

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR, LLC

PROPOSED
SOLAR FARM

LOCATION OF SITE:
**160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN
 NORFOLK COUNTY, MASSACHUSETTS**
**LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION
 OF D 239-010, & 32-0009 (BELLINGHAM)**

REFERENCES

EXISTING CONDITIONS SURVEY:
 FELDMAN GEOSPATIAL
 152 HAMPDEN STREET, BOSTON, MA 01608
 DATE: 05/09/2022

ANR SURVEY:
 FELDMAN GEOSPATIAL
 152 HAMPDEN STREET, BOSTON, MA 01608
 DATE: 08/05/2022

* THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS. HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.



REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|------------------------------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL &
 AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-SFPD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

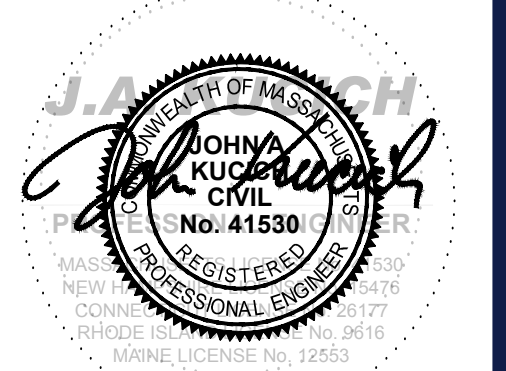
PROPOSED
 SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

COVER SHEET

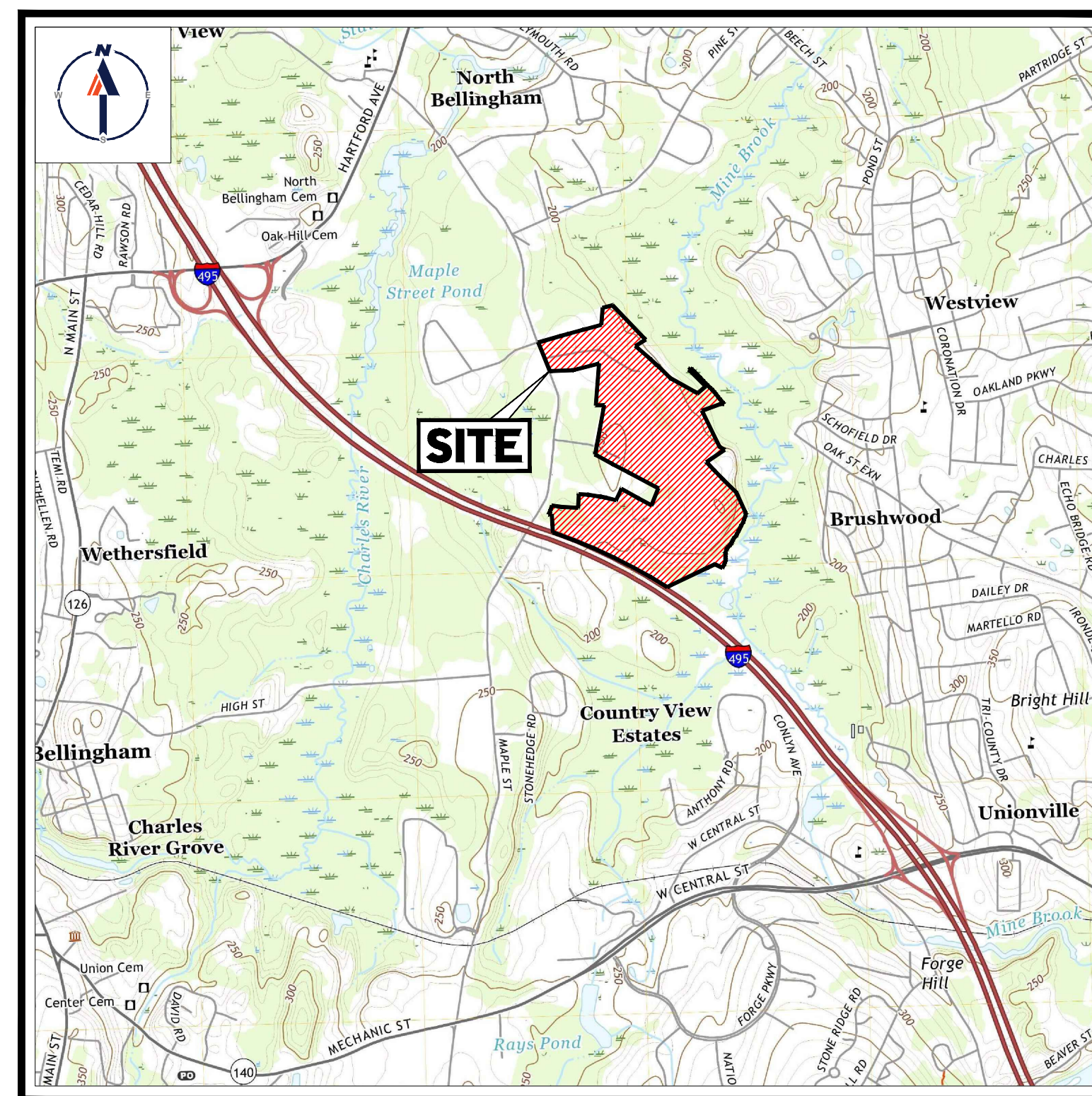
SHEET NUMBER:

C-101

REVISION 1 - 10/04/2023

DRAWING SHEET INDEX

| SHEET TITLE | SHEET NUMBER |
|--|---------------|
| COVER SHEET | C-101 |
| GENERAL NOTES SHEET | C-102 |
| OVERALL DEMOLITION PLAN | C-201 |
| DEMOLITION PLAN (A-F) | C-202 - C-207 |
| OVERALL SITE LAYOUT PLAN | C-301 |
| SITE LAYOUT PLAN (A - F) | C-302 - C-307 |
| OVERALL GRADING PLAN | C-401 |
| GRADING PLAN (A - F) | C-402 - C-407 |
| OVERALL EROSION & SEDIMENT CONTROL PLAN | C-601 |
| EROSION & SEDIMENT CONTROL PLAN (A - F) | C-602 - C-607 |
| EROSION & SEDIMENT CONTROL NOTES & DETAILS | C-608 - C-609 |
| DETAIL SHEETS | C-901 - C-906 |
| FIRE TRUCK CIRCULATION PLAN | 1 OF 1 |
| EXISTING CONDITIONS PLAN (BY FELDMAN GEOSPATIAL) | 8 SHEETS |



USGS MAP

SCALE: 1" = 2,000'
 SOURCE: FRANKLIN MASSACHUSETTS USGS QUADRANGLE



SITE MAP

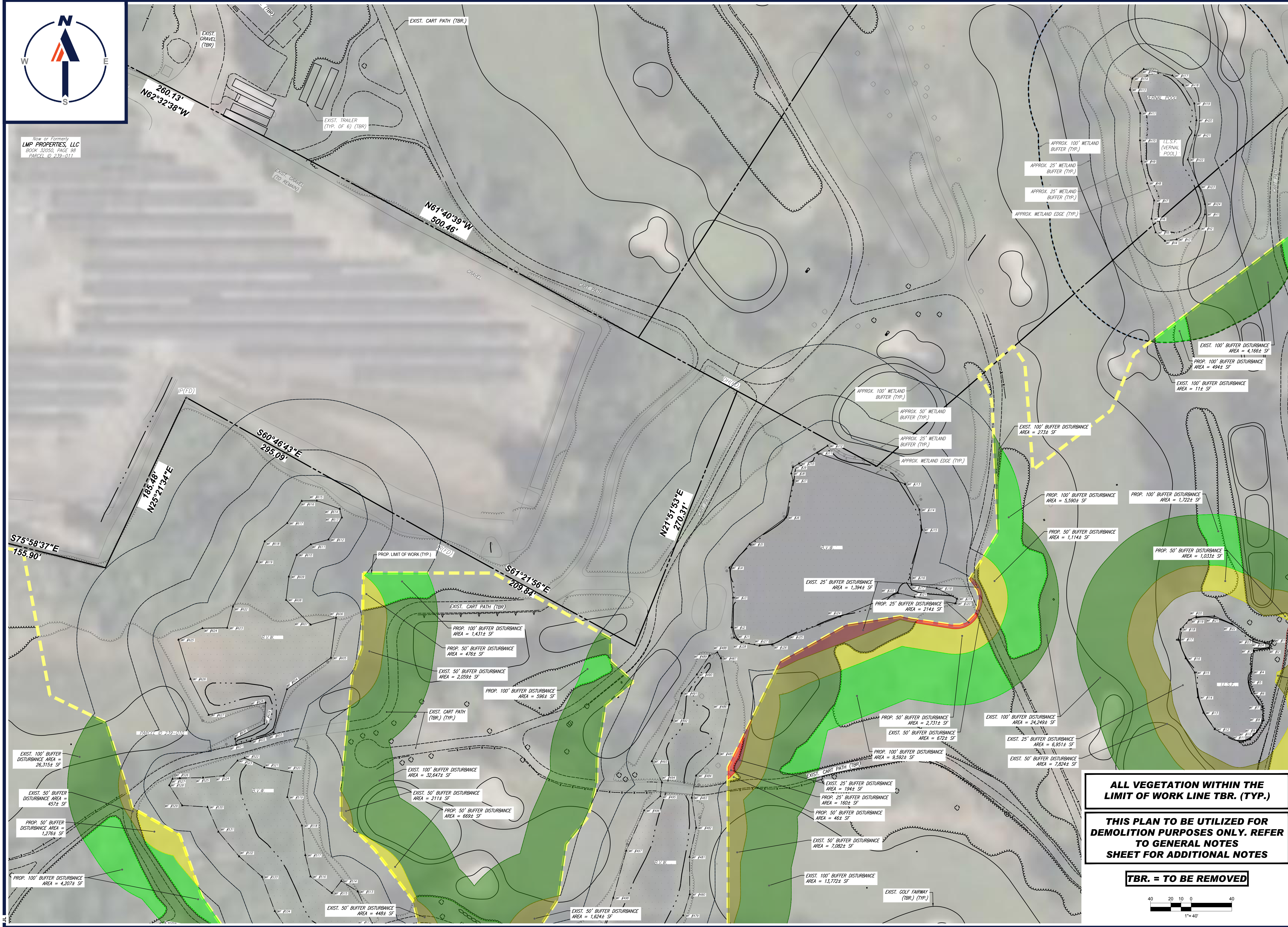
SCALE: 1" = 600'
 SOURCE: GOOGLE AERIAL

PREPARED BY

BOHLER



New or Formerly
LMP PROPERTIES, LLC
BOOK 32050, PAGE 08
PARCEL ID 239-011



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID: W201257-DEMO-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

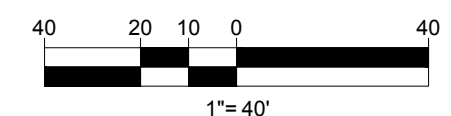
www.BohlerEngineering.com



ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED



SHEET TITLE:

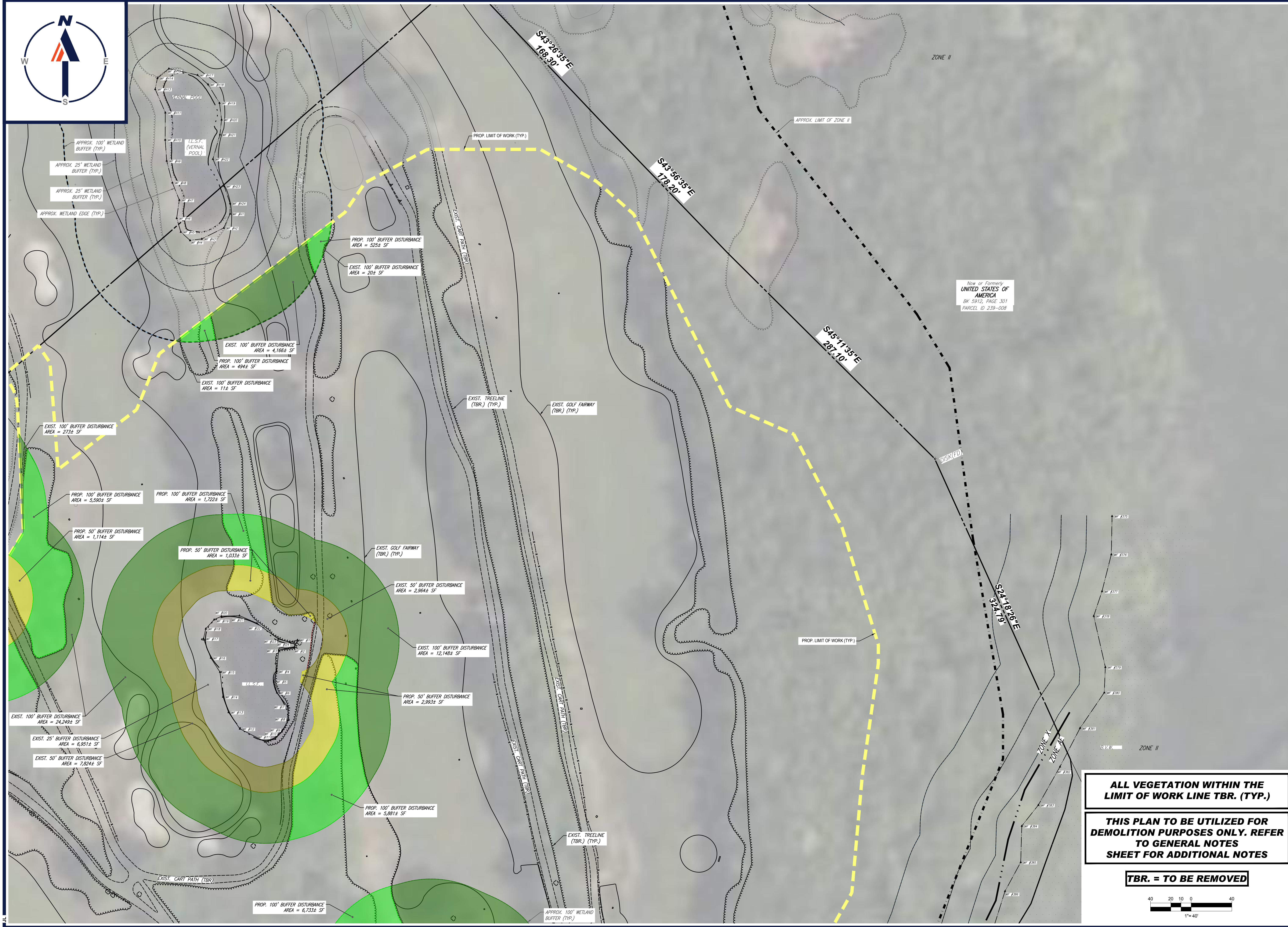
DEMOLITION PLAN B

SHEET NUMBER:

C-203

REVISION 1 - 10/04/2023

P:\DWG\2023\CADD\DRAWINGS\PLAN\BETRICHE\SITE PLAN\ANSI\W201257-DEMO-1B-PLAN\TBR.DWG C-203-DEMO B



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | DRAWN BY |
|-----|------------|------------------------------|-----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD LID: W201257-DEMO-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

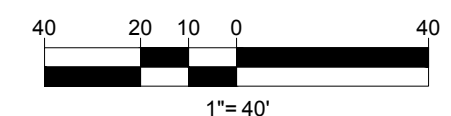
BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

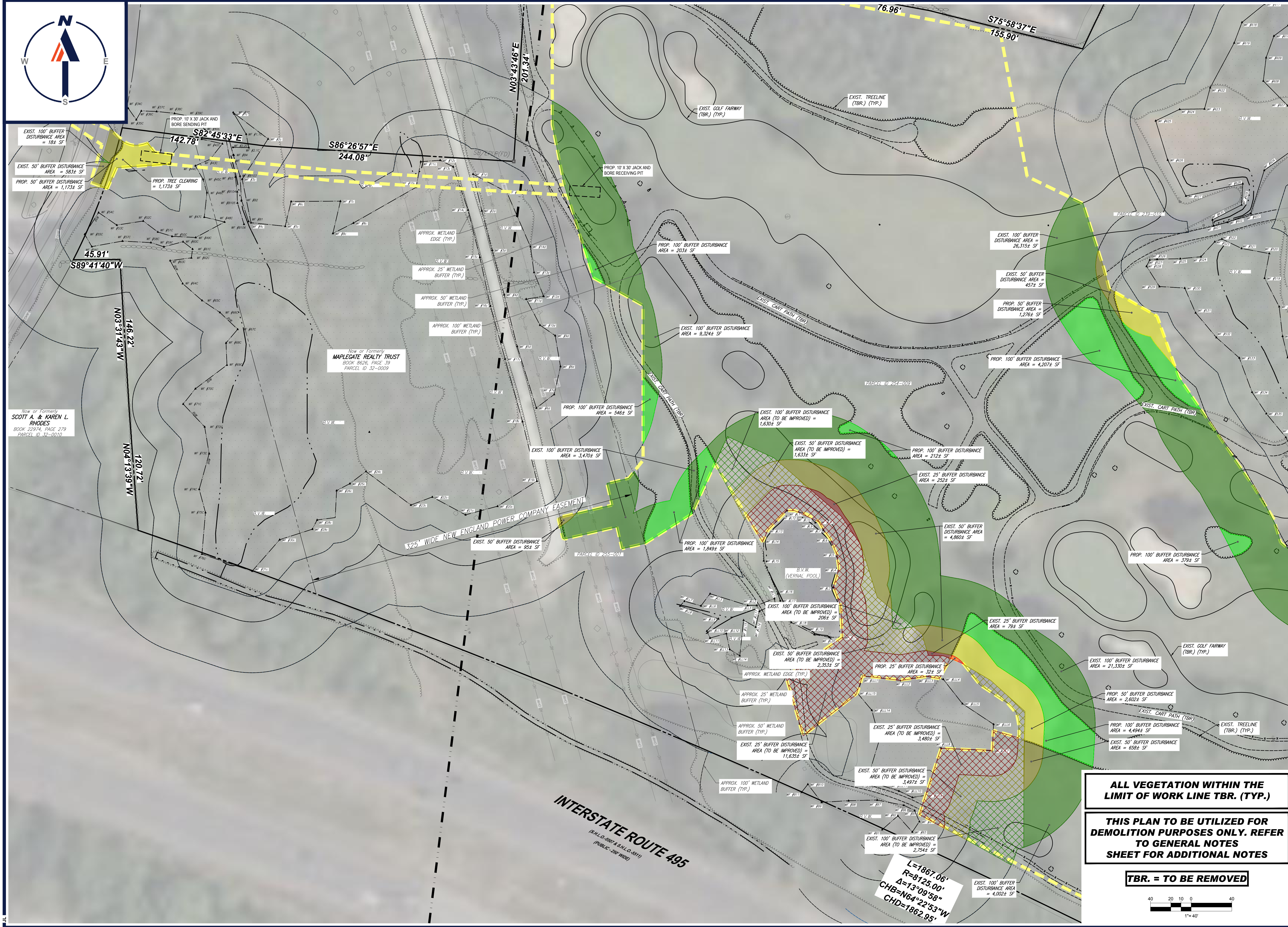
THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED



SHEET TITLE:
DEMOLITION PLAN C
 SHEET NUMBER:
C-204
 REVISION 1 - 10/04/2023

P:\01\2023\CAD\DRAWINGS\PLAN\BETR\CIVIL SITE PLAN\W201257-DEMO-1B-PLAN\OUT: C-204-DEMO C



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID.: W201257-DEMO-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:

DEMOLITION PLAN D

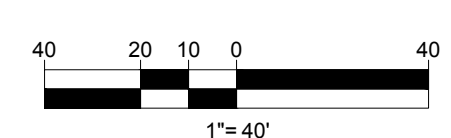
SHEET NUMBER:
C-205

REVISION 1 - 10/04/2023

ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

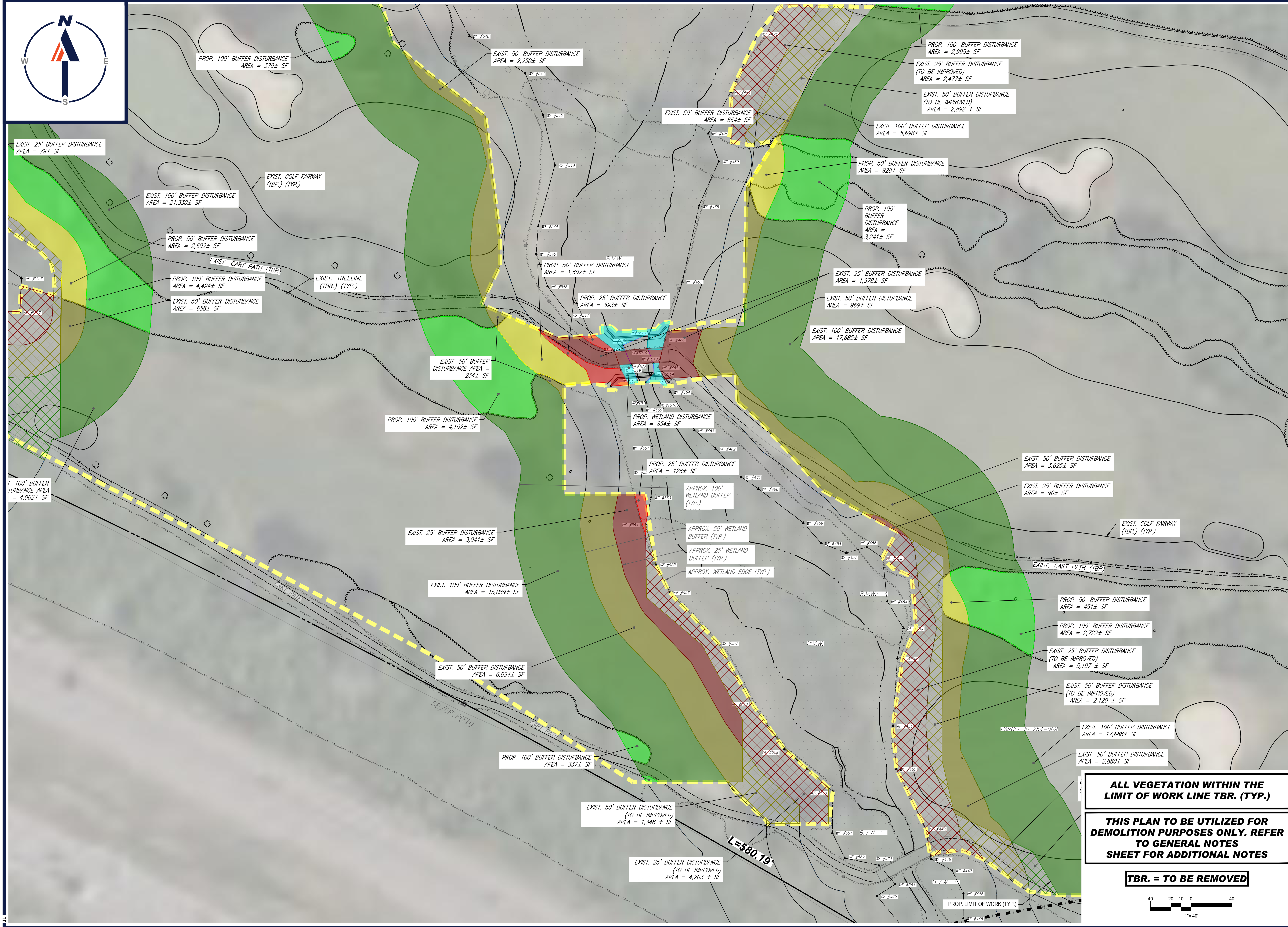
THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED



L=1867.06'
 R=8725.00'
 Δ=13°09'58"
 CHB=N64°22'53"W
 CHD=1862.95'

P:\DWG\2023\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\2023\2023-DEM-1B.dwg - LAYOUT: C-205-DEMO D



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|------------------------------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-DEMO-1B

PROJECT:
PROPOSED SITE PLAN DOCUMENTS
 FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM
 LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

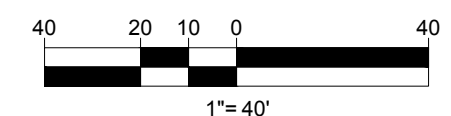
BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED

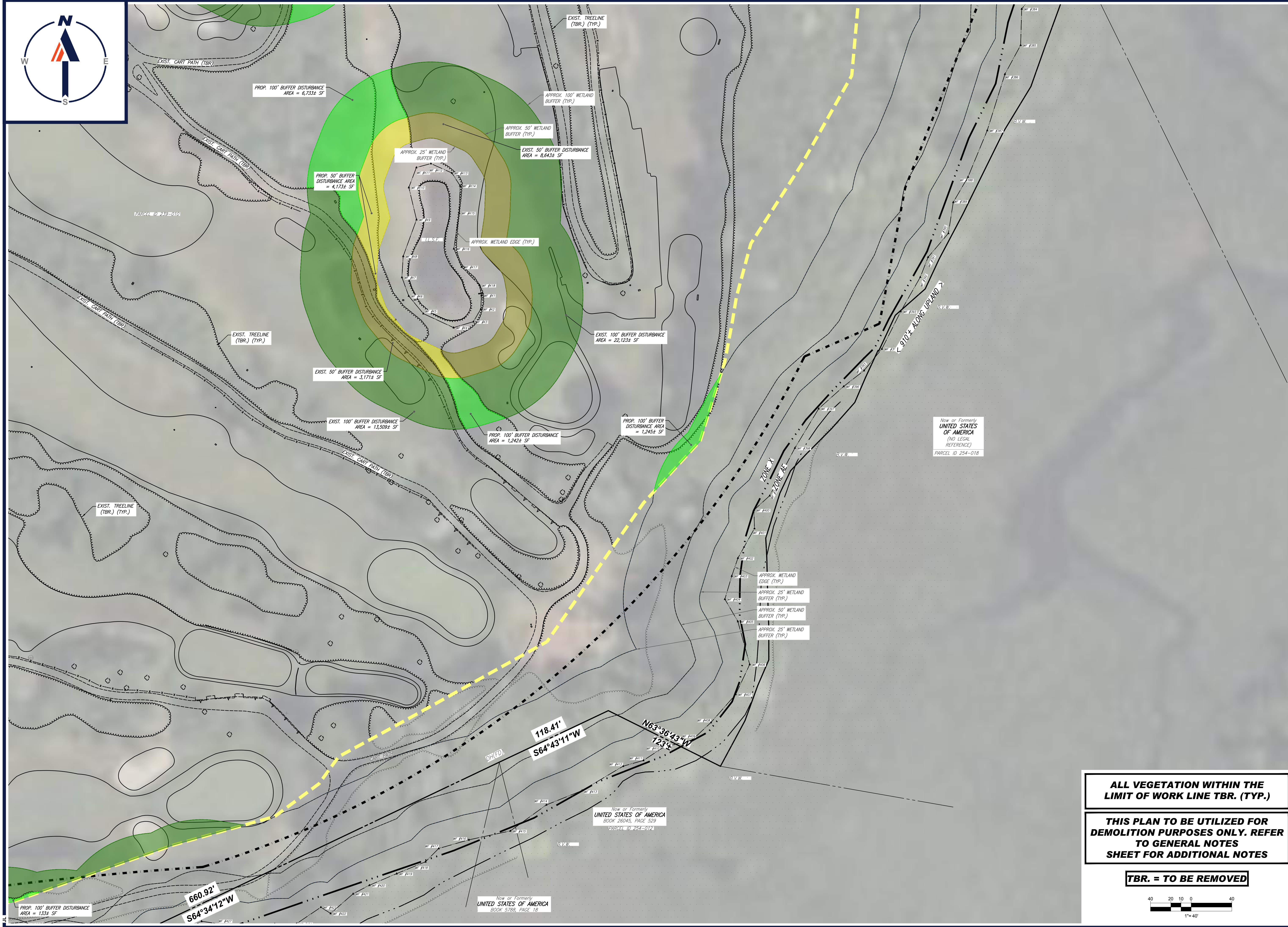


SHEET TITLE:
DEMOLITION PLAN E

SHEET NUMBER:
C-206

REVISION 1 - 10/04/2023

P:\01070137\CADD\DRAWINGS\PLAN SET\CIVIL\SITE PLAN\W201257-DEMO-1B-PLAN\TBR.LAYOUT: C-206-DEMO E



REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|------------------------------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |



ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-DEMO-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

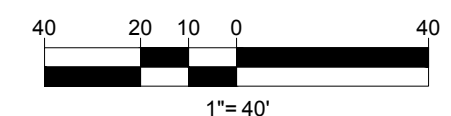
BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
 www.BohlerEngineering.com



ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

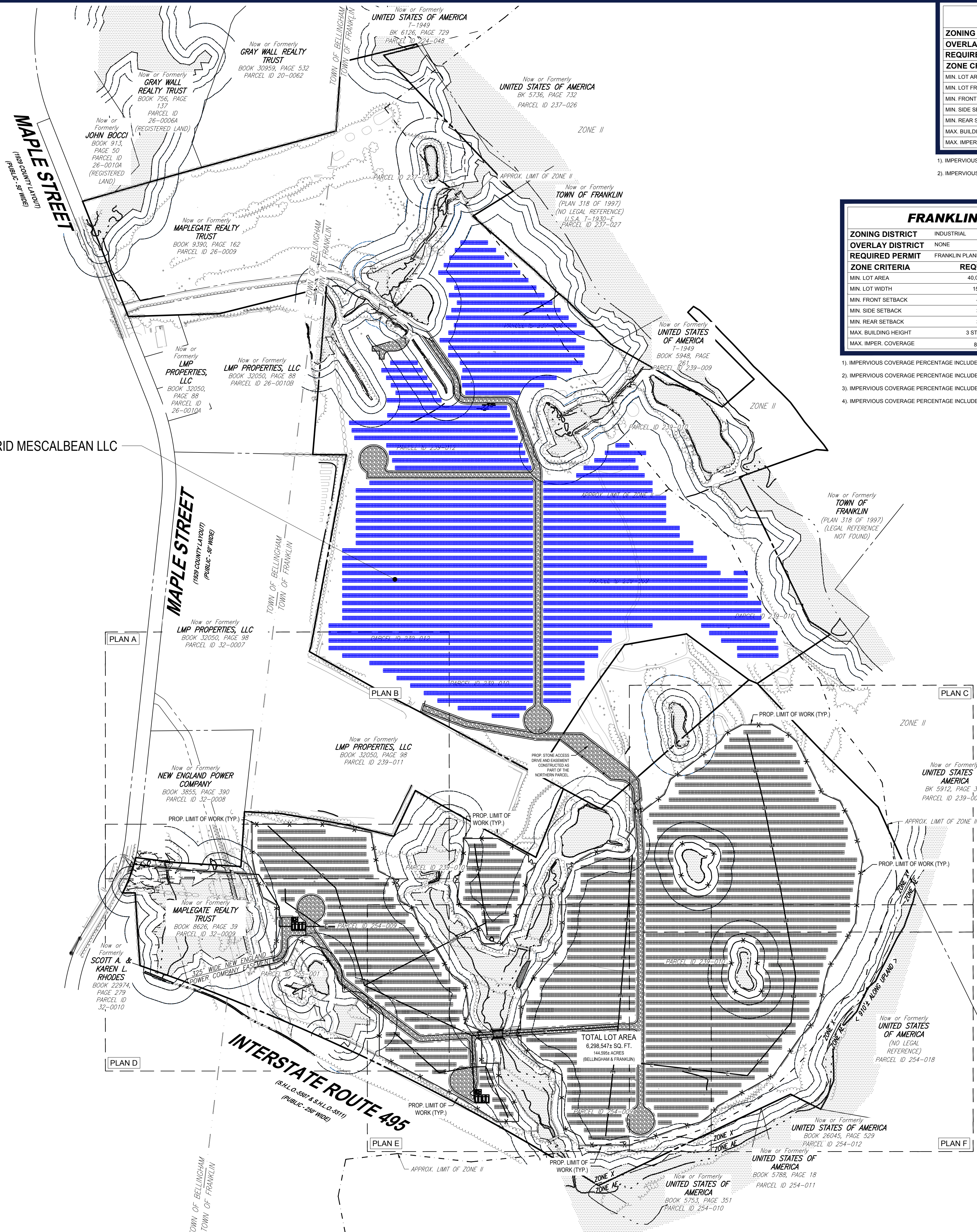
TBR. = TO BE REMOVED



SHEET TITLE:
DEMOLITION PLAN E

SHEET NUMBER:
C-207

P:\01\2023\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\W201257-DEMO-1B-PLAN\OUT: C-207-DEMO.F



NORTH SOLAR PROJECT BY NEXTGRID MESCALBEAN LLC

| BELLINGHAM ZONING ANALYSIS TABLE | | | |
|----------------------------------|---|--------------------|-------------------------|
| ZONING DISTRICT | SUBURBAN | | |
| OVERLAY DISTRICT | NONE | | |
| REQUIRED PERMIT | BELLINGHAM PLANNING BOARD DEVELOPMENT PLAN APPROVAL | | |
| ZONE CRITERIA | REQUIRED | EXISTING | PROPOSED PARCEL 32-0009 |
| MIN. LOT AREA | 40,000 SF | ±3.77 ACRES | ± 3.77 ACRES |
| MIN. LOT FRONTAGE | 150.0' | 138.8' | 138.8' |
| MIN. FRONT SETBACK | 30' | N/A | N/A |
| MIN. SIDE SETBACK | 15' | N/A | N/A |
| MIN. REAR SETBACK | 20' | N/A | N/A |
| MAX. BUILDING HEIGHT | 35' | N/A | N/A |
| MAX. IMPER. COVERAGE | 80 % | 1.11% ¹ | 1.16 % ² |

- 1) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 0.042 ACRES OF GRAVEL.
- 2) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 0.044 ACRES OF GRAVEL.

| FRANKLIN ZONING ANALYSIS TABLE | | | | | |
|--------------------------------|--|--------------------|--------------------|--------------------|--------------------|
| ZONING DISTRICT | INDUSTRIAL | | | | |
| OVERLAY DISTRICT | NONE | | | | |
| REQUIRED PERMIT | FRANKLIN PLANNING BOARD SITE PLAN APPROVAL | | | | |
| ZONE CRITERIA | REQUIRED | EXISTING | PROPOSED PARCEL 1 | PROPOSED PARCEL 2 | PROPOSED PARCEL 3 |
| MIN. LOT AREA | 40,000 SF | ±129.97 ACRES | ± 62.96 ACRES | ± 5.61 ACRES | ± 61.40 ACRES |
| MIN. LOT WIDTH | 157.5' | 390.8'± | N/A | N/A | 227.0' |
| MIN. FRONT SETBACK | 40' | N/A | N/A | N/A | N/A |
| MIN. SIDE SETBACK | 30' | N/A | N/A | N/A | 33.0' |
| MIN. REAR SETBACK | 30' | N/A | N/A | N/A | 44.6' |
| MAX. BUILDING HEIGHT | 3 STORIES | < 3 STORIES | N/A | N/A | < 3 STORIES |
| MAX. IMPER. COVERAGE | 80 % | <2.5% ¹ | 2.9 % ² | 7.1 % ³ | 2.6 % ⁴ |

- 1) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 0.206 ACRES OF GRAVEL.
- 2) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 1.20 ACRES OF GRAVEL.
- 3) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 0.4 ACRES OF GRAVEL.
- 4) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 2.516 ACRES OF GRAVEL.

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

| REVISIONS | | | | |
|-----------|------------|------------------------------|------------|------------|
| REV | DATE | COMMENT | REVISED BY | CHECKED BY |
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-SFPD-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

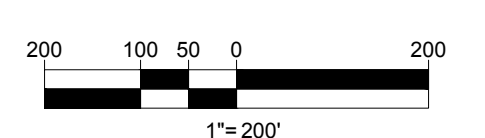
LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com

Professional Engineer Seal for John A. Cucchiara, No. 41530, State of Massachusetts, License No. 12551.

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



SHEET TITLE:
OVERALL SITE LAYOUT PLAN

SHEET NUMBER:
C-301

REVISION 1 - 10/04/2023

P:\01\2013\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\S201257-SFPD-1B-LAYOUT.C-01-OVERALL SITE



MAPLE STREET
 (1929 COUNTY LAYOUT)
 (PUBLIC - 50' WIDE)

Now or Formerly
LMP PROPERTIES, LLC
 BOOK 32050, PAGE 98
 PARCEL ID 239-011

Now or Formerly
NEW ENGLAND POWER COMPANY
 BOOK 3855, PAGE 390
 PARCEL ID 32-0008

$N18^{\circ}34'30''E$
 18.91'

297.99'
 $N60^{\circ}45'22''W$

260.13'
 $N62^{\circ}32'38''W$

$S87^{\circ}05'16''E$ 131.97'

$S80^{\circ}26'16''E$
 190.71'

$S79^{\circ}28'01''E$
 76.96'

$S75^{\circ}58'37''E$
 155.90'

$S60^{\circ}46'43''E$
 295.09'

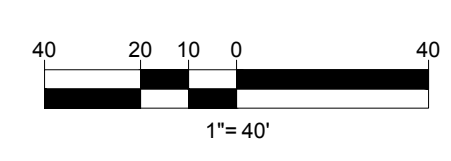
$N25^{\circ}21'34''E$
 785.48'

$S82^{\circ}45'33''E$
 142.78'

$S86^{\circ}26'57''E$
 244.08'

$N03^{\circ}43'46''E$
 201.34'

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-SPPD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

SITE LAYOUT PLAN A

SHEET NUMBER:

C-302

REVISION 1 - 10/04/2023

P:\01\2013\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\ANSI\2012\SPD-1B-1-LAYOUT-C-302-SITE A



260.13'
N62°32'38"W

N61°40'39"W
500.46'

S60°46'43"E
295.09'

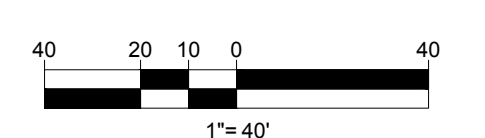
N21°51'53"E
270.31'

S61°21'56"E
200.82'

S75°58'37"E
155.90'

PARCEL ID 239-010

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 DATE: 07/20/2023
 CHECKED BY: W201257-SPPD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001,
 254-001, 239-010 A, 239-010 B, 239-010
 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

SITE LAYOUT PLAN B

SHEET NUMBER:

C-303

REVISION 1 - 10/04/2023

P:\01070137\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\ANSI\2012\FPPD-1B-LAYOUT\C-303-SITE B



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | DRAWN BY | CHECKED BY |
|-----|------------|------------------------------|----------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

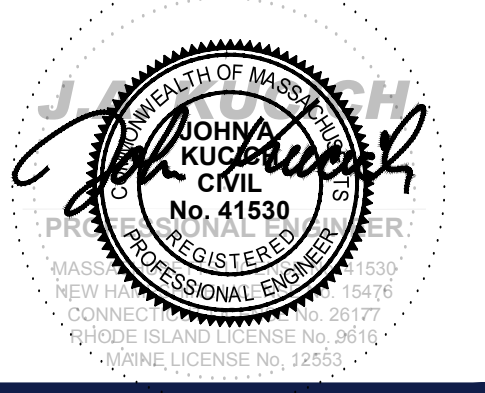
PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-SPPD-1B

PROPOSED SITE PLAN DOCUMENTS

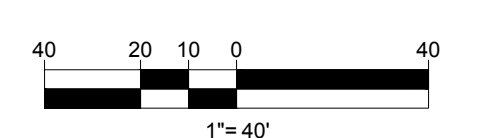
FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

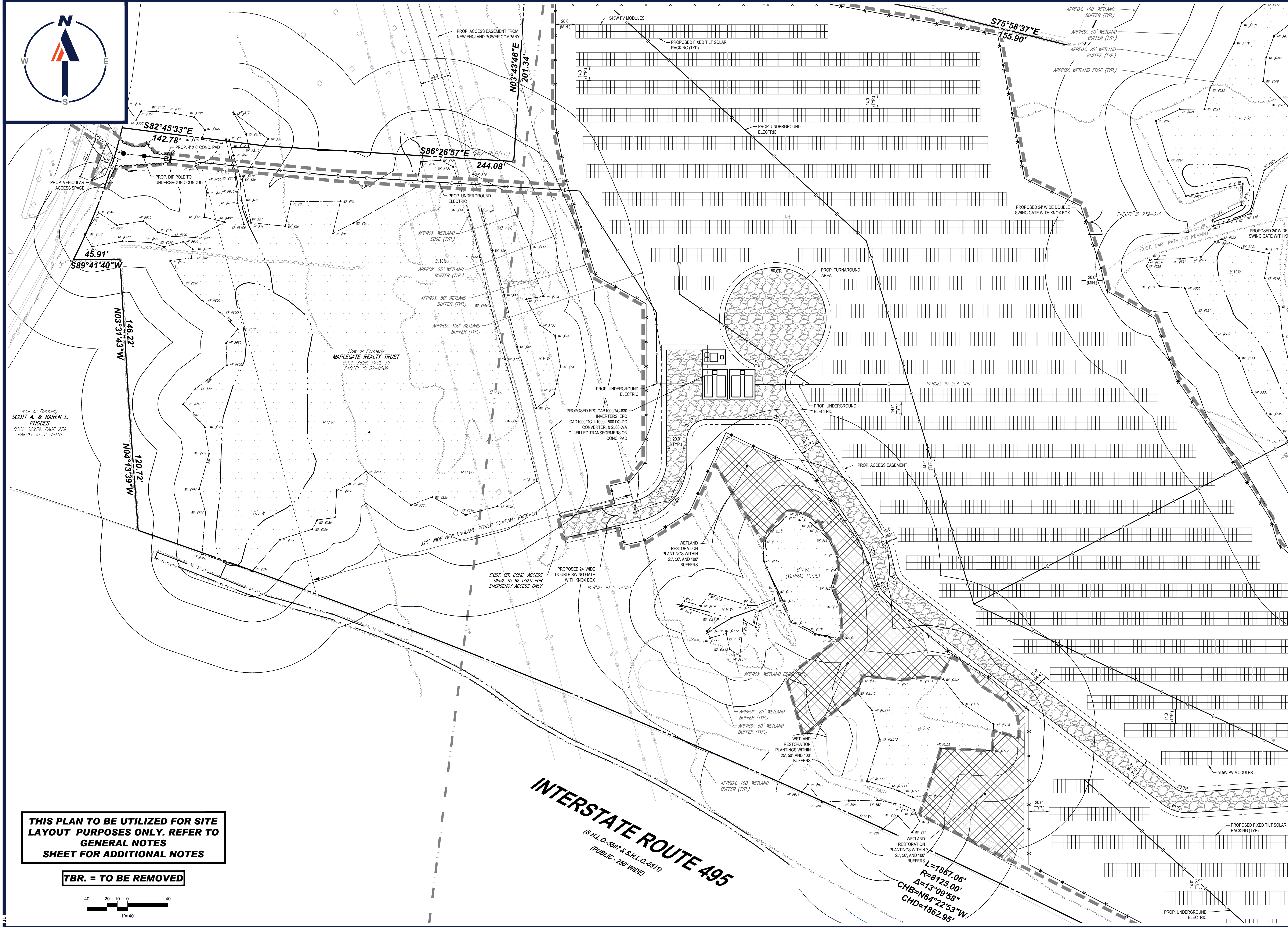


SHEET TITLE:
SITE LAYOUT PLAN C

SHEET NUMBER:
C-304

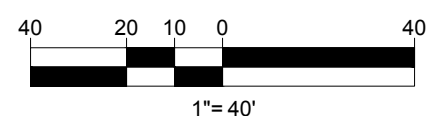
REVISION 1 - 10/04/2023

P:\01\2023\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\W201257-SPPD-1B-LAYOUT-C-304-BITE.C



THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID.: W201257-SPPD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com

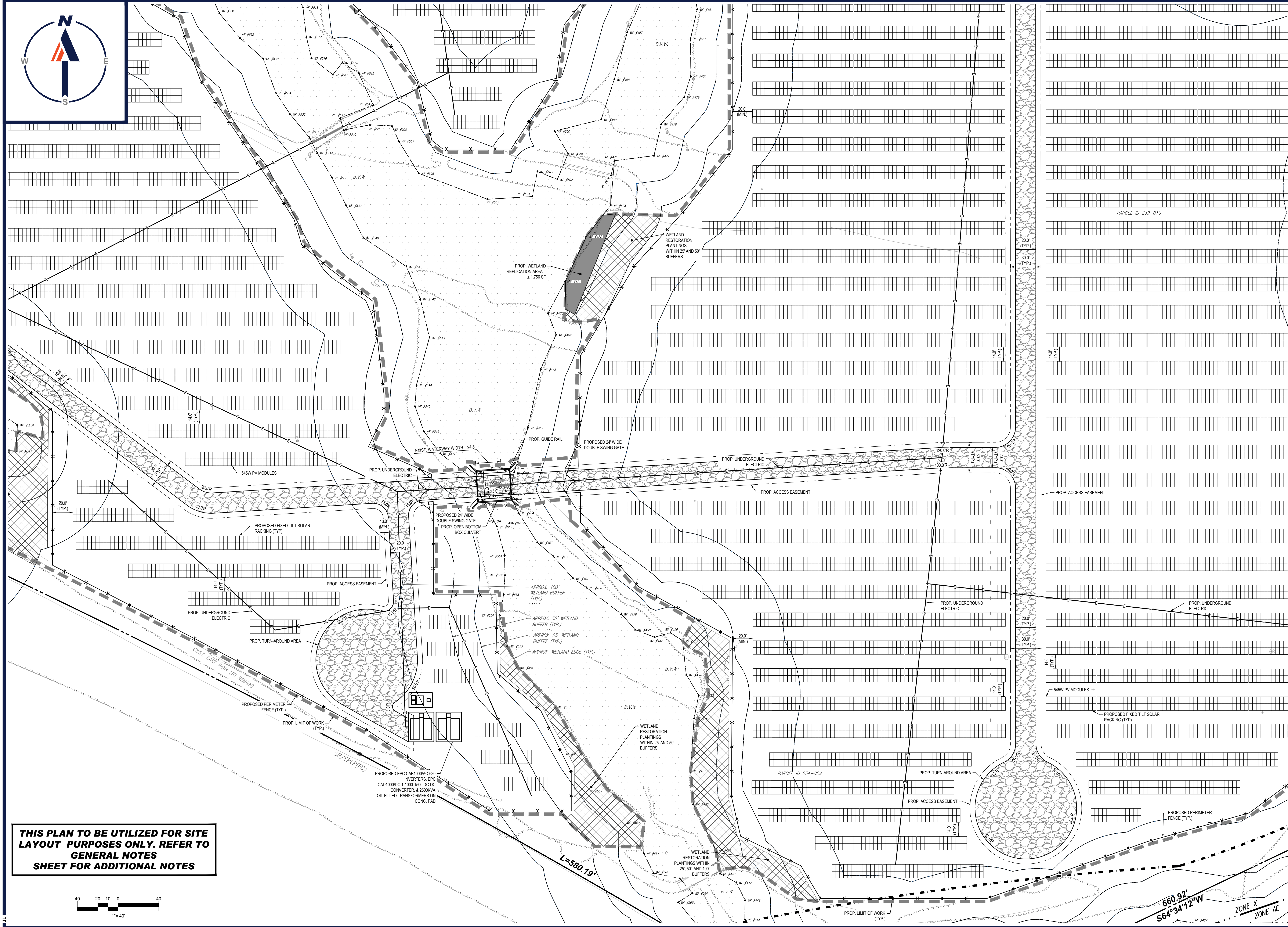


SHEET TITLE:
SITE LAYOUT PLAN D

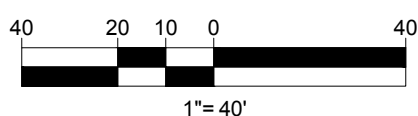
SHEET NUMBER:
C-305

REVISION 1 - 10/04/2023

P:\2023\10\31\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\ANSI\W201257-SPPD-1B-LAYOUT-C-305-B1E.D



THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

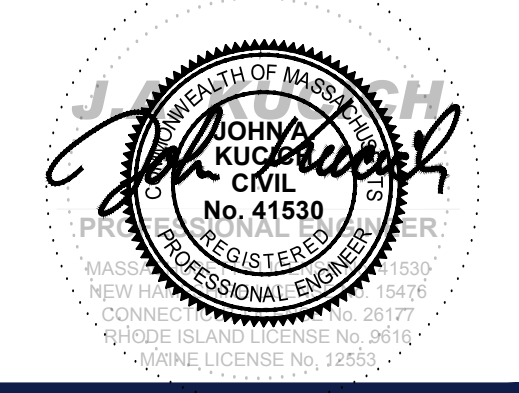
THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID.: W201257-SPPD-1B

PROPOSED SITE PLAN DOCUMENTS
 FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com

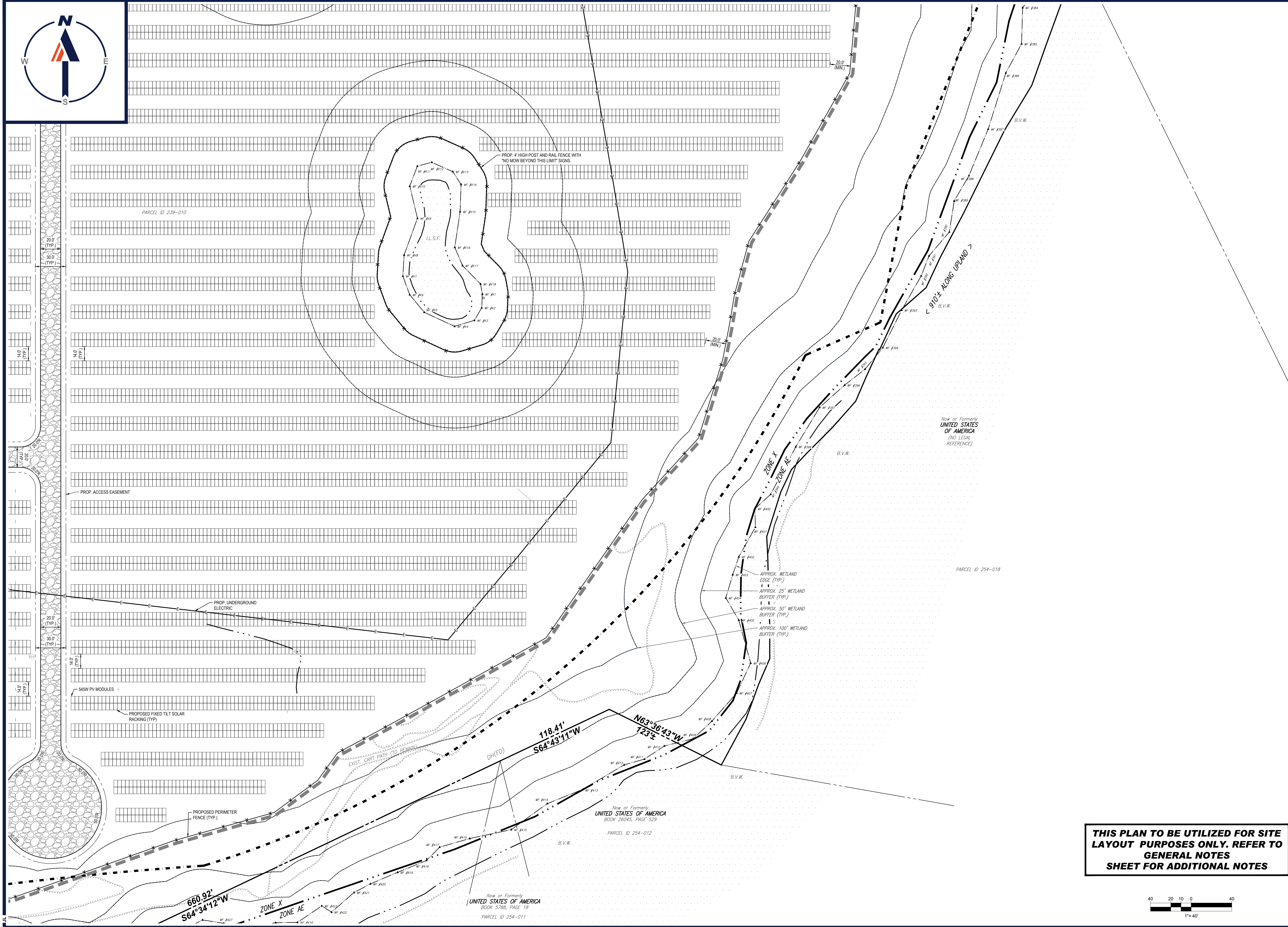


SHEET TITLE:
SITE LAYOUT PLAN E

SHEET NUMBER:
C-306

REVISION 1 - 10/04/2023

P:\01\2023\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257-SPPD-1B-LAYOUT\C-306-SITE E



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | DRAWN BY | CHECKED BY |
|-----|------------|------------------------------|----------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-SPPD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

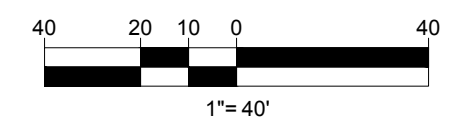
SITE LAYOUT PLAN F

SHEET NUMBER:

C-307

REVISION 1 - 10/04/2023

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

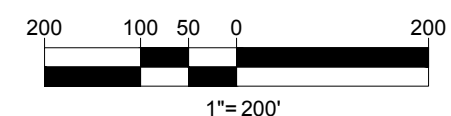


P:\01\2023\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\2023\2023-SPPD-1B-1-LAYOUT-C-307-SITE.F



P:\2020\2023\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\2023\2023-GRAD-1B-PLAN-SET-401-GRAD-OVERALL

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|-------------|------------|----------|
| 1 | 10/04/2023 | POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-GRAD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



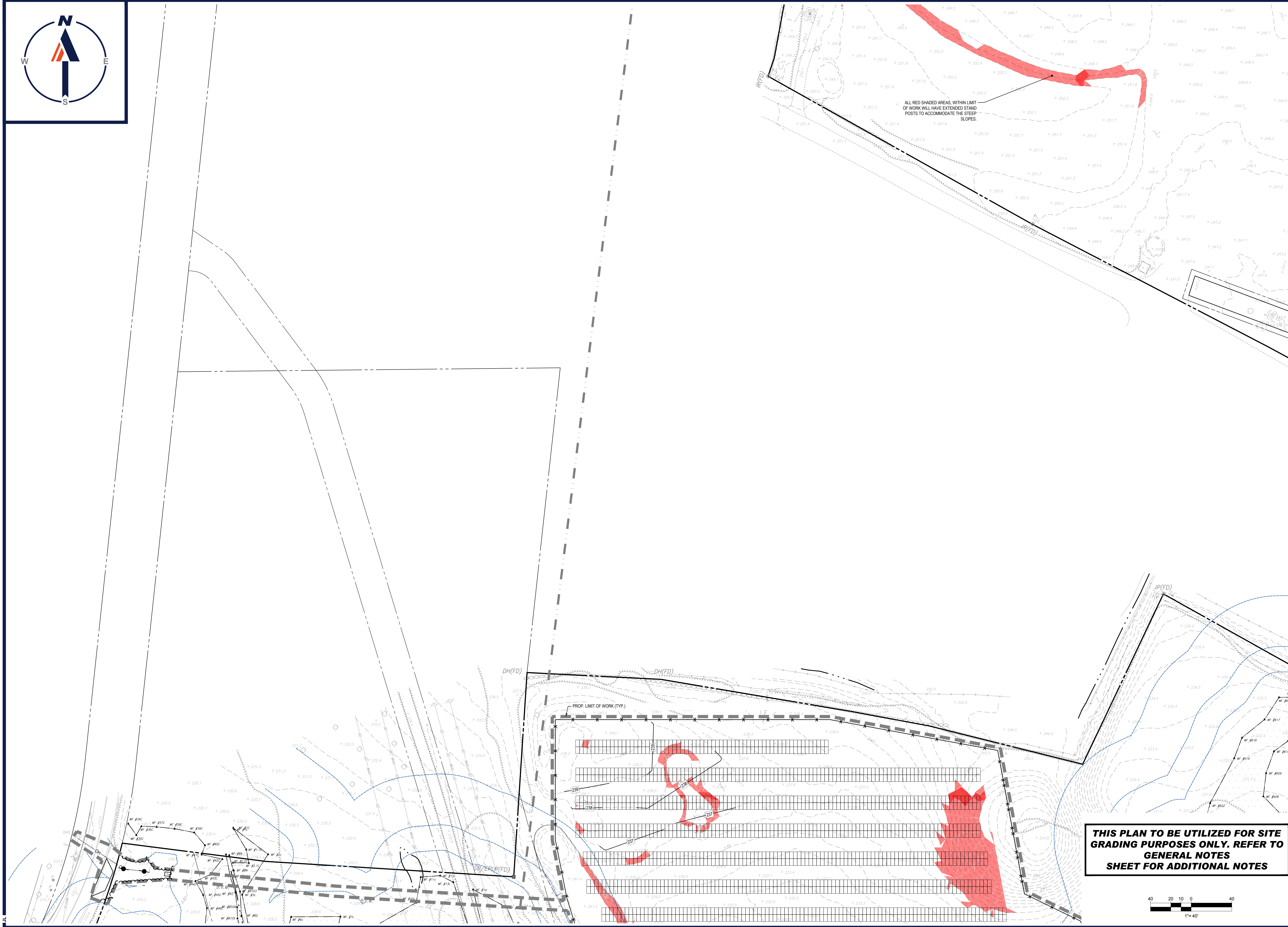
SHEET TITLE:

OVERALL GRADING PLAN

SHEET NUMBER:

C-401

REVISION 1 - 10/04/2023



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-GRAD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



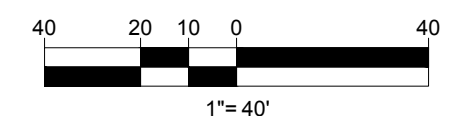
SHEET TITLE:

GRADING PLAN A

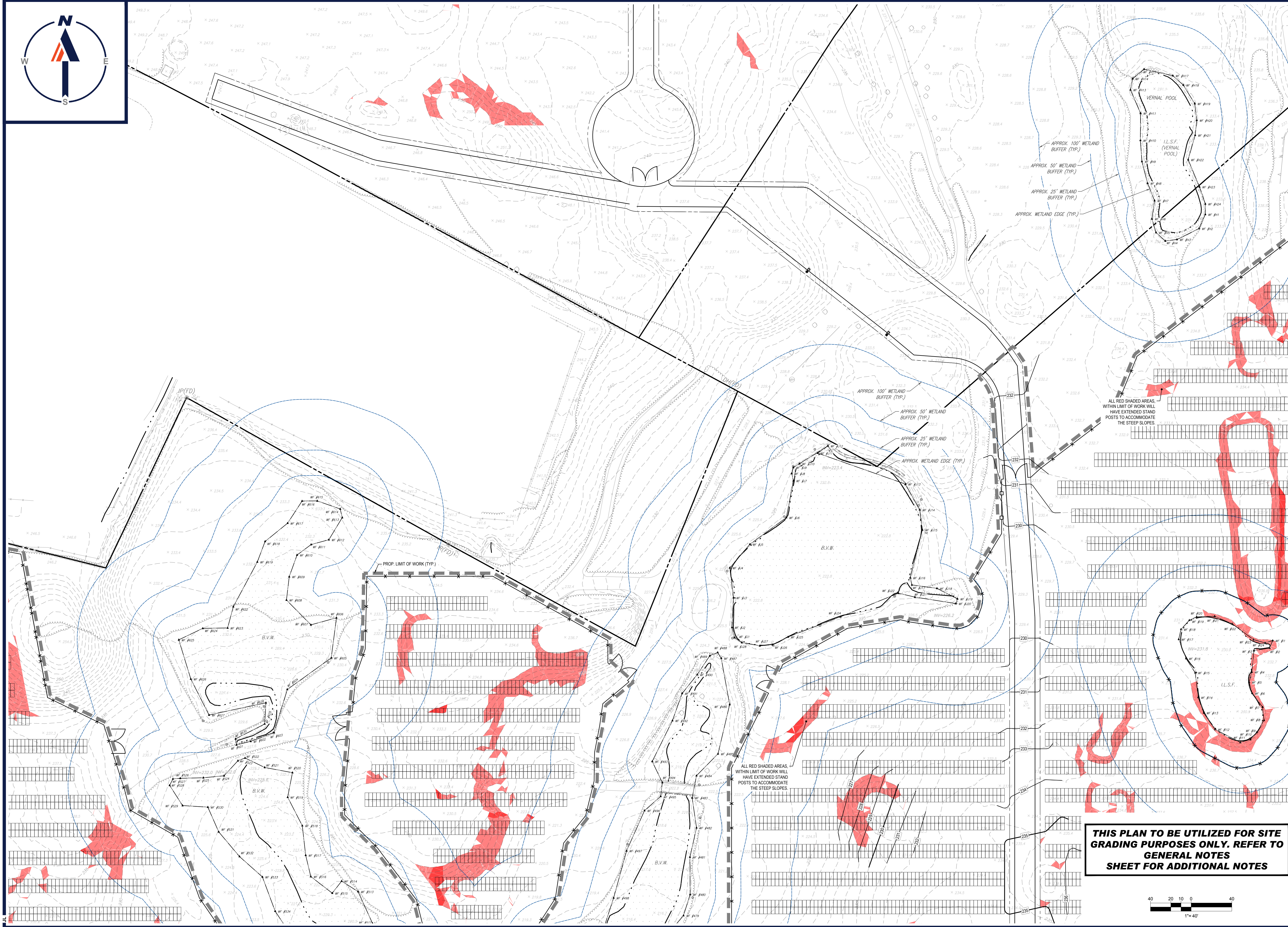
SHEET NUMBER:
C-402

REVISION 1 - 10/04/2023

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



P:\DWG\2013\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257-GRAD-1B-LAYOUT C-402-GRAD.A



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

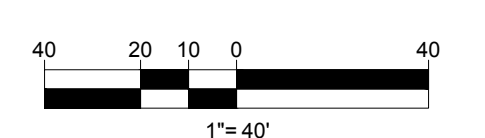
PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-GRAD-1B

PROPOSED SITE PLAN DOCUMENTS
 FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM
 LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



SHEET TITLE:
GRADING PLAN B
 SHEET NUMBER:
C-403
 REVISION 1 - 10/04/2023

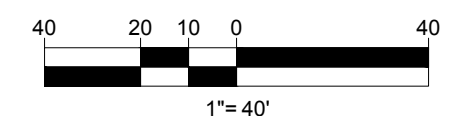
P:\01\2013\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257-GRAD-1B-LAYOUT C-403-GRAD.B



ALL RED SHADED AREAS, WITHIN LIMIT OF WORK WILL HAVE EXTENDED STAND POSTS TO ACCOMMODATE THE STEEP SLOPES.

ALL RED SHADED AREAS, WITHIN LIMIT OF WORK WILL HAVE EXTENDED STAND POSTS TO ACCOMMODATE THE STEEP SLOPES.

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | DRAWN BY |
|-----|------------|------------------------------|-----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-GRAD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
GRADING PLAN C

SHEET NUMBER:
C-404

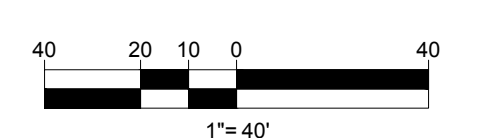
REVISION 1 - 10/04/2023

P:\01\2023\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257-GRAD-1B-LAYOUT-C-404-GRAD.C



INTERSTATE ROUTE 495
(S.H.L.O.-55014, S.H.L.O.-5511)
RMA 28' - 0" WIDE

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID: W201257-GRAD-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



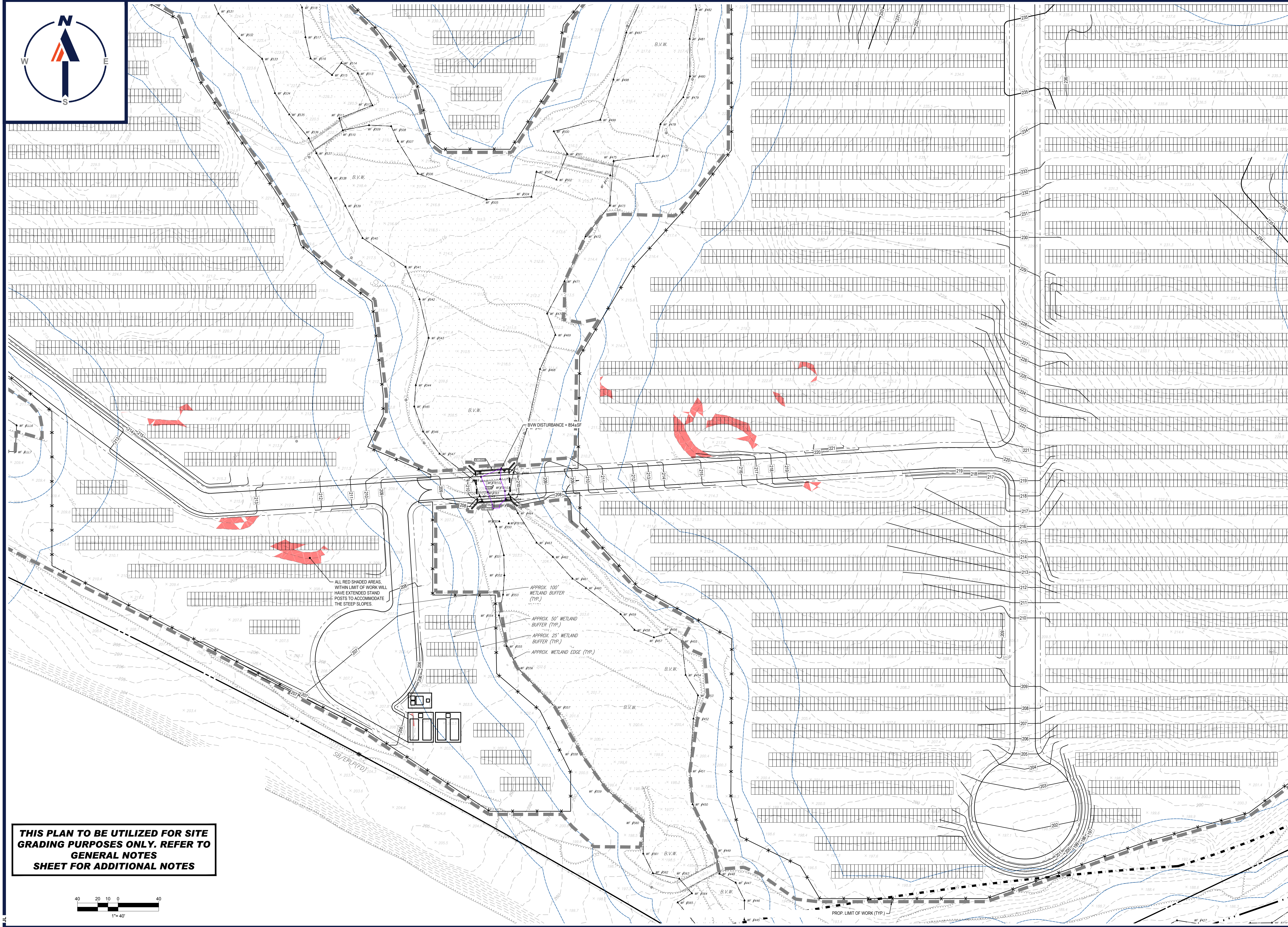
SHEET TITLE:

GRADING PLAN D

SHEET NUMBER:
C-405

REVISION 1 - 10/04/2023

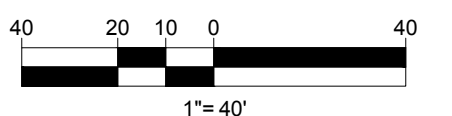
P:\2023\10\13\CD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257-GRAD-1B-LAYOUT-C-405-GRAD.D



ALL RED SHADED AREAS, WITHIN LIMIT OF WORK WILL HAVE EXTENDED STAND POSTS TO ACCOMMODATE THE STEEP SLOPES.

APPROX. 100' WETLAND BUFFER (TYP.)
APPROX. 50' WETLAND BUFFER (TYP.)
APPROX. 25' WETLAND BUFFER (TYP.)
APPROX. WETLAND EDGE (TYP.)

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID: W201257-GRAD-1B

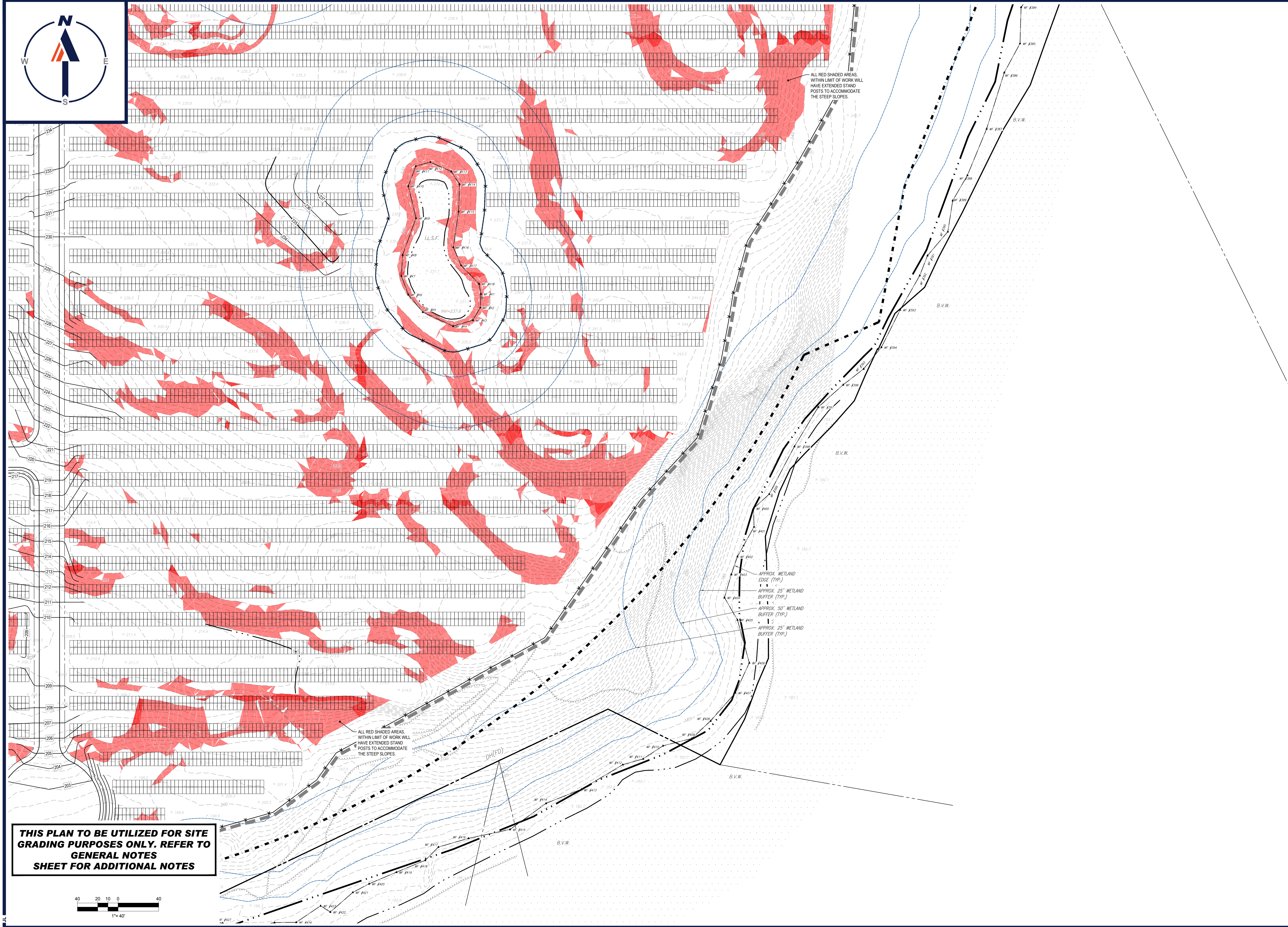
PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM
LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
GRADING PLAN E
SHEET NUMBER:
C-406
REVISION 1 - 10/04/2023

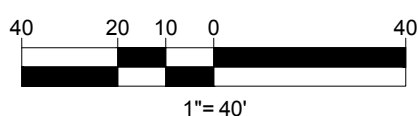
P:\DWG\2013\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257-GRAD-1B-LAYOUT-C-406-GRAD.E



ALL RED SHADED AREAS WITHIN LIMIT OF WORK WILL HAVE EXTENDED STAND POSTS TO ACCOMMODATE THE STEEP SLOPES.

ALL RED SHADED AREAS WITHIN LIMIT OF WORK WILL HAVE EXTENDED STAND POSTS TO ACCOMMODATE THE STEEP SLOPES.

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-GRAD-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
GRADING PLAN F

SHEET NUMBER:
C-407

REVISION 1 - 10/04/2023

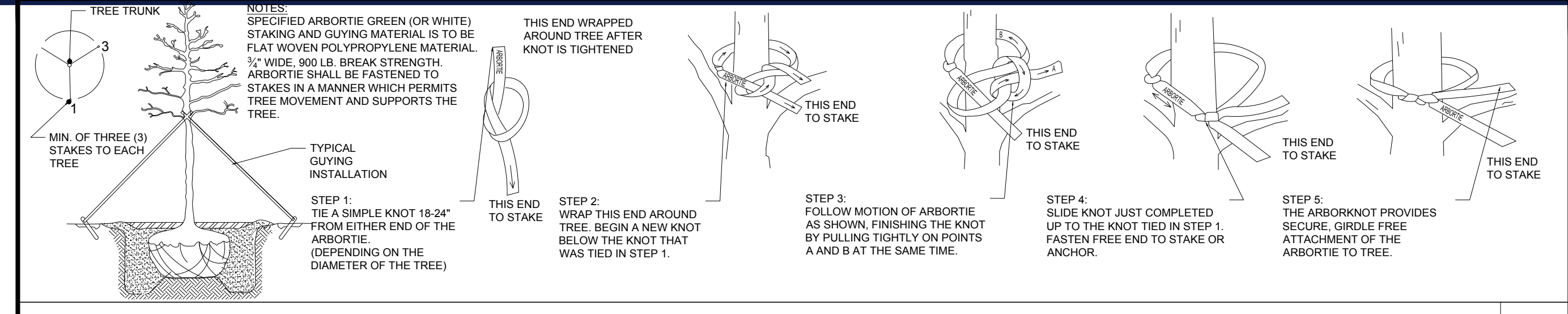
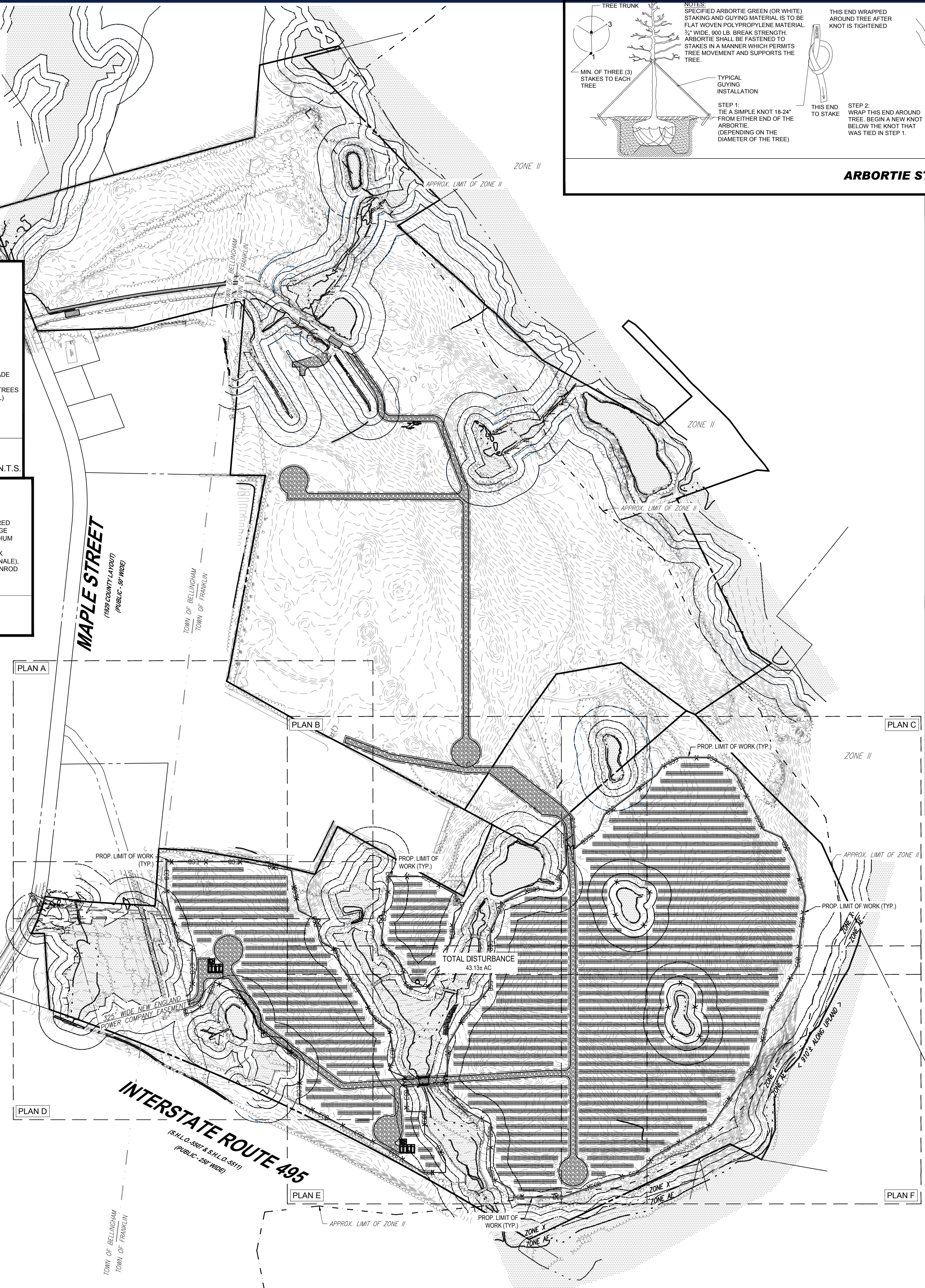
P:\2023\2023\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257-GRAD-1B-LAYOUT-C-407-GRAD.F



MAPLE STREET
(189 COUNTY LAND)
(PUBLIC - 80' WIDE)

MAPLE STREET
(189 COUNTY LAND)
(PUBLIC - 80' WIDE)

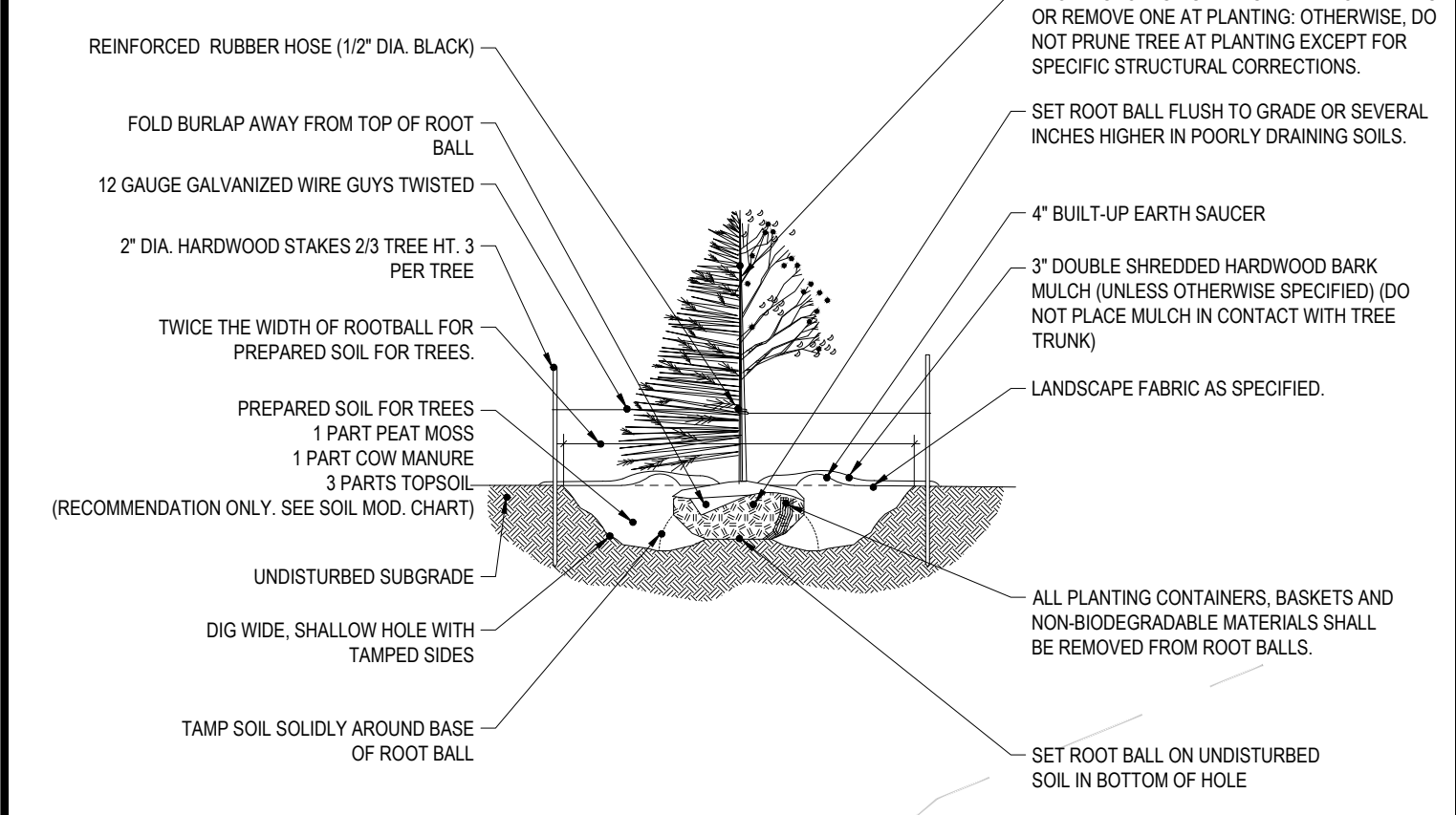
INTERSTATE ROUTE 495
(R.I.L.O. 500' & S.I.L.O. 551')
(PUBLIC - 200' WIDE)



ARBORTIE STAKING DETAIL

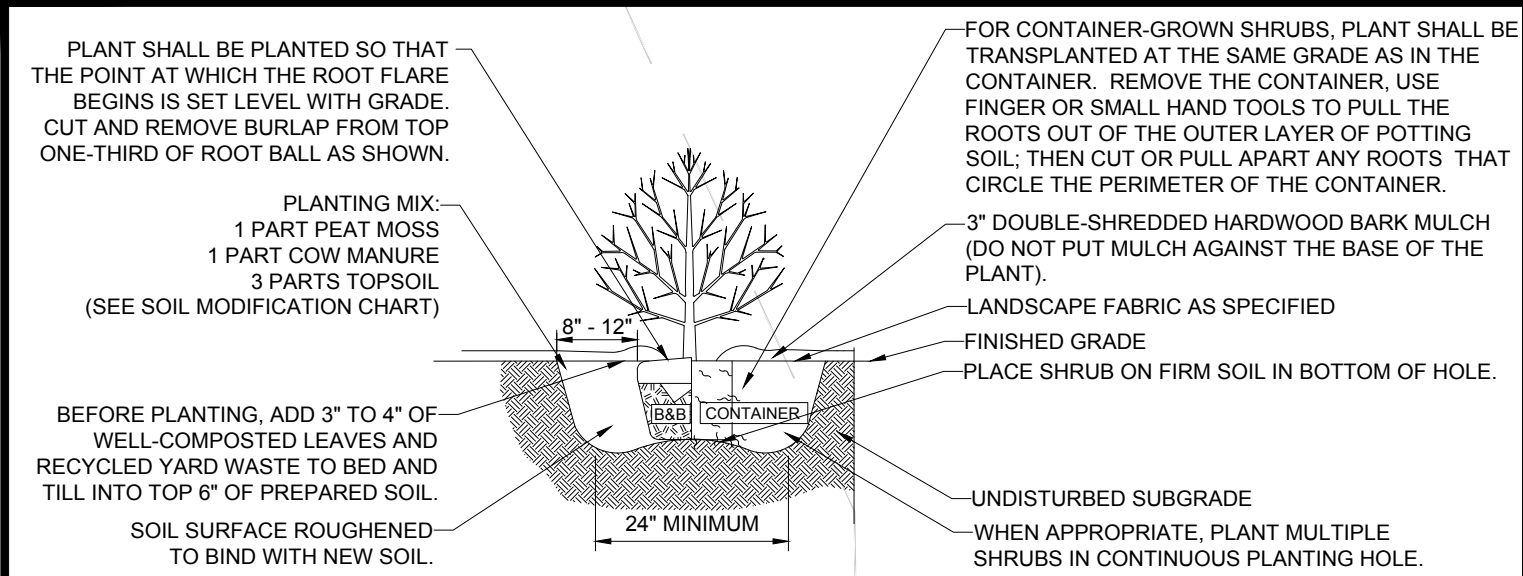
N.T.S.

- NOTES:
- 1) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
 - 2) REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM ROOT BALL.
 - 3) PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
 - 4) THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
 - 5) THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST 1 FT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.
 - 6) REFER TO THE CHART "GENERAL RANGE OF SOIL MODIFICATIONS & VOLUMES FOR VARIOUS SOIL CONDITIONS" TO DETERMINE MINIMUM WIDTH OF PREPARED SOIL.
 - 7) SUBSTITUTE ARBORVITAE STAKING SYSTEM WHEN SPECIFIED.



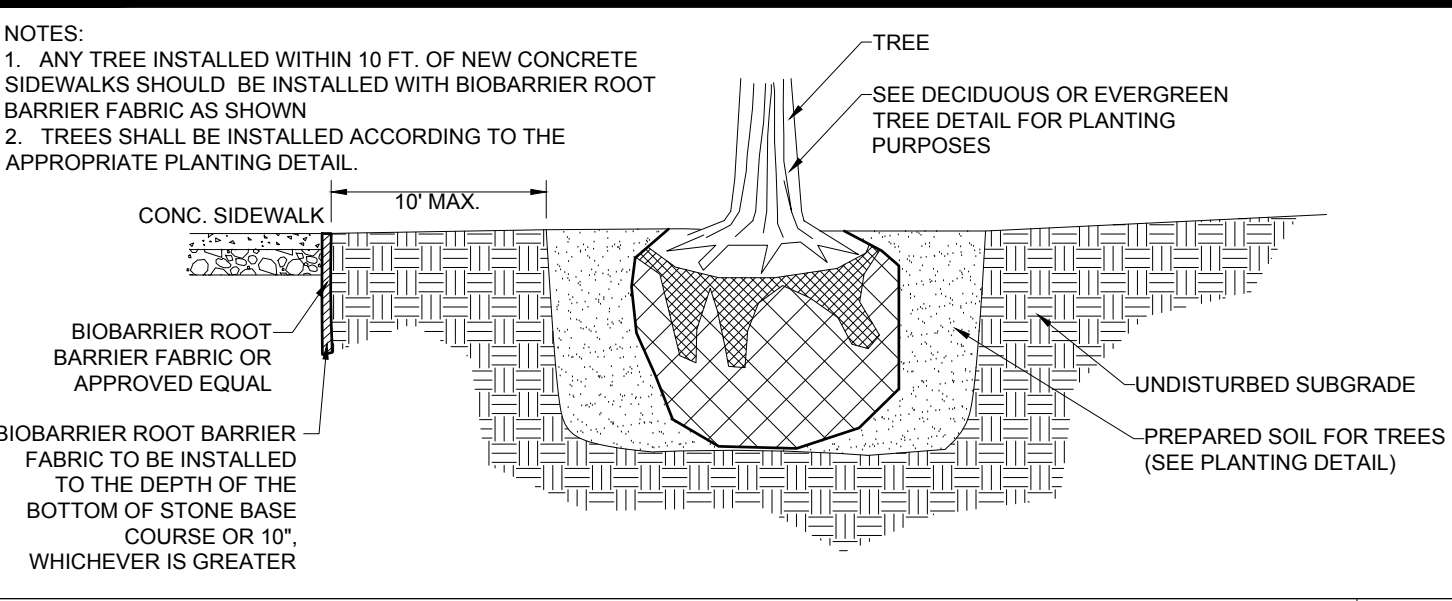
TREE PLANTING DETAIL

N.T.S.



SHRUB PLANTING DETAIL

N.T.S.



BIOBARRIER ROOT BARRIER DETAIL

N.T.S.

NEW ENGLAND CONSERVATION WILDLIFE SEED MIX AS PREPARED BY:

NEW ENGLAND WETLAND PLANTS, INC.
820 WEST STREET, AMHERST, MA 01002
PHONE: 413-548-8000
EMAIL: INFO@NEWP.COM
WEBSITE: WWW.NEWP.COM

APPLICATION RATE: 25 LBS/ACRE | 1750 SQ FT/LB
MINIMUM ORDER: 2 LBS

SPECIES: VIRGINIA WILD RYE (ELYMUS VIRGINICUS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM (ANDROPOGON GERARDII), RED FESCUE (FESTUCA RUBRA), SWITCH GRASS (PANICUM VIRGATUM), PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), PANICLED LEAF TICK TREFOLI (DESMODIUM PANICULATUM), INDIAN GRASS (SORGHASTRUM NUTANS), BLUE VERVAIN (VERBENA HASTATA), BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), BLACK EYED SUSAN (RUDBECKIA HIRTA), COMMON SNEEZEWEED (HELENIUM AUTUNALE), HEATH ASTER (ASTER PILOSUS/SYMPHYOTRICHUM PILOSUM), EARLY GOLDENROD (SOLIDAGO CONJUGATA), UPLAND BENTGRASS (AGROSTIS PERENNANS).

NEW ENGLAND CONSERVATION WILDLIFE SEED MIX SPECIFICATIONS

| PLANT SCHEDULE | | | | | |
|------------------|-----|------------------------|-----------------------|---------|-----------|
| ORNAMENTAL TREES | QTY | BOTANICAL NAME | COMMON NAME | SIZE | CONTAINER |
| AC | 2 | AMELANCHIER CANADENSIS | CANADIAN SERVICEBERRY | 2.5\"/> | |

| SHRUBS | QTY | BOTANICAL NAME | COMMON NAME | SIZE | CONTAINER |
|--------|-----|-------------------|---------------|---------|-----------|
| CA | 14 | CLETHRA ALNIFOLIA | SUMMERSWEET | 5 GAL. | CONTAINER |
| COAM | 6 | CORNUS AMOMUM | SILKY DOGWOOD | 3-4\"/> | |

THE PURPOSE OF THE OVERALL PLAN SHEET IS TO BE UTILIZED AS A SITE KEY MAP, TO PROVIDE SITE FEATURE LOCATIONS ONLY. PLEASE REFER TO EACH INDIVIDUAL SHEET FOR MORE INFORMATION.

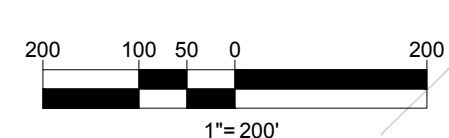
STOCKPILES SHALL BE LOCATED OUTSIDE OF THE 100-FOOT BUFFER ZONE TO RESOURCE AREAS.

THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

NEW ENGLAND CONSERVATION WILDLIFE SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST WATTLES AND SILT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|------------------------------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID.: W201257-EROS-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

STATE OF MASSACHUSETTS
John A. Bohler
REGISTERED PROFESSIONAL ENGINEER
No. 41530
EXPIRES 06/30/2025
MASSACHUSETTS REGISTRATION BOARD FOR PROFESSIONAL ENGINEERS
LICENSE NO. 2255

SHEET TITLE:
OVERALL EROSION & SEDIMENT CONTROL PLAN
SHEET NUMBER:
C-601
REVISION 1 - 10/04/2023

P:\01\201257\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\NSW201257-EROS-1B.dwg LAYOUT: C-601-OVERALL-EROS



S, LLC
15 38
0171

260.13'
N62°32'38"W

N61°40'39"W
500.46'

APPROX. 100' WETLAND
BUFFER (TYP.)
APPROX. 25' WETLAND
BUFFER (TYP.)
APPROX. 25' WETLAND
BUFFER (TYP.)
APPROX. WETLAND EDGE (TYP.)

PROP. EROSION CONTROL
BARRIER, OFFSET SHOWN FOR
GRAPHICAL PURPOSES ONLY.
ECB TO BE PLACED ON THE
LIMIT OF WORK.

PROP. EROSION CONTROL
BARRIER, OFFSET SHOWN FOR
GRAPHICAL PURPOSES ONLY.
ECB TO BE PLACED ON THE
LIMIT OF WORK.

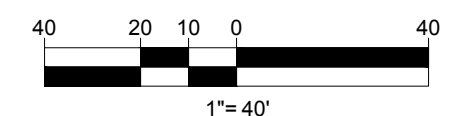
PROP. EROSION CONTROL
BARRIER, OFFSET SHOWN FOR
GRAPHICAL PURPOSES ONLY.
ECB TO BE PLACED ON THE
LIMIT OF WORK.

**THIS PLAN TO BE UTILIZED FOR SITE
SOIL AND EROSION CONTROL
PURPOSES ONLY**

**MEADOW SEED MIX SHALL BE
INSTALLED WITHIN ALL LANDSCAPE
AREAS DELINEATED BY THE LIMIT OF
WORK**

**REFER TO SOIL EROSION CONTROL
NOTES & DETAIL SHEET FOR EROSION
NOTES AND DETAILS**

**EROSION CONTROL BARRIER SHALL
CONSIST OF BOTH COMPOST SOCK
AND SIT FENCE UNLESS OTHERWISE
NOTED. SEE DETAILS FOR MORE
INFORMATION.**



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|-------------|------------|----------|
| 1 | 10/04/2023 | POLE LAYOUT | JDL | GD |

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID: W201257-EROS-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

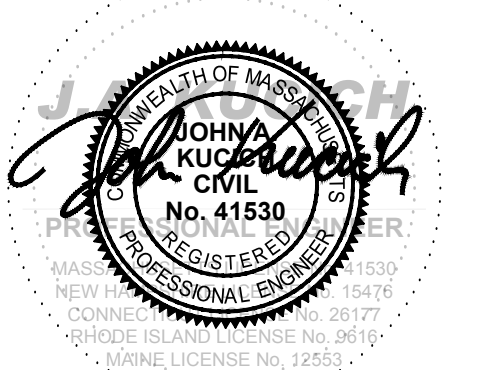
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

www.BohlerEngineering.com

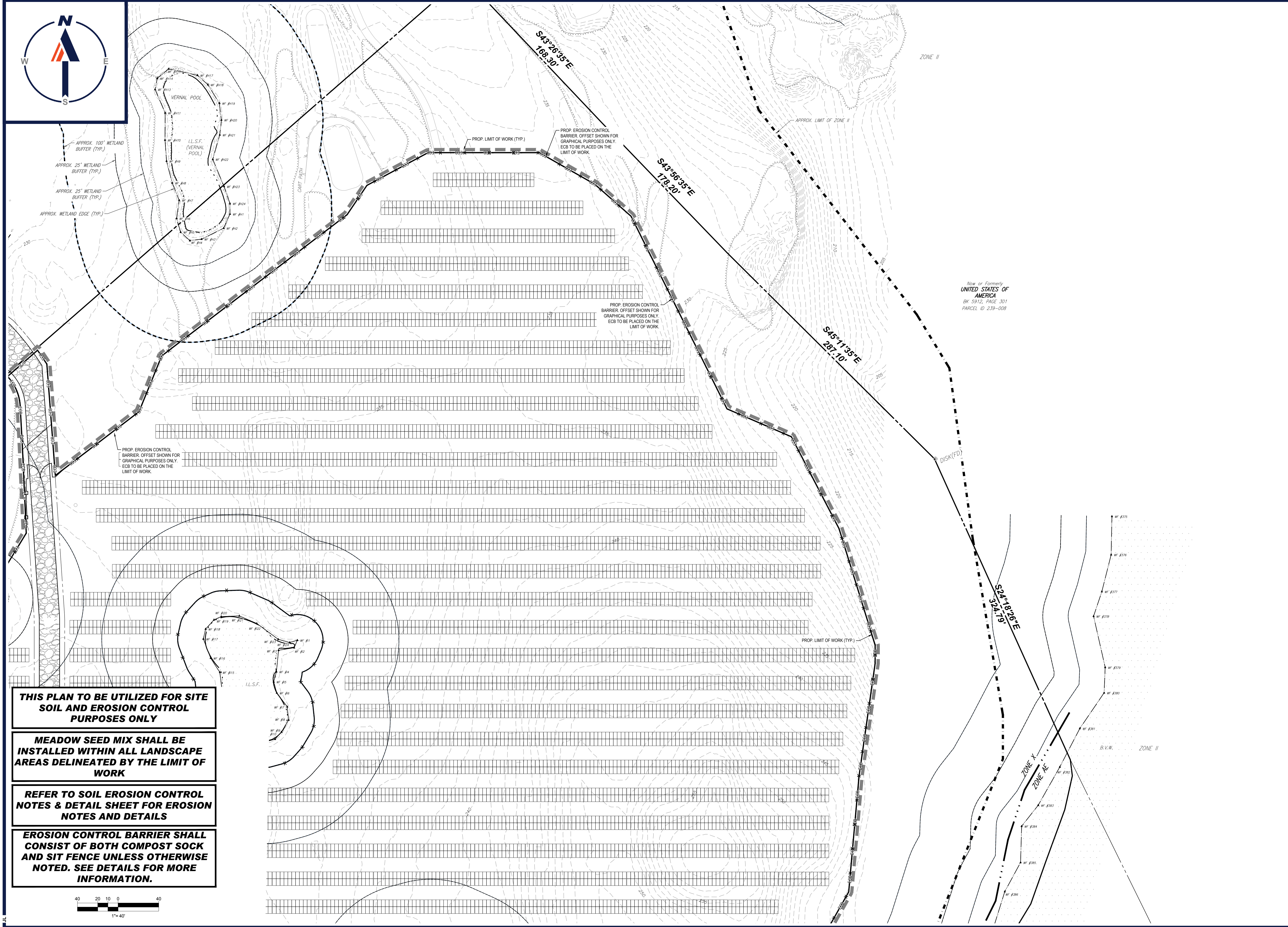


SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN B

SHEET NUMBER:
C-603

REVISION 1 - 10/04/2023

P:\01\2023\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\W201257-EROS-1B-LAYOUT1.CAD-EROS B

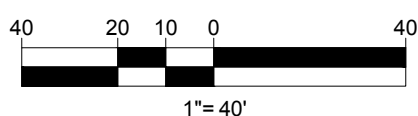


THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | DRAWN BY | CHECKED BY |
|-----|------------|------------------------------|----------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-EROS-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN C

SHEET NUMBER:
C-604

REVISION 1 - 10/04/2023

P:\DWG\2013\CAD\DRAWINGS\PLAN SET\EROSION CONTROL\EROSION CONTROL PLAN C-604-EROS-1B.dwg - LAYOUT: C-604-EROS-1B



Now or Formerly
SCOTT A. & KAREN L.
RHODES
BOOK 22974, PAGE 279
PARCEL ID 32-0010

Now or Formerly
MAPLECREAT REALTY TRUST
BOOK 8626, PAGE 19
PARCEL ID 32-0009

325' WIDE NEW ENGLAND POWER COMPANY EASEMENT
PROP. ADDITIONAL
STONE TRACKING PAD

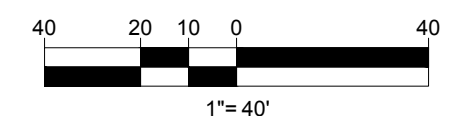
PROP. EROSION CONTROL
BARRIER, OFFSET SHOWN FOR
GRAPHICAL PURPOSES ONLY.
ECB TO BE PLACED ON THE
LIMIT OF WORK.

**THIS PLAN TO BE UTILIZED FOR SITE
SOIL AND EROSION CONTROL
PURPOSES ONLY**

**MEADOW SEED MIX SHALL BE
INSTALLED WITHIN ALL LANDSCAPE
AREAS DELINEATED BY THE LIMIT OF
WORK**

**REFER TO SOIL EROSION CONTROL
NOTES & DETAIL SHEET FOR EROSION
NOTES AND DETAILS**

**EROSION CONTROL BARRIER SHALL
CONSIST OF BOTH COMPOST SOCK
AND SIT FENCE UNLESS OTHERWISE
NOTED. SEE DETAILS FOR MORE
INFORMATION.**



L=1867.06'
R=8125.00'
Δ=13°09'58"
CHB=N04°22'53"W
CHD=1862.95'

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

**ISSUED FOR MUNICIPAL &
AGENCY REVIEW & APPROVAL**

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID: W201257-EROS-1B

PROJECT:

**PROPOSED SITE
PLAN DOCUMENTS**

FOR
**MAPLE STREET
SOLAR LLC**

PROPOSED
SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001,
254-001, 239-010 A, 239-010 B, 239-010
C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

www.BohlerEngineering.com

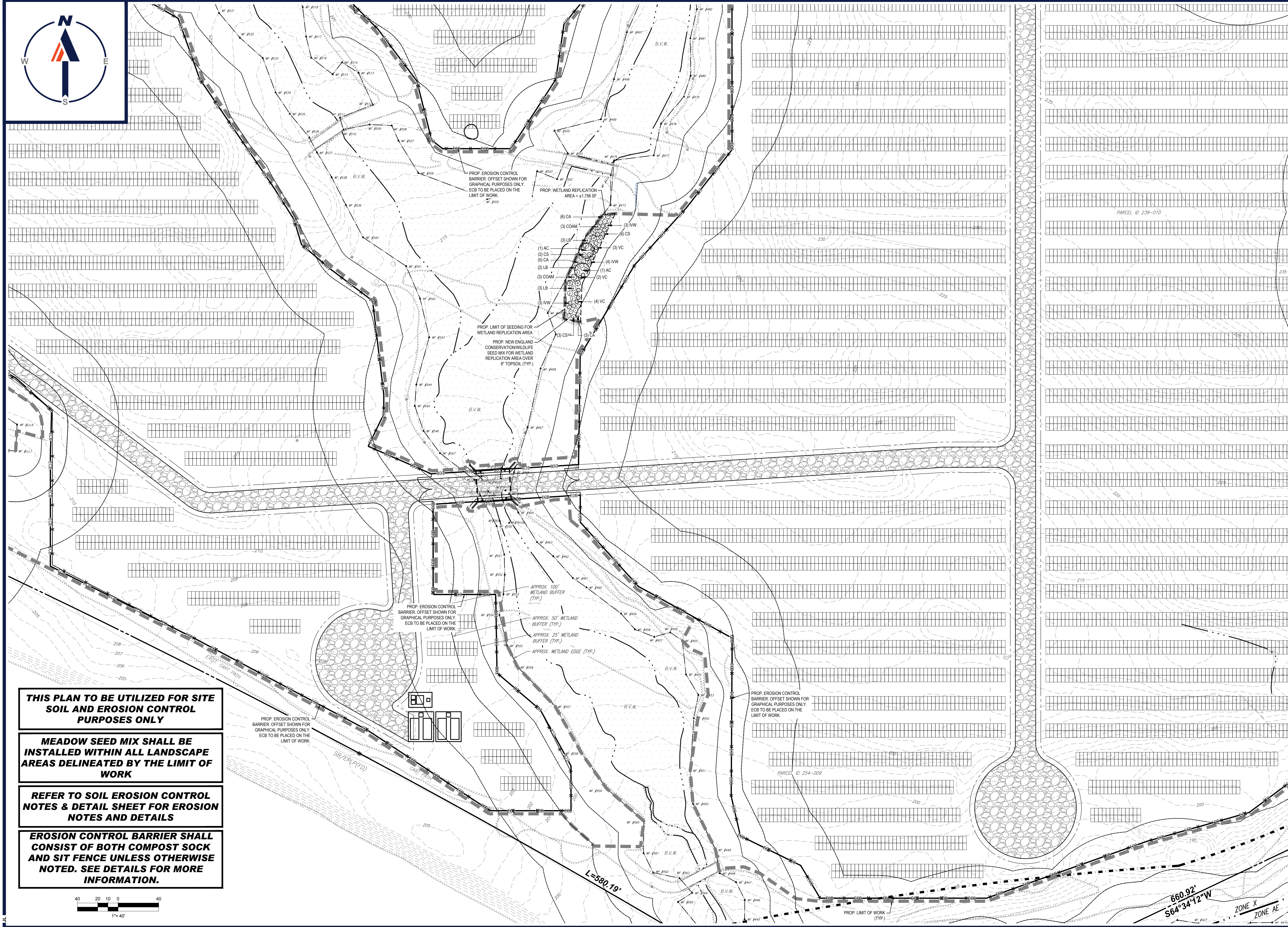


SHEET TITLE:
**EROSION &
SEDIMENT
CONTROL
PLAN D**

SHEET NUMBER:
C-605

REVISION 1 - 10/04/2023

P:\DWG\2013\7\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\ANSI\2012\237-EROS-1B.dwg - LAYOUT: C-605-EROS.D

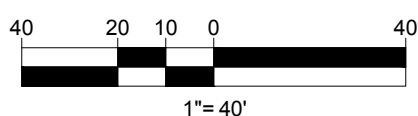


THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-EROS-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

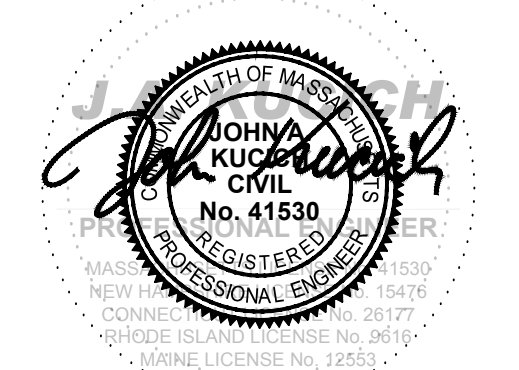
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com

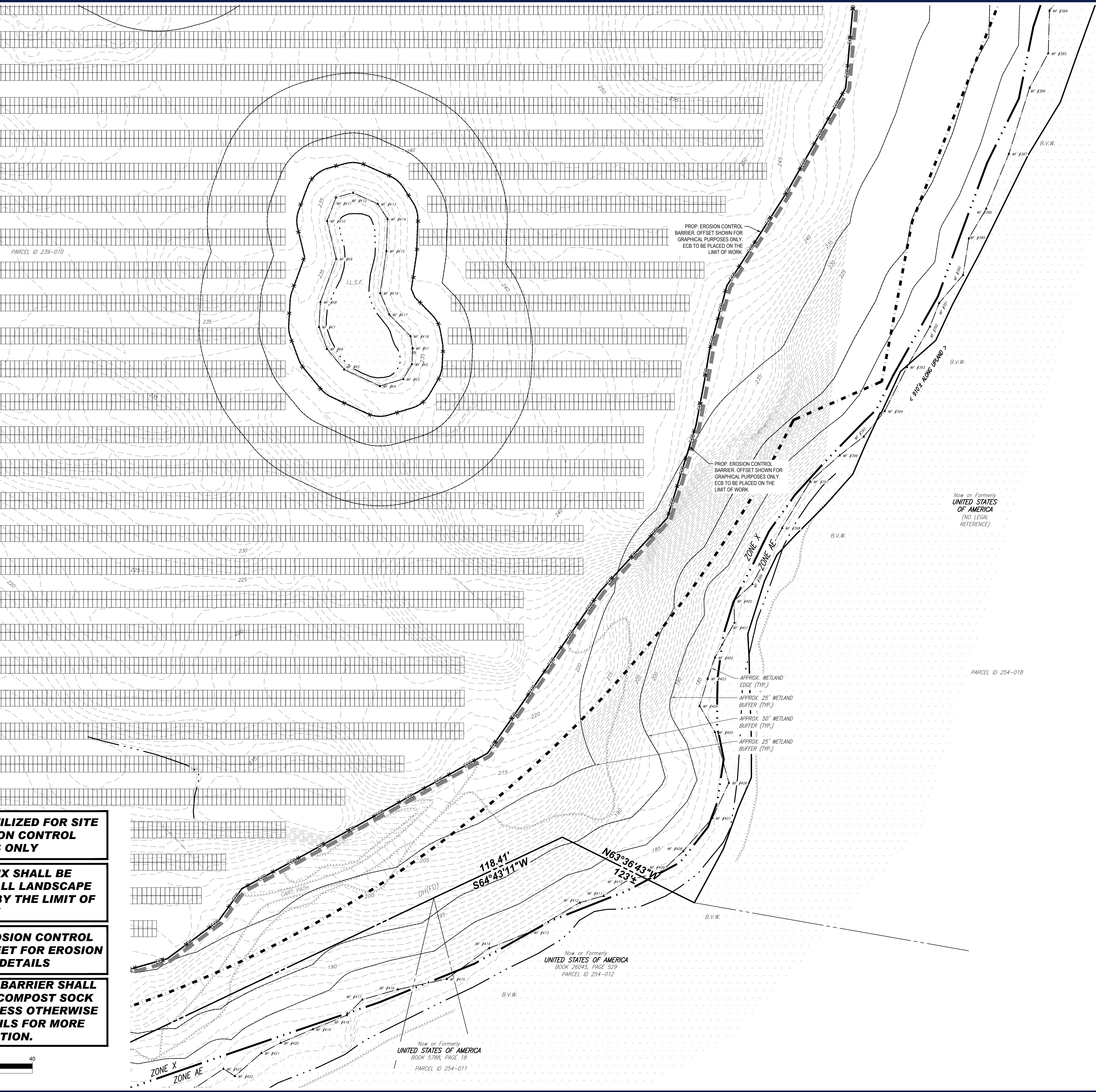


SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN E

SHEET NUMBER:
C-606

REVISION 1 - 10/04/2023

P:\2023\10\23\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\20231023\EROS-1B-1-LAYOUT1.C:006-EROS E

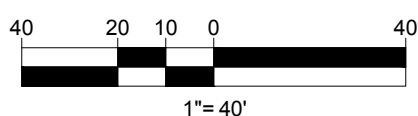


THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|-------------|------------|
| 1 | 10/04/2023 | POLE LAYOUT | JDL GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-EROS-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN F

SHEET NUMBER:
C-607

REVISION 1 - 10/04/2023

P:\2023\2023\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257-EROS-1B-LAYOUT.CAD: C-607-EROS.F

EROSION AND SEDIMENT CONTROL NOTES

- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
- THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. AT A MINIMUM, AREAS SHALL BE PERMANENTLY STABILIZED ACCORDING TO THE CURRENT EDITION OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), OR IN THE ABSENCE OF A SWPPP, THEY SHALL BE PERMANENTLY STABILIZED WITHIN 14 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).
- SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 8%.
- INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #5.
- ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED. FOR SEDIMENT CONTROL DEVICES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE DEVICES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1) UNLESS OTHERWISE INDICATED ON THE PLANS. SLOPE PROTECTION FOR SLOPES GREATER THAN 2:1 SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER.
- IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL STANDARDS.
- REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
 - SIX INCHES, OR DEPTH SPECIFIED ON THE LANDSCAPE PLAN, OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (188 LB PER 1,000 SF).
 - FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN. QUALITY SOO MAY BE SUBSTITUTED FOR SEED WHERE SLOPES DO NOT EXCEED 2:1. SOO ON SLOPES STEEPER THAN 3:1 SHOULD BE PEGGED.
 - STRAW MULCH AT THE RATE OF 70-90 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER WILL BE USED ON STRAW MULCH FOR WIND CONTROL.

- ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS 70% STABILIZED. FOR EROSION CONTROL MEASURES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE MEASURES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
- WETLANDS WILL BE PROTECTED WITH BARRIERS CONSISTING OF STRAW BALES, COMPOST TUBES, SILT FENCE OR A COMBINATION THEREOF.
- ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
- ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED:

| LOCATION PROTECTED AREA | MULCH STRAW | MULCH RATE (1000 SF) |
|--|---|---------------------------|
| WINDY AREA | SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED) | 185-275 POUNDS 100 POUNDS |
| MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1 | JUTE MESH OR EXCELSIOR MAT | AS REQUIRED |
| GREATER THAN 3:1 | (REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT) | |

* A HYDRO-APPLICATION OF WOOD OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER SHALL BE USED TO ADDITIONAL WIND CONTROL.

* MULCH ANCHORING: ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERRATED STRAIGHT DISK, WETTING FOR SMALL AREAS; AND ROAD DITCHES MAY BE PERMITTED.

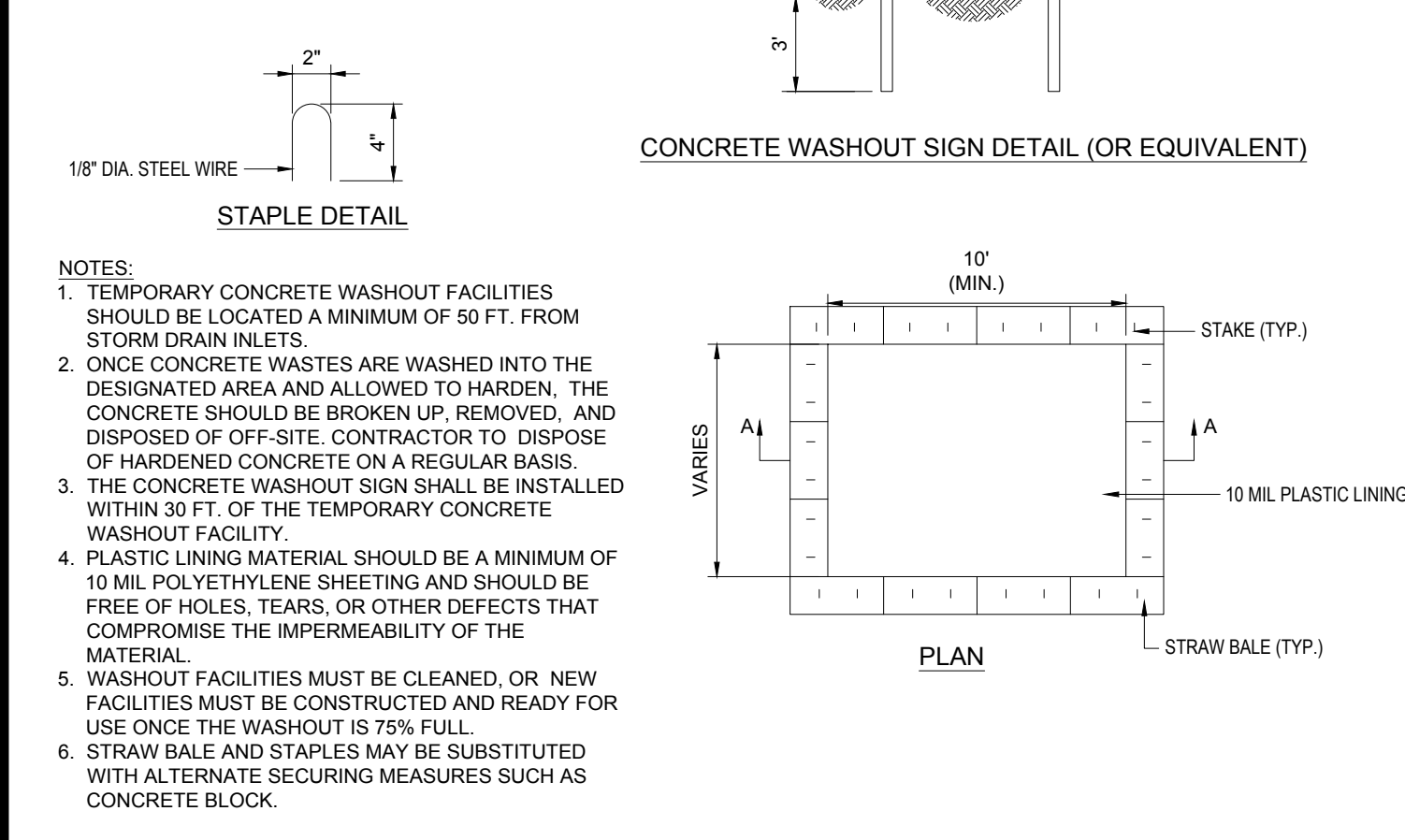
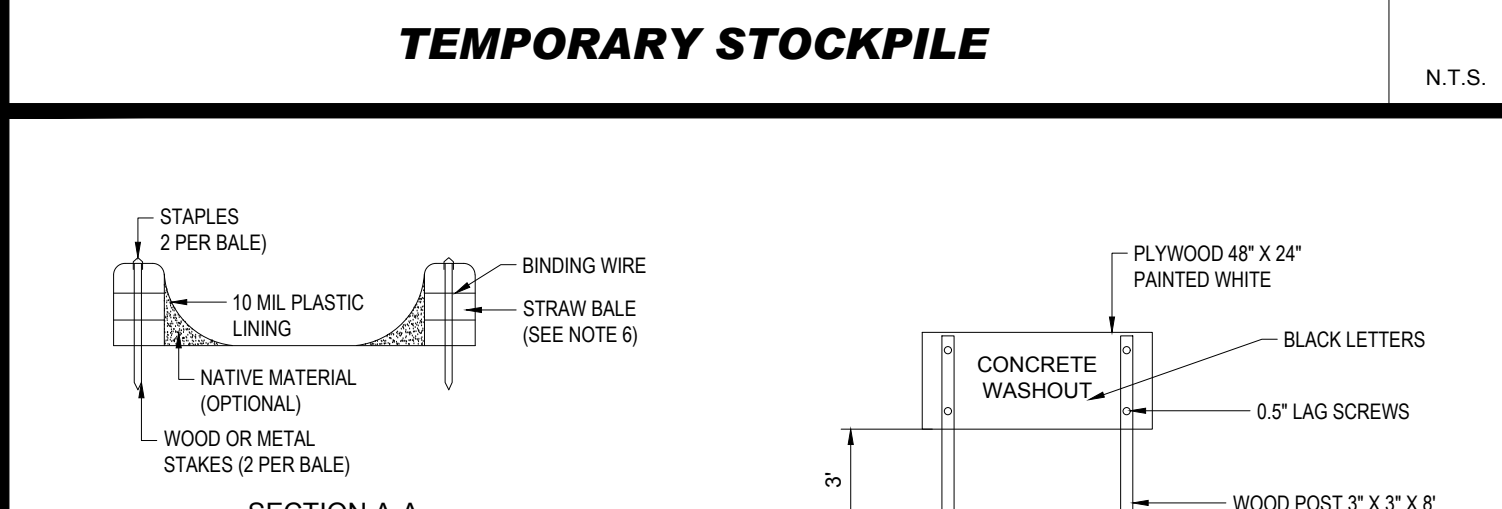
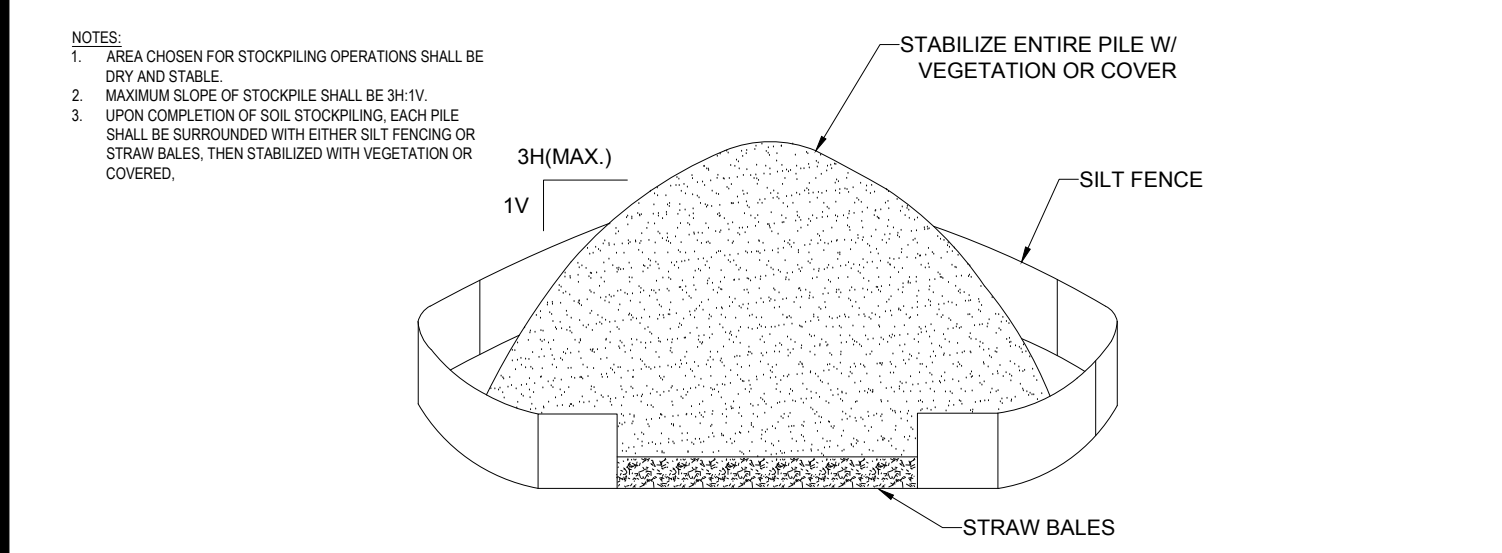
- PROPOSED LOCATIONS OF SURFACE STORMWATER MANAGEMENT BASINS CAN BE UTILIZED AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION. SEDIMENT TRAPS SHALL BE SIZED AND CONSTRUCTED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
 - TEMPORARY SEDIMENT TRAPS SHALL BE SIZED PER THE CURRENT EDITION OF THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" AND PROVIDE A MINIMUM OF 1,800 CF PER ACRE OF TRIBUTARY AREA WITH A MAXIMUM TRIBUTARY AREA OF 5 ACRES, MAINTAIN A 2:1 LENGTH TO WIDTH RATIO, AND NOT EXCEED 5 FT IN HEIGHT. UPON SITE STABILIZATION, ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE TEMPORARY SEDIMENT TRAP EXCAVATED TO 1 FOOT BELOW THE TRAP. THE AREA SHALL THEN BE SCARIFIED TO PREVENT COMPACTION AND PROMOTE INFILTRATION, AND GRADED AND STABILIZED IN ACCORDANCE WITH THE GRADING AND LANDSCAPE PLANS.
- STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
- EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.
- THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR THE COSTS ASSOCIATED WITH ANY AND ALL NECESSARY DISCHARGE PERMITS ASSOCIATED WITH SAME.
- THE CONTRACTOR MUST LOCATE CONSTRUCTION WASTE MATERIAL STORAGE AREAS TO MINIMIZE EXPOSURE TO STORMWATER. THE CONTRACTOR MUST IMMEDIATELY PLACE CONSTRUCTION WASTE IN ON-SITE STORAGE CONTAINERS UNTIL THAT CONSTRUCTION WASTE IS READY FOR OFF-SITE DISPOSAL. THE CONTRACTOR MUST MAINTAIN SPILL PREVENTION AND RESPONSE EQUIPMENT AND MAKE SAME CONTINUOUSLY AVAILABLE FOR USE BY THE CONTRACTOR'S EMPLOYEES WHO MUST BE PROPERLY TRAINED IN THE APPLICATION OF SPILL PREVENTION AND RESPONSE PROCEDURES.

- EROSION CONTROL NOTES DURING WINTER CONSTRUCTION
- WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
- WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT THE AMOUNT OF AREA OPEN AT ONE TIME IS MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE AND IN CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN SUCH THAT ADEQUATE PROVISIONS ARE EMPLOYED TO CONTROL STORMWATER RUNOFF.
- CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN TEMPORARILY STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR STRAW AT A RATE OF 100 LB PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDING, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
- FOR AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR A PERIOD EXCEEDING 14 DAYS BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH, LOAM OR SEED WILL NOT BE REQUIRED. THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDING. IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEEDING AT A RATE OF 200-300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED AS APPLICABLE. SLOPES SHALL NOT BE LEFT UNSTABILIZED OVER THE WINTER OR IN AREAS WHERE WOOD HAS CEASED FOR MORE THAN 14 DAYS UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF SEDIMENT BARRIERS OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.

- MULCHING REQUIREMENTS:
 - BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
 - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
 - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL ALL SLOPES GREATER THAN 8%.
- ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STORMWATER PREVENTION PLAN.
- DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

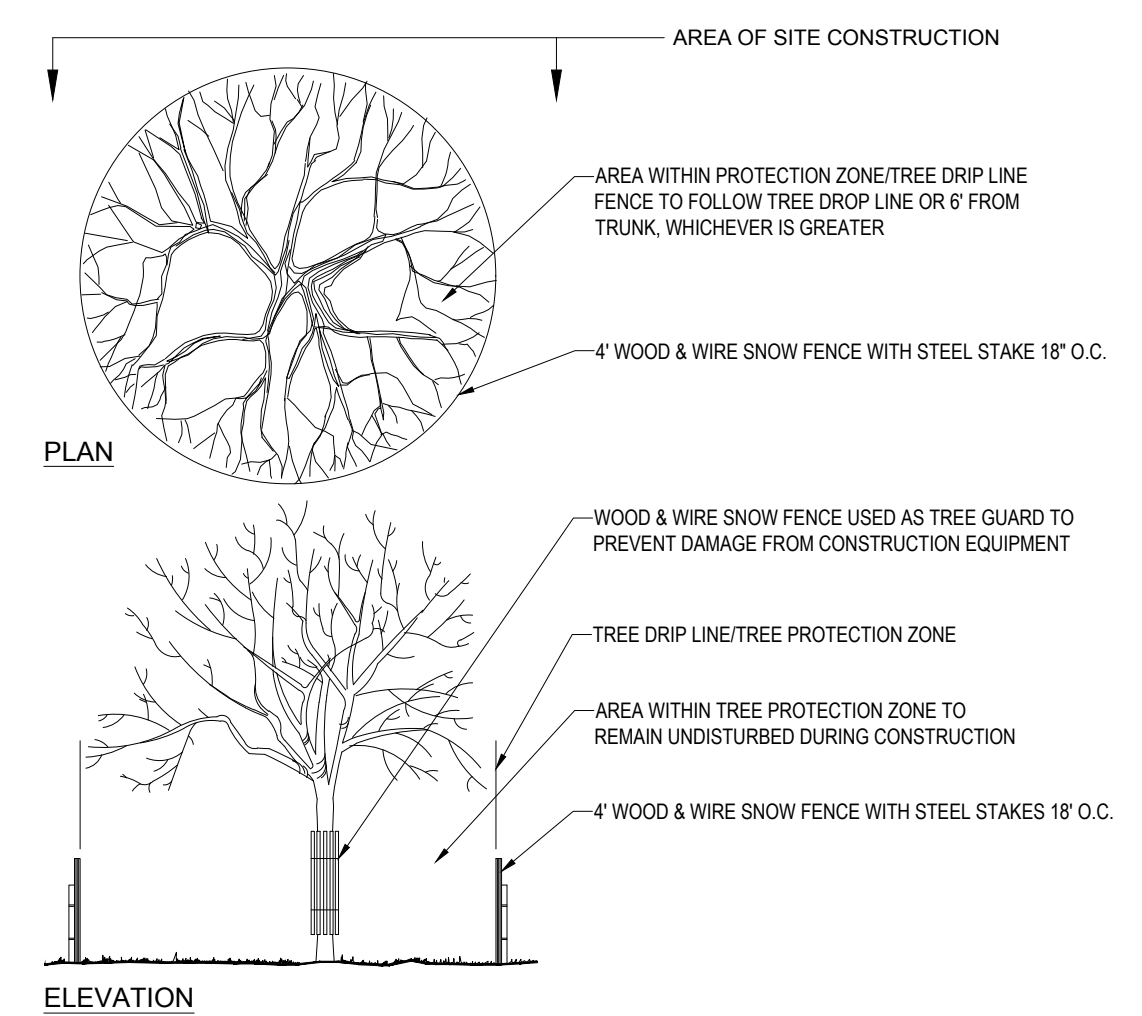
- THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
- EROSION CONTROL MEASURES MUST CONFORM TO THE STATE, LOCAL, AND FEDERAL GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL, UNLESS OTHERWISE NOTED, OR UNLESS ENGINEER CLEARLY AND SPECIFICALLY, IN WRITING, DIRECTS OTHERWISE. INSTALLATION OF EROSION CONTROL, CLEANING, AND SITE WORK MUST BE PERFORMED EXACTLY AS INDICATED IN THE EROSION CONTROL CONSTRUCTION NOTES.
- THE DISTURBED LAND AREA OF THIS SITE IS APPROXIMATELY 44.133 ACRES.
- THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE:
 - STABILIZED CONSTRUCTION ENTRANCE/EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT IS TO BE INSTALLED AT THE DESIGNATED LOCATION SHOWN ON THE PLAN. THIS AREA MUST BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE. SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK AROUND ALL OF THE DOWNSLOPE PERIMETERS OF THE SITE, TEMPORARY FILL AND SOIL STOCKPILES.
 - INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EACH DRAINAGE INLET AS DRAINAGE STRUCTURES ARE INSTALLED TO REDUCE THE QUANTITY OF SEDIMENT. INSTALL TEMPORARY INLET PROTECTION ON INLETS DOWNSLOPE FROM DISTURBANCE, WHICH MAY BE BEYOND THE LIMITS OF DISTURBED AREA.
- INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY. THE CONTRACTOR MUST REMOVE ANY SILT DEPOSITS GREATER THAN 6" OR HALF THE OF THE EROSION CONTROL BARRIER HEIGHT COLLECTED ON THE FILTER FABRIC AND/OR SILT SOCK BARRIERS AND EXCAVATE AND REMOVE ANY SILT FROM DROP INLET PROTECTION.
- THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINISHED GRADE AND VEGETATED WITHIN 7 DAYS. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON, THE CONTRACTOR MUST STABILIZE SAME WITH GEOTEXTILE FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST MANAGEMENT PRACTICES.
- THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF ENGINEER SO REQUIRES, TO PREVENT ANY, INCLUDING THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
- THE CONTRACTOR MUST BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT PAVING AND TURFLANDSCAPING IS ESTABLISHED. THE COSTS OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS.
- THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND THE ESTABLISHMENT OF VEGETATION.
- THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER OR OTHER INSTALLING A DIFFERENT, SPECIFIED METHOD OF STABILIZATION.
- THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION CONTROL AND SEDIMENTATION CONTROL FACILITIES. MEASURES AND STRUCTURES ADDITIONAL FACILITIES, MEASURES AND STRUCTURES MUST BE INSTALLED WHERE NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS AND/OR TO PREVENT ANY, INCLUDING THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
- THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS. THE CONTRACTOR MUST REFER TO THE LANDSCAPE (AND/OR DEMOLITION PLANS) FOR TREE PROTECTION, FENCE LOCATIONS AND DETAILS.
- THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES ON OR OFF-SITE AS THE JURISDICTIONAL AGENCY REQUIRES, BOTH AT THE TIME OF SITE STABILIZATION AND AT END OF PROJECT.
- SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION IN ORDER TO MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROL MEASURES.
- THE CONTRACTOR MUST IDENTIFY, ON THE PLAN, THE LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED.



CONCRETE WASTE MANAGEMENT AREA N.T.S.

- THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:
- INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN)
 - INSTALLATION OF EROSION CONTROL BARRIER (STRAW BALES AND SILT FENCE) (AS SHOWN)
 - INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)
 - DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)
 - DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
 - CLEARING AND GRUBBING
 - INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS
 - EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
 - CONSTRUCTION OF UTILITIES
 - STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
 - INSTALLATION OF INLET PROTECTION OF ON-SITE UTILITIES (AS SHOWN)
 - CONSTRUCTION OF BUILDINGS
 - CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
 - SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
 - FINAL GRADING OF ALL SLOPED AREAS
 - PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED AS REQUIRED.
 - REMOVAL OF THE TEMPORARY SEDIMENT BASINS
 - PAVE PARKING LOT
 - LANDSCAPING PER LANDSCAPING PLAN
 - REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER

RECOMMENDED CONSTRUCTION SEQUENCE N.T.S.



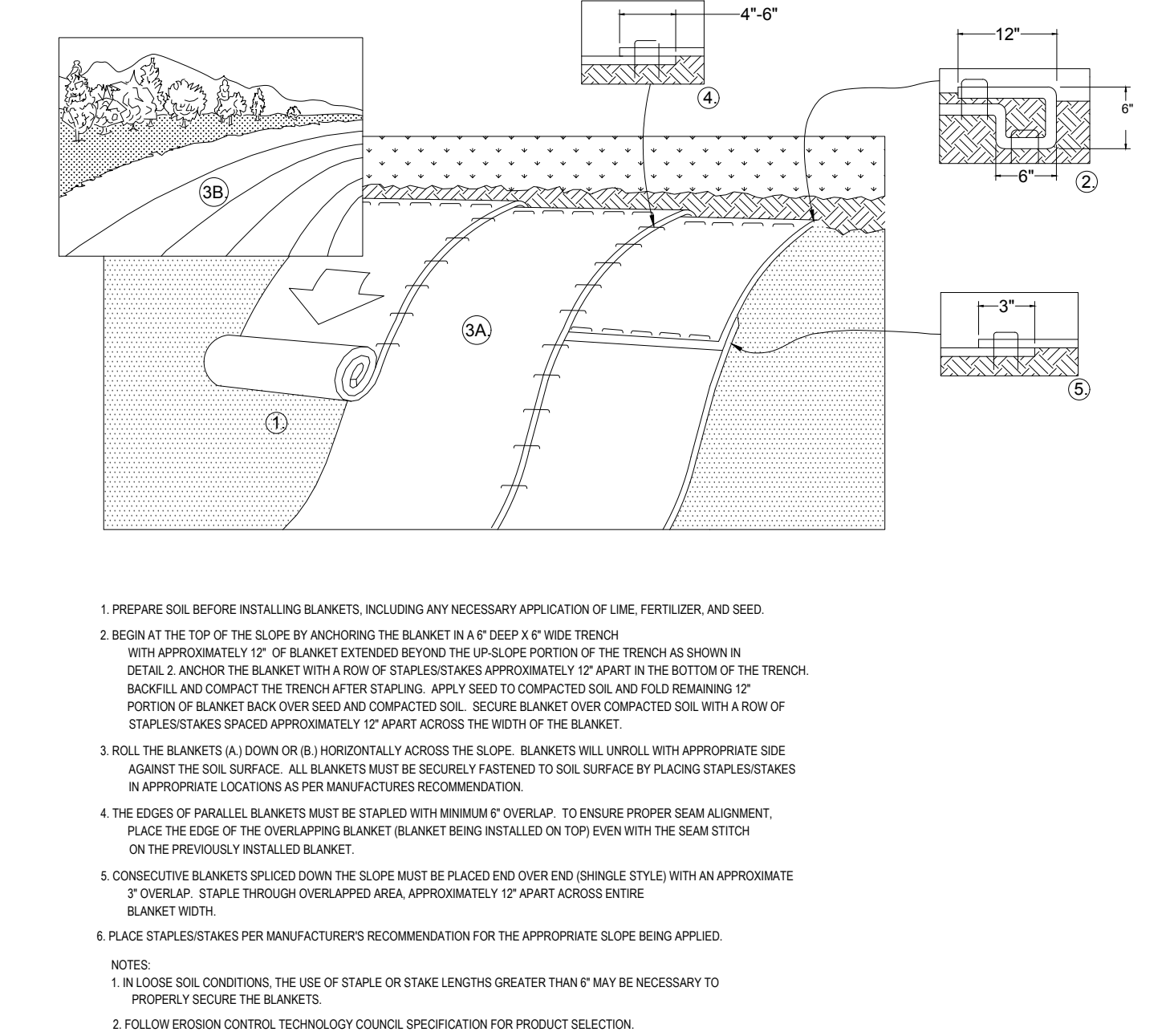
TREE PROTECTION DURING SITE CONSTRUCTION N.T.S.

| PERCENT SLOPE OF ROADWAY | LENGTH OF STONE REQUIRED | |
|--------------------------|--|--------------------|
| | COARSE GRAINED SOILS | FINE GRAINED SOILS |
| 0 TO 2% | 50 FT | 100 FT |
| 2% TO 5% | 100 FT | 200 FT |
| >5% | ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE (1) | |

(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

CHART 1

STABILIZED CONSTRUCTION ENTRANCE N.T.S.



EROSION CONTROL BLANKET 2:1 SLOPES (SLOPE INSTALLATION) N.T.S.

| PROPERTIES | TEST METHOD | UNITS | |
|-------------------------|-------------|--|---|
| | | LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE | MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE |
| GRAB TENSILE STRENGTH | ASTM D-4632 | 300 LBS | 20% |
| GRAB TENSILE ELONGATION | ASTM D-4632 | 120 LBS | 20% |
| PUNCTURE | ASTM D-3786 | 800 PSI | 40 LBS |
| MULLEN BURST | ASTM D-3786 | 800 PSI | 40 LBS |
| TRAPEZOID TEAR | ASTM D-4533 | 120 LBS | 80% |
| UV RESISTANCE | ASTM D-4355 | 80% | 40 US SIEVE |
| APPARENT OPENING SIZE | ASTM D-4751 | 40 US SIEVE | 40 GAL/MIN/SQ FT |
| FLOW RATE | ASTM D-4491 | 40 GAL/MIN/SQ FT | 0.65 SEC^-1 |
| PERMITTIVITY | ASTM D-4491 | 40 GAL/MIN/SQ FT | 1.5 SEC^-1 |

NOTE: DO NOT USE IN PAVED AREAS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

FILTER SACS (GRADED INLETS) N.T.S.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

| REVISIONS | | | | |
|-----------|------------|------------------------------|------------|----------|
| REV | DATE | COMMENT | REVISED BY | DRAWN BY |
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

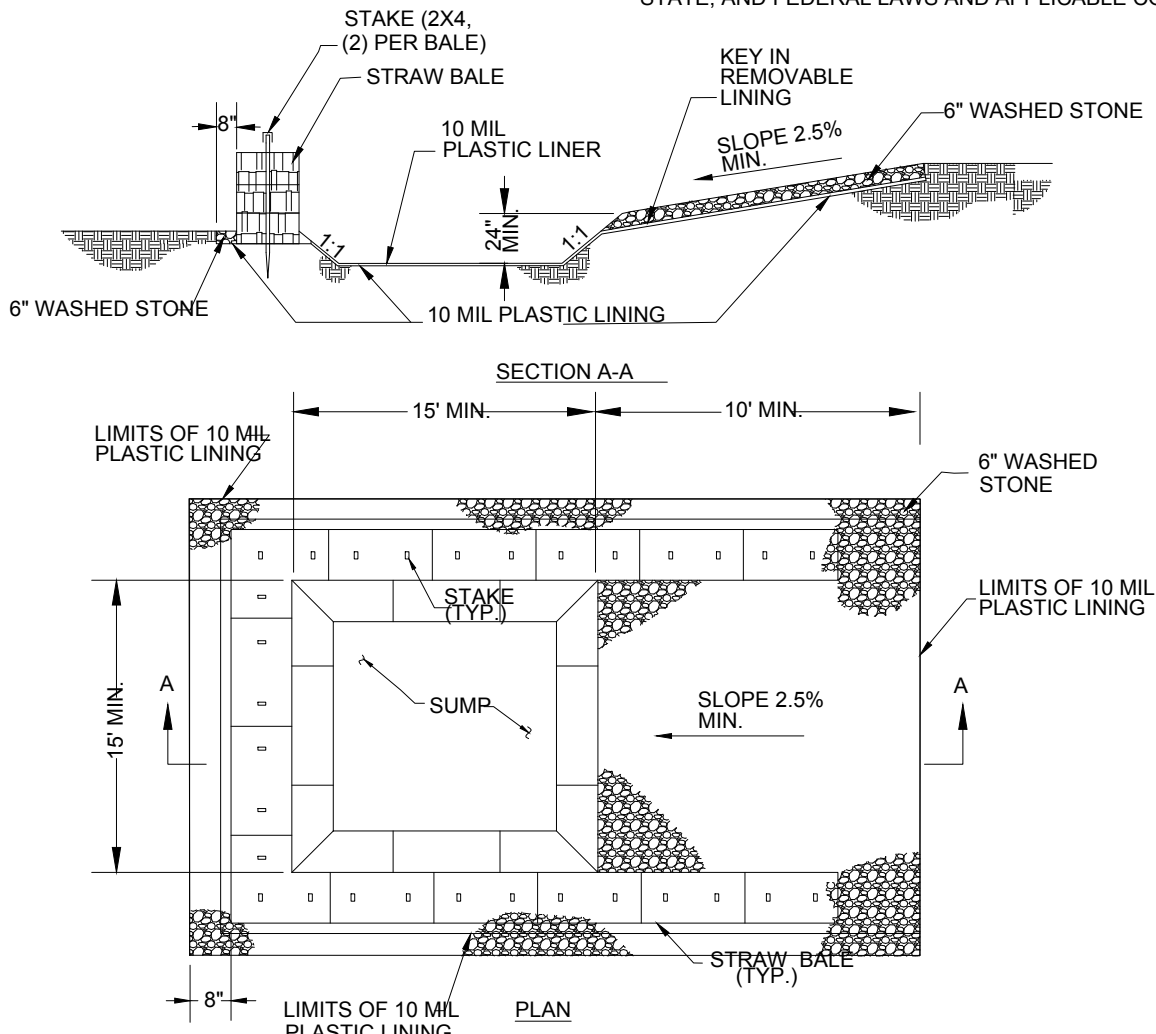
PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD LID: W201257-EROS-1B

PROPOSED SITE PLAN DOCUMENTS FOR MAPLE STREET SOLAR LLC PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

SHEET TITLE: **EROSION & SEDIMENT CONTROL NOTES & DETAILS**
SHEET NUMBER: **C-607**
REVISION 1 - 10/04/2023

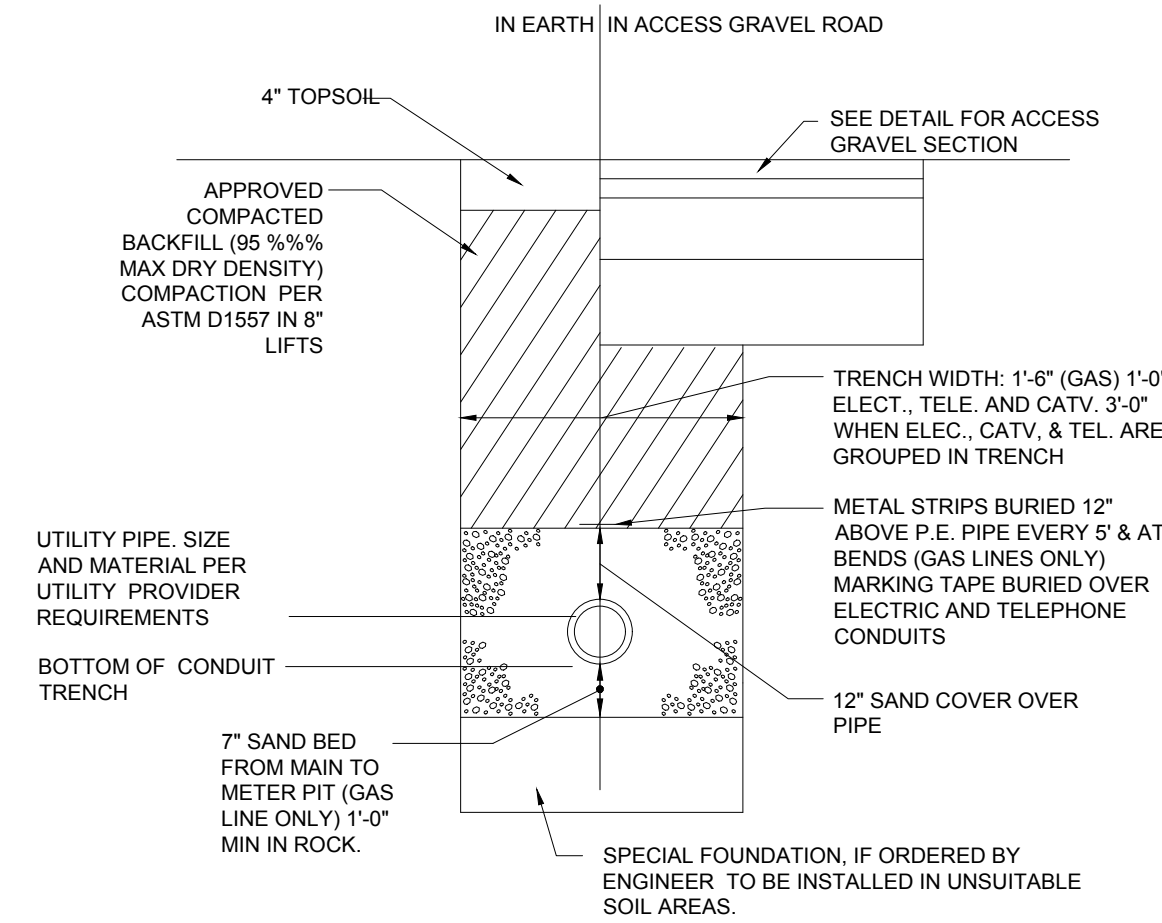
- NOTES:
- PIT IS SPECIFICALLY DESIGNED, DIKED AND IMPROVED FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE UNLESS A NEW FACILITY IS CONSTRUCTED.
 - WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE & GRINDING TO BE DISPOSED OF IN THE PIT.
 - FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN 12" DEPTH OF WASH WATER WITH A MINIMUM FREEBOARD OF 12".
 - SAW CUT PORTLAND CEMENT CONCRETE RESIDUE FROM WASHOUT & GRINDING TO BE DISPOSED OF IN THE PIT.
 - MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.
 - DEBRIS FROM THE VEHICLE WASH AREA SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.



CONCRETE WASHOUT DETAIL

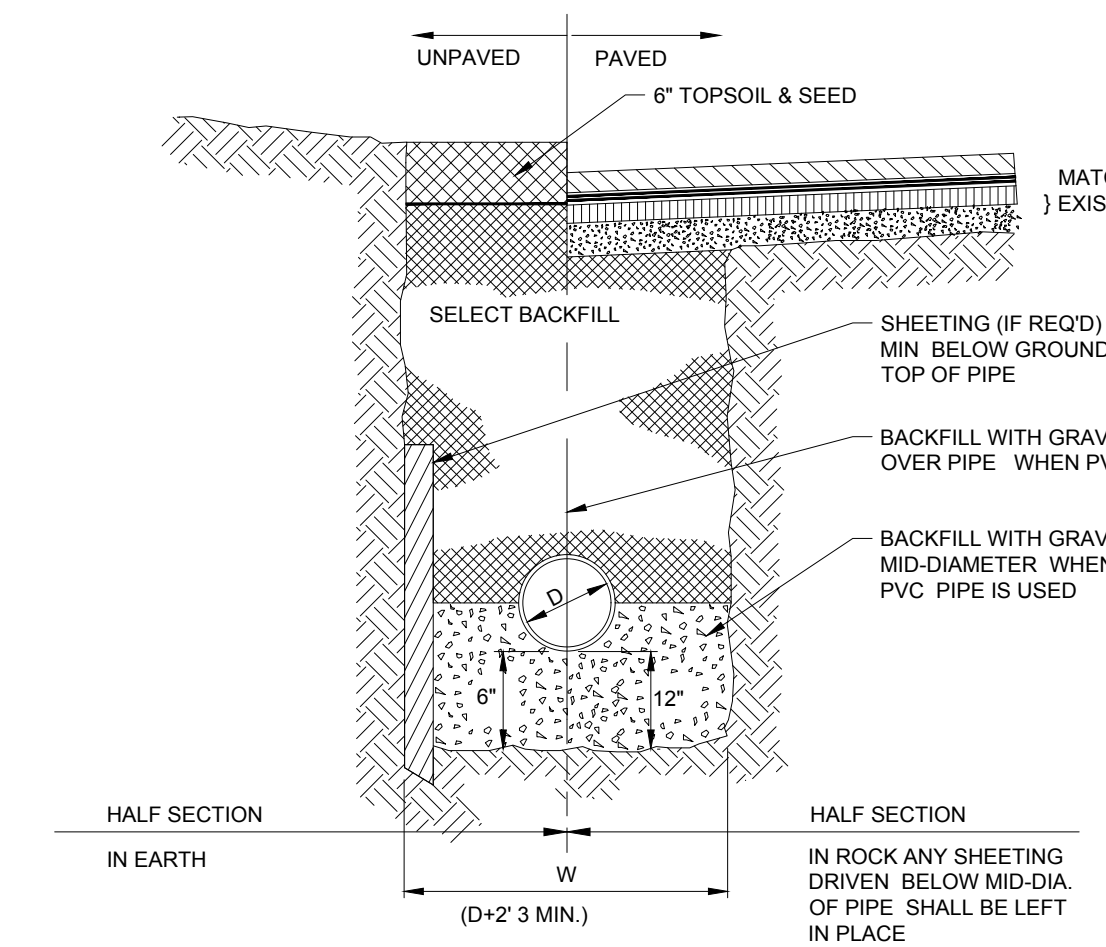
N.T.S.

- NOTE: THE CONTRACTOR IS DIRECTED AND RESPONSIBLE TO SLOPE AND/OR SHIELD THE TRENCH EXCAVATION IN ACCORDANCE WITH ALL APPLICABLE OSHA REGULATIONS.



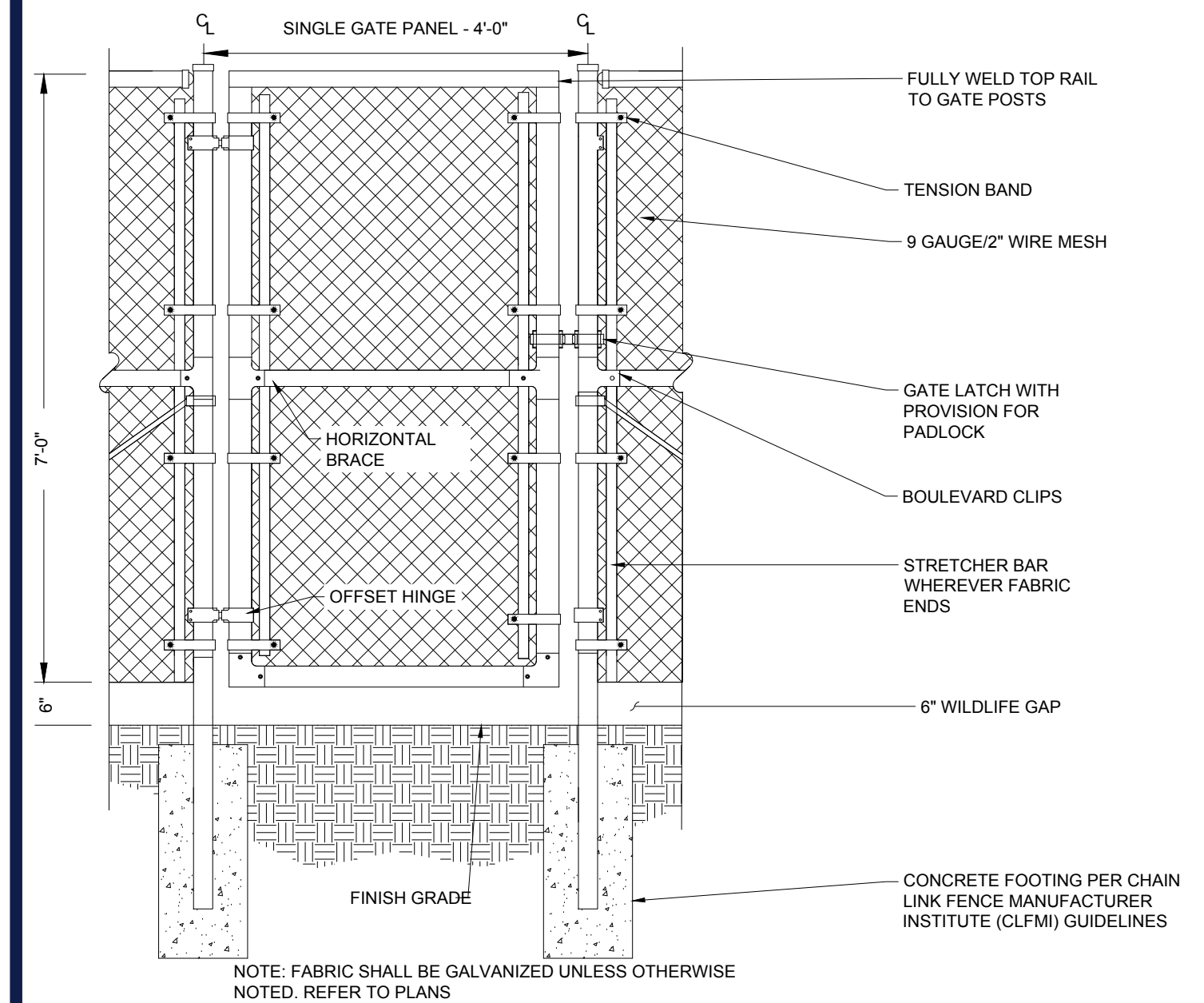
ALTERNATIVE ELECTRICAL TRENCH DETAIL

N.T.S.



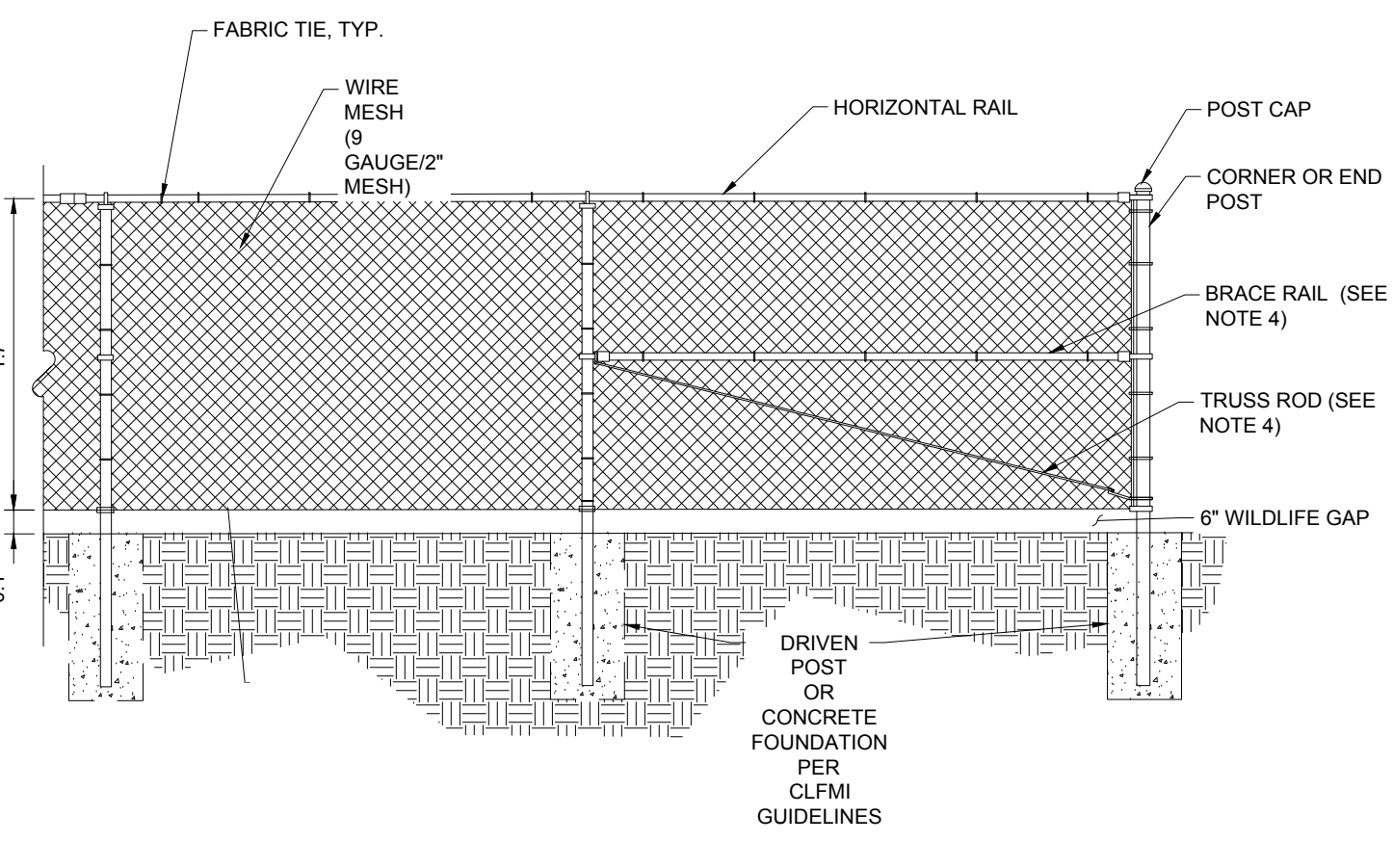
TYPICAL UTILITY TRENCH

N.T.S.



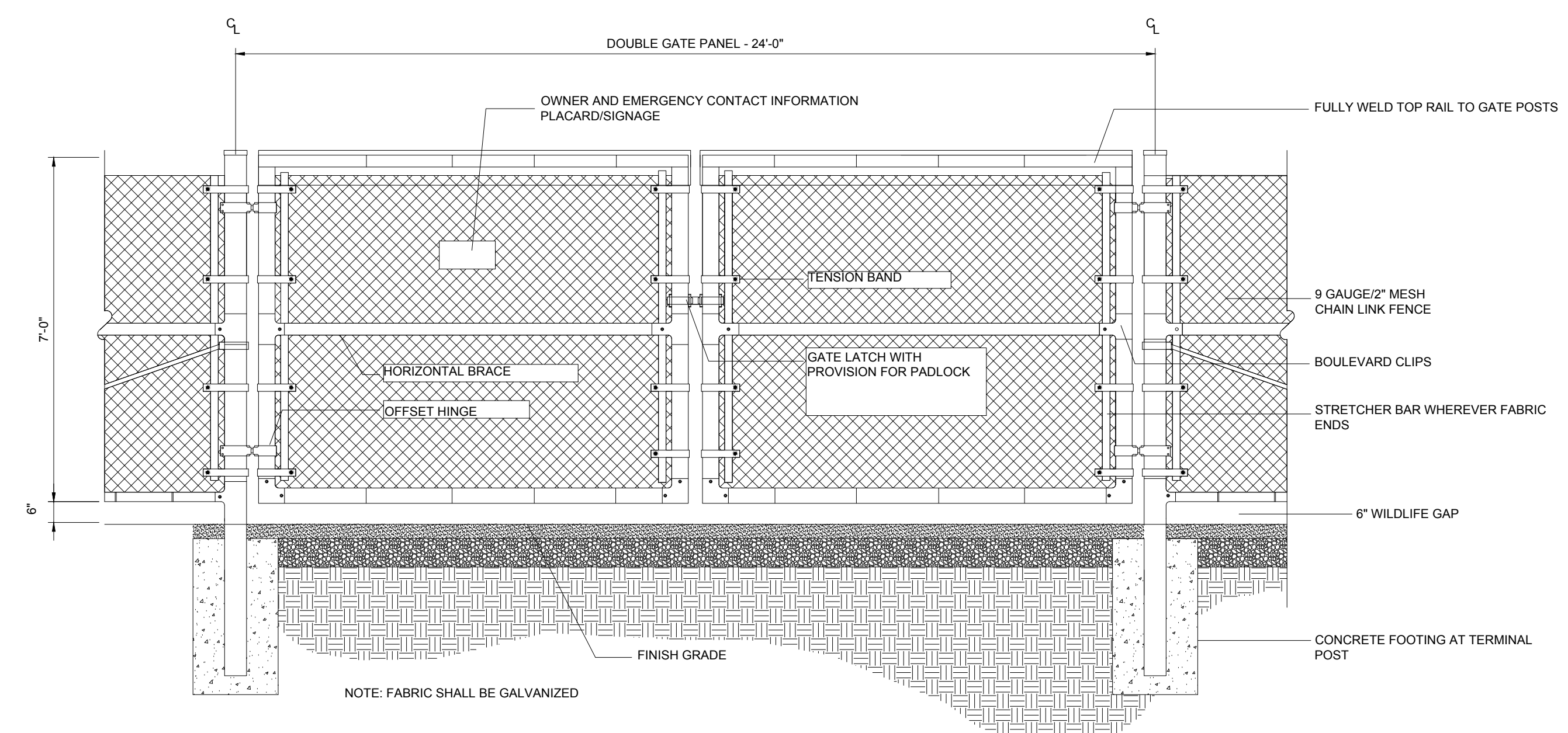
7' ACCESS GATE WITH WILDLIFE GAP

N.T.S.



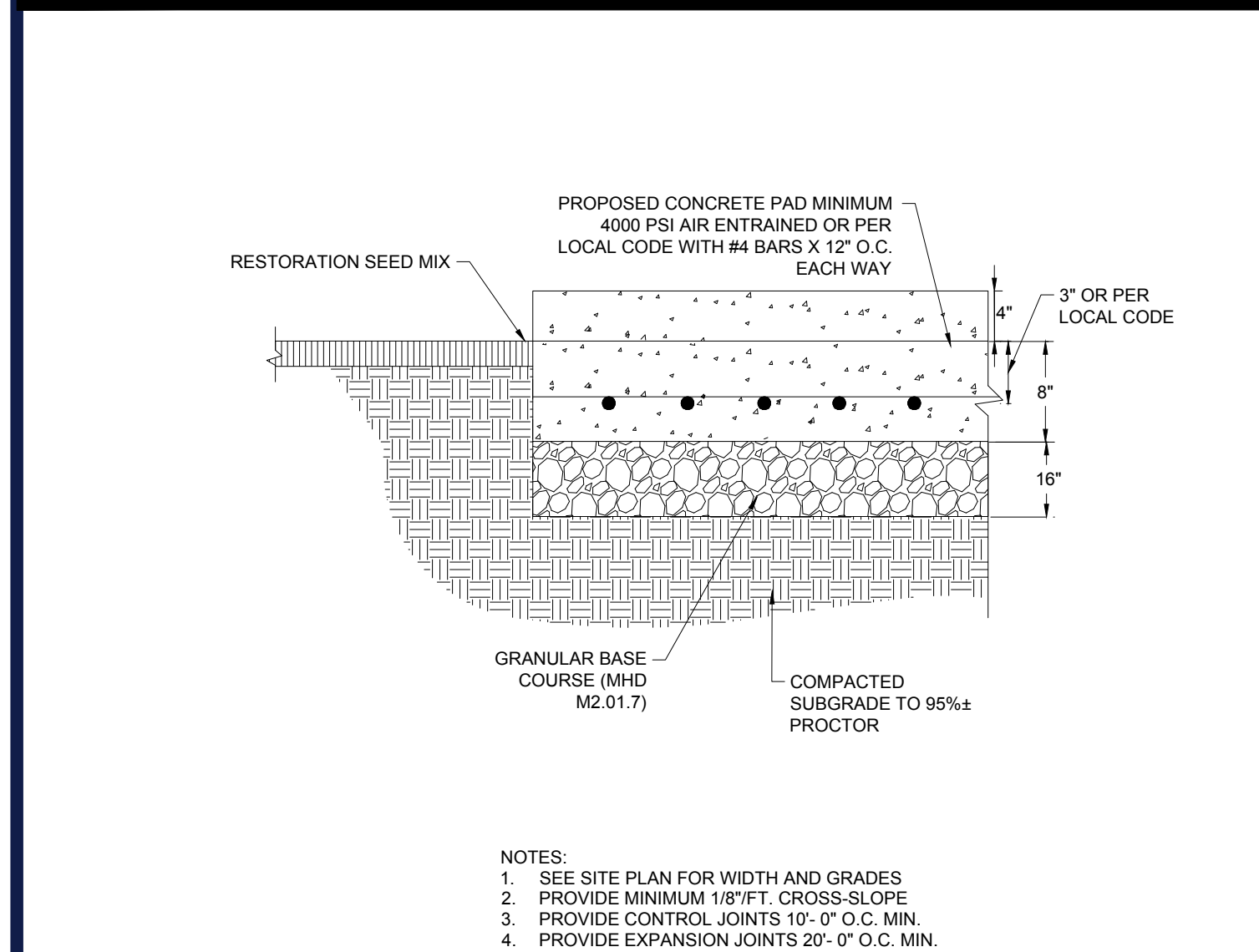
7' CHAIN LINK FENCE WITH WILDLIFE GAP

N.T.S.



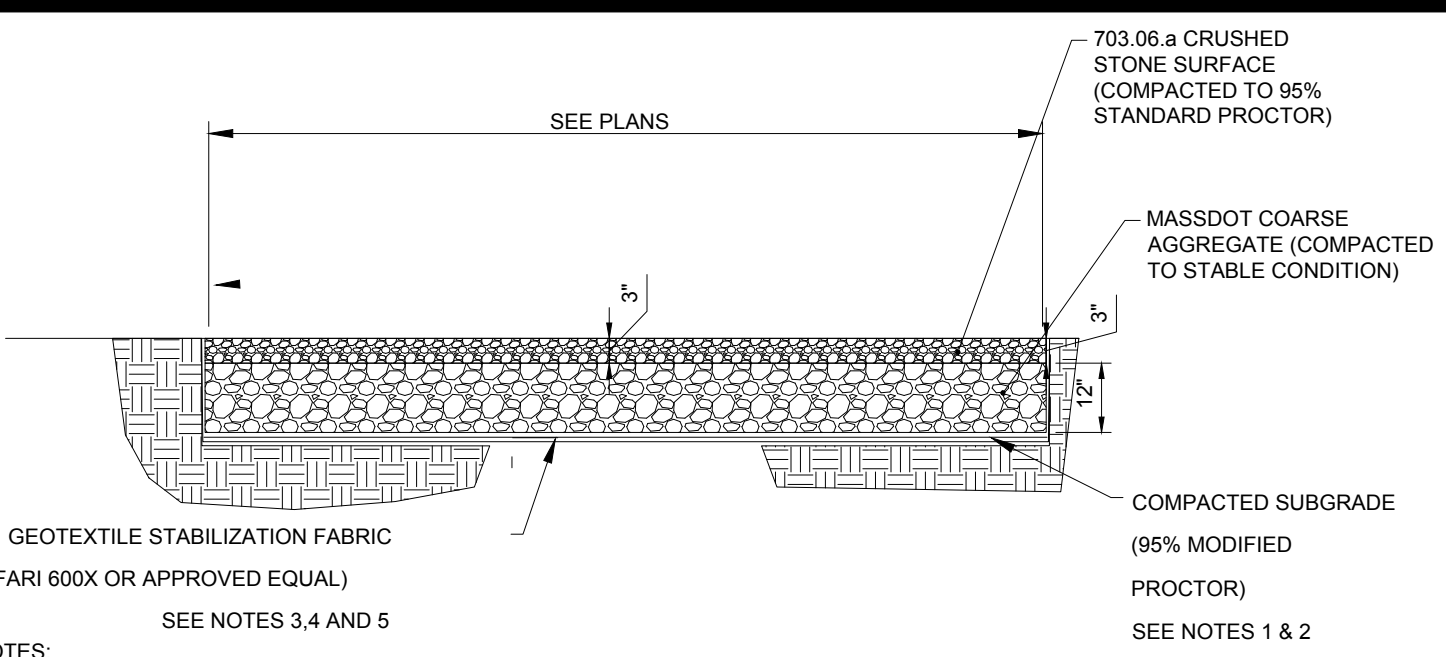
24' WIDE DOUBLE SWING GATE WITH WILDLIFE GAP

N.T.S.



CONCRETE PAD FOR EQUIPMENT

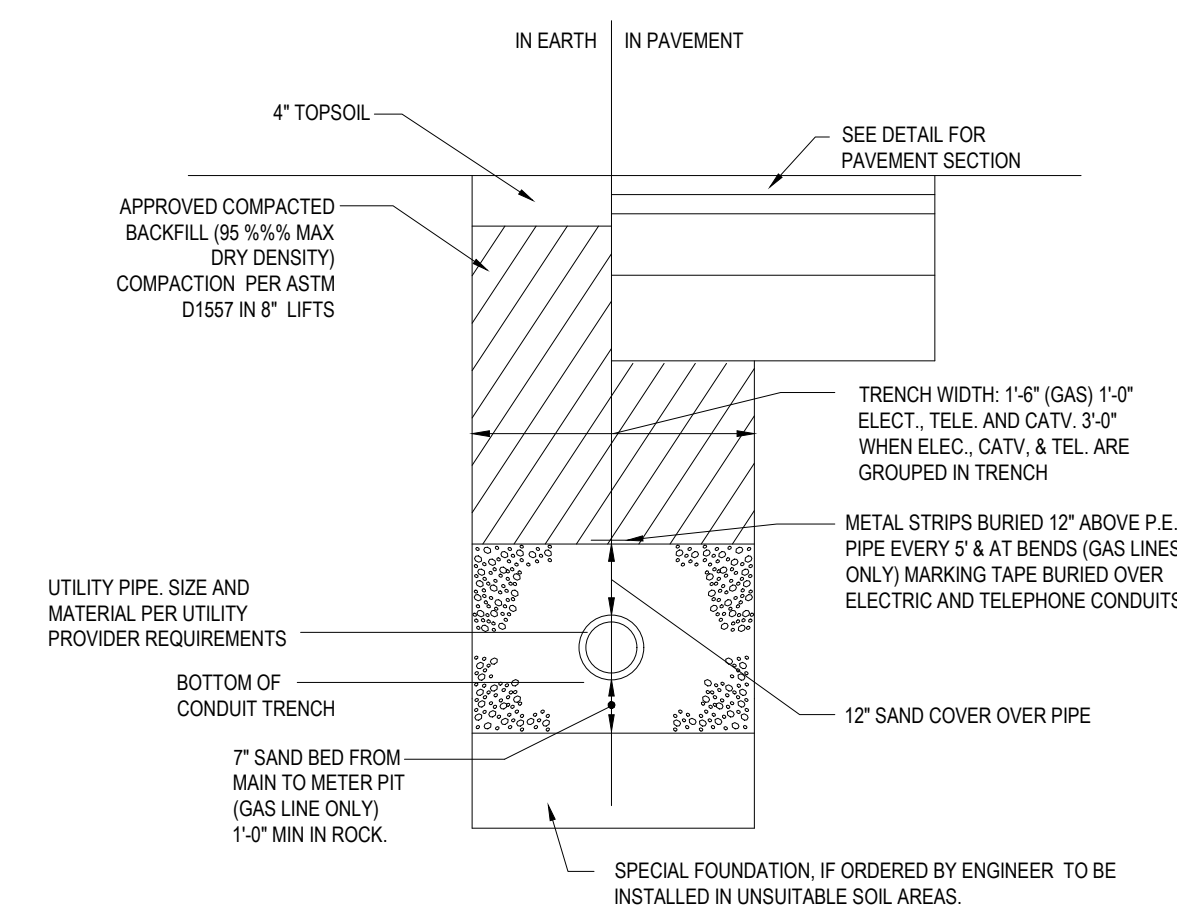
N.T.S.



ACCESS GRAVEL ROAD

N.T.S.

- NOTE: THE CONTRACTOR IS DIRECTED AND RESPONSIBLE TO SLOPE AND/OR SHIELD THE TRENCH EXCAVATION IN ACCORDANCE WITH ALL APPLICABLE OSHA REGULATIONS.



PRIMARY ELECTRICAL TRENCH DETAIL

N.T.S.

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY | DRAWN BY |
|-----|------------|------------------------------|------------|----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL | GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 DATE: 07/20/2023
 CAD ID: W201257-DET-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
 www.BohlerEngineering.com

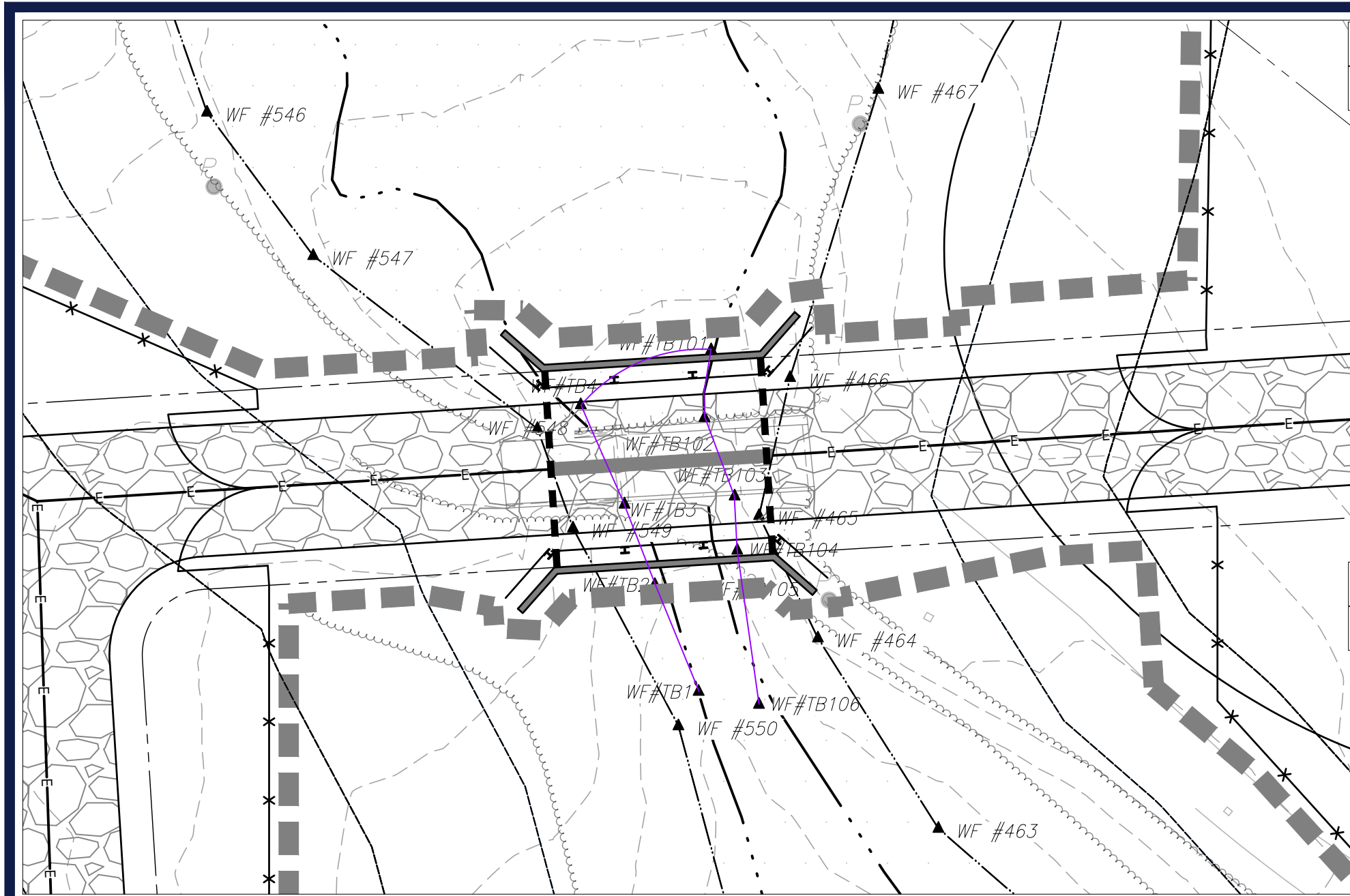
Professional Engineer
 No. 41530
 MAINE LICENSE No. 12553

SHEET TITLE:
DETAIL SHEET

SHEET NUMBER:
C-901

REVISION 1 - 10/04/2023

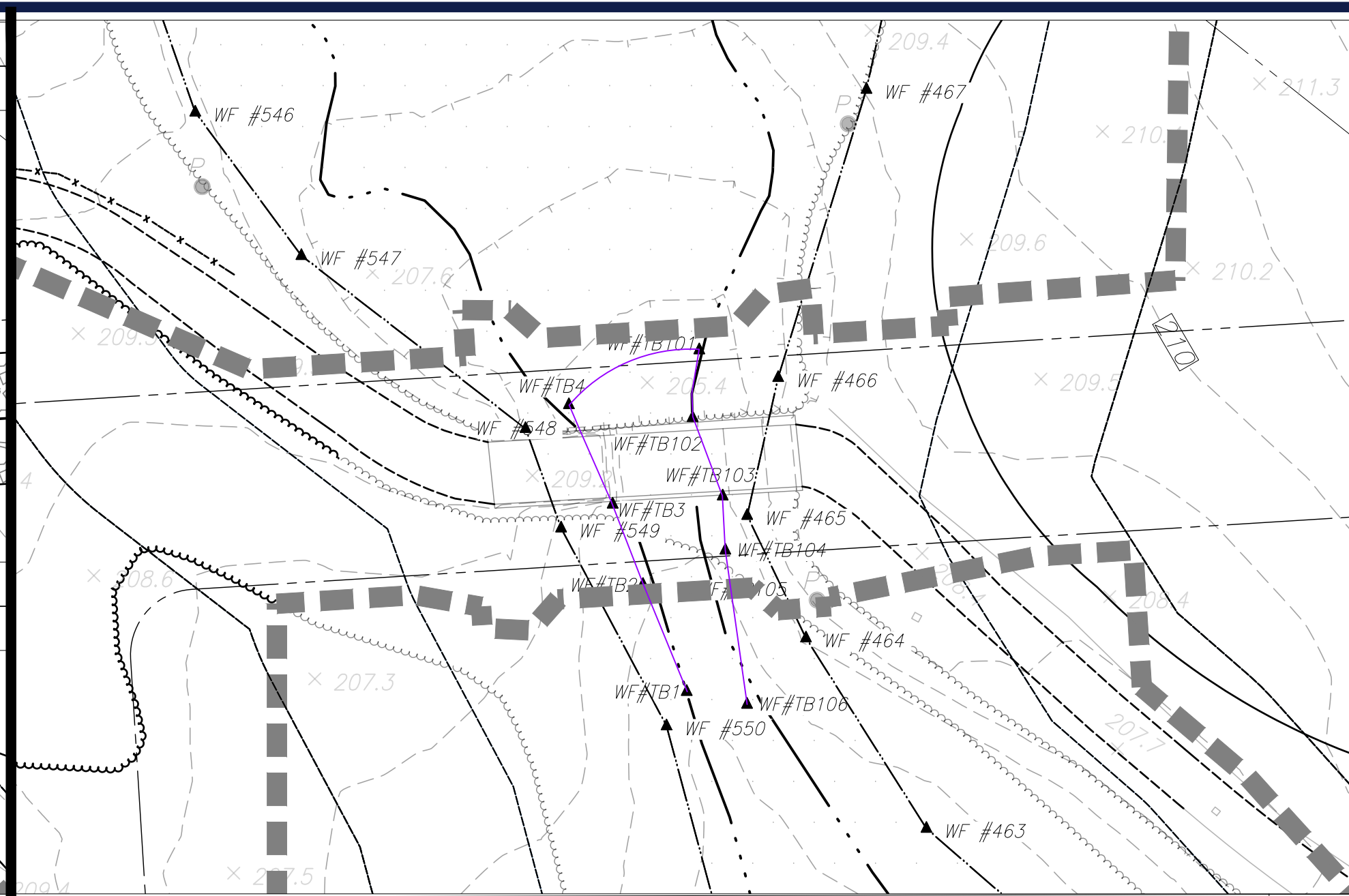
P:\010\2023\CADD\DRAWINGS\PLAN SET\CIVIL\W201257\DET-1B - LAYOUT C-901-DET1.dwg



PROPOSED STREAM CROSSING ENLARGED VIEW

SCALE: 1" = 20'

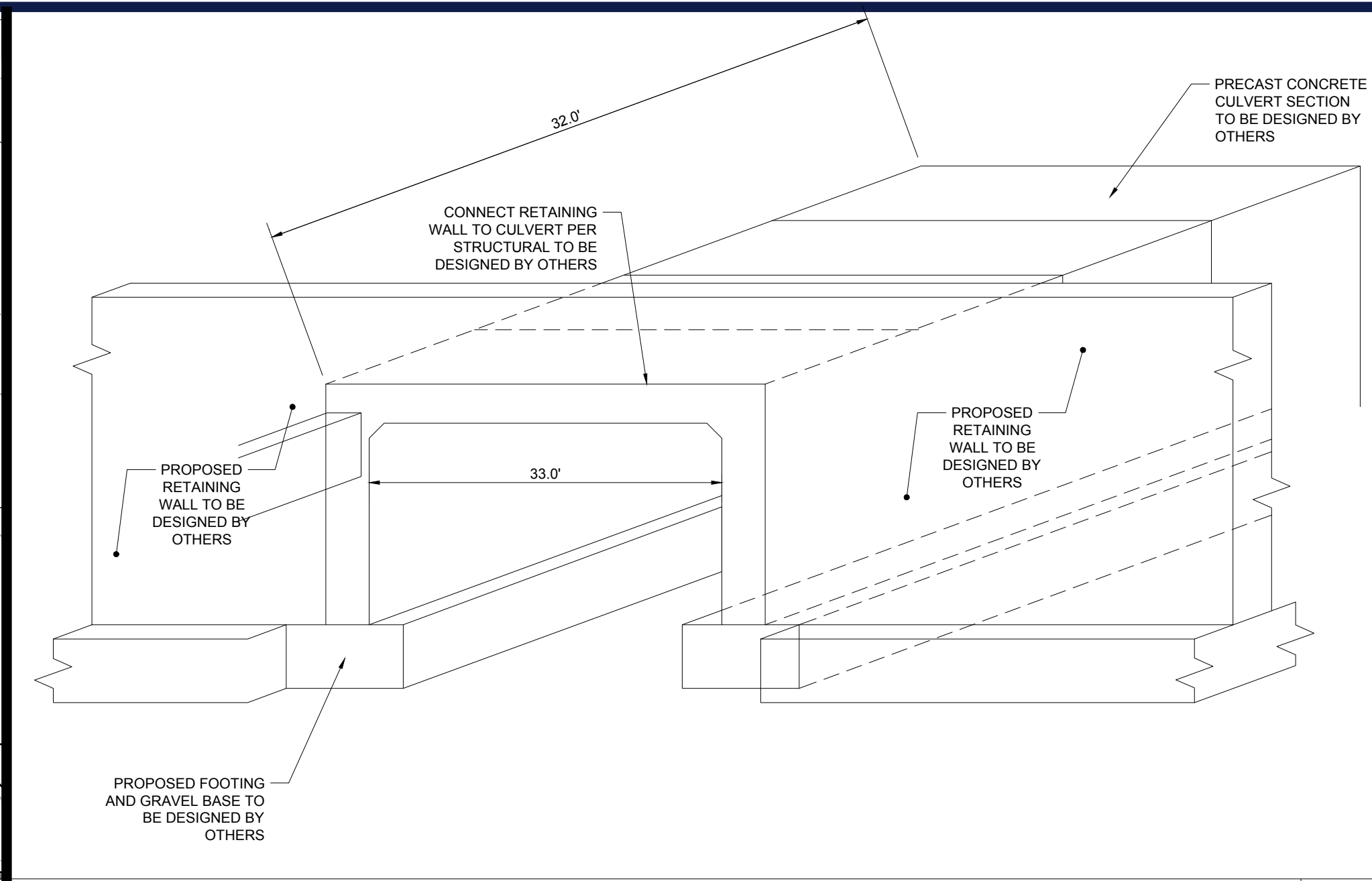
N.T.S.



EXISTING STREAM CROSSING ENLARGED VIEW

SCALE: 1" = 20'

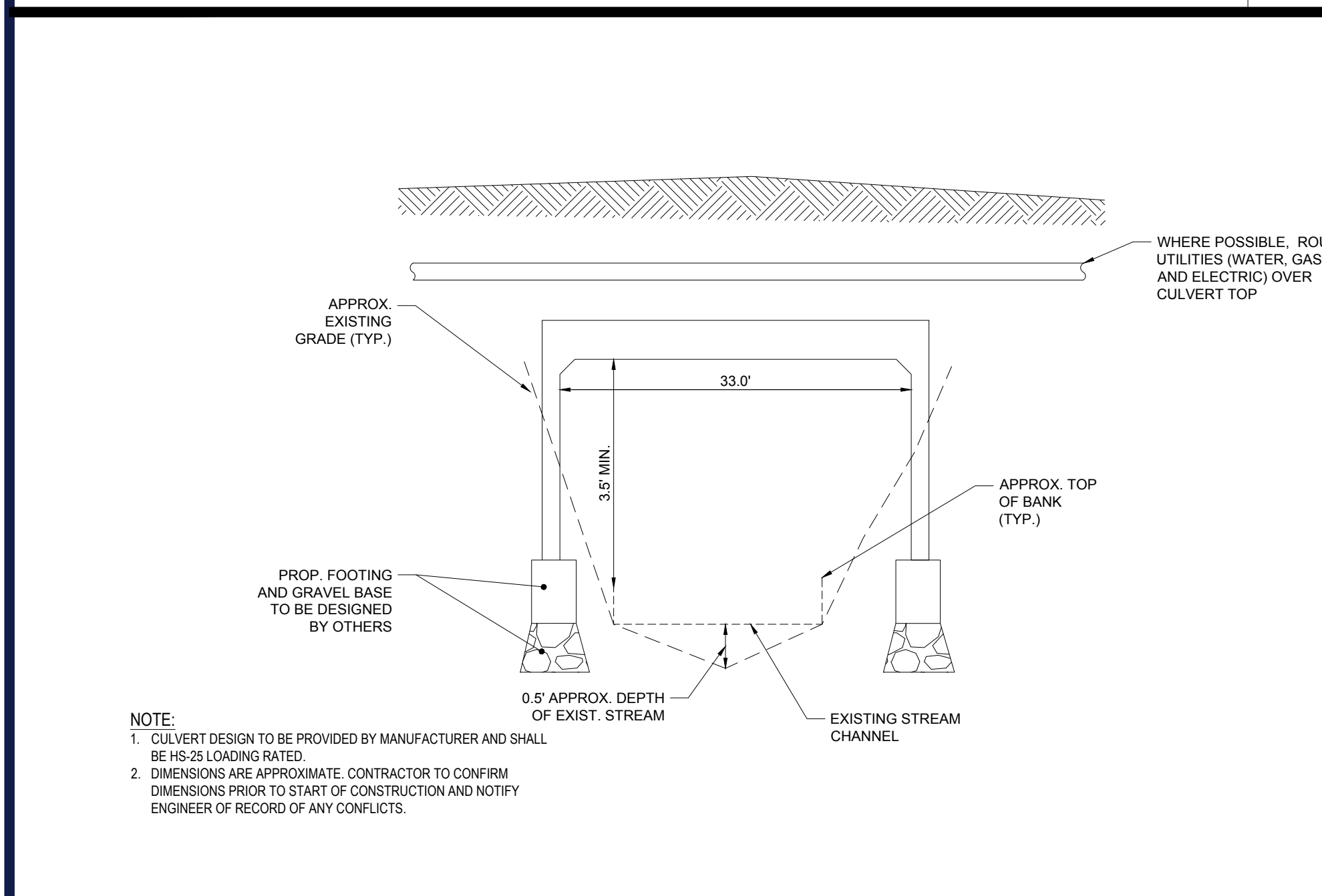
N.T.S.



TYPICAL PRECAST BOX CULVERT STREAM CROSSING

NOT TO SCALE

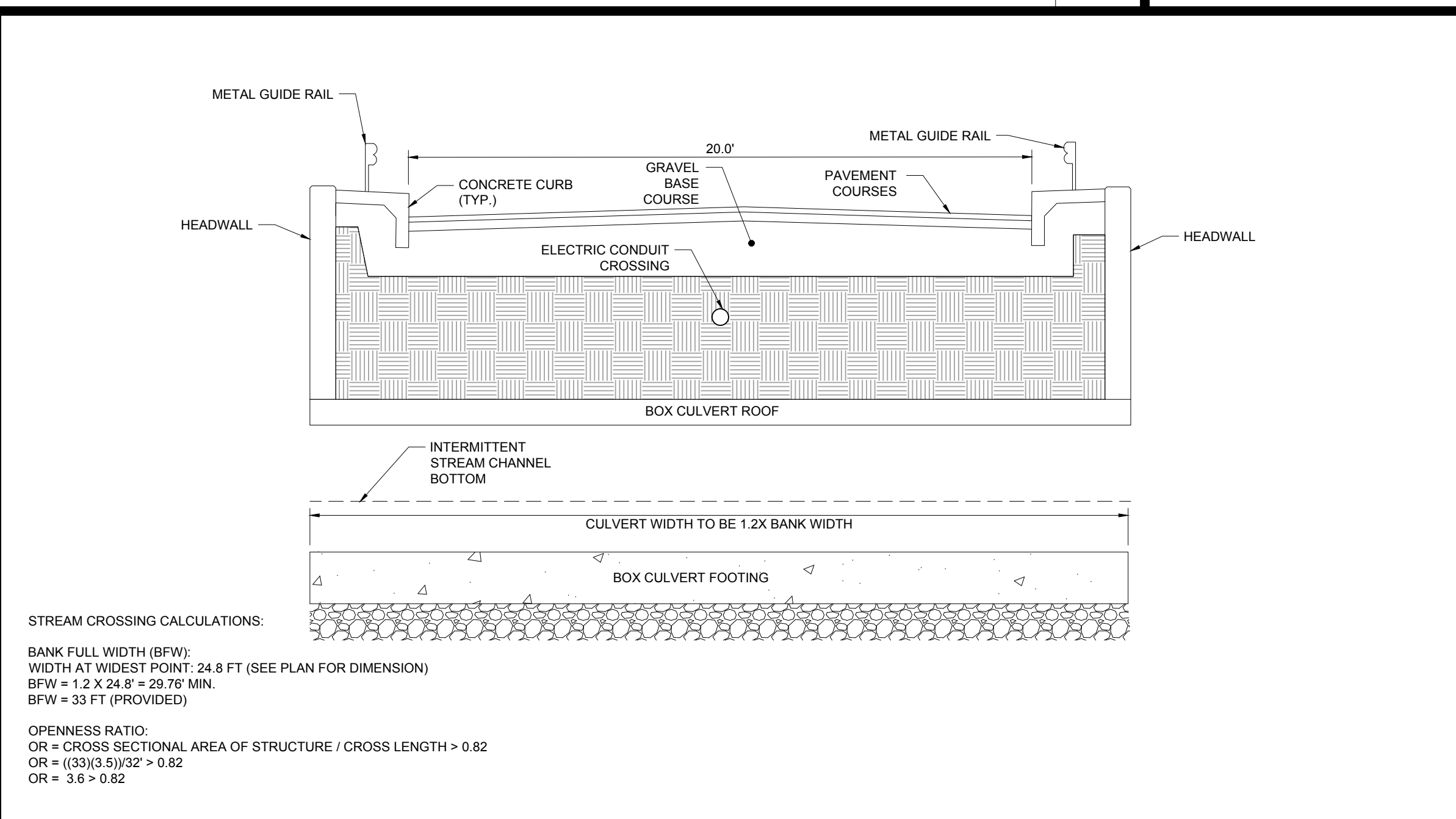
N.T.S.



TYPICAL PRECAST BOX CULVERT SECTION

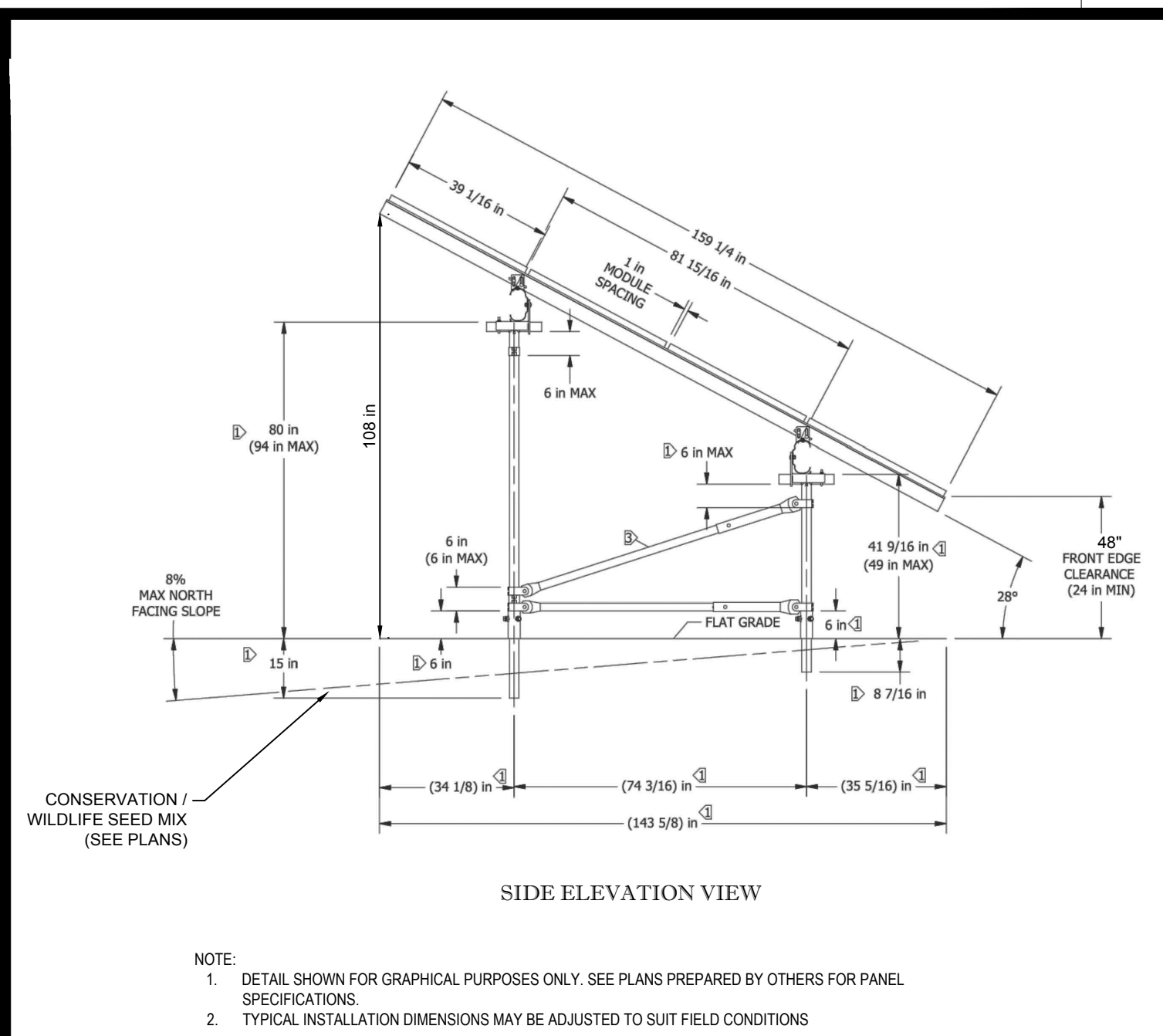
NOT TO SCALE

N.T.S.



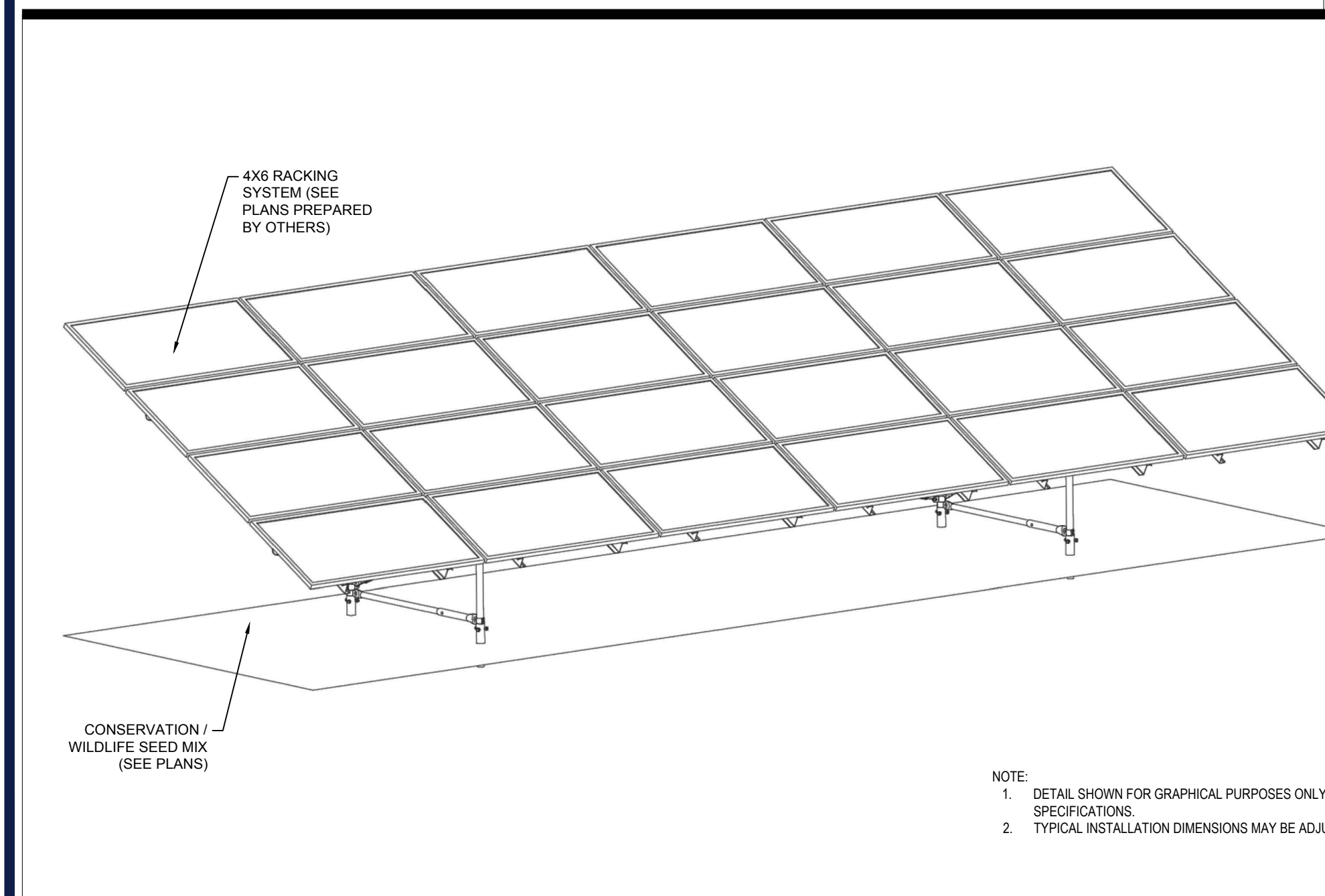
STREAM CROSSING DETAIL

N.T.S.



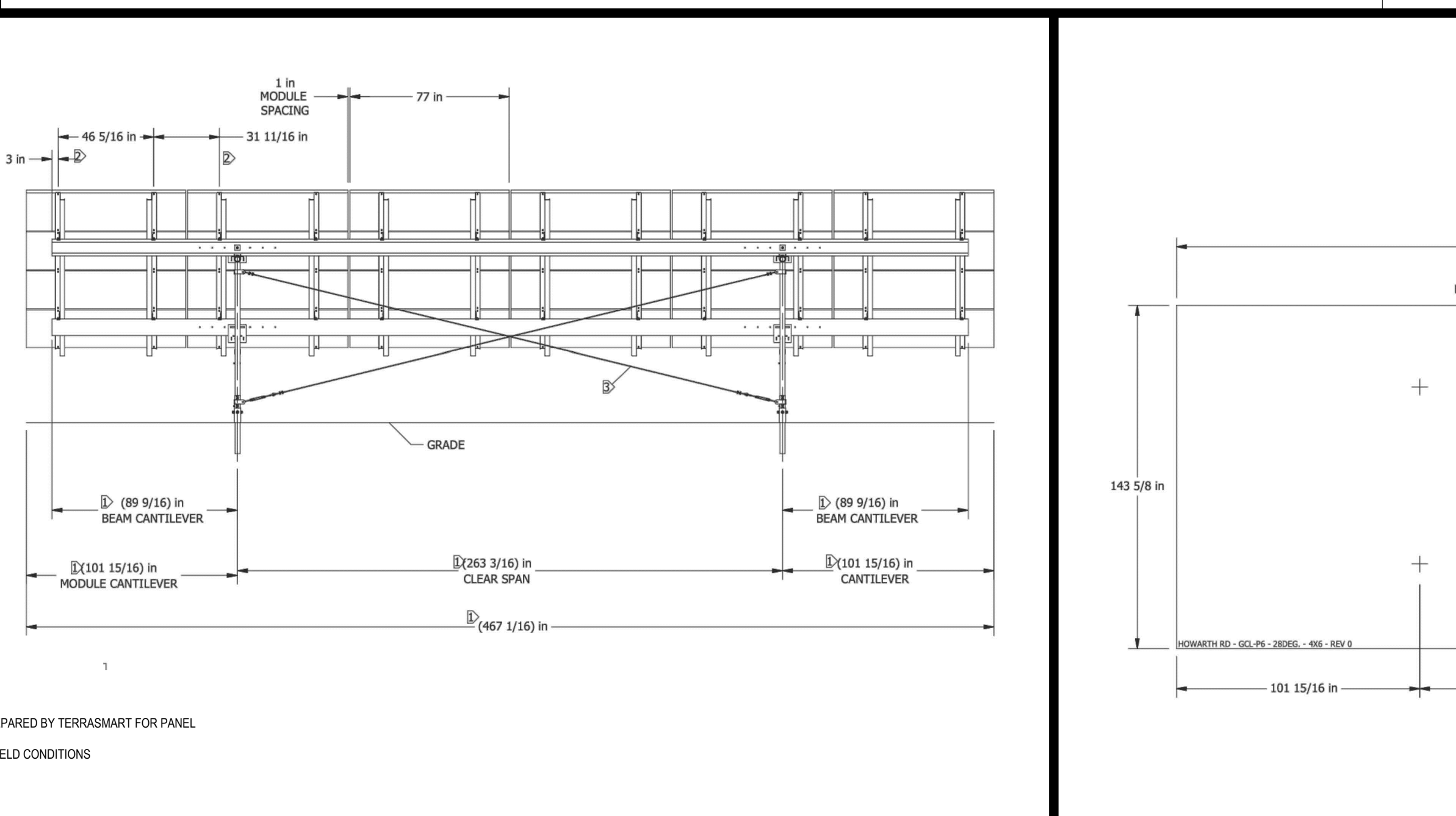
TYPICAL PANEL CROSS-SECTION DETAIL

N.T.S.



RACKING SYSTEM DETAIL

N.T.S.



PANEL LAYOUT DETAIL

N.T.S.

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|------------------------------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD L.D.: W201257-DET-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com

Professional Engineer
 No. 41530
 REGISTERED PROFESSIONAL ENGINEER
 MASSACHUSETTS
 LICENSE NO. 41530
 EXPIRES 12/31/2024

SHEET TITLE:
DETAIL SHEET

SHEET NUMBER:
C-902

REVISION 1 - 10/04/2023

P:\01\2023\CADD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\W201257\DET-1B-LAYOUT-C-902-DET1

REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|-------------|------------|
| 1 | 10/04/2023 | POLE LAYOUT | JDL GD |



Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID: W201257-DET-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



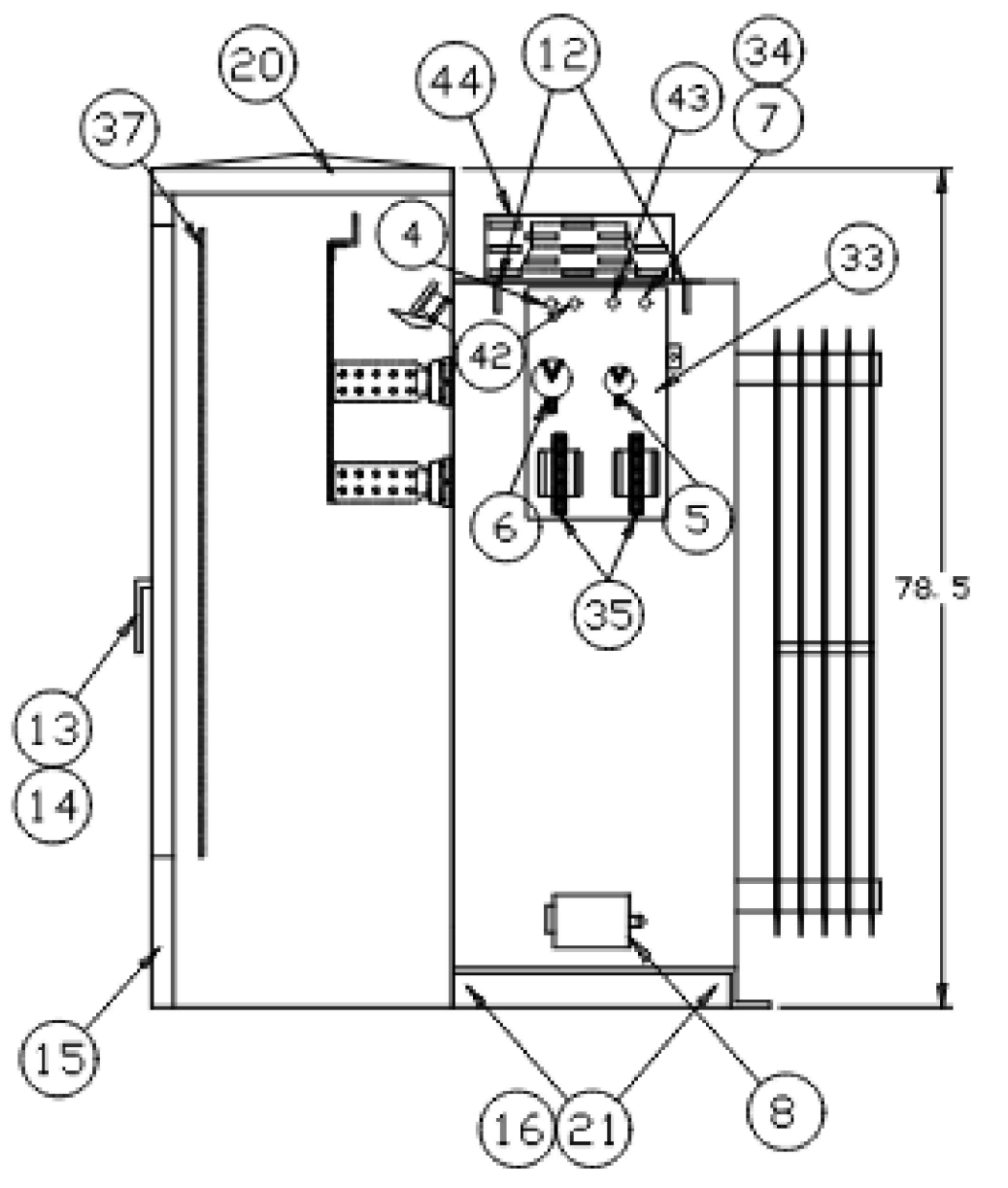
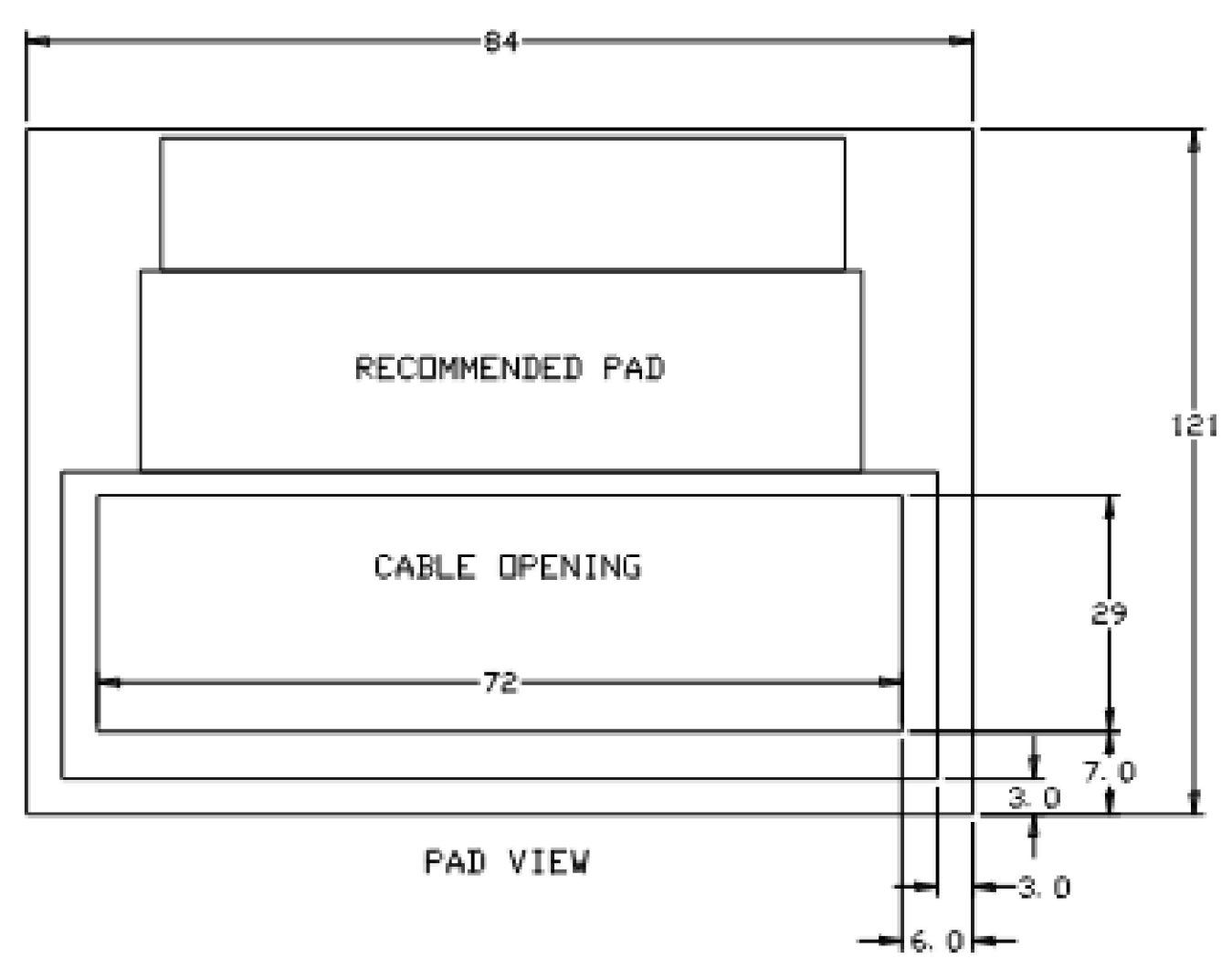
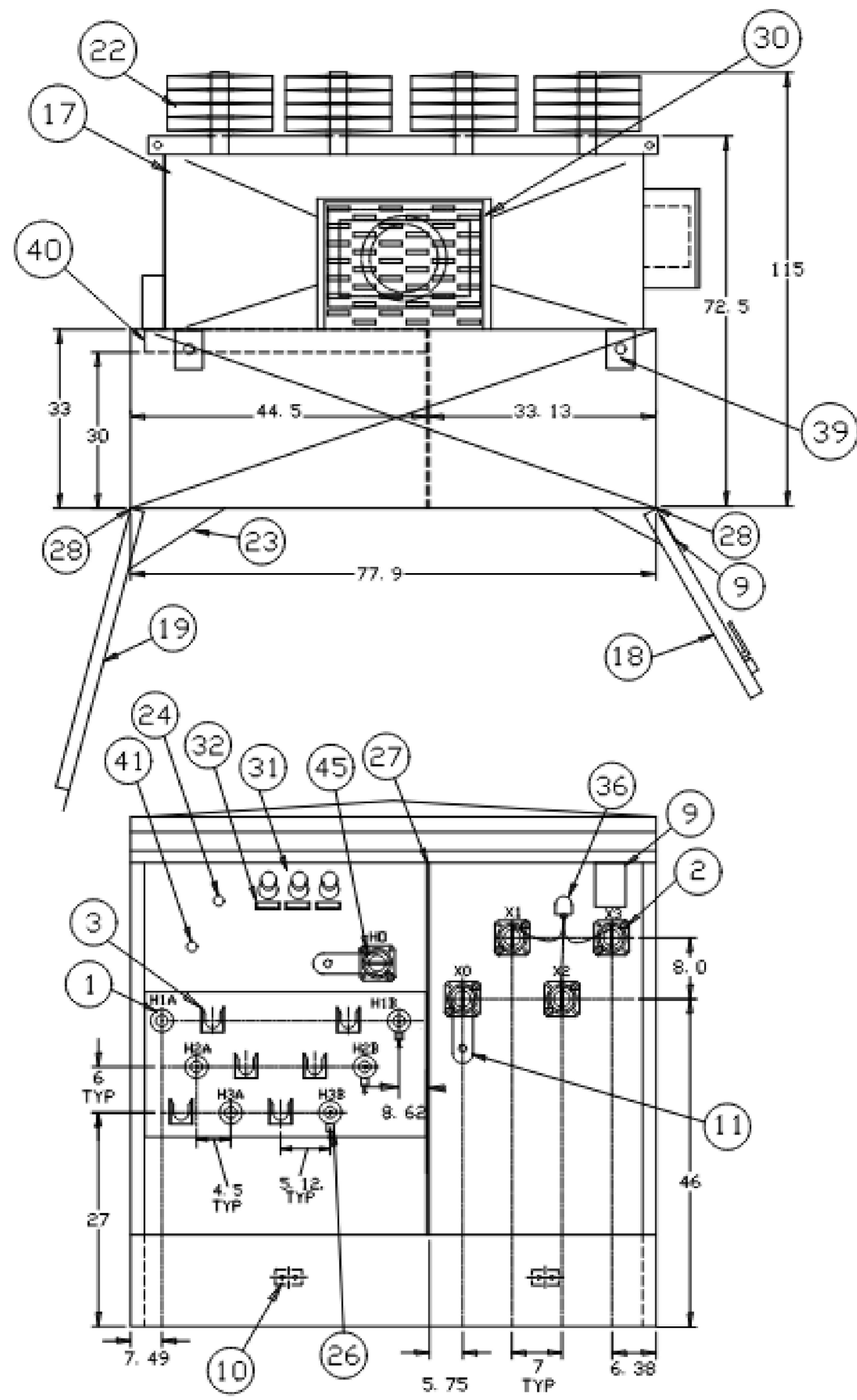
SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-903

REVISION 1 - 10/04/2023



THIS OUTLINE IS FOR ERECTION OR MOUNTING PURPOSES. IT IS NOT TO SCALE AND SHOULD NOT BE REGARDED AS INDICATING THE EXACT DETAILS OF CONSTRUCTION.

- 01 HIGH VOLTAGE BUSHING NON-LOADBREAK 600AMP 125KV BIL (EATON DB625B125)
- 02 LOW VOLTAGE INTEGRAL EPOXY BUSHING WITH 10 HOLE IEEE BRASS SPADE, SUPPORTED.
- 03 PARKING STAND
- 04 PRESSURE RELIEF VALVE (VIAT 302-060-01N)
- 05 LIQUID LEVEL GAUGE W/CONTACTS (2 SETS) VIAT
- 06 OIL TEMPERATURE GAUGE W/CONTACTS (2 SETS) QUALITROL
- 07 OIL FILL - 1"NPT
- 08 OIL DRAIN VALVE WITH SAMPLER IN PADLOCKABLE BOX
- 09 NAMEPLATES
- 10 2 HOLE SST. GROUND PADS
- 11 LV GROUND STRAP
- 12 LIFTING LUGS
- 13 PADLOCK FACILITY AND DOOR BOLT WITH PENTAHEAD BOLTS
- 14 LV DOOR HANDLE
- 15 REMOVEABLE FRONT LOWER SILL
- 16 BASE ARRANGEMENT FOR ROLLING IN 2 DIRECTIONS
- 17 TRANSFORMER TANK
- 18 LOW VOLTAGE COMPARTMENT DOOR
- 19 HIGH VOLTAGE COMPARTMENT DOOR
- 20 DOMED & RAISED AIR COMPARTMENT TOP
- 21 JACKING PROVISIONS
- 22 COOLING RADIATORS
- 23 DOOR HOLDING BARS IN 120° OPEN POSITION
- 24 TAPCHANGER 'B' TAPS +5%, +2.5%, -2.5%, -5%
- 25 200KV BIL 150 AMP SILVER PLATED (CAPT 099-04. 07. 31SRFM-AH)
- 26 DISTRIBUTION CLASS ELBOW ARRESTER 10KV 8.4 MCOV 25CL 600AMP (SHIPPED DETAIL ON PALLET) (T&B K655ESA-10)
- 27 HIGH-LOW BARRIER
- 28 STAINLESS STEEL HINGES
- 29 ALL BUSHINGS ARE EXTERNALLY CLAMPED
- 30 14"X24" HANDHOLE
- 31 BAYONET FUSEHOLDER W/FLAPPER VALVE AG PLATED BAYONET FUSE HI-AMP 125A (EATON 4038361C05CB)
- 32 PLASTIC DRIPSHIELD
- 33 PADLOCK-ABLE GAUGE BOX
- 34 PRESSURE VACUUM GAUGE WITH SCHRADER VALVE (VIAT 131)
- 35 TERMINAL BLOCKS FOR CONTACT TERMINATION 2-18 TERMINAL
- 36 SECONDARY ARRESTER 400MCOV (EATON ASZH480C301)
- 37 LEXAN LOW VOLTAGE FRONT BARRIER
- 38 PARTIAL RANGE CURRENT LIMITING FUSES 8.3KV 150A HITECH 2X(HTSS232150)
- 39 HOLD-DOWN BRACKETS WITH HOLES.
- 40 3" HIGH VOLTAGE BUSHING BOX
- 41 2-POSITION LOAD-BREAK SWITCH (C.M. 703436-60)
- 42 GEM PRESSURE SWITCH FACTORY SET TO +7PSI
- 43 GEM VACUUM SWITCH FACTORY SET TO -5PSI
- 44 COVER MOUNTED PRD 10PSI
- 45 PORCELAIN 'HD' BUSHING WITH GROUND STRAP SHIPPED WITH NITROGEN BLANKET.

2000/2240 KVA
 12470GrdY/7200
 600Y/347

* PER IEEE, LV LEXAN/FIBERGLASS BARRIER REQUIRED, @ IS INCLUDED

2000kVA 12470Y TRANSFORMER DETAILS

N.T.S.

Three-Phase Transformers
CA202003EN
Effective April 2016
Supersedes 210-12 July 2015

COOPER POWER SERIES

Three-phase pad-mounted compartmental type transformer



General

At Eaton, we are constantly striving to introduce new innovations to the transformer industry, bringing you the highest quality, most reliable transformers. Eaton's Cooper Power series Transformer Products are ISO 9001 compliant, emphasizing process improvement in all phases of design, manufacture, and testing. In order to drive this innovation, we have invested both time and money in the Thomas A. Edison Technical Center, our premier research facility in Franksville, Wisconsin. Such revolutionary products as distribution-class UltraSIL™ Polymer-Housed Evolution™ surge arresters and Envirotemp™ FR3™ fluid have been developed at our Franksville lab.

With transformer sizes ranging from 45 kVA to 12 MVA and high voltages ranging from 2400 V to 46 kV, Eaton has you covered. From fabrication of the tanks and cabinets to winding of the cores and coils, to production of arresters, switches, tap changers, expulsion fuses, current limit fuses, bushings (live and dead) and molded rubber goods, Eaton does it all. Eaton's Cooper Power series transformers are available with electrical grade mineral oil or Envirotemp™ FR3™ fluid, a less-flammable and bio-degradable fluid. Electrical codes recognize the advantages of using Envirotemp™ FR3™ fluid both indoors and outdoors for fire sensitive applications. The bio-based fluid meets Occupational Safety and Health Administration (OSHA) and Section 450.23 NEC Requirements.



Catalog Data CA202003EN
Effective April 2016

Three-phase pad-mounted compartmental type transformer

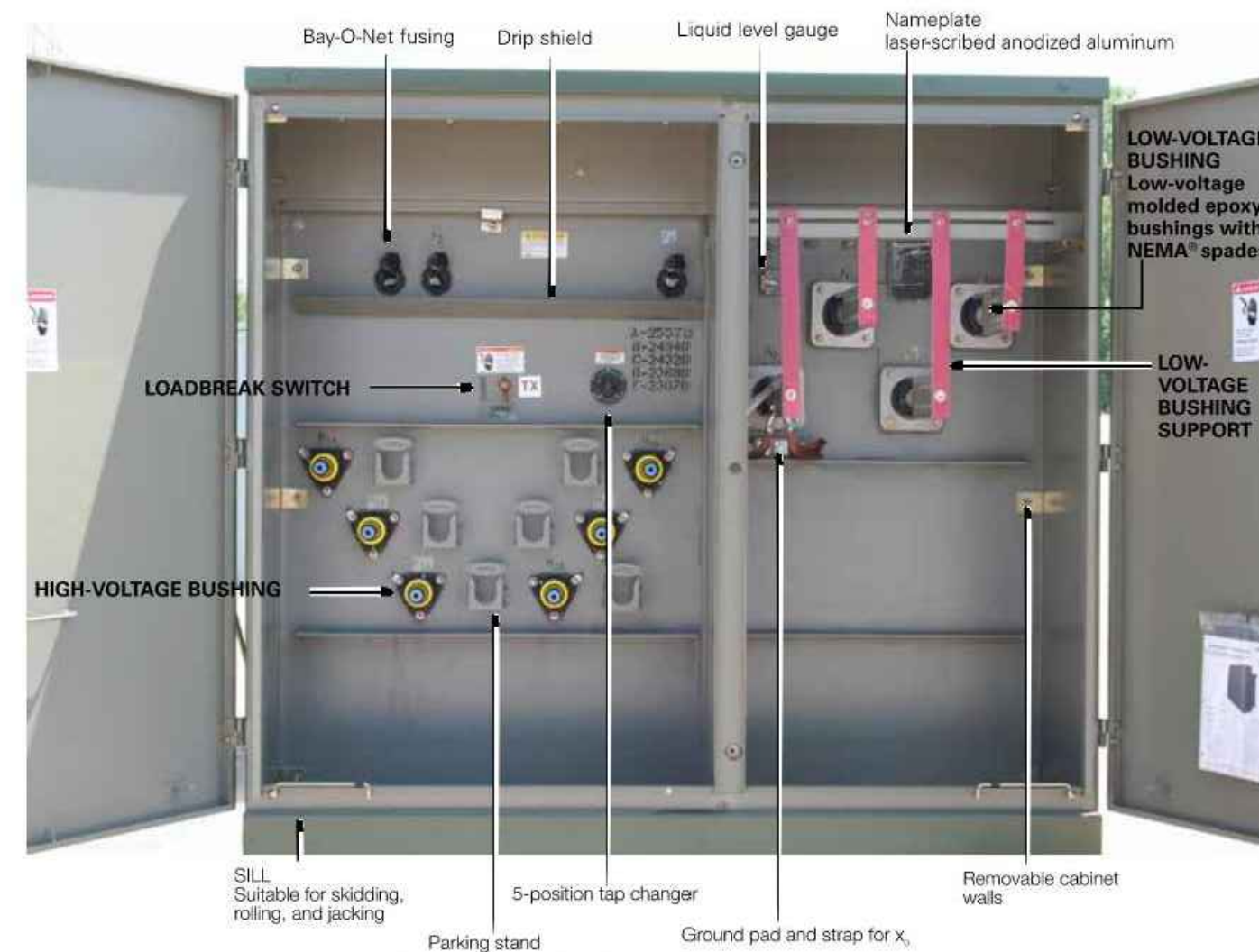


Figure 1. Three-phase pad-mounted compartmental type transformer.

Table 1. Product Scope

| | |
|---------------------------|---|
| Type | Three Phase, 50 or 60 Hz, 65 C Rise 155 C, 55/65 C, 65/75 C, 75 C |
| Fluid Type | Mineral oil or Envirotemp™ FR3™ fluid |
| Coil Configuration | 2-winding or 4-winding or 3-winding (Low-Low-Low, 3-winding (Low-Low-High)) |
| Size | 45 – 10,000 kVA |
| Primary Voltage | 2,400 – 48,000 V |
| Secondary Voltage | 208Y/120 V to 14,400 V |
| Specialty Designs | Inverter/Rectifier Bridge K-Factor (up to K-15) Vacuum Fault Interrupter (VFI) UL® Listed & Labeled and Classified Factory Mutual (FM) Approved® Solar/Wind Designs Differential Protection Seismic Applications (including OSHPO) Hardened Data Center |

2 www.eaton.com/cooperpowerseries

Three-phase pad-mounted compartmental type transformer

Catalog Data CA202003EN
Effective April 2016

Table 2. Three-Phase Ratings

| Three-Phase 50 or 60 Hz |
|---|
| kVA Available |
| 45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000, 7500, 10000 |

Transformers are available in the standard ratings and configurations shown or can be customized to meet specific needs.

Table 3. Impedance Voltage

| Rating (kVA) | Low-voltage rating ≤ 4800 V | 2400 Δ through 4800 Δ | 6900 Δ through 13800GV/7970 or 13800 Δ |
|--------------|--------------------------------|-----------------------|--|
| 45-75 | 2.75-5.75 | 2.75-5.75 | 2.75-5.75 |
| 112.5-300 | 3.10-5.75 | 3.10-5.75 | 3.10-5.75 |
| 500 | 4.35-5.75 | 4.35-5.75 | 4.35-5.75 |
| 750-2500 | 5.75 | 5.75 | 5.75 |
| 3750 | 5.75 | 5.75 | 6.00 |
| 5000 | 6.00 | 6.00 | 6.50 |

Note: The standard tolerance is ± 75%.

Table 4. Audible Sound Levels

| Self-Cooled, Two Winding kVA Rating | NEMA® TR-1 Average Decibels (dB) |
|-------------------------------------|-------------------------------------|
| 45-500 | 56 |
| 501-700 | 57 |
| 701-1000 | 58 |
| 1001-1500 | 60 |
| 1501-2000 | 61 |
| 2001-2500 | 62 |
| 2501-3000 | 63 |
| 3001-4000 | 64 |
| 4001-5000 | 65 |
| 5001-6000 | 66 |
| 6001-7500 | 67 |
| 7501-10000 | 68 |

Table 5. Insulation Test Levels

| kV Class | Induced Test 180 or 400 Hz 7200 Cycles | kV BIL Distribution | Applied Test 60 Hz (kV) |
|----------|---|---------------------|-------------------------|
| 1.2 | | 30 | 10 |
| 2.5 | | 45 | 15 |
| 5 | | 60 | 19 |
| 8.7 | Twice Rated Voltage | 75 | 26 |
| 15 | | 95 | 34 |
| 25 | | 125 | 40 |
| 34.5 | | 150 | 50 |

Table 6. Temperature Rise Ratings 0-3300 Feet (0-1000 meters)

| Unit Rating (Temperature Rise Winding) | Standard | | Optional |
|--|----------|---------------------|----------|
| | 65 C | 55 C, 55/65 C, 75 C | 50 C |
| Ambient Temperature Max | 40 C | 50 C | |
| Ambient Temperature 24 Hour Average | 30 C | 40 C | |
| Temperature Rise Hotspot | 80 C | 65 C | |

www.eaton.com/cooperpowerseries 3

Catalog Data CA202003EN
Effective April 2016

Three-phase pad-mounted compartmental type transformer

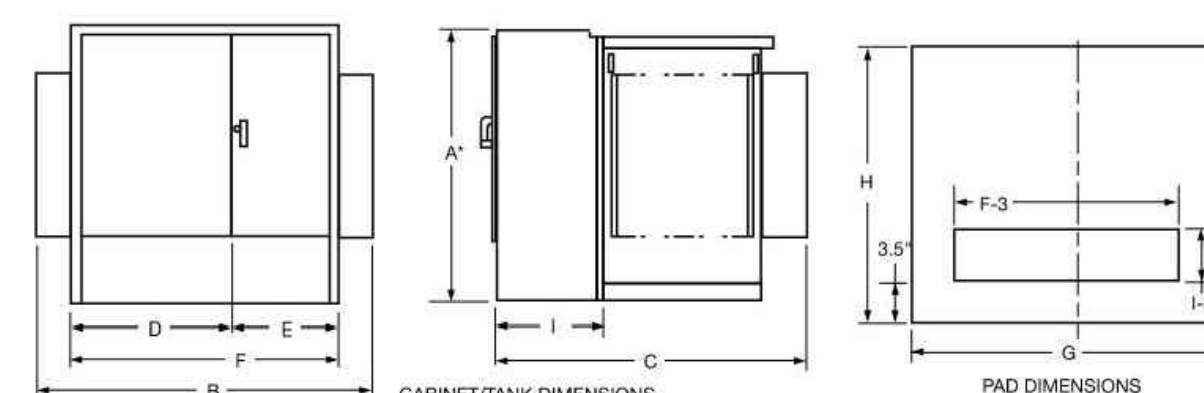


Figure 2. Transformer and pad dimensions.

* Add 9" for Bay-O-Net fusing.

Table 7. Fluid-filled – aluminum windings 55/65 °C Rise¹

| kVA Rating | OUTLINE DIMENSIONS (in.) | | | | | | | | | Gallons of Fluid | Approx. Total Weight (lbs.) |
|------------|--------------------------|-----|-----|----|----|-----|-----|-----|----|------------------|-----------------------------|
| | A* | B | C | D | E | F | G | H | I | | |
| 45 | 50 | 68 | 39 | 42 | 26 | 68 | 72 | 43 | 20 | 110 | 2,100 |
| 75 | 50 | 68 | 39 | 42 | 26 | 68 | 72 | 43 | 20 | 115 | 2,250 |
| 112.5 | 50 | 68 | 48 | 42 | 26 | 68 | 72 | 53 | 20 | 120 | 2,350 |
| 150 | 50 | 68 | 48 | 42 | 26 | 68 | 72 | 53 | 20 | 125 | 2,700 |
| 225 | 50 | 72 | 51 | 42 | 30 | 72 | 78 | 55 | 20 | 140 | 3,150 |
| 300 | 50 | 72 | 51 | 42 | 30 | 72 | 78 | 55 | 20 | 160 | 3,650 |
| 500 | 50 | 85 | 53 | 42 | 30 | 72 | 83 | 57 | 20 | 190 | 4,650 |
| 750 | 64 | 89 | 57 | 42 | 30 | 72 | 93 | 61 | 20 | 270 | 6,500 |
| 1000 | 64 | 89 | 59 | 42 | 30 | 72 | 93 | 61 | 20 | 320 | 8,200 |
| 1500 | 73 | 89 | 86 | 42 | 30 | 72 | 93 | 90 | 24 | 410 | 10,300 |
| 2000 | 73 | 72 | 87 | 42 | 30 | 72 | 78 | 91 | 24 | 480 | 12,500 |
| 2500 | 73 | 72 | 99 | 42 | 30 | 72 | 78 | 103 | 24 | 530 | 14,500 |
| 3000 | 73 | 84 | 99 | 46 | 37 | 84 | 88 | 103 | 24 | 620 | 16,700 |
| 3750 | 84 | 85 | 108 | 47 | 38 | 85 | 88 | 112 | 24 | 660 | 19,300 |
| 5000 | 84 | 96 | 108 | 48 | 48 | 96 | 100 | 112 | 24 | 830 | 25,000 |
| 7500 | 94 | 122 | 122 | 54 | 48 | 102 | 100 | 126 | 24 | 1,580 | 41,500 |

¹ Weights, gallons of fluid, and dimensions are for reference only and not for construction. Please contact Eaton for exact dimensions.

* Add 9" for Bay-O-Net fusing.

Table 8. Fluid-filled – Copper Windings 55/65 °C Rise¹

| kVA Rating | OUTLINE DIMENSIONS (in.) | | | | | | | | | Gallons of Fluid | Approx. Total Weight (lbs.) |
|------------|--------------------------|-----|-----|----|----|-----|-----|-----|----|------------------|-----------------------------|
| | A* | B | C | D | E | F | G | H | I | | |
| 45 | 50 | 64 | 39 | 34 | 30 | 64 | 69 | 43 | 20 | 110 | 2,100 |
| 75 | 50 | 64 | 39 | 34 | 30 | 64 | 69 | 43 | 20 | 115 | 2,250 |
| 112.5 | 50 | 64 | 49 | 34 | 30 | 64 | 69 | 53 | 20 | 115 | 2,500 |
| 150 | 50 | 64 | 49 | 34 | 30 | 64 | 69 | 53 | 20 | 120 | 2,700 |
| 225 | 50 | 64 | 51 | 34 | 30 | 64 | 75 | 55 | 20 | 140 | 3,250 |
| 300 | 50 | 64 | 51 | 34 | 30 | 64 | 75 | 55 | 20 | 160 | 3,650 |
| 500 | 50 | 81 | 53 | 34 | 30 | 64 | 85 | 57 | 20 | 200 | 4,800 |
| 750 | 64 | 89 | 57 | 42 | 30 | 72 | 93 | 61 | 20 | 255 | 6,500 |
| 1000 | 64 | 89 | 59 | 42 | 30 | 72 | 93 | 63 | 20 | 300 | 7,800 |
| 1500 | 73 | 89 | 86 | 42 | 30 | 72 | 93 | 90 | 24 | 410 | 10,300 |
| 2000 | 73 | 72 | 87 | 42 | 30 | 72 | 78 | 91 | 24 | 420 | 11,600 |
| 2500 | 73 | 72 | 99 | 42 | 30 | 72 | 78 | 103 | 24 | 500 | 14,000 |
| 3000 | 73 | 84 | 99 | 46 | 37 | 84 | 88 | 103 | 24 | 575 | 16,700 |
| 3750 | 84 | 85 | 108 | 47 | 38 | 85 | 88 | 112 | 24 | 620 | 20,500 |
| 5000 | 84 | 96 | 108 | 48 | 48 | 96 | 100 | 112 | 24 | 850 | 25,000 |
| 7500 | 94 | 102 | 122 | 54 | 48 | 102 | 100 | 126 | 24 | 1,620 | 46,800 |

¹ Weights, gallons of fluid, and dimensions are for reference only and not for construction. Please contact Eaton for exact dimensions.

* Add 9" for Bay-O-Net fusing.

4 www.eaton.com/cooperpowerseries

THREE-PHASE PAD-MOUNTED COMPARTMENTAL TYPE TRANSFORMER



REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|------------------------------|------------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |



Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID.: W201257-DET-1B

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS



352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-904

REVISION 1 - 10/04/2023

N.T.S.

AstroTwins™

Enjoy the Energy of the Universe

400W~415W

P-type Monocrystalline PV Module
CHSM72M(DG)/F-BH Series (158.75)

CHSM72M(DG)/F-BH is bifacial module with white glazed glass



12-year Warranty for Materials and Processing
30-year Warranty for Extra Linear Power Output
(1st year 4.20%, 2nd-30th years 4.0-4.5% / year)

98.00%
84.95%

KEY FEATURES

- 5W OUTPUT POSITIVE TOLERANCE**
Guaranteed 0~+5W positive tolerance ensures power output reliability.
- EXCELLENT WEATHER RESISTANCE**
Reduces the cell micro-crack and extended product warranty.
- BIFACIAL POWER**
The backside makes use of the reflected and scattered light from the surroundings, the modules can yield up to 5%~30% power more, depending on the albedo.
- REDUCE INTERNAL MISMATCH LOSS**
Reduces mismatch loss and improves output.
- APPLICABLE FOR MULTI DIFFERENT ENVIRONMENTS**
The wide range of applications, such as BIPV, vertical installation, snow area, high humidity area and strong sandstorm area, etc.
- SNAIL TRAIL RESISTANCE**
Reduces the probability of snail trails with zero water vapor transmittance.

COMPREHENSIVE CERTIFICATES



First solar company which passed the TÜV Nord IEC TS 62941 certification audit.

For Global Market

ASTROENERGY
A CHINT COMPANY

ELECTRICAL SPECIFICATIONS

| Power rating (front) | 400 Wp | 405 Wp | 410 Wp | 415 Wp |
|---|---------------------|--------|--------|--------|
| Testing Condition | Front | Back | Front | Back |
| STC rated output (P _{max} Wp)* | 400 | 282 | 405 | 285 |
| Rated voltage (V _{MPP}) at STC | 40.67 | 40.88 | 40.89 | 41.10 |
| Rated current (I _{MPP}) at STC | 9.84 | 6.99 | 9.91 | 6.94 |
| Open circuit voltage (V _{OC}) at STC | 48.24 | 48.82 | 48.42 | 48.90 |
| Short circuit current (I _{SC}) at STC | 10.30 | 7.22 | 10.38 | 7.28 |
| Module efficiency | 19.4% | 13.7% | 19.7% | 13.8% |
| Temperature coefficient (P _{max}) | -0.35%/°C | | | |
| Temperature coefficient (V _{OC}) | +0.56%/°C | | | |
| Temperature coefficient (I _{SC}) | -0.28%/°C | | | |
| Nominal module operating temperature (NMOT) | 44±2°C | | | |
| Maximum system voltage (ECLUL) | 1500V _{DC} | | | |
| Number of diodes | 3 | | | |
| Junction box IP rating | IP 68 | | | |
| Maximum series fuse rating | 20 A | | | |

STC: irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

ELECTRICAL SPECIFICATIONS (integrated power)

| P _{max} gain | P _{max} | V _{MPP} | I _{MPP} | V _{OC} | I _{SC} |
|-----------------------|------------------|------------------|------------------|-----------------|-----------------|
| 5% | 431 Wp | 41.10 V | 10.47 A | 48.60 V | 10.98 A |
| 10% | 451 Wp | 41.10 V | 10.97 A | 48.60 V | 11.51 A |
| 15% | 472 Wp | 41.00 V | 11.55 A | 48.70 V | 12.03 A |
| 20% | 492 Wp | 41.00 V | 12.00 A | 48.70 V | 12.55 A |
| 25% | 513 Wp | 41.00 V | 12.50 A | 48.70 V | 13.08 A |

Electrical characteristics with different rear power gain (reference to 410W)

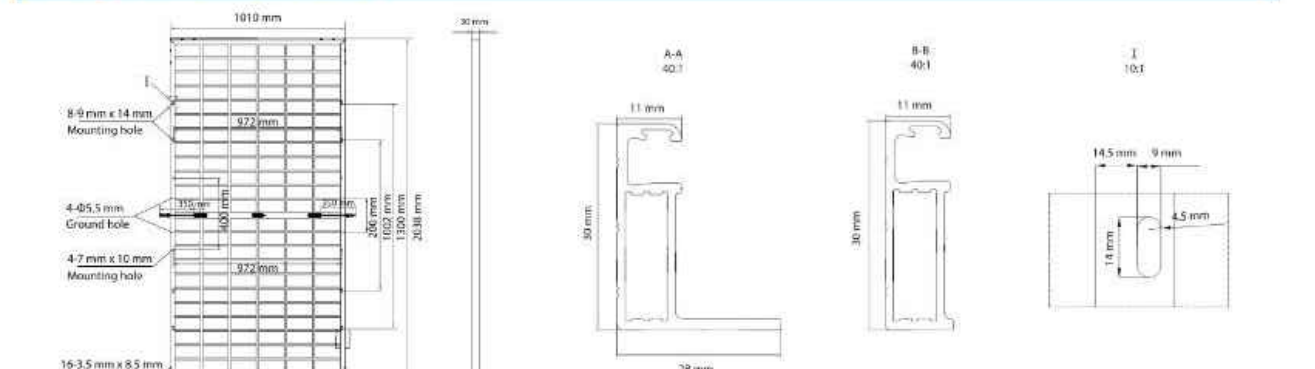
MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H) 2038 x 1010 x 30 mm
Frame technology Aluminum, silver anodized
Glass thickness 2.0 mm
Cable length (ECLUL) Portrait: 350 mm
Cable diameter (ECLAL) Landscape: 1200 mm
Maximum mechanical test load 5400 Pa (front) / 2400 Pa (back)
Connector type (ECLAL) MC4 compatible

PACKING SPECIFICATIONS

Weight (module only) 26.3 kg
Packing unit 36 pcs / box
Weight of packing unit (for 40 HQ container) 994 kg
Number of modules per 40HQ container 792 pcs
Tolerance ±1.5kg
Subject to sales contract

MODULE DIMENSION DETAILS



© Chint Solar (Zhejiang) Co., Ltd. Reserves the right of final interpretation; please contact our company to use the latest version for contact.
http://energy.chint.com Astroenergy 05-2020

CONNECTPV

Simplifying Solar PV

1500V Disconnect Combiners

CONNECTPV Disconnect Combiner products are based on a core product architecture optimized for commercial and utility scale solar projects, simplifying design and specification. Options and accessories allow the designer to optimize the products for each project - reducing installation labor costs.

CONNECTPV products incorporate "best-in-class" components combined with rugged mechanical designs to maximize reliability over the projected life of the project.

Compatible with grounded systems - negatively or positively grounded with fuses on the ungrounded string input conductors, or ungrounded systems with fuses on both string input conductors.

Standard Product Features

- 250A, 320A, and 400A UL98B Certified Manual Disconnects
- Lock-Out/Tag-Out on Disconnect Handle
- 8-32 Fused Inputs, #14-#6 AWG Wire Range
- Touch Safe Fuse-holders
- 15A Fuse Typical, 30A Maximum - user specified
- M10 or M12 Studs provided for single or double hole lugs
- Accommodates 90C Cu/Al Mechanical or Compression Lugs
- Internal Safety Cover over all live components
- NEMA 3R, 4, and 4X Enclosures
- Padlock Latch for Door
- Unique Serial number per unit
- Labeling to meet NEC Requirements
- 5 Year Warranty

Product Options

- Class 2 40kA Surge Protective Device
- Mechanical Lugs installed or Compression Lugs included
- Breather Vents for High Humidity Locations
- H4 or MC4 Bulkhead or Whip Connectors installed
- Upsized Enclosures for Larger Output Wires
- Mounting Brackets installed
- Extended Warranty



ISO 9001:2000 Certified Manufacturing
UL LISTED
MADE IN U.S.A.

Contact Toll Free: (844)-246-6140
Local: (858) 246-6140
www.connectpv.com
sales@connectpv.com
San Diego, CA
CBX15 Rev. 3.0

CONNECTPV

Simplifying Solar PV

ConnectPV reduces electrical BOS project costs by simplifying:

Configuration

Design Engineers easily configure our products to meet the project's requirements - Simplifying design and specification

Installation

Field installers quickly install our products because they provide ample wiring room - Reducing installation time and labor cost

Regulation

AHJ Inspectors quickly review and approve our products because we have designed for 100% compliance with the NEC and UL Standards - Reducing project inspection and approval time

Operation

O&M Personnel reduce field service time because our products use high quality component and are designed for a 20 year life expectancy - Maximizing system revenue generation

| Typical Input Characteristics | | Grounded Systems | | Floating Systems | |
|-------------------------------|------------------------------|------------------|-------------|------------------------|-----------------------------|
| Input Circuits | Standard Disconnect Ampacity | Input Wire Size | Output Type | NEMA 4X Steel (inches) | NEMA 4X Fiberglass (inches) |
| 16 | 250 | #14-#4 Copper | M10 Stud | 24x24x8 | 24x24x8 |
| 20 | 250 | | | 24x24x8 | 24x30x8 |
| 24 | 320 | M12 Stud | 30x30x8 | 30x24x8 | 30x24x8 |
| 28 | 400 | | | 30x30x8 | 36x36x8 |
| 32 | 400 | | | 36x30x8 | 36x36x8* |

* Stainless Steel NEMA 4X
Standard Disconnects sized at 1.25x Sum(Isc) per UL1741.
Upsize Disconnect available at 1.56x Sum(Isc) for OCPD coordination.

High Ampacity Input Versions available:
e.g., 12 input, 400A with 30A fuses
Specifications Subject to Change

Model Numbers are derived from the following template: CBXWT-###(D)-FFAA-EE

| WV | T | ### | FF | AA | EE |
|------------|---------------------------|---------------------|------------------------------|----------------------|---------------------------------------|
| Voltage | Topology | Disconnect Rating | String Count | Fuse Rating | Enclosure Type |
| 15 = 1500V | G=Grounded F= Floating | 250A, 320A, or 400A | 08-32 2 string increments | 02-30 15A Typical | N4 = Carbon Steel 4X = Fiberglass* |

Additional Options and Accessories Available
Stainless Steel Available

ABOUT CONNECTPV INC.

Based in San Diego, CA, ConnectPV Inc. delivers expertise and experience. We bring over 10 years of Solar PV industry experience in electrical Balance of System products coupled with more than 25 years of high quality, ISO9001:2008 certified, manufacturing expertise. We actively work with our customers to deliver innovative, high quality, and cost effective solutions.

Contact Toll Free: (844)-246-6140
Local: (858) 246-6140
www.connectpv.com
sales@connectpv.com
San Diego, CA
CBX15 Rev. 3.0

CAB1000/AC

Up to 1500 VDC
Utility-grade energy storage inverter
Scalable to 4 MW



Return on Investment

- 98% max efficiency
- Low shipping & installation cost
- Modular 1 MW blocks
- Monetizable dynamic performance

Easily Transportable

- Standardized freight = low transportation cost
- Movable with pallet jack or standard forklift
- No crane required
- Separable building blocks

Modular / flexible configuration

- 1 MW blocks, up to 1500 VDC
- Configurable up to 4 MW
- Individual AC connections or combined throat
- Able to mix inverters & DC-DC in a single lineup

Advanced Technology

- Parallel UPS functionality
- Fully parameterizable grid support
- Certified to standards UL1741 / IEC
- ZVRT / LVRT/4-quadrant high bandwidth control

Simple O&M

- Easily maintainable
- Modular design with low component count
- Extended warranty available

The CAB1000 scalable platform was specifically developed to offer a straightforward and simple solution to developers of Utility-grade energy storage systems. In ~1 MW blocks, the CAB1000 platform offers a single modular system which is tailored to Utility systems of all sizes. The scalable power conversion system also boasts high-performance controls and system redundancy.

With world-class power density and an easy to install design, your energy storage system will be commissioned quickly and easily. The energy storage PCS has never been more flexible or straightforward.

PRELIMINARY - EPC Power Corporation 70-100032 August, 2019

epcpower
excellence in power conversion

| MODEL | CAB1000/AC-630 | |
|---------------|--|---|
| LINEUP QTY | 1 | 4 |
| AC | AC port configuration AC voltage range AC export capacity @ 25°C AC export capacity @ 45°C AC import capacity @ 25°C AC import capacity @ 45°C Inverter type Minimum grid SCCR (2) Nominal frequency range Harmonic distortion Power factor / reactive power Maximum aux. power consumption Efficiency: Max I CEC / I Euro DC voltage range (3) | 3-wire (3P3W) 630 V RMS /10% /-12% 1250 kVA 1146 ARMS 1125 kVA 1031 ARMS 1004 kVA 920 ARMS 886 kVA 812 ARMS 3-Level VSC 2 50 - 60 Hz (field settable) UL1741 / IEEE 1547, $-2% TDDI$ per IEEE 519 0 leading - 0 lagging (Full 4-quadrant operation) 950 W 98.6% (est.) >98% (est.) >98% (est.) 925 - 1500 VDC |
| DC | Typical Lithium battery voltage range Maximum DC current Battery technology Number of DC inputs | 1403 ADC 925 - 1500 VDC all battery types, fuel cells, other DC sources, etc. 4 |
| Environmental | Ambient temperature (operation) Ambient temperature (storage) Protection degree Relative humidity Max elevation Airborne noise Temperature de-rating | -20°C to 50°C -20°C to 60°C NEMA 3R / IP54 5% - 100% condensing 2,000 m (6,500 ft.) <math>< 75</math> dBA @ 5m automatic; see charts |
| Cabinet | Maximum dimensions (H x W x D) Weight (est.) Mounting Cooling fluid Cooling type Safety Certifications (pending) | mm: [2275 x 1004 x 1200] in: [89.6 x 39.5 x 47.2] 1043 kg [2300 lb.] Pad mount Hybrid liquid / air 30% - 50% EWG or PWG UL 1741 C22.2 No. 107.1-16 IEEE 1547-2005 CA Rule 21 No. 16-06-052 Hawaii Rule 18 No. 2016-0192 |
| Protections | AC protection DC protection Humidity Safety features Ground fault detection | overvoltage, overcurrent, overtemperature integrated CAN, Modbus RS485, or Modbus TCP fuses (optional) internal cabinet heating Yes, I UPS mode available |
| Control | Control interface Command latency Response time, (time to new setpoint) On-off grid transitions Black-start capable Grid-tied control modes Grid-support functions Islanded control modes Island overload avoidance Control power options | 8 ms; adjustable longer via parameters Yes, I UPS mode available Voltage mode PQ (power) DQ (current) cos phi (pf) Vok/Watt Hv/Watt Vok/Watt Inertia V&F droop control Inertia Ok to parallel with other sources active inrush limiting for starting large loads 308 - 240 VAC, 1 DC 24 VDC |

(1) Power ratings at nominal line voltage.
(2) Minimum SCCR operation requires inverter to be in "spinning reserve" mode. Contact EPC Power for details.
(3) Minimum DC voltage at nominal AC line voltage.

PRELIMINARY - EPC Power Corporation 70-100032 August, 2019

epcpower
excellence in power conversion

CAB1000/DC

DC coupled solar + storage



Bidirectional 1500 V DC-DC conversion

With a power rating of up to 3000 kW, EPC's DC-DC outdoor cabinet is designed to seamlessly integrate energy storage into 1000 V or 1500 V PV systems.

Our DC-DC converters are compatible with a wide range of DC sources. Whether you have 1000 V class lithium battery banks, DC generators, ultra-capacitors, other battery chemistries (lead-acid, flow, etc.), or even fuel cells, our DC-DC converters have your needs covered. By connecting a wide range of DC voltage levels, EPC's DC-DC solutions enable highly scalable power conversion in your application.

The CAB1000/DC is designed from the ground up with simplicity, reliability and scalability in mind.

1500 V DC-DC Any DC source Wide DC voltage range

- NEMA 3R rated
- Peak efficiency >98%
- Connects directly between PV & storage
- Refit or new installations
- MPPT capable
- Bidirectional buck/boost

Key benefits:

- 4-quadrant (bidirectional buck or boost)
- DC coupled solar
- Power flow in either direction regardless of voltages
- Wide DC range
- Optimized for energy storage

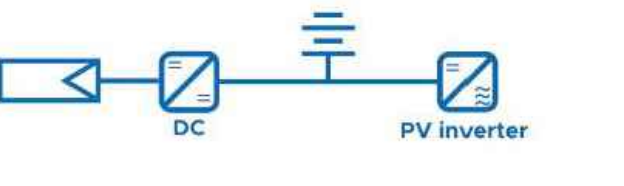
Proven products. Limitless possibilities.

epcpower
excellence in power conversion

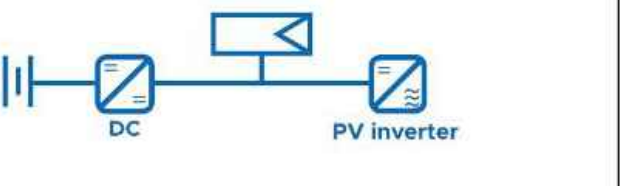
13125 Danielson St., Suite 112 | Poway, CA 92064 | 1.858.748.5590 | epcpower.com

CAB1000/DC Bidirectional DC-DC

Use Case 1:



Use Case 2:



| MODEL | CAB1000/DC-1500-1500 | CAB1000/DC-2-2000-1500 | CAB1000/DC-3-3000-1500 | |
|--------|---|--|---|---|
| LINEUP | 1 | 2 | 3 | |
| DC | DC import capacity @ 50°C Convert topology Maximum aux. power consumption Efficiency: Max I CEC / I Euro PV DC voltage range Maximum PV input voltage Battery DC voltage range Suggested battery voltage range Maximum DC current DC voltage ripple Battery technology Number of DC connections Ambient temperature (operation) Ambient temperature (storage) Protection degree Relative humidity Max elevation Airborne noise Temperature de-rating Cabinet Maximum dimensions (H x W x D) Weight (est.) Mounting Cooling fluid Cooling type Safety Certifications Protections Control | 1000 kW 1500 ADC 3-Level 750 W 98.5% (est.) 98.5% (est.) 98.5% (est.) 600 - 1500 VDC 1600 VDC 1500 - 1500 VDC 720 - 1500 VDC 1500 ADC 2700 ADC 4050 ADC <math>< 2%</math> all battery types, fuel cells, other DC sources, etc. 4 positive / 4 negative -20°C to 50°C -20°C to 60°C NEMA 3R / IP54 5% - 100% condensing 2,000 m (6,500 ft.) <math>< 75</math> dBA @ 5m automatic; see charts mm: [2760 x 1000 x 1200] in: [108.6" x 39.4" x 47.2"] 907 kg [2000 lb.] Pad mount Hybrid liquid / air 30% - 50% EWG or PWG UL 1741 pending DC disconnect (Battery); DC disconnect (PV); DC fuses (optional) internal cabinet heating overvoltage, overcurrent, overtemperature integrated CAN, Modbus RS485, or Modbus TCP 8 ms; adjustable longer via parameters 10 ms; adjustable longer via parameters Yes; requires external control power 208 - 240 VAC, 1 DC 24 VDC | 2000 kW 2700 ADC 3-Level 750 W 98.5% (est.) 98.5% (est.) 98.5% (est.) 600 - 1500 VDC 1600 VDC 1500 - 1500 VDC 720 - 1500 VDC 1500 ADC 2700 ADC 4050 ADC <math>< 2%</math> all battery types, fuel cells, other DC sources, etc. 8 positive / 8 negative 12 positive / 12 negative -20°C to 50°C -20°C to 60°C NEMA 3R / IP54 5% - 100% condensing 2,000 m (6,500 ft.) <math>< 75</math> dBA @ 5m automatic; see charts mm: [2760 x 2000 x 1200] in: [108.6" x 78.7" x 47.2"] 184 kg [4000 lb.] Pad mount Hybrid liquid / air 30% - 50% EWG or PWG UL 1741 pending DC disconnect (Battery); DC disconnect (PV); DC fuses (optional) internal cabinet heating overvoltage, overcurrent, overtemperature integrated CAN, Modbus RS485, or Modbus TCP 8 ms; adjustable longer via parameters 10 ms; adjustable longer via parameters Yes; requires external control power 208 - 240 VAC, 1 DC 24 VDC | 3000 kW 4050 ADC 3-Level 750 W 98.5% (est.) 98.5% (est.) 98.5% (est.) 600 - 1500 VDC 1600 VDC 1500 - 1500 VDC 720 - 1500 VDC 1500 ADC 2700 ADC 4050 ADC <math>< 2%</math> all battery types, fuel cells, other DC sources, etc. 12 positive / 12 negative -20°C to 50°C -20°C to 60°C NEMA 3R / IP54 5% - 100% condensing 2,000 m (6,500 ft.) <math>< 75</math> dBA @ 5m automatic; see charts mm: [2760 x 3000 x 1200] in: [108.6" x 118.2" x 47.2"] 273 kg [6000 lb.] Pad mount Hybrid liquid / air 30% - 50% EWG or PWG UL 1741 pending DC disconnect (Battery); DC disconnect (PV); DC fuses (optional) internal cabinet heating overvoltage, overcurrent, overtemperature integrated CAN, Modbus RS485, or Modbus TCP 8 ms; adjustable longer via parameters 10 ms; adjustable longer via parameters Yes; requires external control power 208 - 240 VAC, 1 DC 24 VDC |

Proven products. Limitless possibilities.

epcpower
excellence in power conversion

13125 Danielson St., Suite 112 | Poway, CA 92064 | 1.858.748.5590 | epcpower.com

BOHLER

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | CHECKED BY |
|-----|------------|---------------------------------|------------|
| 1 | 10/04/2023 | REVISED PER UTILITY POLE LAYOUT | JDL GD |

811

Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: 07/20/2023
DATE: 07/20/2023
CAD ID: W201257-DET-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER
No. 41530
EXPIRES 12/31/2024
MAINE LICENSE No. 12552

SHEET TITLE:
DETAIL SHEET

SHEET NUMBER:
C-905

REVISION 1 - 10/04/2023

Switches and Disconnects
CA008004EN

Effective January 2016
Supersedes June 2015

COOPER POWER SERIES

M-Force™ three-phase switch



Description

Eaton's Cooper Power™ series M-Force™ switch is a distribution-class, gang-operated, factory unitized three phase overhead loadbreak switch. The M-Force switch is offered in distribution voltage classifications of 15.5 kV, 27 kV, and 38 kV. The M-Force switch may be used for line sectionalizing, separating, bypassing, or isolating. M-Force stands for "Magnetic Force". Eaton has the only reverse loop contacts found on distribution-class loadbreak switches, a contact usually reserved for higher priced transmission switches. The reverse loop contacts utilize high current magnetic forces for added reliability. The reverse loop design allows for high contact pressure to be maintained during fault conditions. This feature prevents pitting and distorting of the switch blade and contacts even under severe momentary overload.

Catalog Data CA008004EN
Effective January 2016

Basic concept

Current-carrying conductors that are parallel to each other and have current flowing in the same direction, attract each other due to the magnetic forces acting on them (See Figure 1A). Current-carrying conductors that are parallel to each other and have current flowing in the opposite direction, repel due to the magnetic forces acting on them (See Figure 1B).

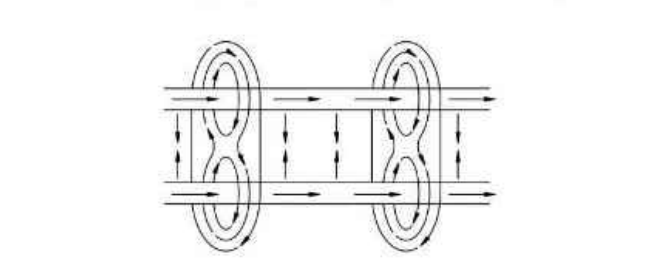


Figure 1A. Current flowing in same direction.

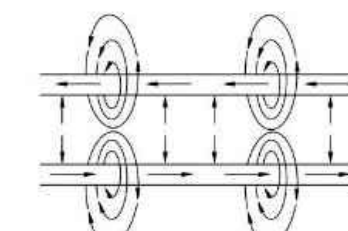


Figure 1B. Current flowing in opposite direction.

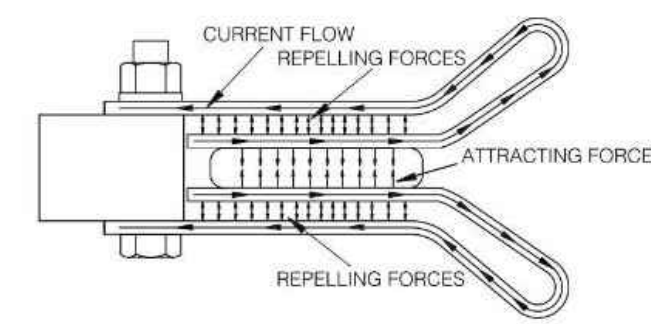


Figure 2. Magnetic forces acting on contacts.

Design features

Reverse loop contacts
The reverse loop contacts utilize high current magnetic forces for added reliability. The reverse loop contacts were adapted from Eaton's Cooper Power series KFR™ Line Tension Switch and have been field-proven for over 80 years. The reverse loop design allows for high contact pressure to be maintained during fault conditions. This feature prevents pitting and distorting of the switch blade and contacts even under severe momentary overload. These contacts are originally designed for high voltage transmission switches also maintain extremely cool temperatures even under the rated full load. The maximum temperature rise allowed per IEEE Std 1247™-2005 standard for the blade and contact area is 65°C. The maximum temperature rise observed on the reverse loop contact area was 38°C, less than half of the allowed temperature. These types of test results, along with the proven field performance, undoubtedly make the Reverse Loop Contacts found in the M-Force switch the premiere choice in the industry.

Insulators

The M-Force switch comes standard with polymer (silicone rubber) insulators. These non-porcelain insulators offer exceptional dielectric and mechanical characteristics adding to the reliability of the M-Force switch, while lowering the weight. The M-Force switch can be provided in cycloaliphatic epoxy and porcelain housings. Insulators come standard with 2.25" bolt circles at 15 and 25 kV. Insulators require a 3.00" bolt circle at 38 kV.

Extended bearing assembly

The stainless steel shaft on the rotating insulator bearing assembly has been extended to four inches. This extra length will prevent horizontal movement of the rotating insulator during operation which ensures proper blade/contact alignment which is essential for smooth operation. Another feature of the bearing assembly is the oil-impregnated bushings that provide maintenance-free operation for the life of the switch.

Insulated Reliabreak™ arm

The Reliabreak™ Pick-up Arm on the M-Force switch is insulated on one side, which isolates the interrupter from the current path during a close operation. This feature allows for a wide range of adjustments between the Reliabreak™ and the blade catch finger. This increased tolerance removes the possibility of misalignment during operation which ensures proper load interruption.

Positive locking dead-end brackets

The dead-end brackets on the M-Force switch are of a positive locking design. This design allows for dead-ending at an angle without any distortion of the brackets. This allows for a more flexible switch that can be used in a wider variety of installation requirements.

New inter-phase clamps

The inter-phase control rod clamps on the M-Force switch are designed with a jam nut through the side of the casting which locks the clamps after factory alignment. This feature eliminates any possibility of accidental slippage of the control mechanism which ensures proper operation even under icy conditions.

Optional ice shields

The standard M-Force switch is capable of operating under a 3/8" ice build up. With the optional ice shields the M-Force switch is capable of opening and closing with a 3/4" ice build up.

The unique shields are designed to prevent ice from building up between the contact clips as well as removing the ice from the blade during the closing operation. Per IEEE Std C3734™-1994, a chopping action is allowed during the close operation to break the ice. Due to the shearing action of the M-Force Ice Shields, the closing operation can be accomplished with one motion. No chopping is needed.

Catalog Data CA008004EN
Effective January 2016

M-Force three-phase switch

Table 7. M-Force Three-Phase Switch Catalog Number Configuration

Voltage Class
1 - 15.5kV/10 kV BIL
2 - 27/150 kV BIL
3 - 38 kV/200 kV BIL

Mounting Configuration
A - Horizontal Upright (Standard)
P - Phase over Phase
R - Vertical Riser
G - Horizontal Upright (G095 Spacing)
S - Vertical Riser (G095 Spacing)
T - Triangular
U - Underhung (G095 Spacing)

Control Rod and Mechanism
Reciprocating Mechanism
11 - 28 Round Pipe, 1.0" O.D. (Standard Option)
21 - 28 Round Fiberglass
41 - 28 1" Pipe w/Fiberglass Top Section
51 - 28 Pipe w/Cycloaliphatic Insulator
Torisional Mechanism
62 - 28 1" Pipe (Steel Universal Section)
82 - 28 1" Pipe (Fiberglass Universal Section)
C2 - 28 1.5" Pipe (Cycloaliphatic Insulator)

None:
05 - Hookstick operated (no control rod)

Crossarm Options
T - Steel with Single Point Lift (Standard Option)
C - Steel with Two Point Lift
G - Fiberglass with Single Point Lift
F - Fiberglass with Two Point Lift

Insulator Material
B - Polymer (Standard Option)
C - Cycloaliphatic Epoxy
P - Porcelain

Options (See Page 9 for details)
Note: More than one may be chosen. Append codes in alphanumeric order.
D - Provision for Crossarm Support Bracket
E - Protective Hardware on Terminal Post (Incompatible with Option U below)
L - Locking Latches
F - Bonded Reciprocating Control Handle (Standard on Torisional Controls)
G - Reciprocating Handle with Interlocks
H - Light Ring Adapter Bracket
I - Steel Interphase Rod
J - Provisions for Neutral Wire
K - Provisions for Sensors
L - Additional Nameplate on Handle
S - Ice Shields (3/4" Ice Break on Open or Close Operation)
M - Grounding Connector on Crossarm Mounting Bracket
N - Terminals, Copper #2-500 MCM (Incompatible with Option C above)
O - Pole Mounting Base
P - Extra 1" of Control Rod
Q - Extra 1" of Control Rod

Insulator Bolt Pattern
1 - 2 25" Bolt Circle for 15 and 27 kV switches
3 - 3.00" Bolt Circle for 38 kV switches
Consult factory for other bolt circle options.

EATON
Powering Business Worldwide

2 www.eaton.com/cooperpowerseries

8 www.eaton.com/cooperpowerseries



Viper-5T

Solid-Dielectric, Independent Pole Option Recloser
Providing electronic overcurrent protection for single or three phase operation on systems rated through 38kV, 800A continuous current, 12.5kA or 16kA interrupting current

- Interrupting rating up to 16kA through 27kV
- Overhead, substation and dead-front padmount designs
- Operator safety with mechanical block and triple redundancy on trip handle
- Smart Grid/Lazer™ solutions
- Ease of installation with site-ready design
- Reliable performance
- Maintenance-free recloser
- High accuracy Accusense voltage sensors
- Up to six internal voltage sensors
- Works directly with SEL-651R, ABB RER620, Beckwith M-7679, and GE R650 controls
- RUS accepted

Catalog O-vst18

Typical Specifications

DESIGN RATINGS AND STANDARDS
Reclosers shall be designed, tested and built per IEEE C37.60 and IEC 62271-111 standards. Certified test reports shall be provided. The recloser shall be rated (select column):

| Max System Voltage (kV) | 15.5 | 27 | 38 |
|--|----------------|------------|------|
| Rated Voltage (kV) | 15 | 25 | 35** |
| Interrupting Rating RMS (kA) | 16* | 16* | 12.5 |
| BIL (kV) | 110 | 125 | 150 |
| Continuous Current (A) | 800/1000** | 800/1000** | 800 |
| 8 Hr. Overload, at 20° C | 960 | 960 | 960 |
| Making Current, RMS, asym, kA | 25* | 25* | 20 |
| Peak, asym (kA) | 42* | 42* | 32 |
| Short Circuit Current, kA sym, 3 seconds | 16* | 16* | 12.5 |
| 60Hz Withstand, kV rms Dry, 1 minute | 50 | 60 | 60 |
| 60Hz Withstand, kV rms Wet, 10 seconds | 45 | 50 | 50 |
| Operating Temperature | -60°C to +65°C | | |
| Mechanical Operations | 10K | 10K | 10K |

* 29.3kV system voltages are available
** Consult factory for higher continuous current up to 1000A
** 12.5kA interrupting current rating available

| Voltage Class | Catalog Number |
|---------------|---------------------------|
| 15.5kV | VIP378ER (12 or 16)*-1-ST |
| 27kV | VIP388ER (12 or 16)*-1-ST |
| 38kV | VIP398ER (12)*-1-ST |

* 12-12.5kA sym. fault interrupting or 16-16kA sym. fault interrupting

Approximate weight (for single-phase module less frame) is 100lbs (45kg)

G&W ELECTRIC | PAGE 10

Visit gwelc.com/specs.html for electronic versions of typical specifications.



NEMA 4-hole, 2-hole and clamp style aerial lugs.

Options*

- The following options shall be supplied: (Check as necessary)
- NEMA 2-hole aerial lugs
 - NEMA 4-hole aerial lugs
 - Clamp style aerial lugs (#2 - 500 kcmil)
 - Clamp style aerial lugs (250 - 750 kcmil)
 - 4/0 brass eyebolt ground lug
 - Polemount site-ready assembly
 - Lightning arresters
 - Dead-front padmounted design with stainless steel enclosure
 - External Accusense Voltage Sensors (0.5 class accuracy)
 - External 1.0 KVA oil potential transformer (3% accuracy) for 120 VAC supply power with hardware to mount on standard aluminum frame
 - External 0.75 KVA solid-dielectric voltage transformer (0.3% accuracy) for 120 VAC supply power with hardware to mount on standard aluminum frame
 - High impact, UV stable wildlife protectors for source and load insulators
 - External CTs for current monitoring
 - Six internal voltage sensors
 - Junction box with all twist lock connections
 - 42 pin interface with additional 52b auxiliary contact (Form C type) and cable-disconnected alarm
 - 3-phase ganged manual trip handle

* Additional Cost
Contact factory for additional options or customization.

G&W
Engineered to order. Built to last.

P:\DWG\2017\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLAN\20170222\DET-1B-1-LAYOUT-C-906-DET

SEL-651R

Advanced Recloser Control

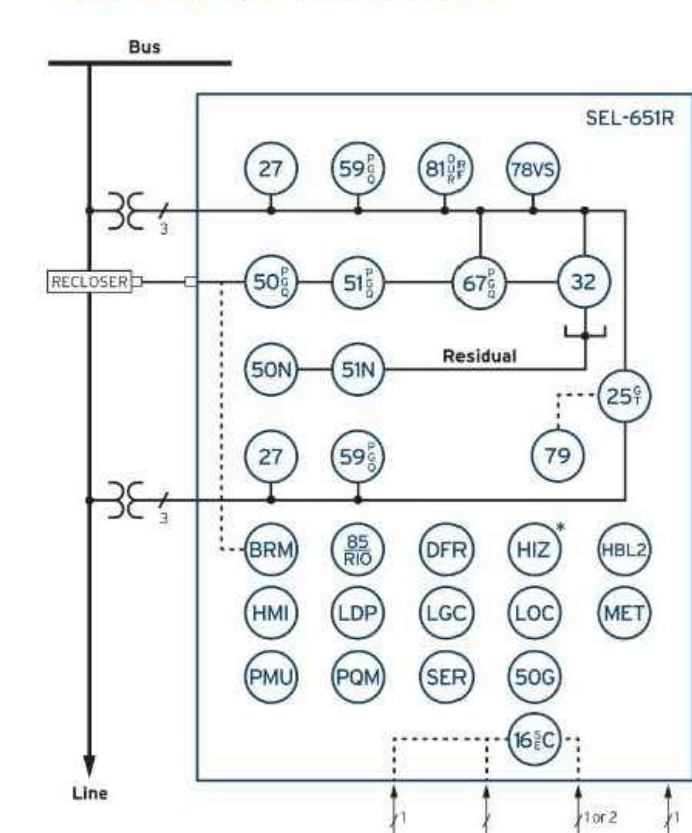


The industry's gold standard for recloser control

- Advanced recloser protection capabilities support coordinated high-speed fault isolation and restoration.
- Three- or single-phase tripping minimizes customer outages and improves reliability metrics.
- Arc Sense™ technology improves public safety and minimizes fire dangers caused by downed conductors.
- Fast islanding detection, precise synchronization, and IEEE 1547-2018 tripping let you safely interconnect distributed energy resources (DERs).
- Second-harmonic blocking secures overcurrent elements from transformer inrush.



Functional Overview



ANSI NUMBERS/ACRONYMS AND FUNCTIONS

| | |
|------------|--|
| 16 SEC | Access Security (Serial, Ethernet) |
| 25 (G,T) | Generator/Intertie Synchronization Check |
| 27 | Undervoltage |
| 32 | Directional Power |
| 50G | Best Choice Ground |
| 50N | Neutral Overcurrent |
| 50 (P,G,Q) | Overcurrent (Phase, Ground, Negative Sequence) |
| 51 (P,G,Q) | Time Overcurrent (Phase, Ground, Negative Sequence) |
| 51N | Neutral Time Overcurrent |
| 59 (P,G,Q) | Overvoltage (Phase, Ground, Negative Sequence) |
| 67 (P,G,Q) | Directional Overcurrent (Phase, Ground, Negative Sequence) |
| 78VS | Vector Shift |
| 79 | Autoreclosing |
| 81 (O,U,R) | Frequency (Over, Under, Rate) |
| 81RF | Fast Rate-of-Change of Frequency |
| 85 RIO | SEL Memorized Bids™ Communications |
| DIR | Event Reports |
| HIZ | SEL Arc Sense™ Technology (AST)* |
| HMI | Operator Interface |
| LGC | SELogic™ Control Equations |
| MET | High-Accuracy Metering |
| PMU | Synchphasors |
| POM | Voltage Sag, Swell, and Interruption |
| SER | Sequential Events Recorder |

ADDITIONAL FUNCTIONS

| | |
|------|--------------------------|
| BRM | Breaker Wear Monitor |
| HBL2 | Second-Harmonic Blocking |
| LDP | Load Data Profiling |
| LOC | Fault Locator |

*Optional feature - Copper or fiber-optic

Compatible With Popular Reclosers

The SEL-651R Advanced Recloser Control works with a wide range of reclosers for complete plug-and-work capability. All interfaces are designed and tested to exceed the IEEE C37.60 standard. Certificates are available at selinc.com/SEL-651R.

G&W

- Control Power Viper-S
- Viper-LT
- Viper-S
- Viper-SP
- Viper-ST
- Viper-G

Other Reclosers

| | |
|---|-------------------|
| Elastomold Molded Vacuum Recloser (MVR) | RE |
| Joshyn TriMod 300R | RVE |
| Joshyn TriMod 500R | RXE |
| OVR-3 (15 and 27 kV only) | VSA |
| Gridshield 32-Pin (15, 27, and 38 kV) | VNE |
| VWVE 27 | VWVE 27 |
| Gridshield 42-Pin (15, 27, and 38 kV) | VWVE 38X |
| WE | WE |
| VR-3S (15 and 27 kV only) | WVE 27 |
| CXE | WVE 38X |
| NOVA Auxiliary Powered | GVR* |
| NOVA Control Powered | SDR Triple-Single |
| NOVA NX-T | SDR Three-Phase |
| NOVA Triple-Single | OSM_150 |

*When equipped with interface module

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

| REV | DATE | COMMENT | DRAWN BY |
|-----|------------|------------------------------|-----------|
| 1 | 10/04/2023 | REVS PER UTILITY POLE LAYOUT | JDL GD |

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID.: W201257-DET-1B

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM
LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:
C-906

REVISION 1 - 10/04/2023

PHOTOVOLTAIC PANEL SPECIFICATIONS

N.T.S.

