

# MONUMENT DISPLAY PRELIMINARY/FINAL MINOR SITE PLAN

## BLOCK 140, LOT 60.01

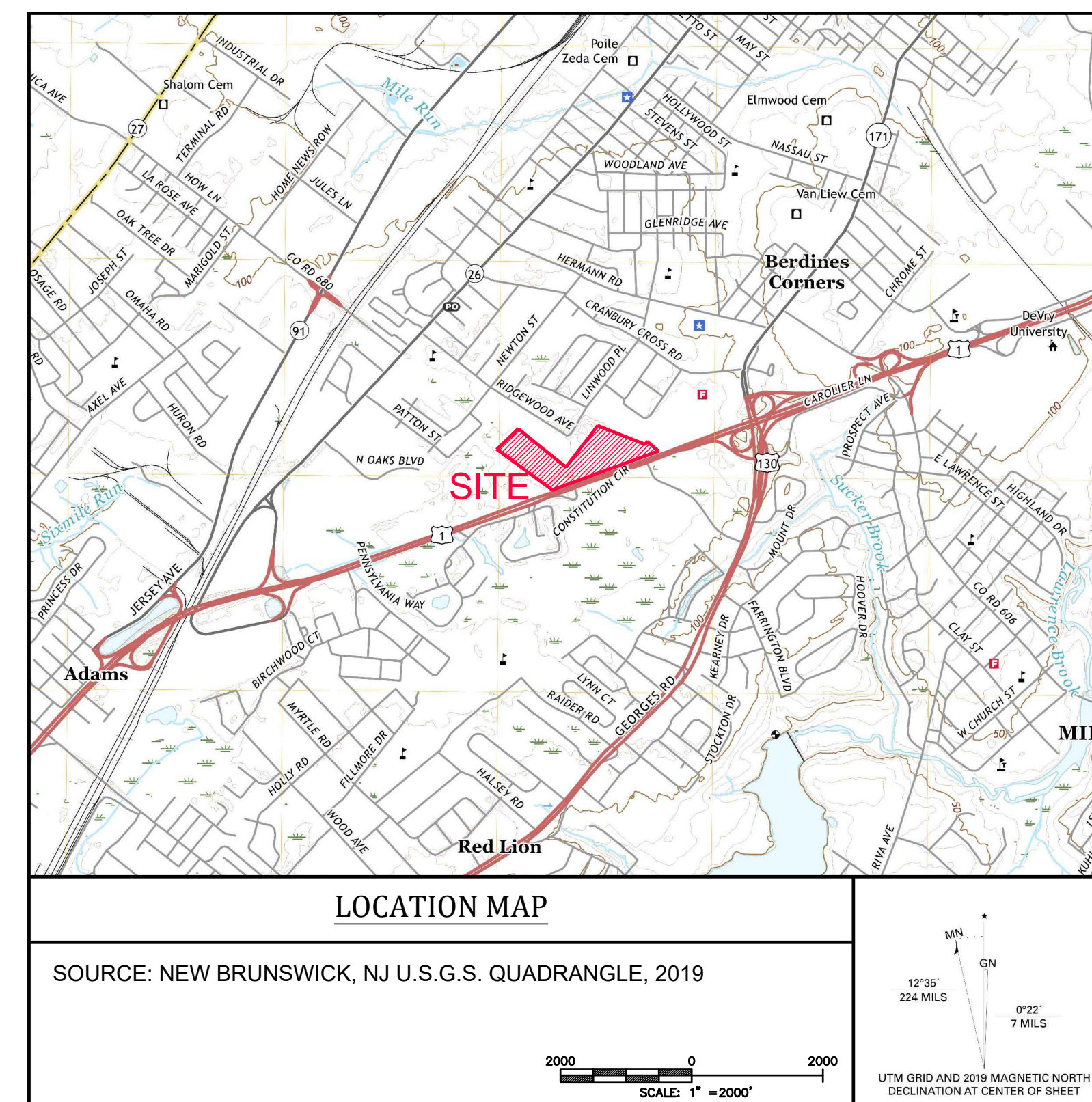
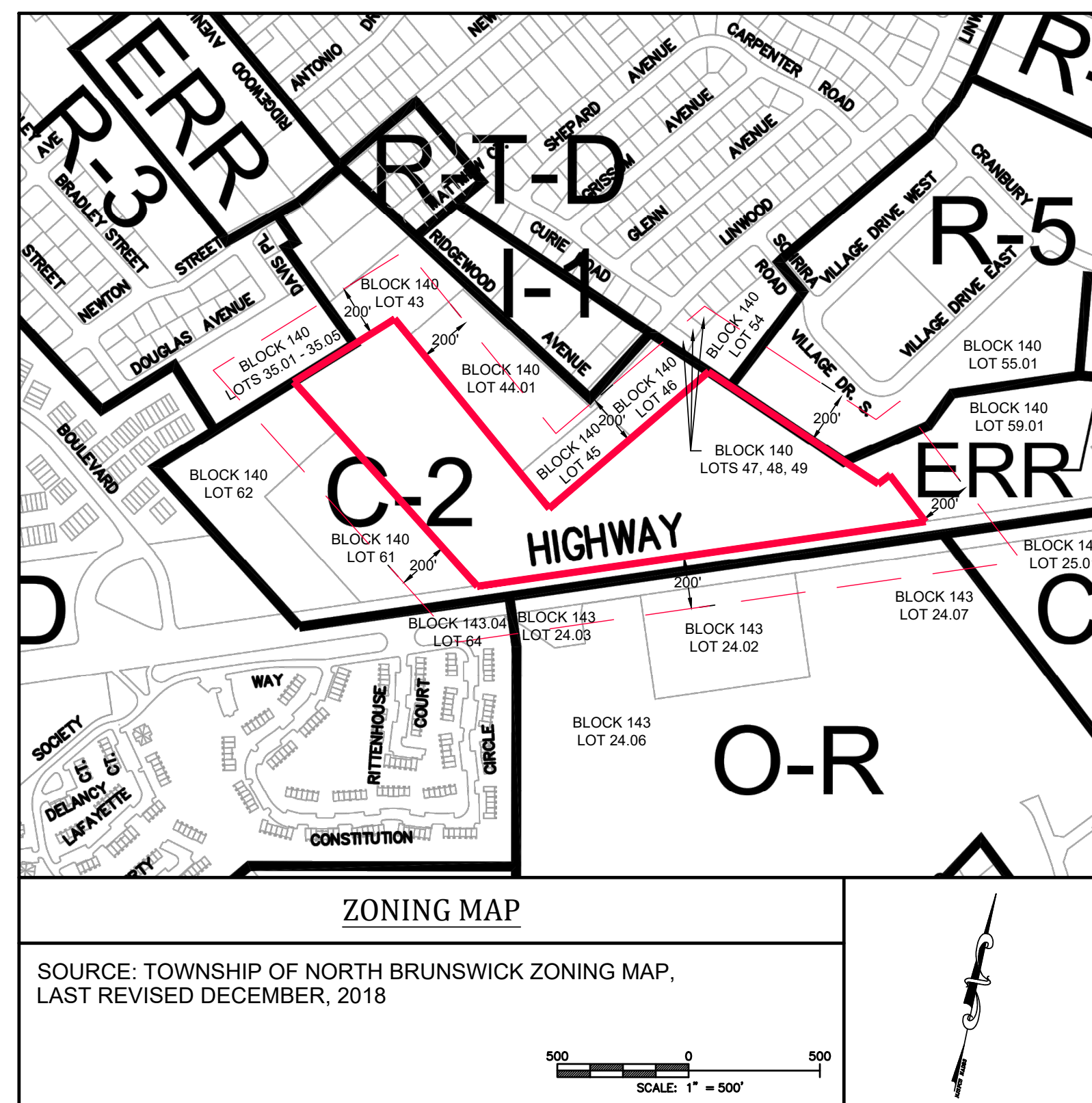
# TOWNSHIP OF NORTH BRUNSWICK, MIDDLESEX COUNTY, NEW JERSEY

TOWNSHIP OF NORTH BRUNSWICK			
ZONING DISTRICT: C-2 GENERAL COMMERCIAL DISTRICT			
SCHEDULE OF REQUIREMENTS:	REQUIRED	EXISTING	PROVIDED
MIN. LOT AREA	20,000 SF	1,616,333 SF	1,616,333 SF
MIN. LOT WIDTH	150'	1,885'	1,655'
MIN. LOT DEPTH	100'	240'	240'
MIN. FRONT YARD	75'	112/151'	112/151'
MIN. SIDE YARD	10'	48'	48'
MIN. REAR YARD	5'	N/A	N/A
PRINCIPAL ACCESSORY	35'	93'	93'
MAX. PRINCIPAL BUILDING COVERAGE	5%	26.9%	26.9%
MAX. PRINCIPAL BUILDING HEIGHT	40', 3 STORIES	25', 1 STORY	25', 1 STORY
MAX. LOT COVERAGE	80%	77.8%	77.9%

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

THE FOLLOWING IS A LIST OF OWNERS WITHIN 200 FEET OF BLOCK 140 LOT 60.01:

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



"D" VARIANCES REQUESTED:

CHAPTER 205-102 A., GENERAL REGULATIONS  
UNLESS OTHERWISE PROVIDED FOR, ALL SIGNS SHALL RELATE TO THE PREMISES ON WHICH THEY ARE ERECTED.

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

CHAPTER 205-103 D., PROHIBITED SIGNS  
SIGNS ADVERTISING A PRODUCT OR SERVICE NOT SOLD ON THE PREMISES, SIGNS ADVERTISING OR DIRECTING ATTENTION TO ANOTHER 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 (1), PERMITTED SIGNS IN NONRESIDENTIAL DISTRICTS  
BILLBOARDS ARE A PERMITTED USE ONLY IN THE I-1 INDUSTRIAL ZONING DISTRICT.

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

"C" OR BULK VARIANCES REQUESTED:

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 (2), PERMITTED SIGNS IN NONRESIDENTIAL DISTRICTS  
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 (3), PERMITTED SIGNS IN NONRESIDENTIAL DISTRICTS  
BILLBOARDS SHALL NOT BE CLOSER THAN 500 FEET FROM THE NEIGHBORING R-5 RESIDENTIAL ZONE LINE.

APPLICANT REQUESTS RELIEF TO PLACE ADVERTISING STRUCTURE CLOSER THAN 500 FEET FROM THE NEIGHBORING R-5 RESIDENTIAL ZONE LINE.

SIGNATURE BLOCK	
APPLICATION NO.	46
MAP	1214
DISTRICT	1214
BLOCK, LOT	140, 60.01
ZONE GENERAL OFFICE DISTRICT (C-2)	
I HEREBY CERTIFY THAT I HAVE PREPARED THIS PLAN AND THAT ALL DIMENSIONS AND INFORMATION ARE CORRECT.	
MICHAEL J. BOWKER, PE DATE	DATE
I HAVE REVIEWED THIS PLAN AND CERTIFIED THAT IT MEETS ALL CODES AND ORDINANCES UNDER MY JURISDICTION.	
CHARLES CARLEY, PE DATE	DATE
APPROVED BY THE BOARD OF ADJUSTMENT OF THE TOWNSHIP OF NORTH BRUNSWICK	
CHAIRMAN, MARK MCGRATH	DATE
SECRETARY, KRISTEN OLCSEVAY	DATE

**DRAWING INDEX**

DRAWING No.	DRAWING TITLE	DATE	LAST REVISED
1	COVER SHEET	08-09-2022	05-02-2023
2	EXISTING CONDITIONS & DEMOLITION PLAN	08-09-2022	05-02-2023
3	PROPOSED CONDITIONS & UTILITY PLAN	08-09-2022	05-02-2023
4	SOIL EROSION & SEDIMENT CONTROL PLAN	08-09-2022	05-02-2023
5	CONSTRUCTION DETAILS & NOTES	08-09-2022	05-02-2023
6	LANDSCAPE & LIGHTING PLAN	08-09-2022	05-02-2023

SUPPLEMENTAL DRAWINGS (INCLUDED WITH SUBMISSION):

1	BOUNDARY & TOPOGRAPHIC SURVEY	09-22-2022
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**LOT COVERAGE SUMMARY:**

EXISTING IMPERVIOUS COVERAGE:	
BUILDING	434,415 SF (26.9%)
DRIVEWAY/PARKING AREA	741,508 SF
WALKS	78,833 SF
WALLS	2,574 SF
TOTAL	1,257,330 SF (77.8%)
PROPOSED IMPERVIOUS COVERAGE:	
BUILDING	434,415 SF (26.9%)
DRIVEWAY/PARKING AREA	741,508 SF
WALKS	78,833 SF
MONUMENT DISPLAY	1,764 SF
WALLS	2,574 SF
TOTAL	1,259,094 SF (77.9%)

**MONUMENT DISPLAY AREA SUMMARY:**

TOTAL	571.8 SF
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**BASIN VOLUME SUMMARY:**

EXISTING STORAGE CAPACITY	132,632 CF
PROPOSED STORAGE CAPACITY	134,101 CF
ADDITIONAL STORAGE CAPACITY	1,469 CF

UTILITY PROVIDER LIST	
COUNTY OF MIDDLESEX	75 BAYARD STREET, NEW BRUNSWICK, NJ 08901
STATE OF NJ DOT	1035 PARKWAY AVENUE, EWING, NJ 08618-2309
VERIZON NEW JERSEY INC.	540 BROAD STREET, NEWARK, NJ 07102
MIDDLESEX COUNTY UTILITIES AUTHORITY	2571 MAIN STREET EXTENSION, P.O. BOX 159, SAYREVILLE, NJ 08872
PUBLIC SERVICE ELECTRIC & GAS	80 PARK PLZ # T6B, NEWARK, NJ 07102-4109
OPTIMUM CABLEVISION	1 COURT SQUARE WEST, LONG ISLAND CITY, NY 11101

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PROJECT: 2023.02.140.01002.01

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

OWNER:  
KIMCO NORTH BRUNSWICK 617 INC  
300 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

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

DATE	REVISION	DESCRIPTION
08/09/2022	1	UTILITY ONE CALL
09/13/23	2	REVISED MONUMENT DISPLAY

SEAL  
MICHAEL J. BOWKER  
STATE OF NEW JERSEY  
No. GE57511  
Professional Engineer  
Middlesex County, NJ

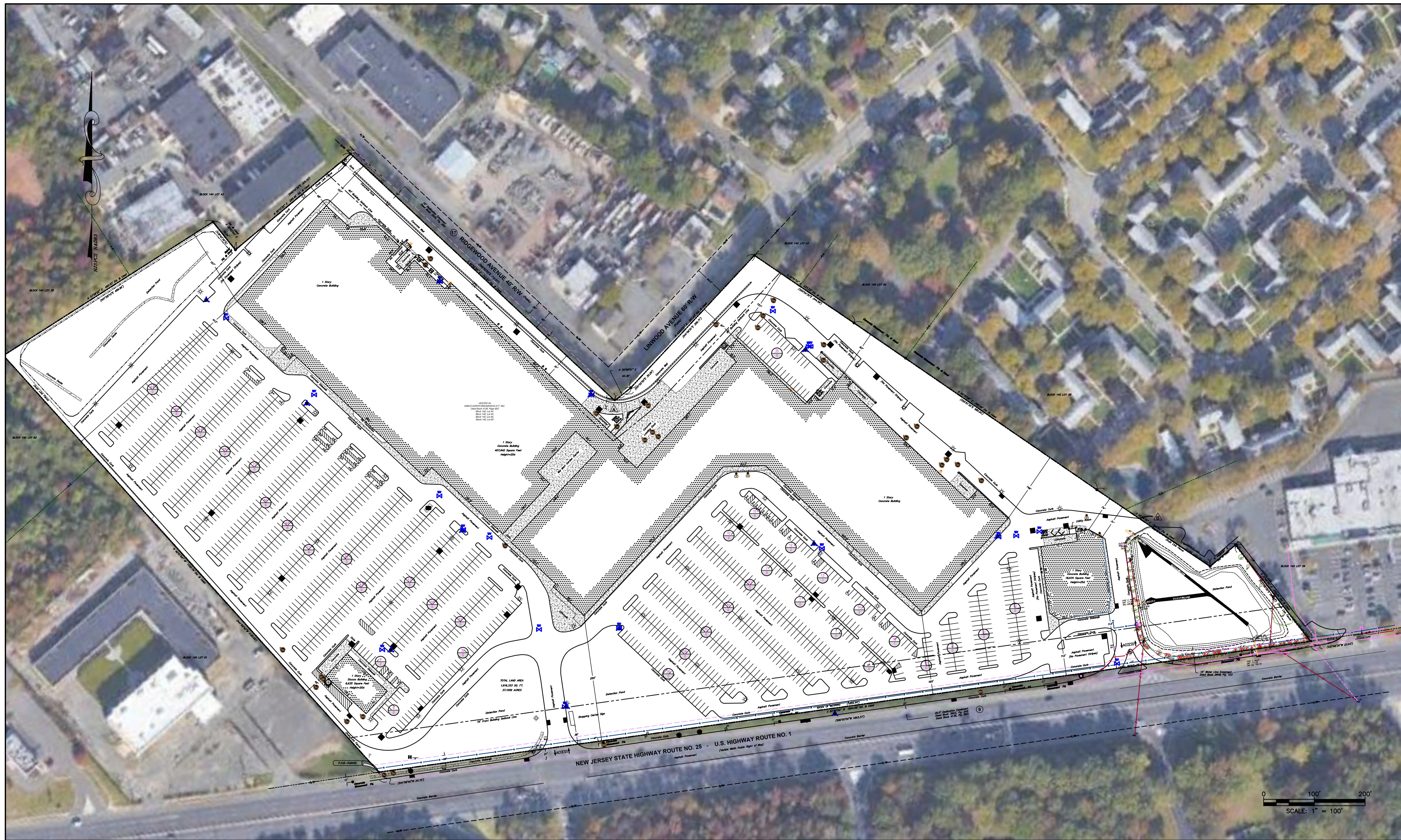
COVER SHEET  
**MONUMENT DISPLAY**  
901-993 STATE ROUTE 1, BLOCK 140 LOT 60.01  
TOWNSHIP OF NORTH BRUNSWICK \* MIDDLESEX COUNTY \* NEW JERSEY

PLANS PREPARED FOR:  
901-99 L NORTH BRUNSWICK LH, LLC  
3400 WEST CHESTER PIKE  
NEWTOWN SQUARE, PA 19073  
Ph: (610) 975-9390

1000 CONSHOHOCKEN ROAD, SUITE 202  
CONSHOHOCKEN, PA 19428  
apexdeg.com  
Ph: 610-234-2406

DATE: 08-09-2022  
SCALE: AS NOTED  
FILE NO.: 22-140  
SHEET NO.: 1 OF 6





TOWNSHIP OF NORTH BRUNSWICK			
ZONING DISTRICT: C-2 GENERAL COMMERCIAL DISTRICT			
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**LEGEND**

---	PROPERTY LINE	○ P/F	IRON PIN FOUND
---	RIGHT-OF-WAY	○ CMF	CONCRETE MONUMENT FOUND
---	EASEMENT	○ CMS	CONCRETE MONUMENT TO BE SET
---	EXISTING MINOR CONTOUR	CB	CATCH BASIN
---	EXISTING MAJOR CONTOUR	ELEC MH	ELECTRIC MANHOLE
---	EXISTING CURB LINE	Φ PP	POWER POLE
---	EXISTING STORM PIPE	+ STB-B	EXISTING SPOT ELEVATION
G	GAS MAIN	CO	CLEANOUT
W	WATER MAIN	○ STM MH	STORM MH
E	ELECTRIC (UNDERGROUND LINES)	○ WMH	WATER MANHOLE
E	ELECTRIC (UNDERGROUND LINES)	WV	WATER VALVE
///	ELECTRIC (OVERHEAD LINES)	FW	FIRE HYDRANT
FO	FIBER OPTIC CABLES	★	LIGHT
SS	SANITARY LINES	○ SAN MH	SANITARY MANHOLE
GM	GAS METER	○ WSD	WETLAND FLAG LOCATION
OV	GAS VALVE		
✕	TREE TO BE REMOVED		

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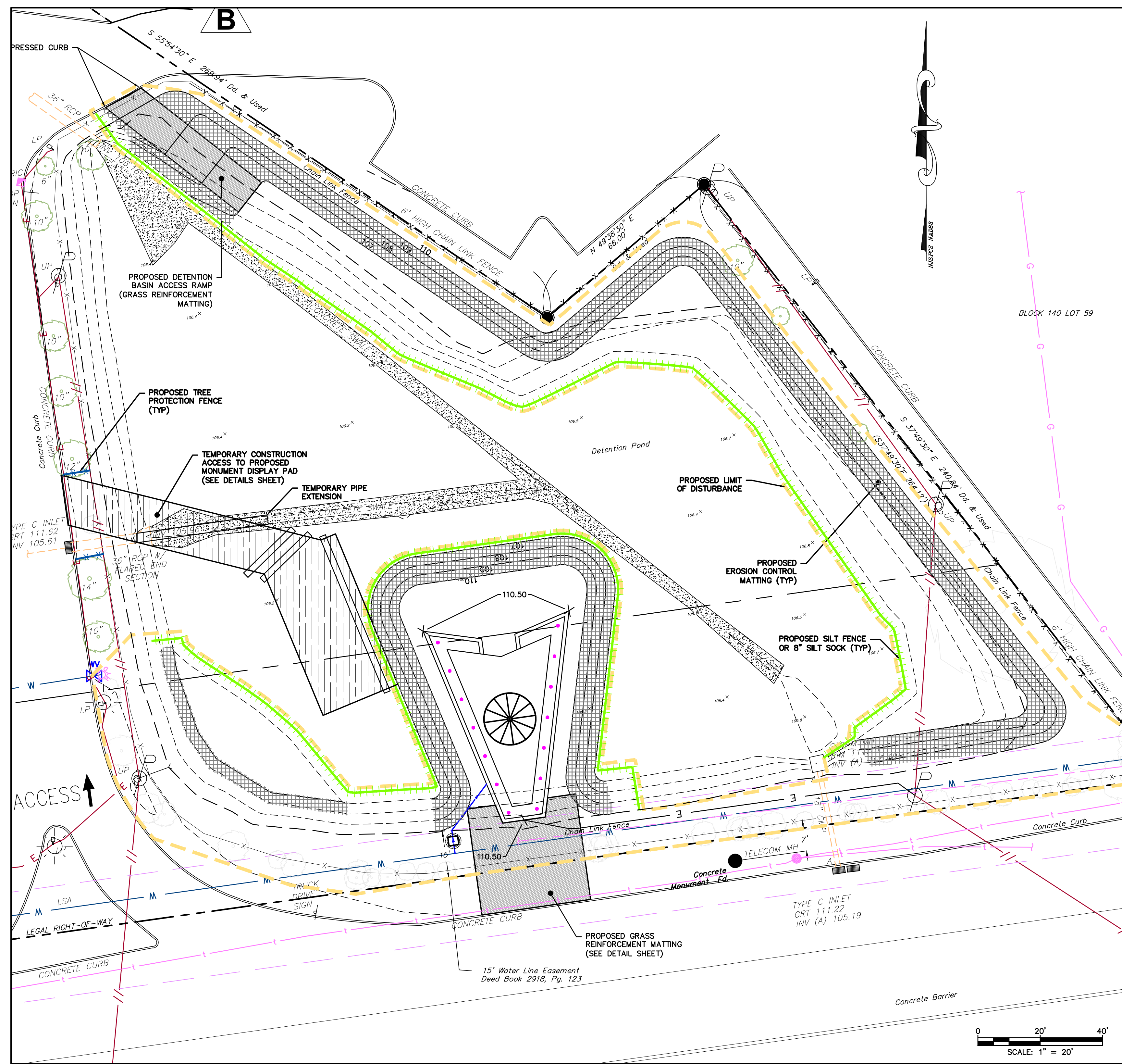
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 PROJECT: 2023-02-1401902-01

SEAL MICHAEL J. BOWKER  NEW JERSEY PROFESSIONAL ENGINEER NO. 2462-05751100	<b>EXISTING CONDITIONS &amp; DEMOLITION PLAN</b> <b>MONUMENT DISPLAY</b> 901-993 STATE ROUTE 1, BLOCK 140 LOT 60.01 TOWNSHIP OF NORTH BRUNSWICK * MIDDLESEX COUNTY * NEW JERSEY	
	PLANS PREPARED FOR: 901-99 L NORTH BRUNSWICK LH, LLC 3400 WEST CHESTER PIKE NEWTOWN SQUARE, PA 19073 Ph: (610) 975-9390	1000 CONSHOHOCKEN ROAD, SUITE 202 CONSHOHOCKEN, PA 19428 Ph: 610-234-2408 apexdesign.com
2 05/02/23 REVISED MONUMENT DISPLAY 1 03/13/23 MISC. COMMENTS DATE UTILITY ONE CALL	DRAWN: MJB REVIEWED: JCM DATE: 08-09-2022 SCALE: 1" = 100' FILE NO.: 22-140 SHEET NO.: 2 OF 6	SHEET NO.: 2 OF 6









**LEGEND**

- PROPERTY LINE
- RIGHT-OF-WAY EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING CURB LINE
- EXISTING STORM PIPE
- GAS MAIN
- WATER MAIN
- ELECTRIC (UNDERGROUND LINES)
- TELEPHONE (UNDERGROUND LINES)
- ELECTRIC (OVERHEAD LINES)
- FIBER OPTIC CABLES
- SANITARY LINES
- GAS METER
- GAS VALVE
- IRON PIN FOUND
- CONCRETE MONUMENT TO BE SET
- CATCH BASIN
- ELECTRIC MANHOLE
- POWER POLE
- EXISTING SPOT ELEVATION
- CLEANOUT
- STORM MANHOLE
- WATER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- LIGHT
- SAN MH
- SANITARY MANHOLE
- WETLAND FLAG LOCATION

**PROPOSED LINETYPE LEGEND**

- PROPOSED DISTURBANCE AREA
- PROPOSED GRADING
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED WATER SERVICE

**PROPOSED E&S LEGEND**

- SILT FENCE OR 8" COMPOST FILTER SOCK
- TREE PROTECTION FENCE

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811

APEX DESIGN & ENGINEERING GROUP, LLC

**PROPOSED LINETYPE LEGEND**

**PROPOSED E&S LEGEND**

**STANDARD FOR STABILIZATION WITH MULCH ONLY**

- SITE PREPARATION**
  - 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.
  - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- PROTECTIVE MATERIALS**
  - UNROTTED SMALL-GRAIN STRAW, AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH.
  - SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
  - WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.
  - MULCH NETTING, SUCH AS PAPER JUTE, EXCELISIOR, COTTON, OR PLASTIC, MAY BE USED.
  - WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
  - GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
- MULCH ANCHORING** - SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH 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 AND THE STEEPNESS OF SLOPES.
  - PEG AND TWINE
  - MULCH NETTING
  - CRIMPER MULCH ANCHORING COULTER TOOL
  - LIQUID MULCH-BINDERS

**STANDARD FOR STABILIZATION WITH MULCH ONLY**

- SITE PREPARATION**
  - 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.
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- PROTECTIVE MATERIALS**
  - UNROTTED SMALL-GRAIN STRAW, AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH.
  - SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
  - WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.
  - MULCH NETTING, SUCH AS PAPER JUTE, EXCELISIOR, COTTON, OR PLASTIC, MAY BE USED.
  - WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
  - GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
- MULCH ANCHORING** - SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH 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 AND THE STEEPNESS OF SLOPES.
  - PEG AND TWINE
  - MULCH NETTING
  - CRIMPER MULCH ANCHORING COULTER TOOL
  - LIQUID MULCH-BINDERS

TOTAL SITE AREA = 1,616,333 SF (37.106 ACRES)  
 TOTAL DISTURBED AREA = 29,045 SF (0.667 ACRES)

- SEQUENCE OF CONSTRUCTION:**
- PHASE 1: 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: HULL STRAW FILL FOR DISPLAY AREA AND COMPACT. (1 WEEK)
  - PHASE 6: INSTALL TEMPORARY CONSTRUCTION ACCESS TO PROPOSED MONUMENT DISPLAY PAD. (2 WEEKS)
  - 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 SEED OR SODED 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 WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
  - ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES GREATER THAN 3:1).
  - CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
  - 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.
  - MULCHING TO THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS RESPONSIBLE 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.
  - 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 RATES AS LISTED IN STANDARDS.
  - 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.

- BASEIN 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 ABOVE.
  - 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 10") 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 HEAVY 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 DEPTLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND SMOOTHED OVER WITH A LEVELING DRAG OR EQUIVALENT GRADING EQUIPMENT.
  - 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 BREAK UP CLOGGED SURFACES FOLLOWED BY REGRADE 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**
- SITE PREPARATION**
    - 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.
    - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
  - SEEDBED PREPARATION**
    - UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND 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 (HTF/MAJAS, 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.
    - MULCH 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 DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
    - HIGH ACID-PRODUCING 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**
    - PERMANENT VEGETATIVE MIXTURES & PLANTING 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.
    - CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDER 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, FIRING 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. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE STANDARD FOR HYDROSEEDING). 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.

- STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION**
- SITE PREPARATION**
    - 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.
    - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
  - SEEDBED PREPARATION**
    - UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND 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 (HTF/MAJAS, 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.
    - MULCH 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 DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
    - HIGH ACID-PRODUCING 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**
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(5) KY. BLUEGRASS -	45 LBS/ACRE	1 LBS/1000 SQ.FT.
    - CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDER 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, FIRING 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. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE STANDARD FOR HYDROSEEDING). 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.

**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 SOIL  
 SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK 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
RATIN 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 FROM WINDWARD SIDE OF THE SITE. CHISEL-TYPE TILLS 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 CURTAINS 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.

**STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION**

- SITE PREPARATION**
  - 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.
  - INSTALL NEEDED EROSION AND SEDIMENTATION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE, STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
  - 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.)
- SEEDBED PREPARATION**
  - UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS COOPERATIVE 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 10-10-10 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.
  - MULCH 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.
  - AFTER SEEDING, FIRING 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.
  - SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD MANAGEMENT OF HIGH ACID PRODUCING SOILS.
- SEEDING**
  - TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTHS
    - COOL SEASON GRASSES:
      - 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.
      - WINTER BARLEY - 96 LBS / ACRE; PLANT BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 1.0 INCHES.
      - ANNUAL RYEGRASS - 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND JUNE 15 BETWEEN AUGUST 1 AND SEPTEMBER 15; AT A DEPTH OF 0.5 INCHES.
      - WINTER CEREAL RYE - 112 LBS / ACRE \* PLANT BETWEEN AUGUST 1 AND NOVEMBER 15; AT A DEPTH OF 1.0 INCHES.
    - WARM SEASON GRASSES:
      - PEARL MILLET - 20 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES
      - MILLET (GERMAN OR HUNGARIAN) - 30 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES
      - CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER, EXCEPT FOR DRILL, HYDROSEEDER OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.
      - 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.
      - AFTER SEEDING, FIRING 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.
  - 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.

**SOIL EROSION & SEDIMENT CONTROL PLAN**

**MONUMENT DISPLAY**

901-993 STATE ROUTE 1, BLOCK 140 LOT 60.01

TOWNSHIP OF NORTH BRUNSWICK \* MIDDLESEX COUNTY \* NEW JERSEY

PLANS PREPARED FOR:  
 901-99 L NORTH BRUNSWICK LH, LLC  
 3400 WEST CHESTER PIKE  
 NEWTOWN SQUARE, PA 19073  
 PH: (610) 975-9390

1000 CONSHOHOCKEN ROAD, SUITE 202  
 CONSHOHOCKEN, PA 19428  
 PH: (610) 234-2408  
 apexdesign.com

NEW JERSEY PROFESSIONAL ENGINEER NO. 2462 0571100

UTILITY ONE CALL

DATE	REVISION	DESCRIPTION
08/09/2022	1	ISSUED FOR PERMIT

SCALE: 1" = 20'

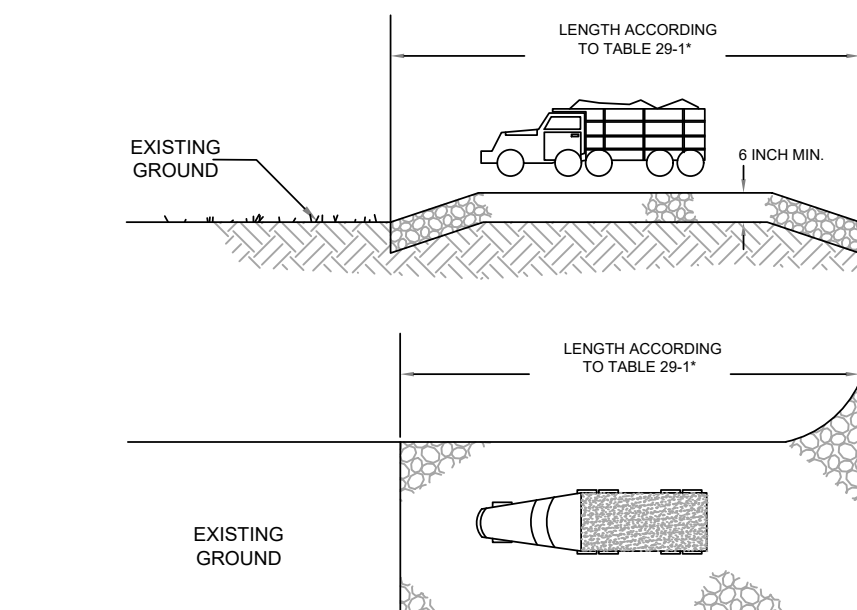
SHEET NO: 4 OF 6



**LENGTHS OF CONSTRUCTION EXITS ON SLOPING BEDS**

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2 TO 5%	100 FT	200 FT
> 5%	ENTIRE SURFACE STABILIZED WITH FABRIC BASE COURSE*	

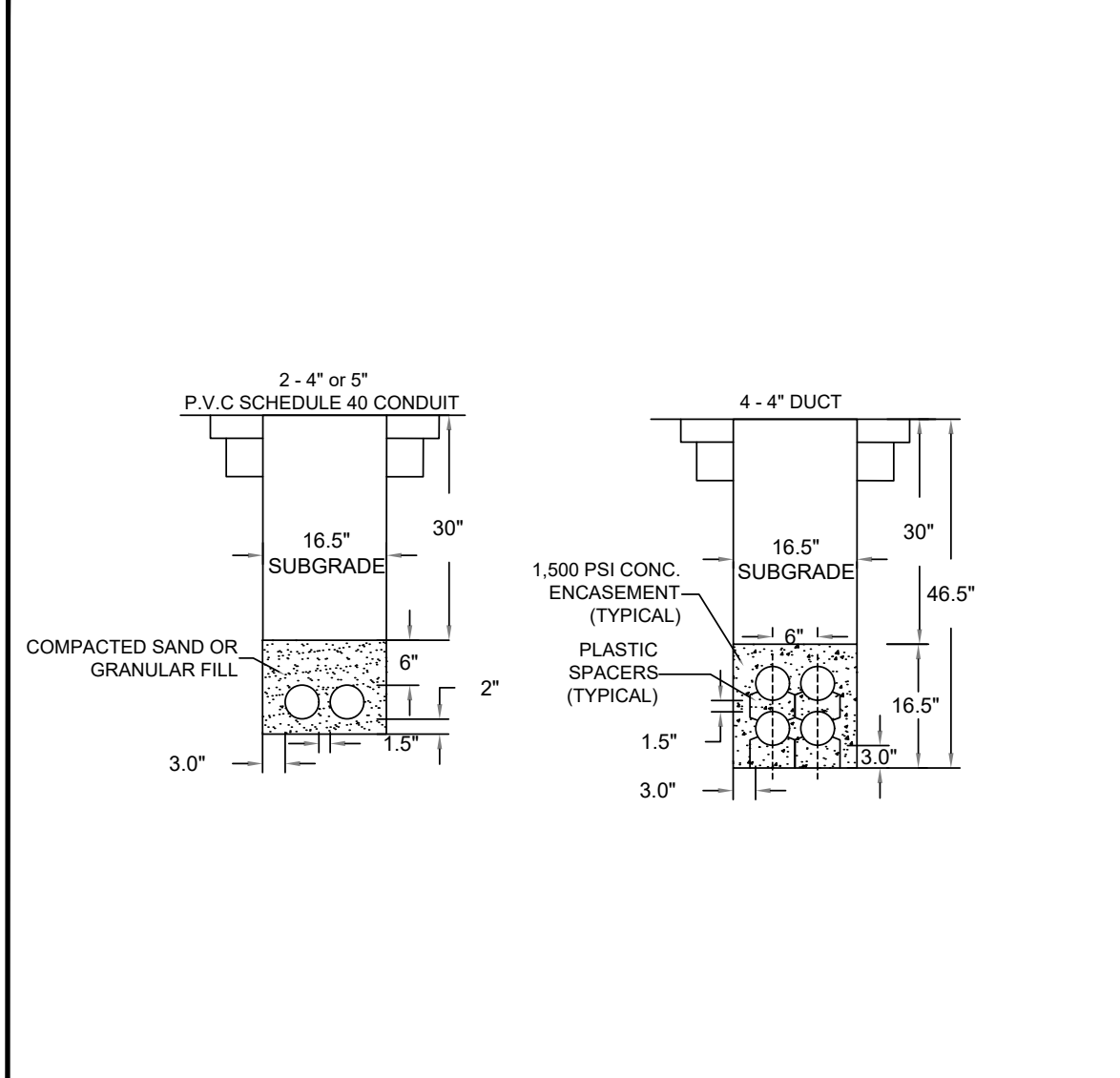
\* AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.



\*NOTE: INDIVIDUAL LOT ACCESS POINTS MAY REQUIRE STABILIZATION. THICKNESS SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY (TYP.).

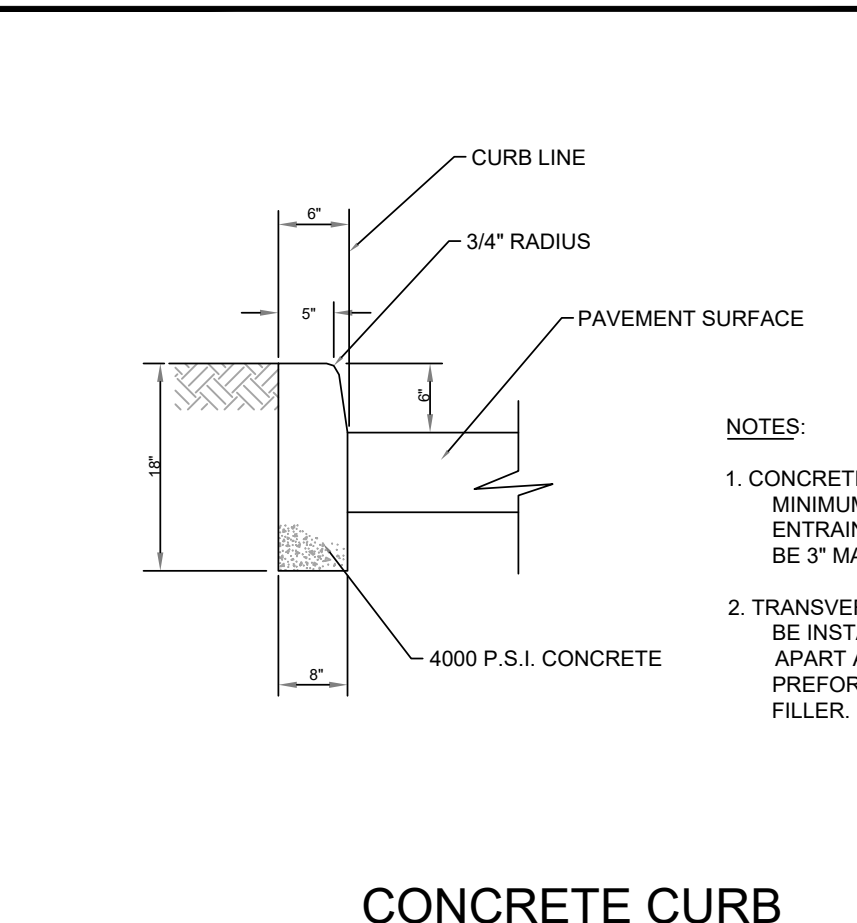
**STABILIZED CONSTRUCTION ACCESS**

NTS



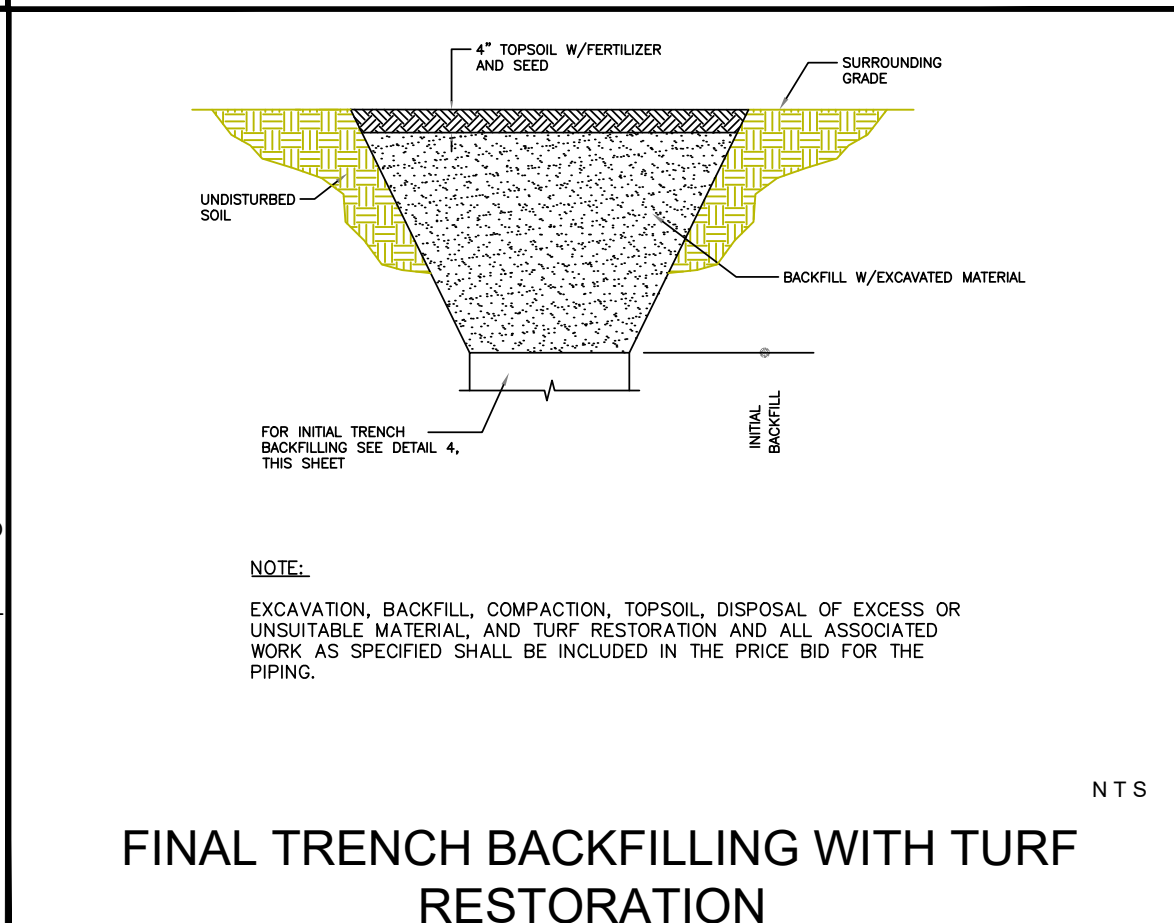
**ELECTRIC TRENCH DETAIL**

NTS



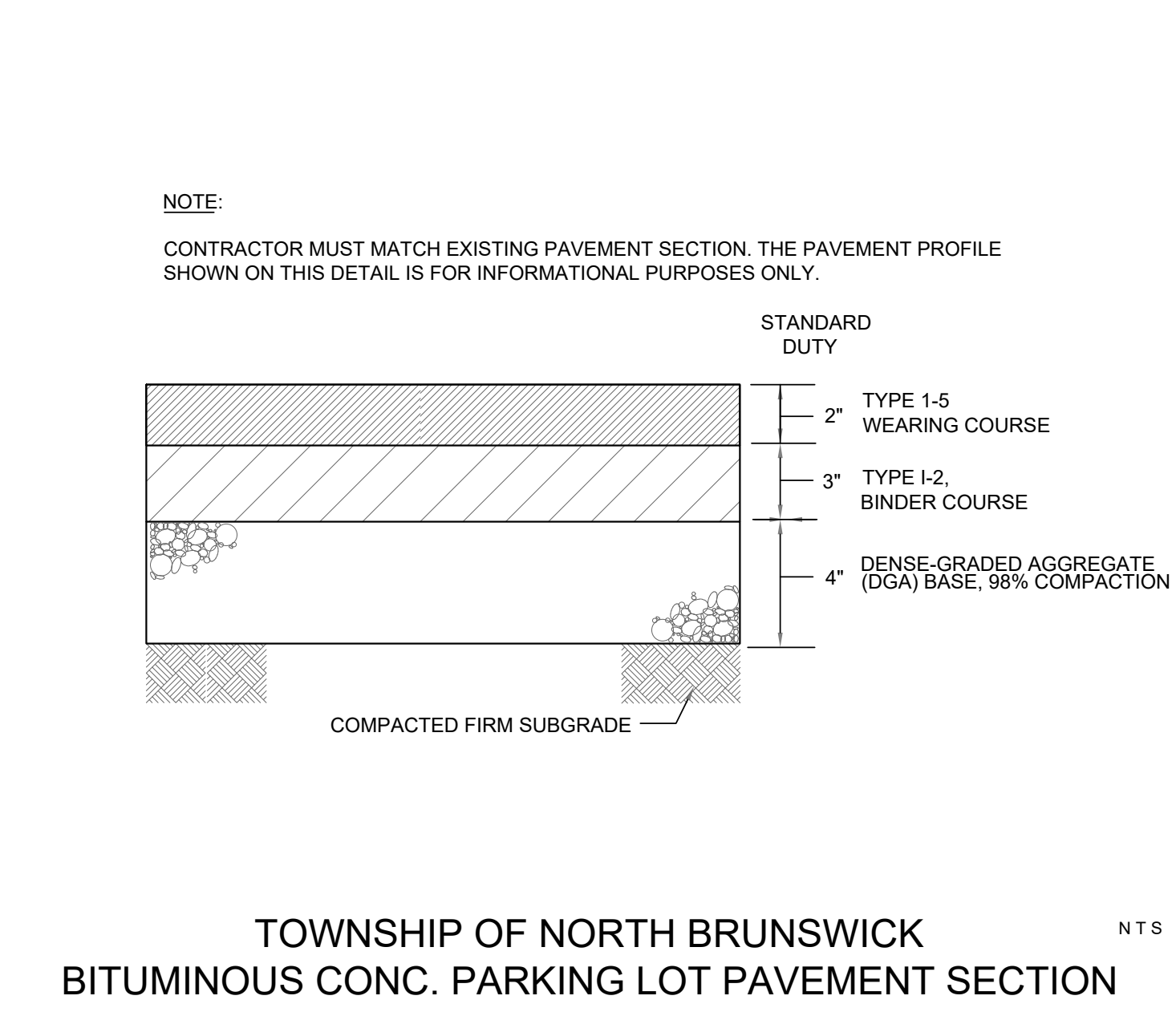
**CONCRETE CURB**

NTS



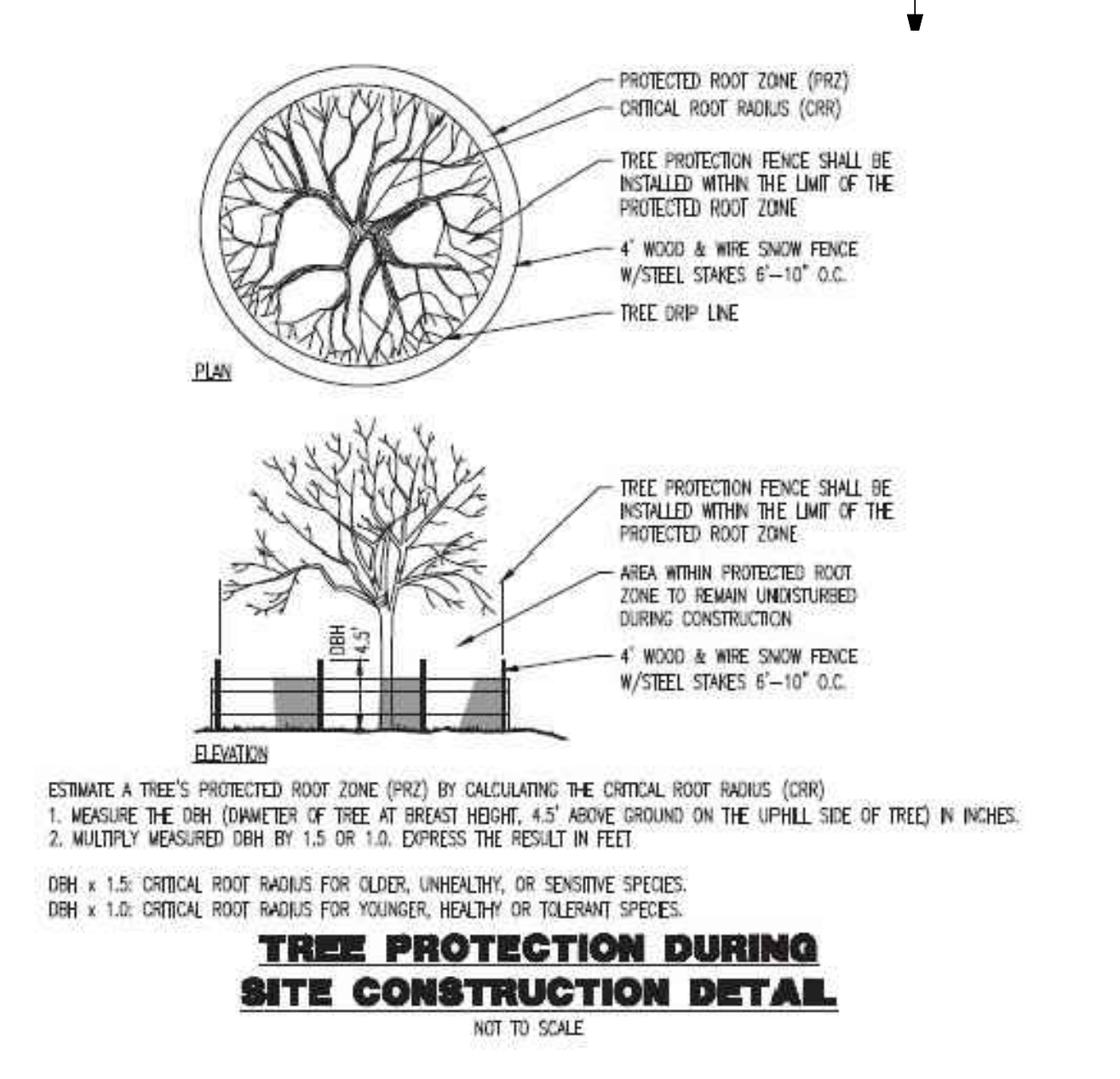
**FINAL TRENCH BACKFILLING WITH TURF RESTORATION**

NTS



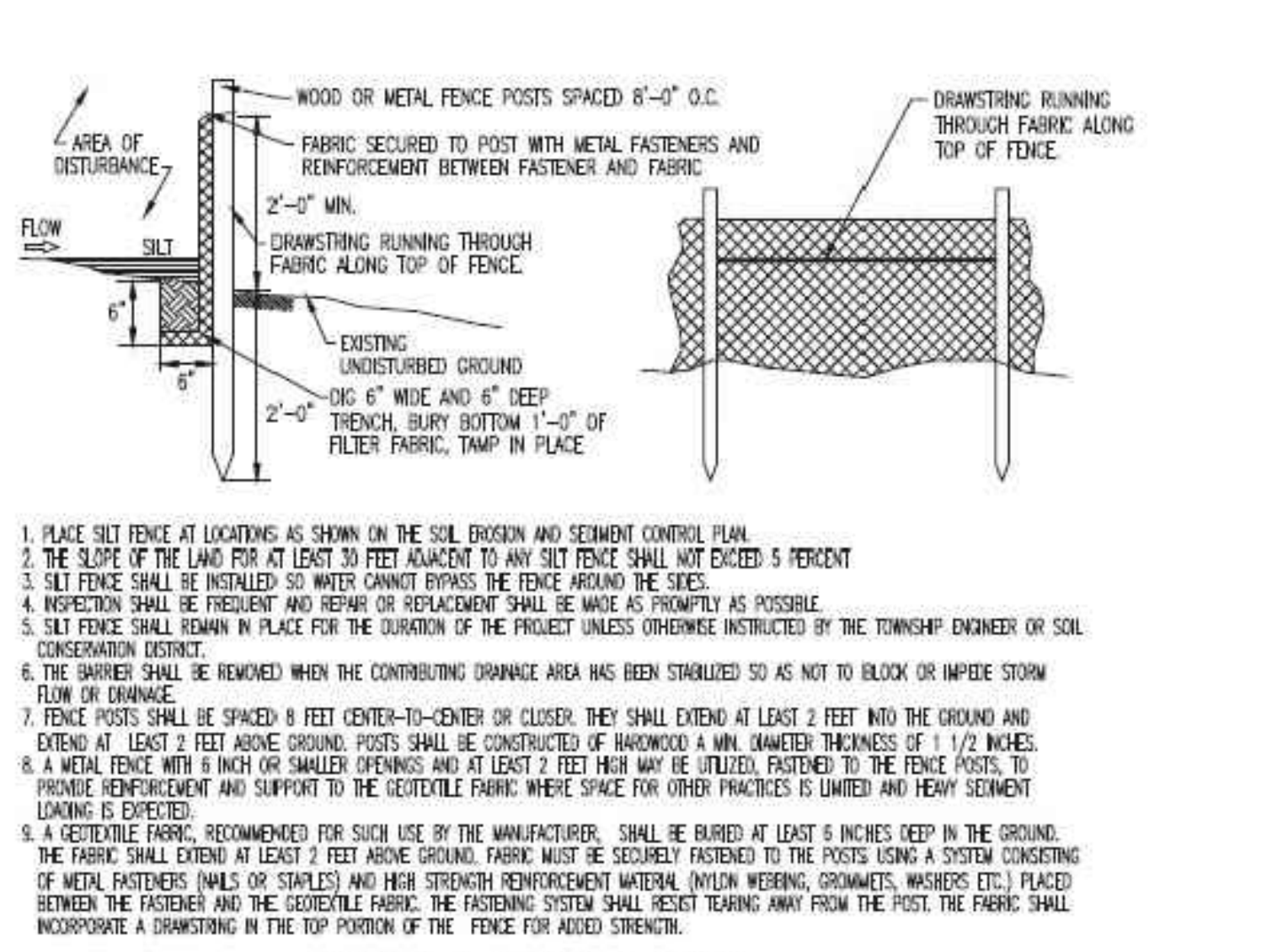
**TOWNSHIP OF NORTH BRUNSWICK BITUMINOUS CONC. PARKING LOT PAVEMENT SECTION**

NTS



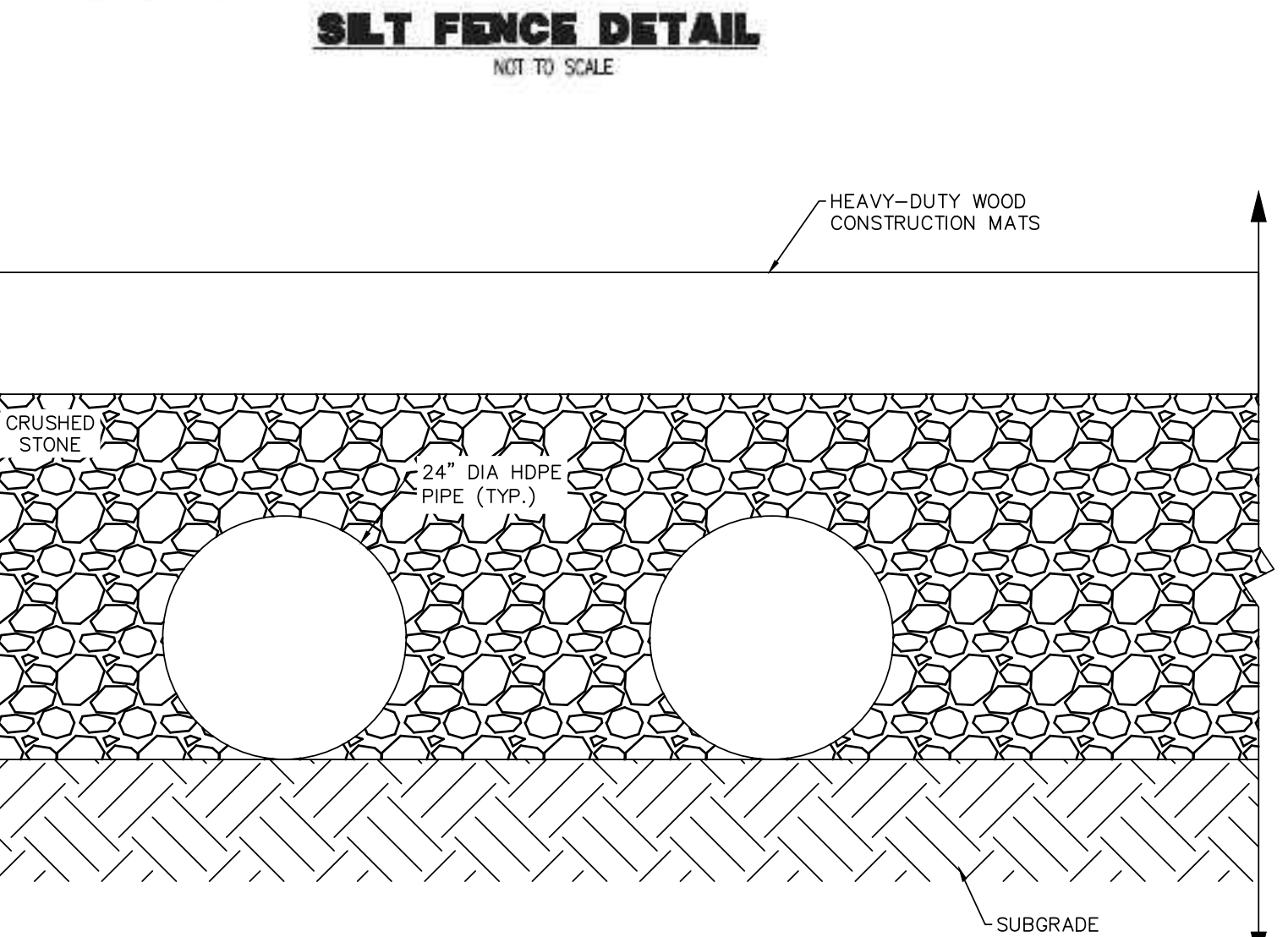
**TREE PROTECTION DURING SITE CONSTRUCTION DETAIL**

NOT TO SCALE



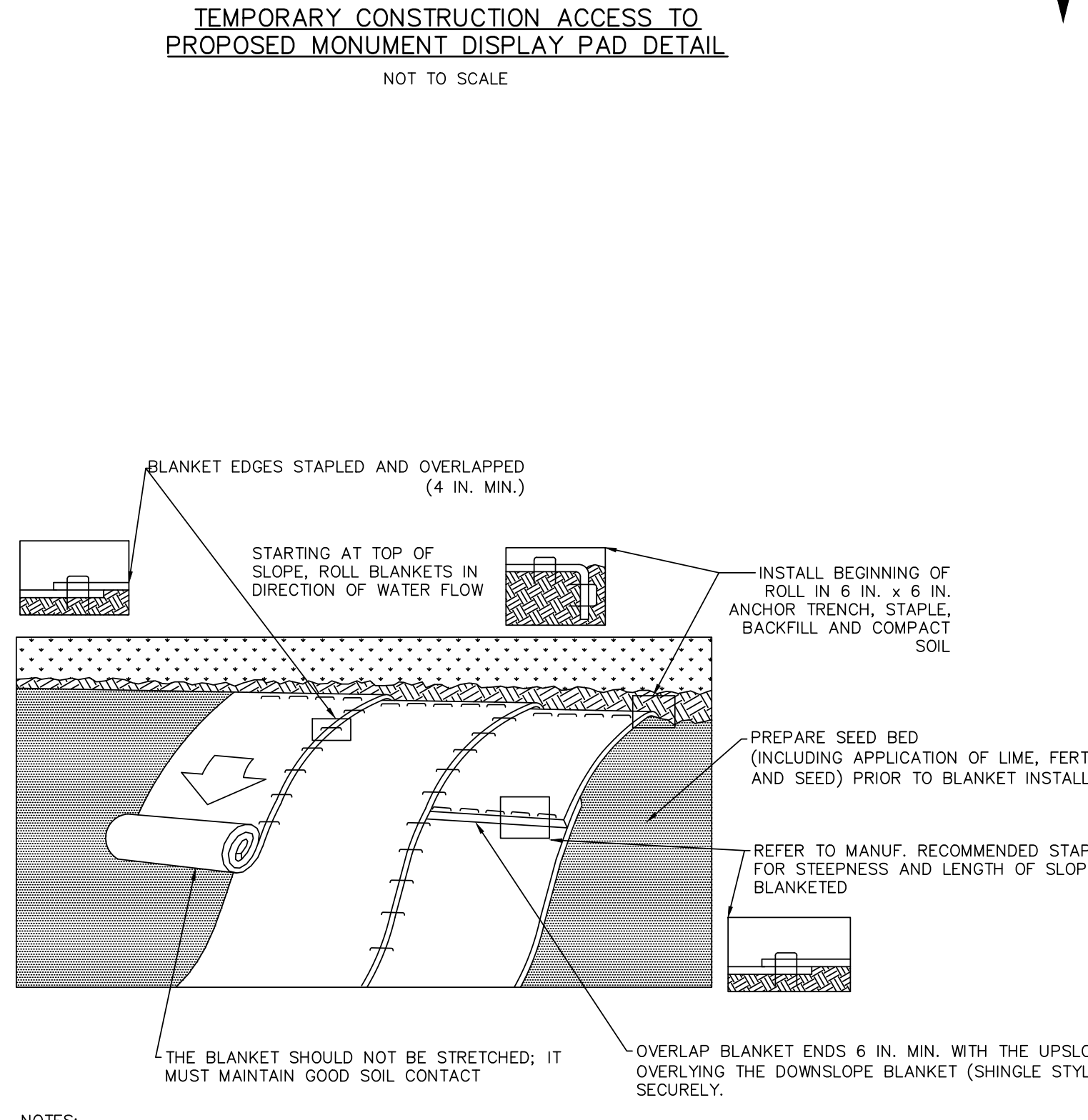
**SLIT FENCE DETAIL**

NOT TO SCALE



**TEMPORARY CONSTRUCTION ACCESS TO PROPOSED MONUMENT DISPLAY PAD DETAIL**

NOT TO SCALE



**STANDARD CONSTRUCTION DETAIL #1-1 EROSION CONTROL BLANKET INSTALLATION**

NOT TO SCALE

**GEOBLOCK 5150 MATERIAL SPECIFICATION**

MATERIAL	UP TO 100% RECYCLED POLYETHYLENE
COLOR	RANGES DARK SHADES GRAY TO BLACK
CHEMICAL RESISTANCE	SUPERIOR
CARBON BLACK FOR STABILIZATION, %	1.5 TO 2.0%
UNIT MIN CRUSH STRENGTH - EMPTY @ 70F (21C)	420 PSI (2,900 KPA)
UNIT MIN CRUSH STRENGTH - SAND FILLED @ 70F (21C)	7,058 PSI (48,734 KPA)
FLEXURAL MODULUS @ 73F (21C)	35,000 PSI (240,000 KPA)
NOMINAL DIMENSIONS - WIDTH X LENGTH	20 X 40 IN (0.5 X 1.0 M)
NOMINAL UNIT DEPTH	2 IN (50 MM)
NOMINAL AREA	5.3 SQFT (0.5 SQMTR)
CELLS PER UNIT	72
CELL SIZE	3.1 X 3.2 IN (79 X 81 MM)
TOP OPEN AREA PER UNIT	87%
BOTTOM OPEN AREA PER UNIT	41%
INTERLOCKING OFFSET SHEAR TRANSFER PINS	12 TABS PER 40 IN (PER 1 M)
NOMINAL WEIGHT PER UNIT	9.0 LBS (4.1 KG)
RUNOFF COEFFICIENT @ 2.5 IN/H (64 MM) RAIN	0.15
UNITS PER PALLET	50

**GEOBLOCK 5150 COMPONENTS**

**PRESTO GEOSYSTEMS**  
 670 NORTH PEPAS STREET  
 NEWTON SQUARE, PA 19073  
 610-234-2400  
 WWW.PRESTOGEOSYSTEMS.COM

**GEOBLOCK 5150 POROUS PAVEMENT SYSTEM**  
 GEOSYSTEM® PRESTO® AND GEOBLOCK® ARE REGISTERED TRADEMARKS OF REYNOLDS CONSUMER PRODUCTS, INC.  
 DATE: DECEMBER 2021 FILE NAME: GB5150A1.dwg  
 SCALE: NTS SHEET: 1

**DESIGN GUIDELINES - BASE DEPTH**

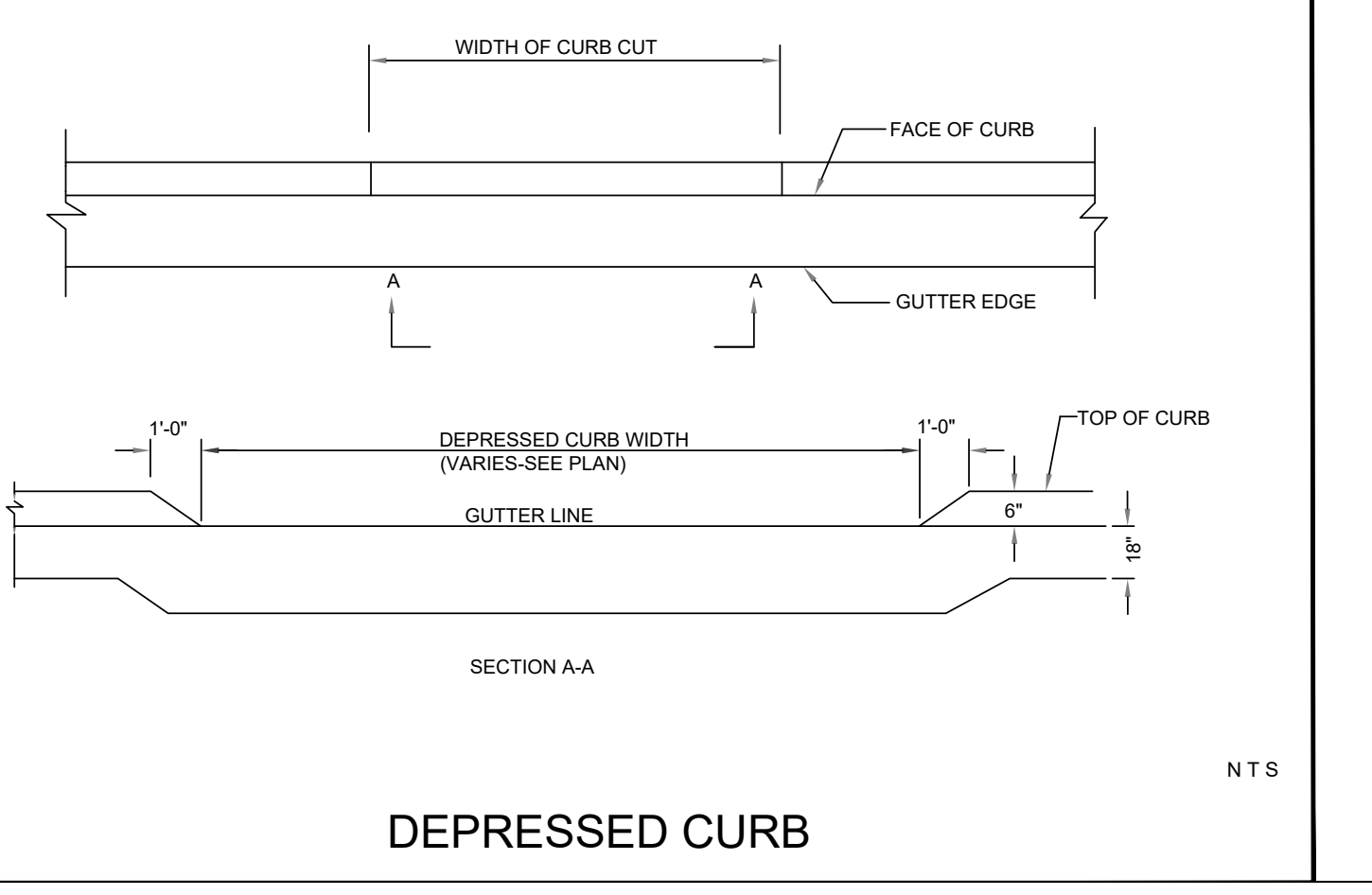
LOAD DESCRIPTION	CBR 2 - 4%	CBR > 4%
Heavy Fire Truck Access & H/H/S25 loading, typical 110 psi (758 kPa) tire pressure. Single axle loadings of 40 kips (178 kN). Gross vehicle weight of 80,000 lbs (36,3 MT).	Design 1 - 6" Base	Design 2 - 4" Base
Heavy Fire Truck Access & H/H/S20 loading, typical 110 psi (758 kPa) tire pressure. Single axle loadings of 32 kips (145 kN). Gross vehicle weight of 80,000 lbs (36.3 MT).	Design 1 - 6" Base	Design 2 - 4" Base
Light Fire Truck Access & H/H/S15 loading, typical 85 psi (586 kPa) tire pressure. Single axle loadings of 24 kips (110 kN). Gross vehicle weight of 80,000 lbs (36.3 MT).	Design 2 - 4" Base	Design 3 - 2" Base
Utility & Delivery Truck Access & H/H/S10 loading, typical 60 psi (414 kPa) tire pressure. Single axle loadings of 16 kips (72 kN). Gross vehicle weight of 80,000 lbs (36.3 MT).	Design 3 - 2" Base	Design 3 - 2" Base
Core & Pick-up Truck Access, typical 45 psi (310 kPa) tire pressure. Single axle loadings of 4 kips (18 kN). Gross vehicle weight of 80,000 lbs (36.3 MT).	Design 4 - No Base	Design 4 - No Base
Traffic Use: Loading for pedestrian, wheelchair, equestrian, bicycle, motorcycle and ATV traffic.	Design 4 - No Base	Design 4 - No Base

**GEOBLOCK 5150 POROUS PAVEMENT SYSTEM**  
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 DATE: DECEMBER 2021 FILE NAME: GB5150A1.dwg  
 SCALE: NTS SHEET: 1

**Notes:**

- This information is based on the use of Geoblock 5150 manufactured by Reynolds Presto Products, Inc. All rights reserved. Any use of this information for any rigid porous paver product other than that manufactured by Reynolds Presto Products, Inc. is strictly prohibited and makes this information invalid.
- Against hard surfaces (concrete, asphalt, paver block, etc.):
  - Place the top of the Geoblock5150 panels 1/4" below the top of the hard surface.
  - Provide a thermal gap between the hard surface and the edge of the Geoblock 5150 panels. Thermal gap shall be 1 inch for every 20 linear feet of Geoblock 5150 pavement.
- Against soft surfaces (topsoil, sod, landscape elements, etc.):
  - Place the top of the Geoblock5150 panels 1/4" below the top of the hard surface.
  - No thermal gap between the soft surface and the edge of the Geoblock 5150 panels is required. Abut the Geoblock 5150 panels to the soft surface.
- Refer to the Geoblock 5150 Design and Construction Overview for a complete description of the design and construction methods.

**GEOBLOCK 5150 EDGE DETAILS POROUS PAVEMENT SYSTEM**  
 GEOSYSTEM® PRESTO® AND GEOBLOCK® ARE REGISTERED TRADEMARKS OF REYNOLDS CONSUMER PRODUCTS, INC.  
 DATE: DECEMBER 2021 FILE NAME: GB5150A1.dwg  
 SCALE: NTS SHEET: 1



**DEPRESSED CURB**

NTS

**CONSTRUCTION DETAILS & NOTES**

**MONUMENT DISPLAY**

901-993 STATE ROUTE 1, BLOCK 140 LOT 60.01

TOWNSHIP OF NORTH BRUNSWICK \* MIDDLESEX COUNTY \* NEW JERSEY

PLANS PREPARED FOR:  
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 Ph. (610) 975-9390

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 apexgeo.com

**APEX**  
 DESIGN + ENGINEERING GROUP

NEW JERSEY PROFESSIONAL ENGINEER NO. 2462-0571100

SEAL: MICHAEL J. BOWKER  
 STATE OF NEW JERSEY  
 No. GE57511  
 PAID: MICHIGAN REGISTERED

DATE: 08/13/23  
 REVISED: 05/23/23  
 MONUMENT DISPLAY  
 MISC. COMMENTS

UTILITY ONE CALL

DRAWN: MJB  
 REVIEWED: JCM  
 DATE: 08-09-2022  
 SCALE: AS NOTED  
 FILE NO.: 22-140  
 SHEET NO.: 5 OF 6

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 PROJECT: 2023-02140-01REV.02140



