TGC SOLAR 1

327 SOUTH RIVER ROAD
TOLLAND, CT 06084

APPLICANT
WR-TGC SOLAR GENERATION XVI, LLC
C/O TRUE GREEN CAPITAL MANAGEMENT
18 KINGS HIGHWAY NORTH
WESTPORT, CONNECTICUT 06880

LAND OWNER
TOWN OF TOLLAND CONNECTICUT
21 TOLLAND GREEN
TOLLAND CONNECTICUT 06084

PROPERTY
MBLU 30/C/9/00

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GENERAL
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CIVIL
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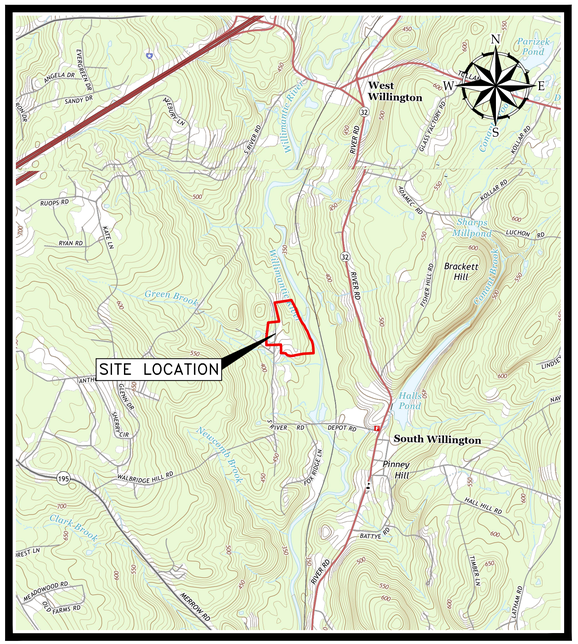
C-101 SITE PLAN, GRADING AND EROSION CONTROL
D-200 DETAILS – 1
D-201 DETAILS – 2

MARCH 2016

ENGINEER



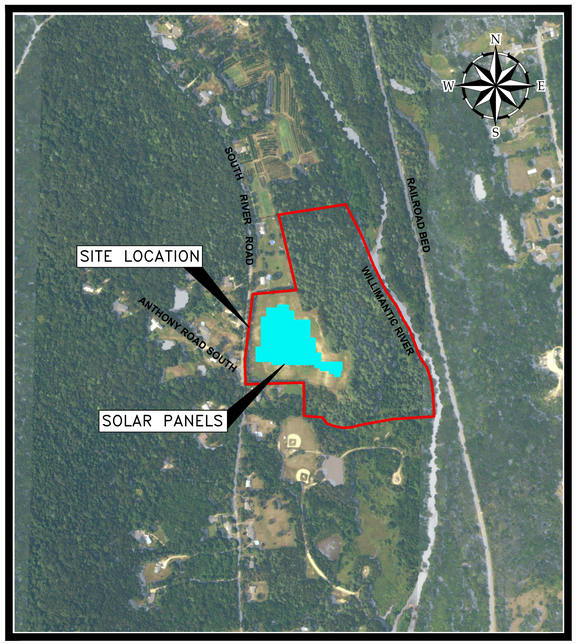
REFERENCE: USGS TOPOGRAPHIC MAP

SITE LOCATION MAP

SCALE: 1" = 2,000'

2,000 0 2,000 3,000

FEET



REFERENCE: USGS NATIONAL DATABASE

SITE LOCATION AERIAL PHOTO

SCALE: 1" = 500'

500 0 500 1000

FEET

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G-001

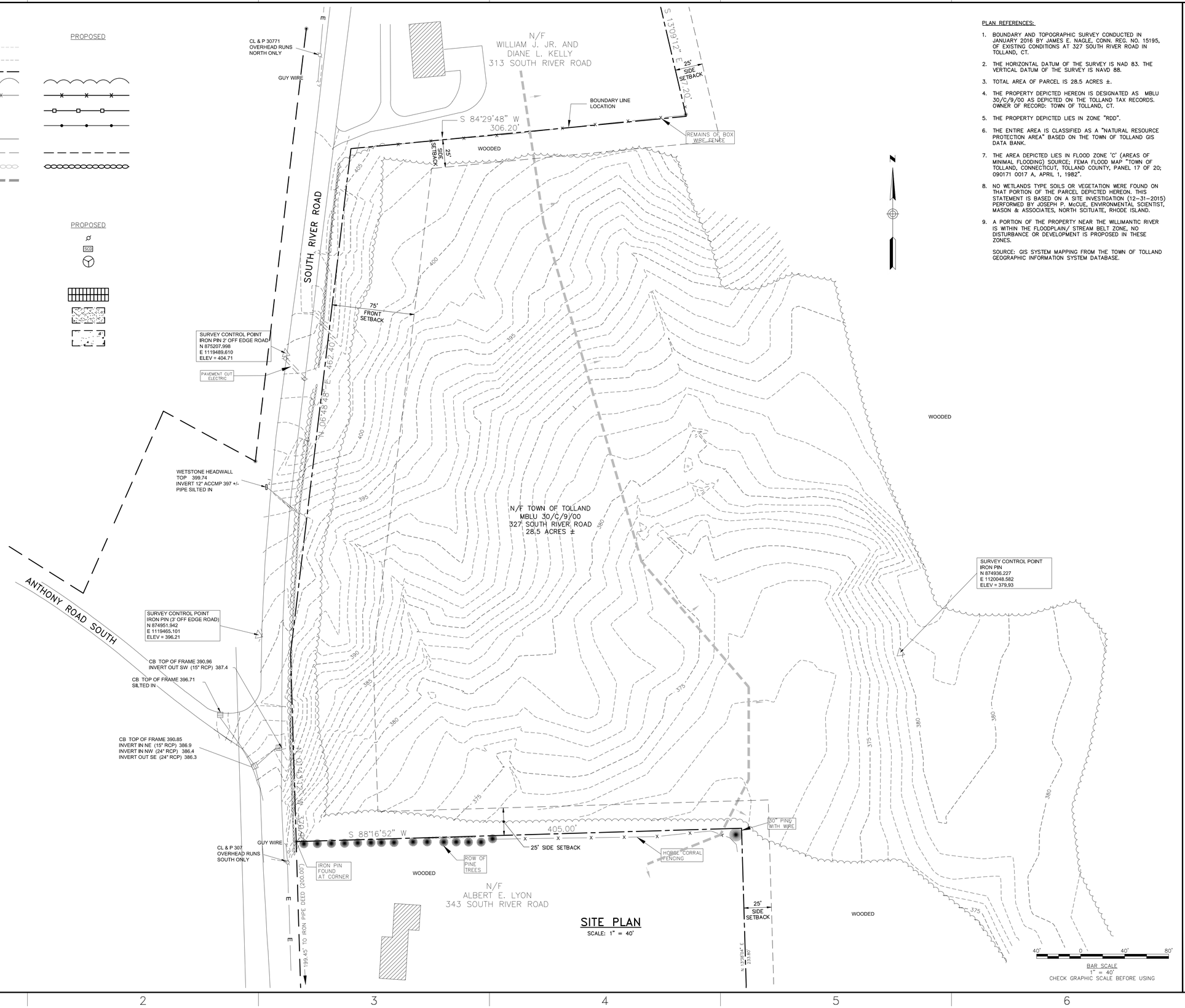
W:\228051 True Green Capital – CT Municipal Landfill\wip\228051.01 Tolland South River\Drawings\228051.01 G001.dwg, Mar 11, 2016 – 2:55pm

LINE TYPES

DESCRIPTION	EXISTING	PROPOSED
CONTOUR (1' INTERVAL)	122	
CONTOUR (INDEX)	120	
PROPERTY LINE		
EDGE OF VEGETATION		
CHAIN LINK FENCE	X X X	
VINYL COATED CHAIN LINK FENCE		
EROSION CONTROL BERM		
EDGE OF PAVEMENT		
EDGE OF GRAVEL		
STONE WALLL		
ACQUIFER PROTECTION		

SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
UTILITY POLE		
STONE CHECK DAM		SCD
TREE		
IRON PIN		
MONUMENTS		
SOLAR PANELS		
GRAVEL		
CONCRETE		



SITE PLAN
SCALE: 1" = 40'

BAR SCALE
1" = 40'
CHECK GRAPHIC SCALE BEFORE USING

PLAN REFERENCES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY CONDUCTED IN JANUARY 2016 BY JAMES E. NAGLE, CONN. REG. NO. 15195, OF EXISTING CONDITIONS AT 327 SOUTH RIVER ROAD IN TOLLAND, CT.
2. THE HORIZONTAL DATUM OF THE SURVEY IS NAD 83. THE VERTICAL DATUM OF THE SURVEY IS NAVD 88.
3. TOTAL AREA OF PARCEL IS 28.5 ACRES ±.
4. THE PROPERTY DEPICTED HEREON IS DESIGNATED AS MBLU 30/C/9/00 AS DEPICTED ON THE TOLLAND TAX RECORDS. OWNER OF RECORD: TOWN OF TOLLAND, CT.
5. THE PROPERTY DEPICTED LIES IN ZONE "RDD".
6. THE ENTIRE AREA IS CLASSIFIED AS A "NATURAL RESOURCE PROTECTION AREA" BASED ON THE TOWN OF TOLLAND GIS DATA BANK.
7. THE AREA DEPICTED LIES IN FLOOD ZONE 'C' (AREAS OF MINIMAL FLOODING) SOURCE; FEMA FLOOD MAP "TOWN OF TOLLAND, CONNECTICUT, TOLLAND COUNTY, PANEL 17 OF 20; 090171 0017 A, APRIL 1, 1982".
8. NO WETLANDS TYPE SOILS OR VEGETATION WERE FOUND ON THAT PORTION OF THE PARCEL DEPICTED HEREON. THIS STATEMENT IS BASED ON A SITE INVESTIGATION (12-31-2015) PERFORMED BY JOSEPH P. McCUE, ENVIRONMENTAL SCIENTIST, MASON & ASSOCIATES, NORTH SCITUATE, RHODE ISLAND.
9. A PORTION OF THE PROPERTY NEAR THE WILLIMANTIC RIVER IS WITHIN THE FLOODPLAIN/ STREAM BELT ZONE, NO DISTURBANCE OR DEVELOPMENT IS PROPOSED IN THESE ZONES.

   SOURCE: GIS SYSTEM MAPPING FROM THE TOWN OF TOLLAND GEOGRAPHIC INFORMATION SYSTEM DATABASE.

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DRAWN BY: AAB
CHECKED BY: AAB
228051.01 10X.dwg

EXISTING CONDITIONS PLAN & LEGEND

WR-TGC SOLAR GENERATION XVI, LLC
C/O TRUE GREEN CAPITAL MANAGEMENT
1 MAIN STREET NORTH, 3RD FLOOR
WESTPORT, CONNECTICUT 06880

TGC SOLAR 1
327 SOUTH RIVER ROAD
TOLLAND, CT 06084

JOB NO.: 228051.01
DATE: MARCH 2016
SCALE: 1" = 40'
SHEET: 2 OF 5

C-100

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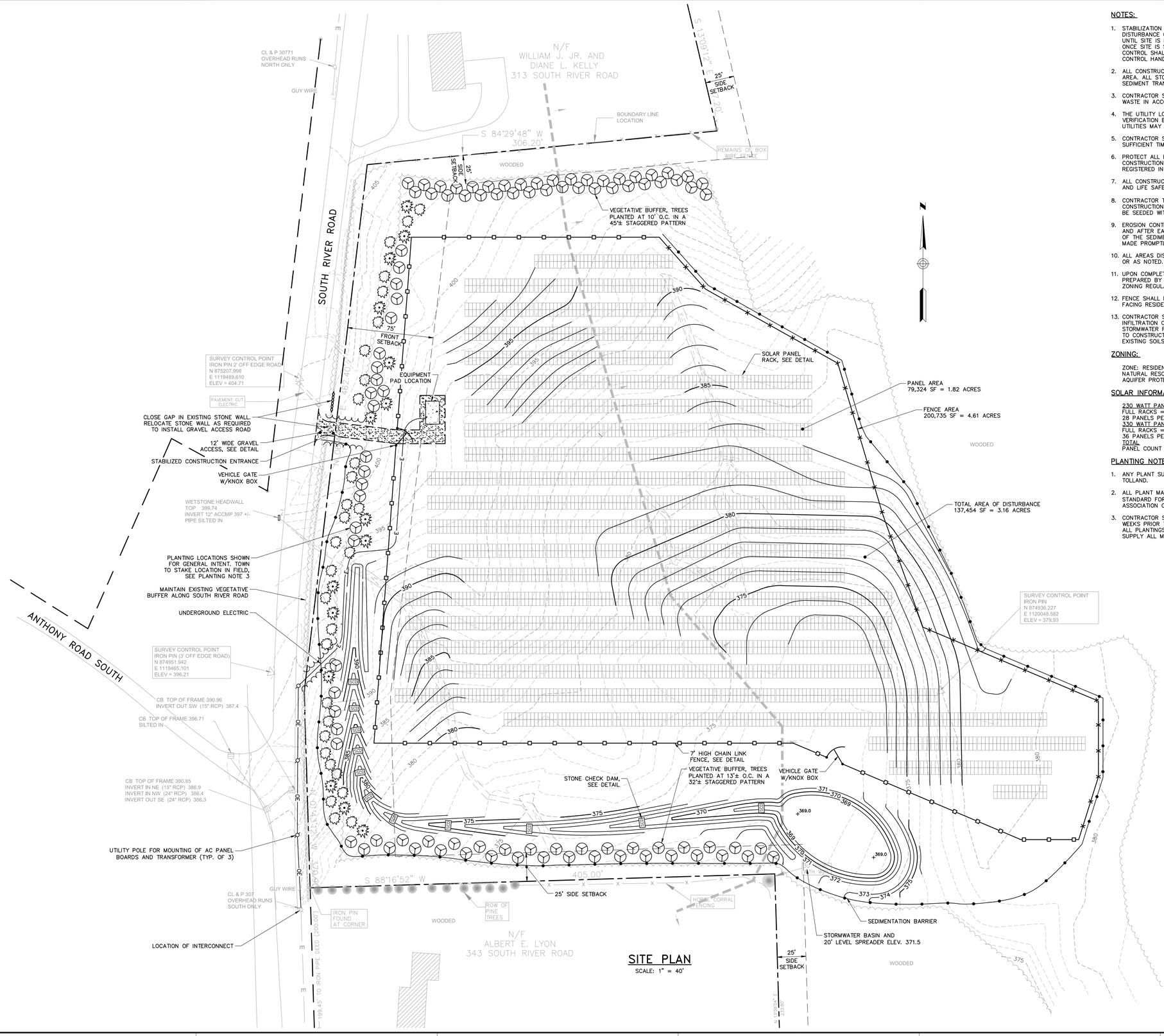

NOTES:

1. STABILIZATION MEASURES (IE. EROSION & SEDIMENT CONTROL) MUST BE IN PLACE PRIOR TO DISTURBANCE OF SOILS, INSPECTED & MAINTAINED DURING CONSTRUCTION ACTIVITIES & UNTIL SITE IS PERMANENTLY STABILIZED. EROSION CONTROL BARRIERS SHALL BE REMOVED ONCE SITE IS STABILIZED & GRASS AREAS REACH 90% COVER. SOIL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE CONNECTICUT SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, AS AMENDED.
2. ALL CONSTRUCTION STAGING & MATERIAL STOCKPILES MUST BE LOCATED WITHIN THE PANEL AREA. ALL STOCKPILES SHALL BE SURROUNDED BY EROSION CONTROL DEVICES TO MINIMIZE SEDIMENT TRANSPORT DURING CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY DISPOSING OF ALL CONSTRUCTION WASTE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
4. THE UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND REQUIRE FIELD VERIFICATION BY THE CONTRACTOR PRIOR TO CONSTRUCTION ACTIVITY. NOT ALL EXISTING UTILITIES MAY BE SHOWN.
5. CONTRACTOR SHALL NOTIFY ALL UTILITIES PRIOR TO COMMENCING WORK, ALLOWING SUFFICIENT TIME TO LOCATE AND MARK LOCATION OF BURIED UTILITIES.
6. PROTECT ALL EXISTING MONUMENTS AND PINS. PROPERTY MARKERS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF CONNECTICUT.
7. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CONNECTICUT FIRE SAFETY CODE, AND LIFE SAFETY CODE, AS AMENDED AND MOST CURRENT.
8. CONTRACTOR TO PROVIDE 4" LOAM AND SEED AT ALL AREAS DISTURBED DURING CONSTRUCTION. AREAS DISTURBED OUTSIDE OF PANEL AREA OR DRAINAGE SWALES SHALL BE SEEDED WITH NEW ENGLAND WILDFLOWER MIX WITH BIRDS FOOT-TREFOIL.
9. EROSION CONTROL MEASURES SHALL BE INSPECTED BY CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM EVENT. SEDIMENT THAT HAS ACCUMULATED TO HALF THE HEIGHT OF THE SEDIMENT BARRIER SHALL BE REMOVED. REPAIR AND REPLACEMENTS SHALL BE MADE PROMPTLY AS NEEDED.
10. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITION OR AS NOTED.
11. UPON COMPLETION OF CONSTRUCTION CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS PREPARED BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH THE TOWN OF TOLLAND ZONING REGULATIONS, SECTION 22-7-U.
12. FENCE SHALL BE BLACK OR GREEN VINYL ALONG SOUTH RIVER ROAD AND FOR FENCING FACING RESIDENTIAL PROPERTIES TO THE NORTH AND SOUTH.
13. CONTRACTOR SHALL CONDUCT OPERATIONS IN A MANNER WHICH WILL PROTECT THE INFILTRATION CAPACITY OF SOILS BELOW THE BASIN, DO NOT ALLOW SEDIMENT-LADEN STORMWATER RUNOFF TO ENTER THE BASIN; USE ONLY LOW GROUND PRESSURE EQUIPMENT TO CONSTRUCT THE BASIN, AND CONDUCT OPERATIONS SO AS TO AVOID COMPACTION OF EXISTING SOILS.

ZONING:

ZONE: RESIDENTIAL DESIGN DISTRUCT (RDD),
NATURAL RESOURCE PROTECTION AREA OVERLAY
AQUIFER PROTECTION AREA

SOLAR INFORMATION

230 WATT PANELS:
FULL RACKS = 28
28 PANELS PER RACK: 784 PANELS = 0.18 MW
330 WATT PANELS:
FULL RACKS = 92
36 PANELS PER RACK: 3,312 PANELS = 1.09 MW
TOTAL
PANEL COUNT = 4,096 = 1.27 MW

PLANTING NOTES

1. ANY PLANT SUBSTITUTIONS MUST BE APPROVED BY THE OWNER AND THE TOWN OF TOLLAND.
2. ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF THE AMERICAN STANDARD FOR NURSERY STOCK (LATEST EDITION) AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
3. CONTRACTOR SHALL NOTIFY DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT TWO WEEKS PRIOR TO PLANTING. THE TOWN OF TOLLAND SHALL STAKE AND TAG LOCATION OF ALL PLANTINGS. CONTRACTOR SHALL FULLY COORDINATE PLANTINGS WITH THE TOWN AND SUPPLY ALL MATERIALS NECESSARY TO STAKE LOCATIONS OF PLANTINGS.

PLANT LIST

KEY	COMMON & BOTANICAL NAME	SIZE	ROOT	QTY.
	EASTERN WHITE PINE, PINUS STROBUS	6' HT. (MIN.)	B&B	24
	RED SPRUCE, PICEA RUBENS	6' HT. (MIN.)	B&B	19
	FRASER FIR, ABIES FRASERI	6' HT. (MIN.)	B&B	21
	RED MAPLE, ACER RUBRUM	8' – 10' HT.	B&B	28
	SHADBLOW SERVICE BERRY, AMELANCHIER CANADENSIS	5 GALLON	NA	15
	MOUNTAIN LAUREL, KALMIA LATIFOLIA	5 GALLON	NA	30

ZONE: RESIDENTIAL DESIGN (RDD)

VARIABLE	REQUIRED	PROPOSED
FRONT YARD	75 FT.	75 FT.
SIDE YARD	25 FT.	95 FT.±
REAR YARD	25 FT.	> 25. FT.
HEIGHT OF SOLAR	25. FT. MAX.	7.5 FT.±

NOTE: YARD SETBACKS ARE PER THE TOWN OF TOLLAND ALTERNATIVE ENERGY REGULATION (SECTION 17-8)

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DRAWN BY: JBC	228051.01 10X.dwg	

SITE PLAN, GRADING AND EROSION CONTROL

WR-TGC SOLAR GENERATION XVI, LLC
C/O TRUE GREEN CAPITAL MANAGEMENT
15 RIVERSIDE AVENUE, 1ST FLOOR
WESTPORT, CONNECTICUT 06880

TGC SOLAR 1
327 SOUTH RIVER ROAD
TOLLAND, CT 06084

JOB NO.: 228051.01
DATE: MARCH 2016
SCALE: 1" = 40'
SHEET: 3 OF 5

C-101

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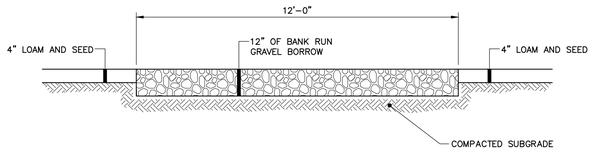
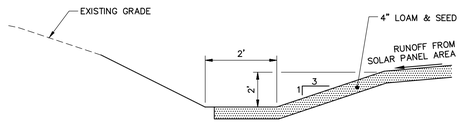


GRAVEL ACCESS DETAIL
N.T.S.



VEGETATED SWALE
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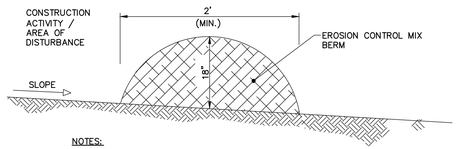


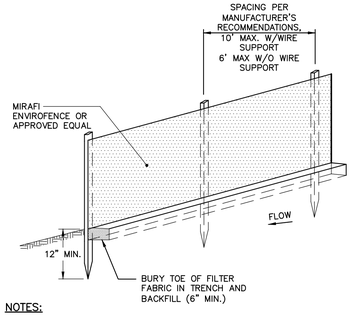
NOTES:
EROSION CONTROL MIX BERM MUST CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

COMPOSITION:

EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

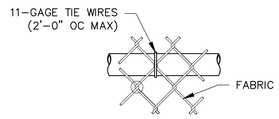
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100 % PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85%, PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMHOS/CM.
- THE PH SHOULD FALL BETWEEN 5.0 AND 8.0.

SEDIMENT BARRIER – EROSION CONTROL MIX BERM
N.T.S.

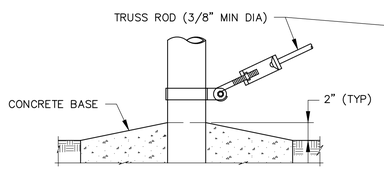


NOTES:
- INSTALL FABRIC ON UPHILL SIDE OF SUPPORT POSTS
- INSTALL SILT FENCE ACROSS SLOPES
- SILT FENCE SHALL NOT BE USED IN DRAINAGE WAYS

SEDIMENT BARRIER – SILTATION FENCE DETAIL
N.T.S.



TOP OR BRACE RAIL ATTACHMENT

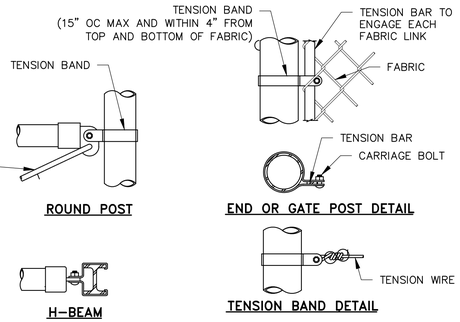


TRUSS ROD AND BAND

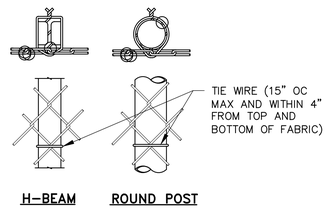
STEEL POST SCHEDULE	
USE AND SECTION	MINIMUM OUTSIDE DIMENSIONS (NOMINAL)
CORNER, END & PULL POSTS TUBULAR – ROUND	2.875" O.D.
LINE POSTS TUBULAR – ROUND	2.375" O.D.
TOP & BRACE RAILS TUBULAR – ROUND	1.66" O.D.

NOTES:

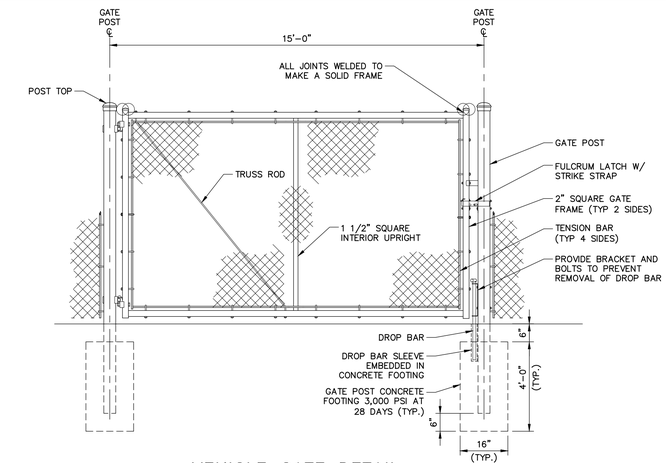
1. DETAILS SHOWN ARE TO CLARIFY REQUIREMENTS AND ARE NOT INTENDED TO LIMIT OTHER TYPES OF FENCE SECTIONS AND METHODS OF INSTALLATION.
2. WIRE TIES, RAILS, POSTS, AND BRACES SHALL BE CONSTRUCTED ON THE SECURE SIDE OF THE FENCE ALIGNMENT. CHAIN-LINK FABRIC SHALL BE PLACED ON THE OPPOSITE SIDE OF THE SECURE AREA.



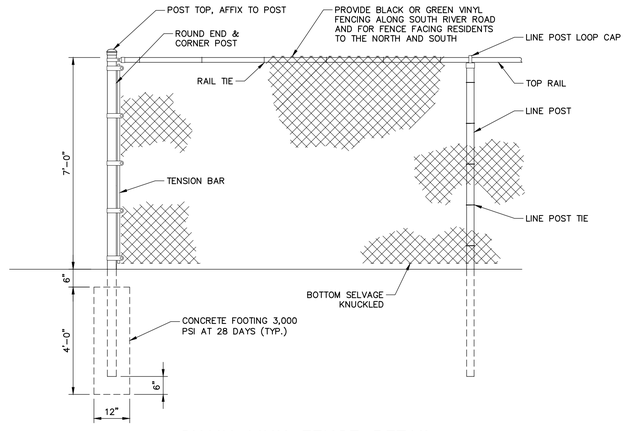
BRACE RAIL CLAMP DETAILS



LINE POST ATTACHMENTS



VEHICLE GATE DETAIL
N.T.S.



CHAIN LINK FENCE DETAIL
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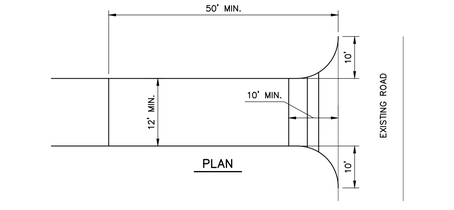
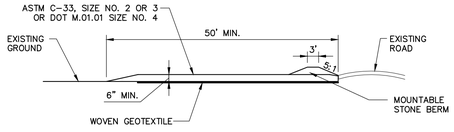


PLAN



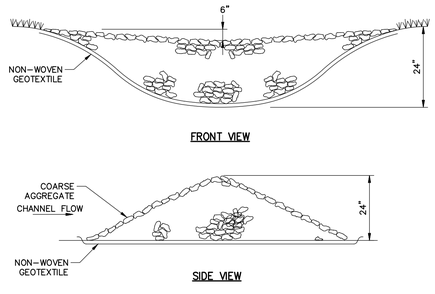
PROFILE

NOTES:
- CONSTRUCTION ENTRANCES MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
- WHEEL WASH PITS MAY ALSO BE USED, IF APPROVED.

MAINTENANCE: INSPECT FOR EFFECTIVE REMOVAL OF SOIL FROM VEHICLES PRIOR TO LEAVING THE SITE. SWEEP ANY SOIL FROM ADJACENT ROADWAYS.

REMOVAL: AT LEAST ONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL ALL AREAS OF THE SITE ARE STABILIZED.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.



FRONT VIEW

SIDE VIEW

NOTES:
1. SPACING BETWEEN CHECK DAMS AS SHOWN ON PLANS.

STONE CHECK DAM
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228051.01 D20X.dwg

DETAILS – 1

WR-TGC SOLAR GENERATION XVI, LLC
c/O TRUE GREEN CAPITAL MANAGEMENT
18 KINGS HIGHWAY NORTH
WESTPORT, CONNECTICUT 06880

TGC SOLAR 1
327 SOUTH RIVER ROAD
TOLLAND, CT 06084

JOB NO.: 228051.01
DATE: MARCH 2016
SCALE: AS NOTED
SHEET: 4 OF 5

D-200

24x36 SHEET
1:1

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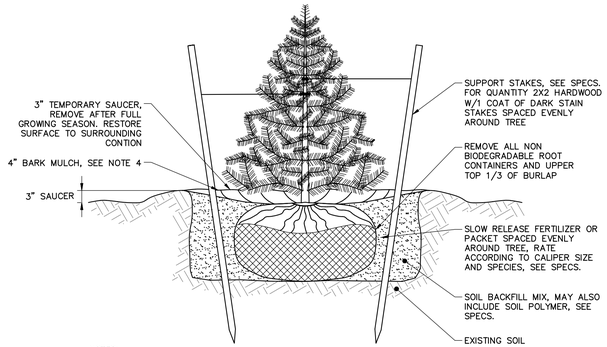
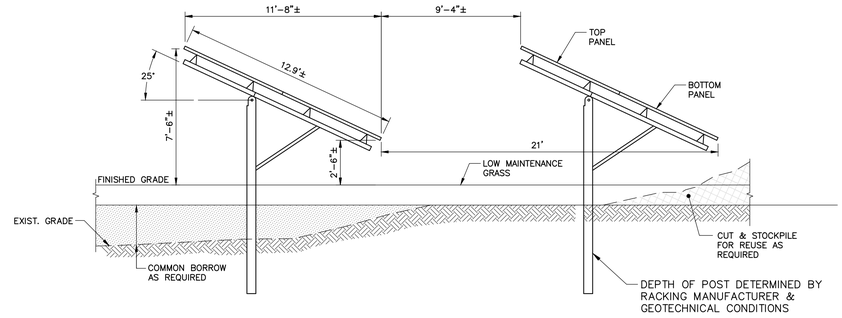


NOTES:

1. NEVER CUT OUT CENTRAL LEADER, PRUNE OUT BROKEN, DEAD OR CONFLICTING BRANCHES
2. SEE SPECS. FOR ADDITIONAL REQUIREMENTS
3. TREE GUYS SHALL BE GUYING CHAIN, WEB STRAPPING OR TIE WIRE, RUBBER HOSE AND TURNBUCKLES
4. MULCHING SHALL CONSIST OF PREMIUM TYPE #1 GRADE MULCH SUCH AS PINEBARK, CEDAR, OR HEMLOCK, AT LEAST 4" IN DEPTH. DYED OR INDUSTRIAL TYPE MULCH IS NOT PERMITTED.

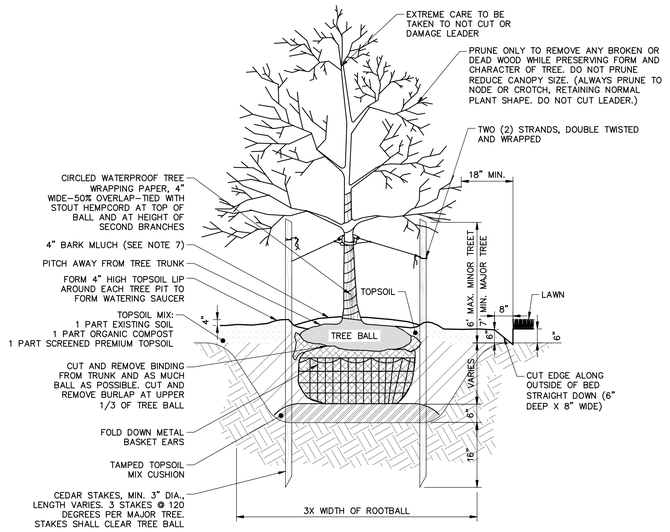
EVERGREEN TREE PLANTING AND STAKING

N.T.S.



TYPICAL SOLAR PANELS & RACK DETAIL

N.T.S.



NOTES:

1. PLANT TO SCALE IN CONTAINERS MUST HAVE THE FIBROUS POTBOUND ROOTS PULLED APART TO ALLOW THE ROOTS TO SPREAD.
2. AFTER THE SHRUB HAS BEEN PLACED IN THE HOLE, THE TOPSOIL MIX SHOULD BE PLACED AROUND THE PLANT ONE-THIRD OF THE WAY UP, A SLOW RELEASE SUPER PHOSPHATE FERTILIZER WILL BE ADDED TO THE SOIL AROUND THE SHRUB, AND THEN FILL THE REMAINDER OF HOLE WITH TOPSOIL MIX. THE TOPSOIL MIX SHOULD THEN BE GENTLY COMPACTED.
3. PROVIDE 3" LAYER OF MULCH AS SPECIFIED OVER ENTIRE WATERING SAUCER AT ALL TREE PITS OR OVER ENTIRE TREE BED.
4. REMOVE EXISTING WEEDS, LAWN OR PLANT MATERIAL FROM PROPOSED BED AREA.
5. REMOVE EXISTING WEEDS, LAWN OR PLANT MATERIAL FROM PROPOSED BED AREA.
6. ALL TREES SHALL CONFORM TO THE STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (A.A.N.).
7. MULCHING SHALL CONSIST OF PREMIUM TYPE #1 GRADE MULCH SUCH AS PINEBARK, CEDAR, OR HEMLOCK, AT LEAST 4" IN DEPTH. DYED OR INDUSTRIAL TYPE MULCH IS NOT PERMITTED.

DECIDUOUS TREE PLANTING

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DRAWN BY: JBC	228051.01 D20X.dwg	

DETAILS - 2

WR-TGC SOLAR GENERATION XVI, LLC
C/O TRUE GREEN CAPITAL MANAGEMENT
18 KINGS HIGHWAY NORTH
WESTPORT, CONNECTICUT 06880

TGC SOLAR 1
327 SOUTH RIVER ROAD
TOLLAND, CT 06084

JOB NO.: 228051.01
DATE: MARCH 2016
SCALE: AS NOTED
SHEET: 5 OF 5

D-201

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