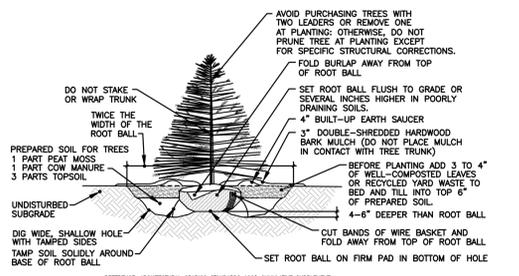


**LANDSCAPE REQUIREMENTS**  
SECTION 601.C.6

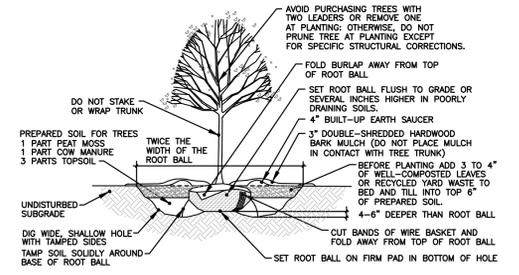
REQUIRED: 20% FRONT YARD AREA TO BE LANDSCAPED  
0.20 (13,944 S.F.) = 2,789 S.F.  
PROPOSED: 2,774 S.F. LANDSCAPED WITHIN FRONT YARD

**PLANTING NOTES:**

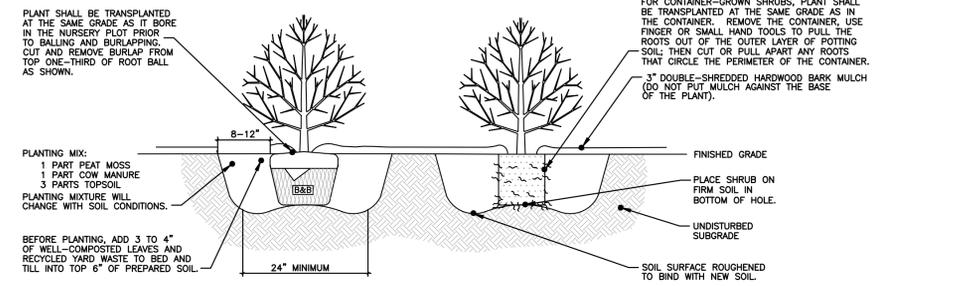
- ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 3" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH. MULCH SHALL BE 1/2" BELOW TOP OF PAVEMENTS AND CURBS.
- PLANTS SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS THEY BORE TO EXISTING GRADE IN THE NURSERY.
- TOPSOIL SHALL BE SANDY LOAM, FREE FROM SUBSOIL, STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL; CONTAIN 1% ORGANIC MATTER (pH 6.0 TO 6.5, SEE SPECIFICATION).
- CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL. NYLON ROPE AND/OR NYLON BALLING MATERIAL IS NOT ACCEPTABLE. WIRE BASKETS TO BE REMOVED.
- LOCATE GUY WIRES SO THAT THEY WILL NOT PULL CROUCH APART.
- ANY PLANT DEAD OR DETERMINED TO BE DAMAGED BEYOND REPAIR BY ACCEPTED STANDARDS AND THE LANDSCAPE ARCHITECT WITHIN ONE YEAR OF INSTALLATION SHALL BE REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.
- IF THERE IS A DISCREPANCY BETWEEN THE PLANT COUNT SHOWN IN THE PLANT LIST AND THE PLANTING GRAPHIC, THE GRAPHIC SHALL TAKE PRECEDENCE.
- IF THE CONTRACTOR DETERMINES THE SUB-GRADE SOIL CONDITIONS ARE DELETERIOUS TO PLANT GROWTH OR WILL INHIBIT DRAINAGE, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND PRIOR TO INSTALLATION OF PLANT MATERIAL.
- PLANT PERENNIALS AND GROUND COVER IN 8" DEEP TOPSOIL BED CONSISTING OF 2/3 TOPSOIL AND 1/3 HUMUS. PLANT BULBS IN NATURALIZED DRIFTS.
- TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY CONSTRUCTION, OR STORAGE OF EQUIPMENT WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT.
- PLANT PITS SHALL BE 24" WIDER AND 6" DEEPER THAN THE ROOT BALL. ALL EXISTING SOIL SHALL BE REMOVED AND BACK FILLED WITH A MIXTURE OF ONE PART PEAT-HUMUS TO 4 PARTS TOPSOIL. ONE 3-YEAR EASY GROW FERTILIZER PACKET (OR EQUAL) SHALL BE ADDED PER 1" OF TREE CALIPER OR PER 12" HEIGHT OF SHRUB.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANT BEDS ARE TO BE SEPARATED FROM LAWN AREA WITH A 3" DEEP "V" TRENCH.
- TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL REGRADED SURFACES TO THE GREATEST EXTENT POSSIBLE.
- ALL PLANT MATERIAL SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE 'AMERICAN STANDARD FOR NURSERY STOCK' LATEST EDITION.
- CONTRACTOR SHALL CALL FOR UTILITY MARKOUTS PRIOR TO ANY PLANT INSTALLATION.



**EVERGREEN TREE PLANTING DETAIL**  
SCALE: N.T.S.



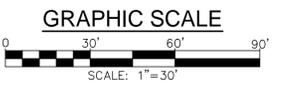
**DECIDUOUS TREE PLANTING DETAIL**  
SCALE: N.T.S.



**SHRUB PLANTING DETAIL**  
SCALE: N.T.S.

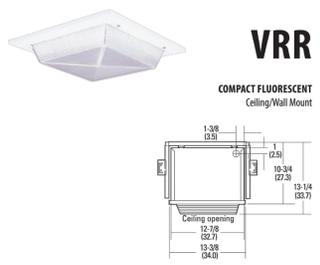
**PLANT LIST:**

| KEY  | QUANTITY | BOTANICAL NAME                               | COMMON NAME                    | ROOT     | SIZE            | SPACING  | COMMENTS   |
|--|----------|--|--------------------------------|----------|-----------------|----------|--|
| TREES  |          |  |                                |          |                 |          |  |
| QR   | 1        | QUERCUS RUBRA                                | RED OAK                        | B&B      | 3 1/2" - 4" CAL |          | SYMMETRICAL LEADER INTACT, FULL, BRANCHING AT 7 ABOVE FINISHED GRADE |
| PA   | 8        | PICEA PICEA                                  | WHITE SPRUCE                   | B&B      | 6-7 HT          |          | DENSE, FULL TO GROUND, WELL ESTABLISHED                              |
| SHRUBS   |          |  |                                |          |                 |          |  |
| EJM  | 5        | EUONYMUS JAPONICUS VAR. MICROPHALLUS MONCLIF | SUNNY DELIGHT BOXLEAF EUONYMUS | #5 CONT. | 18"-24" HT      | 36" O.C. | WELL ESTABLISHED, FULL   |
| JCGC   | 3        | JUNIPERUS CH. 'GOLD COAST'                   | GOLD COAST JUNIPER             | #3 CONT. | 18"-24" HT      | 48" O.C. | DENSE, FULL TO GROUND, WELL ESTABLISHED                              |
| JCHC   | 1        | JUNIPERUS CH. HETZI COLUMNARIS               | COLUMNAR HETZ JUNIPER          | #5 CONT. | 4-5 HT          |          | DENSE, FULL TO GROUND, WELL ESTABLISHED                              |
| RDV  | 1        | AZALEA X DELAWARE VALLEY WHITE               | DELAWARE VALLEY WHITE AZALEA   | #5 CONT. | 18"-24" HT      | 36" O.C. | DENSE, FULL TO GROUND, WELL ESTABLISHED                              |
| SPS  | 2        | SPIRAEA JAPONICA SHIROBANA                   | SHIROBANA SPIRAEA              | #5 CONT. | 24"-36" HT      | 42" O.C. | DENSE, FULL TO GROUND, WELL ESTABLISHED                              |
| PERENNIALS / GROUND COVER / ORNAMENTAL GRASSES |          |  |                                |          |                 |          |  |
| HSD  | 14       | HEMEROCALLIS 'STELLA D'ORO'                  | STELLA D'ORO DAYLILY           | #2 CONT. |                 | 24" O.C. | WELL ESTABLISHED, FULL   |
| LIA  | 11       | LIASTRIS SPICATA KOBOLD                      | KOBOLD GAYFEATHER              | #2 CONT. |                 | 24" O.C. | WELL ESTABLISHED, FULL   |



**Lighting Schedule**

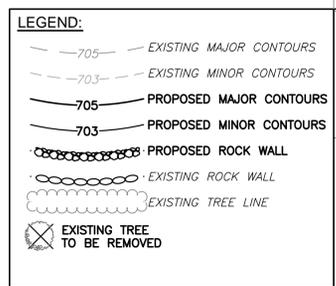
| Symbol | Label | Quantity | Manufacturer      | Catalog Number | Description  | Lumens Per Lamp | Light Loss Factor | Wattage |
|--------|-------|----------|-------------------|----------------|--|-----------------|-------------------|---------|
| □      | A     | 9        | Lithonia Lighting | VRR LED TL FHL | VANDAL RESISTANT RECESSED LED FIXTURE, FLAT GLASS LENS 4000K | 4652            | 0.36              | 26.5    |



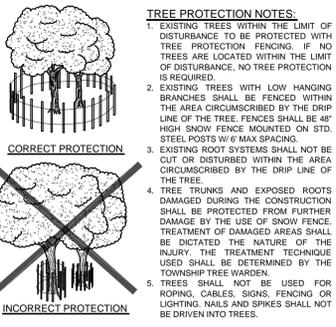
**CANOPY FIXTURE DETAIL**  
NOT TO SCALE



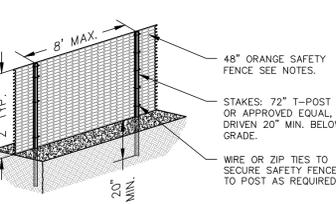
**REFERENCES**  
SURVEY OF PROPERTY PREPARED BY:  
ARTHUR SCHAPPELL JR. NJ PLS LIC. 31279;  
DATED NOVEMBER 15, 2019  
  
FACADE AND INTERIOR RENOVATIONS  
PREPARED BY: GMG ARCHITECTURE  
DATED FEBRUARY 5, 2020



|   |   |   |  |
|---|---|---|--|
| <p>REV</p> <p>COMMENT</p> <p>DATE</p>   | <p>TITLE:</p> <p><b>LANDSCAPING AND LIGHTING PLAN</b></p> <p>APPLICANT:</p> <p><b>PK PETROLEUM ONE, LLC</b></p>   | <p>PROJECT:</p> <p><b>PRELIMINARY AND FINAL MAJOR SITE PLAN</b></p> <p><b>17 ROUTE 57</b></p> <p><b>TOWN OF HACKETTSTOWN</b></p> <p><b>BLOCK 129, LOT 25.01</b></p> <p>WARREN COUNTY NEW JERSEY</p>   | <p>DRAWN BY:</p> <p>TCV</p> <p>SCALE:</p> <p>SEE SCALE</p> <p>DATE:</p> <p>06/24/2020</p> <p>PROJECT NO.:</p> <p>2700.19</p> <p>SHEET NO.:</p> <p>2 OF 3</p> |
| <p>PROFESSIONAL ENGINEER</p> <p>NEW JERSEY LICENSE NO. 24GE04747700</p> <p>NEW YORK LICENSE NO. 090129</p> <p>PENNSYLVANIA LICENSE NO. PE079324</p> | <p><b>J.R. HOUSER</b></p> <p>1141 Greenwood Lane Twp. Ringwood, NJ 07456<br/>Tel: 973-728-2945 / Fax: 973-606-1524<br/>www.housereng.com</p> <p>NJ CERT. OF AUTH. NO.: 24GA28163600</p> | <p><b>HOUSER Engineering, LLC</b></p> <p>1141 Greenwood Lane Twp. Ringwood, NJ 07456<br/>Tel: 973-728-2945 / Fax: 973-606-1524<br/>www.housereng.com</p> <p>THE INFORMATION, DESIGN AND CONCEPT OF THIS PLAN WAS PREPARED BY AN ENGINEER OR ARCHITECT OR PROFESSIONAL ENGINEER OR ARCHITECT WITHOUT BEING A REGISTERED PROFESSIONAL ENGINEER OR ARCHITECT IN THE STATE OF NEW JERSEY.</p> | <p><b>T.C. VANDERVALK</b></p> <p>PROFESSIONAL ENGINEER</p> <p>NEW JERSEY LICENSE NO. 24GE05185800</p>  |

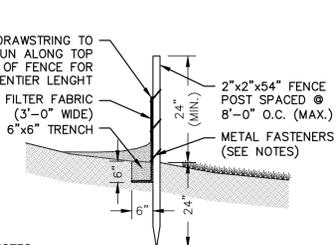


**TREE PROTECTION DETAIL**  
SCALE: N.T.S.



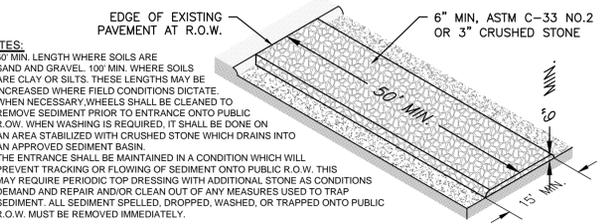
- NOTES:**
- CONSTRUCTION FENCE TO BE INSTALLED ON ALL UP HILL LIMITS OF DISTURBANCE AND AROUND ANY SENSITIVE AREAS TO BE PROTECTED DURING CONSTRUCTION.
  - CONSTRUCTION FENCING TO BE ORANGE, POLYETHYLENE OR POLYPROPYLENE AND SHALL BE HIGHLY VISIBLE. THE FENCE MATERIAL SHALL HAVE AN ULTRAVIOLET COATING.
  - FENCING MUST REMAIN IN PLACE AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION, AND CHANGES TO THE PROTECTIVE FENCING MUST BE APPROVED.

**CONSTRUCTION FENCE**  
SCALE: N.T.S.

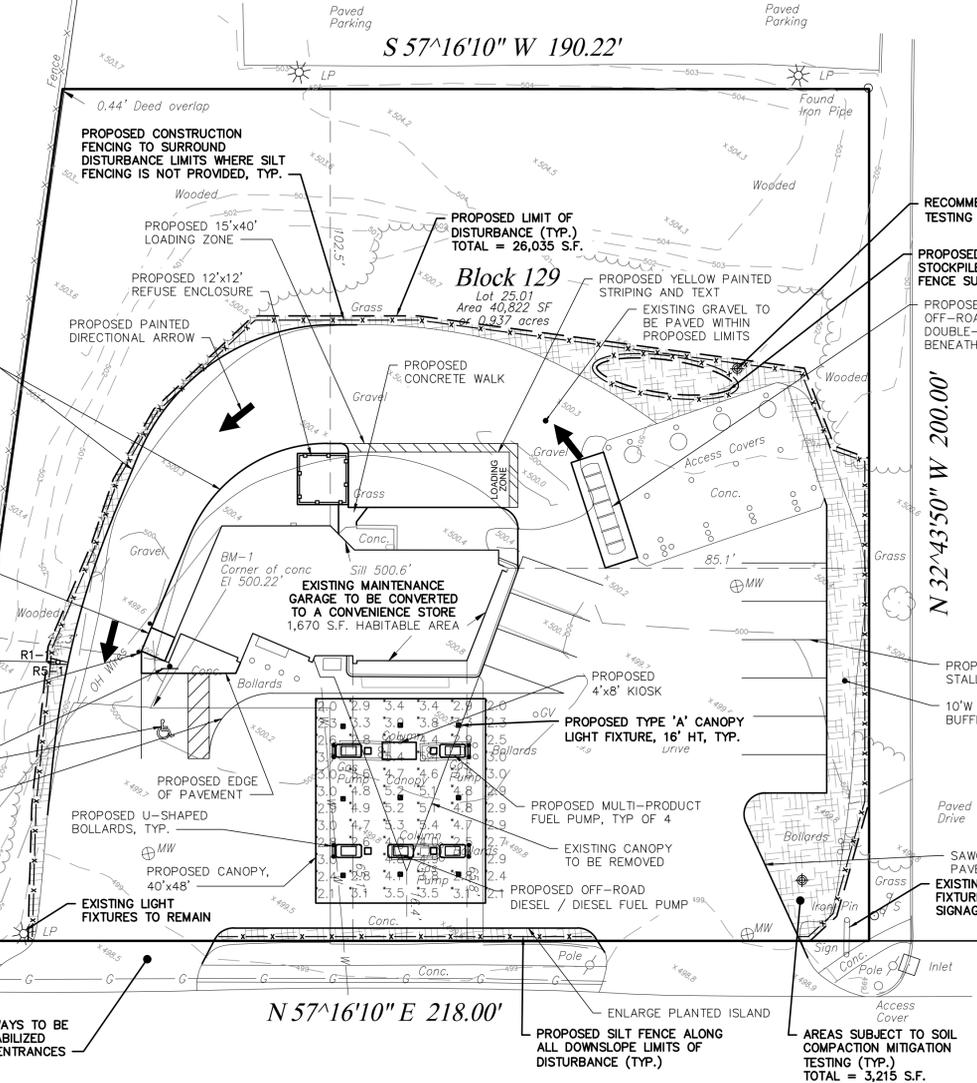


- NOTES:**
- FILTER FABRIC TO BE MIRAFI 100X OR APPROVED EQUAL.
  - BURY BOTTOM 12" OF FILTER FABRIC IN 6"x6" TRENCH AND STAMP IN PLACE.
  - SECURE FILTER FABRIC TO POSTS WITH METAL FASTENERS AND REINFORCEMENT BETWEEN FABRIC AND FASTENER.
  - ENDS OF INDIVIDUAL ROLLS OF FILTER FABRIC TO BE WRAPPED AROUND A COMMON POST TWICE AND SECURELY FASTENED.
  - FOR HEAVY DUTY SILT FENCE, INSTALL WIRE MESH (1/4 GA W/ 4" OPENINGS) BEHIND FILTER FABRIC. SECURE WITH WIRE TIES OR STAPLES.

**SILT FENCE DETAIL**  
SCALE: N.T.S.



**STABILIZED CONSTRUCTION ENTRANCE**  
SCALE: N.T.S.



**SOIL DE-COMPACTION TESTING REQUIREMENTS:**

- SOIL COMPACTION TESTING REQUIREMENTS:**
- 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 60 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
  - AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY 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 TEST, 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 COMPLIANCE FROM THE DISTRICT.
  - IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLD INDICATED FOR THE SIMPLIFIED TESTING METHOD (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 AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

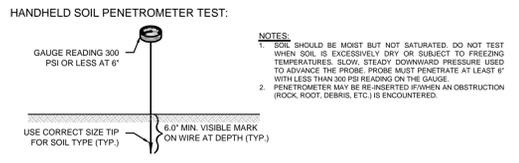
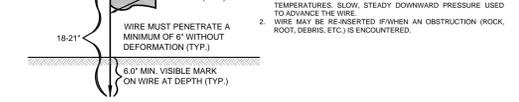
- COMPACTION TESTING METHODS:**
- PROBING WIRE TEST (SEE DETAIL BELOW)
  - HAND-HELD PENETROMETER TEST (SEE DETAIL BELOW)
  - TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
  - NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
- NOTE:** ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

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

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

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

**PROBING WIRE TEST - 15.5 GA STEEL WIRE (SURVEY FLAG):**



**SOIL COMPACTION MITIGATION EXCEPTIONS:**  
DUE TO USE OR SETTING, CERTAIN DISTURBED AREAS WILL NOT REQUIRE COMPACTION REMEDIATION INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- WITHIN 20 FEET OF BUILDING FOUNDATIONS WITH BASEMENTS, 12 FEET FROM SLAB OR CRAWL SPACE CONSTRUCTION.
- WHERE SOILS OR GRAVEL SURFACES WILL BE REQUIRED TO SUPPORT POST-CONSTRUCTION VEHICULAR TRAFFIC LOADS SUCH AS ROADS, PARKING LOTS AND DRIVEWAYS (INCLUDING GRAVEL SURFACES), BICYCLE PATHS OR PEDESTRIAN WALKWAYS (SIDEWALKS, ETC.).
- AIRPORTS, RAILWAYS OR OTHER TRANSPORTATION FACILITIES.
- AREAS REQUIRING INDUSTRY OR GOVERNMENT SPECIFIED SOIL DESIGNS, INCLUDING GOLF COURSES, LANDFILLS, WETLAND RESTORATION, SEPTIC DISPOSAL FIELDS, WETLAND PONDS, ETC.
- AREAS GOVERNED OR REGULATED BY OTHER LOCAL, STATE OR FEDERAL REGULATIONS WHICH DICTATE SOIL CONDITIONS.
- BROWNFIELDS (CAPPED USES), URBAN REDEVELOPMENT AREAS (AS DEFINED BY THE STANDARDS AS PREVIOUSLY DEVELOPED PORTIONS OF AREAS: A) DELINEATED ON THE STATE PLAN POLICY MAP (SPPM) AS THE METROPOLITAN PLANNING AREA (PA), DESIGNATED CENTERS, CORES OR NODES; B) DESIGNATED AS CAFRA CENTERS, CORES OR NODES; C) DESIGNATED AS URBAN ENTERPRISE ZONES; AND D) DESIGNATED AS URBAN COORDINATING COUNCIL EMPOWERMENT NEIGHBORHOODS), IN-FILL AREAS, RECYCLING YARDS, JUNK YARDS, AND QUARRIES.
- SLOPES DETERMINED TO BE INAPPROPRIATE FOR SAFE OPERATION OF EQUIPMENT.
- PORTIONS OF A SITE WHERE NO HEAVY EQUIPMENT TRAVEL OR OTHER DISTURBANCE HAS TAKE PLACE.
- AREAS RECEIVING TEMPORARY VEGETATIVE STABILIZATION IN ACCORDANCE WITH THE STANDARD.
- WHERE THE AREA AVAILABLE FOR REMEDIATION PRACTICES IS 500 SQUARE FEET OR LESS IN SIZE.
- LOCATIONS CONTAINING SHALLOW (CLOSE TO THE SURFACE) BEDROCK CONDITIONS.

**WARREN COUNTY SOIL CONSERVATION DISTRICT NOTES:**

- THE DISTRICT SHALL BE REPRESENTED AT THE PROJECT PRECONSTRUCTION MEETING WITH THE TOWNSHIP ENGINEER, CONTRACTORS, AND UTILITY REPRESENTATIVES. IF THE TOWNSHIP ENGINEER DOES NOT SCHEDULE A PRECONSTRUCTION MEETING, IT IS THE RESPONSIBILITY OF THE OWNER/APPLICANT TO SCHEDULE ONE BEFORE ANY LAND DISTURBANCE. TWO WEEKS NOTICE MUST BE GIVEN FOR SCHEDULING PRECONSTRUCTION MEETINGS.
- FAILURE OF THE AFORESAID PLAN SHALL NOT RELIEVE THE APPLICANT OF ANY OF ITS RESPONSIBILITIES RELEVANT TO THE APPROPRIATE STATUTES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE DISTRICT IN THE EVENT OF ANY UNFORESEEN PROBLEMS INCURRED DURING CONSTRUCTION.
- ANY CHANGES OF APPROVED PLANS SHALL REQUIRE AN ADDITIONAL SUBMITTAL TO THE DISTRICT INCLUDING APPROPRIATE REVIEW FEES.
- A 48 HOUR START OF LAND DISTURBANCE NOTIFICATION SHALL BE GIVEN.
- IN THAT N.J.A.C. 17A-29 ET SEQ. REQUIRES THAT NOT CERTIFICATES OF OCCUPANCY BE ISSUED BY THE MUNICIPALITY BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR THE PERMANENT MEASURES. ALL SITE WORK RELATIVE TO APPROVED PLANS AND ANY LAND DISTURBANCE TWO WEEKS NOTICE MUST BE GIVEN FOR SCHEDULING PRECONSTRUCTION MEETINGS. A CERTIFICATE OF COMPLIANCE, TWO WEEKS NOTICE MUST BE GIVEN TO THE DISTRICT TO SCHEDULE INSPECTION FOR CERTIFICATE OF COMPLIANCE RELEASE.
- FINAL STABILIZATION OF ALL DISTURBANCES ASSOCIATED WITH UNDERGROUND UTILITIES, IRRESPECTIVE OF PHASING, IS THE ULTIMATE RESPONSIBILITY OF THE OWNER.
- A CASH BOND OF NOT LESS THAN \$2,500 (PER DISTURBED ACRE OR PART THEREOF, OR A LOT) WILL BE POSTED WITH THE WARREN COUNTY SOIL CONSERVATION DISTRICT DURING THE NON-GROWING SEASON (NOVEMBER 15 - APRIL 15) IF A CERTIFICATE OF COMPLIANCE IS NEEDED AND SOIL EROSION AND SEDIMENT CONTROL MEASURES FOR PERMANENT STABILIZATION ARE NOT COMPLETED.
- SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEEPED AT THE END OF EACH WORKING DAY.
- NO BUILDING PERMITS WILL BE RELEASED UNTIL ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON APPROVED PLANS ARE INSTALLED.
- DUST TO BE CONTROLLED WITH WATER, CALCIUM CHLORIDE OR OTHER METHOD APPROVED BY THE SOIL CONSERVATION DISTRICT.
- TRACKING PADS TO BE CLEAN AND REPAIRED AS NECESSARY.
- SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, FEBRUARY 2014.
- SEE DETAILS SHEETS FOR ADDITIONAL SOIL AND SEDIMENT CONTROL DETAILS.

**DUST CONTROL NOTES:**  
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, THE FOLLOWING METHODS SHALL BE EMPLOYED AS REQUIRED TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES AND SUBSEQUENT BLOWING AND DEPOSITION INTO LOCAL SURFACE WATER RESOURCES.

**DUST CONTROL WITH MULCHES ONLY:**  
STRAW MULCH (HAY MULCH MAY BE SUBSTITUTED IF APPROVED BY THE DISTRICT) IS TO BE SPREAD UNIFORMLY AT THE RATE OF 2 TO 2-1/2 TONS PER ACRE (TOTAL GROUND SURFACE COVERAGE). THIS PRACTICE IS LIMITED TO PERIODS WHEN VEGETATION CANNOT BE ESTABLISHED DUE TO THE SEASON OR OTHER CONDITIONS. MULCH MUST BE ANCHORED IN ACCORDANCE WITH NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL. MULCH ALONE CAN ONLY BE USED FOR SHORT PERIODS AND WILL REQUIRE MAINTENANCE AND RENEWAL. OTHER MULCH MATERIALS MAY BE UTILIZED IF APPROVED BY THE DISTRICT.

**DUST CONTROL WITH VEGETATIVE COVER:**  
SEE STABILIZATION NOTES FOR TEMPORARY AND PERMANENT VEGETATIVE STABILIZATION CONTROL PROCEDURES.

**DUST CONTROL WITH SPRAY ON ADHESIVES:**  
TO BE USED ON MINERAL SOILS AS THEY ARE NOT EFFECTIVE ON MUCK SOILS. TRAFFIC TO BE KEPT OFF THESE AREAS.

| MATERIAL                   | WATER DILUTION   | NOZZLE TYPE  | APPLY GALLONS/ACRE |
|----------------------------|--|--------------|--------------------|
| ANIONIC ASPHALT EMULSION   | 7:1  | COARSE SPRAY | 1200               |
| LATEX EMULSION             | 12.5:1   | FINE SPRAY   | 230                |
| RESIN IN WATER             | 4:1  | FINE SPRAY   | 300                |
| POLYACRYLAMIDE (PAM)-SPRAY | 7:1  | COARSE SPRAY | 1200               |
| POLYACRYLAMIDE (PAM)-DRY   | FOR POLYACRYLAMIDE PAM SPRAY OR DRY APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. | NONE         | COARSE SPRAY 1200  |

**OTHER DUST CONTROL MEASURES:**  
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 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, BURRAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIALS 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 BE FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OF 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.

**STABILIZATION NOTES:**  
**TOPSOIL STOCKPILE PROTECTION:**  
A) APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1000 SQ. FT.  
B) APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ. FT.  
C) APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1000 SQ. FT., AND ANNUAL RYEGRASS AT 1 LB. PER 1000 SQ. FT.  
D) MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.  
E) APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.  
F) PROPERLY ENTRENCH A SILT FENCE AT THE BOTTOM OF THE STOCKPILE.

**TEMPORARY STABILIZATION SPECIFICATIONS:**  
A) APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1000 SQ. FT.  
B) APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ. FT.  
C) APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1000 SQ. FT., AND ANNUAL RYEGRASS 1 LB. PER 1000 SQ. FT.  
D) MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.  
E) APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.

**PERMANENT STABILIZATION SPECIFICATIONS:**  
A) APPLY TOPSOIL TO A DEPTH OF 2 INCHES (UNSETTLED).  
B) APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1000 SQ. FT., AND WORK FOUR INCHES INTO SOIL.  
C) APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ. FT.  
D) APPLY HARD FESCUE SEED AT 2.7 LBS. PER 1000 SQ. FT., CREeping RED FESCUE SEED AT 0.7 LBS. PER 1000 SQ. FT., AND PERENNIAL RYEGRASS SEED AT 0.25 LBS. PER 1000 SQ. FT.  
E) MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.  
F) APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.

MULCH MATERIALS SHALL BE UN-ROTTED SMALL STRAW APPLIED AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING THE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.

| PROJECTED CONSTRUCTION SEQUENCE  |         |
|--|---------|
| INSTALL TEMPORARY SEDIMENT CONTROL MEASURES:   |         |
| CONSTRUCTION ENTRANCE & SILT FENCE   | 2 DAYS  |
| DEMOLITION AND SITE PREPARATION  | 5 DAYS  |
| INSTALL UNDERGROUND FUEL TANK  | 10 DAYS |
| CONSTRUCT CANOPY AND DISPENSERS  | 20 DAYS |
| CONSTRUCT SITE IMPROVEMENTS (PAVEMENT, LANDSCAPING, ETC.)  | 20 DAYS |
| CONDUCT SOIL COMPACTION TESTING AND REMEDIATE SUBSOIL (SCARIFICATION/TILLAGE TO A MINIMUM DEPTH OF 6") AS NECESSARY. | 1 DAY   |
| UNIFORMLY APPLY TOPSOIL TO AN AVERAGE DEPTH OF 5", MINIMUM OF 4", FIRMED IN PLACE.                                   | 1 DAY   |
| PERMANENT STABILIZATION  | 5 DAYS  |
| REMOVE TEMPORARY STABILIZATION   | 1 DAY   |
| TOTAL  | 65 DAYS |

**PROTECT YOURSELF**  
A PHONE CALL CAN BE YOUR INSURANCE POLICY

**REFERENCES**  
SURVEY OF PROPERTY PREPARED BY: ARTHUR SCHAPPELL JR., N.J. PLS LIC. 31279; DATED NOVEMBER 15, 2019

FAÇADE AND INTERIOR RENOVATIONS PREPARED BY: GMG ARCHITECTURE DATED FEBRUARY 5, 2020

**SOIL COMPACTION MITIGATION TESTING**

**LEGEND:**

- 705- EXISTING MAJOR CONTOURS
- 703- EXISTING MINOR CONTOURS
- 705- PROPOSED MAJOR CONTOURS
- 703- PROPOSED MINOR CONTOURS
- PROPOSED ROCK WALL
- EXISTING ROCK WALL
- EXISTING TREE LINE
- EXISTING TREE TO BE REMOVED

**SOIL COMPACTION TESTING AREAS**

**RECOMMENDED COMPACTION TESTING LOCATIONS (TYP.)**

REV: \_\_\_\_\_ COMMENT: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: **SOIL EROSION AND SEDIMENT CONTROL PLAN**

PROJECT: **PRELIMINARY AND FINAL MAJOR SITE PLAN 17 ROUTE 57 TOWN OF HACKETTSTOWN BLOCK 129, LOT 25.01 WARREN COUNTY NEW JERSEY**

APPLICANT: **PK PETROLEUM ONE, LLC**

DRAWN BY: **TCV**

SCALE: **SEE SCALE**

DATE: **06/24/2020**

PROJECT NO.: **2700.19**

SHEET NO.: **3 OF 3**

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