P22-12 PB Submission 03/10/23

van note - harvey associates, inc.

103 College Road East
Princeton, New Jersey 08540
609-987-2323 Fax: 609-987-0005
NJ Authorization #24GA28271300

www.vannoteharvey.com

van note - harvey associates

Since 1894

TRANSMITTAL

TO: Ryan P. Kennedy
Stevens & Lee
100 Lenox Drive, Suite 200
Lawrenceville, NJ 08648

VIA: UPS Ground

DATE: March 7, 2023
JOB #: 45582-420-21

RE: Safari Energy
600 & 650 College Road East
Block 701, Lot 11

NO. OF COPIES	SHEET #	DESCRIPTION	DATE	REVISION
2	CVR	Coversheet	-	-
2	1	Vicinity Plan	9/9/2022	-
2	CE-1	Overall Site Plan	9/9/2022	2/27/2023
2	CE-2	Site Engineering Plan	9/9/2022	2/27/2023
2	CE-3	Site Engineering Plan	9/9/2022	2/27/2023
2	CE-4	Overall Site Circulation Plan	9/9/2022	2/17/2023
2	CE-6	Soil Erosion and Sediment Control Plan	9/9/2022	-
2	CE-7	Soil Erosion and Sediment Control Plan	9/9/2022	-
2	CE-8	Soil Erosion and Sediment Control Notes	9/9/2022	-
2	CE-9	Soil Erosion and Sediment Control Details	9/9/2022	-
2	CE-10	Construction Details	9/9/2022	2/27/2023
2	LS-1	Tree Replacement Plan	9/9/2022	-
2	1	Existing Conditions Survey	12/9/2021	5/4/2022
2	1	Existing Conditions Survey	12/9/2021	5/4/2022
2	G100	Site Plan	8/5/2022	-
2	G100	Site Plan	11/23/2021	8/5/2022
2	E151	Photometrics Plan	8/5/2022	-
2	E151	Photometrics Plan	8/5/2022	-
12	-	11"x17" Copies of All Above Listed Plan Sheets	-	-

Remarks: For your use.

Van Note-Harvey Associates, Inc.

Ralph Petrella, PE
Vice President

WDV/mem
Y:\VNHADATA\PROJECTS\45582\CORRESPONDENCE\45582-TRANSMITTAL_KENNEDY 2-3-2023.DOCX
Enclosures
RAP / WDV / IB

022-12.08 Submission 02/10/23

MINOR SITE PLAN

OF

SOLAR CANOPY SYSTEM ARRAY

FOR

SAFARI ENERGY

BLOCK 701, LOTS 10 AND 11

PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

OWNER:
NUVEEN
600 COLLEGE ROAD EAST
PRINCETON, NJ 08540

APPLICANT:
SAFARI ENERGY
1407 BROADWAY, 24TH FLOOR
NEW YORK, NEW YORK 10018

ATTORNEY:
STEVENS & LEE
100 LENOX DRIVE, SUITE 200
LAWRENCEVILLE, NEW JERSEY 08648

ENGINEER/SURVEYOR:
VAN NOTE-HARVEY ASSOCIATES, PC.
777 ALEXANDER ROAD,
PRINCETON, NEW JERSEY 08543-3227

SHEET INDEX

CIVIL ENGINEERING PLANS

SHEET NO.	TITLE
CVR	COVER SHEET
VIC	VICINITY PLAN AND KEY MAP
CE-1	OVERALL SITE PLAN
CE-2	SITE ENGINEERING PLAN 600 COLLEGE ROAD
CE-3	SITE ENGINEERING PLAN 650 COLLEGE ROAD
CE-4	OVERALL SITE CIRCULATION PLAN 600 AND 650 COLLEGE ROAD
CE-5	RESERVED
CE-6	SOIL EROSION AND SEDIMENT CONTROL PLAN 600 COLLEGE ROAD
CE-7	SOIL EROSION AND SEDIMENT CONTROL PLAN 650 COLLEGE ROAD
CE-8	SOIL EROSION AND SEDIMENT CONTROL NOTES
CE-9	SOIL EROSION AND SEDIMENT CONTROL DETAILS
CE-10	CONSTRUCTION DETAILS
LS-1	SITE LANDSCAPE PLAN
1	EXISTING CONDITIONS PLAN 600 COLLEGE ROAD
1	EXISTING CONDITIONS PLAN 650 COLLEGE ROAD

SOLAR PLANS

SHEET NO.	TITLE
G100	SITE PLAN
E151	PHOTOMETRICS PLAN

MINOR SITE PLAN
- APPROVED BY:

PLANNING BOARD CHAIRMAN

PLANNING BOARD SECRETARY

APPLICATION NUMBER:

CVR

N:\P\45582\DWG\45582-600-650-CVR.DWG

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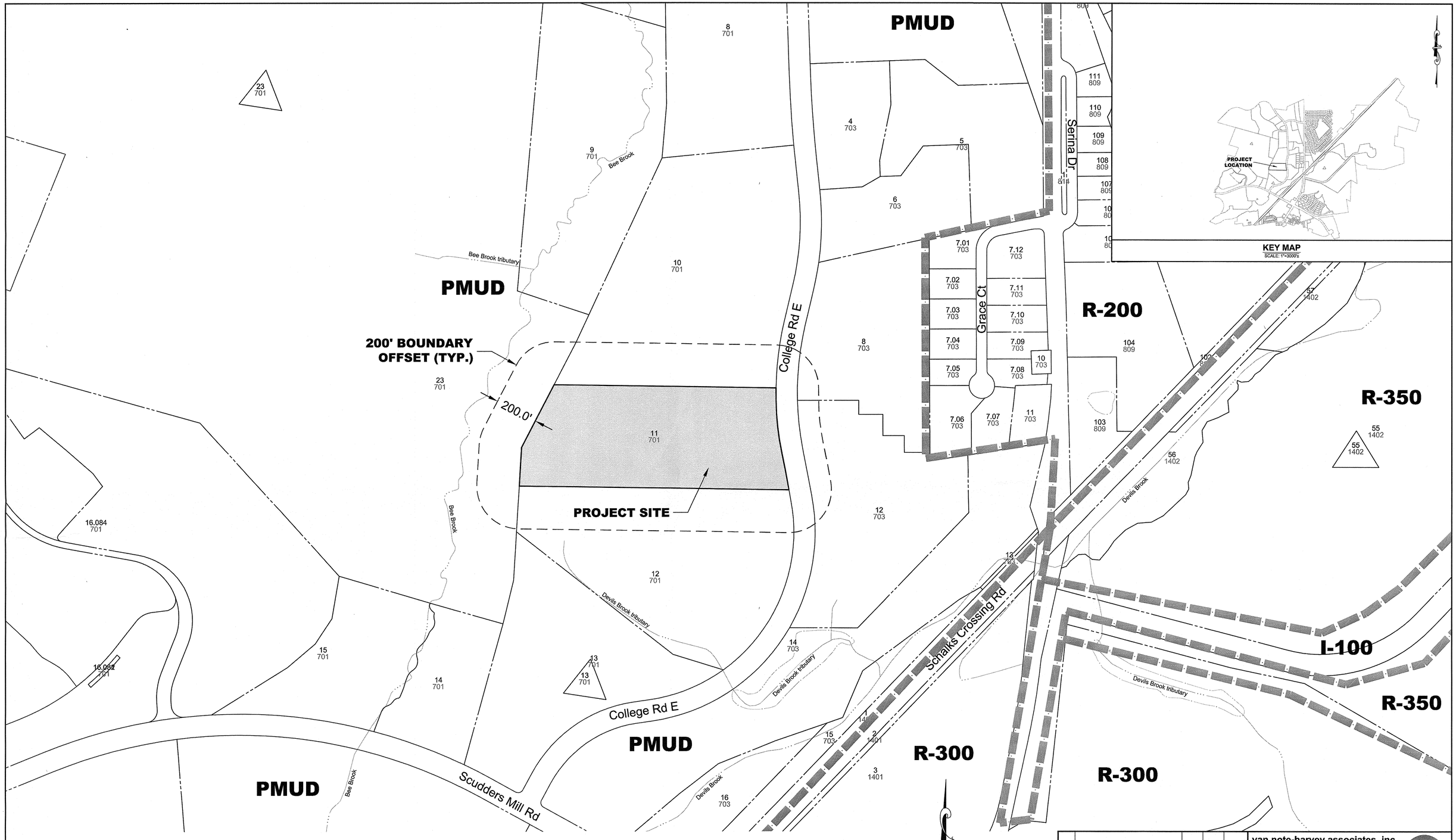

PLAINSBORO TOWNSHIP ZONING DISTRICTS

I-100	LIMITED INDUSTRIAL
PMUD	PLANNED UNIT DEVELOPMENT
R-300	LOW DENSITY RESIDENTIAL
R-350	LOW DENSITY RESIDENTIAL

PLAINSBORO TOWNSHIP

TAX MAP SHEET	7
BLOCK	701
LOT	11

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

1 inch = 200 feet

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY

09/09/2022
DATE OF SIGN.

RALPH A. PETRELLA
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 46160

van note-harvey associates, inc.
consulting engineers, planners & land surveyors
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization No. 24GA28271300
- Since 1894 -

VICINITY PLAN
FOR
650 COLLEGE ROAD EAST
BEING
LOT 11, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"= 200' SEPTEMBER 9, 2022

DRAWN BY WDV	FIELD BK	ORDER No.	FILE No.	SHEET No.
DATE 04/05/22		45582-400-21	206-E-4	1
CHECKED BY RAP	PAGE			
DATE 04/05/22				

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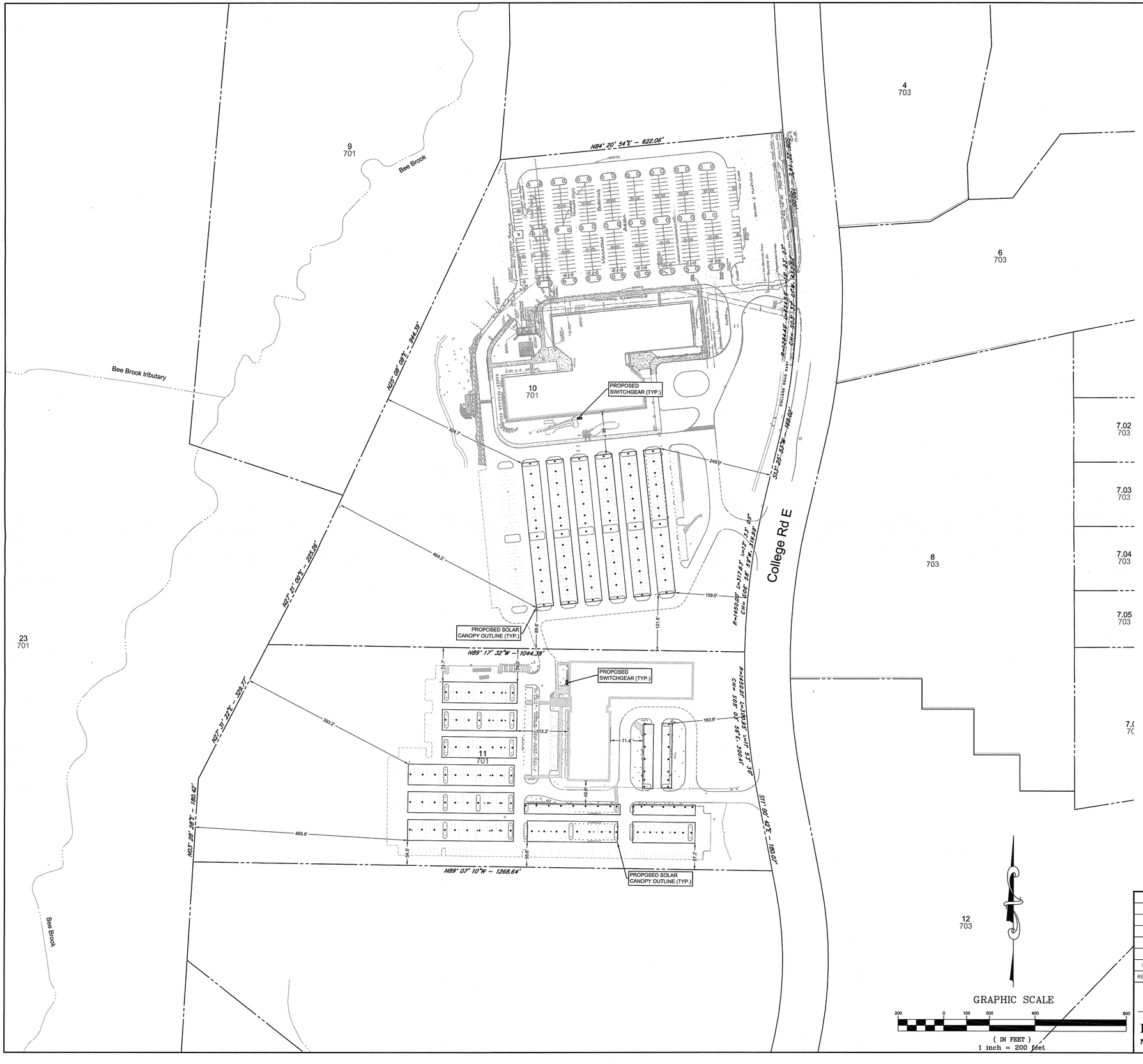

ZONING DATA:
Zone: PMUD

Description:	Maximum Permitted/Required	Existing for Block 701, Lot 10	Proposed for Block 701, Lot 10	Existing for Block 701, Lot 11	Proposed for Block 701, Lot 11
Minimum:					
Lot Area	--	21.358 Ac±	UNCHANGED	12.789 Ac±	UNCHANGED
Lot Width	--	1124.688'±	UNCHANGED	475.68'±	UNCHANGED
Lot Frontage	--	1071.29'±	UNCHANGED	425.00'±	UNCHANGED
Lot Depth	--	845.080'±	UNCHANGED	1172.71'±	UNCHANGED
Front Building Setback	50' (U.S. Route 1)	4273.544'±	UNCHANGED	4828.66'±	UNCHANGED
Rear Building Setback	--	--	--	--	--
Side Building Setback	--	--	--	--	--
Maximum:					
Building Coverage (%)	--	--	--	--	--
Building Height	80 ft.	4-STORY	--	4-STORY	--
Floor Area	--	--	--	--	--
F.A.R	--	--	--	--	--

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1.	REVISED PER DRC COMMENTS	2/27/23	WDV	RAP

09/09/2022
DATE OF SIGN.

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www.vannoteharvey.com Certificate of Authorization No. 24GA28271300
- Since 1894 -

OVERALL SITE PLAN
FOR
600 AND 650 COLLEGE ROAD EAST
BEING
LOTS 10 AND 11, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP
MIDDLESEX CO., N.J.
SEPTEMBER 9, 2022

DRAWN BY WDV DATE 04/05/22	FIELD BK	ORDER No. 45582-400-21	FILE No. 206-E-4	SHEET No. CE-1
CHECKED BY RAP DATE 04/05/22	PAGE			

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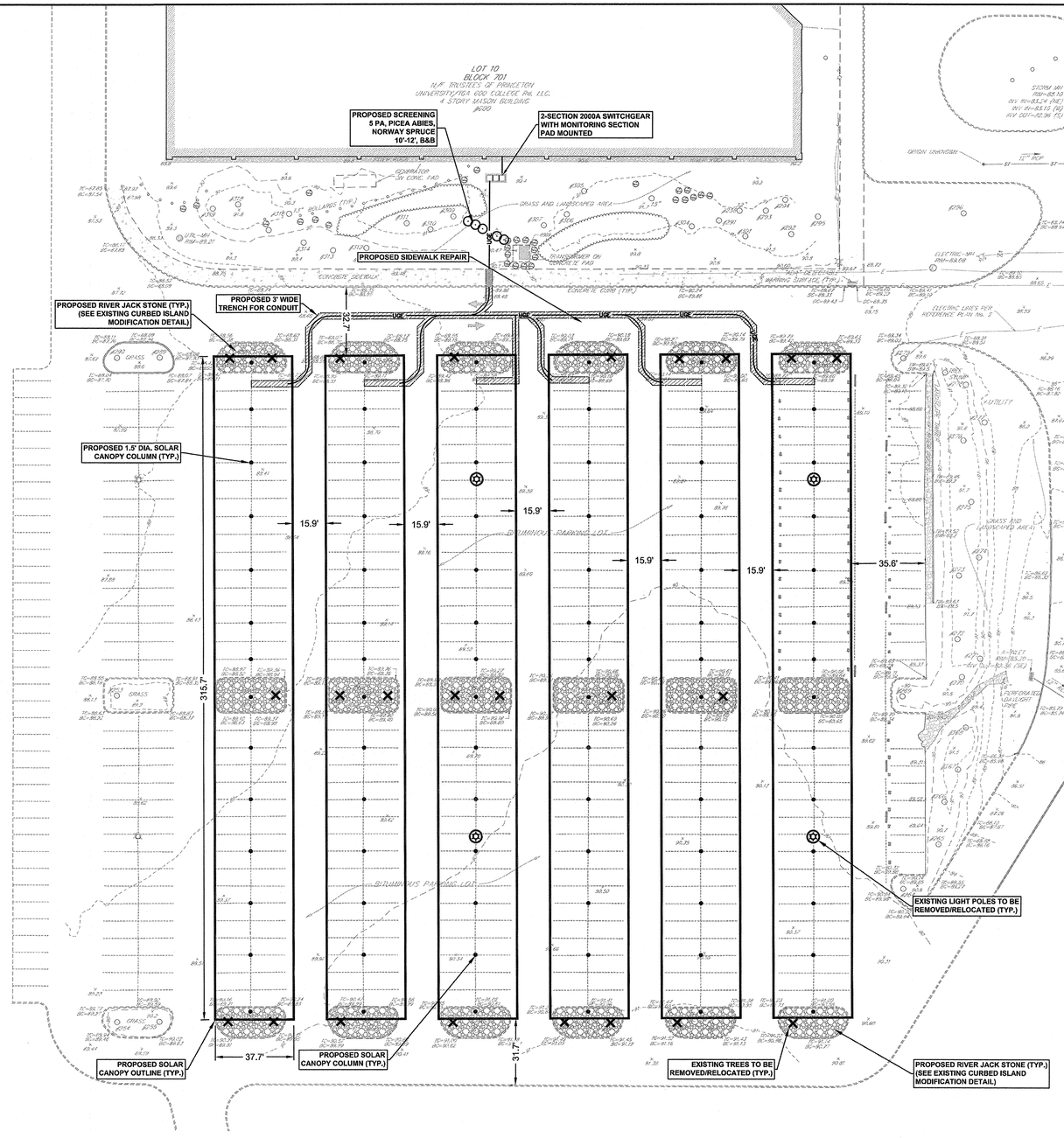
TREE LIST		
TREE #	COMMON NAME	DIAMETER (INCHES)
✕ 246		5
✕ 247		5
✕ 248		4
✕ 249		4
✕ 250		5
✕ 251		4
✕ 252		4
253		5
254		5
255		4
✕ 256		4
✕ 257		4
✕ 258		3
✕ 259		4
✕ 260		4
✕ 261		4
✕ 262		4
✕ 263		4
264		6
265		9
266		8
267		17
268		5 MULTI
269		7
270		14
271		5 MULTI
272		19
273		19
274		5 MULTI
275		5 MULTI
276		18
277		9, 10 DOUBLE
278		12 DOUBLE
279		7
✕ 280		6
✕ 281		5
✕ 282		10
✕ 283		6
✕ 284		7
✕ 285		4
✕ 286		6
✕ 287		6
✕ 288		4
289		5
290		4
291		6, 8, 8 TRIPLE
292		27
293		12, 8, 8 TRIPLE
294		12
295		20
296	MAPLE	12
300	MAPLE	7
301	MAPLE	9
304	MAPLE	6
305	DOGWOOD	10
306	DOGWOOD	12
307	DOGWOOD	12
309	MAPLE	4
310	MAPLE	5
312	PINE	6
313	PINE	16
314	PINE	11
316	PINE	13
318	MAPLE	6
319	MAPLE	8

✕ DENOTES EXISTING TREES TO BE REMOVED.



NOTES:

1. ALL EXISTING CURB THAT IS DAMAGED/DISTURBED SHALL BE REPLACED TO THE NEAREST SOUND JOINT, AS REQUIRED.
2. ALL PARKING SPACE STRIPING WITHIN CONSTRUCTION AREAS SHALL BE RE-STRIPED. ALL REMAINING EXISTING PARKING SPACE STRIPING OUTSIDE OF CONSTRUCTION ACTIVITIES SHALL BE RE-STRIPED BY OWNER, AS REQUIRED.
3. ALL EXISTING POLE MOUNTED LIGHTING WITHIN THE LIMITS OF THE SOLAR CANOPY SYSTEM SHALL BE REMOVED.
4. ALL EXISTING SIGNAGE WITHIN THE LIMITS OF THE SOLAR CANOPY SYSTEM SHALL BE REMOVED AND RELOCATED OR REPLACED IN KIND.
5. REFER TO PLANS PLANS PREPARED BY SAFARI ENERGY FOR ALL SOLAR COLUMNS, SWITCHGEAR, DIMENSIONS AND DETAILS.

ABBREVIATIONS

TW	= TOP OF WALL
BW	= BOTTOM OF WALL
CONC.	= CONCRETE
TC	= TOP OF CURB
BC	= BOTTOM OF CURB
DC	= DEPRESSED CURB

LEGEND:

- MAJOR CONTOUR
- MINOR CONTOUR
- 87.8 GROUND SPOT ELEVATION
- 87.40 GROUND SPOT ELEVATION
- STORMWATER INLETS
- DRAINAGE/STORMWATER MANHOLE
- SANITARY MANHOLE
- LIGHT POLE W/BASE (TYP.)
- 6" TREE LOCATION W/DIMATER BREAST HEIGHT (DBH)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 feet

PLAINSBORO TOWNSHIP TAX MAP INFORMATION
BLOCK: 701 LOT: 10
SHEET: 7

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1.	REVISED PER DRC COMMENTS	2/27/23	WDV	RAP

Ralph A. Petrella 09/09/2022
DATE OF SIGN.

RALPH A. PETRELLA
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 46160

van note-harvey associates, inc.
consulting engineers, planners & land surveyors
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization No. 24GA28271500
- Since 1894 -

SITE ENGINEERING PLAN
FOR
600 COLLEGE ROAD EAST
BEING
LOT 10, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"= 30' SEPTEMBER 9, 2022

DRAWN BY WDV DATE 04/05/22	FIELD BK	ORDER No. 45582-400-21	FILE No. 206-E-4	SHEET No. CE-2
CHECKED BY RAP DATE 04/05/22	PAGE			

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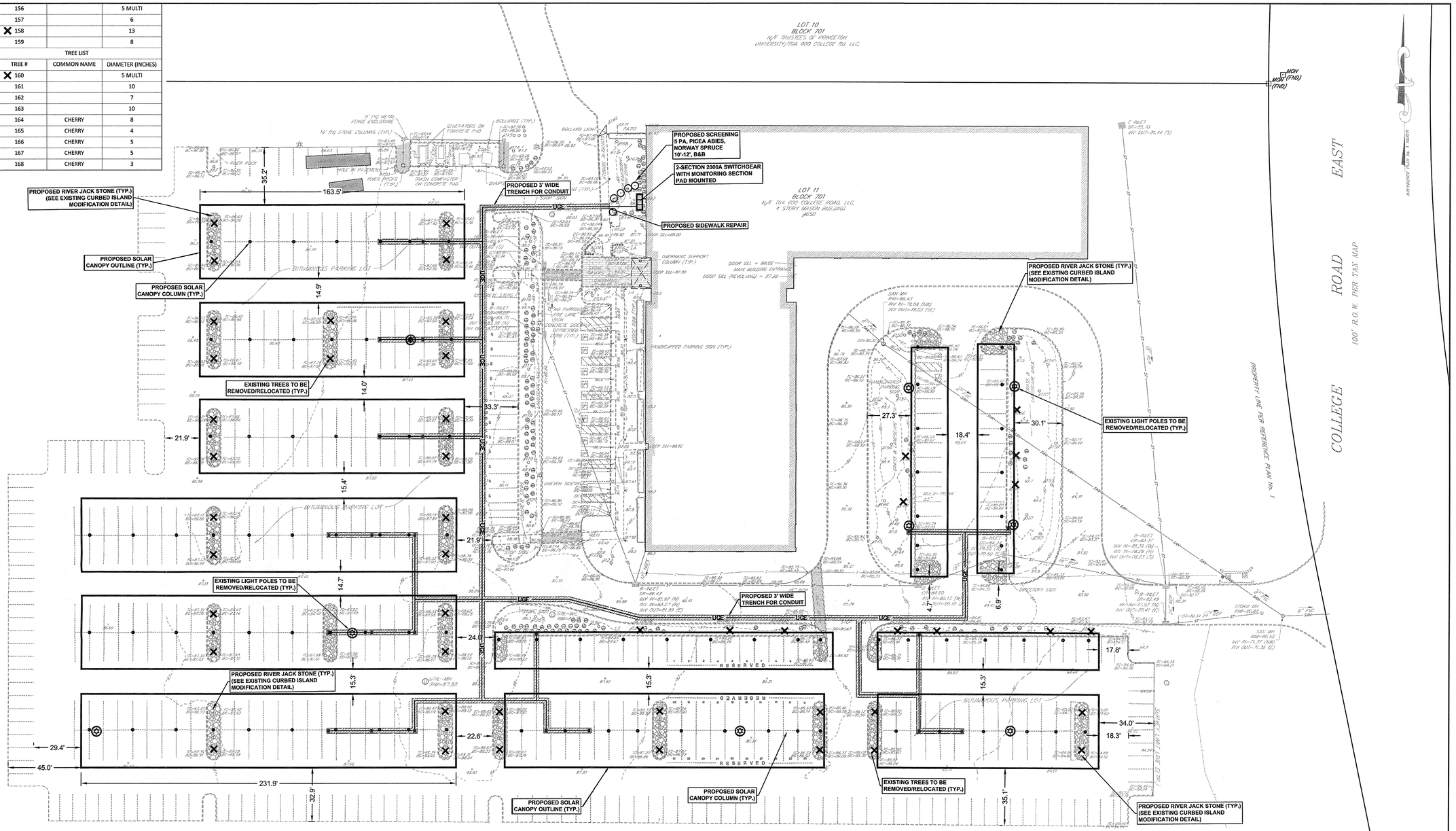
TREE LIST		
TREE #	COMMON NAME	DIAMETER (INCHES)
87		8
X 88		7
X 89		8
X 90		7
X 91		6
X 92		5
X 93		5
X 94		7
X 95		6
X 96		7
X 97		8
X 98		9
X 99		6
X 100		7
X 101		8
X 102		7
X 103		6
X 104		7
X 105		5
X 106		7
X 107		6
X 108		6
X 109		6
X 110		5
111		6
112		6
113		6
114		6
115		16
116		18
117		14
118		9
119		9
120		18
121		10
122		9
123		6
124		12
125		13
126		12
X 127		9
X 128		10
X 129		10
X 130		11
X 131		9
X 132		9
X 133		10
X 134		7
X 135		7
X 136		7
X 137		8
X 138		7
X 139		6
X 140		7
X 141		7
X 142		8
X 143		7
144		10
145		8
146		8
X 147		5 MULTI
148		7
X 149		12
150		8
151		9
152		5 MULTI
153		10
154		5
155		7
156		5 MULTI
157		6
X 158		13
159		8

TREE LIST		
TREE #	COMMON NAME	DIAMETER (INCHES)
X 160		5 MULTI
161		10
162		7
163		10
164	CHERRY	8
165	CHERRY	4
166	CHERRY	5
167	CHERRY	5
168	CHERRY	3

X DENOTES EXISTING TREES TO BE REMOVED.



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LEGEND:

- MAJOR CONTOUR
- MINOR CONTOUR
- 97.8 GROUND SPOT ELEVATION
- 87.40 GROUND SPOT ELEVATION
- STORMWATER INLETS
- DRAINAGE/STORMWATER MANHOLE
- SANITARY MANHOLE
- LIGHT POLE W/BASE (TYP.)
- 6" TREE LOCATION W/DIMATER BREAST HEIGHT (DBH)

ABBREVIATIONS:

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BC	= BOTTOM OF CURB
DC	= DEPRESSED CURB
LS	= LANDSCAPED AREA

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 feet

PLAINSBORO TOWNSHIP TAX MAP INFORMATION
BLOCK 701 LOT 11
SHEET 7

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1.	REVISED PER DRC COMMENTS	2/27/23	WDV	RAP

Ralph A. Petrella
09/09/2022
DATE OF SIGN.

RALPH A. PETRELLA
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 46160

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consulting engineers, planners & land surveyors
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211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization No. 24GA29271300
- Since 1894 -

SITE ENGINEERING PLAN
FOR
650 COLLEGE ROAD EAST
BEING
LOT 11, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP, MIDDLESEX CO., N.J.
SCALE 1"= 30' SEPTEMBER 9, 2022

DRAWN BY WDV	FIELD BK	ORDER No. 45582-400-21	FILE No. 206-E-4	SHEET No. CE-3
DATE 04/05/22				
CHECKED BY RAP	PAGE			
DATE 04/05/22				

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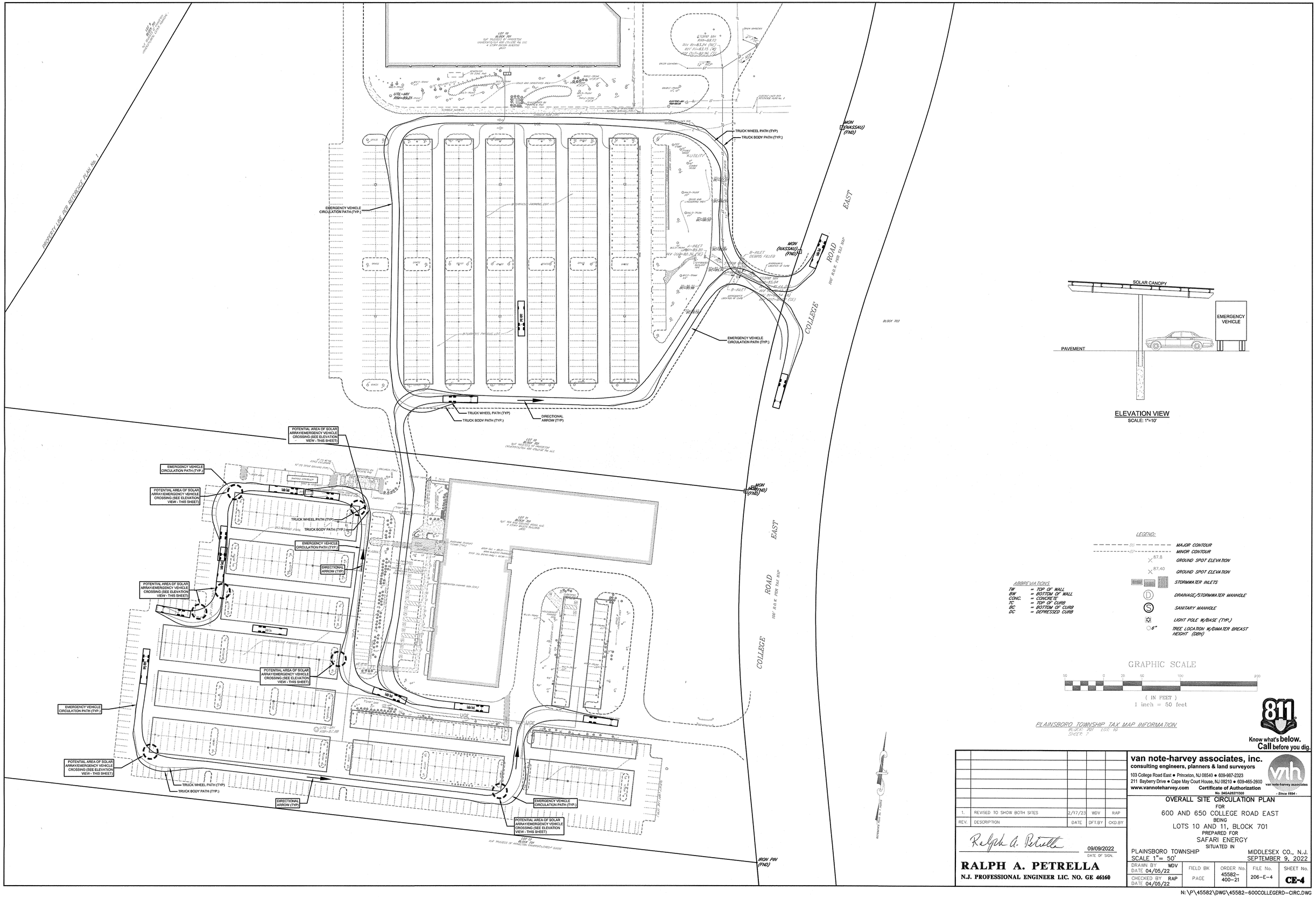
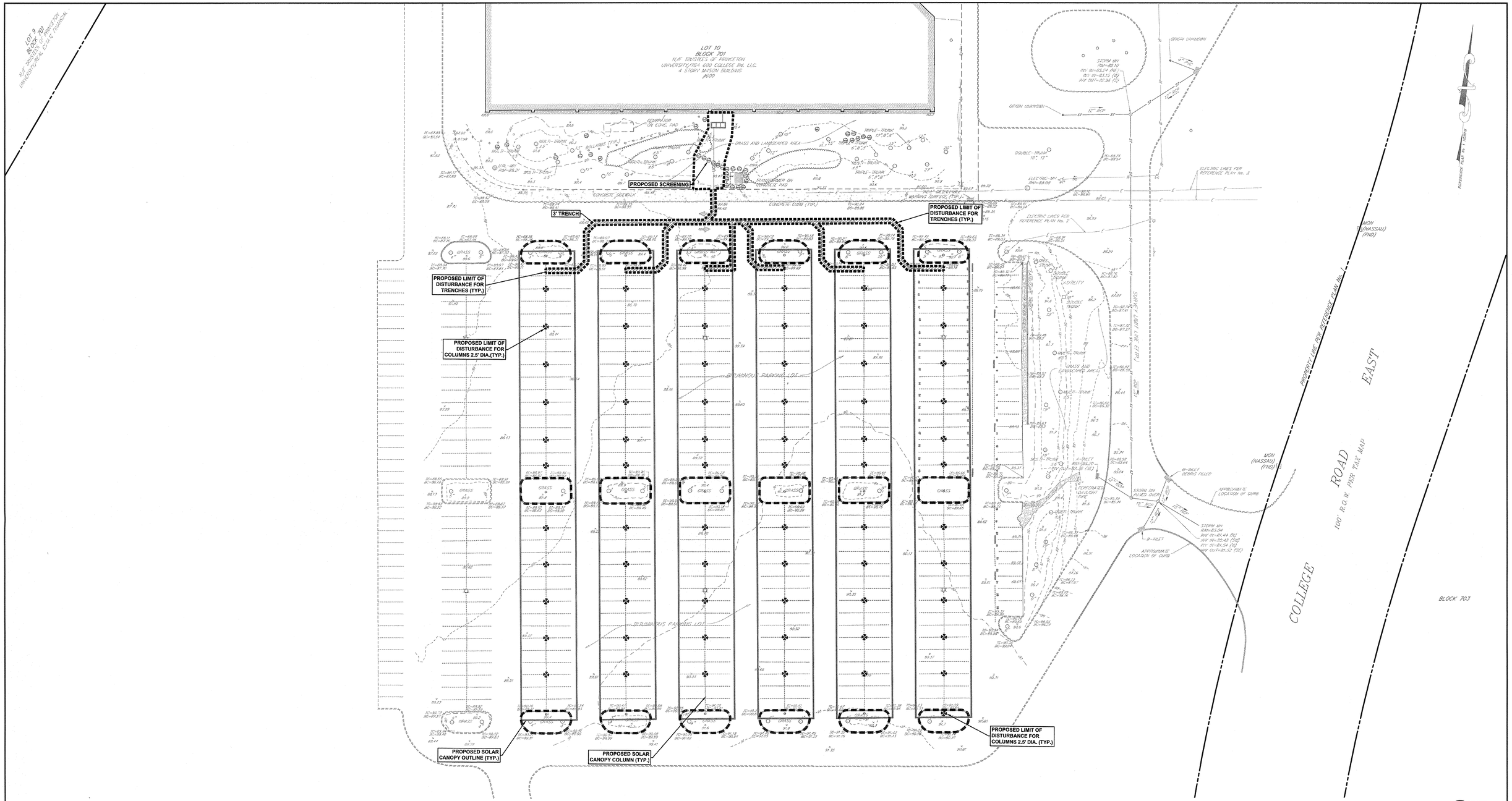

PROPERTY LINE PER REFERENCE PLAN NO. 1
LOT 10
BLOCK 701
SUE PROPERTY OF PRINCETON UNIVERSITY/TIGER 600 COLLEGE Rd. LLC
& SCOTT WATSON BUSINESS GROUP
LOT 10
BLOCK 701
SUE PROPERTY OF PRINCETON UNIVERSITY/TIGER 600 COLLEGE Rd. LLC
LOT 11
BLOCK 701
SUE PROPERTY OF PRINCETON UNIVERSITY/TIGER 600 COLLEGE Rd. LLC
& STONY BROOK BUILDING GROUP
LOT 11
BLOCK 701
SUE PROPERTY OF PRINCETON UNIVERSITY/TIGER 600 COLLEGE Rd. LLC
UTIL-MH
RIM=85.21
STORM MH
RIM=83.10
12" RCP
12" RCP
UTIL-MH
RIM=85.24 (INC)
INV IN=83.15 (IN)
INV OUT=83.05 (OUT)
ELECTRIC-MH
TW=85.08
ELECTRIC-MH
TW=85.08
UTILITY
UGE
UGE
UGE



LIMIT OF DISTURBANCE (LOD) TABLE	
LOD TRENCHES	= 2,676 S.F.±
LOD COLUMNS 5 S.F. x 66	= 330 S.F.±
LOD END ISLANDS 456 S.F. x 12	= 5,472 S.F.±
LOD MIDDLE ISLANDS 570 S.F. x 6	= 3,420 S.F.±
TOTAL DISTURBANCE AREA	= 11,898 S.F.±

LEGEND:

- MAJOR CONTOUR
- MINOR CONTOUR
- 87.8 GROUND SPOT ELEVATION
- 87.40 GROUND SPOT ELEVATION
- STORMWATER INLETS
- DRAINAGE/STORMWATER MANHOLE
- SANITARY MANHOLE
- LIGHT POLE W/BASE (TYP.)
- 6" TREE LOCATION W/DIAMETER BREAST HEIGHT (DBH)

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TC	= TOP OF CURB
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DC	= DEPRESSED CURB

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 feet

PLAINSBORO TOWNSHIP TAX MAP INFORMATION
BLOCK: 701 LOT: 10
SHEET: 7

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY

Ralph A. Petrella 09/09/2022
DATE OF SIGN.

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- Since 1894 -

SOIL EROSION AND SEDIMENT CONTROL PLAN

FOR
600 COLLEGE ROAD EAST
BEING
LOT 10, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"= 30' SEPTEMBER 9, 2022

DRAWN BY WDV	FIELD BK	ORDER No.	FILE No.	SHEET No.
DATE 04/05/22		45582-400-21	206-E-4	CE-6
CHECKED BY RAP	PAGE			
DATE 04/05/22				

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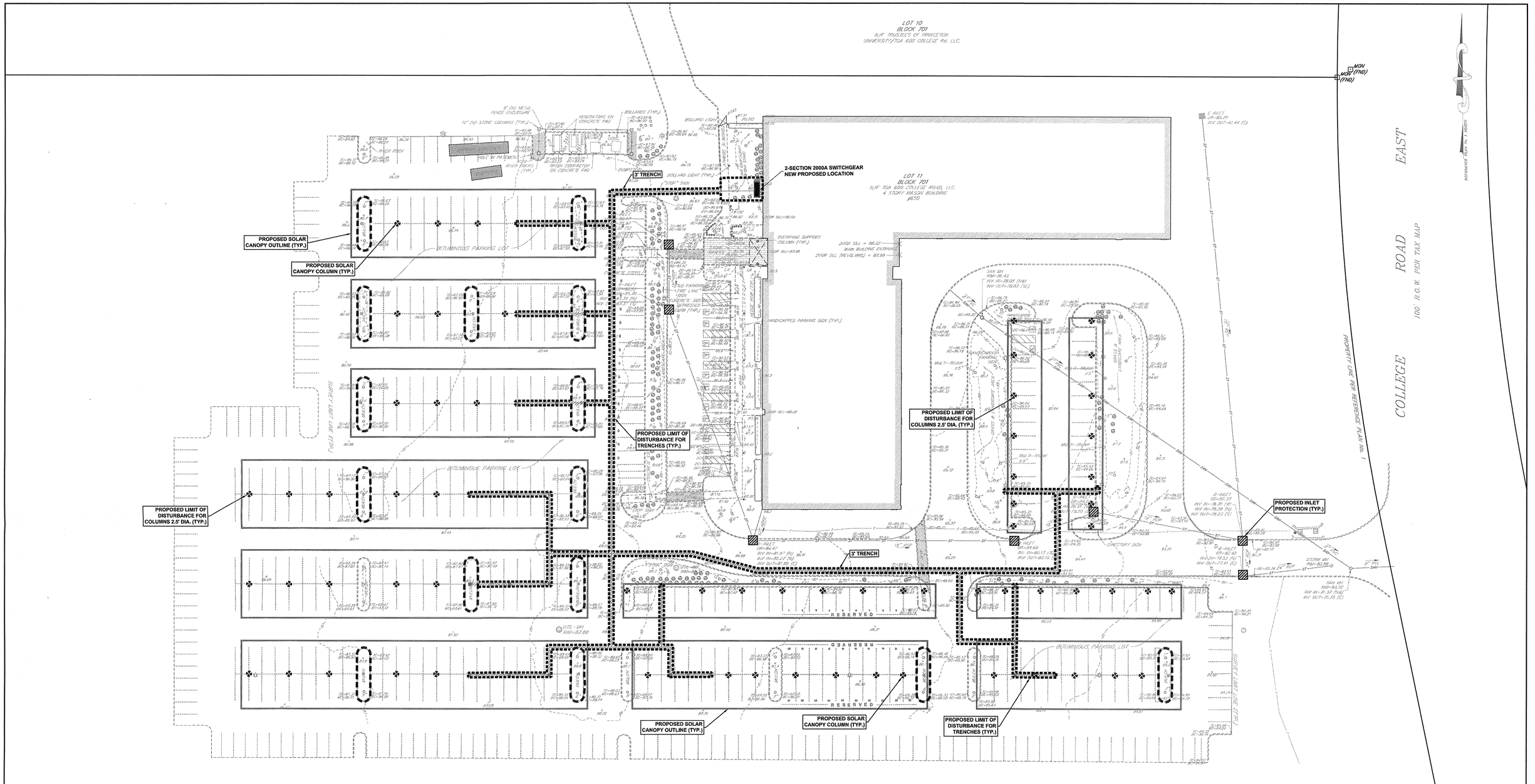

LIMIT OF DISTURBANCE (LOD) TABLE	
LOD TRENCHES	= 5,025 S.F.±
LOD COLUMNS 5 S.F. x 64	= 320 S.F.±
LOD ISLANDS 308 S.F. x 15	= 4,620 S.F.±
TOTAL DISTURBANCE AREA	= 9,965 S.F.±

LEGEND:

- MAJOR CONTOUR
- MINOR CONTOUR
- GROUND SPOT ELEVATION
- GROUND SPOT ELEVATION
- STORMWATER INLETS
- DRAINAGE/STORMWATER MANHOLE
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GRAPHIC SCALE

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(IN FEET)
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PLAINSBORO TOWNSHIP TAX MAP INFORMATION
BLOCK: 701 LOT: 11
SHEET: 7

811 Know what's below. Call before you dig.

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Ralph A. Petrella 09/09/2022
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SOIL EROSION AND SEDIMENT CONTROL PLAN

FOR
650 COLLEGE ROAD EAST
BEING
LOT 11, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE 1"= 30' SEPTEMBER 9, 2022

DRAWN BY	FIELD BK	ORDER No.	FILE No.	SHEET No.
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FREEHOLD SOIL CONSERVATION DISTRICT

A. SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.

2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RECERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

4. N.J.S.A. 4:29–39 ET. SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL (SESC) IN NJ AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT–BY–LOT OR SECTION–BY–SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SESC HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.

5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 – 2 ½ TONS PER ACRE, ACCORDING TO THE STANDARD FOR STABILIZATION WITH MULCH ONLY.

6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCHER ANCHOR ACCORDING WITH STATE STANDARDS.

7. A SUB–BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB–BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF PRELIMINARY GRADING.

8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONES AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF 1"–2" STONE FOR A MINIMUM LENGTH OF 10' EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.

9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS–OF–WAY WILL BE REMOVED IMMEDIATELY.

10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.

11. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON–VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.

12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL WITH A PH OF 5 OR MORE, ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE, OR 450LBS PER 1,000SF OF SURFACE AREA AND COVERED WITH A MINIMUM OF 12" OF SETTLE SOIL WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.

13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.

14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STANDARDS FOR DEWATERING.

15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.

16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.

17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6

18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

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B. TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, PG. 19–1, IN "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY" (SSESCNJ).

B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSION, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE SSESCNJ ENGINEERING STANDARDS.

C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED TO A 6" MINIMUM DEPTH. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).

2. SEEDBED PREPARATION

A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO–OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–20–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.

B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.

D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, SSESCNJ PG 1–1.

3. SEEDING

A. APPLY SEED AS FOLLOWS:

COOL SEASON: PERENNIAL RYEGRASS AT 100 POUNDS/ACRE OR 1 POUND/1000 SQ.FT.; OPTIMUM SEEDING DATES: 3/1–5/15 & 8/15–10/1; OPTIMUM SEED DEPTH: 0.5 INCHES

WARM SEASON: PEARL MILLET AT 20 POUNDS/ACRE OR 0.5 POUNDS/1000 SQ.FT. OPTMUM SEEDING DATE: 5/15–8/15; OPTIMUM SEED DEPTH: 1.0 INCHES

THE CONTRACTOR SHALL VERIFY THE SUITABILITY OF THE SPECIFIED SEED AND PLANTING DATES WITH THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.

B. SEEDING RATE FOR WARM SEASON GRASS SHALL BE ADJUSTED TO REFLECT THE AMOUNT OF PURE LINE SEED (PLS) AS DETERMINED BY A GERMINATION TEST RESULT. NO ADJUSTMENT IS REQUIRED FOR COOL SEASON GRASSES.

C. GRASSES MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR SEEDED AREA CAN BE IRRIGATED.

D. REFER TO SSESNJ, FIGURE 7–1, PG. 7–5 FOR PLANT HARDINESS ZONES.

E. PLANTING DEPTHS SHOULD BE DOUBLED FOR SANDY SOILS.

F. CONVENTIONAL SEEDING: APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/4 TO 1/2 INCH BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.

G. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4, MULCHING). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.

H. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED–TO–SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON–SITE WILL BE MAXIMIZED.

4. MULCHING

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1–1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MULCH; HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED. APPLICATION: SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

B. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS–CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

TABLE B-1

LIMESTONE APPLICATION RATE BY SOIL TEXTURE

SOIL TEXTURE	TONS/ACRE	LBS./1000 S.F.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

1. PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED TO MOST SOILS SOUTH OF THE NEW BRUNSWICK–TRENTON LINE.

C. PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.

B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARDS FOR LAND GRADING.

C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.

D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE–STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

2. SEEDBED PREPARATION

A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO–OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–10–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE–HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE–HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID–PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

3. SEEDING

A. SELECT A MIXTURE FROM BELOW OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED. APPLY SEED AS FOLLOWS:

WATERWAY MIX:

– STRONG CREEPING RED FESCUE AT 130 POUNDS/ACRE OR 3 POUNDS/1000 SQ.FT.; OPTIMUM SEEDING DATES: 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

– KENTUCKY BLUEGRASS AT 50 POUNDS/ACRE OR 1 POUND/1000 SQ.FT.; OPTIMUM SEEDING DATES 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

– PERENNIAL RYEGRASS AT 20 POUNDS/ACRE OR 0.5 POUNDS/1000 SQ.FT.; OPTIMUM SEEDING DATES 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

OR, REDTOP AT 10 POUNDS/ACRE OR 0.05 POUNDS/1000 SQ.FT PLUS WHITE CLOVER AT 5 POUNDS/ACRE OR 0.1 POUNDS/1000 SQ.FT.; OPTIMUM SEEDING DATES 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

GENERAL LAWN/RECREATION

– BLEND OF HARD FESCUE AND/OR CHEWING FESCUE AND/OR STRONG CREEPING RED FESCUE AT 175 POUNDS/ACRE OR 4 POUNDS/1000 SQ.FT. WITH PERENNIAL RYEGRASS AT 45 POUNDS/ACRE OR 1 POUND/ACRE AND KENTUCKY BLUEGRASS BLEND AT 45 POUNDS/ACRE OR 1 POUND/1000 SQ.FT.; OPTIMUM SEEDING DATES 8/15–10/15, ACCEPTABLE SEEDING DATES: 3/1–4/30 & 5/1–8/14*

* IF SITE IS IRRIGATED

1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

2. WARM SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 80 DEGREES F AND ABOVE. SEE TABLE 4–3 IN SSESCNJ, MIXTURES 1 TO 7. PLANTING RATES FOR WARM SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.

3. COOL SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85 DEGREES F. MANY GRASSES BECOME ACTIVE AT 65 DEGREES F. SEE TABLE 4–3 IN SSESCNJ, MIXTURES 8–20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON GRASSES.

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.

C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED–TO–SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON–SITE WILL BE MAXIMIZED.

D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING (ALSO SEE SECTION 4 BELOW, MULCHING). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS, REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.

4. MULCHING – SEE PARAGRAPH 4 UNDER TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

5. IRRIGATION (WHERE FEASIBLE)

IF SOIL MOISTURE IS DEFICIENT, AND MULCH IS NOT USED, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

6. TOPDRESSING

SINCE SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) IS PRESCRIBED IN SECTION 2, A SEEDBED PREPARATION, NO FOLLOW–UP TOP DRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS TO THE EXTENT THAT TURF FAILURE MAY DEVELOP, IN THAT INSTANCE, TOPDRESS WITH 10–10–10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.

7. ESTABLISHING PERMANENT VEGETATIVE STABILIZATION

THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4–3, SSESCNJ ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUEST A REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER (OF THE SEEDED SPECIES) AND MOWED ONCE. NOTE THIS DESIGNATION OF MOWED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED.

D. PERMANENT STABILIZATION WITH SOD

1. METHODS AND MATERIALS

A. HIGH QUALITY CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD.

B. SOD SHOULD BE FREE OF BROADLEAF WEEDS AND UNDESIRABLE COARSE AND FINE WEED GRASSES.

C. SOD SHOULD BE OF UNIFORM THICKNESS, TYPICALLY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING (EXCLUDES TOP GROWTH.).

D. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS AND ROLLS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.

E. FOR DROUGHTY SITES, A SOD OF TURF–TYPE TALL FESCUE OR TURF–TYPE TALL FESCUE MIXED WITH KENTUCKY BLUEGRASS IS PREFERRED OVER A 100% KENTUCKY BLUEGRASS SOD. ALTHOUGH NOT WIDELY AVAILABLE, A SOD OF FINE FESCUE IS ALSO ACCEPTABLE FOR DROUGHTY SITES.

F. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 24 HOURS OR LESS DURING SUMMER MONTHS.

2. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, INCORPORATION OF ORGANIC MATTER, AND OTHER SOIL PREPARATION PROCEDURES. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.

B. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 6 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. SEE STANDARD FOR TOPSOILING FOR TOPSOIL AND AMENDMENT REQUIREMENTS.

C. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

3. SOD PREPARATION

A. UNIFORMLY APPLY GROUND LIMESTONE, AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO–OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (http://njaes.rutgers.edu/county/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET USING 10–10–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ½ THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ½ RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.

B. WORK LINE AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM, FINE SEEDBED IS PREPARED.

C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO TOPSOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.

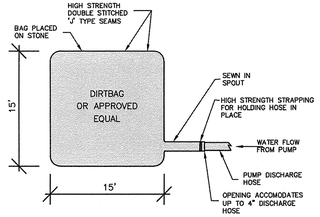
D. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED IN ACCORDANCE WITH THE ABOVE.

3. SOD PLACEMENT

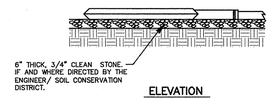
A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.

B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.

C. ROLL OR TAMP SOD IMM



PLAN



ELEVATION

NOTES:

1. ALL STORM WATER FROM THE CONSTRUCTION SITE SHALL BE DIVERTED TO LOW AREAS AND SHALL BE PUMPED THROUGH SILT FILTRATION BAG.

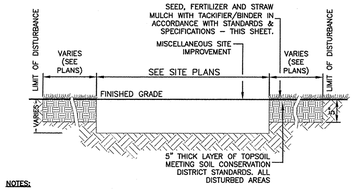
2. SILT FILTRATION PUMPING STATIONS AND BAGS SHALL BE PROVIDED AS REQUIRED.

3. CONTRACTOR SHALL UTILIZE ALL MEASURES, AS REQUIRED, TO PREVENT SEDIMENT-LADEN WATER FROM EXITING THE CONSTRUCTION SITE.

4. DIRT BAG SHALL BE LOCATED ON A STABLE SURFACE AWAY FROM WATERWAYS AND ACTIVE CONSTRUCTION AREAS.

SILT FILTRATION BAG DETAIL

(IF/AS REQUIRED)
NTS



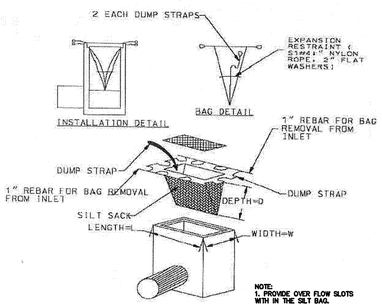
NOTES:

1. ALL DISTURBED AREAS SHALL BE COMPLETELY RESTORED FOLLOWING CONSTRUCTION. RESTORATION INCLUDES THE APPLICATION OF 5" OF TOPSOIL, AND PERMANENT STABILIZATION.

2. REFER TO NOTES SHEET CE-12, FOR SOIL EROSION AND SEDIMENT CONTROL STANDARDS AND PERMANENT STABILIZATION REQUIREMENTS.

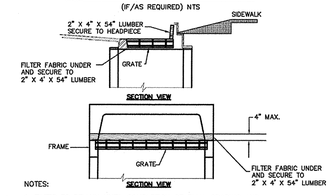
TYPICAL RESTORATION DETAIL

(IF/AS REQUIRED)
NTS



INLET FILTER PROTECTION DETAIL

(IF/AS REQUIRED) NTS



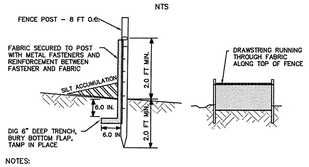
NOTES:

1. FILTER TO REMAIN UNTIL COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF COVER. ALSO, PERIODIC CHECKS MUST BE MADE AFTER EACH RAINFALL TO EXCAVATE AND REMOVE SEDIMENT FROM AROUND INLETS.

2. FILTER FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUIVALENT.

INLET FILTER CURB TYPE DETAIL

(IF/AS REQUIRED)
NTS

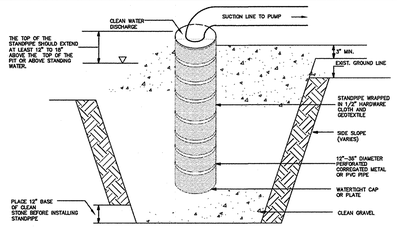


NOTES:

1. ALL SILT FENCE WILL BE INSPECTED AND REMEDIAL MAINTENANCE PERFORMED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH RAIN.

SILT FENCE DETAIL

NTS



CROSS SECTION

NOTE: THE NUMBER AND LOCATION OF SUMP PUMPS TO BE DETERMINED BY THE CONTRACTOR IN THE FIELD.

CONSTRUCTION SPECIFICATIONS

1. PIT DIMENSIONS ARE VARIABLE, WITH THE MINIMUM DIAMETER BEING 2 TIMES THE STANDPIPE DIAMETER.

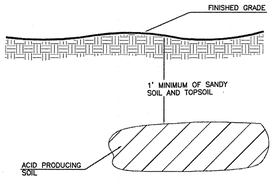
2. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12" TO 24" DIAMETER CORRUGATED OR PVC PIPE. THEN WRAPPING WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE PERFORATIONS SHALL BE 1/2" X 6" SLITS OR 1" DIAMETER HOLES.

3. A BASE OF FILTER MATERIAL CONSISTING OF CLEAN GRAVEL OR ASTM C33 STONE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD THEN BE BACKFILLED WITH THE SAME FILTER MATERIAL.

4. THE STANDPIPE SHOULD EXTEND 12" TO 18" ABOVE THE LIP OF THE PIT OR THE RISER CREST ELEVATION (BASIN DEWATERING ONLY) AND THE FILTER MATERIAL SHOULD EXTEND 3" MINIMUM ABOVE THE ANTICIPATED STANDING WATER ELEVATION.

DE-WATERING DETAIL

N.T.S.



NOTES:
1. ACID PRODUCING SOILS ARE DEFINED AS SOILS CONTAINING IRON SULFIDE MINERALS OR SOILS WITH A PH OF 4.0 OR LESS.
2. IRON SULFIDE MINERALS WILL PRODUCE SULFURIC ACID WHEN EXPOSED TO THE AIR OR SURFACE WATERS.
3. SOIL USED TO COVER ACID PRODUCING SOILS SHALL HAVE A PH OF 5.0 OR MORE.

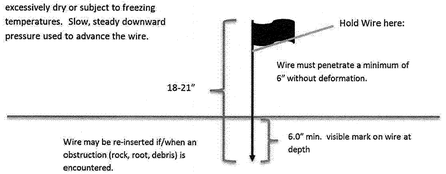
ACID PRODUCING SOIL MITIGATION PLAN:
1. IT IS ANTICIPATED THAT THE CONTRACTOR WILL ENCOUNTER ACID PRODUCING SOILS DURING THE DEEP EXCAVATION REQUIRED FOR THE SANITARY SEWER INSTALLATION.
2. UPON ENCOUNTERING THESE SOILS, THE CONTRACTOR SHALL TAKE PRECAUTIONS TO SEGREGATE THEM FROM OTHER SOILS ON SITE. IF THESE ACID PRODUCING SOILS BECOME MIXED WITH OTHER SOILS, THEN THE TOTAL AMOUNT OF SOILS WOULD BE CONSIDERED ACID PRODUCING.
3. MITIGATION OF THESE ACID PRODUCING SOILS REQUIRES BURIAL WITH THE PLACEMENT OF ONE (1) FOOT OF TOPSOIL IN GRASS PLANTED AREAS AND TWO AND A HALF (2 1/2) FEET OF TOPSOIL IN ANY LANDSCAPE PLANTING AREAS.
4. THESE SOILS MAY HAVE A SUFFICIENT CLAY CONTENT TO BE USED IN THE STORMWATER MANAGEMENT CORE AND IN CURRENT CONSTRUCTION.

BURIAL OF ACID PRODUCING SOILS

(IF/AS REQUIRED)
NTS

Probing Wire Test- 15.5 ga steel wire (survey flag)

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the wire.

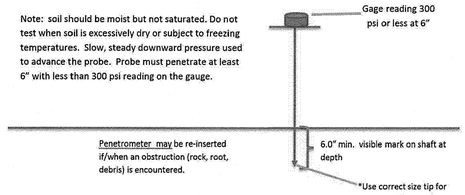


PROBING WIRE TEST DETAIL

(IF/AS REQUIRED)
NTS

Handheld Soil Penetrometer Test

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the probe. Probe must penetrate at least 6" with less than 300 psi reading on the gauge.



HANDHELD SOIL PENETROMETER TEST DETAIL

(IF/AS REQUIRED)
NTS

SOIL DECOMPACTION AND TESTING REQUIREMENTS (IF/AS REQUIRED)

SOIL COMPACTION TESTING REQUIREMENTS

1. SUBGRADE SOILS **PRIOR TO THE APPLICATION OF TOPSOIL** (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN.

3. **COMPACTION TESTING LOCATIONS** ARE DENOTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN SHALL BE USED TO MARK LOCATIONS OF TESTS, AND ATTACHED TO THE COMPACTION MITIGATION VERIFICATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.

4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS ABOVE), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

COMPACTION TESTING METHODS

A. PROBING WIRE TEST (SEE DETAIL)
B. HAND-HELD PENETROMETER TEST (SEE DETAIL)
C. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
D. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)

NOTE: ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

PROCEDURES FOR SOIL COMPACTION MITIGATION

PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION **PRIOR TO PLACEMENT OF TOPSOIL** AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.

Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY

Ralph A. Petrella 09/09/2022
DATE OF SIGN.

RALPH A. PETRELLA
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 46160

van note-harvey associates, inc.
consulting engineers, planners & land surveyors
103 College Road East ● Princeton, NJ 08540 ● 609-987-2323
211 Bayberry Drive ● Cape May Court House, NJ 08210 ● 609-465-2600
www.vannoteharvey.com **Certificate of Authorization** No. 24GA28271300
- Since 1894 -

SOIL EROSION & SEDIMENT CONTROL DETAILS
FOR
600 AND 650 COLLEGE ROAD EAST
BEING
LOTS 10 AND 11, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SCALE AS SHOWN SEPTEMBER 9, 2022

DRAWN BY WDV DATE 04/05/22	FIELD BK	ORDER No. 45582-400-21	FILE No. 206-E-4	SHEET No. CE-9
CHECKED BY RAP DATE 04/05/22	PAGE			

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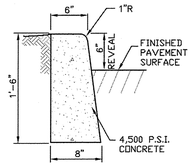

NOTES:

1. PROVIDE COLD JOINTS 10' MAX. INTERVAL. PROVIDE 1/2" EXPANSION JOINTS OF CELLULAR COMPRESSION MATERIAL AT ALTERNATE JOINTS. PROVIDE 1/4" PREMOLDED EXPANSION JOINTS TO BE PLACED LONGITUDINALLY) ADJACENT TO ALL ABUTTING CONC. STRUCTURES.

6"x8"x18" CONCRETE CURB

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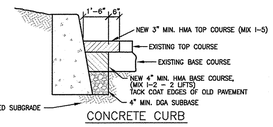

CONCRETE CURB

NOTES:

1. EDGE OF ADJACENT PAVEMENT TO BE CUT WITH DIAMOND PAVEMENT SAW AND PRIMED WITH THE SUITABLE PRIMER.

2. PRIOR TO INSTALLATION OF BASE COURSE, AS-BUILT CURB ELEVATIONS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.

3. UNSUITABLE/UNSTABLE SUBGRADE TO BE REMOVED AND REPLACED WITH APPROVED MATERIAL.

4. BEFORE CONSTRUCTION OF THE SURFACE COURSE, THE BASE COURSE MUST BE CLEANED OF ALL FOREIGN MATTER.

5. ALL HORIZONTAL AND VERTICAL EDGES OF EXISTING PAVEMENT MUST BE TACK COATED BEFORE NEW BASE COURSE AND NEW SURFACE COURSE ASPHALT IS PLACED.

CURB REPAIR DETAIL

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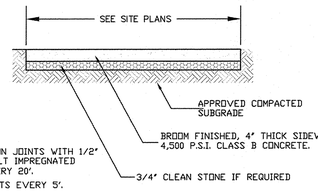
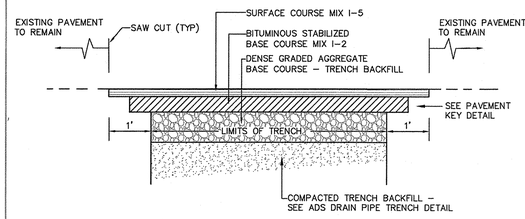


NOTES:

1. PROVIDE EXPANSION JOINTS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED JOINT FILLER EVERY 20'.
2. CONTRACTION JOINTS EVERY 5'.

CONCRETE SIDEWALK DETAIL

N.T.S.



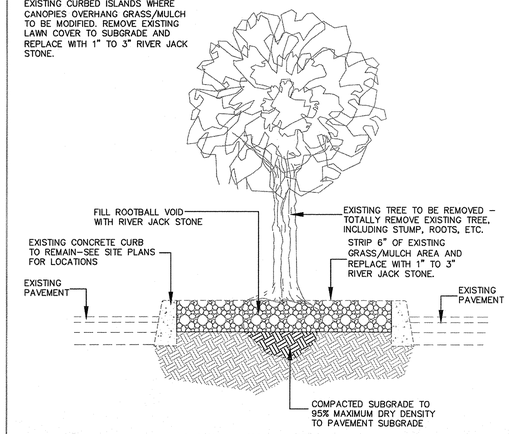
NOTE:

1. MATCH DEPTHS OF EXISTING/PROPOSED PAVEMENT COURSES.

EXISTING PAVEMENT TRENCH REPAIR DETAIL

NOT TO SCALE

NOTE:
EXISTING CURBED ISLANDS WHERE CANOPIES OVERHANG GRASS/MULCH TO BE MODIFIED. REMOVE EXISTING LAWN COVER TO SUBGRADE AND REPLACE WITH 1" TO 3" RIVER JACK STONE.



EXISTING CURBED ISLAND MODIFICATION DETAIL

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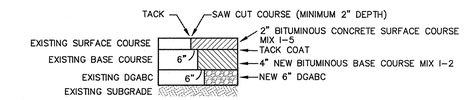
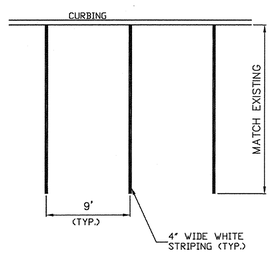


NOTES:

1. ALL STEP BACKS IN BITUMINOUS CONCRETE SHALL BE A MINIMUM OF 6".

PAVEMENT KEY DETAIL

NTS



NOTE:

1. ALL PAVEMENT STRIPING AND MARKINGS SHALL BE LONG LIFE THERMOPLASTIC.

2. PARKING STRIPING DEPTH:
   HEAD ON PARKING - 18'
   AT CURB WITH OVERHANG - 16'

STANDARD PARKING SPACE DETAIL

(IF REQUIRED)

NTS

GENERAL NOTES:

1. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED FOR CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION".
2. THE PROJECT HORIZONTAL DATUM SHOWN HEREON IS PER REFERENCE PLANS No. 1 AND 3.
3. THE PROJECT VERTICAL DATUM SHOWN HEREON IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) (GEOID 12B) AS DERIVED FROM NATIONAL GEODETIC SURVEY CONTROL STATIONS USING GNSS RTK OBSERVATIONS

REFERENCE PLANS:

1. "ALTA/ACSM LAND TITLE SURVEY BLOCK 701 LOT 10 (FORMALLY BLOCK 5 LOT 18.05 PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY, SCALE: 1" = 60', DATED MARCH 30, 2006". PREPARED BY TAYLOR, WISEMAN & TAYLOR (TWT), DRAWING No. 834-01984.6000-14.
2. "EXISTING CONDITIONS SURVEY OF LOT 10 BLOCK 701 PART OVER 600 COLLEGE EAST ROAD PREPARED FOR SJP PROPERTIES SITUATED IN PLAINSBORO TOWNSHIP, MIDDLESEX CO., N.J., SCALE: 1" = 20', DATED AUGUST 18, 2021". PREPARED BY VAN NOTE-HARVEY ASSOCIATES, INC., ORDER No. 45501-070-01.
3. "ALTA/ACSM LAND TITLE SURVEY BLOCK 701 LOT 11, (FORMALLY BLOCK 5 LOT 18.07 PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY, SCALE: 1" = 40', DATED MARCH 30, 2006". PREPARED BY TAYLOR, WISEMAN & TAYLOR (TWT), DRAWING No. 826-01984.6000-31.

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION MATERIALS AND METHODS FOR ROADWAY, PAVING, SITE WORK, AND DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH NJDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISION, EXCEPT AS MODIFIED HEREON AND IN THE SPECIFICATIONS.
2. ALL CONTRACTORS ARE REQUIRED TO NOTIFY ENGINEER IMMEDIATELY (AND PRIOR TO CONSTRUCTION) OF ANY PLAN/SPECIFICATION DISCREPANCIES, LAYOUT/ELEVATION DISCREPANCIES, CONFLICTS, APPARENT ERRORS, OMISSIONS OR OF ANY OTHER INFORMATION CONTAINED HEREIN WHICH THE CONTRACTOR FEELS IS UNCLEAR AS TO MEANING. ENGINEER WILL PROVIDE CLARIFICATION AND, IF NECESSARY, CORRECTIONS AS REQUIRED BY THE CONTRACTOR FOR PERFORMANCE OF CONTRACTORS WORK.
3. THE PLAINSBORO TOWNSHIP ENGINEER AND FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 72 HOURS BEFORE ANY LAND DISTURBANCE.
4. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL SUBMIT INFORMATION AND PLANS RELATING TO PHASING OF CONSTRUCTION, CONTRACTOR STORAGE OF MATERIALS, CONTRACTOR PARKING, CONTRACTORS TRAILERS, AND CONSTRUCTION SIGNAGE TO THE TOWNSHIP ENGINEER FOR APPROVAL.
5. THE SITE CONTRACTOR SHALL SUBMIT A "HAULING PLAN" TO THE TOWNSHIP COMMUNITY DEVELOPMENT DIRECTOR, FOR REVIEW AND APPROVAL, PRIOR TO CONSTRUCTION FOR THE MOVEMENT OF ANY CONSTRUCTION MATERIALS OR DEMOLITION DEBRIS ON ROADWAYS LEADING FROM THE SITE TO THE TOWNSHIP BORDERS AND VICE VERSA. THE APPLICANT SHALL ALSO PROVIDE A NARRATIVE TO COMPLEMENT THE HAULING PLAN.
6. ALL STRUCTURES, SIGNAGE STRUCTURAL DETAILS & FOUNDATIONS, AND BUILDING RETAINING WALLS ARE SUBJECT TO REVIEW AND APPROVAL BY THE TOWNSHIP CONSTRUCTION CODE OFFICIAL.
7. AS-BUILT GRADING AND UTILITIES SHALL BE PROVIDED AT THE TIME OF THE REQUEST FOR CERTIFICATE OF OCCUPANCY.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A PLAN WITH ALL CONSTRUCTION SIGNAGE (e.g. ENTRANCE & PROJECT SIGNS) AND DETAILS INCLUDING COLOR, NUMBER OF SIGNS, SIZE OF SIGNS AND MESSAGES TO THE TOWNSHIP ENGINEER FOR APPROVAL.
9. PROJECT SIGNAGE MATERIALS, SIZE AND TYPE ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWNSHIP PLANNING CONSULTANT.
10. PROPOSED EMERGENCY ACCESS TO AND AROUND THE PROPOSED SOLAR ARRAYS, AS WELL AS ALL FIRE LANE REQUIREMENTS, SIGNAGE AND MARKINGS, ARE SUBJECT TO FIRE SUBCODE OFFICIAL AND/OR FIRE MARSHALL APPROVAL.
11. ALL IMPORTED FILL MATERIALS SHALL BE TESTED FOR THE USEPA TARGET ANALYTE LIST/TARGET COMPOUND LIST (TAL/TCL+30) PRIOR TO DELIVERY TO THE PROJECT. TESTING INTERVALS TO BE ONE (1) TEST PER EACH SOURCE OF MATERIAL FROM UNDISTURBED NATURAL GROUND. TESTING INTERVALS FOR ALL OTHER SOURCES TO BE DETERMINED BASED UPON THE VOLUME OF FILL TO BE IMPORTED.
12. THE CONTRACTOR SHALL SUBMIT TO THE TOWNSHIP FOR REVIEW AND APPROVAL PRIOR TO SITE DISTURBANCE A DETAILED SEQUENCE OF CONSTRUCTION AND CONTRACTOR'S STAGING PLAN TO SEPARATE AND MANAGE CONSTRUCTION TRAFFIC AND PRIVATE VEHICLE TRAFFIC. THIS WILL FURTHER ESTABLISH THE CONTRACTOR'S WORK AND STAGING FOR EACH PHASE OF CONSTRUCTION, INCLUDING ITEMS SUCH AS WALKWAYS, PEDESTRIAN CROSSWALKS, DEMOLITION, INSTALLATION OF STRUCTURES, UNDERGROUND UTILITIES AND DRAINAGE, AND OFF-SITE IMPROVEMENTS, IF ANY.
13. ALL TRAFFIC SIGNAGE SHALL BE RETROFLECTIVE AND SHALL HAVE CONCRETE FOUNDATIONS, IF REQUIRED.
14. AS-BUILT GRADING AND UTILITIES SHALL BE PROVIDED AT THE TIME OF THE REQUEST FOR CERTIFICATE OF OCCUPANCY. THE FINAL AS-BUILT PLAN SHALL BE PROVIDED TO THE TOWNSHIP PLANNING STAFF AS BOTH A HARD COPY (PAPER OR MYLAR) AND AS A DIGITAL/ELECTRONIC DOCUMENT. THE DIGITAL DATA USED FOR SUCH DOCUMENTS SHALL BE IN VECTOR FORMAT AND CONTAIN COORDINATE VALUES FOR AT LEAST (3) IDENTIFIABLE BOUNDARY CORNERS (PREFERABLY IN THE 1983 NEW JERSEY STATE PLAN COORDINATE SYSTEM).
15. IF REQUIRED SIGNAGE SHALL BE PROVIDED CONSISTENT WITH PRINCETON FORRESTAL CENTER DESIGN REQUIREMENTS. SIGNAGE MATERIALS, SIZE AND TYPE ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWNSHIP. ALL TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH M.U.T.C.D. AND DESIGN DETAILS.
16. THE LOCATIONS OF ALL FIRE LANES ARE SUBJECT TO REVIEW BY THE TOWNSHIP FIRE OFFICIAL.

GRADING CONSTRUCTION NOTES:

1. TOPSOIL TO BE SPREAD AND ALL DISTURBED AREAS TO BE STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTES.
2. ALL STRUCTURAL FILL REQUIRED IN AREAS OF PROPOSED AND FUTURE IMPROVEMENTS SUCH AS UTILITIES, SANITARY SEWER, STORM DRAINAGE, BUILDINGS, PAVEMENTS, WALKS, ETC. MUST BE PLACED AND COMPACTED ETC. IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER FOR THE TYPE OF MATERIAL UTILIZED.
3. ALL SOIL AND STONE AGGREGATES BROUGHT TO THE SITE SHALL BE CERTIFIED AS MEETING NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION "CLEAN SOIL STANDARDS". ALL IMPORTED FILL MATERIALS SHALL BE TESTED FOR PRIORITY POLLUTANTS +40 PRIOR TO DELIVERY TO PROJECT. TESTING INTERVALS TO BE DETERMINED BASED UPON VOLUME OF FILL TO BE IMPORTED.
4. HANDICAP RAMPS SHALL BE PROVIDED AT ALL SIDEWALK INTERSECTIONS AT DRIVEWAYS, PARKING AREAS, ETC., AND SHALL COMPLY WITH A.D.A. REQUIREMENTS.
5. ALL PROPOSED GRADING AND SWALES SHALL HAVE A MINIMUM SLOPE OF TWO (2) PERCENT.
6. NO SIDEWALK SLOPE SHALL BE GREATER THAN 20:1 (5%). ALL CROSS SHALL BE 2.0%.
7. TOP OF CURB ELEVATIONS SHOWN ARE FOR 6" REVEAL, DEPRESS CURBS AT LOCATIONS SHOWN ON PLAN VIEW.
8. AS-BUILT GRADING PLANS (IN ACCORDANCE WITH ALL TOWNSHIP REQUIREMENTS) SHALL BE PROVIDED AT THE TIME OF THE REQUEST FOR BOND RELEASE.

UTILITY CONSTRUCTION NOTES:

1. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS/HER SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS, AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS.
2. THE CONTRACTOR SHALL CALL THE "ONE NUMBER TO CALL SYSTEM" 1- 800-272-1000, NOT LESS THAN 72 HOURS NOR MORE THAN 10 WORKING DAYS PRIOR TO PLANNED WORK TO NOTIFY UTILITY OWNERS OF THE INTENT TO START WORK. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING NON-MEMBER UTILITY OWNERS INDIVIDUALLY. ALL WORK SHALL BE COORDINATED WITH UTILITY OWNERS INCLUDING, BUT NOT LIMITED TO, PUBLIC SERVICE ELECTRIC AND GAS CO., NJ BELL TELEPHONE CO., ELIZABETHTOWN WATER COMPANY, PRIOR TO THE START OF CONSTRUCTION.
3. ALL EXISTING AND PROPOSED ELECTRIC, GAS, TELEPHONE, AND CATV, ETC., SHALL BE INSTALLED UNDERGROUND AND COORDINATED WITH APPLICABLE UTILITY COMPANY.
4. ALIGNMENT OF UTILITIES WHICH CROSS EXISTING VEGETATION SHALL BE ADJUSTED IN ORDER TO MINIMIZE DISTURBANCE TO EXISTING VEGETATION SUBJECT TO PROPER UTILITY SPACING AND EASEMENT REQUIREMENTS.
5. MINIMUM PIPE COVER SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
6. EXISTING TREES WILL BE PRESERVED WHEREVER POSSIBLE. FIELD ADJUSTMENTS TO PROPOSED GRADING, UTILITY STRUCTURE LOCATIONS, ETC. WILL BE MADE IN AN EFFORT TO PRESERVE EXISTING TREES.

MISCELLANEOUS NOTES:

1. LANDSCAPE MATERIALS, LOCATION, DISTRIBUTION AND QUANTITIES ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWNSHIP PLANNING CONSULTANT.
2. IF REQUIRED, PURSUANT TO THE STATE SOIL EROSION AND SEDIMENT CONTROL ACT AMENDMENT, THE APPLICANT SHOULD OBTAIN A NEW JERSEY STORMWATER DISCHARGE PERMIT FROM THE FREEHOLD COUNTY SOIL CONSERVATION DISTRICT.
3. APPLICANT SHALL OBTAIN ALL REQUIRED APPROVALS FROM OUTSIDE AGENCIES HAVING JURISDICTION.
4. FINAL CONSTRUCTION PLANS SHALL BE REVIEWED AND APPROVED BY THE TOWNSHIP ENGINEER FOR COMPLIANCE WITH THE ENGINEERING STANDARDS, DETAILS & DESIGN CRITERIA OF PLAINSBORO TOWNSHIP, INCLUDING BUT NOT LIMITED TO: CONSTRUCTION DETAILS FOR IMPROVEMENTS TO EXISTING AND PROPOSED ROADWAYS, AND ALL OTHER ENGINEERING SITE IMPROVEMENT ITEMS THAT MAY BE MODIFIED OR INCREASED.
5. ALL DAMAGED SIDEWALK, CURB, PAVEMENT, PAVEMENT STRIPING AND MARKINGS, AND SIGNAGE SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE TOWNSHIP ENGINEER.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1.	REVISED PER DRC COMMENTS	2/27/23	WDV	RAP

09/09/2022
DATE OF SIGN.

RALPH A. PETRELLA
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 46160

van note-harvey associates, inc.
consulting engineers, planners & land surveyors
103 College Road East ● Princeton, NJ 08540 ● 609-987-2323
211 Bayberry Drive ● Cape May Court House, NJ 08210 ● 609-465-2600
www.vannoteharvey.com Certificate of Authorization No. 24GA28271300
van note-harvey associates - Since 1894 -

CONSTRUCTION DETAILS
FOR
600 AND 650 COLLEGE ROAD EAST
BEING
LOTS 10 AND 11, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP MIDDLESEX CO., N.J.
SEPTEMBER 9, 2022

DRAWN BY WDV DATE 04/05/22	FIELD BK	ORDER No. 45582-400-21	FILE No. 206-E-4	SHEET No. CE-10
CHECKED BY RAP DATE 04/05/22	PAGE			

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	Exisiting trees to be removed	
	Less than 12"	12" or greater
600 College Road	24	0
650 College Road	45	2
Total	69	2

	Required tree replacement	
	Less than 12"	12" or greater
Requirment	2:1 Ratio	3:1 Ratio
Total	2*69= 138 trees	3*2= 6 trees
A total of 144 trees will need to be replanted		

Plant List - Overall Plan

Symbol	Quantity	Latin Name	Common Name	Container	Caliper	Height	Native	Salt Tolerant	Deer Resistant	Notes
Shade Trees or Street Trees										
LT	29	Liriodendron tulipifera	Tulip Tree	B&B	2.5"-3"	13'-15'	YES		B	60-90' Ht, tulip like flower early summer, golden yellow fall color
PO	28	Platanus occidentalis	Sycamore	B&B	2.5"-3"	13'-15'	YES		NR	70'-80' ht, fast growing native, exfoliating ark, large leaves.
TAR	20	Tilia americana 'Redmond'	Redmond American Linden	B&B	2.5"-3"	13'-15'	YES			40'-60' h x 20'-30' w; pyramidal; yellow fall color
	77*									

*144 trees need to be replanted. Since the already developed site is not to be reforsted, 77 will be replanted through out the site. The remaining 67 trees are requested to be replanted by township.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY

Ralph A. Petrella — 09/09/2022 (DATE OF SIGN.)

RALPH A. PETRELLA
N.J. PROFESSIONAL ENGINEER LIC. NO. GE 46160

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consulting engineers, planners & land surveyors
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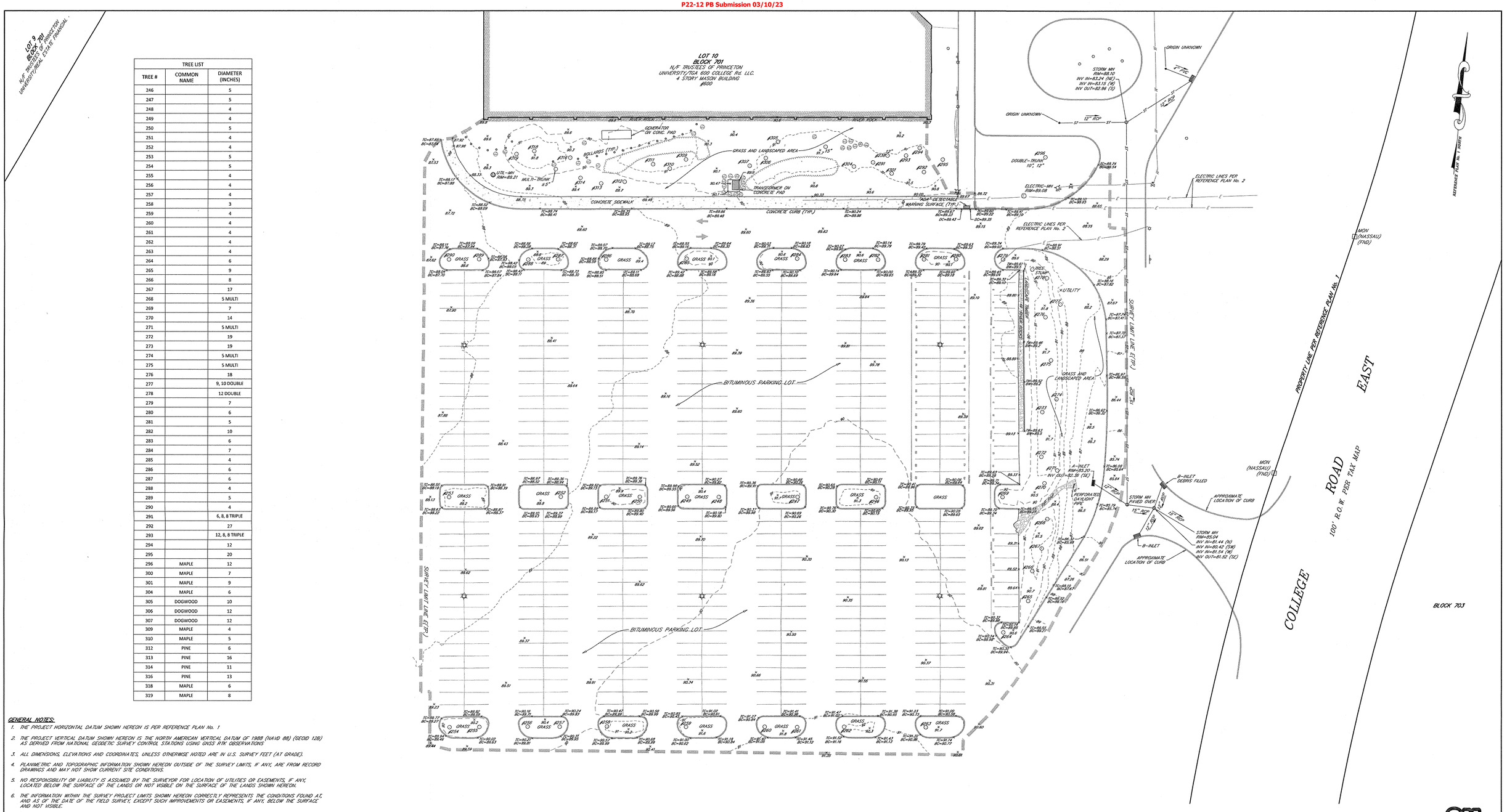
TREE REPLACEMENT PLAN
FOR
650 COLLEGE ROAD EAST
BEING
LOT 11, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP, MIDDLESEX CO., N.J.
SCALE 1" = 50' — SEPTEMBER 9, 2022

DRAWN BY WDV DATE 04/05/22	FIELD BK	ORDER No. 45582-400-21	FILE No. 206-E-4	SHEET No. LS-1
CHECKED BY RAP DATE 04/05/22	PAGE			

N:\P\45582\DWG_ENG\45582-600COLLEGERD-TREE REPLACMENT.DWG

K:\P-45582\dwg_ENG\45582-600College Rd- Tree Replacment.dwg, Layout1, 2/28/2023 2:52:44 PM, WVaughn

TREE LIST		
TREE #	COMMON NAME	DIAMETER (INCHES)
246		5
247		5
248		4
249		4
250		5
251		4
252		4
253		5
254		5
255		4
256		4
257		4
258		3
259		4
260		4
261		4
262		4
263		4
264		6
265		9
266		8
267		17
268		5 MULTI
269		7
270		14
271		5 MULTI
272		19
273		19
274		5 MULTI
275		5 MULTI
276		18
277		9, 10 DOUBLE
278		12 DOUBLE
279		7
280		6
281		5
282		10
283		6
284		7
285		4
286		6
287		6
288		4
289		5
290		4
291		6, 8, 8 TRIPLE
292		27
293		12, 8, 8 TRIPLE
294		12
295		20
296	MAPLE	12
300	MAPLE	7
301	MAPLE	9
304	MAPLE	6
305	DOGWOOD	10
306	DOGWOOD	12
307	DOGWOOD	12
309	MAPLE	4
310	MAPLE	5
312	PINE	6
313	PINE	16
314	PINE	11
316	PINE	13
318	MAPLE	6
319	MAPLE	8



GENERAL NOTES:

1. THE PROJECT HORIZONTAL DATUM SHOWN HEREON IS PER REFERENCE PLAN No. 1
2. THE PROJECT VERTICAL DATUM SHOWN HEREON IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) (GEOID 12B) AS DERIVED FROM NATIONAL GEODETIC SURVEY CONTROL STATIONS USING GNSS RTK OBSERVATIONS
3. ALL DIMENSIONS, ELEVATIONS AND COORDINATES, UNLESS OTHERWISE NOTED ARE IN U.S. SURVEY FEET (AT GRADE).
4. PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON OUTSIDE OF THE SURVEY LIMITS, IF ANY, ARE FROM RECORD DRAWINGS AND MAY NOT SHOW CURRENT SITE CONDITIONS.
5. NO RESPONSIBILITY OR LIABILITY IS ASSUMED BY THE SURVEYOR FOR LOCATION OF UTILITIES OR EASEMENTS, IF ANY, LOCATED BELOW THE SURFACE OF THE LANDS OR NOT VISIBLE ON THE SURFACE OF THE LANDS SHOWN HEREON.
6. THE INFORMATION WITHIN THE SURVEY PROJECT LIMITS SHOWN HEREON CORRECTLY REPRESENTS THE CONDITIONS FOUND AT, AND AS OF THE DATE OF THE FIELD SURVEY, EXCEPT SUCH IMPROVEMENTS OR EASEMENTS, IF ANY, BELOW THE SURFACE AND NOT VISIBLE.
7. MAPPING FEATURES SHOWN SURVEY BEYOND THE PROJECT LIMITS, IF ANY, HAVE NOT BEEN SURVEYED AS PART OF THIS PROJECT AND ARE SHOWN FOR GENERAL INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED UPON AS ACCURATE.
8. SITE FEATURES AND TOPOGRAPHIC INFORMATION WITHIN THE SURVEY PROJECT LIMIT LINE IS THE RESULT OF A FIELD SURVEY PERFORMED BY VAN NOTE-HARVEY ASSOCIATES, INC. ON NOVEMBER 24 AND DECEMBER 2, 9 OF 2021.
9. THE DEPICTION OF UNDERGROUND FEATURES HEREON, IF ANY, IS APPROXIMATE UNLESS OTHERWISE NOTED. CONFIRMATION OF THE POSITION AND DEPTH OF ANY UNDERGROUND FEATURE IS REQUIRED PRIOR TO ANY EARTH DISTURBANCE.
10. THE DEPICTION OF UNDERGROUND FEATURES HEREON, IF ANY, IS BASED ON SURFACE AND/OR RECORD EVIDENCE. THIS DOES NOT PRECLUDE THE EXISTENCE OR ABSENCE OF UNDERGROUND FEATURES ON, ACROSS, OR ADJACENT TO THE PROJECT SITE.
11. UNDERGROUND UTILITY MARK-OUT OF PROJECT AREA WAS NOT PERFORMED BY VAN NOTE-HARVEY ASSOCIATES, INC. AS PART OF THIS PROJECT, AND MARK-OUT OF UNDERGROUND UTILITIES WAS NOT PRESENT IN FIELD AT TIME OF SURVEY EXCEPT AS SHOWN.
12. UNLESS SPECIFICALLY NOTICED HEREON, STORM DRAIN AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES, CATCH BASINS, OUTFALL STRUCTURES, ETC.). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND THE LOCATIONS WHERE DATA WAS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE THE SURVEYOR CANNOT AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES. THE UTILITIES SHOWN HAVE BEEN LOCATED FROM EVIDENCE OBSERVED ON THE SURFACE ONLY OR HAVE BEEN SHOWN GRAPHICALLY PER SUPPLIED MATERIALS. VAN NOTE-HARVEY ASSOCIATES, INC., MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. VAN NOTE-HARVEY ASSOCIATES, INC. FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN, IF ANY, ARE IN THE EXACT LOCATION INDICATED. VAN NOTE-HARVEY ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED UNDERGROUND UTILITIES.
13. THIS PLAN WAS PREPARED IN A MANNER CONSISTENT WITH THE CARE ORDINARILY EXERCISED BY OTHER PROFESSIONALS PERFORMING SIMILAR SERVICES IN THE SAME LOCALE, UNDER THE SAME OR SIMILAR CIRCUMSTANCES AND CONDITIONS. THE CONSULTANT MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE SERVICES RENDERED.
14. PRIOR TO ANY EARTH DISTURBANCE, CONTACT "NEW JERSEY ONE CALL" AT 811 OR 1 (800) 272-1000.
15. FRESHWATER WETLANDS, IF ANY, HAVE NOT BEEN DELINEATED OR SHOWN HEREON.
16. FLOODWAY INFORMATION HAS NOT BEEN DETERMINED OR SHOWN HEREON.

REFERENCE PLANS:

1. "ALTA/ACSM LAND TITLE SURVEY BLOCK 701 LOT 10 (FORMALLY BLOCK 5 LOT 18.05 PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY, SCALE: 1" = 60', DATED MARCH 30, 2006". PREPARED BY TAYLOR, WISEMAN & TAYLOR (TWT), DRAWING No. 834-01984.6000-14.
2. "EXISTING CONDITIONS SURVEY OF LOT 10 BLOCK 701 PART OVER 600 COLLEGE EAST ROAD PREPARED FOR SJP PROPERTIES SITUATED IN PLAINSBORO TOWNSHIP, MIDDLESEX CO., N.J., SCALE: 1" = 20', DATED AUGUST 18, 2021". PREPARED BY VAN NOTE-HARVEY ASSOCIATES, INC., ORDER No. 45501-070-01.
3. "ALTA/ACSM LAND TITLE SURVEY BLOCK 701 LOT 11, (FORMALLY BLOCK 5 LOT 18.07 PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY, SCALE: 1" = 40', DATED MARCH 30, 2006". PREPARED BY TAYLOR, WISEMAN & TAYLOR (TWT), DRAWING No. 826-01984.6000-31.

ABBREVIATIONS

TW	= TOP OF WALL
BW	= BOTTOM OF WALL
CONC.	= CONCRETE
TC	= TOP OF CURB
BC	= BOTTOM OF CURB
DC	= DEPRESSED CURB

LEGEND:

- 85 — MAJOR CONTOUR
- 82 — MINOR CONTOUR
- × 87.8 — GROUND SPOT ELEVATION
- × 87.40 — GROUND SPOT ELEVATION
- STORMWATER INLETS
- D — DRAINAGE/STORMWATER MANHOLE
- S — SANITARY MANHOLE
- LIGHT POLE W/BASE (TYP.)
- 6" — TREE LOCATION W/DIAMETER BREAST HEIGHT (DBH)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 feet

PLAINSBORO TOWNSHIP TAX MAP INFORMATION
BLOCK: 701 LOT: 10
SHEET: 7

811 Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	ADDED TREE LIST TO PLAN	5/4/22	LWO	KTS

DATE OF SIGN.

KENNETH T. SCHILLING
N.J. PROFESSIONAL LAND SURVEYOR LIC. NO. GS 34496

van note-harvey associates, inc.
consulting engineers, planners & land surveyors
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization No. 24GA28271100
- Since 1894 -

EXISTING CONDITIONS SURVEY
FOR
600 COLLEGE ROAD EAST
BEING
PART OF LOT 10, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP MERCER CO., N.J.
SCALE 1"= 30' DECEMBER 9, 2021

DRAWN BY LWO DATE 12/6/2021	FIELD BK PLTZ-15 PAGE 19, 21	ORDER No. 45582-100-11	FILE No. ~	SHEET No. 1
CHECKED BY KRR DATE 12/12/2021				

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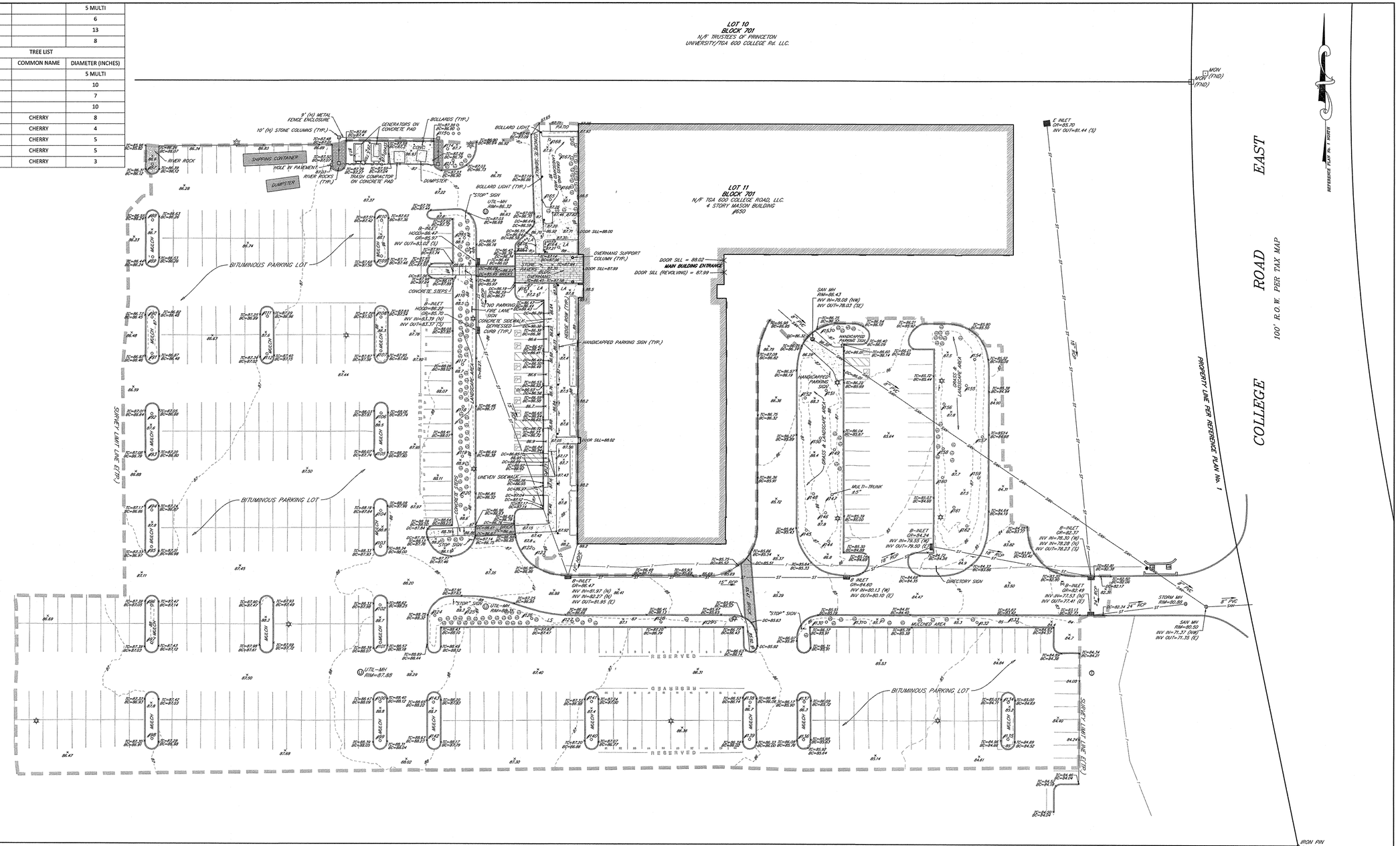
TREE LIST		
TREE #	COMMON NAME	DIAMETER (INCHES)
87		8
88		7
89		8
90		7
91		6
92		5
93		5
94		7
95		6
96		7
97		8
98		9
99		6
100		7
101		8
102		7
103		6
104		7
105		5
106		7
107		6
108		6
109		6
110		5
111		6
112		6
113		6
114		6
115		16
116		18
117		14
118		9
119		9
120		18
121		10
122		9
123		6
124		12
125		13
126		12
127		9
128		10
129		10
130		11
131		9
132		9
133		10
134		7
135		7
136		7
137		8
138		7
139		6
140		7
141		7
142		8
143		7
144		10
145		8
146		8
147		5 MULTI
148		7
149		12
150		8
151		9
152		5 MULTI
153		10
154		5
155		7

156		5 MULTI
157		6
158		13
159		8

TREE LIST		
TREE #	COMMON NAME	DIAMETER (INCHES)
160		5 MULTI
161		10
162		7
163		10
164	CHERRY	8
165	CHERRY	4
166	CHERRY	5
167	CHERRY	5
168	CHERRY	3



GENERAL NOTES:

1. THE PROJECT HORIZONTAL DATUM SHOWN HEREON IS PER REFERENCE PLAN No. 1
2. THE PROJECT VERTICAL DATUM SHOWN HEREON IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) (GEOID 12B) AS DERIVED FROM NATIONAL GEODETIC SURVEY CONTROL STATIONS USING GNSS RTK OBSERVATIONS
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4. PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON OUTSIDE OF THE SURVEY LIMITS, IF ANY, ARE FROM RECORD DRAWINGS AND MAY NOT SHOW CURRENT SITE CONDITIONS.
5. NO RESPONSIBILITY OR LIABILITY IS ASSUMED BY THE SURVEYOR FOR LOCATION OF UTILITIES OR EASEMENTS, IF ANY, LOCATED BELOW THE SURFACE OF THE LANDS OR NOT VISIBLE ON THE SURFACE OF THE LANDS SHOWN HEREON.
6. THE INFORMATION WITHIN THE SURVEY PROJECT LIMITS SHOWN HEREON CORRECTLY REPRESENTS THE CONDITIONS FOUND AT, AND AS OF THE DATE OF THE FIELD SURVEY, EXCEPT SUCH IMPROVEMENTS OR EASEMENTS, IF ANY, BELOW THE SURFACE AND NOT VISIBLE.
7. MAPPING FEATURES SHOWN BEYOND THE SURVEY PROJECT LIMITS, IF ANY, HAVE NOT BEEN SURVEYED AS PART OF THIS PROJECT AND ARE SHOWN FOR GENERAL INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED UPON AS ACCURATE.
8. SITE FEATURES AND TOPOGRAPHIC INFORMATION WITHIN THE SURVEY LIMIT LINE IS THE RESULT OF A FIELD SURVEY PERFORMED BY VAN NOTE-HARVEY ASSOCIATES, INC. ON NOVEMBER 24, 26 AND DECEMBER 2, 9 OF 2021.
9. THE DEPICTION OF UNDERGROUND FEATURES HEREON, IF ANY, IS APPROXIMATE UNLESS OTHERWISE NOTED. CONFIRMATION OF THE POSITION AND DEPTH OF ANY UNDERGROUND FEATURE IS REQUIRED PRIOR TO ANY EARTH DISTURBANCE.
10. THE DEPICTION OF UNDERGROUND FEATURES HEREON, IF ANY, IS BASED ON SURFACE AND/OR RECORD EVIDENCE. THIS DOES NOT PRECLUDE THE EXISTENCE OR ABSENCE OF UNDERGROUND FEATURES ON, ACROSS, OR ADJACENT TO THE PROJECT SITE.
11. UNDERGROUND UTILITY MARK-OUT OF PROJECT AREA WAS NOT PERFORMED BY VAN NOTE-HARVEY ASSOCIATES, INC. AS PART OF THIS PROJECT, AND MARK-OUT OF UNDERGROUND UTILITIES WAS NOT PRESENT AT TIME OF SURVEY EXCEPT AS SHOWN.
12. UNLESS SPECIFICALLY NOTED HEREON, STORM DRAIN AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES, CATCH BASINS, OUTFALL STRUCTURES, ETC.). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND THE LOCATIONS WHERE DATA WAS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE THE SURVEYOR CANNOT AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM EVIDENCE OBSERVED ON THE SURFACE ONLY OR HAVE BEEN SHOWN GRAPHICALLY PER SUPPLIED MATERIALS. VAN NOTE-HARVEY ASSOCIATES, INC., MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. VAN NOTE-HARVEY ASSOCIATES, INC. FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN, IF ANY, ARE IN THE EXACT LOCATION INDICATED. VAN NOTE-HARVEY ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED UNDERGROUND UTILITIES.
13. THIS PLAN WAS PREPARED IN A MANNER CONSISTENT WITH THE CARE ORDINARILY EXERCISED BY OTHER PROFESSIONALS PERFORMING SIMILAR SERVICES IN THE SAME LOCALE, UNDER THE SAME OR SIMILAR CIRCUMSTANCES AND CONDITIONS. THE CONSULTANT MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE SERVICES RENDERED.
14. PRIOR TO ANY EARTH DISTURBANCE, CONTACT "NEW JERSEY ONE CALL" AT 811 OR 1 (800) 272-1000.
15. FRESHWATER WETLANDS, IF ANY, HAVE NOT BEEN DELINEATED OR SHOWN HEREON.
16. FLOODWAY INFORMATION HAS NOT BEEN DETERMINED OR SHOWN HEREON.

REFERENCE PLANS:

1. "ALTA/ACSM LAND TITLE SURVEY BLOCK 701 LOT 11, (FORMALLY BLOCK 5 LOT 18.07 PLAINSBORO TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY, SCALE: 1" = 40', DATED MARCH 30, 2006". PREPARED BY TAYLOR, WISEMAN & TAYLOR (TWT), DRAWING No. 826-01984.6000-31.

ABBREVIATIONS:

TW	= TOP OF WALL
BW	= BOTTOM OF WALL
CONC.	= CONCRETE
TC	= TOP OF CURB
BC	= BOTTOM OF CURB
DC	= DEPRESSED CURB
LS	= LANDSCAPED AREA

PLAINSBORO TOWNSHIP TAX MAP INFORMATION

BLOCK: 701 LOT: 11
SHEET: 7

REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
1	ADDED TREE LIST TO PLAN	5/4/22	LWO	KTS

DATE OF SIGN.

KENNETH T. SCHILLING
N.J. PROFESSIONAL LAND SURVEYOR LIC. NO. GS 34496

van note-harvey associates, inc.
consulting engineers, planners & land surveyors
103 College Road East • Princeton, NJ 08540 • 609-987-2323
211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600
www.vannoteharvey.com Certificate of Authorization No. 24GA28211300
- Since 1894 -

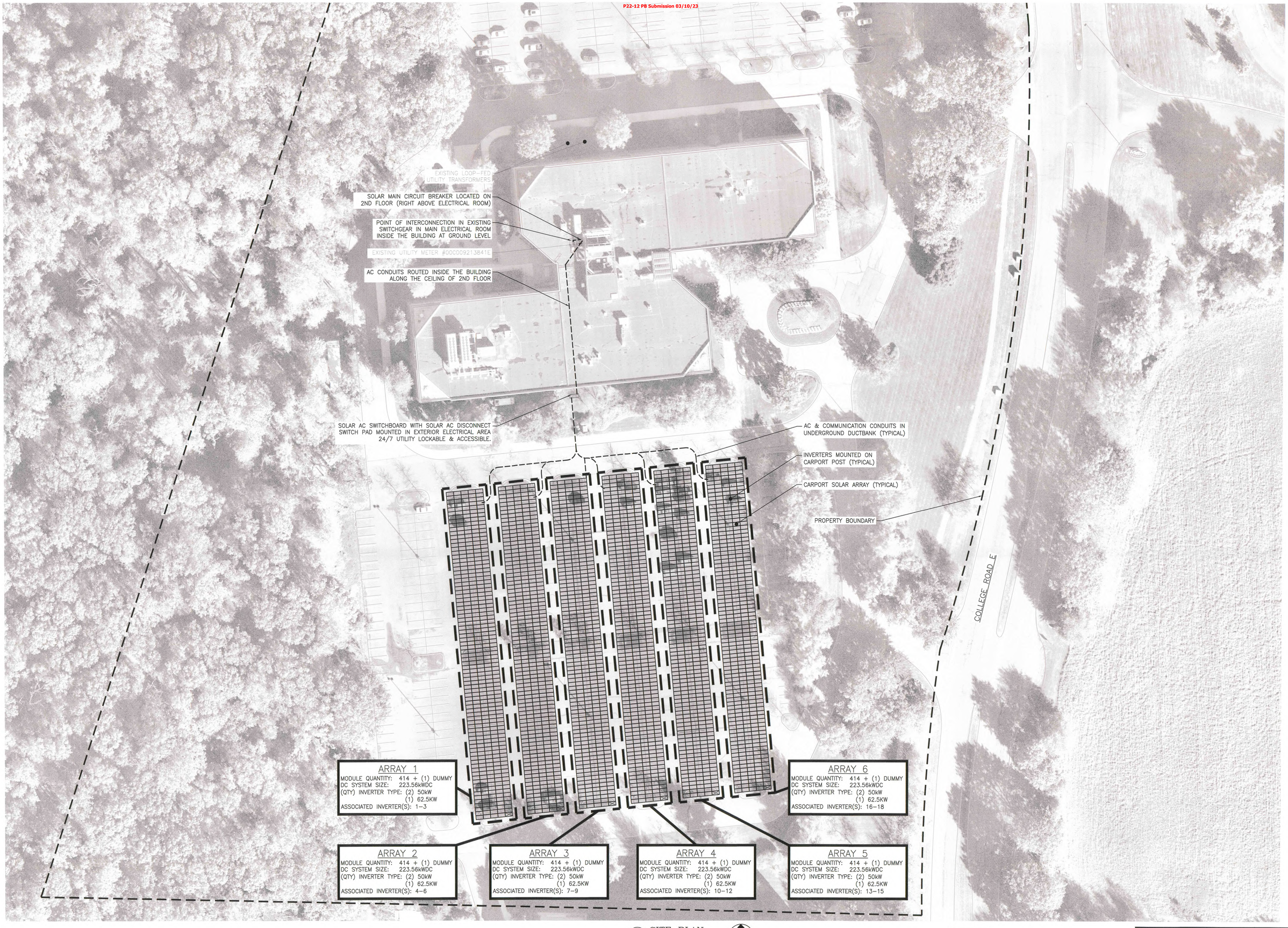
Know what's below. Call before you dig.

EXISTING CONDITIONS SURVEY
FOR
650 COLLEGE ROAD EAST
BEING
PART OF LOT 11, BLOCK 701
PREPARED FOR
SAFARI ENERGY
SITUATED IN
PLAINSBORO TOWNSHIP MERCER CO., N.J.
SCALE 1"= 30' DECEMBER 9, 2021

DRAWN BY KTS DATE 12/6/2021	FIELD BK PLTZ-15 PAGE 17-20	ORDER No. 45582-102-11	FILE No. ~	SHEET No. 1
CHECKED BY KRR DATE 12/12/2021				

N:\P45582\dwg\45582-650CollegeRdEc.dwg, PLT, 2/28/2023 2:54:39 PM, WVaughn

N: \P\45582\DWG\45582-650COLLEGERDEC.DWG



1 G100 SITE PLAN
SCALE: 1" = 30'-0"

N

= DUMMY MODULE

PLOT DATE: 8/25/2022 12:41 PM

RULER IN INCHES: 0 ½ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

DATE	REVISION DESCRIPTION	PM	ENG	CHK
08/25/2022	CONSTRUCTION ADDENDUM	KB	RB	RL

ENGINEER
PURE POWER ENGINEERING
111 RIVER STREET, HOBOKEN, NJ
WWW.PUREPOWER.COM
PHONE: (201) 656-6464
NJ LICENSE No. 47878

DEVELOPER
Safari Energy
A PPL Company

SAFARI ENERGY, LLC.
747 3RD AVENUE, 21ST FLOOR
NEW YORK, NY 10018
WWW.SAFARIENERGY.COM

PAGE SIZE 36" x 24"
PROJECT # 02478.08

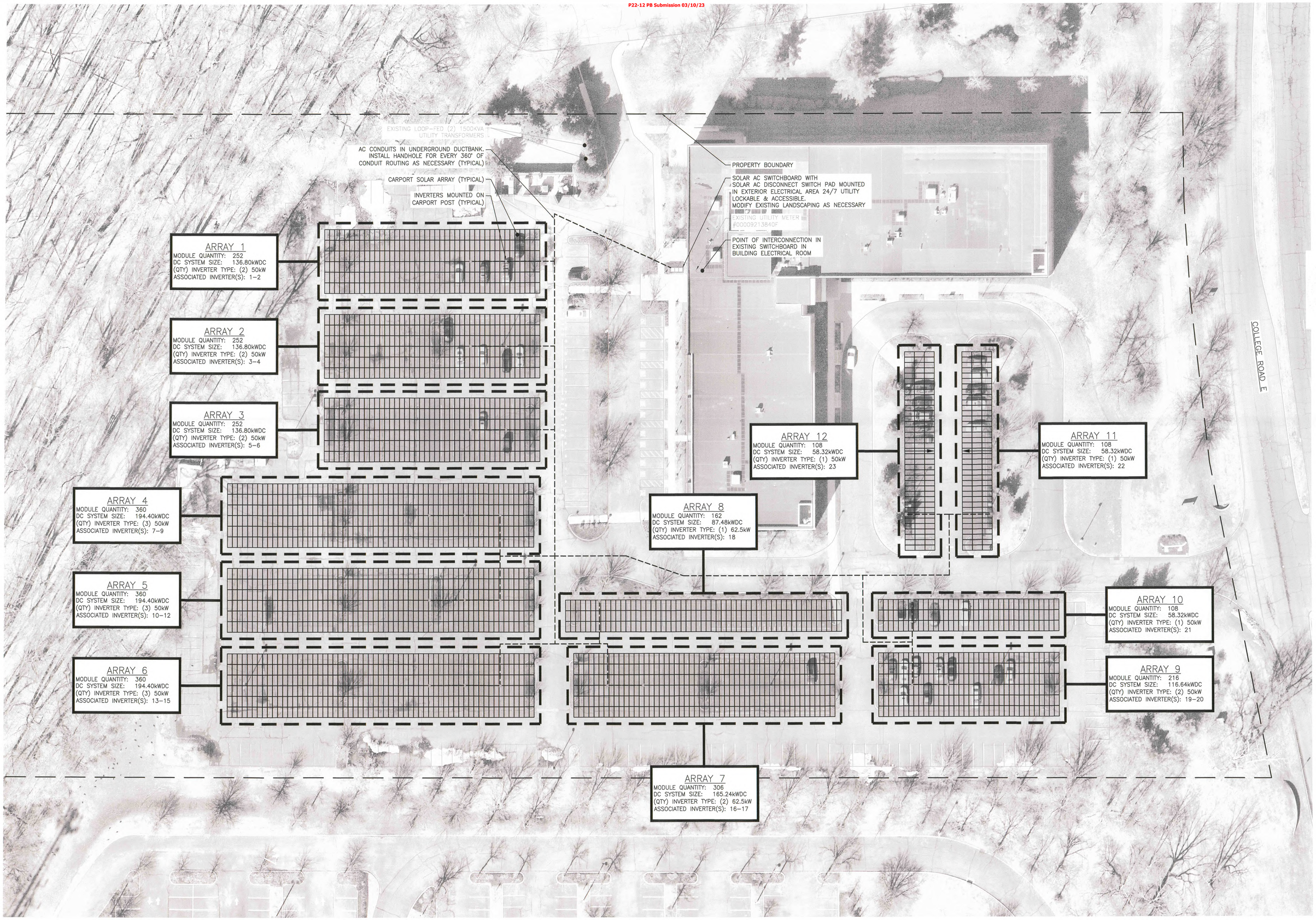
DC SYSTEM SIZE: 1,341.36 kW
AC SYSTEM SIZE: 975.00 kW
MODULE TYPE: SEG SOLAR 540W
MODULE QUANTITY: 2,484 + (6) DUMMY
ORIENTATION: 5° TILT, 265° AZIMUTH

PROJECT
SOLAR CARPORT SYSTEM AT
NUVEEN – 600 COLLEGE ROAD
600 COLLEGE ROAD EAST
PRINCETON, NJ 08540

DRAWING TITLE
SITE PLAN

DRAWING #
G100

P22-12 PB Submission 03/10/23



1 G100 SITE PLAN
SCALE: 1" = 30'-0"

DATE	REVISION DESCRIPTION	PM	ENG	CHK
11/23/2021	CONCEPTUAL DESIGN	MB	MB	RI
08/26/2022	INTERCONNECTION DESIGN	BX	BB	RI

PURE POWER ENGINEERING
111 RIVER STREET, HOBOKEN, NJ
WWW.PUREPOWER.COM
RICHARD A. IVINS
NJ LICENSE No. 47878

ENGINEER

DEVELOPER
Safari Energy
A PPL Company
SAFARI ENERGY, LLC.
1407 BROADWAY, 24TH FLOOR
NEW YORK, NY 10018
WWW.SAFARIENERGY.COM

PAGE SIZE 36" x 24"
PROJECT # 02478.09

DC SYSTEM SIZE: 1,535.76 kW
AC SYSTEM SIZE: 1,187.50 kW
MODULE TYPE: SEG SOLAR 540W
MODULE QUANTITY: 2,844
ORIENTATION: 5° TILT, AZIMUTH VARIES

PROJECT
SOLAR CARPORT SYSTEM AT
650 COLLEGE ROAD
650 COLLEGE ROAD EAST
PRINCETON, NJ 08540

DRAWING TITLE
SITE PLAN

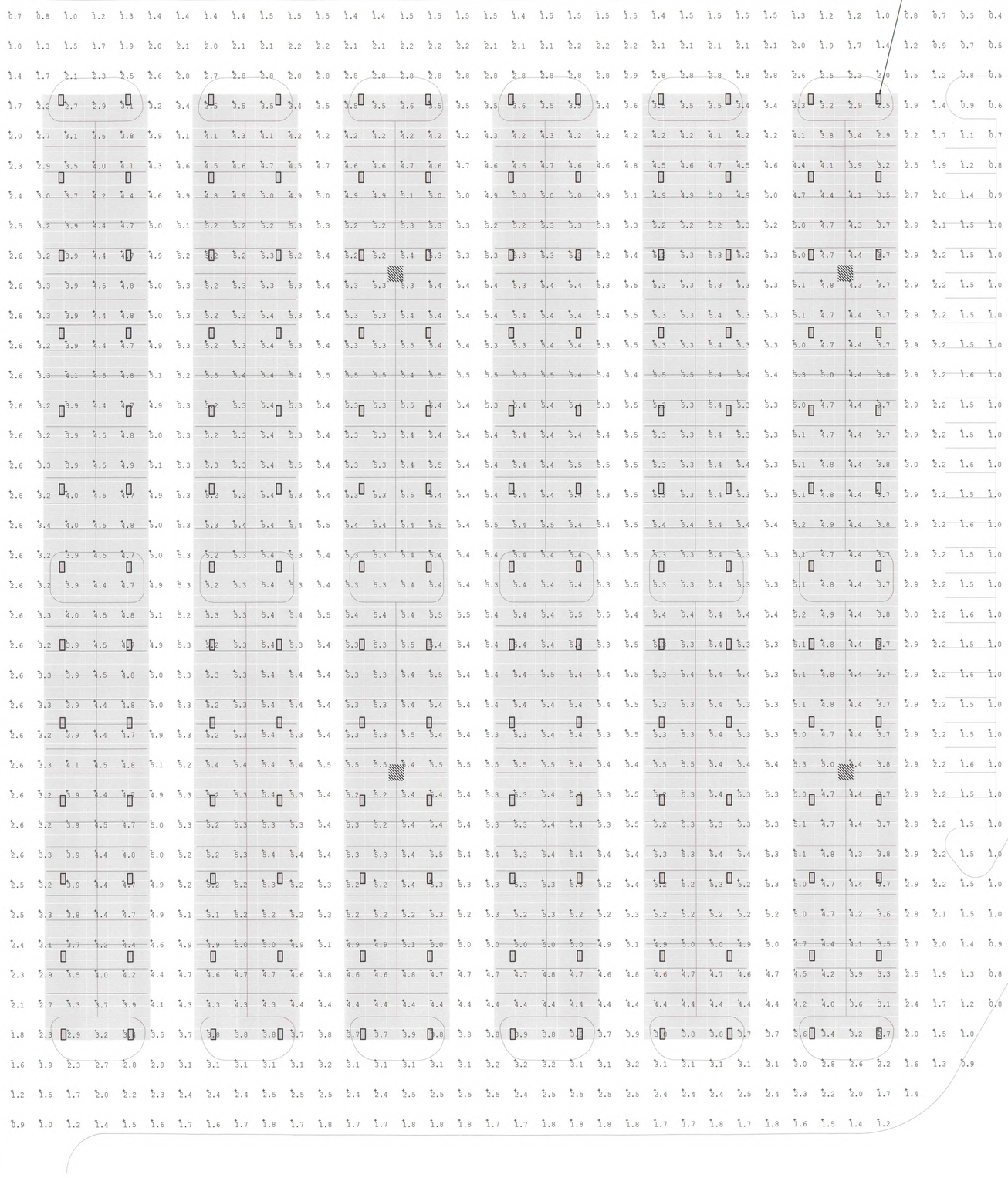
DRAWING #
G100

PLOT DATE: 8/25/2022 12:38 PM

RULER IN INCHES:

PLOT DATE: 8/5/2022 9:37 AM

NEW LITHONIA D-SERIES LIGHTING FIXTURE (TYP.) MOUNTED ON PURLIN.



PHOTOMETRIC CALCULATION SUMMARY			
LABEL	AVG	MAX	MIN
CANOPY LIGHTING	4.07 (Fc)	5.5 (Fc)	0.4 (Fc)



D-Series
LED Surface Canopy

Catalog Number

Notes

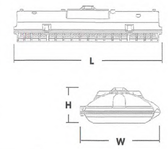
Type

Hit the tab key or mouse over the page to see an interactive element.

d^series

Specifications

Length:	17-3/4" (45.1 cm)
Width:	8-1/2" (21.6 cm)
Height:	3-7/16" (8.7 cm)
Weight (max):	16 lbs (7.3 kg)



Introduction

The D-Series LED Surface Canopy luminaire is ideal for covered walkways or drive-thrus, semi-covered outdoor aisles, and walk-in coolers and freezers. Its five optical choices provide the design flexibility to potentially reduce luminaire counts while still meeting IES criteria, lowering overall energy consumption.

Its expected service life of over 100,000 hours (20 years of nighttime operation) combined with the available motion/ambient sensor offers an extremely low maintenance solution that yields quick payback.

Ordering Information — **EXAMPLE:** DSXSC LED 20C 700 40K T5M MVOLT SRM DWHXD

DSXSC LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
DSXSC LED	10C TBD. LDM. (one engine) 20C 20 LEDs (two engines) 30C 30 LEDs (three engines)	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[4]	T5E Type V, entryway [4] T5M Type V, medium T5W Type V, wide T5R Type V, rectangular ASY Asymmetric	MVOLT[1] 120[1] 208[1] 240[1] 277[1] 347[4] 480[4]	Shipped included SRM Surface mount (12-inch length supply leads)

Options		Finish
Shipped installed		Shipped separately
HS House-side shield (housing visor) [7]	PIR1FC3V Motion/ambient sensor for 15-30' mounting heights and typical applications requiring daylight harvesting and Title 24 compliance [9]	BDS Bird shroud [7]
SF Single fuse (120, 277, 347V) [6,8]	XPoint™ Wireless enabled [10]	DWHXD White
DF Double fuse (208, 240, 480V) [6,8]	XAD XPoint™ Wireless enabled for emergency circuit [12,14,15]	DNAXD Natural aluminum
SPD Separate surge protection [11]	XAD924 XPoint™ Wireless enabled motion/ambient sensor for 8-15' mounting heights [13,15]	DDBXD Dark bronze
DMG 0-10V dimming driver (no controls) [11,12]	XAD PIR XPoint™ Wireless enabled motion/ambient sensor for 8-15' mounting heights [13,15]	
PIR Motion/ambient sensor for 8-15' mounting heights [13]	XAD PIRH XPoint™ Wireless enabled motion/ambient sensor for 15-30' mounting heights [13,15]	
PIRH Motion/ambient sensor for 15-30' mounting heights [13]	XAD924 PIR XPoint™ Wireless enabled motion/ambient sensor for emergency circuits for 8-15' mounting heights [12,14,15]	
PIR3FC3V Motion/ambient sensor for 8-15' mounting heights and for typical applications requiring daylight harvesting and Title 24 compliance [9]	XAD924 PIRH XPoint™ Wireless enabled motion/ambient sensor for emergency circuits for 15-30' mounting heights [12,14,15]	

Accessories
Ordered and shipped separately.

DSXSCXS U House-side shield (1 per light engine)
DSXSCBDSSU DWHXD U Bird shroud for SRM on surface J-box only, white (specify finish)

NOTES

1 Available with 700mA or 1000mA option only.
2 Not available with 347 or 480V.
3 AMBPC only available with 530mA or 700mA.
4 DesignLights Consortium qualified.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
6 N/A with one light engine (10C). Only available with 700mA or 1000mA.
7 Also available as a separate accessory; see Accessories information at left.
8 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
9 Not available with XAD or XAD924 options.
10 See the electrical section on page 3 for more details.
11 DMG not available with all PIR or XAD options
12 Dimming driver standard. Available in layouts up to 30'. Not available with 347V or 480V. Not available with fusing.
13 PIR & PIR3FC3V specifies the Acuity Controls SBOR 16 ODP motion/ambient sensor, the PIRH & PIRH3FC3V specifies the Acuity Controls SBOR 6 ODP motion/ambient sensor.
14 XAD924 specifies the Acuity Controls XPA RL1 DSI EM XPoint wireless light controller as a UL924 listed device for emergency lighting.
15 XAD PIR specifies the Acuity Controls XPA SBOR16 wireless controller, the XAD924 PIR specifies the Acuity Controls XPA SBOR16 wireless controller, the XAD PIRH specifies the Acuity Controls XPA SBOR6 wireless controller, and the XAD924 PIRH specifies the XPA SBOR16 EM wireless controller.

LITHONIA LIGHTING. One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • www.lithonia.com
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2 E151 FIXTURE SPECIFICATION SHEET
SCALE: NONE

LIGHTING LEGEND:

- NEW FIXTURE TO BE INSTALLED UNDERNEATH SOLAR CANOPY
- EXISTING FIXTURE TO BE REMOVED
- EXISTING FIXTURE TO REMAIN

1 E151 PHOTOMETRICS PLAN
SCALE: 1" = 20'

N

RULER IN INCHES: 0 ½ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

DATE	REVISION DESCRIPTION	PM	ENG	CHK
08/05/2022	LIGHTING DESIGN	BX	PB	PJ

ENGINEER
PURE POWER ENGINEERING
111 RIVER STREET, HOBOKEN, NJ
WWW.PUREPOWER.COM
RICHARD A. WAYS
NJ LICENSE No. 47378

DEVELOPER
Safari Energy
SAFARI ENERGY, LLC.
1407 BROADWAY, 24TH FLOOR
NEW YORK, NY 10018
WWW.SAFARIENERGY.COM
A PPL Company

PAGE SIZE: 36" x 24"
PROJECT #: 02478.08

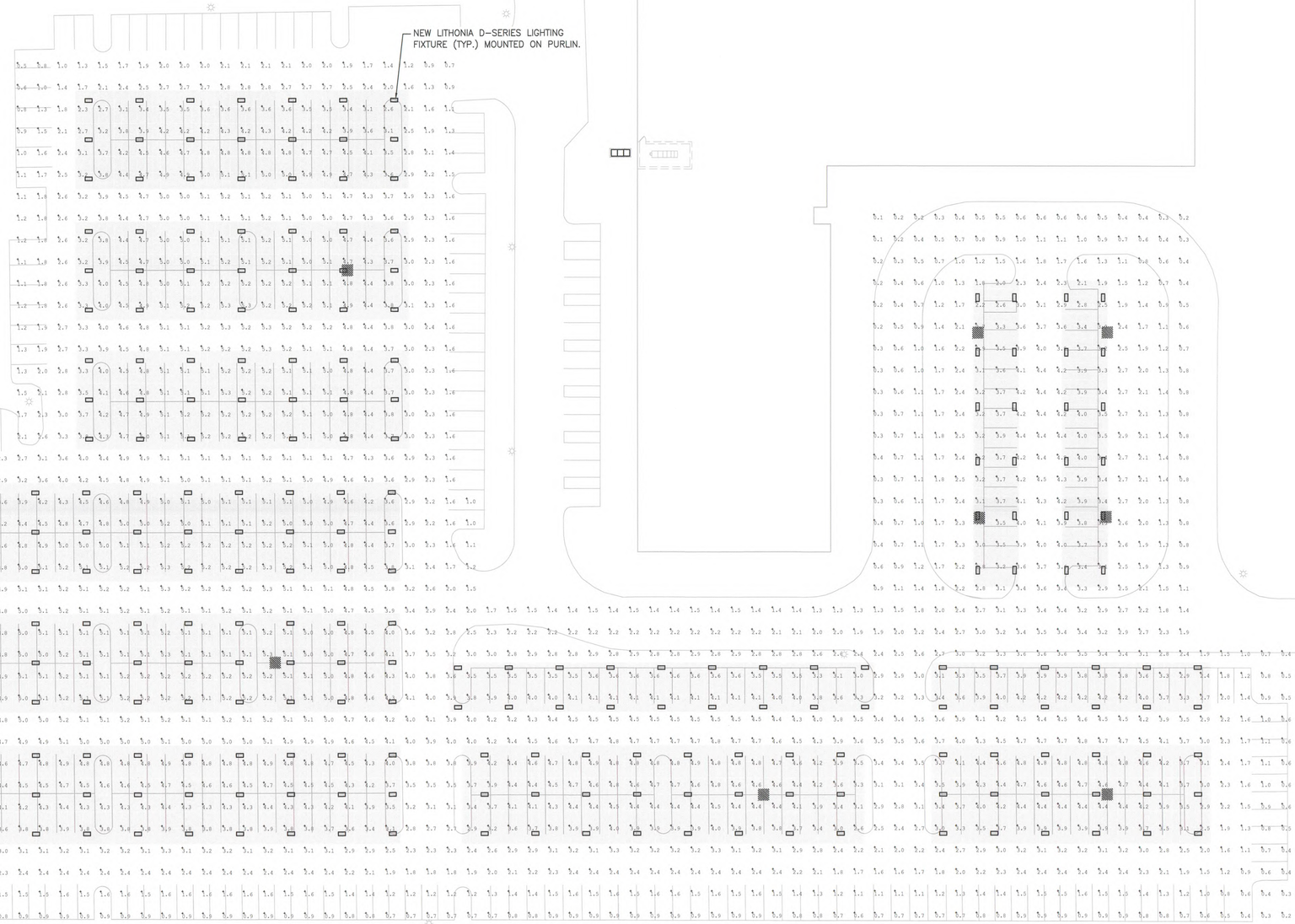
DC SYSTEM SIZE: 1,341.36 kW
AC SYSTEM SIZE: 975.00 kW
MODULE TYPE: SEG SOLAR 540W
MODULE QUANTITY: 2,484 + (6) DUMMY
ORIENTATION: 5° TILT, 265° AZIMUTH

PROJECT
SOLAR CARPORT SYSTEM AT
NUVEEN – 600 COLLEGE ROAD
600 COLLEGE ROAD EAST
PRINCETON, NJ 08540

DRAWING TITLE
PHOTOMETRICS PLAN

DRAWING #
E151

PHOTOMETRIC CALCULATION SUMMARY			
LABEL	AVG	MAX	MIN
CANOPY LIGHTING	3.18 (Fc)	5.3 (Fc)	0.1 (Fc)



LIGHTING LEGEND:

- NEW FIXTURE TO BE INSTALLED UNDERNEATH SOLAR CANOPY
- EXISTING FIXTURE TO BE REMOVED
- EXISTING FIXTURE TO REMAIN

1 E151 PHOTOMETRICS PLAN
SCALE: 1" = 30'



D-Series
LED Surface Canopy

d-series

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

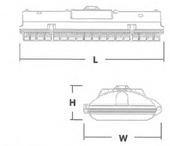
Introduction

The D-Series LED Surface Canopy luminaire is ideal for covered walkways or drive-thrus, semi-covered outdoor aisles, and walk-in coolers and freezers. Its five optical choices provide the design flexibility to potentially reduce luminaire counts while still meeting IES criteria, lowering overall energy consumption.

Its expected service life of over 100,000 hours (20 years of nighttime operation) combined with the available motion/ambient sensor offers an extremely low maintenance solution that yields quick payback.

Specifications

Length: 17-3/4" (45.1 cm)
Width: 8-1/2" (21.6 cm)
Height: 3-7/16" (8.7 cm)
Weight (max): 16 lbs (7.3 kg)



Ordering Information **EXAMPLE:** DSXSC LED 20C 700 40K T5M MVOLT SRM DWHXD

DSXSC LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
DSXSC LED	10C 10 LEDs (one engine) [1,2] 20C 20 LEDs (two engines) 30C 30 LEDs (three engines)	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted [3]	T5SE Type V, entryway [4] T5M Type V, medium T5VW Type V, wide T5R Type V, rectangular ASY Asymmetric	MVOLT 277 [5] 120 [5] 208 [5] 240 [5] 347 [6] 480 [6]	Shipped included SRM Surface mount (12-inch length supply leads)

Options		Finish
Shipped installed HS House-side shield (housing visor) [7] SF Single fuse (120, 277, 347V) [8] DF Double fuse (208, 240, 480V) [8,9] SPD Separate surge protection [10] DMG 0-10V dimming driver (no controls) [11,12] PIR Motion/ambient sensor for 8-15' mounting heights [13] PIRH Motion/ambient sensor for 15-30' mounting heights [13] PIR3FC3V Motion/ambient sensor for 8-15' mounting heights and for typical applications requiring daylight harvesting and Title 24 compliance [13] PIRH3FC3V Motion/ambient sensor for 15-30' mounting heights and typical applications requiring daylight harvesting and Title 24 compliance [13] XAD Xpoint™ Wireless enabled [14] XAD924 XPoint™ Wireless enabled for emergency circuit [12,14,15] XAD PIR XPoint™ Wireless enabled motion/ambient sensor for 8-15' mounting heights [12,13] XAD PIRH XPoint™ Wireless enabled motion/ambient sensor for 15-30' mounting heights [12,13] XAD924 PIR XPoint™ Wireless enabled motion/ambient sensor for emergency circuits for 8-15' mounting heights [12,14,15] XAD924 PIRH XPoint™ Wireless enabled motion/ambient sensor for emergency circuits for 15-30' mounting heights [12,14,15] Shipped separately BDS Bird shroud [7]	DWHXD (Specify CCT) White DNAXD Natural aluminum DDBXD Dark bronze

Accessories
Ordered and shipped separately

DSXSCHS U House-side shield (1 per light engine)
DSXSCBDSU DWHXD U Bird shroud for 10LM on surface 3-box only, white (specify finish)

NOTES

1 Available with 700mA or 1000mA option only.
2 Not available with 347 or 480V.
3 AMBPC only available with 530mA or 700mA.
4 DesignLights Consortium qualified.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
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11 DMG not available with all PIR or XAD options
12 Dimming driver standard. Available in layouts up to 30'. Not available with 347V or 480V. Not available with fusing.
13 PIR & PIR3FC3V specifies the Acuity Controls SNSR 10 ODP motion/ambient sensor; the PIRH & PIRH3FC3V specifies the Acuity Controls SNSR 8 ODP motion/ambient sensor.
14 XAD924 specifies the Acuity Controls XPA RL1 DSI EM XPoint wireless light controller as a UL924 listed device for emergency lighting.
15 XAD PIR specifies the Acuity Controls XPA SNSR10 wireless controller, the XAD924 PIR specifies the Acuity Controls XPA SNSR10_EM wireless controller, the XAD PIRH specifies the Acuity Controls XPA SNSR8 wireless controller, and the XAD924 PIRH specifies the XPA SNSR10_EM wireless controller.

LITHONIA LIGHTING
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2 E151 FIXTURE SPECIFICATION SHEET
SCALE: NONE

PLOT DATE: 8/5/2022 9:40 AM

DATE	REVISION DESCRIPTION	PM	ENG	CHK	
					PB
					BX
	LIGHTING DESIGN				
08/05/2022					

ENGINEER
PURE POWER ENGINEERING
111 RIVER STREET, HOBOKEN, NJ
WWW.PUREPOWER.COM
RICHARD A. VINS
NJ LICENSE No. 47378

DEVELOPER
Safari Energy
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1407 BROADWAY, 24TH FLOOR
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A PPL Company

PAGE SIZE 36" x 24"
PROJECT # 02478.09

DC SYSTEM SIZE: 1,535.76 kW
AC SYSTEM SIZE: 1,187.50 kW
MODULE TYPE: SEG SOLAR 540W
MODULE QUANTITY: 2,844
ORIENTATION: 5° TILT, AZIMUTH VARIES

PROJECT
SOLAR CARPORT SYSTEM AT
650 COLLEGE ROAD
650 COLLEGE ROAD EAST
PRINCETON, NJ 08540

DRAWING TITLE
PHOTOMETRICS PLAN

DRAWING #
E151

RULER IN INCHES: 0 ½ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18