PROPERTY OWNERS WITHIN 200 FT:

BLOCK 4103 LOT I GEORGE E. SCHERER 209 UPPER FERRY ROAD TRENTON, NJ 08628

BLOCK 4106 LOT I COUNTY OF MERCER MERCER COUNTY COURT HOUSE TRENTON, NJ 08607

BLOCK 4201 LOT 10.02 AVALON COLLATERAL INC. C/O AVALONBAY 671 N. GLEBE ROAD #800 ARLINGTON, VA 22203

BLOCK 4201 LOT 10.04 FIC OF STRATFORD, LLC 2025 RT 27 STE 220 EDISON, NJ 08837

BLOCK 4201 LOT 11.01 RUN EAST II,LLC C/O AVALONBAY COMM. 671 N. GLEBE ROAD #800 ARLINGTON, VA 22203

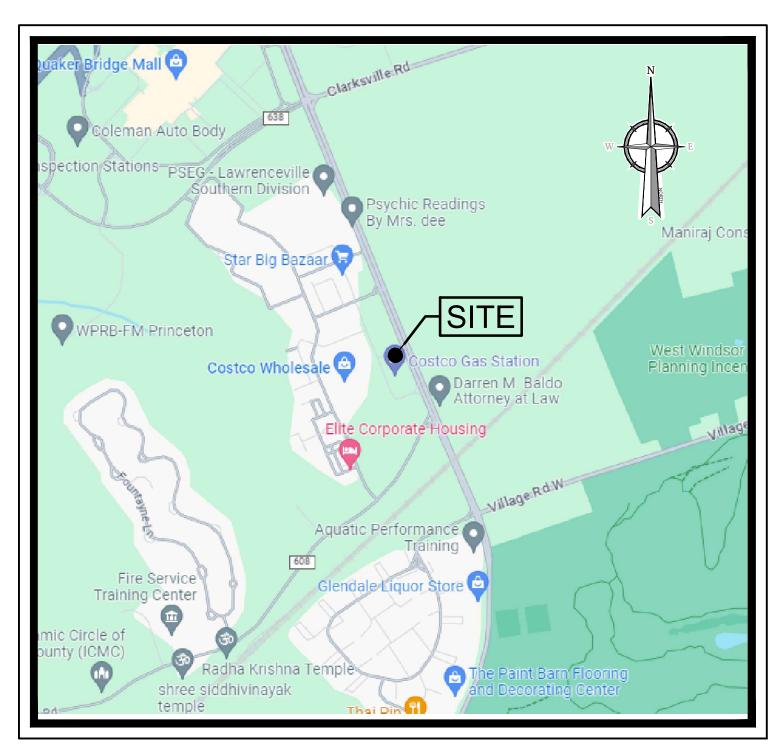
MAJOR SITE PLAN / MINOR SUBDIVISION PLAN

FOR THE

PROPOSED COSTCO PARKING EXPANSION



4100 QUAKERBRIDGE ROAD TOWNSHIP OF LAWRENCE, MERCER COUNTY, **NEW JERSEY**



VICINITY MAP SCALE: 1"=1000'

hat all statements made herein and in an	y documents sut	omitted herewith are true
By Mayaute Moculla	_ Date	10/9/23
(Print or type name)	5	
to pay all reasonable costs for profess	sional review of	the plan(s) and materia
e to pay all reasonable costs for profess nd for subsequent township inspection o or future bond releases, where such inspec Costro Wholesall Corporation Bry: Waynet McCulla	f any improvement ction is required.	ents to be constructed in
	Costeo Whitesele Carporation By : Wayout C Melulla (Print or type name) nable review & inspection costs:	(Print or type name) nable review & inspection costs:

ZONING REQUIREMENTS: PROJECT/MUNICIPALITY : NORTHWEST CORNER: QUAKERBRIDGE ROAD AT LAWRENCE STATION ROAD

ZONE:
EXISTING USE:
PROPOSED USE:

PERMITTED USE:

ZONING LOT AREA: MINIMUM LOT FRONTAGE: MINIMUM LOT WIDTH: MINIMUM

LOT DEPTH: MINIMUM FRONT YARD: MINIMUM SIDE YARD: MINIMUM REAR YARD: MINIMUM

FLOOR AREA RATIO: MAXIMUM IMPERVIOUS SURFACE RATIO: MAXIMUM* IMPERVIOUS SURFACE RATIO: PROPOSED BUILDING HEIGHT: MAXIMUM

SIGNS

PARKING

SHOPPING MALL

SITE DATA

BUILDING COVERAGE:

IMPERVIOUS COVERAGE:

SITE AREA:

GREEN AREA:

(UNDER 400,000 SQ. FT.)

FACADE SIGN: MAXIMUM SIZE 5 % OF THE TOTAL FACADE AREA FACADE SIGN: MAXIMUM QUANTITY FREESTANDING SIGN: 2 LANE ROAD / POSTED SPEED LIMIT 26-45 MPH SIGN AREA : MAXIMUM

LETTER HEIGHT: MINIMUM FREESTANDING SIGN: 2 LANE ROAD / POSTED SPEED LIMIT 46+ MPH

SIGN AREA: MAXIMUM

RETAIL (IN GROUP OF 3 OR LESS)

PARKING STALL SIZE: MINIMUM AISLE WIDTH: MINIMUM

PARKING LOT SETBACK: MINIMUM

I SPACE PER 200 SQ. FT. GROSS FLOOR AREA

4 PER 1,000 SQ. FT. GROSS FLOOR AREA

LETTER HEIGHT: MINIMUM

75 SQ. FT. 12 INCHES

BLOCK 4202, LOT I

VACANT LAND

PARKING EXPANSION

OFF-STREET PARKING: YES

REQUIRED

40,000 SQ. FT.

200 FEET

200 FEET

175 FEET

25 FEET

25 FEET

60 FEET

0.30

0.75

0.75

35 FEET

ALLOWABLE

I PER BUILDING

35 SQ. FT.

8 INCHES

BUILDING: 715 SQ. FT.

FUEL FACILITY: 18 SQ. FT.

TOWNSHIP OF LAWRENCE

MERCER COUNTY, NEW JERSEY

(HC) HIGHWAY COMMERCIAL DISTRICT

REQUIRED 787 SPACES

630 SPACES

24 FEET

9.5 FEET x 18 FEET

25 FEET FROM LOT LINE

NONE PROPOSED NONE PROPOSED NONE PROPOSED PROPOSED 832 SPACES (VARIANCE GRANTED)

PROPOSED

1,055.19 FEET

1,055.19 FEET

937.34 FEET

20 / 10.5 FEET

60.0 FEET

N/A

0.21

0.763

30 FEET

PROPOSED

0 TOTAL

BUILDING: 0 SQ. FT.

NONE PROPOSED

NONE PROPOSED

NONE PROPOSED

FUEL FACILITY: 0 SQ. FT.

833,303 SQ. FT. (19.13 AC.)

0.768 (VARIANCE GRANTED)

837 SPACES

10 FEET x 20 FEET AND 10 FEET x 18 FEET 24 FEET 28.2 FEET

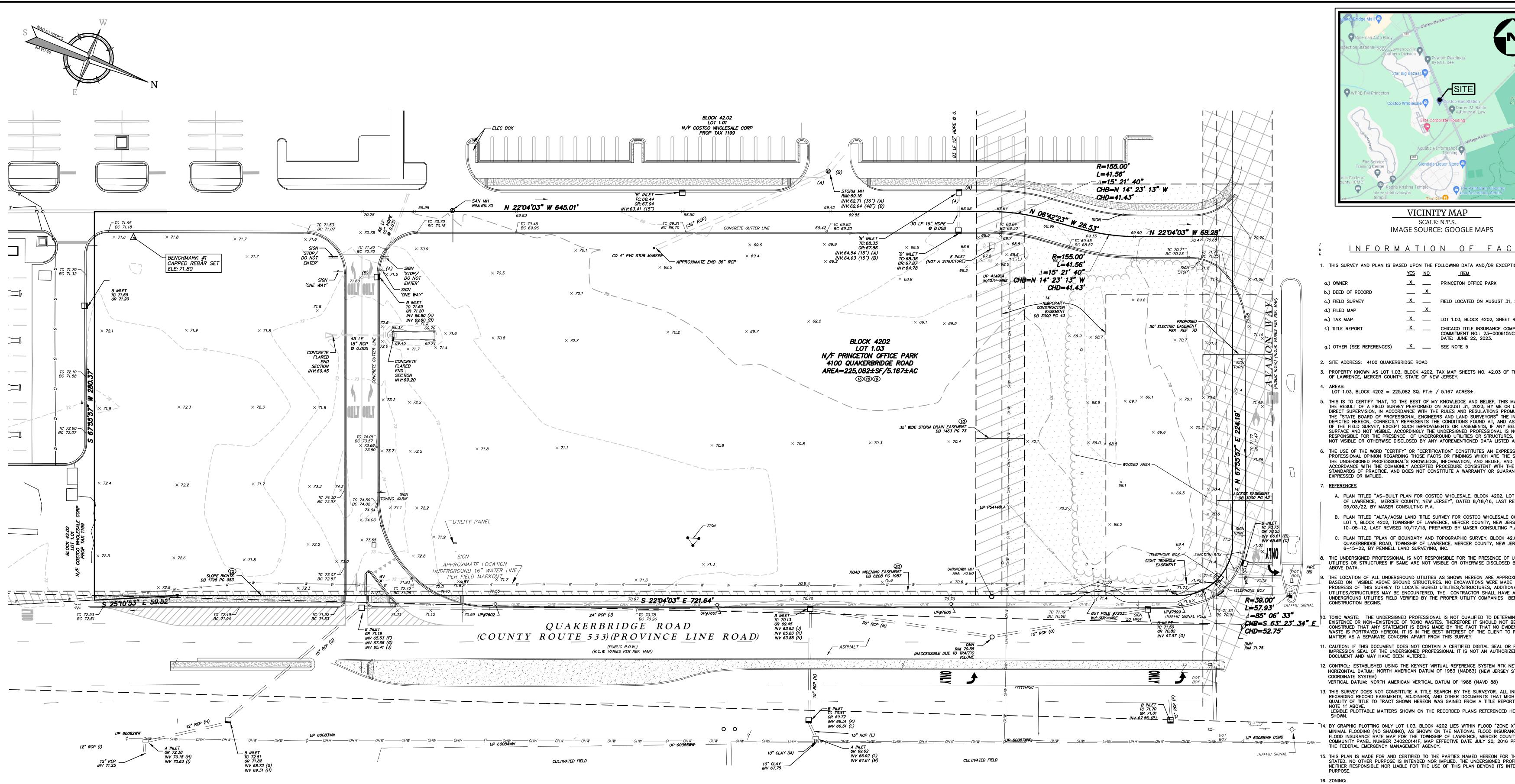
PROPOSED COSTCO AQUISITION 97,921± SQ. FT. / 2.25± ACRES

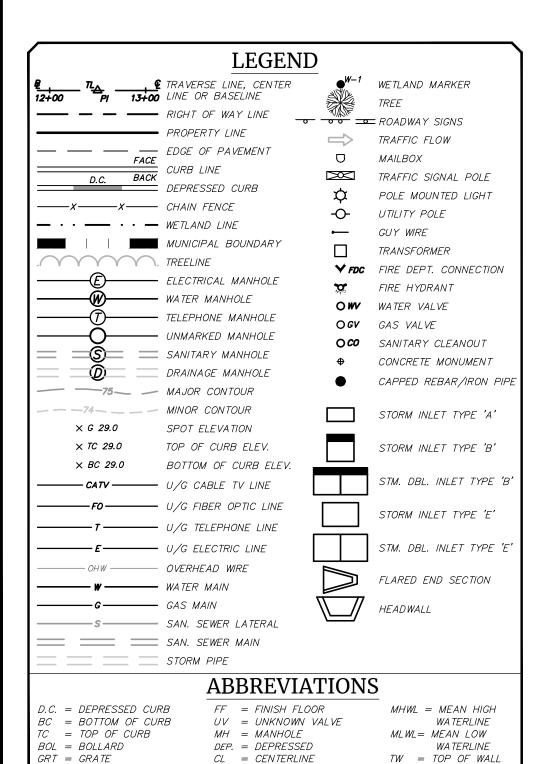
0 SF 68,034± SQ. FT./ 1.56 ± ACRES 29,887± SQ. FT./ 0.69 ± ACRES

* PER PREVIOUSLY APPROVED PLANS.

SHEET INDEX CI COVER SHEET C2 ALTA/NSPS LAND TITLE SURVEY DEMOLITION PLAN / PHASE I C3 EROSION AND SEDIMENT CONTROL PLAN C4 PROPOSED SUBDIVISION PLAN C5 PROPOSED SITE LAYOUT **GRADING PLAN / PHASE II EROSION** C6 AND SEDIMENT CONTROL PLAN C7 UTILITY PLAN DRAINAGE AREA MAPS C8 STORMWATER COMPUTATIONS C9 AND PROFILES STORMWATER MANAGEMENT C10 NOTES AND DETAIL PREVIOUSLY APPROVED CII STORMWATER MANAGEMENT PLAN CI2-CI4 SITE DETAILS LI LANDSCAPE PLAN SE-1 LIGHTING PLAN

		Ę		io	nee	eri) ng	5			
 & Design www.colliersengineering.com Copyright © 2024. Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design. Doing Business as											
Row what's below. Call before you dig. FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM											
DRAWN BY DESCRIPTION											
 REV DATE DRAV		•					•	•	•		
V DATE DRAWN BY DESCRIPTION											
Image:											
Т	OW	MI] SHI ER(Γ1. OF RC	03 LA OU RSI	WI WI	ſY	NC]	E	
EI	ngir & D	N	ing gn	DC /2023 DRAV		Si terlir sengi JSINES AWN E CM	uite 1 ng, VA 703. NEERIN S AS M. BY: E	10 4201 430.4 IG & DE ASER CO		NC. TING BY:	
SHEET			co	VE	R S						





PM = PARKING METER BW = BOTTOM WALL

	<u>title</u>	RE	<u>p o r</u>	<u>T N</u>	<u>NOTES</u>	
THIS SURVEY DOES NOT EASEMENTS, ADJOINERS, A WAS GAINED FROM A TITLE	ND OTHER DOCU	MENTS THAT				

CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO.: 23-000615NCS, EFFECTIVE DATE: JUNE 22, 2023. <u>SCHEDULE B - SECTION 2</u>

- NOTE: ITEMS 1 9 NOT SURVEY RELATED (1) GRANT OF EASEMENT TO THE COUNTY OF MERCER AS SET FORTH IN DEED RECORDED SEPTEMBER 24, 1958, IN BOOK 1463, PAGE 73. (DOES NOT AFFECT PROPOSED COSTCO PROPERTY, DOES AFFECT SUBJECT OVERALL PREMISES (LOT 1.03), SHOWN HEREON)
- 11. RIGHTS OF THE COUNTY OF MERCER AS SET FORTH IN DEED RECORDED FEBRUARY 6, 1961, IN BOOK 1566, PAGE 552. (DOES NOT AFFECT SUBJECT PREMISES) (2) RIGHTS OF THE COUNTY OF MERCER AS SET FORTH IN DEED RECORDED JUNE 22, 1966, IN BOOK 1798, PAGE 953
- (AFFECTS SUBJECT PREMISES, SHOWN HEREON) 13. RIGHTS AND WATER LINE EASEMENT TO ELIZABETHTOWN WATER COMPANY AS SET FORTH IN DEED RECORDED MAY 14,
- 1984, IN BOOK 2251, PAGE 102. (DOES NOT AFFECT SUBJECT PREMISES) 14. TERMS AND CONDITIONS OF EASEMENT AGREEMENT BETWEEN UNITED STATES LAND RESOURCES, L.P., AND AVALON PROPERTIES, INC., RECORDED NOVEMBER 1, 1995, IN BOOK 3000 PAGE 43; AS AFFECTED BY AMENDMENT TO EASEMENT AGREEMENT RECORDED OCTOBER 29, 1999, IN BOOK 3700, PAGE 289. (DOES NOT AFFECT SUBJECT PREMISES, SHOWN
- 15. TERMS AND CONDITIONS OF EASEMENT AGREEMENT BETWEEN PRINCETON OFFICE PARK, L.P.. AND AVALONBAY COMMUNITIES, INC., RECORDED MAY 12, 2003, IN BOOK 4510, PAGE 214. (DOES NOT AFFECT SUBJECT PREMISES)
- 6 RECIPROCAL EASEMENT AGREEMENT BETWEEN PRINCETON OFFICE PARK, L.P., AND AVALONBAY COMMUNITIES, INC., 12, 2003, IN BOOK 4510, PAGE 223; ((AFFECTS SUBJECT PREMISES, BLANKET IN NATURE) AFFECTED BY ASSIGNMENT AND ASSUMPTION AGREEMENT BETWEEN PRINCETON OFFICE PARK, L.P., AND COSTCO WHOLESALE CORPORATION, RECORDED NOVEMBER 14, 2014, IN BOOK 6206, PAGE 911. (AFFECTS SUBJECT PREMISES WITH RESPECT TO LOT 1.01)
- 17. CULVERT EASEMENT TO THE COUNTY OF MERCER RECORDED AUGUST 13, 2003, IN BOOK 4571, PAGE 196. (DOES NOT AFFECT SUBJECT PREMISES) (18) CONSTRUCTION, OPERATION AND RECIPROCAL EASEMENT AGREEMENT BETWEEN PRINCETON OFFICE PARK, L.P., AND
- COSTCO WHOLESALE CORPORATION, RECORDED NOVEMBER 14, 2014, IN BOOK 6206, PAGE 924. (AFFECTS SUBJECT PREMISES, BLANKET IN NATURE) (19) TERMS AND CONDITIONS OF POST-CLOSING AGREEMENT BETWEEN PRINCETON OFFICE PARK, L.P., AND COSTCO
- WHOLESALE CORPORATION, RECORDED NOVEMBER 14, 2014, IN BOOK 6206, PAGE 973. (AFFECTS SUBJECT PREMISES, BLANKET IN NATURE) 20 PERMIT AND DEED OF EASEMENT FOR ROAD WIDENING RECORDED DECEMBER 19, 2014, IN BOOK 6208, PAGE 1987. (AFFECTS SUBJECT PREMISES, SHOWN HEREON)
- PURSUANT TO SECTION 6(C)(II) OF THE MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS (EFFECTIVE DATE 2021) COLLIERS ENGINEERING & DESIGN HAS PLOTTED ANY RIGHTS OF WAY, EASEMENTS AND SERVITUDE'S BURDENING THE SURVEYED PROPERTY AS IDENTIFIED IN THE TITLE INSURANCE COMMITMENT PROVIDED BY THE CLIENT OR OBTAINED BY THE SURVEYOR AND STATED IF EACH IS "SHOWN" OR "NOT SHOWN" ON THE SURVEY. THIS CLIENT HAS REQUESTED THAT THE SURVEYOR STATE IF, AS AN OPINION, THE RIGHTS OF WAY, EASEMENTS AND SERVITUDES "AFFECT" OR 'DO NOT AFFECT" THE SUBJECT PROPERTY. THESE OPINIONS ARE NOT TO BE CONSIDERED TO BE MADE WITH ANY LEGAL EXPERTISE AND SHOULD BE REVIEWED BY CLIENT'S LEGAL REPRESENTATIVE TO VERIFY VALIDITY PRIOR TO RELYING ON

THOSE STATEMENTS.

MB = MAILBOX

ON REGARDING RECORD TRACT SHOWN HEREON

- ZONINING INFORMATION ZONE: HC (HIGHWAY COMMERCIAL)
- AREA, YARD, HEIGHT AND BUILDING COVERAGE. 1. PRINCIPAL BUILDING MINIMUM LOT AREA: 40,000SF MINIMUM LOT FRONTAGE: 200 FT MINIMUM LOT WIDTH: 200 FT MINIMUM LOT DEPTH: 175 FT MINIMUM FRONT YARD: 25 FT MINIMUM SIDE YARD: 25 FT MINIMUM REAR YARD: 60 FT MINIMUM FLOOR AREA RATIO
- FOR LOTS LESS THAN 5 ACRES: 0.25 FOR LOTS 5 ACRES OR LARGER: 0.30 MAXIMUM IMPERVIOUS SURFACE RATIO: FOR LOTS LESS THAN 5 ACRES: 0.70 FOR LOTS 5 ACRES OR LARGER: 0.75
- MAXIMUM BUILDING HEIGHT: 35 FT THE SURVEYOR WHO PREPARED THIS PLAN IS NOT QUALIFIED TO ANALYZE THE ZONING INFORMATION SHOWN. THE ZONING INFORMATION SHOWN ON
- THIS PLAN SHOULD BE VERIFIED BY A QUALIFIED ENGINEER BEFORE BEING RELIED UPON NOTE - ZONING INFORMATION ABOVE SHOULD BE VERIFIED WITH THE
- TOWNSHIP AND OTHER SERVICES BEFORE BEING USED.

PARKING SPACES TABLE									
	EXISTING								
OFF-STREET PARKING SPACES:	0								
HANDICAP PARKING SPACES:	0								
TOTAL PARKING SPACES:	0								

VESTING DESCRIPTION CHICAGO TITLE INSURANCE COMPANY COMMITMENT NO .: 23-000615NCS EFFECTIVE DATE: JUNE 22, 2023.

- <u>EXHIBIT "A"</u> THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE TOWNSHIP OF LAWRENCE, COUNTY OF MERCER, STATE OF NEW JERSEY AND IS DESCRIBED AS FOLLOWS: COMPANY REQUIRES THAT A LEGAL DESCRIPTION OF THE LAND TO BE INSURED BE PREPARED BY A LICENSED SURVEYOR AND PRESENTED TO THE COMPANY PRIOR TO CLOSING UPON RECEIPT AND APPROVAL BY THE COMPANY, THE METES AND BOUNDS DESCRIPTION WILL BE ADDED TO THIS EXHIBIT A. IN CONNECTION THEREWITH THE COMPANY RESERVES THE RIGHT TO ADD ADDITIONAL REQUIREMENTS AND EXCEPTIONS TO COMMITMENT.
- BEING ALSO KNOWN AS (REPORTED FOR INFORMATIONAL PURPOSES ONLY): A PORTION OF LOT 1.03, BLOCK: 4202, ON THE OFFICIAL TAX MAP OF THE TOWNSHIP OF LAWRENCE, COUNTY OF MERCER STATE OF NEW JERSEY.

<u>SURVEYOR'S DESCRIPTION</u> FOR BLOCK 4202, LOT 1.03

- BEGINNING AT A POINT OF TANGENCY IN THE WESTERLY LINE OF QUAKERBRIDGE ROAD, SAID POINT BEING THE SOUTHERLY TERMINUS OF AN ARC CONNECTING THE SAID LINE OF QUAKERBRIDGE ROAD WITH THE SOUTHERLY LINE OF AVALON WAY (VARIABLE WIDTH R.O.W.); EXTENDING THENCE:
- A POINT, SAID POINT ALSO BEING THE DIVISION LINE OF LOT 1.01 WITH LOT 1.03, BLOCK 4202; THENCE
- 2. S 25º 10' 53" E, STILL ALONG THE SAME, A DISTANCE OF 59.82 FEET, SAID POINT BEING THE DIVISION LINE OF LOT 1.01 WITH 1.03, BLOCK 4202; THENCE 3. S 67° 55' 57" W, STILL ALONG SAID DIVISION LINE A DISTANCE OF 280.37 FEET TO A POINT IN THE SAME;
- THENCE
- SAME; THENCE 5. NORTHWESTWARDLY, STILL ALONG THE SAME AND ALONG AN ARC HAVING A RADIUS OF 155.00 FEET AND
- CURVING TO THE RIGHT, AN ARC DISTANCE OF 41.56 FEET (CENTRAL ANGLE 15'21'40"), SAID ARC BEING CONNECTED BY A CHORD BEARING OF N 14 23'13" W, AND A CHORD DISTANCE OF 41.43 FEET TO A POINT OF TANGENCY, THENCE-
- SAME; THENCE 7. NORTHWESTWARDLY STILL ALONG THE SAME AND ALONG AN ARC HAVING A RADIUS OF 155.00 FEET AND CURVING TO THE LEFT, AN ARC DISTANCE OF 41.56 FEET (CENTRAL ANGLE 15°21'40"), SAID ARC BEING CONNECTED BY A CHORD BEARING OF N 14°23'13" W, AND A CHORD DISTANCE OF 41.43 FEET TO A POINT OF
- TANGENCY. THENCE-8. N 22° 04' 03" W, STILL ALONG THE SAME A DISTANCE OF 68.28 FEET TO A POINT IN THE AFORESAID SOUTHERLY LINE OF AVALON WAY (VARIABLE WITH RIGHT OF WAY); THENCE
- 9. N 67° 55' 57" E, ALONG THE SOUTHERLY LINE OF AVALON WAY, A DISTANCE OF 224.19 FEET TO A POINT OF CURVATURE IN THE SAME; THENCE
- 10. SOUTHEASTWARDLY ON AN ARC HAVING A RADIUS OF 39.00 FEET AND CURVING TO THE RIGHT AN ARC DISTANCE OF 57.93 FEET (CENTRAL ANGLE 85°06'33"), SAID ARC BEING CONNECTED BY A CHORD BEARING OF S 63°23'34" E, AND A CHORD DISTANCE OF 52.75 FEET TO THE POINT AND PLACE OF BEGINNING. CONTAINING 225,082 \pm SF/5.167 \pm AC.

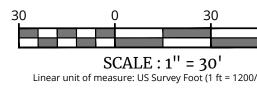
1. S 22" 04' 03" E, ALONG THE SAID WESTERLY LINE OF QUAKER BRIDGE ROAD A DISTANCE OF 721.64 FEET TO

4. N 22° 04' 03" W, STILL ALONG THE SAME A DISTANCE OF 645.01 FEET TO A POINT OF CURVATURE IN THE

6. N 06° 42' 23" W, STILL ALONG THE SAME A DISTANCE OF 26.53 FEET TO A POINT OF CURVATURE IN THE

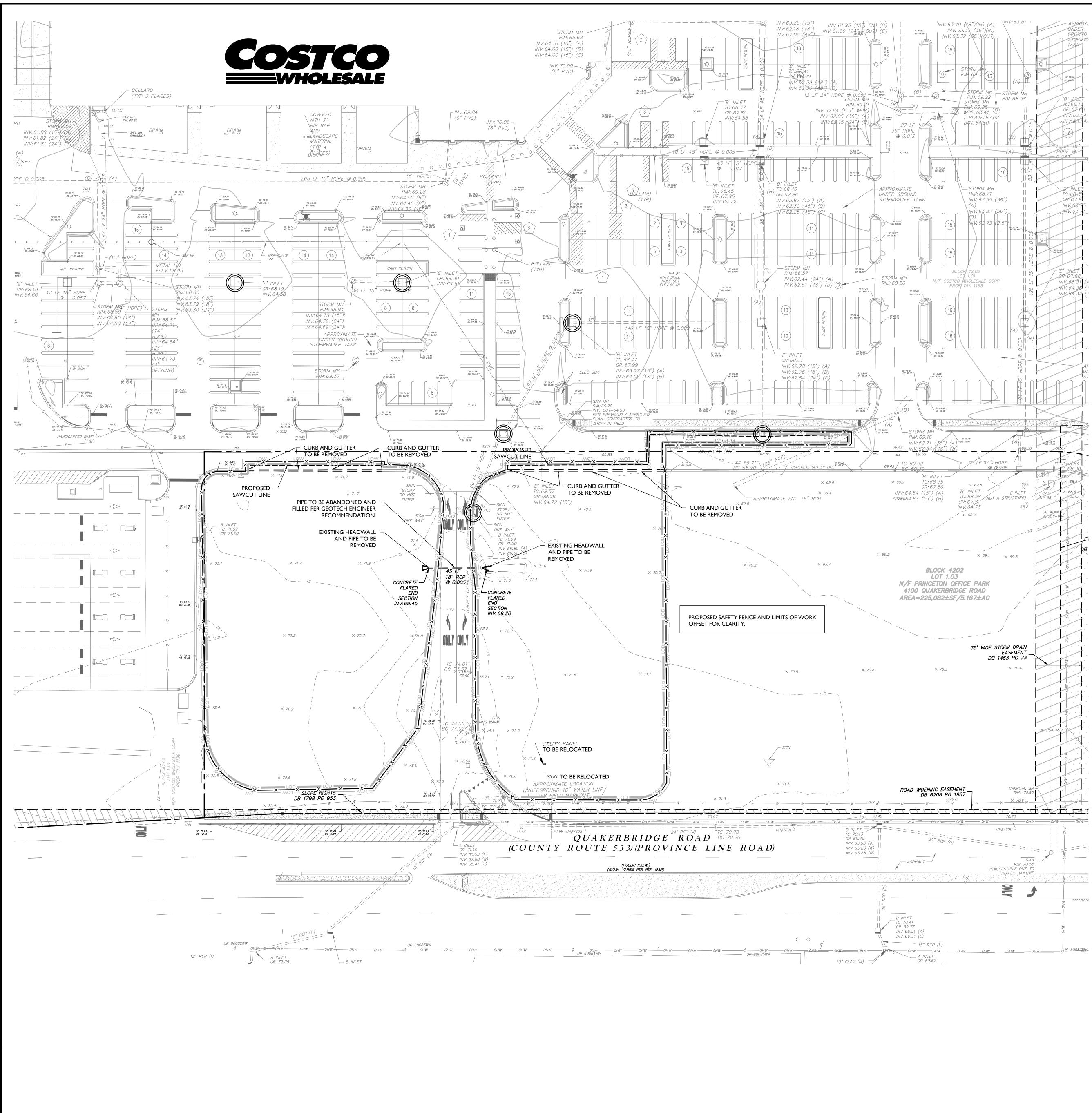
- LOT 1.03, BLOCK 42.02 "HC" HIGHWAY COMMERCIAL DISTRICT, PROVIDED BY ENGINEERING AND DESIGN ENGINEERING DEPARTMENT.
- 17. NO EVIDENCE OF RECENT BORING ACTIVITY WAS OBSERVED. 18. NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION WAS OBSERVED.
- 19. IDENTIFICATION OF EXISTING PLANTINGS IS OUTSIDE THE SURVEYOR'S AREA OF 20. AT THE TIME OF FIELD SURVEY, COLLIERS ENGINEERING & DESIGN IDENTIFIED NO ENCROACHMENTS OTHER THAN THOSE SHOWN AFFECTING THE SUBJECT PROPER
- 21. THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE NONEXISTENCE OF WETLANDS AND/OR TOXIC WASTES. THEREFORE IT SHOULD NO OR CONSTRUED THAT ANY STATEMENT IS BEING MADE BY THE FACT THAT NO EV WETLANDS OR TOXIC WASTES IS PORTRAYED HEREON. IT IS IN THE BEST INTERES CLIENT TO PURSUE THESE MATTERS AS SEPARATE CONCERNS APART FROM THIS
- 22. THE PROPOSED COSTO SITE HAS DIRECT ACCESS TO QUAKERBRIDGE ROAD AND TO AVALON WAY.

23. NO GAPS, GORES OR OVERLAPS ON PROPERTY. NO EVIDENCE OF CEMETERIES AN GROUNDS ON THE PROPERTY.



				0	0	11 i	er	S	,			
Maniraj Cons	Engineering & Design www.colliersengineering.com											
West Windsor Planning Incen	and al whom	ght © 2 I the infi the serv pied, rei	023. Co ormatior vices we	lliers En n contaii re contra isclosed,	gineerin ned here acted or distrib	ig & Des ein is au to whor uted or	ign All F Ithorized m it is ce relied 1	Rights Re I for use ertified. upon fo	eserved. only by This dra r any o	This dra the par wing ma ther pu	ty for ay not	
A Real Provide A Real ProvideA Real Provide A Real Provide A Real Provide A Real	Doi		t the exp Busir			nsent of	Colliers	Enginee	ring & D	esign. SE		
			J		EXCAV PRE	STATES ATORS PARINO	, DESI G TO E	JIRE NO GNERS DISTUR	DTIFICA , OR AI B THE	LF ATION NY PER EARTH (STATE	ISON	
	F	OR ST	TATE V	SPEC	-					//BER		
; T												
TIONS:												
, 2023												
42.03 IPANY, ICS, EFFECTIVE												
THE TOWNSHIP	ION											
MAP OR PLAN IS UNDER MY	V BY DESCRIPTION											
MULGATED BY INFORMATION AS OF THE DATE ELOW THE NOT S, IF SAME ARE	DATE DRAWN BY	•	·	·			·	·				
ÁBOVE. SSION OF SUBJECT OF D IN IE APPLICABLE	REV DA	Ŀ										
NTEE EITHER												
REVISED CORPORATION, RSEY", DATED P.A.												
2.02, LOT 1.03, ERSEY", DATED UNDERGROUND												
BY ANY OF THE DIVIMATE AND ARE DURING THE NAL BURIED		JRRS	ASEMENT.									
ALL EFORE ANY		OULSTON & STC	ENTLY PLACED E									
INE THE BE ASSUMED OR ENCE OF TOXIC PURSUE THIS	DESCRIPTION	COMMENTS FROM GOULSTON & STORRS	REMOVED INADVERTENTLY PLACED EASEMENT									
ED ORIGINAL IETWORK. STATE PLANE	DRAWN BY DES	AMN COM	BJS REMO									
INFORMATION HT AFFECT THE RT LISTED IN	DATE DR/	09/13/23	09/27/23									
HEREON ARE X" AREAS OF NCE PROGRAM ITY, NEW JERSEY, PREPARED BY			5 GO WH									
PREPARED BY THE PURPOSE(S) DFESSIONAL IS TENDED	THIS SURV ACCO REQU JOINT NSPS	IS TO EY OM RDAN IREME LY ES , AND	CER WHI CE WI NTS F STABL	TIFY 1 CH IT ITH TH FOR A ISHED .UDES	HAT IS B E 20 LTA/ AND ITEM	This Ased 21 Mi NSPS Adoi S 2	MAP WERE INIMUI LANE PTED 3. 4,	OR PI MAD M STA D TITL BY A 5, 6(E IN NDAF E SUF LTA A (b), 7	RD DE RVEYS ND (a),	TAIL 5,	
COLLIERS	7(b)(TABL	1), 7(E A T	c), 8, HERE	, 9 11 OF. T		13, 11 21, 12 21, 12, 12, 12, 12, 12, 12, 12, 12, 12,	1, 15, DRK W	16. /AS C	I7. AI	ND 19 ETED	OF ON	
expertise		Σ	57	J	G	S433	R	itally sig		A John J. F 4:43:53-	Pankok	
D EVIDENCE OF RTY. NCE OR OT BE ASSUMED EVIDENCE OF EST OF THE S SURVEY.	NEW	-	EY LIC LIC LLIER	CENS	E NU GINE	OFES MBE ERIN	an sion, r: gs g & [KO AL LA 4332 DESIG	k .nd s :9 5n, in	URVE		
DIRECT ACCESS		L	AN			-	ISF E SU		VEY	Y		
	C		ST() W		[0]				E	
			CO	PR]	PC)R/	AT	'IC)N			
							42(.03					
	T	OW	VN: MI	SHI ER(IP (CEI	OF R C	LA	WI IN'I		NC]	E	
		Co	llie	_		20	MT 00 M	. LAl idlar uite	00	rive,		
		& D	neer Jesig				none: Is engi	856. NEERIN S AS M	797.(IG & DE ASER C		TING	
	AS S PROJE	HOW CT NU 23010	N MBER: 1985A	09/0	5/23 DRAV V-SL	VING N	BJS			JJP		
60	SHEET	TITLE					ISP Sl		/EY	/		
/3937 m)		NUM				C2					Ĵ	

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



LEGEND

LOD	LOD
LOW	- LOW
	• • • •
\bigcirc	

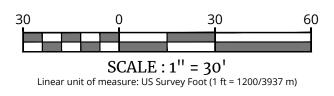
PROPERTY LINE
LIMITS OF DISTURBANCE
LIMITS OF WORK
EXISTING CONCRETE PAVEMENT
PROPOSED INLET FILTER BAG PROTECTION
PROPOSED SAWCUT
PROPOSED SAFETY FENCE

LAWRENCE TOWNSHIP GENERAL SOIL EROSION AND SEDIMENT CONTROL NOTES

- I. IT IS THE INTENTION OF THE SOIL EROSION CONTROL DEVICES TO MINIMIZE THE TRANSPORTATION OF SEDIMENT OFF-SITE.
- 2. THE TOWNSHIP OF LAWRENCE MUST BE NOTIFIED IN WRITING 48 HOURS PRIOR TO THE START OF ANY LAND DISTURBANCE.
- CONTRACTOR IS RESPONSIBLE TO MAINTAIN EROSION CONTROL STRUCTURES AND KEEP ROADS CLEAN FOR THE LIFE OF THE PROJECT.
- 4. THE CONTRACTOR IS REQUIRED TO HAVE A COPY OF THE CERTIFIED PLAN AT THE CONSTRUCTION SITE.
- ALL SOIL EROSION CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE AND MAINTAINED FOR ONE YEAR AFTER COMPLETION OF THE APPROVED PLAN OR UNTIL SUCH MEASURES ARE PERMANENTLY STABILIZED AS DETERMINED BY THE TOWNSHIP ENGINEER.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW ACCORDING TO THE STANDARDS FOR NON-GROWING SEASON SOIL STABILIZATION.
- PERMANENT VEGETATION TO BE SEEDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH TO BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- ALL WORK TO BE DONE IN ACCORDANCE WITH TOWNSHIP SOIL REMOVAL AND SOIL EROSION ORDINANCES AND THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL".
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E.,
- STEEP SLOPES) WILL RECEIVE APPROPRIATE VEGETATIVE COVER AS STATED IN THE CONSTRUCTION SEQUENCE. 10. ALL ROAD BANKS SLOPING TOWARDS ROAD ARE TO BE STABILIZED IMMEDIATELY AFTER CURBING IS COMPLETED.
- . DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THOSE MEASURES SHOWN ON THE APPROVED PLANS SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE ENGINEER.
- 12. ALL REVISIONS AFTER TOWNSHIP CERTIFICATION HAS BEEN GRANTED MUST BE FORWARDED TO THE LAWRENCE TOWNSHIP ENGINEER'S OFFICE FOR REVIEW.

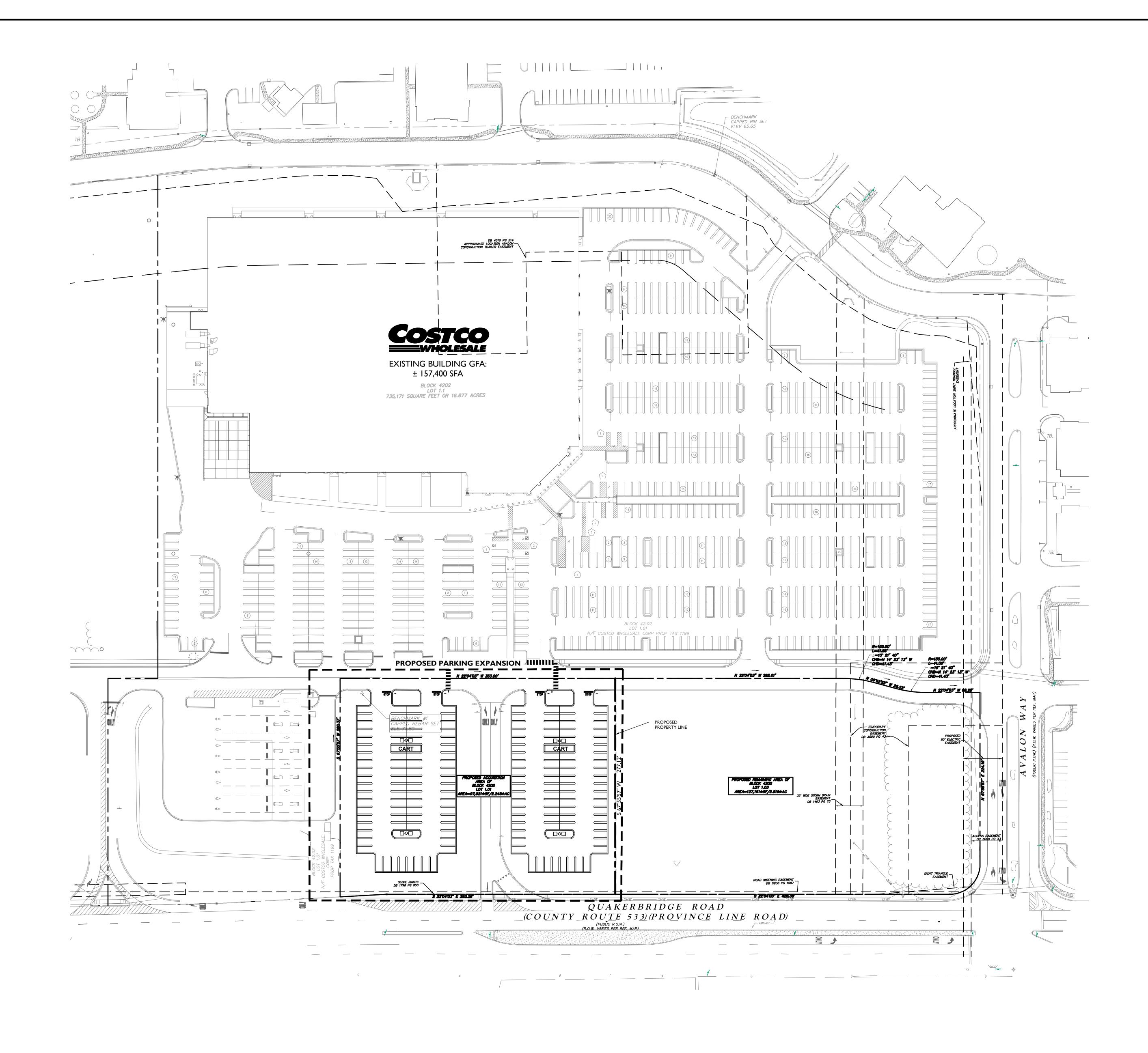
INITIAL SITE PREPARATION SEQUENCE OF ACTIVITIES:

- THE LAWRENCE TOWNSHIP AND MERCER COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
- 2. INSPECT SEDIMENT CONTROL BARRIERS INSTALLED AS PART OF THE DEMOLITION PROCEDURES. RE-ESTABLISH SEDIMENT CONTROL BARRIERS AS NECESSARY (REFER TO DETAILS). (I DAY)
- VERIFY ALL ON-SITE UTILITIES HAVE BEEN LOCATED, DECOMMISSIONED AND REMOVED. (I DAY)
- 4. CONSTRUCT NEW STABILIZED CONSTRUCTION ACCESS OFF OF QUAKER BRIDGE ROAD AND REMOVE CONSTRUCTION ACCESS USED DURING DEMOLITION OPERATIONS. ESTABLISH PERMANENT VEGETATION ON AREAS DISTURBED BY REMOVAL OF DEMOLITION CONSTRUCTION ACCESS. (2 DAYS)
- CLEAR AND GRUB SITE AREA NECESSARY FOR ROUGH GRADING ACTIVITIES. (3 DAYS)
- STRIP AND STOCKPILE TOPSOIL FROM AREA NECESSARY FOR ROUGH GRADING. STABILIZE TOPSOIL STOCKPILE WITH TEMPORARY SEEDING REQUIREMENTS. (3 DAYS)
- 7. CONSTRUCT NEW CONCRETE ENDWALL AT EXISTING AVALON WAY HEADWALL AS SHOWN ON THE PLAN. (2 DAYS)
- 8. INSTALL FILTER BAG AS SHOWN ON THIS PLAN IN PREPARATION OF GENERAL EARTHMOVING ACTIVITIES. (I DAY)
- 9. INSPECT AND RECONDITION EROSION CONTROL MEASURES IN PREPARATION FOR THE NEXT PHASE OF SITE DEVELOPMENT. (I DAY)



LEGEND				Col	llie	rs		
	PROPERTY LINE		∈ Er	ngir	neer	∵ing		
LOD	LIMITS OF DISTURBANCE			-	esig	-		
LOW LOW	LIMITS OF WORK	Copyright ©	/ww.col	Engineerin	e & Design A	II Rights Re	served. This	drawing
	EXISTING CONCRETE PAVEMENT	and all the i whom the so be copied,	information coni ervices were cor reused, disclose out the express	tained here ntracted or ed, distribu	ein is authori: to whom it is uted or relie	zed for use s certified. T ed upon for	only by the p his drawing any other	party for may not purpose
\bigcirc	PROPOSED INLET FILTER BAG PROTECTION		Busines					R
	PROPOSED SAWCUT		m					
<u> </u>	PROPOSED SAFETY FENCE	Know what Call b	at's below before you d	EXCAV PREI SU	STATES REG ATORS, DE PARING TC IRFACE AN	SIGNERS, DISTURI	OR ANY P B THE EAR	PERSON RTH'S
LAWRENCE TOWNSHIP GENI	ERAL SOIL EROSION AND SEDIMENT CONTROL NOTES		STATE SPE		DIRECT F V.CALL8			
I. IT IS THE INTENTION OF THE SOIL I	EROSION CONTROL DEVICES TO MINIMIZE THE TRANSPORTATION OF SEDIMENT							
	ST BE NOTIFIED IN WRITING 48 HOURS PRIOR TO THE START OF ANY LAND							
DISTURBANCE. 3. CONTRACTOR IS RESPONSIBLE TO MA	INTAIN EROSION CONTROL STRUCTURES AND KEEP ROADS CLEAN FOR THE LIFE OF							
THE PROJECT.	IAVE A COPY OF THE CERTIFIED PLAN AT THE CONSTRUCTION SITE.							
5. ALL SOIL EROSION CONTROL PRACT PROPER SEQUENCE AND MAINTAINED	TICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR D FOR ONE YEAR AFTER COMPLETION OF THE APPROVED PLAN OR UNTIL SUCH ZED AS DETERMINED BY THE TOWNSHIP ENGINEER.							
TRAFFIC, WILL IMMEDIATELY RECEIVE	BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION E A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A AREAS WILL BE MULCHED WITH STRAW ACCORDING TO THE STANDARDS FOR ZATION.							
	DED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH ECTION UNTIL SEEDING IS ESTABLISHED.	DESCRIPTION						
8. ALL WORK TO BE DONE IN ACCORD "NEW JERSEY STANDARDS FOR SOIL ER	ANCE WITH TOWNSHIP SOIL REMOVAL AND SOIL EROSION ORDINANCES AND THE ROSION AND SEDIMENT CONTROL".	≧	┼┼				<u> </u>	┋╋╌┥║
	STURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E., IATE VEGETATIVE COVER AS STATED IN THE CONSTRUCTION SEQUENCE.	DRAWN E						· ·
	S ROAD ARE TO BE STABILIZED IMMEDIATELY AFTER CURBING IS COMPLETED.	DATE			·			
	ITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR MEASURES SHOWN ON THE APPROVED PLANS SHALL BE INSTALLED OR EMPLOYED	. REV						
	ertification has been granted must be forwarded to the lawrence		$\overline{\prod}$			Ī		Ī
INITIAL SITE PREPARATION	SEOUENCE OF ACTIVITIES:							
UTILITY MARK-OUT AT THE SITE. ALL STRUCTURES ASSOCIATED WITH THE C EARTH DISTURBANCE. CONTRACTOR SHALL TAKE IMMEDIATE AC CONTROL PROBLEMS ARISE PRIOR TO THE THIS PLAN IS A CONTINUATION OF PROCE I. THE LAWRENCE TOWNSHIP AND ME TO ANY LAND DISTURBANCE.	Y UTILITY ONE-CALL SYSTEM AT 1-800-272-1000 OR 1-908-232-1232 TO ORDER A CONSTRUCTION OF SEDIMENT REMOVAL FACILITIES MUST BE ON-SITE PRIOR TO CTION TO INSTITUTE ADDITIONAL MEASURES IF ANY EROSION AND SEDIMENTATION STABILIZATION OF EROSION AND SEDIMENTATION CONTROL MEASURES ON-SITE. EDURES INITIATED ON THE DEMOLITION PLAN. ERCER COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 72 HOURS PRIOR ERS INSTALLED AS PART OF THE DEMOLITION PROCEDURES. RE-ESTABLISH SEDIMENT (REFER TO DETAILS). (1 DAY)	DRAWN BY DESCRIPTION						· · ·
3. VERIFY ALL ON-SITE UTILITIES HAVE B	BEEN LOCATED, DECOMMISSIONED AND REMOVED. (I DAY)	DATE						
	STRUCTION ACCESS OFF OF QUAKER BRIDGE ROAD AND REMOVE CONSTRUCTION OPERATIONS. ESTABLISH PERMANENT VEGETATION ON AREAS DISTURBED BY UCTION ACCESS. (2 DAYS)	REV]. .					
5. CLEAR AND GRUB SITE AREA NECESS	ARY FOR ROUGH GRADING ACTIVITIES. (3 DAYS)							
6. STRIP AND STOCKPILE TOPSOIL FROM TEMPORARY SEEDING REQUIREMENT	M AREA NECESSARY FOR ROUGH GRADING. STABILIZE TOPSOIL STOCKPILE WITH 'S. (3 DAYS)							
8. INSTALL FILTER BAG AS SHOWN ON	WALL AT EXISTING AVALON WAY HEADWALL AS SHOWN ON THE PLAN. (2 DAYS) THIS PLAN IN PREPARATION OF GENERAL EARTHMOVING ACTIVITIES. (1 DAY) ON CONTROL MEASURES IN PREPARATION FOR THE NEXT PHASE OF SITE							
DEVELOPMENT. (I DAY)								
		NEW JE	OLLIERS E	ENSED ISE NU NGINE	PROFES MBER: (SIONA GE4569 & DESIG	L ENGIN 2 iN, INC.	
		МА	JOR S					
			SUBE			•		
				E	FOR			
					57		X	
				W			AL	
		41	00 QU B				E R	D
			ч		CK 42 Γ 1.0			
	W S NAVD 88 NAVD 88	TO	WNSH MEF N	RCEI		UNT		CE
				<u> </u>	, (STERLI	NG rick Driv	
	E	Engi	ineering Design	g c	Ster	Suite 1 ling, VA e: 703.4	10 20166 430.433 g & design	30 n, inc.
		SCALE: AS SHOW	DATE WN 08/7		DRAW		СНЕСКЕ	ED BY:
	30 0 30 60 SCALE : 1'' = 30'	SHEET TITL	10985A	C-SIT	VING NAM TE-SUBD- PIA	DEMO		SE I
	Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)		OSIO CO	N Al		EDIN	MEN	
			·	(C3			

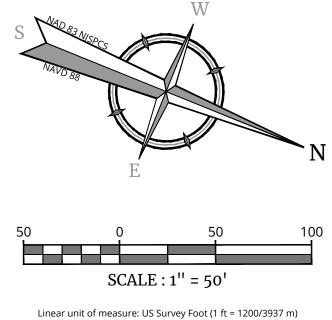
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



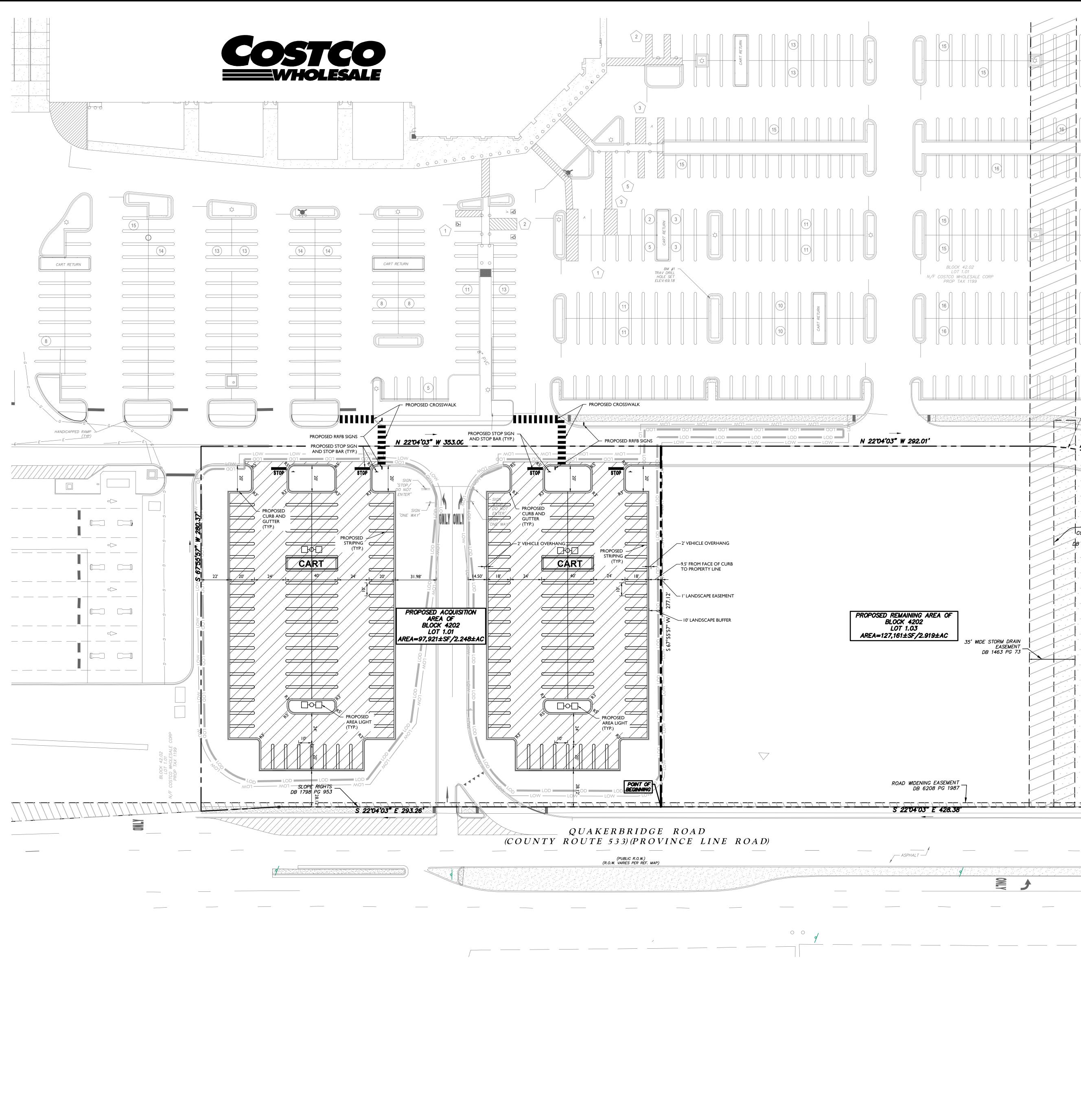
5A'Engineering/Major Site Plan_Subdivision Plan/C-SITE-SUBD-LAYT.dwg/C4-PROPOSED SUBDIVISION PLAN By: C

CLIENT:	
	999 LAKE DRIVI ISSAQUAH, WA 9802
PROJECT ADDRESS:	4100 QUAKERBRIDGE RD
	LAWRENCE TOWNSHIF NEW JERSEY 08648
SITE DATA:	,
SITE AREA:	± 19.13 AC
LIMITS OF DISTURBANCE:	0.56 AC(24,500 SF
JURISDICTION:	TOWNSHIP OF LAWRENCE
ZONING:	HC HIGHWAY COMMERCIAI
	OUNDARY HAS BEEN PREPARED B
INFORMATION: USIN	G ALTA/NSPS LAND TITLE PLAN BY COLLIERS ENGINEERING & DESIGN
	DATED 09/05/2
BUILDING DATA:	
	x: ± 157,400 S.F
PROPOSED BUILDING ARE	A: NO CHANGE
PARKING DATA:	
EXISTING PARKING (SEE N	NOTE 4)
PARKING STALLS:	664 STALLS
HANDICAP STALLS:	16 (3 VAN) STALLS
TOTAL PARKING	680 STALLS
PROPOSED PARKING	152 STALLS
TOTAL PARKING	832 STALLS
REQUIRED PARKING	
RETAIL (IN A GROUP OF 3	,
I SPACE PER 200SF GFA:	787 STALLS
SHOPPING MALL (UNDER	400,00 SF)
4 PER 1,000 SF GFA:	630 STALLS
	ENT (SEE NOTE 5) 630 STALLS
NOTES: 1. THIS PLAN TO BE USE	ED FOR SITE LAYOUT PURPOSES
ONLY.	
2. EXISTING CONDITIO	
	D TOPOGRAPHIC INFORMATION PROVIDED BY COLLIERS
	GN, "ALTA/NSPS TITLE SURVEY."
PROJECT NUMBER 23	010985A DATED 09/05/23 .
	S PLAN IS THE LAYOUT E ADA PERMIT/BID SET PREPARED

BY MG2, PROJECT NUMBER "12-0270-04." (DATED 09/09/21) 5. PREVIOUSLY APPROVED VARIANCE GRANTED TO ALLOW MINIMUM PARKING OF 630 STALLS.



	Colliers Engineering & Design											
	and all whom be cop	ght © 2 the info the serv iied, reu	024. Col ormatior ices wei ised, di t the exp	lliers En contair re contra sclosed, press wr	ned here acted or distribu itten cor	g & Des ein is au to whor uted or isent of	ign All R thorized n it is ce relied u Colliers	ights Re for use rtified. T upon fo Enginee	served. only by This draw r any ot ring & D ring & D	This dra the par wing ma ther pur esign.	ty for iy not	
	Ca	what's all bef DR ST	ore yo	OW. ou dig SPEC	EXCAV PREI SU	STATES ATORS PARING RFACE	REQU , DESIG TO E ANYW	IONE	NUN	ATION NY PER EARTH ' STATE	ISON I'S E	
	REV DATE DRAWN BY DESCRIPTION											
	REV DATE DRAWN BY DESCRIPTION											
	NEW		EY LIC LIC LIER	ENSE ENS S EN		ofes: Mbei Erin		itally sig te: 2024 kO AL LA 4332 DESIG	.02.09 1 k ND SI 9 5N, IN	4:44:18- URVE	04'00'	
		C				SIC FOR						
	4100 QUAKERBRIDGE RD BLOCK 4202 LOT 1.03 TOWNSHIP OF LAWRENCE MERCER COUNTY NEW JERSEY											
	Er	Col ngin & D	eer esig	ing gn		S Ph OLLIER DING BI	575 B Si terlir ione: s engi		rick D 10 4 201 430.4 G & DE ASER CO	66 1330 Isign, I	NC. TING	
	PROJEC 2 SHEET	CT NUM 23010 TITLE: PR(^{ивек:} 985А		drav c-sit	VING N E-SUI	IAME: BD-LA	.YT	SIC			
NOTE: DO NO	SHEET					C4						



LEGEND

LOD	LOD
LOW	LOW
· · · · · · ·	
/////	

PROPERTY LINE

- LIMITS OF DISTURBANCE
- LIMITS OF WORK
- EXISTING CONCRETE PAVEMENT
- PROPOSED STANDARD DUTY PAVEMENT

GENERAL NOTES

- THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER, HOWEV CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES PRIOR TO BIDDIN CONSTRUCTION. LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROX AND SHOULD BE VERIFIED BY THE CONTRACTOR.
- THIS SET OF PLANS HAS BEEN PREPARED FOR PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AN DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSI ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
- 3. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
- EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PR CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEE TO CONSTRUCTION, TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS. ANY EXISTING UTILITY SERVICE CONNECTIONS, LC BY THE CONTRACTOR, CAPABLE OF SERVICING THE PROPOSED USE SHALL BE REUSED AS LONG AS THEY ARE IN GOOD CONDITION AN THE UTILITY AUTHORITY'S STANDARDS AND SPECIFICATIONS. IF THE EXISTING UTILITY SERVICES DO NOT MEET THE ABOVE CRITERI NEW SERVICE LINES SHALL BE INSTALLED.
- ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH: 5.1. NEW JERSEY DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS CURF AMENDED.
- 5.2. CURRENT, PREVAILING LAWRENCE TOWNSHIP SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
- 5.3. CURRENT, PREVAILING UTILITY COMPANY/AUTHORITY AND OWNER SPECIFICATIONS, STANDARDS AND REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ENCOUNTEREE MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRI INEFFECTIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORE MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLET THE APPROVED IMPROVEMENTS.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ANY AND ALL EXISTING OBJECTS, STRUCTURES, ETG ARE IN THE WAY OF PROPOSED CONSTRUCTION, OR INDICATED AS 'TO BE REMOVED'.
- 10. ALL PROPOSED SPOT ELEVATIONS ARE GRADE OR BOTTOM FACE OF CURB UNLESS OTHERWISE NOTED.
- 11. ALL DIMENSIONS LABELED ARE IN UNITED STATES STANDARD.
- 12. ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD88, BENCHMARK. (REFER TO SHEET 2 THIS SET).

CONDITIONAL USE CRITERIA*

LAND USE ORDINANCE

420.D.I: SERVICE STATION OR REPAIR GARAGE CONFORMING TO THE FOLLOWING CONDITIONS:

A. THE MINIMUM LOT SIZE FOR SERVICE STATIONS OR REPAIR GARAGES SHALL BE 20,000 SQUARE FEET AND THE MINIMUM LOT FRO SHALL BE 150 FEET.

B. SUCH USE SHALL NOT BE COMBINED WITH ANY OTHER USE ON THE SAME LOT, UNLESS THE MINIMUM LOT SIZE, OR MINIMUM LEASE THE EVENT THE SERVICE STATION IS NOT WITHIN AN INDIVIDUAL LOT, SHALL BE A MINIMUM OF 1.5 ACRES. NOTWITHSTANDIN PROVISION, NO SERVICE STATION USE SHALL BE OTHERWISE COMBINED WITH SOLELY OFFICE OR MEDICAL OFFICE USES.

C. NOTWITHSTANDING ANY OTHER PROVISION TO THE CONTRARY, SERVICE STATIONS ON THEIR OWN LOT SHALL BE PERMITT ENTRANCES AND EXITS ON ONE STREET FRONTAGE AND THREE PER LOT.

D. ALL APPLIANCES, PITS, STORAGE AREAS AND TRASH FACILITIES OTHER THAN MOTOR FUEL FILLING PUMPS OR AIR PUMPS SHALL BE V BUILDING OR ROOFED STRUCTURE.

E. MOTOR FUEL FILLING PUMPS, SERVICE STATION ATTENDANT BOOTHS, CANOPIES AND AIR PUMPS SHALL BE PERMITTED WITH REQUIRED FRONT YARD AREA OF SERVICE STATIONS BUT SHALL BE NO CLOSER THAN 20 FEET TO ANY STREET LINE.

F. ALL LUBRICATION, REPAIR OR SIMILAR ACTIVITIES SHALL BE PERFORMED IN A FULLY ENCLOSED BUILDING AND NO DISMANTLED PAR BE DISPLAYED OUTSIDE OF AN ENCLOSED BUILDING.

G. NO IUNKED MOTOR VEHICLE OR PART THEREOF, OR SUCH VEHICLES INCAPABLE OF NORMAL OPERATION UPON THE HIGHWAY, PERMITTED ON THE PREMISES OF THE REPAIR GARAGE, EXCEPT AS NOTED HEREIN. NO MORE THAN 8 VEHICLES AWAITING REP DISPOSITION AT THE REPAIR GARAGE SHALL BE PERMITTED ON THE PREMISES FOR A PERIOD NOT EXCEEDING SEVEN DAYS, EXCEPT TO 3 INOPERABLE VEHICLES IN AN ENCLOSED BUILDING MAY BE PERMITTED. IT SHALL BE DEEMED PRIMA FACIE EVIDENCE OF VIOLA THIS ORDINANCE IF MORE THAN 3 MOTOR VEHICLES INCAPABLE OF OPERATION ARE LOCATED AT ANY ONE TIME UPON THE PREMI WITHIN AN ENCLOSED BUILDING.

H. IN ADDITION TO LANDSCAPING THAT IS OTHERWISE REQUIRED PURSUANT TO THE PROVISIONS OF THIS ORDINANCE; A MINIMUN OF THE FRONT YARD SHALL CONSIST OF LANDSCAPE SCREENING OF THE BUILDING AND FRONT YARD PARKING. I. NO EXTERIOR DISPLAY OF MOTOR VEHICLES, RECREATIONAL VEHICLES, BOATS, OTHER FORMS OF TRANSPORTATION, OR EQUIPMI

SALE SHALL BE PERMITTED. * PER PREVIOUSLY APPROVED PLAN PREPARED BY MASER CONSULTING P.A. DATED 06/27/2013.

REGULATORY APPROVAL AND PERMITTING AGENCIES:

LAWRENCE TOWNSHIP PLANNING BOARD

LAWRENCE TOWNSHIP PLANNER LAWRENCE TOWNSHIP FIRE MARSHALL

LAWRENCE TOWNSHIP ENGINEER LAWRENCE TOWNSHIP ENGINEER - EROSION CONTROL

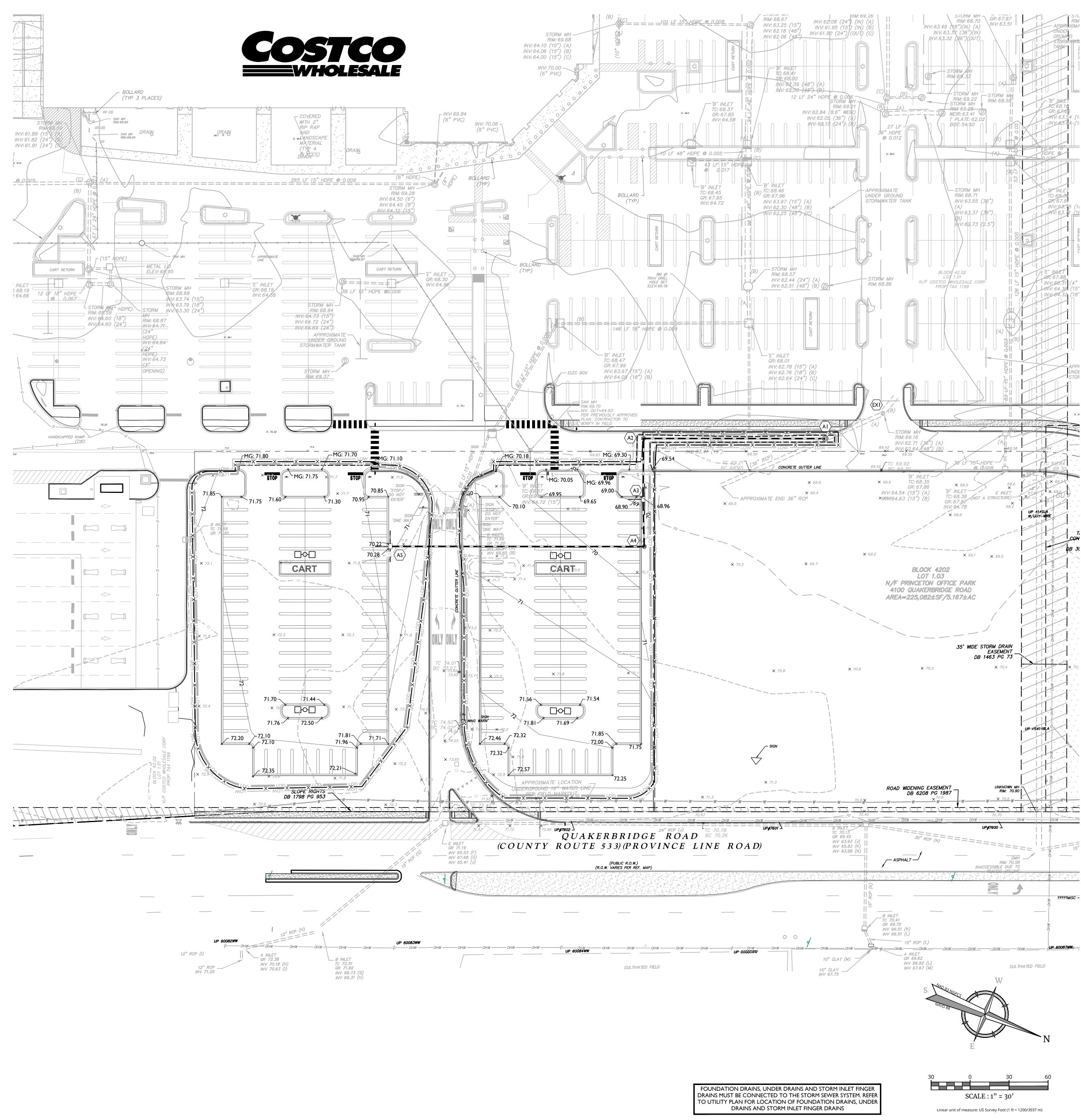
LAWRENCE TOWNSHIP TRAFFIC ENGINEER **EWING - LAWRENCE SEWERAGE AUTHORITY**

MERCER COUNTY PLANNING BOARD NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

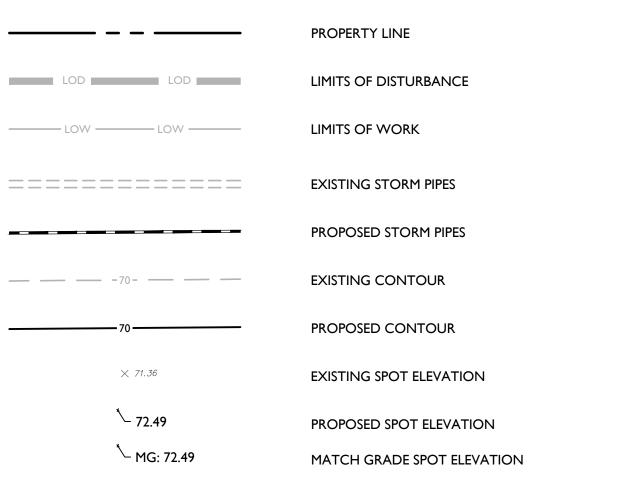
SCALE : 1'' Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

					••••	(1.			1		
			Ę		io gir				F		
		W	L VW.(&	D	es	ig	n		m	
	and all whom	ght © 2 the info the serv pied, reu	024. Col ormatior rices wer used, di t the exp	lliers En 1 contair re contra sclosed,	gineerin ned here acted or distribi	g & Des ein is au to whor uted or	ign All R thorized n it is ce relied 1	tights Re for use ertified. upon fo	eserved. only by This dra r any o	This dra the par wing ma ther pu	ty for iy not
	Doi	ng E	Busir	ness	as	PRC	OTEC		JRSE	SE]	R N
	L Ca	ll be	s bel	OW. ou dig	EXCAV PREI SU	ATORS PARINO RFACE	, DESIC G TO E ANYW	GNERS DISTUR (HERE	B THE	NY PER EARTH (STATE	ISON I'S E
	FC	OR ST	V		IFIC [WWV					//BER	s N
/ER, THE NG AND DXIMATE											
NOT BE ID EACH SIBLE TO											
C. THEY D AS TO WHERE											
NOR TO R PRIOR OCATED ND MEET A, THEN											
RENTLY	DESCRIPTION										
) differ	DRAWN BY DESC	. .	·		·				·	·	
DIFFER IATE OR DER TO	DATE DR		·		·				·	·	
TION OF C. THAT	REV										
ONTAGE E AREA IN ING THIS	DESCRIPTION										
ed two	DRAWN BY DESCF										
vithin a Thin the	DATE DRAV										
TS SHALL SHALL BE	REV			· ·		· ·	· ·				
EPAIR OR THAT UP TION OF ISES NOT											
M OF 25% ENT FOR											
LINI FUK											
	NE	N JER	LLIER	LICEN CENS S EN	ISED E NU	PRO MBE ERIN	FESSI R: GE G & [IONA 4569 DESIC	L EN 92 6N, IN	GINE	ER
	M	-	OR	SI	ГЕ	PL	AN	[/]	MII		R
		ç	SUE	3D]		SIC FOR		ЧĹ	AN		
		C									
		410	0 C	QU/		ERI	BRI	IDO			
	т	OW	VNS	ן SH	LO' IP (Г1. ЭF	03 LA	WI		NC	E
			M]	ERO	CEI ZW	R C	OU RSI	'N'	ΓΥ		
		ngir	l lie neer esig	ing		S Ph ollier	S75 B Si terlir ione: s ENGI	rode uite 1 ng, VA 703.	rick D	, 66 1330 Esign, I	NC.
	PROJE	HOW	N MBER:	ATE: 08/18		VING N	CM CM IAME: BD-LA	E	CHE	CKED PAP	I
	SHEET	TITLE		os					10	JT	
	SHEET	NUMI	BER:			C5					

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



RIM LEGEND



GRADING AND DRAINAGE NOTES

EDGE OF CURB ELEVATION UNLESS OTHERWISE NOTED.

- REFER TO THE SITE PLAN, SHEET C6, FOR SPECIFIC DETAILS AND DIMENSIONS OF SITE PARKING LAYOUT AND RELATED IMPROV PROPOSED SPOT ELEVATIONS PROVIDED REPRESENT BOTTOM FACE OF CURB ELEVATIONS. TOP OF CURB ELEVATIONS ARE 0.5
- REFER TO THE UTILITY PLAN, SHEET C8, FOR UTILITY LAYOUT AND RELATED IMPROVEMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL EXISTING UTILITIES. ONLY THE LOCATION OF VISI UTILITIES ON OR ABOVE THE SURFACE OF THE EARTH THAT CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCE SHALL BE CERTIFIED. NO CERTIFICATION IS MADE BY MASER CONSULTING AS TO THE ACCURACY OR COMPLETENESS OF THE . LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. IT IS IMPERATIVE THAT PRIOR TO ANY CONSTRUCTION IN T UTILITY MARK-OUT IS ORDERED.
- NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION REDISTRIBUTED SO AS TO PROVIDE AT LEAST SIX (6) INCHES OF COVER TO ALL LANDSCAPE AREAS OF THE SITE AND SHALL BE BY SEEDING OR PLANTING.
- THE EROSION AND SEDIMENTATION CONTROL PLANS SHALL BE REFERENCED AND USED IN CONJUNCTION WITH THIS DRAW COMPLETE CONSTRUCTION PHASING.
- LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROU OBSERVATIONS AT THE SITE. COMPLETENESS OR ACCURACY OF LOCATIONS AND DEPTH CANNOT BE GUARANTEED. ALL CONTRACTORS AND OTHER PERSONS UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONEE EACH INDIVIDUAL USING THIS PLAN MUST VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILIT STARTING WORK.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- IN AREAS OF PROPOSED EARTHWORK, EARTH MAY BE EXCAVATED USING CONVENTIONAL EQUIPMENT, INCLUDING EXCAVA LOADERS AND DOZERS. LARGE ROCKS MAY BE BROKEN UP OR DISLODGED BY HOE RAMS AND DOZERS WITH RIPPERS. BLAST ANTICIPATED ON THIS SITE.
- THE SITE IS TO BE GRADED SMOOTHLY AND EVENLY IN ACCORDANCE WITH THE PROPOSED CONTOURS AND SPOT ELEVATION CONTRACTOR IS RESPONSIBLE FOR ENSURING A POSITIVE DRAINAGE FLOW TO STORM WATER FACILITIES AND STRUCTURES CREATING FLAT SPOTS THAT WILL RESULT IN STANDING WATER (PUDDLING OR PONDING).
- 11. NJ ONE-CALL SYSTEM: CALL BEFORE YOU DIG: 1-800-272-1000 OR 1-908-232-1232

GENERAL EROSION AND SEDIMENTATION CONTROL NOTES

- ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS FOR DEMOLITION PROCEDURES
- EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBAN THE TRIBUTARY AREAS OF THOSE CONTROLS.
- SEDIMENTATION FACILITIES MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.
- SEDIMENT CONTROL BARRIERS MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH BARRIER SELECTION MUST EXTENI 10 FEET UPSLOPE AT 45 DEGREES TO MAIN BARRIER ALIGNMENT.
- SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE ABOVE GROUND HEIGHT OF THE SEDIMENT CONTROL
- ANY SEDIMENT BARRIER SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROC OUTLET.
- 7. ALL STORMWATER INLETS MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED.
- SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM EVENT STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILES SLOPES MUST BE 2:1 OR FLATTER.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENAN INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BA PREVENTATIVE AND REMEDIAL MAINTENANCE WORK INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY.
- LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROU OBSERVATIONS AT THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH CANNOT BE GUARANTEED. EACH IN USING THIS PLAN MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE STARTING V CONTRACTORS SHALL NOTIFY THE NEW JERSEY UTILITY ONE-CALL SYSTEM AT 1-800-272-1000 OR 1-908-232-1232 TO ORDER A MARK-OUT AT THE SITE.
- ALL PERISHABLE AND OBJECTIONABLE MATERIAL INCLUDING BUT NOT LIMITED TO BOARDS, TREES, BRUSH, SHRUBS, LOGS, STU ROOTS, AND OTHER ORGANIC MATTER SHALL BE REMOVED FROM THE CONSTRUCTION SITE.
- 13. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, REFER TO THE STANDARD FOR DEWATERING IN SECTION 14 OF THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY."

SEQUENCE OF ACTIVITIES

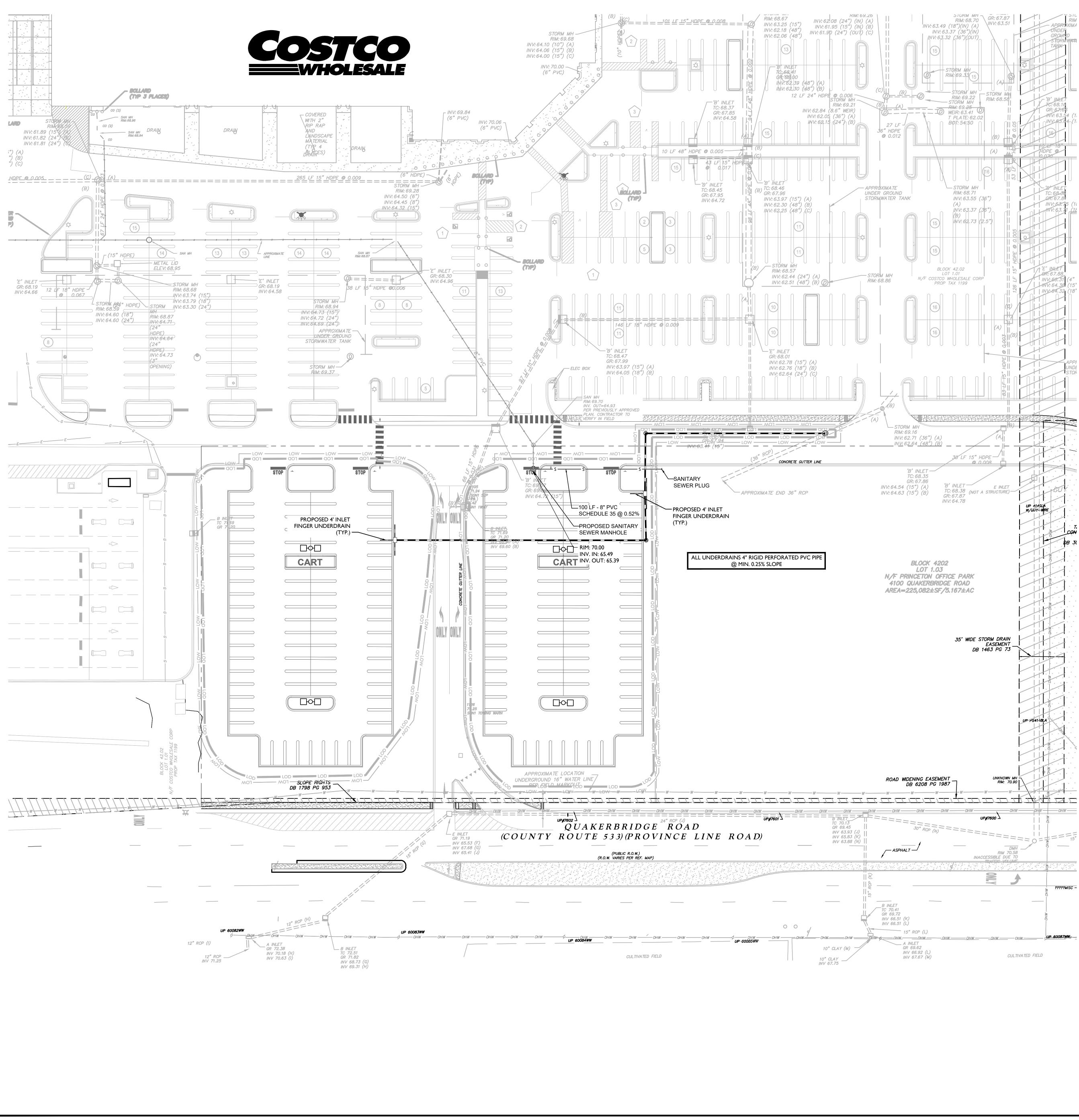
AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTOR INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTRO PREPARER, AND THE FREEHOLD CONSERVATION DISTRICT TO AN ON-SITE MEETING.

AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED ON THOSE ACTIV SHALL NOTIFY THE NEW JERSEY UTILITY ONE-CALL SYSTEM AT 1-800-272-1000 OR 1-908-232-1232 TO ORDER A UTILITY MARK-OUT AT ALL STRUCTURES ASSOCIATED WITH THE CONSTRUCTION OF SEDIMENT REMOVAL FACILITIES MUST BE ON-SITE PRIOR TO EARTH DISTURBANCE.

CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO INSTITUTE ADDITIONAL MEASURES IF ANY EROSION AND SEDIMENTATION CON PROBLEMS ARISE PRIOR TO THE STABILIZATION OF EROSION AND SEDIMENTATION CONTROL MEASURES ON-SITE. THIS PLAN IS A CONTINUATION OF PROCEDURES INITIATED ON THE DEMOLITION, INITIAL SITE PREPARATION AND ROUGH GRADIN

- INSPECT ALL SOIL EROSION / SEDIMENT CONTROL MEASURES INCLUDING BUT NOT LIMITED TO SEDIMENT CONTROL BARRIER STONE CONSTRUCTION ACCESS. REPAIR OR REPLACE AS NECESSARY. (I DAY)
- CONSTRUCT UNDERGROUND STORMWATER MANAGEMENT BASINS. (3 WEEKS)
- FINISH CONSTRUCTION OF ALL REMAINING STORM SEWERS. (I WEEK)
- 4. REMOVE EXISTING HEADWALL, AND FILL PIPE / ABANDON PIPE UNDER ACCESS POINT PER GEOTECHNICAL RECOMMENDATION. (I WEEK)
- 5. FINISH CONSTRUCTION OF ALL ON SITE UNDERGROUND UTILITIES AND BUILDING SERVICE CONNECTIONS. CONSTRUCT FOUNDATIONS FOR AREA LIGHT STANDARDS AND RUN ELECTRIC SERVICE TO FOUNDATIONS AND ALL LOCATIONS FOR ILLU SIGNS (DIRECTIONAL, MONUMENT, AND PYLON). (3 WEEKS)
- FINISH CONSTRUCTION OF ALL CURBING AROUND PERIMETER OF NEW PARKING AND DRIVEWAY AREAS. CONSTRUCT CURBI 6. AROUND LANDSCAPE ISLANDS. (I WEEK)
- 7. FINISH PLACEMENT OF PAVING STONE BASE COURSE ON AREAS TO BE PAVED AND COMPACTED. (2 WEEKS)
- 8. ALL INLETS SET DURING INITIAL SITE PREPARATION AND ROUGH GRADING OPERATIONS WITH TEMPORARY GRATE ELEVATION BE RAISE TO PERMANENT GRATE ELEVATIONS AS SOON AS PAVING STONE BASE HAS BEEN PLACED AROUND THE INLET. REPLACED CRUSHED STONE INLET PROTECTION WITH FILTER BAG INLET PROTECTION. (3 DAYS)
- 9. INSTALL ASPHALT PAVING BINDER COURSE. (3 WEEKS)
- 10. INSTALL ALL SIGNAGE ON THE SITE INCLUDING TRAFFIC CONTROL AND DIRECTIONAL SIGNS. (I DAY)
- 11. SPREAD TOPSOIL IN ALL AREAS TO BE LANDSCAPED OR SEEDED AND ESTABLISH PERMANENT GROUND COVER AND LANDSCAF SPECIFIED BY LANDSCAPING PLAN. MULCH ALL EXPOSED AREAS AS SPECIFIED BY THESE PLANS. (3 WEEKS)
- 12. INSTALL FINAL PAVING WEARING SURFACE. APPLY PARKING AREA AND TRAFFIC CONTROL PAVEMENT PAINT. (2 WEEKS)
- REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROLS. ESTABLISH PERMANENT VEGETATION ON ALL AREA DISTU 13. THE REMOVAL OF THE TEMPORARY CONTROLS. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION W HAS A MINIMUM UNIFORM 85 PERCENT PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITI DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST AND OTHER MOVEMENTS. (2 WEEKS)

					`o !						
	and all whom	ght © 2 the info the serv ied, reu	VVV. 024. Col prmation ices wer used, diu t the exp	colli liers En I contair e contra sclosed,	gineerin ned here acted or distribu	engi g & Desi ein is au to whor uted or	ign All R thorized n it is ce relied u	ights Re for use rtified.	eserved. only by This dra r any o	This dra the par wing ma ther pu	ty for Iy not
	Doi	ng E	Busir	ness	as			Ņ		Ş E]	R I
	L Ca	ll bei	bel fore yo ATE	OW. Du dig SPEC	EXCAV PREI SU	ATORS PARING RFACE	REQU , DESIG TO E ANYW	IRE NO GNERS DISTUR HERE	B THE IN ANY	ATION NY PER EARTH ' STATE	SON I'S E
/EMENTS. 5' ABOVE											
SIBLE EDURES ACTUAL HE AREA, A ON SHALL BE											
STABILIZED	DESCRIPTION										
	DRAWN BY DE	·	•	•	•	•	•	•		·	<u> </u>
d that fies before ators,	REV DATE DRA										
TING IS NOT											
WITHOUT											
ICE WITHIN											
L BARRIERS.	NO										
CK FILTER	DRAWN BY DESCRIPTION								•		
ICE MUST ASIS. ALL IG,	DATE										
UND NDIVIDUAL WORK. ALL UTILITY	REV										
UMPS, PRS OL	NE	N JER	LIER	LICEN CENS S EN	ISED E NU	PRO MBEI ERIN	FESSI R: GE G & E	ONA 4569 DESIC	L EN 2 5N, IN	GINE	ER
IVITIES T THE SITE. NTROL	M		OR SUE		VI)N				R
NG PLANS		C			_	_	_	_			
rs and			0 0	QUA BL	M	ERI CK /	BRI 420		54	L	
JMINATED	Т	0W		ERO	IP (CEI XW	R C	OU	'N'		NC]	E
ING NS ARE TO ACE		ngir	l lie neer esig	ing		S Ph OLLIER	575 Bi Si terlir ione: s engii	uite 1 ng, VA 703. NEERIN	rick D	66 1330 SIGN, I	NC.
APING AS	PROJE	HOWI CT NUI 23010	N MBER: 985A	ATE: 08/18				E	CHE	CKED PAP	BY:
URBED BY VHEN IT 'H A		GR/ ERC	ADI DSI C	ON		١D	SE	DII	ME		
SLIDING				WI		C6	RC	ON	STR	UC.	



LEGEND

				PROPERTY LINE
-	LOD		LOD	LIMITS OF DISTURBANCE
	LOW	·	LOW	LIMITS OF WORK
				EXISTING STORM PIPES
				PROPOSED STORM PIPES
	G	G	<i>G</i>	EXISTING GAS
	W	W	W	EXISTING WATER
	E	—_E	E	EXISTING ELECTRIC
	<i>T</i>	<i>T</i>	7	EXISTING TELEPHONE
S		ss	ss	EXISTING SANITARY SEWER
§—	S	S —	S	PROPOSED SANITARY SEWER

UTILITY INSTALLATION AND TRENCH EXCAVATION GUIDELINES CONSTRUCTION REQUIREMENTS

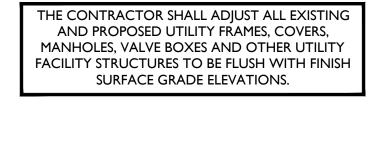
- A. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
- B. WATER THAT ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING, AS REQUIRED, TO A FACILITY FOR REMOVAL OF SEDIMENT IN ACCORDANCE WITH NJ-DEP guidelines.
- C. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO BE FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES/FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE AT THE END OF EACH WEEK.

BACKFILLING-AFTER THE PIPE AND ITS APPURTENANCES HAVE BEEN SATISFACTORILY INSTALLED AND COVERED, THE TRENCH SHALL BE BACKFILLED IN SIX (6) INCH LAYERS AND IN SUCH A MANNER AS NOT TO DISTURB THE PIPE. HOWEVER, 8-INCH LAYERS WILL BE PERMITTED WHEN USING VIBRATORY COMPACTION EQUIPMENT PROVIDED BACKFILL MATERIAL IS SUITABLE FOR COMPACTION TESTING. EACH LAYER OF BACKFILL SHALL BE THOROUGHLY COMPACTED WITH MECHANICAL TAMPERS OR BY OTHER ACCEPTABLE METHODS. FOR THE FULL TRENCH WIDTH. THE BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE DETERMINED DRY WEIGHT DENSITY OF THE BACKFILL MATERIAL.

EXCEPTIONS: IN CERTAIN CASES TRENCHES CAN NOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED. IN THESE CASES, ALL OF THE REQUIREMENTS LISTED UNDER ITEM I. CONSTRUCTION REQUIREMENTS WILL REMAIN IN EFFECT WITH THE FOLLOWING EXCEPTIONS: A. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS. ALL PRESSURE TESTING

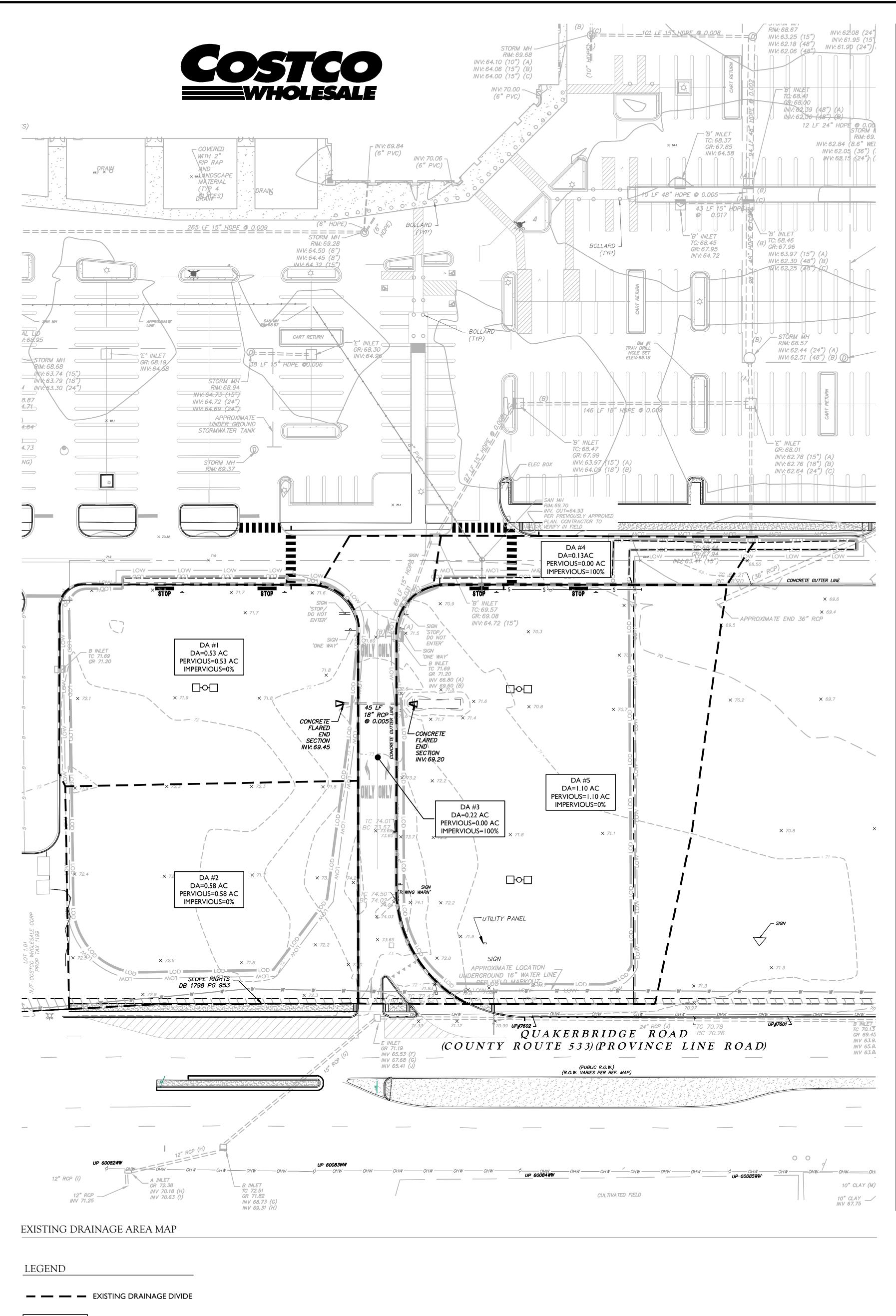
- AND THE COMPLETE BACKFILLING OF THE OPEN TRENCH MUST BE COMPLETED BY THE SEVENTH WORKING DAY. B. IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS,
- APPROPRIATE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES OR FACILITIES WILL BE INSTALLED, AND THE AREAS SEEDED AND MULCHED WITHIN THE NEXT TWO CALENDAR DAYS. C. SIDES OF TRENCHES SHALL BE KEPT AS NEARLY VERTICAL AS POSSIBLE, AND THE TRENCHES SHALL BE EXCAVATED TRUE TO THE LINE SO THAT A CLEAR SPACE EIGHT (8") INCHES IN WIDTH IS PROVIDED ON EACH SIDE OF THE BARREL OF THE PIPE TO A HEIGHT OF LESS THAN ONE (1) FOOT ABOVE THE TOP OF THE PIPE. IF SHEETING IS REQUIRED AT THE LEVEL OF THE PIPE, THE
- DIMENSIONS IN THE FOREGOING SENTENCE SHALL BE APPLICABLE TO THE INSIDE FACES OF THE SHEETING. D. THE MUNICIPALITY SHALL HAVE THE RIGHT TO LIMIT THE AMOUNT OF TRENCH OPENED IN ADVANCE OF PIPE LAYING AND THE AMOUNT OF PIPE LAID IN ADVANCE OF BACKFILLING, BUT IN NO CASE
- SHALL MORE THAN FOUR HUNDRED (400) FEET OF TRENCH BE OPENED AT ANY ONE PLACE IN ADVANCE OF THE COMPLETED PIPE. THE TRENCH SHALL NOT BE OPENED FOR A DISTANCE OF MORE THAN FIVE HUNDRED (500) FEET AT ANY ONE TIME. E. NO TRENCH WITHIN A PUBLIC STREET SHALL BE LEFT UNCOVERED AT THE CLOSE OF THE WORK
- DAY. NO OTHER TRENCH SHALL BE LEFT UNCOVERED FOR MORE THAN FIVE CONSECUTIVE WORKING DAYS. STEEL PLATES OF ADEQUATE STRENGTH MAY BE USED TO COVER OPENINGS WITH THE PRIOR APPROVAL OF THE MUNICIPAL ENGINEER. F. PRIOR TO PERFORMING ANY BLASTING, THE CONTRACTOR MUST OBTAIN ALL NECESSARY LICENSES
- AND PERMITS. PROTECTIVE MEASURES MUST BE USED TO INSURE SAFETY TO ADJACENT PROPERTY. G. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INJURY TO PERSONS OR PROPERTY THAT MAY RESULT FROM THE USE OF EXPLOSIVES. ALL BLASTING SHALL BE PERFORMED UNDER
- THE SUPERVISION OF A LICENSED BLASTER, AND SHALL BE SUBJECT TO STATE, COUNTY AND LOCAL REGULATIONS. H. WHEN PIPE IS TO BE INSTALLED IN FILL, THE EMBANKMENT SHALL BE CONSTRUCTED TO AT LEAST ONE (I) FOOT ABOVE THE PROPOSED TOP OF THE PIPE. THE EMBANKMENT SHALL THEN BE EXCAVATED TO THE PROPER FORM AND GRADE, AND THE PIPE INSTALLED. THE EMBANKMENT SHALL THEN BE CONSTRUCTED TO NOT LESS THAN THREE AND ONE HALF (3 1/2)

FEET ABOVE THE TOP OF THE PIPE.



SCALE : 1'' = 3Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

			E		gir	nee	eri	ng	-		
	and all whom	ght © 2 the info the serv ied, reu withou	024. Col ormatior ices wer used, di t the exp	lliers En contair re contra sclosed, press wri		g & Des ein is au to whor uted or isent of PRC	ign All R thorized n it is ce relied u Colliers	ights Re for use rtified. ⁻ upon fo Enginee	eserved. only by This dra r any o ring & D	This dra the par wing ma ther put esign.	ty for ny not rpose
	Ca	what's	fore yo	OW. ou dig SPEC	EXCAV PREI SU	ATORS PARING RFACE	, DESIG 5 TO E ANYW	IONERS		EARTH ' STATE	ISON I'S E
	DRAWN BY DESCRIPTION										·
1	REV DATE				•						
	DRAWN BY DESCRIPTION										·
	REV DATE	•	•	•	•	•	•	•	•	•	
		V JER COI	SEY I LIC LIER N.J	LICEN CENS S EN C.O	II 7 ISED E NU GINE .A. #:	PRO MBE ERIN 24G	FESSI R: GE G & E A279	ONA 4569 DESIG 8650	L EN 2 5N, IN 00	GINE	
		-	SUE	3DI	VI	SIC FOR)N (PL	AN		
		410		QUA BL	_	ERI CK /	BRI 420				
			M	ERO	IP (CEI XW	R C JEI	OU RSE	EY	NG		
	EI	Col ngir & D	eer esig	ing gn		S Ph Ollier Ding Bi	Si terlir ione: s Engli JSINES: AWN E	uite 1 ng, VA 703. NEERIN S AS MA 3Y:	10 A 201 430.4 IG & DE ASER CO	1330 SIGN, I ONSUL	NC. TING BY:
	PROJE	CT NUI 23010	985A		DRAV	VING N TE-SUI	3D-UT	-IL	I	PAP	
NOTE: DO NO	SHEET					C7			STR		

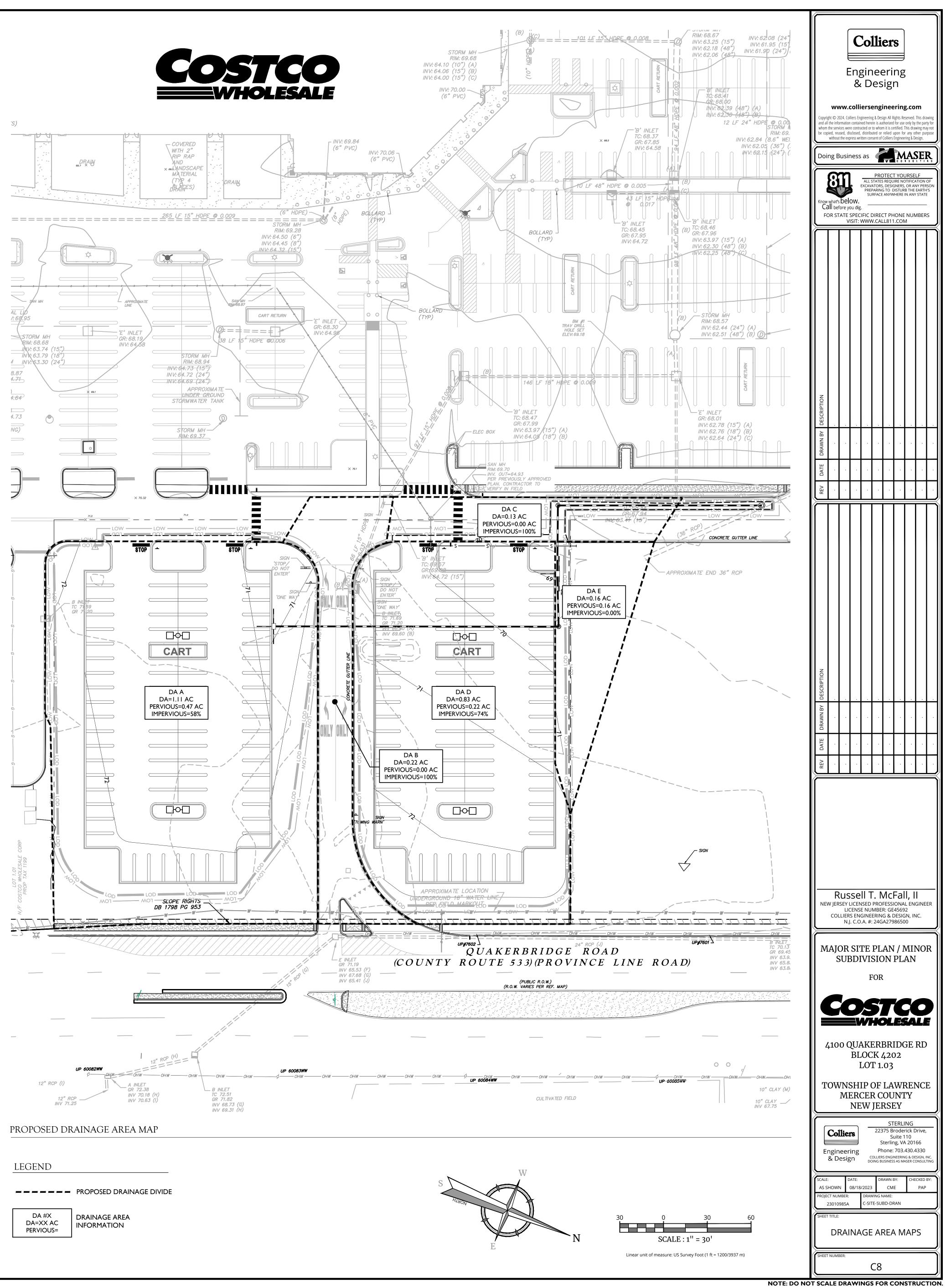


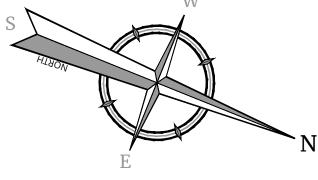
DRAINAGE AREA INFORMATION

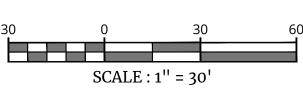
DA #X

DA=XX AC

PERVIOUS=







ENGINEERS GENERAL GRADING AND UTILITY NOTES:

- THE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS AND SIZES OF ALL UTILITIES ENTERING THE BUILDING, INCLUDING SANITARY SEWER, WATER, GAS, ELECTRIC AND TELEPHONE SERVICE CONNECTIONS. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED.
- 2. CONTRACTOR IS TO COORDINATE WITH THE UTILITY COMPANIES AS TO THE LOCATION AND SCHEDULING OF SERVICE CONNECTIONS TO THE UTILITY SUPPLY FACILITIES.
- 3. UTILITY COMPANIES MUST BE NOTIFIED PRIOR TO ANY DEMOLITION, EXCAVATION AND/OR CONSTRUCTION. CALL 811 TO ORDER UTILITY MARK-OUTS AT THE SITE. 4. THE ROUTING OF ALL UTILITIES IS SUBJECT TO ADJUSTMENT TO MEET UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS. WHEN BUILDING PLUMBING
- AND MECHANICAL DRAWINGS ARE COMPLETE AND UTILITY REQUIREMENTS ARE FINALIZED ADJUSTMENTS MAY BE NECESSARY TO THE UTILITY SERVICE LOCATIONS and sizes.
- 5. THE CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED UTILITY FRAMES, COVERS, MANHOLES, VALVE BOXES AND OTHER UTILITY FACILITY STRUCTURES TO BE FLUSH WITH FINISH SURFACE GRADE ELEVATIONS. 6. ALL CONCRETE IS TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000
- PSI OR AS DIRECTED BY THE STRUCTURAL ENGINEER. 7. UNLESS OTHERWISE NOTED, 6-INCHES SHOULD BE ADDED TO THE PROVIDED BOTTOM OF CURB (BC) ELEVATION TO ACHIEVE THE REQUIRED TOP OF CURB (TC) ELEVATION.

STORMWATER NARRATIVE

THE SUBJECT SITE IS LOCATED WITHIN 4100 QUAKER BRIDGE ROAD, TOWNSHIP OF LAWRENCE, MERCER COUNTY NEW JERSEY.

PURSUANT TO THE MERCER COUNTY GIS, THE SITE IS ZONED HC, HIGHWAY COMMERCIAL DISTRICT. THIS PROPERTY IS LOCATED SOUTHWEST OF ROUTE 533 QUAKER ROAD AVALON WAY INTERSECTION. THE SUBJECT PROPERTY IS LOCATED SOUTH AND WEST OF RESIDENTIAL PROPERTIES. SOUTH OF THE PROPOSED SITE IS AN EXISTING COSTCO FUEL FACILITY.

THE SITE IS DEVELOPED INTO AN EXISTING COSTCO WHOLESALE RETAIL STORE WITH A FUEL FACILITY, ASSOCIATED PARKING AND LANDSCAPING. THE PROPOSED LIMITS OF DISTURBANCE IS LIMITED TO REDEVELOPMENT TO EXPAND THE COSTCO PARKING LOT, AND WILL INCREASE THE AMOUNT OF IMPERVIOUS AREA WITHIN THE PROJECT LIMITS OF DISTURBANCE (LOD) BY APPROXIMATELY 1.25 ACRES.

THE PROPOSED REDEVELOPMENT IS ISOLATED TO THE EXISTING OUT PARCELS NORTH OF THE EXISTING COSTCO FUEL FACILITY IN THE SOUTH EASTERN CORNER OF THE COSTCO LOT. DEVELOPMENT ASSOCIATED WITH THIS PROJECT INCLUDES, BUT IS NOT LIMITED TO, EXPANSION OF THE COSTCO PARKING LOT, THE ADDITION OF 152 PARKING SPACES, CONSTRUCTION OF AN UNDERGROUND CONVEYANCE SYSTEM, INSTALLATION OF A RRFB PEDESTRIAN CROSSING SYSTEM AND REPLACEMENT OF EXISTING CURB NEAR THE PROPOSED PARKING EXPANSION.

MINOR MODIFICATIONS TO THE EXISTING DRAINAGE PATTERN WILL OCCUR IN CONJUNCTION WITH THE PROPOSED IMPROVEMENTS. THE EXISTING OUT PARCEL CURRENTLY DRAINS TO AN EXISTING 36" RC STUB WHERE IT ULTIMATELY DRAINS TO AN UNDERGROUND RETENTION SYSTEM. RUNOFF FROM THE PROPOSED PARKING LOT WILL SHEET FLOW INTO THE PROPOSED UNDERGROUND CONVEYANCE SYSTEM. THE PROPOSED CONVEYANCE SYSTEM WILL THEN DRAIN TO THE EXISTING UNDERGROUND RETENTION SYSTEM WHERE IT WILL BE TREATED FOR STORMWATER MANAGEMENT QUALITY AND QUANTITY. THE EXISTING SYSTEM WAS CONSTRUCTED WITH THE PREVIOUS COSTCO SITE TO SERVE THE DEVELOPMENT OF THE OUT PARCEL.

NO STORMWATER MANAGEMENT FOR QUALITY OR QUANTITY HAVE BEEN PROPOSED WITH THIS DEVELOPMENT AS THEY WERE CONSTRUCTED DURING THE DEVELOPMENT OF THE COSTCO SITE. THE EXISTING UNDERGROUND STORAGE FACILITY WAS DESIGNED TO CONVEY THE 100 YEAR STORM AND TREAT THE 10 YEAR STORM WITH A JELLYFISH BMP SYSTEM. THE EXISTING BMP SYSTEM KEEPS THE SITE UP TO COUNTY AND STATE REGULATIONS FOR STORMWATER MANAGEMENT QUANTITY AND QUALITY TREATMENT **REGULATIONS.**

Project:	Costco Princeton - Parking Expansion
Location:	Township of Lawrence, NJ
Design:	PAP / JLC
Date:	1/3/2024
Revision:	
Yr. Storm:	10

HDPE

N Value:

STORM SEWER DESIGN COMPUTATIONS

	PVC	0.011																				
FROM PT.	TO PT.	0.013 DRAIN AREA	RUN-OFF COEFF.	C x A INCR.	C x A ACCUM.	INLET TIME	RAIN FALL	RUNOFF	RUNOFF "Q"	INVERT UP	INVERT LOW	LENGTH	SLOPE	PIPE DIAM.	PIPE MATL.	VELOCITY	CAPACITY	Can system capacity	FLOW TIME	FLOW RATIO	RIM	COV
		0.070.0	"0"			min	in/hr	INCR.	ACCUM.			ft	ft /ft	inches		ft./sec.	cfs	contain runoff	min	Qp/Qf		
		acres	U			min.	10/10	615	015			14.	11.711.	110103		na oco.	015	ų.	1000.0+3	aprar		-
A5	A4	1.11	0.65	0.72	0.72	6.00	5.01	3.59	3.59	65.07	64.10	194	0.0050	18	HDPE	4.57	8.07	YES	0.71	0.45	70.25	3.6
A5 A4	A4 A3	1.11 0.00	0.65	0.72 0.00	0.72 0.72	0.00	5.01 4.76	3.59 0.00	3.59 3.41	65.07 64.00	64.10 63.85	194 34	0.0050	10	HDPE HDPE	4 67	8.07 7.55	YES YES	0.71	0.45	70.25 70.00	3.6 4.5
A5 A4 A3	A4 A3 A2	1.11		15,80574596	A PARCENESS 1	6.00	5.01		10 mm 10 0 0 0 mm		2 01203000100FU		19 147 16 (202) (202) [3 - 4]	18	HDPE HDPE HDPE	4.57		2015-15-16 J		0.45	U 23203804784	4.5
A5 A4 A3 A2	40	1.11	0.00	0.00	0.72	6.00 6.71	5.01	0.00	3.41	64.00	63.85	34	0.0044	18	LIDDE	4.57 4.27	7.55	YES	0.13	0.45 0.45	70.00	2



Yr. Storm: 10

Costco Princeton - Parking Expansion Township of Lawrence, NJ PAP / JEC 1/3/2024 1/0/1900

HYDRAULIC GRADELINE CALCULATIONS

1. Enter Taiwater Elevation (fl.) 7

2. Enter "N" value for pipe? HDPE 0.012 PVC 0.011 RCP 0.013

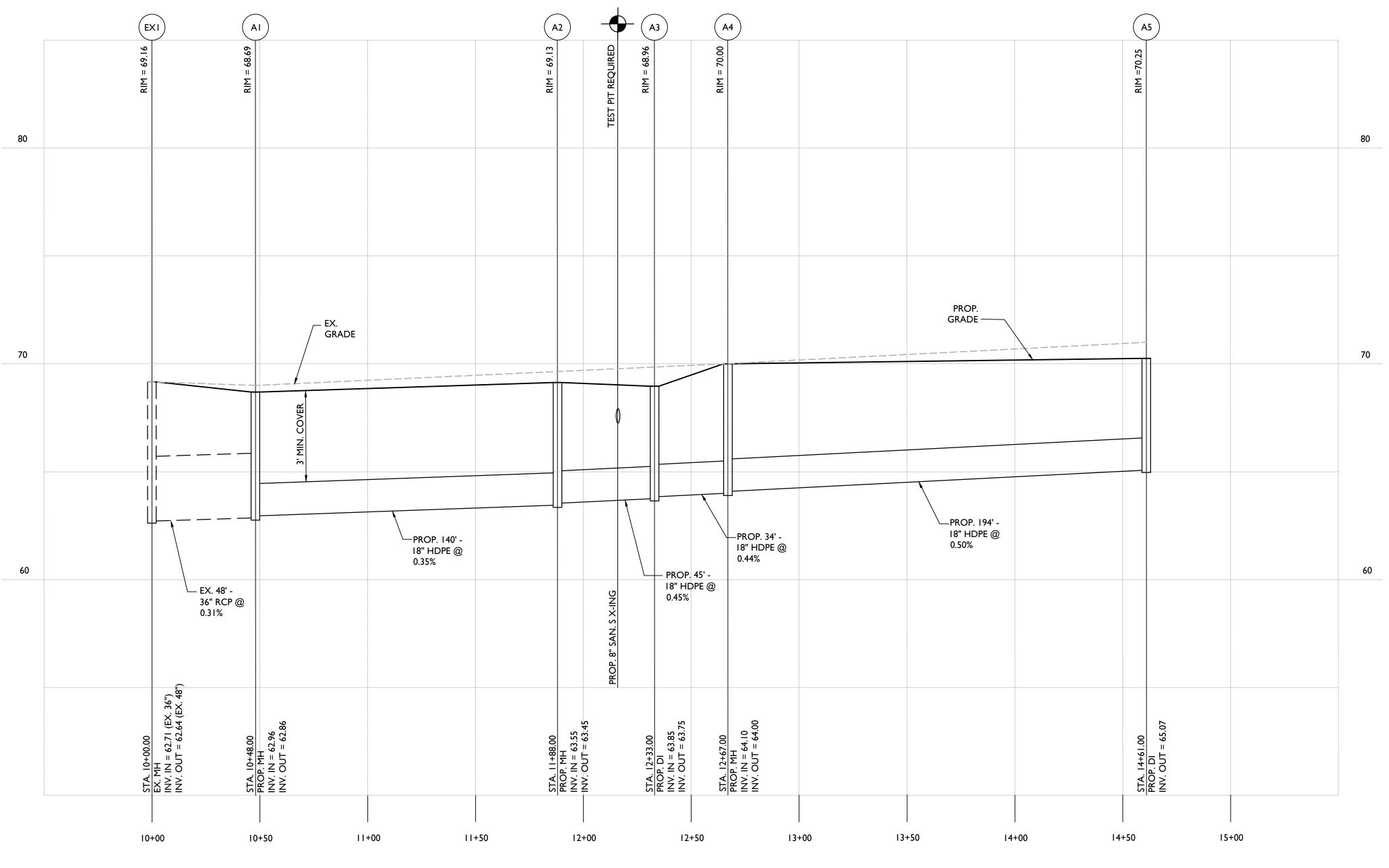
EX-1 INV = 62.71 PIPE DIA 36°

HGE= INV + 0.8*D

-62.71

0.012

2.11.21.21.21.2		2.0.0														N	inction	Loss										
FROM PT.	TO PT.	PIPE MATERIAL	PIPE DIA.	Q OUT (cfs)	LOUT (ft.)	FRICTION SLOPE	DNSTREAM INVERT	H, Energy Loss (Friction)	V OUT (FPS)	H _a Energy Loss (Expansion)	OR	INLET SHAPE	(a) (a) (b) (b) (b)	Contraction of the second	V IN (fps) Vi	Q,V,	V(²/2g	H, Energy Loss (Contraction)	ANGLE "K"	h Energy Loss H∆	H, Energy Loss (Junction)	03 H	0.5 H,	Final H	2533	F.L.E. Inlet water elevation	H.G.E. Outlet water elevation	FLE,> H.G.E.
											1		İ T	Î														1
AS	A4	HDPE	18	-3.59-	194	0.0010	64.10	0.19	2.03	0.02	N-N-	=:X():	-3.59	18	4.57	18.40	0.32	0.11	0.61	0.20	0.33	0.10	0.16	0.26	70.25	89.75	66.75	3.00
A4	A3	HDPE	18	3.41	- 34	0.0009	63.85	0.03	1,93	0.01	N.	Y	3.45	18	4.27	14.57	0,28	0.10	0.38	0,11	0.22	0.07	0.11	0.18	70,00	69,50	66:30	3.20
A3	A2	HDPE	18	6,27	45	0.0031	63.55	0.14	3.55	0.05	Y	Y	6.27	18	4.32	27.06	0.29	0.10	0.38	0.11	0.26	0.00	0.13	0.13	68.96	68.96	66.0B	2.87
A2	A1	HDPE	18	6,19	140	0.0030	62.96	0.42	3.50	0.05	Y	$= \gamma$	6.19	18	3.82	23.66	0.23	0.08	0.00	0.00	0:13	0.00	0.06	0.06	69.13	69.13	65.82	3.31
A1	EX-1	RCP	36	6.41	48	0.0001	62.71	0.00	0.91	0.00	γ	Y	冬 41	- 36	5.27	33.80	0.43	0.15	0.70	0.30	0,46	0.00	0.23	0.23	68.69	68.69	65.34	3,35



STORM PROFILE EX1-A5



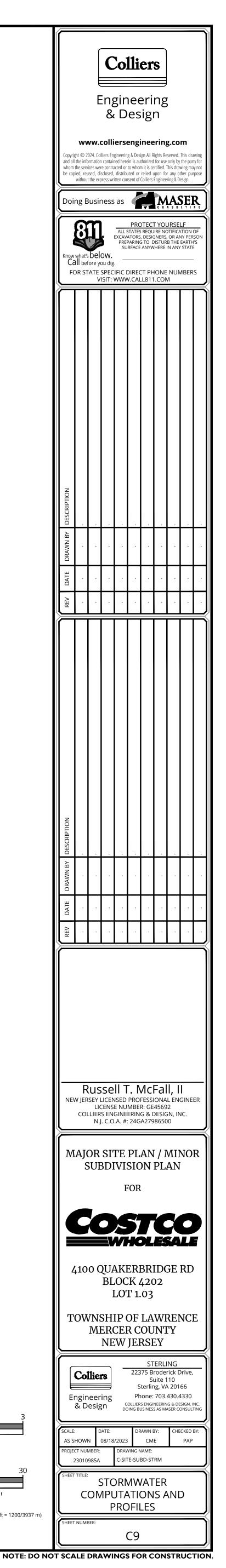
Engineering & Design



& Design

SCALE : 1" = 3' VERTICAL SCALE : 1" = 30' HORIZONTAL Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)





Stormwater Management Report For **Proposed Land Development Costco Wholesale**

4100 Quaker Bridge Road Block 4202: Lot 1

Lawrence Township, New Jersey Mercer County

> Project No. 11990351A Revised October 17, 2014 June 27, 2013

> > By:



Prepared by

Russell T. McFall II, P.E. NJ.P.E. LICENSE No. GE 45692

Lawn	CN-74	0.77 Ac.
Impervious	CN-98	1.11 Ac.
Uncontrolled Area	(Total) :	6.11 Acres
Lawn	CN-74	3.52 Ac.
Impervious	CN-98	2.59 Ac.

V. STORM SEWER COLLECTION SYSTEM

The on-site subsurface storm sewer collection system is designed to convey the 100-year storm event.

Design Methodology

The proposed storm sewer system is designed using the universal rational method for estimating peak runoff to an individual catch basin. A value for area and weighted runoff coefficient is calculated for each contributing sub-area. Due to the small size of the drainage areas a minimum time of concentration of 10 minutes is used.

The runoff coefficients used for this project are Grass/Landscaping: 0.35 runoff coefficient and Paved Impervious: 0.99 runoff coefficient. Storm sewer calculations are based upon flows (Q) utilizing Manning's equation, and are verified by outlet control and solving for the hydraulic grade line.

VI. STORMWATER MANAGEMENT METHODOLOGY

The overall philosophy of the proposed stormwater management system is to assure that any negative effects of the proposed development due to changes in stormwater runoff rate, quantity and quality will be minimized or eliminated. This study analyzes the runoff from the site for the pre-development and post-development conditions.

The method used to calculate the runoff from the site is the SCS method.

The overall tract contains approximately 36.3 acres and is located at 4100 Quaker Bridge Road. The Costco parcel is approximately 16.9 acres and is located within the 36.3 acre overall tract. The overall tract is located within the HC Highway Commercial Zoning district and within the PA-2 Suburban Planning Area. The proposed Costco is permitted use and the fueling facility is a permitted Conditional Use. The tract is currently developed with a vacant industrial development. The existing structures appear in a state of disrepair and much of the site has been vandalized.

INTRODUCTION

The subject site is situated in Lawrence Township, Mercer County, New Jersey. The property is located at 4100 Quaker Bridge Road, near the intersection of Avalon Way and Quaker Bridge Road.

The proposed re-development of the site will involve the demolition of the existing industrial development and the construction of a Costco Wholesale and 16 pump fueling facility. Paved parking, access drives, utility extensions/connections, storm sewers and storm water management control facilities are to be constructed to service the new building.

II. EXISTING CONDITIONS

Based on a review of the ALTA Survey dated October 05, 2012 the elevation of the property ranges from approximately 73 to 65 feet above mean sea level. The finished floor elevation of the two main existing buildings is approximately 70 feet. In general, the site contains slopes of approximately one to five percent (1-5%).

A Shipetauken Creek tributary flows along the southern boundary adjacent to Lawrence Station Road. All runoff discharges to two headwalls located along Avalon Way. One headwall connects to a 33"x52" RCP that only collects runoff from the site. The other headwall connects to a 38"x60" RCP which is a part of a stormsewer system that collects runoff from Quaker Bridge Road. These both discharge to the Shipetauken Creek

For each drainage area, separate hydrographs have been run and then routed through the stormwater management control structures.

Pre and Post-development time of concentration has been calculated, and a time of 18.4 minutes has been used for each drainage area. The post-developed time of concentration, was higher than pre-development, but 18.4 minutes was used.

This report will analyze the stormwater runoff from the area of development. There are two piped discharge points that flow under Avalon Way, through the Avalon Run residential development and eventually discharging to a tributary to Shipetauken Creek.

After development, the area of development is divided into five (5) drainage areas. Four (4) of these areas will be controlled by stormwater management basins, three (3) of which are below ground and one (1) above ground. The area of uncontrolled runoff is not controlled by a stormwater management basin. All basins provide rate control through extended detention. The uncontrolled runoff comes from the Costco roof and areas located outside of the Costco parking field. The gas station runoff from the fueling slab is piped directly underground and goes through an oil/water separator before entering the basin.

This analysis will show that the proposed development meets the rate reduction and water quality requirements for the area of development.

Tailwater was calculated for the basin discharge, using the top of the downstream pipe elevation. Since the elevation was lower than the bottom of each stormwater management basin, tailwater is ignored in the Stormwater routing calculations.

STORMWATER SUMMARY

Ground Water Recharge Due to soil contamination, no ground water recharge is provided. See appendix for letter from Dynamic Earth.

Stormwater Quality Control

7

tributary which is located to the west of the Avalon Run East residential development. The site is located in Watershed Management Area 11.

III. PROPOSED DEVELOPMENT

The proposed re-development of the site will consist of the construction of a 156,800 sq. ft. Costco and 16 pump fueling facility. The existing development and vegetation will require removal to allow for the proposed development. Access to the overall land development will be provided at two full movement driveways, one right in/right out driveway and one left in/right in driveway. Two non-signalized proposed access driveways will be provided along Quaker Bridge Road and two non-signalized proposed access driveways will be located off of Avalon Way. Paved parking areas, drive aisles, utility service connections, storm sewer collection system and stormwater management control facilities are proposed to service the site.

A major component of the development of this site is stormwater control. The proposed stormwater controls for this site will rely on extended detention to improve the quality of storm water runoff and reduce the peak rate of runoff. Due to the possibility of soil contamination, the Stormwater management design does not propose any infiltration of Stormwater runoff. In addition to extended detention, two manufactured treatment devices will be used to improve the quality of runoff leaving the site. Stormwater controls have been designed to capture and treat the area of development, 18.94 acres. The proposed stormwater management system consists of three below ground basins (A, B, and C) and one above ground basin (D). Basins A, B and C are designed as extended detention and Basins A and C/D have Jellyfish filters for quality control. As required by regulations, the bottom of the extended detention basins must be a minimum of 1 foot above the seasonal high water table. The Geotechnical Report with test pit locations and results are supplemental to this report. See Appendix for Geotechnical Report. Additional testing to determine the seasonal high water table in the locations of the Stormwater management facilities have been performed and are included in the appendix.

Existing Condit	ions —	9.96 Acres Lawn
		8.98 Acres Imperviou
		18.94 Acres Total
Proposed Condi	tions -	5.14 Acres Lawn
		13.80 Acres Impervio
		18.94 Acres Total
Average TSS Ro	emoval Ra	te Calculations for Redo
Existing Condit	ions -	4.60 Acres Impervious
Proposed Condi	itions -	10.2 Acres Impervious
Increase in Imp	ervious -	5.60 Acres Require 80
Existing Imperv	ious -	4.60 Acres Require 50
		66% Average TSS Re
Basin A	3.94	Acres @ 92% TSS Remo
Basin B	2.09	Acres @ 45% TSS Remo
Basin C		Acres @ 91.2% TSS Ren
Basin D		Acres @ 80% TSS Remo
** ** **		Acres Untreated

9.16 Acres @ 73% TSS Removal Provided Total Average

Peak Runoff Rate Control

Per Section NJAC 7:8-5.4(a)3.iii. "Design stormwater management measures so that the post-construction peak runoff rates for the two, 10 and 100-year storm events are 50, 75 and 80 percent, respectively, of the pre-construction peak runoff rates. The percentages apply only to the post-construction stormwater runoff that is attributable to the portion of the site on which the proposed development or project is to be constructed;"

Return	Existing	Post-Development	Reduction
Period	Runoff Rate	Runoff Rate	
2 year	26.57 cfs	12.20 cfs	54%
10 year	46.27 cfs	27.18 cfs	41%
100 year	86.70 cfs	60.98 cfs	30%

The Initial Phase 1 Environmental Assessment indicated contaminated soils located on the site. Currently no infiltration is proposed due to the soil contamination. See appendix for letter from Dynamic Earth regarding infiltration recommendations.

IV. STORMWATER MANAGEMENT GROUND COVER ANALYSIS

The Stormwater Management Ground Cover analysis included within this report was prepared using the NRCS TR-55 for ground cover comparison.

The average ground cover curve number (CN) is determined by the percentage of impervious cover and landscape area on the site. Lower curve numbers generate less runoff than higher curve numbers.

Runoff curve number for type "C" soils: CN-74 Lawn

Impervious CN-98

Existing Site Condition:

Drainage Area:	18.94 Acres	
Lawn	CN-74	9.96 Ac.
Impervious	CN-98	8.98 Ac.

Proposed Site Conditions:

Basin Drainage Ar	ea No. A :	6.30 Acres
Lawn	CN-74	0.31 Ac.
Impervious	CN-98	5.99 Ac.
Basin Drainage Ar	ea No. B :	2.40 Acres
Lawn	CN-74	0.31 Ac.
Impervious	CN-98	2.09 Ac.
Basin Drainage Ar	ea No. C :	2.25 Acres
Lawn	CN-74	0.23 Ac.
Impervious	CN-98	2.02 Ac.
Basin Drainage Ar	ea No. D :	1.88 Acres

us (including 4.38 Acres Building)

ous (including 3.60 Acres Building)

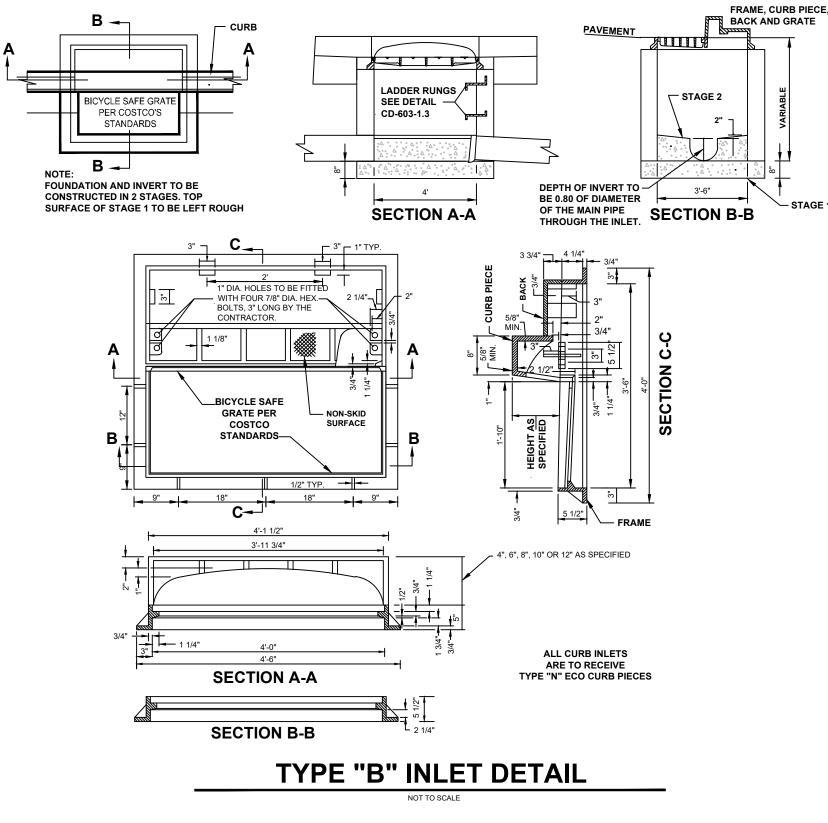
leveloped Areas

s (Parking and Drives) s (Parking and Drives) 0% TSS Removal 0% TSS Removal

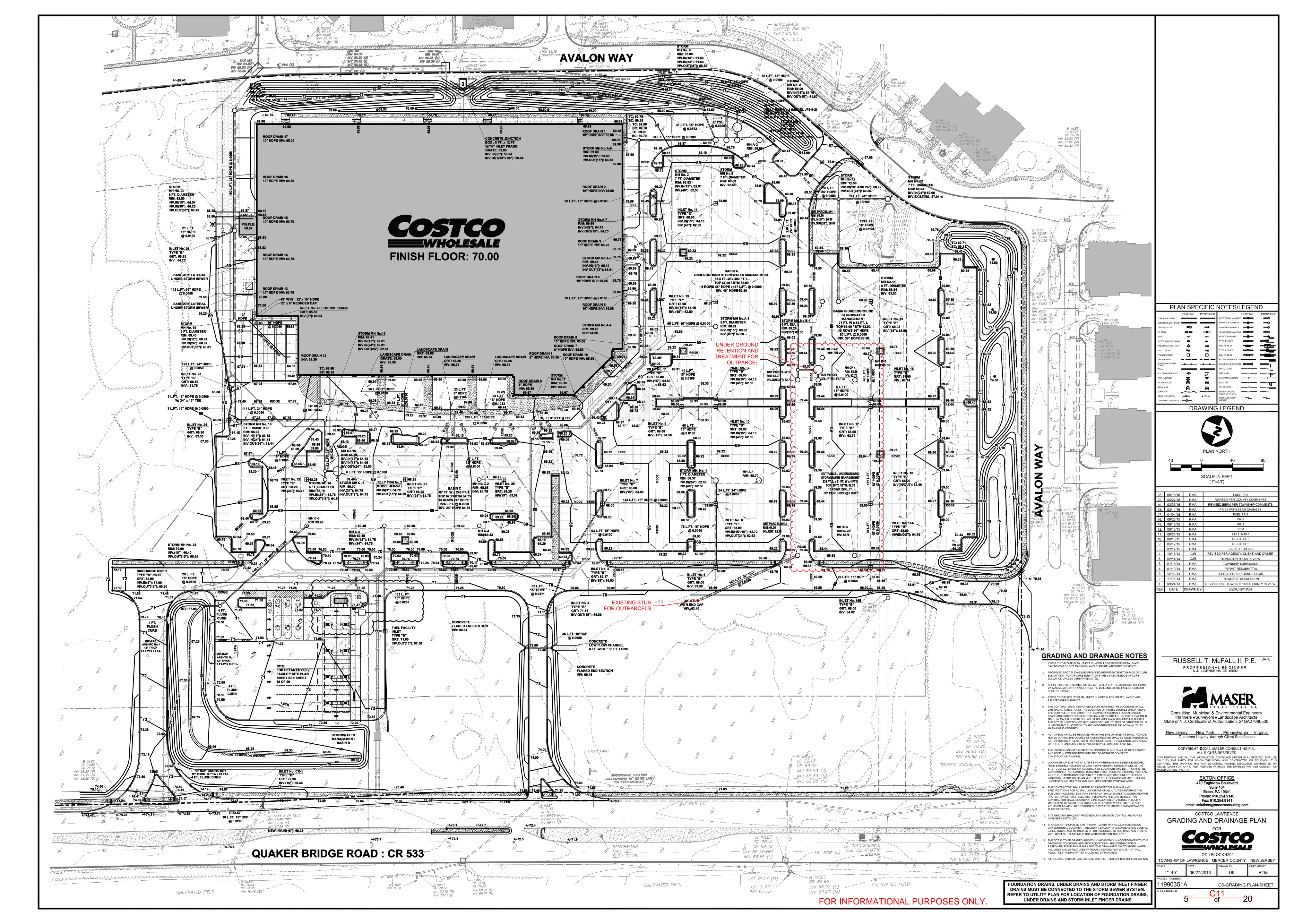
emoval Required

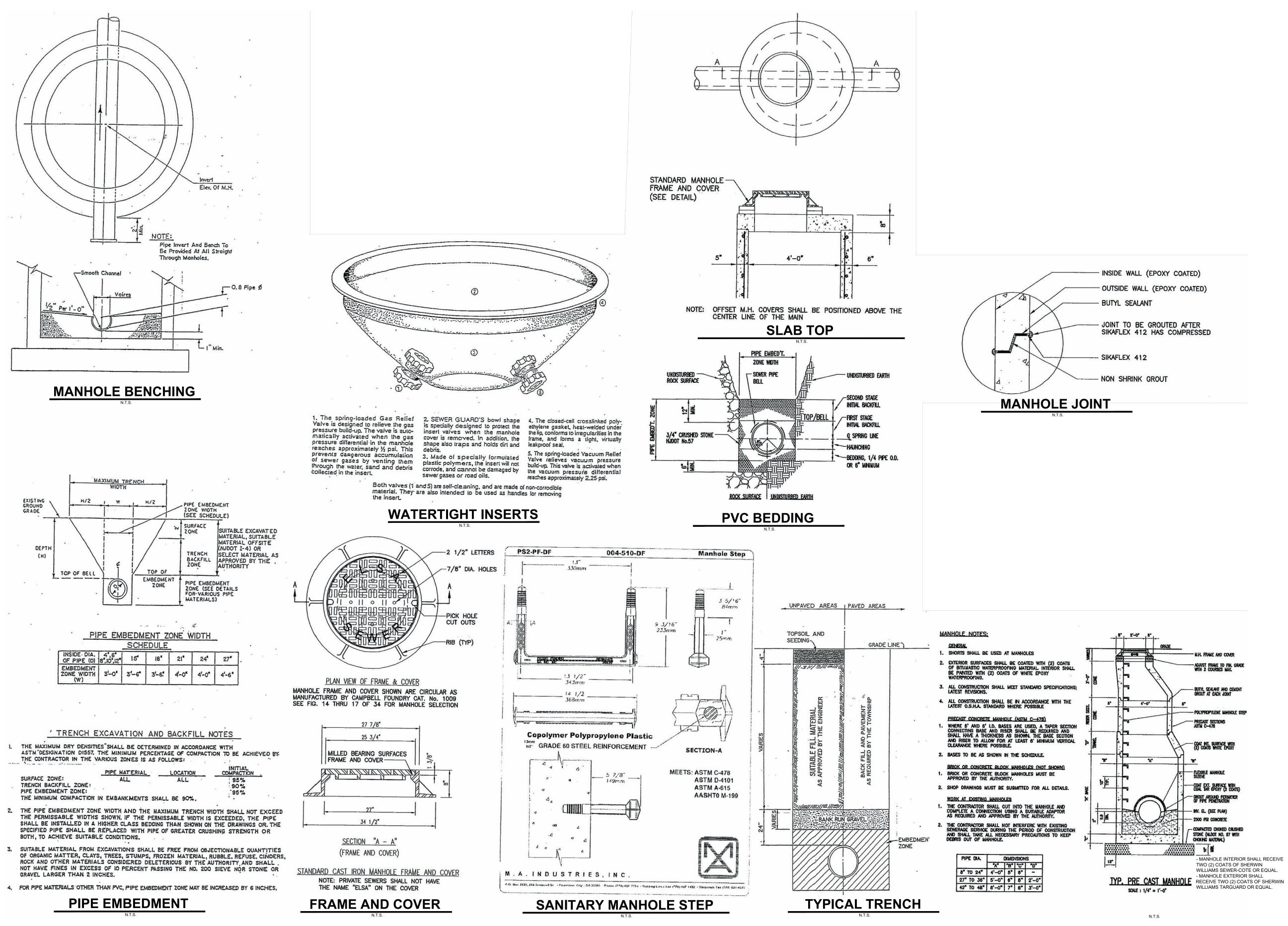
oval (Extended Detention and Jellyfish) oval (Extended Detention) moval (Extended Detention and Jellyfish) oval (Jellyfish)

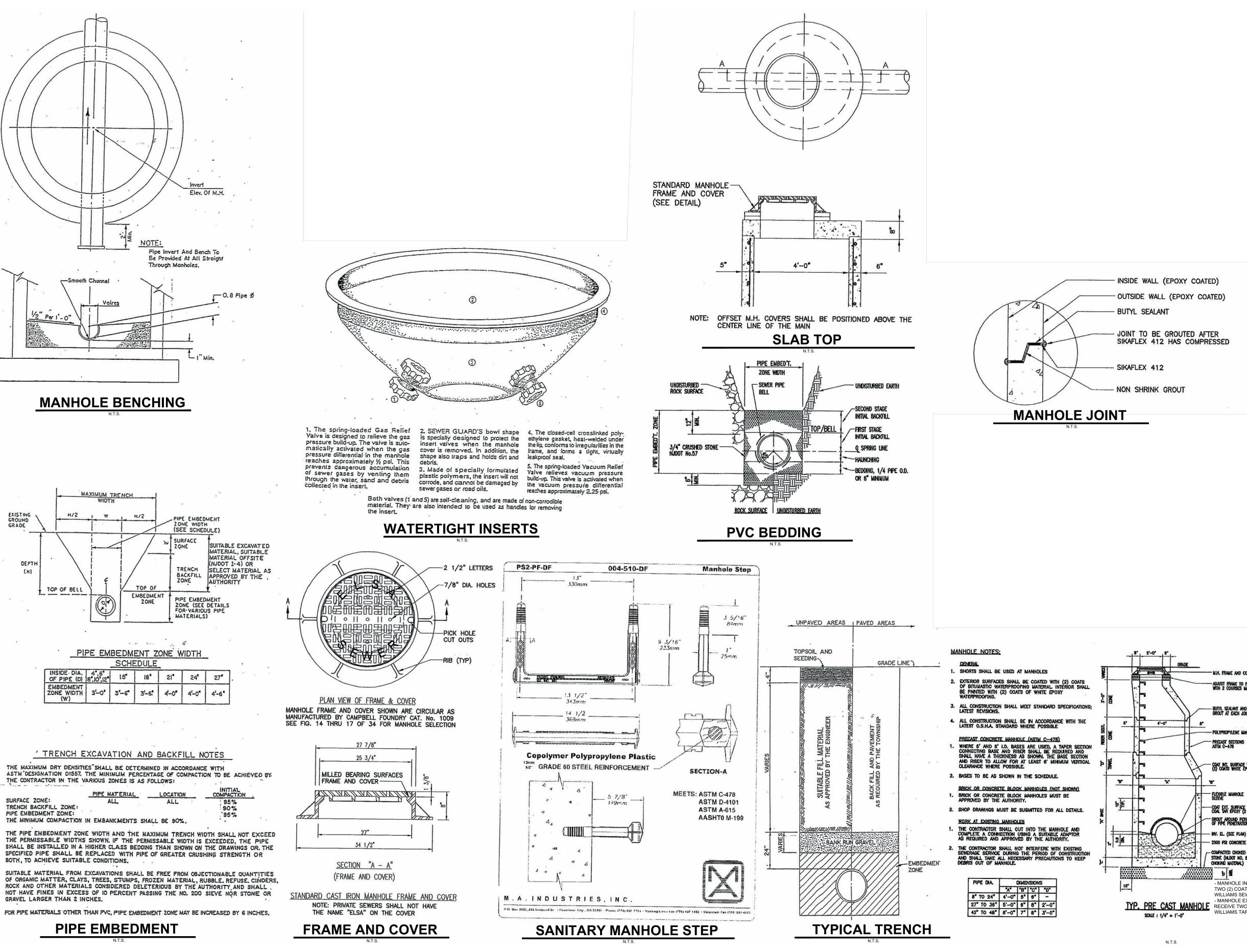
*Basin A Removal Rate Calculation does not include building area



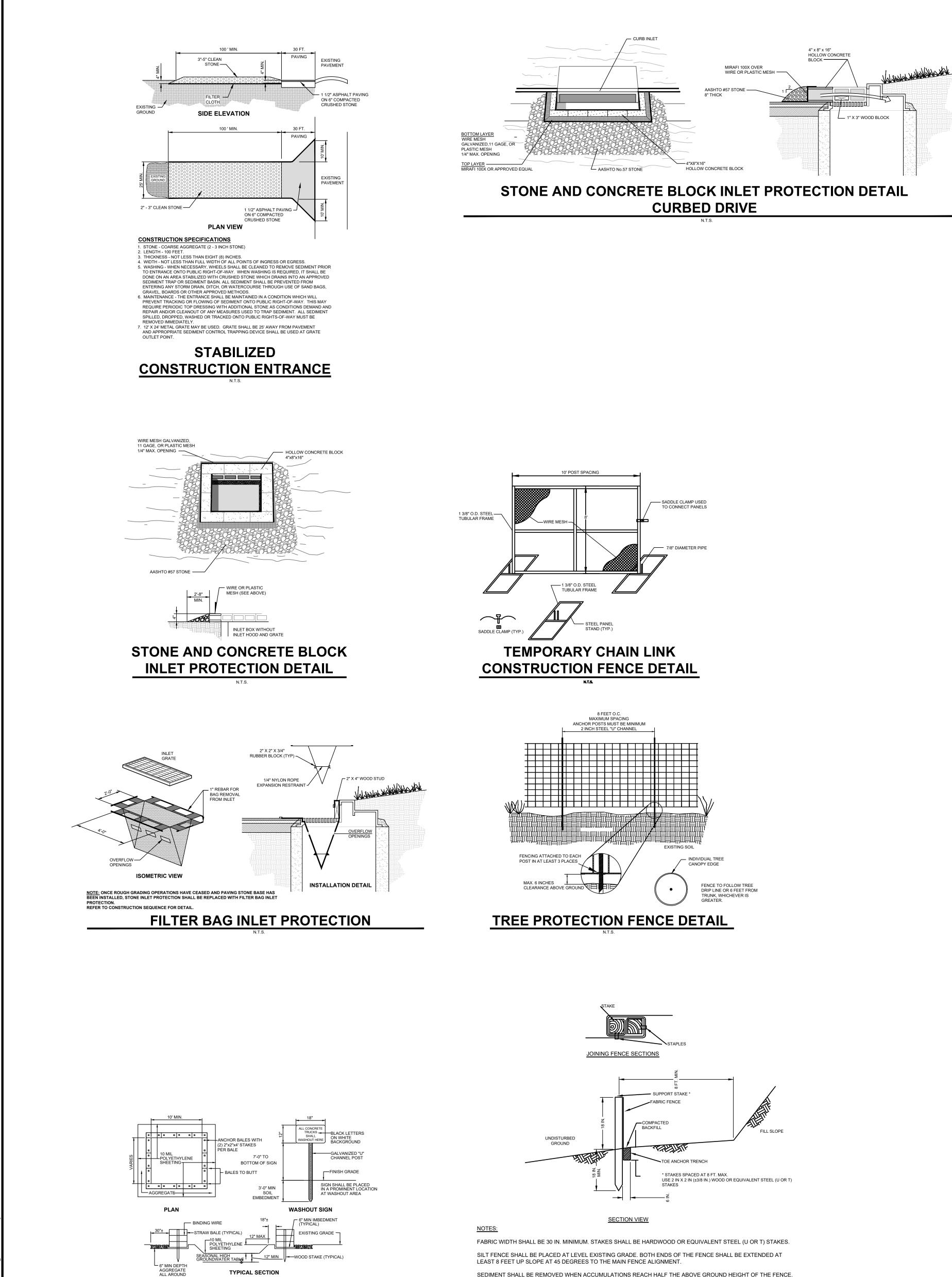
				io				5			
and all whom be cop	ght © 2 the info the serv pied, reu withou	024. Col ormation ices wer ised, dis t the exp Busir	liers En contair e contra sclosed, rress wr	gineerin ned here acted or distribu itten cor	engi g & Des ein is au to whor uted or	inee ign All R thorized n it is ce relied u	ering lights Re for use ertified. T	eserved. only by This dra r any o	This dra the par wing ma ther pu	ty for ay not	
PROTECT YOURSELF ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE Know what's below. Call before you dig. FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM											
TE DRAWN BY DESCRIPTION											
REV DATE				· ·	· ·	· ·	· ·				
REV DATE DRAWN BY DESCRIPTION											
Example 1 Russell T. McFall, II New Jersey Licensed Professional Engineer License Number: Ge45692 Colliers Engineering & Design, Inc. N.J. C.O.A. #: 24GA27986500										ER	
M		OR	3DI	VI	SIC FOR)N	PL	AN		R	
	410	0 0	QU/	M	ERI	BRI	IDO		RD		
T	OW	/NS MI] SHI ER(LO' IP (Γ1. OF RC	03 LA OU	WI IN'I		NC	E	
	ngir	lie	rs ing	_	223 S Ph	ST 575 B Si terlir	ERLI rode uite 1 ng, V/ 703.	rick [66 1330		
SCALE AS S PROJEC	: HOWI	N (MBER:	ATE:	DC /2023 DRAV		AWN E	S AS M. BY: E	ASER C		TING BY:	
\geq	TITLE:	_	AG		//W	/AT NT	ER		S		
SHEET	NUME				10					Ĵ	







Colliers Engineering & Design								
www.colliersengineering.com Copyright © 2024. Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design. Doing Business as <u>POTECT YOURSELF</u> <u>ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PEPARING TO DISTURB THE EARTH'S </u>								
SURFACE ANYWHERE IN ANY STATE Know what's below. Call before you dig. FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM								
DRAWN BY DESCRIPTION · · <								
REV DATE I Rev ·<								
BV DESCRIPTION · ·								
V DATE DRAWN BY · <td< th=""></td<>								
Auge No.								
MAJOR SITE PLAN / MINOR SUBDIVISION PLAN FOR								
4100 QUAKERBRIDGE RD BLOCK 4202 LOT 1.03 TOWNSHIP OF LAWRENCE MERCER COUNTY								
Sterling & Design New Jersey Sterling, VA 20166 Phone: 703.430.4330 Colliers & Design								
SCALE: DATE: DRAWN BY: CHECKED BY: AS SHOWN 08/18/2023 CME PAP PROJECT NUMBER: DRAWING NAME: 23010985A C-SITE-SUBD-DTLS SHEET TITLE: SITE DETAILS								
C12 T SCALE DRAWINGS FOR CONSTRUCTION								





NOTES:

1. CONTAINMENT MUST BE STRUCTURALLY SOUND

THE LIQUID WASTES GENERATED.

WASHOUT IS 75% FULL.

AND LEAK FREE AND CONTAIN ALL LIQUID WASTES. 2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT

QUANTITY OR VOLUME TO COMPLETELY CONTAIN

3. WASHOUT MUST BE CLEANED OR NEW FACILITIES

CONSTRUCTED AND READY TO USE ONCE

4. WASHOUT AREA(S) SHALL BE INSTALLED IN A

CONSTRUCTION PROGRESSES.

CONCRETE WASHOUT AREA DETAIL

OCATION EASILY ACCESSIBLE BY CONCRETE

5. ONE OR MORE AREAS MAY BE INSTALLED ON THE

6. AT LEAST WEEKLY REMOVE ACCUMULATION OF

CONSTRUCTION SITE AND MAY BE RELOCATED AS

SAND AND AGGREGATE AND DISPOSE OF PROPERLY

WITH A ROCK FILTER OUTLET.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE. ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

STANDARD SILT FENCE

STANDARD FOR TOPSOILING

- TOPSOIL SHOULD BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER, MORE THAN 0.5 MILLIMHOS MAY DESICATE SEEDLINGS AND ADVERSELY IMPACT GROWTH) TOPSOIL HAULED IN FROM OFF-SITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHAL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, MATTER, SOLUBLE SALTS AND PH LEVEL.
- STRIPPING AND STOCKPILING A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPIN STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TESTS, LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1. D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOL. E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN: SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY
- -I) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES. SITE PREPARATION GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOLL TO EXISTIN AND AND AREA OF EXPOSURE OF DISTURBED SOLL TO EXISTIN WHEDIATEL' PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE. B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING PG. 19-AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES. D. IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP INSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS,
- [,] EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THOUGH 42. APPLYING TOPSOIL A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT
- DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSAR) A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVEREI WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG 1-1)

DUST CONTROL A. THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUS

- B. MULCHES: SEE NOTES THIS SHEET C. VEGETATIVE COVER: SEE TEMPORARY SEEDING NOTES AND PERMANENT SEEDING NOTES THIS D. SPRAY ON ADHESIVES: ON MINERAL SOILS (NOT EFECTIVE ON MUCK SOILS) KEEP TRAFFIC OFF THESE AREAS
- APPLY PER MANUFACTURER SPECIFICATIONS ANIONIC ASPHALT EMULSION LATEX EMULSION RESIN IN WATER
 - POLYACRYLAMIDE (PAM) SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD ACIDULATED SOY BEAN SOAP STICK
- E. TILLAGE: TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE THIS IS A TEMPORARY EMERGENCY MEASURE
- F. SPRINKLING: SITE IS SPRINKLED UNTIL THE SURFACE IS WET. G. BARRIERS: SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL
- H CALCIUM CHLORIDE: APPLY PER MANUFACTURE SPECIFICATIONS I. STONE: COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL

MERCER COUNTY SOIL CONSERVATION DISTRIC **EROSION AND SEDIMENTATION CONTROL NOTES**

- 1. THE MERCER COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 48 HOURS PRIOR TO STARTING LAND DISTURBANCE ACTIVITY. NOTICE MAY BE MAILED, FAXED OR EMAILED MCSCD, 590 HUGHES DRIVE, HAMILTON SQUARE, NJ 08690 PHONE: 609-586-9603 FAX: 609-586-1117 EMAIL: PAULSIMERCER@AOL.COM
- 2. IF APPLICABLE TO THIS PROJECT, THE OWNER SHOULD BE AWARE OF HIS OR HER BLIGATION TO FILE FOR A NIPDES CONSTRUCTION ACTIVITY STORMWATER 5G3 PERMI NIG0088323) VIA THE NIDEP ONLINE PERMITTING SYSTEI NJ.GOV/DEP/ONLINE) A TO MAINTAIN THE ASSOCIATED BEST MANAGEMENT PRACTICES AND STORMWATER POLLUTION PREVENTION PLAN SELF-INSPECTION LOGBOOK ONSITE AT ALL TIMES. THIS PERMIT MUST BE FILED PRIOR TO THE START OF SOIL DISTURBANCE. THE ONLINE
- APPLICATION PROCESS WILL REQUIRE ENTRY OF AN SCD CERTIFICATION CODE, WHICH IS PROVIDED BY THE SOIL CONSERVATION DISTRICT UPON CERTIFICATION OF THE SOIL EROSION AND SEDIMENT CONTROL PLAN. 3. THE MERCER COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, INCLUDING AN INCREASE IN THE LIMIT OF DISTURBANCE, 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 & SEDIMENT CONTROL STANDARDS.
- 5. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON SITE AT ALL TIMES. 6. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AS OUTLINED WITHIN THE SEQUENCE OF CONSTRUCTION ON THE CERTIFIED SOIL EROSION AND SEDIMENT
- CONTROL PLAN, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED 7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT STANDARDS FOR SOIL EROSION AND SEDMENT CONTROL IN NJ. IF LANGUAGE CONTAINED WITHIN ANY OTHER PERMIT FOR THIS PROJECT IS MORE RESTRICTIVE THAN (BUT NOT CONTRADICTORY TO) WHAT IS CONTAINED WITHIN THESE NOTES OR ON THE CERTIFIED SOIL EROSION AND EDIMENT CONTROL PLAN, THEN THE MORE RESTRICTIVE PERMIT REQUIREMENTS SHALL BE
- 8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A $1^{\prime}\!2^{\prime\prime}$ TO $2^{\prime}\!2^{\prime\prime}$ Clean stone tracking pad at all construction driveways immediately after initial site disturbance, whether identified on the certified PLAN OR NOT. THE WIDTH SHALL SPAN THE FULL WIDTH OF EGRESS, AND LENGTH SHAL BE 50 FT. OR MORE, DEPENDING ON SITE CONDITIONS AND AS REQUIRED BY THE STANDARD. THIS SHALL INCLUDE INDIVIDUAL LOT ACCESS POINTS WITHIN RESIDENTIAL SUBDIVISIONS, IF THE EGRESS IS TO A COUNTY ROAD, THEN A 20 FT, LONG PAVED VSITION SHALL BE PROVIDED BETWEEN THE EDGE OF PAVEMENT AND THE STONE
- ACCESS PAD A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN IS DAYS OF PRELIMINARY GRADING, PROVIDED THAT ALL OTHER REQUIREMENTS RELATED TO DETENTION BASINS, SWALES AND THE SEQUENCE OF
- CONSTRUCTION HAVE BEEN MET. 10. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 14 DAYS AND NOT SUBJECT TO CONSTRUCTION ACTIVITY WILL IMMEDIATELY RECEIVE TEMPORARY STABILIZATION. IF THE SEASON PREVENTS ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER, OR IF THE AREA IS NOT TOPSOILED, THEN THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS. SLOPED AREAS IN EXCESS OF 3H: IV SHALL BE PROVIDED WITH EROSION CONTROL BLANKETS. CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES, ROADWAY EMBANKMENTS, ENVIRONMENTALLY SENSITIVE AREAS) WILL RECEIVE
- TEMPORARY STABILIZATION IMMEDIATELY AFTER AN INITIAL DISTURBANCE OR ROUGH 11. ANY STEEP SLOPES (I.E. SLOPES GREATER THAN 3:1) RECEIVING PIPELINE OR UTILITY INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION
- PROCEEDS. 12. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING AND TOPSOLING. ALL AGRONOMIC REQUIREMENTS CONTAINED WITHIN THE STANDARDS AND ON THE CERTIFIED PLAN SHALL BE EMPLOYED. mulch with a binder. In accordance with the standards, shall be used on all EEDED AREAS. SAVE ALL TAGS AND/OR BAGS USED FOR SEED, LIME, AND FERTILIZER, AND PROVIDE THEM TO THE DISTRICT INSPECTOR TO VERIFY THAT MIXTURES AND RATES MEET
- 13. AT THE TIME WHEN THE 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 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, THEN NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- 14. DURING THE COURSE OF CONSTRUCTION, SOIL COMPACTION MAY OCCUR WITHIN HAUL ROUTES, STAGING AREAS, AND OTHER PROJECT AREAS. IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING, COMPACTED SURFACES SHOULD BE SCARIFIED 6" TO 12" IMMEDIATELY PRIOR TO TOPSOIL APPLICATION. THIS WILL HELP ENSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). 15. PRIOR TO SEEDING, TOPSOIL SHALL BE WORKED TO PREPARE A PROPER SEEDBED. THIS SHALL
- INCLUDE RAKING OF THE TOPSOIL AND REMOVAL OF DEBRIS AND STONES, ALONG WITH OTHER REQUIREMENTS OF THE STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION. 16. 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 BURIED WITH LIMESTONE IN ACCORDANCE WITH THE STANDARD AND BE COVERED WITH
- A MINIMUM OF 12" OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO TOPSOIL APPLICATION AND SEEDBED PREPARATION. IF THE AREA IS TO RECEIVE TREE OR SHRUB PLANTINGS OR IS LOCATED ON A SLOPE, THEN THE AREA SHALL BE COVERED WITH A MINIMUM OF 24" OF SOIL HAVING A PH OF 5 OR MORE. 17. MULCHING TO THE STANDARDS IS REOUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONAL ROC'S ARE ONLY ISSUED WHEN THE SEASON PROHIBITS
- SEEDING PERMANENT STABILIZATION MUST THEN BE COMPLETED DURING THE OPTIMUM SEEDING SEASON IMMEDIATELY FOLLOWING THE CONDITIONAL ROC OR THE COMPLETION OF WORK IN A GIVEN AREA. 18. HYDROSEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, FTC. ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED-TO-SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF THE SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A
- MINIMUM RATE OF 1500 LBS. PER ACRE IN THE SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE STANDARDS, THE USE OF HYDROMULCH ON SLOPED AREAS IS DISCOURAGED 19. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING THE LIFE OF THE CONSTRUCTION PROJECT. ALL SEDIMENT WASHED, DROPPED, TRACKED OR SPILLED ONTO PAVED SURFACES SHALL BE IMMEDIATELY REMOVED.
- 20. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION, AND FOR EMPLOYING ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AT THE REQUEST OF THE MERCER COUNTY SOIL CONSERVATION DISTRICT. 21. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO
- THE DRAINAGE SYSTEM BECOMING OPERATIONAL 22. ALL DETENTION / RETENTION BASINS MUST BE FULLY CONSTRUCTED (INCLUSIVE OF ALL STRUCTURAL COMPONENTS AND LINERS) AND PERMANENTLY STABILIZED PRIOR TO PAVING OR PRIOR TO THE ADDITION OF ANY IMPERVIOUS SURFACES. PERMANENT STABILIZATION INCLUDES, BUT MAY NOT BE LIMITED TO: TOPSOIL, SEED, STRAW MULCH AND BINDERS OR RECOSION CONTROL BLANKETS ON ALL SEEDING, ALL AGRONOMIC REQUIREMENTS AS SPECIFIED ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, INSTALLATION OF THE OUTFLOW CONTROL STRUCTURES AND DISCHARGE STORM DRAINAGE PIPING, LOW FLOW CHANNELS, CONDUIT OUTLET PROTECTION, EMERGENCY SPILLWAYS, AND LAP
- RING PROTECTION. 23. THE RIDING SURFACE OF ALL UTILITY TRENCHES WITHIN PAVED AREAS SHALL BE 3/4" CLEAN THE NOTING SUBJECT OF THE OTHER THAT THE AS FINAL PAVEMENT HAS BEEN INSTALLED. STONE OR BASE PAVEMENT UNTIL SUCH TIME AS FINAL PAVEMENT HAS BEEN INSTALLED. TEMPORARY SOIL RIDING SURFACES ARE PROHIBITED. ALL CONSTRUCTION DEWATERING (TRENCHES, EXCAVATIONS, ETC.) MUST BE DONE HROUGH AN INLET OR OUTLET FILTER IN ACCORDANCE WITH THE STANDARD FOR DEWATERING OR AS DEPICTED ON THE CERTIFIED SOIL FROSION AND SEDIMENT CONTROL PLAN, DISCHARGE LOCATIONS FOR THE DEWATERING OPERATION MUST CONTAIN PERENNIAL VEGETATION OR A SIMILAR STABLE SURFACE.
- 24. ALL CONSTRUCTION DEWATERING (TRENCHES, EXCAVATIONS, ETC.) MUST BE DONE THROUGH AN INLET OR OUTLET FILTER IN ACCORDANCE WITH THE STANDARD FOR DEWATERING OR AS DEPICTED ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN. DISCHARGE LOCATIONS FOR THE DEWATERING OPERATION MUST CONTAIN PERENNIAL VEGETATION OR SIMILAR STABLE SURFACE. 25. ALL SWALES OR CHANNELS THAT WILL RECEIVE RUNOFF FROM PAVED SURFACES MUST BE
- ERMANENTLY STABILIZED PRIOR TO THE INSTALLATION OF PAVEMENT. IF THE SEASON PROHIBITS THE ESTABLISHMENT OF PERMANENT STABILIZATION, THE SWALES OR CHANNELS MAY BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE STANDARDS. 26.NJSA 4:24-39 ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY OR TEMPORARY
- TIFICATE OF OCCUPANCY BE ISSUED BY THE MUNICIPALITY BEFORE THE PROVISIONS OF CERTIFICATE OF OCCUPANCY BE ISSUED BY THE MUNICIPALITY BEFORE THE PROVISIC THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN SATISFIED. THEREFORE. ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS MUST BE COMPLETED BEFORE THE DISTRICT ISSUES A REPORT OF COMPLIANCE DR CONDITIONAL REPORT OF COMPLIANCE WHICH MUST BE FORWARDED TO THE MUNICIPALITY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY, RESPECTIVELY, MERCER COUNTY SOIL CONSERVATION DISTRICT 590 HUGHES DRIVE

HAMILTON SQUARE, N.J. 08690

TEMPORARY STABILIZATION MATERIALS: EMPORARY SEEDING

- A. THE FOLLOWING SURFACES OF THE SITE SHALL BE TEMPORARILY SEEDED AND MULCHED: 1)-THE SURFACE OF TOPSOIL STOCKPILES. 2)-THE SURFACE OF EXPOSED EARTH AREAS THAT WILL BE EXPOSED WITHOUT CONSTRUCTION ACTIVITY THEREON.
- B. SEEDING SHALL OCCUR IMMEDIATELY AFTER ESTABLISHMENT OF THE TOPSOIL STOCKPILES OR ROUGH GRADED AREAS. THE FOLLOWING SHALL BE PLANTED: PERENNIAL RYE GRASS APPLIED AT 4 LBS./1,000 SQ. FT.
- C. PREPARE AREAS TO BE SEEDED AS FOLLOWS: I. REMOVE ALL DEBRIS, INCLUDING LARGE STONE. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY LIME AT A RATE OF 100 LBS. PER 1,000 SQUARE FEET 2. BEFORE AUGUST, SEPTEMBER OR OCTOBER SEEDING APPLY 20-25 LBS. OF 5-10-10 FERTILIZER PER 1,000 SQUARE FEET. BEFORE FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY OR NOVEMBER SEEDING
- APPLY 40 POUNDS OF 10-55 FERTILIZER PER 1,000 SQUARE FEET WORK INTO TOP INCH OF SOIL.
- D. SOW SEED AT THE INDICATED RATE. DIVIDE SEED INTO TWO EQUAL LOTS. SOW ONE LOT IN ONE DIRECTION. SOW SECOND LOT AT RIGHT ANGLE TO FIRST RAKE SEEDED AREA SLIGHTLY. ROLL SURFACE LIGHTLY TO FIRM SOIL AROUND SEED E. PLACE CLEAN DRY STRAW OR HAY MULCH WITHIN 48 HOURS AFTER SEEDING. PLACE AT THE RATE OF 1,200 LBS. PER 1,000 SQUARE YARDS.
- TEMPORARY MULCHING A. MULCH PROPOSED LANDSCAPE AREAS OR TOPSOIL STOCKPILES IF EARTHWORK
- IS COMPLETED OUTSIDE OF THE RECOMMENDED PLANTING SEASONS FOR TEMPORARY SEEDING OR DUE TO UNFAVORABLE WEATHER CONDITIONS. B. MULCH SHALL BE APPLIED IMMEDIATELY FOLLOWING THE ESTABLISHMENT OF THE
- TOPSOIL STOCKPILE OR ROUGH GRADING C. MULCH WITH SUITABLE FIBROUS GROUND, SHREDDED AGED HARDWOOD, PINEWOOD
- BARK, STRAW, OR HAY UNIFORMLY AND CONTINUOUSLY TO A LOOSE DEPTH OF 3 INCHES MINIMUM. ANCHOR AS REQUIRED. D. PROPERLY MAINTAIN MULCHED AREAS UNTIL PERMANENT STABILIZATION MEASURES ARE COMPLETE. REAPPLY MULCH MATERIALS WHICH BECOME DISLODGED AT INITIAL OR MODIFIED RATES AS NECESSARY. IF A SLOPE FAILURE OCCURS WHICH REQUIRES REDRESSING, EXCAVATION, OR THE ESTABLISHMENT OF A NEW SLOPE,

REPLACE MULCH AS NECESSARY. MULCH ANCHORING

- MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. PEG AND TWINE: DRIVE 8 TO 10 INCH WOOD 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.
- MULCH NETTING: STAPLE PAPER, COTTON, OR PLASTIC NETTING OVER MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED. CRIMPER MULCH ANCHORING COULTER TOOL: A TRACTOR-DRAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. SOIL PENETRATION SHOULD BE ABOUT 3 TO
- 4 INCHES. ON SLOPING LAND, THE OPERATOR SHOULD BE ON THE CONTOUR. LIQUID MULCH BINDERS: APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE THE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN
- APPEARANCE EMULISIEND ASPHALT. APPLY 0.04 GAL (SO YD OR 194 GAL (ACRE ON FLAT AREAS AND SLOPES LESS THAN 8 PERCENT. USE 0.075 GAL/SQ. YD. OR 363 GAL/ACRE ON SLOPES GREATER THAN 8 PERCENT ORGANIC AND VEGETABLE BASED BINDERS: THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED
- BY THE MANUFACTURER. SYNTHETIC BINDERS: IT SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

EMERGENCY SEEDING

- DURING CONSTRUCTION, ALL DISTURBED AREAS SHOULD BE SEEDED ACCORDING TO THE FOLLOWING INSTRUCTIONS. SEEDING RECOMMENDATION FOR SIX (6) TO TWELVE (12) MONTH PERIODS:
- A. INSTALL NEEDED WATER-CONTROL MEASURES. B. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
- C. LIME ACCORDING TO SOIL TEST, KNOWLEDGE OF SITE, OR APPLY TWO (2) TONS OF GROUND LIMESTONE PER ACRE.
- D. FERTILIZE ACCORDING TO SOIL TEST, KNOWLEDGE OF SITE, OR APPLY 40-40-40, PER ACRE. E. INCORPORATE LIME AND FERTILIZER INTO THE TOP (4) INCHES OF SURFACE SOIL BY
- DISCING OR OTHER SUITABLE MEANS. F. APPLY UNIFORMLY WITH A DRILL OR BY BROADCASTING
- PERENNIAL RYE GRASS APPLIED AT 4 LBS./1,000 SQ. FT. G. COVER GRASS AND LEGUME SEEDS ONE-QUARTER (1/4) INCH DEEP WITH CULTIPACKER OR HARROW. COVER RYE OR OATS ABOUT TWO (2) INCHES DEEP.
- H. MOW RYE OR OATS JUST BEFORE THEY HEAD OUT IF SLOPE PERMITS.

PERMANENT SEEDING NOTES:

- PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL SEEDING IS NOT PERMITTED BETWEEN MAY 15TH AND AUGUST 15TH AND NOVEMBER 15TH TO APRIL 15TH. KENTUCKY BLUE GRASS 2.0 LBS/1.000 SJ CHEWINGS RED FESCUE - 4.0 LBS/1,000 S.F. PERENNIAL RYE GRASS - 8.0 LBS/1,000 S.F.
- PERMANENT SEEDING TO BE APPLIED BY RAKING OR DRILLING INTO THE SOILS. SLOPED AREA TO BE COVERED WITH MULCH AS SPECIFIED
- 3. FERTILIZER FOR THE ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE 10-20-10 APPLIED AT A RATE OF 14 LBs/1,000 S.F. OR AS DETERMINED BY SOIL TEST. LIMESTONE FOR TEMPORARY SEEDING SHALL BE APPLIED AT A RATE OF 90 LBS/1.000 S.F. IMESTONE FOR PERMANENT SEEDING SHALL BE APPLIED AT A RATE OF 135 LBS/1,000 S.F.
- 4. WORK LIME AND FERTILIZER INTO THE TOP SOIL 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 UNTIL A REASONABLE UNIFORM FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE
- 5. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
- 6. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILED AND FIRMED AS ABOVE.
- 7. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE STABILIZED WITH MULCH AS SPECIFIED.
- 8. MULCH TO CONSIST OF SMALL GRAIN STRAW OR SALT HAY ANCHORED WITH WOOD AND FIBER MULCH BINDER OR AN APPROVED EQUAL MULCH WILL BE SPREAD AT RATES OF 90 TO 115 LBS PER 1,000 S.F. AND ANCHORED WITH MULCHED ANCHORING TOOL OR LIQUID MULCH BINDER AND SHALL BE PROVIDED ON ALL SEEDINGS. HYDROMULCH SHALL ONLY BE USED DURING OPTIMUM GROWING SEASONS.

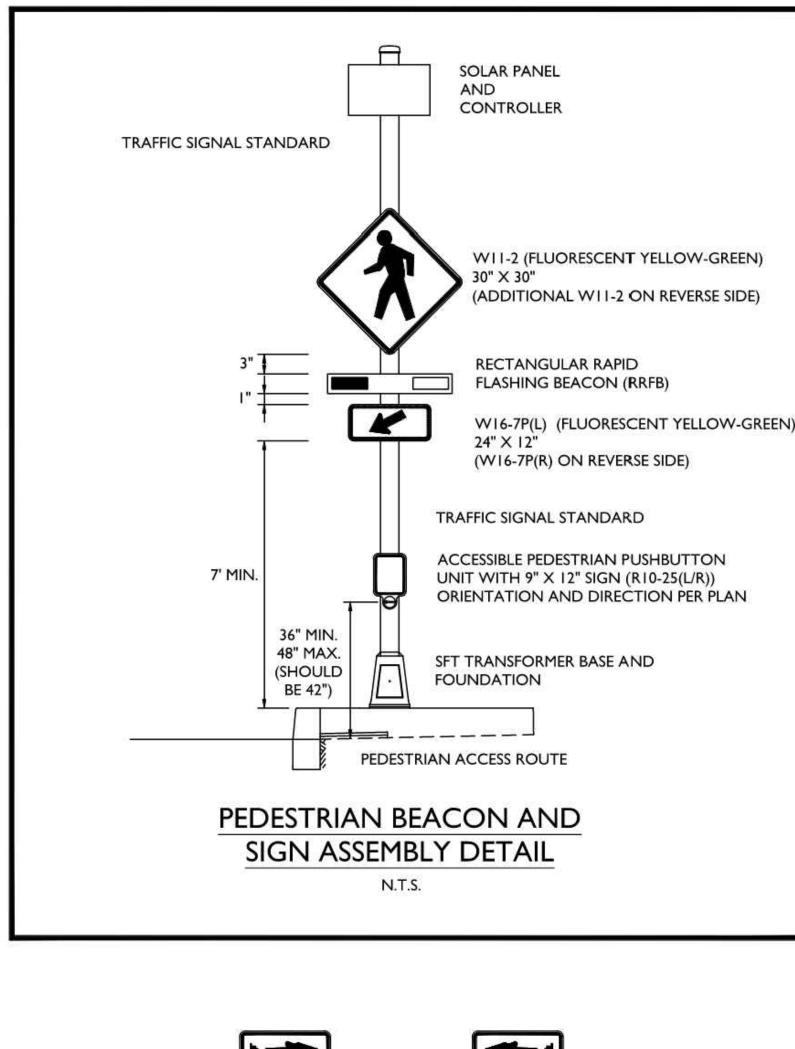
PERMANENT STABILIZATION WITH SOD METHODS AND MATERIALS

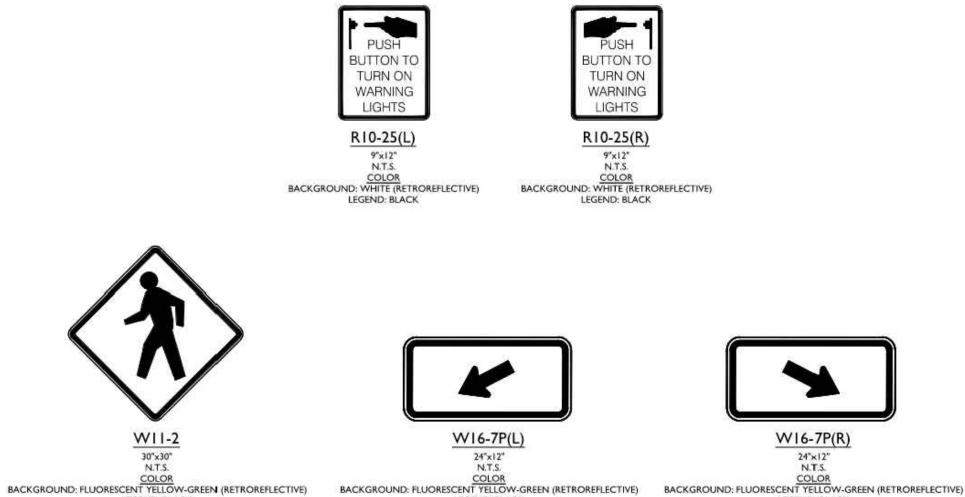
- CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES. SOD SHOULD BE UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING (EXCLUDES TOP GROWTH). 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 OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE. FOR DROUGHTY SITES A SOD OF TURF-TYPE TALL FESCUE BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS OR LESS DURING SUMMER MONTH
- SOD PREPARATION WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING RATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED.
- 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 INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILED AND FIRMED IN ACCORDANCE WITH THE ABOVE.

SOD PLACEMENT 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 THE 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. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS. ON SLOPES GREATER THAN 3 TO I, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, BIODEGRADABLE PLASTIC SPIKES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
- SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF I INCH. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO

Eng	Solliers									
www.colliersengineering.com Copyright © 2024. Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design. Doing Business as Image: Construction of Colliers Engineering & Design. PROTECT YOURSELF										
Know what's below. Call before you dig FOR STATE SPEC	PROTECT YOURSELF ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSO PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE									
DESCRIPTION										
DATE DRAWN BY DES		· ·								
LEA										
VDATEDRAWN BYDESCRIPTION················										
Russell T. McFall, II NEW JERSEY LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: GE45692 COLLIERS ENGINEERING & DESIGN, INC. N.J. C.O.A. #: 24GA27986500										
SUBDI	TE PLAN / MINOR IVISION PLAN FOR									
BL I TOWNSHI MERO	AKERBRIDGE RD LOCK 4202 LOT 1.03 IP OF LAWRENCE CER COUNTY EW JERSEY									
	COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTIN DRAWN BY: CHECKED BY: 3/2023 CME PAP									
PROJECT NUMBER: 23010985A SHEET TITLE: SHEET NUMBER:	C-SITE-SUBD-DTLS									





NOTES:

RECTANGULAR RAPID FLASHING BEACON (RRFB) SHALL CONFORM TO THE MINIMUM REQUIREMENTS SET FORTH IN THE FHWA MUTCD INTERIM APPROVAL MEMORANDUM (IA-21).

LEGEND: BLACK

- 2. THE SIGNAL POLES, BRACKETS, MOUNTING HARDWARE, CABINET ASSEMBLIES, AND TRANSFORMER BASES SHALL BE STANDARD ALUMINUM FINISH. THE CONTRACTOR IS RESPONSIBLE FOR SIZING AND SETTING SOLAR PANELS SO THAT THEY ARE NOT OBSTRUCTED AND PROVIDE 3.
- MAXIMUM SUNLIGHT EXPOSURE. ALL COSTS ASSOCIATED WITH THE REMOVAL OF VEGETATION SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.
- 4. RRFB SYSTEM, SOLAR TO INCLUDE RRFB CIRCUITRY AND SHALL INCLUDE THE CABINET AND WIRELESS OPERATION AS DIRECTED BY THE ENGINEER. THE CABINET SHALL BE MOUNTED AT THE TOP OF EACH SIGNAL POLE. THE SYSTEM SHALL OPERATE IN A MANNER SUCH THAT ACTUATION OF THE PEDESTRIAN PUSH BUTTON SHALL ILLUMINATE ALL RRFBs.
- FLASH DURATION SHALL BE DETERMINED BY THE ENGINEER. 6. ALL PEDESTRIAN PUSH BUTTONS SHALL BE MOUNTED AT A MINIMUM OF 36" AND A MAXIMUM OF 48" ABOVE THE SIDEWALK (SHOULD BE 42"), BE ADA COMPLIANT AND INCLUDE THE FOLLOWING FEATURES:
 - 6.a. PUSH BUTTON LOCATOR TONE
 - 6.b. A TACTILE ARROW

LEGEND: BLACK

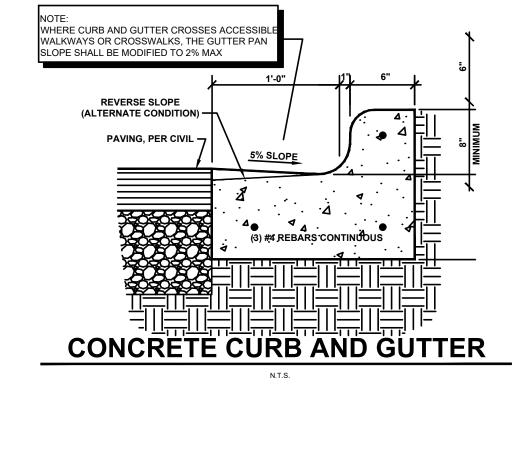
- 6.c. A SPEECH MESSAGE FOR THE FLASHING BEACON INDICATION
- 6.d. TYPE R10-25 PUSH BUTTON SIGN, AS INDICATED ON THE PLAN, WITH FRAME AND BRAILLE FEATURES 6.e. EXTENSION BRACKET IF A MAXIMUM 10" FROM A LEVEL LANDING AREA CAN NOT BE ACHIEVED RRFB TO INCLUDE SIDE INDICATION FOR CROSSING PEDESTRIANS ILLUMINATED CONCURRENTLY WITH VEHICLE LEDS. THE CONTRACTOR SHALL OBSERVE SAFE CLEARANCES FROM ALL OVERHEAD WIRES DURING CONSTRUCTION. THE CONTRACTOR
- SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITY COMPANIES IF OVERHEAD MINIMUM CLEARANCES TO ALL PROPOSED TRAFFIC EQUIPMENT. SPECIFIC CLEARANCE INFORMATION MAY BE OBTAINED FROM THE FOLLOWING SOURCES: 8.a. NATIONAL ELECTRIC SAFETY CODE 8.b. US DEPARTMENT OF LABOR-OCCUPATIONAL SAFETY
 - 8.c. NEW JERSEY ADMINISTRATIVE CODE, CHAPTER 25 UTILITY ACCOMMODATION
- THE CONTRACTOR SHALL INSTALL SFT FOUNDATION WITH MINIMUM 32" OFFSET FROM THE FACE OF CURB TO CENTER OF FOUNDATION. THE CONTRACTOR SHALL ENSURE MAXIMUM VISIBILITY IS ACHIEVED TO RRFBS AND VISIBILITY IS NOT IMPACTED BY EXISTING UTILITY POLES.
- 10. PEDESTRIAN PUSH BUTTON CONTROLS ARE TO BE LOCATED PER THE CURRENT ADA COMPLIANCE MANUAL AND WITHIN 10 INCHES LATERALLY FROM THE LANDING. IF NECESSARY, CONSTRUCT FOUNDATION AS PART OF THE SIDEWALK. THE RESULTING SIDEWALK CLEAR WIDTH SHALL CONFORM TO THE MINIMUM ADA REQUIREMENTS. 11. THE LOCATION OF ALL EXISTING UTILITIES DEPICTED ON THE PLANS ARE TO BE APPROXIMATE AND ARE BASED ON AVAILABLE DATA.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING UTILITY LOCATIONS PRIOR TO EXCAVATION AND INFORMING THE ENGINEER OF ANY IN-FIELD ADJUSTMENTS.
- 12. RRFB EQUIPMENT INCLUDING SYSTEM, POLES, CONDUIT, AND ALL OTHER MATERIALS REQUIRING GROUNDING SHALL BE GROUNDED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES AND REGULATIONS. THE CONTRACTOR SHALL SUBMIT A COMPREHENSIVE PLAN OUTLINING THE MEANS AND METHODS TO ACHIEVE PROPER GROUNDING PRIOR TO CONSTRUCTION.



W16-7P(R)

24"×12" N.T.S.

LEGEND: BLACK



RADIUS TYP.

10'-0"

2'-0"

10'-0"

END ISLAND CURBS

N.T.S.

1'-0"

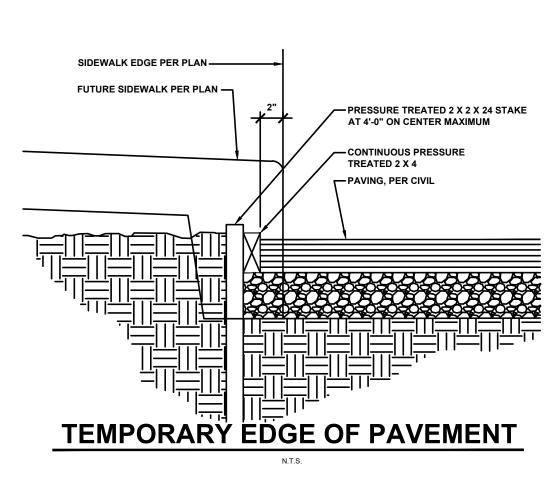
LINES, WHITE

PER PLAN

<u>PLANTER</u> AREA PER

VARIES

LANDSCAPIN



ASPHALT MIXES SHOULD USE PERFORMANCE GRADE BINDER OIL WITH A RATING OF AT LEAST PG64-22 • REFER TO GEOTECHNICAL REPORT PREPARED BY MASER CONSULTING P.A. DATED OCTOBER 21, 2012 ALL PAVEMENT CONSTRUCTION SHALL COMPLY WITH TOWNSHIP ENGINEERING DEPARTMENT REQUIREMENTS **ASPHALT PAVEMENT SECTION STANDARD DUTY**

- 1.5" ASPHALT SURFACE COURSe

2.5" ASPHALT BINDER COURSE

-4" AGGREGATE SUBBASE

- ТАСК СОАТ

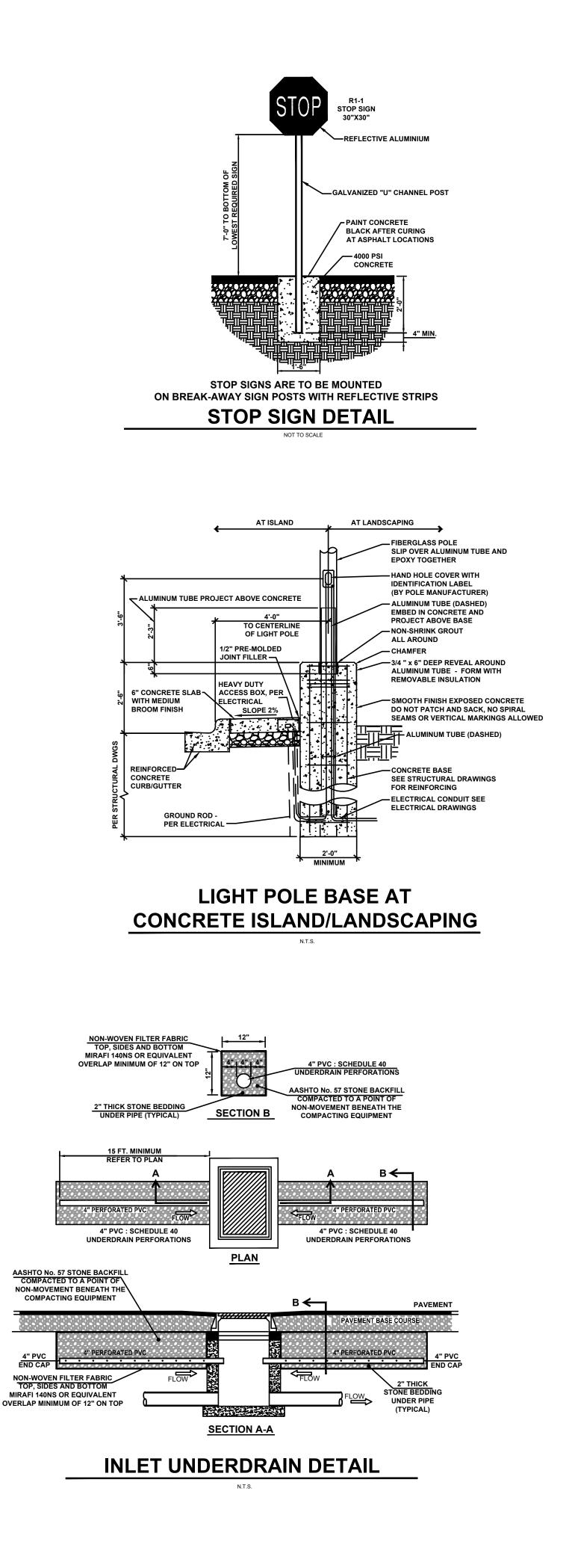
PER COSTCO MASTER SPECIFICATION SECTION 02741

PER COSTCO MASTER SPECIFICATION SECTION 02741

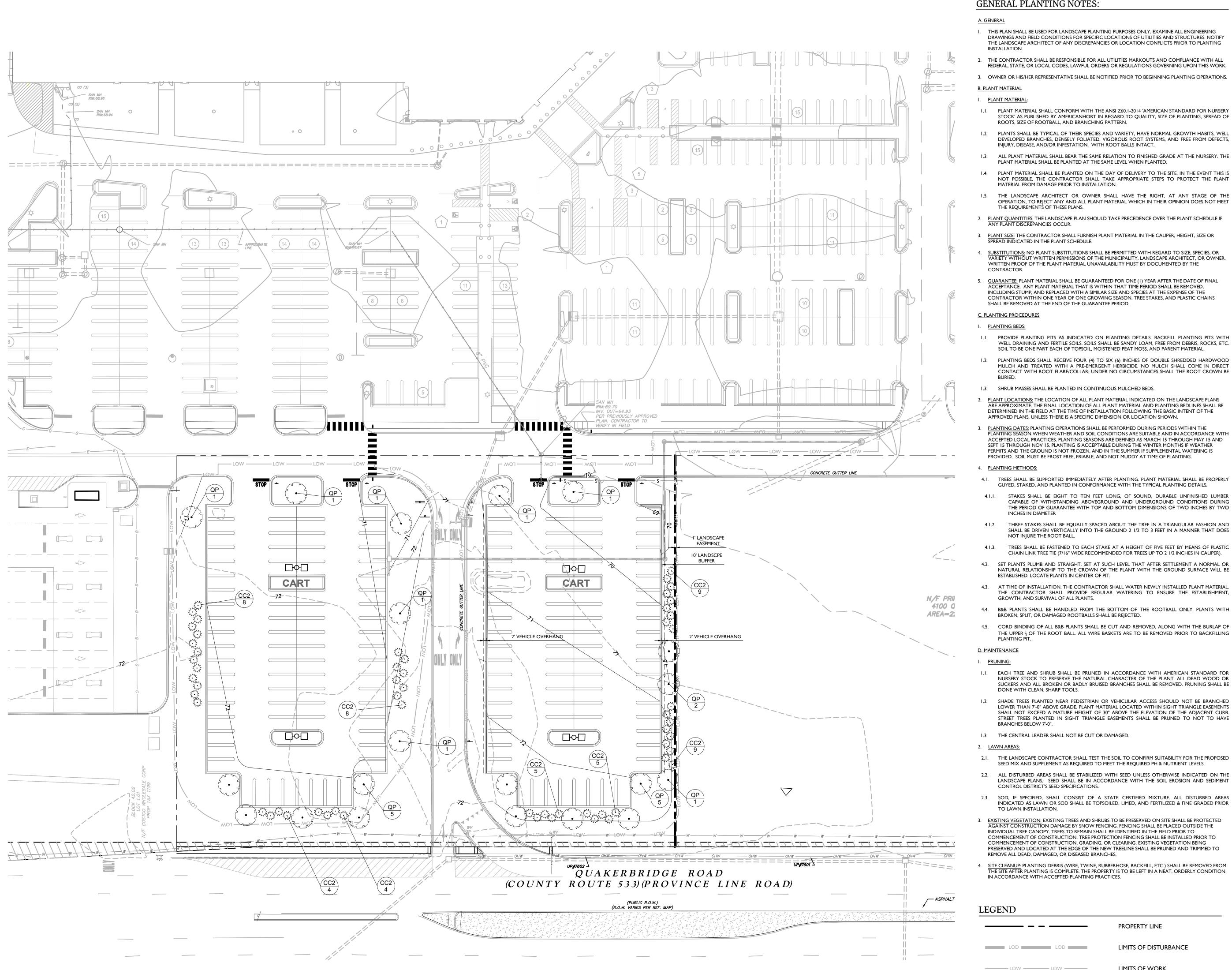
PER COSTCO MASTER SPECIFICATION SECTION 02741

- IN ACCORDANCE WITH COSTCO MASTER SPECIFICATION SECTION 02741

ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL BE



			Ē	n	gir	nee	eri	ng	-		
	www.colliersengineering.com Copyright © 2024. Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design. Doing Business as <u>POTECT YOURSEEF</u> <u>ALL STATES REQUIRE NOTIFICATION OF SUPERVISED DISTURE THE EARTH'S SUPERVISED DISTURE THE EARTH'S SUPERVISED </u>										
	Know what's below. Call before you dig. FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM										
	DRAWN BY DESCRIPTION										
	REV DATE I Rev DATE I 										
	EV DATE DRAWN BY DESCRIPTION										
	Bussell T. McFall, II New Jersey Licensed Professional Engineer License Number: Ge45692 Colliers Engineering & Design, Inc. N.J. C.O.A. #: 24GA27986500									ER	
		AJ(S	SUE	3DI	EVI:	SIC FOR)N	PL	AN		
		µ10	0 C /NS MI	E DU BL BL BL BL BL BL BL BL BL BL BL BL BL	AKI OC	ERI CK Z F 1. OF R C	BRI 420 03 LA	IDC D2 WI	GE	RD	
	Er		eer esig	ing n	C	223 S Ph OLLIER DING BU	ST S75 B Si terlir none: s ENGI JSINES:	ERLI rode uite 1 ng, VA 703. NEERIN S AS MA	rick [10 201 430.4 IG & DE ASER CO	1330 SIGN, I ONSUL	NC. FING
	PROJEC 2 SHEET	23010 TITLE:	ИВЕR: 985А			VING N TE-SUI	BD-D1	LS	<u> </u>	PAP	
NOTE: DO NO						12			STP		



PLANT



GENERAL PLANTING NOTES:

I. THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES MARKOUTS AND COMPLIANCE WITH ALL FEDERAL, STATE, OR LOCAL CODES, LAWFUL ORDERS OR REGULATIONS GOVERNING UPON THIS WORK. 3. OWNER OR HIS/HER REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS.

1.1. PLANT MATERIAL SHALL CONFORM WITH THE ANSI Z60.1-2014 'AMERICAN STANDARD FOR NURSERY STOCK' AS PUBLISHED BY AMERICANHORT IN REGARD TO QUALITY, SIZE OF PLANTING, SPREAD OF ROOTS, SIZE OF ROOTBALL, AND BRANCHING PATTERN.

1.2. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS, AND FREE FROM DEFECTS, INJURY, DISEASE, AND/OR INFESTATION, WITH ROOT BALLS INTACT. 1.3. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AT THE NURSERY. THE

PLANT MATERIAL SHALL BE PLANTED AT THE SAME LEVEL WHEN PLANTED. 1.4. PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY TO THE SITE. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO PROTECT THE PLANT MATERIAL FROM DAMAGE PRIOR TO INSTALLATION.

1.5. THE LANDSCAPE ARCHITECT OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATION, TO REJECT ANY AND ALL PLANT MATERIAL WHICH IN THEIR OPINION DOES NOT MEET THE REQUIREMENTS OF THESE PLANS.

2. <u>PLANT QUANTITIES:</u> THE LANDSCAPE PLAN SHOULD TAKE PRECEDENCE OVER THE PLANT SCHEDULE IF ANY PLANT DISCREPANCIES OCCUR.

3. PLANT SIZE: THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN THE CALIPER, HEIGHT, SIZE OR SPREAD INDICATED IN THE PLANT SCHEDULE.

4. <u>SUBSTITUTIONS:</u> NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES, OR VARIETY WITHOUT WRITTEN PERMISSIONS OF THE MUNICIPALITY, LANDSCAPE ARCHITECT, OR OWNER. WRITTEN PROOF OF THE PLANT MATERIAL UNAVAILABILITY MUST BY DOCUMENTED BY THE

5. GUARANTEE: PLANT MATERIAL SHALL BE GUARANTEED FOR ONE (I) YEAR AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT IS WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING STUMP, AND REPLACED WITH A SIMILAR SIZE AND SPECIES AT THE EXPENSE OF THE CONTRACTOR WITHIN ONE YEAR OF ONE GROWING SEASON. TREE STAKES, AND PLASTIC CHAINS SHALL BE REMOVED AT THE END OF THE GUARANTEE PERIOD.

I.I. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH WELL DRAINING AND FERTILE SOILS. SOILS SHALL BE SANDY LOAM, FREE FROM DEBRIS, ROCKS, ETC. SOIL TO BE ONE PART EACH OF TOPSOIL, MOISTENED PEAT MOSS, AND PARENT MATERIAL. I.2. PLANTING BEDS SHALL RECEIVE FOUR (4) TO SIX (6) INCHES OF DOUBLE SHREDDED HARDWOOD MULCH AND TREATED WITH A PRE-EMERGENT HERBICIDE. NO MULCH SHALL COME IN DIRECT

CONTACT WITH ROOT FLARE/COLLAR; UNDER NO CIRCUMSTANCES SHALL THE ROOT CROWN BE 1.3. SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.

PLANT LOCATIONS: THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BEDLINES SHALL BE DETERMINED IN THE FIELD AT THE TIME OF INSTALLATION FOLLOWING THE BASIC INTENT OF THE APPROVED PLANS, UNLESS THERE IS A SPECIFIC DIMENSION OR LOCATION SHOWN.

PLANTING DATES: PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICES. PLANTING SEASONS ARE DEFINED AS MARCH 15 THROUGH MAY 15 AND SEPT 15 THROUGH NOV 15. PLANTING IS ACCEPTABLE DURING THE WINTER MONTHS IF WEATHER PERMITS AND THE GROUND IS NOT FROZEN, AND IN THE SUMMER IF SUPPLEMENTAL WATERING IS PROVIDED. SOIL MUST BE FROST FREE, FRIABLE, AND NOT MUDDY AT TIME OF PLANTING.

4.1. TREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING. PLANT MATERIAL SHALL BE PROPERLY GUYED, STAKED, AND PLANTED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. 4.1.1. STAKES SHALL BE EIGHT TO TEN FEET LONG, OF SOUND, DURABLE UNFINISHED LUMBER CAPABLE OF WITHSTANDING ABOVEGROUND AND UNDERGROUND CONDITIONS DURING THE PERIOD OF GUARANTEE WITH TOP AND BOTTOM DIMENSIONS OF TWO INCHES BY TWO INCHES IN DIAMETER

THREE STAKES SHALL BE EQUALLY SPACED ABOUT THE TREE IN A TRIANGULAR FASHION AND SHALL BE DRIVEN VERTICALLY INTO THE GROUND 2 1/2 TO 3 FEET IN A MANNER THAT DOES NOT INJURE THE ROOT BALL.

TREES SHALL BE FASTENED TO EACH STAKE AT A HEIGHT OF FIVE FEET BY MEANS OF PLASTIC CHAIN LINK TREE TIE (7/16" WIDE RECOMMENDED FOR TREES UP TO 2 1/2 INCHES IN CALIPER). 4.2. SET PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT AFTER SETTLEMENT A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANTS IN CENTER OF PIT.

4.3. AT TIME OF INSTALLATION, THE CONTRACTOR SHALL WATER NEWLY INSTALLED PLANT MATERIAL. THE CONTRACTOR SHALL PROVIDE REGULAR WATERING TO ENSURE THE ESTABLISHMENT, GROWTH, AND SURVIVAL OF ALL PLANTS. 4.4. B&B PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOTBALL ONLY. PLANTS WITH BROKEN, SPLIT, OR DAMAGED ROOTBALLS SHALL BE REJECTED.

4.5. CORD BINDING OF ALL B&B PLANTS SHALL BE CUT AND REMOVED, ALONG WITH THE BURLAP OF THE UPPER I OF THE ROOT BALL. ALL WIRE BASKETS ARE TO BE REMOVED PRIOR TO BACKFILLING PLANTING PIT

I.I. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL DEAD WOOD OR SUCKERS AND ALL BROKEN OR BADLY BRUISED BRANCHES SHALL BE REMOVED. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.

1.2. SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. PLANT MATERIAL LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. STREET TREES PLANTED IN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT TO HAVE BRANCHES BELOW 7'-0". 1.3. THE CENTRAL LEADER SHALL NOT BE CUT OR DAMAGED.

SEED MIX AND SUPPLEMENT AS REQUIRED TO MEET THE REQUIRED PH & NUTRIENT LEVELS. 2.2. ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEED UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLANS. SEED SHALL BE IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL DISTRICT'S SEED SPECIFICATIONS. 2.3. SOD, IF SPECIFIED, SHALL CONSIST OF A STATE CERTIFIED MIXTURE. ALL DISTURBED AREAS INDICATED AS LAWN OR SOD SHALL BE TOPSOILED, LIMED, AND FERTILIZED & FINE GRADED PRIOR

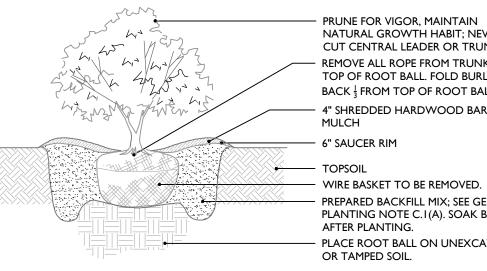
TO LAWN INSTALLATION. 3. EXISTING VEGETATION: EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY SNOW FENCING. FENCING SHALL BE PLACED OUTSIDE THE

INDIVIDUAL TREE CANOPY. TREES TO REMAIN SHALL BE IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING, OR CLEARING. EXISTING VEGETATION BEING PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREELINE SHALL BE PRUNED AND TRIMMED TO REMOVE ALL DEAD, DAMAGED, OR DISEASED BRANCHES.

SITE CLEANUP: PLANTING DEBRIS (WIRE, TWINE, RUBBERHOSE, BACKFILL, ETC.) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. THE PROPERTY IS TO BE LEFT IN A NEAT, ORDERLY CONDITION IN ACCORDANCE WITH ACCEPTED PLANTING PRACTICES.

ND	
	PROPERTY LINE
LOD	LIMITS OF DISTURBANCE
- LOW LOW	LIMITS OF WORK
T SCHEDULE	

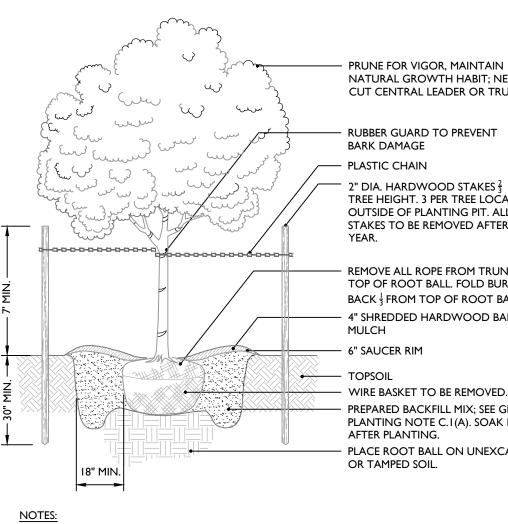
1 SCF	IEDULE						
D	ECIDUOUS TREES	<u>QTY</u>	BOTANICAL NAME / COMMON NAME	CONT	<u>CAL</u>	SIZE	
S S S S S S S S S S S S S S S S S S S	QP	20	QUERCUS PHELLOS / WILLOW OAK	B & B	2.5"-3"	6-7'	
	SHRUB						
	CC2	57	CONTINUS COGGYGRIA / SMOKE TREE	24-30" MIN			



NATURAL GROWTH HABIT; NEVER CUT CENTRAL LEADER OR TRUNK. - REMOVE ALL ROPE FROM TRUNK AN TOP OF ROOT BALL. FOLD BURLAP BACK $\frac{1}{3}$ FROM TOP OF ROOT BALL. - 4" SHREDDED HARDWOOD BARK MULCH - WIRE BASKET TO BE REMOVED. PREPARED BACKFILL MIX; SEE GENER PLANTING NOTE C.I (A). SOAK BAC AFTER PLANTING. — PLACE ROOT BALL ON UNEXCAVAT OR TAMPED SOIL.

<u>NOTES:</u> NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
 PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

SHRUB PLANTING DETAIL



NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

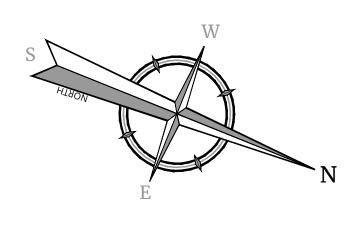
DECIDUOUS TREE PLANTING DETAIL

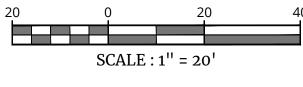
NOTES

I. EXISTING LANDSCAPED AREAS TO REMAIN AND BE PROTECTED.

2. PLANT SCHEDULE UTILIZES JURISDICTIONAL CODE. ADDITIONAL CHANGE MAYBE REQUIRED AFTER INITIAL SUBMISSION.

3. THIS PLAN TO BE UTILIZED FOR LANDSCAPING PURPOSES ONLY.





Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

	Colliers Engineering & Design										
	www.colliersengineering.com Copyright © 2024. Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design. Doing Business as										
	Row what's below. Call before you dig. FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM										
D											
AL FILL ED	BY DESCRIPTION										
	REV DATE DRAWN BY	· ·							· ·	· ·	
ER IK.											
TREE ONE AND AP L. K											
NERAL ACKFILL VATED	> DESCRIPTION										
	REV DATE DRAWN B	DATE DRAWN BY									
5											
	NE\	V JER	SEY I LIC	LICEN CENS	ISED E NU	PRO MBE	FESSI R: GE	ONA 4569	L EN 2 50, IN	GINE	ER
	M	AJO	N.J	. c.o	.А. #: ГЕ VI:	24G	A279	8650		NO	R
				U U		ERI	BRI		GE		
	Т	OW	MI	I SHI ER(LO' IP (CEI	CK Z F 1. OF R C JEI	03 LA OU	WI N'I	REI TY	NC]	E
		Co ngir & D	eer esig	ing ;n	DC	S Ph OLLIER DING BU DR	75 B Si terlir ione: s engil	uite 1 ng, VA 703. NEERIN S AS MA	rick [10 201 430.4 IG & DE ASER CO	66 1330 SIGN, I	NC. TING
	AS S PROJE	HOWI 23010 TITLE:	N MBER: 985A	08/18	C-SIT		IAME: 3D-LA	ND			
OTE: DO NO						L1	B C		STP		

	$+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$ $+^{0.0}$
	+0.0 $+0.0$ $+0.0$ $+0.0$ $+0.0$ $+0.0$ $+0.0$ $+0.0$ $+0.0$ $+0.0$ $+0.0$ $+0.0$
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	$+^{0.1} +^{0.7} +^{1.2} +^{1.3} +^{1.3} +^{1.3} +^{1.3} +^{0.7} +^{0.2} +^{0.8} +^{3} +^{0.2} +^{0.1} +^{0.1} +^{0.0} +^{0.0}$
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	+0.1 + 1.3 + 4.8 + 7.1 + 8.1 + 6.9 + 4.7 + 1.7 + 3.0 + 5.5 + 5.9 + 5.0 + 2.2 + 0.4 + 0.1 + 0.1 + 0.1 + 0.0 + 0.0 + 0.2 + 1.5 + 5.2 + 8.1 + 9.4 + 8.0 + 5.4 + 3.6 + 5.4 + 7.3 + 4.9 + 0.5 + 0.1 + 0.1 + 0.1 + 0.0
	EXISTING PANEL H2 + + + + + + + + + + + + + + + + + + +
$+^{0.0}$ $+^{0.0}$ $+^{0.1}$ $+^{0.1}$ $+^{0.2}$ $+^{0.2}$	1 + 0.6 + 1.8 + 5.0 + 5.4 + 5.8 + 5.5 + 5.2 + 3.4 + 5.3 + 7.4 + 8.0 + 6.7 + 3.9 + 1.2 + 0.4 + 0.2 + 0.1 + 0.1 + 0.1 + 0.0 +
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
+ + + + + + + + + + + + + + + + + + +	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$+^{0.1}$ $+^{0.3}$ $+^{0.6}$ $+^{3.7}$ $+^{2.3}$	+1.8 +2.8 +4.5 +4.8 +5.1 +4.2 +3.4 +3.4 +4.2 +5.2 +4.9 +4.6 +2.9 +2.0 +1.5 +1.5 +1.2 +0.5 +0.3 +0.2 +1.0 +1.3 +1.5 +1.2 +0.5 +0.3 +0.2 +1.5 +1.2 +0.5 +0.3 +0.2 +1.5 +1.5 +1.5 +1.5 +1.5 +1.5 +1.5 +1.5
$+^{0.2} +^{0.4} +^{1.4} +^{4.0} +^{4.8} +^{2.6} +^{0.2} +^{0.5} +^{1.4} +^{3.7} +^{4.6} +^{2.6} +^{3.6} +^{3.7} +^{4.6} +^{2.6} +^{3$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
$\begin{array}{c} + & + & + & + & + & + & + & + & + & + $	$\begin{bmatrix} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $
$+^{0.1}$ $+^{0.1}$ $+^{0.3}$ $+^{3.0}$ $+^{2.2}$	1 + 1.9 + 2.7 + 3.3 + 3.6 + 3.7 + 3.7 + 3.7 + 3.7 + 3.8 + 3.8 + 3.8 + 3.9 + 3.9 + 3.9 + 3.9 + 3.8 +
+0.1 $+0.3$ $+2.2$ $+3.0$ $+2.5$ $+3.6$ $+2.9$ $+1.3$ $+0.3$ $+0.1+0.1$ $+0.2$ $+0.3$ $+2.5$ $+3.6$ $+2.9$ $+1.3$ $+0.3$ $+0.1$	$ \begin{array}{c} +1.9 \\ +1.9 \\ +2.9 \\ +3.7 \\ +4.2 \\ +4.2 \\ +4.2 \\ +4.0 \\ +3.7 \\ +3.7 \\ +3.7 \\ +3.7 \\ +3.7 \\ +4.2 \\ +4.5 \\ +4.5 \\ +5.4 \\ +5.2 \\ +4.9 \\ +3.8 \\ +3.6 \\ +3.6 \\ +3.9 \\ +1.6 \\ +1.9 \\ +$
$ \begin{array}{c} + & + & + & + & + & + & + & + & + & + $	+ + + + + + + + + + + + + + + + + + +
$+^{0.1}$ $+^{0.3}$ $+^{0.9}$ $+^{3.4}$ $+^{4.9}$ $+^{4.3}$ $+^{1.7}$ $+^{0.7}$ $+^{0.5}$	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $
+ 0.1 + 0.3 + 0.7 + 3.8 + 4.2 + 4.1 + 2.0 + 1.2 + 1.3 + 1.2 + 1.3 + 1.4 + 1.5 + 1.5 + 1.6 + 1.5 + 1.5 + 1.6 + 1.5 + 1.6 + 1.5 + 1.5 + 1.6 + 1.5 + 1.5 + 1.6 + 1.5 + 1.	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $
+ + + + + + + + + + + + + + + + + + +	$\begin{array}{c} + & + & + & + & + & + & + & + & + & + $
+ 0.1 + 0.1 + 0.3 + 1.5 + 2.4 + 2.7 + 2.7 + 3.3 + 4.6 + 4.9 + 4.6 + 3.7 + 3.5 + 3.7 + 4.8 + 5.3 + 5.1 + 4.1 + 3.5 + 3.5 + 4.4 + 5.2 + 5.2 + 4.6 + 3.7 + 5.2 + 5.2 + 4.6 + 3.7 + 5.2 + 5.2 + 4.6 + 3.7 + 5.2 + 5.2 + 4.6 + 3.7 + 5.2 + 5.	36 + 4.2 + 5.1 + 6.1 + 6.9 + 6.3 + 5.2 + 4.5 + 4.6 + 4.8 + 4.5 + 4.1 + 3.9 + 4.3 + 4.7 + 4.8 + 4.4 + 3.8 + 3.6 + 3.9 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 4.7 + 4.2 + 3.7 + 3.0 + 5.3 + 4.4 + 5.4 +
+0.1 + 0.2 + 0.3 + 2.5 + 2.9 + 3.1 + 2.8 + 3.7 + 5.2 + 5.5 + 5.2 + 4.0 + 3.7 + 3.9 + 5 + 5.0 + 4.8 + 4.5 + 5.0 + 4.8 + 4.5 + 5.0 + 4.8 + 4.5 + 5.0 + 4.8 + 4.2 + 3.7 + 3.7 + 3.9 + 5.2 + 4.9 + 4.0 + 3.7 + 3.9 + 4.5 + 5.0 + 4.8 + 4.4 + 4.2 + 4.8 + 4.8 + 4.3 +	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
+ 0.2 + 0.5 + 1.3 + 5.1 + 5.1 + 5.1 + 3.2 + 3.6 + 4.0 + 4.3 + 4.1 + 4.0 + 3.7 + 3.7 + 3.7 + 3.7 + 3.8 + 3.	፳፻፳_ ` Დ ! ! ! [] ! ! ! ! ! [U ! ! ! ! ! ! ! ! ! U ! U W ` ` Დ ! ! ! ! ! ! ! ! ! ! ! ! [[] ! ! Დ ` _
+0.2 + 0.5 + 1.7 = 5.0 + 6.1 + 4.5 + 3.4 + 3.4 + 3.4 + 3.7 + 3.9 + 3.7 + 3.6 + 3.5 + 3.6 + 3.5 + 3.8	
+ 0.2 + 0.5 + 1.7 + 4.5 + 5.2 + 4.3 + 3.6 + 3.7 + 4.1 + 4.1 + 3.9 + 3.5 + 3.6 + 3.9 + 4.1 + 4.2 + 4.3 + 4.1 + 4.0 + 3.8 + 3.6 + 3.4 + 4.6 + 4.1 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 4.6 + 4.9 + 3.8 + 3.6 + 3.4 + 3.4 + 3.	5.7 + 3.5 + 3.5 + 2.7 + 2.5
+ 0.2 + 0.4 + 1.0 = 3.2 + 3.3 + 3.4 + 4.9 = 5.4 + 5.0 + 4.0 = 3.2 + 3.2 + 3.6 + 5.1 + 5.6 + 5.5 + 5.0 + 4.4 + 4.9 + 5.7 + 5.8 + 5.3 + 5.5 + 5.0 + 4.4 + 4.9 + 5.7 + 5.8 + 5.3 + 5.5 + 5.0 + 4.4 + 4.9 + 5.7 + 5.8 + 5.3 + 5.5 + 5.0 + 4.4 + 4.9 + 5.7 + 5.8 + 5.3 + 5.5 + 5.0 + 4.4 + 4.9 + 5.7 + 5.8 + 5.3 + 5.5 + 5.0 + 4.0 + 5.1 + 5.0 + 4.0 + 5.1 + 5.0 + 4.0 + 5.1 + 5.0 + 4.0 + 5.1 + 5.0 + 4.0 + 5.1 + 5.0 + 4.0 + 5.1 + 5.0 + 5.	
+ 0.0 + 0.1 + 0.2 + 0.5 + 0.9 + 1.3 + 2.7 + 4.0 + 4.3 + 4.1 + 4.7 + 0 + 4.8 + 3.7 + 3.0 + 3.4 + 4.7 + 5.8 + 3.7 + 3.0 + 3.4 + 4.7 + 5.8	$\begin{array}{c} 40\\ 52\\ 4.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.9\\ +4.4\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.7\\ +3.8\\ +3.7\\ +2.3\\ +3.7\\ +2.3\\ +3.7\\ +2.3\\ +3.9\\ +3.7\\ +2.3\\ +3.9\\ +3.7\\ +2.3\\ +3.9\\ +3.7\\ +2.3\\ +3.9\\ +3.7\\ +2.3\\ +3.9\\ +2.9\\ +3.9$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	3.9 3.1 +3.0 +3.0 +2 7 +2.0 +1.5 +1.0 +0.6 +0.5 +0.5 +0.7 +0.6 +0.4 +0.4 +0.4 +0.5
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}\\ \end{array}\\ \end{array}\\ \end{array}\\ \end{array}\\ \end{array} \end{array} + \begin{array}{c} \end{array} + \begin{array}{c} \end{array}\\ \end{array} + \begin{array}{c} \end{array} + \begin{array}{c} \end{array} + \begin{array}{c} \end{array} + \begin{array}{c} 0.6 \end{array} + \begin{array}{c} 0.3 \end{array} + \begin{array}{c} 0.1 \end{array} + \end{array} + \begin{array}{c} 0.1 \end{array} + \end{array} + \begin{array}{c} 0.1 \end{array} + \end{array} + \end{array} + \begin{array}{c} 0.1 \end{array} + \end{array} + \end{array} + \begin{array}{c} 0.1 \end{array} + \end{array} + \begin{array}{c} 0.1 \end{array} + \end{array} + \end{array} $
+0.1 + 0.2 + 1.0 + 0.1 + 0.2 + 1.0 + 0.1	$ \begin{array}{c} & & & & & & & & & & & & & & & & & & &$
+0.1 + 0.2 + 1.1 + 3.1 + 3.1 + 0.8 + 0.5 + 0.4 + 0.5 + 0.5 + 0.5 + 0.6 + 1.0 + 5.1 + 34.5 + 46.3 + 15.5 + 2.2 + 1.6 + 2.3 + 3.6 + 4.6 + 5.1 + 9 + 4.4 + 2.5 + 5.6 + 5.3 + 1.0 + 5.3 + 1.0 + 1.	$ \begin{array}{c} & & & & & \\ \hline & & & & \\ \hline & & & & \\ \hline & & & &$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 4.6 \\ + 4.3 \\ + 4.6 \\ + 4.6 \\ + 1.6 \\ + 2.8 \\ + 1.6 \\ + 0.8 \\ + 0.3 \\ + 0.1 \\ + 0.8 \\ + 0.1 \\ + 0.1 \\ + 0.8 \\ + 0.1 \\ +$
+ 0.0 + 0.2 + 0.8 + 2.2 + 0.5 + 0.	$\frac{1}{4.4} + 4.3 + \frac{4.7}{4.5} + \frac{5.0}{4.4} + 7 + 4.\frac{1}{4.4} + \frac{2}{1.6} + \frac{0.8}{4.6} + \frac{0.3}{4.6} + \frac{0.3}{4$
+0.0 + 0.2 + 0.9 + 2.6 + 1.4 + 3.9 + 0.5 + 0.7 + 1.7 + 3.2 + 3.8 + 4.9 + 4.1 + 3.4 + 2.8 + 5.6 + 7.0 + 3.1 + 0 + 1.2 + 2.3 + 5.3 + 4.8 + 2.8 + 5.6 + 7.0 + 3.1 + 0 + 1.2 + 2.3 + 5.3 + 4.8 + 2.3 + 5	4.7 + 4.3 + 4.8 + 6.4 + 5.3 + 4.1 + 2.8 + 1.6 + 0.7 + 0.3 + 0.1
+0.0 + 0.2 + 1.0 + 2.9 + 1.2 + 3.7 + 10 + 0.4 + 0.3 + 0.3 + 0.8 + 1.1 + 0.8 + 0.4 + 0.7 + 0.8 + 0.6	4.9 + 4.2 + 4 + 4.5 + 4.1 + 4.5 + 4.1 + 4.5 + 4.1 + 4.5 + 4.1 + 1.3 + 0.6 + 0.2 + 0.1
	4.7 - 3.9 + 4.1 + 4.5 + 4.1 + 3.6 + 2.4 + 1.3 + 0.6 + 0.2 + 0.1 3.9 + 3.0 + 2.9 + 3.0 + 2.9 + 2.6 + 1.8 + 1.0 + 0.5 + 0.2 + 0.1
	2.9 $+1.8$ $+1.7$ $+1.7$ $+1.7$ $+1.4$ $+1.1$ $+0.7$ $+0.4$ $+0.2$ $+0.1$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.8 + 1.0 + 0.8 + 0.8 + 0.7 + 0.5 + 0.4 + 0.2 + 0.1 + 0.1
+0.0 + 0.1 + 0.2 + 0.3 + 0.1 + 0.0	0.4 + 0.2 + 0.1
$+^{0.0} +^{0.0} +^{0.1} +^{0.1} +^{0.1} +^{0.0} +^{0$	

SITE PLAN SCALE: $1^{"} = 50^{'} - 0^{"}$

SITE PLAN NOTES:

 NEW POLE MOUNTED FIXTURES, E.C. TO PROVIDE NEW POLE FIXTURE PER LIGHTING SCHEDULE ON THIS SHEET AND POWER FROM EXISTING POLE, WIRE AS SHOWN.
 EXISTING POLE TO REMAIN

LOAD CALCULATIONS

	EXISTING LOAD	ADDED LOAD	TOTAL LOAD	MAX VD
H2/40	2.1KVA(7.58A)	0.65KVA(2.35A)	2.75KVA(9.93A)	1.4%
H1/31	2.53KVA(9.13A)	0.65KVA(2.35A)	3.18KVA(11.48A)	2.0%

|--|

ALL L	lGHT	FIXTURES	SHALL	HAVE	FACTORY	INSTALLED	DISC	ONNECTED	MEANS	PER	LATEST	NEC	CODE	

TYPE	MANUFACTURER	NUMBER	LAMPS	MOUNT	WATT	REMARKS	
P	COOPER	GLEON-SA8B-740-U-5WQ	LED	VALMONT FIBERGLASS/ FIBERGLASS POLE	325	30' ABOVE FINISHED GRADE. ROUND TAPERED FIBERGLASS/FIBERGLASS POLE (VALMONT COSTCO-100-10- 30 POLE). NUMBER OF HEADS SHALL BE PER PLA SEE DETAIL SHEET SE-1. FIXTURE SHAL BE POWDER PAINTED, ELECTRO-STATIC APPLICATION POLE SHALL HAVE A MIN EPA=10 FOR 100 MPH WIND	
PE	EXISTING COOPER	GLEON-AE-08-LED-E1-5WQ-BZ	LED	VALMONT FIBERGLASS/ FIBERGLASS POLE	421	EXISTING	
Œ	EXISTING COOPER	GLEON-AE-08-LED-E1-T3-BZ	LED	VALMONT FIBERGLASS/ FIBERGLASS POLE	421		
€	EXISTING COOPER	GLEON-AE-08-LED-E1-5NQ-BZ	LED	VALMONT FIBERGLASS/ FIBERGLASS POLE	421		
Æ	EXISTING COOPER	GLEON-AE-08-LED-E1-RW-BZ	LED	VALMONT FIBERGLASS/ FIBERGLASS POLE	421		

