

## **PROPERTY OWNERS WITHIN 200':**

SCALE: 1" = 200'

BLOCK LOT		<b>OWNER'S NAME &amp; ADDRESS</b>		
10	12.03	CURRENT OWNER 152 PRIN—HIGHTSTOWN RD PRINCETON, JCT, NJ 08550		
16	2	CURRENT OWNER 39 LINWOOD DR MONROE TOWNSHIP, NJ 08831		
16	3	CURRENT OWNER 540 CRANBURY RD, UNIT 408 EAST BRUNSWICK, NJ 08816		
16	9	CURRENT OWNER 481 SPOTSWD—ENGTWN RD MONROE, NJ 08831		
17	1	CURRENT OWNER		

## UTILITY COMPANIES TO BE NOTIFIED:

Public Service Electric & Gas Corporate Secretary PO Box 800 Newark, NJ 07101

New Jersey American Water Property Manager 1 Water Street Camden, NJ 08102

Carnbury Twp. Sewer Utility c/o Van Cleef Engineering Accoc. 4 AAA Drive, Suite 103 Hamilton, NJ 08619

Corporate Secratary 540 Broad St. Newark, NJ 07101

WINDSOR, NJ 08561

Comcast Cablevision General Manager PO Box 1140 Hightstown, NJ 08520

## SIGNAGE REQUIREMENTS

FREESTANDING SIGNS IN THE GC ZONE DISTRICT (150-37 I. SIGNS) ONE PERMITTED - ONE PROPOSED PERMITTED AREA = 50 SF

PROPOSED AREA = 24 SF PERMITTED HEIGHT = 15 FT. PROPOSED HEIGHT = 8 FT.

WALL SIGNS IN THE GC ZONE DISTRICT (150-37 H. SIGNS)

PERMITTED AREA = 5% FACADE PROPOSED AREA = 5% FACADE **ZONING SCHEDULE - GC GENERAL COMMERCIAL** EXISTING USE: GENERAL COMMERCIAL PROPOSED USE: GENERAL COMMERCIAL REQUIRED **EXISTING** PROPOSED MINIMUM LOT AREA 3 ACRES 1.482 ACRES 1 1.482 ACRES \* MINIMUM LOT WIDTH 200 FT. 316.40 FT. 316.40 FT. MINIMUM FRONT YARD SETBACK 75 FT. 14.90 FT. \* 14.90 FT. \* MINIMUM SIDE YARD SETBACK 20 FT. 66.90 FT. 66.90 FT. 35 FT. MINIMUM REAR YARD SETBACK 1 MAXIMUM BUILDING HEIGHT 40 FT. / 3 ST. <40 FT. <40 FT. MAXIMUM IMPERVIOUS COVER 60% 36,459 S.F. 27,597 S.F. 8,862 S.F. DECREASE 0.837 AC 0.633 AC 0.20 AC DECREASE MAXIMUM FLOOR AREA RATIO 0.40 6,010 S.F. 6,010 S.F.

# VARIANCE / WAIVER LISTING

N 13°10'00" E 150.48

HIGHTSTOWN ROAD

(a/k/a County Route 685 & 539

(a/k/a Bordentown-Amboy Turnpike)

(66' R.O.W.)

1 WAIVER IS REQUESTED FOR DRAINAGE REPORT SINCE THIS APPLICATION WILL DECREASE THE

T.M. LOT 1 TOTAL AREA=64,545 Sq.

99.47 316.40' × 98.78

EX. WHITE LINE 99

-

EDGE OF PAVEMENT

IMPERMOUS BY 8,862 S.F.

**EXISTING CONDITION PLAN** 

SCALE: 1" = 40"

- (2) WAIVER IS REQUESTED FOR LIGHTING PLAN. WAIVER IS REQUESTED FOR TRAFFIC IMPACT STATEMENT.
- (4) WAIVER IS REQUESTED FOR ENVIRONMENTAL IMPACT STATEMENT.
- (5) WAIVER IS REQUESTED FOR EARTH WORK CALCULATIONS.

NOTE: ITEMS 2-5: THE FACILITY IS OPERATED WITH EXISTING PARKING AND EXISTING LIGHTING FIXTURES. THERE WILL BE NO INCREASE IN TENANTS OR BUILDING COVERAGE. THE IMPROVEMENT IS LIMITED TO REMOVAL OF EXISTING PAVEMENT/GRAVEL AREA (8,862 SF) AND PAVING OF PORTION OF EXISTING GRAVEL PARKING AREA.

## PARKING REQUIREMENTS

PARKING STANDARDS: SPACE SIZE =  $9' \times 18$ AISLE WIDTH = 24'

\_\_\_\_\_

PARKING REQUIREMENTS (3 SELF STORAGE BUILDINGS) BUILDING 1 - 1 STORY BUILDING (4,520 SF/FLOOR)

OFFICE:  $\pm 4,520 \text{ SF X 1 SP}/200 \text{SF} = 22.6$ BUILDING 2 - 1 STORY BUILDING (1,490 SF/FLOOR)

 $\pm 1,490 \text{ SF X 1 SP}/200 \text{SF} = 7.4$ 

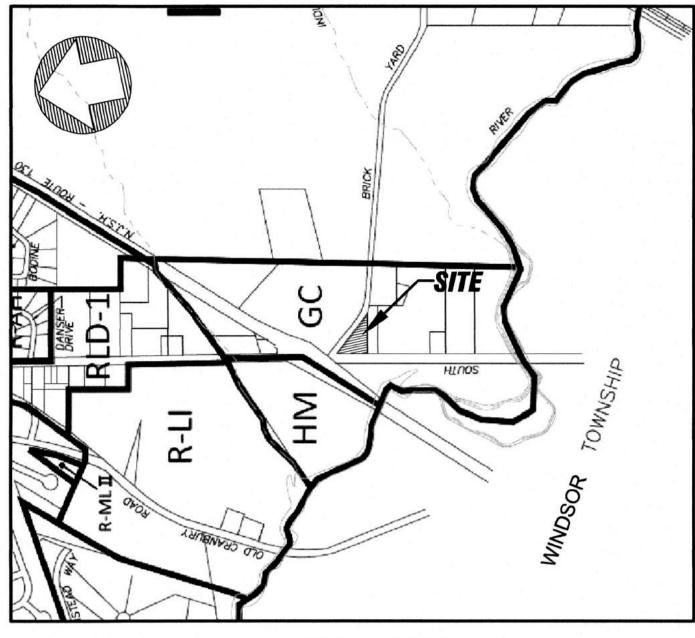
TOTAL PARKING REQUIRED

PARKING PROPOSED = 32 SPACES PROVIDED (INCL. 2 EV SPACES CREDIT)

= 30 SPACES REQUIRED

## ELECTRIC VEHICLE CHARGING STATION REQUIREMENTS

PARKING LOTS WITH 50 OR FEWER SPACES = 1 MAKE READY ELECTRIC PROVIDED = 2 MAKE READY ELECTRIC VEHICLE PARKING SPACES CREDIT = 2 SPACES



### **ZONING MAP** SCALE: 1" = 1000"

## **GENERAL NOTES:**

THE BOUNDARY AND TOPOGRAPHICAL INFORMATION SHOWN HEREON WAS PROVIDED AS A CAD FILE BY CLIENT AND IS BASED ON A SURVEY PERFORMED BY FORMOSA ENGINEERING INC. AND SHOWN ON A PLAN ENTITLED "TOPOGRAPHIC SURVEY PLAN" PREPARED FOR 2 BRICK YARD ROAD LOT 1 IN BLOCK 16 TOWNSHIP OF CRANBURY, MIDDLESEX COUNTY, NEW JERSEY" DATED APRIL 12, 2023.

TOPOGRAPHICAL INFORMATION IS BASED ON ASSUMED USING THE CATCH BASIN SHOWN ON THE INTERCEPTION OF BRICK YARD ROAD AND HIGHTSTOWN ROAD.

EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL UTILITY INFORMATION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIAL AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS.

4. BARRIER-FREE FACILITIES TO BE DESIGNED FOR THIS FACILITY, INCLUDING BUT NOT LIMITED TO PARKING SPACES, RAMPS, SIGNAGE & PAVEMENT MARKINGS SHALL BE PROVIDED AS REQUIRED BY THE AMERICANS WITH DISABILITIES ACT OF 1990, FEDERAL TITLE 2 ADA REGULATIONS AND PROWAG GUIDELINES AS CURRENTLY REVISED AND AMENDED.

THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON, AND/OR IF IN THE OPINION OF THE CONTRACTOR SUCH CONDITIONS SHOULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.

6. UTILITY SERVICE CONNECTIONS FOR THE PROPOSED BUILDINGS HAVE BEEN SHOWN BASED ON INFORMATION PROVIDED BY THE CLIENT, ARCHITECT AND/OR MECHANICAL CONSULTANT AND ARE SUBJECT TO AGENCY REVIEW AND APPROVAL. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, MATERIAL AND LOCATION SHOWN WITH MOST CURRENT AND APPROVED ARCHITECTURAL AND/OR MECHANICAL PLANS. IF A DISCREPANCY OR CONFLICT IS FOUND, CONTRACTOR SHALL NOTIFY THE UNDERSIGNED ENGINEER.

7. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH THE FOLLOWING: A. CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.

B. CURRENT PREVAILING UTILITY COMPANY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
C. CURRENT PREVAILING BUILDING CODES AND STANDARDS ADOPTED BY THE STATE OF NJ INCLUDING THE BARRIER FREE SUBCODE. D. CURRENT PREVAILING FEDERAL A.D.A. REGULATIONS INCLUDING REVISED TITLES II AND III OF

THE AMERICANS WITH DISABILITIES ACT OF 1990, INCLUDING AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG). 8. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS PERTAINING TO SAFETY FOR BOTH THE GENERAL PUBLIC AND ALL WORKERS. SPECIFICALLY, THE CONTRACTOR

SHALL COMPLY WITH THE REQUIREMENTS OF THE STATE OF NEW JERSEY WORKER HEALTH SAFETY

ACT (N.J.A.C. 12:10 AS AMENDED ET. SEQ.) AND THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT; US OSHA (CFR 29, PART 1926 AS AMENDED). 9. DURING THE PROSECUTION OF WORK UNDER THIS CONTRACT. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A SAFE CONDITION WITH REGARD TO SAFETY, INCLUDING BUT NOT LIMITED TO: SAFE INGRESS AND EGRESS FOR THE PUBLIC, FIRE HAZARDS, DUST CONTROL, FLOODING,

AND/OR ANY OTHER DANGEROUS OR HAZARDOUS CONDITIONS. 10. ALL DISTURBED OR OPEN AREAS SHALL BE PROPERLY PROTECTED WITH BARRICADES, WARNING SIGNS, CONES, LIGHTS, ETC., AND SHALL BE MADE SAFE AND PASSABLE AT THE END OF EVERY WORK DAY. ALL TRENCHES OR OTHER OPENINGS SHALL BE SUITABLY BACKFILLED AT

THE END OF EACH WORKING DAY. 11. SITE IS SERVICED BY ONSITE SEPTIC SYSTEM FOR THE SEWER AND WELL FOR THE WATER.

12. THE SUBJECT PROPERTY IS NOT LOCATED IN A FLOOD ZONE AS SHOWN ON THE F.I.R.M. MAP OF 34023C0242F EFFECTIVE JULY 6, 2010.

13. DO NOT SCALE DRAWINGS. ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. ARE SCHEMATIC ONLY EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO. 14. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.

> APPROVED BY THE PLANNING BOARD OF CRANBURY TOWNSHIP ON \_\_\_\_\_\_.

CHAIRMAN	DATE
SECRETARY	DATE
ENGINEER	DATE

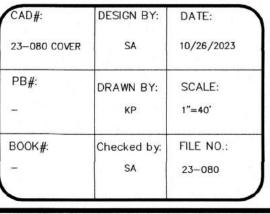
BOARD ENGINEER PB#386-23

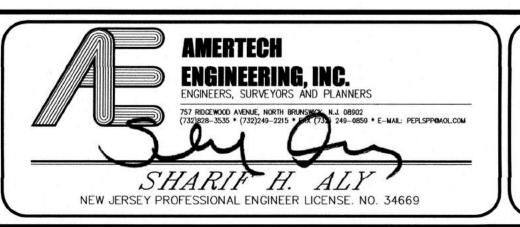
GRAPHIC SCALE ( IN FEET ) 1 inch = 40 ft.

OWNER/APPLICANT SHRIJI ESTATES C/O: AKSHAR AMIN 2 BRICK YARD ROAD, CRANBURY, NJ 08834

\* = EXISTING CONDITION

1	PER TOWNSHIP REVIEW LETTER 12/8/2023	2/12/2024	VD/SA
10.	REVISION	2/12/2024 DATE	Dr/Ck



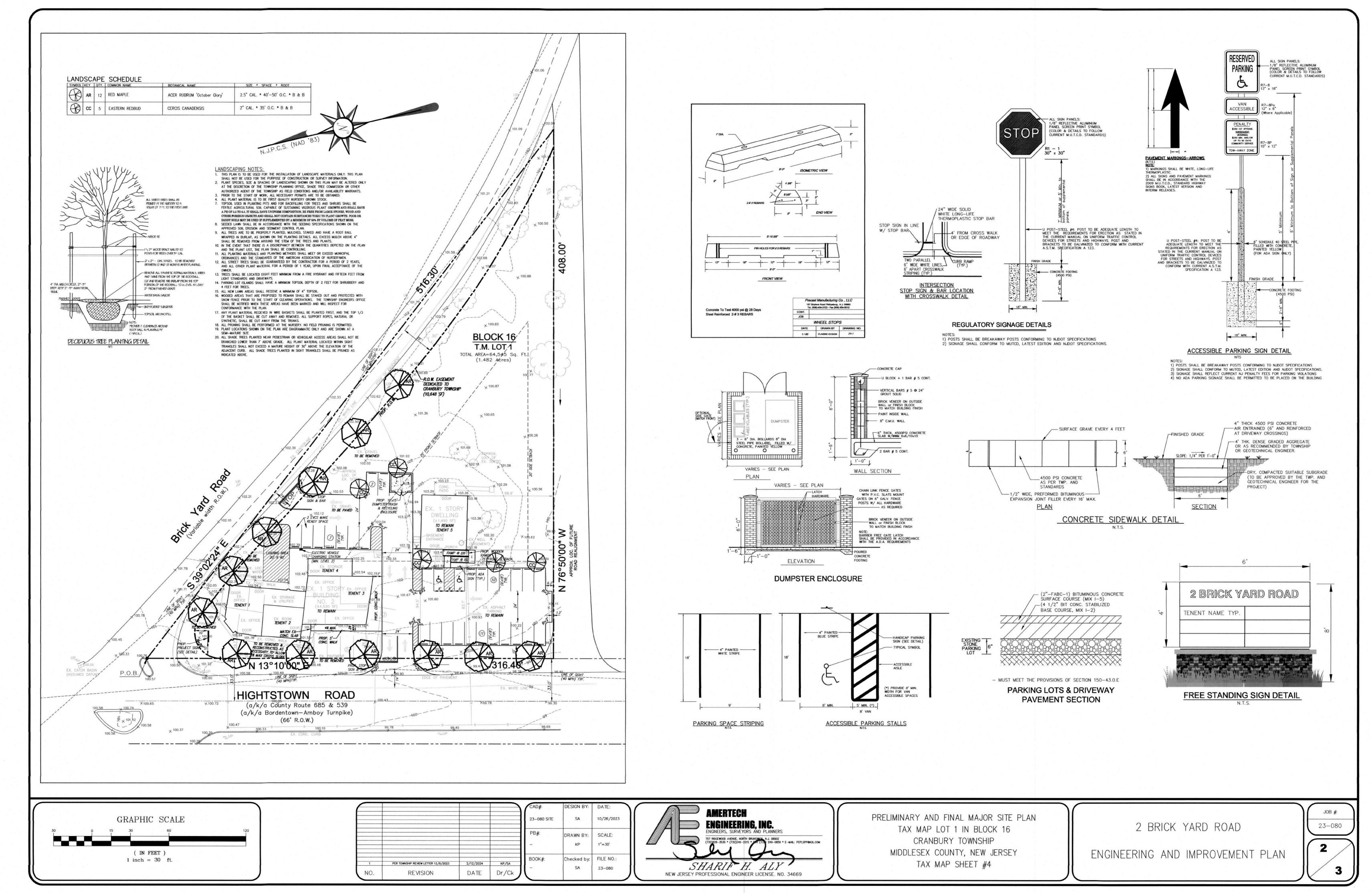


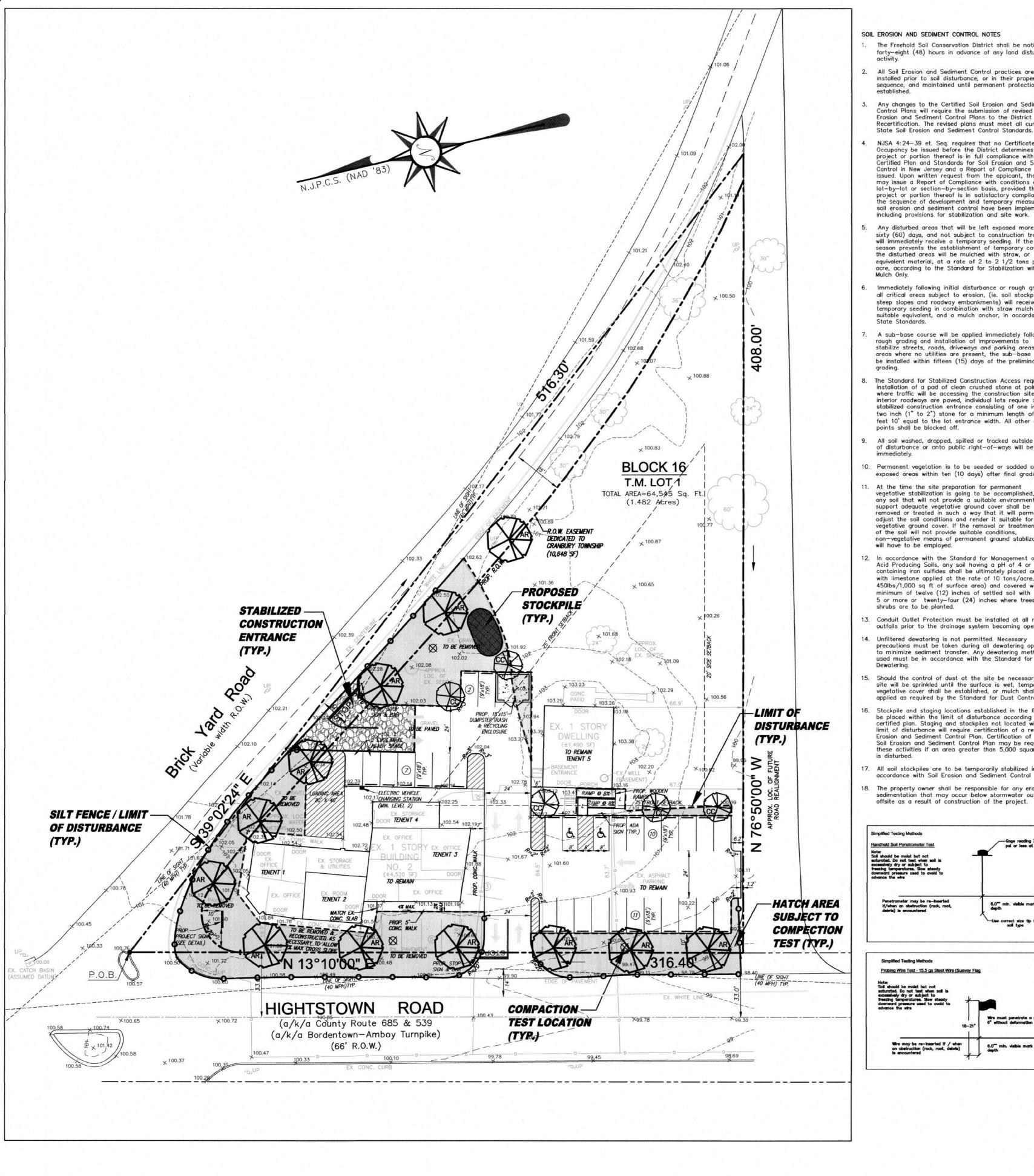
PRELIMINARY AND FINAL MAJOR SITE PLAN TAX MAP LOT 1 IN BLOCK 16 CRANBURY TOWNSHIP MIDDLESEX COUNTY, NEW JERSEY TAX MAP SHEET #4

2 BRICK YARD ROAD

COVER SHEET

JOB #:





SOIL EROSION AND SEDIMENT CONTROL NOTES

The Freehold Soil Conservation District shall be notified forty-eight (48) hours in advance of any land disturbance

2. All Soil Erosion and Sediment Control practices are to be installed prior to soil disturbance, or in their proper sequence, and maintained until permanent protection is

Any changes to the Certified Soil Erosion and Sediment Control Plans will require the submission of revised Soil Erosion and Sediment Control Plans to the District for Recertification. The revised plans must meet all current

NJSA 4:24-39 et. Seq. requires that no Certificates of Occupancy be issued before the District determines that a project or portion thereof is in full compliance with the Certified Plan and Standards for Soil Erosion and Sedimen Control in New Jersey and a Report of Compliance has been issued. Upon written request from the appicant, the District may issue a Report of Compliance with conditions on a lot-by-lot or section-by-section basis, provided that the project or portion thereof is in satisfactory compliance with the sequence of development and temporary measures for soil erosion and sediment control have been implemented

5. Any disturbed areas that will be left exposed more than sixty (60) days, and not subject to construction traffic, will immediately receive a temporary seeding. If the season prevents the establishment of temporary cover, the disturbed areas will be mulched with straw, or equivalent material, at a rate of 2 to 2 1/2 tons per acre, according to the Standard for Stabilization with

6. Immediately following initial disturbance or rough grading, all critical areas subject to erosion, (ie. soil stockpiles, steep slopes and roadway embankments) will receive temporary seeding in combination with straw mulch or a suitable equivalent, and a mulch anchor, in accordance with State Standards.

7. A sub-base course will be applied immediately following rough grading and installation of improvements to stabilize streets, roads, driveways and parking areas. In areas where no utilities are present, the sub-base shall be installed within fifteen (15) days of the preliminary

. The Standard for Stabilized Construction Access requires the installation of a pad of clean crushed stone at points where traffic will be accessing the construction site. After interior roadways are paved, individual lots require a stabilized construction entrance consisting of one inch to two inch (1" to 2") stone for a minimum length of ten feet 10' equal to the lot entrance width. All other access

points shall be blocked off. 9. All soil washed, dropped, spilled or tracked outside the limit of disturbance or onto public right-of-ways will be removed

10. Permanent vegetation is to be seeded or sodded on all exposed areas within ten (10 days) after final grading.

11. At the time the site preparation for permanent vegetative stabilization is going to be accomplished. any soil that will not provide a suitable environment to upport adequate vegetative ground cover shall be removed or treated in such a way that it will permanently adjust the soil conditions and render it suitable for egetative ground cover. If the removal or treatment of the soil will not provide suitable conditions. non-vegetative means of permanent ground stablization

12. In accordance with the Standard for Management of High Acid Producing Soils, any soil having a pH of 4 or less or containing iron sulfides shall be ultimately placed or buried with limestone applied at the rate of 10 tons/acre, (or 450lbs/1.000 sa ft of surface area) and covered with a minimum of twelve (12) inches of settled soil with a pH of 5 or more or twenty-four (24) inches where trees or shrubs are to be planted.

13 Conduit Outlet Protection must be installed at all required outfalls prior to the drainage system becoming operational.

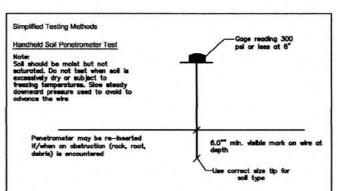
14. Unfiltered dewatering is not permitted. Necessary precautions must be taken during all dewatering operations to minimize sediment transfer. Any dewatering methods used must be in accordance with the Standard for Dewatering.

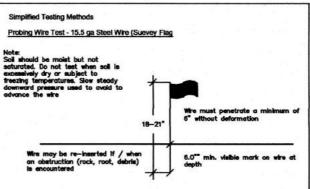
Should the control of dust at the site be necessary, the site will be sprinkled until the surface is wet, temporary vegetative cover shall be established, or mulch shall be applied as required by the Standard for Dust Control.

16. Stockpile and staging locations established in the field shall be placed within the limit of disturbance according to the certified plan. Staging and stockpiles not located within the limit of disturbance will require certification of a revised So Erosion and Sediment Control Plan. Certification of a new Soil Erosion and Sediment Control Plan may be required for these activities if an area greater than 5,000 square feet

17. All soil stockpiles are to be temporarily stabilized in accordance with Soil Erosion and Sediment Control note #6

18. The property owner shall be responsible for any erosion or sedimentation that may occur below stormwater outfalls or





VEGETATIVE COVER MAINTENANCE NOTES

Maintenance should occur on a regular basis, consistent with favorable plant growth, soil and climatic conditions. This involves regular seasonal work for mowing, fertilizing, liming, water, pruning, fire control, weed and pest control, reseeding and timely repairs.

Mowing on improved greas, such as lawns, certain recreation fields and picnic areas shall be frequent. On semi-improved areas, mowing will be infrequent. Unimproved areas may be left unmowed to permit natural succession.

Fertilizer should be applied as needed to maintain a dense stand of desirable species. Frequently moved greas and those on sandy soils will require more fertilization.

lime requirement should be determined by soil testing to be done every 2 or 3 years. Fertilization will increase the

Weed invasion may result from abusive mowing and inadequate fertilization and liming. Brush invasion is a common consequence of lack of mowing. Control of weeds or brush shall be accomplished by using herbicides or

The Property Owner (or tenant by contract) shall be responsible for maintenance during and after construction

Temporary seeding shall consist of Spring Oats applied at a rate of 2.0lbs per 1,000sf (86lbs/Acre) or Perennial Ryegrass at a rate of 1.0lbs per 1,000 sf (100lbs/Acre). Temporary seeding to be maintained until disturbed areas are permanently stabilized with permanent seeding. Mulch seeded area with a mulch as indicated under Mulching & Tacking Specifications this sheet.

8. Permanent Seeding shall consist of the following mixture or approved equal (Refer to Standards for Soil Erosion & Sediment Control in New Jersey for Optimum and Acceptable Seeding Dates):

EXCESSIVELY DRAINED LOTS (MIXTURE #10): Tall Fescue (turf-type) @ 265lbs/Ac. (6lbs/1000 sf) Perennial Ryegrass @ 20lbs/Ac. (5lbs/1000 sf)

WELL TO MODERATELY WELL DRAINED LOTS (MIXTURE #6):

Fine Fescue (Blend) @ 130lbs/Ac. (3lbs/1000sf)

 Hard Fescue Chewings Fescue Strong Creeping Red Fescue 45lbs/Ac (0.1lbs/1000sf) Kentucky Bluegrass Perennial Ryegrass @ 20lbs/Ac (0.5lbs/1000sf)

White Clover Ø 5lbs/Ac (0.10lbs/1000sf) (White Clover can be eliminated when used to establish

POORLY DRAINED LOTS & DETENTION BASINS (MIXTURE #16): Rough Bluegrass @ 90lbs/Ac (2.0lbs/1000 sf) Strong Creeping Red Fescue @ 130lbs/Ac (3lbs/1000sf)

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

Mulching is required on all seeding. Stablilize all seeded areas with mulch as indicated in Mulching & Tacking Notes.

2. If season prevents the establishment of temporary or permanent seeding, exposed area to be stabilized with mulch as indicated in note 6.

13. Mulch used for exposed greas where season prevents the establishment of permanent or temporary cover to consist of small grain straw or salt hay anchored with a wood and fibre mulch binder or an approved equal. Mulch will spread at rates of 90 to 115 lbs/1000 sf and anchored with a mulch anchoring tool or liquid mulch binder. For mulch application with seeding see the Mulching and Tacking Specifications this

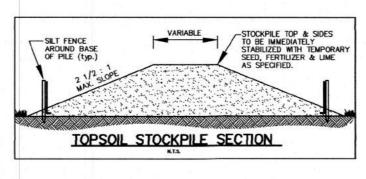
4. Uniformly apply ground limestone and fertilizer to topsoil which has been spread and firmed, according to soil test recommendations such as offered by Rutgers Co-op Extension offices. Fertilizer shall be applied at the rate of 500lbs per acre or 11lbs/1,000sf of 10-10-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise and incorporated into the soil to a depth of 4 inches with a disc, springtooth harrow or other suitable equipment. The final harrowing or discing operation should be on the General contour. Continue tillage until a reasonably uniform, fine seedbed is prepared. All but clay or silty soils and coarse sands should be rolled to firm the

The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise mismanaged.

# TEMPORARY VEGETATIVE STABILIZATION DATES

ZONE 6B . perennial ryegrass 2. spring oats 3. winter barley

- 3/1-5/15 & 8/15-10/1 - 3/1-5/15 & 8/15-10/1 - 8/15-10/1 - 3/15-6/1 & 8/1-9/15 4. annual ryegrass - 8/1-9/15 5. winter cereal rye - 5/15-8/15 6. pearl millet - 5/15-8/15 7. millet (german or hungarian)



### MULCHING & TACKING SPECIFICATIONS

Mulching shall be applied to all disturbed areas immediately after construction and following the application of temporary and/or permanent seeding in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey". Mulching to consist of the following: a) Straw or Hay. Unrotted small grain straw, hay free of seeds, applied at the rate of 1-1/2 to 2 tons per acre (70 to 90lbs/1,000sf), except that where a crimper is used instead of a iquid mulch binder (tackifying or adhesive agent), the rate of application is 3 tons per acre b) Wood-fiber or paper-fiber mulch applied at a rate of 1,500lbs per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder c) Pelletized mulch applied at a rate of 60-75lbs/1,000sf and activated with 0.2 to 0.4 inches of water.

Mulching shall be anchored in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey". Anchoring for proposed Mulch shall be accomplished using one of the following a) Peg & Twine.

b) Mulch Nettings. c) Crimper (mulch anchoring tool). d) Liquid Mulch Binders. (May be used to anchor hay or straw

DUST CONTROL

The following methods should be considered for controlling dust: Mulches - See Standards for Stabilization with Mulches Only (p.5-1).\* Vegetative Cover - See Standards for: Temporary Vegetative Cover (p. 7-1)\*, Permanent Vegetative Cover (p. 4-1)\*, and Permanent

Spray-On Adhesives - On mineral soils (not effective on muck soils).

MATERIAL Anionic Asphalt Emulsion	Water Dilution 7:1	Type of Nozzle Coarse Spray	Gal/Ac. 1,200
Latex Emulsion	12.5:1	Fine Spray	235
Resin in Water	4: 1	Fine Spray	300
Polyacrylamide (PAM) - spray on	Apply acco	rding to manufacturer's	instructions.

May Polyacrylamide (PAM) - dry spread also be used as an additive to sediment flocculate and precipitate suspended

Articulated Soy Been Soap Stick None Coarse Spray

<u>Tillage</u> — To roughen surface and bring clods to the surface. This is temporary emergency measure which should be used before soil blowing starts. Begin plowing on windward side of 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

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 plantdamage. 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. \* Standards for Soil Erosion and Sediment Control in New Jersey, Jan., 2014.

currents and soil blowing.

A.Topsoll should be friables, loamyz, free of debris, objectionable weeds and stones, and contain no toxic substance or adverse chemical or physical condition that may be harmful to plant growth. Soluble salts should not be excessive (conductivity less than 0.5 millimhos per centimeter. More than 0.5 millimhos may desiccate seedlings and content of 2.75 percent. Organic matter content may be raised by additives.

R Toppoil substitute is a soil material which may have been amended with sand sill clay, organic matter, fertilizer or lime and has the appearance of topsoil. Topsoil substitutes may be utilized on sites with insufficient topsoil for establishing permanen vegetation. All topsoil substitute materials shall meet the requirements of topsoil noted above. Soil tests shall be performed to determine the components of sand, silt, clay

### 2.Stripping and Stockpiling A. Field exploration should be made to determine whether quantity and or quality of

surface soil justifies stripping. B. Stripping shall be confined to the immediate construction area.

tests to bring the soil pH to approximately 6.5 D. A 4-6 inch stripping depth is common, but may vary depending on the particular

C. Where feasible, lime may be applied before stripping at a rate determined by soil

E. Stockpiles of topsoil should be situated so as not to obstruct natural drainage or cause off-site environmental damage.

F. Stockpiles should be vegetated in accordance with standards of Permanent or Temporary Vegetative Cover for Soil Stabilization. Weeds should not be allowed to grow on stockpiles.

A. Grade at the onset of the optimal seeding period so as to minimize the duration and area of exposure of disturbed soil to erosion. Immediately proceed to establish vegetative cover in accordance with the specified seed mixture. Time is of the essence B. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance. C. As guidance for ideal conditions, subsoil should be tested for lime requirement. Limestone, if needed, should be applied to bring soil to a pH of approximately 6.5 and incorporated into the soil as nearly as practical to a depth of 4 inches. D. Prior to topsoiling, the subsoil shall be in compliance with the Standard for Land

E. Employ needed erosion control practices such as diversions, grade stabilization

A. Topsoil should be handled only when it is dry enough to work without damaging soil

B. A uniform application to an average depth of 5.0 inches, minimum of 4 inches, regulatory and/or industry design standards are appropriate such as on golf courses, sports fields, landfill capping, etc.. Soils with a pH of 4.0 or less or containing iron sulfide shall be covered with a minimum depth of 12 inches of soil having a pH of 5.0 or more, in accordance with the Standard for Management of High Acid Producing Soil. C. Pursuant to the requirements in Section 7 of the Standard for Permanent

regetative Stabilization, the contractor is responsible to ensure that permanent regetative cover becomes established on at least 80% of the soils to be stabilized with vegetation. Failure to achieve the minimum coverage may require additional work to be performed by the contractor to include some or all of the following: supplemental seeding, re-application of lime and fertilizers, and/or the addition of organic matter (i.e. compost) as a top dressing. Such additional measures shall be based on soil tests such as those offered by Rutgers Cooperative Extension Service or other approved laboratory facilities qualified to test soil samples for agronomic properties.

### Management of High Acid Producing Soils Methods and Materials

1. Limit the excavation area and exposure time when high acid

2. Topsoil stripped from the site shall be stored separately from

temporarily stockpiled high acid producing soils. 5. Stockpiles of high acid producing soil should be located on level land to minimize its movement, especially when this material has a high clay content.

4. Temporarily stockpiled high acid producing soil material to be exposed more than 30 days should be covered with properly anchored, heavy grade sheets of polyethylene where possible. not possible, stockpiles shall be covered with a minimum of 3 to 6 inches of wood chips to minimize erosion of the stockpile. Silt fence shall be installed at the toe of slope to contain movement of the stockpiled material. Topsoil shall not be applied to the stockpiles to prevent topsoil contamination with high acid producing soil.

5. High acid producing soils with a pH of 4 or less, or containing iron sulfide, (including borrow from cuts or dredged sediment) shall be ultimately placed or buried with limestone applied at the rate of 10 tons per acre (or 450 pounds per 1,000 square feet of surface area) and covered with a minimum of 12 inches of settled soil with a pH of 5 or more except as a. Areas where trees or shrubs are to be planted shall be covered with a minimum of 24 inches of soil with a pH of 5 or

b. Disposal areas shall not be located within 24 inches of any surface of a slope or bank, such as berms, stream banks, ditches and others to prevent potential lateral leaching damages. 6. Equipment used for movement of high acid producing soils

should be cleaned at the end of each day to prevent spreading of high acid soil materials to other parts of the site, into treams or stormwater conveyances and to protect machinery from accelerated rusting.

7. Non vegetative erosion control practices (stone tracking pads. strategically placed limestone check dam, silt fence, wood chips) should be installed to limit the movement of high acid producing soils from, around or off the site. 8. Following burial or removal of high acid producing soil

topsoiling and seeding of the site, (see Temporary Vegetative Cover for Soil Stabilization, Permanent Vegetative Cover for Soil Stabilization, and Topsoiling) manitoring must continue for a minimum of 6 months to assure there is adequate stabilization and that no high acid soil problems emerge. If problems still exist the affected area must be treated as indicated above to correct the problem.

### Sediment Barrier Maintenance Notes: Sediment shall be removed from the upstream face of

ONE WEEK

the barrier when it has reached a depth of 1/2 the barrier height.

2. Repair or replace barrier (fabric, posts, bales etc.) when Barriers shall be inspected daily for signs of deterioration

and sediment removal. SEQUENCE OF OPERATIONS

Silt fence to be installed immediately before clearing.

### Install stabilized construction entrance as noted. ONE DAY Clear and establish rough grades. All exposed surfaces

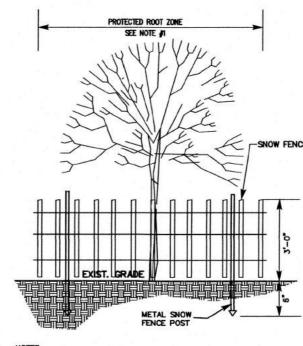
Sediment Control notes 1 and 2. THREE DAYS Construct parking. All disturbed greas will receive appropriate temporary and permanent stabilization as defined in soil erosion and sediment control notes 1

will be stabilized as defined in Soil Erosion and

Perform soil compaction testing/mitigation on site. VARIABLE.

Establish finished grades, place concrete sidewalks and establish permanent vegetative cover.

Remove silt fence barricades after all disturbed areas have been stabilized. ONE DAY



Estimate a tree's Protected Root Zone (PRZ) by calculating the Critical Root Radius (crr).
a) Measure the dbh (diameter of tree at breast height, 4.5 feet above ground on the uphill side of tree) in inches.

b) Multiply measured dbh by 1.5 or 1.0. Express the result in feet.

Dbh x 1.5: Critical root radius for older, unhealthy, or sensitive species.

Dbh x 1.0: Critical root radius for younger, healthy or tolerant species. Refer to Standards for Soil Erosion & Sediment Control in New Jersey, Jan. 2014 for additional criteria for protecting remaining trees.

TREE PROTECTION SNOW FENCE DETAIL

### 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

Install needed erosion control practices or facilities such as diversions, grad stabilization structures, channel stabilization measures, and

waterways. See Standards 11 through 42. 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.).

Seedbed Preparation

Apply ground limestone and fertilizer according to soil test ecommendations such as offered by Rutgers Co-operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Soil testing shall be performed on-site to determine the rate at which limestone will need to applied in tons/acre. 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. 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

Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retilled in accordance with the above. Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils.

### 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

Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land 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

organic matter, as needed, in accordance with the standard for Install needed erosion control practices or facilities such as diversions, grade-stablization structures, channel stabilization measures, and waterways.

inches (unsettled) is required on all sites. Topsoil shall be amended with

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 Co-operative Extension Soil Sample mailers are available from the local Rutgers Cooperative Extension offices (http://njaes.rutgers.edu/county/). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent 50% water insoluble nitrogen unless a soil rest indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply one-half the rate as described above during seedbed preparation and repeat one-half rate application

of the same fertilizer within 3 to 5 weeks after seeding. 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 be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared

High acid producing soil. Soils having a pH 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed reparation. See Standard for Management of High Acid-Producing Soils for specific requirements. Soil De-Compaction and Testing Requirements

### Soil Compaction Testing Requirements 1. Subgrade soils prior to the application of topsoil (See permanent seeding and

stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative

2. Areas of the site which are subject to compaction testing and/or mitigation are geographically denoted on the certified soil erosion control plan. Compaction testing locations are denoted on the plan. A copy of the plan or
portion of the plan shall be used to mark locations of tests, and attached to the compaction remediation form, available from the local soil conservation district

This form must be filled out and submitted prior to receiving a certificate of

4. In the event that testing indicates compaction in excess of the maximum thresholds indicated for the simplified testing methods, (see details below), the contractor/owner shall have the option to perform either (1) compaction mitigation over the entire mitigation area denoted on the plan (excluding exempt greas), or (2) perform additional, more detailed testing to establish the limits of excessive compaction whereupon only the excessively competed areas would require compaction mitigation Additional detailed testing shall be performed by a trained, licensed professional.

Compaction Testing Methods A. Probing wire test (see detail) 3. Hand-held penetrometer test (see detail) C. Tube bulk density test (licensed professional engineer required)

engineer may be substituted subject to district approve

D. Nuclear density test (licensed professional engineer required Note: additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject

(scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction. Procedures for soil compaction mitigation

Soil compaction testing is not required if /when subsoil compaction remediation

Procedures shall be used to mitigate excessive soil compaction <u>prior to placement of topsoil</u> and establishment of permanent vegetative cover. Restoration of compacted soils shall be through deep scarification/tillage (6" minimum

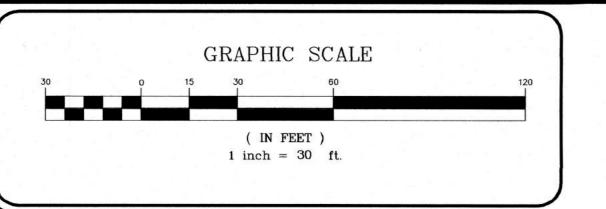
depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). in the alternative, another method as specified by a NJ licensed professional

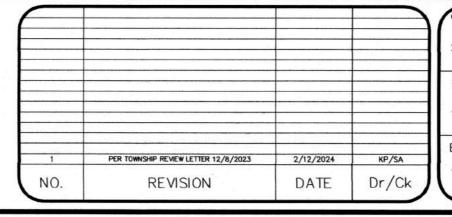
MIT OF DISTURBANCE BE DELINEATED WITH SILT FENCE HOUSE - SILT FENCE

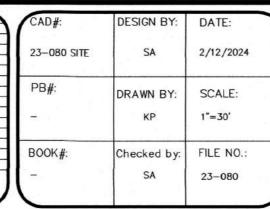
SOIL EROSION & SEDIMENT CONTROL

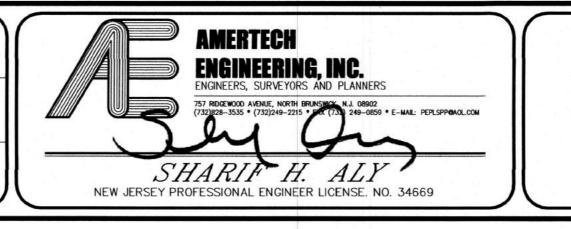
TYPICAL LOT DETAIL

All soil erosion and sediment control methods and materials shall be in accordance with the requirements and recommendations within "The Standards for Soil Erosion and Sediment Control in New Jersey"









PRELIMINARY AND FINAL MAJOR SITE PLAN TAX MAP LOT 1 IN BLOCK 16 CRANBURY TOWNSHIP MIDDLESEX COUNTY, NEW JERSEY TAX MAP SHEET #4

2 BRICK YARD ROAD

SOIL EROSION AND SEDIMENT CONTROL PLAN

JOB #: