William

ARCHITECT

FRANKFORT, KENTUCKY





BURGER KING

Frankfort

161 Arrowhead Court Frankfort, Kentucky 40604

Ampler

ENGINEERS Lexington, KY 40504 Phone: (859) 255-9034 & Associates & A S S O C I A T E S Fax: (859) 252-3130_ ARCHITECTURE PLANNING CONSULTING 7400 BLANCO RD, SUITE 257, SAN ANTONIO, TX. 78216 TEL: (210) 349-6005 FAX: (210) 349-6025

ROC-40 TALL 20/20: November 2018

STRUCTURAL



214 Oceanside Drive, Nashville, TN 37204 Main: 615.564.2701 | www.kimley-horn.com

CIVIL ENGINEERS



100 Old Georgetown Road Frankfort, Kentucky Phone: 502-695-7020 LANDSCAPE ARCHITECT

BUILDING DATA

LOCATION PLAN

ADOPTED CODES;	2018 KENTUCKY BUILDING CODE		
CONSTRUCTION:	GROUP A-2, TYPE V-B NON-S	PRINKLED	
USE:	FOOD OR DRINK CONSUMPTION		
DESCRIPTION:	BURGER KING RESTAURANT	-	
LOT:	1.00 ACRE, MAP 86 PARCEL 01	7.11	
BUILDING SIZE:	RESTAURANT	2,830	sq. ft.
PARKING:	REQUIRED:	24	SPACES
i Altitiiyo.	PROVIDED:	34	SPACES
ACCESSIBLE PARKING:	PROVIDED:	2	SPACES
	(SQUARE FOOTAGES ARE APPROXIMATE)		

Restaurant

Group

1850 PARKWAY PLACE, # 1100

MARIETTA, GA. 30067

OWNER

INTEDI	ΛP	AREA & FIRE EXIT CALCULATIONS		Occupano	;y
INTER	UK	AREA & FIRE EXIT CALCULATIONS	Ratio	Subtotal	Rounded
905.8	sf	Dining	15	60.4	61
49.1	sf	Q-Line (Standing)	5	9.8	10
1,244.2	sf	Kitchen	200	6.2	7
199.5	sf	Storage	300	0.7	1
64.7	sf	Office	100	0.6	1
125.5	sf	Restrooms ("net")	0	0.0	0
47.1	sf	Pathway ("net")	0	0.0	0
194.1	sf	Perimeter Wall	0	0.0	0
2,830	sf	Totals			80
Exit width	= p	ersons * 0.20" (IBC 1005.3.2)	16.0	INCHES	
Min numb	er e	exits (IBC Table 1006.3.2)	2		
2018 IBC (Эссі	ıpant Load - Table 1004.5			·

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E C H P L U M B	6.6 6.7 7.0 7.1 7.2 7.3 7.4 7.5 7.7 7.8 7.9 7.10 8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 8.10 9.0 9.1 9.2 9.3 9.4 9.5 9.6	SECTIONS & DETAILS BACK DOOR & DUMPSTER DETAIL MEP SPECIFICATIONS MEP SPECIFICATIONS MECHANICAL PLAN MECHANICAL ROOF PLAN MECHANICAL SCHEUDLES & DETAILS MECHANICAL SCHEUDLES & DETAILS MECHANICAL SCHEUDLES & DETAILS 7.6 NOT USED KITCHEN EQUIPMENT DETAILS ELECTRICAL SPECIFICATIONS ELECTRICAL SPECIFICATIONS LIGHTING PLAN POWER FLOOR PLAN ELECTRICAL ROOF PLAN POS PLAN CAMERA PLAN ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL CONTROLS DIAGRAM PLUMBING SPECIFICATIONS PLUMBING SPECIFICATIONS WASTE PIPING PLAN PLUMBING ROOF PLAN PLUMBING ROOF PLAN PLUMBING ROOF PLAN PLUMBING RISER DIAGRAMS	11.24.21 11.24.21
P L UMB	6.6 6.7 7.0 7.1 7.2 7.3 7.4 7.5 7.7 7.8 7.9 7.10 8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 8.10 9.0 9.1 9.2 9.3 9.4 9.5 9.6	SECTIONS & DETAILS BACK DOOR & DUMPSTER DETAIL MEP SPECIFICATIONS MEP SPECIFICATIONS MECHANICAL PLAN MECHANICAL ROOF PLAN MECHANICAL SCHEUDLES & DETAILS MECHANICAL SCHEUDLES & DETAILS 7.6 NOT USED KITCHEN EQUIPMENT DETAILS ELECTRICAL SPECIFICATIONS ELECTRICAL SPECIFICATIONS LIGHTING PLAN POWER FLOOR PLAN ELECTRICAL ROOF PLAN POS PLAN CAMERA PLAN ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL CONTROLS DIAGRAM PLUMBING SPECIFICATIONS PLUMBING SPECIFICATIONS WASTE PIPING PLAN PLUMBING ROOF PLAN PLUMBING ROOF PLAN PLUMBING SCHEDULES & DETAILS PLUMBING SCHEDULES & DETAILS PLUMBING SCHEDULES & DETAILS PLUMBING ROOF PLAN	11.24.21 11.24.21
ECH PLUMB FI	6.6 6.7 7.0 7.1 7.2 7.3 7.4 7.5 7.7 7.8 7.9 7.10 8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 8.10 9.0 9.1 9.2 9.3 9.4 9.5 9.6	SECTIONS & DETAILS BACK DOOR & DUMPSTER DETAIL MEP SPECIFICATIONS MEP SPECIFICATIONS MECHANICAL PLAN MECHANICAL ROOF PLAN MECHANICAL SCHEUDLES & DETAILS MECHANICAL SCHEUDLES & DETAILS 7.6 NOT USED KITCHEN EQUIPMENT DETAILS ELECTRICAL SPECIFICATIONS ELECTRICAL SPECIFICATIONS LIGHTING PLAN POWER FLOOR PLAN ELECTRICAL ROOF PLAN POS PLAN CAMERA PLAN ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL CONTROLS DIAGRAM PLUMBING SPECIFICATIONS PLUMBING ROOF PLAN	11.24.21 11.24.21
ECH PLUMB FIX	6.6 6.7 7.0 7.1 7.2 7.3 7.4 7.5 7.7 7.8 7.9 7.10 8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 8.10 9.0 9.1 9.2 9.3 9.4 9.5 9.6	SECTIONS & DETAILS BACK DOOR & DUMPSTER DETAIL MEP SPECIFICATIONS MEP SPECIFICATIONS MECHANICAL PLAN MECHANICAL ROOF PLAN MECHANICAL SCHEUDLES & DETAILS KITCHEN EQUIPMENT DETAILS ELECTRICAL SPECIFICATIONS ELECTRICAL SPECIFICATIONS LIGHTING PLAN POWER FLOOR PLAN ELECTRICAL ROOF PLAN ELECTRICAL ROOF PLAN ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL CONTROLS DIAGRAM PLUMBING SPECIFICATIONS PLUMBING SPECIFICATIONS WASTE PIPING PLAN WATER & GAS PIPING PLAN PLUMBING ROOF PLAN	11.24.21 11.24.21
ECH PLUMB FI	6.6 6.7 7.0 7.1 7.2 7.3 7.4 7.5 7.7 7.8 7.9 7.10 8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 8.10 9.0 9.1 9.2 9.3 9.4 9.5 9.6	SECTIONS & DETAILS BACK DOOR & DUMPSTER DETAIL MEP SPECIFICATIONS MEP SPECIFICATIONS MECHANICAL PLAN MECHANICAL ROOF PLAN MECHANICAL SCHEUDLES & DETAILS MECHANICAL SCHEUDLES & DETAILS 7.6 NOT USED KITCHEN EQUIPMENT DETAILS ELECTRICAL SPECIFICATIONS ELECTRICAL SPECIFICATIONS LIGHTING PLAN POWER FLOOR PLAN ELECTRICAL ROOF PLAN POS PLAN CAMERA PLAN ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL SCHEDULES & DETAILS ELECTRICAL CONTROLS DIAGRAM PLUMBING SPECIFICATIONS PLUMBING ROOF PLAN	11.24.21 11.24.21

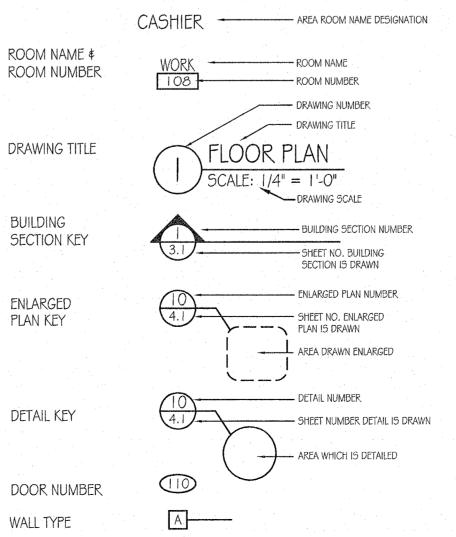
78 TOTAL SHEETS

GENERAL NOTES

ELEVATION NOTATION

- 1. ALL GYPSUM BOARD TO BE TYPE "X" FIRE RATED TO AFFORD ONE (1) HOUR CONSTRUCTION OR AS REQUIRED.
- 2. WHEN REFERENCE IS MADE TO MATERIAL SYSTEM, ALL PARTS AND MATERIALS PERTINENT TO THE MANUFACTURER'S SYSTEM SPECIFIED SHALL BE FURNISHED AND INSTALLED.
- 3. THIS PROJECT COMPLIES WITH THE "AMERICANS WITH DISABILITIES ACT", (ADA) - "TO THE MAXIMUM EXTENT FEASIBLE".

ARCHITECTURAL SYMBOLS LEGEND



CONTRACTOR IS REQUIRED TO PROVIDE THE FOLLOWING A.D.A. REQUIREMENTS:

4.1 ACCESSIBLE FACILITIES

4.1.3 (17)(b) PUBLIC TELEPHONES: ACCESSIBLE TELEPHONES TO BE EQUIPPED WITH A VOLUME CONTROL

4.3 ACCESSIBLE ROUTE

4.3.7 SLOPE: MAXIMUM RUNNING SLOPE NOT TO EXCEED 1:20 SLOPE W/ MAXIMUM CROSS SLOPE OF 1:48 4.3.8 CHANGES IN LEVELS: MAXIMUM CHANGE IN LEVEL IS 1/2"

PARKING SPACES: 9 FOOT WIDE SPACES, 5 FOOT ACCESS AISLES - MAX, GROUND SURFACE SLOPE = 2% IN ANY DIRECTION Clear Doorway

Front Approach -

Swinging Door

Front Approach -

Swinging Door

NOTE: $X = 36^{\circ}$ min, if $Y = 60^{\circ}$

 $X = 42^{\circ} \text{ mln, if } Y = 54^{\circ}$

Hinge Side Approach -

NOTE: Y = 48° mln.

Swinging Door

Hinge Side Approach

"Swinging Door

NOTE: Y = 54' min. if door has closer

Latch Side Approach

Swinging Door

Latch Side Approach

Front Approach

48" min

Swinging Door

32' Min TYPICAL

24' min | push side

NOTE: Y = 48" min, if door has closer

4.6.4 SIGNAGE: VERTICAL SIGNAGE TO BE PROVIDED - REF. DETAILS, SHEET 1.2 4.13 DOORS

4.13.8 THRESHOLDS AT DOORWAYS: 1/2" MAX, BEYELED W/ 1:2 MAX SLOPE 4.13.9 DOOR HARDWARE: HARDWARE SHALL BE MOUNTED NO HIGHER THAN 48" & NO LOWER THAT 34" ABOYE FIN. FL. 4.13.10 DOOR CLOSERS: SWEEP PERIOD OF CLOSER SHALL BE ADJUSTED SO FROM AN OPEN POSITION OF 90 DEGREES THE DOOR WILL TAKE A MIN. OF 5 SECONDS TO MOVE TO A POINT 12 DEGREES FROM

4.13.11 DOOR OPENING FORCE: INTERIOR HINGED DOORS = 5 LBF (22.2N), FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMIN. AUTHORITY

4.14 ENTRANCES 4.14.4 MINIMUM NUMBER: ALL ENTRANCES TO BE LEVEL. MAX, SLOPE TO BE 1:48 (1/4 INCH PER FOOT).

PARKING & PASSENGER LOADING ZONES

4.16 WATER CLOSETS 4.16.2 CLEAR FLOOR SPACE: FRONT APPROACH TO HAVE MIN, CLEAR FLOOR SPACE OF 48 INCHES WIDE BY 66 INCHES DEEP SIDE APPROACH TO HAVE MIN. CLEAR FLOOR SPACE OF 48 INCHES WIDE BY 56 INCHES DEEP BOTH SIDE AND FRONT APPROACH TO HAYE A MIN, CLEAR FLOOR SPACE OF 60 INCHES WIDE BY 56 INCHES DEEP

4.16.3 HEIGHT: 17 TO 19 INCHES A.F.F. TO TOP OF SEAT, 18 INCHES ON CENTER OF FIXTURE FROM SIDE WALL/PARTITION 4.16.4 GRAB BARS: ALL ACCESSIBLE WATER CLOSETS TO HAVE 36 INCH REAR BAR MOUNTED 6" FROM THE CORNER AND A 42 INCH SIDE BAR MOUNTED 12" FROM THE CORNER, 33 TO 36 INCHES A.F.F. TO TOP OF BAR

4.19 LAVATORIES AND MIRRORS

4.19.2 HEIGHT AND CLEARANCES: 34 INCHES A.F.F. TO TOP, 27 INCH KNEE CLEARANCE 4.19.3 CLEAR FLOOR SPACE: 30 INCHES BY 48 INCHES PROVIDED IN FRONT OF LAYATORY

4.19.4 EXPOSED PIPES AND SURFACES: EXPOSED PIPES TO BE INSULATED 4.19.5 FAUCETS: ACCESSIBLE FAUCETS (IF NOT AUTOMATIC) TO BE LEVER-OPERATED WITH A MAXIMUM FORCE TO OPERATE OF 5 LBF. 4.19.6 MIRRORS: ACCESSIBLE MIRRORS SHALL BE MOUNTED W/ BOTTOM EDGE OF REFLECTING SURFACE MAX. 40 INCHES A.F.F. AND A MIN. OF 74 INCHES A.F.F.

4.24.2 HEIGHT: (IF COUNTER TOPS SPECIFIED) COUNTER HEIGHT 34 INCHES

GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS

4.24.3 KNEE CLEARANCE: Min. 27 INCHES HIGH BY 30 INCHES WIDE, AND 19 INCHES DEEP TO BE PROVIDED UNDERNEATH SINKS 4,24,4 DEPTH: MAX. DEPTH OF ACCESSIBLE SINKS IS 6 1/2 INCHES

4.26 GRAB BARS

4.26.2 SIZE & SPACING: THE NOMINAL DIAMETER OR WIDTH OF THE GRIPPING SURFACES OF A HANDRAIL OR GRAB BAR SHALL BE 1 1/4 INCH TO 1 1/2 INCH THE SPACE BETWEEN THE WALL & THE GRAB BARS SHALL BE 1 1/2" STRUCTURAL STRENGTH: BENDING STRESS IN A GRAB BAR, (INDUCED BY THE MAX. BENDING

MOMENT FROM THE APPLICATION OF 250 LBF) SHALL BE LESS THAN THE ALLOWABLE STRESS FOR SHEAR STRESS (INDUCED IN A GRAB BAR BY THE APPLICATION OF 250 LBF) SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR. IF THE CONNECTION BETWEEN THE GRAB BAR SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED. THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL BE TOTALED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.

SHEAR FORCE (INDUCED IN A FASTENER OR MOUNTING DEVICE FROM THE APPLICATION OF 250 LBF) SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE TENSILE FORCE (INCUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 250 LBF PLUS THE WAXIMUM MOMENT FROM THE APPLICATION OF 250 LBF) SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE

4.27 CONTROLS AND OPERATING MECHANISMS 4.27.3 HEIGHT: THE HIGHEST OPERABLE PART OF CONTROLS, DISPENSERS, RECEPTACLES, & OTHER OPERABLE EQUIPMENT

SHALL BE PLACED WITHIN THE FOLLOWING REACH RANGES: FORWARD = MAX HIGH FORWARD REACH IS 48 INCHES

= OVER OBSTRUCTIONS (34 INCH MAX, A.F.F.) DEPTH OF REACH SHALL BE 25 INCHES OR LESS AND HEIGHT OF REACH SHALL BE 44 INCHES MAX. = MAX HIGH SIDE REACH IS 48 INCHES = MIN. LOW SIDE REACH IS 15 INCHES

= OVER OBSTRUCTIONS (34 INCH MAX. A.F.F.) DEPTH OF REACH SHALL BE 24 INCHES OR LESS AND HEIGHT OF REACH SHALL BE 46 INCHES MAX. ELECTRICAL & COMMUNICATIONS SYSTEMS RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES A.F.F.

THESE REQUIREMENTS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL & COMMUNICATIONS SYSTEMS RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS

4.30 SIGNAGE - (OWNER FURNISHED & INSTALLED) 4.30.4 LETTERS & NUMERALS: RAISED 1/32 INCH, UPPER CASE, SANS SERIF TYPE AND ACCOMPANIED W/ GRADE 2 BRAILLE, RAISED CHARACTERS AT LEASE 5/8 INCH HIGH, BUT NO HIGHER THAN 2 INCHES. PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6 INCHES MIN. IN HEIGHT

4.30.6 MOUNTING LOCATIONS & HEIGHT: WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS & SPACES, SIGNS SHAL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING HEIGHT SHALL BE 60 INCHES A.F.F. TO CENTERLINE OF SIGN. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL Sliding or Folding Doors BE SO THAT A PERSON MAY APPROACH WITHIN 3 INCHES OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF DOOR

4.31 TELEPHONES - (OWNER FURNISHED & INSTALLED)

4,31,2 CLEAR FLOOR OR GROUND SPACE: PROVIDE CLEAR FLOOR OR GROUND SPACE, MIN, 30" BY 48" AT ACCESSIBLE TELEPHONES, "CENTERED ON THE ELEMENT IT SERVES"

4.31,3 MOUNTING HEIGHT: THE HIGHEST OPERABLE PART OF THE TELEPHONE SHALL BE WITHIN THE FOLLOWING REACH RANGES. FORWARD = MAX, HIGH FORWARD REACH IS 48 INCHES = MIN. LOW SIDE REACH IS 15 INCHES = OVER OBSTRUCTIONS (34 INCHES MAX. A.F.F.) DEPTH OF REACH

SHALL BE 25 INCHES OR LESS & HEIGHT OF REACH SHALL BE 44 SIDE = MAX, HIGH SIDE REACH IS 54 INCHES = MIN. LOW SIDE REACH IS 9 INCHES

= OVER OBSTRUCTIONS (34 INCHES MAX. A.F.F.) DEPTH OF REACH SHALL BE 24 INCHES OR LESS & HEIGHT OF REACH SHALL BE 46

4.31.4 PROTRUDING OBJECTS; OBJECTS PROJECTING FROM WALLS (TELEPHONES) WITH THEIR LEADING EDGES BETWEEN 27 AND 80 INCHES ABOVE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4 INCHES INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS, OR AISLES, OBJECTS MOUNTED WITH THEIR LEADING EDGES AT OR BELOW 27 INCHES ABOVE FINISHED FLOOR MAY PROTRUDE ANY AMOUNT. FREE-STANDING OBJECTS MOUNTED ON POSTS OR PYLONS MAY OVERHANG 12 INCHES MAXIMUM FROM 27 TO 80 INCHES ABOVE THE GROUND OR FINISHED FLOOR, PROTRUDING OBJECTS SHALL NOT REDUCE THE CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE.

4.31.5 HEARING AID COMPATIBLE & VOLUME: (1) ACCESSIBLE TELEPHONES SHALL BE HEARING AID COMPATIBLE. (2) VOLUME CONTROLS CAPABLE OF A MINIMUM OF 12 dbA AND A MAXIMUM OF 18 dbA ABOYE NORMAL SHALL BE PROVIDED. 4.31.6 CONTROLS; ACCESSIBLE TELEPHONES SHALL HAVE PUSHBUTTON CONTROLS WHERE SERVICE FOR SUCH EQUIPMENT IF AVAILABLE

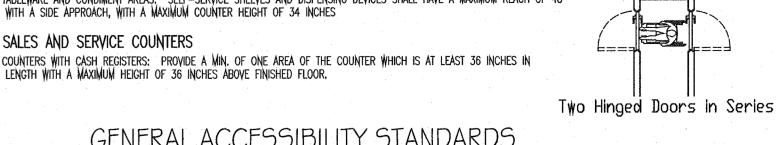
4.31.7 TELEPHONE BOOKS: IF BOOKS PROVIDED, LOCATE WITHIN REACH RANGES LISTED ABOVE 4.31.8 CORD LENGTH: THE CORD FROM THE TELEPHONE TO THE HANDSET SHALL BE AT LEAST 29 INCHES LONG

4.32 FIXED OR BUILT-IN SEATING AND TABLES 4.32.4 COUNTER, REQUIRE ONE 36" MIN. LONG SECTION OF COUNTER TO BE 34" A.F.F. MAX. TO TOP SURFACE ACCESSIBLE SEATING: MIN. 5% OF FIXED SEATING TO BE ACCESSIBLE (NOT LESS THAN ONE) - PROVDE CLEAR FLOOR SPACE OF 30 INCHES BY 48 INCHES - CLEAR FLOOR SPACE SHALL NOT OVERLAP KNEE SPACE BY MORE THAN 19 INCHES KNEE CLEARANCES: PROVIDE KNEE SPACE OF MIN, 27 INCHES HIGH BY 30 INCHES WIDE AND 19 INCHES DEEP TABLE HEIGHT: TOPS OF ACCESSIBLE TABLES AND COUNTERS SHALL BE FROM 28 INCHES TO 34 INCHES A.F.F.

5.1 RESTAURANTS, CAFETERIAS, SNACK BARS, & VENDING AREAS TABLEWARE AND CONDIMENT AREAS: SELF—SERVICE SHELVES AND DISPENSING DEVICES SHALL HAVE A MAXIMUM REACH OF 48" WITH A SIDE APPROACH, WITH A MAXIMUM COUNTER HEIGHT OF 34 INCHES

7.2 SALES AND SERVICE COUNTERS COUNTERS WITH CASH REGISTERS: PROVIDE A MIN, OF ONE AREA OF THE COUNTER WHICH IS AT LEAST 36 INCHES IN

ADDITIONAL ACCESSIBILITY STANDARDS MAY APPLY



Slide Side Approach Sliding or Folding Doors Latch Side Approach Sliding or Folding Doors Two Hinged Doors in Series

> 03.14.22 JOB NO: SHEET NUMBER:

BURGER KING - FRANKFORT, KY

161 ARROWHEAD COURT FRANKFORT, KY

PERMIT SET:

12/28/2021

SITE DATA	TABLE	
SITE ADDRESS		HEAD COURT T, KY, 40601
TAX MAP	MAP 86 PAI	RCEL 017.11
OVERALL AREA	EXISTING	PROPOSED
SITE AREA	1.00 AC	1.00 AC
DISTURBED AREA	N/A	0.96 AC
IMPERVIOUS AREA	0.00 AC	0.70 AC
PERVIOUS AREA	1.00 AC	0.30 AC
LOT DATA	REQUIRED	PROVIDED
MINIMUM LOT SIZE	N/A	1.00 AC
MINIMUM LOT WIDTH	65 FT	146.50 FT
MAXIMUM LOT COVERAGE	40%	6.52%
BUILDING DATA	REQUIRED	PROVIDED
BUILDING FLOOR AREA	N/A	2840 SF
MAXIMUM BUILDING HEIGHT	N/A	24 FT
BUILDING SETBACKS	REQUIRED	PROVIDED
FRONT: NORTHEAST	30 FT	62 FT
REAR: SOUTHWEST	N/A	150 FT
SIDE: NORTHWEST	10 FT	73 FT
SIDE: SOUTHEAST	10 FT	33 FT
PARKING	REQUIRED	PROVIDED
TOTAL STANDARD PARKING SPACES	24	34
ACCESSIBLE SPACES	2	2

ACCEPTANCE OF EASEMENT RESTRICTIONS

THE AREAS INDICATED ON THE SITE PLAN BY DASHED LINES AND MARKED UTILITY EASEMENTS ARE HEREBY RESERVED FOR USE BY FRANKFORT PLANT BOARD. COLUMBIA GAS OF KENTUCKY, INC., IDENTIFIED UTILITIES AND CITY OF FRANKFORT/FRANKLIN COUNTY FACILITIES, FOR THE PURPOSE OF PROVIDING UTILITY SERVICES WHICH INCLUDE, BUT ARE NOT LIMITED TO: 1. CONSTRUCT, MAINTAIN, OPERATE, REPLACE, OR REBUILD POLE LINES, GAS LINES, PIPELINES AND/OR UNDERGROUND LINES TOGETHER WITH VALVES, LINE MARKERS, SERVICE CONNECTIONS, LATERAL CONNECTIONS AND ALL APPURTENANCES FACILITIES TO THE SAME 2. RIGHT OF INGRESS AND EGRESS OVER ALL LOTS TO AND FROM INDICATED EASEMENTS 3. RIGHT TO TRIM OR REMOVE ANY TREES. SHRUBS, OF UNDERGROWTH NECESSARY TO MAINTAIN PROPER SERVICE AND 4. RIGHT TO KEEP SAID EASEMENTS FREE OF ANY STRUCTURES OR OBSTACLES THAT MAY CREATE A HAZARD, OR PREVENT USE OF THE EASEMENT FOR ITS INTENDED PURPOSE, OR TO LIMIT OR HINDER ACCESS THROUGH, OVER, AND ALONG EASEMENT, TO THE SAID SERVICE OF POLES, CABLES, TRANSFORMERS. ENCLOSURES, OR LINES. IT IS UNDERSTOOD THAT AS PART OF THE EASEMENT STIPULATION THAT OWNERS, THEIR HEIRS, OR ASSIGNS HEREBY AGREE THAT NO EXCAVATION WILL BE ATTEMPTED WITHIN FIVE (5) FEET OF ANY BURIED FACILITIES INSTALLED WITHIN THE FASEMENT HEREIN DEFINED, BURIED FACILITIES SHALL BE LOCATED PRIOR TO EXCAVATION BY FOLLOWING THE KENTUCKY DIG LAW AND CALLING 811 OR 1-800-752-6007. PROPERTY OWNERS WHO PLACE, CONSTRUCT, BUILD, OR INSTALL STRUCTURES, TREES, FENCES, LANDSCAPING, OR ANY OTHER ITEM WITHIN THE EASEMENT. SHALL BE SUBJECT TO CHARGES RELATING TO THE REMOVAL OF SUCH ITEMS. PROPERTY OWNERS ARE TO USE AND ENJOY THE SAID LANDS INCLUDED IN THE EASEMENT STRIPS SHOWN HEREON, BUT SUCH USE

HALL NOT INTERFERE WITH THE RIGHT AND PRIVILEGES	HEREIN RESERVED.
OIP+	11/20/21
WNER/APPLICANT SIGNATURE	DATE

EXISTING PROPE	ERTY SUMMARY
PROPERTY ADDRESS:	161 ARROWHEAD COURT FRANKFORT, KY
MAP AND PARCEL ID:	MAP 86 PARCEL 017.11
U.S. FEMA FIRM PANEL:	21073C0137E DATED 12/21/2017
EXISTING ZONING: EXISTING LAND USE:	CH UNDEVELOPED

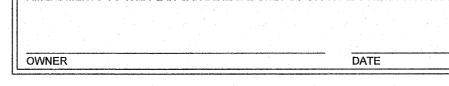
PERMITTING RI	EFEREI	NCE
BUILDING PERMIT:	TBD	
GRADING PERMIT:	TBD	
WATER PERMIT:	TBD	
SEWER PERMIT:	TBD	

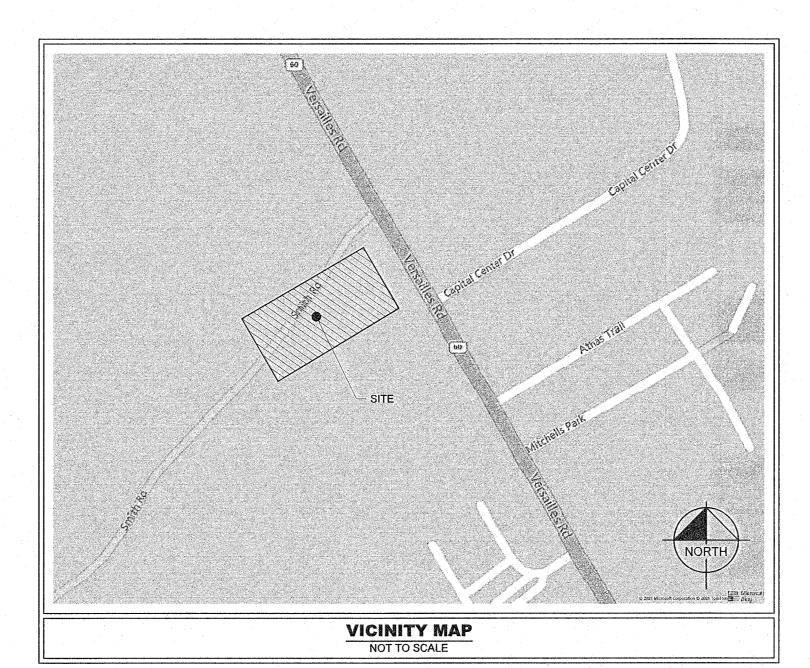
GENERAL DEVELOPMENT NOTES

THE SUBJECT PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" (AREAS OF MINIMUM FLOOD HAZARD) AS NOTED ON THE CURRENT FEMA FIRM COMMUNITY PANEL 21073C0137E DATED

CERTIFICATION OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) HEREBY ADOPT THIS FINAL DEVELOPMENT PLAN WITH MY (OUR) FREE CONSENT, WITH THE EXCEPTION OF SUCH VARIANCES OR OTHER CONDITIONS OF APPROVAL, IF ANY AS ARE NOTED HEREON OR IN THE MINUTES OF THE FRANKFORT/FRANKLIN COUNTY PLANNING COMMISSION. I (WE) FURTHERMORE UNDERSTAND THAT BUILDING PERMITS FOR CONSTRUCTION CAN ONLY BE ISSUED FOLLOWING THIS PLAN AND THAT AMENDMENTS TO THE PLAN CAN BE MADE ONLY BY OFFICIAL COMMISSION ACTION.





CITY OF FRANKFORT FRANKLIN COUNTY, KY

PROJECT DESIGN TEAM

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WATER

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FRANKFORT, KY 40601

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SURVEY **ENDRIS ENGINEERING** 771 ENTERPRISE DRIVE LEXINGTON, KY 40510 PHONE: (859) 253-1425 CONTACT: KEVIN M. PHILLIPS EMAIL: WILL.SPAULDING@KIMLEY-HORN.COM EMAIL: KEVIN@ENDRIS.COM

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CITY OF FRANKFORT

SEWER DEPARTMENT

FRANKFORT, KY 40601

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1200 KENTUCKY AVENUE

LANDSCAPE ARCHITECT INSIDE OUT LANDSCAPE DESIGN 100 OLD GEORGETOWN ROAD FRANKFORT, KY 40601 PHONE: (502) 695-7020 CONTACT: ANDREA WILSON MUELLER EMAIL: ANDREAM@KENTUCKYLANDSCAPEDESIGN.COM

PERMITTING / UTILITY CONTACTS

BUILDING DEPT. FRANKLIN COUNTY BUILDING CODE ENFORCEMENT 321 W MAIN STREET FRANKFORT, KY 40601 PHONE: (502) 875-8751

KYTC

DEPARTMENT OF HIGHWAYS

DISTRICT OFFICE NO. 5

8310 WESTPORT ROAD

PHONE: (502) 210-5400

LOUISVILLE, KY 40242

CONTACT: JONATHAN OTIS **NATURAL GAS** COLUMBIA GAS OF KY, INC. 2001 MERCER ROAD

LEXINGTON, KY 40511

PHONE: (800) 440-6111

STORMWATER

OTIS ENGINEERING

234 W MAIN STREET #2

FRANKFORT, KY 40601

PHONE: (502) 352-2808

TELEPHONE AT&T KENTUCKY PHONE: (502) 223-5261 CONTACT: ART STROBL ELECTRIC FRANKFORT PLANT BOARD 305 HICKORY DRIVE FRANKFORT, KY 40601

PHONE: (502) 352-4372

ZONING

FIRE CHIEF FRANKLIN COUNTY FRANKLIN COUNTY FIRE DEPARTMENT PLANNING AND ZONING 106 DARBYSHIRE CIRCLE 321 W MAIN STREET FRANKFORT, KY 40601 PHONE: (502) 695-1617

305 HICKORY DRIVE

FRANKFORT, KY 40601

PHONE: (502) 352-4443

FRANKFORT, KY 40601 PHONE: (502) 875-8751 CONTACT: BEN JUDAH **CABLE / TELECOMMUNICATIONS** FRANKFORT PLANT BOARD

CERTIFICATE OF APPROVAL

HEREBY CERTIFY THAT THE FINAL DEVELOPMENT PLAN SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE ZONING ORDINANCE REGULATIONS FOR FRANKLIN COUNTY. WITH THE EXCEPTION OF SUCH VARIANCES OR OTHER CONDITIONS OF APPROVAL, IF ANY, AS ARE PLANNING COMMISSION AND THAT IT HAS BEEN APPROVED AS THE OFFICIAL PLAI FOR WHICH BUILDING PERMITS MAY BE ISSUED

CHAIRMAN, FRANKFORT-FRANKLIN CO PLANNING COMMISSION OR DESIGNER

CERTIFICATION BY REVIEW AGENCIES

I (WE) HEREBY CERTIFY THAT THESE PLANS HAVE BEEN REVIEWED BY OU THE REQUIREMENTS OF OUR AGENCY (AGENCIES) AND BUILDING PERMITS MAY ISSUED PURSUANT TO THESE PLAN FRANKFORT PLANT BOARD - WATER

FRANKFORT PLANT BOARD - ELECTRIC FRANKFORT PLANT BOARD - TELECOM FRANKLIN COUNTY FIRE DEPARTMENT COUNTY ENGINEER DATE DATE COLUMBIA GAS

ROADWAY ENTRANCE CERTIFICATION

CERTIFY THAT AN ENTRANCE FROM THE PROPOSED DEVELOPMENT MAY BE GRANTED ONTO THE CITY STREET, COUNTY ROAD, OR STATE HIGHWAY SHOWN ON THE PLAT DESCRIBED HEREON. HOWEVER, AN ENTRANCE PERMIT FOR EACH LOT WILL BE REQUIRED AFTER STRUCTURE LOCATION IS ESTABLISHED.

STREET, ROAD OR HIGHWAY OFFICIAL

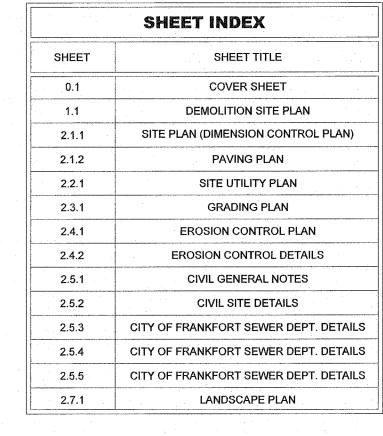
CERTIFICATION OF SANITARY SEWERS WHEN SEWERS ARE EXISTING & ADJACENT

THE FRANKFORT SEWER DEPARTMENT HEREBY CERTIFIES THAT THE PROPERTY (PROPERTIES) CREATED BY THIS ACTION CAN BE SERVED BY A PUBLIC SEWER BY ACCESS ACROSS PUBLIC RIGHT OF WAY OR DEDICATED EASEMENT AND WITHOUT OTHERWISE CROSSING PRIVATE PROPERTY. WE FURTHER CERTIFY THAT ALL EASEMENTS OR RIGHTS OF WAYS NOTED ON THIS PLAT ARE ACCEPTABLE TO THE FRANKFORT SEWER DEPARTMENT AND BASED ON THE INFORMATION PROVIDED TO US. MEET THE PROPERTY RIGHTS REQUIREMENTS OF THE FRANKFORT SEWER DEPARTMENT. THIS ACTION DOES NOT RELEASE ANY PROPERTY RIGHT NOT SPECIFICALLY NOTED.

DATE

ENGINEER'S SEAL

FRANKFORT SEWER DEPARTMENT



OWNER

ANCHOR FRANKFORT RETAIL, LLC 128 E. 2ND STREET COVINGTON, KY 41011 CONTACT: THOMAS W. BOWERS

DEVELOPER

AMPLER RESTAURANT GROUP C/O QUATRRO BUSINESS SUPPORT SERVICES 1850 PARKWAY PLACE, SUITE 1150 MARIETTA, GA 30067 PHONE: (513) 484-0965 **CONTACT: DAN PEYTON**

PLANS PREPARED BY



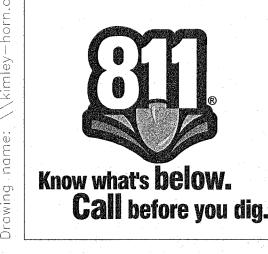
10 Lea Ave, Suite 400, Nashville, TN 37210 Main: 615.564.2701 | www.kimley-horn.com © 2022 Kimley-Horn and Associates, Inc.

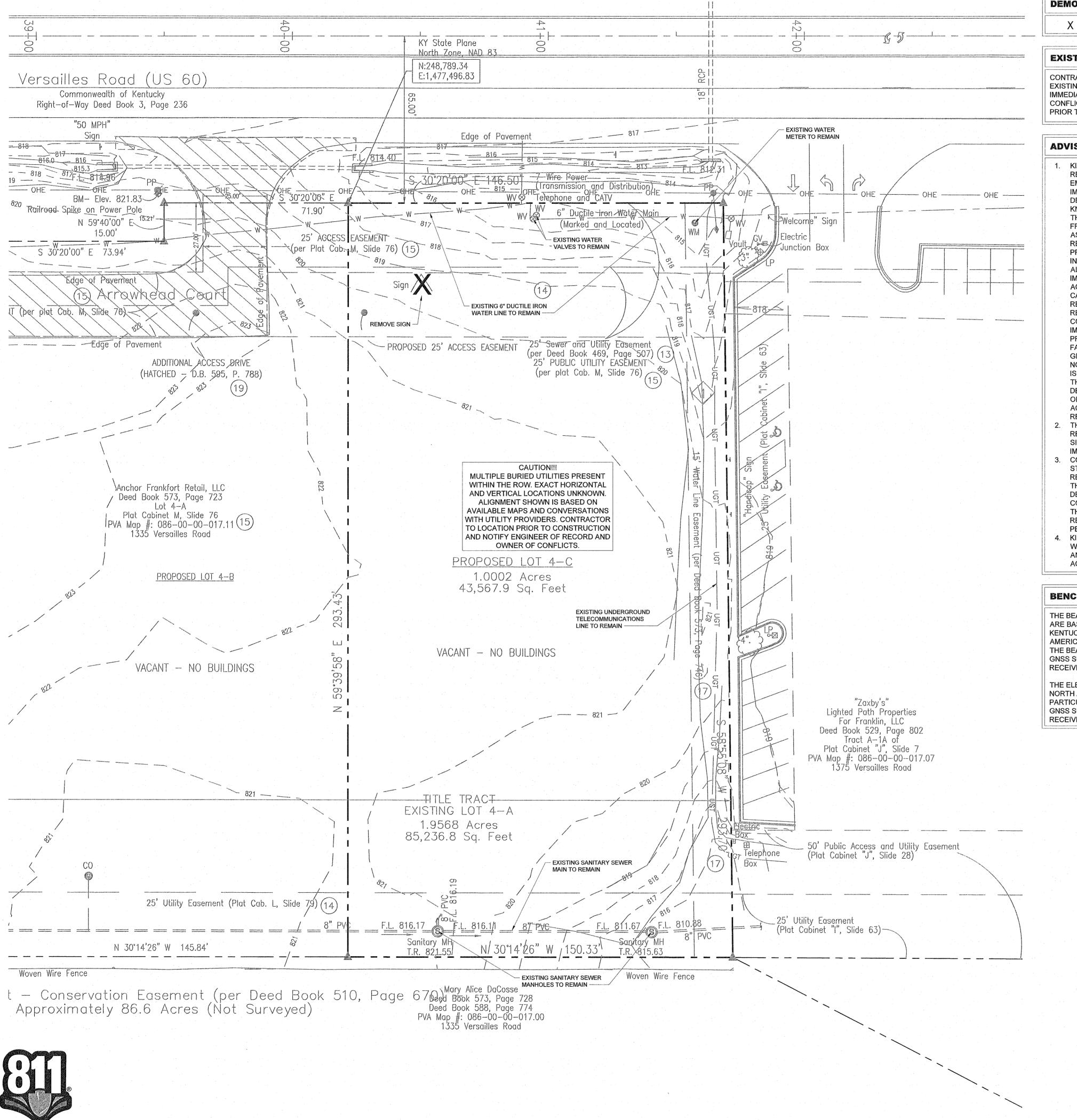
PLAN REVISIONS REVISION NO. DATE STORM LINE UPDATES 02/08/2022 SHEET NUMBER TOTAL SHEETS FILE NUMBER

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Know what's below.

Call before you dig.

DEMOLITION LEGEND

X REMOVE OBJECT

EXISTING UTILITIES NOTE

CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

ADVISORY NOTES

- KIMLEY-HORN AND ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACTS THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE. KIMLEY-HORN AND ASSOCIATES, INC. DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE UTILITIES SHOWN CAN BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING HIS OWN SITE RECONNAISSANCE TO SCOPE HIS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF THEIR FACILITIES. THIS PLAN IS INTENDED TO GIVE A GENERAL GUIDE TO THE CONTRACTOR NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR
- 2. THE CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW ANY AVAILABLE REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE DEMOLITION PLAN.
- 3. CONTRACTOR SHALL COMPLY WITH ALL LOCAL STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REGULATIONS, RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY.
- . KIMLEY-HORN AND ASSOCIATES, INC. DOES NOT WARRANT OR REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE.

BENCHMARK LIST

THE BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON KENTUCKY STATE PLANE GRID NORTH, KENTUCKY STATE PLANE NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD 83). PARTICULARLY, THE BEARINGS AND COORDINATES ARE BASED ON A GNSS SURVEY UTILIZING A TRIMBLE R6 GNSS RECEIVER AND THE KYTC VRS SYSTEM.

THE ELEVATIONS SHOWN HEREON ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. PARTICULARLY, THE ELEVATIONS ARE BASED ON A GNSS SURVEY UTILIZING A TRIMBLE R6 GNSS RECEIVER AND THE KYTC VRS SYSTEM.

NOTES

- 1. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF FRANKFORT AND FRANCHISED UTILITY COMPANIES TO MAINTAIN SERVICES AT ALL TIMES TO NEIGHBORING PROPERTIES. THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS INDICATING HOW THE WASTE FROM THE SITE HAS BEEN HANDLED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS IN THE GEOTECHNICAL REPORT. THE SITE, AFTER DEMOLITION SHALL BE GRADED TO ELIMINATE DEPRESSIONS HOLES, BERMS, DIRT PILES, ETC. THE SITE IS TO BE GRADED UNTIL RELATIVELY SMOOTH AND ATTRACTIVE IN APPEARANCE PRIOR TO STABILIZATION OF EARTH. ANY FILL MATERIAL/FILL AREAS SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY AT A MOISTURE AT, OR ABOVE, OPTIMUM MOISTURE CONTENT IN MAXIMUM 8" LIFTS. CONTRACTOR SHALL PROVIDE PROOF IN THE FORM OF LAB TEST KITS THAT THIS HAS BEEN ACHIEVED.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE PHASE I ENVIRONMENTAL SITE ASSESSMENT.
- 3. LOCATIONS OF PUBLIC AND PRIVATE UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL 811 AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.
- 4. ALL EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME THE DRAWINGS WERE PREPARED AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE THEY COMMENCE ANY WORK. IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
- 5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 72 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
- 6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, AND EROSION CONTROL PLANS.
- 7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER WAS NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
- CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL DEVICES FOR ANY STREET WORK.
- 9. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE DEVELOPER IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
- CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., ACCORDING TO STANDARD BEST PRACTICES.
- 11. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES AROUND THE SITE PERIMETER ARE TO BE INSTALLED.
- 12. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
- 13. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
- 14. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
- 15. ANY RECYCLED MATERIAL TO BE STOCKPILED ON THE SITE SHALL BE STORED IN AS SMALL AN AREA AS PRACTICABLE AND THE LOCATION OF ANY STOCKPILE SHALL BE WELL CLEAR OF THE BUILDING PAD AREA AND THE LOCATION MUST BE PRE-APPROVED BY THE OWNER PRIOR TO STOCKPILING.
- 16. FILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH THE GEOTECH REPORT.

REVISIONS:
12/15/2021
DEVELOPMENT PLAN RESUBMITTAL
12/28/2021
DEVELOPMENT PLAN RESUBMITTAL

Court 0356

SITE PLAN

DEMOLITION SITE F



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Main: 615.564.2701 | www.kimley-horn.com

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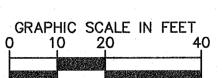
ARCHITECTURE PLANNING CONSULTING
7400 BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78216

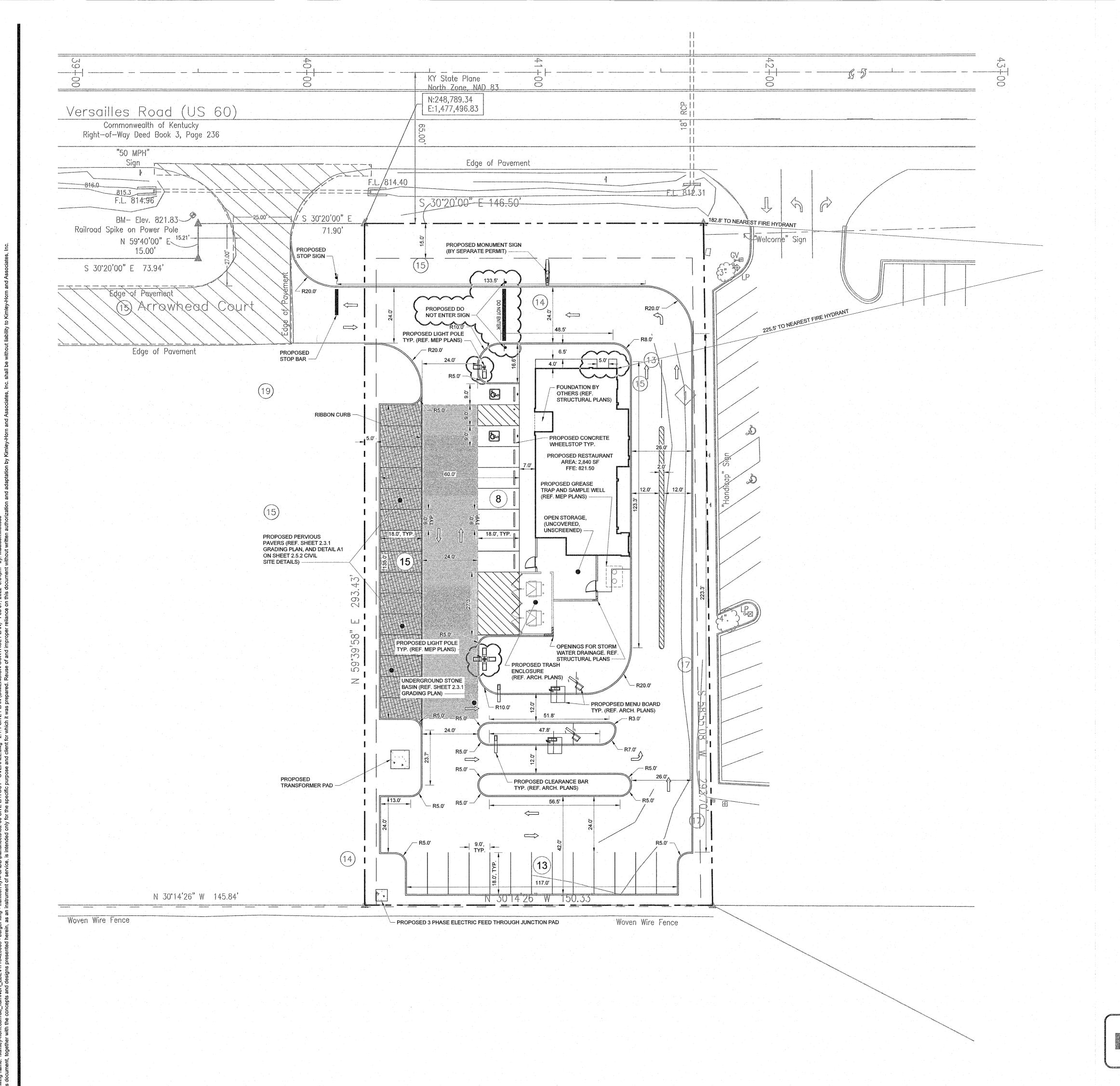
DATE: 12/28/2021

JOB NO: 118423003

DRAWN BY:

SHEET NUMBER:





SITE LAYOUT NOTES

- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL
 CITY/COUNTY/STATE REGULATIONS AND CODES AND O.S.H.A.
 STANDARDS.
 ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS
- 2. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CORB UNLESS
 OTHERWISE NOTED.

 3. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE
 ABANDONED, REMOVED OR RELOCATED AS NECESSARY, ALL
- ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.

 CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC
- SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES REQUIREMENTS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.

 5. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION
- TAKEN FROM SURVEY PROVIDED ON SHEET 1.1 DEMOLITION SITE PLAN.
 ALL PROPOSED UTILITY CONNECTIONS SHALL BE FIELD VERIFIED AND SUBJECT TO CHANGE PER UTILITY DISTRICT REQUEST.
 ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKING WILL
- 8. ALL DEVELOPMENT WITHIN THE BOUNDARIES OF THIS PLAN MEETS
 THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
 ADA: http://www.ada.gov/
 9. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR

COMPLY WITH THE MOST RECENT MUTCD STANDARDS.

LOCATIONS.

10. ALL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT VERSION OF SPECIFICATIONS PROVIDED BY AMPLER RESTAURANT CROLLS.

BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE

PAVING NOTES

- 1. EXPANSION JOINTS SHOULD BE USED WHEREVER THE PAVEMENT WILL ABUT A STRUCTURAL ELEMENT SUBJECT TO DIFFERENT MAGNITUDE OF MOVEMENT, E.G., LIGHT POLES, RETAINING WALLS, EXISTING PAVEMENT, STAIRWAYS, ENTRYWAY PIERS, BUILDING WALLS, OR MANHOLES.
 - WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM CURB, CONTRACTOR TO INSTALL REVERSE/INVERTED GUTTER PITCH. REFER TO SHEET 2.3.1 GRADING PLAN.

SITE DATA	TABLE	
SITE ADDRESS		HEAD COURT T, KY, 40601
TAX MAP	MAP 86 PAI	RCEL 017.11
OVERALL AREA	EXISTING	PROPOSED
SITE AREA	1.00 AC	1.00 AC
DISTURBED AREA	N/A	0.96 AC
IMPERVIOUS AREA	0.00 AC	0.70 AC
PERVIOUS AREA	1.00 AC	0.30 AC
LOT DATA	REQUIRED	PROVIDED
MINIMUM LOT SIZE	N/A	1.00 AC
MINIMUM LOT WIDTH	65 FT	146.50 FT
MAXIMUM LOT COVERAGE	40%	6.52%
BUILDING DATA	REQUIRED	PROVIDED
BUILDING FLOOR AREA	N/A	2840 SF
MAXIMUM BUILDING HEIGHT	N/A	24 FT
BUILDING SETBACKS	REQUIRED	PROVIDED
FRONT: NORTHEAST	30 FT	62 FT
REAR: SOUTHWEST	N/A	150 FT
SIDE: NORTHWEST	10 FT	73 FT
SIDE: SOUTHEAST	10 FT	33 FT
PARKING	REQUIRED	PROVIDED
TOTAL STANDARD PARKING SPACES	24	34
ACCESSIBLE SPACES	2	2

REVISIONS: 02/08/2022

02/08/2022 STORM LINE UPDATES

> Court 0601

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DIMENSION CONTROL

161 Arrowhead

SITE PLAN

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ASSOCIAtes
AITECTURE PLANNING CONSULTING BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78216

DATE: 12/28/2021 JOB NO: 118423003

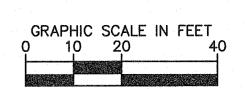
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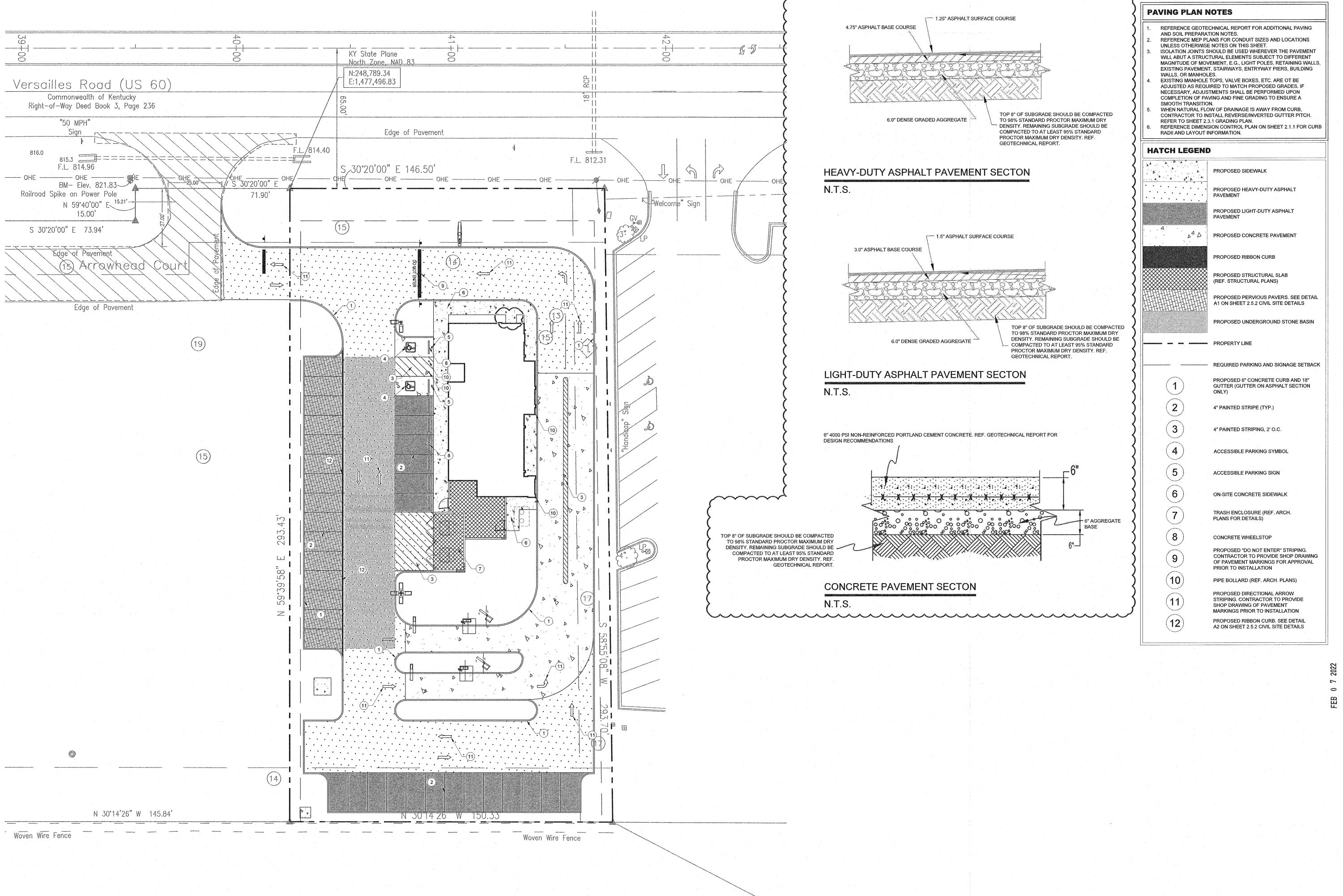
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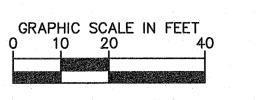
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REVISIONS: 02/08/2022 STORM LINE UPDATES

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& ASSOCIAtes
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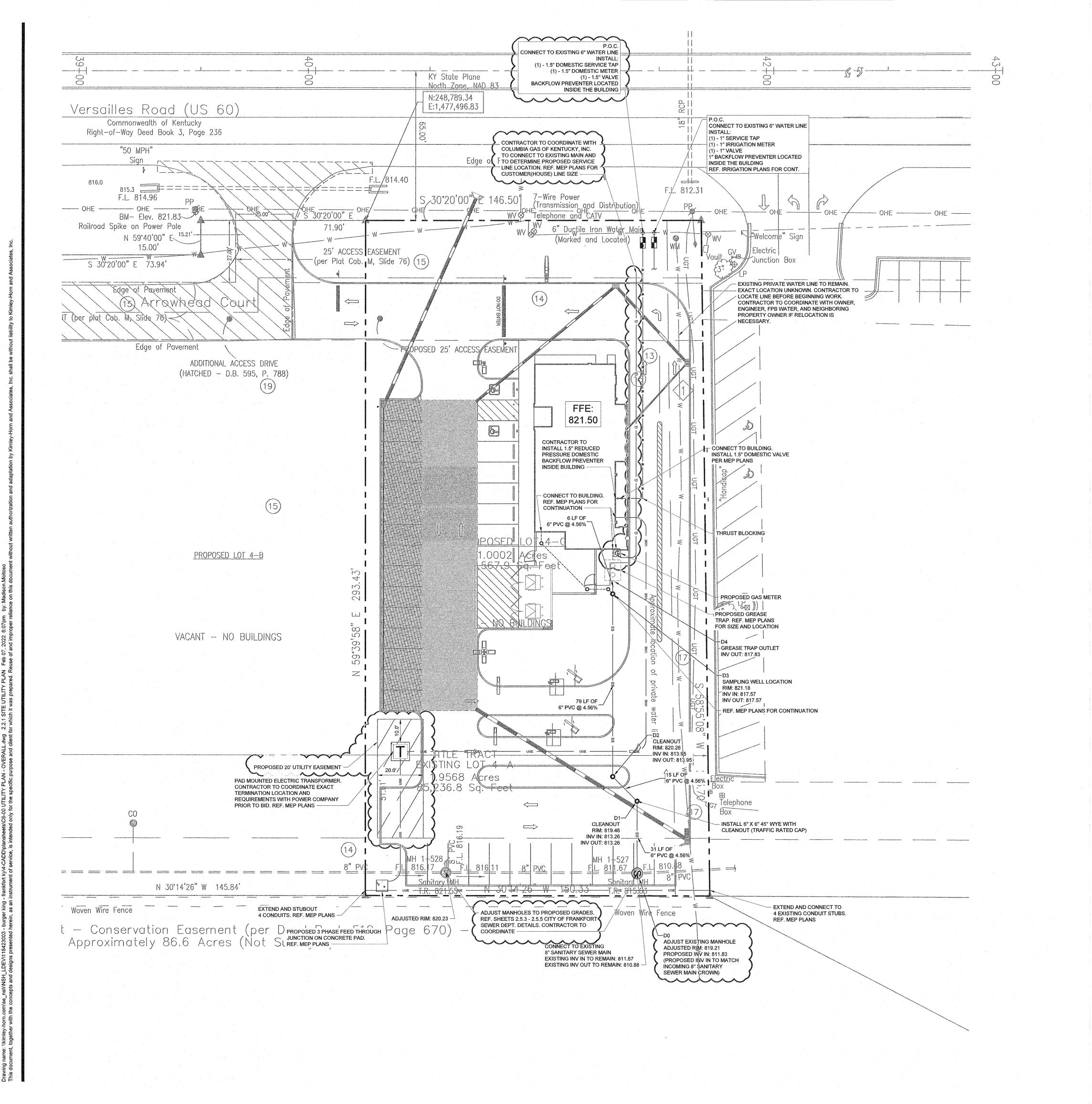
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JOB NO: 118423003

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NOTES

UTILITY NOTES:

1. CONTRACTOR RESPONSIBLE FOR VERIFYING EXISTING ELEVATIONS COMPARED TO THOSE SHOWN ON PLAN PRIOR TO GRADING. NOTIFY OWNER'S REPRESENTATIVE IF

DISCREPANCIES ARE FOUND. AREAS FOR CONSTRUCTION THAT REQUIRE DE-WATERING FOR EXCAVATION WILL BE

DONE AT NO ADDITIONAL COST TO THE OWNER. ALL WATER AND SEWER MATERIALS AND CONSTRUCTION SHALL BE IN COMPLIANCE WITH FRANKFORT PLANT BOARD AND CITY OF FRANKFORT SEWER DEPARTMENT'S

STANDARD SPECIFICATIONS. MAINTAIN MINIMUM 10 FEET HORIZONTAL SEPARATION BETWEEN WATER & SANITARY SEWER OR 18" VERTICAL SEPARATION AT CROSSING LOCATIONS.

REFER TO CITY OF FRANKFORT STANDARD SPECIFICATIONS FOR PIPE BEDDING

ALL WATER VALVES TO BE LOCATED OUTSIDE OF PAVED AREAS WHERE POSSIBLE. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS OF WATER & SANITARY SEWER CONSTRUCTION PRIOR TO THE ACCEPTANCE OF THE

PUBLIC UTILITIES. ANY WORK REQUIRED ON THE PUBLIC MAIN TO BE PERFORMED BY THE FRANKFORT PLANT BOARD. PAVEMENT REPAIR SHALL BE DONE IN ACCORDANCE WITH CITY OF FRANKFORT PUBLIC WORKS STANDARDS.

9. WATER LINES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 2.5 FEET BELOW FINISHED 10. REFERENCE ARCHITECTURAL AND MEP PLANS FOR EXACT UTILITY TIE-IN LOCATIONS

AT BUILDING. 11. SEE MEP PLANS FOR COMMUNICATIONS AND FLECTRIC ROUTING.
12. ALL UTILITIES SHALL BE FROM UNDERGROUND SERVICE.

EXISTING UTILITIES NOTES

CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

FRANCHISE UTILITY NOTES

1. TELEPHONE UTILITY CONSTRUCTION SHALL COMPLY WITH AT&T KENTUCKY STANDARD SPECIFICATIONS.

. COMMUNICATION CONDUIT INSTALLATION SHALL COMPLY WITH FRANKFORT PLANT BOARD TELECOM STANDARD SPECIFICATIONS.

UNDERGROUND ELECTRICAL INSTALLATION SHALL COMPLY WITH FRANKFORT PLANT BOARD STANDARD SPECIFICATIONS. 4. NATURAL GAS CONSTRUCTION & INSTALLATION SHALL COMPLY WITH COLUMBIA GAS

OF KENTUCKY STANDARD SPECIFICATIONS. 5. SEE COVER SHEET (0.1) FOR FRANCHISE UTILITY CONTACT INFORMATION.

EXISTING SANITARY MANHOLE VACUUM TEST NOTE

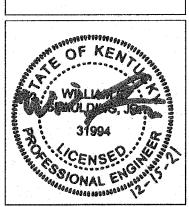
- 1. PRIOR TO ANY DISTURBANCE ON THE SITE, THE CONTRACTOR SHALL PERFORM A VACUUM TEST OF 5 PSI ON THE MH 1-528. IF THE MH 1-528 PASSES THE VACUUM TEST, ANOTHER SUCCESSFUL VACUUM TEST WILL BE REQUIRED AFTER THE MANHOLE MODIFICATIONS.
- 2. PRIOR TO ANY DISTURBANCE ON THE SITE, THE CONTRACTOR SHALL PERFORM A VACUUM TEST OF 5 PSI ON THE MH 1-527, IF THE MH 1-527 PASSES THE VACUUM TEST, ANOTHER SUCCESSFUL VACUUM TEST WILL BE REQUIRED AFTER THE MANHOLE MODIFICATIONS.

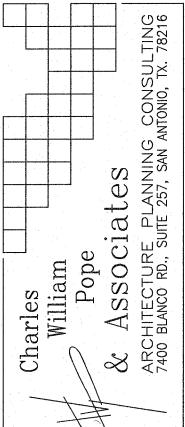
FRANKFORT SEWER DEPARTMENT NOTES

- 1. THE CONTRACTOR SHALL CONTACT FSD, 502.875.2448, PRIOR TO CONSTRUCTION TO ALLOW THE FRANKFORT SEWER DEPARTMENT TO CCTV THE EXISTING SEWERS. UPON COMPLETION OF CONSTRUCTION, FSD WILL CCTV THE EXISTING SEWERS AGAIN. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING SEWER SYSTEM RESULTING FROM CONSTRUCTIONS (I.E. DAMAGED PIPES, SILTED
- 2. NO DISCHARGE WILL BE ALLOWED UNTIL THE FRANKFORT SEWER DEPARTMENT WITNESSES INSTALLATION, TESTING AND APPROVES THE CONNECTION. OWNER WILL BE REQUIRED TO PAY A CAPACITY / TAP FEE BASED UPON THE NUMBER AND SIZE OF WATER METERS ON THE PROPERTY. IF THE EXISTING WATER METER IS TO BE UPSIZED THE FEE WILL BE BASED UPON THE DIFFERENCE IN SIZE.

REVISIONS:

02/08/2022 STORM LINE UPDATES



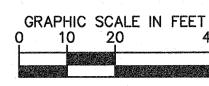


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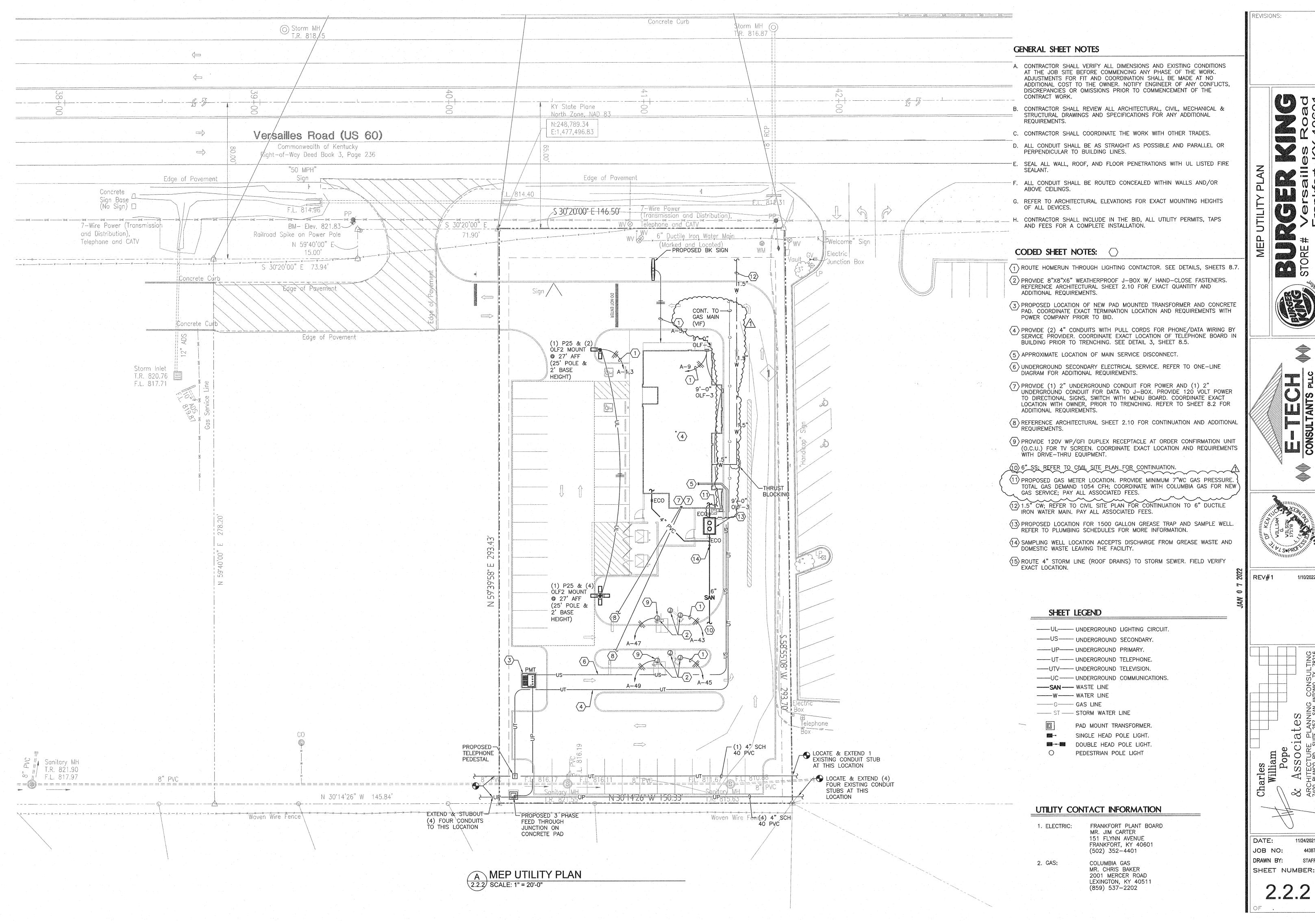
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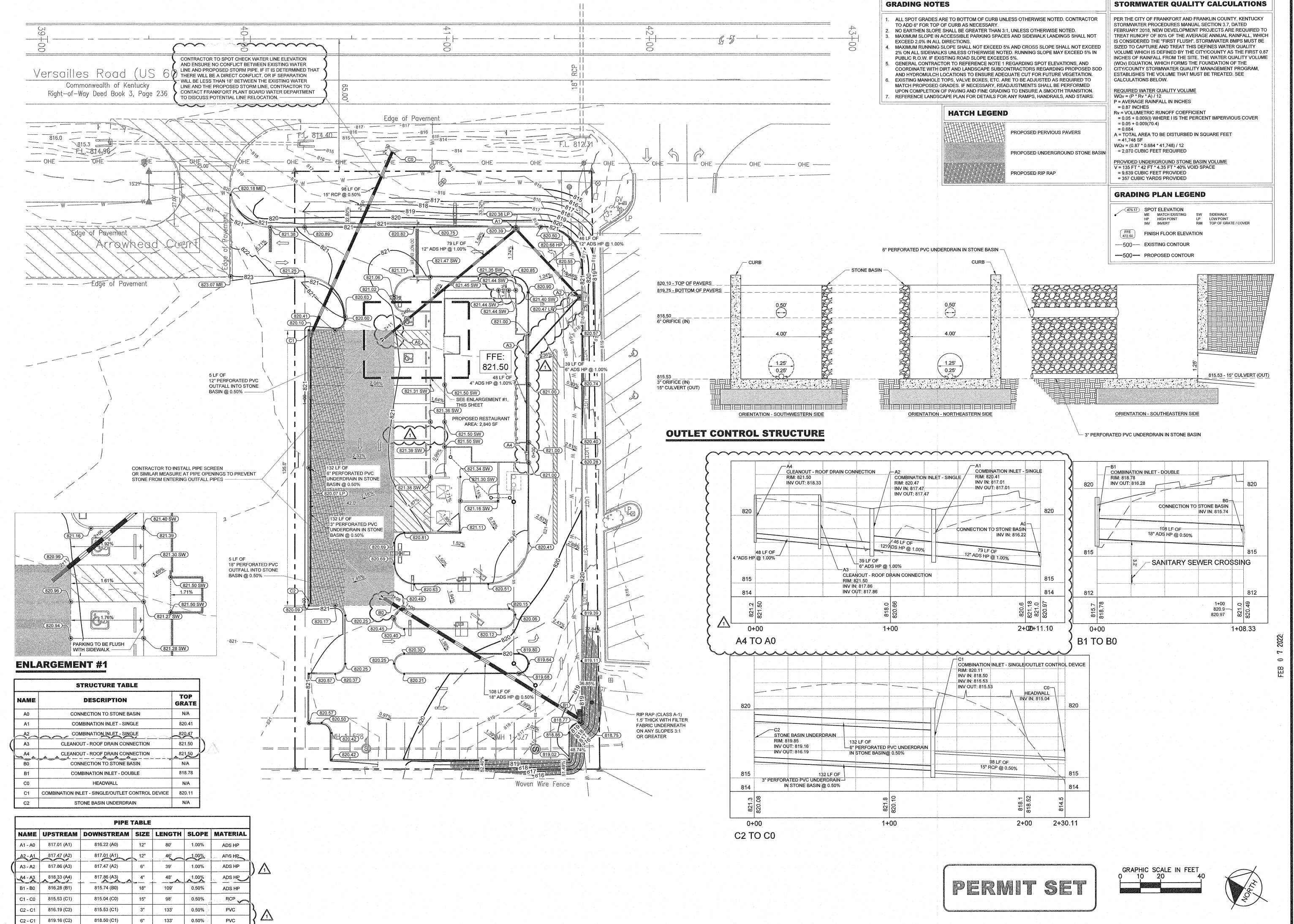






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REVISIONS: 02/08/2022

STORM LINE UPDATES

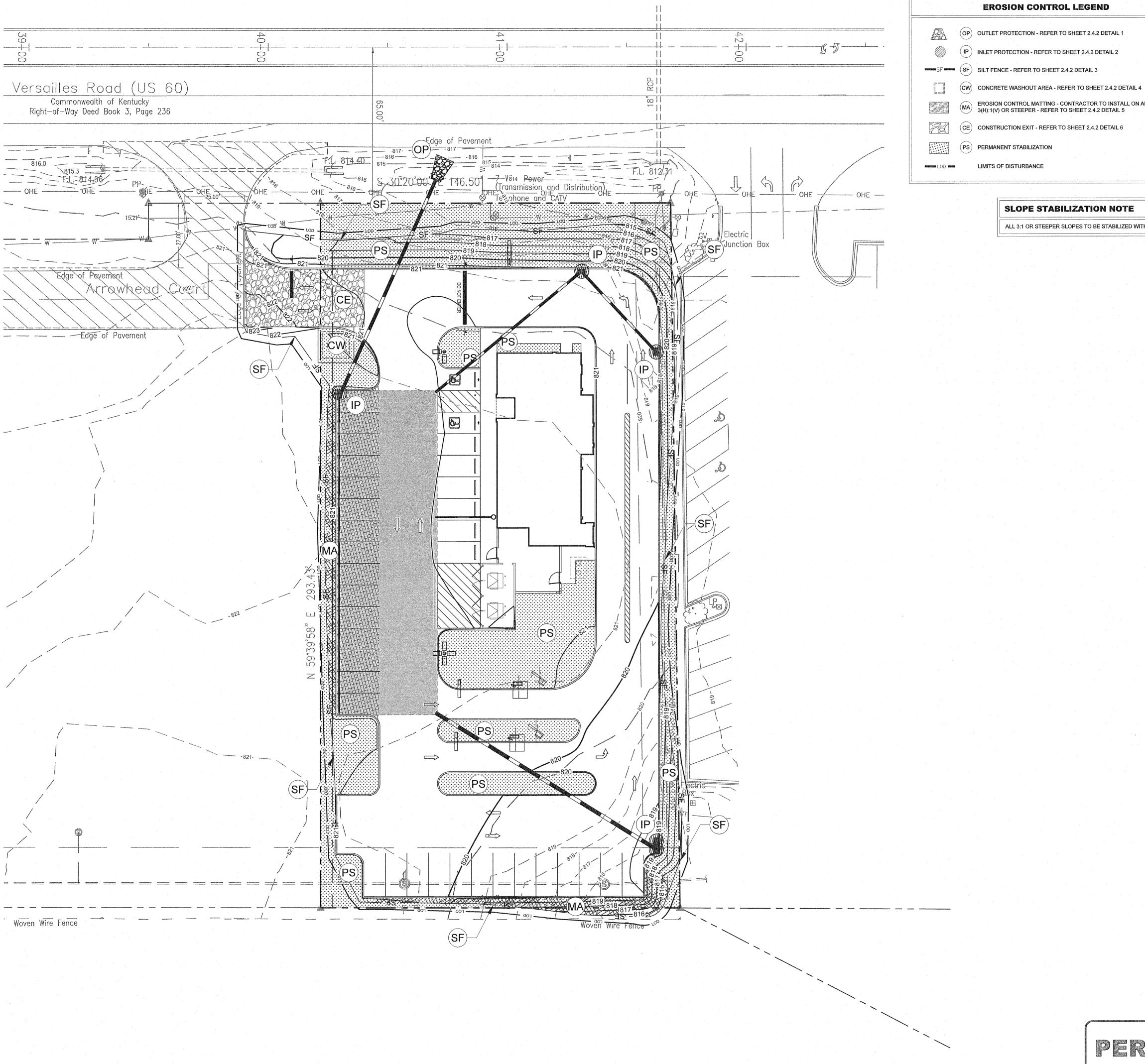
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12/28/2021 DATE: JOB NO: 118423003 DRAWN BY:

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EROSION CONTROL LEGEND

(OP) OUTLET PROTECTION - REFER TO SHEET 2.4.2 DETAIL 1

(IP) INLET PROTECTION - REFER TO SHEET 2.4.2 DETAIL 2

EROSION CONTROL MATTING - CONTRACTOR TO INSTALL ON ALL SLOPES 3(H):1(V) OR STEEPER - REFER TO SHEET 2.4.2 DETAIL 5

SLOPE STABILIZATION NOTE

ALL 3:1 OR STEEPER SLOPES TO BE STABILIZED WITHIN 7 DAYS.

EROSION CONTROL NOTES

- 1. AREAS CONTAINED WITHIN THE PROPERTY BOUNDARIES WILL BE AREAS OF DISTURBANCE AND SOIL STABILIZATION. ALL SOILS WITHIN THESE LIMITS SHALL BE STABILIZED BY VEGETATION OR STRUCTURE.
 - 2. ALL CONSTRUCTION-RELATED VEHICLES MUST PARK INSIDE THE LIMITS OF CONSTRUCTION AND SERVED BY APPROPRIATE TEMPORARY CONTROLS, OR ON
- CITY-APPROVED SURFACES OUTSIDE THE LIMITS OF CONSTRUCTION. . CONTRACTOR SHALL REMOVE ALL SEDIMENT AND DEBRIS FROM CONSTRUCTED STORM SEWER SYSTEM UPON COMPLETION OF WORK.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE WHATEVER MEANS ARE NECESSARY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS, STORM DRAIN SYSTEMS AND INLETS FROM EROSION DEPOSITS. THE CONTRACTOR RESPONSIBLE FOR MAINTAINING EROSION CONTROL SHALL PROVIDE STREET CLEANING ON PUBLIC STREETS IF ANY EARTH MATERIAL IS TRANSPORTED FROM THE CONSTRUCTION SITE AT THE END OF EACH DAY. EARTH MATERIAL SHALL NOT BE ALLOWED TO ACCUMULATE ON CITY AND KYTC ROADS.

SITE MAP GENERAL NOTES

- 1. CONTRACTOR IS SOLELY RESPONSIBLE FOR SELECTION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND
- REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP. DRAINAGE PATTERNS ARE SHOWN ON THIS PLAN BY PROPOSED AND EXISTING
- CONTOURS, FLOW ARROWS, AND SLOPES. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE
- BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
- 6. SANITARY SEWER EFFLUENT IS DISPOSED OF VIA AN ONSITE SEWER SYSTEM CONNECTED TO A MUNICIPAL SEWER SYSTEM.

SITE MAP SITE SPECIFIC NOTES

- 1. CONSTRUCTION ENTRANCE SHALL BE LOCATED SO AS TO PROVIDE THE LEAST AMOUNT OF DISTURBANCE TO THE FLOW OF TRAFFIC IN AND OUT OF THE SITE. ADDITIONALLY, CONSTRUCTION ENTRANCE SHALL BE LOCATED TO COINCIDE WITH THE PHASING OF THE PAVEMENT REPLACEMENT.
- 2. THE NATURE OF THIS SITE'S CONSTRUCTION CONSISTS OF: CLEARING AND GRUBBING
 - PRELIMINARY GRADING UTILITY INSTALLATION PAVEMENT CONSTRUCTION BUILDING CONSTRUCTION FINAL GRADING AND STABILIZATION

EVENT OF 0.5 INCHES OR GREATER.

- 3. STORM WATER ON SITE WILL LEAVE THE SITE VIA STORM WATER INFRASTRUCTURE AND OUTFALL IN A DITCH RUNNING ALONG THE WESTERN RIGHT-OF-WAY OF VERSAILLES
- 4. POST CONSTRUCTION STORM WATER POLLUTION CONTROL MEASURES INCLUDE
- STABILIZATION BY PERMANENT PAVING, OR LANDSCAPING. . DISTURBED PORTIONS OF SITE MUST BE STABILIZED. STABILIZATION PRACTICES MUST
- BE INITIATED WITHIN 14 DAYS IN PORTIONS OF THE SITE WHERE CONSTRUCTION HAS BEEN EITHER TEMPORARILY OR PERMANENTLY CEASED. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF STABILIZATION OR PERMANENT DRAINAGE FACILITIES.
- 6. ACCORDING TO FEMA'S MAP SERVICE CENTER, THE SITE IS LOCATED IN ZONE "X" DESIGNATED FLOODPLAIN PER FIRM NUMBER 21073C0137E, EFFECTIVE ON 12/21/2017.
- CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP/SITE MAP TO INCLUDE BMP'S FOR ANY OFF-SITE MATERIAL WASTE, BORROW OR EQUIPMENT STORAGE AREAS. CONTRACTOR SHALL INSPECT DISTURBED AREAS, MATERIAL STORAGE AREAS EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND VEHICLE ENTRY AND EXIT AREAS AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM

TEMPORARY EROSION CONTROL NOTES

- THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK
- (CLEARING, GRUBBING OR EXCAVATION). THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR.
- DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST THREE (3) DAYS PRIOR TO THE MEETING
- ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST, OR ABORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY THE FRANKLIN COUNTY PLANNING AND ZONING DEPARTMENT. MINOR CHANGES OR ADDITIONAL CONTROL MEASURES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES AT NO ADDITIONAL
- COST TO THE OWNER. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.

REVISIONS:

12/15/2021

12/28/2021

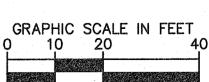
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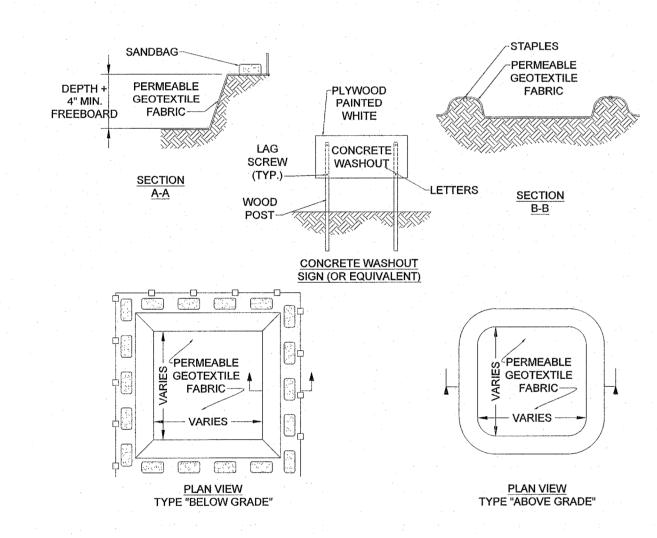
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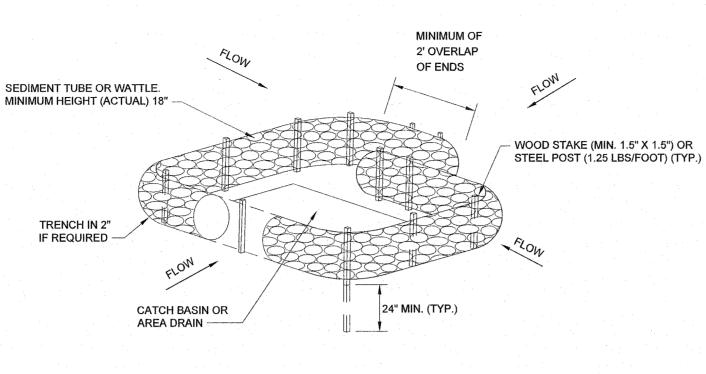


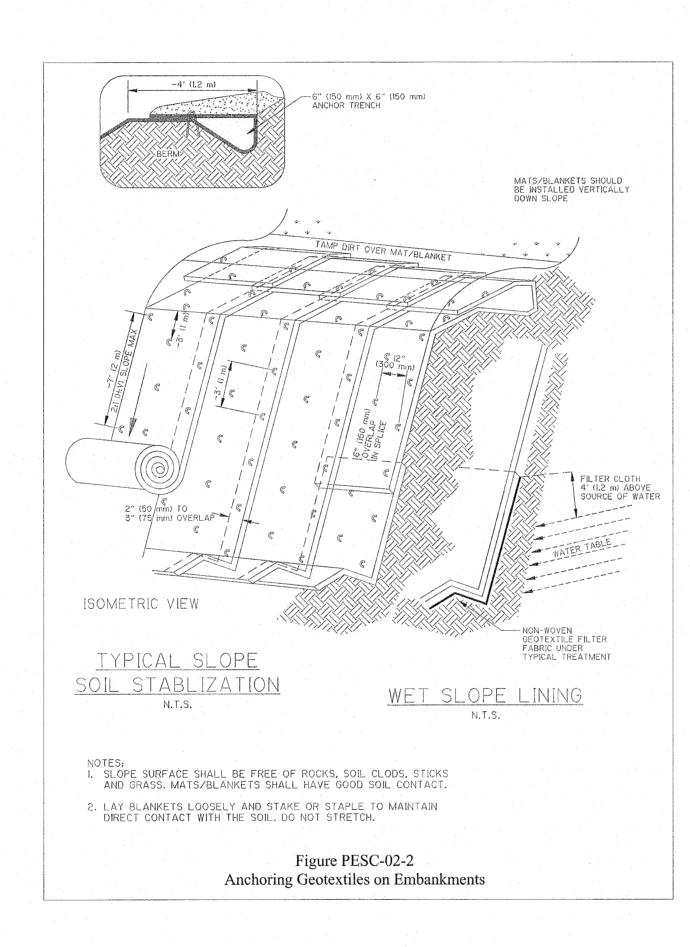


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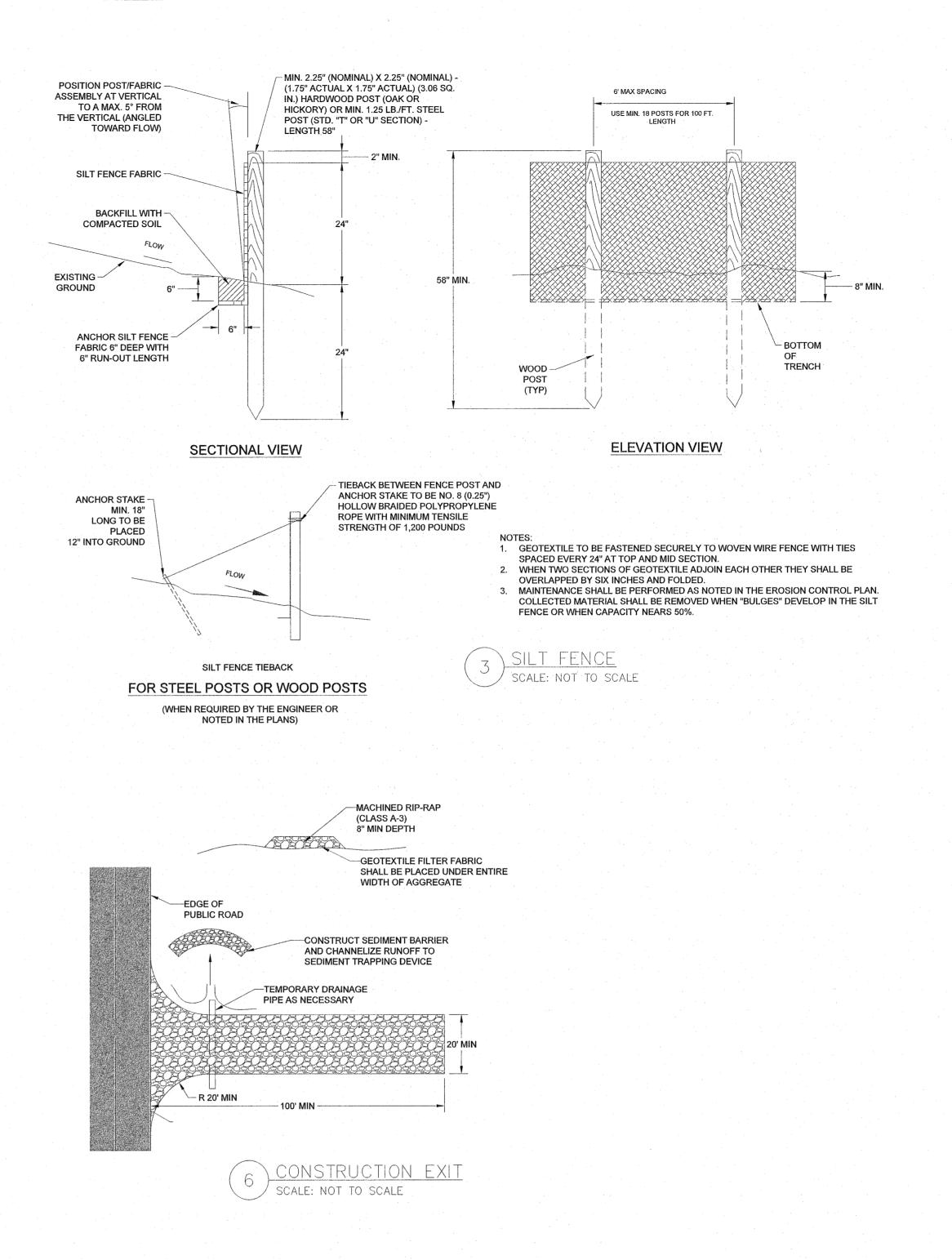


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Charles
William
Pope

& ASSOCIATES

ARCHITECTURE PLANNING C
7400 BLANCO RD., SUITE 257, SAN ANT

DATE: 12/28/2021 JOB NO: 118423003 DRAWN BY: SHEET NUMBER:

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- THE CONTRACTOR SHALL VERIFY ALL PROPOSED AND EXISTING CONDITIONS INCLUDING UTILITIES (INVERTS, CONNECTIONS, MATERIALS, ETC.) AND DIMENSIONS WITHIN THE LIMITS OF WORK PRIOR TO THE START OF CONSTRUCTION.
- B. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILED BUILDING INFORMATION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL NOTIFICATIONS AND LIAISONS WITH UTILITY COMPANIES DURING THE PROCESS OF LOCATING, RELOCATING, AND TYING INTO PUBLIC UTILITIES.
- PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL OCCUR INSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
- DURING CONSTRUCTION:
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER MAY CAUSE THE WORK TO BE UNACCEPTABLE.
 - THE CONTRACTOR SHALL USE MATERIALS AND EMPLOY CONSTRUCTION METHODS IN ORDER TO COMPLY WITH THE DRAWINGS AND SPECIFICATIONS. WHERE A CONFLICT OCCURS, THE STRICTEST DESIGN SHALL GOVERN. THE ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., DOES NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY SPECIFIC DEVIATIONS AND OBTAIN ENGINEER'S WRITTEN APPROVAL OF THE SPECIFIC DEVIATION.
- IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- ALL CONSTRUCTION MUST CONFORM TO THE STANDARDS, SPECIFICATIONS, AND CODES OF THE **GOVERNING MUNICIPALITIES.**
- CONSTRUCTION SHALL MEET ALL CURRENT STANDARDS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT.
- IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE UTILITIES TO ORIGINAL CONDITION AND QUALITY AS APPROVED BY THE OWNER AND REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY.
- SUFFICIENT BARRICADES, LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL METHODS IN ACCORDANCE WITH GOVERNING ORDINANCES MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC. SAID CONTROL DEVICES SHALL BE PER THE MANUAL OF TRAFFIC CONTROL DEVICES, M.U.T.C.D., CURRENT EDITION, AND SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION.
- TRAFFIC CONTROLS AND OTHER WARNING DEVICES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY WORK ON CITY, COUNTY, OR KENTUCKY TRANSPORTATION CABINET (KYTC) ROADS. THEY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL THE CONCLUSION OF ALL WORK.
- ALL WARNING DEVICES SHALL BE EITHER TYPE I BARRICADES OR DRUMS WITH WARNING LIGHTS ON EVERY OTHER DEVICE. THEY SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION, AND FRANKLIN COUNTY FOR COLOR, SIZE, REFLECTIVITY, HEIGHT, AND PLACEMENT.
- J. FIRE DEPARTMENT ACCESS SHALL BE MAINTAINED AT ALL TIMES.
- CONTRACTOR SHALL SHORE AND BRACE ALL EARTH, FORMS, CONCRETE, STEEL, WOOD, AND MASONRY TO RESIST GRAVITY, EARTH, WIND, THERMAL, CONSTRUCTION, AND MISCELLANEOUS LOADS DURING CONSTRUCTION.
- ON-SITE BURIAL OF DEBRIS IS PROHIBITED.
- UNLESS OTHERWISE NOTED THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL FABRICATED MATERIALS TO THE ENGINEER. DESIGN DOCUMENTS SHALL NOT BE REPRODUCED AS SHOP
- IN CASE OF UNFORESEEN CONSTRUCTION COMPLICATIONS OR DISCREPANCIES. THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER IN WRITING.
- ALL REQUIRED TESTING REPORTS SHALL BE AVAILABLE AT THE JOB SITE.
- AS-BUILT DRAWINGS OF ROADWAYS, STORM DRAINS, SANITARY SEWER AND WATER LINES, FIELD APPROVAL BY THE ENGINEER, AND ALL APPLICABLE BONDS ARE REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS UTILITY SERVICE TO ALL EXISTING BUILDINGS THROUGHOUT CONSTRUCTION UNLESS APPROVAL FOR SERVICE INTERRUPTION IS OBTAINED FROM
- THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO ENSURE THAT THE NEW WORK SHALL FIT INTO THE EXISTING SITE IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK IN THE AREA INVOLVING DIFFERENCES. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND NOTES RELATING TO THE AREA.
- ANY FOREIGN ITEM FOUND DURING CONSTRUCTION IS THE PROPERTY OF THE OWNER. THIS INCLUDES, BUT IS NOT LIMITED TO, PRECIOUS METALS, COINS, PAPER CURRENCY, ARTIFACTS AND ANTIQUITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES, OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION OF THE WORK, WHETHER CAUSED BY HIMSELF, HIS SUBCONTRACTORS, OR THE CARELESSNESS OF ANY OF HIS EMPLOYEES.
- THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS FOR THE PROTECTION OF THE WORK AND THE PUBLIC, INCLUDING BARRICADES, WARNING SIGNS, LIGHTS, ETC.
- V. THE CONTRACTOR ACKNOWLEDGES & AGREES THAT THE WORK IS ENTIRELY AT HIS RISK UNTIL SITE IS ACCEPTED, AND HE WILL BE HELD RESPONSIBLE FOR ITS SAFETY BY THE OWNER. THE CONTRACTOR WILL INDEMNIFY THE OWNER & OWNER'S REPRESENTATIVE FROM LIABILITY AT THE SITE THROUGHOUT THE CONSTRUCTION PROCESS.
- W. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL PERMITS AND PAY ALL LEGAL FEES. HE SHALL ALSO COMPLY WITH ALL CITY, COUNTY AND STATE BUILDING LAWS, ORDINANCES OR REGULATIONS RELATING TO BUILDING SIDEWALKS, STREETS, BLASTING, PUBLIC INFRASTRUCTURE, STORMWATER REGULATIONS, ETC.
- X. THE CONTRACTOR IS TO CHECK AND VERIFY ALL MEASUREMENTS, LEVELS, ETC. BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK, AND IS TO BE RESPONSIBLE FOR THE SAME.
- REFERENCE POINTS AND HUBS DURING THE CONSTRUCTION OF HIS WORK, AND SHALL BEAR THE COST OF REPLACING SAME.
- CARE SHALL BE TAKEN TO PROTECT ANY UTILITIES, TREES, ETC. WHICH ARE TO REMAIN AND NOT TO BE DISTURBED BY THE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO SUCH PROPERTY.

DEMOLITION INFORMATION:

NOTIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE OWNER AND CITY INSPECTOR(S) 24 HOURS PRIOR TO ANY DEMOLITION OR CONSTRUCTION.

DISPOSAL GUIDELINES:

- A. ONLY ITEMS SPECIFICALLY NOTED TO BE DEMOLISHED SHALL BE REMOVED FROM THE SITE
- REMOVE EXISTING PAVED AREAS AS SHOWN INCLUDING DRIVEWAYS, SIDEWALKS, PARKING AREAS, SERVICE AREAS, EQUIPMENT PADS, AND ALL MISCELLANEOUS PAVING.
- C. ALL DEBRIS RESULTING FROM DEMOLITION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY BY THE CONTRACTOR IN ACCORDANCE WITH LOCAL STATE AND FEDERAL REGULATIONS. BACKFILL ALL TRENCHES AND EXCAVATIONS RESULTING FROM DEMOLITION.
- D. ALL DEMOLISHED MATERIAL BECOMES THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE

TREE PROTECTION GUIDELINES:

PROTECT ALL EXISTING TREES NOTED "TO REMAIN" AND ALL ITEMS TO BE TURNED OVER TO THE OWNER DURING DEMOLITION. TAKE ALL NECESSARY PRECAUTIONS AND PROTECTIVE MEASURES. ANY EXISTING ITEMS TO BE TURNED OVER TO THE OWNER WHICH ARE DAMAGED DURING DEMOLITION SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. TREES WHICH ARE DAMAGED WILL BE REPLACED OR REIMBURSED AT A RATE TO BE DETERMINED BY THE OWNER.

4. <u>UTILITIES:</u>

- A. PRIOR TO REMOVING OR ABANDONING ANY UTILITY THE CONTRACTOR SHALL VERIFY THAT NO UPSTREAM SERVICE WILL BE TERMINATED. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY TERMINATION NOT SHOWN ON THE PLANS.
- B. ALL ABANDONED WATER LINES, STORM SEWER PIPE, SANITARY SEWER PIPES, GAS LINES, OR ANY OTHER ABANDONED UNDERGROUND UTILITY SHALL BE ABANDONED IN PLACE UNLESS NOTED OTHERWISE.

SITE INFORMATION:

- 1. THE FOLLOWING ARE APPLICABLE TO ALL CIVIL DOCUMENTS:
 - A. WHERE A DETAIL SECTION, TYPICAL SECTION, OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, UNLESS OTHERWISE NOTED ON THE PLANS.
 - B. EXISTING AND PROPOSED CONTOURS ARE AT ONE (1) FOOT INTERVALS.
 - C. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - D. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE.
 - E. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.

EROSION AND SEDIMENT CONTROL INFORMATION:

COMPREHENSIVE:

- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES.
- B. PROVISIONS TO PREVENT EROSION OF SOIL FROM THE SITE SHALL BE AT A MINIMUM IN CONFORMANCE WITH THE REQUIREMENTS OF THE KENTUCKY EROSION PREVENTION AND SEDIMEN CONTROL MANUAL AND FIELD GUIDE. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- C. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE STANDARDS SPECIFIED IN THE KENTUCKY EROSION PREVENTION AND SEDIMENT CONTROL MANUAL AND FIELD GUIDE, CURRENT EDITION.
- EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE CONSTRUCTION OF THE SITE WILL COMMENCE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN
- CONSTRUCTION EXITS SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY OR EXIT FROM THE SITE AND SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE AS CONDITIONS DEMAND, REPAIR, AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OFF SITE ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. ACCESS POINTS PROTECTED WITH A CONSTRUCTION EXIT SHALL BE OTHERWISE BARRICADED UNTIL THE SITE IS STABILIZED.

ADA COMPLIANCE:

- A. CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS AND SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP, NOT INCLUDING FLARES.
- C. ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION.
- D. ANY COMPONENTS OF THE PROJECT SERVING MULTIFAMILY DWELLINGS IN BUILDINGS THAT HAVE 4 OR MORE UNITS PER DWELLING SHALL ALSO CONFORM TO THE FAIR HOUSING ACT (FHA), AND COMPLY WITH THE FAIR HOUSING ACT DESIGN MANUAL BY THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA AND FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES. ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
- CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.

CONCRETE INFORMATION (SITE WORK ONLY):

PRODUCT CRITERIA:

- UNLESS OTHERWISE NOTED CEMENT SHALL BE TYPE I OR III CONFORMING TO ASTM C150. AGGREGATES SHALL BE NORMAL WEIGHT CONFORMING TO ASTM C33.
- CONCRETE SHALL CONFORM TO ACI BUILDING CODE (318-89). UNLESS NOTED CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3,500 P.S.I.
- C. SLUMP SHALL BE 3" TO 5" FOR REGULAR MIX. LARGER SLUMP SHALL BE PERMITTED WITH WATER REDUCING ADMIXTURES AND WRITTEN CONSENT OF THE ENGINEER.
- THE RELATIONSHIP BETWEEN MAXIMUM AGGREGATE SIZE TO MINIMUM AMOUNT OF CEMENT IN CONCRETE PAVEMENT (LB. PER C.Y. OR MIX) SHALL BE AS FOLLOWS: 1" - 520, 3/4" - 540, 1/2" - 590, 3/8" - 610.

CURING CRITERIA

- CONCRETE CURING SHALL COMPLY WITH ACI 308. CURING PROCESS SHALL START IMMEDIATELY FOLLOWING INITIAL SET. CURING SHALL BE BY CURING COMPOUND.
- B. CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318-89 TABLE 4.1.1. NORMAL WEIGHT CONCRETE SLABS SHALL HAVE AIR CONTENT IN ACCORDANCE WITH ACI 302.IR-89 TABLE 5.2.7A.
- C. HOT WEATHER CONCRETING SHALL COMPLY WITH ACI 305. NO CONCRETE ABOVE 90 DEGREES FAHRENHEIT SHALL BE POURED. LOWER CONCRETE TEMPERATURE BY COOLING WATER AND AGGREGATE. FORMS, STEEL, AND SUBGRADE SHALL BE SPRINKLED WITH COLD WATER. AFTER FINISHING CONCRETE USE LIGHT FOG SPRAY UNTIL CURING COMPOUND IS USED.
- D. COLD WEATHER CONCRETING SHALL COMPLY WITH ACI 306. SPECIAL MATERIAL PROCEDURES SHALL BE PROVIDED DURING PLACING AND CURING OF CONCRETE BELOW 40 DEGREES FAHRENHEIT.
- E. CURING, HOT, AND COLD WEATHER CONCRETING PROCEDURES ARE ONLY GIVEN AS A GUIDE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT CONCRETE DAMAGE AND CRACKS. DAMAGED OR CRACKED CONCRETE WILL NOT BE ACCEPTED.

REINFORCING STEEL INFORMATION (SITE WORK ONLY):

PRODUCT CRITERIA

- A. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 AND GRADE 40 FOR #3 AND SMALLER BARS. MINIMUM LAP 48" DIAMETER.
- B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185, MINIMUM LAP SHALL BE 8".
- C. REINFORCING THAT IS WELDED SHALL BE WELDABLE TYPE AND CONFORM TO ASTM A-706.

PAVEMENT INFORMATION:

PAVEMENT

- ALL MATERIALS, EQUIPMENT, METHODS OF CONSTRUCTION, AND WORKMANSHIP SHALL CONFORM TO THE KENTUCKY TRANSPORTATION CABINET, KYTC, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
- SEE PAVEMENT DETAILS ON CONSTRUCTION DOCUMENTS FOR SPECIFIC DESIGN INFORMATION AND REQUIREMENTS.
- ALL CURB AND GUTTER TO BE 24" AND CONSTRUCTED OF 3000 P.S.I. CONCRETE UNLESS

SIGNING AND STRIPING:

OTHERWISE NOTED.

- A. SIGNING AND STRIPING TO BE PROVIDED BY THE CONTRACTOR ACCORDING TO THE DRAWINGS AND SPECIFICATIONS.
- B. ALL PAVEMENT MARKINGS SHALL CONFORM TO CURRENT MUTCD STANDARDS. ALL PAVEMENT MARKINGS ON PRIVATE PROPERTY SHALL BE PAINT, UNLESS NOTED OTHERWISE. ALL PAVEMENT MARKINGS ON PUBLIC RIGHT-OF-WAY SHALL BE THERMOPLASTIC, UNLESS NOTED OTHERWISE.

STORM SEWER NOTES:

- 1. REINFORCED CONCRETE PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE NOTED WITH BELL-AND-SPIGOT AND GASKETED JOINTS WITH ASTM C 443 RUBBER GASKETS.
- 2. FILL HEIGHTS OVER 13' REQUIRE CLASS IV RCP STORM PIPE.
- STORM INLETS SHALL BE PRECAST IN ACCORDANCE WITH FRANKLIN COUNTY PUBLIC WORKS.
- STANDARD DETAIL FOR DIMENSIONS AND MATERIALS IF NOT OTHERWISE INDICATED.

4. ALL MANHOLE FRAMES AND COVERS ARE TO BE PER FRANKLIN COUNTY PUBLIC WORKS

- MATERIAL: GRAY IRON ASTM A48 CLASS 30 UNLESS OTHERWISE INDICATED.
- ALL HDPE PIPE SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE SMOOTH INTERIOR PIPE. HDPE PIPE SHALL CONFORM TO ASTM D3350 WITH SOIL TIGHT JOINTS.
- 7. ALL HDPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND AASHTO
- 8. CONTRACTOR TO PROVIDE AND INSTALL MANUFACTURER RECOMMENDED FITTINGS ON RCP CONNECTIONS TO HDPE STRUCTURES.
- 9. REFER TO PIPE CHART FOR CASTING TYPES. INSTALL REDUCERS AS NECESSARY PER

MANUFACTURER'S SPECIFICATIONS TO ACCOMMODATE LARGER INLET SIZES.

- 10. FOLLOW CONSTRUCTION PLANS AND MANUFACTURER DETAILS, SPECIFICATIONS, AND INSTALLATION INSTRUCTION AS INCLUDED WITHIN THE PLANS AND PROVIDED BY MANUFACTURER FOR THE INSTALLATION OF WATER QUALITY AND DETENTION SYSTEMS.
- 11. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STORM SEWER PIPE, STRUCTURES, WATER QUALITY STRUCTURES, AND DETENTION STRUCTURES FOR ENGINEER AND OWNER APPROVAL PRIOR TO ORDERING MATERIALS.

CLEARING AND GRUBBING:

- A. DO NOT EXCEED CLEARING AND GRUBBING LIMITS OF CONSTRUCTION LINES INDICATED
- ALL AREAS OUTSIDE THE LIMITS OF CONSTRUCTION LINE SHALL NOT BE CROSSED BY
- HEAVY EQUIPMENT OR USED FOR STORING HEAVY EQUIPMENT OR MATERIALS. NO EQUIPMENT SHALL BE STORED UNDER THE DRIP LINE OF TREES TO REMAIN.
- D. DO NOT FALL ANY TREES OR PUSH PILES OF DEBRIS AGAINST ANY TREES TO REMAIN.
- REMOVE ALL STUMPS, ROCKS, ASPHALT & CONCRETE DEBRIS, ETC. AND DISPOSE OFF SITE IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS.
 - CONTACT ALL UTILITY AUTHORITIES WHO HAVE LINES WITHIN THE CLEARING AND GRUBBING LIMITS BEFORE STARTING WORK
- ALL EROSION CONTROL SEDIMENT BARRIERS, SILT FENCES, AND TREE PROTECTION DEVICES SHALL BE INSTALLED PRIOR TO STARTING CLEARING AND GRUBBING.
- AFTER STAKING IS COMPLETED, TREES WITHIN GRADING LIMITS TO BE SAVED WILL BE IDENTIFIED BY THE OWNER'S REPRESENTATIVE. FIELD CHANGES TO GRADING PLANS SHALL BE MADE FOR SMOOTH TRANSITION OF GRADES AROUND ALL TREES WHICH REQUITE TREE WELLS WITHIN THE GRADING LIMITS.
- G. ALL CLEARING SHALL BE LIMITED TO AREAS TO BE GRADED WITHIN 15 CALENDAR DAYS.

GRADING NOTES:

PERMIT SET

- A. TOPSOIL SHALL BE STORED ON SITE IN LOCATIONS APPROVED BY THE OWNER'S REPRESENTATIVE. DRAINAGE SHALL ROUT AROUND THESE TOPSOIL STOCKPILES FOR THE DURATION OF THE GRADING OPERATIONS. EROSION CONTROL MEASURES SHALL PREVENT THE LOSS OF TOPSOIL MATERIAL
- UNSUITABLE SOILS SHALL BE UNIFORMLY SPREAD ACROSS NON-STRUCTURAL FILL AREAS AND COVERED WITH TOPSOIL AND SEEDED.
- FILL AREA SHALL BE PROOF-ROLLED WITH RUBBER-TIRED EQUIPMENT WITH A MINIMUM WEIGHT OF FIFTEEN TONS PRIOR TO BEGINNING FILL OPERATION. AREAS WHICH ARE SOFT OR UNSTABLE SHALL BE UNDERCUT UNTIL STABLE SOILS ARE FOUND. RE-COMPACTION OF THESE SOILS SHALL BE TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698 (STANDARD PROCTOR).
- CUT AREA SHALL BE PROOF-ROLLED AFTER FINAL SUBGRADE IS ACHIEVED IN THE SAME MANNER AS FILLED AREAS. SOFT OR UNSTABLE SOILS SHALL BE SCARIFIED TO A DEPTH OF 12" AND RE-COMPACTED TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698 (STANDARD PROCTOR).
- E. ALL GRADING SHALL BE COMPLETED TO THE LEVEL INDICATED BY THE SCOPE OF WORK LISTED IN THE BID DOCUMENTS.
- ELEVATIONS SHOWN ON THE PLANS IS THE FINISH GRADE ELEVATION.
- GRADING SHALL BE SEQUENCED SO THAT BASE STONE IS PLACED WITHIN 10 CALENDAR DAYS PF ACHIEVING OPTIMUM SUBGRADE COMPACTION.
- H. SOILS TESTING LABORATORY/ SOILS ENGINEER. CONTRACTOR WILL EMPLOY A QUALIFIED SOILS TESTING LABORATORY/ ENGINEER TO OBSERVE THIS WORK AND MAKE TESTS AS REQUIRED.
- HAVE EARTH BORROW FILL, AGGREGATE, AND TOPSOIL, AND STRUCTURAL FILL TESTED AND APPROVED BY DESIGNATED TESTING LABORATORY BEFORE MOVING IT TO THE JOB
- CONTRACTOR SHALL OBSERVE PROOF-ROLLING OF AREAS WHERE BUILDING AND PAVING WILL BE LOCATED TO DETERMINE ADEQUACY OF SOIL COMPACTION AND IN-PLACE SOILS. OTHER AREAS WILL BE INSPECTED BY SOILS ENGINEER TO DETERMINE ADEQUACY IN THOSE AREAS. IF SOILS ARE NOT ADEQUATE TO BEAR WEIGHTS THAT WILL BE IMPOSED, TESTING LABORATORY WILL OBSERVE AND REPORT CORRECTIVE ACTION TAKEN.
- K. TEST IN-PLACE SOIL AND FILLED AND COMPACTED AREAS. IF THESE ARE NOT ADEQUATE TO BEAR WEIGHTS IMPOSED, TESTING LABORATORY WILL ADVICE THE OWNER'S REPRESENTATIVE OF THEIR RECOMMENDATIONS. HE WILL DIRECT ANY CORRECTIVE
- MEASURES THAT ARE NECESSARY. SOILS COMPACTION TESTING OF IN-PLACE AND FILLED AND COMPACTED AREAS WILL BE

PERFORMED BY TESTING LABORATORY IN ACCORDANCE WITH THEIR REQUIREMENTS.

- M. THE SOILS ENGINEER'S AND TESTING LABORATORY'S FEES WILL BE PAID BY THE CONTRACTOR.
- N. APPLICABLE SPECIFICATIONS FOR COMPACTED FILL: THE FOLLOWING CURRENT AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) STANDARDS ARE HEREBY MADE PART OF THIS SPECIFICATION:
- D421-58, DRY PREPARATION OF SOIL SAMPLES FOR GRAIN-SIZE ANALYSIS AND DETERMINATION OF SOIL CONSTANTS.

• D422-63, STANDARD METHOD OF PARTICLE SIZE ANALYSIS OF SOILS.

- D1140-54, METHOD OF TEST FOR AMOUNT OF MATERIAL IN SOILS FINER THAN NO.200
- STANDARD EFFORT D1557-78, STANDARD TEST METHODS FOR MOISTURE-DENSITY RELATIONS OF SOILS AND SOIL-AGGREGATE MIXTURES USING 10 LB. (4.54-KG) RAMMER AND 18-INCH (457

D698, METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING

- O. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
- P. CONTRACTOR SHALL REVIEW THE SITE SPECIFIC GEOTECHNICAL REPORT PRIOR TO COMMENCING WITH GRADING OPERATIONS. WHERE CONFLICTS BETWEEN THE GRADING NOTES AND GEOTECHNICAL REPORT EXIST, THE MORE STRINGENT REQUIREMENT
- SHALL APPLY. Q. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING WITH LOAD TICKETS, PHOTOGRAPHS, LOG BOOK, VIDEO RECORDING AND OTHER MEANS AS NECESSARY TO VERIFY THE INSTALLATION OF STORMWATER BEST MANAGEMENT PRACTICES REQUIRED BY THE LOCAL MUNICIPALITY AND JURISDICTION. AS-BUILT TOPOGRAPHY AND UTILITY PLANS HAVING BEEN PREPARED BY A QUALIFIED LAND SURVEYOR ARE REQUIRED TO BE SUBMITTED TO KIMLEY-HORN AT THE CONCLUSION OF THE PROJECT FOR VERIFICATION OF DESIGN INTENT. ANY MODIFICATIONS TO THE GRADING AND UTILITY SYSTEMS REQUIRED. NOT PREVIOUSLY APPROVED BY THE OWNER AND ENGINEER ARE THE RESPONSIBILITY OF THE CONTRACTOR.

REVISIONS: 12/15/2021

12/28/2021

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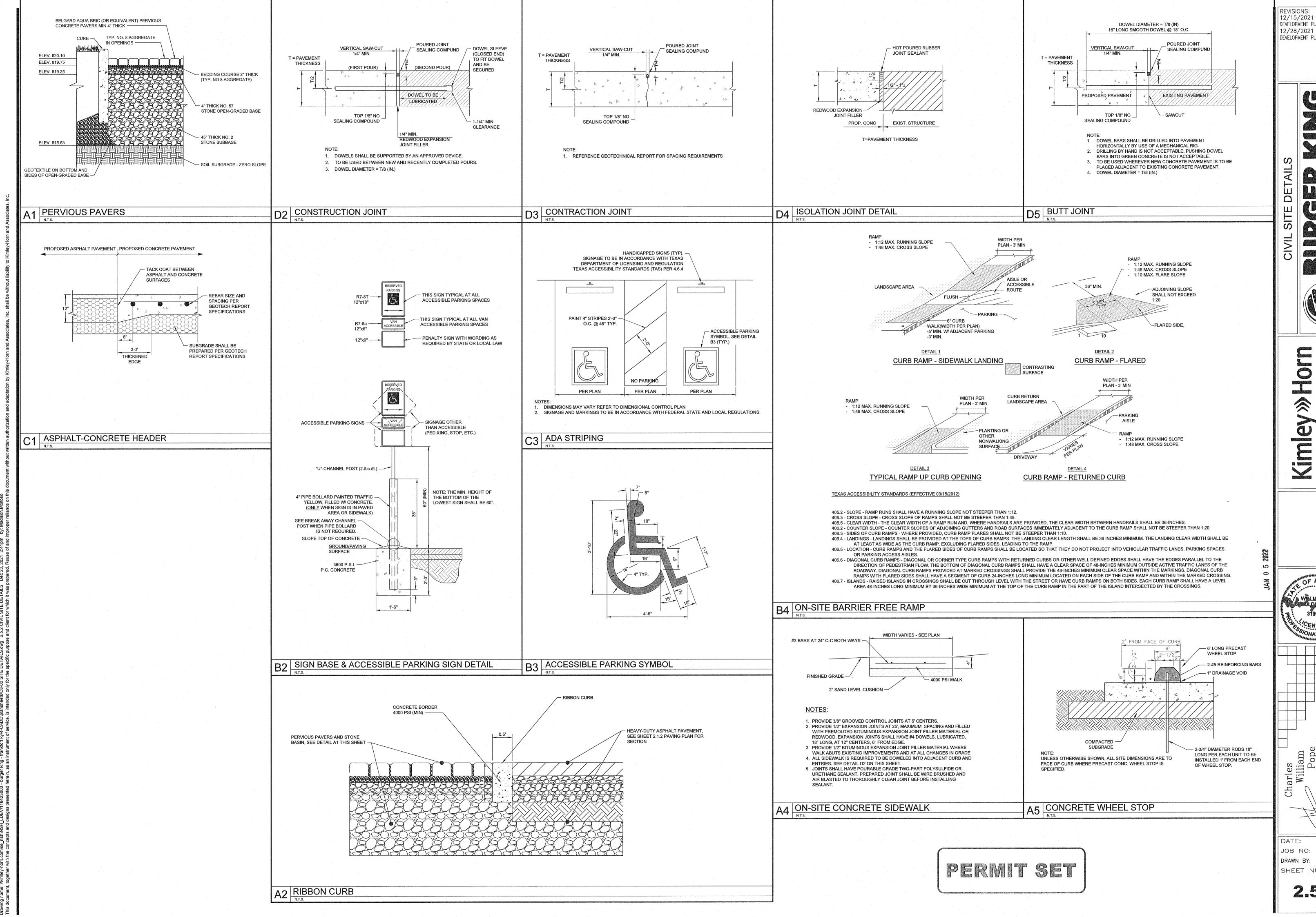
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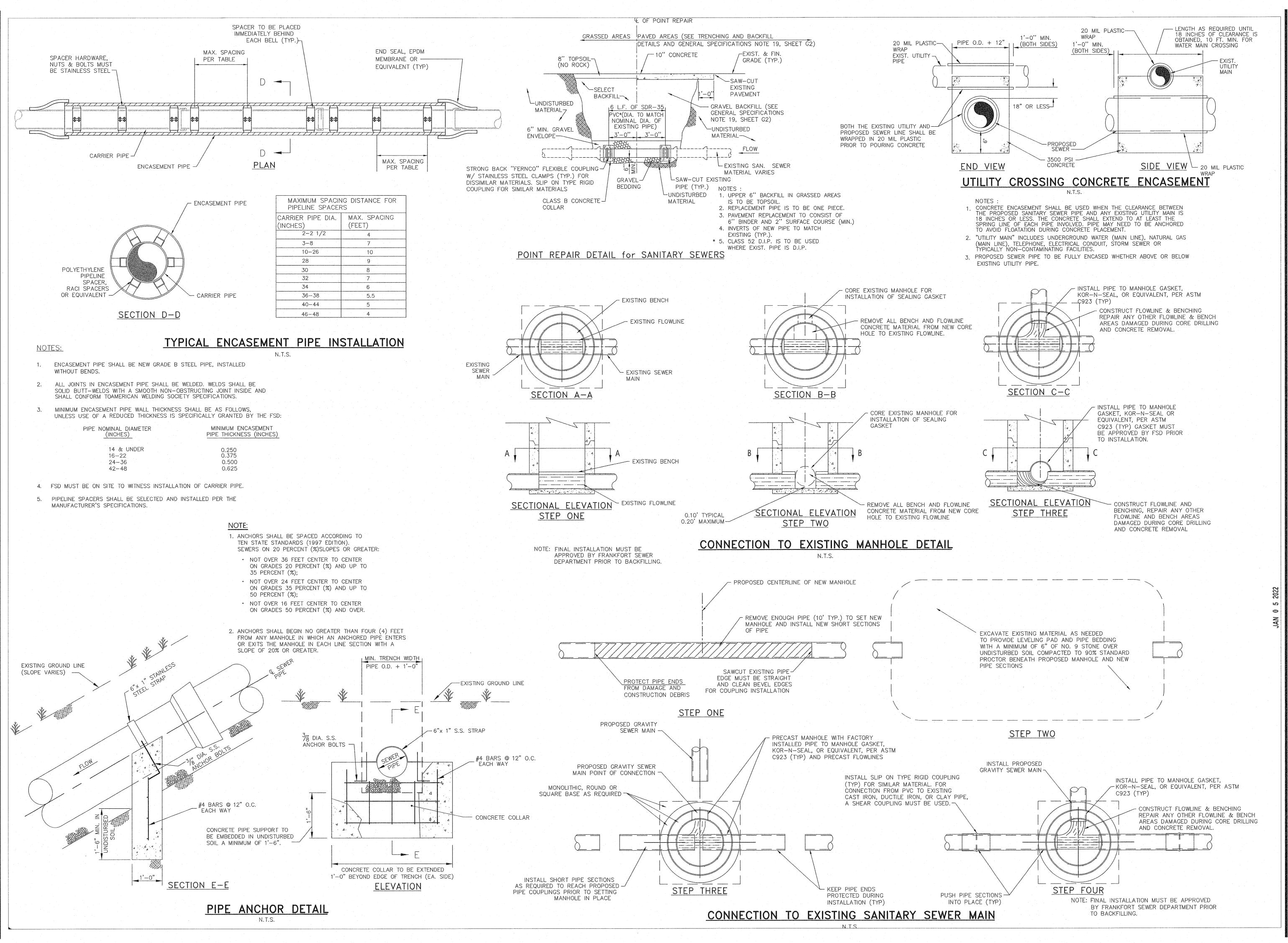
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REVISIONS: TESTING REQUIREMENTS GENERAL SPECIFICATIONS NOTE: DOUBLE WYE CLEANOUT MUST BE DOUBLE WYE CLEANOUT MUST BE APPROVED 12/15/2021 12" SQUARE CLEANOUT BOX WITH BOTTOM, APPROVED BY FSD PRIOR TO BY FSD PRIOR TO INSTALLATION, CLEANOUT - PROPERTY OR DEVELOPMENT PLAN RESUBMITTAL STRONGWELL QUAZITE OR EQUIVALENT, MARKED INSTALLATION, ANY SUBSTITUTION BOX WILL BE PROVIDED BY FSD. EASEMENT LINE 1. The following tests shall be conducted on gravity sewer lines and manholes: 12/28/2021 "SEWER CLEANOUT" TO BE INSTALLED AFTER FOR CLEANOUT BOX MUST BE 1. PVC sewer pipe shall be SDR 35 and shall conform to ASTM D3034. For bury depths * Visual inspection by FSD inspector DEVELOPMENT PLAN RESUBMITTAL MAIN SEWER AND LATERAL SEWER LINES HAVE APPROVED BY FSD. PROPERTY OR greater than 15 feet, SDR 26 PVC pipe or ductile iron pipe (DIP) is required. DIP shall * Video inspection by FSD. BEEN TESTED AND ACCEPTED. SEWER LINE EASEMENT LINE conform to ANSI A21.50 (AWWA C 150) latest revision. DIP must be coated internally with * Mandrel deflection test (for PVC pipe) By Contractor * Low pressure air test By Contractor IDENTIFICATION Protecto 401 coating. Coating must be inspected by the Frankfort Sewer Department (FSD) NO CONNECTIONS TO -STANDPIPE * Vacuum test for manholes By Contractor Testing and inspection shall be conducted no earlier than 30 days after final trench Gravity lines, force mains and lateral lines must be encased in #9 crushed stone as shown on standard details. Top: 12 inches. Bottom and Sides: 6 inches. backfill. As-built drawings shall be submitted for approval prior to testing. Any re-testing #9 STONE (TYP.)-See Case 1 and Case 2 Backfill Detail, this sheet. that is required will be subject to charges under the current Review/Inspection/Testing fee 6" DOUBLE WYE - NO MODIFICATIONS TO FSD schedule as established by City of Frankfort Code of Ordinances No 52.04.G. CLEANOUT WITHOUT FSD (TWO-WAY) Mylar sewer line identification tape is required for all gravity sewer mains, force mains and 13 1/4" After the punch list items are completed and the As-built drawings are received by the FSD, APPROVAL 6" PVC LATERALlaterals. Tape shall be green metallic back and 3 inches wide the Contractor shall clean all lines and notify the FSD that the lines are ready to be televised. #9 STONE (TYP.). -6" DOUBLE WYE The FSD will televise the main lines and lateral connections, for a condition evaluation. CLEANOUT All sewer lines must be installed in a dedicated right—of way or sewer easement. The Repairs, if necessary, shall be made by the Contractor, at the Contractor's expense prior to (TWO-WAY) minimum easement width is 15 feet, with the main line centered in the easement. TRENCH BOTTOM-6" PVC LATERALthe acceptance of the sewers. Easement documents must be prepared, reviewed and approved by the City Attorney. 3. The Mandrel (go/no-go) device shall be cylindrical in shape and constructed with nine (9) Easements shall be properly recorded, with a copy of the stamped documents provided evenly spaced arms of prongs. The Mandrel dimension shall be 95 percent of the flexible to FSD. Easements are required for any sewer mains crossing through private property. -EXISTING 4" SERVICE TRENCH -CAP OR PLUG FOR pipe's published ASTM average inside diameter. Deflection shall not exceed 5 percent of the LATERAL TO REMAIN - MIN. SLOPE BOTTOM-CONNECTION TO pipe's average inside diameter. The Mandrel shall be hand pulled by the contractor through 5. A complete set of As-Built drawings shall be provided to FSD after the construction 1/4" PER FOOT LATERAL NEW CONST. has been completed. - USE 6"x 4" REDUCER 4. Low pressure air tests shall be conducted using equipment specifically designed and TO CONNECT TO EXISTING 6. Each sheet of the As-Built drawings shall be sealed (or stamped), signed, and dated by manufactured for the purpose of testing sewer lines using low pressure air. The equipment a Professional Engineer licensed in the Commonwealth of Kentucky. Revisions to the shall be provided with an air regulator valve or air safety valve so set pressure in the CLEANOUT DETAIL pipeline cannot exceed 8 psig. The test shall be made on each manhole—to—manhole As-Built drawings must be stamped, signed, and dated on each page. section of piping after placement of the backfill. At least two minutes shall be allowed for **EXISTING CONNECTION** USE 6"x4" ECCENTRIC REDUCER TO CONNECT the gir pressure to stabilize in the section under test. After the stabilization period, testing 7. Buildings must be set—back from the sewer easement so the building foundation will not 4-INCH LATERAL IF NECESSARY. IF THE EXISTING be undermined. The set-back must be greater than a 45-degree line from the edge will commence in accordance with UNI-B-6, latest revision. The Engineer shall provide SERVICE LINE ON CUSTOMER SIDE OF THE testing times for each line segment between manholes to the Contractor, Inspector and TWO-WAY SWEEPING TEEof the trench at the pipe invert to its intersection with the foundation elevation. S M CLEANOUT IS PVC (SCH. 40 OR SDR 35) A HARD FSD. Times shall be based on a 1.0 psig pressure drop. COUPLING (PVC TO PVC) SHALL BE USED. CLEANOUT DETAIL 5. Manholes shall be vacuum tested after installation, backfilling and prior to installation of Sewers on 20% slope or greater shall be anchored securely with concrete (or equivalent) STRONGBACK FERNCO COUPLING SHALL BE USED N O the chimney seals, with all connections in place. The vacuum test shall include testing of pipe anchors, see drawing G3 for detail. ON ALL OTHER TYPES OF PIPE OTHER THAN PVC. **FUTURE CONNECTION** the seal between the cast iron frame and the concrete cone, slab or grade rings. Test equipment for manholes shall be top-mounted. Aerial crossings, when necessary, shall be designed and constructed in accordance with Ten State Standards. Support shall be provided for all pipe joints. The supports shall RANKE A vacuum of 10 inches of mercury shall be drawn on the manhole. The manhole shall be - 6" PVC CLEANOUT be designed to prevent frost heave, overturning, and settlement. Precautions against considered to pass the vacuum test if it holds at least 9 inches of mercury for the (SEE DETAIL, THIS SHEET) freezing, such as insulation and increased slope, shall be provided. The impact of flood following time durations: Time (Minutes) waters and debris shall be considered. GREEN SEWER LINE - 6" PVC CLEANOUT 5 ft. Dia. IDENTIFICATION (SEE DETAIL, THIS SHEET) 10. FSD requires that each lot have a separate lateral that does not cross into any other TAPE, 3" WIDE lots. The laterals must extend five (5) feet into the lot. Each lot must have a 6-inch 20 feet or less GREEN SEWER LINE double wye installed at the right-of-way, property or easement line. The cleanout stub 20.1 to 30 feet IDENTIFICATION shall extend 3 to 5 feet above ground. See dwgs. G2 & G3 for details. +NO CONNECTIONS If a manhole fails the vacuum test, it shall be repaired and retested. Vacuum test shall TAPE, 3" WIDE be performed prior to installation of the chimney seals. TO STANDPIPE 11. FSD may issue tap permits only after 1) all installation, 2) the 30 day waiting period, 3) testing and paperwork requirements are met and 4) the easements are approved and 6. Acceptance testing shall not be scheduled until punchlist items are completed and GREEN, METALLIC the as-built drawings have been submitted to the Frankfort Sewer Dept. (FSD) BACK SEWER LINE MIN SLOPE -EXIST. The contractor must schedule the test 24 hours in advance and will be required to IDENTIFICATION TAPE 12. FSD tap permits are issued from the main office at 1200 Kentucky Avenue. FSD LATERAL call the morning of the test to ensure FSD personnel are available to witness the will charge a capacity fee for each additional apartment unit, house, or building based on BACKFILL test. The FSD inspector will walk the project first and check for compliance with number and size of water meters on lot. See ordinance for details. AS REQ'D the Department's Construction Specifications and Standards. personnel must 13. No sanitary sewer building connection, which is not at least 12 inches above the top of witness all tests. The Director will review the test results. the lowest of the two adjacent public sanitary sewer manholes, shall be connected by gravity drainage. 6000 MIN SLOPE 1/4"/FT. 7. All tests, except post construction video inspection of new sewer lines, shall be -EXIST. SERVICE CONNECTION-LATERAL PLUG NEW CONST. performed by the contractor. The contractor shall provide all equipment. 14. After the plumber has connected the building lateral to the sewer, he shall contact FSD appurtenances, and labor necessary to properly conduct the tests. The contractor ECCENTRIC REDUCER IF for an inspection of the tie-in. FSD personnel will place a sticker on the structure is responsible for the ultimate performance of the sewer line and manholes within CONNECTING TO EXIST. 4" indicating "approved" or "not approved" and FAX the results to the City-County Planning SERVICE CONNECTION the above test requirements. PLUG NEW CONST. 15. These drawings and specifications represent standards adopted by the FSD. These drawings are 1. LATERALS SHALL BE 6" PVC PIPE ECCENTRIC REDUCER IF not a substitute for detailed design and engineering. Sewers shall be designed in accordance SUPPORTED BY NO. 9 CRUSHED STONE. CONNECTING TO EXIST. 4" with the Recommended Standards for Wastewater Facilities, 2004 Edition (Ten States 2. LATERALS SHALL BE INSTALLED WITH GREEN MYLAR Standards). Construction plans and specifications must be approved by the Kentucky Division SEWER LINE IDENTIFICATION TAPE, 3" WIDE. of Water (DOW). A construction permit must be obtained from DOW before sewers can be IDENTIFICATION TAPE SHALL BE TIED TO LATERAL PLUG. #9 STONE ___ SEE NOTE 19 3. THE FSD REQUIRES THAT EACH LOT HAVE A 16. Field changes to approved plans must be authorized by the Design Engineer and SEPARATE LATERAL THAT DOES NOT CROSS INTO ANY SHALLOW LATERAL submitted to the FSD for review and approval. OTHER LOTS. THE LATERALS MUST EXTEND FIVE (5) SEE NOTE 19 FEET INTO THE LOT OR PAST THE RIGHT-OF-WAY, 17. The FSD reserves the right to check for compliance with the Department's specifications and standards at any time during construction and prior to the Department's acceptance of PROPERTY OR EASEMENT LINE. ALL LATERALS MUST BE PROPERLY PLUGGED UNLESS CLEANOUT IS the sewers. Failure to construct to FSD standards will result in removal and replacement at the contractor's expense. INSTALLED. THE CLEANOUT STUB SHAL EXTEND 3 TO *LATERAL DETAIL 5 FEET ABOVE GROUND. SEE DWG. G3 FOR DETAILS. 18. PVC Pipe for Gravity Sewer shall be green or white only. 4. ALL MANHOLE CONSTRUCTION NOTES APPLY. *DOES NOT APPLY TO LATERALS ENTERING MANHOLES 19. All crushed stone, DGA and earth backfill shall be compacted in 0'-6" lifts (maximum) under and around the sanitary sewer pipe to 1'-0" over top of pipe and 1'-0" lifts (maximum) 5. ALL LATERALS MUST BE INSTALLED WITH THE EXISTING N.T.S. DIRECTION OF FLOW IN THE SEWER MAIN. from 1'-0" over pipe to bottom of 10" concrete cap. Backfill which has not been properly 6. NO MODIFICATIONS TO FSD CLEANOUT WITHOUT FSD compacted shall be completely removed and replaced at the contractor's expense. APPROVAL. 20. Stones or fragmentary rock no larger than 4" in their greatest dimension will not be allowed GREEN SEWER LINE in top 8" of ground nor within 6" of pipes. No stone or fragmentary rock larger than 12" in IDENTIFICATION TAPE, GREEN SEWER LINE their greatest dimension will be allowed for any potion of backfill. CREEK BED - IDENTIFICATION TAPE, 21. If a conflict regarding backfill details exists on State or County roads, State details and County details shall supersede FSD backfill details. CONCRETE SEWER LINE CREEK GRAVEL (GRADATION - IDENTIFICATION TAPE SIZE No. 57 OR LARGER NOTE FOR BOTH CREEK CROSSING DETAILS - FOR BITUMINOUS FOR GRAVEL PER KDOH SPECIFICATIONS. SURFACED AREAS ---PAVED AREAS No. 9 STONE (TYP.)-SEE NOTE 19 CONTRACTOR MAY REQUEST APPROVAL TO SEE NOTE 19 SAWCUT PAVEMENT BORE & JACK CREEK CROSSING WITH STEEL CASING PIPE IN LIEU OF OPEN CUT CREEK 4.4 DUCTILE IRON CROSSING AT NO ADDITIONAL COST. 12" DGA---CARRIER PIPE 10" CONC. (3500 PSI) NO ROCK ALLOWED CONCRETE IN TOP 8" OF BACKFILL SEE NOTE 19 DUCTILE IRON CARRIER PIPE 6" MIN. | PIPE O.D. | 6" MIN. EARTH BACKFIL FREE OF LARGE -#57 CRUSHED SECTION B-B ROCKS, SEE STONE NOTES 19 & 20 LENGTH OF DUCTILE IRON PIPE TO BE MANHOLE TO MANHOLE SECTION A-A -12" MIN. #9 STONE LENGTH OF DUCTILE IRON PIPE TO BE MANHOLE TO MANHOLE SEWER LINE IDENTIFICATION TOP OF BANK TOP OF BANK : SEE NOTE 19 SEE NOTE 19 CREEK GRAVEL (GRADATION CASE 2 BACKFILL CASE 1 BACKFILL CONCRETE - DUCTILE IRON SIZE No. 57 OR LARGER GRAVITY SEWER IN AREA SUBJECT GRAVITY SEWER IN AREA FLOWLINE PER KDOH SPECIFICATIONS. CARRIER - DUCTILE IRON NOT SUBJECT TO VEHICULAR TRAFFIC GREEN SEWER LINE TO VEHICULAR TRAFFIC. SEE NOTE 19 Charles Willia CARRIER - IDENTIFICATION TAPE, CREEK BED -PIPE " WIDE GREEN SEWER LINE -1. TRAFFIC SHALL BE DETOURED OR A PLATE SHALL BE PLACED OVER THE CONCRETE UNTIL 3500 PSI COMPRESSIVE STRENGTH HAS BEEN IDENTIFICATION TAPE, - CREEK BED -No. 9 STONE (TYP.)— SEE NOTE 19 3" WIDE 2. DEPTH OF BACKFILL FOR SDR 35 PVC PIPE SHALL NOT EXCEED - CONCRETE 15 FEET. DEEPER INSTALLATIONS WILL REQUIRE HEAVY WALL (SDR 26) PVC PIPE OR DUCTILE IRON PIPE. 3. TRENCHES SHALL BE SHORED, SLOPED, OR SHIELDED AS NECESSARY TO PROTECT WORKERS AND CONFORM TO OSHA REGULATIONS. 4. FOR CASE 2 BACKFILL, #9 ROCK SHOULD BE 12" ABOVE PIPE AND DATE: THEN #57 SHOULD BE COMPACTED ABOVE THE 12" LATER OF #9'S. THIS SHOULD BE DONE PARTICULARLY FOR LONG DITCHES, SUCH THAT ROAD PLATES ARE NOT REQUIRED. JOB NO: GRAVITY SEWER/FORCE MAIN DRAWN BY: GRAVITY SEWER/FORCE MAIN **GRAVITY SEWER & LATERAL LINES** SHEET NUMBER: CREEK CROSSING DETAIL (NON-ERODIBLE ROCK BOTTOM) CREEK CROSSING DETAIL (ERODIBLE BOTTOM) TRENCHING AND BACKFILLING DETAILS

Pope RSSOCIATE ARCHITECTURE PLAN 7400 BLANCO RD., SUITE 25

12/28/2021

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DATE: 12/28/2021

JOB NO: 118423003

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3. CONTRACTOR WILL PROVIDE PLANTING SCHEDULE FOR ALL PLANT MATERIAL, SITE DELIVERY, AND INSTALLATION DATES. 4. ANY SUBTITUTIONS OF SIZES OR VARIETIES ARE SUBJECT TO THE APPROVAL OF THE

5. IN THE EVENT THE PLANT LIST DIFFERS FROM THE PLAN, THE PLAN SHALL GOVERN.THE CONTRACTOR IS RESPONSIBLE FOR COUNTING PLANT QUANTITIES. 6. TOPSOIL SHALL BE NATURAL, FERTILE, LOAM COMMON TO SOILS IN THE BLUEGRASS REGION; THE SOIL SHALL BE FREE FROM ROCKS, DEBRIS, NOXIOUS WEEDS, EXCESSIVE WEED OR PLANT WASTE, SUBSOIL, HEAVY CLAY, ROOTS AND STUMPS, OR ANY OTHER MATERIAL THAT WILL HINDER PLANT GROWTH.

7. PLANTING BED PREPARATION: LOOSEN EXISTING SOIL VIA TILLING OR BY HAND, OR BY ADDING TOPSOIL TO CORRECT GRADE. ALL BEDS TO BE NATURAL EDGED WITH A BED EDGER SET AT 3" DEEP, ALL BEDS THAT JOIN CONCRETE OR OTHER HARD MATERIAL SHALL BE HAND SPADE TO 3" DEEP. DO NOT RAISE BED GRADES, FINISHED GRADES OR MULCH ABOVE FINISHED ELEVATIONS OF CURBING, SIDEWALKS, BUILDINGS, ETC. 8. ALL PLANTING BEDS TO BE MULCHED WITH 2-2.5" STERILE, TRIPLE SHREDDED HARDWOOD MULCH. DO NOT USE DYED MULCH, WOOD CHIPS, OR OTHER INAPPROPRIATE MULCH. WHERE COBBLE MULCH IS SPECIFIED, USE 1.5-3" COBBLE, ROUNDED STONE IN NATURAL TONES OF GRAY AND TAN. ALL PERIMETER BEDS AND INDIVIDUAL TREES TO BE HARDWOOD MULCH; ALL INTERIOR AND FOUNDATION BEDS TO BE 1.5-3" COBBLE. 9. KEEP ALL MULCH AWAY FROM TREE TRUNKS AND ROOT FLARE. MULCH TREES WITH A MINIMUM 3' RING WITH AN EDGE. DO NOT PILE MULCH AGAINST TREES, BUILDINGS OR

WOOD OR WOOD FRAMED STRUCTURES. 10. ALL EXTERIOR GROUND SURFACES TO BE SEEDED OR SODDED ACCORDING TO LOCAL REQUIREMENTS OR AS NOTED IN PLAN.

11. CONTRACTOR RESPONSIBLE FOR ALL CLEAN UP ASSOCIATED WITH THEIR WORK.

INCLUDING REMOVAL OF PLANT TAGS. 12. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND WATERING OF THE

JOB UNTIL THE LANDSCAPE IS COMPLETE. 13. CONTRACTOR SHALL PROVIDE AND INSTALL PLANT STAKING ON EVERY TREE. OWNER SHALL REMOVE STAKES ONE YEAR AFTER INSTALLATION.

14. THE ONE YEAR GUARANTEE PERIOD SHALL BEGIN AT THE ACCEPTANCE OF COMPLETION OF THE LANDSCAPE PORTION OF THE PROJECT.

15. SODDING SHALL INCLUDE PREPARING THE SOD BED, INCORPORATING FERTILIZER AND AGRICULTURAL LIMESTONE AS NEEED. ENSURE THAT AT LEAST 90 PRECENT IS ALIVE WITH NO AREA OF DEAD SOD LARGER THAN ONE SQUARE FOOT. 22. MAINTENANCE OF SODDED AND SEEDED AREAS AND PLANTING BEDS ARE THE

RESPONSBILITY OF THE OWNER UPON COMPLETION. 23. ALL LANDSAPE BEDS REQUIRE LANDSCAPE WEED BARRIER FABRIC.

24. AMENDMENTS: 1 BAG OF SOIL CONDITIONER PER TREE, 1 BAG PER 5 SHRUBS, 1 BAG PER 10 PERENNIALS; 5 SLOW RELEASE FERTILIZER TABLETS PER TREE OR SHRUB LARGER THAN 5 GALLONS OR 1 TABLET PER GALLON; 3 BAGS OF PHC TREE SAVER PER TREE, 1 PER SHRUB AND 1 BAG PER 4 PERENNIALS AND GRASSES.

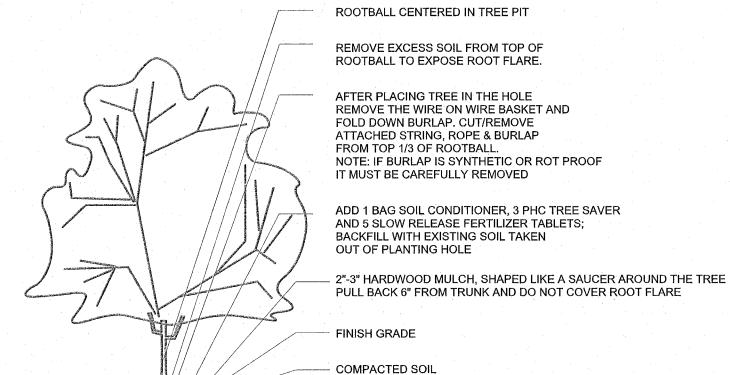
Quantity	Latin Name	Common Name
43	Rudbeckia fulgida var. sullivantii 'Goldsturm'	GOLDSTURM BLACK EYED SUSAN
76	Panicum virgatum 'Cape Breeze'	CAPE BREEZE SWITCH GRASS
3	Aronia arbutifolia 'Brilliantissima'	BRILLIANT RED CHOKEBERRY
16	Diervilla 'G2X88544' USPP 27,548; CBR 5596	KODIAK® ORANGE HONEYSUCKLE BUSH
70	Aronia melanocarpa 'Ground Hog'	GROUND HOG™ MOUND CHOKEBERRY
5	Viburnum wrightii 'C.A. Hildebrant's'	CA HILDEBRANT WRIGHT VIBURNUM
12	Physocarpus opulifolius	COMMON NINEBARK
40	Cephalanthus occidentalis 'Sugar Shack'	SUGAR SHACK® BUTTONBUSH
20	Panicum virgatum 'Shenendoah'	SHENENDOAH SWITCHGRASS
- 11	Itea virginica 'Sprich' P.P. #10,988	LITTLE HENRY DWARF SWEETSPIRE
14	Thuja occidentalis 'Fire Chief'	FIRE CHIEF ARBORVITAE
21	Juniperus communis 'Tortuga'	TORTUGA JUNIPER
3	Thuja occidentalis 'Mr Bowling Ball'	MR BOWLING BALL ARBORVITAE
6	Hamamelis x intermedia 'Jelena'	JELENA WITCH HAZEL
6	Carpinus betulus 'Fastigiata'	FRANS FONTAINE HORNBEAM
3	Picea abies 'Pendula'	WEEPING NORWAY SPRUCE
1	Nyssa sylvatica	TUPELO
	Juniperus sabina `Buffalo`	BUFFALO JUNIPER
1	Tilia cordata 'Greenspire'	GREENSPIRE LITTLELEAF LINDEN

24564.015 VEHICLE USE AREA 15% FOLIAGE REQUIREMENT 3864.602 PROVIDED: 3973.511

ALL DISTURBED AREAS TO BE SODDED WITH FESCUE BLEND SOD.

COBBLE MULCH ON

LIMESTONE BOULDERS, APPROXIMATELY .75-1.25 TON PER EACH



1. PRUNE TO REMOVE DEAD OR INJURED BRANCHES AND THOSE THAT ARE CROSSING AND IN CONTACT

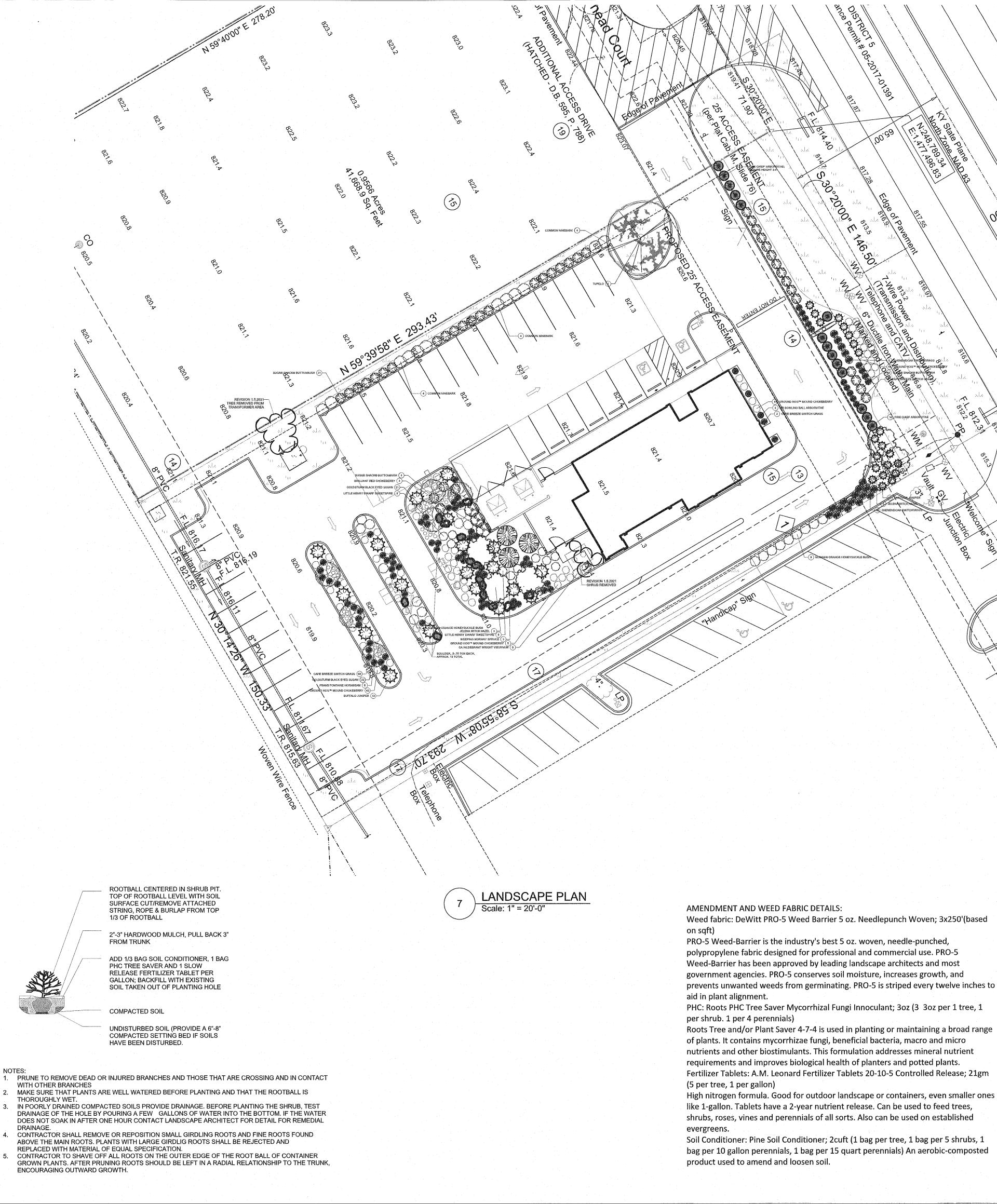
SPLAY SIDES OF PLANTING PIT,

UNDISTURBED SOIL (PROVIDE A 6"-8"

PIT DEPTH EQUAL TO HEIGHT OF ROOTBALL

COMPACTED SETTING BED IF SOILS HAVE BEEN DISTURBED)

- WITH OTHER BRANCHES
- 2. DO NOT REMOVE MORE THAN 1/5 OF BRANCH SYSTEM, DO NOT CUT LEADER, TREE MUST RETAIN NATURAL CROWN SHAPE.
- 3. MAKE SURE THAT PLANTS ARE WELL WATERED BEFORE PLANTING AND THAT THE ROOTBALL IS 4. IN POORLY DRAINED COMPACTED SOILS PROVIDE DRAINAGE. BEFORE PLANTING THE SHRUB, TEST DRAINAGE OF THE HOLE BY POURING A FEW GALLONS OF WATER INTO THE BOTTOM. IF THE WATER DOES NOT SOAK IN AFTER ONE HOUR CONTACT LANDSCAPE ARCHITECT FOR DETAIL FOR REMEDIAL
- 5. CONTRACTOR SHALL REMOVE OR REPOSITION SMALL GIRDLING ROOTS AND FINE ROOTS FOUND ABOVE THE MAIN ROOTS. PLANTS WITH LARGE GIRDLIG ROOTS SHALL BE REJECTED AND
- REPLACED WITH MATERIAL OF EQUAL SPECIFICATION. CONTRACTOR TO SHAVE OFF ALL ROOTS ON THE OUTER EDGE OF THE ROOT BALL OF CONTAINER GROWN PLANTS. AFTER PRUNING ROOTS SHOULD BE LEFT IN A RADIAL RELATIONSHIP TO THE TRUNK,
- ENCOURAGING OUTWARD GROWTH. ALL TREES TO BE STAKED.



REVISIONS: # Ø

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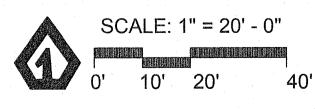
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IRRIGATION SCHEDULE

MANUFACTURER/MODEL	QTY
Hunter PROS-04 5` strip spray	17
Hunter PROS-04 8' radius	7
Hunter PROS-04 10` radius	10
Hunter PROS-04 12' radius	15
Hunter PROS-04 15` radius	21
MANUFACTURER/MODEL	QTY
Hunter PGP-04	5
Hunter PGP-04	7
MANUFACTURER/MODEL	QTY
Hunter PCZ-101-40 1"	3
Flush Valve	3
Drip Air Relief Valve	3
Hunter HDL-09-12-PC	1,863 l.f.
MANUFACTURER/MODEL	QTY
Hunter PGV-101G 1"	8
Hunter HQ-44RC 1"	2
Febco 765 1"	1
Hunter PC-400 with (03) PCM-300	1
Hunter RAIN-CLIK	1
	1
Hunter RAIN-CLIK	1 1 1,443 l.f.
Hunter RAIN-CLIK POC 1"	
Hunter RAIN-CLIK POC 1" Irrigation Lateral Line: PVC Class 200 SDR 21 1"	1,443 l.f.
Hunter RAIN-CLIK POC 1" Irrigation Lateral Line: PVC Class 200 SDR 21 1" Irrigation Mainline: PVC Class 200 SDR 21 1" Pipe Sleeve: PVC Schedule 40 2"	1,443 l.f. 734.9 l.f.
	Hunter PROS-04 5' strip spray Hunter PROS-04 8' radius Hunter PROS-04 10' radius Hunter PROS-04 12' radius Hunter PROS-04 15' radius MANUFACTURER/MODEL Hunter PGP-04 Hunter PGP-04 MANUFACTURER/MODEL Hunter PCZ-101-40 1" Flush Valve Drip Air Relief Valve Hunter HDL-09-12-PC MANUFACTURER/MODEL Hunter PGV-101G 1" Hunter PGV-101G 1" Febco 765 1"

IRRIGATION SPECIFICATIONS

- 1. IRRIGATION SYSTEM DESIGN BASED ON 16 GPM AT 55 PSI.
- 2. IRRIGATION DESIGN IS FROM THE POINT OF CONNECTION(POC)ONLY. THE DESIGN IS BASED ON GALLONS PER MINUTE(GPM)AND POUNDS PER SQUARE INCH(PSI)FURNISHED BY OTHERS.
- 3. IRRIGATION CONTRACTOR IS TO VERIFY POINT OF CONNECTION IN THE FIELD. INSTALLER IS TO CONFIRM THE MINIMUM DISCHARGE REQUIREMENTS OF THE POINT OF CONNECTION AS INDICATED ON THE LEGEND PRIOR TO INSTALLATION.
- 4. THE PRESSURE REQUIREMENT AT THE POINT OF CONNECTION IS BASED ON NO MORE THAN 5 FEET OF ELEVATION CHANGE IN THE AREAS OF IRRIGATION.
- 5. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ACCORDING TO LOCAL BUILDING, ELECTRICAL, AND PLUMBING CODES.
- 6. IRRIGATION CONTRACTOR WILL ARRANGE INSPECTIONS REQUIRED BY LOCAL AGENCIES AND ORDINANCES DURING THE COURSE OF CONSTRUCTION AS REQUIRED. ALL WIRING TO BE PER LOCAL CODE. BACKFLOW PREVENTION TO BE PER LOCAL CODE.
- 7. LOCATION OF IRRIGATION COMPONENTS SHOWN ON DRAWING IS APPROXIMATE. ACTUAL PLACEMENT MAY VARY SLIGHTLY AS REQUIRED TO ACHIEVE FULL, EVEN COVERAGE.
- 8. ALL SPRINKLER HEADS SHALL BE INSTALLED PERPENDICULAR TO FINISH GRADES. EXCEPT AS OTHERWISE INDICATED.
- 9. INSTALL IRRIGATION MAINS WITH A MINIMUM 18" OF COVER BASED ON FINISH GRADES. INSTALL IRRIGATION LATERALS WITH MINIMUM 12" OF COVER BASED ON FINISH GRADES.
- 10. PIPE LOCATIONS ARE DIAGRAMMATIC. VALVES AND MAINLINE SHOWN IN PAVED AREAS ARE FOR GRAPHIC CLARITY ONLY.
- 11. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH PIPE SIZES AS INDICATED.
- 12. ALL WIRE SPLICES OR CONNECTIONS SHALL BE MADE WITH APPROVED WATERPROOF WIRE CONNECTIONS AND BE IN A VALVE OR SPLICE BOX.
- 13. ALL CONTROL WIRING DOWNSTREAM OF THE CONTROLLER IS TO BE 14 AWG, UL APPROVED DIRECT BURY.
- 14. THE DESIGN IS BASED ON THE SITE INFORMATION AND/OR DRAWING SUPPLIED WITH THE DESIGN CRITERIA BEING SET(AREA TO BE IRRIGATED, EQUIPMENT MANUFACTURER AND MODEL TO BE USED, WATER SOURCE INFORMATION, ELECTRICAL POWER AVAILABILITY, ETC...). SITEONE LANDSCAPE SUPPLY BEARS NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS IN DESIGN OR INSTALLATION THAT ARISE DUE TO INACCURACIES IN THE ABOVE REFERENCED INFORMATION SUPPLIED TO SITEONE LANDSCAPE SUPPLY LANDSCAPES IN RELATION TO THIS PROJECT, UNLESS OTHERWISE NOTED.





IRRIGATION PLAN

RECATION PLAN

RECA





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ANNING CONSULTING
TO 72 2016

William
Pope

& Associate

ARCHITECTURE PLAN

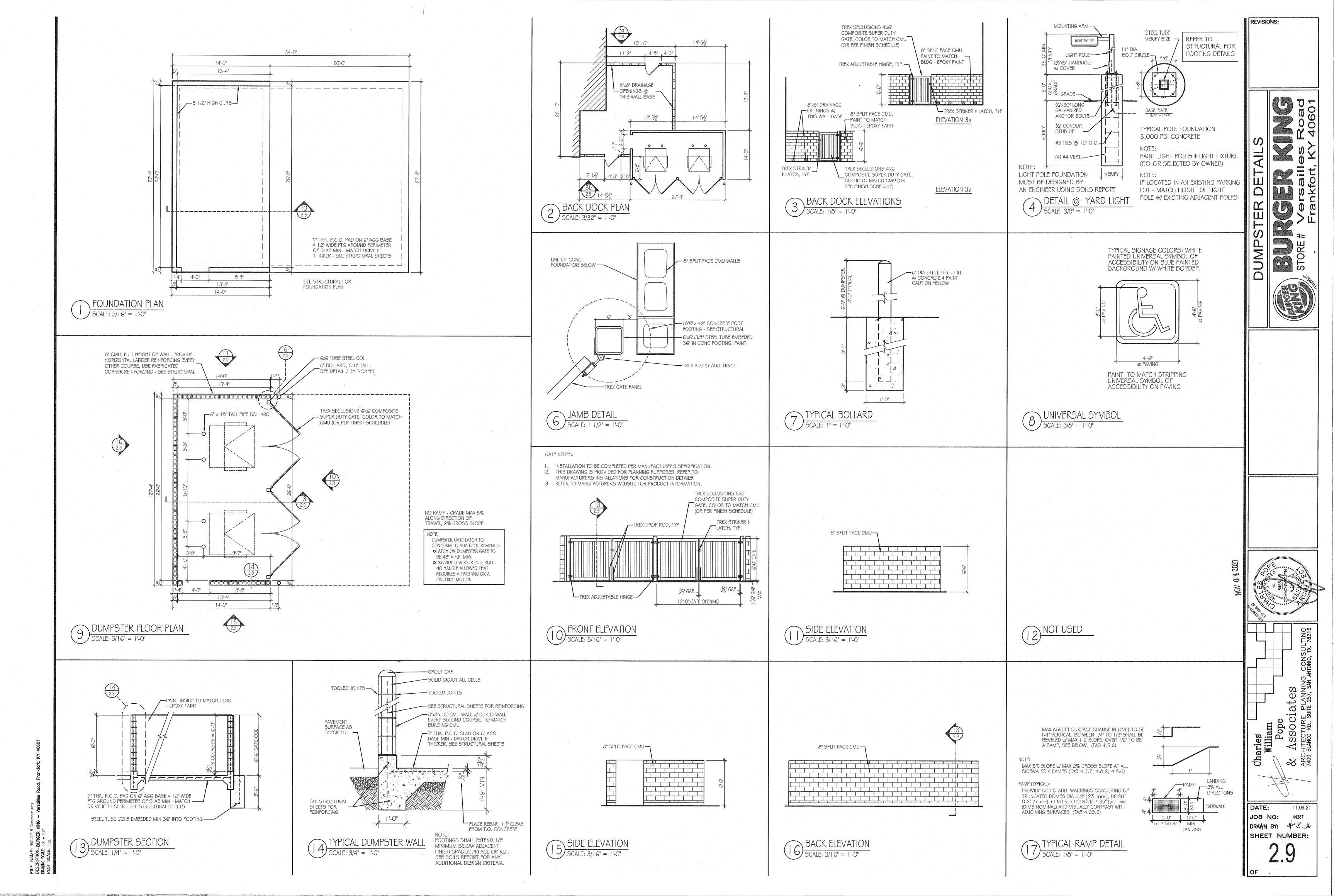
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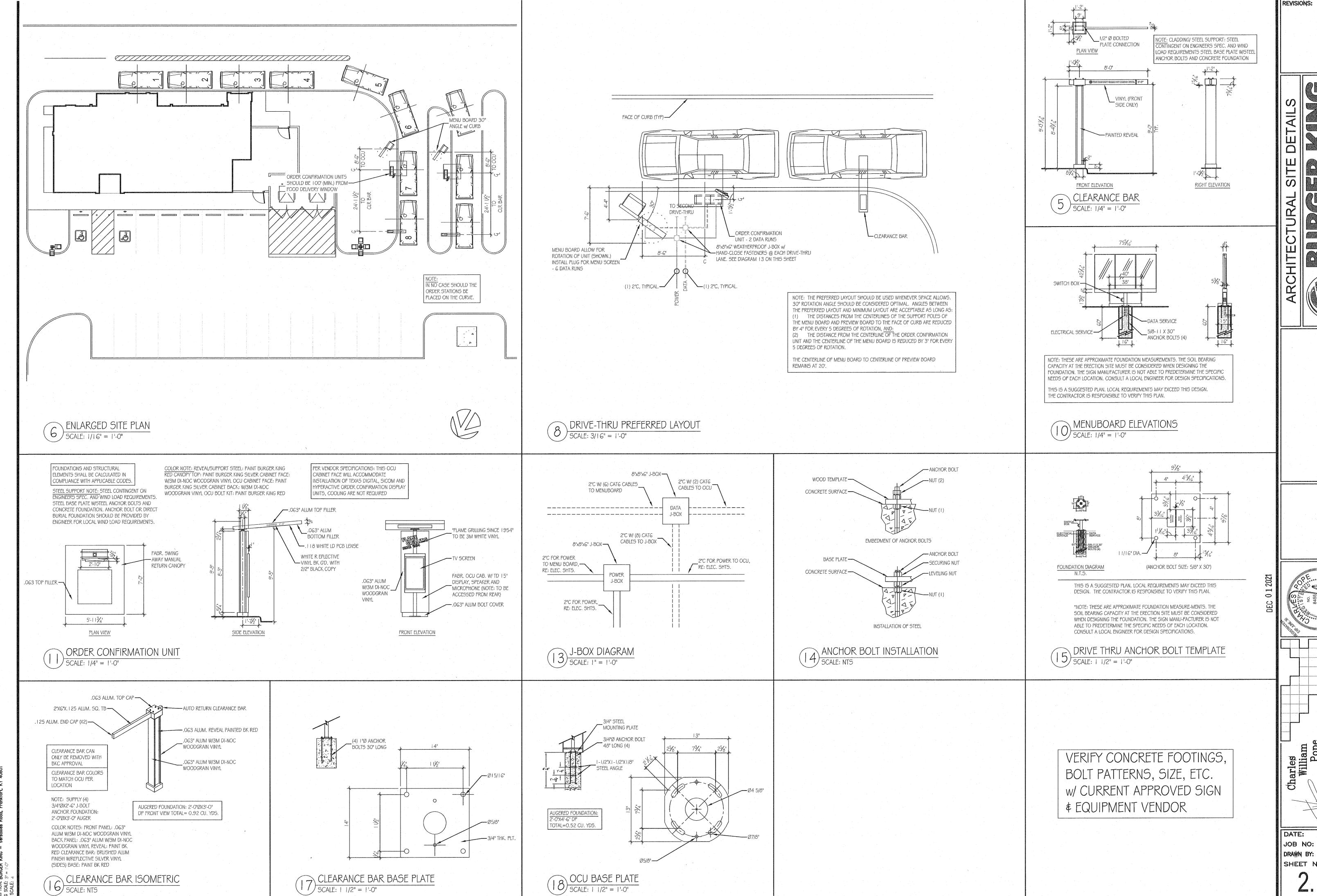
JOB NO: 44387

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SHEET NUMBER: 2.8.1

2.8





William
Pope
ASSOCIATES
CHITECTURE PLANNING
SEANCO RD., SUITE 257, SAN AN

ARC! 12.01.21 44387

SHEET NUMBER:

KEYED NOTES: TagLocationSizeTypeHeightInterior4CInt.3 1/2"Wood6" Above ClgGyp. Reference Exterior Remarks 1. SELF-SERVE DRINKS AND CONDIMENT STAND. 10. LINE OF AWNING/CANOPY ABOVE. OPTION #2: 19. ---- INDICATES 5/8" PLYWOOD BACKING X Kit & Toilet: 5/8" Durock to 24" a.f.f. w/ 5/8" sheathing above CDX Plywood where shelving is to hung on wall REFER TO SHEET 10.1. 11. SUBSTRATE PANELS: HILL PHOENIX INTEGRATED WALL UNIT ON WALLS FOR EQUIPMENT AS INDICATED ON 4F Ext. 3 1/2" Wood Full - See Ext. Elevs - Wall tag 6F + 2x4 stud wall w/ exterior grade sheathing & Tyvek
6C Int. 5 1/2" Wood 6" Above Clg Gyp. - X Kit & Toilet: 5/8" Durock to 24" a.f.f. w/ 5/8" sheathing above See sheet 4.0 & 4.2.2 2. STEEL BOLLARD - REFER TO SHEET 2.8. KITCHEN - CREW - RESTROOMS INCLUDES ELECTRICAL PANELS AND MASTER PLAN OR SHELF SUPPORT FROM 48" A.F.F. TO 6C Int. 5 1/2" Wood 6" Above Clg Gyp. MR Board (WP Wallboard) @ Wet Walls 5/8" USG "DUROCK" PANELS AT FINISH FLOOR 96" A.F.F., BEHIND 3-COMPARTMENT SINK AND 3. ELECTRIC SERVICE. REFER TO ELECTRICAL CONTRACTOR PANEL IN ONE CABINET. UNIT TO Full Gyp. See Ext. Elevs X Kit & Toilet: 5/8" Durock to 24" a.f.f. w/ 5/8" sheathing above

Full Gyp. - X 6" 18 GA. metal studs @ 16" O.C. w/ 18 GA. top and boftom to Full MR Board (WP Wallboard) @ Wet Walls BE SURFACE MOUNTED ON A 4" HIGH TO 24" A.F.F. PREP SINK AND ON BULKHEAD AT MENU BOARD 4. SERVICE COUNTER PARTITION BY G.C. REFER 5/8" WATER RESISTANT GYPSUM BOARD FROM WALL FROM 6'-8" A.F.F. TO BOTTOM OF ROOF X 6" 18 GA. metal studs @ 16" O.C. w/ 18 GA. top and bottom track. Kit & Toilet: 5/8" Durock to 24" a.f.f. w / 5/8" sheathing above CONCRETE CURB. REFERENCE SHEET ELEC.
 8C
 Int.
 7 1/4"
 Wood
 6" Above Clg
 Gyp.

 10C
 Int.
 9 1/4"
 Wood
 6" Above Clg
 Gyp.
 TO ELECTRICAL SHEETS FOR ADDITIONAL 24" A.F.F. TO 6" ABOVE FINISHED CEILING. Kit & Toilet: 5/8" Durock to 24" a.f.f. w/ 5/8" sheathing above FOR ADDITIONAL INFORMATION. MR Board (WP Wallboard) @ Wet Walls INFORMATION. COORDINATE COUNTER PROVIDE ALTERNATE BID OF 5/8" USG 13. PROVIDE 10"x10" FINISHED OPENING THROUGH 20. COUNTER TOP - REFERENCE DETAIL 7/4.6. Kit & Toilet: 5/8" Durock to 24" a.f.f. w/ 5/8" sheathing above MR Board (WP Wallboard) @ Wet Walls WALL CENTERED AT 13" A.F.F. FOR ROUTING OF 21. USG 5/8" DUROCK (BOTH SIDES) ON 6", 18 TOP/FINISHES INSTALLATION RESPONSIBILITIES "FIBEROCK" PANELS IN LIEU OF DUROCK. Walk-in Cooler - Maintain 2" min clearance @ all walls C Int. 4" Cooler - -WITH THE DECOR SUPPLIER. MAXIMUM DINING ROOM - CORRIDOR GAUGE CEE STUD FRAMING BEHIND HOOD (SEE UTILITIES.) See Sheet 5.1 for Room Finish Schedule & Notes 4) See Sheet 3.3.1 & 3.3.2 for Exterior Finishes) Gyp Bd. to be 5/8" type "X" - typical 5/8" TYPE USG "SHEETROCK" TYPE "X" GYPSUM 14. CAN WASH - DUROCK SUBSTRATE ON ALL COUNTER HEIGHT = 32" A.F.F. STRUCTURAL SHEETS FOR SPACING. WALL TO 5) RR, Warewash & Mech Faces - 5/8" water resistant gyp bd 8) CDX Plywd to be 5/8" - typical 2) See Structural for Stud Spacing 5. CORNER GUARDS - REFER TO DETAIL 9/4.6. WALL BOARD. THREE SIDES, FLOOR TO CEILING. EXTEND 18" BEYOND EACH END OF HOOD. 6) See Sheets 3.4, 11.1 for Interior Finishes 9) Provide fireblocking in walls as required per code. 3) Provide Sound Batt Insul @ Exterior Walls, Toilet Rooms & Office 15. OFFICE WINDOW . SEE SHEET 10.2 FOR SIZE-22. STAINLESS STEEL PANELS FULL WIDTH OF 6. MENU BOARD BULKHEAD ABOVE. REFER TO FINISH: CORONADO PAINT - LIGHT ORANGE PEEL APPLIED WITH CORONADO AIR ASSIST TIP COORDINATE w/ OWNER. INDICATED WALL. ENSURE 18" BEYOND HOOD 7. INTERIOR WALK-IN BOX WITH FLOOR ON (Z-122KD) OR EQUAL 16. 4" DEEP FURR-OUT ELEMENT (FINISH WIDTH AT EACH END. SUPPLIED AND INSTALLED BY CONCRETE SLAB. VERIFY SIZE WITH 12. ELECTRICAL PANELS SHOWN) AT TOWER. REFER TO WALL SECTIONS. G.C. VERIFY HOOD SIZE(S) w/ SUPPLIER GENERAL NOTES: HOODWALL NOTES: 17. TILE FLOOR (REFERENCE SPECIFICATIONS ON 23. NOT USED. MANUFACTURER. OPTION #1: 24. INDICATES 3"x12" SUBWAY TILE, A. PERIMETER EXTERIOR DIMENSIONS ARE TO FACE OF THE FOUNDATION EDGE. REFER TO ATTACH WOOD PLATE TO FOUNDATION THEN 18 GA. BOTTOM TRACK. INSTALL 8. PROVIDE ADDITIONAL BLOCKING IN WALLS RECESS ELECTRICAL CONTRACTOR PANEL DECOR SHEETS). STRUCTURAL SHEETS FOR FACE OF CONC. DIMENSIONS. BEHIND URINAL SCREEN AND BEHIND PLUMBING AND ELECTRICAL PANELS IN FURRED OUT WALL 18. DRIVE-THROUGH SLIDING WINDOW. QUICKSERV REFER TO DECOR PACKAGE. REMAINING BACK METAL STUDS w/ 18 GA. TOP TRACK. SEE STRUCTURAL SHEETS FOR SPACING. INTERIOR DIMENSIONS ARE TO FACE OF STUD U.O.N. PLACE 2 - 2X6 WOOD TOP PLATE ON TOP. ENSURE BOTTOM PLATE IS FIXTURES FOR SUPPORT OF WATER LINES ADJACENT TO EXTERIOR FRAMING. G.C. TO IFSC-4040 OF HOUSE WALLS TO BE FINISHED IN FRP-1 VERIFY PANEL SIZES PRIOR TO FURR-OUT TO (REFER TO 5.1) C. DIMENSIONS NOTED AS "CLEAR" OR "HOLD" ARE MIN. REQ'D. NET CLEARANCE FROM FACE OF ANCHORED DOWN TO FOUNDATION w/ 5/8" EXPANSION ANCHOR BOLTS PER 9. ALL WALLS AT EXPOSED TRUSSES TO BE 25. 8" STUD WALL. REFER TO INTERIOR FINISH WALL FINISH. VERIFY FINAL EQUIPMENT SIZES W/ VENDOR PRIOR TO INT. WALL FRAMING. SCHEDULE. REFER TO STRUCTURAL SHEETS. INSURE ADEQUATE SPACE. FRAMED AND FINISHED TO THE ROOF DECK. SCHEDULE. ALL ANGLED WALLS ARE AT 90° UNLESS NOTED OTHERWISE. . FIRE EXTINGUISHER, SHALL COMPLY WITH APPLICABLE BUILDING CODES AND LOCAL RESTRICTIONS. EXTERIOR WALL WITH 20 GA. S.S. PANEL BEHIND HOOD. EXTEND MIN. 18" FOR DOOR AND WINDOW TYPES, REFER TO SHEET 5.2. BEYOND END OF HOOD. REFER TO MECHANICAL FOR EXTENT OF S.S. PANEL. See sheet 4.0 for insulation notes 81-0/2" 28'-9/2" 17'-6" 8'-7/5" 7'-0" 4'-0" 4'-53/4" 7'-0" 12'-5/2" 11'-7%" 4'-3" 4.2.2 ╘╘╘╘╘°==┛╛╡ ROOF LADDER, SEE 27'-8/2" 3 3'-5/2" 2 3.3.1 STORAGE 114 MIN. 2" AIR GAP @ ALL COOLER WALLS 30'-01/2" 5 STOCK 5 MIN. 2" AIR GAP @ ALL COOLER WALLS 7'-8" CLEAR 9'-6" COOLER 5'-9/2" 3'-31/2" 16'-83/4" 17-1/2" 11'-7" 7'-6" PLAN NORTH 81'-0/2"

| | REVISIONS: _

> Road Road

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William
Pope

& ASSOCIATES

ARCHITECTURE PLANNING CONSULATION OF THE PLANNING CONSULAT

DATE: 11.18.2

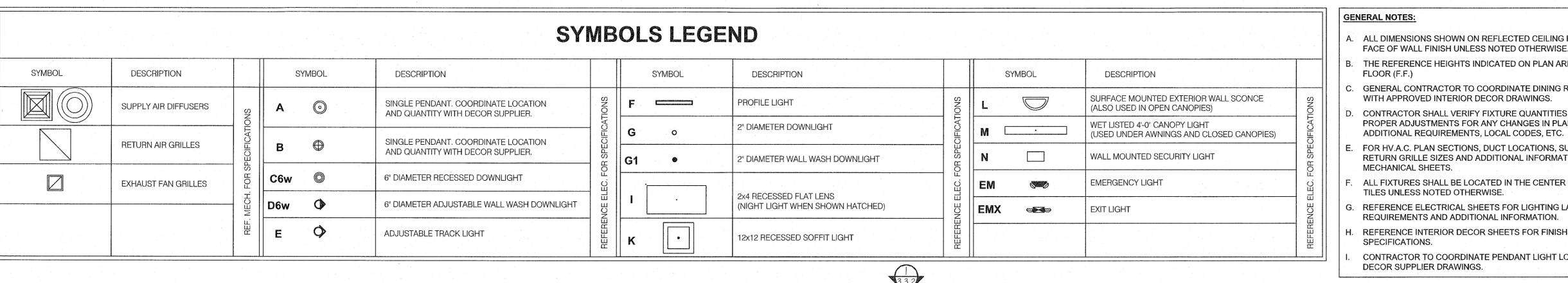
JOB NO: 44387

DRAWN BY: #R. A

SHEET NUMBER:

3.1

FLC SCAI



GENERAL NOTES:

- A. ALL DIMENSIONS SHOWN ON REFLECTED CEILING PLAN ARE FROM
- FACE OF WALL FINISH UNLESS NOTED OTHERWISE. THE REFERENCE HEIGHTS INDICATED ON PLAN ARE FROM FINISH
- FLOOR (F.F.)
- GENERAL CONTRACTOR TO COORDINATE DINING ROOM LIGHTING WITH APPROVED INTERIOR DECOR DRAWINGS.
- CONTRACTOR SHALL VERIFY FIXTURE QUANTITIES AND ALSO MAKE PROPER ADJUSTMENTS FOR ANY CHANGES IN PLAN DUE TO
- FOR HV.A.C. PLAN SECTIONS, DUCT LOCATIONS, SUPPLY AND RETURN GRILLE SIZES AND ADDITIONAL INFORMATION, REFERENCE MECHANICAL SHEETS.
- ALL FIXTURES SHALL BE LOCATED IN THE CENTER OF CEILING TILES UNLESS NOTED OTHERWISE.
- REFERENCE ELECTRICAL SHEETS FOR LIGHTING LAYOUT
- REQUIREMENTS AND ADDITIONAL INFORMATION. REFERENCE INTERIOR DECOR SHEETS FOR FINISH
- SPECIFICATIONS. CONTRACTOR TO COORDINATE PENDANT LIGHT LOCATIONS WITH DECOR SUPPLIER DRAWINGS.

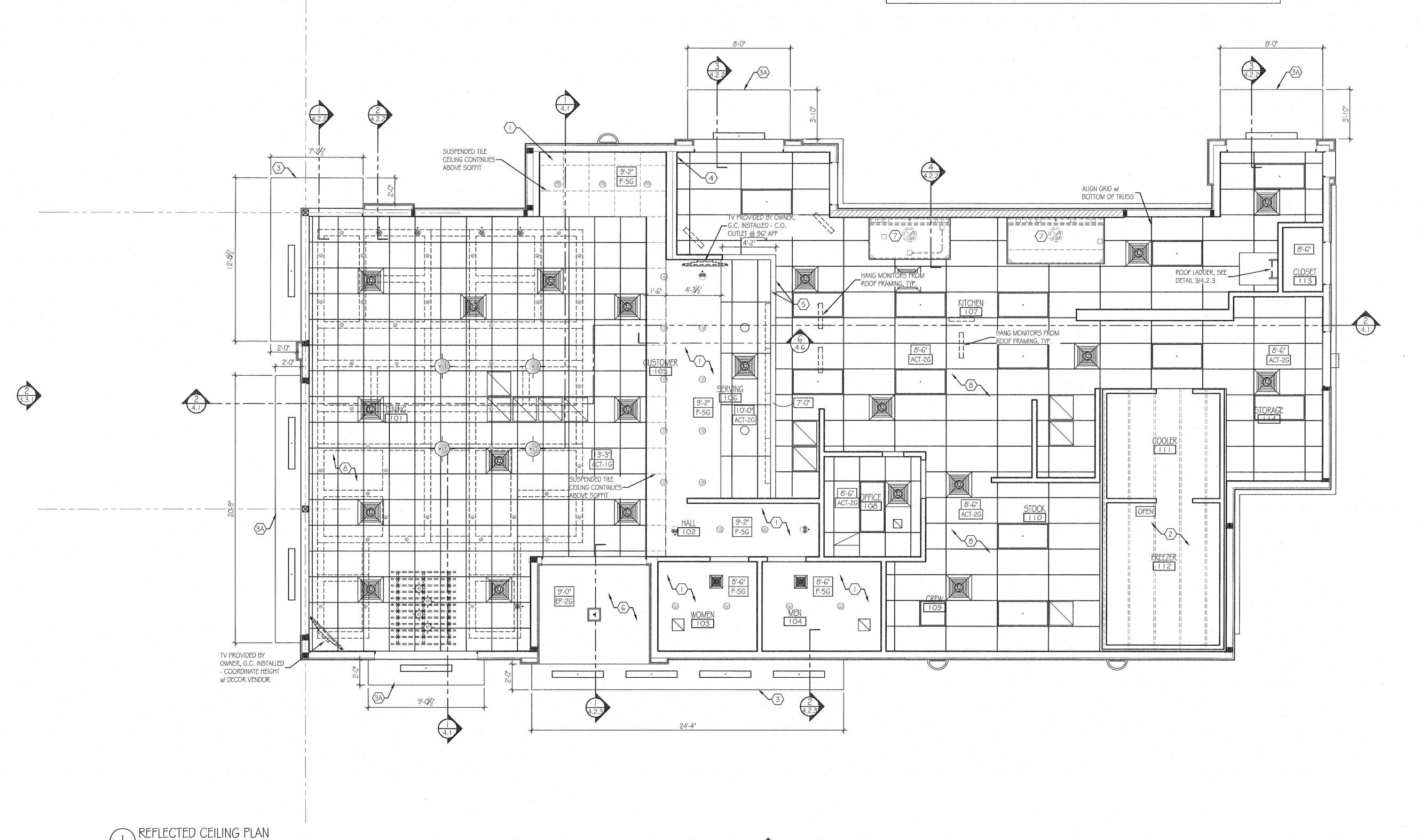
KEYED NOTES:

- 1. GYPSUM BOARD CEILING/SOFFIT
- 2. EXPOSED TRUSSES ABOVE WALK-IN BOX, REFER TO SUPPLIER DRAWINGS FOR INTERIOR LIGHT

REVISIONS:

- **FIXTURES** 3. PREFABRICATED METAL CANOPY
- 3A. PREFABRICATED METAL CANOPY OR AWNING 4. STAINLESS STEEL SERVICE CHASE
- 5. MENU BOARD AND HEADER. REFERENCE DTL 6/4.6
- 6. SOFFIT ABOVE ENTRY -CEILING PAINT TO BE EP-2G.
- (REFER TO EXTERIOR FINISH SCHEDULE) 7. MECHANICAL EXHAUST HOOD ABOVE
- 8. SUSPENDED ACOUSTICAL TILE CEILING. REFER TO FINISH SCHEDULE.
- 9. EXPOSED WOOD TRUSSES TO BE PAINTED, REFER TO DECOR SET AND FINISH SCHEDULE.
- 10. EXPOSED PLYWOOD ROOF DECK SHEATHING, REFER TO DECOR SET.

SEE FINAL/APPROVED DECOR PLANS BY DECOR VENDOR FOR FINAL FINISHES & DECOR



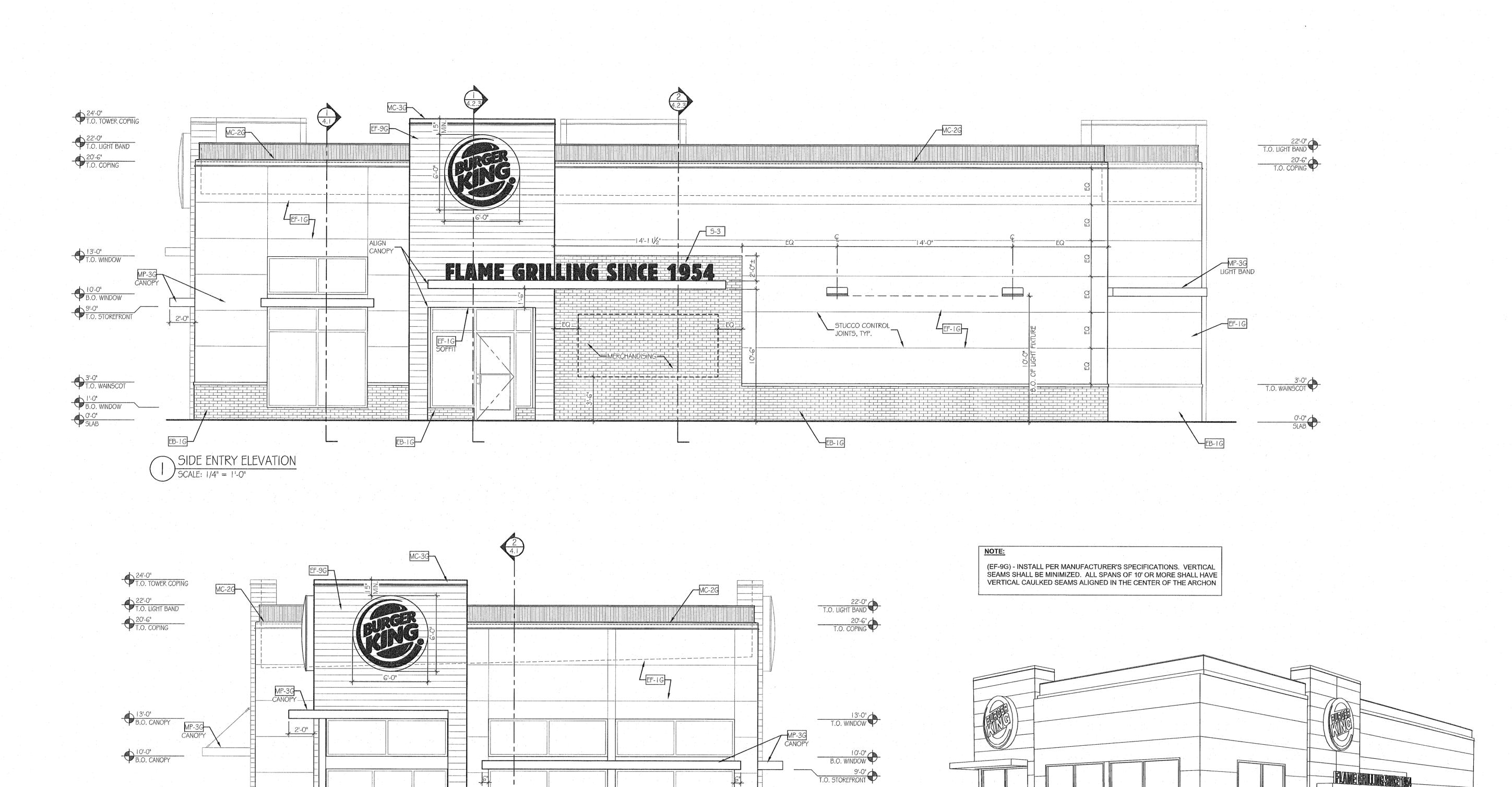


Pope RSSOCIALES
ARCHITECTURE PLANNING CONSTANT BLANCO RD., SUITE 257, SAN ANTONIO, T

JOB NO: SHEET NUMBER:

PLAN NORTH

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



T.O. WAINSCOT

B.O. WINDOW O'-O"
SLAB

Charles
William
Pope
& ASSOCIATES
ARCHITECTURE PLANNING CONSUME 257, SAN ANTONIO, TO DATE: 11.03.21

JOB NO: 44387

DRAWN BY: # R JA

SHEET NUMBER:

FLAMEGRILINGSMEETEA

3'-0"
T.O. WAINSCOT

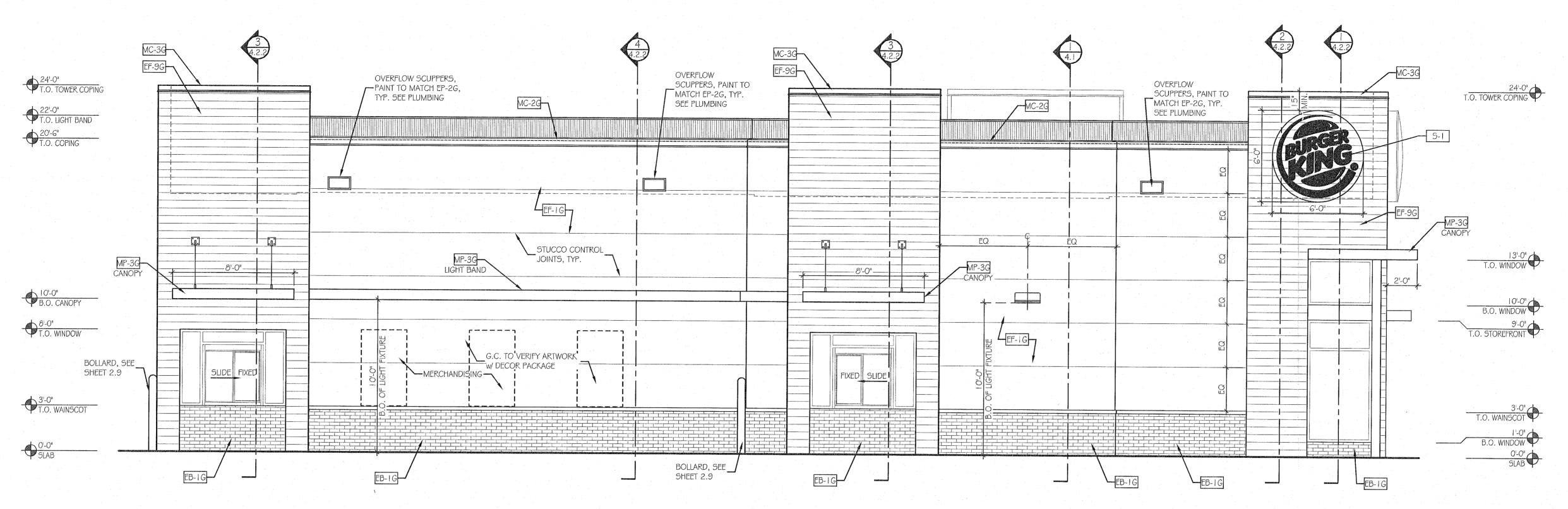
B.O. WINDOW

0'-0"

SLAB

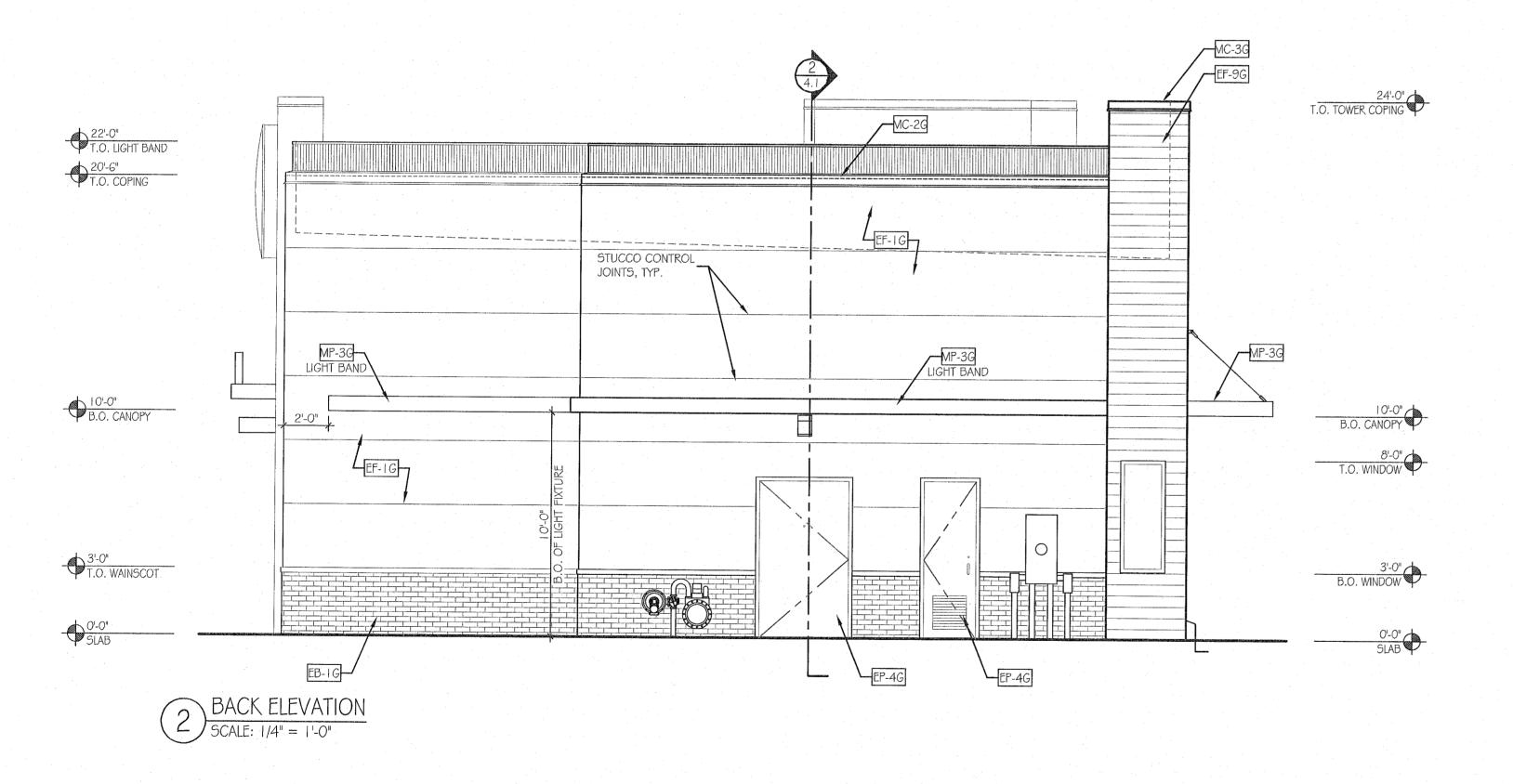
FRONT ELEVATION

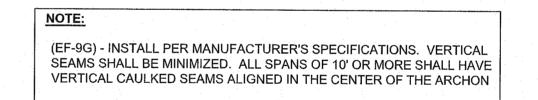
SCALE: 1/4" = 1'-0"



DRIVE-THRU ELEVATION

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







REVISIONS:

TOS

ANNING CONSULTING

ANNING CONSULTING

257, SAN ANTONIO, TX. 78216

Charles
William
Pope
& ASSOCIATES
ARCHITECTURE PLANNING C
7400 BLANCO RD., SUITE 257, SAN ANTO

DATE: 11.03.21

JOB NO: 44387

DRAWN BY: FR. H

SHEET NUMBER:

3 3 2

REVISIONS:

ASSOCIAtes
CHITECTURE PLANNING
BLANCO RD., SUITE 257, SAN A Charles Willie ARC 480C

> DATE: 11.03.21 JOB NO: 44387 SHEET NUMBER:

RESTROOM / KITCHEN ACCESSORIES:

MODEL: ASI ROVAL 20199

- A. GRAB BAR: BOBRICK 250 LBF. MINIMUM
 33" MIN. TO 36" MAX. HEIGHT TO THE TOP OF THE GRIPPING SURFACE. PROVIDE THE
 REQUIRED QUANTITY AND LENGTH AS INDICATED ON THE DRAWINGS OR REQUIRED
 BY THE GOVERNING CODE. THE BAR SHALL BE 1-1/2" IN DIAMETER AND MOUNTED
 WITH 1-1/2" CLEARANCE FROM THE WALL.
- B. WALL MOUNTED SOAP DISPENSER AND HAND SANITIZER DISPENSER (36" MAX. HEIGHT) SUPPLIED BY "ECOLAB" AND INSTALLED BY THE G.C. NOTE: SOAP AND HAND SANITIZER DISPENSERS TO BE PROVIDED AT EACH KITCHEN HAND SINK.
- C. MIRROR: (BOTTOM OF REFLECTIVE SURFACE AT 40" MAXIMUM HEIGHT)

 MODEL B-165-1836 (18"x36") STAINLESS STEEL CHANNEL FRAME MIRROR WITH THEFT

 RESISTANT SCREWS BY BORDICK OR APPROVED FOLIVER FOR
- RESISTANT SCREWS BY BOBRICK OR APPROVED EQUIVALENT.

 D. TOILET PAPER HOLDER:
- 2-ROLL SIDE-BY-SIDE JUMBO JR. HIGH-CAPACITY TOILET PAPER DISPENSER BY GP PRO (GEORGIA-PACIFIC), #59209, SMOKE, 1 DISPENSER
- PRO (GEORGIA-PACIFIC), #59209, SMOKE, 1 DISPENSER

 E. PAPER WASTE RECEPTACLE: TALL BOY WALL HUGGER / SLIM TRASH CAN OR
- APPROVED EQUIVALENT.

 F. REQUIRED PAPER TOWEL DISPENSER: "SAN JAMAR" MODEL #T-1390BK PROVIDED
- AND INSTALLED BY THE G.C.

 OPTIONAL (IN ADDITION TO PAPER TOWEL DISPENSER):
- ELECTRIC HAND DRYER: ASI ROVAL SERIES AUTOMATIC TOUCH-FREE SENSOR HAND DRYER.
- NOTE: HAND DRYER TO BE INSTALLED AT A MAXIMUM HEIGHT OF 48" FROM FINISH FLOOR ELEVATION TO TOP OF SENSOR OR PER ADA REQUIREMENTS.

 NOTE: PROVIDE PAPER TOWEL DISPENSER "SAN JAMAR" MODEL #T-1490BK AT EACH
- NOTE: PROVIDE PAPER TOWEL DISPENSER "SAN JAMAR" MODEL #T-1490BK AT EACH HAND SINK IN KITCHEN.

 G. TOU ET SEAT COVER DISPENSER: PORRICK B 4334 CONTURA SERVES.
- G. TOILET SEAT COVER DISPENSER: BOBRICK B-4221 CONTURASERIES, SURFACE-MOUNTED
- H. URINAL SCREEN: (OPTION 1) NEVAMAR WK0017T COLOR: VENERABLE OLD OAK (OPTION 2) BOBRICK 1080/1180 DURALINE SERIES #EO-09 COLOR: BLACK
- I. SANITARY NAPKIN DISPOSAL: BOBRICK B-254, SURFACE-MOUNTED.
- J. COAT HOOK: BOBRICK MODEL B-6717 TO BE MOUNTED ON INSIDE OF EACH RESTROOM DOOR FOR SINGLE OCCUPANCY RESTROOMS AND EACH RESTROOM STALL DOOR FOR MULTIPLE OCCUPANCY RESTROOMS. MOUNT AT 48" A.F.F. FOR ADA ACCESSIBLE LOCATIONS.
- K. VERTICAL GRAB BAR: BOBRICK 250 LBF. MINIMUM PROVIDE THE REQUIRED QUANTITY AND LENGTH AS INDICATED ON THE DRAWINGS OR REQUIRED BY THE GOVERNING CODE. THE BAR SHALL BE 1-1/2" IN DIAMETER AND MOUNTED WITH 1-1/2" CLEARANCE FROM THE WALL.

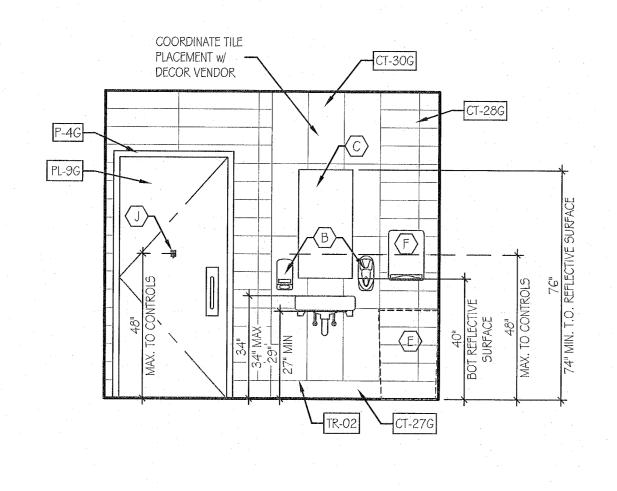
GENERAL NOTES:

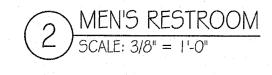
- A. PROVIDE PROPER 2x BLOCKING AT WALL RECESSED MOUNTED ACCESSORIES.
- B. GRAB BARS, FASTENERS AND MOUNTING DEVICES SHALL BE INSTALLED PER ADA REQUIREMENTS. REFER TO COVER SHEET 0.1
- C. FOR INTERIOR FINISHES, REFER TO SHEET DECOR SHEETS.
- D. REFER TO ADA REQUIREMENTS ON COVER SHEET 0.1 FOR MOUNTING HEIGHTS AND CLEARANCES OF ACCESSORIES AND FIXTURES.
 - ALL DIMENSIONS THIS DRAWING ARE TO FINISH SURFACE U.O.N.
- F. ALL EXPOSED PIPING UNDER LAVORATIES TO BE INULATED TO PROTECT FROM CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVORATIES.

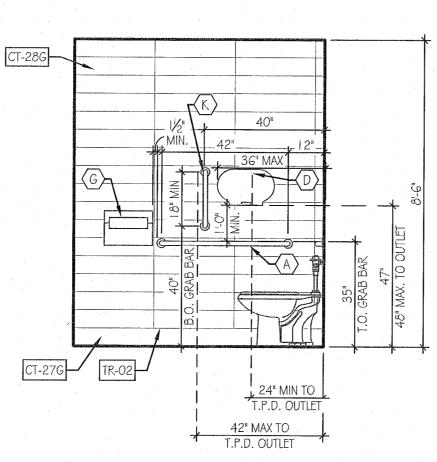
EQUIPMENT SCOPE NOTE:

SEE OWNER & GC DUTIES - SHEET 12.1 FOR OWNER PROVIDED ITEMS.

SEE FINAL/APPROVED DECOR PLANS BY DECOR VENDOR FOR FINAL FINISHES & DECOR

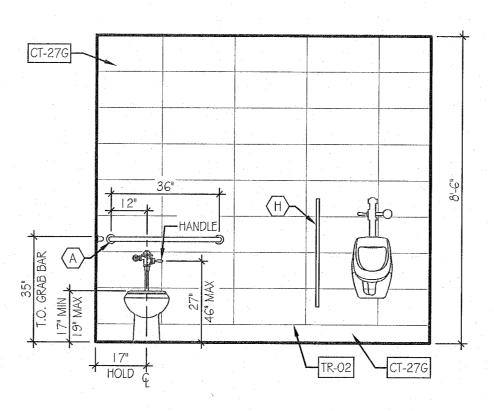


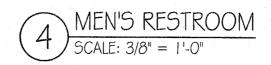


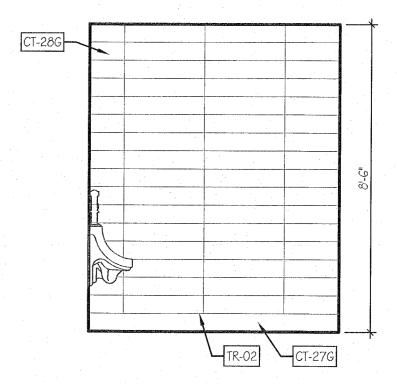


MEN'S RESTROOM

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

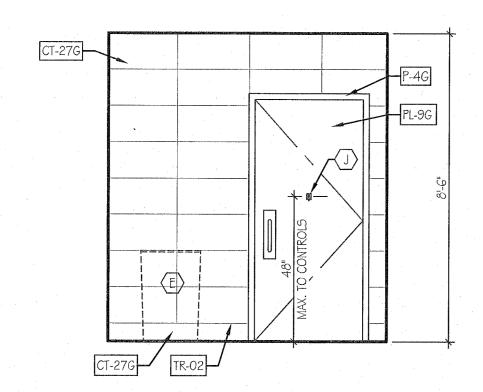






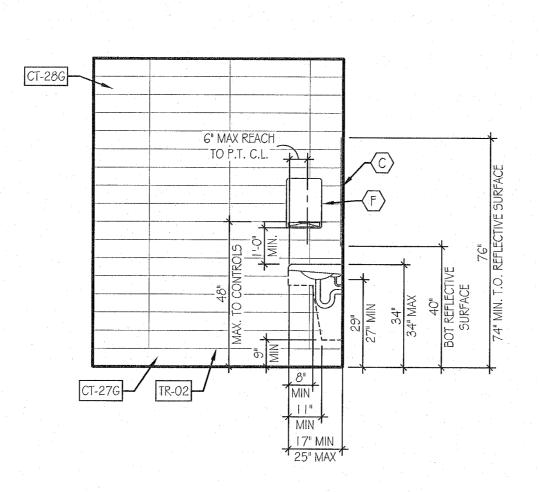
5 MEN'S RESTROOM

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



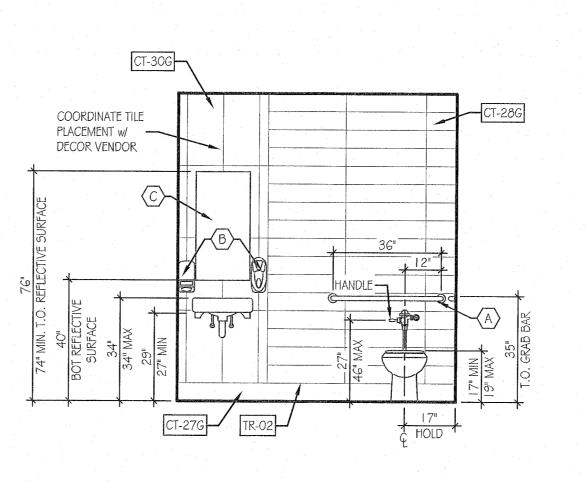
WOMEN'S RESTROOM

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

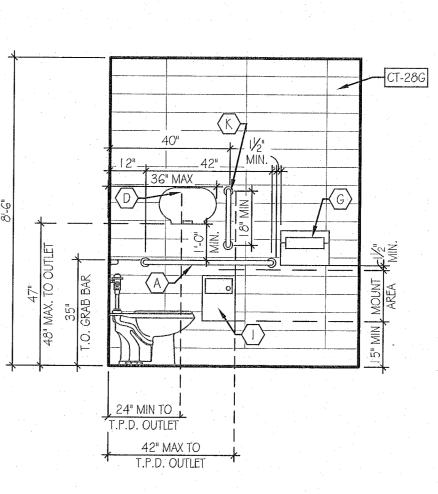


WOMEN'S RESTROOM

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



8 WOMEN'S RESTROOM
SCALE: 3/8" = 1'-0"



9 WOMEN'S RESTROOM

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

INTERIOR ELEVAT

REVISIONS:

Charles
William
Pope
& ASSOCIATES
ARCHITECTURE PLANNING CONSULTI
7400 BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78

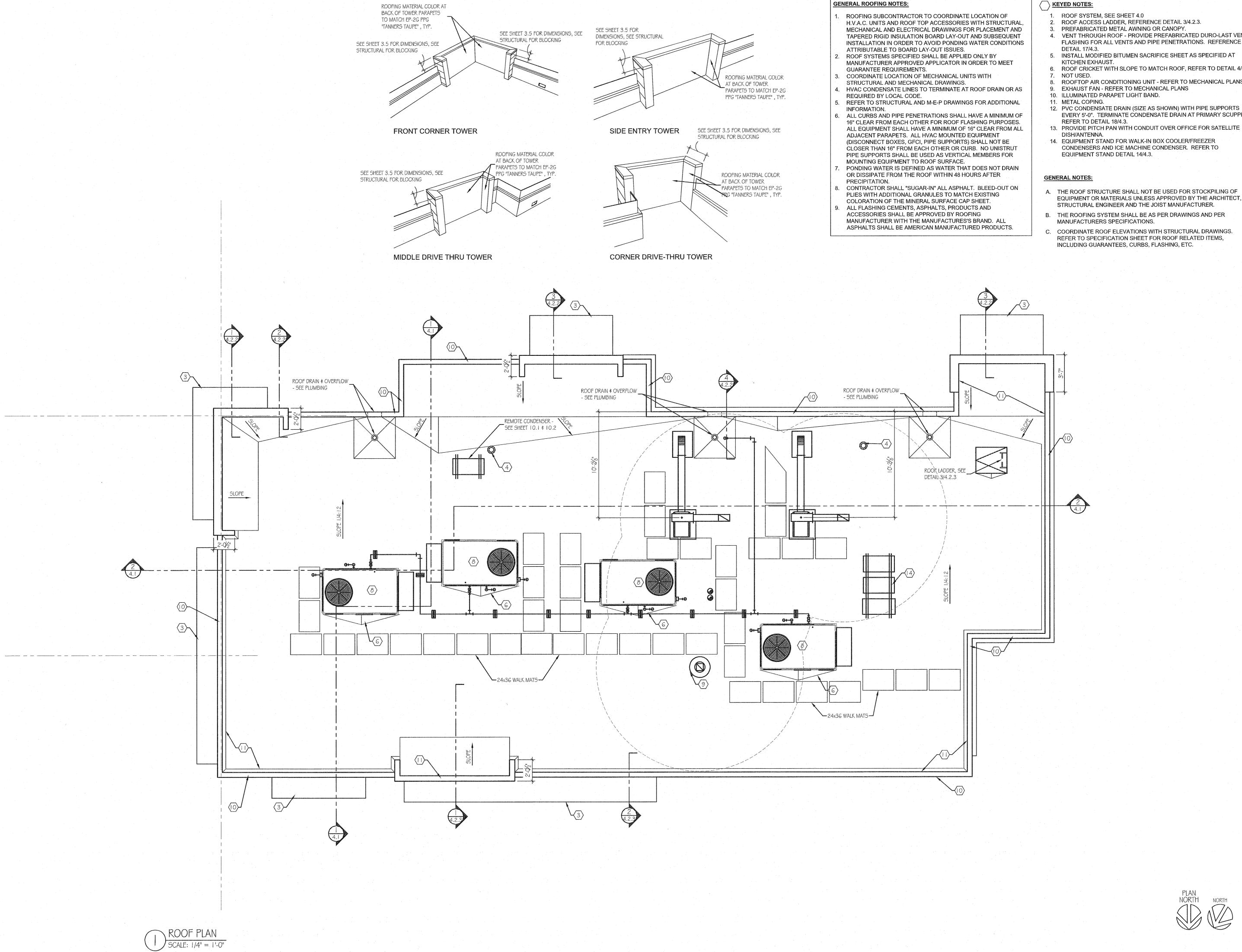
DATE: 11.03.21

JOB NO: 44387

DRAWN BY: # R JK

SHEET NUMBER:

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2. ROOF ACCESS LADDER, REFERENCE DETAIL 3/4.2.3.

3. PREFABRICATED METAL AWNING OR CANOPY.

4. VENT THROUGH ROOF - PROVIDE PREFABRICATED DURO-LAST VENT FLASHING FOR ALL VENTS AND PIPE PENETRATIONS. REFERENCE

5. INSTALL MODIFIED BITUMEN SACRIFICE SHEET AS SPECIFIED AT

ROOF CRICKET WITH SLOPE TO MATCH ROOF, REFER TO DETAIL 4/4.3.

8. ROOFTOP AIR CONDITIONING UNIT - REFER TO MECHANICAL PLANS. 9. EXHAUST FAN - REFER TO MECHANICAL PLANS

EVERY 5'-0". TERMINATE CONDENSATE DRAIN AT PRIMARY SCUPPER. 13. PROVIDE PITCH PAN WITH CONDUIT OVER OFFICE FOR SATELLITE

14. EQUIPMENT STAND FOR WALK-IN BOX COOLER/FREEZER CONDENSERS AND ICE MACHINE CONDENSER. REFER TO

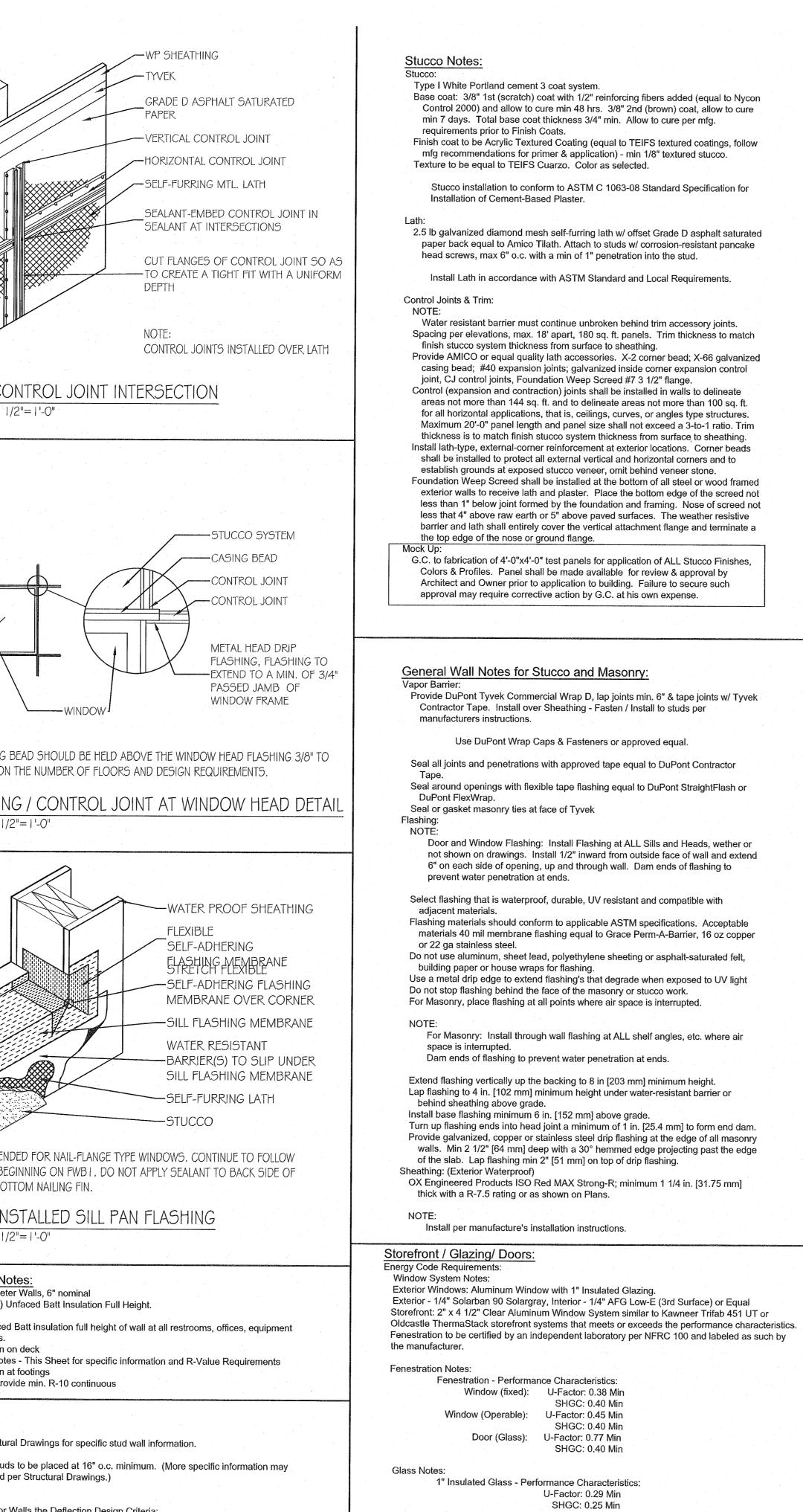
A. THE ROOF STRUCTURE SHALL NOT BE USED FOR STOCKPILING OF EQUIPMENT OR MATERIALS UNLESS APPROVED BY THE ARCHITECT, STRUCTURAL ENGINEER AND THE JOIST MANUFACTURER.

B. THE ROOFING SYSTEM SHALL BE AS PER DRAWINGS AND PER

C. COORDINATE ROOF ELEVATIONS WITH STRUCTURAL DRAWINGS. REFER TO SPECIFICATION SHEET FOR ROOF RELATED ITEMS, INCLUDING GUARANTEES, CURBS, FLASHING, ETC.

REVISIONS:

PLAN NORTH



Provide samples of Solarban 90 (Clear, Optgray & Solargray) or equal to Architect & Owner for

Door: Standard Hollow Metal Door with Polystyrene, Honeycomb, Fiberboard Core or Equal.

U-Factor: 0.61 Min

(A Copy of the Envelope Compliance Form is available upon request.) (Air Barrier requirements are meet through List of Materials Design Method.) (NO THERMAL ENVELOPE PRESSURE TESTING IS REQUIRED.)

selection. Base Bid: Clear, Alt Bid: Solargray & Optgray.

Performance Characteristics:

Door Hollow Metal Notes:

2x BLOCKING R-Value: 4. Roofing subcontractor to coordinate location of HVAC units and roof top accessories with structural, mechanical and electrical drawings for placement of crickets and tapered rigid board insulation lay-out and subsequent installation in order to avoid ponding water conditions attributable to board lay-out issues. 5. HVAC condensate lines to terminate at roof drain or as required by code. 6. All curbs and pipe penetrations shall have a minimum of 16" clear from each other for roof flashing purposes. All equipment shall have a minimum 16" clear from all adjacent parapets. All HVAC mounted equipment (disconnect boxes, GFI, pipe supports shall not be closer to 16" from each other or curb. No Unistrut pipe supports shall be used as vertical members for mounting equipment to roof 7. Provide standard preformed roof jacks at all structural & pipe penetrations, per MEP and roof manufacturer. All sealants shall be warranted a minimum of 20 8. All flashing cements, caulking, fasteners, products and accessories shall be approved by roofing manufacturer with the manufacturer's brand. 9. The roof structure shall not be used for stockpiling of equipment or materials unless approved by the architect, structural engineer and the joist manufacturer. 10. The roofing system shall be as per drawings and per manufacturers specifications.

METAL CAP FLASHING PER ANSI (F.R. IF REQ'D) SPRI ES-1 STANDARDS MECHANICALLY FASTEN CAP FLASHING -TYVEK UP AND OVER WALL 60 MIL. SINGLE-PLY TPO MEMBRANE. FASTEN PER MFG. CANT STRIP - OPTIONAL PER MFG. HEAT WELD PER MFG. 60 MIL. SINGLE-PLY TPO MEMBRANE FASTEN PER MFG. -DENSDECK DURAGUARD 1/2" -DENS DECK COVER BOARD ROOF MUST BE **ENERGY STAR RATED** -2 LAYERS POLYISOCYANURATE PROVIDE 20 YEAR NDL ROOF Roof Notes: Work Roof Deck to provide positive drainage to roof drains. Single-Ply Roof System (Base Bid): Mechanically attached 60 mil single-ply TPO Membrane Roofing system over Dens-Deck over Polyisocyanurate Insulation Energy Star: Provide White Color to meet minimum 3rd Year SRI Rating of 64 or Warranty: Provide 20 Year NDL Warranty Built-up Roof System (Alternate Bid): Two Ply Modified Bitumen Roof System: Base Sheet: Modified Base (smooth) attached to Dens Deck with Cold Process. Cap Sheet: APP Modified, installed with Cold Process Adhesives. Energy Star: Cap Sheet to be white granules to meet minimum 3rd Year SRI Rating of 64 or better. Warranty: Provide 20 Year NDL Warranty Roof Deck Insulation: Provide 2 layers Polyisocyanurate, mechanically attached using approved fasteners according to manufacturer's & building code fastening frequency. Place insulation panels so that joints are staggered, max panel size 4'x8'. Provide minimum 1-90 Fastening Pattern or per Local Wind Uplift Requirements. Above deck insulation & Cover Board to achieve min. Long-Term Thermal Resistance: (LTTR) of R-28. Cover board: Provide Cover Board equal to 1/4" GP DensDeck Prime Roof board (r-0.28). Max panel size 4'x8'. Stagger joints between insulation & cover board. GC to Provide 5/8" DensDeck Cover Board full height at back of parapets. Tapered Insulation: Provide tapered Insulation where required to direct water to roof gutters and away from low areas. Crickets are to be a minimum of 1/2" per foot slope. Crickets at parapets, equipment, drains and as necessary to prevent ponding and to ensure positive water drainage. Furnish and install new 3 ft. wide (min) walk pads. Use Manufacturers approved walk pads. Install per Manufacturers requirements. Provide traffic path from roof access point to each piece of HVAC, Refrigeration and Flashing: 24 GA pre-finished preformed metal flashing as required by roofing manufacturer and to provide water tight construction. Provide penetration flashing to meet mfg. requirements and to maintain Roof Warranty & Assembly. Fasten and caulk flashing, curbs penetrations per manufacturer's recommendations. At parapets return cover board and roofing up over prefabricated cant up back of parapet over top plate of wall prior to installing parapet cap flashing. At tall parapets (over 60" tall) the contractor has the option to provide continuous counter flashing with continuous metal termination bar per manufacturer's recommended details. Provide finish as detailed, alternate is to provide 24 ga galvanized metal siding over cover board on water proof sheathing and 1 layer of self adhered vapor / moisture barrier. Flash and caulk to provide a watertight Cap Flashing: Provide Pre-finished, Prefabricated 24 GA Metal Cap over Prefabricated Base. Alternate: Provide Galvalume, Prefabricated 24 GA Metal Cap over Prefabricated Base - Paint with epoxy enamel, color as selected. Pitch Pans: Fill Pitch Pans and provide Pelican Hoods - typical at all pitch pans. General Roofing Notes: 1. Provide 20 year NDL Warranty and Class "A" Fire Rated Roofing Assembly. The roof system guarantee shall include the rigid insulation, insulation fasteners/plates, insulation adhesive and roof membrane/flashing system. The guarantee shall be a term type, without deductibles or limitations on coverage amount, and shall be issued at no additional cost to the Owner. 2. Roof systems specified shall be applied only by manufacturer approved applicator in order to meet guarantee requirements. Contractor to install the membrane system per all local, state and federal codes and regulations. 3. Refer to structural and MEP drawings for additional information. Coordinate location of mechanical units with structural and mechanical drawings.

11. Coordinate roof elevations with structural drawings, refer to manufacturers

specification sheet for roof related items, including guarantees, curbs, flashing, and

Securely attach anchors to studs through sheathing, not to the sheathing alone. Wind: For High Wind and Seismic areas, anchor per local current code requirements. Shelf Angles & Lintels: Size horizontal leg of all shelf angles and lintels to provide a minimum bearing of 2/3 the thickness of the masonry withe. See Structural for specific Information. Minimum no. 10 self-tapping corrosion resistant screws with a minimum nominal shank diameter of 0.190 in. [4.8 mm]. Corrosion resistance provided by polymer coating, zinc plating or stainless steel. Mortar: Comply with ASTM C 270 Type N recommended; type S alternate. Expansion Joints: Provide Vertical and Horizontal Expansion Joints through masonry veneer. Design and Construct Expansion Joints complying with recommendations of Brick Industry Association Technical Notes 18 and 18A. Limestone Veneer: Limestone Veneer from local Quarry to confirm to ASTM C 568 Medium Density, Max. 7.5% Water Absorption, Min. Density 135 lbs / cu ft. and min. compressive strength 4,000 psi. [Alternate Bid] Provde ASTM C 568 High Density Limestone with a Max, 3% Water Absorption. Min. Density 160 Lbs / cu ft. and min. compressive strength 8,000 psi. (No Water Seal Required.) Ashlar ledge stone pattern from single manufacturer. Units to be of a uniform texture and color. Finish to be determined from samples submitted to Architect. Water Seal: Provide penetrating water seal at ALL limestone veneer. Provide two (2) coats (min) Chemprobe Technologies Prime-A-Pell N.S. (on

Limestone Wall). Stone Veneer: (if shown on plans) Stone Veneer to conform to ASTM standards; and are used as adhered, non-load-bearing exterior veneers or interior finishes on wood or light gage steel stud walls, concrete walls or concrete masonry walls. Approved for application over backings of cement plaster, concrete or concrete masonry. Cement plaster backings may be applied over plywood, OSB or gypsum sheathing, supported by wood or steel studs; over open wood or steel studs; over concrete walls; and over concrete masonry walls. For exterior installations, the cement plaster backing must be installed over a water-resistive barrier and weep screeds must be installed at the bottom of the stone veneer in accordance with IBC. Lath reinforcing required over stud walls. A scratch coat of Type N or S mortar (cement plaster) complying with ASTM C926 must be applied over the lath to a thickness of 1/2 inch to 3/4 inch. The veneer units may be applied directly to concrete and masonry backing without lath, provided the concrete and masonry surface is clean and free of paints, repellents, contaminants and release agents. Stone selection:

G.C. to provide submittal samples of ALL Stone Finishes for approval by owner and architect prior to ordering. GC to have stone samples available at job site and submitted pictures via email are acceptable - please don't send samples by post or shipment unless requested by Owner or Architect

G.C. To provide a mock-up for ALL Stone Finishes for review and approval by owner and architact.

1. Panel shall be made available for review & approval by Owner and Architect

prior to ordering product. 2. Minimum size 4 foot by 4 foot.

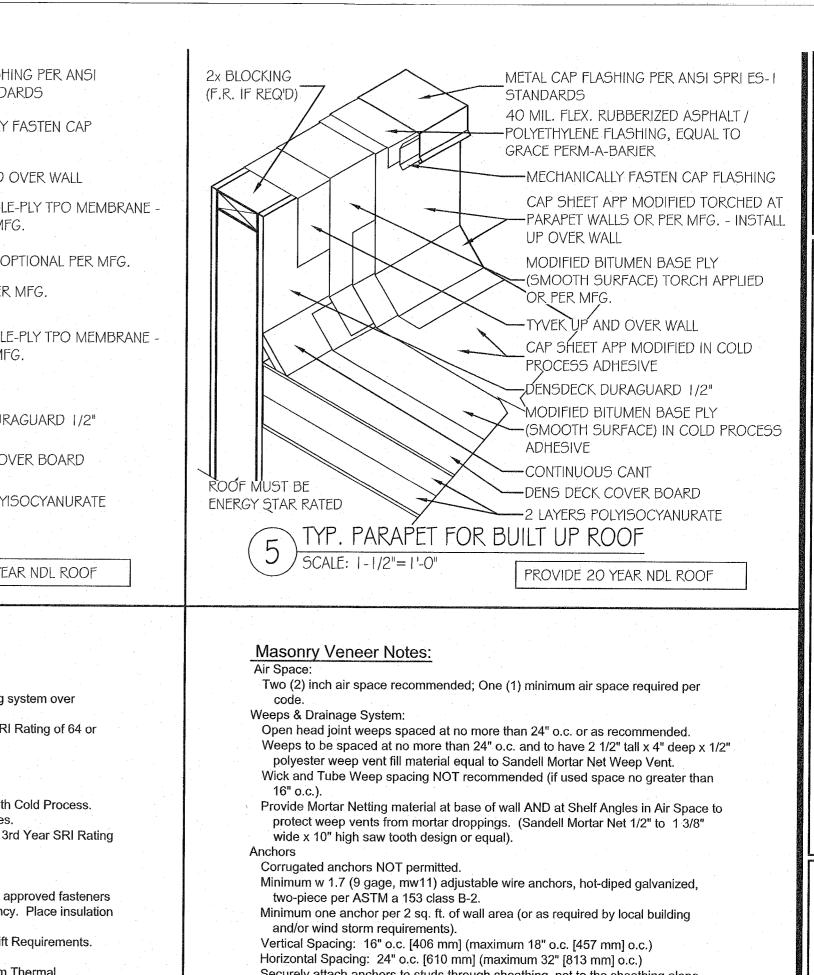
3. Do not proceed with remaining work until workmanship, color, texture and

pattern are approved by Owner and Architect. 4. Failure to secure such approval may require corrective action by G.C. at his own expense

Ciat RE PLA SUME 28 Charles Willia ARC 7400 DATE:

11.03.21 DRAWN BY: # 2 16

08/2011



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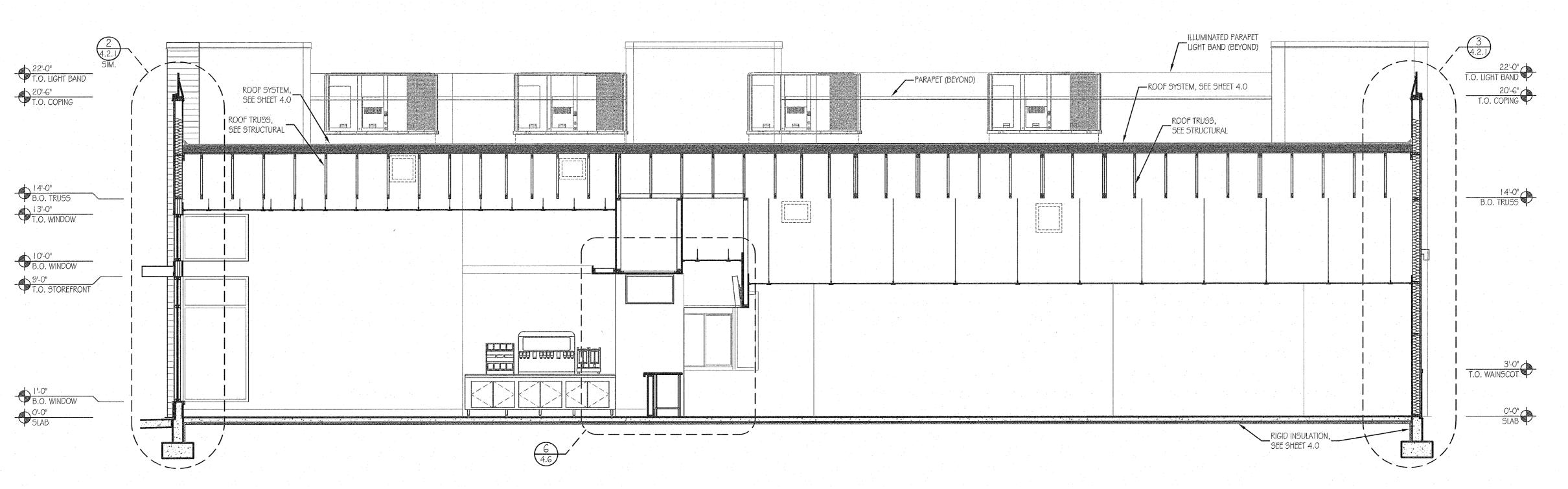
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JOB NO: SHEET NUMBER:



BUILDING SECTION

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

REVISIONS:

SECTIONS
SEPRING

STO

NUV I O CULI

Charles
William
Pope

& ASSOCIATES
ARCHITECTURE PLANNING CONSULTING
7400 BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78216

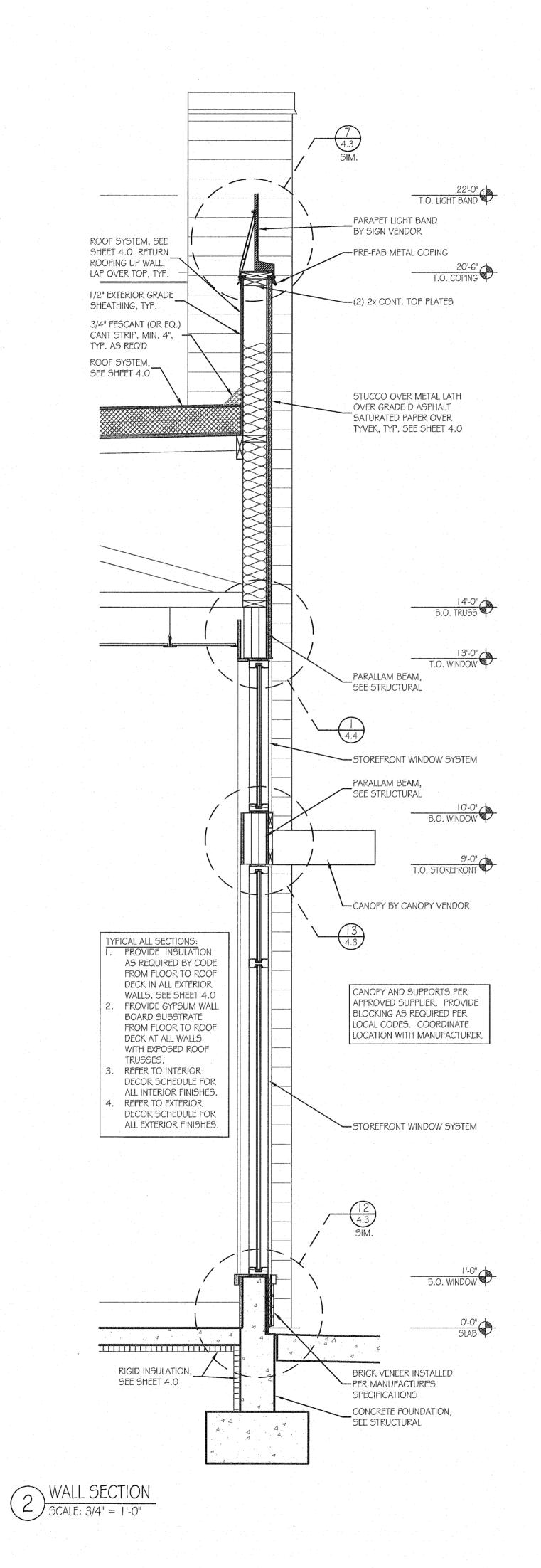
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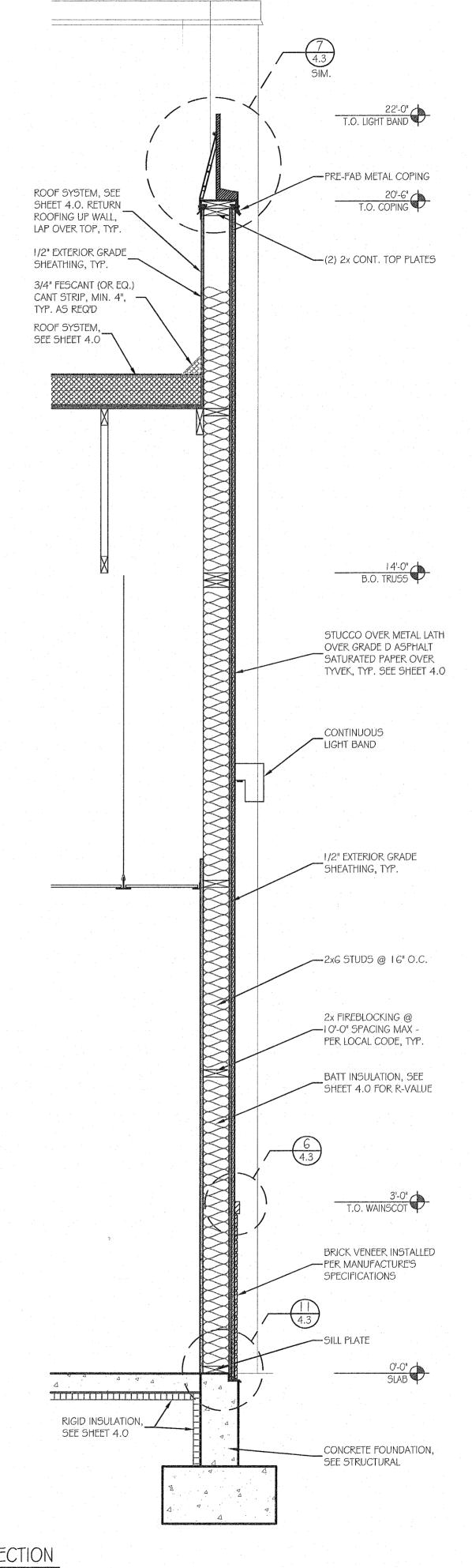
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REVISIONS:

BURGER KINGSTORE WEISTORE ROS

William
Pope

& ASSOCIATES
ARCHITECTURE PLANNING CONSULTING
7400 BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78216

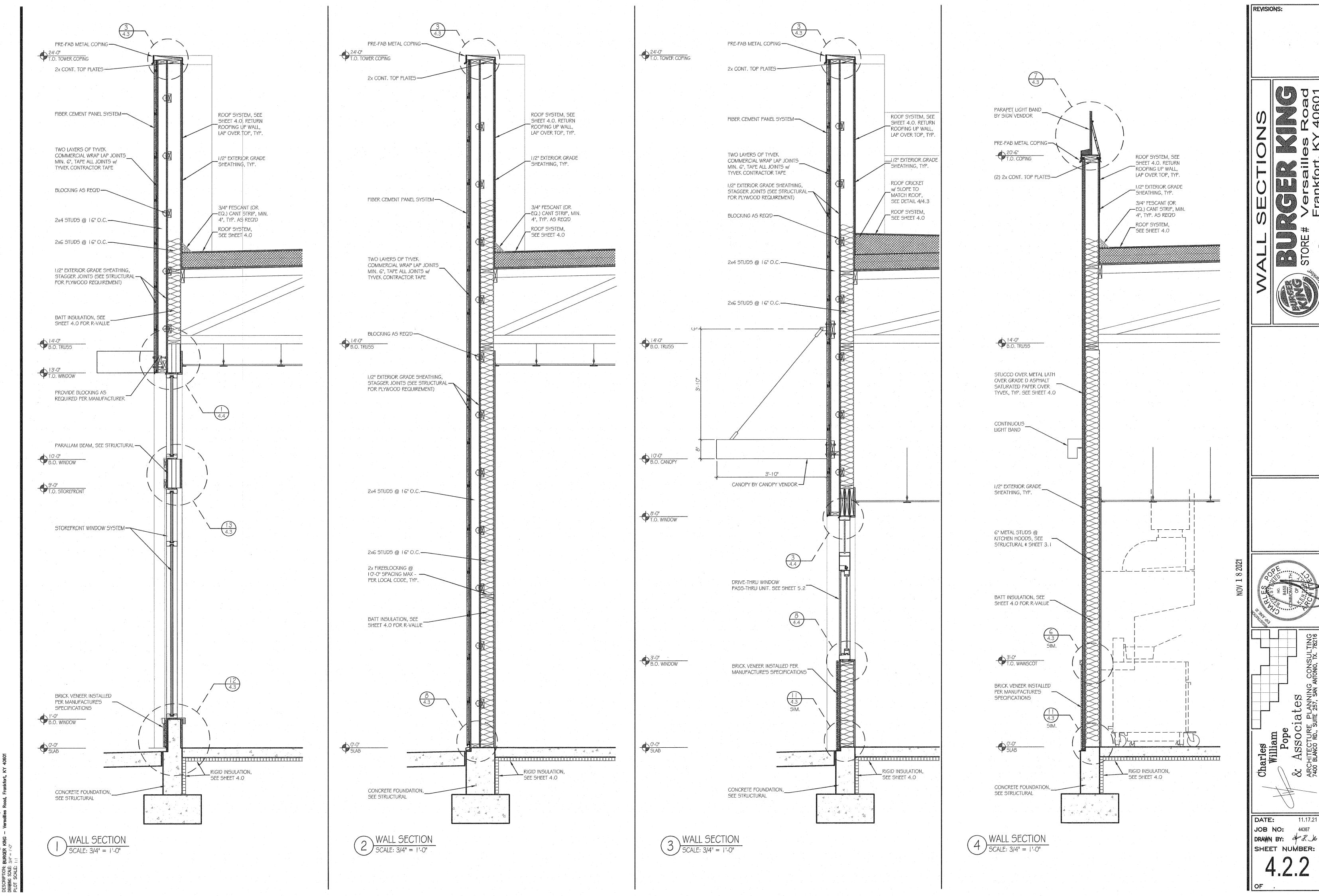
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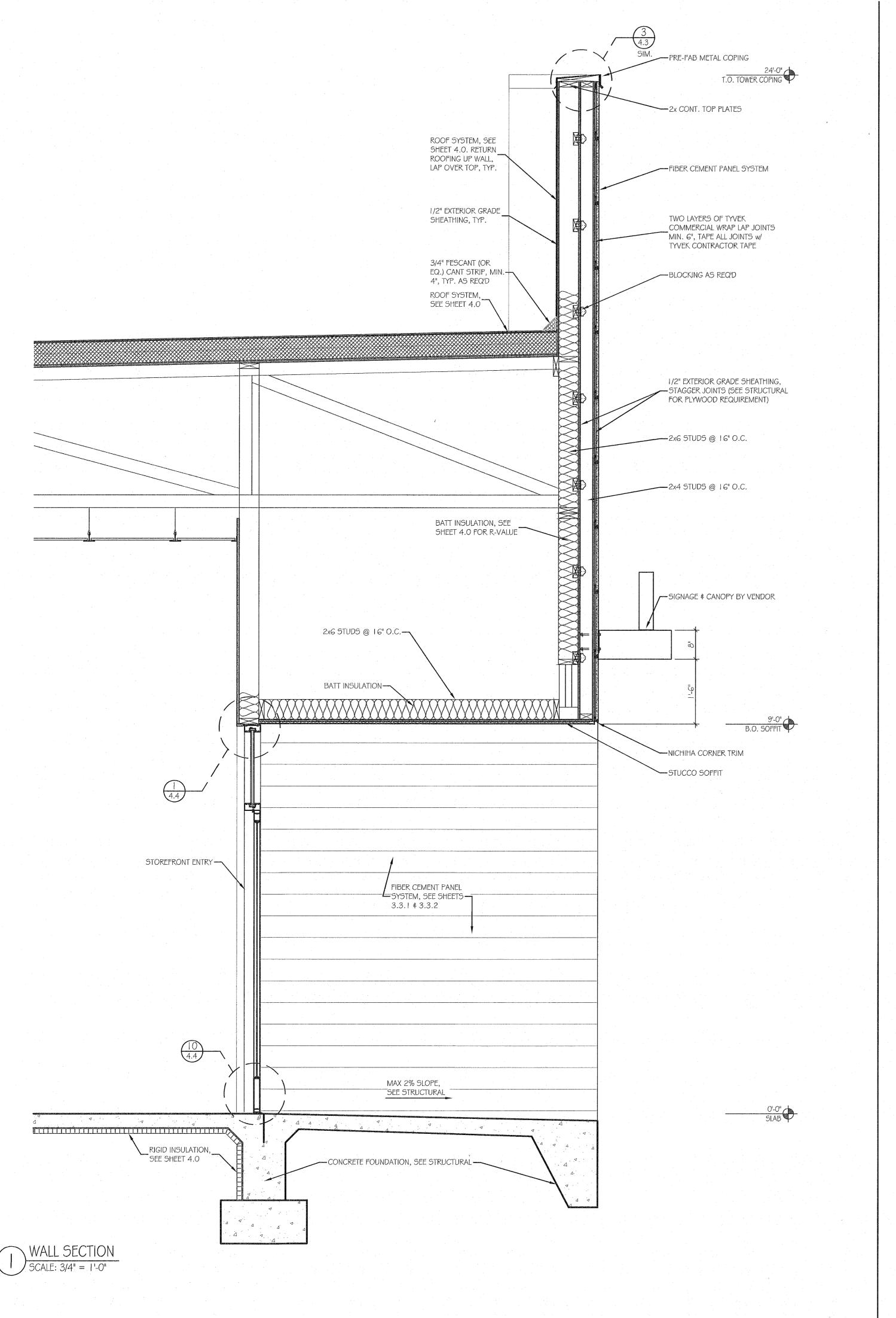
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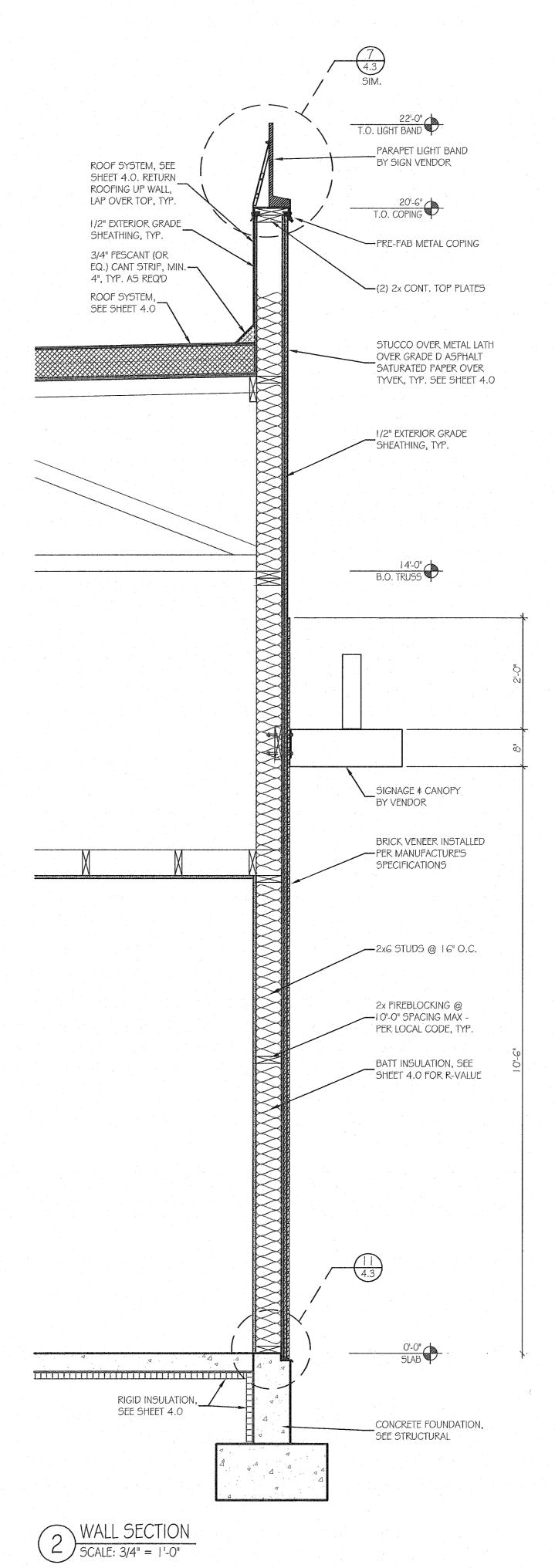
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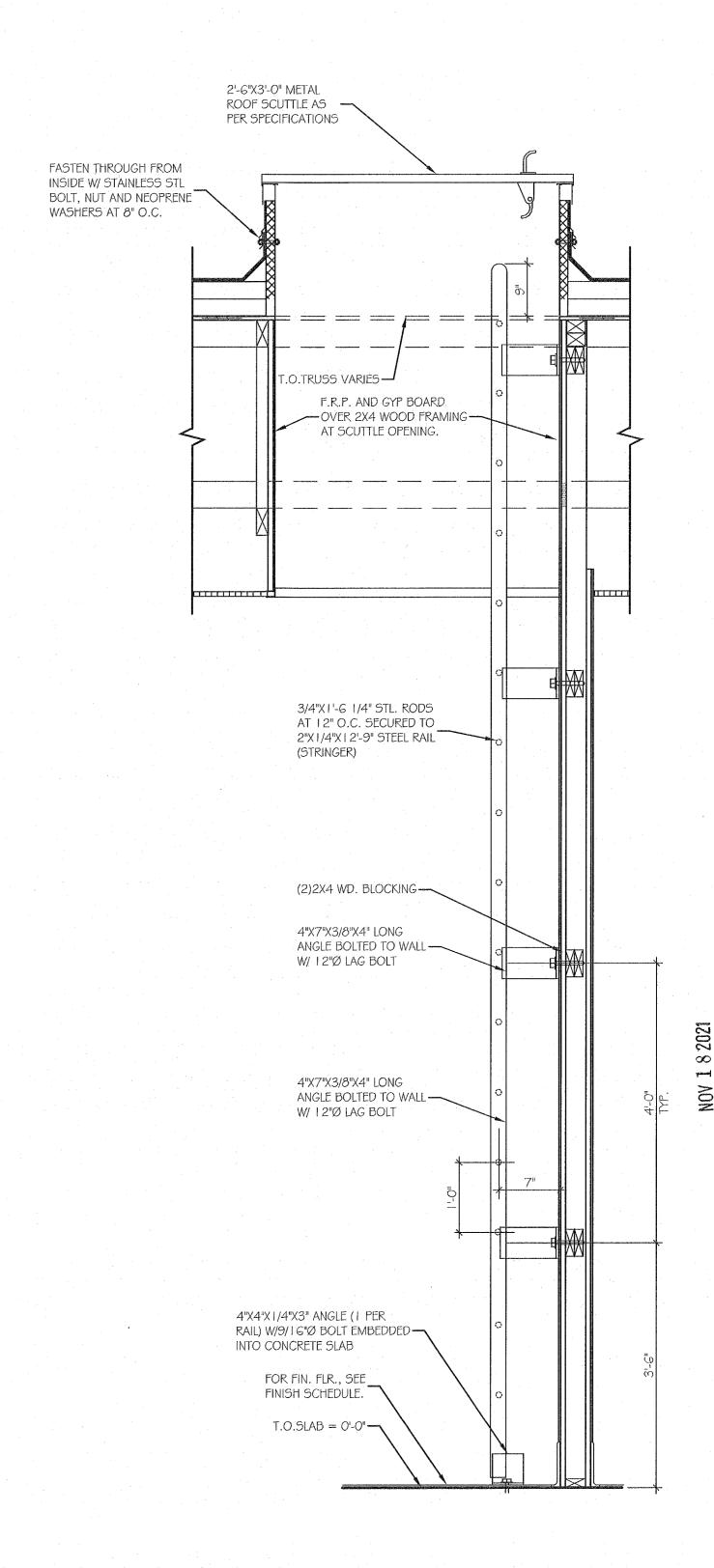
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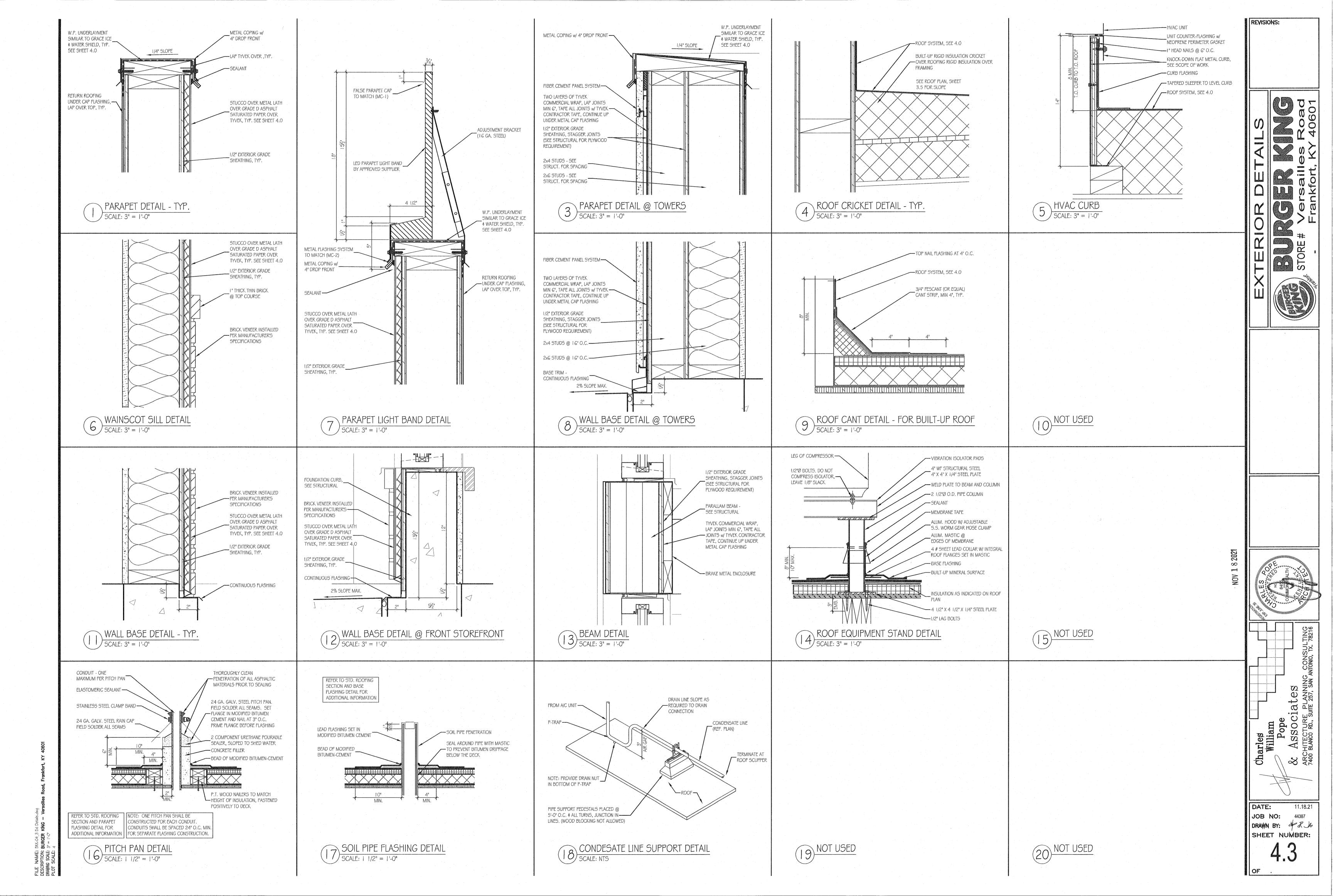


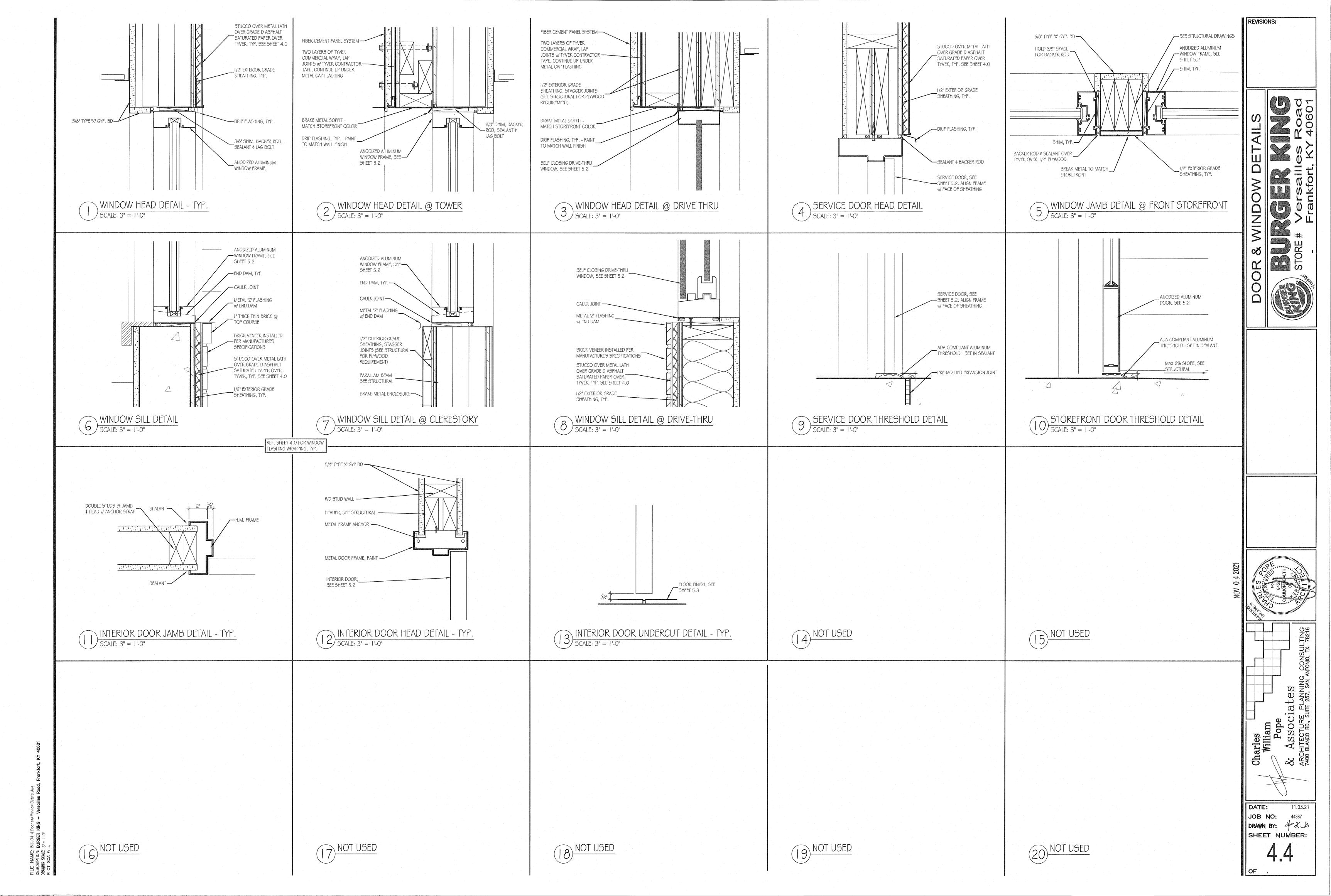


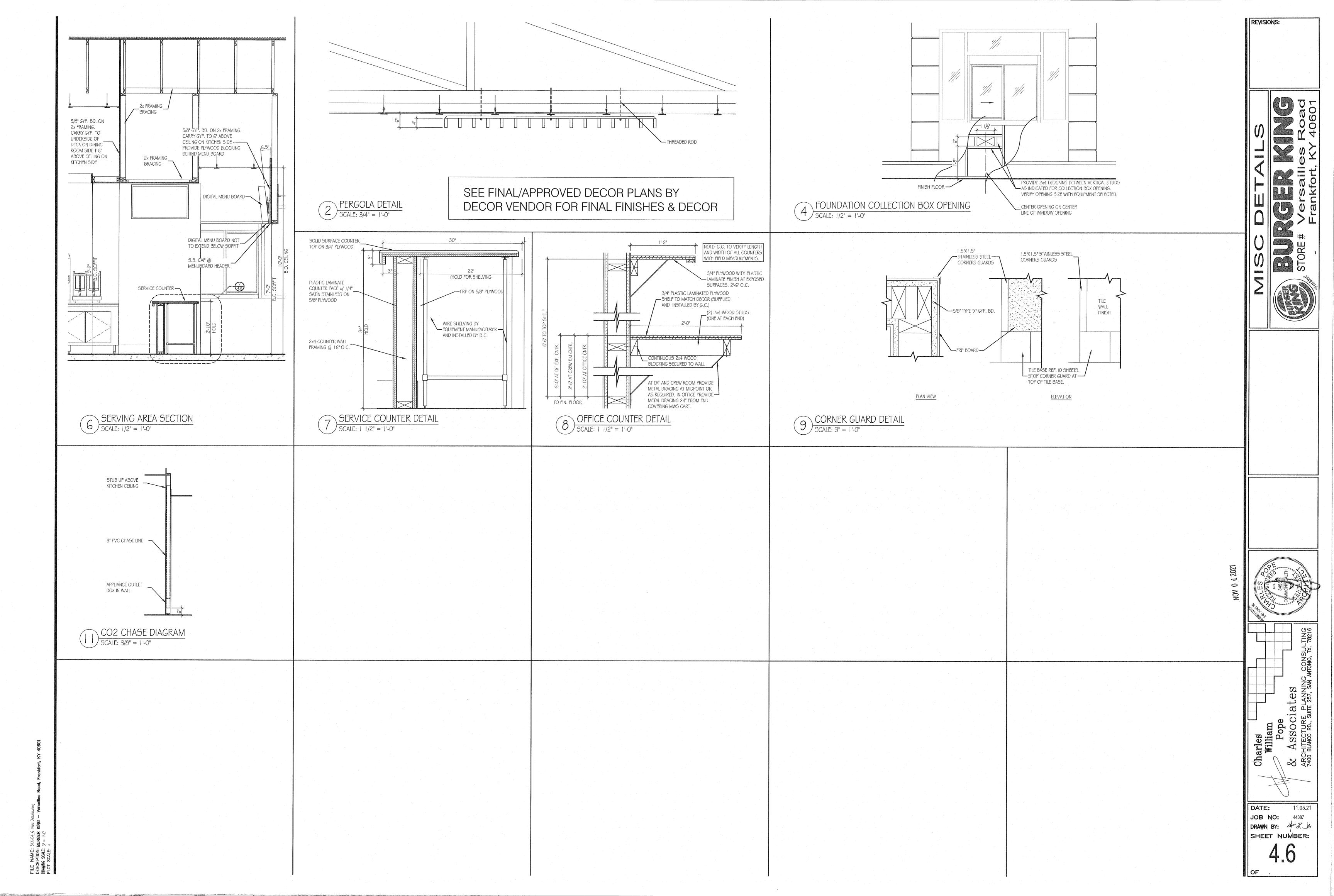


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1/10/2019					FINISH SCHEDULE H 20/20 GARDEN GRILL GUIDELINES DOC			1/10/2019					FINISH SCHEDULE H 20/20 GARDEN GRILL GUIDELINES DO	C	
ACT-1G	ACOUSTICAL CEILING TILE	DINING	ARMSTRONG	CORTEGA #770	PANEL COLOR: SEPIA EDGE: ANGLED TEGULAR 15/16	2' x 2' x 5/8"	CONTACT: LOUIS J. JOHN (407) 697-8768 LJJOHN@ARMSTRONGCELINGS,COM	GR-6G	GROUT	BACK OF HOUSE	LATICRETE	SPECTRALOCK 2000 IG	#45 "RAVEN"		CONTACT: KIRBY DAVIS AT LATICRETE (203) 671-7210 NOTE: USE WITH CT-10G, CT-11G, LATICRETE
					GRID: PRELUDE 15/16" EXPOSED TEE		ARMSTRONG STRATEGIC ACCOUNTS (800) 442-4212 ARMSTRONGCSA@ARMSTRONGCHLINGS.C OM	GR-15G	GROUT	FIELD FLOOR TILE / BEVERAGE WALL	CUSTOM BUILDING PRODUCTS	N PRO SINGLE COMPONENT (# 335 WINTER GRAY		HYDROBAN FOR WATERPROOF CONTACT: CARLOS LEON AT CBP ****PROLITE® PREMIUM LARGE FORMAT TILE MORTAR -RAPID SETTING
ACT-2G	ACOUSTICAL CEILING TILE	BACK OF HOUSE	ARMSTRONG	#BP672 KITCHEN ZONE SHEETROCK BRAND LAY-IN	PANEL COLOR: WHITE RID: PRELUDE 15/16" EXPOSED TEE GF GRID COLOR: WHITE PANEL COLOR: WHITE	2' x 4' x 1/2"	CONTACT: CHRIS BENJAMIN	GR-17G	GROUT	DINING / ACCENT TILE LIGHT WOOD	CUSTOM BUILDING PRODUCTS	N PRO SINGLE COMPONENT	#145 LIGHT SMOKE		CONTACT: CARLOS LEON AT CAP CLEON@CBPMAIL.NET "**PROLITE® PREMIUM LARGE FORMAT TILE NOTE: USE WITH CT-28G @WALLS ONLY
ACT-2G	ACOUSTICAL CEILING TILE	BACK OF HOUSE	USG INTERIORS	ILING PANEL CLIMAPLUS #3: FINE FISSURED	GRID: Donn DX/DXL GRID COLOR: WHITE WHITE	2' x 4' x 1/2"	CBENJAMN@USG.COM (312) 436-5458 NOTE: USE PROGRAM QUOTE # 00103139 CONTACT: LOUIS J. JOHN (407) 697 6768	GR-18G	GROUT	SERVICE AREA WALL	LATICRETE	PERMACOLOR	#78 STERLING SILVER		CONTACT: KIRBY DAVIS AT LATICRETE (203) 671-7210
ACT-3G ACT-3G UPGRADE	ACOUSTICAL CEILING TILE	PLAYGROUND PLAYGROUND	ARMSTRONG	#1732 FINE FISSURED #1732	GRID: 2 x2 ANGLED TEGULAR 15/16 GRID COLOR: WHITE ADOBE GRID: 2 x2 ANGLED TEGULAR 15/16 GRID COLOR: ADOBE	2' X 2' X 3/4" 2' X 2' X 3/4"	LJJOHN@ARMSTRONG EILINGS COM ARMSTRONG STRATE OC ACCOUNTS: (800) 442-4212			OSNEDA DANNO	PINEHALL BRICK	THIN BRICK (Use WITH EGR-1G)	OLD IRVINGTON	7-5/8" x 3-5/8" x 1/2"	NOTE: USE WITH CT-3/G CONTACT: PRESTON STEELE NOTE: USE WITH EGR-1G
ACT-3G	ACQUISTICAL CEILING TILE	PLAYGROUND		WHITE RADAR CLIMA PLUS #2210	PANEL COLOR: WHITE GRID: Donn DX/DXL GRID COLOR: WHITE	2' X 2' X 3/4"	CONTACT: CHRIS DENJAMIN CBENJAMIN@USG.COM (312) 436-5458 NOTE: USE PROGRAM QUOTE # 00103139	BR-2G	FACE BRICK	GENERAL DINING/ ACCENT WALLS	AFT BRICK AND STONE, INC	THIN BRICK (Use WITH EGR-1G)	OWENSBORO	7-5/8" x 3-5/8" x 1/2"	CONTACT: NEIL THARMS (904)923-2898 NOTE: USE WITH EGR-1G CONTACT: CARL APPLEBAUM (502)523-2666
ACT-3G UPGRADE	ACOUSTICAL CEILING TILE	PLAYGROUND	USG INTERIORS	TAUPE RADAR CLIMA PLUS #2210	PANEL COLOR: TAUPE GRID: Donn DX/DXL GRID COLOR: TAUPE	2' X 2' X 3/4"	TO RECEIVE BK PRICING	EGR-1G	BRICHMORTAR	General Dining/ Accent Walls	LEHIGH HANSON	(USE WITH BR-2G)	Ohio River Masonry Sand B-12C / B-12		ARL.APPLEFAUM@LEHIGHHANSON.COM NOTE: USP WITH BR-2G CONTACT SEAN VARNER SVARNER@ARGOS-US.COM (336) 906-7927
			GRANITE FIANDRE / EUROWEST	TCG2424027SQ	SIMPLY GRAY HONED (RECTIFIED)	24" x 24"	CONTACT: JAN DETER (714) 309-9551 JDETER EUROWEST.COM	P-3G	PAINT	FACE OF SOFFIT	ARGOS US	PRIMER: 6-2	LITE BUFF STONESMITH		OTE: VSE WITH BR-2G CONTACT: KEVIN LASTACY (616) 335-3259 KLASTACY@PPG.COM
	CERAMO TI	FIELD FLOOR TILE /	TCL TRANSCERAMIC	X600292X8	URBAN GRAY HONED (RECTIFIED)	24" x 24"	NOTE: USE WITH GR-15G CONTACT: CHRISTINA MASTRANGELO CMASTRANGELO@TRANSCERAMICA.COM	P-4G	PAINT	INTERIOR DOOR		Eggshell PRIMER: 6-2	10YY 30/106 ASHEN		
CT-25G	CERAMIC TILE	BEVERAGE WALL	A, LTD			/	JØY KLEIN (813)334-3302 KLEIN@TRANSCERAMICA.COM MOTE: USE WITH GR-15G CONTACT: TAMARA RAMSEY (303) 902-3992 TAMARARAMSEY@EMSER.COM	P-4G	PAWI	FRAMES		PAINT: PPG 6-1110X1 PRIMER: 6-1	PPG 1023-3		
			EMSER	199UPTOGR2424	UPTOWN CUSTOM GRAY# 15 (RECTIFIED)	24"×24"	BURGERKING@EMSER.COM NOTE: USE WITH GR-15G CONTACT: JAN DETER (714) 309-9551	P-5G	PAINT	UNDERSIDE OF CORRIDOR SOFFIT AND RESTROOM CEILING	PPG	PAINT: PPG 6-410	WHITE ON WHITE 30GY 88/014		
			GRANITE FIANDRE / EUROWEST	TCG1224027SQ	SIMPLY GRAY HONED (RECTIFIED)	6" x 24" (CUT TLE)	JDETER@EUROWEST.COM NOTE: USE WITH GR-15G	P-6G	PAINT	EXPOSED DECKING AND BAR JOISTS		PAINT: PPG 6-411 PRIMER: 6-2	SLATE BROWN 00YY 09/087		
CT-26G	CERAMIC TILE	BASE TILE (MAIN	TCL TRANSCERAMIC A, LTD	X630292X8	URBAN GRAY HONED (RECTIFIED)	6 x 24" (CUT TILE)	CONTACT: CHRISTINA MASTRANGELO CMASTRANGELO@TRANSCERAMICA.COM JOY KLEIN (813)334-3302 NOTE: USE WITH GR-15G	P-15G	PAINT	INTERIOR WALLS/ SOFFIT		PAINT; PPG 6-411 PRIMER:	ASHEN PPG 1023-3	/	
			EMSER	CUT BASE TILE (FROM 12" X	UPTOWN CUSTOM GRAY# 15		CONTACT: TAMARA RAMSEY (303) 902-3992 TAMARARAMSEY@EMSER.COM	P-16G	PAINT	AREA DOOR FRAME		PAINT: H NEVAMAR CAFÉ SIENNA SI PRIMER:	"PENDING"		CONTACT: GLENN J. REMLER (954) 547-1217
			CDANIES	24")	(RECTIFIED)	TILE)	IF PURCHASE DIRECTLY FROM EMSER NOTE: USE WITH GR-15G CONTACT: JAN DETER (714) 309-9551	P-3G	PAINT	MENU BOARD AND FACE OF SOFFIT		PM 200 0 VOC B28W2600 PAINT: PM 200 0 VOC B20W2600 Eggshell	TAVERN TAUPE SW7508		GLENN.J.REMLER@SHERWIN.COM
		CORRIDOR WALL /	GRANITE FIANDRE / EUROWEST	TCG1224027SQ	SIMPLY GRAY HONED (RECTIFIED)	12" x 24"	JDETER@EUROWEST.COM CONTACT: TAMARA RAMSEY (303) 902-3992 TAMARARAMSEY@EMSER.COM	P-4G	PAINT	INTERIOR DOOR FRAMES		PRIMER: ProCryl B66-310 PAINT: Pro Industrial WB Urethane	BUNGALOWBEIGE SW7511		
CT-27G	CERAMIC TILE	RESTROOM WALL AND FLOOR	EMSER	199UPTOG12424	UPTOWN CUSTOM GRAY# 15 (RECTIFIED)	12" x 24"	BURGERKING@EMSER.COM	P-5G	PAINT	INTERIOR UNDERSIDE OF CORRIDOR SOFFIT		Alkyd Enamel B53-1150 Semi-Gloss PRIMER: PM 200 0 VOC B28W2600 PAINT:	EX Y RA WHITE		
· ·			ODA INC				NOTE: USE WITH GR-15G CONTACT: JAN DETER (714) 309-9551 JDETER@EUROWEST.COM		PAUVI	AND RESTROOM CEILING		PM 200 0 VOC B20W2600 Eggshell PRIMER: Multi Surface Acrylic B66-560	\$₩ 7006		
			GRANTE FIANDRE / EUROWEST	Larch US (french wood) IRG 0624123	WOOD TILE (RECTIFIED)	6" x 24"	NOTE: USE WITH GR-15G @ FLOOR	P-6G	PAINT	EXPOSED DECKING AND BAR JOISTS	SHERWIN WILLIAMS	PAINT: Multi Surface Acrylic B66-560 Eggshell	WELL-BRED BROWN SW 7027		
CT-28G	CERAMIC TILE	DINING / ACCENT TILE LIGHT WOOD/KNEE WALL AND FSC SIDE WALL	TCL TRANSCERAMIC	TCL Larch US (french wood)	WOOD TILE (RECTIFIED)	6"×24"	NOTE: USE WITH GR-17G @ DINING WALLS C CONTACT: CHRISTINA MASTRANGELO CMASTRANGELO@TRANSCERAMICA.COM JOYKLEIN (813)334-3302	P-15G	PAINT	INTERIOR WALLS/ SOFFIT		PRIMER: PM 200 0 VOC B28W2600 PAINT: PM 200 0 VOC B20W2600	BUNGALOW BEIGE SW 7511		
	· ·	WAINSCOT TILE (STACKED BOND)	A, LTD				JKLEIN@TRANSCERAMICA.COM NOTE: USE WITH GR-15G @ FLOOR NOTE: USE WITH GR-17G @ DINING WALLS C CONTACT: TAMARA RAMSEY (303) 902-3992	P-16G	PAINT	INTER GE	E EIN	Eggshell PRIMER: PhoCrvt B66-310	PROVED		
		SFF	FIN	AL APF	ROVED	THE STREET STREET, STR	TAMARARAMSEY@EMSER.COM BURGERKING@EMSER.COM NOTE: USE WITH GR-15G @ FLOOR NOTE: USE WITH GR-17G @	<u> </u>		 			'ROVED		
				PLANS		ı,	DINING WALLS ONLY CONTACT: JAN DETER (714) 309-9551 JDETER@EUROWEST.COM	P-17G	PAINT	LOCATI		PLANS VENDO			
					OR FOR	n	NOTE: USE WITH GR-15G CONTACT: CHRISTINA MASTRANGELO CMASTRANGELO@TRANSCERAMICA.COM						5 ¢ DECO	R Panels	CONTACT: CUSTOMER SERVICE (330) 343-662 ANITA CRAIG (423) 506-6335 ACRAIG@MARLITE.COM
CT-29G	CERAMIC TILE				5 \$ DECO	R	JOY KLEIN (813)334-3302 JKLEIN@TRANSCERAMICA.COM NOTE: USE WITH GR-15G CONTACT: TAMARA RAMSEY (303) 902-3992 TAMARARAMSEY@EMSER.COM	WP-2G	WALL PANEL SYSTEM	BENEKAU	CIM	ZLOCK	Nevamar WI-001 Macchiato X-Grain	8 x 4 Panels	CONTACT: AUSTIN HOLAN (706)253-4761 AUSTIN@CIMGBIZ.COM
			EWISER	D99DEREGR0024	(RECTFIED)	0 X24"	BURGERKING@EMSER.COM NOTE: USE WITH GR-15G	JIBH 70	LIBEOL STERV	SEATING (Poph/Stitre)		LARIAT MOMON	ONO TALIDE		CONTACT: ZANDY RODON (404) 909-8444 ZRODON@MAHARAM.COM
			GRANITE FIANDRE / EUROWEST	SENSIBLE STONE ED5052	SIGN RED NATURAL	12" x 24"	CONTACT: JAN DETER (714) 309-9551 JDETER@EUROWEST.COM NOTE: USE WITH GR-15G	UPH-7G	UPHOLSTERY	(Booth/Settee) SEAT PADS SEATING	MAHARAM	/ LARIAT 440401	010 TAUPE		
CT-30G	CERAMIC TILE	RESTROOM WALL / EXTERIOR ACCENT RED TILE	TCL TRANSCERAMIC A, LTD	TCL ED5052 SENSIBLE STONE	SIGN RED NATURAL	12" x 24"	CONTACT: CHRISTINA MASTRANGELO CMASTRANGELO@TRANSCERAMICA.COM JOY KLEIN (813)334-3302 JKLEIN@TRANSCERAMICA.COM	UPH-10G	UPHOLSTERY	(Booth/Settee) BACK PADS		LARIAT 440401	007 OYSTER		
				'			NOTE: USE WITH GR-15G CONTACT: LYDIA KURTH (954) 520-4283 LKURTH@CERAMIC TECHNICS	MF-1G		FIXTURES AS NOTED	PERVENDOR		BLACKENED STEEL		PER VENDOR
			CERAMIC TECHNICS GRANITE	SASSUOLO STONE TONES	WHITE GLOSSYSUBWAYTILE	3"x12" SUBWAY TILE	NOTE: USE WITH GR-18G CONTACT: JAN DETER (714) 309-9551	MF-2G MF-3G	METAL FINISH ALUMINUM METAL FINISH ALUMINUM	SLAT PERGOLA SUPPORTS	PER VENDOR	POWDER COATED BROWN	MATCH P-6G (SLATE PROWN)		PER VENDOR
		SERVICE AREA /	FUNDRE / EUROWEST TCL TRANSCERAMIC	1318GLOSSWHT1	WHITE GLOSSY SUBWAYTILE WHITE GLOSSY SUBWAYTILE	TILE	JDETER@EUROWEST.COM NOTE: USE WITH GR-18G CONTACT: CHRISTINA MASTRANGELO CMASTRANGELO@TRANSCERAMICA.COM	MF-4G	METAL FINISH ALUMINUM	DIVIDER SCREEN & SAUCE BAP	PER VENDOR	POWDER COATED	STATUARY BRONZE		PER VENDOR
CT-31G	CERAMIC TILE	FOOD PREP	A, LTD	1001318	WHILE GLOSS I SUBWAY LILE	SUBWAYTILE	NOTE: USE WITH GR-18G CONTACT: TAMARA RAMSEY (303) 902-3992 TAMARARAMSEY@EMSER.COM	PL-9G	PLASTIC LAMINATE	PERMITER TABLES, DOORS, TRASH UNIT	NEVAMAR	WK0017T	VERNERABLE OLD OAK		CONTACT: CUSTOMER SERVICE (877)726- 6526 JOHN TRULOCK
			EMSER	CHOICE GLOSSY WHITE 199CHOIWH0312	WHITE GLOSSY SUBWAYTILE	3"x12" SUBWAY TILE	BURGERKING@EMSER.COM	PL-15G	PLASTIC LAMINATE	TABLES / BOOTHS	NEVAMAR	WF0011T	масснато		
					PURITAN GREY	6" X 6"	NOTE: USE WITH GR-18G CONTACT: STEVE KNEBLIK SKNEBLIK@INTERCERAMIC.COM (214) 503-	PL-16G PL-17G	PLASTIC LAMINATE PLASTIC LAMINATE	TABLES TABLES	NEVAMAR NEVAMAR	WZ2001T WF0013-T	SANTA ROSA PLUM TREE CARAMEL MACCHIATO SUEDE		
CT-10G	QUARRY TILE	BA Ø K OF HOUSE	INTERCERAMIC	QUARRY BASICS 57XA	***ADD ABRASIVE GRAIN (OPTIONAL)	\	NOTE: USE WITH GR-6G CONTACT: YEHUDA FISCH	PL-18G	PLASTIC LAMINATE	DEVERAGE STATION CABINET DOORS/ INNER SIDE OF WOOD SLAT BERCOLA/	NEVAMAR	SO3300 SD	CAFÉ SIENNA		
	Own O N N 1 Holis	/ NOUSE	OLYMPIA TILE EMSER	METROPOLITAN E-QUARRY SMOKE	PURITAN GREY ***ADD ABRASIVE GRAIN (OPTIONAL) Q10EQUASM0606	6" X 6"	CONTACT: YEHUDA FISCH YEHUDA@ALPHATILE.COM (954) 995-5206 NOTE: USE WITH GR-6G CONTACT: TAMARA RAMSEY TAMARARAMSEY@EMSER.COM (303) 902-	PL-19G WS-1G	PLASTIC LAMINATE WOOD STAIN	BOOTH BASE HELVING LOUNGE ARE	PIONITE PER VENDOR	SE101S BALTIC BIRCH	BLACK CLEAR COATED		LOCAL DISTRIBUTOR
·	/	/	DALTILE	QUARRY TILE	***ADD ABRASIVE GRAIN (OPTIONAL) 0T03 ASHEN GRAY COVE BASE - ASHEN GRAY	5" x 6" or 5" x 8"	NOTE: USE WITH GR-6G	WS-2G	WOOD STAIN	MUNITY TABLE/ SAUCE	PER VENDOR	WHITE OAK	CLEAR COATED		LOCAL DISTRIBUTOR
			INTERCERAMIC	QUARRYBASICS	PURITAN GREY	6" X 6"	CONTACT: STEVE KNEBLIK SKNEBLIK@NTERCERAMIC.COM (214) 503- 5521 NOTE: USE WITH GR-6G	WS-3G SL-1G	WOOD STAIN SURF(X) AD LAMINATE	TRELLIS SOFFIT	PER VENDOR	STAINED POPLAR WOOD F(X) 3D LAMINATES ON SUNT	TCH NEVAMAR SANTA ROSA PLUM TR	12 MIL (0.12)	CONTACT: CHERI RUKAVINA (404)971-8119 CHERI RUKAVINA@OMNOVA.COM
CT-11G	QUARRYTILE BASE	BACK OF HOUSE COVE BASE	OI VMADIA TII T	METROPOLITA	COVE BASE Q3565 PURITAN GREY	6" x 6"	CONTACT: YEHUDA FISCH YEHUDA@ALPHATILE.COM (954) 995-5206	MEB-1G	MULTIPLEX EDGE BAND	TABLES (STANDARD TABLE THICKNESS)	REHAU	PREMUIM EDGE BAND #52E MULTIPLEX			CONTACT: MEG HÜZENGA (616) 666-7932 MEG.HÜZENGA@REHAU.COM
			OLYMPIA TILE EMSER	METROPOLITAN E-QUARY SMOKE	COVE BASE SMOKE	6"×6"	NOTE: USE WITH GR-6G CONTACT: TAMARA RAMSEY (TAMARA RAMSEY@EMSER.COM (303) 902-	MEB-2G	MULTIPLEX EDGE BAND	OTH EDGE PROTECTION	REHAU	NEVAMAR MACCHIATO CP41002	MATCH PL-15G (MACCHIATO)		
FRP-1G	FIBERGLASS REINFORCED PANEL	BACK OF HOUSE	MARLITE	FRP SYMMETRIX	COVE BASE C100 G312	4'x8' 4'x10'	NOTE: USE WITH GR-6G CONTACT\CUSTOMER SERVICE (330) 343-66: ANITA CRAIG (423) 506-6335 ACRAIG@MARLITE.COM	SS-8G	SOLID SURFACE	FIXTURES AS NOTED TOP CAP/ SILL	DUPONT	CORIAN	DEEP NOCTURNE	30" x 144" x 1/2" THICKNESS	CONTACT: RANDY HOUSTON (404) 274-3047 RANDY.HOUSTON@DUPONT.COM
		OUTSIDE CORNERS					CONTACT: EARL MAICUS (800) 267-0816 EMAICUS@SCHLUTER.COM	\$S-9G	SOLID SURFACE	FSC / BEVERAGE COUNTER TOP (ALTERNATE TO MS-	AVONITE	CUSTOM COLOR BK SMOKE	#7885	30" x 144" x 1/2" THICKNESS	CONTACT: BOB DAHL BDAHL@ARISTECHSURFACES.COM (423) 290-4805
TR-1G	EDGE PROFILE	OF WALL TILE & BASE TILE TRIM AT RESTROOM	SCHLUTER	QUADEC Q100AT	SATIN NICKEL ANODIZED ALUMINUM	3/8"	NOTE: GC TO QOORDINATE HEIGHT AS BASED UPON TILE THICKNESS AND SETTING SYSTEM			1G)	US SURFACES	LIVINGSTONE	STORM		CONTACT: TIM WRIGHT CONTACT: JENNIFER RYAN (305) 398-5700 JENNIFERR@COSENTINO.COM
	/						CONTACT: EARL MAICUS (800) 267-0816 EMAICUS@SCHLUTER.COM	NS-1G	MANUFACTURED STONE	FSC / BEVERAGE COUNTER TOP	SILESTONE US SURFACES	QUARTZ, VOLCANO TEXTURE VADARA	GREYEXPO BRUSHED CEMENT	-	BROOKE DOMINY (954) 809-9170 BROOKED@COSENTINO.COM TIMW@USSURFACES.COM
TR-2G	COVE BASE PROFILE	GENERAL RESTROOM	SCHLUTER	DILEX-AHK100AT	SATIN NICKEL ANODIZED ALUMINUM		NOTE: GC TO COORDINATE HEIGHT AS REQUIRED BASED UPON TILE THICKNESS AND SETTING	R-1G	RESIN	FSC SMOOTHIE SCREENS	3-FORM	PUNCH 021	VELLUM F04 FINISH FRONT & BACK	3/8" THICK	CONTACT: JULIANA SHARKEY JULIANA SHARKEY@3FORM.COM (954) 579-6545
	EDOS DOOS -	BACK OF US	MADIT	Olitelate com/22	CATRI AMODERN	7/16"	CONTACT: CUSTOMER SERVICE (330) 343-6 ANITA CRAIG (423) 506-6335 ACRAIG@MARLITE.COM								\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
TR-3G	EDGE PROFILE	BACK OF HOUSE	MARLITE	OUTSIDE CORNER A560	SATIN ANODIZED ALUMINUM SCHIENE (RADIUS) AE 100 - R, SATIN	EDGE / 8'	NOTE: GC TO COORDINATE HEIGHT AS REQUIRED BASED UPON TILE THICKNESS AND CONTACT: EARL MAICUS (800) 267-0816								
TS-1G	TRANSITION STR₽	CERAMIC TILE TO CERAMIC TILE	SCHLUTER SYSTEMS	TRANSITION PROFILES FOR FLOORS	ANODIZED ALUMINUM AE 100 - R, SATIN ANODIZED 3/8" - 10MM	10mm									

					STORY AND SOUTH AND ANALYSIS AND	e. Little Words was not have been believed by an edge of a billion of particular and the same				***************************************	
	ROOM	FLOOR	BASE	V	WALLS (PL	AN NORTH	1)		CEILING	G	REMARKS
NO.	ROOM NAME	MATL	MATL	NORTH	EAST	SOUTH	WEST	MATL	FINISH	HEIGHT	PLAN NORTH TRUE
101	DINING	CT-25, CT-28, CT-29	CT-26	WP-2,P-15	WP-2,P-15	WP-2,P-15, CT-25, CT-28	WP-2,P-15, CT-28	-	-	OPEN	SEE FINAL APPROVED DECOR PLANS BY DECOR VENDOR FINAL FINISHES
102	HALL	CT-25, CT-28, CT-29	CT-26	WP-2,P-15		CT-27,WP-2, P-15	WP-2,P-15	GYP	P-5	9'-2"	SEE FINAL APPROVED DECOR PLANS BY DECOR VENDOR FINAL FINISHES
103	WOMEN	CT-27	~	CT-30	CT-28	CT-27	CT-28	GYP	P-5	8'-6"	SEE FINAL APPROVED DECOR PLANS BY DECOR VENDOR FINAL FINISHES
104	MEN	CT-27	-	CT-30	CT-28	CT-27	CT-28	GYP	P-5	8'-6"	SEE FINAL APPROVED DECOR PLANS BY DECOR VENDOR FINAL FINISHES
105	CUSTOMER	CT-25, CT-28, CT-29	-	CT-27	_	CT-28	-	GYP	P-5	OPEN	SEE FINAL APPROVED DECOR PLANS BY DECOR VENDOR FINAL FINISHES
106	SERVING	CT-10G	CT-11G	CT-27		-	CT-27	ACT-2G		10'-0"	MENU BOARD SOFFIT @ 7'-0", PAINT P-3G. FURRDOWN @ 9'-2"
107	KITCHEN	CT-10G	CT-11G	FRP-1G	FRP-1G	FRP-1G	FRP-1G	ACT-2G	-	8'-6"	SMOOTH FACE FRP IN B.O.H. TYP.
108	OFFICE	CT-10G	CT-IIG	FRP-1G	FRP-1G	FRP-1G	FRP-1G	ACT-2G		8'-6"	SMOOTH FACE FRP IN B.O.H. TYP.
109	CREW	CT-10G	CT-11G	FRP-1G	FRP-1G	FRP-1G	FRP-1G	ACT-2G		8'-6"	SMOOTH FACE FRP IN B.O.H. TYP.
110	STOCK	CT-10G	CT-11G	FRP-1G	FRP-1G	FRP-1G	FRP-1G	ACT-2G	-	8'-6"	SMOOTH FACE FRP IN B.O.H. TYP.
111.	COOLER		-	~ .			-		-	-	PRE-FINISHED COOLER
112	FREEZER	-		-		· ·	- .	-	-	5	PRE-FINISHED FREEZER
	CLOCET	1 ' '		1	1 .	1	1	1	1 .	1	

GENERAL NOTES

114 STORAGE

- I. INSTALL FRP ON KITCHEN SIDE OF SERVING COUNTER WALL.
- 2. GALV. STEEL WALL AND CEILING FINISHES BY WIC/WIF BOX MFR.
- 3. REFER TO INTERIOR ELEVATIONS FOR LOCATIONS OF TILE AND FRP.
- 4. FOR FINISH LOCATIONS REFER TO: SHEETS 3.3.1, 3.3.2 \$ 3.3.3 EXTERIOR ELEVATIONS; SHEET 5.3 FLOOR FINISH PLAN; SHEET 3.2 REFLECTED CEILING PLAN; SHEETS 3.4 \$ | | | | | Interior elevations

CT-10G CT-11G

5. APPROVED PAINT MANUFACTURERS: PORTER, BENJAMIN MOORE, SHERWIN WILLIAMS, ICI, & PITTSBURGH PAINTS. MATCH SPECIFIED SCHEDULE COLORS EXACTLY.

8'-6" SMOOTH FACE FRP IN B.O.H. TYP.

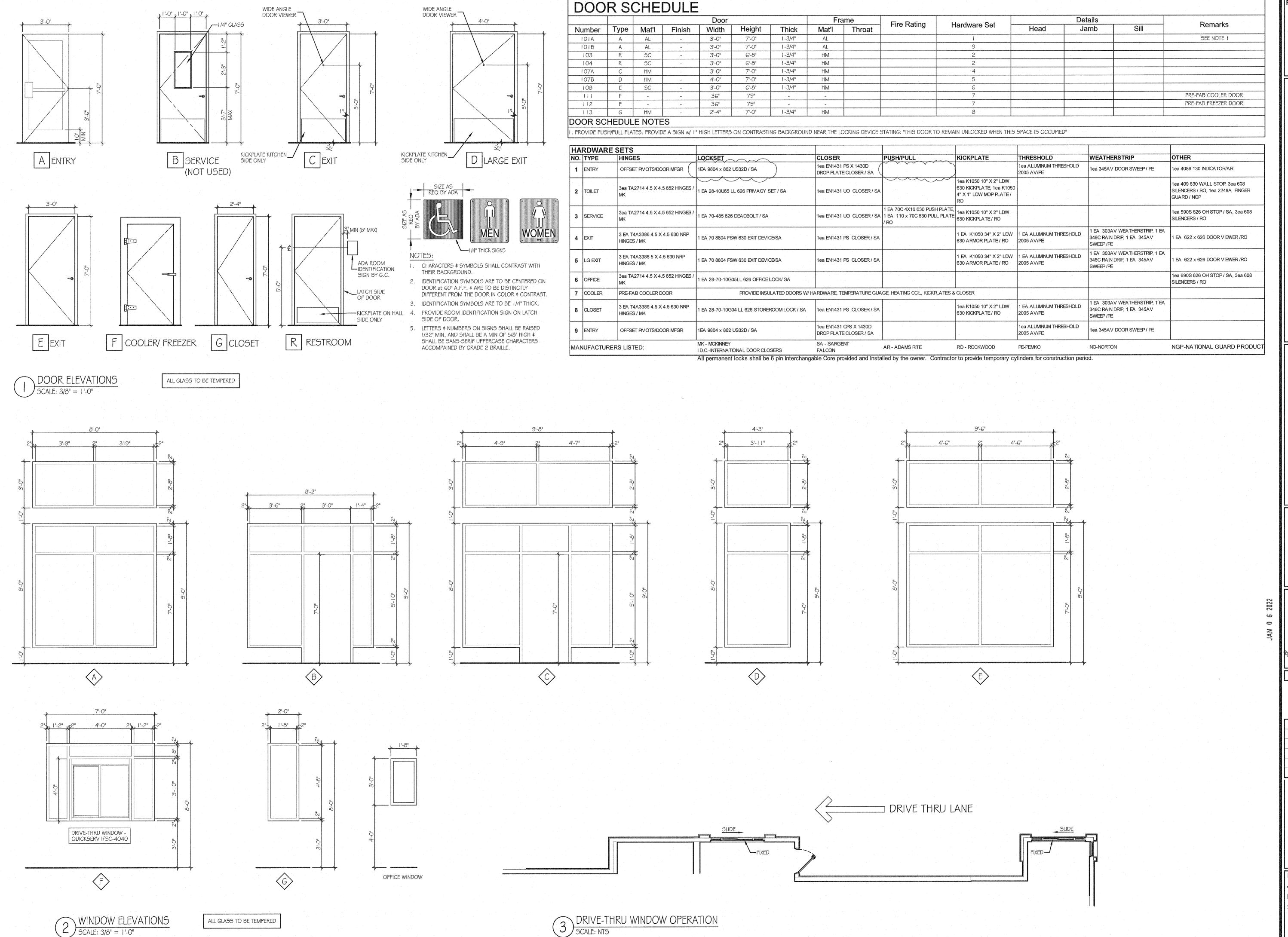
- 6. ALL PAINTED GYPSUM BOARD SHALL HAVE A LIGHT ORANGE PEEL TEXTURE
- 7. ALL MORTAR SHALL BE MIXED W/ WHITE SAND TO INSURE A COLOR CONSISTENT TO THE ORIGINAL DESIGN INTENT

TERIOR	ELEVATIONS;	SHEET	5.3 -	

LOCATION	TYPE	MFG. / PRODUCT	REMARKS
WALLS WITH TILE	AQUA TOUGH: MATCH GYP. BD THICKNESS	USG	PROVIDE CEMENT BOARD UP TO 24" A.F.F.
GENERAL LOCATIONS	TYPE 'X', THICKNESS PER WALL TYPE	USG	

REVISIONS:

SHEET NUMBER:



REVISIONS:

W ELEVATIONS

KENATIONS

SCHEDULE & DOOR & WINDOW ELEV.

BURGER

Charles
William
Pope

& ASSOCIATES

ARCHITECTURE PLANNING CONSULTING

DATE: 01.06.22

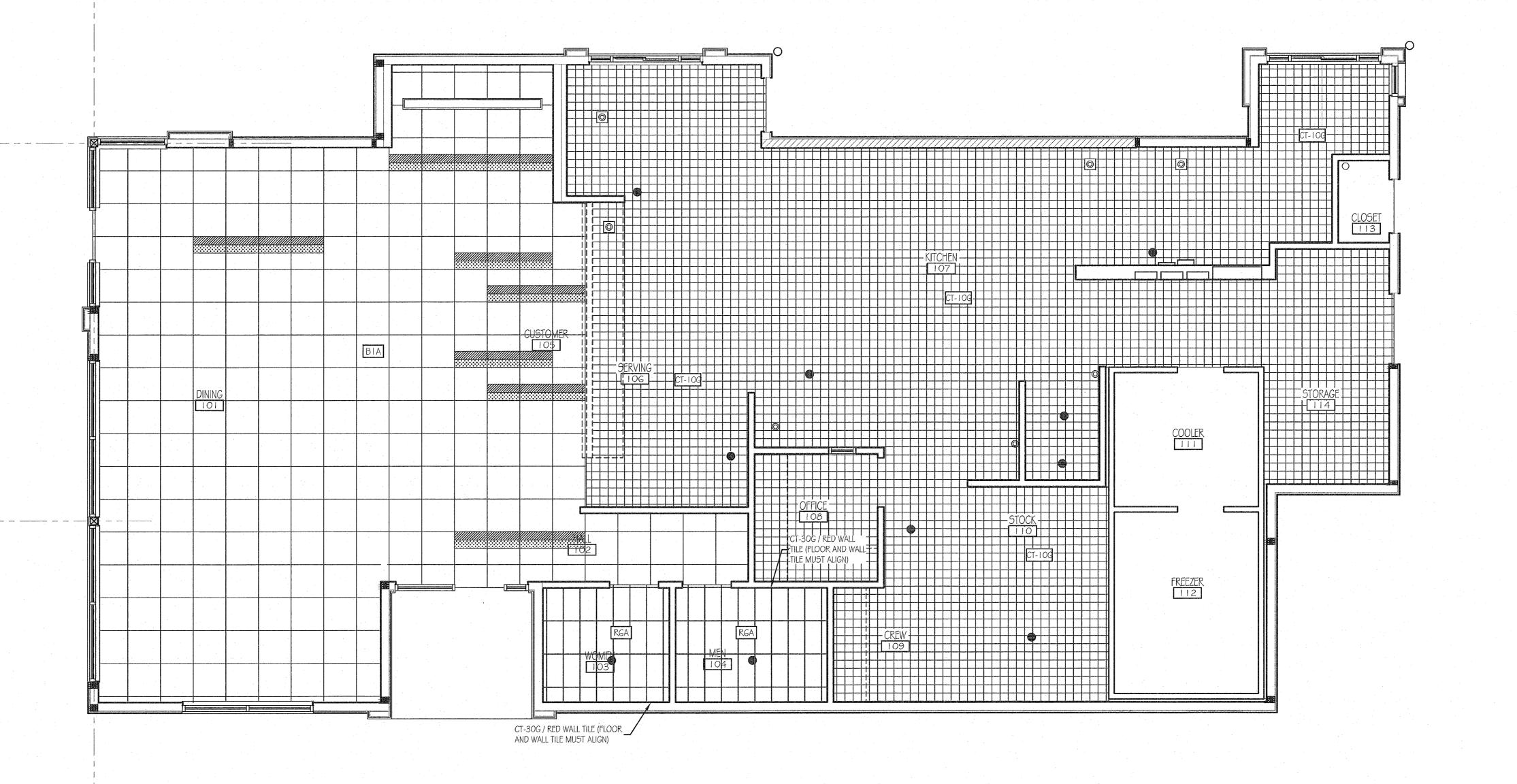
JOB NO: 44387

DRAWN BY: #R. H

SHEET NUMBER:

5.2

SEE FINAL/APPROVED DECOR PLANS BY DECOR VENDOR FOR FINAL FINISHES & DECOR



PLAN NORTH NORTH

Charles
William
Pope
& ASSOCIAtes
ARCHITECTURE PLANNING CONSULTING
7400 BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78216

SHEET NUMBER:

SUBMITTING TO ALL SUBCONTRACTORS AND SUPPLIERS PRIOR TO SUBMITTING SHOP DRAWINGS. C. DO NOT SCALE DRAWINGS OR AUTO-DIMENSION ELECTRONIC FILES. NOTIFY ARCHITECT AND ENGINEER OF ANY

DISCREPANCIES IN WRITING PRIOR TO FABRICATION OR CONSTRUCTION. D. COMPARE ALL CONTRACT DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN DISCIPLINES, AND WITHIN A GIVEN

DISCIPLINE, TO THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION AND ERECTION. E. IF A CONFLICT EXISTS AMONG THE STRUCTURAL DRAWINGS, GENERAL NOTES, THE STRICTEST REQUIREMENTS, AS INDICATED

F. COORDINATE ALL ELEVATIONS AND DIMENSIONS, INCLUDING BUT NOT LIMITED TO, OPENINGS IN WALLS AND IN ROOF AND FLOOR SYSTEMS, WITH THE ARCHITECTURAL, PLUMBING, ELECTRICAL, AND MECHANICAL PLANS.

G. VERIFY ALL DIMENSIONS, ELEVATIONS, AND ANY OTHER EXISTING CONDITIONS. NOTIFY THE ARCHITECT AND ENGINEER OF DISCREPANCIES BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. DURING THE CONSTRUCTION PROCESS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF THE EXISTING STRUCTURE AND TO PROTECT FROM DAMAGE ANY PORTIONS THAT REMAIN. THE SHORING AND BRACING SHOWN (IF ANY) IS A PARTIAL AND SCHEMATIC REPRESENTATION. DETERMINE THE ERECTION PROCEDURE TO ENSURE THE STABILITY AND SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION.

H. THE COMPLETED LATERAL-FORCE RESISTING SYSTEMS (LFRS), INCLUDING THE DIAPHRAGMS, ARE REQUIRED TO RESIST LATERAL LOADS AND PROVIDE STABILITY UNDER GRAVITY LOADS. DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS UNTIL THE LATERAL-LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER.

UNLESS NOTED OTHERWISE, DETAILS SHOWN ARE TYPICAL FOR ALL SIMILAR CONDITIONS.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS, AS WELL AS SAFETY PRECAUTIONS AND PROGRAMS.

PERFORM WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

L. PERIODIC SITE OBSERVATION BY BRITT, PETERS & ASSOCIATES, INC. IS FOR DETERMINING IF THE WORK IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. STRUCTURAL OBSERVATIONS ARE NOT INTENDED AS QUALITY CONTROL (CONTRACTOR'S RESPONSIBILITY), QUALITY ASSURANCE (SPECIAL INSPECTOR'S RESPONSIBILITY), NOR

INCLUDES, BUT IS NOT LIMITED TO, STEEL/CONCRETE COATINGS, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS. CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND CLEANING OF EXPOSED STRUCTURAL ELEMENTS.

DESIGN CRITERIA

1. GROUND SNOW LOAD

SLOPE FACTOR

7. DRIFT SURCHARGE:

13. ANALYSIS PROCEDURE:

2. FLAT ROOF SNOW LOAD

3. SNOW EXPOSURE FACTOR

4. SNOW THERMAL FACTOR:

6. SNOW IMPORTANCE FACTOR:

A. STRUCTURAL DRAWINGS A REFERENCED SECTIONS W		EMENTS OF	THE 2018 KEN	TUCKY BUILE	DING CODE (I	BC 2015) AND THE
B. DEAD LOADS:						
1. SLAB ON GRADE:	(70 PSF TOTAL)					
a. STRUCTURE	50 PSF					
b. MISCELLANEOUS	15 PSF					
c. FINISHES	5 PSF					
2. ROOF SYSTEM:	(25 PSF TOTAL)					
a. STRUCTURE	8 PSF			1.31		
L MED	7 000					

			CATEGORY		UNIFORM LOAD (PSF)	CONCENTRATED
DIN	NING ROOMS/	RESTAURANTS	OMILOGIA		100	20/12 (200)
KIT	TCHEN				150	
RC	OFS: ALL RO	OF SURFACES SU	BJECT TO WORKERS			300
RC	OFS: ORDINA	ARY ROOF	· · · · · · · · · · · · · · · · · · ·		20	

8. SNOW DRIFT WIDTH: 9. RAIN-ON-SNOW SURCHARGE:					
	SNO	W DRIFT DI	AGRAM		
	BA	ALANCED SNOW LOAD	15 PSF		
	DRIFT AREA DRIFT SURCHARGE DRIFT WIDTH				
	A 20 DSE TO 0 DSE 7'.3"				



16 PSF

SEE TABLE

EQUIVALENT LATERAL FORCE

1.0

		Α	29 PSF TO 0 PSF	7'-3"			
		B [.]	24 PSF TO 0 PSF	5'-10"] .		
						BALA	NCED SNOW LOAD
_							
E.	2. BASIC V 3. RISK CA	WIND SPEED: WIND SPEED: ATEGORY:				V _{ULT} V _{ASD}	115 MPH (3-SEC 0 90 MPH (3-SEC G
	5. INTERN	XPOSURE: IAL PRESSURE INENTS & CLAD	COEFF: DING WIND PRESSUR	ES (ULTIMATE):		B GC _{PI}	±0.18
	\M/IDTH	OF ZONE, a =	ET				
F.	SEISMIC L 1. RISK CA 2. SEISMIC 3. SHORT 4. 1-SEC F 5. SITE CL 6. SHORT 7. 1-SEC F 8. SEISMIC	OADS: ATEGORY: C IMPORTANCE PERIOD SPECTE ASS: PERIOD DESIGN C DESIGN CATE	 FACTOR: TRAL RESPONSE ACCI RAL RESPONSE ACCEI N SPECTRAL RESPONSI I SPECTRAL RESPONSI	LERATION: ISE ACCELERATION:		II I _E S _S S ₁ D S _{DS} S _{D1} C	1.0 0.178 0.092 0.19 0.147
	LIGHT-F WOOD 10. DESIGN 11. SEISMIG	RAME (WOOD)	LOAD-BEARING WALL PANELS RATED FOR S OEFFICIENT:			V C _S R	0.029 x W 0.029 6.5

WEIGHT EXCEEDS THE WEIGHT INDICATED ON THE STRUCTURAL DRAWINGS.

G. VERIFY ALL MECHANICAL EQUIPMENT WEIGHTS, LOCATIONS AND ASSOCIATED OPENINGS WITH THE MECHANICAL CONTRACTOR

AND SUBMIT INFORMATION PRIOR TO FABRICATION OF THE SUPPORTING STRUCTURE. NOTIFY THE ENGINEER IF THE ACTUAL

K. POAGE ENGINEERS & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR ACTS OR OMISSION OF THE CONTRACTOR, NOR FAILURE TO

TO CONFIRM THE QUALITY OR QUANTITY OF THE WORK. M. THE BUILDING OWNER IS RESPONSIBLE FOR PERIODIC MAINTENANCE TO ENSURE STRUCTURAL INTEGRITY. MAINTENANCE

A.	STRUCTURAL DRAWINGS ARE BASED ON THE REQUIREMEN	NTS OF	THE 2018	KENTUCKY	BUILDING CO	DE (IBC 2015) AND	THE
	REFERENCED SECTIONS WITHIN.						

٦.	STRUCTURAL DRAWINGS ARE BAS	ED ON THE REQUIRE	MENTS OF	THE 2018 KE	NTUCKY BUILI	DING CODE (IBC	2015) AND THE
	REFERENCED SECTIONS WITHIN.						
3.	DEAD LOADS:						
	1. SLAB ON GRADE:	(70 PSF TOTAL)					
	a. STRUCTURE	50 PSF					
	b. MISCELLANEOUS	15 PSF					
	c. FINISHES	5 PSF					
	2. ROOF SYSTEM:	(25 PSF TOTAL)					
	a. STRUCTURE	8 PSF			e egit		
	b. MEP	7 PSF					
	c. INSULATION AND ROOFING	10 PSF					

C.	LIVE LOADS:						
	1. LIVE LOADS ARE BASE	ED ON THE MORE RESTR	RICTIVE OF THE UN	IFORM LOAD OR	THE CONCENTRAT	ED LOAD LISTED A	ACTING
	OVER A 6.25 SQUARE	FOOT AREA. LIVE LOADS	S HAVE BEEN REDU	JCED AS PRESCR	IBED IN THE AFOR	EMENTIONED BUI	LDING
	CODE						

NO HOLES OR OPENINGS THROUGH FOUNDATION WALLS AND/OR FOOTINGS WITHOUT ENGINEER'S APPROVAL. DO NOT EMBED ALUMINUM IN CONCRETE.						
CONCRETE PROPERTIES						
	USAGE		STRENGTH (PSI)	TYPE	COMMENTS	DURABILITY CLASSIFICATION
ALL CONCRETE NOT OTHER	WISE SPECIFI	ED	3500	NWT		F0, S0, W0, C1
OOTINGS			3500	NWT		F0, S0, W0, C1
SLAB-ON-GRADE INTERIOR			3500	NWT		F0, S0, W0, C0

A. FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT BY GEOTECHNOLOGY, INC DATED

FOUNDATION SYSTEM MUST BE AS APPROVED BY THE GEOTECHNICAL ENGINEER TO ENSURE INTEGRITY OF THE BEARING

MUST BE FIELD COORDINATED. THE BOTTOM OF EXTERIOR FOUNDATION ELEVATIONS MUST BE BELOW THE FROST DEPTH

GEOTECHNICAL REPORT OR DRAWINGS. PLACE THE VAPOR RETARDER BETWEEN THE DRAINAGE COURSE AND THE SLAB. VAPOR RETARDER IS ASTM E1745, CLASS B, 10 MIL UNLESS NOTED OTHERWISE. PLACE, PROTECT AND REPAIR PER ASTM

H. ALL FOUNDATIONS, OR PORTIONS THEREOF BELOW GRADE, MAY BE EARTH FORMED BY NEAT EXCAVATIONS. DO NOT PLACE

C. SLABS TO RECEIVE MOISTURE SENSITIVE FLOOR COVERINGS MUST HAVE MAXIMUM WATER/CEMENTITIOUS MATERIAL RATIO OF

ASTM A615 GRADE 60

ASTM A1064 (65 KSI)

ASTM A1064 (70 KSI

2. DEVELOPMENT AND SPLICE LENGTHS ARE IN TENSION UNLESS NOTED OTHERWISE. REFER TO THE REINFORCING BAR LAP

c. POLYPROPYLENE FIBRILLATED FIBER MAY BE USED TO SUBSTITUTE WWR IN SLABS ON GRADE WHEN ADDED TO

4. INSTALL CORNER BARS AT ALL FOOTINGS AND WALL INTERSECTIONS TO MATCH HORIZONTAL REINFORCING SIZE AND

5. INSTALL AND SECURE REINFORCEMENT TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. PROVIDE THE

#5 & SMALLER

H. CAST FOUNDATION WALLS, GRADE BEAMS AND FOOTINGS IN ALTERNATE PANELS NOT TO EXCEED 60'-0" IN LENGTH. INSTALL

I. DO NOT USE HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ENGINEER

L. REFERENCE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF OPENINGS AND SLEEVES IN CONCRETE WALLS

AND SUPPORTED FLOORS. SPREAD REINFORCEMENT AT OPENINGS AND SLEEVES UNLESS OTHERWISE INDICATED. DO NOT

M. SLOPE CONCRETE SLABS TO FLOOR DRAINS SHOWN ON MECHANICAL, PLUMBING, CIVIL AND ARCHITECTURAL DRAWINGS.

N. BOND NEW CONCRETE TO HARDENED CONCRETE WITH A STRUCTURAL ADHESIVE BONDING AGENT PER ASTM C1059. INSTALL

6. INSTALL DOWELS TO MATCH REINFORCEMENT SIZE AND SPACING INDICATED, UNLESS NOTED OTHERWISE.

SPACING. AT INTERSECTIONS OF CONTINUOUS SPREAD FOOTINGS, EXTEND ALL BARS TO FAR SIDE OF INTERSECTING

CONCRETE MIX ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDED DOSAGES.

FOLLOWING CONCRETE COVER FOR REINFORCING, UNLESS SPECIFICALLY NOTED OTHERWISE:

SHEAR KEYS AT EACH CONSTRUCTION JOINT AND LOCATED AT 1/3 POINTS OF SPANS

K. CHAMFER ALL PERMANENTLY EXPOSED CONCRETE EDGES 3/4 INCH, UNLESS NOTED OTHERWISE

MUST APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

J. CAST SLABS AND BEAMS/JOISTS MONOLITHICALLY UNLESS NOTED OTHERWISE

G. DO NOT INSTALL FOUNDATION CONCRETE UNTIL ALL FOUNDATION WORK HAS BEEN COORDINATED WITH UNDERGROUND

J. DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATIONS. SUBMIT THE PROPOSED CONSTRUCTION DEWATERING PLAN TO THE GEOTECHNICAL ENGINEER FOR REVIEW PRIOR TO EXCAVATION.

A. CONCRETE MUST CONFORM TO THE CONCRETE PROPERTIES SPECIFIED IN THE CONCRETE PROPERTIES TABLE.

D. CONCRETE CONSTRUCTION MUST CONFORM TO THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE".

GRADING PLANS PRIOR TO PLACEMENT. FOUNDATION STEPS INDICATED ARE APPROXIMATE, UNLESS NOTED OTHERWISE, AND

E. ALL FOUNDATIONS BEAR ON UNDISTURBED EARTH OR ENGINEERED FILL AT ELEVATIONS SHOWN ON PLANS AND DETAILS.

COORDINATE FINAL TOP OF FOOTING ELEVATIONS WITH THE ARCHITECTURAL ELEVATIONS, MEP DRAWINGS AND CIVIL

F. BEAR FLOOR SLABS ON 4 INCH MINIMUM DRAINAGE COURSE (COMPACTED STONE) UNLESS NOTED OTHERWISE IN THE

JULY 18-2017 TITLED RZESZUTKO AND DACOSSE PROPERTIES (GEOTECHNICAL PROJECT NO. J029879.01).

C. REVIEW THE GEOTECHNICAL REPORT AND ADHERE TO ALL RECOMMENDATIONS WITHIN, INCLUDING CUT, SUBGRADE

D. ALL SOILS WORK, INCLUDING BACKFILL OF UTILITY TRENCHES AND THE VERIFICATION OF BEARING CAPACITY MUST BE

UNDER THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER. PROXIMITY OF UTILITY TRENCHES TO BUILDING

B. FOUNDATIONS HAVE BEEN DESIGNED USING A NET SOIL BEARING PRESSURE OF 2,000 PSF.

UTILITIES. NOTIFY THE ENGINEER OF ALL CONFLICTS BETWEEN FOUNDATIONS AND UTILITIES.

I. CENTER ALL FOUNDATIONS ON WALLS AND/OR COLUMNS, UNLESS NOTED OTHERWISE.

E. CONCRETE MATERIALS MUST CONFORM TO THE FOLLOWING SPECIFICATIONS:

F. ALL REINFORCEMENT MUST CONFORM TO THE FOLLOWING SPECIFICATIONS:

1. DETAIL AND PLACE REINFORCEMENT IN ACCORDANCE WITH ACI 315.

LENGTH SCHEDULE ON THE TYPICAL DETAIL SHEETS.

3. LAP WWR ONE CROSSWIRE SPACING PLUS 2".

B. CONCRETE MUST HAVE ALLOWABLE UNIT SHRINKAGE OF 0.045% AT 28 DAYS. (SEE ASTM C157)

FOUNDATIONS, SLABS, OR OTHER CONCRETE ON FROZEN SUBGRADE OR IN STANDING WATER.

ELEVATION 24" MEASURED FROM EXTERIOR FINISHED GRADE.

F1643 AND MANUFACTURER'S INSTRUCTIONS

2. AGGREGATE (NORMAL WEIGHT):

WELDED WIRE REINFORCEMENT (WWR):

1. ALL REINFORCING, UNO:

G. REINFORCEMENT DETAILING:

a. CAST AGAINST EARTH

CUT REINFORCEMENT.

b. EXPOSED TO EARTH/WEATHER:

c. EXPOSED TO EARTH/WEATHER:

a. SMOOTH WIRE:

318.						
STRUCTURAL STEEL						
A. HOT ROLLED STEEL BARS, I	PLATES, SHAPES AN	D SHEET PILING	MUST BE NEW	STEEL CONFOR	RMING TO ASTM A	A6. FABRICATE

3. DURABILITY CLASSIFICATION INDICATES CONCRETE REQUIREMENTS BY EXPOSURE CLASS, REFER TO TABLE 19.3.2.1 OF ACI

 $F_{\rm v} = 46 \, \rm KSI$

AND INSTALL STEEL IN ACCORDANCE WITH AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS". B. STRUCTURAL STEEL IS AS FOLLOWS, UNLESS NOTED OTHERWISE: 1. WIDE FLANGE AND WT-SHAPES 2. RECTANGULAR AND SQUARE HSS ASTM A500, GRADE B

MINIMUM STRENGTH AND MAXIMUM DENSITY MEASURED AT 28 DAYS.

3. ALL OTHER STRUCTURAL STEEL $F_{Y} = 36 \text{ KSI}$ ASTM A36 ASTM F1554 GRADE 36 4. ANCHOR RODS 5. ASTM A572 GRADE 50 IS ACCEPTABLE AS A SUBSTITUTE FOR A992. C. CENTER COLUMNS AND BEAMS ON GRID LINES UNLESS NOTED OTHERWISE.

D. STEEL CONNECTIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REFERENCED DESIGN CRITERIA.

E. BOLT CONNECTIONS (UNLESS OTHERWISE NOTED OR REQUIRED): 1. BOLTS - ASTM F3125, GRADE A325

2. WASHERS - ASTM F436: TYPE 1 3. NUTS - ASTM A563, GRADE DH

2. NWT = NORMAL WEIGHT CONCRETE

4. CONNECT A MINIMUM OF ONE-HALF (1/2) THE DEPTH OF THE MEMBER

5. UNLESS NOTED OTHERWISE, BOLTS MAY BE TIGHTENED TO THE "SNUG TIGHT" CONDITION IN LIEU OF PRETENSIONING, USE

BEARING CONNECTIONS WITH THREADS INCLUDED FOR ALL OTHER CONNECTIONS. F. WELD CONNECTIONS (UNLESS NOTED OTHERWISE) 1. WELDING IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE - STEEL".

2. USE E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW) ELECTRODES FOR WELDING, UNLESS NOTED OTHERWISE.

3. SHOW ALL FIELD WELDS REQUIRED ON ERECTION DRAWINGS. 4. USE CONTINUOUS 1/4" FILLET WELDS UNLESS NOTED OTHERWISE G. CUTS INDICATED ON THE DRAWINGS, OR AS REQUIRED FOR OTHER TRADES, MUST BE MADE IN THE SHOP AND SHOWN ON THE SHOP DRAWINGS. FIELD PERFORMED HOLES OR CUTS ARE NOT PERMITTED WITHOUT ENGINEER APPROVAL.

H. INSTALL NONMETALLTIC SHRINKAGE-RESISTANT GROUT BELOW BASE PLATES, IN ACCORDANCE WITH ASTM C1107 AND A MINIMUM STRENGTH OF 6,000 PSI. I. FABRICATE STRUCTURAL STEEL WITH ONE COAT OF SHOP PRIMER EXCEPT THE FOLLOWING MEMBERS: GALVANIZED

SURFACES, SLIP-CRITICAL SURFACES, SURFACES TO BE FIELD WELDED, SURFACES TO RECEIVE FIRE PROOFING. OR UNLESS NOTED OTHERWISE, COORDINATE AREAS TO BE FIREPROOFED WITH ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION. J. GALVANIZED STRUCTURAL STEEL: ASTM A123 OR ASTM A153. GALVANIZE AFTER FABRICATION. GALVANIZE ALL EXTERIOR EXPOSED STEEL, UNLESS NOTED OTHERWISE. REPAIR DAMAGED GALVANIZED COATINGS IN ACCORDANCE WITH ASTM A780.

K. UNLESS NOTED OTHERWISE, THE TOP OF ALL STEEL COLUMNS ARE FABRICATED WITH A STEEL CAP PLATE - MINIMUM CAP PLATE DIMENSIONS MATCH COLUMN WIDTH AND DEPTH, AND MINIMUM THICKNESS OF CAP PLATE EQUALS COLUMN WEB THICKNESS (1/2" MIN).

L. COORDINATÈ THE EXACT LOCATION AND SIZE OF ALL OPENINGS FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION.

M. REFERENCE THE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL STEEL (IF ANY) NOT INDICATED ON THE STRUCTURAL DRAWINGS.

ROUGH CARPENTRY

a. GRADING PER DOC PS 20 AND APPLICABLE GRADING AGENCY RULES. FACTORY MARK EACH PIECE WITH GRADING

AGENCY GRADE STAMP. b. MAXIMUM MOISTURE CONTENT: 19%

PROTECT MATERIALS FROM WEATHER SORT AND SELECT LUMBER SO NATURAL CHARACTERISTICS DO NOT INTERFERE WITH INSTALLATION OR FASTENING. e. PASS PLUMBING AND CONDUIT THROUGH HOLES, NOT NOTCHES, IN STUDS, SILLS AND PLATES. CENTER HOLES IN THE

MEMBER DEPTH. USE GALVANIZED NAIL STOPPERS (16 GAGE MIN.) ON BOTH FACES OF BORED MEMBERS IN ACCORDING WITH THE

GOVERNING PLUMBING/ELECTRICAL CODE. 2. PRESERVATIVE-TREATED (PT):

PRESERVATIVE TREATMENT PROCESS: AWPA U1 CATEGORY UC2 FOR INTERIOR CONSTRUCTION NOT IN CONTACT WITH GROUND

CATEGORY UC3b FOR EXTERIOR CONSTRUCTION NOT IN CONTACT WITH GROUND CATEGORY UC4a FOR ITEMS IN CONTACT WITH GROUND

 CHEMICALS USED MUST BE ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND NOT CONTAIN ARSENIC CHROMIUM, NOR AMMONIA-CAL COPPER ZINC ARSENATE (ACZA). DO NOT USE INORGANIC BORON (SBX) FOR SILL b. KILN-DRY AFTER TREATMENT TO A MAXIMUM MOISTURE CONTENT OF 19 PERCENT.

MARK LUMBER WITH TREATMENT QUALITY MARK OF AN INSPECTION AGENCY APPROVED BY THE ALSC BOARD. UNLESS NOTED OTHERWISE, INSTALL PT LUMBER AS FOLLOWS:

EXTERIOR LOCATIONS. WOOD MEMBERS IN CONTACT WITH MASONRY, MORTAR, GROUT OR CONCRETE

WOOD FRAMING MEMBERS LESS THAN 18 INCHES ABOVE GROUND IN CRAWLSPACES OR UNEXCAVATED AREAS.

UNLESS NOTED OTHERWISE: SOUTHERN PINE NO.2 OR BETTER. SPIB

EXTERIOR WALLS: SOUTHERN PINE NO.2 OR BETTER, SPIB; OR SPRUCE PINE FIR, NO.1 OR BETTER, NLGA

NAILS, BRADS, AND STAPLES: ASTM F1667

FASTENERS USED IN PRESERVATIVE-TREATED OR FIRE-TREATED LUMBER ARE GALVANIZED TO ASTM STANDARD B695 3. FASTÉNERS USED IN PROXIMITY TO SALTWATER SPRAY ARE MANUFACTURED FROM TYPE 316 STAINLESS STEEL OR HOT DIP

4. AS A MINIMUM, FASTEN ALL WOOD FRAMING TO COMPLY WITH THE "FASTENING SCHEDULE" OF THE REFERENCED BUILDING CODE AND THE ICC-ES EVALUATION REPORT FOR FASTENERS.

5. USE STEEL COMMON NAILS UNLESS NOTED OTHERWISE STAGGER FASTENERS TO PREVENT SPLITTING, INCLUDING PARALLEL TO GRAIN SPLITTING.

FASTEN MULTI-PLY MEMBERS TOGETHER USING (3) ROWS OF 16d NAILS AT 12 INCHES OC, UNLESS NOTED OTHERWISE. D. CONNECTORS

INSTALL CONNECTORS COMPLYING WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, INSTALL FASTENERS THROUGH EACH FASTENER HOLE, UNLESS NOTED OTHERWISE. 2. CONNECTORS INDICATED ARE MANUFACTURED BY SIMPSON STRONG-TIE, INC. CONNECTORS BY OTHER MANUFACTURERS

MAY BE USED IF THE LOAD CAPACITY IS EQUAL TO OR GREATER THAN THE CONNECTOR SPECIFIED. USE MANUFACTURER'S RECOMMENDED FASTENERS, UNLESS NOTED OTHERWISE CONNECTORS HAVE A MINIMUM CORROSION PROTECTION OF G90 GALVANIZATION COMPLYING WITH ASTM A653.

4. CONNECTORS IN CONTACT WITH PRESSURE TREATED OR FIRE TREATED LUMBER ARE MANUFACTURED FROM SIMPSON ZMAX (G185 GALVANIZED) STEEL COMPLYING WITH ASTM A653.

5. CONNECTORS IN PROXIMITY TO SALTWATER SPRAY ARE MANUFACTURED FROM TYPE 316 STAINLESS STEEL OR HOT DIP GALVANIZED TO ASTM STANDARD A123 - CLASS C. E. ERECTION TOLERANCES

FRAMING MEMBERS COVERED BY FINISHES SUCH AS WALLBOARD, PLASTER OR CERAMIC TILE SET IN A MORTAR SETTING BED, MUST BE WITHIN THE FOLLOWING LIMITS:

a. LAYOUT OF WALLS AND PARTITIONS: 1/4 INCH FROM THE INTENDED POSITION b. PLATES AND RUNNERS: 1/4 INCH IN 8 FEET FROM A STRAIGHT LINE

c. STUDS: 1/4 INCH IN 8 FEET OUT OF PLUMB, NOT CUMULATIVE

FACE OF FRAMING MEMBERS: 1/4 INCH IN 8 FEET FROM A TRUE PLANE 2. FRAMING MEMBERS COVERED BY CERAMIC TILE SET IN DRY-SET MORTAR, LATEX-PORTLAND CEMENT MORTAR OR ORGANIC

ADHESIVE MUST BE WITHIN THE FOLLOWING LIMITS: a. LAYOUT OF WALLS AND PARTITIONS: 1/4 INCH FROM THE INTENDED POSITION

b. PLATES AND RUNNERS: 1/8 INCH IN 8 FEET FROM A STRAIGHT LINE STUDS: 1/8 INCH IN 8 FEET OUT OF PLUMB, NOT CUMULATIVE

d. FACE OF FRAMING MEMBERS: 1/8 INCH IN 8 FEET FROM A TRUE PLANE

WALL CONSTRUCTION UNLESS NOTED OTHERWISE USE SINGLE BOTTOM PLATE AND DOUBLE TOP PLATES USING 2x MEMBERS WITH WIDTHS EQUAL

TO THE WALL STUDS. FASTEN PLATES TO SUPPORTING CONSTRUCTION. SPLICE TOP PLATES WITHIN THE CENTER THIRD OF THE TOTAL WALL LENGTH WITH A 4 FOOT MINIMUM LAP, UNLESS NOTED OTHERWISE. 2. EXTERIOR WALLS: 2x6 STUDS AT 16 INCHES OC MAX SPACING, UNLESS NOTED OTHERWISE

INSTALL HORIZONTAL BLOCKING AT WALL MIDHEIGHT. BLOCKING IS 2x MEMBERS WITH WIDTHS EQUAL TO THE STUDS. CONSTRUCT CORNERS AND INTERSECTIONS WITH THREE OR MORE STUDS.

FRAME WALL OPENINGS WITH MULTIPLE JAMBS STUDS AND HEADERS AS INDICATED. INSTALL HEADER MEMBERS WITH THICKNESS EQUAL TO WIDTH OF THE WALL STUDS.

WOOD SHEATHING

1. WOOD SHEATHING REFERS TO WOOD STRUCTURAL PANELS, OF EITHER PLYWOOD OR ORIENTED STRAND BOARD (OSB). 2. WOOD SHEATHING IS APA-RATED SHEATHING, COMPLYING WITH PRODUCT STANDARD DOC PS1 OR DOC PS2. WOOD

SHEATHING MANUFACTURER MUST BE A MEMBER OF THE AMERICAN PLYWOOD ASSOCIATION (APA). 3. PROTECT WOOD SHEATHING FROM WEATHER AND PROVIDE FOR AIR CIRCULATION AROUND STACKS AND UNDER

4. PANELS MUST HAVE FACTORY MARKS INDICATING COMPLIANCE WITH APPLICABLE STANDARDS.

5. THICKNESS NOT LESS THAN INDICATED, AND AS REQUIRED TO COMPLY WITH SPECIFIED REQUIREMENTS. 6. INSTALL SHEATHING WITH THE STRENGTH DIRECTION (TYPICALLY LONG DIMENSION) PERPENDICULAR TO FRAMING AND

WITH END JOINTS STAGGERED . DO NOT USE MATERIALS WITH DEFECTS IMPAIRING THE QUALITY OF SHEATHING OR PIECES TOO SMALL TO USE WITH

MINIMUM NUMBER OF JOINTS. LAYOUT PANELS TO SPAN BETWEEN AT LEAST THREE SUPPORT MEMBERS. 8. COORDINATE SHEATHING INSTALLATION WITH FLASHING AND JOINT-SEALANT INSTALLATION SO MATERIAL'S ARE INSTALLED IN A SEQUENCE AND MANNER PREVENTING EXTERIOR MOISTURE FROM PASSING THROUGH THE COMPLETED

ASSEMBLY. 9. DO NOT BRIDGE BUILDING EXPANSION JOINTS.

NOT LESS THAN 1/2 INCH

10d RING SHANK NAILS

NOT LESS THAN 40/20

8d RING SHANK NAILS

NOT LESS THAN 5/8 INCH

EXPOSURE 1

6 INCHES OC

6 INCHES OC

12 INCHES OC

EXPOSURE 1

4 INCHES OC

6 INCHES OC

10. WHERE EITHER 2 INCH OR 2 1/2 INCH FASTENER SPACINGS ARE SPECIFIED TO 2 INCH OR LESS FRAMING MEMBERS. THE FRAMING MEMBER AT ADJOINING PANEL EDGES MUST BE 2 1/2 INCH WIDE OR GREATER. STAGGER FASTENERS AT PANEL EDGES IN TWO LINES.

B. WALL SHEATHING NOT LESS THAN 32/16

1. SPAN RATING 2. NOMINAL THICKNESS:

3. EXPOSURE AND DURABILITY CLASSIFICATION:

4. FASTENING METHOD, UNLESS NOTED OTHERWISE: a FASTENERS:

b. BOUNDARY EDGE SPACING: c. PANEL EDGE SPACING: d. FIELD SPACING:

5. REFERENCE SHEARWALL DETAILS FOR SHEARWALL SHEATHING FASTENING, BLOCKING AND OTHER DETAILS. C. ROOF SHEATHING 1. SPAN RATING: 2. NOMINAL THICKNESS:

3. EXPOSURE AND DURABILITY CLASSIFICATION: 4. FASTENING METHOD, UNLESS NOTED OTHERWISE: a. FASTENERS:

b. BOUNDARY EDGE SPACING: c. PANEL EDGE SPACING:

12 INCHES OC d. FIELD SPACING: 5. UNLESS NOTED OTHERWISE, INSTALL BLOCKING AT ALL SHEATHING EDGES AND FASTEN SHEATHING EDGES TO BLOCKING ACCORDING TO PANEL EDGE SPACING.

1. AS A MINIMUM, FASTENING TO COMPLY WITH THE "FASTENING SCHEDULE" OF THE REFERENCED BUILDING CODE AND THE ICC-ES EVALUATION REPORT FOR FASTENERS. 2. USE STEEL COMMON NAILS INTO WOOD FRAMING AND SCREWS INTO COLD-FORMED METAL FRAMING, UNLESS NOTED

OTHERWISE. 3. NAILS, BRADS, AND STAPLES: ASTM F1667. 4. SCREWS FOR FASTENING SHEATHING TO WOOD FRAMING: ASTM C1002.

5. SCREWS FOR FASTENING SHEATHING TO COLD-FORMED METAL FRAMING: ASTM C954, EXCEPT WITH WAFER HEADS (MIN HEAD DIA=0.333 INCHES) AND REAMER WINGS, LENGTH AS RECOMMENDED BY SCREW MANUFACTURER. 6. FOR ROOF, PARAPET, AND WALL SHEATHING, USE FASTENERS WITH HOT-DIP ZINC COATING COMPLYING WITH ASTM A153

OR TYPE 304 STAINLESS STEEL. 7. FOR ROOF, PARAPET, AND WALL SHEATHING WITH ORGANIC-POLYMER OR OTHER CORROSION-PROTECTION COATINGS,

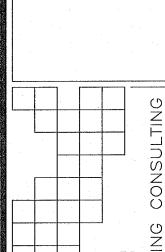
USE FASTENERS WITH A SALT-SPRAY RESISTANCE OF MORE THAN 800 HOURS ACCORDING TO ASTM B117.

REVISIONS:











DRAWN BY: SHEET NUMBER

PREFABRICATED WOOD TRUSSES

- A. DESIGN TRUSSES IN ACCORDANCE WITH THE "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION" (NDS) AND ITS "SUPPLEMENT", AS WELL AS THE TRUSS PLATE INSTITUTE (TPI). DESIGN TRUSSES FOR THE DESIGN CRITERIA INDICATED.

 B. FABRICATE, INSTALL AND BRACE TRUSSES IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE (TPI).
- C. SUBMIT SHOP DRAWINGS AND CALCULATIONS SEALED BY REGISTERED PROFESSIONAL ENGINEER, INCLUDING TRUSS LAYOUT, TRUSS PROFILES, INSTALLATION INSTRUCTIONS, DESIGN LOADINGS AND REACTIONS APPLIED TO THE SUPPORTING STRUCTURE. DESIGN TRUSSES USING 'PIN' CONNECTION AT ONE SUPPORT AND 'ROLLER' CONNECTION AT OTHER SUPPORT LOCATIONS. 'PIN' IS DEFINED AS A SUPPORT RESISTING VERTICAL AND HORIZONTAL LOADS. 'ROLLER' IS DEFINED AS RESISTING ONLY VERTICAL LOADS. DO NOT FABRICATE TRUSSES UNTIL SHOP DRAWINGS HAVE BEEN SUBMITTED AND
- RETURNED. DESIGN TRUSSES TO BEAR ONLY ON THE STRUCTURAL SUPPORT MEMBERS INDICATED.

 D. WOOD FRAMING MEMBERS: PS 20 "AMERICAN SOFTWOOD LUMBER STANDARD"
- 1. SOUTHERN PINE NO. 2 OR BETTER, SPIB
 2. 19 PERCENT MAXIMUM MOISTURE CONTENT
- 3. SELECT FRAMING MEMBERS SO KNOTS OR OTHER WOOD IMPERFECTIONS DO NOT OCCUR AT PANEL POINTS/CONNECTOR PLATES.
- E. METAL CONNECTOR PLATES, UNLESS NOTED OTHERWISE: ASTM A653 WITH G60 GALVANIZED COATING
- F. REFERENCE ROUGH CARPENTRY NOTES FOR WOOD-PRESERVATIVE-TREATED LUMBER.
 G. LIMIT TRUSS AND MEMBER DEFLECTIONS PER REFERENCED BUILDING CODE.
- H. TRUSS TO TRUSS CONNECTIONS ARE BY THE TRUSS ENGINEER. WHERE MULTIPLE TRUSS PLIES ARE INDICATED, FASTEN TOGETHER AS INDICATED BY THE TRUSS MANUFACTURER.

 I. TRUSS CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION
- OF THE TRUSSES, OR AS RECOMMENDED BY THE MANUFACTURER AND TPI, IN ADDITION TO ANY BRACING INDICATED.

 J. DESIGN AND INSTALL BOTTOM CHORD BRACING WHERE CEILING SHEATHING DOES NOT ATTACH DIRECTLY TO TRUSS BOTTOM CHORD. COORDINATE EXTENTS OF CEILING SHEATHING WITH ARCHITECTURAL DRAWINGS.
- K. REFER TO THE ARCHITECTURAL DRAWINGS FOR TRUSS PROFILES. TRUSS PROFILES INDICATED ON THE STRUCTURAL DRAWINGS ARE FOR SCHEMATIC PURPOSES ONLY. COORDINATE TRUSS WEB CONFIGURATION WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS. TRUSS MANUFACTURER MAY USE ALTERNATIVE TRUSS WEB CONFIGURATIONS SUBJECT TO APPROVAL OF THE ARCHITECT. ALIGN WEB MEMBERS IN ADJACENT TRUSSES OF THE SAME PROFILE TO PERMIT PASSAGE OF DUCTWORK.
- L. TRUSS ANCHORAGES AND HOLDOWNS ARE BASED ON TRUSS LAYOUT INDICATE. COORDINATE FINAL LOCATION OF GANGED STUDS AND HOLDOWNS WITH TRUSS SHOP DRAWINGS.

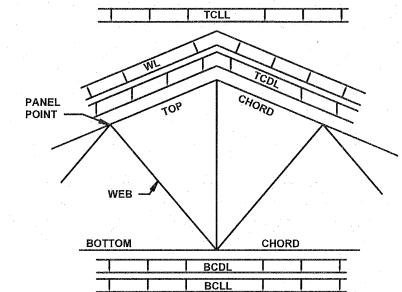
ROOF TRUSS DESIGN CRITERIA

BCDL = 10 PSF BCLL = 10 PSF

TCLL = ROOF LIVE LOAD PER DESIGN CRITERIA
WL = WIND LOAD PER DESIGN CRITERIA
SL = SNOW LOAD (INCLUDING DRIFT) PER
DESIGN CRITERIA

- STUDS AND HOLDOWNS WITH TRUSS SHOP DRAWINGS.
 M. INSTALL TRUSS HOLDOWNS PRIOR TO SHEATHING.
 N. DO NOT ALTER TRUSSES IN FIELD WITHOUT WRITTEN DIRECTION FROM TRUSS ENGINEER. DO NOT CUT, DRILL, NOTCH OR
- REMOVE TRUSS MEMBERS.

 O. TRUSS DIAGRAMS BELOW ARE FOR SCHEMATIC PURPOSES ONLY TO SHOW THE APPLICATION OF DESIGN LOADS. COMBINE LOADS PER THE REFERENCED BUILDING CODE.



POST-INSTALLED ANCHORS

- A. ONLY USE POST-INSTALLED ANCHORS WHERE SPECIFIED ON THE DRAWINGS.
- B. OBTAIN APPROVAL FROM THE ENGINEER OF RECORD PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
- C. LOCATE EXISTING REBAR, REINFORCING AND ANCHORS PRIOR TO DRILLING. DO NOT DAMAGE OR DISTURB EXISTING REBAR, REINFORCING OR ANCHORS.
 D. INSTALL ANCHORS ACCORDING TO MANUFACTURER'S INSTRUCTIONS, INCLUDING BUT NOT LIMITED TO: EXPIRATION DATE,
- INSTALLATION TEMPERATURE, DRILLING METHOD, HOLE SIZE, HOLE DEPTH, HOLE CLEANING, MIXING PROCEDURE, ANCHOR INSTALLATION AND CURING. CONTACT THE MANUFACTURER PRIOR TO DRILLING IF TRAINING IS REQUIRED.

 E. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR MINIMUM EDGE DISTANCES AND SPACING.
- FOLLOW MANUFACTURER'S INSTRUCTIONS FOR MINIMUM EDGE DISTANCES AND SPACING.

 F. UNLESS NOTED OTHERWISE, EMBED ANCHORS IN THE APPROPRIATE SUBSTRATE WITH A MINIMUM EMBEDMENT OF 8 TIMES
 THE NOMINAL ANCHOR DIAMETER OR THE EMBEDMENT REQUIRED TO SUPPORT THE INTENDED LOAD.

 G. ADHESIVE ANCHOR DESIGN BOND STRENGTH IS BASED ON CRACKED CONCRETE, ACI 355.4 TEMPERATURE CATEGORY B, AND
- INSTALLATIONS INTO DRY HOLES DRILLED USING A HAMMER DRILL INTO CONCRETE CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS MUST BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318.

 H. INSPECT ANCHOR INSTALLATION PER APPLICABLE BUILDING CODE AND SPECIAL INSPECTION REQUIREMENTS.

 I. SUBMIT SUBSTITUTION REQUESTS TO THE STRUCTURAL ENGINEER, INCLUDING CALCULATIONS PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER SHOWING THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY
- USING THE APPROPRIATE DESIGN PROCEDURE REQUIRED BY THE BUILDING CODE.

 J. ACCEPTABLE PRODUCTS ARE:
- 1. CONCRETE MECHANICAL ANCHORS: a. HILTI KB-TZ
- b. HILTI KWIK HUS-EZ
- c. SIMPSON STRONG-TIE TITEN-HD
 d. SIMPSON STRONG-TIE "STRONG-BOLT 2"
 2. CONCRETE ADHESIVE ANCHORS:
- a. HILTI RE500-SD b. HILTI HY200
- c. SIMPSON STRONG-TIE "SET-XP"
 d. SIMPSON STRONG-TIE "AT-XP"
- 3. MASONRY MECHANICAL ANCHORS:
- a. SOLID GROUTED CMUHILTI KWIK HUS-EZ
- SIMPSON STRONG-TIE "TITEN-HD"
 SIMPSON STRONG-TIE "STRONG-BOLT 2"
- b. HOLLOW CMU:
 SIMPSON STRONG-TIE "TITEN-HD"
- 4. MASONRY ADHESIVE ANCHORS:a. SOLID-GROUTED CMU
- SIMPSON STRONG-TIE "SET-XP"SIMPSON STRONG-TIE "AT-XP"
- HILTI HY270
 HOLLOW CMU:
- SIMPSON STRONG-TIE "SET"
 HILTI HY270

SPECIAL INSPECTIONS AND TESTING

- A.SPECIAL INSPECTIONS AND TESTING ARE PERFORMED IN ACCORDANCE WITH IBC CHAPTER 17 AND LOCAL JURISDICTION PROVISIONS, BY AN INDEPENDENT INSPECTION AND TESTING AGENCY. THE SPECIAL INSPECTOR MUST OBSERVE AND TEST THE WORK FOR CONFORMANCE TO THE CONTRACT DOCUMENTS.
- B. THE SPECIAL INSPECTOR MUST FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD, AND ALL OTHER DESIGNATED INDIVIDUALS. ALL DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE
- CONTRACTOR FOR CORRECTION, THEN, IF NOT CORRECTED, TO THE PROPER DESIGN AUTHORITY AND THE BUILDING OFFICIAL. C. THE SPECIAL INSPECTOR MUST SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK IS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, SOILS REPORT AND APPLICABLE
- WORKMANSHIP OF THE BUILDING CODE.

 D. STATEMENT AND SCHEDULE OF SPECIAL INSPECTIONS IS PART OF THE CONTRACT DOCUMENTS.

SUBMITTALS

- A. CONTRACTOR MUST REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMITTING FOR REVIEW. SUBMIT SHOP DRAWINGS
 TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW. FABRICATE AND CONSTRUCT FROM THE REVIEWED SUBMITTALS. ALLOW
 10 BUSINESS DAYS FOR EACH SUBMITTAL REVIEW UNLESS AN ALTERNATE REVIEW TIME IS AGREED UPON BY ALL PARTIES. IN
 THE EVENT MULTIPLE SUBMITTALS ARE SUBMITTED AT THE SAME TIME, THE CONTRACTOR MUST INDICATE WHICH
 SUBMITTALS HAVE PRIORITY.
- B. MAINTAIN A RECORD SET OF APPROVED SHOP DRAWINGS IN THE FIELD.
- C. SUBMIT IN WRITING ANY DEVIATION FROM, ADDITION TO, SUBSTITUTION FOR, OR MODIFICATION TO, THE STRUCTURE OR ANY PART OF THE STRUCTURE DETAILED, TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS SUBMITTED FOR REVIEW DO NOT CONSTITUTE "IN-WRITING" UNLESS IT IS CLEARLY NOTED SPECIFIC CHANGES ARE BEING REQUESTED.
- D. PREPARE A LIST AND SCHEDULE OF ALL STRUCTURAL SUBMITTALS PRIOR TO CONSTRUCTION.
 E. SUBMIT THE FOLLOWING SHOP DRAWINGS FOR THE ENGINEER'S REVIEW:
- 2. REINFORCING STEEL
 3. MISCELLANEOUS STEEL

1. CONCRETE MIX DESIGNS

- 3. MISCELLANEOUS STEEL
 4. METAL AND FABRIC CANOPIES CONNECTION TO BUILDING IS BY SUPPLIER (1, 3)
- 5. STRUCTURAL STEEL, SHOP AND ERECTION DRAWINGS (1, 3)
 6. PREFABRICATED WOOD TRUSSES (1, 3)
- F. SUBMIT ITEMS MARKED (1) SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMIT ITEMS MARKED (2) FOR OWNER'S RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED. SUBMIT ITEMS MARKED (3) WITH DESIGN CALCULATIONS SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED.
- THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS DOES NOT
 RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF
 WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.
- G. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEM TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

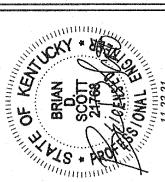
SPECIAL INSPECTIONS PER CHAPTER 17 OF THE KENTUCKY BUILDING CODE

			YES N	0	
	1704.2.5	FABRICATORS	_X		FABRICATION OF WOOD TRUSSES PER SECTION 1704.2.5
	1704.5.1	STRUCTURAL OBSERVATION FOR SEISMIC REQUIREMENTS	X		SEISMIC DESIGN CATEGORY "C"
	1704.5.2	STRUCTURAL OBSERVATION FOR WIND REQUIREMENTS	X	<u></u>	Vasd = 89mph.
	1705.2	STEEL	X	<u>(</u>	PER AISC 360 & TABLE 1705.2.2
	1705.3	CONCRETE	X	<u> </u>	PER TABLE 1705.3
*	1705.4	MASONRY	<u>X</u>		LEVEL B TMS 402/ACI 530/ASCE 5
	1705.5	WOOD	_X		PER SECTION 1705.5
	1705.6	SOILS	<u>X</u>		PER TABLE 1705.6
	1705.7	DRIVEN DEEP FOUNDATIONS	X	<u>(</u>	NONE
	1705.8	CAST IN PLACE DEEP FOUNDATIONS	X	<u>(</u>	NONE
	1705.9	HELICAL PILE FOUNDATIONS	X	<u>(</u>	NONE
	1705.10.1	WIND - STRUCTURAL WOOD	X	<u>(</u>	NONE
	1705.10.2	WIND - COLD FORMED STEEL FRAMING	X	<u></u>	NONE
	1705.10.3	WIND - WIND RESISTING COMPONENTS	X	<u> </u>	NONE
,	1705.11.1	SEISMIC - STRUCTURAL STEEL	X	<u> </u>	SEISMIC DESIGN CATEGORY "C"
	1705.11.2	SEISMIC - STRUCTURAL WOOD	X	<u></u>	PER SECTION 1705.10.1
	1705.11.3	SEISMIC - COLD FORMED STEEL FRAMING	X	<u> </u>	SEISMIC DESIGN CATEGORY "C"
	1705.11.4	DESIGNATED SEISMIC SYSTEMS	X	<u>(</u>	NONE
	1705.11.5	SEISMIC - ARCHITECTURAL COMPONENTS - INTERIOR/EXTERIOR NON-LOAD BEARING WALLS AND VENEER IN STRUCTURES	X	<u> </u>	SEISMIC DESIGN CATEGORY "C"
	1705.11.6	SEISMIC - MECHANICAL AND ELECTRICAL COMPONENTS	X		SEISMIC DESIGN CATEGORY "C"
1	1705.11.7	SEISMIC — STORAGE RACKS AND ACCESS FLOORS	X	<u>(</u>	NONE
1	1705.13	SPRAYED FIREPROOFING	X		NONE
1	1705.14	FIREPROOFING	X		NONE
1	1705.15	E.I.F.S.	X		NONE
	1705.16	FIRE RESISTANT PENETRATIONS & JOINTS	X	<u>(</u>	NONE
	1705.17	SMOKE CONTROL	X	<u>(</u>	NONE

REVISIONS:







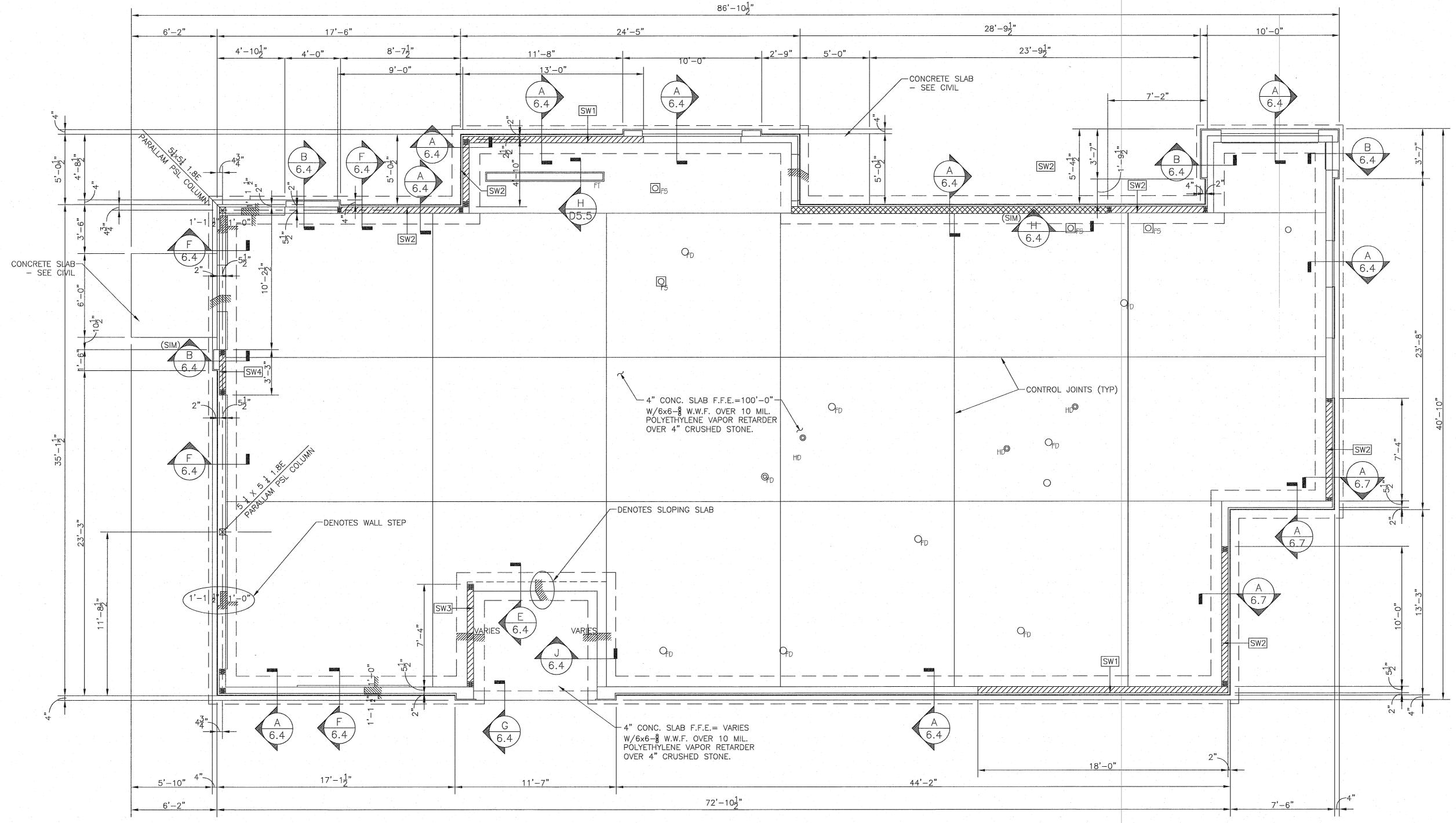
ppe OCIATES TURE PLANNING CONSULTING RD., SUITE 257, SAN ANTONIO, TX. 78216

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NO: 21234
N BY: MWF

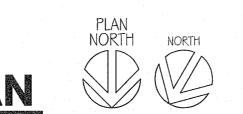
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JOB NO: DRAWN BY: SHEET NUMBER:



FOUNDATION PLAN



FOUNDATION PLAN NOTES:

1. REF. PLAN FOR TOP OF SLAB ELEVATION (T/SLAB). COORDINATE WITH ARCHITECTURAL AND CIVIL. TOP OF EXTERIOR SPREAD FOOTING (T/FTG) = 2'-0" BELOW FINISHED FLOOR, TYPICAL UNO.
 TOP OF INTERIOR SPREAD FOOTING (T/FTG) = 0'-8" BELOW FINISHED FLOOR, TYPICAL UNO. 4. ALL WOOD THAT IS PERMANENTLY EXPOSED TO THE EXTERIOR SHALL BE PRESERVATIVE-TREATED UNO.

5. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR SLAB PENETRATIONS AND UNDERGROUND UTILITIES. ALL FOOTINGS TO BE CENTERED ON COLUMNS AND WALLS THEY SUPPORT, UNO.
 REFER TO ARCHITECTURAL DRAWINGS FOR EXTENTS AND DIMENSIONS OF RAISED/DEPRESSED SLABS AND AREAS REQUIRING SLOPES AND DRAINS.

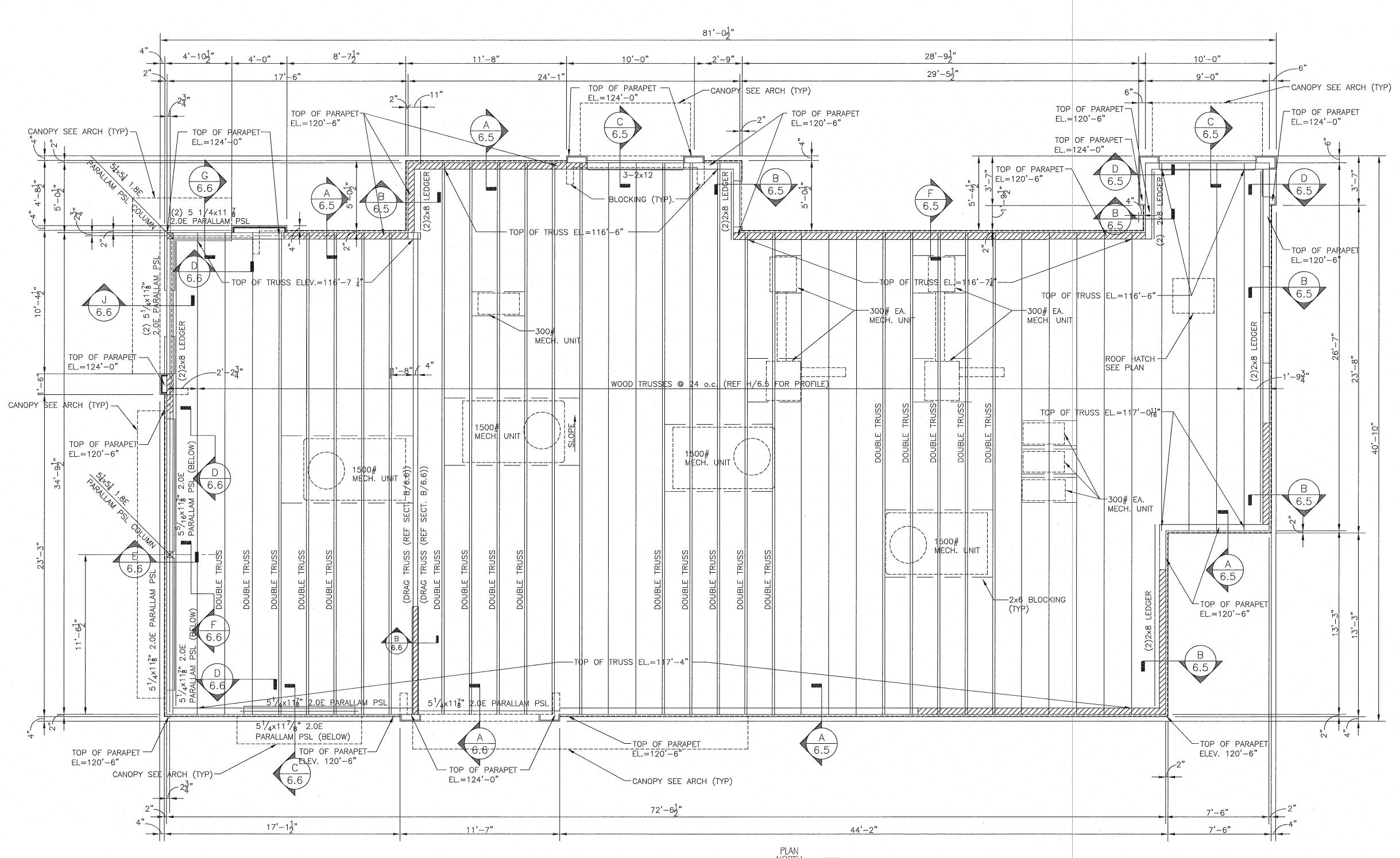
8. SW# DENOTES SHEAR WALL, REF S6.4 FOR SCHEDULE.

WALL FRAMING NOTES

2x6 STUDS @ 16" o.c. W/ 1/2" A.P.A. RATED SHEATHING W/ 10d NAILS @ 6" o.c. AT EDGES AND 12" o.c. IN FIELD TO PANEL, PROVIDE 5" A.B. AT 48" o.c.

SHEAR WALL - SEE SHEAR WALL SCHEDULE

600S162 - 43 METAL STUDS @ 16" o.c. WITH 600T100 - 43 CONT. TRACK TOP & BOTTOM ATTACH TRACK TO SILL W/ SIMPSON #10 x 1 $\frac{1}{2}$ " SD SCREWS @ 16" o.c. AND STUDS TO TRACK W/ #10 SD SCREW EA. SIDE. ATTACH WOOD SHEATHING TO METAL STUDS w/ #10 SD WOOD TO METAL SCREWS @ 16" o.c. AT BOUNDARY W/ 12" o.c. IN FIELD OF PANEL



ROOF FRAMING PLAN

PLAN NOTES:

1. CONTRACTOR SHALL VERIFY ALL EQUIPMENT WEIGHTS WITH SUPPLIER AND LOCATIONS PRIOR TO

- FABRICATION OF TRUSSES.
 2. CONTRACTOR SHALL COORDINATE TRUSS LAYOUT W/ SPECIFIC KITCHEN & MECHANICAL EQUIPMENT
- PLANS PRIOR TO ORDERING OR SETTING TRUSSES. MAXIMUM TRUSS SPACING = 32" o.c.

 REF. ARCH. DWGS. FOR DETAILS OF SCUPPERS, ROOF DRAINS, ROOF PENETRATIONS AND PITCH PLAN.

 REF. ARCH.DWGS. FOR FRAMING DETAILS AT BULKHEAD. TRUSS MANUF. TO SIZE BOTTOM CHORD OF
- TRUSS FOR BULKHEAD LOADS.

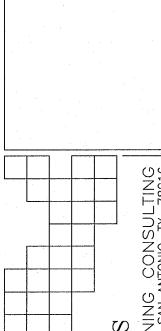
 5. PROVIDE 2x6 BLOCKING AROUND ALL MEP ROOF TOP EQUIPMENT.

REVISIONS:









Charles
William
Pope

& ASSOCIATES
ARCHITECTURE PLANNING CONS
7400 BLANCO RD., SUITE 257, SAN ANTONIO, 1

DATE: 11.23.21

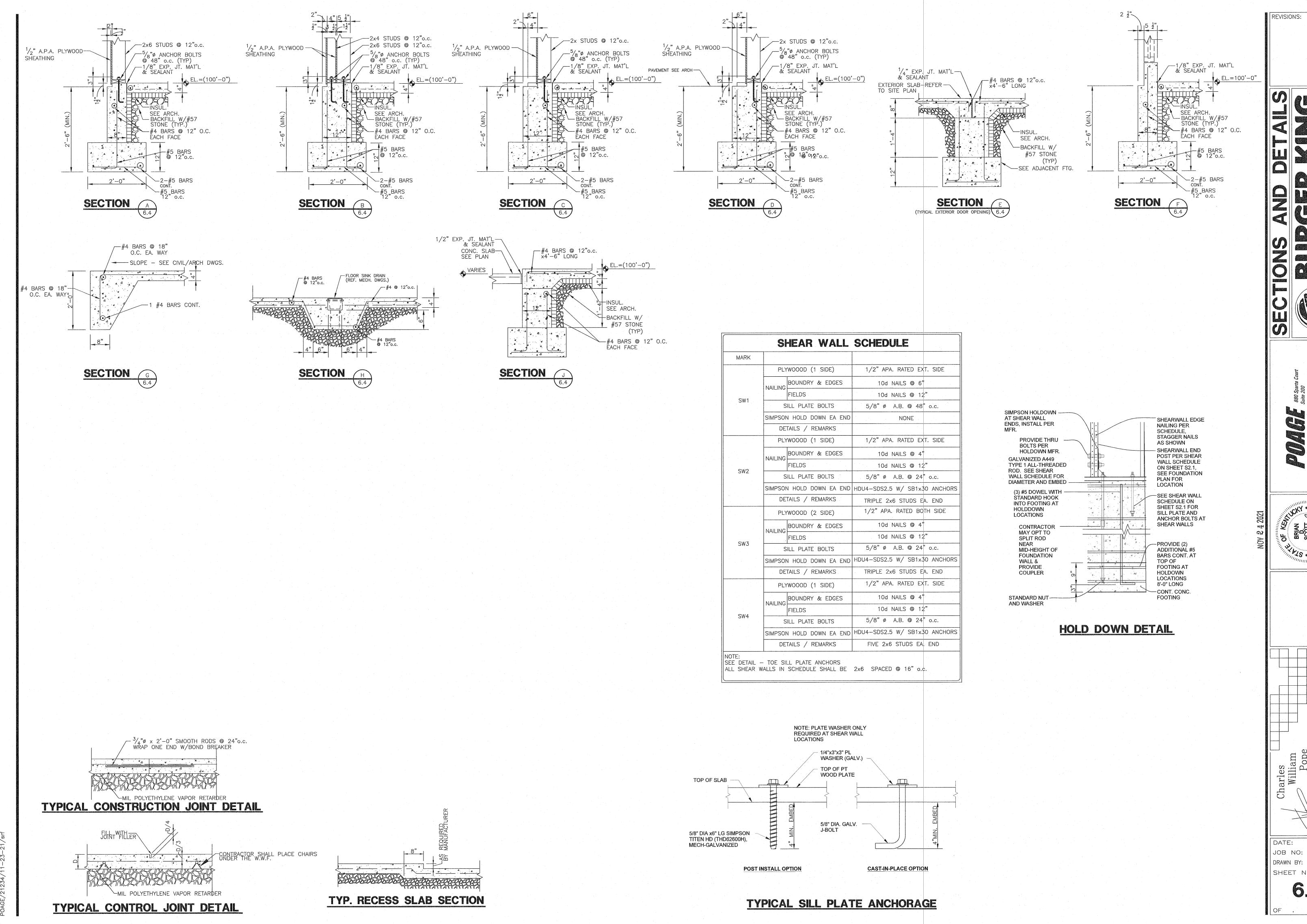
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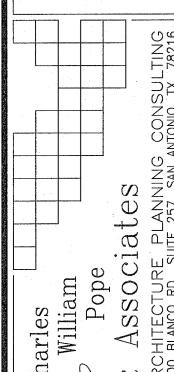
6.3

7-7/ 10 20 11/ 12010/ HOVO



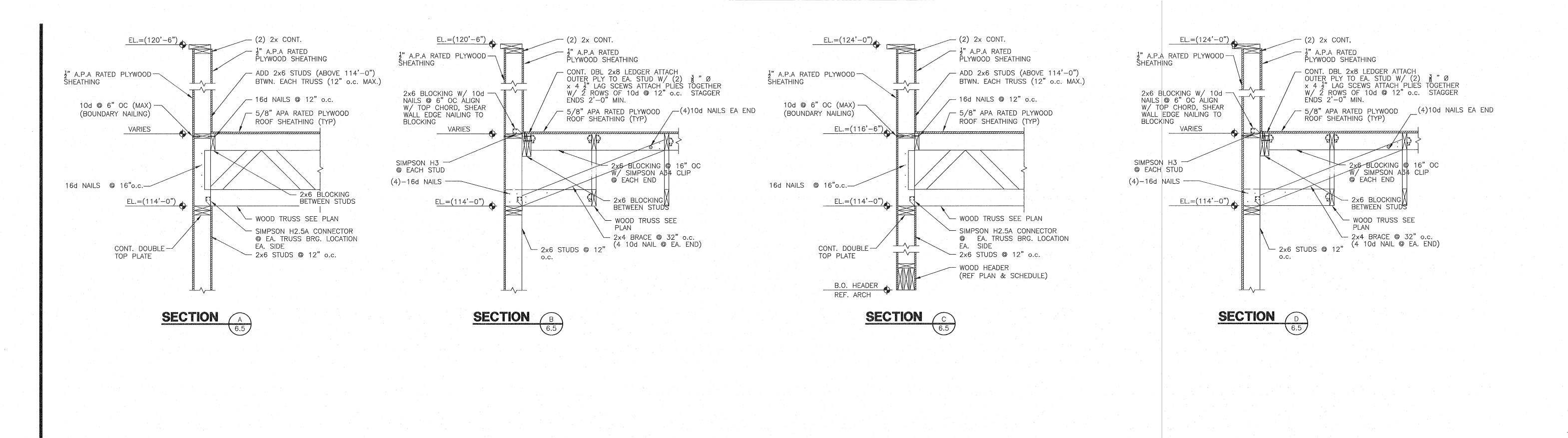


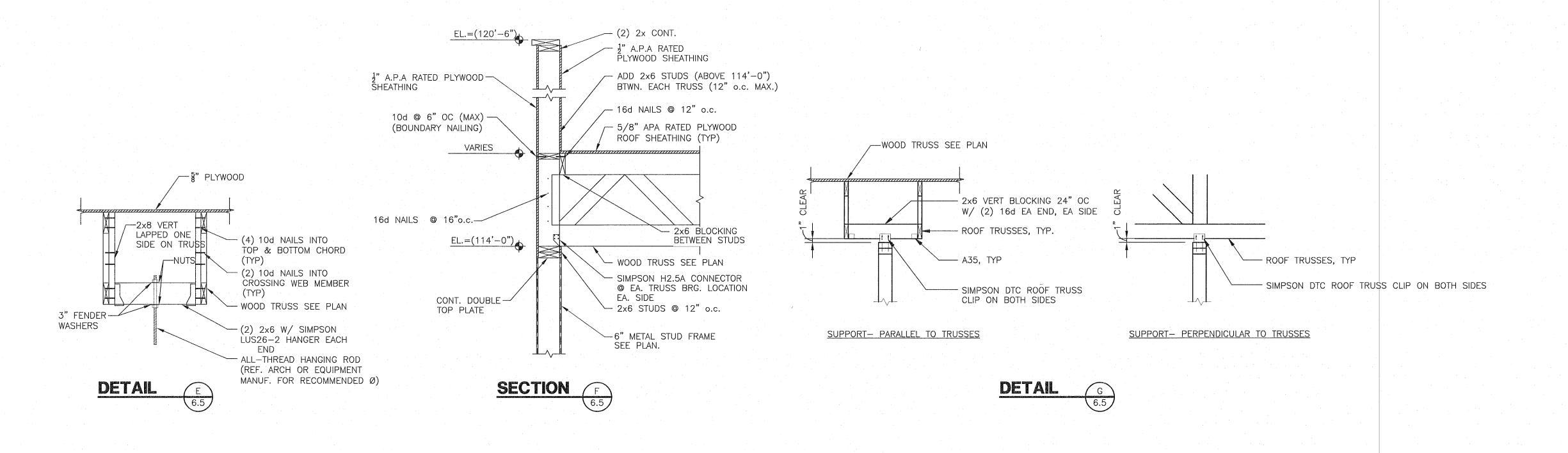


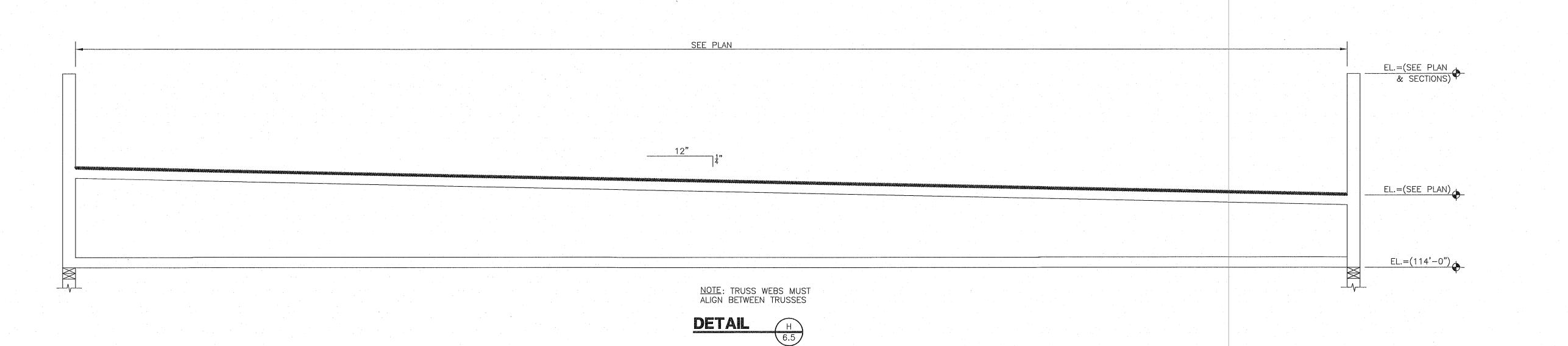


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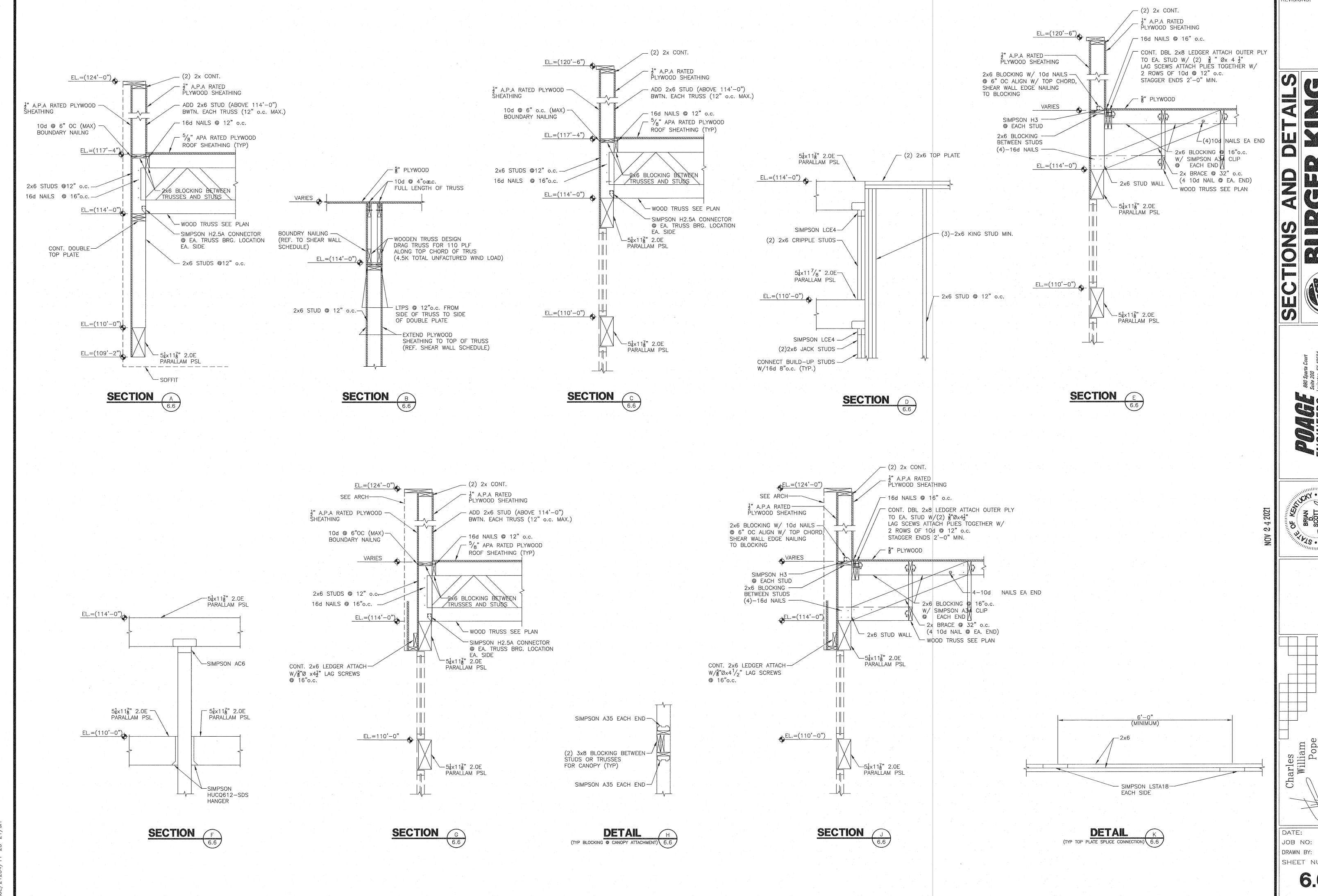
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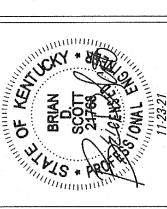
Charles
William
Pope

& ASSOCIAtes
ARCHITECTURE PLANNING CONSTAND BLANCO RD., SUITE 257, SAN ANTONIO, T.

DATE: 11.23.21 JOB NO: 21234 DRAWN BY: SHEET NUMBER:



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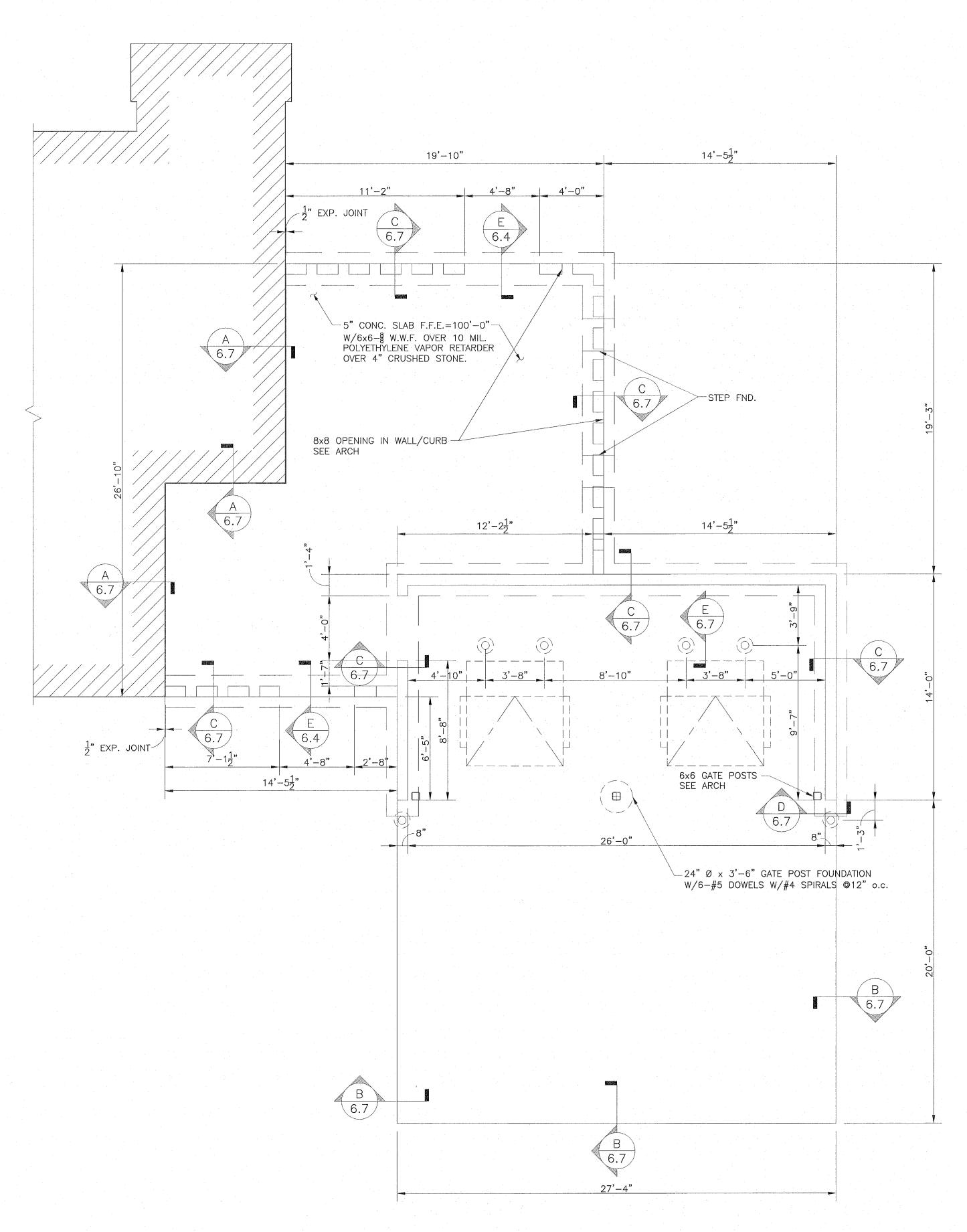


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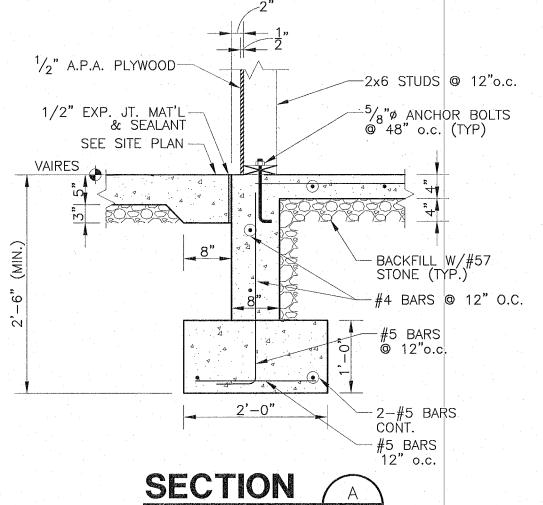
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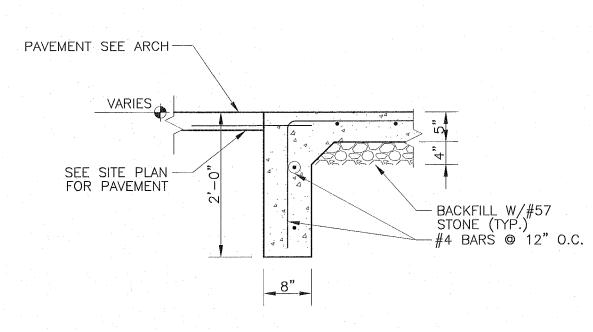
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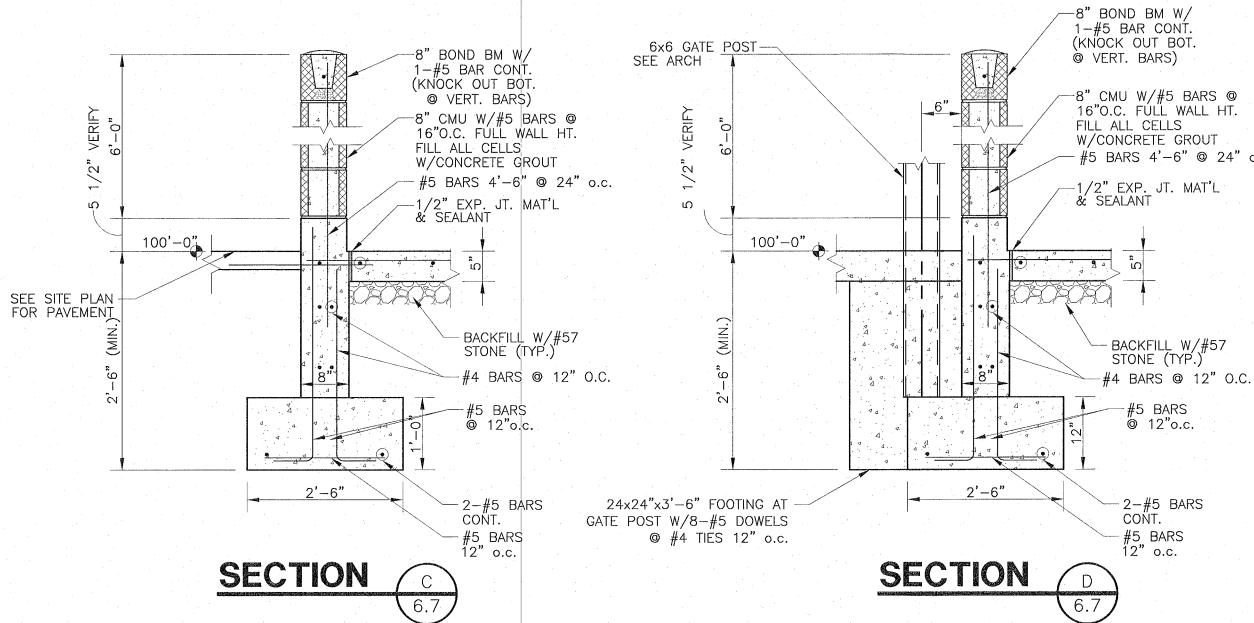
DUMPSTER FOUNDATION PLAN

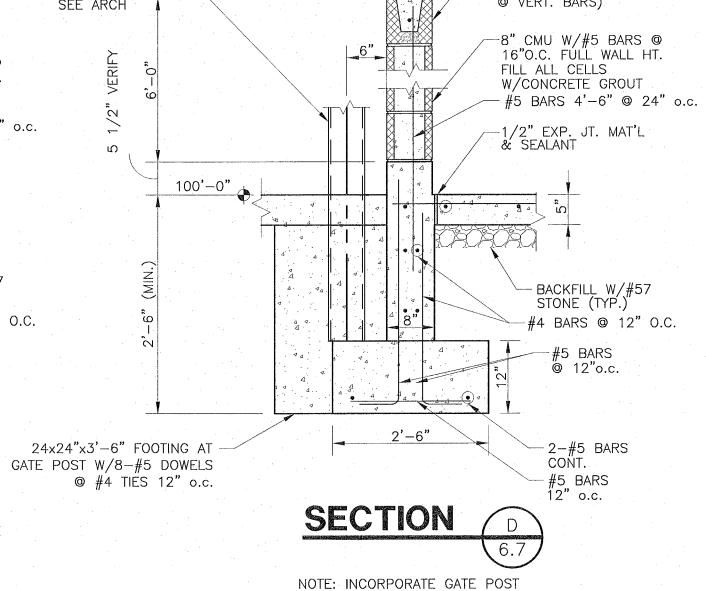
NOTE: DIMENSIONS ARE TO FACE OF FOUNDATION WALL AND NOT CMU











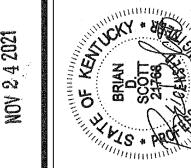
MASONRY WALL REINFORCEMENT:

MN-1 PROVIDE GROUTED REINFORCED VERTICAL CELLS AND HORIZONTAL BOND BEAM AT WALL TOP EDGES, CORNERS, AND FREE ENDS, AND OTHER LOCATIONS WHERE SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS. REINFORCE EACH GROUTED CELL AND BOND BEAM WITH 1 - #4 BAR (MIN) CONTINUOUS: (UNLESS SHOWN OTHERWISE ON SECTIONS.) PROVIDE MATCHING DOWELS IN FOUNDATION FOR VERTICAL REINFORCEMENT. VERTICAL STEEL SHALL OVERLAP DOWELS AND SPLICES A MINIMUM OF 40 BAR DIAMETERS AND SHALL EXTEND A MINIMUM OF 6" INTO BOND BEAM AT

FOUNDATION INTO WALL FOUNDATION

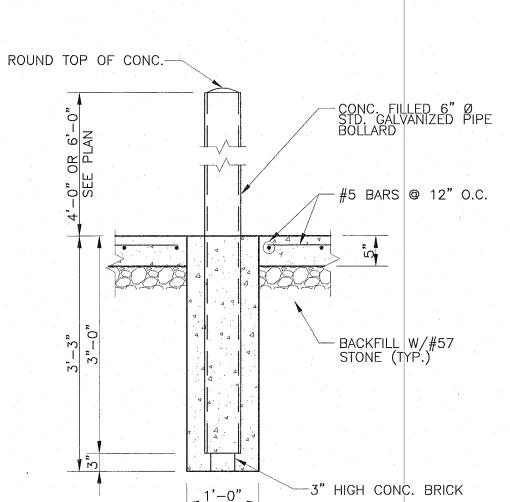
CONC. FILLED 6" Ø STD. GALVANIZED PIPE MN-2 REFER TO SECTIONS FOR REINFORCEMENT IN WALLS. BOLLARD

- MN-3 CMU SHALL HAVE UNIT STRENGTH OF 1900 PSI WITH A MINIMUM LINEAR SHRINKAGE OF 0.06% CONFORMING TO ASTM C90 GRADE N, TYPE 1, AND A MAXIMUM WEIGHT OF 105 PCF (DRY). USE TYPE S MORTAR. PREPARE IN ACCORDANCE WITH ASTM C270 BY PROPORTION. (NO PRISM TESTS REQUIRED BUT RANDOM CHECK PROPORTIONS DAILY AND CONFORM IN WRITING AS PER IBC TABLE 1704. 5.1 ITEM 1a), REINFORCED CMU SHALL HAVE A MINIMUM COMPRESSIVE WALL DESIGN STRENGTH OF fm = 1500 PSI. GROUT FOR FILLED CELLS IN WALL SHALL BE MADE OF CEMENT, SAND AND PEA GRAVEL IN APPROXIMATE RATION OF 1:3:2 COMPLYING WITH ASTM C476 AND HAVE A SLUMP OF 8" TO 11". (ASTM C270: BY PROPORTION) REFER TO SECTION FOR CONCRETE FILLED CMU COLUMNS
- MN-4 UNLESS NOTED ON PLANS, ALL NON-PAINTED CMU WHICH IS TO BE PERMANENTLY EXPOSED TO WEATHER, ADD WATER REPELLENT TO MIX FOR CMU AND FOR MORTAR WATER REPELLENT TO BE "DRY-BLOCK" BY W. R GRACE, OR APPROVED EQUIVALENT.
- MN-5 REBAR POSITION SHALL BE USED TO LOCATE BARS IN THE CENTER OF THE CELLS; AT A 1 FT. OFF SLAB, 2 FT FROM TOP, AND A MAXIMUM SPACING OF 200 BAR DIAMETERS.
- MN-6 ALONG TOP OF ALL CMU WALLS: PROVIDE A CONTINUOUS CONCRETE FILLED MASONRY BOND BEAMS (8 INCH MIN DEPTH). REINFORCE WITH 2-#4 BARS. PROVED CORNER BARS. MN-7 SINGLE WYTHE WALLS: USE 2 WIRE TRUSS TIES (#9 SIDED AND CROSS RODS) MASONRY WALLS
- REINFORCEMENT AT 16 INCHES o.c. VERTICALLY, WITH 6 INCH OVERLAPS. FIRST TIE LAYER TO BE ON MN-8 JOINT REINFORCEMENT SHALL BEPLACED SO THAT LONGITUDINAL WIRES ARE CENTERED ON THE
- WALL OR WYTHE AND ARE FULLY EMBEDDED IN MORTAR FOR THERE ENTIRE LENGTH.
- MN-9 JOINT REINFORCEMENT SHALL BE LAPPED 6 INCHES OR MORE FOR DEFORMED LONGITUDINAL WIRES AND 12 INCHES OR MORE SMOOTH LONGITUDINAL WIRES.



REVISIONS:

DATE: DRAWN BY: SHEET NUMBER:





condensing units, and electronic air cleaners.

A. The manufacturers listed are listed to set minimum standards for quality, design,

and functionality. The products of other manufacturers may be submitted, at the

Contractor's option, during shop drawing review unless indicated otherwise. The

products of other manufacturers shall meet or exceed all requirements of the

Contract Documents. The Contractor accepts all responsibility for costs and

the coordination of such substitutions with all other contractors and

B. The Contractor may use any of the following ductwork, piping or insulation

coordination issues arising out of the substitution of materials or equipment, and

materials at his option, provided the selected material meets with the approval of

all State, local authorities and any utility company requirements. Verification of

PART 2 PRODUCTS

2.01 SUBSTITUTIONS

subcontractors.

1) Base: Roof Curb. compliance of the selected material is the sole responsibility of the installing 2) Isolation: Full perimeter Neoprene Pad between curb and units. PART 3 EXECUTION 3.01 COORDINATION OF WORK A. Examine the Contract Documents as a whole for the work of other trades. Coordinate all work accordingly. B. Promptly report to the Architect any delay or difficulties encountered in the installation of the work, which might prevent prompt and proper installation, or make it unsuitable to connect with or receive the work of others. Failure to so report shall constitute an acceptance of the work of other trades as being fit and proper for the execution of this work. Plan, lay out, and coordinate the work with all trades well enough in advance so that it proceeds with a minimum of interference to work that has not been completed and work that is in progress. Inform all trades of openings required for the work and provide all special frames, sleeves, and anchor bolts required. The HVAC system layout may be altered to suit the conditions with engineer approval, prior to the installation of any work and without additional cost to the Owner. Conflicts arising from lack of coordination shall be this Contractor's D. Perform all work in conformity with the Contract Documents and afford other trades reasonable opportunity for the execution of their work. Properly connect and coordinate this work with the work of other trades at such time and in such a manner as not to delay or interfere with their work. E. All roofing penetrations shall be flashed and weather sealed by the roofing manufacturer's authorized roofing contractor at this Contractor's expense. This Contractor shall contract with the factory authorized roofing contractor for the specific roofing system applicable to this Project. The use of an unauthorized roofing contractor may result in removal and replacement of the penetration systems at this Contractor's expense. F. All temperature control wiring, thermostat wiring, damper interlock wiring, control panel interlock wiring and miscellaneous low voltage wiring associated with the equipment furnished or installed under this contract shall be furnished and installed by the mechanical contractor or his sub-contractor. All wiring installed under this contract shall be in full compliance with the National Electrical Code. all State and local codes and requirements of the Electrical Specifications for 3.02 EXAMINATION A. Verify field measurements are as indicated on the Drawings. B. Verify all equipment locations prior to rough-in. Maintain adequate equipment service clearance per manufacturer and code. C. Verify routing of all ductwork and piping in field prior to fabrication or installation. Verify adequate clearance with structure, light fixtures, and D. Verify that proper fuel and power supply is available for connection. 3.03 INTERFACE WITH OTHER PRODUCTS A. Install all ductwork, pipe, equipment, and accessories to preserve fire resistance rating of partitions and other elements, using materials and methods specified. 3.04 FIELD QUALITY CONTROL A. Provide tests as necessary to establish the adequacy, quality, safety, completed status, and suitable operation of each system. Tests shall be conducted under the supervision of the Architect. 3.05 CLEANING AND REPAIR A. Clean fire suppression parts to remove harmful materials. B. Clean exposed surfaces of all ductwork pipe, equipment, and accessories of all dirt, debris, splatter, and other deleterious materials. Follow the manufacturer's recommendations for cleaning as applicable. C. Repair or replace damaged ductwork, pipe, equipment, and accessories, as directed by and to the satisfaction of the Architect, where marring or disfigurement has occurred. All pipe, equipment, and accessories shall be new. 3.06 PROJECT CLOSEOUT A. Project Record Documents: At project closeout, provide one printed copy and one electronic copy of project record drawings to the Owner. Information contained on project record drawings shall include, as a minimum: Actual locations of all equipment, ductwork, air inlets/outlets, accessories, 2. Actual routing of ductwork with sizes and elevations. Actual locations of control devices including valves and volume dampers. B. Operation and Maintenance Data: At project closeout, submit to the Architect two copies of descriptive literature, maintenance and operation data for all hvac equipment, control systems, accessories, and materials used. Include maintenance procedures, intervals, and parts list of each item installed under this contract. Include all manufacturer's guarantees and warranties. C. Maintenance Materials: At project closeout, furnish to the Owner the following: . One set of replacement filters for all hyac equipment. The maintenance contract for the hvac system, if applicable. D. Test Reports: At project closeout, submit to the Architect two copies of the Testing, Adjusting and Balancing Report END OF SECTION SECTION 230548 - VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT PART 1 GENERAL 1.01 SECTION INCLUDES A. Vibration isolators. B. Seismic restraints. Equipment: Fans, axial and centrifugal Packaged roof top equipment 1.02 SUBMITTALS A. Product Data: Provide schedule of vibration isolator type with location and load PART 2 PRODUCTS 2.01 MANUFACTURERS A. Isolation Technology, Inc.; Kinetics Noise Control, Inc.; Mason Industries. 2.02 VIBRATION ISOLATORS A. Restrained Open Spring Isolators: Springs: Minimum horizontal stiffness equal to 75 percent vertical stiffness, with working deflection between 0.3 and 0.6 of maximum deflection. Color code springs for load carrying capacity. 2. Spring Mounts: Provide with leveling devices, minimum 0.25 inch thick neoprene sound pads, and zinc chromate plated hardware.

3. Sound Pads: Size for minimum deflection of 0.05 inch; meet requirements for neoprene pad isolators. 4. Restraint: Provide heavy mounting frame and limit stops. 5. For Exterior and Humid Areas: Hot dipped galvanized housings and neoprene B. Spring Hanger: Springs: Minimum horizontal stiffness equal to 75 percent vertical 3.05 SCOPE stiffness, with working deflection between 0.3 and 0.6 of maximum deflection. Color code springs for load carrying capacity. 2. Housings: Incorporate neoprene isolation pad meeting requirements for neoprene pad isolators or rubber hanger with threaded insert . Misalignment: Capable of 20 degree hanger rod misalignment. 4. For Exterior and Humid Areas: Hot dipped galvanized housings and neoprene coated springs.
Neoprene Pad Isolators: Rubber or neoprene waffle pads. a. Hardness: 30 durometer. b. Thickness: Minimum 1/2 inch. Maximum Loading: 50 psi. d. Rib Height: Maximum 0.7 times width. Configuration: Single layer. D. Rubber Mount or Hanger: Molded rubber designed for 0.4 inch deflection with E. Glass Fiber Pads: Neoprene jacketed pre-compressed molded glass fiber. 2.03 SEISMIC RESTRAINTS A. Type: Non-directional and double acting unit consisting of interlocking steel members restrained by neoprene elements B. Elements: Replaceable neoprene, minimum of 0.75 inch thick with minimum 1/8 inch C. Capacity: 4 times load assigned to mount groupings at 0.4 inch deflection. D. Attachment Points and Fasteners: Capable of withstanding 3 times rated load capacity of seismic snubber. PART 3 EXECUTION 3.01 INSTALLATION A. Install in accordance with manufacturer's instructions. B. On closed spring isolators, adjust so side stabilizers are clear under normal C. Prior to making piping connections to equipment with operating weights substantially different from installed weights, block up equipment with temporary shims to final height. When full load is applied, adjust isolators to load to allow shim removal. D. Support piping connections to equipment mounted using isolators or resilient hangers to nearest flexible pipe connector. E. Provide flexible connections on all piping and ductwork connections to equipment. Refer to other sections of this Specification for the acceptable types of flexible

connectors to be used.

equipment manufacturer.)

Fans, axial and centrifugal.

Packaged roof top equipment.

scheduled on the Drawings and indicated below

a. Small fans up to 22" diameter wheel:

Rubber Mount or Hanger

a. Above grade roof structures:

F. Selection of type, thickness and deflection of vibration isolation shall be by the

A. Equipment Isolation Schedule: (Minimum deflection as sized by the isolation

vibration control manufacturer based on the specific equipment type and size, as

indicated on the Drawings. END OF SECTION SECTION 230593 - TESTING, ADJUSTING, AND BALANCING FOR HVAC PART 1 GENERAL 1.01 SECTION INCLUDES Testing, adjustment, and balancing of air systems. 1. Air handling units; Packaged heating and/or cooling equipment; Fans. (Exhaust and supply); Coils; Terminal equipment; Air inlets and outlets. (Diffusers, grilles, louvers, etc.) Measurement of final operating condition of HVAC systems. Independent agency requirements: Test and Balance Contractor shall be 3rd party to the GC. Provide report to the Owner and Mechanical Engineer for review before turnover. A. Qualifications: Submit name of adjusting and balancing agency and TAB supervisor for approval within 30 days after award of Contract. Provide TAB Agency B. Final Report: Indicate deficiencies in systems that would prevent proper testing. adjusting, and balancing of systems and equipment to achieve specified . Submit to the Construction Manager within two weeks after completion of testing, adjusting, and balancing. 2. Provide reports in bound manuals, complete with index page and indexing tabs. with cover identification at front and side. Include set of reduced drawings with air outlets and equipment identified to correspond with data sheets, and indicating thermostat and equipment locations. 3. Include actual instrument list, with manufacturer name, serial number, and date of calibration. 4. Form of Test Reports: Where the TAB standard being followed recommends a report format use that; otherwise, follow ASHRAE Std 111 (2008). 5. Include the following on the title page of each report: a. Name, address and telephone number of Testing, Adjusting, and Balancing b. Project: Name; location; Engineer; Contractor, Report date. 1.03 WARRANTY A. The Balancing Contractor shall be prepared to return to the site at no additional cost to re-adjust air quantities as required to provide uniform temperatures, eliminate drafts and objectionable noises during the first year of occupancy including one full heating and one full cooling season, after the acceptance of the final balancing report. PART 2 PRODUCTS - NOT USED PART 3 EXECUTION 3.01 GENERAL REQUIREMENTS A. Perform total system balance in accordance with one of the following: AABC MN-1, AABC National Standards for Total System Balance 2. ASHRAE Std 111, Practices for Measurement, Testing, Adjusting and Balancing of Building Heating, Ventilation, Air-Conditioning, and Refrigeration 3. NEBB Procedural Standards for Testing Adjusting Balancing of Environmental 4. SMACNA HVAC Systems Testing, Adjusting, and Balancing. B. Begin work after completion of systems to be tested, adjusted, or balanced and complete work prior to Substantial Completion of the Project. Where HVAC systems and/or components interface with life safety systems, including fire and smoke detection, alarm, and control, coordinate scheduling and testing and inspection procedures with the authorities having jurisdiction. D. TAB Agency Qualifications: 1. Company specializing in the testing, adjusting, and balancing of systems specified in this Section with a minimum of five years experience. Certified by one of the following: AABC, Associated Air Balance Council; upon completion submit AABC National Performance Guaranty b. NEBB, National Environmental Balancing Bureau. c. TABB, The Testing, Adjusting, and Balancing Bureau of National Energy lanagement Institute 3. The TAB Agency must be a completely independent, third party balancing contractor with no financial, common owners or other ties to the installing E. TAB Supervisor and Technician Qualifications: Certified by same organization as 3.02 ADJUSTMENT TOLERANCES A. Air Handling Systems; Air Outlets and Inlets; Hydronic Systems: Adjust to within plus or minus 10 percent of ASHRAE and NEBB standards. 3.03 RECORDING AND ADJUSTING settings to be restored. Set and lock memory stops. B. Mark on the Drawings the locations where traverse and other critical measurements were taken and cross reference the location in the final report. 3.04 AIR SYSTEM PROCEDURE A. Adjust air handling and distribution systems to provide required or design supply, return, and exhaust air quantities. B. Make air quantity measurements in ducts by Pitot tube traverse of entire cross sectional area of duct. Measure air quantities at air inlets and outlets. D. Adjust distribution system to obtain uniform space temperatures free from objectionable drafts and noise. E. Use volume control devices to regulate air quantities only to extent that adjustments do not create objectionable air motion or sound levels. Effect volume control by duct internal devices such as dampers and splitters. Do not use diffuser, grille or register integral dampers for balancing adjustments unless the plans do not indicate duct mounted devices. F. Vary total system air quantities by adjustment of fan speeds. Provide drive changes required at no additional expense to the Owner. Vary branch air quantities by damper regulation. G. Measure static air pressure conditions on air supply units, including filter and coil pressure drops, and total pressure across the fan. Make allowances for 50 percent loading of filters. H. Adjust outside air automatic dampers, outside air, return air, and exhaust dampers for design conditions in all operating modes as indicated in the sequence of I. Measure temperature conditions across outside air, return air, and exhaust dampers to check leakage. J. Where modulating dampers are provided, take measurements and balance at extreme conditions and at all intermediate operating conditions specified in the sequence of control. Balance variable volume systems at maximum air flow rate, full cooling, and at minimum air flow rate, full heating. A. Equipment Requiring Testing, Adjusting, and Balancing (if present on the project): HVAC Pumps; Boilers; All Air Handling Equipment; All Packaged Heating and/or Cooling Equipment, All Coil; All Heat Exchangers, Terminal Heat Transfer Units; Air Terminal Units; Air Inlets and Outlets 3.06 MINIMUM DATA TO BE REPORTED A. Report (as applicable to the project): Design versus final performance Notable characteristics of system c. Summary of outdoor and exhaust flows to indicate amount of building d. Nomenclature used throughout report and test conditions. B. Electric Motors and drives: Manufacturer; Model/Frame; HP/BHP; Phase, voltage, amperage; nameplate, actual, no load; RPM; Service factor; Sheave Make/Size/Bor V-Belt Drives: Identification/location: Required driven RPM: Driven sheave. diameter and RPM: Belt, size and quantity; C. Cooling and Heating Coils: Identification/number; Manufacturer Air flow, design and actual Air pressure drop, design and actual Entering and leaving air DB and WB temperature, design and actual Water flow, design and actual (if applicable) Water pressure drop, design and actual (if applicable) Entering and leaving water temperature, design and actual (if applicable) D. Air Moving Equipment: Manufacturer; Model number; Serial number; Arrangement/Class/Discharge Air flow, specified and actual Inlet; Discharge; Total static pressure (total external), specified and E. Air Distribution Tests: Air terminal number Room number/location Terminal type Terminal size Area factor Design velocity Design air flow Test (final) velocity Test (final) air flow 0. Percent of design air flow END OF SECTION SECTION 230713 - DUCT INSULATION PART 1 GENERAL 1.01 SECTION INCLUDES A. Duct insulation. B. Duct liner. C. Insulation jackets.

Provide restrained spring vibration isolation curbs when

Supply, return or exhaust ducts in ceiling spaces. Supply, return or exhaust ducts in interior unconditioned areas Supply, return or exhaust ducts in exposed locations. 1.02 FIELD CONDITIONS A. Maintain ambient temperatures and conditions required by manufacturers of adhesives, mastics, and insulation cements B. Maintain temperature during and after installation for minimum period of 24 hours. PART 2 PRODUCTS 2.01 REQUIREMENTS FOR ALL PRODUCTS OF THIS SECTION A. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E 84, NFPA 255, or UL 723. B. Manufacturer: Knauf Fiber Glass; Johns Manville Corporation; Owens Corning Corp CertainTeed Corporation 2.02 GLASS FIBER, FLEXIBLE A. Insulation: ASTM C 553; flexible, noncombustible blanket. 'K' value: 0.31 at 75 degrees F, when tested in accordance with ASTM C 518. Maximum Service Temperature: 450 degrees F. Maximum Water Vapor Sorption: 5.0 percent by weight. B. Vapor Barrier Jacket: Kraft paper with glass fiber yarn and bonded to aluminized film. 2. Moisture Vapor Permeability: 0.029 ng/Pa s m (0.02 perm inch), when tested in accordance with ASTM E 96/E 96M. 3. Secure with pressure sensitive tape. . Kraft paper reinforced with glass fiber yarn and bonded to aluminized film, with pressure sensitive rubber based adhesive. D. Outdoor Vapor Barrier Mastic: 1. Vinyl emulsion type acrylic or mastic, compatible with insulation, black E. Tie Wire: Annealed steel, 16 gage. 2.03 DUCT LINER A. Insulation: Incombustible glass fiber complying with ASTM C 1071; flexible blanket, rigid board, and preformed round liner board; impregnated surface and edges coated with acrylic polymer shown to be fungus and bacteria resistant by testing to ASTM G 21. Apparent Thermal Conductivity: Maximum of 0.31 at 75 degrees F. Service Temperature: Up to 250 degrees F. Rated Velocity on Coated Air Side for Air Erosion: 5,000 fpm, minimum. 4. Minimum Noise Reduction Coefficients: a. 1/2 inch Thickness: 0.30. b. 1 inch Thickness: 0.45. c. 1-1/2 inches Thickness: 0.60 d. 2 inch Thickness: 0.70. Adhesive: Waterproof, fire-retardant type. Liner Fasteners: Galvanized steel, self-adhesive pad or impact applied with ntegral, or press-on head. PART 3 EXECUTION 3.01 INSTALLATION A. Install in accordance with manufacturer's instructions and NAIMA National B. Insulated ducts conveying air below ambient temperature: Provide insulation with vapor barrier jackets. Finish with tape and vapor barrier jacket. 3. Continue insulation through walls, sleeves, hangers, and other duct 4. Insulate entire system including fittings, joints, flanges, fire dampers, flexible connections, and expansion joints. Insulated ducts conveying air above ambient temperature Provide with or without standard vapor barrier jacket. 2. Insulate fittings and joints. Where service access is required, bevel and seal ends of insulation. D. External Duct Insulation Application: 1. Secure insulation with vapor barrier with wires and seal jacket joints with vapor barrier adhesive or tape to match jacket. Secure insulation without vapor barrier with staples, tape, or wires. 3. Install without sag on underside of duct. Use adhesive or mechanical fasteners where necessary to prevent sagging. Lift duct off trapeze hangers and insert spacers. 4. Seal vapor barrier penetrations by mechanical fasteners with vapor barrier 5. Stop and point insulation around access doors and damper operators to allow operation without disturbing wrapping. Duct and Plenum Liner Application: Adhere insulation with adhesive for 90 percent coverage. . Secure insulation with mechanical liner fasteners. Refer to SMACNA HVAC Duct Construction Standards - Metal and Flexible for spacing. Seal and smooth joints. Seal and coat transverse joints. . Seal liner surface penetrations with adhesive. 5. Duct dimensions indicated are net inside dimensions required for air flow Increase duct size to allow for insulation thickness. 3.02 SCHEDULES A. The Contractor may use any of the following insulating materials, at his option, provided the selected material meets with the approval of all State, local authorities and utility company requirements. Verification of compliance of the selected insulating material and thickness with all State and local codes and utility company requirements is the sole responsibility of the installing Supply air ducts in ceiling spaces:
 Flexible Glass Fiber Duct Insulation: 2 inches thick. Flexible Glass Fiber Duct Liner Insulation: 1-1/2 inches thick. Supply, return or exhaust air ducts in crawl spaces, attics or other unconditioned 1. Flexible Glass Fiber Duct Insulation: 3 inches thick. D. Supply air ducts exposed in finished areas: Flexible Glass Fiber Duct Liner Insulation: 1-1/2 inches thick. E. Return or exhaust air ducts exposed in finished areas: None. END OF SECTION SECTION 230713.13 - GREASE DUCT FIREPROOFING 1.01 SECTION INCLUDES Fire resistant duct wrap for kitchen hood exhaust ventilation ducts (grease ducts). B. Firestopping at duct penetrations through fire rated walls and floors. 1.02 SUBMITTALS A. Product Data: Manufacturer's data sheets on each product to be used. B. Certification: Evidence that the proposed fireproofing and firestopping are acceptable to the authorities having jurisdiction. PART 2 PRODUCTS 2.01 MANUFACTURERS A. Acceptable Manufacturer: 3M Fire Protection Products, Inc.; Unifrax FyreWrap; Morgan Thermal Ceramics. 2.02 MATERIALS A. Grease Duct Fireproofing: Material applied directly to metal ducts and achieving two-hour fire rated separation when tested in accordance with UL 2221 or ASTM E2336 by independent testing agency. Surface Burning Characteristics: Flame spread index of 0 and smoke developed index of 0, when tested in accordance with ASTM E 84, both blanket and foil. Combustibility: Non-combustible, when tested in accordance with ASTM E 136. Flexibility: Capable of being formed around corners and shapes by hand. 4. Surface: Foil or other damage resistant surface; fiber not exposed after 5. Accommodation For Duct Access Doors and Panels: Capable of being installed to achieve fire rating without impeding access.

6. Acceptable Product: 3M Fire Barrier Duct Wrap; fire resistant inorganic blanket encapsulated with scrim-reinforced foil facing. B. Fasteners: Non-combustible; use one or both of the following to attach fireproofing to ducts: Banding: Steel or stainless steel, 1/2 inch wide, minimum, and 0.015 inch thick, minimum; with steel banding clips. 2. Insulation Pins: Copper-coated steel impalement pins, minimum 12 gage, for welded attachment, with galvanized steel self-locking washers, 1-1/2 inch square or diameter; or equivalent sized cup-head pins. Access Panel Hardware: Galvanized threaded rods, sleeves, washers, and wing nuts as specified in manufacturer's instructions. D. Tape: Aluminum foil tape for sealing exposed fiber edges and repairing tears in E. Firestopping: Material tested in conjunction with fireproofing, in accordance with ASTM E 814, to achieve fire rated penetration seal at duct penetrations through fire rated assemblies. . Fire Rating: Same or greater than rating of penetrated assembly. Acceptable Products: 3M Fire Barrier 1000 N/S, 1003 S/L, and 2000+ Silicone Sealants, as required by tested assembly. PART 3 EXECUTION 3.01 EXAMINATION A. Do not begin installation until substrates have been properly prepared. B. If substrate preparation is the responsibility of another installer, notify Engineer of unsatisfactory preparation before proceeding. 3.02 PREPARATION A. Clean surfaces thoroughly prior to installation. B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions. 3.03 INSTALLATION A. Install in strict accordance with manufacturer's instructions and as indicated on B. Perform all required regulatory duct leakage and weld tests in the presence of the code official, including but not limited to light tests and smoke tests, to demonstrate the integrity of the duct construction prior to the installation of any

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REVISIONS:

at PLA 11/24/2021 JOB NO: 44387

SHEET NUMBER:

DRAWN BY:

Flexible, and NFPA 96

2.06 KITCHEN HOOD EXHAUST DUCTWORK, TYPE 2

B. Construct of 16 gage carbon steel or 18 gage stainless steel, using continuous

Flexible, and NFPA 96. Seal or weld all joints for a completely water tight

A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and

insulation that prevents visual inspection of the ductwork on all sides.

Documents explicitly indicate 3-sided or 2-sided installation.

C. Install fireproofing on entire surface of ducts indicated, except where Contract

PART 3 EXECUTION 3.01 EXAMINATION A. Examine drawings for the Architectural, Structural, Electrical and all other trades prior to preparation of ductwork shop drawings and prior to the fabrication of any B. Resolve any conflicts encountered with the Engineer prior to fabrication. . Identify on ductwork shop drawings any deviations in sizes or shapes made necessary by the obstructions of other trades. 3.02 INSTALLATION A. Install in accordance with manufacturer's instructions. B. Duct sizes indicated are inside clear dimensions. For lined ducts, maintain sizes C. Install and seal metal and flexible ducts in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible. D. Provide openings in ductwork where required to accommodate thermometers and controllers. Provide pilot tube openings where required for testing of systems, complete with metal can with spring device or screw to ensure against air leakage. Where openings are provided in insulated ductwork, install insulation material inside a metal ring. E. Locate ducts with sufficient space around equipment to allow normal operating and maintenance activities. F. Use crimp joints with or without bead for joining round duct sizes 8 inch and smaller with crimp in direction of air flow. G. Use double nuts and lock washers on threaded rod supports. Connect flexible ducts to metal ducts with draw bands. Support flexible duct runs every five feet in the horizontal direction to avoid dips and sags. J. Connect terminal units to supply ducts with one foot maximum length of flexible duct. Do not use flexible duct to change direction. K. Connect diffusers to low pressure ducts directly or with 5 feet maximum length of flexible duct held in place with strap or clamp. Longer duct lengths are acceptable if depicted on the design drawings and allowed per local code. A maximum of one 90 degree bend, or equivalent, will be allowed in flexible duct L. During construction provide temporary closures of metal or taped polyethylene on open ductwork to prevent construction dust from entering ductwork system. M. All exposed ducts in finished areas must be completely free from all dents or imperfections in the galvanized coating and shall be sealed CAREFULLY AND NEATLY with duct sealer completely contained within the joint. Duct wrap will not be permitted in exposed locations. If round duct is indicated in exposed locations, it must be spiral. No exposed duct sealer, tape or longitudinal joints will be accepted in exposed finished areas. Line all exposed supply air ductwork. N. Kitchen hood exhaust, Type 1: Use stainless steel for ductwork exposed to view and stainless steel or carbon steel for ducts where concealed. O. For all hood systems, perform all required regulatory duct leakage and weld tests in the presence of the code official, including but not limited to light tests and smoke tests, to demonstrate the integrity of the duct construction prior to the installation of any insulation that prevents visual inspection of the ductwork on P. Provide residue traps in kitchen hood exhaust ducts at base of vertical risers with provisions for clean out. Q. Moisture laden vapor exhaust: Use stainless steel for ductwork exposed to view and stainless steel or Glass Fiber Reinforced Plastic where concealed and not located in return air plenums. If located in return air plenum spaces, use stainless steel ductwork. Weld or caulk all seams and joints water tight. R. All roofing penetrations shall be flashed and weather sealed by the roofing manufacturer's authorized roofing contractor at this Contractor's expense. This Contractor shall contract with the factory authorized roofing contractor for the specific roofing system applicable to this Project. The use of an unauthorized roofing contractor may result in removal and replacement of the penetration systems at this Contractor's expense. 3.03 CLEANING A. Clean duct system and force air at high velocity through duct to remove accumulated dust or clean with high power vacuum machines. To obtain sufficient air, clean half the system at a time. Protect equipment which may be harmed by excessive dirt with temporary filters, or bypass during cleaning. 3.04 SCHEDULES A. Ductwork Material: B. The Contractor may use any of the following ductwork materials, at his option, provided the selected material meets with the approval of all State, local authorities and utility company requirements. Verification of compliance of the selected piping material is the sole responsibility of the installing Contractor. Low Velocity Supply (Heating Systems): Galvanized Steel, Aluminum. 2. Low Velocity Supply (System with Cooling Coils): Galvanized Steel, Aluminum. Return and Relief: Galvanized Steel, Aluminum General Exhaust: Galvanized Steel. Aluminum. Outside Air Intake: Galvanized Steel. 6. Kitchen Hood Exhaust, Type 1: Carbon Steel, Stainless Steel, Constructed per Kitchen Hood Exhaust, Type 2: Galvanized Steel, Aluminum, Stainless Steel, Constructed per NFPA 96. 8. Dishwasher Exhaust: Stainless Steel, Glass Fiber Reinforced Plastic, seal or weld all joints water tight. 1. Low Velocity Supply (Heating Systems): Scheduled System ESP+0.25", round up to next higher pressure class 2. Low Velocity Supply (Systems with Cooling): Scheduled System ESP +0.5", round up to next higher pressure class. Return and Relief: 1 inch. 4. General Exhaust: Scheduled System ESP +1.0", round up to next higher pressure class. Outside Air Intake: 1 inch. 6. Kitchen Hood Exhaust: See drawings for maximum fan static pressure plus 50% Dishwasher Exhaust: 2 inch. END OF SECTION SECTION 233300 - AIR DUCT ACCESSORIES PART 1 GENERAL 1.01 SECTION INCLUDES A. Air turning devices/extractors. B. Volume control dampers. Flexible duct connections D. Duct access doors. PART 2 PRODUCTS 2.01 AIR TURNING DEVICES/EXTRACTORS A. Manufacturers: Krueger: Ruskin Company: Titus. B. Multi-blade device with blades aligned in short dimension; steel or aluminum construction; with individually adjustable blades, mounting straps. 2.02 VOLUME CONTROL DAMPERS A. Manufacturers: Louvers & Dampers, Inc.; Nailor Industries Inc.; Ruskin Company; B. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated. Single Blade Dampers: Fabricate for duct sizes up to 6 x 30 inch. D. Multi-Blade Damper: Fabricate of opposed blade pattern with maximum blade sizes 8 x 72 inch. Assemble center and edge crimped blades in prime coated or galvanized channel frame with suitable hardware. E. End Bearings: Except in round ducts 12 inches and smaller, provide end bearings. On multiple blade dampers, provide oil-impregnated nylon or sintered bronze F. The contractor shall provide either a mechanical or electrical cable operated system wherever dampers are located in non-accessible areas. Mechanical cable operator system shall be similar and equal to Young Regulator Company, "Bowden Cable Control" system including damper, flexible cable with casing and concealed ceiling regulator control. Electrically operated damper control system shall be similar and equal to United Enertech Corporation, "Power Balance" system including motor operated damper, RJ-11 plenum rated cabling and flush ceiling or wall mounted RJ-11 jack in remote plate. Include one hand held battery pack operator pack to be delivered to the Owner upon completion of the balancing. 2.03 FLEXIBLE DUCT CONNECTIONS A. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated. B. Flexible Duct Connections: Fabric crimped into metal edging strip. 1. Fabric: UL listed fire-retardant neoprene coated woven glass fiber fabric to NFPA 90A, minimum density 30 oz per sq yd. Net Fabric Width: Approximately 2 inches wide. Metal: 3 inches wide, 24 gage thick galvanized steel. 2.04 DUCT ACCESS DOORS A. Manufacturers: Acudor Products Inc.; Nailor Industries Inc.; Ruskin Company; SEMCO B. Fabricate in accordance with SMACNA HVAC Duct Construction Standards - Metal and C. Fabrication: Rigid and close-fitting of galvanized steel with sealing gaskets and quick fastening locking devices. For insulated ducts, install minimum 1 inch thick insulation with sheet metal cover. Less Than 12 inches Square: Secure with sash locks. 2. Up to 18 inches Square: Provide two hinges and two sash locks.

D. Access doors with sheet metal screw fasteners are not acceptable.

A. Install accessories in accordance with manufacturer's instructions, NFPA 90A, and

B. Provide duct access doors for inspection and cleaning before and after filters,

coils, fans, automatic dampers, at fire dampers, combination fire and smoke

follow SMACNA HVAC Duct Construction Standards - Metal and Flexible. Duct

dampers, and elsewhere as indicated. Provide minimum 8 x 8 inch size for hand

PART 3 EXECUTION

3.01 INSTALLATION

construction and pressure class.

C. Locate all dampers and control elements in accessible areas wherever possible to avoid access doors. Provide ceiling access doors for access to all dampers and control elements located above inaccessible ceiling areas. Provide minimum 12 x 12 inch size for hand access, 18 x 18 inch size for shoulder access, and as indicated. Provide 4 x 4 inch for balancing dampers only. Review locations prior to D. Provide balancing dampers at points on supply, return, and exhaust systems where branches are taken from larger ducts as required for air balancing. Install minimum 2 duct widths from duct take-off E. Provide balancing dampers on duct take-off to diffusers, grilles, and registers, regardless of whether dampers are specified as part of the diffuser, grille, or register assembly. Do not locate dampers closer than 5 feet or 10 duct diameters from the air terminal device, whichever is greater F. At fans and motorized equipment associated with ducts, provide flexible duct connections immediately adjacent to the equipment. G. At equipment supported by vibration isolators, provide flexible duct connections mmediately adjacent to the equipment END OF SECTION SECTION 233423 - HVAC POWER VENTILATORS PART 1 GENERAL 1.01 SECTION INCLUDES A. Roof exhausters. Kitchen range hood exhausters. PART 2 PRODUCTS 2.01 MANUFACTURERS A. Greenheck; Loren Cook Company; PennBarry; CaptiveAire. 2.02 POWER VENTILATORS - GENERAL A. Performance Ratings: Determined in accordance with AMCA 210 and bearing the AMCA Certified Rating Seal. B. Sound Ratings: AMCA 301, tested to AMCA 300, and bearing AMCA Certified Sound Rating Seal. Fabrication: Conform to AMCA 99. D. UL Compliance: UL listed and labeled, designed, manufactured, and tested as suitable for the purpose specified and indicated 2.03 ROOF EXHAUSTERS AND VENTILATORS A. Fan Unit: V-belt or direct driven as indicated, with spun aluminum housing; resilient mounted motor; 1/2 inch mesh, 0.62 inch thick aluminum wire birdscreen; square base to suit roof curb with continuous curb gaskets. B. Roof Curb: 20 inch high above the finished roof surface (compensate for roof insulation thickness at fan location) self-flashing of galvanized steel or aluminum construction with continuously welded seams, built-in cant strips, insulation and curb bottom, and factory installed nailer strip. C. Disconnect Switch: Factory wired, non-fusible, in housing for thermal overload protected motor. D. Backdraft Damper: Motor actuated (or gravity damper if depicted on design drawings), aluminum multiple blade construction, felt edged with offset hinge pin, nylon bearings, blades linked, and line voltage motor drive, power open, spring E. Sheaves: Cast iron or steel, dynamically balanced, bored to fit shafts and keyed; variable and adjustable pitch motor sheave selected so required rpm is obtained with sheaves set at mid-position; fan shaft with self-aligning pre-lubricated ball F. Kitchen hood exhausters shall be upblast with grease tray, ventilated double wall curb and hinged curb adapter base for cleaning. Hood exhausters shall comply with requirements of NFPA 96 PART 3 EXECUTION 3.01 INSTALLATION A. Install in accordance with manufacturer's instructions. B. Provide sheaves required for final air balance at no additional expense to the C. Secure roof and wall exhausters with cadmium plated steel lag screws to roof curb or structure. D. Extend ducts to roof and wall exhausters into roof curb or wall structure. Counterflash duct to roof or wall opening. E. Install backdraft dampers (gravity or motorized as depicted on design drawings) on inlet to roof and wall exhausters. F. All roofing penetrations shall be flashed and weather sealed by the roofing manufacturer's authorized roofing contractor at this Contractor's expense. The Contractor shall contract with the factory authorized roofing contractor for the specific roofing system applicable to this project. The use of an unauthorized roofing contractor may result in removal and replacement of the penetration systems at this Contractor's expense END OF SECTION SECTION 233700 - AIR OUTLETS AND INLETS PART 1 GENERAL 1.01 SECTION INCLUDES A. Round ceiling diffusers B. Rectangular ceiling diffusers C. Perforated face ceiling diffusers D. Grid core exhaust and return grilles. 1.02 SUBMITTALS A. Product Data: Provide data for equipment required for this project. Review outlets and inlets as to size, finish, and type of mounting prior to submission. Submit schedule of outlets and inlets showing type, size, location, application, accessories, and noise level. 1.03 QUALITY ASSURANCE A. Test and rate air outlet and inlet performance in accordance with ASHRAE Std 70. Test and rate louver performance in accordance with AMCA 500-L. C. Code requirements shall supersede any conflicting requirements of this Section. 1.04 QUALIFICATIONS A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this Section, with minimum five years of documented PART 2 PRODUCTS 2.01 MANUFACTURERS A. Titus is the basis of design. Krueger, Price Industries, and Carnes are equal. 2.02 ROUND CEILING DIFFUSERS A. Type: Round, adjustable pattern, stamped or spun, multi-core, or architectural plaque diffuser to discharge air in 360 degree pattern, with sectorizing baffles where indicated. Diffuser collar shall project not more than 1 inch above ceiling. In plaster ceilings, provide plaster ring and ceiling plaque. B. Fabrication: Steel with baked enamel off-white finish. C. Accessories: Opposed blade damper and multi-louvered equalizing grid with damper adjustable from diffuser face. 2.03 RECTANGULAR CEILING DIFFUSERS A. Type: Square, adjustable pattern, stamped, multi-core, or architectural plaque diffuser to discharge air in 360 degree pattern with sectorizing baffles where B. Frame: Inverted T-bar type. In plaster ceilings, provide plaster frame and ceiling frame. (To allow lift-out removal of the diffuser without removal of the plaster frame.) C. Fabrication: Steel with baked enamel off-white finish. D. Accessories: Opposed blade damper and multi-louvered equalizing grid with damper adjustable from diffuser face. 2.04 PERFORATED FACE CEILING DIFFUSERS A. Type: Perforated face with fully adjustable pattern and removable face. B. Frame: Inverted T-bar type. In plaster ceilings, provide plaster frame and ceiling frame. (To allow lift-out removal of the diffuser without removal of the plaster frame.) Fabrication: Steel with steel frame and baked enamel off-white finish. D. Accessories: Opposed blade damper and multi-louvered equalizing grid with damper adjustable from diffuser face. 2.05 GRID CORE EXHAUST AND RETURN GRILLES A. Type: Fixed grilles of 1/2 x 1/2 x 1 inch louvers. Fabrication: Aluminum with factory off-white enamel finish. Frame: 1-1/4 inch margin with countersunk screw mounting. D. Frame: Channel lay-in frame for suspended grid ceilings where face size exceeds 18 E. Damper (if specified on drawings): Integral, gang-operated, opposed blade type with removable key operator, operable from face. PART 3 EXECUTION 3.01 INSTALLATION A. Install in accordance with manufacturer's instructions. B. Check location of outlets and inlets and make necessary adjustments in position to conform with architectural features, symmetry, and lighting arrangement. Install diffusers to ductwork with air tight connection. D. Provide balancing dampers on duct take-off to diffusers, and grilles and registers, despite whether dampers are specified as part of the diffuser, or grille and E. Paint ductwork visible behind air outlets and inlets matte black END OF SECTION SECTION 237413 - PACKAGED OUTDOOR ROOF TOP UNITS - GAS FIRED

PART 1 GENERAL

1.01 SECTION INCLUDES

access, 18 x 18 inch size for shoulder access, and as indicated. Provide 4 x 4

nch for balancing dampers only. Review locations prior to fabrication.

C. Roof mounting curb and base. D. Economizer. PART 2 PRODUCTS 2.01 MANUFACTURERS A. Trane is the basis of design. Lennox, Carrier, and York are equal. 2.02 AIR CONDITIONING UNITS A. General: Roof mounted units having gas burner and electric refrigeration. B. Description: Self-contained, packaged, factory assembled and prewired, consisting of cabinet and frame, supply fan, heat exchanger and burner, controls, air filters, refrigerant cooling coil and compressor, dry bulb economizer and power exhaust fan where indicated on the Drawings, condenser coil and condenser fan. C. Electrical Characteristics: As scheduled on the Drawings. D. Disconnect Switch: Factory mount disconnect switch on equipment. 2.03 FABRICATION A. Cabinet: Steel with baked enamel finish, including access panels with screwdriver operated flush cam type fasteners or doors with piano hinges with locking handles. Structural members shall be minimum 18 gage, with access doors or panels of minimum B. Insulation: one inch thick neoprene coated glass fiber with edges protected from C. Heat Exchangers: Aluminized steel or stainless steel where indicated on the Drawings, of welded construction D. Supply Fan: Forward curved centrifugal type, resiliently mounted with V-belt drive, adjustable variable pitch motor pulley, and rubber isolated hinge mounted motor or direct drive as indicated. Isolate complete fan assembly. E. Air Filters: 2 inch thick disposable media in metal frames. F. Roof Mounting Curb: Galvanized steel, channel frame, insulated with gaskets, nailer strips. Provide roof curb of adequate height to provide a unit mounting height of 12" or greater above the top of the roof surface with the curb mounted to the building structure. Roof curb height must compensate for the roof insulation thickness to meet this requirement. G. Vibration Isolation Curb: Only when indicated on the Drawings. A. Gas Burner: Induced draft or forced draft type burner with adjustable combustion air supply, pressure regulator, gas valves, manual shut-off, intermittent spark or glow coil ignition, flame sensing device, and automatic 100 percent shut-off B. Gas Burner Safety Controls: Energize ignition, limit time for establishment of flame, prevent opening of gas valve until pilot flame is proven, stop gas flow on gnition failure, energize blower motor, and after air flow proven and slight delay, allow gas valve to open. C. High Limit Control: Temperature sensor with fixed stop at maximum permissible setting, de-energize burner on excessive bonnet temperature and energize burner when temperature drops to lower safe value. D. Supply Fan Control: Temperature sensor sensing bonnet temperatures to be independent of burner controls, with provisions for continuous fan operation. 2.05 EVAPORATOR COIL A. Provide copper tube aluminum fin coil assembly with galvanized drain pan and B. Provide capillary tubes or thermostatic expansion valves for units of 6 tons capacity and less, and thermostatic expansion valves and alternate row circuiting for units 7.5 tons cooling capacity and larger. 2.06 COMPRESSOR A. Provide hermetic or semi-hermetic compressors, 3600 rpm maximum, resiliently mounted with positive lubrication, crankcase heater, high and low pressure safety controls, motor overload protection, suction and discharge service valves and gage ports, and filter drier. B. Five minute timed off circuit to delay compressor start. . Outdoor thermostat to energize compressor above 35 degrees F ambient. 2.07 CONDENSER COIL A. Provide copper tube aluminum fin coil assembly with subcooling rows and coil guard. B. Provide direct drive propeller fans, resiliently mounted with fan guard, motor overload protection, wired to operate with compressor. A. Dampers: Provide outside, return, and relief dampers with damper operator and control package to automatically vary outside air quantity. Outside air damper to fail to closed position. Relief dampers may be gravity balanced B. Gaskets: Provide tight fitting dampers with edge gaskets maximum leakage 5 percent at 2 inches pressure differential. Damper Operator: 24 volt with gear train sealed in oil. D. Damper Operator, Units 7.5 Ton Cooling Capacity and Larger: 24 volt with gear train sealed in oil with spring return on. E. Mixed Air Controls: Maintain selected supply air temperature and return dampers to minimum position on call for heating and above 75 degrees F ambient, or when ambient air temperature exceeds return air temperature. 2.09 INTEGRATED ECONOMIZER: A. Economizer shall be furnished and installed complete with outside air and relief dampers and controls. B. Provide low-leakage, opposed blade dampers California Projects: Meet all Title 24 requirements C. Economizer shall be capable of introducing up to 100% outdoor air for minimum ventilation as well as free cooling. Damper actuator shall be electronic, fully modulating design Economizer outdoor hood shall be pre-painted and fully integrated with the unit. F. Dry Bulb Control: (if allowed by local code) Provide dry bulb sensor capable of measuring temperature of outdoor air and controlling economizer cut-in point at the most economical level. High level cutoff shall be set per applicable energy code. California Projects: Meet all Title 24 requirements, including Economizer Fault Detection and Diagnostics (FDD). 2.10 OPERATING CONTROLS A. Provide low voltage, adjustable thermostat to control heater stages in sequence with delay between stages, compressor and condenser fan, and supply fan to maintain temperature setting. 1. Include system selector switch (off-heat-auto-cool) and fan control switch 2. The Mechanical Contractor shall provide all control wiring between thermostat and unit control panel and any required remote sensors. Locate thermostat in room as shown. Electric solid state microcomputer based room thermostat, located as indicated. Provide remote sensors when indicated on the Drawings. a. Room thermostat shall incorporate: Automatic switching from heating to cooling. 2) Preferential rate control to minimize overshoot and deviation from set point. 3) Automatic Start Capabilities: Controls shall be capable of automatically adjusting the daily start time of the HVAC system in order to bring each space to the desired occupied temperature immediately prior to scheduled occupancy. 4) Set-up for four separate temperatures per day.
5) Instant override of set point for continuous or timed period from one hour to 31 days. Short cycle protection.) Programming based on weekdays, Saturday and Sunday. 8) Switch selection features including imperial or metric display, 12 or 24 hour clock, keyboard disable, remote sensor, fan b. Room thermostat display shall include: Time of day. Actual room temperature. Programmed temperature Day of week. 5) System mode indication: heating, cooling, auto, off, fan auto, fan on. Stage (heating or cooling) operation. PART 3 EXECUTION 3.01 INSTALLATION A. Install in accordance with manufacturer's instructions and NFPA 90A. B. Mount units on factory built roof mounting curb providing watertight enclosure to protect ductwork and utility services. Install roof mounting curb level. Install roof mounting curb so that it bears on the building structure, not on top of the roof deck or roofing materials. Provide restraints where required by local codes. C. Provide cooling condensate drain piping (and overflow piping if required) to approved location. Condensate piping shall be Schedule 40 galvanized steel pipe, Type L copper tube, or PVC. Contractor shall verify the selected material meets with the approval of all State, local authorities and utility company requirements Verification of compliance of the selected piping material is the sole responsibility of the installing Contractor. Condensate piping located within the building shall be insulated with 1/2 inch thick glass fiber or flexible elastomeric cellular foam insulation. Only metallic piping systems will be allowed in return air plenum ceiling space. END OF SECTION

A. Packaged roof top units.

B. Thermostat controls.

NOV-2 4 200

REVISIONS

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& ASSOCIAtes

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ARCHITECTURE PLANNING CONSULTING

DATE: 11/24/2021
JOB NO: 44387
DRAWN BY: STAFF
SHEET NUMBER:

7.1

FILE NAME:

A MECHANICAL PLAN 7.2 | SCALE: 1/4" = 1'-0"

 $\langle 1 \rangle$ ROUTE SUPPLY DUCT DOWN FROM RTU, TRANSITION AS REQUIRED.

2 ROUTE RETURN AIR DUCT UP TO RTU, TRANSITION AS REQUIRED. PROVIDE DUCT MOUNTED SMOKE DETECTOR IN RETURN DUCT AND INTERLOCK WITH RTU, UNIT SHALL DEACTIVATE UPON DETECTION OF SMOKE.

(3) PROVIDE WALL MOUNTED TEMPERATURE SENSORS AND HUMIDITY SENSORS MOUNTED 48" A.F.F. INTERLOCK WITH THERMOSTAT AND HUMIDISTAT IN MANAGERS OFFICE.

 $\langle 4 \rangle$ EXHAUST DUCT UP FROM EF-2 & EF-3, TRANSITION AS REQUIRED. THE EXHAUST RISERS CANNOT BE OFFSET. TRUSSES CLOSEST TO THE EXHAUST RISERS MUST BE SPACED NO LESS THAN 28" APART WITH THE SPACING CENTERED ON THE CENTER OF THE RISERS. REFER TO ROOF PLAN ON 7.2 FOR POSITION OF CURB AND FAN. HOOD, FAN. AND DUCT FURNISHED BY OTHERS AND INSTALLED BY HVAC CONTRACTOR.

 $\langle 5 \rangle$ 8x8 EXHAUST DUCT UP TO EF-1 ON ROOF.

6 PROVIDE A MANUAL BALANCING DAMPER AT ALL DIFFUSERS, TYPICAL.

 $\overline{7}$ NOT USED.

(8) ROUTE 4"Ø SCH. 40 PVC COMBUSTION AIR INTAKE AND FLUE EXHAUST DUCT TO/FROM FORCED COMBUSTION GAS WATER HEATER. PROVIDE GOOSE NECK ON COMBUSTION AIR DUCT AND FLUE CAP ON FLUE EXHAUST DUCT. FLUE EXHAUST DUCT SHALL TERMINATE A MINIMUM OF 3'-0" ABOVE COMBUSTION AIR INTAKE. ANOTHER OPTION IS TO PROVIDE MANUFACTURER'S CONCENTRIC TERMINATION KIT PROVIDED BY PLUMBING CONTRACTOR. COORDINATE WITH LOCATION OF WATER HEATER AND ROOF TOP EQUIPMENT.

(9) GREASE DUCT SHALL BE ZERO CLEARANCE 1500°F GREASE DUCT BY METAL FAB. SEE KITCHEN DRAWINGS FOR INSTALLATION DETAILS.

(10) PROVIDE WALL MOUNTED THERMOSTAT AND HUMIDISTAT FOR EACH RTU MOUNTED 48" A.F.F. COORDINATE WITH OWNER FOR FINAL LOCATION.

(11) ROUTE ALL DUCTWORK BETWEEN TRUSSES AND THROUGH TRUSS WEBBING. COORDINATE AND ADJUST DIFFUSER LOCATIONS AS NECESSARY.

GENERAL SHEET NOTES

A. CONTRACTOR TO BE RESPONSIBLE FOR ALL FINAL DIMENSIONS.

B. CONTRACTOR SHALL NOT CUT ANY BUILDING STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

C. CONTRACTOR TO COORDINATE WORK SCHEDULE WITH OTHER TRADES AND

D. CONTRACTOR TO COORDINATE ALL NEW WORK SO AS NOT TO DAMAGE ANY OR NEW EQUIPMENT.

E. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT PRIOR TO INSTALLING SAME.

F. ALL WORK AREAS TO BE CLEANED AT THE END OF EACH WORK DAY.

G. CONTRACTOR TO COORDINATE ALL PIPING, ELECTRICAL CONDUIT, DUCTWORK, ROOF OPENINGS, AND EQUIPMENT PLACEMENT AND OTHER WORK WITHIN ALL

H. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PROJECT SCHEDULING AND TIMELINES.

I. ANY HEATING/COOLING SYSTEM 2000 CFM OR GREATER TO BE MONITORED W/SMOKE DETECTION IN S.A. DUCT SO SYSTEMS FAN WILL BE SHUT DOWN AS PER NFPA.

J. PROVIDE "FRESH OUTSIDE AIR" AS REQUIRED BY INTERNATIONAL MECHANICAL

K. PROVIDE COMPLETE SYSTEM AS COORDINATED WITH GC AND OTHER TRADES AND IN ACCORDANCE WITH CURRENT IMC AND ASHRAE 62 STANDARDS. ALL SYSTEMS MUST BE FURNISHED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, KENTUCKY BUILDING CODE AND NFPA. ALL ELECTRICAL AND PLUMBING REQUIREMENTS RELATED TO HVAC TO BE COORDINATED BY THIS SUBCONTRACTOR WITH ELECTRICIAN AND PLUMBER. ALL CONTROL WIRING FOR HVAC EQUIPMENT MUST BE INSTALLED BY THE HVAC SUBCONTRACTOR.

L. MANUFACTURERS MIN CLEARANCES TO BE MAINTAINED ON ALL EQUIPMENT AND DUCTWORK.

M. COORDINATE ALL ROOF & WALL PENETRATIONS WITH OWNER.

THERMOSTAT NOTES:

LOCATE THERMOSTAT BESIDE LIGHT SWITCH IN AREAS OF CONFLICT, WHERE BOTH DEVICES ARE SHOWN.

ROOF AND WALL PENETRATION NOTE:

COORDINATE ALL OPENINGS WITH ARCHITECT BEFORE INSTALLING DUCTWORK OR CUTTING THE ROOF OR WALLS.

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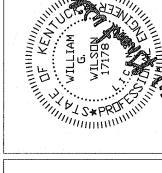
CONDENSATE DRAIN REFRIGERATION LINE SET

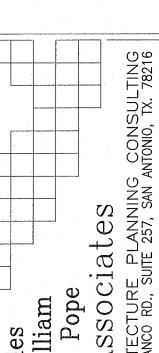
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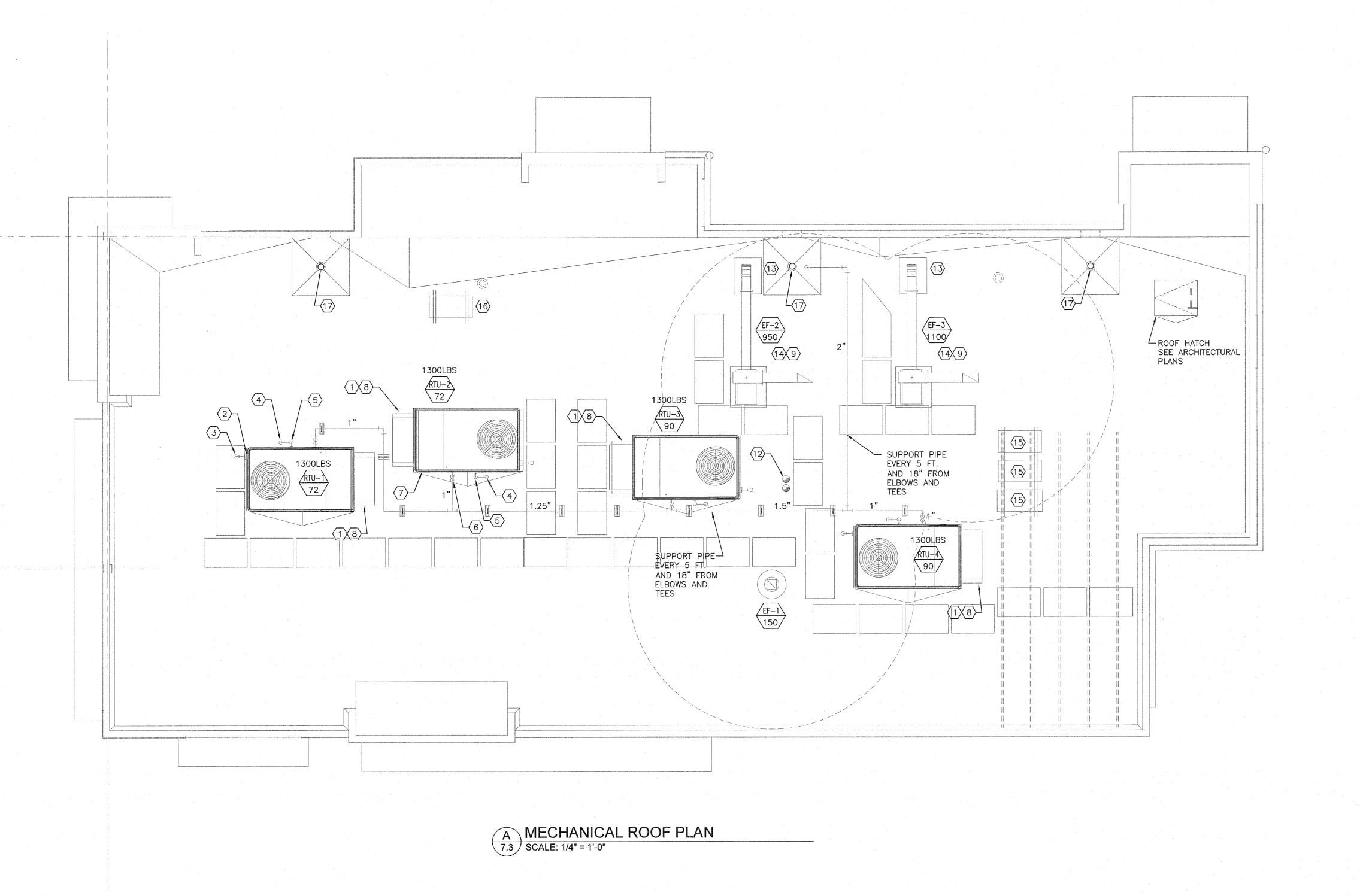
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MECHANICAL ROOF

11/24/2021

DATE: JOB NO: DRAWN BY: SHEET NUMBER:

7.3



CODED SHEET NOTES:

- 1 HVAC SYSTEM AIR INTAKE MUST BE AT LEAST 10FT FROM BUILDING EXHAUST.
- 2 LOCATION OF ELECTRICAL DISCONNECT AND CONTROL WIRING. ENTRANCE, REFER TO ELECTRICAL PLANS. (TYPICAL).
- (3) LOCATION OF ROOF HOOD TO BE INSTALLED BY ELECTRICAL CONTRACTOR. NOTE: DO NOT PENETRATE BOTTOM OF CURB. (TYPICAL).
- 4 GAS PIPE PENETRATION THROUGH ROOF WITH ROOF HOOD, PROVIDED BY PLUMBING CONTRACTOR. (TYPICAL).
- 5 NATURAL GAS CONNECTION.
- 6 CONDENSATE DRAIN WITH EXTERNAL, 4" DEEP P-TRAP INSTALLED BY CONTRACTOR. PLUMBING CONTRACTOR SHALL EXTEND DRAIN AS SHOWN ON THE ROOF PLAN. (TYPICAL).
- (7) SHIM BETWEEN BOTTOM OF CURB AND DECK TO MAKE CURB LEVEL (TYPICAL ALL UNITS).
- 8 OUTSIDE AIR HOOD. MAINTAIN 10'-0" MINIMUM FROM ANY EXHAUST OR PLUMBING VENTS. (TYPICAL).
- 9 REFER TO SHEETS 7.7 AND 7.10 FOR EXHAUST FAN AND GREASE DUCT INSTALLATION. VERIFY DUCT LENGTH.
- 10 NOTE NOT USED
- (11) NOTE NOT USED
- (12) ROUTE COMBUSTION AIR INTAKE AND FLUE PIPING FOR WATER HEATER. GOOSENECK PIPING AT TERMINATION. OUTLET OF FLUE PIPING SHALL TERMINATE MINIMUM 3'-0" ABOVE COMBUSTION AIR PIPING. COORDINATE WITH LOCATION OF WATER HEATER.
- PROVIDE CURB FOR DUCT PENETRATION THROUGH THE ROOF. REFER TO ARCHITECTURAL PLANS FOR ROOF FLASHING.
- 14 INSTALL EXHAUST FAN ON MANUFACTURER'S CURB. REFER TO KITCHEN DRAWINGS FOR FAN AND DUCT INSTALLATION.
- (15) COOLER/FREEZER REMOTE CONDENSING UNITS. PROVIDED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR.
- (16) ICE MACHINE REMOTE CONDENSING UNIT. PROVIDED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR.
- (17) ROOF DRAIN PROVIDED BY PLUMBING CONTRACTOR.

GENERAL SHEET NOTES

- A. CONTRACTOR TO BE RESPONSIBLE FOR ALL FINAL DIMENSIONS.
- B. CONTRACTOR SHALL NOT CUT ANY BUILDING STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
- C. CONTRACTOR TO COORDINATE WORK SCHEDULE WITH OTHER TRADES AND
- D. CONTRACTOR TO COORDINATE ALL NEW WORK SO AS NOT TO DAMAGE ANY OR NEW EQUIPMENT. E. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT
- PRIOR TO INSTALLING SAME.
- F. ALL WORK AREAS TO BE CLEANED AT THE END OF EACH WORK DAY. G. CONTRACTOR TO COORDINATE ALL PIPING, ELECTRICAL CONDUIT, DUCTWORK, ROOF OPENINGS, AND EQUIPMENT PLACEMENT AND OTHER WORK WITHIN ALL
- H. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PROJECT SCHEDULING AND TIMELINES.
- I. ANY HEATING/COOLING SYSTEM 2000 CFM OR GREATER TO BE MONITORED W/SMOKE DETECTION IN S.A. DUCT SO SYSTEMS FAN WILL BE SHUT DOWN AŚ PER NFPA.
- J. PROVIDE "FRESH OUTSIDE AIR" AS REQUIRED BY INTERNATIONAL MECHANICAL
- K. PROVIDE COMPLETE SYSTEM AS COORDINATED WITH GC AND OTHER TRADES AND IN ACCORDANCE WITH CURRENT IMC AND ASHRAE 62 STANDARDS. ALL SYSTEMS MUST BE FURNISHED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, KENTUCKY BUILDING CODE AND NFPA. ALL ELECTRICAL AND PLUMBING REQUIREMENTS RELATED TO HVAC TO BE COORDINATED BY THIS SUBCONTRACTOR WITH ELECTRICIAN AND PLUMBER. ALL CONTROL WIRING FOR HVAC EQUIPMENT MUST BE INSTALLED BY THE HVAC SUBCONTRACTOR.
- L. MANUFACTURERS MIN CLEARANCES TO BE MAINTAINED ON ALL EQUIPMENT AND DUCTWORK.
- M. COORDINATE ALL ROOF & WALL PENETRATIONS WITH OWNER.

PRIOR TO INSTALLING SAME.

- B. CONTRACTOR SHALL NOT CUT ANY BUILDING STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
- C. CONTRACTOR TO COORDINATE WORK SCHEDULE WITH OTHER TRADES AND GENERAL CONTRACTOR.
- D. CONTRACTOR TO COORDINATE ALL NEW WORK SO AS NOT TO DAMAGE ANY NEW EQUIPMENT.
- E. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT
- F. ALL WORK AREAS TO BE CLEANED AT THE END OF EACH WORK DAY.
- G. CONTRACTOR TO COORDINATE ALL PIPING, ELECTRICAL CONDUIT, DUCTWORK, ROOF OPENINGS, AND EQUIPMENT PLACEMENT AND OTHER WORK WITHIN ALL
- H. SEE DRAWINGS AND SPECIFICATIONS FOR PROJECT SCHEDULING AND TIMELINES.
- I. ANY HEATING/COOLING SYSTEM 2000 CFM OR GREATER TO BE MONITORED W/SMOKE DETECTION IN RETURN AIR DUCT SO SYSTEMS FAN WILL BE SHUT DOWN AS PER NFPA.
- J. PROVIDE "FRESH OUTSIDE AIR" AS REQUIRED BY INTERNATIONAL MECHANICAL CODES.
- K. PROVIDE COMPLETE SYSTEM AS COORDINATED WITH GC AND OTHER TRADES AND IN ACCORDANCE WITH CURRENT IMC AND ASHRAE 62 STANDARDS. ALL SYSTEMS MUST BE FURNISHED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, KENTUCKY BUILDING CODE AND NFPA. ALL ELECTRICAL AND PLUMBING REQUIREMENTS RELATED TO HVAC TO BE COORDINATED BY THIS SUBCONTRACTOR WITH ELECTRICIAN AND PLUMBER. ALL CONTROL WIRING FOR HVAC EQUIPMENT MUST BE INSTALLED BY THE HVAC SUBCONTRACTOR.
- L. MANUFACTURERS MIN CLEARANCES TO BE MAINTAINED ON ALL EQUIPMENT AND DUCTWORK.
- M. COORDINATE ALL ROOF & WALL PENETRATIONS WITH ARCHITECT.
- N. ALL RECTANGULAR AND ROUND DUCTS SHALL BE SIZED AS SHOWN ON THE DRAWINGS. DUCT SIZES SHOWN ARE FREE AREA SIZES AND THE CONTRACTOR SHALL MAKE ALLOWANCES TO INCLUDE EXTERNAL DUCT WRAP INSULATION ON RECTANGULAR AND ROUND DUCTS PER THE SPECIFICATIONS.
- O. ALL RECTANGULAR AND ROUND DUCTWORK SHALL BE FABRICATED USING MILD GALVANIZED SHEET METAL. FIBERGLASS DUCTBOARD IS PROHIBITED. FLEXIBLE DUCT MAY BE USED FOR DIFFUSER RUNOUTS AND MUST BE INSTALLED IN STRAIGHT RUNS WITH MINIMUM TURNING AND SAGGING. FLEXIBLE DUCT INSTALLED WITH UNNECESSARY OR EXCESSIVE TURNS OR SAGS WILL BE RE-INSTALLED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST.
- P. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED ACCORDING TO THE MOST RECENTLY PUBLISHED ASHRAE AND SMACNA STANDARDS, ROUTE DUCTWORK AS HIGH AS POSSIBLE.
- Q. INSTALL TURNING VANES IN ALL RECTANGULAR DUCT ELBOWS.
- R MANUFACTURER'S MINIMUM CLEARANCE RECOMMENDATIONS SHALL BE MAINTAINED ON ALL EQUIPMENT AND DUCTWORK.
- S. PROVIDE A DRAIN LINE FROM EACH ITEM OF EQUIPMENT REQUIRING A DRAIN (COOLING COIL DRAIN PANS, PUMPS, BACKFLOW PREVENTERS, HEAT PUMP UNITS, ETC.) TO THE NEAREST ROOF DRAIN, FLOOR DRAIN. OPEN RECEPTACLE, TO OUTSIDE OF THE BUILDING. OR AS SHOWN. UNLESS OTHERWISE NOTED, PROVIDE SCH. 40 PVC WITH SOLVENT CEMENT JOINTS FOR ALL CONDENSATE DRAIN PIPING. ALL HORIZONTAL CONDENSATE DRAIN PIPING SHALL BE SLOPED AT 1% MINIMUM. ALL CONDENSATE DRAIN CONNECTIONS TO EQUIPMENT SHALL INCLUDE A MIN. 4" DEEP P-TRAP WITH CLEAN-OUT PLUG. CONDENSATE DRAIN PIPING SHALL SUPPORTED WITH MIRO IND. MODEL 3R PIPE STANDS OR EQUAL. CONDENSATE DRAIN PIPING SIZING, INSTALLATION AND TERMINATION SHALL COMPLY WITH ALL APPLICABLE CODES. HEAT TRACE ALL EXTERIOR CD.
- T. SUPPLY & RETURN DUCT CONNECTIONS TO EQUIPMENT SHALL INCLUDE CANVAS FLEXIBLE DUCT CONNECTORS. LOCATE FLEXIBLE DUCT CONNECTORS MAXIMUM 12" BELOW BOTTOM OF ROOF DECK FOR VERTICAL DUCT DROPS FROM ROOF MOUNTED EQUIPMENT.
- U. ALL DUCTWORK RECTANGULAR OR ROUND SUPPLY AND RETURN AIR DUCTWORK SHALL BE INSULATED EXTERNALLY UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. EXTERNAL DUCT INSULATION (DUCT WRAP) SHALL BE FIBERGLASS DUCT WRAP WITH VINYL OR FSK FACING, DUCT WRAP SHALL HAVE A K-FACTOR OF .26 AT 75 DEG. F MEAN, A DENSITY OF 1.0 LB./C.F AND A MINIMUM 8.0 INSTALLED R-VALUE.
- V INSULATION SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS AND THE DESCRIBED METHODS IN THE MOST RECENT EDITION OF SMACNA'S DUCT APPLICATION STANDARD. E/A DUCT SHALL NOT BE INSULATED.
- W. REPLACE ALL HVAC EQUIPMENT FILTERS WITH NEW 2" PLEATED THROW-AWAY FILTER AT COMPLETING OF THE JOB PLUS TWO ADDITIONAL FILTERS TURN OVER TO OWNER.
- X. THE RETURN AIR SMOKE DETECTOR IN THE MAIN RETURN AIR DUCT, FACTORY FURNISHED, CONTRACTOR TO INSTALL IN ACCORDANCE WITH APPLICABLE CODES. THE REMOTE INDICATOR/TEST STATION FOR EACH SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. ALL SMOKE DETECTOR AND REMOTE INDICATOR/TEST STATION WIRING AND CONDUIT NOT FACTORY INSTALLED SHALL BE BY THE ELECTRICAL CONTRACTOR. THE SMOKE DETECTOR AND THE REMOTE INDICATOR/TEST STATION SHALL BE INTERLOCKED WITH THE AC CONTROLS TO AUTOMATICALLY SHUT DOWN THE UNIT UPON SENSOR ACTIVATION OR REMOTE INDICATOR/TEST STATION USE. SEE THE ELECTRICAL DRAWINGS FOR
- Y. FINAL TESTING AND BALANCING SHALL BE PERFORMED IN COMPLETE ACCORDANCE WITH AABC STANDARDS. THE CONTRACTOR SHALL PROCURE THE SERVICES OF AN INDEPENDENT COMPANY, THE COMPANY SHALL BE EQUIPPED AND HAVE THE QUALIFIED TECHNICAL PERSONNEL AS REQUIRED BY AABC OR NEBB. THE AIR BALANCE REPORT SHOWS DESIGN AND MEASURED AIR QUANTITIES, STATIC PRESSURES, FAN MOTOR RPM AND MOTOR CURRENT. DEVIATION BETWEEN DESIGN AND MEASURED QUANTITIES SHALL NOT BE GREATER THAN 10%.
- Z. SYSTEM SHALL BE INSTALLED TO MEET IMC 2015, KBC 2018, AND IECC

GENERAL MECHANICAL NOTES

- A. PROVIDE ALL LABOR, MATERIAL, AND EQUIP. REQUIRED FOR THE COMPLETION & OPERATION OF ALL SYSTEMS IN THIS SECTION OF WORK IN ACCORDANCE WITH ALL APPLICABLE CODES, ASHRAE, SMACNA, NFPA, EPA, ETC.
- B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS AND PAYING FOR SAME. HE SHALL INCLUDE IN HIS BID CHARGES FOR ALL FEES ASSOCIATED WITH THE CONSTRUCTION OF THE SPACE INCLUDING BUT NOT LIMITED TO LOCAL, COUNTY, OR STATE SERVICE CHARGES AND PERMIT FEES.
- C. ACCESS PANELS ARE REQUIRED IN WALLS, FLOORS, AND SUSPENDED CEILINGS (EXCEPT LAY-IN TYPE) FOR ACCESS TO ALL UNITS, VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. PANELS SHALL BE FURNISHED AND INSTALLED UNDER ARCHITECTURAL SPECIFICATIONS.
- D. INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS OR DETAILS, BUT NOT SHOWN ON PLANS, AND VICE VERSA, SHALL BE PROVIDED AS IF EXPRESSLY REQUIRED BY BOTH.
- E. EXACT LOCATIONS OF ALL EQUIPMENT SHALL BE COORDINATED WITH OTHER TRADES, LIGHTING, AND ELECTRICAL REQUIREMENTS TAKE PRECENDENCE OVER CEILING MOUNTED MECHANICAL REQUIREMENTS. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING GRID AND LIGHTING LAYOUT FOR COORDINATION OF FINAL DIFFUSER LOCATIONS.
- F. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINEER BEFORE INSTALLATION. REFER ALSO TO ARCHITECTURAL WALL INTERIORS, SECTIONS, EXTERIOR WALL ELEVATIONS, CEILING HEIGHTS, AND OTHER DETAILS OF THESE DOCUMENTS.
- G. ALL MECHANICAL CONSTRUCTION DETAILS SHALL BE AS SHOWN AND AS REQUIRED TO MAINTAIN "UL" ASSEMBLY RATINGS AS SHOWN ON DRAWINGS SEAL AROUND ALL PENETRATIONS THROUGH ALL "UL" RATED ASSEMBLIES, FIRE, AND SMOKE WALLS. COORDINATE WITH GENERAL CONTRACTOR.
- H. DUCTWORK AND PIPING SHOWN ON THE PLANS ARE DIAGRAMMATIC, AND MIGHT NOT SHOW ALL BENDS, OFFSETS, ROUTING, AND FITTINGS NECESSARY FOR THE INSTALLATION OF THE WORK AS INTENDED. ANY SUCH ADDITIONAL BENDS, OFFSETS, ROUTING, OR FITTINGS SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL NOT FABRICATE ANY DUCTWORK UNTIL SITE CONDITIONS ARE VERIFIED.
- I. EQUIPMENT, FIXTURES, AND ACCESSORIES SHALL NOT BE SUPPORTED FROM CEILINGS, SOFFITS, NEUTRAL PIERS, PIPING, DUCTWORK, ROOF DECK, LATERAL BRACING, BRIDGING OR CONDUIT. ITEMS SHALL ONLY BE SUPPORTED FROM STRUCTURE WHICH HAS BEEN APPROVED FOR SUPPORT.
- J. THE CONTRACTOR SHALL COOPERATE AND COORDINATE WITH ALL OTHER TRADES IN THE LAYING OUT AND INSTALLATION OF THE WORK, PRIOR TO FABRICATION AND INSTALLATION OF THE EQUIPMENT.
- K. INSTALL EQUIPMENT, MATERIALS, ETC. IN STRICT ACCORD WITH MANUFACTURER'S RECOMMENDATIONS AND DIRECTIONS. IF IN CONFLICT WITH THE DESIGN INDICATED IN THE CONTRACT DOCUMENTS, ADVISE THE ENGINEER PRIOR TO FABRICATION AND INSTALLATION FOR CLARIFICATION.
- L. DUCT DIMENSIONS INDICATED ARE INSIDE CLEAR.
- M. ALL DUCT AND PIPE PENETRATIONS OF RATED WALLS AND FLOORS (IF ANY) SHALL BE FIRESTOPPED.
- N. ALL SUPPLY AND RETURN DUCTS SHALL HAVE EXTERNAL INSULATION.
- O. CONTRACTOR SHALL NOT CUT ANY BUILDING STRUCTURAL MEMBER
- WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER. P. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL
- EQUIPMENT PRIOR TO INSTALLING SAME.
- Q. ALL WORK AREAS TO BE CLEANED AT THE END OF EACH WORK DAY.
- R. CONTRACTOR TO COORDINATE ALL ELECTRICAL CONDUIT AND EQUIPMENT PLACEMENT AND OTHER WORK WITHIN ALL TRADES AND EXISTING CONDITIONS.
- S. ALL DUCTWORK EXCEPT FLEXIBLE DUCTWORK SHALL BE GALVANIZED SHEET METAL, FABRICATED AND INSTALLED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF SMACNA - "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE". DUCTWORK 18" WIDTH AND LARGER SHALL BE CROSS-BROKEN OR RIBBED AND STIFFENED SO THAT IT WILL NOT "BREATHE", RATTLE, VIBRATE, OR SAG.
- T. ALL DUCT INSULATION SHALL BE UL LABELED FOR FIRE AND SMOKE RATINGS WITH A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50. DUCT INSULATION SHALL COMPLY WITH ALL APPLICABLE ASHRAE AND SMACNA STANDARDS.
- U. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0". ALL FLEXIBLE DUCT SHALL CONFORM TO THE REQUIREMENTS OF U.L. 181 FOR CLASS 1 FLEXIBLE AIR DUCTS. SUPPORT TO ELIMINATE SAGGING & KINKING.
- V. ALL BUILDING PENETRATIONS MUST BE COORDINATED WITH ENGINEER AND SHALL BE FLASHED AND SEALED WEATHERTIGHT. ALL MATERIALS AND COLORS MUST BE PRE-APPROVED BY ARCH./OWNER.
- W. MAINTAIN MIN. 10' BETWEEN OUTDOOR AIR INTAKES AND EXHAUST FAN DISCHARGE, PLUMBING, VENT, ETC.
- X. ALL CONTROL WIRING & CONDUIT SHALL COMPLY WITH NEC.
- Y ROUTE ALL CONDENSATE DRAINS TO NEAREST FLOOR DRAIN OR MOP SINK.

GRILLE & DIFFUSER SCHEDULE MARK | MANUFACTURER | DEVICE MAX CFM | S.P. OBD COLOR MOUNTING | NOTE TYPE & MODEL METALAIRE RECESSED 6"ø 100 .03 NO WHITE 18x18 CC15TB GYPSUM LAY-IN 6"ø NO WHITE R-6 100 .03 5800A-6 ALUMINUM METALAIRE LAY-IN R-16 24x24 16"ø .08 ŃΟ WHITE 1200 CC15TB ALUMINUM METALAIRE RECESSED S-6G | H4002 .03 18x18 6"ø 100 NO WHITE **GYPSUM** METALAIRE S-6 | 5800A-6 .03 NO WHITE 6"ø 100 **ALUMINUM**

600

1. PROVIDE FLEXMASTER SPIN-IN TAKE OFF WITH SCOOP & DAMPER. PROVIDE MANUAL

12"ø

VOLUME DAMPERS AND ADJUST DIFFUSERS AS SHOWN ON DRAWINGS.

24x24

- 2. 1/2"x1/2"x1" CUBE CORE.
- 3. DIFFUSER TO BE LOUVERED FACE. 4. PROVIDE FIRE DAMPER DIFFUSER.
- 5. OBD TO BE OPERABLE FROM FACE.
- ALUMINUM.

S-12 | 5800A-6

7. PROVIDE MANUAL VOLUME CONTROL DAMPER.

	EXHAUST	FAN SCHEDULE
	DESIGNATION	EF-1
	MANUFACTURER	GREENHECK
	MODEL NUMBER	LDP-75G
	STATIC PRESSURE	0.25"
	AIRFLOW (MAX)	150 CFM
	HP/WATTS	1/50 HP
	SONES, MAX	3.0 SONES
	RPM	1,300 RPM
	VOLTS/PHASE/HZ	120/1/60
	MOUNTING	ROOF
2	NOTES:	1,2,3,4,5,6,7
1		

ACCESSORIES & NOTES:

- WIRE BY DIVISION 26. INTERLOCK WITH RESTROOM LIGHTING.
- PROVIDE GRAVITY BACKDRAFT DAMPER.
- PROVIDE WITH DISCONNECT. 1. PROVIDE WITH SPEED CONTROLLER, CONCEALED AT FAN.
- CONNECT TO LOCAL LIGHTING CIRCUIT FOR OPERATION. 6. 14" INSULATED ROOF CURB WITH FLASHING.
- 7. ALUMINUM BIRD SCREEN.

	AIR BA	LANCE SCH	EDULE	
DESIGNATION	SUPPLY (CFM)	RETURN (CFM)	EXHAUST (CFM)	FRESH AIR (CFM)
RTU1-72	2,400	2,400	0	480
RTU2-72	2,400	2,400	0	480
RTU3-90	3,000	3,000	0	650
RTU4-90	3,000	3,000	0	650
EF-1 (RR)	0	0	150	0
EF-2 (FRYER)	0	0	950	0
EF-3 (BROILER)	0	0	1,100	0
TOTAL	10,800	10,800	2,200	2,260

LAY-IN

ALUMINUM

NO

.05

WHITE

DESIGNATION	RTU1-72	RTU2-72	RTU3-90	RTU4-90
SUPPLY AIR CFM	2,400	2,400	3,000 (DUAL COMPRESSOR)	3,000 (DUAL COMPRESSOR)
OLTS/PHASE/HERTZ	208/3/60	208/3/60	208/3/60	208/3/60
MINIMUM CIRCUIT AMPS	42.0 AMPS	42.0 AMPS	42.0 AMPS	42.0 AMPS
MOCP, HACR	50 MOCP	50 MOCP	50 MOCP	50 MOCP
FFICIENCY RATING, MINIMUM	13.0 EER	13.0 EER	13.0 EER	13.0 EER
GAS HEATING (80% EFF)	200 MBH INPUT (2 STAGE)			
POWER EXHAUST	YES	YES	YES	YES
OTAL COOLING BTUH	72,000 BTUH	72,000 BTUH	90,000 BTUH-2 STAGE	90,000 BTUH-2 STAGE
MANUFACTURER	TRANE	TRANE	TRANE	TRANE
MODEL NUMBER	YHC-072-F3RLA	YHC-072-F3RLA	YHC-092-F3RLA	YHC-092-F3RLA
OVERALL WEIGHT, MAX	1300 LBS	1300 LBS	1300 LBS	1300 LBS
DISC. SWITCH & CONVENIENCE RECEPTACLE	CIRCUIT BKR, YES	CIRCUIT BKR, YES	CIRCUIT BKR, YES	CIRCUIT BKR, YES
JNIT CONFIGURATION	DOWN FLOW	DOWN FLOW	DOWN FLOW	DOWN FLOW

ACCESSORIES AND NOTES:

- I. HEATING PERFORMANCE BASED UPON OF OF DB OAT & 68F DB RAT.
- 2. COOLING PERFORMANCE BASED UPON 80F DB/67F WB @ 95°F AMBIENT.
- 3. PROVIDE 0-100% COMPARATIVE ENTHALPY ECONOMIZER WITH RAIN HOOD. MOUNT UNIT ON 14" HIGH, INSULATED "THYCURB" OR EQUAL, SLOPED ROOF CURB WITH FLASHING.
- 4. PROVIDE POWER EXHAUST PACKAGE, OUTDOOR TEMPERATURE SENSOR, AND HUMIDISTAT. PROVIDE HOT GAS REHEAT.
- 5. PROVIDE MANUFACTURER'S STANDARD FEATURE PACKAGES & LOW AMBIENT COOLING FEATURE.
- 6. CO2 SENSING AND RA REMOTE SENSORS. PROVIDE DUCT MOUNTED RA DUCT SMOKE.
- 7. PROVIDE SINGLE POINT ELECTRICAL POWER KIT, THROUGH THE BOTTOM CONNECTION.
- 8. PROVIDE WP/GFCI CONVENIENCE OUTLET, MOUNTED FOR IN-USE WET LOCATION. 9. PROVIDE PHASE LOSS MONITOR AND BROWN OUT PROTECTION, AND UNIT MOUNTED CIRCUIT BREAKER.
- 10. PROVIDE VIBRATION ISOLATOR SPRINGS AND STAINLESS STEEL DRAIN PANS.
- 11. PROVIDE CARBON DIOXIDE SENSOR IN RETURN DUCT, FOR DEMAND CONTROL VENTILATION OF OUTSIDE DAMPER. 12. UNIT SHALL BE ASHRAE 90.1 COMPLIANT. REFRIGERANT SHALL BE R-410A.
- 13. PROVIDE 1 1/2" CONDENSATE DRAIN TO GUTTER DRAIN OR ROOF DRAIN WITH P-TRAP AND INDIRECT CONNECTION.

14. INTERLOCK RTU3 WITH EF2. INTERLOCK RTU4 WITH EF3.

00 **(**)

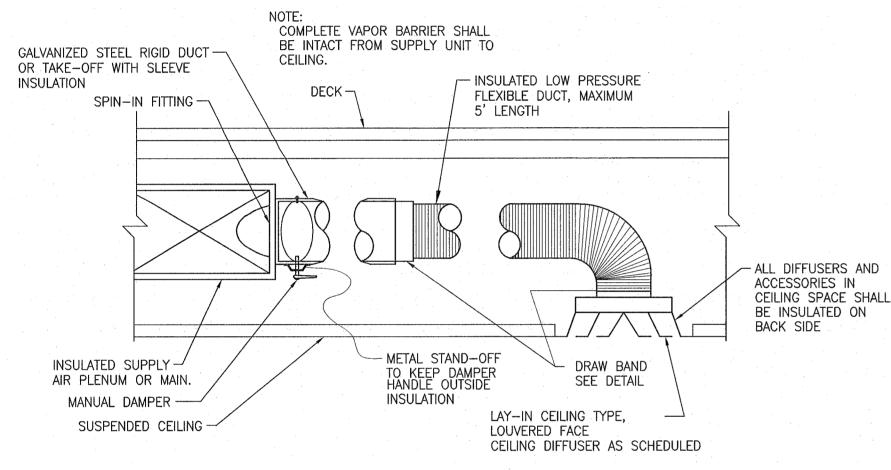
EVISIONS:



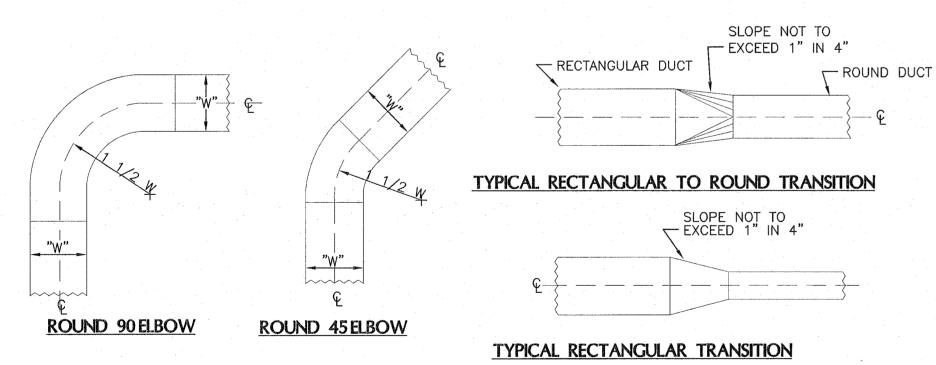


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TRAPPED CONDENSATE DRAIN PIPING

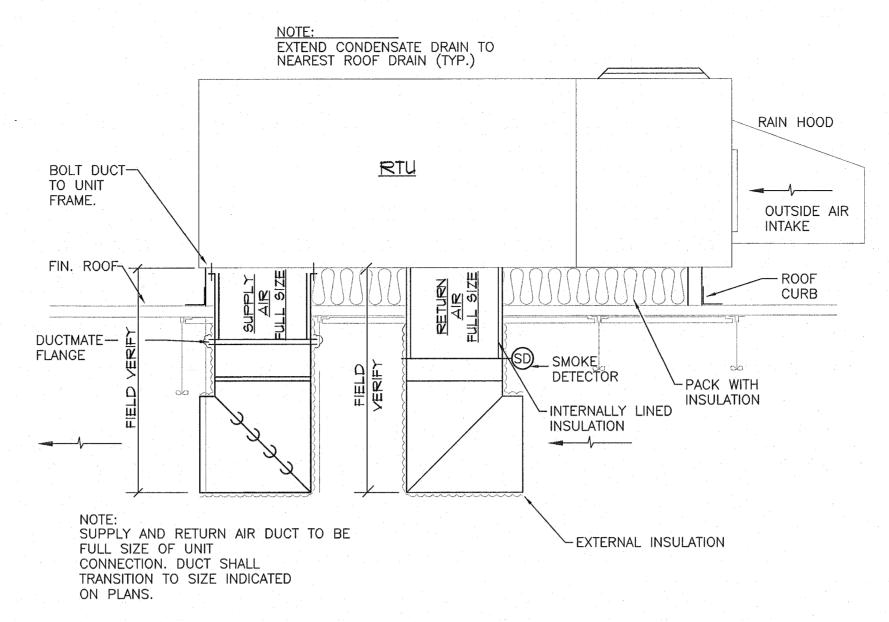


DUCTWORK AND DIFFUSER DETAIL

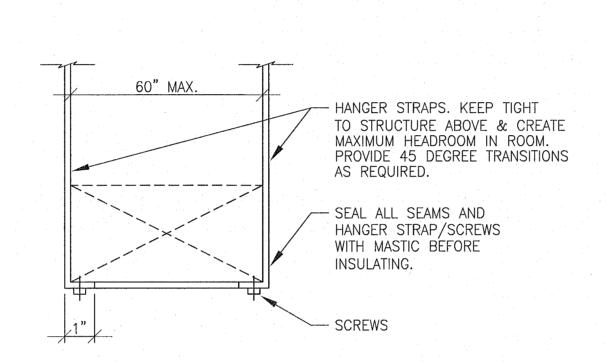


INSTALLATION NOTES

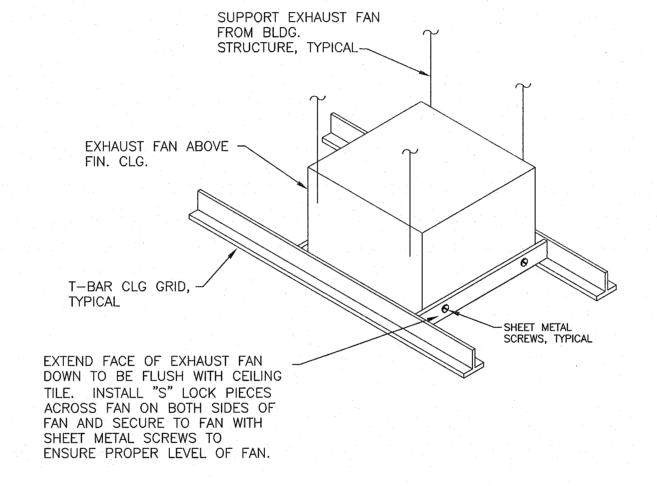
- 1. ALL DUCTS SHALL BE CONSTRUCTED AND ERECTED IN A NEAT AND WORKMANLIKE MANNER.
- 2. DUCTS SHALL BE CONSTRUCTED OF THE WEIGHTS, GAGES, AND MATERIAL AS
- 3. THE DIMENSIONS SHOWN FOR ALL DUCTS SHOWN IN PLAN GIVE THE WIDTH FIRST AND THEN THE HEIGHT.
- 4. DUCTS SHALL BE SECURELY ATTACHED TO THE BUILDING IN AN APPROVED MANNER.
- 5. DIVERGING TRANSITION PIECES SHALL BE MADE AS GRADUAL AS POSSIBLE.
- ACCESS PANELS SHALL BE INSTALLED BEFORE AND/OR AFTER EQUIPMENT 6. INSTALLED IN THE DUCT.
- JOINTS AND SEAMS OF SUPPLY DUCTS SHALL BE SECURELY FASTENED, SEALED, 7. AND MADE AIR TIGHT.
- PRESSURE DUCTWORK DETAILS



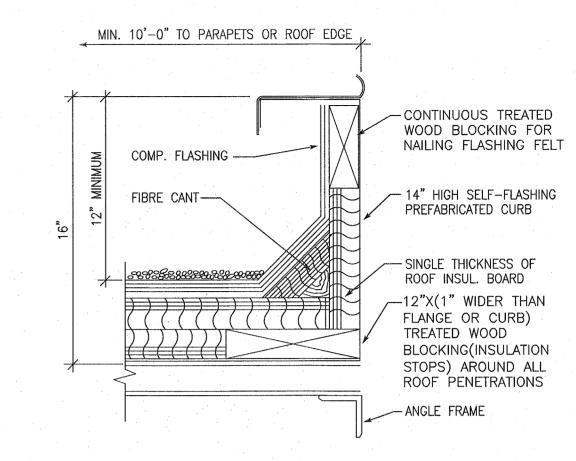
POOF TOP UNIT DETAIL N.T.S.



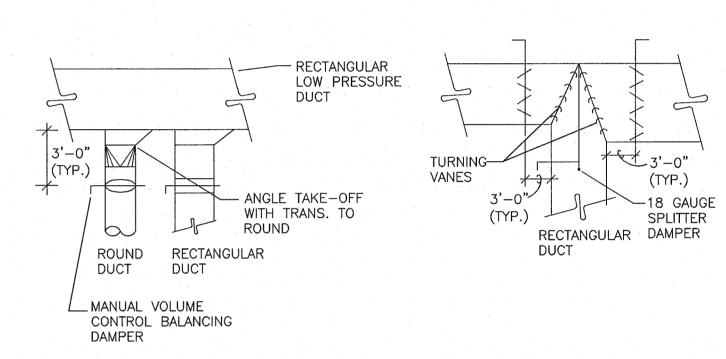
DUCTWORK HANGING DETAIL



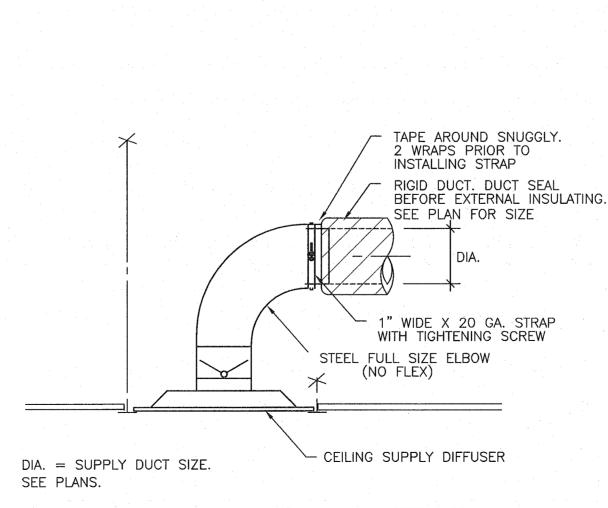
CEILING MOUNTED EXHAUST 6 FAN INSTALLATION DETAIL



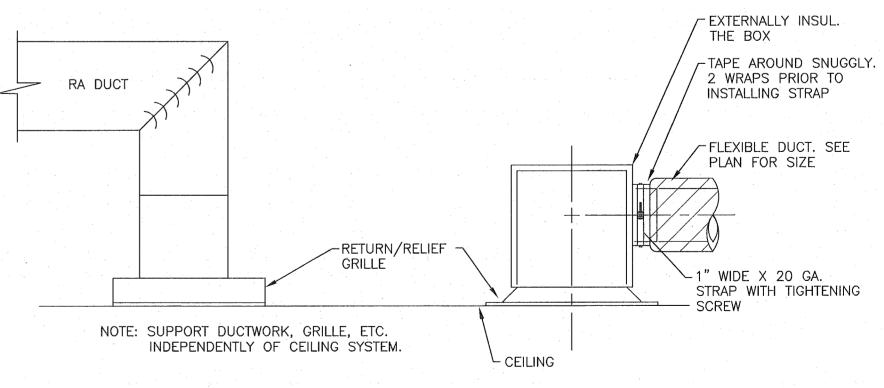
3 ROOF TOP UNIT CURB DETAIL



BRANCH TAKE OFF DUCTWORK DETAIL



LAY-IN DIFFUSER DETAIL



RETURN/RELIEF AIR GRILE DETAIL

ASSOCIATES
CHITECTURE PLANNING CONTRECTOR SUMMER SOUTH STANNING CONTRECTOR SUMMER SON SOUTH SON AND SOUTH Charles William & ARCH 7400 L

REVISIONS:

DETAIL

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SCHEDULES

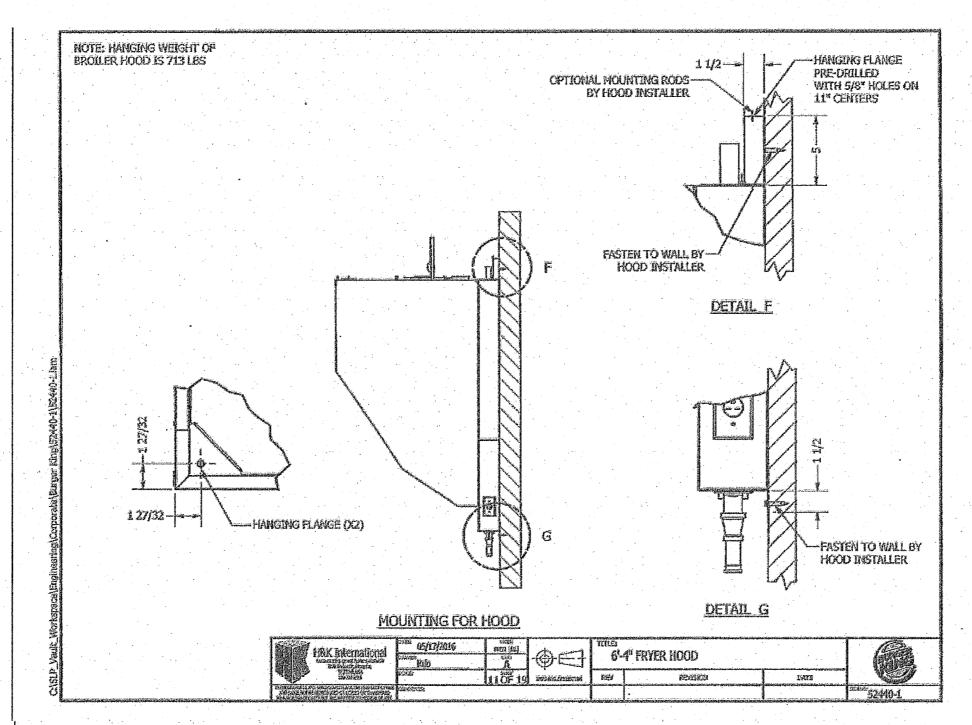
MECHANICAL

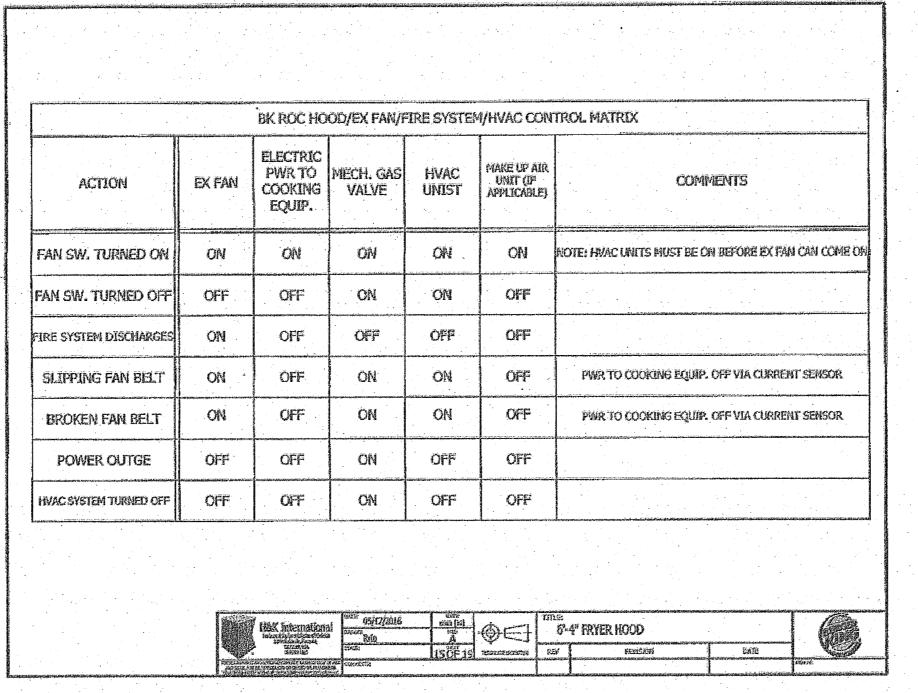
11/24/2021 JOB NO: DRAWN BY: SHEET NUMBER:

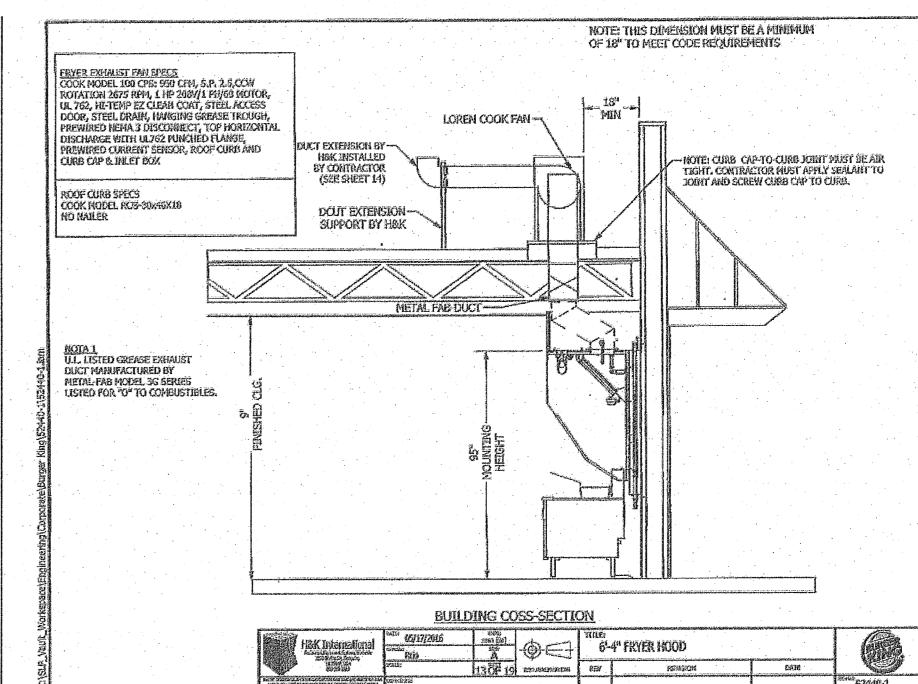
-1/2" TO 5/8" SPACE PACK W/ MINERAL FIBER WOOL ALL AROUND. -2 HR. RATED, NON— HARDENING RESILIENT SEALANT BOTH SIDES. PIPE -STL. PIPE SLEEVE NOTE: VERTICAL PIPE PENETRATION SIMILAR. PACK W/ MINERAL FIBER WOOL ALL AROUND. EXTERNAL DUCT INSULATION - 2 HR. RATED, NON— HARDENING RESILIENT SEALANT BOTH SIDES. DUCT

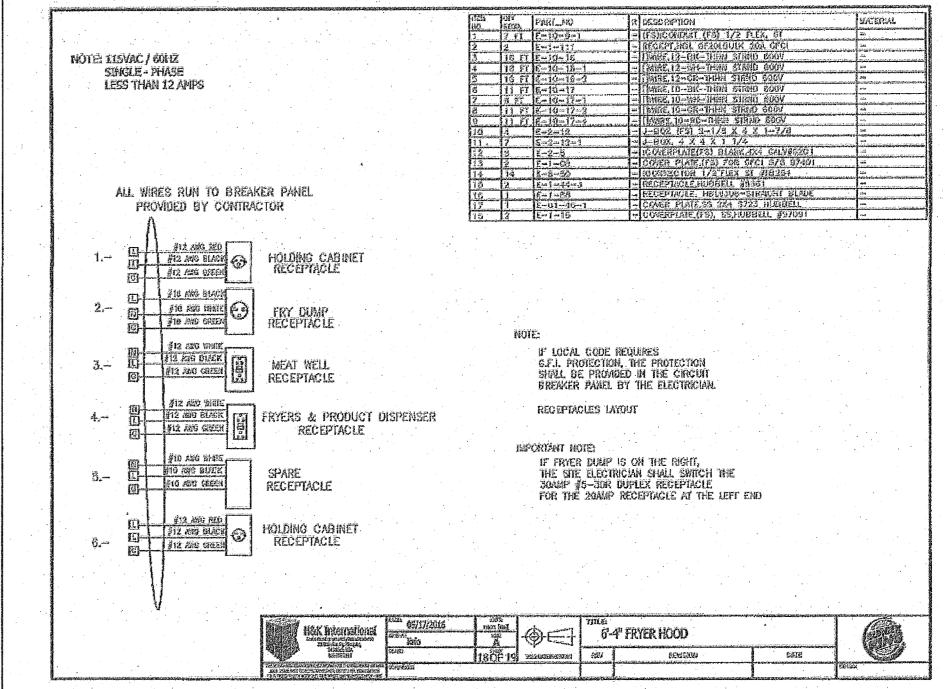
> TYP. FOR PENETRATIONS OF RATED WALLS. DETAIL IS SIMILAR FOR NONRATED WALLS EXCEPT SEALANT CAN BE NONRATED.

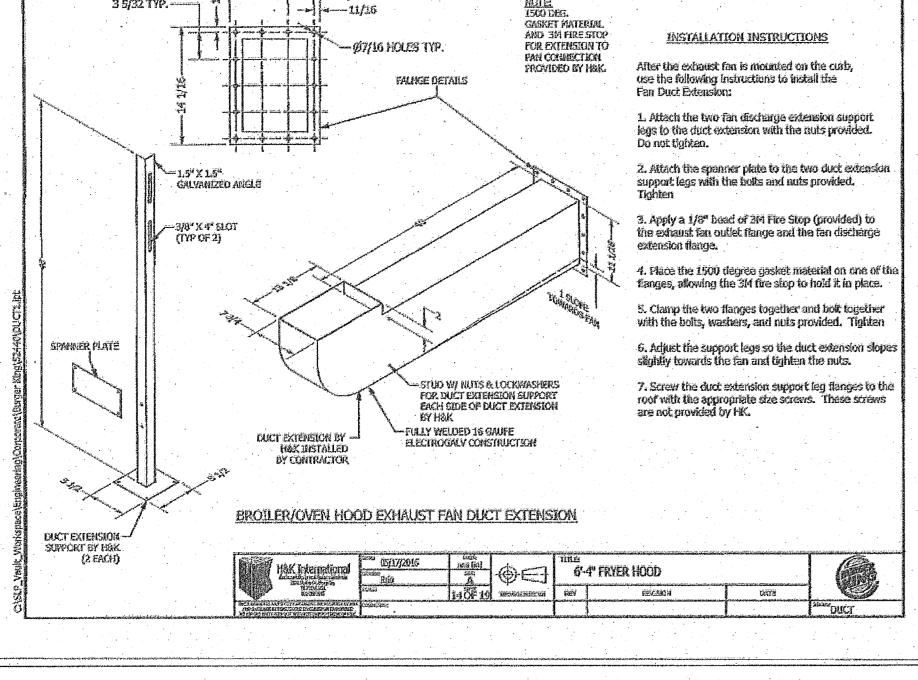
PENETRATIONS THROUGH 9 MALL DETAIL

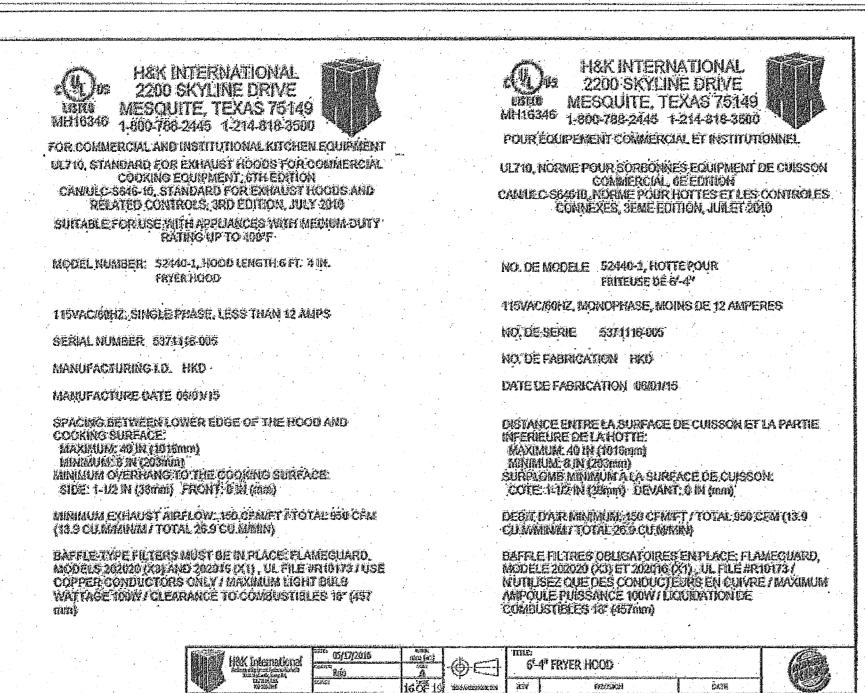


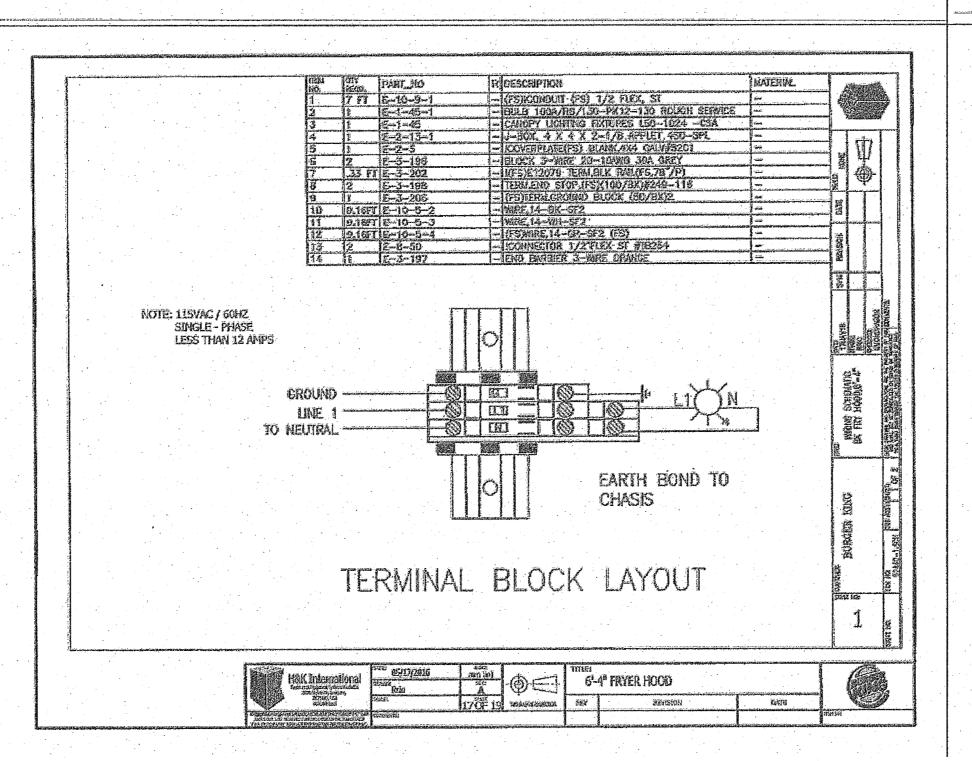


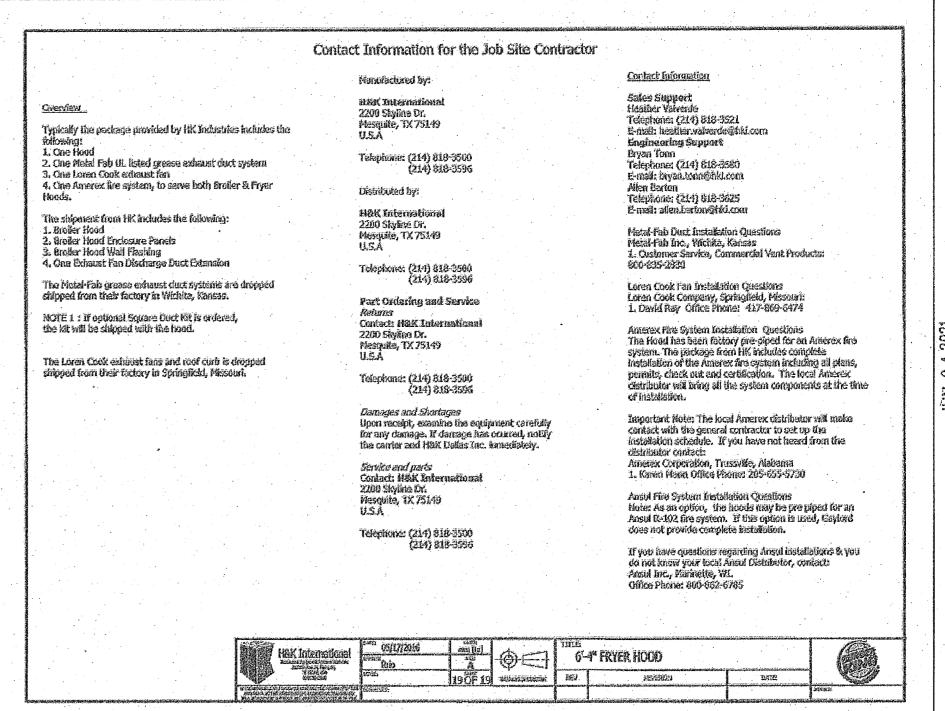








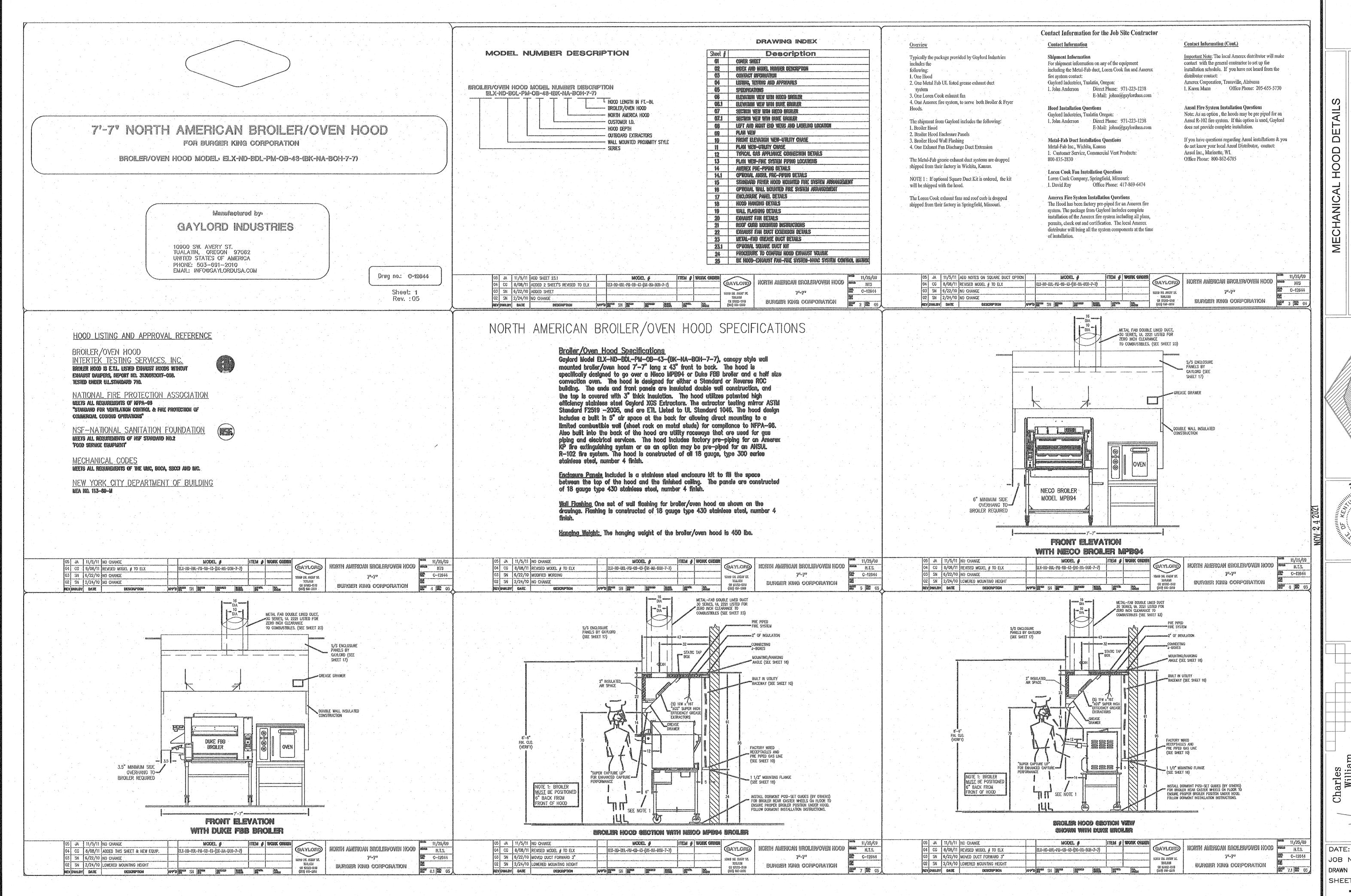




11/24/2021 DATE: JOB NO: 44387 DRAWN BY: STAFF SHEET NUMBER:

ASSOCIAtes
HITECTURE PLANNING CONSULTING
BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78216

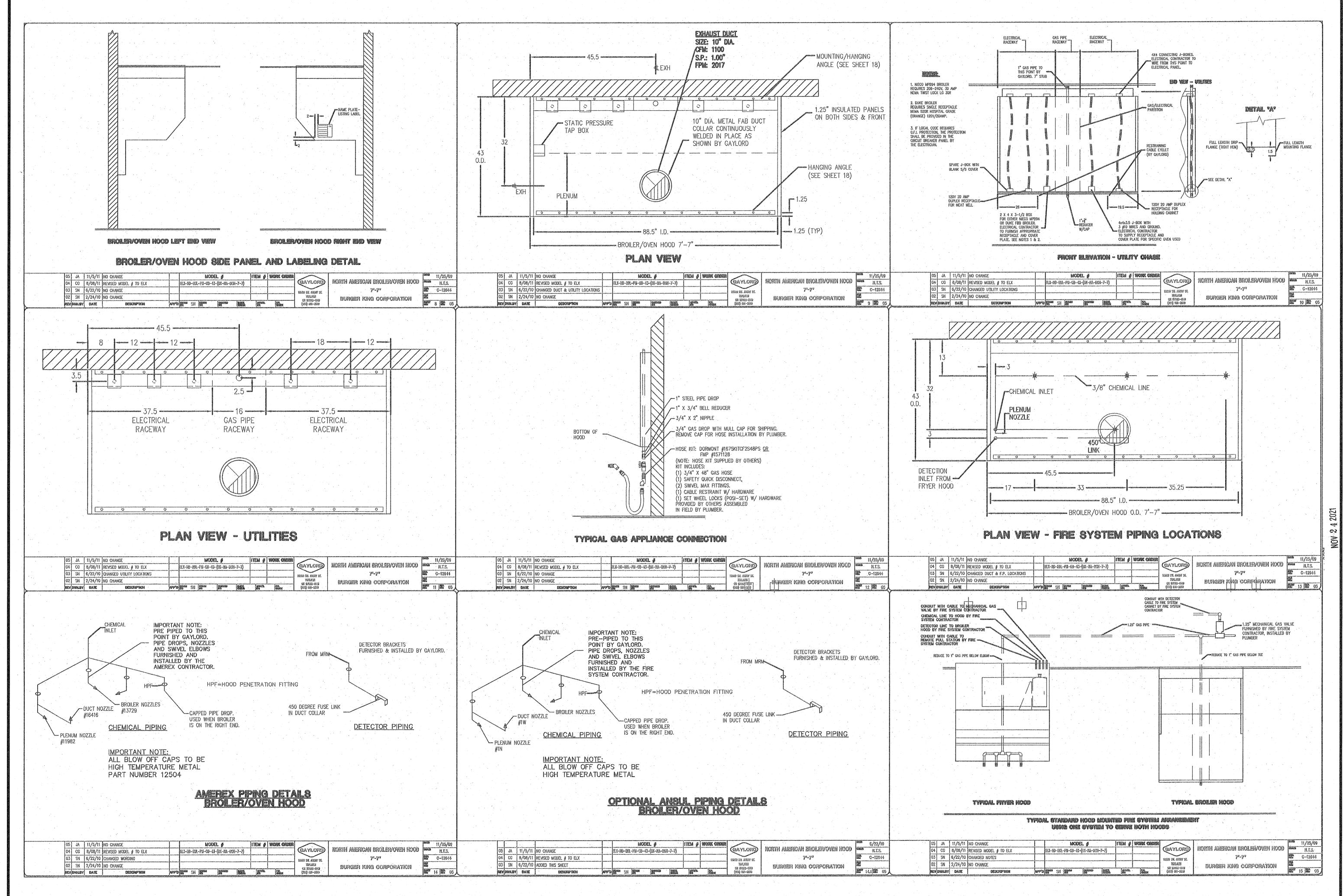
& ARC 7400



ASSOCIATES
CHITECTURE PLANN
BLANCO RD., SUITE 257,

X ARCI

11/24/2021



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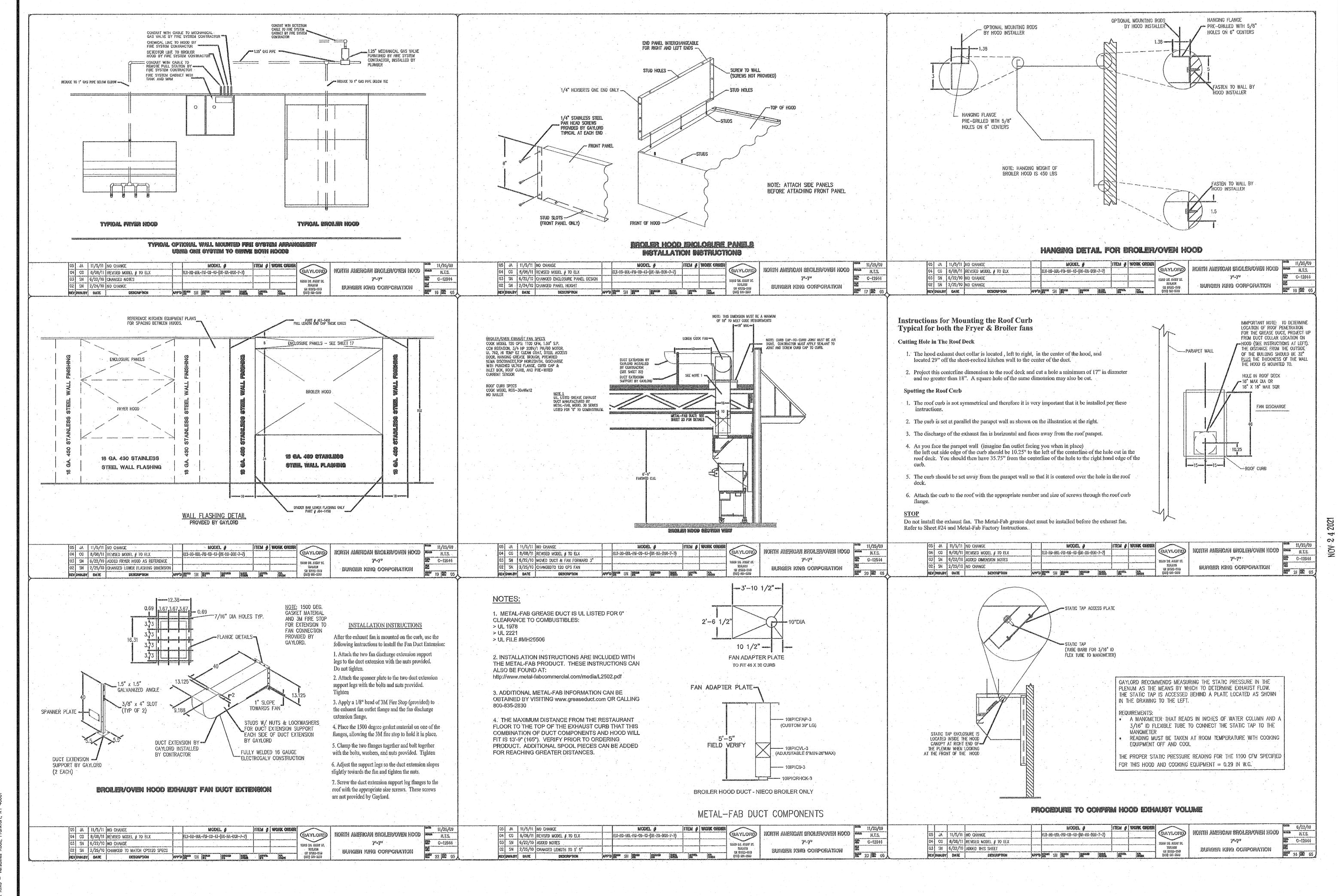
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DETAIL!

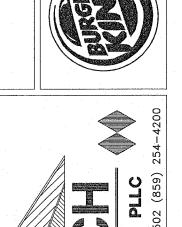
HOOD

MECHANICAL



REVISIONS:

CHA



Pope & ASSOCIALES
ARCHITECTURE PLANNING CONSULTING 7400 BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78216

11/24/2021 DATE: JOB NO: 44387 DRAWN BY: STAFF SHEET NUMBER:

SECTION 260000 - ELECTRICAL GENERAL CONDITIONS

rision 27, and Division 28 and shall apply to all phases of work hereinafter specified, shown on the Drawings, or required to provide a complete installation of approved electrical systems.

The Drawings, General Conditions and General Provisions of the Contract apply to this Section and the other Sections of Division 26, Division 27, and Division 28 of the specifications. Where conflicts arise between these documents, the more stringent provision will be applicable, subject to the erpretation of the Engineer Furnish all labor, material, services, and skilled supervision necessary for the construction, erection, installation, connections, testing, and justment of all materials and electrical equipment specified herein, or shown or noted on the Drawings, and its delivery to the Owner, complete in all respects and ready for use. Where plans indicate fixtures or equipment will be furnished by this Contractor for installation by other Contractors, this Contractor shall furnish all such equipment, complete in all respects and ready for installation. Drawings, instructions, and manuals supplied with equipment shall be carefully preserved and turned over to the installing Contractor Where plans indicate fixtures or equipment will be furnished by others, this Contractor shall provide all rough—in and supplies and shall connect such equipment to the electrical system. Drawings, instructions, and manuals oplied with equipment shall be carefully preserved and turned over to the

1.02 DEFINITIONS Work: The construction and services required by the Contract Documents whether completed or partially completed and includes all labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The work may constitute the whole or a To supply and deliver, unload, and inspect for damage Install: To unpack, assemble, erect, apply, place, finish, cure, protect.

lean, connect, and place into operation into the work. Provide: To furnish and install. Connect: To bring service to the equipment and make final attachment including necessary switches, outlets, boxes, terminations, etc. Concealed: Hidden from sight in chases, furred spaces, shafts, hung Exposed: Not installed underground nor concealed as defined rawings: All plans, details, equipment schedules, diagrams, sketches, etc. issued for the construction of the work. Conduit: Conduit, and all required fittings, pull boxes, hangers, and other

supports and accessories related to such conduit.

1.03 CODES AND STANDARDS Perform work in accordance with the applicable Building Code, Electrical Code, Fire Code, Mechanical Code, Plumbing Code, Energy Code, and all other applicable codes, amendments, and ordinances. Also perform all work in accordance with the Occupational Safety and Health Administration (OSHA) egulations, Americans with Disabilities Act (ADA), the Authority Having irisdiction, Landlord requirements including Tenant Criteria Manuals and Lease Exhibits, and utility company requirements. Recognized Standards: Design, manufacture, testing and method of

installation of all apparatus and materials furnished under the requirements of these Specifications shall conform to the latest publications or standard rules of Institute of Electrical and Electronic Engineers (IEEE), National Electrical Manufacturers Association (NEMA). Underwriters Laboratories, Inc J.L.), National Fire Protection Association (NFPA), American Society for sting and Materials (ASTM). American National Standards Institute (ANSI). lational Electrical Code (NEĆ), National Electrical Safety Code (NESC) National Electrical Contractors Association (NECA), and American Institute of eel Construction (AISC). Code or utility company requirements supersede any requirements of the Drawings and/or Specifications. The Contract Documents take precedence where e Contract Documents exceed code, Landlord, utility, or recognized

1.04 PERMITS AND FEES: Permits, licenses, fees, inspections and arrangements required for the work under this Contract shall be obtained by the Contractor at his 1.05 TEMPORARY SERVICES FOR CONSTRUCTION

Provide a temporary electrical service, including all required equipment such as transformers, generators and fuel, panelboards, etc. as required by all trades. Coordinate power requirements for the temporary service with the General Contractor and the utility company prior to the start of construction. The Contractor is responsible to develop all temporary service plans and specifications as required by the Authority Having Jurisdiction, submit those plans and specifications as required by the Authority Having urisdiction, and to pay for all temporary service energy consumption Provide all temporary lighting necessary to provide lighting levels in compliance with OSHA Regulations and as required by all trades. 1.06 CONTRACT DRAWINGS

Obtain, fully understand, and coordinate the work with the complete set of Contract Documents. Any required corrections, including all associated costs, arising from lack of coordination with the complete set of Contract cuments is the Contractor's sole responsibility. Work under these Sections is diagrammatic and is intended to convey the scope of work and indicate the general arrangement of equipment, conduit, and outlets. Obtain instructions from the Architect/Engineer prior to rough wherever a question exists as to the exact intended location of outlets or

Promptly report and discrepancies discovered within the Contract Documents. Failure of the Contractor to report discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect/Engineer's review and possible rejection. Should the Architect/Engineer reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation including all associated costs, until approval of the installation is given

by the Architect/Engineer.

1.07 SHOP DRAWNGS: Furnish the Architect shop drawing portfolios containing names of manufacturer and cut sheets of equipment to be used on the project. Provide shop drawings for metering equipment, panelboards, luminaires, wiring devices, lighting ontrols, enclosed switches, surge protection devices, and fire detection and alarm battery calculations. Fire detection and alarm drawings shall bear the review ractor from responsibility for errors on the shop drawings. 1.08 QUALITY ASSURANCE

All components shall be listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose and free of all rust/corrosion or any visible damage. All items not complying with this requirement shall be replaced without any change in the Contract amount. Unless otherwise specified, all equipment, devices, luminaires, and materials of the same type or classification and used for the same purpose shall be products of the same manufacturer. Use only new, un-weathered, and unused material, except as specifically noted. Equipment performance and accessories shall be as indicated on the Drawings and/or specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract; equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete, functional system, including all required components reasonably inferred to as necessary although such components may or may not be specifically indicated in the 1.09 DELIVERY, STORAGE, AND HANDLING: Accept all materials on site and inspect for

damage and protect from corrosion and entrance of debris. Handle all materials in

occordance with manufacturer's instructions to avoid damage to internal components, 1.10 WARRANTY AND GUARANTEE: Provide a complete parts and labor warranty and augrantee on all systems for a period of one year from Owner acceptance of the completed facility. This warranty and augrantee shall cover all failures unless such failure is directly attributable to vandalism or causes other than defects in material or

2.01 CONDUCTOR TERMINATIONS: Provide conductor terminations rated at a minimum of 75 degrees C in all equipment.

2.02 SUBSTITUTIONS: The products specified in the Contract Documents constitute the auglity, design, and functionality. Other products are permitted to be submitted t the Contractor's option, during shop drawing review unless indicated otherwis Any substitute products shall meet or exceed all requirements specified. Any costs and coordination issues arising out of any substitution, including coordination with all other contractors and subcontractors and any associated costs, is the substituting contractor's sole responsibility.

3.01 COORDINATION OF WORK

Work lines and established heights shall be in strict accordance with architectural drawings and specifications. Verify all dimensions shown and establish all elevations and detailed dimensions not shown prior to Promptly report any difficulties encountered in the installation of the work which might prevent prompt and proper installation. Failure to report shall constitute an acceptance of the work of other trades as being fit and proper for the execution of this work.

Coordinate the work with all trades so that it proceeds without delay and ninimizes interference to work that is in progress or has not been completed. Conflicts arising from lack of coordination shall be this Contractor's sponsibility. The Electrical Contractor shall pay for all extra cutting and patching necessary by any lack of coordination Arrange all conduit runs in such a manner that it does not interfere with grilles, diffusers, outlet boxes, luminaires, or other items while providing r maximum headroom. Maintain access to equipment requiring service when

selecting mounting elevations.

Afford other trades reasonable opportunity for the execution of their work nd connect the work of other trades as to not delay or interfere with their F. Explicitly follow all manufacturer's instruction instructions and promptly report any conflicts between the manufacturer's installation instructions and

the Contract Documents. Provide all supplementary or miscellaneous items, appurtenances, and devices incidental to or necessary for a sound, secure and complete installation. Verify and coordinate all requirements and installation details of all materials and equipment prior to rough—in. Obtain and review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other Sections. Determine connection locations and requirements, sequence rough-in of electrical connections to coordinate with start-up of equipment, and verify that proper power supply is available prior to subcontractor's ordering equipment. Verify proper voltage, phase, and current rating of power supply and report any discrepancies prior to order, connection of equipment, or start—up. Responsibility for verification of proper power supply voltage and any damage resulting from incorrect

nnections shall rest with this Contractor and any conflicts arisina from lack of coordination shall be this Contractor's responsibility.

3.02 ACCESS TO EQUIPMENT: Install all equipment, starters, switches, receptacles, and boxes so that all parts are easily accessible for inspection, operation, maintenance, and repair. Provide access doors, fire rated where required, for ncealed equipment.

3.03 CUTTING, PATCHING, AND PIERCING Cut all openings in a neat workmanlike manner, only as large as required for the installation, and leave surfaces around openings smooth and finished to match surrounding surface.

B. Patch existing finished surfaces and building components using new materials matching existing materials.

Fire and/or Smoke Rated Assemblies: Become familiar with all fire and/or moke rated construction and install work to maintain the integrity of those Roof Penetrations: Coordinate with the Roofing Contractor to provide any

equired roof penetrations.

3.04 FIELD QUALITY CONTROL Install all equipment, devices, luminaires, and materials plumb, level, securely, and in a neat and workmanlike manner in accordance with NFPA 70 and all applicable NECA and NEMA standards. Adjust all flush mounted equipment, boxes, cabinets, and enclosures such that hey are flush with finished wall or flooring material. Replace or refinish damaged equipment, devices, luminaires, materials, and surfaces where marring or disfigurement has occurred. an electrical parts to remove harmful materials. Clean exposed surfaces of all equipment, devices, luminaires, and materials and the interior of all boxes, enclosures, and cabinets of all foreign materials. Paint all electrical equipment and materials located on exterior walls, on the roof where exposed to view, where visible from 6'-0" above grade from any property line, and all exposed conduit to match the surrounding surfaces. ordinate paint color with the Architect.

3.05 TESTING AND INSPECTION Testing: Test the entire system under operating conditions over a sufficient period of time to establish the adequacy, quality, safety, completed status, and suitable operation of all equipment, devices, systems, etc. Inspection: Obtain all required certificates of inspection and approval.

of project record drawings to the Owner. Project record drawings shall reflect the actual "as-built" conditions and shall include locations of all equipment, devices, and luminaires, circuiting arrangements, routing of all underfloor conduits, routing of conduits larger than 2 inches, locations and mounting heights of all outlet, pull, and junction boxes, locations of all requiring maintenance and inspection, and locations of components and circuiting and switching arrangements of lighting controls.

Operation and Maintenance Data: Provide one printed copy and one electronic copy of operation and maintenance data for all equipment, devices and uminaires to the Owner. Operation and maintenance data shall include anufacturer's cut sheets, maintenance procedures, recommended maintenance intervals, wiring diagrams, parts lists, manufacturers' warranties. certificates, and test reports of each item installed.

Maintenance Materials: Provide to the Owner two keys for each different enclosure and cabinet, including panelboards, two spare fuses of each type

Project Record Documents: Provide one printed copy and one electronic copy

completed test reports to the Owner.

END OF SECTION SECTION 260502 - TRENCHING AND BACKFILL FOR ELECTRICAL

Test Reports: Provide one printed copy and one electronic copy of all

1.01 DEFINITIONS Subgrade Elevations: 30 inches below finish grade unless directed otherwise. Finish Grade Elevations: 8 inches above subgrade unless directed otherwise.

and size, and one fuse puller.

1 02 PROJECT CONDITIONS Provide sufficient quantities of fill and store materials on site in advance of need. Separate differing materials with dividers or stockpile separately and protect stockpiles from erosion and deterioration of materials. Verify all survey bench marks and intended elevations for the work. Protect all existing landscaping, hardscaping, existing structures, benchmarks, survey control points, and other features to remain from excavating equipment and vehicular traffic.

than 1/2 inch, subsoil, debris, large weeds and foreign matter.

General Fill: Subsoil excavated from site and free of lumps larger than 3 inches, rocks larger than 2 inches, and debris. Granular Fill: Natural stone pea gravel free of clay, shale, and organic Topsoil: Select topsoil excavated from site and free of roots, rocks larger

PART 3 EXECUTION Identify required lines, levels, contours, and datum locations. Locate and identify all utilities and protect same from damage.

Report any unexpected subsurface conditions and discontinue affected work in Do not interfere with 45 degree bearing splay of foundations. Cut trenches wide enough to allow inspection of installed utilities. Slope banks of excavations deeper than 4 feet to angle of repose or less until Hand trim excavations and remove loose matter, large stones, and other hard matter which could damage utilities or impede consistent backfilling or

3.03 PREPARATION FOR UTILITY PLACEMENT Replace soft areas of subgrade not capable of compaction with general fill. Compact subgrade to density equal to or greater than requirements for bsequent fill material. Maintain excavations and prevent loose soil from falling into excavation until ready for backfill.

3.04 BEDDING AND FILL A. Backfill to contours and elevations required using unfrozen materials and a placement method that does not disturb or damage other work. Unless indicated otherwise, use granular fill bedding covered with general fill up to finished grade elevation and compact all fill materials in equal continuous layers not exceeding 8 inches compacted depth to 97 percent of maximum dry density. Il thrust bearing surfaces with concrete.

3.05 FIELD QUALITY CONTROL Perform compaction density testing every 2 feet on compacted fill in accordance with ASTM D1556, ASTM D2167, ASTM D2922, or ASTM D3017. Evaluate results in relation to compaction curve in accordance with ASTM D698, ASTM D1557, or AASHTO T 180. Remove, replace, and retest fill if tests indicate work does not meet specified requirements END OF SECTION

SECTION 260519 - CONDUCTORS AND CABLES PART 1 GENERAL - NOT USED

2.01 BUILDING WIRE AND CABLES

Provide single conductor building wire installed in raceway unless indicated otherwise, otherwise permitted, or otherwise required. All conductors shall be copper conductors with 600V insulation; type THHN for dry and damp locations and type THWN—2 for wet locations.

Metal Clad Cable (Type MC): Permitted only for branch circuits in concealed locations and only when approved by applicable codes and amendments and the Authority Having Jurisdiction. Exposed MC Cable is not permitted; no

All MC Cable sheaths shall be listed and identified for grounding. All MC Cable shall be equipped with copper equipment grounding conductor. No exceptions. All conductors 12 AWG and smaller shall be solid. Conductor size 10 AWG is permitted to be solid or stranded. Use stranded conductors for all conductors 8 AWG and larger.

Use 12 AWG conductors, minimum, for all circuits unless indicated otherwise

as modified as follows: 20A, 120V circuits longer than 75 feet: 10 AWG to offset voltage drop. 20A, 120V circuits longer than 150 feet: 8 AWG to offset voltage drop. F. All Conductors shall be COPPER.

2.02 CONTROL CABLES A. All control cable conductor sizes, quantities, stranding, and shielding as recommended by the manufacturer and required for the installation but no Horizontal Applications in Conduit: Type CL2 unless otherwise required.

Horizontal Applications not in Conduit: Type CL2P unless otherwise required. Riser Applications: Type CL2R unless otherwise required.

Use twist-on insulated spring connectors, mechanical connectors, or compression connectors for conductor sizes 8 AWG and smaller. Do not use push-in wire connectors as a substitute for twist-on insulated spring B. Use mechanical connectors or compression connectors for conductor sizes 6 AWG C. Use crimped terminals for all control circuit conductor connections.

3.01 PREPARATION: Clean raceways thoroughly to remove foreign materials before installing conductors and cables.
3.02 COLOR CODING Color code conductors as follows and maintain consistent color coding throughout project including branch circuit conductors. 208Y/120 V, 3 phase, 4 Wire System

Phase A: Black Phase B: Red Neutral/Grounded: White Equipment Ground: Green Isolated Ground: Green with yellow stripe 3.03 INSTALLATION Circuit routing indicated is diagrammatic. Arrange circuiting to minimize

splices and include circuit lengths required to install connected devices within 10 feet of location shown. Combining branch circuits in a single raceway is permitted under the following conditions: I. Provide no more than six current—carrying conductors in a single raceway. Dedicated neutral conductors are considered current-carrying 2. Increase size of conductors as required to account for ampacity

Size raceways, boxes, etc. to accommodate conductors. Neutral Conductors: Provide separate neutral conductors for: Branch circuits protected by ground fault circuit interrupter Branch circuits protected by arc fault circuit interrupter (AFCI) circuit breakers. Branch circuits protected by shunt trip circuit breakers.

Branch circuits fed from feed-through protection of GFCI Branch circuits with dimmina controls. Branch circuits that serve emergency lighting equipment such as emergency batteries or emergency lighting unit equipment Where indicated by the wire counts shown on the Drawings

Multiwire branch circuits (shared neutrals) are permitted where not

otherwise indicated.

a. Locate all multiwire branch circuits in vertically adjacent panelboard pole spaces and provide circuit breaker handle ties to simultaneously disconnect all ungrounded circuit conductors. D. Pull all conductors together into raceway at same time, do not damage sidewall pressure, and use suitable wire pulling lubricant where recommended by the manufacturer. Secure and support conductors and cables in accordance with NFPA 70 using supports and methods approved by the Authority Having Jurisdiction. Provide independent support from building structure; do not support from raceways, pining, ductwork, suspended ceiling support systems, or other systems and do not allow conductors or cables to lay on ceiling tiles.

Cut all cables per the manufacturer's recommendations and terminate using suitable fittings including anti-short, insulated bushings where applicable

G. Provide a minimum of 12 inches of slack at each outlet. Provide a minimum of feet of slack where conductors are installed in enclosures for future termination by others. H. Neatly train and bundle conductors inside boxes, wireways, panelboards and other equipment enclosures. Make wiring connections using specified wiring connectors and make splices and taps only in accessible boxes. Do not pull splices into raceways or make

solices in conduit bodies. o not remove conductor strands to facilitate insertion into connector Provide connectors suitable for reducing to appropriate size, but not less than required for the rating of the overcurrent protective device, where conductors are larger than the equipment terminations can accommodate Insulate splices and taps that are made with uninsulated connectors using insulating covers specifically designed for the connectors, or electrical tape for dry or damp locations. Use heat shrink tubing for wet locations furnished by others, as required for a complete operating system M. Provide all control wiring and communications cabling, whether or not shown on the Drawings, per manufacturer's recommendations and as required for a

on the Drawings, per monarce complete and operational system.

END OF SECTION SECTION 260526 - GROUNDING AND BONDING

1.01 MAXIMUM GROUNDING SYSTEM RESISTANCE: 5 ohms.

2.01 ROD ELECTRODES: Copper, 3/4 inch diameter, 10 foot long solid rods. Sectional rods are not permitted.

CONCRETE ENCASED ELECTRODES: 4 AWG, 20 foot long bare copper wire. 2.03 WIRE: Copper wire sized to meet NFPA 70 requirements.
2.04 CONNECTORS AND ACCESSORIES: Copper, copper alloy, or bronze mechanical connectors.

3.01 INSTALLATION OF GROUNDING ELECTRODE SYSTEM As applicable to the project, provide all components required for a complete arounding electrode system including bonding of metal underground water pipe. metal frame of the building, concrete—encased electrode, metal aboveground water piping system, metal aboveground gas piping system, and rod

electrode(s) per NFPA 70 requirements 3.02 INSTALLATION OF EQUIPMENT GROUNDING SYSTEM Without exception, provide insulated equipment grounding conductor sized per NFPA 70 requirements within each feeder and branch circuit raceway and terminate each end on suitable lug, bus, or bushing.

A. Measure grounding resistance using a 3 point Megger test. Provide additional 1 electrodes as required to reduce grounding resistance to less than the specified maximum permitted value,
END OF SECTION

SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS PART 1 GENERAL - NOT USED

2.01 HANGERS AND SUPPORTS Corrosion—resistant materials of size and type adequate to carry the supported weight, including the weight of wire in conduit; do not use perforated pipe straps as a means of support.
2.02 ANCHORS AND FASTENERS Use precast inserts, preset inserts, expansion anchors, or self-drilling anchors as approved by the Structural Engineer for concrete element

Use beam clamps, steel spring clips, steel ramset fasteners, or welded Use toggle bolts or hollow wall fasteners for hollow masonry, plaster, and gypsum board partitions. Jse expansion anchors or preset inserts for solid masonry walls. Use sheet metal screws for sheet metal elements and wood screws for wood

PART 3 EXECUTION Provide all required blocking and supplemental framing required to securely support all materials. Fasten supports to building structure and surfaces only. Do not fasten supports to pipes, ducts, mechanical equipment, conduit, or ceiling suspension wires. Obtain permission from Structural Engineer before drilling or cutting

structural members or before using powder—actuated anchors. Rigidly weld support members or use hex-bolts to present neat appearance with equate strength and rigidity. Provide lock washers under all nuts Install surface-mounted cabinets and panelboards with minimum of four Provide steel channel supports behind all cabinets and panelboards located in

G. Provide supports for all low voltage wiring not routed in conduit.

END OF SECTION

SECTION 260534 - CONDUIT AND WIREWAYS PART 1 GENERAL - NOT USED

PART 2 PRODUCTS

A. Size: As required by NFPA 70 for the conductors installed but no smaller than specified. B. Underground: 3/4 inch minimum rigid metal conduit, intermediate metal conduit, Schedule 80 PVC, or Schedule 40 PVC. Metal conduits shall be galvanized or PVC coated.

Outdoor Locations above Grade: 3/4 inch minimum rigid metal conduit or intermediate metal conduit. Nonmetallic conduit is not permitted above grade. Conduits shall be galvanized or PVC coated.

Within Slabs above Grade: 3/4 inch minimum rigid metal conduit, intermediate

metal conduit, or Schedule 80 PVC. Metal conduits shall be galvanized or PVC coated. Coordinate with the Structural Engineer for restrictions and limitations on conduits installed in slabs above grade. Exposed Wet and Damp Locations: 3/4 inch minimum rigid metal conduit or intermediate metal conduit. Conduits shall be galvanized or PVC coated. ections to Vibrating Equipment and Luminaires in Dry Locations: 3/4 inch minimum flexible metal conduit. Connections to Vibrating Equipment and Luminaires in Damp and Wet Locations: 1/2 inch minimum liquidtight flexible metal conduit. H. All Other Dry Locations: 1/2 inch minimum rigid metal conduit, intermediate metal conduit, or electrical metallic tubing.

 Homeruns: provide 3/4" minimum conduits. 2.02 FITTINGS: Provide listed fittings identified for use with the conduit. Set screw fittings 2.03 WIREWAYS: Square D Class 5100 Type LDB for dry locations or Square D Class 5100 ype LDR for damp and wet locations unless indicated otherwise; size as required by NFPA 70 based on conductor fill and bending radius requirements.

A. Conceal all conduit in all interior and exterior areas, including exposed structure areas, unless the Architect provides specific approval permitting the use of exposed conduit. Route any exposed conduit parallel and perpendicular to walls. Subject to the Architect's approval, conduit located above ceilings is permitted to be routed point—to—point provided it is secured and supported per NFPA 70 requirements and complies with all applicable Codes and other equirements of the specifications. Do not embed conduit in slabs—on—grade. Locate conduit a minimum of 2 inches below the bottom surface of the slab to avoid future damage from cutting of Route conduit in slabs—above—grade from point—to—point. Do not cross

conduits embedded in slabs.
Route underground conduit from point—to—point and at a burial depth in compliance with NFPA 70, local code, and utility company requirements. Arrange conduit to maintain headroom and present neat appearance and arrange supports to prevent misalianment during wiring installation Secure and support all conduit in compliance with NFPA 70 requirements and group adjacent conduits on steel channel racks and trapezes. Provide 12 inches of clearance between conduit and piping or surfaces with temperatures exceeding 104 degrees F.

Install no more than equivalent of three 90 degree bends between boxes. Provide sleeves when penetrating footings, masonry walls and floors and seal all penetrations through footings and floors water tight. Provide suitable fittings to accommodate expansion and deflection where conduit crosses seismic, control, and expansion joints. M. Provide suitable pull string in each empty conduit except sleeves and

N. Provide caps to protect installed conduit against entrance of dirt and O. Secure wireway to building surfaces and close ends of wireway and unused P. Ground and bond conduit and wireways as required by NFPA 70.

SECTION 260537 - BOXES

PART 1 GENERAL - NOT USED

Nonmetallic boxes are not permitted unless indicated otherwise or without specific written approval from the Architect. Provide all required box hangers and supports, extension rings, mud rings, etc. for a complete and secure installation Use gang boxes where more than one device is mounted together; do not use sectional boxes.
2.02 OUTLET AND SMALL JUNCTION BOXES

Dry and Damp Locations: Galvanized NEMA OS 1 stamped steel box rated for the weight of the equipment supported and sized per NFPA 70 requirements for the device(s) and conductors installed within.

B. Wet Locations: Galvanized cast metal NEMA FB 1 Type FD box with gasketed cover and threaded hubs and sized per NFPA 70 requirements for the device(s) and conductors installed within.

2.03 PULL AND LARGE JUNCTION BOXES Dry and Damp Locations: Galvanized NEMA OS 1 stamped steel box sized per NFPA 70 requirements for the conductors installed within. Wet Locations: Galvanized NEMA 250 Type 4 cast iron or cast aluminum box with ground flange, neoprene gasket, and stainless steel cover screws and sized per NFPA 70 requirements for the conductors installed within.

All Floor Boxes: All floor boxes located in slabs on grade shall be cast metal. Stamped steel floor boxes are only permitted in slabs above grade. Indoor Flush Floor Boxes for Concrete Floors: Wiremold 880 OmniBox Series unless indicated otherwise with number of gangs as required for the devices installed within.
Indoor Flush Floor Boxes for Wood Floors: Wiremold 880W Series unless indicated otherwise with number of gangs as required for the devices installed within. Indoor Recessed Floor Roxes: Wiremold RFR Series unless indicated otherwise with number of compartments as required for the devices installed within.

Exterior Floor Boxes: NEMA 3R while-in-use square exterior floorbox as manufactured by Combined Utilities Box Systems (CUBS) unless indicated otherwise with wiring devices indicated. Install in locations indicated and as required for splices, taps, wire pulling, equipment connections, and as required by NFPA 70

Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only. Install outlet boxes for all wall—mounted wiring devices at heights indicated in Section 262726 unless indicated otherwise. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashe Use flush boxes in finished areas. Do not install flush boxes back-to-back in walls; provide minimum 6 inches and one stud separation.

Locate flush boxes in masonry walls to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat opening. Install all wall—mounted boxes plumb and level. Install all ceiling-mounted boxes level and oriented parallel with building lines and ceiling grid tees where applicable.

Install all floor boxes level and oriented parallel with building lines and tile grout lines where applicable. Vertically align adjacent wall mounted outlet boxes for switches, thermostats, similar devices. Install concealed boxes within 6 inches from ceiling access panels, air distribution diffusers, or removable recessed luminaires. upport boxes independently of conduit; do not support boxes from ceiling support wires. Install knockout closures in unused box openings.
Install cover plates on boxes; see Section 262726 for cover plate

N. Ground and bond boxes as required by NFPA 70. SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

2.01 NAMEPLATES: Engraved laminated plastic with 1/8 inch letters on contrasting 2.02 LABELS: As required by regulatory agencies.

3.01 NAMEPLATES: Provide nameplates with the unique equipment designation at each electrical distribution and control equipment enclosure, communication cabinet, and control device station.
3.02 WARNING LABELS: Provide all regulatory required and industry standard warning labels on all electrical equipment, including high-voltage, tested series rated combination, and arc flash hazard labeling. 3.03 WIRE MARKERS: Provide wire and cable markers at panelboard autters, pull boxes, or feeder number indicated on Drawings and control wire number indicated on shop 3.04 COLOR CODE LEGEND: Provide identification label identifying conductor color codes

at each piece of feeder or branch—circuit distribution equipment.

3.05 INSTALLATION Install nameplates and labels parallel to equipment lines. Secure nameplates for distribution equipment visible to the public to the inside surface of door. Secure nameplates for distribution equipment not visible to the public to the front of the enclosure using screws, rivets, or adhesive.

END OF SECTION

SECTION 260595 - FIRE STOPPING

1.01 PREPARATION: Examine the complete set of Drawings and identify all fire rated partitions, floors and assemblies and identify appropriate firestopping method for

PART 1 GENERAL - NOT USED

2.01 FIRESTOPPING ASSEMBLIES: Use only systems listed by UL or FM or tested in accordance with ASTM E 814 or ASTM E 119 that have F Rating equal to fire rating of penetrated assembly and minimum T Rating Equal to F Rating.
2.02 MATERIALS: Elastomeric silicone firestopping, foam firestopping, fibered compound firestopping, fiber packing material, mechanical firestop devices, intumescent putty, and firestop pillows are permitted.

PART 3 EXECUTION 3.01 INSTALLATION

Comply with firestopping manufacturer's recommendations for temperature and other environmental conditions before, during, and after installation Provide ventilation in areas where solvent-cured materials are being Protect adjacent surfaces from damage by material installation. matter which may affect bond of firestopping material. Remove incompatible materials which may affect bond. Install backing materials to arrest liquid material leakage. Apply the appropriate fire stopping materials and systems to maintain the

fire rating of the partition, floor, or ceiling assembly being penetrated. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings. Do not cover installed firestopping until inspected by Authority Having Install any labeling required by Code.

Clean adjacent surfaces of firestopping materials.

END OF SECTION SECTION 260918 - REMOTE CONTROL SWITCHING DEVICES

Hold meeting with the Owner prior to commencing work.

Review zoning and make adjustments requested by the Owner.

Determine all timeclock settings such as ON and OFF times for each day of the week, holiday settings, latitude and longitude of the project site for astronomic features, etc. Determine all control settings such as on and off triggers, blink warnings, sweep settings, switch programming, etc. 4. Determine all desired switch engraving.

2.01 PROGRAMMABLE RELAY PANELS Master Units: Lighting Control & Design GR2400 series with digital clock and modem unless indicated otherwise. Slave Units: Lighting Control & Design GR2400 series unless indicated otherwise.

Normally closed latching rated at 20 amps at 120/277 volts unless indicated Provide lighting contactor controlled by relay in panel when load requires contacts rated greater than 20 amps.

2.03 LOW VOLTAGE WALL SWITCHES: Lighting Control & Design digital Chelsea switch with buttons as indicated or otherwise required.

A. Outdoor: Lighting Control & Design #GR2400 PCC1 2WO photosensor with control B. Indoor: Lighting Control & Design #PCELL 2W with #PCC3 control card.
2.05 PROGRAMMING SOFTWARE: Lighting Control & Design Unity software.

GENERAL INSTALLATION REQUIREMENTS Install relay panels, photosensors, and switches where indicated or otherwise

Provide all control wiring and communications cabling, whether or not shown on the Drawings, per manufacturer's recommendations and as required for a complete and operational system.

Program the entire system as established in meeting with the Owner and provide written report of program settings to the Owner. Engrave all switch buttons as established in meeting with the Owner. 3.02 INSTALLATION OF OUTDOOR PHOTOSENSORS Install photosensor facing north with unobstructed view Install such that photosensor does not face artificial light sources

including light sources controlled by the photosensor itself.

Weatherproof all connections. Do not install photosensor with conduit stem facing up to prevent infiltration of water. Adjust external sliding shields under optimum lighting conditions to achieve desired turn-on and turn-off activation. 3.03 INSTALLATION OF INDOOR PHOTOSENSORS Location Adjustments: Locations indicated are diagrammatic and only intended

o indicate which rooms or areas require devices. Provide quantity and locations as required for complete coverage of respective room or area based on manufacturer's recommendations for installed devices. Install closed—loop photosensors to accurately measure the light level at the designated task location while minimizing the measured amount of direct light n natural or artificial sources. Install open—loop photosensors to accurately measure the level of daylight coming into the space while minimizing the measured amount of lighting from artificial sources. Calibrate dimming photosensors such that 100% artificial light output is provided only when completely dark outside and the controlled lighting dims commensurately with the amount of natural daylight contribution to the

furniture, and window treatments have been installed. Demonstrate proper operation of system to the Owner and correct deficiencies or make adjustments as directed. Train Owner's personnel on operation, adjustment, programming, and maintenance of the system. Provide a written report of all program settings and photosensor settings to END OF SECTION

SECTION 260919 - CONTACTORS AND RELAYS

PART 1 GENERAL - NOT USED

2.01 CONTACTORS Description: Square D Class 8903, Type L or Type S unless indicated otherwise or otherwise required. Provide with quantity of normally open and normally closed contacts as

required and a minimum of two spare poles.

a. Provide multiple contactors connected in parallel with one another when the number of contacts required exceeds the maximum capability of a single contactor.

Coordinate contact rating to match branch circuit overcurrent protection, considering derating for continuous loads, but no less than Coil: Coordinate with the voltage of the control circuit. Enclosure: Manufacturer's standard enclosure suitable for the environment in

which the contactor is installed. Description: Square D Class 8501 Type C unless indicated otherwise or Contacts: Form C contacts rated at 30 amperes unless indicated otherwise. Coil: Coordinate with the voltage of the control circuit osure: Manufacturer's standard enclosure suitable for the environment in which the relay is installed.

3.01 INSTALLATION Install individual controls and relays in enclosures adjacent to panelboard serving controlled circuits and make electrical wiring interconnections required but may not be shown to switch the loads in the manner indicated on

C. Provide nameplate for contactors indicating contactor number.

END OF SECTION

Hold meeting with the Owner prior to commencing work.

SECTION 260923 - LIGHTING CONTROL DEVICES

Review zoning and make adjustments requested by the Owner

Determine all timeclock settings such as ON and OFF times for each day

of the week, holiday settings, latitude and longitude of the project

Determine all control settings such as on and off triggers, blink warnings, sweep settings, switch programming, etc PART 2 PRODUCTS 2.01 ALL LIGHTING CONTROL DEVICES Provide all required conduit, wiring, connectors, hardware, components, accessories, etc. as required for a complete operating system. All sensors shall be suitable for the geometrical and environmental characteristics of the associated space and be suitable for the floor area to

be covered. Provide multiple sensors when necessary to meet the required room 2.02 INDOOR OCCUPANCY SENSORS Wall Switch: Single-Relay: Wattstopper #DSW-301 unless indicated otherwise.

Dual-Relay: Wattstopper #DSW-302 unless indicated otherwise. Finish: As selected by the Architect.

Sensor: Wattstopper #DT-200 unless indicated otherwise. Power Pack: Wattstopper #BZ-150 unless indicated otherwise. Finish: White. Ceiling-Mounted: Sensor: Wattstopper #DT-300 unless indicated otherwise.

Power Pack: Wattstopper #BZ-150 unless indicated otherwise. D. Accessories: Provide heavy duty coated steel wire protective guards compatible with specified occupancy sensors where subject to impact. 2.03 OUTDOOR MOTION SENSORS Wall-Mounted for Switching: Sensor: Wattstopper #EW—200 unless indicated otherwise. Finish: As selected by the Architect.

Wall—Mounted for 0-10 Volt Dimming:

1. Sensor: Wattstopper #FSP-211 unless indicated otherwise. Lens: Wattstopper #FSP-L* as required for the application. Finish: White. Configuration Tool: Wattstopper #FSIR-100 unless indicated otherwise. 2.04 TIMECLOCKS
A. Tork DZS series unless indicated otherwise.

Input Voltage: Coordinate with the voltage of the control circuit.

Enclosure: Manufacturer's standard enclosure suitable for the environment in which the timeclock is installed. 2.05 TIMER SWITCHES: Tork #SS403 unless indicated otherwise.
2.06 OUTDOOR PHOTOCELLS: Tork #2101 unless indicated otherwise.
2.07 INDOOR SWITCHING PHOTOSENSORS Sensor: Wattstopper #LS-102 unless indicated otherwise. Power Pack: Wattstopper #BZ-150 unless indicated otherwise.

Finish: White. 2.08 INDOOR 0-10 VOLT DIMMING PHOTOSENSORS

A. Sensor: Wattstopper #LS-301 unless indicated otherwise. Power Pack: Wattstopper #BZ-150 unless indicated otherwise. Configuration Tool: Wattstopper #LSR-301-S unless indicated otherwise. E. Remote Control: Watstopper #LSR-301-P unless indicated otherwise.

2.09 DISTRIBUTED LIGHTING CONTROL SYSTEMS

Single-Relay: Wattstopper #LMRC-101 unless indicated otherwise. ual-Relay: Wattstopper #LMRC-102 unless indicated otherwise. 2. 0-10 Volt Dimming: Dual-Relay: Wattstopper #LMRC-212 unless indicated otherwise Three-Relay: Wattstopper #LMRC-213 unless indicated otherwise.

Forward Phase Dimming:
a. Single-Relay: Wattstopper #LMRC-221 unless indicated otherwise. Plug Load Controllers: Wattstopper #LMPL-101 unless indicated otherwise. Occupancy Sensors:
1. 1-Button Wall Switch: Wattstopper #LMDW-101 unless indicated otherwise; color as selected by the Architect. 2—Button Wall Switch: Wattstopper #LMDW-102 unless indicated otherwise: color as selected by the Architect. Corner-Mount: Wattstopper #LMDX-100 unless indicated otherwise.

Ceiling-Mount: Wattstopper #LMDC-100 unless indicated otherwise.

D. Wall Switches:

1. Multi-Button: Wattstopper LMSW-100 series unless indicated otherwise

with number of buttons as required for the application; color as selected by the Architect. Dimming: Wattstopper #LMDM—101 unless indicated otherwise; color as selected by the Architect.

Scene Selection: Wattstopper #LMSW-105 unless indicated otherwise; color as selected by the Architec For Sidelit Daylight Zones: Wattstopper #LMLS-400 unless indicated 2. For Toplit Daylight Zones: Wattstopper #LMLS-500 unless indicated

F. Accessories: Cable: Wattstopper #LMRJ in lengths required unless indicated otherwise; plenum rated when not installed in conduit. Wireless Configuration Tool: Wattstopper #LMCT-100 unless indicated

3.01 GENERAL INSTALLATION REQUIREMENTS Provide all control wiring and communications cabling, whether or not shown on the Drawings, per manufacturer's recommendations and as required for a complete and operational system. Program the entire system as established in meeting with the Owner. 3.02 INSTALLATION OF TIMECLOCKS Install timeclocks adjacent to panelboard serving controlled circuits and make electrical wiring interconnections.

Provide all relays, contactors, interposing relays, and controls that are required but may not be shown to switch the loads in the manner indicated on the Drawings. C. Provide nameplate for timeclocks indicating timeclock number.

3.03 INSTALLATION OF OCCUPANCY SENSORS AND MOTION SENSORS Location Adjustments: Locations indicated are diagrammatic and only intended to indicate which rooms or areas require devices. Provide quantity and locations as required for complete coverage of respective room or area based on manufacturer's recommendations for installed devices. Install ultrasonic and dual technology accupancy sensors a minimum of 4 fee from air supply ducts or other sources of heavy air flow and as per manufacturer's recommendations, in order to minimize false triggers Program occupancy sensors as MANUAL-ON, AUTOMATIC-OFF unless indicated D. Mask sensor lenses using the manufacturer's masking material as required to

prevent false triggers.

Adjust position of directional accupancy sensors and outdoor motion sensors to achieve optimal coverage as required.
3.04 INSTALLATION OF INDOOR PHOTOSENSORS Location Adjustments: Locations indicated are diagrammatic and only intended to indicate which rooms or areas require devices. Provide quantity and locations as required for complete coverage of respective room or area based on manufacturer's recommendations for installed devices. Install closed-loop photosensors to accurately measure the light level at the designated task location while minimizing the measured amount of direct light from natural or artificial sources. Install open—loop photosensors to accurately measure the level of daylight coming into the space while minimizing the measured amount of lighting from Calibrate dimming photosensors such that 100% artificial light output is

provided only when completely dark outside and the controlled lighting dims

ommensurately with the amount of natural daylight contribution to the

satisfaction of the Owner. Calibration shall occur after all room finishes, furniture, and window treatments have been installed.

3.05 INSTALLATION OF POWER PACKS Install power packs on junction box in accessible location above ceiling at the associated sensor. B. Do not switch power serving power packs. All required switching shall occur

on the load side of the power pack relay. 3.06 INSTALLATION OF OUTDOOR PHOTOCELLS Install photocell facing north with unobstructed view.
Install such that photocell does not face artificial light sources including light sources controlled by the photocell itself. Weatherproof all connections. Do not install photocell with conduit stem facing up to prevent infiltration of water. Adjust external sliding shields under optimum lighting conditions to achieve desired turn-on and turn-off activation. 3.07 INSTALLATION OF ROOM CONTROLLERS AND PLUG LOAD CONTROLLERS
A. Install controllers in concealed accessible locations above ceilings.

Do not switch power serving controllers. All required switching shall occur on the load side of the controller relay(s).

Provide nameplate for each controller indicating room(s) controlled. Install room controller wall-mounted switches 46 inches above finished floor to the centerline of the box unless indicated otherwise.

Demonstrate proper operation of lighting control devices to the Owner and correct deficiencies or make adjustments as directed. Train Owner's personnel on operation, adjustment, programming, and Provide a written report of all program settings and photosensor settings to END OF SECTION

SECTION 262416 - PANELBOARDS

PART 1 GENERAL - NOT USED

PART 2 PRODUCTS 2.01 LIGHTING AND APPLIANCE PANELBOARDS Description: Square D Type NQ for 240 Volt Class and Square D Type NF for 600 Volt Class unless indicated otherwise. Voltage, Phase, and Current Ratings: As indicated or otherwise required.
Short—Circuit Current Rating (SCCR): No less than the available fault current. The Contractor shall determine the available fault current where

not indicated on the Drawings Bussing: COPPER BUSSIN ONLY Bonded Equipment Ground Bar: Provide for each panelboard.

Enclosure: Manufacturer's standard enclosure suitable for the environment in which the panelboard is installed; 5.75 inches deep, 20 inches wide unless ndicated otherwise; surface or flush mounted as indicated. Cabinet Front: Surface or flush type as indicated with hinged door, flush lock, metal directory frame and finished in manufacturer's standard enamel.

Bolt—on thermal—magnetic molded case circuit breakers with common trip handle for all poles.

a. Provide Type SWD for lighting circuits.

Provide Type HACR for heating, air-conditioning, and refrigeration equipment circuits. Provide Class A ground-fault circuit interrupter (GFCI) where indicated or otherwise required. Provide ground—fault protection of equipment (GFPE) where serving heat tracing or otherwise required.

Provide combination type arc—fault circuit interrupter (AFCI)

where indicated or otherwise required. f. Provide dual-rated combination type arc-fault circuit interrupter (AFCI) and Class A ground—fault circuit interrupter (GFCI) where indicated or otherwise required. Provide handle ties for circuit breakers serving multiwire branch

Provide Square D #HLO1 handle clamps for circuit breakers denoted as "LO" and for all fire protection and fire alarm equipment and all circuits serving emergency lighting. Provide Square D #QO*PAF fixed handle padlock attachment for ircuit breakers denoted as "LF" and for appliances without a local disconnecting means. Provide shunt trip were denoted as "ST" or otherwise required.

Amp Interrupting Current (AIC) Rating: No less than the available fault current; fully rated or manufacturer tested series combination The Contractor shall determine the available fault current where not indicated on the Drawings. Do not use multi-pole circuit breakers that mount in a 1-pole circuit breaker space (i.e. half-size circuit breakers).

PART 3 EXECUTION Install panelboards 6 feet to top of panelboard but no less than 4 inches

Provide 4 inch thick concrete housekeeping pad for surface-mounted panelboards installed within 4 inches of the floor. Provide filler plates for unused spaces in panelboards. Provide typed circuit directory and nameplate for each panelboard. Revise directory to reflect circuiting changes required to balance phase loads. Provide five 1 inch spare conduits out of each flush—mounted panelboard to an accessible location above ceiling. Identify each as SPARE. Measure steady state load currents at each panelboard feeder and rearrange circuits as required to balance the phase loads to within 10 percent maximum imbalance. Maintain proper phasing for multiwire branch circuits. Provide nameplate indicating panelboard equipment designation for each

3.02 ADDITIONAL INSTALLATION REQUIREMENTS FOR REMOTE CONTROLLED CIRCUIT BREAKER **PANELBOARDS** A. Hold meeting with the Owner. Review zoning and make adjustments requested by the Owner.

Determine all timeclock settings such as ON and OFF times for each day of the week, holiday settings, latitude and longitude of the project site for astronomic features, etc. Determine all control settings such as on and off triggers, blink warnings, sweep settings, etc. Provide all control wiring and communications cabling, whether or not shown

on the Drawings, per manufacturer's recommendations and as required for a complete and operational system. Program the entire system as established in meeting with the Owner. Demonstrate proper operation of remote controlled circuit breaker panelboard control system to the Owner and correct deficiencies or make adjustments as

Train Owner's personnel on operation, adjustment, programming, and maintenance of remote controlled circuit breaker panelboard control system.

Provide a written report of all remote controlled circuit breaker panelboard control system program settings to the Owner. END OF SECTION

SECTION 262701 - ELECTRICAL SERVICE ENTRANCE

1.01 PRE-INSTALLATION MEETING: Convene with utility company one month prior to commencing work to review and coordinate all requirements and details.

2.01 INSTRUMENT TRANSFORMER CABINET: Sheet metal cabinet with hinged door, provisions for locking and sealing, and conforming to all utility company requirements; size as required by utility company.

2.02 METER SOCKET: Provided and Installed by the Electrical Contractor as specified by the utility company.

2.03 UTILITY TRANSFORMER PAD: Prefabricated precast concrete or cast—in—place

transformer pad sized as required by the utility company. Construct in strict onformance with the utility company standards. 2.04 OTHER COMPONENTS: Provide all conduits, boxes, accessories, and components as required by utility company for a complete, functional, and safe installation

A. Arrange with utility company to obtain permanent electric service. 3.02 INSTALLATION Install weatherhead, transformer pad, instrument transformer cabinets, and meter socket as required by utility company. Comply with all utility company metering, installation, and service requirements; utility company requirements supersede any requirements

indicated on the Drawings or within the Specifications. END OF SECTION

SECTION 262717 - EQUIPMENT WIRING 1.01 COORDINATION WITH OTHER TRADES Meet with all other trades before commencing any work and obtain and review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other Sections. Determine all equipment connection locations and requirements and verify that proper power supply is available prior to subcontractor's

orderina equipment.

Sequence rough—in of electrical connections to coordinate with installation of equipment. Sequence electrical connections to coordinate with start-up of equipment. Verify and coordinate all requirements and installation details of all materials and equipment prior to rough—in.

Verify proper voltage, phase, and current rating of power supply and Responsibility for verification of proper power supply voltage and any damage

2.01 CORDS Description: Multi-conductor flexible cord Type SO for dry and damp ocations or Type SOW in wet locations. Conductor Quantity: As required for the load served; include identified equipment grounding conductor.

Conductor Insulation Rating: As required for the voltage of the load served.

Conductor Ampacity: No less than the rating of the overcurrent protection device protecting the circuit. 2.02 CORD CAPS: Match cord cap to receptacle configuration at outlet provided for

Any conflicts arising from lack of coordination shall be this Contractor's

2.03 OTHER MATERIALS: Provide all disconnect switches, wiring devices, conduit, wire and cable, and boxes required. PART 3 EXECUTION 3.01 ELECTRICAL CONNECTIONS Make electrical connections in accordance with equipment manufacturer's

Make conduit connections to equipment using flexible conduit. Use liquidtight flexible conduit with watertight connectors in damp or wet Connect heat producing equipment using wire and cable with insulation suitable for temperatures encountered. ovide receptacle outlet to accommodate connection with attachment plug. Provide cord and cap where field—supplied attachment plug is required. Install suitable strain—relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes. Install disconnect switches, controllers, control stations, and control

> complete equipment wiring requirements. Cut and seal conduit openings in freezer and cooler walls, floors, and ceilings where applicable. END OF SECTION SECTION 262726 - WIRING DEVICES

Install terminal block jumpers to complete equipment wiring requirements.

Install interconnecting conduit and wiring between devices and equipment to

1.01 PREPARATION: Contact the Architect to determine colors of all wiring devices, cover plates, and carpet and tile flanges, locations where stainless steel cover plates are required, and locations where carpet and tile flanges are required

devices to complete equipment wiring requirements.

REVISIONS:

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ARC 4400 DATE: 11/24/2021 JOB NO: 44387 DRAWN BY:

SHEET NUMBER:

2.01 RECEPTACLES

Color as selected by Architect.

NEMA 5-20R unless indicated otherwise.

Color as selected by Architect.

0-10 Volt Dimmers:

3. Electronic Low Voltage Dimmers:

installed outdoors.

Provide tamper-resistant receptacles in dining rooms and restrooms and where denoted "TR" on the Drawings and otherwise required.

Provide ground-fault circuit interrupter receptacles where denoted

"GFI" on the Drawings and otherwise required.

Provide receptacles with controlled receptacle marking where denoted "CR" on the Drawings and where controlled by automatic shutoff

Provide identified weather—resistant receptacles for receptacles

Standard NEMA 5-15R Duplex: Hubbell #5262 unless indicated otherwise. Standard NEMA 5-20R Duplex: Hubbell #5362 unless indicated otherwise.

Surge Protection Receptacles: Hubbell #HBL5362SA unless indicated otherwise.

lock Hanger Receptacles: Hubbell #HBL5235 unless indicated otherwise.

Coordinate device and channel finish color with the Architect.

Horsepower rated when used as motor disconnecting means.

All LED Dimmers: Dimmer utilized shall be tested and listed by the LED

a. Up to 16 Amps: Lutron Maestro #MAF-6AM with Lutron #GRX-TVI

Up to 1920 Watts: Lutron Maestro #MAF-6AM with Lutron

#PHPM-WBX-DV-WH power interface unless indicated otherwise.

Interior GFCI Duplex: Hubbell #GF20 unless indicated otherwise.

Exterior GFCI Duplex: Hubbell #GFTR20 unless indicated otherwise.

unless indicated otherwise.

ufacturer as a compatible dimmer.

power interface unless indicated otherwise.

Color and material as selected by Architect. Provide cover plates appropriate for the wiring devices installed within the box. Use combination plates when wiring devices are ganged together. B. Wall Plates:
1. Provide standard—size nylon wall plates unless indicated otherwise; mid-size or jumbo wall plates are not permitted. Provide stainless steel coverplates in kitchen and where requested by the Architect. Provide galvanized steel cover plates on outlet boxes and junction boxes located in unfinished areas, above accessible ceilings, and on Provide gasketed, cast metal, hinged cover plates for all exterior

locations, where denoted "WP" on the Drawings, and where otherwise Provide weatherproof while—in—use covers for all receptacles installed C. Floor Box Cover Plates: a. Carpet and Tile Flanges: Wiremold Omnibox Series with number of

> Communications Cover Plates: Wiremold Omnibox Series combination concentric threaded plug with 1-inch inner plug unless indicated d. Hardwired Connection Cover Plates: Wiremold Omnibox Series unless indicated otherwise:

Receptacle Cover Plates: Wiremold Omnibox Series with flip lids

a. Internal Brackets: As required for the wiring devices installed Cover Assemblies: Cutout cover type to accommodate carpet or tile insert; flanged or flangeless as selected by the Architect. Wood Floor Boxes a. Carpet and Tile Flanges: Wiremold 880W Series with number of

gangs as required for the floor box.
b. Receptacle Cover Plates: Wiremold 880W Series with flip lids unless indicated otherwise.
c. Communications Cover Plates: Wiremold 880W Series combination concentric threaded plug with 1-inch inner plug unless indicated

d. Hardwired Connection Cover Plates: Wiremold 880W Series combination concentric threaded plug with 3/4-inch inner plug unless indicated otherwise.

3.01 EXAMINATION: Verify that outlet boxes are installed at proper heights and that openings are neatly cut and will be completely covered by the coverplates or 3.02 PREPARATION

finished surface. Adjust floor boxes to bring floor boxes flush with finished floor. 3.03 MOUNTING HEIGHTS General: All mounting heights are to the centerline of the outlet box. Install receptacles at 18 inches above finished floor unless indicated Install receptacles at countertops at the lesser of 44 inches above finished floor or 3 inches above any sidesplashes or backsplashes

unless indicated otherwise. C. Wall Switches: Install wall switches including wallbox dimmers, wall switch occupancy sensors, and low voltage switches associated with programmable relay panels and room controllers at 46 inches above finished floor unless Telecommunications Outlets: Install telecommunications outlets including telephone, data, and television outlets 18 inches above finished floor unless indicated

Provide extension rings to bring wall-mounted outlet boxes flush with

Install telephone outlets for side—reach and forward—reach wall telephone 46 inches maximum above finished floor unless indicated E. Modify mounting heights in masonry walls as required to locate the outlet box at the joint in the masonry unit to avoid multiple or split-cut masonry

3.04 INSTALLATION Install wall switches with OFF position down. Install receptacles vertically with ground pin on bottom unless indicated

Ground-Fault Circuit Interrupter (GFCI) Receptacles: Provide a separate GFCI receptacle for every instance where denoted " on the Drawings and otherwise required by Code; do not GFCI-protect receptacles from the load side of an upstream GFCI Install all GFCI receptacles in in a readily accessible location. Provide faceless GFCI device in a readily accessible location when the receptacle will not be readily accessible and connect receptacle to load side of faceless GFCI.

Install wallbox dimmers to achieve full rating; do not break heatsink Install power interfaces in concealed accessible location. Provide a separate neutral conductor for each branch circuit servina wallbox dimmers; do not connect wallbox dimmers to multiwire branch Provide all control wiring and communications cabling including all

0-10V control wiring, whether or not shown on the Drawings, per manufacturer's recommendations and as required for a complete and operational system. E. Install wiring devices in outlet boxes and connect wiring device grounding terminal to branch circuit equipment grounding conductor. Connect wiring devices by wrapping conductor around screw terminal; do not se back-wired push-in terminals. G. Install cover plates on all outlet boxes including blank outlets.

H. Use flat-head screws, clips, and straps to fasten multi-outlet assembly

channel to surfaces and use suitable insulating bushings and inserts at insulated ceilings; coordinate locations of all insulated ceilings with connections to outlets and corner fittings. the Architectural plans. END OF SECTION Coordinate exact locations of all luminaires with the Architectural Reflected eiling Plan(s); Iuminaire locations on the Architectural Reflected Ceiling Plan(s) take precedence over locations indicated on the electrical lighting Coordinate mounting heights of all wall-mounted luminaires with the Architect prior to rouah-in. Confirm all luminaire and accessory finishes with the Architect prior to

substitute fixture is not accepted by the Architect or Engineer. 2.02 NON-DIMMING BALLASTS, TRANSFORMERS, AND DRIVERS A. All Ballasts, Transformers, and Drivers Provide low-temperature ballasts when installed in locations where ambient temperature can fall below 10 degrees C (50 degrees F). Voltage: Universal (120 through 277 volts). Accessories: Provide disconnecting means that opens all supply A. Up to 600 Amps: Dual-element time-delay Class RK1 unless indicated otherwise conductors including the neutral conductor. or otherwise required for the switch in which the fuse is installed. Low Voltage Transformers: Greater than 600 Amps: Dual—element time—delay Class L unless indicated otherwise indicated otherwise or otherwise required for the switch in which

Provide as indicated on the Drawings.

PART 2 PRODUCTS

SECTION 262813 - FUSES

Install fuses with label oriented such that manufacturer, type, and size are

END OF SECTION

SECTION 262818 - ENCLOSED SWITCHES

240 Volt Class: Square D Class 3130 general duty unless indicated otherwise.

Manufacturer's standard enclosure suitable for the environment

600 Valt Class: Saugre D Class 3110 heavy duty unless indicated otherwise.

Voltage, Phase, and Current Ratings: As indicated or otherwise required.

Provide Bussmann Power Module Switch for each elevator controller unless

Voltage rating, amp rating, and number of poles as required for the

Control power transformer with fused primary and 120 volt fused

wo normally open mechanically interlocked auxiliary contacts.

Two normally closed mechanically interlocked auxiliary contacts. Single—pole fire alarm voltage monitoring relay to monitor shunt trip

12. Manufacturer's standard enclosure suitable for the environment in which

Install in locations that provide all working space required by NFPA

Provide nameplate indicating equipment designation, NEMA fuse class

Coordinate all requirements with the elevator manufacturer prior to

machine room regardless of location show on the Drawings.

Coordinate all fuse ratings with the elevator manufacturer

Install within 24 inches of the latch (strike) side of the door to the

Connect auxiliary contacts to battery lowering accessory per elevator

Wire the auxiliary contacts per the manufacturer's recommendations to

prevent signaling the fire alarm system when the switch is manually

to the fire alarm system with the contractor installing the fire alarm

Coordinate connection of auxiliary contacts and fire safety interface

END OF SECTION

SECTION 262913 - ENCLOSED CONTROLLERS

Examine the Drawings of all trades and identify all motors that will reau

Coordinate with all trades and provide all required controllers whether or

2.01 FRACTIONAL HORSEPOWER MANUAL CONTROLLERS: Square D Class 2510 Type F with red

All Automatic Controllers: All automatic controllers shall return to their

previous operating mode upon restoration of power following a power failure.

Control Coil: Coordinate with the voltage of the control circuit.

Enclosure: Manufacturer's standard enclosure suitable for the

Control Coil: Coordinate with the voltage of the control circuit.

Description: Square D Class 8536 Type S unless indicated otherwise or

Voltage, Phase, and Horsepower Rating: As required for the controlled

Overload Relay: Ambient compensated bimetallic with heaters sized per NFPA 70 requirements based on motor nameplate full—load amps (FLA).

Control Power Transformer: Standard capacity with secondary voltage as required for the control circuit, fused primary, and fused secondary.

Description: Square D Class 8538 Type S unless indicated otherwise or

Voltage, Phase, and Horsepower Rating: As required for the controlled

Overload Relay: Ambient compensated bimetallic with heaters sized per

required for the control circuit, fused primary, and fused secondary.

Operators: Cover-mounted shrouded START-STOP pushbuttons with

cted equipment; include integral time delay transition between FAST and

Pilot Lights: Cover-mounted red ON and Green OFF. Enclosure: Manufacturer's standard enclosure suitable for the

Two-Speed Controllers: Two-speed controllers where indicated or required by

Install stand—alone magnetic starters directly adjacent to the panelboard or

Provide nameplate indicating equipment designation, NEMA fuse class, and fuse

Provide typed label in clear plastic holder within each motor controller door

identifying the motor served, nameplate horsepower, full load amps, code

SECTION 265100 - INTERIOR LIGHTING

accessories including any drywall frames, bar hangers, flanges, trim rings,

Provide only luminaires that are listed for the environment in which they are

Luminaires shall be insulated ceiling (IC) rated when recessed into

Coordinate luminaire dimensions with the wall and/or ceiling thickness prior

signs as required to mark paths of egress to the satisfaction of the

Coordinate mounting location, number of faces, and directional arrows of exit

Luminaires shall carry damp location and/or wet location ratings as

Verify all ceiling systems for proper coordination of luminaires and

Install at 5 feet to operating handle or as required by field conditions.

Install overload heater elements in motor controllers to match installed

NFPA 70 requirements based on motor nameplate full-load amps (FLA).

Control Power Transformer: Standard capacity with secondary voltage as

Auxiliary Contacts: Two field—convertible.

Operators: Cover—mounted shrouded START—STOP pushbuttons with

pilot light and manufacturer's standard enclosure suitable for the environment in

HAND-OFF-AUTO selector switch.
Pilot Lights: Cover-mounted red ON and Green OFF

environment in which the controller is installed.

Fuse Clips: Class R where indicated as fusible.

Auxiliary Contacts: Two field-convertible.

environment in which the controller is installed.

AND-OFF-AUTO selector switch.

SLOW speeds.

switchboard serving the starter.

Authority Having Jurisdiction.

motor characteristics.

Install fuses in fusible combination controllers.

letter, service factor, and voltage/phase rating.

tc. required for a complete, finished installation.

PART 3 EXECUTION

PART 1 GENERAL

1.01 QUALITY ASSURANCE

Full-Voltage Non-Reversing Combination Controllers:

Verify voltage, phase, and motor horsepower with the Contractor providing the

Three-pole double-throw (3PDT) 10 amp, 120 volt fire safety interface

Fuse Clips: Class R cartridge fuse clips where fuses are installed.

Accessories: Provide grounding kit for all enclosed switches.

Site Lighting: Class CC with in-line fuseholder.

n which the switch is installed.

120 volt shunt trip.

Class J fuseholders.

Ground lug.

2.02 BOX COVER UNITS: Bussmann #SSU unless indicated otherwise.
 2.03 ENCLOSED SWITCHES SERVING ELEVATOR CONTROLLERS

indicated otherwise with the following:

Control power terminal block

Green pilot light to indicate ON.

Install 5 feet to the operating handle.

Enclosed Switches Serving Elevator Controllers:

manufacturer's recommendations

D. Coordinate control circuit voltages the all trades.

Full-Voltage Non-Reversing Controllers:

otherwise required.

rich the controller is installed unless indicated otherwise.

and fuse size installed.

Install fuses in fusible disconnect switches.

PART 1 GENERAL - NOT USED

PART 1 GENERAL - NOT USED

PART 2 PRODUCTS

PART 3 EXECUTION

3.01 INSTALLATION

PART 2 PRODUCTS

PART 3 EXECUTION

3.01 INSTALLATION

PART 1 GENERAL

PART 2 PRODUCTS

2.02 AUTOMATIC CONTROLLERS

1.01 COORDINATION WITH OTHER TRADES

2.01 SAFETY SWITCHES

Description: Electronic or magnetic low voltage transformer as equired for and compatible with the associated luminaires. Primary Voltage: Coordinate with the circuit(s) serving the Secondary Voltage: As required for the associated luminaires.

Power Rating: As required for the total wattage of the luminaires

The acceptability of any substitute fixtures lies solely with the Architect

The specified luminaire shall be provided at no additional cost where a

served plus a minimum of 25 percent. LED Drivers: As required for and compatible with the associated LED module. 2.03 DIMMING BALLASTS AND DRIVERS All Dimming Ballasts and Drivers Provide appropriate dimming ballasts/drivers in all fluorescent and LED luminaires controlled by wallbox dimmer switches or dimming systems whether or not specifically indicated within the specified luminaire's

All dimming ballasts/drivers shall be compatible with associated Dimmina Range: 100 percent to 5 percent. oltage: Universal (120 through 277 volts). Power Factor: Greater than 0.95. otal Harmonic Distortion: Less than 10 percent.

Sound Level Rating: Class A. LED Dimming Drivers: Advance Xitanium series unless indicated otherwise. 2.04 EMERGENCY POWER SUPPLIES All Emergency Power Supplies: Provide appropriate emergency battery in all LED luminaires indicated as emergency fixtures whether or not specifically indicated within the specified luminaire's catalog number.

Battery: Sealed nickel calcium (NiCad) with 10—year life expectancy.

Illumination Time: 90 minutes minimum Voltage: Universal (120 through 277 volts). Test Switch: Two-wire with remote LED. LED Emergency Batteries: Bodine BSL series unless indicated otherwise.

Provide lamps from the same manufacturer. LED: As indicated on the Drawings. Provide all supplementary items, appurtenances, and devices incidental to or necessary for a sound, secure, and complete installation including, but not

> Dimming drivers for LED luminaires that are served by Emergency power supplies for LED luminaires indicated Provide Bodine #GTD20A lighting relay control device for each circuit serving luminaires that are used for both normal and emergency lighting where a generator or central lighting inverter is used for emergency

power and the luminaires are controlled by local switching, contactors 4. All trim rings, extensions, stems, canopies, cords, pendant feeds, connectors, bar hangers, fittings, hold-down clips, alignment clips/joiners, etc. necessary to mount the luminaires in a proper and All necessary low-voltage transformers, connectors, mounting hardware

tc. for a complete low-voltage lighting system. All necessary connectors, feeds, end caps, pendants, mounting hardware, ttings, etc. for a complete track lighting system. Chain hangers for all suspended luminaires in unfinished areas Drywall frames for all linear luminaires that are recessed nto drywall ceilings. Wireguards for any wall—mounted luminaires, including emergency

hting unit equipment and exit signs, located in gymnasiums or where therwise exposed to physical damage. Fire-rated luminaire covers (tents) for luminaires installed in fire-rated ceiling assemblies: coordinate locations of fire-rated eiling assemblies with the Architectural plans.

11. Any seismic bracing and/or restraints required by the Authority Having PART 3 EXECUTION 3.01 INSTALLATION Install luminaires in locations shown on the Architectural Reflected Ceilin Plan(s); luminaire locations on the Architectural Reflected Ceiling Plan(s) take precedence over locations indicated on the electrical lighting plans

Install luminaires plumb and level and alian with building lines and adjacer Support all luminaires completely independent of any suspended ceiling Connect luminaires to branch circuit Circuit all exit signs, emergency lights, and nightlights ahead of any

Do not use multiwire branch circuits for circuits serving emergency. lighting equipment such as emergency batteries or emergency lighting unit equipment. Provide all additional emergency lighting and/or exit signs determined necessary by the Authority Having Jurisdiction during inspections. Install all remote ballasts, low voltage transformers, and drivers in

concealed accessible areas in close proximity to the associated luminaires and connect to the associated luminaires per the manufacturer's recommendations, including adjusting wire sizes for voltage drop if Prevent insulation from being installed above or within 3 inches away from any luminaire that is recessed into an insulated ceiling but is not insulated

Install fire—rated lumingire covers (tents) for lumingires installed in fire—rated ceiling assemblies; provide fire—rated boxes around luminaires when fire-rated luminaire covers (tents) are not available. Burn-in all fluorescent lamps controlled by wallbox dimmers or dimming systems for a minimum of 100 hours prior to connecting to dimmer.

Replace any lamps and ballasts that expire before the Owner's acceptance of the project. Aim and adjust all luminaires to provide illumination levels, focusing, and distribution patterns to the Owner's satisfaction. END OF SECTION

SECTION 265600 - EXTERIOR LIGHTING

1.01 ADMINISTRATIVE REQUIREMENTS: Furnish bolt templates and pole mounting accessories to installer of pole foundations. 1.02 QUALITY ASSURANCE Provide only luminaires that are listed for the environment in which they are installed; luminaires shall carry damp location and/or wet location ratings as required.

Confirm all luminaire and accessory finishes with the Architect prior to Coordinate exact locations of all pole-mounted site lighting with the Civil Plan(s); luminaire locations on the Civil Plan(s) take precedence over locations indicated on the electrical plans.

2.01 LUMINAIRES Provide as indicated on the Drawings. The acceptability of any substitute fixtures lies solely with the Architect

The specified luminaire shall be provided at no additional cost where a substitute fixture is not accepted by the Architect or Engineer. 2.02 NON-DIMMING BALLASTS, TRANSFORMERS, AND DRIVERS: See Section 265100 paragraph 2.02 2.03 LAMPS: See Section 265100 paragraph 2.03 and all subparagraphs. 2.04 POLES

Shape: As indicated on the Drawings. Height: As indicated on the Drawings; provide hinged poles for poles located on top deck of parking structures. Material: As indicated on the Drawings Metal Gauge: As required to support the weight and effective projected area (EPA) of the luminaire and all associated mounting hardware at the design

windspeed for the project. Drilling: As required for the installed luminaires. Fusing: Provide 20 amp in-line fuseholder with Class CC fuse located within handhole when luminaire is served by branch circuit rated greater than 20

Anchor Bolts: Provide as required for the pole. Anchor Bolt Cover: Provide.

Receptacle: Provide NEMA 5—15R weatherproof GFCI duplex receptacle with weatherproof while-in-use cover when indicated. Provide 300 volt—amp transformer with fused primary and fused secondary located within handhole to serve receptacle when the branch circuit serving the luminaire operates at a voltage other than 120 volts unless the plans indicate a separate 120 volt circuit serving the receptacle. Supplemental Ground Electrode: Provide supplemental ground rod electrode at

each pole. Provide all supplementary items, appurtenances, and devices incidental to or necessary for a sound, secure, and complete installation including, but not Pole bases as indicated on the Drawings and as recommended by the pole All mounting arms, tenons, stanchions, yokes, knuckles, ground lugs,

etc. for a complete low-voltage lighting system.

etc. necessary to mount the luminaires in a proper and approved House—side shields for pole—mounted luminaires installed along the perimeter of the property.

All necessary low-voltage transformers, connectors, mounting hardware, 3.01 INSTALLATION Install luminaires in locations shown; pole-mounted site lighting luminaire locations on the Civil Plan(s) take precedence over locations indicated on the electrical plans. Install luminaires and poles plumb and level; provide shims or double nuts to

Grout around each pole base. Connect luminaires to branch circuit. ovide supplementary grounding electrode at each pole. Bond luminaires, metal accessories, and metal poles to branch circuit equipment grounding conductor.

adjust plumb.

PART 1 GENERAL

PART 2 PRODUCTS

3.02 CLOSEOUT Replace any lamps and ballasts that expire before the Owner's acceptance of Aim and adjust all luminaires to provide illumination levels, focusing, and distribution patterns to the Owner's satisfaction.

SECTION 271005 - TELEPHONE AND DATA SYSTEMS

Coordinate all demarcation locations with the serving utility and/or the Hold meeting with the Owner prior to commencing work Determine Scope of Work and Division of Responsibility

2.01 ENCLOSURES Backboards: Provide 3/4 inch thick UL-labeled, fire-retardant, interior grade plywood; size as indicated on the Drawings.

Wall: 4-square by 2-1/8 inch deep outlet box with single gang mud ring and 2.04 NOTIFICATION APPLIANCES cover plate unless indicated otherwise or otherwise required Floor: As indicated on the Drawings or within Section 260537 unless indicated otherwise or otherwise required.

Provide standard-size awar blank wall plates unless indicated otherwise; color as selected by the Architect. Mid-size or jumbo wall plates are not permitted. 2.03 PATHWAYS

All Pathways: See Section 260534 for permitted conduit types. Provide pullstring in each conduit. Service Entrance: Conduit with extended radius sweeps; size as indicated or Branch Wiring: Provide 3/4 inch minimum conduit from all outlet boxes to accessible ceiling space unless indicated otherwise.

3,01 INSTALLATION OF ENCLOSURES A. Backboards: Install at locations indicated on the Drawinas.

3.02 INSTALLATION OF OUTLET BOXES Install in compliance with Section 260537. Mounting Heights: See Section 262726. 3.03 INSTALLATION OF PATHWAYS

All Pathways: Install all pathways with the following minimum clearances: 48 inches from motors, generators, frequency converters, transformers, x-ray equipment, and uninterruptible power 12 inches from power conduits and cables and panelboards

5 inches from fluorescent and high frequency lighting fixtures 6 inches from flues, hot water pipes, and steam pipes. Install conduit in compliance with Section 260534 unless indicated Do not install more than two 90 degree bends in a single norizontal cable run

b. Leave pull cords in place where cables are not initially Under floor slabs, locate conduit at 12 inches minimum below vapor retarder and seal penetrations of vapor retarder around Underground Service Entrance: Install conduit at least 18 inches below

finish grade and encase in at least 3 inches thick concrete for at least 60 inches out from the building line. C. Grounding and Bonding: Perform in accordance with ANSI/J-STD-607 and NFPA END OF SECTION

SECTION 283100 - FIRE DETECTION AND ALARM

PART 1 GENERAL 1.01 ADMINISTRATIVE The word "should" used in NFPA 72 shall be considered a mandatory

requirement. 1.02 PREPARATION A. Examine the plans of all trades to determine scope of fire alarm and detection work including, but not limited to: Architectural plans to determine occupancy classification, occupant loads, and locations where voice alarm will be required. Fire sprinkler plans, including fire sprinkler plans that are designed by others, to determine locations of all flow switches, tamper switches, post indicator valves, corrosion monitoring probes, dry-type system compressors, and fire pumps. Mechanical plans to determine locations of all individual HVAC units rated equal to or greater than 2,000 cubic feet per minute (CFM), locations of HVAC units serving the same room or area where the total aggregate capacity of the units is equal to or greater than 2,000 cubic t per minute (CFM), locations of HVAC units sharing a common return air plenum where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute (CFM), smoke dampers, smoke exhaust equipment, and Type 1 grease hood fire suppression systems. pordinate all notification appliance colors with the Architect. 1.03 DELEGATED TO CONTRACTOR - SYSTEM DESIGN

Provide a fully engineered Code-compliant design of the fire detection and alarm system from a Fire Alarm Designer.

The Fire Alarm Designer shall be a NICET Level III or IV (3 or 4) certified ire alarm technician, registered fire protection engineer, employee of the fire alarm control unit manufacturer, or Contractor with experience designing e detection and alarm systems in the jurisdictional area. C. The Fire Alarm Designer shall develop all fire detection and alarm plans, riser diagrams, calculations, and equipment submittal packages required b NFPA 72-2013 section 7.4 and the Authority Having Jurisdiction and submit the same as a deferred permit. The General Contractor shall include all costs associated with the

development of the fully engineered fire detection and alarm plans and permit Any fire detection and alarm information indicated on the Drawings is strictly for the purpose of establishing a minimum criteria to aid the Fire Alarm Designer in the design of the fully engineered fire alarm drawings. The Fire Alarm Designer is responsible to provide a design that is fully compliant with all applicable Codes and jurisdictional requirements

PART 2 PRODUCTS 2.01 GENERAL All new fire alarm initiation devices, including new initiation devices added

to existing systems, shall be of the same manufacturer as the control unit 2.02 NEW FIRE ALARM AND DETECTION SYSTEMS Fire Detection and Alarm System: Control Unit: Notifier #NFW2-100 unless indicated otherwise. Communicator: Digital Alarm Communicator Transmitter (DACT) connected to central station Secondary Power: Storage battery and battery charger capable of

operating entire system for period of time specified by NFPA 72 plus 25 percent spare capacity.4D. Auxiliary Battery Cabinet: As required for Relay Module: As required for a complete operational system. Remote Annunciator: Notifier #N-ANN-80-W unless indicated otherwise; provide when control unit is installed at a location other than the irst Responder's primary point of entry. B. Voice Alarm System:1. Control Unit: Notifier #NFC-50-100 unless indicated otherwise.

Secondary Power: Storage battery and battery charger capable of operating entire system for period of time specified by NFPA 72 plus 25 Auxiliary Battery Cabinet: As required for the batteries installed 4. Audio Amplifier Modules: As required for speakers served

Smoke Detectors Detector: Notifier #NP-100 unless indicated otherwise Base: Notifier #B210LP unless indicated otherwise; provide Notifier #B224RB relay base when smoke detector is used for door releasing

2.03 INITIATING DEVICES

Provide for each HVAC unit rated equal to or greater than 2,000 cubic feet per minute. Provide for all HVAC units serving the same room or area where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute. Provide for all HVAC units that share a common return air plenum where the total aggregate capacity of the units is equal to or

Provide as required for control of each smoke damper

Housing: Notifier #DNR unless indicated otherwise. Sampling Tube: As required for the duct. Remote Test Stations: Notifier #RTS151KEY unless indicated otherwise; provide when duct smoke detector is installed in a concealed location greater than 10 feet above finished floor or when duct smoke detector's status indicators are not readily visible. Remote Alarm LED Annunciators: Notifier #RA100A unless indicated otherwise; provide for each duct smoke detector that is not connected to a fire alarm control unit.

C. Heat Detectors: Detector: Notifier #NH-100R unless indicated otherwise. Base: Notifier #B210LP unless indicated otherwise; provide Notifier #B224RB relay base when heat detector is used for elevator shunt trip. D. Manual Pull Stations: Notifier #NOT-BG12LX unless indicated otherwise; semi-flush mounted in all finished areas and surface mounted with #SB-10

All notification appliances shall be from the same manufacturer All notification appliances shall be semi-flush mounted in all finished areas; notification appliances are permitted to be surface mounted in unfinished areas.

 All notification appliance housings shall be white unless indicated otherwise or unless the Authority Having Jurisdiction requires red 4. Provide strobe synchronization modules when more than one strobe is located within a viewing area. Horns: System Sensor #HW unless indicated otherwise indicated otherwise.

Strobes: System Sensor #SW for wall—mount and #SCW for ceiling—mount unless Combination Horn/Strobes: System Sensor #P2W for wall-mount and #PC2W for ceilina-mount unless indicated otherwise. Speakers: System Sensor #SPW for wall-mount and #SPCW for ceiling-mount unless indicated otherwise.

Combination Speaker/Strobes: System Sensor #SPSW for wall-mount and #SPSCW ceiling-mount unless indicated otherwise. G. Exterior Combination Speaker/Strobes: System Sensor #P2RK unless indicated

Addressable Monitor Modules: As required for a complete operational system. Addressable Control Modules: As required for a complete operational system. Addressable Relay Modules: As required for a complete operational system. Door Holders: Notifier DH24120 series with 24 volt coil and 40 pounds of holding force unless indicated otherwise; coordinate selection of door holders with architectural hardware requirements and verify required clearances, sizes and locations to operate properly with the doors and Notification Appliance Circuit Power Supplies: As required for a complete End-of-Line Resistors: As recommended by the manufacturer

Wireguards: Provide for any wall-mounted notification appliances located in gymnasiums or where otherwise exposed to physical damage. 2.06 COMBINATION SMOKE/CARBON MONOXIDE ALARMS Kidde #112010SCO unless indicated otherwise; for use within individual dwelling units only.
2.07 CONDUIT: See section 260534; painted red.

2.08 BOXES: See section 260537; painted red

2.05 AUXILIARY DEVICES

A. All Wire and Cable: Riser Cabling: Unshielded Type FPLR when installed in conduit and Type FPLP when not installed in conduit unless indicated otherwise or otherwise required; red jacket. Horizontal Cabling: Unshielded Type FPL when installed in conduit and Type FPLP when not installed in conduit unless indicated otherwise or

Initiating Device Circuits (IDC): Number of Conductors: As recommended by the manufacturer Conductor Size: As recommended by the manufacturer but not smaller

Signaling Line Circuits (SLC): Number of Conductors: As recommended by the manufacturer Conductor Size: As recommended by the manufacturer but not smaller than 18 AWG.

D. Notification Appliance Circuits (NAC): Number of Conductors: As recommended by the manufacturer. Conductor Size: As recommended by the manufacturer but not smaller 3.05 INSPECTION, TESTING, AND ADJUSTMENT

3.01 COORDINATION WITH OTHER TRADES

Coordinate all fire alarm work with all other trades including, but not limited to: Connection of all fire sprinkler monitoring components including all flow switches, tamper switches, post indicator valves, corrosion nonitoring probes, dry-type system compressors, and fire pumps with the $^{3.06}$ Fire Sprinkler Contracto

Connection of all individual HVAC units rated equal to or greater than 2.000 cubic feet per minute (CFM), locations of HVAC units serving the same room or area where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute (CFM), locations of HVAC units sharing a common return air plenum where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute (CFM), smoke dampers, smoke exhaust equipment, and Type grease hood fire suppression systems with the Mechanical Contractor. Connection of all elevator controllers and elevator recall systems with the Vertical Transportation Contractor. Locations where boxes and/or conduit are to be roughed-in for

initiating devices and/or notification appliances and locations where 120 volt power is required with the Electrical Contractor. Change orders arising from a lack of coordination with the other trades will not be considered. Install all components in accordance with all applicable codes including,

NFPA 70, NFPA 72, and the applicable Fire and Building Codes. Install all products in strict accordance with manufacturer's instructions.

Obtain Owner's approval of locations of all components prior to rough—in. Install components at the following mounting heights:

1. Control Units: Top at 72 inches above finished floor. Manual Pull Stations: Centerline at 46 inches above finished floor Audible Notification Appliances: Top at 90 inches above finished floor or 6 inches below finished ceiling, whichever is lower Visible Notification Appliances: Top at 96 inches above finished floor or 6 inches below finished ceiling, whichever is lower. Combination Audible/Visual Notification Appliances: Top at 96 inches above finished floor or 6 inches below finished ceiling, whichever is

Make conduit and wiring connections to all initiating devices, notification appliances, control units, fire sprinkler system components, HVAC system components, smoke control system components, vertical transportation components, grease hood fire suppression system components, monitor modules, control modules, relay modules, etc. for a complete fully functional system. Install outlet boxes for door holders to withstand 80 pounds of pulling

Install control relays within 3 feet of the controlled equipment. Install duct smoke detector remote test stations and/or remote alarm LED annunciators; coordinate locations with the Owner and the Authority Having Jurisdiction prior to rough—in. Install end-of-line resistor in box with last device or separate box adjacent to last device in circuit. Conceal all wiring, conduit, boxes, and supports where located within finished areas.

K. Install all concealed, inaccessible wiring, including wiring installed in

walls, and all exposed wiring in conduit in accordance with NFPA 70.

1. Wiring may be installed without conduit where accessible and not subject to damage only when specifically permitted by the Authority Having Jurisdiction. Plenum rated cable may be used only where concealed above accessible tile ceilings or accessible shafts. Separate cables from any open conductors of Class 1 circuits and do not place any conduit, junction box, or raceway containing Class 1 cables. Provide the following circuit classes:

Initiating Device Circuits (IDC): Class B. Signaling Line Circuits (SLC) Within Building: Class B. ignaling Line Circuits (SLC) Between Buildings: Class A. Notification Appliance Circuits (NAC): Class B. Provide a minimum of 25 percent spare capacity on all circuits

Connect control unit to a separate dedicated branch circuit with a separate, red, dedicated circuit breaker with lock—on accessory and label circuit as Connect any 120 volt exterior fire sprinkler alarm bells to the same circuit serving the control unit. R. Install instruction cards and labels; provide legible, permanent labels for each control device, using identification used in operation and maintenance

3.03 FIRE SAFETY SYSTEMS INTERFACES Provide the following fire safety system interfaces upon activation. Coordinate all components requiring interface, including exact locations with the associated Contractor. Change orders arising from a lack of coordination with the other trades will not be considered.

> Manual Pull Stations: Transmit alarm signal to control unit Smoke Detectors: Transmit alarm signal to control unit. Heat Detectors: Transmit alarm signal to control unit. Fire Sprinkler Systems: Flow Switches: Transmit alarm signal to control unit. Tamper Switches: Transmit supervisory signal to control unit. Post Indicator Valves: Transmit supervisory signal to control

Corrosion Monitoring Probes: Transmit supervisory signal to Pressure Monitoring Systems: Transmit supervisory signal to Fire Pumps: Transmit supervisory signal to control unit per NFPA HVAC System Duct Smoke Detectors Shut down supply fan on each individual unit rated equal to or greater than 2.000 cubic feet per minute.

Shut down all supply fans on all units that share a common return air plenum where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute. Shut down all supply fans on all units that serve a common room or area where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute. Close smoke dampers. Transmit alarm or supervisory signal to control unit; coordinate required signal type with the Authority Having Jurisdiction.

Disconnect power to all appliances located under hood. Close gas valve(s) serving appliances located under hood. Shut down all supply air fan(s). Start hood exhaust fan(s) if not already running. Transmit alarm signal to control unit

Smoke Exhaust: Shut down all supply air fan(s). Start smoke exhaust fan(s). ransmit alarm signal to control unit Smoke Barrier Door Holders: Release upon activation of smoke detectors on either side of

Release upon activation of manual pull station on the same floor. c. Release upon activation of fire sprinkler flow switch. Electromagnetic Locks on Egress Doors: Release upon any alarm signal. Elevator Shutdown Control Circuits: Transmit supervisory signal b. Smoke Detectors in Elevator Lobbies, Machine Rooms, and

Activate elevator recall. Transmit alarm signal to control unit. Heat Detectors in Elevator Machine Rooms and Hoistways: Shunt trip elevator controller prior to machine room and Transmit alarm signal to control unit. Fire Alarm Wiring:

Open Circuit: Transmit trouble signal to control unit. Single Ground: Transmit trouble signal to control unit. Short Circuit: Transmit trouble signal to control unit. 3.04 SEQUENCE OF OPERATION Visual and audible alarm at control unit.

Visual and audible alarm at remote annunciator. Transmit alarm signal to central station. Activate audible notification appliances. Transmit signal to building mechanical systems to initiate supply air fan shut down Transmit signal to building mechanical systems to close smoke Transmit signal to building mechanical system to grease hood exhaust Transmit signal to building mechanical system to start smoke exhaust Transmit signal to elevator controllers to initiate elevator recall.

Visual and audible alarm at control unit. Visual and audible alarm at remote annunciator Transmit supervisory signal to central station.

Visual and audible alarm at control uni Visual and audible alarm at remote annunciator Transmit trouble signal to central station Manual acknowledge silences audible trouble glarm at control unit and remote annunciator but visual alarm remains displayed until trouble condition is cleared.

Complete NFPA 72 "RECORD OF COMPLETION" form.

Notify the Authority Having Jurisdiction and comply with their requirements for scheduling inspections and tests and for observation by their personnel. Perform inspection and testing in accordance with NFPA 72 and requirements of the Authority Having Jurisdiction. D. Document each inspection and test, correct any defective work, and retes until entire system complies with the requirements of NFPA 72, the Authority Having Jurisdiction, and the Contract Documents.

Provide hands-on instruction for the Owner's designated representative. Provide the services of instructors, teaching aids, and copies of operation and maintenance data during instruction.

Substantial Completion: Substantial Completion cannot be achieved until inspection and testing is successful, all aspects of operation have been demonstrated to Owner, final acceptance of the fire alarm system has been given by the Authority Having Jurisdiction, the occupancy permit has been ssued, and the personnel instruction is complete. Demonstration: Demonstrate proper operation of all functions to Owner.

Demonstration may be combined with inspection and testing required by the Authority Having Jurisdiction. C. Closeout Documentation and Materials: Provide the following closeout documentation and materials to the

Manufacturer's cut sheets, owner's manual, manufacturer's published instructions, and troubleshooting guides covering all system equipment. Detailed but easy to read explanation of procedures to be used by non-technical personnel in the event of system trouble, when routine testing is being conducted, and for fire drills.

Record drawings complying with NFPA 72-2013 section 7.5.5.

NFPA 72-2013 "RECORD OF COMPLETION" form. NFPA 72-2013 "SYSTEM RECORD OF INSPECTION AND TESTING" form. Testing and inspection procedures and schedule. All closeout documentation shall be neatly organized in a three-ring binder with labeled dividers separating sections.

Provide, as an alternate to the base bid for later acceptance by the Owner, of proposal for a two-year maintenance contract that includes: Services to perform routine inspection, testing, and preventive maintenance required by NFPA 72, including maintenance of fire safety interface and supervisory devices connected to fire alarm system, and repairs required. Record keeping required by NFPA 72 and the Authority Having Jurisdiction.

. Trouble call—back service upon notification by the Owner within two hours of notification Include allowance for call-back service during normal working hours at no extra cost to Owner. Owner will pay for call-back service outside of normal working hours on an hourly basis, based on actual time spent at site and Include hourly rate and definition of normal working hours in maintenance contract. examination, adjustment, cleaning, inspection, and testing, with a

4. A complete description of proposed preventive maintenance, systematic detailed schedule. Maintenance of a log at each control unit, listing the date and time of each inspection and call-back visit, the condition of the system, nature of the trouble, correction performed, and parts replaced oviding an updated NFPA 72-2013 "SYSTEM RECORD OF INSPECTION AND TESTING" form to Owner's representative upon completion of site visit. Include the total cost of contract. Proposal shall be valid for a minimum of 30 days after date of Substantial

END OF SECTION

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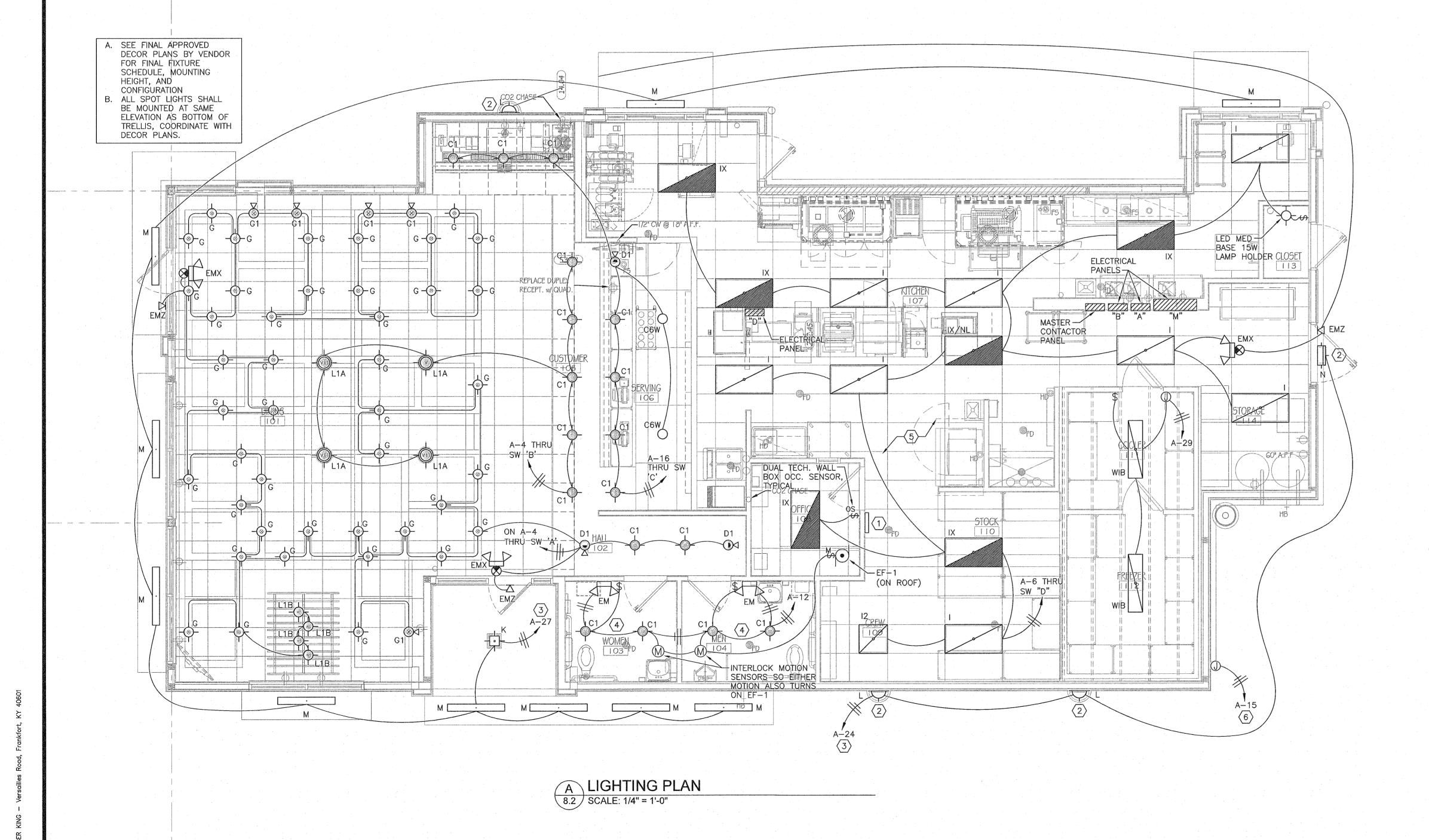
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REVISIONS:

DATE: 11/24/2021 JOB NO: DRAWN BY: STAFF SHEET NUMBER:

FINISHED FLOOR

1 SWITCH BANK DETAIL
N.T.S.



GENERAL SHEET NOTES

- A. CONTRACTOR TO BE RESPONSIBLE FOR ALL FINAL DIMENSIONS.
- B. CONTRACTOR SHALL NOT CUT ANY BUILDING STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
- C. CONTRACTOR TO COORDINATE WORK SCHEDULE WITH OTHER TRADES AND
- D. CONTRACTOR TO COORDINATE ALL NEW WORK SO AS NOT TO DAMAGE ANY EXISTING OR NEW EQUIPMENT.
- E. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT
- F. ALL WORK AREAS TO BE CLEANED AT THE END OF EACH WORK DAY.
- G. CONTRACTOR TO COORDINATE ALL PIPING, ELECTRICAL CONDUIT, DUCTWORK, ROOF OPENINGS, AND EQUIPMENT PLACEMENT AND OTHER WORK WITHIN ALL
- H. THIS CONTRACTOR IS RESPONSIBLE FOR SEALING ALL OPENINGS LEFT BY THE REMOVAL OF EQUIPMENT.
- I. ALL BRANCH CIRCUITS SHALL BE #12 THHN IN 3/4" EMT CONDUIT U.O.N.
- J. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PROJECT SCHEDULING AND TIMELINES.
- K. INSTALL ELECTRICAL SYSTEMS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, STATE CODES INSPECTOR, LOCAL POWER COMPANY STANDARDS AND AS REQUIRED BY LOCAL FIRE DEPARTMENT.
- L. HVAC UNITS ARE GAS HEAT, ELECTRIC COOL.
- M. NOTE: PROVIDE MEANS FURNISH AND INSTALL.

PRIOR TO INSTALLING SAME.

- N. ALL ELECTRICAL WORK TO BE PERFORMED BY ELECTRICIAN LICENSED BY LOCAL AUTHORITY AND AS REQUIRED BY NATIONAL ELECTRICAL CODE.
- O. LABEL ALL CIRCUITS AND PANELS. PROVIDE ALL CALCULATIONS AS REQUIRED BY LOCAL UTILITY CO.
- P. VERIFY ALL POWER WIRING SIZE AND REQUIREMENTS FOR ALL PROJECT EQUIPMENT FURNISHED UNDER MAIN CONTRACT BY OTHERS, OR FURNISHED
- Q. COORDINATE AND LOCATE ELECTRIC METER, PAD MOUNTED TRANSFORMER AND MAIN ELECTRIC SERVICE PANEL WITH OWNER AND AS REQUIRED BY LOCAL UTILITY CO. COORDINATE ALL PMT. LOCATIONS, SUBMITTALS, INSPECTIONS, ETC AS REQUIRED BY LOCAL POWER CO.
- R. COORDINATE AND PROVIDE ALL RELATED WORK FROM OTHER TRADES SUCH AS HVAC, PLUMBING, ELECTRIC POWER WIRING AND SYSTEMS CONTROL WIRING REQUIREMENTS. ETC.
- S. PROVIDE TEMPORARY ELECTRIC SERVICE FOR ALL TRADES DURING CONSTRUCTION UNTIL PERMANENT POWER IS ESTABLISHED.
- T. ELECTRICIAN TO LEAVE ALL LAMPS CLEAN, I.E. DIRT AND LABEL REMOVED AND ALL WITH LIGHT BULBS INSTALLED.
- U. PROVIDE ELECTRICAL GROUNDING FOR MAIN PANELS/SYSTEM AS PER NEC & UTILITY CO.
- V. COORDINATE EMERGENCY AND EXIT LIGHT FIXTURE LAYOUT WITH LOCAL CODE OFFICIAL, KENTUCKY BUILDING CODE AND NFPA/NEC REQUIREMENTS.
- W. PROVIDE EXIT LITES, 110 VOLT WITH BATTERY BACK-UP, AND REMOTE HEADS AT ALL EXITS.
- X. ELEC. SUBCONTR. COORD. ALL MOUNTING HEIGHTS OF SWITCHES AND PLUGS WITH OWNER & MEET HANDICAP ACCESSIBILITY ADAAG REQUIREMENTS.
- Y. COORDINATE ALL PRESLAB REQUIREMENTS WITH GEN. CONTR. & SUBCONTRACTORS.

PROVIDE ALL WITH 90 MINUTE BATTERY BACKUP.

KEYED NOTES

- (1) SWITCH BANK SEE DETAIL ON THIS SHEET. COORDINATE W/OWNER REPRESENTATIVE.
- (2) WIRE WALL PACK THRU PHOTOCELL. EC TO PROVIDE "PARAGON" PHOTOCELL CW 201-00 MOUNTED ON ROOF FACING NORTH. MAKE ADJUSTMENT FOR ANY AMBIENT LIGHT.
- (3) ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR, SEE DETAILS SHEET 8.7.
- 4 PROVIDE HARDWARE FOR INSTALLATION IN GYPSUM BOARD CEILINGS.
- (5) ALL LIGHT FIXTURES OVER FOOD SERVICE AREA TO BE PROVIDED WITH LENS.
- 6 J-BOX FOR PERIMETER LIGHTS. TYPICAL OF ALL PERIMETER LIGHTS. VERIFY POINT OF CONNECTION. WIRE VIA EXTERIOR LIGHTING CONTACTOR.

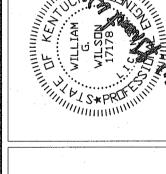
ELECTRICAL SHEET LEGEND

- P DUPLEX RECEPTACLE, MOUNT @ 18" AFF TO CENTER.
- SINGLE RECEPTACLE, 240V, SINGLE PHASE AND/OR THREE PHASE MOUNT @ 18"
- AFF TO CENTER. QUAD RECEPTACLE, MOUNT @ 18"
- AFF TO CENTER. ΦGFI DUPLEX RECEPTACLE, GROUND FAULT
- INTERRUPTER, MOUNT @ 18" AFF
- © CABLE TV OUTLET, MOUNT @ 18" AFF TO CENTER. PROVIDE PREMISE WIRING CONCEALED IN WALL.
- S SMOKE/HEAT DETECTOR, CEILING
- MOUNT.
- 4☐ ELECTRICAL DISCONNECT SWITCH \$ WALL SWITCH
- \$3 3-WAY WALL SWITCH
- \$M MOTOR STARTER SWITCH W/PILOT LIGHT
- (J) ELECTRICAL JUNCTION BOX Φ_c CEILING MOUNTED DUPLEX RECEPTACLE, GFI PROTECTED
- ▽ CAT 6 DATA CABLE, 2 PORT DATA AND VOIP

REVISIONS:







William
Pope

& ASSOCIATES
ARCHITECTURE PLANNING
7400 BLANCO RD., SUITE 257, SAN AN

DATE: 11/24/2021 JOB NO:

44387 DRAWN BY: SHEET NUMBER:

 $\langle 3 \rangle$ VERIFY POWER REQUIREMENTS FOR SELECTED WATER HEATER.

(4) REAR DOOR ALARM - "MONITOR 4000" BY SECURITY PRODUCTS, INC. OR APPROVED EQUAL. MOUNT SIMPLEX RECEPTACLE FOR POWER SUPPLY 6' ABOVE CEILING.

(5) PERMANENTLY CONNECTED KITCHEN EQUIPMENT NOT SUPPLIED WITH ON/OFF UNIT SWITCH (WHICH IS PART OF THE APPLIANCE) TO SERVE AS A DISCONNECTING MEANS. UNIT SHALL BE SUPPLIED WITH A DISCONNECT, PROVIDED BY THE ELECTRICAL CONTRACTOR.

 $\langle 6
angle$ G.C. TO VERIFY ELECTRICAL REQUIREMENTS FOR FIRE SUPPRESSION SYSTEM AND AUTO-SOLENOID GAS SHUT-OFF VALVE.

 $\langle 7 \rangle$ RUN 2" CONDUIT TO MANAGERS OFFICE FOR CABLE TV.

 $\langle 8
angle$ heat tape is provided by walk-in box manufacturer and installed by ELECTRICAL CONTRACTOR. CONTRACTOR SHALL COORDINATE INSTALLATION AND SUPPLY 120V CIRCUIT AND RECEPTACLE AS DIRECTED BY BOX MANUFACTURER.

 $\langle 9 \rangle$ JUNCTION BOX FOR LIGHTED DISPLAY SIGN. HEIGHT 72" +-, VERIFY WITH MANUFACTURER.

(10) STAINLESS STEEL SERVICE CHASE TO CEILING FURNISHED BY EQUIPMENT MANUFACTURER.

(11) CONTRACTOR SHALL OBTAIN WIRING DIAGRAM FROM W.I.B. MANUFACTURER AND INSTALL AS DIRECTED.

(12) CONTRACTOR SHALL COORDINATE EQUIPMENT INSTALLATION WITH EQUIPMENT MANUFACTURER'S INSTALLATION PERSONNEL.

(13) PRE-WIRED BRANCH CIRCUITS DISCONNECTED FOR SHIPMENT TO BE RE-CONNECTED BY MANUFACTURER'S INSTALLATION PERSONNEL ON SITE.

(14) ELECTRICAL CONTRACTOR TO PROVIDE CORD WITH PLUG AND WIRE TO STANDARD BROILER. WHEN USING NEICO 9025 OR MARSHALL 2001 "FLEX" BROILER, PROVIDE 8 GA., 5 WIRE CORD AND TWIST PLUG. BROILER CONNECTION TO BE PROVIDED ABOVE CEILING, NEXT TO HOOD.

(15) CONTRACTOR SHALL COORDINATE CONDUIT RUN BETWEEN FREEZER/COOLER

(16) ELECTRICAL CONTRACTOR TO PROVIDE JUNCTION BOXES INSIDE WALL @ 48" A.F.F. WITH STUB-UPS TO CEILING FOR AMEREX PULL SYSTEM AS REQUIRED BY EQUIPMENT

(17) SMOKE DETECTOR ALARM PANEL, REFER TO MECHANICAL SHEETS FOR LOCATION OF A/C UNITS WITH SMOKE DETECTORS.

(18) PROVIDE (1) 2' UNDERGROUND CONDUIT FOR POWER AND (1) 2' UNDERGROUND OWNER, PRIOR TO TRENCHING. REFER TO ELECTRICAL SITE PLAN 2.2.2 AND ARCHITECTURAL SHEET 2.10 FOR ADDITIONAL REQUIREMENTS.

(19) 6" BELOW CEILING FOR CONDENSATE DRAIN LINE TAPE HEATER.

(20) TO MASTER RELAY PANEL. SEE SHEET 8.7.

(21) MANUAL ON/OFF CONTROL PANEL - REFERENCE SHEET 8.7

(22) MASTER CONTACTOR PANEL - REFERENCE SHEET 8.7 AND NOTE #23 BELOW.

(23) OPTION #1: RECESS ELECTRICAL CONTACTOR PANEL & PANELS 'A', 'B', & 'M' IN FURRED OUT WALL ADJACENT TO EXTERIOR FRAMING. G.C. TO VERIFY PANEL SIZES PRIOR TO FURR-OUT TO INSURE ADEQUATE SPACE. OPTION #2: HILL PHOENIX INTEGRATED WALL UNIT INCLUDES PANELS 'A', 'B', 'M' AND MASTER CONTACTOR PANEL IN ONE CABINET. UNIT TO BE SURFACE MOUNTED ON 4" HIGH CONCRETE CURB. REFERENCE SHEET 8.7 FOR ADDITIONAL INFORMATION.

(24) PROVIDE VISUAL STROBE ALARM MOUNTED AT 80" A.F.F. TIE TO H.V.A.C. SMOKE ALARM SYSTEM.

(25) ROUTE CONDUITS UP WALL TO 6" ABOVE CEILING. REFER TO SHEET 2.2.2 FOR ADDITIONAL REQUIREMENTS.

(26) PROVIDE 1/2" FLEX CONDUIT FROM J-BOX ABOVE CEILING TO ELECTRICAL BOX IN KIOSK CHASSIS FOR POWER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH

(27) PROVIDE 1/2" FLEX CONDUIT FROM J-BOX ABOVE CEILING TO KIOSK CHASSIS FOR DATA. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH OWNER.

(28) PROVIDE REMOTE CO2 STORAGE SAFETY ALARM SYSTEM, MODEL #Y78-CO2MNTR. COORDINATE WITH CO2 VENDOR FOR INSTALLATION.

(29) PROVIDE POWER FOR WALL SIGN. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.

(30) ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL CORD WITH PLUG AND WIRE

EVAPORATORS, AND ROOFTOP REFRIGERATION UNIT WITH MANUFACTURER'S FURNISHED

CONDUIT FOR DATA TO DRIVE THRU J-BOXES. COORDINATE EXACT LOCATION WITH

F. ALL CONDUCTORS SHALL BE COPPER.

G. ALL CONDUCTORS SHALL BE RUN IN CONDUIT, EXCEPT LOW VOLTAGE CONTROL AND

I. ALL BRANCH CIRCUITS, EXCEPT INTERIOR LIGHTING, EXTERIOR BUILDING SIGNS, PARAPET LIGHTING AND SOFFIT LIGHTING TO HAVE A GREEN EQUIPMENT GROUNDING CONDUCTOR SIZED AS PER NEC 250-122.

J. PVC (SCHEDULE 40) PERMITTED BELOW SLAB AND BELOW GRADE ONLY.

K. AN EQUIPMENT GROUND CONDUCTOR (GREEN) SHALL BE RUN IN ALL POWER CIRCUIT

L. ALL EMPTY CONDUITS TO BE PROVIDED WITH NYLON PULL STRING.

M. NEW TYPEWRITTEN PANEL DIRECTORY SHALL BE FURNISHED AFTER JOB IS COMPLETED

N. ALL BRANCH CIRCUITS SHALL BE PROPERLY PHASE BALANCED.

O. ALL DATA EQUIPMENT TO BE FED BY A DEDICATED CIRCUIT WHICH CONSISTS OF A POWER CIRCUIT THAT FEEDS THIS TYPE OF EQUIPMENT ONLY WITH A SEPARATE GREEN GROUNDING CONDUCTOR CARRIED ALL THE WAY BACK TO THE PANEL TO BE CONNECTED TO THE GROUNDING SYSTEM.

P. FUSES SHALL BE DUAL ELEMENT, TIME DELAY TYPE UNLESS OTHERWISE NOTED.

Q. EC SHALL VERIFY INTERIOR DECOR THEME TO BE USED AND COORDINATE WITH SAID

R. EC SHALL INSTALL AND CONNECT WIRING TO ALL SIGNS.

S. EC TO COORDINATED ROUGHING-IN TO ALL EQUIPMENT WITH EQUIPMENT SUPPLIER PRIOR TO INSTALLING CONDUITS.

U. MAINTAIN 12" CLEARANCE BETWEEN P.O.S. COMMUNICATION CONDUITS AND LIGHTING FIXTURES AS WELL AS POWER CONDUITS.

V. CUTTING AND NOTCHING OF 2x4 BEARING WALL FRAMING NOT TO EXCEED 7/8". BORING HOLES IN 2x4 BEARING WALL FRAMING NOT TO EXCEED 2-1/8".

A. EC TO PROVIDE AND INSTALL RECEPTACLES, CAPS AND CORDS AS REQUIRED. CAPS AND CORDS ARE TO BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

MANUFACTURERS'S INSTRUCTIONS.

FOR SHIPMENT.

PROVIDE INTER-WIRING AS REQUIRED.

INSTALL ELECTRICAL SERVICE DOWN FROM ABOVE THROUGH THE SERVICE CHASE PROVIDE WITH THE EQUIPMENT.

REQUIRED FOR SPECIFIC KITCHEN EQUIPMENT. REFER TO THE ARCHITECTS/ENGINEERS ELECTRICAL DRAWINGS FOR LOCATIONS OF UTILITY AND GENERAL PURPOSE

EQUIPMENT SUPPLIER.

NOTIFY THE KITCHEN EQUIPMENT SUPPLIER PROJECT MANAGER IMMEDIATELY OF COMPLIANCE WITH A LOCAL, STATE OR NATIONAL CODE IS IN CONFLICT WITH THESE

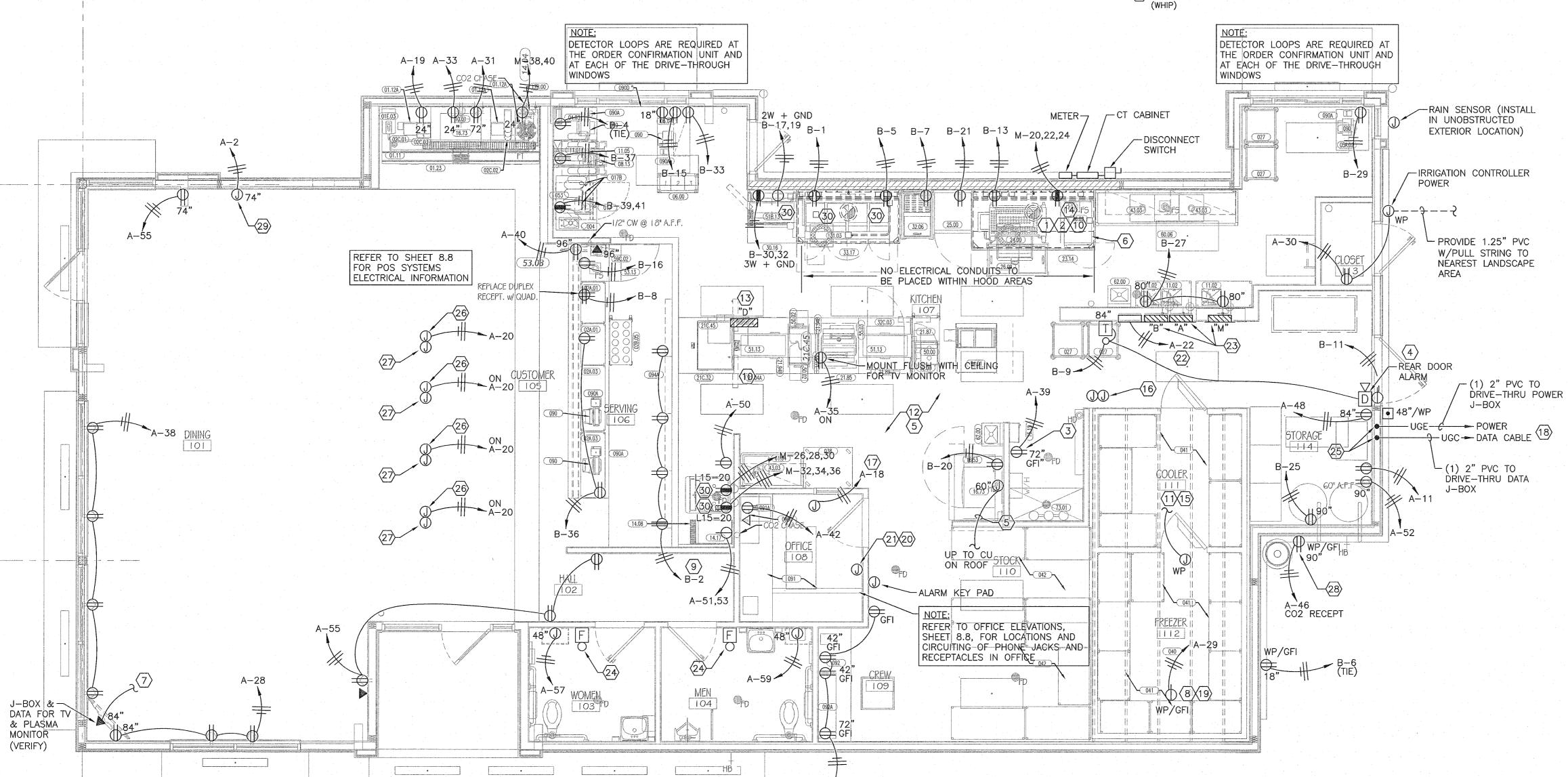
AFF TO CENTER. © SINGLE RECEPTACLE, 240V, SINGLE PHASE AND/OR THREE PHASE MOUNT @ 18" AFF TO CENTER.

© CABLE TV OUTLET, MOUNT @ 18" AFF TO CENTER. PROVIDE PREMISE WIRING

└□ ELECTRICAL DISCONNECT SWITCH

(J) ELECTRICAL JUNCTION BOX

▽ CAT 6 DATA CABLE, 2 PORT DATA AND VOIP



POWER FLOOR PLAN

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

GENERAL NOTES

A. ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES AND STANDARDS.

B. ALL DEVICE BOXES SHALL BE INSTALLED FLUSH AND CONDUITS RUN CONCEALED IN

FINISHED AREAS EXCEPT AS SPECIFICALLY SHOWN/NOTED OTHERWISE. C. INSTALL POWER AND CONTROL WIRING AND REQUIRED CONTROL COMPONENTS FOR AIR

CONDITIONING SYSTEMS AS SHOWN/NOTED ON THE DRAWINGS AND PER OTHER

APPLICABLE DRAWINGS/INS1RUCTIONS. REFERENCE MECHANICAL DRAWINGS.

D. WIRE SIZE SHALL BE #12 (MINIMUM) UNLESS OTHERWISE NOTED. WIRE SIZES SMALLER THAN #6 AWG SHALL BE THHN/THWN. #6 AWG WIRE AND LARGER SHALL BE THW, UNLESS NOTED OTHERWISE.

E. WIRE (CONDUCTOR) COLORS SHALL BE AS PER APPLICABLE CODES.

COMMUNICATIONS CABLES, UON ON PLANS.

H. ALL MATERIALS SHALL BE UL APPROVED.

CONDUITS WHETHER OR NOT THE CONDUIT IS PVC.

REFLECTING ALL AS BUILT CONDITIONS.

T. ALL CONDUIT RUNS TO KITCHEN EQUIPMENT SHALL BE RUN ABOVE CEILING.

KITCHEN EQUIPMENT NOTES:

B. EC TO CONNECT ELECTRICAL SERVICE DIRECTLY TO EQUIPMENT ACCORDING TO THE

C. EC TO RECONNECT ELECTRICAL CIRCUITS ON PRE-WIRED EQUIPMENT DISASSEMBLED

D. WHERE EQUIPMENT IS NOT PRE-WIRED, EC TO CONNECT THE ELECTRICAL SERVICE AND

WHERE RECEPTACLES ARE PROVIDED WITH THE EQUIPMENT, EC TO PROVIDE AND F. KITCHEN EQUIPMENT SUPPLIER DRAWINGS INCLUDE ONLY THOSE RECEPTACLES

G. EC TO VERIFY THE UTILITY REQUIREMENTS FOR ITEMS NOT PROVIDED BY THE KITCHEN

H. ALL PORTIONS OF WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND NATIONAL CODES, ORDINANCES AND STANDARDS.

ELECTRICAL SHEET LEGEND

DUPLEX RECEPTACLE, MOUNT @ 18"

QUAD RECEPTACLE, MOUNT @ 18" AFF TO CENTER.

\$\Phi_{\text{GFI}} \text{ DUPLEX RECEPTACLE, GROUND FAULT} INTERRUPTER, MOUNT @ 18" AFF

CONCEALED IN WALL. (S) SMOKE/HEAT DETECTOR, CEILING

\$ WALL SWITCH

\$3 3—WAY WALL SWITCH \$ MOTOR STARTER SWITCH W/PILOT LIGHT

 $\ensuremath{\varphi_c}$ CEILING MOUNTED DUPLEX RECEPTACLE, GFI PROTECTED

REVISIONS:

Y S

DATE: JOB NO: DRAWN BY: SHEET NUMBER:

A ELECTRICAL ROOF PLAN 8.4 | SCALE: 1/4" = 1'-0"

GENERAL NOTES

- A. ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES AND STANDARDS.
- B. ALL DEVICE BOXES SHALL BE INSTALLED FLUSH AND CONDUITS RUN CONCEALED IN FINISHED AREAS EXCEPT AS SPECIFICALLY SHOWN/NOTED OTHERWISE.
- C. INSTALL POWER AND CONTROL WIRING AND REQUIRED CONTROL COMPONENTS FOR AIR CONDITIONING SYSTEMS AS SHOWN/NOTED ON THE DRAWINGS AND PER OTHER APPLICABLE DRAWINGS/INS1RUCTIONS. REFERENCE MECHANICAL DRAWINGS.
- D. WIRE SIZE SHALL BE #12 (MINIMUM) UNLESS OTHERWISE NOTED. WIRE SIZES SMALLER THAN #6 AWG SHALL BE THHN/THWN. #6 AWG WIRE AND LARGER SHALL BE THW, UNLESS NOTED OTHERWISE.
- E. WIRE (CONDUCTOR) COLORS SHALL BE AS PER APPLICABLE CODES.
- F. ALL CONDUCTORS SHALL BE COPPER.
- G. ALL CONDUCTORS SHALL BE RUN IN CONDUIT, EXCEPT LOW VOLTAGE CONTROL AND COMMUNICATIONS CABLES, UON ON PLANS.
- H. ALL MATERIALS SHALL BE UL APPROVED.

REFLECTING ALL AS BUILT CONDITIONS.

- I. ALL BRANCH CIRCUITS, EXCEPT INTERIOR LIGHTING, EXTERIOR BUILDING SIGNS, PARAPET LIGHTING AND SOFFIT LIGHTING TO HAVE A GREEN EQUIPMENT GROUNDING CONDUCTOR SIZED AS PER NEC 250-122.
- J. PVC (SCHEDULE 40) PERMITTED BELOW SLAB AND BELOW GRADE ONLY.
- K. AN EQUIPMENT GROUND CONDUCTOR (GREEN) SHALL BE RUN IN ALL POWER CIRCUIT CONDUITS WHETHER OR NOT THE CONDUIT IS PVC.
- L. ALL EMPTY CONDUITS TO BE PROVIDED WITH NYLON PULL STRING.
- M. NEW TYPEWRITTEN PANEL DIRECTORY SHALL BE FURNISHED AFTER JOB IS COMPLETED
- N. ALL BRANCH CIRCUITS SHALL BE PROPERLY PHASE BALANCED.
- O. ALL DATA EQUIPMENT TO BE FED BY A DEDICATED CIRCUIT WHICH CONSISTS OF A POWER CIRCUIT THAT FEEDS THIS TYPE OF EQUIPMENT ONLY WITH A SEPARATE GREEN GROUNDING CONDUCTOR CARRIED ALL THE WAY BACK TO THE PANEL TO BE CONNECTED TO THE GROUNDING SYSTEM.
- P. FUSES SHALL BE DUAL ELEMENT, TIME DELAY TYPE UNLESS OTHERWISE NOTED,
- Q. EC SHALL VERIFY INTERIOR DECOR THEME TO BE USED AND COORDINATE WITH SAID
- R. EC SHALL INSTALL AND CONNECT WIRING TO ALL SIGNS.
- S. EC TO COORDINATED ROUGHING-IN TO ALL EQUIPMENT WITH EQUIPMENT SUPPLIER PRIOR TO INSTALLING CONDUITS.
- T. ALL CONDUIT RUNS TO KITCHEN EQUIPMENT SHALL BE RUN ABOVE CEILING.
- U. MAINTAIN 12" CLEARANCE BETWEEN P.O.S. COMMUNICATION CONDUITS AND LIGHTING
- FIXTURES AS WELL AS POWER CONDUITS.
- V. CUTTING AND NOTCHING OF 2x4 BEARING WALL FRAMING NOT TO EXCEED 7/8". BORING HOLES IN 2x4 BEARING WALL FRAMING NOT TO EXCEED 2-1/8".

KITCHEN EQUIPMENT NOTES:

- A. EC TO PROVIDE AND INSTALL RECEPTACLES, CAPS AND CORDS AS REQUIRED. CAPS AND CORDS ARE TO BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
- B. EC TO CONNECT ELECTRICAL SERVICE DIRECTLY TO EQUIPMENT ACCORDING TO THE MANUFACTURERS'S INSTRUCTIONS.
- C. EC TO RECONNECT ELECTRICAL CIRCUITS ON PRE-WIRED EQUIPMENT DISASSEMBLED FOR SHIPMENT.
- D. WHERE EQUIPMENT IS NOT PRE-WIRED, EC TO CONNECT THE ELECTRICAL SERVICE AND PROVIDE INTER-WIRING AS REQUIRED.
- E. WHERE RECEPTACLES ARE PROVIDED WITH THE EQUIPMENT, EC TO PROVIDE AND INSTALL ELECTRICAL SERVICE DOWN FROM ABOVE THROUGH THE SERVICE CHASE PROVIDE WITH THE EQUIPMENT.
- F. KITCHEN EQUIPMENT SUPPLIER DRAWINGS INCLUDE ONLY THOSE RECEPTACLES REQUIRED FOR SPECIFIC KITCHEN EQUIPMENT. REFER TO THE ARCHITECTS/ENGINEERS ELECTRICAL DRAWINGS FOR LOCATIONS OF UTILITY AND GENERAL PURPOSE
- G. EC TO VERIFY THE UTILITY REQUIREMENTS FOR ITEMS NOT PROVIDED BY THE KITCHEN EQUIPMENT SUPPLIER.
- H. ALL PORTIONS OF WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND NATIONAL CODES, ORDINANCES AND STANDARDS.
- I. NOTIFY THE KITCHEN EQUIPMENT SUPPLIER PROJECT MANAGER IMMEDIATELY OF COMPLIANCE WITH A LOCAL, STATE OR NATIONAL CODE IS IN CONFLICT WITH THESE

CODED SHEET NOTES

- (1) OPTIONAL MEATHERPROOF OUTLET 30" AFR FOR TV VIDEO CAMERA. RUN CONDUIT TO BLDG. INTERIOR, VERIFY SIZE AND LOCATION WITH OWNER.
- (2) REMOTE FREEZER COMPRESSOR CONDENSING UNIT.
- (3) REMOTE COOLER COMPRESSOR CONDENSING UNIT.
- 4 TO FREEZER EVAPORATOR.
- (5) TO COOLER EVAPORATOR.
- 6 STUB-UP CONDUIT AND ADJACENT TO ROOF CURB AND PROVIDE SEAL TIGHT CONNECTION TO DISCONNECT WITH SUFFICIENT SLACK TO ALLOW REMOVAL OF FAN FOR SERVICING.
- $\overline{\langle 7 \rangle}$ FOR CONTINUATION, SEE LIGHTING PLAN, SHEET 8.1.
- 8 DOWN TO ICE MACHINE.
- 9 SEE ELECTRICAL RISER SHEET 8.5 FOR ELECTRICAL REQUIREMENTS TO MECHANICAL EQUIPMENT.
- (10) RUN CONTROL WIRES VIA MASTER RELAY CONTROL PANEL, SEE SHEET 8.7.
- (11) 120V/1ø WATER PROOF, GFI RECEPTACLE BY ELECTRICAL CONTRACTOR.
- 12 PROVIDE 60A/3P/NF/NEMA 3R DISCONNECT SWITCH AND FIELD COORDINATE EXACT PLACEMENT.
- (13) PROVIDE 30A/2P/NF/NEMA 3R DISCONNECT SWITCH AND FIELD COORDINATE EXACT PLACEMENT.
- (14) ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR, SEE DETAILS SHEET 8.7. PROVIDE WHIPS & FINAL CONNECTIONS AS REQUIRED.

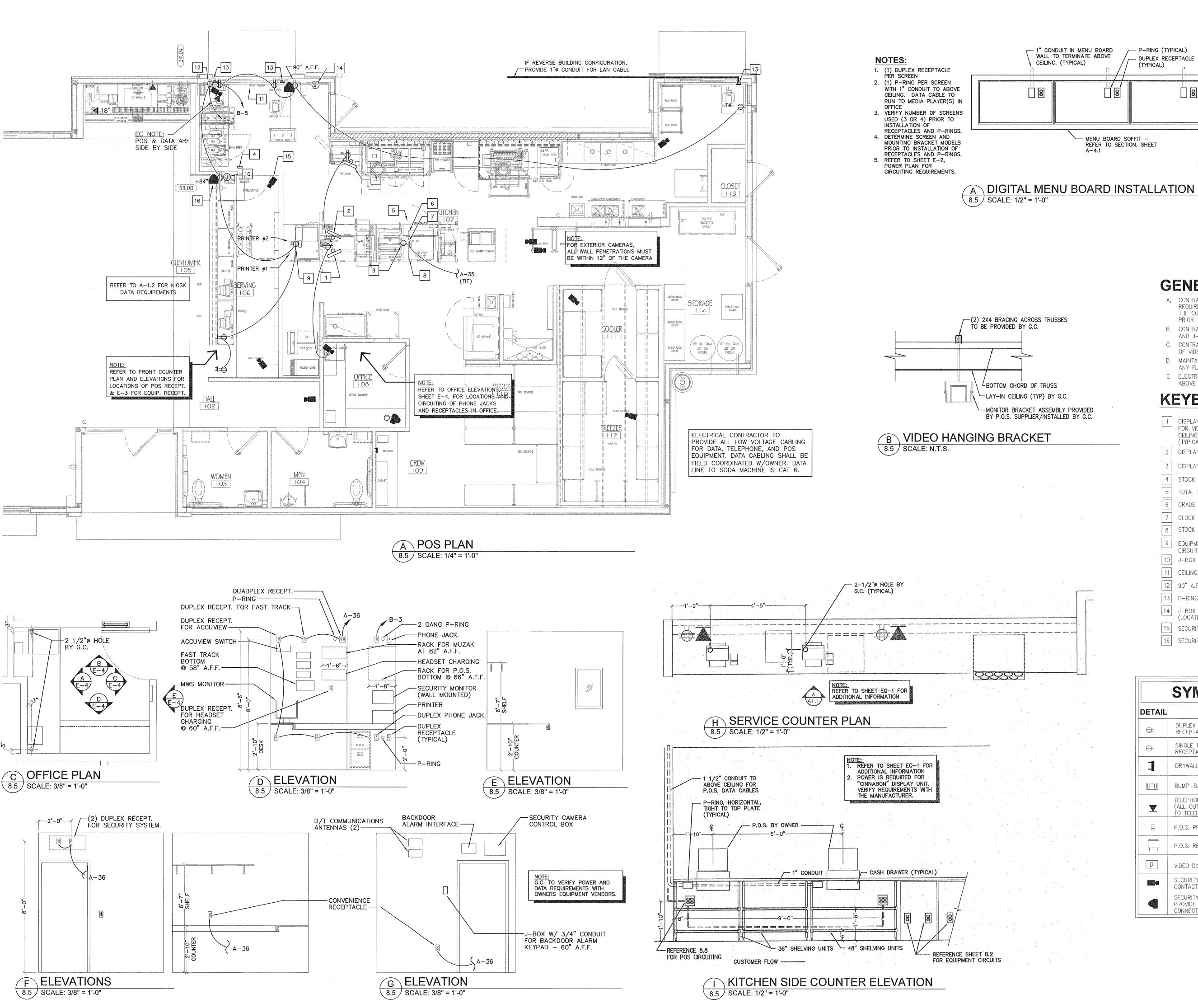




Charles
William
Pope

& ASSOCIAtes
ARCHITECTURE PLANNING (7400 BLANCO RD., SUITE 257, SAN AN

DATE: 11/24/2021 JOB NO: DRAWN BY: STAFF SHEET NUMBER:



GENERAL NOTES:

A, CONTRACTOR TO VERIFY WHICH SYSTEM IS TO BE INSTALLED. REQUIREMENTS CAN VARY DEPENDING ON MANUFACTURER. THE CONTRACTOR IS CAUTIONED TO VERIFY ALL REQUIREMENTS PRIOR TO CONSTRUCTION.

— DIGITAL MENU BOARD

DISPLAY (TYPICAL)

B. CONTRACTOR TO PROVIDE ALL RECEPTACLE OUTLETS, CONDUITS AND J-BOXES AS INDICATED ON PLAN.

C. CONTRACTOR TO VERIFY AND COORDINATE LOCATION OF VIDEO DISPLAY DEVICES W/ BURGER KING REPRESENTATIVE. D. MAINTAIN P.O.S. CABLES A MIN. OF 12" AWAY FROM ANY FLUORESCENT LIGHT SOURCES ABOVE CEILING.

E. ELECTRICAL CONTRACTOR TO IDENTIFY P.O.S. JUNCTION BOXES ABOVE CEILING "GROUND P.O.S. ONLY".

KEYED PLAN NOTES:

DISPLAY #1 AND BUMB BAR. PROVIDE 4"Ø CONDUIT FOR VIDEO, BUMP BAR AND PRINTERS. PROVIDE CEILING MOUNTED RECEPTACLES. (TYPICAL FOR DISPLAY #1, #2 AND #3)

3 DISPLAY #3 AND BUMP BAR

2 DISPLAY #2 AND BUMP BAR

4 STOCK LEVEL LIGHT CONTROLLER @ 60" A.F.F.

5 TOTAL SERVICE TIME DISPLAY

6 GRADE DISPLAY

7 CLOCK-RECEPT. IN CHASE

8 STOCK LEVEL DISPLAY RECEPT. IN CHASE

9 EQUIPMENT MOUNTED RECEPTACLES BY K.E.S. CIRCUITING RUNS BY E.C.

10 J-BOX W/ 3/4" CONDUIT @ 84" A.F.F.

11 CEILING MOUNTED D/T TIMER WINDOW TIME DISPLAY

 $12 \mid 90$ " A.F.F. FOR D/T LAND MONITOR.

13 P-RING @ 24" A.F.F. W/ 1" CONDUIT TO ABOVE CLG.

J-BOX W/1" CONDUIT TO CLG. FOR PHU DATA CABLE. (LOCATE NEXT TO PHU RECEPT.)

15 SECURITY CAMERA (TYPICAL)

16 SECURITY MONITOR (TYPICAL)

	SYMBOL LEGEND
DETAIL	DESCRIPTION
	DUPLEX 125V-20A-2 POLE-3 WIRE STRAIGHT BLADE RECEPTACLE OUTLET - WALL MTD. (24" A.F.F., - U.O.N.)
\ominus	SINGLE 125V-20A-2 POLE-3 WIRE STRAIGHT BLADE RECEPTACLE OUTLET - WALL MTD. (24" A.F.F., - U.O.N.)
1000 P	DRYWALL P-RING
ВВ	BUMP-BAR
Y	TELEPHONE OUTLET FOR P.O.S. MODEM (ALL OUTLETS HOMERUN IN 3/4" CONDUIT TO TELEPHONE BACKBOARD) MOUNT 96" A.F.F.
	P.O.S. PRINTER DEVICE
	P.O.S. REGISTER DEVICE
D	VIDEO DISPLAY DEVICE (CEILING MTD.)
	SECURITY CAMERA BY "PRIVID-EYE" CONTACT: LARRY SATTLER, 954-581-1756
	SECURITY MONITOR BY "PRIVID-EYE" PROVIDE DUPLEX RECEPTACLE @ 84" A.F.F. (VERIFY) CONNECT TO P.O.S. CIRCUIT

Charles
William
Pope
& Associates

TECTURE PLANNIN
SUITE 257, SAF DATE:

EVISIONS:

POS

JOB NO: SHEET NUMBER:

REVISIONS:

Sailes Road

SAMERA PLAN







Charles
William
Pope

& ASSOCIAtes
ARCHITECTURE PLANNING CONSULTING

DATE: 11/24/2021

JOB NO: 44387

DRAWN BY: STAFF

SHEET NUMBER:

8.6

NOTES: 1. SUPPLY LAMP WITH FIXTURE.

2. FINISH SHALL BE SELECTED BY ARCHITECT. 3. PROVIDE MANUFACTURER'S FIELD INSTALLED, FUSING KIT.

4. PROVIDE POLE AND ANCHOR BOLT POLE BASE. SEE POLE SCHEDULE.

5. PROVIDE MANUFACTURER'S 9" SIDE ARM MOUNTING OF LIGHT FIXTURE. FINISH TO MATCH.

		POLE S	<u>SCHEDULE</u>		
MARK DESCR	PTION	MANUFACTURER	MODEL NUMBER	POLE DIAMETER	NOTES
P25 25'-0'	ROUND STRAIGHT SQUARE ALUMINUM	LITHONIA	RSA-25-6E-DMXX-FBC-DDB	6x4 (10"ø)	1,2,3,4

2. POLE TO WITHSTAND 100MPH WIND WITH 1.3 GUST FACTOR.

3. POLE BASE TO HAVE MANUFACTURER'S BASE COVER, COLOR TO MATCH POLE.

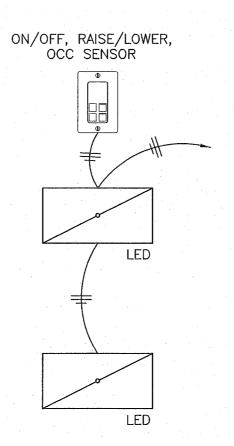
4. PROVIDE SIDE ARM MOUNT, COLOR TO MATCH POLE. FOR DOUBLE HEADS, PROVIDE TWO SIDE ARM MOUNTS, EITHER 180 DEGREES OR 90 DEGREES APART AS SHOWN ON SITE UTILITIES PLAN.

						· .	·	
		· · · · · · · · · · · · · · · · · · ·	LIGHT FIX	TUR	E SCHEDULE			
TYPE	SYMBOL	MANUFACTURER	MODEL NUMBER	VOLTS	QUA.—LAMP	MOUNTING	WATTS	REMARKS
L1A	-ф-	NAUTICAL	BK304 & SP30S-18-60D-927-03	120	LED	STEM	10W	PENDANT
L1B	- \(-	NAUTICAL	BK305 & LED 8W EDISON	120	1600 LUMEN LED @ 30K		8W	BRONZE CAGE PENDANT
C1	-ф-	JUNO	SP36671-WHTRM	120	LED	RECESSED		
C6W	-ф-	JUNO	SP34505-930-6-WWH	120	LED	RECESSED	11W	6" DIA RECESSED WHITE
D1	8	JUNO	SP36671G2/39WWH	120	LED			
EM		LSI	LTEM-WH	120	LED	SURFACE	10W	EMERGENCY LIGHTING UNIT W/ 90 MIN. EMERGENCY OPERATION
ЕМХ		LSI	LPRX-R-U-WH-LD11-RL	120	LED	SURFACE	5	COMBO EMERGENCY LIGHT & EXIT SIGN, 90 MIN EMERGENCY OPERATION, HIGH OUTPUT FOR REMOTE HEADS
EMZ	∇	LITHONIA	AFN-CBA-EXT	9.6V	LED	SURFACE	3W	WET LOCATION, REMOTE EMERGENCY FIXTURE
G	- 	JUNO	BK-GG-G-10LM-2"/SP34378G2B-10LM-930FISN	120	LED		10W	
G1	8	JUNO	BK-GG-G-10LM-2"/SP34378G2A-10LM-930FISN	120	LED		10W	
		LITHONIA	EPANL-2x4-6000LM-80CRI-40K-MIN10-ZT-MVOLT-NSF	120	LED-6000 LUMENS @ 40K	LAY-IN	50W	2'x4' LED LIGHT PANEL SEALED UNIT
IX		LITHONIA	EPANL-2x4-6000LM-80CRI-40K-MIN10-ZT-MVOLT-NSF-E10WCP	120	LED-6000 LUMENS @ 40K	LAY-IN	50W	2'x4' LED LIGHT PANEL SEALED UNIT WITH 90 MIN EMERGENCY OPERATION
К	-	LSI	XSL2-S-LED-50-CW-120-WHT-CMT	120	LED	RECESSED	30W	SOFFIT LIGHT
L	Д	LSI	XPWS3-FT-LED-48-450-CW-UE-MSV	120	LED		40W	
М		KONTECH	KON-DVP-182-14-JY	120	LED		36W	AWNINGS
N	=	LSI	SWM-2-LED-CW-UE-GBZ	120	LED	WALL	42W	SECURITY LIGHT
WIB		LSI	EG3-4-LED-6L-DA-S-UNV-DIM-50K-80CRI	120	6600 LUMEN LED @ 30K	SURFACE	48W	4' ENCLOSED & GASKETED LINEAR LED

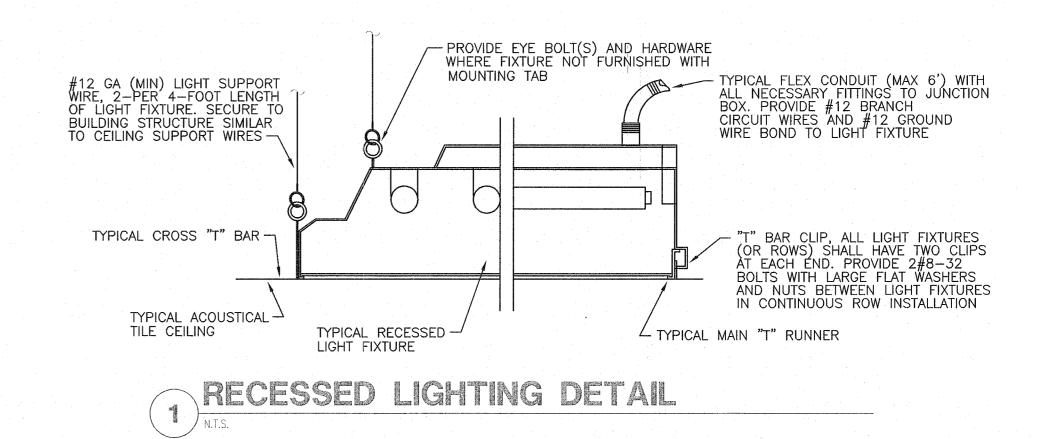
NOTE: E.C. TO PROVIDE LAMPS FOR ALL FIXTURES. EMERGENCY LAMPS SHALL NOT OPERATE AS A NIGHT LIGHT UNLESS SO NOTED ON PLANS. EMERGENCY BATTERY PACK SHALL BE WIRED WITH AN UNSWITCHED HOT LEG. ALL SHALL BE 3000K, (CRI 80+), IN ALL FIXTURES UNLESS OTHERWISE NOTED.

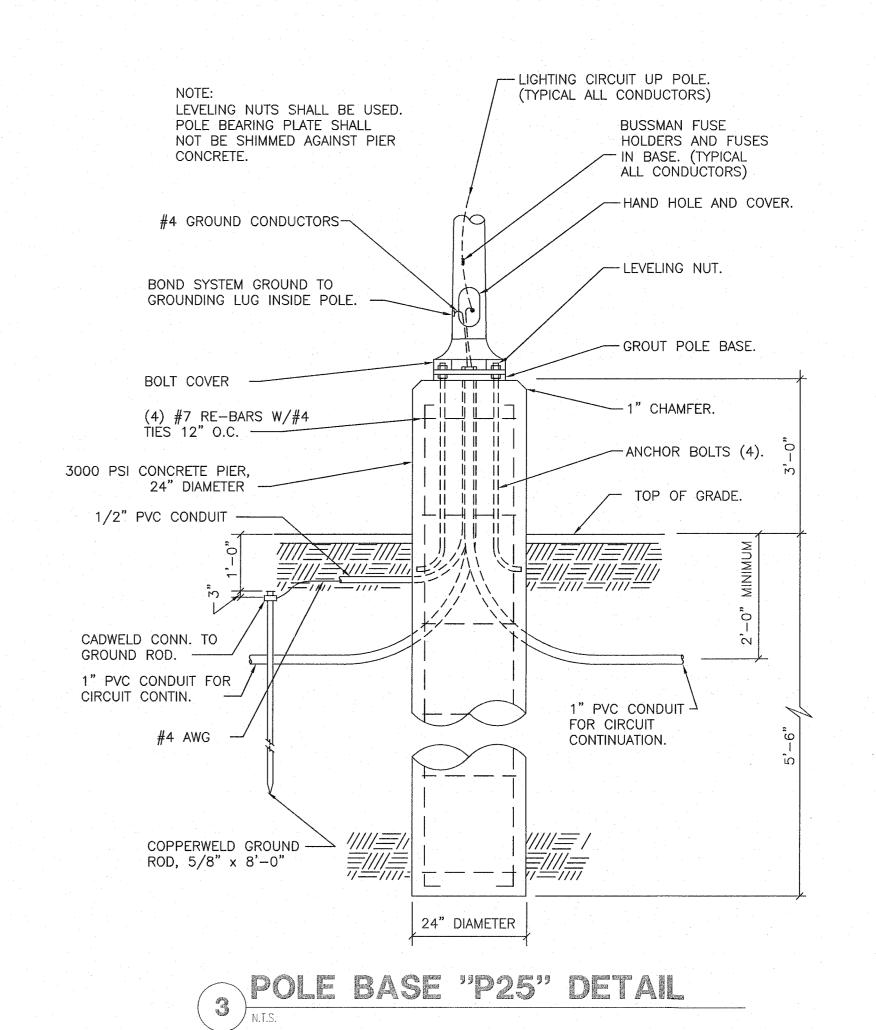
NOTE: ALL CEILING MOUNTED DEVICES SHALL BE CENTERED IN THE CEILING GRID.

NOTE: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



TYPICAL OFFICE 2 LINE CONTROL W/VACANCY.







EVISIONS:

DETAILS Š

SCHEDULES TRICAL

STORE



Charles
William
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& Associates

TECTURE PLANNIN
SUITE 257, SAF

DATE: 11/24/2021 JOB NO: SHEET NUMBER:

FIRE CONTROL SYSTEM

TELEPHONE RISER DIAGRAM

UNDERGROUND PRIMARY REQUIREMENTS

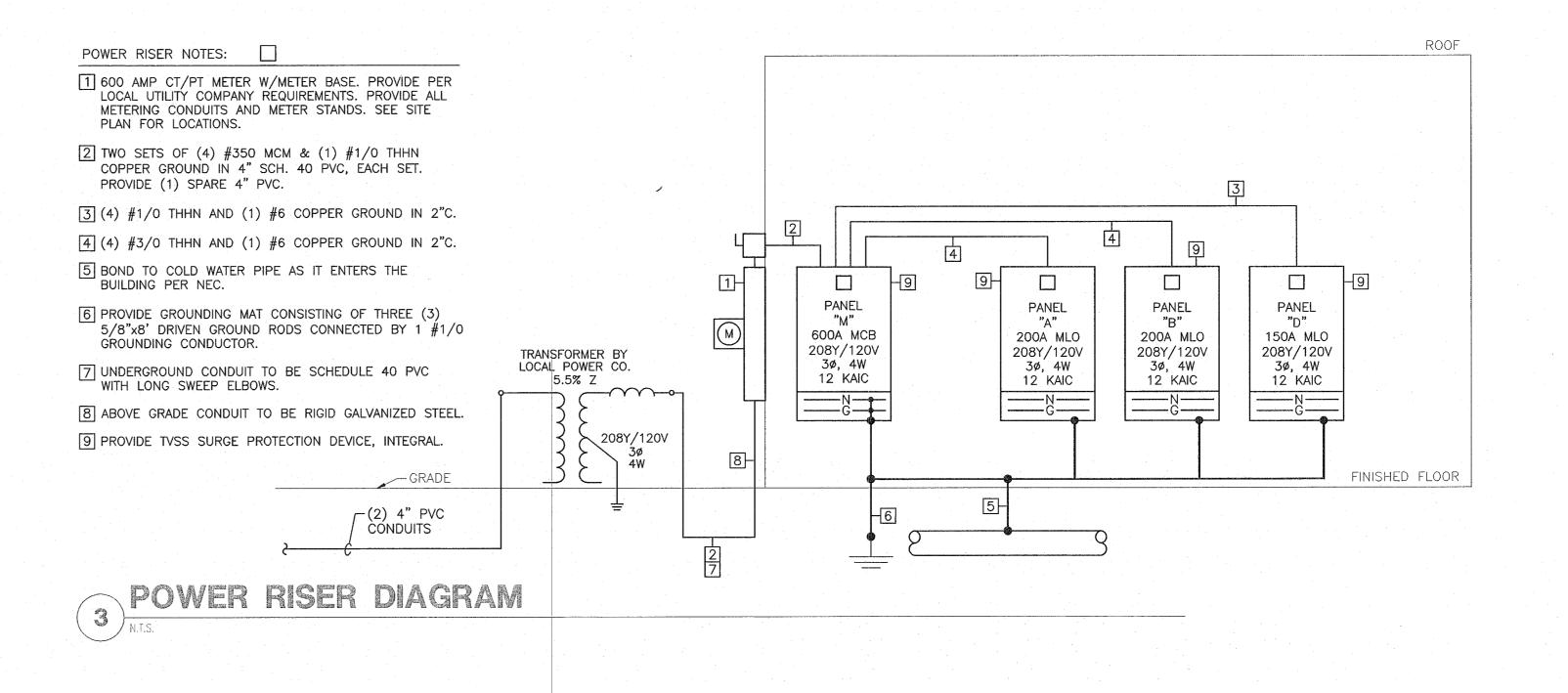
1. GENERAL:

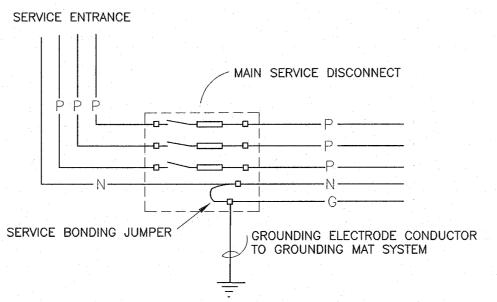
- A. TRANSFORMER PADS, EXCAVATION, CONDUIT AND BACKFILL BY CONTRACTOR.
- B. PADMOUNT TRANSFORMERS, JUNCTION ENCLOSURES, HIGH VOLTAGE POWER CONDUCTORS AND INSTALLATION OF SAME BY LOCAL POWER
- C. UNDERGROUND CONSTRUCTION BY CONTRACTOR IS SUBJECT TO INSPECTION BY LOCAL POWER COMPANY, AND MUST BE APPROVED BY LOCAL POWER COMPANY PRIOR TO THE INSTALLATION OF CONDUCTOR AND TRANSFORMERS. CONDUIT TO BE INSPECTED BEFORE BACKFILLING.
- D. REFER TO LOCAL POWER COMPANY'S OPERATING POLICIES FOR ADDITIONAL RULES AND REGULATIONS.
- AREA IN QUESTION WILL BE AT LEAST ROUGH GRADE BEFORE ANY TRENCHING
- F. ANY CHANGES TO THESE OR ANY OTHER LOCAL POWER COMPANY SPECIFICATIONS RELATING TO SAME MUST BE DESIGNED OR APPROVED BY LOCAL POWER COMPANY.
- G. BEFORE ANY EXCAVATION IS PERFORMED NEAR LOCAL POWER COMPANY'S EXISTING FACILITIES, A 48-HOUR NOTICE TO BUD (1-800-752-6007) MUST BE GIVEN SO THAT NECESSARY ACTION CAN BE TAKEN TO MINIMIZE DANGER TO LIFE AND/OR PROPERTY.

2. CONDUIT REQUIREMENTS:

- A. MINIMUM SIZE OF CONDUIT FOR UNDERGROUND PRIMARY TO BE (2) 4" SCH 40 PVC AND MINIMUM DEPTH FOR THIS CONDUIT TO BE 48". MINIMUM SIZE OF SECONDARY CONDUIT TO BE 4" SCH 40 PVC AND MINIMUM DEPTH 30".
- B. ALL CONDUITS TO BE TURNED UP INTO TRANSFORMERS AS SHOWN. SEE ATTACHED DETAILS.
- C. ALL BENDS IN CONDUIT TO BE OF SUFFICIENT RADII TO PERMIT EASE IN PULLING WIRE (NO PLUMBERS BENDS WILL BE ACCEPTED). ALL 90° BENDS IN PRIMARY CONDUIT WILL HAVE A MINIMUM RADIUS OF 36". ALL 90° BENDS IN SECONDARY CONDUIT WILL HAVE A MINIMUM RADIUS OF 18".
- D. ALL CONDUITS TO CONTAIN 150 LB. TEST (OR GREATER) NYLON STRING.
- E. BACKFILL OVER CONDUIT TO CONTAIN NO LARGE ROCKS OR DEBRIS.
- F. ALL CONDUITS BENEATH ROAD SURFACE WILL BE SCH 80, OR ENCASED IN A 4" CONCRETE ENVELOPE, AND WILL BE BACKFILLED WITH NO 9 CRUSHED STONE.
- G. ALL CONDUITS WILL BE INSTALLED AS SPECIFIED AND LOCATED BENEATH ALL OTHER UTILITIES WHERE POSSIBLE. ALTERATIONS TO THIS SPECIFICATION WILL BE DESIGNED OR APPROVED BY LOCAL POWER COMPANY.
- H. A "BURIED ELECTRIC LINES" WARNING TAPE (3" MINIMUM WIDTH) WILL BE INSTALLED 12" DIRECTLY OVER PRIMARY CONDUITS AND 12" BENEATH FINAL GRADE FOR SAME.
- I. SECONDARY CONDUITS WILL ALSO REQUIRE WARNING TAPE TO BE INSTALLED 12" BENEATH FINAL GRADE.
- J. WARNING TAPE WILL BE BY CONTRACTOR.
- K. CONTRACTOR MUST PROVIDE 30' RUNS OF 4" CONDUIT AND REQUIRED HARDWARE AT THE RISER POLE. LOCAL UTILITY COMPANY WILL PROVIDE STAND-OFF BRACKETS. SEE POWER RISER DIAGRAM FOR QUANTITIES.
- L. REAR PORTION OF TRANSFORMER PAD MUST REST ON UNDISTURBED OR WELL COMPACTED SUBGRADE.
- M. ENTIRE EXCAVATED AREA NEAR PAD TO BE BACKFILLED WITH NO 9 CRUSHED STONE.
- N. WHEN INSTALLING POWER CONDUCTORS PARALLEL TO WATER, SEWER, CABLE TELEVISION, GAS, TELEPHONE LINES, AND ETC, THERE MUST BE A MINIMUM OF 3' SEPARATION. NO OTHER UTILITIES MAY BE DIRECTLY ABOVE THE POWER CABLES.
- O. WHEN CROSSING OVER OTHER UTILITIES' BURIED LINES, INSTALL 4" CONCRETE ENCASEMENT AROUND CONDUIT TO LENGTH OF 4' TO EACH SIDE OF BURIED LINE BEING CROSSED. WHEN CROSSING UNDER OTHER UTILITIES' BURIED LINES, THERE MUST BE A MINIMUM OF A 2' SEPERATION.
- P. COORDINATE INSTALLATIONS OF METERING AND POWER AND OTHER REQUIREMENTS FOR METERING AND DISCONNECTS WITH LOCAL POWER

UG CONDUIT NOTES





SERVICE ENTRANCE GROUND/BOND DETAIL

8 -4" 0000

has been mechanically tamped. PLAN VIEW -1/2" Bevel SIDE VIEW → Final Grade Crushed Stone Reinforcing Rod or Mesh

PAD SPECIFICATIONS

Transformer pad to be solid block of concrete with dimensions as shown,

bottom with either 1/2" steel rods on 5"

prefabricated or poured on site. Concrete to be 1-24 mix or 3000 p.s.i. strength

(6 bag mix). Top outside edges of pad

semi-smooth finish. Pouring or placing

necessary conduit is in place and ground

equivalent, all of which shall be solidly

welded together for a firm mat and

structural foundation. Pad may be

will have 1/2 inch bevel, and all

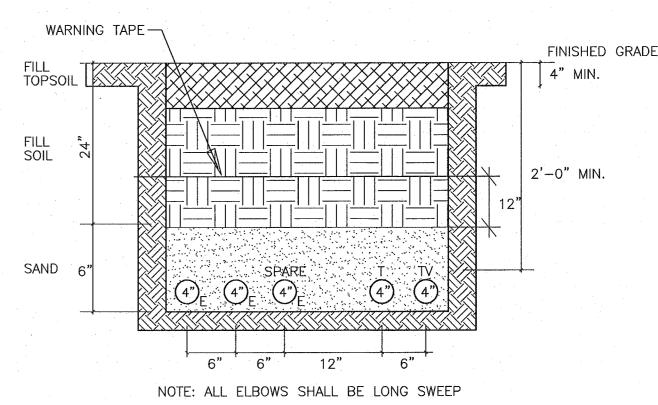
of the pad will be done after the

surfaces will be troweled to a

reinforced at a height of 1" above

centers, 4"X4" 4/4 wire mesh or

PAD MOUNTED TRANSFORMER CONCRETE PAD DETAIL



SECONDARY TRENCH/ BACKFILL DETAIL

PROVIDE (2) 4" PVC OR (4) 2" PVC. CONFIRM WITH LOCAL POWÉR CO. BEFORÈ BID FINISHED GRADE FILL SOIL 3'-6" MIN. SOIL OR SAND

> NOTE: PAD, TRENCH, PRIMARY CONDUITS, SECONDARY CONDUITS & BACKFILL BY EC. PRIMARY CONDUCTORS BY LOCAL ELECTRIC COMPANY. NOTE: PROVIDE WARNING TAPE @ 12" ABOVE TOPMOST ELECTRICAL CONDUIT.

PRIMARY

8) TRENCH/BACKFILL DETAIL

EVISIONS:

DETAILS

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SCHEDULES

ELECTRICAL

X ARC 7400 5

> DRAWN BY: SHEET NUMBER: 8.8

11/24/2021

44387

DATE:

JOB NO:

						PANELE	ROARD		В							
		VOLTO (L.L.)	200								DUO MATERIAL					
		VOLTS (L-L):	208	- 1	MOUNTING:						BUS MATERIAL					
		VOLTS (L-N):	120	-		NEMA 1	-				TOP OR BOTTOM FEED?					
		PHASE:_	3	-	FEED THRU LUGS (Y/N):		-				GROUND BUS					
		WIRE:	4	- 1	SERIES RATED (Y/N);		-				BRANCH BKRS.					
		_	200	- v.	SHUNT TRIP MAIN (Y/N):		-				S. E. RATED (Y/N)					
		MCB:_	-	-	MINIMUM AIC RATING;	12000	- '				NEUTRAL RATING (%)					
		SOURCE:_	M		SOURCE FEEDER AMPS:	200					LOCATION	: ELECTRICAL				
-		OIDOUIT BDG	AVED		F		T		· · · · · · · · · · · · · · · · · · ·			·	OLDOU UT DDG 1		·	
4		CIRCUIT BRE	ANER				Р	HASE LOA	DS				CIRCUIT BREA	T	-	
												-				
ODE	CKT. #	AMP	POLES	WIRE & CONDUIT	LOAD SERVED	KVA	øA	øB	øC	KVA	LOAD SERVED	WIRE & CONDUIT	POLES	AMP	CKT. #	_
2	11	20	1	#12 AWG, 3/4"	FRYER #31	0.2	0.6			0.4	SER. CTR. HALL	#12 AWG, 3/4"	-1	20	2	
2	3	20	1	#12 AWG, 3/4"	OFFICE RECEPTACLE	0.4		0.9		0.5	DT/ SPEED/ SER COUNTER	#12 AWG, 3/4"	1	20	4	
2	5	20	1	#12 AWG, 3/4"	FREEZER	1.2			2.1	0.9	ROOF/ EXT. RECEPTACLE	#12 AWG, 3/4"	1	20	6	$_{L}$
2	7	20	1	#12 AWG, 3/4"	FREEZER	1.2	1.7			0.5	UC REFRIG. #53	#12 AWG, 3/4"	1	20	8	
2	9	20	1	#12 AWG, 3/4"	REAR DOOR BUZZER	0.7		3.7		3.0	WIB REMOTE F&R #40	#8, 1"	3	45	10	Τ.
2	11	20	1	#12 AWG, 3/4"	DOOR ALARM	0.7			3.7	3.0					12	1
2	13	20	1	#12 AWG, 3/4"	BROILER	0.2	3.2			3.0					14	
2	15	20	1	#12 AWG, 3/4"	SERVICE CTR/ DT RECEPTACLE	0.6		2.4		1.8	SMOOTHIE STATION	#12 AWG, 3/4"	1	20	16	\top
2	17	20	2	#12 AWG, 3/4"	FRY HLD STATION	1.0			1.2	0.2	IT CABINET	#12 AWG, 3/4"	· 1	20	18	1
2	19	· · · · · ·				1.0	1.5			0.5	ICE MACHINE	#12 AWG, 3/4"	1	20	20	十
2	21	20	1	#12 AWG, 3/4"	MEAT WELLS #25	1.2		2.3		1,1	ICE MACHINE	#12 AWG, 3/4"	2	20	22	╁
2	23	20	1 .	#12 AWG, 3/4"	CREW STOR RECEPTACLE	1,0			2.1	1.1	TOL WAS INC	#12 /100, 374			24	+
2	25	30	1	#10 AWG, 3/4"	RTI FILL OIL TANK	2.4	3.8			1.4	WIB REMOTE F&R #40	#13 0)0/0 3/4"	2	20	26	+
2	27	20	1		CARBONATORS	1.4		2.8		1.4	VVID REIVIO JE P&R #40	#12 AWG, 3/4"			28	+
2	29	20	1	#12 AWG, 3/4"		1,3		2.0	3.0	1.7			2 .	20	30	+
2	31	20	1	#12 AWG, 3/4"	POS RECEP	1.3	3.0		1 0.0	1.7	PROD. HLD. UNIT #51A	#12 AWG, 3/4"			32	+
2	33	20	1	#12 AWG, 3/4"	POS RECEP	0.6	THE SHADOW PROPERTY OF THE SHADOW	1.9		1.3			1	20	34	+
2	35	20	1	#12 AWG, 3/4"	SERVICE CTR/ DT RECEPTACLE	0.0		1.5	2.1	1.9	OCU/ CREDIT CARD	#12 AWG, 3/4"		20	36	+
2	37	20	<u>'</u> 1	#12 AWG, 3/4"	TELEPHONE RECEPTACLE	0.2	1.0		2.1		CONV. RECEPTACLE	#12 AWG, 3/4"	1			4
				#12 AWG, 3/4"	DRIVE THRU DRK DSP		1.8			1.2	COKE MACHINE	#12 AWG, 3/4"	2	20	38	+
2	39	25	2	#10 AWG, 3/4"	COFFEE MAKER #17	1.8	7 - A 1 -	3.0		1.2					40	\perp
2	41			<u> </u>		1.8			3.0	1.2	BISCUIT NLD UNIT #37	#12 AWG, 3/4"	1	20	42	
г							øA	øΒ	øC							
				AMPS	CONN	ECTED KVA:	15.6	17.0	17.2							
ł		PANEL RATI	VG @ 80%:	160	CONNEC	CTED AMPS:	43.3	47.2	47.7							
.	48%	SPARE	CAPACITY:	77.0												
. [
							DEMAND	DEMAND				GENERAL NOTES:				
				CODE	CONN. LOAD BREAKDOWN	KVA	FACTOR	KVA				-PANEL LOAD SHOU	LD BE BALAN	CED WITHIN	10%	-
				1	LIGHTING	0.0	100%	0.0				-(*) INDICATES HACE	TYPE BREAK	ER FOR HV	AC EQUIF	P.
				2	RECEPTACLES	49.8	100/50%	29.9				-(**) INDICATES SHU				-
				3	EQUIPMENT	0.0	40%	0.0]							
				4	HEATING	0.0	0%	0.0	1							
				5	COOLING	0.0	80%	0.0	1							
				6	MECHANICAL FANS	0.0	100%	0.0	1.			l .				
				7		0.0	 	 	1			['				
					PROCESS EQUIPMENT		65%	0.0	-			-				
				8		0.0	100%	0.0	-							
				9		0.0	100%	0,0								-
				10	SUBFED SECTIONS	0.0	100%	0,0	1							
				11		-	100%	0.0								
					CONNECTED KVA:	49.8	1	29,9	=DEMAND K							1
					CONNECTED RVA.	45.0	J	20,0	1-DEIAIVIAD V	VA		1				- 1

PROVIDE SHUNT TRIP C/B'S AS REQUIRED FOR ALL ELECTRIC POWER, RECEPTACLES, & CONNECTIONS TO EQUIPMENT UNDER THE HOODS.

			000			PANEL		•	<u> </u>		. Due Mariena					
		VOLTS (L-L):		•	MOUNTING:						BUS MATERIAL					
		VOLTS (L-N):		•	•	NEMA 1	-				TOP OR BOTTOM FEED?		•			
		PHASE:			FEED THRU LUGS (Y/N):						GROUND BUS					
		WIRE:	200		SERIES RATED (Y/N):		 '				BRANCH BKRS.					
		MCB:	. 200		SHUNT TRIP MAIN (Y/N): MINIMUM AIC RATING:		· ·				S. E. RATED (Y/N): NEUTRAL RATING (%):		-			
		SOURCE:	M		SOURCE FEEDER AMPS:	·						ELECTRICAL				
		SOURCE,	ivi		SOUNCE FEEDER AWIFS.		-				LOCATION	ELECTRICAL		- '		
П	-	CIRCUIT BRE	EAKER				T	PHASE LOA	DS.				CIRCUIT BREA	AKER	T	Т
4					e .		<u> </u>	13/02/2011							-	
-																-
DE	CKT.#	AMP	POLES	WIRE & CONDUIT	LOAD SERVED	KVA	øΑ	øB	øC	KVA	LOAD SERVED	WIRE & CONDUIT	POLES	AMP	CKT.#	E COI
1	1	20	2	#10 AWG, 1"	SITE LIGHTING	0.8	0.8			0.0	SPARE	THE GOODS	1	20	2	2
1	3				OHE EIGHTHIO	0.8		1.8		1.0	DINING ROOM LIGHTING/ EMX	#12 AWG, 3/4"	1	20	4	1
1	5 .	20	2	#10 AWG, 1"	SITE LIGHTING	0.8			1.7	0.9	KITCHEN LTG/ EMX	#12 AWG, 3/4"	1	20	6	1
1	7	1		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SHE ELONING	0.8	0.8			0.0	SPARE	2727110,011	1	. 20	8	2
2	9	30	1		SPARE	0.0		0.9		0.9	MENU SIGN	#12 AWG, 3/4"	1 .	20	10	. 1
2 .	11	20	.1	#12 AWG, 3/4"	STORAGE RECEPT	0.2			0.7	0,5	RR LGTS/ EF-1/ EM	#12 AWG, 3/4"	1	20	12	1
2	13	20	1 -		SPARE	0.0	0.7			0.7	DIRECTIONAL SIGNS	#12 AWG, 3/4"	1	20	14	. 1
1	15	20	1	#12 AWG, 3/4"	EXTERIOR PERIMETER LTG	1.0		1.2		0.2	SERV/ DINE LTG	#12 AWG, 3/4"	1	20	16	1
2	17	20	1		SPARE	0.0			0.3	0.3	SMOKE DET. ALM. PANEL	#12 AWG, 3/4"	1	20	18	2
2	19	20	1	#12 AWG, 3/4"	DRINK RECEPT	1.2	1.7			0.5	ORDER KIOSK	#12 AWG, 3/4"	1	20	20	2
1	21	20	: 1	#12 AWG, 3/4"	RED LED LIGHTS	0.2		0.9		0.7	RELAY PANEL	#12 AWG, 3/4"	1.	20	22	2
1	23	20	2	#10 AWG, 1"	SITE LIGHTING	0.8			1.2	0.4	SEC/ WALL SCONCES	#12 AWG, 3/4"	1	20	24	2
1	25		-			0,8	1.0			0.2	TIME CLOCK	#12 AWG, 3/4"	1	20	26	2
	27	20	1 .	#12 AWG, 3/4"	EXTERIOR SOFFIT LGTS	0.7		1.6		0.9	DINING RECEPTACLE	#12 AWG, 3/4"	1	20	28	2
2	29	20	1	#12 AWG, 3/4"	COOLER/FREEZER LGTS/ HTR	0.4		1337	0.8	0.4	KITCHEN RECPTACLE/ IRR.	#12 AWG, 3/4"	1	20	- 30	,2
	31	20	1	#12 AWG, 3/4"	SELF SERV DRINK	0.6	1.4			0.8	SITE LIGHTING	#10 AWG, 1"	2	20	32	1
2 -	33	20	1	#12 AWG, 3/4"	SELF SERV DRINK	0,6		1.4		0.8				 	34	1
2	35	20	1	#12 AWG, 3/4"	TV MONITOR	0.6			1.9	1.3	OFFICE RECEPTACLE	#12 AWG, 3/4"	1	20	36	2
2	37	20	1 -	#12 AWG, 3/4"	LOGO SIGN	1.2	2.3			1.1	DINING RECEPTACLE	#12 AWG, 3/4"	1	20	38	2
2 1	39	20	1	#12 AWG, 3/4"	STORAGE / WATER HEATER REC	0.5		0.7		0.2	MONITOR	#12 AWG, 3/4"	. 1	20	40	- 2
2	41	20	1	#12 AWG, 3/4"	CHANNEL LTRS/ LOGO	1.2		1.7	1.5	0.3	SAFE	#12 AWG, 3/4"	1	20	42	2
	43	30	1	#10 AWG, 3/4"	MENU/ DIREC SIGNS	2.8	3.2			0.4	OFFICE RECEPTACLE	#12 AWG, 3/4"	1	20	44	2
	45	30	1	#10 AWG, 3/4"	MENU/ DIREC SIGNS	2.8		3.0		0.2	CO2 SYSTEM	#12 AWG, 3/4"	1	20	46	2
2	47	30	1	#10 AWG, 3/4"	ORDER CONFIRMATION UNIT	2.8			3.0	0.2	BUG ZAPPER RECEPTACLE	#12 AWG, 3/4"	1	20	48	2
2	49	30	1	#10 AWG, 3/4"	ORDER CONFIRMATION UNIT	2.8	4.6			1.8	SMOOTHIE STATION U.C.	#12 AWG, 3/4"	1	20	50	2
2	51	30	2	#10 AWG, 3/4"	SOFT SERVE	2.5		3.3		8.0	RTI FILL OIL TANK	#12 AWG, 3/4"	1	20	52	2
2	53					2,5			2,5	0.0	SPARE		1	20	54	2
2	55	20	1	#12 AWG, 3/4"	GRAPHIC	0.0	0.0			0.0	SPARE		1	20	56	2
2	57	30	1	#10 AWG, 3/4"	HAND DRYER	2.2		2.2		0.0	SPARE		1	20	58	2
2	59	30	1	#10 AWG, 3/4"	HAND DRYER	2.2			2.2	0.0	SPARE		1	20	60	2
							øΑ	øB	øС							
				AMPS	CONNE	ECTED KVA	16.5	17.0	15.8							
		PANEL RATI	NG @ 80%:	160	CONNEC	CTED AMPS	45.8	47.2	43.9							
	33%	SPARE	CAPACITY:	52.6												
							DEMAND	DEMAND				GENERAL NOTES:				
				CODE	CONN. LOAD BREAKDOWN	. KVA	FACTOR	KVA				-PANEL LOAD SHOU	JLD BE BALAN	ICED WITHIN	110%	
				1	LIGHTING	18.1	100%	18.1				-(*) INDICATES HACI	R TYPE BREAK	CER FOR HV	AC EQUIF	٠.
				2	RECEPTACLES	31.2	100/50%	20.6				-(**) INDICATES SHU	NT TRIP BREA	KER		
				3	EQUIPMENT	0.0	40%	0.0	1							
				4	HEATING	0.0	0%	0.0				1 1 1 1 1 1				1
				5	COOLING	0.0	80%	0.0								
				6	MECHANICAL FANS	0.0	100%	0.0								
				7	PROCESS EQUIPMENT	0.0	65%	0.0								
				8		0.0	100%	0.0								
				9		0.0	100%	0.0								
				10	SUBFED SECTIONS	0.0	100%	0.0	1.							
				11		-	100%	0.0								
					CONNECTED KVA:	49.3		38.7	=DEMAND K\	/A						
							1	107.4	=DEMAND AN	I PS						

						PANEL	BOARD	:	D							
		VOLTS (L-L):	208		MOUNTING	: RECESSED) - ,				BUS MATERIA	L: COPPER				
		VOLTS (L-N):	120		TYPE	: NEMA 1					TOP OR BOTTOM FEED	?: TOP	- · · · · · · · · · · · · · · · · · · ·			
		PHASE:	3	,	FEED THRU LUGS (Y/N)	: NO					GROUND BUS	S: YES	-			
		WIRE:	4	•	SERIES RATED (Y/N)		-				BRANCH BKRS	.: BOLT-ON	-			
		MLO:	150	•	SHUNT TRIP MAIN (Y/N)	: NO	-				S. E. RATED (Y/N): NO	- .			
				₹. · · · · ·	MINIMUM AIC RATING		-				NEUTRAL RATING (%					
		SOURCE:		•	SOURCE FEEDER AMPS	: 150	_					N: ELECTRICAL				
		-		-			-							-		
		CIRCUIT BRE	EAKER				Р	HASE LOA	DS				CIRCUIT BREA	AKER	T	Τ
٦														T		
.									-							
ODE	CKT. #	AMP	POLES	WIRE & CONDUIT	LOAD SERVED	KVA	øA	øΒ	□ øC	KVA	LOAD SERVED	WIRE & CONDUIT	POLES	AMP	CKT.#	cor
2	1	20	2	#12 AWG, 3/4"	PHU/ MICROWAVE	1,9	3.8			1.9	PHU/ MICROWAVE	#12 AWG, 3/4"	2	20	2	2
2	3			1127000, 074	THO MIGHOUR	1.9		3.8		1.9	THO MICHOTOL	#1271005, 5/-		 	4	2
2	5	20	2	#12 AWG, 3/4"	PHU/ MICROWAVE	1.9			3.8	1.9	PHU/ MICROWAVE	#12 AWG, 3/4"	2	20	6	. 2
2	7			#12 AWG, 5/4	FIIO/ WICKOWAVE	1.9	3.8			1,9	PHO/ WICKOVAVE	#12 AVVG, 3/4		 	8	2
2	9	20	2	#40 81810 01411	TOACTED	1.9		3.8		1.9	500 000VED	#40 A100 O/#	2	20	10	2
2	11	20		#12 AWG, 3/4"	TOASTER	1.9		3,0	3.8	1.9	EGG COOKER	#12 AWG, 3/4"		- 20	12	2
2	13	30	2	#40 0000 04#	TOACTED	2.9	2.9		0.0	0.0	00405	1	1 1 .	20	14	2
2	15	30		#10 AWG, 3/4"	TOASTER	2.9	2.3	4.8		1.9	SPARE		1	20	16	
_	17	20	1					4.0	24		SANDWICH STATION	#12 AWG, 3/4"			-	2
2		20	· ·	#12 AWG, 3/4"	HEATED SURFACES	0.2			3.1	2.9	TOASTER	#10 AWG, 3/4"	. 2	30	18	2
2	19	200			SPARE	0.0	2.9			2.9				ļ	20	4
2	21	20	1	#12 AWG, 3/4"	UTILITY	1.9	14.	3.8		1.9	UTILITY	#12 AWG, 3/4"	1	20	22	2
2	23	20	1 .		SPARE	0.0			0.0	0.0	SPARE		1	20	24	2
2	25	20	. 1		SPARE	0.0	0.0	Sept.	da de	0.0	SPARE		1	20	26	2
2	27	20	1		SPARE	0.0		0.0		0.0	SPARE		1	20	28	. 2
2	29	20	1		SPARE	0.0			0.0	0.0	SPARE		1	20	30	2
2	31		-		BLANK	0.0	0.0	2.707		0.0	BLANK				32	2
2	33				BLANK	0.0	1	0.0		0.0	BLANK				34	2
2	35			-	BLANK	0.0			0.0	0.0	BLANK	1			36	2
2	37				BLANK	0.0	0.0			.0.0	BLANK				38	2
2	39				BLANK	0.0		0.0		0.0	BLANK				40	2
2	41				BLANK	0.0			0.0	0.0	BLANK				42	2
							øA	øB	øС	-						
			-	AMPS	CONI	NECTED KVA:	13.4	16.2	10.7							
		PANEL RAT	NG @ 80%:	120	CONNE	CTED AMPS:	37.2	45.0	29.7							
-	45%	SPARE	CAPACITY:	54.2												
															1.5	
							DEMAND	DEMAND				GENERAL NOTES:				
				CODE	CONN. LOAD BREAKDOWN	KVA	FACTOR	KVA .				-PANEL LOAD SHO	LIIN BE BALAN	ICED WITHIN	110%	
			-	1	LIGHTING	0.0	100%	0.0				-(*) INDICATES HAC				
				2	RECEPTACLES	37.4	100/50%	23.7				-(**) INDICATES SHI			NO EQUI	į.
				3	EQUIPMENT	0.0	40%	0.0	1			-() INDICATES SHI	JNI INIP DREA	. ·		
				4	HEATING	2.9	0%	0.0	1 .							1
				5		0.0	80%	ļ	†							
					COOLING MECHANICAL FANS			0.0	1 .							
				6	MECHANICAL FANS	0.0	100%	0.0	1							
				7	PROCESS EQUIPMENT	0.0	65%	0.0	1							
				8		0.0	100%	0.0	-							
			-	9		0.0	100%	0.0								
				10	SUBFED SECTIONS	0.0	100%	0.0	-							
				11		-	100%	0.0	-							
				1 - 1	CONNECTED KVA	: 40.3	1	23.7	=DEMAND k	/\ /A		1				1 -
					CONNECTED IVA	. 40.3	J	25.1	-DEMAND I	\VA						1

REVISIONS:

SCHEDULES & DETAILS

ELECTRICAL

STORE #

WILLIAM OF THE STATE OF THE STA

Charles
William
Pope

& ASSOCIAtes
ARCHITECTURE PLANNING CONSULTING
7400 BLANCO RD., SUITE 257, SAN ANTONIO, TX. 78216

DATE: 11/24/2021

JOB NO: 44387

DRAWN BY: STAFF

SHEET NUMBER:

TURN THE KITCHEN UNOCCUPIED-OCCUPIED SWITCH TO THE THE OCCUPIED POSITION. THE KITCHENS AIR CONDITIONING SYSTEM WILL GO FROM NIGHT SETBACK MODE TO THE THERMOSTAT SET

NOTE: THE AIR CONDITIONING FAN WILL START AND RUN CONTINUOUSLY. EXHAUST FAN WILL NOT RUN UNTIL THIS SWITCH IS IN THE OCCUPIED POSITION.

TURN ON THE EXHAUST FAN SWITCH TO THE ON POSITION THIS WILL ALLOW YOU TO TURN ON THE FRYERS AND BROILER.

"RESTAURANT OPEN FOR BUSINESS"

TURN THE DINING UNOCCUPIED-OCCUPIED SWITCH TO THE THE OCCUPIED POSITION. THE DINING AIR CONDITIONING SYSTEM WILL GO FROM NIGHT SETBACK MODE TO THE THERMOSTAT SET POINT.

TURN THE SIGN AND PARKING LOT LIGHTING SWITCHES TO THE AUTO POSITION, THIS WILL ENGAGE THE LIGHTING PHOTOCELLS SO THAT THE LIGHTS WILL AUTOMATICALLY COME ON AFTER DARK. TURN THE SWITCH TO THE ON POSITION TO OVER RIDE THE PHOTOCELLS AT ANY TIME THE LIGHTING MUST REMAIN ON.

"RESTAURANT CLOSE FOR BUSINESS"

STEP 1

TURN THE DINING UNOCCUPIED-OCCUPIED SWITCH TO THE UNOCCUPIED POSITION. THE DINING AIR CONDITIONING SYSTEM WILL GO FROM THE THERMOSTAT SET POINT TO THE NIGHT SET BACK MODE,

TURN THE SIGN AND PARKING LOT LIGHTING SWITCHES TO THE OFF POSITION, THIS WILL DISENGAGE THE LIGHTING PHOTOCELLS.

TURN THE EXHAUST FAN SWITCH TO THE OFF POSITION THE BROILERS EXHAUST FAN WILL CONTINUE TO RUN FOR 15 MINUTES FOR A COOL DOWN CYCLE, AND THEN SHUT OFF AUTOMATICALLY.

NOTE: THE FRYERS AND BROILER SHOULD BE TURNED OFF AND ALLOWED TO COOL DOWN BEFORE TURNING THE HOOD OFF. TO PREVENT ACCIDENTAL ANSUL DISCHARGE, THE BROILERS HOOD WILL ALWAYS RUN 15 MINUTES AFTER THE EXHAUST FAN SWITCH IS TURNED TO THE OFF POSITION.

"EMPLOYEES LEAVING THE BUILDING"

WHEN READY TO EXIT THE BUILDING PUSH THE SECURITY DEPARTURES SWITCH. THE PARKING LOT LIGHTS WILL COME BACK ON FOR 15 MINUTES THEN SHUT OFF AUTOMATICALLY.

"MANAGER/LAST PERSON LEAVING THE

TURN THE KITCHEN UNOCCUPIED-OCCUPIED SWITCH TO THE UNOCCUPIED POSITION. THE KITCHENS AIR CONDITIONING SYSTEM WILL GO FROM THE THERMOSTAT SET POINT TO THE NIGHT SET BACK MODE.

STEP 2

WHEN READY TO EXIT THE BUILDING PUSH THE SECURITY DEPARTURE SWITCH, THE PARKING LOT LIGHTS WILL COME BACK ON FOR 15 MINUTES THEN SHUT OFF AUTOMATICALLY.

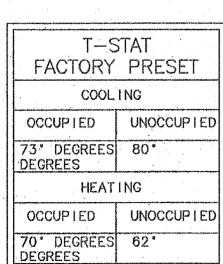
"HOOD VENTILATION SYSTEM NOTE"

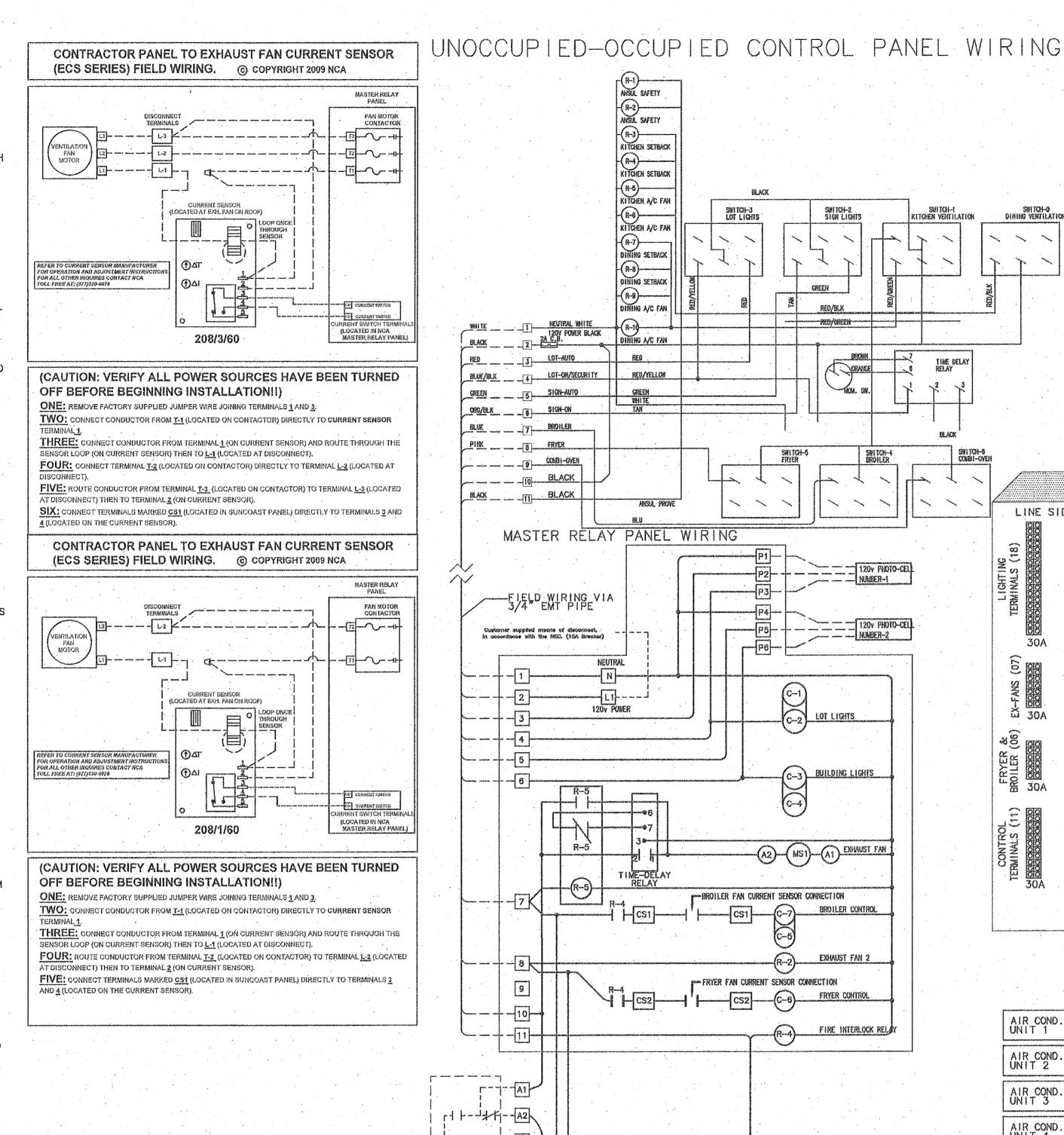
WHEN THE HOOD EXHAUST FAN CURRENT SENSOR DETECTS A DROP IN AMPERAGE (SUCH AS A BELT BREAKING) IT WILL DISABLE THE LINE VOLTAGE TO THE EXHAUST FAN(S), FRYER AND BROILER APPLIANCES. THE EXHAUST FAN SWITCH SHOULD BE PLACED IN THE OFF POSITION AND THE FAN SHOULD BE CHECKED AND/OR REPAIRED BEFORE TURNING THE SWITCH TO THE ON POSITION.

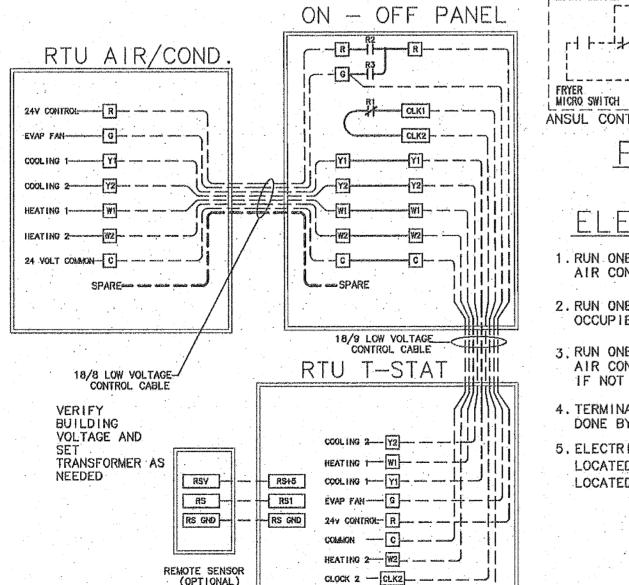
"PARKING LOT LIGHTING NOTE"

WHEN THE PARKING LOT LIGHTS ARE TURNED OFF, THEY MUST COOL DOWN FOR ABOUT 10 MINUTES BEFORE THEY WILL COME

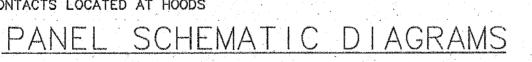
*NOTE: IF IT IS NECESSARY TO ADJUST THE AMPERAGE OF THE BROILER EXHAUST HOOD FAN MOTOR, THE FAN MOTOR CURRENT SENSOR MUST BE RESET AS FOLLOWS: ADJUST UNDERCURRENT POTENTIOMETER TO MAXIMUM (CLOCKWISE IS MAXIMUM. APPLY CURRENT. ONCE CURRENT IS STABILIZED, DECREASE UNDERCURRENT POT UNTIL RED LIGHT TURNS OFF. WITHIN SEVEN SECONDS TURN UP UNTIL RED LIGHT TURNS ON. IF A LIGHT REMAINS OFF FOR MORE THEN TEN SECONDS, DISCONNECT SUPPLY VOLTAGE TO RESET. SEE INSTALLATION INSTRUCTIONS PN MRP COVER.







<u>. WIRING, THERMOSTAT</u>



ELECTRICAL CONTRACTOR NOTES:

ANSUL SAFETY

. RUN ONE (10) CONDUCTOR 18 GAUGE THERMOSTAT CABLE FROM THE ROOFTOP AIR CONDITIONING UNIT TO THE "UNOCCUPIED-OCCUPIED" PANEL.

2. RUN ONE (10) CONDUCTOR 18 GAUGE THERMOSTAT CABLE FROM THE "UNOCCUPIED-OCCUPIED" PANEL TO THE THERMOSTAT LOCATION.

AIR CONDITIONING UNIT TO THE NIGHT SETBACK THERMOSTAT LOCATION, IF NOT CONTROLLED WITH P-374-2700 T-STAT. REFER TO SHEET 7.1

4. TERMINATION OF ALL 24 VOLT AIR CONDITIONING CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR.

LOCATED IN THE BROILER HOOD EXHAUST FAN TO THE CONTACTOR PANEL LOCATED BY THE SWITCHGEAR.

BURGER-KING SEQUENCE OF OPERATION

TEMPERATURE SETPOINT.

MANUAL CONTROL SYSTEM

THE A/C UNITS UNOCCUPIED-OCCUPIED SWITCH IS USED TO: TURN THE STORE ON IN THE MORNING AND OFF IN THE EVENING.

WHEN A/C UNIT UNOCCUPIED-OCCUPIED SWITCH IS TURNED TO THE ON POSITION: THE AIR CONDITIONING SYSTEM WILL GO FROM NIGHT MODE TO

THE AIR CONDITIONING FANS WILL START AND RUN CONTINUOUSLY.

THE OUTDOOR DAMPERS WILL OPEN TO A PRESET POSITION. (OPTIONAL) DAMPERS WILL NOT OPEN DURING NIGHT SET BACK MODE. (OPTIONAL) THE AIR CONDITIONERS WILL BEGIN TO COOL OR HEAT AT THE OCCUPIED

THE COOKING EQUIPMENT AND EXHAUST FANS CAN NOW BE TURNED ON WHEN

WHEN A/C UNOCCUPIED-OCCUPIED SWITCH IS TURNED TO THE OFF POSITION: EXHAUST FANS, SUPPLY FANS, AND EVAPORATOR BLOWERS WILL

THE HEATING AND COOLING OPERATION SHALL REVERT TO SYSTEM NIGHT SET BACK MODE.

THE COOKING EQUIPMENT SHALL BE DISABLED.

THE SIGNAGE LIGHTING & LOT LIGHTING SHALL BE DISABLED IF SWITCHES ARE IN THE OFF POSITION.

THE PARKING LOT POLE LIGHTS & SECURITY LIGHTS SHALL REMAIN ON FOR 15 MIN AFTER THE SECURITY DEPARTURE SWITCH IS ACTIVATED.

WHEN THE HOOD EXHAUST FAN CURRENT SENSOR DETECTS A DROP IN AMPERAGE IT WILL DISABLE THE LINE VOLTAGE TO THE FRYER AND BROILER APPLIANCES.

HOOD VENTILATION SYSTEM

IF THE HOOD VENTILATION SWITCH IS IN THE OPEN POSITION, THE HOOD VENTILATION SYSTEM CAN BE STARTED.

MOVING THE ON/OFF SWITCH TO THE ON POSITION. IF EITHER THE BROILER OR FRYER SWITCH IS IN THE ON POSITION, THE MAKE-UP AIR UNIT (IF APPLICABLE) SHALL START AUTOMATICALLY.

ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM SHALL DE-ENERGIZE THE MAKE UP AIR UNIT, ALL A/C UNITS, AND THE CONTROLLED COOKING EQUIPMENT. THE BROILER AND THE FRYER EXHAUST SYSTEM SHALL CONTINUE TO OPERATE. THE FIRE SUPPRESSION SYSTEM SHALL BE MANUALLY RESET.

EXTERIOR LIGHTING CONTROL

ALL OF THE EXTERIOR LIGHTING SHALL BE CONTROLLED, WITH THE EXCEPTION OF THE SECURITY LIGHTS WHICH SHALL BE OPERATED BY ITS

THE SIGNAGE SELECTOR SWITCH (3-POS.) CONTROLS THE PRIME SIGN,

ON POSITION: LIGHTING SHALL BE ON PERMANENTLY.

OFF POSITION: LIGHTING SHALL BE OFF PERMANENTLY.

AUTO POSITION: LIGHTING SHALL BE CONTROLLED BY THE PHOTO CELL.



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Underwriters Laboratories, Inc.

JOB NO: DRAWN BY: SHEET NUMBER:

DATE:

Charles
William
Pope

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"Febranning of the service of the ser

11/24/2021

ANSUL SAFETY KITCHEH SETBACK UNOCCUPIED OCCUPIED UNOCCUPIED OCCUPIED AUTO OFF ON KITCHEN SETBACK " DINING A/C UNITS KITCHEN A/C UNITS BLDG LIGHTS LOT LIGHTS BUILDING CONTROL KITCHEN A/C FAH SHITCH-0 DINING VENTILATION KITCHEN A/C FAN SECURITY DEPARTURE SWITCH DINING SETBACK ON ---INING A/C FAN RED/MEEN WHITE I NEUTRAL WHITE

120Y POWER BLACK

2A C.B. EXHAUST FANS BLUE/BLK 4 LOT-ON/SECURITY (NOCOA) UNOCCUPIED-OCCUPIED CONTROL PANEL-18"wX18"hx4"d ORG/GLK B SIGN-ON BLUE TO BROILER PINK FRYER BLACK BLACK LOAD SIDE MASTER RELAY PANEL WIRING C-2 LOT FOLE LTS. LOT FOLE LTS. 120v PHOTO-CEL POLE CONTACTOR FOLE CONTACTO C-4 C-3 BLOG. LIGHTS 4 POLE CONTACTOR NEUTRAL 4 POLE CONTACTOR 120V COIL 30A C-6 C-5 COCKING EQUIP. FRYER ₩ 30A 4 POLE CONTACTOR 120V COIL 20A 4 POLE CONTACTOR 3 BUILDING LIGHTS STOLLER EXT BROILER 30A -A2-(MS1)-A1 EXHAUST FA -BROILER FAN CURRENT SENSOR CONNECTION BROILER CONTROL CONTACTOR PANEL-18"wX30"hX6"d EXHAUST FAN 2 PANEL LAYOUT FRYER FAN CURRENT SENSOR COMMECTION 9 10 AIR COND UNIT 1 gene status cousts carries estant status in FIRE INTERLOCK RELA REMOTE TSTAT AIR COND UNIT 2 AIR COND UNIT 3 REMOTE SENSOR UNOCCUP | ED-OCCUPTED REMOTE SENSOR PANEL AIR COND. UNIT 4 TSTAT -TSTAT REMOTE SENSOR MICRO SWITCH PHOTO CELL-1 (OPTIONAL) PHOTO CELL-2 ANSUL CONTACTS LOCATED AT HOODS ANSUL SYSTEM PYLON LIGHTS CONTACTOR SMOKE DETECTORS DR I VE THRU MOTOR STARTER FRYER CONTROL **ENCLOSURE** PARAPE LIGHTS MANSARD LIGHTS BROILER VFD 3-PH MOTOR STARTER 3. RUN ONE (10) CONDUCTOR 18 GAUGE THERMOSTAT CABLE FROM THE ROOFTOP MONUMENT SIGNS BROILER EXHAUST FAN-1 FRYER SOFF IT LIGHTS EXHAUST FAN-2 AUX. 5. ELECTRICAL CONTRACTOR SHALL RUN LINE VOLTAGE FROM THE CURRENT SENSOR BLDG. LIGHTS EXHAUST FAN-3 SPARE (4) LOT (4) LOT © Copyright 2010- The NCA Group. Drawings, specifications, notes, database, computer files,

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THE BROILER SYSTEM AND THE FRYER SYSTEM SHALL BE STARTED BY

OWN PHOTOCELL. SECURITY LIGHTING IS OPTIONAL.

ALL MARQUEE SIGNS, AND BUILDING ACCENT LIGHTING.

THE LOT LIGHTS THREE POSITION SWITCH WORKS THE SAME AS THE SIGNAGE SWITCH.

NOTE: UNOCCUPIED-OCCUPIED / MASTER RELAY PANEL SHALL BE COMPLETE WHEN SHIPPED TO THE JOB SITE. NO INTERNAL WIRING SHALL BE REQUIRED. MAKE ALL EXTERNAL WIRING CONNECTIONS AS REQUIRED.

B. The Drawings, General Conditions and General Provisions of the Contract apply to this Section and the other Sections of Division 22 of the specifications. Where conflicts arise between these documents, the more stringent provision will be applicable, subject to the interpretation of the Engineer.

C. Furnish all labor, material, services, and skilled supervision necessary for the construction, erection, installation, connections, testing, and adjustment of all materials and plumbing equipment specified herein, or shown or noted on the Drawings, and its delivery to the Owner, complete in all respects and ready for

D. Products furnished but not installed under this section: 1. Where plans indicate fixtures or equipment will be furnished by this Contractor for installation by other Contractors, this Contractor shall furnish all such equipment, complete in all respects and ready for installation.

2. Drawings, instructions, and manuals supplied with equipment furnished under Division 22, but installed under other Divisions shall be carefully preserved and turned over to the installing Contractor.

E. Products installed but not furnished under this section: 1. Where plans indicate fixtures or equipment will be furnished by others, this Contractor shall provide all rough-in and supplies and shall connect such equipment to the plumbing systems.

2. Drawings, instructions, and manuals supplied with equipment furnished under separate Divisions but installed under Division 22 shall be carefully preserved and turned over to the Architect. 1.02 DEFINITIONS

A. "Work" is hereby defined as. "The construction and services required by the Contract Documents whether completed or partially completed and includes all labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The work may constitute the whole or a part of the project."

B. "Furnish" is hereby defined as, "To supply and deliver, unload, and inspect for

C. "Install" is hereby defined as, "To unpack, assemble, erect, apply, place, finish, cure, protect, clean, connect, and place into operation into the work." D. "Provide" is hereby defined as. "To furnish and install."

E. "Connect" is hereby defined as. "To bring service to the equipment and make final

attachment including necessary switches, outlets, boxes, terminations, etc." F. "Concealed" is hereby defined as, "Hidden from sight in chases, furred spaces, shafts, hung ceilings, embedded in construction, in crawl spaces, or buried."

G. "Exposed" is hereby defined as, "Not installed underground nor concealed as defined by the Specifications.'

H. "Drawings" is hereby defined as, "All plans, details, equipment schedules, diagrams, sketches, etc. issued for the construction of the work."

 Subgrade Elevations: 4 inches below finish grade elevations indicated on drawings, unless otherwise indicated. J. Finish Grade Elevations: 4 inches above subgrade elevations indicated on drawings,

unless otherwise indicated. 1.03 CODES AND STANDARDS

A. Perform work in accordance with the applicable Building Code, Electrical Code, Fire

Code, Mechanical Code, Plumbing Code, Energy Code, and all other applicable codes, amendments, and ordinances. Also perform all work in accordance with the Americans with Disabilities Act (ADA) and the Authority Having Jurisdiction (AHJ) including B. Perform work in accordance with Landlord requirements, including any Tenant

Criteria Manuals and Lease Exhibits, where applicable. C. Perform work in accordance with the applicable utility companies serving the project. Make all arrangements with the utility companies for proper coordination

of the work. D. Recognized Standards: Design, manufacture, testing and method of installation of all apparatus and materials furnished under the requirements of these Specifications shall conform to the latest publications or standard rules of Underwriters Laboratories, Inc. (U.L.), American Society for Testing and Materials

E. The Contract Documents shall take precedence where the Contract Documents exceed code, Landlord, utility, or recognized standards requirements.

(ASTM), American National Standards Institute (ANSI), and National Electrical Code

1.04 PERMITS AND FEES A. Permits, licenses, fees, inspections and arrangements required for the work under this Contract shall be obtained by the Contractor at his expense, unless otherwise

B. All fees and scheduling associated with obtaining an accurate water flow test shall be at the Contractor's expense.

1.05 CONTRACT DRAWINGS A. The Contractor is responsible to obtain, fully understand, and coordinate the work with the complete set of Contract Documents. Any required corrections, including all associated costs, arising from issues caused by the Contractor's failure to understand and/or coordinate the work with the complete set of Contract Documents are the Contractor's sole responsibility

B. Work under these sections is diagrammatic unless indicated otherwise and is intended to convey the scope of work and indicate the general arrangement of piping, equipment, and accessories. Follow these drawings in laving out the work and verify spaces for the installation of these materials and equipment. Wherever a question exists as to the exact intended location of pipe, sprinklers, or equipment, obtain instructions from the Architect before proceeding with the work.

C. Notify the Architect/Engineer for resolution if a discrepancy is discovered within the Contract Documents. Failure of the Contractor to notify the Architect/Engineer of discrepancies shall result in the resolution becoming the Contractor's responsibility and subject to the Architect/Engineer's review and possible rejection. Should the Architect/Engineer reject a discrepancy resolution of which they were not notified, the Contractor is fully responsible to correct the installation, including all associated costs, until approval of the installation is given by the Architect/Engineer.

1.06 EXISTING CONDITIONS

A. Verify all existing conditions prior to beginning work. B. Any existing conditions indicated in the Contract Documents are based on information drawings provided by others and possibly limited field verification. The Contractor shall adjust for actual field conditions at no additional expense to the Owner.

C. The Contractor shall visit the project site, review existing conditions against the Contract Documents, and familiarize himself with the work prior to bidding and start of the work. By signing the Contract, the Contractor acknowledges the site visit has been completed and the existing conditions are accepted.

D. The Contractor shall notify the Architect of major discrepancies in writing so the appropriate modifications to the design can be made without delay to the project. The Contractor assumes full responsibility of adjusting for discrepancies of which the Architect is not informed.

F. The Owner shall have first salvage right on all demolished equipment and materials. The Contractor shall dispose of all demolished equipment and materials the Owner

G. The Contractor shall notify the Architect/Engineer of field discrepancies in writing so the appropriate modifications to the design can be made without delay to the project. The Contractor assumes full responsibility of adjusting for

discrepancies of which the Architect/Engineer is not informed. H. Where connections are made between new work and existing work, the connections shall be made by using materials and methods to suit the actual conditions.

 Where existing conditions are shown to be removed, by means of a hatched pattern, on the Drawings, this Contractor shall perform all work required for removal. Existing pipe run-outs shall be removed all the way back to mains and capped using appropriate methods.

J. Where existing work is to be modified, it shall be done in conformance with these specifications. Materials used shall be same as existing except where specified

1.07 SUBMITTALS A. Shop Drawings:

1. Furnish the Architect/Engineer shop drawing portfolios containing names of manufacturer and cut sheets of equipment to be used on the project. Use manufacturer's specification sheets identified by number indicated on drawings or schedules. Indicate catalog number on the cut sheets. As applicable, provide construction data, weight and dimensional data, performance data and listing data as part of the shop drawing submittal.

Provide shop drawings for: a. Plumbing fixtures and equipment.

b. Plumbing materials and accessories.

c. Product Data: Provide manufacturers catalogue information. Indicate valve data and ratings.

2. Submittals are reviewed only for general compliance with the Contract Documents. Dimensions, quantities and details are not checked during submittal review. Review of the submittals does not relieve the Contractor of the responsibility for providing all materials, equipment and accessories necessary for a complete and operational system meeting the requirements of the project and the intent of the Contract Documents. The responsibility for coordination of substituted materials and equipment lies solely with the substituting Contractor.

Approval shall not relieve the Contractor from responsibility for errors on the shop drawings.

4. If the shop drawings deviate from the contract documents, the Contractor shall advise the Engineer of the deviations in writing accompanying the shop drawings, including the reasons for the deviations.

B. Project Record Documents: Record actual locations of components and tag numbering. C. Operation and Maintenance Data: Include installation instructions and spare parts D. Maintenance Data: Include assembly drawings, bearing data including replacement

sizes, and lubrication instructions. 1.08 QUALITY ASSURANCE A. Manufacturer Qualifications: Company specializing in manufacturing the Products

specified in this section with minimum five years experience. B. Installer Qualifications: Company specializing in performing the work of this

section with minimum five years experience, approved by manufacturer. C. Products: 1. Listed and classified by Underwriters Laboratories Inc. as suitable for the

purpose specified and indicated. 2. Listed and classified by the local Department of Buildings and furnished with an acceptance number, where applicable.

3. Listed and classified by the Landlord's and/or Owner's insurance carrier, where applicable.

D. All equipment and components shall be free of all rust/corrosion or any visible damage. All items not complying with this requirement shall be replaced without any change in the Contract amount.

Equipment performance and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete, functional system, including all required components reasonably inferred to as necessary although such components may or may not be specifically indicated in the Contract Documents. Code or utility company requirements shall supersede any conflicting requirements

of this section. G. Fill Composition Test Reports: Results of laboratory tests on actual materials

used: Compaction Density Test Reports. 1.09 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store valves in shipping containers, with labeling in place. B. Provide temporary protective coating on cast iron and steel valves. C. Provide temporary end caps and closures on piping and fittings. Maintain in place

until installation. D. Protect motors stored on site from weather and moisture by maintaining factory covers and suitable weather-proof covering. For extended outdoor storage, remove

motors from equipment and store separately E. Equipment: Protect equipment from physical damage by storing off site until the project is ready for immediate installation. Provide temporary caps on all pipes

to prevent debris from entering the pipe. 1.10 WARRANTY AND GUARANTEE A. Additional warranty and guarantee terms in excess of this requirement are specified within the individual sections of Division 22.

B. Provide five year manufacturer warranty for domestic water heaters and packaged water heating systems.

C. Provide one year manufacturer warranty for pumps.

PART 2 PRODUCTS 2.01 SUBSTITUTIONS

> A. The manufacturers listed are listed to set minimum standards for quality, design, and functionality. The products of other manufacturers may be submitted, at the Contractor's option, during shop drawing review unless indicated otherwise. The products of other manufacturers shall meet or exceed all requirements of the Contract Documents. The Contractor accepts all responsibility for costs and coordination issues arising out of the substitution of materials or equipment, and the coordination of such substitutions with all other contractors and subcontractors.

PART 3 EXECUTION

3.01 COORDINATION OF WORK

A. Examine the Contract Documents as a whole for the work of other trades. Coordinate all work accordingly.

B. Work lines and established heights shall be in strict accordance with architectural drawings and specifications insofar as these drawings and specifications extend. Verify all dimensions shown and establish all elevations and detailed dimensions not shown.

Promptly report to the Architect any delay or difficulties encountered in the installation of the work, which might prevent prompt and proper installation, or make it unsuitable to connect with or receive the work of others. Failure to so report shall constitute an acceptance of the work of other trades as being fit and proper for the execution of this work.

D. Plan, lay out, and coordinate the work with all trades well enough in advance so that it proceeds with a minimum of interference to work that has not been completed and work that is in progress. Inform all trades of openings required for the work and provide all special frames, sleeves, and anchor bolts required. The fire suppression system layout may be altered to suit the conditions, prior to the installation of any work and without additional cost to the Owner. Conflicts

arising from lack of coordination shall be this Contractor's responsibility. Wherever pipe runs in or above ceilings or walls, the Contractor shall arrange the run of pipe in such a manner that it does not interfere with grilles, diffusers, outlet boxes, luminaires, or other ceiling mounted items.

Install systems, materials and equipment to provide for maximum headroom, where no ceiling height is established or indicated on the Drawings. Maintain access to equipment requiring service when selecting mounting elevations. G. Install systems, materials and equipment level and plumb, parallel and

perpendicular to building lines where exposed to view, unless otherwise indicated. H. Conflicts arising from lack of coordination shall be this Contractor's responsibility. The Plumbing Contractor shall pay for all extra cutting and patching made necessary by his failure to properly direct such work at the correct

Perform all work in conformity with the Contract Documents and afford other trades reasonable opportunity for the execution of their work. Properly connect and coordinate this work with the work of other trades at such time and in such a

Manufacturer's instruction sheets shall be followed explicitly in the installation of all equipment. Where manufacturer's instruction sheets conflict with requirements of these specifications or the Drawings, such conflicts shall be brought to the attention of the Architect/Engineer for clarification.

manner as not to delay or interfere with their work.

All roofing penetrations shall be flashed and weather sealed by the roofing manufacturer's authorized roofing contractor at this Contractor's expense. This Contractor shall contract with the factory authorized roofing contractor for the specific roofing system applicable to this Project. The use of an unauthorized roofing contractor may result in removal and replacement of the penetration systems at this Contractor's expense.

Although all such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

M. Verify and coordinate all requirements and installation details of all materials and equipment that are to be furnished under other Divisions and installed or connected under Division 22 prior to rough-in. Conflicts arising from lack of coordination shall be this Contractor's responsibility. As such, the Contractor is responsible to:

1. Obtain and review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other

Determine connection locations and requirements. Sequence rough-in of plumbing connections to coordinate with installation of equipment.

3.02 COORDINATION DRAWINGS A. Prepare coordination drawings to a scale of 1/4"=1'-0" or larger; detailing major elements, components, and systems of plumbing equipment and materials in relationship with other systems, installations, and building components. Indicate locations where space is limited for installation and access and where sequencing and coordination of installations are of importance to the efficient flow of the work, including (but not necessarily limited to) the following:

Indicate the proposed locations of conduits, equipment, and materials. Include the following: a. Clearances required for maintaining Code required working space. b. Equipment connections and support details.

Exterior wall and foundation penetrations.

d. Fire-rated wall and floor penetrations.

e. Sizes and location of required concrete pads and bases. f. Indicate scheduling, sequencing, movement, and positioning of large equipment into the building during construction. g. Prepare floor plans, elevations, and details to indicate penetrations

in floors, walls, and ceilings and their relationship to other penetrations and installations.

3.03 EXAMINATION

A. Verify field measurements are as indicated on the Drawings. B. Verify all pipe locations and sizes in field prior to fabrication or installation. C. Verify all equipment locations in field prior to installation. Coordinate final

locations with all trades 3.04 INTERFACE WITH OTHER PRODUCTS

A. Install all pipe, equipment, and accessories to preserve fire resistance rating of partitions and other elements, using materials and methods specified. 3.05 FIELD QUALITY CONTROL

A. Provide tests as necessary to establish the adequacy, quality, safety, completed status, and suitable operation of each system. Tests shall be conducted under the

supervision of the Architect. B. Install all equipment, devices, pipe, and materials securely and in a neat and workmanlike manner in accordance with all applicable standards and codes.

C. Install all equipment, pipe, and materials plumb and level and align and adjust for satisfactory operation D. Install all equipment, pipe, and materials in accordance with the manufacturer's

instructions and recommendations. E. Inspect all equipment, pipe, and materials for defects. 3.06 ERECTION

1. The Plumbing Contractor shall arrange for all labor and equipment required for the proper installation of the plumbing equipment in the locations indicated on the Drawings. Where crane rental or other erection is required, such costs shall be included in the Plumbing Contract, unless specific arrangements are made with the General Contractor to cover these costs.

B. Supplemental Framing: 1. Provide the design, fabrication, and erection of supplementary structural framing required for attachment of hangers or other devices supporting plumbing equipment. Provide framing members of standard rolled steel shapes A-36 steel. Provide members welded to structural members equal to the specification for the main structural member. Provide "simple beam" type framing with end connections welded or bolted for shear loads. Use cantilevers when detailed or specifically approved by the Architect/Engineer The Architect/Engineer's approval is required for location of supplementary framing. Use only certified welders. Design framing members for their actual loads, with allowable stresses specified by AISC, without excessive deflection and with consideration for rigidity under vibration, in accordance with standard structural practices. Show on shop drawing supplementary framing, including design loads, member size and location. 3.07 CUTTING, PATCHING, AND PIERCING

A. Cutting of openings and installation of sleeves or frames through walls and surfaces shall be done in a neat workmanlike manner. Openings shall be cut only as large as required for the installation; sleeves and/or frames installed flush with finished surfaces and grouted in place. Surfaces around openings shall be left smooth and finished to match surrounding surface.

B. Obtain written permission of the Architect/Engineer before cutting or piercing structural members. Use craftsmen skilled in their respective trades for cutting, fitting, repairing, patching of plaster, and finishing of materials including carpentry work, metal work or concrete work required for this work. C. Do not weaken walls, partitions, or floors with cutting. Holes required to be cut

in floors must be drilled without breaking out around the holes. The Architect/Engineer will determine suitability of patching and/or refinishing requirements.

D. The Plumbing Contractor is responsible for patching of all openings resulting from the installation or removal of plumbing equipment or materials. E. Provide and maintain temporary partitions or dust barriers adequate to prevent the

F. Patch existing finished surfaces and building components using new materials matching existing materials and experienced Subcontractors. G. Fire and Smoke Partition Penetrations: The Contractor shall familiarize himself with all fire rated construction and install his work so as to maintain the integrity of the fire code rating. Maintain rating of fire rated and smoke rated construction. Seal annular space around conduits. For fire and smoke rated floors, walls and partitions, use UL listed material

3.08 CLEANING AND REPAIR

that maintains fire rated wall and floor integrity.

spread of dust and dirt to adjacent areas.

A. Clean plumbing parts to remove harmful materials. Clean exposed surfaces of all pipe, equipment, and accessories of all dirt, debris splatter, and other deleterious materials. Follow the manufacturer's recommendations for cleaning as applicable

C. Repair or replace damaged pipe, equipment, and accessories, as directed by and to the satisfaction of the Architect, where marring or disfigurement has occurred. All pipe, equipment, and accessories shall be new. 3.09 TESTING AND INSPECTION

A. Upon completion, the entire system shall be tested under operating conditions. 1. All equipment shall be tested under service conditions and proven to operate properly and noiselessly.

2. All additional tests as required throughout this Specification shall be completed with results reported back to the Architect/Engineer for review. B. Operate all equipment, after installation and connection. Inspect for improper

connections and operation and correct deficiencies as required. C. Inspection: 1. Upon completion of the work, the Contractor shall obtain certificates of inspection and approval from all City and State Authorities Having Jurisdiction.

3.10 PROJECT CLOSEOUT A. Project Record Documents: At project closeout, provide one printed copy and one electronic copy of project record drawings to the Owner. Information contained on project record drawings shall include, as a minimum,:

1. Actual locations of all pipe, equipment, accessories, etc. Actual pipe sizes and elevations.

Actual routing of all underfloor or below grade piping. B. Operation and Maintenance Data: At project closeout, submit to the Architect two copies of descriptive literature, maintenance and operation data for all piping, equipment, accessories, and materials used. Include maintenance procedures, intervals, and parts list of each item installed under this contract. Include all manufacturer's guarantees and warranties.

END OF SECTION

SECTION 220516 - EXPANSION FITTINGS AND LOOPS FOR PLUMBING PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Flexible pipe connectors; Pipe loops, offsets, and swing joints.

PART 2 PRODUCTS

2.01 FLEXIBLE PIPE CONNECTORS - COPPER PIPING

A. Manufacturer: Mercer Rubber Company; Metraflex Company. B. Inner Hose: Bronze; Exterior Sleeve: Braided bronze; Pressure Rating: 125 psi and 450 degrees F; Joint: As specified for pipe joints; Size: Use pipe sized units; Maximum offset: 1 inch on each side of installed center line; Application:

pipe joints; Size: Use pipe sized units; Maximum offset: 1 inch on each side of

Copper piping. 2.02 FLEXIBLE PIPE CONNECTORS - STEEL PIPING A. Manufacturer: Mercer Rubber Company; Metraflex Company. B. Inner Hose: Pressure Rating: 125 psi and 450 degrees F; Joint: As specified for

installed center line; Application: Steel piping. PART 3 EXECUTION

or apparatus

3.01 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install in accordance with EJMA (Expansion Joint Manufacturers Association) Standards. C. Install flexible pipe connectors on pipes connected to vibration isolated

equipment. Provide line size flexible connectors D. Install flexible connectors at right angles to displacement. Install one end immediately adjacent to isolated equipment and anchor other end. Install in horizontal plane unless indicated otherwise. E. Anchor pipe to building structure where indicated and as required to control

detrimental movement of piping. Provide pipe guides so movement is directed along

axis of pipe only. Erect piping such that strain and weight is not on connections

END OF SECTION SECTION 220519 - METERS AND GAGES FOR PLUMBING PIPING

G. Contractor may substitute grooved piping for vibration isolated equipment instead of flexible connectors. Grooved piping need not be anchored.

F. Provide support and equipment required to control expansion and contraction of

piping. Provide loops, pipe offsets, and swing joints, or approved expansion

PART 1 GENERAL

1.01 SECTION INCLUDES A. Positive displacement meters;

joints where required.

PART 2 PRODUCTS 2.01 Manufacturers: Manufacturers: Dwyer Instruments, Inc; FMC Technologies; Venture Measurement Company; McCrometer; Moeller Instrument Co., Inc; Omega Engineering, Inc. 2.02 POSITIVE DISPLACEMENT METERS (LIQUID)

A. AWWA C700, positive displacement disc type suitable for fluid with bronze case and cast iron frost-proof, breakaway bottom cap, hermetically sealed register, remote reading to AWWA C706.

B. Meter: Brass body turbine meter with magnetic drive register; Accuracy: 1-1/2

PART 3 EXECUTION

3.01 INSTALLATION A. Install in accordance with manufacturer's instructions.

B. Provide instruments with scale ranges selected according to service with largest

C. Install gages and thermometers in locations where they are easily read from normal operating level. Install vertical to 45 degrees off vertical.

D. Adjust gages and thermometers to final angle, clean windows and lenses, and calibrate to zero. E. Locate test plugs where indicated or required for measurement and balancing of

F. Install positive displacement meters with isolating valves on inlet and outlet. Provide full line size valved bypass with globe valve for liquid service meters unless prohibited by local utility company.

END OF SECTION SECTION 220548 - VIBRATION AND SEISMIC CONTROLS FOR

PLUMBING PIPING AND EQUIPMENT PART 1 GENERAL

1.01 SECTION INCLUDES A. Concrete housekeeping pads; Vibration isolators; Seismic restraints.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Isolation Technology, Inc.; Kinetics Noise Control, Inc.; Mason Industries. A. Concrete Housekeeping Pad: Construction: Concrete as specified for flooring; Design: 4" high above the surrounding finished flooring and 4" greater in dimension that the equipment supported, or greater if detailed on the Drawings or when

2.03 VIBRATION ISOLATORS

A. Restrained Open Spring Isolators: Springs: Minimum horizontal stiffness equal to 75 percent vertical stiffness, with working deflection between 0.3 and 0.6 of maximum deflection. Color code springs for load carrying capacity; Spring Mounts: Provide with leveling devices, minimum 0.25 inch thick neoprene sound pads, and zinc chromate plated hardware; Sound Pads: Size for minimum deflection of 0.05 inch; meet requirements for neoprene pad isolators; Restraint: Provide heavy mounting frame and limit stops; For Exterior and Humid Areas: Hot dipped galvanized housings and neoprene coated springs.

B. Spring Hanger: Springs: Minimum horizontal stiffness equal to 75 percent vertical stiffness, with working deflection between 0.3 and 0.6 of maximum deflection. Color code springs for load carrying capacity; Housings: Incorporate neoprene isolation pad meeting requirements for neoprene pad isolators or rubber hanger with threaded insert; Misalignment: Capable of 20 degree hanger rod misalignment; For Exterior and Humid Areas: Hot dipped galvanized housings and neoprene coated

C. Neoprene Pad Isolators: Rubber or neoprene waffle pads; Hardness: 30 durometer Thickness: Minimum 1/2 inch; Maximum Loading: 50 psi; Rib Height: Maximum 0.7

times width; Configuration: Single layer. D. Rubber Mount or Hanger: Molded rubber designed for 0.4 inch deflection with

E. Glass Fiber Pads: Neoprene jacketed pre-compressed molded glass fiber.

PART 3 EXECUTION

3.01 INSTALLATION A. Install in accordance with manufacturer's instructions. B. Prior to making piping connections to equipment with operating weights substantially different from installed weights, block up equipment with temporary shims to final height. When full load is applied, adjust isolators to load to

allow shim removal. C. Support piping connections to equipment mounted on isolators using isolators or resilient hangers to nearest flexible pipe connector. D. Provide flexible connections on all piping connections to equipment.

E. Selection of type, thickness and deflection of vibration isolation shall be by the

vibration control manufacturer based on the specific equipment type and size, as scheduled on the Drawings and indicated below.

END OF SECTION SECTION 220595 - FIRE STOPPING FOR PLUMBING SYSTEMS

indicated.

PART 1 GENERAL

1.01 SECTION INCLUDES A. Firestopping materials; Firestopping of all penetrations and interruptions to fire rated assemblies, whether indicated on Drawings or not, and other openings

PART 2 PRODUCTS

2.01 FIRESTOPPING ASSEMBLIES A. Firestopping: Any material meeting requirements; Fire Ratings: Use any system listed by UL or FM or tested in accordance with ASTM E 814 or ASTM E 119 that has F Rating equal to fire rating of penetrated assembly and minimum T Rating Equal to F

Rating and that meets all other specified requirements. 2.02 MATERIALS A. Manufacturers: A/D Fire Protection Systems Inc; 3M Fire Protection Products; Specified Technologies, Inc.

B. Elastomeric Silicone Firestopping: Single or multiple component silicone elastomeric compound and compatible silicone sealant; conforming to the following: Durability and Longevity: Permanent; Color: Manufacturer's standard color. C. Foam Firestoppping: Single or multiple component foam compound; conforming to the

following: Durability and Longevity: Permanent; Color: Manufacturer's standard D. Fibered Compound Firestopping: Formulated compound mixed with incombustible non-asbestos fibers; conforming to the following: Durability and Longevity:

E. Fiber Packing Material: Mineral or ceramic fiber packing insulation; conforming to the following: Durability and Longevity: Permanent. F. Firestop Devices: Mechanical device with incombustible or silicone elastomer

Permanent; Color: Manufacturer's standard color.

filler and sheet stainless steel jacket, collar, and flanged stops; conforming to the following: Durability and Longevity: Permanent; suitable for pedestrian traffic or vehicular traffic where necessary.

G. Firestop Pillows: Formed mineral fiber pillows; conforming to the following:

Durability and Longevity: Permanent. H. Primers, Sleeves, Forms, and Accessories: Type required for tested assembly

PART 3 EXECUTION 3.01 EXAMINATION

A. Verify openings are ready to receive the work of this section.

3.02 PREPARATION A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter which may affect bond of firestopping material.

B. Install backing materials to arrest liquid material leakage. 3.03 INSTALLATION A. Install materials in manner described in fire test report and in accordance with

manufacturer's instructions, completely closing openings. B. Do not cover installed firestopping until inspected by authority having

jurisdiction. C. Install labeling required by code.

3.04 CLEANING AND PROTECTION A. Clean adjacent surfaces of firestopping materials.

END OF SECTION

SECTION 220719 - PLUMBING PIPING INSULATION

PART 1 GENERAL

CertainTeed Corporation.

A. Plumbing piping insulation; Domestic hot and tempered water piping; Domestic cold water piping; Cooling condensate drain piping insulation; Roof/overflow drainage piping.

PART 2 PRODUCTS

2.01 REQUIREMENTS FOR ALL PRODUCTS OF THIS SECTION

A. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E 84, NFPA 255, or UL 723.

B. The Contractor may use any of the following insulating/jacketing materials, at his option, provided the selected material meets with the approval of all State, local authorities and utility company requirements. Verification of compliance of the selected insulating/jacketing material is the sole responsibility of the installing Contractor.

2.02 GLASS FIBER A. Manufacturers: Knauf Insulation; Johns Manville Corporation; Owens Corning Corp;

ASTM C 177, 0.24 at 75 degrees F; Maximum service temperature: 850 degrees F; Maximum moisture absorption: 0.2 percent by volume. C. Insulation: ASTM C 547 and ASTM C 795; semi-rigid, noncombustible, end grain adhered to jacket; 'K' value: ASTM C 177, 0.24 at 75 degrees F; Maximum service

temperature: 650 degrees F; Maximum moisture absorption: 0.2 percent by volume.

B. Insulation: ASTM C 547 and ASTM C 795; rigid molded, noncombustible; 'K' value:

D. Vapor Barrier Jacket: White kraft paper with glass fiber yarn, bonded to aluminized film; moisture vapor transmission when tested in accordance with ASTM E 96/E 96M of 0.02 perm-inches.

F. Insulating Cement/Mastic: ASTM C 195; hydraulic setting on mineral wool. G. Fibrous Glass Fabric: Cloth: Untreated; 9 oz/sq yd weight; Blanket: 1.0 lb/cu ft

K. Insulating Cement: ASTM C 449/C 449M.

Compatible with insulation.

2.03 FLEXIBLE ELASTOMERIC CELLULAR INSULATION

Connection: Waterproof vapor barrier adhesive.

Vapor Barrier Lap Adhesive: Compatible with insulation.

H. Indoor Vapor Barrier Finish: Vinyl emulsion type acrylic, compatible with insulation, white color; Outdoor Vapor Barrier Mastic: Vinyl emulsion type acrylic or mastic, compatible with insulation, black color; Outdoor Breather Mastic: Vinyl emulsion type acrylic or mastic, compatible with insulation, black color.

A. Manufacturer: Armacell International; B. Insulation: Preformed flexible elastomeric cellular rubber insulation complying with ASTM C 534 Grade 1; use molded tubular material wherever possible; Minimum

C. Elastomeric Foam Adhesive: Air dried, contact adhesive, compatible with insulation.

B. ABS Plastic:

2.04 JACKETS A. PVC Plastic.

Manufacturers: Knauf Fiber Glass: Johns Manville Corporation: Owens Corning Corp; CertainTeed Corporation. 2. Jacket: One piece molded type fitting covers and sheet material, off-white color; Minimum Service Temperature: 0 degrees F; Maximum Service Temperature: 150 degrees F; Moisture Vapor Permeability: 0.002 perm inch, maximum, when tested in accordance with ASTM E 96/E 96M; Thickness: 10 mil; Connections: Brush on welding adhesive; Covering Adhesive Mastic:

Service Temperature: -40 degrees F; Maximum Service Temperature: 220 degrees F;

1. Jacket: One piece molded type fitting covers and sheet material, off-white color; Minimum Service Temperature: -40 degrees F; Maximum Service Temperature of 180 degrees F; Moisture Vapor Permeability: 0.012 perm inch, when tested in accordance with ASTM E 96/E 96M; Thickness: 30 mil.; Connections: Brush on welding adhesive. C. Aluminum Jacket: ASTM B 209 (ASTM B 209M) formed aluminum sheet; Thickness: 0.016

inch sheet; Finish: Embossed; Joining: Longitudinal slip joints and 2 inch laps; Fittings: 0.016 inch thick die shaped fitting covers with factory attached protective liner; Metal Jacket Bands: 3/8 inch wide; 0.015 inch thick aluminum; Metal Jacket Bands: 3/8 inch wide; 0.010 inch thick stainless steel. D. Stainless Steel Jacket: ASTM A 666, Type 304 stainless steel; Thickness: 0.010

inch; Finish: Smooth; Metal Jacket Bands: 3/8 inch wide; 0.010 inch thick

3.02 INSTALLATION

PART 3 EXECUTION 3.01 EXAMINATION

A. Verify that piping has been tested before applying insulation materials.

B. Verify that surfaces are clean and dry, with foreign material removed.

A. Install in accordance with manufacturer's instructions. B. Install in accordance with NAIMA National Insulation Standards. C. Exposed Piping: Locate insulation and cover seams in least visible locations. D. Insulated pipes conveying fluids below ambient temperature: Insulate entire system

including fittings, valves, unions, flanges, strainers, flexible connections, and expansion joints. E. Glass fiber insulated pipes conveying fluids below ambient temperature: Provide vapor barrier jackets, factory-applied or field-applied. Secure with self-sealing longitudinal laps and butt strips with pressure sensitive adhesive. Secure with outward clinch expanding staples and vapor barrier mastic; Insulate fittings, joints, and valves with molded insulation of like material and thickness as

adjacent pipe. Finish with glass cloth and vapor barrier adhesive or PVC fitting F. For hot piping conveying fluids 140 degrees F or less, do not insulate flanges and

G. For hot piping conveying fluids over 140 degrees F, insulate flanges and unions at H. Glass fiber insulated pipes conveying fluids above ambient temperature: Provide standard jackets, with or without vapor barrier, factory-applied or field-applied. Secure with self-sealing longitudinal laps and butt strips with pressure sensitive adhesive. Secure with outward clinch expanding staples; Insulate fittings, joints,

unions at equipment, but bevel and seal ends of insulation.

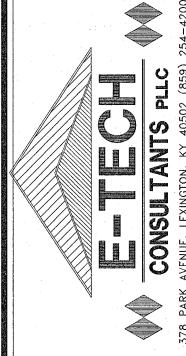
Finish with glass cloth and adhesive or PVC fitting covers. Inserts and Shields: Application: Piping 2 inches diameter or larger; Shields: Galvanized steel between pipe hangers or pipe hanger rolls and inserts; Insert location: Between support shield and piping and under the finish jacket; Insert configuration: Minimum 6 inches long, of same thickness and contour as adjoining insulation; may be factory fabricated; Insert material: Hydrous calcium silicate insulation or other heavy density insulating material suitable for the planned temperature range.

and valves with insulation of like material and thickness as adjoining pipe.

REVISIONS

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ASSOCIATES
CHITECTURE PLANNING
D BLANCO RD., SUITE 257, SAN AN

11/24/2021

SHEET NUMBER:

J. Continue insulation through walls, sleeves, pipe hangers, and other pipe

separations, fire stop penetrations to meet local code requirements.

penetrations. Finish at supports, protrusions, and interruptions. At fire

B. Plumbing Systems:

1. Domestic Hot and Tempered Water Supply and Recirculation:

a. Glass Fiber Insulation: All Pipe: Thickness: 1 inch. b. Flexible Elastomeric Cellular Foam Insulation: Pipe Size Range: First 8 feet of pipe from fixture, up to 1 1/4 inch: Thickness: 1/2 inch.; All Other Pipe: Thickness: 1 inch.

2. Domestic Cold Water: a. Glass Fiber Insulation: Pipe Size Range: All Sizes; Thickness: 1/2

b. Flexible Elastomeric Cellular Foam Insulation: Pipe Size Range: All Sizes; Thickness: 1/2 inch.

Cold Condensate Drains: a. Glass Fiber Insulation: Pipe Size Range: All Sizes; Thickness: 1/2

b. Flexible Elastomeric Cellular Foam Insulation: Pipe Size Range: All Sizes; Thickness: 1/2 inch.

4. Roof/overflow draining piping: a. Glass Fiber Insulation: Pipe Size Range: All Sizes; Thickness: 1/2

b. Flexible Elastomeric Cellular Foam Insulation: Pipe Size Range: All

Sizes; Thickness: 1/2 inch. F. Other Systems:

Existing piping in plenum return:

a. Wrap all new and existing storm, sanitary, vent piping and all other combustible material with wrap that meets the following surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E 84, NFPA 255, UL 723 or as required by local jurisdiction.

END OF SECTION

SECTION 220720 - PIPING SAFETY COVERS

1.01 SECTION INCLUDES

PART 1 GENERAL

A. Piping Safety Covers.

PART 2 PRODUCTS

2.01 MANUFACTURERS A. Acceptable Manufacturer: Truebro, Inc.

2.02 PIPING INSULATION ACCESSORIES

A. Provide products that comply with the following: Americans With Disabilities Act (ADA), Article 4.19.4; ANSI/ICC A117.1, American National Standard for Accessible Buildings and Facilities; Requirements of applicable building code.

B. Piping Safety Covers: Truebro Lav-Guard; Characteristics: Three-piece molded assembly, minimum 1/8 inch wall thickness, with internal ribs to provide air space between piping and piping insulation jacket, molded to receive manufacturer's snap-clip fasteners; Vinyl Material: Impact-resistant and stain-resistant molded closed-cell anti-microbial vinyl compound, UV-stable, non-fading, non yellowing; having the following performance characteristics: Burning Characteristics: 0 seconds Average Time of Burning (ATB), 0 mm Area of Burning (AEB), when tested in accordance with ASTM D 635; Thermal Conductivity: K-value 1.17, when tested in accordance with ASTM C 177; Indentation Hardness: 60, minimum, when tested in accordance with ASTM D 2240, using Type A durometer; Trap Assembly Cover: Three-piece assembly, with removable clean-out nut enclosure; Angle Stop Covers: Formed with hinged cap for access to valve without requiring cover removal; Configurations: In accordance with manufacturer's product data for project piping configurations indicated on Drawings; Color: China White, gloss finish; paintable; Fasteners: Manufacturer's standard re-usable snap-clip fasteners; wire-tie fasteners not permitted

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that piping configurations are correct type for piping cover component configurations specified. 3.02 INSTALLATION

A. Install products of this section in accordance with manufacturer's printed installation instructions 3.03 PROTECTION OF INSTALLED PRODUCTS

A. Do not allow damage to installed products by subsequent construction activities: protect products until Substantial Completion. Replace any damaged products prior

END OF SECTION

SECTION 221005 - PLUMBING PIPING PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pipe, pipe fittings, valves, and connections for piping systems: Sanitary sewer, interior; Sanitary sewer, exterior; Domestic water, interior; Domestic and fire service water, exterior; Storm water, interior; Storm water, exterior; Natural gas,

PART 2 PRODUCTS

2.01 The Contractor may use any of the following piping materials, at his option, provided the selected material meets with the approval of all State and local authorities and utility company requirements. Verification of compliance of the selected piping material with local requirements is the sole responsibility of the installing Contractor. Verify the use of plastic piping systems with the local jurisdiction. Non-metallic piping systems may not be used in any return air plenum ceiling spaces. No exceptions. 2.02 SANITARY SEWER PIPING, BURIED BEYOND 5 FEET OF BUILDING

A. Cast Iron Pipe: ASTM A 74 service weight; Fittings: Cast iron; Joint Seals: ASTM C 564 neoprene gaskets, or lead and oakum.

B. Vitrified Clay Pipe: ASTM C 700, Standard Strength; Fittings: Clay; Joints: Bell-and-spigot, with ASTM C 425 compression joint device.

C. ABS Pipe: ASTM D 2751, ASTM F 628, ASTM D2661, or ASTM D2751; Fittings: ABS; Joints: Solvent welded with ASTM D 2235 cement.

2.03 SANITARY SEWER PIPING, BURIED WITHIN 5 FEET OF BUILDING A. Cast Iron Pipe: ASTM A 74 service weight; Fittings: Cast iron; Joints: Hub-and-spigot, CISPI HSN compression type with ASTM C 564 neoprene gaskets

B. ABS Pipe: ASTM D 2751, ASTM F 628, ASTM D2661, or ASTM D2751; Fittings: ABS; Joints: Solvent welded with ASTM D 2235 cement. 2.04 SANITARY SEWER PIPING, ABOVE GRADE

A. Cast Iron Pipe: ASTM A 74, service weight; Fittings: Cast iron; Joint Seals: ASTM C 564 neoprene gaskets.

B. Cast Iron Pipe: CISPI 301, hubless, service weight; Fittings: Cast iron; Joints: CISPI 310, neoprene gaskets and stainless steel clamp-and-shield assemblies. 2.06 WATER PIPING, BURIED BEYOND 5 FEET OF BUILDING

A. Ductile Iron Pipe: AWWA C151/A21.51; Fittings: AWWA C110, ductile or gray iron, standard thickness; Joints: AWWA C111/A21.11, rubber gasket with 3/4 inch diameter

B. Copper Pipe: ASTM B 42, hard drawn; Fittings: ASME B16.18, cast copper alloy or ASME B16.22 wrought copper and bronze; Joints: ASTM B 32, alloy Sn95 solder. 2.07 WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Copper Pipe: ASTM B 42, hard drawn; Fittings: ASME B16.18, cast copper alloy or ASME B16.22 wrought copper and bronze; Joints: ASTM B 32, alloy Sn95 solder. B. Ductile Iron Pipe: AWWA C151/A21.51; Fittings: Ductile or gray iron, standard thickness; Joints: AWWA C111/A21.11, rubber gasket with 3/4 inch diameter rods.

2.08 WATER PIPING, ABOVE GRADE A. Copper Tube: ASTM B 88 (ASTM B 88M), Type L (B), Drawn (H); Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze; Fittings: Cast iron, coated; Joints: ASTM B 32, alloy Sn95 solder; Joints: Grooved mechanical couplings.

2.09 STORM WATER PIPING, BURIED BEYOND 5 FEET OF BUILDING A. Cast Iron Pipe: ASTM A 74 service weight; Fittings: Cast iron; Joint Seals:

ASTM C 564 neoprene gaskets, or lead and oakum. B. PVC Pipe: ASTM D 3034 SDR 35; Fittings: PVC; Joints: Push-on, using

ASTM F 477 elastomeric gaskets. 2.10 STORM WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Cast Iron Pipe: ASTM A 74 service weight; Fittings: Cast iron; Joint Seals: ASTM C 564 neoprene gaskets, or lead and oakum. B. PVC Pipe: ASTM D 2665, ASTM D 3034, or ASTM F 679; Fittings: PVC; Joints:

Push-on, using ASTM F 477 elastomeric gaskets. 2.11 STORM WATER PIPING, ABOVE GRADE

A. Cast Iron Pipe: CISPI 301, hubless, service weight; Fittings: Cast iron; Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies. D. ABS Pipe: ASTM D 2680 or ASTM D 2751; Fittings: ABS; Joints: Solvent welded with ASTM D 2235 cement.

2.14 NATURAL GAS PIPING, ABOVE GRADE A. Steel Pipe: ASTM A 53/A 53M Schedule 40 black; Fittings: 3" and larger shall be ASME B16.3, malleable iron, or ASTM A 234/A 234M, wrought steel welding type. Threaded fittings may be used on piping 2 1/2" and smaller, except where noted on the drawings or required by code to be welded; Joints: NFPA 54, threaded or welded to ASME B31.1.

B. Copper Tube: ASTM B 88 (ASTM B 88M), Type K (A) or L (B) annealed; Fittings: ASME B16.26, cast bronze; Joints: Flared. 2.18 FLANGES, UNIONS, AND COUPLINGS

A. Unions for Pipe Sizes 3 Inches and Under: Ferrous pipe: Class 150 malleable iron threaded unions; Copper tube and pipe: Class 150 bronze unions with soldered

B. Flanges for Pipe Size Over 1 Inch: Ferrous pipe: Class 150 malleable iron threaded or forged steel slip-on flanges; preformed neoprene gaskets; Copper tube and pipe: Class 150 slip-on bronze flanges; preformed neoprene gaskets. C. Grooved and Shouldered Pipe End Couplings: Housing: Malleable iron clamps to engage and lock, designed to permit some angular deflection, contraction, and

expansion; steel bolts, nuts, and washers; galvanized for galvanized pipe; Sealing gasket: "C" shape composition sealing gasket. D. Dielectric Connections: Union with galvanized or plated steel threaded end, copper

solder end, water impervious isolation barrier. 2.19 PIPE HANGERS AND SUPPORTS

A. Plumbing Piping - Drain, Waste, and Vent: Conform to MSS SP-58; Hangers for Pipe Sizes 1/2 Inch to 1-1/2 Inches: Malleable iron, adjustable swivel, split ring; Hangers for Pipe Sizes 2 Inches and Over: Carbon steel, adjustable, clevis; Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods; Wall Support for Pipe Sizes to 3 Inches: Cast iron hook; Wall Support for Pipe Sizes 4 Inches and Over: Welded steel bracket and wrought steel clamp; Vertical Support: Steel riser clamp; Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support; Copper Pipe Support: Carbon steel ring, adjustable, copper plated.

B. Plumbing Piping - Water and Gas: Conform to MSS SP-58; Hangers for Pipe Sizes 1/2 Inch to 1-1/2 Inches: Malleable iron, adjustable swivel, split ring; Hangers for Cold Pipe Sizes 2 Inches and Over: Carbon steel, adjustable, clevis; Hangers for Hot Pipe Sizes 2 Inches to 4 Inches: Carbon steel, adjustable, clevis; Hangers for Hot Pipe Sizes 6 Inches and Over: Adjustable steel yoke, cast iron pipe roll, double hanger; Multiple or Trapeze Hangers: Steel channels with welded supports or spacers and hanger rods; Multiple or Trapeze Hangers for Hot Pipe Sizes 6 Inches and Over: Steel channels with welded supports or spacers and hanger rods, cast iron roll; Wall Support for Pipe Sizes to 3 Inches: Cast iron hook; Wall Support for Pipe Sizes 4 Inches and Over: Welded steel bracket and wrought steel clamp; Wall Support for Hot Pipe Sizes 6 Inches and Over: Welded steel bracket and wrought steel clamp with adjustable steel yoke and cast iron pipe roll; Vertical Support: Steel riser clamp; Floor Support for Cold Pipe: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support; Floor Support for Hot Pipe Sizes to 4 Inches: Cast iron adjustable pipe saddle, locknut, nipple, floor flange, and concrete pier or steel support; Floor Support for Hot Pipe Sizes 6 Inches and Over: Adjustable cast iron pipe roll and stand, steel screws, and concrete pier or steel support; Copper Pipe Support: Carbon steel ring, adjustable, copper plated.

2.20 GATE VALVES (Exterior Utility Service Only) A. Manufacturers: Conbraco Industries; Nibco, Inc; Milwaukee Valve Company. B. Up To and Including 3 Inches: MSS SP-80, Class 125, bronze body, bronze trim, rising stem, handwheel, inside screw, solid wedge disc, solder or threaded ends. Provide extension to grade and valve box per local jurisdiction and utility company standards. Post-indicator type were used for fire protection service or when indicated on the Drawings

C. 2 Inches and Larger: MSS SP-70. Class 125, iron body, bronze trim, outside screw and yoke, handwheel, solid wedge disc, flanged ends. Provide extension to grade and valve box per local jurisdiction and utility company standards. Post-indicator type were used for fire protection service or when indicated on the Drawings.

2.22 BALL VALVES A. Manufacturers: Conbraco Industries; Nibco, Inc; Milwaukee Valve Company. B. Construction, 4 Inches and Smaller: MSS SP-110, Class 150, 400 psi CWP, bronze, two piece body, chrome plated brass ball, regular port, teflon seats and stuffing

box ring, blow-out proof stem, lever handle, solder or threaded ends. 2.24 BUTTERFLY VALVES A. Manufacturers: Hammond Valve; Crane Co; Milwaukee Valve Company. body, nickel-plated ductile iron disc, resilient replaceable EPDM seat, wafer, lug,

B. Construction 1-1/2 Inches and Larger: MSS SP-67, 200 psi CWP, cast or ductile iron or grooved ends, extended neck, 10 position lever handle.

C. Provide gear operators for valves 8 inches and larger, and chain-wheel operators

for valves mounted over 8 feet above floor. 2.25 FLOW CONTROLS A. Manufacturers: ITT Bell & Gossett: Griswold Controls: Taco. Inc.

B. Construction: Class 125, Brass or bronze body with union on inlet, temperature and pressure test plug on inlet and outlet.

C. Calibration: Automatically control flow within 5 percent of selected rating, over operating pressure range of 10 times minimum pressure required for control, maximum minimum pressure 3.5 psi.

2.26 SWING CHECK VALVES A. Manufacturers: Hammond Valve; Nibco, Inc; Milwaukee Valve Company. B. Up to 3 Inches: MSS SP-80, Class 125, bronze body and cap, bronze swing disc with

rubber seat, solder or threaded ends. C. Over 2 Inches: MSS SP-71, Class 125, iron body, bronze swing disc, renewable disc seal and seat, flanged or grooved ends.

2.28 WATER PRESSURE REDUCING VALVES A. Manufacturers: Amtrol Inc; Cla-Val Co; Watts Regulator Company. B. Up to 2 Inches: MSS SP-80, bronze body, stainless steel and thermoplastic internal

parts, fabric reinforced diaphragm, strainer, threaded single union ends. C. Over 2 Inches: MSS SP-85, cast iron body, bronze fitted, elastomeric diaphragm and seat disc, flanged. 2.29 RELIEF VALVES

A. Pressure Relief: Manufacturers: Cla-Val Co; Henry Technologies; Watts Regulator Company; AGA Z21.22 certified, bronze body, teflon seat, steel stem and springs, automatic, direct pressure actuated.

B. Temperature and Pressure Relief: Manufacturers: Cla-Val Co; Henry Technologies; Watts Regulator Company, AGA Z21.22 certified, bronze body, teflon seat, stainless steel stem and springs, automatic, direct pressure actuated, temperature relief maximum 210 degrees F, capacity ASME (BPV IV) certified and labeled.

2.30 STRAINERS A. Manufacturers: Armstrong International, Inc; Green Country Filtration; WEAMCO. B. Size 2 inch and Under: Threaded brass body for 175 psi CWP, Y pattern with 1/32 inch stainless steel perforated screen.

2. Class 150, threaded bronze body 300 psi CWP, Y pattern with 1/32 inch stainless steel perforated screen. C. Size 1-1/2 inch to 4 inch: Class 125, flanged iron body, Y pattern with 1/16 inch

stainless steel perforated screen. D. Size 5 inch and Larger: Class 125, flanged iron body, basket pattern with 1/8 inch stainless steel perforated screen.

PART 3 EXECUTION

3.01 EXAMINATION A. Verify that excavations are to required grade, dry, and not over-excavated.

3.02 PREPARATION A. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe. B. Remove scale and dirt, on inside and outside, before assembly.

C. Prepare piping connections to equipment with flanges or unions. 3.03 INSTALLATION

A. Install in accordance with manufacturer's instructions. B. Provide non-conducting dielectric connections wherever jointing dissimilar metals. C. Route piping in orderly manner and maintain gradient. Route parallel and

perpendicular to walls. D. Install piping to maintain headroom, conserve space, and not interfere with use of

E. Group piping whenever practical at common elevations. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.

G. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings.

H. Locate all valves and control elements in accessible areas wherever possible to avoid access doors. Provide access where valves and fittings are not exposed or located in accessible areas. Provide ceiling access doors for access to all valves and control elements located above inaccessible ceiling areas. Provide minimum 12 x 12 inch size for hand access, 18 x 18 inch size for shoulder access, and as indicated. Provide 4 x 4 inch for shut off valves only. Provide rated access doors where installed in fire rated construction. Review locations prior to

I. Establish elevations of buried piping outside the building to ensure not less than the maximum local frost depth cover. Install tracer wire on all plastic piping outside the building.

J. Install vent piping penetrating roofed areas to maintain integrity of roof

K. All roofing penetrations shall be flashed and weather sealed by the roofing manufacturer's authorized roofing contractor at this Contractor's expense. This Contractor shall contract with the factory authorized roofing contractor for the specific roofing system applicable to this Project. The use of an unauthorized roofing contractor may result in removal and replacement of the penetration systems at this Contractor's expense.

L. All sanitary vent system terminations shall be a minimum of ten feet from any fresh air intake and twenty-five feet on medical facilities (hospitals, clinics, etc.)

M. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding. N. Provide support for utility meters in accordance with requirements of utility

O. Prepare exposed, unfinished pipe, fittings, supports, and accessories ready for

P. Paint all exterior above grade piping with a minimum of two coats of paint, color to match roof or wall surface to which it is attached; Copper pipe Apply vinyl etch primer immediately following cleaning. EXT 5.5A Alkyd: Vinyl Wash Primer MPI #80, Alkyd MPI #8, 9 or 94, Semi-gloss; Steel pipe: Apply alkyd metal primer immediately following cleaning. EXT 5.1D Alkyd: Alkyd Metal Primer MPI #79, Alkyd MPI # 94, semi-gloss; Plastic pipe: Apply alkyd bonding primer immediately following cleaning. EXT 6.8B Alkyd: Bonding Primer MPI #17 or 69, Alkyd MPI #8, 9 or 94.

Q. Excavate, bedding and backfill shall be in accordance with applicable sections of R. Pipe vents from gas pressure reducing valves to outdoors and terminate in weather proof hood, unless of the ventless design and approved by the local jurisdiction

and the local utility company regulates. S. The use of sanitary tee fittings will not be permitted. Utilize wye fittings in lieu of tee fittings for all intersections of drainage piping. T. Provide sleeves when penetrating footings, masonry walls and floors. Seal and fire stop pipe and sleeve penetrations to achieve fire resistance equivalent to fire separation required. All penetrations through footings and floors shall be sealed

U. Whereever piping is located within 1.5 inches of the nearest edge of studs, joists, rafters or similar members, provide minimum 0.062 inch thick steel protective shield plates extending 2" above and below the pipe being protected. Shield plates may be omitted on cast iron piping only.

V. Inserts: Provide inserts for placement in concrete formwork; Provide inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams: Provide hooked rod to concrete reinforcement section for inserts carrying pipe over 4 inches; Where concrete slabs form finished ceiling, locate inserts flush with slab surface; Where inserts are omitted, drill through concrete slab from below and provide through-bolt with recessed square steel plate and nut recessed into and grouted flush with slab.

W. Pipe Hangers and Supports: Install in accordance with ASME B31.9, ASTM F 708, and MSS SP-89; Support horizontal piping as scheduled; Install hangers to provide minimum 1/2 inch space between finished covering and adjacent work; Place hangers within 12 inches of each horizontal elbow; Use hangers with 1-1/2 inch minimum vertical adjustment. Design hangers for pipe movement without disengagement of supported pipe; Support vertical piping at every other floor. Support riser piping independently of connected horizontal piping; Where several pipes can be installed in parallel and at same elevation, provide multiple or trapeze hangers; Provide copper plated hangers and supports for copper piping; Prime coat exposed steel hangers and supports. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed; Provide hangers adjacent to motor driven equipment with vibration isolation; Support cast iron drainage piping at every joint.

3.04 APPLICATION A. Install unions downstream of valves and at equipment or apparatus connections. B. Install ball or butterfly valves for shut-off and to isolate equipment, part of

C. Install globe, ball, or butterfly valves for throttling, bypass, or manual flow

D. Provide lug end butterfly valves adjacent to equipment when provided to isolate E. Provide spring loaded check valves on discharge of water pumps.

G. Provide plug or gas service rated ball valves in propane gas systems for shut-off H. Provide automatic flow controls valves in water recirculating systems where

F. Provide plug or gas service rated ball valves in natural gas systems for shut-off

I. Provide spring loaded check valves when located on the discharge of pumps. 3.05 TOLERANCES

A. Interior Drainage Piping: Establish invert elevations within 1/2 inch vertically of location indicated and slope to drain at minimum of 1/4 inch per foot slope, unless noted otherwise on the Drawings.

B. Exterior Drainage Piping: Establish invert elevations within 1/2 inch vertically of location indicated and slope to drain at a minimum of 1% grade, unless noted otherwise on the Drawings. Verify all invert elevations prior to commencing work. C. Water Piping: Slope at minimum of 1/32 inch per foot and arrange to drain at low

3.06 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

A. Prior to starting work, verify system is complete, flushed and clean. B. Ensure Ph of water to be treated is between 7.4 and 7.6 by adding alkali (caustic soda or soda ash) or acid (hydrochloric).

C. Inject disinfectant, free chlorine in liquid, powder, tablet or gas form, throughout system to obtain 50 to 80 mg/L residual. D. Bleed water from outlets to ensure distribution and test for disinfectant residual

at minimum 15 percent of outlets. E. Maintain disinfectant in system for 24 hours. F. If final disinfectant residual tests less than 25 mg/L, repeat treatment. G. Flush disinfectant from system until residual equal to that of incoming water or

H. Take samples no sooner than 24 hours after flushing, from 10 percent of outlets and from water entry, and analyze in accordance with AWWA C651.

3.07 SERVICE CONNECTIONS A. Provide new sanitary and storm sewer services as indicated on the Drawings. Before commencing work check invert elevations required for sewer connections, confirm inverts and ensure that these can be properly connected with slope for drainage and cover to avoid freezing. Removal, rework or corrections to sewer services as a result of the Contractor's failure to confirm invert elevations prior to the start of construction, regardless of the information contained on the Drawings, shall be the sole responsibility of the Contractor. Report any discrepancies difficulties

to the Engineer prior to the start of construction. B. Provide new water service complete with approved reduced pressure backflow preventer and water meter with by-pass valves (where permitted by local authorities), pressure reducing valve (where pressure exceeds 80 psi); Provide sleeve in wall for service main and support at wall with reinforced concrete bridge. Calk enlarged sleeve and make watertight with pliable material. Anchor service main inside to concrete wall; Provide 18 gage galvanized sheet metal sleeve around service main to 2 inches above floor and 3 feet minimum below grade. Size

for minimum of 2 inches of loose batt insulation stuffing. C. Provide new gas services complete with gas meter and regulators. Gas service distribution piping shall have initial minimum pressure as indicated on the drawings. Provide appropriately sized regulators on each line serving gas appliances, sized in accordance with the manufacturers recommendations based on the sizing parameters indicated on the Drawings. The entire gas service and piping installation shall comply with the local jurisdiction and the regulations of the

3.08 SCHEDULES A. Pipe Hanger Spacing:

serving utility.

Metal Piping:

a. Pipe size: 1/2 inches to 1-1/4 inches: Maximum hanger spacing: 6.5

ft; Hanger rod diameter: 3/8 inches. b. Pipe size: 1-1/2 inches to 2 inches: Maximum hanger spacing: 10 ft; Hanger rod diameter: 3/8 inch.

c. Pipe size: 2-1/2 inches to 3 inches: Maximum hanger spacing: 10 ft;

Hanger rod diameter: 1/2 inch. d. Pipe size: 4 inches to 6 inches: Maximum hanger spacing: 10 ft;

Hanger rod diameter: 5/8 inch. Plastic Piping:

a. Pipe size: 1/2 inches to 6 inches: Maximum hanger spacing: 6 ft; Hanger rod diameter: 3/8 inch.

END OF SECTION

SECTION 221006 - PLUMBING PIPING SPECIALTIES

PART 1 GENERAL

A. Drains; Cleanouts; Hose bibbs; Hydrants; Backwater valves; Backflow preventers; Water hammer arrestors; Interceptors; Thermostatic mixing valves.

PART 2 PRODUCTS

2.03 WATER HAMMER ARRESTORS

2.01 BACK WATER VALVES A. Manufacturers: Jay R. Smith Manufacturing Company; Savko Plastic Pipe & Fittings,

B. Cast Iron Back Water Valves: ANSI A112.21.2M; lacquered cast iron body and cover, brass valve, extension sleeve, and access cover. C. Plastic Back Water Valves: ABS or PVC body and valve, extension sleeve, and access

2.02 BACKFLOW PREVENTERS A. Manufacturers: Conbraco Industries; Watts Regulator Company; Zurn Industries, Inc.

A. Manufacturers: Jay R. Smith Manufacturing Company; Watts Regulator Company; Zurn Industries, Inc. B. Water Hammer Arrestors: Stainless steel or copper construction, bellows type sized in accordance with PDI-WH 201, precharged suitable for operation in temperature range 34 to 250 degrees F and maximum 150 psi working pressure.

PART 3 EXECUTION

 A. Install in accordance with manufacturer's instructions. B. Extend cleanouts to finished floor or wall surface. Lubricate threaded cleanout plugs with mixture of graphite and linseed oil. Ensure clearance at cleanout for rodding of drainage system.

Encase exterior cleanouts in concrete flush with grade. D. Install floor cleanouts at elevation to accommodate finished floor for a completely

flush installation. E. Install approved potable water protection devices on plumbing lines where contamination of domestic water may occur; on boiler feed water lines, janitor rooms, fire sprinkler systems, premise isolation, irrigation systems, flush valves, drink mixing stations, interior and exterior hose bibbs and all other locations required by Codes.

F. Pipe relief from backflow preventer to nearest drain. G. Install water hammer arrestors complete with accessible isolation valve on hot and cold water supply piping to all fixtures and equipment.

END OF SECTION

SECTION 223000 - PLUMBING EQUIPMENT

PART 1 GENERAL 1.01 SECTION INCLUDES

> A. Water Heaters: Commercial gas fired water heaters: Commercial gas fired instantaneous water heaters; Commercial electric water heaters; Electric instantaneous water heaters; Water softeners; Pumps; Circulators; Sewage Ejectors; Sump Pumps; Water pressure booster system.

PART 2 PRODUCTS

2.01 WATER HEATER MANUFACTURERS A. A.O. Smith Water Products Co.; Bock Water Heaters, Inc.; Rheem Manufacturing

Pressure Relief Valve: ASME labeled.

Company.; PVI. 2.02 COMMERCIAL GAS FIRED WATER HEATERS A. Type: Automatic, natural gas-fired, vertical storage B. Performance: Maximum working pressure: 150 psig; Equipment performance and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment

and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete, functional system. C. Tank: Glass or copper lined welded steel ASME labeled when required by code; multiple flue passages, 4 inch diameter inspection port, thermally insulated with

minimum 2 inches polyurethane, encased in corrosion-resistant steel jacket; baked-on enamel finish; floor shield and legs. D. Accessories: Brass water connections and dip tube, drain valve, magnesium anode, and ASME rated temperature and pressure relief valve and heat trap fittings for hot and cold water connections; Water Connections: Brass; Dip tube: Crosslinked polyethylene (PEX) or brass; Drain Valve; Anode: Magnesium; Temperature and

E. Certification: As automatic storage water heater and for operation at 180 degrees

F (82 degrees C) for operation on combustible floors. F. Controls: Automatic water thermostat with temperature range adjustable from 110 to 180 degrees F (43 to 82 degrees C), automatic reset high temperature limiting thermostat factory set at 195 degrees F, gas pressure regulator, multi-ribbon or

tubular burner, 100 percent safety shut-off pilot and thermocouple, flue baffle and draft hood. 2.03 COMMERCIAL GAS FIRED INSTANTANEOUS WATER HEATERS Type: Automatic, natural gas-fired, fully modulating, tankless.

and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete, functional system. C. Accessories: Brass or bronze water connections and waterways, integral flow

B. Performance: Maximum working pressure: 150 psig (1000 kPa); Equipment performance

regulator, and ASME rated temperature and pressure relief valve and heat trap fittings for hot and cold water connections; Water Connections: Brass; Coil: Copper; Burners: Stainless steel. D. Certification: As automatic fully modulating tankless water heater and for

operation at 180 degrees F (82 degrees C) for operation on combustible floors.

E. Controls: Automatic water thermostat with temperature range adjustable from 110 to

180 degrees F (43 to 82 degrees C), automatic reset high temperature limiting

thermostat factory at 195 degrees F (90 degrees C), gas pressure regulator, 100 percent safety shut-off pilot and thermocouple, flue baffle and draft hood. 2.04 COMMERCIAL ELECTRIC WATER HEATERS

A. Type: Factory-assembled and wired, electric, vertical or horizontal storage as B. Performance: Maximum working pressure: 150 psig; Equipment performance and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete,

functional system. C. Electrical Characteristics: As indicated on the Drawings; Verify that proper power supply is available prior to ordering equipment. Verify proper voltage, phase and current rating of power supply and inform Engineer of any deviations prior to order, connection of equipment or start-up. Responsibility for verification of proper power supply voltage and any product returns or damage resulting from incorrect connections shall rest with this Contractor.

D. Tank: Glass lined or copper lined welded steel; ASME labeled pressure vessel when required by code, 4 inch diameter inspection port, thermally insulated with minimum 2 inches polyurethane encased in corrosion-resistant steel jacket; baked-on enamel

E. Controls: Automatic immersion water thermostat; externally adjustable temperature range from 60 to 180 degrees F, flanged or screw-in nichrome elements, high temperature limit thermostat.

Accessories: Brass water connections and dip tube, drain valve, magnesium anode, and ASME rated temperature and pressure relief valve and heat trap fittings for hot and cold water connections; Water connections: Brass; Dip tube: Crosslinked polyethylene (PEX) or brass; Drain Valve; Anode: Magnesium; Temperature and Pressure Relief Valve: ASME labeled.

G. Controls: Ventilated control cabinet, factory-wired with solid state progressive sequencing step controller, fuses, magnetic contactors, control transformer, pilot lights indicating main power and heating steps, control circuit toggle switch, electronic low-water (probe-type) cut-off, high temperature limit thermostat, flush-mounted temperature and pressure gages.

H. Heating Elements: Flange-mounted immersion elements; individual elements sheathed with Incoloy corrosion-resistant metal alloy, rated less than 75 Watts per square

2.06 WATER SOFTENERS

A. Manufacturers: Culligan International Company; Sterling Water Systems, LLC. B. Performance: Equipment performance and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete, functional system; Electrical Characteristics: As indicated on the Drawings.

C. Control: Brass control valve cycled to regenerate from one to twelve day period. 2.07 IN-LINE CIRCULATOR PUMPS

A. Manufacturers: Armstrong Pumps Inc; ITT Bell & Gossett; Sterling Fluid Systems; B. Casing: Bronze, rated for 125 psig working pressure; Impeller: Bronze; Shaft:

Alloy steel with integral thrust collar and two oil lubricated bronze sleeve

bearings; Seal: Carbon rotating against a stationary ceramic seat; Drive:

Flexible coupling. C. Performance: Equipment performance and accessories shall be as scheduled on the Drawings and specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete, functional system; Electrical Characteristics: As indicated on the Drawings; Verify that proper power supply is available prior to ordering equipment. Verify proper voltage, phase and current rating of power supply and inform Engineer of any deviations prior to order, connection of equipment or start-up. Responsibility for verification of proper power supply voltage and any product returns or damage resulting from incorrect connections shall rest with this Contractor.

PART 3 EXECUTION

3.01 INSTALLATION A. Install plumbing equipment in accordance with manufacturer's instructions, as

required by code, and complying with conditions of certification, if any. B. Provide concrete equipment bases for all floor mounted plumbing equipment. C. Coordinate with plumbing piping and related fuel piping, gas venting, and electrical work as applicable to achieve operating system.

1. Ensure shaft length allows sump pumps to be located minimum 24 inches below lowest invert into sump pit and minimum 6 inches clearance from bottom of 2. Provide air cock and drain connection on horizontal pump casings.

3. Provide line sized isolating valve and strainer on suction and line sized soft seated check valve and balancing valve on discharge. 4. Decrease from line size with long radius reducing elbows or reducers. Support piping adjacent to pump such that no weight is carried on pump casings. Provide supports under elbows on pump suction and discharge line

sizes 4 inches and over. 5. Ensure pumps operate at specified system fluid temperatures without vapor binding and cavitation, are non-overloading in parallel or individual operation, and operate within 25 percent of midpoint of published maximum

6. Align and verify alignment of base mounted pumps prior to start-up. 7. Verify that proper power supply is available prior to ordering equipment. Verify proper voltage, phase and current rating of power supply and inform Engineer of any deviations prior to order, connection of equipment or start-up. Responsibility for verification of proper power supply voltage and any product returns or damage resulting from incorrect connections shall rest with this Contractor.

8. Refer to vibration isolation requirements specified in Vibration Isolation

section of this Specification.

END OF SECTION SECTION 224000 - PLUMBING FIXTURES

1.01 SECTION INCLUDES

not be accepted.

PART 1 GENERAL

PART 3 EXECUTION 3.01 EXAMINATION

A. All plumbing fixtures as scheduled on the Drawings

A. Verify that walls and floor finishes are prepared and ready for installation of B. Verify that electric power is available and of the correct characteristics. 3.02 PREPARATION

A. Rough-in fixture piping connections in accordance with minimum sizes indicated in

fixture rough-in schedule for particular fixtures. 3.03 INSTALLATION A. Install each fixture with trap, easily removable for servicing and cleaning. B. Install each fixture using brass angle ball stop valves for hot and cold water connections as applicable. Non-metallic valves or non-ball valve type stops will

C. Provide chrome plated rigid or flexible supplies to fixtures with specified stops, reducers, and escutcheons. Install components level and plumb.

G. Solidly attach floor mounted water closets to floor with lag screws. Lead flashing is not intended hold fixture in place. H. Install fixtures and fittings in accordance with the manufacturer's instructions and in accordance with the ICC (IPC) or UPC.

I. When fixtures require both hot water and cold water supplies, provide the hot water

Install and secure fixtures in place with wall carriers, wall supports and bolts.

Seal fixtures to wall and floor surfaces with sealant, color to match fixture.

supply to the left of the cold water supply. J. Install off-the-floor supports to conform to ASME A112.6.1M. 3.04 INTERFACE WITH WORK OF OTHER SECTIONS A. Review millwork shop drawings. Confirm location and size of fixtures and openings

before rough-in and installation. 3.05 CLEANING A. Clean plumbing fixtures and equipment.

3.06 PROTECTION A. Protect installed products from damage due to subsequent construction operations. B. Repair or replace damaged products before date of Substantial Completion. 3.07 FIELD INSPECTION

A. Continue inspection during installation and testing. B. Correct or replace all rejected equipment prior to installation.

END OF SECTION

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SPE

ASSOCIATES
CHITECTURE PLANNING (
BLANCO RD., SUITE 257, SAN AN

X ARC 7400 JOB NO:

DRAWN BY: SHEET NUMBER:

CODED SHEET NOTES:

EVISIONS: GENERAL SHEET NOTES

A. CONTRACTOR TO BE RESPONSIBLE FOR ALL FINAL DIMENSIONS.

REV#1 REV#2

2/3/2022

Charles Willia

11/24/2021 JOB NO: DRAWN BY: SHEET NUMBER:

PLAN

PIPING

- (1) 1" GAS UP TO ROOFTOP UNIT. PROVIDE DIRT LEG, GAS COCK, AND UNION AT UNIT CONNECTION. REFER TO PLUMBING ROOF PLAN FOR CONTINUATION.
- (2) 1" GAS DOWN TO WATER HEATER WITH VALVE AND DIRT LEG.
- $\langle 3 \rangle 3/4$ " HOT AND COLD WATER DOWN IN WALL TO PREP SINK.
- $\langle 4 \rangle$ (2) 3/4" HOT AND COLD WATER DOWN IN WALL TO THREE COMPARTMENT
- (5) PROVIDE HOT WATER CIRCULATING PUMP, FIELD COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT.
- $\langle 6 \rangle 1/2$ " CW AND HW DOWN IN WALL TO LAVATORY, ROUTE HW THROUGH MV-1 FOR TEMPERED WATER. COORDINATE EXACT PLACEMENT OF MIXING VALVE. PROVIDE ACCESS PANEL IF CONCEALED IN WALL OR ABOVE GYPSUM.
- (7) PROVIDE 3/4" GAS TO COOKING EQUIPMENT. PROVIDE DIRT LEG, GAS COCK, AND FLEXIBLE HOSE KIT FOR CONNECTION TO COOKING EQUIPMENT.
- (8) PROVIDE ACCESSIBLE NATURAL GAS SHUT-OFF VALVE. FIELD COORDINATE EXACT LOCATION.
- (9) PROVIDE ACCESSIBLE GAS SOLENOID SHUT-OFF VALVE. CONTROLS WIRED THROUGH HOOD SUPPRESSION SYSTEM.
- (10) BAG-IN-BOX SODA/DRINK SYSTEM: PROVIDE WATER FILTER FOR FILTERED WATER TO SODA DISPENSER. COORDINATE FILTER TYPE WITH KITCHEN EQUIPMENT VENDOR. FIELD COORDINATE EXACT LOCATION. PROVIDE RPZ BACKFLOW DEVICE FOR SODA CARBONATION EQUIPMENT AS REQUIRED PER LOCAL CODE. REFER TO PLUMBING FIXTURE SCHEDULE.

- (11) PROVIDE WATER CONNECTION TO COFFEE BREWING STATION AND TEA BREWER. PROVIDE BACKFLOW DEVICE FOR SODA EQUIPMENT AS REQUIRED PER CODE. DEVICE SHALL CONFORM TO ASSE 1022. REFER TO PLUMBING FIXTURE SCHEDULE.
- (12) PROVIDE SODA LINES SLEEVE FROM DRINK STATION TO BAG-IN-BOX. ROUTE OVERHEAD AND DOWN WALL BEHIND DRINK DISPENSERS. COORDINATE EXACT SIZE AND ROUTING OF SLEEVE WITH OWNER/ARCHITECT AND KITCHEN EQUIPMENT SUPPLIER.
- (13) MULTIPLE HEAD DRINK BEVERAGE DISPENSER; PROVIDE BACKFLOW DEVICE FOR SODA EQUIPMENT AS REQUIRED PER CODE. DEVICE SHALL CONFORM TO ASSE 1022. REFER TO PLUMBING FIXTURE SCHEDULE.
- (14) PROVIDE 3/4" RPZ BACKFLOW PREVENTER AND SIL COCK FOR CHEMICAL TREATMENT SYSTEM. REFER TO PLUMBING FIXTURE SCHEDULE.
- (15) PROVIDE FILTERED WATER DROP WITH 1/4 TURN SHUT OFF VALVE FOR OWNER'S EQUIPMENT. PROVIDE BACKFLOW PROTECTION AS REQUIRED PER
- (16) GAS PRESSURE REGULATOR. SEE SCHEDULE ON SHEET 9.4. INSTALL PER MANUFACTURER'S INSTRUCTION.
- (17) PROVIDE AND INSTALL RPZ BEFORE WATER FILTER SYSTEM.

GENERAL SHEET NOTES

- A. CONTRACTOR TO BE RESPONSIBLE FOR ALL FINAL DIMENSIONS.
- B. CONTRACTOR SHALL NOT CUT ANY BUILDING STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
- C. CONTRACTOR TO COORDINATE WORK SCHEDULE WITH OTHER TRADES AND
- D. CONTRACTOR TO COORDINATE ALL NEW WORK SO AS NOT TO DAMAGE ANY NEW EQUIPMENT.
- E. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT PRIOR TO INSTALLING SAME.
- F. ALL WORK AREAS TO BE CLEANED AT THE END OF EACH WORK DAY.
- G. CONTRACTOR TO COORDINATE ALL PIPING, ELECTRICAL CONDUIT, DUCTWORK, ROOF OPENINGS, AND EQUIPMENT PLACEMENT AND OTHER WORK WITHIN ALL
- H. THIS CONTRACTOR IS RESPONSIBLE FOR SEALING ALL OPENINGS LEFT BY THE REMOVAL OF EQUIPMENT.
- I. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PROJECT SCHEDULING AND TIMELINES.
- J. PROVIDE ALL SUBMITTALS AS REQUIRED FOR PERMITTING AND FINAL APPROVAL BY LOCAL BUILDING AND HEALTH DEPARTMENT.
- K. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS TO PROVIDE A COMPLETE SYSTEM.
- L. ALL SILL COCKS TO BE FROST PROOF TYPE.
- M. ALL PLUMBING EQUIPMENT AND INSTALLATION SHALL CONFORM WITH THE KENTUCKY PLUMBING CODE AND SHALL BE INSTALLED BY CERTIFIED LICENSED MASTER PLUMBER.
- N. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING FOR AND OBTAINING ALL PERMITS.
- O. ALL UNDERSLAB SANITARY SEWER PIPING SHALL BE SCH 40 PVC ASTM DM84-TB WITH SOLVENT WELDED JOINTS ASTM D2665-69. OWNER SHALL COORDINATE LOCATION AND INSTALLATION AND ROUTING WITH APPROVAL BY PLUMBING INSPECTOR. THIS SYSTEM TO TIE TO THE CITY SEWER MAIN.
- P. ALL ABOVE SLAB SANITARY SOIL WASTE AND VENT PIPING SHALL BE THE SAME AS THAT SPECIFIED ABOVE.
- Q. ALL ABOVE SLAB DOMESTIC HOT AND COLD WATER PIPING SHALL BE COPPER TYPE K.
- R. WHERE PIPING IS INSTALLED IN OUTSIDE WALLS CONTRACTOR SHALL ENSURE THAT PIPING IS INSTALLED INSIDE BUILDING WALL INSULATION. NO WATER SUPPLY PIPING SHALL BE INSTALLED WHERE IT CAN FREEZE.
- S. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS FOR FIT AND COORDINATION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER OF ANY CONFLICTS, DISCREPANCIES OR OMISSIONS PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.
- T. SEAL ALL WALL, ROOF, AND FLOOR PENETRATIONS WITH UL LISTED FIRE
- U. THE PLUMBER IS RESPONSIBLE FOR ALL SERVICE LINES (WATER, SEWER, GAS) FROM THE METER AND TAPS TO THE BUILDING.

EVISIONS:

GAS

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() X

1) A REDUCED PRESSURE ZONE ASSEMBLY (RPZ) BACKFLOW PREVENTION DEVICE REQUIRED TO BE INSTALLED AT EACH INDIVIDUAL PLUMBING DEVICE OR APPLIANCE SUCH AS ICE MACHINES, CARBONATION SYSTEM, WATER FILTER SYSTEM, AND ALL DRINK DISPENSERS PER KY PLUMBING CODES, INCLUDING TEA AND COFFEE BREWER/MAKER SYSTEMS.

2) NO WATER LINES SHALL BE INSTALLED IN CORNERS.

BALL VALVE THERMOSTAT WATER BALANCE VALVE	
PUMP PRESSURE AND TEMPERATURE VALVE	
UNION WALL HYDRANT (FREEZELESS) HOSE BIBB FLOOR DRAIN HOT WATER HEATER CLEAN OUT (FLOOR) EXTERIOR CLEAN OUT LAVATORY LAVATORY (ADA HEIGHT) URINAL	- - - - -

WATER CLOSET (ADA HEIGHT)

WATER CLOSET

UR-1

WC-1

ST ——— ST —— STORM WATER LINE

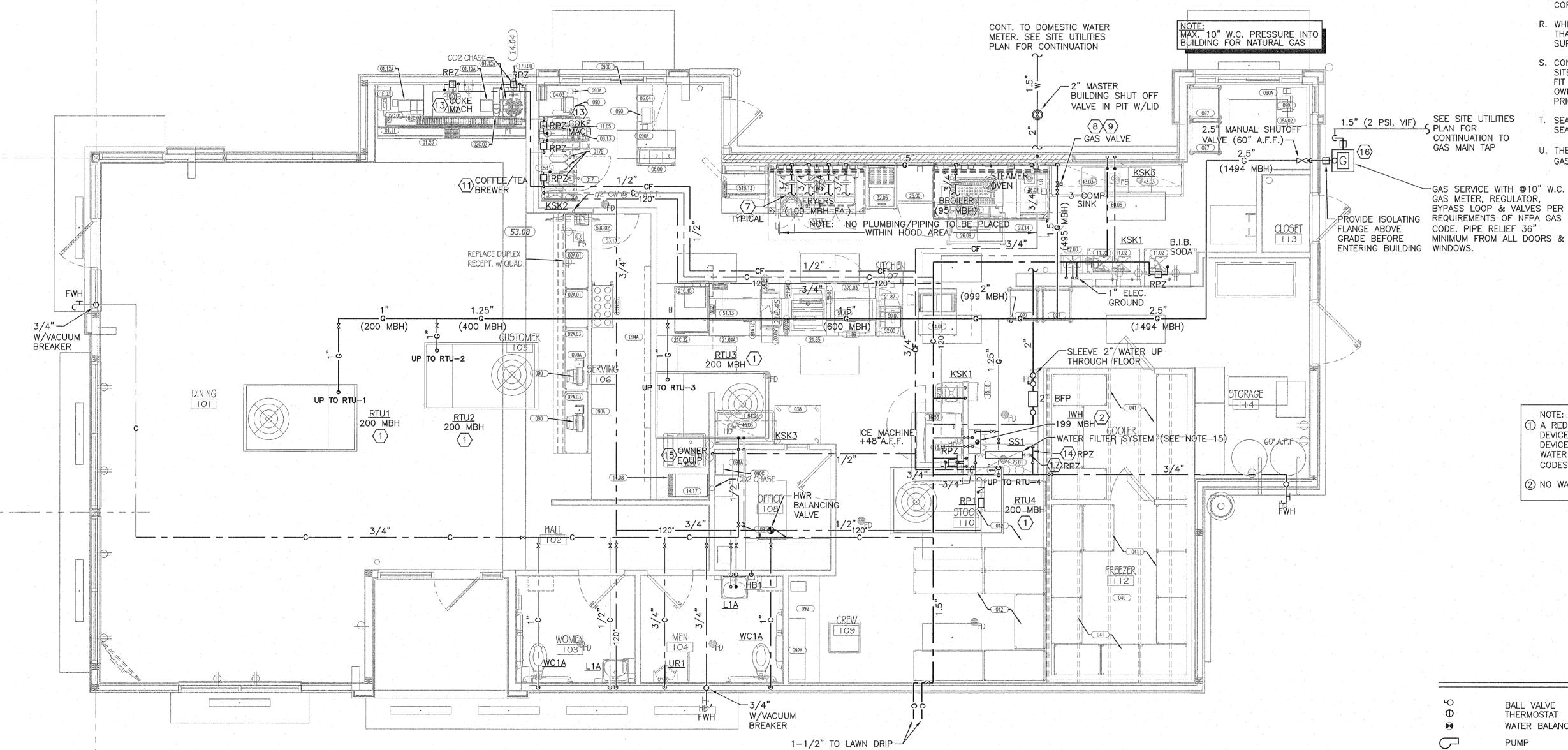
SHEET NUMBER:

Charles Willi

JOB NO:

DRAWN BY:

SHEET LEGEND LS-1 LAB SINK AS-1ART SINK KS-1 KITCHEN SINK MS-1MOP SINK ELECTRIC WATER COOLER SPLIT LEVEL (ADA HEIGHT) ET-1EXPANSION TANK GATE VALVE ---- VENT LINE - - COLD WATER — — — — HOT WATER RECIRC. LINE L-1A



A WATER & GAS PIPING PLAN

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

IRRIGATION SYSTEM (PROVIDE

SEPARATE 3/4" METER WHEN

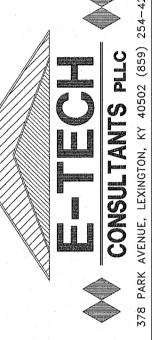
ALLOWED BY CODE)

REVISIONS:

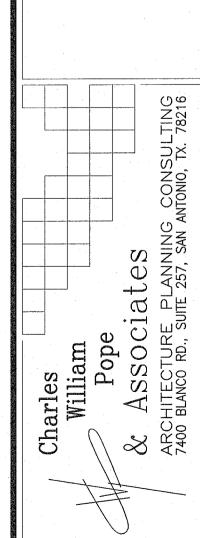
R K R C C ailles Road out, KY 40601

PLUMBING ROOF PLAN









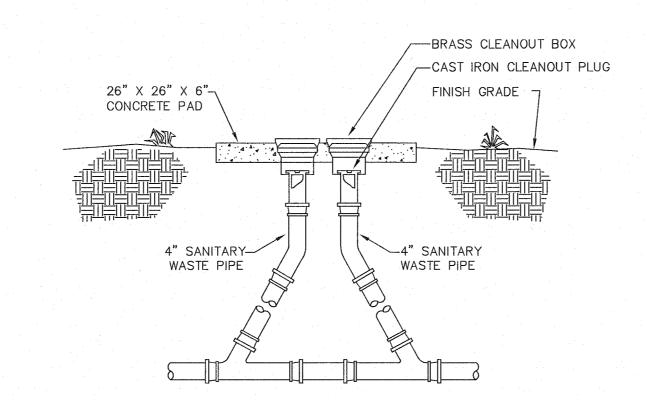
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JOB NO: 44387

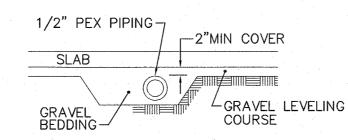
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SHEET NUMBER:

9.4



TWO-WAY EXTERIOR CLEANOUT DETAIL SCALE: N.T.S.



1. TO BE USED ONLY FOR UNDER SLAB PIPING FOR TRAP PRIMER INSTALLATION.

UNDER SLAB TRAP PRIMER PIPING

WATER HEATER

H NC

COMBUSTION

TIMER

女 MOUNT

口 50" A.F.F.

AQUA-STAT

CHECK

AIR PIPE

SCALE: N.T.S.

PIPE

1-1/2" GAS

ASME RATED T & P RELIEF VALVE, PIPE FULL SIZE TO

GAS WATER HEATER DETAIL

FLOOR DRAIN

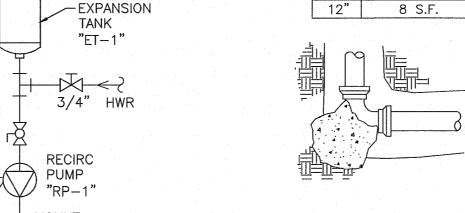
SCALE: N.T.S.

SUPPLY

PIPING

DIRT LEG.

TYPICAL



0.5

2.5 S.F.

1 S.F.

1.5 S.F.

NO SCALE

DEAD ENDS

1 S.F.

2 S.F.

4 S.F.

1. BLOCKING SHALL BE 2,500 PSI CONCRETE (MINIMUM) AND BE PLACED AGAINST UNDISTURBED EARTH, TYPICAL.

CONCRETE THRUST BLOCK AREAS

3 S.F.

1.5 S.F. | 1 S.F.

5 S.F. 3 S.F.

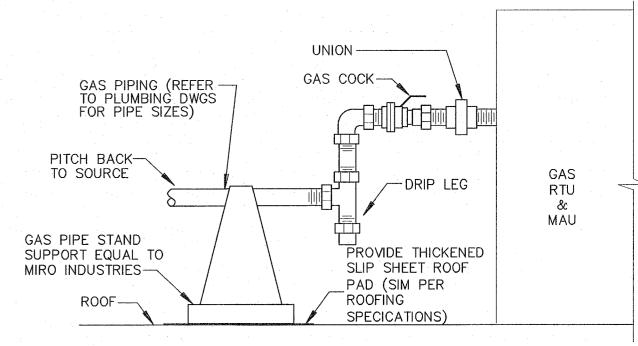
9 S.F. 7 S.F.

2 S.F.

- 2. WRAP 4 MIL. PLASTIC AROUND ALL FITTING BOLTS PRIOR TO PLACING CONCRETE BLOCKING.
- 3. REFER TO PLAN VIEWS FOR PIPE SIZES.

THRUST BLOCK DETAILS

SCALE: N.T.S.



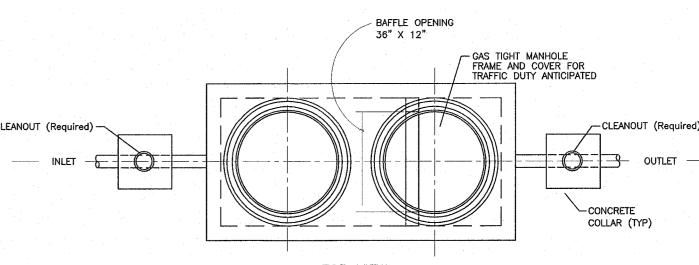
GAS PIPE STANDS & ROOF EQUIPMENT GAS CONNECTION DETAIL SCALE: N.T.S.

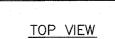
GENERAL NOTES:

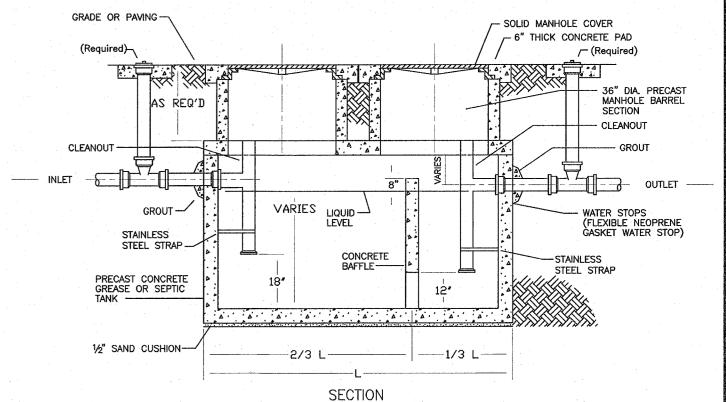
- THIS STRUCTURE IS TO BE ACCESSIBLE FOR MAINTENANCE
 OR INSPECTION WITH COVERS AND CLEANOUTS BROUGHT
- 2. DESIGN CRITERIA SHALL BE HS-20 LOADING.
- FLOW TO THE INTERCEPTOR SHALL EXCLUDE SANITARY SEWAGE AND SURFACE DRAINAGE.
- DESIGN AND CAPACITY OF GREASE INTERCEPTOR TO BE CERTIFIED BY ENGINEER IN ACCORD WITH KENTUCKY STATE PLUMBING CODE AND REVIEWED FOR CAPACITY BY THE DIVISION OF ENGINEERING PRIOR TO CONSTRUCTION.

5. MULTIPLE COMPARTMENT INTERCEPTORS ARE REQUIRED.

- PIPE CLEANOUT TEE SHALL BE THE SAME SIZE AS THE PIPE AND BE WITHIN 6' OF THE GREASE INTERCEPTOR ON THE OUTLET LINE.
- MANUFACTURER WILL PROVIDE GREASE TRAP WITH TWO(2) ACCESS POINTS AS SHOWN. PLUMBING CONTRACTOR TO
- 8. THE MINIMUM CAPACITY OF INTERCEPTORS IS 1500 GALLONS.







1500 GALLON GREASE TRAP DETAIL SCALE: N.T.S.

	B26-1/2			0 0				
IWH	RINNAI R94LSI	TANKLESS GAS WATER HEATER	3/4" GAS (199 MBH) 3/4" CWS 3/4" HWS	1" COND. DRAIN			WALL	VENTING PER IMC. P&T RELIEF VALVE TO DRAIN OR PER PLUMBING CODE. 9.4 GPM
KSK1	BY KEC	KITCHEN HAND WASH SINK 17"x15"	SPLASH MOUNTED GOOSENECK INCLUDED	3/8" SPS CW & HW W/ STOPS	1 1/2" P-TRAP	20 GAUGE STAINLESS STEEL	WALL W/ CARRIER	DRAIN W/ STRAINER PLATE, 6" WRISTBLADE HANDLES, 14"x10"" BOWL
KSK2	BY KEC	PRE-RINSE KITCHEN SINK	REGENCY #600FPRSF12LL PRE-RINSE SPRAY FAUCET	3/8" SPS CW & HW W/ STOPS	2" P-TRAP	16 GAUGE STAINLESS STEEL	FLOOR STAND	ATTACH TO DISHWASHING. 44" FLEXIBLE HOSE, 1.15 GPM SPRAY VALVE. CHROME—PLATED BRASS, ADD ON FAUCET
KSK3	BY KEC	3 COMPARTMENT SS SINK- W/ DRAINBOARDS	REGENCY 600FA12 FAUCET & REGENCY 600FPRS8 HOSE	3/8" SPS CW & HW W/ STOPS	2" PTRAP	16 GAUGE STAINLESS STEEL	FLOOR STAND	REGENCY TWIST WASTE VALVE 600DT1, 88"x25.5" SINK W/ (3) 16"x20"x12" BOWLS & (2) 18" DRAINBOARDS
L-1A	KOHLER K-2005	V.C. LAVATORY (ADA)	SYMMONS S-20-2-G-LP	3/8" SPS W/ LOOSE KEY STOPS	1 1/4" P-TRAP	WHITE	WALL W/ CONCEALED ARM	INSULATE TRAP & SUPPLIES W/ TRUEBRO TRAP WRAP PROTECTIVE KIT. SLOAN BACK CHECKS ON FLOW CONTROL.
SS-1	CUSTOM MOP SINK	SERVICE SINK SEE PLANS FOR SIZE	FIAT 830-AA FAUCET AND 832-AA HOSE BRACKET	3/4" IPS CW & HW	3" P-TRAP	Stainless Steel	FLOOR	SS DOME & LINT STRAINER 899CC MOP HANGER, 24" HIGH SS WALL SKIRTS FULL LENGTH & WIDTH
0R-1	ZURN Z415E	ROUND STRAINER W/ FUNNEL			4"		FLOOR	4" DIAMETER, INTEGRAL FUNNEL
RD-1	ZURN ZC-100-R	15"ø ROOF DRAIN			LINE SIZED	CAST IRON W/ FLASHING CLAMP & GRAVEL GUARD	ROOF	EXTENSION ROOF SUMP RECEIVER UNDER DECK CLAMP
RP-1	BELL & GOSSETT NBF-18S	RECIRCULATION PUMP 150 PSI, MAX				BRONZE PUMP BODY		BELL & GOSSETT #AQ-3/4 AQUASTAT, #TC-1 TIME CLOCK
TD-1	ZURN MODEL Z883-SVF-E1- U2-DB	6" WIDE S.S. LINEAR DRAIN			2"	STAINLESS STEEL	FLOOR	(2) E1, (1) U2, ENDCAPS & 2" BOTTOM OUTLET
TP-1	ZURN MODEL Z-1022	AUTOMATIC TRAP PRIMER		1/2" IPS C.W.				MOUNT 12" MINIMUM TO HORIZONTAL PIPE AT NEAREST FIXTURE
UR-1	KOHLER K5016-ET	V.C. URINAL	SLOAN 8186MC SENSOR	3/4" IPS CW	2"	WHITE	WALL W/ CARRIER	MOUNT 22" AFF TO LIP
WC-1	KOHLER K-96057	V.C. WATER CLOSET FLOOR OUTLET	SLOAN 8111MC SENSOR W/ MANUAL PUSH BUTTONS	1" IPS C.W.	4"	WHITE	FLOOR	SEAT KOHLER K-4731-CA WHITE
WC-1A	KOHLER K-96057	V.C. WATER CLOSET (ADA) FLOOR OUTLET	SLOAN 8111MC SENSOR W/ MANUAL PUSH BUTTONS	1" IPS C.W.	4"	WHITE	FLOOR	SEAT KOHLER K-4731-CA WHITE, MOUNT RIM 18" AFF
WCO	ZURN MODEL Z-1446	WALL CLEANOUT			LINE SIZE	STAINLESS STEEL	WALL	STAINLESS STEEL COVER PLATE
WHA	ZURN MODEL Z1700-100	WATER HAMMER ARRESTOR		3/4"	-	STAINLESS STEEL	PIPE	WITH STOP VALVE
NOTE:	ALL EXPOSE	PLUMBING SH	ALL BE METAL, NO F	VC.	•		•	
		CAST IR GRAVEL DOME/S	RAIN, SIZE PER ROOF ON WITH FLASHING (GUARD AND WITH A TRAINER, EXTENSION R UNDER DECK CLAN	CLAMP LUMINUM -ROOF SUN	ΜР			
			ROOF	DECK				

PLUMBING FIXTURE & PLUMBING SPECIALTIES SCHEDULE

DRAIN

LINE SIZE

LINE SIZE

NICKLE-

BRONZE

CAST IRON

BRONZE

BRONZE

STEEL

POLISHED

BRASS

LOCKABLE

HATCH

POLISHED

MOUNTING

FLOOR

GROUND

FLOOR

FLOOR

RECESSED

COVERS

RECESSED

PROVIDE AIR GAP FITTING RELIEF TO

ADJUSTABLE FLOOR CLEANOUT WITH V.P.

PROVIDE TWO FOR 2-WAY W/ 18"x18"x6"

7.27 GALLON CAPACITY W/ STOP VALVE

4" DIA. MEDIUM DUTY TOP AND VANDAL

4" DIA. MEDIUM DUTY TOP AND VANDAL

12x12 SANI-FLOOR RECEPTOR, 4" SUMP

INTEGRAL ANTI-SIPHON BACKFLOW

8'x6'x6' GREASE TRAP W/ SINGLE

CODE. SCHIER DOUBLE GB-250-TDP

CHROME FINISH MOUNT 18" AFF

CONCRETE SUPPORTING PAD AND

VANDAL-PROOF SCREWS

PROOF DECORATIVE TOP

PROOF DECORATIVE TOP

DEPTH, SUBWAY GRATING

2 GASKETED | BAFFLE, 4" INLET & 4" OUTLET PROVIDE

NON-SKID | FLOW CONTROL, VENT PER PLUMBING

SERIES EQUAL

PREVENTER

FLOOR DRAIN

SCREWS

SUPPLY

LINE SIZED

3/4" MPT

1/2" IPS C.W.

/2" IPS C.W.

1/2" IPS C.W.

IPS C.W.

1000 LBS

GREASE

CAPACITY

IPS C.W.

ZURN Z-1022 TRAP

PRIMER SUPPLY

ZURN Z-1022 TRAP

ZURN Z-1022 TRAP

PRIMER SUPPLY

FLOW RATE

1500 GALLON LARGE CAPACITY 100 GPM

PRIMER SUPPLY

MFR &

MODEL

LF909-QT-9

ZN-1400-VP

Z-1402-VP

STATE ETC-7

ZURN MODEL

DP-VP ZURN MODEL

ZN-415-7B-

DP-VP

IMC/TEDDY

FDSS-1212-SG

OLDCASTLE

PRECAST

866QGT-1500-

BAFF

HOSE BIBB

WOODFORD

B26-1/2

FWH WOODFORD B65

ZN-415-7B-

REDUCED

PRESSURE

CLEANOUT

HEAVY DUTY

CLEANOUT

EXTERIOR

EXPANSION TANK

4" DRAIN

4" DRAIN

FREEZELESS WALL

HYDRANT

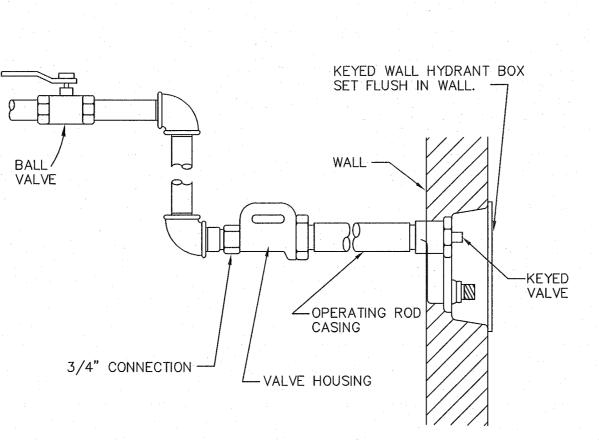
GREASE TRAP

HOSE BIBB

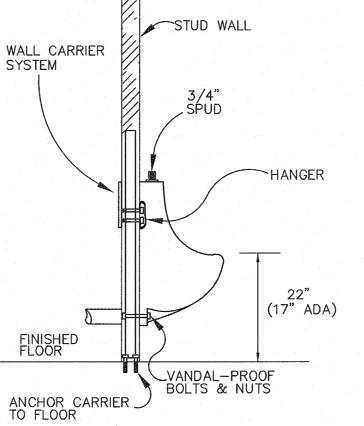
MARK

INSULATED TO PREVENT CONDENSATION - CLEANOUT PLUG **└**CEILING _SLEEVE TO PREVENT DIRECT CONTACT BETWEEN CONCRETE AND LEADER -CONCRETE SLAB IN WALL

ROOF DRAIN & LEADER DETAIL SCALE: N.T.S.



FREEZEPROOF WALL HYDRANT DETAIL



URINAL MOUNTING DETAIL SCALE: N.T.S.

REGULATOR

SCALE: N.T.S.

PREVENTER ASSEMBLY 3 UNION, TYPICAL 4 SEE FLOOR PLANS FOR CONTINUATION. 5 STRAINER 6 PRESSURE GAUGE 7 SPILL BACKFLOW PREVENTER RELIEF TO FLOOR DRAIN PRESSURE DOMESTIC WATER ENTRANCE DETAIL

DOMESTIC WATER ENTRANCE NOTES

LINE SIZED DOMESTIC WATER FROM MAIN WATER

LINE. REFER TO FLOOR PLANS FOR LOCATION

2 A.W.W.A. DOUBLE CHECK VALVE BACKFLOW

NO SCALE

SHEET NUMBER:

DATE:

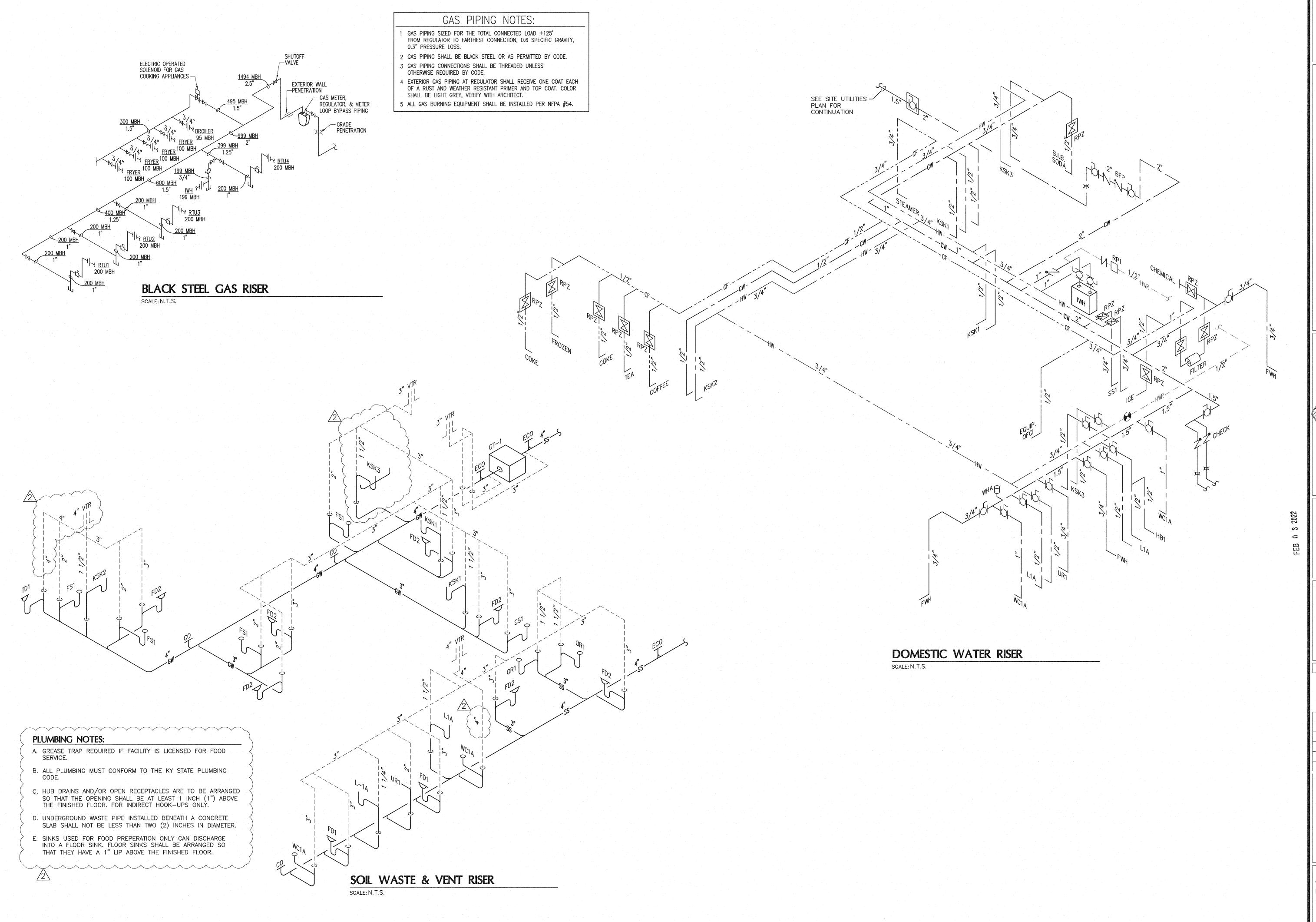
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11/24/2021 44387

REVISIONS:



REVISIONS:

PLUMBING RISER DIAGRAMS
BUTTON A CATON A CATON



CONSULTANTS PLLC

ARK AVENUE, LEXINGTON, KY 40502 (859) 254-420

WILLIAM OF KENNING OF THE STATE OF THE STATE

2/3/2022

REV#1 REV#2

> ciates Si Planning Consulting

Charles
William
Pope

& ASSOCIATE
ARCHITECTURE PLAN

DATE: 11/24/2021

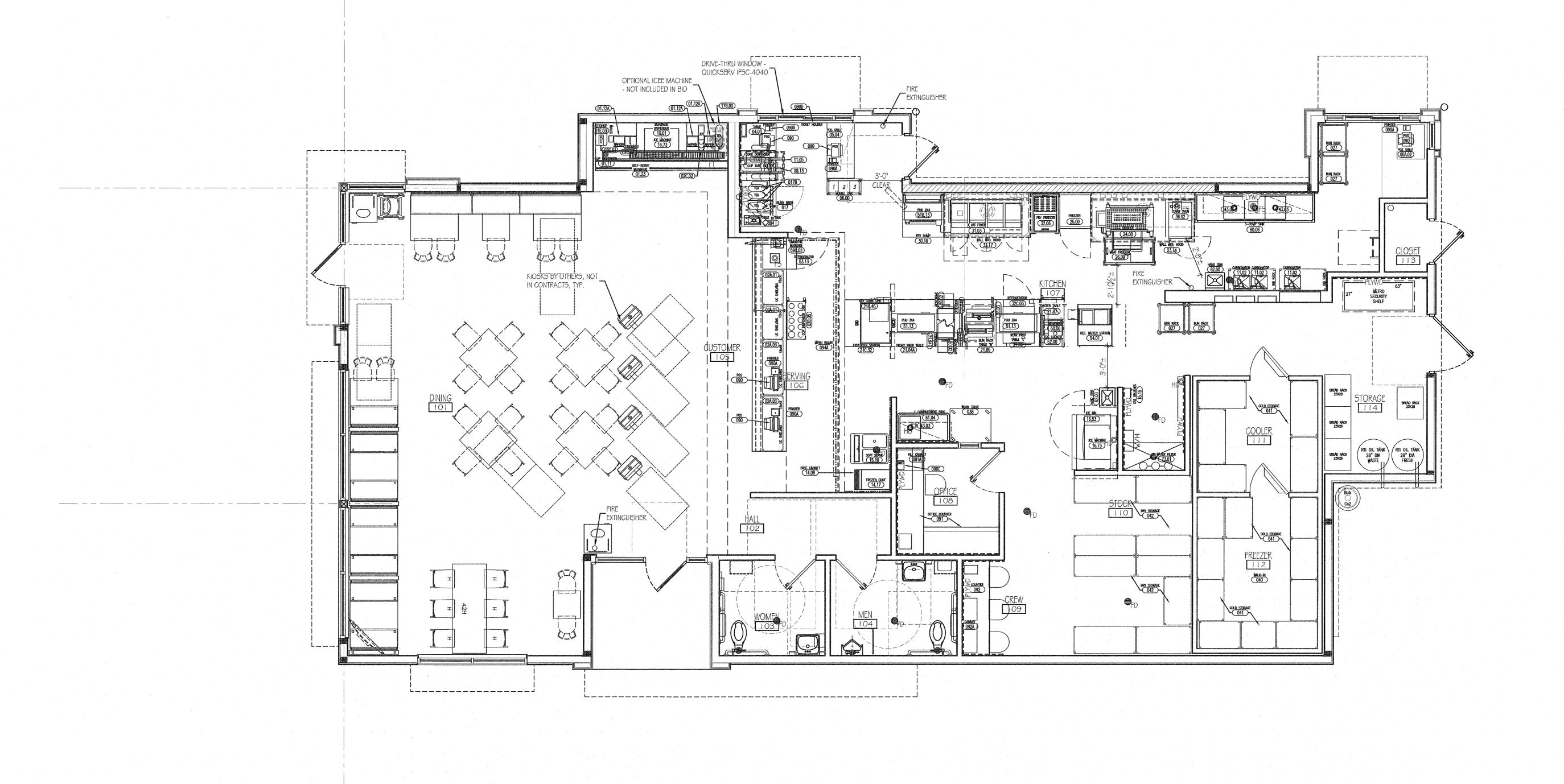
JOB NO: 44387

DRAWN BY: STAFF

SHEET NUMBER:

9.6

SEE FINAL/APPROVED DECOR PLANS BY DECOR VENDOR FOR FINAL FINISHES & DECOR



PLAN NORTH NORTH

ONSULTING

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ONSULTING

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TENTI

Charles
William
Pope

& ASSOCIATES
ARCHITECTURE PLANNING CONSULTING

DATE: 11.18.27

JOB NO: 44387

DRAWN BY: # R JA

SHEET NUMBER:

10.1

		EQUIPMENT SCHEL	DULE	
ITEM#	QTY	DESCRIPTION	MANUFACTURER	MODELNO.
01.11	1	CUP DISPENSER, GOURMET EZ FIT PORTION	SAN JAMAR	SJ-C2010C-BK
01.12A	3	LICORICE XPRESS STAND NAPKIN DISPENSER	TORK	POL-6332000-BK
01.23	1	BK BEVERAGE COUNTER, 9'-8"	H&K	52375-1
01E.03	1	DISPENSER, KETCHUP COUNTERTOP (BK)	SERVER	SER-ECD07500
02A.01	2	TWO TIER UNDER COUNTER SHELVING	INTERMETRO	1830NK3
02A.03	2	TWO TIER UNDER COUNTER SHELVING	INTERMETRO	1848NK3
02B.05	1	BK CUP DISPENSER CART	H&K	52507
02C.01	1	BK STRAW HOLDER	H&K	52201
02C.02	1	BK LID ORGANIZER S-M-L	H&K	52200
02C.03	1	BK UNIVERSAL CONDIMENT DISPENSER	H&K	52014
03.01	1	HAND SINK FOR DR-THRU TABLE	STAINLESS	P-5-113
04.03	1	BK 24 IN POS DT TABLE W/O CASH DRAWER	H&K	52169
04.21	1	BK 40 IN DRIVE THRU TABLE W/ SINK CUT OUT	H&K	52460
05.04	1	WORK STATION, DRIVE THRU 48"	INTERMETRO	BKROC2448DT
05A.02	1	30" X 24" CASHIER CABINET	H&K	52241
06.00	1	CART, BEVERAGE STATION DRIVE THRU 1-2-3	INTERMETRO	INM-BKBC1430
08.13	1	WALL MOUNTED CUP TUBE HOLDER	H&K	52948
10.01	1	12 V SODA SYSTEM W/ICE	LANCER CORP.	LAN-85-4562-H123
11.01	1	SODA SYSTEM, DROP IN 8V W/ICE	LANCER CORP.	85-2378T-124
11.02	3	CARBONATOR	LANCER CORP.	85-1923-00
11.05	1	STAND 25X25 FOR 8-V MACHINE	LANCER CORP.	LAN-840058-BK (LAN-84-1005)
14.08	1	BASE CABINET, 3-BRL	BY OWNER	1 -
14.17	1	FROZEN COKE MACHINE	BY OWNER	-
15.10	1	SHAKE & SOFT SERVE (3PH)	TAYLOR	C632-D
15.15	1	S/S CABINET BRUSHES	H&K	8047
16.18	1	ICE MACHINE CHASE	H&K	BZM342
16.53	1	ICE BIN, 710 LB CAPACITY	MANITOWOC	D-970
16.73	2	ICE MACHINE 1425LB	MANITOWOC	IY-F1400C
17.00	1	COFFEE/TEA BREWER	BUNN	ITCB
17B.00	4	TEA DISPENSER	BUNN	TDO-N-3.5
21.04A	1	FRONT PREP TABLE "A" (60") 8-PAN	H&K	52616-11A
21.85	1	BK MIDDLE PREP TABLE (BUN RACK)	H&K	52332-10
21.87	1	BK MOBILE TOASTER TABLE 20IN	H&K	52290-10
21.89	1	BK REAR PREP TABLE (REFRIG UNDERCOUNTER) 5 PANS	H&K	52419-10
21.94B	2	SHELF EXTENSION FOR 2 AMA-OC24	H&K	54017
21C.32	1	BK EXPEDITER STATION	H&K	52622
21C.45	1	BK BEVERAGE REFRIGERATOR-SLIME LINE	H&K	52614-2

		EQUIPMENT SCHE	DULE	
TEM#	QTY	DESCRIPTION	MANUFACTURER	MODELNO.
23.14	1	7'-7" BROILER/OVEN HOOD ROC STORES	H&K	52415-1
24.00	1	BROILER	DUKE	FBB-NO-120
25.00	1	FREEZER, REACH-IN LH	TRUE	T23F-2-MC
26.09	1	BK MEAT FREEZER 44"	H&K	52472-2
30.16	1	UNIVERSAL FRY DUMP STATION S/SNEXT GENERATION	H&K	52382-6E
31.03	1	4 VAT FRYER	FRYMASTER	4FQG30U
32.06	1	BK FRY FREEZER W/FRY BASKET HOLDER	H&K	52474-2
32C.03	1	UNDERCOUNTER REFRIG	SILVER KING	SK-RS/SUS10
33.17	1	6'-4" FRYER ROC WALL HUNG HOOD	H&K	52440-1
36.02	1	COMBI OVEN STEAMER ELECTRIC	BLODGETT	BLCT-6E
38.08	1	36X30IN MOBILE WORK TABLE	H&K	52209
40.00	1	WALK-IN COOLER/FREEZER	KOLPAK	CUSTOM
41.03	2	24Wx36L WIRE SHELF 4 TIER	INTERMETRO	INM-2436NK3
41.04	2	24Wx42L WIRE SHELF 4 TIER	INTERMETRO	INM-2442NK3
41.05	1	24Wx48L WIRE SHELF 4 TIER	INTERMETRO	INM-2448NK3
41.06	1	24Wx54L WIRE SHELF 4 TIER	INTERMETRO	INM-2454NK3
41.39	1	BOWTIE DUNNAGE RACK 22x30	INTERMETRO	HP2230PDMB
41.40	8	BOWTIE DUNNAGE RACK 22x36	INTERMETRO	HP2236PDMB
42.05	3	24Wx48L WIRE SHELF 4 TIER DRY STORAGE	INTERMETRO	INM-2448NC
42.14	3	24Wx60L WIRE SHELF 4 TIER DRY STORAGE	INTERMETRO	INM-2460NC
42.16	2	18Wx60L WIRE SHELF 4 TIER DRY STORAGE	INTERMETRO	INM-1860NC
42.23	2	18Wx48L WIRE SHELF 4 TIER DRY STORAGE	INTERMETRO	INM-1848NC
43.00	1	SHELVING SMART WALL	INTERMETRO	BKSWP8446
43.03	1	SHELVING SMART WALL	INTERMETRO	BKSWP8446DBL
50.00	1	MICROWAVE OVEN	AMANA	HDC18SD
50.02	2	MICROWAVE OVEN	AMANA	AOC24
51.13	2	PHU - 3X4	DUKE	HS2-342086T2R
51B.13	1	PHU - 2X4	DUKE	HS2-242084T1R
52.00	1	EGG COOKER	ROUND UP	ES-1200
53.13	1	REFRIG. UNDERCOUNTER	TURBO AIR	MUR-28-N
54.01	1	REFRIGERATED CHICKEN BATTER STATION	H&K	52976
55.03	2	VERTICAL CONTACT TOASTER	ANTUNES	BKT-2V
59C.02	1	SMOOTHIE BLENDER	HAMILTON	HBH755
50.06	1	BK 3-COMPARTMENT SINK 105"	H&K	52019-1
51.04	1	BK 1-COMPARTMENT SINK W/LH DRN BOARD, 46"	H&K	52015X
52.00	2	HAND SINK	JOHN BOOS	PBHS-W-KVMB-1
73.01	1	WATER FILTER	SELECTO	SEL-80-6202

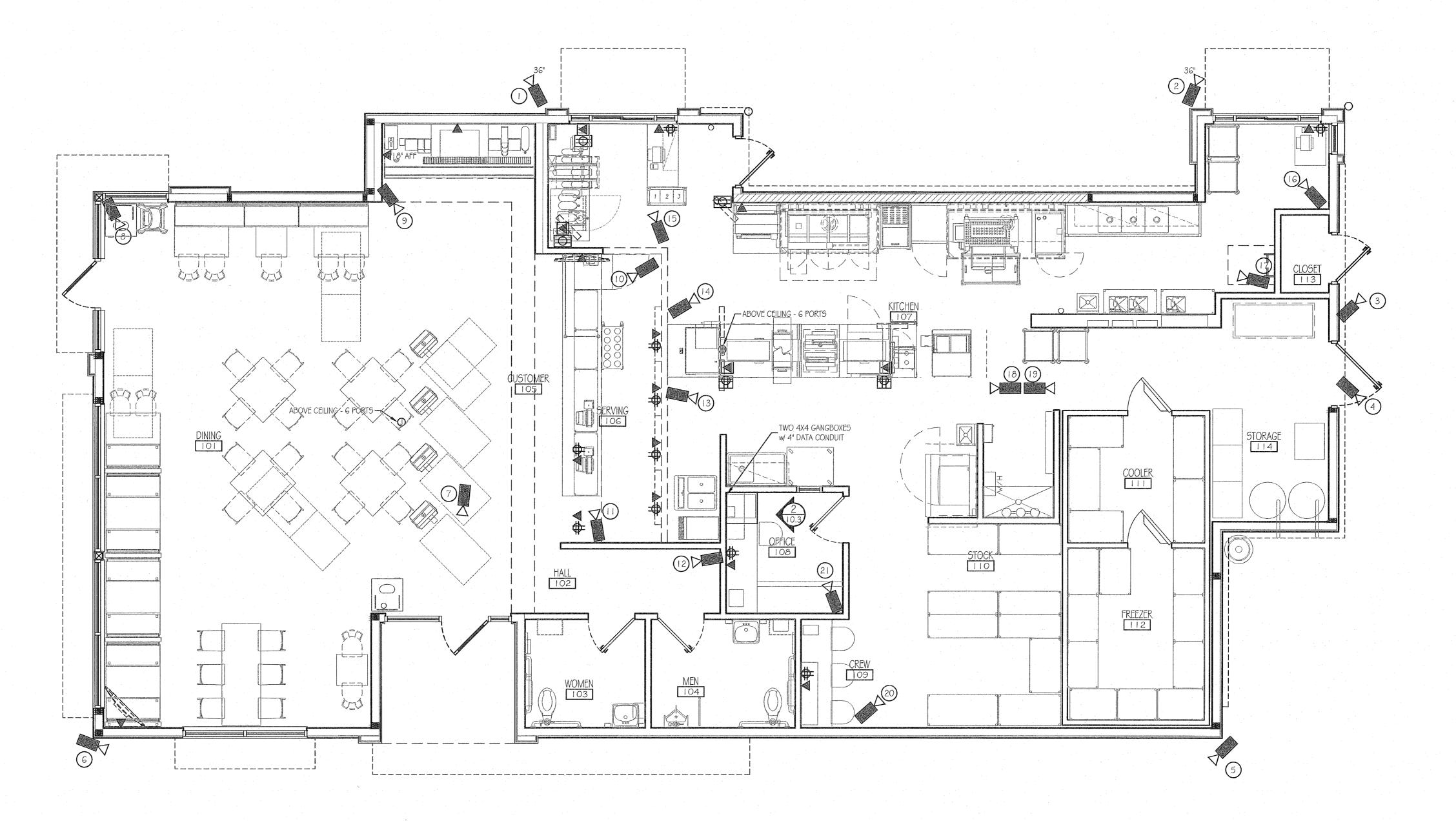
SEE FINAL/APPROVED EQUIPMENT PLANS BY EQUIPMENT VENDOR FOR FINAL EQUIPMENT LAYOUT & SCHEDULE

ITEM#	QTY	DECORIDATION	SUPPLIED	INSTALLED	VOLTS/	PMENT SO	·		040	DTI	
EW #	ļ		BY	BY	PHASE	AWPS	WATER	DRAIN	GAS	BTU	NOTES
001 001A	 	(1) 26" & (1) 44" SELF-SERVE DRINK BAR 5-3/4" × 11-3/4" SERVICE CHASE	K.E.S.	K.E.S.				0'-1"			2ND CHASE REQUIRED FOR SQUARE
002A	 	UNDERCOUNTER SHELVING	K.E.S.	K.E.S.							PROTOTYPE
002B	1	MOBILE CUP DISPENSING CART	K.E.S.	K.E.S.							
002C	1	4 COMPARTMENT, COUNTERTOP CONDIMENT DISPENSER	K.E.S.	K.E.S.							
002D 002E	2	LID DISPENSER WIRE BOTTLE RACK	K.E.S.	K.E.S.	<u> </u>						
002E	1	WIRE RACK CUP-LID HOLDER	K.E.S.	K.E.S.							
003	1	24"x30" TABLE WITH CUP DISPENSER	K.E.S.	K.E.S.							
004	1	43"x30" TABLE WITH HAND SINK	K.E.S.	G.C.			1/2 H&C	1-1/2"			
005	1	METRO 2436 POS TABLE	K.E.S.	K.E.S.							
005A	1	24"x30" P.O.S. TABLE	K.E.S.	K.E.S.							
006	1	METRO 14x30 MOBILE ASSEMBLY CART INTERMETRO BKBC1430	K.E.S.	K.E.S.							
010	1	"FREE STYLE" COKE DISPENSER (SELF-SERVE)	K.E.S.	K.E.S.	115-1	5	1/2 C	3/4 I.D.			WITH CORD AND PLUG
010A	2	WATER BOOSTER	K.E.S.	K.E.S.	115-1	6,2					WITH CORD AND PLUG WITH CORD AND PLUG. WATER THRU
011	0	"FREE STYLE" COKE DISPENSER (CREW) BEVERAGE-AIR UCR-20 UNDER COUNTER	K.E.S.	K.E.S.	115-1	5.3	1/2 C	3/4 I.D.			SODA LINE
013		REFRIGERATOR (OPTIONAL) LANCER 550 FROZEN COKE MACHINE	K.E.S. K.E.S.	K.E.S.	115-1 208/230-1	3.0		· · · · · · · · · · · · · · · · · · ·			WITH CORD AND PLUG
015	 	TAYLOR C632 SHAKE/SOFT SERVE MACHINE	K.E.S.	K.E.S.	208/230-3	-			·		TWO DEDICATED CONNECTIONS.
016	 	ICE STORAGE BIN	K.E.S.	K.E.S.		,		3/4 I.D.			THO BEBIONIED CONNECTIONS.
016A	1	ICE CUBER	K.E.S.	K.E.S.	208/230-3	15	1/2				WITH CORD AND PLUG (REMOTE CONDENSER)
016B	┼──	SERVICE CHASE FOR REFRIG. LINES	K.E.S.	K.E.S.							
017	 	BUNN ITCB COFFEE SERVER	K.E.S.	K.E.S.	200-1	17.5	1/2 F				
017A 017B	 	BUNN TF COFFEE SERVER ICED TEA DISPENSER	K.E.S.	K.E.S.				• • • • • • • • • • • • • • • • • • •			
020		41" EXPEDITOR SANDWICH STATION -S/S	K.E.S.	K.E.S.	120-1	16				<u> </u>	
021	1	51" PREP MODULE	K.E.S.	K.E.S.	120/208-3	150					150 MLO LOAD CENTER BY K.E.S. (HEATED SURFACES BOTH SIDES)
021A	1	MODULE 'A' - PRIMARY SANDWICH STATION	K.E.S.	K.E.S.		· · · · · · · · · · · · · · · · · · ·	·			The factor of th	
021B	1	MODULE 'B' — BUN TOASTING	K.E.S.	K.E.S.							
021C	1	MODULE 'C' - SECONDARY SANDWICH STA.	K.E.S.	K.E.S.							
021D	1	MODULE 'D' — BREAKFAST	K.E.S.	K.E.S.							
_	-	DISPLAY DEVICES: (1) KITCHEN MINDER		-							KITCHEN MINDER TO BE LOCATED ON MAIN PREP BOARD, FACING FRYERS
021E	1	(1) KITCHEN MINDER (1) KITCHEN MINDER GRADE (2) DRIVE—THROUGH TIMERS	K.E.S.	G.C.	115-1	1.5					(ON PHU). KITCHEN MINDER GRADE, DRIVE—THROUGH TIMERS, LEVEL LIGHT JAND CLOCK TO BE CELLING MOUNTED
		(1) STOCK LEVEL LIGHT (1) CLOCK									AND CLOCK TO BE CEILING MOUNTED CENTER DEVICES ON MAIN PREP BOARD, OVER TOASTERS, FACING
		(1) BROILER HOOD (7-7")									SERVICE COUNTER.
023A		(1) EXHAUST FAN (1) ROOF CURB	K.E.S.	G.C.	208-1	- 5					ACCESS "DESIGNWITHBK" FOR ADDITIONAL HOOD OPTIONS
023B	4	FIRE PROTECTION SYSTEM MANUAL PULL STATION	K.E.S.	G.C.							
024	_	BROILER — DUKE MODEL FBB NAT. GAS 50" MEAT FREEZER DEEPWELL CABINET	K.E.S.	K.E.S.	120-1	2			3/4	95,000	NUTLI BULIS (SSEE 1)
025 027	1	SILVER KING SKMWF50/C2 BUN RACK	K.E.S.	K.E.S.	120-1	6.9		PARTIES AND		-	WITH PLUG/CORD (RECEPT. IN HOOD)
027		FRY HOLD STATION 37"W x 36"D (FAFS)	K.E.S. K.E.S.	K.E.S. K.E.S.	120-1	21					WITH CORD AND PLUG
031	 	PITCO 4-BANK FRYER BKSSH554FD	K.E.S.	K.E.S.	115-1	0.7 EA			3/4 EA	80,000 EA	WITH CORD AND PLUG
031B	2	SHORTENING DISPOSAL CADDY SYSTEM	K.E.S.	K.E.S.							
032	1	PRODUCT HOLDING FREEZER	K.E.S.	K.E.S.	115–1	1/3 HP			-		WITH CORD AND PLUG (DUPLEX RECEPTACLE AT 90" A.F.F.)
033A		(1) FRYER HOOD (5'-7") (1) EXHAUST FAN	K.E.S.	G.C.	208-1	5				-	ACCESS "DESIGNWITHBK" FOR
036	1	(1) ROOF CURB MINI-COMBI OVEN STEAMER. MANITOWOC	K.E.S.				3/4" CF	3/4" I.D.			ADDITIONAL HOOD OPTIONS
036A	1	MS6102083LCBK1 OVEN STAND. MANITOWOC CST610MOB	K.E.S.	K.E.S.	208-3	17.9A	3/4 CF	3/4 1.0.		- '	
038	1	42'L×30'D MOBILE WORK TABLE	K.E.S.	K.E.S.	-	·		MANAGEM			
040	1	COOL/FREEZER WALK-IN BOX	K.E.S.	G.C.	208/230-1 208-3	18		3" H.D.		-	COOLER FREEZER
040A	1	REACH-IN FREEZER	K.E.S.	K.E.S.	115-1 12/31/196	10 15.3			-		LIGHTS WITH PLUG/CORD (RECEPT. IN HOOD)
041	LOT	SHELVING — COLD STORAGE	K.E.S.	K.E.S.	9						
042		SHELVING - DRY STORAGE	K.E.S.		t i i i	1					
043	LOT	SHELVING - 'SMARTWALL'		K.E.S.					-		
044	LOT		K.E.S.	G.C.							
044 049	-	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe	K.E.S. K.E.S.		208-1	14					WITH CORD AND PLUG
	1	SHELVING - WALL MOUNTED	K.E.S.	G.C.	208-1	14 20					WITH CORD AND PLUG ON OVERSHELF
049 050 051	1 2 2	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE	K.E.S. K.E.S. K.E.S.	G.C. G.C. K.E.S.		20 14.3					
049 050 051 051A	1 2 2 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE	K.E.S. K.E.S. K.E.S. K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S.	208-1 208-1 208-1	20 14.3 9.5					ON OVERSHELF WITH CORD AND PLUG
049 050 051 051A 052	1 2 2 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER	K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	208-1 208-1 208-1 208-1	20 14.3 9.5 11.4				· · · · · · · · · · · · · · · · · · ·	ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG
049 050 051 051A	1 2 2 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200	K.E.S. K.E.S. K.E.S. K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S.	208-1 208-1 208-1	20 14.3 9.5					ON OVERSHELF WITH CORD AND PLUG
049 050 051 051A 052 053	1 2 2 1 1 1 2	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKTTR-7FBK	K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	208-1 208-1 208-1 208-1 115-1	20 14.3 9.5 11.4 4.5	1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER
049 050 051 051A 052 053 055 060 060A	1 2 2 1 1 2 1 0	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKTTR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL)	K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	208-1 208-1 208-1 208-1 115-1	20 14.3 9.5 11.4 4.5	1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG
049 050 051 051A 052 053 055	1 2 2 1 1 2 1 0	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK	K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	208-1 208-1 208-1 208-1 115-1	20 14.3 9.5 11.4 4.5					ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S.
049 050 051 051A 052 053 055 060 060A	1 2 2 1 1 1 2 1 0	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKTTR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH	K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S.	208-1 208-1 208-1 208-1 115-1	20 14.3 9.5 11.4 4.5	1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS.
049 050 051 051A 052 053 055 060 060A 061	1 2 2 1 1 1 2 1 0 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER	K.E.S.	G.C. G.C. K.E.S.	208-1 208-1 208-1 208-1 115-1	20 14.3 9.5 11.4 4.5	1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S.
049 050 051 051A 052 053 055 060 060A 061 062 064	1 2 2 1 1 2 1 0 1 1 1 1 1 1 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKTTR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO 56750-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER	K.E.S.	G.C. G.C. K.E.S.	208-1 208-1 208-1 208-1 115-1 208-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1)
049 050 051 051A 052 053 055 060 060A 061 062 064 064A 070	1 2 2 1 1 1 2 1 0 1 1 1 1 1 1 1 1 1 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER	K.E.S.	G.C. G.C. K.E.S.	208-1 208-1 208-1 208-1 115-1	20 14.3 9.5 11.4 4.5	1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS.
049 050 051 051A 052 053 055 060 060A 061 062 064 064A 070 072	1 2 2 1 1 1 2 1 1 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH	K.E.S.	G.C. G.C. K.E.S.	208-1 208-1 208-1 208-1 115-1 208-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1)
049 050 051 051A 052 053 055 060 060A 061 062 064 064A 070 072 073	1 2 2 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK	K.E.S.	G.C. G.C. K.E.S.	208-1 208-1 208-1 208-1 115-1 208-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1)
049 050 051 051A 052 053 055 060 060A 061 062 064 070 072 073 074 079	1 2 2 1 1 0 1 1 1 2 1 1 1 1 1 1 1 1 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH SCALE INHIBITOR SR-X BULK CO2 SYSTEM 40B-C FIRE EXTINGUISHER	K.E.S.	G.C. G.C. K.E.S. G.C. K.E.S. K.E.S. K.E.S. G.C. K.E.S. K.E.S. K.E.S. G.C. K.E.S. K.E.S.	208-1 208-1 208-1 208-1 115-1 208-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1) WITH CORD AND PLUG WITH H/D VEHICLE BRACKET
049 050 051 051A 052 053 055 060 060A 061 062 064 070 072 073 074 079 080	1 2 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH SCALE INHIBITOR SR-X BULK CO2 SYSTEM 40B-C FIRE EXTINGUISHER	K.E.S.	G.C. G.C. K.E.S. G.C. K.E.S. K.E.S. K.E.S. G.C. K.E.S. G.C. K.E.S. G.C. G.C. C.C. C.C. C.C. C.C. C.C. C	208-1 208-1 208-1 208-1 115-1 208-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1) WITH CORD AND PLUG WITH H/D VEHICLE BRACKET
049 050 051 051A 052 053 055 060 060A 061	1 2 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKTTR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH SCALE INHIBITOR SR-X BULK CO2 SYSTEM 40B-C FIRE EXTINGUISHER K EXTINGUISHER (PLACARD PER NFPA 10)	K.E.S.	G.C. G.C. K.E.S. G.C. K.E.S. K.E.S. K.E.S. G.C. G.C. C. G.C. G.C.	208-1 208-1 208-1 115-1 208-1 115-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1) WITH CORD AND PLUG WITH H/D VEHICLE BRACKET
049 050 051 051A 052 053 055 060 060A 061 062 064 064A 070 072 073 074 079 080 081	1 2 2 1 1 1 2 1 1 1 1 1 1 5 5	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH SCALE INHIBITOR SR-X BULK CO2 SYSTEM 40B-C FIRE EXTINGUISHER	K.E.S.	G.C. G.C. K.E.S. G.C. K.E.S. K.E.S. K.E.S. G.C. K.E.S. G.C. K.E.S. G.C. G.C. C.C. C.C. C.C. C.C. C.C. C	208-1 208-1 208-1 208-1 115-1 208-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1) WITH CORD AND PLUG WITH H/D VEHICLE BRACKET
049 050 051 051A 052 053 055 060 060A 061 062 064 064A 070 072 073 074 079 080 081 090	1 2 2 1 1 1 2 1 1 1 1 1 5 7 5	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKTTR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH SCALE INHIBITOR SR-X BULK CO2 SYSTEM 40B-C FIRE EXTINGUISHER K EXTINGUISHER (PLACARD PER NFPA 10) P.O.S. DEVICE P.O.S. PRINTER CASH DRAWER (NOT SHOWN)	K.E.S.	G.C. G.C. K.E.S. G.C. K.E.S.	208-1 208-1 208-1 115-1 208-1 115-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1) WITH CORD AND PLUG WITH H/D VEHICLE BRACKET
049 050 051 051A 052 053 055 060 060A 061 062 064 070 072 073 074 079 080 081 090 090A 090B	1 2 2 1 1 1 2 1 1 1 1 5 7 5 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKTIR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH SCALE INHIBITOR SR-X BULK CO2 SYSTEM 40B-C FIRE EXTINGUISHER K EXTINGUISHER (PLACARD PER NFPA 10) P.O.S. DEVICE P.O.S. PRINTER CASH DRAWER (NOT SHOWN) SPEED OF SERVICE TIMER	K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. G.C. K.E.S.	208-1 208-1 208-1 115-1 208-1 115-1	20 14.3 9.5 11.4 4.5 30	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1) WITH CORD AND PLUG WITH H/D VEHICLE BRACKET
049 050 051 051A 052 053 055 060 060A 061 062 064 070 072 073 074 079 080 081 090 090A 090B 090C 090D	1 2 2 1 1 1 2 1 1 1 1 1 5 7 5 1 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKITR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO 155650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH SCALE INHIBITOR SR-X BULK CO2 SYSTEM 40B-C FIRE EXTINGUISHER K EXTINGUISHER (PLACARD PER NFPA 10) P.O.S. DEVICE P.O.S. PRINTER CASH DRAWER (NOT SHOWN) SPEED OF SERVICE TIMER TICKET HOLDER (NOT SHOWN)	K.E.S.	G.C. G.C. K.E.S. G.C. K.E.S.	208-1 208-1 208-1 115-1 208-1 115-1 115-1 115-1	20 14.3 9.5 11.4 4.5 30 1	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1) WITH CORD AND PLUG WITH H/D VEHICLE BRACKET
049 050 051 051A 052 053 055 060 060A 061 062 064 064A 070 072 073 074 079 080 081 090 090A 090B 090C 090D 091	1 2 2 1 1 1 2 1 1 1 1 1 5 7 5 1 1 1 1 1 1 1 1 1 1 1 1	SHELVING - WALL MOUNTED CONVEYOR TOASTER - STAR QCSe MICROWAVE OVEN PRODUCT HOLDING UNIT-DUKE PRODUCT HOLDING UNIT-DUKE EGG STATION - ROUNDUP ES-1200 UNDER COUNTER REFRIGERATOR - SILVER KING SKTIR-7FBK RAPID VERT. TOASTER PRINCE CASTLE DCFT THREE COMPARTMENT SINK POWER SOAK SINK (OPTIONAL) ONE COMPARTMENT SINK W/SGL 24" LH DRAIN BOARD HAND SINK NEMCO N55650-2 LETTUCEKUTTER NEMCO 56750-1 ONION/TOMATO SLICER SAFE - INTELLIGENT SAFE 20x20x30 BAG-IN-BOX SYRUP RACK WATER FILTER - EVERPURE CB2-312 WITH SCALE INHIBITOR SR-X BULK CO2 SYSTEM 40B-C FIRE EXTINGUISHER K EXTINGUISHER (PLACARD PER NFPA 10) P.O.S. DEVICE P.O.S. PRINTER CASH DRAWER (NOT SHOWN) SPEED OF SERVICE TIMER	K.E.S.	G.C. G.C. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. K.E.S. G.C. K.E.S.	208-1 208-1 208-1 115-1 208-1 115-1 115-1 115-1	20 14.3 9.5 11.4 4.5 30 1	1/2 H&C 1/2 H&C 1/2 H&C	2" I.D.			ON OVERSHELF WITH CORD AND PLUG 2 EACH, HOT AND COLD WATER VERIFY POWER REQUIREMENTS WITH K.E.S. G.C. TO PROVIDE SOAP, HAND SANITIZER AND TOWEL DISPENSERS. (REFERENCE SHEET A—3.1) WITH CORD AND PLUG WITH H/D VEHICLE BRACKET
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NOTES

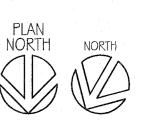
ALL DATA - 4 ea CAT6 ALL CAMERAS - 2 ea CAT6 (GREEN) ALL MONITORS - 2 ea CAT6 (BLUE)

- G.C TO PROVIDE LOW VOLT WIRE
- GC TO PULL ALL LOW VOLT WIRE
- G.C. TO MAKE TERMINATIONS WITH OWNER PROVIDED CONNECTIONS



LOW VOLTAGE PLAN

5CALE: 1/4" = 1'-0"

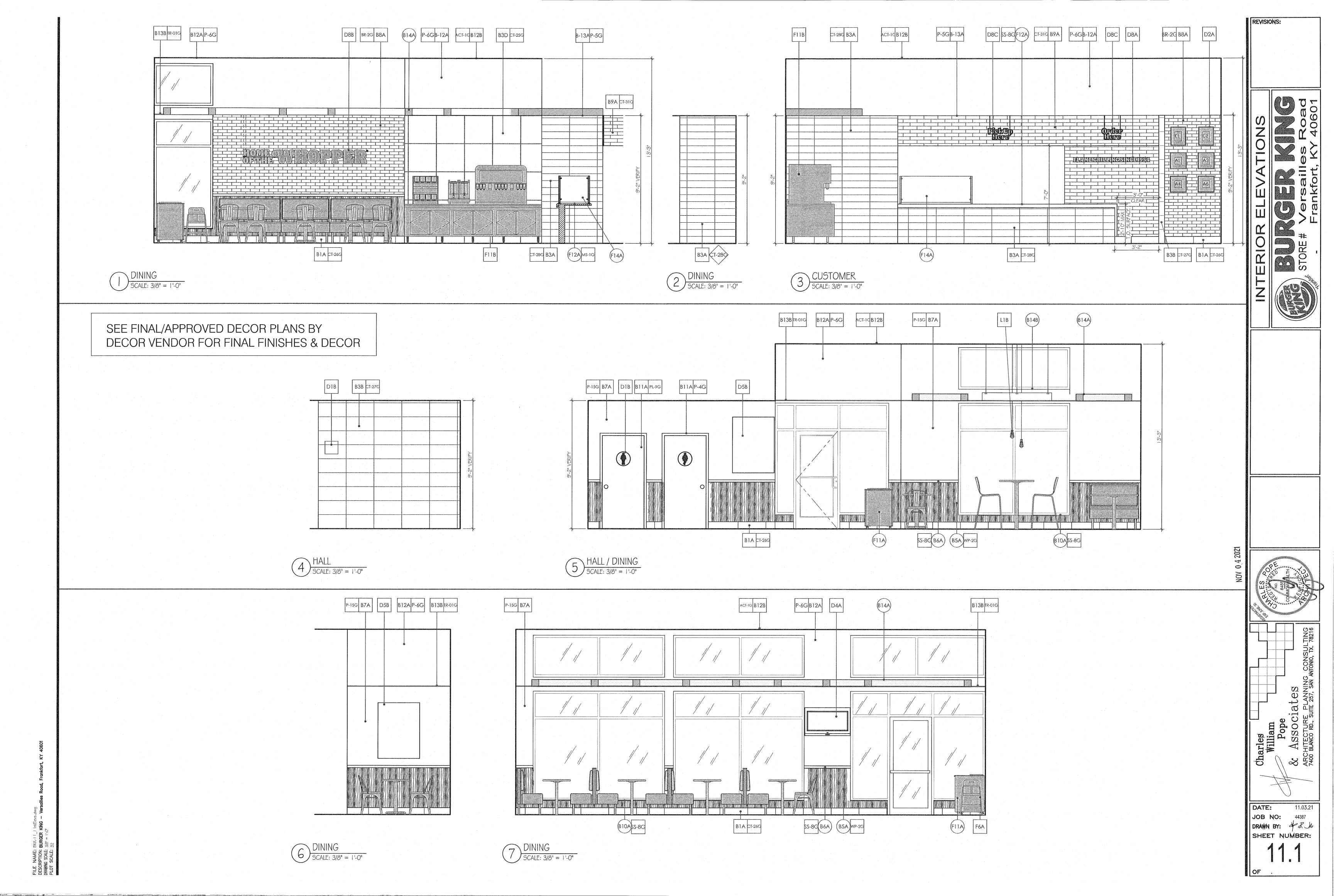


Charles
William
Pope

& ASSOCIATES

ARCHITECTURE PLANNING CONSULTING

REVISIONS:



Fire Extenguisher

DATE: JOB NO: DRAWN BY: # 2 16

REVISIONS:

SHEET NUMBER: