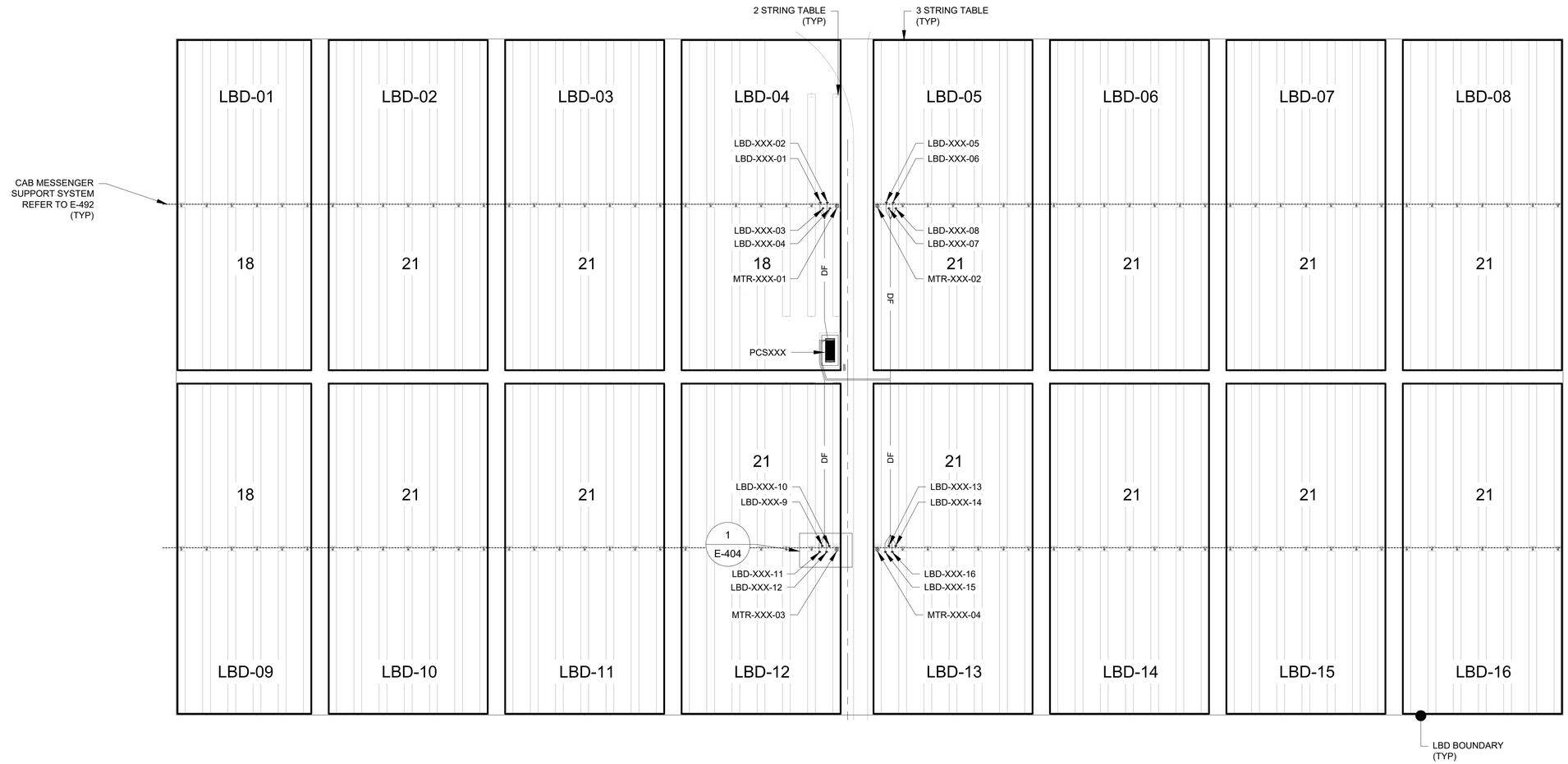
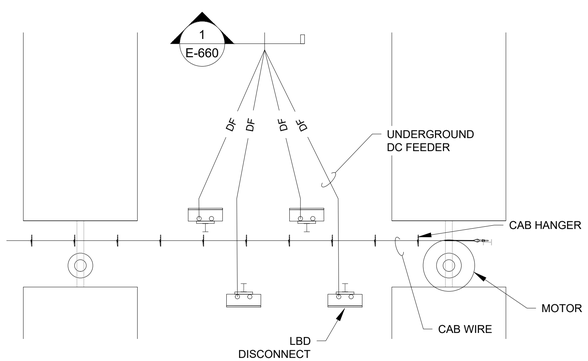


DC PLAN - ARRAY TYPE - D (TRINA)

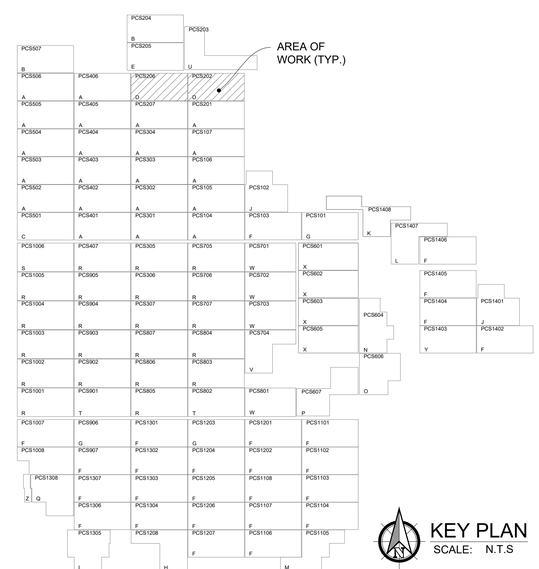
SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME:
DC PLAN - ARRAY TYPE D (TRINA)

SHEET #: E-404

REV #: 4

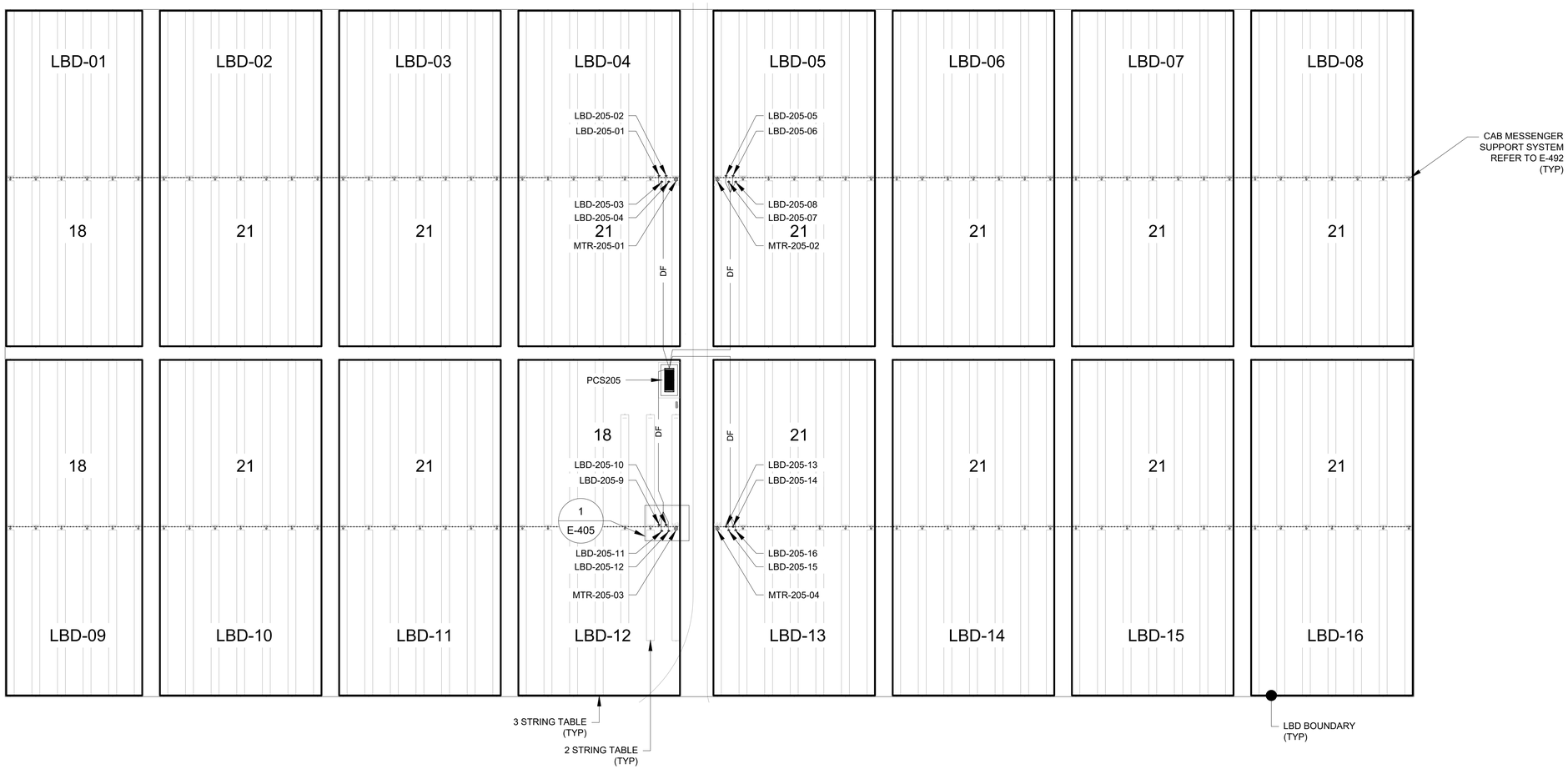
RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-404 DC PLAN - ARRAY TYPE D (TRINA)

SAVED BY: Nick.Kasidiaris

PLOT BY: Brady Burgason

PLOT DATE: Thursday, June 08, 2023



DC PLAN - ARRAY TYPE - E (TRINA)

SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'

NOTES:

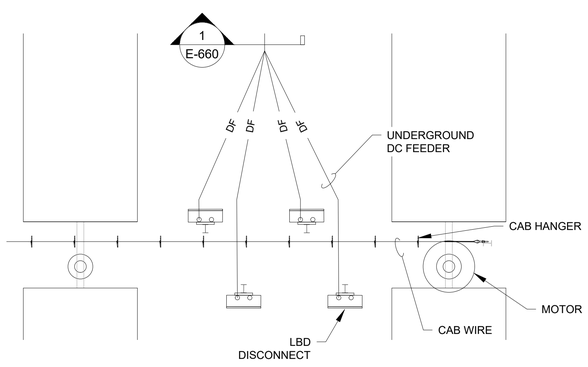
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

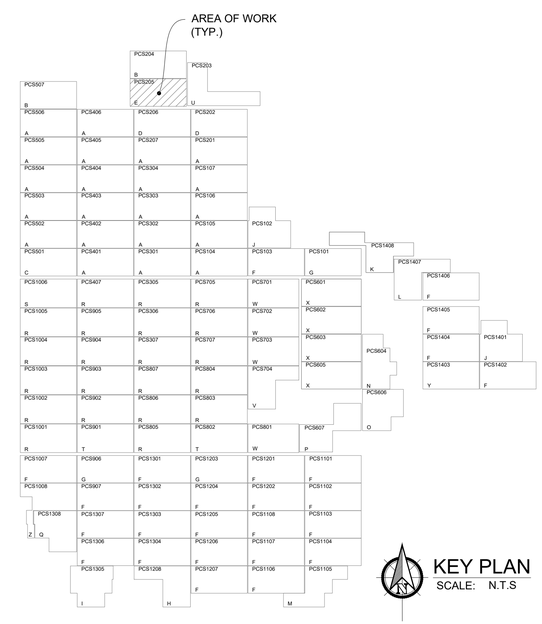
DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



1 LBD LAYOUT DETAIL



KEY PLAN
SCALE: N.T.S

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

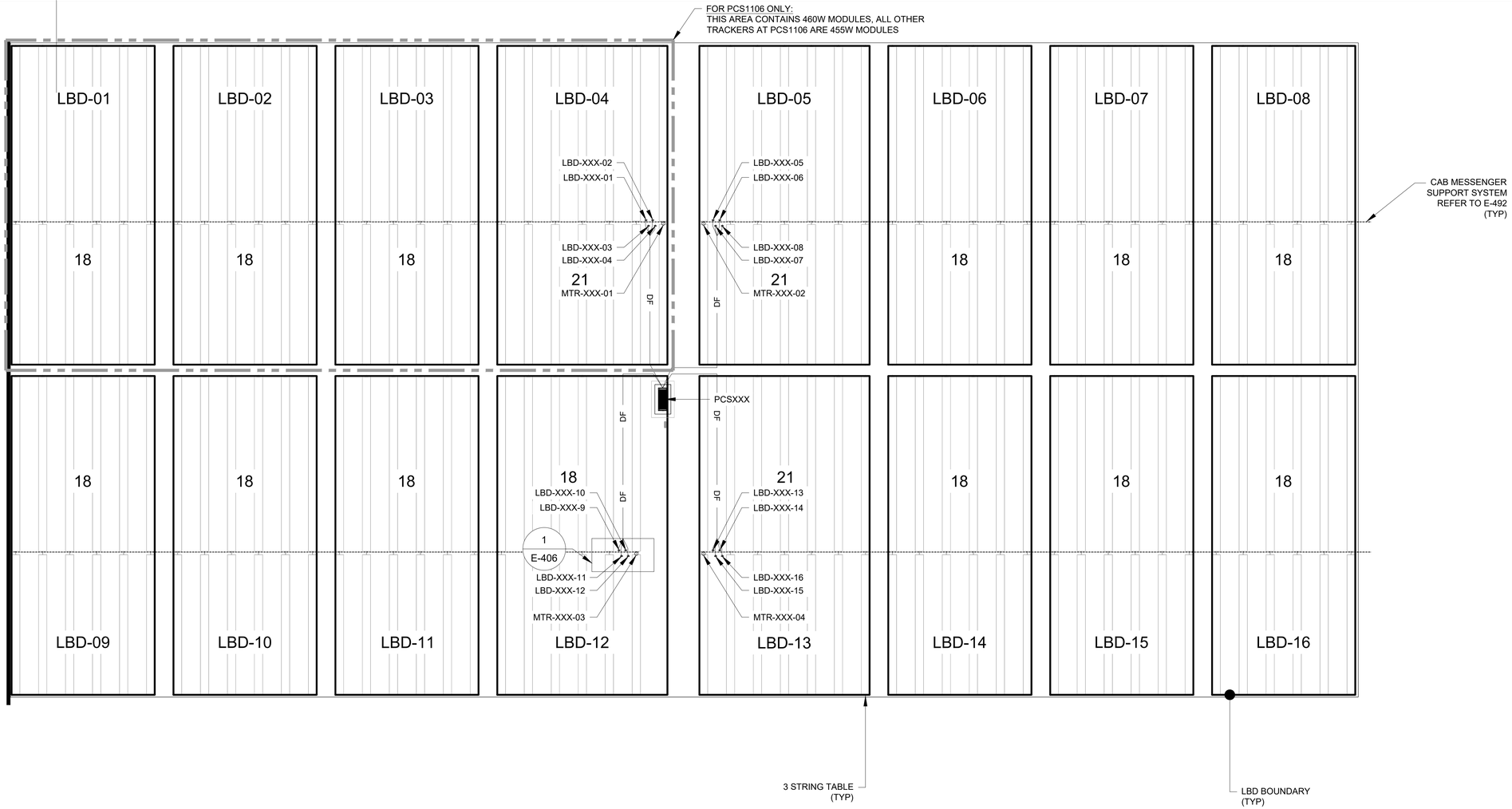
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

SHEET NAME:
DC PLAN - ARRAY TYPE E (TRINA)

SHEET #: E-405
REV #: 4

RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-405 DC PLAN - ARRAY TYPE E (TRINA)
PLOT BY: Brady Burgason
SAVED BY: gregg.looney
PLOT DATE: Thursday, June 08, 2023



DC PLAN - ARRAY TYPE - F (JINKO)

SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'

NOTES:

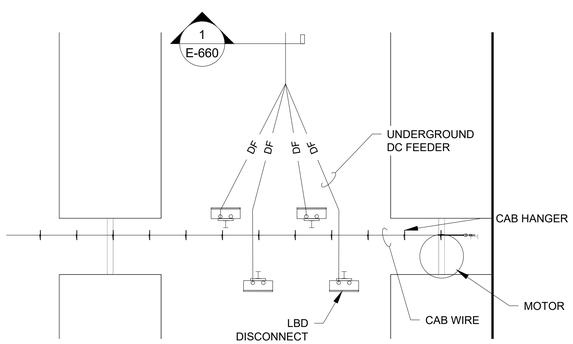
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

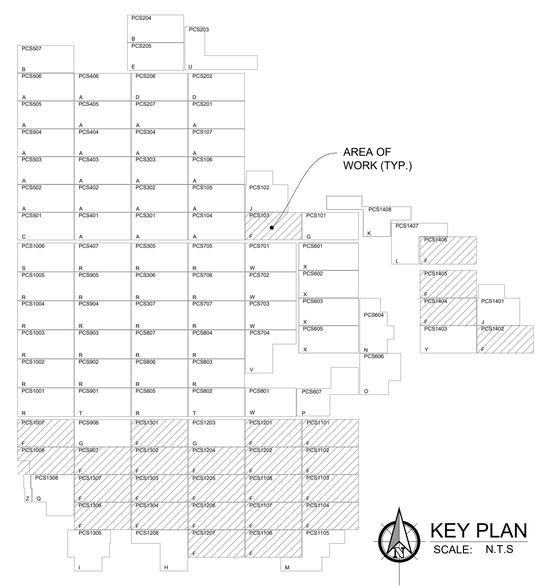
DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE F (JINKO)

SHEET #: E-406

REV #: 4

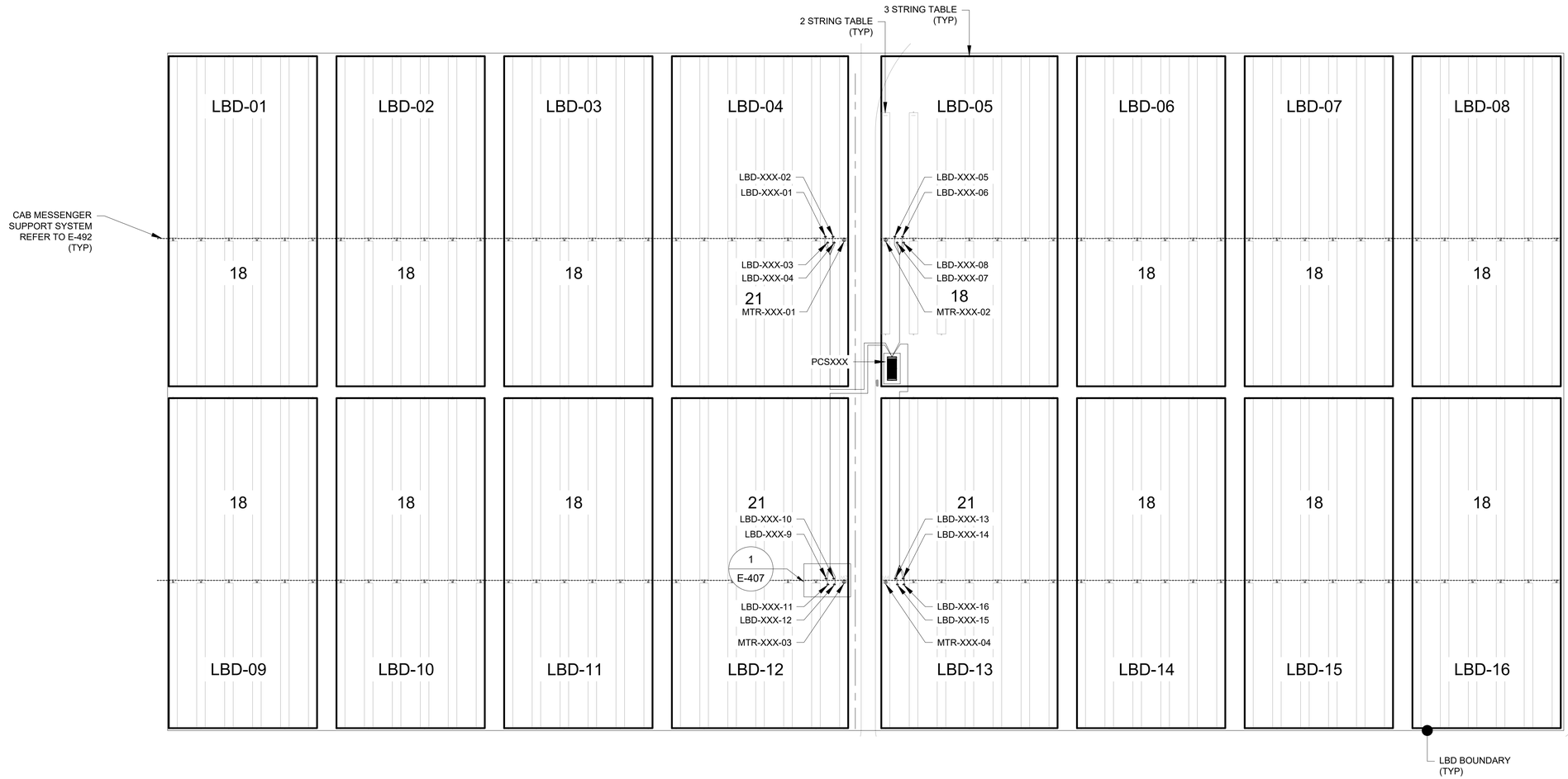
RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-406 DC PLAN - ARRAY TYPE F (JINKO)

SAVED BY: brady.burgason

PLOT BY: Brady Burgason

PLOT DATE: Thursday, June 08, 2023

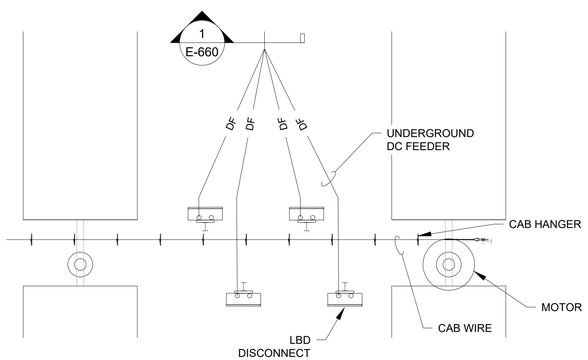


DC PLAN - ARRAY TYPE - G (JINKO)

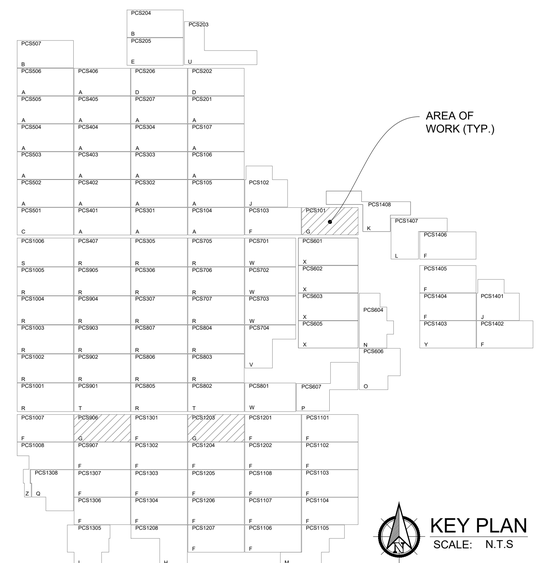
SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

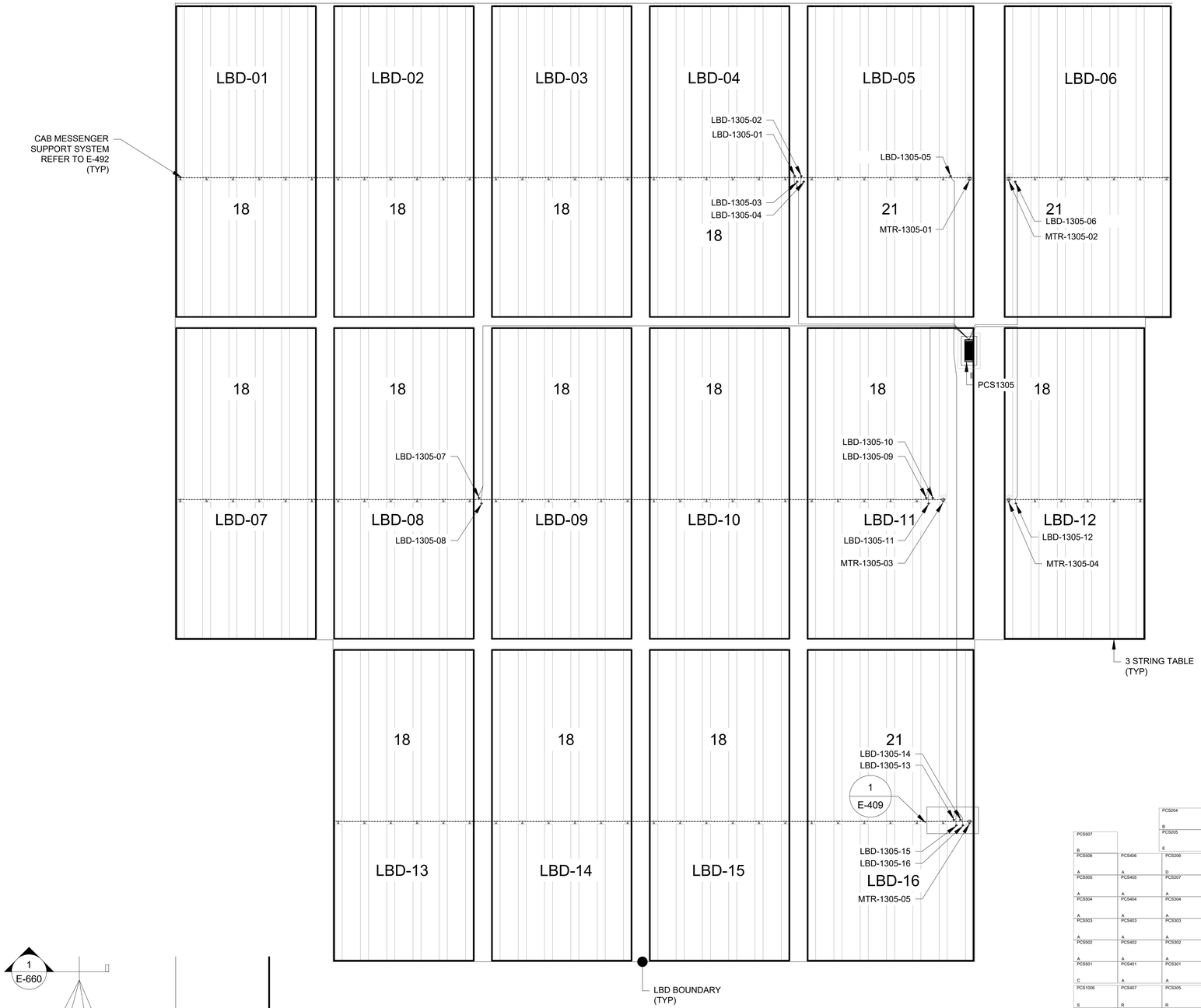
SHEET NAME: DC PLAN - ARRAY TYPE G (JINKO)

SHEET #: E-407

REV #: 4

RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-407 DC PLAN - ARRAY TYPE G (JINKO)
SAVED BY: Nick.Kasidiaris
PLOT BY: Brady Burgason
PLOT DATE: Thursday, June 08, 2023

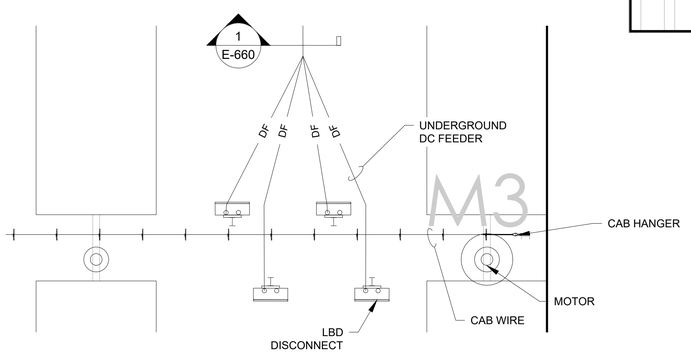


DC PLAN - ARRAY TYPE - I (JINKO)

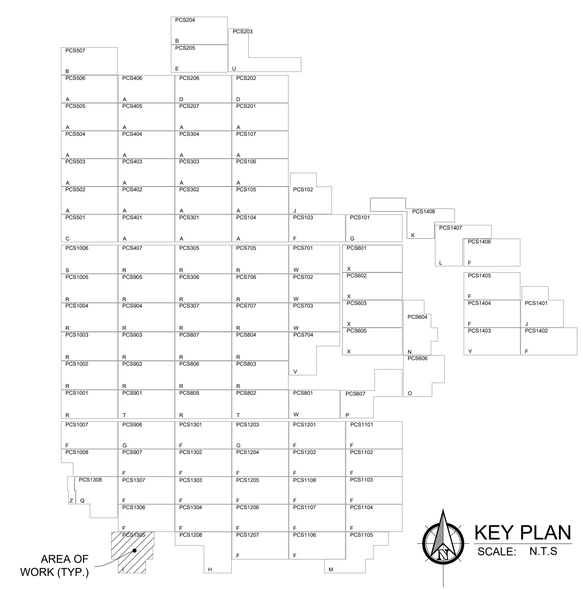
SCALE: 1"=60'

60' 30' 0 60' 120' 180'

SCALE: 1"=60'



1 LBD LAYOUT DETAIL



KEY PLAN
SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

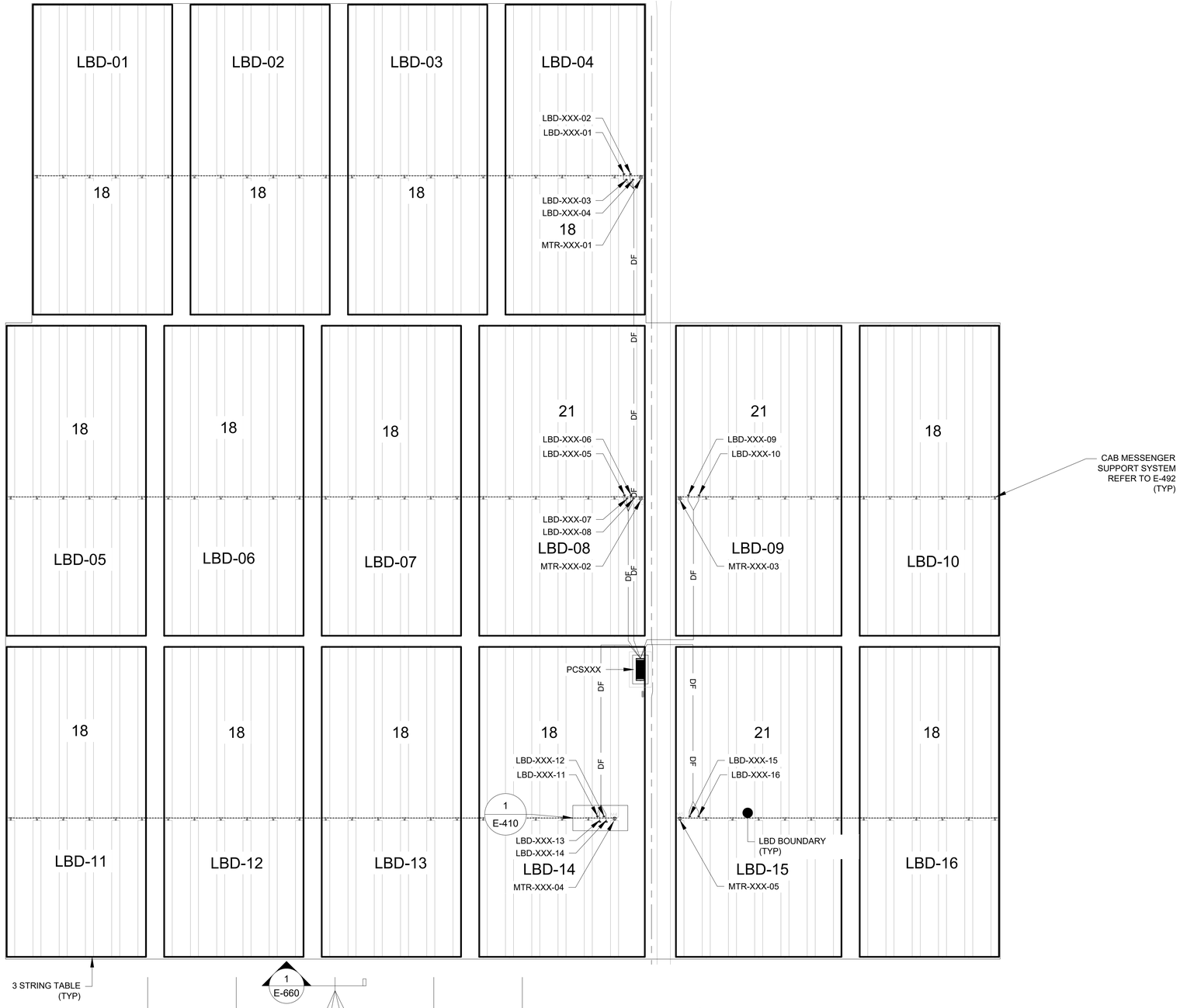
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

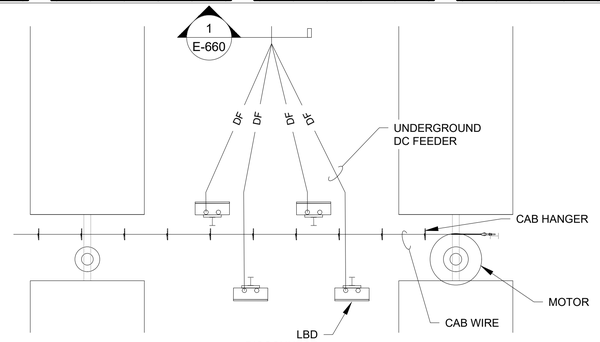
SHEET NAME:
DC PLAN - ARRAY TYPE I (JINKO)

SHEET #: E-409
REV #: 4

RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-409 DC PLAN - ARRAY TYPE I (JINKO)
SAVED BY: gregg.looney
PLOT BY: Brady Burgason
PLOT DATE: Thursday, June 08, 2023





1 LBD LAYOUT DETAIL

DC PLAN - ARRAY TYPE - J (JINKO)
SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'

NOTES:

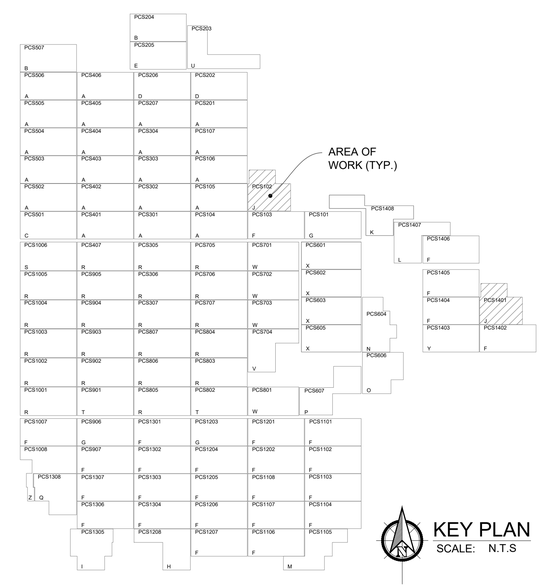
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

CAB MESSENGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



KEY PLAN
SCALE: N.T.S

FastGrid
FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: TLR
CHECKED BY: EL

SHEET NAME:
DC PLAN - ARRAY TYPE J (JINKO

SHEET #: E-410
REV #: 4

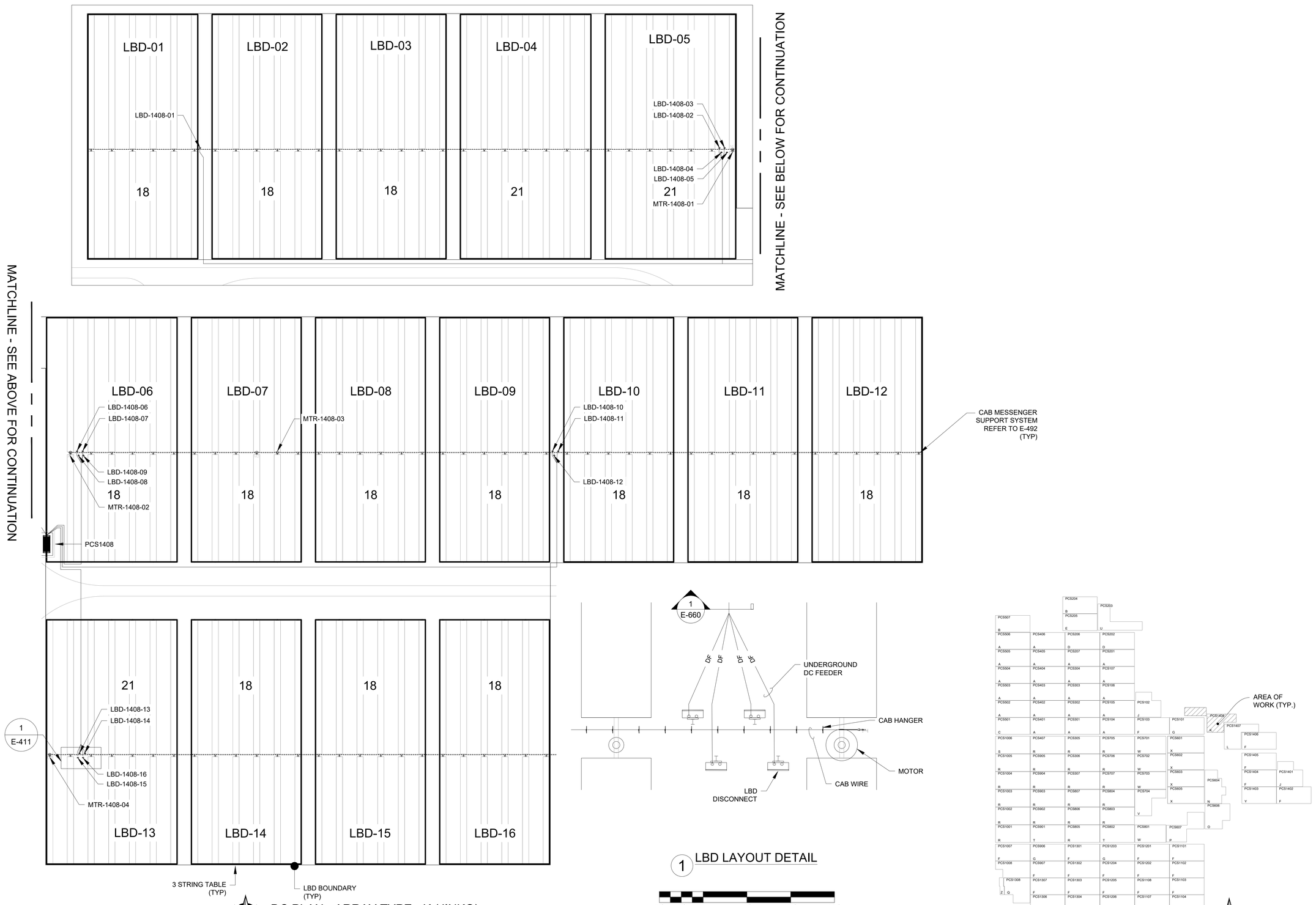
RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-410 DC PLAN - ARRAY TYPE J (JINKO

SAVED BY: gregg.looney

PLOT BY: Brady Burgason

PLOT DATE: Thursday, June 08, 2023



NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE K (JINKO)

SHEET #: E-411

REV #: 4

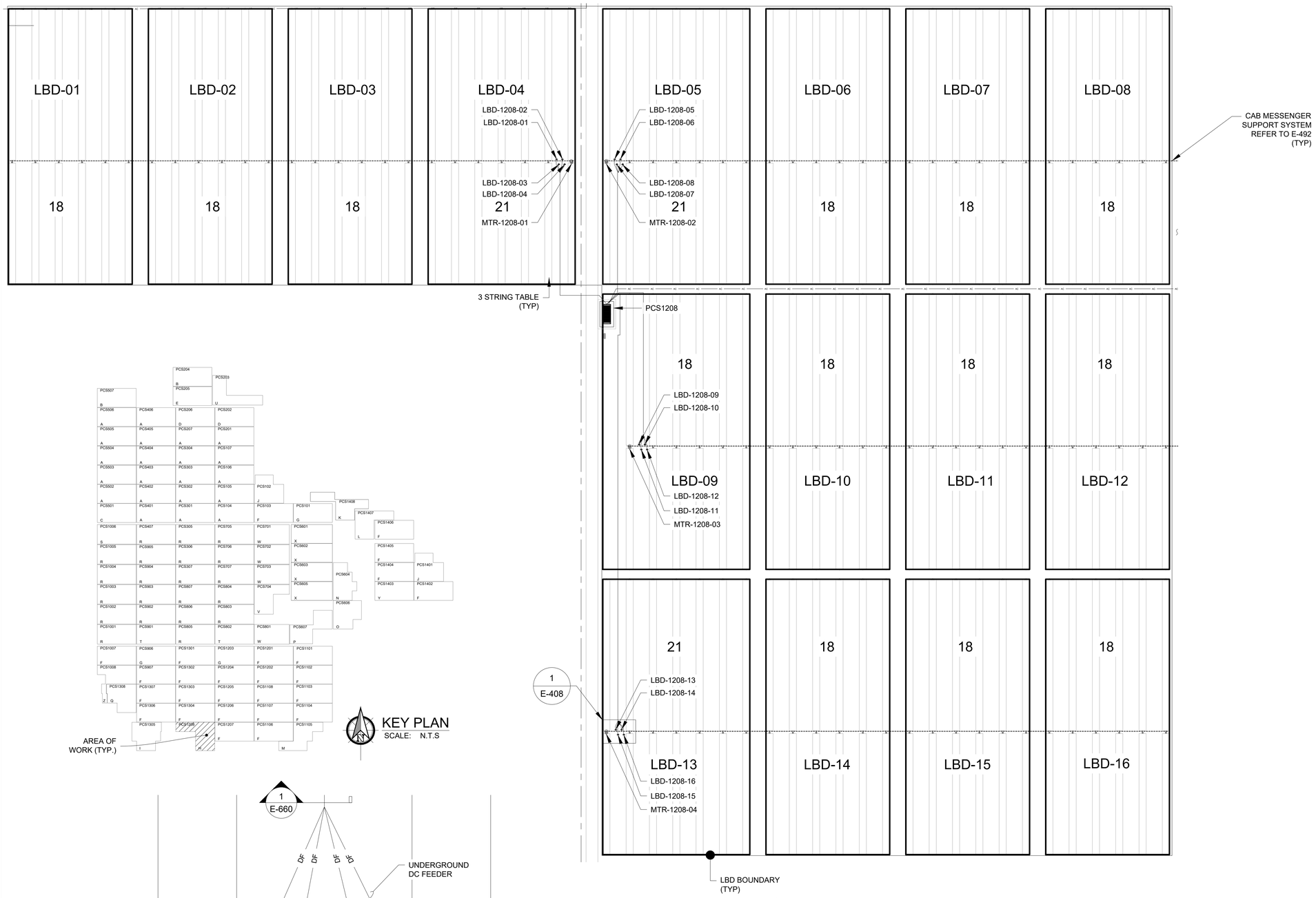
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Brady Burgason

SAVED BY: gregg.looney

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-411 DC PLAN - ARRAY TYPE K (JINKO)



DC PLAN - ARRAY TYPE - H (JINKO)

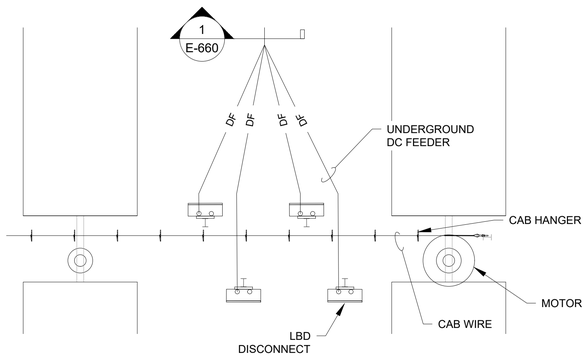
SCALE: 1"=1600'

60' 30' 0 60' 120' 180'

SCALE: 1"=60'

KEY PLAN

SCALE: N.T.S



1 LBD LAYOUT DETAIL

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE H (JINKO)

SHEET #: E-408

REV #: 4

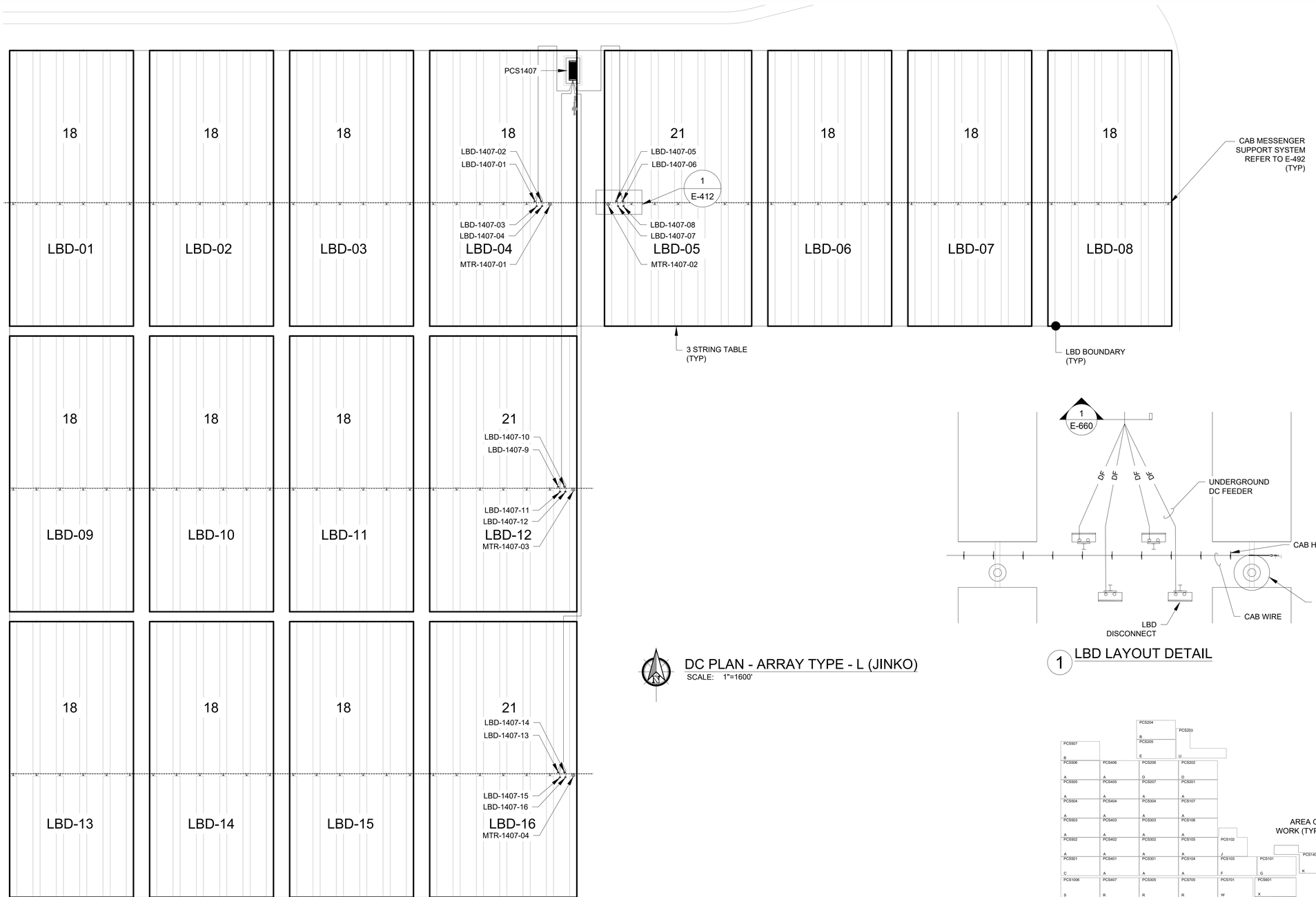
RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-408 DC PLAN - ARRAY TYPE H (JINKO)

SAVED BY: Nick.Kasidiaris

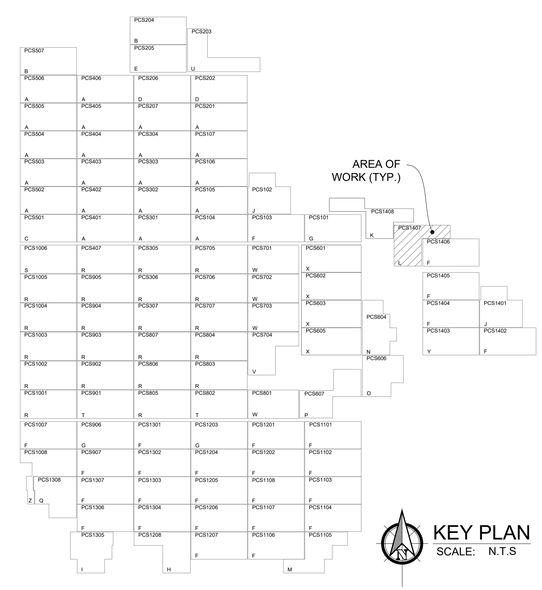
PLOT BY: Brady Burgason

PLOT DATE: Thursday, June 08, 2023



DC PLAN - ARRAY TYPE - L (JINKO)
SCALE: 1"=1600'

1 LBD LAYOUT DETAIL



KEY PLAN
SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

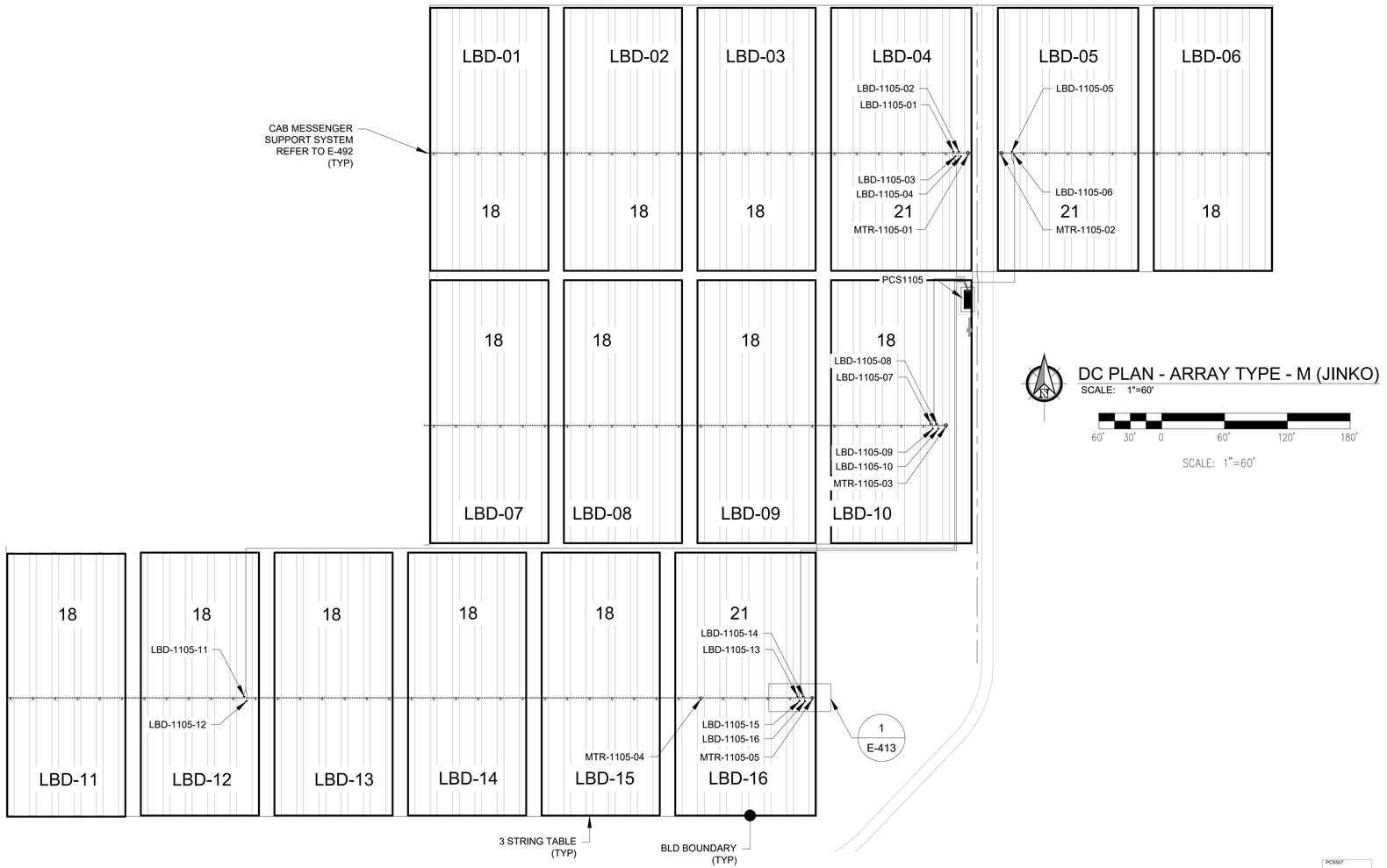
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

SHEET NAME:
DC PLAN - ARRAY TYPE L (JINKO)

SHEET #: E-412
REV #: 4

RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-412 DC PLAN - ARRAY TYPE L (JINKO)
SAVED BY: gregg.looney
PLOT BY: Brady Burgason
PLOT DATE: Thursday, June 08, 2023



DC PLAN - ARRAY TYPE - M (JINKO)

SCALE: 1"=60'

60' 30' 0 60' 120' 180'

SCALE: 1"=60'

NOTES:

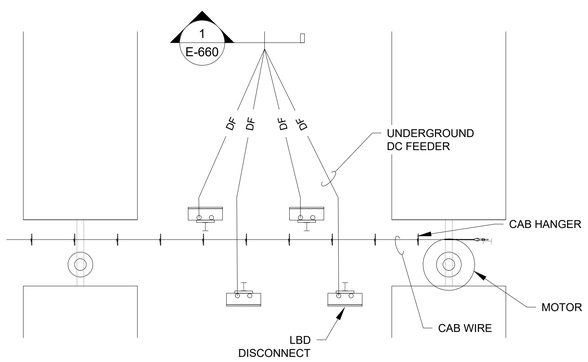
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

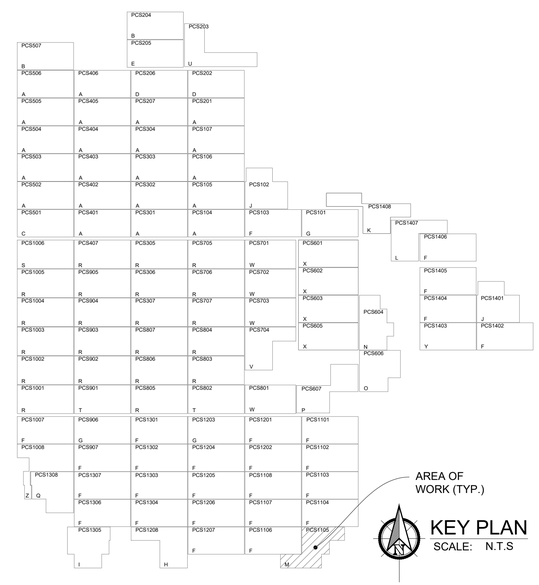
DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE M (JINKO)

SHEET #: E-413

REV #: 4

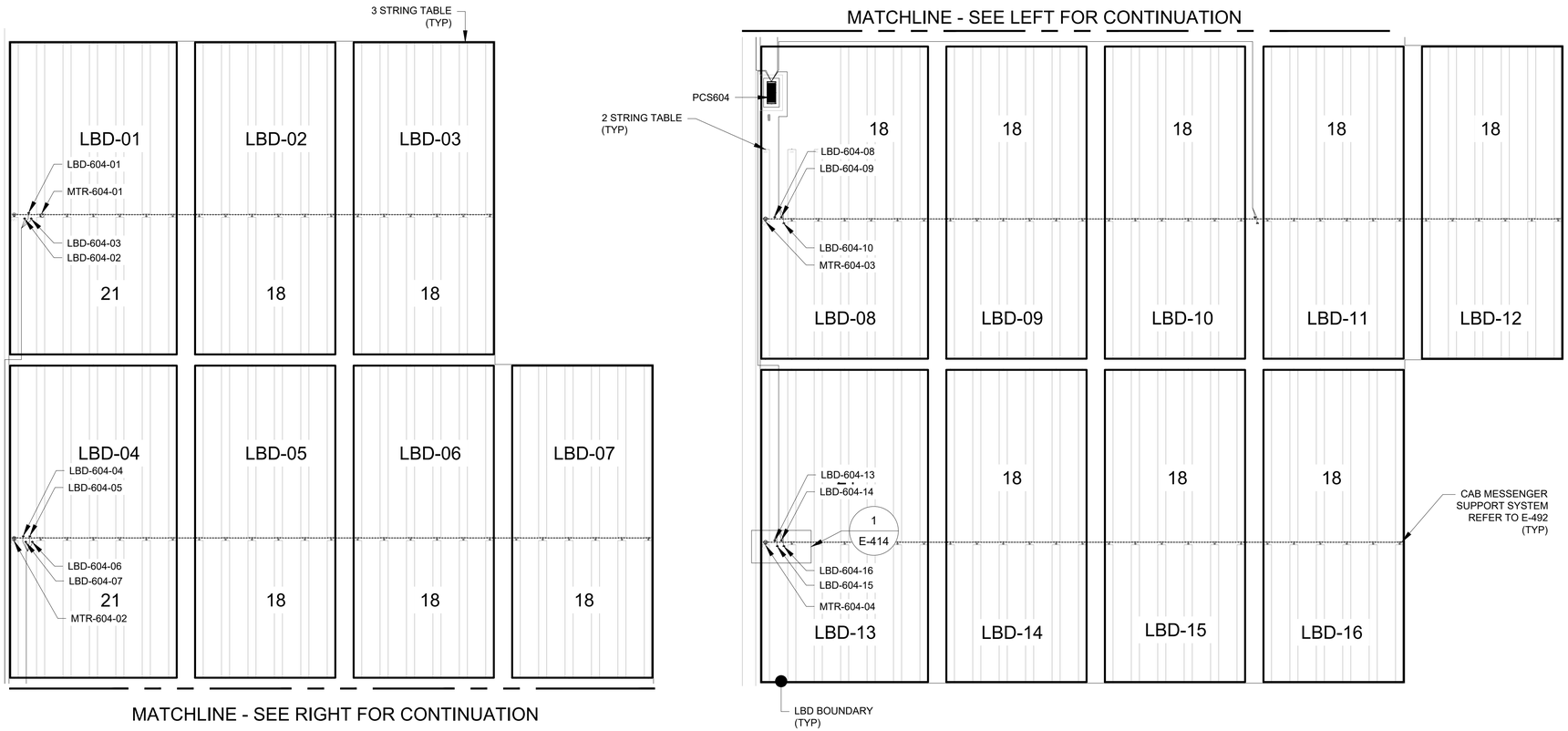
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Brady Burgason

SAVED BY: gregg.looney

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-413 DC PLAN - ARRAY TYPE M (JINKO)

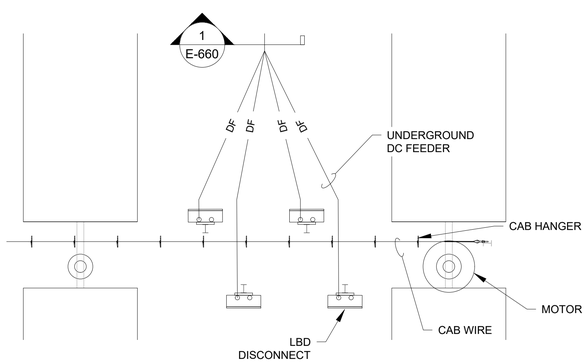


DC PLAN - ARRAY TYPE - N (JINKO)

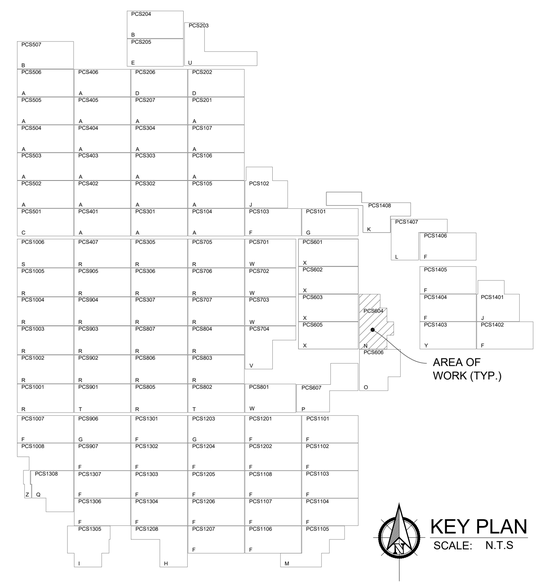
SCALE: 1"=60'

60' 30' 0 60' 120' 180'

SCALE: 1"=60'



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE N (JINKO)

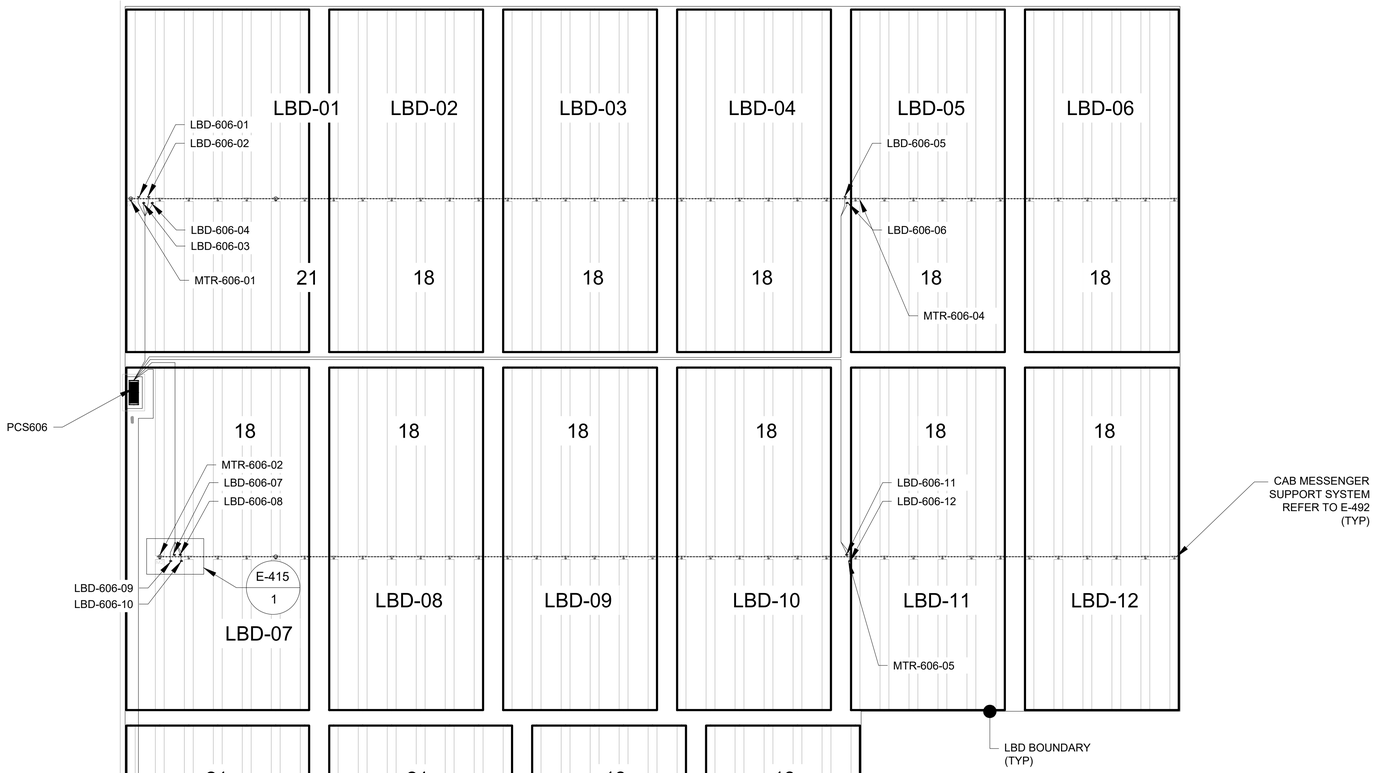
SHEET #: E-414

REV #: 4

RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-414 DC PLAN - ARRAY TYPE N (JINKO)
PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: gregg.looney

A B C D E F G H I J

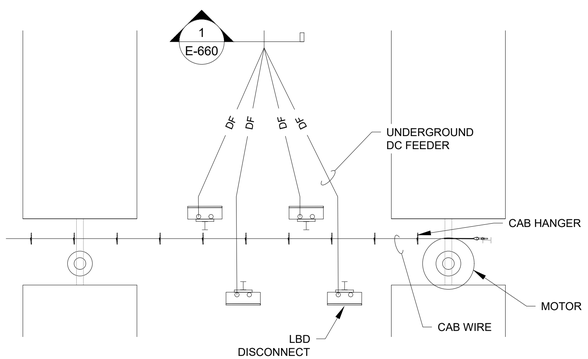


DC PLAN - ARRAY TYPE - O (JINKO)

SCALE: 1"=60'

60' 30' 0 60' 120' 180'

SCALE: 1"=60'



1 LBD LAYOUT DETAIL

NOTES:

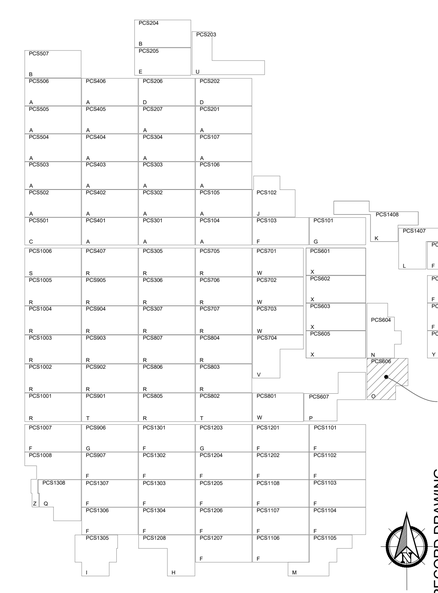
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEP SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS3 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS4 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS12 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS13 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS14 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS7 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS9 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



KEY PLAN

SCALE: N.T.S

RECORD DRAWING

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/0

PROJECT NAME: EAGLE SHADOW MOUNTA PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS: I-15 CRYSTAL, NV CLARK COUNTY

SEAL:

DATE: 10/16/202

PROJECT #: 190067.03

DRAWN BY: TLR

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE O (JIN

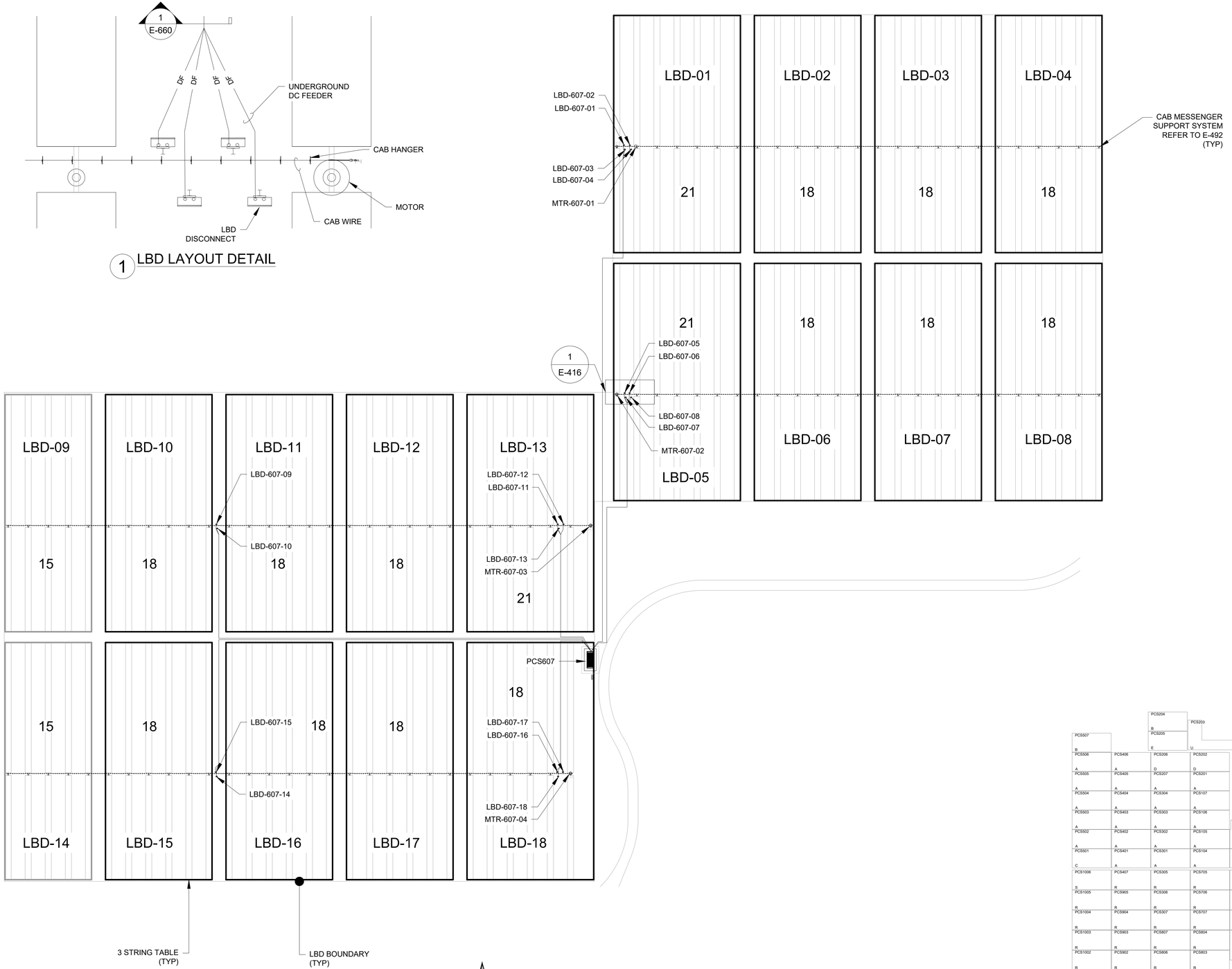
SHEET #: E-415

REV #: 4

PLOT DATE: June 06, 2023

LOCATION: K:_09_PROJECTS\190067.03-PRIMORIS\EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-415 DC PLAN - ARRAY TY

1 LBD LAYOUT DETAIL



DC PLAN - ARRAY TYPE - P (JINKO)
SCALE: 1"=60'

60' 30' 0 60' 120' 180'

SCALE: 1"=60'

NOTES:

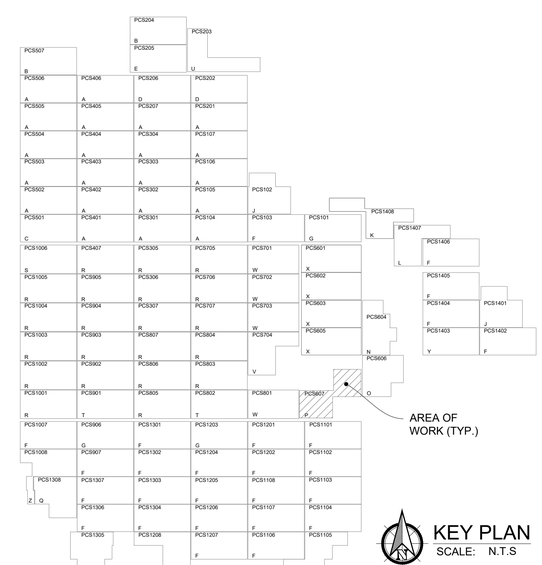
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



KEY PLAN
SCALE: N.T.S

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: TLR

CHECKED BY: EL

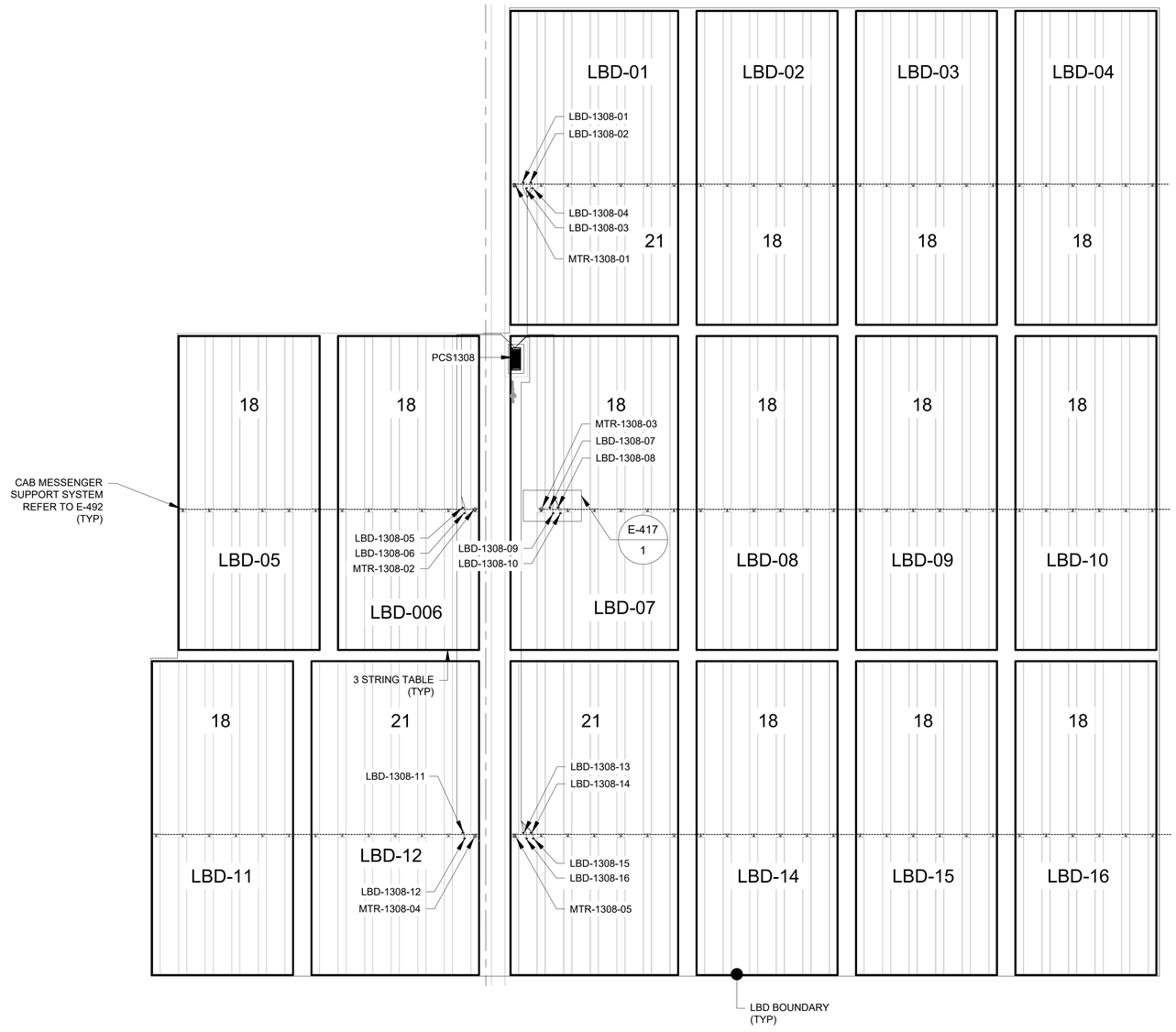
SHEET NAME:
DC PLAN - ARRAY TYPE P (JINKO)

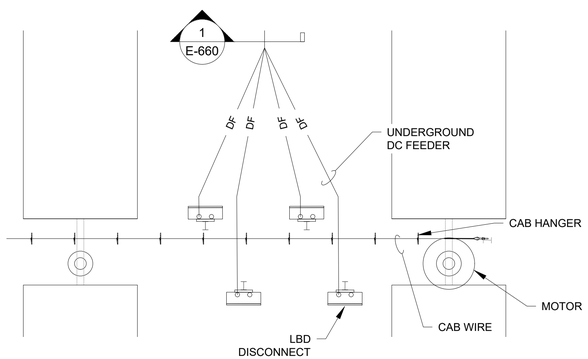
SHEET #: E-416

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: gregg.looney
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-416 DC PLAN - ARRAY TYPE P (JINKO)



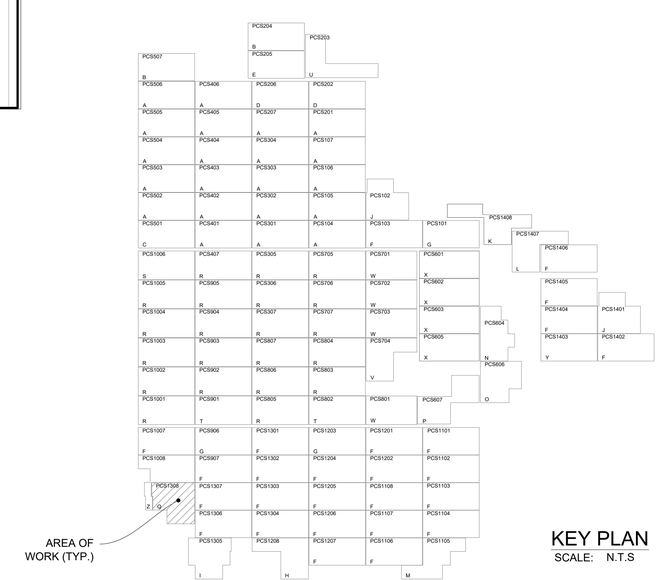


1 LBD LAYOUT DETAIL

DC PLAN - ARRAY TYPE - Q (JINKO)
SCALE: 1"=60'

60' 30' 0 60' 120' 180'

SCALE: 1"=60'



KEY PLAN
SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

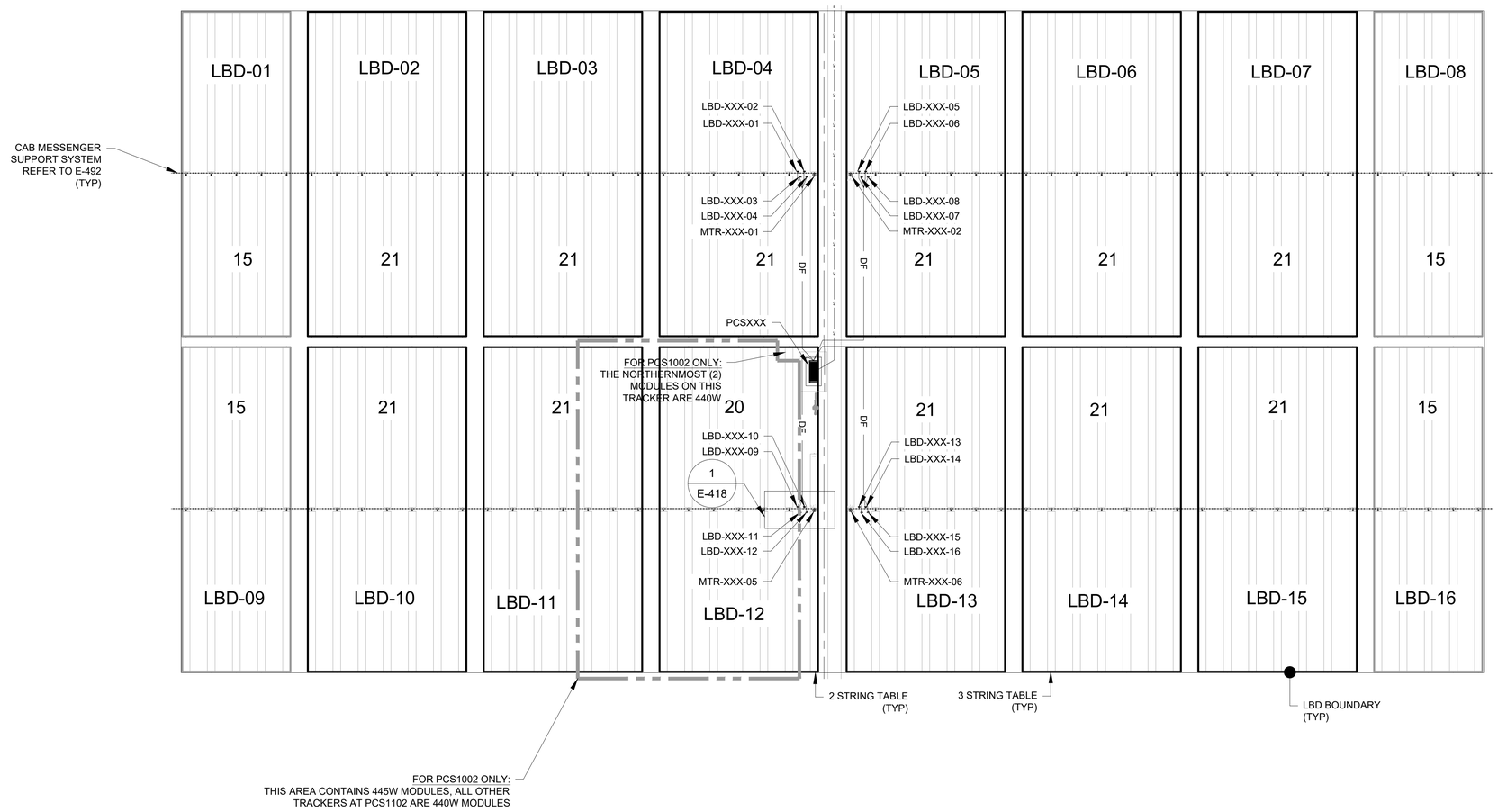
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: TLR
CHECKED BY: EL

SHEET NAME:
DC PLAN - ARRAY TYPE Q (JINKO)

SHEET #: E-417
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: gregg.looney
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-417 DC PLAN - ARRAY TYPE Q (JINKO)

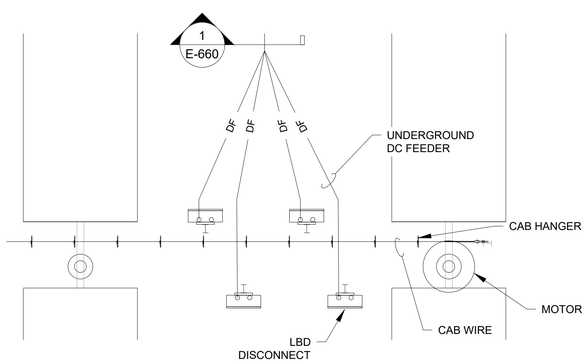


DC PLAN - ARRAY TYPE - R (CS)

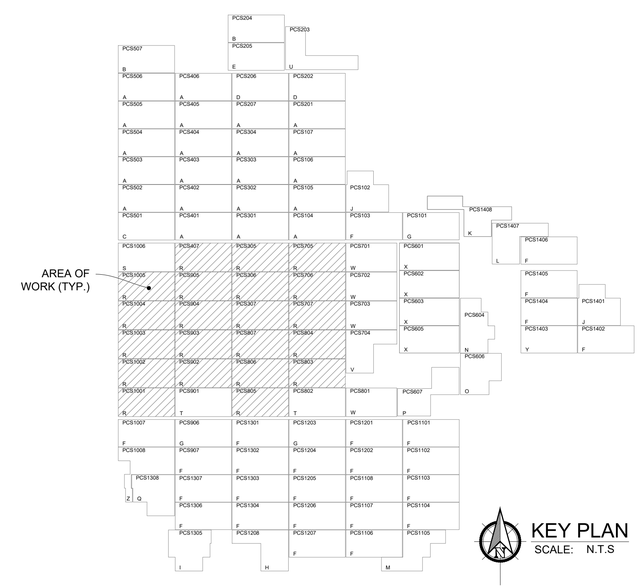
SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: TLR

CHECKED BY: EL

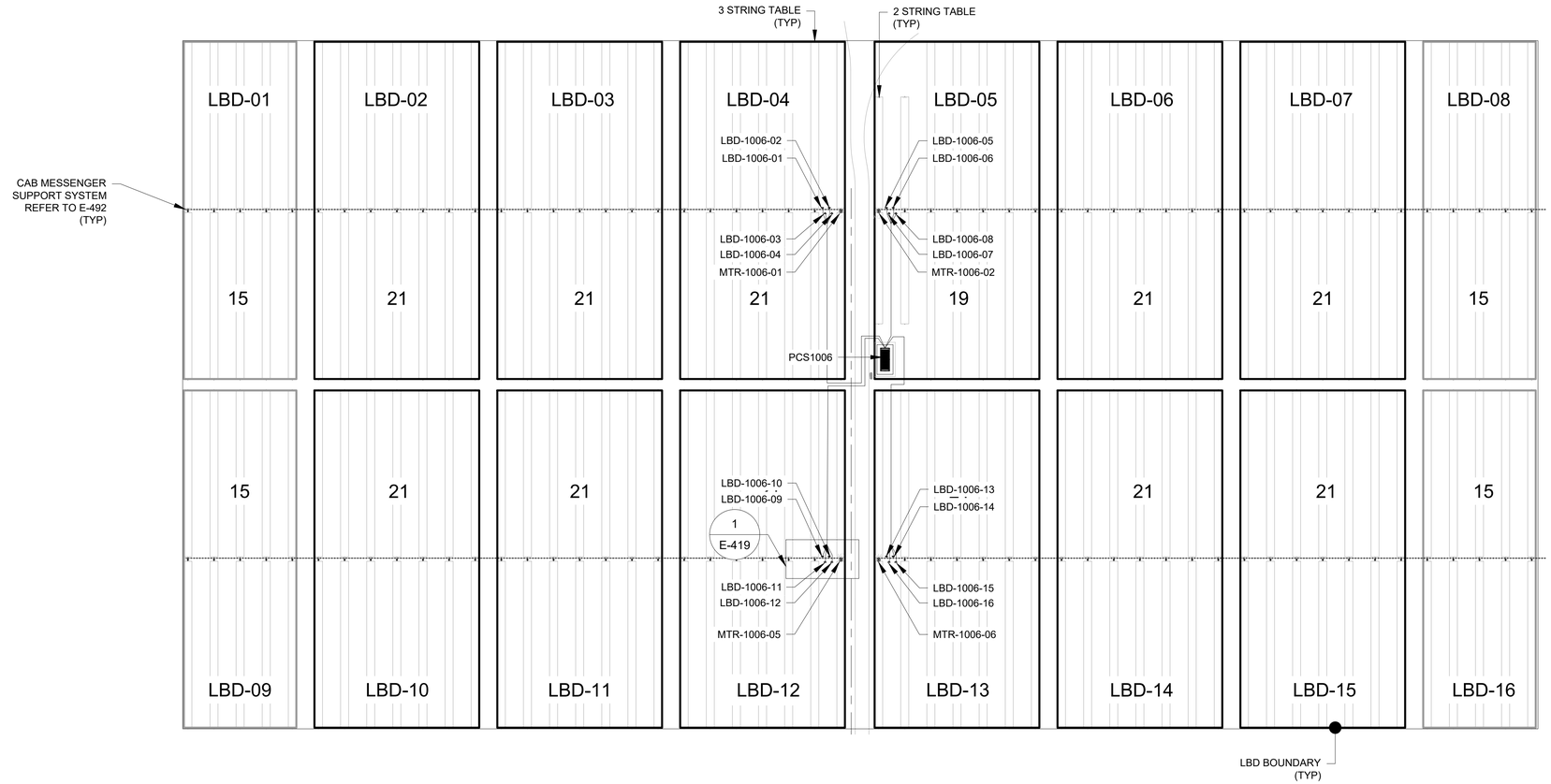
SHEET NAME: DC PLAN - ARRAY TYPE R (CS)

SHEET #: E-418

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: brady.burgason
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-418 DC PLAN - ARRAY TYPE R (CS)



DC PLAN - ARRAY TYPE - S (CS)

SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'

NOTES:

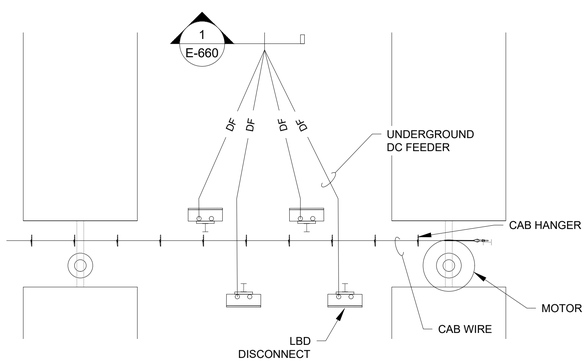
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

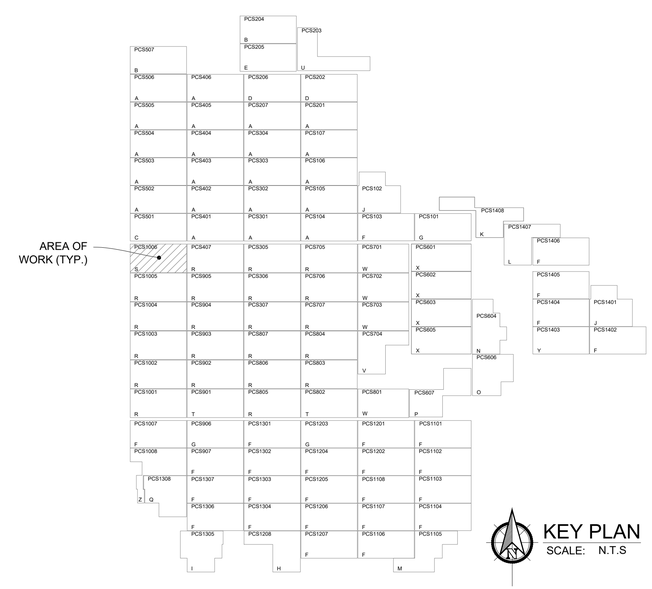
DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE S (CS)

SHEET #: E-419

REV #: 4

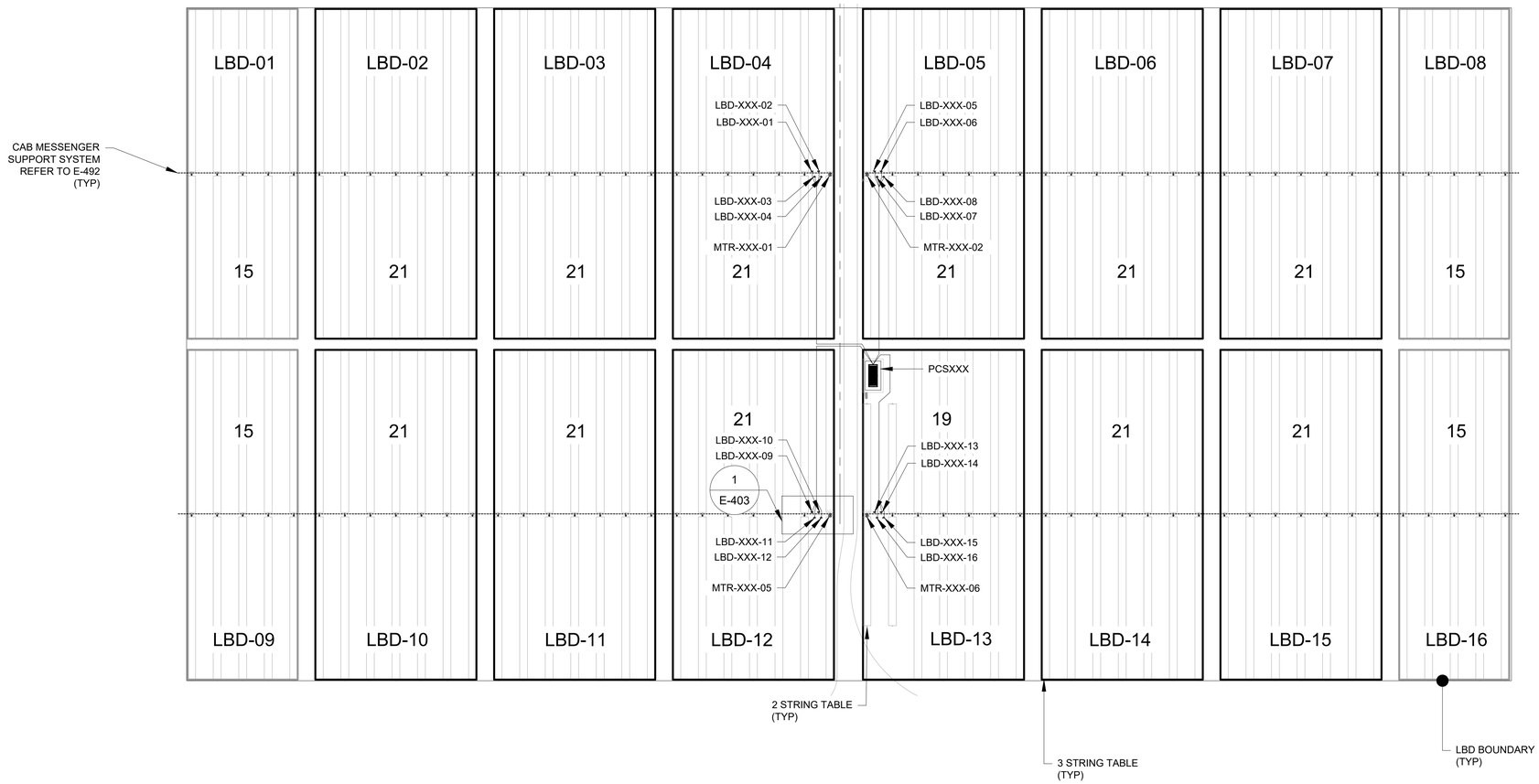
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Brady Burgason

SAVED BY: EricLoos

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-419 DC PLAN - ARRAY TYPE S (CS)

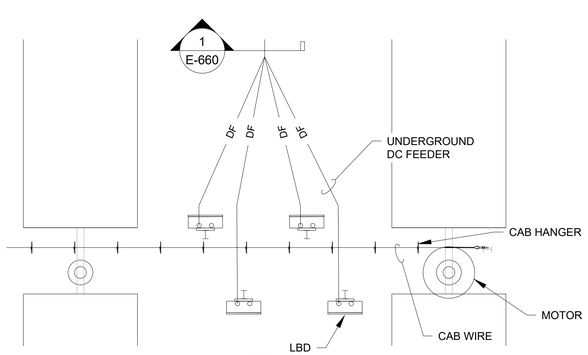


DC PLAN - ARRAY TYPE - T (CS)

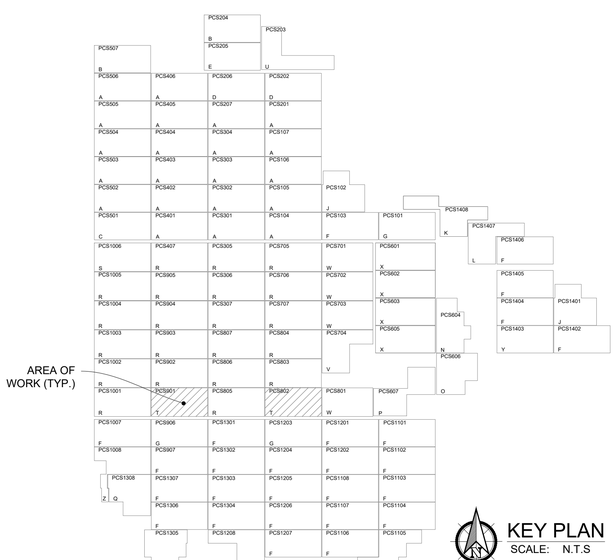
SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

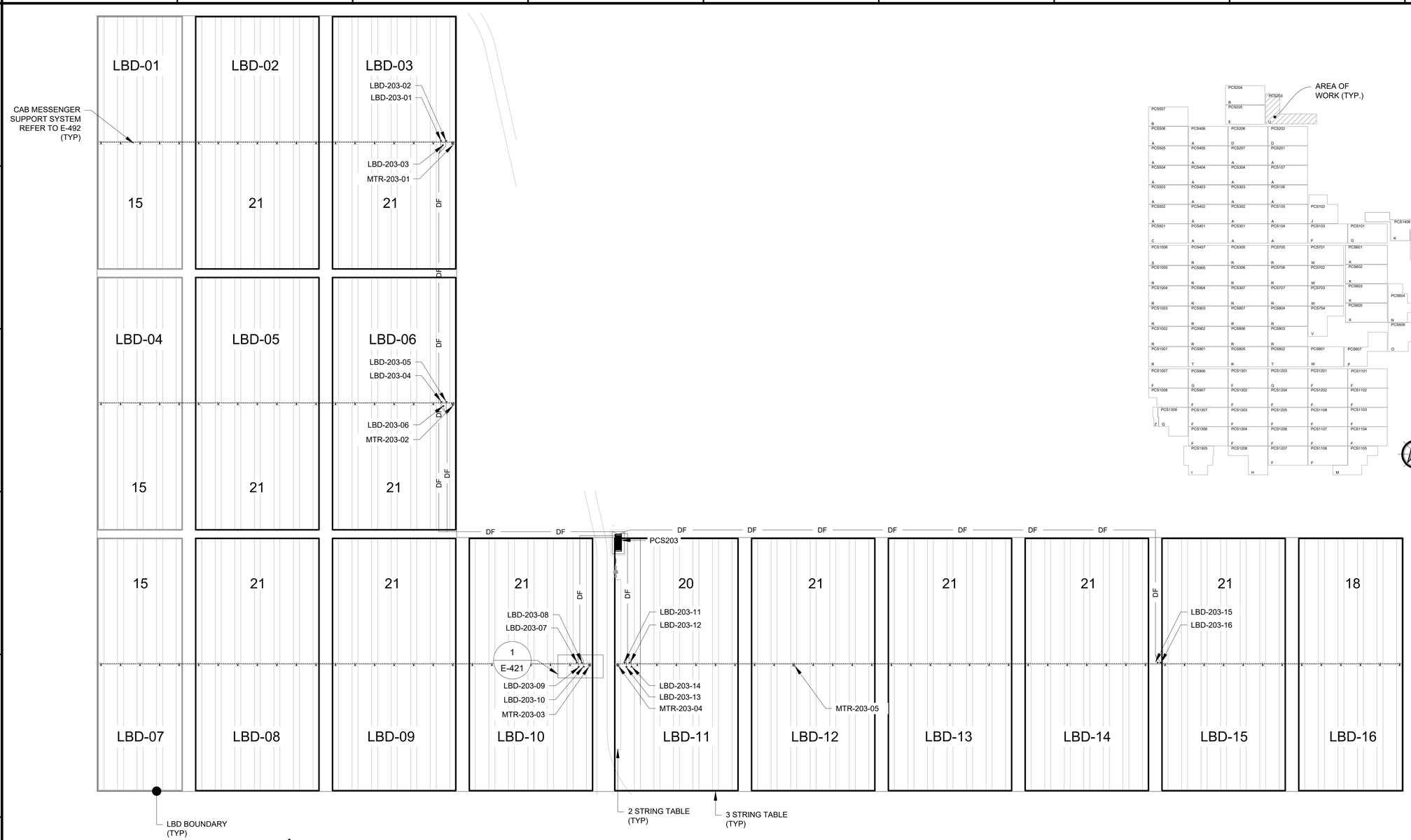
SHEET NAME: DC PLAN - ARRAY TYPE T (CS)

SHEET #: E-420

REV #: 4

RECORD DRAWING

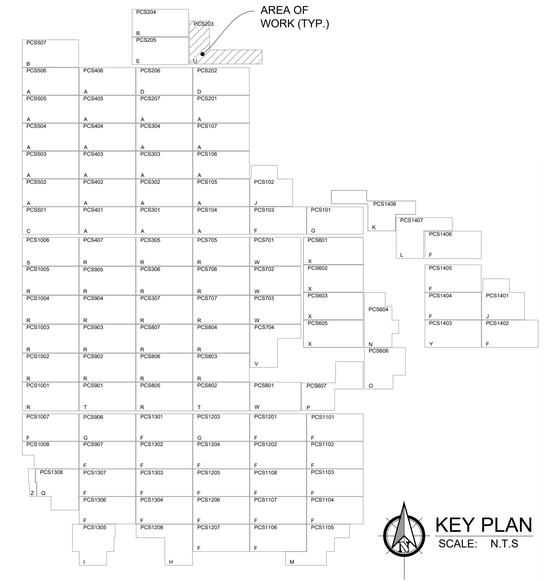
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-420 DC PLAN - ARRAY TYPE T (CS)
SAVED BY: EricLoos
PLOT BY: Brady Burgason
PLOT DATE: Thursday, June 08, 2023



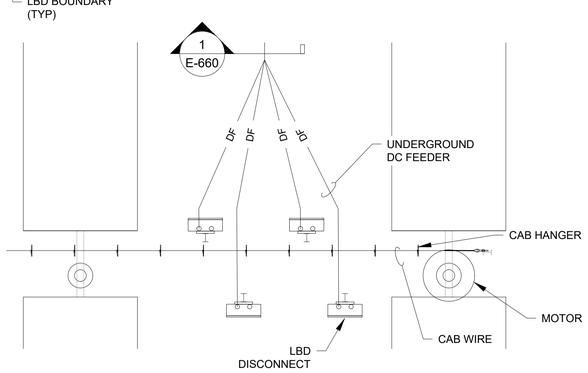
DC PLAN - ARRAY TYPE - U (CS)
SCALE: 1"=70'

70' 35' 0 70' 140' 210'

SCALE: 1"=70'



KEY PLAN
SCALE: N.T.S



1 LBD LAYOUT DETAIL

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1105 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

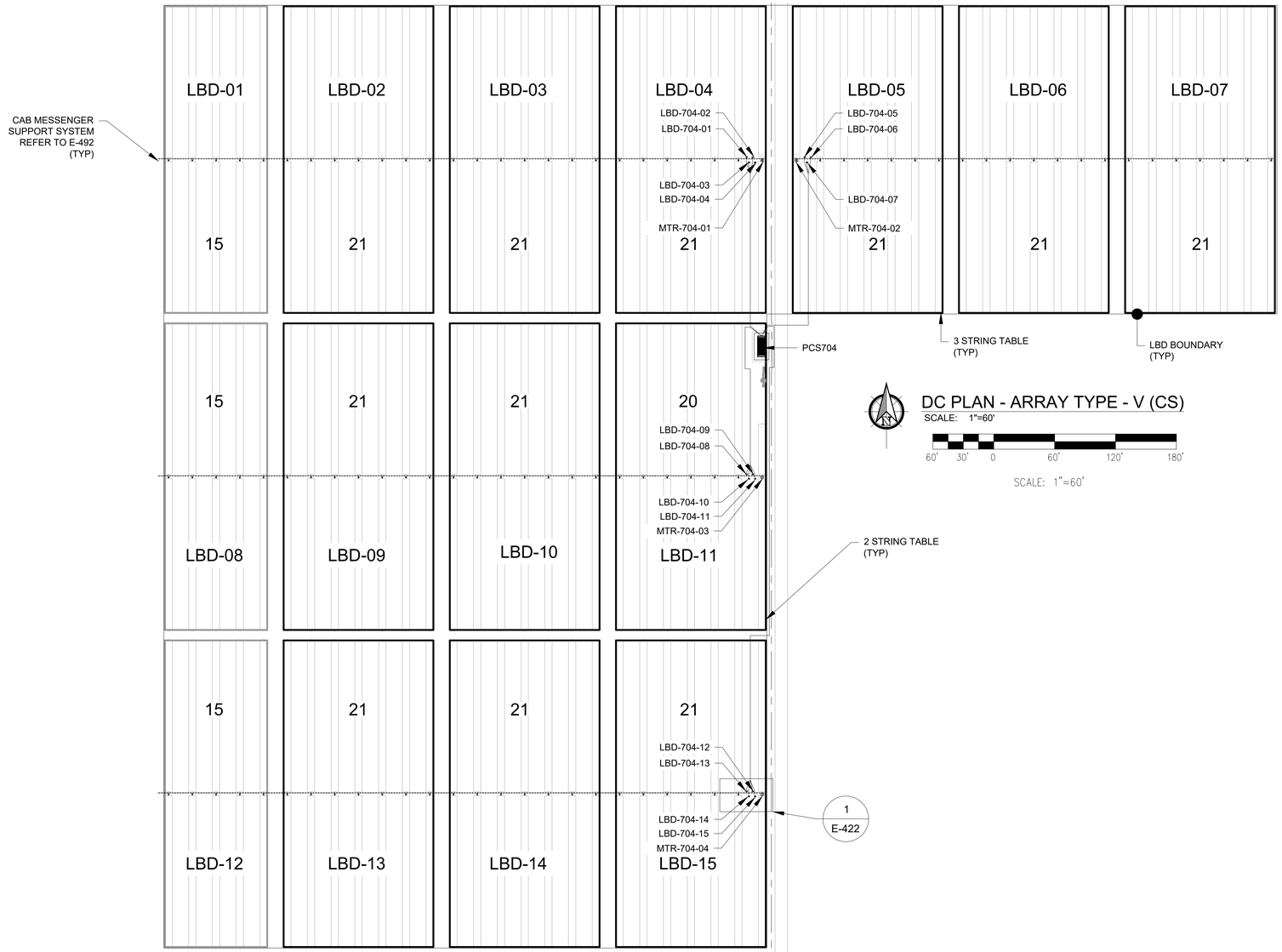
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

SHEET NAME:
DC PLAN - ARRAY TYPE U (CS)

SHEET #: E-421
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: brady.burgason
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-421 DC PLAN - ARRAY TYPE U (CS)

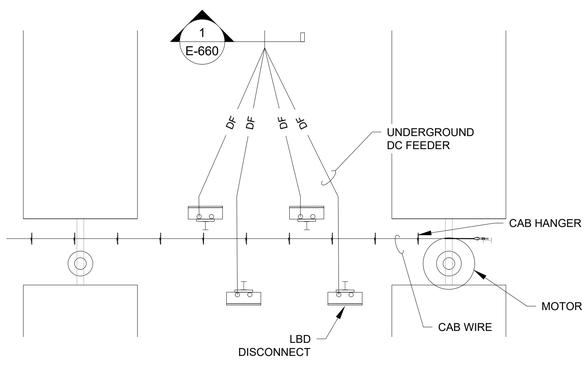


DC PLAN - ARRAY TYPE - V (CS)

SCALE: 1"=60'

60' 30' 0 60' 120' 180'

SCALE: 1"=60'



1 LBD LAYOUT DETAIL

NOTES:

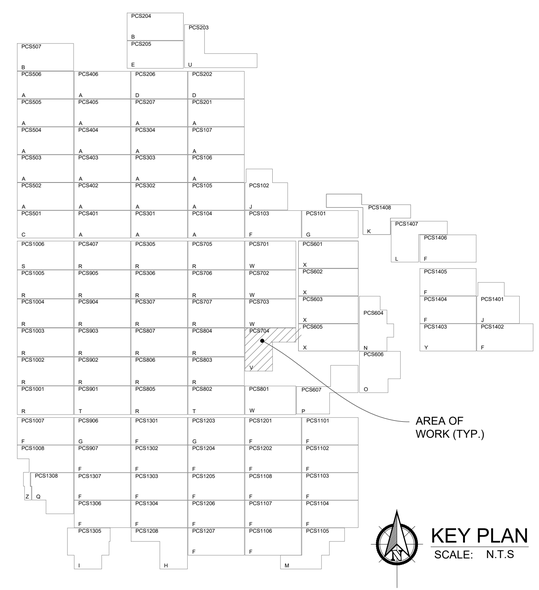
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



KEY PLAN
SCALE: N.T.S

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

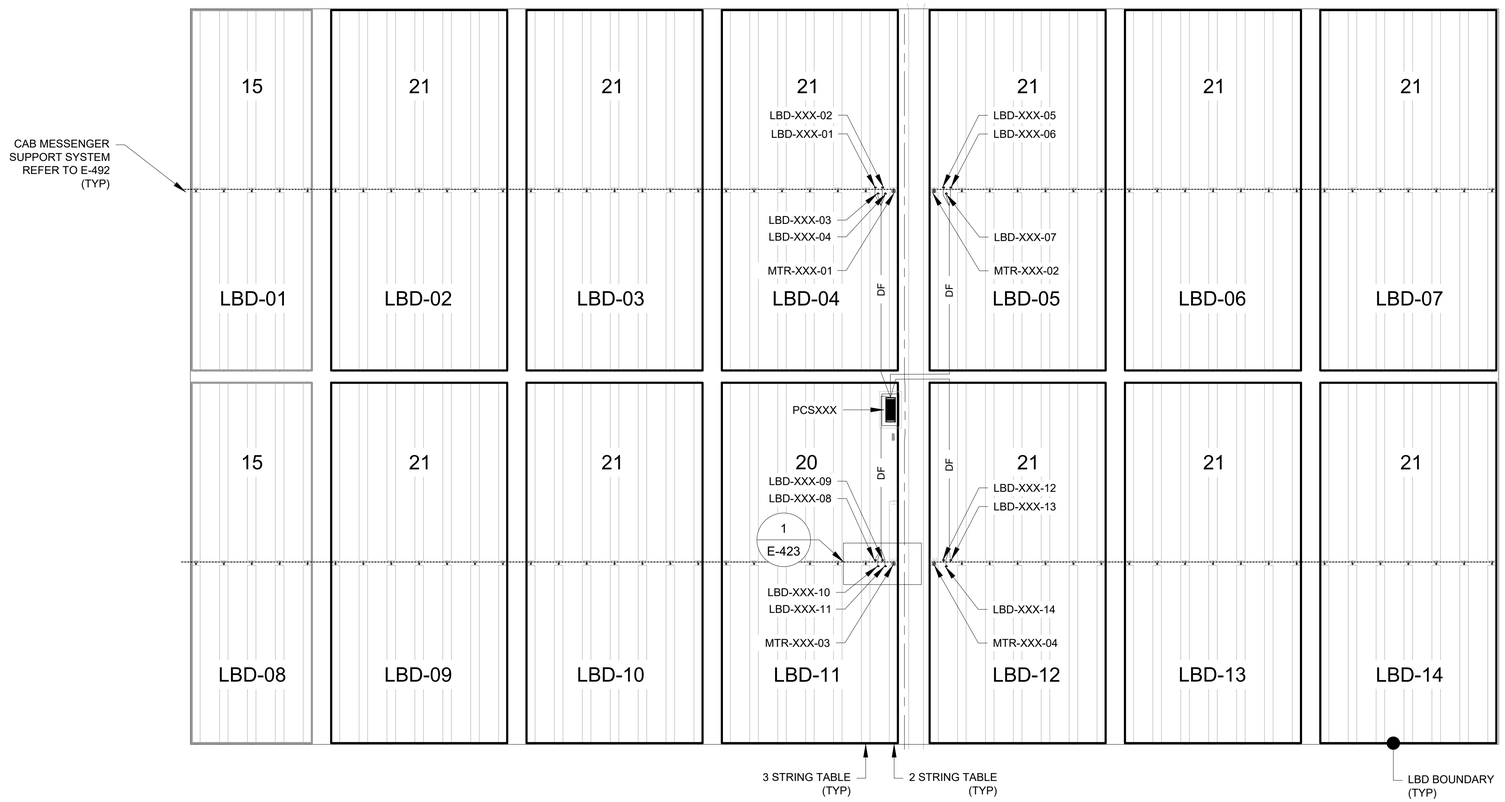
SHEET NAME:
DC PLAN - ARRAY TYPE V (CS)

SHEET #: E-422

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: EricLoos
LOCATION: K:_03_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-422 DC PLAN - ARRAY TYPE V (CS)



DC PLAN - ARRAY TYPE - W (CS)

SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'

NOTES:

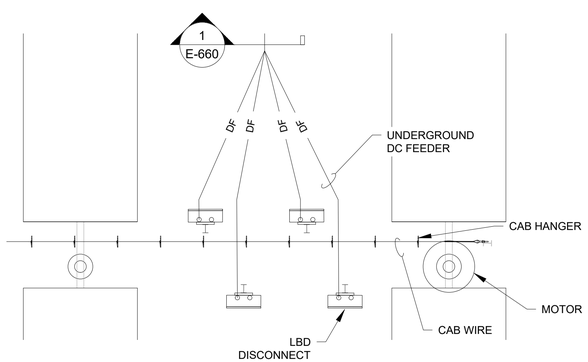
1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

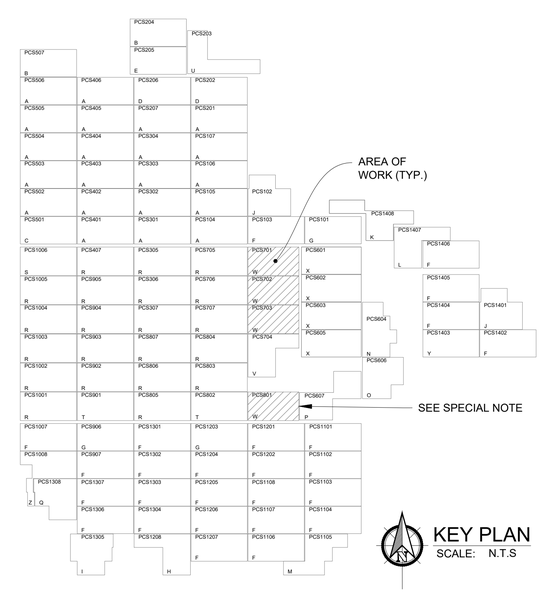
HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008



1 LBD LAYOUT DETAIL

SPECIAL NOTE: BLOCK PCS801 ONLY
TO MITIGATE SHADING, THE 3-STRING TABLE IMMEDIATELY WEST OF PCS801 IS ELEVATED. THE TABLE AXIS OF ROTATION SHALL NOT BE GREATER THAN 2'-10" BELOW THE HIGHEST POINT ON THE INVERTER. COORDINATE PCS801 SKID ELEVATION WITH CIVIL.



KEY PLAN
SCALE: N.T.S

RECORD DRAWING

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: TLR

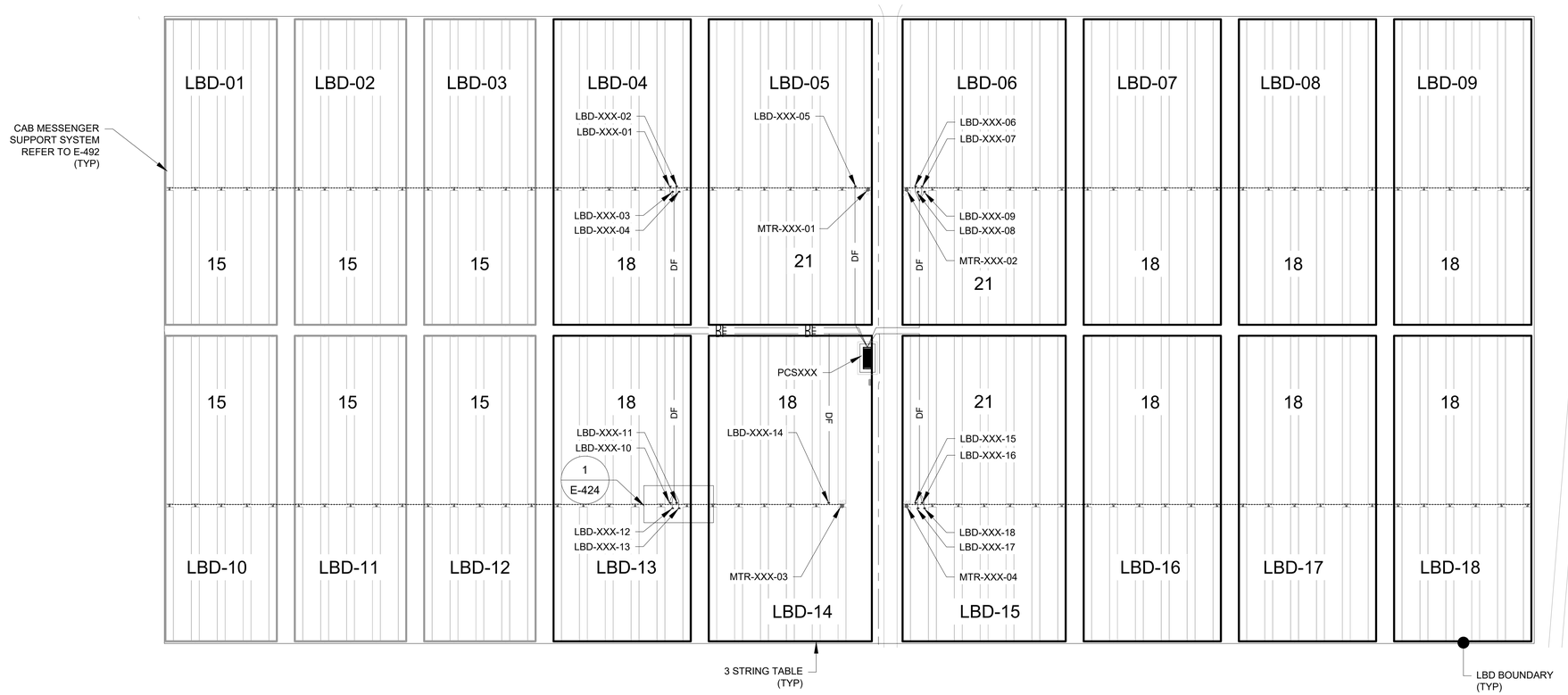
CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE W (CS)

SHEET #: E-423

REV #: 4

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: EricLoos
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-423 DC PLAN - ARRAY TYPE W (CS)

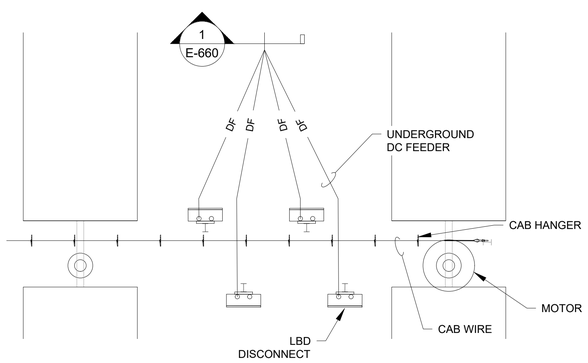


DC PLAN - ARRAY TYPE - X (JINKO)

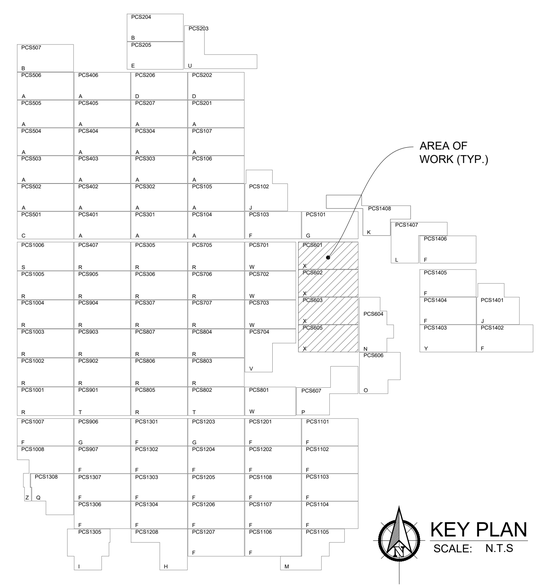
SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE X (JINKO)

SHEET #: E-424

REV #: 4

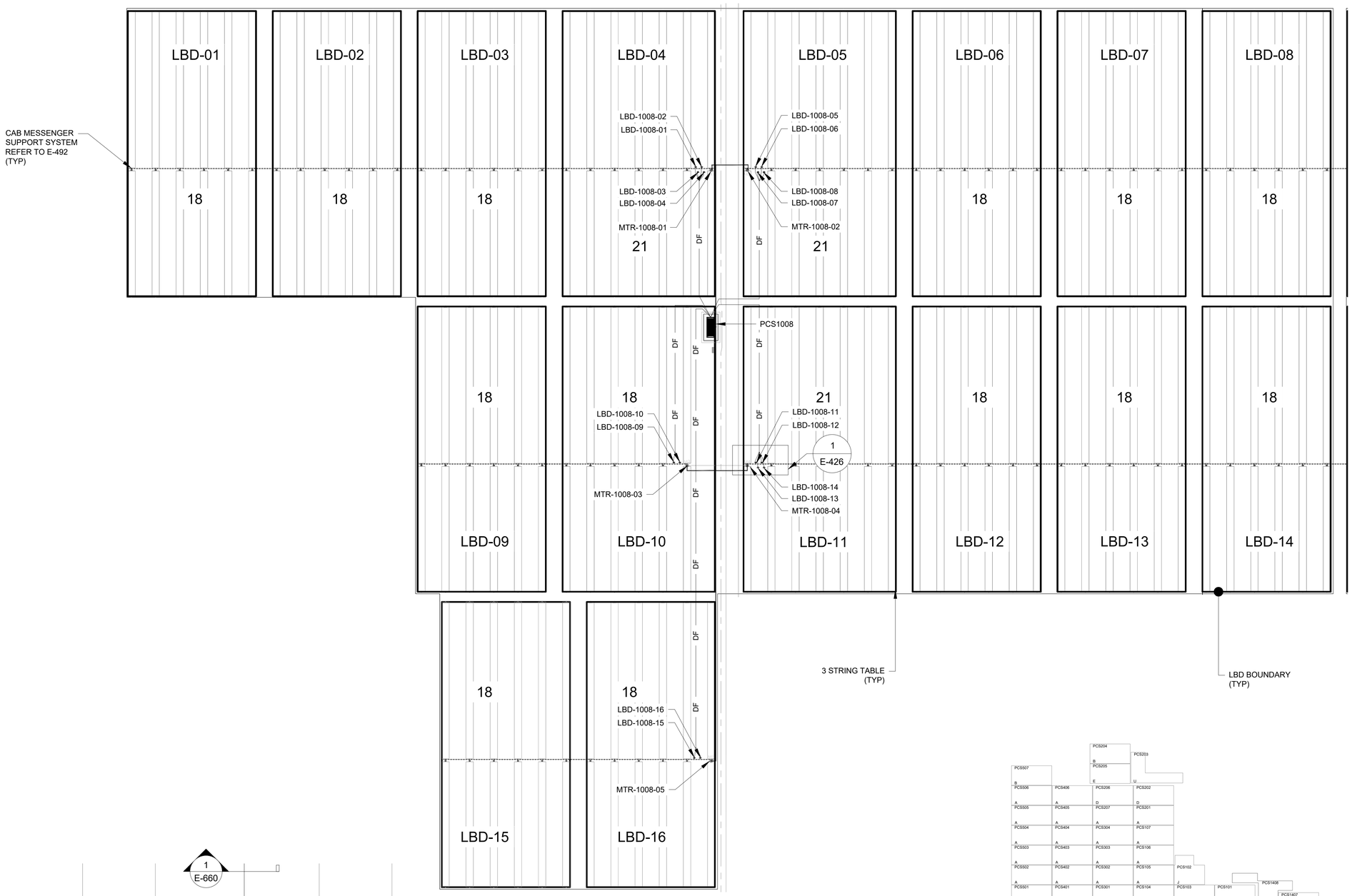
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Brady Burgason

SAVED BY: EricLoos

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-424 DC PLAN - ARRAY TYPE X (JINKO)



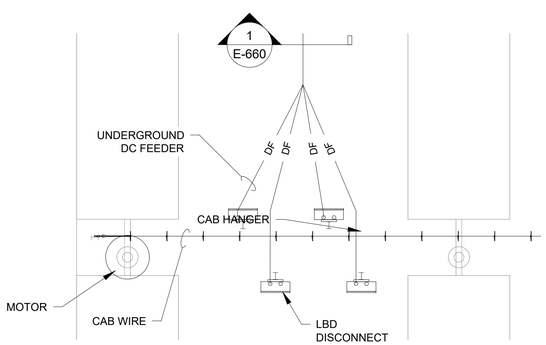
DC PLAN - ARRAY TYPE - Z (JINKO)

SCALE: 1"=50'

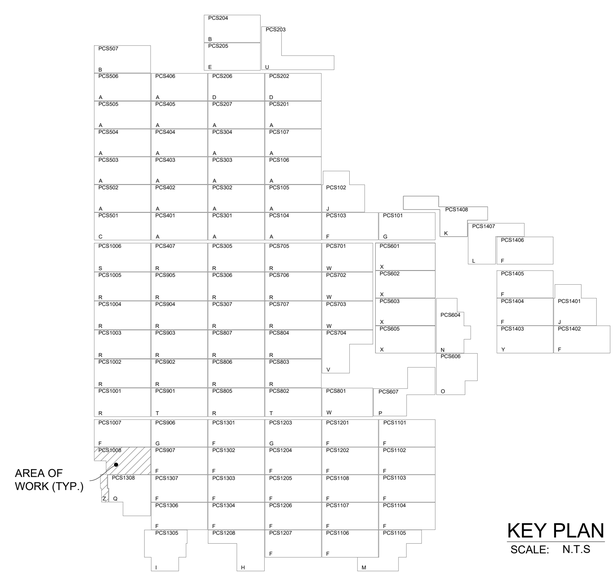
50' 25' 0 50' 100' 150'

SCALE: 1"=50'

NEW SHEET



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

HANGER SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: LR

CHECKED BY: EL

SHEET NAME: DC PLAN - ARRAY TYPE Z (JINKO)

SHEET #: E-426

REV #: 4

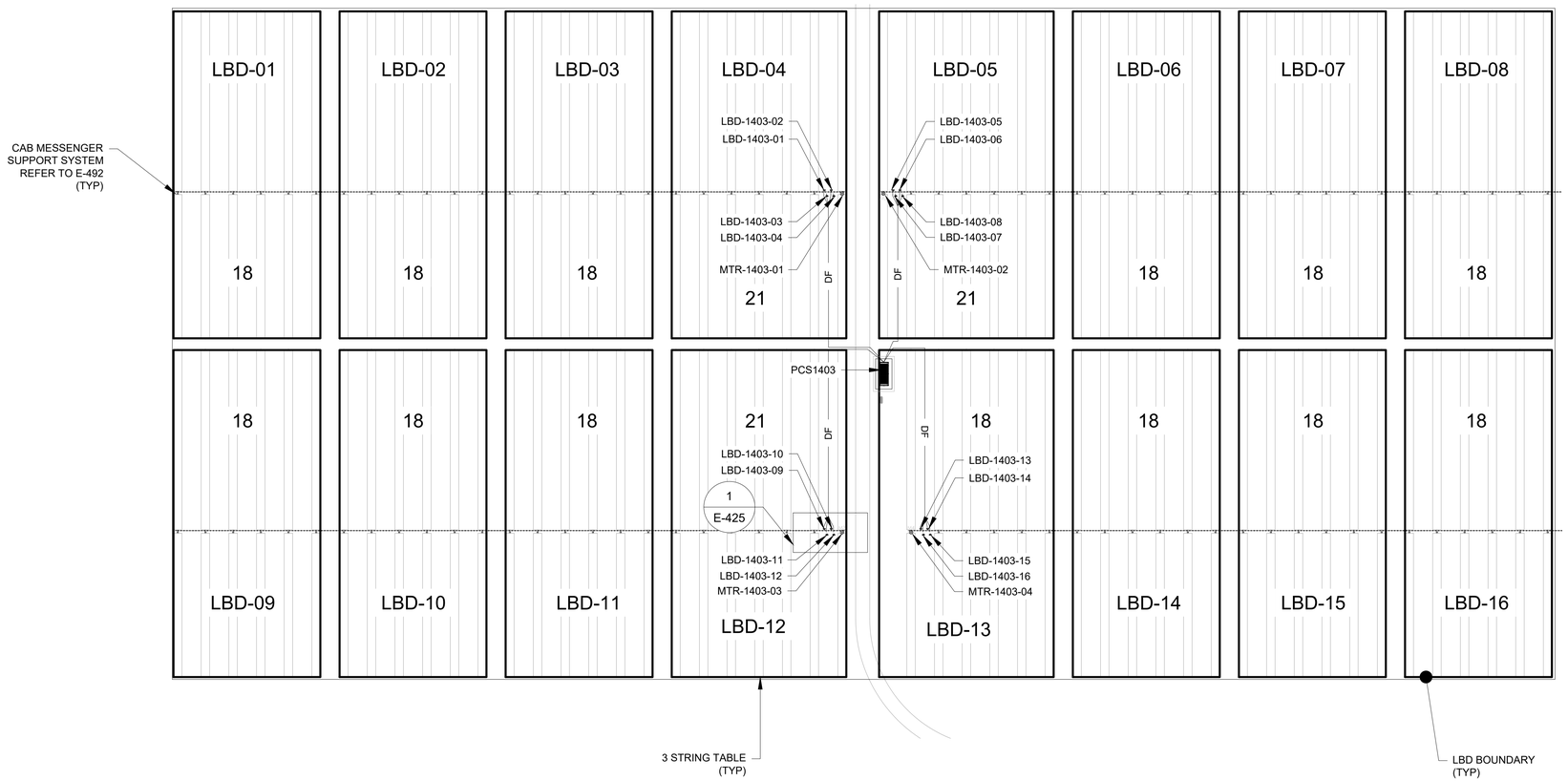
AS BUILT

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-426 DC PLAN - ARRAY TYPE Z (JINKO)

SAVED BY: brady.burgason

PLOT BY: Brady Burgason

PLOT DATE: Thursday, June 08, 2023

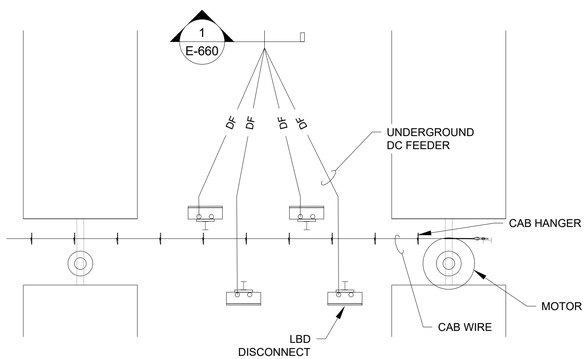


DC PLAN - ARRAY TYPE - Y (JINKO)

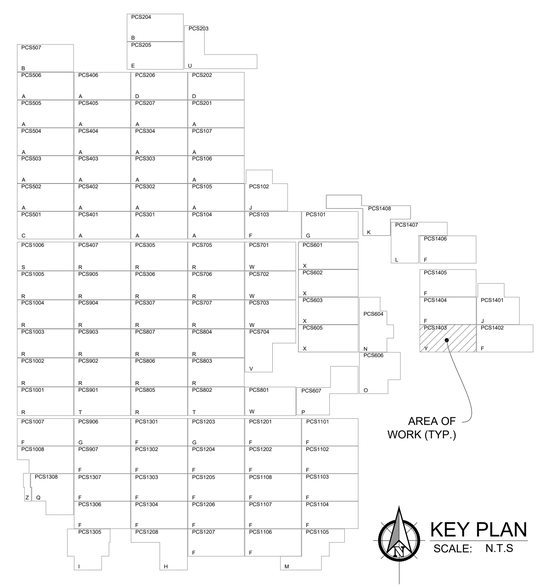
SCALE: 1"=50'

50' 25' 0 50' 100' 150'

SCALE: 1"=50'



1 LBD LAYOUT DETAIL



KEY PLAN

SCALE: N.T.S

NOTES:

1. DC FEEDER TAGS ARE SAME AS LBD TAGS EXCEPT SUBSTITUTING 'DF' IN PLACE OF 'LBD'.
2. REFER TO SHEET E-005 - BLOCK SCHEDULE AND SHEET E-011 - MODULE ALLOCATION PLAN FOR SPECIFIC INFORMATION REGARDING MODULE QUANTITIES ASSOCIATED WITH PCS-SPECIFIC ARRAY TYPES.

LEGEND:

DF — DC FEEDER

CAB SYSTEM

ARRAY TYPE	ASSOCIATED PCS
A	PCS104 PCS105 PCS106 PCS107 PCS201 PCS207 PCS301 PCS302 PCS303 PCS304 PCS401 PCS402 PCS403 PCS404 PCS405 PCS406 PCS502 PCS503 PCS504 PCS505 PCS506
B	PCS204 PCS507
C	PCS501
D	PCS202 PCS206
E	PCS205
F	PCS103 PCS907 PCS1007 PCS1101 PCS1102 PCS1103 PCS1104 PCS1106 PCS1107 PCS1108 PCS1201 PCS1202 PCS1204 PCS1205 PCS1206 PCS1207 PCS1301 PCS1302 PCS1303 PCS1304 PCS1306 PCS1307 PCS1402 PCS1404 PCS1405 PCS1406
G	PCS101 PCS906 PCS1203
H	PCS1208
I	PCS1305
J	PCS102 PCS1401
K	PCS1408
L	PCS1407
M	PCS1105
N	PCS604
O	PCS606
P	PCS607
Q	PCS1308
R	PCS305 PCS306 PCS307 PCS407 PCS705 PCS706 PCS707 PCS803 PCS804 PCS805 PCS806 PCS807 PCS902 PCS903 PCS904 PCS905 PCS1001 PCS1002 PCS1003 PCS1004 PCS1005
S	PCS1006
T	PCS802 PCS901
U	PCS203
V	PCS704
W	PCS701 PCS702 PCS703 PCS801
X	PCS601 PCS602 PCS603 PCS605
Y	PCS1403
Z	PCS1008

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: TLR

CHECKED BY: EL

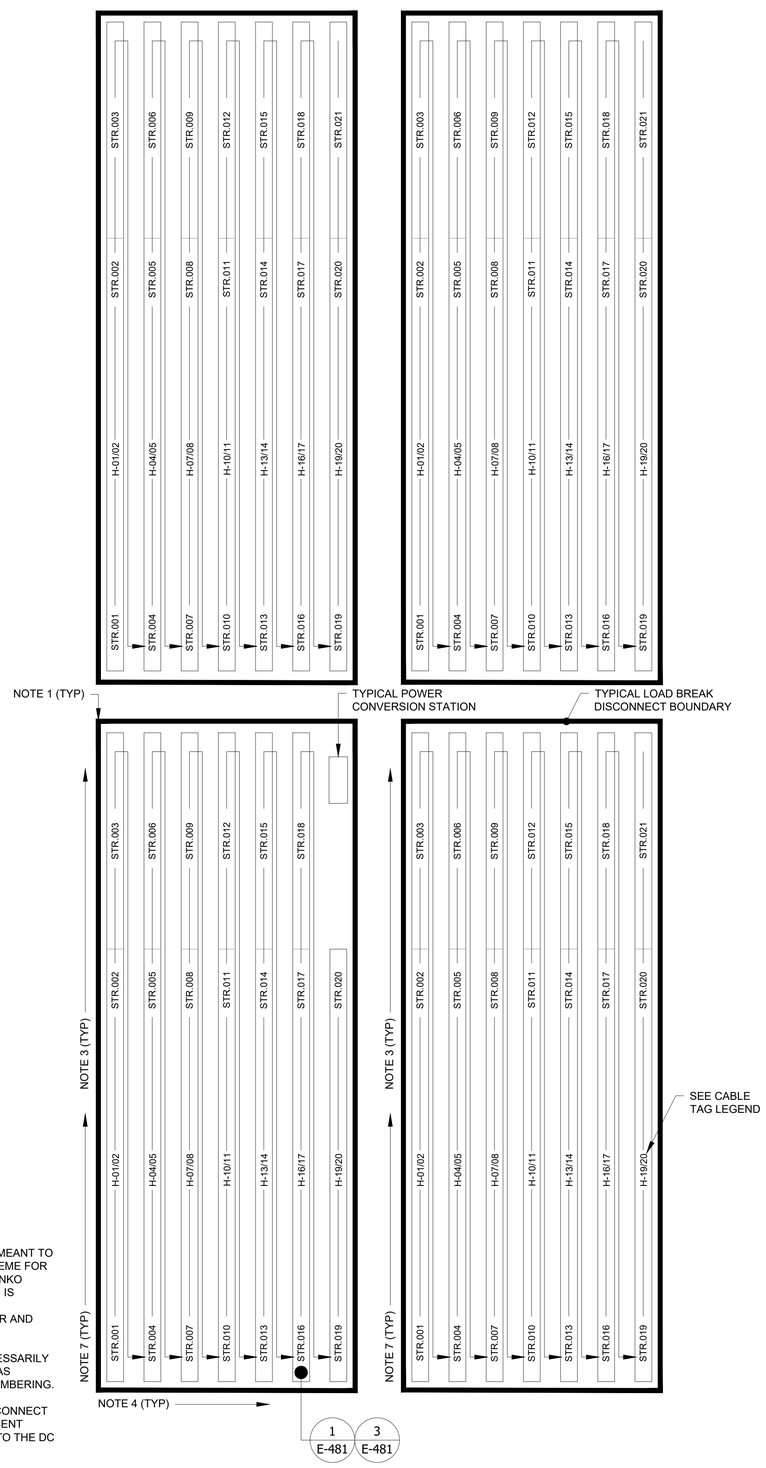
SHEET NAME: DC PLAN - ARRAY TYPE Y (JINKO)

SHEET #: E-425

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: EricLoos
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-425 DC PLAN - ARRAY TYPE Y (JINKO)

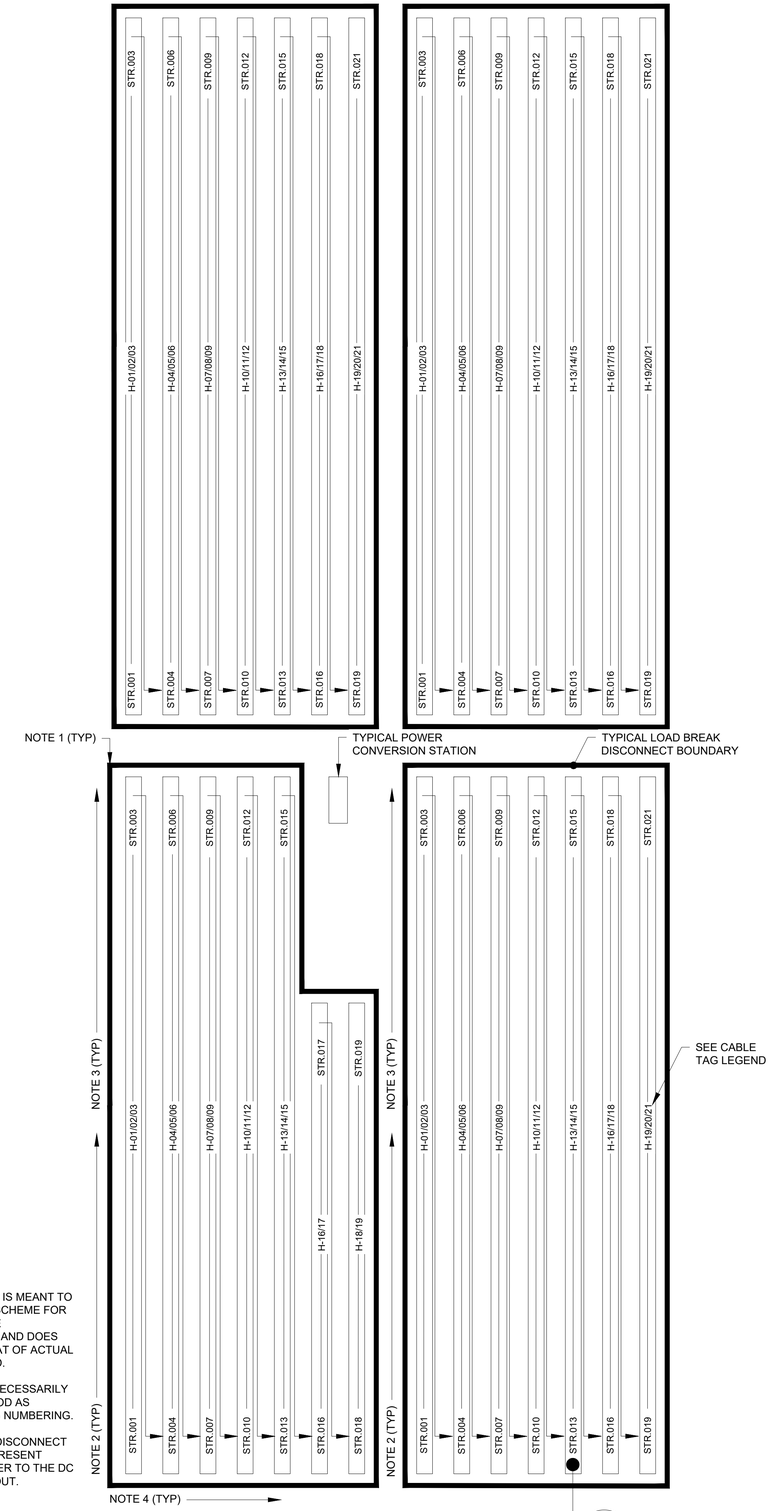


DETAIL 2 NOTES:

1. THIS DETAIL IS DIAGRAMMATIC AND IS MEANT TO CONVEY THE STRING NUMBERING SCHEME FOR BLOCKS WITH CANADIAN SOLAR AND JINKO MODULES. THE ARRANGEMENT SHOWN IS TYPICAL AND DOES NOT NECESSARILY REPRESENT THAT OF ACTUAL INVERTER AND DISCONNECTS USED.
2. NOT ALL BOUNDARY SHAPES ARE NECESSARILY REPRESENTED HERE, APPLY METHOD AS DENOTED IN THE NOTES TO STRING NUMBERING.
3. TABLE SPACING AND LOAD BREAK DISCONNECT BOUNDARY SPACING MAY NOT REPRESENT ACTUAL DESIGN CONDITIONS. REFER TO THE DC PLAN DRAWINGS FOR ACTUAL LAYOUT.

2 TYPICAL STRING NUMBERING METHOD (CANADIAN SOLAR / JINKO)

SCALE: N.T.S.



DETAIL 1 NOTES:

1. THIS DETAIL IS DIAGRAMMATIC AND IS MEANT TO CONVEY THE STRING NUMBERING SCHEME FOR BLOCKS WITH TRINA MODULES. THE ARRANGEMENT SHOWN IS TYPICAL AND DOES NOT NECESSARILY REPRESENT THAT OF ACTUAL INVERTER AND DISCONNECTS USED.
2. NOT ALL BOUNDARY SHAPES ARE NECESSARILY REPRESENTED HERE, APPLY METHOD AS DENOTED IN THE NOTES TO STRING NUMBERING.
3. TABLE SPACING AND LOAD BREAK DISCONNECT BOUNDARY SPACING MAY NOT REPRESENT ACTUAL DESIGN CONDITIONS. REFER TO THE DC PLAN DRAWINGS FOR ACTUAL LAYOUT.

1 TYPICAL STRING NUMBERING METHOD (TRINA)

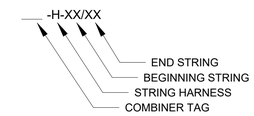
SCALE: N.T.S.

NOTES:

GENERAL RULE TO STRING NUMBERING SHALL BE AS FOLLOWS:

1. HARNESS AND STRING NUMBERING BEGINS AT THE FARTHEST SOUTHWEST CORNER OF EACH LOAD BREAK DISCONNECT BOUNDARY AND INCREASES SEQUENTIALLY CONTINUING TO THE NEXT STRING AND CONSECUTIVE HARNESS NORTH. AFTER ALL HARNESSES ARE NUMBERED FROM SOUTH TO NORTH THEN NUMBERING SHALL PROGRESS TO THE NEXT COLUMN OF TABLES TO THE EAST BEGINNING AGAIN AT THE SOUTHERN MOST HARNESS / STRING. EACH STRING, HARNESS AND RESPECTIVE JUMPER TO THE LOAD BREAK DISCONNECT PANEL SHALL HAVE A UNIQUE SEQUENTIAL NUMBER. REFER TO E-211 THROUGH E-236 SHEETS FOR SPECIFIC NUMBERING FOR THIS PROJECT.
2. 3-STRING TABLES HAVE ONE (1) 3-STRING HARNESS EACH. 2-STRING TABLES HAVE ONE (1) 2-STRING HARNESS EACH.
3. STRING NUMBERING SHALL BEGIN AT LOWER SOUTHERN MOST CORNER FOR EACH COMBINER GROUP OF STRINGS AS DEFINED BY EACH LOAD BREAK SWITCH BOUNDARY (BOUNDARIES AS SHOWN ON SHEETS E-401 THROUGH E-426).
4. BEGINNING IN THE SOUTHERN MOST CORNER WITH-IN THE LOAD BREAK DISCONNECT BOUNDARY NUMBERING STARTS WITH STRING.01 (STR.001) AND INCREASES INCREMENTALLY WITH-IN EACH TABLE. REFER TO DETAIL 1 AND DETAIL 2 THIS SHEET.
5. NUMBERING PROGRESSES TO THE NEXT TABLE DIRECTLY TO THE NORTH BEFORE PROGRESSING TO THE NEXT COLUMN TO THE EAST, TYPICAL FOR WITH-IN DISCONNECT BOUNDARY.
6. NUMBERING PROGRESSES TO THE EAST (NEXT CONSECUTIVE TABLE COLUMN) AFTER ALL TABLES NUMBERING TO THE NORTH ARE COMPLETED. THE PROCESS CONTINUES UNTIL ALL STRINGS ARE NUMBERED SEQUENTIALLY WITH-IN THE LOAD BREAK DISCONNECT (LBD) BOUNDARY.
7. 3-STRING TABLES HAVE ONE (1) 2-STRING HARNESS AND 1-SINGLE STRING CIRCUIT ROUTED TO IPC AT TRUNK BUS.
8. REFER TO E-908 FOR HARNESS SPECIFICATIONS AND ADDITIONAL INFORMATION.

CABLE TAG LEGEND:



FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

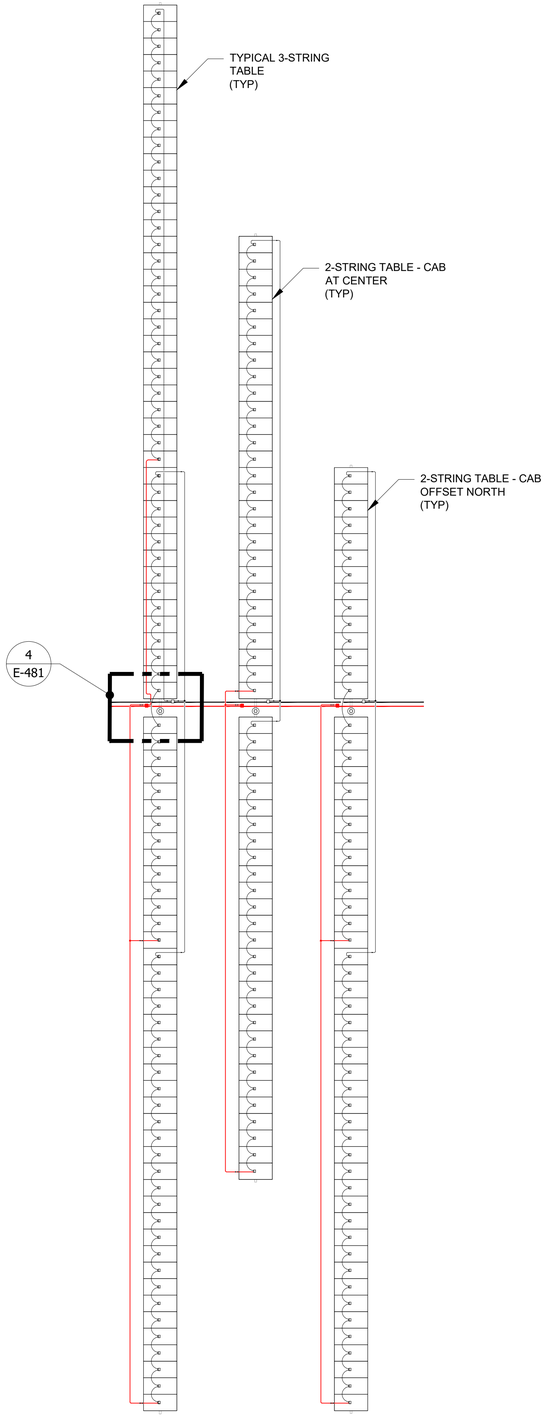
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: CLH
CHECKED BY: EL

SHEET NAME: TYPICAL STRING NUMBERING

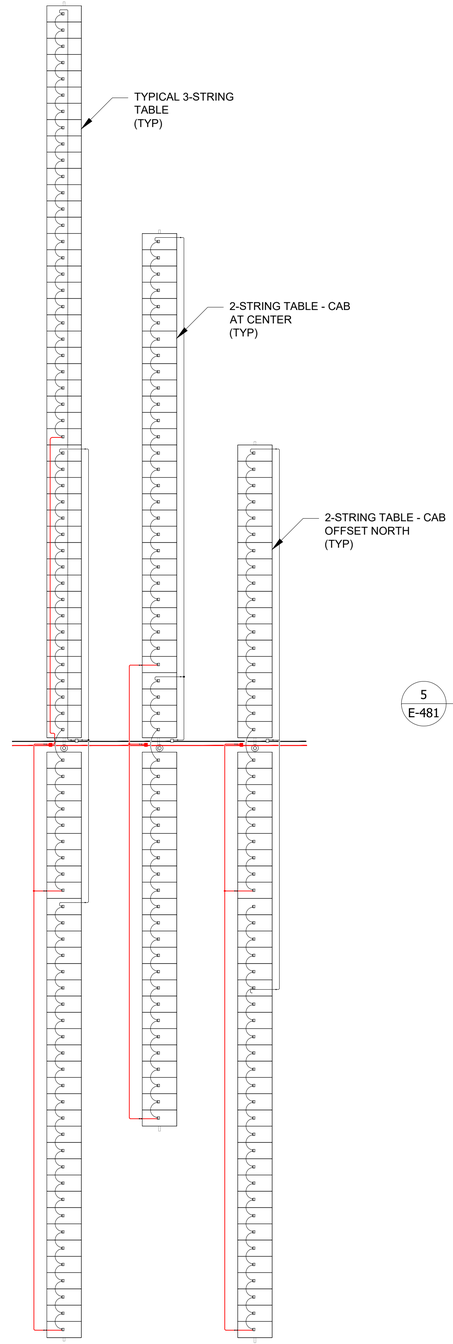
SHEET #: E-480
REV #: 4

RECORD DRAWING

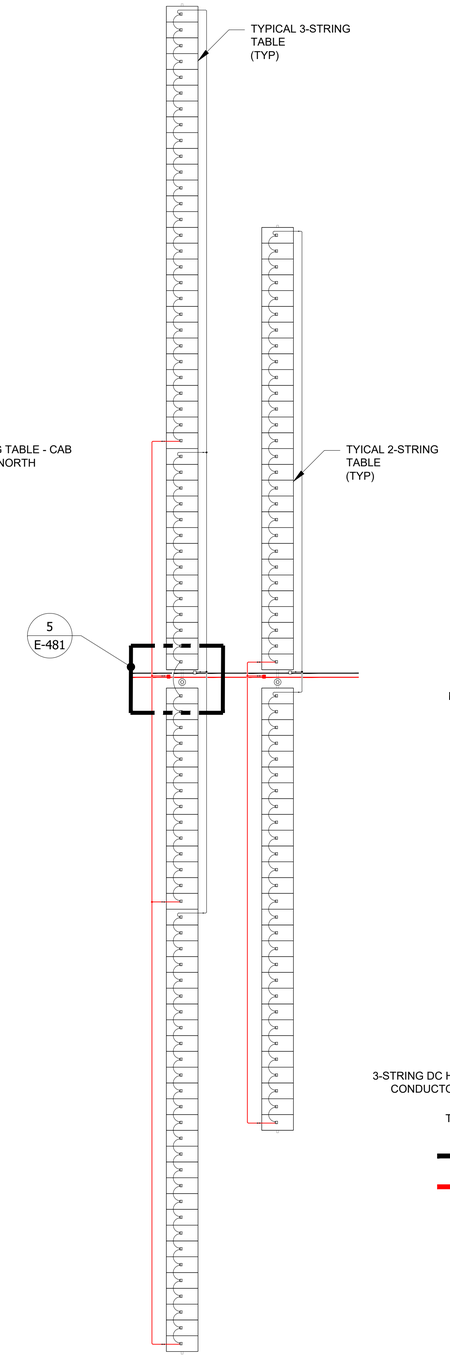
PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: lena.luchenta
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-480 TYPICAL STRING NUMBERING



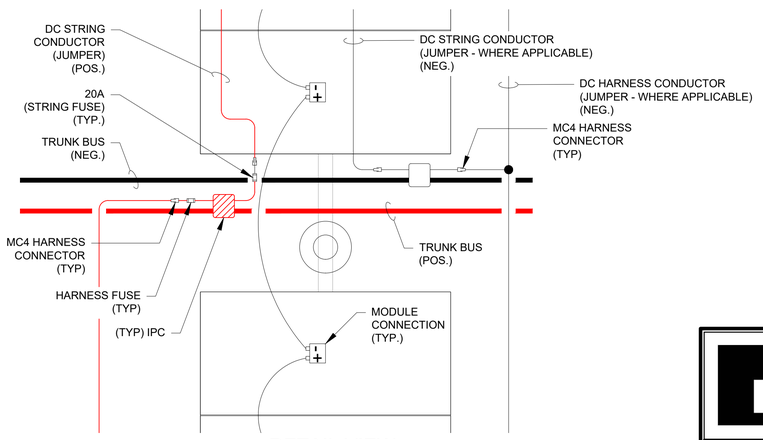
3 TYPICAL HARNESS WIRING - CANADIAN SOLAR MODULES
SCALE: N.T.S.



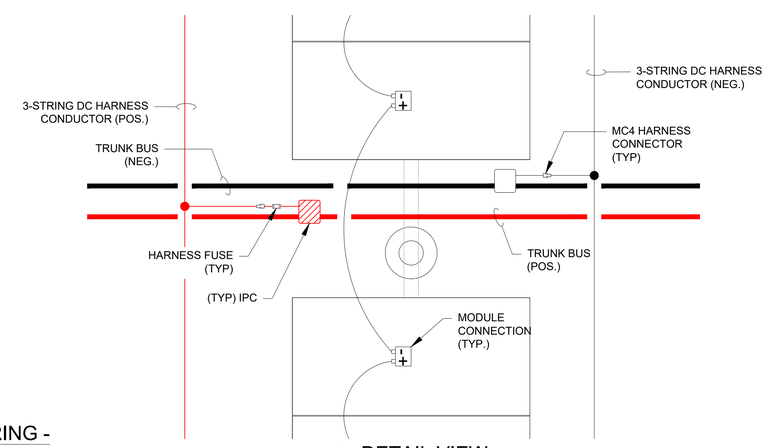
2 TYPICAL HARNESS WIRING - JINKO SOLAR MODULES
SCALE: N.T.S.



1 TYPICAL HARNESS WIRING - TRINA MODULES
SCALE: N.T.S.



4 DETAIL VIEW
SCALE: N.T.S.



5 DETAIL VIEW
SCALE: N.T.S.

NOTES:

1. THIS DRAWING IS DIAGRAMMATIC AND INTENDED TO SHOW TYPICAL TABLE STRING AND HARNESS DC WIRING, INSULATION PIERCING CONNECTORS (IPC), AND ASSOCIATED TRUNK BUS. WIRE MANAGEMENT SYSTEM NOT SHOWN FOR CLARITY.
2. EACH FULL TABLE CONSISTS OF 2 OR 3 TOTAL STRINGS WITH TRUNK BUS AND ASSOCIATED INSULATION PIERCING CONNECTORS.
3. ALL 2-STRING TABLES SHALL UTILIZE 2-STRING HARNESSES.
4. 3-STRING TABLES SHALL UTILIZE THE FOLLOWING:
   4.1. TRINA MODULES: ONE (1) 3-STRING HARNESSES.
   4.2. JINKO/CS MODULES: ONE (1) 3-STRING HARNESSES.
5. REFER TO SHEETS E-211 THRU E-236 FOR FUSE SIZES AND ADDITIONAL STRING INFORMATION PER ARRAY TYPE

LEGEND:

- INSULATION PIERCING CONNECTOR 'IPC' (NEG.)
- INSULATION PIERCING CONNECTOR 'IPC' (POS.)
- TRUNK BUS (NEG.)
- TRUNK BUS (POS.)

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

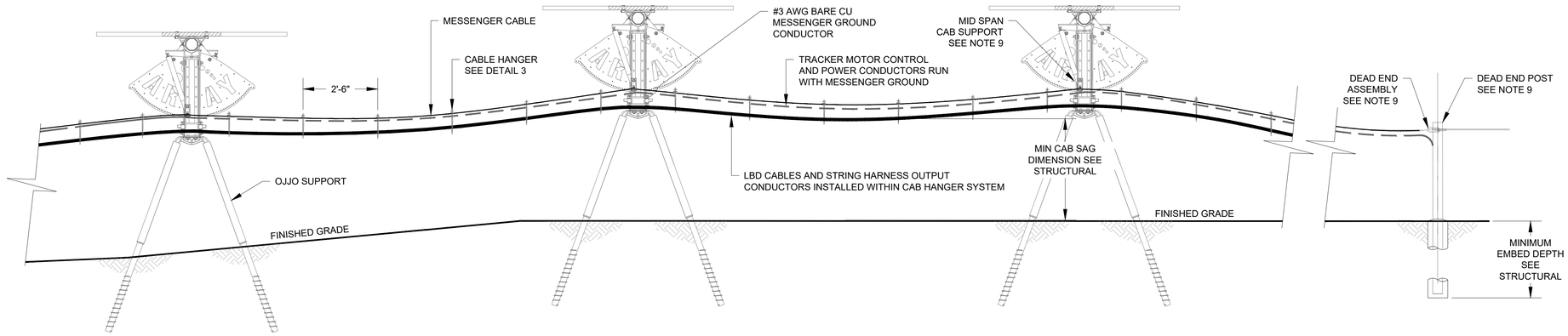
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: CH
CHECKED BY: EL

SHEET NAME:
TYPICAL STRING WIRING

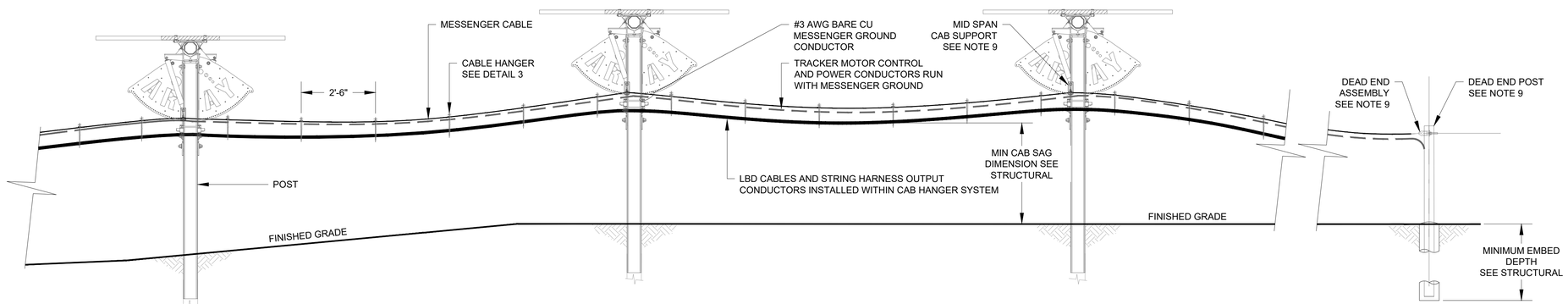
SHEET #: E-481
REV #: 4

RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-481 TYPICAL STRING WIRING
SAVED BY: lena.luchenta
PLOT BY: Brady Burgason
PLOT DATE: Thursday, June 08, 2023



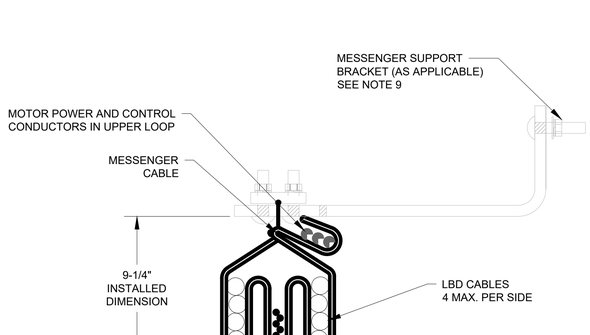
1 CABLE MESSENGER / OJJO RACK SUPPORTS - (JINKO & CANADIAN SOLAR BLOCKS)
SCALE: N.T.S.



2 CABLE MESSENGER / POST RACK SUPPORTS - (TRINA BLOCKS)
SCALE: N.T.S.

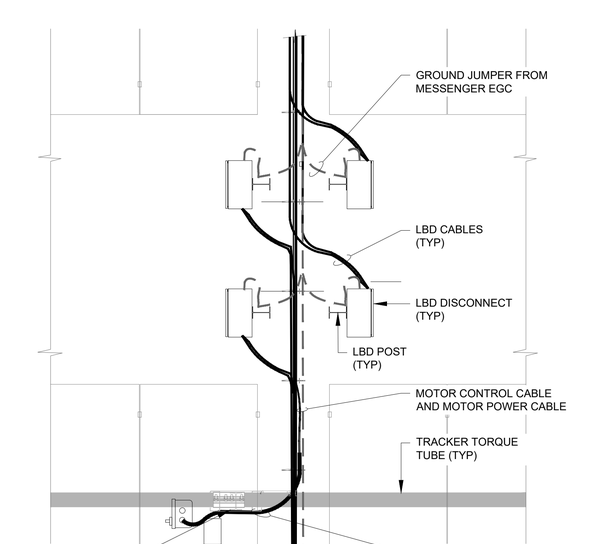
NOTES:

1. SECURE ALL CABLES AT EACH CABLE HANGER USING UV-RESISTANT CABLE TIES.
2. SIMILAR CABLES ARE TO BE SEGREGATED BY CABLE HANGER CARRIER POSITIONS. THE TWO OUTSIDE CARRIER POSITIONS FOR THE LBD CABLES AND LBD OUTPUT CIRCUIT CONDUCTORS. THE UPPER LOOP FOR THE TRACKER MOTOR POWER, CONTROL CABLES, AND #3 GROUND CABLE. SEE DETAIL 3.
3. THE AMOUNT OF "INITIAL SAG" FOR EACH RUN OF MESSENGER WIRE IS TO BE DETERMINED AT THE TIME OF INSTALLATION, PRIOR TO INSTALLING THE HANGERS AND CABLES. THE "INITIAL SAG" DIMENSION IS TO BE DETERMINED USING TABLE 1 LOCATED IN CAB DOCUMENTATION.
4. ROUTE POSITIVE AND NEGATIVE LBD CABLES IN THE SAME HANGER POSITION.
5. PROVIDE A CONTROL CABLE FROM EACH MOTOR CONTROL BOX TO THE 6X CONTROLLER LOCATED AT EACH PCS AREA. PROVIDE MOTOR POWER FROM THE PCS AREA TO EACH MOTOR. MOTOR POWER CABLES MAY BE DAISY CHAINED; REFER TO DRAWINGS E-290 THROUGH E-293 FOR TRACKER MOTOR SLD.
6. ROUTE MOTOR POWER AND CONTROL CABLE IN CAB SYSTEM AFTER PASSING THROUGH CAB/CONDUIT TRANSITION, SEE NOTE 2.
7. MOTOR AND DRIVE SHAFT ALWAYS LOCATED ON SOUTH SIDE OF GAP.
8. REFER TO VENDOR DRAWINGS FOR FURTHER DETAILS AND RECOMMENDATIONS REGARDING TRACKER MOTOR AND LBD DISCONNECT INSTALLATION.
9. REFER TO STRUCTURAL DRAWINGS FOR THE FOLLOWING INFORMATION:
   - 9.1. END PIER HARDWARE SPECIFICATION AND MOUNTING DETAIL
   - 9.2. MID-PIER HARDWARE SPECIFICATION AND MOUNTING DETAIL
   - 9.3. DEAD END POST DESIGN
   - 9.4. CABLE SAG CALCULATIONS
   - 9.5. CABLE INSTALLATION DIMENSION, MUST MEET FREEBOARD REQUIREMENTS AS INDICATED IN THE HYDROLOGY STUDY.
   - 9.6. COMBINER BOX MOUNTING HEIGHT. MUST MEET FREEBOARD REQUIREMENTS AS INDICATED IN THE HYDROLOGY STUDY.

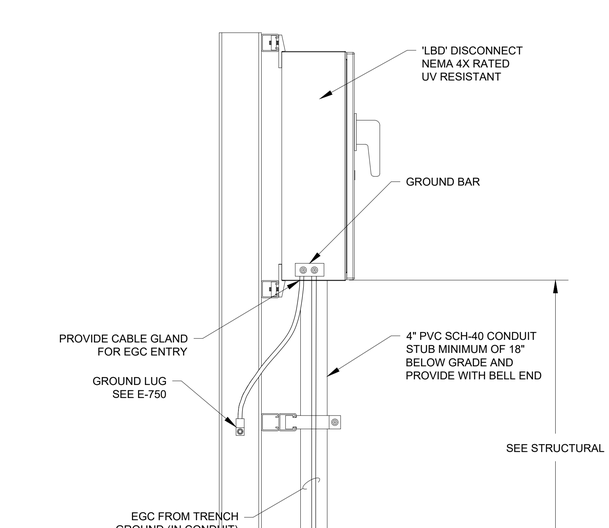


NOTE: HANGERS SHALL BE LOADED IN A BALANCED FASHION.

3 TYPICAL CABLE HANGER
SCALE: N.T.S.



4 LBD DISCONNECT AND TRACKER CAB INTERFACE
SCALE: N.T.S.



5 LBD DISCONNECT MOUNTING
SCALE: N.T.S.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

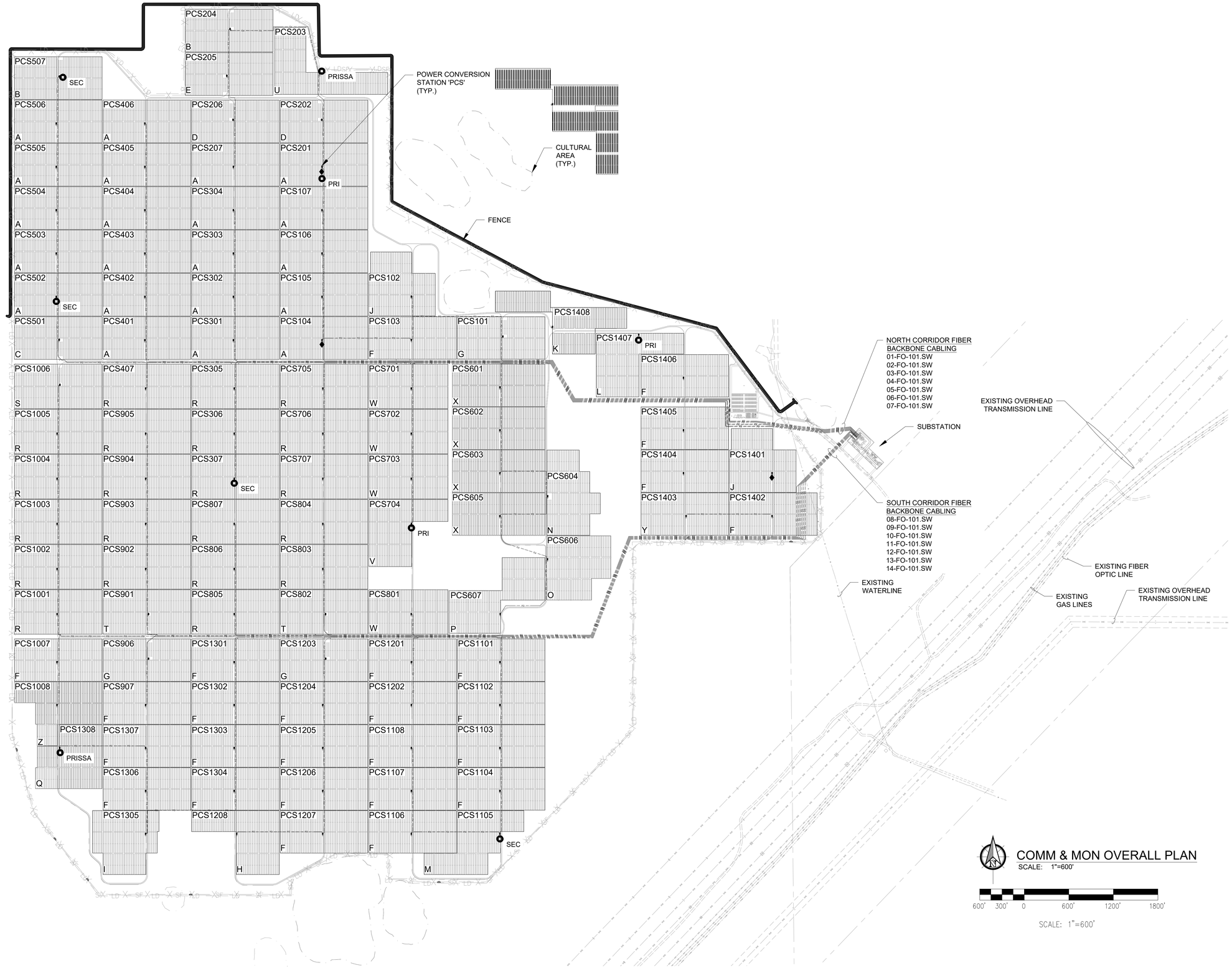
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

SHEET NAME: CAB DETAILS

SHEET #: E-492
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_03_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-492 CAB DETAILS



NOTES:

1. THIS DRAWING IS DIAGRAMMATIC AND INTENDED TO SHOW THE OVERALL TYPICAL ROUTING OF THE FIBER OPTIC CABLE. THE FO CABLE SHALL BE INSTALLED TO SUIT ACTUAL FIELD CONDITIONS AND OTHER DESIGN DRAWINGS
2. ALL UNDERGROUND CABLES SHALL BE SUITABLE FOR DIRECT BURIAL INSTALLATION.
3. FIBER OPTIC CABLE INSTALLATION MUST BE COORDINATED TO AVOID ALL OBSTRUCTIONS. REFERENCE STRUCTURAL AND CIVIL DRAWINGS FOR EQUIPMENT LOCATION COORDINATES, GRADING, AND UNDERGROUND OBSTRUCTIONS.
4. FIBER OPTIC CABLE SHALL BE A MINIMUM DEPTH OF 18" BELOW FINISHED GRADE. WHEN FIBER OPTIC CABLE CROSSES A ROADWAY IT SHALL BE AT A MINIMUM DEPTH OF 30" BELOW FINISHED GRADE.
5. FIBER OPTIC ROUTING AROUND THE INVERTER IS DIAGRAMMATIC AND INTENDED TO SHOW THE OVERALL INTERCONNECTION. ROUTING IN AND OUT OF THE PCS SHALL BE DETERMINED IN THE FIELD DEPENDING ON THE INSTALLATION METHOD.
6. REFER TO DRAWINGS E-511 AND E-512 FOR FIBER SINGLE LINE DIAGRAM.

LEGEND:

FO — FIBER OPTIC CABLE, 24-STRAND

SITE CONTROLLER WITH GPS

MET STATION (X: SEE DESIGNATORS)

DESIGNATORS:

PRISSA PRIMARY STATION WITH SOILING STATION AND ALBEDOMETER

PRI PRIMARY STATION

SEC SECONDARY STATION

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: CLH

CHECKED BY: EL

SHEET NAME: COMM & MON OVERALL PLAN

SHEET #: E-500

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Brady Burgason

SAVED BY: gregg.looney

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-500 COMM & MON OVERALL PLAN

NOTES:

1. REFER TO DRAWING E-531 FOR DETAILS.
2. COORDINATE WITH SCADA MANUFACTURER FOR ALL FIBER TERMINATION DETAILS CONNECTORS.
3. REFER TO DRAWING E-909 FOR FIBER OPTIC DATA SHEETS.

LEGEND:

FO — 24-STRAND OS2 SINGLE-MODE FIBER OPTIC CABLE

FPP24 — 24 PORT FIBER

1 COMMUNICATIONS SLD NORTH CORRIDOR
SCALE: N.T.S.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: LR
CHECKED BY: EL

SHEET NAME:
COMM SLD NORTH CORRIDOR

SHEET #: E-511
REV #: 4

AS BUILT

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: EricLoos
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING\DWG\E-511 COMM SLD

A B C D E F G H I J

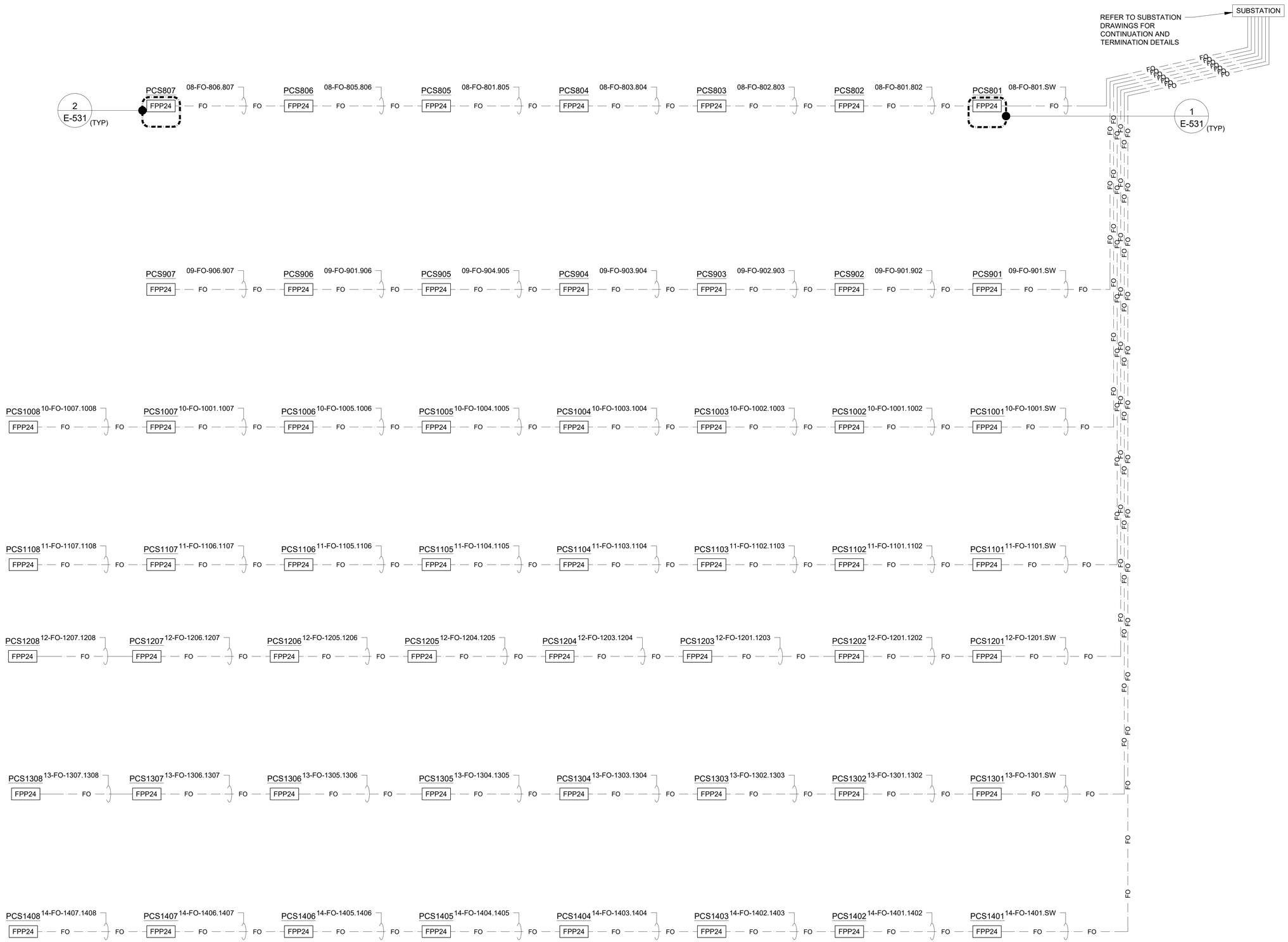
NOTES:

1. REFER TO DRAWING E-531 FOR DETAILS.
2. COORDINATE WITH SCADA MANUFACTURER FOR ALL FIBER TERMINATION DETAILS CONNECTORS.
3. REFER TO DRAWING E-909 FOR FIBER OPTIC DATA SHEETS.

LEGEND:

FO — 24-STRAND OS2 SINGLE-MODE FIBER OPTIC CABLE

FPP24 — 24 PORT FIBER



1 COMMUNICATIONS SLD SOUTH CORRIDOR
SCALE: N.T.S.

AS BUILT

FastGrid

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: LR

CHECKED BY: EL

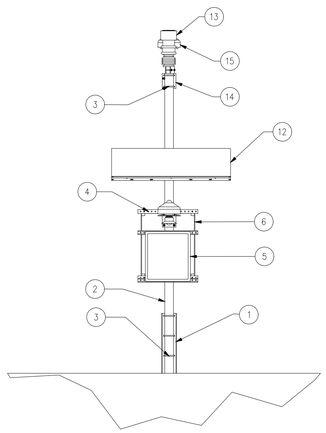
SHEET NAME:
COMM SLD SOUTH CORRIDOR

SHEET #: E-512

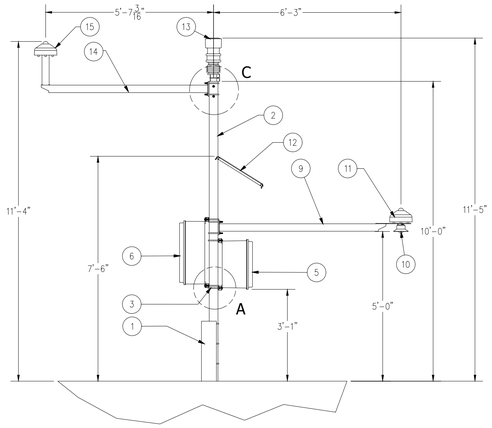
REV #: 4

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: EricLoos
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-511 COMM SLD

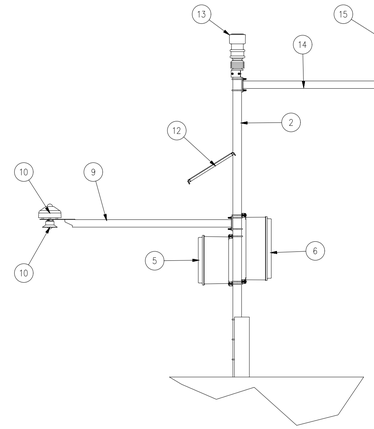
MERIT SI MET STATION
FOR REFERENCE ONLY



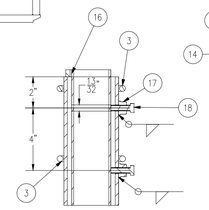
VIEW FROM SOUTH
SCALE 1:25



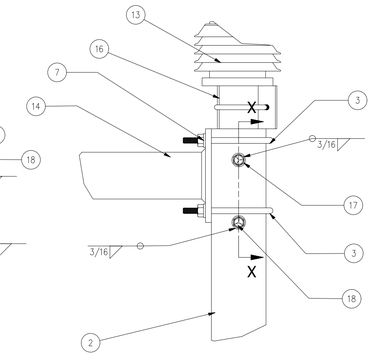
VIEW FACING EAST
SCALE 1:25



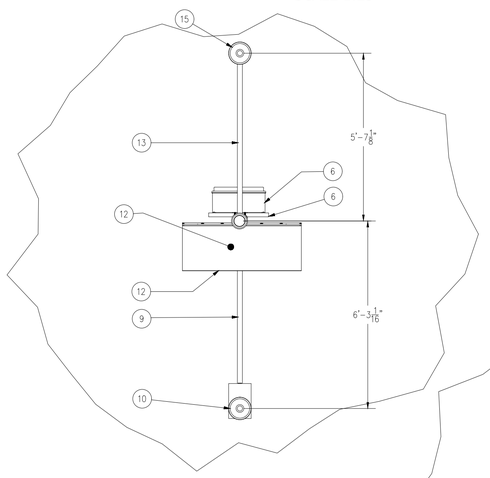
VIEW FACING WEST
SCALE 1:25



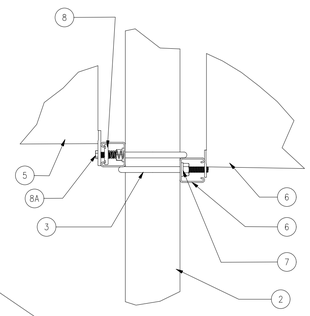
SECTION X-X
SCALE 1:4



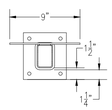
DETAIL C
SCALE 1:4



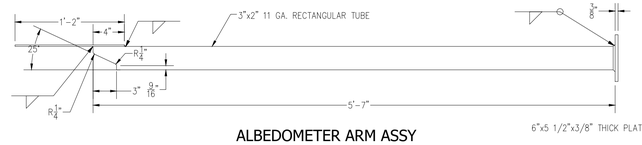
PLAN VIEW
SCALE 1:25



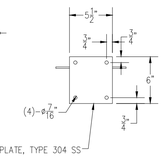
DETAIL A
SCALE 1:4



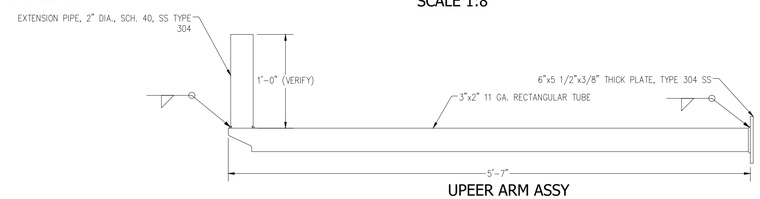
END VIEW
SCALE 1:8



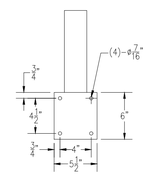
ALBEDOMETER ARM ASSY
SCALE 1:8

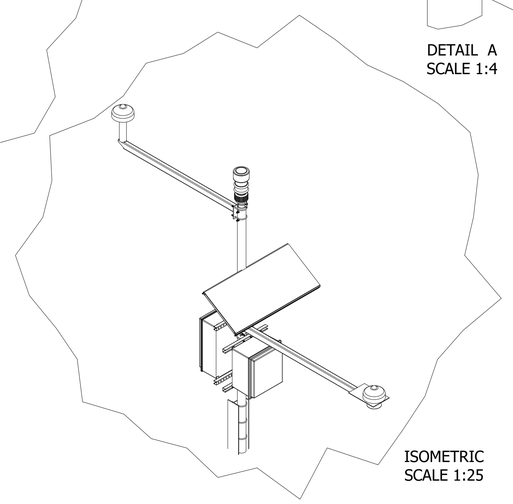


END VIEW
SCALE 1:8



UPEER ARM ASSY
SCALE 1:8





ISOMETRIC
SCALE 1:25

PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	W6 PILE PER EPC WITH (6) 7/16" DIA. HOLES
2	1	PIPE, 3.0" DIA.x10FT. SCH. 40, (3.5" O.D.) TYPE 304, SS
3	11	304 SS U-BOLT-3.625x0.375
4	4	1 5/8"x1-5/8"x 2.0 FT. 12GA. STRUT, TYPE 304 SS
5	1	BATTERY ENCLOSURE
6	1	DATA LOGGER ENCLOSURE
7	1	3/8" -16 TYPE 304, SS FLANGE NUT
8	8	1/4" DIA.-STRUT SPRING NUT WASHER
8A	8	1/4" DIA. x 1" CAP SCREW, TYPE 304, SS
9	1	ALBEDOMETER ARM ASSY, SEE DETAIL
10	1	CMP10 BGHI & GLARE SCREEN
11	1	CMP10 GHI
12	1	SOLAR PANEL ASSY WITH COMPLETE ATTACHMENT
13	1	WS601
14	1	UPPER ARM ASSY, SEE DETAIL
15	1	SPNI GHI
16	1	PIPE, 2.0" DIA.x12", SCH. 40, TYPE 304, SS
17	2	3/8"-16 NUT WELDED TO PIPE MAST, TYPE 304, SS
18	2	3/8"-16x1 1/2 FULLY THREADED, HEX HEAD CAP SCREW, TYPE 304 SS

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

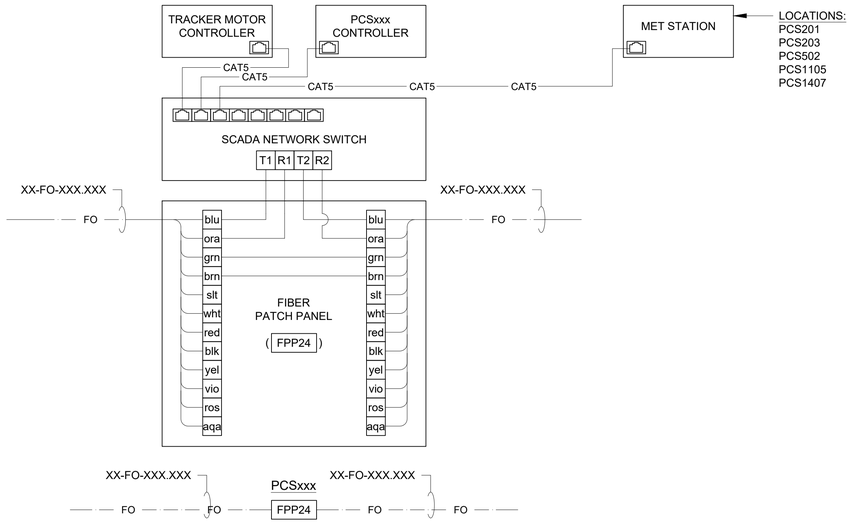
SHEET NAME:
MET STATION DETAILS

SHEET #: E-521

REV #: 4

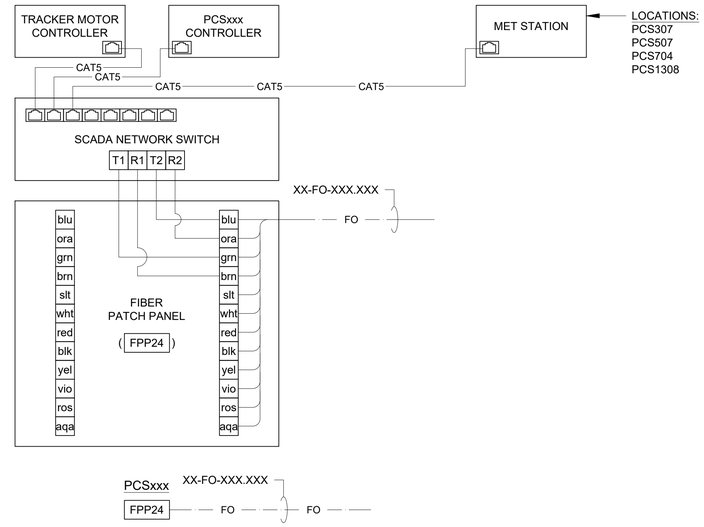
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-521 MET STATION DETAILS



1 SCADA PATCH-THROUGH CONNECTIONS AT PCSxxx

SCALE: N.T.S.



2 SCADA END-OF-LINE CONNECTIONS AT PCSxxx

SCALE: N.T.S.

NOTES:

1. REFER TO DRAWING E-531 FOR DETAILS.
2. PROVIDE FIBER OPTIC CABLING WITH TYPE ST CONNECTORS.
3. REFER TO DRAWING E-909 FOR FIBER OPTIC DATA SHEETS.

LEGEND:

FO	24-STRAND OS2 SINGLE-MODE FIBER OPTIC CABLE
CAT5	CAT5E CABLE
FPP24	24 PORT FIBER

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: LR

CHECKED BY: EL

SHEET NAME: COMM DETAILS

SHEET #: E-531

REV #: 4

AS BUILT

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING\DWG\E-531 COMM DETAILS

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Brady Burgason

SAVED BY: EricLoos

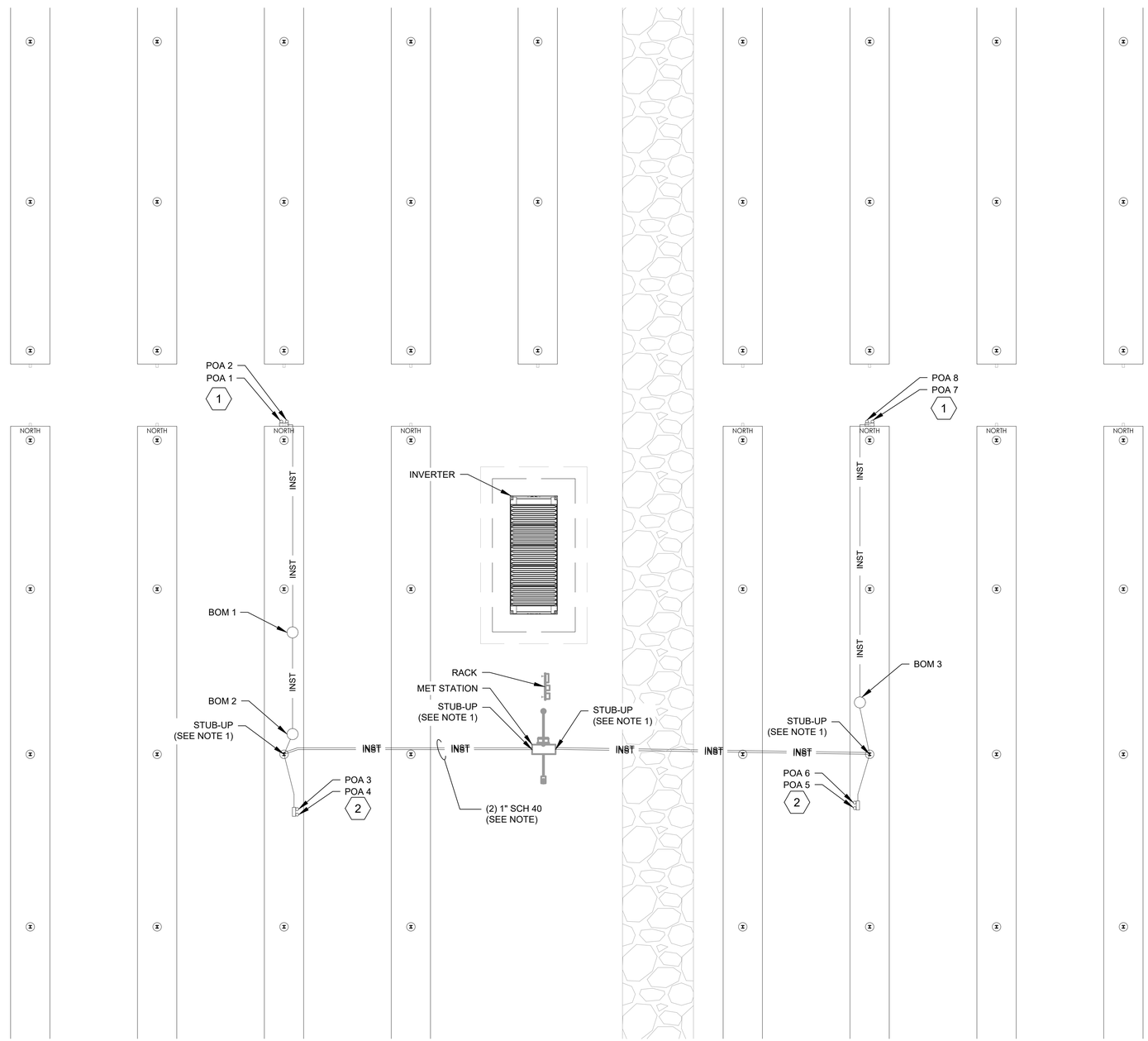
NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES

(X) (NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY A

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

AS BUILT

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: LR

CHECKED BY: EL

SHEET NAME: SENSOR DETAILS ARRAY A 201

SHEET #: E-550.1

REV #: 4

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-550.1 SENSOR DETAILS ARRAY A MET 201

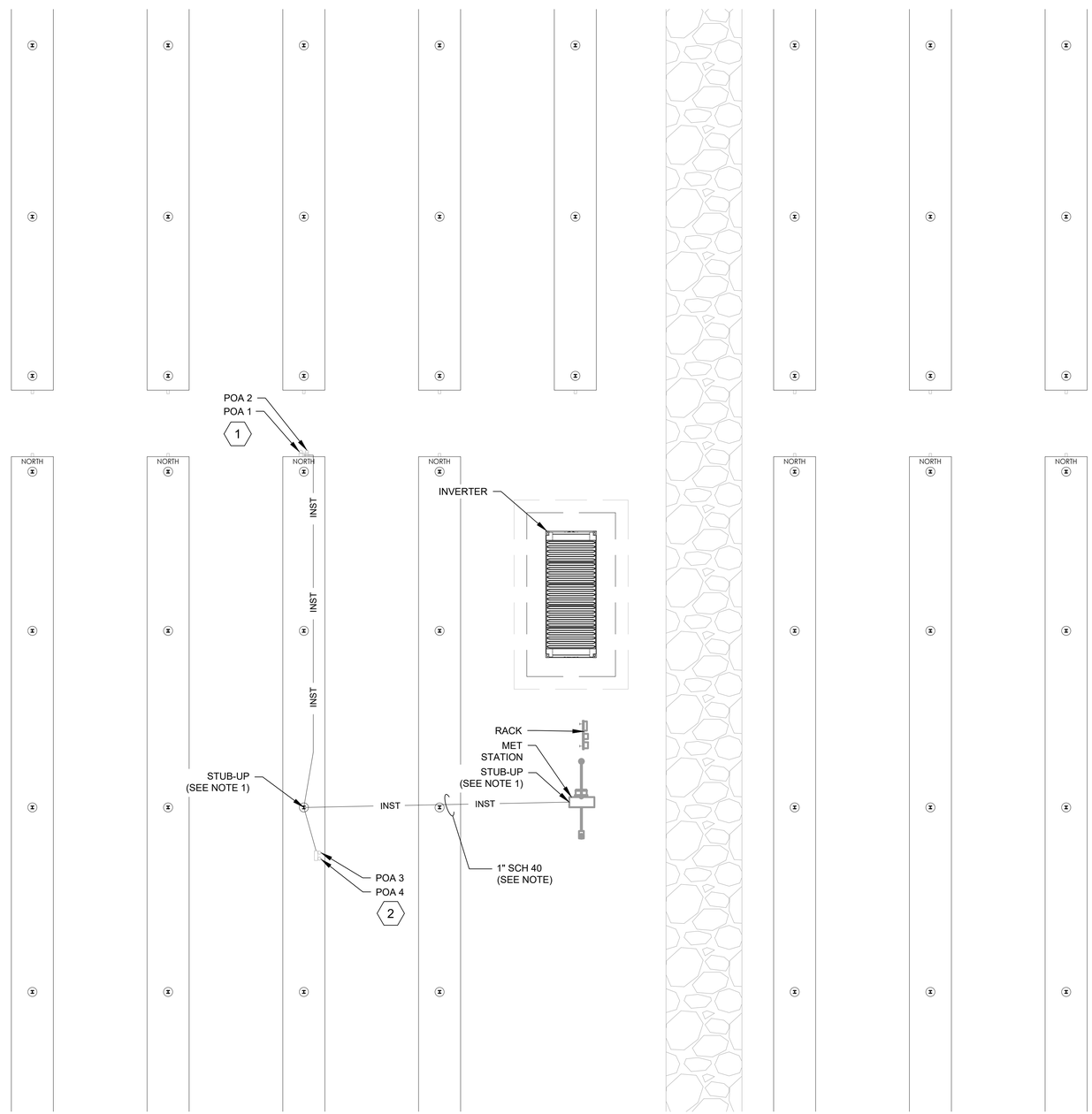
NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES

(NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY A

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: SENSOR DETAILS ARRAY A 502

SHEET #: E-550.2

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-550.2 SENSOR DETAILS ARRAY A MET 502

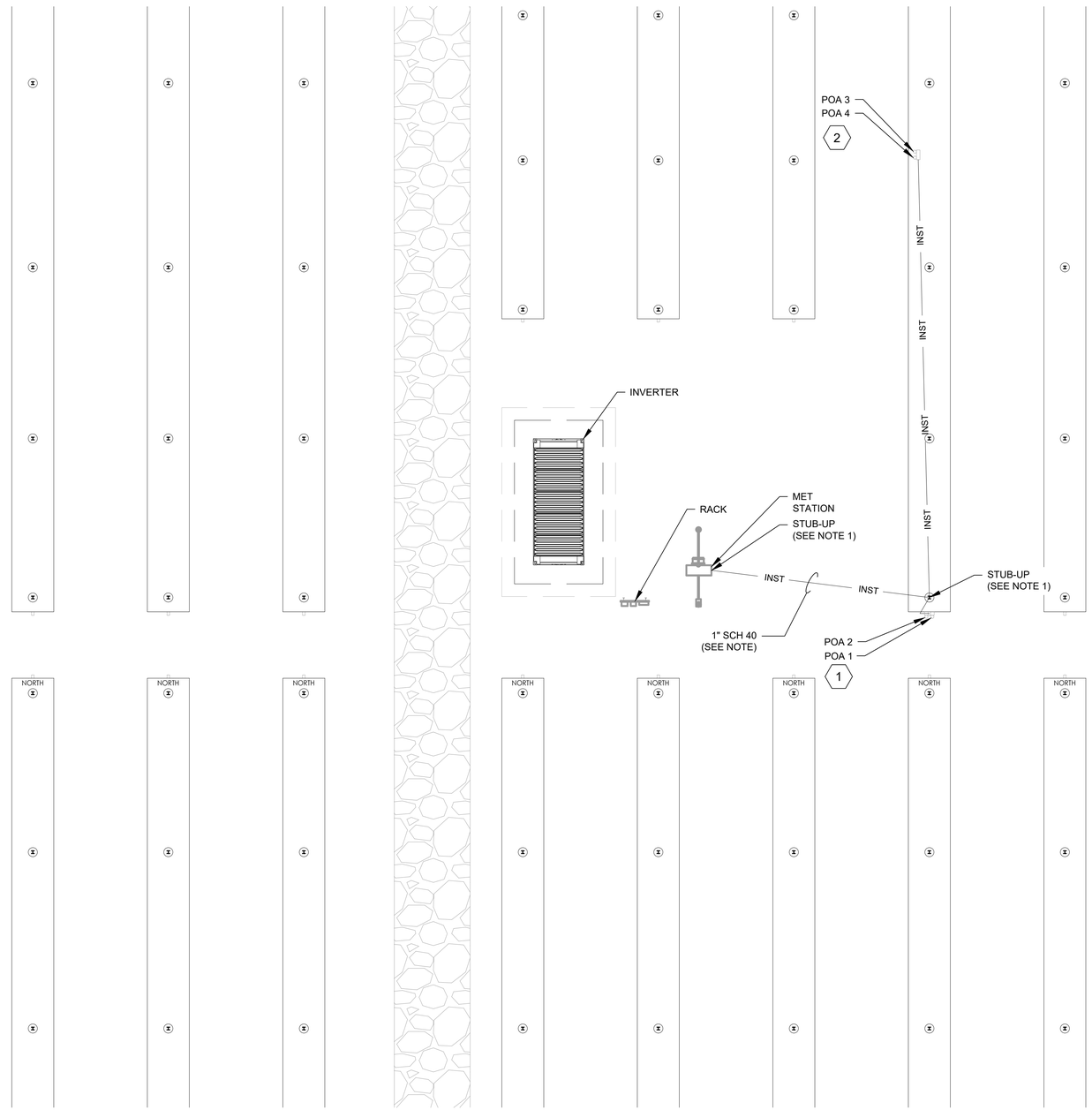
NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES

(X) (NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY B

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: SENSOR DETIALS ARRAY B

SHEET #: E-551

REV #: 4

RECORD DRAWING

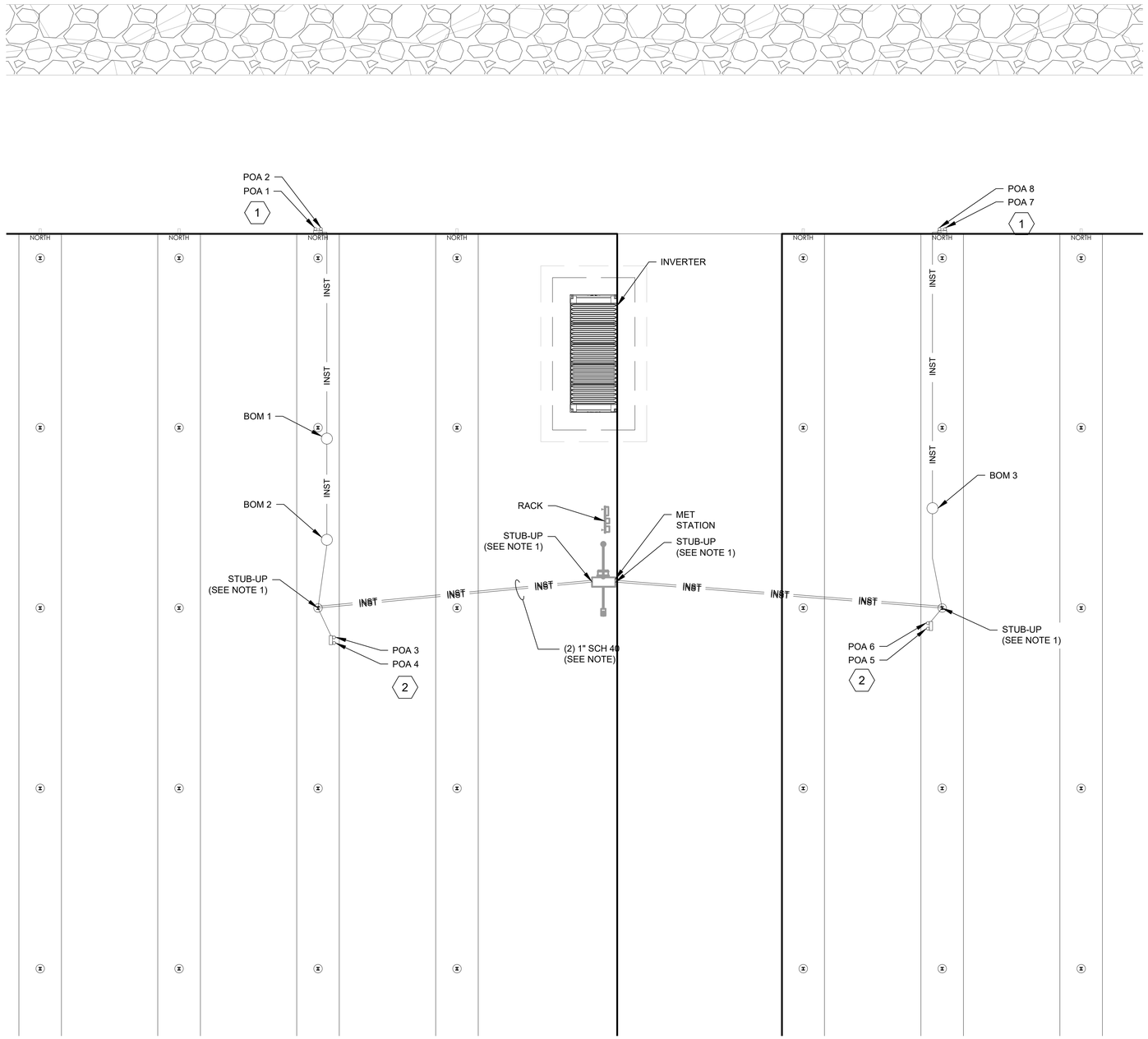
PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-551 SENSOR DETIALS ARRAY B

NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES (X) (NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY L

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

KEY PLAN

SCALE: N.T.S

RECORD DRAWING

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: SENSOR DETAILS ARRAY L

SHEET #: E-552

REV #: 4

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Leonard Foster
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-502 SENSOR DETAILS ARRAY L

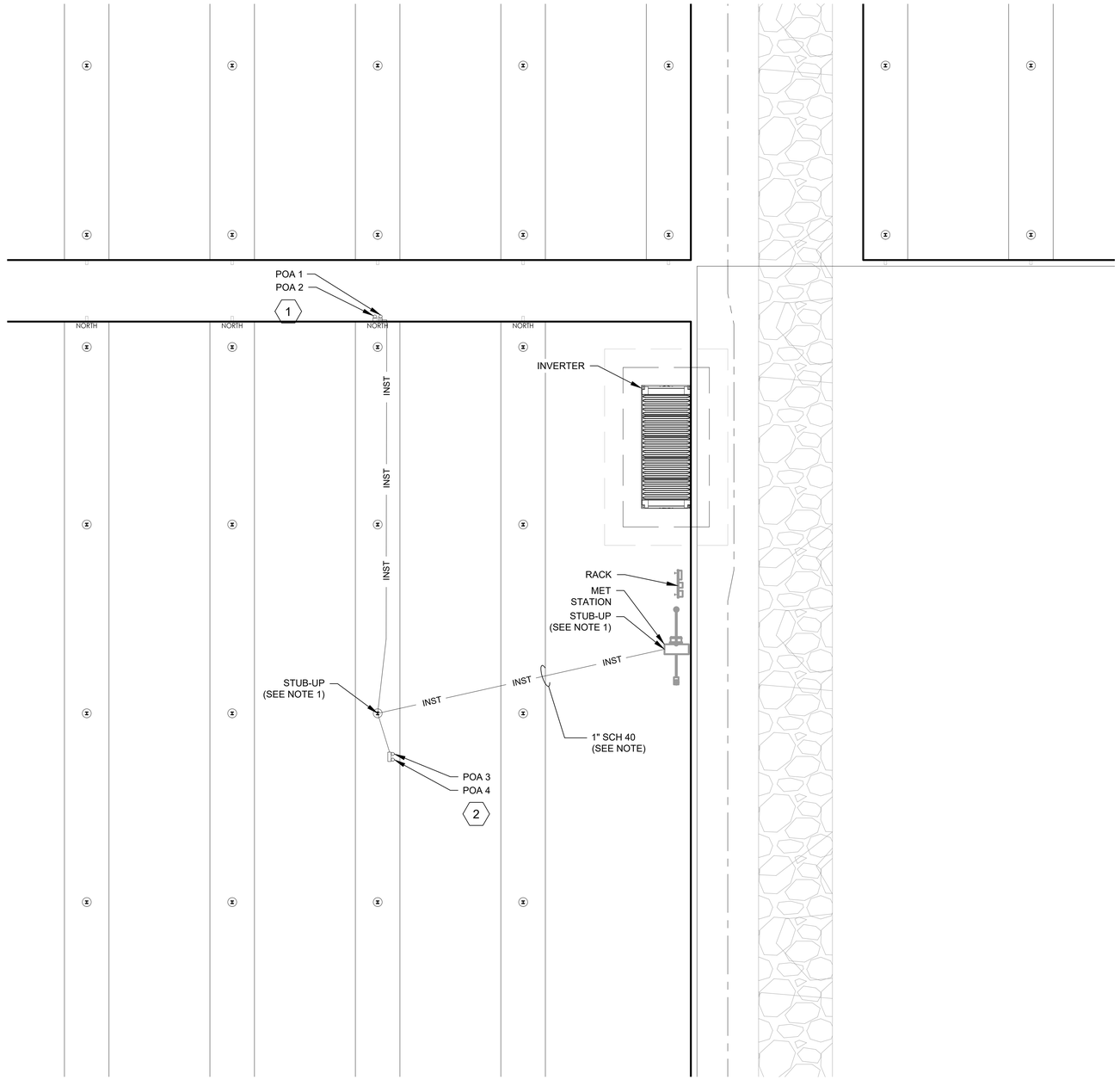
NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES

(X) (NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY M

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

FastGrid

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME:
SENSOR DETAILS ARRAY M

SHEET #: E-553

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Leonard Foster

SAVED BY: L.J.Foster

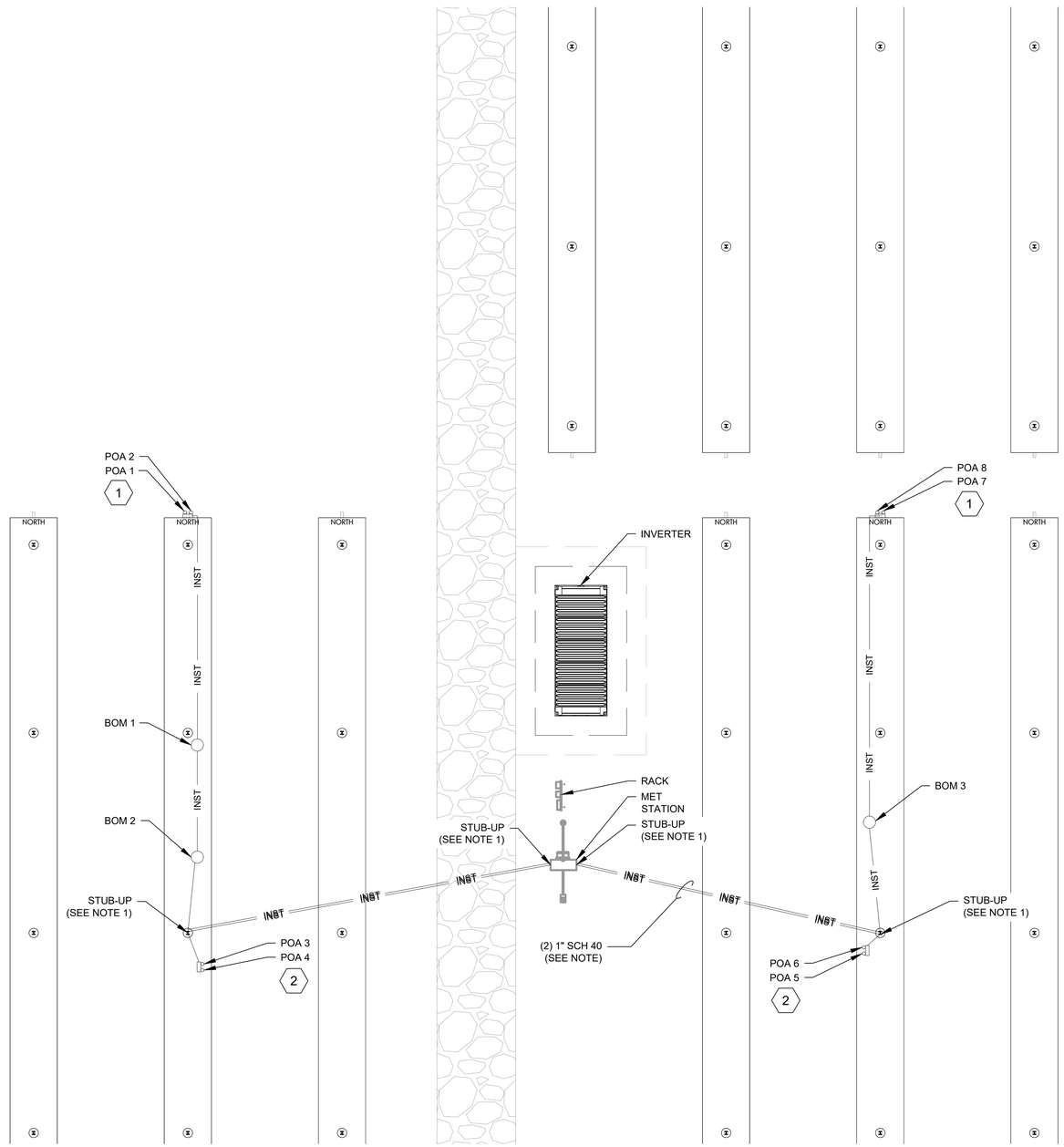
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-553 SENSOR DETAILS ARRAY M

NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES (X) (NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY Q

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: TLR

CHECKED BY: EL

SHEET NAME: SENSOR DETAILS ARRAY Q

SHEET #: E-554

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-504 SENSOR DETAILS ARRAY Q

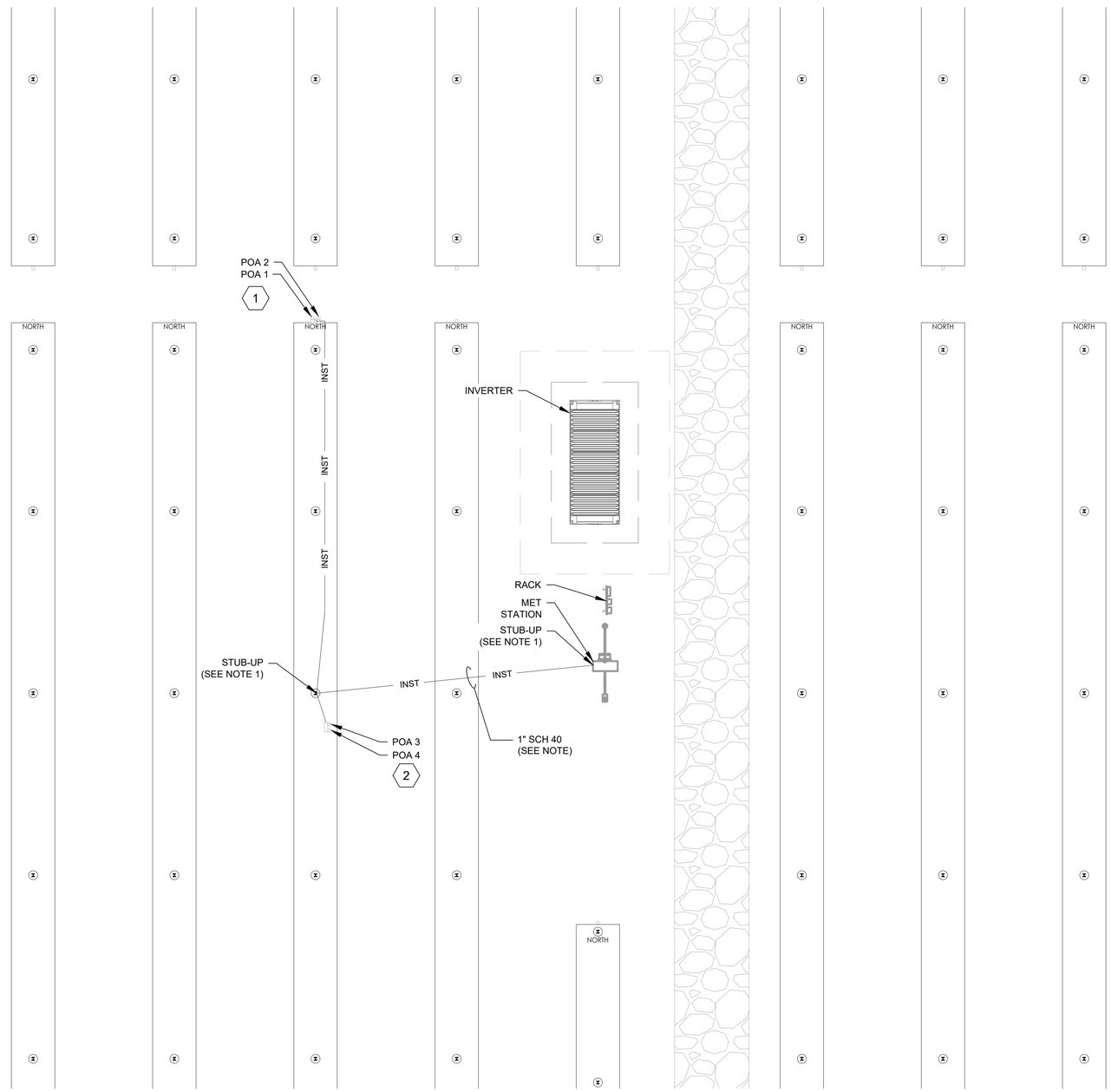
NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES

(NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY R

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: TLR

CHECKED BY: EL

SHEET NAME: SENSOR DETAILS ARRAY R

SHEET #: E-555

REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-555 SENSOR DETAILS ARRAY R

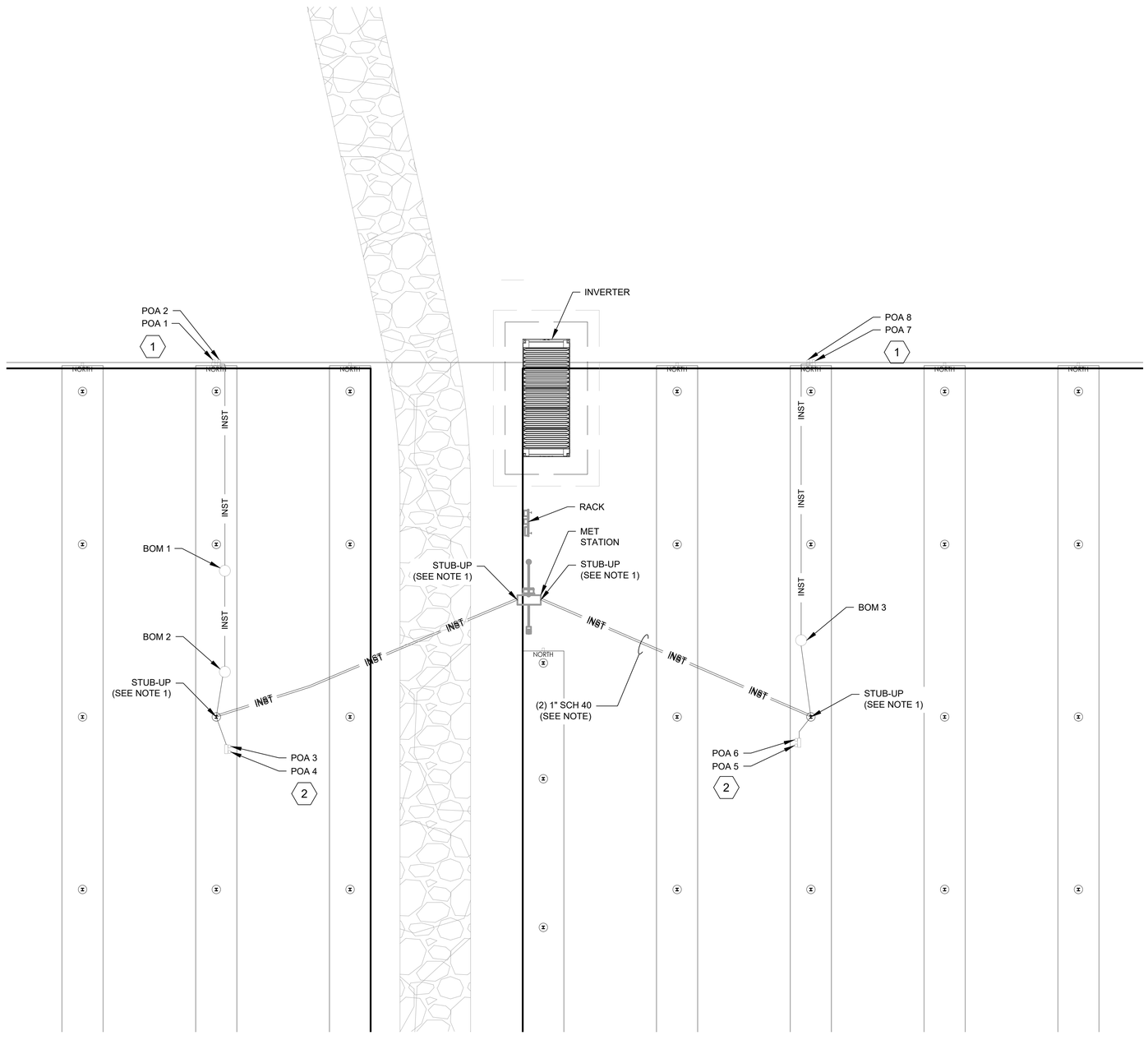
NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES

(X) (NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY U

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: SENSOR DETAILS ARRAY U

SHEET #: E-556

REV #: 4

RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-556 SENSOR DETAILS ARRAY U

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Leonard Foster

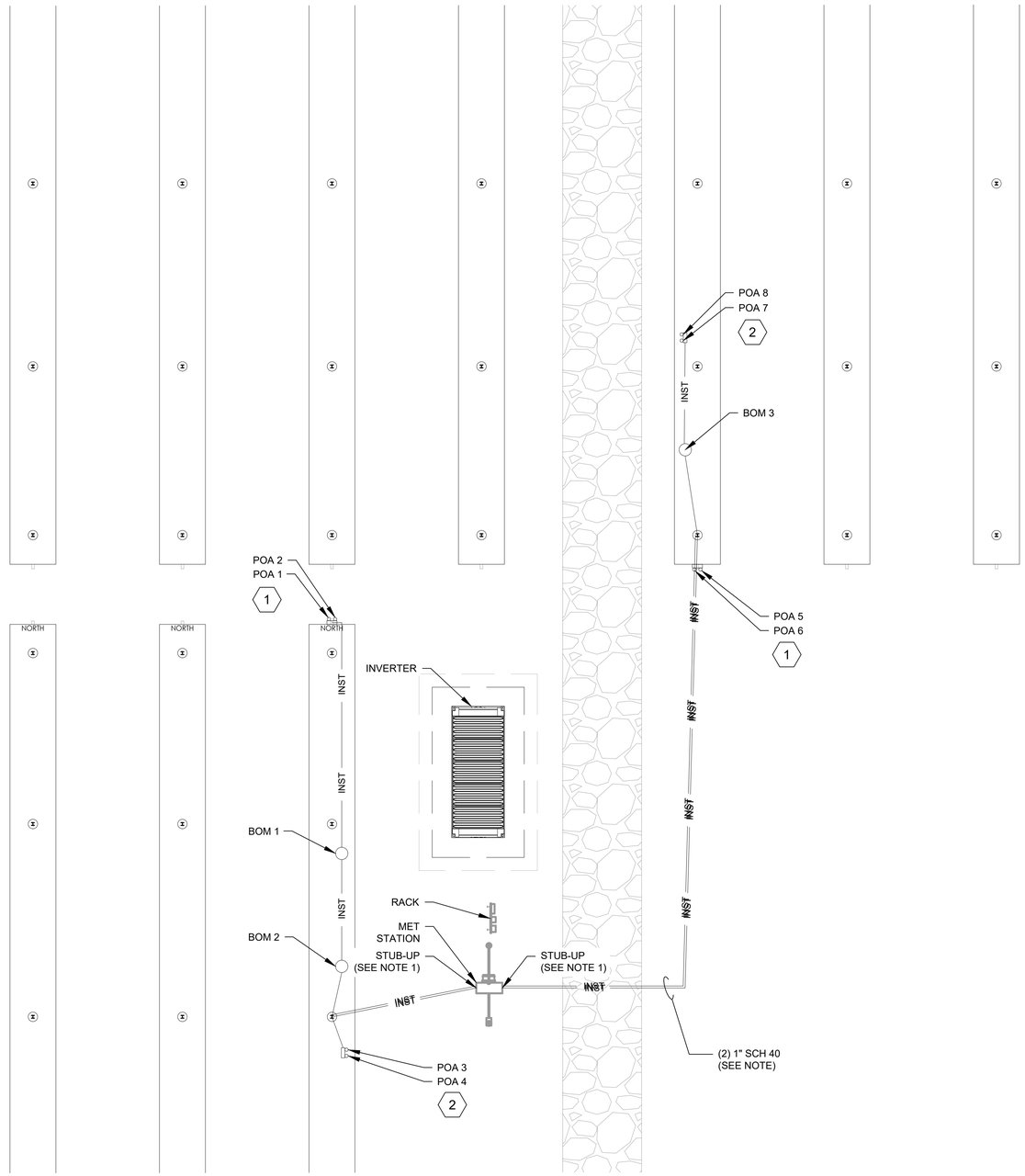
SAVED BY: L.J.Foster

NOTES:

1. CONDUIT AT STUB-UPS TO BE SCHEDULE 80. CONDUIT BETWEEN STUB-UPS TO BE SCHEDULE 40.
2. SEE SHEET E-560 FOR STUB-UP DETAILS.

KEYED NOTES (X) (NOT ALL NOTES USED ON THIS SHEET)

1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



SENSOR DETAILS ARRAY V

SCALE: 1"=10'

10' 5' 0 10' 20' 30'

SCALE: 1"=10'

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: SENSOR DETAILS ARRAY V

SHEET #: E-557

REV #: 4

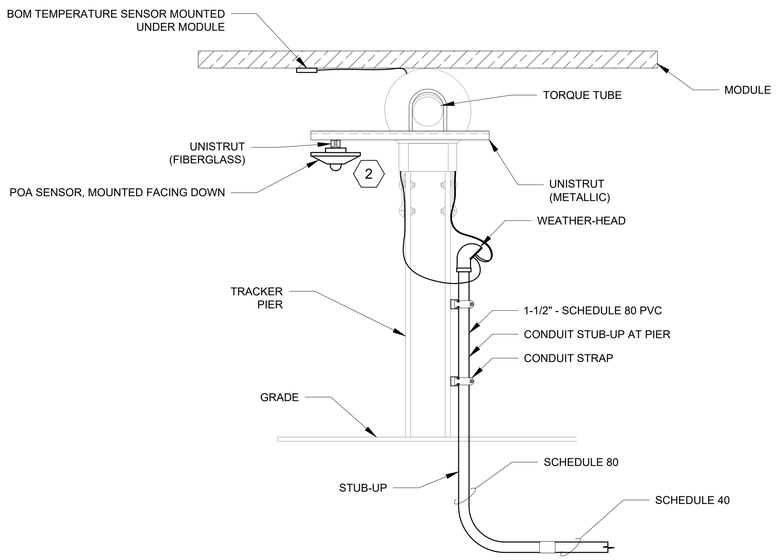
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-557 SENSOR DETAILS ARRAY V

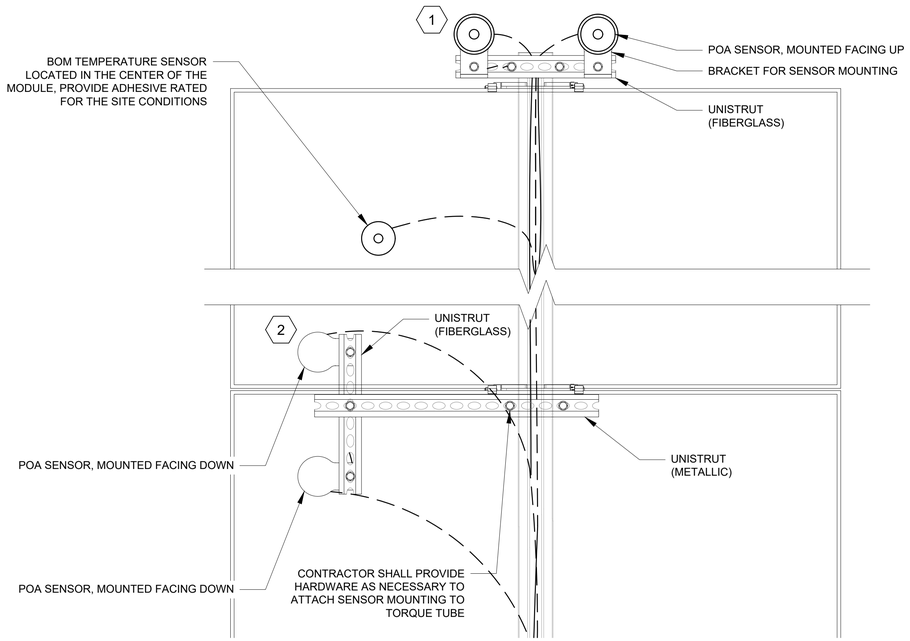
A B C D E F G H I J

KEYED NOTES (X) (NOT ALL NOTES USED ON THIS SHEET)

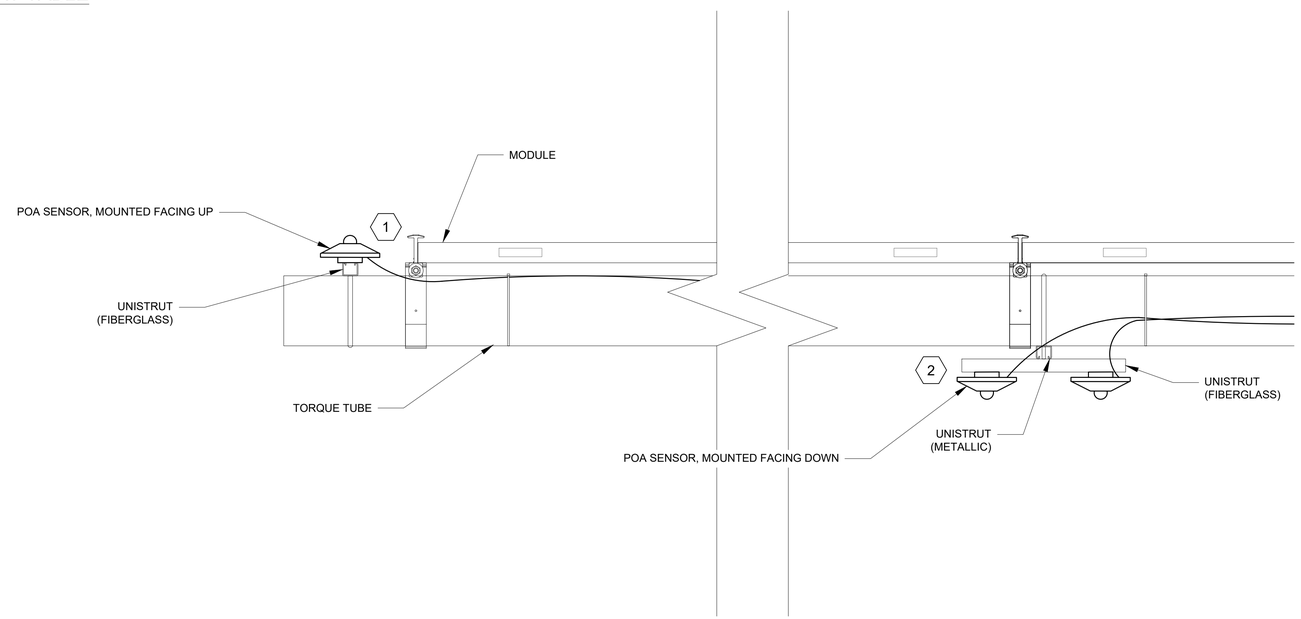
1. POA SENSORS FACING UPRIGHT.
2. POA SENSORS FACING DOWN.



2 SENSOR MOUNTING ELEVATION AT TABLE
SCALE: N.T.S.



1 SENSOR MOUNTING PLAN VIEW
SCALE: N.T.S.



3 SENSOR MOUNTING ELEVATION AT TABLE
SCALE: N.T.S.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

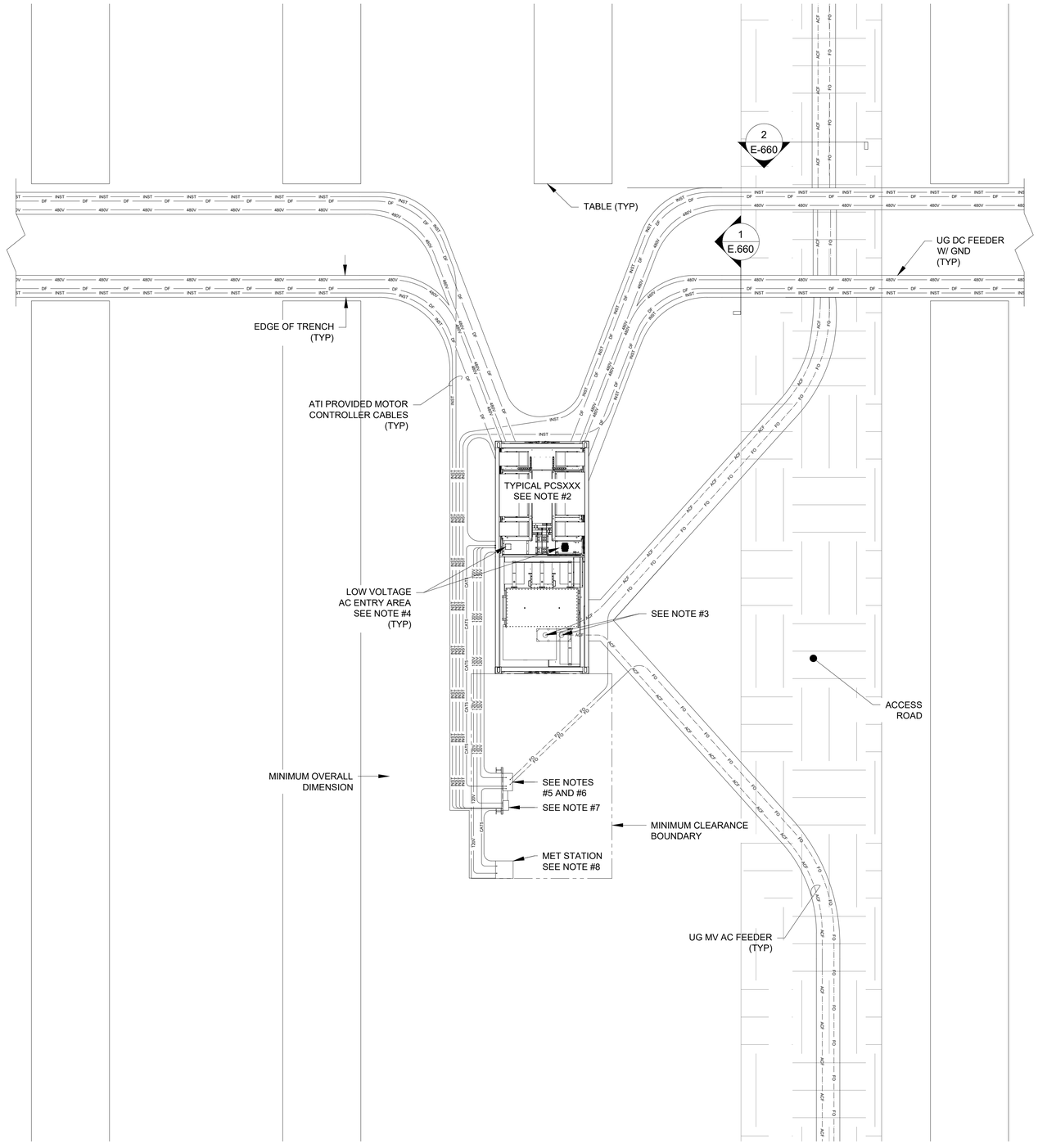
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: LF
CHECKED BY: EL

SHEET NAME: SENSOR DETAILS

SHEET #: E-560
REV #: -

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-560 SENSOR DETAILS



ENLARGED INVERTER TRENCH PLAN

5 2.5 0 5 10 15

SCALE: 1"= 5'

PLAN WIRE LEGEND

120V	120V CIRCUIT
480V	480V CIRCUIT
CAT5	CATEGORY 5 CABLING
FO	OSP SM FIBER OPTIC
DF	DC FEEDER
ACF	MVAC FEEDER
G4	GROUNDING TO #4AWG
G4A	GROUND WIRE
INST	INSTRUMENTATION

INVERTER CONDUIT STUBOUT SCHEDULE	
CABLE TYPE	CONDUIT TRADE SIZE
MV - 1250KCMIL	8"
MV - 750KCMIL	6"
MV - 500KCMIL	6"
MV - #4/0 AWG	6"
DC FEEDERS	4"
TRACKER MOTOR PWR	2"
OSP SMFO	1-1/4"
INVERTER CAT5	1"
SCADA PWR	1"
MET STATION PWR	1"
SOIL STATION PWR	1"

NOTES:

1. THIS DRAWING IS DIAGRAMMATIC AND INTENDED TO SHOW THE TYPICAL CABLING AROUND THE INVERTER SKID. ALL CABLING SHALL BE INSTALLED ONLY WHERE APPLICABLE. REFER OVERALL SITE TRENCHING PLAN AND ASSOCIATED DETAILS.
2. REFER TO E-010 OVERALL SITE PLAN FOR INVERTER LOCATIONS AND TAGS
3. REFER TO THE INVERTER CONDUIT STUBOUT SCHEDULE FOR CONDUIT STUBOUT SIZES ASSOCIATED WITH CABLING SHOWN.
4. PROVIDE ALL LOW VOLTAGE AC (0-600VAC) CABLING AND ALL CATEGORY 5 CABLING IN CONDUIT, END-TO-END.
5. PROVIDE OSP SM FIBER OPTIC CABLING IN CONDUIT FROM A MINIMUM OF 18" BELOW GRADE TO ASSOCIATED TO ENCLOSURE.
6. FIBER PATCH PANEL W/ SCADA ETHERNET SWITCH: PROVIDE 120V POWER FROM INVERTER.
7. ATI CONTROLLER (AND SITE CONTROLLER/GPS WHERE APPLICABLE): PROVIDE 120V POWER FROM INVERTER AND INSTALL ATI MOTOR CONTROLLER CABLE.
8. MET STATION:
   - 8.1. PROVIDE 120-VOLT CIRCUIT WITH GROUND FROM INVERTER AUXILIARY POWER SUPPLY TO MET STATION. CONFIRM EXACT LOCATION OF MET STATION PRIOR TO INSTALLING CIRCUIT.
   - 8.2. PROVIDE CAT5 HORIZONTAL CABLING FROM ETHERNET SWITCH TO MET STATION.
   - 8.3. REFER TO E-521 FOR ADDITIONAL INFORMATION.
9. GROUNDING NOT SHOWN: REFER TO E-750 FOR PCS GROUNDING REQUIREMENTS.
10. EXCEPTION TO THIS DETAIL: THE ORIENTATION OF PCS 1407 IS ROTATED 180 DEGREES.
11. REFER TO THE 400 SHEETS FOR THE LOCATIONS OF EACH AUX RACK AND MET STATION. EXACT LOCATIONS ARE ALLOWED TO BE FIELD DETERMINED BASED ON INSTALLATION CONDITIONS. LOCATIONS OF THE EQUIPMENT SHALL NOT CAUSE SHADING ON THE MODULES.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: GL

CHECKED BY: EL

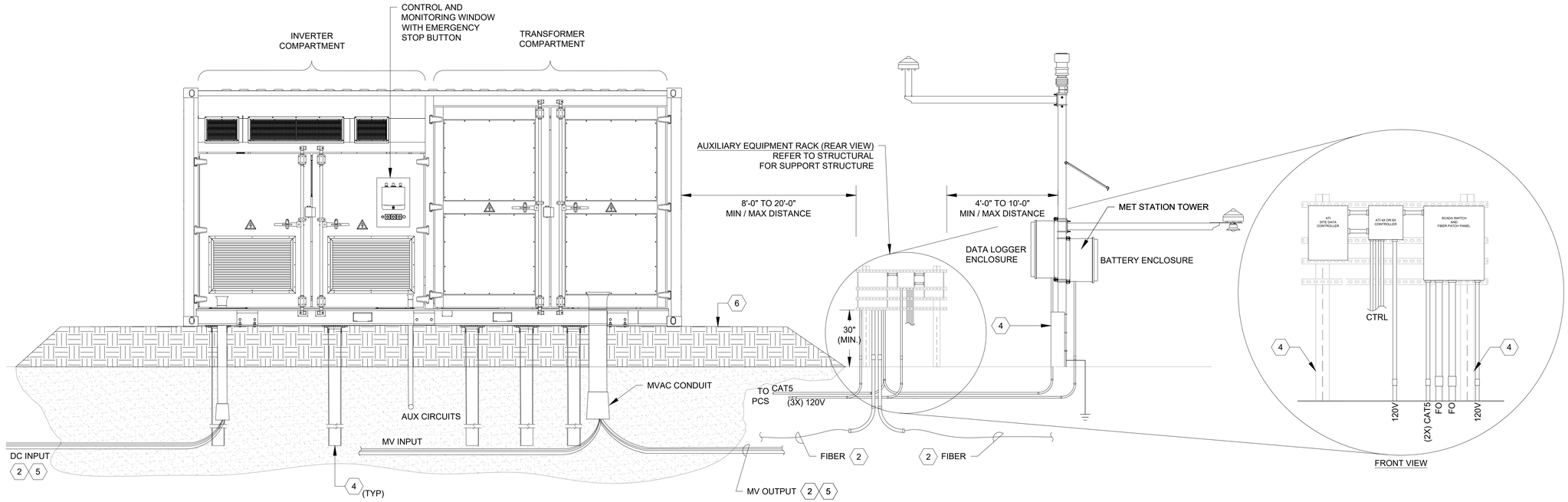
SHEET NAME: ENLARGED INVERTER TRENCH PLAN

SHEET #: E-650

REV #: 4

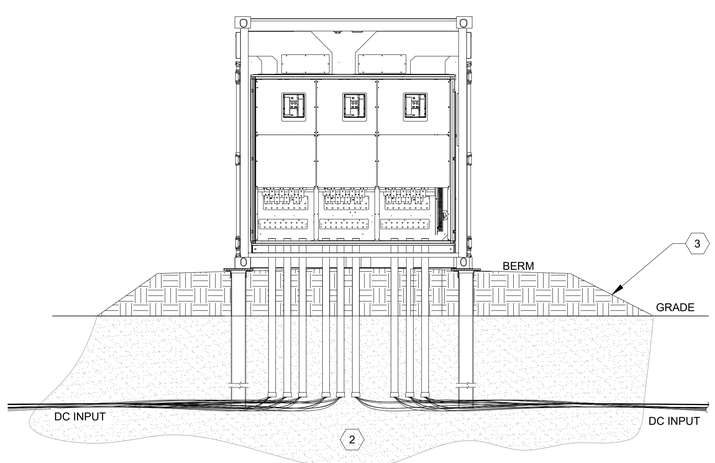
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-650 ENLARGED INVERTER TRENCH PLAN

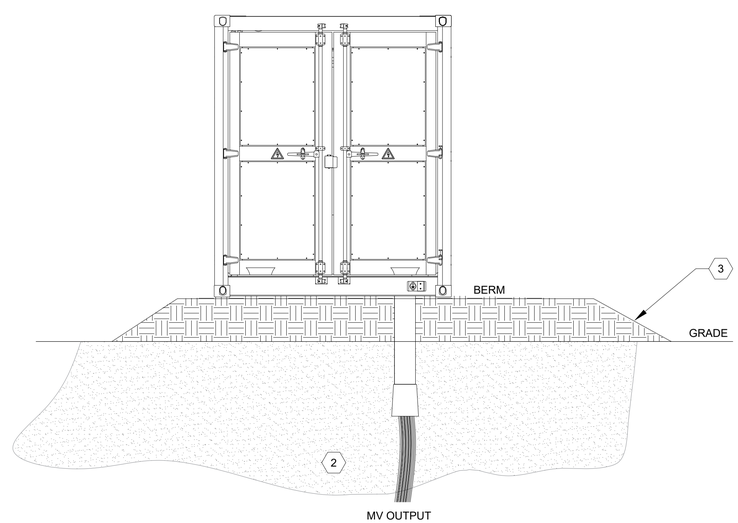


1 TYPICAL INVERTER SKID ELEVATION (WEST VIEW)
SCALE: NTS

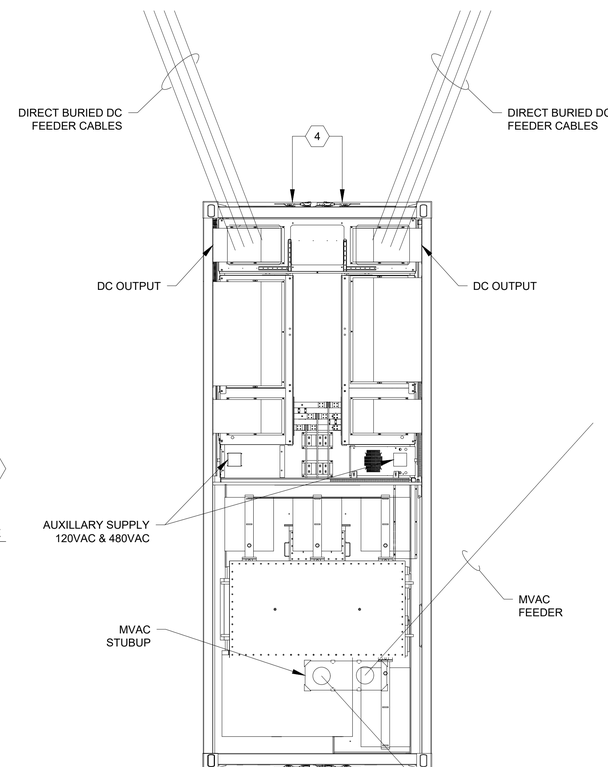
2 TYPICAL AUXILIARY EQUIPMENT RACK
SCALE: NTS



3 TYPICAL INVERTER SKID ELEVATION (SOUTH VIEW)
SCALE: NTS



4 TYPICAL INVERTER SKID ELEVATION (NORTH VIEW)
SCALE: NTS



5 TYPICAL INVERTER SKID ELEVATION (BOTTOM VIEW)
SCALE: NTS

NOTES:

1. DIMENSIONS SHOWN ARE APPROXIMATE. EQUIPMENT DIMENSIONS SHALL BE CONFIRMED IN THE FIELD WITH CERTIFIED EQUIPMENT DRAWINGS OR THE ACTUAL EQUIPMENT.
2. ENSURE ADEQUATE WORKING CLEARANCES PER NEC 110. HATCH AREAS REPRESENT WORKING CLEARANCES PER NEC 110.26 UNLESS NOTED OTHERWISE.
3. ENSURE MINIMUM BENDING RADIUS FOR ALL CONDUCTORS.
4. BELL ENDS SHALL BE PROVIDED ON CONDUIT ENDS.
5. CONTRACTOR SHALL SEAL ALL CONDUITS WITH APPROVED DUCT SEAL/ELECTRICAL PUTTY AFTER CONDUCTORS ARE IN PLACE.

KEYED NOTES:

1. INVERTER DC RECOMBINER CABINET IS ASYMMETRICAL, THERE ARE FACILITIES FOR FOURTEEN (14) CIRCUITS IN THE LEFT CABINET AND SEVEN (7) ON THE RIGHT. ALL CIRCUIT ROUTING SHOWN IS SCHEMATIC.
2. REFER TO TRENCH DETAILS ON E-660 FOR MINIMUM BURIAL DEPTH, MINIMUM SEPARATION AND COMPACTION REQUIREMENTS.
3. COORDINATE WITH CIVIL AND/OR STRUCTURAL PLANS TO ENSURE THAT SKID BERM OR WALKWAY IS NOT ENCROACHED AND THAT ALL WORKING CLEARANCES ARE MAINTAINED.
4. SEE STRUCTURAL DRAWINGS FOR PILE AND FOUNDATION DETAILS.
5. BURIAL DEPTHS PER TRENCH DETAILS ON E-660. DEPTHS SHALL BE INCREASED AS REQUIRED WHERE CIRCUITS CROSS.
6. FINAL SKID FOUNDATION SKIRT/WALKWAY DETAILS TBD. DESIGN SHALL BE COORDINATED WITH CIVIL/STRUCTURAL ENGINEERING TO PROVIDE ADEQUATE ACCESS ON ALL SIDES PER NEC REQUIREMENTS.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

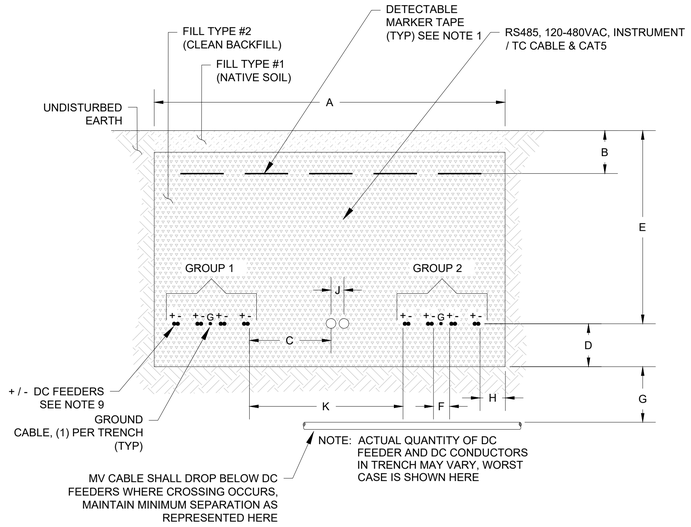
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

SHEET NAME: TYPICAL PCS & EQUIPMENT ELEVATIONS

SHEET #: E-652
REV #: 4

AS BUILT

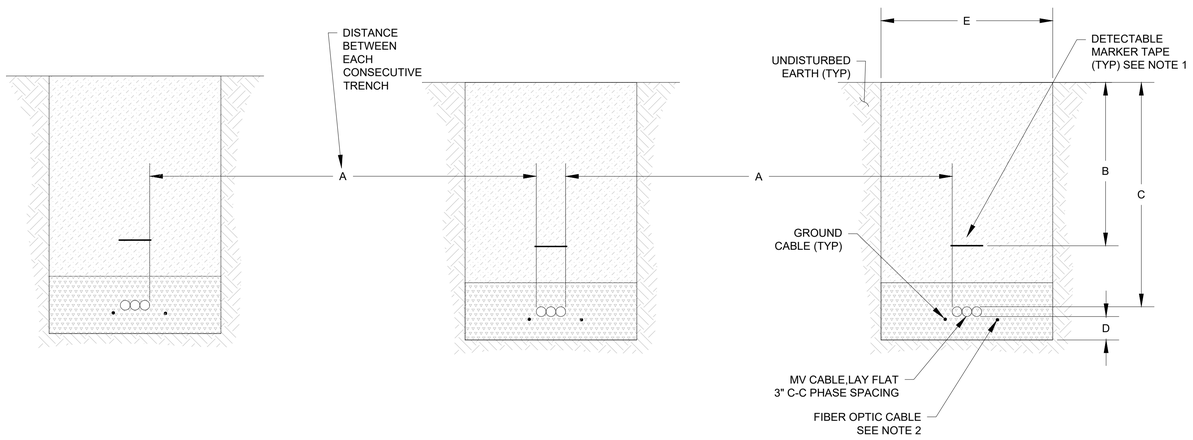
PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: brady.burgason
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-652 TYPICAL INVERTER SKID PLAN & ELEVATION



ITEM	DIMENSION
A	AS REQUIRED
B	12"
C	6"
D	6"
E	30"
F	4"
G	12"
H	4"
J	8"
K	24"

1 DC FEEDER TRENCH (TYPICAL)

SCALE: NTS



ITEM	DIMENSION
A	42"
B	24"
C	36"
D	SEE NOTE BELOW
E	AS REQUIRED

NOTE: THE BED DEPTH MAY BE OMITTED IF THE TRENCH IS VISUALLY INSPECTED IN FULL AND ALL ROCKS OR OTHER COMPONENTS THAT COULD DAMAGE THE CABLES ARE REMOVED; OTHERWISE PROVIDE 3" BED.

2 MV TRENCH SECTION (TYPICAL)

SCALE: NTS

LEGEND:

UNDISTURBED EARTH

CLEAN BACKFILL (FILL TYPE #1) SEE NOTE #7.1.

CLEAN BACKFILL (FILL TYPE #2) SEE NOTE #7.2.

NOTES:

1. INSTALL RED DETECTABLE MARKER TAPE IN ALL TRENCHES. PROVIDE SINGLE TAPE FOR EVERY 18" OF TRENCH WIDTH.
2. MISCELLANEOUS CABLES INCLUDING FIBER OPTIC FEEDER MAY UTILIZE THE UNDERGROUND TRENCH SYSTEM WHERE APPLICABLE. SEE GENERAL NOTES SHEET E.001 FOR SPACING REQUIREMENTS WITH OTHER CABLING. FO CABLE MAY BE AT ANY DEPTH WITH OTHER CABLING.
3. FOR AC FEEDER INFORMATION, REFERENCE SHEETS E-200 THROUGH E-206.
4. ALL GROUND WIRE SHALL BE INSTALLED AT A MINIMUM DEPTH EQUAL TO FEEDER TYPE.
5. TRENCHING AND CABLE INSTALLATION MUST BE COORDINATED TO AVOID ALL OBSTRUCTIONS. REFERENCE STRUCTURAL AND CIVIL DRAWINGS FOR EQUIPMENT LOCATION COORDINATES, GRADING, AND UNDERGROUND OBSTRUCTIONS.
6. DIMENSIONS TO CABLE LAYERS ARE FROM FINISHED GRADE TO THE CENTER OF CABLES, EXCEPT WHERE NOTED.
7. CLEAN FILL REQUIREMENTS:

   TRENCHING:
   7.1. TYPE 1: NATIVE SOIL, SHALL BE USED FOR BACKFILL WITH INTERLOCKED ARMOR CABLES.

   7.2. TYPE 2: FILL SHALL BE CLEAN AND FREE OF ORGANIC MATERIAL CONTAINING PARTICLES NO LARGER THAN 3/4" IN DIAMETER IN THE AREA 6" ABOVE AND BELOW CABLES. COMPACTION SHALL BE GREATER THAN OR EQUAL TO 90% WITH 8" LOOSE LIFTS AND HAVE WITH-IN 2% OF OPTIMUM, SEE GEOTECHNICAL AND CIVIL PLANS.

8. WHERE INSTRUMENTATION CABLES ARE TO BE INSTALLED USE FILL TYPE 2 IN THE AREA 6" ABOVE AND BELOW.
9. DC FEEDERS AND CONDUCTORS SHOWN DEPICT THE LAYERS UTILIZED WITHIN THE UNDERGROUND TRENCH AND THE MINIMUM SPACING BETWEEN CABLES ONLY. CABLE QUANTITIES CAN INCREASE OR DECREASE WITHIN THE TRENCH AS CIRCUITS ARE ADDED OR BRANCH OFF. FOR ACTUAL DC FEEDER AND CONDUCTOR COUNT AND ADDITIONAL DC REFERENCE INFORMATION, REFERENCE ENLARGED PLANS AND SCHEDULES.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: NK

CHECKED BY: EL

SHEET NAME: TRENCH DETAILS

SHEET #: E-660

REV #: 4

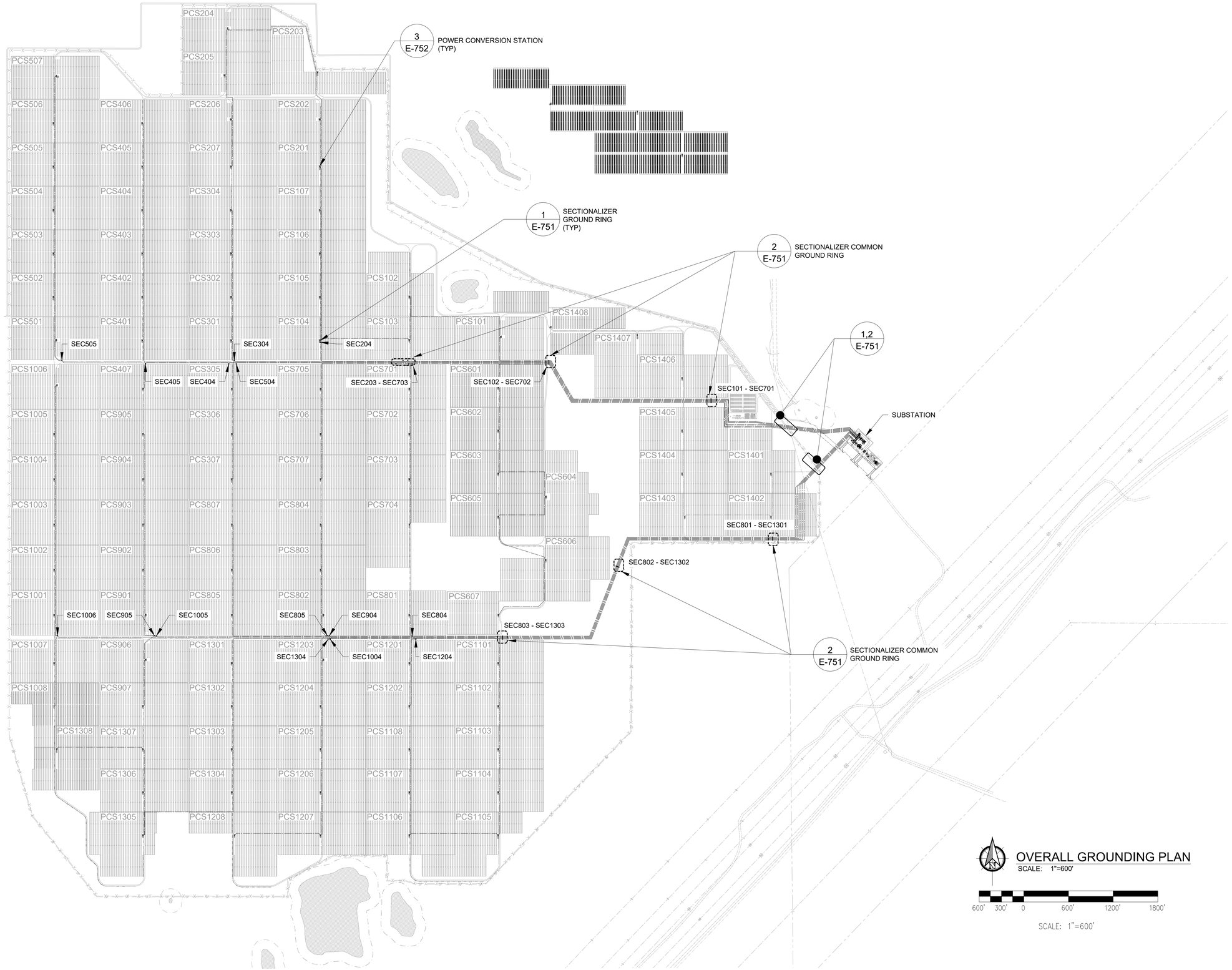
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023

PLOT BY: Brady Burgason

SAVED BY: michelle.karanu

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-660 TRENCH DETAILS



NOTES:

1. WORK WITH-IN SUBSTATION IN ITS ENTIRETY IS BY OTHERS. LOCATION, SIZE, ETC. DEPICTED ON THESE PLANS IS FOR REFERENCE ONLY AND MAY NOT DEPICT ACTUAL FIELD CONDITIONS.
2. THIS DRAWING REPRESENTS THE OVERALL GROUNDING PLAN. IT DOES NOT INCLUDE ALL THE GROUNDING CONDUCTORS AND COMPONENTS REQUIRED FOR THE COMPLETE GROUNDING SYSTEM. FOR ADDITIONAL DETAILS AND GROUNDING INFORMATION REFERENCE SHEET E-751 .
3. SECURITY FENCE GATES SHALL BE GROUNDED IN ACCORDANCE WITH THIS PLAN DRAWING AND RELATED DETAILS. REFERENCE SHEET E-751.
4. ANY FENCE SECTION OR GATE WITHIN 50' OF AN UNDERGROUND MV CABLE SHALL BE GROUNDED.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023
G	MV REEL CORD	09/18/2020

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

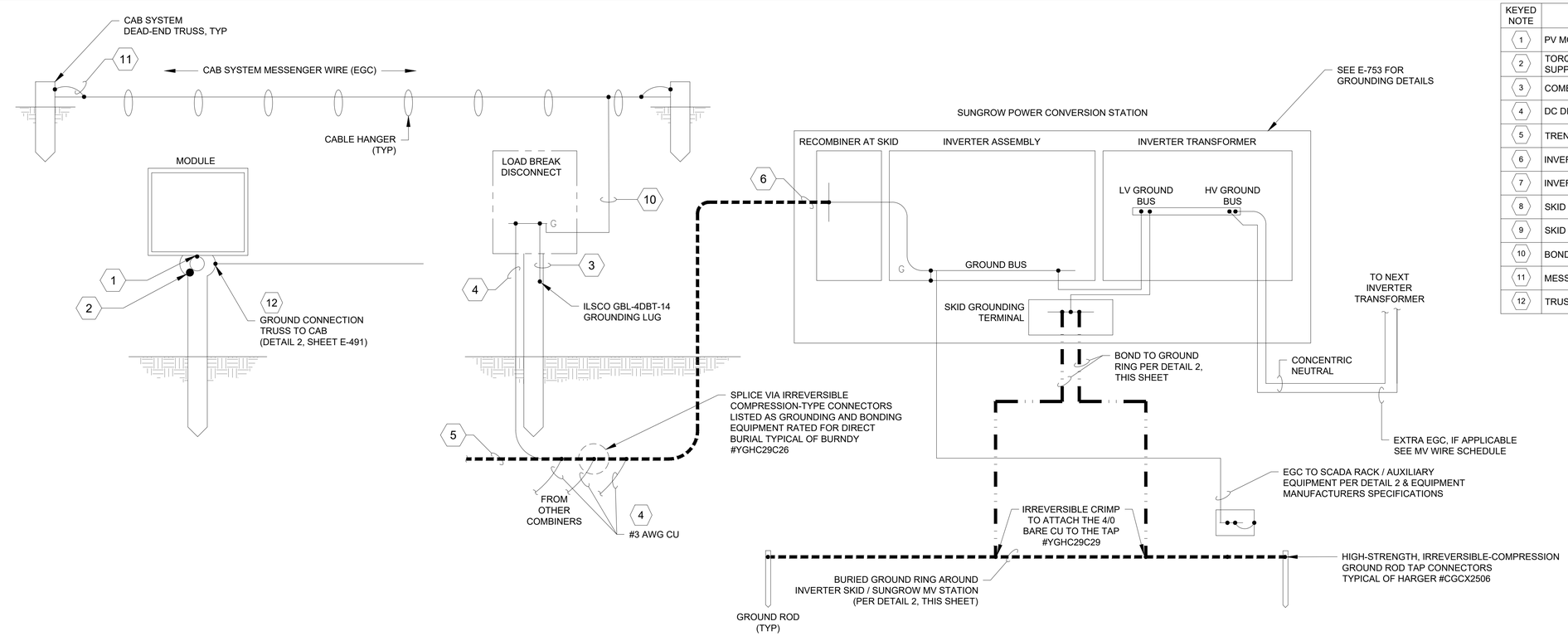
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: TLR
CHECKED BY: EL

SHEET NAME:
OVERALL GROUNDING PLAN

SHEET #: E-700
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: gregg.looney
LOCATION: K:_03_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-700 GROUNDING OVERALL SITE PLAN



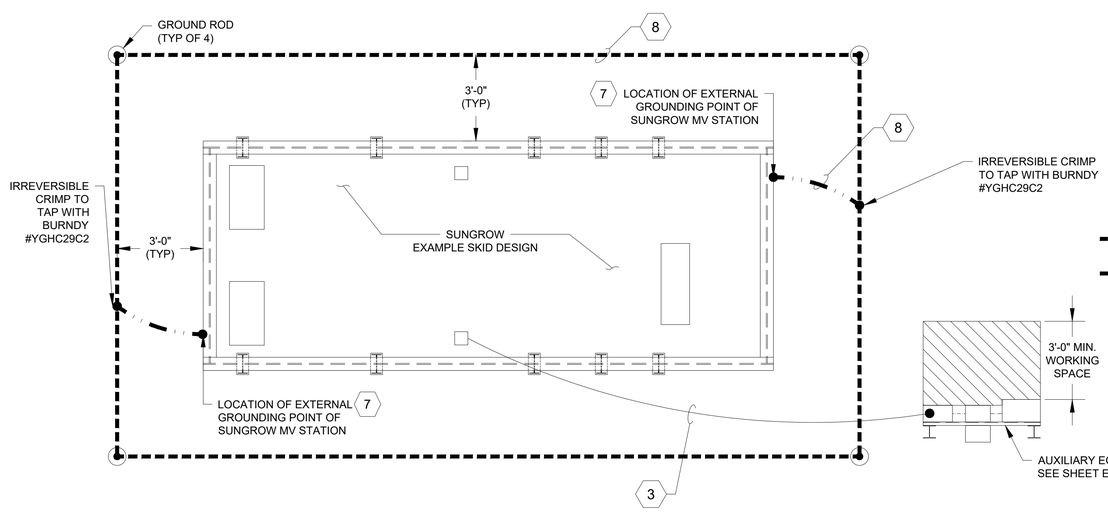
1 TYPICAL INVERTER STATION GROUNDING AND BONDING

SCALE: N.T.S.

KEYED NOTE	CONNECTION	COMPONENT
1	PV MODULE TO TRUSS ASSEMBLY AND TORQUE TUBE	MANUFACTURER'S DETAILS
2	TORQUE TUBE TO SCREW DRIVE AND MOTOR DRIVE SUPPORT TO TRUSS	MANUFACTURER'S DETAILS
3	COMBINER TO PILE / AUXILIARY RACK	#6 AWG BARE CU
4	DC DISCONNECT TO BURIED EGC (IN CONDUIT)	#3 BARE CU
5	TRENCH GROUND	#3 BARE CU
6	INVERTER ENTRANCE RACEWAY	#3 BARE CU
7	INVERTER SKID GROUND PAD	MANUFACTURER'S DETAILS
8	SKID TO GROUND RING / GROUND RING	#4/0 BARE CU
9	SKID EQUIPMENT BONDING	SKID INTEGRATOR SUPPLIED
10	BOND TO CAB MESSENGER HANGER	#3 AWG INSULATED CU
11	MESSANGER BOND AT DEAD- END TRUSS	#6 AWG CU JUMPER
12	TRUSS TO CAB	CAB BRACKET

NOTES

A. REFER TO E-752 AND E-753 FOR ADDITIONAL INFORMATION REGARDING GROUNDING AND BONDING.



DETAIL NOTE(S):

1. GROUNDING RESISTANCE AT EACH PAD SHALL NOT EXCEED 4 OHMS. IF MEASURED RESISTANCE AFTER INSTALLATION EXCEEDS 4 OHMS, ENGINEER OF RECORD MUST BE NOTIFIED.
2. ALL GROUNDING ELECTRODE CONDUCTORS AND BONDING JUMPERS SHALL BE BARE COPPER.
3. ALL GROUNDING EQUIPMENT SHALL BE DIRECT BURIAL RATED.
4. MET STATION GROUNDING IS INTENTIONALLY ISOLATED FROM THE PV SYSTEM GROUNDING SYSTEM.

DETAIL SYMBOLS:

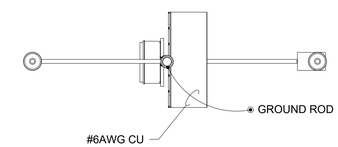
GROUND RING #4/0 BARE COPPER 30" BELOW FINISHED GRADE

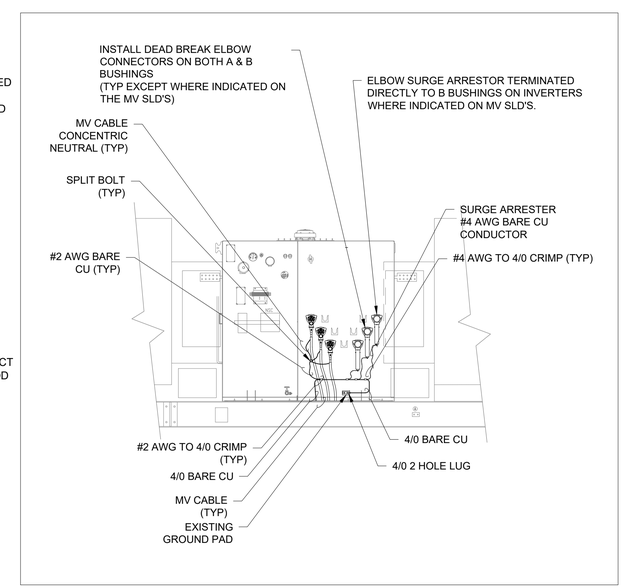
#4/0 BARE COPPER BONDING JUMPER GROUNDING ELECTRODE

GROUND ROD BOND LISTED FOR DIRECT BURIAL 3/4" X 10' COPPER GROUND ROD

2 TYPICAL INVERTER SKID GROUNDING PLAN

SCALE: N.T.S.





3 INVERTER MV XFMR GROUNDING DETAIL

SCALE: N.T.S.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: TLR
CHECKED BY: EL

SHEET NAME:
TYP INVERTER STATION GND

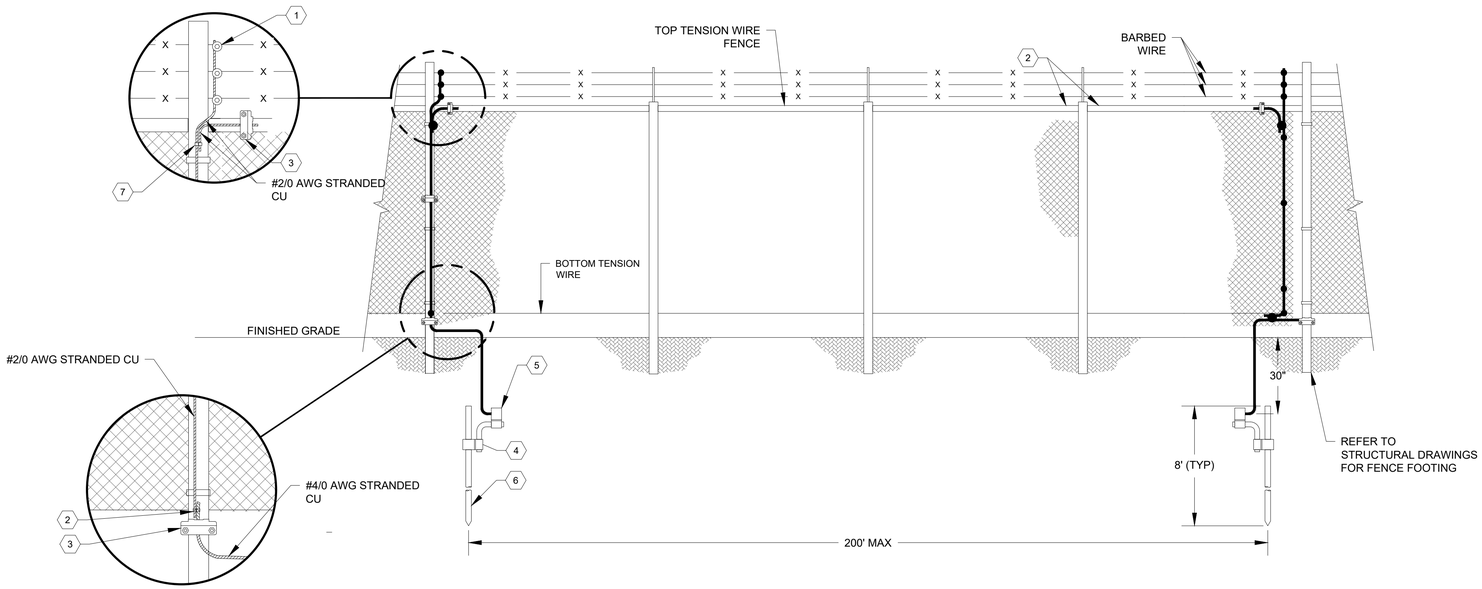
SHEET #: E-750
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: brady.burgason
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-750 TYP INVERTER STATION GND

NOTES:

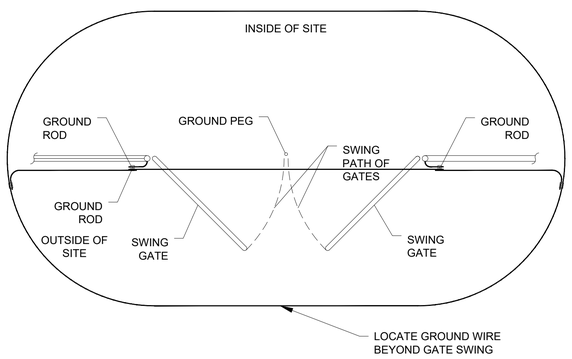
1. ALL UNDERGROUND CABLES SHALL BE SUITABLE FOR DIRECT BURIAL INSTALLATION.
2. FIBER OPTIC CABLE INSTALLATION MUST BE COORDINATED TO AVOID ALL OBSTRUCTIONS. REFERENCE STRUCTURAL AND CIVIL DRAWINGS FOR EQUIPMENT LOCATION COORDINATES, GRADING, AND UNDERGROUND OBSTRUCTIONS.
3. GROUND PERIMETER FENCE WITHIN 50' OF THE POINT WHERE THE MEDIUM-VOLTAGE CONDUCTORS CROSS UNDER THE FENCE.



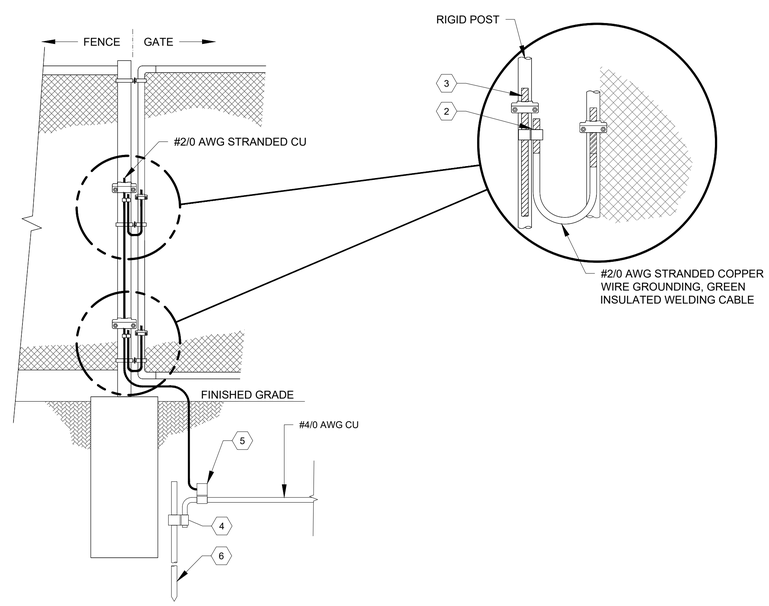
1 TYPICAL FENCE GROUNDING AT MV FEEDER CROSSING
SCALE: N.T.S.

BILL OF MATERIALS

X	DESCRIPTION	APPROVED VENDORS		
		MFR. CAT. NO.	MFR. CAT. NO.	MFR. CAT. NO.
1	GROUND CLAMP	BURNDY 'KS26'	ILSCO 'IK-2/0'	BLACKBURN '20H'
2	IRREVERSIBLE COMPRESSION GROUND TAP CONNECTOR - CONNECTING #4/0 CABLE TO #4/0 CABLE	BURNDY 'YGHC29C29'	ILSCO 'ELT-3'	BLACKBURN 'CTP250250'
3	POST GROUNDING CONNECTOR	BURNDY 'GAR' SERIES	ILSCO 'GUB' SERIES	O-Z GEDNEY 'CG' SERIES
4	IRREVERSIBLE COMPRESSION GROUND TAP CONNECTOR - CONNECTING #4/0 TO GROUND ROD	BURNDY 'YGLR29C34'	ILSCO 'GUB-5'	BLACKBURN '54895L'
5	IRREVERSIBLE COMPRESSION GROUND TAP CONNECTOR - CONNECTING #4/0 CABLE TO #4/0 CABLE	BURNDY 'YGHC29C29'	ILSCO 'ELT-3'	BLACKBURN 'CTP250250'
6	COPPER CLAD GROUND ROD 3/4" DIA. X 10'-0" LONG	ERITECH '613400'	HARGER '3410'	BLACKBURN '7510'
7	IRREVERSIBLE COMPRESSION GROUND TAP CONNECTOR - CONNECTING #2/0 CABLE TO #2/0 CABLE	BURNDY 'YGHC29C29'	ILSCO 'ELT-2'	BLACKBURN 'CTP2020'



GATE TOP VIEW



GATE FRONT VIEW

2 TYPICAL GATE GROUNDING
SCALE: N.T.S.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

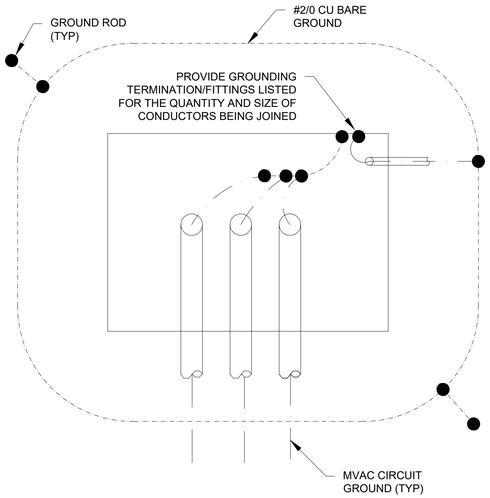
DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

SHEET NAME: FENCE GROUNDING DETAILS

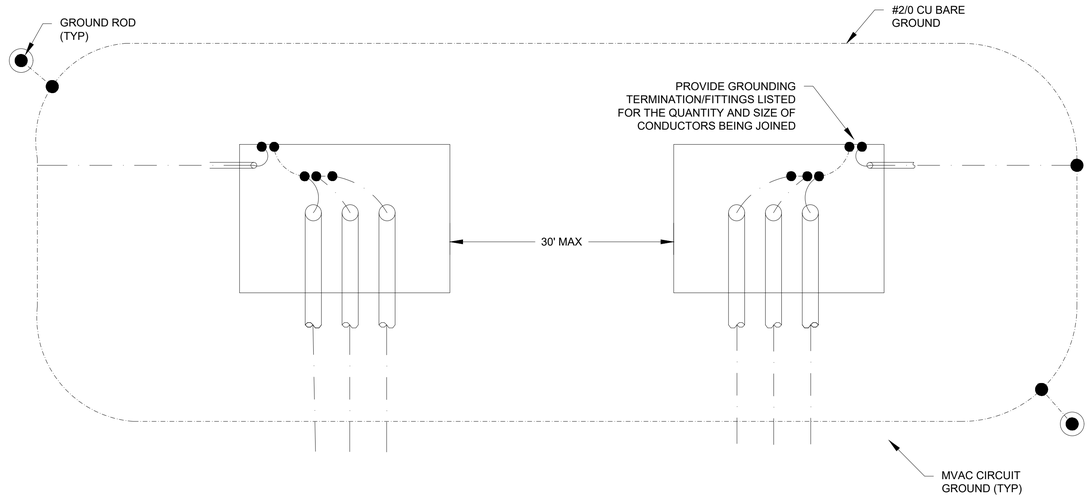
SHEET #: E-751
REV #: 4

RECORD DRAWING

LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING\DWG\E-751 FENCE GROUNDING DETAILS
SAVED BY: gregg.looney
PLOT BY: Brady Burgason
PLOT DATE: Thursday, June 08, 2023



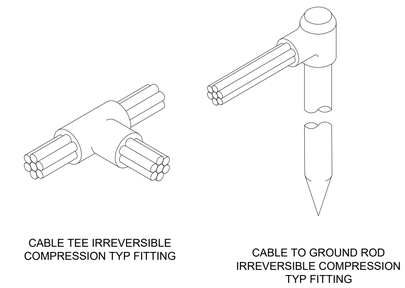
1 SINGLE MV SECTIONALIZER GROUNDING PLAN DETAIL
SCALE: N.T.S.



2 MV SECTIONALIZER COMMON GROUNDING PLAN DETAIL
SCALE: N.T.S.

NOTES:

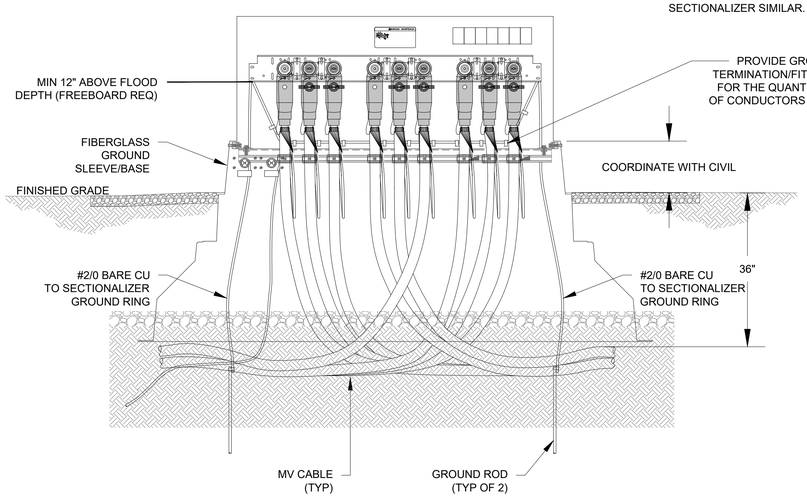
1. A COMMON GROUND RING AROUND ADJACENT SECTIONALIZERS IS ACCEPTABLE. EACH SECTIONALIZER WITHIN A COMMON GROUND RING SHALL BE BONDED PER THIS DETAIL.



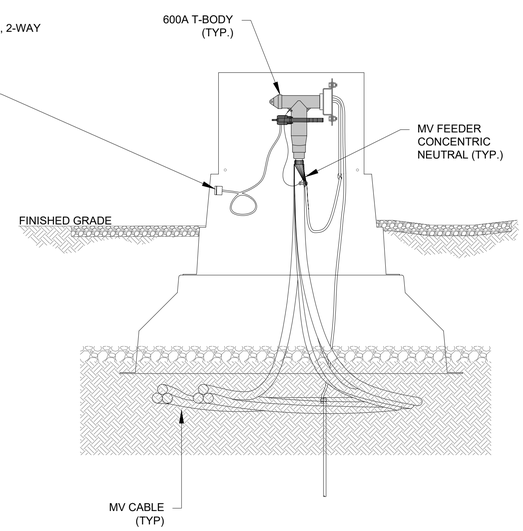
3 GROUND TAP DETAIL
SCALE: N.T.S.

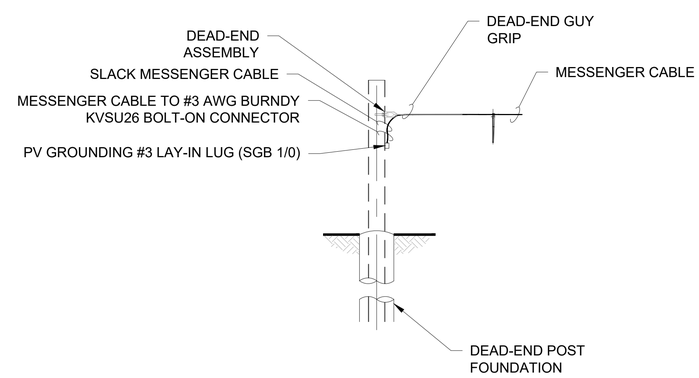
DETAIL NOTES:

1. 3-WAY SECTIONALIZER CABINET IS SHOWN, 2-WAY SECTIONALIZER SIMILAR.



4 MV SECTIONALIZER GROUNDING ELEVATION DETAIL
SCALE: N.T.S.





5 MESSENGER DEAD-END GROUNDING DETAIL
SCALE: N.T.S.

RECORD DRAWING

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

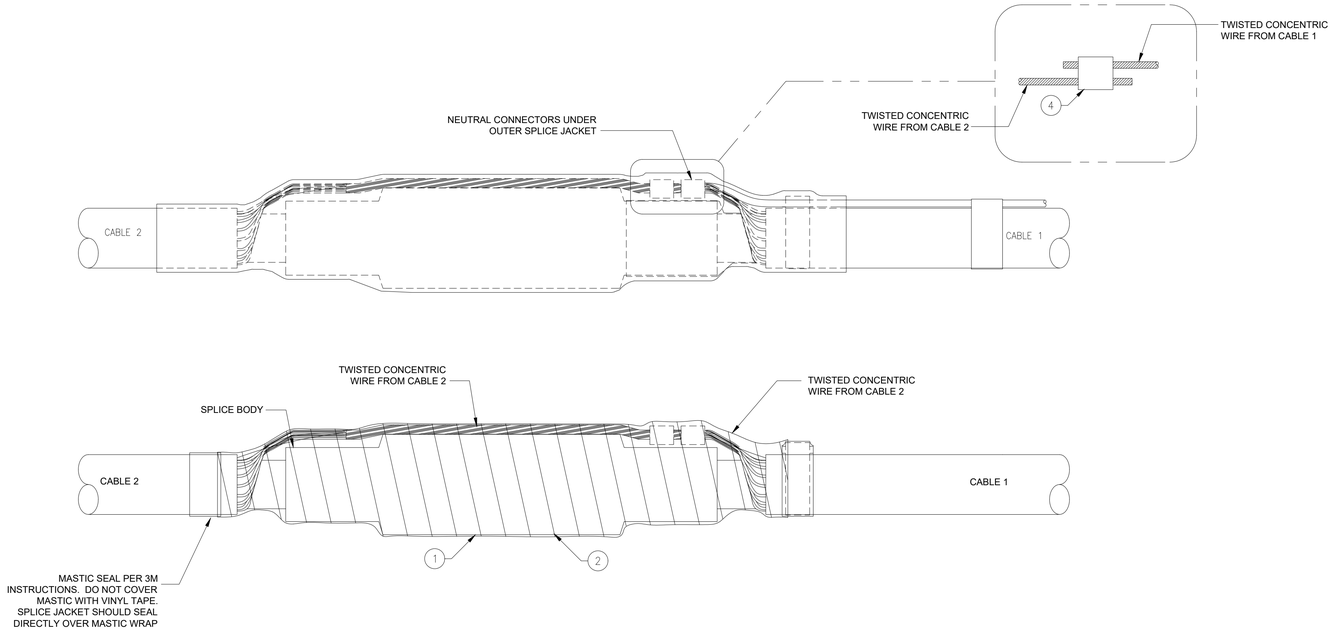
SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

SHEET NAME:
GROUNDING DETAILS

SHEET #: E-752
REV #: 4

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: EricLoos
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING\DWG\E-752 GROUNDING DETAILS



1 SPLICE AND NEUTRAL CONNECTIONS
SCALE: N.T.S.

GENERAL NOTES

A. DETAIL IS SHOWN FOR REFERENCE ONLY WHEN A SPLICE MAY BE REQUIRED DUE TO UNFORESEEN CONSTRUCTION ACTIVITIES OR INSTALLATION ISSUES. **ALL** SPLICES MUST BE APPROVED BY THE ENGINEER OF RECORD AND THE OWNER PRIOR TO INSTALLATION.

B. ALL EQUIPMENT SHALL BE UL LISTED OR UTILITY GRADE AND APPROVED BY OWNER. THE AHJ HAS FINAL JURISDICTIONAL AUTHORITY ON CODE APPLICATION AND COMPLIANCE.

C. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE NEC AND NESC.

D. EXPOSED NON-CURRENT CARRYING METAL PARTS OF EQUIPMENT AND ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC 250.134 AND 250.136(A).

E. COMPRESSION MV LUGS ARE ACCEPTABLE.

F. MARK EACH PRIMARY CABLE WITH BOTH PHASE IDENTIFICATION AND COLOR. INSTALL COLOR CODED TAPE PER BELOW;

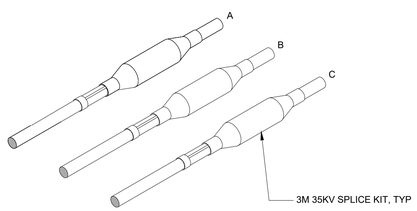
PHASE	PRIMARY
A	BLACK
B	RED
C	BLUE

G. ABOVE GRADE CABLE MARKERS INSTALLED ABOVE MV SPLICE

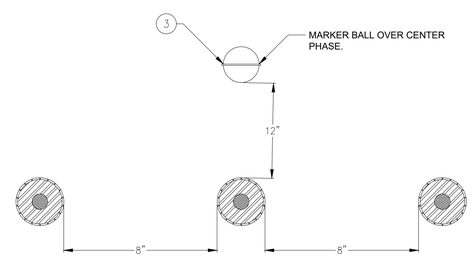
H. PROVIDE RECORD DOCUMENTATION OF GPS COORDINATES FOR SPLICE LOCATION

BILL OF MATERIAL

ITEM	QTY	UNIT	DESCRIPTION
1	3	EA	SPLICE, CABLE, 35KV, 1/0 - 1250 KCMIL AL, SHEARBOLT
2	1	EA	TAPE, VINYL, 1.5" X 36YD
3	1	EA	MARKER BALL, DIRECT BURIED
4	3	EA	CONNECTOR, COMP GRD, #1-2/0 TO #1-2/0



2 ISOMETRIC VIEW
SCALE: N.T.S.



3 SECTION VIEW
SCALE: N.T.S.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: GL
CHECKED BY: EL

SHEET NAME:
MV SPLICE DETAILS

SHEET #: E-753
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: EricLoos
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING\DWG\E-753 MV SPLICE DETAILS

FOR REFERENCE ONLY

SUNGROW

SG3150U-MV New

Turnkey Station for North America 1500 Vdc System - MV Transformer Integrated

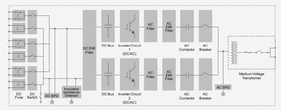
High Yield
- Advanced three-level technology, max. inverter efficiency 98.8%, inverter CEC efficiency 98.5 %
- Max. DC/AC ratio more than 1.5

Easy O&M
- Integrated current, voltage and MV parameters monitoring function for online analysis and fast trouble shooting
- Modular design, easy for maintenance
- Convenient external LCD

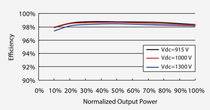
Saved Investment
- Low transportation and installation cost due to 20-foot container design
- 1500V DC system, low system cost
- Integrated MV transformer and LV auxiliary power supply

Grid Support
- Complies with UL 1741, UL 1741 SA, IEEE 1547, Rule 21 and NEC 2014/2017
- Grid support including L/HVRT, L/HFRT, active & reactive power control and power ramp rate control

Circuit Diagram



Inverter Efficiency Curve



© 2018 Sungrow Power Supply Co., Ltd. All rights reserved.
Subject to change without notice. Version 1.2

SG3150U-MV

Input (DC)	SG3150U-MV
Max. PV input voltage	1500V
Min. PV input voltage / Startup input voltage	915 V / 955 V
MPP voltage range	915 – 1300 V
No. of independent MPP inputs	1
No. of DC inputs	18 – 24
Max. PV input current	3420 A
Max. DC short-circuit current	4800 A
PV array configuration	Negative grounding
Output (AC)	
AC output power	3150 kVA @ 45 ℃ (113 ℉)
Max. inverter output current	2886 A
AC voltage range	34.5 kV
Nominal grid frequency / Grid frequency range	60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % In
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / Connection phases	3 / 3
Efficiency	
Inverter max. efficiency / Inverter CEC efficiency	98.8 % / 98.5 %
Transformer	
Transformer rated power	3150 kVA
Transformer max. power	3150 kVA
LV / MV voltage	0.63 kV / 34.5 kV
Transformer vector	Dy1
Transformer cooling type	ONAN (Oil Natural Air Natural)
Oil type	Mineral oil (PCB free) or degradable oil on request
Protection	
DC input protection	Load break switch + fuse
Inverter output protection	Circuit breaker
AC MV output protection	Load break switch + fuse
Overvoltage protection	DC Type II / AC Type II
Grid monitoring / Ground fault monitoring	Yes / Yes
Insulation monitoring	Optional
Overheat protection	Yes
General Data	
Dimensions (W*H*D)	6058*2896*2438 mm **(238.5"*114.0"*96.0")**
Weight	18 T **(39683.2 lbs)**
Degree of protection	NEMA 3R
Auxiliary power supply	120 Vac, 5 kVA / Optional: 480 Vac, 30 kVA
Operating ambient temperature range	-30 to 60 ℃ (> 45 ℃ derating) **(-22 to 140 ℉ (> 113 ℉ derating))**
Allowable relative humidity range (non-condensing)	0 – 95 %
Cooling method	Temperature controlled forced air cooling
Max. operating altitude	1000 m (standard) / > 1000 m (optional) **(3280.8 ft (standard) / > 3280.8 ft (optional))**
Display	Touch screen
Communication	Standard: RS485, Ethernet; Optional: optical fiber
Compliance	UL 1741, IEEE 1547, UL1741 SA, NEC 2014/2017, CSA C22.2 No.107.1-01
Grid support	Night SVG function (optional), L/HVRT, L/HFRT, active & reactive power control and power ramp rate control, Volt-var, Frequency-watt

© 2018 Sungrow Power Supply Co., Ltd. All rights reserved.
Subject to change without notice. Version 1.2

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: TLR
CHECKED BY: EL

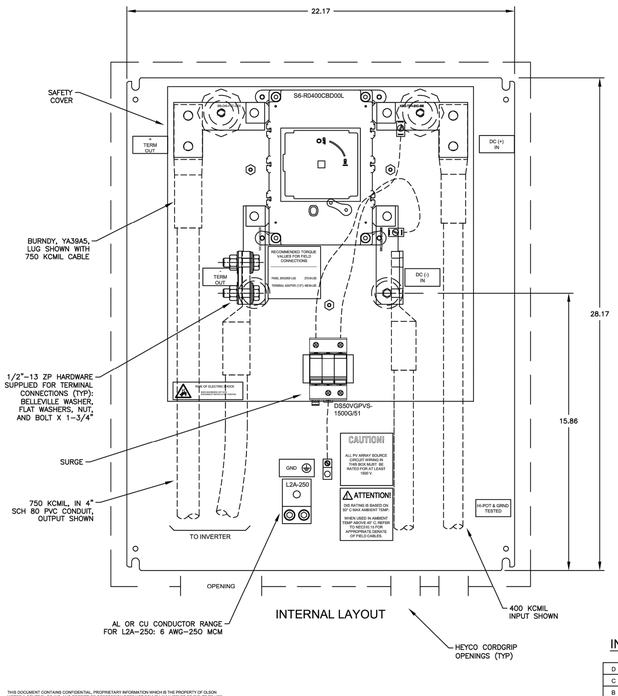
SHEET NAME:
EQUIP SPECS - INVERTER

SHEET #: E-900
REV #: 4

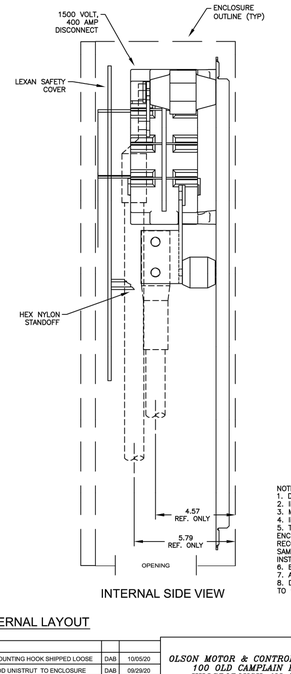
RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Terri.Rogers
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-900 EQUIP SPECS - INVERTER

FOR REFERENCE ONLY



INTERNAL LAYOUT



INTERNAL SIDE VIEW

NOTES:
1. DOOR LABELS TO BE WEATHER-RESISTANT ADHESIVE VINYL.
2. INTERNAL COMPONENTS TO BE RATED TO 50°C.
3. MAXIMUM AMPERAGE RATING 400 AMPS.
4. INTERNAL COMPONENTS TO BE RATED 1500 VDC.
5. TO MAINTAIN THE ENVIRONMENTAL RATING OF THIS ENCLOSURE, INSTALL IN THE OPENINGS ONLY LISTED OR RECOGNIZED CONDUIT HUBS OR CONTROL DEVICES WITH THE SAME INTEGRITY AS THE ENCLOSURE, IN COMPLIANCE WITH THE INSTALLATION INSTRUCTIONS OF THE DEVICE.
6. ENCLOSURE TO BE NEMA 4 POWDER COATED STEEL.
7. ALL DISCONNECT BOXES ARE UL1741 LISTED.
8. DISCONNECT & TERMINAL CONNECTION CONDUCTORS RATED TO 90°C

THIS DOCUMENT CONTAINS CONFIDENTIAL, PROPRIETARY INFORMATION WHICH IS THE PROPERTY OF OLSON MOTOR & CONTROL CO, INC. NO PART OF THIS DOCUMENT MAY BE DISCLOSED, REPRODUCED, STORED IN A RETRIEVAL SYSTEM, LOAN, SELL, REPRODUCE OR OTHERWISE DISCLOSE SAID INFORMATION, EXCEPT AS EXPRESSLY AGREED IN A WRITING SIGNED BY THE COMPANY. THIS DOCUMENT AND ALL COPIES THEREOF, ARE TO BE RETURNED TO THE COMPANY UPON REQUEST AND IN ALL EVENTS UPON COMPLETION OF THE PURPOSE FOR WHICH IT IS SUPPLIED

INTERNAL LAYOUT

MODEL: PRI-DISF-5-400-G-SW-UL-N4-SRG-TA

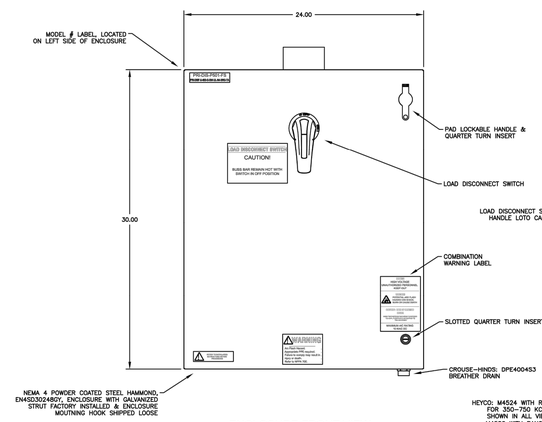
REV.	DESCRIPTION	BY	DATE
D			
C	MOUNTING HOOK SHIPPED LOOSE	DAB	10/05/20
B	ADD UNISTRUT TO ENCLOSURE	DAB	09/29/20
A	ENCLOSURE INSTALL HOOK ADDED	DAB	09/23/20

OLSON MOTOR & CONTROL CO, INC
100 OLD CAMPLAIN ROAD
HILLSBOROUGH, NJ 08844

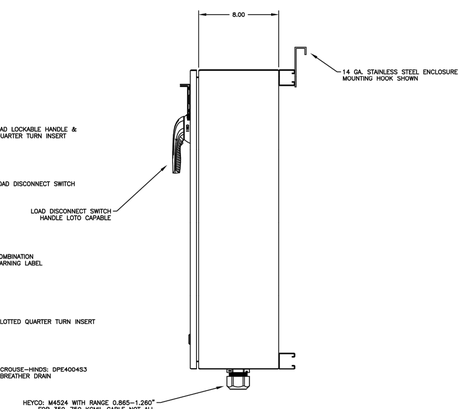
COPYRIGHT © 2020 OLSON MOTOR & CONTROL CO, INC. ALL RIGHTS RESERVED

TITLE: 1500 VOLT, 400 AMP, DISCONNECT BOX INTERNAL LAYOUT

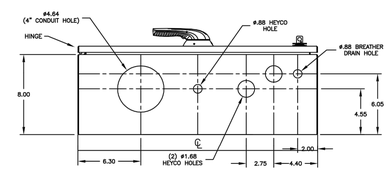
BY: DAB | DATE: 09/15/20 | DWG NUMBER PRI-DIS-P501-FS | REV: C | SHT: 1 OF 3



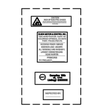
ENCLOSURE FRONT VIEW



ENCLOSURE SIDE VIEW



ENCLOSURE BOTTOM VIEW



LABELS LOCATED INSIDE ENCLOSURE DOOR

NOTES:
1. DOOR LABELS TO BE WEATHER-RESISTANT ADHESIVE VINYL.
2. INTERNAL COMPONENTS TO BE RATED TO 50°C.
3. MAXIMUM AMPERAGE RATING 400 AMPS.
4. INTERNAL COMPONENTS TO BE RATED 1500 VDC.
5. TO MAINTAIN THE ENVIRONMENTAL RATING OF THIS ENCLOSURE, INSTALL IN THE OPENINGS ONLY LISTED OR RECOGNIZED CONDUIT HUBS OR CONTROL DEVICES WITH THE SAME INTEGRITY AS THE ENCLOSURE, IN COMPLIANCE WITH THE INSTALLATION INSTRUCTIONS OF THE DEVICE.
6. ENCLOSURE TO BE NEMA 4 POWDER COATED STEEL.
7. ALL DISCONNECT BOXES ARE UL1741 LISTED.
8. DISCONNECT & TERMINAL CONNECTION CONDUCTORS RATED TO 90°C

THIS DOCUMENT CONTAINS CONFIDENTIAL, PROPRIETARY INFORMATION WHICH IS THE PROPERTY OF OLSON MOTOR & CONTROL CO, INC. NO PART OF THIS DOCUMENT MAY BE DISCLOSED, REPRODUCED, STORED IN A RETRIEVAL SYSTEM, LOAN, SELL, REPRODUCE OR OTHERWISE DISCLOSE SAID INFORMATION, EXCEPT AS EXPRESSLY AGREED IN A WRITING SIGNED BY THE COMPANY. THIS DOCUMENT AND ALL COPIES THEREOF, ARE TO BE RETURNED TO THE COMPANY UPON REQUEST AND IN ALL EVENTS UPON COMPLETION OF THE PURPOSE FOR WHICH IT IS SUPPLIED

ENCLOSURE LAYOUT

MODEL: PRI-DISF-5-400-G-SW-UL-N4-SRG-TA

REV.	DESCRIPTION	BY	DATE
D			
C	MOUNTING HOOK SHIPPED LOOSE	DAB	10/05/20
B	ADD UNISTRUT TO ENCLOSURE	DAB	09/29/20
A	ENCLOSURE INSTALL HOOK ADDED	DAB	09/23/20

OLSON MOTOR & CONTROL CO, INC
100 OLD CAMPLAIN ROAD
HILLSBOROUGH, NJ 08844

COPYRIGHT © 2020 OLSON MOTOR & CONTROL CO, INC. ALL RIGHTS RESERVED

TITLE: 1500 VOLT, 400 AMP, DISCONNECT BOX ENCLOSURE LAYOUT

BY: DAB | DATE: 09/15/20 | DWG NUMBER PRI-DIS-P501-FS | REV: C | SHT: 2 OF 3

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: NK
CHECKED BY: EL

SHEET NAME: EQUIP SPECS - LBD

SHEET #: E-901
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-901 EQUIP SPECS - DC DISCONNECTS

FOR REFERENCE ONLY

ARRAY TECHNOLOGIES

RELIABILITY IS POWER.

167×
fewer components than competitive trackers

25,000+
Megawatt Years of Operation

ARRAY TECHNOLOGIES, INC.

3901 Midway Place NE
Albuquerque, NM 87109 USA

+1 505.881.7567
+1 855.TRACKPV (872.2578)
+1 505.881.7572

sales@arraytechinc.com

arraytechinc.com

THE MOST RELIABLE TRACKER UNDER THE SUN

HIGHEST POWER DENSITY.

Higher density means more power and more profit. DuraTrack HZ v3 offers the unique ability to maximize the power density of each site, boasting 6% more density than our closest competitor.

LEADING TERRAIN ADAPTABILITY.

Uneven terrain? Hill yes! Our flexibly linked architecture, with articulating driveline joints and forgiving tolerances, create the most adaptable system in market for following natural land contours and creates the greatest power generation potential from every site.

FEWER COMPONENTS. GREATER RELIABILITY.

Less is more. Array was founded on a philosophy of engineered simplicity. Minimizing potential failure points (167 times fewer components than competitors), DuraTrack HZ v3 consistently delivers higher reliability and superior uptime.

FAILURE-FREE WIND DESIGN.

DuraTrack HZ v3 was designed and field tested to withstand some of the harshest conditions on the planet. It is the only tracker on the market that reliably handles wind events with a fully integrated, fully automatic wind-load mitigation system.

ZERO SCHEDULED MAINTENANCE.

Three decades of solar tracker system design, engineering and testing has resulted in uncompromising reliability. Maintenance-free motors and gears, fewer moving parts, and industrial-grade components means maintenance-free energy generation.

DuraTrack® HZ v3

COST VERSUS VALUE

We believe value is more than the cost of a tracking system. It's about building with forgiving tolerances and fewer parts so construction crews can work efficiently. It means protecting your investment with a failure-free wind management system. It also includes increasing power density. But most of all, value is measured in operational uptime, or reliability.

THE GLOBAL LEADER IN RELIABILITY

Array has spent decades designing and perfecting the most reliable tracker on the planet. Fewer moving parts, stronger components and intelligent design that protects your investment in the harshest weather are but a few of the innovative differences that keep your system running flawlessly all day and you resting easy at night.

UL LISTED IEC CE

STRUCTURAL & MECHANICAL FEATURES/SPECIFICATIONS	
Tracking Type	Horizontal single axis
MW per Drive Motor	Up to 1.036800 MW DC using 360W crystalline
String Voltage	Up to 1,500V DC
Maximum Linked Rows	32
Maximum Row Size	90 modules crystalline, glass-on-glass, and bifacial; 240 modues First Solar 4; 72 modules First Solar 6
Drive Type	Rotating gear drive
Motor Type	2 HP, 3 PH, 480V AC
Motors per 1 MW DC	Less than 1
East-West / North-South Dimensions	Site / module specific
Array Height	54" standard, adjustable (48" min height above grade)
Ground Coverage Ratio (GCR)	Flexible, 28–45% typical, others supported on request
Terrain Flexibility	N-S tolerance: 0° - 8.5° standard, 15° optional Driveline: 40° in all directions
Modules Supported	Most commercially available, including frameless crystalline, thin film, and bifacial.
Tracking Range of Motion	± 52° standard, ± 62° optional
Operating Temperature Range	-30°F to 140°F (-34°C to 55°C)
Module Configuration	Single-in-portrait standard, including bifacial. Two-or-three in landscape (framed or frameless), four-in-landscape (thin film) also available.
Module Attachment	Single fastener, high-speed mounting clamps with integrated grounding. Traditional rails for crystalline in landscape, custom racking for thin film and frameless crystalline and bifacial per manufacturer specs.
Materials	HDG steel and aluminum structural members
Allowable Wind Load (IBC 2012)	135 mph, 3-second gust exposure C
Wind Protection	Passive mechanical system relieves wind and obstruction damage — no power required
ELECTRONIC CONTROLLER FEATURES/SPECIFICATIONS	
Solar Tracking Method	Algorithm with GPS input
Control Electronics	MCU plus Central Controller
Data Feed	MODBUS over Ethernet to SCADA system
Night-time Stow	Yes
Tracking Accuracy	± 2° standard, field adjustable
Backtracking	Yes
INSTALLATION, OPERATION & MAINTENANCE	
PE Stamped Structural Calculations & Drawings	Yes
On-site Training & System Commissioning	Yes
Connection Type	Fully bolted connections, no welding
In-field Fabrication Required	No
Dry Slide Bearings & Articulating Driveline Connections	No lubrication required
Scheduled Maintenance	None required
Module Cleaning Compatibility	Robotic, Tractor, Manual
GENERAL	
Annual Power Consumption (kWh per 1 MW)	400 kWh per MW per year, estimated
Land Area Required per 1 MW	Approx. 4 to 4.5 acres per MW @ 33% GCR (site and design specific)
Energy Gain vs. Fixed-Tilt	Up to 25%, site specific
Warranty	10 year structural, 5 year drive & control components
Patent Numbers	US patent 8,459,249 US patent 9,281,778 US patent 9,581,678 B2 and patents pending
Codes and Standards	UL Certified (3703 & 2703); IEC 62817

Array Technologies Inc. reserves the right to make specification changes without notice.

REV 1.3 - 09.20.2018

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN
PV SOLAR POWER
GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: LR
CHECKED BY: EL

SHEET NAME:
EQUIP SPECS - TRACKER

SHEET #: E-903
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Terri Rogers
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-903 EQUIP SPECS - TRACKER

FOR REFERENCE ONLY

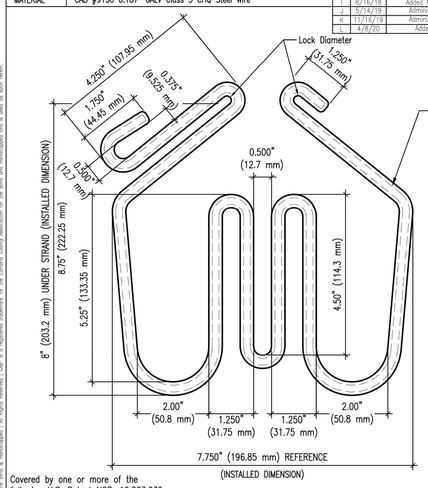
Cambria County Association for the Blind & Handicapped

CAB 9294, 9303, 9517, 9604, 9750 Datasheet

www.cabproducts.com

DESCRIPTION	CAB 3-Carrier Solar Hanger: 2"-0.5"-2"
MATERIAL	CAB #9130 0.187" CALV Class 3 CHQ Steel Wire

Rev.	Date	Revision Description	By
–	7/1/15	Initial Drawing	GSP
I	8/16/18	Added Metric Dimensions	KLR
J	5/14/19	Administrative Changes	KLR
K	11/16/19	Administrative Changes	KLR
L	4/8/20	Added Part Weight	BLM



BASE MATERIAL 0.187" DIAMETER CLASS 3 GALVANIZED HIGH TENSILE SPRING STEEL WIRE. ALL SURFACES COATED WITH 80 MILS OF PVC PLASTISOL. PLASTISOL IS HIGH DIELECTRIC GRADE, UV STABLIZED AND FLAME RETARDANT.

Covered by one or more of the following U.S. Patent NOS: 10,063,039 B2; D826,399 S; 9,722,405; D-796,307; D-798,138; D-806,240; 9,800,028 Other patent(s) pending. www.cabproducts.com/patents. Consent to make any representation regarding reproduction of these diagrams/files in any document is contingent upon "CAB Products" or "CAB Solar" being identified as the source. This does not create any license beyond this content.

NOTES:
1.) SCALE: 1:2 (HALF SIZE)
2.) OVERALL DIMENSIONS +/- ¾"
3.) WORKING LOAD LIMIT: 100 lbs (45 kg)

CAB #	Lock Dia.	PVC Color	WEIGHT
9294	¼" (6.35 mm)	Safety Orange	0.54 lb
9303	⅜" (9.525 mm)	Safety Orange	0.54 lb
9517	¼" (6.35 mm)	Dark Gray	0.54 lb
9604	.295"(7.5 mm)	Safety Orange	0.54 lb
9750	.495" (12.5 mm)	Safety Orange	0.54 lb

CAB SOLAR
CABLE MANAGEMENT SYSTEM

DATE: July 1, 2015

Size	Drawing Number	Draw. by	Rev.
A	9294	KLR	L

© Copyright 2018 Cambria County Association for the Blind & Handicapped | All Rights Reserved | CAB® is a registered trademark for the Cambria County Association for the Blind and Handicapped and is used as such herein.

COPPERWELD

215 Centerview Drive, Suite 360• Brentwood, TN 37027 • USA
http://www.copperweld.com
Office: +1.615.377.4200
Fax: +1.615.377.4167

Cable Description	COPPERWELD® COPPER - COPPER CLAD STEEL COMPOSITE 40% EHS 7X0985, TYPE K (Exceeds 3 AWG Copper fusing current at 30 cycles)
Cable Specifications	ASTM B227 – Standard Specification for Hard-Drawn Copper-Clad Steel Wire ASTM B229 – Standard Specification for Concentric-Lay-Stranded Copper and Copper-Clad Steel Composite Conductors
Catalog Number	55C7X0985KD

Time/Fusing Current

Seconds (kA)	Fusing Current
0.1	27.57
0.25	17.44
0.5	12.33
1	8.72
2	6.16
5	3.9
10	2.76

TYPE K
3 COPPER + 4 COPPERWELD® COPPER CLAD STEEL

PHYSICAL DATA	Diameter of Individual Wires	0.0985	inch
	Number of Wires	7 (3-Copper + 4-CCS)	
	Overall diameter	0.2955	inch
	Cross Section of Area	67.92	Kcmil
	Linear Weight	198.9	lb/1000 ft
	Minimum Break Load	5528	lbf
ELECTRICAL DATA	Max. Conductor DC Resistance at 20°C	0.2411	Ω/1000 ft
	Conductivity – CCS wire	40	% IACS
	Fusing current @ 30 cycles	11.13	kA

All materials contained in this document are the intellectual property of Copperweld Bimetallics, LLC., and protected by copyright laws. None of its content may not be reproduced, republished, distributed, transmitted, displayed, broadcast or otherwise exploited in any manner without the express prior written permission of Copperweld Bimetallics, LLC. For more information, contact engineering@copperweld.com.
Note: Min Tensile Cu = 64,900 psi (ASTM B1); Min Tensile 40% CCS EHS = 156,000 psi (ASTM B227)
Fusing current at 30 cycles is calculated using equation 37 of IEEE Standard 80. IEEE Guide for Safety in AC Substation Grounding.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: LR
CHECKED BY: EL

SHEET NAME:
EQUIP SPECS - CAB SYSTEM

SHEET #: E-904
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: gregg.looney
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-904 EQUIP SPECS - CAB SYSTEM

FOR REFERENCE ONLY

NEW

CanadianSolar

BiHiKu

SUPER HIGH POWER BIFACIAL MONO PERC MODULE

420 W ~ 445 W

UP TO 30% MORE POWER FROM THE BACK SIDE

CS3W-420|425|430|435|440|445MB-AG

MORE POWER

- EXTRA POWER — Up to 30% more power from the back side
- 24 % higher front side power than conventional modules
- 41°C — Low NMOT: 41 ± 3 °C; Low temperature coefficient (Pmax): -0.35 % / °C
- Better shading tolerance

MORE RELIABLE

- Lower internal current, lower hot spot temperature
- Minimizes micro-crack impacts
- Heavy snow load up to 5400 Pa, wind load up to 3600 Pa *

* For detail information, please refer to Installation Manual.

30 years — **linear power output warranty***

12 years — **enhanced product warranty on materials and workmanship***

*According to the applicable Canadian Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*

IEC 61215 / IEC 61730: VDE / CE / MCS / INMETRO
UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / IEC 60068-2-68: SGS
Take-e-way

PRODUCT CERTIFICATES*

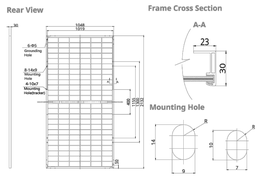
IEC 61215 / IEC 61730: VDE / CE / MCS / INMETRO
UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / IEC 60068-2-68: SGS
Take-e-way

* As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

CANADIAN SOLAR (USA), INC. is committed to providing high quality solar products, solar system solutions and services to customers around the world. No. 1 module supplier for quality and performance/price ratio in IHS Module Customer Insight Survey. As a leading PV project developer and manufacturer of solar modules with over 40 GW deployed around the world since 2001.

CANADIAN SOLAR (USA), INC.
3000 Oak Road, Suite 400, Walnut Creek, CA 94597, USA | www.canadiansolar.com/na | sales.us@canadiansolar.com

ENGINEERING DRAWING (mm)



ELECTRICAL DATA | STC*

		Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)	Module Efficiency
CS3W-420MB-AG		420 W	39.9 V	10.53 A	47.9 V	11.27 A	18.8%
Bifacial Gain**	5%	441 W	39.9 V	11.06 A	47.9 V	11.83 A	19.7%
	10%	462 W	39.9 V	11.58 A	47.9 V	12.40 A	20.7%
	20%	504 W	39.9 V	12.64 A	47.9 V	13.52 A	22.6%
	30%	546 W	39.9 V	13.69 A	47.9 V	14.65 A	24.4%
CS3W-425MB-AG		425 W	40.1 V	10.60 A	48.1 V	11.32 A	19.0%
Bifacial Gain**	5%	446 W	40.1 V	11.13 A	48.1 V	11.89 A	20.0%
	10%	468 W	40.1 V	11.66 A	48.1 V	12.45 A	20.9%
	20%	510 W	40.1 V	12.72 A	48.1 V	13.58 A	22.8%
	30%	553 W	40.1 V	13.78 A	48.1 V	14.72 A	24.8%
CS3W-430MB-AG		430 W	40.3 V	10.68 A	48.3 V	11.37 A	19.2%
Bifacial Gain**	5%	452 W	40.3 V	11.21 A	48.3 V	11.94 A	20.2%
	10%	473 W	40.3 V	11.75 A	48.3 V	12.51 A	21.2%
	20%	516 W	40.3 V	12.82 A	48.3 V	13.64 A	23.1%
	30%	559 W	40.3 V	13.88 A	48.3 V	14.78 A	25.0%
CS3W-435MB-AG		435 W	40.5 V	10.75 A	48.5 V	11.42 A	19.5%
Bifacial Gain**	5%	457 W	40.5 V	11.29 A	48.5 V	11.99 A	20.5%
	10%	479 W	40.5 V	11.83 A	48.5 V	12.56 A	21.4%
	20%	522 W	40.5 V	12.90 A	48.5 V	13.70 A	23.4%
	30%	566 W	40.5 V	13.98 A	48.5 V	14.85 A	25.3%
CS3W-440MB-AG		440 W	40.7 V	10.82 A	48.7 V	11.48 A	19.7%
Bifacial Gain**	5%	462 W	40.7 V	11.36 A	48.7 V	12.05 A	20.7%
	10%	484 W	40.7 V	11.90 A	48.7 V	12.63 A	21.7%
	20%	528 W	40.7 V	12.98 A	48.7 V	13.78 A	23.6%
	30%	572 W	40.7 V	14.07 A	48.7 V	14.92 A	25.6%
CS3W-445MB-AG		445 W	40.9 V	10.89 A	48.9 V	11.54 A	19.9%
Bifacial Gain**	5%	467 W	40.9 V	11.43 A	48.9 V	12.12 A	20.9%
	10%	490 W	40.9 V	11.98 A	48.9 V	12.69 A	21.9%
	20%	534 W	40.9 V	13.07 A	48.9 V	13.85 A	23.9%
	30%	579 W	40.9 V	14.16 A	48.9 V	15.00 A	25.9%

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
** Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

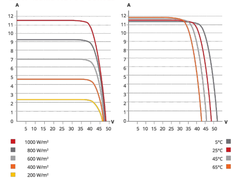
ELECTRICAL DATA

Operating Temperature	-40°C ~ +85°C
Max. System Voltage	1500 V (IEC/UL) or 1000 V (IEC/UL)
Module Fire Performance	TYPE 3 (UL 1703) or CLASS C (IEC61730)
Max. Series Fuse Rating	25 A
Application Classification	Class A
Power Tolerance	0 ~ + 10 W
Power Bifaciality*	70 %

* Power Bifaciality = P_{max_-} / P_{max_+}, both P_{max_+} and P_{max_-} are tested under STC, Bifaciality Tolerance: ± 5 %

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. Canadian Solar Inc. reserves the right to make necessary adjustment to the information described herein at any time without further notice.
Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

CS3W-435MB-AG / I-V CURVES



ELECTRICAL DATA | NMOT*

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)
CS3W-420MB-AG	315 W	37.3 V	8.42 A	45.2 V	9.09 A
CS3W-425MB-AG	318 W	37.5 V	8.48 A	45.4 V	9.13 A
CS3W-430MB-AG	322 W	37.7 V	8.54 A	45.6 V	9.17 A
CS3W-435MB-AG	326 W	37.9 V	8.59 A	45.8 V	9.21 A
CS3W-440MB-AG	329 W	38.1 V	8.65 A	46 V	9.26 A
CS3W-445MB-AG	333 W	38.3 V	8.71 A	46.1 V	9.31 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA

Specification	Data
Cell Type	Mono-crystalline
Cell Arrangement	144 [2X (12 X 6)]
Dimensions	2132 X 1048 X 30 mm (83.9 X 41.3 X1.2 in)
Weight	28.4 kg (62.6 lbs)
Front / Back Glass	2.0 mm heat strengthened glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 diodes
Cable	4.0 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	Portrait: 400 mm (15.7 in) (+) / 280 mm (11.0 in) (-); landscape: 1400 mm (55.1 in); leap-frog connection: 1850 mm (72.8 in)*
Connector	T4 series or MC4
Per Pallet	33 pieces
Per Container (40' HQ)	660 pieces or 561 pieces (only for US)

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.35 % / °C
Temperature Coefficient (Voc)	-0.27 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	41 ± 3°C

PARTNER SECTION

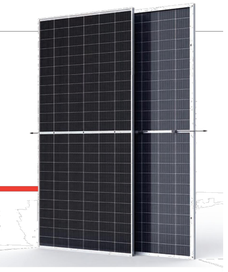
CANADIAN SOLAR (USA), INC. May 2020 | All rights reserved | PV Module Datasheet v5.59_F26_J1_NA

Mono Multi Solutions

THE

DUOMAX twin

BIFACIAL DUAL GLASS 144 CELL MULTI BUSBAR MODULE



PRODUCTS	POWER RANGE
TSM-DEG15MC.20(II)	390-410W

144-Cell
MONOCRYSTALLINE MODULE

390-410W
POWER OUTPUT RANGE

20.2%
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

Founded in 1997, Trina Solar is the world's leading total solution provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, bankable brand. Trina Solar now distributes its PV products to over 100 countries all over the world. We are committed to building strategic, mutually beneficial collaborations with installers, developers, distributors and other partners in driving smart energy together.

Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
OHSAS 18001: Occupation Health and Safety Management System

High power output

- Up to 410W front power and 20.2% module efficiency with half-cut and MBB (Multi Busbar) technology enabling higher BOS savings
- Lower resistance of half-cut cells ensures higher power

Certified to perform in highly challenging environments

- High PID resistance through cell process and module material control
- Resistant to salt, acid, sand, and ammonia
- Proven to be reliable in high temperature and humidity areas
- Certified to the best fire class A
- Minimizes micro-crack and snail trails
- Certified to 5400 Pa positive load and 2400 Pa negative load

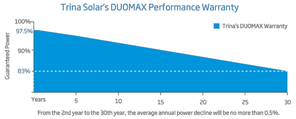
High energy generation, low LCOE

- Up to 25% additional power gain from back side, depending on the albedo
- Excellent 3rd party validated IAM and low light performance with cell process and module material optimization
- Low temp coefficient (-0.35%) and NMOT increases energy production
- Better anti-shading performance and lower operating temperature
- Higher power from same installation footprint as standard modules

Easy to install, wide application

- Frame design enables compatibility with standard installation methods
- Deployable for ground mounted utility, carports, and agricultural projects
- Safe and easy to transport, handle, and install like normal framed modules

Trina Solar's DUOMAX Performance Warranty



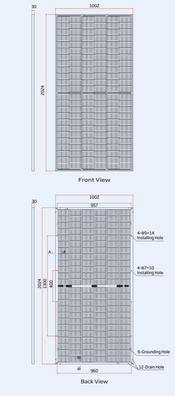
From the 2nd year to the 30th year, the average annual power decline will be no more than 0.5%.

Trinasolar

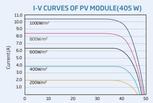
DUOMAX twin

BIFACIAL DUAL GLASS 144 HALF-CELL MBB MODULE

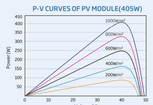
DIMENSIONS OF PV MODULE (mm)



I-V CURVES OF PV MODULE(405 W)



P-V CURVES OF PV MODULE(405W)



ELECTRICAL DATA (STC)

Peak Power Watts-P_{MAX} (Wp)*	390	395	400	405	410
Power Output Tolerance-P_{MAX} (W)	0 ~ +5				
Maximum Power Voltage-V_{MPP} (V)	40.2	40.5	40.8	41.1	41.4
Maximum Power Current-I_{MPP} (A)	9.71	9.76	9.81	9.86	9.91
Open Circuit Voltage-V_{OC} (V)	48.5	48.7	48.9	49.1	49.3
Short Circuit Current-I_{SC} (A)	10.25	10.29	10.33	10.37	10.41
Module Efficiency η_m (%)	19.2	19.5	19.7	20.0	20.2

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
*Measuring tolerance: ±3%.

ELECTRICAL DATA (NMOT)

Maximum Power-P_{MAX} (Wp)	295	299	302	306	310
Maximum Power Voltage-V_{MPP} (V)	37.7	38.0	38.3	38.6	38.9
Maximum Power Current-I_{MPP} (A)	7.82	7.86	7.90	7.93	7.97
Open Circuit Voltage-V_{OC} (V)	45.7	45.9	46.1	46.3	46.5
Short Circuit Current-I_{SC} (A)	8.26	8.29	8.33	8.36	8.39

NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

Electrical characteristics with diffferent rear side power gains (referenced specifically to 405 Wp front)**

Maximum Power-P_{MAX} (Wp)	425	446	466	486	506
Maximum Power Voltage-V_{MPP} (V)	41.1	41.1	41.1	41.1	41.1
Maximum Power Current-I_{MPP} (A)	10.35	10.85	11.34	11.83	12.33
Open Circuit Voltage-V_{OC} (V)	49.2	49.3	49.4	49.5	49.6
Short Circuit Current-I_{SC} (A)	10.89	11.41	11.93	12.44	12.96
Pmax gain	5%	10%	15%	20%	25%

Power Bifaciality:70±5%.

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	144 cells (6 × 24)
Module Dimensions	2024 × 1002 × 30 mm (79.69 × 39.45 × 1.18 inches)
Weight	26.0 kg (57.3 lb)
Front Glass	2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	POE/EVA
Back Glass	2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass)
Frame	30mm (1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0 mm² (0.006 inches²) Portrait: 280/280 mm (11.02/11.02 inches) Landscape: 1900/1900 mm (74.80/74.80 inches)
Connector	Trina TS4

TEMPERATURE RATINGS

NMOT(Nominal Module Operating Temperature)	41°C (±3°C)
Temperature Coefficient of P_{MAX}	- 0.35%/°C
Temperature Coefficient of V_{OC}	- 0.25%/°C
Temperature Coefficient of I_{SC}	0.04%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum SystemVoltage	1500V DC (IEC) 1500V DC (UL)
Max Series Fuse Rating	20A

WARRANTY

10 year Product Workmanship Warranty
30 year Power Warranty
(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 35 pieces
Modules per 40' container: 770 pieces

Trinasolar

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
© 2019 Trina Solar Limited. All rights reserved. Specifications included in this datasheet are subject to change without notice.
Version number: TSM_DEG15MC20_EN_2020_A
www.trinasolar.com

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: CLH
CHECKED BY: EL

SHEET NAME:
EQUIP SPECS - MODULES

SHEET #: E-905
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: chad.highland
LOCATION: K:_03_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-905 EQUIP SPECS - MODULES

FOR REFERENCE ONLY

EAGLE 78TR G4b

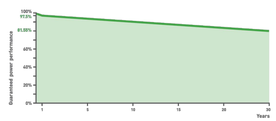
445~465 WATT
TILING RIBBON BIFACIAL
MONOCRYSTALLINE MODULE

Positive power tolerance of 0~+3%

- NYSE-listed since 2010, Bloomberg Tier 1 manufacturer
- Best-selling panel globally for last 4 years
- Top performance in the strictest 3rd party labs
- 99.9% on-time delivery
- Automated manufacturing utilizing artificial intelligence
- Vertically integrated, tight controls on quality
- Premium solar panel factories in USA and Malaysia

LINEAR PERFORMANCE WARRANTY

30-Year Performance Warranty



Nomenclature
JKM410M-7RL3-TV
Type / Cell Type / Cell Size / Backsheet
TBTR / 182.2mm / Transparent

Certification Pending

- ISO9001:2008 Quality Standards
- ISO14001:2004 Environmental Standards
- IEC61215, IEC61730 certified products
- OHSAS18001 Occupational Health & Safety Standards
- UL61730 certified products

KEY FEATURES

TR Technology
TR technology eliminates cell gaps to increase module efficiency and power

Bifacial Power Gain
Bifacial cell architecture allows backside bonus and more lifetime power yield

Transparent Backsheet
Easier installation and lower balance of system cost than dual glass solution

Designed for Long Life
Uses the same DuPont protective film as the Space Station, Mars Lander, and jetliners. 30-year warranty

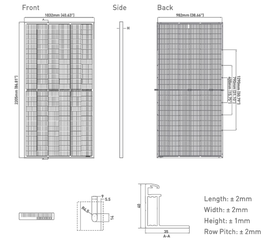
Shade Tolerant
Twin array design allows continued performance even with shading by trees or debris

Protected Against All Environments
Certified to withstand humidity, heat, rain, marine environments, wind, hailstorms, and packed snow

BUILDING YOUR TRUST IN SOLAR. JINKOSOLAR.US

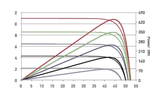
JinKO Solar

ENGINEERING DRAWINGS

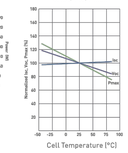


ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE

Current-Voltage & Power-Voltage Curves (465W)



Temperature Dependence of Isc, Voc, Pmax



MECHANICAL CHARACTERISTICS

Cells	Bifacial Monocrystalline Cell (163.75x163.75mm)
No. of Half Cells	156 (2x78)
Dimensions	2205x1032x40mm (86.81x40.63x1.57in)
Weight	26.5kg (58.42lbs)
Front Glass	3.2mm, Anti-Reflection Coating High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Junction Box	IP67 Rated
Output Cables	12 AWG, 1400mm (55.12in) or Customized Length
Fire Type	Type 1
Pressure Rating	5400Pa (Snow) & 2400Pa (Wind)

TEMPERATURE CHARACTERISTICS

Temperature Coefficients of Pmax	-0.35%/°C
Temperature Coefficients of Voc	-0.28%/°C
Temperature Coefficients of Isc	0.048%/°C
Nominal Operating Cell Temperature (NOCT)	45±2°C
Refer. Bifacial Factor	70±5%

MAXIMUM RATINGS

Operating Temperature (°C)	-40°C~+85°C
Maximum System Voltage	1500VDC (UL and IEC)
Maximum Series Fuse Rating	20A

PACKAGING CONFIGURATION

(Two pallets = One stack)

27pcs/pallet, 54pcs/stack, 540pcs/40'HQ Container

BIFACIAL OUTPUT-REARSIDE POWER GAIN

5%	Maximum Power (Pmax)	467Wp	473Wp	478Wp	483Wp	488Wp
	Module Efficiency (%)	20.53%	20.76%	20.99%	21.23%	21.46%
15%	Maximum Power (Pmax)	512Wp	518Wp	523Wp	529Wp	535Wp
	Module Efficiency (%)	22.49%	22.74%	22.99%	23.25%	23.50%
25%	Maximum Power (Pmax)	556Wp	563Wp	569Wp	575Wp	581Wp
	Module Efficiency (%)	24.44%	24.72%	24.99%	25.27%	25.54%

ELECTRICAL CHARACTERISTICS

Module Type	JKM445M-7RL3-TV		JKM450M-7RL3-TV		JKM455M-7RL3-TV		JKM460M-7RL3-TV		JKM465M-7RL3-TV	
	STC	NOCT	STC	NOCT	STC	NOCT	SCT	NOCT	SCT	NOCT
Maximum Power (Pmax)	445Wp	331Wp	450Wp	335Wp	455Wp	339Wp	460Wp	342Wp	465Wp	346Wp
Maximum Power Voltage (Vmp)	43.13V	39.51V	43.19V	39.62V	43.25V	39.73V	43.32V	39.84V	43.38V	39.95V
Maximum Power Current (Imp)	10.32A	8.38A	10.42A	8.45A	10.52A	8.52A	10.62V	8.59A	10.72A	8.66A
Open-circuit Voltage (Voc)	51.60V	48.70V	51.70V	48.80V	51.80V	48.89V	51.90V	48.99V	52.00V	49.08V
Short-circuit Current (Isc)	11.08A	8.95A	11.17A	9.02A	11.26A	9.09A	11.35A	9.17A	11.44A	9.24A
Module Efficiency STC (%)	19.56%		19.78%		20.00%		20.21%		20.43%	

***STC:** Irradiance 1000W/m² | Cell Temperature 25°C | AM = 1.5
NOCT: Irradiance 800W/m² | Ambient Temperature 20°C | AM = 1.5 | Wind Speed 1m/s

*Power measurement tolerance: ±3%

The company reserves the final right to explain any of the information presented. JKM445-465M-7RL3-TV-D1-US

BUILDING YOUR TRUST IN SOLAR. JINKOSOLAR.US

JinKO Solar

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: CLH
CHECKED BY: EL

SHEET NAME:
EQUIP SPECS - MODULES

SHEET #: E-906
REV #: 4

RECORD DRAWING

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: chad.highland
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-906 EQUIP SPECS - MODULES

FOR REFERENCE ONLY

Solar Insulation Piercing Connector (GS-IPC)

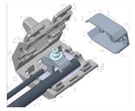
TAPPING CONNECTOR FOR MID-SPAN APPLICATION

Description	Part Number	Application Range Main Side	Application Range Tap Side	Max Current Load	Weight
GS-IPC-4U	2182993-1	#8 to #4 AWG	#12 to #10 AWG	63 Amps	0.5 lbs
GS-IPC-500U	2182994-1	350 and 500 kcmil	#10 to #6 AWG	168 Amps	1.15 lbs

GS-IPC-500U

DEAD-END CONNECTOR FOR END SEAL APPLICATION

Description	Part Number	Application Range Main Side	Application Range Tap Side	Max Current Load	Weight
GS-IPC-4U-ES	2182993-2	#8 to #4 AWG	#12 to #10 AWG	63 Amps	0.6 lbs
GS-IPC-500U-ES	2182994-2	350 and 500 kcmil	#10 to #6 AWG	168 Amps	1.3 lbs



GS-IPC-500U-ES

LISTED 424C
c UL us
WIRE CONNECTOR

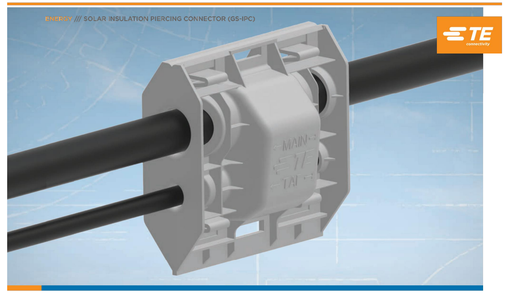
te.com/energy

© 2020 TE Connectivity. All Rights Reserved. EPP-CF-DOS-0037-GS-IPC-04/20-EN

TE Connectivity, TE connectivity (logo), EVERY CONNECTION COUNTS, AMP, AMPACT, Axicom, Bowthorpe EMP, Crompton Instruments, Raychem, SHIELD, UTILUX are trademarks. Other logos, product and Company names mentioned herein may be trademarks of their respective owners. Disclaimer: Unless otherwise specified TE Connectivity (TE) products are for commercial use. In this brochure, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this brochure are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.

FOR MORE INFORMATION:
TE Technical Support Centers

USA: + 1 800 327 6996
Brazil: + 55 11-2103-6023
Mexico: + 52 55-1106-0800
South America: + 57 1-319-8962
Benelux: + 32 16-308-696
France: + 33 (0) 38-058-3210
Germany/Switzerland: + 49 (0) 89-608-9903
Italy: + 39 335-834-3453
Middle East/Africa: + 971 4-215-7020
Russia: + 7 495-790-790-2-200
Spain/Portugal: + 34 912-685-885
UK: + 44 08708-707-500
China: + 86 400-820-6015



SOLAR INSULATION PIERCING CONNECTOR

WITH POWERGEL-FILLED COVER FOR PV CABLES UP TO 1.5 kV DC

KEY FEATURES

- cUL certified product
- Extremely low leakage current
- Suitable for outdoor and direct buried applications
- No insulation cutback required
- One-piece connector block with shear bolt technology, halogen-free, and UV-resistant
- Flame retardant - V0 classification
- Use as a tap connector on a mid-span or on a dead-end application
- Adjusts to connection spacing on site with convenient flexibility

TE Connectivity's (TE) Solar Insulation Piercing Connector with a Powergel-filled cover (GS-IPC) offers protection, insulation and high quality sealing for fast, easy and safe cable connections of PV cables ranging from #10 to 500 Kcmil. Size transitions or transitions from copper to aluminum are also possible. Suitable for direct buried and overhead applications.

The GS-IPC enclosure, with its revolutionary Powergel sealant, protects and seals the connection quickly and easily, saving both time and effort. Our Powergel sealant is rated to 90°C continuous temperature and is halogen-free with an extended shelf life.

No insulation cutback is required thanks to the insulation piercing technology (IPC). Shear bolts always guarantee the optimum contact force without the use of a torque wrench or other special tools.

The housing is UV-stable and impact-resistant, and comes with a robust hinge and latching mechanism which help to protect against humidity and water.

These connectors have been successfully tested to UL 486A-486B, CSA C22.2 No. 65-03 and applicable UL6703 tests as listed by Underwriters Laboratories Inc., File No. E13288.

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

Section 1200
PV Wire

PRIORITY WIRE & CABLE, INC.

Spec#: 1200-01
Revised: 08/26/2019
Sales Specification

ALUMINUM PV PHOTOVOLTAIC CABLE 1000V/2000V (UL)
Cross-Linked Polyethylene Insulated

Applications: For use in interconnection wiring of grounded and ungrounded photovoltaic power systems.

Construction: Compact or compressed round stranded 8000 series aluminum alloy RHH/RHW-2 conductors, per ASTM B800, B836, & B901. Black cross-linked polyethylene (XLPE) insulation. Designed to operate not over 2000V.

Industry Listings & Standards:
UL Listed PV Wire under UL44, UL1581 and UL4703 Photovoltaic Wires
-40°C to 90°C Wet or Dry
VW-1 rated per UL1581
Sunlight Resistant
Direct Burial**

AL PV Cable 1KV/2KV							
Part Number	Size	Strand	Min. Avg. Insulation Thickness	Nominal O.D.	Allowable Ampacity*	Approximate Weight	DC Resistance @20°C
	AWG		(mils)	(mils)	90°C	lbs/kft	Ω/kft
8-01ALPV-2KV	8	7	85	312	45	47	1.0500
6-01ALPV-2KV	6	7	85	339	55	56	0.6610
4-01ALPV-2KV	4	7	85	383	75	76	0.4160
2-01ALPV-2KV	2	7	85	438	100	107	0.2620
1-01ALPV-2KV	1	18	105	509	115	143	0.2060
1/0-01ALPV-2KV	1/0	18	105	546	135	171	0.1650
2/0-01ALPV-2KV	2/0	18	105	586	150	203	0.1310
3/0-01ALPV-2KV	3/0	18	105	633	175	245	0.1030
4/0-01ALPV-2KV	4/0	18	105	685	205	295	0.0821
250-01ALPV-2KV	250	35	120	760	230	353	0.0695
300-01ALPV-2KV	300	35	120	810	260	411	0.0579
350-01ALPV-2KV	350	35	120	856	280	467	0.0496
400-01ALPV-2KV	400	35	120	899	305	525	0.0434
500-01ALPV-2KV	500	35	120	976	350	622	0.0348
600-01ALPV-2KV	600	58	135	1083	385	756	0.0290
700-01ALPV-2KV	700	58	135	1147	425	836	0.0248
750-01ALPV-2KV	750	58	135	1178	435	913	0.0232
900-01ALPV-2KV	900	58	135	1269	480	1062	0.0193
1000-01ALPV-2KV	1000	58	135	1330	500	1180	0.0174
1250-01ALPV-2KV	1250	58	155	1505	545	1458	0.0142

Note: *Allowable Ampacities shown are for general use as specified by the National Electric Code, 2017 Edition, Section 310-15(B)(16). Based on ambient temperature of 30°C. **DIR BUR to be marked on 6AWG and larger.

Cable Marking: PRIORITY WIRE <AWG or KCMIL(mm2)> PV WIRE (UL) E340884 AL AA-8000 COMPACT STRAND XLPE RHH RHW-2 1KV/2KV 90ºC -40ºC SUN RES DIR BUR VW-1<YEAR> <SEQ FT> <Factory ID>

Red and Black Jacket

1-800-945-5542

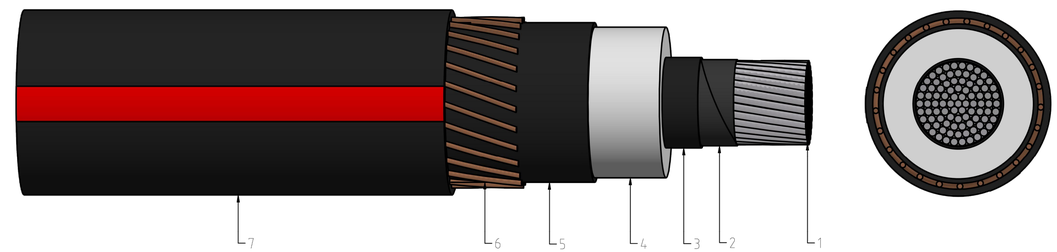
© Priority Wire & Cable, Little Rock, AR PWC-August 26, 2019

CME wire and cable
A Viakable Company

TITLE: AL CPR, TR-XLPE 35 kV 100% I.L., C.N, XLPE JACKET 3ERS

DRAWN BY:	APPROVED BY:	DRAWING No.:	SPECIFICATION / STANDARD	REV:
O.R.G	W.R.M	(371) UD / MV-105	UL 1072	1
DD / MM / YYYY 25 / 08 / 2020	DD / MM / YYYY 25 / 08 / 2020			

1.- COMPRESSED ALUMINUM CONDUCTOR, CLASS B.
2.- SEMICONDUCTING TAPE (ONLY FOR 1250 KCMIL CONDUCTOR).
2.- EXTRUDED CONDUCTOR SHIELD.
3.- TR-XLPE INSULATION.
4.- EXTRUDED INSULATION SHIELD.
5.- CONCENTRIC NEUTRAL COPPER CONDUCTOR.
6.- XLPE JACKET WITH THREE EXTRUDED RED STRIPES.



MARKING:
CME WIRE AND CABLE E102545 (UL) _____ AWG/kcmil AL 345.0 MILS TRXLP 35 KV 100% INSUL. LEVEL TYPE MV-105 _DATE_ (SEQUENTIAL MARKING IN FEET)

SIZE AWG/kcmil	No. STRANDS	CONDUCTOR DIAMETER (mils)	INSULATION THICKNESS (mils)	DIAMETER OVER INSULATION (mils)	CONCENTRIC NEUTRAL WIRE	JACKET THICKNESS (mils)	OVERALL DIAMETER APPROX. (mils)	TOTAL WEIGHT APPROX LBS/MFT
4/0	19	512	345	1254	13W16AWG (1/3NE)	50	1550	995
500	37	789	345	1541	18W14AWG (1/3NE)	80	1957	1768
750	61	968	345	1730	17W12AWG (1/3NE)	80	2180	2265
1250	91	1251	345	2059	18W10AWG (1/3NE)	80	2541	3310

NOTE:
THE ABOVE DATA ARE APPROXIMATE AND SUBJECT TO NORMAL MANUFACTURING TOLERANCES.

FastGrid

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020
PROJECT #: 190067.03
DRAWN BY: LR
CHECKED BY: EL

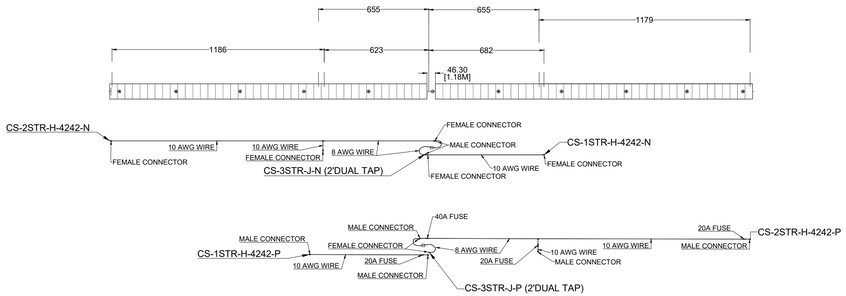
SHEET NAME: EQUIP SPECS - CABLING

SHEET #: E-907
REV #: -

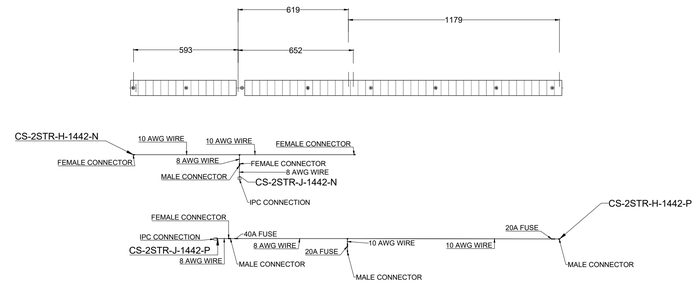
AS BUILT

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-907 EQUIP SPECS - CABLING

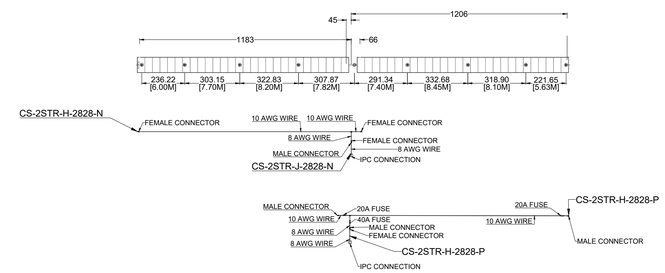
FOR REFERENCE ONLY



3 STRING HARNESS



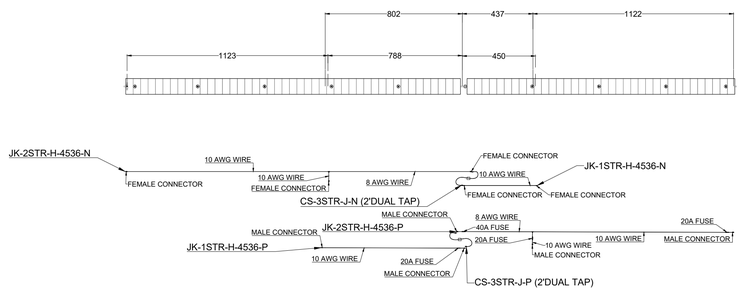
2 STRING OFFSET HARNESS



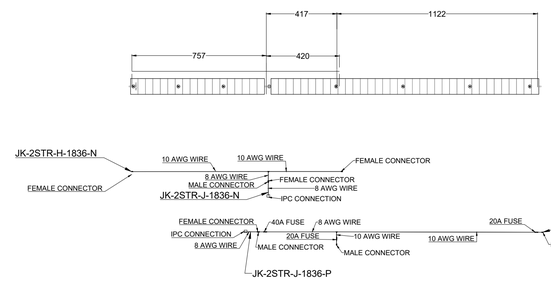
2 STRING CENTER HARNESS

1 CANADIAN SOLAR HARNESS LAYOUTS

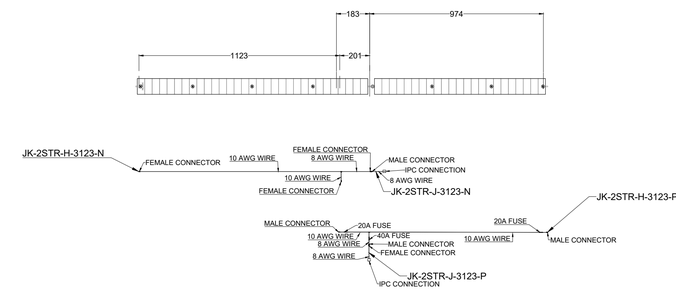
SCALE: N.T.S.



3 STRING TABLE HARNESS LAYOUT



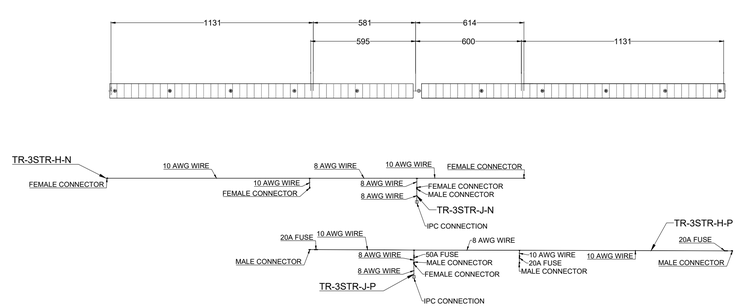
2 STRING OFFSET TABLE HARNESS LAYOUT



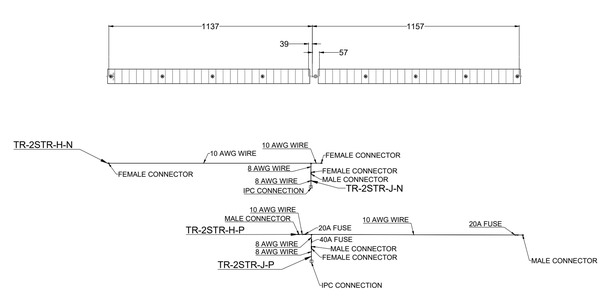
2 STRING CENTER TABLE HARNESS LAYOUT

2 JINKO HARNESS LAYOUTS

SCALE: N.T.S.



3 STRING TABLE HARNESS LAYOUT



2 STRING TABLE HARNESS LAYOUT

GENERAL NOTES:

A. ALL CONNECTORS SHALL MATCH THE MODULE CONNECTORS EXACTLY. THE USE OF 'MC4 COMPATIBLE' OR 'MC4 COMPARABLE' CONNECTORS INS NOT ALLOWED ABSENT A UL REPORT AND MODULE MANUFACTURER LETTER INDICATING THEYARE ACCEPTABLE TO USE.

B. REFER TO SHOP DRAWING DETAILS FOR ADDITIONAL INFORMATION FOR EACH HARNESS. LAYOUTS SHOWN HERE ARE IN COORDINATION WITH TE CONNECTIVITY.

C. ALL HARNESS EQUIPMENT SHALL BE UL LISTED FOR 1500VDC. ALL CONDUCTORS SHALL BE COPPER, 2KV PV-WIRE.

3 TRINA HARNESS LAYOUTS

SCALE: N.T.S.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
4	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: LR

CHECKED BY: EL

SHEET NAME: EQUIP SPECS - DC HARNESS

SHEET #: E-908

REV #: 4

AS BUILT

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: EricLoos
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-908 EQUIP SPECS - DC WIRE HARNESS

FOR REFERENCE ONLY

ALTOS Lite(TM) Loose Tube, Gel-Free, Single-Jacket, Single-Armored Cable, 24 fiber, Single-mode (OS2), max. attenuation 0.35 dB/km Part #: 024EUC-T4100D20

ALTOS® Lite Loose Tube, Gel-Free, Single-Jacket, Single-Armored Cable 24 F, Single-mode (OS2)

CORNING

Part Number:
024EUC-T4100D20

Corning ALTOS® Lite gel-free, single-jacket, single-armored cables are designed for campus backbones in direct-buried installations. The loose tube design provides stable and highly reliable transmission parameters for a variety of voice, data, video and imaging applications. These cables also provide high-fiber density within a given cable diameter while allowing flexibility to suit many system configurations.

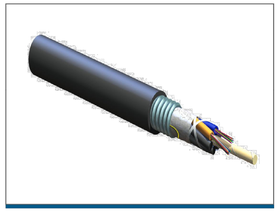
The single armored construction provides additional crush and rodent protection with a high-strength ripcord under the armor for easy stripping. Gel-free means the cables are fully waterblocked using craft-friendly, water-swellable materials which make cable access simple and require no clean up. The flexible, craft-friendly buffer tubes are easy to route in closures, and the SZ-stranded, loose tube design isolates fibers from installation and environmental rigors while allowing easy mid-span access. These cables have a medium density polyethylene jacket that is rugged, durable and easy to strip.

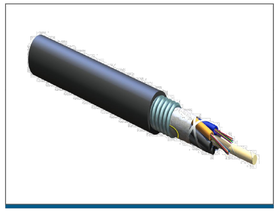
Features and Benefits

Gel-free waterblocking technology
Craft-friendly cable preparation

Polyethylene jacket
Rugged, durable and easy to strip (while providing superior protection against UV radiation, fungus, abrasion and other environmental factors)

Corrugated steel tape armor
Provides rodent resistance for direct-buried applications





ALTOS® Lite Loose Tube, Gel-Free, Single-Jacket, Single-Armored Cable 24 F, Single-mode (OS2)

CORNING

Specifications

Mechanical Specifications	
Max. Tensile Strength, Long-Term	890 N
Max. Tensile Strength, Short-Term	2700 N
Min. Bend Radius Installation	182 mm
Min. Bend Radius Operation	121 mm
Nominal Outer Diameter	12.1 mm

Cable Design	
Central Element	Dielectric
Fiber Count	24
Buffer Tube Color Coding	Blue, Orange
Number of Ripcords	2
Outer Jacket Color	Black
Outer Jacket Material	Polyethylene (PE)
Tensile Strength Elements and/or Armoring - Layer 1	Corrugated steel tape armor
Buffer Tube Color	Blue, Orange
Buffer Tube Diameter	2.5 mm
Number of Active Tubes	2
Number of Filling Elements	4
Number of Tube Positions	6
Tape	Water-swellable
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12

Environmental Conditions	
Temperature Range, Installation	-30 °C to 70 °C (-22 °F to 158 °F)

ALTOS® Lite Loose Tube, Gel-Free, Single-Jacket, Single-Armored Cable 24 F, Single-mode (OS2)

CORNING

Environmental Conditions	
Temperature Range, Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Temperature Range, Operation	-40 °C to 70 °C (-40 °F to 158 °F)

General Specifications	
Environment	Outdoor
Cable Type	Loose Tube
Product Type	Armored
Fiber Category	Single-mode (OS2)
Application	Aerial , Direct Buried , Duct

Ordering Information	
Weight	129 kg/km

Standards	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Common Installations	Outdoor lashed aerial, duct and direct-buried, indoor when installed according to National Electrical Code® (NEC®) Article 770
Design and Test Criteria	ANSI/ICEA S-87-640

RoHS COMPLIANT

Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC • 28216 • United States
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

A complete listing of the trademarks of Corning Optical Communications is available at www.corning.com/opcomm/emea/trademarks. Corning Optical Communications is ISO 9001 and ISO 14001 certified. © 2020 Corning Optical Communications. All rights reserved.

FastGrid, LLC
225 E Germann Road
Suite 301
Gilbert, AZ 85297

REV	DESCRIPTION	DATE
	RECORD DRAWINGS	06/08/2023

PROJECT NAME:
EAGLE SHADOW MOUNTAIN PV SOLAR POWER GENERATION FACILITY

PROJECT ADDRESS:
I-15
CRYSTAL, NV
CLARK COUNTY

SEAL:

DATE: 10/16/2020

PROJECT #: 190067.03

DRAWN BY: LR

CHECKED BY: EL

SHEET NAME:
EQUIP SPECS - FIBER OPTIC

SHEET #: E-909

REV #: -

AS BUILT

PLOT DATE: Thursday, June 08, 2023
PLOT BY: Brady Burgason
SAVED BY: Leon.Reese
LOCATION: K:_09_PROJECTS\190067.03 - PRIMORIS - EAGLE SHADOW MOUNTAIN\05 ENGINEERING*DWG\E-909 EQUIP SPECS - FIBER OPTIC

Eagle Shadow
Mountain
Solar Project
Ute
15
15
Crystal
Las Vegas Fwy
Valley of Fire
State Park

Eagle Shadow Mountain Project -
Aerial View 2

Eagle Shadow Mountain Project -
Aerial View 3

Tracker Without Module

Tracker With Module

SBE 26-113 Pg 438

Module-Tracker - Earth Truss View 1

Module-Tracker - Earth
Truss - View 2

Module-Tracker - Earth Truss
- View 3

Module-Tracker - Driven Pile - View 1

Module-Tracker - Driven Pile - View 2

Substation - View 1

Substation - View 2

BEFORE THE NEVADA ENERGY DIRECTOR
GOVERNOR'S OFFICE OF ENERGY

In the Matter of the Application of:	)	
	)	**Application Filing No. 20-0616SPV**
325MK 8ME, LLC	)	
_____	)	

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

A hearing was held before the Director of the Governor's Office of Energy (Office) on October 21, 2020 regarding Application Filing Number 20-0616SPV. At the hearing, applicant 325MK 8ME, LLC was represented by Josh Hicks of McDonald Carano, LLP. Based upon the 325MK 8ME, LLC application, and evidence presented at the hearing, the Director makes the following findings of fact, conclusions of law, and order in this matter.

FINDINGS OF FACT

1. At the hearing of the matter, 325MK 8ME, LLC presented the testimony of Benjamin Droz. The Office Director admitted into evidence a packet of Exhibits that contained five subparts: (1) Notice of Public Hearing dated September 29, 2020 (2) 325MK 8ME, LLC Application as filed with the Office on June 16, 2020 (3) Fiscal Impact of the partial abatement of Sales and Use Tax as required by NRS 701A.375-1 by the Nevada Department of Taxation, received on August 24, 2020; (4) Fiscal Impact of the partial abatement as provided by the Governor's Office of Finance required by NRS 701A.375-1, received on August 31, 2020; (5) Pre-filed Testimony of Benjamin Droz. At the hearing, all Exhibits were admitted into evidence.

Based upon the testimony of the witness and the evidence presented, the Director finds the following to be the facts in this matter.

2. 325MK 8ME, LLC is a company with a current Nevada State Business License from the Nevada Secretary of State.

3. On June 16, 2020, 325MK 8ME, LLC submitted its Application seeking partial abatement of sales and use taxes for the construction and operation of a facility for the generation of solar renewable energy ("Facility") that would be located in Clark County, Nevada on Moapa Tribal Land. The Application described a solar generating facility that would generate up to 300 Nameplate megawatts (MW) that would be sold to NV Energy pursuant to a power purchase agreement.

4. The filed application supported that 325MK 8ME, LLC was properly licensed and qualified to do business in Nevada; that 325MK 8ME, LLC had obtained all required discretionary state and local licenses and permits, with the remaining permits to be obtained prior to start of construction, expected sometime during the third quarter 2020, and intended to maintain all of the required licenses and permits for the Facility; that 325MK 8ME, LLC had all necessary approvals for the Facility; that the Facility would have an AC nameplate rating of up to 300 MW; that 325MK 8ME, LLC had entered into a power purchase agreement with NV Energy; that the Facility was anticipated to be at least partially operational sometime during the fourth quarter of 2021; that the total capital investment of the Facility in Nevada will be approximately $339,000,000; that the Facility would create approximately 1 full-time operational jobs which would pay an average of approximately $26.58 per hour; and that the Facility would create an estimated 150 full-time construction jobs over the course of construction which would pay an average hourly wage of $42.28 per hour.

5. That the average hourly wage that will be paid by the facility to its employees in this State, excluding management and administrative employees, is approximately $26.58 which is at

least 110% of the average statewide hourly wage for green industry tax abatements, currently posted by Department of Employment Training and Rehabilitation.

6. That the average hourly wage paid by the facility to all of its construction employees working on the facility, excluding management and administrative employees, will be approximately $42.28 which is at least 175% of the average statewide hourly wage for green industry tax abatements, currently posted by Department of Employment Training and Rehabilitation.

7. The Fiscal Impact statement produced by the Department of Taxation shows the following estimated figures regarding the sales and uses taxes related to the Facility:

Total Amount Abated (Year 1)	$4,400,315
Total Amount Abated (Year 2)	$13,200,945
Total Amount Abated (Years 3)	$0.00
TOTAL AMOUNT ABATED	**$17,601,260**

Total Amount Abated by Local Government (Year 1)	$2,876,396
Total Amount Abated by Local Government (Year 2)	$8,629,189
Total Amount Abated by Local Government (Year 3)	$0.00
TOTAL AMOUNT ABATED BY LOCAL GOVERNMENT	**$11,505,585**
TOTAL LOCAL SCHOOL SUPPORT TAX GAIN	**$7,924,377**

8. The Fiscal Impact statement produced by the Department of Taxation shows the following estimated figures regarding the property taxes related to the Facility over the abatement period (20 years):

Total Property Taxes Due Before Abatement	$0.00
Total Property Taxes Abated Over Abatement Period	$0.00
Total Taxes to Local Government Over Abatement Period	$0.00

9. The Fiscal Note produced by the Budget Division shows that the State General Fund will be impacted for a total of approximately $6,095,675 abated over the period of the abatement (2021 through 2023).

10. Synthesizing the figures in evidence in this matter, the total estimated benefit pursuant to NRS 701A.365(1)(f) to the state and local governments in Nevada is $348,168,201 and the total estimated amount of sales and use taxes abated in this matter is $17,601,260. Thus, the benefits to the state and local governments in Nevada exceeds the total amount of abated taxes. The estimated benefits and amounts abated over the applicable periods of abatement are calculated as follows:

Financial Benefits	
Capital Investment in Nevada	$339,000,000
Construction Payroll in Nevada residents	$8,117,760
Operational Payroll in Nevada:	$1,050,441
TOTAL BENEFITS OVER ABATEMENT PERIODS	**$348,168,201**
Amounts Abated	
Total Sales and Use Taxes Abated (3 Years)	$17,601,260
Total Property Taxes Abated (20 Years)	$0.00
TOTAL TAXES ABATED	**$17,601,260**

11. That all of the evidence discussed in the preceding paragraphs was supported by the substantial, reliable, and probative evidence taken from the record as a whole produced at the hearing of this matter.

CONCLUSIONS OF LAW

1. The Director has the jurisdiction and authority to adjudicate this matter because the Application is within the scope of NRS 701A.300 through 701A.390 and the Director is required by law to hold the hearing in this matter pursuant to NRS 701A.360(5).

2. The substantial, reliable, and probative evidence in the record of this matter shows that the 325MK 8ME, LLC Application for the construction and operation of the Facility satisfies the following statutory requisites:

(a) NRS 701A.320(1)(a) – The primary source of energy to operate the Facility will be the Facility itself, thus meeting the statutory standard.

(b) NRS 701A.320(1)(b) – The Facility will generate 300 MW AC Nameplate, thus exceeding the statutory standard.

(c) NRS 701A.320(2) – The Facility is not located on residential property, thus meeting the statutory standard.

(d) NRS 701A.360(2) – The Facility is not owned, operated, leased, or controlled by a government agency, thus meeting the statutory standard.

(e) NRS 701A.365(1)(a)(1) – The Facility is anticipated to be operational for at least 25 years, thus exceeding the statutory standard.

(f) NRS 701A.365(1)(b) – The Facility has all the necessary state and local permits and licenses to operate, thus meeting the statutory standard.

(g) NRS 701A.365(1)(c) - No funding for the Facility is or will be provided by any governmental entity in this State for the acquisition, design or construction of the Facility or for the acquisition of any land therefore, except any private activity bonds as defined in 26 U.S.C. §141, thus meeting the statutory standard.