

PROJECT:

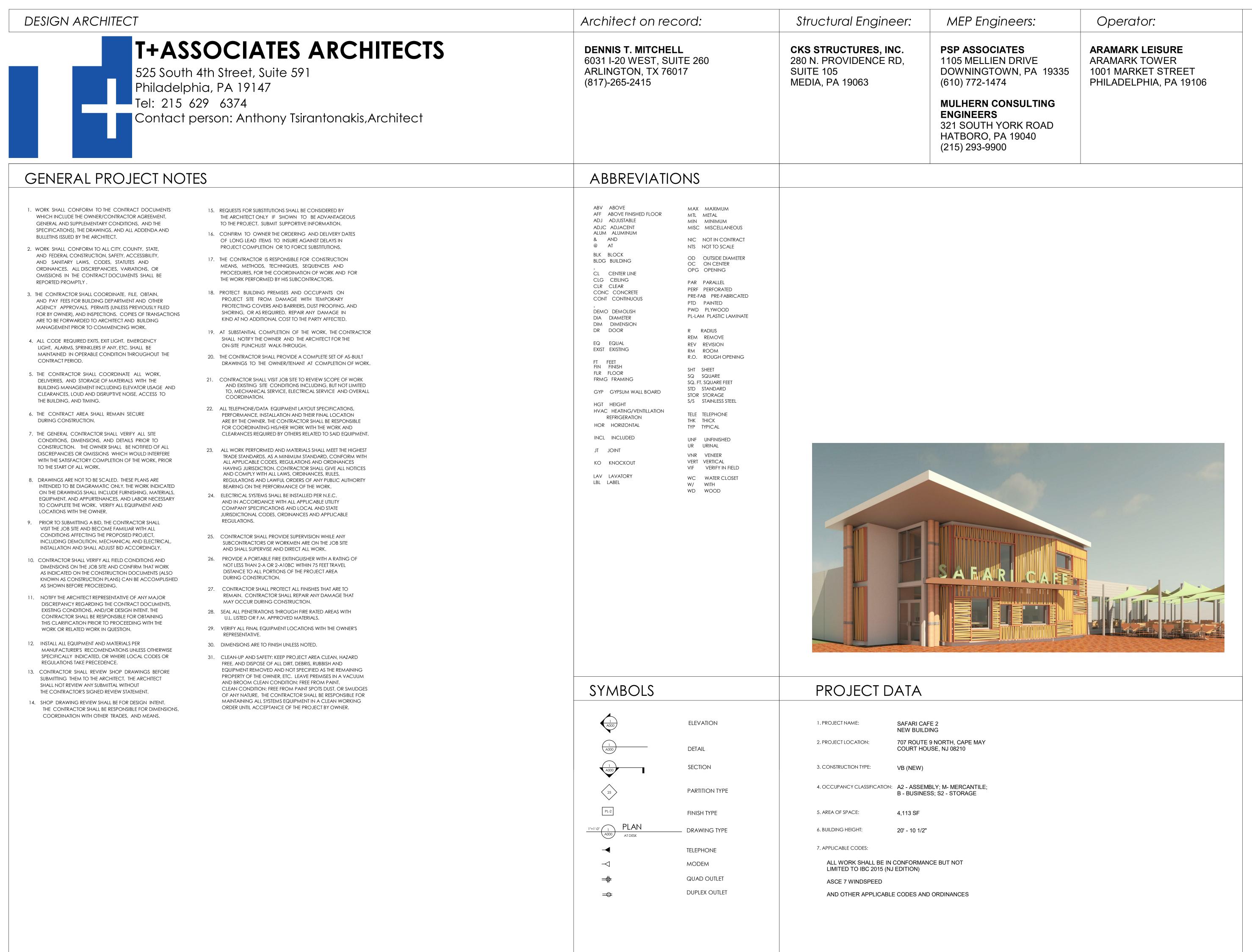
CAPE MAY COUNTY ZOO SAFARI CAFE 2 NEW RETAIL FOOD BUILDING

707 ROUTE 9 NORTH, CAPE MAY COURT HOUSE, NJ 08210

ISSUED FOR BID

2-12-2020

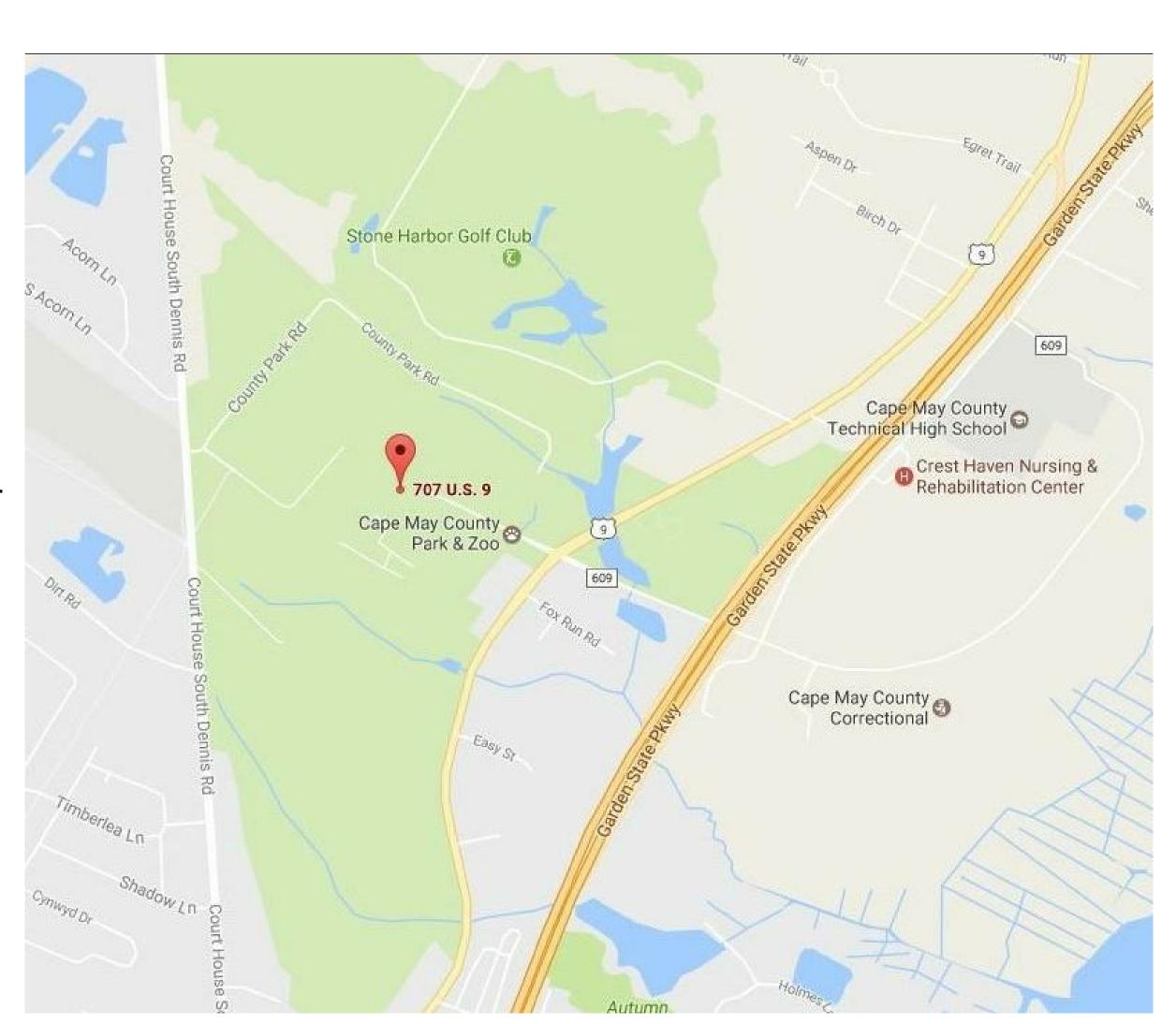
PROJECT NO. 1610-021



SHEET	DRAWING LIST	
NUMBER	SHEET NAME	ADDENDUN
CS	COVER SHEET	
C100	SITE PLAN	
A000	BUILDING CODE ANALYSIS EGRESS PLAN, & ADA BATHROOMS	
A001	DOOR AND WINDOW SCHEDULES AND DETAILS	
A100	DETAIL SITE PLAN	
A100.1	SHADE SAIL DETAILS	
A101	ARCHITECTURAL FLOOR PLAN	
A101.1	ARCHITECTURAL FLOOR PLAN - UPPER WINDOWS	
A102	ROOF PLAN	
A103	REFLECTED CEILING PLAN - CEILING DIMENSIONS	
A104	REFLECTED CEILING PLAN - LIGHT FIXTURE DIMENSIONS	
A105	EQUIPMENT PLAN	
A105.1	EQUIPMENT LIST (BY LOCATION ON PLAN)	
A106	MILLWORK, FURNITURE AND TECHNICAL PLAN	
A107	FINISH PLAN	
A200	EXTERIOR ELEVATIONS	
A201	EXTERIOR ELEVATIONS	
A202	BUILDING SECTIONS	
A203	WALL SECTIONS	
A205	INTERIOR ELEVATIONS	
A206	INTERIOR ELEVATIONS - FOOD COURT	
A207	INTERIOR ELEVATIONS	
A301	MILLWORK DETAILS	
A301.1	MILLWORK DETAILS	
A302	BAMBOO PANEL DETAILS	
A303	BAMBOO SLAT SUSPENDED CANOPY DETAILS	
A304	SIGNAGE DETAILS	
S100	GENERAL NOTES	
S101	FOUNDATION PLAN	
S102	ROOF FRAMING PLAN	
S301	FOUNDATION DETAILS	
S302	FRAMING DETAILS	
M-1	MECHANICAL PLAN	
M-2	MECHANICAL ROOF PLAN	
M-3	MECHANICAL DATA SCHEDULES	
M-4	MECHANICAL DETAILS	
M-5	MECHANICAL SPECIFICATIONS	
M-6	MECHANICAL KITCHEN HOOD SHEET 1 OF 6	
M-7	MECHANICAL KITCHEN HOOD SHEET 2 OF 6	
M-8	MECHANICAL KITCHEN HOOD SHEET 3 OF 6	
M-9	MECHANICAL KITCHEN HOOD SHEET 4 OF 6	
M-10	MECHANICAL KITCHEN HOOD SHEET 5 OF 6	
M-11	MECHANICAL KITCHEN HOOD SHEET 6 OF 6	
E1	LIGHTING PLAN	
E2	POWER PLAN	
E3	ELECTRICAL ROOF PLAN	
E4	ELECTRICAL NOTES AND DETAILS	
E5	ELECTRICAL DETAILS	
P-1	SANITARY AND VENT PLAN	
P-2	DOMESTIC WATER PLAN	
P-3	PLUMBING RISER DIAGRAMS	
P-4	SCHEDULE, NOTES AND SPECIFICATIONS	



KEY MAP - NOT TO SCALE



LOCATION MAP - NOT TO SCALE

ISSUED FOR BID 2-12-2020

ALL RIGHTS RESERVED. NO PART OF

THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR WORK, OTHER THAN THE SPECIFIC PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS** 321 SOUTH YORK ROAD

HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. MEDIA, PA 19063

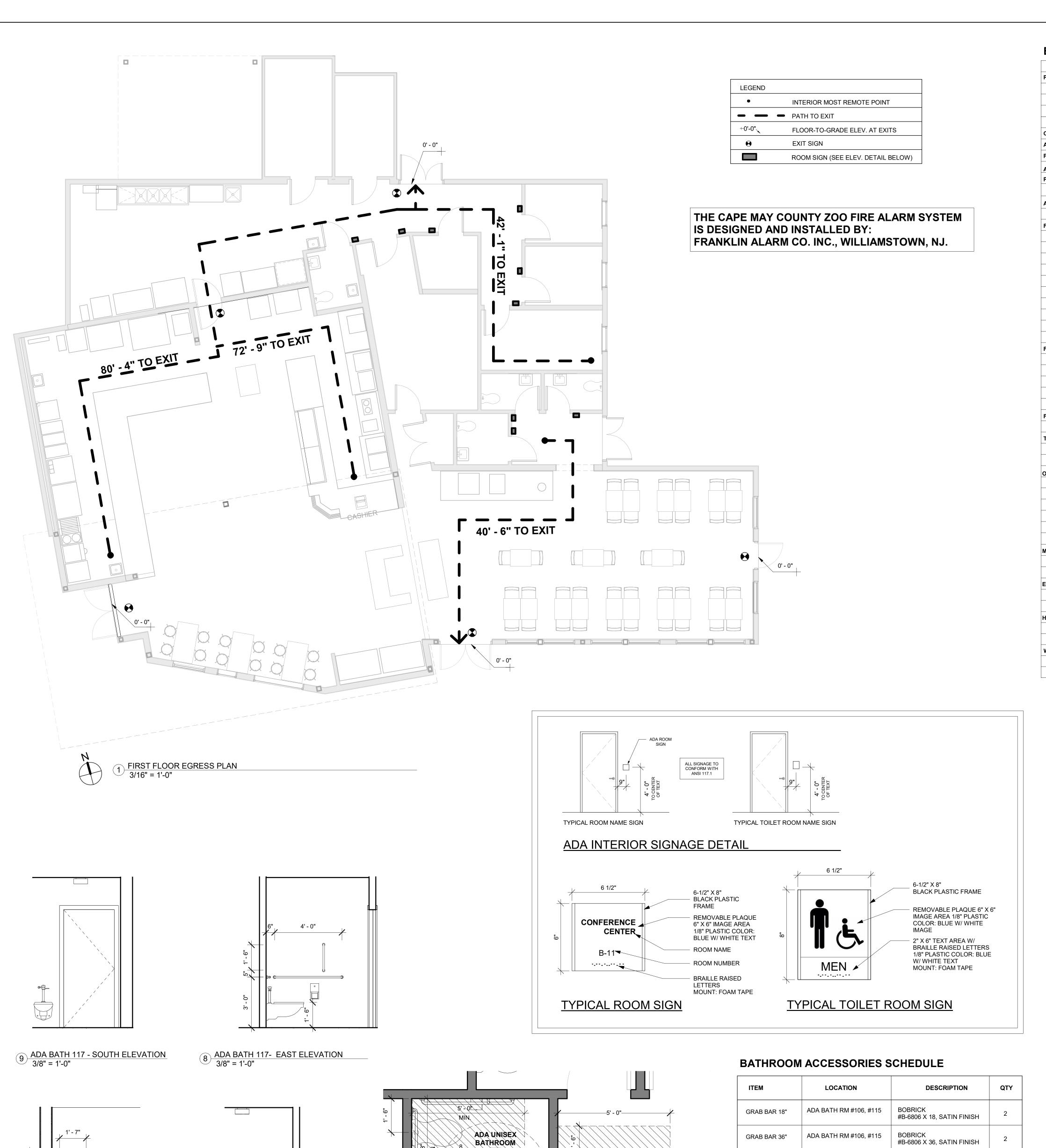
280 N. PROVIDENCE RD, SUITE 105

S 00 200

9 NORTH HOUSE, I

OUN ETAI

SITE



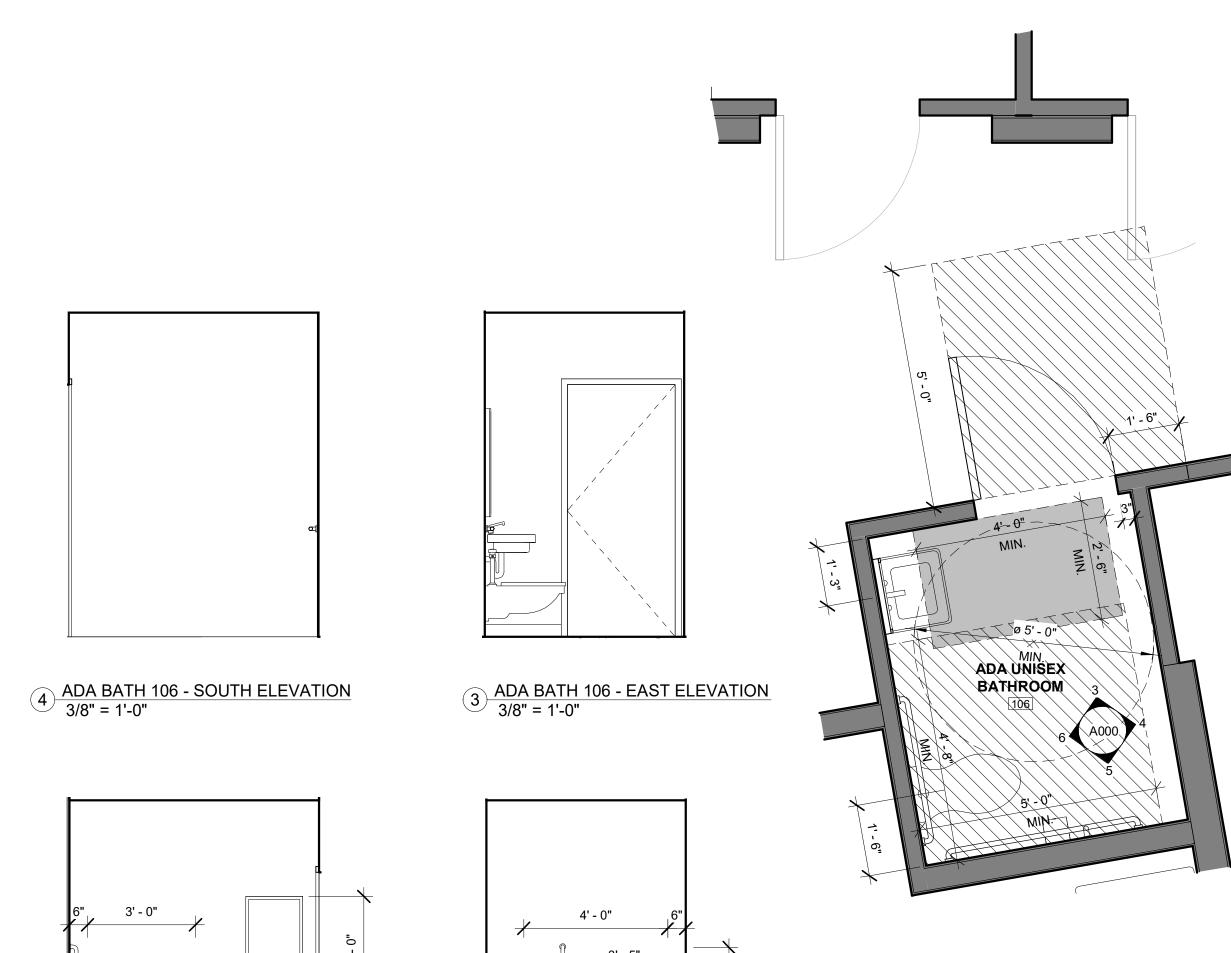
2020 Specification 9 Safari Cafe Page 517 of 566

ITEM	LOCATION	DESCRIPTION	QTY
GRAB BAR 18"	ADA BATH RM #106, #115	BOBRICK #B-6806 X 18, SATIN FINISH	2
GRAB BAR 36"	ADA BATH RM #106, #115	BOBRICK #B-6806 X 36, SATIN FINISH	2
GRAB BAR 48"	ADA BATH RM #106, #115	BOBRICK #B-6806 X 48, SATIN FINISH	2
T.P. DISPENSER	ADA BATH RM #106 & #115, WOMENS & MENS BATH RM #114 & #113	BOBRICK #B-2888	4
MIRROR	ADA BATH RM #106 & #115, WOMENS & MENS BATH RM #114 & #113	BOBRICK #B-165 1836	4
CHANGING STATION	ADA BATH RM #106 & #115, WOMENS & MENS BATH RM #114 & #113	KOALA KARE PRODUCTS #KB200-05 WHITE GRANITE	4

BATH HALL

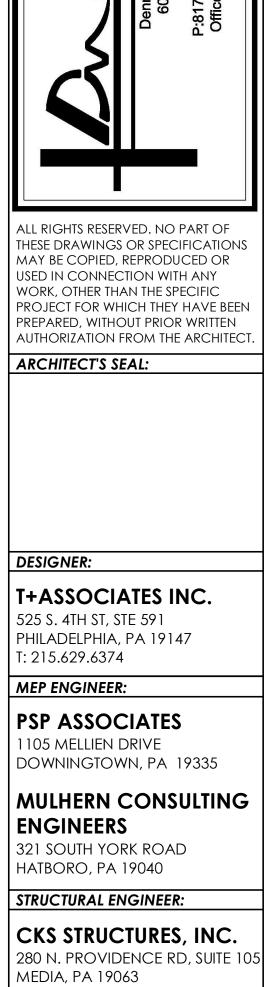
BILLI DING CODE ANALVEIS

CONDITIONS:	NOTES:	DATA:	REFERENCE:
PROPOSED USE GROUP:		ASSEMBLY GROUP A2	IBC2015 NJ EDITION SECTION 303.3
		BUSINESS GROUP B	IBC2015 NJ EDITION SECTION 304.1
		MERCANTILE GROUP M	IBC2015 NJ EDITION SECTION 309
		STORAGE GROUP S-2	IBC2015 NJ EDITION SECTION 311.3
CONSTRUCTION TYPE:		V B	IBC2015 NJ EDITIONSECTION 602.5; TABLE 601
ALLOWABLE HEIGHT:		60'-0"	IBC2015 NJ EDITION TABLE 504.3
PROPOSED HEIGHT:		20'-0"	
ALLOWABLE NUMBER OF STORIES/AREA:		2 STORIES/ 24,000 SF	IBC2015 NJ EDITION TABLES 504.4/506.2
PROPOSED NUMBER OF STORIES/AREA:		1 STORY/ 4,365 SF	
AUTOMATIC SPRINKLER SYSTEM:		NOT REQUIRED FOR OCCUPANT LOAD < 100	IBC2015 NJ EDITION, SECTION 903.2.1.2
FIRE-RESISTANCE RATINGS:		V B	IBC2015 NJ EDITION TABLE 601
PRIMARY STRUCTURAL FRAME:		0HR	
BEARING WALLS:			
EXTERIOR:		0HR	
INTERIOR:		0HR	
NONBEARING WALLS & PARTITIONS:			
EXTERIOR:		0HR	
INTERIOR:		0HR	
FLOOR CONSTRUCTION AND SECONDARY MEMBERS:		0HR	
ROOF CONSTRUCTION AND SECONDARY MEMBERS:		0HR	
FIRE SEPARATION DISTANCE:			IBC2015 NJ EDITION TABLE 602
	X < 5	1HR	
	5 <u><</u> X < 10	1HR	
	10 ≤ X < 30 X ≥ 30	0HR 0HR	
FIRE SEPARATION DISTANCE PROPOSED:	X = 20	0HR	
TABULAR AREA PER FLOOR:			
1ST FLOOR:		3,773 SF	
OCCUPANT LOADS PER FLOOR:			IBC2015 NJ EDITION TABLE 1004.1.2
ASSEMBLY A-2 (2,820 SF)	15 NET	52 (OCCUPANCY LIMIT BY # OF SEATING)	
BUSINESS B (339 SF)	100 GROSS	4	
MERCANTILE M (KITCHENS (COMMERCIAL)) (552 SF)	200 GROSS	3	
STORAGE S-2 (301 SF)	300 GROSS	1	
TOTAL LOAD:		99	
MEANS OF EGRESS:			
TRAVEL DISTANCE:		200'	IBC2015 NJ EDITION TABLE 1017.2
EGRESS WIDTH PER OCCUPANT SERVED:			
OTHER COMPONENTS (CORRIDORS)		44"	IBC2015 NJ EDITION SECTION 1005
HURRICANE PRONE REGION			
GREATER THAN 115 mph WINDSPEED		WINDSPEED BY LOCATION: 123 mph	IBC2015 NJ EDITION CHAPTER 2 - (BS) HURRICANE PRONE REGION
RISK CATEGORY II - NON ESSENTIAL BUILDING			IBC2015 NJ EDITION TABLE 1604.5 / APPLIED TECHNOLOGY COUNCIL AS
WIND-BORNE DEBRIS REGION = NO (IMPACT RESISTANT GLAZIN	G NOT REQ'D)		
GREATER THAN 130 mph WINDSPEED		WINDSPEED BY LOCATION: 123 mph	IBC2015 NJ EDITION SECTION 1609
WITHIN 1 MILE OF COASTAL LINE	1	DISTANCE FROM SITE TO COAST: 4 mile	



2 ADA BATH 106 - DETAIL PLAN 1/2" = 1'-0"

ISSUED FOR BID

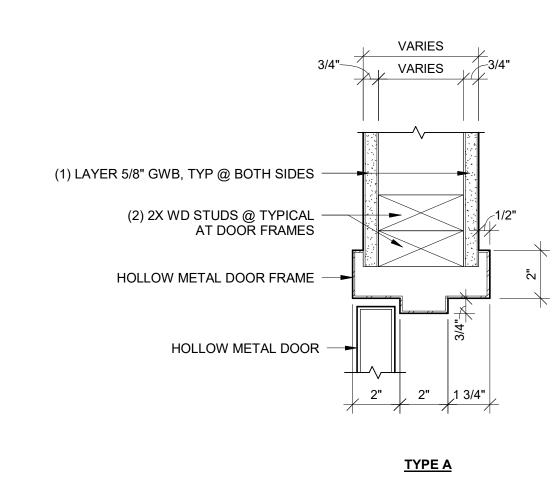


SAF/ BUIL

BUILDING CODE ANALYSI EGRESS PLAN, & ADA BAT 2-12-2020 10 ADA BATH 117 - WEST ELEVATION 3/8" = 1'-0" 5 ADA BATH 106 - WEST ELEVATION 3/8" = 1'-0" 11 ADA BATH 117 - NORTH ELEVATION 3/8" = 1'-0" 7 ADA BATH 117 - DETAIL PLAN 1/2" = 1'-0" 6 ADA BATH 106 - NORTH ELEVATION 3/8" = 1'-0"

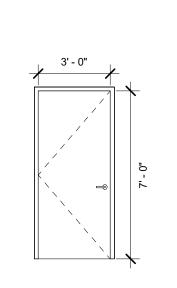
								DOOR S	CHEDULE					
				DOORS			FI	RAMES		ACCESSORIES / H	HARDWARE			
DOOR											EGRESS			
NO.	TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	TYPE	FINISH	KICKPLATE	DOOR CLOSURE	HARDWARE	LOCKSET	BATHROOM	COMMENTS
		I					T		I					
			0' - 0"											
100	В	6' - 0"	7' - 0"	0' - 1 3/4"	ALUM/GL	BRONZE ANO	2	BRONZE	Yes	Yes	Yes	Yes		EGRESS PADDLE
102	В	6' - 0"	7' - 0"	0' - 1 3/4"	ALUM/GL	BRONZE ANO	2	BRONZE	Yes	Yes	Yes	Yes		EGRESS PADDLE
103	D	3' - 0"	7' - 0"	0' - 1 3/4"	ALUM/GL	BRONZE ANO	3	BRONZE	Yes	Yes	Yes	Yes		EGRESS PADDLE
104	С	5' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD	Yes	Yes				
105	С	5' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD	Yes	Yes	Yes	Yes		EGRESS BAR
108	F	3' - 0"	7' - 0"	0' - 1"	P-LAM	P-LAM	N/A	N/A	Yes	Yes				
109	A1	5' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD						
110	Α	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD		Yes				
112	Α	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD		Yes		Yes		
113	Α	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD		Yes		Yes		
114	Α	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD		Yes		Yes		
115	Α	2'-10"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD		Yes		Yes		
116	Α	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD		Yes		Yes	Yes	
117	Α	2'-10"	7' - 0"	0' - 1 3/4"	НМ	PTD	1	PTD		Yes		Yes		
118	Α	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD		Yes				
119	Α	3' - 0"	7' - 0"	0' - 1 3/4"	НМ	PTD	1	PTD		Yes		_	Yes	
120	Α	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	1	PTD		Yes				

DOOR FRAME DETAIL



DOOR TYPES

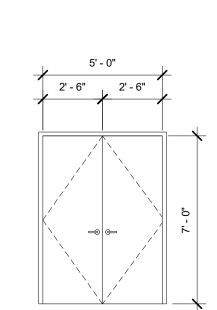
DOOR PRICING NOTE: BIDDERS ARE ALLOWED TO SUBMIT ALTERNATE MANUFACTURERS WITH EQUAL SPECIFICATION



TYPE A **HOLLOW METAL** NON- RATED INTERIOR DOOR

FRAME TYPE 1 **HOLLOW METAL** NON-RATED

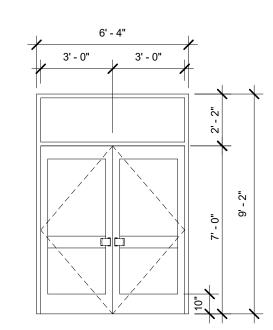
HARDWARE SET CLOSER: LCN 4041 SRI SILENCER: WES SR 604 HINGES: HEAVY DUTY HAGER 1168 26D FINISH LOCKSET: SCHLAGE CLASSROOM EXIT PANIC BAR: WALL BUMPER: WES WS402 CCV



TYPE A1 **HOLLOW METAL** NON- RATED INTERIOR DOOR

FRAME TYPE 1 **HOLLOW METAL** NON-RATED

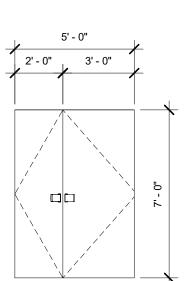
HARDWARE SET **HARDWARE SET** CLOSER: LCN 4041 SRI SILENCER: WES SR 604 HINGES: HEAVY DUTY HAGER 1168 26D FINISH LOCKSET: SCHLAGE CLASSROOM EXIT PANIC BAR: WALL BUMPER: WES WS402 CCV



TYPE B **ALUM & GLASS** MANUF.: SPECIAL LITE MODEL: SL-14 MEDIUM STILE 10" ADA BOTTOM RAIL FRAME TYPE 2 ALUM

MANUF. SPECIAL LITE MODEL: SL-14 STANDARD COMMERCIAL FRAME BRONZE ALUM. FINISH

CLOSER: LCN 4041 SR1 W/ HOLD OPEN ARM SILENCER: WES SR 604 FLUSHBOLTS: WES 458B 26D HINGES: SPECIAL LITE SL-120 LOCKSET: ADAMSRITE 4920AN-45-602-628 EXIT PADDLE: ADAMS RITE DEADLATCH PADDLE 4590-02-00-628 WALL BUMPER: WES WS402 CCV HANDLE: SPECIAL LITE SL100 BOTH SIDES

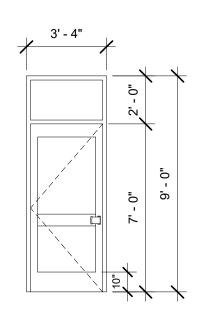


TYPE C **HOLLOW METAL** INSULATED

> FRAME TYPE 1 **HOLLOW METAL** PAINTED FINISH

EXTERIOR DOOR

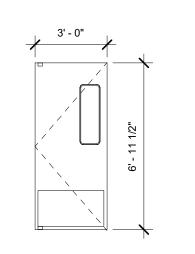
HARDWARE SET CLOSER: LCN 4041 SR1 W/ HOLD OPEN ARM SILENCER: WES SR 604 FLUSHBOLTS: WES 458B 26D HINGES: SPECIAL LITE SL-120 LOCKSET: ADAMSRITE 4920AN-45-602-628 EXIT PADDLE: ADAMS RITE DEADLATCH PADDLE 4590-02-00-628 WALL BUMPER: WES WS402 CCV HANDLE: SPECIAL LITE SL100 BOTH SIDES



TYPE D **ALUM & GLASS** MANUF.: SPECIAL LITE MODEL: SL-14 MEDIUM STILE 10" ADA BOTTOM RAIL FRAME TYPE 3 ALUM

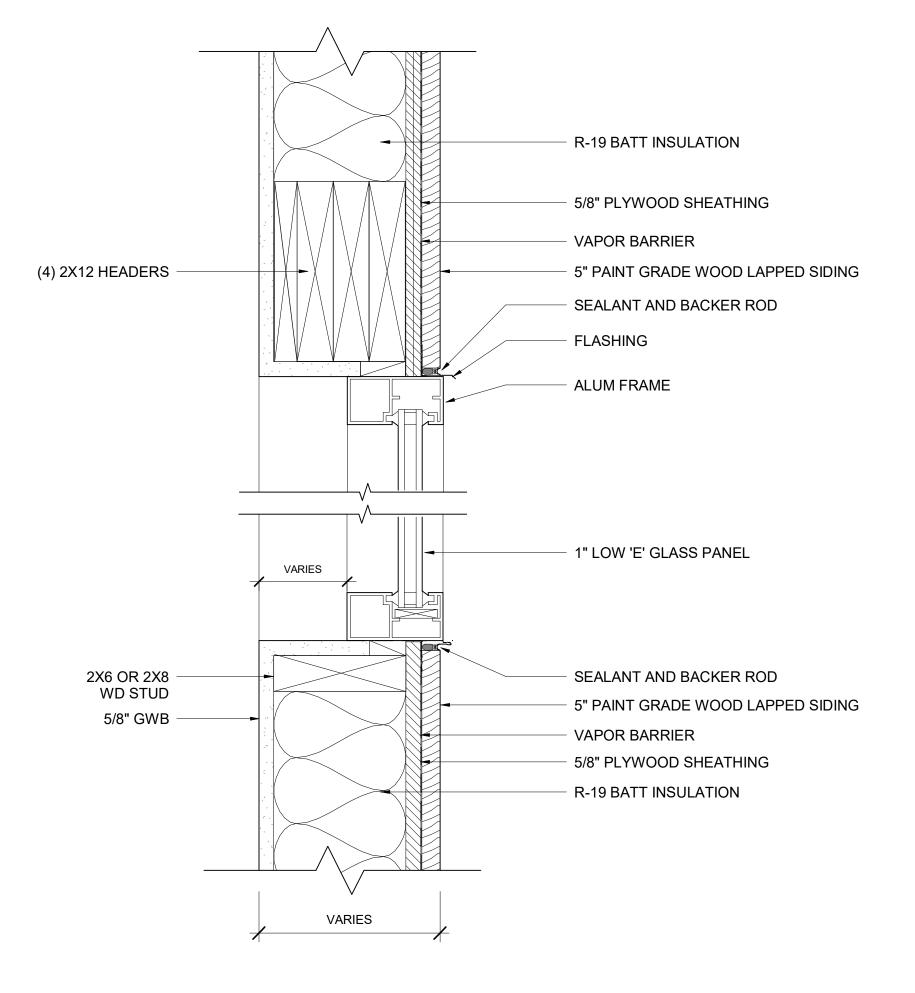
MANUF. SPECIAL LITE MODEL: SL-14 STANDARD COMMERCIAL FRAME BRONZE ALUM. FINISH

HARDWARE SET CLOSER: LCN 4041 SR1 W/ HOLD OPEN ARM SILENCER: WES SR 604 FLUSHBOLTS: WES 458B 26D HINGES: SPECIAL LITE SL-120 LOCKSET: ADAMSRITE 4920AN-45-602-628 EXIT PADDLE: ADAMS RITE DEADLATCH PADDLE 4590-02-00-628 WALL BUMPER: WES WS402 CCV HANDLE: SPECIAL LITE SL100 BOTH SIDES



TYPE F SINGLE IMPACT DOUBLE ACTING ELIASON W/ PL. LAM GRAPHITE FINISH (AT B.O.H.) FRAME TYPE 5 PRE-HUNG BY GC

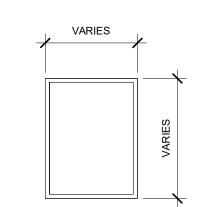




2 TYPICAL HEAD AND SILL DETAIL AT WINDOW TYPE 2
3" = 1'-0"

WINDOW TYPES

WINDOW PRICING NOTE: BIDDERS ARE ALLOWED TO SUBMIT ALTERNATE MANUFACTURERS WITH EQUAL SPECIFICATION



TYPE A ALUMINUM STOREFRONT WINDOW; KAWNEER 6400 SERIES 2"X4" FRAME STANDARD BROMZE ALUM. FINISH W/ GLASS, LOW-COATING, ARGON FILL

> ISSUED FOR BID 2-12-2020

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335 MULHERN CONSULTING **ENGINEERS**

HATBORO, PA 19040 STRUCTURAL ENGINEER:

321 SOUTH YORK ROAD

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105

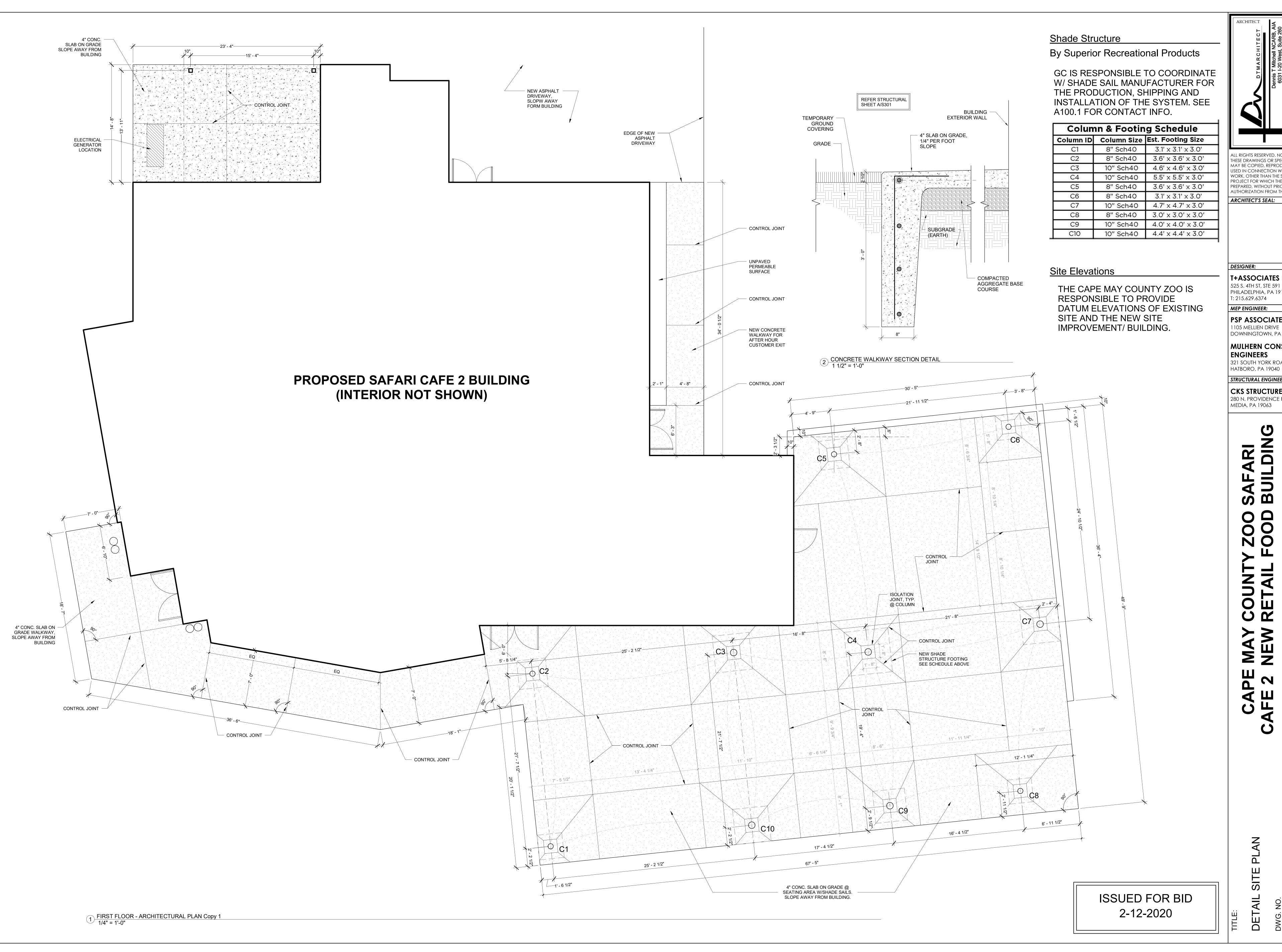
MEDIA, PA 19063

S

9 NORTI HOUSE,

DOOR AND WINDOW AND DETAILS

 그



THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR WORK, OTHER THAN THE SPECIFIC

ARCHITECT'S SEAL:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

DOWNINGTOWN, PA 19335

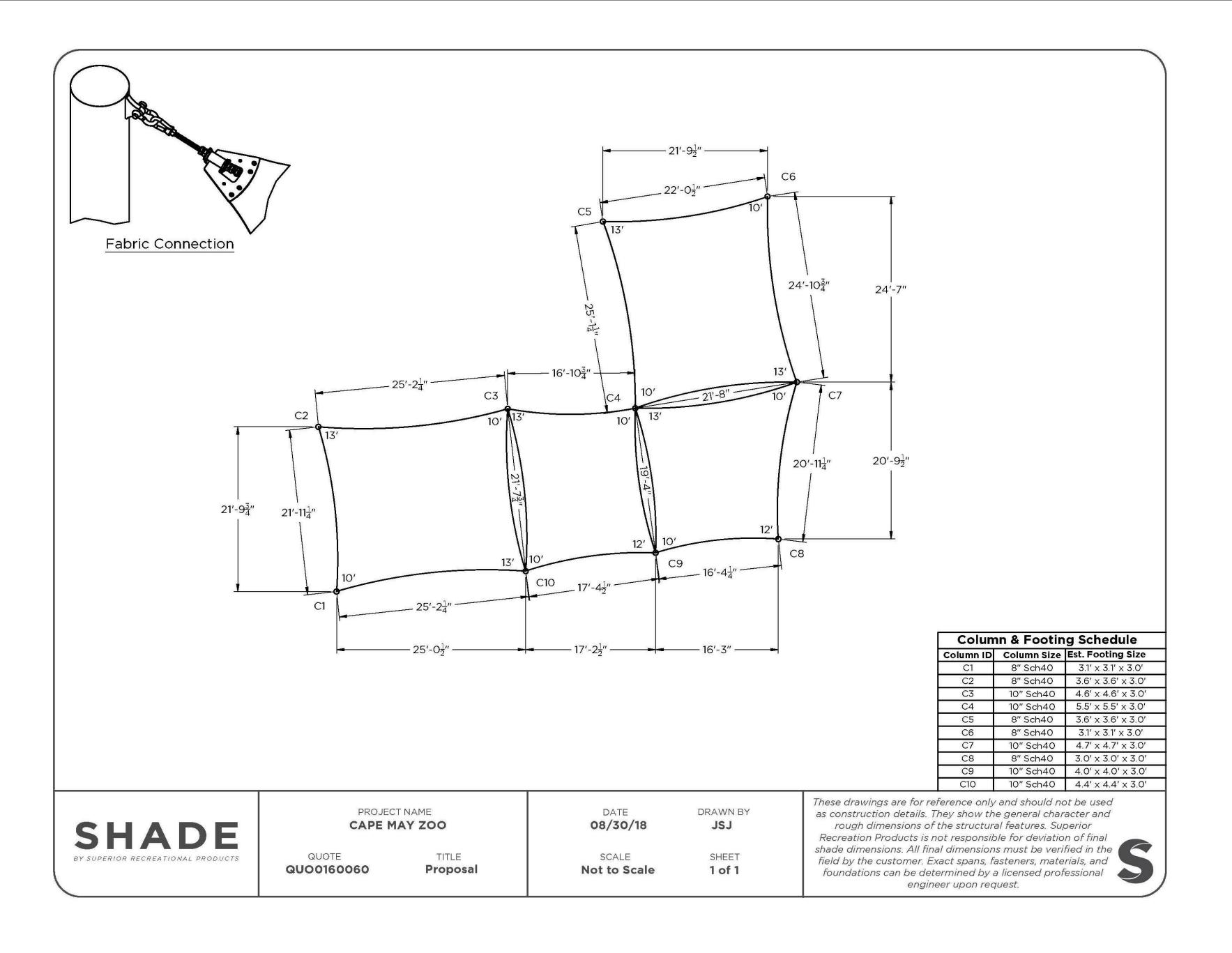
MULHERN CONSULTING **ENGINEERS** 321 SOUTH YORK ROAD

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

Y 200 F00D



STEP #1:

EMBEDDED COLUMNS:

must be correct.

concrete.

BASE PLATE COLUMNS:

specified for your Shade unit.

-Excavate footings in accordance with the dimensions

Refer to the specific dimensions provided for your unit within in this packet.

between the columns at the top between cap centers

-Excavate footings for concrete pads in accordance with

-Cut the plywood sheet into four squares 2" larger than

to the specific dimensions provided in this packet.

-Fill the footer holes with concrete to 4" below grade.

Make sure the the center marks are on your column

remove the hardware and plywood from each footer.
-Let concrete harden for 48-hours.

Place a washer over each anchor followed by each

- Apply concrete Grout base between base plates and

-Re-thread a nut over each anchor down to the concrete.

-Place one Plywood sheet with anchors over each

footer submersing the anchors into the concrete.

-After the concrete has started to harden you must

-Place a column into each hole on top of each block.

-Place a 3" block in the bottom of each hole.

-Pour concrete around columns until it is



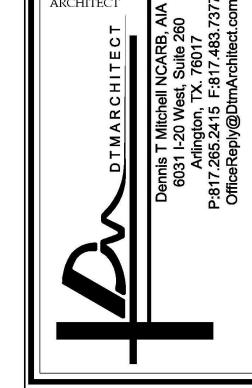
MANUFACTURER:

SUPERIOR RECREATIONAL PRODUCTS 1050 COLUMBIA DR. CARROLLTON, GA 30117

1.800.327.8774 SUPERIORRECREATION.COM

CONTACT: MICHAEL DERBECKER QUOTE #0160060

BIDDING CONTRACTOR TO INCLUDE INSTALLATION COST OF SHADE SAIL SYSTEM (INCLUDING CONCRETE FOUNDATION, POST ERECTION AND SHADE INSTALLATION) ACCORDING TO THE SPECIFICATION SHOWN IN THIS SHEET.



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR **USED IN CONNECTION WITH ANY** WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITEC

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

MEP ENGINEER: PSP ASSOCIATES

T: 215.629.6374

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

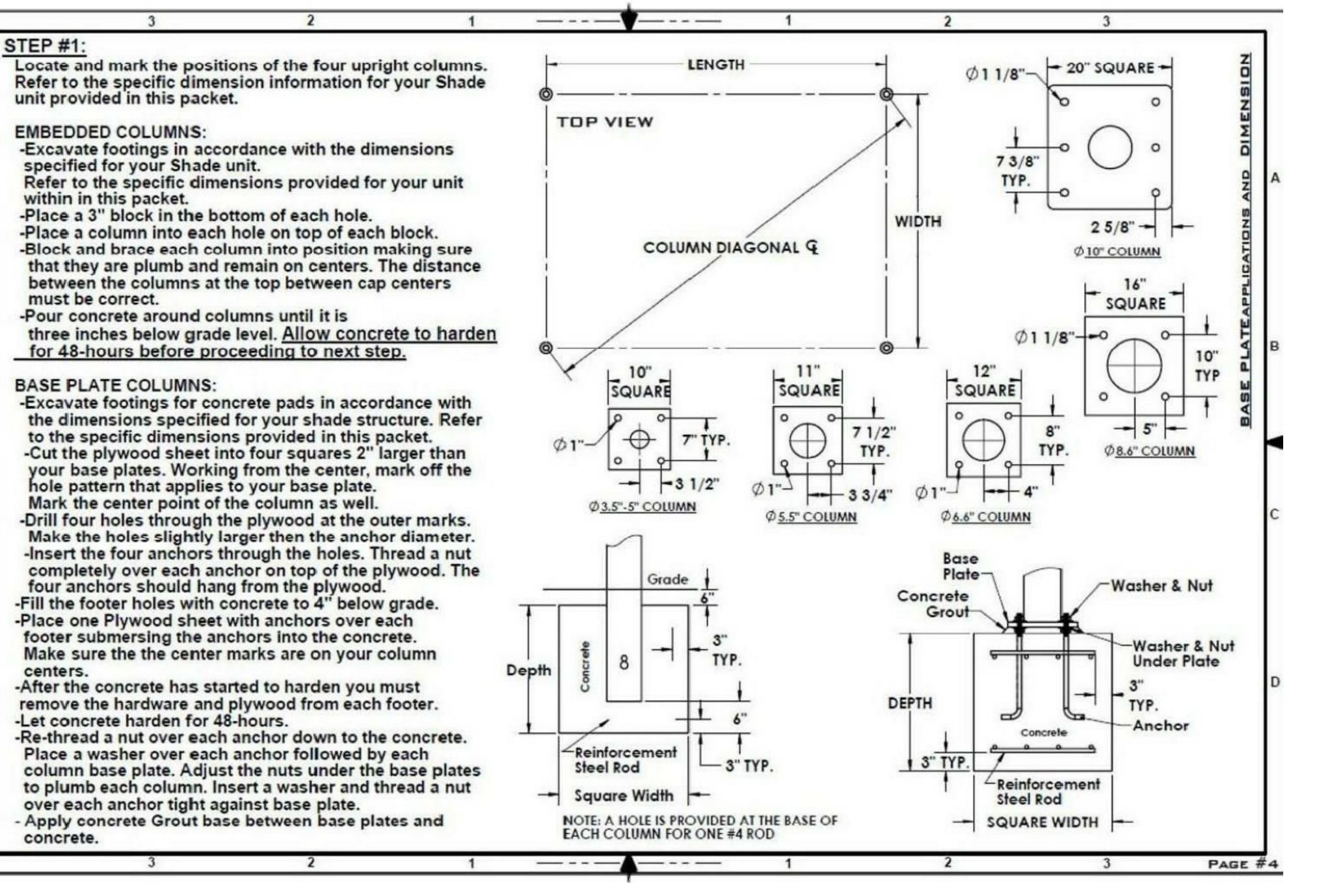
280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

S B 00 000

OUN MAA NEW

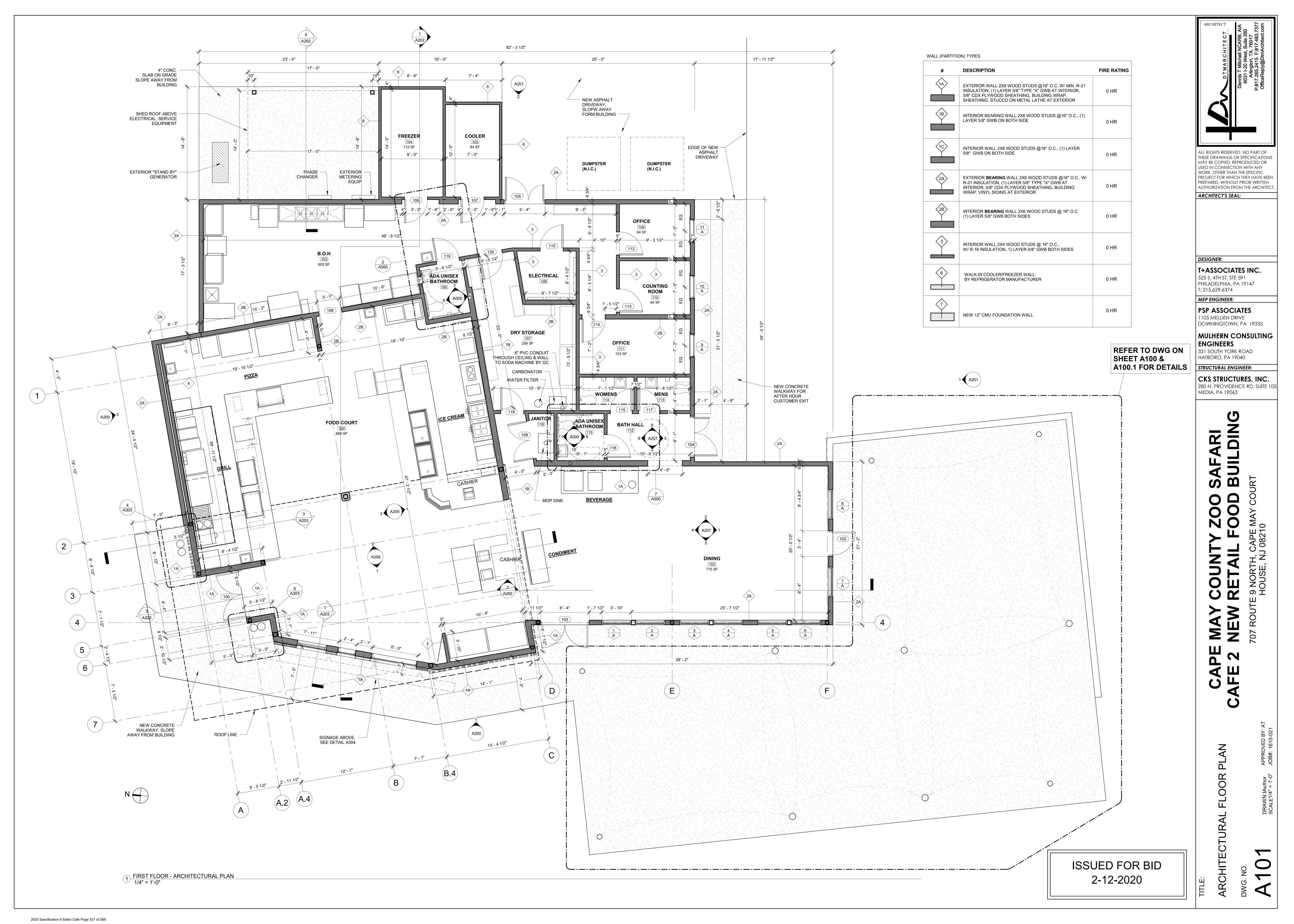
2

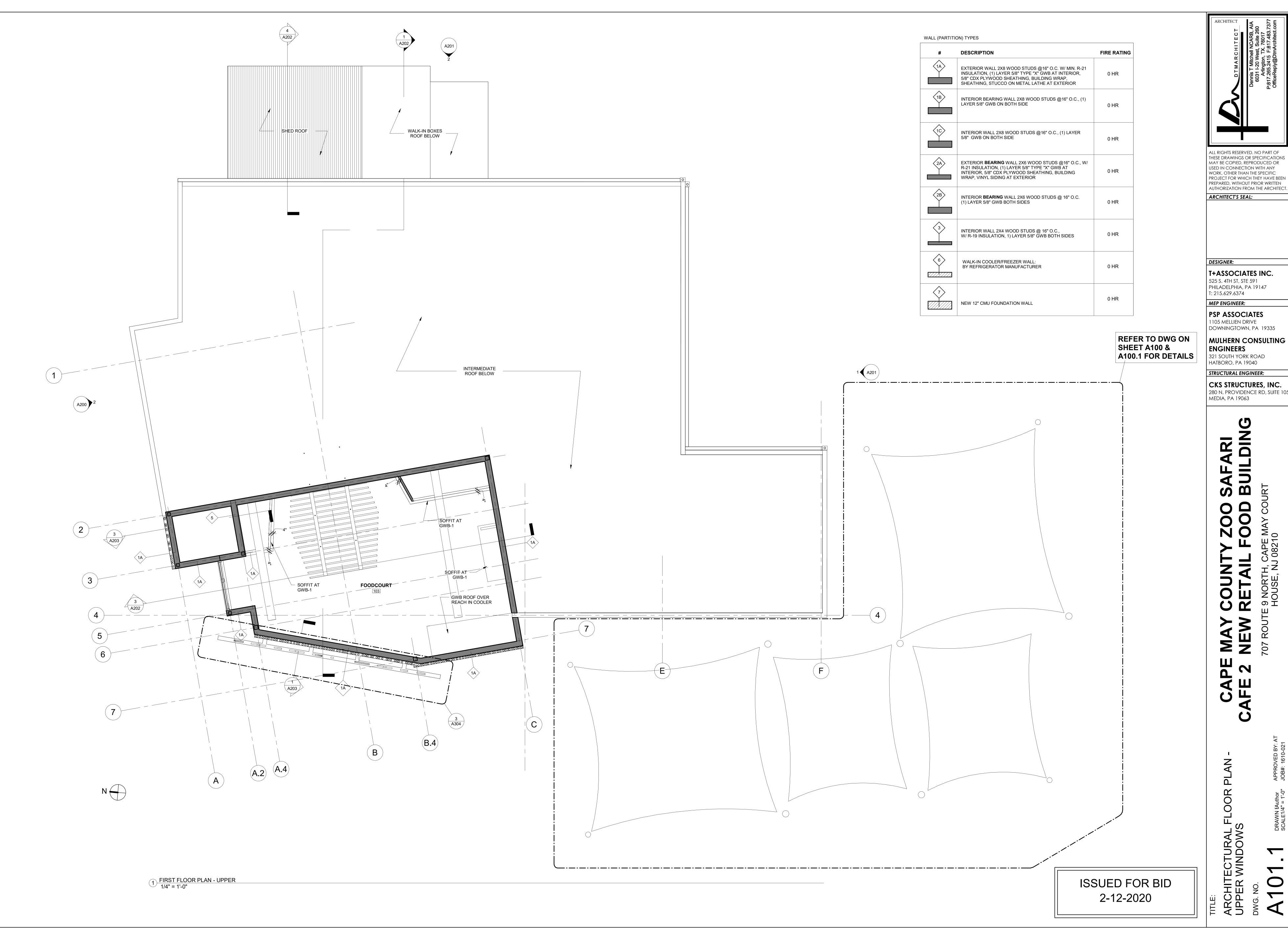
SHADE



ISSUED FOR BID 2-12-2020

2020 Specification 9 Safari Cafe Page 520 of 566





ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335

321 SOUTH YORK ROAD

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

MEP ENGINEER:

ARCHITECT'S SEAL:

PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335 MULHERN CONSULTING

ENGINEERS 321 SOUTH YORK ROAD

HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. MEDIA, PA 19063

280 N. PROVIDENCE RD, SUITE 105

SAF, BUIL 200 200 00D



ISSUED FOR BID 2-12-2020

2020 Specification 9 Safari Cafe Page 523 of 566

64' - 4 1/2"

CONDUCTOR -HEAD & D.S.

25' - 0"

- INTERMEDIATE **ROOF EAST**

@ 13' - 0" ABOVE GRADE

LOW POINT

INTEGRAL EXTERIOR &

WEATHER PROOF ROOF OF WALK-IN BOXES @ 9' - 0" HT BY MANUFACTURER,

GC TO COORDINATE ROOF

- SLOPED GUTTER

RTU UNIT ON PRE-FAB. CURB.

— PROVIDE (2)2X12 FRAMING UNDER
THE PERIMETER OF THE CURB

EXHAUST FAN; -SEE MEP DWGS

RTU UNIT ON PRE-FAB.

CURB. PROVIDE (2)2X12

FRAMING UNDER THE
PERIMETER OF THE CURB

TO DRAIN TO D.S.

DRAIN, IF REQ'D.

17' - 11 1/2"

CONDUCTOR HEADS & D.S.'S

INTERMEDIATE
 ROOF PARAPET WALL
 @ 13' - 10" ABOVE
 GRADE

SLOPED GUTTERS TO DRAIN TO D.S.

- INTERMEDIATE ROOF SOUTH HIGH POINT @ 13' - 6" ABOVE GRADE

RIDGE (SHORT

WALL ABOVE

— BEARING WALL
BELOW), @13'-10"

ABOVE GRADE

- INTERMEDIATE ROOF SOUTH LOW POINT @ 13' - 0" ABOVE GRADE

1 A201

- CONDUCTOR HEAD & D.S.

INTERMEDIATE
 ROOF PARAPET WALL
 @ 13' - 10" ABOVE
 GRADE

16' - 0"

17' - 0"

METAL ROOF SHED

CONDUCTOR -HEADS & D.S.'S

INTERMEDIATE -ROOF PARAPET WALL @ 14' - 0" ABOVE GRADE

A200 2

INTERMEDIATE -ROOF EAST HIGH POINT @ 13' - 11" ABOVE GRADE

EDGE OF STUCCO -OVERHANG

N

1 ROOF PLAN 1/4" = 1'-0"

10' - 0"

HOOD EXHAUST -AIR FAN; SEE

10' - 0"

MEP DWGS

UPPER ROOF LOW POINT @ 20' - 4" -ABOVE GRADE

CONDUCTOR HEAD & D.S. —

HOOD MAKEUP AIR UNIT; SEE MEP DWGS

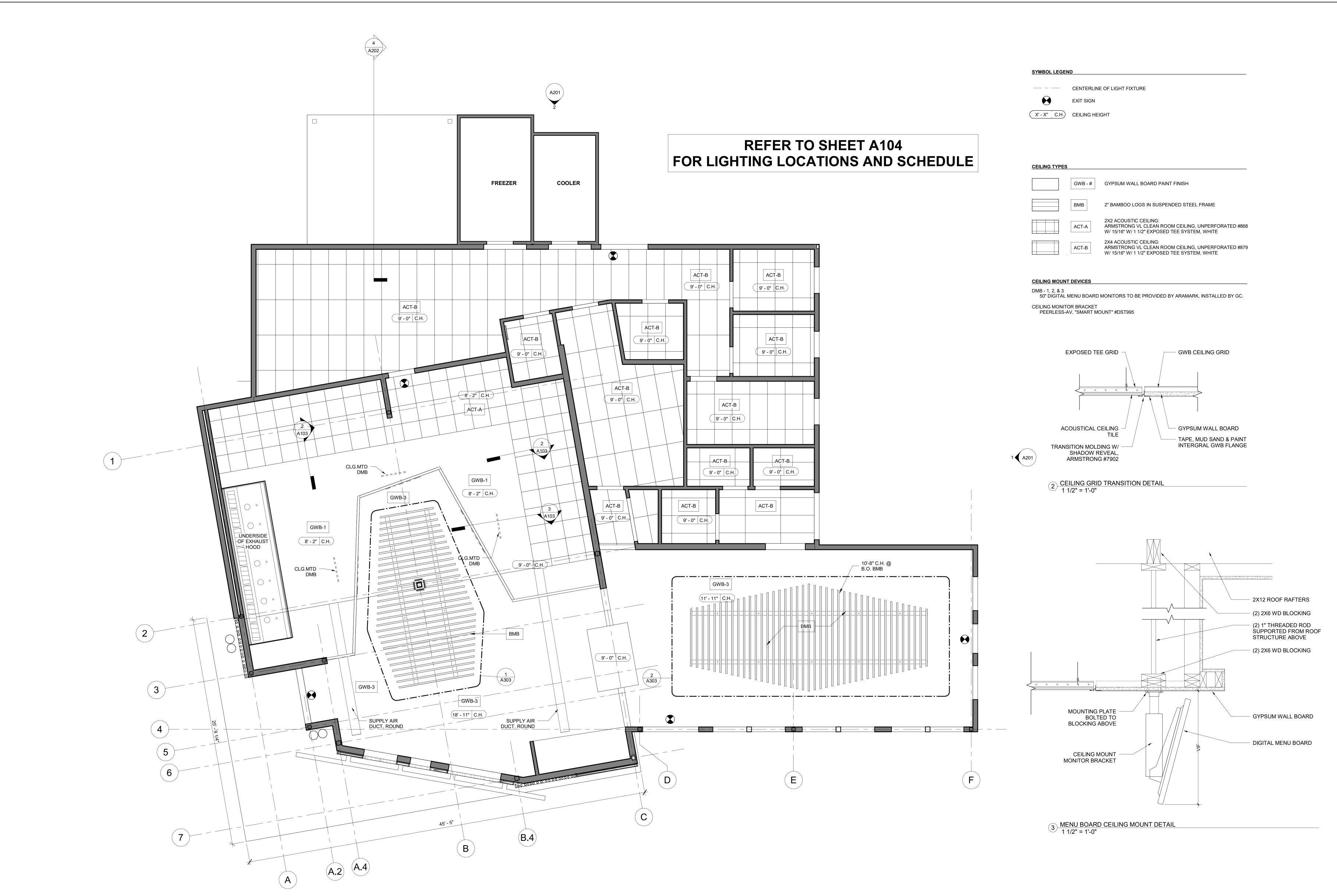
OUTLINE OF BUILDING EXTERIOR BELOW

- UPPER ROOF HIGH POINT @ 20' - 10.5" ABOVE GRADE

RTU UNIT ON PRE-FAB. CURB.

PROVIDE (2)2X12 FRAMING UNDER
THE PERIMETER OF THE CURB

SLOPED GUTTER TO DRAIN TO D.S.



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS** 321 SOUTH YORK ROAD

HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

REFLECTED CEILING CEILING DIMENSIONS

ISSUED FOR BID 2-12-2020

N

FIRST FLOOR - REFLECTED CEILING PLAN - CEILING DIMENSIONS
1/4" = 1'-0"



CAPE MAY COUNTY ZOO S CAFE 2 NEW RETAIL FOOD I

REFLECTED CEILING PL FIXTURE DIMENSIONS

2020 Specification 9 Safari Cafe Page 525 of 566

DESIGNER: T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374 **MEP ENGINEER: PSP ASSOCIATES** 1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335 MULHERN CONSULTING **ENGINEERS** 321 SOUTH YORK ROAD HATBORO, PA 19040 STRUCTURAL ENGINEER: CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR

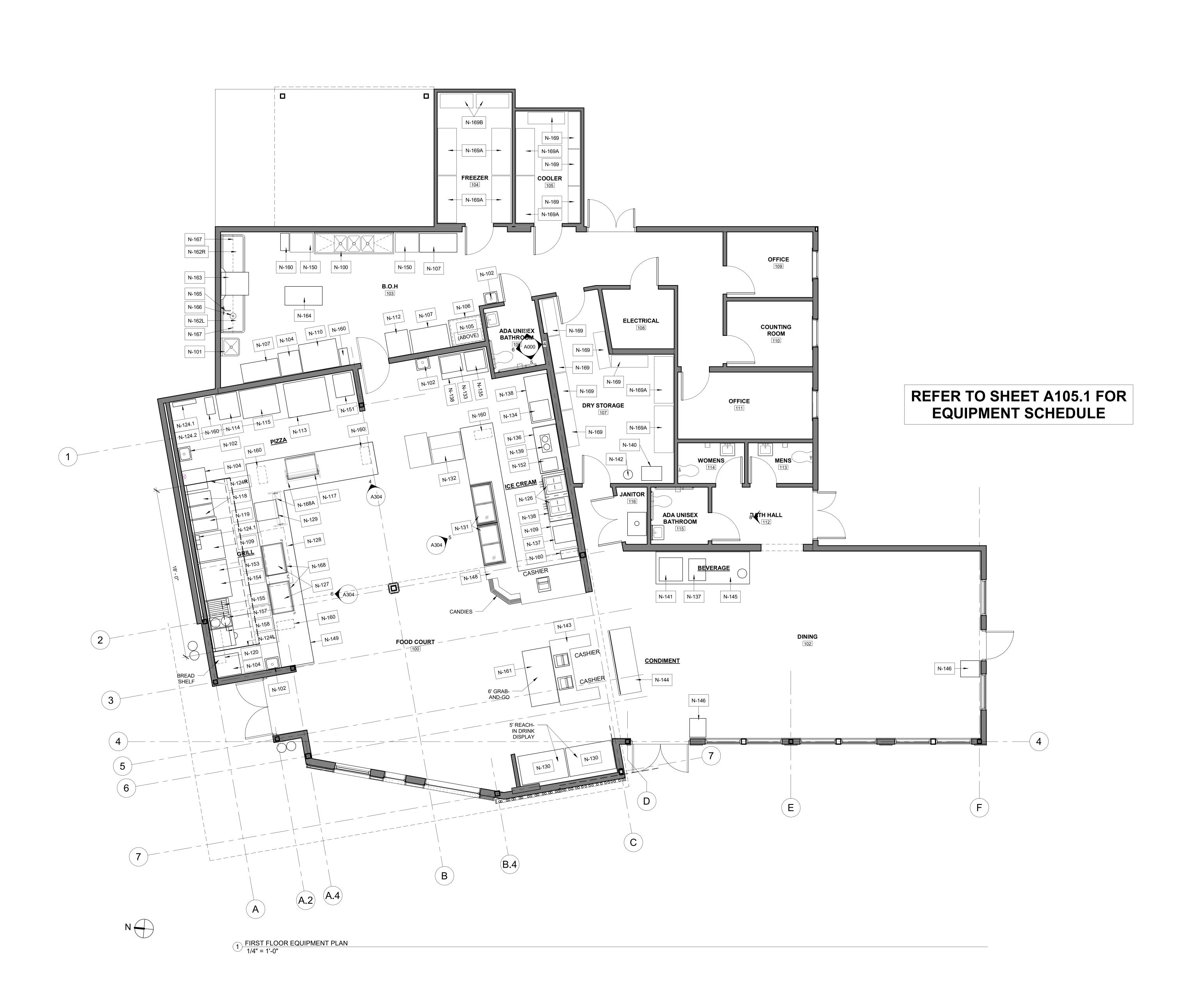
USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN

PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

TH, CAPE MAY COURT

OUTE 9 NORTH, CAPE MA HOUSE, NJ 08210



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

MEP ENGINEER:

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

ISSUED FOR BID 2-12-2020

PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

COMMENTS

BR. ALUM/ 1" RAD. CORNERS

BR. ALUM/ 1" RAD. CORNERS

WATER SUPPLY: 1/2" IPS FOR H/C LINES; 1 1/8" FAUCET HOLES PUNCHED 8" OC; BASKET TYPE WASTE DRAIN @ 1 1/2" OUTLET FIT 3 1/2" BOWL OPNG

(1) SET OF 1" FAUCET HOLES, 8" OC; WASTE DRAIN @ 1 1/2" IPS S/S BASKET

(1) SET OF 1" FAUCET HOLES, 4" OC, SPLASH MOUNT; WASTE DRAIN @ 1 1/2" DIRECT SIZE

WATER: 3/8"; WASTE INDIRECT DRAIN @ 3/4"

WASTE INDIRECT DRAIN @ 3/4"

(1) SET OF 1" FAUCET HOLES, 4" OC, SPLASH MOUNT; WASTE DRAIN @ 1 1/2" DIRECT SIZE

(1) SET OF 1" FAUCET HOLES, 4" OC, SPLASH MOUNT; WASTE DRAIN @ 1 1/2" DIRECT SIZE

(1) SET OF 1" FAUCET HOLES, 4" OC, SPLASH MOUNT; WASTE DRAIN @ 1 1/2" DIRECT SIZE

WATER COOLED UNITS REQUIRE 3/8" N.P.T. WATER AND DRAIN FITTINGS

SEE MILLWORK DETAILS

ARCHITECT'S SEAL:

MEP ENGINEER: **PSP ASSOCIATES**

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335 MULHERN CONSULTING

ENGINEERS 321 South York Road

HATBORO, PA 19040 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

<u> </u>				•		·		
HIER	ARA - 1 3	POS						
TION	EQUIP. NO. COUNT	EQUIPMENT CATEGORY (MODEL NAME)	MANUFACTURER	MODEL NO.	DIMENSIONS (L x W(D) x H)	ELECTRICAL OR GAS	COMMENTS	
JIPMENT L	.IST: ARAMARK	IS RESPONSIBLE FOR PROVIDING AND INSTALLATION	N OF EQUIPMENT LISTED H	ERE. GC IS TO PROVIDE N	IECESSARY DATA CONNECTIONS.	•		
	N-169B 2	SHELVES	METRO	MQ1842G W/4-TIER W/ CAST	TERS 18" X 42"			
N-169A		SHELVES	METRO	MQ2460G W/4-TIER W/ CAST				
N-16	+	SHELVES	METRO	MQ2460G W/4-TIER W/ CAST				
_		SHELVES	METRO	MQ1548G W/4-TIER W/ CAST	TERS 15" X 48"			
N		SHELVES	METRO	MQ2460G W/4-TIER W/ CAST	FERS 24" X 60"			
	N-169 6	SHELVES	METRO	MQ1548G W/4-TIER W/ CAST	TERS 15" X 48"			
IAREA	N-146 2	TRAY RETURN/TRASH	CUSTOM					SEE MILLWORK DETAILS
-		SOFTDRINK BOTTLE GRAB-N-GO	TRUE	THAC-60-S	60" W		115V/60/1-PH; NEMA 5-20P, 15.0 AMPS; 3/4 HP	
-	N-130 2	OPEN AIR-SCREEN SELF-SERVE REFRIGERATOR	FEDERAL INDUSTRIES	RSSM-678SC	71.25" X 35.25" X 78"		120208V/60/1-PH; NEMA L14-20P; 15 AMPS; 1 HP	
N	N-143 1 N-144 1	CONDIMENT COUNTER (FOR TWO) CONDIMENT COUNTER (DINING ROOM)	CUSTOM					SEE MILLWORK DETAILS SEE MILLWORK DETAILS
		CARBONATOR CASHIER COUNTER (FOR TWO)	BY VENDOR - NIC CUSTOM	IBD	TBD			SEE MILLWORK DETAILS
N-140 N-142	1	WATER FILTER SYSTEM FOR SODA DISPENSER CARBONATOR	BY VENDOR - NIC	TBD TBD	TBD			
		BEVERAGE COUNTER W/ UNDERCOUNTER STORAGE CABINETS	CUSTOM					SEE MILLWORK DETAILS
	N-141 1	FOUNTAIN SODA MACHINE	BY VENDOR - NIC	TBD	TBD			ALLOWANCE FOR WATER FILTER, (ELEC. HOOK UP)
GE ISLAND/	N-137 1	ICEE DISPENSER	BY VENDOR - NIC	TBD	TBD			
-	N-160 2	TRASH RECEPTACLE	SLIM JIM	FG354060	22" X 11" X 30"			
-	N-152 1 N-156 1	HOT CHOCOLATE ICEE DISPENSER	BY VENDOR - NIC BY VENDOR - NIC	TBD TBD	TBD TBD			
-	N-148 1	FRONT COUNTER (AT ICE CREAM)	CUSTOM	TDD	TDD			SEE MILLWORK DETAILS
<u> </u>	N-139 1	COFFEE MAKER	BY VENDOR - NIC	TBD	TBD			OFF MILL WORK DETAIL O
—								

ELECTRICAL OR GAS

115V/60/1-PH; NEMA 5-15P; 5.8 AMPS; 1/3 HP 115V/60/1-PH; NEMA 5-15P; 7.2 AMPS; 1/3 HP

115V/60/1-PH; 13.8 AMPS

115V/60/1-PH; NEMA 5-15P; 10.3 AMPS; 1/2 HP

120V/60/1-PH; NEMA 5-15P; 12 AMPS; 1.44 KW

208/240V/60/3-PH; NEMA 4; 24.9 AMPS; 2 HP

208/230V/60/3-PH; NEMA 4; 6 AMPS; 2 HP

208/240V/50/60/3-PH; NEMA 15-50P; 40.0 AMPS

115V/60/1-PH; NEMA 5-15R; 7.9 AMPS; 1/3HP; MOCP 15

115V/60/1-PH; NEMA 5-15R; 7.9 AMPS; 1/3HP; MOCP 15

120/208V/60/1-PH; NEMA L14-20P; 2.685KW; 12.4 AMPS

120V/60/1-PH; 6.3 AMPS; 1/2 HP - GAS 3/4", MBTU 110.0

120/208V/60/1-PH; NEMA L14-20P; 2.685KW; 12.4 AMPS

115V/60/1-PH; NEMA 5-15P; 8.0 AMPS; 1/3HP; 15.0 MOCP

120V/60/1-PH; 1465 W; NEMA 6-15P; 12.2 AMPS; 1/3HP; 15.0 MOCP

115V/60/1-PH; NEMA 5-15P; 10.3 AMPS; 1/3HP; 15.0 MOCP

115V/60/1-PH; NEMA 5-15P; 4.9 AMPS; 1/5HP; 15.0 MOCP

208-230V/60/1-PH; AFF 1 1/2", NEMA 6-20P, 12.0 AMPS; (2) 3/4 HP

115V/60/1-PH; NEMA 5-15P; 4.1 AMPS; 1/3 HP; MOCP 15.0

120V/60/1-PH; NEMA 5-15P; 8.0 AMPS; .96 KW; 1/3 HP

208/240V/60/1-PH; NEMA 6-20P; 13.0/15.0 AMPS; 3.3 KW

115V/60/1-PH; NEMA 5-15P, 5.1 AMPS; (2) 3/4 HP

GAS 3/4", MBTU 100.0

GAS MBTU 66.0

120V/60/1-PH; 6.3 AMPS

DIMENSIONS (L x W(D) x H)

14" X 10" X 12.75" (17.25 X 15.25 X 12.75)

120" X 29.75" X 41"

54 1/8" X 29 1/2" X 78 3/8"

27" X 29 1/2" X 78 5/16"

28" X 22" X 20"

34" X 22" X 44

30" X 48"

72 3/8" X 34 1/8" X 29 3/4"

29 1/8" X 32 1/16" X 74.75"

TBD

22" X 11" X 30"

48" X 30" X 34"

48" X 30" X 34"

6.5" SINK COLLAR

48.3" X 41.7" X 36"

27" X 29 3/4" X 78 3/8"

60.25" X 32.25" X 35.75"

39" X 27" X 26"

69 1/4 X 21 1/4 X 26 1/2

22" X 11" X 30"

40" L

27" X 29 1/2" X 78 5/16"

30" X 36"

15 5/8" X 31 1/2" X 41"

(3) SHELVES 12" X 36"

240" X 30" X 47"

39" X 27" X 26"

60 5/16" X 30 1/16" X 31 7/8"

23.75" X 29 9/16" X 10.25"

48" X 20 1/2" X 1"

48 3/8" L

24" X 30"

27 5/8" X 341/8" X 40 3/8"

22" X 11" X 30"

(2) SECTION, TOTAL 80" L

30" X 36"

22" X 28 1/2" X 34 3/4"

51.25" X 26 3/8" X 34"

50" X 35" X 42"

24" X 24" X 24"

CUSTOM

32 OZ CAPACITY

60 3/8" X 30 1/8" X 33 3/8"

30" X 60"

14" X 10" X 12.75" (17.25 X 15.25 X 12.75)

14" X 10" X 12.75" (17.25 X 15.25 X 12.75)

29 1/4" X 35" X 69"(CLR 70 3/4")

14" X 10" X 12.75" (17.25 X 15.25 X 12.75)

EQUIPMENT LIST - KITCHEN, SERVERY & DINING: GC IS RESPONSIBLE FOR PROVIDING, SETTING, AND ELECTRICAL/PLUMGING HOOK-UPS OF ALL EQUIPMENT LISTED HERE.

AMTEKCO

ADVANCE TABCO

ADVANCE TABCO

TRUE

TRUE

SCOTSMAN

SCOTSMAN

AMTEKCO

TRUE

METRO

CUSTOM

SLIM JIM

AMTEKCO

AMTEKCO

HOBART

METRO

SALVAJOR

REGENCY

ADVANCE TABCO

TURBOCHEF

TRUE

TRUE

HATCO (GLO-RAY)

CUSTOM

METRO

SLIM JIM

BSI

ADVANCE TABCO

TRUE

AMTEKCO

FRYMASTER

FRYMASTER

CAPTIVE-AIRE

CAPTIVE-AIRE

CAPTIVE-AIRE

HATCO (GLO-RAY)

TRUE

APW WYOTT

VULCAN

TRUE

VULCAN

VULCAN

TRUE

SLIM JIM

ADVANCE TABCO

AMTEKCO

TRUE

FEDERAL INDUSTRIES

EQUIPEX

TBD

GOLD MEDAL

TRUE

AMTEKCO

STOELTING

BSI

METRO

T&S BRASS AND BRONZE WORKS INC

C3242424DC

7-PS-66

TS-49-HC

T-23F

C0522MA-1

B322S

STF2-3048

C569L-SFC-U

FG354060

CUSTOM

AM15VL-2

PR48X3

600 WR42

7-PS-66

HHC2620 VNTLSS

T-23G-LD

TTP-60D-2

GR3SDH-39D

FG354026

T-23F

STF2-3036

MJ135

FWH-1

2857931

2857931

2857931

GR3SDH-39D

TUC-60F-LP

HRS-45

VCRG48-T

TRCB-48

VACB25

VHP212U TSSU-27-12M-B-ADA-HC

FG354060

7-PS-66

STF2-3036

F131-38

TFM-51AL

CGR5042DZ

FC-60

CUSTOM

2011EN

TWT-60

STF2-3060

ZG 9500 - 2 - MW1

ERECTA WALL MOUNT

ZG 9500 - MW1

B-0133-A08-B08C

200-SA-6-ARSS-LD

TSSU-72-30M-B-ST

EQUIPMENT CATEGORY (MODEL NAME)

3-COMPARTMENT POT SINK, (2) DRAINBOARDS

1-COMPARTMENT PREP SINK

REACH-IN REFRIGERATOR (2-DOOR)

ICE CUBER 475 LBS (PRODIGY PLUS)

STAINLESS STEEL WORKTABLE 30X48

CLEAN DISHTABLE (RIGHT HAND SIDE)

DISPOSER WITH CONTROL PANEL

PIZZA CONVEYOR OVEN (DOUBLE STACK)

PIZZA PREP TABLE - REFRIGERATOR

PIZZA/GRILL FRONT COUNTER

PIZZA STORAGE CART

TRASH RECEPTACLE

HAND WASHING SINK

SNEEZE GUARD

BREAD SHELF

FIRE SYSTEM

HOT DOG GRILL

24" CHARBROILER

SANDWICH UNIT

SNEEZE GUARD

SOFT SERVE

TRASH RECEPTACLE

HAND WASHING SINK

ELECTRICAL SYSTEM

COUNTERTOP GRIDDLE

REFRIGERATED BASE - 4'

DISPLAY MERCHANDISER (DUAL SHELF)

SINGLE-DOOR REACH-IN FREEZER, MOBILE

FRYER BATTERY - 40 LB FAT CAPACITY FULL POT FRYER, MOBILE

EXHAUST HOOD WITH MAKE-UP AIR IN CEILING REGISTER

COUNTERTOP HOT PLATE (12" (2) BURNER HOT PLATE - GAS)

STAINLESS STEEL WORKTABLE 30X36

DISPLAY MERCHANDISER (DUAL SHELF)

REACH-IN UNDERCOUNTER FREEZER

STAINLESS STEEL WORKTABLE 30X36

CONVECTION OVEN (COUNTERTOP)

POPCORN POPPER (COUNTERTOP)

STAINLESS STEEL WORKTABLE 30X60

HEATED PRETZEL DISPLAY CASE (COUNTERTOP)

HORIZONTAL CHEST FREEZER

DUAL TEMP DISPLAY CASE

WORK TOP REFRIGERATOR

REACH-IN REFRIGERATOR (SINGLE DOOR), MOBILE

SOIL DISHTABLE (LEFT HAND SIDE), W/ DISPOSAL CONE & SPRAY

SINGLE-DOOR REACH-IN FREEZER, MOBILE

SANDWICH UNIT, MOBILE (SANDWICH PREP)

HAND WASHING SINK

ICE BIN 370 LB CAPACITY

HEATED CABINET, MOBILE

SERVICE CART

DISH WASHER

PRE-RINSE SPRAY

SLANTED DISH RACKS

HAND WASHING SINK

DISH RACK

TRASH RECEPTACLE

EQUIP. NO. COUNT

N-102

N-103

N-104

N-105

N-106

N-107

N-110

N-112

N-150

N-160

N-162R

N-162L

N-163

N-164

N-165

N-166

N-102

N-113

N-114

N-115

N-117

N-151

N-160

N-168A

N-102

N-104

N-109

N-118

N-119

N-120_

N-124L/R

N-124.1

N-124.2

N-127

N-128

N-129

N-153

N-154

N-155

N-157

N-158

N-160

N-168

N-102

N-109

N-126

N-131

N-132

N-133

N-134

N-135

N-136

N-138

GRAB - N - GO/

ICE CREAM

2020 Specification 9 Safari Cafe Page 527 of 566

N-149

BACK OF THE HOUSE N-100



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

Y ZOO SAFARI FOOD BUILDIN

CAPE AFE 2

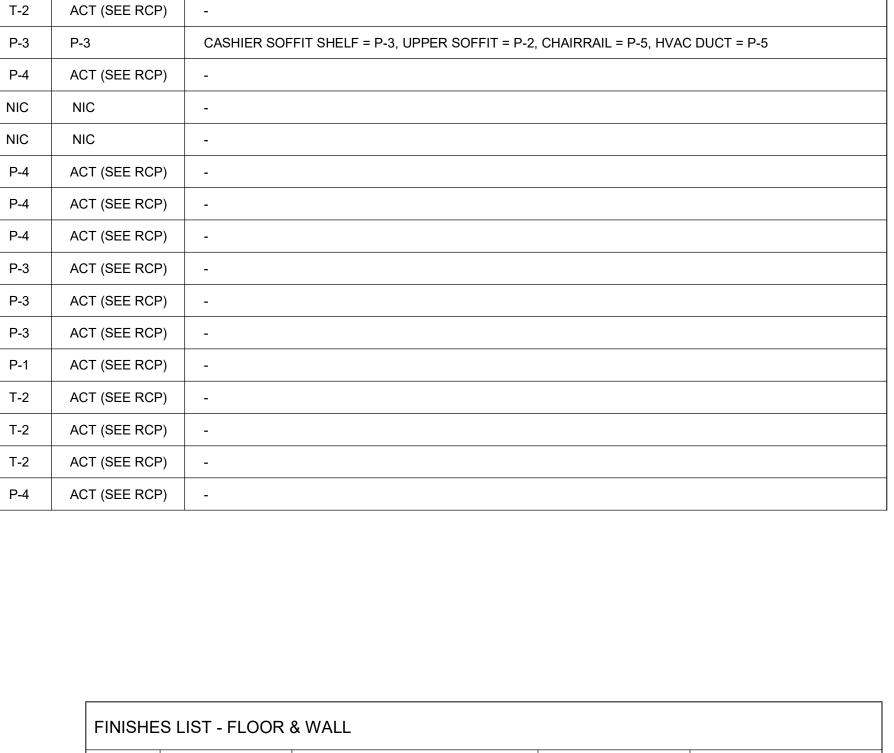
2

MAY NEW

ROOM FINISH SCHEDULE

ROOM	FLOOR	BASE		WAI	LL		CEILING	NOTE
			Е	S	W	N		
100	F-2	WB-1	P-1	P-1	P-1	P-3	P-3	SOFFIT SHELF = P-3, UPPER SOFFIT = P-2, HVAC DUCT = P-5
101	F-1	T-2	T-2	T-2	-	T-2	ACT (SEE RCP)	-
102	F-2	WB-1	P-1	P-3	P-3	P-3	P-3	CASHIER SOFFIT SHELF = P-3, UPPER SOFFIT = P-2, CHAIRRAIL = P-5, HVAC DUCT = P-5
103	F-1	F-1B	P-4	P-4	P-4	P-4	ACT (SEE RCP)	-
104	NIC	NIC	NIC	NIC	NIC	NIC	NIC	-
105	NIC	NIC	NIC	NIC	NIC	NIC	NIC	-
106	T-1	TB-1	P-4	P-4	P-4	P-4	ACT (SEE RCP)	-
107	F-1	F-1B	P-4	P-4	P-4	P-4	ACT (SEE RCP)	-
108	F-1	F-1B	P-4	P-4	P-4	P-4	ACT (SEE RCP)	-
109	F-2	WB-1	P-3	P-3	P-3	P-3	ACT (SEE RCP)	-
110	F-2	WB-1	P-3	P-3	P-3	P-3	ACT (SEE RCP)	-
111	F-2	WB-1	P-3	P-3	P-3	P-3	ACT (SEE RCP)	-
112	T-1	TB-1	P-1	P-1	P-1	P-1	ACT (SEE RCP)	-
113	T-1	TB-1	T-2	T-2	T-2	T-2	ACT (SEE RCP)	-
114	T-1	TB-1	T-2	T-2	T-2	T-2	ACT (SEE RCP)	-
115	T-1	TB-1	T-2	T-2	T-2	T-2	ACT (SEE RCP)	-
116	F-1	F-1B	P-4	P-4	P-4	P-4	ACT (SEE RCP)	-
,	•	•	•	•	•	•	•	

DESIGN ID	ITEM	DESCRIPTION	COLOR	COMMENTS
P-1	PAINT	MANUF: BENJAMIN MOORE STYLE: LOW LUSTER	STEM GREEN 2029-40	
P-2	PAINT	MANUF: BENJAMIN MOORE STYLE: LOW LUSTER	BLUE LAKE 2053-40	
P-3	PAINT	MANUF: BENJAMIN MOORE STYLE: LOW LUSTER	WHITE ROCK 918	
P-4	PAINT - EPOXY	MANUF: BENJAMIN MOORE STYLE: LOW LUSTER	WHITE ROCK 918	
P-5	PAINT	MANUF: BENJAMIN MOORE STYLE: SEMI GLOSS	DRAGON'S BREATH 1547	
SS-1	SOLID SURFACE	MANUF: DUPONT STYLE: ZODIAQ	CLOUD WHITE	
WB-1	WOOD BASE	PAINT W/ P-2 (SEMIGLOSS)		
TB-1	TILE BASE	MANUF: DALTILE 6X12 CONTINENTAL SLATE	ASIAN BLACK	
BAM-1	ВАМВОО	MANUF: MARKET SOURCE STYLE: 2" ROUND POLE	SPECKLED	
F-1	EPOXY FLOOR	MANUF: DEX-O-TEX TEK CRETE SL W/CHEMREZ 2CR W/6" INTEGRAL COVE BASE	SPEEDWAY GRAY	
F-1B	EPOXY INTEGRAL BASE	MANUF: DEX-O-TEX TEK CRETE SL W/CHEMREZ 2CR	SPEEDWAY GRAY	
F-2	POLISHED CONCRETE			
T-1	FLOOR TILE	MANUF: DALTILE 12"X12" PORCELAIN TILE W/ 6"X12" MATCHING BASE CONTINENTAL SLATE MB= MARBLE THRESHOLD	ASIAN BLACK	
T-2	WALL TILE	MANUF: AMERICAN OLEAN URBAN OASIS WAVE 4 1/4"X12 3/4" CERAMIC TILE	GLOSS LIGHT SMOKE #0042 (1)	SCHLUTER EDGE PRO @ OUTSIDE CORNER & BOTTOM EDGES



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

STRUCTURAL ENGINEER:

MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

SAF, BUIL 200 000

FINISH

ISSUED FOR BID 2-12-2020

1) FIRST FLOOR - FINISHES PLAN 1/4" = 1'-0"

FREEZER

104

F-1 F-1B

SERVING AREA

SEE INTERIOR ELEVATION DWGS FOR OVERHEAD SOFFIT FINISHES

FOOD COURT

F-2 WB-1

SEE INTERIOR ELEVATION DWGS FOR CHAIRRAIL FINISH

COOLER

BATHROOM

T-2

ELECTRICAL

DRY STORAGE

F-1 F-1B P-4

F-1 F-1B P-4

ADA UNISEX

BATHROOM

T-1 TB-1 T-2

OFFICE

F-2 WB-1 P-3

COUNTING ROOM

OFFICE

F-2 WB-1 P-3

F-2 | WB-1 | P-3 |

T-1 TB-1 T-2

DINING 102

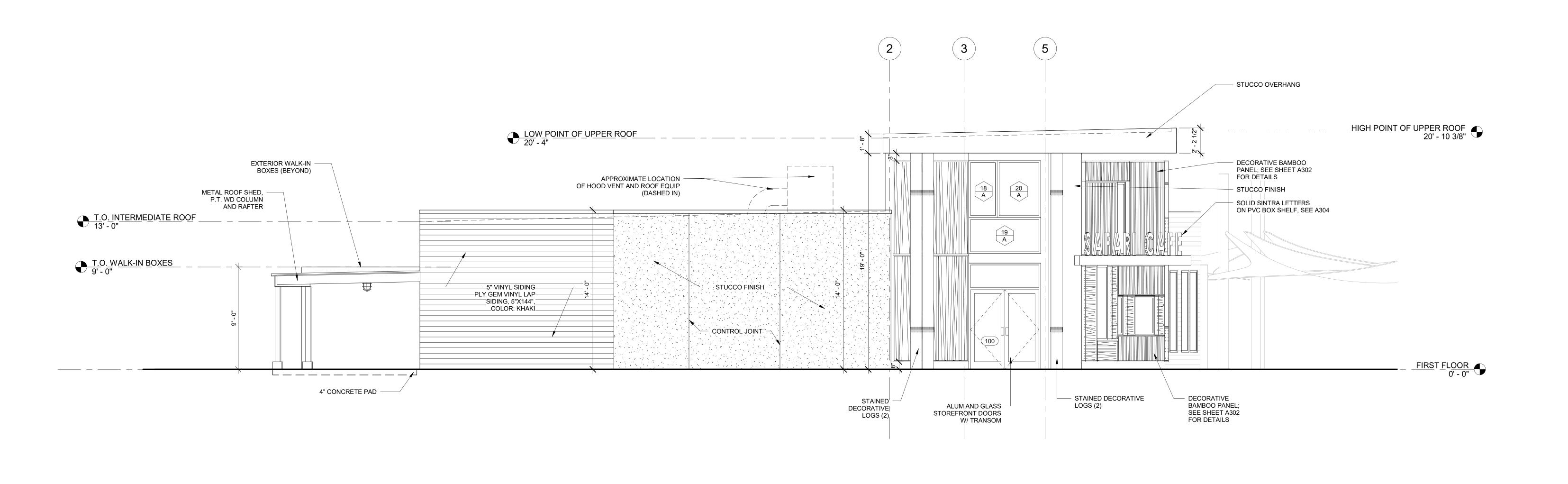
F-2 WB-1

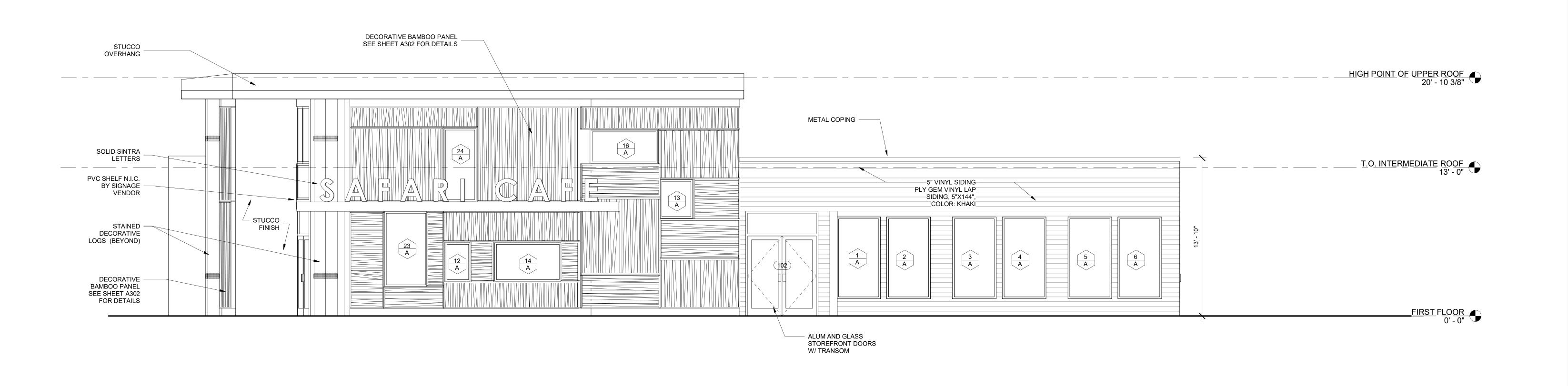
SEE INTERIOR ELEVATION DWGS FOR CHAIRRAIL FINISH

BATH HALL

112

F-2 WB-1 P-1





ISSUED FOR BID 2-12-2020

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT. ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: **PSP ASSOCIATES**

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS 321 SOUTH YORK ROAD

HATBORO, PA 19040 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

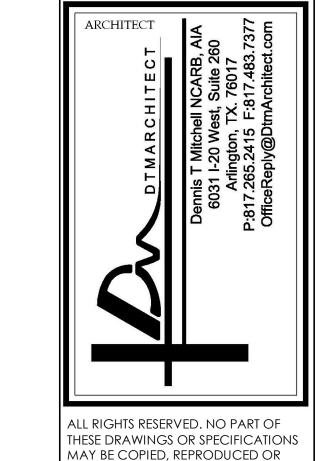
SAF/ BUIL Z000:000:00

9 NORTH, CA HOUSE, NJ C

MAY NEW

2 WEST ELEVATION 1/4" = 1'-0"

1 SOUTH ELEVATION 1/4" = 1'-0"



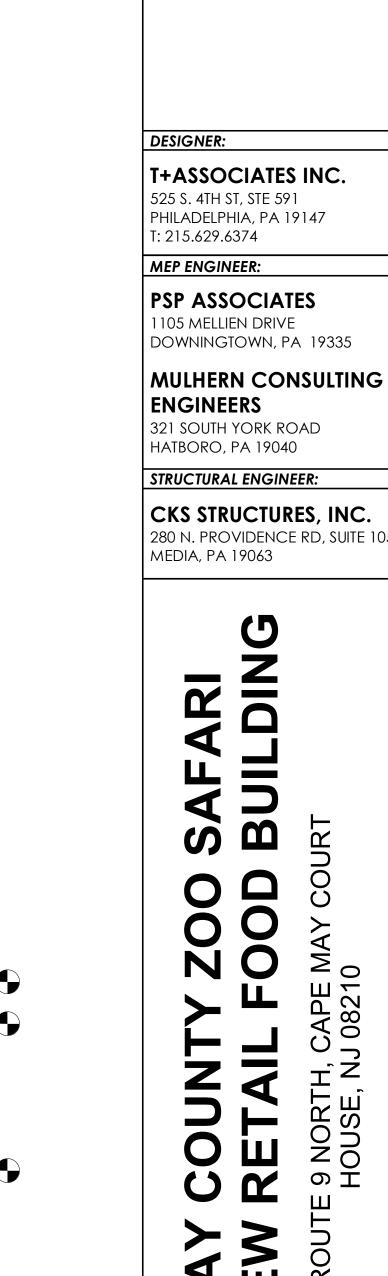
THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT. ARCHITECT'S SEAL:

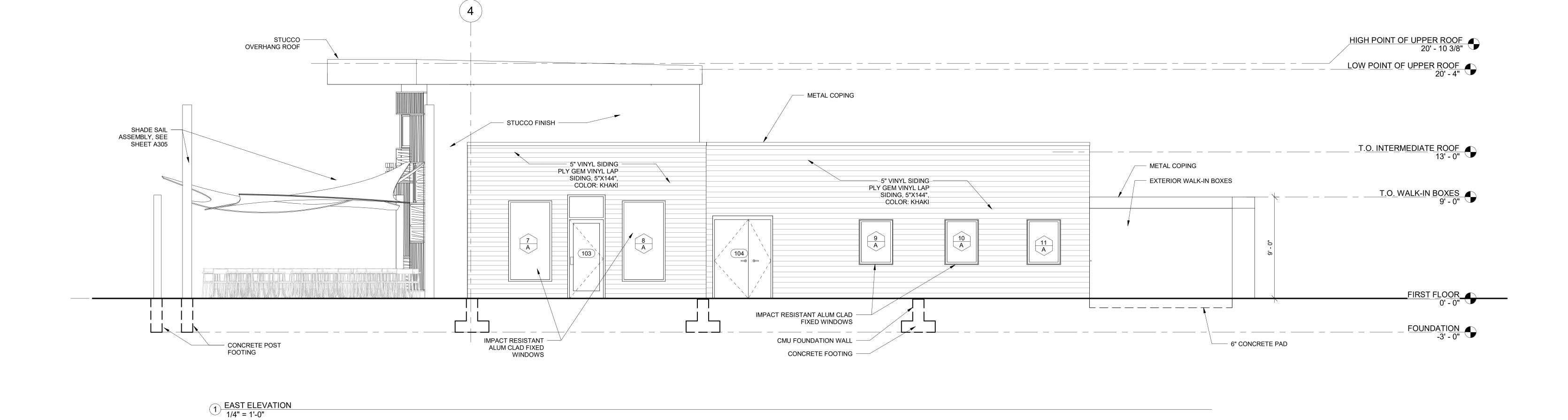
DOWNINGTOWN, PA 19335

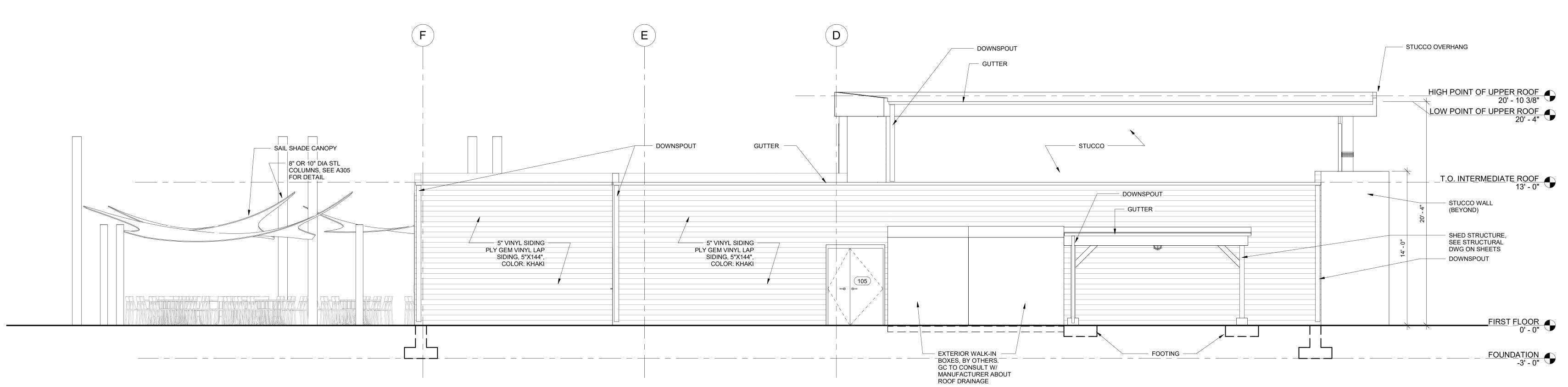
ENGINEERS

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

9 NORTH HOUSE, N



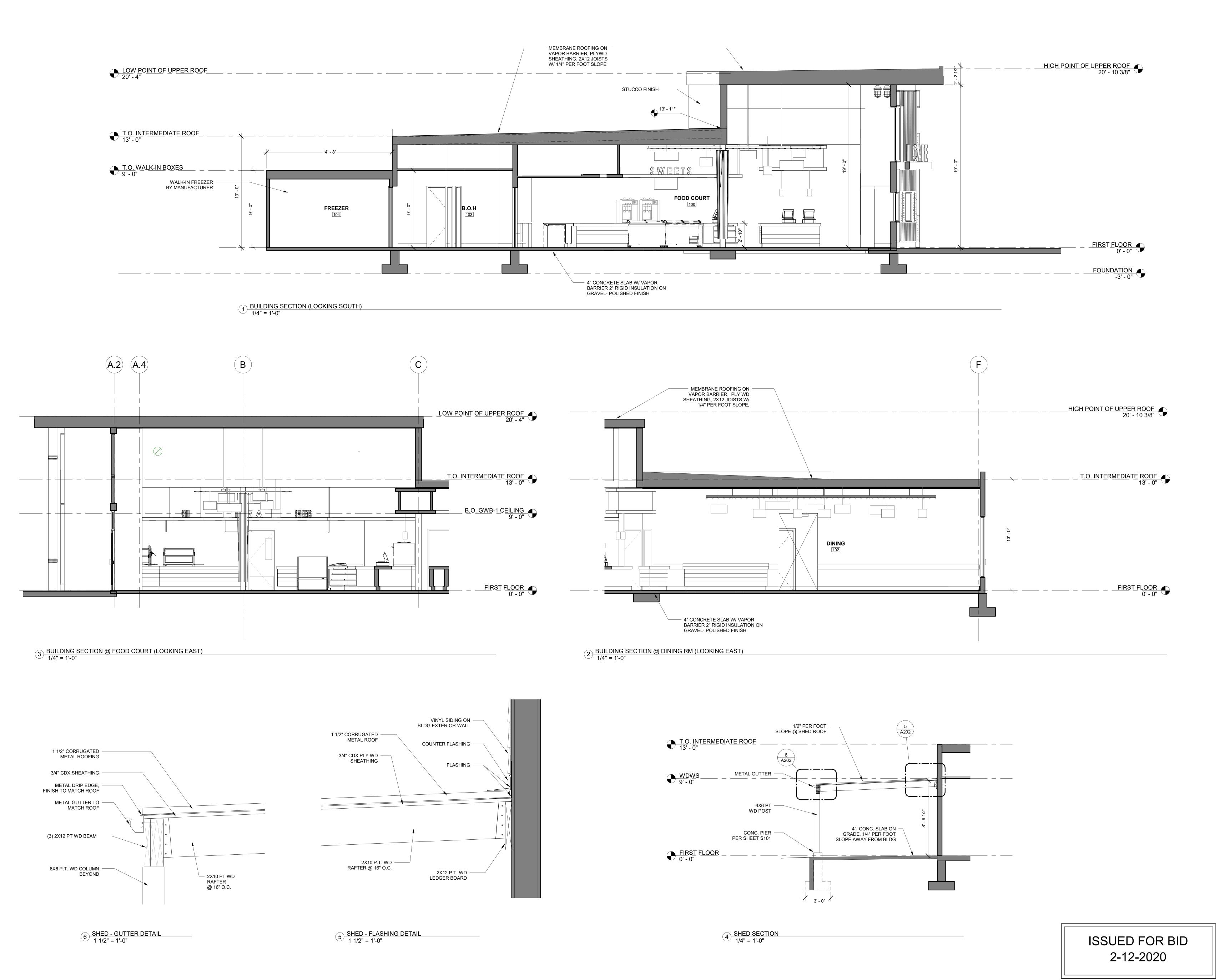




2 NORTH ELEVATION 1/4" = 1'-0"

ISSUED FOR BID 2-12-2020

2020 Specification 9 Safari Cafe Page 531 of 566



2020 Specification 9 Safari Cafe Page 532 of 566

S 200 000

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT. ARCHITECT'S SEAL: DESIGNER: T+ASSOCIATES INC.

525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS**

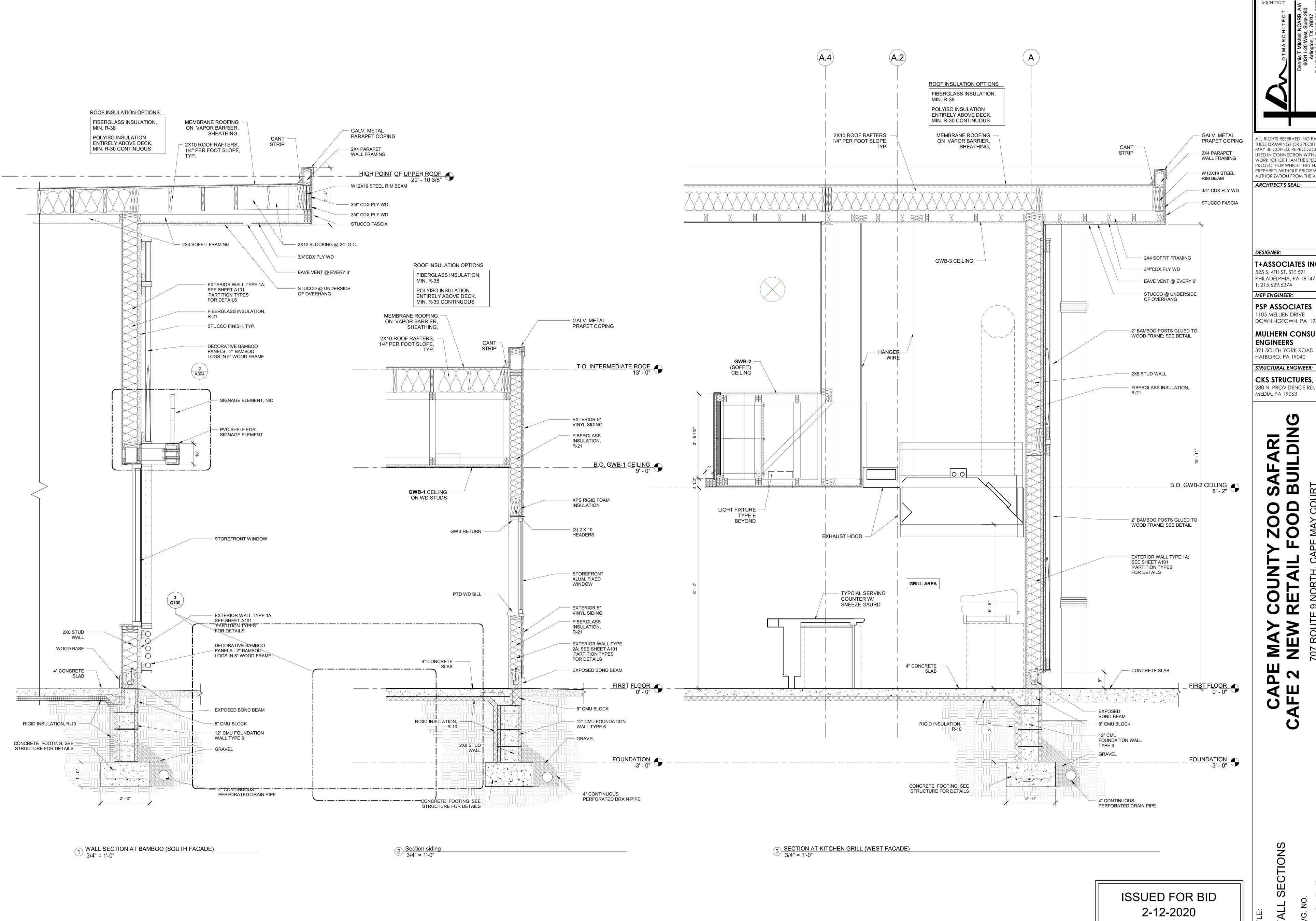
321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105

MEDIA, PA 19063

BUILDING



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

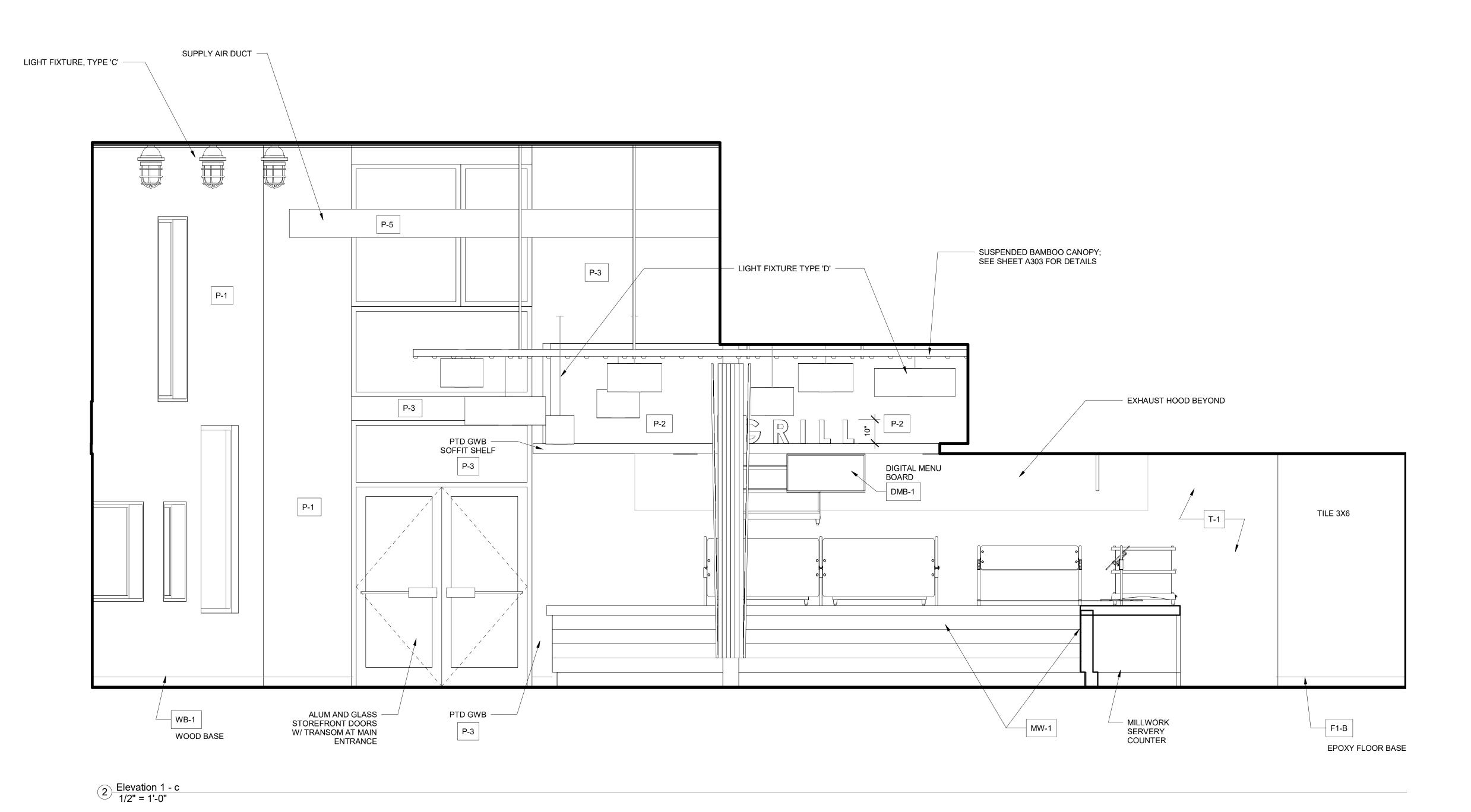
MULHERN CONSULTING **ENGINEERS**

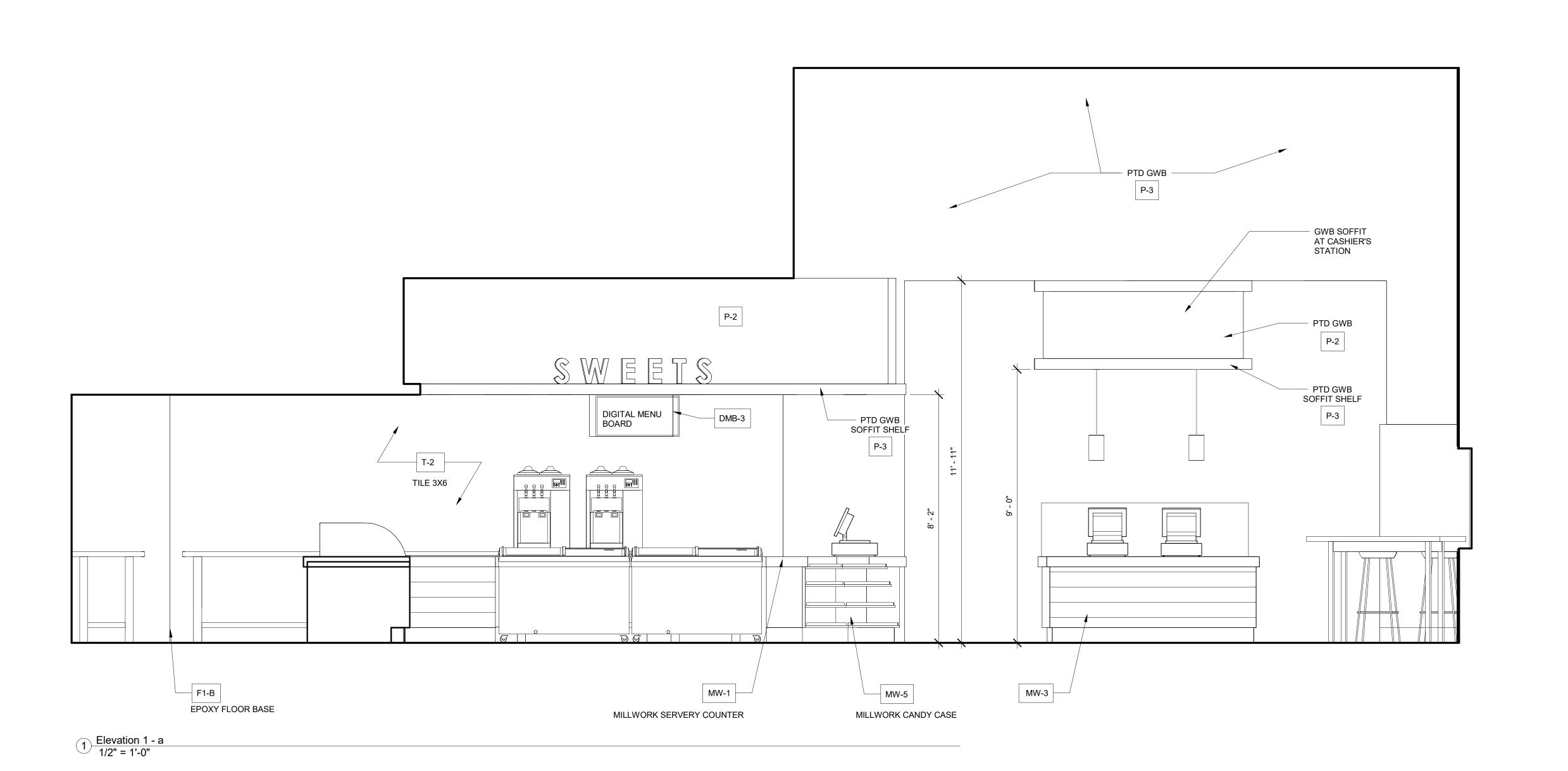
321 SOUTH YORK ROAD HATBORO, PA 19040

CKS STRUCTURES, INC.

MEDIA, PA 19063

280 N. PROVIDENCE RD, SUITE 105





ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

MEP ENGINEER:

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

SAFABUIL Y 200 F00D COUNT

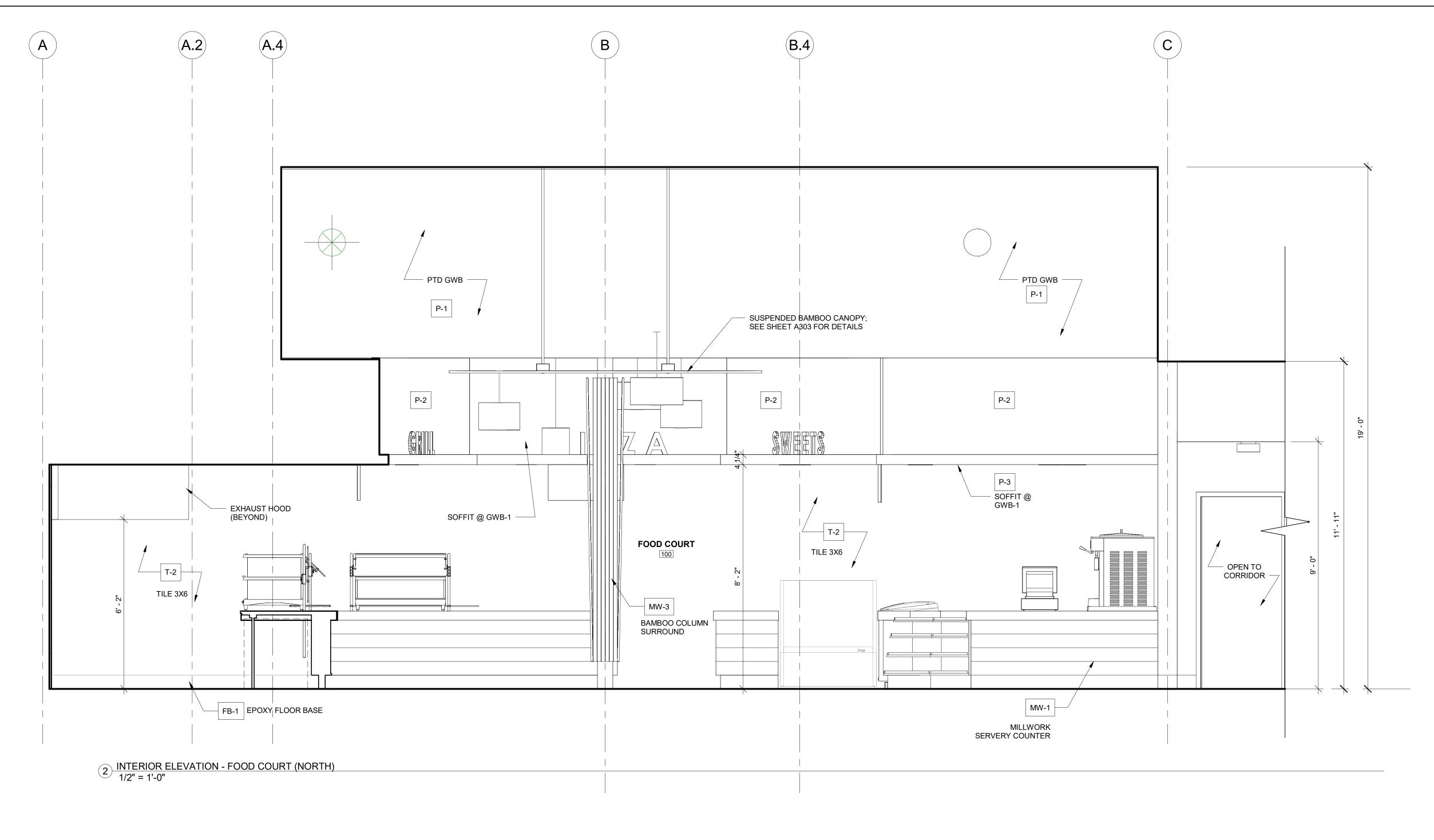
TE 9 NORTH, CA HOUSE, NJ 0

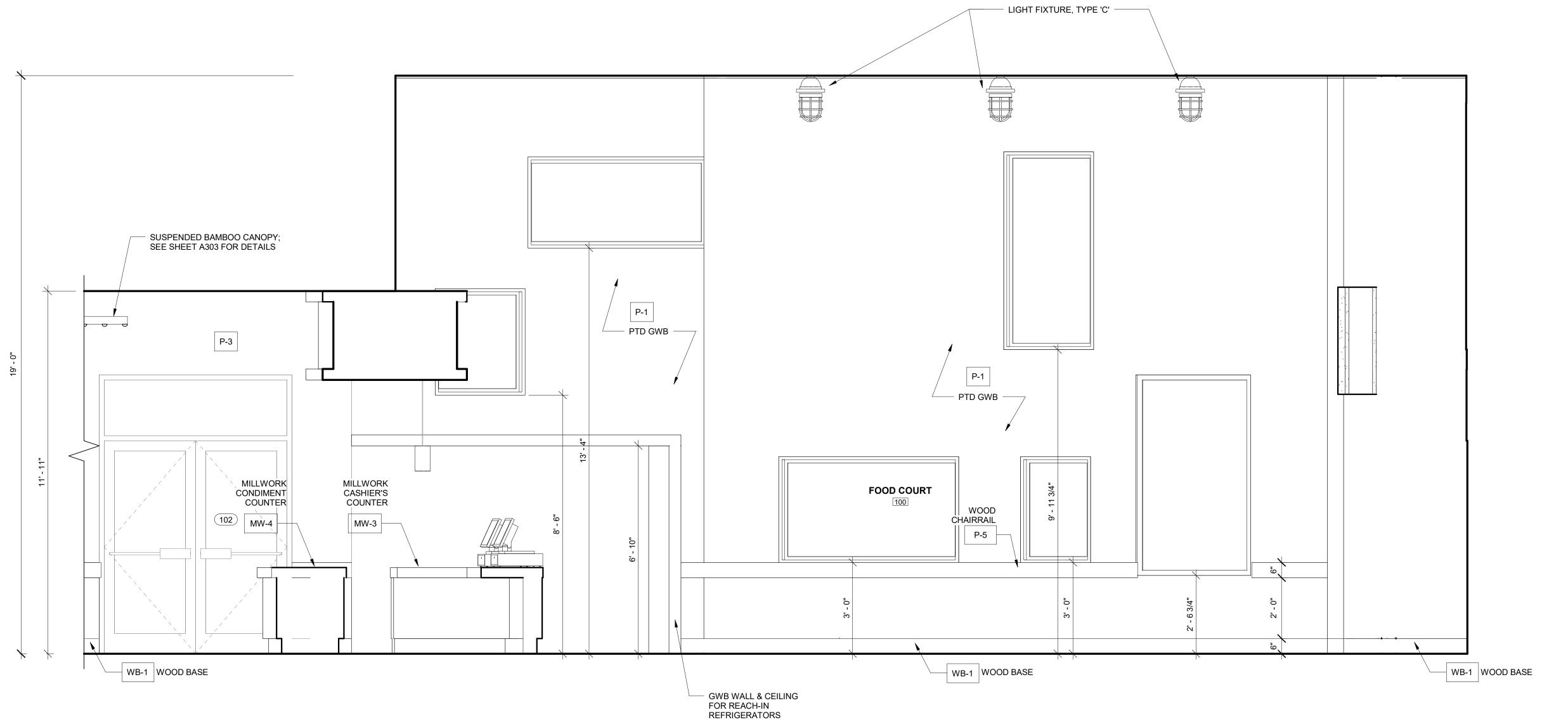
MAY NEW

INTERIOR

ISSUED FOR BID

2-12-2020





ISSUED FOR BID 2-12-2020

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

MEP ENGINEER:

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS** 321 SOUTH YORK ROAD

HATBORO, PA 19040

STRUCTURAL ENGINEER: CKS STRUCTURES, INC.

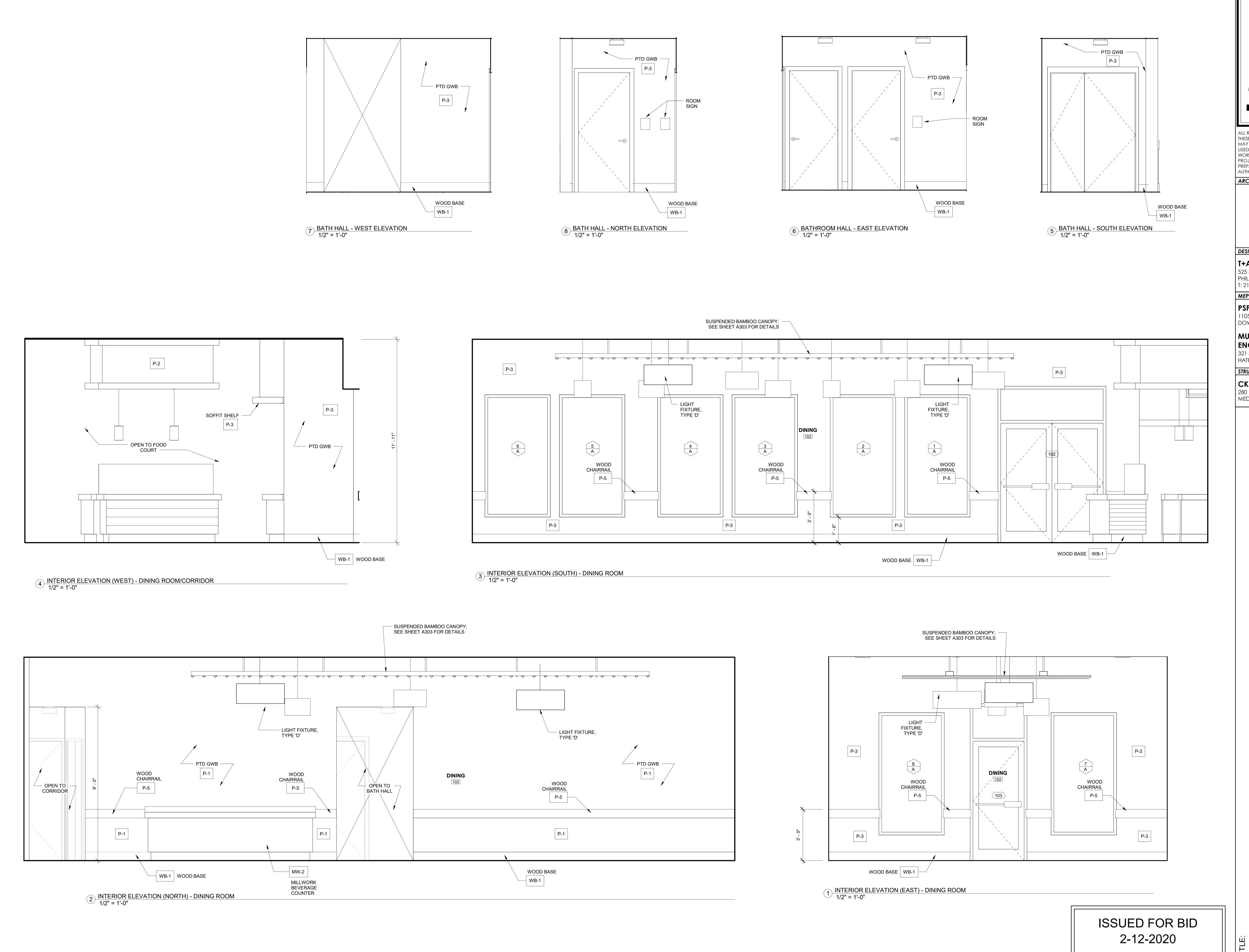
280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

SAF/ BUIL

INTERIOR I COURT

2020 Specification 9 Safari Cafe Page 535 of 566

1 INTERIOR ELEVATION (SOUTH) - BEVERAGE COUNTER 1/2" = 1'-0"



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040

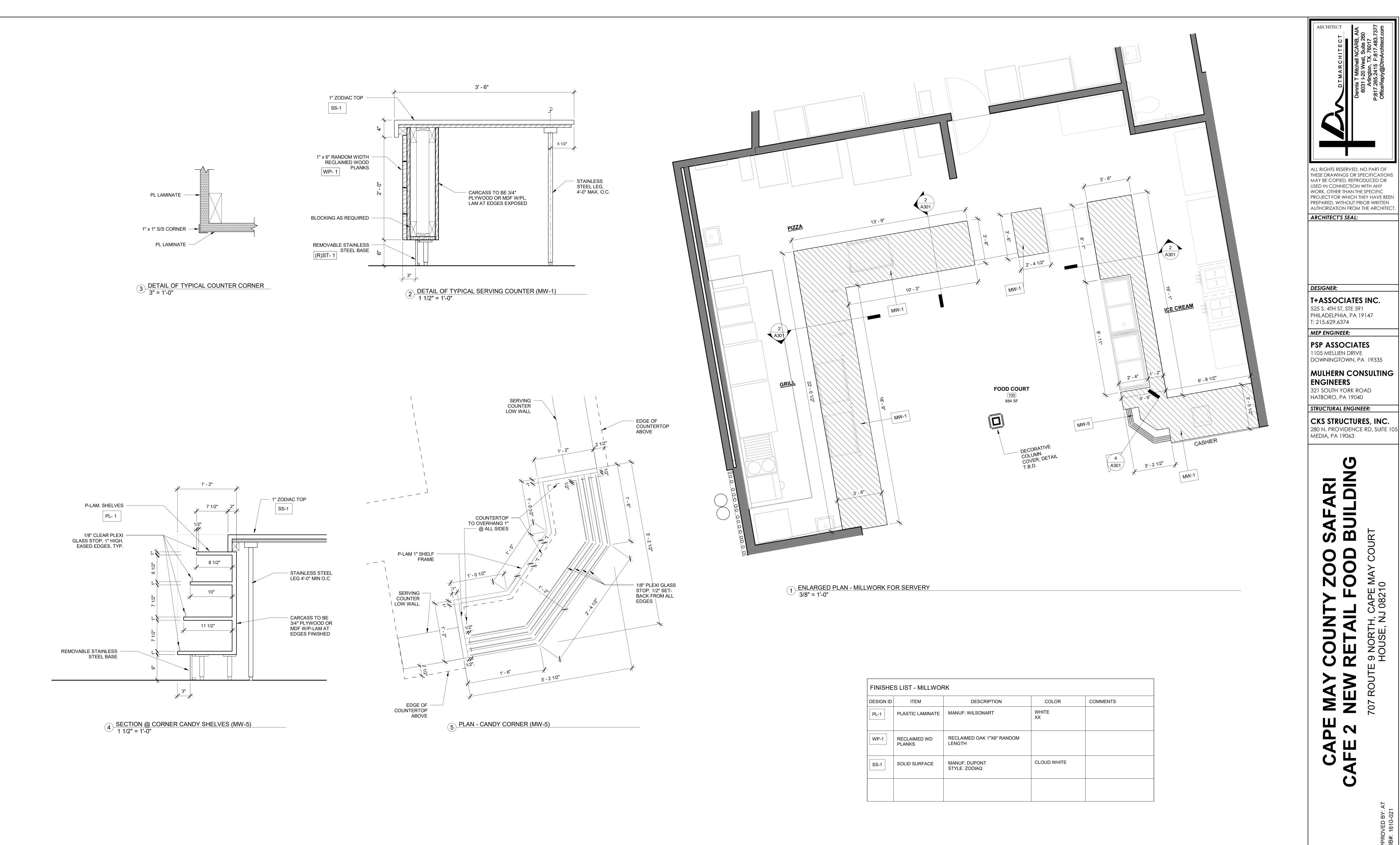
STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

S/B 200 000

9 NORTH HOUSE, N

INTERIOR



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT. ARCHITECT'S SEAL: DESIGNER: T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374 **MEP ENGINEER: PSP ASSOCIATES** 1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335 MULHERN CONSULTING **ENGINEERS** 321 SOUTH YORK ROAD

HATBORO, PA 19040

MEDIA, PA 19063

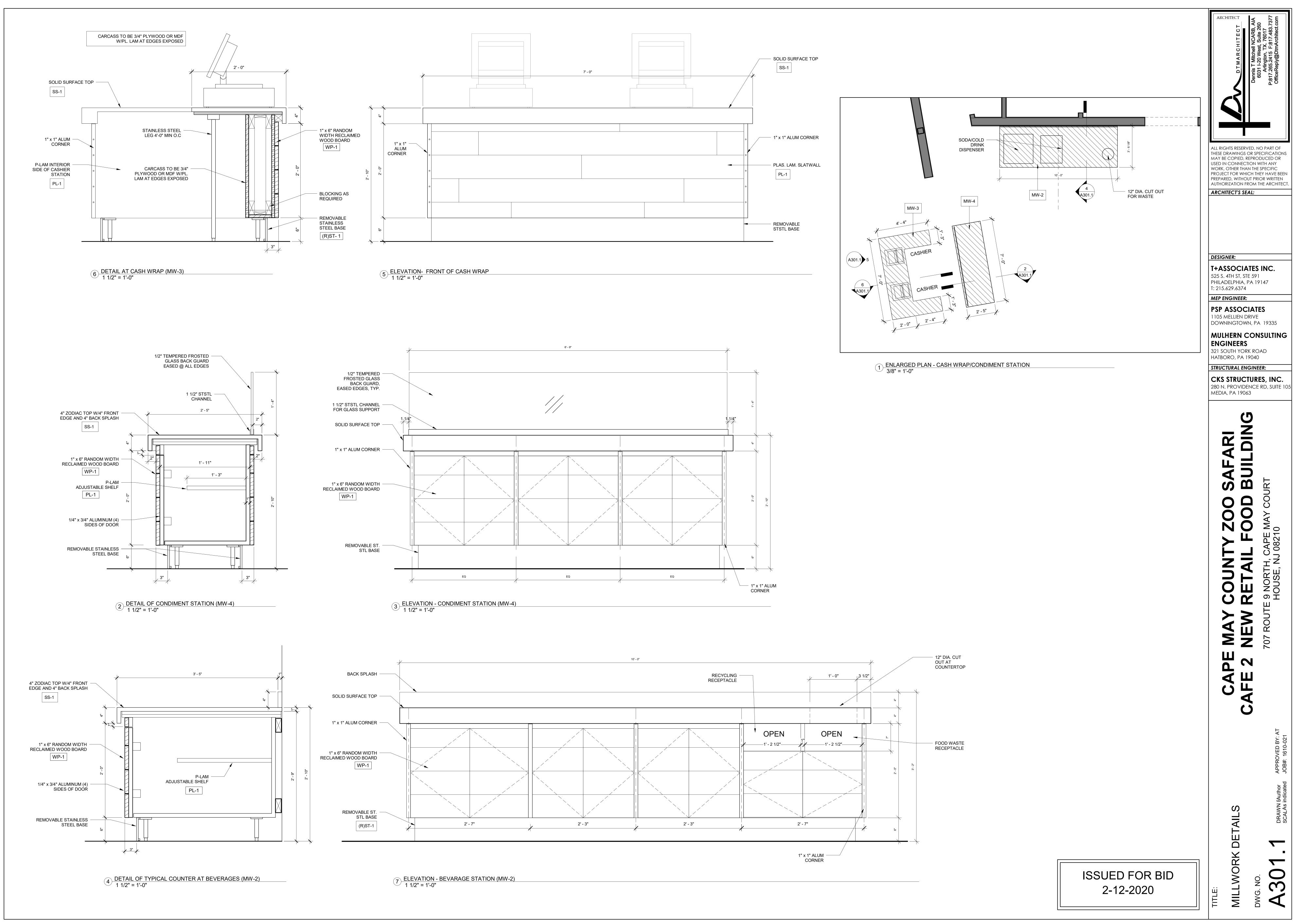
STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

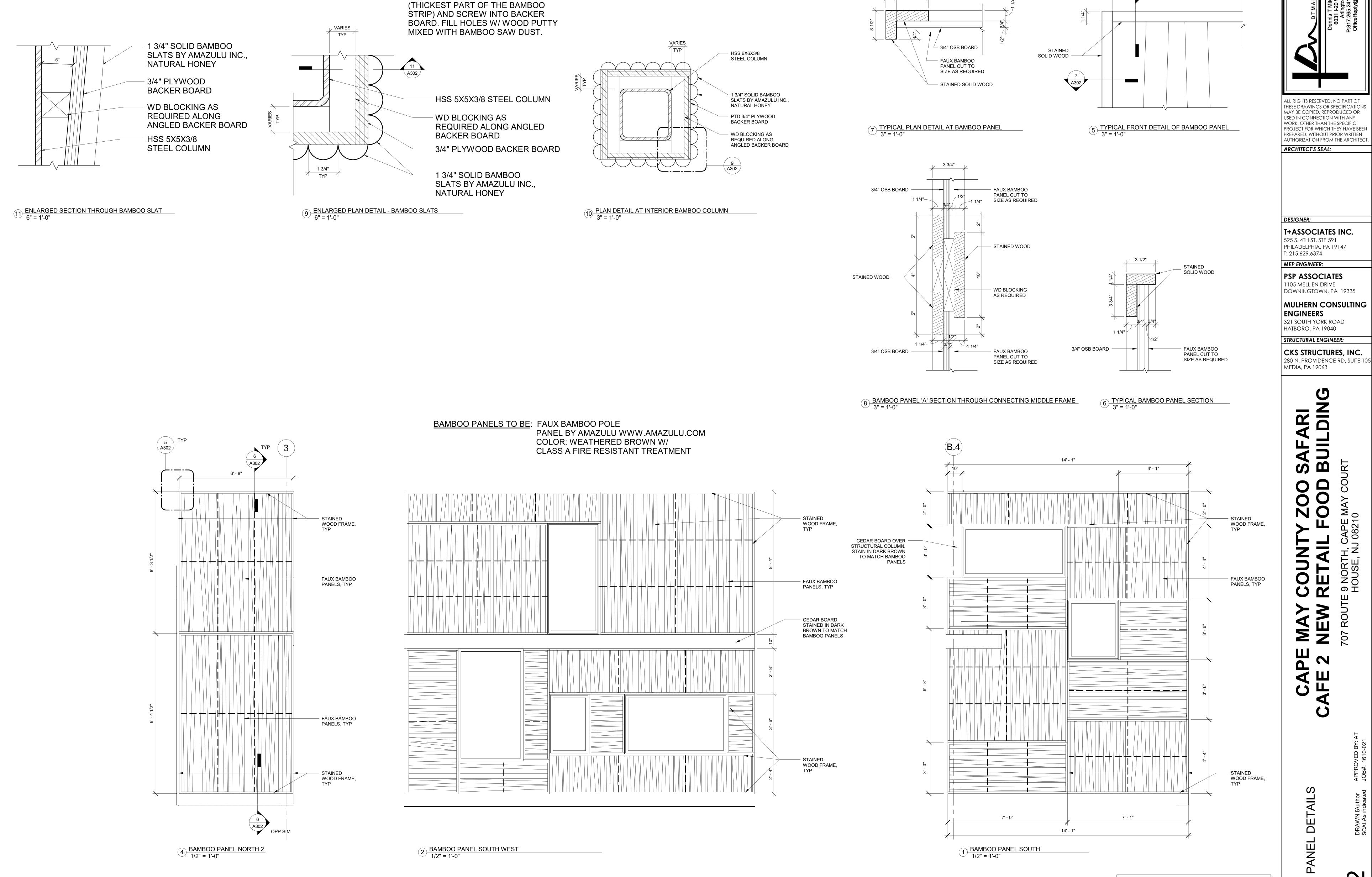
SAF/ BUIL 200 000 000 9 NORTH HOUSE, N

ISSUED FOR BID

2-12-2020



2020 Specification 9 Safari Cafe Page 538 of 566



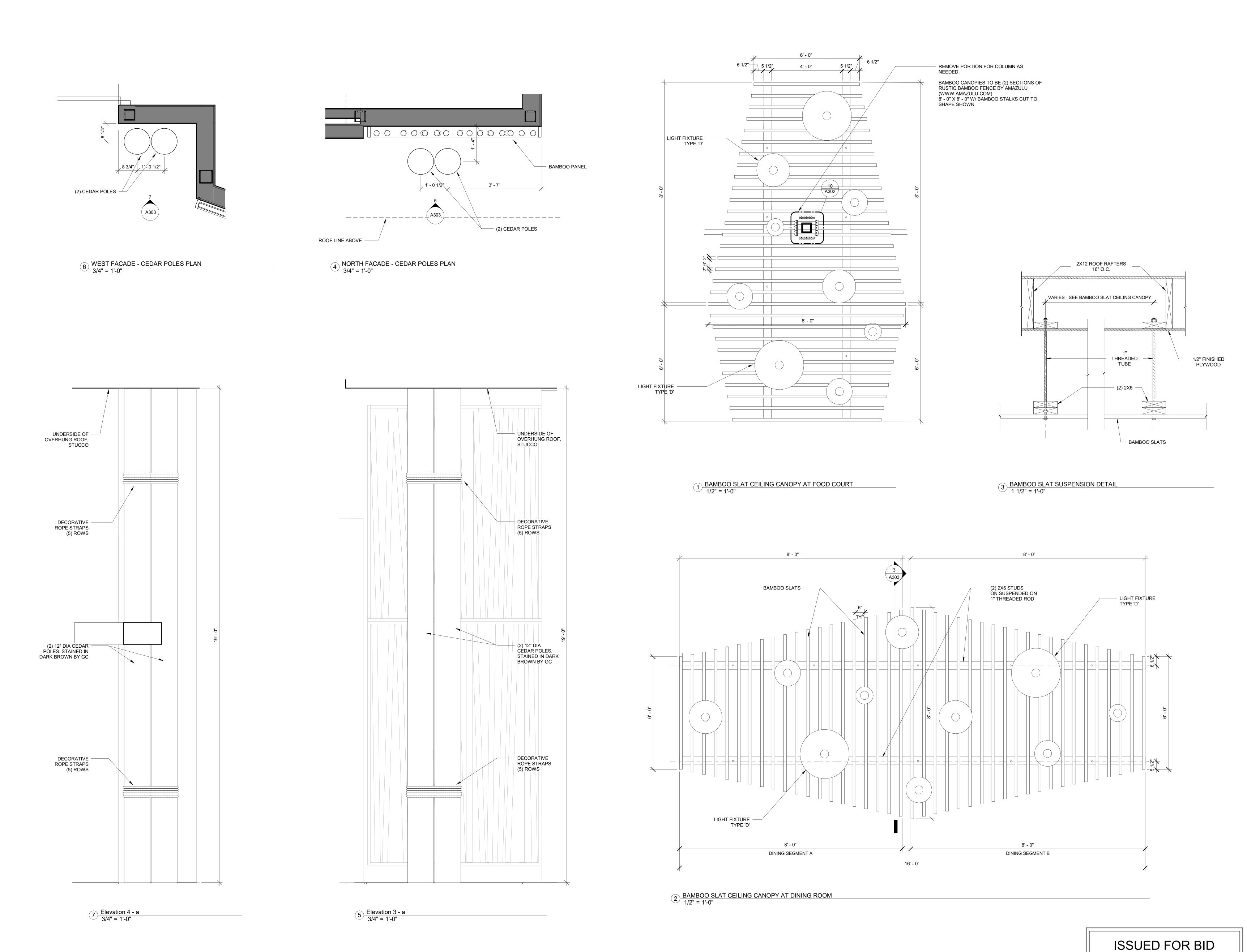
TO ATTACH BAMBOO SLATS - PRE-

DRILL A HOLE IN THE NODE

ISSUED FOR BID

2-12-2020

DWG. NO. **A302**



ALL RIGHTS RESERVED. NO PART OF

THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: **PSP ASSOCIATES**

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER: CKS STRUCTURES, INC.

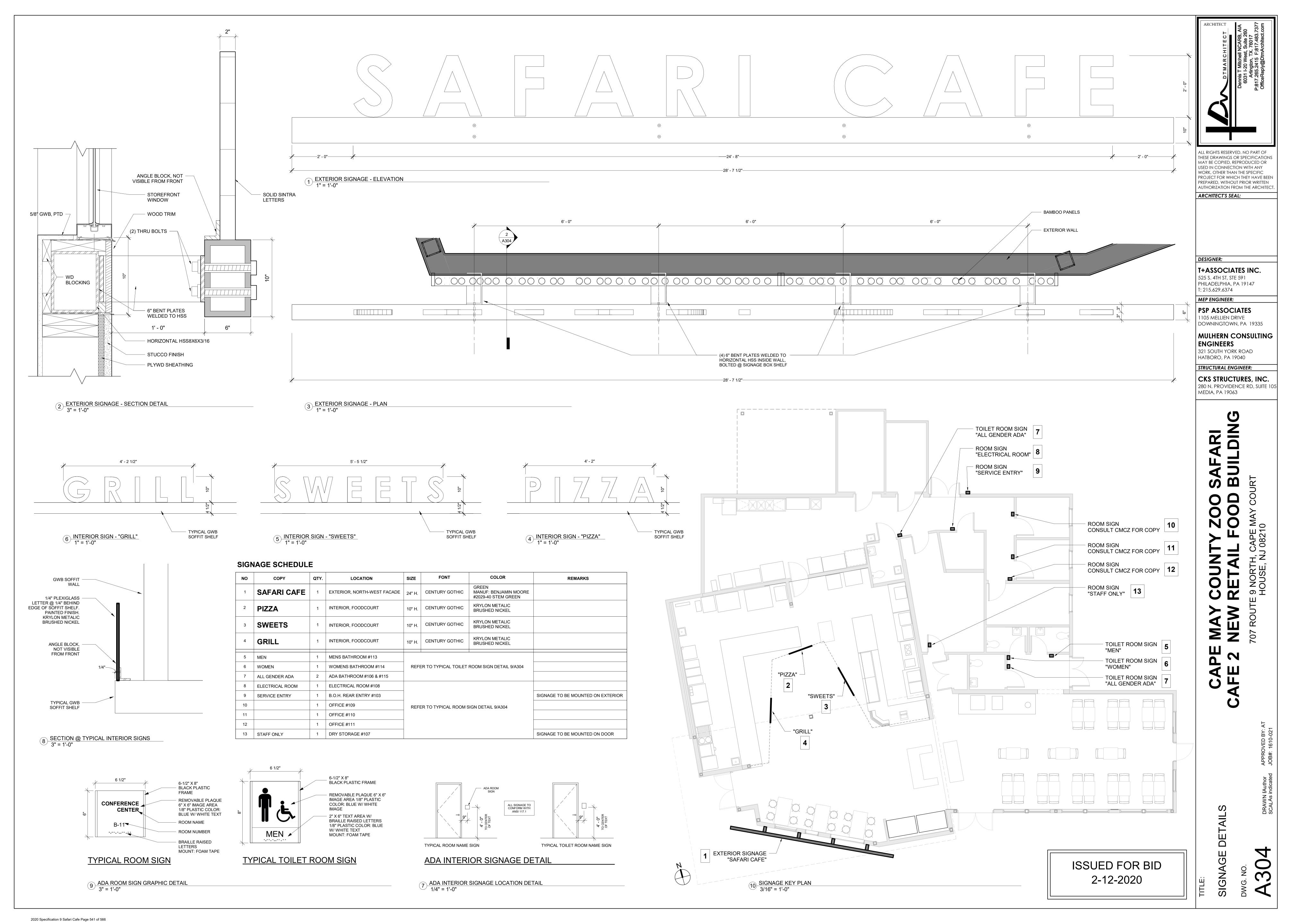
280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

SAF, BUIL Z000

9 NORTI HOUSE,

BAMBOO SLAT SUSPEND CANOPY DETAILS G. NO.

2-12-2020



GENERAL NOTES & SPECIFICATIONS

1. GOVERNING CODE: 2015 INTERNATIONAL BUILDING CODE - NJ EDITION 2. DESIGN LIVE LOADS, PSF: SEE PLAN FOR MECH. UNITS, DRIFTS AND SPECIAL CONDITIONS IN ADDITION TO MINIMUM DESIGN a. GROUND SNOW (P_g): b. FLAT ROOF SNOW (MINIMUM) (P_f, P_m): 20 PSF SNOW EXPOSURE FACTOR (Ce): d. SNOW IMPORTANCE FACTOR (Is): e. THERMAL FACTOR (C_t): a. SPEED (MPH): 123 (ULTIMATE) b. RISK CATEGORY: c. IMPORTANCE FACTOR (I_w): d. EXPOSURE CATEGORY: e. INTERNAL PRESSURE COEFFICIENT: a. SEISMIC USE GROUP: b. MAPPED SPECTRAL RESPONSE: S_S: 0.114; S₁: 0.047 d. SPECTRAL RESPONSE COEFF S_{DS}: 0.121; S_{D1}: 0.075 . SEISMIC DESIGN CATEGORY: BASIC SEISMIC-FORCE-RESISTING SYS: DESIGN BASE SHEAR: SEISMIC RESPONSE COEFF (C_s): RESPONSE MOD. FACTOR (R) ANALYSIS PROCEDURE USED: **EQUIVALENT LATERAL FORCE PROCEDURE** PUBLIC AREAS: 20 PSF (INCLUDES CEILING/ROOFING ENVELOPE) REFER TO LATEST EDITION OF ASCE-7 FOR MATERIAL & SYSTEM WEIGHTS FOR DESIGN LOADS NOT LISTED. 3. IF STRUCTURAL DRAWINGS ARE USED FOR LAYING OUT COLUMN CENTERS AND WALL LINES, ALL DIMENSIONS SHALL FIRST BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS. SURVEY LAYOUT FOR THE BUILDING SHALL BE CHECKED AND "BE CLOSED" BEFORE WORK IS COMMENCED. 4. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATION ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED. 5. SECTIONS AND DETAILS SHOWN, WHILE DRAWN FOR SPECIFIC LOCATIONS, ARE INTENDED TO ESTABLISH THE GENERAL TYPES OF DETAILS TO BE USED THROUGHOUT. IF THE CONTRACTOR WISHES TO USE DETAILS OTHER THAN THOSE SHOWN ON THE DRAWINGS, SUCH DETAILS SHALL BE SUBMITTED FOR APPROVAL, AND APPROVAL CONFIRMED, BEFORE SHOP DRAWINGS ARE COMMENCED. 6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL APPLICABLE CODES AND REGULATIONS. APPROPRIATE SAFETY MEASURES SATISFYING LOCAL AND OSHA REQUIREMENTS SHALL BE PROVIDED. 7. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR HAVING VISITED THE SITE AND HAVING

NOT COMPLETED IN ACCORDANCE WITH STRUCTURAL ENGINEER'S PLANS AND/OR SPECIFICATIONS. 9. THE STRUCTURAL ENGINEER'S REVIEW OF SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO FOLLOW THE INTENT OF THE CONTRACT DRAWINGS, UNLESS A WRITTEN REQUEST FOR A CHANGE HAS BEEN PREVIOUSLY SUBMITTED AND APPROVED BY THE STRUCTURAL 10. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE.

IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. PROVIDE ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.

11.THESE DRAWINGS ARE ISSUED FOR PERMIT APPLICATION REVIEW ONLY. DRAWINGS MAY NOT BE USED AS CONSTRUCTION DOCUMENTS UNTIL ALL REVIEW COMMENTS HAVE BEEN INCORPORATED AND A BUILDING PERMIT HAS BEEN ISSUED.

FOUNDATIONS & EARTHWORK

1. FOUNDATIONS SHALL BEAR ON UNDISTURBED VIRGIN SOIL AND/OR CONTROLLED COMPACTED FILL MATERIAL PROVIDING A PRESUMPTIVE MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 3000 PSF. THE SLAB-ON-GRADE DESIGN WAS BASED ON ACHIEVING A WESTERGAARD MODULUS OF SUBGRADE GRADE WERE DESIGNED FOR AN EQUIVALENT FLUID PRESSURE OF 40 PCF. PRIOR TO FOOTING CONCRETE PLACEMENT, THE FOOTING SUBGRADE SHALL BE APPROVED BY A LICENSED GEOTECHNICAL ENGINEER 28. LOCATE WELDED WIRE FABRIC 1-1/2 INCHES BELOW TOP OF SLAB. WILL RENDER THIS FOUNDATION PLAN VOID, IN WHICH CASE, THE STRUCTURAL ENGINEER SHALL BE CONTRACTED TO PROVIDE A NEW FOUNDATION DESIGN.

2. ALL REQUIREMENTS FOR SITE PREPARATION AND SOIL COMPACTION SPECIFIED IN THE SOILS REPORT

MASONRY SHALL BE FOLLOWED UNLESS ADDITIONAL MORE STRINGENT REQUIREMENTS ARE SPECIFIED. THE SERVICES OF A GEOTECHNICAL ENGINEER OR APPROVED TESTING AGENCY SHALL BE RENDERED TO VERIFY THAT THE SUBSURFACE SITE CONDITIONS MEET THE DESIGN PARAMETERS NOTED ABOVE. NOTIFY ARCHITECT OR STRUCTURAL ENGINEER IF FOUNDATION CONDITIONS ENCOUNTERED DIFFER FROM SOILS EXPLORATION INFORMATION MADE AVAILABLE TO THE CONTRACTOR. CONDITIONS THAT DO NOT MEET THE MINIMUM STANDARDS CITED ABOVE WILL RENDER THIS FOUNDATION AND SLAB DESIGN VOID, IN WHICH CASE THE STRUCTURAL ENGINEER SHALL BE CONTACTED TO PROVIDE NEW

FOUNDATION DESIGN. 3. FOOTINGS ARE TO BEAR AT LOWEST OF FOLLOWING REQUIREMENTS: a. ELEVATIONS NOTED ON DRAWINGS.

b. SOIL SUITABLE FOR DESIGN BEARING PRESSURE, AS DETERMINED BY GEOTECHNICAL ENGINEER. c. FROST DEPTH (AS DETERMINED BY LOCAL BUILDING DEPARTMENT) WITH RESPECT TO FINISH GRADE. d. SLOPE OF 1 VERTICAL TO 2 HORIZONTAL FROM NEAREST ADJACENT FOUNDATION. 4. PROTECT ALL EXISTING UNDERGROUND UTILITIES WITHIN WORK AREAS. CONSULT EXISTING MECHANICAL

DRAWINGS RELEVANT TO SUCH UTILITIES. 5. BACKFILL SHALL BE GRANULAR MATERIAL APPROVED BY GEOTECHNICAL ENGINEER, DEPOSITED AND OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR) AS VERIFIED BY TESTING LABORATORY.

6. EXCAVATE ALL FOUNDATIONS TO REASONABLY EXACT OUTLINE AND DEPTH, AVOIDING OVER-EXCAVATION AND CAVE-IN OF SURROUNDING MATERIALS AFTER SLAB SUBGRADE WORK IS COMPLETE. BOTTOMS OF ALL FOUNDATIONS SHALL BE DRY AND LEVEL PRIOR TO POURING. 7. PROTECT SUBGRADE UNDER ALL FOOTINGS AND SLABS ON GRADE FROM FREEZING DURING CONSTRUCTION. 8. NO FILL OR BACKFILL SHALL BE PLACED AGAINST RETAINING OR FOUNDATION WALLS UNTIL GROUT OR

CONCRETE HAS ATTAINED DESIGN STRENGTH AND SUPPORTING MEMBERS ARE IN PLACE, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM STRUCTURAL ENGINEER. 9. ALL SLABS ON GRADE SHALL BE UNDERLAIN WITH A MINIMUM OF 6-INCHES OF WELL-GRADED CRUSHED STONE (AASHTO #57 OR SIMILAR).

1 ALL CONCRETE WORK SHALL BE IN CONFORMANCE WITH "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318 AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 301 LATEST EDITIONS. CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. 2. ALL CONCRETE SHALL BE READY MIX AND DESIGNED IN ACCORDANCE WITH ACI 301. DESIGN MIXES AND ADMIXTURES SHALL BE SUBMITTED FOR APPROVAL.

3. CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS IN 28 DAYS, U.N.O. FOOTINGS AND PIERS: SLABS ON GRADE: 4000 PSI ALL EXPOSED CONCRETE: ALL OTHER CONCRETE, U.O.N.:

4. ALL CONCRETE SHALL HAVE: A SLUMP OF 4" (PLUS OR MINUS 1"), 2 TO 4 PERCENT AIR ENTRAINMENT, AND A MAX. WATER/CEMENT RATIO OF 0.55. 5. PROVIDE 4-6 PERCENT AIR ENTRAINMENT FOR ALL EXPOSED CONCRETE. 6. SUBMIT SHOP DRAWINGS TO STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL INCLUDING FULL INFORMATION FOR PLACING ALL REINFORCING, WITHOUT REFERENCE TO THE DESIGN DRAWINGS. 7. ALL CONCRETE REINFORCING BARS SHALL FROM BILLET STEEL IN ACCORDANCE WITH ASTM A-615 GRADE

60. ALL WELDED WIRE FABRIC SHALL BE ASTM A-185. WWF SHALL BE LAPPED AT LEAST 8 INCHES AND CONTAIN AT LEAST ONE CROSS WIRE WITHIN THE 8 INCHES. 8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMEN a. 3" CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.

b. 2" CONCRETE EXPOSED TO EARTH OR WEATHER, #6 THROUGH #18 BARS. c. 1 1/2" CONCRETE EXPOSED TO EARTH OR WEATHER, #5 BAR AND SMALLER. d. 11/2" CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH - FOR THE PRIMARY REINFORCEMENT. TIES. STIRRUPS. AND SPIRALS IN BEAMS AND COLUMNS.

e. 3/4" CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH EARTH - FOR SLABS, WALLS, AND JOISTS. #11 BAR AND SMALLER. 9. PROVIDE CORNER BARS TO MATCH SIZE AND SPACING OF HORIZONTAL REINFORCING AT CORNERS OF ALL CONCRETE WALL, FOOTING AND GRADE BEAM CONSTRUCTION. CORNER BARS SHALL LAP HORIZONTAL REINFORCEMENT A MINIMUM OF 48 BAR DIAMETERS. U.N.O. 10. CONTRACTOR SHALL PROVIDE SPACERS, CHAIRS, BOLSTERS, ETC. AS NECESSARY TO SUPPORT REINFORCING STEEL. SUPPORT ITEMS WHICH BEAR ON EXPOSED CONCRETE SURFACES SHALL HAVE ENDS

WHICH ARE PLASTIC TIPPED OR STAINLESS STEEL. L1. HOOKS SHALL BE PROVIDED AT DISCONTINUOUS ENDS OF ALL TOP BARS OF BEAMS AND AT SLABS EDGES. 2. MINIMUM LAP SPLICES ON ALL REINFORCING BAR SPLICES SHALL BE 48 BAR DIAMETERS, EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS. FOR BEAMS AND ELEVATED SLABS, LAP BOTTOM STEEL AT THE SUPPORT AND TOP STEEL OVER THE MIDSPAN, UNLESS OTHERWISE NOTED. 13. REFER TO TYPICAL DETAILS FOR SPECIFICATIONS ON CONTROL JOINTS, CONSTRUCTION JOINTS, AND EXPANSION JOINTS.

AND WALL FOOTINGS WITH A DEPTH OF 1 1/2" AND HEIGHT EQUAL TO ONE-THIRD OF THE MEMBER'S DEPTH. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED ON THE DRAWINGS. CONSTRUCTION JOINTS MAY BE USED ONLY AT LOCATIONS SHOWN ON THE DRAWINGS OR AT OTHER LOCATIONS APPROVED BY THE STRUCTURAL ENGINEER. 15. ALL CONCRETE, INCLUDING FOUNDATION WORK, IS TO BE VIBRATED. VIBRATORS SHALL NOT BE USED TO

TRANSPORT CONCRETE. 16. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 304, LATEST EDITION. CONCRETE SHALL NOT BE SUBJECT TO DROPS IN EXCESS OF 5-FEET. 17. CONDUITS, PIPES AND SLEEVES SHALL NOT BE LARGER THAN 1/3 OVERALL THICKNESS OF SLAB, WALL OR BEAM IN WHICH THEY ARE EMBEDDED UNLESS OTHERWISE NOTED ON DRAWING OR APPROVED BY FAMILIARIZED HIMSELF WITH ALL EXISTING CONDITIONS. ANY QUESTIONS OR DISCREPANCIES FOUND STRUCTURAL ENGINEER. INSERTS SHALL NOT BE PLACED CLOSER THAN 3 DIAMETERS OR WIDTHS ON WITH REGARD TO THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND CENTER. REFER TO ACI 318 AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. ALL INSERTS ARE TO BE REVIEWED BY ENGINEER PRIOR TO INSTALLATION AND PLACEMENT OF CONCRETE. 8. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR WORK THAT HE DOES NOT REVIEW AND/OR WORK 18. CONTRACTOR SHALL REVIEW ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS, INSERTS, EMBEDDED ITEMS, SLEEVES, SLAB DEPRESSIONS, SLOPES, ETC., AS REQUIRED BY

OTHER TRADES. THESE ITEMS SHALL BE FURNISHED AND INSTALLED PRIOR TO PLACEMENT OF 19. ALL ANCHOR BOLTS SHALL BE IN PLACE PRIOR TO POURING CONCRETE 20. CONTRACTOR SHALL PROVIDE 3/4 INCH CHAMFER ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS, AND WALLS UNLESS OTHERWISE INDICATED ON THE ARCHITECTURAL DRAWINGS. 21. SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL SLAB DETAILS INDICATED ON THE CONSTRUCTION DOCUMENTS.

23. PRIOR TO POURING FLOOR SLABS, REFER TO THE CONSTRUCTION DOCUMENTS FOR ADDITIONAL WORK TO BE COMPLETED IN OR BELOW THE FLOOR. 24. AFTER ALL UNDER-SLAB WORK HAS BEEN INSTALLED. CONTRACTOR SHALL FIELD CONFIRM THE DENSITY DETECTED SHALL BE UNDERCUT AND REPLACED WITH SUITABLE FILL PLACED AND COMPACTED AS DIRECTED BY GEOTECHNICAL ENGINEER. ANY AREAS WHERE THE COMPACTED SUB-GRADE IS DEPRESSED SHALL BE FILLED WITH SUITABLE MATERIAL AND RE-COMPACTED. 25. PROVIDE ½ INCH PREFORMED EXPANSION JOINTS IN SLABS WHERE INDICATED. REFER TO TYPICAL SLAB

26. COLUMNS SHALL BE ISOLATED FROM THE FLOOR SLAB WITH FULL CONSTRUCTION JOINTS AND SHAPE, AND OF A UNIFORM SIZE. REACTION, K, EQUAL TO OR BETTER THAN 150 PCI. IN ADDITION, ALL FOUNDATION WALLS BELOW 27. RAMPS, SLOPING SLABS, STEPS, AND SLABS EXPOSED TO WEATHER SHALL RECEIVE A LIGHT BROOMED FINISH, U.O.N.

FOR THE PARAMETERS LISTED ABOVE. CONDITIONS THAT DO NOT MEET THESE MINIMUM PARAMETERS 29. PROVIDE SPECIAL INSPECTIONS FOR CONCRETE CONSTRUCTION PER THE REQUIREMENTS OF IBC TABLE

1. ALL WORK FOR MASONRY INCLUDING COMPOSITION, QUALITY AND PLACEMENT OF MATERIALS, QUALITY ASSURANCE FOR MATERIALS AND CONSTRUCTION OF MASONRY SHALL COMPLY WITH LATEST EDITION OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES ACI520-08/ASCE 5-08/TMS 402-08" AND THE "SPECIFICATIONS FOR MASONRY STRUCTURES ACI 530.1-08/ASCE 6-08/TMS 602-08. . HOLLOW LOAD BEARING CMU UNITS SHALL CONFORM TO ASTM C-90, WITH A MINIMUM NET COMPRESSIVE STRENGTH OF 1,900 PSI (F'_{M} = 1,500 PSI), UNLESS OTHERWISE NOTED ON PLANS. 3. MORTAR TYPE SHALL BE PORTLAND CEMENT/LIME, TYPE S CONFORMING TO ASTM C270, U.O.N. ALL 14. ROOF SHEATHING SHALL BE 5/8" NOMINAL APA RATED SHEATHING 40/20, EXPOSURE 1. FASTEN MORTAR FOR USE WITH IVANY MASONRY UNITS SHALL BE TYPE M CONFORMING TO ASTM C270, VERIFIED FROM FIELD-OBTAINED TEST CUBES. MASONRY CEMENT SHALL NOT BE USED. 4. ALL GROUT SHALL BE A DESIGN MIX WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI SMALL 15. WALL SHEATHING SHALL BE 7/16" APA RATED SHEATHING 24/16, EXPOSURE 1. AGGREGATE CONCRETE (<3/8") WITH A MAXIMUM SLUMP OF 8-INCHES MEETING THE REQUIREMENTS

ALL MORTAR MIXES, GROUT MIXES AND ADMIXTURE SHALL BE SUBMITTED FOR APPROVAL. . ALL CMU SHALL BE LAID IN A FULL BED OF MORTAR 7. ALL BOND BEAMS ARE TO BE CONTINUOUS FOR ENTIRE LENGTH OF WALL, UNLESS OTHERWISE NOTED. MACHINE COMPACTED IN 8-INCH MAXIMUM LAYERS. COMPACTION SHALL HAVE A MINIMUM OF 95%

8. ALL OPENINGS SHALL HAVE TWO LINES OF #5 REBAR, 8 INCHES FROM EDGES, AROUND ALL SIDES. EXTEND VERTICALS 2 FEET AND HORIZONTALS 4 FEET BEYOND FACE OF OPENING. ALL WALL INTERSECTIONS SHALL HAVE CORNER BARS MATCHING SIZE AND SPACING OF HORIZONTAL REINFORCEMENT. PROVIDE 1-#5 BAR GROUTED SOLID FULL HEIGHT AT CORNERS OF ALL EXTERIOR MASONRY WALL CONSTRUCTION. 9. VERTICAL REINFORCEMENT FOR CMU SHALL BE HELD IN POSITION AT THE TOP AND BOTTOM AND AT A MAXIMUM SPACING OF 8'-0". REINFORCEMENT SHALL BE PLACED IN THE CENTER OF THE MASONRY CELL

> TYPICAL UNLESS OTHERWISE NOTED. VERTICAL REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS WITH CELLS GROUTED SOLID. 10. ALL REINFORCEMENT SHALL CONFORM TO ASTM A615 GRADE 60 SPECIFICATION. REINFORCING STEEL SHALL BE LAPPED MINIMUM 48 BAR DIAMETERS

> L1. HORIZONTAL WALL REINFORCEMENT SHALL BE STANDARD TRUSS TYPE HORIZONTAL JOINT REINFORCEMENT, 9 GA MIN. AT 16" ON CENTER VERTICAL IN ALL MASONRY, U.N.O. SPACE HORIZONTAL JOINT REINFORCEMENT AT 8 INCHES ON CENTER IN ALL PARAPETS. 12. SPLICED WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 8" AND CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT WITHIN THE 6". PROVIDE SHOP FABRICATED 'T' AND 'L' SHAPED

13. HIGH LIFT GROUTING IS ALLOWED; FOR GROUTING PROCEDURES, SEE NCMA "TEK" SERIES (6 TO 8 FEET MAXIMUM HEIGHT LIFTS RECOMMENDED). PUMPING VIA GROUT PUMP IS PERMITTED; HOWEVER, CONCRETE DELIVERY MUST BE SCHEDULED TO PERMIT PLACEMENT OF ALL MATERIAL DELIVERED WITHIN ONE HOUR. MAXIMUM HALF TRUCK CAPACITY LOADS ARE RECOMMENDED (1 HOUR ON SITE MAXIMUM

14. REFER TO PLANS FOR SPECIFICATIONS OF LINTELS FOR ALL MASONRY OPENINGS OR RECESSES. COORDINATE ALL OPENING REQUIREMENTS WITH ALL TRADES, DRAWING REQUIREMENTS, AND/OR

APPROVED MECHANICAL CUTS AND SHOP DRAWINGS 15. ALL LINTELS SHALL BEAR ON WALL AT EACH END A MINIMUM DISTANCE OF 8-INCHES FOR SPANS UP TO 8'-0". UNLESS NOTED OTHERWISE. 16. ALL BRICK VENEER MASONRY UNITS SHALL BE GRADE SW WITH A MINIMUM COMPRSESSIVE STRENGTH OF 3000 PSI AND BONDED TOGETHER WITH TYPE N MORTAR, U.N.O. ANCHORED MASONRY VENEER

7. PROVIDE SPECIAL INSPECTIONS FOR MASONRY CONSTRUCTION PER THE REQUIREMENTS OF IBC SECTION

SHALL COMPLY WITH THE PROVISIONS OF IBC SECTION 1405.6 THRU 1405.9 AND SECTIONS 6.1 AND 6.2

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL BE IN CONFORMANCE WITH "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", AISC 360-05 (13TH EDITION). MATERIALS STANDARDS (UNLESS NOTED OTHERWISE ON DRAWINGS OR IN PROJECT SPECIFICATIONS):

a. ALL STEEL WF BEAMS SHALL BE ASTM-A992, 50,000 PSI YIELD. b. ALL ANGLES, CHANNELS AND PLATES SHALL BE ASTM-A36, 36,000 PSI YIELD. c. PIPE SHAPES: ASTM A53, 35,000 PSI OR ASTM-A501, 36,000 PSI YIELD. d. HSS SHAPES: ASTM-A500, GRADE B, 46,000 PSI YIELD.

e. ALL OTHER SHAPES SHALL BE ASTM A36, 36,000 PSI YIELD. f. ANCHOR BOLTS & RODS: ASTM-F1554, GRADE 55, UNLESS OTHERWISE NOTED. 3. SHOP CONNECTIONS SHALL BE HIGH-STRENGTH BOLTED OR WELDED. MINIMUM BOLT SHALL BE 3/4" DIAMETER, ASTM A325N, UNO. MINIMUM SIZE WELD, UNLESS OTHERWISE NOTED, IS TO BE 3/16 INCH

FILLET, E70XX ELECTRODES. ELECTRODES SHALL BE SUITED TO STEEL GRADE. 4. FIELD CONNECTIONS SHALL BE HIGH-STRENGTH BOLTED, 3/4" DIAMETER, ASTM A325N, UNO. BEAM AND SHEAR CONNECTIONS WITH HIGH-STRENGTH BOLTS ARE TO BE BEARING TYPE, UNLESS NOTED OTHERWISE. WHERE FIELD-WELDING IS NOTED, IT SHOULD BE PERFORMED BY CERTIFIED WELDERS ONLY. . WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIFTY, AWS D1.1.

6. BOLTS AND BOLTED CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" AS APPROVED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS. 7. ALL CONNECTIONS SHALL BE FULL DEPTH CONNECTIONS AS FOLLOWS: a. BEAMS TO HSS COLUMNS: 3/8" THROUGH PLATE. BOLTS SHALL BE AT 3" o.c. VERT., U.N.O.

b. BEAM TO GIRDER: FULL DEPTH, SINGLE ANGLE SHEAR CONNECTION TO BE SUBMITTED FOR REVIEW AND APPROVAL, BOLTS SHALL BE AT 3" o.c. VERT., U.N.O. c. ALL CONNECTIONS SHALL BE DESIGNED FOR A MINIMUM SERVICE LOAD REACTION OF 20 KIPS. 8. FIELD CONNECTIONS BY CUTTING OR BURNING ARE PROHIBITED, EXCEPT BY SPECIFIC APPROVAL OF THE

9. STEEL FRAMING SHALL BE PROPERLY BRACED UNTIL AFTER FINAL CONNECTIONS ARE MADE 10.STRUCTURAL AND MISCELLANEOUS STEEL FABRICATORS SHALL BE RESPONSIBLE FOR OBTAINING AND VERIFYING ALL FIFLD DIMENSIONS NECESSARY FOR THE COMPLETION OF THEIR WORK 11.SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. FABRICATION SHALL NOT COMMENCE UNTIL SHOP DRAWINGS ARE APPROVED. IF THE FABRICATOR PROPOSES USING DETAILS OTHER THAN THOSE SHOWN. SUCH DETAILS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE DETAILED SHOP DRAWINGS HAVE BEEN SUBMITTED. COORDINATE ALL DETAILING TO INCLUDE STRUCTURAL STEEL INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS. 12.STEEL SHAPES, PLATES, ETC. WHICH ARE EXPOSED TO WEATHER SHALL BE GALVANIZED (OR PAINTED WITH A RUST INHIBITING, EPOXY PAINT SYSTEM). 13.ALL STEEL BEAMS SHALL BE THOROUGHLY CLEANED IN ACCORDANCED WITH SSPC-SP2 OR BETTER. 14.PROVIDE ONE COAT OF STANDARD SHOP PAINT ON ALL UNGALVANIZED PIECES EXCEPT AT AREAS TO BE FIELD WELDED.

16.ALL STEEL BEAMS SHALL BE FABRICATED AND ERECTED WITH THE NATURAL CAMBER (WITHIN THE MILL TOLERANCE) LOCATED ABOVE THE HORIZONTAL CENTERLINE BETWEEN THE END CONNECTIONS.

15.TOUCH UP FIELD WELDS AND ANY DAMAGED AREAS OF PAINT IN FIELD AFTER WELDING WITH A ZINC

WOOD CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING BUILDING CODES AND STANDARDS: A. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC): STANDARDS MANUAL. B. AMERICAN FOREST & PAPER ASSOCIATION (AFPA): NATIONAL DESIGN STANDARDS FOR WOOD C. SOUTHERN PINE INSPECTION BUREAU: STANDARD GRADING RULES FOR SOUTHERN PINE LUMBER.

D. TRUSS PLATE INSTITUTE (TPI): DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD E. AMERICAN PLYWOOD ASSOCIATION (APA): GUIDE TO PLYWOOD FOR FLOORS, PLYWOOD SHEATHING FOR WALLS & ROOFS. F. AMERICAN WOOD PRESERVERS ASSOCIATION STANDARDS

2. ALL STRUCTURAL LUMBER SHALL BE STAMPED, BY AN APPROVED AGENCY, IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S "CONSTRUCTION MANUAL". 3. MOISTURE CONTENT OF ALL STRUCTURAL LUMBER SHALL BE LESS THAN 19% AS VERIFIED BY STAMP. 4. ALL STRUCTURAL LUMBER SHALL BE AS FOLLOWS: A. RAFTERS, JOISTS, HEADERS, BEAMS: HEM-FIR #2, OR BETTER.

B. 2x12 ROOF RAFTERS: DOUGLAS FIR-LARCH #1 OR BETTER. C. WALL STUDS, POSTS, & PLATES: HEM-FIR #2, OR BETTER.

OF THE SOIL. ANY SOFT, PUMPING, OR OTHERWISE UNSTABLE OR UNSUITABLE SUBGRADE SOIL THUS
5. INSTALL PRESSURE TREATED OR PRESERVATIVE TREATED LUMBER WHERE LUMBER IS IN CONTACT WITH CONCRETE OR IS EXPOSED TO WEATHER. 6. PROVIDE SOLID BLOCKING UNDERNEATH ALL POINT LOADS, CONTINUOUS TO FOUNDATION OR BEARING. BLOCKING SHALL MATCH SIZE OF POST ABOVE. 7. ALL CONNECTIONS SHALL CONFORM TO THE FASTENING SCHEDULE IN IBC CODE, TABLE 2304.9.1, UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS. ALL BOLTED CONNECTIONS SHALL BE MINIMUM

COMPRESSIBLE MATERIAL. SLAB BLOCK-OUTS AROUND COLUMNS SHALL BE DIAMOND OR CIRCULAR IN

8. PREFABRICATED METAL HANGERS AND CONNECTORS SHALL BE INSTALLED AS SPECIFIED ON STRUCTURAL PLANS OR SHOP DRAWINGS. NAILING SHALL CONFORM TO MANUFACTURER'S PUBLISHED TABLES TO PROVIDE MAXIMUM HANGER CAPACITY, UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS. NAILS SHALL BE FULLY DRIVEN IN ALL HOLES IN THE ANCHOR. CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE, UNITED STEEL PRODUCTS (USP), OR APPROVED EQUAL. 9. HANGERS AND METAL CONNECTORS SHALL BE ZINC PLATED, UNLESS EXPOSED TO WEATHER. EXPOSED HARDWARE SHALL BE HOT DIPPED GALVANIZED OR COATED AS REQUIRED FOR CONTACT WITH PRESERVATIVE TREATED WOOD.

10. ALL MEMBERS SHALL HAVE LATERAL SUPPORT SUPPLIED AT ALL BEARING POINTS AS WELL AS CONTINUOUSLY ALONG THE COMPRESSION FACE. 11. ALL HEADERS SHALL BE SUPPORTED BY (1) 2X JACK STUD AND (1) 2X KING STUD, MINIMUM. THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK REQUIRED, U.N.O. 12. FACE NAIL MULTI-PLY 2X BEAMS AND HEADERS WITH 2 ROWS OF 12D NAILS AT 12" o.c. STAGGERED. APPLY NAILING FROM BOTH FACES AT 3-PLY OR MORE CONDITIONS 13. ALL ENGINEERED LUMBER SHALL CONFORM TO THE FOLLOWING MINIMUM DESIGN PROPERTIES:

SHEATHING TO FRAMING MEMBERS WITH 8D COMMON NAILS AT 12" ON CENTER IN CENTER AND AT 6"

ON CENTER ALONG THE PANEL EDGES. PROVIDE "H" STYLE CLIPS ALONG UNSUPPORTED EDGES.

 $E = 1,900,000 \text{ PSI } F_b = 2,600 \text{ PSI}$ $F_v = 285 \text{ PSI } F_{cll} = 2,510 \text{ PSI}$ $F_c = 750 \text{ PSI}$

ALL RIGHTS RESERVED. NO PART OF

THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT

ENGINEER'S SEAL:

CHRISTOPHER K. SCHARFF, P.E 24GE04505000

T+ASSOCIATES INC 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

T: 215.629.6374 MEP ENGINEER:

PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335 MULHERN CONSULTING

ENGINEERS 321 South York Road HATBORO, PA 19040

CKS STRUCTURES, INC.

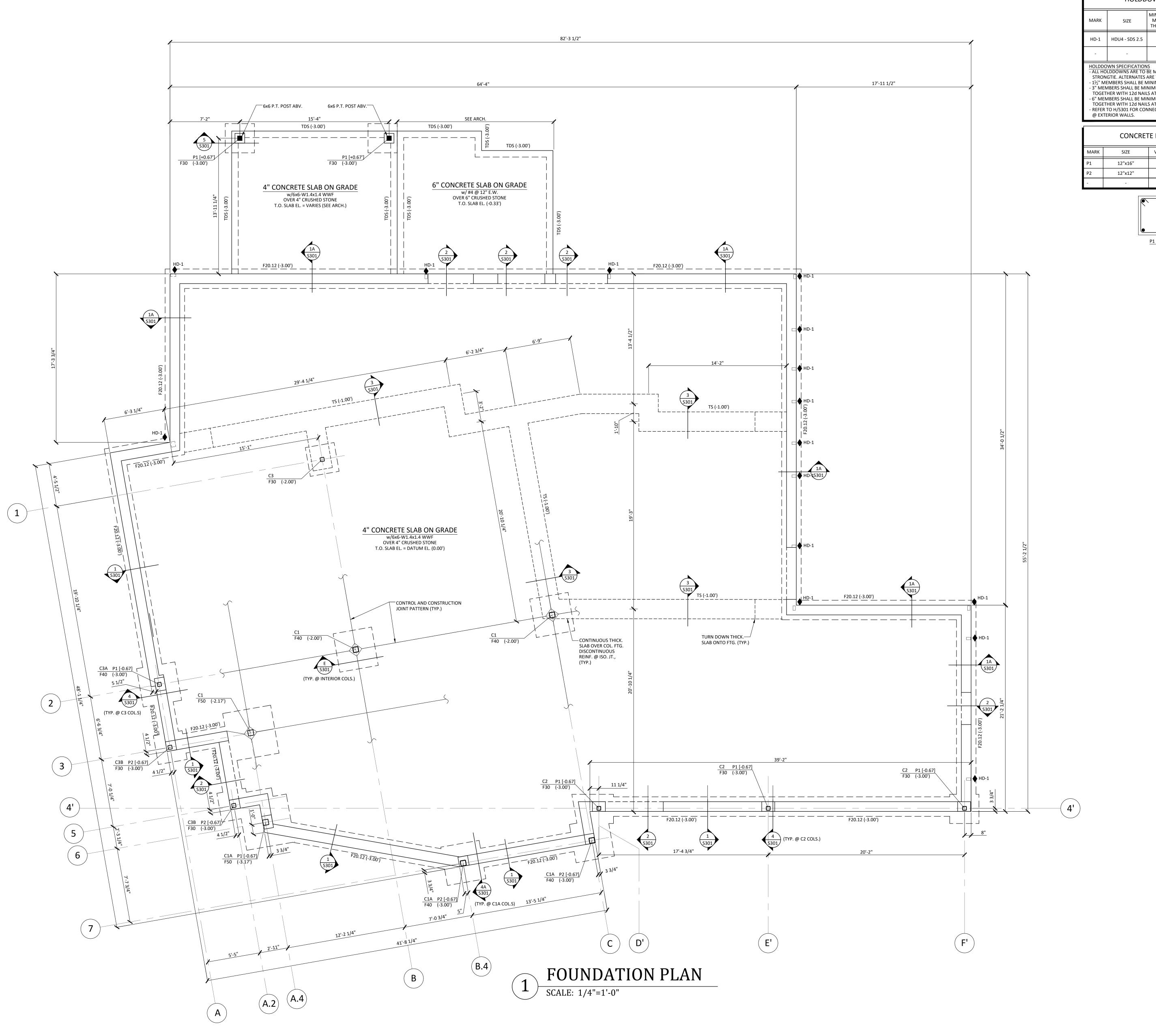
280 N. PROVIDENCE RD, SUITE 10.

MEDIA, PA 19063

CKS STRUCTURES STRUCTURAL ENGINEERS

280 N. PROVIDENCE RD., SUITE 105 PHONE: 484-444-2329 CKS PROJECT NO.: 138.18.005

ISSUE FOR BID 2-12-20



HOLDDOWN SCHEDULE

MARK	SIZE	SIZE MIN. WOOD MEMBER THICKNESS		FASTENERS	
HD-1	HDU4 - SDS 2.5	3"	PAB 5 w/ 6" MIN. EMBED.	(10) ½" x 2½ SDS	
-	_	-	-	-	

HOLDDOWN SPECIFICATIONS
- ALL HOLDDOWNS ARE TO BE MANUFACTURED BY SIMPSON STRONGTIE. ALTERNATES ARE TO BE SUBMITTED FOR APPROVAL. $-1\frac{1}{2}$ " MEMBERS SHALL BE MINIMUM OF (1) 2x STUD - 3" MEMBERS SHALL BE MINIMUM OF (2) 2x STUDS FASTENED

TOGETHER WITH 12d NAILS AT 4" o.c. - 6" MEMBERS SHALL BE MINIMUM OF (4) 2x STUDS FASTENED TOGETHER WITH 12d NAILS AT 4" o.c.
- REFER TO H/S301 FOR CONNECTION OF ANCHORS TO FOUNDATION

CONCRETE PIER SCHEDULE

MARK	SIZE	VERTICAL REINF.	TIES
P1	12"x16"	(4) #7	#3 @ 12" O.C.
P2	12"x12"	(4) #6	#3 @ 12" O.C.
-	-	-	-

FOUNDATION NOTES

- TOP OF SLAB ELEV. = DATUM ELEV. (0.00')
- (...) INDICATES BOTTOM OF FOOTING ELEVATION RELATIVE TO
- [....] TOP OF PIER ELEV. RELATIVE TO DATUM, U.N.O. COORDINATE ALL UNDERSLAB PIPING AND CONDUITS PRIOR TO
- PLACING SLAB. • "TDS" INDICATES TURNED DOWN SLAB. SEE TYPICAL DETAIL ON
- DWG S301. • "S.F." INDICATES STEPPED FOOTING. SEE DETAIL ON \$301.
- SEE ARCH. DWG. FOR UNDERSLAB VAPOR BARRIER SPECIFICATION. VERIFY ALL SLAB SLOPES, STEPS, & ELEVATIONS w/ ARCHITECTURAL

FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT
F30	3'-0"x3'-0"x12"	(3) #4 E.W.B.
F40	4'-0"x4'-0"x12"	(4) #4 E.W.B.
F50	5'-0"x5'-0"x14"	(6) #4 E.W.B.
F20.12	2'-0"x12" DEEP (CONT.)	(3)#4 CONT. + #4 @ 24" o.c. T
TS	2'-0"x12" DEEP (CONT.) THICKENED SLAB	(3)#4 CONT.

STEEL COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	ANCHOR BOLTS
C1	HSS7x7x½"	1"x13"x1'-1"	(4) ¾" DIA.
C1A	HSS7x7x½"	1"x11"x1'-1"	(4) ¾" DIA.
C1B	HSS7x7x½"	1"x11"x0'-11"	(4) ¾" DIA.
C2	HSS5x5x ³ / ₈ "	³ ⁄ ₄ "x8"x1'-0"	(4) ¾" DIA.
C3	HSS5x5x ³ ⁄ ₁₆ "	³ ⁄ ₄ "x12"x1'-0"	(4) ¾" DIA.
СЗА	HSS5x5x ³ ⁄ ₁₆ "	³ / ₄ "x8"x1'-0"	(4) ¾" DIA.
СЗВ	HSS5x5x ³ ⁄ ₁₆ "	3/4"x8"x0'-8"	(3) ¾" DIA.

ARK	SIZE	REINFORCEMENT
)	3'-0"x3'-0"x12"	(3) #4 E.W.B.
)	4'-0"x4'-0"x12"	(4) #4 E.W.B.
)	5'-0"x5'-0"x14"	(6) #4 E.W.B.
0.12	2'-0"x12" DEEP (CONT.)	(3)#4 CONT. + #4 @ 24" o.c. TR
	2'-0"x12" DEEP (CONT.) THICKENED SLAB	(3)#4 CONT.

1ARK	SIZE	BASE PLATE	ANCHOR BOLT
1	HSS7x7x½"	1"x13"x1'-1"	(4) ¾" DIA.
1A	HSS7x7x½"	1"x11"x1'-1"	(4) ¾" DIA.
1B	HSS7x7x½"	1"x11"x0'-11"	(4) ¾" DIA.
2	HSS5x5x ³ / ₈ "	³ / ₄ "x8"x1'-0"	(4) ¾" DIA.
3	HSS5x5x ³ ⁄ ₁₆ "	³ ⁄ ₄ "x12"x1'-0"	(4) ¾" DIA.
3A	HSS5x5x ³ ⁄ ₁₆ "	³ / ₄ "x8"x1'-0"	(4) ¾" DIA.

CHRISTOPHER K. SCHARFF, P.E.

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN

AUTHORIZATION FROM THE ARCHITECT.

ENGINEER'S SEAL:

24GE04505000 DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER:

PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335 MULHERN CONSULTING

ENGINEERS 321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

FOUNDATION PL

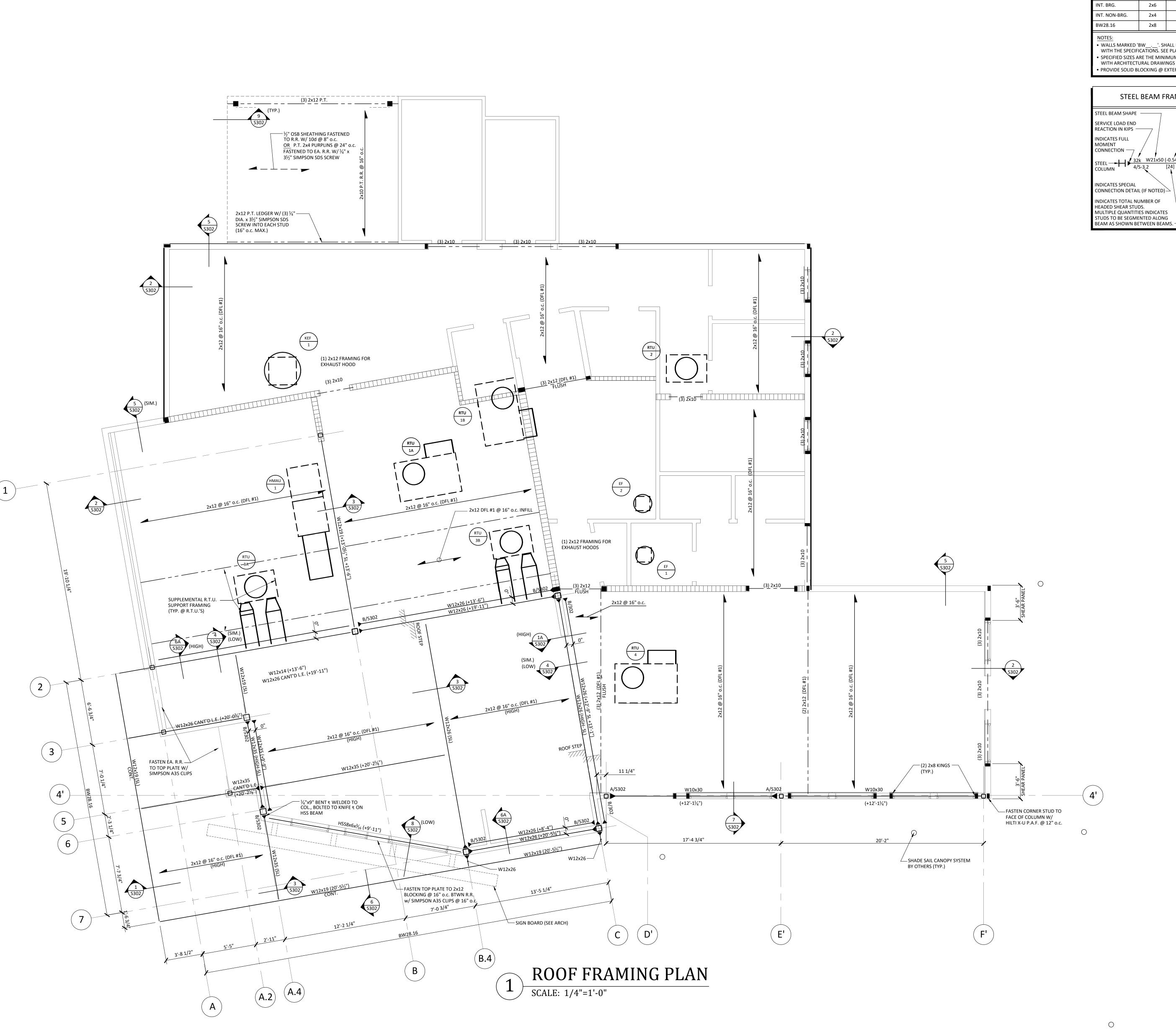
CKS STRUCTURES, INC.
280 N. PROVIDENCE RD., SUITE 105 MEDIA, PA 19063
PHONE: 484-444-2329 FAX: 484-444-2331

ISSUE FOR BID 2-12-20

CKS STRUCTURES

STRUCTURAL ENGINEERS

CKS PROJECT NO.: 138.18.005



SIZE SPECIES GRADE SPACING No. 2 16" o.c. SPF No. 2 16" o.c STUD 16" o.c SPF 2x8 SPF No. 2 16" o.c.

BEARING WALL SCHEDULE

• WALLS MARKED 'BW__.__'. SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS. SEE PLANS FOR LOCATIONS. • SPECIFIED SIZES ARE THE MINIMUM REQUIRED. COORDINATE SIZES WITH ARCHITECTURAL DRAWINGS AS REQUIRED. • PROVIDE SOLID BLOCKING @ EXTERIOR BEARING WALLS.

STEEL BEAM FRAMING PLAN KEY

/ TOP OF BEAM EL. RELATIVE TO DATUM. 'SL' INDICATES SLOPING BEAM. — BEAM CAMBER (IF NOTED) 112k-ft ∠INDICATES PARTIAL CONNECTION DETAIL (IF NOTED) MOMENT CONNECTION — INDICATES SERVICE INDICATES TOTAL NUMBER OF LOAD PARTIAL MULTIPLE QUANTITIES INDICATES CONNECTION CAP. STUDS TO BE SEGMENTED ALONG IN KIP-FEET

• REFER TO 'BEARING WALL SCHEDULE' FOR STUD SIZE, GRADE & SPACING AT ALL EXTERIOR & INTERIOR BEARING WALLS. • (W1) INDICATES PLYWOOD/OSB SHEAR WALL. REFER TO 'EXTERIOR/SHEAR WALL SPECIFICATIONS' FOR ADDITIONAL

32/16, EXPOSURE 1. FASTEN SHEATHING TO FRAMING MEMBERS W/ 8d COMMON NAILS @ 6" O.C. @ PANEL EDGES & @ 12" O.C. @ INTERMEDIATE SUPPORTS. • PROVIDE (1) SIMPSON H2.5A CLIP @ EA. ROOF RAFTER BEARING

 BUILDER TO VERIFY CORROSION-RESISTANCE COMPATIBILITY OF HARDWARE & FASTENERS IN CONTACT w/ PRESERVATIVE-TREATED WOOD. CONTACT LUMBER & HARDWARE SUPPLIERS TO COORDINATE. INDICATES BUILT-UP 2x POST IN WALL. PROVIDE MINIMUM

OF (2) STUDS, U.O.N. SIZE AND GRADE OF STUDS SHALL BE IN

ACCORDANCE WITH 'BEARING WALL SCHEDULE'

• EXTERIOR WALL SHEATHING: 7_{16} " PLYWOOD OR OSB FASTENED w/ 8d NAILS @ 4" o.c. AT ALL PANEL

• ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO • SEE ARCHITECTURAL DRAWINGS FOR ADD'L WALL CONSTRUCTION REQUIREMENTS.

LEGEND

• — - INDICATES BEAM / HEADER ____ INDICATES EXTENT OF SHEARWALL

FRAMING NOTES

• TOP OF SLAB ELEV. = DATUM ELEV. (0.00') INFORMATION.

• ALL HEADERS, BEAMS, & OTHER STRUCTURAL MEMBERS SHALL BE HEM-FIR #2 LUMBER, OR BETTER. • ALL 2X12 ROOF RAFTERS SHALL BE DOUGLAS FIR-LARCH No. 1 MINIMUM ($F_b = 1000 \text{ psi}, E = 1,700,000 \text{ psi}$) ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD & (1)2x KING STUD, MINIMUM, U.N.O. • ROOF SHEATHING SHALL BE 5/8" PLYWOOD A.P.A. RATED SHEATHING

LOCATION AND (2) H2.5A CLIPS @ BEARING LOCATIONS OF ALL ROOF BEAMS AND HEADERS, U.O.N.

 ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY FOUNDATION SHALL BE PRESERVATIVE

TREATED SOUTHERN PINE #2.

EXTERIOR WALL & SHEAR WALL SHEATHING **SPECIFICATIONS**

SOL SHEAR PANEL SPEC FASTENER SPACING NOTES 7/16" PLYWOOD OR OSB 8d NAILS 4" o.c. @ ALL EDGES EDGES					
	3OL	SHEAR PANEL SPEC	FASTENER	SPACING	NOTES
	2)		8d NAILS		

EDGES AND 12" o.c. AT CENTER. • PROVIDE HORIZ. 2x SOLID BLOCKING AT ALL UNSUPPORTED PANEL EDGES

IIIIIIII INDICATES INTERIOR BEARING WALL

CHRISTOPHER K. SCHARFF, P.E. 24GE04505000

DESIGNER:

ALL RIGHTS RESERVED. NO PART OF

MAY BE COPIED, REPRODUCED OR

USED IN CONNECTION WITH ANY

WORK, OTHER THAN THE SPECIFIC

ENGINEER'S SEAL:

THESE DRAWINGS OR SPECIFICATIONS

PROJECT FOR WHICH THEY HAVE BEEN

AUTHORIZATION FROM THE ARCHITECT.

PREPARED, WITHOUT PRIOR WRITTEN

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER:

PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335 MULHERN CONSULTING

ENGINEERS 321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER: CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

FRAMING

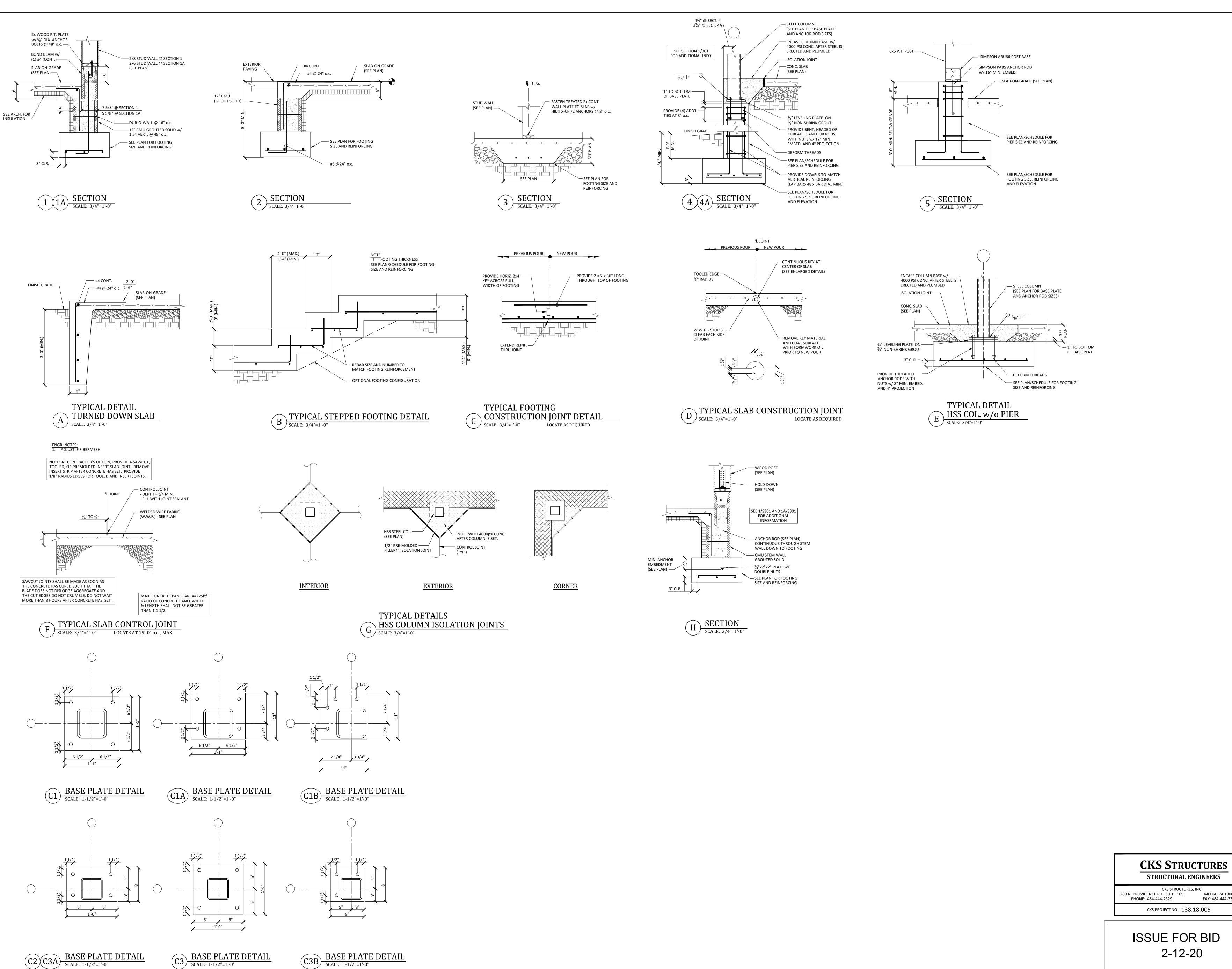
ROOF

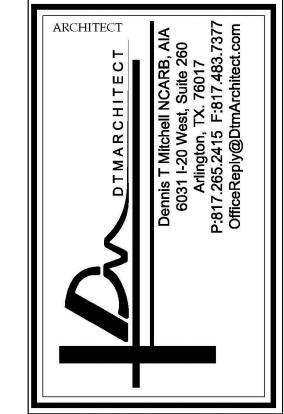
CKS STRUCTURES STRUCTURAL ENGINEERS

CKS STRUCTURES, INC.
280 N. PROVIDENCE RD., SUITE 105 MEDIA, PA 19063
PHONE: 484-444-2329 FAX: 484-444-2331 CKS PROJECT NO.: 138.18.005

> ADDENDUM #2 2-12-20

2020 Specification 9 Safari Cafe Page 544 of 566





ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ENGINEER'S SEAL:

CHRISTOPHER K. SCHARFF, P.E. 24GE04505000 DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591

PHILADELPHIA, PA 19147 T: 215.629.6374 **MEP ENGINEER:**

PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER: CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

200 000

PE

S30

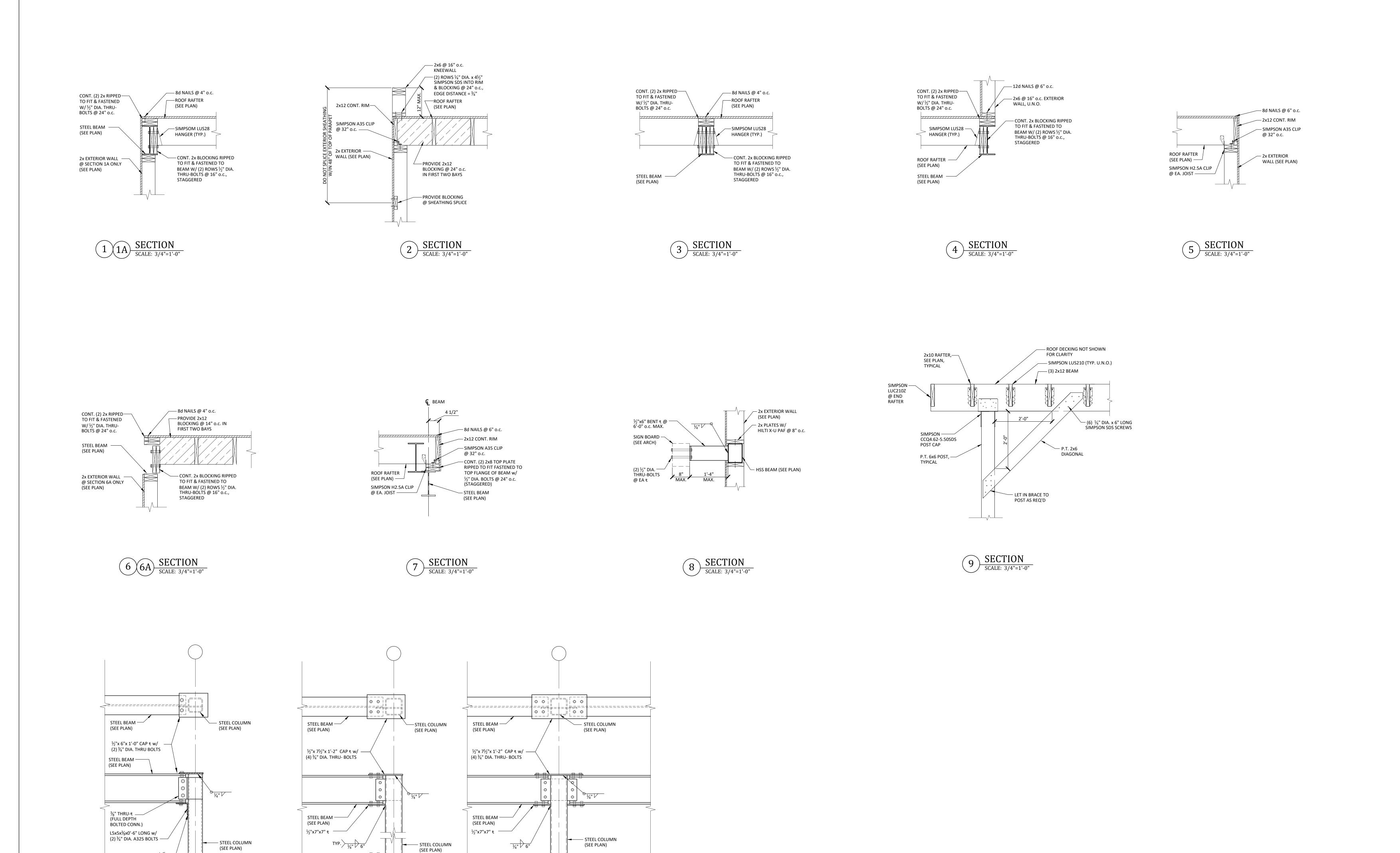
FOUNDATION DE

CKS PROJECT NO.: 138.18.005

MEDIA, PA 19063

FAX: 484-444-2331

ISSUE FOR BID 2-12-20



CKS STRUCTURES STRUCTURAL ENGINEERS

CKS STRUCTURES, INC.
280 N. PROVIDENCE RD., SUITE 105 MEDIA, PA 19063
PHONE: 484-444-2329 FAX: 484-444-2331 CKS PROJECT NO.: 138.18.005

ISSUE FOR BID

2-12-20

FRAMING

PE

2020 Specification 9 Safari Cafe Page 546 of 566

A MOMENT CONN. DETAIL

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

B MOMENT CONN. DETAIL

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

ALL RIGHTS RESERVED. NO PART OF

THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT. **ENGINEER'S SEAL:**

CHRISTOPHER K. SCHARFF, P.E. 24GE04505000 DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

MEP ENGINEER:

T: 215.629.6374

PSP ASSOCIATES 1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105

MEDIA, PA 19063

200 000

DWG. NO. **S302**

SHEET NOTES:

- ② EXHAUST DUCT UP TO FAN ABOVE

1 SUPPLY AND RETURN DUCT DOWN FROM RTU ABOVE.

③ KITCHEN GREASE HOODS, GREASE DUCTS, MAKEUP AIR DUCTS, EXHAUST FANS, MAKEUP AIR FANS, ETC. TO BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

4 OPEN RETURN DUCT WITH SCREEN.

⑤ CONNECTION FROM HMAU-1 SUPPLY DUCT TO HOOD (TYPICAL FOR 6 LOCATIONS) PROVIDE VOLUME DAMPER FOR BALANCING.

6 CONNECTION FROM RTU-1A SUPPLY DUCT TO HOOD (TYPICAL FOR 8 LOCATIONS) PROVIDE VOLUME DAMPER FOR BALANCING.

7 SEE ROOF PLAN FOR CONTINUATION

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

MEP ENGINEER:

T+ASSOCIATES INC.

525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS

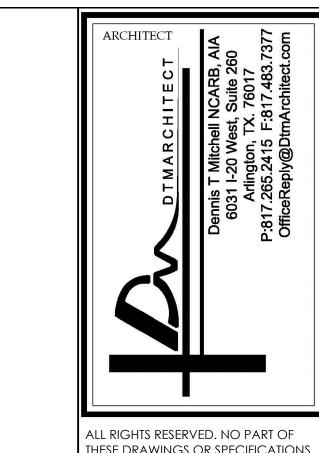
321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER: CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

REVIEW SET 2-12-20

1) FIRST FLOOR MECHANICAL PLAN 1/4" = 1'-0"



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T: 215.629.6374

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

MEP ENGINEER:
PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING

ENGINEERS
321 SOUTH YORK ROAD
HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

TH, CAPE MAY COURT ;, NJ 08210

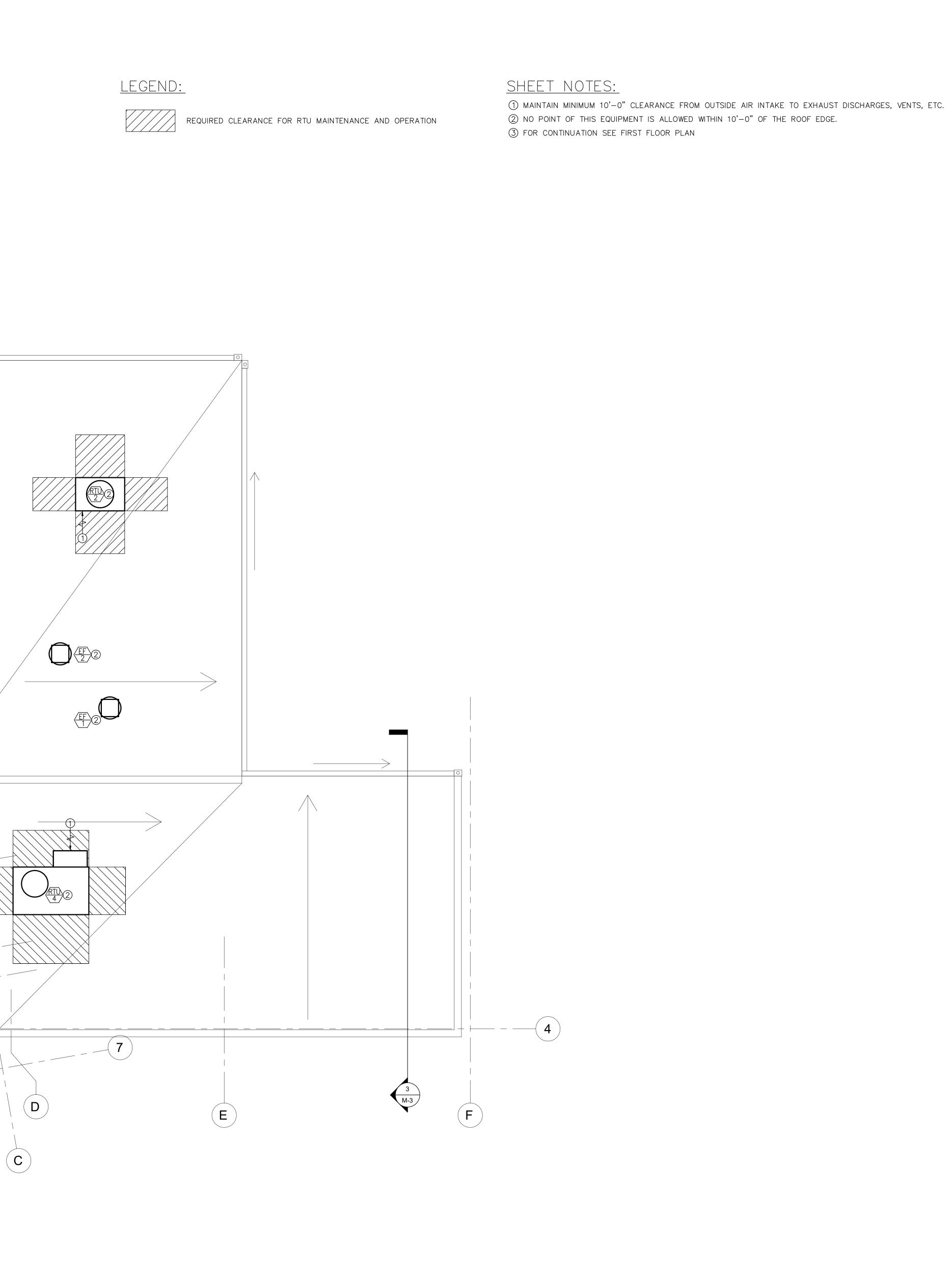
707 ROUTE 9 NORTH, CAF HOUSE, NJ 08

> OVED BY: PJS 1610-021

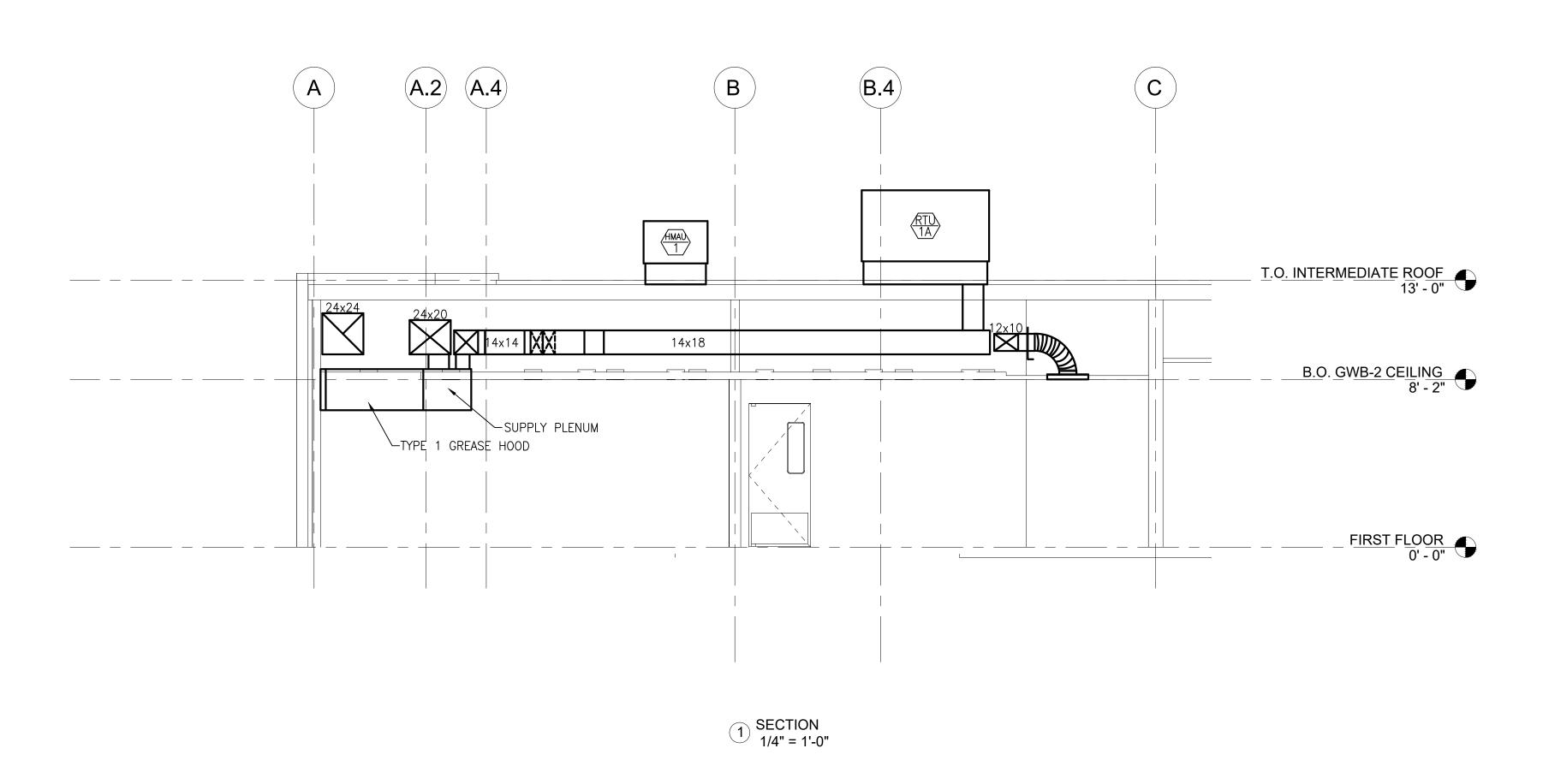
N BY: PJS APPROVED BY : 1/4" = 1'-0" JOB#: 1610-02

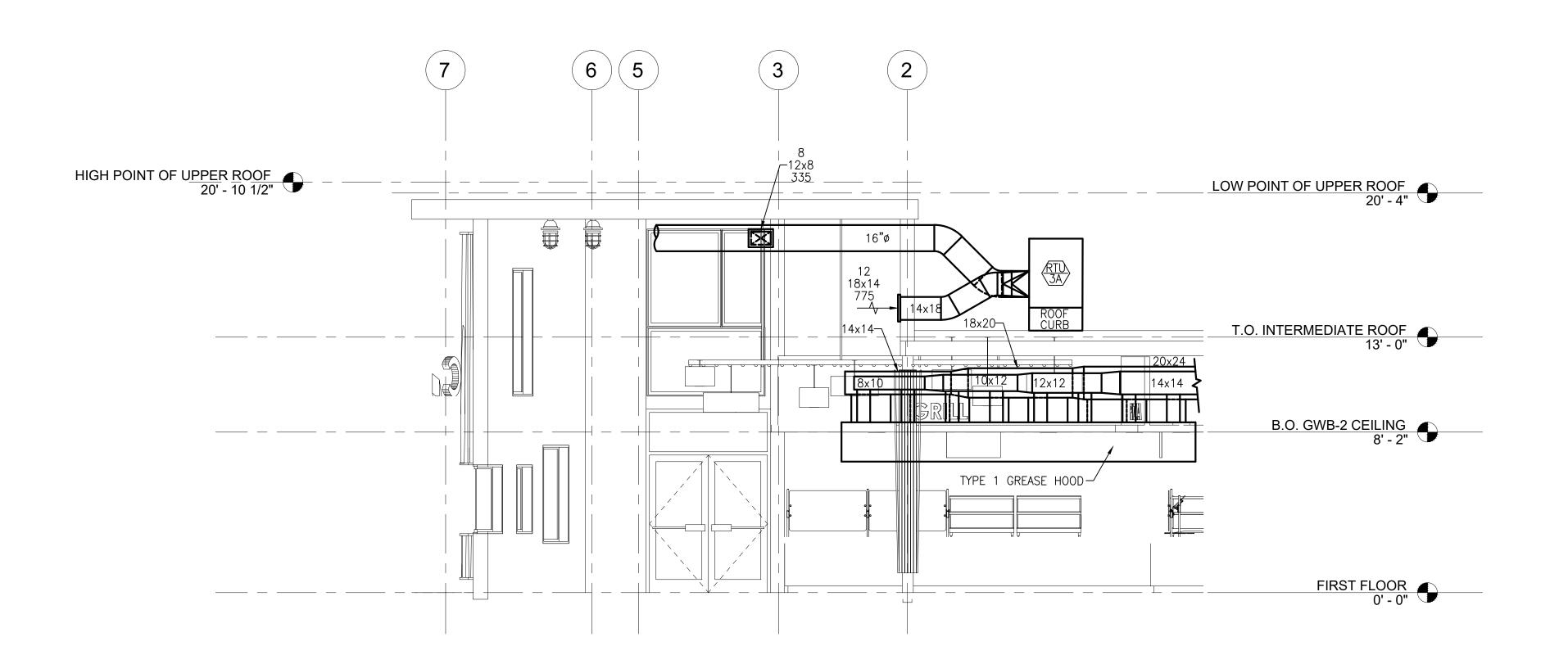
DWG. NO.

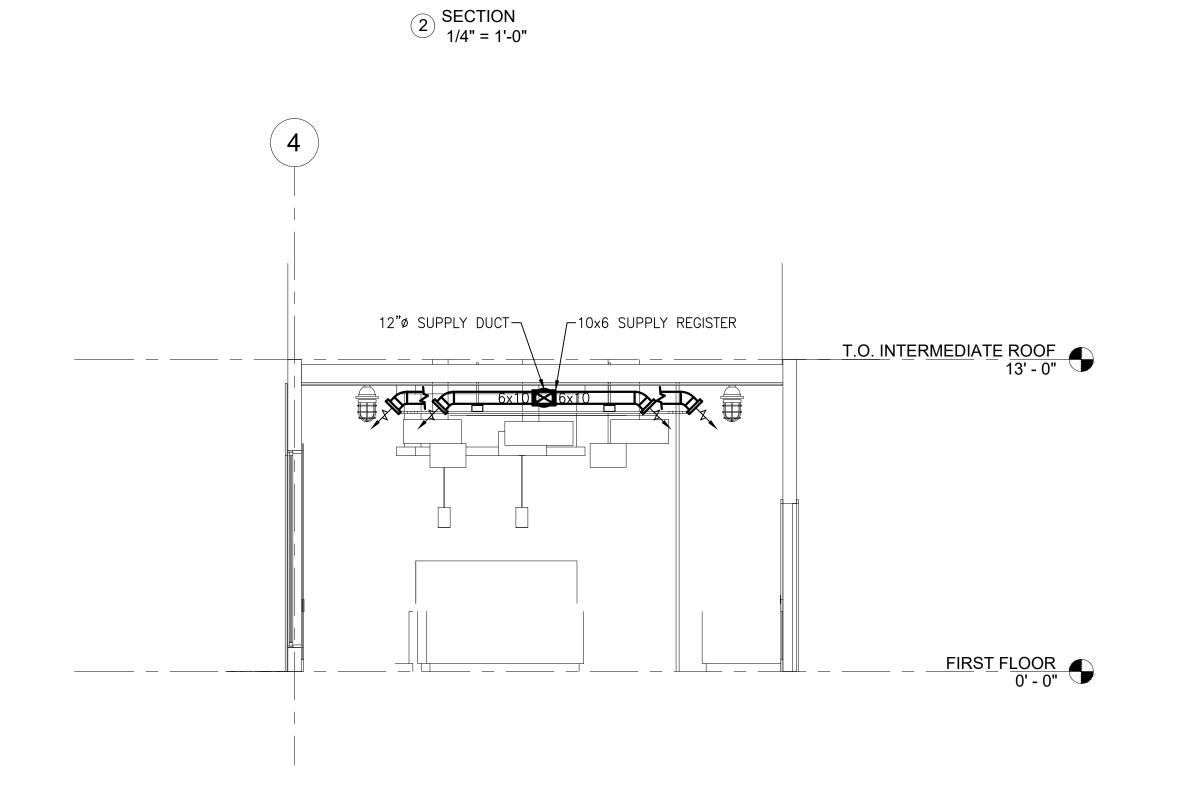
REVIEW SET 2-12-20



1 ROOF MECHANICAL PLAN 1/4" = 1'-0"







3 SECTION 1/4" = 1'-0" REVIEW SET 2-12-20 DEMNIS T MItchell NCARB, AIA
6031 I-20 West, Suite 260
Arlington, TX. 76017
P:817.265.2415 F:817.483.7377
OfficeReply@DtmArchitect.com

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

MEP ENGINEER:

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 1

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

> OO SAFARI OD BUILDIN

UTE 9 NORTH, CAPE MAY COURT HOUSE, NJ 08210

> APPROVED BY: PJS JOB#: 1610-021

DRAWN BY: PJS APPROVEI SCALE: 1/4" = 1'-0" JOB#: 1610

DWG. NO.

2020 Specification 9 Safari Cafe Page 549 of 566

PACKAGED ROOFTOP UNIT DATA																								
NUMBER	CEDVINO			St	SUPPLY AIR FAN OUTSIDE			COOLING			HEATING — NATURAL GAS		UNIT E	LECTRICAL	_	FILTERS		TOTAL						
NUMBER	SERVING	NOMINAL TONS	EER		ESD		AIR	AIR C	N (°F)	TOTAL	CENICIDI E	AMBIENT	AIR ([DEG F)	GA:	S						OPERATING WT/LBS	MANUFACTURER/MODEL NUMBER	COMMENTS
				CFM ESP ("WC)	HP ((CFM)	DB	WB	MBH		EAT	LAT	MBH INPUT	MBH OUTPUT	V-Ø-Hz	MCA	MOCP	TYPE	MERV	WIYEBS				
RTU-1A	SERVING/BACK OF HOUSE	4	13	1,600	0.50	1	350	80	67	50.6	38.1	95	56.9	109.0	82/115	66/90	208-3-60	24	30	THROWAWAY	8	800	CARRIER 48HC-05	1, 2, 3, 5
RTU-1B	SERVING/BACK OF HOUSE	4	13	1,600	0.50	1	350	80	67	50.6	38.1	95	56.9	109.0	82/115	66/90	208-3-60	24	30	THROWAWAY	8	800	CARRIER 48HC-05	1, 2, 3, 5
RTU-2	OFFICE/DRY STORAGE/RESTROOMS	2	13.2 SEER	800	0.50	1/2	175	80	67	23.0	16.8	95	58.8	114.3	60	48	208/230-1-60	21.3	30	THROWAWAY	8	450	CARRIER 48ES-24	1, 2, 3, 4
RTU-3A	FOOD COURT (CUSTOMER AREA)	2-1/2	13.5 SEER	1,000	0.50	1/2	260	80	67	28.6	21.8	95	58.0	102.4	60	48	208-3-60	15.8	20	THROWAWAY	8	450	CARRIER 48ES-30	1, 2, 3, 4
RTU-3B	FOOD COURT (CUSTOMER AREA)	2-1/2	13.5 SEER	1,000	0.50	1/2	260	80	67	28.6	21.8	95	58.0	102.4	60	48	208-3-60	15.8	20	THROWAWAY	8	450	CARRIER 48ES-30	1, 2, 3, 4

4 13 1,600 0.50 1 375 80 67 50.6 38.1 95 56.9 109.0 82/115 66/90 208-3-60 24 30 THROWAWAY 8 800 CARRIER 48HC-05 RTU-4 DINING DIFFERENTIAL ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF DISCONNECT SWITCH, HOT GAS BYPASS 14" ROOF CURB

COMPRESSOR START KIT MEDIUM STATIC DRIVE

FAN DATA											
							MOTOR				
NUMBER	SYSTEM/SERVING	CFM	SP "H ₂ 0	FAN TYPE	FAN RPM	HP	RPM	V-ø-Hz	TOTAL OPERATING WT/LBS	MANUFACTURER/MODEL NUMBER	COMMENTS
EF-1	TOILET ROOMS/JANITOR	300	0.50	ROOF CENT	1,550	1/20	1,550	120-1-60	40	GREENHECK G-085-D	1, 2
EF-2	BACK OF HOUSE/TOILET ROOM	475	0.50	ROOF CENT	1,550	1/8	1,550	120-1-60	40	GREENHECK G-095-D	1. 2

WIRED TO TIMER
 DISCONNECT SWITCH, ROOF CURB, BACKDRAFT DAMPER

DIFFUSER/REGISTER/GRILLE SCHEDULE									
ITEM	TYPE	BLOW	MANUFACTURER AND MODEL	COMMENTS					
1	CEILING DIFFUSER	4	TITUS TDC-AA, 12x12, 6x6 MODULE, 6" DUCT, WHITE	1, 2, 3					
2	NOT USED								
3	CEILING DIFFUSER	4	TITUS TDC-AA, 24x24, 12x12 MODULE, 10" DUCT, WHITE	1, 2, 3					
4	CEILING/DUCTED RET/EXH	_	TITUS 50F, 12x12, 6x6 DUCT, WHITE	1, 2					
5	CEILING/DUCTED RET/EXH	_	TITUS 50F, 24x24, 8x8 DUCT, WHITE	1, 2					
6	NOT USED								
7	CEILING/DUCTED RET/EXH	_	TITUS 50F, 24x24, 16x16 DUCT, WHITE	1, 2					
8	DUCT/WALL SUPPLY REG	_	TITUS 300FL, WHITE	2, 4					
9	CEILING OPEN RET GRILLE	_	TITUS 50F, 24x12, WHITE, CORE ONLY	1, 2					
10	NOT USED								
11	NOT USED								
12	WALL RETURN GRILLE	_	TITUS 350FL, 18x14, 3/4" BLADE SPACING, 35° DEFLECTION	1, 2, 4					
13	WALL RETURN GRILLE	_	TITUS 350FL, 24x16, 3/4" BLADE SPACING, 35° DEFLECTION	1, 2, 4					

1, 2, 3, 5

1. PROVIDE TRIM FOR LAY-IN CEILING OR DRYWALL AS REQUIRED.

STEEL CONSTRUCTION.
 MAXIMUM FLEX DUCT LENGTH IS 8 FEET.

4. OPPOSED BLADE DAMPER

			Population	Outdoor	Outdoor		Breathing	Zone	Zone	Zone	Calculated	System	Population	Required	
Room	Space	Area	(People/	Air	Air	Calculated	Zone	Distribution	OA Flow	Primary	Primary	Ventilation	Diversity	OA	Comments
No.		(SF)	1,000 SF)	(CFM/	(CFM/SF)	Population	OA Flow	Effectiveness	(CFM)	Airflow	OA	Efficiency		Flow	
				Person)			(CFM)			(CFM)	Fraction			(CFM)	
RTU-1A,	/1 B														
105	Janitor	30													
106	ADA Unisex Restroom	42			0.06	0	2	0.8	2	50	0.04	1	1	2	See exhaust requiurements below
107	B.O.H.	552			0.06	0	33	0.8	41	650	0.06	1	1	41	See exhaust requiurements below
	Serving Area	823			0.06	0	49	0.8	61	2500	0.02	1	1	61	See exhaust requiurements below
										Max	0.06		Total	104	
RTU-2															
110	Dry Storage	95			0.06	0	5	0.8	6	125	0.04	1	1	6	
111	Hall	107			0.06	0	6	0.8	7	75	0.09	1	1	7	
112	Office	58	5	5	0.06	1	8	0.8	10	125	0.08	1	1	10	
113	Counting Room	58	5	5	0.06	1	8	0.8	10	125	0.08	1	1	10	
114	Office	98	5	5	0.06	1	10	0.8	12	175	0.06	1	1	12	
115	Restroom Corridor	170			0.06	0	10	0.8	12	75	0.16	1	1	12	
116	ADA Unisex Restroom	43			0.06	0	2	0.8	2	50	0.04	1	1	2	See exhaust requirements below
117	ADA Unisex Restroom	43			0.06	0	2	0.8	2	50	0.04	1	1	2	
										Max	0.16		Total	61	
RTU-3A,	/3B														
	Food Court (Customer Area)	897		7.5	0.18	36	431	0.8	538				0.7	376	Occupancy based on seat count + 100%

400

0.8

500

0.18

7.5

808

		RTU-1A/1B
		RTU-2
		RTU-3A/3B
elow		RTU-4
elow		Kitchen Hoods Makeup Air
elow		Kitchen Hoods Exhaust Air
		EF-1
	1	EF-2
		Pressurization
		Total
low		
	1	
s+ ⊥ 100%		

350 Occupancy based on seat count

Air Balance Table

Airflow Out

2,500

1,480

1,225

4,680

475

11,344

625

Airflow In

3,200

2,000

1,600

3,744

11,344

800

REVIEW SET 2-12-20

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

MEP ENGINEER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335 MULHERN CONSULTING

ENGINEERS 321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

2020 Specification 9 Safari Cafe Page 550 of 566

107 B.O.H. is rquired to have 0.7 cfm/sf exhaust = 386 cfm

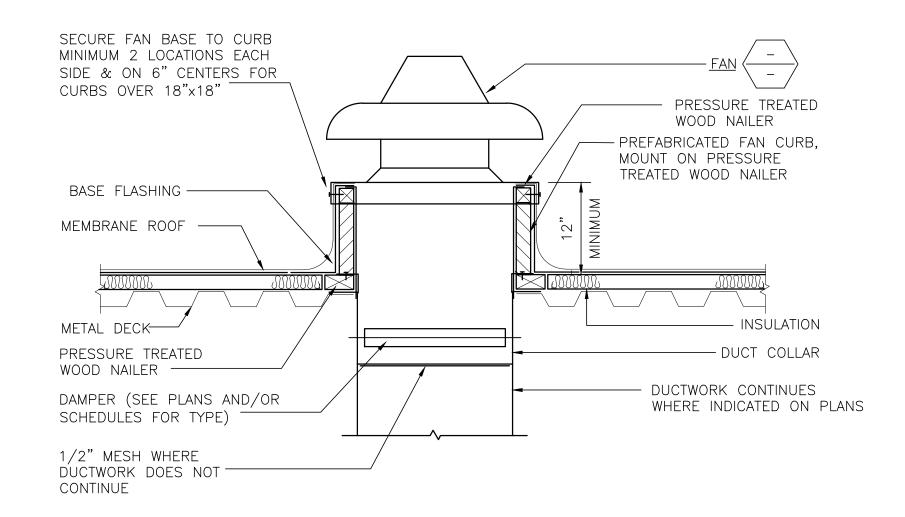
Serving Area is required to have 0.7 cfm/sf exhaust = 576 cfm

106 ADA Unisex Restroom is required to have 50 cfm exhasut 117 ADA Unisex Restroom is required to have 50 cfm exhasut

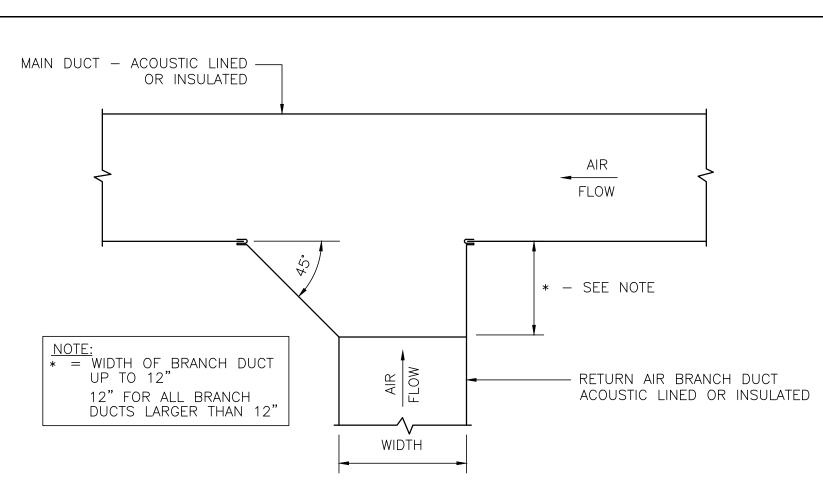
118 ADA Men's Restroom is required to have 50 cfm exhasut 119 ADA Men's Restroom is required to have 50 cfm exhasut

Exhaust requirements

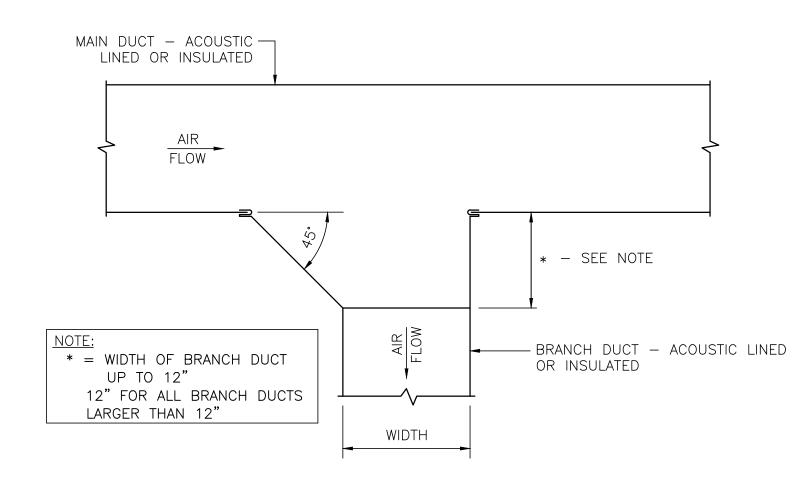
DETAIL—ROOF AC MOUNTING SCALE: N.T.S



DETAIL—ROOF FAN MOUNTING
scale: N.T.S



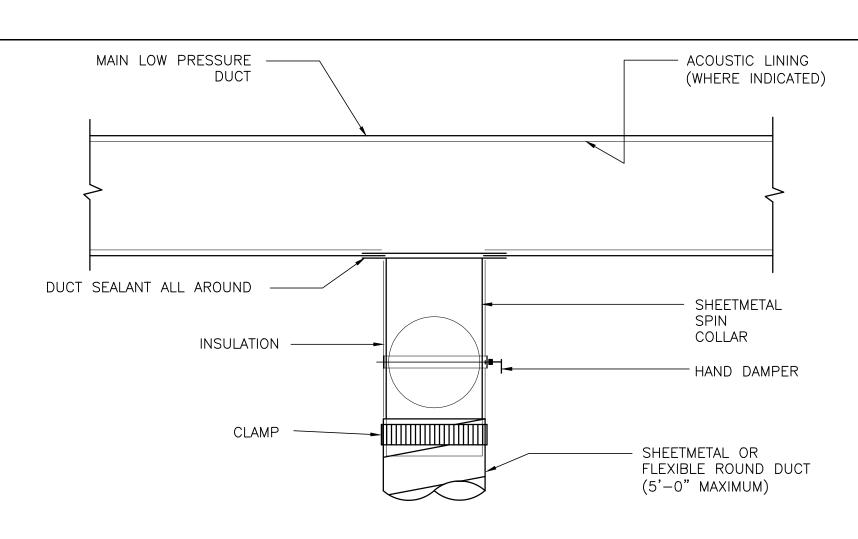
DETAIL—RECTANGULAR RETURN AIR BRANCH DUCT CONNECTION — MAX 3" WG/2500 FPM SCALE: N.T.S (SIMILAR FOR GENERAL EXHAUST AIR)



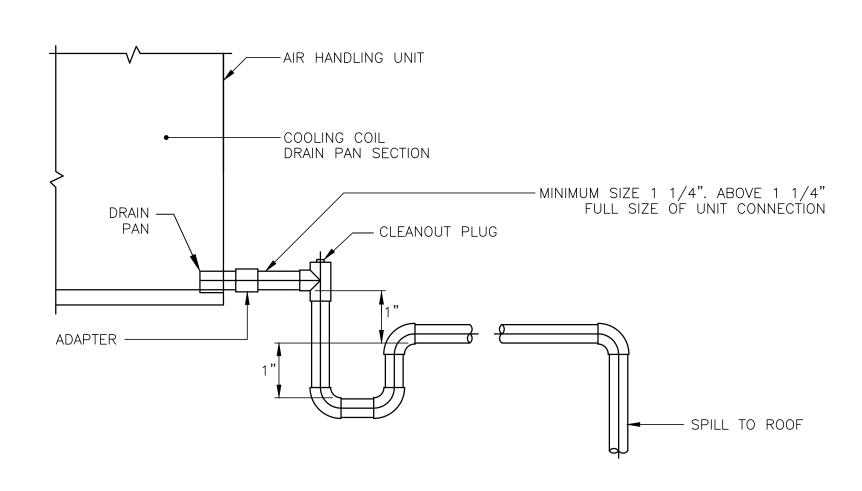
DETAIL—RECTANGULAR BRANCH DUCT TAKE—OFF

MAX +2" WG/2500 FPM

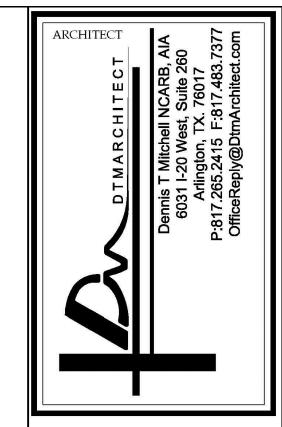
SCALE: N.T.S



DETAIL—PRESSURE ROUND DUCT TAKE—OFF
(SPIN COLLAR)
SCALE: N.T.S



DETAIL—CONDENSATE DRAIN—DRAW—THRU
AIR HANDLING UNIT
SCALE: N.T.S.



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

CHIECI 3 SEAL

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

O SAFARI OD BUILDING

9 NORTH, CAPE MAY COURT HOUSE, NJ 08210

707 ROUTE 9 NORTH, HOUSE, N.

> APPROVED BY: PJS " JOB#: 1610-021

DRAWN BY: PJS APPROVE SCALE: 1/4" = 1'-0" JOB#: 16

CHANICAL DE 17

DWG. NO.

HOOD INFORMATION

11001	\mathcal{I}																
				FILTER(S)			LIGHT(S)					UTILITY CABINET(S)			FIRE	HOOD
HOOD	TAG					EFFICIENCY @ 7			\./TDE			F.	IRE SYSTEM	ELECTRICAL	SWITCHES	SYSTEM	אוכנאו חחחח
HOOD NO.	TAG	TYPE	QTY	QTY. HEIGH	TLENGTH	MICRONS	QTY.	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #	QUANTITY	PIPING	
1	N-124L	Captrate Solo Filter	6	20″	16"	85% See Filter Spec.	3	12" × 12" LED	ND							YES	640 LBS
2	N-124R	Captrate Solo Filter	6	20"	16"	85% See Filter Spec.	3	12" × 12" LED	ND							YES	640 LBS

HOOD OPTIONS

HUUL	J UPIIU	NS
HDDD ND.	TAG	OPTION
		FIELD WRAPPER 18.00" High Front, Left BACKSPLASH 80.00" High X 216.00" Long 304 SS Vertical
1	N-124L	LEFT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 304 SS
		SENSOR-CV
		FIELD WRAPPER 18.00" High Front, Right
2	N-124R	RIGHT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 304 SS
		SENSOR-CV

DEDENDATED SUDDIV DIENUM/S)

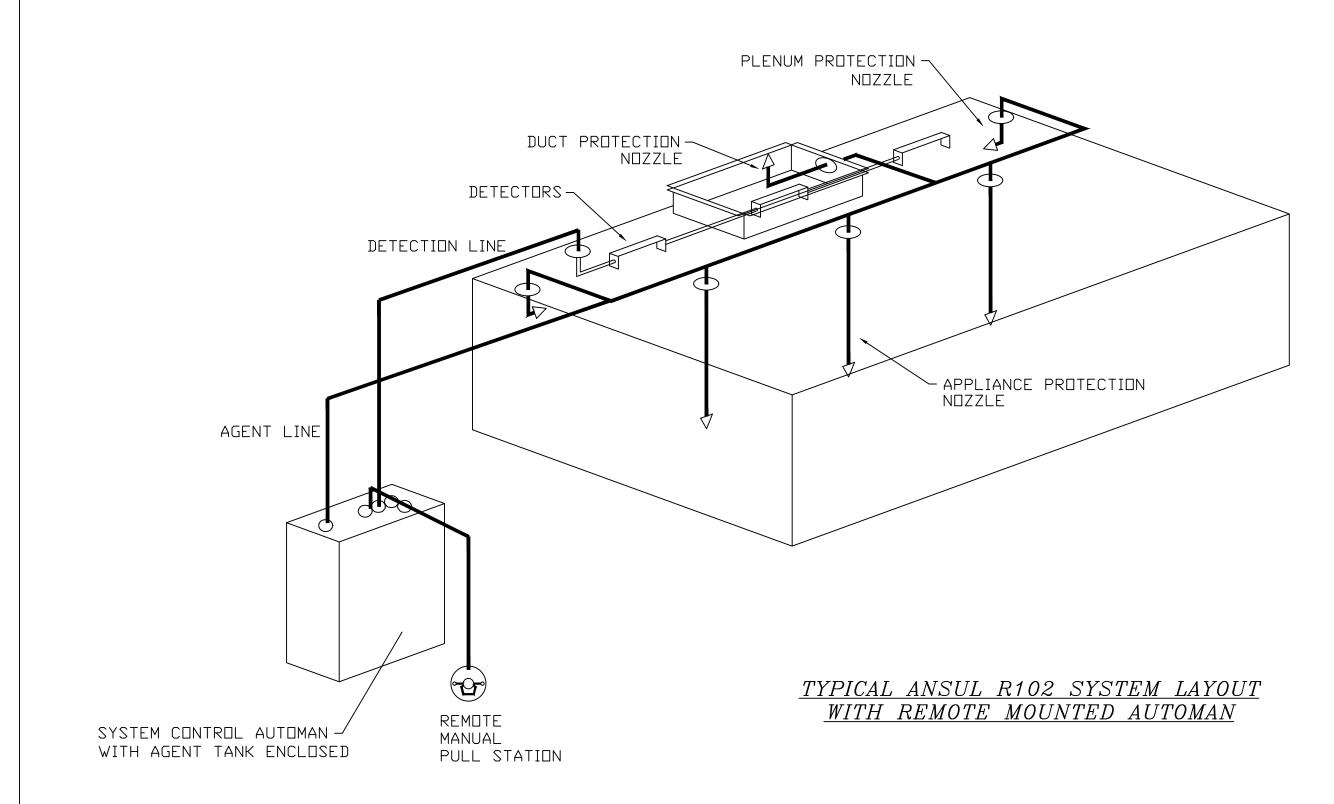
<u>PERF</u>	<u>''ORATEL</u>) SUPF	PLY PL	<u>ENUM</u>	(S)						
HOOD					,				RISER((2	
ND.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	WIDTH	LENG.	DIA.	CFM	S.P.
						MUA	12"	24"		624	0.174"
						MUA	12"	24"		624	0.174"
						MUA	12"	24"		624	0.174"
1	N-124L	Front	108″	28″	6″	AC			8″	125	0.049"
						AC			8 "	125	0.049"
						AC			8″	125	0.049"
						AC			8 "	125	0.049"
						MUA	12"	24"		622	0.173″
						MUA	12"	24"		622	0.173″
						MUA	12"	24"		622	0.173″
2	N-124R	Front	108″	28"	6″	AC			8 "	125	0.049"
						AC			8″	125	0.049"
						AC			8 "	125	0.049"
						AC			8″	125	0.049"

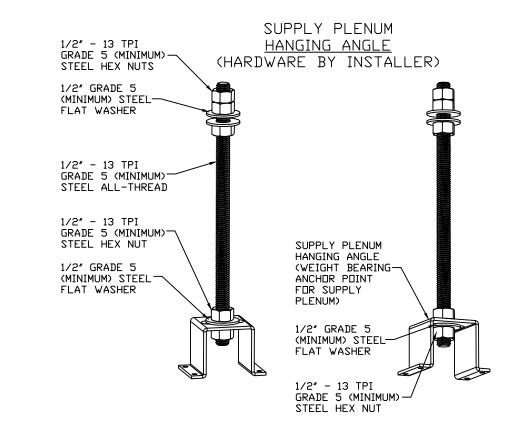
 $Fire\ System\ Information\ -\ Job\#3532244$

FIRE		_		,,	 FLOW	INSTALLATION					
	SYSTEM NO.	Tag	TYPE	SIZE	POINTS	SYSTEM	LOCATION ON HOOD				
	1	N-124.1	Ansul R102	3.0/3.0	14	Wall Mount Left	N/A				

GAS VALVE(S)

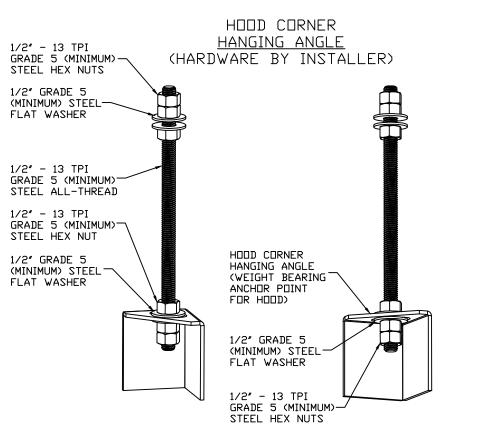
FIRE SYSTEM NO.	TAG	TYPE	SIZE	SUPPLIED BY
1	N-124.1	Mechanical	2.000	Distributor





ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN, MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS, SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN, MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS, MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

> FOR QUESTIONS, CALL JEFF ERRICKSON OR STEVE BARGFREDE S. NJ & DELAWARE SALES OFFICE 560 STOKES ROAD SUITE 13A7, MEDFORD NJ 08055 PHONE: (609) 654-8368 FAX: (919) 747-5604

SPECIFICATION: CAPTRATE GREASE-STOP SOLD FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05.

EFFICIENCY VS. PARTICLE DIAMETER

PRESSURE DROP VS. FLOW RATE FLOW RATE (cfm)

CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:

PARTICLE DIAMETER (um)

NFPA #96 NSF STANDARD #2 UL STANDARD #1046 INT, MECH, CODE (IMC) ULC-S649



PLEASE NOTE: THE HOOD MAY BE INSTALLED WITH A O INCH CLEARANCE TO COMBUSTIBLE MATERIALS IF CONSTRUCTED IN ONE OF THE FOLLOWING METHODS: 1 INCH LAYER OF INSULATION (TYPE 475) OWENS CORNING, JOHNS MANVILLE, OR 3M FIRE WRAP 1 INCH INSULATED BACKSPLASH BACK-RETURN (BR) SUPPY PLENUM

WITH 1 INCH LAYER OF INSULATION THESE RATINGS APPLY TO TOP, ENDS, BACK AND FRONT OF THE EXHAUST HOOD



PLEASE NOTE: THE HOOD MAY BE INSTALLED WITH A 3 INCH CLEARANCE TO LIMITED COMBUSTIBLE MATERIALS IF CONSTRUCTED IN ONE OF THE FOLLOWING METHODS: 3 INCH FACTORY INSTALLED REAR UN-INSULATED STANDOFF 3 INCH FACTORY INSTALLED TOP WRAPPER / ENCLOSURE SYSTEM

3 INCH FACTORY INSTALLED END STANDOFF BACK-RETURN (BR) SUPPY PLENUM THESE RATINGS APPLY TO TOP, ENDS, BACK

FOR QUESTIONS, CALL THE: NJ, DE, PA SALES DIVISION 560 STOKES ROAD MEDFORD, NJ 08055 PHONE: (866) 654-8368 FAX: (919) 747-5604 CAPTIVE-ÀIRE HOODS ARE BUIL, T IN COMPLIANCE WITH

AND FRONT OF THE EXHAUST HOOD



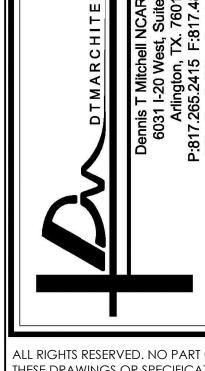


NFPA #96 - 2014 EDITION ETL LISTED TO UL-710 REQUIREMENTS IMC 2012

SHEET NO.

REVIEW SET 2-12-20

REVISIONS DESCRIPTION DATE:



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335 MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

 \geq

 \triangleleft

 \triangleleft

DATE: 8/30/2018

DWG.#:

3532244

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

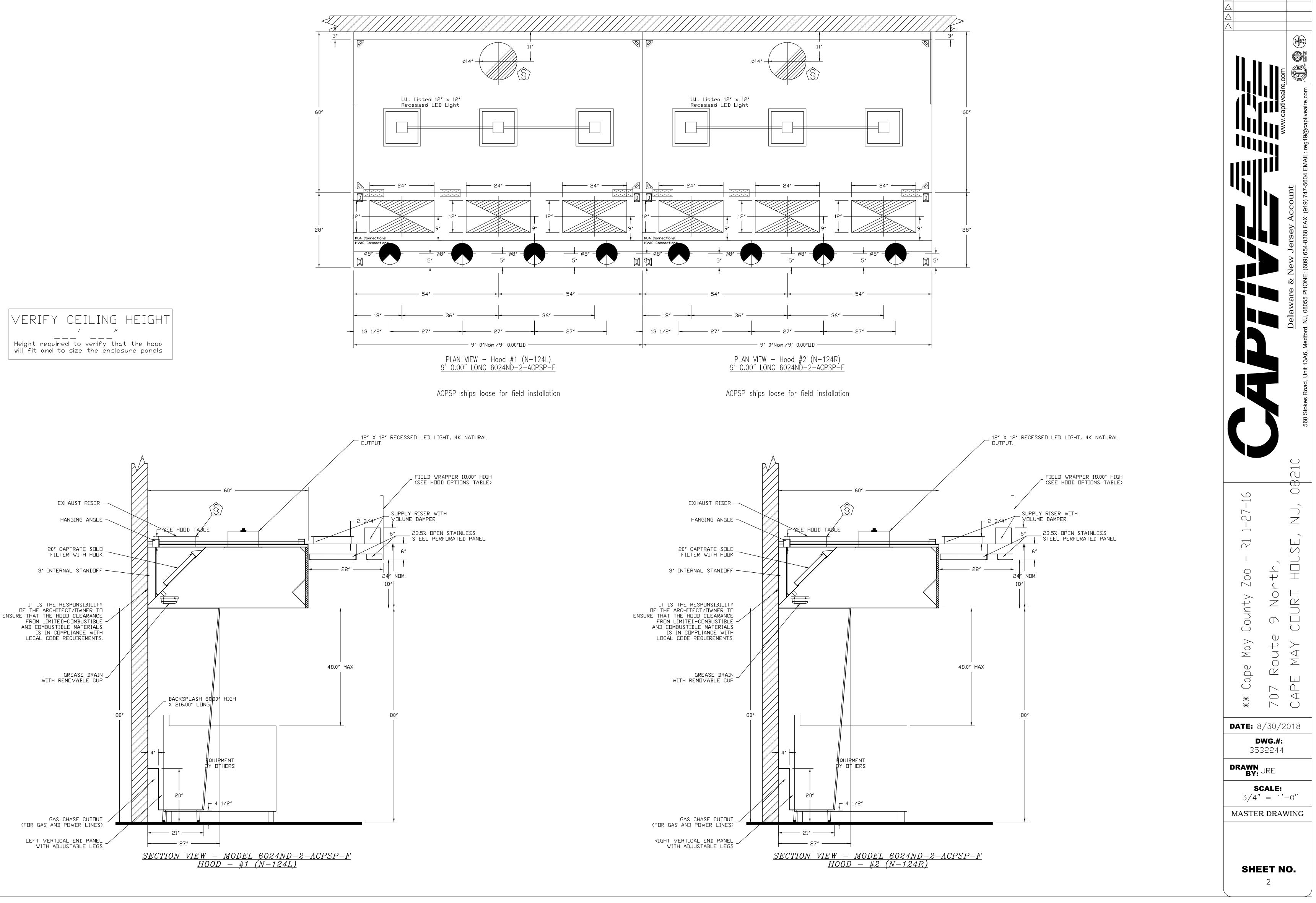
MASTER DRAWING

DRAWN BY: JRE

 \sim

27

Cap



REVISIONS

DESCRIPTION DATE:

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR

USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT. ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS 321 SOUTH YORK ROAD

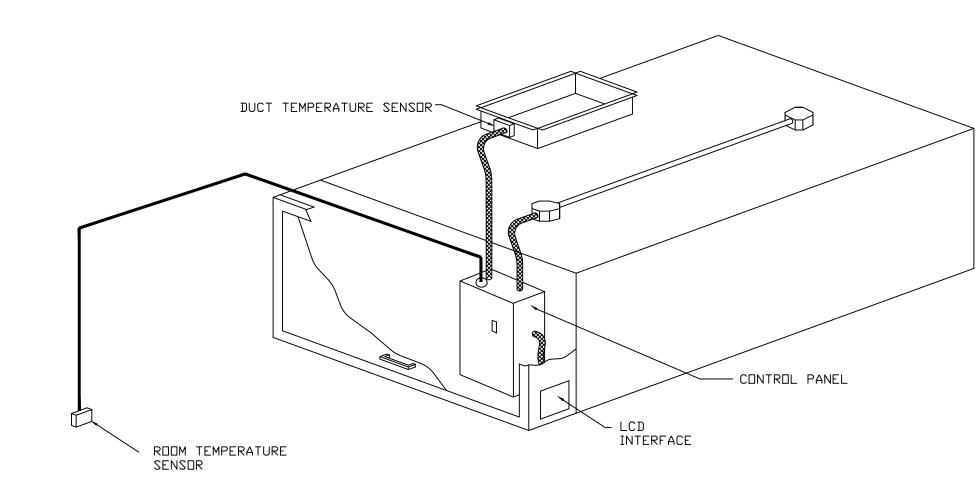
HATBORO, PA 19040 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

ND.	TAG PACKAGE		L□CATION	SWITCHES		OPTION	FAN	FANS CONTROLLED					
	160	#		LOCATION	QUANTITY		TYPE	ф	H.P.	VOLT	FLA		
				01 - Face Mount	1 Light		Exhaust	Exhaust 3 2.000 2			6.1		
1	N-124.2	DC∨-2111	Wall Mount In SS Box	Left Side of Hood		Smart Controls DCV	Exhaust	3	2.000	208	6.1		
				Hood # 2 1 Fan			Supply	3	3.000	208	10.2		

Demand Control Ventilation Hood Control Panel Specifications:

- Controls shall be listed by ETL (UL 508A) and shall comply with demand ventilation system turndown requirements outlined in IECC 403.2.8 (2015).
- The control enclosure shall be NEMA 1 rated and listed for installation inside of the exhaust hood utility cabinet. The control enclosure may be constructed of stainless steel or painted steel.
- Temperature probe(s) located in the exhaust duct riser(s) shall be constructed of stainless steel.
- A digital controller shall be provided to activate the hood exhaust fans dynamically based on a fixed differential between the ambient and duct temperatures sensors. This function shall meet the requirements of IMC 507.1.1.
- A digital controller shall provide adjustable hysteresis settings to prevent cycling of the fans after the cooking appliances have been turned off and/or the heat in the exhaust system is reduced.
- A digital controller shall provide an adjustable minimum fan run-time setting to prevent fan cycling.
- Variable Frequency Drives (VFDs) shall be provided for fans as required. The digital controller shall modulate the VFDs between a minimum setpoint and a maximum setpoint on demand. The duct temperature sensor input(s) to the digital controller shall be used to calculate the speed reference signal.
- The VFD speed range of operation shall be from 0% to 100% for the system, with the actual minimum speed set as required to meet minimum ventilation requirements.
- An internal algorithm to the digital controller shall modulate supply fan VFD speed proportional to all exhaust fans that are located in the same fan group as the supply fan.
- The system shall operate in PREP MODE during light cooking load or COOL DOWN MODE when sufficient heat remains underneath the hood system after cooking operations have completed. Operation during either of these periods will disable the supply fans and provide an exhaust fan speed that is equal to the minimum ventilation requirement.
- A digital controller shall disable the supply fan(s), activate the exhaust fan(s), activate the appliance shunt trip, and disable an electric gas valve automatically when fire condition is detected on a covered hood.
- A digital controller shall allow for external BMS fan control via Dry Contact (external control shall not override fan operation logic as required by code).
- An LCD interface shall be provided with the following features:
- a. On/Off push button fan & light switch activation b. Integrated gas valve reset for electronic gas valves (no reset relay required)
- c. VFD Fault display with audible & visual alarm notification d. Duct temperature sensor failure detection with audible & visual alarm notification
- e. Mis-wired duct temperature sensor detection with audible & visual alarm notification f. A single low voltage Cat-5 RJ45 wiring connection
- g. An energy savings indicator that utilizes measured kWh from the VFDs

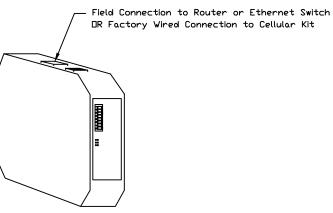


TYPICAL HOOD CONTROL PANEL INSTALLATION

Sequence of Operations:

The hood control panel is capable of operating in one or more of the following states at any

- <u>Automatic:</u> The system operates based on the differential between room temperature and the temperature at the hood cavity or exhaust duct collar. Fans activate at a configurable temperature differential threshold. Depending on the job configuration each fan zone can be configured as static or dynamic. These terms refer to whether a variable motor (such as EC Motors or VFD driven motors) modulate with temperature. If the panel is equipped with variable speed fans and the zone is defined as "dynamic", these will modulate within a user-defined range based on the temperature differential. Panels equipped with variable speed fans and a fan zone defined as "static", fans will run at a set speed calculated for the drive. Demand control ventilation systems are capable of modulating exhaust and make up air fan speeds per the requirements outlined in IECC 403.2.8.
- <u>Manual:</u> The system operates based on human input from an HMI.
- <u>Schedule:</u> A weekly schedule can be set to run fans for a specified period throughout the day. There are three occupied times per day to allow for the user to set up a time that is suitable to their needs. Any time that is within the defined occupied time, the system will run at modulation mode and follow the fan procedure algorithm based on temperature during this time. During unoccupied time, the system will have an extra offset to prevent unintended activation of the system during a time where the system is not being occupied.
- <u>Other:</u> The system operates based on the input from an external source (DDC, BMS or hard-wired interlock)



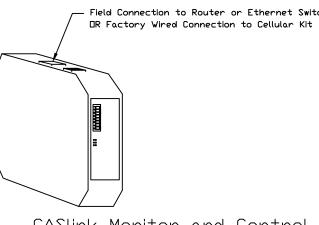
<u>CASlink Monitor and Control</u>

- Hood control panel to support communications to cloud-based Building Management System.

- Hood Control Panel to allow cloud-based Building Management System to

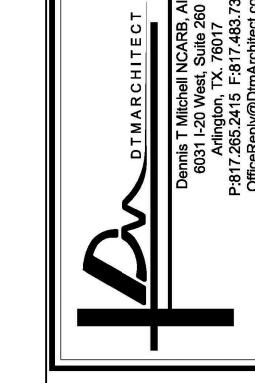
monitor real time parameters outlined as MONITOR in the points list. Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.

OCV Packages	Function	SC Packages	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Ouct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
1UA Discharge Temperature	MONITOR	MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
an Speed	MONITOR	Controller Faults	MONITOR
an Amperage	MONITOR	Fan Faults	MONITOR
an Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	PCU Faults	MONITOR
Controller Faults	MONITOR	PCU Filter Clog Percentages	MONITOR
an Faults	MONITOR	Fire Condition	MONITOR
an Status	MONITOR	CORE Fire System	MONITOR
PCU Faults	MONITOR	Building Pressures	MONITOR
PCU Filter Clog Percentages	MONITOR	Fans Button(s)	MONITOR & CONTROL
ire Condition	MONITOR	Lights Button(s)	MONITOR & CONTROL
CORE Fire System	MONITOR	Wash Button	MONITOR & CONTROL
Building Pressures	MONITOR]	
Prep Time Button	MONITOR & CONTROL		
ans Button	MONITOR & CONTROL		
ights Button	MONITOR & CONTROL		
	1	1	



Hood control panel to allow remote changes to system setting such as: VFD Frequencies, ECM speeds, temperature set points, fan and wash schedules, etc.

<u>MDI</u>	NITORING AND CO	INTROL POINTS LIST	
DCV Packages	Function	SC Packages	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR	MUA Discharge Temperature	MONITOR
(itchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
an Speed	MONITOR	Controller Faults	MONITOR
Fan Amperage	MONITOR	Fan Faults	MONITOR
Fan Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	PCU Faults	MONITOR
Controller Faults	MONITOR	PCU Filter Clog Percentages	MONITOR
Fan Faults	MONITOR	Fire Condition	MONITOR
an Status	MONITOR	CORE Fire System	MONITOR
PCU Faults	MONITOR	Building Pressures	MONITOR
PCU Filter Clog Percentages	MONITOR	Fans Button(s)	MONITOR & CONTROL
Fire Condition	MONITOR	Lights Button(s)	MONITOR & CONTROL
CORE Fire System	MONITOR	Wash Button	MONITOR & CONTROL



REVISIONS

DESCRIPTION DATE:

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT. ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES 1105 MELLIEN DRIVE

MEP ENGINEER:

DOWNINGTOWN, PA 19335 MULHERN CONSULTING

ENGINEERS 321 SOUTH YORK ROAD

HATBORO, PA 19040 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC 280 N. PROVIDENCE RD, SUITE 105

MEDIA, PA 19063

Z

 $\langle \rangle$

 \triangleleft

 \supset \triangleleft

DATE: 8/30/2018

DRAWN BY: JRE

DWG.#: 3532244

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

MASTER DRAWING

SHEET NO.

 \sim

27

 \leftarrow

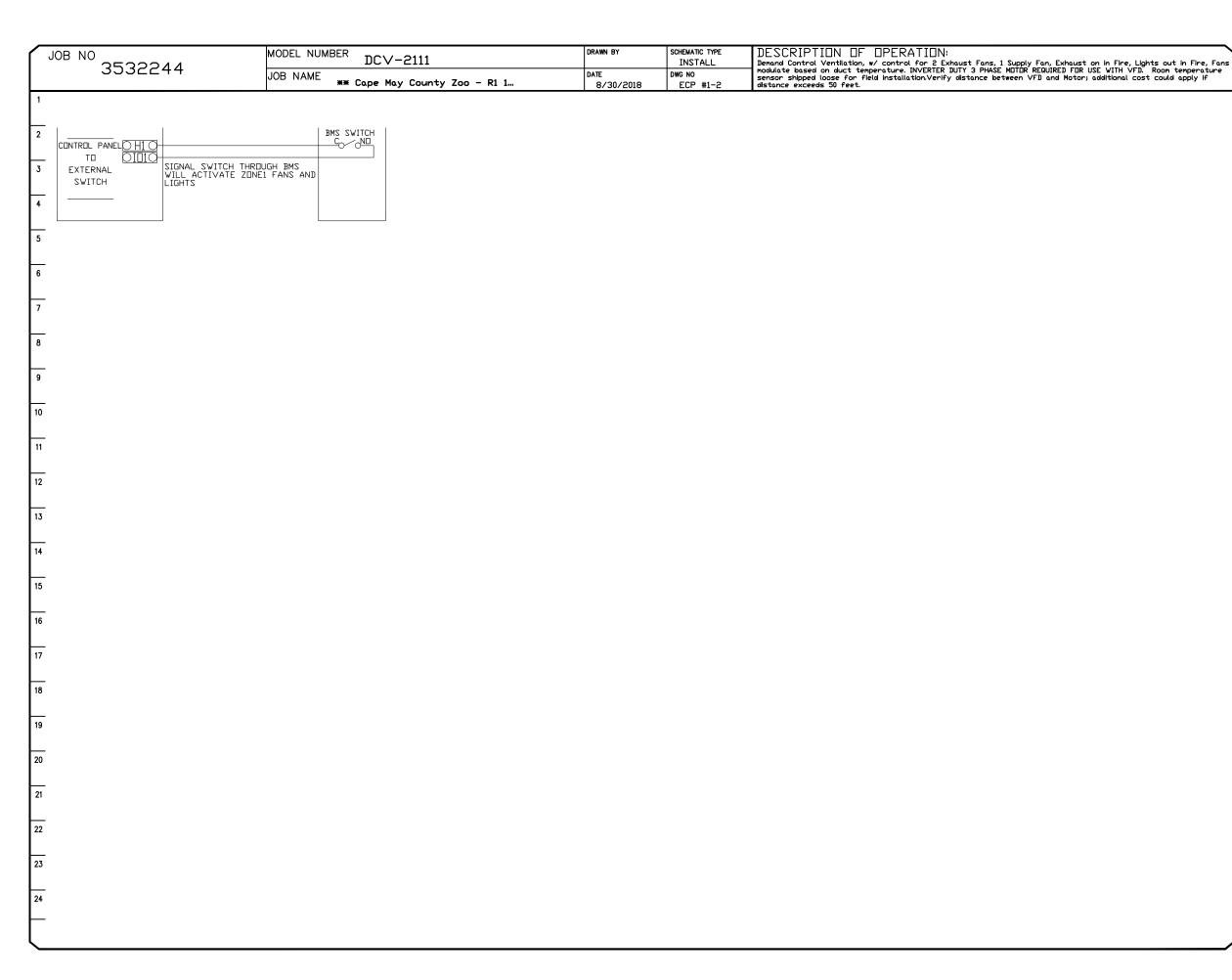
 \sim

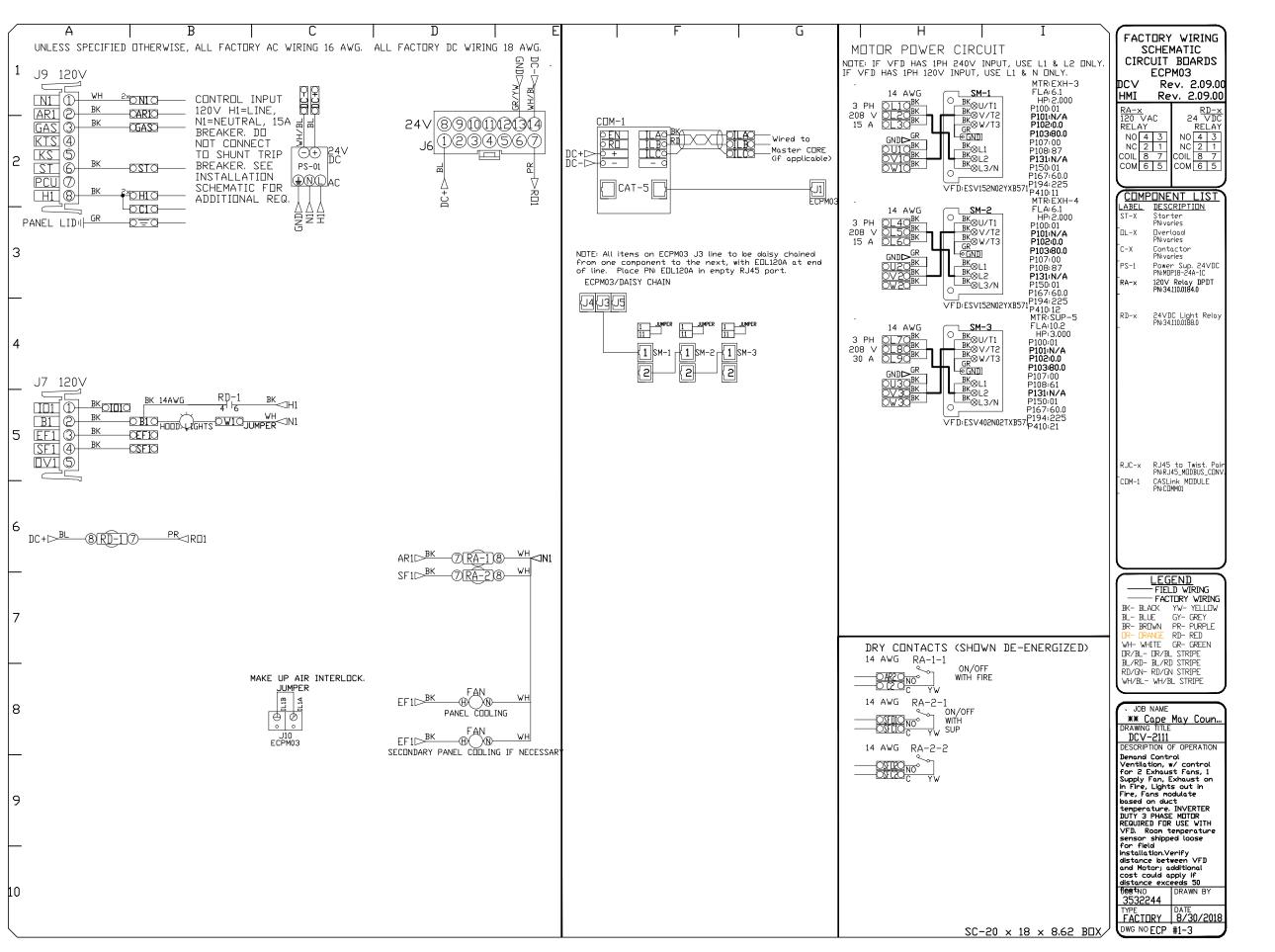
 \uparrow

May

Cap

DB NO	MODEL NUMBER DCV-211	1	DRAWN BY	SCHEMATIC TYPE INSTALL	DESCRIPTIL	N OF OPERATION:	khaust Fans, 1 Supply Fan. Exhaust on i	n Fire. Lights out in Fire
3532244	JOB NAME ** Cape May Cou		DATE 8/30/2018	DWG NO ECP #1-1	modulate based on sensor shipped loos distance exceeds 5	se for field installation.Verif	xhaust Fans, 1 Supply Fan, Exhaust on i DUTY 3 PHASE MOTOR REQUIRED FOR USE y distance between VFD and Motor; add	WITH VFD. Room temperational cost could apply if
	, , , , , , , , , , , , , , , , , , , ,		, 0,00,2010	, ==: == 1		"		
BREAKER PANEL TO PRIMA	ARY CONTROL PANEL	Load Wiring U3	LDAD LEG 1		UP-5 FLA:10.2 HP: 3.000	CONTROL PANEL TIAO		
Responsibility:	Electrician	SM-3 V3 WIRE TO W3	LOAD LEG 2	P1 4 914	VDLT: 208 V	TO <u>T1BO</u> KITCHEN TEMP	WIRE TO CONTROL BOARD, INSTALL SENSOR IN ROOM AWAY FROM HEAT	ROOM TEMP
BREAKER SIZE SHOWN IS TO REAKER PANEL	HE MAXIMUM ALLUWED PRIMARY CONTROL PANEL	VFD QUICK OSF10	120V HDT	RED	~ 0	SENSOR	SOURCES. DO NOT INSTALL SENSOR ON THE CEILING GRID, SEE MANUAL.	
		CONNECTOR ONIC	120V NEUTRAL A	WHITE N1	<u>O</u>	CONTROL PANEL T2AO		
BREAKER 1PH	Neutral ONIO	IF VFD MOUNTED IN 2ND PANEL,	MUST HAVE ITS DWN			то Т2ВО	WIRE TO CONTROL BOARD.	HODD 1
15 A CONTROL POWER. 1 TO GFCI OR SHUNT	Ground GNDO DO NOT WIRE	WIRE SF SIGNAL FROM PANEL WITH	DO NOT SHARE COND	JIT!		CAPTURE VOLUME SENSOR	SENSOR MOUNTED IN HOOD CAPTURE VOLUME.	CAPTURE 1
BREAKER.		ECPM03.	REMOVE JUMPER		5V5 4			
1ST HOOD LIGHT BREAKER CONTROL POWER, SWITCH #	1	MAKE UP AIR ON PCB DAMPER IL1AC		MUA Z		CONTROL PANEL T3AO	VIDE TO CONTROL BOARD	HOOD 2
REAKER 3PH	LINE L1	PROVING [IL1BC INTERLOCK	LOW VOLTAGE CONNEC DAMPER INTERLOCK, W	TION FOR TERMINA		CAPTURE VOLUME	WIRE TO CONTROL BOARD. SENSOR MOUNTED IN HOOD CAPTURE	CAPTURE 1
208 V CA: 7.6 A	LINE L3		DAMPER INTERLOCK. W MULTIPLE SUPPLY ON ZONE IN SERIES. SHOU	THE SAME " "OH "	AL NAMES I APPLY IY OTHERS	SENSOR	VOLUME.	
ICD: 15 A	Ground GNDO		HAVE CONTINUITY WHI	N DAMPER		CONTROL PANEL TARO		
WIRE TO VFD QUICK CO			NOT REQUIRED FOR AL SEE MAKE-UP AIR SCH	L UNITS. EMATIC.		TD T4BO	WIRE TO CONTROL BOARD. SENSOR MOUNTED IN AC PLENUM.	HOOD 1 AC TEMP
REAKER 3PH	LINE L4							
208 V CA: 7.6 A	LINE L5					CONTROL PANEL T5AO-	VIDE TO CONTROL BEACE	LIEUD 2
1CD 1E A	1-2		PANEL TO ACCES			AC-PSP SENSOR	WIRE TO CONTROL BOARD. SENSOR MOUNTED IN AC PLENUM.	HOOD 2 AC TEMP
WIRE TO VFD QUICK CO			sponsibility: Elect		3NENT			
EAKER 3PH	LINE L7	CONTROL PANEL		COMP			THE FOLLOWING CONNECTIONS MAY OR MAY NOT BE REQUIRED BASED ON JOBSITE	
208 V A: 12.8 A	LINE L9	CONTROL PANEL		MICROSW	4:ND SAP		SPECIFICATIONS	
30 A SUP-5 SN	Ground GNDO	TO OCIO		1:C	Z:NC III	CONTROL PANELOSTO	HOT TO SHUNT COIL	SHUNT COIL
WIRE TO VFD QUICK CO	NNECTOR	FIRE SYSTEM OARIO	WIRE C1 TO COMMON (1). WIRE AR1 TO NORMALLY	CLOSED (2).		SIGNAL FOR NO NI O	NEUTRAL FROM SHUNT COIL ST TERMINAL IS ENERGIZED	
			C1 TO AR1 SHOULD HAVE CONTINUITY WHEN ARMED	MS-1	4:NO CAP	SHUNT TRIP	IN FIRE CONDITION.	
		IF MORE THAN ONE			2:NC	CONTROL PANEL CO	COMMON	
CONTROL PANEL Responsibility:		FIRE SYSTEM, WIRE IN SERIES AS SHOWN	N	MS-2	4:ND CAP 2:NC	SPARE FIRE OAR20	NORMALLY OPEN SPARE CONTACTS WILL MAKE C2 TO	
PRIMARY PANEL	FANS	OAR10]	<u> </u>		SYSTEM DRY CONTACT	AR2 WHEN SYSTEM IS ARMED. THEY ARE USED TO DISABLE EQUIPMENT OR PROVIDE SIGNALS. (NOT FOR	
	_ FAN: 03 EXH-3			LIMI			BUILDING FIRE ALARM WHICH MUST BE WIRED DIRECTLY TO THE ANSUL	
oad Wiring U1 LOAD LEG 1 SM-1 V1 LOAD LEG 2	FLA:6.1	CONTROL PANEL [J4]	WIRE DIRECTLY TO CONT	ROL BOARD HMI	1		ALARM INITIATING SWITCH LOCATED IN ANSUL AUTOMAN)	
WIRE TO W1 LOAD LEG 3 FD QUICK GROUND GROUND	VDLT: 208 V	TO [9 1] REMOTE	DIACE END DE LINE E			CONTROL PANEL OSFCIO	COMMON	
CONNECTOR .	S DWN CONDUIT DISCONNECT	MOUNTED SWITCHES	IN EMPTY JACK, PN: E	JL120A EUL120A	2	DRY CONTACT OSFOIO	NORMALLY OPEN	_
DO NOT SHARE	CONDUIT!			HOOD L	IGHTS 1	SUPPLY FAN OSFDZO-	COMMON NORMALLY OPEN	
Dad Wiring U2 LOAD LEG 1	FAN: 04 EXH-4 FLA:6.1	CONTROL PANEL B1 C		BLACK WHITE		GROUP 1	SPARE CONTACTS WILL MAKE COMMON TO NORMALLY OPEN WHEN SUPPLY FAN IS ON.	
WIRE TO W2 LOAD LEG 3	VDLT: 208 V	HOOD LIGHTS OGNDO	VIDE TO L DEV DV TO	GREEN			WHEN SULLET FMN 13 LIN.	
/FD QUICK GNDO GROUND	WIRE TO	1400 W MAX	WIRE TO J-BOX ON TOP		D.	DCV SPEED VI+O		+ TO BMS
MUST HAVE IT DO NOT SHARE	S OWN CONDUIT DISCONNECT	COMM CONTROL PANEL	CAT-5 ETHERNET CONNE	RDUTE:		0-10∨ DUTPUT VD-O	WIRE TO ECPMO3 TERMINALS. CONFIGURABLE DUTPUT.	
I	I I	то	WIRE DIRECTLY TO COMM	JNICATION		(TOTAL)	SEE ECPM03 DWNERS MANUAL.	
		WORLD WIDE WEB	MDDULE. NET REQUIRES 1 UDP PORT 1444 & 1445	DHCP 2)		VFD ANALOG 300		- TO BMS
			DUTBOUND TRAFFIC ONLY			IN VFD	WIRE TO VFD TERMINAL STRIP. PROPORTIONAL TO FREQUENCY. SEE VFD OWNERS MANUAL.	
		ı	1	ı	ı	LUCIT VEDI	THE STREET STREET	I I







 \overline{Z}

(/)

 \leq

70

+

 $\overset{\circ}{Z}$

27

 $\qquad \qquad \longleftarrow$

 \sim

 \uparrow

May

Cape

DATE: 8/30/2018

DRAWN BY: JRE

DWG.#: 3532244

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

MASTER DRAWING

SHEET NO.

ND. MAY NEW PE

707 ROUT

4 HOOD

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS.)	SONES
1	KEF-1	NCA24HPFA	4680	1.800	1093	3.000	2.3600	3	208	8.7	1064 FPM	261	21

MUA FAN INFORMATION - Job#3537160

		11														
FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HDUSING	MIN CFM	DESIGN CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SONES	BURNER EFFICIENCY(%
2	HMAU-1	A2-D.250-20D	20MF-2-MDD	A2-D.250	2000	3740	0.500	1433	3,000	1.7140	3	208	9.5	827	13.5	92

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT ND.	TAG	INPUT BTUs	OUTPUT BTUs	TEMP, RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE
2	HMAU-1	243130	223680	56 deg F	7 in. w.c. – 14 in. w.c.	Natural

FAN OPTIONS

FAN UNIT ND.	TAG	OPTION (Qty Descr.)
1	KEF-1	1 - Grease Box
		1 - Motorized Backdraft Damper for A2-D Housing
		1 - Low Fire Start
		1 - Inlet Pressure Gauge, 0-35"
ح	 HMAU-1	1 - Manifold Pressure Gauge, -5 to 15" wc
		1 - Separate 120V Wiring Package (Required and used only for DCV or Prewire with VFD) - Three Phase Only
		1 - Size 2 Direct Fired Heater Low CFM Profile Package. Used on Heaters under 2500 cfm.

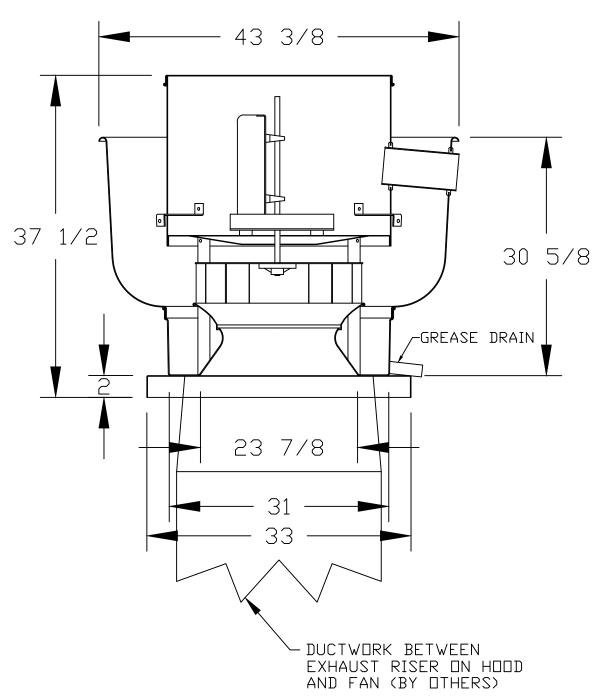
FAN ACCESSORIES

FAN UNIT	TAG		EXHAUST		SUPF	°LY	
ND.	TAG	GREASE CUP	GRAVITY DAMPER	SIDE DISCHARGE		MOTORIZED DAMPER	WALL MOUNT
1	KEF-1	YES					
2	HMAU-1					YES	

CURB ASSEMBLIES

		~ = 1/1 = = 1 = ~			
N□.	□N FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-1	48 LBS	Curb	31.500"W x 31.500"L x 20.000"H Vented Hinged
2	# 2	HMAU-1	107 LBS	Curb	31.000"W × 79.000"L × 20.000"H Insulated

FAN #1 NCA24HPFA - EXHAUST FAN (KEF-1)



FEATURES:

- ROOF MOUNTED FANS - RESTAURANT MODEL

- UL705 AND UL762 AND ULC-S645 - AMCA SOUND AND AIR CERTIFIED

- WIRING FROM MOTOR TO DISCONNECT SWITCH - WEATHERPROOF DISCONNECT

- HIGH HEAT OPERATION 300°F (149°C) - GREASE CLASSIFICATION TESTING

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY
WHILE EXHAUSTING AIR AT 300°F (149°C)
UNTIL ALL FAN PARTS HAVE REACHED
THERMAL EQUILIBRIUM, AND WITHOUT ANY

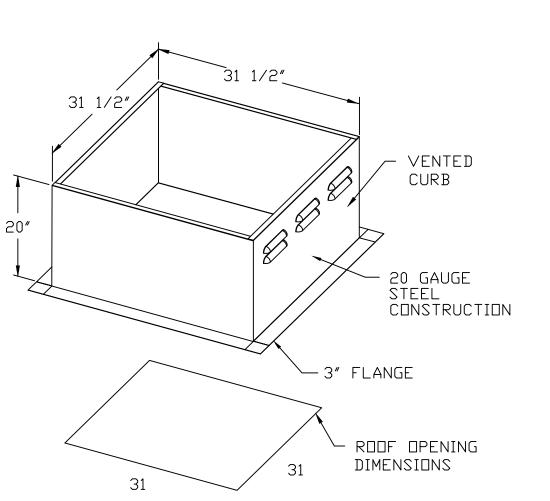
DETERIORATING EFFECTS TO THE FAN WHICH

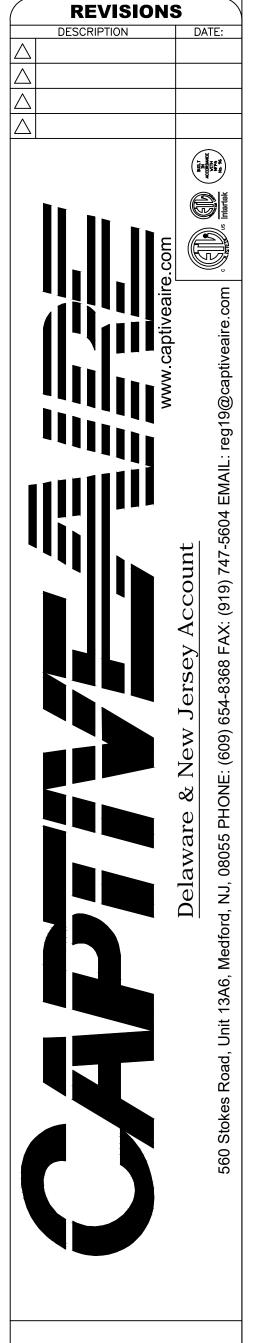
WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY
WHILE EXHAUSTING BURNING GREASE VAPORS
AT 600°F (316°C) FOR A PERIOD OF
15 MINUTES WITHOUT THE FAN BECOMING
DAMAGED TO ANY EXTENT THAT COULD CAUSE

<u>OPTIONS</u> GREASE BOX.

AN UNSAFE CONDITION.





Cape May County Zoo

6 APE MAY COURT HOUSE, NJ

DATE: 9/5/20 **DWG.#:** 3537160

DRAWN JRE

SCALE: NTS

SPEC - FANS

SHEET NO.

REVIEW SET 2-12-20 Dennis T Mitchell NCARB, Alk 6031 I-20 West, Suite 260
Arlington, TX. 76017
P:817.265.2415 F:817.483.73
OfficeReply@DtmArchitect.col

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER:

PSP ASSOCIATES

1105 MELLIEN DRIVE

MULHERN CONSULTING ENGINEERS

321 SOUTH YORK ROAD HATBORO, PA 19040 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

LA, PA 19063

Y ZOO SAFARI FOOD BUILDIN

ROUTE 9 NORTH, CAPE MAY (HOUSE, NJ 08210

> ROVED BY: PJS #: 1610-021

DRAWN BY: PJS APPR

SYSTEM - S DWG. NO.



 \overline{Z}

HUUS

 \bigvee_{\square}

SPEC - FANS

SHEET NO.

REVISIONS DESCRIPTION DATE:



ALL RIGHTS RESERVED. NO PART OF

MAY BE COPIED, REPRODUCED OR

USED IN CONNECTION WITH ANY

WORK, OTHER THAN THE SPECIFIC

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC.

525 S. 4TH ST, STE 591

THESE DRAWINGS OR SPECIFICATIONS

PROJECT FOR WHICH THEY HAVE BEEN

AUTHORIZATION FROM THE ARCHITECT.

PREPARED, WITHOUT PRIOR WRITTEN

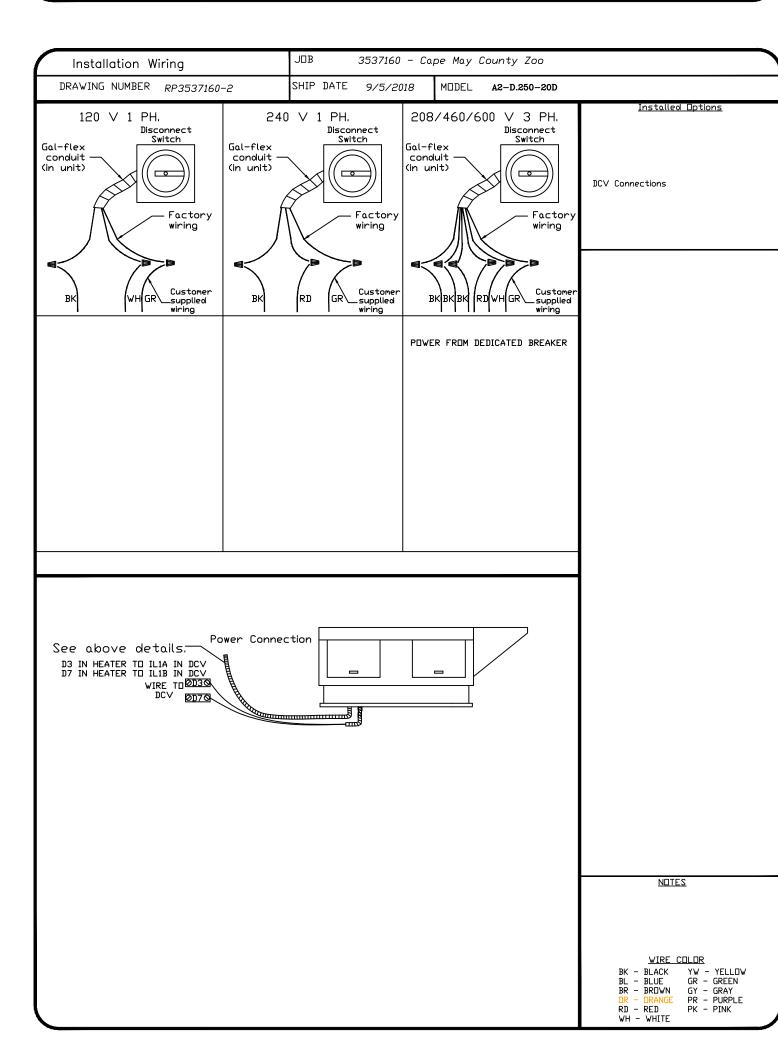
PE 2

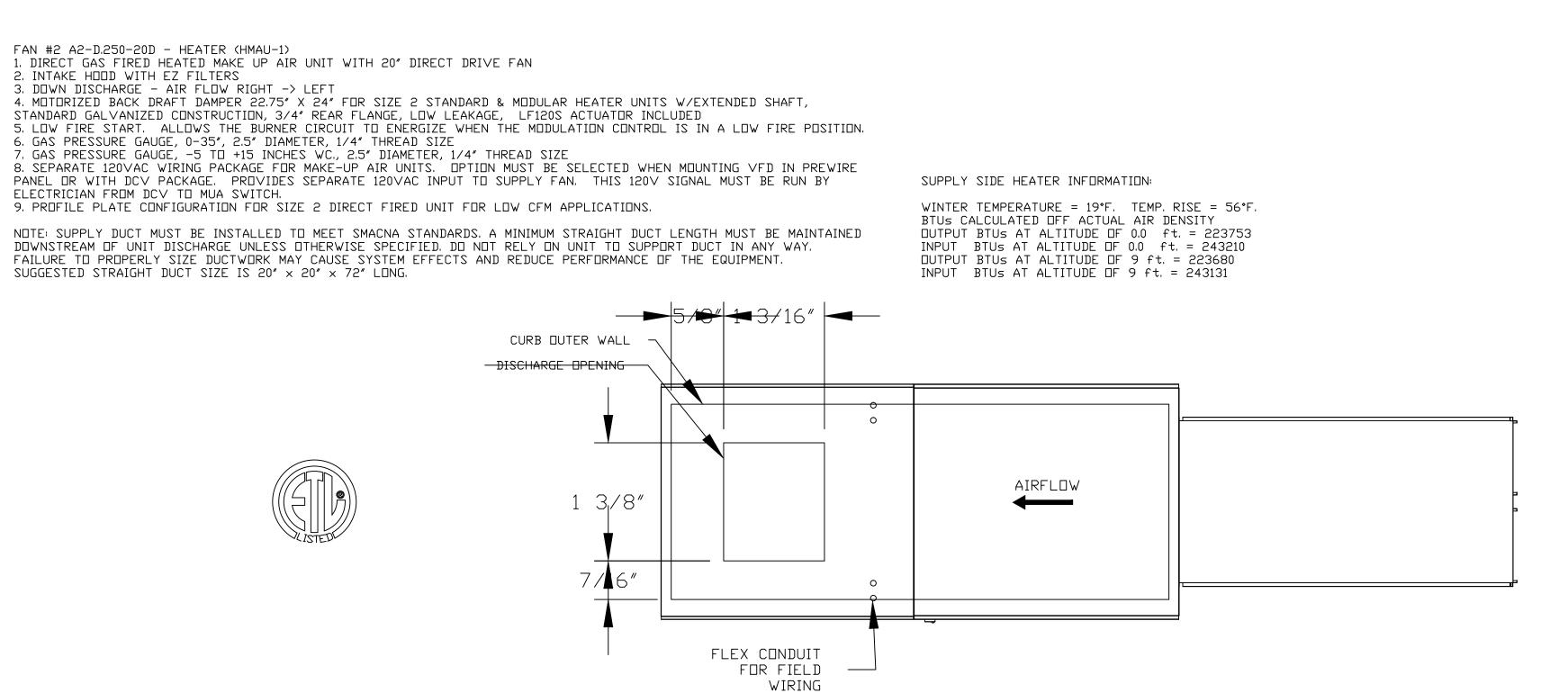
Direct Fired Heater Wiring DRAWING NUMBER DF3537160-2 IATTENTION ELECTRICIAN!

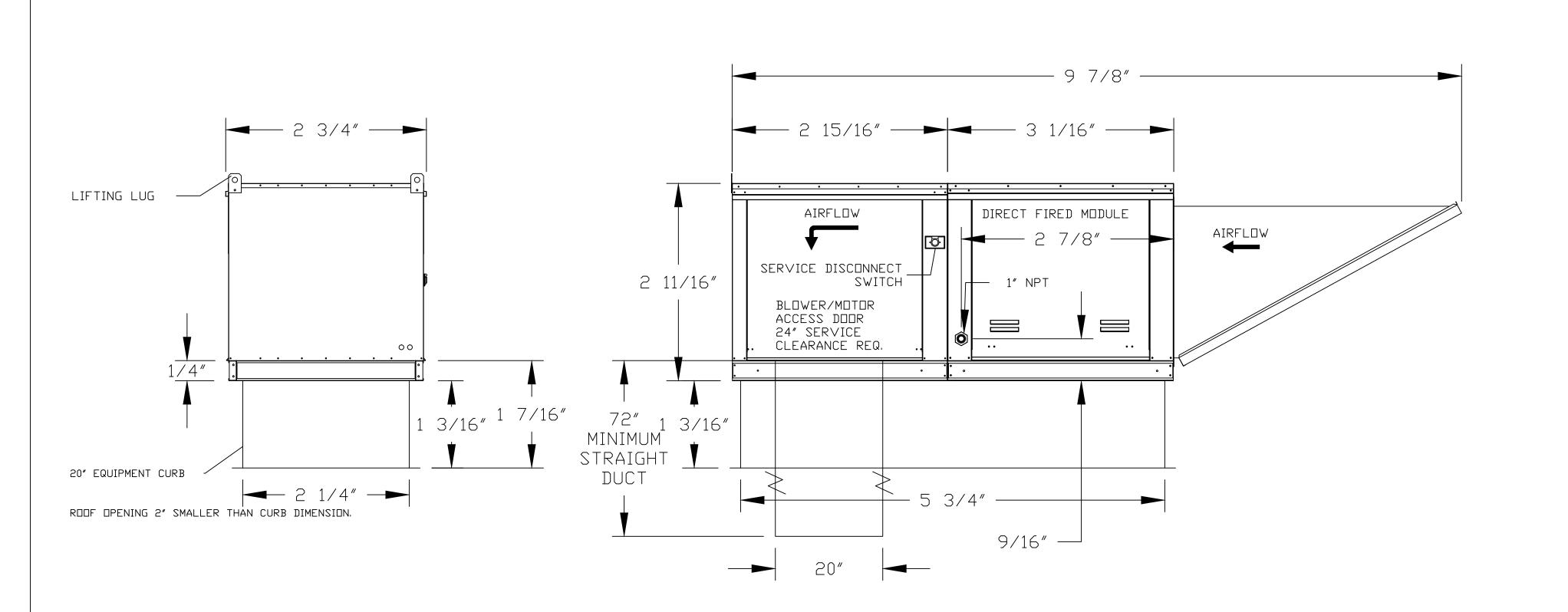
DROP FOR DISCONNECT CONNECTION VIRE TO O YMOD303 YM C HNO
IS FACTORY SUPPLIED ILLAM NID ILLB

CONNECT POWER TO THE DROP (D34D T) O RD (SD708 RD)

EMSPLUS) 010 <u>⊗N⊗MH</u>⊸O







REVIEW SET 2-12-20

2020 Specification 9 Safari Cafe Page 557 of 566

FAN #2 A2-D.250-20D - HEATER (HMAU-1)

ELECTRICIAN FROM DCV TO MUA SWITCH.

3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT

6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE

2. INTAKE HOOD WITH EZ FILTERS



ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

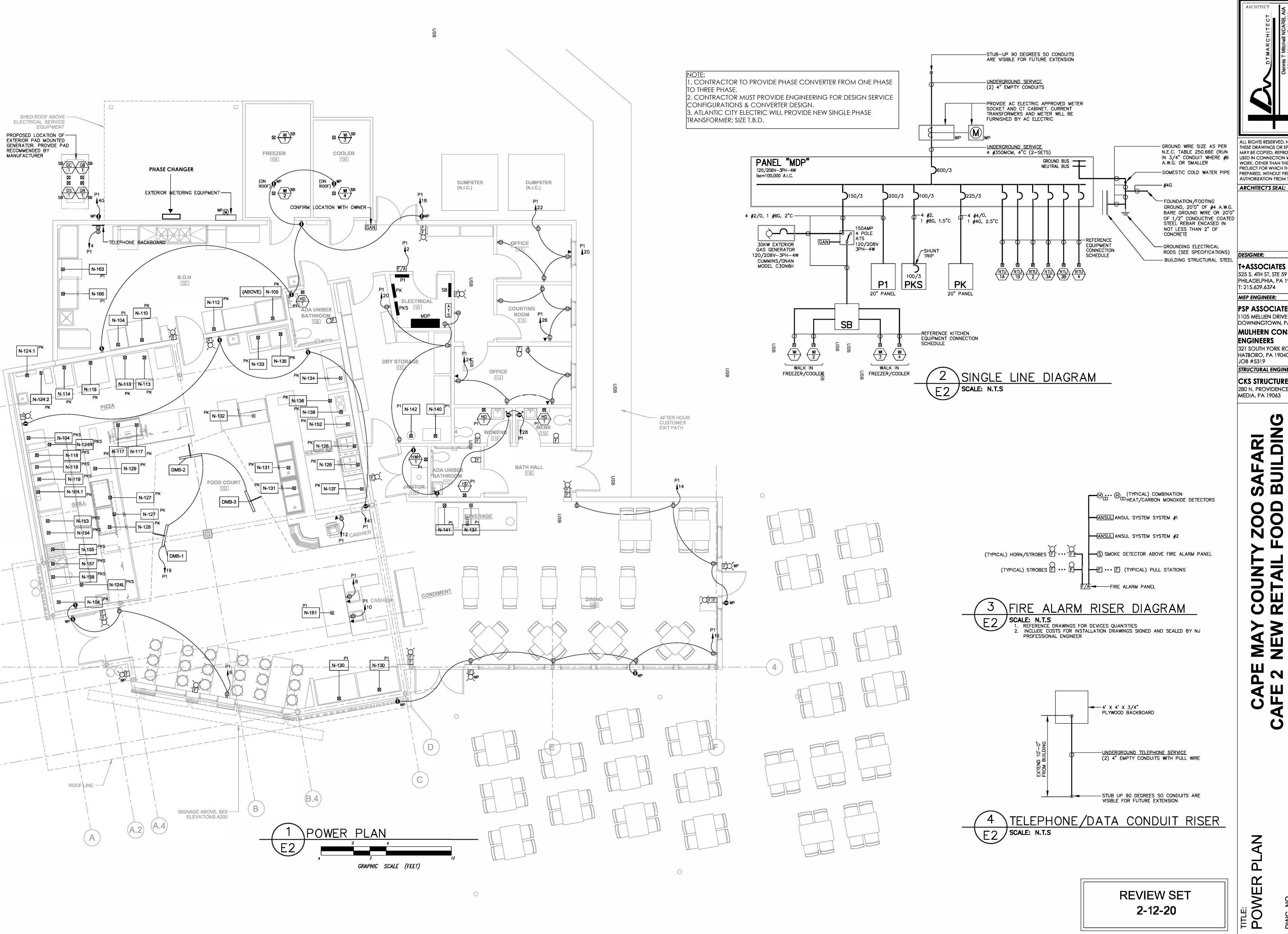
PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335 MULHERN CONSULTING **ENGINEERS** 321 SOUTH YORK ROAD

HATBORO, PA 19040 JOB #5319 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063



2020 Specification 9 Safari Cafe Page 559 of 566

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335 MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040 JOB #5319 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

200

ELECTRICAL SYMBOL LIST

20 A, 277/120 V SWITCH, SINGLE POLE (S), THREE-WAY (S-3), AND FOUR-WAY (S-4), RESPECTIVELY, SPECIFICATION GRADE, FLUSH MOUNTED, FINISH AND COVER PLATE AS PER ARCHITECT

0-10 V, 30 Ma, 8 A, 120/277 V, LIGHT EMITTING DIODE (LED) DRIVER OR FLUORESCENT ELECTRONIC BALLAST DIMMER SWITCH (S-D), SINGLE POLE, SLIDE TYPE (WITHOUT ON/OFF TOGGLE OR ROCKER SWITCH), FULLY RATED, SPECIFICATION GRADE, FLUSH MOUNTED, LOW PROFILE, FINISH AND COVER PLATE AS PER ARCHITECT, OF A TYPE COMPATIBLE WITH THREE-WAY OPERATION VIA REMOTE STANDARD THREE-WAY SWITCHES; LUTRON #DVSTV-** (OR APPROVED EQUAL), UTILIZE EXACT RESPECTIVE DIMMER SWITCH TYPE COORDINATED WITH DIMMABLE LED DRIVERS OR DIMMABLE FLUORESCENT BALLASTS IN CONTROLLED LUMINAIRE (FULLY COORDINATE IN DETAIL WITH LUMINAIRE AND DIMMER MANUFACTURER AND INCLUDE COSTS IN BID TO USE DIFFERENT TYPES OF DIMMER SWITCHES AS APPLICABLE FOR EACH DIFFERENT LUMINAIRE TYPE CONTROLLED); WHERE CIRCUIT LOAD EXCEEDS 8 A UTILIZE #PP-DV POWER PACK(S) AS REQUIRED TO FACILITATE LOAD

OCCUPANCY/VACANCY SENSOR LIGHTING CONTROL WITH INTEGRAL MANUAL OVERRIDE TO "ON" PUSH BUTTON (S-OC), FLUSH MOUNTED ON WALL (ON FLUSH MOUNTED OUTLET BOX). SELF-CONTAINED "STAND-ALONE" TYPE (SINGLE SENSOR FOR LOCAL LIGHTING CONTROL OF A SINGLE CIRCUIT ONLY). MULTI-TECHNOLOGY PASSIVE INFRARED (PIR) AND ULTRASONIC TYPE WITH INTEGRAL SWITCHING RELAY. RATED MINIMUM 800 W. 1,200 VA FOR 120 V OPERATION AND RATED MINIMUM 2,700 VA FOR 277 V OPERATION. SINGLE POLE. NOMINAL 93 m2 (1,000 SQ FT) COVERAGE, MEETING NEMA WD7 STANDARD, INTEGRAL SELECTABLE AMBIENT LIGHT LEVEL SENSOR, SELECTABLE AUTOMATIC (OCCUPANCY SENSOR) OR MANUAL (VACANCY SENSOR) MODES, SPECIFICATION GRADE, WHITE FINISH, EATON/COOPER #ONW-D-1001-MV-* (OR APPROVED EQUAL)

OCCUPANCY SENSOR LIGHTING CONTROL [OC], FLUSH MOUNTED IN CEILING, FOR COMMON CONTROL OF LIGHTING (MULTIPLE SENSORS FOR LIGHTING CONTROL IN CONJUNCTION WITH REMOTE LIGHTING CONTROL RELAY MODULE(S)), MULTI-TECHNOLOGY PASSIVE INFRARED (PIR) AND ULTRASONIC TYPE, 360 DEGREE NOMINAL 186 m2 (2,000 SQ FT) COVERAGE, MEETING NEMA WD7 STANDARD, INTEGRAL SELÉCTABLE AMBIENT LIGHT LEVEL SENSOR, SPECIFICATION GRADE, WHITE FINISH; PROVIDE LOW VOLTAGE CONTROL WIRING AS REQUIRED BETWEEN SENSOR AND CONTROL RELAY

EXIT SIGN, TYPE ("EXIT" UNLESS INDICATED OTHERWISE) AS INDICATED ON THE SUPPLEMENTAL LIGHTING FIXTURE SCHEDULE

COMBINATION EXIT/EMERGENCY UNIT, TYPE ("EX/EM" UNLESS INDICATED OTHERWISE) AS INDICATED ON THE SUPPLEMENTAL LIGHTING FIXTURE SCHEDULE, WITH INTEGRAL BATTERY BACKUP

EMERGENCY LIGHTING BATTERY UNIT, TYPE ("EM" UNLESS INDICATED OTHERWISE) AS INDICATED ON THE SUPPLEMENTAL LIGHTING FIXTURE SCHEDULE

REMOTE EMERGENCY LIGHTING HEAD, TYPE AS INDICATED ON THE SUPPLEMENTAL LIGHTING FIXTURE SCHEDULE

20 A, 120 V DUPLEX RECEPTACLE (NEMA 5-20R), SPECIFICATION GRADE, TAMPER RESISTANT, FLUSH MOUNTED, FINISH AND COVER PLATE AS PER ARCHITECT, (+) INDICATES ABOVE COUNTER MOUNTING HEIGHT, (*) INDICATES MOUNTED HIGH ON WALL AT

20 A, 120 V DUPLEX GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLE (NEMA 5-20R), SPECIFICATION GRADE, TAMPER RESISTANT, FLUSH MOUNTED, FINISH AND COVER PLATE AS PER ARCHITECT, (+) INDICATES ABOVE COUNTER MOUNTING HEIGHT, (WP)

INDICATES WEATHER-RESISTANT TYPE RECEPTACLE MOUNTED IN A WEATHERPROOF OUTLET BOX WITH SINGLE SPRING-LATCHED

WEATHERPROOF-WHILE-IN-USE COVER; FEED THROUGH PROTECTION OF STANDARD TYPE RECEPTACLES FROM OTHER GFCI RECEPTACLES OR PROTECTION OF STANDARD TYPE RECEPTACLES FROM GFCI CIRCUIT BREAKERS ARE NOT ACCEPTABLE 20 A, 120 V COMBINATION DUPLEX RECEPTACLE (NEMA 5-20R) AND DUPLEX UNIVERSAL SERIAL BUS (USB) CHARGER (U), WITH TWO (2) INTEGRAL 3.6 A, 5 VDC USB 2.0 PORTS (WITHOUT DATA CAPABILITY) POWERED FROM INTERNAL DIGITAL DC POWER SUPPLY DÉSIGNED TO OPTIMIZE PERIPHERAL DEVICE CHARGING, SPECIFICATION GRADE, TAMPER RESISTANT, FLUSH MOUNTED, FINISH AND COVER

PLATE AS PER ARCHITECT, (+) INDICATES ABOVE COUNTER MOUNTING HEIGHT, (*) INDICATES MOUNTED HIGH ON WALL AT

QUADRUPLEX ("DOUBLE DUPLEX") RECEPTACLE, WITH RECEPTACLE TYPE AS INDICATED

EQUIPMENT CONNECTION, REFER TO THE EQUIPMENT SCHEDULE OR KITCHEN EQUIPMENT CONNECTION SCHEDUL AND THE EQUIPMENT NOTES FOR INFORMATION

EQUIPMENT DESIGNATION, FOR REFERENCE TO THE EQUIPMENT SCHEDULE

N-*** KITCHEN EQUIPMENT DESIGNATION, FOR REFERENCE TO THE EQUIPMENT SCHEDULE

ELECTRICAL PANEL, REFER TO THE SINGLE LINE DIAGRAM AND RESPECTIVE PANEL SCHEDULE

ELECTRICAL JUNCTION BOX (J-BOX), AS INDICATED ON THE DRAWINGS, WHERE JUNCTION BOX SERVES EQUIPMENT, PROVIDE COMPLETE EQUIPMENT CONNECTIONS AS REQUIRED

PC PHOTOCELL (PC), REFER TO SPECIFICATIONS, WALL MOUNTED

INDICATES HOME RUN OF WIRING TO PANEL AND CIRCUIT INDICATED

PC INDICATES PASS CIRCUIT THROUGH PHOTOCELL (-PC-)

TELEPHONE/DATA OUTLET, FLUSH MOUNTED, PROVIDE SUITABLE OWNER APPROVED OUTLET BOX (INCLUDE COSTS IN BID FOR 2-GANG OUTLET) IN WALL AND 27 mm (1") CONDUIT (WITH PULL WIRE) RUN FROM OUTLET STUBBED AND CAPPED INTO NEARBY ACCESSIBLE CEILING SPACE, (+) INDICATES ABOVE COUNTER MOUNTING HEIGHT OR WALL MOUNTED TELEPHONE MOUNTING HEIGHT (COORDINATE WITH ARCHITECT/OWNER DURING CONSTRUCTION), (*) INDICATES MOUNTED HIGH ON WALL AT DISPLAY/SCREEN

EMERGENCY GENERATOR REMOTE ANNUNCIATOR PANEL (GAN), EXACT TYPE TO MATCH EMERGENCY GENERATOR, FLUSH MOUNTED, REFER GAN TO THE SINGLE LINE DIAGRAM AND THE SPECIFICATIONS

FIRE ALARM CONTROL PANEL (F/A), ADDRESSABLE ANALOG TYPE, WITH INTEGRAL BATTERY BACKUP, WITH MINIMUM POINT ADDRESSES AS REQUIRED FOR CONNECTED DEVICES (OR 197 POINT ADDRESSES, WHICHEVER IS GREATER), WITH PROVISIONS TO EXPAND UP TO NOT LESS THAN 750 POINTS BY ADDING ADDRESSABLE ANALOG MODULES, WITH INTEGRAL 80-CHARACTER (MINIMUM) KEYBOARD DISPLAY UNIT; PROVIDE A TELEPHONE/DATA OUTLET (AS INDICATED ELSEWHERE ON THE ELECTRICAL SYMBOL LIST) MOUNTED ADJACENT TO CONTROL PANEL AND PROVIDE 27 mm (1") CONDUIT (WITH PULL WIRE) RUN FROM TELEPHONE/DATA OUTLET RUN TO THE MAIN

FIRE ALARM REMOTE ANNUNCIATOR PANEL (ANN), 80-CHARACTER (MINIMUM) ALPHANUMERIC TYPE, EXACT MATCHING FIRE ALARM CONTROL PANEL, FLUSH MOUNTED, RED OR BEIGE FINISH AS PER ARCHITECT

FIRE ALARM AUDIO/VISUAL HORN/STROBE, ADA APPROVED TYPE PROVIDING ADA APPROVED COVERAGE, WITH SYNCHRONIZED TYPE

STROBE, SEMI-FLUSH MOUNTED FIRE ALARM VISUAL ONLY STROBE, ADA APPROVED TYPE PROVIDING ADA APPROVED COVERAGE, SYNCHRONIZED TYPE, FLUSH MOUNTED

FIRE ALARM MANUAL PULL STATION, METAL, NON-CODED, DOUBLE ACTION TYPE, FLUSH MOUNTED, ADDRESSABLE TYPE

FIRE ALARM SMOKE DETECTOR, ADDRESSABLE ANALOG PHOTOELECTRIC TYPE, WITH SUITABLE BASE

FIRE ALARM COMBINATION SMOKE AND CARBON MONOXIDE (CO) DETECTOR (S)CO, ADDRESSABLE ANALOG PHOTOELECTRIC TYPE, WITH

H FIRE ALARM COMBINATION HEAT AND CARBON MONOXIDE (CO) DETECTOR (H)CO, ADDRESSABLE ANALOG PHOTOELECTRIC TYPE, WITH CO SUITABLE BASE

FIRE ALARM DUCT TYPE SMOKE DETECTOR (ADDRESSABLE ANALOG PHOTOELECTRIC TYPE) AND HVAC EQUIPMENT SHUTDOWN INTERFACE, IN DUCT HOUSING WITH SAMPLING TUBES TO SUIT DUCTWORK (COORDINATE REQUIREMENTS WITH M.C.); PROVIDE SHUTDOWN INTERFACE INCLUDING A SUITABLE ADDRESSABLE SUPERVISED OUTPUT RELAY MODULE EITHER INTEGRAL TO OR FIELD INSTALLED DIRECTLY ADJACENT TO DUCT HOUSING; PROVIDE A SUITABLE REMOTE TEST, RESET, AND ALARM INDICATING STATION WALL MOUNTED AT AN OWNER APPROVED LOCATION IN A CORRIDOR OR COMMON USE SPACE NEAR THE DETECTOR; E.C. SHALL FURNISH COMPLETE DUCT

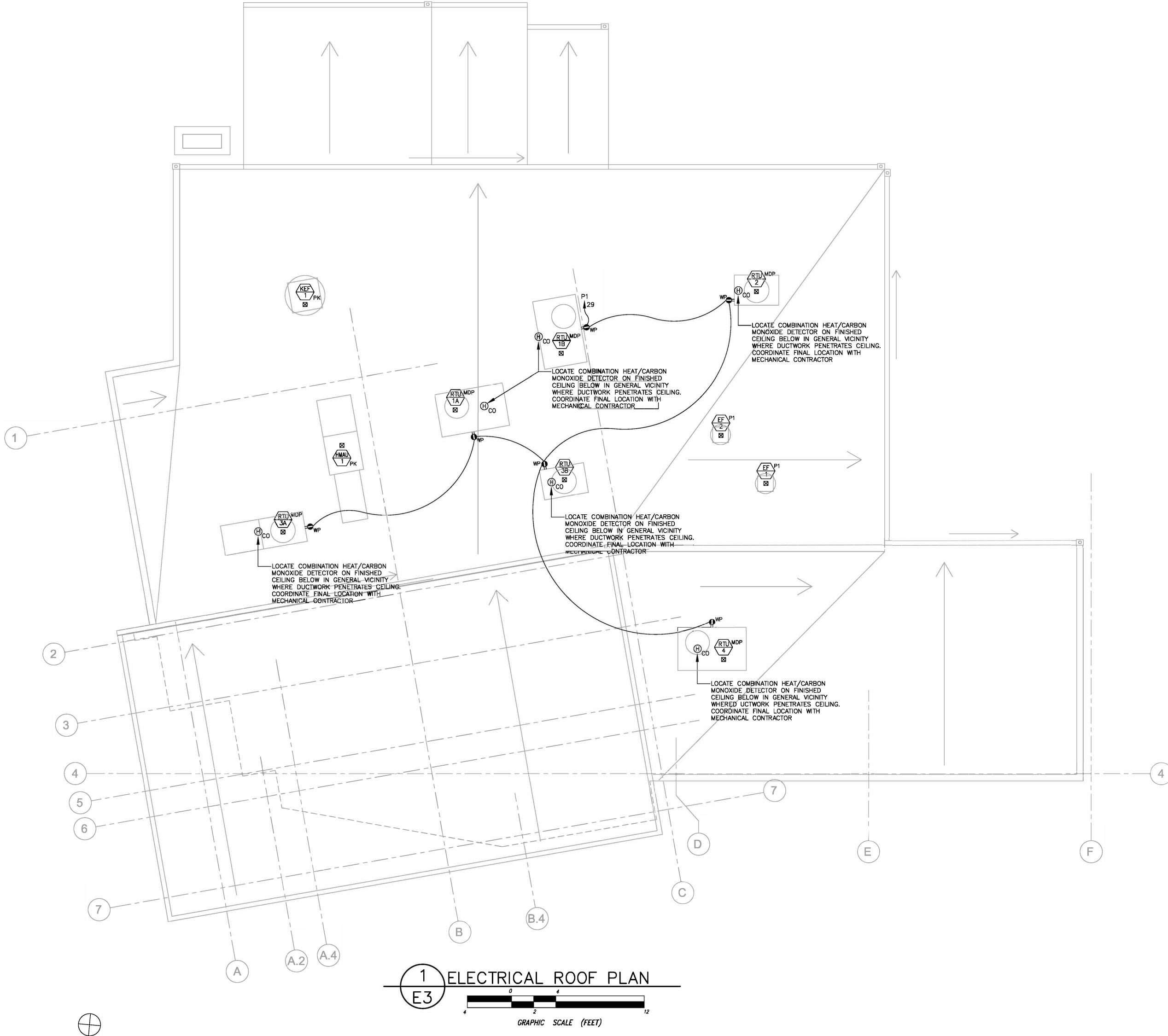
DETECTOR AND WIRE TO FIRE ALARM SYSTEM, WHERE EITHER THE HVAC EQUIPMENT AND/OR ANY ASSOCIATED DUCTWORK ARE NEW OR MODIFIED, M.C. SHALL INSTALL DETECTOR ON DUCTWORK AND M.C./ATC CONTRACTOR SHALL PROVIDE ALL HVAC SHUTDOWN INTERFACE WIRING FROM RELAY TO HVAC EQUIPMENT; WHERE BOTH THE HVAC EQUIPMENT AND ALL ASSOCIATED DUCTWORK ARE EXISTING TO REMAIN, E.C. SHALL INSTALL DETECTOR ON DUCTWORK (AS DIRECTED BY AND UNDER THE SUPERVISION OF THE M.C. AND MECHANICAL ENGINEER) AND PROVIDE ALL HVAC SHUTDOWN INTERFACE WIRING FROM RELAY TO HVAC EQUIPMENT (MAKING FINAL CONNECTIONS AT HVAC EQUIPMENT AS DIRECTED BY AND UNDER THE SUPERVISION OF THE M.C./ATC CONTRACTOR AND MECHANICAL ENGINEER)

NATIONAL ELECTRICAL CODE (NEC), LATEST ADOPTED EDITION

ELECTRICAL CONTRACTOR (EC)

MECHANICAL CONTRACTOR (MC), INCLUDING ALL MECHANICAL TRADES IN GENERAL (MECHANICAL, HVAC, ATC, PLUMBING, FIRE PROTECTION, ETC.), REFER TO MECHANICAL DOCUMENTS FOR DISTINCTION BETWEEN CONTRACTORS/TRADES

GENERAL CONTRACTOR (GC), INCLUDING ALL GENERAL CONSTRUCTION TRADES IN GENERAL (CARPENTRY, STEEL, CONCRETE, SITE, ETC.), REFER TO ARCHITECTURAL AND SITE DOCUMENTS FOR DISTINCTION BETWEEN CONTRACTORS/TRADES



REVIEW SET 2-12-20

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

PSP ASSOCIATES

MEP ENGINEER:

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335 MULHERN CONSULTING **ENGINEERS**

321 SOUTH YORK ROAD HATBORO, PA 19040 JOB #5319 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

ELECTRICAL NOTES

- 1) PERFORM ALL WORK IN STRICT ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC), OSHA REQUIREMENTS, ALL FEDERAL, STATE, AND LOCAL CODES AND ALL OWNER REQUIREMENTS.
- 2) INCLUDE ALL TEMPORARY POWER AND LIGHTING, PERMIT, LICENSE, AND INSPECTION COSTS IN BID.
- VERIFY EXACT LOCATIONS AND MOUNTING OF ALL LUMINAIRES, SWITCHES, RECEPTACLES, OUTLETS, FIRE ALARM, AND OTHER EQUIPMENT WITH ARCHITECTURAL DRAWINGS AND IN THE FIELD PRIOR TO ROUGH IN.
- 4) VERIFY ELECTRICAL RATINGS, CONNECTION REQUIREMENTS, AND EXACT LOCATIONS OF ALL MECHANICAL, KITCHEN, MANUFACTURING, AND OTHER UTILIZATION EQUIPMENT (WHERE APPLICABLE) IN FIELD PRIOR TO PURCHASING ASSOCIATED ELECTRICAL EQUIPMENT. PROVIDE A COMPLETE AND WORKING INSTALLATION.
- THE TERM "PROVIDE" MEANS, "FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR", AND THE TERMS "CONTRACTOR" AND "E.C." MEAN "ELECTRICAL CONTRACTOR", UNLESS INDICATED OTHERWISE. ALL WORK INDICATED ON THE ELECTRICAL DRAWINGS AND ELECTRICAL SPECIFICATIONS IS BY THE E.C. (UNLESS INDICATED OTHERWISE) AND IS NEW (UNLESS INDICATED OTHERWISE). WHERE THE PROJECT IS PERFORMED BY MULTIPLE PRIME CONTRACTORS UNDER "MULTIPLE PRIME BIDS" THIS DESIGNATES THE WORK BY THE ELECTRICAL PRIME CONTRACTOR. WHERE THE PROJECT IS PERFORMED BY A SINGLE OVERALL CONTRACTOR UNDER "LUMP SUM BIDS" THIS APPROXIMATELY DESIGNATES THE WORK BY THE ELECTRICAL TRADE SUBCONTRACTOR (EXACT DIVISION OF TRADE SUBCONTRACTOR WORK IS THE SOLE RESPONSIBILITY OF THE SINGLE OVERALL CONTRACTOR; TRADE SUBCONTRACTOR WORK DIVISION SHOWN ON THE DRAWINGS/SPECIFICATIONS IS FOR REFERENCE AND CONVENIENCE ONLY).
- 6) COORDINATE ALL REQUIRED SHUTDOWNS WITH THE OWNER (AND UTILITY COMPANY WHERE APPLICABLE) A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE. INCLUDE OVERTIME COSTS IN BID TO PERFORM ALL SHUTDOWNS (INCLUDING SHUTDOWNS FOR AREAS WHICH MAY BE UNOCCUPIED DURING CONSTRUCTION) AFTER NORMAL WORKING HOURS AS COORDINATED WITH THE OWNER. NO EXTRA CLAIMS OR COMPENSATION WILL BE GRANTED FOR OVERTIME COSTS ASSOCIATED WITH PERFORMING SHUTDOWNS.
- 7) PROVIDE MOUNTING HEIGHTS OF EQUIPMENT AS REQUIRED BY ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND STANDARDS, INCLUDING ALL APPLICABLE DISABLED (HANDICAPPED) ACCESS CODES AND THE AMERICANS WITH DISABILITIES ACT (ADA). CONTACT ANY AND ALL AUTHORITIES HAVING JURISDICTION TO VERIFY REQUIRED MOUNTING HEIGHTS.
- VERIFY ALL UTILITY (ELECTRIC, TELEPHONE, DATA, CABLE TELEVISION, ETC. WHERE APPLICABLE) REQUIREMENTS IN WRITING WITH EACH UTILITY COMPANY AND OBTAIN APPROVALS FROM ALL UTILITIES (INCLUDING SUBMITTING ANY REQUIRED SERVICE APPLICATIONS AND SHOP DRAWINGS ON SERVICE—RELATED EQUIPMENT TO UTILITIES) PRIOR TO ROUGH—IN OR PURCHASING ANY SERVICE RELATED EQUIPMENT. THE ELECTRICAL CONTRACTOR IS SOLELY RESPONSIBLE TO FULLY COORDINATE AND VERIFY SERVICE REQUIREMENTS WITH UTILITY COMPANIES (INCLUDE ALL COSTS IN BID). NO EXTRA CLAIMS OR COMPENSATION WILL BE GRANTED UNDER ANY CIRCUMSTANCE ASSOCIATED WITH FAILURE TO FULLY COORDINATE WITH OR OBTAIN FULL APPROVALS FROM UTILITY COMPANIES.
- 9) FOR ALL WIRING AND WORK INDICATED, INCLUDING ALL SYSTEMS (POWER, LIGHTING, FIRE ALARM, CONTROL, SIGNAL, SOUND, TELECOMMUNICATIONS, DATA, AND ALL OTHER SYSTEMS, WHERE APPLICABLE), PROVIDE ALL NEW CONDUITS, RACEWAYS, OUTLETS, AND CONDUCTORS, INCLUDE ALL COSTS IN BID. WHERE EXISTING CONDUITS AND RACEWAYS ARE DETERMINED BY THE ENGINEER TO BE IN ADEQUATE CONDITION, AND WHERE SPECIFICALLY APPROVED BY THE OWNER, ARCHITECT, AND ENGINEER, EXISTING CONDUITS AND RACEWAYS MAY BE REUSED. PROVIDE A SEPARATE GROUNDING CONDUCTOR, IN ADDITION TO ALL OTHER GROUNDING CONDUCTORS SPECIFIED, AND BOND TO ALL RACEWAYS, CONDUITS, BOXES, AND OUTLETS WHERE RACEWAYS ARE REUSED. DO NOT DEPEND ON EXISTING CONDUITS/RACEWAYS FOR GROUNDING PATHS. REUSE EXISTING CONDUCTORS ONLY WHERE SPECIFICALLY INDICATED ON THE DRAWINGS.
- PROVIDE ENGRAVED LAMINATED PLASTIC NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT (INCLUDING, BUT NOT LIMITED TO, SAFETY SWITCHES, ENCLOSED CIRCUIT BREAKERS, BRANCH PANELS, DISTRIBUTION PANELS/SWITCHBOARDS, FUSED EQUIPMENT, POWER OUTLETS, THERMAL OVERLOAD SWITCHES, PHOTOCELLS, METER SOCKETS,, FIRE ALARM DEVICES, LIGHTING CONTROLLERS, GENERATORS, MOTOR CONTROL CENTERS, MOTOR CONTROLS, SWITCHES AND RECEPTACLES SERVING EQUIPMENT, ETC., WHERE APPLICABLE), REFER TO SPECIFICATIONS FOR INFORMATION. PROVIDE ENGRAVED PLASTIC NAMEPLATES FOR ALL CONVENIENCE RECEPTACLES.
- PROVIDE ALL NEW FIRE ALARM VISUAL SIGNALING DEVICES (VISUAL ONLY STROBES AND STROBE PORTIONS OF COMBINATION HORN/STROBES) AS SYNCHRONIZED. PROVIDE ALL VISUAL SIGNALING DEVICES LOCATED IN THE SAME ROOM OR OTHERWISE WITHIN SIGHT SYNCHRONIZED TOGETHER (I.E. CONTROLLED BY A COMMON SYNCHRONIZING MODULE). PROVIDE ALL DEVICES OF TYPES FACILITATING SYNCHRONIZING AND PROVIDE ALL SIGNALING CIRCUITS INCLUDING SYNCHRONIZING CONTROLLERS AS REQUIRED. EXISTING VISUAL SIGNALING DEVICES ARE NOT REQUIRED TO SYNCHRONIZE WITH NEW DEVICES (UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS).

EQUIPMENT CONNECTION NOTES

- EXACT DETAILS OF EQUIPMENT CONNECTIONS ARE NOT INDICATED ON THE ELECTRICAL FLOOR PLAN DRAWINGS. EQUIPMENT CONNECTIONS DETAILS ARE INDICATED ON THE EQUIPMENT CONNECTION SCHEDULES ON THE ELECTRICAL DRAWINGS. APPROXIMATE EQUIPMENT LOCATIONS ONLY ARE INDICATED ON THE FLOOR PLAN DRAWINGS.
- THE EQUIPMENT SCHEDULES INDICATE THE EQUIPMENT NAMEPLATE ELECTRICAL CHARACTERISTICS (VOLTAGE, PHASE, AND LOAD AS WELL AS HORSEPOWER, WHERE APPLICABLE), PANEL CIRCUIT BREAKER AMPERES, LOCAL DISCONNECTING MEANS (CORD—AND—PLUG [INCLUDING NEMA CONFIGURATION] OR SWITCH), AND CIRCUIT WIRE AND CONDUIT.
- 3) PRIOR TO ROUGH-IN, VERIFY EXACT POINT OF ELECTRICAL CONNECTION TO EACH PIECE OF EQUIPMENT IN THE FIELD TO AVOID PLACING SERVICE AT THE WRONG LOCATION.
- 4) ELECTRICAL INFORMATION SHOWN IS BASED ON NAMEPLATE AND/OR CATALOG CUT INFORMATION, AND IS ACCURATE TO THE BEST OF THE KNOWLEDGE OF THE ENGINEER AND OWNER. HOWEVER, NO GUARANTEES ARE MADE TO ITS ACCURACY. VERIFY EXACT ELECTRICAL, OPERATING, AND CONNECTION CHARACTERISTICS AND REQUIREMENTS IN THE FIELD PRIOR TO PURCHASING ASSOCIATED ELECTRICAL EQUIPMENT (PANEL BRANCH CIRCUIT BREAKERS, RECEPTACLES, SWITCHES, ETC.) AND PRIOR TO PULLING WIRING IN CONDUITS AND/OR ROUGHING—IN CABLE WIRING METHODS (WHERE PERMITTED).
- 5) PROVIDE CIRCUIT BREAKERS IN PANELS AS PER THE BREAKER AMPS ON THE EQUIPMENT SCHEDULES. FOR EXACT CIRCUITING AND CONNECTIONS AT PANELS, REFER TO THE APPROPRIATE PANEL SCHEDULES.
- 6) PROVIDE ALL EQUIPMENT WITH A LOCAL DISCONNECTING MEANS, CONSISTING OF ONE OF THE FOLLOWING, AS INDICATED ON THE EQUIPMENT SCHEDULE (OR AS OTHERWISE VERIFIED IN THE FIELD).
- A) CORD-AND-PLUG CONNECTED EQUIPMENT: PROVIDE RECEPTACLE OF NEMA CONFIGURATION OR SPECIFIC TYPE INDICATED ON THE EQUIPMENT SCHEDULE. PROVIDE SINGLE RECEPTACLES UNLESS INDICATED AS DUPLEX (DUP.), QUADRUPLEX (QUAD.), OR OTHERWISE NOTED. PROVIDE RECEPTACLE TYPES COMPATIBLE WITH PLUG TYPES ON EQUIPMENT CORDS, VERIFY IN FIELD. LOCATE RECEPTACLE NEAR EQUIPMENT AS REQUIRED. WHERE EQUIPMENT CORD IS NOT LONG ENOUGH TO REACH RECEPTACLE (OR WHERE EQUIPMENT DOES NOT INCLUDE CORD), PROVIDE A NEW CORD AND PLUG (TO MATCH EXISTING) AS REQUIRED. PROVIDE MAXIMUM CORD LENGTH NOT EXCEEDING 1.8 m (6'0").
- B) THERMAL OVERLOAD SWITCH (O/L SWITCH, MANUAL MOTOR STARTER): FOR ALL DIRECT CONNECTED (WITHOUT CORD AND PLUG) EQUIPMENT RATED 120 V OR 277 V AND 20 A OR LESS, PROVIDE A HORSEPOWER RATED THERMAL OVERLOAD SWITCH LOCATED AT OR ADJACENT TO THE EQUIPMENT. WHERE EQUIPMENT IS NOT POWERED OR IS POWER OPERATED BY SOURCES OTHER THAN ELECTRICITY (I.E. PNEUMATIC OPERATION, GAS FIRED, ETC.) AND WHERE ELECTRICITY IS REQUIRED ONLY FOR LOW VOLTAGE OR SOLID STATE CONTROLS, A SINGLE POLE 120/277 V SWITCH MAY BE UTILIZED.
- C) DISCONNECT SWITCH: FOR ALL DIRECT CONNECTED EQUIPMENT OVER 120 V (EXCEPT 277 V SINGLE-PHASE EQUIPMENT) OR OVER 20 A, PROVIDE A SUITABLE HEAVY DUTY SAFETY SWITCH. PROVIDE AMPERE RATING AND POLES AS PER THE EQUIPMENT SCHEDULES. PROVIDE SWITCHES OF THE UN-FUSED TYPE, EXCEPT WHERE FUSE SIZES (AFU) ARE INDICATED ON THE SCHEDULE. PROVIDE FUSED DISCONNECT SWITCHES WITH FUSES WHERE INDICATED ON THE SCHEDULE. WHERE INDICATED AS (ECB), PROVIDE AN ENCLOSED CIRCUIT BREAKER WITH TRIP RATING AS SHOWN.
- D) HARD WIRED DIRECT CONNECTION (J-BOX ONLY): FOR ALL DIRECT CONNECTED EQUIPMENT WHERE A DISCONNECTING MEANS IS NOT REQUIRED BY CODE AND NOT DESIRED BY THE OWNER FOR THE EQUIPMENT SERVED, PROVIDE A DIRECT HARD WIRED CONNECTION UTILIZING A SUITABLE JUNCTION OR OUTLET BOX. WHERE EQUIPMENT ENCLOSURE IS SUITABLE FOR USE AS A RACEWAY OR WIRE WAY, THE JUNCTION OR OUTLET BOX MAY BE OMITTED.
- 7) PROVIDE CIRCUIT WIRING AND CONDUIT FROM THE APPROPRIATE PANEL (REFER TO PANEL SCHEDULES) TO THE EQUIPMENT (PASSING THROUGH ANY APPLICABLE CONTROLS AND LOCAL DISCONNECTING MEANS) AS PER THE EQUIPMENT SCHEDULES. PROVIDE INDIVIDUAL NEUTRAL (WHERE APPLICABLE) AND EQUIPMENT GROUNDING CONDUCTORS WITH EACH CIRCUIT.
- 8) FEED FREE STANDING EQUIPMENT UNABLE TO BE SERVED BY WIRING RUN ON/ALONG WALLS OR COLUMNS WITH CONDUIT FROM THE CEILING OR UNDER THE FLOOR, SUITABLY SUPPORTED.

				ł	KITCHE	N EQUIP	MENT CONNECT	TON SCHEDULE		
EQUIP. NUMBER	DESCRIPTION	RATED VOLTAGE/ PHASE	LOAD (VA)	HORSE POWER/ KW	BREAKER AMPS/ POLES	PANEL	PLUG-IN RECEPTACLE NEMA CONFIG	DISCONNECT SWITCH AMPS/POLES	CIRCUIT	REMARKS
N-103	# N-103 REACH-IN REFRIGERATOR	120V-1PH	696		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	# N-104 TYPICAL SINGLE DOOR REACHIN FREEZER	120V-1PH	864		20/1	PK/PKS	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	4.0
	# N105 ICE CUBER	120V-1PH	1,656		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
N-110	# N-110 SANDWICH UNIT	120V-1PH	1,236		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	-
N-112	# N-112 HEATED CABINET	120V-1PH	1,440		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
N-113	# N-113 TYPICAL PIZZA CONVEYOR OVEN	208V-1PH	10,080		60/2	PK	N/A	60/2	4 # 6, 3/4"C	A TOTAL SHOP THE TOTAL CO.
N-114	# N-114 REACH-IN REFRIGERATOR	120V-1PH	948		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	SHUT-DOWN BY ANSUL, SEE NOTE #3
	# N-115 PIZZA PREP TABLE	120V-1PH	948		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	# N-117 TYPICAL HEATED PIZZA SHELF	120V-1PH	648		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
N-118	# N-118 TYPICAL FRYER BATTERY	120V-1PH	756		20/1	PKS	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	SHUT-DOWN BY ANSUL, SEE NOTE #3
V-119	#N-119 FRY DUMP STATION	120V-1PH	756		20/1	PKS	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	SHUT-DOWN BY ANSUL, SEE NOTE #3
	#N-127 TYPICAL DISPLAY MERCHANDISER	120/208V-1PH	2,685		20/2	PK	L14-20P	N/A	4 # 10, 3/4"C	
	#N-128 REACH-IN UNDERCOUNTER FREEZER	120V-1PH	960		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	# N-129 HOT DOG GRILL	120V-1PH	1,469		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-153 COUNTERTOP GRIDDLE	120V-1PH	1,500		20/1	PKS	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	SHUT-DOWN BY ANSUL, SEE NOTE #3
	#N-154 REFRIGERATED BASE	120V-1PH	1,236		20/1	PKS	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	SHUT-DOWN BY ANSUL, SEE NOTE #3
	#N-155 24" CHARBROILER	120V-1PH	1,500		20/1	PKS	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	SHUT-DOWN BY ANSUL, SEE NOTE #3
	# N-157 COUNTERTOP HOT PLATE	120V-1PH	1,500		20/1	PKS	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	SHUT-DOWN BY ANSUL, SEE NOTE #3
	#N-158 SANDWICH UNIT	120V-1PH	600		20/1	PKS	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	SHUT-DOWN BY ANSUL, SEE NOTE #3
	#N-126 TYPICAL SOFT SERVE	120/208V-1PH	2,496		20/2	PK	6-20P	N/A	4 # 10, 3/4"C	CHET BOWN BY MICOCH, CEL INCHE NO
	#N-131 TYPICAL HORIZONTAL CHEST FREEZER	120V-1PH	492		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	# N-132 DUAL TEMP DISPLAY CASE	120V-1PH	960		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-133 CONVECTION OVEN	208V-1PH	3,600	-	20/2	PK	6-20P	N/A	4 # 10, 3/4"C	
	#N-134 HEATED PRETZEL DISPLAY CASE	120V-1PH	1,500		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	11
	#N-135 POPCORN POPPER	120V-1PH	1,500		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-136 WORK TOP REFRIGERATOR	120V-1PH	612		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-139 COFFEE MAKER	120V-1PH	1,500		20/1	PK	5-20R GFI DUPLEX	N/A	4 # 10, 3/4"C	
	#N-152 HOT CHOCOLATE	120V-1PH	1,500		20/1	PK	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-130 TYPICAL OPEN AIR SCREEN SELF-SERVE REFRIGERATOR	120/208V-1PH	2,496		20/2	P1	L14-20P	N/A	4 # 10, 3/4"C	
	TYPICAL #N-137 ICEE DISPENSOR	120V-1PH	1,500		20/1	P1	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-140 WATER FILTER SYSTEM FOR SODA DISPENSOR	120V-1PH	1,500		20/1	P1	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-141 FOUNTAIN SODA MACHINE	120V-1PH	1,500		20/1	P1	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-142 CARBONATOR	120V-1PH	1,500		20/1	P1	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	#N-161 SOFT DRINK GRAB AND GO	120V-1PH	1,500		20/1	P1	5-20R GFI DUPLEX	N/A	3 # 12, 3/4"C	
	# N-163 DISWASHER	208V-3PH	8,790		30/3	P1	30/3, NEMA 4X	N/A	3 # 8, 1 # 10G, 3/4"C	
	# N-166 DISPOSER WITH CONTROL PANEL	208V-3PH	2, 161	2	20/3	P1	N/A	CONTROL PANEL	4 # 12, 3/4"C	
	# WI-100 DISPOSER WITH CONTROL PANEL # WI-1 WALK-IN COOLER CONDENSING UNIT	208V-3PH	4, 179	-	20/3	SB	N/A	30/3, WP	3 # 8, 1 # 10G, 3/4"C	NOTE # 2
	# WI-2 WALK-IN COOLER EVAPORATOR	208V-3PH	720		20/3	SB	N/A	30/3, WP	4 # 10, 3/4°C	NOTE # 2
	# WI-3 WALK-IN FREEZER CONDENSING UNIT	208V-1PH	1,539		20/3	SB	N/A	30/3, WP	3 # 10, 3/4"C	NOTE # 2
	# WI-4 WALK-IN FREEZER EVAPORATOR	120V-1PH	200		20/2	SB	N/A	30/1, WP	3 # 10, 3/4°C	NOTE # 2
	# N-124L EXHAUST HOOD LIGHTING	120V-1PH	500	N/A	20/1	PKS	N/A	O/L SWITCH (NOTE #4)	3 #12, 3/4" C	SEE NOTES #3 AND #4
	# N-124R EXHAUST HOOD LIGHTING	120V-1PH	500	N/A	20/1	PKS	N/A	O/L SWITCH (NOTE #4)	3 #12, 3/4" C	SEE NOTES #3 AND #4
	TYPICAL # N-124.1 FIRE SUPPRESSION ANSUL SYSTEM	120V-1PH	500	N/A	20/1	PK	N/A	J-BOX ONLY	3 #10, 3/4" C	SEE NOTE #5
	#N-124.2 CONTROL POWER (NON SHUNT TRIP)	120V-1PH	500	IN/A	20/1	PK	N/A N/A	N/A N/A	3 # 10, 3/4 °C	OLL NOTE #3
	DIGITAL MENU BOARD		200					N/A N/A		
ו-סועוע	DIGITAL MENU BOARD	120V-1PH 120V-1PH			20/1	P1	5-20R DUPLEX		3 # 12, 3/4"C	
		I IZUV-IPH	200	1	20/1	P1	5-20R DUPLEX	N/A	3 # 12, 3/4"C	
DMB-2	DIGITAL MENU BOARD	120V-1PH	200		20/1	P1	5-20R DUPLEX	N/A	3 # 12, 3/4"C	

NOTES:

- PRIOR TO ROUGH-IN OR PURCHASING ANY ELECTRICAL EQUIPMENT ASSOCIATED WITH ANY EQUIPMENT SHOWN ON THE SCHEDULE ABOVE, THE E.C. IS FULLY RESPONSIBLE FOR OBTAINING COPIES OF SHOP DRAWINGS FROM THE CONTRACTOR OR PARTY (INCLUDING OWNER, WHERE APPLICABLE) FURNISHING THE EQUIPMENT AND FOR COORDINATING EQUIPMENT ELECTRICAL CHARACTERISTICS WITH SHOP DRAWINGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. THE E.C. IS SOLELY RESPONSIBLE FOR THIS COORDINATION AND IS RESPONSIBLE FOR ALL COSTS WHICH MAY RESULT FROM FAILING TO FULLY COORDINATE.
- 2) INCLUDE COSTS TO MOUNT AND WIRE FOUR (4) FOUR FOOT LIGHTING FIXTURES FURNISHED WITH EACH WALK-IN (TOTAL 8)
- 3) WHERE INDICATED ON THE SCHEDULE ABOVE, CONNECT EQUIPMENT TO PANEL "PKS" SO EQUIPMENT IS SHUT-DOWN BY # N-124.1 EXHAUST
- HOOD FIRE SUPPRESSION "ANSUL" SYSTEM (VIA SHUNT TRIP MAIN CIRCUIT BREAKER IN PANEL "PKS").

 4) FOR # 124L AND # 124R EXHAUST HOOD SYSTEM, LOCATE DISCONNECTING MEANS (THERMAL OVERLOAD SWITCH) AS INDICATED ON THE DRAWINGS (OR AS DIRECTED BY THE ARCHITECT AND/OR FOOD SERVICE CONSULTANT IF NOT SHOWN). PROVIDE COMPLETE WIRING WITHIN HOOD FROM
- DISCONNECTING MEANS TO ALL LUMINAIRES IN HOOD (UTILIZE STEEL RMC ONLY FOR WIRING WITHIN HOOD).

 5) FOR # 124.1 EXHAUST HOOD FIRE SUPPRESSION "ANSUL" SYSTEM ("ANSUL SYSTEM"), PROVIDE THE FOLLOWING:
 - A) PROVIDE INCOMING POWER CONNECTION TO THE SYSTEM AS INDICATED ON THE SCHEDULE ABOVE.

 B) PROVIDE INTERCONNECTING WIRING BETWEEN THE ANSUL SYSTEM AND THE SHUNT TRIP MAIN CIRCUIT BREAKER IN PANEL "PKS" (WHICH SERVES EQUIPMENT UNDER THE EXHAUST HOOD) AS REQUIRED SO ANSUL SYSTEM ACTIVATION TRIPS THE CIRCUIT BREAKER AND SO
 - THE CIRCUIT BREAKER CANNOT BE RESET UNTIL THE ANSUL SYSTEM IS RESET AND RESTORED.

 C) PROVIDE INTERCONNECTING WIRING BETWEEN THE ANSUL SYSTEM AND THE BUILDING FIRE ALARM CONTROL PANEL TO MONITOR BOTH ANSUL SYSTEM ALARM (ACTIVATE A "FIRE ALARM" CONDITION AND SOUND ALARM THROUGHOUT THE BUILDING) AND TROUBLE (ACTIVATE
 - A "TROUBLE" CONDITION FOR THE FIRE ALARM SYSTEM) CONDITIONS.

 D) THE MECHANICAL/ATC CONTRACTOR SHALL PROVIDE INTERCONNECTING AND CONTROL WIRING BETWEEN THE ANSUL SYSTEM AND CONTROLS FOR HVAC EQUIPMENT REQUIRED TO BE SHUT-DOWN BY THE ANSUL SYSTEM (INCLUDING COOKING GAS SOLENOID VALVES AND KITCHEN AND EXHAUST HOOD RELATED VENTILATING EQUIPMENT [INCLUDING FAN ON/OFF CONTROLS AT HOOD], WHERE REQUIRED). THE M.C. MAY OBTAIN THE 120V POWER SOURCE (TO SUPPLY GAS SOLENOID VALVES) FROM THE 120V BRANCH CIRCUIT POWERING
- THE ANSUL SYSTEM CONTROL PANEL.

 6) FOR ALL WALK-IN COOLING BOXES (REFRIGERATORS AND FREEZERS), PROVIDE POWER WIRING AS SHOWN AND AS FOLLOWS:

 A) FOR COOLING BOX LIGHTING, LOCATE DISCONNECTING MEANS (THERMAL OVERLOAD SWITCH) AS INDICATED ON THE DRAWINGS (OR AS DIRECTED BY THE ARCHITECT AND/OR FOOD SERVICE CONSULTANT IF NOT SHOWN). PROVIDE COMPLETE WIRING WITHIN COOLING BOX FROM DISCONNECTING MEANS TO ALL LUMINAIRES IN HOOD (UTILIZE ALUMINUM RMC OR PVC COATED STEEL RMC ONLY FOR WIRING WITHIN
 - COOLING BOXES).
 B) THE E.C. SHALL PROVIDE 3/4" CONDUIT FROM COOLING BOX CONDENSING UNIT TO COOLING BOX EVAPORATOR UNIT FOR CONTROL WIRING.
 - PROVIDE CONTROL WIRING AS DIRECTED BY THE COOLING BOX SUPPLIER/MANUFACTURER. INCLUDE ALL COSTS IN BID.

 C) FOR WALK-IN FREEZERS, THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL HEAT TRACING TAPE ON CONDENSATE LINES AS DIRECTED BY THE COOLING BOX SUPPLIER/MANUFACTURER. POWER HEAT TAPE FROM THE COOLING BOX LIGHTING CIRCUIT, PROTECTED BY

A 20A, 120V GFCI SWITCH CONNECTED ON THE LINE SIDE OF THE LIGHTING DISCONNECTING MEANS SWITCH. INCLUDE ALL COSTS IN BID.

EQUIP.		RATED	LOAD	HORSE	BREAKER		PLUG-IN	DISCONNECT		
NUMBER	DESCRIPTION	VOLTAGE/	(VA)	POWER/	AMPS/	PANEL	RECEPTACLE	SWITCH	CIRCUIT	REMARKS
		PHASE		KW	POLES		NEMA CONFIG	AMPS/POLES		
RTU-1A	ROOFTOP UNIT	208V-3PH	8646		30/3	MDP	N/A	FURNISHED BY MECHANICAL CONTRACTOR	4 # 10, 3/4"C	
RTU-1B	ROOFTOP UNIT	208V-3PH	8646		30/3	MDP	N/A	FURNISHED BY MECHANICAL CONTRACTOR	4 # 10, 3/4"C	
RTU-2	ROOFTOP UNIT	208V-1PH	4430		30/2	MDP	N/A	FURNISHED BY MECHANICAL CONTRACTOR	3 # 10, 3/4"C	
RTU-3A	ROOFTOP UNIT	208V-3PH	5692		30/3	MDP	N/A	FURNISHED BY MECHANICAL CONTRACTOR	4 # 10, 3/4"C	
RTU-3B	ROOFTOP UNIT	208V-3PH	5692		30/3	MDP	N/A	FURNISHED BY MECHANICAL CONTRACTOR	4 # 10, 3/4"C	
RTU-4	ROOFTOP UNIT	208V-3PH	8646		30/3	MDP	N/A	FURNISHED BY MECHANICAL CONTRACTOR	4 # 10, 3/4"C	
EF-1	EXHAUST FAN	120V-1PH	250		20/1	P1	N/A	FURNISHED BY MECHANICAL CONTRACTOR	3 # 12, 3/4"C	
EF-2	EXHAUST FAN	120V-1PH	250		20/1	P1	N/A	FURNISHED BY MECHANICAL CONTRACTOR	3 # 12, 3/4"C	
HD-T	TYPICAL HAND DRYER	120V-1PH	900		20/1	P1	N/A	J-BOX	3 # 12, 3/4"C	-
HWH-1	GAS HOT WATER HEATER	120V-1PH	500		20/1	P1	N/A	O/L SWITCH	3 # 12, 3/4"C	
GB-1	GENSET. ENGINE BLOCK HEATER	208V-1PH	4,000	N/A	30/2	SB	N/A	30/2, WP	3 #8, 3/4" C	SEE NOTE # 2
GC-1	GENSET. BATTERY CHARGER	120V-1PH	200	N/A	20/1	SB	N/A	J-BOX ONLY	3 #8, 3/4" C	SEE NOTE # 2
GH-1	GENSET. BATTERY HEATER	208V-1PH	1,000	N/A	20/2	SB	N/A	30/2, WP	3 #10, 3/4" C	SEE NOTE # 2
GS-1	GENSET. STRIP HEATER	208V-1PH	2,000	N/A	20/2	SB	N/A	30/2, WP	3 #10, 3/4" C	SEE NOTE # 2
KEF-1	KITCHEN EXHAUST FAN	208V-3PH	3,134	3	20/3	PK	N/A	30/3, WP	4 # 10, 3/4"C	PASS THROUGH KITCHEN HOOD SYSTEM
HMAU-1	MAKE-UP AIR UNIT	208V-3PH	3,134	3	20/3	PK	N/A	30/3, WP	4 # 10, 3/4"C	PASS THROUGH KITCHEN HOOD SYSTEM

TE0

- 1) PRIOR TO ROUGH-IN OR PURCHASING ANY ELECTRICAL EQUIPMENT ASSOCIATED WITH ANY EQUIPMENT SHOWN ON THE SCHEDULE ABOVE, THE E.C. IS FULLY RESPONSIBLE FOR OBTAINING COPIES OF SHOP DRAWINGS FROM THE CONTRACTOR OR PARTY (INCLUDING OWNER, WHERE APPLICABLE) FURNISHING THE EQUIPMENT AND FOR COORDINATING EQUIPMENT ELECTRICAL CHARACTERISTICS WITH SHOP DRAWINGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. THE E.C. IS SOLELY RESPONSIBLE FOR THIS COORDINATION AND IS RESPONSIBLE FOR ALL COSTS WHICH MAY RESULT FROM FAILING TO FULLY COORDINATE.
- WHERE INDICATED ON THE SCHEDULE ABOVE, ELECTRICAL CHARACTERISTICS FOR GENERATOR ACCESSORY EQUIPMENT ARE APPROXIMATE AS A GUIDE TO PRICING. EXACT ELECTRICAL CHARACTERISTICS FOR THIS EQUIPMENT VARIES FOR DIFFERENT TYPES, SIZES, AND MANUFACTURERS OF GENERATOR SETS. PROVIDE COMPLETE WIRING TO EQUIPMENT AS REQUIRED TO FACILITATE EQUIPMENT ACTUALLY INSTALLED. COORDINATE ALL REQUIREMENTS WITH PROPOSED/POTENTIAL GENERATOR SUPPLIERS BEFORE SUBMITTING BID AND INCLUDE ALL COSTS IN BID.

2-12-20

Dennis T Mitchell NCARB, AIA 6031 I-20 West, Suite 260 Arlington, TX. 76017 P:817.265.2415 F:817.483.7377 OfficeReply@DtmArchitect.com

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

IGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER:
PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335 MULHERN CONSULTING ENGINEERS

321 SOUTH YORK ROAD HATBORO, PA 19040 JOB #5319 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105

MEDIA, PA 19063

ZOO SAFAR FOOD BUILDI

UTE 9 NORTH, CAPE N HOUSE. NJ 08210

> APPROVED BY: TVM JOB#: 1610-021

DRAWN BY: KMT APPROVED SCALE: AS NOTED JOB#: 1610.

S DETAI

	PANEL		MDP	-				VOLTAG	E-	120/	208	
	FOR	- 4	GENERA	POWE	R			PHASE		3	PH-4W	
	LOCATION	٧ -	REFEREN	ICE PLA	ANS			MAIN		600	A MCB	
	A.I.C.	-	100,000	Α				MOUNTI	VG-	SURFACE		
DESCRIPTION	LTG.	EQUIP.	HVAC	BKR.		BUS		BKR.	HVAC	EQUIP.	LTG.	DESCRIPTION
	VA	VA	VA	AMPS	C	ONNEC	CTION	AMPS	VA	VA	VA	
RTU-1A, ROOFTOP UNIT			8,646	30 3	1	A	2	200 3	500	41,343	8,550	PANEL P1
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	immini	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111111111111111111111111111111111111111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1/ 3	ΙB	1 4	111111111111111111111111111111111111111	111111111111111111111111111111111111111	innunni	111111111111111111111111111111111111111	
						1110	6					
RTU-1B, ROOFTOP UNIT			8,646	30 3	-	AI	1 8	225 3	6,268	57,919		PANEL PK
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				I B	1 10			1	///////////////////////////////////////	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	113111111111111111111111111111111111111	111111111111111111111111111111111111111	///////////////////////////////////////	///////////////////////////////////////	// 11	lilo	12	111111111111111111111111111111111111111	///////////////////////////////////////	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111111111111111111111111111111111111111	
RTU-3A, ROOFTOP UNIT			5,692	30 3			1 14	100 3		10,468		PANEL PKS
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111111111111111111111111111111111111111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			_	_	1 16		///////////////////////////////////////		111111111111111111111111111111111111111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						Tire	_					
RTU-3B, ROOFTOP UNIT			5,692	30 3			1 20	150 3		7,200		PANEL SB
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				I B	22		-	1	111111111111111111111111111111111111111	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					-		4					
RTU-4, ROOFTOP UNIT		1	8,646	30 3	-		26	225 3		I		SPARE
	<u> </u>	111111111111111111111111111111111111111				I B	1 28				///////////////////////////////////////	0.7
					-		-					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
RTU-2, ROOFTOP UNIT			4,430	30 2	_		32	150 3				SPARE
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			_		1 34		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111111111111111111111111111111111111111	
SPACE					35	1	1 7					
SPACE		-			37		38					SPARE
SPACE					39	_	1 40			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	///////////////////////////////////////	
SPACE					41		2 42					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
												-1-27-20-11-31-31-31-31-31-31-31-31-31-31-31-31-
TOTALS	01	0	41,752		_		-		13,406	116,930	8,550	TOTALS
1011120		-	11,102						10,100	1 110,000	0,000	1011120
LOAD DESCRIPTION	CONN.	DMD.				PANE	LSC	HEDULE		1		PHASE BALANCE VA
(CONNECTED/DEMAND)	VA	VA			CA			OUNTY ZO	0			THISE DITENTION VA
LIGHTING	8,550	8,550			O,			AFÉ 2			Α	60,951
GENERAL POWER	116,930	76,005						9 NORTH			В	60,951
HVAC EQUIPMENT	55,158	55,158						RTHOUSE	. NJ		C	58,736
	55,100	55,100			J, 11	,,,,,,,				1		20,700
TOTAL	180,638	139,713									TOTAL	180,638
	,	,								1	SD (a)	.00,000

DESCRIPTION LIGHTING STREET LIGHTING LIGHTING LIGHTING EXTERIOR LIGHTING EXTERIOR LIGHTING L	G. A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EQUIP VA	GENERA REFEREN 42,000 HVAC VA	A BK AM 20 20 20 20 20 20 20 20 20 20	R.	1 3 5 7 9	A I I		FION 2	MAI MOL	UNTIN	<u> </u>		PH-4W O A MLO E	DESCRIPTION
LIGHTING 65 LIGHTING 1,44 LIGHTING 70 LIGHTING 70 LIGHTING 1,44 LIGHTING 90 LIGHTING 80 LIGHTING 80 EXTERIOR LIGHTING 30 EXTERIOR LIGHTING 60 LIGHTING 1,14 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	G. A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EQUIP VA	42,000	A BK AM 20 20 20 20 20 20 20 20 20 20	R. PS	1 3 5 7 9	A I I	ECT	2	MOU BH AN	UNTIN	i-IVAC	SURFACT	A MLO	DESCRIPTION
LIGHTING 65 LIGHTING 1,44 LIGHTING 70 LIGHTING 1,44 LIGHTING 90 LIGHTING 90 LIGHTING 80 EXTERIOR LIGHTING 30 EXTERIOR LIGHTING 60 LIGHTING 1,14 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	G. A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EQUIP VA	42,000 HVAC	A BK AM 20 20 20 20 20 20 20 20 20	R. PS	1 3 5 7	A I I	ECT	2	MOU BH AN	UNTIN	HVAC	SURFACT	E LTG,	DESCRIPTION
LIGHTING 65 LIGHTING 1,40 LIGHTING 70 LIGHTING 1,40 LIGHTING 90 LIGHTING 80 EXTERIOR LIGHTING 30 EXTERIOR LIGHTING 60 LIGHTING 1,10 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER ROOFTOP RECEPTACLES	0 00 0 0 0 0 0 0 0	VA	0.555	20 20 20 20 20 20 20 20 20	PS 1 1 1 1 1 1 1	1 3 5 7	A I I	ECT	2	AN	1PS		20,17	2000	DESCRIPTION
LIGHTING 65 LIGHTING 1,4 LIGHTING 70 LIGHTING 1,4 LIGHTING 90 LIGHTING 80 EXTERIOR LIGHTING 30 EXTERIOR LIGHTING 60 LIGHTING 1,10 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER ROOFTOP RECEPTACLES	0 00 00 00 00 00 00 00		VA	20 20 20 20 20 20 20 20	1 1 1 1 1	1 3 5 7	A I I A		2			VA	VA	VA	
LIGHTING 1,44 LIGHTING 70 LIGHTING 1,44 LIGHTING 90 LIGHTING 80 EXTERIOR LIGHTING 30 EXTERIOR LIGHTING 60 LIGHTING 1,14 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER ROOFTOP RECEPTACLES	00 0 00 0 0 0 0			20 20 20 20 20 20 20	1 1 1	5 7 9	 A	Ві	_	20	141				
LIGHTING 70 LIGHTING 1,40 LIGHTING 90 LIGHTING 800 EXTERIOR LIGHTING 300 EXTERIOR LIGHTING 600 LIGHTING 1,10 DISPLAY BOARDS 600 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER ROOFTOP RECEPTACLES	0 00 0 0 0 0 0			20 20 20 20 20 20 20	1 1 1	5 7 9	I I		_		111			100	FIRE ALARM PANEL
LIGHTING 70 LIGHTING 1,40 LIGHTING 90 LIGHTING 800 EXTERIOR LIGHTING 300 EXTERIOR LIGHTING 600 LIGHTING 1,10 DISPLAY BOARDS 600 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER ROOFTOP RECEPTACLES	0 00 0 0 0 0 0			20 20 20 20 20	1 1 1 1	5 7 9	I I			20	1		400		RECEPTACLES
LIGHTING 1,40 LIGHTING 90 LIGHTING 800 EXTERIOR LIGHTING 300 EXTERIOR LIGHTING 600 LIGHTING 1,10 DISPLAY BOARDS 600 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	00 0 0 0 0 0			20 20 20 20	1 1 1	7	_		_	20			1,200		RECEPTACLES
LIGHTING 90 LIGHTING 80 EXTERIOR LIGHTING 30 EXTERIOR LIGHTING 60 LIGHTING 1,10 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	0 0 0 0 0			20 20 20	1	9	_	11	8	20	11		200		CASH REGISTER
LIGHTING 80 EXTERIOR LIGHTING 30 EXTERIOR LIGHTING 60 LIGHTING 1,10 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	0 0 0 0			20	1		1 1	BI	10	20	11	100	200	_	CASH REGISTER
EXTERIOR LIGHTING 30 EXTERIOR LIGHTING 60 LIGHTING 1,10 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	0 0 00			20		11				20	-	_	200		CASH REGISTER
EXTERIOR LIGHTING 60 LIGHTING 1,10 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	0				1 4	4		•			1				
LIGHTING 1,10 DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	00				1	13		-	14	20	1		600		RECEPTACLES
DISPLAY BOARDS 60 HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES				20	1	15		B	16	20	1		1,000		RECEPTACLES
HD-T, HAND DRYER HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES	0			20	1	17		C		20			1,200		RECEPTACLES
HD-T, HAND DRYER HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES				20	1	19			20	20			1,000		RECEPTACLES
HD-T, HAND DRYER SPARE ROOFTOP RECEPTACLES		900		20	1	21	1.1	B	22	20	1		800		RECEPTACLES
SPARE ROOFTOP RECEPTACLES		900		20	1	23		C	24	20	1	-	1,000	-	RECEPTACLES
ROOFTOP RECEPTACLES		900		20	1	25	A	H	26	20	1		800		RECEPTACLES
				20	1	27	111	ВІ	28	20	11		800		RECEPTACLES
		1,200		20	1	29	i	C	30	20	11		1,500		#N-140 WATER FILTER SYS
	-		250	20	1	31		11	32	20	11		1,500		#N-141 FOUNTAIN SODA MACHINE
EF-2, EXHAUST FAN			250	20	1	33		Bi	34	20	11		1,500	-	#N-142 CARBONATOR
#N-137 ICEE DISPENSOR		1,500	200	20	1	35		I C	36	20	11	_	1,500		#N-161 SOFT DRINK GRAB AND GO
	_	2,496		20	_	37		1 -	38		-				#N-161 SOFT DRINK GRAB AND GO
#N-130 OPEN AIR SELF-SERV REFRIG	1111111	14 A C			2	_	_		_	20	1	-	1,500		
HWH-1, HOT WATER HEATER	1111111	500		20	1	39	_	B C	40	20	1		200		WP RECEPTACLE SPARE
Tivit i i i o i vivici che i cett		000		20		-					1.1				O. T.
#N-130 OPEN AIR SELF-SERV REFRIG		2,496		20	2	43	A	Π	44	20	1	19			SPARE
TIMING PROTESTION OF THE PROTE	1141111	141111111111111111111111111111111111111	111111111111111111111111111111111111111	11111111	/////	45		B	46	20	1				SPARE
#N-137 ICEE DISPENSOR		1.500		20	1	47	11	I C	48	20	11				SPARE
# N-163 DISWASHER		8,790		30	3	49	A	LI	50	20	11		1		SPARE
unanananinininininininininininininininin	1111111	minimoni.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	11111111	111111	51	111	Bi	52	20	11				SPARE
		THE PERSON NAMED IN		_			11	C	54	20	11				SPARE
# N-166 DISPOSER W/ CONTR PANEL		2.161		20		-			56	20	-				SPARE
ununganimumanimumanimumanimumanimum	11,1111		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-	_	_	Bi	58	20	-				SPARE
			100.7			1	-	I C	60	20	_		+		SPARE
HD-T, HAND DRYER	1111111	900		20	4	61		_	62	20	-		+		SPARE
	-	900			1								+		
SPARE				20	1	63		B	64	20			_		SPARE
SPARE				20	1	65		C	66	20				-	SPARE
SPARE				20	1	67		1 1	68	20					SPARE
SPARE				20	1	69		B	70	20		_			SPARE
SPARE				20	1	71		C	72	20	1			=	SPARE
SPACE						73		11	74						SPACE
SPACE						75	11	В	76			5			SPACE
SPACE						77	_ ·	C	78	-	1 1	3			SPACE
SPACE						79			80		1	-			SPACE
SPACE	i					81	_	Bi	82		1 1				SPACE
SPACE						83	<u> </u>	C	84						SPACE
TOTALO	4501	0.4.0.15					31						1 32.5	100	TOTALO
TOTALS 8,	,450	24,243	500		_		-	-				0	17,100	100	TOTALS
LOAD DESCRIPTION CON	I NI	DMD.	i i				PAI	NFI	SCH	EDLI	LF		1		PHASE BALANCE VA
(CONNECTED/DEMAND)		VA				C					Y ZOO	0			THIS DIENTOL WAY
	,550	8,550				Or.			ARIC			7		A	16,846
														1	
	,343	26,873							UTE !					В	15,096
HVAC EQUIPMENT	500	500			(CAP	E M.	AY	COU	KIHC	DUSE	NJ		C	18,450
TOTAL 50.	393	35,923												TOTAL	50,393
	70%	50%											-	SD (o)	1,370

	PANEL	C)	PK					2		DLTA		120/		
	FOR	-	KITCHEN	POW	/ER				PH	IASE	-	3	PH-4W	TY.
	LOCATION	1 -	REFERE	NCE F	PLAI	NS		7	MA	AIN		225	A MLO	1
	A.I.C.	4	42,000	Α				7	MC	TAUC	ING-	SURFACE		
									1					
DESCRIPTION	LTG.	EQUIP.	HVAC	ВК	R.		BUS		E	BKR.	HVAC	EQUIP.	LTG.	DESCRIPTION
	VA	VA	VA	AM		CC	NNEC	TION		MPS	VA.	VA	VA	
	1			1					1		1	1		
#N-131 HORIZONTAL CHEST FREEZ	1 1	492		20	1	1	TA I	1 2	2	0 1	T	1,440		# N-112 HEATED CABINET
#N-131 HORIZONTAL CHEST FREEZ	1	492	_	20	1	3	I B	4			+	948		# N-114 REACH-IN REFRIGERATOR
# N-132 DUAL TEMP DISPLAY CASE		960		20	1	5	-	6	-		_	948		# N-115 PIZZA PREP TABLE
#N-132 DOAL TEMP DISPLAT CASE			-	20	4	7	A	8	-	_	+	-		# N-129 HOT DOG GRILL
	-	1,500	-		1	0			_	_	1	1,469		
#N-135 POPCORN POPPER	-	1,500		20	1	9	B	1 10			1	960		#N-128 REACH-IN UNDERCNTR FREE
#N-136 WORK TOP REFRIGERATOR		612		20	1	11	110	_	_	_		10,080		# N-113 PIZZA OVEN
#N-152 HOT CHOCOLATE		1,500		20	1	13	-	14					111111111111111111111111111111111111111	
#N-139 COFFEE MAKER		1,500		20	1	15	B	1 16	_	0 2		10,080		# N-113 PIZZA OVEN
# N-103 REACH-IN REFRIGERATOR	1	696		20	1	17	1110						<u>/////////////////////////////////////</u>	
# N-104 SINGLE DR REACH-IN FREEZ		864		20	1	19	A	20) 2	0 2		2,685		#N-127 DISPLAY MERCHANDISER
# N105 ICE CUBER		1,656		20	1	21	B	22	2 ////	///////	///////////////////////////////////////		///////////////////////////////////////	//////////////////////////////////////
# N-110 SANDWICH UNIT		1,236		20	1	23	110	24	2	0 2		2,685		#N-127 DISPLAY MERCHANDISER
# N-117 HEATED PIZZA SHELF		648		20	1	25	A	1 26	5 ////	1/1/////	///////////////////////////////////////	111111111111111111111111111111111111111	///////////////////////////////////////	
# N-117 HEATED PIZZA SHELF		648		20	1	27	B	1 28	3 2	0 2		3,600		#N-133 CONVECTION OVEN
#N-126 SOFT SERVE		2,496		20	2	29	III	30) ////	minn	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	immunimi	111111111111111111111111111111111111111	
	imanninii	1111111111111111	!!!!!!!!!!!!!!!!!!!!	!!!!!!!!	1	31	AI	1 32	2 2	0 3	3,134			HMAU-1, MAKE UP AIR UNIT
#N-126 SOFT SERVE	I	2,496		20	2	33	I B	34	_	_		111111111111111111111111111111111111111	111111111111111111111111111111111111111	
	111111111111111111111111111111111111111		<u> </u>		_	35	110							
SPARE	1		1	20	2	37	A	1 38				F		SPARE
01 AILE	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1			39	I B	1 40	_		+	500		#N-124.2 CONTROL POWER
SPARE	1 1		1	20	1 4	41	11		-		1	500		#N-124.2 CONTROL POWER
SPARE				20	Ц.	41		44		0 1		300		#N-124.2 CONTROL POWER
	· ·					1 10	T	. 1			7			
# N-104 SINGLE DR REACH-IN FREEZ		864		20	1	43		1 44	_	0 2				SPARE
# N-104 SINGLE DR REACH-IN FREEZ		864		20	1	45	I B	46	- 1			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	///////////////////////////////////////	
SPARE				20	1	47	110	_	_	0 2				SPARE
SPARE				20	1	49	A	50			and the same of th	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	///////////////////////////////////////	
SPARE				20	1	51	B	52	_	0 2				SPARE
SPARE				20	1	53	110	54	1.36.	11.77		111111111111111111111111111111111111111	///////////////////////////////////////	111111111111111111111111111111111111111
* N-124.1 FIRE SUPP ANSUL SYSTEM		500		20	1	55	A	56	3 2	0 3	3,134			KEF-1, KITCHEN EXHAUST FAN
# N-124.1 FIRE SUPP ANSUL SYSTEM		500		20	1	57	B	58	3 ////	///////	///////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
SPARE				20	1	59	1110	60) ///	///////	///////////////////////////////////////	1//////////////////////////////////////	///////////////////////////////////////	
SPARE				20	1	61	A	1 62	2 2	0 1				SPARE
SPARE	1 1			20	1	63	I B	1 64	1 2	0 1	1			SPARE
SPARE				20	1	65		66			1			SPARE
SPARE	1			20	1	67		1 68	_		1	1		SPARE
SPARE	1			20	1	69	1	70	_		1	1		SPARE
SPARE	1			20	1	71	1110				1	1		SPARE
SPARE				20	1	73	111	74	_	_	1	1		SPARE
	-			_	1	_		-		_	-			
SPACE				20	1	75	-	76	_	0 1	-			SPACE
SPACE					_	77	1110		_	-				SPACE
SPACE						79		80	_	_		1		SPACE
SPACE					_	81	B		_	_		-		SPACE
SPACE						83	1110	84			1			SPACE
														44
TOTALS	0	22,024	0								6,268	35,895	0	TOTALS
														THE THE RESERVE
LOAD DESCRIPTION	CONN.	DMD.		1			PANE	LSC	HED	ULE				PHASE BALANCE VA
(CONNECTED/DEMAND)	VA	VA				CA	PE MA	AYC	OUN	TY Z	00			
LIGHTING	0	0	1						CAFE				Α	20,339
GENERAL POWER	57,919	37,647	1			7	707 RC				1		В	21,088
HVAC EQUIPMENT	6,268	6,268	4		(E MAY						C	22,760
	2,200	5,200	1								4.01			
TOTAL	64,187	43,915	1										TOTAL	64,187
PERCENT LOADED	79%	54%										J	SD (o)	1,012
I LINGLINI LUMBLU	10/01	JT /0												

	PANEL	•	PKS						1	/OLT	AGE	(#)	120/	208	
	FOR	_	EQUIPME	NTU	NDE	RHO	OOD		F	PHAS	E	-	3	PH-4W	
	LOCATION	١ -	REFEREN	NCE F	PLAN	NS		7	N	MAIN		-	100	A MCB	SHUNT TRIP MAIN BREAKER
	A.I.C.		42,000	Α					N	NOUN	ITIN	G-	SURFACE		
DESCRIPTION	LTG.	EQUIP.	HVAC	ВК			BUS		Т	BKF		HVAC	EQUIP.	LTG.	DESCRIPTION
	VA	VA	VA	AM	PS	CO	NNE	CTIO	N	AMP	S	VA	VA	VA	
SPARE				20	1	1	AI	11 2	2	20	2	-		-	SPARE
# N-118 FRYER BATTERY		756		20	1	3	ΙВ					1111111111111111	111111111111111111111111111111111111111	///////////////////////////////////////	////////////////////////////////////
# N-118 FRYER BATTERY		756		20	1	5		CFE		-	1		1,500		#N-155 24" CHARBROILER
#N-119 FRY DUMP STATION		756	=	20	1	7	AI	1 8		_	1		1,500		# N-157 COUNTERTOP HOT PLATE
N-153 COUNTERTOP GRIDDLE	1	1,500		20	1	9	ΙB	-		_	1		600		#N-158 SANDWICH UNIT
*N-154 REFRIGERATED BASE		1,236		20	1	11	_	-		-	1		864		# N-104 SINGLE DR REACH-IN FREEZ
N-124L EXHAUST HOOD LTG	500			20	1	13	AI			_	1				SPARE
N-124R EXHAUST HOOD LTG	500			20	1	15	B			_	1				SPARE
SPARE				20	1	17	İ	C 1	18	20	1				SPARE
SPARE				20	1	19	AI	1 2	20	20	1				SPARE
SPARE				20	1	21	I B	1 2	22	20	1				SPARE
SPARE				20	1	23	II	C 2	24	20	1				SPARE
SPACE					. 1	25	A	2	26						SPACE
SPACE		1				27	B	1 2	28						SPACE
SPACE						29	11	C 3	30						SPACE
TOTALS	1,000	5,004	0									0	4,464	0	TOTALS
LOAD DESCRIPTION	CONN.	DMD.			-	7.1	PANE	EL S	CHE	DUL			1		PHASE BALANCE VA
(CONNECTED/DEMAND)	VA	VA				CAF	PE M	AY C	COU	NTY.	ZOC				
LIGHTING	1,000	1,000					SAI	FARI	CA	FÉ 2			ĺ	Α	2,756
GENERAL POWER	9,468	6,154				7	07 R	OUTE	E 9 I	NOR'I	Н			В	3,356
HVAC EQUIPMENT	0	0			C	CAPE	MA'	Y CO)UR	THOL	ISE	NJ		С	4,356
TOTAL	10,468	7,154												TOTAL	10,468
PERCENT LOADED	29%	20%		•										SD (o)	660

1) PROVIDE THIS PANEL WITH TWO (2) ENGRAVED LAMINATED PLASTIC NAMEPLATES (WITH 1/4" WHITE LETTERS ON	
RED FACE) IN ADDITION TO ALL OTHER SPECIFIED NAMEPLATES, ONE (1) ON THE OUTSIDE OF THE PANEL COVER	
(VISIBLE WITH THE HINGED PANEL DOOR CLOSED) AND ONE (1) INSIDE THE PANEL BACK BOX (VISIBLE WITH THE	
PANEL COVER REMOVED). PROVIDE NAMEPLATES READING, "KITCHEN HOOD FIRE SYSTEM SHUTS DOWN THIS	
PANEL MAIN BREAKER - RESET HOOD FIRE SYSTEM BEFORE CLOSING MAIN BREAKER". LABEL AND TAG ALL	
SHUNT TRIP SYSTEM CONTROL WIRING INSIDE THE PANEL, INCLUDING PLACING A COPY OF THE SHUNT TRIP	
CONTROL SYSTEM WIRING DIAGRAM INSIDE THE PANEL.	

	PANEL	•	SB						V	DLTAG	E -	120/	208	
	FOR	-	STANDB	Y PO	WER			7	PH	IASE		3	PH-4W	
	LOCATIO	V -	REFERE	NCE F	PLAN	IS			M	AIN	•	150	A MLO	
	A.I.C.	-	42,000	Α					M	ITAUC	NG-	SURFACE		
DESCRIPTION	LTG.	EQUIP.	HVAC	ВК	R.		BUS		1	BKR.	HVAC	EQUIP.	LTG.	DESCRIPTION
	VA	VA	VA	AM	PS	CO	NNEC	OIT	N A	MPS	VA	VA	VA	
# WI-1 WALK-IN COOL CONDEN UNIT	1		4,179	20	3	1	AI	1 2	2 2	0 1		200	- [GC-1, GENSET CHARGER
	minimini	111111111111111111111111111111111111111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111111111	11111	3	I B	1 4	1 3	0 2		4.000		GB-1, GENSET ENG BLK HTR
	111111111111111111111111111111111111111	///////////////////////////////////////	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	////////	11111	5	IIC	6	3 ///	minni	!!!!!!!!!!	innumi	nnnnnin	
# WI-2 WALK-IN COOL EVAP			720	20	3	7	AI	1 8	3 2	0 2		1,000		GH-1, GENSET BATT HEATER
	ninnmunn	111111111111111111111111111111111111111	!!!!!!!!!!!!!!!!!!!	11111111	111111	9	B	1 10	0 ///	minn	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	immuni	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
//////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////	111111111111111111111111111111111111111	1//////	111111	11	110	1	2 2	0 2		2,000		GS-1, GENSET STRIP HTR
# WI-3 WALK-IN FREEZ CONDEN UNIT			1,539	20	2	13	AI	1	4 ///	minn	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	immonnii	mmmin	
	ninnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn	///////////////////////////////////////		<i>i</i> ////////	11111	15	B	1	6 2	0 1				SPARE
# WI-4 WALK-IN FREEZER EVAP			200	20	1	17	110	1	8 2	0 1				SPARE
SPARE				20	1	19	A	1 2	0 2	0 1				SPARE
SPARE				20	1	21	B	1 2	2 2	0 1				SPARE
SPARE				20	1	23	110	2	4 2	0 1				SPARE
TOTALS	0	0	6,638	8							0	7,200	0	TOTALS
LOAD DESCRIPTION	CONN.	DMD.	1				PANE	LSC	CHEC	ULE		1 1	-	PHASE BALANCE VA
(CONNECTED/DEMAND)	VA	VA				CAF	PE MA	AY C	NCIO	TY ZO	0			
LIGHTING	0	0					SAF	ARI	CAF	= 2			A	4,103
GENERAL POWER	7,200	4,680				7	07 RC	DUTE	9 N	ORTH			В	4,903
HVAC EQUIPMENT	6,638	6,638	2		C	APE	MAY	CO	URTI	HOUSE	E NJ		C	4,833
TOTAL	13,838	11,318											TOTAL	13,838
PERCENT LOADED	26%	21%		_									SD (σ)	362

REVIEW SET 2-12-20

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS
MAY BE COPIED, REPRODUCED OR
USED IN CONNECTION WITH ANY
WORK, OTHER THAN THE SPECIFIC
PROJECT FOR WHICH THEY HAVE BEEN
PREPARED, WITHOUT PRIOR WRITTEN
AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

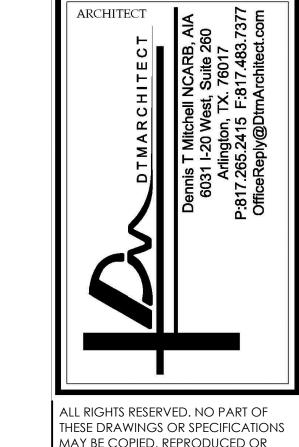
T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER: PSP ASSOCIATES 1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335 MULHERN CONSULTING

ENGINEERS 321 SOUTH YORK ROAD HATBORO, PA 19040 JOB #5319 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

Y 200 F00D



MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T: 215.629.6374

MEP ENGINEER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS

321 SOUTH YORK ROAD HATBORO, PA 19040

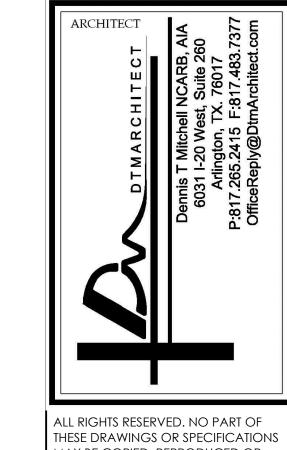
STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

PROGRESS 2-12-20



1 FIRST FLOOR SANITARY & VENTING PLAN 1/4" = 1'-0"



MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T: 215.629.6374

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

MEP ENGINEER: PSP ASSOCIATES

1105 MELLIEN DRIVE DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC.

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063



PROGRESS 2-12-20

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

DESIGNER:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147 T: 215.629.6374

MEP ENGINEER:

PSP ASSOCIATES
1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335

MULHERN CONSULTING ENGINEERS

321 SOUTH YORK ROAD HATBORO, PA 19040

STRUCTURAL ENGINEER:

CKS STRUCTURES, INC. 280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

FOOD BUILE
EMAY COURT

E 9 NORTH, CAPE MAY CC HOUSE, NJ 08210

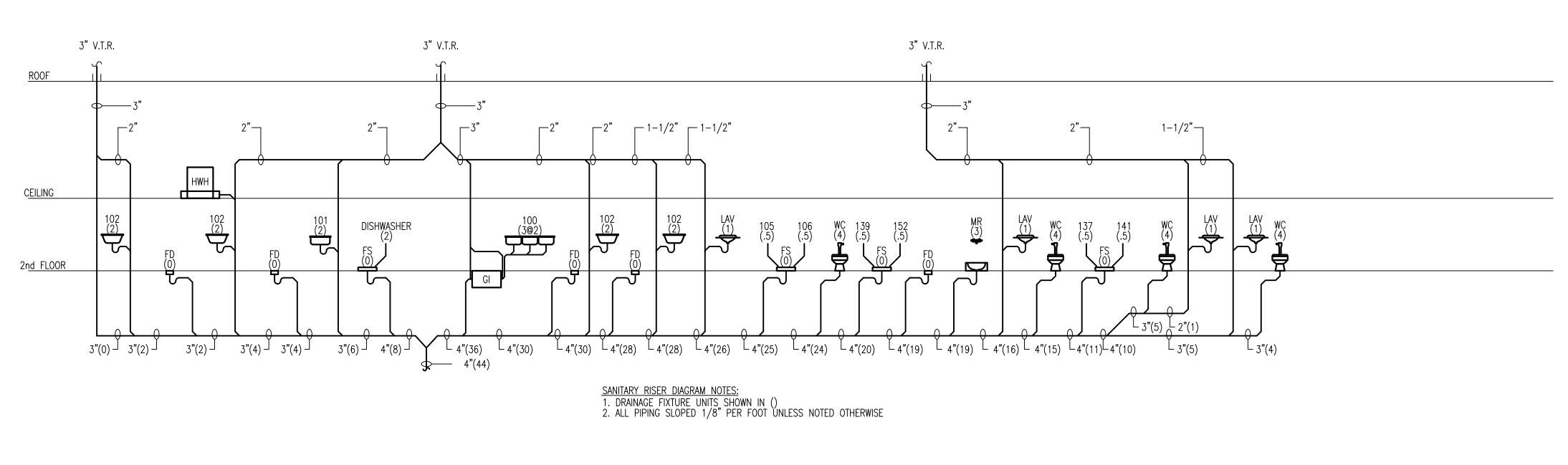
MAY COUNT NEW RETAIL

> PPROVED BY: PJS)B#: 1610-021

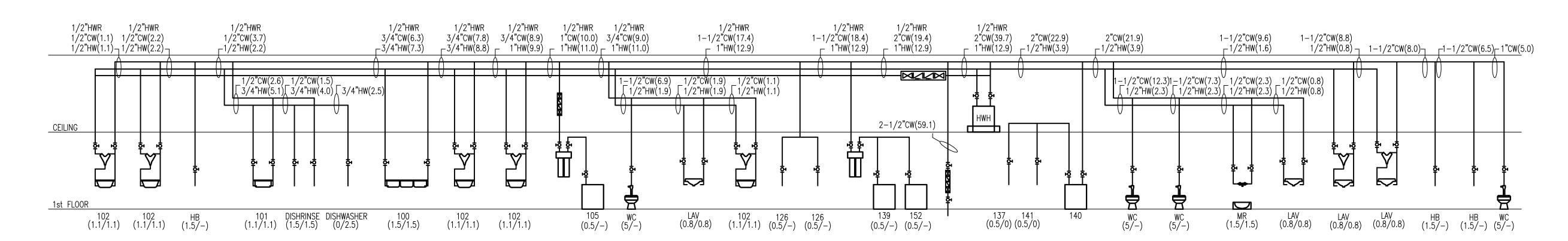
DRAWN BY: S.IM APPROVEE

DWG. NO.

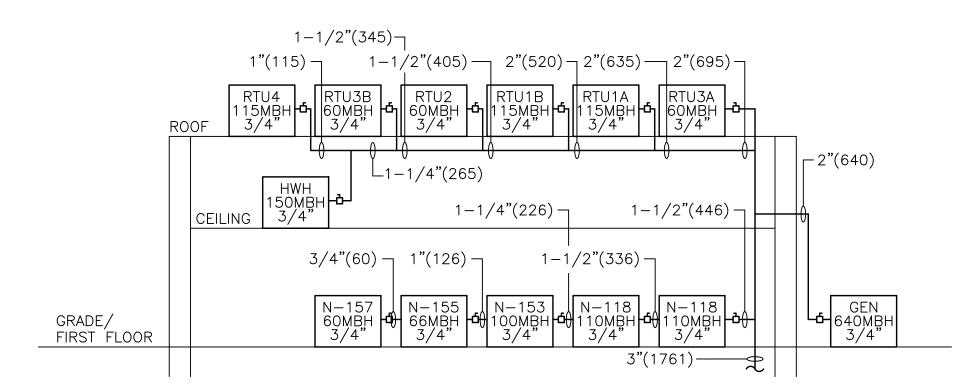
PLUMBING DWG. NO.



1 SANITARY & VENTING RISER DIAGRAM N . T . S .



2 DOMESTIC WATER RISER DIAGRAM N . T . S .

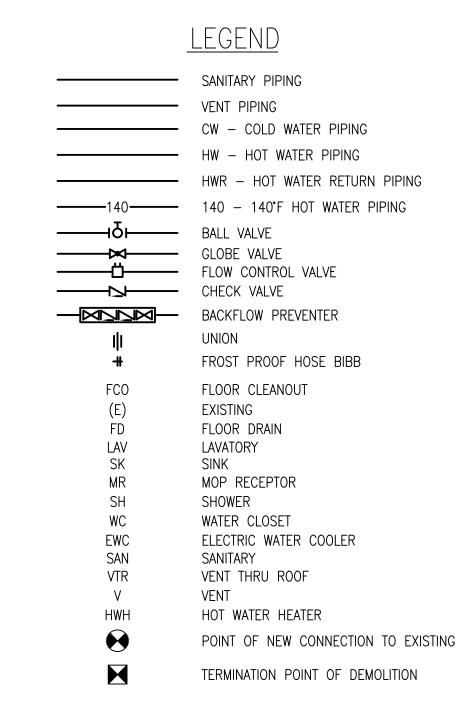


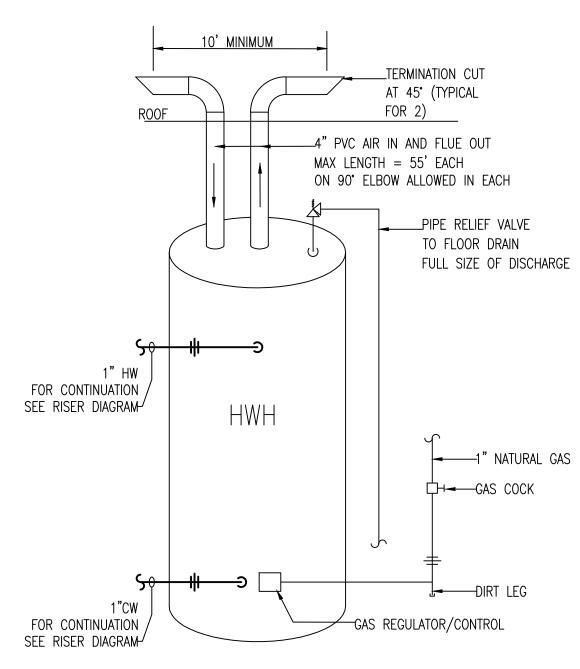
NOTE:

1. PIPE SIZING BASED ON MAXIMUM RUN OF 100 FEET AND PRESSURE OF 0.25 PSIG AT METER
2. MBH INDICATED IN PARENTHESIS

NATURAL GAS RISER DIAGRAM N . T . S .

PROGRESS 2-12-20





GENERAL NOTES

- 1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL EQUIPMENT AND MATERIALS LISTED IN PLUMBING FIXTURE SCHEDULE.
- 2. CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT, MATERIALS, AND LABOR TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM AS INDICATED ON THE DESIGN DOCUMENTS.
- 3. CONTRACTOR SHALL OBTAIN ALL PERMITS, INSPECTIONS, AND APPROVALS PRIOR TO AND DURING CONSTRUCTION.
- 4. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE BY OWNER.
- 5. ALL MATERIALS AND INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH NATIONAL STANDARD PLUMBING CODE, LOCAL CODES, AND ALL AUTHORITIES HAVING JURISDICTION.
- 6. CONTRACTOR SHALL PROVIDE ALL ROOF OPENINGS. FLASHING. AUXILIARY STEEL, THREADED RODS, ETC., TO SUPPORT HIS EQUIPMENT ON OR FROM THE STRUCTURE.
- 7. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES AND IN FIELD PRIOR TO INSTALLATION OF ANY WORK. REPORT ALL CONFLICTS IMMEDIATELY TO ARCHITECT AND ENGINEER.
- 8. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL EQUIPMENT WITH ARCHITECT AND OTHER TRADES.
- 9. THE CONTRACTOR SHALL PRESSURE TEST ALL PIPING IN ACCORDANCE WITH CODES AND AUTHORITIES HAVING JURISDICTION.
- 10. PLUMBING CONTRACTOR SHALL INCLUDE ALL COSTS, PERMITS AND FEES ASSOCIATED WITH PLUMBING AND SANITARY PIPING WORK FOR THIS PROJECT.
- 11. THE CONTRACTOR SHALL SEAL ALL PENETRATIONS THROUGH FIRE RATED STRUCTURES WITH FIREPROOF SEALANT AS MANUFACTURED BY 3M OR APPROVED EQUAL.
- 12. JOINTS BETWEEN DIFFERENT PIPING MATERIALS SHALL BE MADE WITH APPROVED ADAPTOR FITTINGS. JOINTS BETWEEN DIFFERENT METALLIC PIPING MATERIAL SHALL BE MADE WITH APPROVED DIELECTRIC FITTINGS OR BRASS CONNECTION FITTINGS.
- 13. PIPE HANGERS SHALL BE SECURELY ATTACHED TO BUILDING CONSTRUCTION.
- 14. PIPING IN THE PLUMBING SYSTEM SHALL BE INSTALLED SO AS TO PREVENT STRAINS AND STRESSES WHICH WILL EXCEED STRUCTURAL STRENGTH OF THE PIPE. PROVISIONS SHALL BE MADE FOR EXPANSION AND CONTRACTION OF THE PIPING. PROVIDE THREE ELBOW SWING JOINT BRANCH TAKE-OFFS.
- 15. ALL REQUIRED INDIRECT WASTE PIPING SHALL DISCHARGE INTO THE BUILDING DRAINAGE SYSTEM THROUGH AN AIR GAP OR AIR
- 16. SANITARY DRAINAGE SYSTEM VENTS THROUGH ROOFS SHALL NOT
- TERMINATE WITHIN 25 FEET OF ANY WINDOW, OR AIR INTAKE. 17. EXISTING CONDITIONS BASED ON LIMITTED OBSERVATIONS BY ARCHITECT (DATED DECEMBER OF 2016). PLUMBING SUBCONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS PRIOR TO STARTING WORK. IF EXISTING CONDITIONS ARE DIFFERENT FROM WHAT IS SHOWN, CONTACT THE ENGINEER

PRIOR TO STARTING WORK.

SPECIFICATIONS

Domestic cold and hot water pipe

Type L hard-drawn seamless copper tubing, ASTM B88. Wrought copper solder joint fittings, ANSI B16.22. Wrought copper and solder joint unions with copper seats, ANSI B16.22. Joints shall be soldered 3" and smaller and brazed 4" and larger. Solder shall be 95-5 tin-antimony, 0.20% maximum lead content, 0.03% maximum cadmium content, ASTM B32, Alloy Grade Sb5 or Taracorp Taramet Sterling lead-free solder per ASTM B32 Alloy Grade TC. Solder flux shall be nonaggressive, noncorrosive type meeting Federal Spec OF506C, Type 1 and containing no more than 0.20% lead. Ball valves shall be full-port design, three-piece construction, cast bronze body, Type 316 stainless steel ball and blowout—proof stem, reinforced Teflon

seats and seals, soldered ends, brazing tube extensions on 4" valves, 225 psig WP at 100 degrees F, minimum 29 inches Hg vacuum—rated, PBM, Inc. Series SP-B-SJ-2. Check valves shall be class 150 bronze swing check valves with renewable

bronze disc, integral seat, screw—in cap, solder ends, 300 psi WWP — 150 degrees F, Nibco, Inc. S-433.

Sanitary and vent piping

Pipe and fittings shall be manufactured from PVC compound with a cell class of 12454 per ASTM D-1784 and conform with National Sanitation Foundation (NSF) standards 14 and 61. Pipe shall be iron pipe size (IPS) conforming to ASTM D-1785. Fittings shall conform to ASTM D-2466.

All pipe and fittings to be produced by a single manufacturer and to be installed in accordance with manufacturer's recommendations and code requirements. Solvent cements shall conform to ASTM D-2564, primer shall conform to ASTM F-656.

Sanitary and Vent piping in return plenums

Sanitary and Vent piping in return plenums shall be cast iron.

Backflow preventer

Watts Regulator Co. — Series 709 Furnish double check valve assembly tested and certified in accordance with ASSE Standard 1013 and AWWA C510. Assembly shall have two (2) spring—loaded independently operated poppet—type valves mounted in common body for sizes 3/4" to 2" and independent body for sizes 2-1/2" to 10", two (2) shut-off valves, strainer, four (4) test cocks and designed for installation in vertical or horizontal flow attitude. Assembly shall be suitable for 175 psi working pressure. Assembly shall be bronze body modular construction with replaceable seats,

ball valve test cocks, bronze strainer, two (2) ball valves with bronze ball and stem, with full port, quarter turn. Maximum working temperature 140 degrees F. For hot water, removable check seats shall be stainless steel. Assembly shall be suitable for 175 psi and 210 degrees F working temperature.

Domestic water piping insulation

Insulation systems shall have acceptable proportion of sodium plus silicate ions to chloride ions to prevent corrosion of austenitic stainless steel in accordance with requirements of ASTM C795.

Insulation shall be Owens-Corning Fiberalas ASJ Pipe Insulation composed of fiberglass one-piece pipe insulation jacketed with embossed vapor barrier laminate. Where available from manufacturer, jacket laps shall have factory—applied pressure—sensitive adhesive (SSL). Systems operating below 40 degrees F shall have factory—applied double pressure—sensitive adhesive (SSL-II). Butt joint sealing strips shall be of same material as jacket and shall have pressure—sensitive adhesive.

Insulation shall be suitable for operating temperatures of 0 degrees F to +850 degrees F, have water vapor permeance of 0.02 perms maximum, and thermal conductivity k of 0.25 maximum at 75 degrees F mean temperature and k of 0.26 maximum at 100 degrees F mean temperature. Insulation shall be 1" thick.

Provide factory—sized tube insulation, and tube—sized fitting covers and jacketing for copper and stainless steel tubing systems. Insulation, fitting cover and jacketing materials shall be same as specified for pipe. Refer to related Section for piping specifications. Insulate fittings, flanges, valves and pipeline appurtenances with Zeston 2000 PVC premolded insulated fitting covers consisting of Hi-Lo Temp fiberglass insulation inserts and one-piece premolded white polyvinyl chloride (PVC) cover, ASTM E84 rated 25/50. Provide one insulation insert with each cover when insulation is 1-1/2" or less; two inserts above 1-1/2" thick plus one additional insert for each additional 1" of pipe insulation above 1-1/2". Provide an additional insert when service temperature is below 45 degrees F.

Manufacturer shall provide necessary stainless steel serrated tack fasteners to hold covers in place, and vapor barrier pressure—sensitive white PVC Z—Tape to cover circumferential joints.

Trap covers

Where angle stop valves or drainage traps are exposed at ADA compliant fixtures, provide Proflo covers.

Miscellaneous

This project neither overloads any existing systems, nor creates/increases any existing code non-conformity.

ALL RIGHTS RESERVED. NO PART OF THESE DRAWINGS OR SPECIFICATIONS MAY BE COPIED, REPRODUCED OR USED IN CONNECTION WITH ANY WORK, OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ARCHITECT.

ARCHITECT'S SEAL:

T+ASSOCIATES INC. 525 S. 4TH ST, STE 591 PHILADELPHIA, PA 19147

T: 215.629.6374 **MEP ENGINEER:**

PSP ASSOCIATES 1105 MELLIEN DRIVE

DOWNINGTOWN, PA 19335

MULHERN CONSULTING **ENGINEERS** 321 SOUTH YORK ROAD

HATBORO, PA 19040 STRUCTURAL ENGINEER:

CKS STRUCTURES, INC

280 N. PROVIDENCE RD, SUITE 105 MEDIA, PA 19063

4

の Ĭ

PROGRESS 2-12-20