



135 River Road • Woolwich, ME 04579
207-615 - 1527 • lisa@atlanticenviromaine.com
www.atlanticenviromaine.com

May 13, 2020

Mr. Bill Butler
Town of China
571 Lakeview Drive
China, ME 04358

Re: Additional Information Related to a Conditional Use Permit Application on behalf of Sunraise Development, LLC, Route 3, China, Maine (Tax Map #33, Lot #16).

Dear Mr. Butler

On behalf of SunRaise Development, LLC Atlantic Environmental, LLC (AE) is pleased to submit additional information and modifications as it relates to the proposed construction of a 3.0 mega-watt AC solar energy generation project located off Route 3.

LOT COVERAGE: The previously submitted lot coverage calculation was based on 507 solar arrays. This was a miscalculation of the number of arrays and the actual number is 505 solar arrays. The corrected calculations reduce the overall square footage of the lot coverage to 19,3735.5 square feet or 19.3%. This provides approximately 7,030.26 square feet of remaining lot coverage. AE has updated the lot coverage analysis and the Phosphorus Export summary and this information is included in the attached material.

VEGETATIVE BUFFERS: In order to limit shading impacts on the solar arrays located along the westerly property boundary, the Applicant proposes to remove vegetation to the property line; however, vegetation that is shared with the abutting property (i.e. located on the property line) will not be removed. In order to meet Section 4 of the Town of China's Conditional Use requirements, the Applicant proposes to plant an evergreen vegetative buffer along approximately two hundred (200) feet of the property line. The buffer will include native, evergreen species such as White Spruce (*Picea glauca*) and/or Arborvitae (*Thuja occidentalis*). The location of the buffer is shown in the updated project plans.

Thank you in advance for your consideration of this Application. If you require any additional information or clarifications, please feel free to contact me at 207 – 615 - 1527 or by email at lisa@atlanticenviromaine.com.

Sincerely,
Atlantic Environmental LLC.

A handwritten signature in black ink, appearing to read 'Lisa Vickers'.

Lisa Vickers,
Senior Project Manager

| LOT COVERAGE (NOT INCLUDING SOLAR ARRAYS) | | | |
|---|-----------------|-----------|------|
| | | | |
| | GROUND SCREWS | 134.9 | S.F. |
| | CONCRETE PADS | 1313.6 | S.F. |
| | TOTAL STRUCTURE | 1449.0 | S.F. |
| | | | |
| | TOTAL LOT AREA | 1004323.0 | S.F. |
| | | | |
| | % LOT COVERAGE | 0.1% | |

| LOT COVERAGE (NOT INCLUDING SOLAR ARRAYS) | | | |
|---|-----------------|-----------|------|
| | SOLAR PANELS | 192421.9 | S.F. |
| | GROUND SCREWS | 134.9 | S.F. |
| | CONCRETE PADS | 1313.6 | S.F. |
| | TOTAL STRUCTURE | 193870.4 | S.F. |
| | | | |
| | TOTAL LOT AREA | 1004323.0 | S.F. |
| | | | |
| | % LOT COVERAGE | 19.3% | |

| | NUMBER OF ARRAYS | AREA OF ARRAY* (S.F.) | TOTAL AREA (S.F.) |
|--------------|------------------|-------------------------|-------------------|
| SOLAR PANELS | 505 | 381.03 | 192556.8 |
| | | MINUS GROUND SCREW AREA | (134.9) |
| | | CONCRETE PADS | 1313.6 |
| | | TOTAL AREA | 193735.5 |
| | | % LOT COVERAGE | 19.3% |

*Includes 30 degree tilt.

This leaves approximately .7% or 7,030.26 sq. ft. of remaining lot coverage.

| Worksheet 1 - PPB calculations | | | |
|---|-------------|--------|-------------------|
| Project Name: Solar Array, Belfast Road (Route 3) | | | |
| Lake Watershed: China Lake, East Basin | | | |
| Town: China | | | |
| Standard Calculations | | | |
| Watershed per acre phosphorus budget (Appendix C) | PAPB | 0.034 | lbs P/acre/year |
| Total acreage of development parcel: | TA | 10.56 | acres |
| NWI wetland acreage: | WA | 0.0034 | acres |
| Steep slope acreage: | SA | 0 | acres |
| Project acreage: $A = TA - (WA + SA)$ | A | 10.56 | acres |
| Project Phosphorus Budget: $PPB = P \times A$ | PPB | 0.36 | lbs P/year |
| Small Watershed Adjustment | | | |
| If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB. | | | |
| Small Watershed Threshold (Appendix C): | SWT | | acres |
| Project acreage: | A | | acres |
| Allowable increase in town's share of annual phosphorus load to lake (Appendix C): | FC | | lbs P/year |
| Area available for development (Appendix C): | AAD | | acres |
| Ratio of A to AAD ($R=A/AAD$) | R | | |
| Project Phosphorus Budget | | | |
| If $R < 0.5$, $PPB = [(FC \times R)/2] + [FC/4]$ | PPB | | lbs P/year |
| If $R > 0.5$, $PPB = FC \times R$ | PPB | | lbs P/year |

Worksheet 2

Pre-PPE and Post-PPE Calculations

Calculate phosphorus export from development for before and after treatment
 Use as many sheets as needed for each development type (commercial, roads, residential lots, etc.)

Project name: Solar Array, Belfast Road (Route 3) **Development type:** Solar Array **Sheet #** _____

| Land Surface Type Lot #(s) | or with | Acres or # of lots | Export Coefficient from Table 3.1 Table 3.2 | Pre- treatment Algal Av. P Export (lbs P/year) | Treatment Factor for BMP(s) from Chapter 6 | Post- treatment Algal Av. P Export (lbs P/year) | Description of BMPs |
|-------------------------------|------------|--------------------------|---|--|--|---|---------------------|
| Riprap/Crushed Rock | | 0.09 | 0.6 | 0.05 | 0.1 | 0.01 | INFILTRATION |
| Concrete Pads | | 0.03 | 0.5 | 0.02 | 0.1 | 0.00 | INFILTRATION |
| Ground Screws | | 0.003 | 0.5 | 0.00 | 0.3 | 0.00 | MEADOW BUFFER |
| Solar Panels | | 1.43 | 0.0 | 0.00 | 1 | 0.00 | NONE |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | Total Pre-PPE (lbs P/year) | 0.07 | Total PostPPE (lbs P/year) | 0.01 | |

WORKSHEET 4 - PROJECT PHOSPHORUS EXPORT SUMMARY

Summarizing the project's algal available phosphorus export (PPE)

Project Name: Solar Array, Belfast Road (Route 3)

| | | | |
|---|-----------------|------|------------|
| Project Phosphorus Budget - Worksheet 1 | PPB | 0.36 | lbs P/year |
| Total Pre-Treatment Phosphorus Export - Worksheet 2 | Pre-PPE | 0.07 | lbs P/year |
| Total Post-Treatment Phosphorus Export - Worksheet 2 | Post-PPE | 0.01 | lbs P/year |
| Total Phosphorus Mitigation Credit - Worksheet 3 | TMC | | lbs P/year |
| Project Phosphorus Export (Post-PPE - TMC) | PPE | 0.01 | lbs P/year |

Is the Project Phosphorus Export \leq the Project Phosphorus Budget? (PPE \leq PPB)

| | |
|---|------------|
| <p><i>If YES, PPE is less than or equal to PPB and the project meets its phosphorus budget.</i></p> <p><i>If NO, PPE is greater than PPB, more reduction in phosphorus export is required or the payment of a compensation fee may be an option</i></p> | YES |
| <p><i>The amount of phosphorus that needs further treatment or compensation</i></p> | lbs P/year |

Has Project Phosphorus Export been sufficiently reduced?

Is (Pre-PPE - Post-PPE)/Pre-PPE greater than 0.60?

| | |
|--|---|
| <p><i>If YES, in some watersheds the compensation fee is an available option.</i></p> <p><i>If NO, more treatment must be provided. PPE must be further reduced.</i></p> | |
| <p><i>The post-treatment phosphorus export must be less than 40% of the pre-treatment export (Post-PPE < 0.4*Pre-PPE)</i></p> | % |

If the project is located in a watershed that is eligible for a compensation fee (or is a residential subdivision with buffers), a compensation fee may be appropriate as follows:

| | |
|--|--|
| <p><i>If Project Export has been reduced by greater than 60% and less than 75%, \$25,000 per pound minus \$833 per 1% Percent Export</i></p> | |
| <p><i>If Project Export has been reduced by greater than 75%, \$12,500 per pound minus \$500 per 1% Project Export</i></p> | |

X:\LAND PROJECTS\028 RT_3 SOLAR CHINA\DWG\028-COVER-DET.DWG, CT COVER, 11/15/2019 3:28:30 PM, JOSEPH MARDEN
 © 2020, THIS DRAWING IS THE PROPERTY AND INSTRUMENT OF SITELINES P.A. NO MODIFICATIONS OR CHANGES MAY BE MADE TO THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF SITELINES P.A. ANY MODIFICATION, CHANGE OR USE OF THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF SITELINES P.A. IS PROHIBITED AND IS AT THE USER'S RISK.

GENERAL NOTES:

- DRAWINGS ARE BASED ON BOUNDARY INFORMATION BY SITELINES, P.A.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION HAS NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES AND IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (1-800-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IN AREAS OF POTENTIAL CONFLICTS TEST PITS SHALL BE REQUIRED TO VERIFY EXISTING UTILITY LOCATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, CABLE AND FIRE ALARM). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH CONSTRUCTION MANAGER AND ARCHITECT.
- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, SIZE, INVERTS AND TYPES OF EXISTING PIPES AT ALL PROPOSED POINTS OF CONNECTION PRIOR TO ORDERING MATERIALS. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATIONS, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE CONSTRUCTION MANAGER REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS AND GRADES BEFORE WORK BEGINS. CONTRACTOR SHALL CONFIRM LOCATION AND DEPTH ALL UTILITY LINE CROSSINGS WITH TEST PITS PRIOR TO BEGINNING WORK. CONFLICTS SHALL BE REPORTED IN WRITING TO CONSTRUCTION MANAGER FOR RESOLUTION OF THE CONFLICT.
- ALL AREAS OUTSIDE THE LIMIT OF WORK THAT ARE DISTURBED SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. ALL AREAS DISTURBED DURING CONSTRUCTION NOT COVERED WITH BUILDINGS, STRUCTURES, OR PAVEMENT SHALL RECEIVE 4 INCHES OF LOAM AND SEED.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND SHALL BE RESPONSIBLE FOR PAYING ANY FEES FOR ANY POLE RELOCATION AND FOR THE ALTERATION OR ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, CABLE, FIRE ALARM AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS AND AS SPECIFIED.
- ALL PROPERTY MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE RESET TO THEIR ORIGINAL LOCATION BY A MAINE REGISTERED LICENSED PROFESSIONAL LAND SURVEYOR (PLS) AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PREPARE AN AS-BUILT PLAN SURVEY SHOWING LOCATIONS OF ALL SURFACE FEATURES AND SUBSURFACE UTILITY SYSTEMS INCLUDING THE LOCATION TYPE, SIZE AND INVERTS.
- THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATION AND MAINTAIN ALL EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION. EROSION CONTROL SHALL BE REMOVED ONLY UPON THE ESTABLISHMENT OF ALL LANDSCAPED AREAS. ALL WORK SHALL BE IN COMPLIANCE WITH THE ENVIRONMENTAL QUALITY HANDBOOK FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION, AS ADOPTED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- ALL MATERIALS AND CONSTRUCTION METHODS USED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL LOCAL MUNICIPAL STANDARDS AND MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
- THE CONTRACTOR IS REQUIRED TO CONTROL DUST DURING CONSTRUCTION. EXPOSED SOIL AREAS SHALL BE SPRAYED WITH WATER AS NEEDED TO CONTROL DUST EMISSIONS. COVER EXPOSED SOIL AREAS AS QUICKLY AS PRACTICAL TO PREVENT WINDS FROM GENERATING DUST.
- THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
- ALL MATERIALS SHALL BE NEW AND PROVIDED BY THE CONTRACTOR.

GRADING AND DRAINAGE NOTES:

- TOPSOIL STRIPPED IN AREAS OF CONSTRUCTION THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED ON SITE AT A LOCATION TO BE DESIGNATED BY OWNER. UNSUITABLE SOIL SHALL BE SEPARATED, REMOVED AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION OFF SITE.
- THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

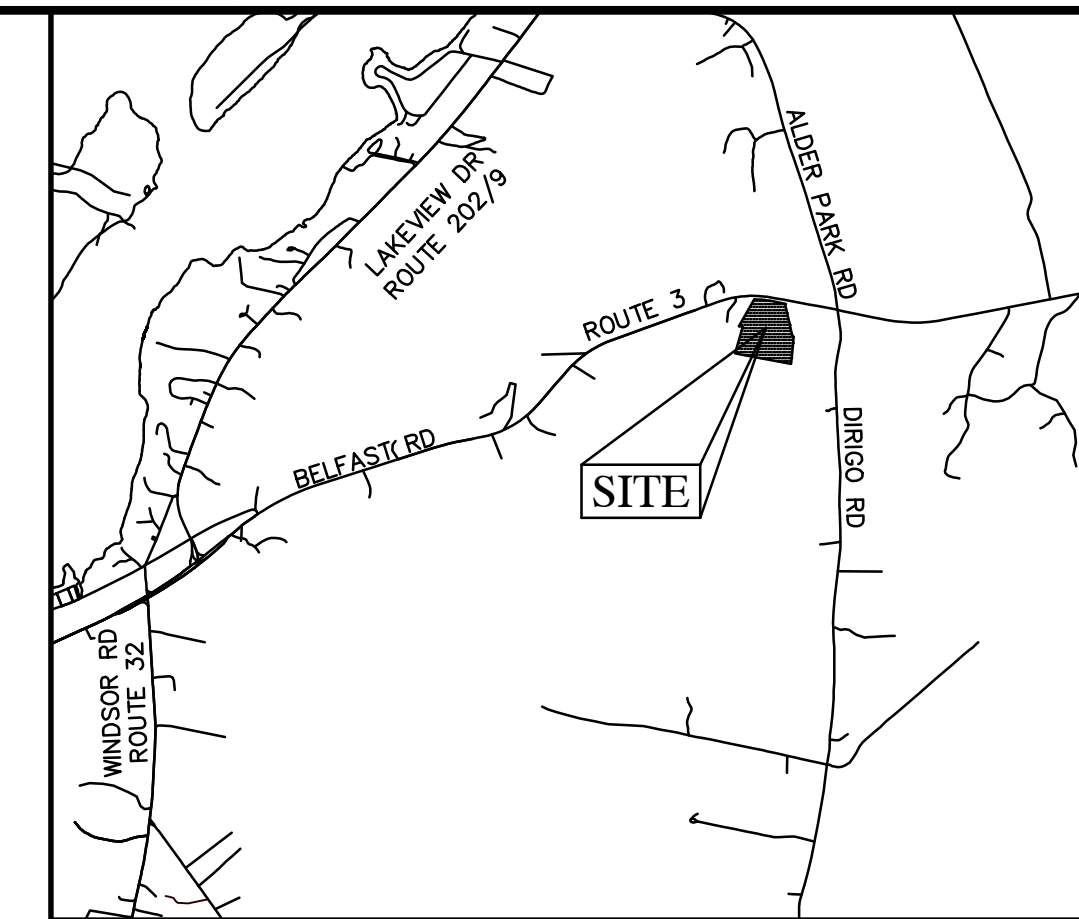
PERMITTING REQUIREMENTS:

| AGENCY: | PERMIT: | STATUS: |
|--|---------------------------|--------------------|
| TOWN OF CHINA | SITE PLAN APPROVAL | SUBMITTED 01/28/20 |
| MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION | STORMWATER PERMIT-BY-RULE | PENDING |
| MAINE DEPARTMENT OF TRANSPORTATION | DRIVEWAY/ENTRANCE PERMIT | PENDING |

SOLAR ARRAY

BELFAST RD (ROUTE 3), CHINA, MAINE

PREPARED FOR:
SUNRAISE DEVELOPMENT, LLC
26 MARKET SQUARE, PORTSMOUTH, NH 03801



LOCATION MAP
NOT TO SCALE

LEGEND

| EXISTING | | PROPOSED |
|----------|----------------------|----------|
| ● | IRON MARKER FOUND | □ |
| □ | GRANITE MONUMENT SET | ⬤ |
| ○ | CATCH BASIN | ⊗ |
| ⊗ | SEWER MANHOLE | ⊗ |
| ⊗ | FIRE HYDRANT | ⊗ |
| ⊗ | WATER GATE VALVE | ⊗ |
| ⊗ | WATER SHUT-OFF | ⊗ |
| ○ | BLOW-OFF/CLEAN-OUT | ○ |
| ○ | UTILITY POLE | ○ |
| ○ | UTILITY LINE | ○ |
| --- | PROPERTY LINE | --- |
| --- | EASEMENTS | --- |
| --- | SETBACK/BUFFER | --- |
| --- | SOILS BOUNDARY | --- |
| --- | WETLAND BOUNDARY | --- |
| --- | STREAM | --- |
| --- | CURB | --- |
| --- | EDGE OF PAVEMENT | --- |
| --- | BUILDING | --- |
| --- | SLOPE ARROW | --- |
| --- | CONTOURS | --- |
| --- | TREE LINE | --- |
| --- | SEDIMENT BARRIER | --- |
| --- | RIPRAP | --- |
| --- | PROPOSED GRAVEL | --- |

UTILITY CONTACTS

CODE ENFORCEMENT

WILLIAM BUTLER
571 LAKEVIEW DRIVE
CHINA, MAINE 04358
207-445-3540

PUBLIC WORKS DEPARTMENT

SHAWN REED
211 ALDER PARK ROAD
CHINA, MAINE 04358
207-445-2014

CIVIL ENGINEER/SURVEYOR

SITELINES P.A.
ATTN: JOSEPH J. MARDEN, P.E.
119 PURINTON ROAD, SUITE A
BRUNSWICK, MAINE 04011
207-725-1200
WWW.SITELINESPA.COM

PROJECT TEAM

WETLANDS:

ATLANTIC ENVIRONMENTAL LLC
TIM FORRESTER
135 RIVER ROAD
WOOLWICH, MAINE 04579
207-837-2199

ELECTRIC SERVICE

CENTRAL MAINE POWER
280 BATH ROAD
BRUNSWICK, MAINE 04011
207-721-8054

CHINA FIRE DEPARTMENT

CHIEF RICHARD E. MORSE, FIRE CHIEF
SOUTH CHINA FIRE DEPARTMENT
PO BOX 325
CHINA, MAINE 04358

| SHEET INDEX | | |
|-------------|---|--------|
| SHEET # | SHEET TITLE: | SCALE: |
| C1 | COVER SHEET | NTS |
| C2 | EXISTING CONDITIONS PLAN | 1"=60' |
| C3 | SITE LAYOUT & UTILITY PLAN | 1"=60' |
| C4 | GRADING, DRAINAGE, & EROSION CONTROL PLAN | 1"=60' |
| C5 | SITE DETAILS | NTS |
| C6 | EROSION CONTROL DETAILS AND NOTES | NTS |

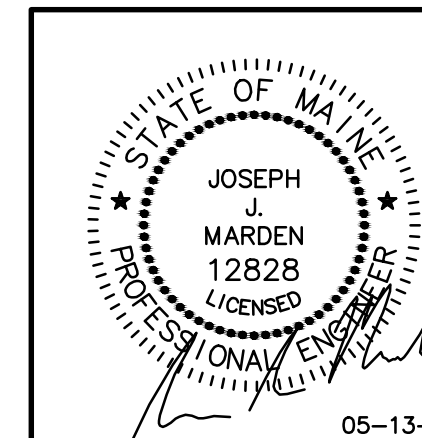
- 05-13-20 REMOVED TWO SOLAR TABLES JJM
- 03-09-20 REVISED SOLAR ARRAY LAYOUT JJM
- 01-27-20 SUBMISSION TO TOWN FOR PRELIMINARY REVIEW JJM

| | |
|----------|---|
| TITLE: | COVER SHEET |
| PROJECT: | SOLAR ARRAY BELFAST RD (ROUTE 3), CHINA, ME 04358 |
| OWNER: | SUNRAISE DEVELOPMENT, LLC 26 MARKET SQUARE, PORTSMOUTH, NH 03801 |



CALL DIG SAFE UTILITY LOCATION
1-888-344-7233
STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES

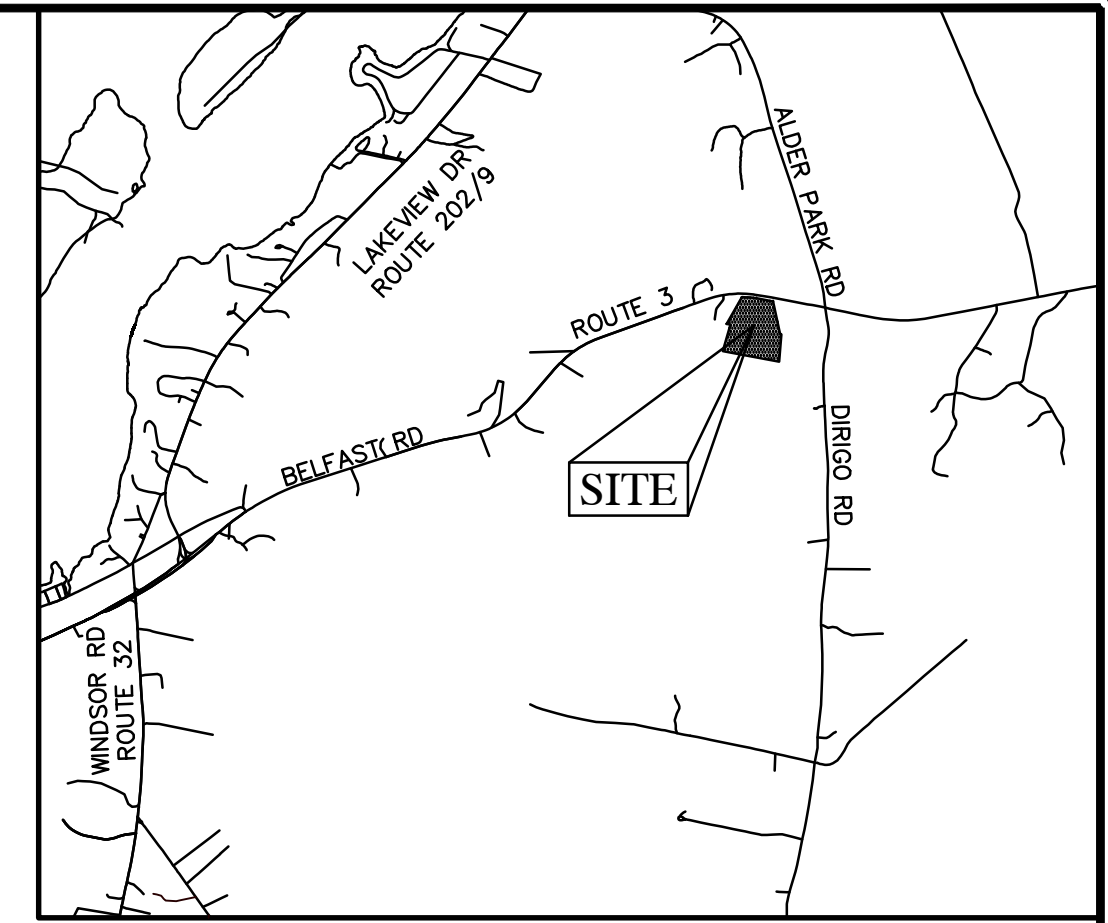
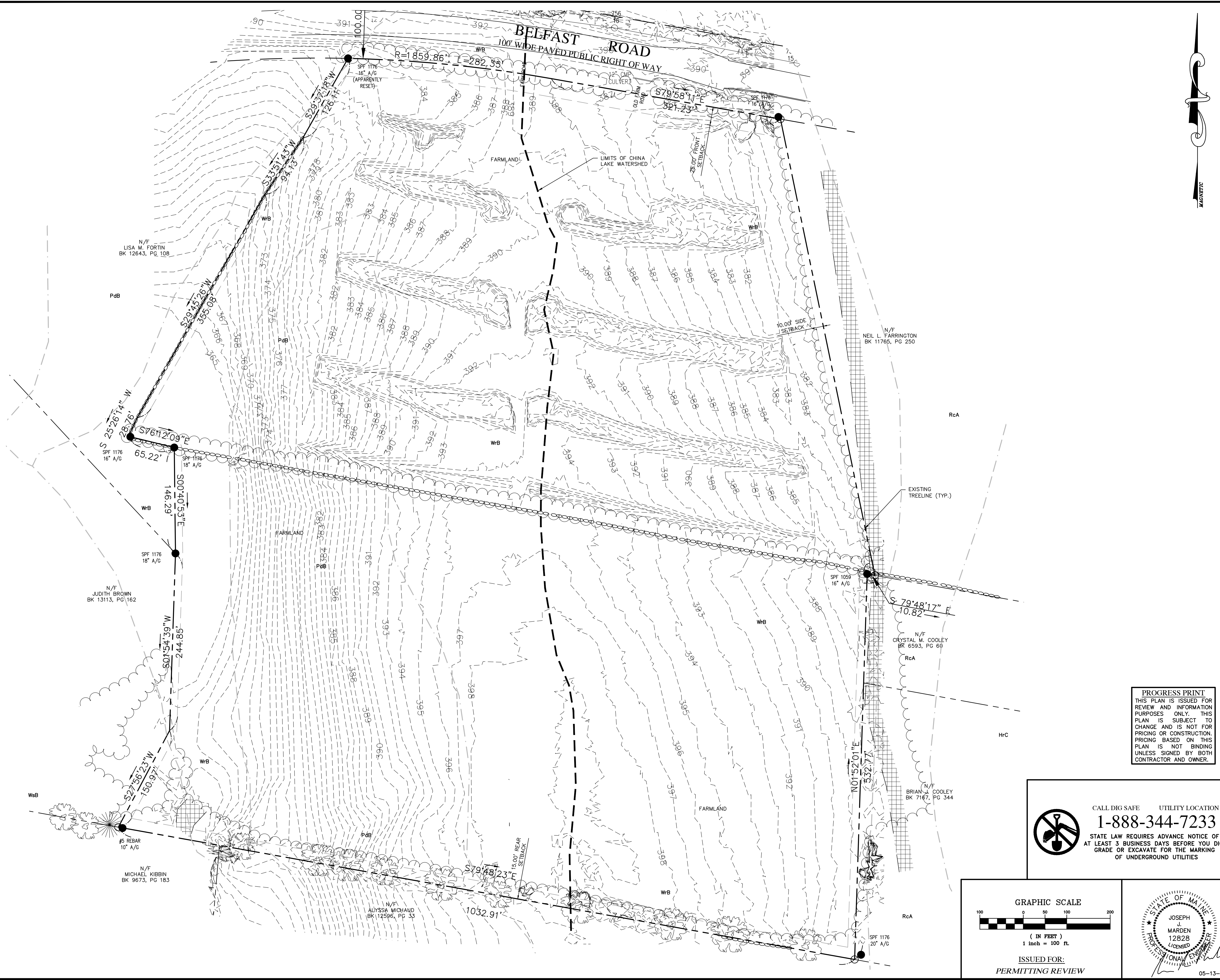
PROGRESS PRINT
THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.



SITELINES
119 PURINTON ROAD, SUITE A
BRUNSWICK, MAINE 04011
207.725.1200
CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS

| | | |
|------------------|---------------------|----|
| FIELD WK: OTHERS | SCALE: NTS | C1 |
| DRN BY: JIM | JOB #: 4028 | |
| CHD BY: CYN | MAP/LOT: 33/16 | |
| DATE: 01-03-2020 | FILE:4028-COVER-DET | |

© 2020. THIS DRAWING IS THE PROPERTY AND INSTRUMENT OF SITES LINES P.A. NO MODIFICATION, CHANGE OR USE OF THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF SITES LINES P.A. IS PROHIBITED AND IS AT THE USER'S RISK.
 X:\LAND PROJECTS\4028 RT 3 SOLAR CHINA\4028-SITE.DWG. EX COND DEMO. 11/15/2019 3:29 PM. JOSEPH MARDEN



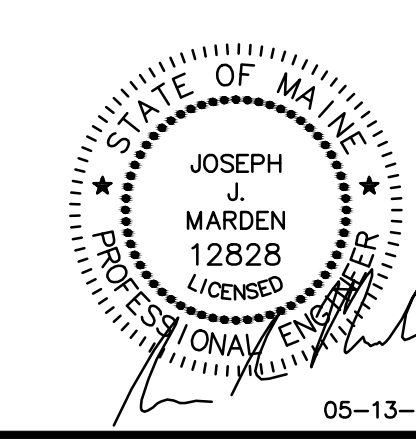
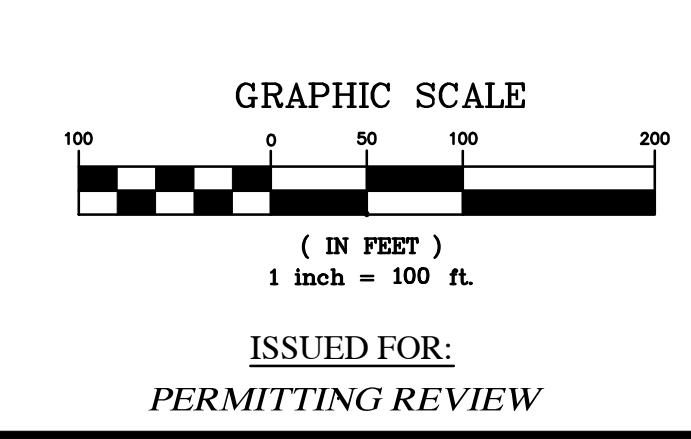
LOCATION MAP
NOT TO SCALE

- NOTES:**
- TITLE REFERENCE FOR SURVEYED PARCEL:**
BK 8182, PG 80
 - PLAN REFERENCE(S):**
 - PLAN ENTITLED, "MAINE STATE HIGHWAY COMMISSION - RIGHT OF WAY MAP - STATE HIGHWAY 215", DATED JUNE 1962, SHEETS 4 & 5, RECORDED IN PB 29, PGS 34 & 35.
 - PLAN ENTITLED, "PLAN OF STANDARD BOUNDARY SURVEY - HAZEL PELLERIN", DATED JUNE 1986, BY THAYER ENGINEERING CO., ON FILE WITH THE PREPARER.
 - AREA INFORMATION:**
1,004,323 SQ.FT. 23.06 ACRES
 - TAX MAP REFERENCE:**
TAX MAP 33, LOT 16.
 - BASIS OF BEARINGS:**
BEARINGS ARE GRID.
 - ROAD INFORMATION:**
BELFAST ROAD WIDTH IS 100' PER PLAN REFERENCED IN NOTE 2 ABOVE. LOCATION IS BASED ON EXISTING TRAVELED WAY LOCATED.
 - UTILITY INFORMATION:**
THERE MAY BE UNDERGROUND CONDUIT, WIRES, CABLES AND/OR STRUCTURES NOT SHOWN ON THIS PLAN. THE LOCATIONS SHOWN ARE BASED ON SURFACE FEATURES VISIBLE AT THE TIME OF SURVEY AND POSSIBLY FROM INFORMATION PROVIDED BY THE OWNER, MUNICIPAL GIS DATA, AND/OR UTILITY COMPANIES. NO EXCAVATIONS WERE MADE DURING THE COURSE OF THE SURVEY TO VERIFY OR LOCATE ANY UNDERGROUND STRUCTURES. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO VERIFY THE LOCATION OF ANY UNDERGROUND UTILITIES PRIOR TO EXCAVATING BY CONTACTING THE APPROPRIATE UTILITY COMPANY. STATE LAW REQUIRES DIG-SAFE BE CONTACTED PRIOR TO EXCAVATION.
 - WETLANDS:**
WETLAND ON THE PROPERTY WERE DELINEATED BY TIM FORRESTER, PWS 1933, WITH ATLANTIC ENVIRONMENTAL, LLC ON SEPTEMBER 10, 2019.
 - TOPOGRAPHY:**
CONTOURS SHOWN ARE A COMBINATION OF LIDAR FROM STATE OF MAINE GIS DATABASE AND PHODAR FROM DRONE PHOTOMETRIC METHODS.
 - RECORD OWNER:**
OUELLETTE SAND & GRAVEL, INC.
P.O. BOX 350 CHINA, MAINE 04358

- | | | | |
|----|----------|---|-----|
| 3. | 05-13-20 | REMOVED TWO SOLAR TABLES | JJM |
| 2. | 03-09-20 | REVISED SOLAR ARRAY LAYOUT | JJM |
| 1. | 01-27-20 | SUBMISSION TO TOWN FOR PRELIMINARY REVIEW | JJM |

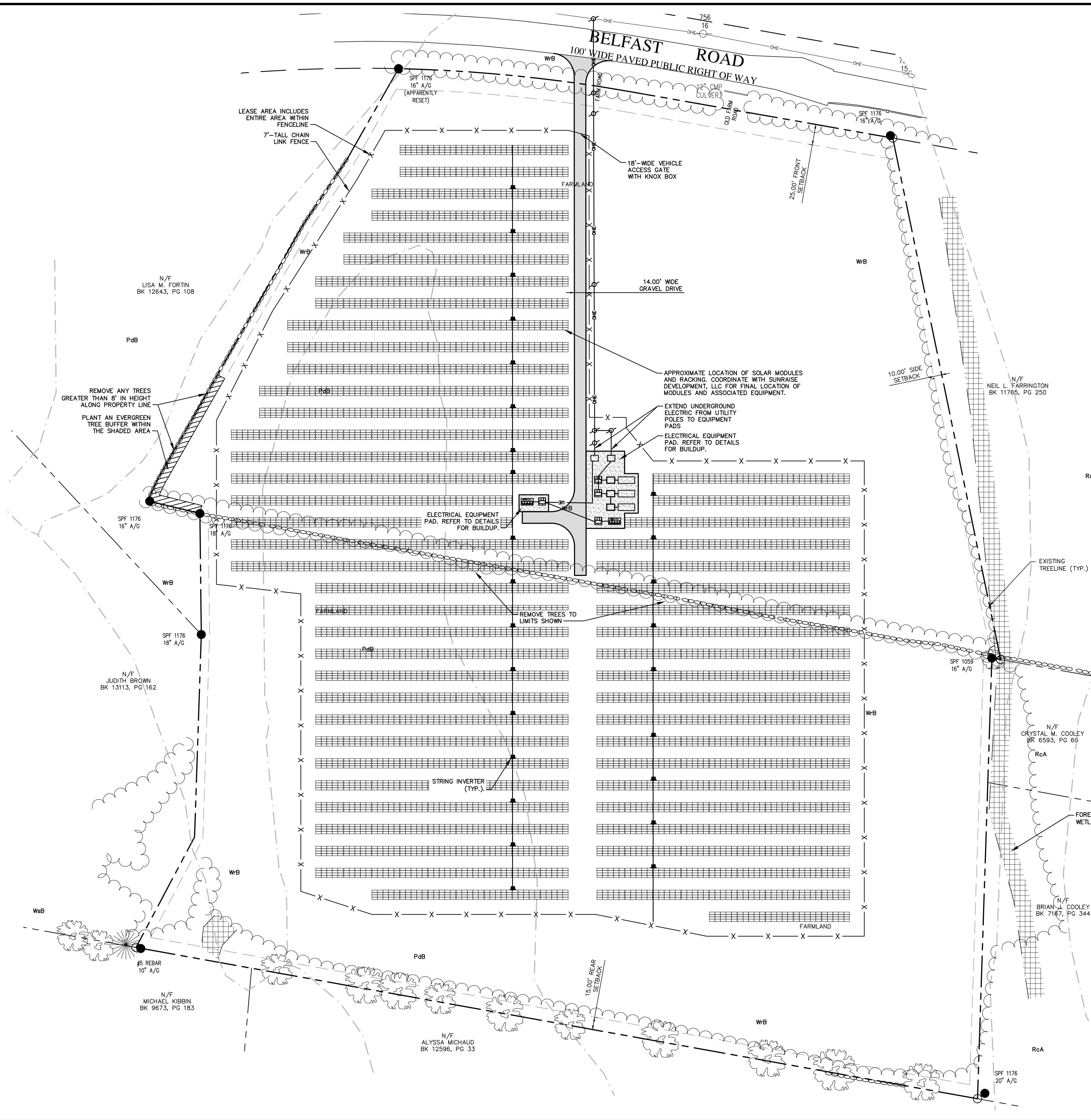
PROGRESS PRINT
THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.

CALL DIG SAFE UTILITY LOCATION
1-888-344-7233
STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES



| | |
|--|------------------------|
| TITLE: EXISTING CONDITIONS PLAN | |
| PROJECT: SOLAR ARRAY BELFAST RD (ROUTE 3), CHINA, ME 04358 | |
| PREPARED FOR: SUNRAISE DEVELOPMENT, LLC 26 MARKET SQUARE, PORTSMOUTH, NH 03801 | |
| 119 PURINTON ROAD, SUITE A BRUNSWICK, MAINE 04011 207.725.1200 CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS | |
| FIELD WK: OTHERS | SCALE: 1"=60' |
| DRN BY: JJM | JOB #: 4028 |
| CHD BY: CYN | MAP/PLOT: 33/16 |
| DATE: 01-03-2020 | FILE: 4028-SITE |
| SHEET: C2 | |

©2020, THIS DRAWING IS THE PROPERTY AND INSTRUMENT OF SITES L.P. NO MODIFICATIONS OR CHANGES MAY BE MADE TO THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF SITES L.P. ANY MODIFICATION, CHANGE OR USE OF THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF SITES L.P. IS UNLAWFUL AND IS AT THE USER'S RISK.
 X:\LAND PROJECTS\4028 RT. 3 SOLAR CHINA\DWG\4028-SITE.DWG, SITE (2), 11/15/2019 3:28 PM, JOSEPH MARDEN



LAYOUT NOTES:

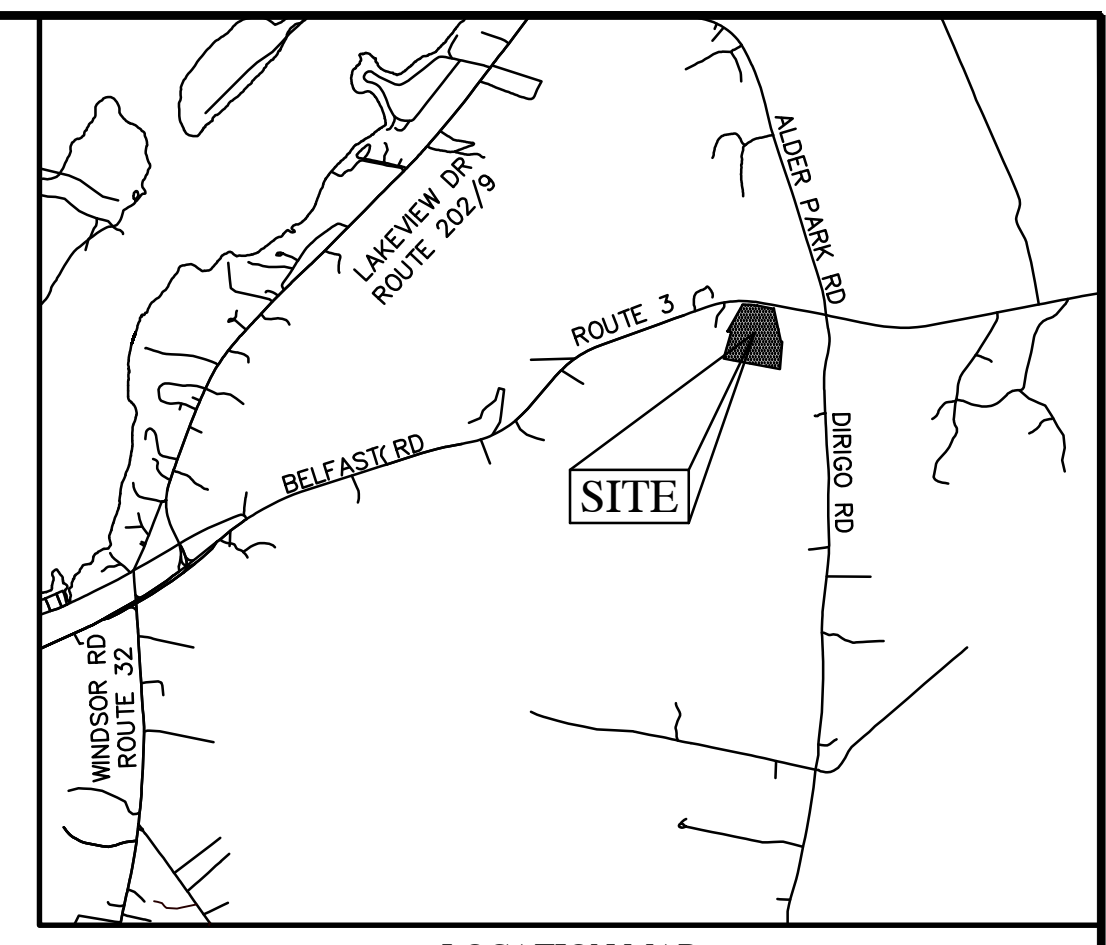
- BOUNDARY INFORMATION ON LAYOUT PLAN IS FOR REFERENCE ONLY. REFER TO CERTIFIED BOUNDARY PLANS FOR BOUNDARY INFORMATION.
- REFER TO SHEET C4 FOR GRADING AND DRAINAGE INFORMATION.
- REFER TO DRAWINGS BY OTHERS FOR ELECTRICAL EQUIPMENT AND SOLAR ARRAY DETAILS.

APPROVAL
TOWN OF CHINA PLANNING BOARD

DATE APPROVED: _____

DATE SIGNED: _____

CHAIRMAN: _____



LOCATION MAP
NOT TO SCALE

NOTES:

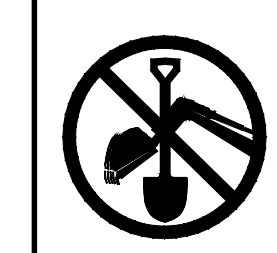
- TITLE REFERENCE FOR SURVEYED PARCEL:
BK 8182, PG 80
- PLAN REFERENCE(S):
a) PLAN ENTITLED, "MAINE STATE HIGHWAY COMMISSION - RIGHT OF WAY MAP - STATE HIGHWAY 215", DATED JUNE 1962, SHEETS 4 & 5, RECORDED IN PB 29, PGS 34 & 35.
b) PLAN ENTITLED, "PLAN OF STANDARD BOUNDARY SURVEY - HAZEL PELLERIN", DATED JUNE 1986, BY THAYER ENGINEERING CO., ON FILE WITH THE PREPARER.
- AREA INFORMATION:
1,004,323 SQ.FT. 23.06 ACRES
- TAX MAP REFERENCE:
TAX MAP 33, LOT 16.
- BASIS OF BEARINGS:
BEARINGS ARE GRID.
- ROAD INFORMATION:
BELFAST ROAD WIDTH IS 100' PER PLAN REFERENCED IN NOTE 2 ABOVE. LOCATION IS BASED ON EXISTING TRAVELED WAY LOCATED.
- UTILITY INFORMATION:
THERE MAY BE UNDERGROUND CONDUIT, WIRES, CABLES AND/OR STRUCTURES NOT SHOWN ON THIS PLAN. THE LOCATIONS SHOWN ARE BASED ON SURFACE FEATURES VISIBLE AT THE TIME OF SURVEY AND POSSIBLY FROM INFORMATION PROVIDED BY THE OWNER, MUNICIPAL GIS DATA, AND/OR UTILITY COMPANIES. NO EXCAVATIONS WERE MADE DURING THE COURSE OF THE SURVEY TO VERIFY OR LOCATE ANY UNDERGROUND STRUCTURES. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO VERIFY THE LOCATION OF ANY UNDERGROUND UTILITIES PRIOR TO EXCAVATING BY CONTACTING THE APPROPRIATE UTILITY COMPANY. STATE LAW REQUIRES DIG-SAFE BE CONTACTED PRIOR TO EXCAVATION.
- WETLANDS:
TIM FORRESTER, PWS 1933, WITH ATLANTIC ENVIRONMENTAL, LLC ANALYZED THE PROPERTY FOR WETLANDS AND NONE WERE LOCATED.
- TOPOGRAPHY:
CONTOURS SHOWN ARE A COMBINATION OF LIDAR FROM STATE OF MAINE GIS DATABASE AND PHODAR FROM DRONE PHOTOMETRIC METHODS.
- RECORD OWNER:
OUELLETTE SAND & GRAVEL, INC.
P.O. BOX 350 CHINA, MAINE 04358

| RURAL ZONING DISTRICT (RD) | |
|--|---------------------|
| ZONING STANDARD | REQUIRED |
| MIN. LOT SIZE: | 40,000 S.F. |
| MIN. LOT WIDTH: | 100' @ 10,000 S.F.* |
| SETBACKS: | |
| ROAD: | 25' |
| REAR: | 15' |
| SIDE: | 10' |
| MAX. HEIGHT: | 35' |
| MAX. LOT COVERAGE: * | 20% |
| MAX. BLDG HEIGHT | 35' |
| *LOT COVERAGE ONLY APPLIES TO STRUCTURES. DRIVEWAYS, PARKING AREAS, ETC. DO NOT APPLY TO LOT COVERAGE. | |

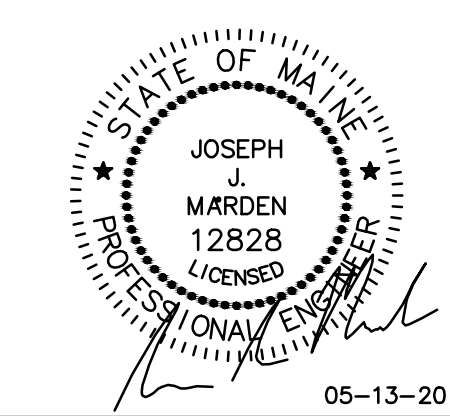
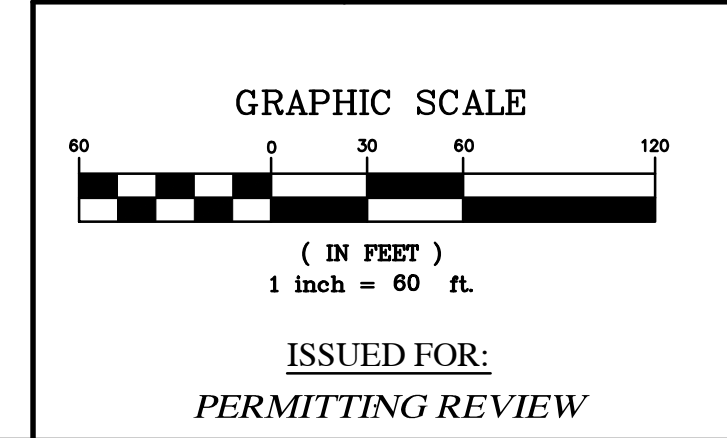
| PROJECT INFORMATION | |
|----------------------------------|--------------------|
| SIGNIFICANT WILDLIFE HABITAT: | N/A (NONE ON SITE) |
| SITE LAW JURISDICTIONAL ACREAGE: | 12.51 ACRES |
| WETLAND IMPACTS: | NONE |
| DISTURBED AREA: | 4.17 ACRES |
| DEVELOPED AREA: | 0.36 ACRES |
| IMPERVIOUS AREA: | 0.25 ACRES |

PROGRESS PRINT
THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.

- | | | |
|-------------|---|-----|
| 3. 05-13-20 | REMOVED TWO SOLAR TABLES | JJM |
| 2. 03-09-20 | REVISED SOLAR ARRAY LAYOUT | JJM |
| 1. 01-27-20 | SUBMISSION TO TOWN FOR PRELIMINARY REVIEW | JJM |



CALL DIG SAFE UTILITY LOCATION
1-888-344-7233
STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES

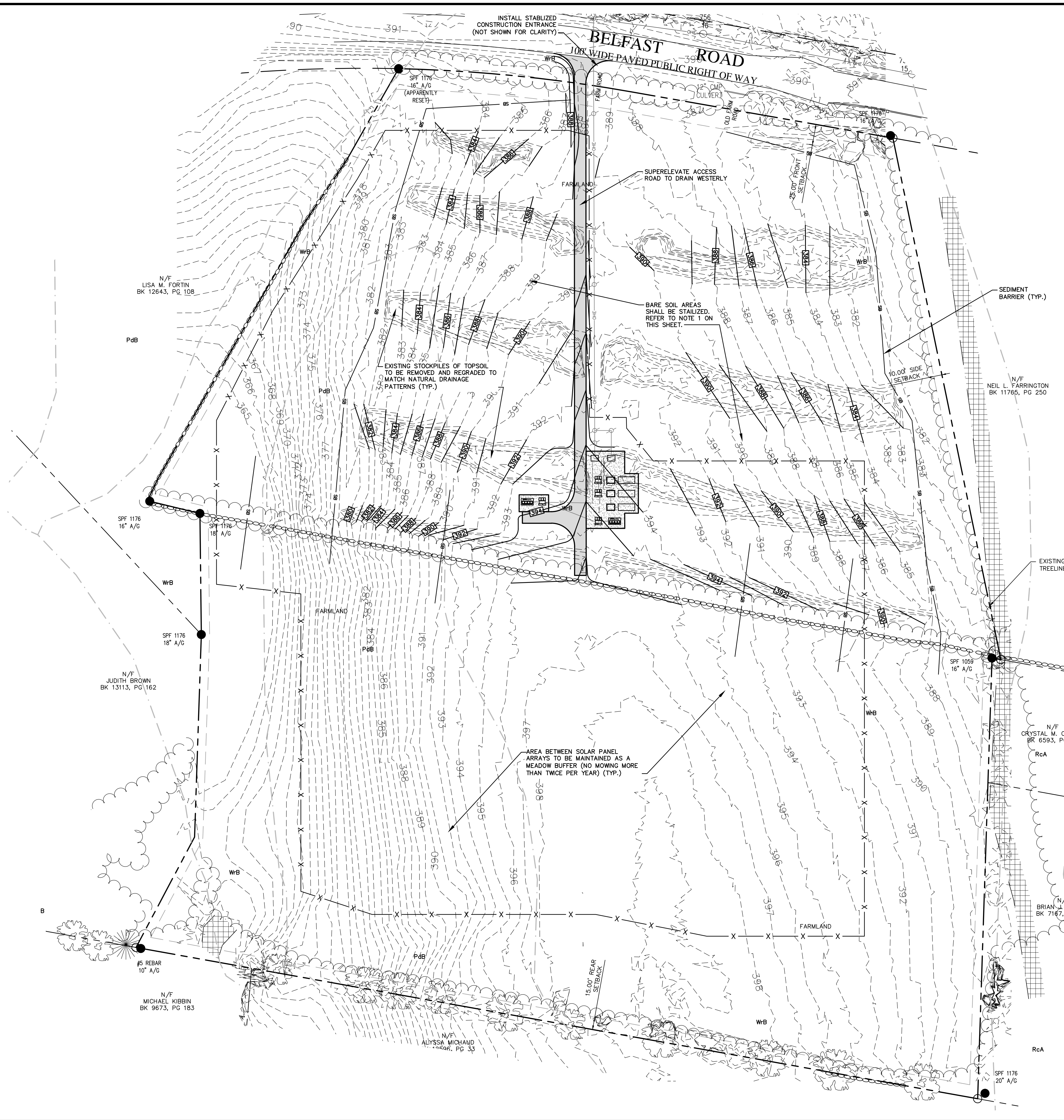


SITELINES
119 PURINTON ROAD, SUITE A
BRUNSWICK, MAINE 04011
207.725.1200

CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS

| | | |
|------------------|-----------------|-----------|
| FIELD WK: OTHERS | SCALE: 1"=60' | SHEET: |
| DRN BY: JJM | JOB #: 4028 | C3 |
| CH'D BY: CYN | MAP/LOT: 33/16 | |
| DATE: 01-03-2020 | FILE: 4028-SITE | |

© 2020. THIS DRAWING IS THE PROPERTY AND INSTRUMENT OF SITELINES PA. NO MODIFICATIONS OR CHANGES MAY BE MADE TO THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF SITELINES PA. ANY MODIFICATION, CHANGE OR USE OF THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF SITELINES PA. IS UNLAWFUL AND IS AT THE USER'S RISK.



EROSION & SEDIMENTATION CONTROL NOTES:

- THE PORTIONS OF THE PROPERTY TO BE CONVERTED FROM WOODED TO MEADOW AREAS, OR BARE SOIL AREAS, SHALL BE STABILIZED AS FOLLOWS:
 - MINIMIZE DISTURBANCE OF SOILS WITHIN WOODED AREAS TO THE GREATEST EXTENT PRACTICABLE DURING CLEARING AND STUMPING;
 - AREAS THAT ARE CLEARED AND STUMPED, OR FILLED, SHALL BE STABILIZED WITH MULCH WITHIN SEVEN (7) DAYS;
 - WOOD FIBER BERMS SHALL BE CONSTRUCTED PARALLEL ALONG THE SLOPE NO FURTHER THAN 100 FEET APART. THE APPROXIMATE LOCATIONS OF THE BERMS ARE SHOWN ON THIS PLAN AND THE DETAIL FOR THE WOOD FIBER BERMS ARE PROVIDED ON SHEET C9;
 - NO INSTALLATION OF THE SOLAR ARRAY AND ASSOCIATED GROUND SCREWS SHALL BE INSTALLED UNTIL THE MULCH COVER AND BERMS ARE IN PLACE;
 - UPON COMPLETION OF THE INSTALLATION OF THE SOLAR ARRAY, A HIGH PERFORMANCE SEED AND MULCH MIX (GEOPERM BONDED FIBER MATRIX OR APPROVED EQUAL) SHALL BE APPLIED TO THE AREA;
 - A THIRD-PARTY INSPECTOR SHALL BE ONSITE TO ENSURE THAT THE AREA IS STABILIZED AS INDICATED ABOVE. REGULAR INSPECTIONS SHALL BE COMPLETED TO ENSURE 90% VEGETATIVE COVERAGE WITH HEALTHY MEADOW VEGETATION;
 - ALTERNATIVE STABILIZATION MEASURES ARE ALLOWED BUT SHALL BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER IN CONSULTATION WITH THE TOWN OF CHINA CODE ENFORCEMENT OFFICER.

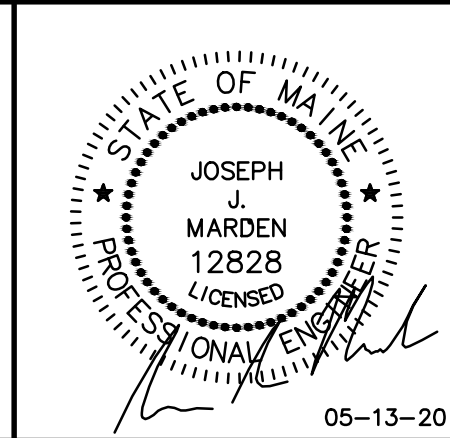
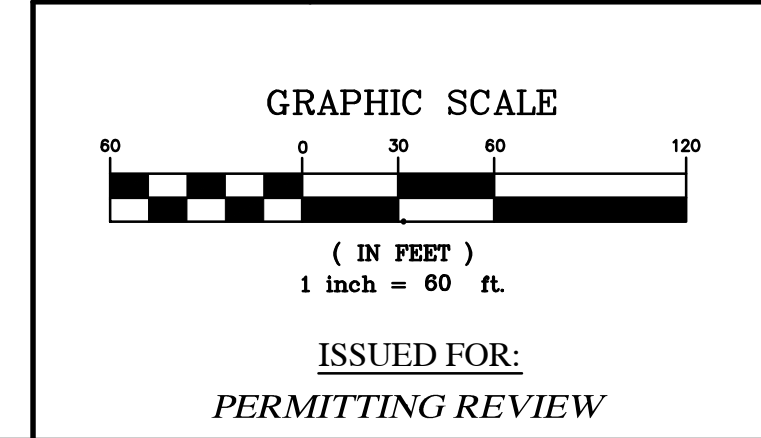
GRADING AND DRAINAGE NOTES:

- THE CONTRACTOR SHALL PHASE GRADING EFFORTS SUCH THAT TOTAL SITE DISTURBANCE IS MINIMIZED. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO GRADING EFFORTS OR WITHOUT DELAY UPON THEIR COMPLETION, DEPENDENT UPON THE SITUATION.
- ALL FILL SLOPES SHALL BE A MINIMUM OF 3:1 HORIZONTAL TO VERTICAL UNLESS OTHERWISE NOTED OR DIRECTED.
- THE LIMITS OF DISTURBANCE SHALL GENERALLY BE THE MINIMAL EXTENT NECESSARY ONLY TO PERFORM THE GRADING EFFORTS SHOWN ON THE DRAWINGS. SPECIAL CARE SHALL BE TAKEN TO AVOID DISTURBANCE OF OBJECTS AND AREAS NOT SPECIFICALLY IDENTIFIED FOR MODIFICATION OR REMOVAL.
- ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDING IN ACCORDANCE WITH THE DRAWINGS, UNLESS INTENDED FOR OTHER SURFACE COVER.
- WHERE FINAL GRADING HAS BEEN COMPLETED, SURFACE RESTORATION FOR DISTURBED AREAS WILL BE COMPLETED AS SOON AS PRACTICABLE. FOR VEGETATIVE AREAS, VEGETATION WILL BE PROGRESSIVELY ESTABLISHED.
- TRANSITIONS BETWEEN SLOPES ARE TO BE GENERALLY GRADUAL AND RESULT IN A SMOOTH, ROUNDED APPEARANCE.

PROGRESS PRINT
 THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.

- | | | | |
|----|----------|---|-----|
| 3. | 05-13-20 | REMOVED TWO SOLAR TABLES | JJM |
| 2. | 03-09-20 | REVISED SOLAR ARRAY LAYOUT | JJM |
| 1. | 01-27-20 | SUBMISSION TO TOWN FOR PRELIMINARY REVIEW | JJM |

CALL DIG SAFE UTILITY LOCATION
1-888-344-7233
 STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES



TITLE: GRADING, DRAINAGE, & EROSION CONTROL PLAN

PROJECT: SOLAR ARRAY
 BELFAST RD (ROUTE 3), CHINA, ME 04358

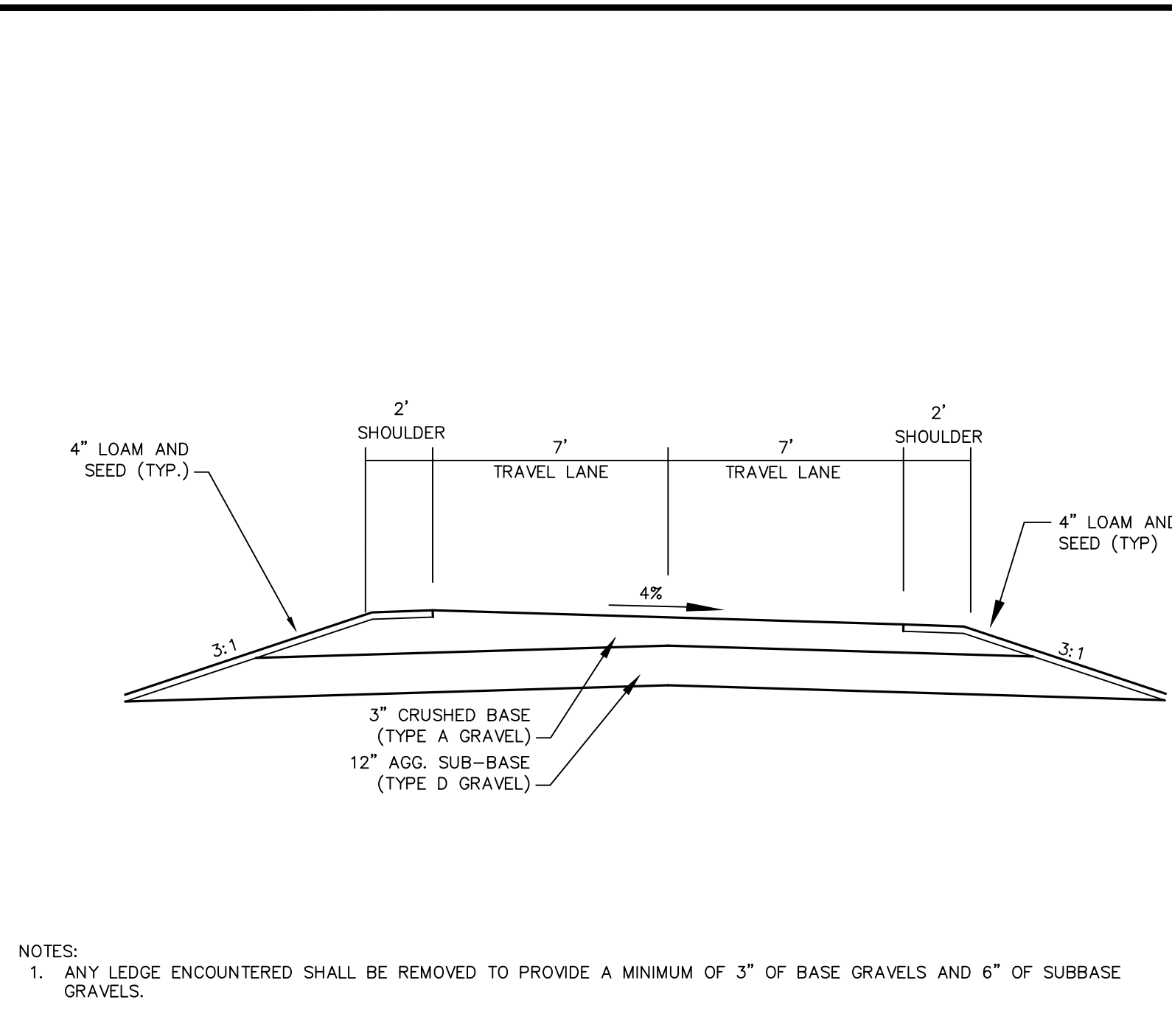
PREPARED FOR: SUNRAISE DEVELOPMENT, LLC
 26 MARKET SQUARE, PORTSMOUTH, NH 03801

SITELINES
 119 PURINTON ROAD, SUITE A
 BRUNSWICK, MAINE 04011
 207.725.1200

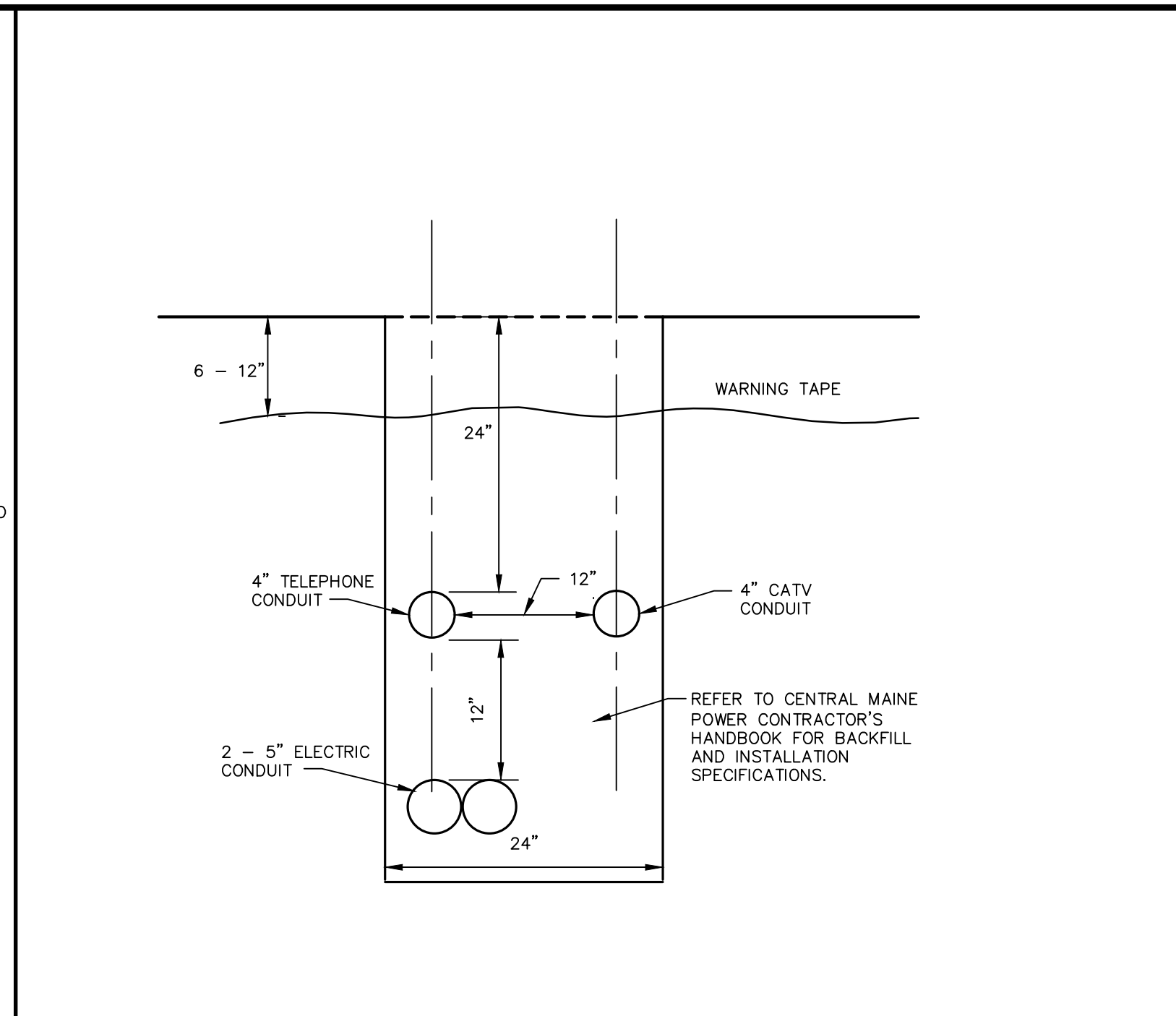
| | | |
|------------------|-----------------|-----------|
| FIELD WK: OTHERS | SCALE: 1"=60' | SHEET: |
| DRN BY: JJM | JOB #: 4028 | C4 |
| CH'D BY: CYN | MAP/LOT: 33/16 | |
| DATE: 01-03-2020 | FILE: 4028-SITE | |



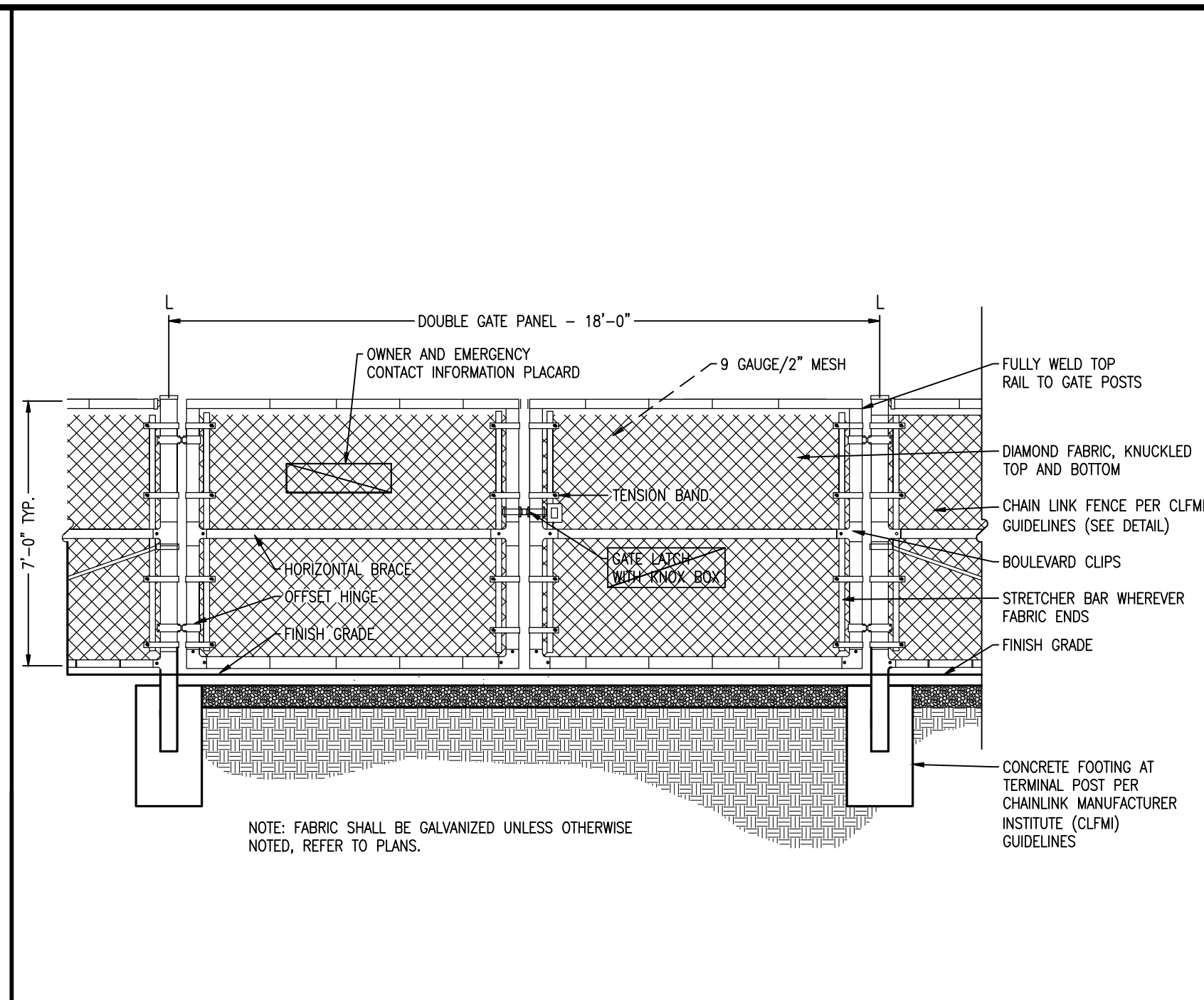
© 2020. THIS DRAWING IS THE PROPERTY AND INSTRUMENT OF TERRASART, INC. NO MODIFICATIONS OR CHANGES MAY BE MADE TO THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF TERRASART, INC. ANY MODIFICATION, CHANGE OR USE OF THIS DRAWING WITHOUT THE EXPRESS WRITTEN PERMISSION OF TERRASART, INC. IS VOID AND IS AT THE USER'S RISK.



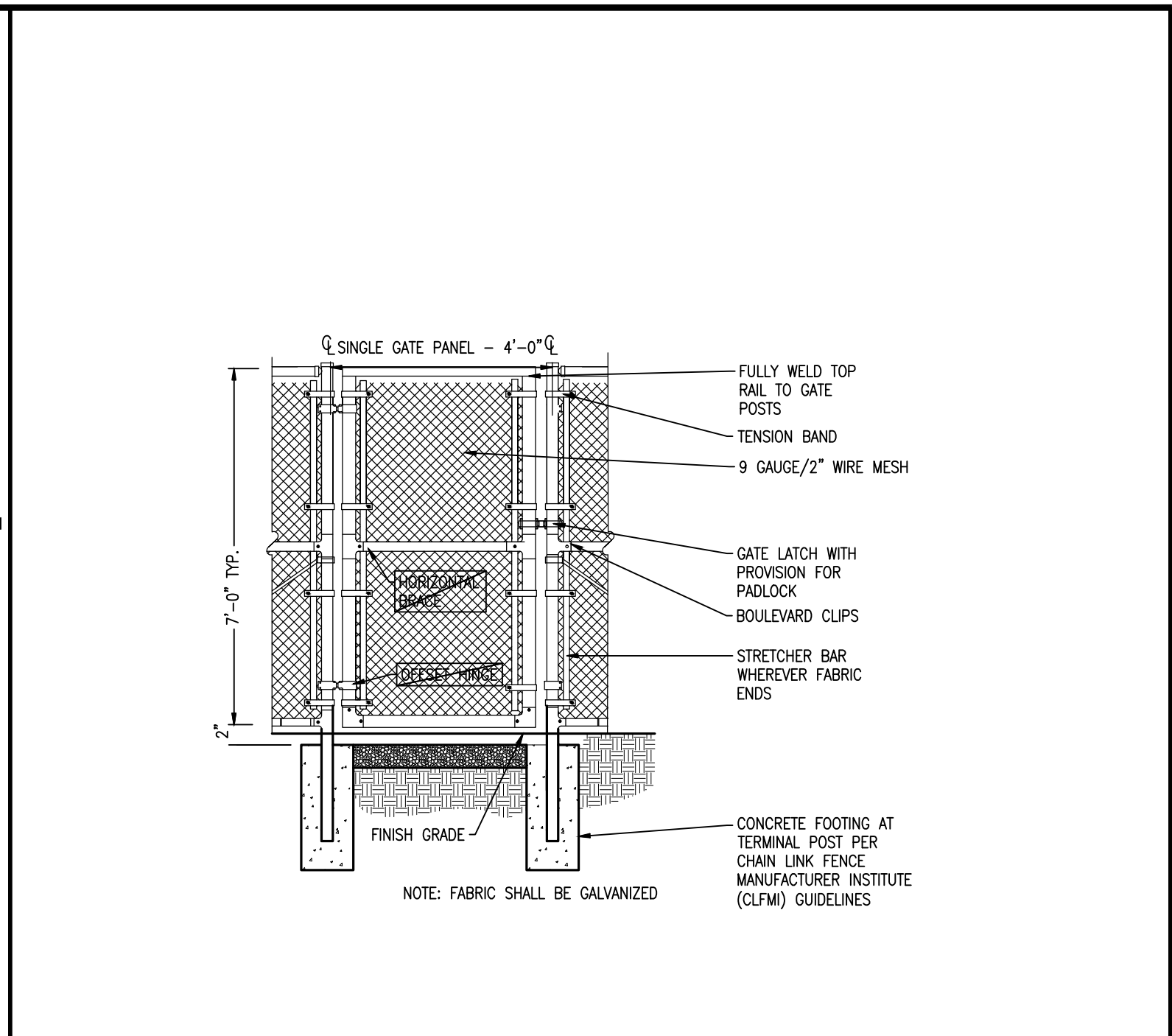
A ACCESS ROAD SECTION
N.T.S.



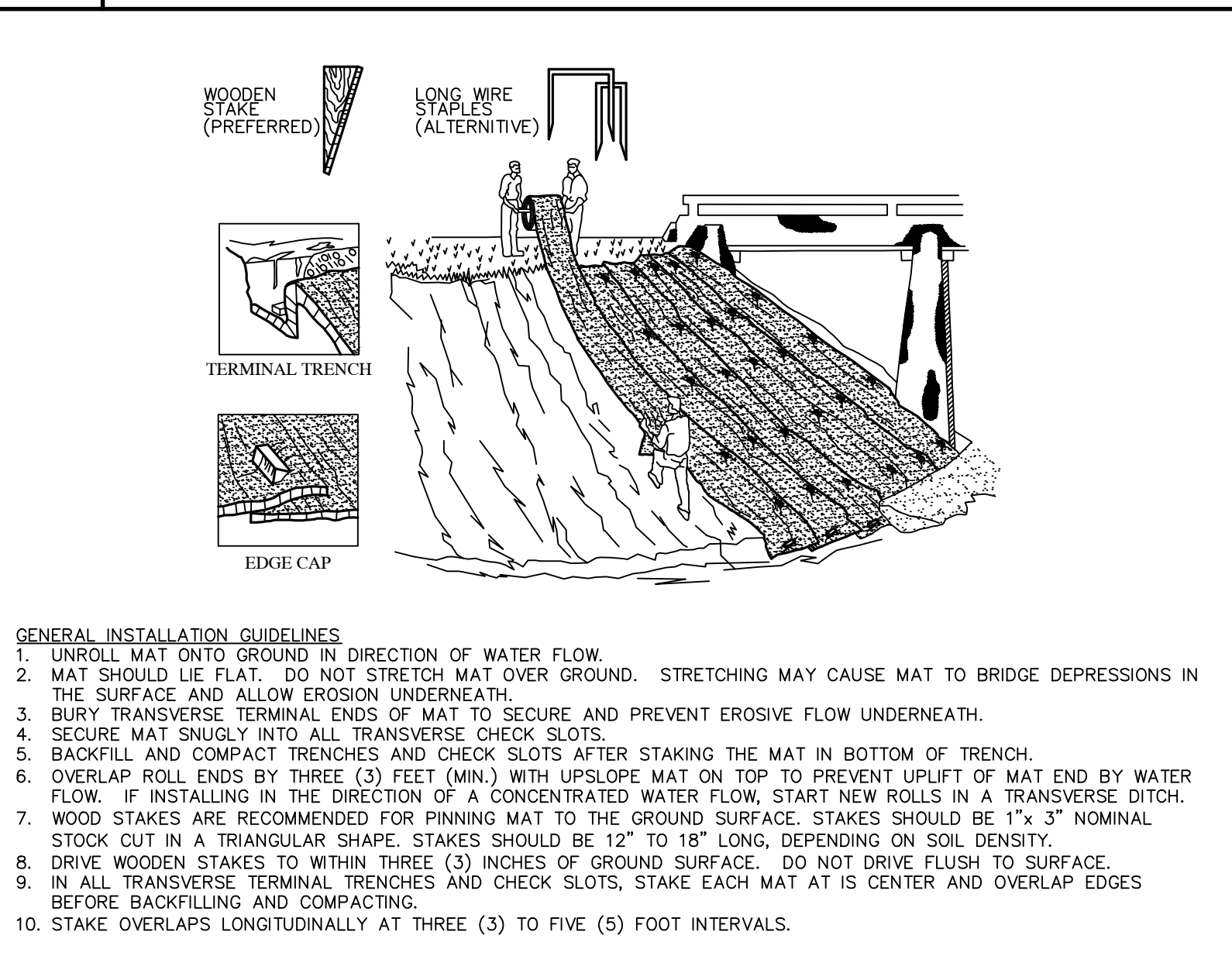
B UTILITY TRENCH
N.T.S.



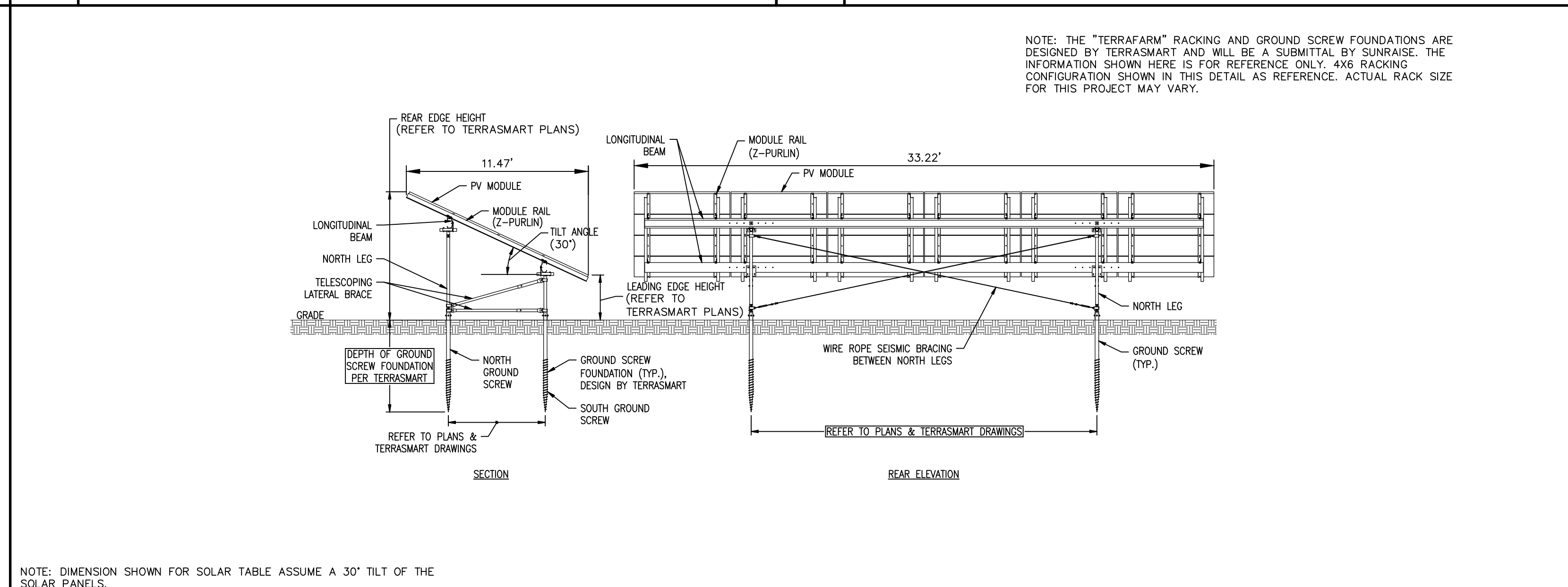
C VEHICLE GATE
N.T.S.



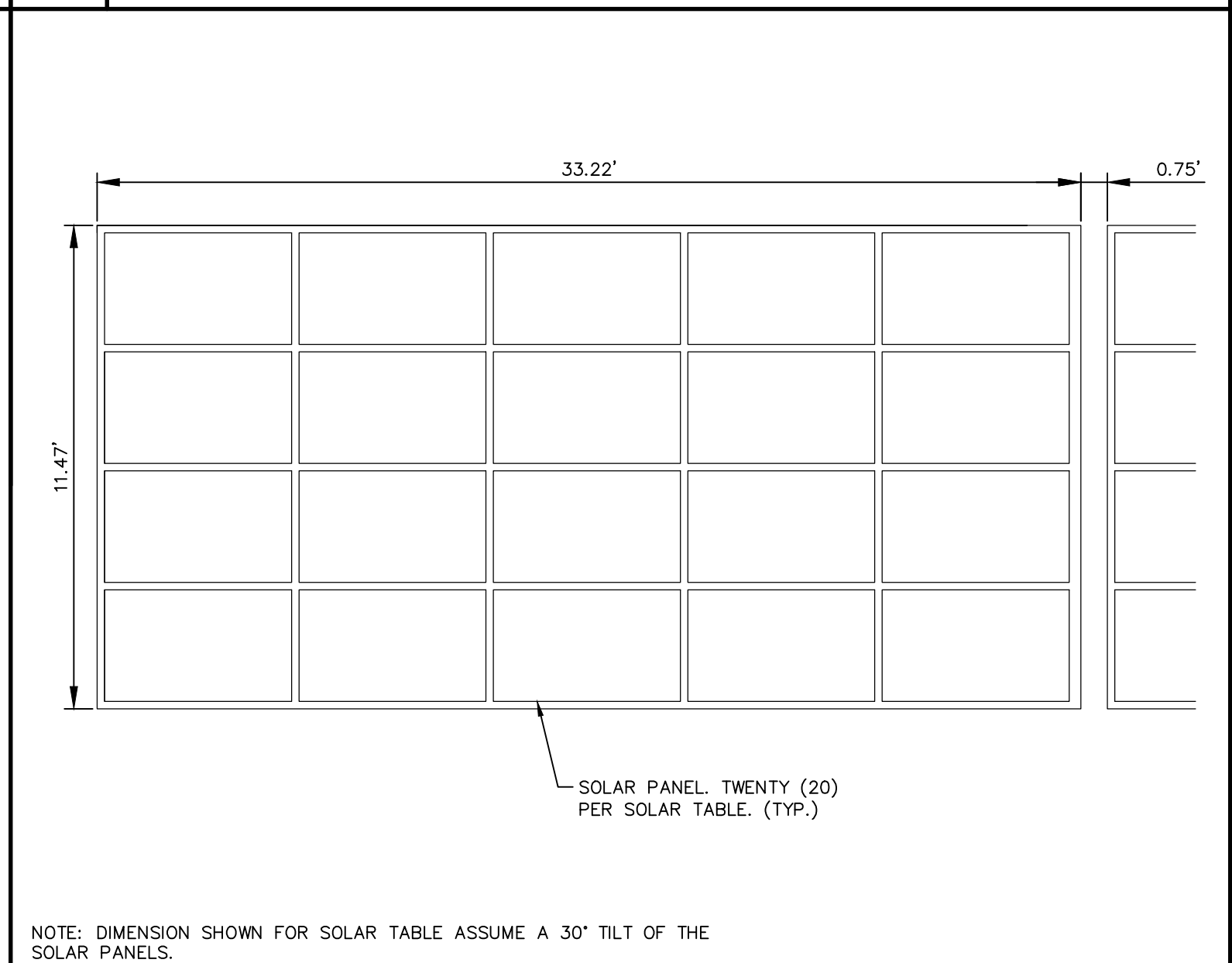
D MAN GATE
N.T.S.



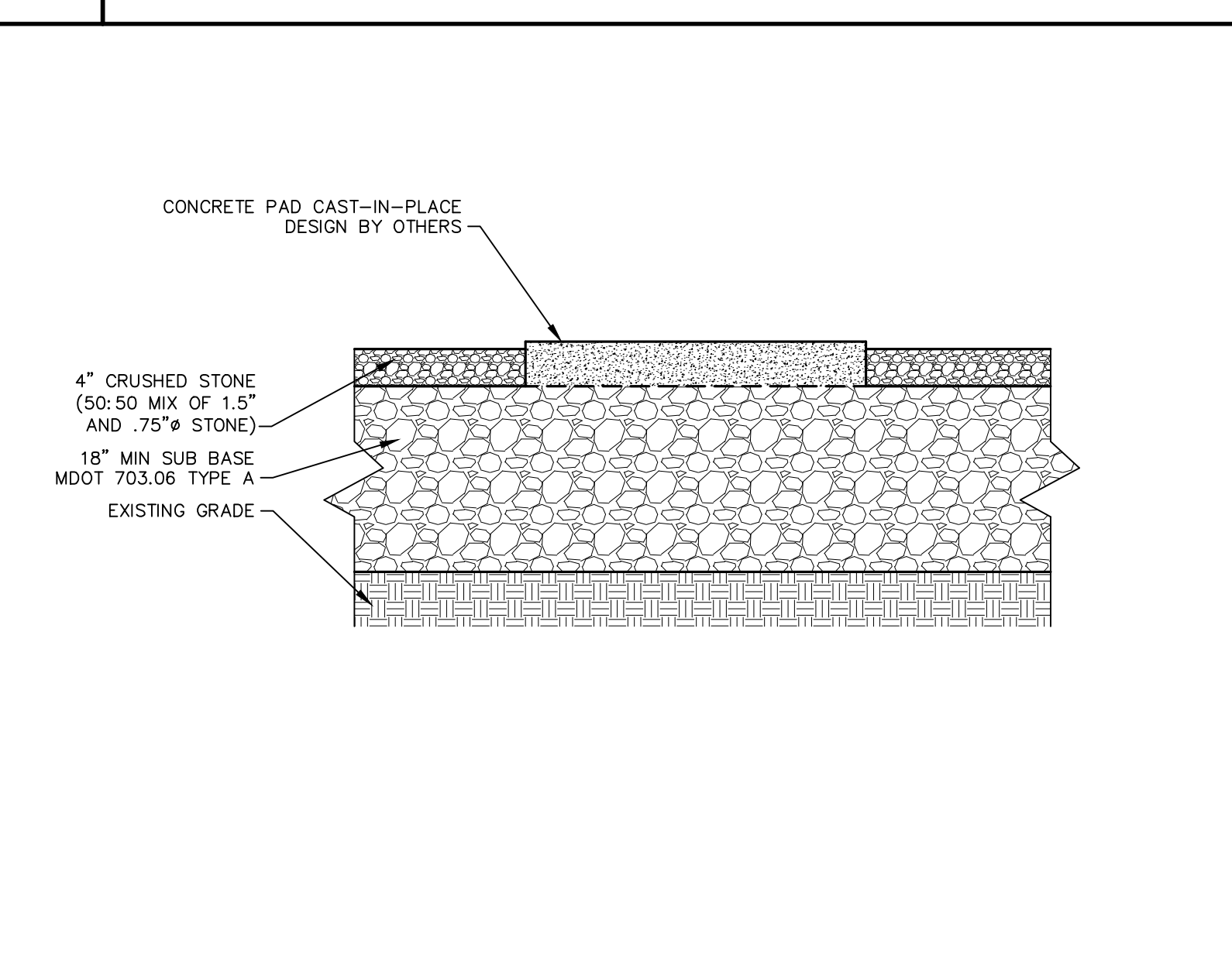
E EROSION CONTROL BLANKET
N.T.S.



F TYPICAL RACK SECTION & REAR ELEVATION
N.T.S.



G SOLAR TABLE DETAIL
N.T.S.



H EQUIPMENT PAD AREA SECTION
N.T.S.

I NOT USED
N.T.S.

J NOT USED
N.T.S.

| | |
|--|---|
| <p>3. 05-13-20 REMOVED TWO SOLAR TABLES JJM</p> <p>2. 03-09-20 REVISED SOLAR ARRAY LAYOUT JJM</p> <p>1. 01-27-20 SUBMISSION TO TOWN FOR PRELIMINARY REVIEW JJM</p> | |
| <p>TITLE: SITE DETAILS</p> | |
| <p>PROJECT: SOLAR ARRAY BELFAST RD (ROUTE 3), CHINA, ME 04358</p> | |
| <p>OWNER: SUNRAISE DEVELOPMENT, LLC 26 MARKET SQUARE, PORTSMOUTH, NH 03801</p> | |
| <p>PROGRESS PRINT THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.</p> | <p>SITELINES 119 PURINTON ROAD, SUITE A BRUNSWICK, MAINE 04011 207.725.1200 CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS</p> |
| <p>FIELD WK: OTHERS DRN BY: JIM CHD BY: CYN DATE: 01-03-2020</p> | <p>SCALE: NTS JOB #: 4028 MAP/LOT: 33/16 FILE: 4028-COVER-DET</p> |
| <p>SHEET: C5</p> | |

X:\LAND PROJECTS\028 RT_3 SOLAR CHINA\DWG\028 COVER-DET.DWG, 05 DETAILS, 1/15/2018 3:29:33 PM, JOSEPH MARDEN

