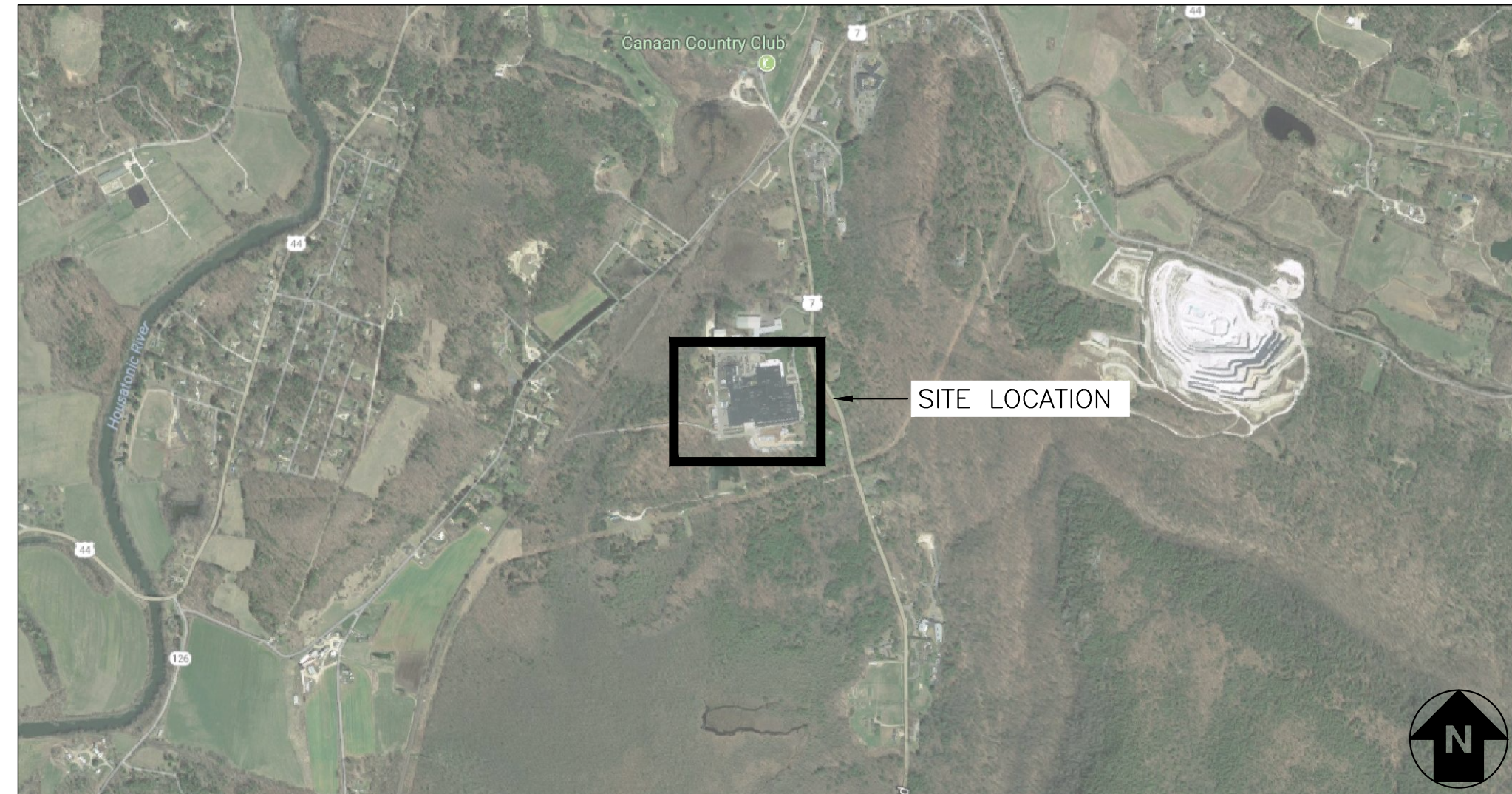


# 696.87 KW SOLAR ROOFTOP SYSTEM AT BECTON DICKINSON – PHASE II

7 GRACE WAY, NORTH CANAAN, CT 06018 [42.011, -73.333]



**LOCATION MAP**  
SCALE: 1"=1500'-0"



**SYSTEM PLAN**  
SCALE: 1"=150'-0"

### TOTAL SYSTEM SUMMARY:

TOTAL DC SYSTEM SIZE: 696.87 kWDC  
AC SYSTEM SIZE: 520.00 kWAC

MODULE MANUFACTURER: SUNPOWER  
MODULE MODEL: SPR-E20-435-COM 435W  
MODULES PER STRING: VARIES  
MODULE QUANTITY: 1,602  
STRING QUANTITY: 63

MODULE TILT: 10°  
MODULE AZIMUTH: 173°

INVERTER MANUFACTURER: SOLAREDGE  
INVERTER MODEL: SE100KUS & SE20KUS  
INVERTER QUANTITY: 5 & 1

OPTIMIZER MANUFACTURER: SOLAREDGE  
OPTIMIZER MODEL: P730  
OPTIMIZER QUANTITY: 1,602

### ADOPTED CODES

ELECTRICAL CODE: 2017 NATIONAL ELECTRIC CODE  
BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE  
FIRE CODE: 2015 INTERNATIONAL FIRE CODE

### SCOPE OF WORK SUMMARY

ROOFTOP PV ARRAY:  
INSTALL SOLAR MODULES AND ROOFTOP BALLASTED RACKING SYSTEM ON TOP OF EXISTING MULTI-STORY BUILDING. INSTALL INVERTERS AND ELECTRICAL DISTRIBUTION EQUIPMENT AND INTERCONNECT AT EXISTING MAIN ELECTRICAL DISTRIBUTION EQUIPMENT.

HOST:



BECTON, DICKINSON & CO.  
7 GRACE WAY  
NORTH CANAAN, CT 06018

DEVELOPER:

## DG NORTHEAST PORTFOLIO 2020, LLC

700 UNIVERSE BLVD  
NORTH PALM BEACH, FL 33408

ENGINEERED BY:



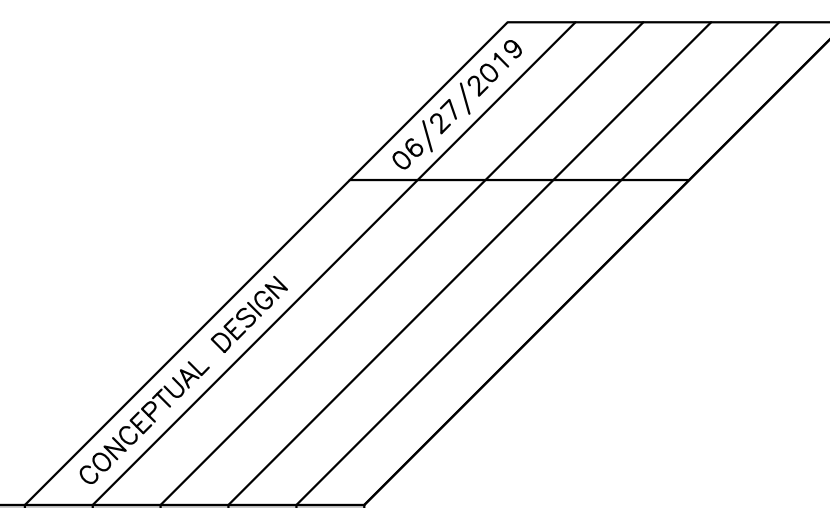
5 MARINE VIEW PLAZA, SUITE 301  
HOBOKEN, NEW JERSEY, 07030

### DRAWING INDEX

GENERAL									
G001	TITLE SHEET		●						
G100	SITE PLAN		●						
G200	ARRAY PLAN								
G300	FIRE ACCESS PLAN								
ELECTRICAL									
E001	ELECTRICAL NOTES & SYMBOL LIST								
E100	OVERALL AC ELECTRICAL PLAN								
E110	ELECTRICAL ROOM PLAN & INVERTER AREA								
E200	DC ELECTRICAL PLAN								
E300	ONE LINE DIAGRAM		●						
E310	SCHEDULES & CALCULATIONS								
E401	GROUNDING DETAILS								
E402	ELECTRICAL DETAILS								
E500	LABELS & SIGNAGE								
E600	EQUIPMENT DATA SHEETS								
E700	MONITORING SYSTEM								

### LEGEND:

UPDATED DRAWING ISSUED	●
UNCHANGED, PREVIOUSLY ISSUED DRAWING STILL CURRENT	○
DRAWING REMOVED FROM SET	×



DRAWING TITLE  
TITLE SHEET

01 OF 03  
DRAWING #  
G001

PAGE SIZE  
3.6" x 24"  
PROJECT #  
PPE 19.0762

DC SYSTEM SIZE: 696.87 KW  
AC SYSTEM SIZE: 520.00 KW  
MODULE: SUNPOWER SPR-E20-435-COM  
MODULE QUANTITY: 1,602  
STRING QUANTITY: 63  
INVERTER QUANTITY: 5 & 1  
TILT: 10° AZIMUTH: 173°

PROJECT: 696.87 KW SOLAR ROOFTOP SYSTEM AT  
BECTON DICKINSON – PHASE II  
7 GRACE WAY  
NORTH CANAAN, CT 06018

DEVELOPER  
DG NORTHEAST PORTFOLIO 2020, LLC  
700 UNIVERSE BLVD  
NORTH PALM BEACH, FL 33408

ENGINEER  
PUREPOWER ENGINEERING  
5 MARINE VIEW PLAZA - HOBOKEN, NJ  
WWW.PUREPOWER.COM  
RICHARD A. WINKLER  
CT LICENSE NO. 03632862

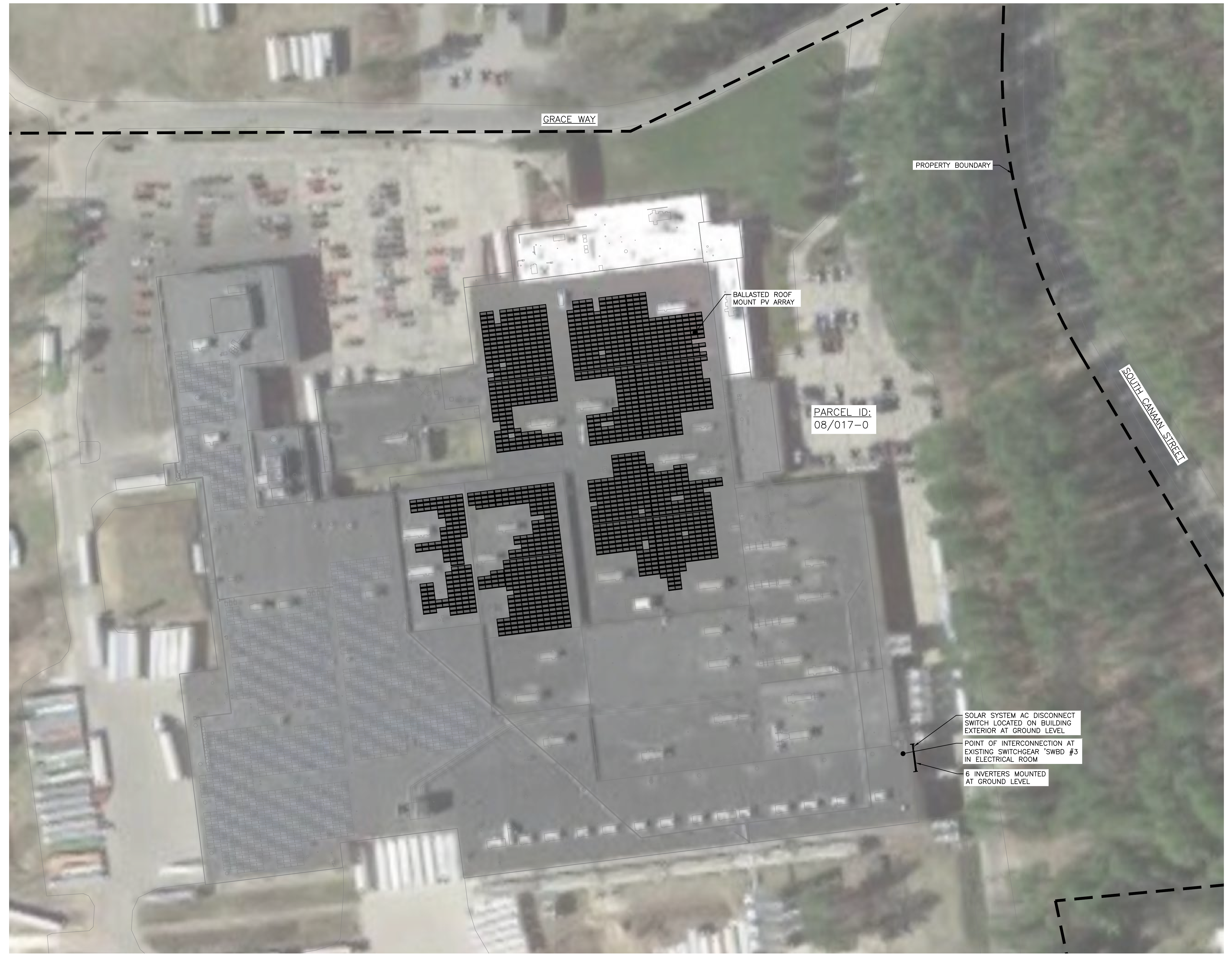
REVISION DESCRIPTION	DATE	DATE	DATE
CONCEPTUAL DESIGN	09/27/2019		

RULER IN INCHES: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18  
PLOT DATE: 9/27/2019 10:08 AM



RULER IN INCHES: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

PROJECT SITE INFORMATION	
SYSTEM DESIGN VOLTAGE	1,000V
ASHRAE LOCATION	HARTFORD BRADLEY INTL ARPT
ASHRAE 0.4	35.0°C
ASHRAE 2	32.0°C
ASHRAE MINIMUM TEMP	-20.0°C
DC OUTPUT POWER	696.87KW
AC OUTPUT POWER	520.00KW
DC:AC RATIO	1.34
MODULE	
MANUFACTURER	SUNPOWER
MODEL	SPR-E20-435-COM
MODULE POWER	435W
CELLS	128
INVERTER	
MANUFACTURER	SOLAREEDGE
MODEL	SE100KUS & SE20KUS
CEC EFFICIENCY	98.5% & 98%
MAXIMUM VOLTAGE	1,000V
MAX. POWER OPERATING RANGE VOLTAGE	425-850V
MAX. CONTINUOUS AC CURRENT	120A & 24A
MAX. POWER OUTPUT	100KW & 20KW
AC VOLTAGE	
RACKING	
MANUFACTURER	PANELCLAW
MODEL	CLAWFR
MODULE ORIENTATION	1 X LANDSCAPE
TILT ANGLE	10°
AZIMUTH	173°
ARRAY SPECIFICATIONS	
NO. OF INVERTERS	5 & 1
STRING SIZE	VARIES
MODULE QUANTITY	1,602
STRING QUANTITY	63
ARRAY RATED ISC	6.43A
MAX. SHORT CIRCUIT CURRENT (ISC X 1.25)	8.04A
RATED MAX. POWER POINT CURRENT	5.97A



1 SITE PLAN  
G100 SCALE: 1" = 50'-0"



DRAWING TITLE  
SITE PLAN

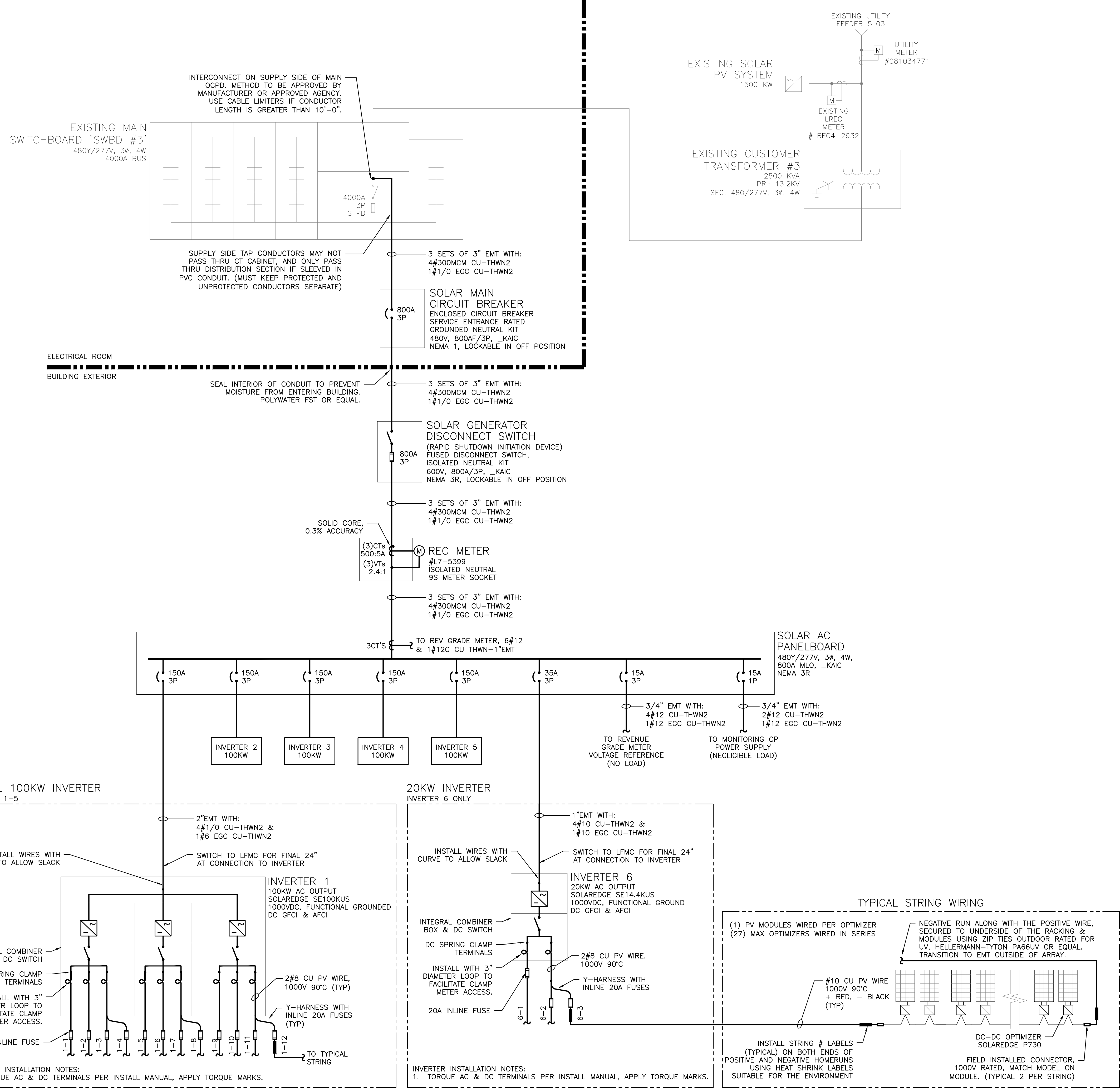
PROJECT	696.87 KW SOLAR ROOFTOP SYSTEM AT BECTON DICKINSON - PHASE II 7 GRACE WAY NORTH CANAAN, CT 06018
DEVELOPER	DG NORTHEAST PORTFOLIO 2020, LLC 700 UNIVERSE BLVD NORTH PALM BEACH, FL 33408
ENGINEER	PUREPOWER ENGINEERING 5 MARINE VIEW PLAZA - HOBOKEN, NJ WWW.PUREPOWER.COM RICHAED A. WINKLER CT LICENSE NO. 03629262
DATE	05/27/2019
REVISION DESCRIPTION	CONCEPTUAL DESIGN
DATE	05/27/2019
PM	CT
ENG	RI

PAGE SIZE: 36" x 24"  
PROJECT #: PPE 19.0762  
DC SYSTEM SIZE: 696.87 KW  
AC SYSTEM SIZE: 520.00 KW  
MODULE: SUNPOWER SPR-E20-435-COM  
MODULE QUANTITY: 1,602  
STRING QUANTITY: 63  
TILT: 10°  
AZIMUTH: 173°

02 OF 03  
DRAWING #  
G100



RULER IN INCHES: 0 1/2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18  
PLT DATE: 8/27/2019 10:08 AM



1 ONE LINE DIAGRAM  
E300 SCALE: NONE

DATE	REVISION DESCRIPTION	FW LENG CHK
08/27/2019	CONCEPTUAL DESIGN	SRW CT R
<p>DEVELOPER <b>DG NORTHEAST PORTFOLIO 2020, LLC</b> 700 UNIVERSE BLVD NORTH PALM BEACH, FL 33408</p>		
<p>PROJECT # PPE 19.0762</p>		
<p>DC SYSTEM SIZE: 696.87 KW AC SYSTEM SIZE: 520.00 KW MODULE: SUNPOWER SPR-E20-435-COM MODULE QUANTITY: 1,602 STRING QUANTITY: 03 GENERATOR:</p>		
<p>PROJECT <b>696.87 KW SOLAR ROOFTOP SYSTEM AT BECTON DICKINSON - PHASE II</b> 7 GRACE WAY NORTH CANAAN, CT 06018</p>		
DRAWING #		03 OF 03
<b>E300</b>		