MONUMENT DISPLAY BLOCK 140, LOT 60.01

PRELIMINARY/FINAL MINOR SITE PLAN TOWNSHIP OF NORTH BRUNSWICK, MIDDLESEX COUNTY, NEW JERSEY

TOWNSHIP OF NORTH BRUNSWICK				
ZONING DISTRICT: C-2 GENERAL COMMERCIAL DISTRICT				
SCHEDULE OF REQUIREMENTS:				
MIN. LOT AREA MIN. LOT WIDTH MIN. LOT DEPTH MIN. FRONT YARD	REQUIRED 20,000 SF 150' 100'	EXISTING 1,616,333 SF 1,885' 240'	PROVIDED 1,616,333 SF 1,855' 240'	
ADVERTISING STRUCTURE	75' 20'	112'/51' 38'	112'/51' 15'	
PRINCIPAL ACCESSORY MIN. REAR YARD	10' 5'	48' N/A	48' N/A	
PRINCIPAL ACCESSORY MAX. PRINCIPAL BUILDING COVERAGE	35' 5' 40%	93' N/A 26.9%	93' N/A 26.9%	
MAX. PRINCIPAL BUILDING HEIGHT MAX. LOT COVERAGE	40', 3 STORIE 80%	S 25', 1 STORY 77.8%	25', 1 STORY 77.9%	
			11.070	

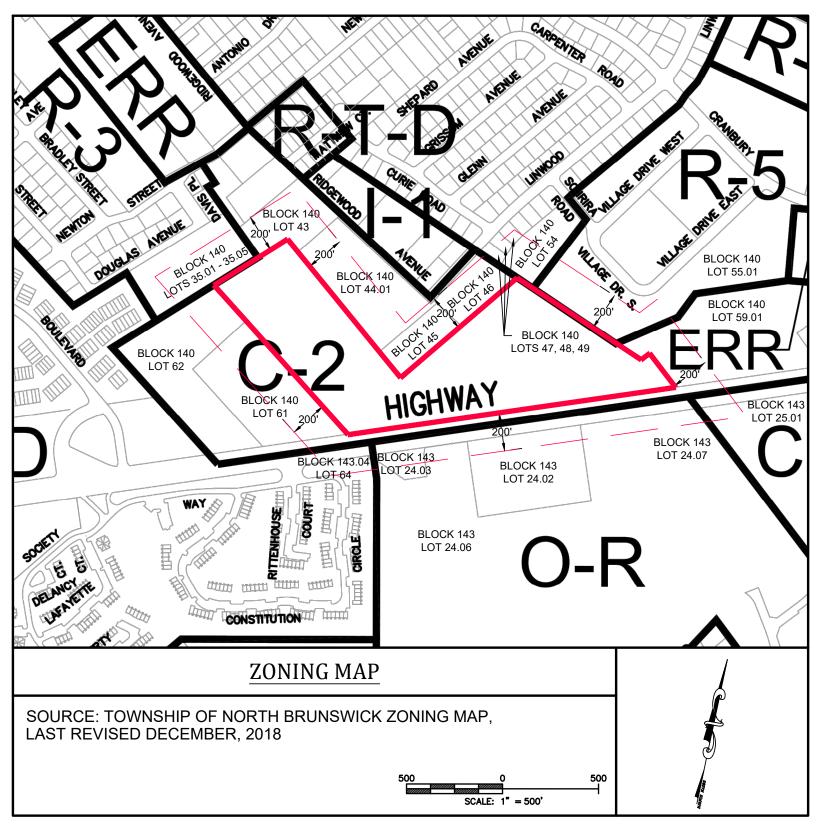
PER TOWNSHIP OF NORTH BRUNSWICK ZONING CODE CHAPTER 205, ARTICLE XIV, SECTION 205-68

		A LIST OF OWNERS WITHIN 200 FEET OF BLOCK	
BLOCK	LOT	OWNERS	PROPERTY ADDRESS
143	24.07	TURN BRIGHT LLC	55 FIDELITY PLAZA
		7 SONOMA COURT	NORTH BRUNSWICK, NJ 08902
1 1 0	FF 04	OLD BRIDGE, NJ 08857	
140	55.01		
		911 VILLAGE DRIVE EAST NORTH BRUNSWICK, NJ 08902	NORTH BRUNSWICK, NJ 08902
143.04	64	SOCIETY HILL CONDO ASSOCIATION	PENNSYLVANIA WAY
140.04	04	PENNSYLVANIA WAY	NORTH BRUNSWICK, NJ 08902
		NORTH BRUNSWICK NJ, 99999	
140	59.01	ADS NORTH VILLAGE LLC	869-891 ROUTE 1
		911 VILLAGE DRIVE EAST	NORTH BRUNSWICK, NJ 08902
		NORTH BRUNSWICK, NJ 08902	
140	61	KAMAS PROPERTIES LLC	999 ROUTE 1
		180 RIVER ROAD	NORTH BRUNSWICK, NJ 08902
1 1 0	40	SUMMIT, NJ 07901	
140	49		
		992 LINWOOD PLACE NORTH BRUNSWICK, NJ 08902	NORTH BRUNSWICK, NJ 08902
143	24.06	NORTH BRUNSWICK BUSINESS PARK LLC	100 FIDELITY PLAZA
140	24.00	371 HOES LANE SUITE 201	NORTH BRUNSWICK, NJ 08902
		PISCATAWAY, NJ 08854	
140	35.01	BATRA POONAM	1170 DOUGLAS AVENUE
		14 GREENVIEW DRIVE	NORTH BRUNSWICK, NJ 08902
		SCOTCH PLAINS, NJ 07076	
140	62	ASHI HOLDINGS LLC	1055 ROUTE 1
		90 MERRICK AVENUE 9TH FLOOR	NORTH BRUNSWICK, NJ 08902
140	46	EAST MEADOW, NY 11554 KIMCO NORTH BRUNSWICK 617 INC	901-993 ROUTE 1
140	40	ASSD WITH B140 L60.01	NORTH BRUNSWICK, NJ 08902
		XXXXXXXXXX 99999	
143	24.03	NORTH BRUNSWICK BUSINESS PARK LLC	ROUTE 1 JUGHANDLE
		371 HOES LANE SUITE 201	NORTH BRUNSWICK, NJ 08902
		PISCATAWAY, NJ 08854	
140	54	NORTH BRUNSWICK TOWNSHIP	SCHIRRA ROAD
		710 HERMANN ROAD	NORTH BRUNSWICK, NJ 08902
1 1 0	44.04	NORTH BRUNSWICK, NJ 08902	
140	44.01	KIMCO NORTH BRUNSWICK 617 INC ASSD WITH B140 L60.01	901-993 ROUTE 1 NORTH BRUNSWICK, NJ 08902
		XXXXXXXXXXXXX 99999	NORTH BRUNSWICK, NJ 00902
140	47	AKEY, ANTHONY & SADIE	1004 LINWOOD PLACE
		1004 LINWOOD PLACE	NORTH BRUNSWICK, NJ 08902
		NORTH BRUNSWICK, NJ 08902	
140	48	COSTA, GEORGE	998 LINWOOD PLACE
		998 LINWOOD PLACE	NORTH BRUNSWICK, NJ 08902
		NORTH BRUNSWICK, NJ 08902	
140	43	CIP ONE LLC	832 RIDGEWOOD AVENUE
		8 LONG WAY HOPEWELL, NJ 08525	NORTH BRUNSWICK, NJ 08902
140	35.05	VEDULA, VENKATESWAR & VANI	1202 DOUGLAS AVENUE
140	00.00	1202 DOUGLAS AVENUE	NORTH BRUNSWICK, NJ 08902
		NORTH BRUNSWICK, NJ 08902	
140	45	KIMCO NORTH BRUNSWICK 617 INC	901-993 ROUTE 1
		ASSD WITH B140 L60.01	NORTH BRUNSWICK, NJ 08902
		XXXXXXXXXX 99999	
140	35.04	TUMMA, SANDILYA & PATEL, HETAL N	1194 DOUGLAS AVENUE
		1194 DOUGLAS AVENUE	NORTH BRUNSWICK, NJ 08902
1 1 0	25.00	NORTH BRUNSWICK, NJ 08902	
140	35.02	AZCONA, ERNESTO J & TORRES, SONIA 1178 DOUGLAS AVENUE	
		NORTH BRUNSWICK, NJ 08902	NORTH BRUNSWICK, NJ 08902
140	35.03	RANA, PARESH	1186 DOUGLAS AVENUE
	00.00	1186 DOUGLAS AVENUE	NORTH BRUNSWICK, NJ 08902
		NORTH BRUNSWICK, NJ 08902	
143	25.01	BRUNS CIR DEV LLC	650 SHOPPES BOULEVARD
		6 PROSPECT STREET SUITE 2A	NORTH BRUNSWICK, NJ 08902
		MIDLAND PARK, NJ 07432	
143	24.02	NORTH BRUNSWICK BUSINESS PARK LLC	300 FIDELITY PLAZA
		371 HOES LANE SUITE 201 PISCATAWAY NJ 08854	NORTH BRUNSWICK, NJ 08902

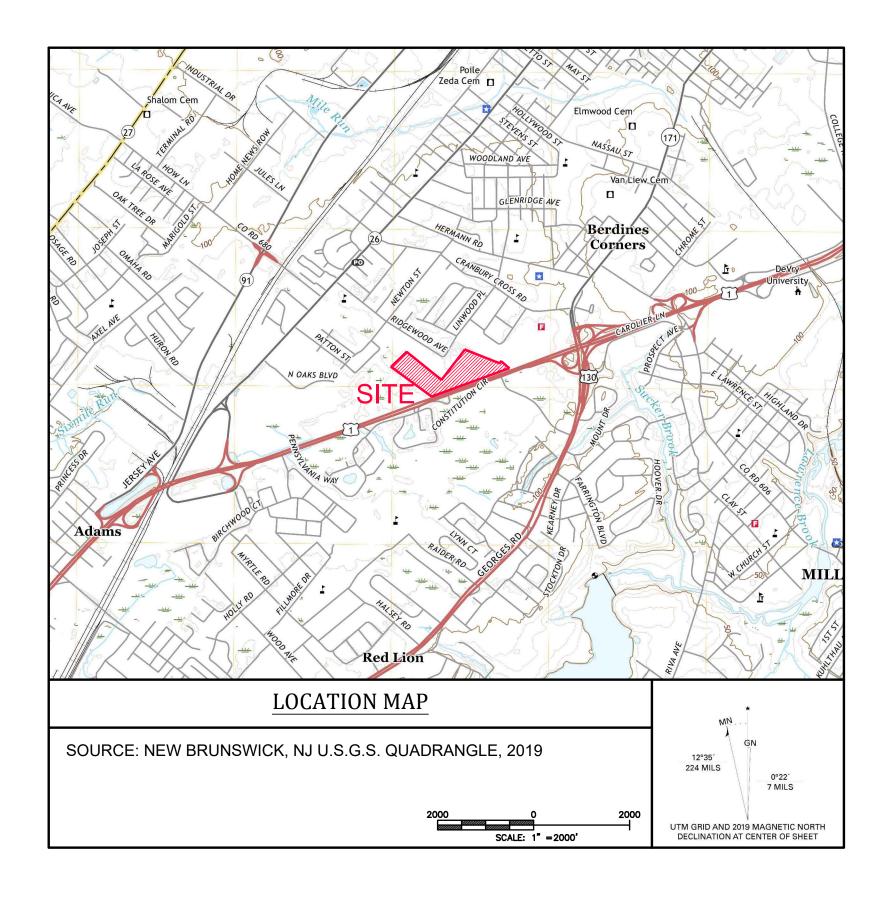
PISCATAWAY, NJ 08854



RE FRUFRIETART AND SHALL NOT DE CUPIED OR IZATION FROM APEX DESIGN + ENGINEERING GROUP, LY APPROVED, SIGNED AND SEALED PLANS SHALL BE FOR CONSTRUCTION PURPOSES. APEX DESIGN + ENGINEERING GROUP, LLC



SIGNATURE BL	OCK
APPLICATION NO.	
МАР	46
DISTRICT	1214
BLOCK, LOT	140, 60.01
ZONE GENERAL OFFICE DISTRIC	CT (C-2)
I HEREBY CERTIFY THAT I HAVE THIS PLAN AND THAT ALL DIMEN INFORMATION ARE CORRECT.	
MICHAEL J. BOWKER, PE PRINCIPAL NJ LICENSE NO 57511	DATE
I HAVE REVIEWED THIS PLAN AN THAT IT MEETS ALL CODES AND UNDER MY JURISDICTION.	
CHARLES CARLEY, PE TOWNSHIP ENGINEER	DATE
APPROVED BY THE BOARD OF A OF THE TOWNSHIP OF NORTH B	
FINAL DATE	
CHAIRMAN, MARK MCGRATH	DATE
SECRETARY, KRISTEN OLCSVA	/ DATE



DRAWING INDEX	

DRAWING No.	DRAWING TITLE	DATE
1	COVER SHEET	08-09-2022
2	EXISTING CONDITIONS & DEMOLITION PLAN	08-09-2022
3	PROPOSED CONDITIONS & UTILITY PLAN	08-09-2022
4	SOIL EROSION & SEDIMENT CONTROL PLAN	08-09-2022
5	CONSTRUCTION DETAILS & NOTES	08-09-2022
6	LANDSCAPE & LIGHTING PLAN	08-09-2022
SUPPLEMENTA	L DRAWINGS (INCLUDED WITH SUBMISSION):	
1	BOUNDARY & TOPOGRAPHIC SURVEY	09-22-2022

08-09-2022 08-09-2022 08-09-2022 08-09-2022 08-09-2022

09-22-2022

LAST REVISED	2
05-02-2023	
05-02-2023	
05-02-2023	
05-02-2023	
05-02-2023	
05-02-2023	

LOT COVERAGE SUMMARY

EXISTING IMPERVIOUS COVERAGE: BUILDING DRIVEWAY/PARKING AREA WALKS WALLS TOTAL	741,508 78,833 2,574	SF
PROPOSED IMPERVIOUS COVERAGE: BUILDING DRIVEWAY/PARKING AREA WALKS MONUMENT DISPLAY WALLS	741,508 78,833 1,764 2,574	SF SF SF
TOTAL <u>MONUMENT DISPLAY AREA SUMMARY:</u> TOTAL <u>BASIN VOLUME SUMMARY:</u> EXISTING STORAGE CAPACITY <u>PROPOSED STORAGE CAPACITY</u>	1,259,094 571.8 132,632 134,101	CF
ADDITIONAL STORAGE CAPACITY	1,469	CF

WILKINSON & ASSOCIATES, INC. 1220 VALLEY FORGE ROAD, SUITE 22 PHOENIXVILLE, PA 19460 PHONE: 610.415.1220 ATTN: TIMOTHY B. JOHNSON, L.S.

ENGINEER **APEX DESIGN + ENGINEERING GROUP** 1000 CONSHOHOCKEN ROAD, SUITE 202 CONSHOHOCKEN, PA 19428 PHONE: 610.234.2406 ATTN: MICHAEL J. BOWKER, P.E.

KIMCO NORTH BRUNSWICK 617 INC 500 NORTH BROADWAY SUITE 201 JERICHO, NY 11753

APPLICANT 901-99 L NORTH BRUNSWICK LAND HOLDINGS, LLC 3400 WEST CHESTER PIKE SUITE 100 NEWTOWN SQUARE, PA 19073



CHAPTER 205-102 A., GENERAL REGULATIONS UNLESS OTHERWISE PROVIDED FOR, ALL SIGNS SHALL RELATE TO THE PREMISES ON WHICH THEY ARE ERECTED APPLICANT REQUESTS RELIFE TO PLACE A MONUMENT DISPLAY ADVERTISING OFE-PREMISES BUSINESSES ON SIT

CHAPTER 205-103 D., PROHIBITED SIGN SIGNS ADVERTISING A PRODUCT OR SERVICE NOT SOLD ON THE PREMISES, SIGNS ADVERTISING OR DIRECTING ATTENTION TO NOTHER PREMISES AND ANY OTHER SIGN NOT RELATED TO THE PREMISES ON WHICH THE SIGN IS ERECTED

APPLICANT REQUESTS RELIEF TO PLACE A MONUMENT DISPLAY ADVERTISING OFF-PREMISES BUSINESSES ON SITE

CHAPTER 205-105 I (1).. PERMITTED SIGNS IN NONRESIDENTIAL DISTRICT BILLBOARDS ARE A PERMITTED USE ONLY IN THE I-1 INDUSTRIAL ZONING DISTRIC

APPLICANT REQUESTS RELIEF TO PLACE A MONUMENT DISPLAY IN THE C-2 ZONING DISTRICT

"C" OR BULK VARIANCES REQUESTEI

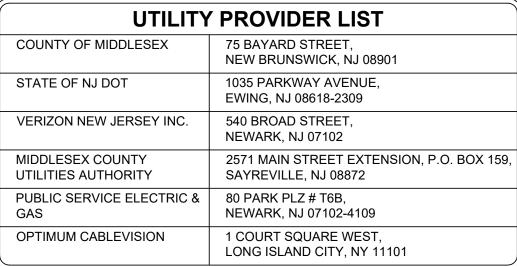
RESIDENTIAL ZONE LINE.

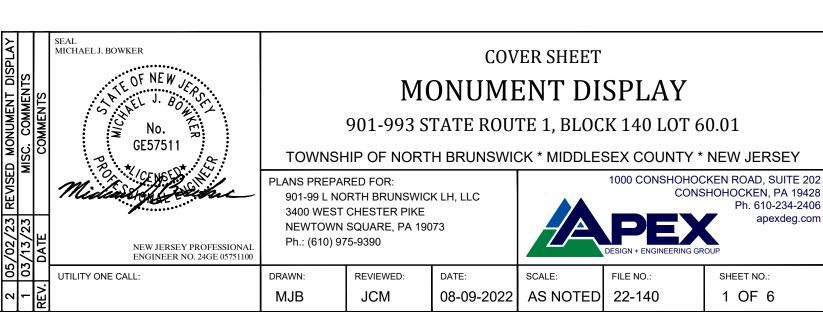
CHAPTER 205-68 (A), DEVELOPMENT STANDARDS IN THE C-2 GENERAL COMMERCIAL DISTRICT MINIMUM FRONT YARD SETBACK: 75 FEET FROM U.S. ROUTE 1 AND U.S. ROUTE 130 AND 60 FEET FROM ALL OTHER STREETS. APPLICANT REQUESTS RELIEF TO PLACE MONUMENT DISPLAY WITHIN THE REQUIRED 75 FEET FRONT YARD

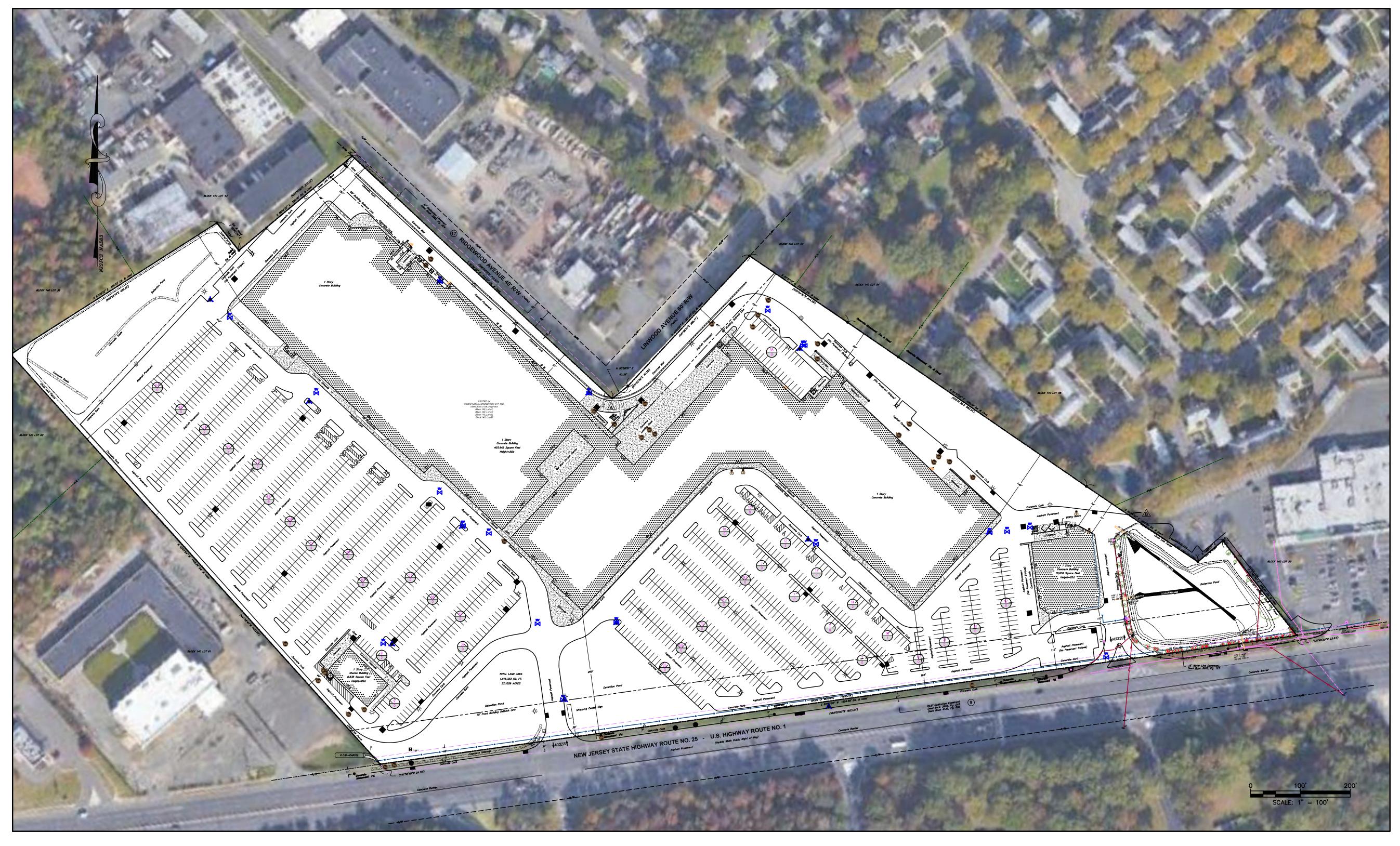
CHAPTER 205-105 I (2), PERMITTED SIGNS IN NONRESIDENTIAL DISTRICT BILLBOARDS SHALL NOT BE LESS THAN 20 FEET FROM THE RIGHT-OF-WAY LINE APPLICANT REQUESTS RELIEF TO PLACE ADVERTISING STRUCTURE CLOSER THAN 20 FEET FROM THE RIGHT-OF-WAY LINE.

CHAPTER 205-105 I (8), PERMITTED SIGNS IN NONRESIDENTIAL DISTRICTS BILLBOARDS SHALL NOT BE CLOSER THAN 500 FEET FROM A RESIDENTIAL ZONE LINE APPLICANT REQUESTS RELIEF TO PLACE ADVERTISING STRUCTURE CLOSER THAN 500 FEET FROM THE NEIGHBORING R-5







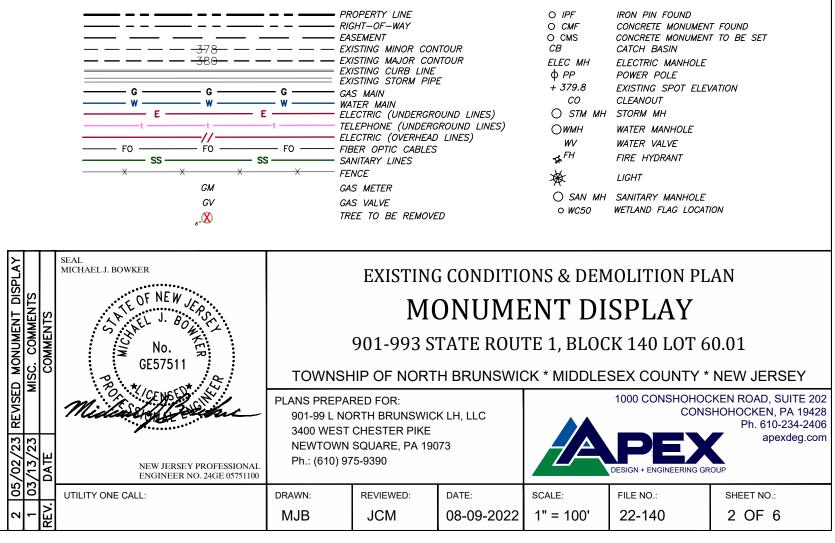


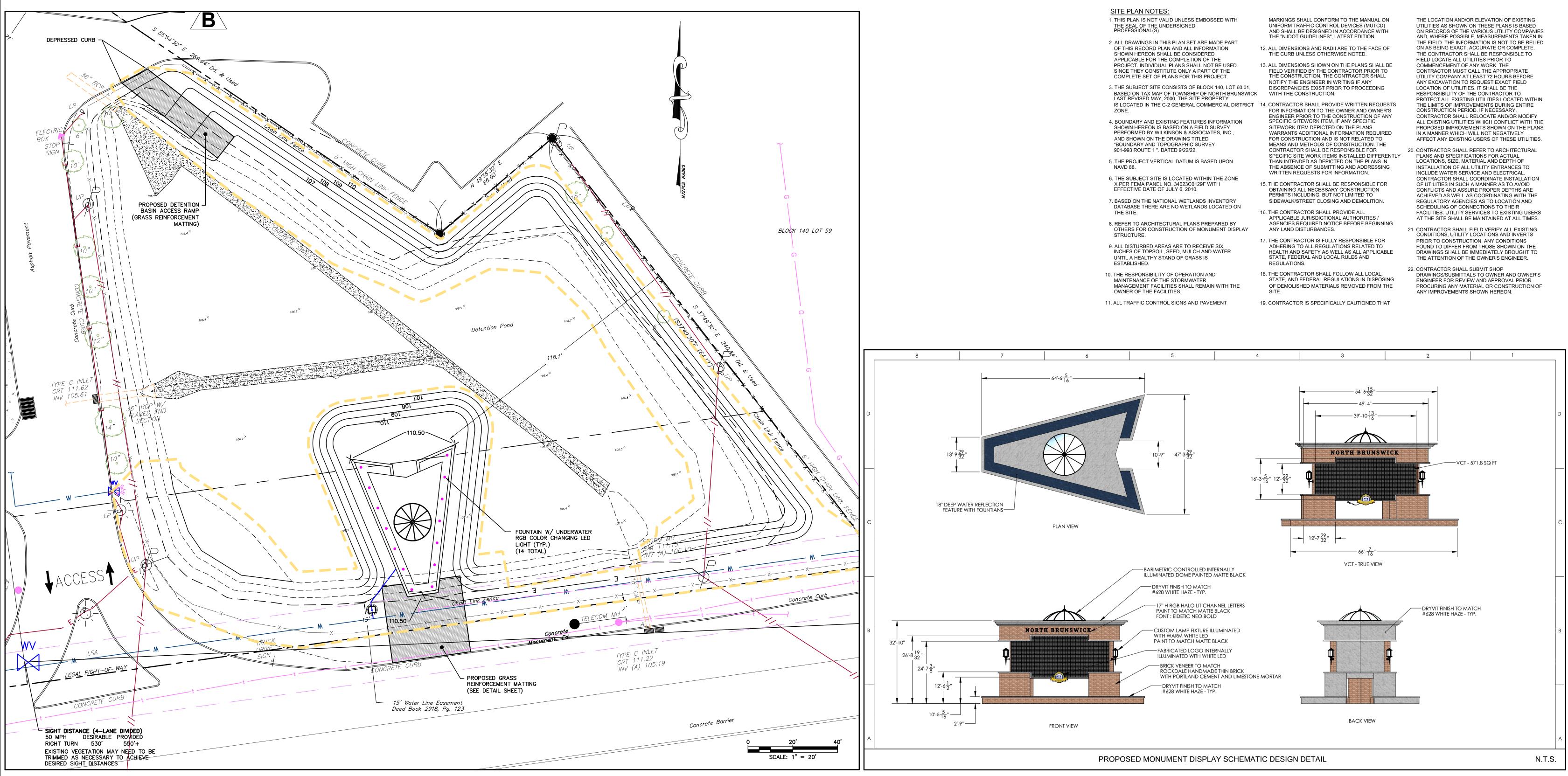


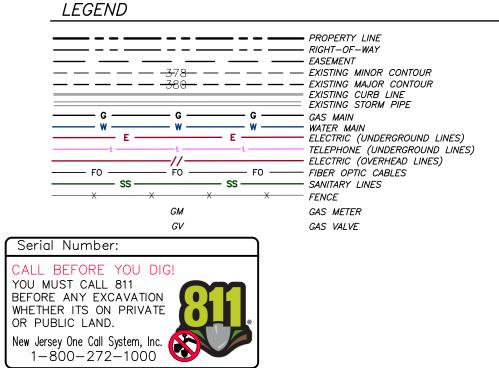
COPYRIGHT: THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM APEX DESIGN + ENGINEERING GROUP, LLC. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. \bigcirc APEX DESIGN + ENGINEERING GROUP, LLC \bigcirc \PROJECTS\2022\22140\DWG\22140

		TOWNSHIP OF NO	RTH BRUNSW	ICK	
	ZONING DISTRICT: C-2 GENERAL COMMERCIAL DISTRICT				
	SCHEDULE OF REG	QUIREMENTS:	REQUIRED	EXISTING	PROVIDED
	MIN. LOT AREA MIN. LOT WIDTH		20,000 SF 150'	1,616,333 SF 1,885'	
	MIN. LOT DEPTH MIN. FRONT YARD		100'	240'	240'
	PRINCIPAL ADVERTISING S MIN. SIDE YARD	TRUCTURE	75' 20'	112'/51' 38'	112'/51' 15'
	PRINCIPAL		10' 5'	48' N/A	48' N/A
	MIN. REAR YARD PRINCIPAL		35'	93'	93'
	ACCESSORY MAX. PRINCIPAL BL	JILDING COVERAGE	5' 40%	N/A 26.9%	N/A 26.9%
	MAX. PRINCIPAL BU MAX. LOT COVERA	JILDING HEIGHT GE	40', 3 STORIES 80%	6 25', 1 STORY 77.8%	25', 1 STORY 77.9%
	PER TOWNSHIP OF NORT	H BRUNSWICK ZONING CODE CHAPTE	ER 205, ARTICLE XIV, SI	ECTION 205-68.	
THE	FOLLOWING IS A L	IST OF OWNERS WITHIN 200	FEET OF BLOCK	140 LOT 60.01:	
	OCK LOT	OWNERS TURN BRIGHT LLC		PROPERTY A 55 FIDELITY I	DDRESS
43	24.07	7 SONOMA COURT OLD BRIDGE, NJ 08857			NSWICK, NJ 08902
40	55.01	ADS NORTH VILLAGE LLC 911 VILLAGE DRIVE EAST		VILLAGE DRI NORTH BRUN	VE EAST NSWICK, NJ 08902
43	.04 64	NORTH BRUNSWICK, NJ 08 SOCIETY HILL CONDO ASS PENNSYLVANIA WAY	OCIATION	PENNSYLVAN NORTH BRUN	NIA WAY NSWICK, NJ 08902
40	59.01	NORTH BRUNSWICK NJ, 99 ADS NORTH VILLAGE LLC 911 VILLAGE DRIVE EAST	999	869-891 ROU NORTH BRUN	TE 1 NSWICK, NJ 08902
40	61	NORTH BRUNSWICK, NJ 08 KAMAS PROPERTIES LLC 180 RIVER ROAD	902	999 ROUTE 1 NORTH BRUN	NSWICK, NJ 08902
40	49	SUMMIT, NJ 07901 HABER, GEORGE 992 LINWOOD PLACE		992 LINWOOI	·
43	24.06	NORTH BRUNSWICK, NJ 08 NORTH BRUNSWICK BUSIN		100 FIDELITY	PLAZA
40	35.01	371 HOES LANE SUITE 201 PISCATAWAY, NJ 08854 BATRA POONAM		1170 DOUGLA	
40	62	14 GREENVIEW DRIVE SCOTCH PLAINS, NJ 07076 ASHI HOLDINGS LLC		1055 ROUTE	
40	46	90 MERRICK AVENUE 9TH F EAST MEADOW, NY 11554 KIMCO NORTH BRUNSWICH		901-993 ROU	NSWICK, NJ 08902
43	24.03	ASSD WITH B140 L60.01 XXXXXXXXXXX 99999 NORTH BRUNSWICK BUSIN	IESS PARK LLC	NORTH BRUN	NSWICK, NJ 08902
		371 HOES LANE SUITE 201 PISCATAWAY, NJ 08854		NORTH BRUN	NSWICK, NJ 08902
40	54	NORTH BRUNSWICK TOWN 710 HERMANN ROAD NORTH BRUNSWICK, NJ 08	902		NSWICK, NJ 08902
40	44.01	KIMCO NORTH BRUNSWICH ASSD WITH B140 L60.01 XXXXXXXXXX 99999	K 617 INC	901-993 ROU NORTH BRUN	TE 1 NSWICK, NJ 08902
40	47	AKEY, ANTHONY & SADIE 1004 LINWOOD PLACE NORTH BRUNSWICK, NJ 08	902	1004 LINWOC NORTH BRUN	DD PLACE NSWICK, NJ 08902
40	48	COSTA, GEORGE 998 LINWOOD PLACE		998 LINWOOI NORTH BRUN	D PLACE NSWICK, NJ 08902
40	43	NORTH BRUNSWICK, NJ 08 CIP ONE LLC 8 LONG WAY	902		OOD AVENUE NSWICK, NJ 08902
40	35.05	HOPEWELL, NJ 08525 VEDULA, VENKATESWAR & 1202 DOUGLAS AVENUE		1202 DOUGLA	AS AVENUE NSWICK, NJ 08902
40	45	NORTH BRUNSWICK, NJ 08 KIMCO NORTH BRUNSWICH ASSD WITH B140 L60.01		901-993 ROU NORTH BRUN	TE 1 SWICK, NJ 08902
40	35.04	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	L, HETAL N	1194 DOUGLA	·
40	35.02	NORTH BRUNSWICK, NJ 08 AZCONA, ERNESTO J & TO		1178 DOUGLA	AS AVENUE
40	35.03	1178 DOUGLAS AVENUE NORTH BRUNSWICK, NJ 08 RANA, PARESH	902	1186 DOUGLA	
12	25.01	1186 DOUGLAS AVENUE NORTH BRUNSWICK, NJ 08 BRUNS CIP DEVILLO	902		SWICK, NJ 08902
43	25.01	BRUNS CIR DEV LLC 6 PROSPECT STREET SUIT MIDLAND PARK, NJ 07432		NORTH BRUN	S BOULEVARD NSWICK, NJ 08902
43	24.02	NORTH BRUNSWICK BUSIN 371 HOES LANE SUITE 201 PISCATAWAY, NJ 08854	IESS PARK LLC	300 FIDELITY NORTH BRUN	PLAZA NSWICK, NJ 08902









O IPF

O CMF

O CMS *CB*

ф *РР*

+ 379.8

 $\bigcirc WMH$

WV

-≴^{,FH}

XXX

СО

IRON PIN FOUND

CATCH BASIN

POWER POLE

WATER MANHOLE

WATER VALVE

FIRE HYDRANT

⊙ WC50 WETLAND FLAG LOCATION

LIGHT

○ SAN MH SANITARY MANHOLE

CLEANOUT

ELEC MH ELECTRIC MANHOLE

○ STM MH STORM MH

CONCRETE MONUMENT FOUND

EXISTING SPOT ELEVATION

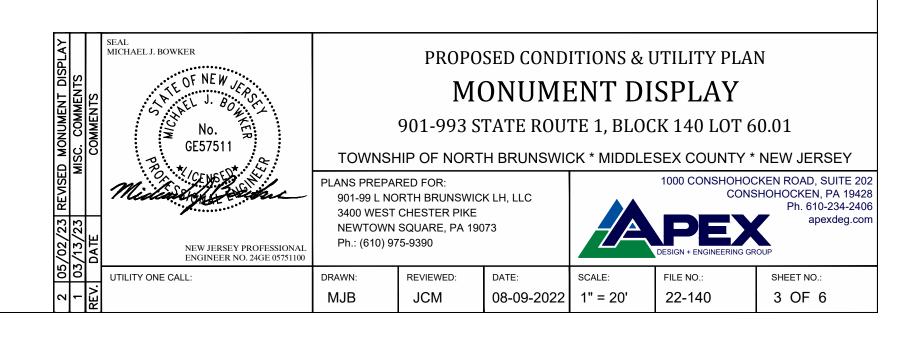
CONCRETE MONUMENT TO BE SET

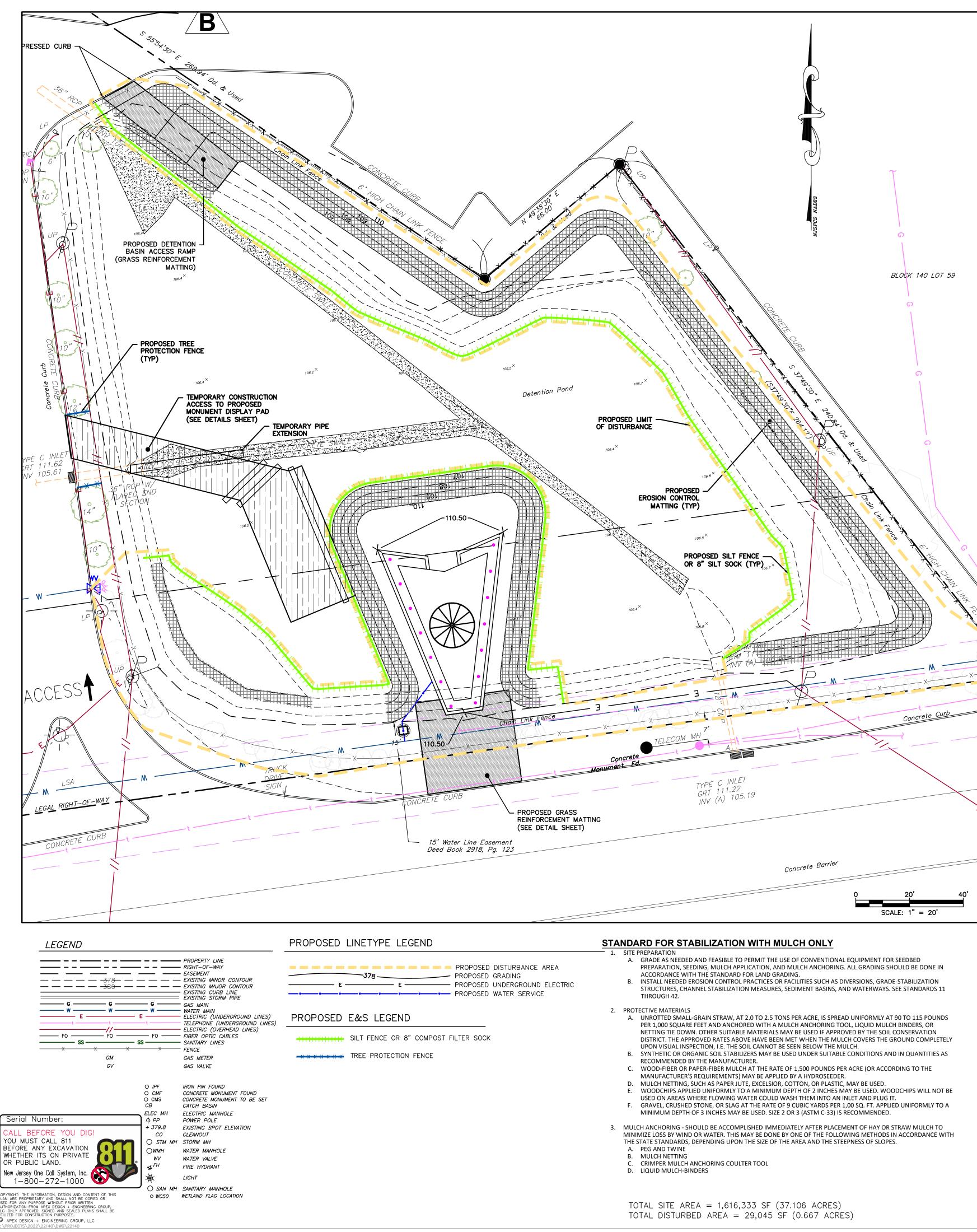
PROPOSED LINETYPE LEGEND

	ROF
e P	ROF
	ROF
 P	'RO
	Р Р Р Р

PYRIGHT: THE INFORMATION, DESIGN AND CONTENT OF THIS AN ARE PROPRIETARY AND SHALL NOT BE COPIED OR ED FOR ANY PURPOSE WITHOUT FINIOR WRITTEN UTHORIZATION FROM APEX DESIGN + ENGINEERING GROUP, C. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE ILIZED FOR CONSTRUCTION PURPOSES. C APEX DESIGN + ENGINEERING GROUP, LLC

OPOSED GRADING OPOSED UNDERGROUND ELECTRIC OPOSED WATER SERVICE OPOSED DISTURBANCE AREA





SEQUENCE OF CONSTRUCTION: INSTALL SOIL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS). (1 WEEK)

- PHASE 2: REMOVE EXISTING FENCING AND WOODEN GUIDERAIL. PREPARE STABILIZATION ACCESS AND CONSTRUCTION STAGING AREA. (1 WEEK) PHASE 3: CUT TREES AND VEGETATION AROUND EXISTING DETENTION POND. (2 WEEKS) PHASE 4: EXCAVATE DETENTION POND AND STABILIZE SIDE SLOPES WITH EROSION CONTROL MATTING. (3 WEEKS) PHASE 5: HAUL STRUCTURAL FILL FOR DISPLAY AREA AND COMPACT. (1 WEEK)
- PHASE 6: INSTALL TEMPORARY CONSTRUCTION ACCESS TO PROPOSED MONUMENT DISPLAY PAD. (2 WEEKS) PHASE 6: INSTALL CONCRETE FOUNDATION AND MONUMENT DISPLAY. (3 MONTHS) PHASE 7: FINE GRADE DISPLAY AREA. (1 WEEK)
- PHASE 8: INSTALL LANDSCAPING AND LIGHTING. (1 WEEK) PHASE 9: REINSTALL FENCING AND WOODEN GUIDERAIL. (1 WEEK)

FREEHOLD SOIL CONSERVATION DISTRICT

- SOIL EROSION AND SEDIMENT CONTROL NOTES
- THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- 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,
- OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO NJ STATE STANDARDS. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NJ STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. 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 15 DAYS OF PRELIMINARY GRADING
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES, ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE. ACCORDING TO THE NJ STATE STANDARDS ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES GREATER
- THAN 3:1). TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50'X30'X6" PAD OF 1-1/2" OR 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE. . 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 WIL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED. 1 IN THAT NISA 4:24-39 FT SEO, REQUIRES THAT NO CERTIFICATE OF OCCUPANCY RE ISSUES REFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOU
- EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES. ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY . CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- 13. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT NJ STATE SOIL EROSION & SEDIMENT CONTROL STANDARDS
- . THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP. 15. MULCHING TO THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE
- SEASON PROHIBITS SEEDING 16. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF CONSTRUCTION PROJECT. . THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING
- CONSTRUCTION AT THE REQUEST OF THE FREEHOLD SOIL CONSERVATION DISTRICT 8 HYDRO SEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO
- PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE NJ STANDARDS. 19. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SOIL
- TRANSFER, ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
- BASIN COMPACTION NOTES IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
- INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED IN ACCORDANCE WITH 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, ETC.). SOIL COMPACTION RESULTING FROM LAND GRADING ACTIVITIES CAN IMPACT THE INFILTRATION RATE OF THE SOIL. RESTORATION OF COMPACTED
- SOILS THROUGH DEEP TILLAGE (6" TO 12") AND THE ADDITION OF ORGANIC MATTER MAY BE REQUIRED IN PLANNED PERVIOUS AREAS TO ENHANCE THE INFILTRATION RATE OF THE DISTURBED SOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.) TO PREVENT COMPACTION OF THE SUBSOIL, WHICH WILL REDUCE ITS INFILTRATION CAPACITY, BASINS SHOULD BE EXCAVATED WITH LIGHT EARTH
- MOVING EQUIPMENT, PREFERABLY WITH TRACKS OR OVER SIZED TIRES RATHER THAN NORMAL RUBBER TIRES. ONCE THE FINAL CONSTRUCTION PHASE IS REACHED, THE FLOOR OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND SMOOTHED OVER WITH A LEVELING DRAG OR EQUIVALENT GRADING EQUIPMEN
- FOR BASINS, ANNUAL TILLING OPERATIONS MAINTAIN INFILTRATION CAPACITY. THESE TILLED AREAS SHOULD BE RE-VEGETATED IMMEDIATELY TO PREVENT EROSION. DEEP TILLING CAN BE USED TO BREAKUP CLOGGED SURFACE LAYERS FOLLOWED BY REGRADING AND LEVELING. SAND OR ORGANIC MATTER CAN BE TILLED INTO THE BASIN FLOOR TO PROMOTE A RESTORED INFILTRATION CAPACITY. SEDIMENT REMOVAL PROCEDURES SHOULD NOT BE UNDERTAKEN UNTIL THE BASIN IS THOROUGHLY DRY. THE TOP LAYER SHOULD BE REMOVED BY LIGHT EQUIPMENT TO PREVENT COMPACTION. THE REMAINING SOIL CAN BE RETILLED AND DISTURBED VEGETATION REPLANTED.

STANDARD FOR PERMANENT VEGETATIVE

- COVER FOR SOIL STABILIZATION 1. SITE PREPARATION
 - A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING, ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING
 - IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION. THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
 - TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING
 - D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS
- SEEDBED PREPARATION
- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AN FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS COOPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). - FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1.000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER
- ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING. B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE
- UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED. C. HIGH ACID-PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

SEEDING

Α.	PER	MANENT VEGETATIVE MIXTURES & PLA	ANTING RATES	
	(1)	HARD FESCUE -	175 LBS/ACRE	4 LBS/1000 SQ.FT.
	(2)	CHEWING FESCUE -	175 LBS/ACRE	4 LBS/1000 SQ.FT.
	(3)	STRONG CREEPING RED FESCUE -	175 LBS/ACRE	4 LBS/1000 SQ.FT.
	(4)	PERENNIAL RYEGRASS -	45 LBS/ACRE	1 LBS/1000 SQ.FT.
	(5)	KY. BLUEGRASS -	45 LBS/ACRE	1 LBS/1000 SQ.FT.

- B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL
- AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
- HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED. WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORTFIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4-MULCHING BELOW), HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

MULCHING

- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANT WITH THIS MULCHING REQUIREMENT
- A. STRAW OR HAY UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1.5 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED

APPLICATION - SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN FACH SECTION.

ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH THE STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COST 1. PEG AND TWINE

- 2. MULCH NETTINGS 3. CRIMPER MULCH ANCHORING COULTER TOOL
- 4. LIQUID MULCH-BINDERS
- B. WOOD-FIBER OR PAPER-FIBER MULCH SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL
- C. PELLETIZED MULCH COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT, PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS. SEEDED AREAS WHERE WEEDSEED FREE MULCH IS HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMIAL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEEDSEED FILE MOLCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION F THE MULCH TO PROVIDE SOIL COVERAGE.

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

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

- B. INSTALL NEEDED EROSION AND SEDIMENTATION CONTROL PRACTICES OF FACILITIES SUCH AS DIVERSION, GRADE, STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLE, IRRIGATIONS SYSTEMS, ETC.) 2. SEEDBED PREPARATION

A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES.

- FERTILIZER SHALL BE APPLIED AT A RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1.000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE
- CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
- B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH, HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE
- TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED. C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
- D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD MANAGEMENT OF HIGH ACID PRODUCING SOILS. 3. SEEDING

A. TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTHS - COOL SEASON GRASSES:

(1) PERENNIAL REGRASS - 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 0.5 INCHES

(2) SPRING OATS - 86 LBS / ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 0.5 INCHES. (3) WINTER BARLEY - 96 LBS / ACRE; PLANT BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 1.0 INCHES

(4) ANNUAL RYEGRASS - 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND JUNE15 BETWEEN AUGUST 1 AND SEPTEMBER 15; AT A DEPTH OF 0.5 INCHES (5) WINTER CEREAL RYE - 112 LBS / ACRE' PLANT BETWEEN AUGUST 1 AND NOVEMBER 15; AT A DEPTH OF 1.0 INCHES.

WARM SEASON GRASSES

(1) PEARL MILLET - 20 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES

- (2) MILLET (GERMAN OR HUNGARIAN) 30 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES B CONVENTIONAL SEEDING APPLY SEED UNIFORMLY BY HAND CYCLONE (CENTRIFUGAL) SEEDER DROP SEEDER DRUL OR CULTIPACKER SEEDER, EXCEPT FOR DRILL, HYDROSEEDED OR CULTIPACKED SEEDLINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF
- 1/2 TO 1/2 INCH, BY RAKING OR DRAGGING, DEPTH OF SEED PLACEMENT MAY BE 1/2 INCH DEEPER ON COARSE TEXTURED SOIL. . HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED IN THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.

D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO- SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED. 4. MULCHING

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

A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT A RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COST.

1. PEG AND TWINE

1. SITE PREPARATION

2. MULCH NETTINGS **3. CRIMPER MULCH ANCHORING COULTER TOOL**

4. LIOUID MULCH-BINDERS

- B. WOOD FIBER OR PAPER FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN THE SPRING AND FALL.
- . PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS / 1.000 SOUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHE OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE
- D. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE

STANDARD FOR DUST CONTROL

DEFINITION - THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROAD PURPOSE - TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCED ON-SITE AND OFF-SITE DAMAGE AND HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY WHERE APPLICABLE - THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES - SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD

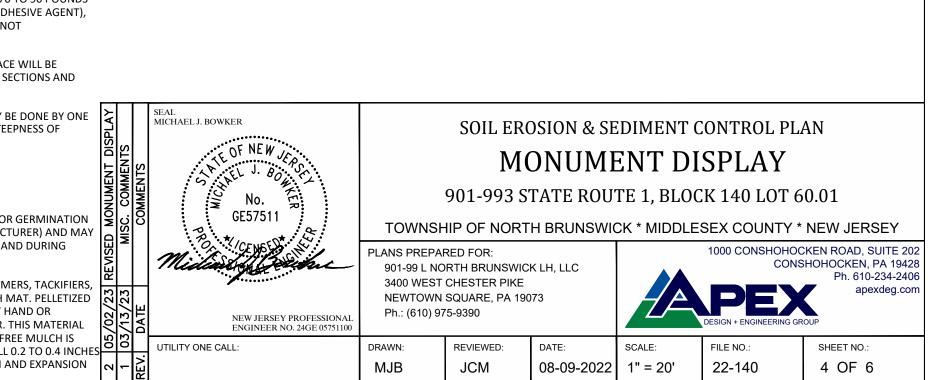
SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MOCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

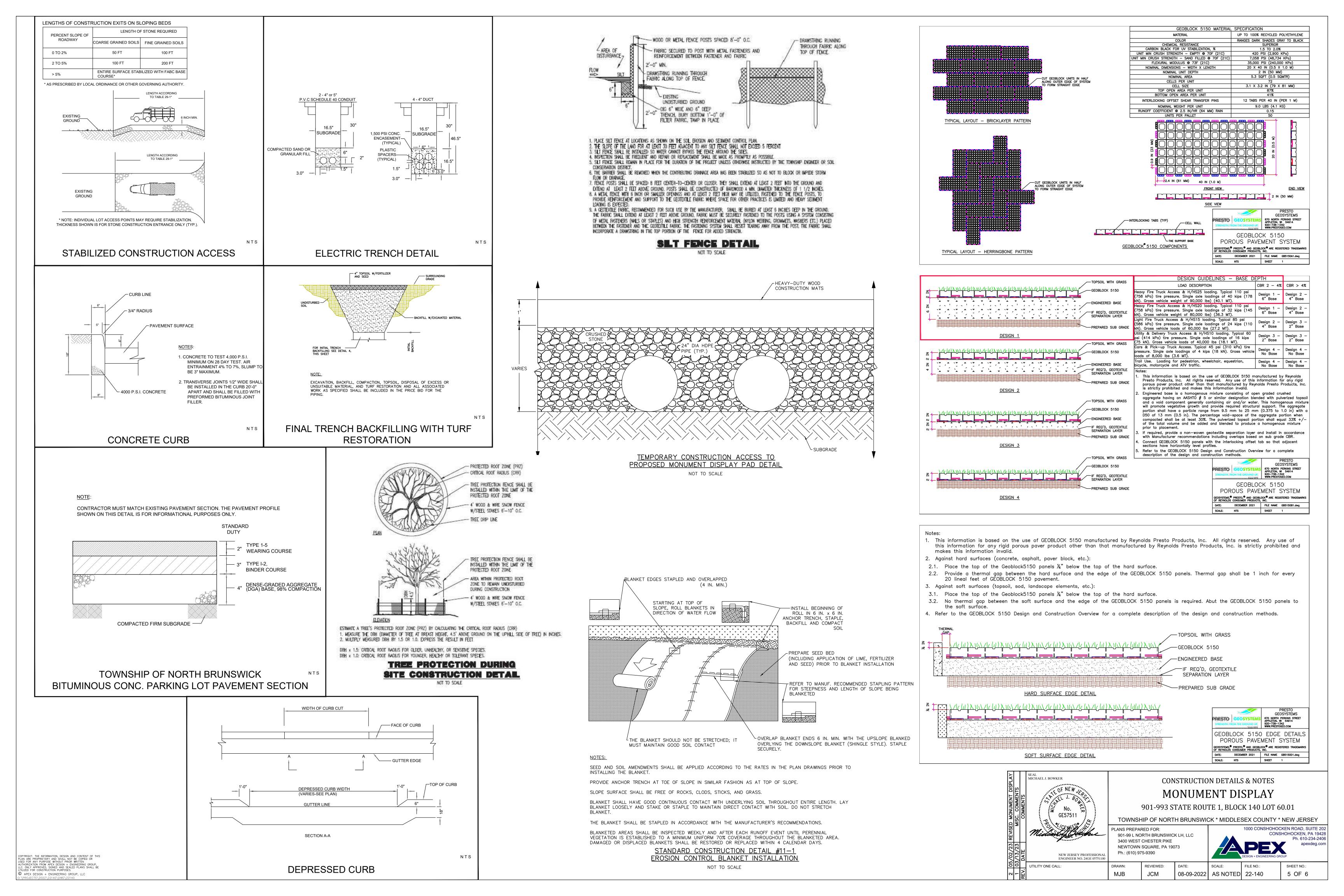
	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT	7:1	COARSE SPRAY	1,200
EMULSION:			
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300

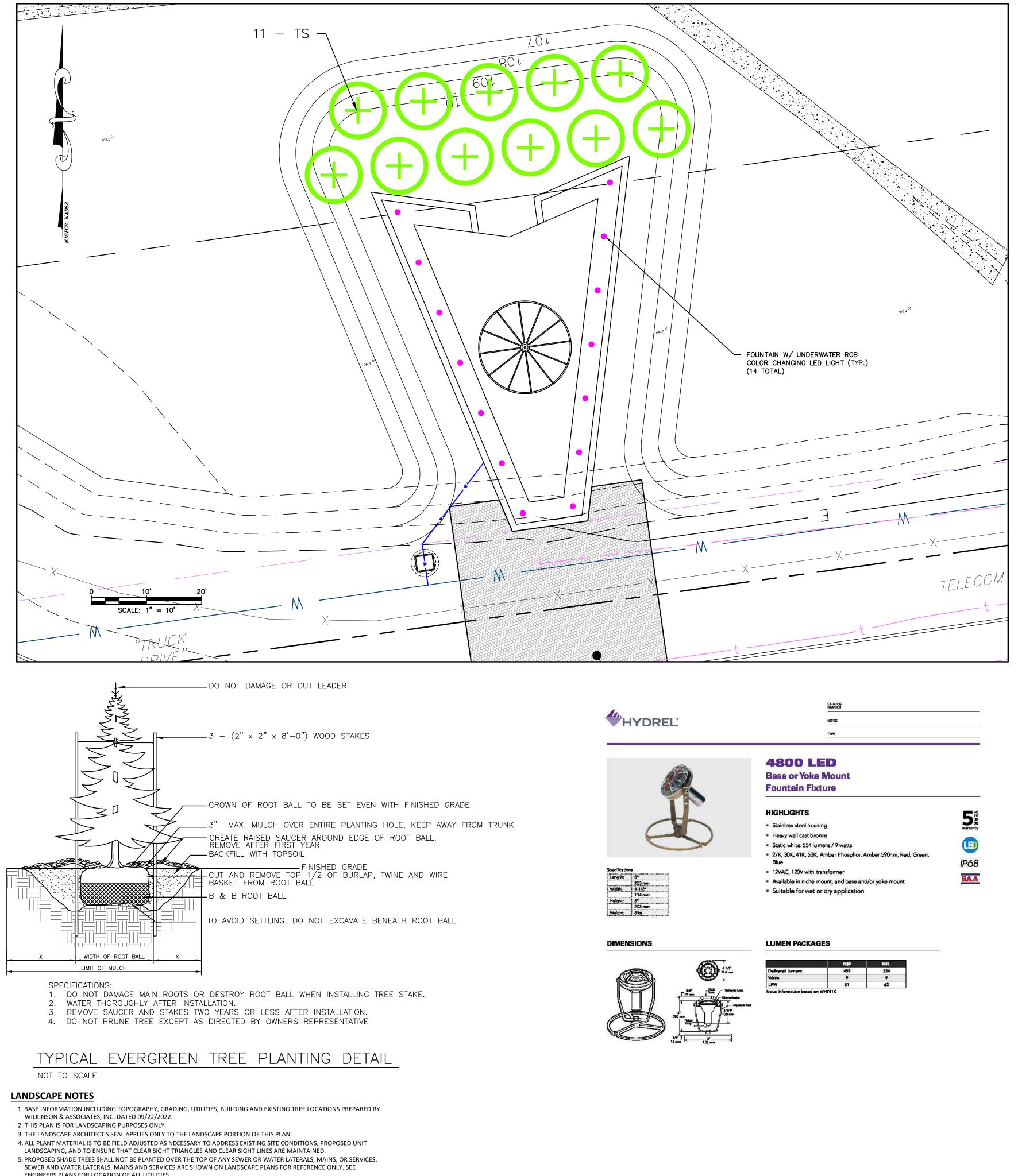
TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF THE SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT. SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

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 BLOWING. CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN

USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.







ENGINEERS PLANS FOR LOCATION OF ALL UTILITIES. 6. UTILITIES ARE SHOWN ON LANDSCAPE PLANS FOR REFERENCE ONLY. SEE ENGINEERS PLANS FOR LOCATION OF ALL UTILITIES. 7. ALL PLANTINGS SHALL BE PERMANENTLY MAINTAINED.

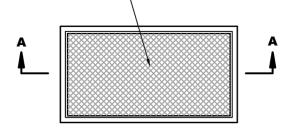
RIGHT: THE INFORMATION, DESIGN AND CONTENT OF THIS ARE PROPRIETARY AND SHALL NOT BE COPIED OR FOR ANY PURPOSE WITHOUT PRIOR WRITTEN DRIZATION FROM APEX DESIGN + ENGINEERING GROUP, DNLY APPROVED, SIGNED AND SEALED PLANS SHALL BE ED FOR CONSTRUCTION PURPOSES.

HIGHLIGHTS	5
 Stainless steel housing 	warranty
 Heavy wall cast bronze 	
 Static white: 554 lumens / 9 watts 	
 27K, 30K, 41K, 53K, Amber Phosphor, Amber 590nm, Red, Green, 	
Blue	IP68
 12VAC, 120V with transformer 	BOLLEN
 Available in niche mount, and base and/or yoke mount 	BAA

Delivered Lumens	459	554
Watta	9	9
LPW	51	62

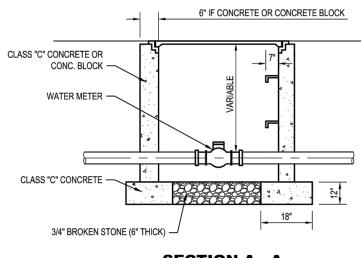
PLANTING SPECIFICATIONS

- 1. SCOPE OF WORK
- A. THIS WORK SHALL CONSIST OF PERFOMRING, CLEARING, AND SOIL PREPARATION, FINSIH GRADING, PLANTING AND DRAINAGE, INCLUDING LABOR, MATERIALS, TOLLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECCESARY FOR THE COMPLATION OF THIS PROJECT. 2. MATERIALS
- A. GENERSAL ALL MATERILAS SHALL MEET OR EXCEED SPECIFICAITON OUTLINED IN THE NEW JERSEY STATE DEPARTMENT OF TRANSPORTATION (DOT) MANUAL OF ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) OR APPROVED EQUAL.
- B. PLANTS ALL PLANTS SHALL BE HEALTHY OR NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS. c. TOPSOIL - LOAMY SOILS, HAVING AN ORGANIC CONTENT OF NOT LESS THAN 5%, PH RANGE BETWEEN 4.5 - 7, BE FREE OF DEBRIS, ROCKS LARGER THAN TWO INCHES (2"), WOOD, ROOTS, VETGETABLE MATTER AND CLAY CLODS.
- D. MULCH FOUR (4") INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH. 3. FERTILIZER AND SOIL CONDITIONER - PLANTED AREAS
- PHOSPHORIC ACID, EQUAL TO 'NITROHUMIS'. B. ORGANIC FERTILIZER AND SOIL CONDITIONER - SHALL BE 'GRO-POWER' AND ORGANIC BASE MATERIALS COMPRISED OF DECOMPOSED ANIMAL AND VETGETABLE MATTER AND COMPOSTED TO SUPPORT BACTERIAL CULTURES, CONTAINNING NO POULTRY OR HUMAN WASTE. GUARANTEED ANALYSIS (5-3-1): NITROGEN 5%, PHOSPHATE 3%, POTASH 1%. 50% HUMUS AND 15% HUMIC ACIDS.
- 4. GENERAL WORK PROCEDURES A. LANDSCAPE WORK SHALL COMMENCE AS SOON AS THOSE PORTIONS OF THE SITE ARE AVAILABLE. CONTRACTOR TO UTILIZE WORKMANLIKE STANDARDS IN PERFORMING LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH DAY'S WORK. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STOCKPILED OR DISPOSED OF. ALL PAVED SURFACE SHALL BE SWEPT CLEAN AT THE END OF EACH DAY'S WORK.
- 5. WEEDING A. BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
- 6. TOPSOILNG A. CONTRACTOR TO PROVIDE A 4" THICK TOPSOIL LAYER IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO PRODUCE A 4" UNSETTLED THICKNESS. TOPSOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AND ANALYSIS OF ON-SITE TOPSOIL UTILIZED IN ALL PLANTING AREAS. ADJUST PH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE ACCEPTABLE GROWING
- MEDIUM. 7. SOIL CONDITIONING:
- A. CULTIVATE ALL AREAS TO BE PLANTED TO A DEPTH OF 6". ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF A THE CONTRACTOR'S EXPENSE. SPREAD EVENLY IN ALL PLANTING AREAS AND TILL (2 DIRECTIONS) INTO TOP 4" WITH THE FOLLOWING PER 1,000 SQ.FT.: 20 POUNDS 'GRO-POWER
- 100 POUNDS AGRICULTURAL GYPSUM
- 20 POUNDS NITROFORM (COURSE) 38-0-0 BLUE CHIP SOIL MODIFICATIONS
- A. THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. USE COMPOSTED BARK, RECYCLED YARD WASTE OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5
- B. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM, COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING
- SUBSURFACE DRAINAGE LINES C. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
- 8. PLANTING
- ARCHITECT BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
- **1 PART PEAT MOSS BY VOLUME**
- **1 PART COW MANURE BY VOLUME**
- **3 PARTS TOPSOIL BY VOLUME** 21 GRAM 'AGRIFORM' PLANTING TABLETS AS FOLLOWS:
- 2 TABLETS PER 1 GALLON PLANT
- **3 TABLETS PER 5 GALLON PLANT** 4 TABLETS PER 15 GALLON PLANT
- LARGER PLANTS (2) TABLETS PER ½" DIAMETER OF TRUNK CALIPER
- TABLETS. COMPLETE BAKFILL AND WATER THOROUGHLY.
- BEING TRANSPLANTED.
- D. PREPARE RAISED EARTH BASIN AS WIDE AS PLANTING HOLE OF EACH TREE. AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
- F. PRUNE ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS TO A MINIMUM OF 7' BRANCHING HEIGHT. 9. GROUND COVER
- A. ALL GROUND COVER AREAS SHALL RECEIVE A X" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING GROUND COVER.
- B. SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON THE DRAWINGS.
- C. IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER. WEEDED PRIOR TO APPLYING THE PRE-EMERGENT. PRE-EMERGENT TO BE APPLIED AS PER MANUFACTURER'S RECOMMENDATION. 10. FINISH GRADING
- A. ALL AREAS WILL BE RECEIVED BY THE CONTRACTOR AT SUBSTANTIALLY PLUS/MINUS 0.1 FOOT OF FINISH GRADE.
- OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. SOIL AREAS ADJACENT TO THE BUILDING SHALL BE SLOPED AWAY. C. ALL PLANTING AREAS SHALL BE GRADED AND A MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER. 11. GUARANTEE
- SECURE A MAINTENANCE BOND FROM THE CONTRACTOR FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE COMMENCEMENT OF THE GUARANTEE PERIOD AND PASSES A FINAL INSPECTION BY THE OWNER OR OWNERS REPRESENTATIVE.
- 12. CLEANUP
- A. UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- AND DISEAS C. MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND
- REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.



FRAME AND COVER

PLAN



SECTION A - A

- NOTES: 1. MANHOLE FRAME AND COVER TO BE CAMPBELL FOUNDRY PATTERN NO. 3356 OR APPROVED EQUAL.
- 2. THIS MANHOLE MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS
- USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2
- COAT OF 1:2 CEMENT SAND MORTAR. 3. REFER TO UTILITY PLAN FOR WATER MAIN SIZING AND
- CONFIGURATION.
- 4. THE DOMESTIC LINES SHALL BE ADEQUATELY ACCOMMODATED WITHIN THE METER PIT; CONTRACTOR
- SHALL SIZE ACCORDINGLY.

WATER METER MANHOLE NOT TO SCALE

A. ORGANIC FERTILZER - SHALL BE PROCESSED SEWER SLUDGE WITH MINIMAL CONTENT OF 1% NITROGEN AND 2%

POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE

A. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMTERE OF THE ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED WITH THE FOLLOWING PREPARED SOIL MIXED THROUGHLY:

B. PREPARED SOIL SHALL BE TAMPED FIRMLY AT THE BOTTOM OF THE PIT. FILL PREPARED SOIL AROUND BALL OF PLANT ½ WAY, AMND INSERT

C. ALL PLANTS SHALL BE SET SO THAT, THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE AS THEY BORE TO THE NATURAL GRADE BEFORE

E. WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH A MANNER AS NOT TO DISTURB BACK FILL

D. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE

B. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE IN SURFACE, UNLESS

A. CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM ACCEPTANCE OF JOB. OWNER TO

B. MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY WITH HERBICIDE AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS

PLANTING NOTES:

1. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST.

2. ALL PLANTS SHALL BE NURSERY GROWN AND FRESHLY DUG.

3. ALL PLANTS SHALL BE I ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION. TRUNK CALIPER SHALL MEET ANSI Z60 CURRENT EDITION FOR ROOT BALL SIZE. 4. ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY

- OF THE PROJECT.
- 5. FALL DIGGING HAZARD: ANY SPECIES LISTED BELOW, IF INCLUDED ON THE PLANT LIST, MUST NOT BE DUG IN THE FALL (OCTOBER THROUGH DECEMBER) BECAUSE OF RISK TO THE TREE'S SURVIVAL. SPECIAL EXCEPTIONS MAY BE GRANTED IF THE OWNER IS NOTIFIED IN WRITING AND AN EXTENDED WARRANTY ON THESE PLANTS IS AGREED UPON PRIOR TO DIGGING. THE FOLLOWING VARIETIES SHOULD NOT BE DUG IN FALL: BETULA, CARPINUS, CELTIS, CERCIDIPHYLLUM, CRATAEGUS, CRYPTOMERIA, FAGUS, HALESIA, ILEX (TREE FORM VARIETIES), LIQUIDAMBAR, LIRIODENDRON, NYSSA, OSTRYA, PRUNUS, PYRUS, QUERCUS (EXCEPT QUERCUS PALUSTRIS), SALIX WEEPING VARIETIES, AND TILIA TOMENTOSA. DIGGING FOR MALUS AND ZELKOVA VARIETIES SHOULD BE AVOIDED IN FALL ONLY WHEN IN LEAF.
- 6. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OR GROWTH. THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE CERTIFIED BY APPROPRIATE STATE AND FEDERAL AUTHORITIES TO BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS.
- 7. TREES WITH CENTRAL LEADER BROKEN OR DEAD SHALL BE REJECTED.
- 8. TREES THAT DO NOT DISPLAY TYPICAL CHARACTERISTICS FOR THEIR SPECIES SHALL BE REJECTED. 9. SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR, IF APPROVED BY THE OWNER AND/OR MUNICIPAL AUTHORITY. 10.MEASUREMENT: DIMENSIONS OF TREES AND SHRUBS SHALL CONFORM TO THE AMERICAN
- STANDARD FOR NURSERY STOCK, LATEST EDITION. 11.SIZE: ALL PLANTS SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE PLANT LIST, UNLESS AUTHORIZED IN WRITING BY THE TOWNSHIP ARBORIST AND THE OWNER
- 12.BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH, OF DIAMETER AND DEPTH TO INCLUDE MOST OF THE FIBROUS ROOTS. CONTAINER GROWN STOCK SHALL HAVE BEEN GROWN IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL TOGETHER FIRM AND WHOLE. NO PLANTS SHALL BE LOOSE IN THE CONTAINER. PLANTS WITH POOR QUALITY ROOT BALLS OR ROOT BALLS THAT HAVE BEEN CRACKED OR DAMAGED SHALL BE REJECTED. 13.ROOT BALLS OF ALL PLANTS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN AND
- DRYING WINDS OR FROST 14. CONDITIONS DETRIMENTAL TO PLANTS: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANTS. THE CONTRACTOR SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS, INCLUDING ANY
- CHANGE IN COST, FOR REVIEW AND ACCEPTANCE BY THE PROJECT REPRESENTATIVE. 15. THE OWNER OR THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS.
- 16.ALL PLANTING SHALL BE AT THE LOCATIONS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT THE CORRECT GRADES, ALIGNMENT, AND TO THE INDICATED LAYOUT OF THE PLANTING BEDS.
- 17.LAYOUT OF PLANTING: THE CONTRACTOR SHALL LAY OUT WITH IDENTIFIABLE STAKES THE LOCATION OF ALL PLANTING BEDS AS INDICATED ON DRAWING. THE LAYOUT OF PLANTING SHALL BE APPROVED BY THE PROJECT REPRESENTATIVE PRIOR TO ANY EXCAVATION OF PLANT PITS OR PLANT BEDS.
- 18.MINOR ADJUSTMENTS TO TREE LOCATIONS MAY BE NECESSARY DUE TO FIELD CONDITIONS AND FINAL GRADING. THE CONTRACTOR SHALL NOTIFY THE OWNER IF MAJOR ADJUSTMENTS ARE REQUIRED
- 19.PLANTING SOIL SHALL BE EXCAVATED NATIVE SOIL FROM THE PLANTING PIT. PLANTING SOIL SHALL BE THOROUGHLY MIXED, WITH ALL ROCKS, CLODS AND ROOTS REMOVED. 20.PLANTS WITH BROKEN ROOT BALLS OR EXCESSIVE DAMAGE TO THE CROWN SHALL BE REPLACED PRIOR TO PLANTING.
- 21.ALL TREES SHALL BE STAKED AND GUYED ACCORDING TO ACCEPTED INDUSTRY PRACTICE, AND AS NOTED ON THE PLANTING DETAILS.
- 22.EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION STANDARDS TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL DEAD WOOD OR SUCKERS AND ALL BROKEN OR BADLY BRUISED BRANCHES SHALL BE REMOVED. 23.MULCH: IMMEDIATELY AFTER PLANTING OPERATIONS ARE COMPLETED, ALL TREES AND SHRUB
- PLANTING PITS SHALL BE COVERED WITH A 3" (THREE INCH) LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, OR OTHER MATERIAL APPROVED BY THE OWNER OR THE OWNER'S REPRESENTATIVE. A GRANULAR PRE-EMERGENT WEED CONTROL SHALL BE SPREAD PRIOR TO MULCHING. THE LIMIT OF THIS MULCH FOR DECIDUOUS TREES AND SINGLE EVERGREEN TREES SHALL BE THE AREA OF THE PIT. FOR SHRUB AND PERENNIAL BEDS AND FOR EVERGREEN TREE CLUSTERS, A CONTINUOUS, MULCHED BED SHALL BE CREATED.
- 24.TREES IN LEAF, INCLUDING EVERGREENS, WHEN PLANTED SHALL BE TREATED WITH ANTI-DESICCANT SUCH AS WILT-PRUF® IF PLANTED DURING THE MONTHS OF JUNE THROUGH SEPTEMBER, NOVEMBER AND DECEMBER.
- 25. WEED CONTROL: ALL PLANTING AREAS SHALL BE FREE FROM WEEDS PRIOR TO THE BEGINNING OR PLANTING OPERATIONS. CONTACT HERBICIDE SPRAYS SHOULD ONLY BE USED AS REQUIRED AND ALL MANUFACTURER'S SPECIFICATIONS FOLLOWED.
- 26.GUARANTEE: ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR FOR TWELVE (12) MONTHS FROM THE DATE OF INSTALLATION. THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE UNLESS OTHERWISE AGREED WITH CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MONITOR THE PROJECT DURING THE GUARANTEE AND NOTIFY THE OWNER IF PROBLEMS DEVELOP WITH THE PLANT MATERIAL. ANY MATERIAL THAT IS 25% DEAD OR MORE SHALL BE CONSIDERED DEAD AND MUST BE REPLACED AT NO CHARGE. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED BACK. OR THERE IS 25% OF THE CROWN
- 27.ALL DEBRIS RESULTING FROM LANDSCAPE CONTRACTING OPERATIONS SHALL BE CLEANED UP AND
- REMOVED FROM THE SITE ON A WEEKLY BASIS. 28.WATERING: LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR WATERING SUFFICIENTLY AT THE TIME
- OF PLANTING AND UNTIL THE JOB IS COMPLETED, ACCEPTED AND TURNED OVER TO THE OWNER. 29.ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANTING PRACTICES STATED IN CHAPTER 5 OF PIRONE'S TREE MAINTENANCE BY: J. HARTMAN, T. PIRONE AND M. SALL (SEVENTH OR MOST RECENT EDITION).

LANDSCAPE SCHEDUL

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	ROOT	QTY.	COMMENTS
TS	Thuja standishii x plicata 'Green Giant'	Green Giant Arborvitae	25' HT.	B&B	11	

TREE REPLACEMENT APPLICANT TO PROPOSE FEE IN LIEU OF REQUIRED TREE REPLACEMENT.

LANDSCAPE & LIGHTING PLAN MONUMENT DISPLAY 901-993 STATE ROUTE 1, BLOCK 52 LOT 140 TOWNSHIP OF NORTH BRUNSWICK * MIDDLESEX COUNTY * NEW JERSEY PLANS PREPARED FOR: 1000 CONSHOHOCKEN ROAD, SUITE 202 CONSHOHOCKEN, PA 19428 901-99 L NORTH BRUNSWICK LH, LLC Ph. 610-234-2406 3400 WEST CHESTER PIKE 2 05/02/23 1 03/13/23 =v DATE apexdeg.cor NEWTOWN SQUARE, PA 19073 Ph.: (610) 975-9390 JTILITY ONE CALL: REVIEWED: DRAWN: DATE: SCALE FILE NO SHEET NO .: 6 OF 6 MJB JCM 08-09-2022 1" = 10' 22-140

^{8.} ALL TREES SHALL BE PRUNED AS NECESSARY TO MAINTAIN REQUIRED LIGHT LEVELS.