



HUNTER ROBERTS CONSTRUCTION GROUP LLC 55 Water Street, New York, NY 10041 212.699.4749

URBAHN ARCHITECTS 306 West 37th Street, New York, NY 10018 212.239.0220

MARVEL ARCHITECTS 145 Hudson Street, New York, NY 10013 212.616.0420

THORNTON TOMASETTI 51 Madison Avenue, New York, NY 10010 917.661.7800

MATRIX NEW WORLD ENGINEERING 333 West 39th Street, New York, NY 10018 212.699.4749

JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300

JFK&M ENGINEERS, LLP 134 West 37th Street New York, NY 10018 212.792.8700

REVISION	DESCRIPTION	DATE

DJECT: NYC BBJ

QUEENS GARAGE & COMMUNITY SPACE

80-25 126th St, Kew Gardens, NY 11415

TECHNICAL DRAWINGS

DDAWING TIT	ГΙ

KEY PLAN:

GARAGE SOUTH ELEVATION

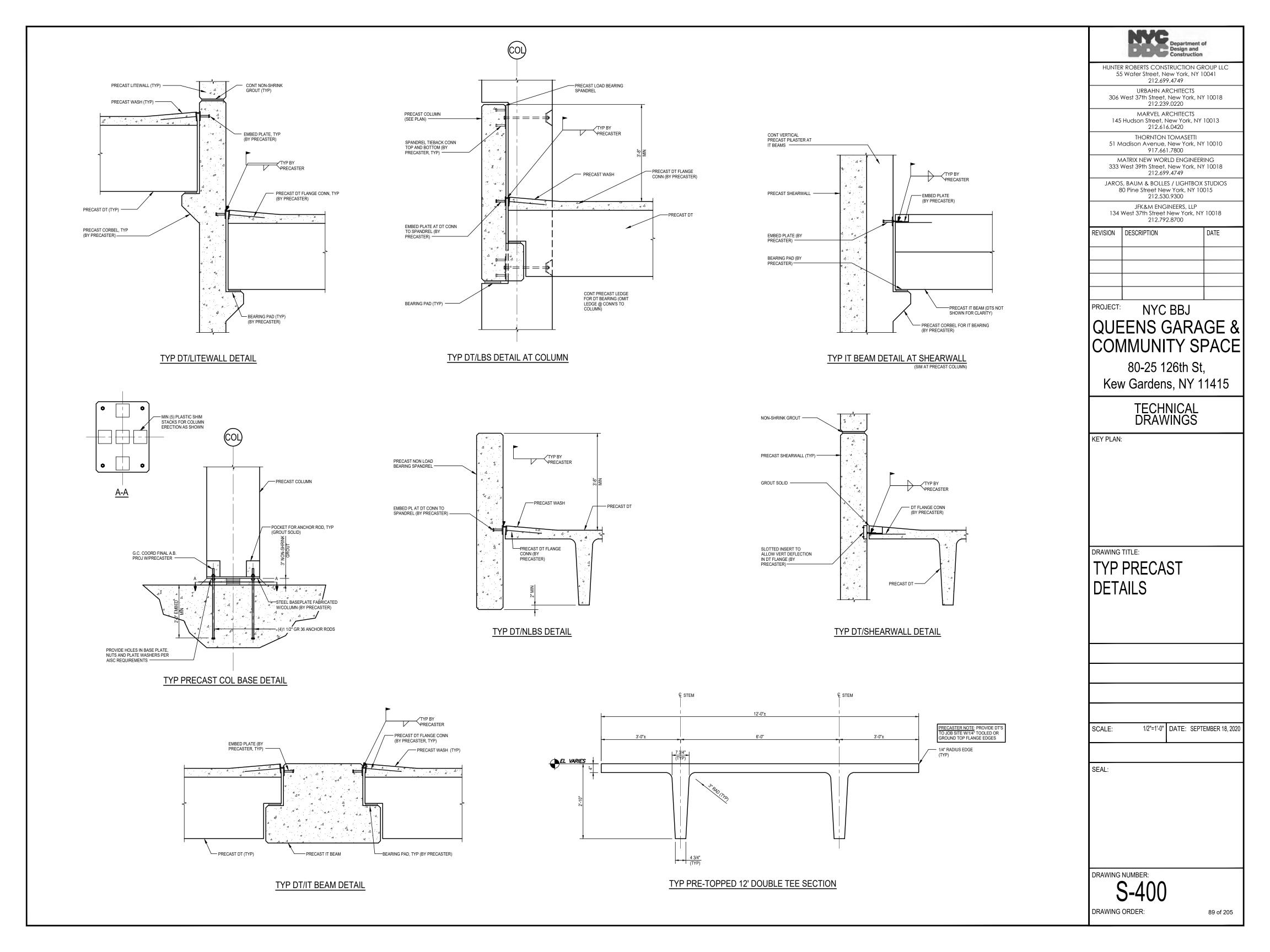
SCALE:	1/16"=1'-0"	DATE:	SEPTEMBER 18, 2020

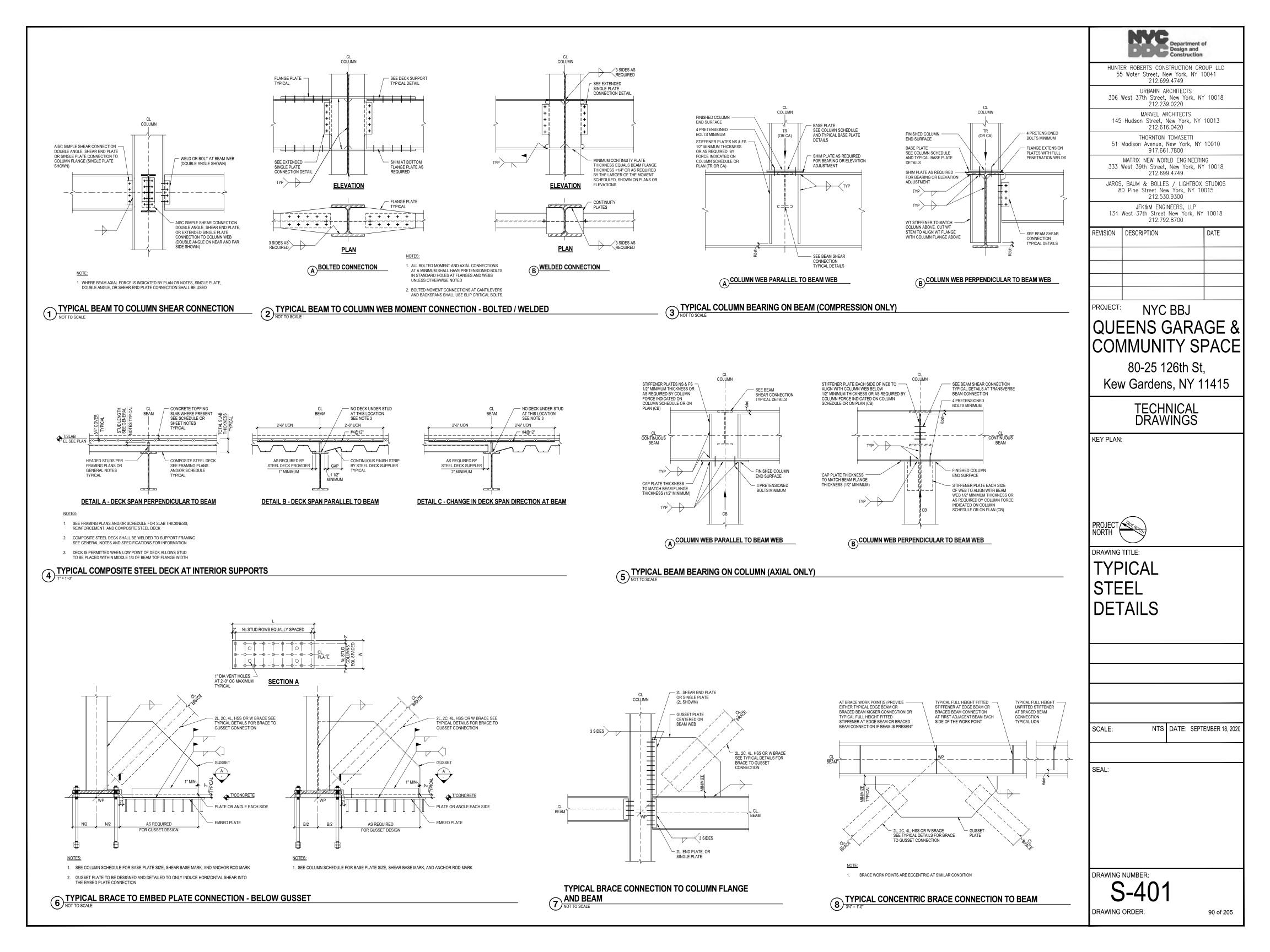
SEA

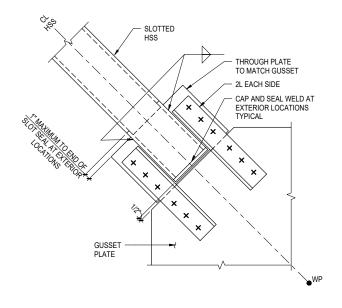
DRAWING NUMBER:

S-303

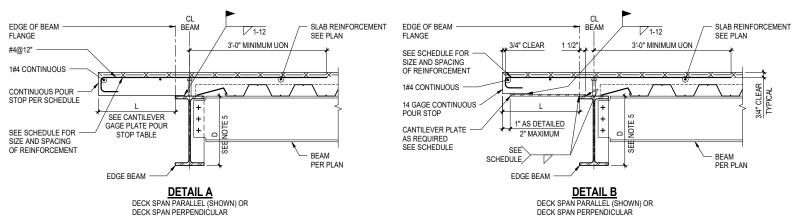
DRAWING ORDER:







TYPICAL SLOTTED HSS BRACE TO GUSSET 9 CONNECTION WITH CLAW ANGLES



CANTILEVER GAO SCHEDULE	GE PLATE PO (SEE DETAI	
TOTAL SLAB THICKNESS	CANTILEVER SPAN	DETAIL A
(IN)	'L'	MIN PLATE GAGE
	L > 11"	SEE DETAIL B
UP TO 5 1/2"	9" < L ≤ 11	10 GAGE
(2 1/2" MINIMUM CONCRETE THICKNESS OVER DECK)	6" < L ≤ 9"	12 GAGE
	L ≤ 6"	14 GAGE
	L > 9"	SEE DETAIL B
6 1/4" TO 7 1/2"	6" < L ≤ 9"	10 GAGE
(3 1/4" MINIMUM CONCRETE THICKNESS OVER DECK)	2" < L ≤ 6"	12 GAGE
	L ≤ 2"	14 GAGE
OVER 7 1/2" UP TO 11"	L > 3"	SEE DETAIL B
(4 1/2" MINIMUM CONCRETE THICKNESS OVER DECK)	L ≤ 3"	10 GAGE

NOTES:

- SEE ADDITIONAL DETAILS FOR REINFORCEMENT AT CURTAIN WALL SUPPORT AND AT CORNERS
- 2. CANTILEVER REINFORCEMENT IS IN ADDITION TO ANY REINFORCEMENT SHOWN IN NOTES, ON PLAN, OR ON SLAB SCHEDULES
- 3. SLAB EDGE SERVICE LOADS NOT TO EXCEED 400 PLF VERTICAL
- AT CONTRACTOR'S OPTION SINGLE BENT PLATE (OR EQUIV ANGLE)
 MAY BE USED PROVIDED IT HAS MINIMUM THICKNESS EQUAL TO
 SCHEDULED THICKNESS THIS DETAIL, IS FIELD INSTALLED, AND
 ACCOMMODATES SLAB EDGE TOLERANCES
- 5. WHERE EDGE BEAM IS NOT BRACED BY PERPENDICULAR BEAMS, AND WHEN CANTILEVER SPAN "L" EXCEEDS EDGE BEAM DEPTH "D", THIS DETAIL IS NOT APPLICABLE AND SLAB EDGE SHALL BE PER OTHER DETAILS

CAN	TILEVER PLA SCHEDUI	ATE AND REI LE (SEE DET		NT					
		CANTILEVER		DETAIL B					
TOTAL SLAB THICKNESS (IN)	CANTILEVER SPAN 'L'	REINFORCEMENT	PLATE THICKNESS	PLATE TO F	LANGE WELD				
()	_	(SEE NOTES)	(A36 MINIMUM)	SIZE	SPACING				
	L > 2'-1"	SEE OTHER DETAIL	SEE C	THER DETAIL					
UP TO 5 1/2"	1'-10" < L ≤ 2'-1"	#4@12"	1/2"	1/4	4-12				
(2 1/2" MINIMUM CONCRETE	1'-3" < L ≤ 1'-10"	#4@12"	3/8"	1/4	3-12				
THICKNESS OVER DECK)	11" < L ≤ 1'-3"	#4@12"	1/4"	3/16	3-12				
	L ≤ 11"	SEE DETAIL A	SEE DETAIL A						
	L > 2'-1"	SEE OTHER DETAIL	SEE C	THER DETAIL					
6 1/4" TO 7 1/2"	1'-9" < L ≤ 2'-1"	#4@12"	1/2"	1/4	4-12				
(3 1/4" MINIMUM CONCRETE	1'-2" < L ≤ 1'-9"	#4@12"	3/8"	3/16	3-12				
THICKNESS OVER DECK)	9" < L ≤ 1'-2"	#4@12"	1/4"	3/16	3-12				
	L ≤ 9"	SEE DETAIL A	SE	E DETAIL A	•				
	L > 2'-1"	SEE OTHER DETAIL	SEE C	THER DETAIL					
OVER 7 1/2" UP TO 11"	1'-7" < L ≤ 2'-1"	#4@10"	1/2"	1/4	4-12				
(4 1/2" MINIMUM CONCRETE	1'-0" < L ≤ 1'-7"	#4@10"	3/8"	1/4	3-12				
THICKNESS OVER DECK)	3" < L ≤ 1'-0"	#4@10"	1/4"	3/16	3-12				
	L ≤ 3"	SEE DETAIL A	SE	E DETAIL A	•				

TYPICAL COMPOSITE STEEL DECK AT SLAB EDGE



HUNTER ROBERTS CONSTRUCTION GROUP LLC 55 Water Street, New York, NY 10041 212.699.4749

URBAHN ARCHITECTS 306 West 37th Street, New York, NY 10018 212.239.0220

MARVEL ARCHITECTS

THORNTON TOMASETTI 51 Madison Avenue, New York, NY 10010 917.661.7800

145 Hudson Street, New York, NY 10013 212.616.0420

MATRIX NEW WORLD ENGINEERING 333 West 39th Street, New York, NY 10018 212.699.4749

JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300

JFK&M ENGINEERS, LLP

134 West 37th Street New York, NY 10018 212.792.8700

REVISION	DESCRIPTION	DATE

NYC BBJ

QUEENS GARAGE & COMMUNITY SPACE

80-25 126th St, Kew Gardens, NY 11415

TECHNICAL DRAWINGS

KEY PLAN:

PROJECT NORTH	RUENO
NORTH	

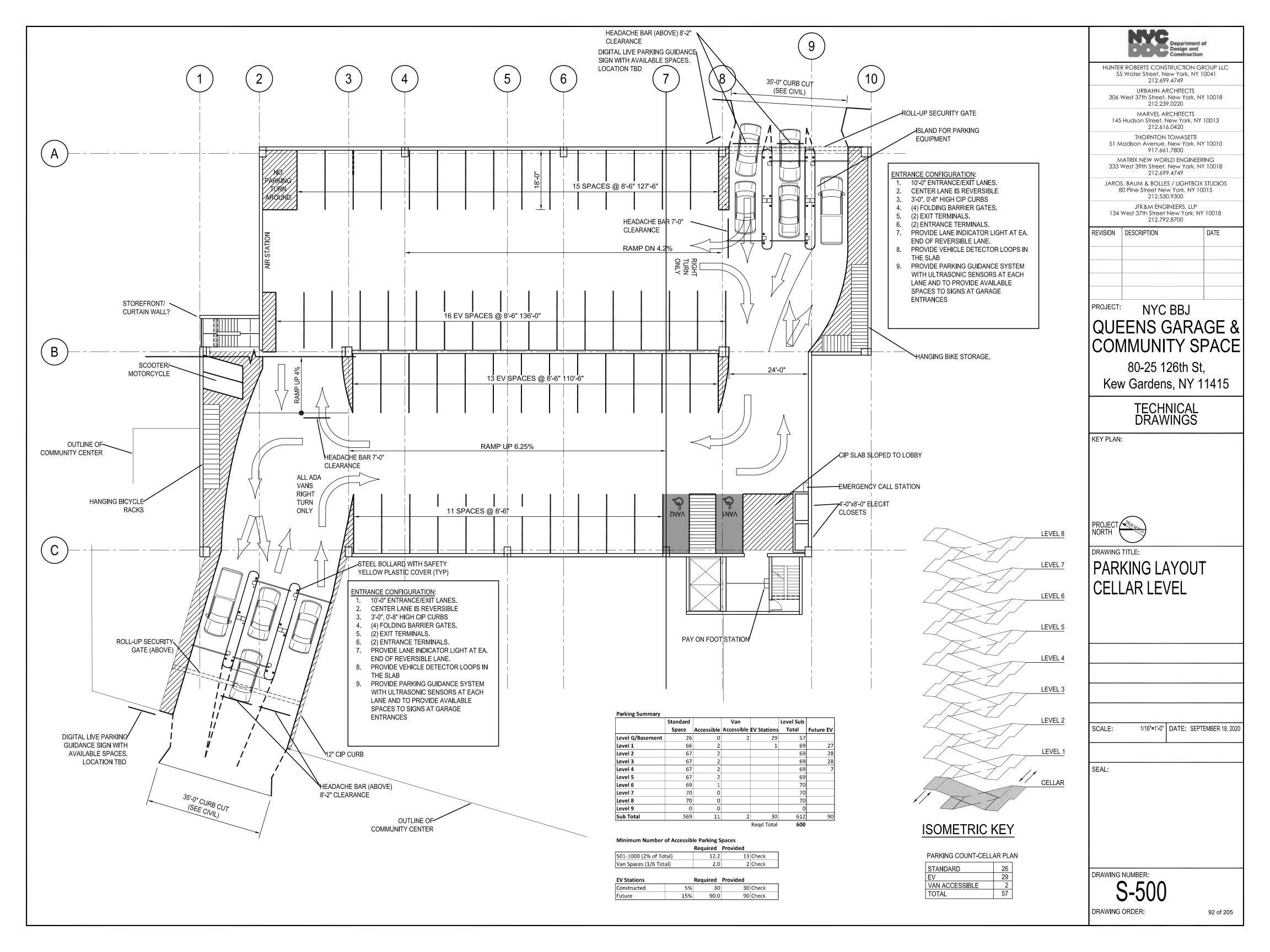
DRAWING TITLE:

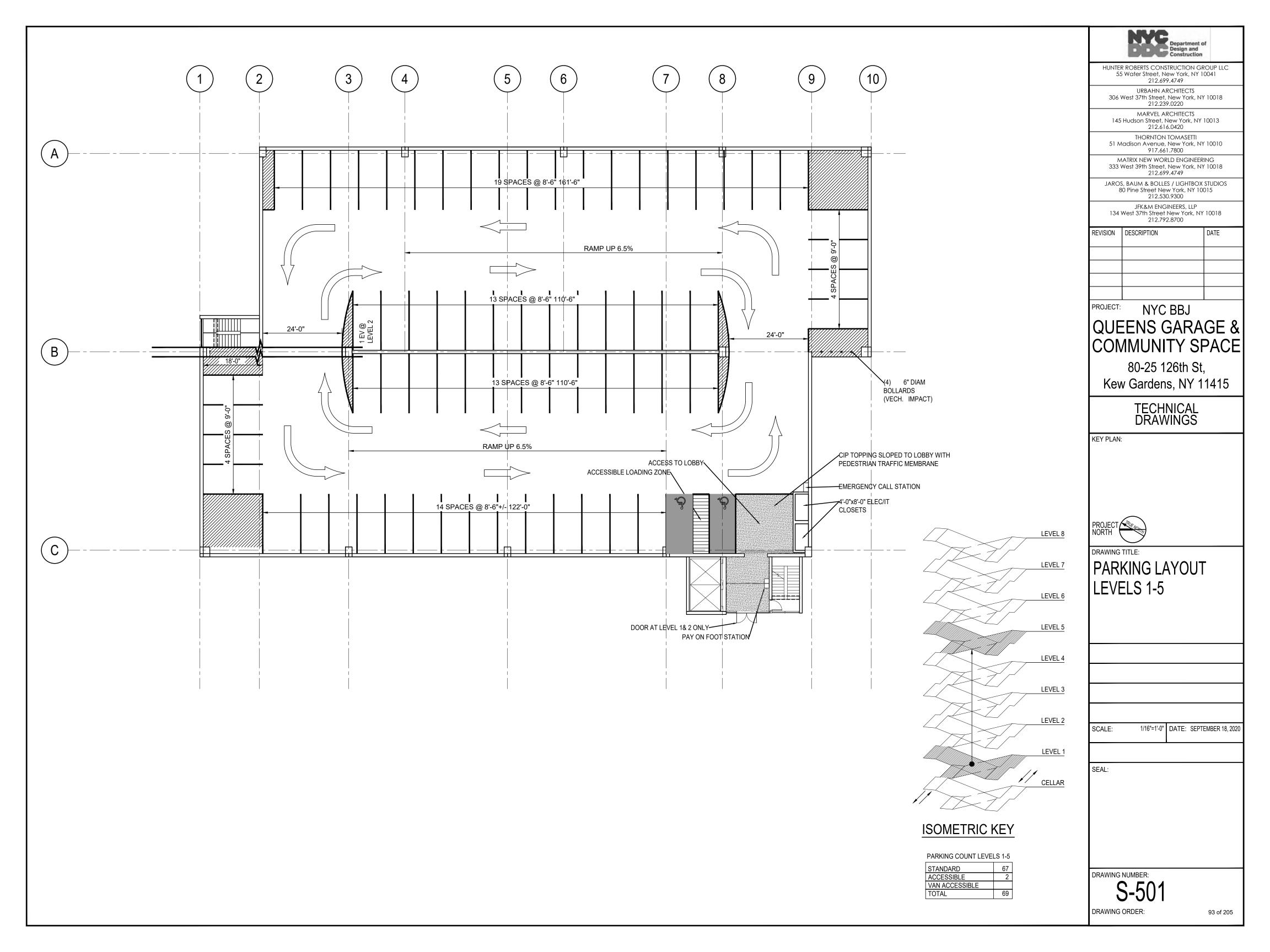
TYPICAL STEEL DETAILS

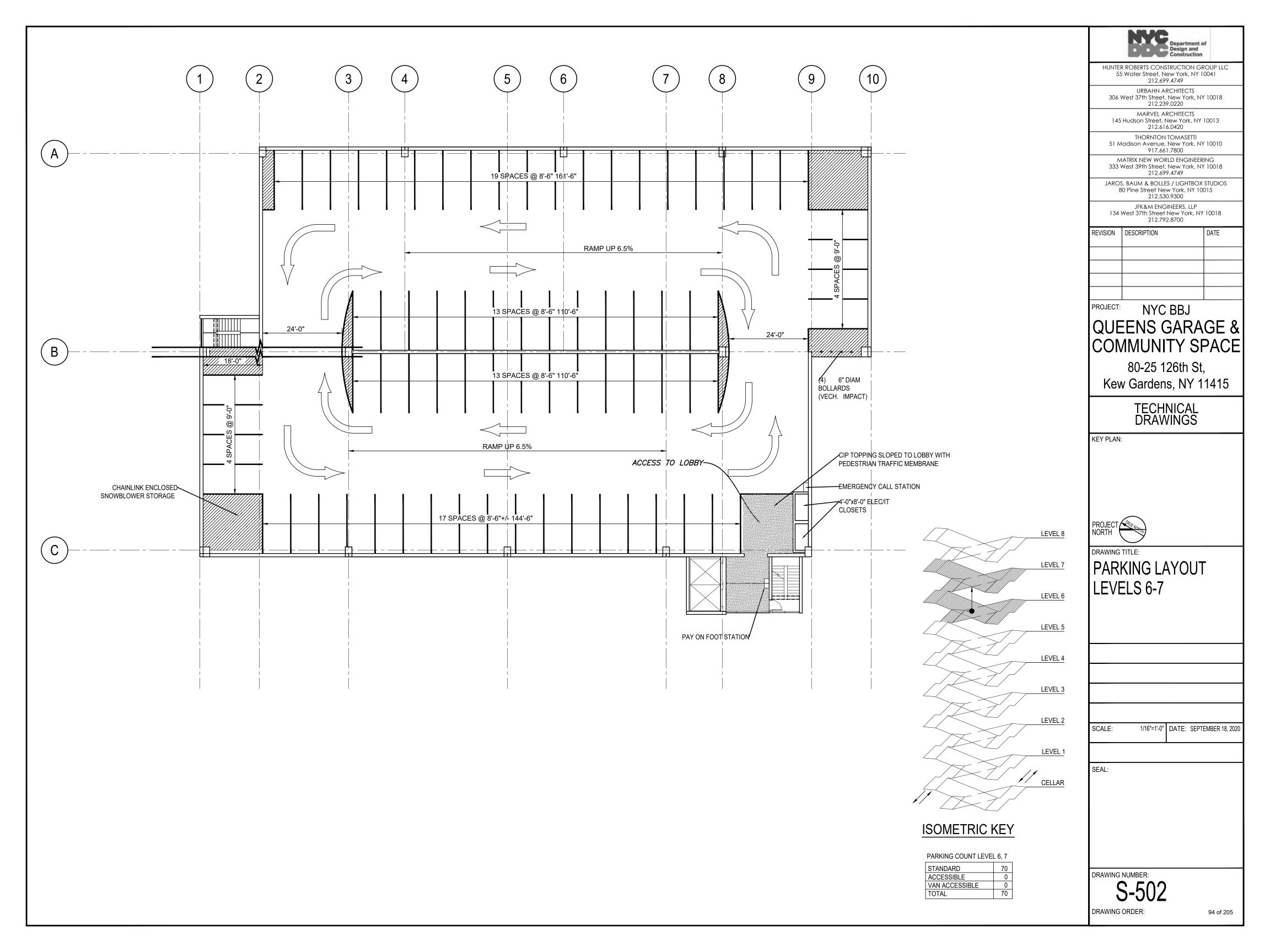
SCALE:	NTS	DATE:	SEPTEMBER 18, 2

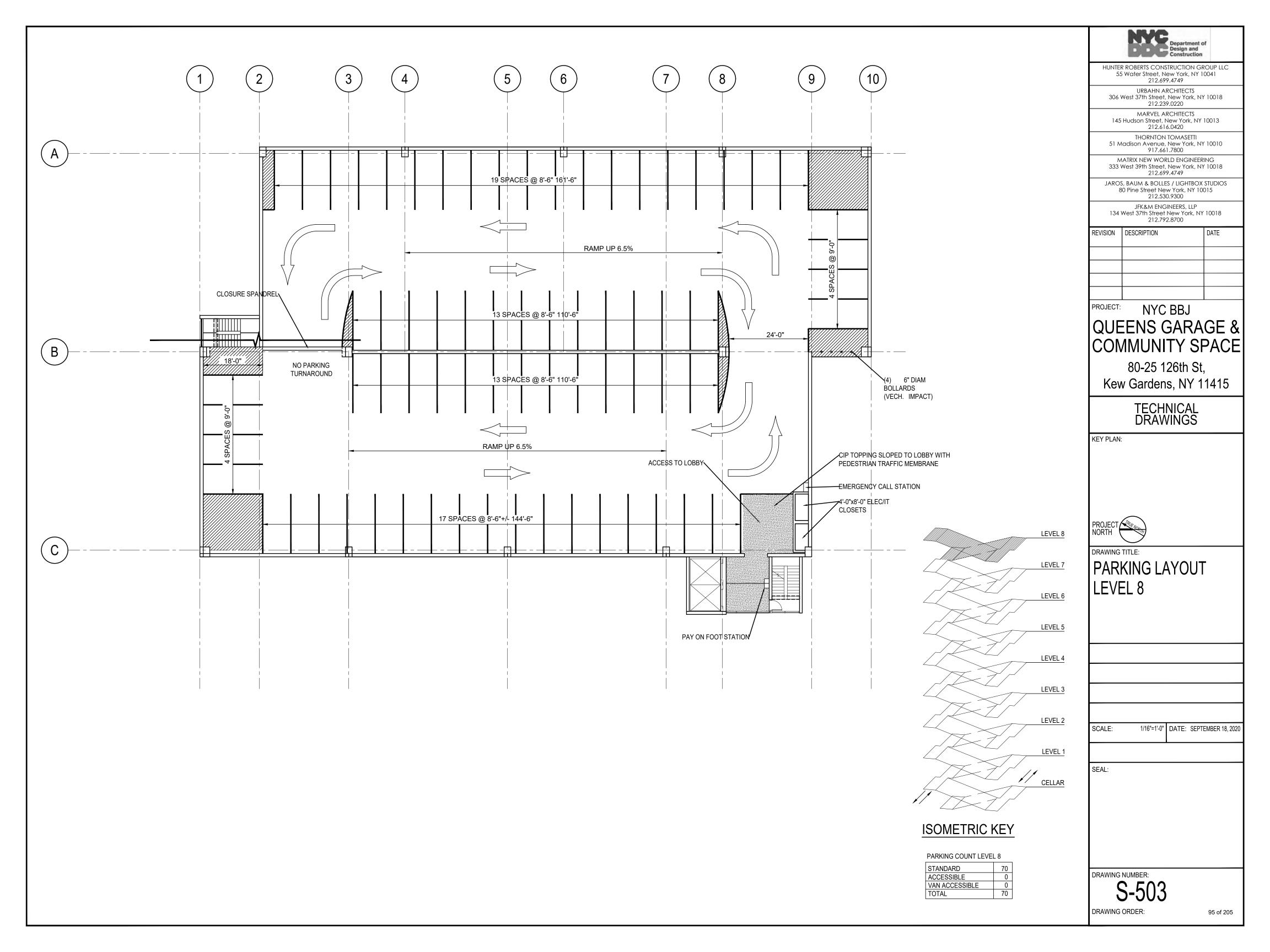
DRAWING NUMBER:

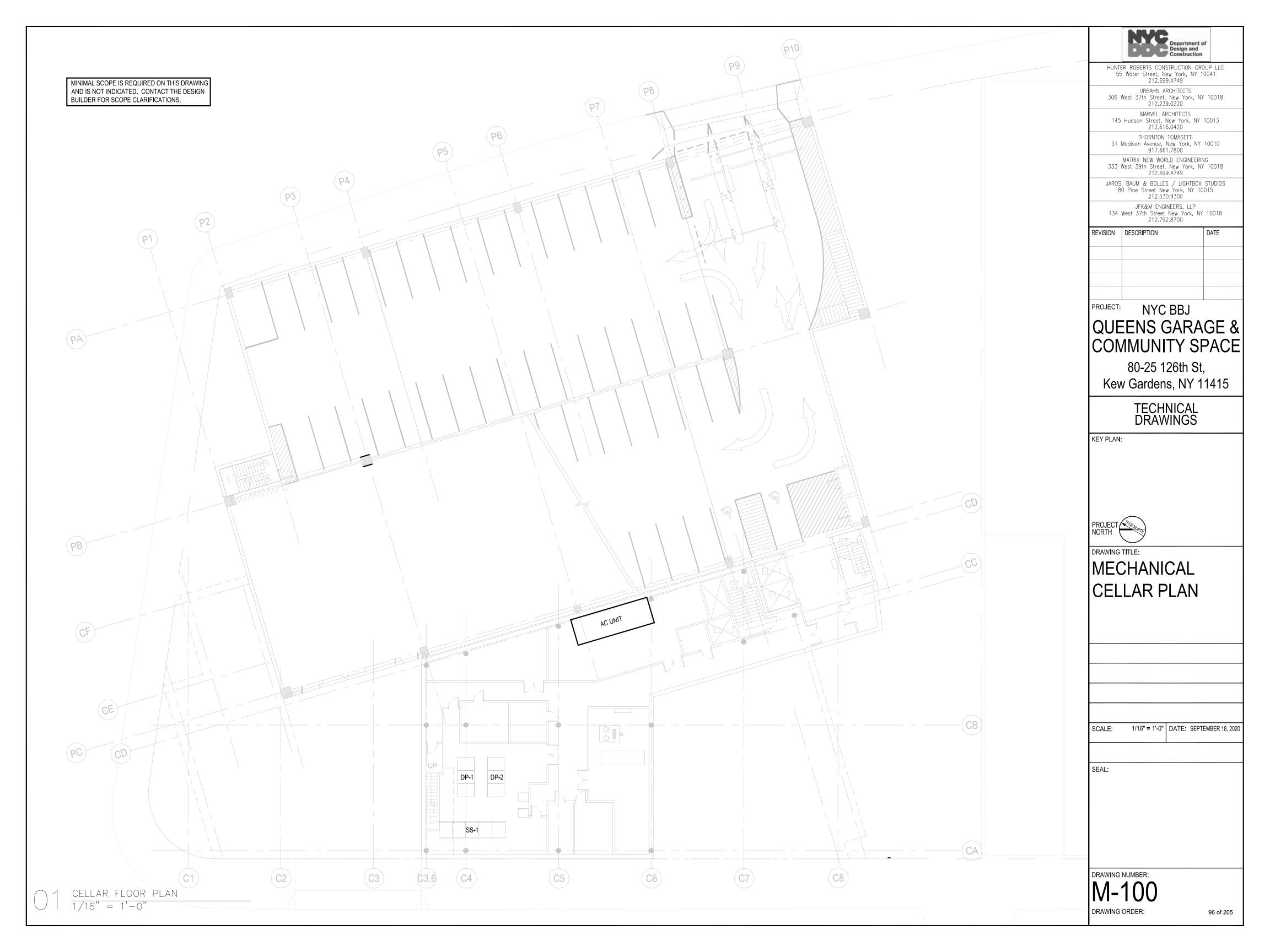
DRAWING ORDER:

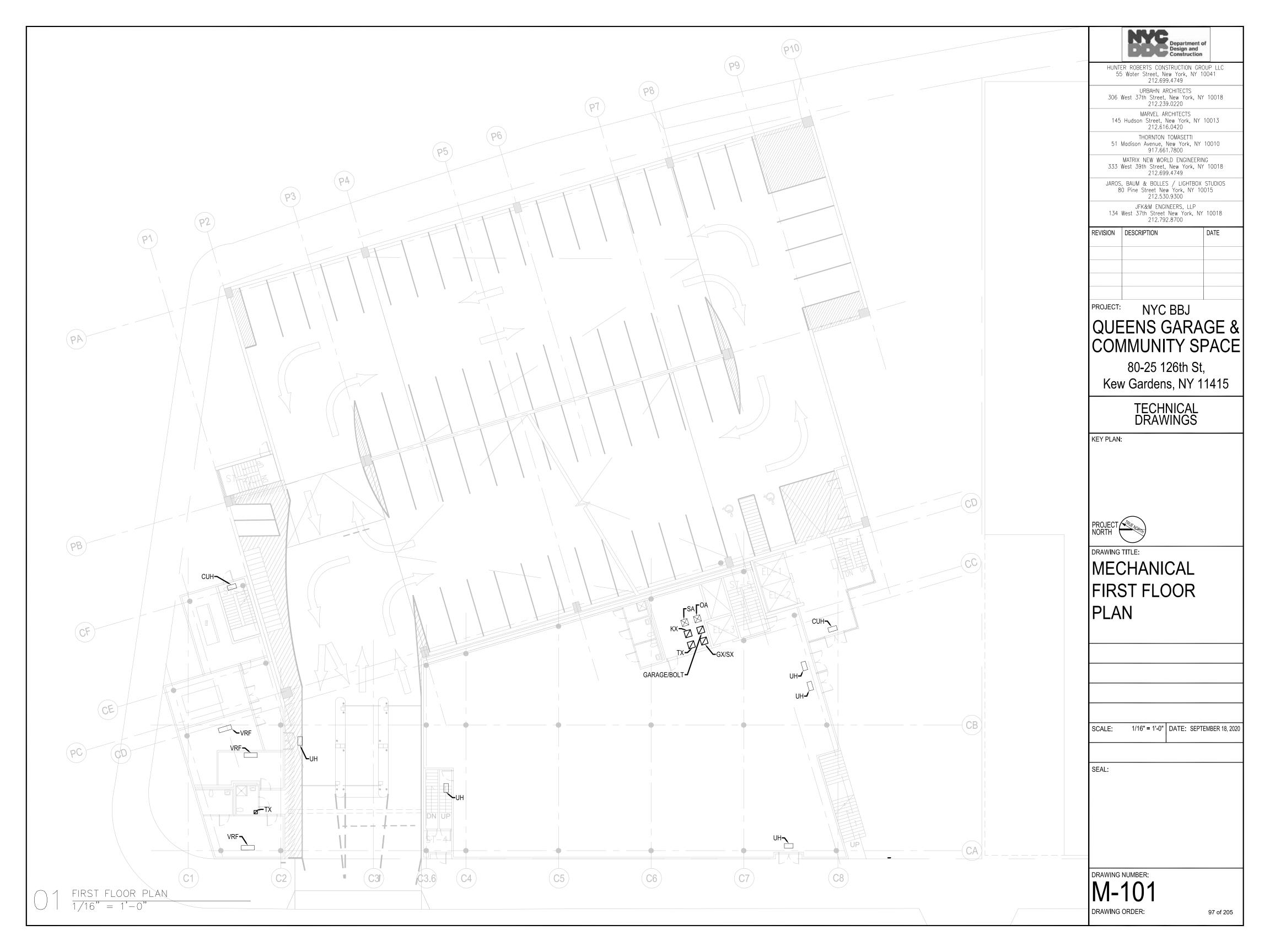


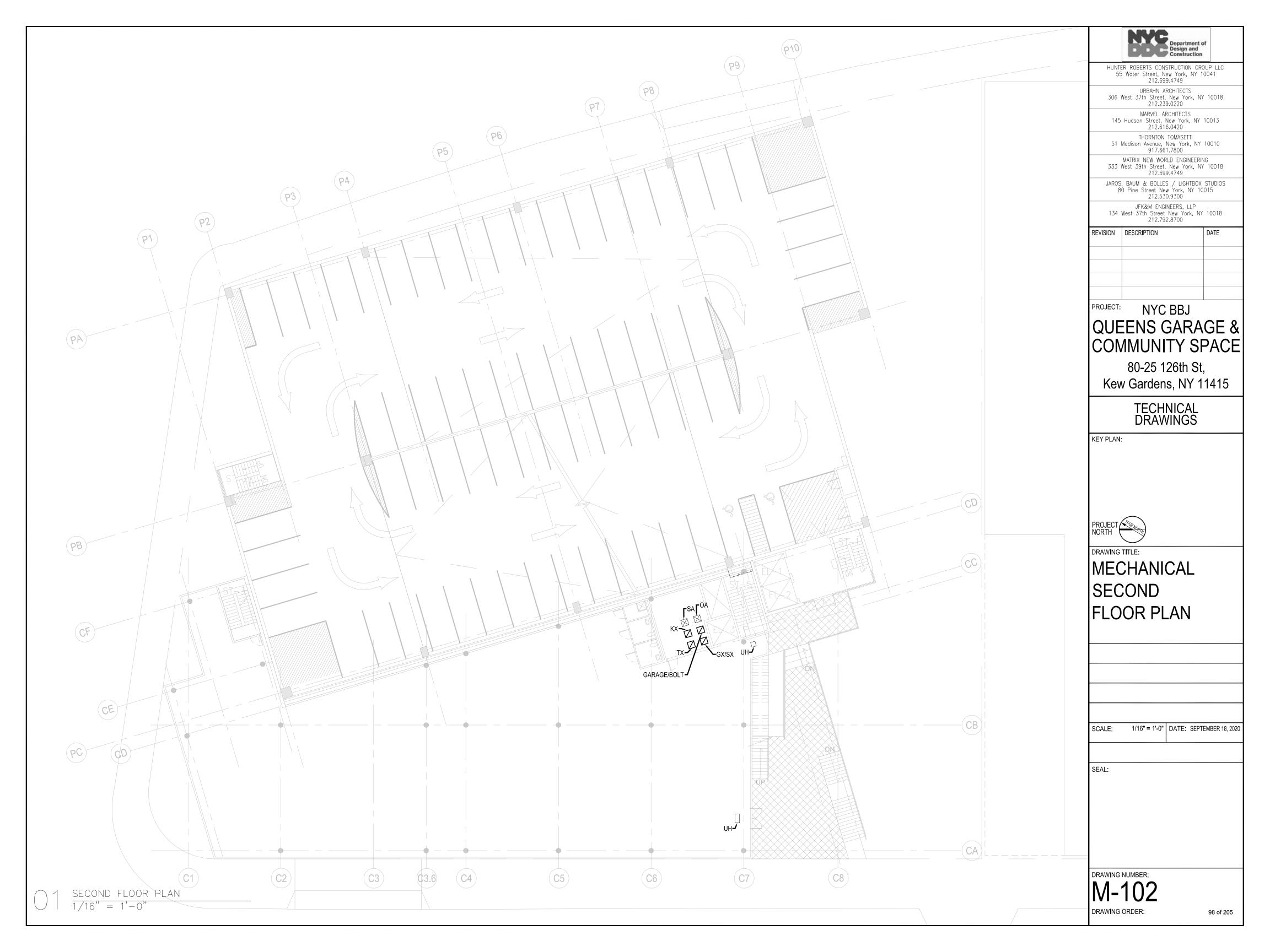


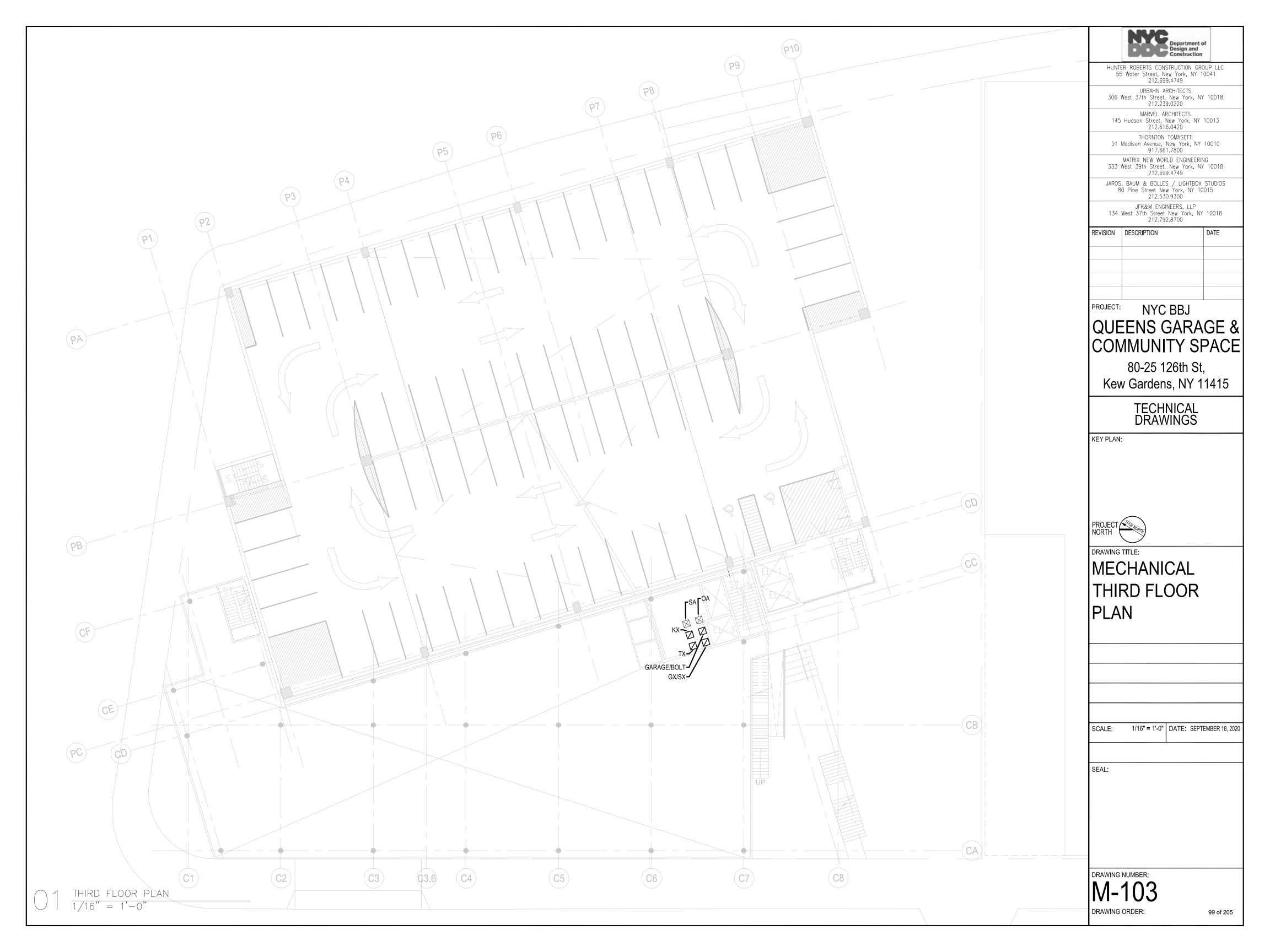




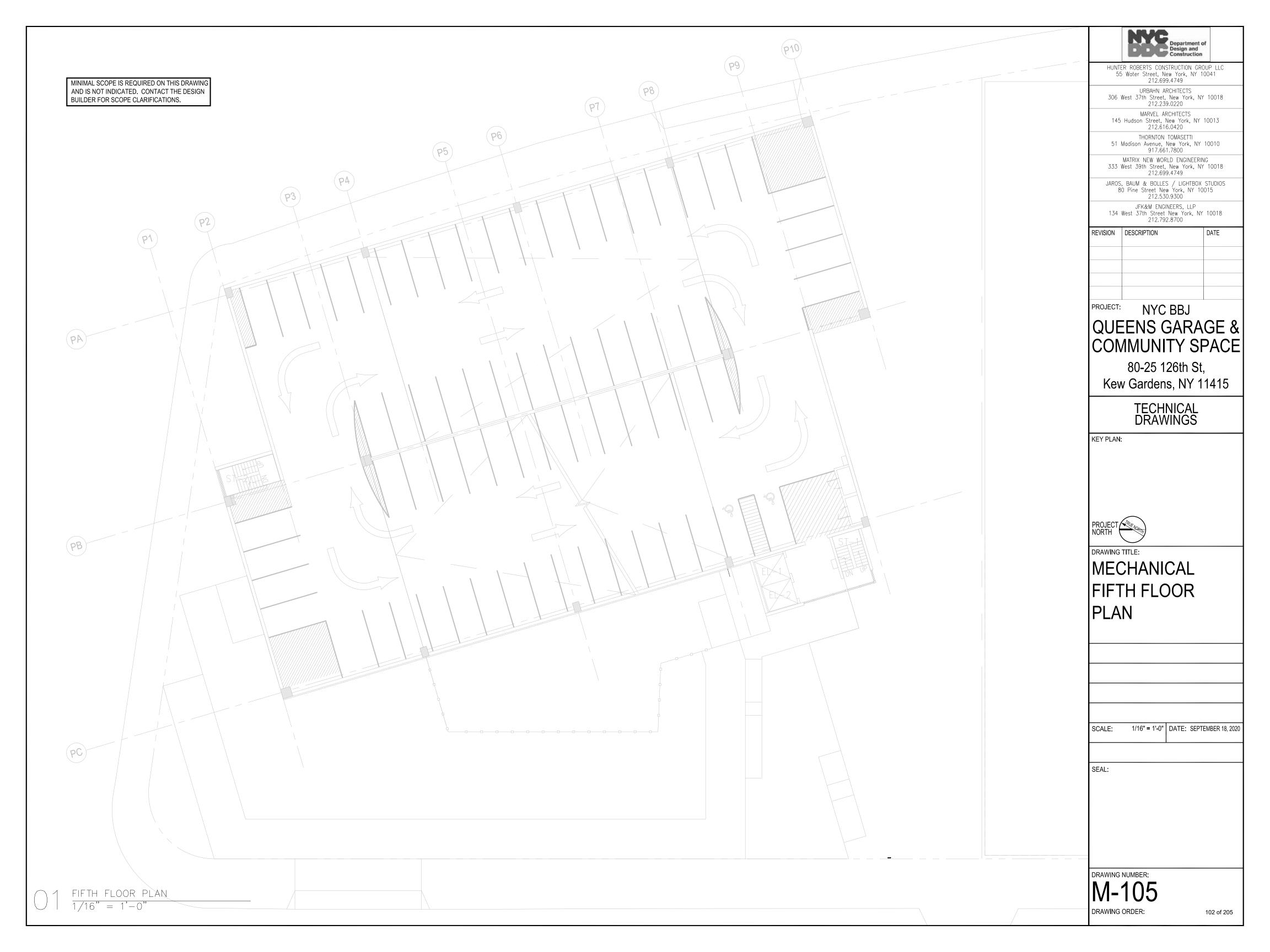


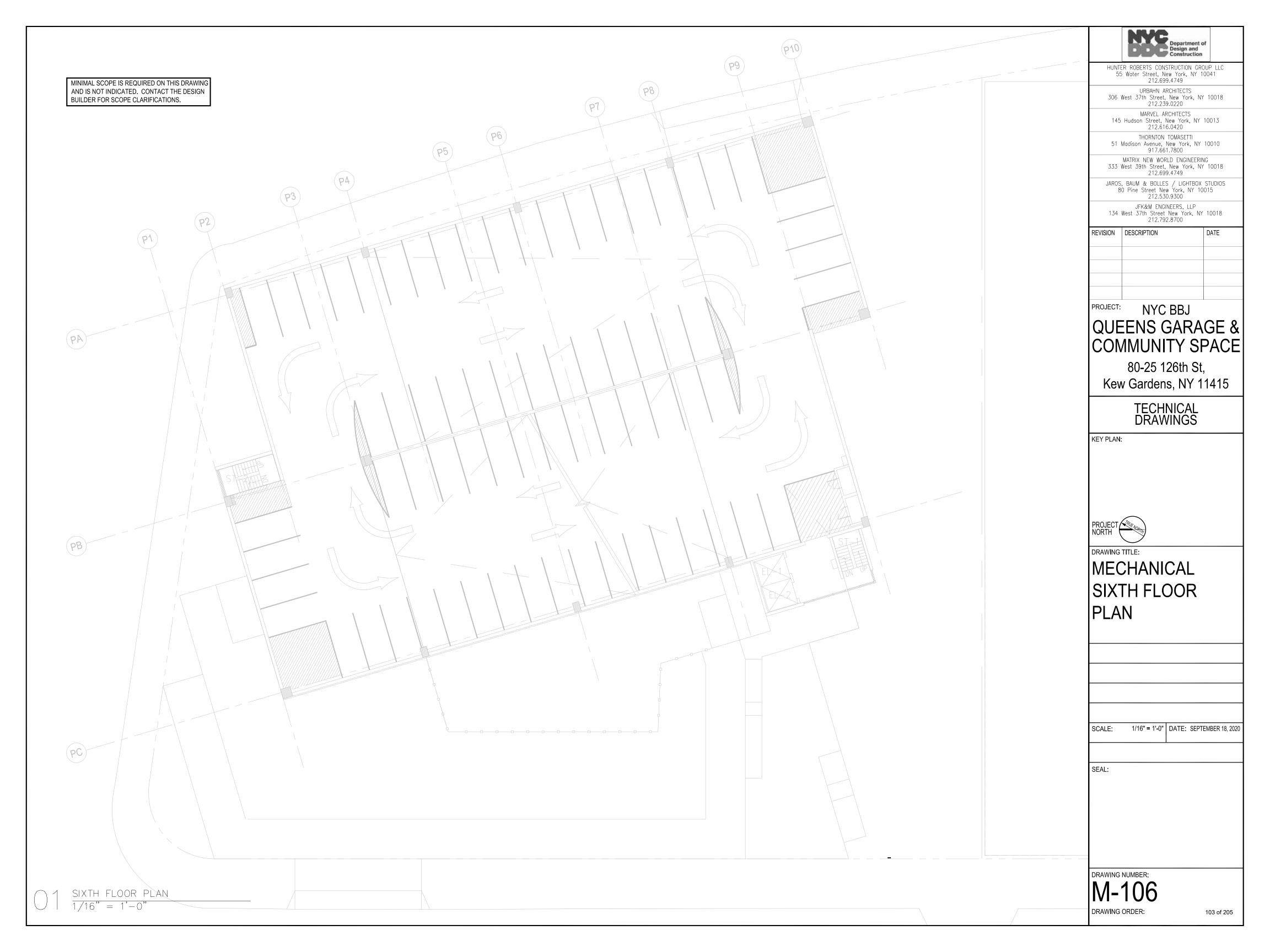


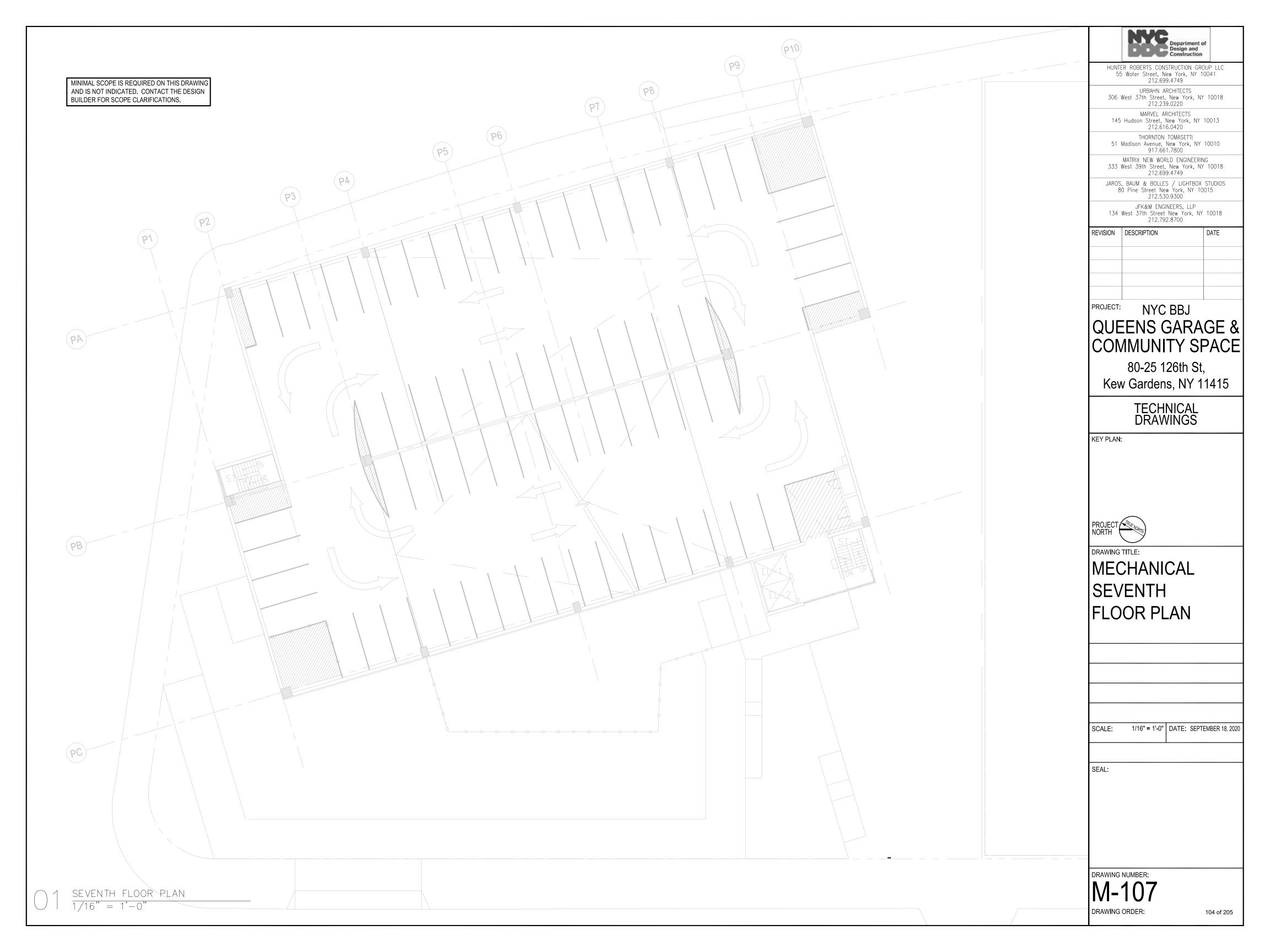




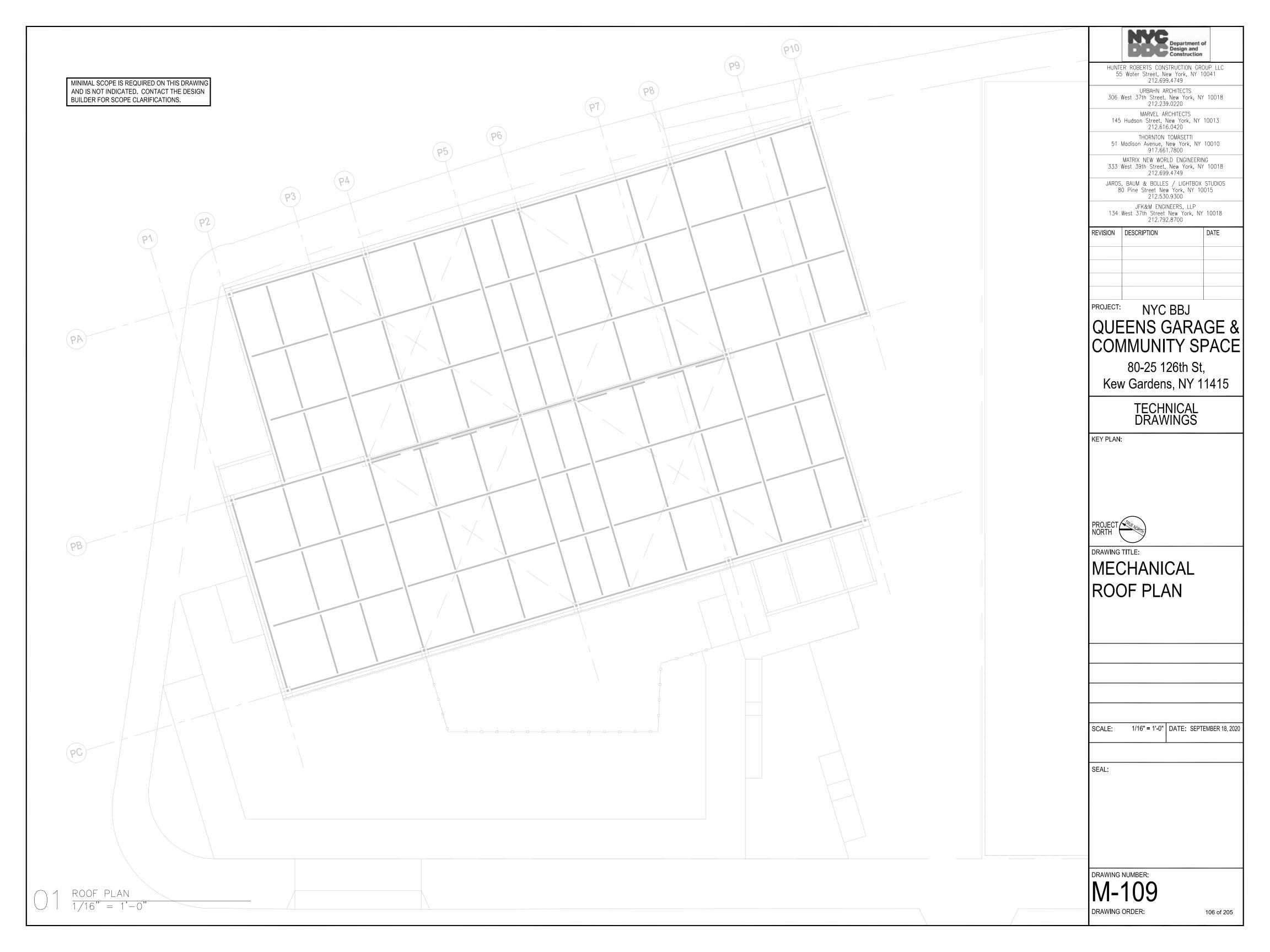












																	Alf	R CO	NDITIO	ONING	SYS	TEMS	3																	
				FILTERS	3					Р	RE-HEAT	COILS										COOLI	NG											SUPPL	Y FAN DA	ATA				
ACS SYSTEM No	LOCATION	SERVICE	CFM MAX. PRESSURE DROP-CLEAN (IN. H2O)	FILTER TYPE % EFFICIENCY	NUMBER OF SECTIONS-WIDE NUMBER OF	SECTIONS-HIGH MAX. PRESSURE DROP-DIRTY (IN. H2O)	CFM	ENTERING TEMP. (°F) TEMP. (°F) TEMP. (°F)	MAX. PRESSURE III DROP (IN H20) STEAM PRESS.	ENTERING TEMP. (°F) AT LEAVING	TEMP. (°F) SS WATER (GPM) TI	NUMBER OF SECTIONS FINNED LENGTH	TUBE FACE TOTAL FACE AREA	(SQ. FT) FACE VELOCITY (FPM)	ROW DEEP FIN SPACING (FIN/IN.)	CIRCUITING	CFM ENTERING	TEMP, DB (°F) ENTERING TEMP, WB (°F)	LEAVING TEMP DB (°F) TEAVING TEAVING	TEMP WB (°F) MAX. PRESSURE DROP (IN H20)	CAPACITY (MBH)		MAX. PRESSURE DROP (FT H20) NUMBER OF	CASING HEIGHT	FINNED LENGTH PER SECTIONS TOTAL FACE AREA (SQ. FT)	FACE VELOCITY (FPM)	ROW DEEP FINS PER IN.	CIRCUITING	STATIC PRESSURE (IN. H20)	MAX. OÚTLET VELOCITY (FPM)	DISCHARGE DIRECTION ARRANGEMENT	FAN R.P.M.	FAN ROTATION WIDTH & INLET	WHEEL DIAMETER (IN.)	POSITION O'CLOCK	UNIT	B.H.P.	MIN. MOTOR H.P. MOTOR R P M	MOTOR LOCATION	VID: DASE SPEC, TYPE VIB: BASE MIN. STATIC DEFL. (IN.)
AHU-RF-1 AHU-RF-2	COMMUNITY CENTER ROOF	COMMUNITY CENTER	5000 -		-		5000	13 45	0.12 -	100 8	28.40		- 13	3.5 444	2 11	- ;	5000 89	75.0	54.4 54	.0 0.68	230 1	2	-	-	- 14.25	421	6 12	- 500	00 2	- AX	IAL -	2323		20		-	8.16	10 17	50 -	
AHU-B-1	BASEMENT	вон	5000 -	- -	-		5000	13 55	0.14 -	100 8	30 25		-	- -	- -	-	-	- -		- -	-	- -		-		-			2	- AX	IAL -	3489	- -	13.5		-	3.39	5 -	- -	- - -

			Al	R C	ONE	OITIC	IINC	NG :	SYS	TE	MS ((COI	NT.)									
				RETURN FAN DATA																		
ACS SYSTEM No.	LOCATION	SERVICE	CFM	STATIC PRESSURE (IN. H2O)	MAX. OUTLET VELOCITY (FPM)	DISCHARGE DIRECTION	ARRANGEMENT	FAN R.P.M.	FAN ROTATION	WIDTH & INLET	WHEEL DIAMETER (IN.)	ACCESS DOOR POSITION O'CLOCK	TYPE	SIZE	B.H.P.	MIN. MOTOR H.P.	MOTOR R.P.M.	MOTOR LOCATION	BAS C. T	VIB. BASE MIN. STATIC DEFL. (IN.)	SS	REMARKS
AHU-RF-1 AHU-RF-2	-	-	5000	1.5	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	208/60/3

			AIR C	ONDITI	ONIN	IG S	YSTE	MS (CON	'T)									
										HEAT	ENTH	ALPY W	HEEL						
ACS SYSTEM No	. LOCATION	SERVICE	SYSTEM TOTAL CFM	MIN. CFM OUTSIDE AIR	OUTSIDE AIR (DB/WB) SUMMER TEMP. F.	DE AIR R TEMI	SUPPLY AIR (DB/WB) SUMMER TEMP. F.	SUPPLY AIR (DB/WB) WINTER TEMP. F.	RETURN AIR (DB/WB) SUMMER TEMP. F.	RETURN AIR (DB/WB) WINTER TEMP. F.	EXHAUST AIR (DB/WB) SUMMER TEMP. F.	EXHAUST AIR (DB/WB) WINTER TEMP. F.	PRESSURE DROP SUPPLY (IN. H2O)	SSURE DI	M) (M) (M) (M) (M) (M) (M) (M) (M) (M) (M) ECTIVE	SUMMER (%) EFFECTIVENESS WINTER (%)	REQUIREMENTS (FLA)	(208/3/00) EXHAUST AIR (CFM)
AHU-RF-1 AHU-RF-2	COMMUNITY CENTER ROOF	COMMUNITY CENTER	5000	5000	89 /75	15/12					87.5 70.7	55.8 50.8	0.85	0.80	969 9	69 62	.01 67,74	-	5000

															Е	LECT	RIC A	NR-S	OUR	CE HE	AT PL	IMPS																	(MULTISTACK AS STD.)
							CHILLED) WATER	RDUTY					НО	T WATE	R DUTY				CONI	DENSER		COMP	RESSOR	Į.					ELECTF	RICAL								
UNIT No.	LOCATION	SERVICE	CAPACITY (DEMAND TRS)	GPM	INLET WATER TEMP. (°F)	OUTLET WATEK TEMP. (°F)	MAX. PRESS. DROP (FT. H20)	WORKING PRESS. (PSIG)	FOULING	MAX WATER VELOCITY (FPS)	NO. OF PASSES	CAPACITY (MBH)	GPM	INLET WATER TEMP. (°F) OUTLET WATER	TEMP (°F) MAX. PRESS. DROP	(FT. H20) WORKING PRESS	FOULING	MAX WATER VELOCITY (FPS)	NO. OF PASSES	TOTAL AIR FLOW (CFM)	MODULE AMBIENT AIR TEMP. (°F).	NO. OF COMPRESSORS PER MODULE	INPUT PER COMPRESSOR	TOTAL INPUT COMPRESSOR	REFREGERANT TYPE	POWER (kW)	TOTAL MCA	VOLTS (V)	PHASE (�)	CYCLES (Hz)	COOLING kW/TON	COOLING EER	HEATING COP	VARIABLE FREQUENCY DRIVE	MAINTENANCE BYPASS REQUIRED	WEIGHT (LBS)	MODEL No.	SERIAL No.	REMARKS
ASHP-R-1	COMMUNITY	BLDG.PRIMAR																1								1													40% PROPYLENE
(MODULAR WIT		HEATING &	160	260	60	44	6	300	0.0001	-	-	1113	261	80 10	00 8	150	0.000	1 -	-	-	2 OF /	95F 2	-	-	R410A	-	483	208	3	60	1.06	11.26	8.26				-		GLYCOL

- PROVIDE INTEGRAL PUMP PACKAGES FOR HOT AND CHILLED WATER PROVIDE EXPANSION TANKS AND BUFFER TANK FOR HOT AND CHILLED WATER
- PROVIDE INTEGRAL RAILS FOR ROOF MOUNTING

									RE	TUR	N, E	XHA	UST,	AND	VEN	NTIL/	OITA	N FA	NS (CON.	TINL	IED)												
								FAN									El	ECTRIC	CAL				SUC	CTION S	SOUND	TRAP	DISCH	HARGE	SOUN	D TRAF	ا ا	J		
UNIT No.	LOCATION	SERVICE	CFM	EXTERNAL STATIC PRESS. (IN. WG)	OUTL CITY	R.P.M.	DISCHARGE DIRECTION	ARRANGEMENT	CLASS	ROTATION DIRECTION	WHEEL DIAMETER (IN.)	TYPE	SIZE	B.H.P.	MIN. H.P.	R.P.M.	LOCATION	VOLTS (V)	PHASE (φ)	CYCLES (Hz) VARIABLE	FREQUENCY DRIVE	MAINTENANCE BYPASS REQUIRED	TYPE	SIZE	FACE VELOCITY (FPM)	AIR PRESS. DROP (IN. WG)	TYPE	SIZE	FACE VELOCITY (FPM)	AIR PRESSURE	AIRFLOW MEASIIBEMENT TYPE		MODEL No.	REMARKS
EF-B-1	BASEMENT	BOH EXHAUST	5,000	1.5	-	756	-	-	-	-	-			3.27	5	1,750	-	208	3	60	-	-												PROVIDE VFD
GX-B-1	GARAGE	GARAGE EXHAUST	40,000	1.5	-	454	-	-	-	-	-			14.58	20	1,800	-	208	3	60	-	-												PROVIDE VFD
SX-RF-1	COMMUNITY CENTER ROOF	SMOKE PURGE	15000	1.0	-	454	-	-	-	-	-			8	10	1,800	-	208	3	60	-	-												PROVIDE VFD

						UNIT	AND	ENT	ranc	E HE	ATERS					(SECTI	ON 23 82 89)
									HOT WAT	ER	ELE	CTRIC	MOT	ΓOR			
UNIT HEATER No.	LOCATION	SERVICE	FAN CFM (HIGH SPEED)	R P M	HEAT OUTPUT BTU'S PER HOUR (MBH)	ENTERING AIR TEMP. DB (°F)	FINAL AIR TEMP. DB (°F)	GPM	ENTERING WATER TEMP. (°F)	LEAVING WATER TEMP. (°F)	(DUAL HEAT) KW @ HIGH SETTING	VOLTS/PHASE/Hz	H.P.	R.P.M.	TYPE	MODEL No.	REMARKS
CUH	ALL GARAGE/STAIRS	ALL GARAGE/STAIRS	750	-	48.1	60	123	-	-	-	15	208/3/60	-	-	WALL MOUNTED	MARLEY 935 SERIES MODEL C	UNIT MOUNTED THERMOSTAT MULTIPLE UNITS
UH	COMMUNITY CENTER	COMMUNITY CENTER	1,900	1,000	74.6	60	102	8.8	100	80	-	120/1/60	1/3	1,550	CEILING MOUNTED	STERLING (HOT WATER)	UNIT MOUNTED THERMOSTAT

NOTES:

1. REFER TO PLANS FOR QUANTITY.

									AIF	R COOL	ED P	ACKAG	ED A	AIR C	OND	IINOITI	NG U	NITS															IBISHI AS IDARD)
UNIT No.	LOCATION	SERVICE	% 7.T 1.G 7.T	TE	ER. AIR MP. (°F)			RATOR ECTION		l	APORATO COOLING COIL		LEAVII TEMF UI	P. (°F)	CC	OMPRESSO)R		FILTER				NDENSI SECTI				ELEC.	TRICAL		E /PE	SE MIN DEFL. (IN.)	MODEL	REMARKS
Sivil Ho.	LOOMION	OLIVIOL	COOLING CAPACIT (MBH) HEATING CAPACIT	(MBH) DB	WB	CFM	EXT. S.P. (IN.)	MIN. MOTOR HP		FACE AREA (SQ. FT.)	NO. OF ROWS	FACE VELOCITY (FPM)	DB	WB	No.	REFRIG.	HP	TOTAL AREA \ (SF FT)	FACE VELOCIT` FPM	Y %EFF.	CFM	AMBIENT AIR °F	EXT S.P. (IN.)	MIN. MOTOR HP	NO. OF FANS	TOTAL FLA	VOLTS	PHASE	Hz	VIB BAS SPEC TY	VIB. BAS STATIC D	NUMBER	TALIWI WAY
AC-R-1 AC-R-2	SECOND FLOOR 1 POLICE PLAZA	WATCH COMMAND	72.0 8	0.0 95	76	500	.25	-	-	-	-	-	-	-	1	R-410A	6.5	-	-	-	7,050	95	-	.60	1	-	208	3	60	-	-	CITY MULTI PURY-P72TGMU-A	OUTDOOR AC CONDENSER

- AC-R-1 AND AC-R-2 ARE REQUIRED TO BE PURCHASED AS A PACKAGE TO PROVIDE A COMPLETE, WORKING SYSTEM.
 PROVIDE A GB-50 CONTROLLER FOR THE ENTIRE SYSTEM.

- 3. AC-R-1 AND AC-R-2 SHALL BE RATED AT AN OUTDOOR TEMPERATURE OF 0°F IN THE WINTER AND 95°F
- 4. REFRIGERANT LINES SHALL BE PROVIDED WITH ½" INSULATION INDOORS AND 2" INSULATION OUTDOORS.

 OUTDOOR INSULATION SHALL BE PROVIDED WITH AN ALL SERVICE JACKET IN ADDITION TO THE 2" OF INSULATION. 5. PROVIDE ONE (1) TWO TON WALL MOUNTED EVAPORATOR PER CONDENSER.

NOTE	S:

- 1. PROVIDE LEED ENHANCED COMMISSIONING FOR ALL
- APPROPRIATE EQUIPMENT.

 2. PROVIDE POWER QUALITY DATA FOR CURRENT, VOLTAGE AND DISTORTION TO THE 30th HARMONIC.

HUNTER ROBERTS CONSTRUCTION GROUP LLC 55 Water Street, New York, NY 10041 212.699.4749

URBAHN ARCHITECTS 306 West 37th Street, New York, NY 10018 212.239.0220

145 Hudson Street, New York, NY 10013 212.616.0420 THORNTON TOMASETTI 51 Madison Avenue, New York, NY 10010 917.661.7800

MARVEL ARCHITECTS

MATRIX NEW WORLD ENGINEERING 333 West 39th Street, New York, NY 10018 212.699.4749

JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300

JFK&M ENGINEERS, LLP 134 West 37th Street New York, NY 10018 212.792.8700

REVISION	DESCRIPTION	DATE

NYC BBJ

QUEENS GARAGE & COMMUNITY SPACE

80-25 126th St, Kew Gardens, NY 11415

TECHNICAL DRAWINGS

KEY PLAN:



DRAWING TITLE:

MECHANICAL SCHEDULES SHEET NO. 1

SCALE:	NTS	DATE:	SEPTEMBER 18, 202

SEAL:

DRAWING NUMBER:

System Checksums

By JBB

System - 001

Bypass VAV with Reheat (30% Min Flow Default)

	COOLING C	OIL PEAK			CLG SPACE	PEAK		HEATING CO	IL PEAK		TEMP	ERATURES	3
	ed at Time: outside Air:		Hr: 7 / 10 R: 82 / 67 / 7	77	Mo/Hr: OADB:			Mo/Hr: He OADB: 13	ating Design		SADB Ra Plenum	Cooling 55.0 75.1	Heating 82.0 61.1
	Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total	Space Sensible	Percent Of Total		Space Peak Space Sens	Coil Peak Tot Sens	Percent Of Total	Return Ret/OA	75.1 71.4	61.1 60.0
	Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)		Btu/h	Btu/h	(%)	Fn MtrTD	0.0	0.0
Envelope Loads				1			Envelope Loads				Fn BldTD	0.0	0.0
Skylite Solar	0	0	0	0	0	0	Skylite Solar	0	0	0.00	Fn Frict	0.0	0.0
Skylite Cond	0	0	0	0	0	0	Skylite Cond	0	0	0.00			
Roof Cond	0	0	0	0	0	0	Roof Cond	0	0	0.00			
Glass Solar	146,288	0	146,288	21	146,288	23	Glass Solar	0	0	0.00	AIF	RFLOWS	
Glass/Door Cond	7,512	0	7,512	1	7,512	1	Glass/Door Cond	-65,264	-65,264	10.02		Cooling	Llaatin
Wall Cond	12,402	4,316	16,718	2	13,773	2	Wall Cond	-27,533	-35,693	5.48		_	Heatin
Partition/Door	0		0	0	0	0	Partition/Door	0	0	0.00	Diffuser	28,374	8,51
Floor	0		0	0	0.00	0	Floor	0	0	0.00	Terminal	28,374	8,51
Adjacent Floor	0.00	0.00	0.00	0.00	0.00	0.00	Adjacent Floor	0.00	0.00	0.00	Main Fan	28,374	28,37
Infiltration	8,982		8,982	1	5,112	1	Infiltration	-39,503	-39,503	6.06	Sec Fan	0	
Sub Total ==>	175,184	4,316	179,500	26	172,686	27	Sub Total ==>	-132,300	-140,461	21.56	Nom Vent	5,149	5,14
Oub rolar	170,101	1,010	110,000	20	17 2,000			,	,		AHU Vent	5,149	5,14
Internal Loads				1			Internal Loads					· ·	,
		_						_	_		Infil	623	62
Lights	64,772	0	64,772	9	64,772	10	Lights	0	0	0.00	MinStop/Rh	8,512	8,51
People	401,000	0	401,000	57	200,500	32	People	0	0	0.00	Return	29,064	28,99
Misc	194,316	0	194,316	28	194,316	31	Misc	0	0	0.00	Exhaust	5,839	5,77
Sub Total ==>	660,088	0	660,088	94	459,588	73	Sub Total ==>	0	0	0.00	Rm Exh	0	
	•		•	1	·						Auxiliary	0	
Ceiling Load	433	-433	0	0	306	0	Ceiling Load	-53,373	0	0.00	Leakage Dwn	0	
Ventilation Load	0	0	-140,633	-20	0	0		0	-86,091	13.21	Leakage Ups	0	
Adj Air Trans Heat	0		0	0	0	n	Adj Air Trans Heat	0	0	0		•	
Dehumid. Ov Sizing	-		0	0	· ·	J	Ov/Undr Sizing	71,809	71,809	-11.02			
Ov/Undr Sizing			0	0	0	٥	Exhaust Heat	7 1,003	57,103	-8.76	ENGIN		70
Exhaust Heat	0	172	172	0	0	U	OA Preheat Diff.		-395,445	60.68	ENGINI	EERING CH	(2
		172	0	0			RA Preheat Diff.		-395,445	0.00		Cooling	Heating
Sup. Fan Heat Ret. Fan Heat		0	0	0			Additional Reheat		•	24.33	% OA	18.1	18.1
		0	0	0			Auditional Keneat		-158,555	∠4.ડડ	cfm/ft²	1.50	1.50
Duct Heat Pkup	180	U	0	0			Hodorffr Con Ut Dive		^	0.00		330.88	1.00
Underfir Sup Ht Pku	-	^	0				Underfir Sup Ht Pkup		0	0.00	cfm/ton		
Supply Air Leakage		0	0	0			Supply Air Leakage		0	0.00	ft²/ton	221.31	. سد مس
				1							Btu/hr·ft²	54.22	-34.34
Grand Total ==>	835,705	4,055	699,127	100.00	632,579	100.00	Grand Total ==>	-113,864	-651,640	100.00	No. People	802	

			COOLING	COIL SEL	ECTIC	N				
	Total ton	Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Ent °F	er DB/W °F	B/HR gr/lb	Lea °F	ve DB/ °F	WB/HF gr/lb
Main Clg Aux Clg	58.3 0.0	699.1 0.0	519.7 0.0	28,374 0	71.4 0.0	61.5 0.0	66.0 0.0	55.0 0.0		57.1 0.0
Opt Vent	27.5	329.9	198.0	5,149	89.5	73.4	98.2	55.0	54.4	62.4
Total	85.8	1,029.0								

	AREA	NS		
Gr	oss Total	Glas		
		ft²	(%)	
Floor	18,978			N
Part	0			A
Int Door	0			P
ExFlr	0			R
Roof	0	0	0	H
Wall	10,380	3,842	37	
Ext Door	0	0	0	7

HE#	ATING COIL	. SELECTIO	NC	
	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-256.2	8,512	55.0	82.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Reheat	-142.3	8,512	55.0	70.0
Humidif	0.0	0	0.0	0.0
Opt Vent	-395.5	5,149	13.1	82.0
Total	-651.6			

Project Name: Queens Parking Garage
Dataset Name: QPG_800.TRC

TRACE® 700 v6.3.4 calculated at 04:19 PM on 09/08/2020
Alternative - 1 System Checksums Report Page 1 of 1



HUNTER ROBERTS CONSTRUCTION GROUP LLC 55 Water Street, New York, NY 10041 212.699.4749

URBAHN ARCHITECTS 306 West 37th Street, New York, NY 10018 212.239.0220

MARVEL ARCHITECTS
145 Hudson Street, New York, NY 10013
212.616.0420

THORNTON TOMASETTI 51 Madison Avenue, New York, NY 10010 917.661.7800

MATRIX NEW WORLD ENGINEERING 333 West 39th Street, New York, NY 10018 212.699.4749

JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300

JFK&M ENGINEERS, LLP 134 West 37th Street New York, NY 10018 212.792.8700

REVISION	DESCRIPTION	DATE

PROJECT: NYC BBJ

QUEENS GARAGE & COMMUNITY SPACE

80-25 126th St, Kew Gardens, NY 11415

> TECHNICAL DRAWINGS

KEY PLAN:



DRAWING TITLE:

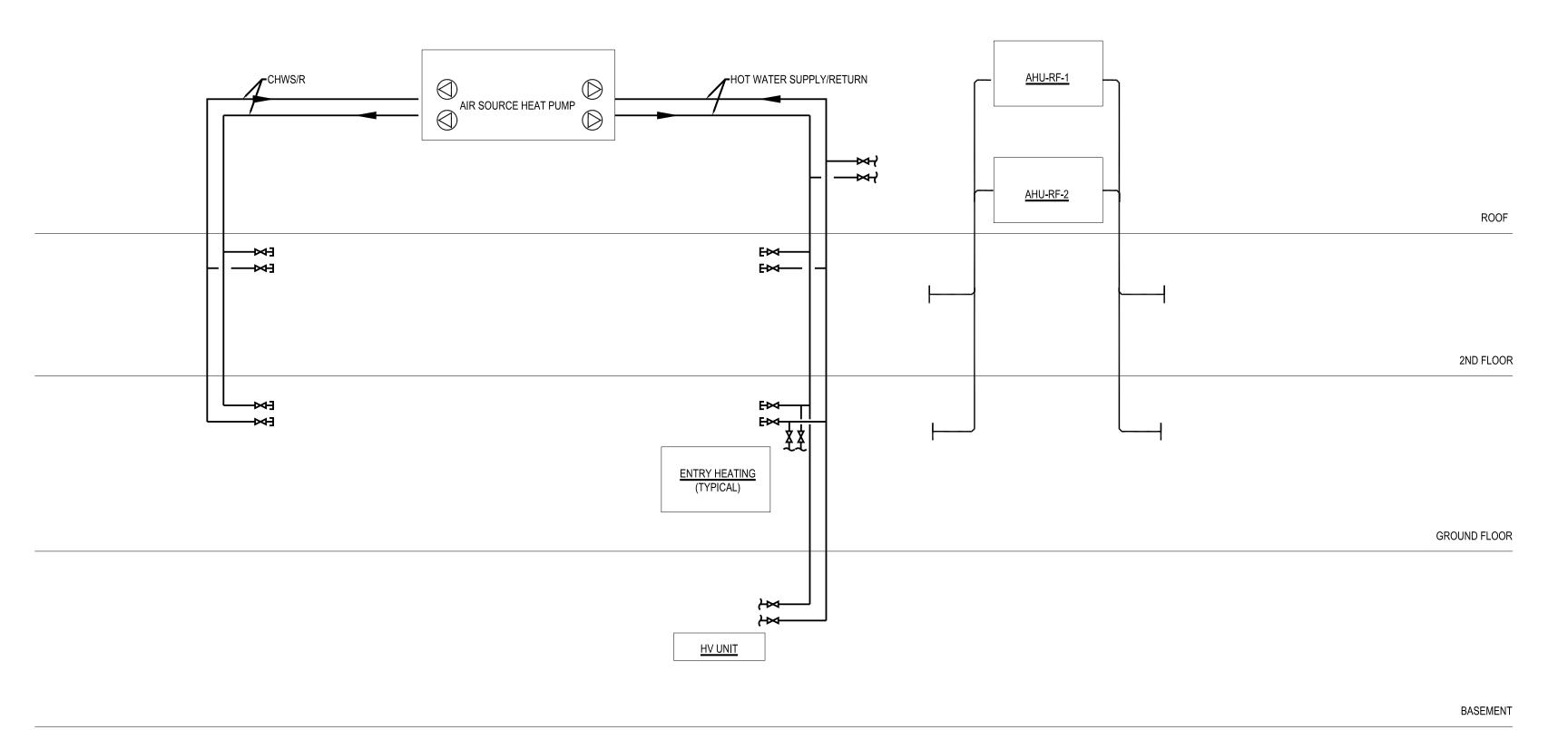
MECHANICAL SCHEDULES SHEET NO. 2

SCALE:	NTS	DATE:	SEPTEMBER 18, 2020

SEAL:

DRAWING NUMBER:

M-501





HUNTER ROBERTS CONSTRUCTION GROUP LLC 55 Water Street, New York, NY 10041 212.699.4749

URBAHN ARCHITECTS 306 West 37th Street, New York, NY 10018 212.239.0220

212.239.0220

MARVEL ARCHITECTS
145 Hudson Street, New York, NY 10013
212.616.0420

THORNTON TOMASETTI 51 Madison Avenue, New York, NY 10010 917.661.7800

MATRIX NEW WORLD ENGINEERING 333 West 39th Street, New York, NY 10018 212.699.4749

JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300

JFK&M ENGINEERS, LLP 134 West 37th Street New York, NY 10018 212.792.8700

REVISION	DESCRIPTION	DATE

PROJECT: NYC BBJ

QUEENS GARAGE & COMMUNITY SPACE

80-25 126th St, Kew Gardens, NY 11415

TECHNICAL DRAWINGS

KEY PLAN:



DRAWING TITLE:

MECHANICAL ONE LINE DIAGRAM

SCALE:	

	DATE:	SEPTEMBER 18,
ITS		

SEAL.

DRAWING NUMBER:

M-600

KEY TO SYMBOLS					
Q	GENERATOR				
	AUTOMATIC TRANSFER SWITCH (SIZE AS NOTED)				
<u> </u>	UNFUSED DISCONNECT SWITCH (SIZE AS NOTED)				
	FUSED DISCONNECT SWITCH (SIZE AS NOTED)				
3 £	TRANSFORMER				
T-150 BLDG-T-FF-##					
- «== »-	DRAW OUT FUSE				
- «^» -	DRAW OUT CIRCUIT BREAKER				
→	switch				
-0-	FUSE				
- ↑-	CIRCUIT BREAKER				
=	PANEL BOARD				
	ELECTRICAL SWITCHBOARD/DISTRIBUTION BOARD				
Д	BUSWAY WITH DISCONNECT				
	PULLBOX/SPLICEBOX, MINIMUM SIZE PER CODE				
	SPLICE BOX				
:::::::::::::::::::::::::::::::::::::::	SLAB OPENING AND CONDUIT				
•	CONDUIT TURN DOWN				
0	CONDUIT TURN UP				
	WIRING TROUGH				
(3) 43 (3) (3)	CONCRETE ENCASED CONDUIT BANKS				
©	CIRCUIT TAG				
(A) B	FEEDER CONTINUATION TAG A - TAG ID B - DRAWING NUMBER REFERENCE				
⊕ 3	POWER QUALITY METER, BACNET IP ADDRESSABLE TO BE INTEGRATED WITH BUILDING MANAGEMENT SYSTEM				
® 3	BILLING METER, BACNET IP ADDRESSABLE TO BE INTEGRATED WITH BUILDING MANAGEMENT SYSTEM				
© 3	UTILITY METER, BACNET IP ADDRESSABLE TO BE INTEGRATED WITH BUILDING MANAGEMENT SYSTEM				
© 3	LEED M&V METER, BACNET IP ADDRESSABLE TO BE INTEGRATED WITH BUILDING MANAGEMENT SYSTEM				
(M) (M)	DISTRIBUTION PANELBOARD W/ SATEC BFM, PROVIDE BRANCH FEED METERING MODULES (REVENUE GRADE) TO METER ALL DISTRIBUTION CIRCUIT BREAKERS				
	GROUND BUS BAR				
GP	GROUNDING PLATE, CONNECTION TO DOWN CONDUCTOR AND BUILDING STEEL REQUIRED				
<u> </u>	GROUNDING ELECTRODE TRIAD				
GET	COLUMN MOUNTED TEST STATION, REFER TO DRAWING E-XXX FOR DETAILS				
<u>=</u> Toc	LIGHTNING DOWN CONDUCTOR CONNECTED TO GROUNDING ELECTRODE BELOW GRADE				
● _{AT}	AIR TERMINAL, REFER TO DETAILS FOR MOUNTING CONDITION				
NWP	CON-ED NETWORK PROTECTOR, REFER TO CON-ED STANDARDS FOR ADDITIONAL INFORMATION				

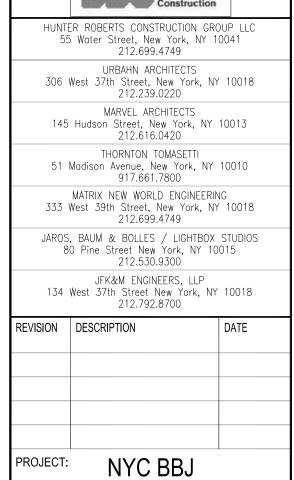
	KEY TO SYMBOLS
	MOTOR WITH MEANS OF DISCONNECT X' INDICATES MOTOR RATING Y' INDICATES DISCONNECT TYPE SEE MOTOR CIRCUITING DETAIL FOR MORE INFORMATION
VFD	VARIABLE FREQUENCY DRIVE (FBO)
ADO	AUTOMATIC DOOR OPENER, COORDINATE WITH DOOR HARDWARE VENDOR FOR ALL REQUIRED CONNECTION
φ	WALL MOUNTED SIMPLEX RECEPTACLE, 120V, 20A
•	WALL MOUNTED DUPLEX RECEPTACLE 120V, 20A GFI - DENOTES GFI TYPE RECEPTACLE WP - DENOTES GFI RECEPTACLE IN WEATHERPROOF WHILE-IN-USE ENCLOSURE CL - DENOTES CLOCK TYPE RECEPTACLE USB - DENOTES DUPLEX RECEPTACLE WITH 2 USB CHARGERS TR - DENOTES TAMPER RESISTANT TYPE RECEPTACLE
•	WALL MOUNTED QUAD RECEPTACLE 120V, 20A
Q _{XX-XXR}	WALL MOUNTED SPECIALITY RECEPTACLE, REFER TO FLOOR PLANS FOR RECEPTACLE TYPE
₽ ^	WALL MOUNTED HALF-SWITCHED DUPLEX RECEPTACLE, COPPER TAB REMOVED W/ BOTTOM OUTLET CONTROLLED VIA LOCAL ROOM CONTROL, TOP OUTLET CONSTANTLY POWERED, 120V, 15A, REFER TO LIGHTI PLANS FOR GANGING AND LOCATIONS OF SWITCHES. A - CORRESPONDS TO ZONE
•	WALL MOUNTED DEDICATED DUPLEX RECEPTACLE 120V, 20A, (U.O.N REFER TO PLANS FOR ADDITIONAL INFO 2#10 +#10G IN 3/4°C
•	CEILING MOUNTED DUPLEX RECEPTACLE, 120V, 20A, FLUSH WITH CEILING PLANE
O _{XX-XXR}	CEILING MOUNTED SPECIALTY RECEPTACLE, REFER TO PLANS FOR RECEPTACLE TYPE, FLUSH WITH CEILING PLANE
	DUPLEX RECEPTACLE MOUNTED IN ELECTRIFIED FURNITURE OR MILLWORK 120V, 20A
•	QUAD RECEPTACLE MOUNTED IN ELECTRIFIED FURNITURE OR MILLWORK 120V, 20A
	FLOORBOX, DUPLEX, 120V, 20A LEGRAND WIREMOLD 885B OR APPROVED EQUAL, PROVIDE ALL MOUNTING HARDWARE REQUIRED FOR A FLUSH INSTALLATION, COORDINATE EXACT LOCATION AND FINISHES WITH ARCHITECT
	FLOORBOX, QUADRUPLEX, 120V, 20A LEGRAND WIREMOLD OMNIBOX 880M2 OR APPROVED EQUAL, PROVIDE A MOUNTING HARDWARE REQUIRED FOR A FLUSH INSTALLATION, COORDINATE EXACT LOCATION AND FINISHES WITH ARCHITECT
XX-XXR	FLOORBOX, SPECIALTY RECEPTACLE, REFER TO PLANS FOR RECEPTACLE TYPE, LEGRAND WIREMOLD OMNIB 880M2 OR APPROVED EQUAL, PROVIDE ALL MOUNTING HARDWARE REQUIRED FOR A FLUSH INSTALLATION, COORDINATE EXACT LOCATION AND FINISHES WITH ARCHITECT
1 ^{FB}	1 - INDICATES COMBINATION POWER AND TELECOM OUTLET FLOOR BOX, DUPLEX 120V, 20A, REFER TO IT DRAWINGS FOR TELECOM REQUIREMENTS, FSR GL-2 TYPE OR APPROVED EQUAL, PROVIDE ALL MOUNTING HARDWARE FOR A FLUSH INSTALLATION, COORDINATE EXACT LOCATION AND FINISHES WITH ARCHITECT 2 - INDICATES
P	1 - INDICATES COMBINATION POWER AND TELECOM OUTLET POKE-THRU, DUPLEX 120V, 20A, REFER TO IT DRAWINGS FOR TELECOM REQUIREMENTS, FSR GL-2 TYPE OR APPROVED EQUAL, PROVIDE ALL MOUNTING HARDWARE FOR A FLUSH INSTALLATION, COORDINATE EXACT LOCATION AND FINISHES WITH ARCHITECT 2 - INDICATES
. •	CONDUIT STUB UP TO ELECTRIFIED FURNITURE FOR POWER AND DATA, PROVIDE 3/4" CONDUIT FOR POWER FROM CEILING OF FLOOR BELOW, PROVIDE 1-1/4" EMPTY CONDUIT WITH DRAG LINE FROM CEILING OF FLOOR BELOW FOR DATA, COORDINATE CONDUIT REQUIREMENTS FOR DATA WITH IT CONSULTANT
0	CONDUIT STUB UP INTO MILLWORK FOR POWER TO MILLWORK-MOUNTED RECEPTACLES PROVIDE 3/4" CONDURUN IN CEILING OF FLOOR BELOW
	WALL MOUNTED POWER AND DATA INFEED TO ELECTRIFIED FURNITURE, PROVIDE 3/4" CONDUIT FROM CEILIN PROVIDE 1-1/4" EMPTY CONDUIT WITH DRAG LINE FROM CEILING FOR DATA, COORDINATE CONDUIT REQUIREMENTS FOR DATA WITH IT CONSULTANT
	HOMERUN, MAXIMUM 6 CIRCUITS PER HOMERUN
	FLUSH MOUNTED JUNCTION BOX WP'-DENOTES WEATHERPROOF DEVICE 'AV'-DENOTES JUNCTION BOX FOR AV POWER, REFER TO AV DRAWINGS FOR CIRCUITING AND OTHER ADDITIONAL INFORMATION 'FAS'-DENOTES JUNCTION BOX FOR ELECTRICAL CONNECTION TO COMBINATION CO/SMOKE ALARM IN APARTMENTS
9	SURFACE MOUNTED JUNCTION BOX
•	CEILING MOUNTED JUNCTION BOX
Q \$,	JUNCTION BOX WITH THERMAL OVERLOAD SWITCH
<u>.</u> ₫]—	ELECTRIC UNIT HEATER MANUFACTURER:XXXXX MODEL NO.:XXXXXXXXX VOLTS: XXXV AMPS: XXA
	SURFACE MOUNTED RACEWAY WIREMOLD AL3000 SERIES OR APPROVED EQUAL U.O.N. REFER TO FLOOR PL FOR ON-CENTER SPACING OF OUTLETS AND TYPE OF OUTLETS, EACH RECEPTACLE SHALL BE GFI TYPE AND PROVIDED WITH A DEDICATED 120V, 20A CIRCUIT, COORDINATE MOUNTING HEIGHTS, LOCATIONS, LENGTHS, COLORS AND FINISHES WITH ARCHITECT
Dc	SURFACE MOUNTED, BARRIERED, DUAL CHANNELRACEWAY WIREMOLD AL4320 SERIES OR APPROVED EQUAL REFER TO FLOOR PLANS FOR ON-CENTER SPACING OF OUTLETS AND TYPE OF OUTLETS, COORDINATE MOUNTING HEIGHTS, LOCATIONS, LENGTHS, COLORS AND FINISHES WITH ARCHITECT
ĀZY	WALL MOUNTED AV BACKBOX, REFER TO AV DRAWINGS FOR ADDITIONAL INFORMATION C - DENOTES CEILING MOUNTED AV BACKBOX
▼	WALL MOUNTED TELE/DATA RECEPTACLE, SEE IT DRAWINGS FOR MORE INFORMATION

CEILING MOUNTED TELE/DATA RECEPTACLE, SEE IT DRAWINGS FOR MORE INFORMATION

	ELE	ECTRICAL ABBREVIATIONS
	A ACT	AMPERE ACTIVE
	A/C	AIR CONDITIONING
	AFF	ABOVE FINISH FLOOR
	AL	ALUMINUM
	AR ARCH	AS REQUIRED ARCHITECT
	ВВ	BASE BUILDING
	BD	BUS DUCT
	BLDG	BUILDING
	BOC BOH	BOTTOM OF CONDUIT
SNC	C, CDT	BACK OF HOUSE CONDUIT
	СВ	CIRCUIT BREAKER
	CCTV	CLOSED CIRCUIT TELEVISION
	CLG	CEILING
	CM CON ED	CONSTRUCTION MANAGER CONSOLIDATED EDISON COMPANY OF NY
	CRAC	COMPUTER ROOM AIR CONDITIONER
	cu	COPPER
	CUP	CRITICAL UTILITY PANEL
	D	DEINSTALLATION
	DEPT	DEPARTMENT
	DN DP	DOWN DISTRIBUTION PANEL
	DWG	DRAWING
	E,EX	EXISTING
	EC	EMPTY CONDUIT
	EM	EMERGENCY EMERGENCY AND A TOTAL TOTAL
	EN/NL ENCL	EMERGENCY NIGHT LIGHT ENCLOSURE
	ENGR	ENGINEER
ITING	EPMS	ELECTRICAL POWER MONITORING SYSTEM
	EQUIP	EQUIPMENT
	ER FBO	EXISTING TO BE RELOCATED FURNISHED BY OTHERS, CONTRACTOR INSTALL
	FIXT	FIXTURE
JFO)	FL	FLOOR
	FLUOR	FLUORESCENT
	FRG	REFRIGERATOR
	G, GND GALV	GROUND GALVANIZED
	GC	GENERAL CONTRACTOR
	GFI	GROUND FAULT INTERRUPTER
IG	H, CLG	HUNG CEILING
	HVAC INCL	HEATING, VENTILATING & AIR CONDITIONING INCLUDING
	l live	INSTALLATION
	IG	ISOLATED GROUND
	KW	KILOWATT
	LCP LP	LIGHTING CONTROL PANEL LIGHTING PANEL
	LPP	LIGHTING PROCESSOR PANEL
	LS	LIFE SAFETY
	MANE	MANUFACTURER
	MAX MECH	MAXIMUM MECHANICAL
ALL	MIN	MINIMUM
IES	MMR	MEET ME ROOM
IID.C.Y	MOA	MULTI-OUTLET ASSEMBLY
JI BOX	MTD MV	MOUNTED MEDIUM VOLTAGE
	MV N	MEDIUM VOLTAGE NEW
	NIC	NOT IN CONTRACT
	NO.	NUMBER
	NTS	NOT TO SCALE
	OC	ON CENTER
	OFCI RE	OWNER FURNISHED CONTRACTOR INSTALLED RELOCATED EXISTING EQUIPMENT
	REQ'D	REQUIRED
	RGS	RIGID GALVANIZED STEEL
	sc	STRUCTURED CABLING
	SCHED	SCHEDULE
	SEB SP	SERVICE END BOX SPARE
	SPEC	SPECIFICATION
3	sw	SWITCH
DR	TEL	TELEPHONE
	T/F, XFMR	TRANSFORMER TENANT OWNED
IDUIT	TO TYP	TYPICAL
	UON	UNLESS OTHERWISE NOTED
	UP	UTILITY PANEL
.ING,	UPS	UNINTERRUPTIBLE POWER SUPPLY
	v w	VOLT WIRE
	w w/	WITH
	WP	WEATHER PROOF WHILE IN USE

SYMBOL	DESCRIPTION				
	STAND ALONE OCCUPANCY SENSOR - CEILING MOUNTED				
©	IF WIRELESS DEVICES ARE UTILIZED, PROVIDE ONE (1) SENSOR EVERY 1000SF WITH AN EQUIVALENT AREA O COVERAGE. IF WIRED DEVICES ARE UTILIZED, PROVIDE ONE (1) SENSOR EVERY 800SF WITH AN EQUIVALENT AREA OF COVERAGE.				
	VACANCY SENSOR - CEILING MOUNTED				
⑤ [∨]	IF WIRELESS DEVICES ARE UTILIZED, PROVIDE ONE (1) SENSOR EVERY 1000SF WITH AN EQUIVALENT AREA C COVERAGE, IF WIRED DEVICES ARE UTILIZED, PROVIDE ONE (1) SENSOR EVERY 800SF WITH AN EQUIVALENT AREA OF COVERAGE.				
_	EXTERIOR PHOTO SENSOR - FACADE MOUNTED				
⊗ _{EX}	PROVIDE ONE (1) SENSOR PER FACADE SIDE (NORTH, SOUTH, EAST, WEST) IN EACH CONTROL ZONE.				
	PHOTO SENSOR - CEILING MOUNTED				
⊗	PROVIDE ONE (1) SENSOR PER FACADE SIDE (NORTH, SOUTH, EAST, WEST) IN EACH CONTROL ZONE. IN CONTINUOUS DAYLIGHT ZONES GREATER THAN 100LF PROVIDE AN AMBIENT SENSOR PER EACH 100LF WITHIN THE ZONE.				
	WALL MOUNTED DIMMING CONTROL SWITCH - LOW VOLTAGE MOMENTARY - WALL MOUTNED				
D	FOR ENCLOSED SPACES PROVIDE ONE (1) DIMMER SWITCH PER DIMMING ZONE, AS INDICATED ON PLAN, PROVIDE ADDITIONAL SWITCHES AS REQUIRED WHERE AREAS CONTAIN MULTIPLE ENTRANCES. MULTIPLE OPEN AREA CONTROL SWITCHES SHALL BE GROUPED TOGETHER IN A COMMON LOCATION WITHIN LINE OF SIGHT OF ALL SPACES BEING CONTROLLED. AN OPEN AREA CONTROL ZONE SHALL NOT EXCEED 5000SF.				
	WALL MOUNTED PRESET CONTROLLER				
19	FOR PARKING GARAGE PROVIDE ONE (1) PRESET CONTROLLER PER FLOOR, AS INDICATED ON PLAN. PROVIDE ADDITIONAL PRESET AS REQUIRED WHERE AREAS CONTAIN MULTIPLE ENTRANCES. MULTIPLE OPEN AREA CONTROL SWITCHES SHALL BE GROUPED TOGETHER IN A COMMON LOCATION WITHIN LINE OF SIGHT OF ALL SPACES BEING CONTROLLED. AN OPEN AREA CONTROL ZONE SHALL NOT EXCEED 5000SF.				
	OCCUPANCY SENSOR - CEILING MOUNTED				
•	SENSOR CONNECTED TO NETWORK LIGHTING SYSTEM. IF WIRELESS DEVICES ARE UTILIZED, PROVIDE ONE (1) SENSOR EVERY 1000SF WITH AN EQUIVALENT AREA OF COVERAGE. IF WIRED DEVICES ARE UTILIZED, PROVIDE ONE (1) SENSOR EVERY 800SF WITH AN EQUIVALENT AREA OF COVERAGE,				
	MANUAL CONTROL SWITCH WALL MOUNTED				
\$ _X	FOR ENCLOSED SPACES PROVIDE ONE (1) ONIOFF SWITCH PER CONTROL ZONE, AS INDICATED ON PLAN. 'X' INDICATES CONTROL ZONE, PROVIDE ADDITIONAL SWITCHES AS REQUIRED WHERE AREAS CONTAIN MULTIPLE ENTRANCES, MULTIPLE OPEN AREA CONTROL SWITCHES SHALL BE GROUPED TOGETHER IN A COMMON LOCATION WITHIN LINE OF SIGHT OF ALL SPACES BEING CONTROLLED, AN OPEN AREA CONTROL ZONE SHALL NOT EXCEED 5000SF.				
	MANUAL CONTROL 3-WAY SWITCH - WALL MOUNTED				
\$ ³ _X	FOR ENCLOSED SPACES PROVIDE ONE I/O NIVOFF SWITCH PER CONTROL ZONE, AS INDICATED ON PLAN. 'X' INDICATES CONTROL ZONE, PROVIDE ADDITIONAL SWITCHES AS REQUIRED WHERE AREAS CONTAN MULTIPLE ENTRANCES, MULTIPLE OPEN AREA CONTROL, SWITCHES SHALL BE GROUPED TOGETHER IN A COMMON LOCATION WITHIN LINE OF SIGHT OF ALL SPACES BEING CONTROLLED, AN OPEN AREA CONTROL ZONE SHALL NOT EXCEED 50005F.				
	MANUAL CONTROL 4-WAY SWITCH - WALL MOUNTED				
\$ ⁴ _X	FOR ENCLOSED SPACES PROVIDE ONE (1) ONVOFF SWITCH PER CONTROL ZONE, AS INDICATED ON PLAN. 'X' INDICATES CONTROL ZONE, PROVIDE ADDITIONAL SWITCHES AS REQUIRED WHERE AREAS CONTAIN MULTIPLE ENTRANCES, MULTIPLE OPEN AREA CONTROL SWITCHES SHALL BE GROUPED TOGETHER IN A COMMON LOCATION WITHIN LINE OF SIGHT OF ALL SPACES BEING CONTROLLED, AN OPEN AREA CONTROL ZONE SHALL NOT EXCEED 5000SF.				
	STAND ALONE OCCUPANCY SENSOR - WALL MOUNTED				
ន	PROVIDE ONE (1) SENSOR SWITCH EVERY 500SF WITH AN EQUIVALENT AREA OF COVERAGE.				
s ^v	STAND ALONE VACANCY SENSOR - WALL MOUNTED				
0	PROVIDE ONE (1) SENSOR SWITCH EVERY 500SF WITH AN EQUIVALENT AREA OF COVERAGE.				

		Department of Design and Construction	of				
		R ROBERTS CONSTRUCTION GRO Water Street, New York, NY 1 212.699.4749					
AN EQUIVALENT AREA OF F WITH AN EQUIVALENT	306 \	URBAHN ARCHITECTS West 37th Street, New York, NY 212.239.0220	10018				
NN EQUIVALENT AREA OF F WITH AN EQUIVALENT	145	MARVEL ARCHITECTS Hudson Street, New York, NY 212.616.0420	10013				
	51 1	THORNTON TOMASETTI Madison Avenue, New York, NY 917.661.7800	10010				
CONTROL ZONE.		MATRIX NEW WORLD ENGINEERIN West 39th Street, New York, NY 212.699.4749					
ONTROL ZONE. IN PER EACH 100LF	JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300						
UTNED IDICATED ON PLAN.	JFK&M ENGINEERS, LLP 134 West 37th Street New York, NY 10018 212.792.8700						
ATRANCES MULTIPLE ATION WITHIN LINE OF OT EXCEED 5000SF.	REVISION	DESCRIPTION	DATE				
ATED ON PLAN. RANCES. MULTIPLE ATION WITHIN LINE OF OT EXCEED 5000SF.							
TILIZED, PROVIDE ONE							
CES ARE UTILIZED,	PROJECT:						
NDICATED ON PLAN. 'X' REAS CONTAIN PED TOGETHER IN A DPEN AREA CONTROL	QUE	ENS GARA					
NDICATED ON PLAN. 'X' REAS CONTAIN 'ED TOGETHER IN A)PEN AREA CONTROL		MUNITY SF					
NDICATED ON PLAN. 'X' REAS CONTAIN ED TOGETHER IN A	Kev	80-25 126th St V Gardens, NY 1					
PPEN AREA CONTROL		TECHNICAL DRAWINGS					



TECHNICAL DRAWINGS

KEY PLAN:



DRAWING TITLE:

ELECTRICAL ABBREVIATIONS, **SYMBOLS**

SCALE:	NTS	DATE:	SEPTEMBER 18, 2020

DRAWING NUMBER:

	LIGHTING FIXTURE SCHEDULE											
U Z		FIXTURE DESCRIPTION		LAMPS				DRIVER/ BALLAST		COLOR TEMPERATURE		
FIXTURE TYPE DESIGNATION	SYMBOL		LOCATION	QNTY. PER FIXTURE	ТҮРЕ	WATTS	VOLTS	DIM TYPE	MAX TOTAL SYSTEM WATTS	CRI LUMEN OUTPUT	SPECIFIED BY	REMARKS
FF	FF	RECESSED 2X2 LENSED LED FIXTURE. COLD-ROLLED STEEL HOUSING SHALL BE 3.5" DEEP, WITH WHITE POWDER COAT FINISH. SQUARE DIFFUSER SHALL BE MADE OF HIGH TRANSMISSION ACRYLIC MATERIAL WITH LINEAR RIBBING. INTEGRAL DRIVER SHALL BE ELECTRONIC AND DIMMABLE TO 1% WITH 0-10V DIMMING CONTROLS.	GENERAL	1	LED	32W	120- 277V	0-10V	32W	3500 80+ CRI 3400 LUMENS	JB&B	
		MERCURY 'LR305' - 22G-3400-35K-1%-UNI										
FG	FG	PENDANT-MOUNTED LINEAR LENSED fI XTURE. FIXTURE TO BE NOMINALLY 6" WIDE X 4" DEEP X 4' LONG. FIXTURE TO HAVE INJECTION MOLDED CLEAR ACRYLIC LENS WITH MULTIPLE LINEAR AND CROSS PRISM PATTERN TO PROVIDE BATWING DISTRIBUTION. FIXTURE TO BE UL LISTED FOR WET LOCATION. PROVIDE WITH TAMPERPROOF LATCHES FOR TOOLLESS ACCESS.	PARKING GARAGE	1	LED	48W	120- 277V	0-10V	48W	3500 80+ CRI 4800 LUMENS	JB&B	
FG1	FG1	PENDANT-MOUNTED LINEAR LENSED fi XTURE. FIXTURE TO BE NOMINALLY 6" WIDE X 4" DEEP X 4' LONG. FIXTURE TO HAVE INJECTION MOLDED CLEAR ACRYLIC LENS WITH MULTIPLE LINEAR AND CROSS PRISM PATTERN TO PROVIDE BATWING DISTRIBUTION. FIXTURE TO BE UL LISTED FOR WET LOCATION. PROVIDE WITH TAMPERPROOF LATCHES FOR TOOLLESS ACCESS.	PARKING GARAGE	1	LED	84W	120- 277V	0-10V	84W	3500 80+ CRI 8000 LUMENS	JB&B	
FJ	FJ	SURFACE, WALL, OR PENDANT MOUNTED LED JELLY JAR FIXTURE. FIXTURE TO BE NOMINALLY 12" IN LENGTH X 8-1/2" IN DIAMETER. FIXTURE TO HAVE A CAST ALUMINUM GRILL AND FITTINGS WITH A FROSTED GLASS GLOBE. FIXTURE FINISH TO BE BRUSHED ALUMINUM AND TO BE COORDINATED WITH ARCHITECT. DRIVER TO BE SUITABLE A MINIMUM STARTING TEMPERATURE OF 0 DEGREE F. FIXTURE TO BE SUITABLE FOR WET LOCATION.	GENERAL	1	LED	26W	120- 277V	ND	26W	3000K 81+ CRI 1400 LUMEN	JB&B	
FJ1	FJ1	SIMILAR IN ALL ASPECTS TO TYPE 'FJ' EXCEPT FIXTURE TO BE MOUNTED ON MECHANICAL EQUIPMENT.	GENERAL	1	LED	26W	120- 277V	ND	26W	3000K 81+ CRI 1400 LUMEN	JB&B	
FJ2	FJ2 Q	SIMILAR IN ALL ASPECTS TO TYPE 'FJ' EXCEPT FIXTURE TO HAVE BLUE GLOBE.	GENERAL	1	LED	26W	120- 277V	ND	26W	3000K 81+ CRI 1400 LUMEN	JB&B	
FK	FΚ	SURFACE OR PENDANT MOUNTED, ENCLOSED AND GASKETED LED INDUSTRIAL FIXTURE. FIXTURE TO BE NOMINALLY 5-7/8" DEEP X 7" WIDE X 4' LONG. FIXTURE TO BE GASKETED. AND SUITABLE FOR WET LOCATION. LENS TO BE INTERNAL PRISMATIC WITH A MEDIUM DISTRIBUTION. FIXTURE TO CONTAIN AN INTEGRAL DRIVER.	MECH/ELE C ROOMS, STORAGE	1	LED	30W	120- 277V	ND	30W	3500K 80+ CRI 4000 LUMEN	JB&B	REFER TO MOUNTING DETAILS PROVIDED FOR FK FIXTURES LOCATED IN SPECIFIC SPACE TYPES
		PROVIDE A 10 WATT (1050 MINIMUM LUMEN) INTEGRAL EMERGENCY BATTERY DRIVER FOR ALL LOCATIONS WITH BP DESIGNATION ON ELECTRICAL DRAWINGS.	STORAGE							4000 LUMEN		IN SELCTIO SEAGE TIFES
FS	FS	SURFACE MOUNTED LED LENSED WRAPAROUND FIXTURE. FIXTURE TO BE NOMINALLY 4-1/2" DEEP X 4-3/4" HIGH X 4' LONG. HOUSING SHALL BE DIE FORMED COLD ROLLED STEEL. LENS TO BE MADE OF FROSTED ACRYLIC. COORDINATE EXACT MOUNTING CONDITION AND LOCATION WITH ARCHITECT AND CONTRACTOR.	STAIRWEL LS	1	LED	51W	120- 277V	ND	51W	3500K 85 CRI 4800 LUMEN	JB&B	
		PROVIDE A 14 WATT (1315 MINIMUM LUMEN) INTEGRAL EMERGENCY BATTERY DRIVER FOR ALL LOCATIONS WITH BP DESIGNATION ON ELECTRICAL DRAWINGS.								TOOU EOIVIEN		
X1	Х1	SURFACE MOUNTED LED fi XTURE WITH DIRECTED LIGHT. DIE-CAST ALUMINUM HOUSING SHALL BE 6" WIDE X 9" HIGH X 4" DEEP. HOUSING SHALL BE SUPPLIED WITH MOUNTING BRACKET FOR DIRECT MOUNTING OVER A J-BOX. INTERNAL REFLECTOR SHALL BE SPECULAR THERMOPLASTIC. FIXTURE SHALL HAVE CLEAR TEMPERED GLASS LENS AND SHALL BE FULLY GASKETED. COORDINATE EXACT FINISH WITH THE ARCHITECT. FIXTURE SHALL BE IP66 RATED.	EXTERIOR EGRESS STAIRS	1	LED	26W	120 - 277V	0-10V	26W	3000K 70 CRI 3000 LUMEN	JB&B	
EX	⊢ ⊗	RECESSED WALL OR CEILING, SURFACE WALL, CEILING OR END MOUNT OR PENDANT MOUNTED, SINGLE OR DOUBLE FACED, EDGE-LIT EXIT SIGN. SIGN TO USE LED LAMPS AND CONTAIN INTEGRAL BATTERY PACK WITH MINIMUM DISCHARGE OF 90 MINUTES. LETTERS TO BE "RED," WITH ARROWS AS INDICTED ON DRAWINGS. PANEL TO BE CLEAR ACRYLIC, EDGE-LIT WITH WHITE BACKING. FINISH TO BE COORDINATED WITH ARCHITECT. EXACT LOCATION AND MOUNTING CONDITIONS TO BE COORDINATED WITH ARCHITECT AND CONTRACTOR. EXIT SIGN SHALL NOT EXCEED 5 WATTS PER FACE. PROVIDE 6" HIGH LETTERING FOR NON-PUBLIC ASSEMBLY SPACES. PROVIDE 8" HIGH LETTERING FOR PUBLIC ASSEMBLY SPACES. REFER TO LIFE SAFETY DRAWINGS.	GENERAL	1	LED	5W	120- 277V	ND	5W	-	JB&B	
		FOR OUTDOOR LOCATIONS: UNIT DOOR TO BE CRYSTAL CLEAR ACRYLIC ATTACHED TO THE HOUSING WITH 4 WEATHERPROOF SCREWS AND TO BE FULLY GASKETED. FRONT COVER TO BE FULLY GASKETED. FIXTURE TO BE UL WET LOCATION LISTED.										

CONTROL TYPE LEGEND		
ND:	NON - DIM	
0-10V:	0-10V	
5WD:	5 WIRE DIMMING	
3W:	3 WIRE DIMMING	

EMERGENCY LIGHTING DESIGNATIONS		
EM	SWITCHED EMERGENCY FIXTURE ALL ADJUSTABLE FIXTURES LABELED 'EM' SHALL BE LOCKED IN PLACE (0° ROTATION & 0° TILT)	
EM24	24 HOUR 'ON', DIMMABLE EMERGENCY	
EM/BP	SWITCHED EMERGENCY FIXTURE WITH INTEGRAL BATTERY PACK	
EM24/BP	24 HOUR 'ON', DIMMABLE EMERGENCY WITH INTEGRAL BATTERY PACK	



HUNTER ROBERTS CONSTRUCTION GROUP LLC 55 Water Street, New York, NY 10041 212.699.4749

URBAHN ARCHITECTS 306 West 37th Street, New York, NY 10018 212.239.0220

MARVEL ARCHITECTS

145 Hudson Street, New York, NY 10013 212.616.0420 THORNTON TOMASETTI 51 Madison Avenue, New York, NY 10010 917.661.7800

MATRIX NEW WORLD ENGINEERING 333 West 39th Street, New York, NY 10018 212.699.4749

JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300

JFK&M ENGINEERS, LLP 134 West 37th Street New York, NY 10018 212.792.8700

REVISION	DESCRIPTION	DATE

JECT: NYC BBJ LIFFNS GARAGI

QUEENS GARAGE & COMMUNITY SPACE

80-25 126th St, Kew Gardens, NY 11415

TECHNICAL DRAWINGS

KEY PLAN:



DRAWING TITLE:
ELECTRICAL
LIGHTING

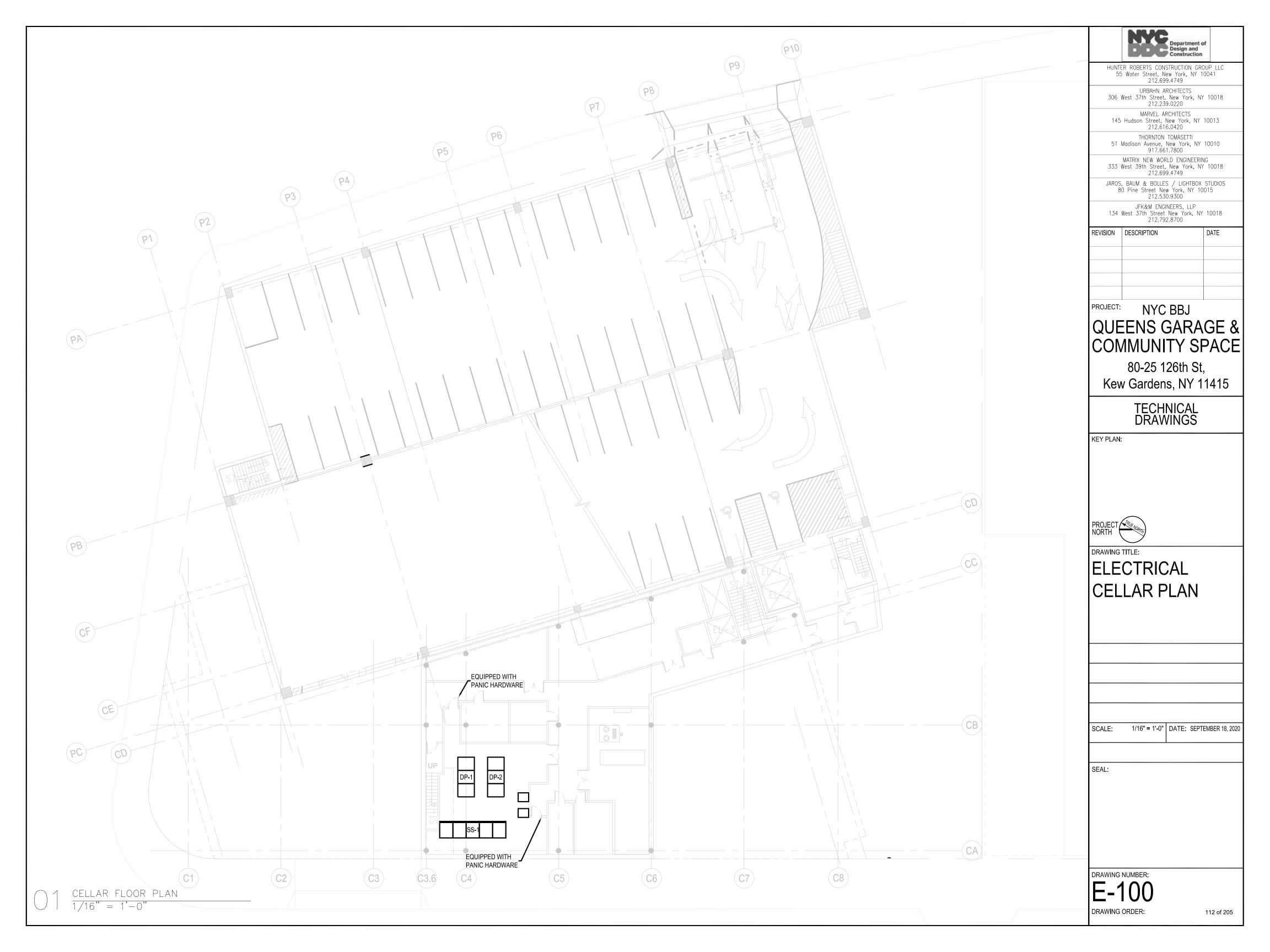
FIXTURE SCHEDULE

SCALE:	NTS	DATE:	SEPTEMBER 18, 20

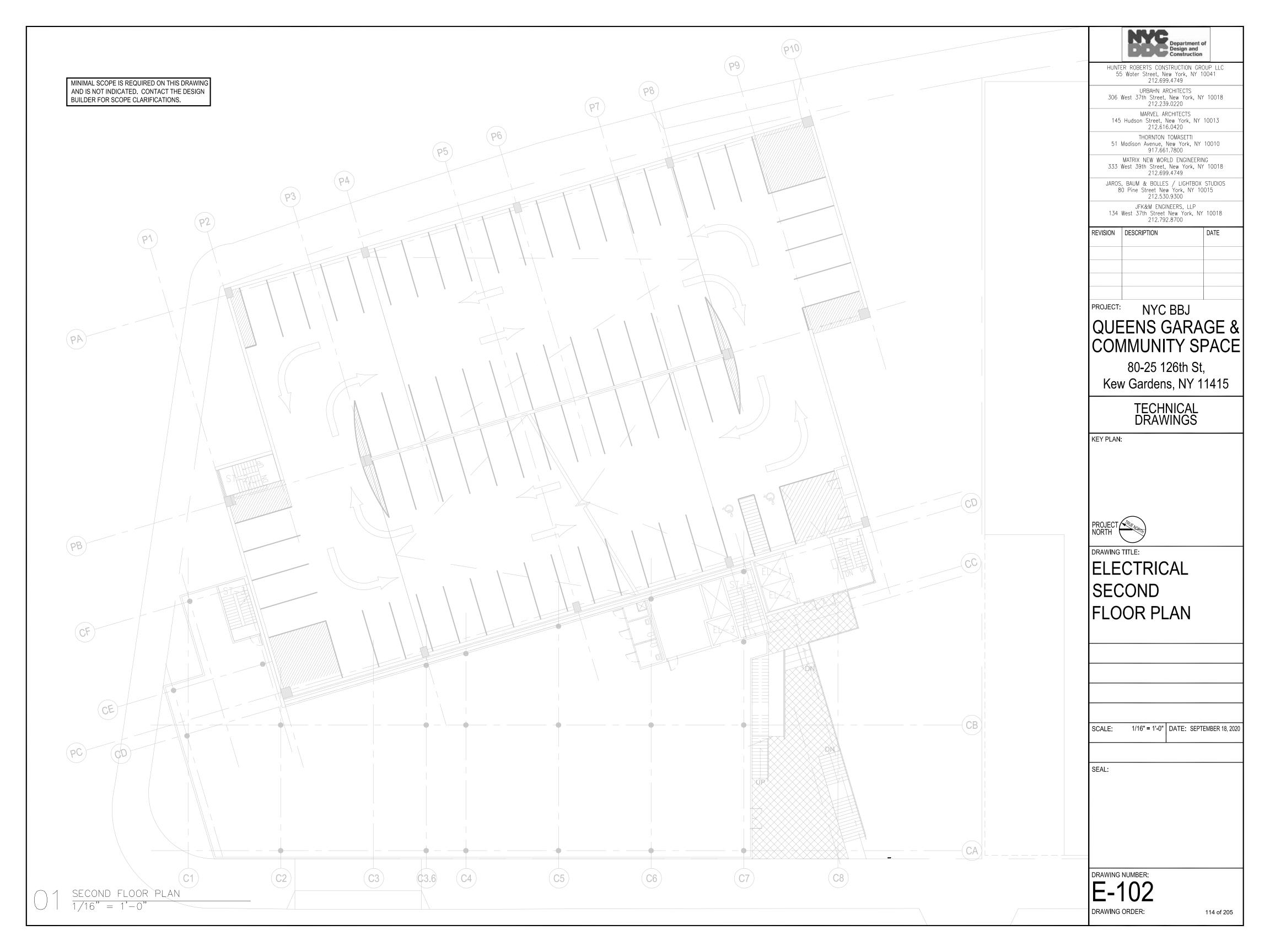
SEAL:

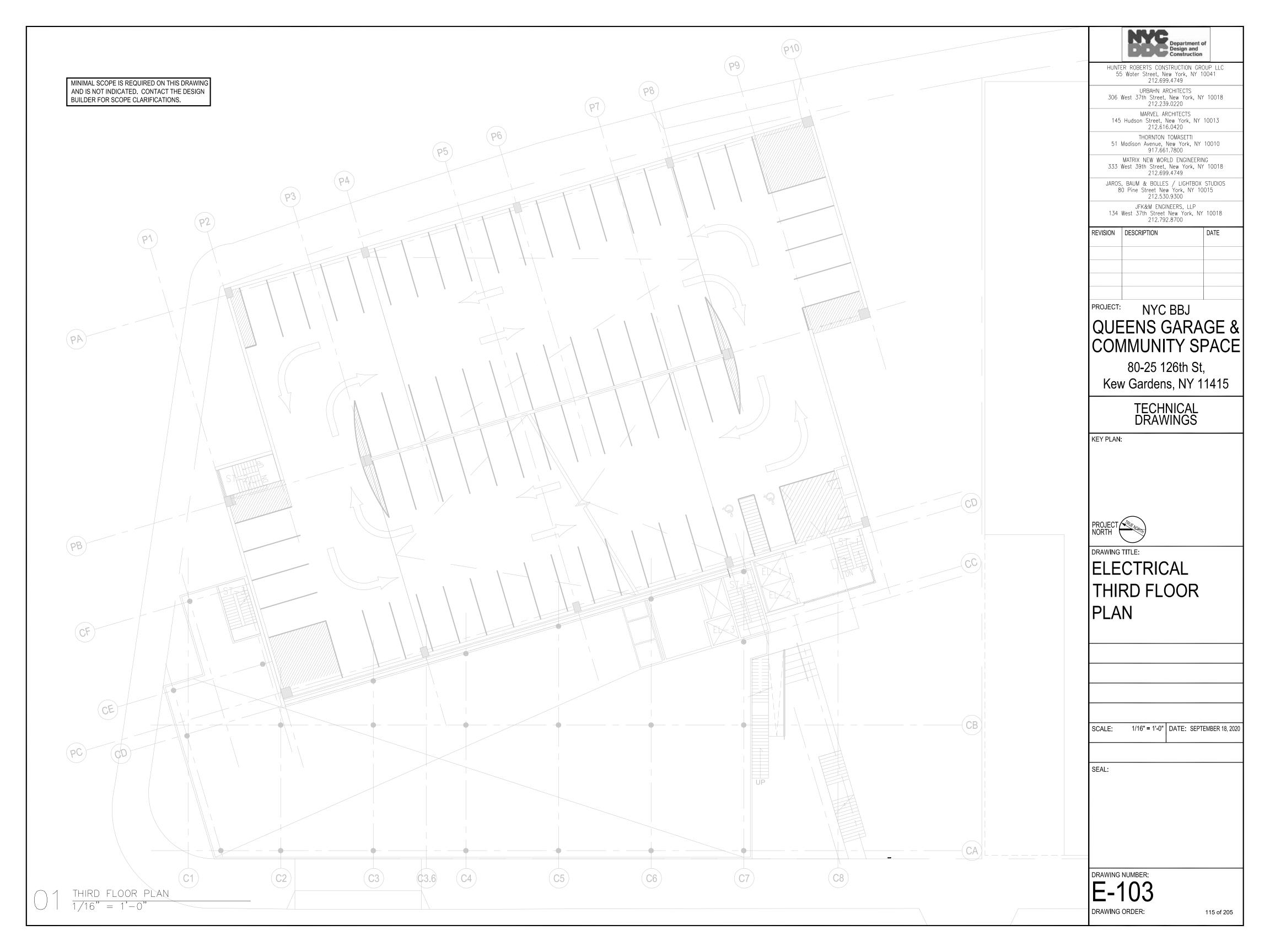
PRAWING NUMBER:

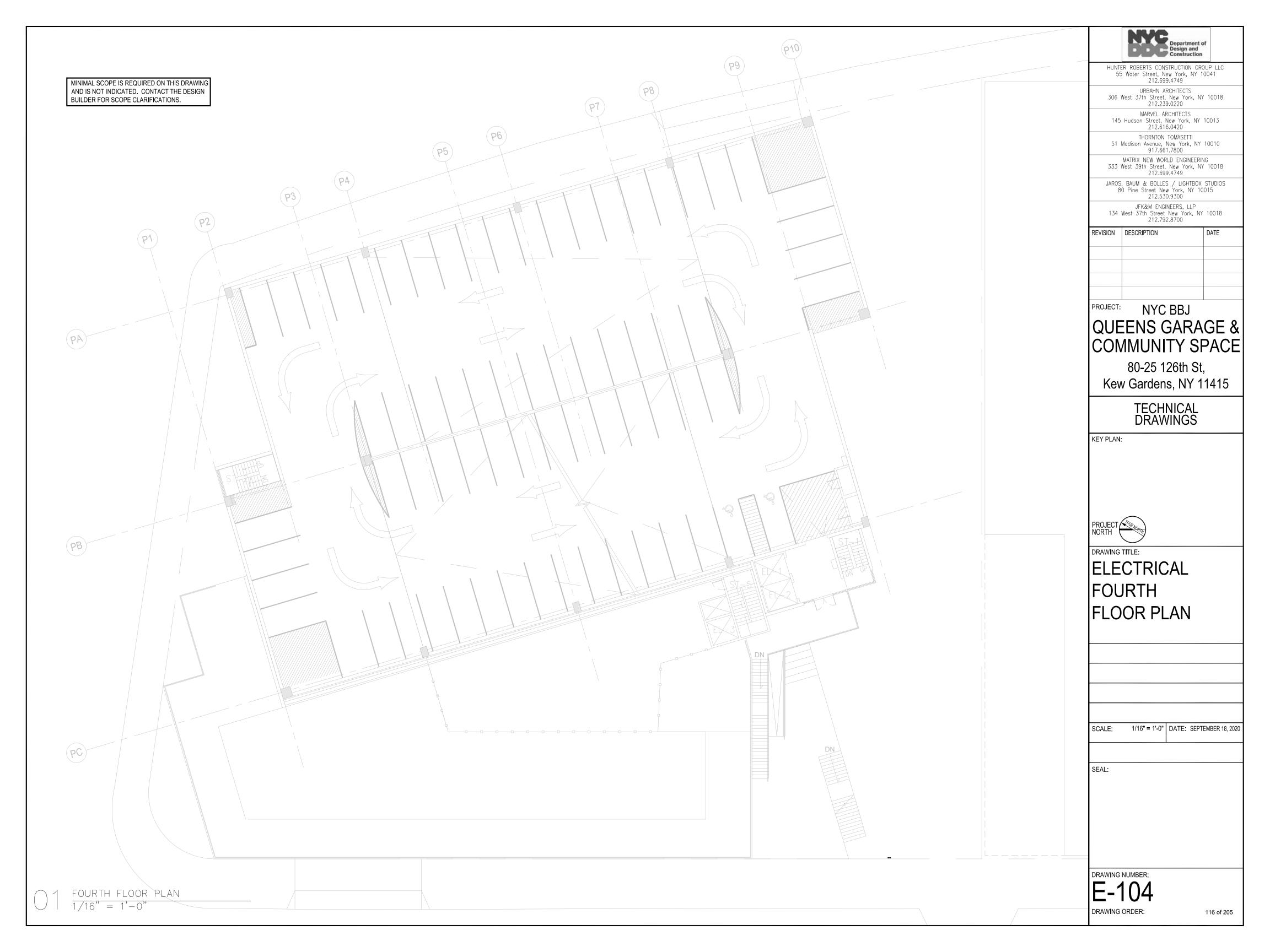
DRAWING ORDER:

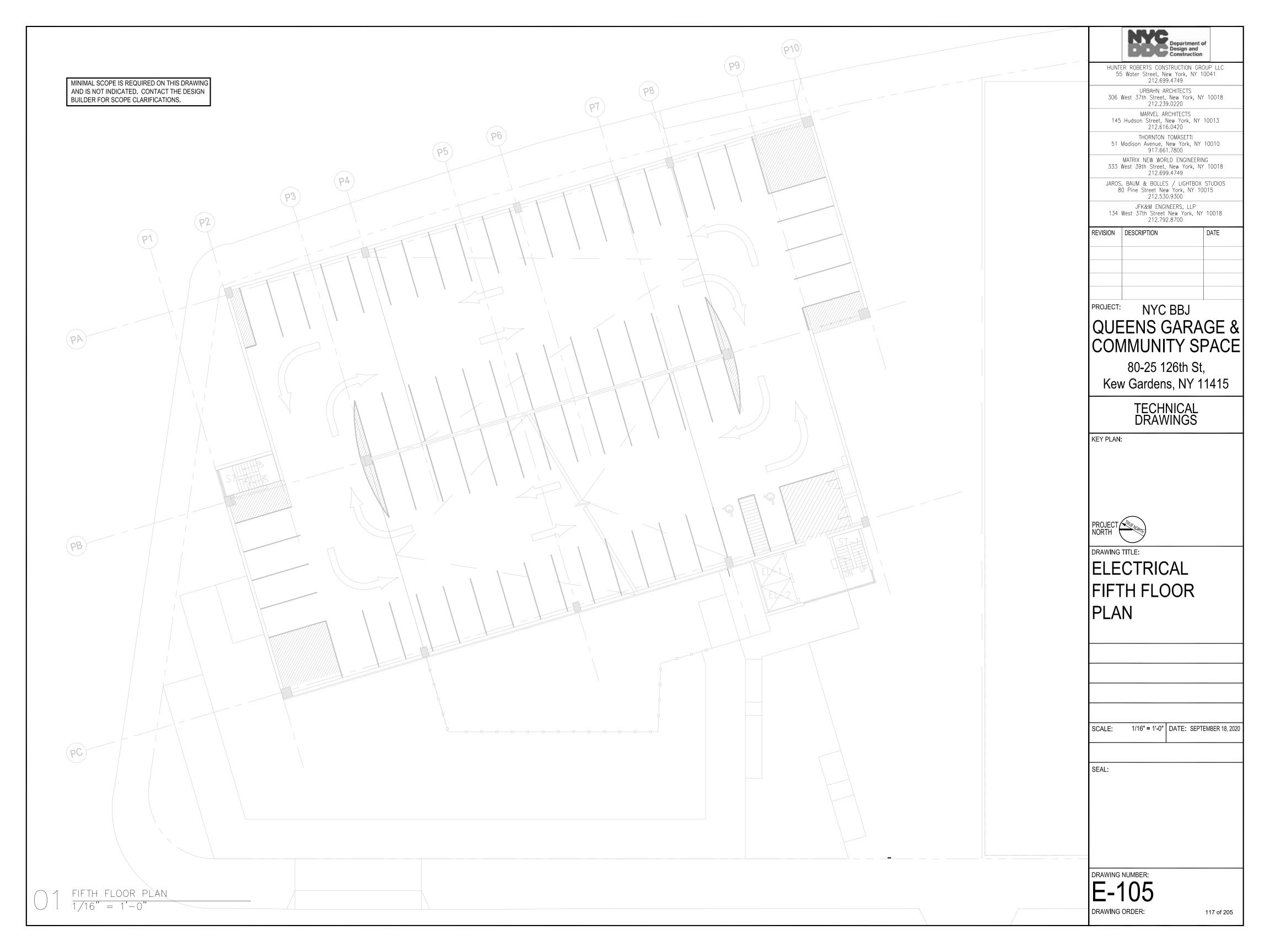


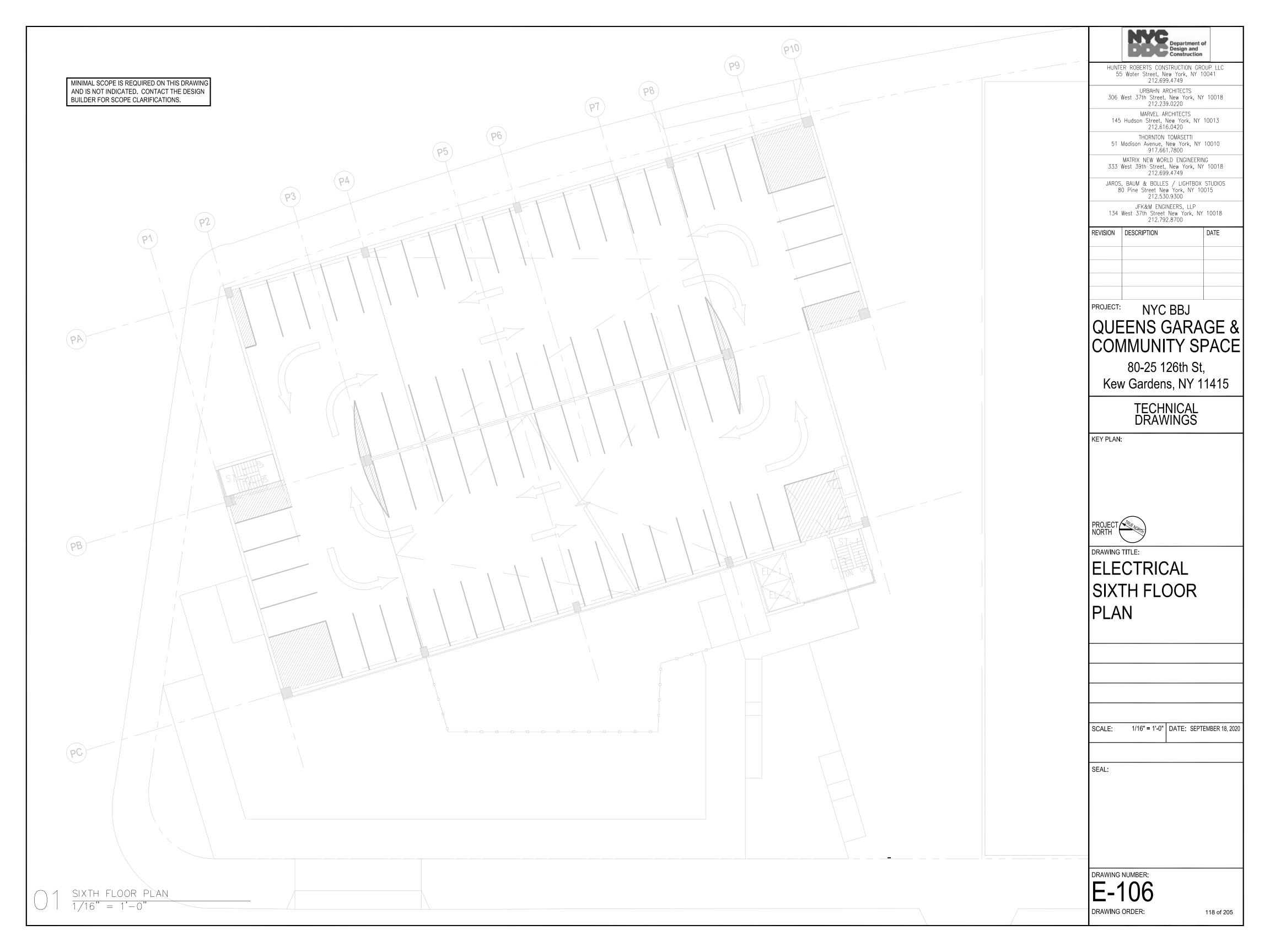


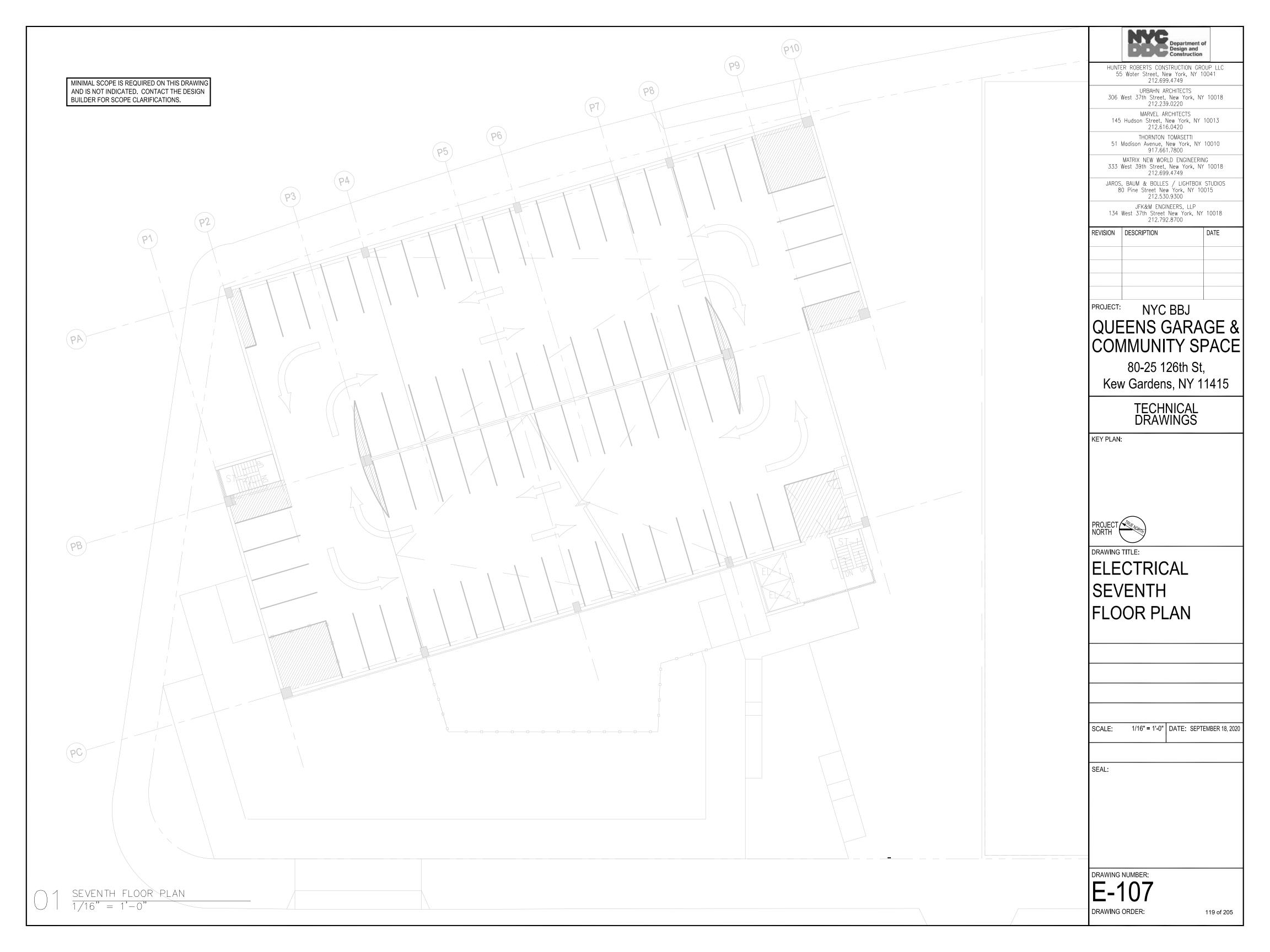




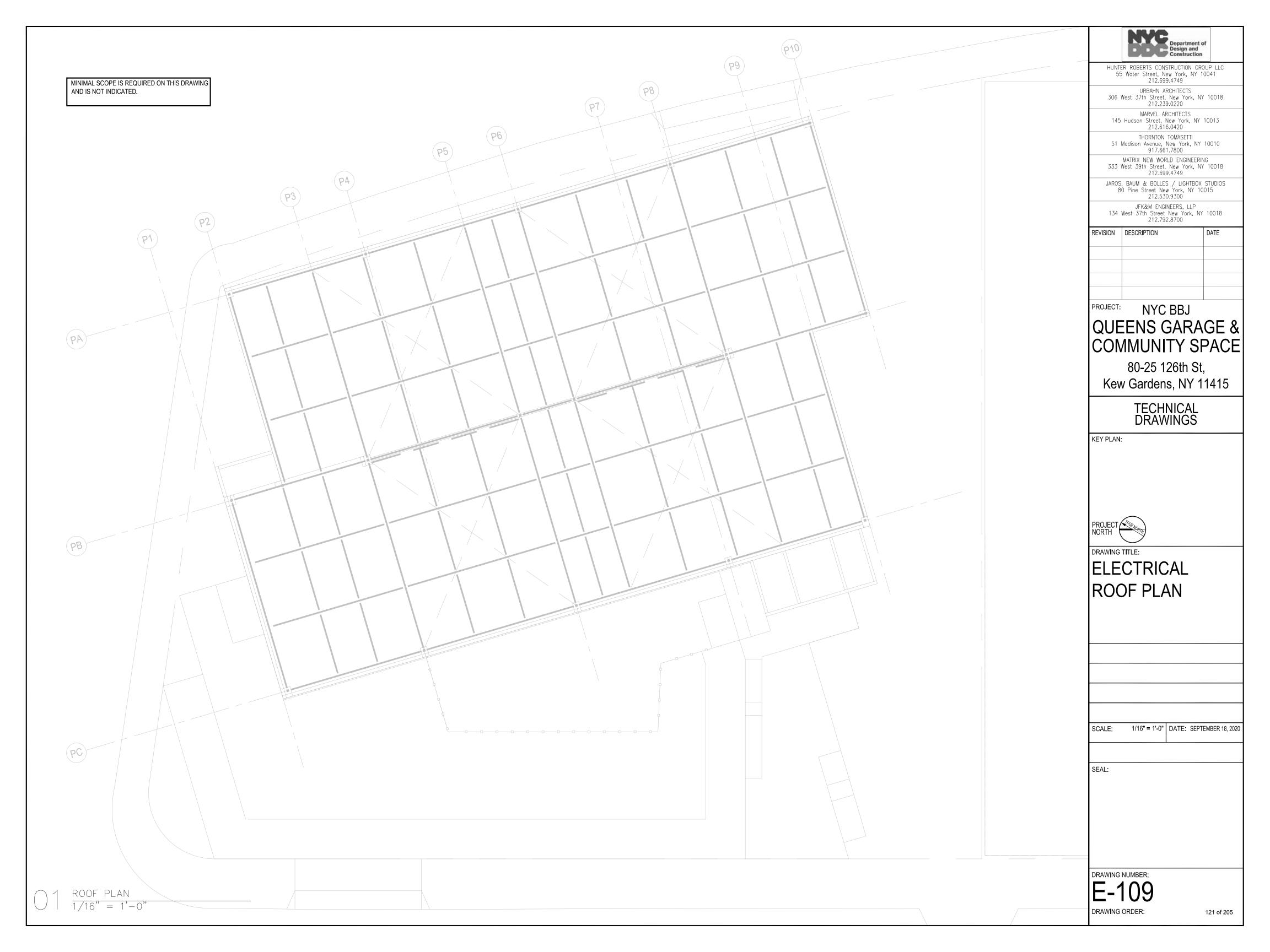


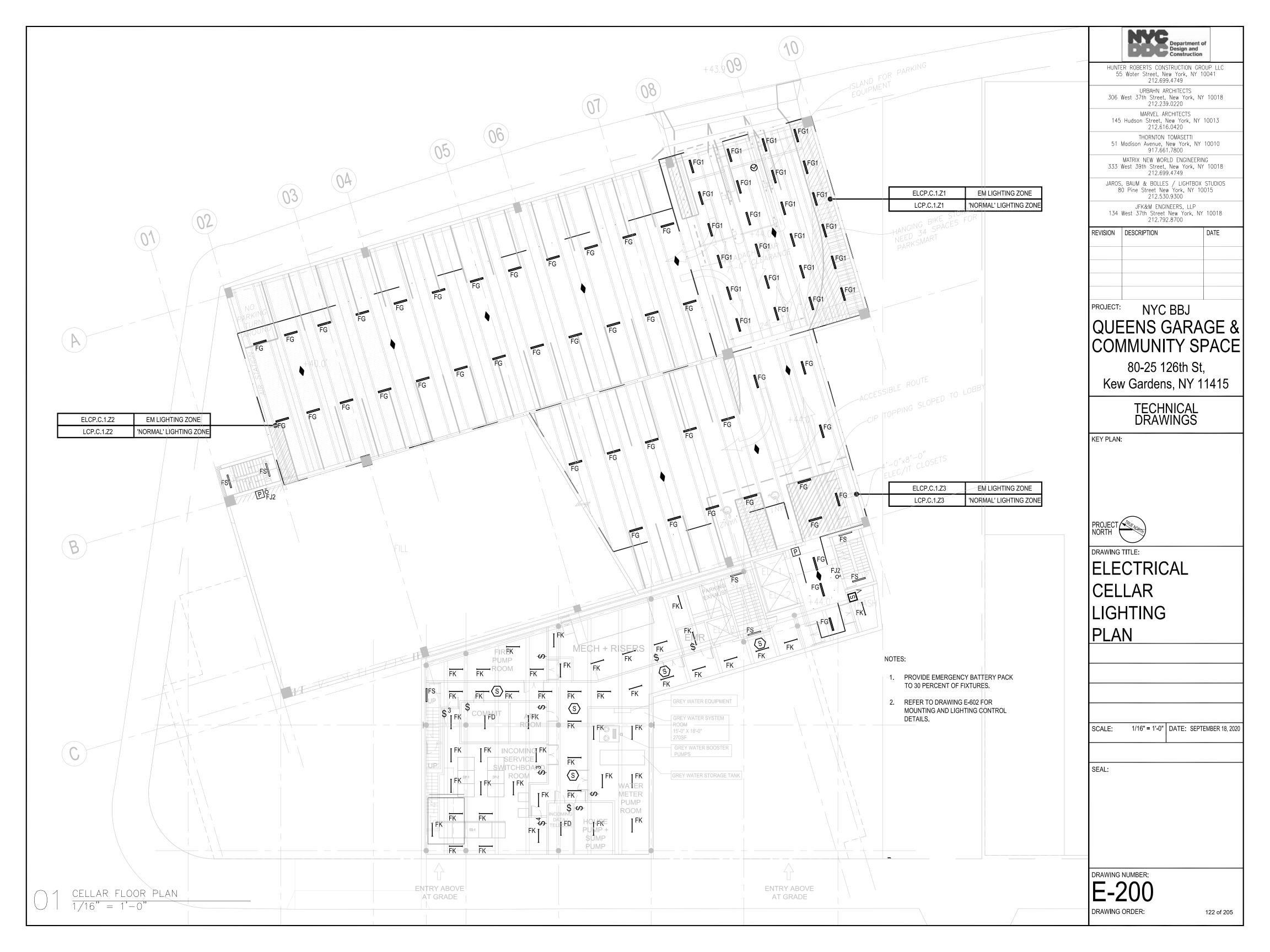


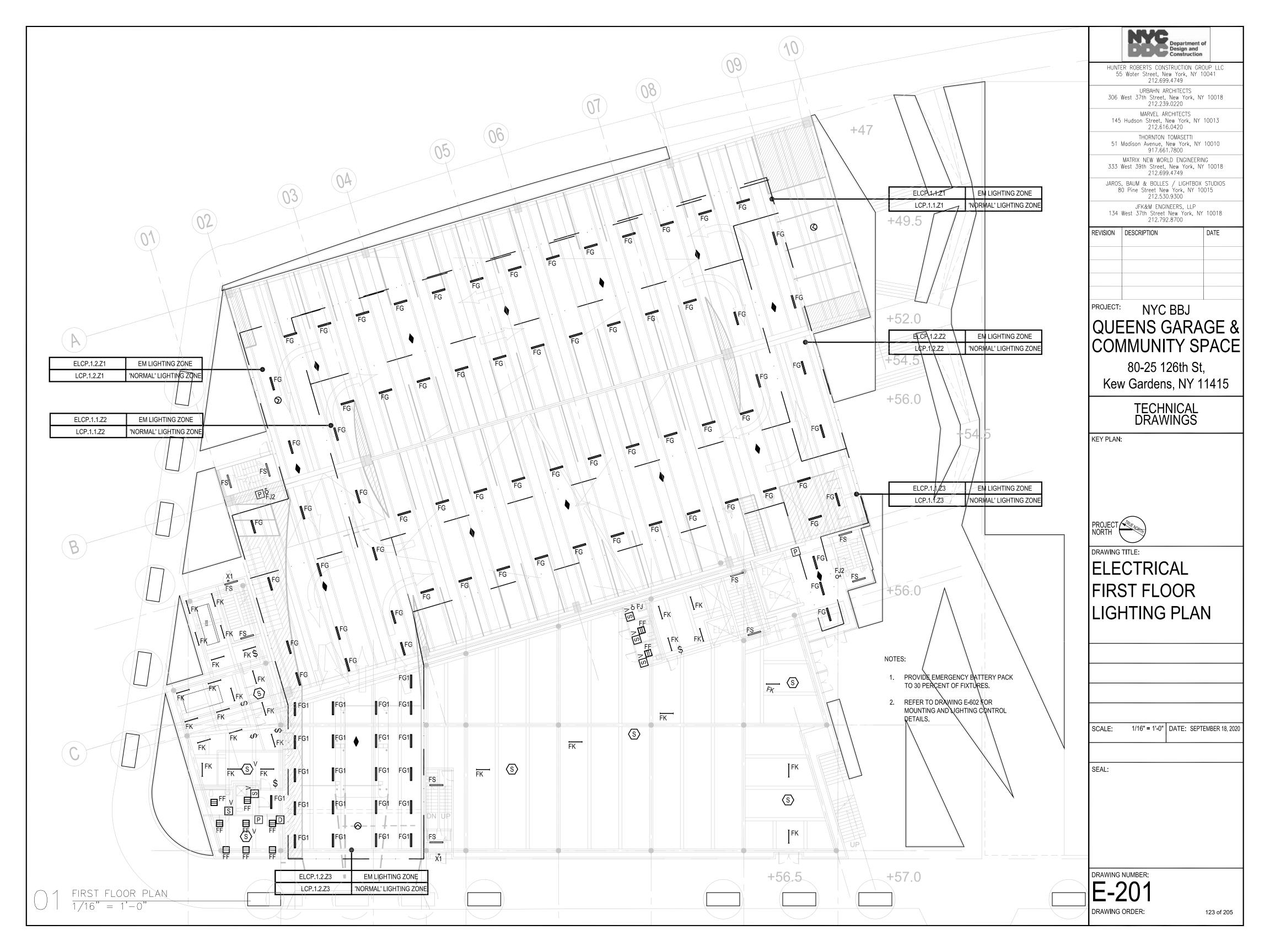


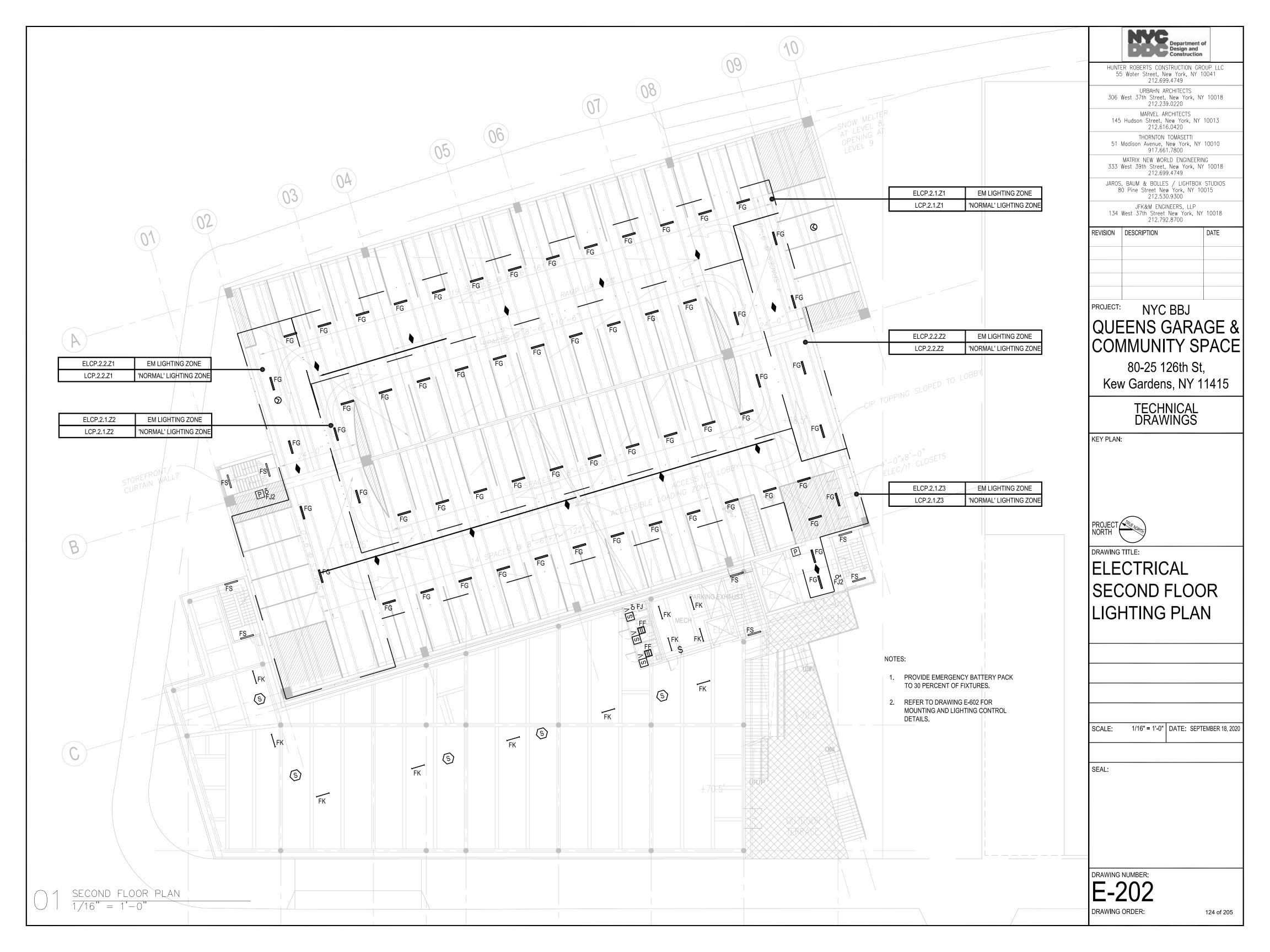


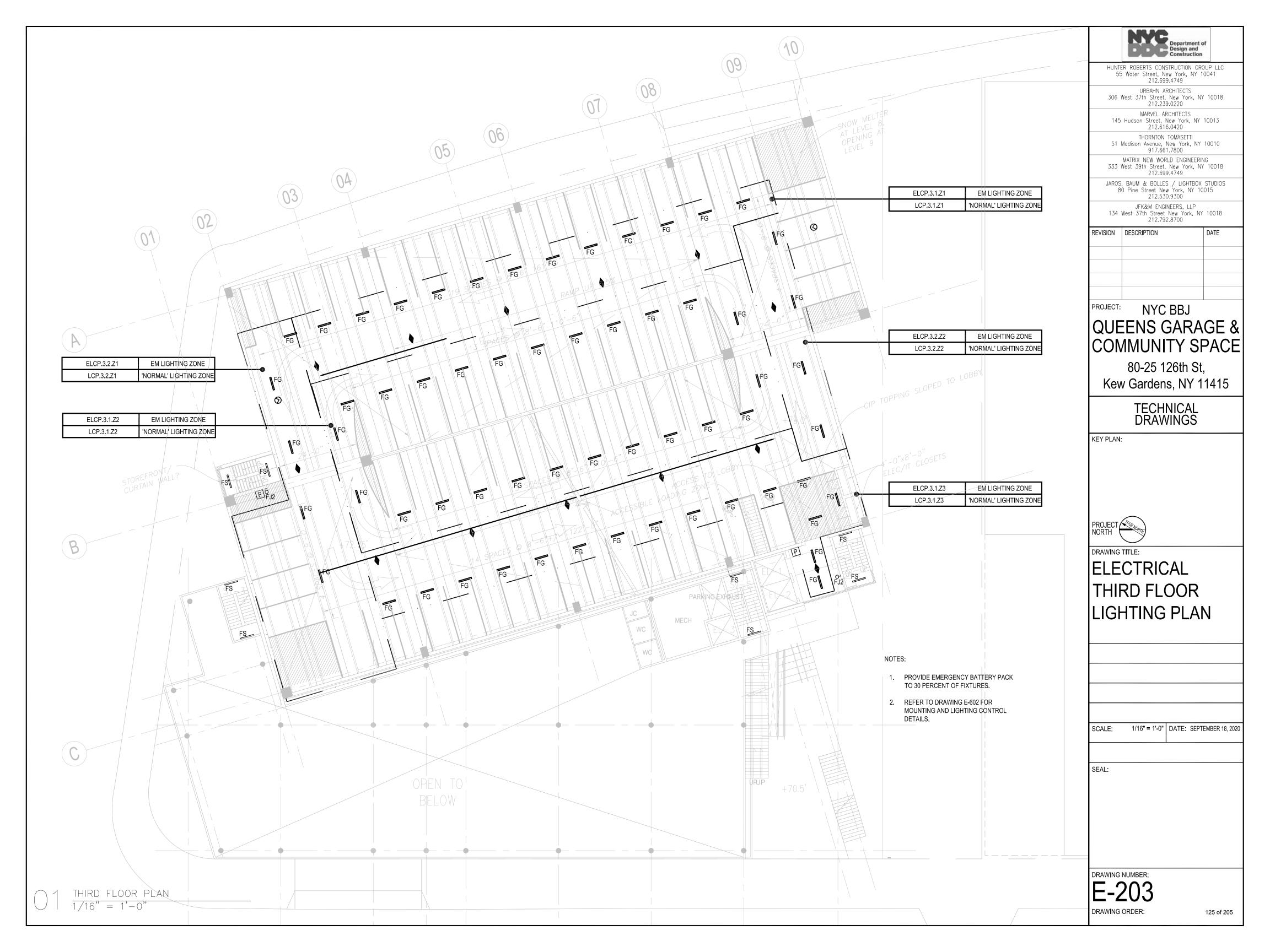


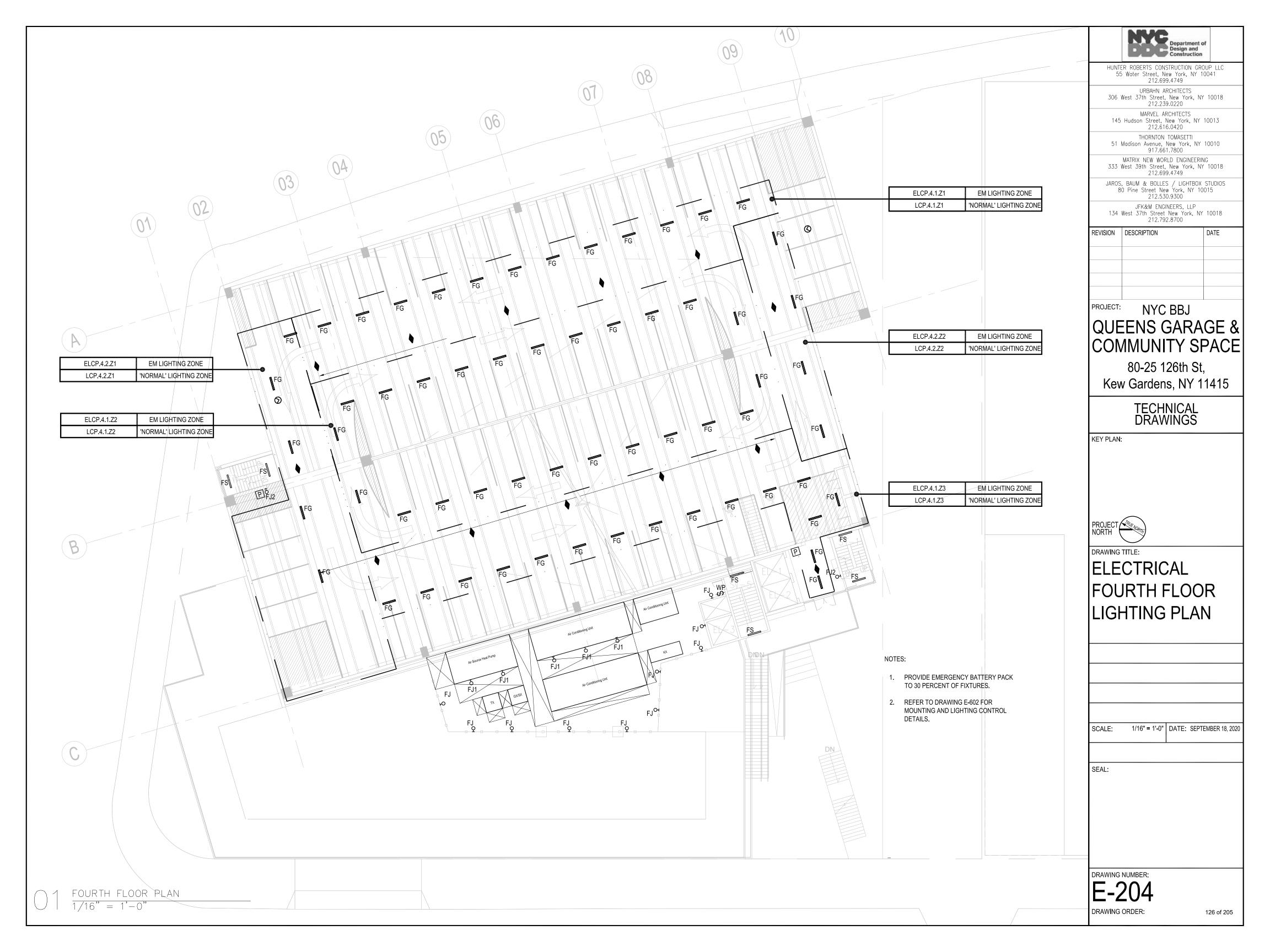


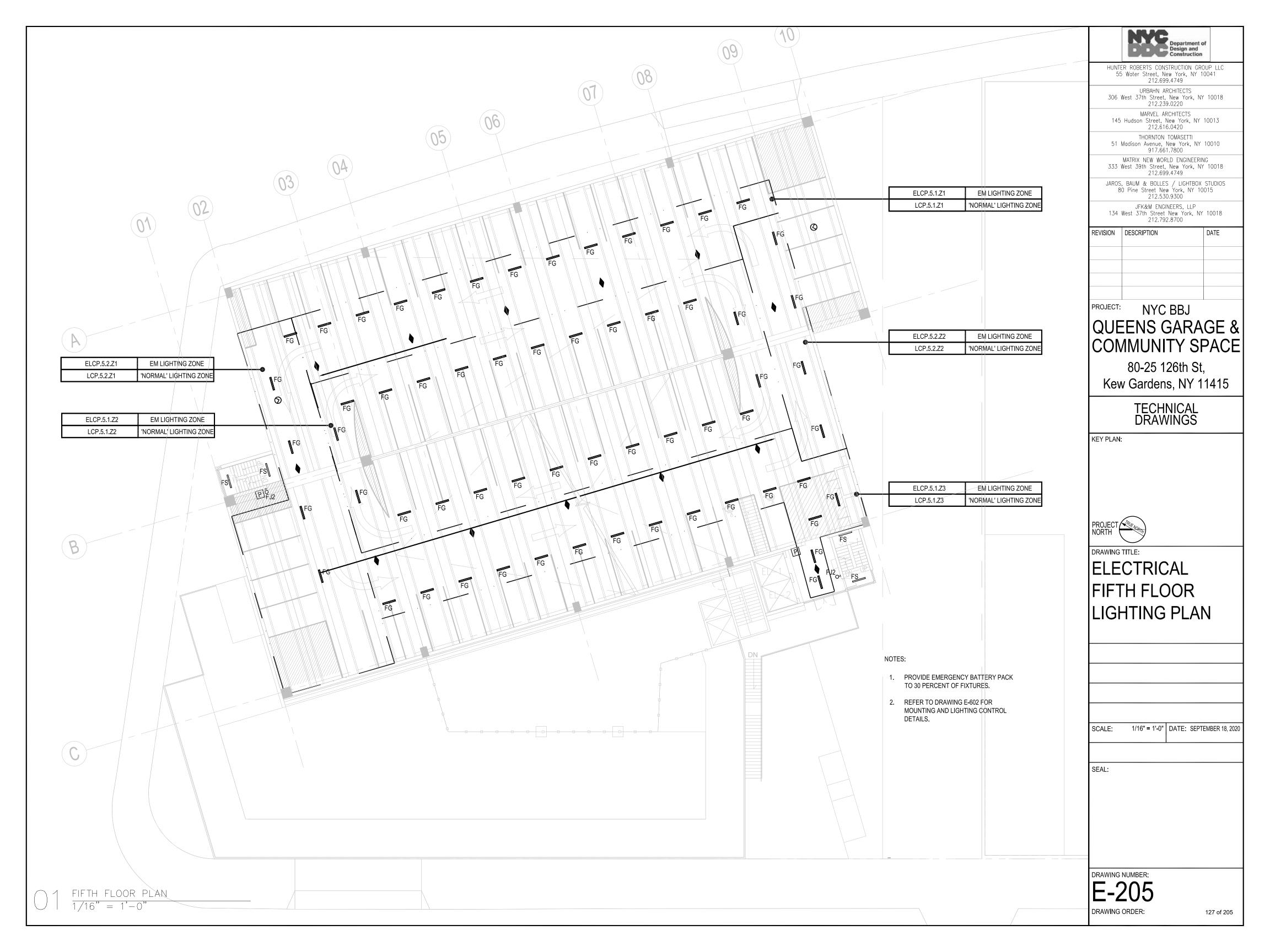




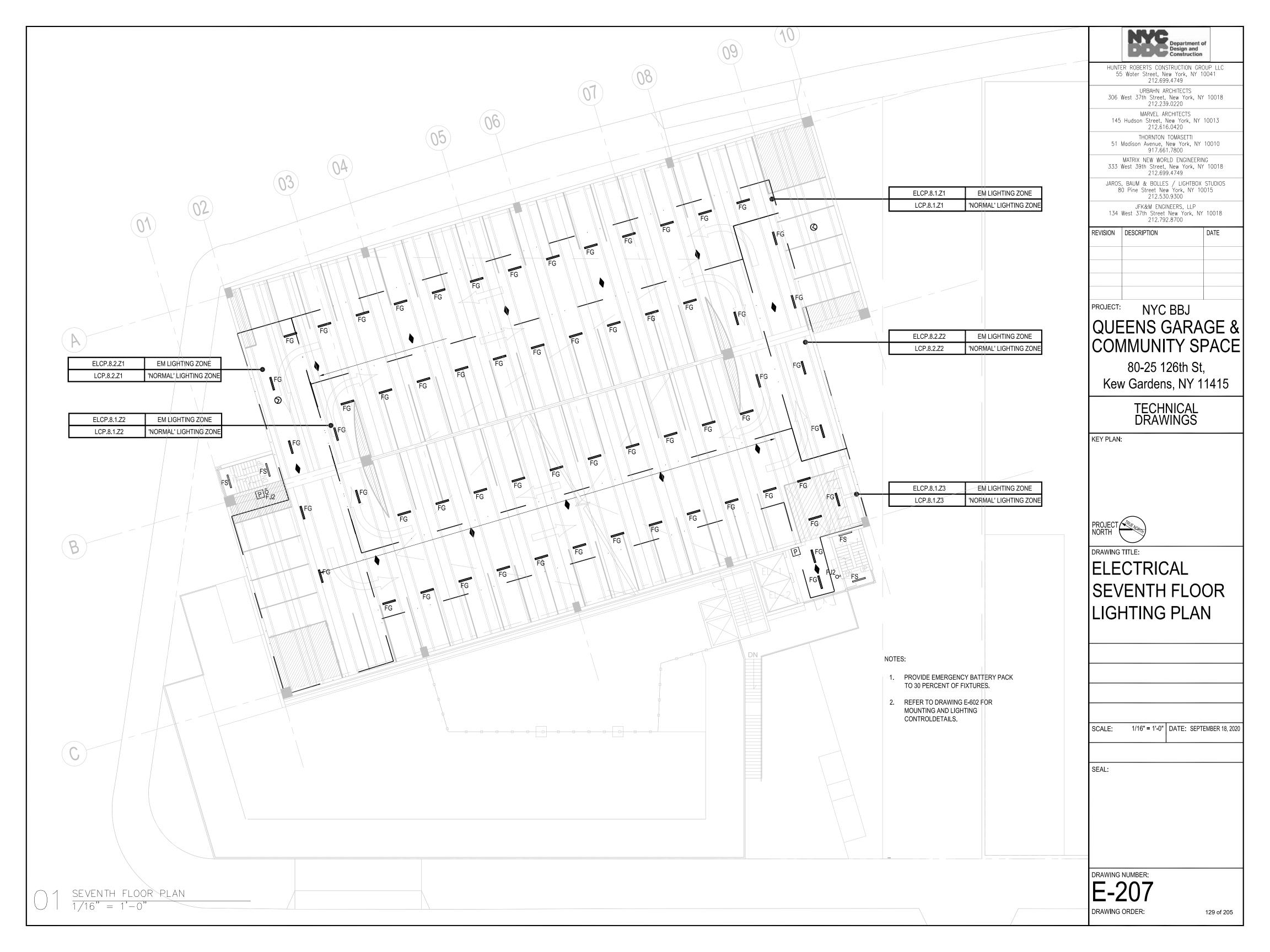


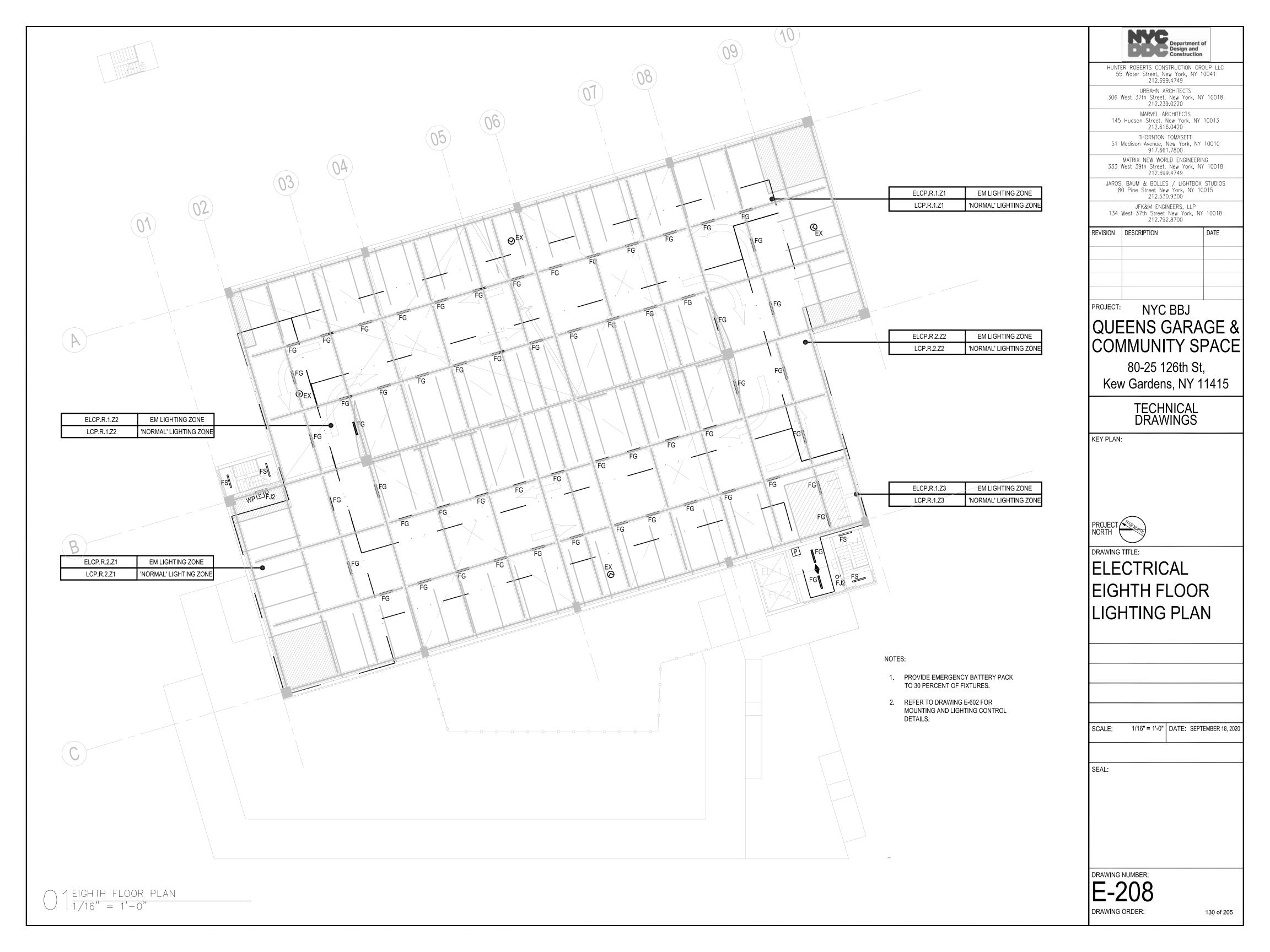


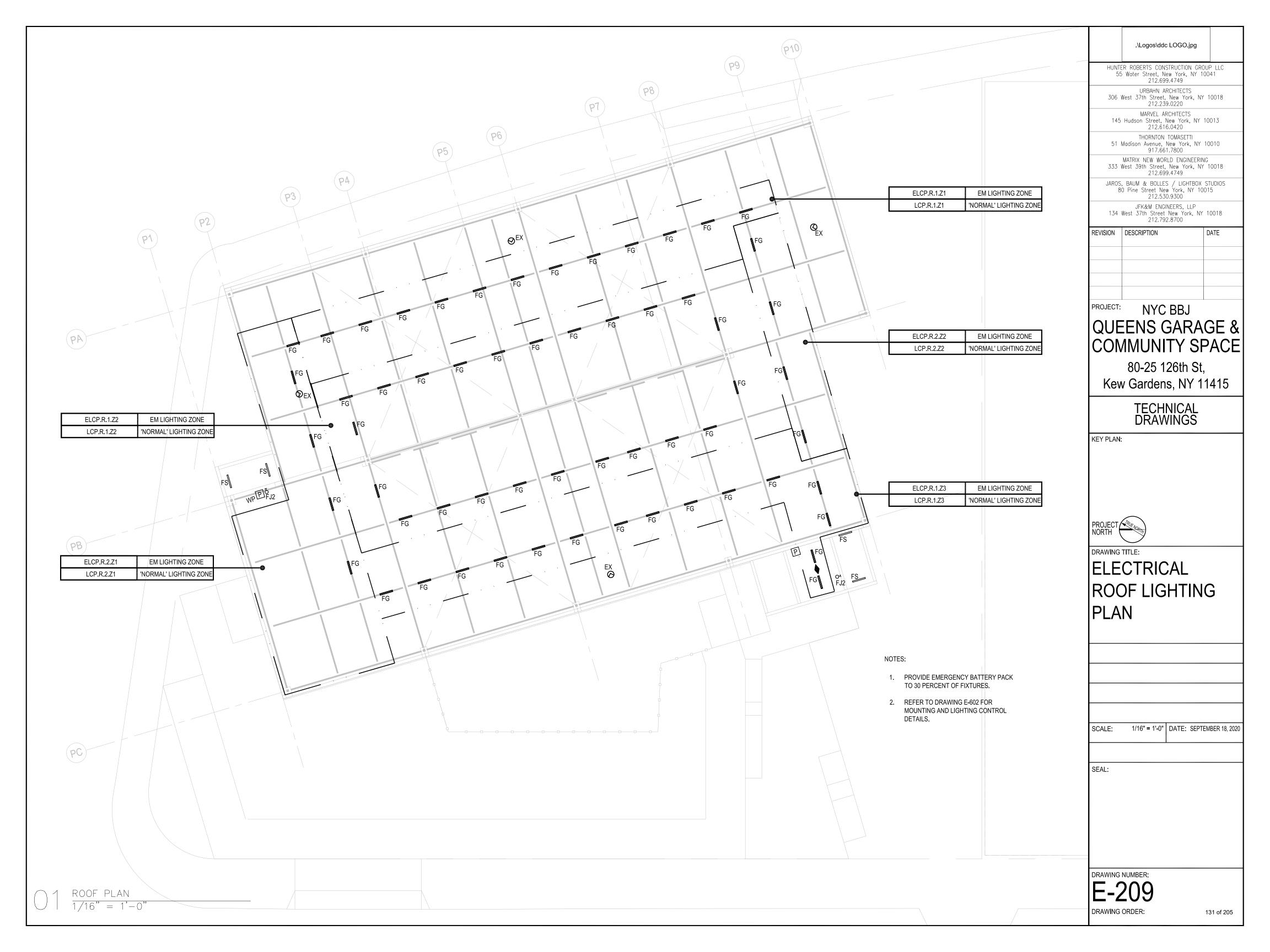


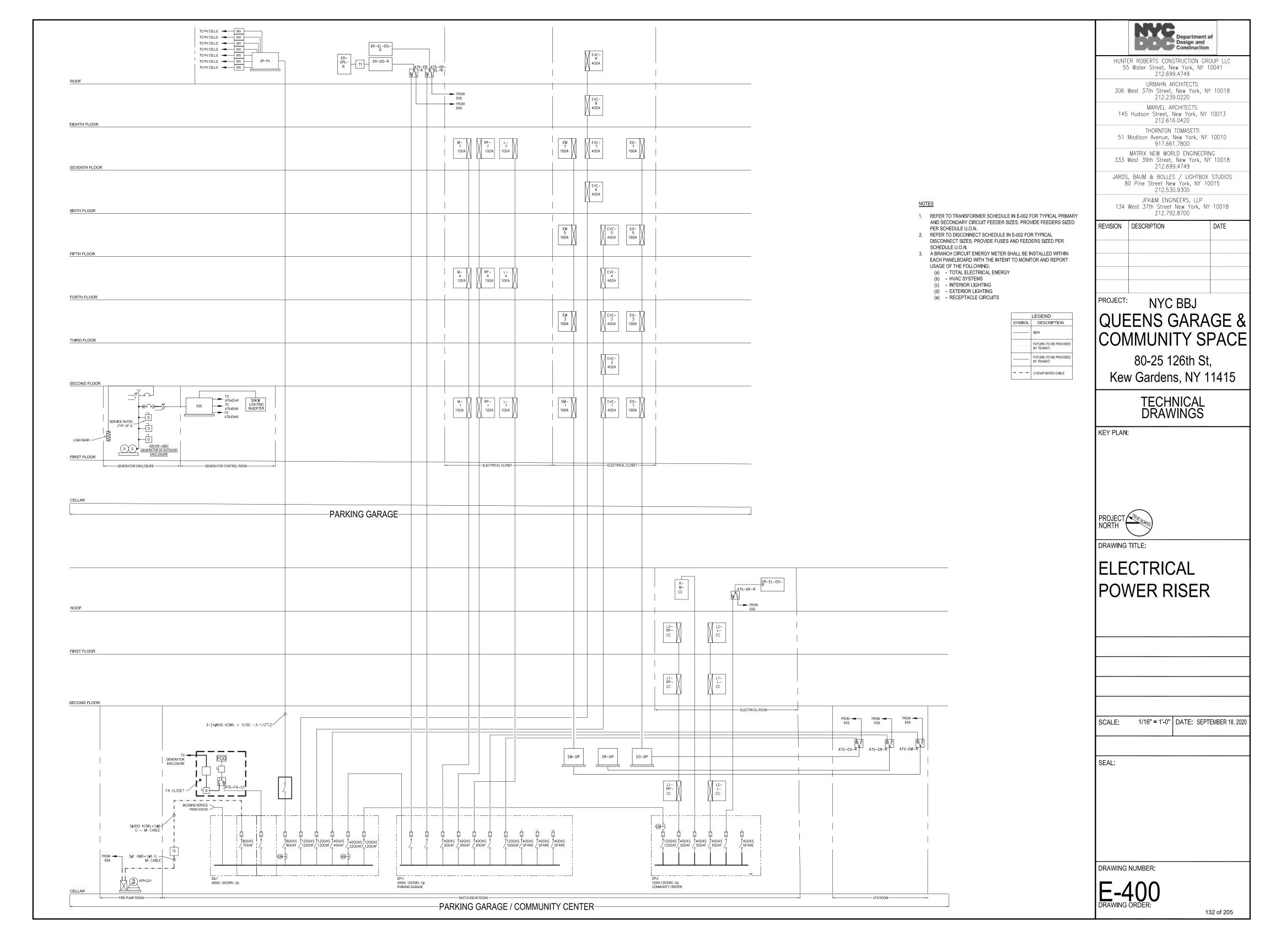






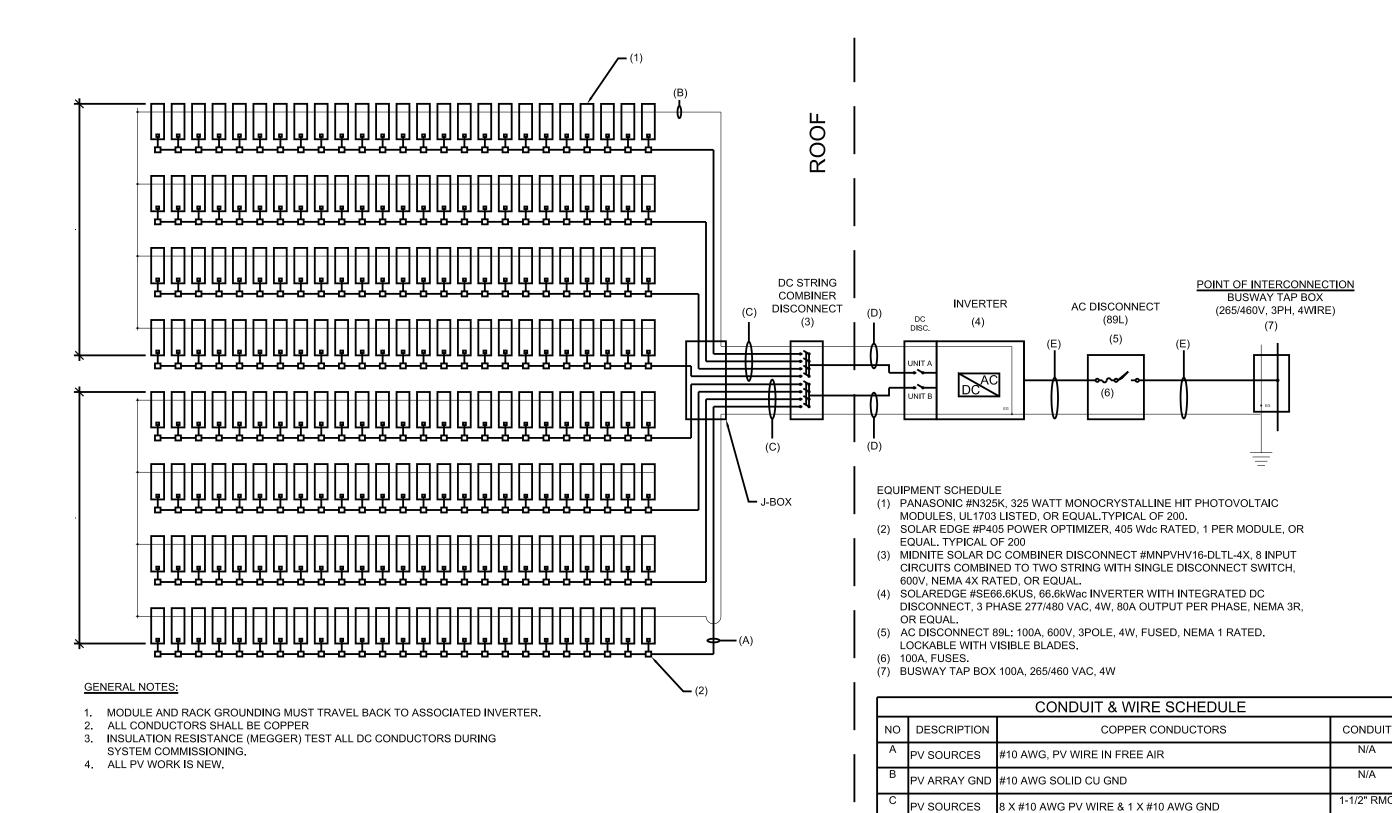








- 1. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR FILING THE ALT 2 APPLICATION FOR THE INSTALLATION OF THE PV PLANT.
- 2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING THE CON EDISON SMALL DG INTERCONNECTION APPLICATION.
- 3. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING THE SYSTEM FOR NYC ELECTRICAL ADVISORY BOARD APPROVAL.
- 4. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING THE DOCUMENTATION FOR NYSERDA INCENTIVES.
- 5. THIS CONTRACTOR SHALL DETERMINE THE WIND PRESSURE RESISTANCE NEEDED FOR ANCHORED ROOF-MOUNTED PV PANELS USING ONE OF THE FOLLOWING OPTIONS FOR SUBMISSION TO FM GLOBAL:
- 5.1. PROVIDE WIND RESISTANCE BASED ON PRESCRIPTIVE CALCULATION METHODS PROVIDED IN SEAOC PV2 2017 (SEE SECTION 4.2)
- 5.2. PROVIDE WIND RESISTANCE BASED ON BOUNDARY LAYER WIND TUNNEL (BLWT) DATA PER ASCE 49
- 5.3. HAVE A QUALIFIED THIRD PARTY CONDUCT A REVIEW OF THE BLWT TEST REPORT. DO NOT USE COMPUTATIONAL FLUID DYNAMICS MODELING AS THE PRIMARY SUBSTANTIATION FOR THE DESIGN OF WIND RESISTANCE
- 6. WIND RESISTANCE DESIGN SHALL USE A 105 MPH BASIC WIND SPEED (Vasd) AND EXPOSURE B.
- 7. WIND RESISTANCE DESIGN SHALL APPLY A 2.0 LOAD FACTOR (SF) TO THE ALLOWABLE PRESSURE ABOVE.



PV SOURCES

NV OUTPUT

2 X #8 AWG THWN-2 & #10 AWG GND

3 X #4 AWG THWN-2, #4 AWG THWN-2 N & #8 AWG GND

Department of Design and Construction

HUNTER ROBERTS CONSTRUCTION GROUP LL 55 Water Street, New York, NY 10041 212.699.4749

URBAHN ARCHITECTS 306 West 37th Street, New York, NY 10018 212.239.0220

MARVEL ARCHITECTS
145 Hudson Street, New York, NY 10013
212.616.0420

THORNTON TOMASETTI
51 Madison Avenue, New York, NY 10010
917.661.7800

MATRIX NEW WORLD ENGINEERING 333 West 39th Street, New York, NY 10018 212.699.4749

JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300

JFK&M ENGINEERS, LLP 134 West 37th Street New York, NY 10018 212.792.8700

REVISION	DESCRIPTION	DATE

PROJECT: NYC BBJ

QUEENS GARAGE & COMMUNITY SPACE

80-25 126th St, Kew Gardens, NY 11415

> TECHNICAL DRAWINGS

KEY PLAN:



RAWING TITLE:

ELECTRICAL PV ONE LINE DIAGRAM SHEET NO. 1

SCALE: DATE: SEPTEMBER 18, 2020

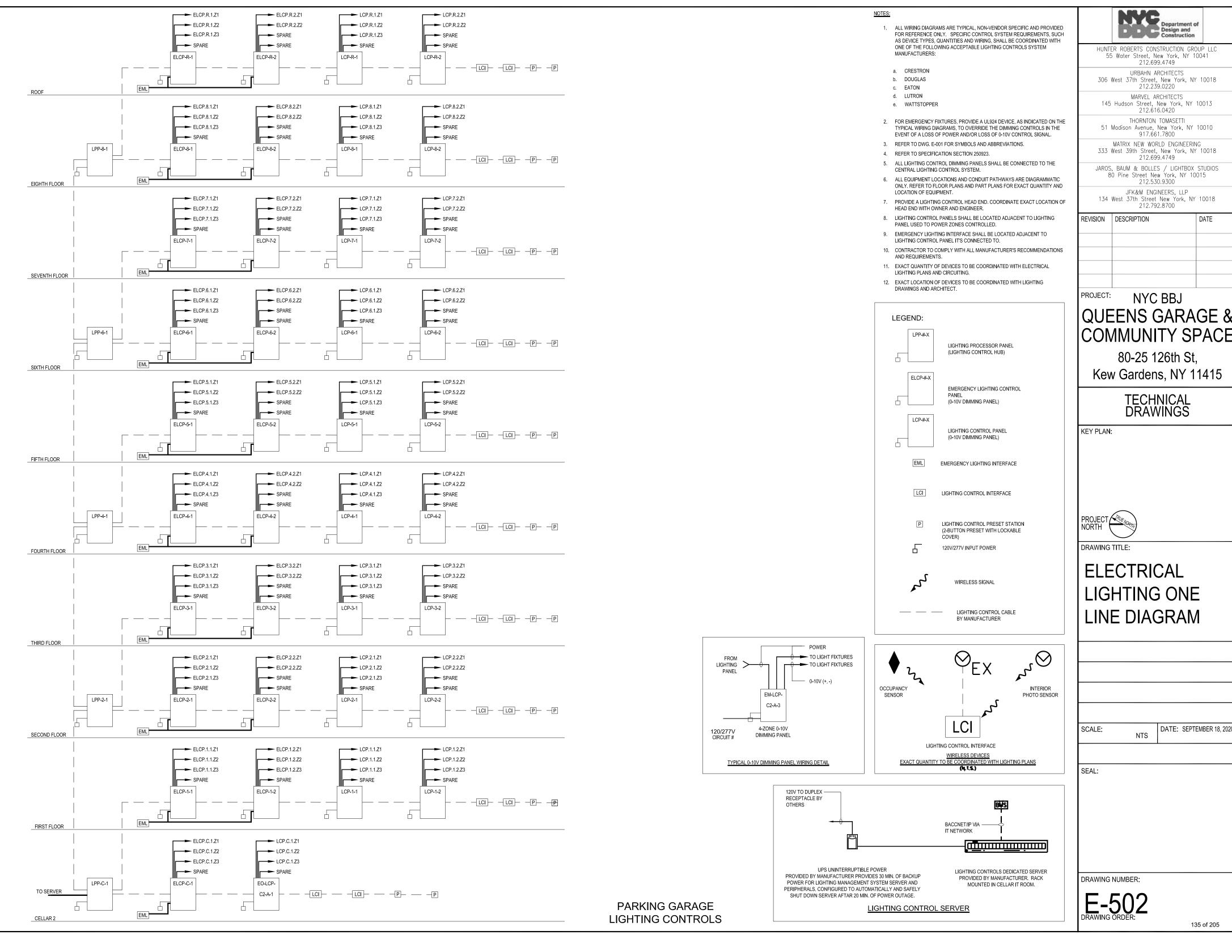
SEAL:

" RMC / EMT

1-1/2" EMT

E-500

RAWING ORDER:

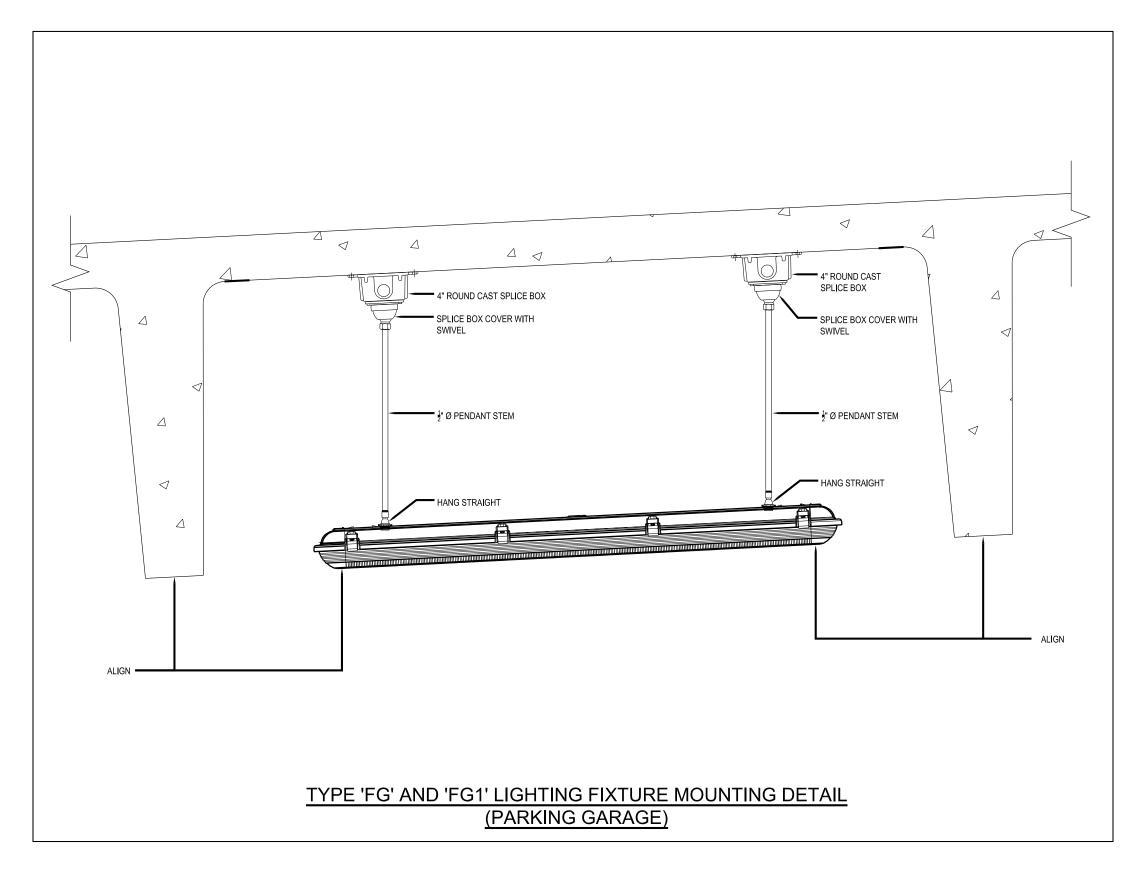


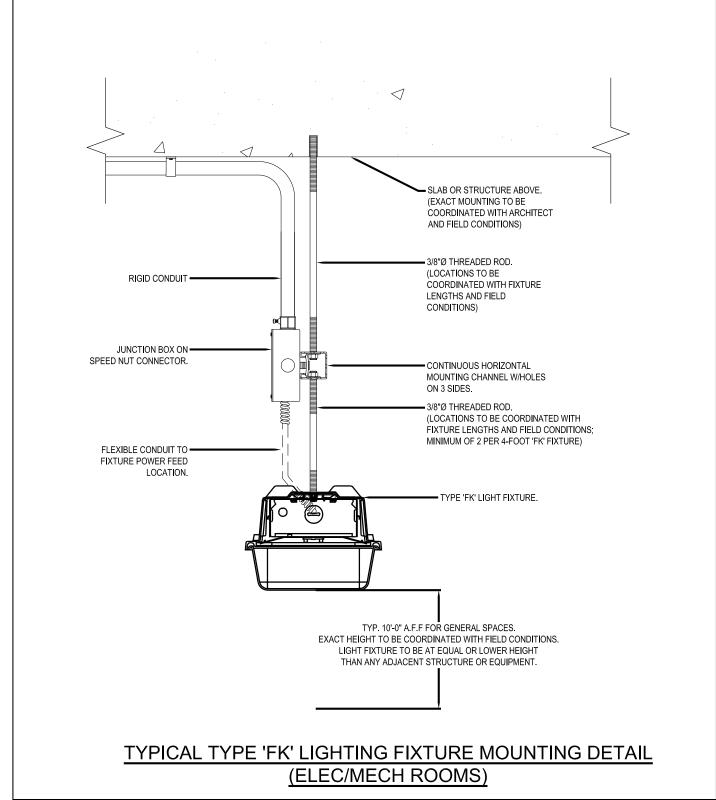
HUNTER ROBERTS CONSTRUCTION GROUP LLC 55 Water Street, New York, NY 10041

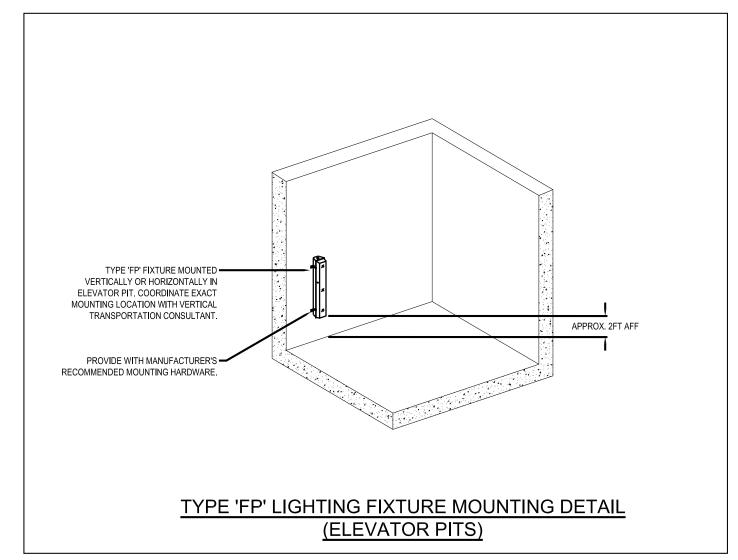
JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS

DATE

QUEENS GARAGE & COMMUNITY SPACE









URBAHN ARCHITECTS 306 West 37th Street, New York, NY 10018 212.239.0220

MARVEL ARCHITECTS

145 Hudson Street, New York, NY 10013 212.616.0420 THORNTON TOMASETTI 51 Madison Avenue, New York, NY 10010 917.661.7800

MATRIX NEW WORLD ENGINEERING 333 West 39th Street, New York, NY 10018 212.699.4749

JAROS, BAUM & BOLLES / LIGHTBOX STUDIOS 80 Pine Street New York, NY 10015 212.530.9300

JFK&M ENGINEERS, LLP 134 West 37th Street New York, NY 10018 212.792.8700

REVISION	DESCRIPTION	DATE

NYC BBJ

QUEENS GARAGE & COMMUNITY SPACE

80-25 126th St, Kew Gardens, NY 11415

TECHNICAL DRAWINGS

KEY PLAN:



DRAWING TITLE:

ELECTRICAL LIGHTING DETAIL SHEET

DATE: SEPTEMBER 18, 2020 SCALE

SEAL:

DRAWING NUMBER: