PANEL DESIGNATION:	LOCATION: 20 DUNNIGAN QUICK CHARGERS							REMARKS:			
· · · · · · · · · · · · · · · · · · ·											
QC-20-A	SERVICE: 480Y/277 V MAIN BUS RATING:				VIRE	-					
WC-ZU-A	MAIN CIRCUIT BREAKER:			400 AMPS				NEUTE	RAL BUS: 100%		
	SCC RATING (SYM.):								EQUIPMENT GROUND BUS: VES		
		MOUNTING:			CE MOU	INTED		GRO ——	UNDING: ISOLATED GROUND BUS: NO		
SERVICE TO:		TRIP	NO.	Α	В	С	NO.	TRIP	SERVICE TO:		
			1	23833			2				
QUICK CHARGER #1		60A	3		23833		4	60A	QUICK CHARGER #2		
			5			23833	6				
			7	23833			8				
QUICK CHARGER #3		60A	9		23833		10	60A	QUICK CHARGER #4		
			11			23833	12	•			
			13	23833			14				
QUICK CHARGER #5		60A	15		23833		16	60A	QUICK CHARGER #6		
			17			23833	18				
			19	23833			20				
QUICK CHARGER #7		60A	21		23833		22	60A	QUICK CHARGER #8		
			23			23833	24				
			25	23833			26	60A	QUICK CHARGER #10		
QUICK CHARGER #9		60A	27		23833		28				
			29			23833	30				
			31	23833			32				
QUICK CHARGER #11		60A	33		23833		34	60A	QUICK CHARGER #12		
			35			23833	36				
			37	23833			38				
QUICK CHARGER #13		60A	39		23833		40	60A	QUICK CHARGER #14		
			41			23833	42				
TOTAL CONNECTED LOAD PER PHASE (kVA)					166.83	166.83					
TOTAL CONNECTED LOAD				500.49 KVA			602.0 A				
TOTAL DEMAND LOAD					250.25 KVA			301.0 A			

NOTE: ONLY 50% OF THE QUICK CHARGERS SHALL BE UTILIZED AT ANY GIVEN TIME.

PANEL DESIGNATION:	LOCATION:	20 DUI	NNIGA	N QUICI	CHAR	SERS	REMARKS:			
0000	SERVICE:	480Y/2	277 V	3 PH	HASE, 4 V	VIRE	1			
QC-20-B	MAIN			1						
QU LU D	MAIN CIRCU	400 AN			NEUTF	RAL BUS: 100%				
	SCC RATING (SYM.):						GPO	UNDING: EQUIPMENT GROUND BUS: YES		
		MOUN	_	SURF	ACE MOL	INTED			ISOLATED GROUND BUS: NO	
SERVICE TO:		TRIP	NO.	Α	В	С	NO.	TRIP	SERVICE TO:	
			1	23833			2			
QUICK CHARGER #15	5	60A	3		23833		4	60A	QUICK CHARGER #16	
			5			23833	6			
			7	23833			8			
QUICK CHARGER #17	,	60A	9	20000	23833		10	60A	QUICK CHARGER #18	
QUICK CHARGER #11		OUA			23633	23833		6UA		
			11	23833		23833	12 14			
OLUCK CLIADOED #40		60A	15	23033	00000		16	60A	QUICK CHARGER #20	
QUICK CHARGER #19		BUA			23833	00000		BUA	QUICK CHARGER #20	
			17 19	23833		23833	18 20			
QUICK CHARGER #21		60A	21	23033	23833		22	60A	QUICK CHARGER #22	
QUICK CHANGEN #2		004	23		23033	23833	24	JUA	QUICK OF IARGEN #22	
			25	23833		20000	26			
QUICK CHARGER #23	3	60A	27	20000	23833		28	60A	 QUICK CHARGER #24	
			29			23833	30		20.01.012.1.02.1.02	
			31	23833			32			
QUICK CHARGER #25	;	60A	33		23833		34	60A	QUICK CHARGER #26	
			35			23833	36			
			37	23833			38			
QUICK CHARGER #27	,	60A	39		23833		40	60A	QUICK CHARGER #28	
			41			23833	42			
TOTAL CONNECTED LOAD PER PHASE (kVA)				166.83 166.83 166.83						
	TOTAL CONNEC	CTED LO	DAD	500.49 KVA			60:	2.0 A		
	TOTAL DEN	MAND LO	DAD	2	250.25 KV	Α	30	1.0 A		

NOTE: ONLY 50% OF THE QUICK CHARGERS SHALL BE UTILIZED AT ANY GIVEN TIME.

PANEL DESIGNATION:	LOCATION:			N QUICI	CHAR(GERS				
00 00 0	SERVICE:									
QC-20-C	MAIN									
4 - 5 - 5	MAIN CIRCL							NEUTF	RAL BUS: 100%	
	SCC R	SCC RATING (SYM.):				INITED	-	GRO	UNDING: EQUIPMENT GROUND BUS: YES	
SERVICE TO:		MOUN TRIP	_		ACE MOL	C	NO	TRIP	ISOLATED GROUND BUS: NO SERVICE TO:	
SERVICE 10.		IRIP		A	В	C	NO.	IRIP	SERVICE TO:	
	_		1	23833			2			
QUICK CHARGER #29	9	60A	3		23833		4	60A	QUICK CHARGER #30	
			5			23833	6			
			7	23833			8			
QUICK CHARGER #3	1	60A	9		23833		10	60A	QUICK CHARGER #32	
			11			23833	12			
			13	23833			14		QUICK CHARGER #34	
QUICK CHARGER #3	3	60A	15		23833		16	60A		
			17			23833	18			
			19	23833			20			
QUICK CHARGER #3	5	60A	21		23833		22	60A	QUICK CHARGER #36	
Q0.01.01##10 = 11##0			23		2000	23833	24			
		60A	25	23833			26	60A	QUICK CHARGER #38	
QUICK CHARGER #3	7		27		23833		28			
Q0.01.01##10 = 11##1	•		29			23833	30			
			31	23833			32		QUICK CHARGER #40	
QUICK CHARGER #39	9	60A	33		23833		34	60A		
Q 0.01, 0.12 1.0 2 , 1, 1, 1			35			23833	36			
			37	23833			38			
QUICK CHARGER #41		60A	39		23833		40	60A	QUICK CHARGER #42	
			41			23833	42			
TOTAL CONNECTE	ED LOAD PER F	HASE (kVA)	166.83	166.83	166.83		!		
	TOTAL CONNEC	•		5	500.49 KVA		602.0 A			
TOTAL DEMAND LOAD					250.25 KVA			1.0 A		

NOTE: ONLY 50% OF THE QUICK CHARGERS SHALL BE UTILIZED AT ANY GIVEN TIME.

PANEL DESIGNATION:	LOCATION: 20 D	UNNIGA	AN QUIC	K CHAR	GERS	REMARKS:			
	SERVICE: 480	′/277 V	3 PI	VIRE	1				
QC-20-D	MAIN BUS I								
30-20-D	MAIN CIRCUIT BR	MAIN CIRCUIT BREAKER:					NEUTR	RAL BUS: 100%	
	SCC RATING		14 k A.I.C.			CBO	UNDING: EQUIPMENT GROUND BUS: YES		
		JNTING:	SURFACE MOUNTED					ISOLATED GROUND BUS: NO	
SERVICE TO:	TRII	NO.	Α	В	С	NO.	TRIP	SERVICE TO:	
		1	23833			2			
QUICK CHARGER #43	3 60A	3		23833		4	60A	QUICK CHARGER #44	
		5			23833	6			
		7	23833			8			
QUICK CHARGER #45	5 604	. 9		23833		10	60A	QUICK CHARGER #46	
		11			23833	12			
		13	23833			14			
QUICK CHARGER #47		15		23833		16	60A	QUICK CHARGER #48	
		17			23833	18			
		19	23833			20			
QUICK CHARGER #49	9 604	21		23833		22	60A	QUICK CHARGER #50	
		23			23833	24	1		
		25	23833			26			
QUICK CHARGER #51	1 60 <i>A</i>	27		23833		28	60A	QUICK CHARGER #52	
		29			23833	30			
		31	23833			32			
QUICK CHARGER #53	60 <i>A</i>	33		23833		34	60A	QUICK CHARGER #54	
		35			23833	36			
		37	11917			38	20A	SPARE	
QUICK CHARGER #55	5 60 A	39		11917		40	20A	SPARE	
		41			11917	42	20A	SPARE	
TOTAL CONNECTE	ED LOAD PER PHASE	(kVA)	154.91	154.91	154.91				
	TOTAL CONNECTED	LOAD	4	464.74 KVA			9.0 A		
	TOTAL DEMAND	LOAD	2	232.37 KV	'Α	27	9.5 A		

NOTE: ONLY 50% OF THE QUICK CHARGERS SHALL BE UTILIZED AT ANY GIVEN TIME.

PANEL DESIGNATION:	LOCATION: 20	DUN	NNIGA	N			REMARKS:				
	SERVICE: 48	80Y/2	77 V	3 Pł	HASE, 4 V	VIRE	1				
PP-20A	MAIN BUS RATING:			400 AN	1PS						
	MAIN CIRCUIT E			400 AN	1PS			NEUTR	AL BUS: 100 %		
		SCC RATING (SYM.):			22 k A.I.C.			GROL	JNDING: EQUIPMENT GROUND BUS: YES		
		MOUN'			ACE MOL				ISOLATED GROUND BUS: NO		
SERVICE TO:	T	RIP	NO.	A	В	С	NO.	TRIP	SERVICE TO:		
			1	2117			2				
THERMOCYCLER 'TRO	G-2' 1	15A	3		2136		4	60A	PANEL 'LP-DOOR-B' VIA XFMR 'T-DOOR-B'		
			5			2130	6				
			7	2106			8	20A	SPARE		
THERMOCYCLER 'TRA	√ -2' 1	15A	9		2106		10	20A	SPARE		
			11			2106	12	20A	SPARE		
THERMOCYCLER 'TMI-2'			13	582			14	20A	SPARE		
		15A	15		582		16	20A	SPARE		
			17			582	18	20A	SPARE		
SPARE	2	20A	19	0			20	20A	SPARE		
SPARE	2	20A	21		0		22	20A	SPARE		
SPARE	2	20A	23			0	24	20A	SPARE		
SPARE	2	20A	25	0			26	20A	SPARE		
SPARE	2	20A	27		0		28	20A	SPARE		
SPARE	2	20A	29			0	30	20A	SPARE		
SPARE	2	20A	31	0			32	20A	SPARE		
SPARE	2	20A	33		0		34	20A	SPARE		
SPARE	2	20A	35			0	36	20A	SPARE		
SPARE	2	20A	37	0			38	20A	SPARE		
SPARE	2	20A	39		0		40	20A	SPARE		
SPARE	2	20A	41			0	42	20A	SPARE		
TOTAL CONNECT	ED LOAD PER PHA	SE (k	(AV)	4.81	4.82	4.82					
	TOTAL CONNECTE	ED LC	DAD	14.45 KVA			17	'.4 A			
	TOTAL DEMAN	ND LC	DAD		14.43 KV	4	17	'.4 A			

PANEL DESIGNATION: LOCATION:			NNIGA	.N			REMA	ARKS:	
	SERVICE:	480Y/2	277 V	3 PHASE, 4 WIRE			-		
PP-20B	MAIN BUS RATING:			400 AN		1			
11 200	MAIN CIRCL	MAIN CIRCUIT BREAKER: SCC RATING (SYM.):						NEUTF	RAL BUS: 100%
	SCC R							GRO	UNDING: EQUIPMENT GROUND BUS: YES
CEDWOE TO		MOUNTING						ISOLATED GROUND BUS: NO	
SERVICE TO:		TRIP	NO.	A	В	С	NO.	TRIP	SERVICE TO:
T. ITT. 10 0) (0) TT. ITT.	2.41		1	2106			2	20A	SPARE
THERMOCYCLER 'TRO	G-1'	20A	3		2106		4	20A	SPARE
			5			2106	6	20A	SPARE
			7	2106			8	20A	SPARE
THERMOCYCLER 'TR	A-1'	20A	9		2106		10	20A	SPARE
			11			2106	12	20A	SPARE
SPARE		20A	13	0			14	20A	SPARE
SPARE		20A	15		0		16	20A	SPARE
SPARE		20A	17			0	18	20A	SPARE
SPARE		20A	19	0			20	20A	SPARE
SPARE		20A	21		0		22	20A	SPARE
SPARE		20A	23			0	24	20A	SPARE
SPARE		20A	25	0			26	20A	SPARE
SPARE		20A	27		0		28	20A	SPARE
SPARE		20A	29			0	30	20A	SPARE
SPARE		20A	31	0			32	20A	SPARE
SPARE		20A	33		0		34	20A	SPARE
SPARE		20A	35			0	36	20A	SPARE
20 DUNNIGAN SITE LIGH	ITING	20A	37	195			38	20A	SPARE
PARKING DECK UNDERSIDE WEST LIGHTING		20A	39		540		40	20A	SPARE
SPARE 20A 41		41			0	42	20A	SPARE	
TOTAL CONNECT	ED LOAD PER F	PHASE (I	kVA)	4.41	4.75	4.21			
	TOTAL CONNEC	CTED LO	DAD		13.37 KV	4	16	6.1 A	
TOTAL DEMAND LOAD					13.56 KVA			S.3 A	

NOTES:

- 1. REFER TO CONTRACT DRAWING F-001 FOR ELECTRICAL LEGEND, ABBREVIATIONS, GENERAL NOTES, AND DRAWING LIST.
- 2. REFER TO CONTRACT DRAWINGS F-701, F-702, AND F-703 FOR ELECTRICAL ONE-LINE DIAGRAMS.
- 3. ALL 277/480V AND 120/208V FEEDERS AND BRANCH CIRCUIT CONDUCTORS SHALL BE ALUMINUM. CONTRACTOR SHALL PERFORM VOLTAGE DROP CALCULATIONS FOR ALL BRANCH CIRCUITS AND APPROPRIATELY SIZE CONDUCTORS AND ASSOCIATED CONDUITS BASED ON THE 2017 NATIONAL ELECTRIC CODE.
- 4. ALUMINUM CONDUCTORS SHALL BE UL LISTED AND COMPLY WITH ASTM B800, ASTM B801, UL 486C, AND ANSI H35.2-2017. INSTALLATION OF ALUMINUM CONDUCTORS SHALL BE INSTALLED IN COMPLIANCE WITH ANSI/NECA/AA 104-2012.
- 5. ALL SPLICES, TERMINATIONS, TAPS, AND CONDUCTOR CONNECTORS SHALL BE COMPATIBLE WITH CONDUCTOR MATERIAL. USE OXIDE INHIBITOR IN EACH SPLICE, TERMINATION, AND TAP FOR ALUMINUM CONDUCTORS.

ARCHITECT

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STRUCTURAL ENGINEER





MANHATTAN BEER DISTRIBUTORS 20 DUNNIGAN DRIVE SUFFERN, NEW YORK

KEY PLAN

REV	DESCRIPTION	DATE
	ISSUED FOR DOB SUBMISSION	09/10/2021
	ISSUED FOR BID	10/15/2021
	ISSUED FOR PROGRESS	01/18/2022
	ISSUED FOR BIDINSTRUCTION	08/36/2022

DRAWN BY :	M.DIMATTIA
CHECKED BY :	B.NEMCHEK
APPROVED BY :	J.MIZRAHI
DATE:	09/10/21
SCALE:	N.T.S.

ELECTRICAL PANEL SCHEDULES SHEET 4 OF 6

DWG NUMBER :

E-604

TO THE BEST KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE.