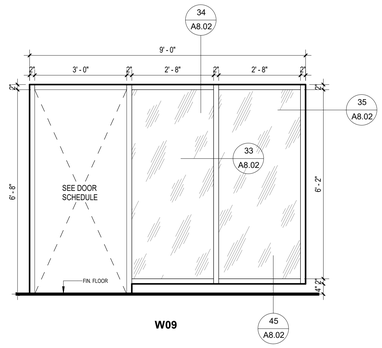

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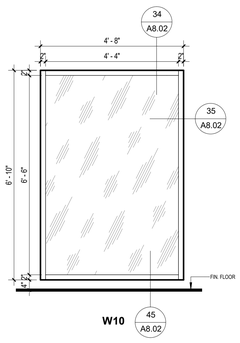

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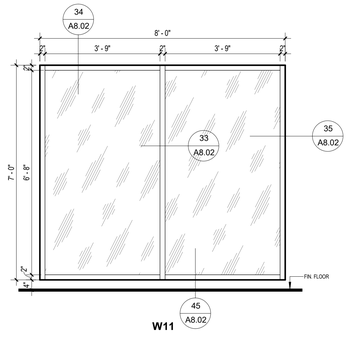

W11

BID SET

WINDOW ELEVATION

A8.00

REVISION NO.	DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.826.5555
F: 617.426.3537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9959

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author	CHECKED BY: Checker	SCALE:	DATE: 20 OCT 2021	PROJECT NO: # 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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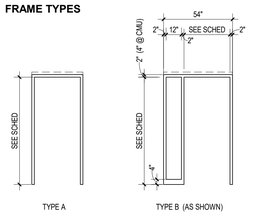
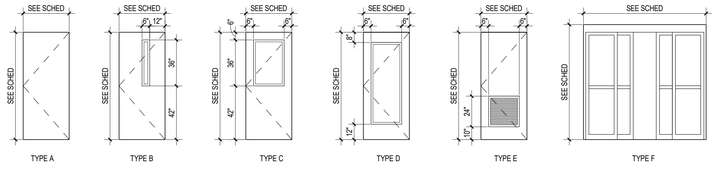
DOOR SCHEDULE

DOOR NUMBER	ROOMS NAME	ROOMS NUMBER	DOOR TYPE	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE DEPTH	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	HEAD	JAMB	THRESHOLD DETAIL	THRESHOLD MATERIAL	ASSOCIATED GLAZING TYPE	ASSOCIATED OPENING RATING	SECURITY
101A	ENTRY VESTIBULE	101A	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
101B	EXIT VESTIBULE	101B	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
104	MOP	104	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
105	PUBLIC VISITOR RESTROOM	105	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
106	WAITING AREA (ADOPTORS / RECLAIMERS)	106	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
107A	ADOPTABLE CAT HOUSING	107	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
107B	ADOPTABLE CAT HOUSING	107	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
108A	STRAY / SURRENDER / COURT HOLD CAT HOUSING	108	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
108B	STRAY / SURRENDER / COURT HOLD CAT HOUSING	108	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
109	CAT PLAYROOM FOR CAGED CATS	109	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
110	COMMUNAL CAT PLAYROOM 1	110	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
110A	COMMUNAL CAT PLAYROOM 1	110	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
111	CORRIDOR	C107	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
111A	COMMUNAL CAT PLAYROOM 2	111	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
112	COMMUNAL CAT PLAYROOM 3	112	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
112A	COMMUNAL CAT PLAYROOM 3	112	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
113	COMMUNAL CAT PLAYROOM 4	113	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
113A	COMMUNAL CAT PLAY PORCH 4	113A	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
113C	CORRIDOR	C104	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
114	COMMUNAL CAT PLAYROOM 5	114	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
114A	COMMUNAL CAT PLAYROOM 5	114	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
115	COMMUNAL CAT PLAYROOM 6	115	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
115A	COMMUNAL CAT PLAY PORCH 6	115A	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
116	COMMUNAL CAT PLAYROOM 7	116	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	25/A8.02					
116A	COMMUNAL CAT PLAYROOM 7	116	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
117	CAT BONDING CUBICLE 2	117	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
118	CAT BONDING CUBICLE 1	118	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
119	GENERAL CAT SUPPLIES	119	E	5' - 8"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
121	QUARANTINE / FERAL CAT HOUSING	121	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
122	EXECUTIVE OFFICE	122	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
123	CAT & DOG HOUSING MANAGER	123	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	33/A8.02					
124	BREAK ROOM	124	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
125	GENERAL SHELTER STORAGE	125	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
126	LONG TERM DOCUMENT STORAGE	126	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
127	OXYGEN	127	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
129	MECHANICAL / SCAV / LIQUID SUCTION ROOM	U103	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	12/A8.02	22/A8.02					
130	CREMATORY ROOM	130	A	3' - 0"	6' - 8"	0' - 1 3/4"	HM	PTD	A	HM	PTD	12/A8.02	22/A8.02				2-HR RATED	
131	STORAGE	131	E	5' - 8"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
132	TRANSITION VESTIBULE	132	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	12/A8.02	22/A8.02					
133	ISOLATION / INFECTIOUS (GENERAL) CAT HOUSING	133	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
134	TRANSITION VESTIBULE	134	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	12/A8.02	22/A8.02					
135	ISOLATION / INFECTIOUS (RESPITORY) CAT HOUSING	135	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
136	ISOLATION DOG HOUSING	136	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	32/A8.02	42/A8.02					
137	QUARANTINE DOG HOUSING	137	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	32/A8.02	42/A8.02					
138	SURGERY ROOM	138	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	14/A8.02	24/A8.02					
139	PRE-OP HOLDING / POST-OP RECOVERY / ICU (DOG & CATS)	139	F	7' - 0"	7' - 6"	0' - 2"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
140	PUPPY WHELPING ROOM	140	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	PTD	15/A8.02	25/A8.02					
142	MOP	142	A	2' - 6"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
143	CLEANING SUPPLIES STORAGE	143	E	5' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
144A	CORRIDOR	C108	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
144B	LAUNDRY ROOM	144	E	5' - 8"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
144C	LAUNDRY ROOM	144	E	5' - 8"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
145	VMA GENERAL STORAGE	145	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
148	LAB & PHARMACY AREA	148	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
149A	SPRAY / NEUTER EXAM ROOM	149	B	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
149B	SPRAY / NEUTER EXAM ROOM	149	B	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
150	VMA PARVO & RESPIRATORY ISOLATION DOG WARD	150	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
151	VMA RESPIRATORY ISOLATION CAT WARD	151	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
152	LAUNDRY / ACTIVE CLINIC STORAGE	152	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
153	STAFF RESTROOM #1	153	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
154	STAFF RESTROOM #2	154	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
155	MOP	155	A	2' - 6"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
156	ACTIVE DOG FOOD STORAGE	156	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
158	BOWL WASH AREA	158	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
159	DOG GROOMING ROOM	159	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
160	ACTIVE CAT FOOD STORAGE	160	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
162	NURSING KITTEN ROOM 1	162	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
165	TEMPORARY CAT HOLDING	165	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
166	WORKING KITTEN NURSERY 2	166	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
167	KITTEN DISPLAY ROOM 1	167	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
168	PET ADOPTION COUNSELING - A	168	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
169	SMALL MAMMALS & EXOTICS HOUSING	169	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	33/A8.02					
170	TEMPORARY DOG HOLDING	170	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
171	KITTY LITTER / CAT CARRIER STORAGE	171	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
172	CAT BATHING	172	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
173	CAT CARRIER DUNK & DRY ROOM	173	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
174	DOG BONDING (GET AQUINTED) CUBICLE 1	174	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
175	GENERAL DOG SUPPLIES	175	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
176	DOG BONDING (GET AQUINTED) CUBICLE 1	176	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	12/A8.02	22/A8.02					
177	ADOPTABLE DOG HOUSING - WARD 2	177	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	11/A8.02	21/A8.02					
178A	ADOPTABLE DOG HOUSING - WARD 1	178	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	11/A8.02	21/A8.02					
178B	ADOPTABLE DOG HOUSING - WARD 1	178	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	11/A8.02	21/A8.02					
179A	ADOPTABLE DOG HOUSING - WARD 4	179	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	11/A8.02	21/A8.02					
179B	ADOPTABLE DOG HOUSING - WARD 4	179	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	11/A8.02	21/A8.02					
180	DOG BONDING (GET AQUINTED) CUBICLE 3	180	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	12/A8.02	22/A8.02					
182	STRAY & SURRENDER DOG HOUSING - WARD 2	182	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	12/A8.02	22/A8.02					
183A	STRAY & SURRENDER DOG HOUSING - WARD 1	183	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	11/A8.02	21/A8.02					
183B	STRAY & SURRENDER DOG HOUSING - WARD 1	183	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	11/A8.02	21/A8.02					
C102	WAITING AREA (ADOPTORS / RECLAIMERS)	106	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
C104	CORRIDOR	C106	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
C105	CORRIDOR	C107	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
C107	CORRIDOR	C107	A	3' - 0"	6' - 8"	0' - 1 3/4"			A									
C107A	CORRIDOR	C108	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
C108	CORRIDOR	C107	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
C109	CORRIDOR	C107	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
C110	CORRIDOR	C113	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
C111	CORRIDOR	C111	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	12/A8.02	22/A8.02					
C112A	CORRIDOR	C103	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	15/A8.02	25/A8.02					
C112B	CORRIDOR	C103	C	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	12/A8.02	22/A8.02					
C113	CORRIDOR	C112	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
U104	TELEPHONE	U104	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
U105	COMPUTER SERVER ROOM	U105	E	5' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
U106	PHONE PANEL	U106	E	5' - 8"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
U107	ELECTRIC PANEL	U107	E	5' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
U108	POWER WASH PUMP ROOM (SMT)	U108	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	13/A8.02	23/A8.02					
UX101	ELECTRIC ROOM	U101	E	5' - 8"	6' - 8"	0' - 1 3/4"	HM	PTD	A	HM	PTD	41/A8.03	40/A8.03					
UX102	FIRE SPRINKLER ROOM	U102	A	3' - 0"	6' - 8"	0' - 1 3/4"	HM	PTD	A	HM	PTD	41/A8.03	40/A8.03					
X101	ENTRY VESTIBULE	101A	D	3' - 0"	7' - 2 1/2"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	51/A8.03	50/A8.03					
X102	EXIT VESTIBULE	101B	D	3' - 0"	7' - 2 1/2"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	51/A8.03	50/A8.03					
X103	BREAK ROOM	124	D	3' - 0"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
X104	CORRIDOR	C114	D	2' - 11"	6' - 8"	0' - 1 3/4"	AL/GL	ADZ	SEE A8.00	AL	ADZ	31/A8.03	30/A8.03					
X105	CREMATORY ROOM	130	A	3' - 0"	6' - 8"	0' - 1 3/4"	HM	PTD	A	HM	PTD	22/A8.03	23/A8.03				2-HR RATED	
X106	CREMATORY ROOM	130	E	5' - 8"	6' - 8"	0' - 1 3/4"	HM	PTD	A	HM	PTD	22/A8.03	23/A8.03				2-HR RATED	
X107	CORRIDOR	C115	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	NAT	A	HM	PTD	22/A8.03	23/A8.03					
X108	STRAY & SURRENDER DOG HOUSING - WARD 2	182	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	NAT	A	HM	PTD	41/A8.03	40/A8.03					
X109	CORRIDOR	C111	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	NAT	A	HM	PTD	41/A8.03	40/A8.03					
X110	CORRIDOR	C104	A	3' - 0"	6' - 8"	0' - 1 3/4"	WD	NAT	A	HM	PTD	41/A8.03	40/A8.03					
X111	ADOPTABLE DOG HOUSING - WARD 3	181	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	NAT	A	HM	PTD	41/A8.03	40/A8.03					

FRAME TYPES



DOOR TYPES



NOTE: REFER TO THE ELEVATIONS/SECTIONS FOR DOOR GLAZING CONFIGURATIONS.
THE INTERIOR ELEVATIONS/SECTIONS TAKE PRECEDENCE OVER THE DOOR TYPES SHOWN IN THE SCHEDULE.
* SEE FRAME TYPES ON A-800, 8.02 & 8.03 DETAILS FOR FRAMES AS REFERENCED IN THE DOOR SCHEDULE ABOVE.

1. FIRE DOORS MUST HAVE LABEL ATTACHED.
2. FIRE DOOR FRAMES MUST HAVE EITHER AN ATTACHED OR EMBOSSED LABEL.
3. FIRE DOORS MUST BE SELF-LATCHING WITH A LABELED AUTOMATIC LATCHING DEVICE TO ENGAGE THE STRIKE.
4. FIRE DOOR MUST BE SELF-CLOSING.
5. IF A FIRE DOOR IS TO BE HELD OPEN, IT MUST BE EQUIPPED WITH A LISTED ELECTROMAGNETIC RELEASE DEVICE ACTIVATED BY ELECTRONIC DETECTORS THAT SENCE SMOKE AND/OR THE PRODUCTS OF COMBUSTION.
6. FIRE DOORS MUST BE FREE OF ANY OBSTRUCTIONS WHICH COULD PREVENT THE DOOR FROM OPERATING PROPERLY, i.e. WEDGE DOOR STOPS, CHAINS, HOOK BACKS ETC.
7. ONLY LISTED FIRE DOOR HARDWARE SHALL BE USED. DOOR LABELING SHALL SPECIFICALLY STATE THAT THE DOOR HAS BEEN PROPERLY REINFORCED FOR FIRE EXIT DEVICES. STANDARD FIRE TESTING AND PANIC LOAD TESTING SHALL APPLY.
8. FIRE DOORS MUST HAVE STEEL BEARING-TYPE HINGES. (EXCEPTION: NON-BEARING PLAIN STEEL)

LEGEND

MATERIALS
AL - ALUMINUM
/GL - GLASS LIGHT
FBRGL - FIBERGLASS
S.S. - STAINLESS STEEL
STF - STORE FRONT
HM - HOLLOW METAL
WD - WOOD
CL/WD - CLAD - WOOD
LLW - LEAD LINED WD
LPDL - LOW PRESSURE DECORATIVE LAMINATED WOOD

FINISH TYPE
ADZ - ANODIZED
NAT - NATURAL
PTD - PAINTED
F.R. - FIRE RATED
WR - WIRE

GLAZING TYPE
FBR - FIBER GLASS
FRST - FROSTED GLASS
F.R. - FIRE RATED
WR - WIRE
INS. - INSULATED GLAZING
IR - IMPACT RESIST. TEMP.
TEMPLL - LEAD LINED TEMP.
TEMP - TEMPURED GLASS

BID SET

REVISION NO.	DESCRIPTION	DATE

ARCHITECTS SEAL:

rf&a rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.778.0500
F: 617.426.2537
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author
CHECKED BY: Checker
SCALE:
DATE: 20 OCT 2021
PROJECT NO: # 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

DOOR SCHEDULE

A8.01

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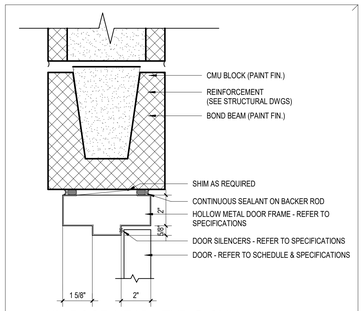
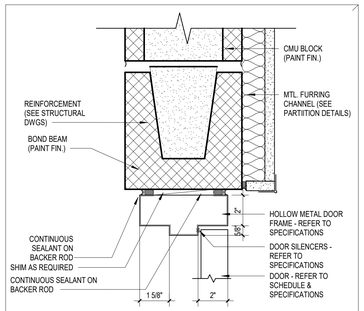


11 HM DOOR HEAD - TYP @ CMU
3" = 1'-0"



12 HM DOOR HEAD - TYP @ CMU / GYP.
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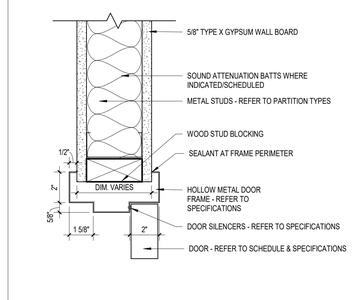

13 DOOR HEAD - TYP. @ NEW METAL STUDS2
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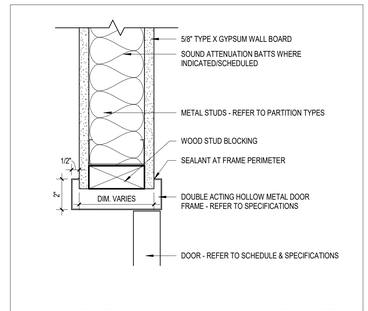

14 DOOR HEAD - DOUBLE ACTING @ NEW METAL STUDS2
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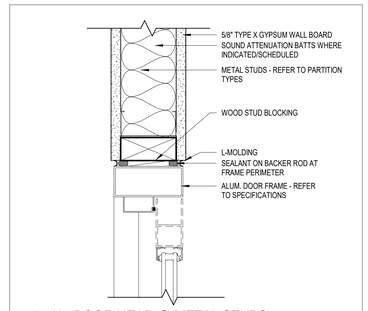

15 AL. DOOR HEAD @ METAL STUDS
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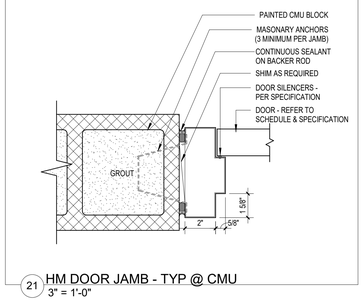

21 HM DOOR JAMB - TYP @ CMU
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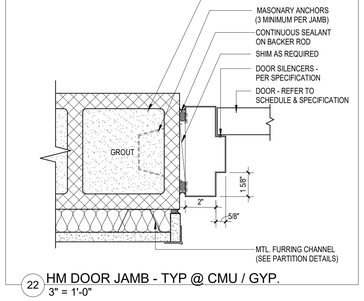

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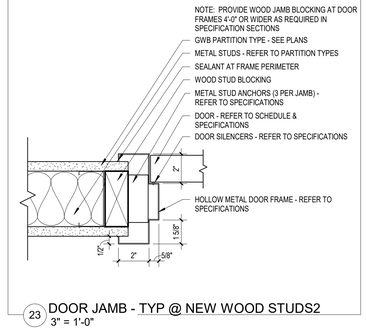

23 DOOR JAMB - TYP @ NEW WOOD STUDS2
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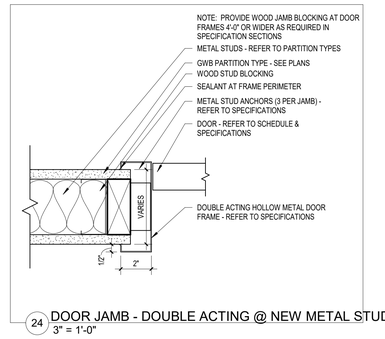

24 DOOR JAMB - DOUBLE ACTING @ NEW METAL STUDS2
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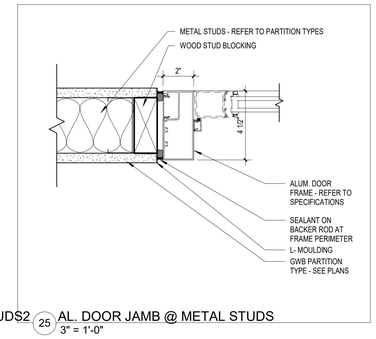

25 AL. DOOR JAMB @ METAL STUDS
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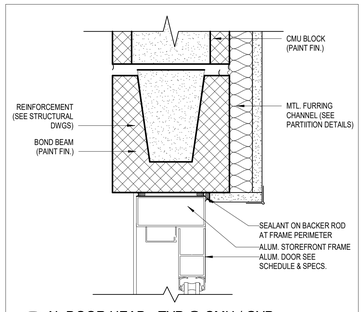

32 AL DOOR HEAD - TYP @ CMU / GYP
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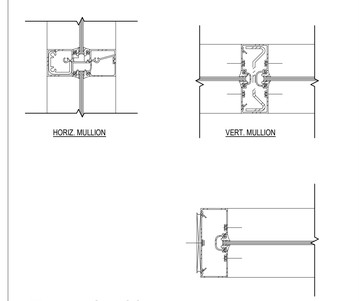

33 ALUM. SF DOOR JAMB
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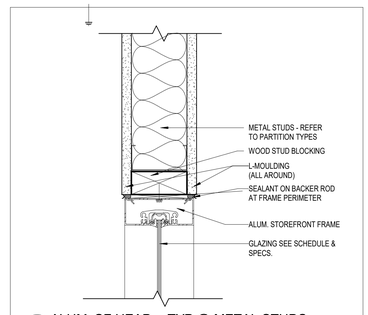

34 ALUM. SF HEAD - TYP @ METAL STUDS
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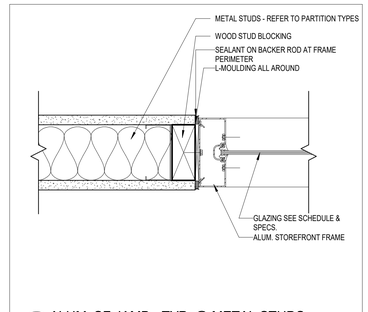
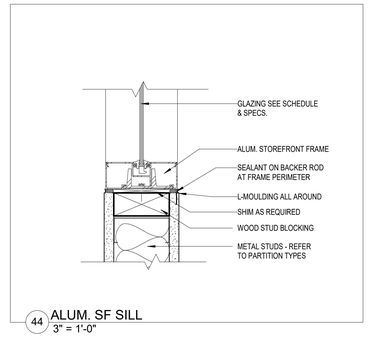


35 ALUM. SF JAMB - TYP. @ METAL STUDS
3" = 1'-0"

42 AL DOOR JAMB - TYP @ CMU / GYP.
3" = 1'-0"



44 ALUM. SF SILL
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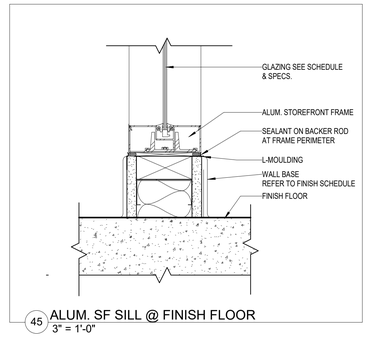

45 ALUM. SF SILL @ FINISH FLOOR
3" = 1'-0"

BID SET

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.3557
F: 617.426.3557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

rauhaus freedenfeld & associates

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	JY
CHECKED BY:	EN/GS
SCALE:	
DATE:	20 OCT 2021
PROJECT NO:	# 2019

INTERIOR DOOR / WINDOW DETAILS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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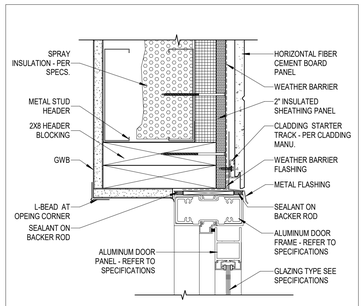
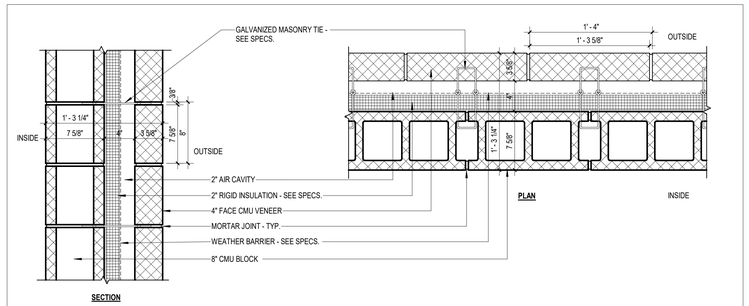
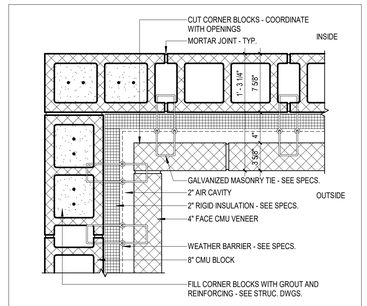
A8.02



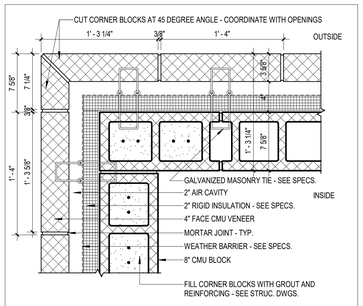
1 EXT. ALUM. DOOR HEAD @ CEMENT BOARD
3" = 1'-0"



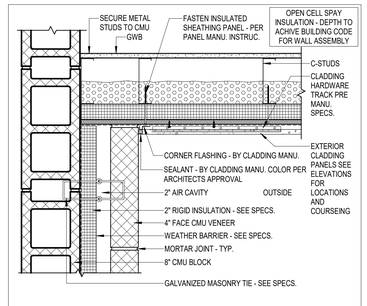
11 EXT. WALL CMU TYPICAL ASSEMBLY
1 1/2" = 1'-0"



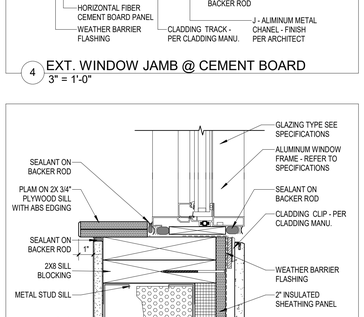
13 EXT. WALL CMU INSIDE CORNER
1 1/2" = 1'-0"



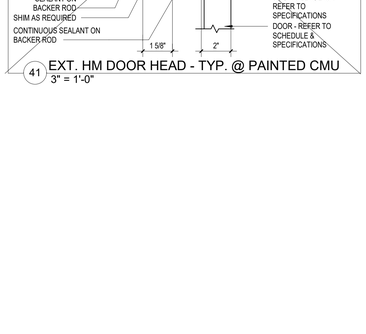
14 EXT. WALL CMU OUTSIDE CORNER
1 1/2" = 1'-0"



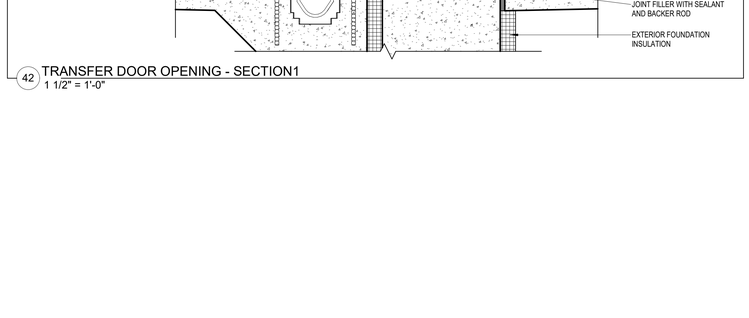
15 EXT. WALL CMU @ METAL STUD CONDITION
1 1/2" = 1'-0"



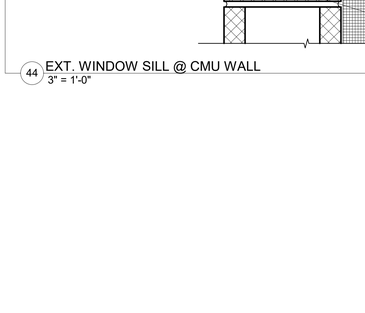
2 EXT. ALUM. DOOR JAMB @ CEMENT BOARD
3" = 1'-0"



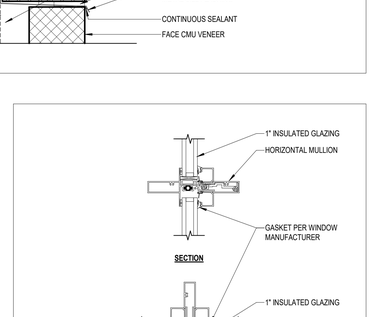
21 EXT. HM DOOR JAMB - TYP. @ CEMENT BD.
3" = 1'-0"



22 TRANSFER DOOR OPENING - PLAN1
1 1/2" = 1'-0"



24 EXT. DOOR HEAD - H.M. @ CMU WALL
3" = 1'-0"



25 EXT. DOOR JAMB - H.M. @ CMU WALL
3" = 1'-0"

3 EXT. WINDOW HEAD @ CEMENT BOARD
3" = 1'-0"

31 EXT. ALUM. HEAD @ CEMENT BD.
3" = 1'-0"

42 TRANSFER DOOR OPENING - SECTION1
1 1/2" = 1'-0"

34 EXT. WINDOW HEAD @ CMU WALL
3" = 1'-0"

35 EXT. WINDOW JAMB @ CMU WALL
3" = 1'-0"

4 EXT. WINDOW JAMB @ CEMENT BOARD
3" = 1'-0"

41 EXT. HM DOOR HEAD - TYP. @ PAINTED CMU
3" = 1'-0"

44 EXT. WINDOW SILL @ CMU WALL
3" = 1'-0"

5 EXT. WINDOW SILL @ CEMENT BOARD
3" = 1'-0"

55 EXT. WINDOW MULLION
3" = 1'-0"

BID SET

NO.	DESCRIPTION	DATE

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.8899

rauhaus freedenfeld & associates

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author	CHECKED BY: Checker	SCALE:	DATE: 20 OCT 2021	PROJECT NO: # 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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EXTERIOR DOOR / WINDOW DETAILS

A8.03

FINISH SCHEDULE

NO.	ROOM NAME	FLOOR	BASE	WAINSCOT MATERIAL	WAINSCOT HEIGHT	TRIM	WALL FINISH NORTH	WALL FINISH SOUTH	WALL FINISH EAST	WALL FINISH WEST	MILLWORK CABINET	MILLWORK C. Top	CEILING MATERIAL	CEILING HEIGHT	Notes
101A	ENTRY VESTIBULE	PORCELAIN TILE (PT-1)	PTB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
101B	EXIT VESTIBULE	PORCELAIN TILE (PT-1)	PTB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
102	CLERICAL SUPPLIES AREA	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
103	RECEPTION AREA (ADOPTIONS)	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
104	MOP	SEALED CONCRETE (SC-1)	PTB-1	FRP	8'-0"		P1	P1	P1	P1			ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
105	PUBLIC VISITOR RESTROOM	PORCELAIN TILE (PT-1)	PTB-1	CT-1	6'-0"		P1	P1	P1	P1			ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
106	WAITING AREA (ADOPTORS / RECLAIMERS)	PORCELAIN TILE (PT-1)	PTB-1				P1	P1	P1	P1			GWB/P3	SEE RCP	
107	ADOPTABLE CAT HOUSING	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
108	STRAY / SURRENDER / COURT HOLD CAT HOUSING	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
109	CAT PLAYROOM FOR CAGED CATS	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
110	COMMUNAL CAT PLAYROOM 1	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1/GWB/P3	SEE RCP	
110A	COMMUNAL CAT PLAY PORCH 1	SEALED CONCRETE (SC-1)					P1	P1	P1	P1			ACT-1	SEE RCP	
111	COMMUNAL CAT PLAYROOM 2	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1/GWB/P3	SEE RCP	
111A	COMMUNAL CAT PLAY PORCH 2	SEALED CONCRETE (SC-1)					P1	P1	P1	P1			ACT-1	SEE RCP	
112	COMMUNAL CAT PLAYROOM 3	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1/GWB/P3	SEE RCP	
112A	COMMUNAL CAT PLAY PORCH 3	SEALED CONCRETE (SC-1)					P1	P1	P1	P1			ACT-1	SEE RCP	
113	COMMUNAL CAT PLAYROOM 4	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1/GWB/P3	SEE RCP	
113A	COMMUNAL CAT PLAY PORCH 4	SEALED CONCRETE (SC-1)					P1	P1	P1	P1			ACT-1	SEE RCP	
113D	Room														
114	COMMUNAL CAT PLAYROOM 5	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1/GWB/P3	SEE RCP	
114A	COMMUNAL CAT PLAY PORCH 5	SEALED CONCRETE (SC-1)					P1	P1	P1	P1			ACT-1	SEE RCP	
115	COMMUNAL CAT PLAYROOM 6	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1/GWB/P3	SEE RCP	
115A	COMMUNAL CAT PLAY PORCH 6	SEALED CONCRETE (SC-1)					P1	P1	P1	P1			ACT-1	SEE RCP	
116	COMMUNAL CAT PLAYROOM 7	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1/GWB/P3	SEE RCP	
116A	COMMUNAL CAT PLAY PORCH 7	SEALED CONCRETE (SC-1)					P1	P1	P1	P1			ACT-1	SEE RCP	
117	CAT BONDING CUBICLE 2	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
118	CAT BONDING CUBICLE 1	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
119	GENERAL CAT SUPPLIES	SHEET VINYL (SV-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	GWB/P3	SEE RCP	
120	CLERICAL AREA	SHEET VINYL (SV-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
121	QUARANTINE / FERAL CAT HOUSING	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
122	EXECUTIVE OFFICE	SHEET VINYL (SV-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
123	CAT & DOG HOUSING MANAGER	SHEET VINYL (SV-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
124	BREAK ROOM	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
125	GENERAL SHELTER STORAGE	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1		SEE RCP	
126	LONG TERM DOCUMENT STORAGE	SHEET VINYL (SV-1)	VB-2				P1	P1	P1	P1				SEE RCP	
127	OXYGEN	SHEET VINYL (SV-1)	VB-2				P1	P2	P1	P1			GWB/P3	SEE RCP	
130	CREMATORY ROOM	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P2	P2	P2	P2			ACT-1	SEE RCP	
131	STORAGE	SHEET VINYL (SV-1)	VB-2				P1	P2	P1	P2	PL-1	SSC-1	GWB/P3	SEE RCP	
132	TRANSITION VESTIBULE	RESINOUS EPOXY (RS-1)	RS-1				P1	P2	P2	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
133	ISOLATION / INFECTIOUS (GENERAL) CAT HOUSING	RESINOUS EPOXY (RS-1)	RS-1				P1	P2	P1	P2	PL-1	SSC-1	ACT-1	SEE RCP	
134	TRANSITION VESTIBULE	RESINOUS EPOXY (RS-1)	RS-1				P2	P1	P2	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
135	ISOLATION / INFECTIOUS (RESPITORY) CAT HOUSING	RESINOUS EPOXY (RS-1)	RS-1				P1	P2	P2	P1	PL-1	SSC-1	ACT-1	SEE RCP	
136	ISOLATION DOG HOUSING	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P2	P2	P2	P2			ACT-2	SEE RCP	
136A	EXTERIOR EXERCISE RUNS	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P2	P2	P1				SEE RCP	
137	QUARANTINE DOG HOUSING	RESINOUS EPOXY (RS-1)	RS-1	CT-1			P2	P2	P2	P2			ACT-2	SEE RCP	
137A	EXTERIOR EXERCISE RUNS	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P1	P2	P1				SEE RCP	
138	SURGERY ROOM	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
139	PRE-OP HOLDING / POST-OP RECOVERY / ICU (DOG & CATS)	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
140	PUPPY WHELPING ROOM	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
141	LAUNDRY STORAGE	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	GWB/P3	SEE RCP	
142	MOP	SEALED CONCRETE (SC-1)	VB-1	FRP	8'-0"		P1	P1	P1	P1			ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
143	CLEANING SUPPLIES STORAGE	SHEET VINYL (SV-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
144	LAUNDRY ROOM	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
145	VMA GENERAL STORAGE	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1			GWB/P3	SEE RCP	
146	TREATMENT & SURGERY PREP AREA	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
147	PACK PREP AREA	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
148	LAB & PHARMACY AREA	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
149	SPRAY / NEUTER EXAM ROOM	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
150	VMA PARVO & RESPIRATORY ISOLATION DOG WARD	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
151	VMA RESPIRATORY ISOLATION CAT WARD	RESINOUS EPOXY (RS-1)	RS-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
152	LAUNDRY / ACTIVE CLINIC STORAGE	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
153	STAFF RESTROOM #1	PORCELAIN TILE (PT-1)	PTB-1	CT-1	6'-0"		P1	P1	P1	P1			ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
154	STAFF RESTROOM #2	PORCELAIN TILE (PT-1)	PTB-1	CT-1	6'-0"		P1	P1	P1	P1			ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
155	MOP	SEALED CONCRETE (SC-1)	VB-1				P1	P1	P1	P1			GWB/P3	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
156	ACTIVE DOG FOOD STORAGE	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	GWB	SEE RCP	
157	FOOD PREP AREA (DOGS)	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
158	BOWL WASH AREA	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
159	DOG GROOMING ROOM	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
160	ACTIVE CAT FOOD STORAGE	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
161	FOOD PREP AREA (CATS)	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
162	NURSING KITTEN ROOM 1	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			GWB	SEE RCP	
163	NURSING KITTEN ROOM 2	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
164	WORKING KITTEN NURSERY 1	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
165	TEMPORARY CAT HOLDING	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1/GWB/P3	SEE RCP	
166	WORKING KITTEN NURSERY 2	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
167	KITTEN DISPLAY ROOM 1	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
168	PET ADOPTION COUNSELING - A	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
169	SMALL MAMMALS & EXOTICS HOUSING	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	
170	TEMPORARY DOG HOLDING	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P1	P1	P1	PL-1		ACT-1/GWB/P3	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
171	KITTY LITTER / CAT CARRIER STORAGE	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1			GWB	SEE RCP	
172	CAT BATHING	RESINOUS EPOXY (RS-1)	RS-1				P1	P1	P1	P1			ACT-2	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
173	CAT CARRIER DUNK & DRY ROOM	SEALED CONCRETE (SC-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
174	DOG BONDING (GET AQUINTED) CUBICLE 1	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1		MOISTURE RESISTANT GYPSUM WALL BOARD
175	GENERAL DOG SUPPLIES	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1			ACT-1	SEE RCP	
176	DOG BONDING (GET AQUINTED) CUBICLE 1	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
177	ADOPTABLE DOG HOUSING - WARD 2	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P2	P1/P2	P2	P2	PL-1	SSC-1	ACT-1/GWB/P3	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
177A	EXTERIOR EXERCISE RUNS	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P1	P1	P1			ACT-1	SEE RCP	
178	ADOPTABLE DOG HOUSING - WARD 1	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P2	P1/P2	P2	P2	PL-1	SSC-1	ACT-1/GWB/P3	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
178A	EXTERIOR EXERCISE RUNS	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P1	P1	P1				SEE RCP	
179	ADOPTABLE DOG HOUSING - WARD 4	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P2	P2	P2	P2			ACT-1	SEE RCP	
180	DOG BONDING (GET AQUINTED) CUBICLE 3	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1	PL-1	SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
181	ADOPTABLE DOG HOUSING - WARD 3	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P2	P2	P2	P2		SSC-1	ACT-1	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
181A	EXTERIOR EXERCISE RUNS	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P2	P1	P1				SEE RCP	
182	STRAY & SURRENDER DOG HOUSING - WARD 2	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P2	P2	P2	P2	PL-1	SSC-1	ACT-2	SEE RCP	
182A	EXTERIOR EXERCISE RUNS	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P1	P2	P1				SEE RCP	
183	STRAY & SURRENDER DOG HOUSING - WARD 1	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P2	P2	P2	P2			ACT-2	SEE RCP	
184	DOG BATHING	RESINOUS EPOXY (RS-1)	RS-1	CT-1	6'-0"		P1	P1	P1	P1			ACT-2	SEE RCP	MOISTURE RESISTANT GYPSUM WALL BOARD
C101	CORRIDOR	PORCELAIN TILE (PT-1)	PTB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C103	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1		
C104	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1		
C105	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C106	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C107	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C108	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C109	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C110	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C111	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P2	P2	P2	P2			ACT-1		
C112	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C113	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C114	CORRIDOR	SHEET VINYL (SV-1)	VB-1				P1	P1	P1	P1			ACT-1	SEE RCP	
C115	CORRIDOR	SHEET VINYL (SV-1)					P2	P2	P1	P2			ACT-1		
U101	ELECTRIC ROOM	SEALED CONCRETE (SC-1)	VB-2				P2	P2	P2	P2				SEE RCP	
U102	FIRE SPRINKLER ROOM	SEALED CONCRETE (SC-1)	VB-2				P2	P2	P2	P2			GWB/P3	SEE RCP	
U103	MECHANICAL / SCAV / LIQUID SUCTION ROOM	SEALED CONCRETE (SC-1)	VB-2				P2	P2	P2	P2				SEE RCP	
U104	TELEPHONE	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1			GWB/P3	SEE RCP	
U105	COMPUTER SERVER ROOM	SEALED CONCRETE (SC-1)	SV-2				P1	P1	P1	P1			GWB/P3	SEE RCP	
U106	PHONE PANEL	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1			GWB/P3	SEE RCP	
U107	ELECTRIC PANEL	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1			GWB/P3	SEE RCP	
U108	POWER WASH PUMP ROOM (SMT)	SEALED CONCRETE (SC-1)	VB-2				P1	P1	P1	P1			ACT-1	SEE RCP	

FINISH LEGEND

No.	GENERAL CATEGORY	NOTES
FLOORING		
CONCRETE		
SC-1	SEALED CONCRETE	
CARPET		
CPT-1	ROLLSTOCK	
CPT-2	CARPET TILE	
PORCELAIN TILE (FLOORS)		
PT-1	WAITING/RECEPTION/RETAIL AREA	
PT-2	BATHROOM	
RECESSED FLOOR MAT		
FM-1	ENTRY AREA	
RESINOUS EPOXY FLOORING		
RS-1	FLOOR	
RS-2	WALLS	
RUBBER FLOORING		
R-1	GENERAL	
R-2	CUSHION BACKED	
SHEET VINYL (WELDED)		
SV-1	ROLLSTOCK	
SV-2	TILE	
WALL BASE		
VINYL BASE		
VB-1	INTEGRAL WELDED	
VB-2	SET ON	
RUBBER BASE		
RB-1	GENERAL	
RB-2	SET ON	
PORCELAIN TILE BASE		
PTB-1	GENERAL	
CERAMIC TILE BASE		
CTB-1	GENERAL	
WALLS		
CERAMIC TILE (WALLS)		
CT-1	GENERAL	
CT-2	MOSAIC	
FIBERGLASS REINFORCED PLASTIC PANEL		
FRP-1	GENERAL	
PAINT		
P-1	GENERAL	
P-2	EPOXY	
STONE		
ST-1	GENERAL	
WALL PANELING		
WP-1	P LAM	
WP-2	1 X WOOD	
WP-3	FRP	
WP-4	VINYL	
CEILING		
ACOUSTICAL TILE		
ACT-1	DRY 2 X 2	
ACT-2	DRY 2 X 4	
ACT-3	WET 2 X 2	
PAINT		
P-3	GENERAL	
WOOD		
W-1	GENERAL	
OTHERS		
MPC-1	STANDARD ELEVATOR FINISH	
MTL-1	PRE-FIN METAL	
PVC-1	PVC (FAUX WOOD)	
MILLWORK		
STONE		
STC-1	STONE COUNTER	
PLASTIC LAMINATE		
PLC-1	P LAM COUNTER	
PLC-2	WET COUNTER	
PL-1	CABINET	
SOLID SURFACE		
SSC-1	QUARTZ	
SSC-2	ACRYLIC POLYMER	

NOT USED

NOTES:

1. REFER TO PLANS AND ELEVATIONS FOR REQUIRED PATTERNS.
2. REFER TO SPECIFICATION FOR THE MANUFACTURER AND MODEL #.
3. REFER TO PROJECT MANUAL FOR CABINET HARDWARE

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2557
F: 617.426.2557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

rauhaus freedenfeld & associates

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author
CHECKED BY: Checker
SCALE:
DATE: 20 OCT 2021
PROJECT NO: # 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

FINISH SCHEDULE, LEGEND & INTERIOR SIGNAGE

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BID SET

A9.00

EQUIPMENT SCHEDULE

NO.	DESCRIPTION	EXIST / NEW	MAKE	MODEL	CONNECTIONS BY G.C. ELECT	DATA	PLUMB	MECH	MEDICAL GAS O2	N2	SCAV	LIQUID SUCTION	PROVIDED BY GC	INSTALLED BY GC	NOTES
100	**APPLIANCES**														
120.00	COFFEE MAKER	N	KEURIG	B155									●	●	
121.00	MICROWAVE, COMMERCIAL, COUNTER	N	SUMMIT APPLIANCE	SCM1000SS									●	●	
140.03	FREEZER, CHEST -	N	SUMMIT	SCFM182	115V/60 HZ/1.4A								●	●	
141.01	REFRIGERATOR FREEZER	N	SUMMIT	FF1511SS	115 V AC/60HZ								●	●	
144.01	REGRIGERATOR, COMMERCIAL (18 CF)	N	SUMMIT APPLIANCE	BKRF18SS	115 V/60HZ/6A								●	●	
145.00	REFRIGERATOR, UNDERCOUNTER	N	SUMMIT APPLIANCE	AL57GCSS	110V/1.3A								●	●	
164.00	WASHER/DRYER - COMPACT	N											●	●	
165.01	SS BOWLWASHER	N	AUTOCHLOR	TBD	208V/14A								●	●	
165.02	SS. TABLE DRY	N	CUSTOM	TBD									●	●	
165.03	SS. TABLE SINK (INTEGRAL SS BOWL)	N	CUSTOM	TBD									●	●	
177.00	WASHER/EXTRACTOR, COMMERCIAL 30 LB	N	CONTINENTAL GIRBAU	EH030	208/60/1-10A								●	●	
178.00	DRYER, COMMERCIAL 40 LB	N	CONTINENTAL GIRBAU	CG3040	208/60/3 - 4A								●	●	
300	**CAGES & RUNS**														
330.01	CAGE, ISOLATION, RESPIRATORY (GLASS/WIRE FRONT)	N	SNYDER	CUSTOM									●	●	
332.00	CAGE, SS 36"	N	SNYDER	CUSTOM									●	●	
333.00	CAGE, SS (48")	N	SNYDER	CUSTOM									●	●	
334.00	AVIAN CAGE, 30"x30"x60"	N	SNYDER	CUSTOM									●	●	
335.00	CONDO, CAT	N	MASON										●	●	
380.02	DIVIDER (SS PANEL W/ SS TOP GRID)	N	SNYDER	SANI-KENNEL (SS)									●	●	
384.00	RUN GATE (SS GRID)	N											●	●	
384.01	RUN GATE (SS GRID) W/FEEDING BOWL	N	SNYDER	HALF GLASS WITH GLASS SIDELIGHT									●	●	
386.01	RUN GATE - SSGRID W/SIDE LITE & FEEDING BOWL	N											●	●	
386.02	RUN GATE - SS GRID /SIDE LITE	N	SNYDER	HALF GLASS WITH SS GRID SIDELIGHT									●	●	
390.01	BENCH,RUN - CUSTOM SIZE	N	SNYDER	SANI-KENNEL (SS)									●	●	
390.00	DOOR, TRANSFER, PULLEY	N	BITEGUARD	GUILLOTINE DOOR									●	●	
400	**DISPENSERS & HARDWARE**														
410.00	HOOK, COAT/LEASH	N	BOBRICK	B-6727									●	●	
411.00	MIRROR	N	BOBRICK	B-293									●	●	
432.00	DISPENSER, FOOD, BULK	N	BERGEN	72062									●	●	
433.00	GRAB BAR	N	BOBRICK	B-5897									●	●	
441.01	DISPENSER, PAPER, TOWEL	N	BOBRICK	B262									●	●	
443.01	DISPENSER, SOAP	N	STERIS	1308-Q7/4D40-Q5/4D51-Q7									●	●	
445.00	TP DISPENSER	N											●	●	
452.00	IV TRACK	N											●	●	
500	**MEDICAL SPECIALTY**														
511.02	AUTOCLAVE, STEAM, COUNTERTOP	N	SHORELINE (TUTTNAUER)	EZ10	120V/60								●	●	
512.01	ANALYZER, BLOOD (27PARAMETERS)	N	IDEXX	PROCYTE DX HEMATOLOGY ANALYZER	60								●	●	
513.20	ANALYZER, CHEMISTRY	N	IDEXX	CATALYST DX ANALYZER									●	●	
516.02	CENTRIFUGE, MICROHEMATOCRIT	N	EPPENDORF	MICROSPIN	100-240 V AC 85W								●	●	
516.04	CENTRIFUGE - FECAL	N	TBD	TBD									●	●	
517.02	MICROSCOPE / USB CAMERA	N	AMSCOPE	40X-2000X 3W LED	115								●	●	
524.01	DRYER, PET GROOMING	N	GO PET CLUB	DT-505	110V/3600								●	●	
533.00	ULTRASONIC CLEANER	N											●	●	
552.01	TABLE, WALL MOUNTED, PERPENDICULAR	N	TRISTAR-VET	400.21									●	●	
564.00	HYDROSURGE	N											●	●	
565.00	HYDROSURGE BOTTLE	N											●	●	
570.00	TABLE - GROOMING	N											●	●	
571.02	TABLE, SURGICAL, V-TOP, 60"	N	SHOR-LINE	HYD 25000115									●	●	
573.00	TABLE, TREATMENT, WET, LEFT HAND, STAINLESS STEEL	N	SHOR-LINE	904.5000.10									●	●	
590.01	SS BATHTUB	N											●	●	
592.01	LIGHT, SURGICAL, DOUBLE HEAD	N	SHOR-LINE	8X4-GS2/913.8000.05									●	●	
593.00	LIGHT, TREATMENT SINGLE HEAD	N	SHOR-LINE	255 LED / 913.7000.03	115								●	●	
597.00	CABINET, SURGICAL, PASS-THRU	N	TRISTAR	70050									●	●	
600	**GENERAL OFFICE**														
630.00	MONITOR	N											●	●	
630.01	COMPUTER, WALL MOUNTED (STAFF)	N	DELL	OPTIPLEX 3050 MICRO	110-120V/600W								●	●	
632.00	COMPUTER, DESKTOP	N	DELL	OPTIPLEX 3050 MICRO	110-120V/600W								●	●	I5-7500T PROCESSOR, 8G, SOFTWARE PACKAGE, KEYBOARD AND MONITOR
641.01	COPIER, FLOOR MOUNTED	N	KONICA MINOLTA	BIZHUB C227		●							●	●	
643.00	PRINTER, COUNTER	N	DELL	TBD		●	●						●	●	
651.00	TELEPHONE INTERCOM, COUNTER	N	TBD	TBD		●		●					●	●	
670.00	FILE CABINET - LATERAL	N											●	●	
700	**UTILITY**														
710.01	SCAVENGER AND LIQUID SUCTION	N	OHIO MEDICAL	C500B-ST2									●	●	
711.00	OUTLET, OXYGEN (CEILING)	N	HOSPITAL SYSTEMS INC.	OXYGEN									●	●	
712.00	SCAVENGER, WASTE ANESTHESIA GAS	N	BEACON-MADEUS	SSB-755-01									●	●	
713.00	OUTLET, VACUUM, CEILING	N	OHIO MEDICAL	VACUUM									●	●	
730.01	HOSE REEL	N	TBD	TBD									●	●	
740.00	FLUSHING FLOOR DRAIN ACTIVATOR BUTTON	N	TBD	TBD									●	●	
750.01	SMT, CENTRAL	N	SMT-VACMASTER										●	●	
750.02	SMT - ACCESS POINT	N	SMT-VACMASTER										●	●	
800	**PROJECT SPECIFIC**														
821.00	SHELF, MOP	N	TBD	TBD									●	●	
822.00	DISPENSER, CHEMICAL	N	DIVERSY	3764735									●	●	
823.00	SS DISPLAY RACK	N											●	●	
930.01	CREMATORIUM	N	MATHEW'S ENVIRONMENTAL	JEB 16									●	●	

BID SET

REVISION

NO.	DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2525
F: 617.426.2527

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9899

CAPITAL PROJECT 1483

NEW ANIMAL SHELTER FACILITY

65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY: Author	CHECKED BY: Checker	SCALE:	DATE: 20 OCT 2021	PROJECT NO: # 2019

EQUIPMENT SCHEDULE

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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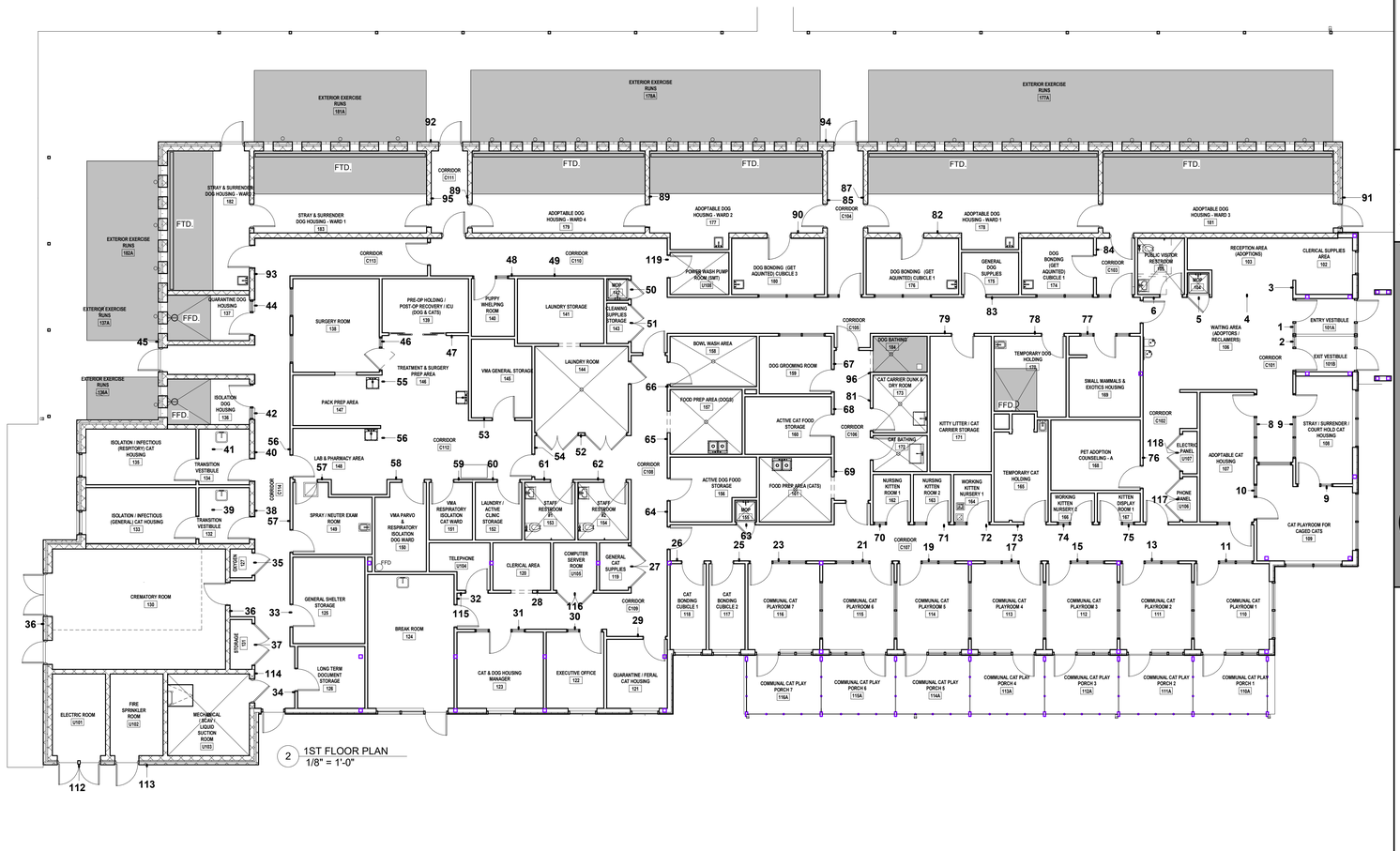
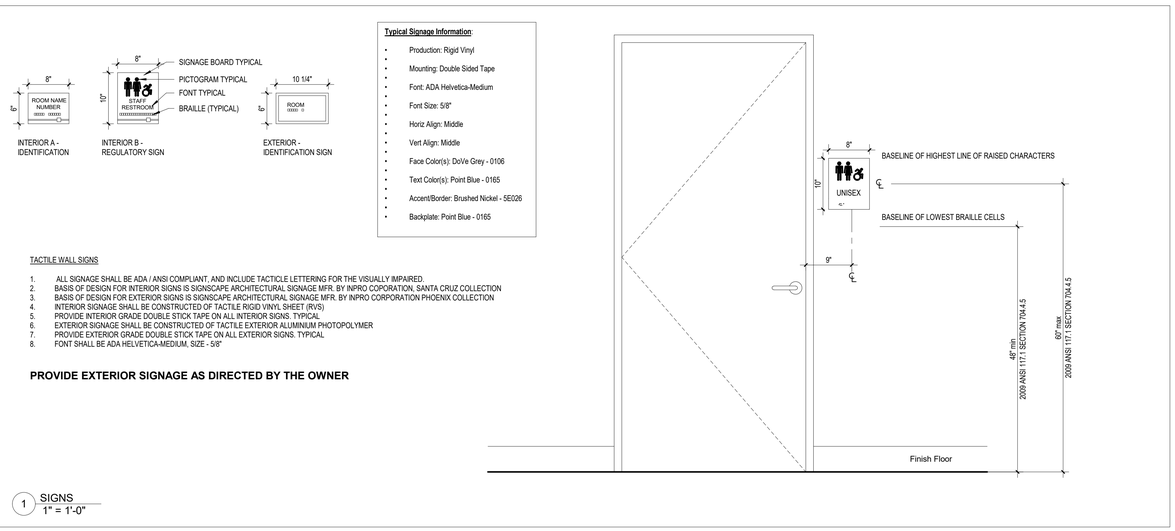
A9.01

SIGNAGE SCHEDULE

SIGN NO.	SIGN TYPE	COPY	ROOM NAMES	ROOM NUMBER	PICTOGRAM	NOTE
1	EXTERIOR A	ENTRY	ENTRY VESTIBULE	101A		
2	INTERIOR A	EXIT	EXIT VESTIBULE	101B		
3	INTERIOR A	CLERICAL SUPPLY	CLERICAL SUPPLIES AREA	102		
4	INTERIOR A	RECEPTION	RECEPTION AREA (ADOPTIONS)	103		
5	INTERIOR A	MOP	MOP	104		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
6	INTERIOR B	RESTROOM	PUBLIC VISITOR RESTROOM	105		
7	INTERIOR A	WAITING AREA	WAITING AREA (ADOPTORS / RECLAIMERS)	106		
8	INTERIOR A	ADOPTABLE CAT HOUSING	ADOPTABLE CAT HOUSING	107		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
9	INTERIOR A	STRAY CAT HOLDING	STRAY / SURRENDER / COURT HOLD CAT HOUSING	108		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
10	INTERIOR A	CAT PLAYROOM	CAT PLAYROOM FOR CAGED CATS	109		
11	INTERIOR A	CAT PLAYROOM 1	COMMUNAL CAT PLAYROOM 1	110		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
12			COMMUNAL CAT PLAY PORCH 1	110A		
13	INTERIOR A	CAT PLAYROOM 2	COMMUNAL CAT PLAYROOM 2	111		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
14			COMMUNAL CAT PLAY PORCH 2	111A		
15	INTERIOR A	CAT PLAYROOM 3	COMMUNAL CAT PLAYROOM 3	112		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
16			COMMUNAL CAT PLAY PORCH 3	112A		
17	INTERIOR A	CAT PLAYROOM 3	COMMUNAL CAT PLAYROOM 4	113		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
18			COMMUNAL CAT PLAY PORCH 4	113A		
			Room	113D		
19	INTERIOR A	CAT PLAYROOM 4	COMMUNAL CAT PLAYROOM 5	114		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
20			COMMUNAL CAT PLAY PORCH 5	114A		
21	INTERIOR A	CAT PLAYROOM 5	COMMUNAL CAT PLAYROOM 6	115		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
22			COMMUNAL CAT PLAY PORCH 6	115A		
23	INTERIOR A	CAT PLAYROOM 6	COMMUNAL CAT PLAYROOM 7	116		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
24			COMMUNAL CAT PLAY PORCH 7	116A		
25	INTERIOR A	CAT BONDING 2	CAT BONDING CUBICLE 2	117		
26	INTERIOR A	CAT BONDING 1	CAT BONDING CUBICLE 1	118		
27	INTERIOR A	CAT SUPPLIES	GENERAL CAT SUPPLIES	119		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
28	INTERIOR A	CLERICAL AREA	CLERICAL AREA	120		
29	INTERIOR A	CAT HOUSING	QUARANTINE / FERAL CAT HOUSING	121		
30	INTERIOR A	EXECUTIVE OFFICE	EXECUTIVE OFFICE	122		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
31	INTERIOR A	HOUSING MANAGER	CAT & DOG HOUSING MANAGER	123		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
32	INTERIOR A	BREAK ROOM	BREAK ROOM	124		
33	INTERIOR A	GENERAL STORAGE	GENERAL SHELTER STORAGE	125		
34	INTERIOR A	STORAGE	LONG TERM DOCUMENT STORAGE	126		
35	INTERIOR A	OXYGEN	OXYGEN	127		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
36	INTERIOR A/EXTERIOR	CREMATORY	CREMATORY ROOM	130		
37	INTERIOR A	STORAGE	STORAGE	131		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
38	INTERIOR A	VESTIBULE	TRANSITION VESTIBULE	132		
39	INTERIOR A	CAT ISOLATION	ISOLATION / INFECTIOUS (GENERAL) CAT HOUSING	133		
40	INTERIOR A	VESTIBULE	TRANSITION VESTIBULE	134		
41	INTERIOR A	CAT ISOLATION	ISOLATION / INFECTIOUS (RESPITORY) CAT HOUSING	135		
42	INTERIOR A	DOG ISOLATION	ISOLATION DOG HOUSING	136		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
43			RUNS	136A		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
44	INTERIOR A	DOG QUARANTINE	QUARANTINE DOG HOUSING	137		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
45	EXTERIOR	EXTERIOR RUNS	EXTERIOR EXERCISE RUNS	137A		
46	INTERIOR A	SURGERY ROOM	SURGERY ROOM	138		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
47	INTERIOR A	RECOVERY	PRE-OP HOLDING / POST-OP RECOVERY / ICU (DOG & CATS)	139		
48	INTERIOR A	PUPPY WHELPING	PUPPY WHELPING ROOM	140		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
49	INTERIOR A	LAUNDRY STORAGE	LAUNDRY STORAGE	141		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
50	INTERIOR A	MOP	MOP	142		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
51	INTERIOR A	CLEANING SUPPLIES	CLEANING SUPPLIES STORAGE	143		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
52	INTERIOR A	LAUNDRY	LAUNDRY ROOM	144		
53	INTERIOR A	VMA STORAGE	VMA GENERAL STORAGE	145		
54	INTERIOR A	SURGERY PREP	TREATMENT & SURGERY PREP AREA	146		
55	INTERIOR A	PACK PREP	PACK PREP AREA	147		
56	INTERIOR A	LAB & PHARMACY	LAB & PHARMACY AREA	148		
57	INTERIOR A	EXAM ROOM	SPRAY / NEUTER EXAM ROOM	149		
58	INTERIOR A	VMA DOG WARD	VMA PARVO & RESPIRATORY ISOLATION DOG WARD	150		
59	INTERIOR A	VMA CAT WARD	VMA RESPIRATORY ISOLATION CAT WARD	151		
60	INTERIOR A	CLINIC STORAGE	LAUNDRY / ACTIVE CLINIC STORAGE	152		
61	INTERIOR B	STAFF RESTROOM	STAFF RESTROOM #1	153		
62	INTERIOR B	STAFF RESTROOM	STAFF RESTROOM #2	154		
63	INTERIOR A	MOP	MOP	155		
64	INTERIOR A	DOG FOOD STORAGE	ACTIVE DOG FOOD STORAGE	156		
65	INTERIOR A	DOG FOOD PREP	FOOD PREP AREA (DOGS)	157		
66	INTERIOR A	BOWL WASH	BOWL WASH AREA	158		
67	INTERIOR A	DOG GROOMING	DOG GROOMING ROOM	159		
68	INTERIOR A	CAT FOOD	ACTIVE CAT FOOD STORAGE	160		
69	INTERIOR A	CAT FOOD PREP	FOOD PREP AREA (CATS)	161		
70	INTERIOR A	KITTEN NURSERY 1	NURSING KITTEN ROOM 1	162		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
71	INTERIOR A	KITTEN NURSERY 2	NURSING KITTEN ROOM 2	163		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
72	INTERIOR A	KITTEN NURSERY 1	WORKING KITTEN NURSERY 1	164		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
73	INTERIOR A	CAT HOLDING	TEMPORARY CAT HOLDING	165		
74	INTERIOR A	KITTEN NURSERY 2	WORKING KITTEN NURSERY 2	166		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
75	INTERIOR A	KITTEN DISPLAU	KITTEN DISPLAY ROOM 1	167		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
76	INTERIOR A	ADOPTION COUNSELING	PET ADOPTION COUNSELING - A	168		
77	INTERIOR A	EXOTICS HOUSING	SMALL MAMMALS & EXOTICS HOUSING	169		TO BE MOUNTED ON GLASS - PROVIDE ACCOMPANYING BACKPLATE
78	INTERIOR A	DOG HOLDING	TEMPORARY DOG HOLDING	170		
79	INTERIOR A	CAT CARRIER STORAGE	KITTY LITTER / CAT CARRIER STORAGE	171		
80	INTERIOR A	CAT BATHING	CAT BATHING	172		
81	INTERIOR A	CAT CARRIER	CAT CARRIER DUNK & DRY ROOM	173		
82	INTERIOR A	DOG BONDING	DOG BONDING (GET AQUINTED) CUBICLE 1	174		
83	EXTERIOR A	DOG SUPPLIES	GENERAL DOG SUPPLIES	175		
84	INTERIOR A	DOG BONDING	DOG BONDING (GET AQUINTED) CUBICLE 1	176		
85	INTERIOR A	DOG WARD 2	ADOPTABLE DOG HOUSING - WARD 2	177		
86		RUNS	EXTERIOR EXERCISE RUNS	177A		
87	EXTERIOR A	DOG WARD 1	ADOPTABLE DOG HOUSING - WARD 1	178		
88		RUNS	EXTERIOR EXERCISE RUNS	178A		
89	INTERIOR A	DOG WARD 4	ADOPTABLE DOG HOUSING - WARD 4	179		
90	INTERIOR A	DOG BONDING 3	DOG BONDING (GET AQUINTED) CUBICLE 3	180		
91	INTERIOR A	DOG WARD 3	ADOPTABLE DOG HOUSING - WARD 3	181		
92	EXTERIOR	EXTERIOR RUNS	EXTERIOR EXERCISE RUNS	181A		
93	INTERIOR A	STRAY DOG WARD 2	STRAY & SURRENDER DOG HOUSING - WARD 2	182		
94	EXTERIOR	EXTERIOR RUNS	EXTERIOR EXERCISE RUNS	182A		
95	INTERIOR A	STRAY DOG WARD 1	STRAY & SURRENDER DOG HOUSING - WARD 1	183		
96	INTERIOR A		DOG BATHING	184		
97			CORRIDOR	C101		
98			CORRIDOR	C102		
99			CORRIDOR	C103		
100			CORRIDOR	C104		
101			CORRIDOR	C105		
102			CORRIDOR	C106		
103			CORRIDOR	C107		
104			CORRIDOR	C108		
105			CORRIDOR	C109		
106			CORRIDOR	C110		
107			CORRIDOR	C111		
108			CORRIDOR	C112		
109			CORRIDOR	C113		
110			CORRIDOR	C114		
111			CORRIDOR	C115		
112	EXTERIOR	ELECTRICAL	ELECTRIC ROOM	U101		
113	EXTERIOR	SPRINKLER	FIRE SPRINKLER ROOM	U102		
114	INTERIOR A	MECHNANICAL	MECHANICAL / SCAV / LIQUID SUCTION ROOM	U103		
115	INTERIOR A	TELEPHONE	TELEPHONE	U104		
116	INTERIOR A	COMPUTER SERVER	COMPUTER SERVER ROOM	U105		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
117	INTERIOR A	PHONE PANEL	PHONE PANEL	U106		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
118	INTERIOR A	ELECTRICAL	ELECTRIC PANEL	U107		TO BE MOUNTED ON DOOR - PROVIDE ACCOMPANYING BACKPLATE
119	INTERIOR A	SMT	POWER WASH PUMP ROOM (SMT)	U108		
120	INTERIOR A	GENERATOR	EMERGENCY GENERATOR	U109		



2 1ST FLOOR PLAN
1/8" = 1'-0"



1 SIGNS
1" = 1'-0"

BID SET

REVISION DESCRIPTION	NO.	DATE

ARCHITECTS SEAL:

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2537
F: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9599

rauhaus freedenfeld & associates

CAPITAL PROJECT 1483
NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DR., POMONA, NY 10970

DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	As indicated
DATE:	20 OCT 2021
PROJECT NO:	# 2019

INTERIOR SIGNAGE

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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A9.02

GENERAL PROJECT REQUIREMENTS

A. CODE COMPLIANCE:

1. THE CONTRACTOR SHALL COMPLY WITH THE LAWS, ORDINANCES, RULES, AND REGULATIONS OF THE STATE OF NEW YORK, ALL GOVERNMENTAL AUTHORITIES HAVING JURISDICTION, THE NATIONAL FIRE PROTECTION ASSOCIATION, THE NATIONAL ELECTRICAL CODE, AND THE PUBLIC UTILITIES HAVING JURISDICTION OVER ANY OF THE SYSTEMS HEREIN SPECIFIED.

B. PERMIT FEES:

1. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS, INSPECTIONS, AND APPROVALS TO COMPLETE THE PROJECT WORK. ALL CERTIFICATES SHALL BE IN DUPLICATE AND BE DELIVERED TO THE OWNER'S REPRESENTATIVE.

C. DEFINITIONS:

1. "PROVIDE" UNDER THIS CONTRACT IS DEFINED AS FURNISH AND INSTALL.
2. "CONCEALED" UNDER THIS CONTRACT IS DEFINED AS HIDDEN BY ARCHITECTURAL WALLS AND CEILINGS.
3. "EXPOSED" UNDER THIS CONTRACT IS DEFINED AS VISIBLE TO VIEW.
4. "INDICATED" UNDER THIS CONTRACT IS DEFINED AS SHOWN IN THE CONTRACTED DOCUMENTS.

D. SCOPE OF WORK:

1. PROVIDE ALL WORK INDICATED IN THE CONTRACT DOCUMENTS.

E. CONTRACT DOCUMENTS:

1. THE CONTRACT DOCUMENTS SHALL BE CONSIDERED FOR DIAGRAMMATIC PURPOSES ONLY. ATTENTION IS CALLED TO THE FACT THAT WHILE THE DOCUMENTS ARE GENERALLY TO SCALE AND ARE AS ACCURATE AS THE SCALE WILL PERMIT, ALL IMPORTANT DIMENSIONS SHALL BE DETERMINED IN THE FIELD.
2. THE DRAWINGS ARE NOT TO BE CONSIDERED AS CONSTRUCTION SHOP DRAWINGS. THE DRAWINGS DO NOT INDICATE EVERY FITTING, ELBOW, OFFSET, VALVE, PULL BOX OR SIMILAR COMPONENTS REQUIRED TO COMPLETE THE PROJECT WORK. PREPARE FIELD COORDINATION DRAWINGS TO ENSURE PROPER INSTALLATION. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS TO INSTALL THE SYSTEMS AS DIAGRAMMED AT NO ADDITIONAL COST.

G. EQUIPMENT AND MATERIALS:

1. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, UNLESS INDICATED OTHERWISE, AND THE CURRENT MODEL FOR WHICH REPLACEMENT PARTS ARE AVAILABLE. SUBSTITUTIONS SHALL ONLY BE ACCEPTED AT THE DISCRETION OF THE OWNER'S REPRESENTATIVE OR THE ENGINEER.
2. THE CONTRACTOR SHALL INSTALL AND CONNECT ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND UNLESS OTHERWISE INDICATED SHALL FOLLOW THE MANUFACTURER'S PUBLISHED INSTRUCTIONS AND RECOMMENDATIONS.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED AUXILIARY ITEMS FOR A COMPLETE. SYSTEM.
4. ALL EQUIPMENT SHALL BE MOUNTED VIBRATION FREE.

I. COORDINATION:

1. THE CONTRACTOR SHALL INSTALL ALL DUCTWORK, PIPING, RACEWAYS, CIRCUITRY, CONDUIT, ETC., AS HIGH AS POSSIBLE TO MAXIMIZE HEADROOM. RUN PARALLEL OR PERPENDICULAR TO THE BUILDING WALLS IN A NEAT WORKMANLIKE MANNER. AVOID CONFLICT WITH NEW EQUIPMENT, LIGHTS, CABLE TRAYS, ETC. IF CONFLICT WITH DOES OCCUR, THE CONTRACTOR SHALL REROUTE CONFLICTING PROJECT WORK AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
2. THE CONTRACTOR SHALL PROVIDE COMPLETE COORDINATION DRAWINGS FOR EACH LEVEL. SHOW ALL RELEVANT TRADES AND AVAILABLE CEILING PLENUM HEIGHT.
3. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY FOR THIS WORK AND ASSURE RESPONSIBILITY FOR THEIR ACCURACY. THE DRAWINGS AS SHOWN ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO MANUFACTURER'S STANDARD ROUGH–IN DRAWINGS FOR MECHANICAL FIXTURES, AND TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ARCHITECT/ENGINEER.
4. SHOULD ANY STRUCTURAL IMPEDIMENTS (I.E. BEAMS, SLAB FOLDS, POST–TENSIONED SLABS, COLUMNS, SHEAR WALLS, ETC.) PREVENT THE SETTING OF CABINETS, PANELBOARDS, EQUIPMENT, FEEDER CONDUITS, ETC. AT THE LOCATION INDICATED ON THE PLANS, THE CONTRACTOR SHALL MAKE ANY NECESSARY DEVIATIONS, AS COORDINATED WITH THE ARCHITECT/ENGINEER AND IMPLEMENT AT NO ADDITIONAL COST.
5. COORDINATE WITH ALL TRADES TO AVOID INTERFERENCE AMONG MECHANICAL, ELECTRICAL, ARCHITECTURAL, AND STRUCTURAL ITEMS. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS IN CIRCUITRY AND OTHER ITEMS REQUIRED TO INSTALL THE WORK WITHOUT INTERFERENCES.
6. COORDINATE WITH THE WORK OF OTHER SECTIONS AND TRADES, WITH EQUIPMENT FURNISHED BY OTHERS, AND WITHIN THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.

K. PARTITIONS AND DUCTWORK:

1. THE CONTRACTOR SHALL REPAIR ALL OPENINGS IN WALLS, CEILINGS, FLOORS, ROOF, ETC., WHICH ARE CREATED BY DEMOLITION AND/OR NEW PROJECT WORK. THE REPAIRS SHALL BE WITH MATERIALS AND FINISH TO MATCH EXISTING. OPENINGS AND PENETRATIONS IN FIRE RATED PARTITIONS OR DUCTWORK SHALL BE SEALED PER U.L. APPROVED FIRE ASSEMBLY TO MAINTAIN FIRE RESISTANT INTEGRITY. DUCTWORK AND PIPING SHALL BE CAPPED, SEALED AIR AND WATERTIGHT, AND INSULATED TO MATCH EXISTING.
2. WHERE IT IS NECESSARY TO CUT WALLS, FLOORS OR CEILINGS FOR THE INSTALLATION OF ANY MECHANICAL WORK, SUCH CUTTING SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. ALL AFFECTED AREAS SHALL BE PATCHED BY THE CONTRACTOR TO MATCH THE ORIGINAL CONDITION, RATING AND APPEARANCE. BEFORE CUTTING TAKES PLACE, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ARCHITECT AND/OR BUILDING MANAGEMENT.
3. WHERE IT IS NECESSARY TO CORE DRILL THE FLOORS FOR INSTALLATION OF SPECIFIED WORK, THE CONTRACTOR SHALL HAVE THE AREA TO BE CORE DRILLED X–RAYED TO ENSURE THE STRUCTURAL SYSTEM WILL NOT BE COMPROMISED. DO NOT CORE DRILL, PENETRATE OR CUT EXISTING CONCRETE FLOOR SLABS WITHOUT CONSULTING WITH THE BASE BUILDINGS STRUCTURAL ENGINEER OF RECORD, AND/OR A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER. DO NOT PROCEED WITH WORK WITHOUT WRITTEN PERMISSION FROM THE ABOVE PROFESSIONALS. ARRANGE MOBILIZATION AND PAYMENT FOR X–RAY EQUIPMENT, IF NECESSARY, TO INVESTIGATE ALL POTENTIAL STRUCTURAL IMPEDIMENTS.
4. ALL NEW FLOOR OPENINGS, AND OPENINGS IN SLAB–TO–SLAB WALLS SHALL BE PATCHED BY THE CONTRACTOR OR TRADE WHOSE WORK REQUIRES PATCHING TO MATCH ORIGINAL CONDITION, APPEARANCE AND FIRE RATING.
5. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER DEMOLITION OPERATIONS ARE COMPLETE
6. FIRE STOPPING SHALL BE UL APPROVED AND COMPLIANT WITH ALL LOCAL AND FEDERAL CODES AND REGULATIONS. CONTRACTOR SHALL ENGAGE THE SERVICES OF TECHNICIAN'S TRAINED AND CERTIFIED IN THE APPLICATION OF FIRE STOP MATERIALS. WHERE REQUIRED BY LOCAL CODES, THE TECHNICIAN SHALL BE LICENSED.

L. SITE CLEANUP:

1. THE CONTRACTOR SHALL CLEAN UP THE JOBSITE DAILY. THE CONTRACT AREA AND ALL OTHER AREAS USED FOR STORAGE, STAGING, ETC. SHALL BE BROOM CLEANED AND MATERIALS, TOOLS, ETC. SHALL BE LEFT IN AN ORDERLY MANNER.
2. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE CONTRACT AREA AND ALL OTHER AREAS USED FOR STORAGE, STAGING, ETC. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO WASHING AND/OR REPAIRING GLASS, REMOVING SPOTS AND STAINS, CLEANING ALL FIXTURES AND WASHING ALL FLOORS, WALLS AND CEILINGS IF APPROPRIATE.

M. GUARANTEES:

1. THE CONTRACTOR SHALL TEST ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT AND DEMONSTRATE TO THE OWNER'S REPRESENTATIVE ITS PROPER OPERATION(S). ALL NEW EQUIPMENT SHALL BE MOUNTED VIBRATION FREE. THE CONTRACTOR SHALL PROVIDE ALL LABOR AS REQUIRED DURING COMMISSIONING AND INSTRUCTION OF OWNERS PERSONNEL PROCESSES.
2. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DEFECTIVE OR INOPERATIVE EQUIPMENT AND COMPONENTS FURNISHED BY THE CLIENT AT NO COST TO THE CLIENT.
3. THE CONTRACTOR'S GUARANTEE SHALL INCLUDE ALL EQUIPMENT SUPPLIED BY THE CONTRACTOR OR CLIENT.

N. RECORD DRAWINGS:

1. THE CONTRACTOR SHALL MAINTAIN THREE (3) SETS OF ALL RECORD DOCUMENTS, FOR DISTRIBUTION TO THE CLIENT. THESE DOCUMENTS SHALL INCLUDE; CONTRACT DRAWINGS AND SPECIFICATIONS, APPROVED SIGNED–OFF PERMIT DRAWINGS AND BUILDING PERMITS, ADDENDA(S), AND APPROVED SHOP DRAWINGS. THESE DOCUMENTS SHALL BE MARKED AS REQUIRED TO RECORD ALL CHANGES DURING CONSTRUCTION. THESE DRAWINGS SHALL BE DELIVERED TO THE OWNER, IN GOOD CONDITION AND ORDER TO THE FOLLOWING PARTIES: THE ORIGINAL DOCUMENTS TO THE TENANT, ONE (1) COPY TO THE BUILDING MANAGEMENT AND ONE COPY TO THE ARCHITECT.

O. BUILDING SMOKE/FIRE ALARM SYSTEM:

1. PROTECT THE BUILDING SMOKE/FIRE ALARM DETECTION SYSTEM AS REQUIRED TO PREVENT FALSE ALARMS WITHIN THE PROJECT CONSTRUCTION AREA.

P. EQUIPMENT SERVICE ACCESS:

1. PROVIDE ACCESS DOORS IN DRYWALL CEILINGS AND PARTITIONS TO SERVICE EQUIPMENT, BALANCE DIFFUSERS, AND EXPOSE JUNCTION BOXES. COORDINATE THE EXACT LOCATIONS AND STYLE OF FLANGELESS ACCESS DOORS WITH THE ENGINEER.

Q. JOB RESPONSIBILITY:

1. PROVIDE ADEQUATE STORAGE FACILITIES FOR MATERIALS AND EQUIPMENT DURING THE PROGRESS OF THE WORK.
2. BE RESPONSIBLE FOR THE CONDITION OF ALL MATERIAL AND EQUIPMENT EMPLOYED IN THE INSTALLATION UNTIL FINAL ACCEPTANCE BY THE OWNER. PROTECT SAME FROM ANY CAUSE WHATSOEVER.
3. BE RESPONSIBLE FOR THE REPLACEMENT OF ALL DAMAGED OR DEFECTIVE WORK, MATERIALS EQUIPMENT. DO NOT INSTALL SENSITIVE OR DELICATE EQUIPMENT UNTIL MAJOR CONSTRUCTION WORK IS COMPLETED.
4. OBSERVE AND CONFORM TO APPLICABLE SAFETY REGULATIONS, INCLUDING THOSE REQUIRED BY THE OWNER'S REPRESENTATIVE.
5. ERECT AND MAINTAIN SUITABLE BARRIERS, PROTECTIVE DEVICES, LIGHTS AND WARNING SIGNS FOR THE PROTECTION OF OCCUPANTS, TRANSIENTS AND WORKMEN FROM DANGER DUE TO WORK PERFORMED BY THE CONTRACTOR.
6. MAKE GOOD ANY DAMAGE TO THE WORK CAUSED BY FLOODS, STORMS, ACCIDENTS, ACTS OF NEGLIGENCE, STRIKES, VIOLENCE OR THEFT UP TO THE TIME OF FINAL ACCEPTANCE BY THE OWNER.
7. BE RESPONSIBLE FOR ANY LOSS OR INJURY TO PERSONS OR PROPERTY RESULTING FROM NEGLECT OR ANY OTHER CAUSES ON THE PART OF THE EMPLOYEES.
8. DO NOT LEAVE ANY WORK IN A HAZARDOUS CONDITION, EVEN TEMPORARILY.
9. ERECT, MAINTAIN AND FINALLY REMOVE ALL SCAFFOLDING, STAGING, FORMS, PLATFORMS AND LADDERS REQUIRED FOR THE INSTALLATION.
10. DO NOT INSTALL WORK FOR WHICH AN EXTRA CHARGE IS TO BE MADE WITHOUT WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE AND THE OWNER. A WRITTEN REQUEST FOR EXTRA WORK SHALL STATE THE NATURE OF THE WORK, BY WHOM REQUESTED, AND THE PRICE TO BE CHARGED.
11. CONTRACTOR SHALL SUBMIT A COPY OF THEIR SAFETY TRAINING PROGRAM AND QUALITY CONTROL PROGRAM FOR REVIEW AND ACCEPTANCE.
12. CONTRACTOR SHALL ACCEPT ALL OWNER SUPPLIED EQUIPMENT AND PROVIDE ON OR OFF SITE STORAGE, RIGGING, AND HANDLING AS NEEDED.

MECHANICAL SPECIFICATIONS:

A. GENERAL

1. THE DRAWINGS PREPARED FOR THIS PROJECT ARE AN OUTLINE TO SHOW WHERE PIPES, DUCTS AND APPARATUSES MUST GO IN ORDER TO HARMONIZE WITH THE BUILDING AND INSTALLATION OF THE VARIOUS TRADES. WORK MUST BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AS MUCH AS POSSIBLE. DRAWINGS SHALL BE CAREFULLY CHECKED DURING THE COURSE OF CONSTRUCTION. IF DISCREPANCIES, ERRORS OR OMISSIONS ARE DISCOVERED PRIOR TO OR DURING CONSTRUCTION PHASE, NOTIFY THE ENGINEER IMMEDIATELY FOR INTERPRETATION OR CORRECTION. TAKE NECESSARY MEASUREMENTS AND RESPONSIBILITY FOR SAME, INCLUDING CLEARANCES FOR EQUIPMENT THAT ARE TO BE FURNISHED. THE ARCHITECT /ENGINEER RESERVE THE RIGHT TO MAKE MINOR LOCATION CHANGES OF PIPING AND EQUIPMENT WHERE SUCH ADJUSTMENTS ARE DEEMED DESIRABLE FROM AN APPEARANCE OR OPERATIONAL STANDPOINT. SUCH CHANGES WILL BE ANTICIPATED SUFFICIENTLY IN ADVANCE TO AVOID EXTRA WORK OR DELAY THE PROGRESS OF THE PROJECT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING EXISTING FIELD CONDITIONS PRIOR TO INSTALLATION. THE CONTRACT DOCUMENTS INDICATE APPROXIMATE LOCATIONS OF DUCTWORK AND PIPING AND ARE DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATION AND ROUTING OF THE EXISTING PIPING AND NEW DUCTWORK.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF ALL TRADES AND MAKING ANY NECESSARY MODIFICATIONS TO HIS WORK, INCLUDING OFFSETS, AT NO ADDITIONAL COST TO THE OWNER.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL CODES. THESE CODES SHALL BE FOLLOWED AS A MINIMUM. PROVIDE HIGHER GRADES OF MATERIAL AND WORKMANSHIP WHERE REQUIRED BY THESE DOCUMENTS. PROVIDE ALL TESTS REQUIRED BY LOCAL CODES.
5. ALL PERMITS, FEES, LICENSES, APPROVALS, AND OTHER ARRANGEMENTS FOR THE WORK SHALL BE OBTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE.
6. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR AFTER FINAL ACCEPTANCE AGAINST ALL DEFECTS OF MATERIAL, EQUIPMENT AND WORKMANSHIP. PROVIDE AN ADDITIONAL FOUR (4) YEAR WARRANTY (TOTAL OF 5 YEARS) ON ALL REFRIGERATION COMPRESSORS. DELIVER ALL WARRANTY CERTIFICATES TO THE OWNER PRIOR TO FINAL ACCEPTANCE AND BUILDING TURNOVER.
7. PROVIDE ASSEMBLED PRINTED INSTRUCTIONS FOR THE OPERATION AND MAINTENANCE OF EACH ITEM INSTALLED ALONG WITH THE EQUIPMENT CUT SHEETS AND CONTROL WIRING DIAGRAMS.
8. THE MECHANICAL DRAWINGS INDICATE THE GENERAL ROUTING AND LOCATION OF DUCTWORK, PIPING, EQUIPMENT, FIXTURES, TERMINAL DEVICES, ETC. CONTRACTOR SHALL DETERMINE THE EXACT LOCATION FROM ACTUAL FIELD MEASUREMENTS AT THE JOB SITE. ALL DUCTWORK AND PIPING SHALL BE COORDINATED WITH LIGHT FIXTURES, STRUCTURAL SYSTEM, CEILING GRID, SUPPORTS, PLUMBING, SPRINKLER PIPING, AND ARCHITECTURAL FEATURES OF THE BUILDING PRIOR TO FABRICATION OR INSTALLATION. NO EXTRAS WILL BE ALLOWED FOR DUCTWORK OR PIPING WHICH IS FABRICATED AND THEN FOUND UNABLE TO FIT IN THE INTENDED SPACE. ALL EQUIPMENT SHALL BE LOCATED TO ALLOW FOR CLEANING, INSPECTION AND SERVICE.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING CEILING TYPE AND DIFFUSER & GRILLE LOCATIONS WITH ARCHITECT'S REFLECTED CEILING PLANS. DIFFUSER AND GRILLE LOCATION ON SHOP DRAWINGS ARE SUBJECT TO APPROVAL BY ARCHITECT.
10. PROVIDE ACCESS PANELS FOR ANY PIECE OF EQUIPMENT LOCATED ABOVE NON–ACCESSIBLE CEILINGS. NO EQUIPMENT SHALL BE LOCATED ABOVE WALLS.
11. WHEREVER DUCTWORK OR OTHER ITEMS PASS THROUGH FIRE–RATED WALLS AND FLOORS, THE CONTRACTOR SHALL ADEQUATELY FIRE STOP THE SPACE BETWEEN ITEMS AND THE MASONRY OR THE SPACE BETWEEN THE ITEM AND THE SLEEVE. FIRE STOP SHALL BE A NON–COMBUSTIBLE, NON–MELTING, APPROVED MATERIAL.
12. THE DRAWINGS INDICATE GENERAL CHARACTER AND LOCATION OF WORK INCLUDED, BUT MAY HAVE MINOR SPECIALTIES OMITTED THAT SHALL BE PROVIDED WITHOUT EXTRA COST.
13. CONTRACTOR SHALL PROVIDE ALL OPENINGS REQUIRED TO INSTALL IN THE NEW SYSTEMS AND EQUIPMENT. PROVIDE CUTTING AND PATCHING OF WALLS, PARTITIONS, CEILINGS AND FLOORS, AS REQUIRED. PATCH TO MATCH ADJACENT SURFACES UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL PLANS FOR FINISHES. SLEEVE ALL PIPE PENETRATIONS AND SEAL ALL OPENINGS. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL REQUIREMENTS.
14. CONTRACTOR IS RESPONSIBLE FOR SEALING ALL PENETRATIONS TO THE INTERIOR OR EXTERIOR OF THE BUILDING AS A RESULT OF HIS WORK, IN SUCH A MANNER THAT THE DESIGN FIRE RATING IS MAINTAINED. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AS REQUIRED FOR NECESSARY PENETRATIONS. IN THE ABSENCE OF ARCHITECTURAL SPECIFICATIONS, USE A TWO (2) HOUR FIRE RATING.
15. CONTRACTOR SHALL FURNISH ALL PIPING, VALVES AND FITTINGS AT A PRESSURE RATING OF NO LESS THAN 125 PSI, OR AS REQUIRED BY LOCAL CODES AND REGULATIONS. WHERE LOCAL JURISDICTIONS ALLOW FOR A LOWER PRESSURE RATING THAN THAT SPECIFIED ABOVE, THE ABOVE SPECIFIED PRESSURE RATING SHALL DICTATE.
16. IN CASES WHERE MANUFACTURER PROVIDES INTERNAL MAXIMUM OVERCURRENT PROTECTION (MOCP) DEVICES IN THE EQUIPMENT, THE MANUFACTURER SHALL SUPPLY LABELING STATING SUCH ON THE EQUIPMENT SERVED. OTHERWISE CONTRACTOR TO SHALL SUPPLY EXTERNAL FUSED DISCONNECT SIZED TO PROVIDE MOCP.
17. CONDENSATE PIPING SHALL BE TYPE "L" COPPER OR SCHEDULE 40 PVC.
CONDENSATE PUMP WITH FLEX TUBING TO EXTERIOR IS ACCEPTABLE – AS REQUIRED BY SITE CONDITIONS.

B. INSULATION

1. DUCTWORK
   a. SIZES INDICATED ARE FREE INSIDE AREA, I.E. SIZES DO NOT INCLUDE INSULATION OR LINING THICKNESS.
   b. INSULATION SHALL BE WRAPPED ON DUCTS WITH 1/2" OUTWARD CLINCHING STAPLES ON 4" CENTERS. STAPLES AND SEAMS SHALL BE SEALED WITH A BRUSH COAT OF VAPOR BARRIER MASTIC.
   c. INSULATION SHALL BE FACED WITH FIRE RESISTANT VAPOR BARRIER JACKET WITH A 2" TAB ON ONE EDGE.
   d. SUPPLY, RELIEF AND EXHAUST DUCTWORK INSULATION SHALL BE A 1–1/2" THICK 3/4 LB. DENSITY FLEXIBLE FIBERGLASS BLANKET.
   e. OUTDOOR AIR DUCTWORK AND SUPPLY, RETURN AND OUTDOOR AIR PLENUM INSULATION SHALL BE A 1–1/2" THICK 2 LB. DENSITY RIGID FIBERGLASS BOARD.
   f. EXHAUST AND RELIEF DUCTWORK SHALL BE INSULATED FROM POINT OF EXHAUST FROM THE BUILDING TO THE BACKDRAFT DAMPER OR SHUT–OFF DAMPER CLOSEST TO THE EXIT FROM THE BUILDING.
   g. EXPOSED DUCTWORK SHALL BE EITHER INTERNALLY LINED OR COVERED W/ RIGID FIBERGLASS INSULATION OF SIMILAR THICKNESS AND PERFORMANCE.
   h. INTERNAL LINING OF SIMILAR THICKNESS AND PERFORMANCE MAY BE USED IN LIEU OF WRAPPING THE DUCTWORK WITH INSULATION.
   i. ALL DUCTWORK LOCATED IN UNCONDITIONED SPACES SHALL BE INSULATED WITH A MINIMUM OF R–6 INSULATION. ALL DUCTWORK LOCATED OUTSIDE OF THE BUILDING ENVELOPE SHALL HAVE A MINIMUM OF R–8 INSULATION.
2. INSULATION OF DUCTWORK AND PIPE PASSING THROUGH NON–RATED WALLS SHALL BE CONTINUOUS THROUGH THE WALL PENETRATION.
3. INSULATION OF CONDENSATE PIPING SHALL BE 1" THICK FIBERGLASS INSULATION WITH VAPOR BARRIER.
4. PROVIDE 1" THICK 3/4 LB. DENSITY ACOUSTICAL INTERIOR LINER WHERE INDICATED. ADJUST SHEET METAL SIZE AS REQUIRED TO PROVIDE CLEAR INSIDE DIMENSION INDICATED.

C. DUCTWORK

1. ALL NEW DUCT TURNS, ELBOWS, ETC. SHALL BE INSTALLED WITH TURNING VANES OR MINIMUM 1–1/2 RADIUS ELBOWS.
2. PROVIDE VOLUME DAMPERS AT ALL BRANCH TAKE–OFFS.
3. CONSTRUCT ALL HIGH PRESSURE VAV DUCTWORK AND ACCESSORIES IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA STANDARDS FOR 2" PRESSURE CLASS AND SEAL CLASS A.
4. CONSTRUCT ALL LOW PRESSURE DUCTWORK AND ACCESSORIES IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA STANDARDS FOR 1/2" PRESSURE CLASS AND SEAL CLASS A.
5. METAL DUCTWORK: FABRICATE ALL DUCTWORK, HOUSINGS, DAMPERS, AND ALL OTHER DUCT RELATED ACCESSORIES FROM GALVANIZED STEEL SHEETS.
6. INSTALL ALL DUCTWORK ABOVE CEILING AND TIGHT TO UNDERSIDE OF STRUCTURE ABOVE UNLESS OTHERWISE INDICATED.
7. CHANGES TO DUCTWORK DUE TO FIELD CONDITIONS SHALL BE MADE PROVIDED THAT THE DUCT FREE AREA IS MAINTAINED AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
8. FLEXIBLE DUCTWORK: PROVIDE INSULATED U.L. LISTED CLASS 1 DUCT COMPLYING WITH NFPA 90A. THERMAFLEX G–KM OR APPROVED EQUAL. MAXIMUM LENGTH SHALL BE 8 LINEAR FEET.
9. LEAKAGE:
   a. ALL NEW DUCT JOINTS SHALL BE SEALED WITH HARDCAST 601 OR APPROVED EQUAL.
   b. LEAKAGE TESTING FOR ALL NEW DUCTWORK SHALL BE PER SMACNA.
   c. PERFORM ALL TESTING AFTER THE SEALS HAVE CURED COMPLETELY AND BEFORE COVERING WITH INSULATION OR CONCEALING IN MASONRY OR OTHER PARTITION MATERIAL.

D. TESTING AND BALANCING

1. SCOPE
   a. AN INDEPENDENT CONTRACTOR WITH NEBB OR AABC CERTIFICATION SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT TO PERFORM ALL OPERATIONS REQUIRED FOR COMPLETE BALANCING OF THE AIR SYSTEMS AND RELATED WORK AS INDICATED ON DRAWINGS AND SPECIFIED HEREIN.
   b. BALANCING SHALL NOT BE PERFORMED UNTIL ALL MECHANICAL EQUIPMENT IS PROPERLY INSTALLED AND IS 100% OPERATIONAL, ALL TEMPERATURE CONTROLS ARE INSTALLED AND CALIBRATED, AND ALL SYSTEMS ARE CLEANED, PIPES AND STRAINERS FLUSHED, AND CLEAN FILTERS INSTALLED.
   c. BALANCING SHALL BE WITHIN +/– 10% OF THE TOTAL INDICATED VALUES.
   d. IT IS THE INTENT OF THIS SPECIFICATION TO ENSURE THAT THE ENTIRE PROJECT IS SUBSTANTIALLY COMPLETE SO THAT ALL COMPONENTS OF ALL MECHANICAL SYSTEMS CAN BE PUT INTO NORMAL OPERATION WITH ALL WINDOWS AND DOORS CLOSED AND BALANCED IN THAT CONDITION. IN NO CASE IS THE CONTRACTOR TO PERFORM HIS WORK IN A PIECEMEAL FASHION.
2. BELTS AND SHEAVE CHANGES REQUIRED TO MEET SPECIFIED AIR VOLUMES SHALL BE MADE AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. BALANCING REPORT – AFTER FINAL ADJUSTMENTS ARE COMPLETED, THE HVAC SYSTEM SHALL BE TESTED, AND THE FOLLOWING INFORMATION RECORDED AND INCLUDED IN THE BALANCING REPORT.
   a. EACH PIECE OF EQUIPMENT SHALL BE IDENTIFIED WITH LOCATION, SERVICE MANUFACTURER, MODEL NUMBER, ELECTRICAL DATA, AND MEASURED STATIC PRESSURES (EXTERNAL AND TOTAL).
   b. TRAVERSE MAIN SUPPLY DUCT AND INDICATE SIZE. NOTE: TRAVERSE SHALL BE DONE IN A LOCATION NEAR THE FAN BUT AVOIDING TURBULENCE.
   c. EACH AIR DEVICE (NEW AND EXISTING) SHALL BE IDENTIFIED WITH LOCATION AND SERVICE, TYPE, AND SIZE.
   d. BALANCE REPORT SHALL INDICATE REQUIRED CFM AND RESULTANT CFM FOR EACH AIR DEVICE.
4. SHOULD TOTAL INDICATED AIRFLOWS NOT BE ACHIEVABLE, CONTRACTOR SHALL STOP WORK, NOTIFY OWNER, BUILDING ENGINEER AND ARCHITECT. PROPORTIONAL BALANCING IS NOT PERMITTED. WORK SHALL NOT RESUME UNTIL CORRECTIVE MEASURES HAVE BEEN COMPLETED.

E. AIR CLEANING SYSTEM:

1. ALL UNITS SHALL HAVE AIR PURIFICATION SYSTEM OR EQUAL AIR CLEANERS INSTALLED PER MANUFACTURER. COORDINATE WITH ELECTRICAL CONTRACTOR.
2. PROVIDE ATMOS AIR SERIES OR EQUAL. UNITS SHALL BE SIZED PER MFR.
3. UNITS SHALL BE INSTALLED ABOVE THE EVAPORATOR COIL INSIDE THE AHU/RTU AND/OR SUPPLY DUCT.
4. ALL LAMPS SHALL BE REMOVABLE FROM OUTSIDE OF THE AHU/RTU/DUCT CASING FOR MAINTENANCE AND REPLACEMENT PURPOSES.
5. UNITS SHALL HAVE A SAFETY WARNING LABEL APPLIED TO THE EXTERIOR OF EACH SECTION.

Project Name: Hi Tor Animal Shelter	Unit Total Supply Air: 3000 cfm
Date: 8/17/21	Unit Total Outdoor Air: 530 cfm
Unit Designation: RTU-1	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Room Number	Description	Area (ft²) (Az)	Area Outdoor Air Rate per VMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per VMC Table 403.3 (People/ 1000 ft2)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per VMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez)	Supply Air Design (Vpz)	Secondary Recirculated Air	Outdoor Air Fraction (Zp = Voz / Vpz)
107-Adtp Cat Hsng	Pet Shop	135	0.18	24	10	2	7.5	15	39	0.8	49	230		0.213
108-Stray Cat Hsng	Pet Shop	120	0.18	22	10	2	7.5	15	37	0.8	47	200		0.235
109-Cat Playroom	Pet Shop	150	0.18	27	10	2	7.5	15	42	0.8	53	270		0.196
110-Cat Playrm 1	Pet Shop	120	0.18	22	10	2	7.5	15	37	0.8	47	300		0.157
111-Cat Playrm 2	Pet Shop	120	0.18	22	10	2	7.5	15	37	0.8	47	300		0.157
112-Cat Playrm 3	Pet Shop	120	0.18	22	10	2	7.5	15	37	0.8	47	300		0.157
113-Cat Playrm 4	Pet Shop	120	0.18	22	10	2	7.5	15	37	0.8	47	300		0.157
114-Cat Playrm 5	Pet Shop	120	0.18	22	10	2	7.5	15	37	0.8	47	300		0.157
115-Cat Playrm 6	Pet Shop	120	0.18	22	10	2	7.5	15	37	0.8	47	300		0.157
116-Cat Playrm 7	Pet Shop	120	0.18	22	10	2	7.5	15	37	0.8	47	300		0.157
117-Cat Playroom	Pet Shop	60	0.18	11	10	1	7.5	7.5	18.5	0.8	24	100		0.240
118-Cat Bonding	Pet Shop	60	0.18	11	10	1	7.5	7.5	18.5	0.8	24	100		0.240
Totals		1365		249		22		165	414		526	3000	0	0.240

Project Name: Hi Tor Animal Shelter	Unit Total Supply Air: 4750 cfm
Date: 8/17/21	Unit Total Outdoor Air: 600 cfm
Unit Designation: RTU-2	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Room Number	Description	Area (ft²) (Az)	Area Outdoor Air Rate per VMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per VMC Table 403.3 (People/ 1000 ft2)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per VMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez)	Supply Air Design (Vpz)	Secondary Recirculated Air	Outdoor Air Fraction (Zp = Voz / Vpz)
101A-Entry Vest.	Corridor	35	0.06	2	0	0	0	0	2	0.8	3	70		0.043
101B-Exit Vestibule	Corridor	35	0.06	2	0	0	0	0	2	0.8	3	70		0.043
102-Cler Supplies	Storage Rm	56	0.12	7	0	0	0	0	7	0.8	9	80		0.113
103-Reception Area	Reception	120	0.06	7	30	4	5	20	27	0.8	34	200		0.170
106-Waiting Area	Reception	266	0.06	16	30	8	5	40	56	0.8	70	500		0.140
159-Dog Grooming	Pet Shop	80	0.18	14	10	1	7.5	7.5	21.5	0.8	27	160		0.169
160-Cat Food Stor.	Storage Rm	96	0.12	12	0	0	0	0	12	0.8	15	140		0.107
161-Food Prep Area	Pet Shop	90	0.18	16	10	1	7.5	7.5	23.5	0.8	30	180		0.167
162-Nursing Kitten1	Pet Shop	35	0.18	6	10	1	7.5	7.5	13.5	0.8	17	70		0.243
163-Nursing Kitten2	Pet Shop	35	0.18	6	10	1	7.5	7.5	13.5	0.8	17	70		0.243
164-Nursing Kitten3	Pet Shop	35	0.18	6	10	1	7.5	7.5	13.5	0.8	17	70		0.243
165-Temp. Cat Hldg	Pet Shop	105	0.18	19	10	2	7.5	15	34	0.8	43	210		0.205
166-Kitten Nursery2	Pet Shop	24	0.18	4	10	1	7.5	7.5	11.5	0.8	15	50		0.300
167-Kitten Display	Pet Shop	24	0.18	4	10	1	7.5	7.5	11.5	0.8	15	50		0.300
168-Pet Adoption	Office	120	0.06	7	5	1	5	5	12	0.8	15	240		0.063
169-Small Mammal	Pet Shop	110	0.18	20	10	2	7.5	15	35	0.8	44	220		0.200
170-Temp Dog Hdg	Pet Shop	110	0.18	20	10	2	7.5	15	35	0.8	44	220		0.200
171-Kitty Litter Stor	Storage Rm	171	0.12	21	0	0	0	0	21	0.8	27	250		0.108
172-Cat Bathing	Pet Shop	35	0.18	6	10	1	7.5	7.5	13.5	0.8	17	70		0.243
173-Cat Carrier Dunl	Pet Shop	60	0.18	11	10	1	7.5	7.5	18.5	0.8	24	120		0.200
174-Dog Bathing	Pet Shop	38	0.18	7	10	1	7.5	7.5	14.5	0.8	19	80		0.238
C101 Corridor	Corridor	50	0.06	3	0	0	0	0	3	0.8	4	80		0.050
C102-Corridor	Corridor	136	0.06	8	0	0	0	0	8	0.8	10	200		0.050
C103-Corridor	Corridor	335	0.06	20	0	0	0	0	20	0.8	25	500		0.050
C104-Corridor	Corridor	110	0.06	7	0	0	0	0	7	0.8	9	160		0.056
C105-Corridor	Corridor	420	0.06	25	0	0	0	0	25	0.8	32	630		0.051
105-Public RR	Restroom	56	0	0	0	0	0	0	0	0.8	0	60		0.000
Totals		2787		276		29		185	461		585	4750	0	0.300

Project Name: Hi Tor Animal Shelter	Unit Total Supply Air: 4000 cfm
Date: 8/19/21	Unit Total Outdoor Air: 400 cfm
Unit Designation: RTU-3	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Room Number	Description	Area (ft²) (Az)	Area Outdoor Air Rate per VMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per VMC Table 403.3 (People/ 1000 ft2)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per VMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez)	Supply Air Design (Vpz)	Secondary Recirculated Air	Outdoor Air Fraction (Zp = Voz / Vpz)
120-Clerical Area	Office	56	0.06	3	5	1	5	5	8	0.8	10	130		0.077
121-Quarantine Hsg	Pet Shop	72	0.18	13	10	1	7.5	7.5	20.5	0.8	26	170		0.153
122-Executive Office	Office	80	0.06	5	5	1	5	5	10	0.8	13	175		0.074
123-Housing Mgr	Office	120	0.06	7	5	1	5	5	12	0.8	15	260		0.058
124-Breakroom	Break Room	216	0.06	13	5	2	5	10	23	0.8	29	480		0.060
125-General Storage	Storage Rm	168	0.12	20	0	0	0	0	20	0.8	25	290		0.086
126-Document Stor	Storage Rm	84	0.12	10	0	0	0	0	10	0.8	13	140		0.093
141-Laundry Stor	Storage Rm	108	0.12	13	0	0	0	0	13	0.8	17	170		0.100
144-Laundry Room	Commercial Laundry	156	0	0	10	2	25	50	50	0.8	63	310		0.203
156-Dog Food Stor	Storage Rm	96	0.12	12	0	0	0	0	12	0.8	15	165		0.091
157-Food Prep Area	Pet Shop	90	0.18	16	10	1	7.5	7.5	23.5	0.8	30	150		0.200
158-Bowl Wash	Pet Shop	84	0.18	15	10	1	7.5	7.5	22.5	0.8	29	150		0.193
C106/107-Corridor	Corridor	410	0.06	25	0	0	0	0	25	0.8	32	670		0.048
C111-Corridor	Corridor	125	0.06	8	0	0	0	0	8	0.8	10	210		0.048
U102-Sprinkler Rm	Storage Rm	80	0.12	10	0	0	0	0	10	0.8	13	130		0.100
U103 Mechanical	Storage Rm	120	0.12	14	0	0	0	0	14	0.8	18	100		0.180
U104-Telephone	Storage Rm	45	0.12	5	0	0	0	0	5	0.8	7	80		0.088
U105 Server Rm	Storage Rm	40	0.12	5	0	0	0	0	5	0.8	7	100		0.070
153-Unisex Staff Rr	Restroom	56	0	0	0	0	0	0	0	0.8	0	60		0.000
154-Unisex Staff Rr	Restroom	56		0		0		0	0	0.8	0	60		0.000
Totals		2262		194		10		97.5	291.5		372	4000	0	0.203

Project Name: Hi Tor Animal Shelter	Unit Total Supply Air: 3000 cfm
Date: 8/17/21	Unit Total Outdoor Air: 450 cfm
Unit Designation: RTU-4	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Room Number	Description	Area (ft²) (Az)	Area Outdoor Air Rate per VMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per VMC Table 403.3 (People/ 1000 ft2)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per VMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez)	Supply Air Design (Vpz)	Secondary Recirculated Air	Outdoor Air Fraction (Zp = Voz / Vpz)
138-Surgery Room	Medical Procedure Room	156	0	0	20	4	15	60	60	0.8	75	300		0.250
139-Pre-op/Rcvr/ICU	Medical Procedure Room	90	0	0	20	2	15	30	30	0.8	38	180		0.211
140-Puppy Welping	Pet Shop	48	0.18	9	10	1	7.5	7.5	16.5	0.8	21	100		0.210
145-VMA Gen Stor	Storage Rm	90	0.12	11	0	0	0	0	11	0.8	14	130		0.108
146-Treatment&Prep	Medical Procedure Room	145	0	0	20	3	15	45	45	0.8	57	300		0.190
147-Pack Prep Area	Medical Procedure Room	88	0	0	20	2	15	30	30	0.8	38	180		0.211
148-Lab & Pharm	Pharmacy	104	0.18	19	10	2	5	10	29	0.8	37	200		0.185
149-Spay/Neut Exm	Medical Procedure Room	100	0	0	20	2	15	30	30	0.8	38	200		0.190
150-VMA Isolation	Pet Shop	84	0.18	15	10	1	7.5	7.5	22.5	0.8	29	160		0.181
151-VMA Isolation	Pet Shop	48	0.18	9	10	1	7.5	7.5	16.5	0.8	21	100		0.210
152-Laundry Stor	Storage Rm	56	0.12	7	0	0	0	0	7	0.8	9	80		0.113
C112-Corridor	Corridor	149	0.06	9	0	0	0	0	9	0.8	12	220		0.055
C110-Corridor	Corridor	226	0.06	14	0	0	0	0	14	0.8	18	340		0.053
C113-Corridor	Corridor	123	0.06	7	0	0	0	0	7	0.8	9	160		0.056
C114-Corridor	Corridor	234	0.06	14	0	0	0	0	14	0.8	18	350		0.051
Totals		1741		114		18		227.5	341.5		434	3000	0	0.250

Project Name: Hi Tor Animal Shelter	Unit Total Supply Air: 4000 cfm
Date: 9/27/21	Unit Total Outdoor Air: 900 cfm
Unit Designation: RTU-5	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Room Number	Description	Area (ft²) (Az)	Area Outdoor Air Rate per VMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per VMC Table 403.3 (People/ 1000 ft2)	Occupancy C x F/1000 (Pz)	Occupant Outdoor Air Rate per VMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez)	Supply Air Design (Vpz)	Secondary Recirculated Air	Outdoor Air Fraction (Zp = Voz / Vpz)
132-Transition Vest	Corridor	38	0.06	2	0	0	0	0	2	0.8	3	50		0.060
133-Isolation Hsg	Pet Shop	133	0.18	24	10	2	7.5	15	39	0.8	49	200		0.245
134-Transition Vest	Corridor	38	0.06	2	0	0	0	0	2	0.8	3	50		0.060
135-Isolation Hsg	Pet Shop	133	0.18	24	10	2	7.5	15	39	0.8	49	200		0.245
136-Isolation Hsg	Pet Shop	72	0.18	13	10	1	7.5	7.5	20.5	0.8	26	100		0.260
137-Quarantine Hsg	Pet Shop	72	0.18	13	10	1	7.5	7.5	20.5	0.8	26	100		0.260
174-Dog Bonding	Pet Shop	78	0.18	14	10	1	7.5	7.5	21.5	0.8	27	100		0.270
175-Gen Dog Supply	Storage Rm	46	0.12	6	0	0	0	0	6	0.8	8	50		0.160
176-Dog Bonding	Pet Shop	100	0.18	18	10	1	7.5	7.5	25.5	0.8	32	130		0.246
177-Dog Ward 2	Pet Shop	280	0.18	50	10	3	7.5	22.5	72.5	0.8	91	420		0.217
178-Dog Ward 1	Pet Shop	370	0.18	67	10	4	7.5	30	97	0.8	122	550		0.222
179-Dog Ward	Pet Shop	275	0.18	50	10	3	7.5	22.5	72.5	0.8	91	420		0.217
180-Dog Bonding	Pet Shop	100	0.18	18	10	1	7.5	7.5	25.5	0.8	32	130		0.246
181-Dog Ward 3	Pet Shop	370	0.18	67	10	4	7.5	30	97	0.8	122	550		0.222
182-Dog Ward 2	Pet Shop	220	0.18	40	10	3	7.5	22.5	62.5	0.8	79	330		0.239
183-Dog Ward 1	Pet Shop	275	0.18	50	10	3	7.5	22.5	72.5	0.8	91	420		0.217
U108-Power Wash	Storage Rm	52	0.12	6	0	0	0	0	6	0.8	8	40		0.200
C104 Corridor	Corridor	100	0.06	6	0	0	0	0	6	0.8	8	100		0.080
C111 Corridor	Corridor	60	0.06	4	0	0	0	0	4	0.8	5	60		0.083
Totals		2812		474		29		217.5	691.5		872	4000	0	0.270

MECHANICAL SYMBOLS

PLAN SYMBOLS

- RTU 1 — MECHANICAL EQUIPMENT IDENTIFICATION
- 1 M–6 — DETAIL IDENTIFICATION DETAIL NUMBER AND DRAWING NUMBER AS INDICATED.
- 1 — NEW WORK NOTE IDENTIFICATION

MECHANICAL SYMBOLS

- 100 — SUPPLY DIFFUSER/TYPE IDENTIFICATION CFM
- RETURN REGISTER/TYPE IDENTIFICATION
- EXHAUST REGISTER/TYPE IDENTIFICATION
- AIR FLOW DIRECTION
- FLEXIBLE DUCTWORK–PROVIDE VOLUME DAMPER ON ALL BRANCH FLEX DUCT WITH LOCKING QUADRANTS
- DUCTWORK TURNED UP OR TOWARDS
- DUCTWORK TURNED DOWN OR AWAY
- DUCTWORK TRANSITION
- AD — ACCESS DOOR, SIZED AS INDICATED
- FD — FIRE DAMPER WITH ACCESS DOOR
- SD — SMOKE DAMPER WITH ACCESS DOOR
- VOLUME DAMPER WITH LOCKING QUADRANTS
- M — MODULATING MOTORIZED DAMPER
- T — DUCT MOUNTED TEMPERATURE SENSOR
- AHU–# T — WALL THERMOSTAT
- AHU–# H — WALL HUMIDISTAT
- SD — DUCT SMOKE DETECTOR
- U — 3/4" DOOR UNDERCUT
- CO2 — CARBON DIOXIDE WALL SENSOR
- D — CONDENSATE DRAIN
- PIPE TURNED DOWN
- PIPE TURNED UP

MECHANICAL SYMBOLS

ABBREVIATIONS

ABV	ABOVE
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BAS	BUILDING AUTOMATION SYSTEM
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BDD	BACK DRAFT DAMPER
BFC	BELOW FINISHED CEILING
CLG	CEILING
CP	CONDENSATE PUMP
D	CONDENSATE DRAIN
DN	DOWN
(E)	EXISTING
EA	EXHAUST AIR
EHC	ELECTRIC HEATING COIL
EF	EXHAUST FAN
(ER)	EXISTING RELOCATED
F	FAN
FA	FRESH AIR
FPB	FAN POWERED BOX
MAU	MAKE–UP AIR
MD	MOTORIZED DAMPER
MHP	MOTOR HORSEPOWER
(N)	NEW
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SL	SOUND LINED DUCT
SS	STAINLESS STEEL
TR	TRANSFER AIR
TOD	TOP OF DUCT
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
W/O	WALL OPENING ABOVE CEILING
WSHP	WATER SOURCE HEAT PUMP

CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
Job # E2119

REVISION		
NO..	DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.9959

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

MECHANICAL NOTES

DRAWN BY: JLC
CHECKED BY: CRS
SCALE: 1/4AS NOTED
DATE: 20 OCT. 2021
PROJECT NO: 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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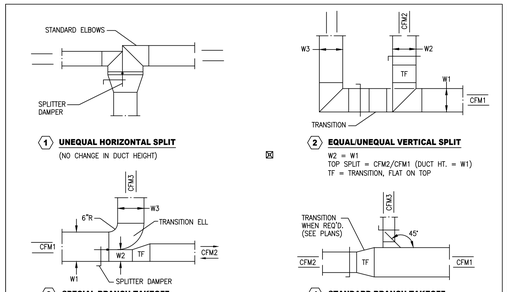


1 UNEQUAL HORIZONTAL SPLIT
(NO CHANGE IN DUCT HEIGHT)

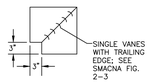
2 EQUAL/UNEQUAL VERTICAL SPLIT
W2 = W1
TOP SPLIT = CFM2/CFM1 (DUCT HT. = W1)
TF = TRANSITION, FLAT ON TOP

3 SPECIAL BRANCH TAKEOFF
W2 = (CFM2/CFM1) x W1
W3 = REQUIRED DUCT WIDTH
CFM3 = 30% OR MORE OF CFM1
(NO CHANGE IN DUCT HEIGHT)
SEE SMACNA FIG. 2-7

4 STANDARD BRANCH TAKEOFF
CFM3 = LESS THAN 30% OF CFM1
TF = TRANSITION, FLAT ON TOP
SEE SMACNA FIG. 2-8 AND 2-9

5 EQUAL HORIZONTAL SPLIT
W2 = W1 x 0.6
ES = EQUAL SPLIT

6 EQUAL/UNEQUAL VERTICAL SPLIT
W2 = W1
TOP SPLIT = CFM2/CFM1 (DUCT HT. = W1)
TF = TRANSITION, FLAT ON TOP



7 STANDARD ELBOW
SEE SMACNA FIG. 2-2

8 RADIUS ELBOW
USE ONLY WHEN NOTED ON PLANS; OTHERWISE USE STANDARD ELBOW. SEE SMACNA FIG. 2-2

NOTES:
1. REFER TO PLANS FOR SPECIFIC FITTING TYPES.

1 DUCTWORK FITTINGS DETAIL
NOT TO SCALE

GAS PACKAGE ROOFTOP UNIT SCHEDULE

UNIT DESIGNATION	TOTAL CFM	MINIMUM O.A. CFM	NOMINAL TONS	FAN BHP	E.S.P. IN. W.C.	GAS HEATER EFF.	GAS HEATER INPUT(BTUH)	GAS HEATER OUTPUT(BTUH)	TOTAL MBH	SENSIBLE MBH	OA DB (F)	EER AT A/B	IEER AT A/B	V/PH/HZ	MCA	MOCP	WEIGHT LBS	BASIS OF DESIGN	NOTES
RTU 1	3,000	530	7.5	2.4	1.0	82.0%	224,000	184,000	86.8	54.1	95	12.0	13.8	208/3/60	50	60	1,600	CARRIER 48HCFE08K2AA5OWH	3,4,7,8,9,10,13,14,15,16,17
RTU 2	4,750	600	12.5	3.7	1.0	81.0%	240,000	195,000	141.6	93.4	95	12.2	13.9	208/3/60	68	80	2,200	CARRIER 48HCFE14K2AA5OWH	3,4,7,8,9,10,13,14,15,16,17
RTU 3	4,000	400	10.0	3.7	1.0	80.0%	250,000	205,000	113.6	70.5	95	11.5	12.7	208/3/60	62	70	1,800	CARRIER 48HCFE12K2AA5OWH	3,4,7,8,9,10,13,14,15,16,17
RTU 4	3,000	450	7.5	2.4	1.0	82.0%	224,000	184,000	86.8	54.1	95	12.0	13.8	208/3/60	50	60	1,600	CARRIER 48HCFE08K2AA5OWH	3,4,7,8,9,10,13,14,15,16,17
RTU 5	4,000	ERV 2000	10.0	3.7	1.0	80.0%	250,000	205,000	113.6	70.5	95	11.5	12.7	208/3/60	81	90	2,700	CARRIER 48HCFE12K2AA5DTH	3,4,7,8,9,10,12,14,15,16,17

NOTES:
1. THRU-THE-BASE GAS CONNECTION
2. TWO (2) STAGE COOLING
3. SINGLE (1) STAGE COOLING
4. TWO (2) STAGE GAS HEATING
5. SINGLE (1) STAGE GAS HEATING
6. HIGH STATIC BELT DRIVE BLOWER
7. MEDIUM STATIC BELT DRIVE BLOWER
8. 2-SPEED INDOOR FAN MOTOR CONTROLLED BY VFD
9. PROVIDE LOW AMBIENT COOLING TO 40°F MINIMUM OR 0°F (WHERE AVAILABLE).
10. HINGED ACCESS DOOR & SIDE FILTER ACCESS DOOR KIT.
11. HORIZONTAL AIRFLOW DISCHARGE.
12. ENTHALPY LOW LEAK ECONOMIZER W/ ERV & HOODS.
13. ENTHALPY LOW LEAK ECONOMIZER W/ BAROMETRIC RELIEF & HOODS.
14. PROVIDE DEHUMIDIFICATION OPTION W/ HUMIDITY SENSOR
15. PROVIDE CARRIER 7-DAY PROGRAMMABLE THERMOSTAT OR EQUAL.
16. PROVIDE POWERED CONVENIENCE OUTLET.
17. PROVIDE 14 INCH TALL ROOF CURB.

SCHEDULE NOTES FOR RTU-5 (WITH ERV):
1. BASIS OF DESIGN IS CARRIER 48HCFE12K2AA5DTH W/ ENERGYX ERV W/ ECONOMIZER AND FREEZE PROTECTION. ONLY PREAPPROVED ALTERNATES MEETING ALL THE PROJECT REQUIREMENTS WILL BE CONSIDERED
2. IN ORDER TO BE CONSIDERED AN ACCEPTABLE ALTERNATE, PROPOSED UNIT MUST MEET THE SPECIFIED PERFORMANCE INCLUDING, BUT NOT LIMITED TO, DX COIL LEAVING DEWPOINT (DPC<47)
3. PROVIDE UNITS WITH THE FOLLOWING FEATURES:
   a. 2" DOUBLE WALL FOAM INJECTED R13 INSULATED CASING (INCLUDING R13 INSULATED BASE), ENTIRELY PRE-PAINTED EXTERIOR,
   b. DIGITAL SCROLL COMPRESSOR, BOTH CIRCUITS (IF APPLICABLE); HOT GAS BYPASS IS NOT ACCEPTABLE
   c. MODULATING HOT GAS REHEAT WITH ACTIVE HEAD PRESSURE CONTROL VFD DRIVEN CONDENSER FANS TO ENSURE 70 DEG F UNIT LEAVING AIR TEMPERATURE
   d. UV LIGHTS BETWEEN DX AND HOT GAS REHEAT COIL
   e. DIRECT DRIVE PLENUM SUPPLY AND POWERED EXHAUST FANS W/VFD AND PIEZO RINGS FOR AIR MEASUREMENT
   e.a. BOTH FANS SHALL HAVE SLIDE-OUT FEATURE FOR SERVICEABILITY
   f. MODULATING GAS HEATING (10:1 TURNDOWN)
   g. COMPARATIVE ENTHALPY ECONOMIZER CONTROL
   h. ALL ALUMINUM ENERGY RECOVERY WHEEL WITH BYPASS DAMPERS AND SLIDE OUT FOR SERVICEABILITY
      h.a. WHEEL SHALL HAVE A PURGE RATED FOR NO MORE THAN 0.04% CROSSOVER BETWEEN SUPPLY AND EXHAUST AIR PATH
      h.b. ALL OUTDOOR AIR SHALL PASS THRU THE WHEEL WHEN UNIT IS NO ECONOMIZING
      h.c. MERV 8 FILTRATION
   j. NON-FUSED DISCONNECT SWITCH W/CONVENIENCE OUTLET
   k. BACNET COMPATIBLE DDC CONTROLLER INCLUDING PROGRAMMING/SEQUENCING AND SENSORS AS REQUIRED FOR CONSTANT VOLUME SPACE CONTROL
      k.a. AUTO-RESTART AFTER A POWER FAILURE
   l. STANDARD MANUFACTURER KNOCKDOWN CURB
   m. STARTUP & 1-YEAR WARRANTY LABOR BY MANUFACTURER; EXTENDED 5 YEAR COMPRESSOR PARTS ONLY WARRANTY

AIR CLEANING UNIT SCHEDULE

MARK	MFR*	MODEL	MAX AIR TEMP (F)	TUBE QTY.	CURRENT AMP	POWER WATTS	VOLTAGE	WEIGHT LBS.
ACU	ATMOS AIR	500EC	200	5	0.6	52	115/1/60	15

1. MANUFACTURER OR APPROVED EQUAL
3. UNITS SHALL BE INSTALLED IN THE SUPPLY DUCT DISCHARGE AIR
4. UNIT SHALL INTERLOCK TO ENERGIZE WITH RTU FAN OR AIR PRESSURE SWITCH
2. PROVIDE NEMA 5-15 PLUG OR 3 WIRE TO JUNCTION BOX
5. COORDINATE WITH ELECTRICAL CONTRACTOR.

ELECTRIC HEATER SCHEDULE

			CONSTRUCTION DATA	ELECTRICAL DATA					
MARK	AREA / SERVICE	CFM	TYPE	KW	VOLT	PH	AMPS	MANUFACTURER	NOTES
EH 1	ENTRY/EXIT	100	WALL MOUNTED	2	208/230	1	8.3	MARKEL F3507I2DWB	1,2

1. ELECTRICAL CORD SHALL BE CONCEALED W/ CASING.
2. BUILT IN CONTROLLABLE THERMOSTAT

GAS UNIT HEATER SCHEDULE

			CONSTRUCTION DATA		ELECTRICAL DATA						
MARK	AREA / SERVICE	CFM	TYPE	GAS INPUT	GAS OUTPUT	VOLT	PH	AMPS	MOTOR HP	MANUFACTURER	NOTES
GH 1	CREMATORY	720	CEILING/WALL MOUNTED	45,000	36,900	115	1	--	1/15	MODINE HD45	1,2,3,4

NOTES:
1. MAXIMUM MOUNTING HEIGHT = 10 FT.
2. BUILT IN CONTROLLABLE THERMOSTAT
3. PROVIDE VENT FOR COMBUSTION AIR & EXHAUST VENTING
4. PROVIDE HANGERS AND STRUCTURAL SUPPORT PER MFR.

EXHAUST FAN SCHEDULE

	PERFORMANCE DATA			CONSTRUCTION DATA		ELECTRICAL DATA					
MARK	CFM	SP (IN. W.G.)	RPM	TYPE	DRIVE	MOTOR H.P. (WATTS)	VOLT	PH	MAX. WEIGHT (LB)	MANUFACTURER OR EQUAL	NOTES
EF 1	70	0.375	838	CEILING MOUNTED	DIRECT	(24.1)	115	1	12	GREENHECK SP-A50-90-VG	1,2,6,7
EF 2	1380	0.500	1385	ROOF MOUNTED	DIRECT	1/2	115	1	65	GREENHECK G-120-VG	4,5,6,7
EF 3	1000	0.500	1650	ROOF MOUNTED	DIRECT	1/4	115	1	56	GREENHECK G-099-VG	3,4,5,6,7
EF 4	220	0.250	1664	INLINE MOUNTED	DIRECT	1/15	115	1	41	GREENHECK SQ-70-VG	4,6,7

NOTES:
1. FANS IN RESTROOMS SHALL SWITCH WITH LIGHT.
2. FANS IN BATHING, MOP CLOSETS, & EXAM ROOMS SHALL ENERGIZE WITH WALL SWITCH.
3. FANS IN ISOLATION & OXYGEN ROOMS SHALL RUN CONTINUOUSLY.
4. FANS IN HOUSING, RUNS, & WARDS SHALL RUN CONTINUOUSLY.
5. PROVIDE 12" ROOF CURB FOR ALL ROOF EXHAUST CAPS ON FLAT ROOF.
6. STANDARD PREWIRED DISCONNECT SWITCH.
7. VIBRATION ISOLATORS AND BRACKETS.

LOUVER SCHEDULE

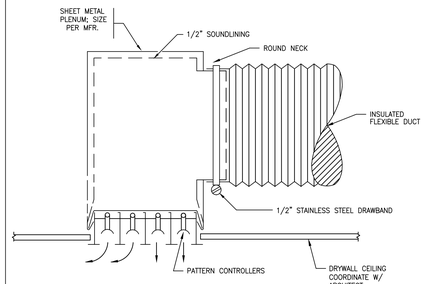
TYPE	SERVICE	CFM	DIMENSIONS W×L×H	FREE AREA FT2	FINISH	BASIS OF DESIGN	NOTES
L 1	EXHAUST	220	15"x10"x2"	0.28	ALUMINUM	GREENHECK: ESJ-202	1-2
L 2	EXHAUST	140	13"x10"x2"	0.23	ALUMINUM	GREENHECK: ESJ-202	1-2
L 3	OUTSIDE AIR INTAKE	70	11"x7"x2"	0.10	ALUMINUM	GREENHECK: ESJ-202	1-2

1. COORDINATE WITH OWNER FINAL COLOR & FINISH (IF PAINTED).
2. CONTRACTOR SHALL CONFIRM ACTUAL FINAL DIMENSIONS WITH VENDOR.

DIFFUSER, REGISTER AND GRILLE SCHEDULE

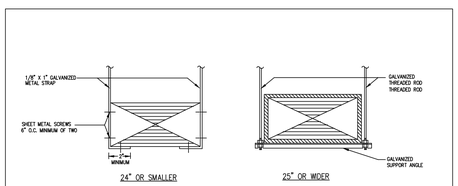
TYPE	SERVICE	CFM RANGE	FACE DIMENSION	NECK DIMENSION	FINISH	BASIS OF DESIGN	NOTES
1	SUPPLY AIR DIFFUSER	0 - 125	24"x24"	6"ø	WHITE	TUTTLE & BAILEY: T1100	1,2,3,4,5,7
		126 - 250		8"ø			
		251 - 400		10"ø			
2	SUPPLY AIR DIFFUSER	0 - 125	12"x12"	6"ø	WHITE	TUTTLE & BAILEY: T1100	1,2,3,4,5,7
		126 - 250		8"ø			
3	SUPPLY AIR DIFFUSER	126 - 250	48"x2.5"	8"ø	WHITE	TUTTLE & BAILEY: 4000	1,2,4,5,7,9
4	SUPPLY AIR DIFFUSER	251 - 400	48"x3"	10"ø	WHITE	TUTTLE & BAILEY: 4000	1,2,4,5,7,9
1	RETURN AIR DIFFUSER	0 - 125	24"x24"	6"ø	WHITE	TUTTLE & BAILEY: PR	1,2,6,7
		126 - 250		8"ø			
		251 - 400		10"ø			
		401 - 600		12"ø			
2	RETURN AIR DIFFUSER	0 - 125	12"x12"	6"ø	WHITE	TUTTLE & BAILEY: PR	1,2,6,7
		126 - 250		8"ø			
3	RETURN AIR DIFFUSER	851 - 1000	24"x8"	N/A	WHITE	TUTTLE & BAILEY: 4000	1,2,5,8,9
1	EXHAUST AIR GRILLE	101 - 250	24"x24"	8"ø	WHITE	TUTTLE & BAILEY: PR	1,2,6,7
		251 - 400		10"ø			
2	EXHAUST AIR GRILLE	0 - 125	12"x12"	6"ø	WHITE	TUTTLE & BAILEY: PR	1,2,6,7
3	INTAKE AIR GRILLE	126 - 250	20"x20"	18"x18"	WHITE	TUTTLE & BAILEY: PR	1,2,6,7
4	DOOR TRANSFER GRILLE	251 - 400	16"x16"	N/A	WHITE	TUTTLE & BAILEY: DXFR	1,2

NOTES:
1. COORDINATE WITH OWNER COLOR & FINISH.
2. CONTRACTOR SHALL CONFIRM ACTUAL FINAL DIFFUSER DIMENSIONS WITH VENDOR, AND COORDINATE W/ CEILING/WALL/DOOR TYPE AS NECESSARY.
3. 4 WAY THROW PATTERN.
4. PROVIDE WITH OPPOSED BLADE DAMPER.
5. PROVIDE INSULATED BACKPANS WHEN INSTALLED ABOVE CEILINGS, UNCONDITIONED, AND/OR PARTIALLY CONDITIONED SPACE.
6. PERFORATED PATTERN
7. CEILING MOUNTED
8. WALL MOUNTED
9. AO CORE, STANDARD UNIT, & 1/2" MARGINS



NOTES:
1. ADJUST VOLUME DAMPERS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR SPECIFIED AIR FLOW.
2. REFER TO DIFFUSER SCHEDULE FOR QUANTITY AND SIZES OF SLOTS.

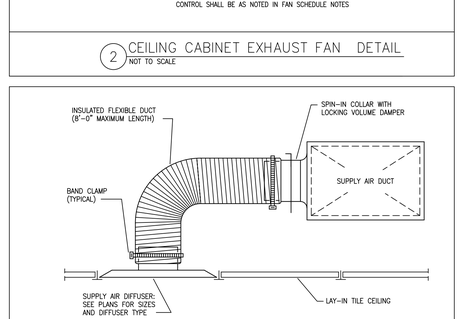
9 LINEAR SLOT DIFFUSER DETAIL
NOT TO SCALE



DUCT WIDTH	ROD DIA.	SUPPORT ANGLE OR EQUIV. CHANNEL	MAXIMUM SPACING	MAXIMUM AREA *
25" TO 30"	3/8"	1 1/2" X 1 1/2" X 1/8"	8'-0" O.C.	4 SQ. FT.
31" TO 42"	3/8"	1 1/2" X 1 1/2" X 1/8"	6'-0" O.C.	10 SQ. FT.
43" TO 60"	1/2"	1 1/2" X 1 1/2" X 1/8"	6'-0" O.C.	10 SQ. FT.
61" TO 84"	1/2"	2" X 2" X 1/4"	4'-0" O.C.	--------
85" AND UP	1/2"	2" X 2" X 1/4"	4'-0" O.C.	--------

* REDUCE SPACING TO NEXT SMALLER INTERVAL IF DUCT AREA EXCEEDS MAXIMUM

10 DUCT SUPPORT DETAIL
NOT TO SCALE

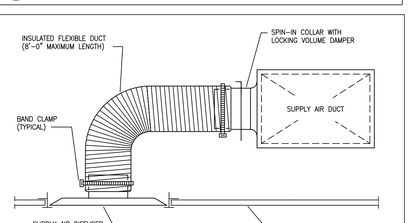


NOTE:
CONTROL SHALL BE AS NOTED IN FAN SCHEDULE NOTES

2 CEILING CABINET EXHAUST FAN DETAIL
NOT TO SCALE

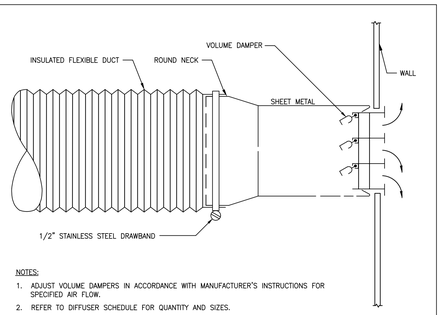
NOTE:
1. FLEXIBLE DUCT SHALL BE SUPPORTED FROM STRUCTURE ABOVE TO PREVENT SAGGING.

3 SUPPLY AIR DIFFUSER IN ACOUSTICAL CEILING
NOT TO SCALE



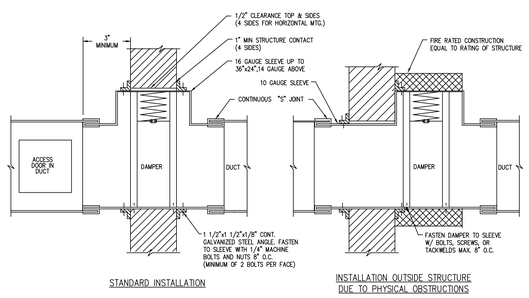
NOTE:
1. FLEXIBLE DUCT SHALL BE SUPPORTED FROM STRUCTURE ABOVE TO PREVENT SAGGING.

4 SUPPLY AIR DIFFUSER IN GYPSUM CEILING
NOT TO SCALE



NOTES:
1. ADJUST VOLUME DAMPERS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR SPECIFIED AIR FLOW.
2. REFER TO DIFFUSER SCHEDULE FOR QUANTITY AND SIZES.

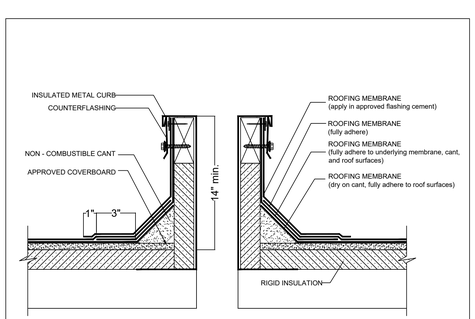
5 SIDEWALL DIFFUSER/GRILLE DETAIL
NOT TO SCALE



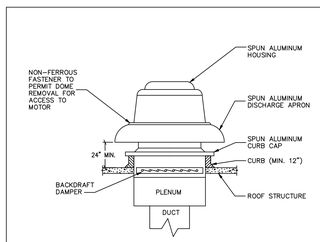
FIRE DAMPER MOUNTING
NO SCALE

NOTE: PROVIDE ACCESS DOOR FOR FINISHED SURFACE

6 RATED WALL OPENING FIRE DAMPER
NOT TO SCALE



7 ROOF CURB DETAIL
NOT TO SCALE



8 ROOF EXHAUST FAN DETAIL
NOT TO SCALE

CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
Job # E2119

REVISION

NO.	DESCRIPTION	DATE

ARCHITECTS SEAL

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2827
F: 617.426.2827

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8999
F: 949.716.8999

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: JLC
CHECKED BY: CRS
SCALE: AS NOTED
DATE: 20 OCT 2021
PROJECT NO: 2019

MECHANICAL DETAILS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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M1.01

GUIDE SPECIFICATIONS

GAS HEAT/ELECTRIC COOLING PACKAGED ROOFTOP

PART 1: SCHEDULES FOR DECENTRALIZED HVAC EQUIPMENT
DECENTRALIZED UNITARY HVAC EQUIPMENT SCHEDULE
1.1. ROOFTOP UNIT SCHEDULE
A. SCHEDULE IS PER THE PROJECT SPECIFICATION REQUIREMENTS.
PART 2: HVAC EQUIPMENT INSULATION
DECENTRALIZED, ROOFTOP UNITS:
2.1. EVAPORATOR FAN COMPARTMENT:
A. INTERIOR CABINET SURFACES SHALL BE INSULATED WITH A MINIMUM 1/2-IN. THICK, MINIMUM 1 1/2 LB DENSITY, FLEXIBLE FIBERGLASS INSULATION BONDED WITH A PHENOLIC BINDER, NEOPRENE COATED ON THE AIR SIDE.
B. INSULATION AND ADHESIVE SHALL MEET NFPA 90A REQUIREMENTS FOR FLAME SPREAD AND SMOKE GENERATION.
2.1. GAS HEAT COMPARTMENT:
A. ALUMINUM FOIL-FACED FIBERGLASS INSULATION SHALL BE USED.
B. INSULATION AND ADHESIVE SHALL MEET NFPA 90A REQUIREMENTS FOR FLAME SPREAD AND SMOKE GENERATION.
2.1. COMFORTLINK UNIT CONTROLS SHALL CONTAIN:
A. FOUR BUTTON DETAILED ENGLISH SCROLLING MARQUEE DISPLAY.
B. CCN (CARRIER COMFORT NETWORK) CAPABLE.
C. UNIT CONTROL WITH STANDARD SUCTION PRESSURE TRANSDUCERS AND CONDENSING TEMPERATURE THERMISTORS.
D. SHALL PROVIDE A 5°F TEMPERATURE DIFFERENCE BETWEEN COOLING AND HEATING SET POINTS TO MEET ASHRAE 90.1 ENERGY STANDARD.
E. SHALL PROVIDE AND DISPLAY A CURRENT ALARM LIST AND AN ALARM HISTORY LIST.
F. SERVICE RUN TEST CAPABILITY.
G. SHALL ACCEPT INPUT FROM A CO2 SENSOR (BOTH INDOOR AND OUTDOOR).
H. CONFIGURABLE ALARM LIGHT SHALL BE PROVIDED WHICH ACTIVATES WHEN CERTAIN TYPES OF ALARMS OCCUR.
I. COMPRESSOR MINIMUM RUN TIME (3 MINUTES) AND MINIMUM OFF TIME (5 MINUTES) ARE PROVIDED.
J. SERVICE DIAGNOSTIC MODE.
K. ECONOMIZER CONTROL (OPTIONAL).
L. CONTROL MULTI CAPACITY STAGES
M. UNIT SHALL BE COMPLETE WITH SELF-CONTAINED LOW VOLTAGE CONTROL CIRCUIT.
N. UNIT SHALL HAVE 0°F LOW AMBIENT COOLING OPERATION.
PART 3: ELECTRIC AND ELECTRONIC CONTROL SYSTEM FOR HVAC
DECENTRALIZED, ROOFTOP UNITS:
3.1. GENERAL:
A. SHALL BE COMPLETE WITH SELF-CONTAINED LOW-VOLTAGE CONTROL CIRCUIT PROTECTED BY A RESETTABLE CIRCUIT BREAKER ON THE 24-V TRANSFORMER SIDE. TRANSFORMER SHALL HAVE 75VA CAPABILITY.
B. SHALL UTILIZE COLOR-CODED WIRING.
C. SHALL INCLUDE A CENTRAL CONTROL TERMINAL BOARD TO CONVENIENTLY AND SAFELY PROVIDE CONNECTION POINTS FOR VITAL CONTROL FUNCTIONS SUCH AS: SMOKE DETECTORS, PHASE MONITOR, GAS CONTROLLER, ECONOMIZER, THERMOSTAT, DDC CONTROL OPTIONS, AND LOW AND HIGH PRESSURE SWITCHES.
D. THE HEAT EXCHANGER SHALL BE CONTROLLED BY AN INTEGRATED GAS CONTROLLER (IGC) MICROPROCESSOR. SEE HEAT EXCHANGER SECTION OF THIS SPECIFICATION.
E. UNIT SHALL INCLUDE A MINIMUM OF ONE 8-PIN SCREW TERMINAL CONNECTION BOARD FOR CONNECTION OF CONTROL WIRING.
3.1. SAFETIES:
A. COMPRESSOR OVER-TEMPERATURE, OVER-CURRENT. HIGH INTERNAL PRESSURE DIFFERENTIAL.
B. LOW-PRESSURE SWITCH.
1. UNITS WITH 2 COMPRESSORS SHALL HAVE DIFFERENT SIZED CONNECTORS FOR THE CIRCUIT 1 AND CIRCUIT 2 LOW AND HIGH PRESSURE SWITCHES. THEY SHALL PHYSICALLY PREVENT THE CROSS-WIRING OF THE SAFETY SWITCHES BETWEEN CIRCUITS 1 AND 2.
2. LOW PRESSURE SWITCH SHALL USE DIFFERENT COLOR WIRE THAN THE HIGH PRESSURE SWITCH. THE PURPOSE IS TO ASSIST THE INSTALLER AND SERVICE TECHNICIAN TO CORRECTLY WIRE AND OR TROUBLESHOOT THE ROOFTOP UNIT.
C. HIGH-PRESSURE SWITCH.
1. UNITS WITH 2 COMPRESSORS SHALL HAVE DIFFERENT SIZED CONNECTORS FOR THE CIRCUIT 1 AND CIRCUIT 2 LOW AND HIGH PRESSURE SWITCHES. THEY SHALL PHYSICALLY PREVENT THE CROSS-WIRING OF THE SAFETY SWITCHES BETWEEN CIRCUITS 1 AND 2.
2. HIGH PRESSURE SWITCH SHALL USE DIFFERENT COLOR WIRE THAN THE LOW PRESSURE SWITCH. THE PURPOSE IS TO ASSIST THE INSTALLER AND SERVICE TECHNICIAN TO CORRECTLY WIRE AND OR TROUBLESHOOT THE ROOFTOP UNIT.
D. AUTOMATIC RESET, MOTOR THERMAL OVERLOAD PROTECTOR.
E. HEATING SECTION SHALL BE PROVIDED WITH THE FOLLOWING MINIMUM PROTECTIONS:
1. HIGH-TEMPERATURE LIMIT SWITCHES.
2. INDUCED DRAFT MOTOR SPEED SENSOR.
3. FLAME ROLLOUT SWITCH.
4. FLAME PROVING CONTROLS.
PART 4: SEQUENCE OF OPERATIONS FOR HVAC CONTROLS
DECENTRALIZED, ROOFTOP UNITS:
4.1. INSERT SEQUENCE OF OPERATION
A. SEE SQUENE OF OPERATION FOR RTU & RTU WITH ERV.
PART 5: PANEL AIR FILTERS
DECENTRALIZED, ROOFTOP UNITS:
5.1. STANDARD FILTER SECTION
A. SHALL CONSIST OF FACTORY-INSTALLED, LOW VELOCITY, DISPOSABLE 2-IN. THICK FIBERGLASS FILTERS OF COMMERCIALLY AVAILABLE SIZES.
B. UNIT SHALL USE ONLY ONE FILTER SIZE. MULTIPLE SIZES ARE NOT ACCEPTABLE.
C. FILTERS SHALL BE ACCESSIBLE THROUGH AN ACCESS PANEL WITH "NO-TOOL" REMOVAL AS DESCRIBED IN THE UNIT CABINET SECTION OF THIS SPECIFICATION.
PART 6: SELF-CONTAINED AIR CONDITIONERS
SMALL-CAPACITY SELF-CONTAINED AIR CONDITIONERS (48HC**04-14)
6.1. GENERAL
A. OUTDOOR, ROOFTOP MOUNTED, ELECTRICALLY CONTROLLED, HEATING AND COOLING UNIT UTILIZING A FULLY HERMETIC SCROLL COMPRESSOR(S) FOR COOLING DUTY AND GAS COMBUSTION FOR HEATING DUTY.
B. FACTORY ASSEMBLED, SINGLE-PIECE HEATING AND COOLING ROOFTOP UNIT. CONTAINED WITHIN THE UNIT ENCLOSURE SHALL BE ALL FACTORY WIRING, PIPING, CONTROLS, AND SPECIAL FEATURES REQUIRED PRIOR TO FIELD START-UP.
C. UNIT SHALL USE ENVIRONMENTALLY SOUND, PURONÃ REFRIGERANT.
D. UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
E. UNIT MUST BE SELECTED AND INSTALLED IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL CODES.
6.1. QUALITY ASSURANCE
A. UNIT MEETS ASHRAE 90.1 MINIMUM EFFICIENCY REQUIREMENTS.
B. 3-PHASE UNITS ARE ENERGY STAR CERTIFIED.
C. UNIT SHALL BE RATED IN ACCORDANCE WITH AHRI STANDARDS 340/360.
D. UNIT SHALL BE DESIGNED TO CONFORM TO ASHRAE 15- 2001.
E. UNIT SHALL BE UL-TESTED AND CERTIFIED IN ACCORDANCE WITH ANSI Z21.47 STANDARDS AND UL OR ETL-LISTED AND CERTIFIED UNDER CANADIAN STANDARDS AS A TOTAL PACKAGE FOR SAFETY REQUIREMENTS.
F. INSULATION AND ADHESIVE SHALL MEET NFPA 90A REQUIREMENTS FOR FLAME SPREAD AND SMOKE GENERATION.
G. UNIT CASING SHALL BE CAPABLE OF WITHSTANDING 500-HOUR SALT SPRAY EXPOSURE PER ASTM B117 (SCRIBED SPECIMEN).
H. UNIT CASING SHALL BE CAPABLE OF WITHSTANDING FEDERAL TEST METHOD STANDARD NO. 141 (METHOD 6061) 500-HOUR SALT SPRAY.
I. UNIT SHALL BE DESIGNED IN ACCORDANCE WITH ISO 9001, AND SHALL BE MANUFACTURED IN A FACILITY REGISTERED BY ISO 9001.
J. ROOF CURB SHALL BE DESIGNED TO CONFORM TO NRCA STANDARDS.
K. UNIT SHALL BE SUBJECTED TO A COMPLETELY AUTOMATED RUN TEST ON THE ASSEMBLY LINE. THE DATA FOR EACH UNIT WILL BE STORED AT THE FACTORY, AND MUST BE AVAILABLE UPON REQUEST.
L. UNIT SHALL BE DESIGNED IN ACCORDANCE WITH UL STANDARD 1995, INCLUDING TESTED TO WITHSTAND RAIN.
M. UNIT SHALL BE CONSTRUCTED TO PREVENT INTRUSION OF SNOW AND TESTED TO PREVENT SNOW INTRUSION INTO THE CONTROL BOX UP TO 40 MPH.
N. UNIT SHAKE TESTED TO ASSURANCE LEVEL 1, ASTM D4169 TO ENSURE SHIPPING RELIABILITY.
O. HIGH EFFICIENT MOTORS LISTED SHALL MEET SECTION 313 OF THE ENERGY INDEPENDENCE AND SECURITY ACT OF 2007 (EISA 2007).
6.1. DELIVERY, STORAGE, AND HANDLING
A. UNIT SHALL BE STORED AND HANDLED PER MANUFACTURER'S RECOMMENDATIONS.
B. LIFTED BY CRANE REQUIRES EITHER SHIPPING TOP PANEL OR SPREADER BARS.
C. UNIT SHALL ONLY BE STORED OR POSITIONED IN THE UPRIGHT POSITION.
6.1. PROJECT CONDITIONS
A. AS SPECIFIED IN THE CONTRACT.
6.1. OPERATING CHARACTERISTICS
A. UNIT SHALL BE CAPABLE OF STARTING AND RUNNING AT 125°F (52°C) AMBIENT OUTDOOR TEMPERATURE, MEETING MAXIMUM LOAD CRITERIA OF AHRI STANDARD 210/240 OR 340/360 AT ± 10% VOLTAGE.
B. COMPRESSOR WITH STANDARD CONTROLS SHALL BE CAPABLE OF OPERATION DOWN TO 35°F (2°C), AMBIENT OUTDOOR TEMPERATURES. ACCESSORY LOW AMBIENT KITS SHALL BE AVAILABLE IF OPERATION BELOW 35°F (2°C), IS REQUIRED. SEE BELOW FOR HEAD PRESSURE CONTROL PACKAGE OR WINTER START KIT.
C. UNIT SHALL DISCHARGE SUPPLY AIR VERTICALLY OR HORIZONTALLY AS SHOWN ON CONTRACT DRAWINGS.
D. UNIT SHALL BE FACTORY CONFIGURED FOR VERTICAL SUPPLY & RETURN CONFIGURATIONS.
E. UNIT SHALL BE FIELD CONVERTIBLE FROM VERTICAL TO HORIZONTAL AIRFLOW ON ALL MODELS, NO SPECIAL KIT REQUIRED.
F. UNIT SHALL BE CAPABLE OF MIXED OPERATION: VERTICAL SUPPLY WITH HORIZONTAL RETURN OR HORIZONTAL SUPPLY WITH VERTICAL RETURN.
6.1. ELECTRICAL REQUIREMENTS
A. MAIN POWER SUPPLY VOLTAGE, PHASE, AND FREQUENCY MUST MATCH THOSE REQUIRED BY THE MANUFACTURER.
6.1. UNIT CABINET
A. UNIT CABINET SHALL BE CONSTRUCTED OF GALVANIZED STEEL, AND SHALL BE BONDERIZED AND COATED WITH A PRE-PAINTED BAKED ENAMEL FINISH ON ALL EXTERNALLY EXPOSED SURFACES.
B. UNIT CABINET EXTERIOR PAINT SHALL BE: FILM THICKNESS, (DRY) 0.003 INCHES MINIMUM, GLOSS (PER ASTM D523, 60°F / 16°C): 60, HARDNESS: H-2H PENCIL HARDNESS.
C. EVAPORATOR FAN COMPARTMENT INTERIOR CABINET INSULATION SHALL CONFORM TO AHRI STANDARDS 340/360 MINIMUM EXTERIOR SWEAT CRITERIA. INTERIOR SURFACES SHALL BE INSULATED WITH A MINIMUM 1/2-IN. THICK, 1 LB DENSITY, FLEXIBLE FIBERGLASS INSULATION, NEOPRENE COATED ON THE AIR SIDE. ALUMINUM FOIL-FACED FIBERGLASS INSULATION SHALL BE USED IN THE GAS HEAT COMPARTMENT.
D. BASE OF UNIT SHALL HAVE A MINIMUM OF FOUR LOCATIONS FOR THRU-THE-BASE GAS AND ELECTRICAL CONNECTIONS (FACTORY INSTALLED OR FIELD INSTALLED), STANDARD.
E. BASE RAIL
1. UNIT SHALL HAVE BASE RAILS ON A MINIMUM OF 3 SIDES.
2. HOLES SHALL BE PROVIDED IN THE BASE RAILS FOR RIGGING SHACKLES TO FACILITATE MANEUVERING AND OVERHEAD RIGGING.
3. HOLES SHALL BE PROVIDED IN THE BASE RAIL FOR MOVING THE ROOFTOP BY FORK TRUCK.
4. BASE RAIL SHALL BE A MINIMUM OF 16 GAUGE THICKNESS.
F. CONDENSATE PAN AND CONNECTIONS:
1. SHALL BE AN INTERNALLY SLOPED CONDENSATE DRAIN PAN MADE OF A NON-CORROSIVE MATERIAL.
2. SHALL COMPLY WITH ASHRAE STANDARD 62.
3. SHALL USE A 3/4" -14 NPT DRAIN CONNECTION, POSSIBLE EITHER THROUGH THE BOTTOM OR SIDE OF THE DRAIN PAN. CONNECTION SHALL BE MADE PER MANUFACTURER'S RECOMMENDATIONS.
G. TOP PANEL:
1. SHALL BE A SINGLE PIECE TOP PANEL.
H. GAS CONNECTIONS:
1. ALL GAS PIPING CONNECTING TO UNIT GAS VALVE SHALL ENTER THE UNIT CABINET AT A SINGLE LOCATION ON SIDE OF UNIT (HORIZONTAL PLANE).
2. THRU-THE-BASE CAPABILITY
a. STANDARD UNIT SHALL HAVE A THRU-THE-BASE GAS-LINE LOCATION USING A RAISED, EMBOSSED PORTION OF THE UNIT BASEPAN.
b. OPTIONAL, FACTORY-APPROVED, WATER-TIGHT CONNECTION METHOD MUST BE USED FOR THRU-THE-BASE GAS CONNECTIONS.
c. NO BASEPAN PENETRATION, OTHER THAN THOSE AUTHORIZED BY THE MANUFACTURER, IS PERMITTED.
I. ELECTRICAL CONNECTIONS
1. ALL UNIT POWER WIRING SHALL ENTER UNIT CABINET AT A SINGLE, FACTORY-PREPARED, KNOCKOUT LOCATION.
2. THRU-THE-BASE CAPABILITY.
a. STANDARD UNIT SHALL HAVE A THRU-THE-BASE ELECTRICAL LOCATION (S) USING A RAISED, EMBOSSED PORTION OF THE UNIT BASEPAN.
b. OPTIONAL, FACTORY-APPROVED, WATER-TIGHT CONNECTION METHOD MUST BE USED FOR THRU-THE-BASE ELECTRICAL CONNECTIONS.
c. NO BASEPAN PENETRATION, OTHER THAN THOSE AUTHORIZED BY THE MANUFACTURER, IS PERMITTED.
J. COMPONENT ACCESS PANELS (STANDARD)
1. CABINET PANELS SHALL BE EASILY REMOVABLE FOR SERVICING.
2. UNIT SHALL HAVE ONE FACTORY INSTALLED, TOOL-LESS, REMOVABLE, FILTER ACCESS PANEL.
3. PANELS COVERING CONTROL BOX, INDOOR FAN, INDOOR FAN MOTOR, GAS COMPONENTS (WHERE APPLICABLE), AND COMPRESSORS SHALL HAVE A MOLDED COMPOSITE HANDLES.
4. HANDLES SHALL BE UV MODIFIED, COMPOSITE. THEY SHALL BE PERMANENTLY ATTACHED, AND RECESSED INTO THE PANEL.
5. SCREWS ON THE VERTICAL PORTION OF ALL REMOVABLE ACCESS PANEL SHALL ENGAGE INTO HEAT RESISTANT, MOLDED COMPOSITE COLLARS.
6. COLLARS SHALL BE REMOVABLE AND EASILY REPLACEABLE USING MANUFACTURER RECOMMENDED PARTS.
6.1. GAS HEAT
A. GENERAL
1. HEAT EXCHANGER SHALL BE AN INDUCED DRAFT DESIGN. POSITIVE PRESSURE HEAT EXCHANGER DESIGNS SHALL NOT BE ALLOWED.
2. SHALL INCORPORATE A DIRECT-SPARK IGNITION SYSTEM AND REDUNDANT MAIN GAS VALVE.
3. GAS SUPPLY PRESSURE AT THE INLET TO THE ROOFTOP UNIT GAS VALVE MUST MATCH THAT REQUIRED BY THE MANUFACTURER.
B. THE HEAT EXCHANGER SHALL BE CONTROLLED BY AN INTEGRATED GAS CONTROLLER (IGC) MICROPROCESSOR.
1. IGC BOARD SHALL NOTIFY USERS OF FAULT USING AN LED (LIGHT-EMITTING DIODE).
2. THE LED SHALL BE VISIBLE WITHOUT REMOVING THE CONTROL BOX ACCESS PANEL.
3. IGC BOARD SHALL CONTAIN ALGORITHMS THAT MODIFY EVAPORATOR-FAN OPERATION TO PREVENT FUTURE CYCLING ON HIGH TEMPERATURE LIMIT SWITCH.
4. UNIT SHALL BE EQUIPPED WITH ANTI-CYCLE PROTECTION WITH ONE SHORT CYCLE ON UNIT FLAME ROLLOUT SWITCH OR 4 CONTINUOUS SHORT CYCLES ON THE HIGH TEMPERATURE LIMIT SWITCH. FAULT INDICATION SHALL BE MADE USING AN LED.
C. STANDARD HEAT EXCHANGER CONSTRUCTION
1. HEAT EXCHANGER SHALL BE OF THE TUBULAR-SECTION TYPE CONSTRUCTED OF A MINIMUM OF 20-GAUGE STEEL COATED WITH A NOMINAL 1.2 MIL ALUMINUM-SILICONE ALLOY FOR CORROSION RESISTANCE.
2. BURNERS SHALL BE OF THE IN-SHOT TYPE CONSTRUCTED OF ALUMINUM-COATED STEEL.
3. BURNERS SHALL INCORPORATE ORIFICES FOR RATED HEAT OUTPUT UP TO 2000 FT (610M) ELEVATION. ADDITIONAL ACCESSORY KITS MAY BE REQUIRED FOR APPLICATIONS ABOVE 2000 FT (610M) ELEVATION, DEPENDING ON LOCAL GAS SUPPLY CONDITIONS.
4. EACH HEAT EXCHANGER TUBE SHALL CONTAIN MULTIPLE DIMPLES FOR INCREASED HEATING EFFECTIVENESS.
D. INDUCED DRAFT COMBUSTION MOTOR AND BLOWER
1. SHALL BE A DIRECT-DRIVE, SINGLE INLET, FORWARD-CURVED CENTRIFUGAL TYPE.
2. SHALL BE MADE FROM STEEL WITH A CORROSION-RESISTANT FINISH.
3. SHALL HAVE PERMANENTLY LUBRICATED SEALED BEARINGS.
4. SHALL HAVE INHERENT THERMAL OVERLOAD PROTECTION.
5. SHALL HAVE AN AUTOMATIC RESET FEATURE.
6.1. COILS
A. STANDARD ALUMINUM FIN/COPPER TUBE COILS:
1. STANDARD EVAPORATOR AND CONDENSER COILS SHALL HAVE ALUMINUM LANCED PLATE FINS MECHANICALLY BONDED TO SEAMLESS INTERNALLY GROOVED COPPER TUBES WITH ALL JOINTS BRAZED.
2. EVAPORATOR COILS SHALL BE LEAK TESTED TO 150 PSIG; PRESSURE TESTED TO 450 PSIG, AND QUALIFIED TO UL 1995 BURST TEST AT 1775 PSIG.
3. CONDENSER COILS SHALL BE LEAK TESTED TO 150 PSIG; PRESSURE TESTED TO 650 PSIG, AND QUALIFIED TO UL 1995 BURST TEST AT 1980 PSIG.
6.1. REFRIGERANT COMPONENTS
A. REFRIGERANT CIRCUIT SHALL INCLUDE THE FOLLOWING CONTROL, SAFETY, AND MAINTENANCE FEATURES:
1. THERMOSTATIC EXPANSION VALVE (TXV) SHALL HELP PROVIDE OPTIMUM PERFORMANCE ACROSS THE ENTIRE OPERATING RANGE. SHALL CONTAIN REMOVABLE POWER ELEMENT TO ALLOW CHANGE OUT OF POWER ELEMENT AND BULB WITHOUT REMOVING THE VALVE BODY.
2. REFRIGERANT FILTER DRIER - SOLID CORE DESIGN.
3. SERVICE GAUGE CONNECTIONS ON SUCTION AND DISCHARGE LINES.
4. PRESSURE GAUGE ACCESS THROUGH A SPECIALLY DESIGNED ACCESS PORT IN THE TOP PANEL OF THE UNIT.
B. THERE SHALL BE GAUGE LINE ACCESS PORT IN THE SKIN OF THE ROOFTOP, COVERED BY A BLACK, REMOVABLE PLUG.
1. THE PLUG SHALL BE EASY TO REMOVE AND REPLACE.
2. WHEN THE PLUG IS REMOVED, THE GAUGE ACCESS PORT SHALL ENABLE MAINTENANCE PERSONNEL TO ROUTE THEIR PRESSURE GAUGE LINES.
3. THIS GAUGE ACCESS PORT SHALL FACILITATE CORRECT AND ACCURATE CONDENSER PRESSURE READINGS BY ENABLING THE READING WITH THE COMPRESSOR ACCESS PANEL ON.
4. THE PLUG SHALL BE MADE OF A LEAK PROOF, UV-RESISTANT, COMPOSITE MATERIAL.
C. COMPRESSORS
1. UNIT SHALL USE FULLY HERMETIC, SCROLL COMPRESSOR FOR EACH INDEPENDENT REFRIGERATION CIRCUIT.
2. MODELS SHALL BE AVAILABLE WITH SINGLE COMPRESSOR/SINGLE STAGE COOLING DESIGNS ON 04 - 07 SIZES MODELS, AND 2 COMPRESSOR/2-STAGE COOLING MODELS ON 08 - 14 SIZES.
3. MODELS SHALL BE AVAILABLE WITH SINGLE COMPRESSOR/SINGLE STAGE COOLING DESIGNS ON 04 - 07 SIZES MODELS, AND 2 COMPRESSOR/2-STAGE COOLING MODELS ON 08 - 14 SIZES.
4. COMPRESSOR MOTORS SHALL BE COOLED BY REFRIGERANT GAS PASSING THROUGH MOTOR WINDINGS.
5. COMPRESSORS SHALL BE INTERNALLY PROTECTED FROM HIGH DISCHARGE TEMPERATURE CONDITIONS.
6. COMPRESSORS SHALL BE PROTECTED FROM AN OVER-TEMPERATURE AND OVER-AMPERAGE CONDITIONS BY AN INTERNAL, MOTOR OVERLOAD DEVICE.
7. COMPRESSOR SHALL BE FACTORY MOUNTED ON RUBBER GROMMETS.
8. COMPRESSOR MOTORS SHALL HAVE INTERNAL LINE BREAK THERMAL, CURRENT OVERLOAD AND HIGH PRESSURE DIFFERENTIAL PROTECTION.
9. CRANKCASE HEATERS SHALL NOT BE REQUIRED FOR NORMAL OPERATING RANGE, UNLESS PROVIDED BY THE FACTORY.
6.1. FILTER SECTION
A. FILTERS ACCESS IS SPECIFIED IN THE UNIT CABINET SECTION OF THIS SPECIFICATION.
B. FILTERS SHALL BE HELD IN PLACE BY A PIVOTING FILTER TRAY, FACILITATING EASY REMOVAL AND INSTALLATION.
C. SHALL CONSIST OF FACTORY-INSTALLED, LOW VELOCITY, THROW-AWAY 2-IN. THICK FIBERGLASS FILTERS.
D. FILTERS SHALL BE STANDARD, COMMERCIALLY AVAILABLE SIZES.
E. ONLY ONE SIZE FILTER PER UNIT IS ALLOWED.
6.1. EVAPORATOR FAN AND MOTOR
A. EVAPORATOR FAN MOTOR:
1. SHALL HAVE PERMANENTLY LUBRICATED BEARINGS.
2. SHALL HAVE INHERENT AUTOMATIC-RESET THERMAL OVERLOAD PROTECTION OR CIRCUIT BREAKER.
3. SHALL HAVE A MAXIMUM CONTINUOUS BHP RATING FOR CONTINUOUS DUTY OPERATION; NO SAFETY FACTORS ABOVE THAT RATING SHALL BE REQUIRED.
B. BELT-DRIVEN EVAPORATOR FAN:
1. BELT DRIVE SHALL INCLUDE AN ADJUSTABLE-PITCH MOTOR PULLEY.
2. SHALL USE SEALED, PERMANENTLY LUBRICATED BALL-BEARING TYPE.
3. BLOWER FAN SHALL BE DOUBLE-INLET TYPE WITH FORWARD-CURVED BLADES.
4. SHALL BE CONSTRUCTED FROM STEEL WITH A CORROSION RESISTANT FINISH AND DYNAMICALLY BALANCED.
6.1. CONDENSER FANS AND MOTORS
A. CONDENSER FAN MOTORS:
1. SHALL BE A TOTALLY ENCLOSED MOTOR.
2. SHALL USE PERMANENTLY LUBRICATED BEARINGS.
3. SHALL HAVE INHERENT THERMAL OVERLOAD PROTECTION WITH AN AUTOMATIC RESET FEATURE.
4. SHALL USE A SHAFT-DOWN DESIGN.
B. CONDENSER FANS:
1. SHALL BE A DIRECT-DRIVEN PROPELLER TYPE FAN.
2. SHALL HAVE GALVALUM BLADES RIVETED TO CORROSION-RESISTANT STEEL SPIDERS AND SHALL BE DYNAMICALLY BALANCED.
6.1. SPECIAL FEATURES OPTIONS AND ACCESSORIES
A. STAGED AIR VOLUME SYSTEM (SAV) FOR 2-STAGE COOLING MODELS ONLY:
1. EVAPORATOR FAN MOTOR:
a. SHALL HAVE PERMANENTLY LUBRICATED BEARINGS.
b. SHALL HAVE A MAXIMUM CONTINUOUS BHP RATING FOR CONTINUOUS DUTY OPERATION; NO SAFETY FACTORS ABOVE THAT RATING.
c. SHALL BE VARIABLE FREQUENCY DUTY AND 2-SPEED CONTROL.
d. SHALL CONTAIN MOTOR SHAFT GROUNDING RING TO PREVENT ELECTRICAL BEARING FLUTING DAMAGE BY SAFELY DIVERTING HARMFUL SHAFT VOLTAGES AND BEARING CURRENTS TO GROUND.
B. VARIABLE FREQUENCY DRIVE (VFD). ONLY AVAILABLE ON 2-SPEED INDOOR FAN MOTOR OPTION (SAV):
1. SHALL BE INSTALLED INSIDE THE UNIT CABINET, MOUNTED, WIRED AND TESTED.
2. SHALL CONTAIN ELECTROMAGNETIC INTERFERENCE (EMI) FREQUENCY PROTECTION.
3. INSULATED GATE BI-POLAR TRANSISTORS (IGBT) USED TO PRODUCE THE OUTPUT PULSE WIDTH MODULATED (PWM) WAVEFORM, ALLOWING FOR QUIET MOTOR OPERATION.
4. SELF-DIAGNOSTICS WITH FAULT AND POWER CODE LED INDICATOR. FIELD ACCESSORY DISPLAY KIT AVAILABLE FOR FURTHER DIAGNOSTICS AND SPECIAL SETUP APPLICATIONS.
5. RS485 CAPABILITY STANDARD.
6. ELECTRONIC THERMAL OVERLOAD PROTECTION.
7. 5% SWINGING CHOKES FOR HARMONIC REDUCTION AND IMPROVED POWER FACTOR.
8. ALL PRINTED CIRCUIT BOARDS SHALL BE CONFORMAL COATED.
C. STANDARD INTEGRATED ECONOMIZERS:
1. INTEGRATED, GEAR-DRIVEN OPPOSING MODULATING BLADE DESIGN TYPE CAPABLE OF SIMULTANEOUS ECONOMIZER AND COMPRESSOR OPERATION.
2. INDEPENDENT MODULES FOR VERTICAL OR HORIZONTAL RETURN CONFIGURATIONS SHALL BE AVAILABLE. VERTICAL RETURN MODULES SHALL BE AVAILABLE AS A FACTORY INSTALLED OPTION.
3. DAMPER BLADES SHALL BE GALVANIZED STEEL WITH COMPOSITE GEARS. PLASTIC OR COMPOSITE BLADES ON INTAKE OR RETURN SHALL NOT BE ACCEPTABLE.
4. SHALL INCLUDE ALL HARDWARE AND CONTROLS TO PROVIDE FREE COOLING WITH OUTDOOR AIR WHEN TEMPERATURE AND/OR HUMIDITY ARE BELOW SETPOINTS.
5. SHALL BE EQUIPPED WITH GEAR DRIVEN DAMPERS FOR BOTH THE OUTDOOR VENTILATION AIR AND THE RETURN AIR FOR POSITIVE AIR STREAM CONTROL.
6. STANDARD MODELS SHALL BE EQUIPPED WITH LOW-LEAKAGE DAMPERS, NOT TO EXCEED 2% LEAKAGE AT 1 IN. WG PRESSURE DIFFERENTIAL. ECONOMIZER CONTROLLER ON ELECTROMECHANICAL UNITS SHALL BE HONEYWELL W7212 THAT PROVIDES:
a. COMBINED MINIMUM AND DCV MAXIMUM DAMPER POSITION POTENTIOMETERS WITH COMPRESSOR STAGING RELAY.
b. FUNCTIONS WITH SOLID STATE ANALOG ENTHALPY OR DRY BULB CHANGEOVER CONTROL SENSING.
c. CONTAIN LED INDICATES FOR:
I) WHEN FREE COOLING IS AVAILABLE
II) WHEN MODULE IS IN DCV MODE
III) WHEN EXHAUST FAN CONTACT IS CLOSED
7. ULTRA LOW LEAK ECONOMI$ER X SYSTEM SHALL BE AVAILABLE ON MODELS WITH SAV 2-SPEED VARIABLE FREQUENCY DRIVE (VFD) SYSTEMS. ONLY AVAILABLE ON 2-SPEED INDOOR FAN MOTOR SYSTEMS WITH ELECTROMECHANICAL, COMFORTLINK OR RTU OPEN CONTROLS.
a. MAXIMUM DAMPER LEAKAGE RATE TO BE EQUAL TO OR LESS THAN 4.0 CFM/SQ. FT. AT 1.0 IN. W.G., MEETING OR EXCEEDING ASHRAE 90.1 REQUIREMENTS. ECONOMIZER CONTROLLER ON ELECTROMECHANICAL UNITS SHALL BE HONEYWELL W7220 THAT PROVIDES:
b. 2-LINE LCD INTERFACE SCREEN FOR SETUP, CONFIGURATION AND TROUBLESHOOTING
c. ON-BOARD FAULT DETECTION AND DIAGNOSTICS
d. SENSOR FAILURE LOSS OF COMMUNICATION IDENTIFICATION
e. AUTOMATIC SENSOR DETECTION
f. CAPABILITIES FOR USE WITH MULTIPLE-SPEED INDOOR FAN SYSTEMS
g. UTILIZE DIGITAL SENSORS: DRY BULB AND ENTHALPY
8. SHALL BE CAPABLE OF INTRODUCING UP TO 100% OUTDOOR AIR.
9. SHALL BE EQUIPPED WITH A BAROMETRIC RELIEF DAMPER CAPABLE OF RELIEVING UP TO 100% RETURN AIR.
10. SHALL BE DESIGNED TO CLOSE DAMPER(S) DURING LOSS-OF-POWER SITUATIONS WITH SPRING RETURN BUILT INTO MOTOR.
11. DRY BULB OUTDOOR AIR TEMPERATURE SENSOR SHALL BE PROVIDED AS STANDARD. OUTDOOR AIR SENSOR SETPOINT SHALL BE ADJUSTABLE AND SHALL RANGE FROM 40 TO 100°F / 4 TO 38°C. ADDITIONAL SENSOR OPTIONS SHALL BE AVAILABLE AS ACCESSORIES.
12. THE ECONOMIZER CONTROLLER SHALL ALSO PROVIDE CONTROL OF AN ACCESSORY POWER EXHAUST UNIT FUNCTION. FACTORY SET AT 100%, WITH A RANGE OF 0% TO 100%.
13. THE ECONOMIZER SHALL MAINTAIN MINIMUM AIRFLOW INTO THE BUILDING DURING OCCUPIED PERIOD AND PROVIDE DESIGN VENTILATION RATE FOR FULL OCCUPANCY. A REMOTE POTENTIOMETER MAY BE USED TO OVERRIDE THE DAMPER SETPOINT.
14. DAMPERS SHALL BE COMPLETELY CLOSED WHEN THE UNIT IS IN THE UNOCCUPIED MODE.
15. ECONOMIZER CONTROLLER SHALL ACCEPT A 2-10 VDC CO2 SENSOR INPUT FOR IAQ/DCV CONTROL. IN THIS MODE, DAMPERS SHALL MODULATE THE OUTDOOR AIR DAMPER TO PROVIDE VENTILATION BASED ON THE SENSOR INPUT.
16. COMPRESSOR LOCKOUT SENSOR SHALL OPEN AT 35°F (2°C) AND CLOSE CLOSES AT 50°F (10°C).
17. ACTUATOR SHALL BE DIRECT COUPLED TO ECONOMIZER GEAR. NO LINKAGE ARMS OR CONTROL RODS SHALL BE ACCEPTABLE.
18. ECONOMIZER CONTROLLER SHALL PROVIDE INDICATIONS WHEN IN FREE COOLING MODE, IN THE DCV MODE, OR THE EXHAUST FAN CONTACT IS CLOSED.
D. HACR BREAKER
1. THESE MANUAL RESET DEVICES PROVIDE OVERLOAD AND SHORT CIRCUIT PROTECTION FOR THE UNIT. FACTORY WIRED AND MOUNTED WITH THE UNITS, WITH ACCESS COVER TO HELP PROVIDE ENVIRONMENTAL PROTECTION. ON 575V APPLICATIONS, HACR BREAKER CAN ONLY BE USED WITH WYE POWER DISTRIBUTION SYSTEMS. USE ON DELTA POWER DISTRIBUTION SYSTEMS IS PROHIBITED.
E. CONVENIENCE OUTLET:
1. POWERED CONVENIENCE OUTLET:
a. OUTLET SHALL BE POWERED FROM MAIN LINE POWER TO THE ROOFTOP UNIT.
b. OUTLET SHALL BE POWERED FROM LINE SIDE OR LOAD SIDE OF DISCONNECT BY INSTALLING CONTRACTOR, AS REQUIRED BY CODE. IF OUTLET IS POWERED FROM LOAD SIDE OF DISCONNECT, UNIT ELECTRICAL RATINGS SHALL BE UL OR ETL CERTIFIED AND RATED FOR ADDITIONAL OUTLET AMPERAGE.
c. OUTLET SHALL BE FACTORY-INSTALLED AND INTERNALLY MOUNTED WITH EASILY ACCESSIBLE 115-V FEMALE RECEPTACLE.
d. OUTLET SHALL INCLUDE 15 AMP GFI RECEPTACLES WITH INDEPENDENT FUSE PROTECTION.
e. VOLTAGE REQUIRED TO OPERATE CONVENIENCE OUTLET SHALL BE PROVIDED BY A FACTORY-INSTALLED STEP-DOWN TRANSFORMER.
f. OUTLET SHALL BE ACCESSIBLE FROM OUTSIDE THE UNIT.
g. OUTLET SHALL INCLUDE A FIELD-INSTALLED "WET IN USE" COVER.
F. SMOKE DETECTORS:
1. SHALL BE A FOUR-WIRE CONTROLLER AND DETECTOR.
2. SHALL BE ENVIRONMENTAL COMPENSATED WITH DIFFERENTIAL SENSING FOR RELIABLE, STABLE, AND DRIFT-FREE SENSITIVITY.
3. SHALL USE MAGNET-ACTIVATED TEST/RESET SENSOR SWITCHES.
4. SHALL HAVE TOOL-LESS CONNECTION TERMINAL ACCESS.
5. SHALL HAVE A RECESSED MOMENTARY SWITCH FOR TESTING AND RESETTING THE DETECTOR.
6. CONTROLLER SHALL INCLUDE:
a. ONE SET OF NORMALLY OPEN ALARM INITIATION CONTACTS FOR CONNECTION TO AN INITIATING DEVICE CIRCUIT ON A FIRE ALARM CONTROL PANEL.
b. TWO FORM-C AUXILIARY ALARM RELAYS FOR INTERFACE WITH ROOFTOP UNIT OR OTHER EQUIPMENT.
c. ONE FORM-C SUPERVISION (TROUBLE) RELAY TO CONTROL THE OPERATION OF THE TROUBLE LED ON A REMOTE TEST/RESET STATION.
d. CAPABLE OF DIRECT CONNECTION TO TWO INDIVIDUAL DETECTOR MODULES.
e. CAN BE WIRED TO UP TO 14 OTHER DUCT SMOKE DETECTORS FOR MULTIPLE FAN SHUTDOWN APPLICATIONS

GUIDE SPECIFICATIONS

RTU CONTROL OPERATOR INTERFACE

1.1 BOOFOO

A. DESCRIPTION. THE CONTROL SYSTEM SHALL BE AS SHOWN AND CONSIST OF A HIGH-SPEED, PEER-TO-PEER NETWORK OF DDC CONTROLLERS AND A STANDALONE WEB SERVER OPERATOR INTERFACE. DEPICT EACH MECHANICAL SYSTEM AND BUILDING FLOOR PLAN BY A POINT-AND-CLICK GRAPHIC. A WEB SERVER SHALL GATHER DATA FROM THIS SYSTEM AND GENERATE WEB PAGES ACCESSIBLE THROUGH A CONVENTIONAL WEB BROWSER ON EACH PC CONNECTED TO THE NETWORK. OPERATORS SHALL BE ABLE TO PERFORM ALL NORMAL OPERATOR FUNCTIONS THROUGH THE WEB BROWSER INTERFACE. OPERATORS WITH SUFFICIENT ACCESS LEVEL SHALL HAVE AN ABILITY TO MAKE CHANGES TO ALL SYSTEM AND EQUIPMENT GRAPHICS IN THE WEB SERVER IN ADDITION TO HAVING FULL DDC SYSTEM ACCESS TO MAKE CONFIGURATION CHANGES TO THE CONTROL SYSTEM. ANY TOOLS REQUIRED FOR MAKING GRAPHIC CHANGES SHALL BE PROVIDED WITH WEB SERVER.

B. OPERATOR INTERFACE. FURNISH ONE WEB SERVER INTERFACE AS SHOWN ON THE SYSTEM DRAWINGS. OPERATORS SHALL BE ABLE TO ACCESS ALL NECESSARY OPERATIONAL INFORMATION IN THE DDC SYSTEM VIA CLIENT COMPUTER UTILIZING WEB BROWSER.
1. WEB SERVER SHALL CONNECT VIA THE LAN AND BE ABLE TO SIMULTANEOUSLY SERVE UP CONTROLLER INFORMATION TO MULTIPLE OPERATORS CONNECTED VIA LAN WITH WEB BROWSERS. EACH CLIENT WEB BROWSER CONNECTED TO SERVER SHALL BE ABLE TO ACCESS ALL SYSTEM INFORMATION.
2. WITH THE USE OF A REMOTE SMTP EMAIL SERVER THE OPERATORS INTERFACE WEB SERVER SHALL BE ABLE TO NOTIFY PERSONNEL OF AN ALARM OR RECORD INFORMATION ABOUT AN ALARM IN THE DDC SYSTEM.
3. SECONDARY INTERFACE, IN ADDITION TO THE PRIMARY OPERATOR INTERFACE, THE SYSTEM SHALL INCLUDE A SECONDARY INTERFACE COMPATIBLE WITH A LOCALLY AVAILABLE COMMERCIAL WIRELESS NETWORK AND VIEWABLE ON A COMMERCIALLY AVAILABLE WIRELESS DEVICE SUCH AS A WIRELESS ACCESS PROTOCOL (WAP) ENABLED CELLULAR TELEPHONE AND TABLET DEVICES. AS A MINIMUM, THE FOLLOWING CAPABILITIES SHALL BE PROVIDED THROUGH THIS INTERFACE:
a. SECONDARY INTERFACE WITH SCREEN RESOLUTION 1024X768 AND ABOVE SHALL BE ABLE TO PROVIDE A FULL GRAPHICAL ENVIRONMENT AS THE PRIMARY INTERFACE.
b. SECONDARY INTERFACE WITH SCREEN RESOLUTION LOWER THAN 1024X768 MAY BE TEXT-BASED AND SHALL PROVIDE A SUMMARY OF THE MOST IMPORTANT DATA. AS A MINIMUM, THE FOLLOWING CAPABILITIES SHALL BE PROVIDED THROUGH THIS INTERFACE:
1) AN OPERATOR AUTHENTICATION SYSTEM THAT REQUIRES AN OPERATOR TO LOG IN BEFORE VIEWING OR EDITING ANY DATA, AND WHICH CAN BE CONFIGURED TO LIMIT THE PRIVILEGES OF AN INDIVIDUAL OPERATOR.
2) THE ABILITY TO VIEW AND ACKNOWLEDGE ANY ALARM IN THE SYSTEM. ALARMS OR LINKS TO ALARMS SHALL BE PROVIDED ON A CONTIGUOUS LIST SO THE OPERATOR CAN QUICKLY VIEW ALL ALARMS.
3) A SUMMARY PAGE OR PAGES FOR EACH PIECE OF EQUIPMENT IN THE SYSTEM. THIS PAGE SHALL INCLUDE THE CURRENT VALUES OF ALL CRITICAL I/O POINTS AND SHALL ALLOW THE OPERATOR TO LOCK BINARY POINTS ON OR OFF AND TO LOCK ANALOG POINTS TO ANY VALUE WITHIN THEIR RANGE.
4) NAVIGATION LINKS THAT ALLOW THE OPERATOR TO QUICKLY NAVIGATE FROM THE HOME SCREEN TO ANY PIECE OF EQUIPMENT IN THE SYSTEM, AND THEN RETURN TO THE HOME SCREEN. THESE LINKS MAY BE ARRANGED IN A HIERARCHICAL FASHION, SUCH AS NAVIGATING FROM THE HOME SCREEN TO A PARTICULAR BUILDING, THEN TO A SPECIFIC FLOOR IN THE BUILDING, AND THEN TO A SPECIFIC ROOM OR PIECE OF EQUIPMENT.

C. WEB SERVER HARDWARE. FURNISH ONE WEB SERVER WITH ETHERNET PORT FOR LAN OR DIRECT OPERATOR CLIENT COMPUTER ACCESS. THE WEB SERVER SHALL BE CAPABLE OF COMMUNICATING TO THE PEER TO PEER DDC CONTROLLER NETWORK. ANY REQUIRED INSTALLATION OR COMMISSIONING SOFTWARE SHALL BE PRE-INSTALLED ON THE WEB SERVER. INSTALLATION OR COMMISSIONING OF THE WEB SERVER SHALL BE DONE THROUGH A CLIENT COMPUTER WITH A STANDARD WEB BROWSER.

D. COMMUNICATION. WEB SERVER OR WORKSTATION AND CONTROLLERS SHALL COMMUNICATE USING BACNET PROTOCOL. WEB SERVER OR WORKSTATION AND CONTROL NETWORK BACKBONE SHALL COMMUNICATE USING ISO 8802-3 (ETHERNET) DATA LINK/PHYSICAL LAYER PROTOCOL AND BACNET/IP ADDRESSING AS SPECIFIED IN ANSI/ASHRAE 135, BACNET ANNEX J.

E. OPERATOR FUNCTIONS. OPERATOR INTERFACE SHALL ALLOW EACH AUTHORIZED OPERATOR TO EXECUTE THE FOLLOWING FUNCTIONS AS A MINIMUM:
1. LOG IN AND LOG OUT. SYSTEM SHALL REQUIRE USER NAME AND PASSWORD TO LOG IN TO OPERATOR INTERFACE.
2. POINT-AND-CLICK NAVIGATION. OPERATOR INTERFACE SHALL BE GRAPHICALLY BASED AND SHALL ALLOW OPERATORS TO ACCESS GRAPHICS FOR EQUIPMENT AND GEOGRAPHIC AREAS USING POINT-AND-CLICK NAVIGATION.
3. VIEW AND ADJUST EQUIPMENT PROPERTIES. OPERATORS SHALL BE ABLE TO VIEW CONTROLLED EQUIPMENT STATUS AND TO ADJUST OPERATING PARAMETERS SUCH AS SET POINTS, PID GAINS, ON AND OFF CONTROLS, AND SENSOR CALIBRATION.
4. VIEW AND ADJUST OPERATING SCHEDULES. OPERATORS SHALL BE ABLE TO VIEW SCHEDULED OPERATING HOURS OF EACH SCHEDULABLE PIECE OF EQUIPMENT ON A WEEKLY OR MONTHLY CALENDAR-BASED GRAPHICAL SCHEDULE DISPLAY, TO SELECT AND ADJUST EACH SCHEDULE AND TIME PERIOD, AND TO SIMULTANEOUSLY SCHEDULE RELATED EQUIPMENT. SYSTEM SHALL CLEARLY SHOW EXCEPTION SCHEDULES AND HOLIDAYS ON THE SCHEDULE DISPLAY.
5. VIEW AND RESPOND TO ALARMS. OPERATORS SHALL BE ABLE TO VIEW A LIST OF CURRENTLY ACTIVE SYSTEM ALARMS, TO ACKNOWLEDGE EACH ALARM, AND TO CLEAR (DELETE) UNNEEDED ALARMS. REMOTE USERS SHALL BE ABLE TO RECEIVE ALARMS VIA EMAILS OR CELL PHONE TEXT MESSAGES.
6. VIEW AND CONFIGURE TRENDS. OPERATORS SHALL BE ABLE TO VIEW A TREND GRAPH OF EACH TRENDED POINT AND TO EDIT GRAPH CONFIGURATION TO DISPLAY A SPECIFIC TIME PERIOD OR DATA RANGE. OPERATOR SHALL BE ABLE TO CREATE CUSTOM TREND GRAPHS TO DISPLAY ON THE SAME PAGE DATA FROM MULTIPLE TRENDED POINTS.
7. VIEW AND CONFIGURE REPORTS. OPERATORS SHALL BE ABLE TO RUN PRECONFIGURED REPORTS, TO VIEW REPORT RESULTS, AND TO CUSTOMIZE REPORT CONFIGURATION TO SHOW DATA OF INTEREST.
8. MANAGE CONTROL SYSTEM HARDWARE. OPERATORS SHALL BE ABLE TO VIEW CONTROLLER STATUS, TO RESTART (REBOOT) EACH CONTROLLER, AND TO DOWNLOAD NEW CONTROL SOFTWARE TO EACH CONTROLLER.
9. MANAGE OPERATOR ACCESS. TYPICALLY, ONLY A FEW OPERATORS ARE AUTHORIZED TO MANAGE OPERATOR ACCESS. AUTHORIZED OPERATORS SHALL BE ABLE TO VIEW A LIST OF OPERATORS WITH SYSTEM ACCESS AND OF FUNCTIONS THEY CAN PERFORM WHILE LOGGED IN. OPERATORS SHALL BE ABLE TO ADD OPERATORS, TO DELETE OPERATORS, AND TO EDIT OPERATOR FUNCTION AUTHORIZATION. OPERATOR SHALL BE ABLE TO AUTHORIZE EACH OPERATOR FUNCTION SEPARATELY.

F. SYSTEM SOFTWARE.
1. OPERATING SYSTEM AND REQUIRED SOFTWARE. WEB SERVER OPERATOR INTERFACE SHALL BE A SELF-CONTAINED WEB SERVER WITHOUT THE NEED FOR ANY TYPE OF MAINTENANCE.
2. SYSTEM GRAPHICS. OPERATOR INTERFACE SHALL BE GRAPHICAL AND SHALL INCLUDE AT LEAST ONE GRAPHIC PER PIECE OF EQUIPMENT OR OCCUPIED ZONE, GRAPHICS FOR EACH CHILLED WATER AND HOT WATER SYSTEM, AND GRAPHICS THAT SUMMARIZE CONDITIONS ON EACH FLOOR OF EACH BUILDING INCLUDED IN THIS CONTRACT. INDICATE THERMAL COMFORT ON FLOOR PLAN SUMMARY GRAPHICS USING DYNAMIC COLORS TO REPRESENT ZONE TEMPERATURE RELATIVE TO ZONE SETPOINT.
a. FUNCTIONALITY. GRAPHICS SHALL ALLOW OPERATOR TO MONITOR SYSTEM STATUS, TO VIEW A SUMMARY OF THE MOST IMPORTANT DATA FOR EACH CONTROLLED ZONE OR PIECE OF EQUIPMENT, TO USE POINT-AND-CLICK NAVIGATION BETWEEN ZONES OR EQUIPMENT, AND TO EDIT SETPOINTS AND OTHER SPECIFIED PARAMETERS.
b. ANIMATION. GRAPHICS SHALL BE ABLE TO ANIMATE BY DISPLAYING DIFFERENT IMAGE FILES FOR CHANGED OBJECT STATUS.
c. ALARM INDICATION. INDICATE AREAS OR EQUIPMENT IN AN ALARM CONDITION USING COLOR OR OTHER VISUAL INDICATOR.
d. FORMAT. GRAPHICS SHALL BE SAVED IN AN INDUSTRY-STANDARD FORMAT SUCH AS BMP, JPEG, PNG, OR GIF. WEB-BASED SYSTEM GRAPHICS SHALL BE VIEWABLE ON BROWSERS COMPATIBLE WITH WORLD WIDE WEB CONSORTIUM BROWSER STANDARDS. WEB GRAPHIC FORMAT SHALL REQUIRE NO PLUG-IN (SUCH AS HTML AND JAVASCRIPT) OR SHALL ONLY REQUIRE WIDELY AVAILABLE NO-COST PLUG-INS.

G. SYSTEM TOOLS. SYSTEM SHALL PROVIDE THE FOLLOWING FUNCTIONALITY TO AUTHORIZED OPERATORS AS AN INTEGRAL PART OF THE OPERATOR INTERFACE OR AS STAND-ALONE SOFTWARE PROGRAMS. IF FURNISHED AS PART OF THE INTERFACE, THE TOOL SHALL BE AVAILABLE FROM EACH WORKSTATION OR WEB BROWSER INTERFACE. IF FURNISHED AS A STAND-ALONE PROGRAM, SOFTWARE SHALL BE INSTALLABLE ON STANDARD WINDOWS COMPATIBLE PCS WITH NO LIMIT ON THE NUMBER OF COPIES THAT CAN BE INSTALLED UNDER THE SYSTEM LICENSE.
1. AUTOMATIC SYSTEM DATABASE CONFIGURATION. EACH WEB SERVER SHALL STORE INTERNALLY STORE A COPY OF THE CURRENT SYSTEM DATABASE, INCLUDING CONTROLLER FIRMWARE AND SOFTWARE. STORED DATABASE SHALL BE AUTOMATICALLY UPDATED WITH EACH SYSTEM CONFIGURATION OR CONTROLLER FIRMWARE OR SOFTWARE CHANGE.
2. CONTROLLER MEMORY DOWNLOAD. OPERATORS SHALL BE ABLE TO DOWNLOAD MEMORY FROM THE SYSTEM DATABASE TO EACH CONTROLLER.
3. SYSTEM CONFIGURATION. OPERATORS SHALL BE ABLE TO CONFIGURE THE SYSTEM.
4. ONLINE HELP. CONTEXT-SENSITIVE ONLINE HELP FOR EACH TOOL SHALL ASSIST OPERATORS IN OPERATING AND EDITING THE SYSTEM.
5. SECURITY. SYSTEM SHALL REQUIRE A USER NAME AND PASSWORD TO VIEW, EDIT, ADD, OR DELETE DATA.
a. OPERATOR ACCESS. EACH USER NAME AND PASSWORD COMBINATION SHALL DEFINE ACCESSIBLE VIEWING, EDITING, ADDING, AND DELETING FUNCTIONS IN EACH SYSTEM APPLICATION, EDITOR, AND OBJECT.
b. AUTOMATIC LOG OUT. AUTOMATICALLY LOG OUT EACH OPERATOR IF NO KEYBOARD OR MOUSE ACTIVITY IS DETECTED. OPERATORS SHALL BE ABLE TO ADJUST AUTOMATIC LOG OUT DELAY.
c. ENCRYPTED SECURITY DATA. STORE SYSTEM SECURITY DATA INCLUDING OPERATOR PASSWORDS IN AN ENCRYPTED FORMAT. SYSTEM SHALL NOT DISPLAY OPERATOR PASSWORDS.
6. SYSTEM DIAGNOSTICS. SYSTEM SHALL AUTOMATICALLY MONITOR CONTROLLER AND I/O POINT OPERATION. SYSTEM SHALL ANNUNCIATE CONTROLLER FAILURE AND I/O POINT LOCKING (MANUAL OVERRIDING TO A FIXED VALUE).
7. ALARM PROCESSING. SYSTEM INPUT AND STATUS OBJECTS SHALL BE CONFIGURABLE TO ALARM ON DEPARTING FROM AND ON RETURNING TO NORMAL STATE. OPERATOR SHALL BE ABLE TO ENABLE OR DISABLE EACH ALARM AND TO CONFIGURE ALARM LIMITS, ALARM LIMIT DIFFERENTIALS, ALARM STATES, AND ALARM REACTIONS FOR EACH SYSTEM OBJECT. CONFIGURE AND ENABLE ALARM POINTS AS SPECIFIED IN POINTS LIST. ALARMS SHALL BE BACNET ALARM OBJECTS AND SHALL USE BACNET ALARM SERVICES.
8. ALARM MESSAGES. ALARM MESSAGES SHALL USE AN ENGLISH LANGUAGE DESCRIPTOR WITHOUT ACRONYMS OR MNEMONICS TO DESCRIBE ALARM SOURCE, LOCATION, AND NATURE.
9. ALARM REACTIONS. OPERATOR SHALL BE ABLE TO CONFIGURE (BY OBJECT) ACTIONS WORKSTATION OR WEB SERVER SHALL INITIATE ON RECEIPT OF EACH ALARM. AS A MINIMUM, WORKSTATION OR WEB SERVER SHALL BE ABLE TO LOG, PRINT, START PROGRAMS, DISPLAY MESSAGES, SEND E-MAIL, SEND PAGE, AND AUDIBLY ANNUNCIATE.
10. ALARM MAINTENANCE. OPERATORS SHALL BE ABLE TO VIEW SYSTEM ALARMS AND CHANGES OF STATE CHRONOLOGICALLY, TO ACKNOWLEDGE AND DELETE ALARMS, AND TO ARCHIVE CLOSED ALARMS TO THE WORKSTATION OR WEB SERVER FROM EACH WORKSTATION OR WEB BROWSER INTERFACE.
11. TREND CONFIGURATION. OPERATOR SHALL BE ABLE TO CONFIGURE TREND SAMPLE OR CHANGE OF VALUE (COV) INTERVAL, START TIME, AND STOP TIME FOR EACH SYSTEM DATA OBJECT AND SHALL BE ABLE TO RETRIEVE DATA FOR USE IN SPREADSHEETS AND STANDARD DATABASE PROGRAMS. CONTROLLER SHALL SAMPLE AND STORE TREND DATA AND SHALL BE ABLE TO ARCHIVE DATA TO THE HARD DISK. CONFIGURE TRENDS AS SPECIFIED IN POINTS LIST. TRENDS SHALL BE BACNET TREND OBJECTS.
12. OBJECT AND PROPERTY STATUS AND CONTROL. OPERATOR SHALL BE ABLE TO VIEW, AND TO EDIT IF APPLICABLE, THE STATUS OF EACH SYSTEM OBJECT AND PROPERTY BY MENU, ON GRAPHICS.
13. REPORTS AND LOGS. OPERATOR SHALL BE ABLE TO SELECT, TO MODIFY, TO CREATE, AND TO PRINT REPORTS AND LOGS. OPERATOR SHALL BE ABLE TO STORE REPORT DATA IN A FORMAT ACCESSIBLE BY STANDARD SPREADSHEET AND WORD PROCESSING PROGRAMS.
a. STANDARD REPORTS. FURNISH THE FOLLOWING STANDARD SYSTEM REPORTS:
1) REPORTS SHALL BE FILTERED BASED UPON THE SELECTED EQUIPMENT
2) ALARM REPORTS
a) ALARM SUMMARY - CURRENT ALARMS
b) ALARM SOURCES - LIST OF EQUIPMENT AND ASSOCIATED ALARM CONDITIONS
c) ALARM ACTIONS - CONFIGURED ALARM ACTIONS SUCH AS E-MAIL AND ALARM POP-UP
3) SCHEDULE REPORTS
a) EFFECTIVE SCHEDULES - DISPLAYS EFFECTIVE SCHEDULES FOR EACH EQUIPMENT
b) SCHEDULE INSTANCES - DISPLAYS ALL SCHEDULES ENTERED
4) SECURITY REPORTS - MAINTAINS AUDIT OF ALL ACTIONS TAKEN THROUGH USER INTERFACE
5) COMMISSIONING REPORTS - PROVIDE EQUIPMENT CHECKOUT STATUS AND NOTES
6) EQUIPMENT REPORTS - PROVIDE REPORTS SHOWING TRENDED POINTS AND AVAILABLE NETWORK POINTS
b. CUSTOM REPORTS. OPERATOR SHALL BE ABLE TO CREATE CUSTOM REPORTS THAT RETRIEVE DATA, INCLUDING ARCHIVED TREND DATA, FROM THE SYSTEM, THAT ANALYZE DATA USING COMMON ALGEBRAIC CALCULATIONS, AND THAT PRESENT RESULTS IN TABULAR OR GRAPHICAL FORMAT. REPORTS SHALL BE LAUNCHED FROM THE OPERATOR INTERFACE.
14. GRAPHICS GENERATION. GRAPHICALLY BASED TOOLS AND DOCUMENTATION SHALL ALLOW OPERATOR TO EDIT SYSTEM GRAPHICS, TO CREATE GRAPHICS, AND TO INTEGRATE GRAPHICS INTO THE SYSTEM. OPERATOR SHALL BE ABLE TO ADD ANALOG AND BINARY VALUES, DYNAMIC TEXT, STATIC TEXT, AND ANIMATION FILES TO A BACKGROUND GRAPHIC USING A MOUSE.
15. GRAPHICS LIBRARY. COMPLETE LIBRARY OF STANDARD HVAC EQUIPMENT GRAPHICS SHALL INCLUDE EQUIPMENT SUCH AS CHILLERS, BOILERS, AIR HANDLERS, TERMINALS, FAN COILS, AND UNIT VENTILATORS. LIBRARY SHALL INCLUDE STANDARD SYMBOLS FOR OTHER EQUIPMENT INCLUDING FANS, PUMPS, COILS, VALVES, PIPING, DAMPERS, AND DUCTWORK. LIBRARY GRAPHIC FILE FORMAT SHALL BE COMPATIBLE WITH GRAPHICS GENERATION TOOLS.

H. PORTABLE OPERATOR'S TERMINAL. PROVIDE ALL NECESSARY SOFTWARE TO CONFIGURE AN IBM-COMPATIBLE LAPTOP COMPUTER FOR USE AS A PORTABLE OPERATOR'S TERMINAL. OPERATOR SHALL BE ABLE TO CONNECT CONFIGURED TERMINAL TO THE SYSTEM NETWORK OR DIRECTLY TO EACH CONTROLLER FOR PROGRAMMING, SETTING UP, AND TROUBLESHOOTING.

I. CCN (CARRIER COMFORT NETWORK) COMMUNICATION. WEB SERVER OR WORKSTATION SHALL ALSO SUPPORT COMMUNICATION USING CCN PROTOCOL.

J. TIMED OVERRIDE REPORTING (I-VU PLUS OR PRO ONLY)
1. THE DDC SYSTEM SHALL TRACK ALL PUSH BUTTON TIMED OVERRIDE EVENTS DURING UNOCCUPIED PERIODS. THE SYSTEM SHALL STORE TIME OF THE OVERRIDE EVENT AND TIME DURATION FOR EACH OVERRIDE EVENT.
2. WEB SERVER SHALL ALLOW OPERATORS TO CREATE CUSTOM REPORTS DETAILING TIMED OVERRIDE EVENTS. TIMED OVERRIDE REPORTS SHALL ALLOW THE FOLLOWING OPTIONS:
3. MINIMUM BILLING TIME. A MINIMUM AMOUNT OF TIME THAT EACH OVERRIDE EVENT WILL LAST.
4. BILLING RATE. A MONETARY RATE PER HOUR OR PER MINUTE OF THE OVERRIDE DURATION.
5. EXEMPTION TIMES. A DEFINED BLOCK OF TIME DURING EACH WEEK THAT IS EXEMPT FROM DETECTING OVERRIDE EVENTS.
6. ALLOWANCES. A DOLLAR AMOUNT OF OVERRIDE USAGE THAT IS ALLOWED PER TENANT AND IS GIVEN AT NO CHARGE. THIS ALLOWANCE WILL BE SUBTRACTED FROM THE TENANT'S TOTAL OVERRIDE USAGE.

K. WEB SERVICES DATA EXCHANGE (I-VU PLUS OR PRO ONLY)
SYSTEM SHALL SUPPORT WEB SERVICES DATA EXCHANGE WITH ANY OTHER SYSTEM THAT COMPLIES WITH XML (EXTENSIBLE MARKUP LANGUAGE) AND SOAP (SIMPLE OBJECT ACCESS PROTOCOL) STANDARDS SPECIFIED BY THE WEB SERVICES INTEROPERABILITY ORGANIZATION (WS-I) BASIC PROFILE 1.0 OR HIGHER. WEB SERVICES SUPPORT SHALL AS A MINIMUM BE PROVIDED AT THE WORKSTATION OR WEB SERVER LEVEL AND SHALL ENABLE DATA TO BE READ FROM OR WRITTEN TO THE DDC SYSTEM.
1. SYSTEM SHALL SUPPORT WEB SERVICES READ DATA REQUESTS BY RETRIEVING REQUESTED TREND DATA OR POINT VALUES (I/O HARDWARE POINTS, ANALOG VALUE SOFTWARE POINTS, OR BINARY VALUE SOFTWARE POINTS) FROM ANY SYSTEM CONTROLLER OR FROM THE TREND HISTORY DATABASE.
2. SYSTEM SHALL SUPPORT WEB SERVICES WRITE DATA REQUEST TO EACH ANALOG AND BINARY OBJECT THAT CAN BE EDITED THROUGH THE SYSTEM OPERATOR INTERFACE BY DOWNLOADING A NUMERIC VALUE TO THE SPECIFIED OBJECT.
3. FOR READ OR WRITE REQUESTS, THE SYSTEM SHALL REQUIRE USER NAME AND PASSWORD AUTHENTICATION AND SHALL SUPPORT SSL (SECURE SOCKET LAYER) OR EQUIVALENT DATA ENCRYPTION.
4. SYSTEM SHALL SUPPORT DISCOVERY THROUGH A WEB SERVICES CONNECTION OR SHALL PROVIDE A TOOL AVAILABLE THROUGH THE OPERATOR INTERFACE THAT WILL REVEAL THE PATH/IDENTIFIER NEEDED TO ALLOW A THIRD PARTY WEB SERVICES DEVICE TO READ DATA FROM OR WRITE DATA TO ANY OBJECT IN THE SYSTEM WHICH SUPPORTS THIS SERVICE.

L. OPEN PROTOCOL COMMUNICATIONS (I-VU PLUS OR PRO ONLY)
DDC SYSTEM SHALL ALLOW COMMUNICATION TO ANCILLARY SYSTEMS OR CONTROLLERS, SUCH AS LIGHTING SYSTEM OR VFD CONTROLLERS THAT UTILIZE BACNET, MODBUS, OR LONWORKS COMMUNICATION PROTOCOLS. THE QUANTITY OF DATA POINTS AVAILABLE PER PROTOCOL SHALL BE BASED UPON SYSTEM MEMORY AND CAPACITY AND WILL NOT REQUIRE THE PURCHASE OF ADDITIONAL LICENSES OR FEES.
1. BACNET COMMUNICATION
a. DDC SYSTEM SHALL SUPPORT BACNET/IP ADDRESSING AS SPECIFIED IN ASHRAE/ANSI 135, BACNET ANNEX J USING ISO 8802-3 (ETHERNET) DATA LINK/PHYSICAL LAYER PROTOCOL.
b. DDC SYSTEM SHALL SUPPORT BACNET MS/TP COMMUNICATIONS USING EIA-485 TWISTED PAIR TOPOLOGY RUNNING AT 9600, 19200, 38400, AND 76800 BAUD.
2. MODBUS COMMUNICATION
a. DDC SYSTEM SHALL SUPPORT MODBUS RTU/ASCII COMMUNICATIONS OVER EIA-485/EIA-232 TYPE NETWORK AT 9600, 19200, 38400, AND 76800 BAUD.
b. DDC SYSTEM SHALL SUPPORT MODBUS TCP/IP COMMUNICATIONS OVER ISO 8802-3 (ETHERNET) DATA LINK/PHYSICAL LAYER PROTOCOL.
3. LONWORKS COMMUNICATION
a. DDC SYSTEM SHALL SUPPORT LONWORKS COMMUNICATION UTILIZING ANSI/EIA-709.1 COMMUNICATIONS OVER FT-10A NETWORK.
b. COMMUNICATION BETWEEN DEVICES SHALL BE VIA STANDARD NETWORK VARIABLE TYPES (SNVTS)

RTU SEQUENCE OF OPERATIONS

BUILDING AUTOMATION SYSTEM INTERFACE (AS APPLICABLE):

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED / UNOCCUPIED AND HEAT / COOL MODES. IF A BAS IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS.

OCCUPIED MODE:

DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE OUTSIDE AIR DAMPER SHALL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. THE DX COOLING AND GAS HEAT SHALL STAGE TO MAINTAIN THE OCCUPIED SPACE TEMPERATURE SETPOINT. IF ECONOMIZING IS ENABLED THE OUTSIDE AIR DAMPER SHALL MODULATE TO MAINTAIN THE OCCUPIED SPACE TEMPERATURE SETPOINT.

UNOCCUPIED MODE:

WHEN THE SPACE TEMPERATURE IS BELOW THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL START, THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED AND THE GAS HEAT SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.) PLUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP AND THE GAS HEAT SHALL BE DISABLED.

WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL START, THE OUTSIDE AIR DAMPER SHALL OPEN IF ECONOMIZING IS ENABLED AND REMAIN CLOSED IF ECONOMIZING IS DISABLED AND THE DX COOLING SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F (ADJ.) MINUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP, THE DX COOLING SHALL BE DISABLED AND THE OUTSIDE AIR DAMPER SHALL CLOSE.

UNOCCUPIED MODE (RTU-5 ONLY):

DURING UNOCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE OUTSIDE AIR DAMPER SHALL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. THE DX COOLING AND GAS HEAT SHALL STAGE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. IF ECONOMIZING IS ENABLED THE OUTSIDE AIR DAMPER SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

COOLING MODE:

THE UNIT CONTROLLER SHALL USE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR COOLING. WHEN THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT, THE UNIT CONTROLLER SHALL MODULATE THE ECONOMIZER OR STAGE THE DX COOLING AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE FIRST COMPRESSOR SHALL ENERGIZE AFTER ITS MINIMUM 3-MINUTE OFF TIME HAS EXPIRED. IF ADDITIONAL COOLING CAPACITY IS REQUIRED THE SECOND STAGE OF COOLING SHALL BE ENABLED. ONCE THE SPACE TEMPERATURE FALLS BELOW THE SETPOINT THE COMPRESSORS SHALL BE DEACTIVATED AND THE ECONOMIZER SHALL RETURN TO MINIMUM POSITION.

HEATING MODE:

THE UNIT CONTROLLER SHALL USE THE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR HEAT. WHEN THE SPACE TEMPERATURE DROPS BELOW THE SETPOINT, THE UNIT CONTROLLER SHALL ENABLE GAS HEATING STAGES TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. ONCE THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT THE GAS HEATING STAGES SHALL BE DISABLED.

DEHUMIDIFICATION (RTU ONLY):

FACTORY INSTALLED HOT GAS REHEAT SHALL ALLOW APPLICATION OF DEHUMIDIFICATION. DEHUMIDIFICATION SHALL BE ALLOWED ONLY WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 40.0 DEG. F AND BELOW 100.0 DEG. F. THE ECONOMIZER OUTSIDE AIR DAMPER SHALL DRIVE TO MINIMUM POSITION DURING DEHUMIDIFICATION.

SINGLE COMPRESSOR UNITS;

ON A CALL FOR DEHUMIDIFICATION, THE REHEAT VALVE SHALL ENERGIZE AND THE COMPRESSOR SHALL ENABLE. WHEN THE HUMIDITY CONTROL SETPOINT IS SATISFIED, THE VALVE SHALL BE DE-ENERGIZED AND THE COMPRESSOR SHALL BE DISABLED. IF THERE IS A CALL FOR COOLING FROM THE SPACE TEMPERATURE CONTROLLER, WHILE IN REHEAT, THE REHEAT VALVE SHALL BE DE-ENERGIZED AND THE COMPRESSOR SHALL CONTINUE TO RUN.

DUAL COMPRESSOR UNITS:

ON A CALL FOR DEHUMIDIFICATION, THE REHEAT VALVE SHALL ENERGIZE AND BOTH COMPRESSORS SHALL ENABLE. WHEN THE HUMIDITY CONTROL SETPOINT IS SATISFIED, THE VALVE SHALL BE DE-ENERGIZED AND BOTH COMPRESSORS SHALL BE DISABLED. IF THERE IS A CALL FOR 1ST STAGE COOLING WHILE IN THE DEHUMIDIFICATION MODE, NO ACTION SHALL TAKE PLACE. IF THERE IS A CALL FOR 2ND STAGE COOLING, THE REHEAT VALVE SHALL BE DE-ENERGIZED, AND THE UNIT SHALL REVERT TO THE COOLING MODE. IF 2ND STAGE COOLING IS SATISFIED AND THERE IS STILL A CALL FOR DEHUMIDIFICATION, THE REHEAT VALVE SHALL ONCE AGAIN BE ENERGIZED.

ECONOMIZER (RTU ONLY):

THE MIXED AIR SENSOR SHALL MEASURE THE DRY BULB TEMPERATURE OF THE AIR LEAVING THE EVAPORATOR COIL WHILE ECONOMIZING. WHEN ECONOMIZING IS ENABLED AND THE UNIT IS OPERATING IN THE COOLING MODE, THE ECONOMIZER DAMPER SHALL BE MODULATED BETWEEN ITS MINIMUM POSITION AND 100% TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE ECONOMIZER DAMPER SHALL MODULATE TOWARD MINIMUM POSITION IN THE EVENT THE MIXED AIR TEMPERATURE FALLS BELOW THE LOW LIMIT TEMPERATURE SETTING. COMPRESSORS SHALL BE DELAYED FROM OPERATING UNTIL THE ECONOMIZER HAS OPENED TO 100%.

COMPARATIVE ENTHALPY:

OUTSIDE AIR (OA) ENTHALPY SHALL BE COMPARED WITH RETURN AIR (RA) ENTHALPY POINT. THE ECONOMIZER SHALL ENABLE WHEN OA ENTHALPY IS LESS THAN RA ENTHALPY - 3.0 BTU/LB. THE ECONOMIZER SHALL DISABLE WHEN OA ENTHALPY IS GREATER THAN RA ENTHALPY.

VENTILATION:

THE OUTDOOR AIR DAMPER SHALL DEFAULT TO THE MINIMUM SETPOINT.

WHEN OUTSIDE AIR VENTILATION MODE IS ENABLED THE DAMPER SHALL OPEN TO O/A PER CODE. SEE O/A TABLES.

COORDINATE WITH OWNER FOR VENTILATION SCHEDULES.

SUPPLY FAN:

THE SUPPLY FAN SHALL BE ENABLED WHILE IN THE OCCUPIED MODE AND CYCLED ON DURING THE UNOCCUPIED MODE. A DIFFERENTIAL PRESSURE SWITCH SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FAN. IF THE SWITCH DOES NOT OPEN WITHIN 40 SECONDS AFTER A REQUEST FOR FAN OPERATION A FAN FAILURE ALARM SHALL BE ANNUNCIATED AT THE BAS, THE UNIT SHALL STOP, REQUIRING A MANUAL RESET.

BUILDING PRESSURE CONTROL (RTU ONLY):

THE POWER EXHAUST FAN WILL BE INDEXED ON WHENEVER THE UNIT GOES INTO ECONOMIZER MODE TO HELP MAINTAIN BUILDING PRESSURE CONTROL. WHEN THE UNIT TRANSITIONS BACK TO STANDARD MECHANICAL COOLING, THE EXHAUST FAN WILL BE INDEXED OFF.

THE BAROMETRIC RELIEF DAMPERS SHALL OPEN WITH INCREASED BUILDING PRESSURE. AS THE BUILDING PRESSURE INCREASES, THE PRESSURE IN THE UNIT RETURN SECTION ALSO INCREASES, OPENING THE DAMPERS AND RELIEVING AIR.

FILTER STATUS:

A DIFFERENTIAL PRESSURE SWITCH SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER WHEN THE FAN IS RUNNING. IF THE SWITCH CLOSES FOR 2 MINUTES AFTER A REQUEST FOR FAN OPERATION A DIRTY FILTER ALARM SHALL BE ANNUNCIATED AT THE BAS

CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
Job # E2119

REVISION		
NO.	DESCRIPTION	DATE

ARCHITECTS SEAL:

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.9959

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	JLC
CHECKED BY:	CRS
SCALE:	AS NOTED
DATE:	20 OCT. 2021
PROJECT NO:	2019

MECHANICAL SPECIFICATIONS

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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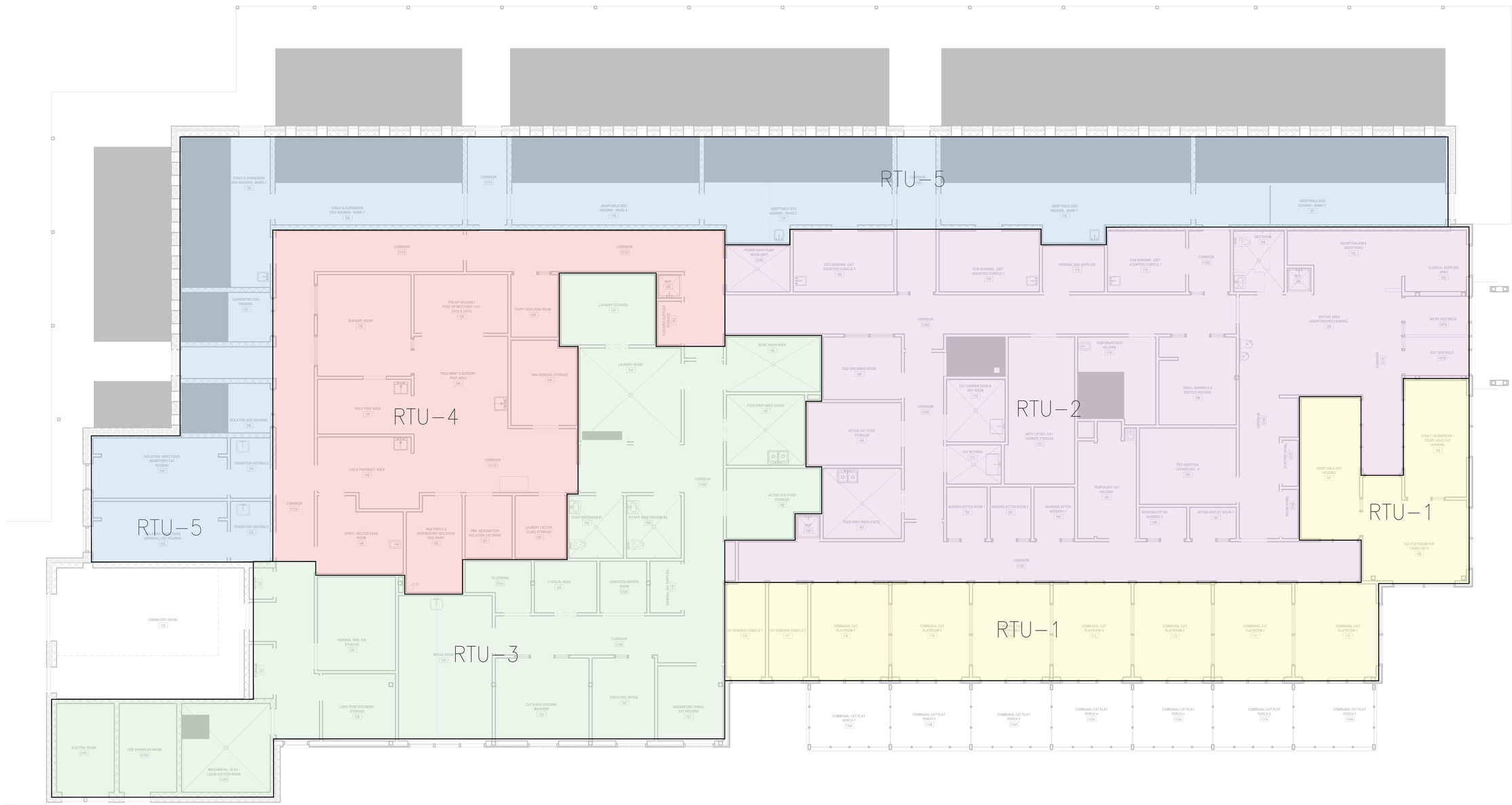

1 MECHANICAL ZONING PLAN
3/16" = 1'-0"

CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

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REVISION		
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ARCHITECTS SEAL

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.728.0555
F: 617.426.2827

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9599
F: 949.716.9899

rauhaus freedenfeld & associates

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MECHANICAL ZONING PLAN

PROGRESS SET ☐ | BID SET ■ | PERMIT SET ☐ | CONSTRUCTION SET ☐

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Comfort Design Inc.
Mechanical & Electrical
Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

Job # E2119

MECHANICAL FLOOR PLAN

M2.00

PROGRESS SET ☐	BID SET ■	PERMIT SET ☐	CONSTRUCTION SET ☐

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rauhaus freedenfeld & associates

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557

West Coast Office
23101 Moulton Pkwy #106
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T: 949.716.8899
F: 949.716.9959

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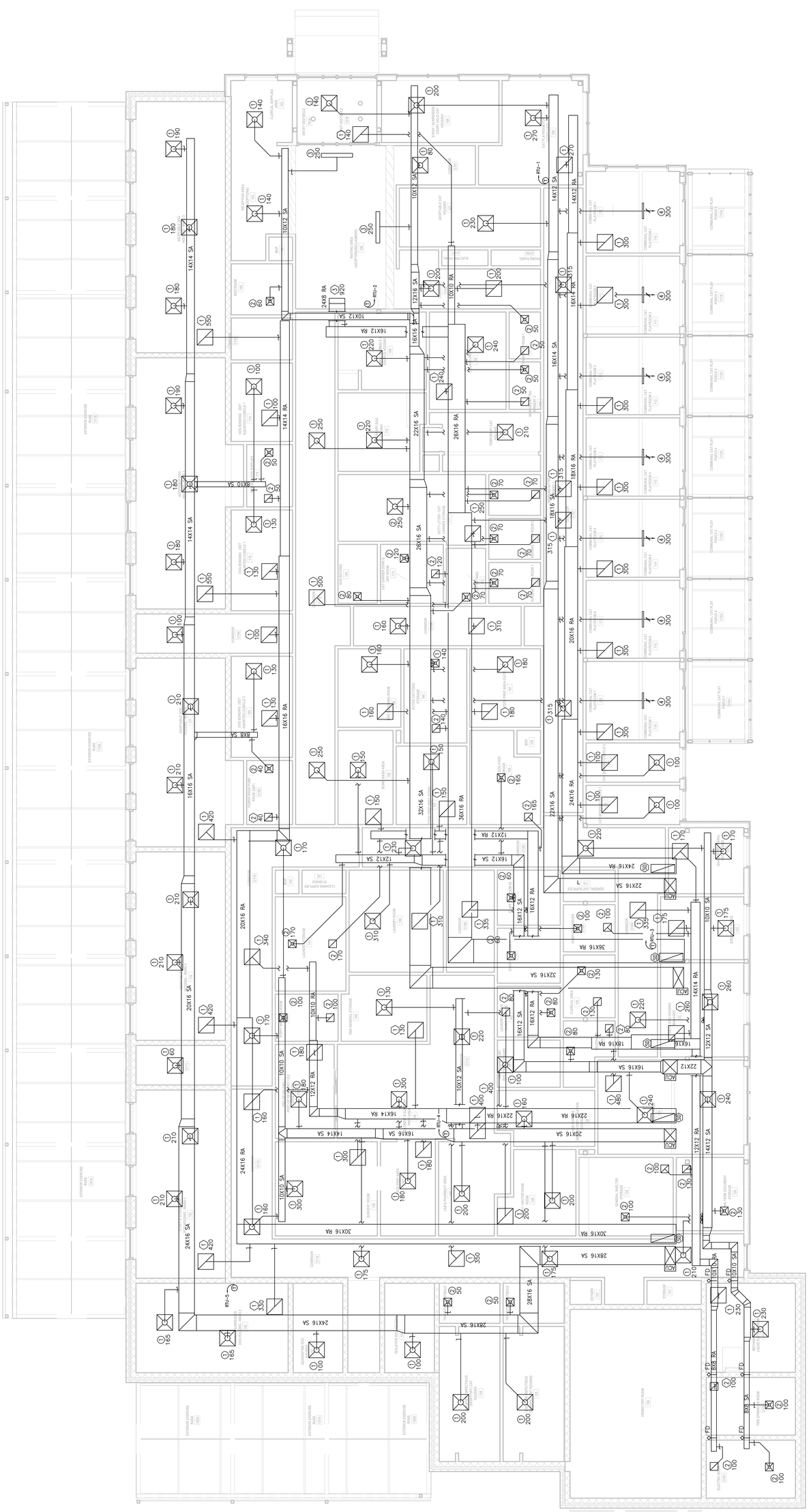
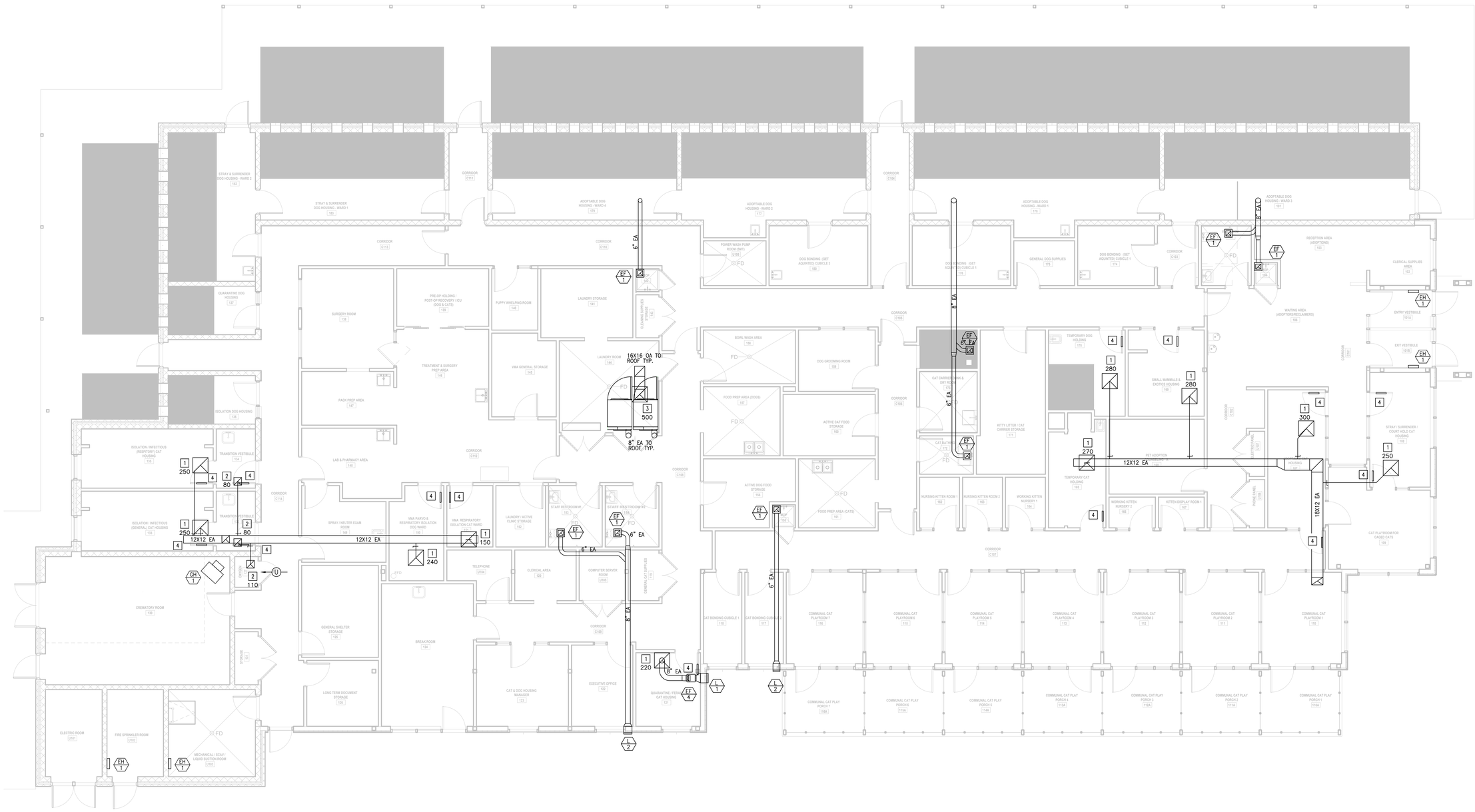


1 MECHANICAL FLOOR PLAN
3/16" = 1'-0"



1 MECHANICAL VENTILATION/HEATING PLAN
3/16" = 1'-0"

CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

Job # E2119

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.728.0050
F: 617.426.2827

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8959
F: 949.716.8959

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	JLC
CHECKED BY:	CRS
SCALE:	AS NOTED
DATE:	20 OCT 2021
PROJECT NO:	2019

PROGRESS SET ☐ PERMIT SET ■ BID SET ☐ CONSTRUCTION SET ☐

MECHANICAL ZONING PLAN

M2.01

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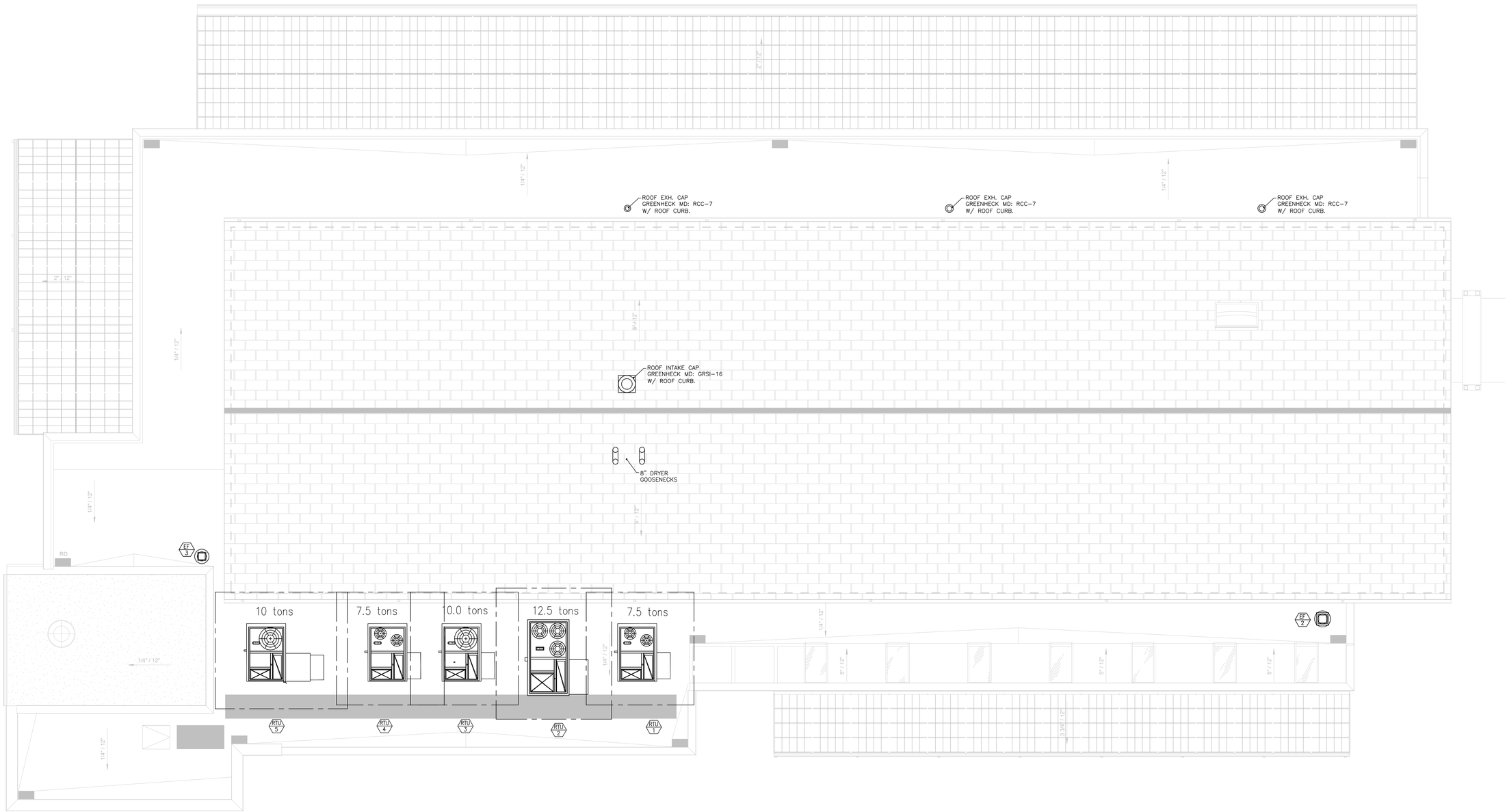

1 MECHANICAL ROOF PLAN
3/16" = 1'-0"

CDi
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

Comfort Design Inc.
Mechanical & Electrical
Engineers

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ARCHITECTS SEAL

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97 Broadway
Boston, MA 02116
T: 617.338.0063
F: 617.426.2827

West Coast Office
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T: 949.716.8959
F: 949.716.8959

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MECHANICAL ROOF PLAN

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M2.02

PLUMBING FIXTURE SCHEDULE

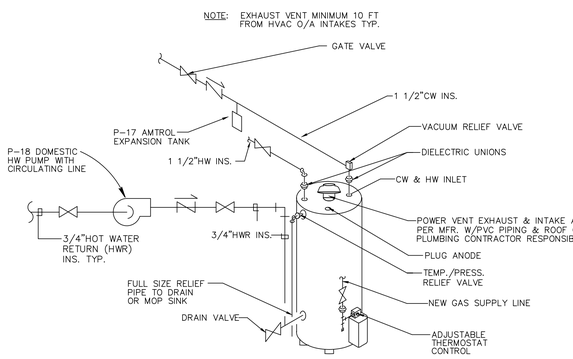
MARK	DESCRIPTION	MINIMUM CONNECTIONS INCHES COLD	HOT	WASTE	VENT	REMARKS	MANUFACTURER OR APPROVED EQUAL
P-1	WATER CLOSET – HANDICAP	1	––	3	1 1/2	A.D.A. COMPLIANT	KOHLER K-96057-0 FLOOR MOUNTED/OUTLET FLUSH VALVE TOILET W/ K-4670-CA-0 SEAT AND SLOAN 111-1.6 CHROME PLATED MANUAL FLUSH VALVE (1.6 GPF). A.D.A. COMPLIANT.
P-2	WALL HUNG LAVATORY – HANDICAP	1/2	1/2	2	1 1/2	A.D.A. COMPLIANT W/ TEMPERING VALVE	KOHLER MODEL K-2035-1 WALL HUNG W/ K-12181 SINGLE LEVER FAUCET, GRID DRAIN AND INSULATING DRAIN/HOT/COLD WATER TEMPERING VALVE AND WALL CARRIER. A.D.A. COMPLIANT.
P-3	MOP SERVICE SINK	3/4	3/4	3	1 1/2	W/ VACUUM BREAKER	SERVICEPTOR MODEL SB-503 36"x36"x12"H MOP SINK W/ 3" DRAIN, TILING FLANGE, STRIN WILLIAMS T-10-VB FAUCET W/ VACUUM BREAK, HOSE, AND BORRICK B-223 MOP HOLDER.
P-4	FLOOR DRAIN W/ TRAP PRIMER	1/2	––	4	2		JOSAM 33004-A-50 FLOOR DRAIN W/ ADJUSTABLE STRAINER AND PPP* PRIME-RITE TRAP PRIMER VALVE/DISTRIBUTION UNIT.
P-5	FLOOR DRAIN W/ TRAP PRIMER	1/2	––	3	1 1/2		JOSAM 33003-A-50 FLOOR DRAIN W/ ADJUSTABLE STRAINER AND PPP* PRIME-RITE TRAP PRIMER VALVE/DISTRIBUTION UNIT.
P-6	BATHING TUB AND SURROUND	3/4	3/4	2	1 1/2		TRISTAR YET 800-00-09 BATHING TUB W/ SWIVEL RAMP ST5603329 BATHTUB W/ SURROUND, T&S BRASS MODEL B-0175 PRE-RINSE FLEXIBLE HOSE/FAUCET, WALL HOOK, WALL BRACKET, DRAIN W/ AIR GAP TO JOSAM 49303 8"SQ X 6"D FLOOR SINK W/ REMOVABLE GRATE, SEDIMENT BUCKET, AND STAINLESS STEEL MESH BUCKET LINER.
P-7	HAIR TRAP	––	––	2	––		PROVIDE J.R. SMITH 8750T LINT TRAP ON WASTE LINE.
P-8	HYDROSURGE UNIT	3/4	3/4	––	––		INSTALL OWNER FURNISHED HYDROSURGE UNIT W/ INSULATED HOT/COLD WATER, SHUT-OFF VALVES, FITTINGS, T&P MIXING VALVE, HOSE BIBB, & VACUUM BREAKER.
P-9	FROST-PROOF HOSE BIBB	3/4	––	––	––	W/ VACUUM BREAKER	JOSAM HYDRASAN I SERIES 71050 OR APPROVED EQUAL, KEY CONTROL FITTING, W/ INTEGRAL VACUUM BREAKER.
P-10	S.S. SINGLE BOWL SINK	1/2	1/2	2	1 1/2	W/ TEMPERING VALVE	ELKAY LRAD15755 W/ CHICAGO 895-317DP FAUCET W/ SWING SPOUT, LOW-FLOW AERATOR, AND WRISTBLADE HANDLES, HOT/COLD WATER, STOPS, AND CHROME STRAINER – A.D.A. COMPLIANT.
P-11	S.S. SINGLE BOWL SINK	1/2	1/2	2	1 1/2	W/ TEMPERING VALVE	ELKAY LRAD221955 W/ MOEN 8244CST W/ SWING SPOUT, LOW-FLOW AERATOR, AND WRISTBLADE HANDLES, HOT/COLD WATER, STOPS, AND CHROME STRAINER – A.D.A. COMPLIANT.
P-12	S.S. DOUBLE BOWL SINK	1/2	1/2	2	1 1/2	W/ TEMPERING VALVE	ELKAY LRAD3322SS, 33X22 DOUBLE BOWL S.S. SINK W/ MOEN 8244 FAUCET W/ SWING SPOUT AND WRISTBLADE HANDLES, HOT/COLD WATER, STOPS, AND CHROME STRAINER – A.D.A. COMPLIANT.
P-13	GARBAGE DISPOSAL	––	––	1 1/2	––		PROVIDE 1/2 HP ISE BADGER GARBAGE DISPOSAL.
P-14	BOWLWASHER	––	––	2	––		PROVIDE DRAIN & HOT WATER CONNECTIONS FOR OWNER FURNISHED BOWLWASHER. PROVIDE AN INDIRECT DRAIN TO A JOSAM 49303 8"SQ X 6"D FLOOR SINK. PROVIDE BACKFLOW PREVENTER ON HW CONNECTION.
P-15	SCRUB SINK	1/2	1/2	2	1 1/2		ELKAY EWS2520HWC WALL SCRUB SINK W/ GOOSENECK FAUCET, 4"WRISTBLADE HANDLES, MIXING VALVE, FITTINGS, HOSES, STAINLESS STEEL STRAINER, AND STOPS. PROVIDE WALL CARRIER.
P-16	100 GALLON GAS WATER HEATER	2	2	––	––		A.O. SMITH 97% EFFICIENT MODEL BTH-199 WATER HEATER W/ FLEXIBLE VENTING, T&P RELIEF, POWER BURNER, 261 GPH @ 90°T RISE, 199,900 BTUH INPUT, ELECTRIC IGNITION. SET WATER TEMPERATURE AT A MAXIMUM 120°F.
P-17	HOT WATER EXPANSION TANK	3/4	––	––	––		AMTROL MODEL ST-30V, 150 PSIG, 14 GALLONS, MAXIMUM 200°F OPERATING TEMPERATURE, ASME APPROVED, AND 150 PSIG WORKING PRESSURE. INSTALL ON COLD WATER LINE.
P-18	HOT WATER CIRCULATOR PUMP	––	3/4	––	––		B&G MODEL PL-35E, 7 GPM @ 40 FT HEAD, BRONZE BODY, 3/5 HP, 115/1/60, 175 PSI MAXIMUM WORKING PRESSURE AND 225 F MAX OPERATING TEMPERATURE.
P-19	FLUSH VALVE (3.5 G.P.F.)	1	––	––	––		SLOAN 11GESS (PRODUCT CODE 3450147) FLUSH VALVE ABOVE CEILING, HIGH BACK-PRESSURE VACUUM BREAKER, SIPHON-GUARD PROTECTION W/ EL172A REMOTE WALL PUSH BUTTON FLUSH OPERATOR, 115V POWER, EL154 TRANSFORMER, & CONTROL WIRING FROM PUSH BUTTON TO VALVE.
P-20	TRENCH DRAIN W/ BENCH	––	––	4	2	W/ RECESSED SLAB	T&S MODEL NDS OURASLOPE PRE-SLOPED TRENCH DRAIN W/ BENCH, DS-340 CATCH BASIN (INLET/OUTLET ON BOTH SIDES), FLUSH TRAP, AND P-18 FLUSH VALVES – SEE DETAIL ON THIS DWG AND ARCHITECTURAL DETAILS.
P-21	FLUSHING RIM/TRAP DRAIN	1	––	4	2		ZURN THOROFLUSH DRAIN Z-310-C-WB-FG (FREE SET GRATE) OR Z-300-C-WB-FG (FREE SET GRATE) W/ 1"FLUSH TAP CONNECTION W/ DRAIN EXTENSION FOR 2ND 3/4"FLUSH TAP AT TRAP & P-19 FLUSH VALVE – SEE DETAIL ON THIS DWG.
P-22	REFRIGERATOR ICE BOX/VALVE	1/2	––	––	––		GATEY ICE MAKER RECESSED WALL BOX 38952 W/ VALVE AND COLD WATER PIPING AND FITTINGS.
P-23	WET TABLE	3/4	3/4	3	1 1/2	W/ P-7 HAIR TRAP & TEMPERING VALVE	INSTALL OWNER FURNISHED WET TABLE. PROVIDE SHUT-OFF HOT AND COLD WATER VALVES, DRAIN W/ P-7 HAIR TRAP AND VENT. PROVIDE BACKFLOW PREVENTER ON HOT AND COLD WATER LINES.
P-24	DRY CENTRAL VACUUM SYSTEM	––	––	––	––	W/ DRY INTERCEPTOR	CENTRAL DRY VACUUM SYSTEM TO BE PROVIDED AND INSTALLED BY SMT MFR. COORDINATE W/ SMT MFR ON EXACT REQUIREMENTS.
P-25	DRY VACUUM REMOTE OUTLET	––	––	––	––		SMT MANUFACTURER INSTALLED DRY CENTRAL VACUUM OUTLET. SEE ARCHITECTURAL DWGS FOR EXACT LOCATIONS.
P-26	WET/DRY CENTRAL VACUUM SYSTEM	3/4	––	3	1 1/2		PROVIDE NIBCO OR EQUAL 3/4"CW INTERIOR HOSE BIB (LOCATION PER SMT MFR) AND P-7 MOP SINK FOR DRAIN FOR CENTRAL DRY VACUUM SYSTEM TO BE PROVIDED AND INSTALLED BY SMT MFR. PROVIDE SHUT-OFF VALVE ON HOT AND COLD WATER LINES. COORDINATE W/ SMT MFR ON EXACT REQUIREMENTS.
P-27	WET/DRY VACUUM REMOTE OUTLET	––	––	––	––		SMT MANUFACTURER INSTALLED WET/DRY CENTRAL VACUUM OUTLET. SEE ARCHITECTURAL DWGS FOR EXACT LOCATIONS.
P-28	CENTRAL WASHDOWN SYSTEM	3/4	––	––	––		PROVIDE NIBCO OR EQUAL 3/4"CW INTERIOR HOSE BIB AT MINIMUM 12"A.F.F. FOR CONNECTION OF SPRAY MASTER TECHNOLOGIES CENTRAL WASHDOWN SYSTEM TO BE PROVIDED AND INSTALLED BY SMT MFR.
P-29	WALL MOUNTED SMT CONTROL UNIT	––	––	––	––		SMT MANUFACTURER INSTALLED WALL MOUNTED CONTROL UNIT. SEE ARCHITECTURAL DWGS FOR EXACT LOCATIONS.
P-30	PRESSURE WASHER HOSE REEL	3/8	––	––	––		SMT MANUFACTURER INSTALLED HIGH PRESSURE HOSE REEL. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
P-31	COMMERCIAL WASHER CONNECTIONS	1	1	6	3	SEE DRAIN TROUGH DETAIL ON DWG P0.01	1"WATTS, NIBCO, OR EQUAL VALVES, 200 F, 200 PSI FLEXIBLE HOSE CONNECTIONS W/ DRAIN TO AIR GAP TO FLOOR TROUGH. INSTALL PER MANUFACTURER.
P-32	WASHER CONNECTIONS	3/4	3/4	3	1 1/2		NIBCO FAUCET VALVES & GUY GRAY BBED-2007S WASHER BOX W/ DRAIN THRU FITPOL 160 WASHING MACHINE FILTER VENT, HOT & COLD WATER PIPING, RECEPTACLE, AND WATER HAMMER ARRESTOR (W.H.A.) ON HOT & COLD WATER LINES.
P-33	BOWL WASHING TABLE/SINK/FAUCET	3/4	3/4	2	1 1/2		REGENCY 600DDT48 RT SOILED DISH TABLE W/ DRAIN & VENT AND HOT & COLD WATER CONNECTIONS TO T&S BRASS B-0175 PRE-RINSE FAUCET W/ B-0166 HANGER HOOK.
P-34	CAT CARRIER DUNK SINK	1/2	1/2	2	1 1/2		MUSTEE 28CP 24"x40"H FLOOR MOUNTED UTILITY SINK W/ 2"DRAIN AND PULL-OUT FAUCET.
P-35	CAT BATHING TUB	1/2	1/2	2	1 1/2	W/ P-7 HAIR TRAP & TEMPERING VALVE	TEHILA US6000GRY FLOOR MOUNTED UTILITY SINK W/ 2"DRAIN AND PULL-OUT FAUCET.
P-36	OXYGEN CEILING OUTLET	––	––	––	––		F/C PROVIDED & INSTALLED OXYGEN OUTLET W/ DISS CONNECTION BOX ADAPTERS, SHUTOFF VALVE, COVER TRIM, AND IDENTIFICATION TAG – SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. COORDINATE CONNECTION TYPE WITH OWNER/ARCHITECT (TYPICAL ALL MEDICAL GAS OUTLETS).
P-37	SCAVENGER CEILING OUTLET	––	––	––	––		F/C PROVIDED & INSTALLED SCAVENGER OUTLET W/ DISS CONNECTION BOX ADAPTERS, SHUTOFF VALVE, COVER TRIM, AND IDENTIFICATION TAG – SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. COORDINATE CONNECTION TYPE WITH OWNER/ARCHITECT (TYPICAL ALL MEDICAL GAS OUTLETS).
P-38	SUCTION CEILING OUTLET	––	––	––	––		F/C PROVIDED & INSTALLED SUCTION OUTLET W/ DISS CONNECTION BOX ADAPTERS, SHUTOFF VALVE, COVER TRIM, AND IDENTIFICATION TAG – SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. COORDINATE CONNECTION TYPE WITH OWNER/ARCHITECT (TYPICAL ALL MEDICAL GAS OUTLETS).
P-39	COMBINATION ANESTHESIA SCAVENGER/LIQUID SUCTION MACHINE	––	––	––	––		OWNER FURNISHED COMBINATION ANESTHESIA SCAVENGER/LIQUID SUCTION MACHINE. SYSTEM SHALL BE SIZED AND INSTALLED PER MEDICAL GAS SUPPLIER AND CODE. SIZE AND INSTALL EXHAUST TO EXTERIOR PER MANUFACTURER.
P-40	BI-LEVEL WATER COOLER	1/2	––	2	1 1/2	A.D.A. COMPLIANT	HALSEY TAYLOR MODEL HTHB-HACBBLPV-WF W/ STAINLESS STEEL TOP, FILTER, BOTTLE FILLING STATION, AND MOUNTING HARDWARE. MOUNT PER A.D.A. LOW/HIGH AND CODE.
P-41	OUTDOOR FLOOR DRAIN	1/2	––	3	1 1/2		OUTDOOR FLOOR DRAIN W/ STRAINER PER ARCHITECT AND WITHOUT P-TRAP.
P-42	DECK MOUNTED EYEWASH	1/2	1/2	––	––		BRADLEY MODEL S19-460 DECK MOUNTED EYE WASH FIXTURE W/ HOSE, VALVE, SPRAYHEAD, HOT & COLD WATER CONNECTION, & ASSE 1071 COMPLIANT EMERGENCY THERMOSTATIC MIXING VALVE. MOUNT PER OSHA REQUIREMENTS.
P-43	COMBINATION ROOF/OVERFLOW DRAIN	––	––	4	––		JOSAM SERIES 22104-28 W/ CLAMPS, COLLARS, FITTINGS, PERFORATED S.S. GRAVEL GUARD AND ASSEMBLY PER MANUFACTURER AND CODE.
P-44	DOWNSPOUT NOZZLE	––	––	4	––		JOSAM MODEL 25014-51-BS BRONZE SECONDARY ROOF DRAIN DOWNSPOUT NOZZLE W/ BIRDSCREEN.

NOTES:

1. ALL FIXTURES SHALL BE WHITE UNLESS NOTED OTHERWISE.
2. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE GOVERNING CODES AND PERMITS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PLUMBING PERMITS AND INSTALL PER LOCAL CODE AND STATE PERMIT REQUIREMENTS.
3. ALL INTERIOR HOT AND COLD WATER LINES SHALL BE INSULATED. HOT WATER LINES AND EXPOSED DRAINS SHALL BE INSULATED W/ WHITE PLASTIC JACKET INSULATION TO PREVENT TOUCH BY HANDICAP (TRUEBRO LAV GUARD OR EQUAL). ALL ABOVE GRADE SANITARY AND STORM DRAINAGE LINES SHALL BE CAST IRON. ALL HORIZONTAL STORM DRAINAGE LINES SHALL BE INSULATED.
4. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, FIXTURES, & VALVES TO MAKE A COMPLETE AND OPERATING SYSTEM. ALL PIPING SHALL BE RUN INSIDE WALLS OR ABOVE CEILING UNLESS SHOWN OTHERWISE. ALL EXPOSED PIPING SHALL BE CHROME PLATED. ALL PIPE PENETRATIONS OF FIRE RATED CEILINGS AND WALLS SHALL HAVE FIRE RATED SEALANT/CAULKING PER MANUFACTURER AND CODE.
5. CONTRACTOR SHALL COORDINATE CONNECTION OF WATER, NATURAL GAS, AND SEWER SYSTEMS W/ SITE CONTRACTOR AND LOCAL UTILITY COMPANIES.
6. CONTRACTOR SHALL PROVIDE ALL MOUNTING HARDWARE AND ACCESSORIES TO INSTALL ALL FIXTURES. INSTALL HANDICAP FIXTURES IN COMPLIANCE W/ ADA AND LOCAL CODES.
7. PLUMBER/INSTALLER SHALL ENSURE THAT PIPES ARE ADEQUATELY INSULATED TO PREVENT FREEZING. PLUMBER SHALL USE FIBERGLASS INSULATION W/ VAPOR BARRIER (OWENS CORNING OR EQUAL). COLD WATER LINES SHALL HAVE MINIMUM 1/2"THICK INSULATION AND HOT WATER AND HOT WATER RETURN LINES SHALL HAVE MINIMUM 1"THICK INSULATION.
8. PLUMBING CONTRACTOR SHALL FIELD COORDINATE FINAL LOCATION OF WATER, SANITARY SEWER, GAS, AND VENT, PIPING W/ G.C., STRUCTURAL, MECHANICAL, AND AND ELECTRICAL CONTRACTORS AND ADJUST FINAL LOCATIONS BASED ON FINAL FIELD CONDITIONS TO AVOID INTERFERENCES.
9. PROVIDE AND INSTALL MEDIUM (2 PSI) PRESSURE GAS ALL NEW GAS FIRED EQUIPMENT. PROVIDE SHUTOFF VALVES, MEDIUM PRESSURE (2 PSI) REGULATORS, AND DRIP LEGS (ON UNITS IN CONDITIONED SPACE ONLY).
10. PERFORM A WATER ANALYSIS. IF HARDNESS EXCEEDS 7 GRAINS PER GALLON, PROPOSE A WATER SOFTENING SYSTEM TO PROVIDE WATER W/ HARDNESS LESS THAN 7 GRAINS PER GALLON BASED ON THE WATER ANALYSIS RESULTS AND B2 GPM PEAK FLOW.
11. MEDICAL GAS SYSTEM DESIGN (INCLUDING EQUIPMENT AND PIPE SIZING) TO BE CONFIRMED AND ADJUSTED AS REQUIRED BY MEDICAL GAS SUPPLIER/INSTALLER.

FIRE PROTECTION SCOPE OF WORK:

OBTAIN THE SERVICES OF A STATE QUALIFIED AND LICENSED SPRINKLER CONTRACTOR TO DESIGN, OBTAIN NECESSARY STATE AND LOCAL APPROVALS OF DESIGN, AND REVISE THE EXISTING FIRE PROTECTION SPRINKLER SYSTEM PER LOCAL AND NFPA 13 CODE. FIRE PROTECTION CONTRACTOR SHALL SUBMIT 3 COPIES OF THE DESIGN CALCULATIONS, FLOW TESTS, ETC. FOR ARCHITECT/ENGINEER APPROVAL AND SUBMIT REQUIRED COPIES TO LOCAL FIRE AUTHORITIES FOR APPROVAL PRIOR TO INSTALLATION OF SYSTEM. FIRE PROTECTION CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR, MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTOR TO ADJUST FOR INTERFERENCES AND ADJUST SPRINKLER DESIGN AND LAYOUT ACCORDINGLY. FIRE PROTECTION CONTRACTOR SHALL FIELD TEST THE SPRINKLER SYSTEM PER STATE AND LOCAL CODE AND NFPA 13 STANDARD.



P-16 HOT WATER HEATER PIPING DETAIL
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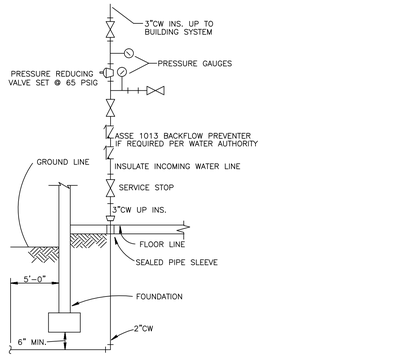


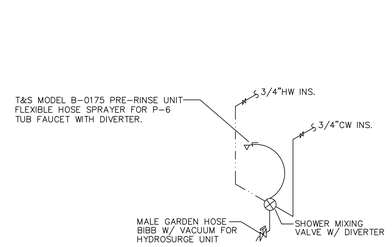
WATER SERVICE ENTRANCE DETAIL
NOT TO SCALE

PLUMBING LEGEND

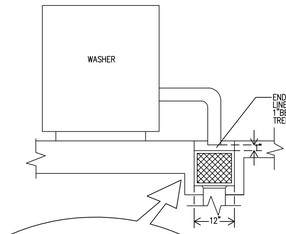
W	SANITARY SEWER (W) UNDERGROUND
W	SANITARY SEWER (W) ABOVE GRADE
V	VENT (V)
CW	COLD WATER (CW) INSULATED 1" THICK W/ VAPOR BARRIER
CW	COLD WATER (CW) UNDERGROUND OR UNDERFLOOR
HW	HOT WATER (HW) INSULATED 1" THICK W/ VAPOR BARRIER
HWR	HOT WATER RETURN (HWR) INSULATED 1' THICK W/ VAPOR BARRIER
GAS	NATURAL GAS SCH 40 STEEL PIPING W/ LABEL PER CODE
P–#	FIXTURE NUMBER – SEE PLUMBING SCHEDULE
C.O.	CLEAN OUT
F.C.O.	FLOOR CLEAN–OUT W/ BRASS COVER
W.C.O.	WALL CLEAN–OUT W/ CHROME COVER
V.T.R.	VENT THRU ROOF
U/G	UNDERGROUND INSTALLATION
U/F	UNDERFLOOR INSTALLATION
F.D.	FLOOR DRAIN W/ TRAP PRIMER VALVE & CONNECTION AS SPECIFIED
F.P.H.B.	FREEZE PROOF HOSE BIBB W/INTEGRAL VACUUM BREAKER
	PIPE UP – INSULATED 1" THICK W/ VAPOR BARRIER
	PIPE DOWN – INSULATED 1" THICK W/ VAPOR BARRIER
S–#	SANITARY RISER REFERENCE NUMBER
W.H.A.	WATER HAMMER ARRESTOR (SHOCK ABSORBER) JOSAM MFR MODEL 75000 SERIES OR EQUAL

HANDICAP ACCESSIBILITY NOTES:

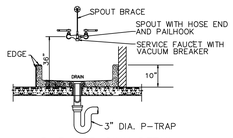
WATER CLOSETS:	17"–19" A.F.F. TO RIM 18" FROM SIDEWALL TO CENTER (IN PLAN)
LAVATORIES	34" MAX. A.F.F. TO TOP OF RIM 29" MIN. CLEAR A.F.F. @ APRON 17" MIN. PROJECTION 30" CLEAR CENTERED (IN PLAN)



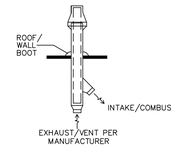
P–4/P–5 TRAP SEAL PRIMER DETAIL
NOT TO SCALE



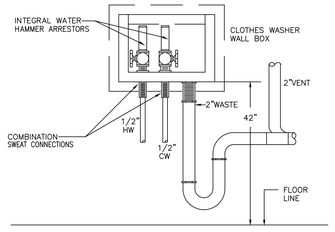
P–8 HYDROSURGE MIXING VALVE DIAGRAM
NOT TO SCALE



P–3 MOP SINK DETAIL
NOT TO SCALE

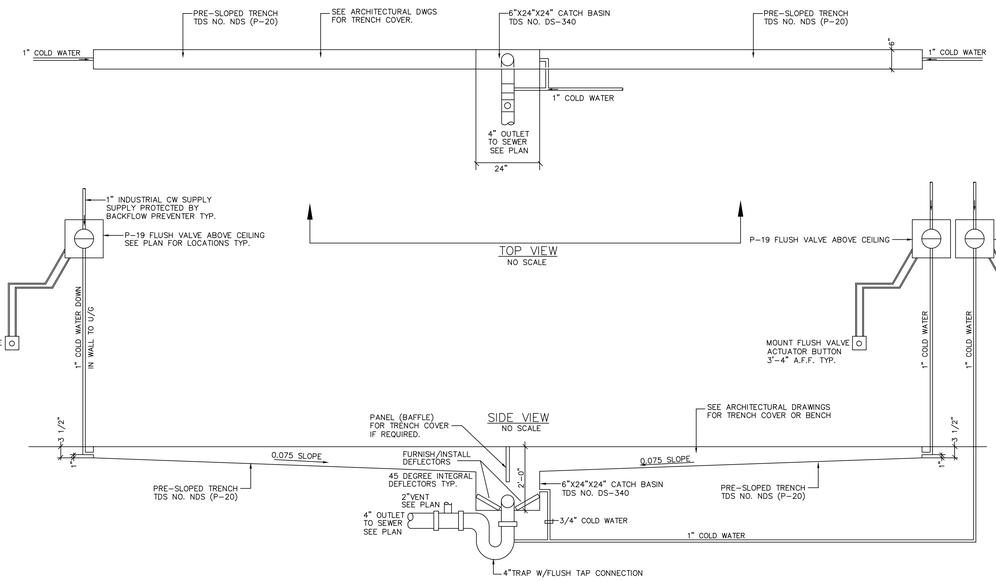


TYPICAL CONCENTRIC VENT FOR WATER HEATER
NOT TO SCALE

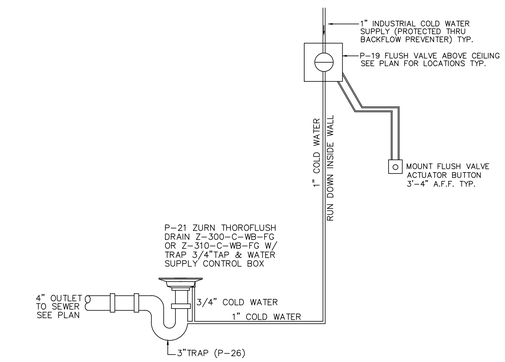


P–32 UTILITY WALL BOX FOR CLOTHES WASHER
NOT TO SCALE

P–31 WASHER DRAIN TROUGH DETAIL
NOT TO SCALE



P–19 & P–20 TRENCH DRAIN WATER CONNECTION DETAIL
NOT TO SCALE



P–19 & P–21 FLUSHING RIM DRAIN WATER CONNECTION
NOT TO SCALE

CDi
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

Comfort Design Inc.
Mechanical & Electrical Engineers

Job # E2119

100% CONSTRUCTION DEVELOPMENT

PLUMBING SCHEDULES AND DETAILS

P0.01

DRAWN BY: CRS
CHECKED BY: JLC
SCALE: AS NOTED
DATE: 20 OCT. 2021
PROJECT NO. 2019

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

NO.	REVISION DESCRIPTION	DATE

ARCHITECT'S SEAL:

r&f
rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Nyack, NY 10960
T: 845.348.0116
F: 845.348.0117
West Coast Office
2301 Mountain Pkwy #106
Livermore, CA 94550
T: 949.716.8999
T: 617.330.0050
F: 617.426.2557

NOTES:

GENERAL

A. SEE MECHANICAL COVER SHEET – GENERAL PROJECT NOTES FOR ADDITIONAL REQUIREMENTS.

B. BEFORE COMMENCING ANY WORK, THE CONTRACTOR SHALL VERIFY ALL GOVERNING DIMENSIONS AT THE SITE AND EXAMINE ADJOINING WORK ON WHICH ITS WORK WILL BE DEPENDENT AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ARCHITECT /ENGINEER.

C. PROVIDE ALL WORK INDICATED ON THE CONTRACT DOCUMENTS.

D. THE DRAWINGS SHALL BE CONSIDERED AS DIAGRAMMATIC. ATTENTION IS CALLED TO THE FACT THAT WHILE THE DRAWINGS ARE GENERALLY TO SCALE AND ARE AS ACCURATE AS THE SCALE WILL PERMIT, ALL IMPORTANT DIMENSIONS SHALL BE DETERMINED IN THE FIELD. THE DRAWINGS ARE NOT TO BE CONSIDERED AS CONSTRUCTION DRAWINGS. THE DRAWINGS DO NOT INDICATE EVERY FITTING, ELBOW, OFFSET, VALVE OR SIMILAR COMPONENTS WHICH ARE REQUIRED TO COMPLETE THE WORK.

E. THE CONTRACTOR SHALL INSTALL AND CONNECT ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND UNLESS OTHERWISE INDICATED SHALL FOLLOW THE MANUFACTURER'S PUBLISHED INSTRUCTIONS AND RECOMMENDATIONS. FURNISH AND INSTALL ALL REQUIRED AUXILIARY ITEMS TO PROVIDE A COMPLETE & OPERABLE SYSTEM.

F. WITHIN THIRTY (30) DAYS OF CONTRACT AWARD, THE CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE ARCHITECT ALL DEVICES TO BE USED IN THE WORK. SUBMITTALS SHALL INCLUDE PIPE, FITTINGS, HANGERS AND SUPPORTS, INSULATION, FIXTURES AND RELATED EQUIPMENT.

G. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS –– USE DIMENSIONED ARCHITECTURAL DRAWINGS. REFER TO MANUFACTURER'S STANDARD ROUGH–IN DRAWINGS FOR PLUMBING FIXTURES AND TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.

H. COORDINATE WITH THE WORK OF OTHER SECTIONS AND TRADES, WITH EQUIPMENT FURNISHED BY OTHERS, AND WITHIN THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.

I. MISCELLANEOUS EXPENSES SUCH AS HOOK –UP CHARGES, PERMITS, INSPECTIONS, AND OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING SYSTEM ARE INCLUDED AS PART OF THIS SECTION.

J. ACCESS PANELS SHALL BE PROVIDED IN CEILINGS OR WALLS WHERE CONCEALED DEVICES ARE LOCATED, EXCEPT WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH OTHER MEANS.

K. PIPING SYSTEMS, GENERAL: ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK INCLUDING DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIELECTRIC UNION. SEAL PIPE PENETRATIONS OF FIRE FLOORS AND FIREWALLS WITH FIREPROOF PUTTY OR GROUT. PROVIDE SUMNER OR EQUIVALENT PIPE HANGING SYSTEM IN CHASES. PROVIDE HANGERS AS RECOMMENDED BY HANGER MANUFACTURER.

L. ALL SINK INSTALLATION WILL BE EQUIPPED WITH HOT AND COLD RUNNING WATER THROUGH A MIXING VALVE OR COMBINATION FAUCET. ALL HANDICAP (ADA) SINK INSTALLATION SHALL BE EQUIPPED WITH ASSE 1070 TEMPERING VALVE ON THE HOT WATER. SET LIMIT AT 109F.

M. (IF APPLICABLE) ALL WASTEWATER FROM FOOD SERVICE EQUIPMENT WILL BE INDIVIDUALLY PLUMBED TO AN OPEN SITE DRAIN WITH A MIN. OF 1" AIR GAP.

N. WHERE PIPING PENETRATES FIRE–RATED WALLS, PIPING SHALL BE INSTALLED AT 90 DEGREE ANGLE. PIPE SLEEVES SHALL NOT BE INSTALLED AT 45 DEGREE ANGLE.

O. ALL FIXTURES SHALL BE PROPERLY VENTED TO THE ATMOSPHERE.

P. WATER AND VENT PIPING SHALL BE RUN HIGH AS POSSIBLE UNLESS OTHERWISE NOTED.

Q. THE WORK INCLUDES CONNECTION OF PLUMBING UTILITIES TO PUBLIC UTILITIES AND INSTALLATION OF A COMPLETE PLUMBING SYSTEM WITHIN THE BUILDING. PROVIDE NEW MATERIALS, FITTINGS, ACCESSORIES, FIXTURES AND EQUIPMENT NECESSARY FOR A COMPLETE AND PROPERLY FUNCTIONING SYSTEM AS SHOWN ON THE PLANS AND AS REQUIRED. THE WORK INCLUDES FINAL CONNECTIONS TO EQUIPMENT AND FIXTURES PROVIDED BY OTHERS. FURNISH ALL NEW MATERIALS. WORK SHALL BE PERFORMED BY EXPERIENCED TRADESMEN, AND THEIR WORKMANSHIP SHALL BE HIGH STANDARD & ACCEPTABLE TO THE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.

R. ALL PLUMBING VENTS IN EXTERIOR WALLS SHALL BE OFFSET A MINIMUM OF 3' –0" IN CEILING AT ROOF BEFORE PENETRATION.

S. ALL PLUMBING VENTS WITHIN A 10'–0" RADIUS OF EXHAUST VENTS SHALL BE EXTENDED TO A HEIGHT OF 3' –0" ABOVE EXHAUST VENT CROWN.

T. ALL PLUMBING VENTS WITHIN A 10' –0" RADIUS OF ANY ROOFTOP UNIT OR INTAKE LOUVER SHALL BE EXTENDED TO A HEIGHT OF 3'–0" ABOVE FRESH AIR INTAKE.

U. ALL HOSE BIBS SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR, UNLESS OTHERWISE SPECIFIED.

V. ALL WALL HYDRANTS SHALL BE MOUNTED 24" ABOVE FINISHED GRADE UNLESS OTHERWISE SPECIFIED.

W. SLOPES AND INVERT ELEVATIONS OF ALL INTERIOR PIPING SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED IN ORDER THAT PIPE SHALL BE LOCATED AND DETERMINED WHERE TO BE RUN TO AVOID CONFLICT WITH OTHER TRADES.

X. CLEANOUTS SHALL BE PROVIDED NEAR BASE OF EACH VERTICAL WASTE OR SOLID STACK. PROVIDE 18" MINIMUM CLEARANCE FOR ACCESS.

Y. UNLESS OTHERWISE NOTED, HORIZONTAL SANITARY PIPING SHALL BE PITCHED PER A.1.a.

Z. LABEL ALL NEW PIPING. LABEL TO DESCRIBE SERVICE AND DIRECTION OF FLOW.

AA. FLOOR SLABS SHALL BE X–RAYED BEFORE ANY CORE DRILLING IS COMMENCED.

AB. ALL BUILDING SYSTEMS SHALL REMAIN IN SERVICE UNLESS INDICATED OTHERWISE. ALL OUTAGES OR INTERRUPTIONS SHALL BE KEPT TO MINIMUM DURATION. NOTIFY THE OWNER 48 HOURS IN ADVANCE OF ANY OUTAGE OR INTERRUPTION.

AC. THE CONTRACTOR SHALL REPAIR ALL WALL, CEILING, FLOOR, OR ROOF OPENINGS WHICH ARE CREATED BY DEMOLITION OR PENETRATION. THE REPAIRS SHALL BE WITH MATERIALS AND FINISHES TO MATCH EXISTING. ALL FIRE RATED PENETRATIONS SHALL BE SEALED WITH SUITABLE MATERIALS TO PRESERVE FIRE RATED INTEGRITY.

AD. ALL EQUIPMENT INSTALLED SHALL BE NEW AND SHALL CONFORM IN ALL RESPECTS TO THE LATEST APPROVED STANDARDS OF IEEE, ANSI, NEMA AND UNDERWRITERS LABORATORIES, INC., UNLESS INDICATED OTHERWISE. SUBSTITUTIONS SHALL ONLY BE ACCOMPLISHED AT THE DISCRETION OF THE ENGINEER.

AE. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER DEMOLITION OPERATIONS ARE COMPLETE.

AF. THE WORK SHALL CONFORM TO THE LATEST STATE AND LOCAL PLUMBING CODES.

PRODUCTS:

A. PIPING AND FITTINGS:

1. WASTE PIPING:

a. SHALL BE TYPE PVC OR CAST IRON. FITTINGS SHALL BE TYPE PVC OR CAST IRON. ABS CAN BE USED IF SHELL BUILDING SEWER & VENT PIPES ARE ABS. MUST BE APPROVED BY LOCAL CODES. PROVIDE ALL DRAIN, WASTE AND SEWER PIPING WITHIN THE PROJECT SPACE WITH CONNECTION TO THE PUBLIC SANITARY WASTE SYSTEM ON SITE. ALL PIPING BELOW FLOOR SLAB SHALL BE PVC OR SERVICE WEIGHT HUB AND SPIGOT PIPE AND FITTINGS WITH NEOPRENE GASKET JOINTS, OR HUBLESS PIPE WITH CAST IRON COUPLINGS AND STAINLESS STEEL BOLTS COATED WITH MASTIC. ALL WASTE PIPING ABOVE FLOOR SHALL BE PVC OR SERVICE WEIGHT COPPER HUBLESS PIPE, CONNECTORS AND FITTINGS. ALL PIPING SHALL BE SLOPED UNIFORMLY AT 1.04% (3" AND ABOVE) OR 2.08% (2" AND BELOW) UNLESS OTHERWISE REQUIRED BY EXISTING CONDITIONS. ALL INDOOR ABOVE GRADE SANITARY PIPING SHALL BE CAST IRON OR PVC INSULATED FOR SOUND.

b. HUB–AND–SPIGOT, CAST –IRON SOIL PIPE AND FITTINGS
- b.a.a. Pipe and Fittings: ASTM A 74,[Service] class.
- b.a.b. Gaskets: ASTM C 564, rubber.
- b.a.c. Caulking Materials: ASTM B 29, pure lead and oakum or hemp fiber.

c. HUBLESS, CAST –IRON SOIL PIPE AND FITTINGS
- c.a.a. Pipe and Fittings: ASTM A 888 or CISPI 301.
- c.a.a.1. Standards: ASTM C 1277 and CISPI 310.
- c.a.a.2. Description: Stainless–steel corrugated shield with stainless–steel bands and tightening devices; and ASTM C 564, rubber sleeve with integral, center pipe stop.
- c.a.a.3. Description: Stainless–steel shield with stainless–steel bands and tightening devices; and ASTM C564, rubber sleeve with integral, center pipe stop.

d. COPPER TUBE AND FITTING
- d.a. Copper DWV Tube: ASTM B 306, drainage tube, drown temper.
- d.b. Copper Drainage Fittings: ASME B16.23, cast copper or ASME B16.29, wrought copper, solder–joint fittings.
- d.c. Copper Ranges: ASME B16.24, Class 150, cast copper with solder–joint end.
- d.d. Solder. ASTM B 32, lead free with ASTM B 813, water–flushable flux.

e. PVC PIPE AND FITTINGS
- e.a. Solid–Well PVC Pipe: ASTM D 2665, drain, waste, and vent.
- e.b. PVC Socket Fittings: ASTM D 2665, made to ASTM D 3311, drain, waste, and vent patterns and to fit Schedule 40 pipe.
- e.c. Adhesive Primer. ASTM F 656.
- e.c.a. Adhesive primer shell have a VOC content of 550 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- e.d. Solvent Cement ASTM D 2564.
- e.d.a. PVC solvent cement shall have a VOC content of 51 0 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2. INDIRECT WASTE PIPING (IF APPLICABLE):

a. HARD DRAWN COPPER TUBE TYPE "M".

3. VENT PIPING:

a. PROVIDE A COMPLETE SYSTEM OF VENT PIPING, CONSISTING OF SERVICE WEIGHT CAST IRON HUBLESS PIPE, CONNECTORS AND FITTINGS. COMBINE THE VENT RISERS IN THE CEILING SPACE AND CONNECT TO NEW VENT MAIN.

4. WATER PIPING:

a. PROVIDE NEW DOMESTIC WATER PIPING SYSTEM INSIDE THE BUILDING AS SHOWN ON DRAWINGS. HOT AND COLD WATER PIPING SHALL BE COPPER TUBING & FITTINGS OR CCPVC PIPING & FITTINGS. PROVIDE WATER HAMMER ARRESTORS AS REQUIRED. LAY OUT WATER PIPING SO THAT ENTIRE SYSTEM CAN BE DRAINED. FLUSH THE WATER PIPING CLEAR OF DEBRIS AND CLEAN THE AERATORS AND STRAINERS AT THE TERMINATION OF THE INSTALLATION.

b. COPPER TUBE AND FITTINGS

- b.a. Hard Copper Tube: ASTM B 88, Type L and ASTM B 88, Type M water tube, drawn temper.
- b.b. Soft Copper Tube: ASTM B 88, Type K and ASTM B 88, Type L water tube, annealed temper.
- b.c. Cast–Copper, Solder–Joint Fittings: ASME B16.18, pressure fittings.
- b.d. Wrought–Copper, Solder–Joint Fittings: ASME B16.22, wrought–copper pressure fittings.
- b.e. Bronze Flanges: ASME B16.24, Class 150, with solder–joint ends.
- b.f. Copper Unions:
- b.f.1. MSS SP–123.
- b.f.2. Cast–copper–alloy, hexagonal–stock body.
- b.f.3. Ball–and–socket, motel–to–motel seating surfaces.
- b.f.4. Solder–joint or threaded ends.
- b.f.5. Copper Pressure–Seal–Joint Fittings:
- b.f.6. Fittings for NPS 2 and Smaller. Wrought–copper fitting with EPDM–rubber, O–ring seal in each end.
- b.1. 7. Fittings for NPS 2–1/2 to NPS 4: Cast–bronze or wrought–copper fitting with EPDM–rubber, D–ring seal in each end.

5. PIPE INSULATION:

INSULATE ALL COLD WATER AND CONDENSATE PIPING WITH 1/2", AND HOT WATER PIPING WITH 1", PREFORMED FIBERGLASS PER ASTM C335 WITH ALL –SERVICE JACKET AND VAPOR BARRIER (BY CT, OC, JM, PPG, OR KNAUF). INSULATION SHALL COMPLY WITH NFPA 255 AND ASTM EB4 WITH A MAXIMUM FLAME SPREAD OF 25 AND MAXIMUM SMOKE DEVELOPED OF 50. PROVIDE PRE– MOLDED FITTING COVERS EQUAL TO STARR DAVIS. AT CONTRACTOR'S OPTION, PLENUM–RATED ELASTOMERIC INSULATION (BY ARMSTRONG, RUBATEX OR EQUAL) MAY BE USED.

6. SHUT –OFF VALVES:

VALVES WITH UNIONS SHALL BE PROVIDED AT BRANCHES TO GROUPS OF MORE THAN TWO FIXTURES AND AT THE WATER HEATER TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. USE CHROME–FINISHED FORGED BRONZE BODY, FULL PORT BALL VALVES, LEAD FREE, PTFE SEATS AND PACKING, 400 LB. RATING WITH THREADED OR SOLDER ENDS, EQUAL TO NIBCO #FP600. VALVES SHALL BE ALL BRONZE FABRICATED VALVES FOR SCREWED PIPE. BY WALWORTH, ROCKWELL, NORDSTROM OR APPROVED EQUIVALENT.

7. AIR ADMITTANCE VALVE (A.A.V.) (IF REQUIRED):

STUDER MINIVENT, MAXIVENT, REDIVENT, TECVENT AND ULTRAVENT.

8. FLOOR DRAINS, CLEAN OUTS, TRAP SEALERS, HOSE BIBS AND BACKFLOW PREVENTERS:

SEE SCHEDULE ON PLUMBING DRAWINGS.

9. SUPPLIES AND TRAPS:

PROVIDE WATER SEALED TRAPS AND SUPPLIES INSTALLED AS CLOSE AS POSSIBLE TO ALL PLUMBING FIXTURES, DRAINS, AND/OR EQUIPMENT ITEMS FURNISHED BY OTHERS, HAVING A WASTE CONNECTION, OR REQUIRING WATER SERVICE. EXPOSED TRAPS AND SUPPLIES IN EXPOSED AREAS INCLUDING CABINET INTERIORS) SHALL BE CHROME PLATED BRASS.

10. DIELECTRIC FITTINGS:

SHALL BE EQUAL TO EPCO SALES, INC.

EXECUTION

A. PROVIDE ALL WORK, EQUIPMENT, AND MATERIALS INDICATED.
B. ALL PIPE SHALL BE INSTALLED ABOVE CEILINGS, INSIDE WALLS OR IN CONCEALED SPACES.
C. DISINFECTION OF POTABLE WATER SHALL BE PERFORMED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION. THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES PER MANUFACTURER'S ROUGH–IN DIMENSIONS. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL, FOR SANITARY JOINT. REPAIR ANY DAMAGE DONE TO EXISTING FEATURES AND RESTORE TO ORIGINAL CONDITIONS. PROVIDE CLEAN CONDITIONS AT TERMINATION OF WORK.
D. TEST WASTE AND WATER UNDER ACTUAL OPERATING CONDITIONS. REPAIR LEAKS AND RETURN TO SERVICE. TEST WASTE PIPING AT 15 FEET OF HEAD FOR 24 HOURS. TEST WATER PIPING AT 125 PSI FOR 2 HOURS. MAKE REPAIRS WITH NEW MATERIALS. REPLACE LEAKING MATERIALS, DO NOT REPAIR BY PATCHING. REPEAT TEST UNTIL STANDARDS ARE ACHIEVED.
E. PROVIDE DOMESTIC WATER BACKFLOW PREVENTERS AT ALL COFFEE MAKERS, ICE MAKERS, DISHWASHERS, WATER COOLERS, AIR CONDITIONING UNIT HUMIDIFIERS AND OR ANY OTHER DEVICE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION. BACK FLOW PREVENTERS SHALL BE APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
F. INSULATE ALL DOMESTIC HOT AND COLD WATER PIPING.
G. PROVIDE DIELECTRIC COUPLINGS AT ALL FERROUS TO NONFERROUS PIPE CONNECTIONS AND FLANGE UNION ISOLATING JOINTS TO PREVENT ANY ELECTROLYTIC ACTION BETWEEN DISSIMILAR METALS.
H. ALL SAW CUT OF FLOOR SHALL BE PATCHED BACK TO MATCH EXISTING FINISHES. BACKFILL PER SOILS ENGINEER'S RECOMMENDATIONS. SEAL WITH WATERPROOF MEMBRANE ALL SLAB PENETRATIONS 6" OUT FROM AND 6" UP THE DEMISING WALL
I. GUARANTEE THE WORK AND THE INSTALLATION FOR ONE YEAR AFTER FORMAL ACCEPTANCE BY THE OWNER.
J. ALL PIPES SHALL BE HUNG FROM BUILDING STRUCTURE WITH INSERTS EMBEDDED NO MORE THAN 2".

PLUMBING GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH THE BUILDING, MECHANICAL, AND PLUMBING CODES OF THE STATE OF NEW YORK, AND ALL THE LAWS, ORDINANCES, RULES, CODES AND REGULATIONS OF ALL GOVERNMENTAL AUTHORITIES HAVING JURISDICTION AND THE NATIONAL FIRE PROTECTION ASSOCIATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND DETERMINING THE EXISTING CONDITIONS IN WHICH THE WORK IS TO BE PERFORMED. PROVIDE ALL WORK INDICATED ON THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL REMOVE AND DISCONNECT ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND UNLESS OTHERWISE INDICATED.
4. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE CONTRACT AREA AND ALL OTHER AREAS USED FOR STORAGE, STAGING, ETC. THIS SHALL INCLUDE. BUT NOT BE LIMITED TO: WASHING (AND REPAIRING), REMOVING SPOTS AND STAINS, CLEANING ALL FIXTURES AND WASHING ALL FLOORS, WALLS AND CEILINGS (IF APPROPRIATE).
5. REFER TO MECHANICAL SHEETS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND DUCTWORK AND COORDINATE ALL WORK TO BE REMOVED.
6. THE CONTRACTOR SHALL PROVIDE NECESSARY PIPING, VALVES, TRAPS, TEMPORARY FEEDS, DRIPS, ETC. AS REQUIRED. DRAIN AND REFILL PIPING SYSTEMS AS OFTEN AS NECESSARY TO ACCOMMODATE PHASING AND TO MINIMIZE TIME LENGTH OF OUTAGES.
7. WHERE REQUIRED TO MAINTAIN THE EXISTING SYSTEMS IN OPERATION, THE CONTRACTOR SHALL TEMPORARILY BACKFEED EXISTING SYSTEMS FROM NEW EQUIPMENT. CONTRACTOR SHALL TEMPORARILY EXTEND EXISTING PIPING SYSTEMS TO NEW PIPING SYSTEMS WITH THE APPROPRIATE SHUT –OFF VALVES.
8. AT COMPLETION OF PROJECT ALL TEMPORARY PIPING, VALVES, CONTROLS, ETC. SHALL BE REMOVED IN THEIR ENTIRETY.

CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

Job # E2119

100% CONSTRUCTION DEVELOPMENT

REVISION

NO.	DESCRIPTION	DATE

ARCHITECTS SEAL

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Dobbs Ferry, NY 10516
T: 617.338.0060
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8999
F: 949.716.9959

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:	CRS		
CHECKED BY:	JLC		
SCALE:	AS NOTED		
DATE:	20 OCT. 2021		
PROJECT NO:	2019		

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

PLUMBING NOTES

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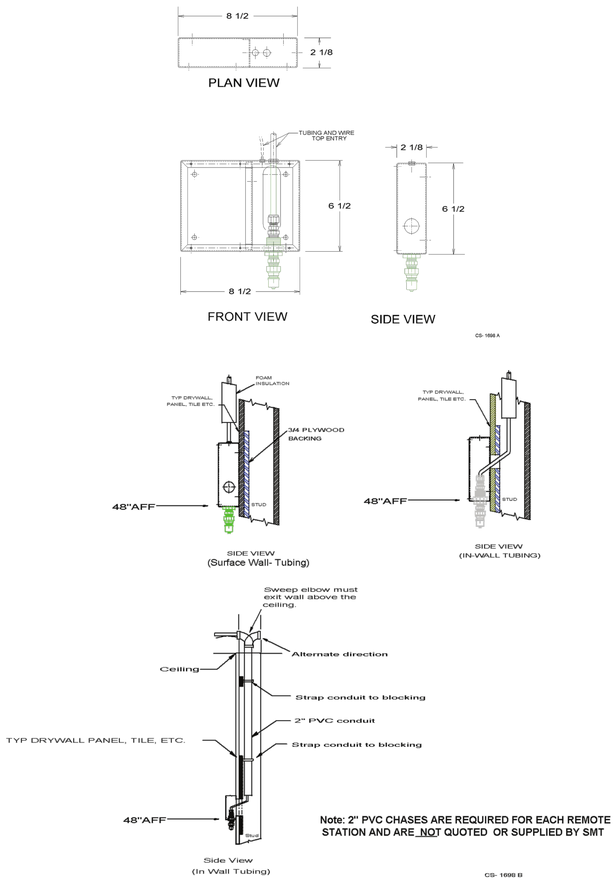
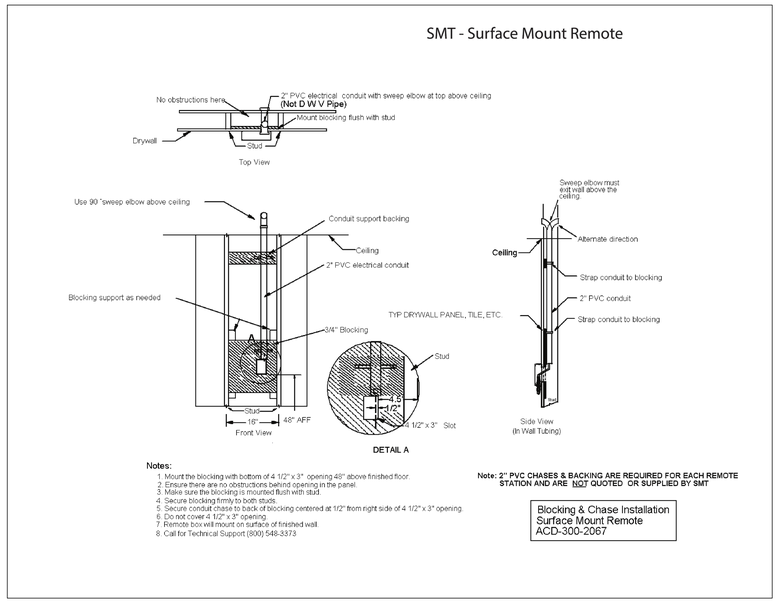
P0.02

SMT - Surface Mount Remote



P–29 INTERIOR HIGH PRESSURE WASHER REMOTE STATION ROUGH–IN DETAIL #1
NOT TO SCALE

SMT - Surface Mount Remote



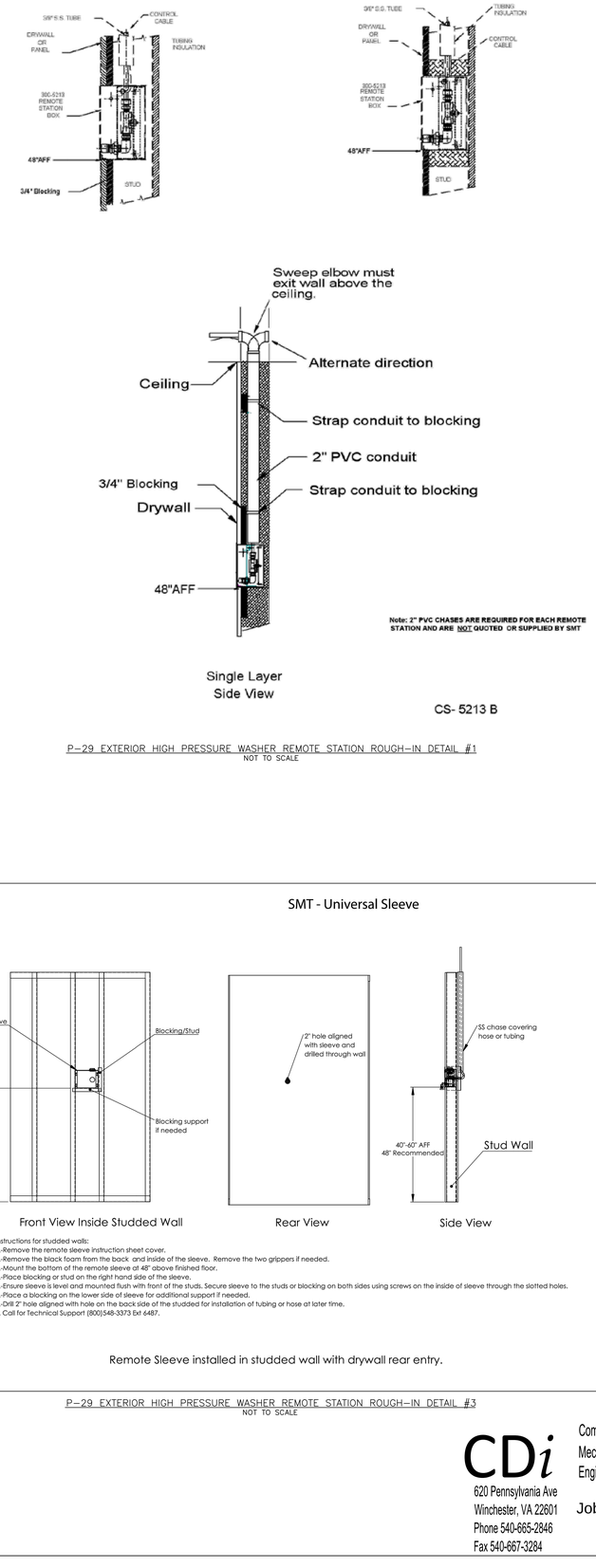
Notes:
1. Mount the blocking with bottom of 4 1/2" x 3" opening 48" above finished floor.
2. Ensure there are no obstructions behind opening in the panel.
3. Make sure the blocking is mounted flush with stud.
4. Secure blocking firmly to both studs.
5. Secure conduit chase to back of blocking centered at 1/2" from right side of 4 1/2" x 3" opening.
6. Do not cover 4 1/2" x 3" opening.
7. Remote box will mount on surface of finished wall.
8. Call for Technical Support (800) 548-3373

Note: 2" PVC CHASES & BACKING ARE REQUIRED FOR EACH REMOTE STATION AND ARE NOT QUOTED OR SUPPLIED BY SMT

Blocking & Chase Installation
Surface Mount Remote
ACD-300-2067

P–29 INTERIOR HIGH PRESSURE WASHER REMOTE STATION ROUGH–IN DETAIL #2
NOT TO SCALE

SMT - Non-Masonry Remote



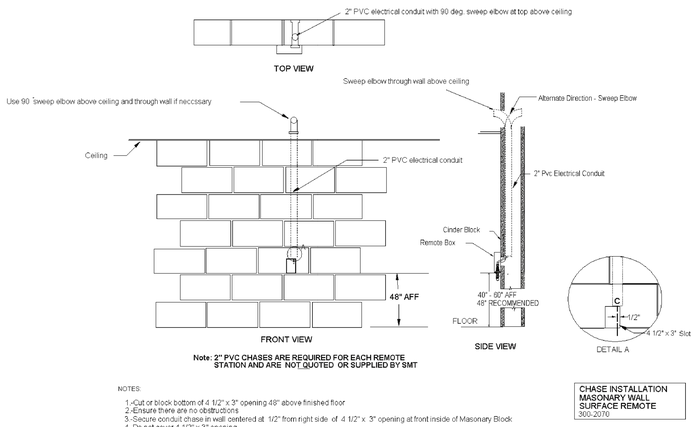
Note: 2" PVC CHASES ARE REQUIRED FOR EACH REMOTE STATION AND ARE NOT QUOTED OR SUPPLIED BY SMT

Single Layer
Side View

CS- 5213 B

P–29 EXTERIOR HIGH PRESSURE WASHER REMOTE STATION ROUGH–IN DETAIL #1
NOT TO SCALE

SMT - Surface Mount Remote



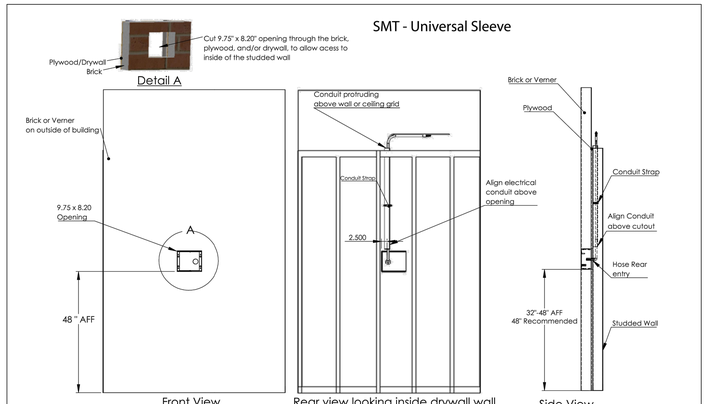
Note: 2" PVC CHASES ARE REQUIRED FOR EACH REMOTE STATION AND ARE NOT QUOTED OR SUPPLIED BY SMT

NOTES:
1.-Cut or block bottom of 4 1/2" x 3" opening 48" above finished floor.
2.-Ensure there are no obstructions
3.-Secure conduit chase in wall centered at 1/2" from right side of 4 1/2" x 3" opening at front inside of Masonary Block
4.-Do not cover 4 1/2" x 3" opening.
5.-Remote box will mount on surface of finished wall.
6.-Call for Technical Support (800) 548-3373
7.-Special Provision required for furred out masonary wall.

CHASE INSTALLATION
MASONARY WALL
SURFACE REMOTE
300-2070

P–29 INTERIOR HIGH PRESSURE WASHER REMOTE STATION ROUGH–IN DETAIL #3
NOT TO SCALE

SMT - Universal Sleeve



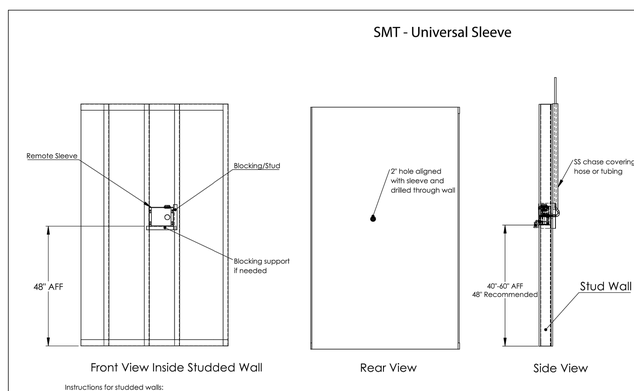
Note: 2" Electrical conduit chases are required for each sleeve and are not quoted or supplied by SMT.

Instructions for Brick or Verner walls:
1.-Cut or block bottom of 9.75" x 8.20" opening 48" above finished floor.
2.-Remove the black foam from the back side of sleeve covering hole.
3.-Ensure the depth of the opening is 4.25" Minimum. Cut opening between the outside brick and studded wall on the inside of building.
4.-Block or mount sleeve in opening and ensure the sleeve is level and flush with front of the brick or stone verner wall.
5.-Align a 2" rigid non metallic conduit chase above the opening inside the drywall centered 2.50 inches from the right of the opening. Route the conduit chase up through the top of the studded wall above the ceiling grid , Secure the conduit so it will not move or become misaligned.
6-Call for Technical Support (800)548-3373 Ext 6487.

Remote Sleeve Instruction in Brick or Stone Verner Sheet Rear Entry

P–29 EXTERIOR HIGH PRESSURE WASHER REMOTE STATION ROUGH–IN DETAIL #2
NOT TO SCALE

SMT - Universal Sleeve



Instructions for studded walls:
1.-Remove the remote sleeve instruction sheet cover.
2.-Remove the black foam from the back and inside of the sleeve. Remove the two grippers if needed.
3.-Mount the bottom of the remote sleeve at 48" above finished floor.
4.-Place blocking or stud on the right hand side of the sleeve.
5.-Ensure sleeve is level and mounted flush with front of the studs. Secure sleeve to the studs or blocking on both sides using screws on the inside of sleeve through the slotted holes.
6.-Place a blocking on the lower side of sleeve for additional support if needed.
7.-Drill 2" hole aligned with hole on the back side of the studded for installation of tubing or hose at later time.
8. Call for Technical Support (800)548-3373 Ext 6487.

Remote Sleeve installed in studded wall with drywall rear entry.

P–29 EXTERIOR HIGH PRESSURE WASHER REMOTE STATION ROUGH–IN DETAIL #3
NOT TO SCALE

CDi
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

Comfort Design Inc.
Mechanical & Electrical
Engineers

Job # E2119

REVISION / DESCRIPTION / NO. / DATE

ARCHITECTS SEAL

East Coast Office
97 Broadway
Bayville, NY 11709
T: 617.338.0040
F: 617.426.2557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.8959

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CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

100% CONSTRUCTION DEVELOPMENT

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SMT ROUGH-IN DETAILS

P0.03

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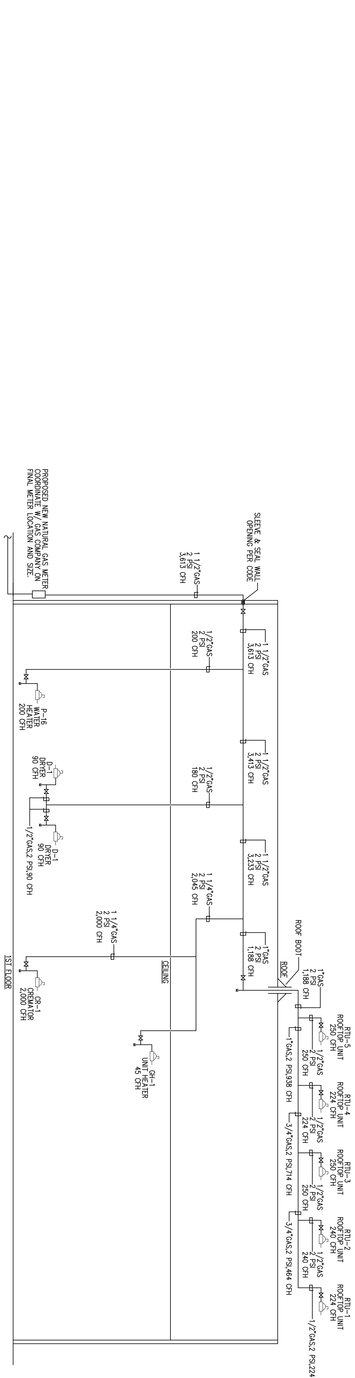

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CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2646
Fax 540-667-2284
Job # E2119

P0.04

SANITARY WASTE & NATURAL GAS RISER DIAGRAMS

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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.9959

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SANITARY PLAN

P1.01

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rfa rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.6899
F: 949.716.9959

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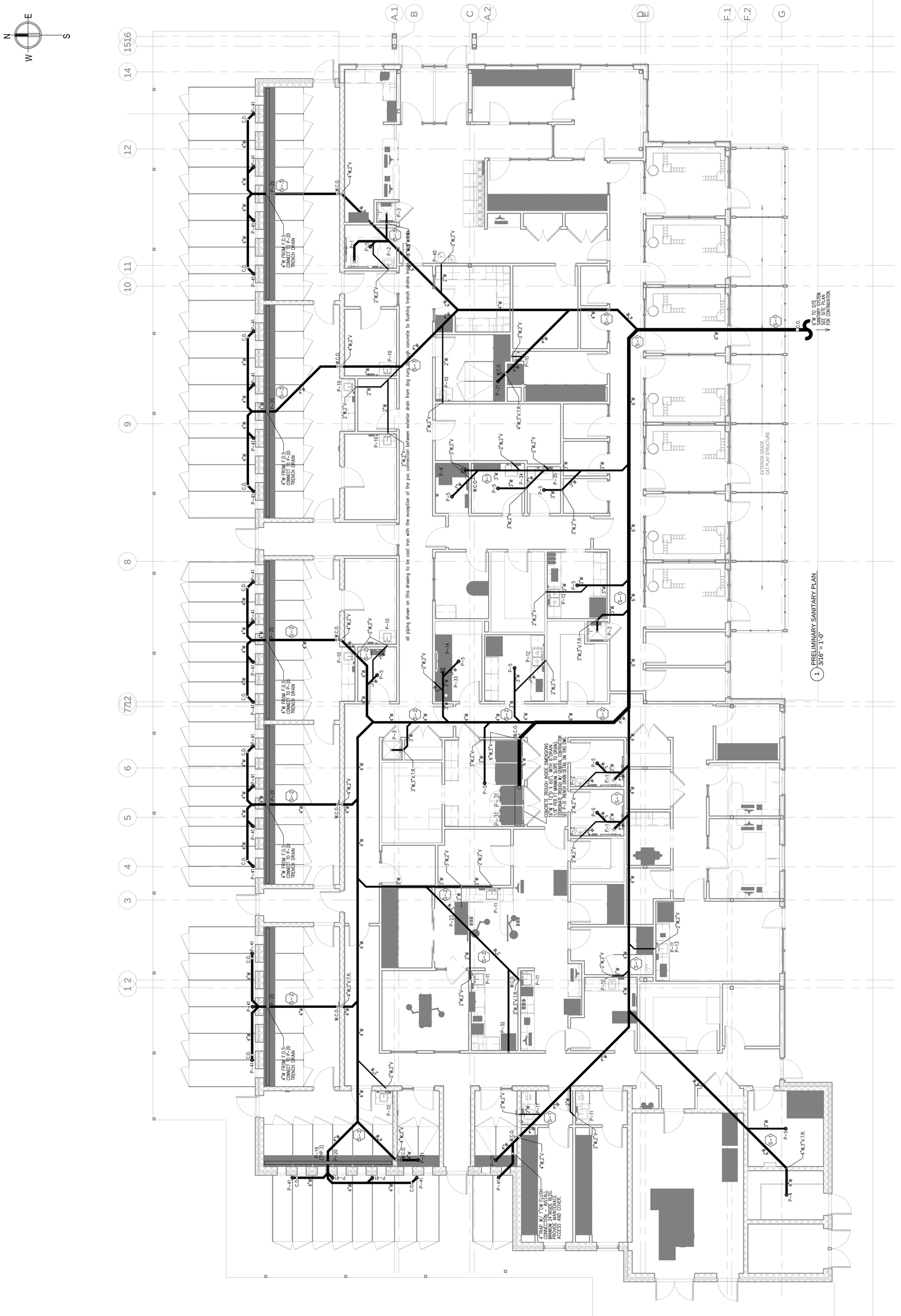
CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
Job # E2119

1 PRELIMINARY SANITARY PLAN
3/16" = 1'-0"



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CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

WATER PLAN

P2.01

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rfa
rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8899
F: 949.716.9959

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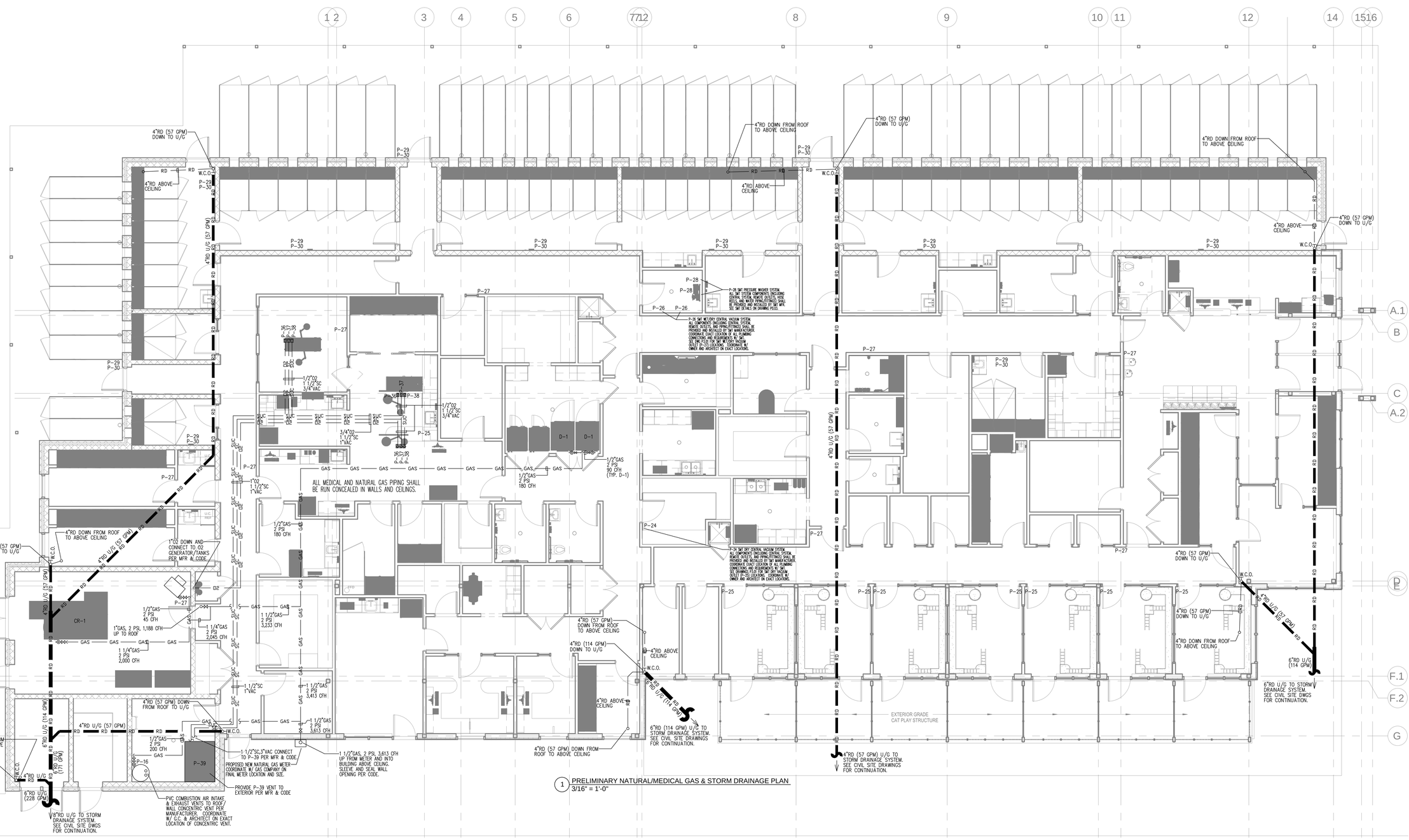
CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
Job # E2119

1 PRELIMINARY WATER PLAN
3/16" = 1'-0"

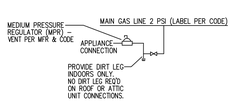


1 PRELIMINARY NATURAL/MEDICAL GAS & STORM DRAINAGE PLAN
3/16" = 1'-0"

NATURAL GAS LOAD TABLE

MARK	UNIT DESCRIPTION	MFR OR EQUAL	MODEL	INPUT BTUH
P-16	WATER HEATER	A.O. SMITH	BTH-199	200,000
D-1	COMMERCIAL DRYER	GIRBAU	CG30-40	90,000
D-1	COMMERCIAL DRYER	GIRBAU	CG30-40	90,000
RTU-1	ROOFTOP UNIT	CARRIER	48HCFE08K2AA5DWH	224,000
RTU-2	ROOFTOP UNIT	CARRIER	48HCFE14K2AA5DWH	240,000
RTU-3	ROOFTOP UNIT	CARRIER	48HCFE12K2AA5DWH	250,000
RTU-4	ROOFTOP UNIT	CARRIER	48HCFE08K2AA5DWH	224,000
RTU-5	ROOFTOP UNIT	CARRIER	48HCFE12K2AA5DTH	250,000
GH-1	UNIT HEATER	MODINE	HD45	45.000
CR-1	CREMATION UNIT	MES	IEB-16	2,000,000
SUMMARY TOTALS FOR GAS LOADS				3,613 CFH
				3,613 CFH

NATURAL GAS PIPE SIZING BASED ON THE 2020 FUEL GAS CODE OF NY STATE, TABLE 402.4(5). 2 PSI PRESSURE W/ 1.0 PSI PRESSURE DROP, GAS = 0.60 SPECIFIC GRAVITY, SCHEDULE 40 PIPE AND 150 FEET. (1000 BTUH = 1 CFH)



TYPICAL GAS CONNECTION DETAIL
NOT TO SCALE

GAS PIPING LEGEND:

- O2 — O2 — O2 — MEDICAL GAS GRADE COPPER OXYGEN (O2) PIPING W/ HANGERS/SUPPORTS PER CODE.
- SUC — SUC — SUC — MEDICAL GAS GRADE COPPER SUCTION (VAC) PIPING W/ HANGERS/SUPPORTS PER CODE.
- SC — SC — SC — SCH 40 PVC SCAVENGER (SC) PIPING W/ HANGERS/SUPPORTS PER CODE.
- GAS — GAS — GAS — NATURAL GAS SCH 40 STEEL PIPING W/ LABEL PER CODE.

CDi
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

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NATURAL/MEDICAL GAS & STORM DRAINAGE PLAN

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CAPITOL PROJECT 1483

CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

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NO. | DESCRIPTION | DATE

ARCHITECTS SEAL

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Beacon, NY 12508
T: 617.338.0050
F: 617.428.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9959

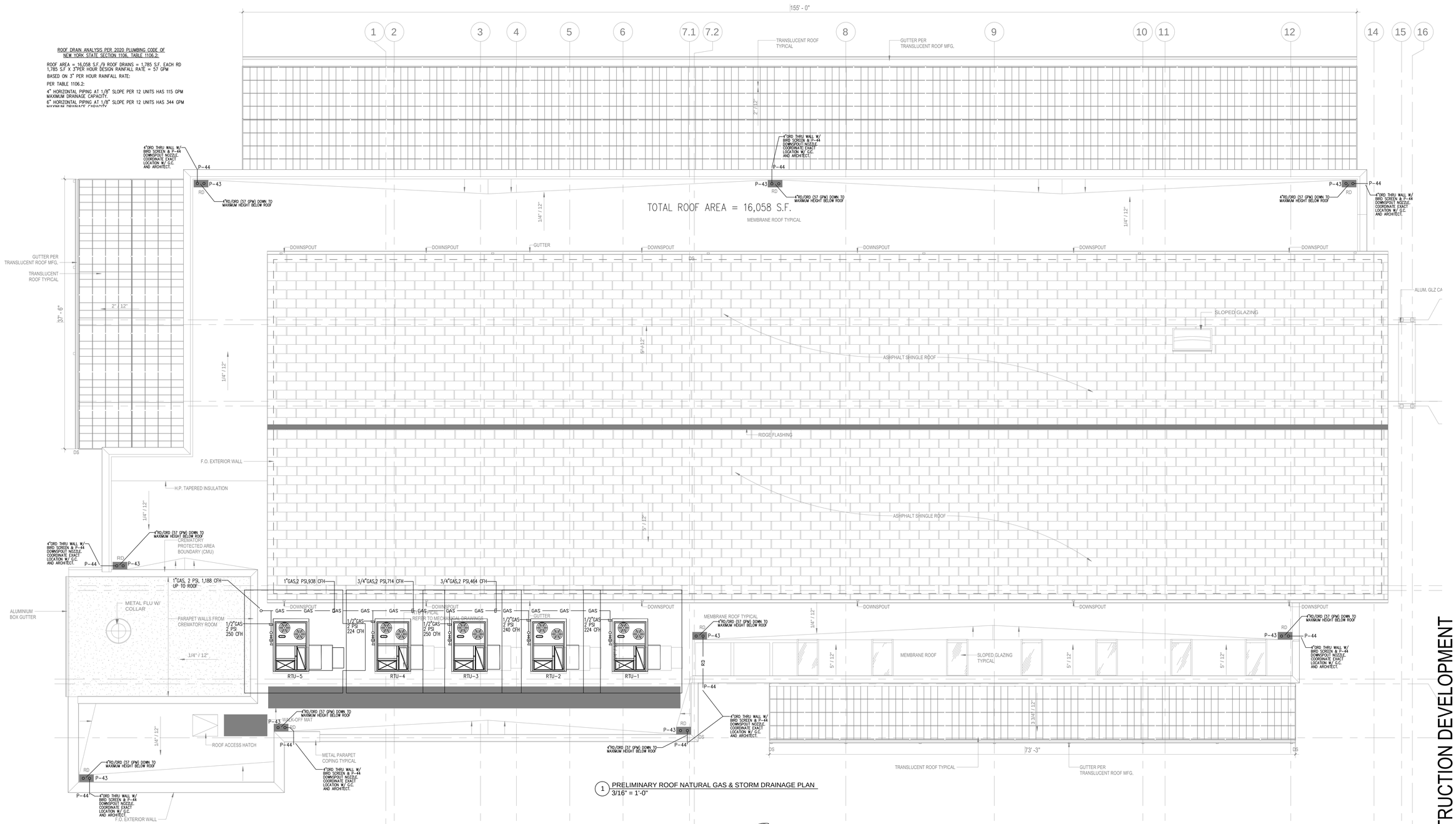
4" HORIZONTAL PIPING AT 1/8" SLOPE PER 12 UNITS HAS 115 GPM MAXIMUM DRAINAGE CAPACITY.
6" HORIZONTAL PIPING AT 1/8" SLOPE PER 12 UNITS HAS 344 GPM MAXIMUM DRAINAGE CAPACITY.
8" HORIZONTAL PIPING AT 1/8" SLOPE PER 12 UNITS HAS 714 GPM MAXIMUM DRAINAGE CAPACITY.

ROOF DRAIN ANALYSIS PER 2020 PLUMBING CODE OF NEW YORK STATE SECTION 1106, TABLE 1106.2:

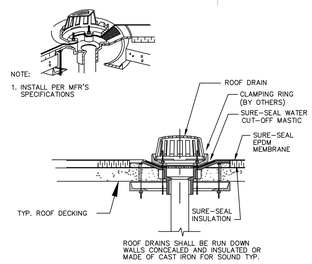
ROOF AREA = 16,058 S.F./9 ROOF DRAINS = 1,785 S.F. EACH RD
1,785 S.F. X 3"PER HOUR DESIGN RAINFALL RATE = 57 GPM
BASED ON 3" PER HOUR RAINFALL RATE:

PER TABLE 1106.2:

4" HORIZONTAL PIPING AT 1/8" SLOPE PER 12 UNITS HAS 115 GPM MAXIMUM DRAINAGE CAPACITY.
6" HORIZONTAL PIPING AT 1/8" SLOPE PER 12 UNITS HAS 344 GPM MAXIMUM DRAINAGE CAPACITY.



1 PRELIMINARY ROOF NATURAL GAS & STORM DRAINAGE PLAN
3/16" = 1'-0"



TYPICAL ROOF DRAIN DETAIL
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CDi
Comfort Design Inc.
Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
Job # E2119

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ROOF NATURAL GAS & STORM DRAINAGE PLAN

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P3.02

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ARCHITECTS SEAL

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Cambridge, MA 02116
T: 617.338.0050
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8999
F: 949.716.9959

1 LIGHTING PLAN
E1.01 3/16" = 1'-0"

LIGHTING SYMBOL LIST	
ALL JUNCTION BOXES AND OUTLETS SHALL HAVE A MECHANICALLY PRINTED PERMANENT LABEL ATTACHED INDICATING WHICH CIRCUIT AND PANEL SERVES THE JUNCTION BOX OR OUTLET.	
SYMBOL	DESCRIPTION
$	WALL SWITCH, 3 DENOTES 3-WAY OPERATION, 4 DENOTES 4-WAY OPERATION, D DENOTES FIXTURE COMPATIBLE DIMMER SWITCH, FAN DENOTES FAN COMPATIBLE SWITCH. ADA MOUNTING HEIGHT.
	WALL SWITCH DUAL TECHNOLOGY OCCUPANCY SENSOR WITH PROGRAMMABLE DELAY. ADA MOUNTING HEIGHT.
	CEILING MOUNTED OCCUPANCY SENSOR
	PHOTOCELL SENSOR
	DASHED LINE REPRESENTS SWITCHED WIRING BETWEEN FIXTURES IN A SWITCHED GROUP. CONTAINS SWITCHED CONDUCTORS AND DIMMING CONTROL WIRES (0-10V) FOR DIMMING CIRCUITS. MAY ALSO CONTAIN UN-SWITCHED CONDUCTORS FOR CIRCUIT CONTINUATION OR EMERGENCY LIGHTING.
	UN-SWITCHED WIRING.

FIXTURE SCHEDULE		
SYMBOL	TYPE	DESCRIPTION/MODEL
○	A1	RECESSED LED DOWNLIGHT- GOTHAM ARCHITECTURAL LIGHTING: EVO6 35/10 AR WD LSS MVOLT GZ10. EM DENOTES EMERGENCY BACKUP BATTERY. ADD (EM) OPTION- ELR
■	C1	2X2 RECESSED LED- LITHONIA: EPANL 2X2 3400LM 80CRI 35K MINIO ZT MVOLT. EM DENOTES EMERGENCY FIXTURE WITH EMERGENCY BACKUP BATTERY. ADD (E10WCP) OPTION.
▮	C2	2X4 RECESSED LED- LITHONIA: EPANL 2X4 4000LM 80CRI 35K MINIO ZT MVOLT. EM DENOTES EMERGENCY FIXTURE WITH EMERGENCY BACKUP BATTERY. ADD (E10WCP) OPTION.
—	C3	1X4 SURFACE MOUNTED STRIP- LITHONIA: CLX L48 4000LM SEF FDL MVOLT GZ10 35K 80CRI. EM DENOTES EMERGENCY FIXTURE WITH EMERGENCY BACKUP BATTERY. ADD (E10WLCP) OPTION.
—	C4	1X4 SURFACE MOUNTED STRIP- LITHONIA: CLX L48 4000LM SEF FDL MVOLT GZ10 35K 80CRI. EM DENOTES EMERGENCY FIXTURE WITH EMERGENCY BACKUP BATTERY. ADD (E10WLCP) OPTION.
—	C5	SURFACE MOUNT 4 FT STRIP LIGHT- BARTCO LIGHTING INC.: BSW214-4-35-ID-R-XX-SN-AW
▬	H1	EXTERIOR FIXTURE WITH EMERGENCY BACKUP BATTERY- LUMINIS CANADA INC: SY602-L2L15-R55-120V-FINISH-PH-REML2-50
●	P1	RIM ROUND 2' PENDANT FIXTURE- LUMENWERX: RIMRP-24-ULO-SW-90-3000-35-VOLTAGE-DRIVER-1C-MOUNTING-FINISH
⊟	E	EMERGENCY LED FIXTURE- H.E. WILLIAMS: EMER/DECO-DBR-D
◒	W	S2L INDIRECT/DIRECT WALL FIXTURE- MARK ARCHITECTURAL LIGHTING: S2LWID 4 F 80CRI 35K 400LMF 180CRI 135K 1800LMF XX DIMMING SWITCHING VOLTAGE FINISH XX
—	W1	1X4 SURFACE MOUNTED STRIP- LITHONIA: CLX L48 4000LM SEF FDL MVOLT GZ10 35K 80CRI. EM DENOTES EMERGENCY FIXTURE WITH EMERGENCY BACKUP BATTERY. ADD (E10WLCP) OPTION.
▬	W2	1X2 SURFACE MOUNTED STRIP- LITHONIA: CLX L24 2000LM SEF FDL MVOLT GZ10 35K 80CRI. EM DENOTES EMERGENCY FIXTURE WITH EMERGENCY BACKUP BATTERY. ADD (E10WLCP) OPTION.
⊠		EMERGENCY EXIT LED- CARPENTER EMERGENCY LIGHTING: FXSP-R-IC-W-E

COMcheck Software Version 4.1.5.0

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2014 New York Energy Conser. Constr. Code (by application of 90.1 (2010) Standard)
Project Title: Hi- Thor Animal Shelter
Project Type: New Construction

Construction Site: 65 Firemans Memorial Drive Pomona, NY 10970
Owner/Agent:
Designer/Contractor:

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Health Care-Clinic	11250	0.87	9786
		Total Allowed Watts =	9786

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Health Care-Clinic				
LED 1: A1: Other:	1	15	9	132
LED 2: C1: Other:	1	64	30	1937
LED 3: C2: Other:	1	109	38	4098
LED 4: C3: Other:	1	17	28	469
LED 5: C4: Other:	1	10	55	552
LED 6: C5: Other:	1	24	41	984
LED 8: P1: Other:	1	2	36	72
LED 9: W: Other:	1	14	37	515
LED 10: W1: Other:	1	4	28	110
LED 11: W2: Other:	1	2	14	29
		Total Proposed Watts =		8899

Interior Lighting PASSES: Design 9% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2010) Standard requirements in COMcheck Version 4.1.5.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Heather Bowers — Name - Title
Heather Bowers — Signature
9-22-21 — Date

COMcheck Software Version 4.1.5.0

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2014 New York Energy Conser. Constr. Code (by application of 90.1 (2010) Standard)
Project Title: Hi- Thor Animal Shelter
Project Type: New Construction
Exterior Lighting Zone: 2 (Neighborhood business district)

Construction Site: 65 Firemans Memorial Drive Pomona, NY 10970
Owner/Agent:
Designer/Contractor:

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Entry canopy	4156 ft2	0.25	Yes	1039
		Total Tradable Watts (a) =		1039
		Total Allowed Watts =		1039
		Total Allowed Supplemental Watts (b) =		600

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Entry canopy (4156 ft2): Tradable Wattage				
LED 1: H1: Other:	1	12	31	372
		Total Tradable Proposed Watts =		372

Exterior Lighting PASSES: Design 77% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 90.1 (2010) Standard requirements in COMcheck Version 4.1.5.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Heather Bowers — Name - Title
Heather Bowers — Signature
9-22-21 — Date

NO.	REVISION DESCRIPTION	DATE

ARCHITECTS SEAL

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2537

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9959

rauhaus freedenfeld & associates

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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

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LIGHTING PLAN

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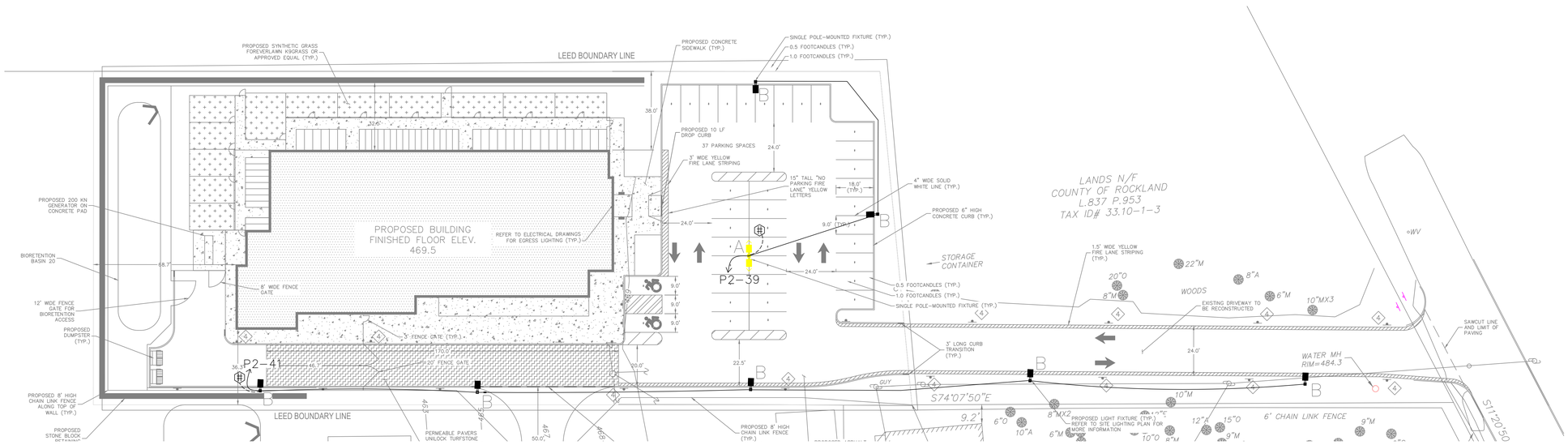
CDi Comfort Design Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
JOB # E2119



1 SITE LIGHTING PLAN
E1.02 REFER TO CIVIL DRAWINGS

FIXTURE SCHEDULE		
SYMBOL	TYPE	DESCRIPTION/MODEL
	A	LED POLE FIXTURE- COOPER LIGHTING: GPC-SA2C-730-U-5WQ
	B	LED POLE FIXTURE- COOPER LIGHTING: GPC-SA2C-730-U-SL2-HSS

LIGHTING SYMBOL LIST	
ALL JUNCTION BOXES AND OUTLETS SHALL HAVE A MECHANICALLY PRINTED PERMANENT LABEL ATTACHED INDICATING WHICH CIRCUIT AND PANEL SERVES THE JUNCTION BOX OR OUTLET.	
SYMBOL	DESCRIPTION
$	WALL SWITCH, 3 DENOTES 3-WAY OPERATION, 4 DENOTES 4-WAY OPERATION, D DENOTES FIXTURE COMPATIBLE DIMMER SWITCH, FAN DENOTES FAN COMPATIBLE SWITCH. ADA MOUNTING HEIGHT.
	WALL SWITCH DUAL TECHNOLOGY OCCUPANCY SENSOR WITH PROGRAMMABLE DELAY. ADA MOUNTING HEIGHT.
	CEILING MOUNTED OCCUPANCY SENSOR
	PHOTOCELL SENSOR
	DASHED LINE REPRESENTS SWITCHED WIRING BETWEEN FIXTURES IN A SWITCHED GROUP. CONTAINS SWITCHED CONDUCTORS AND DIMMING CONTROL WIRES (0-10V) FOR DIMMING CIRCUITS. MAY ALSO CONTAIN UN-SWITCHED CONDUCTORS FOR CIRCUIT CONTINUATION OR EMERGENCY LIGHTING.
	UN-SWITCHED WIRING.

CDi Comfort Design Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
JOB # E2119

REVISION NO.	DESCRIPTION	DATE

ARCHITECTS SEAL

rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.338.0063
F: 617.426.3537
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8999
F: 949.716.8999

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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

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LIGHTING PLAN

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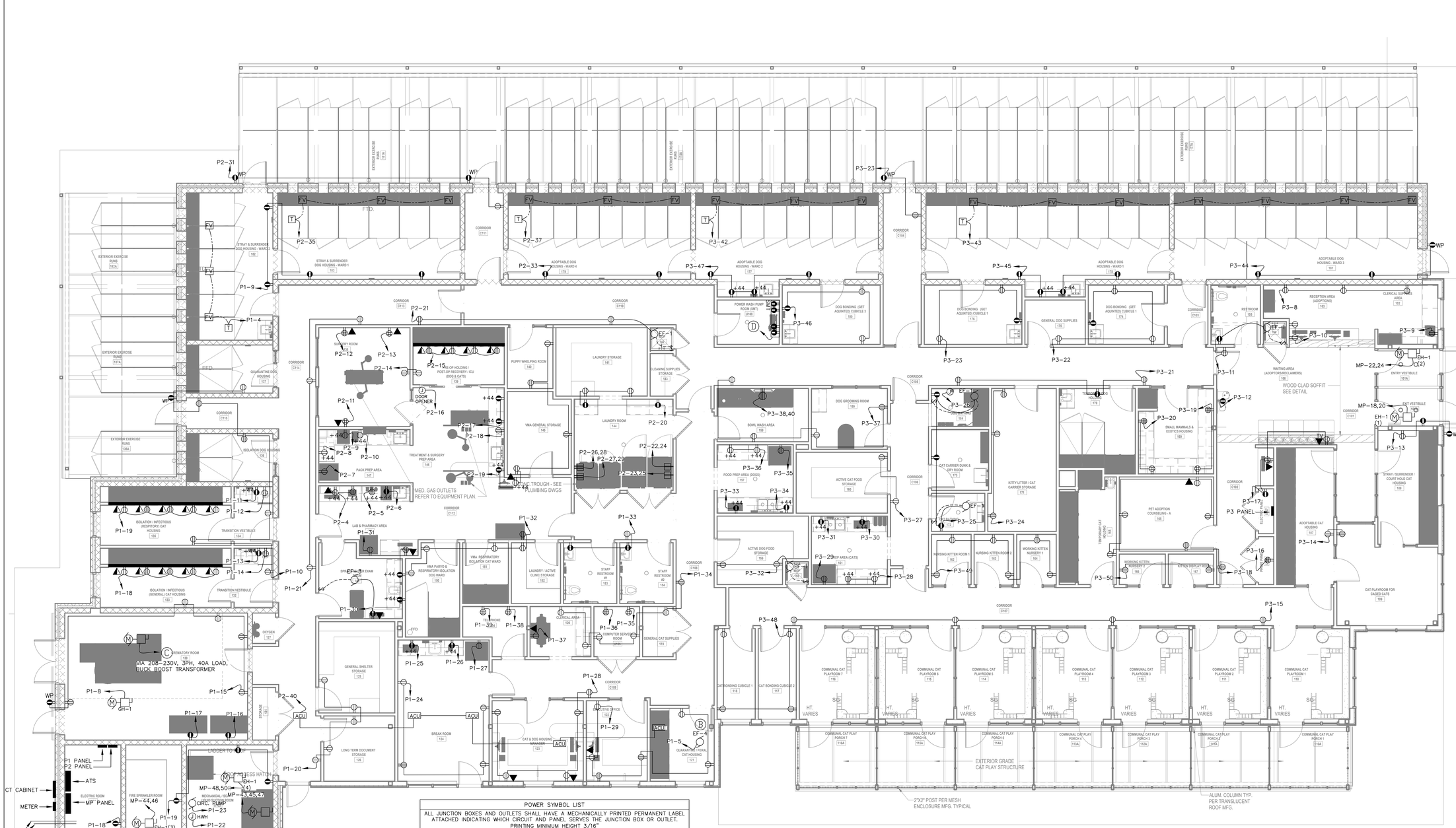


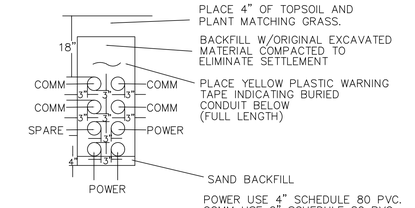
1 POWER PLAN
E2.01 3/16" = 1'-0"

POWER SYMBOL LIST	
ALL JUNCTION BOXES AND OUTLETS SHALL HAVE A MECHANICALLY PRINTED PERMANENT LABEL ATTACHED INDICATING WHICH CIRCUIT AND PANEL SERVES THE JUNCTION BOX OR OUTLET. PRINTING MINIMUM HEIGHT 3/16"	
OUTLET AND SWITCH COLOR SHALL BE AS DIRECTED BY THE ARCHITECT. OUTLET AND SWITCH PLATES SHALL BE STAINLESS STEEL.	
SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE
	GFCI RECEPTACLE. WP DENOTES WEATHERPROOF COVER. COORDINATE MOUNTING HEIGHT AT COUNTERS AND CASEWORK
	QUAD RECEPTACLE
	CEILING MOUNTED RECEPTACLE.
	JUNCTION BOX EQUIPMENT CONNECTION
	FUSED DISCONNECT SWITCH AND MOTOR CONNECTION. PROVIDE FUSES PER NAMEPLATE DATA.
	COMMERCIAL DRYER 208V
	COMMERCIAL WASHER 208V
	MOTOR CONNECTION (DISPOSER, EXHAUST FAN)
T	ABOVE CEILING FLUSH VALVE TRANSFORMER. COORDINATE WITH PLUMBING CONTRACTOR FOR LOCATION OF TRANSFORMER.
FV	FLUSH VALVE
TV	MOUNT RECEPTACLE 60" AFF FOR WALL MOUNTED TV.
	WIREMOLD 4000 WITH DUAL CHANNEL ACCESSORIES. COORDINATE MOUNTING HEIGHT WITH OWNER PRIOR TO INSTALLATION ABOVE CAGE AREAS.
	208V RECEPTACLE
	DENOTES SMT AND POWER WASH SYSTEM
+44	APPROXIMATE MOUNTING HEIGHT. MOUNT ABOVE COUNTER. COORDINATE WITH COUNTER INSTALLER PRIOR TO ROUGH-IN.
ACU	PROVIDE RECEPTACLE IN ATTIC SPACE FOR AIR CLEANER AT SUPPLY DUCT. COORDINATE WITH MECHANICAL CONTRACTOR.

LOW VOLTAGE SYMBOL LIST	
SYMBOL	DESCRIPTION
◂	LOW VOLTAGE OUTLET. SINGLE GANG BOX WITH 3/4" ENT STUB (WITH PULL STRING) TO ACCESSIBLE CEILING SPACE.
◂	COMBINATION TELE/DATA OUTLET. 4X4 BOX WITH CAT 6 VOICE CABLE BACK TO BOARD IN COMMUNICATION CLOSET AND CAT 6 CABLE BACK TO RACK IN COMMUNICATION CLOSET. 3' SLACK EACH. CABLES TO BE LABELED (BOTH ENDS), TESTED, AND TERMINATED. COMBINATION RJ-11 AND RF-45 COVERPLATE.
Ⓚ	ELECTRONIC LOCK SET (CARD READER/PUSH BUTTON) SYSTEM: SINGLE GANG BOX MOUNTED ON WALL WITH CAT6 CABLE. CABLE TO RUN FROM LOCATIONS TO PATCH PANEL. CABLES TO BE LABELED (BOTH ENDS), TESTED, AND TERMINATED.

REFER TO CIVIL DRAWINGS FOR LOCATIONS OF 200KW GENERATOR AND HOT BOX. REFER TO SHEET E3.00 FOR A.T.S AND GENERATOR WIRING ON ONE LINE DIAGRAM. REFER TO PANEL SCHEDULES FOR ASSOCIATED GENERATOR EQUIPMENT POWER CONNECTIONS AND HOT BOX CONNECTIONS ON SHEET E3.00.

NOTES	
KEY	NOTE
Ⓐ	FAN RUNS CONTINUOUS
Ⓑ	CONTROLLED VIA 60 MINUTE WALL TIMER. COORDINATE WITH MECHANICAL.
Ⓒ	REFER TO SHEET E3.00 MP PANEL SCHEDULE FOR CIRCUIT LOCATIONS OF 240V, 3 PHASE, 40A, BUCK BOOST TRANSFORMER AND (1) 15A, 1PH, BREAKER TO BE CONNECTED TO CONTROL PANEL.
Ⓓ	PROVIDE (1) 20A, 1P, BREAKER FOR SMT PUMP AND (1) 20A, 1P, BREAKER FOR POWER WASH SYSTEM. REFER TO SHEET E3.00 FOR CIRCUIT LOCATIONS ON P2 PANEL SCHEDULE.



2 DUCT BANK DETAIL
E2.01 N.T.S.

CDi Comfort Design Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
JOB # E2119

REVISION NO.	DESCRIPTION	DATE

ARCHITECTS SEAL

East Coast Office
87 Broadway
Boston, MA 02116
T: 617.820.2557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9999

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: HMB
CHECKED BY: MPH
SCALE:
DATE: 20 OCT 2021
PROJECT NO: # 2019

POWER PLAN

PROGRESS SET ☐ BID SET ☐ PERMIT SET ☐ CONSTRUCTION SET ☐

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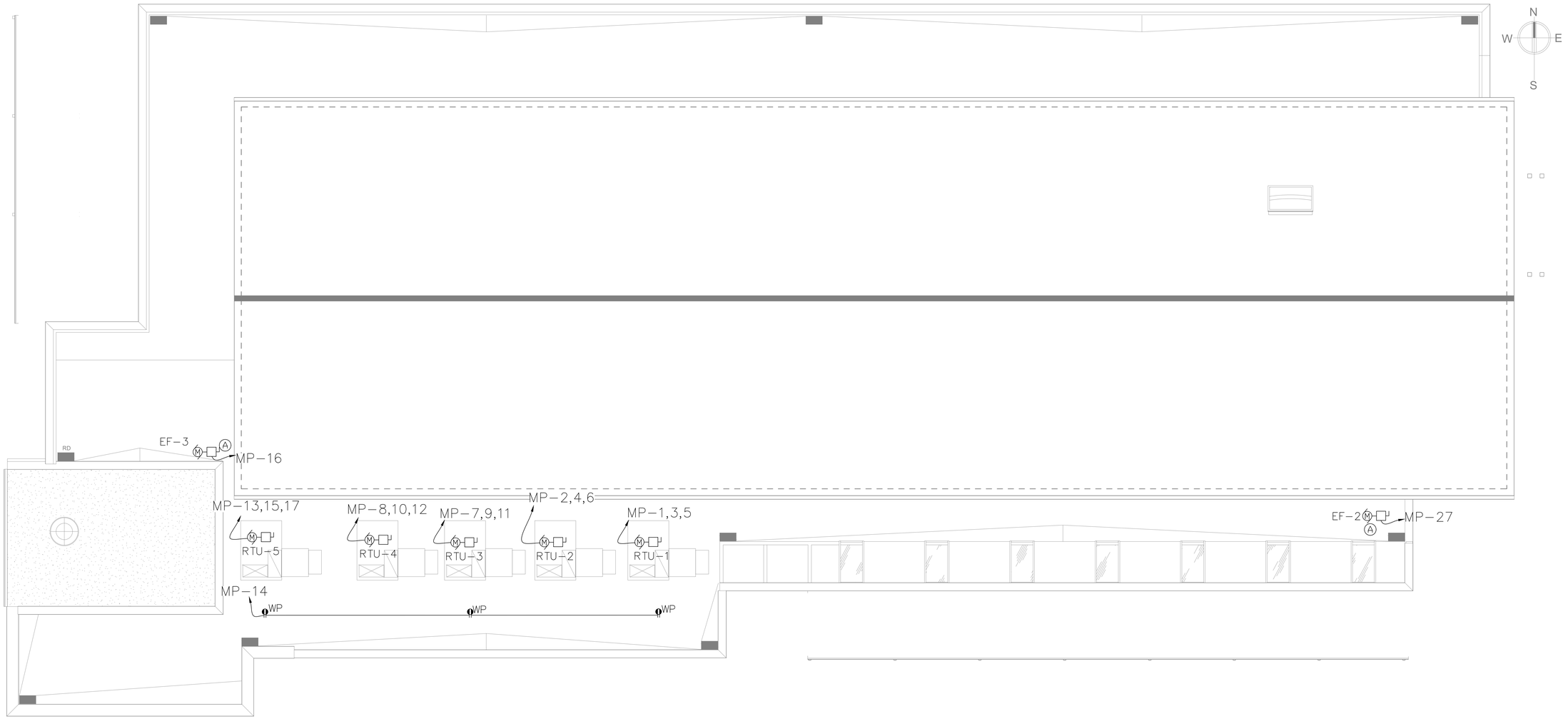

1 ROOF TOP POWER PLAN
E2.02 3/16" = 1'-0"

LOW VOLTAGE SYMBOL LIST	
SYMBOL	DESCRIPTION
◄	LOW VOLTAGE OUTLET. SINGLE GANG BOX WITH 3/4" ENT STUB (WITH PULL STRING) TO ACCESSIBLE CEILING SPACE.
◄	COMBINATION TELE/DATA OUTLET. 4X4 BOX WITH CAT 6 VOICE CABLE BACK TO BOARD IN COMMUNICATION CLOSET AND CAT 6 CABLE BACK TO RACK IN COMMUNICATION CLOSET. 3' SLACK EACH. CABLES TO BE LABELED (BOTH ENDS), TESTED, AND TERMINATED. COMBINATION RJ-11 AND RF-45 COVERPLATE.
Ⓚ	ELECTRONIC LOCK SET (CARD READER/PUSH BUTTON) SYSTEM: SINGLE GANG BOX MOUNTED ON WALL WITH CAT6 CABLE. CABLE TO RUN FROM LOCATIONS TO PATCH PANEL. CABLES TO BE LABELED (BOTH ENDS), TESTED, AND TERMINATED.

NOTES	
KEY	NOTE
Ⓐ	FAN RUNS CONTINUOUS
Ⓑ	CONTROLLED VIA 60 MINUTE WALL TIMER. COORDINATE WITH MECHANICAL.
Ⓒ	REFER TO SHEET E3.00 MP PANEL SCHEDULE FOR CIRCUIT LOCATIONS OF 240V, 3 PHASE, 40A, BUCK BOOST TRANSFORMER AND (1) 15A, 1PH, BREAKER TO BE CONNECTED TO CONTROL PANEL.
Ⓓ	PROVIDE (1) 20A, 1P, BREAKER FOR SMT PUMP AND (1) 20A, 1P, BREAKER FOR POWER WASH SYSTEM. REFER TO SHEET E3.00 FOR CIRCUIT LOCATIONS ON P2 PANEL SCHEDULE.

POWER SYMBOL LIST	
ALL JUNCTION BOXES AND OUTLETS SHALL HAVE A MECHANICALLY PRINTED PERMANENT LABEL ATTACHED INDICATING WHICH CIRCUIT AND PANEL SERVES THE JUNCTION BOX OR OUTLET. PRINTING MINIMUM HEIGHT 3/16"	
OUTLET AND SWITCH COLOR SHALL BE AS DIRECTED BY THE ARCHITECT. OUTLET AND SWITCH PLATES SHALL BE STAINLESS STEEL.	
SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE
	GFCI RECEPTACLE. WP DENOTES WEATHERPROOF COVER. COORDINATE MOUNTING HEIGHT AT COUNTERS AND CASEWORK
	QUAD RECEPTACLE
	CEILING MOUNTED RECEPTACLE.
⊘	JUNCTION BOX EQUIPMENT CONNECTION
	FUSED DISCONNECT SWITCH AND MOTOR CONNECTION. PROVIDE FUSES PER NAMEPLATE DATA.
	COMMERCIAL DRYER 208V
	COMMERCIAL WASHER 208V
⌀	MOTOR CONNECTION (DISPOSER, EXHAUST FAN)
T	ABOVE CEILING FLUSH VALVE TRANSFORMER. COORDINATE WITH PLUMBING CONTRACTOR FOR LOCATION OF TRANSFORMER.
FV	FLUSH VALVE
TV	MOUNT RECEPTACLE 60" AFF FOR WALL MOUNTED TV.
	WIREMOLD 4000 WITH DUAL CHANNEL ACCESSORIES. COORDINATE MOUNTING HEIGHT WITH OWNER PRIOR TO INSTALLATION ABOVE CAGE AREAS.
	208V RECEPTACLE
	DENOTES SMT AND POWER WASH SYSTEM
+44	APPROXIMATE MOUNTING HEIGHT. MOUNT ABOVE COUNTER. COORDINATE WITH COUNTER INSTALLER PRIOR TO ROUGH-IN.
	PROVIDE RECEPTACLE IN ATTIC SPACE FOR AIR CLEANER AT SUPPLY

CDi Comfort Design Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
JOB # E2119

REVISION
NO. | DESCRIPTION | DATE

ARCHITECTS SEAL

rf&
rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.720.5557
F: 617.426.3557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9999

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY:
CHECKED BY:
SCALE:
DATE: 20 OCT 2021
PROJECT NO: # 2019

ROOF TOP POWER PLAN

PROGRESS SET ☐ BID SET ■ PERMIT SET ☐ CONSTRUCTION SET ☐

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E2.02

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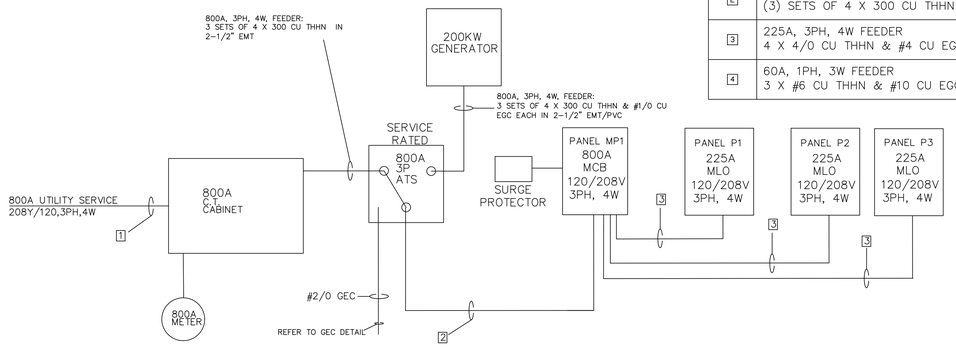
FEEDER SCHEDULE	
KEY	DESCRIPTION
1	800A, 3PH, 4W UTILITY SERVICE COORDINATE WITH UTILITY ROUTING AND CONDUIT REQUIREMENTS
2	800A, 3PH, 4W FEEDER (3) SETS OF 4 X 300 CU THHN & #1/0 CU EGC EACH IN 3" EMT
3	225A, 3PH, 4W FEEDER 4 X 4/0 CU THHN & #4 CU EGC IN 2-1/2" EMT
4	60A, 1PH, 3W FEEDER 3 X #6 CU THHN & #10 CU EGC IN 1-1/4" EMT



P1 — 225 A FRAME 3 PH 4 W 208Y/120 VOLT — MLO PANELBOARD — AIR: 10KA

CH	DESCRIPTION	CB	POLE	PH	NEU	ECG	COND	VA	PH	VA	COND	EGC	NEU	PH	POLE	CB	DESCRIPTION	CH
1	INT/EXT WARD LTS	20	1	12	12	12	MC	759	A	822	MC	12	12	12	1	20	U101/RM 125-35 LTS	2
3	C110-111 LTS	20	1	14	12	12	MC	392	B	720	MC	12	12	12	1	20	182 & 183 F. VALV	4
5	EF-4	15	1	14	14	14	MC	336	C	941	MC	12	12	12	1	20	UTILITY/OFF. LTS	6
7	C106-07 LTS	20	1	12	12	12	MC	240	A	336	1/2	14	14	14	1	15	GH-1	8
9	RM 182-83 GFIS	20	1	12	12	12	MC	720	B	1260	MC	12	12	12	1	20	RM 132 &133-37 GFI	10
11	RM 134 C. GFI	20	1	12	12	12	MC	180	C	480	MC	12	12	12	1	20	RM 134 UC FRIDGE	12
13	RM 132 C. GFI	20	1	12	12	12	MC	180	A	480	MC	12	12	12	1	20	RM 132 UC FRIDGE	14
15	RM 130 & 133 REC	20	1	12	12	12	MC	1080	B	720	MC	12	12	12	1	20	CHEST FREEZER	16
17	CHEST FREEZER	20	1	12	12	12	MC	720	C	180	MC	12	12	12	1	20	ELEC RM GFI	18
19	RM 125-26 REC	20	1	12	12	12	MC	720	A	720	MC	12	12	12	1	20	U102 &03 GFIS	20
21	C110 -11 REC	20	1	12	12	12	MC	540	B	180	1/2	12	12	12	1	20	HWH IGNITOR	22
23	CIRC PUMP	15	1	14	14	14	1/2	528	C	720	MC	12	12	12	1	20	RM 124 W. REC	24
25	MICROWAVE	20	1	12	12	12	MC	1200	A	1000	MC	12	12	12	1	20	COFFEE MAKER	26
27	FRIDGE	20	1	12	12	12	MC	720	B	900	MC	12	12	12	1	20	RM 123 REC	28
29	RM 121 & 122 REC	20	1	12	12	12	MC	1260	C	720	MC	12	12	12	1	20	RM 149 REC	30
31	FRIDGE	20	1	12	12	12	MC	720	A	1080	MC	12	12	12	1	20	RM 150-52 REC	32
33	RRM 153 & 154 GFI	20	1	12	12	12	MC	360	B	1080	MC	12	12	12	1	20	RM 119-120 REC	34
35	COMP SRV. QUAD	20	1	12	12	12	MC	360	C	360	MC	12	12	12	1	20	COMP SRV. QUAD	36
37	FL. COPIER	20	1	12	12	12	MC	480	A	360	MC	12	12	12	1	20	U104 QUAD	38
39	U104 QUAD	20	1	12	12	12	MC	360	B								PROVISION	40
41	PROVISION								C								PROVISION	42

CONNECTED VA	9,097	A	76	CONNECTED AMPS
CONNECTED VA	9,032	B	75	CONNECTED AMPS
CONNECTED VA	6,785	C	57	CONNECTED AMPS
TOTAL CONNECTED VA	24,914		69	AVERAGE CONNECTED AMPS
DEMAND VA	23,701		66	NEC DEMAND AMPS

WIRES BASED ON 75° C RATED CU
WITH 75° C RATED TERMINALS

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P3 — 225 A FRAME 3 PH 4 W 208Y/120 VOLT — MLO PANELBOARD — AIR: 10KA

CH	DESCRIPTION	CB	POLE	PH	NEU	ECG	COND	VA	PH	VA	COND	EGC	NEU	PH	POLE	CB	DESCRIPTION	CH
1	LOBBY LTS	20	1	12	12	12	MC	768	A	1372	MC	12	12	12	1	20	RM 110-118 LTS	2
3	C105 LTS	20	1	12	12	12	MC	240	B	682	MC	12	12	12	1	20	RM 162-173 LTS	4
5	C104/RM 156-61 LTS	20	1	12	12	12	MC	526	C	360	MC	12	12	12	1	20	C109 &C103 LTS	6
7	RM 175-178 LTS	20	1	12	12	12	MC	905	A	540	MC	12	12	12	1	20	RM 103 W. REC	8
9	RM 102 PRINTER	20	1	12	12	12	MC	480	B	360	MC	12	12	12	1	20	RM 103 C. REC	10
11	RM 105 GFI/FAN	20	1	12	12	12	MC	394	C	480	MC	12	12	12	1	20	DRINK FOUNTAIN	12
13	101/101B REC'S	20	1	12	12	12	MC	540	A	360	MC	12	12	12	1	20	107 & 109 REC	14
15	C105/RM 117-18 REC	20	1	12	12	12	MC	1080	B	360	MC	12	12	12	1	20	U106 QUAD	16
17	U107 & 106 REC	20	1	12	12	12	MC	540	C	1080	MC	12	12	12	1	20	RM 168 REC	18
19	RM 169 QUADS	20	1	12	12	12	MC	720	A	720	MC	12	12	12	1	20	RM 169 QUADS	20
21	C103 REC	20	1	12	12	12	MC	540	B	540	MC	12	12	12	1	20	RM 174-175 REC	22
23	RM 176 REC	20	1	12	12	12	MC	540	C	540	MC	12	12	12	1	20	RM 171 REC	24
25	RM 172-174 GFIS	20	1	12	12	12	MC	588	A	1081	MC	12	12	12	1	20	F. AIR DRYER	26
27	C104 & 160 REC	20	1	12	12	12	MC	360	B	360	MC	12	12	12	1	20	161 C. REC	28
29	161 FRIDGE	20	1	12	12	12	MC	720	C	1200	MC	12	12	12	1	20	MICROWAVE	30
31	RM 161 C GFI	20	1	12	12	12	MC	180	A	384	MC	12	12	12	1	20	RM 156 REC/FAN	32
33	MICROWAVE	20	1	12	12	12	MC	1200	B	180	MC	12	12	12	1	20	RM 157 C GFI	34
35	RM 157 FRIDGE	20	1	12	12	12	MC	720	C	360	MC	12	12	12	1	20	RM 157 C. REC	36
37	158-159 REC	20	1	12	12	12	MC	720	A	2880	1/2	10		8	2	40	BOWL WASHER	38
39	EH-1	30	2	10		10	1/2	996	B	2880				8			"	40
41	"			10				996	C	360	MC	12	12	12	1	20	178 FLUSH VALV	42
43	177 FLUSH VALV	20	1	12	12	12	MC	360	A	540	MC	12	12	12	1	20	RM 181 REC	44
45	RM 178 REC	20	1	12	12	12	MC	720	B	540	MC	12	12	12	1	20	RM 180 REC	46
47	RM 177 REC	20	1	12	12	12	MC	720	C	720	MC	12	12	12	1	20	RM 117-18 REC	48
49	RM 162-64 REC	20	1	12	12	12	MC	1080	A	360	MC	12	12	12	1	20	RM 167-68 REC	50
51	TOWER LTS	20	1	12	12	12	MC	600	B	1200	MC	12	12	12	1	20	EXTERIOR SIGN	52
53	PROVISION								C								PROVISION	54

CONNECTED VA	14,099	A	117	CONNECTED AMPS
CONNECTED VA	13,318	B	111	CONNECTED AMPS
CONNECTED VA	10,256	C	85	CONNECTED AMPS
TOTAL CONNECTED VA	37,673		105	AVERAGE CONNECTED AMPS
DEMAND VA	35,350		98	NEC DEMAND AMPS

WIRES BASED ON 75° C RATED CU
WITH 75° C RATED TERMINALS

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ENGINE-GENERATOR SET REQUIREMENTS	
GENERAL	
APPLICATION	STAND-BY
RATING	200KW
VOLTAGE	208/120
FREQUENCY	60 HZ
CONFIGURATION	3PH 4 WIRE
ENVIRONMENT	500 FT ALTITUDE
BASE	STEEL FRAME WITH PAD VIBRATION ISOLATION
LISTING	UL, NEMA
ENGINE	
STARTING	ELECTRIC
FUEL	DIESEL
COOLING	RADIATOR AIR COOLED CLOSED SYSTEM
LUBRICATION	GEAR PUMP
LUBE OIL FILTER	FULL FLOW WITH BYPASS VALVE
GOVERNOR	ELECTRONIC ISOCHRONOUS 0.25 PERCENT
SPEED	1800 RPM
BATTERY	LEAD ACID
BATTERY CHARGER	AUTOMATIC HEAVY DUTY INDUSTRIAL TYPE
BLOCK HEATER	THERMOSTATIC CONTROL, 120 VOLT INPUT
GENERATOR	
RATING	SEE ABOVE
MAIN LINE BREAKER	800A
CONSTRUCTION	SALIENT POLE SYNCHRONOUS TYPE
EXCITER	BRUSHLESS
HARMONIC DISTORTION	LESS THAN 5 PERCENT
INSULATION	CLASS H
REGULATOR	DIGITAL SOLID STATE, 1 PERCENT
CONTROL PANEL	
INDICATING METERS	VOLTMETER, AMMETER, FREQUENCY METER
SELECTING SWITCH	VOLTAGE, CURRENT
ENGINE SHUT-DOWN	HIGH WATER TEMP, LOW OIL PRESSURE, OVERSPEED OVERCRANK, LOW WATER LEVEL
ENGINE GAUGE	BATTERY VOLTAGE, WATER TEMP, OIL PRESSURE, RUN-TIME
ENGINE CONTROL	LOCAL, MANUAL, REMOTE FROM AUTOMATIC TRANSFER SWITCH
REMOTE ALARMS	LOW COOLANT LEVEL, HIGH TEMP, LOW OIL PRESSURE OVER-CRANK, OVER-SPEED, EMERGENCY STOP LOW BATTERY
HOUSING	
RATING	WEATHERPROOF
ACCESS	LOCKABLE ACCESS DOORS FOR ALL MAINTENANCE
MUFFLER	CRITICAL RATING
FUEL STORAGE	48 HRS
COMMISSIONING	
DOCUMENTATION	MANUFACTURER'S SUBMITTAL DATA, FULL O&M MANUAL (2 COPIES)
TESTS	FACTORY TEST WITH DOCUMENTATION
START-UP	FACTORY AUTHORIZED TECHNICIAN TO SUPERVISE
TRAINING	FACTORY AUTHORIZED TECHNICIAN TO TRAIN OWNER REP
WARRANTY	TWO YEARS (1500 HR LIMIT)
AUTOMATIC TRANSFER SWITCH	
RATING	800A, 208/120V
POLES	THREE
EXERCISER	PROGRAMMABLE AUTOMATIC EXERCISING OF GENSET
LISTINGS	UL, NEMA
OPERATION	AUTOMITIC GENERATOR START UPON LOSS OF NORMAL POWER
CONTROL	PROGRAMMABLE TRANSFER/RE-TRANSFER DELAYS
SERVICE ENTRANCE RATED	YES
ENCLOSURE	NEMA 1
DOCUMENTATION	FACTORY SUBMITTAL DATA, O&M MANUAL (2 COPIES)
BASIS OF DESIGN	KOHLER MODEL 200REOZJF 4UA13

P2 — 225 A FRAME 3 PH 4 W 208Y/120 VOLT — MLO PANELBOARD — AIR: 10KA

CH	DESCRIPTION	CB	POLE	PH	NEU	ECG	COND	VA	PH	VA	COND	EGC	NEU	PH	POLE	CB	DESCRIPTION	CH
1	RM 179-81 LTS	20	1	12	12	12	MC	574	A	854	MC	12	12	12	1	20	RM 138-48 LTS	2
3	EXAM LTS.	20	1	12	12	12	MC	300	B	360	MC	12	12	12	1	20	RM 148 C. REC	4
5	RM 148 QUAD	20	1	12	12	12	MC	360	C	240	MC	12	12	12	1	20	CENTRIFUGE	6
7	WASHER	20	1	12	12	12	MC	1500	A	180	MC	12	12	12	1	20	RM 147 C REC	8
9	AUTOCLAVE	20	1	12	12	12	MC	480	B	480	MC	12	12	12	1	20	STEAMER	10
11	RM 138 QUAD	20	1	12	12	12	MC	360	C	360	MC	12	12	12	1	20	RM 138 QUAD	12
13	RM 138 QUAD	20	1	12	12	12	MC	360	A	360	MC	12	12	12	1	20	RM 138 & 139 REC	14
15	RM 139 CAGE REC	20	1	12	12	12	MC	720	B	528	MC	12	12	12	1	20	ICU DOOR OPEN	16
17	RM 146 .C GFIS	20	1	12	12	12	MC	360	C	480	MC	12	12	12	1	20	UC FRIDGE	18
19	RM 145 REC	20	1	12	12	12	MC	720	A	720	MC	12	12	12	1	20	RM 141 & 145 REC	20
21	C109 REC	20	1	12	12	12	MC	360	B	1200	1/2	12	12	12	2	20	C. WASHER (1)	22
23	C WASHER (2)	20	2	12	12	12	1/2	1200	C	1200				12			"	24
25	"			12				1200	A	720	1/2	14	14	14	2	15	C DRYER (1)	26
27	C DRYER (2)	15	2	14	14	14	1/2	720	B	720				14			"	28
29	"			14				720	C	1440	MC	12	12	12	1	20	RM 179-181 REC	30
31	RM 179 & 181 REC	20	1	12	12	12	MC	540	A	1800	MC	10		10	2	30	WET/DRY VAC	32
33	U108 GFI	20	1	12	12	12	MC	180	B	1800				10			"	34
35	181 FLUSH VALV	20	1	12	12	12	MC	360	C	1176	MC	12	12	12	1	20	POWER WASH	36
37	179 FLUSH VALV	20	1	12	12	12	MC	360	A	1900	1-1/4	6	2	2	1	20	HOT BOX	38
39	POLE LTS	20	1	12	12	12	1/2	452	B	360	MC	12	12	12	1	20	AIR CLEANER	40
41	POLE LTS	20	1	10	10	10	1/2	565	C								PROVISION	42
43	PROVISION								A								PROVISION	44
45	PROVISION								B								PROVISION	46
47	PROVISION								C								PROVISION	48
49	PROVISION								A								PROVISION	50
51	PROVISION								B								PROVISION	52
53	PROVISION								C								PROVISION	54

CONNECTED VA	11,788	A	98	CONNECTED AMPS
CONNECTED VA	8,660	B	72	CONNECTED AMPS
CONNECTED VA	8,821	C	74	CONNECTED AMPS
TOTAL CONNECTED VA	29,269		81	AVERAGE CONNECTED AMPS
DEMAND VA	30,562		85	NEC DEMAND AMPS

WIRES BASED ON 75° C RATED CU
WITH 75° C RATED TERMINALS

#N/A — 10/15/2021 16:28

MP — 800 A FRAME 3 PH 4 W 208Y/120 VOLT — MAIN CB PANELBOARD — AIR: 10KA

CH	DESCRIPTION	CB	POLE	PH	NEU	ECG	COND	VA	PH	VA	COND	EGC	NEU	PH	POLE	CB	DESCRIPTION	CH
1	RTU-1	60	3	6		10	1	6000	A	8160	1-1/4	8		4	3	80	RTU-2	2
3	"			6				6000	B	8160				4			"	4
5	"			6				6000	C	8160				4			"	6
7	RTU-3	70	3	4		8	1-1/4	7440	A	6000	1	10		8	3	50	RTU-4	8
9	"			4				7440	B	6000				8			"	10
11	"			4				7440	C	6000				8			"	12
13	RTU-5	90	3	3		8	1-1/4	9720	A	540	MC	12	12	12	1	20	ROOF TOP GFIS	14
15	"			3				9720	B	420	MC	14	14	14	1	15	EF-3	16
17	"			3				9720	C	996	1/2	10		10	2	30	EH-1 (1)	18
19	CREMATORY	40	3	8	8	10	1	3840	A	996				10			"	20
21	"			8				3840	B	996	1/2	10		10	2	30	EH-1 (2)	22
23	"			8				3840	C	996				10			"	24
25	CREMATORY CP	15	1	14	14	14	MC	1440	A	1400	1/2	12	12	12	1	20	GENERATOR HTR	26
27	EF-2	20	1	12	12	12	1/2	1176	B	100	1/2	12	12	12	1	20	GEN. BATTERY	28
29	PROVISION								C	128	1/2	14	14	14	1	15	OXYGEN GEN FAN	30
31	P1 PANEL	225	3	4/0	4/0	4	2-1/2	8761	A	11788	2-1/2	4	4/0	4/0	3	225	P2 PANEL	32
33	"			4/0				9032	B	8300				4/0			"	34
35	"			4/0				6785	C	8821				4/0			"	36
37	P3 PANEL	225	3	4/0	4/0	4	2-1/2	14099	A	120	1/2	14	14	14	3	15	SURGE PROTECT.	38
39	"			4/0				13318	B	120				14			"	40
41	"			4/0				10256	C	120				14			"	42
43	LIQ SUC/SCAV	60	3	6		10	1-1/4	3864	A	996	1/2	10		10	2	30	EH-1 (3)	44
45	"			6				3864	B	996				10			"	46
47	"			6				3864	C	996	1/2	10		10	2	30	EH-1 (4)	48
49	PROVISION								A	996				10			"	50
51	PROVISION								B								PROVISION	52
53	PROVISION								C								PROVISION	54

CONNECTED VA	86,272	A	719	CONNECTED AMPS
CONNECTED VA	79,650	B	664	CONNECTED AMPS
CONNECTED VA	73,786	C	615	CONNECTED AMPS
TOTAL CONNECTED VA	239,708		665	AVERAGE CONNECTED AMPS
DEMAND VA	216,668		601	NEC DEMAND AMPS

WIRES BASED ON 75° C RATED CU
WITH 75° C RATED TERMINALS

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ARCHITECTS SEAL

rf&
rauhaus freedenfeld & associates
East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.2557
F: 617.426.2557
West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9999
F: 949.716.9999

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: HMB | CHECKED BY: MFH | SCALE: | DATE: 20 OCT 2021 | PROJECT NO: # 2019

PROGRESS SET | BID SET | PERMIT SET | CONSTRUCTION SET

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ELECTRICAL DETAILS

E3.00

CDi Comfort Design Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
JOB # E2119

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ELECTRICAL NOTES:

BASIC METHODS AND REQUIREMENTS:

1. The Electrical Contractor shall provide all labor, material, equipment, tools and services required to construct, install, complete, test, and commission the operation of the electrical systems identified within the construction documents. It is the intent of these contract documents to call for finished work, tested, and ready for operation.
2. Wherever the work "provide" is used it shall mean to furnish and install complete and ready for use.
   a. Provide all materials, bracing, hangers, connectors, and components as required to provide a complete operational electrical system.
   b. All items not specifically shown in the design documents, but which are necessary for a complete working installation in compliance with code requirements shall be provided at no additional cost.
3. The installation shall comply with applicable requirements of the International Building Code (IBC), NFPA 70 (NEC), NFPA 101 (Life Safety Code), ADA, and all local codes in effect at the project location at the time of contract award.
4. The drawings indicate the extent, general location and arrangement of equipment, components, and wiring. The contractor shall review all project requirements and coordinate the electrical installation with all trades.
   a. The Contractor shall become familiar with the work and verify all dimensions and locations so that the outlets, devices, raceways and equipment will be properly located and accessible. Actual field measurements shall prevail over any scaled measurements taken from these drawings.
   b. The Contractor shall confirm the location of all equipment that requires electrical connections with the trade installing the equipment prior to rough in of the associated electrical devices, disconnects, raceways, and wiring.
   c. The contractor shall confirm the electrical requirements and configuration (including overcurrent protective device ratings and conductor sizing) of circuits required for all equipment that requires electrical connection with the installer of such equipment prior to rough-in or installation of related electrical items.
   d. Rework required that results from failure to coordinate shall be done at the contractor's expense.
5. The drawings are diagrammatic only, intending to show general location of circuits, equipment, fixtures, and devices; and do not show all required details. All work shall be accurately laid out with reference to the drawings and in cooperation with other trades to avoid conflicts and to obtain a neat and workable installation which will afford maximum accessibility for operation, maintenance, and headroom. The electrical contractor is responsible for determining optimal routing of circuits and field investigations required to complete the installation in a professional workmanship manner. Refer to architectural drawings for exact dimensions and to mechanical drawings for locations of mechanical equipment. The contractor shall field determine final locations for outlets to comply with distance and spacing requirements of the NEC.
6. The drawings are not intended to be rigid in specific details. In the event they are in conflict with requirements of other drawings, codes, or recommendations of the manufacturers of equipment furnished, the Electrical Contractor shall inform the General Contractor and make recommendations as required to insure that equipment is installed and connected in conformance with codes and manufacturer's recommendations for safe, proper, and efficient operation. The General Contractor shall issue a Request for Information with the proposed recommendation to the Architect.
7. The contractor, by accepting the work, represents that it is qualified to successfully accomplish the work without additional direction by the design engineer. The design engineer is not responsible for means, methods, techniques, or procedures used by the contractor during construction.
8. By submitting a proposal, contractor agrees it is satisfied from its own investigation of the conditions and requirements to be met, that it fully understands its obligation, and that it will not make any claim for or have the right to cancellation of or relief from the Contract because of any misunderstanding or lack of information. A submission of a bid for this work acknowledges that the contractor has read all terms and conditions for the work and that all terms and conditions are acceptable.
9. In the event of conflict between various parts of the contract documents, including but not limited to drawings and general conditions, the more stringent (more costly) of the conditions shall apply for bidding purposes. The contractor shall request clarification for all conflicts prior to construction. The contractor shall make a thorough examination of the site and the contract documents. No claim for extra compensation will be recognized if difficulties are encountered which an examination of site conditions and contract documents prior to executing the contract would have revealed. Failure to request clarification shall not relieve the contractor of the requirement to provide the more costly implementation. If any conflicts occur necessitating departures from the drawings, details of and reasons for departures shall be submitted and approved prior to implementing any change.
10. All wiring not furnished and installed by others but which is required to provide a complete and operational system for equipment indicated on the drawings shall be furnished and installed by the electrical contractor. Except as otherwise noted, automatic control wiring, signaling, and protective devices for mechanical equipment shall be furnished and installed by the mechanical contractor. Each motor or group of motors requiring a single control shall be provided by others with a suitable controller. The electrical contractor shall install and connect the motor controllers furnished by others. Low voltage control devices (thermostats, limit switches, etc.) and wiring (24 Volts max.) will be installed by others. Control devices and wiring above 24 Volts shall be installed by the electrical contractor. Each motor shall be provided with a disconnecting means where required by NFPA 70, even if not shown on the drawings.
11. Procure and pay for all permits and certificates necessary to construct and place in operation all electrical work. Pay for all legally imposed charges made by the local authorities for full inspection and approval services of the bureaus administering applicable codes and regulations. This shall include the cost and back charge of installing any portion of the work where performed by utility departments, and utility companies such as for trenching and installation on conduit. Capital improvement costs that may be imposed by the utility for new or upgraded service (such as extending primary wiring to transformers or upgrading transformers) shall be paid by the owner.

MATERIALS

1. Material and equipment shall be new and shall be the standard specification grade products of established manufacturers. Materials, equipment, and installation shall conform to the requirements of ANSI, IEEE, NEMA, and UL as applicable
2. Submit for approval catalog information for: Lighting Fixtures, Lighting Controls, Panelboards, and Fire Alarm System (when shown on drawings).
3. Equipment and material shall be protected during shipment and storage against physical damage, dirt, moisture, cold and rain.
4. Unless otherwise indicated, wiring shall consist of insulated conductors installed in conduit or tubing. Unless shown otherwise, minimum conduit size shall be 3/4". All conductors shall be copper with type THWN/THHN insulation rated 90C. Conductor sizing is based upon use of terminals rated 75C. Aluminum conductors of equivalent ampacity may be used for circuits 100 Amps or larger. The Contractor shall make all required changes to conduit sizes, terminals, and sizing for voltage drop for conductor substitutions at no additional cost. Conductors shall be color coded: Black (A), Red (B), Blue (C) , White (neutral), for 208/120 and Brown (A), Orange (B), Yellow(C), Gray (Neutral) for 480/277. Ground (EGC) conductors shall be Green or Green/Yellow striped.
5. Where wiring type is shown as MC, NEC compliant installation of MC cable will be permitted. For projects that include patient care areas, exam rooms, and medical equipment circuits, cable shown as MC for these areas shall be type HCF-MC-AP and the installation shall comply with NEC 517.
6. Where wiring type is shown as NM, NEC compliant installation of type NM cable will be permitted.
7. Wire sizes, including equipment grounding conductors, shall be adjusted for voltage drop based upon actual circuit lengths of installed wiring to achieve 3% voltage drop for branch circuits and 2% voltage drop for feeders. Raceway sizes shall be revised as needed for upsized conductors.
8. Nonmetallic conduit and tubing shall be used in damp, wet, or corrosive locations. EMT may be installed only within buildings. EMT may be installed in concrete and grout in dry locations. EMT shall not be installed in damp or wet locations, or in the air space of exterior masonry cavity walls. Aluminum conduit may be used only where installed exposed in dry locations. Non-aluminum sleeves shall be used where aluminum conduit passes through concrete floors and fire walls. Conduit used in areas subject to damage shall be rigid steel up to a height of 10 ft. above finished floor. Flexible metallic cable (Type MC) may be used where allowed by NFPA 70. Non-metallic cable (Type NM-B) may only be used where allowed by NFPA 70 and when wiring type is shown as NM in panel schedules Bushings shall be of the insulating type
9. Panelboards shall be completely factory assembled with molded case circuit breakers. Short circuit interrupting ratings (AIR) of all provided components shall be coordinated with the ratings of all new and any existing electrical gear. Series rated assemblies are not permitted. Panelboards and loadcenters shall be equipped with arc fault circuit interrupter, combination type, circuit breakers to provide AFCI protection per NEC requirements.
10. Lighting controls shall be provided in accordance with IECC or ASHRAE requirements as enforced by state building codes. Control schemes shown on the drawings are diagrammatical only and the contractor shall finalize design details and component selection to achieve the required operational performance. Refer to functional testing requirements later in these notes.
11. Receptacles and switches shall be specification grade. Standard duplex receptacles shall be single phase, 15 Ampere, 120 volts, 2 pole, 3 wire, and conform to the NEMA 5-15R in dwellings and 5-20R in commercial applications. GFCI outlets shall be provided in all locations required by the NEC whether noted on plans or not. AFCI protection is required per the NEC. Devices and cover-plates shall be of the color and material determined by the architect. Outlets shall be hospital grade in patient bed areas of health care facilities per NEC. Dimmer switches shall be specification grade and be matched to the load being served (incandescent, fluorescent, or LED)

INSTALLATION

1. The work shall be laid out in advance, and where cutting, channeling, chasing, or drilling of floors, walls, partitions, ceilings, or other surfaces is necessary for the proper installation, support, or anchorage of the conduit, raceways, or other electrical work, this work shall be done and any damage to building, piping, or equipment shall be repaired by skilled tradesmen of the trades involved at no additional cost to the owner.
2. During installation, enclosures, equipment, controls, controllers, circuit protective devices, and other like items, shall be protected against entry of foreign matter; and be vacuum cleaned both inside and outside before testing, operating and painting.
   a. Damaged equipment shall be placed in first class operating condition or be returned to the source of supply for repair or replacement
   b. Painted surfaces shall be protected with factory installed removable heavy protective paper, sheet vinyl, or equivalent covering.
   c. Damaged paint on equipment and materials shall be refinished with the same quality of paint and workmanship as used by the manufacturer so that repaired areas are not obvious.
3. The contractor shall perform all temporary work necessary to maintain continuity of electrical service when connection is made to existing systems and facilities. Existing services shall not be interrupted without prior consent of the owner's authorized representative and may be interrupted only at and for the specified time designated by the owner's representative.
4. Electrical service entrance equipment, including arrangements for temporary power, shall conform to the serving power company's requirements. Coordinate routing, trenching, and conduit requirements with the power company.
5. The electrical contractor shall obtain available short circuit information from the supplying utility and perform a short circuit analysis of the available short circuit at the service equipment using the information obtained from the utility. The analysis shall include the impact of the service entrance conductors (size, material, distance) either installed by the utility or installed as part of the project. Based upon this information, the electrical contractor shall install a NEC compliant label on the service equipment stating:
   a. The available fault current at the service equipment.
   b. The nominal system voltage of the service equipment.
   c. The clearing time of the service protection device (based upon manufacturer's date for the actual equipment installed).
   d. Date that the label was installed.
6. The contractor shall provide product finishes and constructions compatible with wall and ceiling types based upon the contractor's review of all project requirements.
7. Penetrations of above grade floor slabs, time-rated partitions, and fire walls shall be fire stopped. Penetrations of fire rated floors, walls, and ceilings shall be installed in accordance with listed UL applications. See architectural drawings for location of fire rated assemblies. Materials and equipment shall be installed in accordance with recommendations of the manufacturer. At floor, exterior wall, and roof conduit penetrations, completely seal clearances around the conduit and make watertight
8. Raceways shall be kept 6 inches away from parallel runs of flues and hot-water pipes. Raceways shall be concealed within finished walls, ceilings, and floors of finished areas. Raceways may be run exposed in non-finished areas, such as utility rooms. Install conduit in complete runs before pulling in cables or wires. Independently support conduit. Do not use other supports i.e., (suspended ceilings, suspended ceiling supporting members, lighting fixtures, mechanical piping, or mechanical ducts).
9. All electrical wiring below slab on grade shall be protected by a PVC conduit system. Raceways crossing structural expansion joints shall have expansion fittings. Changes in direction of runs shall be made with symmetrical bends or fittings. Crushed or deformed raceways shall not be installed. Trapped raceways in damp and wet locations shall not be installed. Clogged raceways shall be entirely free of obstructions or shall be replaced.
10. Panelboards shall be flush when installed on finished wall surfaces. Panelboards shall be surface mount when installed in unfinished rooms. Where designated on panel schedule as "space" or "spare", include all necessary bussing, device support and connections. Provide blank cover for each space.
11. Placement of lighting fixtures, outlets, panelboards, transformers, disconnect switches and other items shall be located to avoid interference with mechanical or structural features.
12. Lighting fixtures shall be symmetrically placed in rooms.
   a. Lighting fixtures that are non-IC rated shall be installed such that no insulation is within 3 inches of the fixture and none on top so as to trap heat. Non-IC lighting fixtures shall not be installed within 1/2 inch of combustible material.
   b. Lighting fixtures installed in fire rated ceilings shall be rated for equivalent fire resistance, or equipped with a boot or box-out to maintain the ceiling system fire rating.
   c. The contractor shall field confirm all new and existing ceiling types to identify mounting requirements prior to order of lighting fixtures. All accessories and options required to successfully install the fixtures in the ceilings shall be provided, including those needed for fire rated applications.
   d. All open bay and similar lighting fixtures shall be supported by unistrut that spans structural joists. Unistrut shall be supported by the top cord of the structural joists only. Alternative suppporting schemes must be approved.
   e. Connect recessed lighting fixtures to conduit runs with maximum six feet of flexible metal conduit extending from a junction box to the fixture.
   f. At completion of project, re-lamp/re-ballast fixtures which have failed lamps/ballasts. Clean fixtures, lenses, diffusers and louvers that have accumulated dust/dirt/fingerprints during construction. Replace damaged lenses, diffusers and louvers with new.
12. Where light switches are shown grouped together they shall be mounted under a multi-gang cover-plate. Where dimmer switched are used, the mounting box size shall be based upon thermal de-rating requirements of the dimmers.
13. Outlets shall be mounted not less than 15" above finished floor per ADA guidelines. Switches shall be mounted not more than 48" above finished floor per ADA guidelines. Outlets and switches at counter top locations shall be mounted not more than 44"-46" above finished floor per ADA guidelines. Field coordinate location of counter mounted devises with counter installer.
14. The Electrical contractor shall coordinate with the Mechanical contractor for the installation of electrical components required to serve mechanical equipment. The contractor shall confirm equipment circuit requirements with the Mechanical contractor prior to rough-in of electrical circuits. Any re-work required to provide the electrical installation needed for compliance with actual nameplate requirements for equipment shall be accomplished at no additional cost. Nameplate data of actual equipment supplied shall be used for final circuit configurations. Adjustments from values shown on panel schedules shall be made as part of the contract.
15. The electrical contractor shall review the hardware schedule and coordinate with the door hardware installer and provide 120V electrical power at locations required for proper operation of door openers, power supplies, and controls. Low voltage wiring by door installers.
16. Make final connections to equipment supplied by others. Controls and starters related to mechanical equipment shall be supplied by the mechanical contractor. Controls and starters for owner furnished equipment shall be supplied by others. Electrical contractor shall make electrical connections to equipment from point of electrical circuit shown on drawings for equipment. Electrical contractor shall make connections to owner furnished equipment serviced by either hard wiring or service cord drops. Electrical contractor shall provide means of disconnection of equipment from electrical circuit if starter or controller supplied with equipment does not meet NEC requirements for disconnect.
17. Install green grounding conductors with feeders and branch circuits as indicated in panel schedules and one line diagram. Bond the grounding wires to each pullbox, junction box, outlet box, cabinets, and other enclosures through which the ground wires pass. Bond all conductive piping systems in the building to the electrical system ground. Bonding connections shall be made as close as practical to the water pipe ground or service equipment ground bus.
18. Major pieces of electrical equipment shall be permanently marked with an identification nameplate. All panelboards shall have removable typewritten panel directories inserted into plastic sleeves mounted on the inside face of the panelboard door. The directory shall describe the as-built circuit configurations of the panel per NEC requirements. Marking directly on the panelboard is not permitted. All junction boxes and outlets shall have a mechanically printed permanent label attached indicating which circuit and panel serves the junction box or outlet.
19. Duct smoke detector requirements shall be installed per local code requirements. The Electrical contractor shall coordinate with the Mechanical contractor for control interface requirements.
20. After the electrical installation is completed, the Electrical Contractor shall conduct a safety and an operating test of the electrical system. The electrical contractor shall furnish all instruments and personnel required for the tests. No part of the electrical distribution system shall be energized prior to the testing of the grounding system. Resistance tests shall be made for service entrances and feeders installed as part of this project. Proper phase rotation shall be confirmed for all 3 phase motors.
21. Functional testing or lighting controls shall be performed in accordance with IECC or ASHRAE requirements locally enforced. The testing shall demonstrate controls are calibrated, adjusted, programmed and in proper working condition. Testing shall confirm proper operation of occupancy sensors, photo sensors, and time switches. The contractor shall instruct the client as to the proper operation and programming requirements of the system. The functional testing must be made by an independent party, such as a representative of the lighting control manufacturer, who is not part of the building design engineering firm or a member of the construction contractor's team. The testing party shall provide documentation certifying operational compliance with energy code requirements.
22. All work shall pass inspection by proper authorities prior to acceptance by the owner. Costs for permits, certificates, and inspections required for completion of the work shall be paid by the Electrical Contractor.
23. The contractor shall warrant the complete electrical installation at the time of completion for a period of one year. During the warranty period the contractor shall replace or repair any components or work which develop defects beyond normal wear and tear. The electrical contractor shall be responsible for, and shall incur financial responsibility for any damages caused by or resulting from defects in his work.
24. The contractor shall provide as-built and record drawings indicating all changes in equipment, devices, and conduit locations to the general contractor for delivery to the owner as part of the project close-out

END OF NOTES

CDi Comfort Design Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
JOB # E2119

N W E S

REVISION
NO. | DESCRIPTION | DATE

ARCHITECTS SEAL

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.720.2000
F: 617.426.2857

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.9000
F: 949.716.9999

rauhaus freedenfeld & associates

CAPITOL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

DRAWN BY: HMB | CHECKED BY: MFH | SCALE: | DATE: 20 OCT 2021 | PROJECT NO: # 2019

ELECTRICAL NOTES

PROGRESS SET ☐ | BID SET ■ | PERMIT SET ☐ | CONSTRUCTION SET ☐

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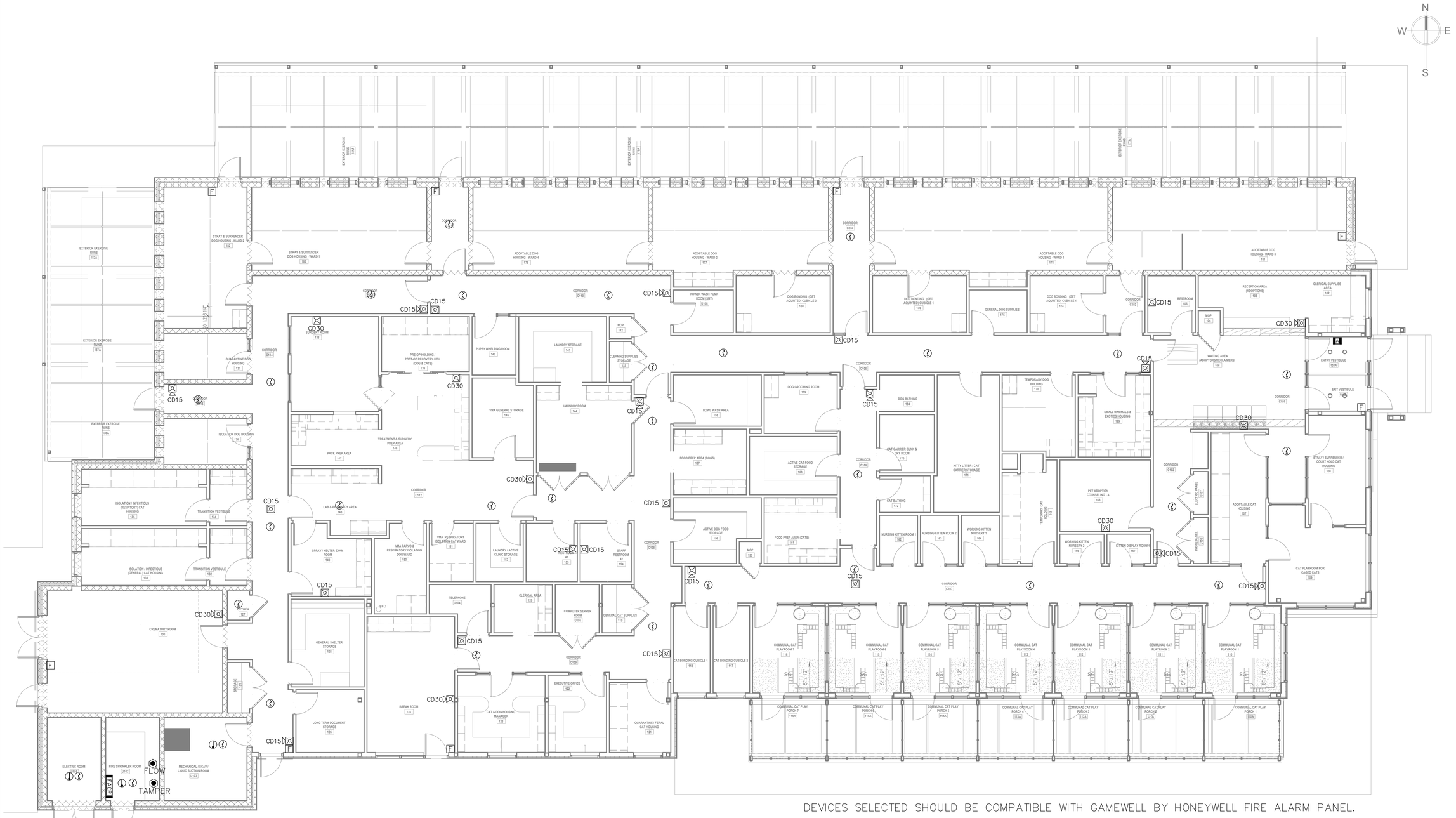

1 FIRE ALARM PLAN
FA1.01 3/16" = 1'-0"

DEVICES SELECTED SHOULD BE COMPATIBLE WITH GAMEWELL BY HONEYWELL FIRE ALARM PANEL.

FIRE ALARM SYMBOL LIST	
ALL JUNCTION BOXES AND OUTLETS SHALL HAVE A MECHANICALLY PRINTED PERMANENT LABEL ATTACHED INDICATING WHICH FIRE ALARM CIRCUIT SERVES THE JUNCTION BOX OR OUTLET.	
SYMBOL	DESCRIPTION
F	FIRE ALARM PULL STATION
⊙	PHOTOELECTRIC SMOKE DETECTOR
⊡	DUCT SMOKE DETECTOR
◐	HEAT DETECTOR
⊠	HORN STROBE
⊠	STROBE
TAMPER	SPRINKLER SYSTEM TAMPER SWITCH
FLOW	SPRINKLER SYSTEM FLOW SWITCH
B	SPRINKLER SYSTEM EXTERIOR BELL. CONFIRM WITH FIRE MARSHAL
FACP	FIRE ALARM CONTROL PANEL
A	FIRE ALARM REMOTE ANNUNCIATOR. CONFIRM WITH FIRE MARSHAL

FIRE ALARM OPERATIONAL MATRIX		OUTPUTS								
		SOUND FACP ALARM	SOUND LOCAL ALARM	SOUND FACP SUPERVISE	SOUND FACP TROUBLE	SOUND PUBLIC A/V PAGE	SOUND ALARM AT REMOTE MONITORING STATION	SOUND SUPERVISE AT REMOTE MONITORING STATION	SOUND TROUBLE AT REMOTE MONITORING STATION	SHUT DOWN RELATED EQUIPMENT
INITIATING DEVICES	MANUAL PULL STATIONS	●	●			●	●			●
	SYSTEM SMOKE DETECTOR	●	●			●	●			●
	DUCT SMOKE DETECTOR		●				●			●
	SPRINKLER FLOW SWITCH	●	●			●	●			●
	SPRINKLER TAMPER SWITCH			●				●		
	AC POWER FAILURE				●				●	
	SYSTEM BATTERY LOW				●				●	
	OPEN CIRCUIT WIRING				●				●	

NOTES:
1. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN ADDRESSABLE FIRE ALARM SYSTEM TO ACHIEVE THE PERFORMANCE DEFINED IN THE MATRIX AND AS SHOWN ON THE DRAWINGS.

2. THE CONTRACTOR SHALL ENGAGE A NICET CERTIFIED TECHNICIAN TO COMPLETE THE FIRE ALARM DESIGN. THE DRAWINGS AND FIRE ALARM MATRIX DEFINE THE GENERAL ERFORMANCE REQUIREMENTS OF THE SYSTEM.

3. FINAL EQUIPMENT SELECTION, LOCATION OF DEVICES, CIRCUIT LAYOUTS, CALCULATIONS AND PREPARATION OF FIRE MARSHAL SUBMITTAL SHALL BE ACCOMPLISHED BY THE CONTRACTOR.

CDi Comfort Design Mechanical & Electrical Engineers
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284
JOB # E2119

REVISION NO.	DESCRIPTION	DATE

ARCHITECTS SEAL

East Coast Office
97 Broadway
Boston, MA 02116
T: 617.426.7000
F: 617.426.2557

West Coast Office
23101 Moulton Pkwy #106
Laguna Hills, CA 92653
T: 949.716.8900
F: 949.716.8999

rauhaus freedenfeld & associates

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65 FIREMANS MEMORIAL DRIVE, POMONA, NY 10970

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FIRE ALARM PLAN

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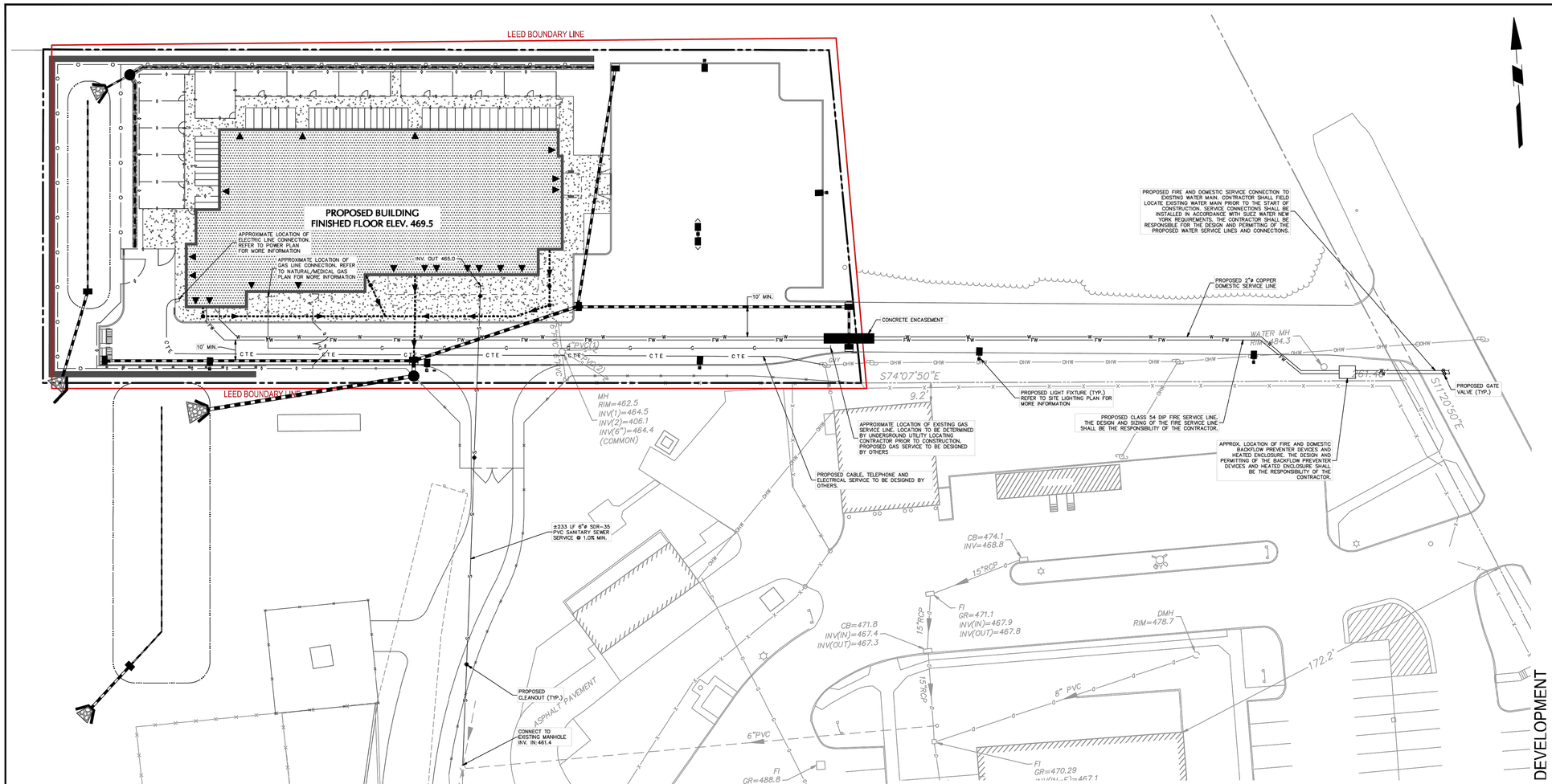


ANIMAL SHELTER UTILITY PLAN

SCALE: 1/8"=1'-0" FIN FL 469.50'

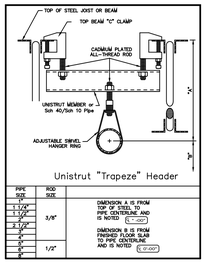
GENERAL AND FOREMAN'S NOTES

1. THIS PROJECT INCLUDES INSTALLATION OF WET PIPE SPRINKLER SYSTEM THOUGH OUT A NEW ANIMAL SHELTER BUILDING
   THIS PROJECT IS BEING BUILT IN COMPLIANCE WITH 2012 IBC BUILDING CODE NFPA 13 2013 EDITION AND THE 2012 EDITION IBC BUILDING CODE
2. (6"-24") DENOTES DISTANCE DOWN FROM BOTTOM OF FLOOR ABOVE TO CENTER LINE OF SPRINKLER PIPE
3. (6"-X") DENOTES DISTANCE ABOVE FINISHED FLOOR TO CENTER LINE OF SPRINKLER PIPE
4. (X) DENOTES HYDRAULIC REFERENCE POINT
5. ALL SPRINKLERS AND HANGERS ARE DESIGNED IN ACCORDANCE WITH N.F.P.A. #13 2013 EDITION.
6. ALL MATERIAL USED FOR COMPONENTS IN THIS SYSTEM SHALL BE IN NEW AND IN COMPLETE COMPLIANCE WITH N.F.P.A. #13 2013 ED.
7. SPRINKLERS ARE TO BE LOCATED IN THE CENTER (BOTH WAYS) OF CEILING TILES WHERE POSSIBLE, WHERE SPACING ALLOWS FOR MAXIMUM SPACING SPRINKLERS ARE TO BE CENTER AT LEAST IN THE LATERAL DIMENSION (WIDTH)
8. SPRINKLERS LOCATED IN DROP CEILING TILES TO BE CENTERED USING "AQUFLEX" FLEXIBLE SPRINKLER CONNECTIONS (OPTIONAL). SPRINKLERS LOCATED IN DRYWALL CEILINGS SHALL BE INSTALLED WITH HARD PIPED RETURN BENDS
9. ALL MAIN PIPING 2-1/2" & LARGER TO BE SCHEDULE 10 THIN WALL STEEL PIPE W/ LISTED "FIRE LOCK" GROOVED FITTINGS
   ALL BRANCH LINE PIPING 2" AND SMALLER TO BE SCHEDULE 40 STEEL PIPE W/LISTED CAST IRON FITTINGS
10. SPRINKLER SYSTEM HYDRAULICALLY CALCULATED BASED ON NFPA 13 2013 EDITION SECTION 11-2.3.2.3 WITH THE USE OF LISTED QUICK RESPONSE HEADS CEILING HEIGHT LESS THEN 19', REMOTE AREA REDUCED BY 40% WITHOUT REDUCING DENSITY FOR CEILING HEIGHTS ABOVE 10' UP TO 20' REMOTE AREA REDUCED BY THE FOLLOWING FORMULA
    $Y = \frac{-3X}{2} + 55$
    X= CEILING HEIGHT
    Y= PERCENT REDUCTION IN DESIGN AREA
11. ALL ELEC. WIRING OF FIRE PROTECTION SWITCHES TO BE PERFORMED BY OTHERS

HANGER NOTES - STEEL

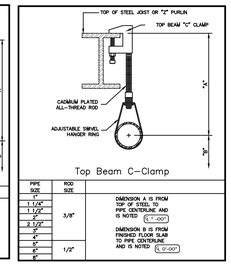
HANGER LOCATIONS SHOWN ON PLANS ARE FOR REFERENCE ONLY ALL HANGERS ARE TO BE INSTALLED PER NFPA #13 2013 ED
12'-0" MAX DISTANCE BETWEEN HANGERS FOR 1 1/4" & SMALLER
15'-0" MAX DISTANCE BETWEEN HANGERS FOR 1 1/2" & LARGER
MAX. DISTANCE BETWEEN END SPRINKLER - 24" FOR 1" PIPE

FOR PIPE SIZING 1" UP TO AND INCLUDING 4"
HANGERS CONSIST OF 3/8" ALL THREAD ROD AN ADJ. HANGER RING AND 3/8" TOP BEAM CLAMP OR 3/8" CONCRETE DROP IN ANCHOR



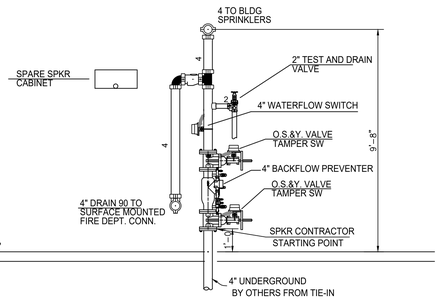
Unistrut "Trapeze" Header

PIPE SIZE	ROD SIZE	
1"	3/8"	DIMENSION A IS FROM TOP OF STEEL TO PIPE CENTERLINE AND IS NOTED (6"-00")
1-1/4"		
1-1/2"		
2"		
2-1/2"		DIMENSION B IS FROM FINISHED FLOOR SLAB TO PIPE CENTERLINE AND IS NOTED (6'-00")
3"		
4"		
5"	1/2"	
6"		



Top Beam C-Clamp

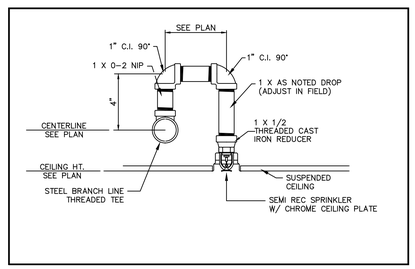
PIPE SIZE	ROD SIZE	
1"	3/8"	DIMENSION A IS FROM TOP OF STEEL TO PIPE CENTERLINE AND IS NOTED (6"-00")
1-1/4"		
1-1/2"		
2"		
2-1/2"		DIMENSION B IS FROM FINISHED FLOOR SLAB TO PIPE CENTERLINE AND IS NOTED (6'-00")
3"		
4"		
5"	1/2"	
6"		



SPRINKLER RISER DETAIL

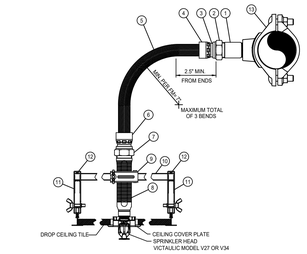
SCALE - 1/4" 1'-0"

MAINTAIN 3' WORKING CLEARANCE AROUND SPRINKLER VALVES



DETAIL: "RETURN BEND"

NO SCALE METHOD FOR CENTERING HEADS IN TILE



PRODUCT LEGEND	
1	1" NIPPLE (INLET)
2	NUT
3	ADAPTER RING
4	COLLAR
5	304 STAINLESS STEEL FLEXIBLE BRAIDED HOSE (1" NOMINAL DIAMETER) (LENGTHS AVAILABLE 3'1", 4'6", 60", & 72")
6	COLLAR
7	NUT
8	REDUCING OUTLET (AVAILABLE 1/2" OR 3/4" FNPT)
9	CENTER BRACKET ASSEMBLY
10	SQUARE BAR (AVAILABLE IN 24" AND 48" LENGTHS)
11	END BRACKET ASSEMBLY
12	SHEET METAL SCREW
13	1/4" MECHANICAL-T OUTLET or WELD-O-LET

SEE VICTAULIC SUBMITTAL NUMBER 10.65

BRAIDED AQUAFLEX FLEXIBLE HOSE SPRINKLER ASSEMBLIES FOR STANDARD PENDENT SPRINKLERS

TO THE BEST OF MY ABILITY AND UNDERSTANDING I HEREBY STATE THAT THESE PLANS HAVE BEEN PREPARED TO BE IN COMPLIANCE WITH THE APPLICABLE N.F.P.A. IBC, STATE, AND LOCAL FIRE MARSHAL CODES AND STANDARDS

Kenneth Hudson

KENNETH HUDSON
SENIOR ENGINEERING TECHNICIAN
WATER-BASED SYSTEMS LAYOUT
N.I.C.E.T. LEVEL IV
CERTIFICATE # 085666
VALID THRU 06/01/2023

NOTES:

- PIPE PAINTING IS BY OTHERS
- SEISMIC BRACING IS NOT REQUIRED
- PIPE IDENTIFICATION IS NOT REQUIRED
- PIPE SLEEVES ARE NOT REQUIRED

PIPE INSULATION NOTE:
ALL PIPE INSULATION IS TO BE BY OTHERS, ANY DETAILS PROVIDED ARE FOR SUGGESTIONS ONLY, ALL INSULATION MUST BE INSTALLED BY A QUALIFIED INSTALLER
CDI ACCEPTS NO RESPONSIBILITY

0 4 8 16 32
GRAPHIC SCALE: 1/8" = 1'- 0"

BID

FOREMAN NOTE:
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☑ ALL MATERIAL TO BE FOREIGN or DOMESTIC
☑ VICTAULIC "FIRELOCK" GROOVED COUPLINGS/FITTINGS

"IMPORTANT"
THE OWNER HAS THE RESPONSIBILITY OF PROVIDING FREEZE PROTECTION IN AREAS THAT HAVE A WET PIPE SPRINKLER SYSTEM AS WELL AS A SUITABLE HEATED ENCLOSURE FOR DRY PIPE, DELUGE OR ANY OTHER TYPE VALVE CONTROLLING WATER SUPPLIES TO AUTOMATIC SPRINKLER SYSTEMS.

PROJECT NORTH

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PIPE & FITTING NOTES

- ☐ ALL LINE PIPING TO BE W/ STANDARD 125# THREADED FITTINGS
- ☑ ALL LINE PIPING TO BE SCH. 40 W/ THREAD OUTLETS & THREAD ENDS
- ☑ ALL MAIN PIPING TO BE SCH.10 W/ WELDED OUTLETS & GROOVED ENDS
- ☐ ALL MAIN PIPING TO BE W/ STANDARD 125# THREADED FITTINGS

HANGER NOTES

- ——— DENOTES HANGER LOCATION
- ☑ STEEL BEAM CLAMP, PIPE RING, & ATR
- ——\——\—— DENOTES TRAPEZE HANGER LOCATION
- ☐ CONCRETE ANCHOR, PIPE RING, & ATR
- ☑ 3/8" ATR 1"-4" PIPE ☐ 1/2" ATR 5"-8" PIPE
- ☐ WOOD HANGER ASSEMBLY, SEE DETAIL
- ☐ STAINLESS STEEL HANGER ASSEMBLY

DESIGN CRITERIA

TYPE SYSTEM: ☑ WET ☐ DRY ☐ PRE-ACTION
NFPA STANDARD: ☑ 13-2013 ☐ 14-2013 ☐ 20-2013 ☐ 24-2013
OCCUPANCY: AMIMAL SHELTER
HAZARD: LIGHT
DENSITY: .10 GPM/SQ.FT.
REMOTE AREA: 1500 SQ. FT.
MAX. S.F./HD.: 225
TOTAL HOSE STREAM: ☑ 100 GPM ☐ 250 GPM ☐ 500 GPM ☐ 750 GPM ☐ 1000 GPM
LOCAL HOSE THREAD:
APPROVING AUTHORITY: NY STATE FIRE MARSHAL
APPLICABLE CODE: NEW YORK STATE BLDG CODE
USE GROUP: BUSINESS (B)
TOTAL STORIES: 1 ABOVE: 1 BELOW: 0
FIRE PROTECTION SYSTEM: FULLY SUPERVISED AUTOMATIC
OTHER APPLICABLE CODES:

SPRINKLER SUMMARY — TOTAL SPRINKLERS THIS DRAWING ▶

SYM	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MFG / MODEL #	S.I.N.	ESCUTCH. / TEMP	QTY.

Plot Date: 10/15/2021 3:59 PM Plotted By: Ken's-PC

REVISIONS

BY	DESCRIPTION	DATE	#

COMFORT DESIGN, INC

620 PENNSYLVANIA AVE WINCHESTER VIRGINIA 22601
PHONE: 540-665-2846

JOB No.	PROJECT 1483
DATE	10-14-21
DESIGNER	KCH
SCALE	AS SHOWN

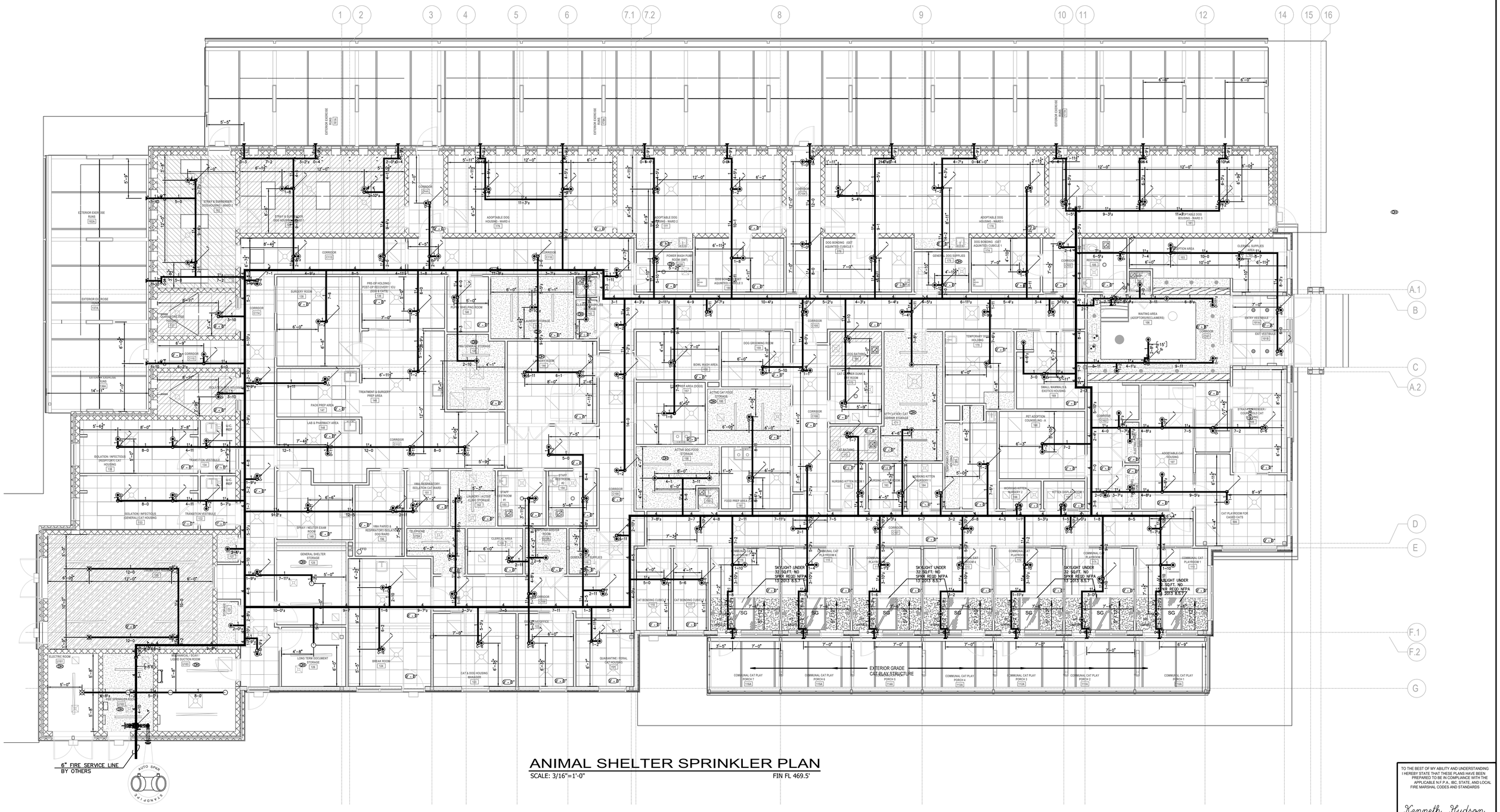
SITE PLAN - NOTES

NEW ANIMAL SHELTER
65 FIREMANS MEMORIAL DRIVE
POMONA, NEW YORK 10970

FILE: NEW ANIMAL SHELTER.dwg

SHEET No. 1 OF 2

File Last Saved By: Ken's-PC



ANIMAL SHELTER SPRINKLER PLAN

SCALE: 3/16"=1'-0" FIN FL 469.5'

GRAPHIC SCALE: 3/16" = 1'- 0"

0 2 4 6 11 22

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SPRINKLER SUMMARY

TOTAL SPRINKLERS THIS DRAWING ▶ 186

SYM	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MFG / MODEL #	S.I.N.	ESCUTCH. / TEMP	QTY.
○	QR UPRIGHT	BRASS	155°	1/2	5.6	1/2	VIKING - MICROFAST	VK300	NONE	5
☒	QR UPRIGHT	BRASS	200°	1/2	5.6	1/2	VIKING - MICROFAST	VK300	NONE	1
◉	QR PENDENT	CHROME	155°	1/2	5.6	1/2	VIKING - MICROFAST	VK302	SEMI REC	153
⊠	QR PENDENT	CHROME	200°	1/2	5.6	1/2	VIKING - MICROFAST	VK302	SEMI REC	4
◄	QR SIDEWALL	CHROME	200°	1/2	5.6	1/2	VIKING - MICROFAST	VK305	SEMI REC	1
◄	QR DRY HSW	CHROME	155°	1/2	5.6	1/2	VIKING - DRY SIDEWALL	VK182	SEMI REC	23

Plot Date: 10/15/2021 4:00 PM Plotted By: Ken's-PC

BY	DESCRIPTION	DATE	#

REVISIONS

COMFORT DESIGN, INC
620 PENNSYLVANIA AVE WINCHESTER VIRGINIA 22601
PHONE: 540-665-2846

Sprinkler Plan

NEW ANIMAL SHELTER
65 FIREMANS MEMORIAL DRIVE
POMONA, NEW YORK 10970

JOB No.	PROJECT 1483
DATE	10-14-21
DESIGNER	KCH
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FILE:	NEW ANIMAL SHELTER.dwg
SHEET No.	2 OF 2

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