

U.S.G.S. ROSELLE QUAD SHEET LOCATION MAP

SCALE: 1" = 1,000'

PROJECT NOTES

A. GENERAL SITE NOTES

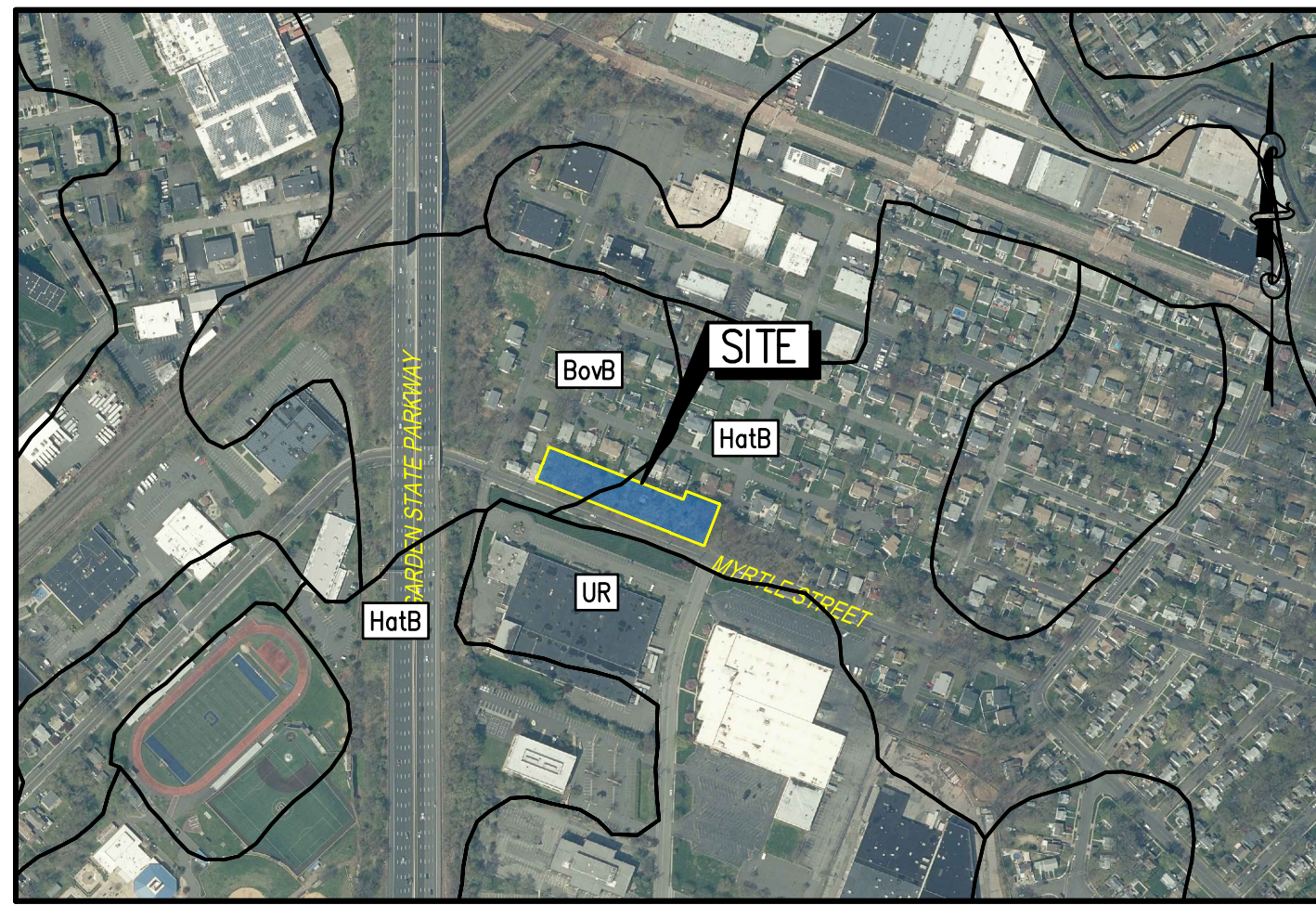
- 1. TRACT FOR DEVELOPMENT CONSISTS OF BLOCK 573, LOTS 9, 10 & 12.01, SHOWN ON SHEET 141, OF THE OFFICIAL TAX MAP OF CRANFORD TOWNSHIP.

B. SURVEY NOTES

- 1. BEARINGS REFER TO THE NEW JERSEY PLANE COORDINATE SYSTEM NAD83. VERTICAL DATUM REFERS TO NAVD88.

C. CONTRACTOR/OWNER RESPONSIBILITY NOTES

- 1. THE CONTRACTOR/OWNER SHALL DESIGNATE A PERSON THAT IS KNOWLEDGEABLE OF CONSTRUCTION SAFETY STANDARDS AND IS EXPECTED TO BE AT THE CONSTRUCTION SITE ON A REGULAR BASIS.



N.R.C.S. U.S. DEPARTMENT OF AGRICULTURE SOILS MAP

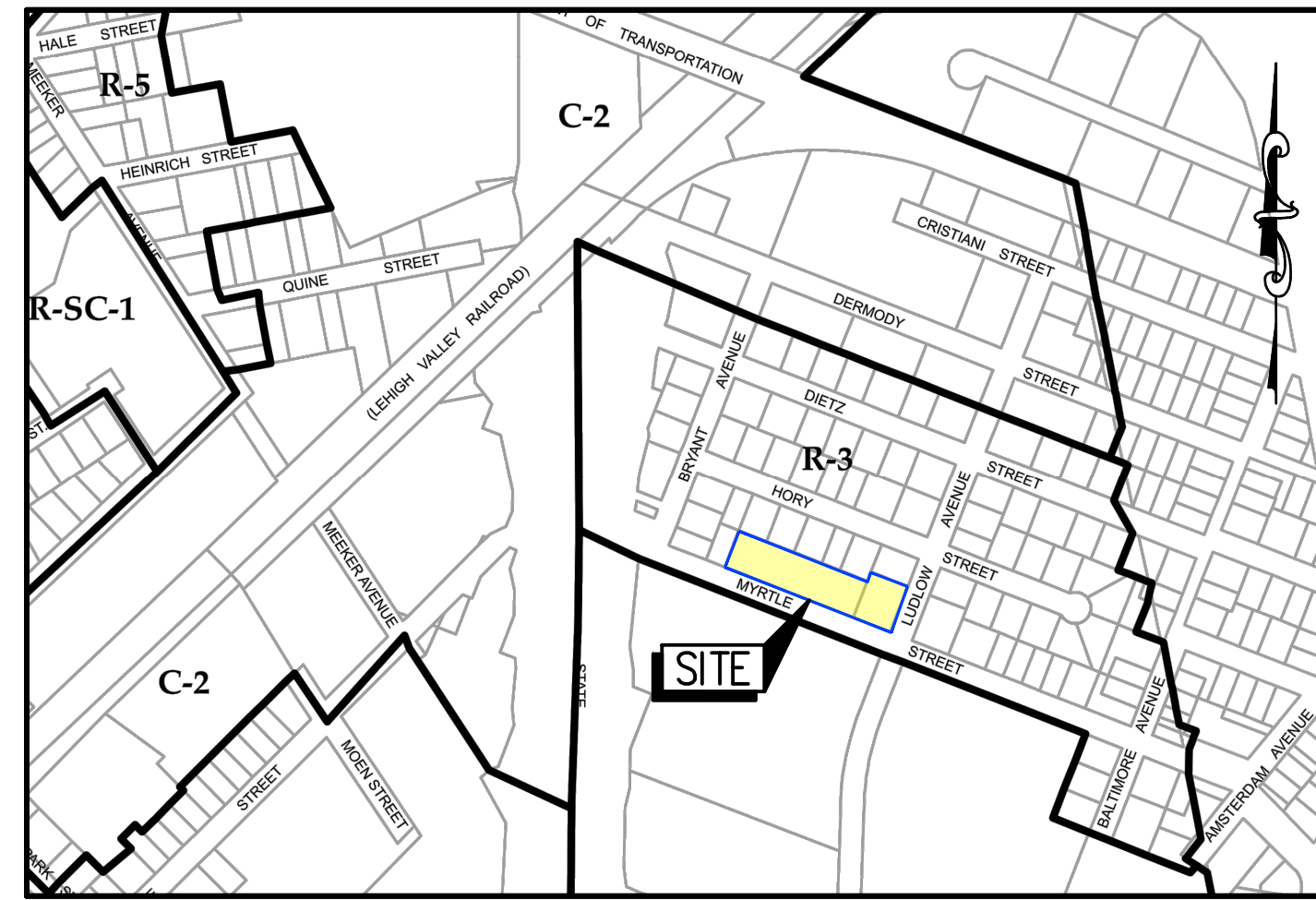
SCALE: 1" = 500'

D. ROADWAY & SIGNAGE NOTES

- 1. ALL CONSTRUCTION UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AS AMENDED.

E. UTILITY NOTES

- 1. PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND WITHIN THE STREET RIGHT-OF-WAY.



OFFICIAL ZONING MAP OF CRANFORD TOWNSHIP

SCALE: N.T.S.

SOILS DATA

Table with 3 columns: Soil Type (BoB, HaB, UR), Description (Boonton-Urban Land-Haledon Complex, Haledon-Urban Land-Hasbrouck Complex, Urban Land), and Slopes (0-8% slopes).

SOILS DATA OBTAINED FROM NATURAL RESOURCES CONSERVATION SERVICES (NRCS) U.S. DEPARTMENT OF AGRICULTURE. ALL SOIL EROSION AND SEDIMENT CONTROL IMPLEMENTATION SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY THE SOMERSET UNION SOIL CONSERVATION DISTRICT SOIL.

UTILITIES

Table listing utility providers: Comcast, Verizon, PSE&G, New Jersey American Water, Inc., Elizabethtown Gas Company, and Rahway Valley Sewage Authority.

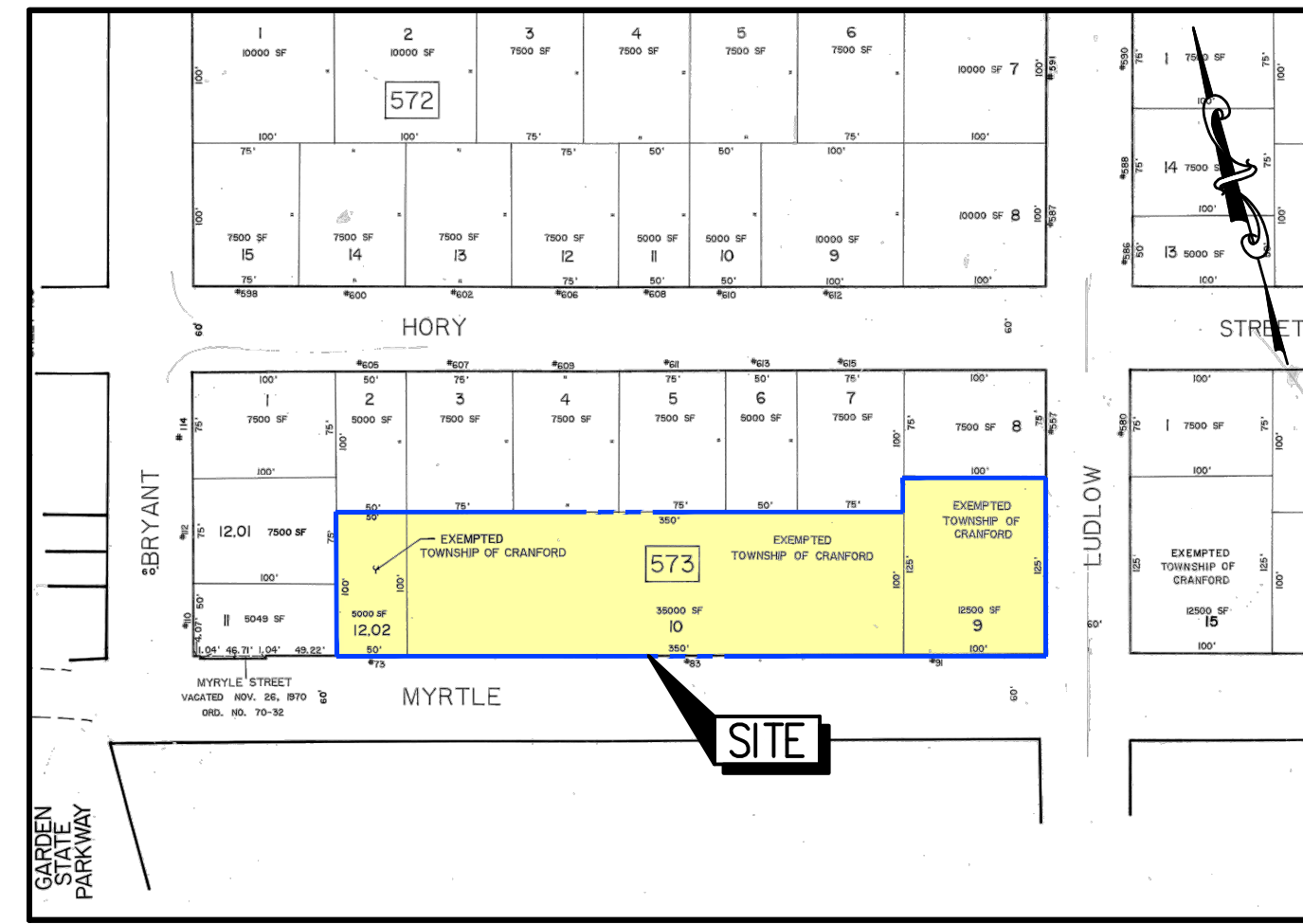
ZONING SCHEDULE NOTES:

- 1. WHERE PREVAILING SETBACKS WITHIN 200' OF LOT ARE LESS THAN 20', A MINIMUM 20' FRONT YARD IS REQUIRED.

ZONING SCHEDULE

Zoning Schedule table with columns: ORD. SECTION, R-3 RESIDENTIAL ZONING DISTRICT, PERMITTED OR REQUIRED, PROPOSED LOT 10, CONFORMITY STATUS, PROPOSED LOT 9, CONFORMITY STATUS. Includes rows for 255-36A(1), 255-34 AND 255 ATTACHMENT 1, 255-35D(4), and 255-44D(5).

4



OFFICIAL TAX MAP OF CRANFORD TOWNSHIP (SHEET 141)

CRANFORD TOWNSHIP CERTIFIED OWNER'S LIST WITHIN 200'

Table with columns: BLOCK LOT, QUALIFIER, PROPERTY LOCATION, OWNER. Lists neighboring property owners and their details.

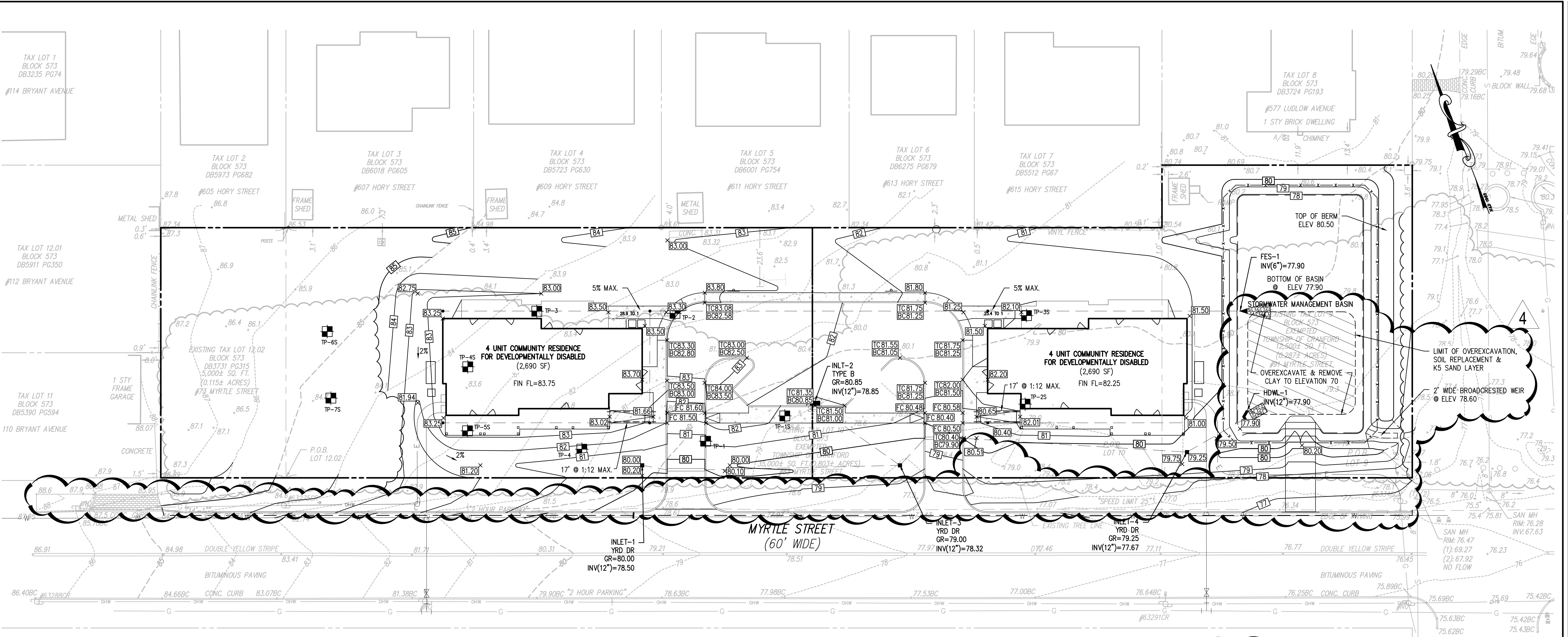
811 logo and text: 'Know what's below. Call before you dig.' Includes disclaimer about utility information and liability.

Professional Engineer information for Jason T. Scullo, P.E., P.P. License No. 24604586000. Includes contact info for Scullo Engineering Services, LLC.

83 MYRTLE STREET SUPPORTIVE HOUSING INFORMATION SHEET. Includes project details and contact information for Scullo Engineering Services, LLC.

Revision table with columns: NO., DATE, DESCRIPTION, BY, APPR. Includes revision 4 dated 7/7/2023.

DRAWN BY: J. SCULLO; CHECKED BY: J. SCULLO; DATE: 06/17/2023; LAST MODIFIED ON: 06/17/2023



TEST PIT LOGS – STORMWATER MANAGEMENT INVESTIGATION

| TEST PIT LOG | | TEST PIT LOG | |
|---------------------|---------------------|---------------------|----------------------|
| EXPLOSION NO.: TP-1 | EXPLOSION NO.: TP-2 | EXPLOSION NO.: TP-3 | EXPLOSION NO.: TP-3S |
| 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 |
| 10 | 10 | 10 | 10 |
| 11 | 11 | 11 | 11 |
| 12 | 12 | 12 | 12 |
| 13 | 13 | 13 | 13 |
| 14 | 14 | 14 | 14 |
| 15 | 15 | 15 | 15 |
| 16 | 16 | 16 | 16 |
| 17 | 17 | 17 | 17 |
| 18 | 18 | 18 | 18 |
| 19 | 19 | 19 | 19 |
| 20 | 20 | 20 | 20 |

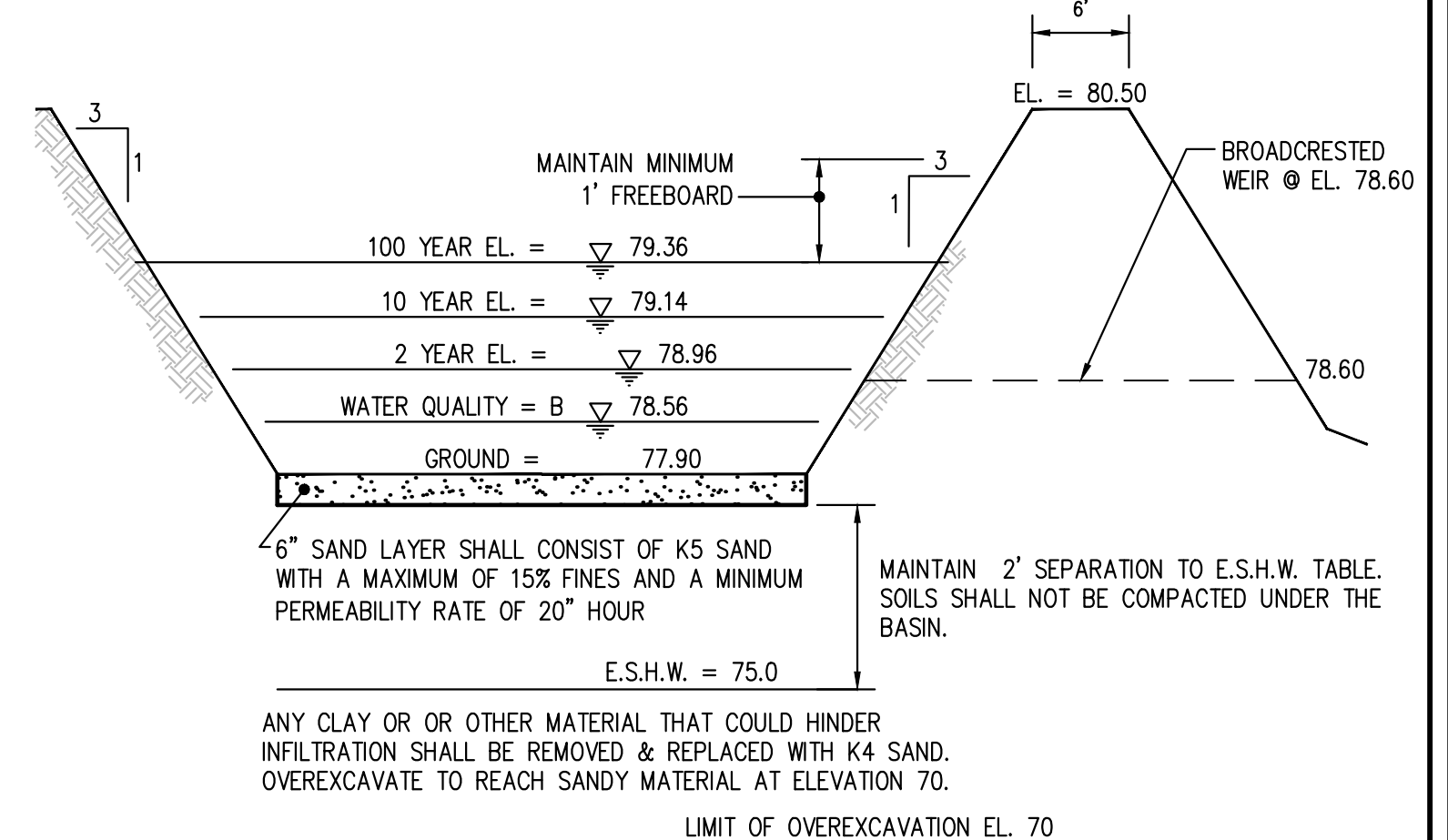
TEST PIT LOGS – FOUNDATION REPORT

| TEST PIT LOG | | TEST PIT LOG | |
|---------------------|---------------------|----------------------|----------------------|
| EXPLOSION NO.: TP-2 | EXPLOSION NO.: TP-3 | EXPLOSION NO.: TP-3S | EXPLOSION NO.: TP-3S |
| 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 |
| 10 | 10 | 10 | 10 |
| 11 | 11 | 11 | 11 |
| 12 | 12 | 12 | 12 |
| 13 | 13 | 13 | 13 |
| 14 | 14 | 14 | 14 |
| 15 | 15 | 15 | 15 |
| 16 | 16 | 16 | 16 |
| 17 | 17 | 17 | 17 |
| 18 | 18 | 18 | 18 |
| 19 | 19 | 19 | 19 |
| 20 | 20 | 20 | 20 |



STORMWATER MANAGEMENT NOTES:

- THE APPLICANT SHALL ENSURE THE PROJECT WILL NOT HAVE ANY ADVERSE IMPACTS TO THE NEIGHBORING PROPERTIES, DOWNSTREAM WATER COURSES, OR CONVEYANCE SYSTEMS WITHIN THE WATER SHED. THE APPLICANT SHALL MONITOR THE STORMWATER MANAGEMENT SYSTEM OF THE SITE AFTER THE CONSTRUCTION HAS BEEN FULLY COMPLETED TO ENSURE THERE ARE NO NEGATIVE IMPACTS CAUSED BY THE DEVELOPMENT. THE APPLICANT SHALL RECTIFY ANY DAMAGES CAUSED BY THE APPLICANT'S PROJECT DURING AND AFTER CONSTRUCTION.
- THE APPLICANT SHALL NOT DIRECT ANY STORMWATER TOWARD ADJOINING PROPERTIES. THE SITE GRADING AND DRAINAGE SHOULD NOT ADVERSELY AFFECT OR BURDEN THE ADJACENT PROPERTY OWNERS OR POSE A NEGATIVE IMPACT AS SET FORTH BY SUBSECTION 351-4 OF THE TOWNSHIP CODE.
- NO CHANGES IN GRADING ARE PERMITTED WITHOUT THE SUBMISSION OF A GRADING PLAN TO THE ENGINEERING DEPARTMENT, FOR REVIEW AND APPROVAL, AS REQUIRED BY ORDINANCE 351-4. A PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR MUST PREPARE ANY SUCH GRADING PLAN.
- ALL THE ROOF LEADERS FROM THE PROPOSED DEVELOPMENT SHALL BE CONNECTED TO A STORMWATER MANAGEMENT SYSTEM. THE APPLICANT SHALL ENSURE THAT THE DOWNSPOUTS HAVE CLEANOUTS, AS NECESSARY, AND THAT THE OVERFLOW IS DIRECTED AWAY FROM THE NEIGHBORING PROPERTIES.
- ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE. NO MATERIAL IS TO BE STORED ON TOWNSHIP PROPERTY UNLESS PRIOR APPROVAL IS OBTAINED FROM THE TOWNSHIP ENGINEER. UNDER NO CIRCUMSTANCES CAN THE CONTRACTOR PLACE EXCAVATED MATERIAL WITHIN TOWNSHIP-OWNED PROPERTY. ANY SOIL DISTURBANCE SHALL BE DONE AS SET FORTH BY SUBSECTION 351.



EXISTING UTILITY INFORMATION SHOWN ON THESE PLANS IS THE PROPERTY OF THE TOWNSHIP ENGINEER. THE APPLICANT SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE APPLICANT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE TOWNSHIP ENGINEER AND THE APPROPRIATE AGENCIES. THE APPLICANT SHALL MAINTAIN ACCESS TO ALL UTILITIES AT ALL TIMES. THE APPLICANT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE TOWNSHIP ENGINEER AND THE APPROPRIATE AGENCIES. THE APPLICANT SHALL MAINTAIN ACCESS TO ALL UTILITIES AT ALL TIMES.

811
Know what's below.
Call before you dig.

JASON T. SCULLO, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LICENSE NO. 24604586000
PROFESSIONAL PLANNER, NEW JERSEY LICENSE NO. 35100026400

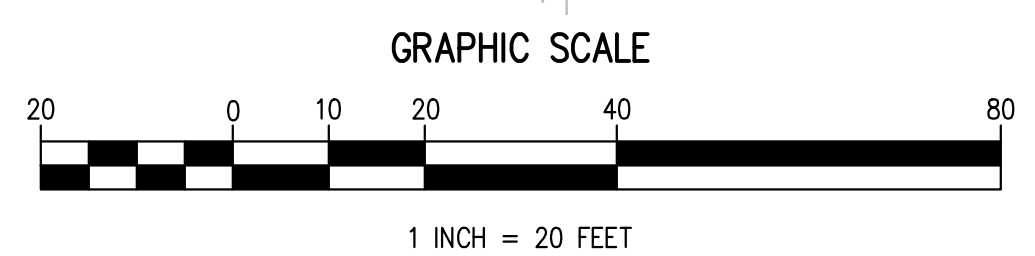
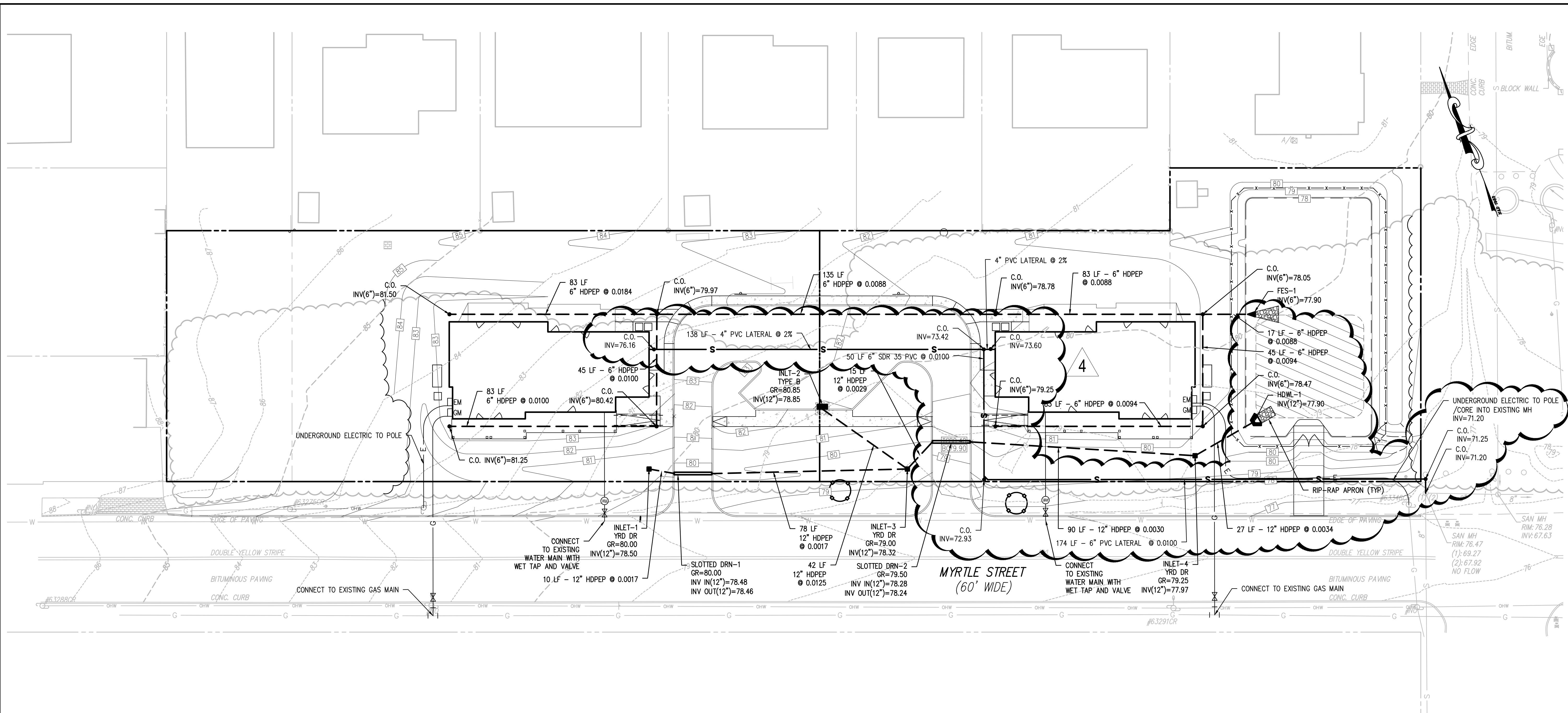
SCULLO ENGINEERING SERVICES, LLC
137 S. NEW YORK AVENUE, SUITE 2
ATLANTIC CITY, NEW JERSEY 08401
PHONE: (609) 300-5171
www.sculloengineering.com
NJ CERTIFICATE OF AUTHORIZATION NO. 246A28230700

83 MYRTLE STREET SUPPORTIVE HOUSING
BLOCK 573, LOTS 9, 10 & 12/02
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY

GRADING PLAN

| DATE | ISSUE NO. | BY | APPR. |
|------------|-----------|-----|-------|
| 5/9/2022 | 1 | JTS | JTS |
| 11/30/2022 | 2 | JTS | JTS |
| 7/7/2023 | 3 | JTS | JTS |
| 7/7/2023 | 4 | JTS | JTS |

PROJECT NO. K&A 001.01
SCALE 1" = 20'
SHEET 4 OF 10
C0301



1. EXISTING UTILITY INFORMATION SHOWN ON THESE PLANS IS THE RESPONSIBILITY OF SCULLO ENGINEERING SERVICES, LLC AND THE ACCURACY THEREOF IS NOT THE RESPONSIBILITY OF SCULLO ENGINEERING SERVICES, LLC. THE USER SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. AND/OR CONTRACTOR TO CALL 1-800-272-1000 FOR THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

2. THESE PLANS ARE NOT FOR CONSTRUCTION UNTIL THEY ARE ISSUED FOR CONSTRUCTION. APPEARANCES IN THE TITLEBLOCK.

811
Know what's below.
Call before you dig.

ALL DOCUMENTS PREPARED BY SCULLO ENGINEERING SERVICES, LLC ARE INSTRUMENTS OF SERVICE. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. ANY REUSE WITHOUT WRITTEN VERIFICATION OF ADAPTATION BY SCULLO ENGINEERING SERVICES, LLC IS PROHIBITED. SCULLO ENGINEERING SERVICES, LLC SHALL NOT BE LIABLE FOR LIABILITY OR LEGAL PROSECUTION TO SCULLO ENGINEERING SERVICES, LLC AND SHALL NOT BE RESPONSIBLE FOR DAMAGES, LOSSES, AND EXPENSES ARISING OUT OF OR RESULTING FROM THE USE OF THESE PLANS.

JASON T. SCULLO, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LICENSE NO. 24620458000
PROFESSIONAL PLANNER, NEW JERSEY LICENSE NO. 35100262400

www.sculloengineering.com
j.scullo@sculloengineering.com

SCULLO ENGINEERING SERVICES, LLC

137 S. NEW YORK AVENUE, SUITE 2
ATLANTIC CITY, NEW JERSEY 08401
PHONE: (609) 300-5171
www.sculloengineering.com

NU CERTIFICATE OF AUTHORIZATION NO. 246A28290700

83 MYRTLE STREET SUPPORTIVE HOUSING
BLOCK 573, LOTS 9, 10 & 12.02
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY

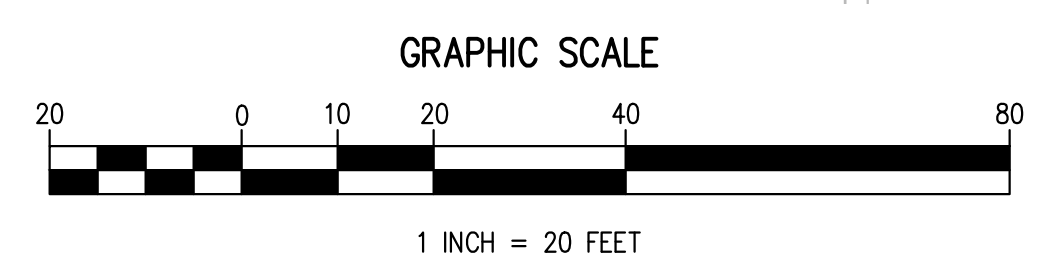
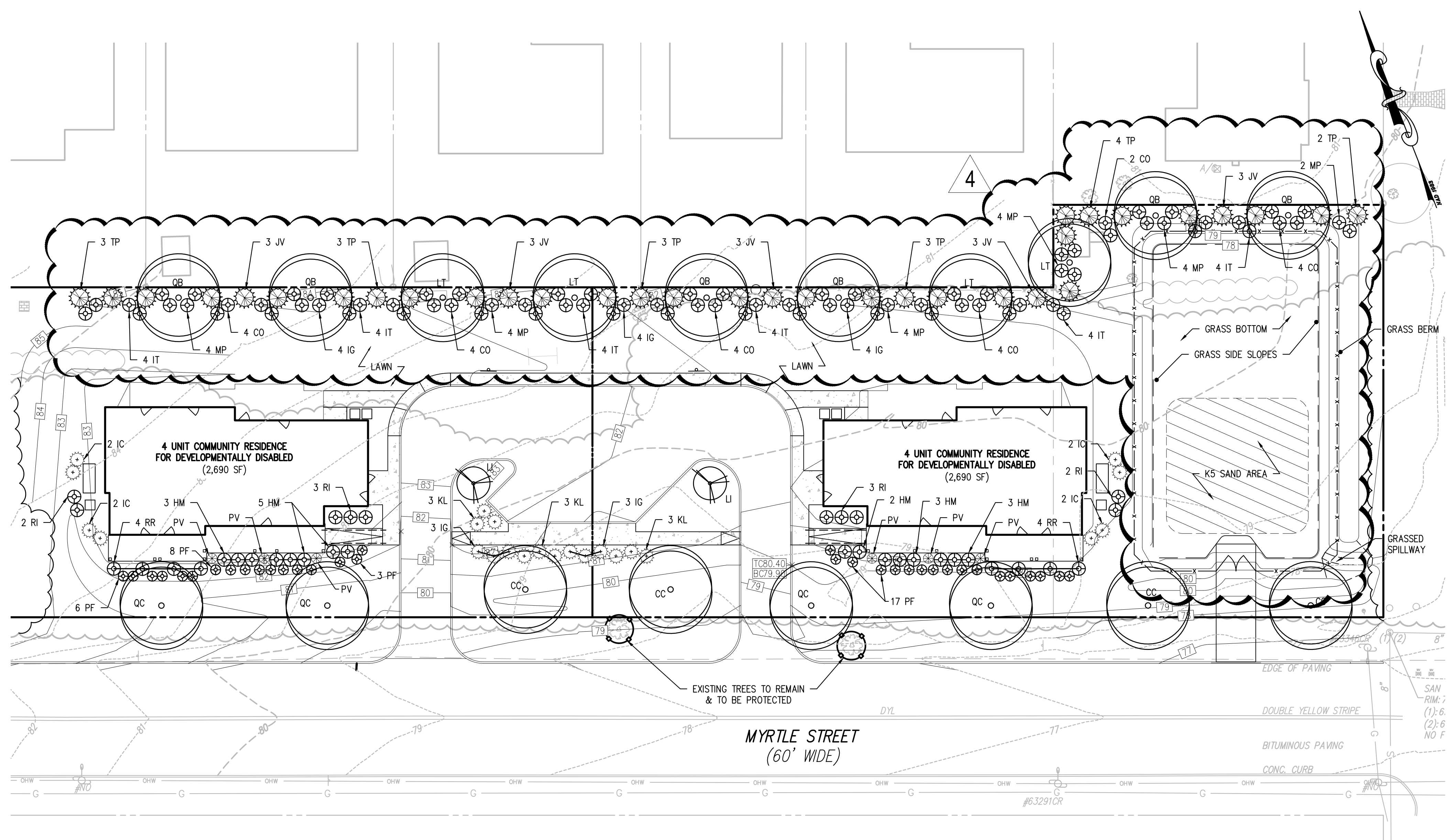
UTILITY PLAN

756 HADDON AVENUE
COLLINGSWOOD, NEW JERSEY 08108

| PROJECT NO. | SCALE | SHEET |
|-------------|-----------|-------------------------------|
| K&A 001.01 | 1" = 20' | 5 OF 10 |
| DATE | ISSUE NO. | BY |
| 7/7/2023 | 4 | ENLARGED LOT 10 |
| 11/27/2023 | 3 | RESPONSE TO TOWNSHIP COMMENTS |
| 11/30/2022 | 2 | TOWNSHIP COMPLETENESS REVIEW |
| 5/9/2022 | 1 | INITIAL SUBMISSION |
| | | SUBMISSION/REVISION |
| | | APPR. |

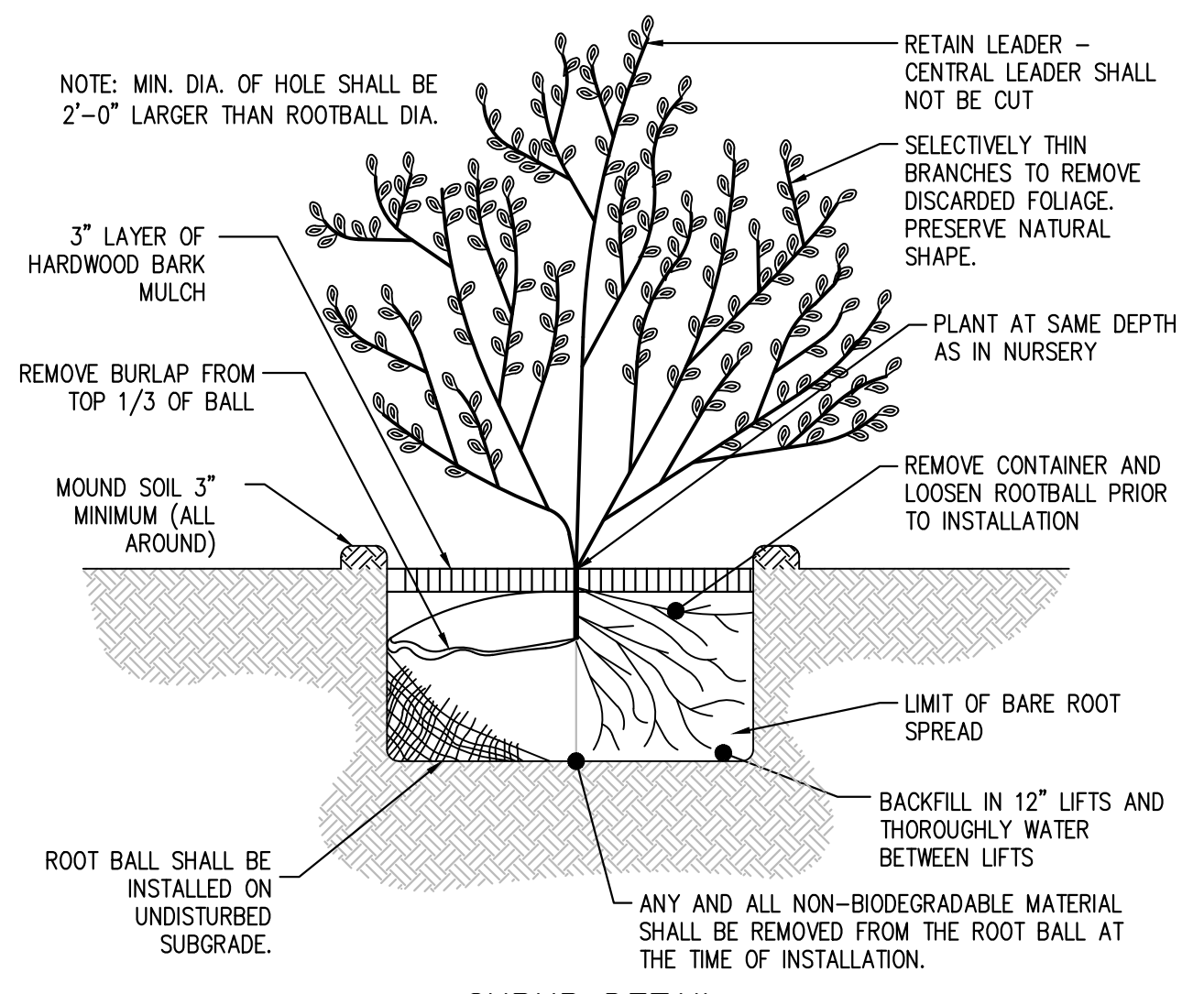
LANDSCAPE SCHEDULE

| SHADE TREES | | | | | | |
|------------------|-------|---|------------------------|------------------------------|-----------|----------|
| SYMBOL | LABEL | BOTANICAL NAME | COMMON NAME | SIZE | REMARKS | QUANTITY |
| CC | | CARPINUS CAROLINIANA | AMERICAN HORNBEAM | 2 1/2"-3" CAL 10'-12' HT. | B & B | 4 |
| LT | | LIRIODENDRON TULIPIFERA | TULIPTREE | 2 1/2"-3" CAL 10'-12' HT. | B & B | 4 |
| QB | | QUERCUS BICOLOR | SWAMP WHITE OAK | 2 1/2"-3" CAL 10'-12' HT. | B & B | 6 |
| QC | | QUERCUS COCCINEA | SCARLET OAK | 2 1/2"-3" CAL 10'-12' HT. | B & B | 4 |
| SUB TOTAL | | | | | | 18 |
| ORNAMENTAL TREE | | | | | | |
| LI | | LAGERSTROEMIA | CREPE MYRTLE | 8' HT. | B & B | 2 |
| SUB TOTAL | | | | | | 2 |
| EVERGREEN TREES | | | | | | |
| JV | | JUNIPERUS VIRGINIANA BURKII | EASTERN RED CEDAR | 6'-8' HT. | B & B | 15 |
| TP | | THUJA PLICATA | GREEN GIANT ARBORVITAE | 6'-8' HT. | B & B | 18 |
| SUB TOTAL | | | | | | 33 |
| SHRUBS | | | | | | |
| CO | | CEPHALANTHUS OCCIDENTALIS BUTTONBUSH | BUTTON BUSH | 3'-6" HT. | NO. 2 CAN | 22 |
| HM | | HYDRANGEA MACROPHYLLA | BIG LEAF HYDRANGEA | 3'-6" HT. | NO. 2 CAN | 16 |
| IC | | ILEX CRENATA 'STEEDS' | STEEDS JAPANESE HOLLY | 24"-36" HT. | NO. 2 CAN | 8 |
| IT | | ITEA VIRGINIANA | SWEETSPIRE | 24"-36" HT. | NO. 2 CAN | 24 |
| MP | | MYRTICA PENNSYLVANICA | NORTHERN BATBERRY | 24"-36" HT. | NO. 2 CAN | 22 |
| PF | | POTENTILLA FRUTICOSA BELLA SOL | SHRUBBY CINQUEFOIL | 18"-24" HT. | NO. 1 CAN | 34 |
| RI | | AZALEA INDICA | RHODODENDRON INDICUM | 24"-36" HT. | NO. 2 CAN | 10 |
| RR | | ROSA RUBIGINOSA | SWEET BRIAR ROSE | 24"-36" HT. | NO. 2 CAN | 8 |
| SUB TOTAL | | | | | | 144 |
| EVERGREEN SHRUBS | | | | | | |
| IG | | ILEX GLABRA | INKBERRY HOLLY | 24"-30" HT. | NO. 2 CAN | 18 |
| KL | | KALIMA LATIFOLA | MOUNTAIN LAUREL | 24"-30" HT. | NO. 2 CAN | 9 |
| SUB TOTAL | | | | | | 27 |
| ORNAMENTAL GRASS | | | | | | |
| PV | | PANCIUM VIRGATUM | SWITCHGRASS | | | 6 |
| SUB TOTAL | | | | | | 6 |

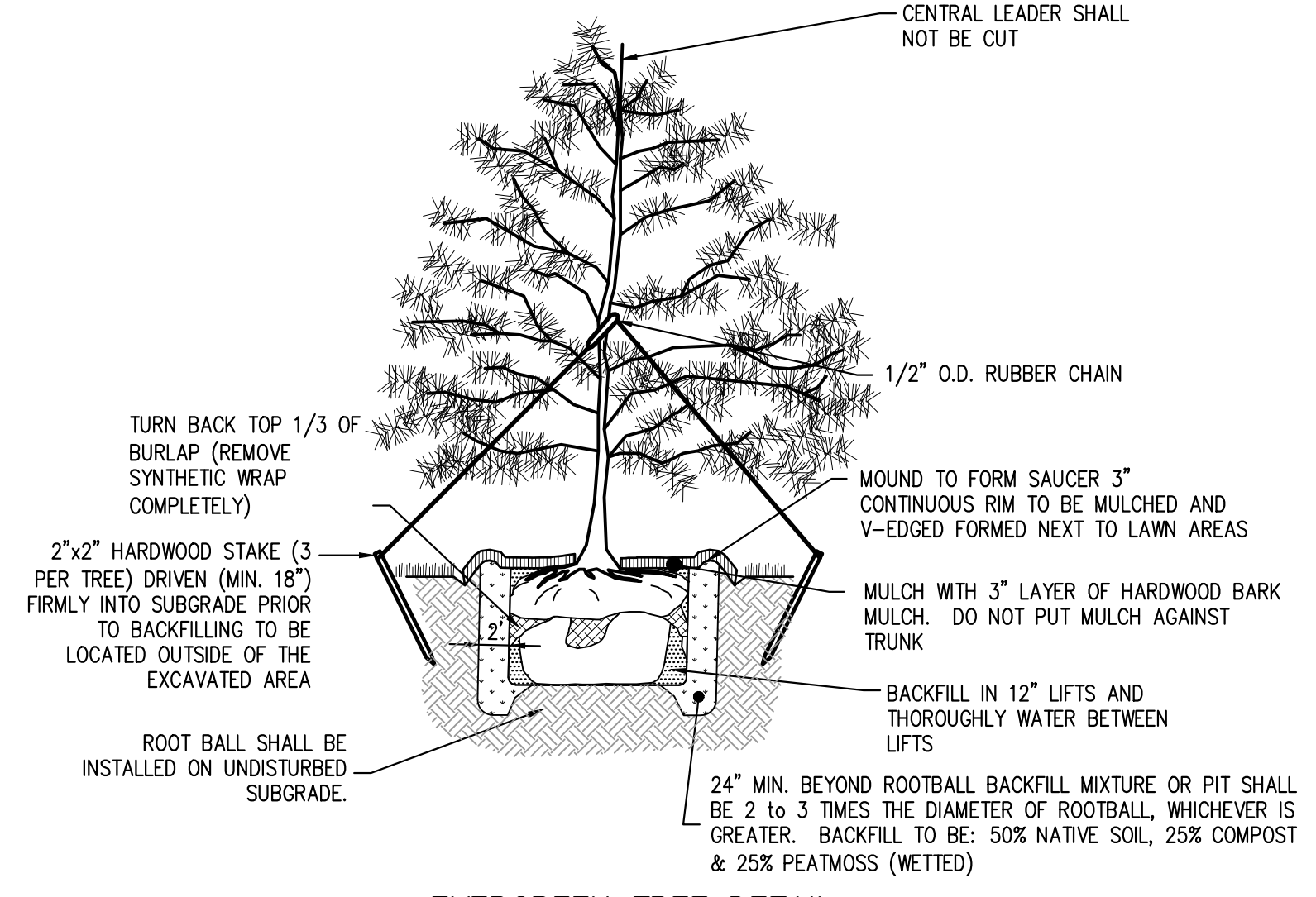


- NOTES:**
- DIAMETER OF HOLE SHALL BE A MINIMUM OF 2'-0" LARGER THAN ROOTBALL DIAMETER OR 2 TO 3 TIMES THE WIDTH OF ROOTBALL, WHICHEVER IS LARGER. A LARGER DIAMETER SHALL BE PROVIDED IN POORLY DRAINING SOIL, COMPACTED SOILS, OR URBAN CONDITIONS.
 - EVERGREEN TREES UNDER 4'-6" HEIGHT DO NOT REQUIRE GUYING AND STAKING
 - TOP OF ROOTBALL SHALL BE SET A MAXIMUM OF 1'-3" ABOVE FINISHED GRADE TO ALLOW FOR SETTLING AND THE ROOTFLARE SHALL BE PARTIALLY VISIBLE. TOP OF ROOTBALL ELEVATION SHALL NEVER BE PLACED BELOW FINISHED GRADE.

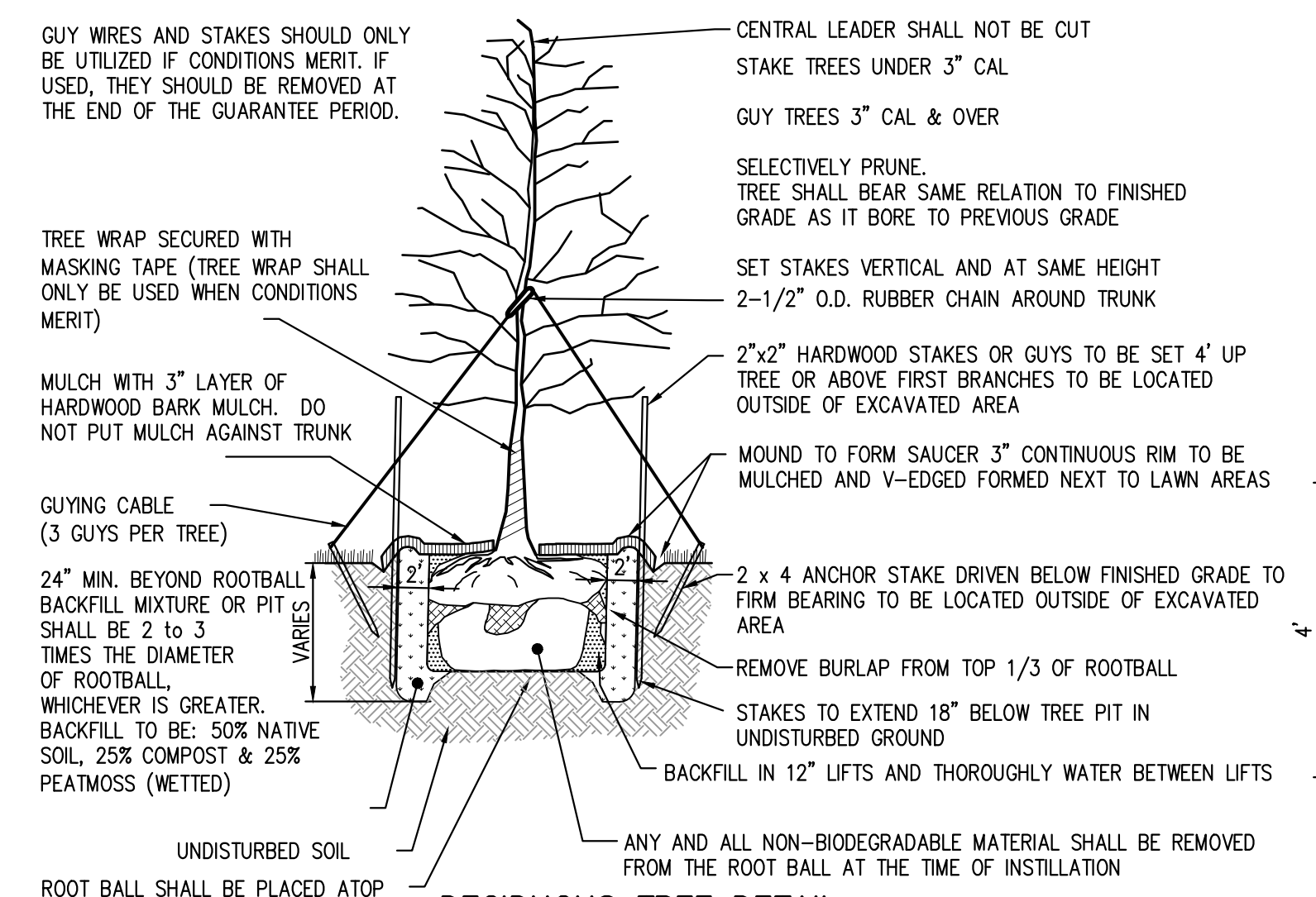
- NOTES:**
- DIAMETER OF HOLE SHALL BE A MINIMUM OF 2'-0" LARGER THAN ROOTBALL DIAMETER OR 2 TO 3 TIMES THE WIDTH OF ROOTBALL, WHICHEVER IS LARGER. A LARGER DIAMETER SHALL BE PROVIDED IN POORLY DRAINING SOIL, COMPACTED SOILS, OR URBAN CONDITIONS.
 - TOP OF ROOTBALL SHALL BE SET A MAXIMUM OF 1'-3" ABOVE FINISHED GRADE TO ALLOW FOR SETTLING AND THE ROOTFLARE SHALL BE PARTIALLY VISIBLE. TOP OF ROOTBALL ELEVATION SHALL NEVER BE PLACED BELOW FINISHED GRADE.



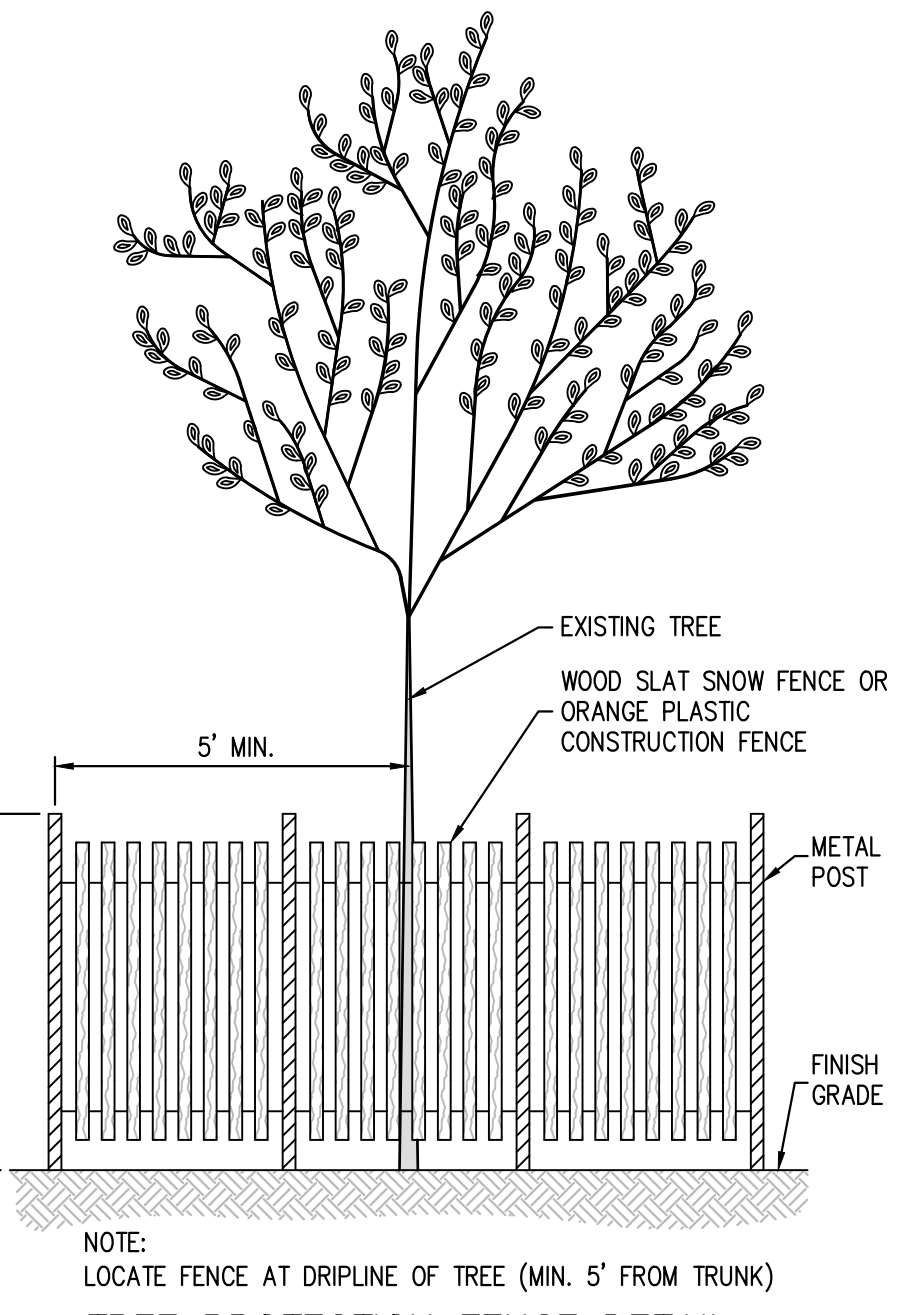
SHRUB DETAIL
N.T.S.



EVERGREEN TREE DETAIL
N.T.S.



DECIDUOUS TREE DETAIL
N.T.S.



TREE PROTECTION FENCE DETAIL
N.T.S.

1. EXISTING UTILITY INFORMATION SHOWN ON THESE PLANS IS FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR CONTRACTING TO CALL 1-800-272-1000 FOR THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

2. THESE PLANS ARE NOT FOR CONSTRUCTION UNTIL ISSUED FOR CONSTRUCTION. APPEARANCES IN THE INTERLOCK.

811
Know what's below.
Call before you dig.

ALL DOCUMENTS PREPARED BY SCULLO ENGINEERING SERVICES, LLC ARE INSTRUMENTS OF SERVICE. THE USER OF THESE DOCUMENTS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR CONTRACTING TO CALL 1-800-272-1000 FOR THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR CONTRACTING TO CALL 1-800-272-1000 FOR THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

JASON T. SCULLO, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LICENSE NO. 24604586000
PROFESSIONAL PLANNER, NEW JERSEY LICENSE NO. 3510026400
www.sculloengineering.com
j.scullo@sculloengineering.com

SCULLO ENGINEERING SERVICES, LLC
137 S. NEW JERSEY AVENUE, SUITE 201
ATLANTIC CITY, NEW JERSEY 08401
PHONE: (609) 300-5171
www.sculloengineering.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24628290700

83 MYRTLE STREET SUPPORTIVE HOUSING
BLOCK 573, LOTS 9, 10 & 12/02
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY

LANDSCAPE PLAN

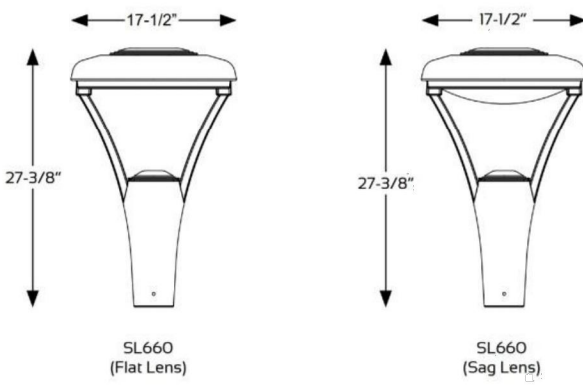
756 HADDON AVENUE
COLLINGSWOOD, NEW JERSEY 08108

| DATE | ISSUE NO. | BY | APPR. |
|-----------|-----------|-------------------------------|---------|
| 1/17/2023 | 4 | ENLARGED LOT 10 | DB |
| 2/27/2023 | 3 | RESPONSE TO TOWNSHIP COMMENTS | LAT DB |
| 3/30/2023 | 2 | TOWNSHIP COMPLETENESS REVIEW | LAT JTS |
| 5/9/2023 | 1 | INITIAL SUBMISSION | LAT JTS |

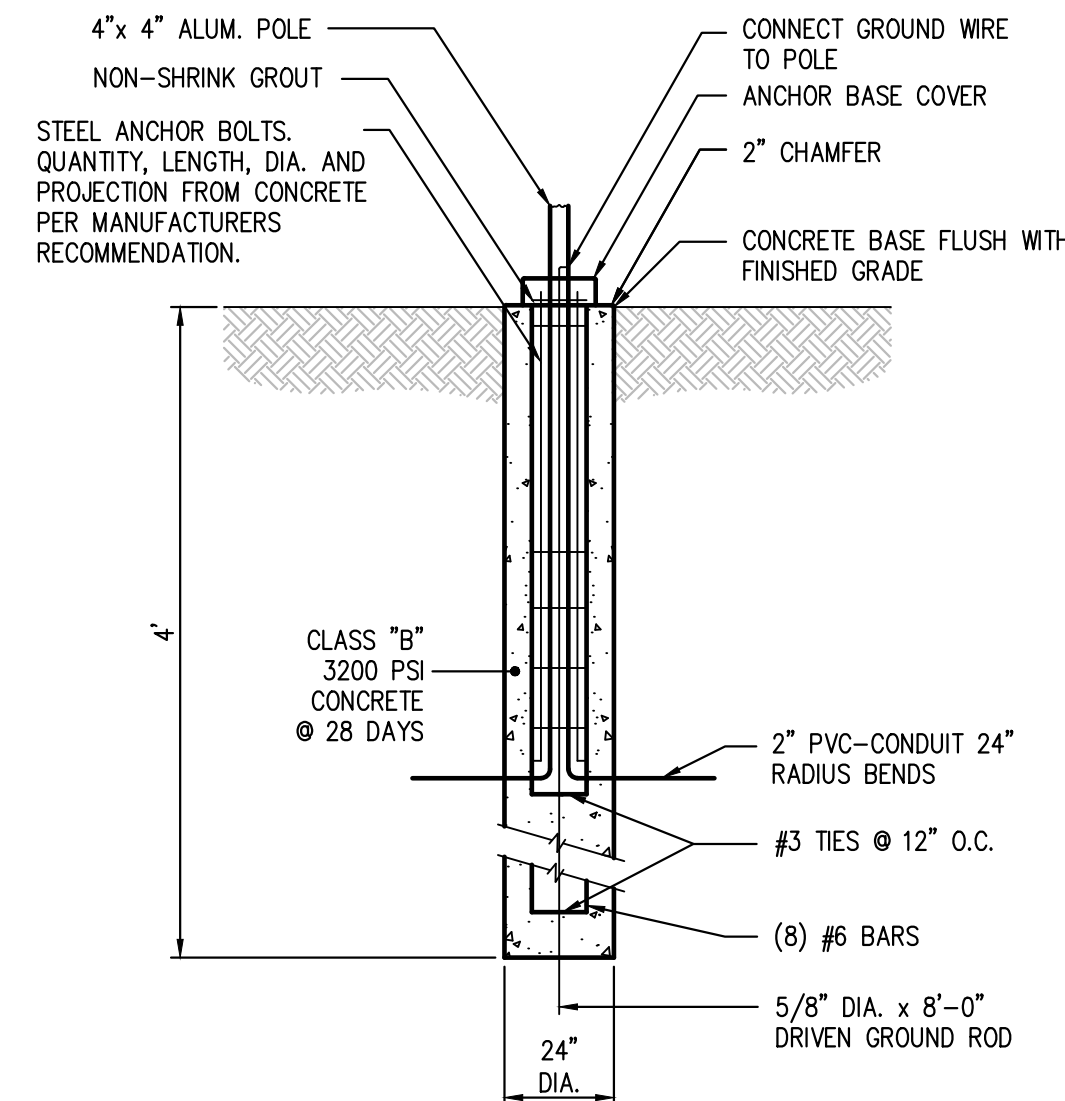
PROJECT NO. K&A 001.01
SCALE 1" = 20'
SHEET 6 OF 10
C0501



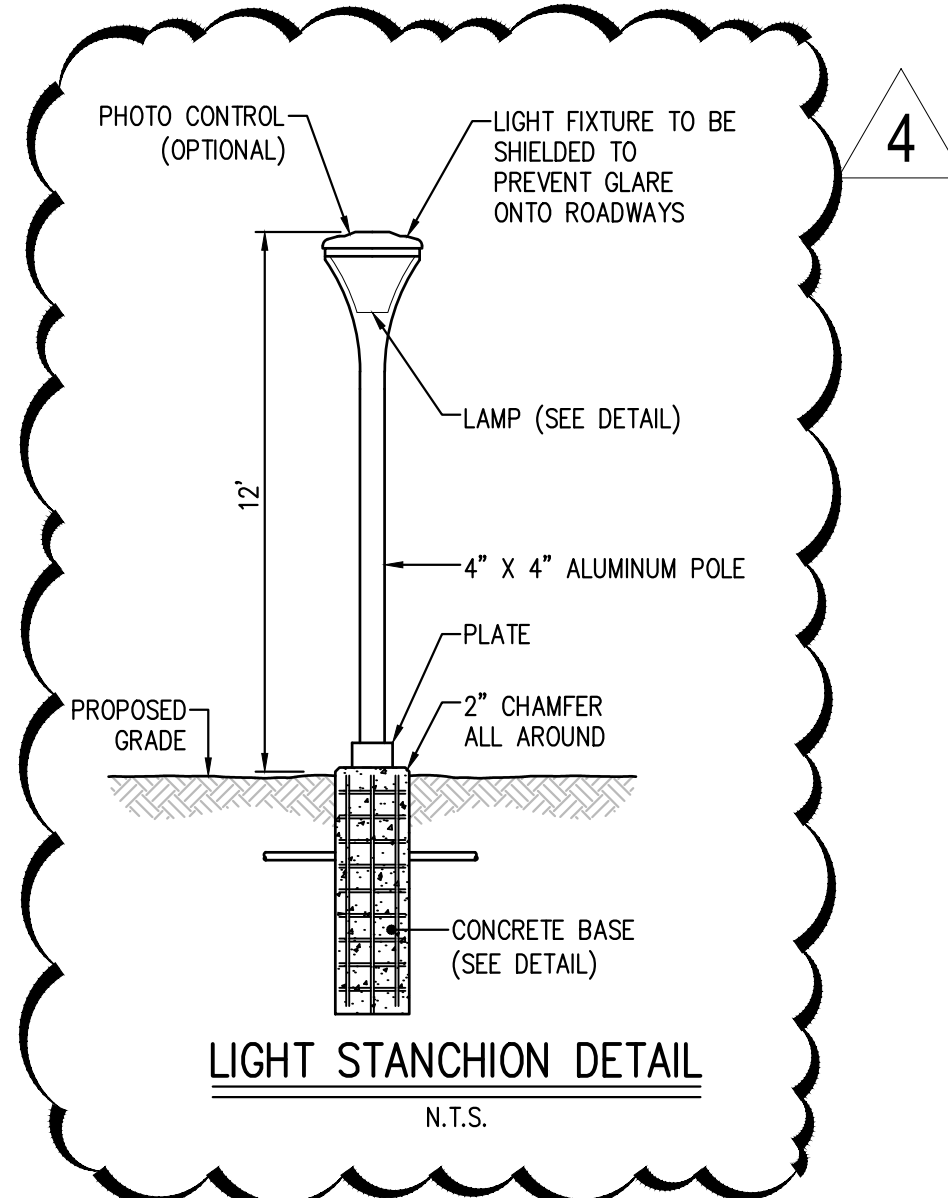
LIGHT A DETAIL
N.T.S.



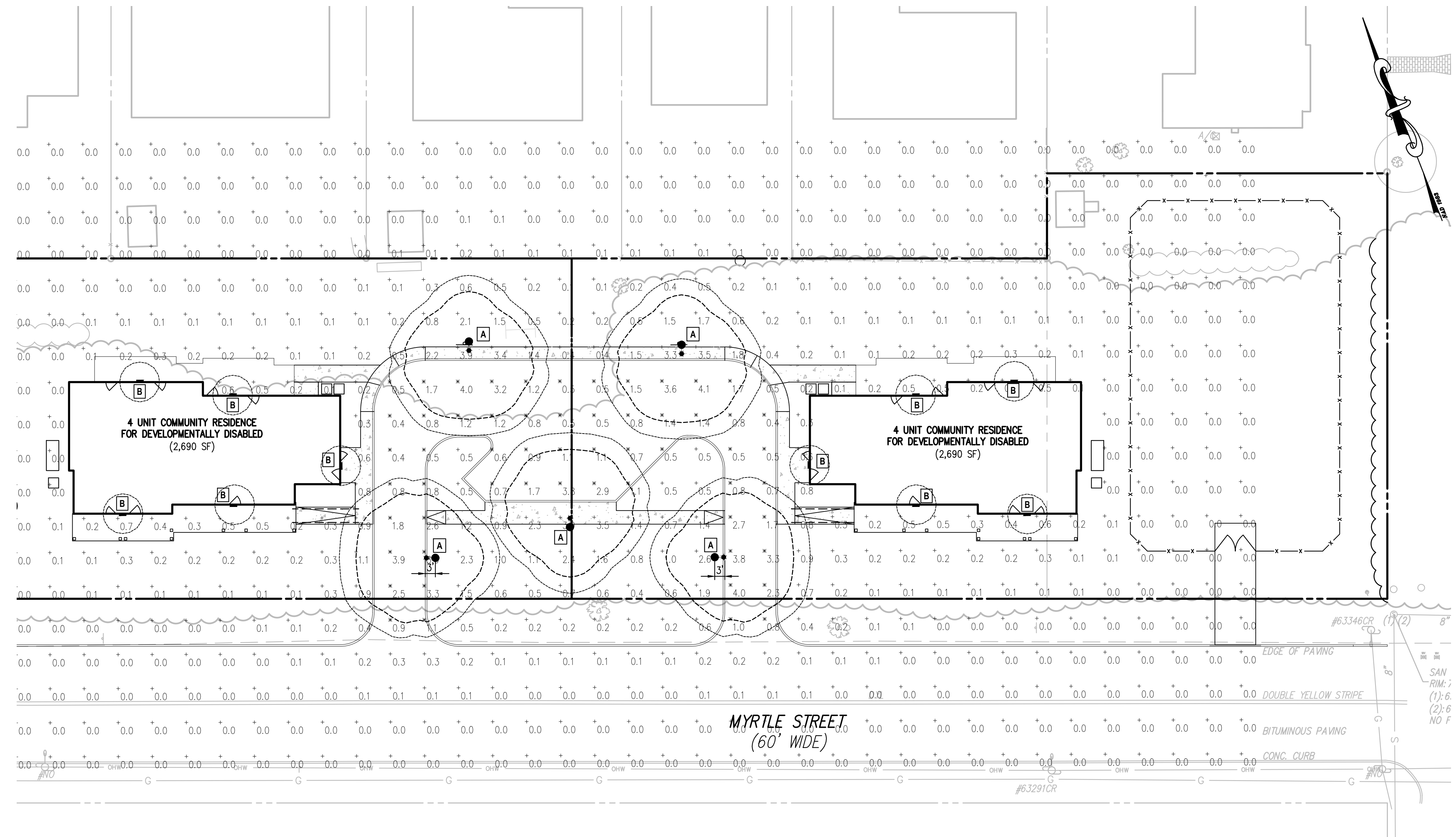
LIGHT B DETAIL
N.T.S.



RAISED LIGHT POLE BASE DETAIL
N.T.S.

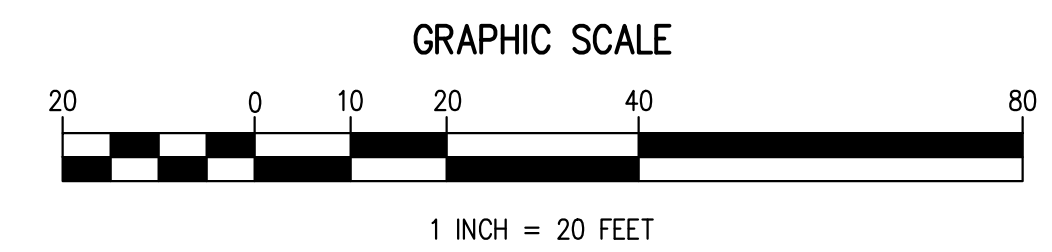


LIGHT STANCHION DETAIL
N.T.S.



LIGHTING SCHEDULE

| SYMBOL | LABEL | QUANTITY | MANUFACTURER | CATALOG NUMBER | DESCRIPTION | NUMBER OF LAMPS |
|--------|-------|----------|--------------------|-------------------------|--|-----------------|
| ● | A | 5 | STERNBERG LIGHTING | SL660-12L274-MDL014-SV1 | MEDIUM SIZE POST TOP MOUNT FIXTURE, T4 SOFT VUE 1 FLAT | 1 |
| ■ | B | 10 | HUBBELL | P560110-020 | WALL MOUNTED | 1 |



EXISTING UTILITY INFORMATION SHOWN ON THESE PLANS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR CONDUCTING ALL NECESSARY FIELD SURVEYS AND UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THESE PLANS ARE NOT FOR CONSTRUCTION UNTIL THEY HAVE BEEN REVIEWED AND APPROVED BY THE TOWNSHIP ENGINEER.

811
Know what's below.
Call before you dig.

ALL DOCUMENTS PREPARED BY SCIULLO ENGINEERING SERVICES, LLC ARE INSTRUMENTS OF SERVICE. THE CLIENT AGREES TO HOLD SCIULLO ENGINEERING SERVICES, LLC HARMLESS FROM AND AGAINST ALL LIABILITY OR LEGAL PROSECUTION TO SCIULLO ENGINEERING SERVICES, LLC AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR CONDUCTING ALL NECESSARY FIELD SURVEYS AND UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THESE PLANS ARE NOT FOR CONSTRUCTION UNTIL THEY HAVE BEEN REVIEWED AND APPROVED BY THE TOWNSHIP ENGINEER.

JASON T. SCIULLO, P.E., P.P.
PROFESSIONAL ENGINEER, NEW JERSEY LICENSE NO. 24620458000
PROFESSIONAL PLANNER, NEW JERSEY LICENSE NO. 3310026400

SCIULLO ENGINEERING SERVICES, LLC
137 S. NEW YORK AVENUE, SUITE 2
ATLANTIC CITY, NEW JERSEY 08401
PHONE: (609) 300-5171
www.sciulloengineering.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24620290700

83 MYRTLE STREET SUPPORTIVE HOUSING
BLOCK 573, LOTS 9, 10 & 1202
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY

LIGHTING PLAN

756 HADDON AVENUE
COLLINGSWOOD, NEW JERSEY 08108

| PROJECT NO. | SCALE | SHEET |
|-------------|----------|---------|
| K&A 001.01 | 1" = 20' | 7 OF 10 |

| DATE | ISSUE NO. | BY | APPR. |
|------------|-----------|-----|-------|
| 5/9/2022 | 1 | JTS | |
| 11/30/2022 | 2 | JTS | |
| 2/27/2023 | 3 | JTS | |
| 7/7/2023 | 4 | JTS | |

C0701

DATE: 06/27/2022, TIME: 10:00 AM, USER: JASON T. SCULLO, P.E., PROJECT: 246028290700, SHEET: 10 OF 10

GENERAL NOTES

- THE SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY LAND DISTURBANCE.

SOMERSET UNION SOIL CONSERVATION DISTRICT
308 MILLTOWN ROAD
BRIDGEWATER, NJ 08807
(908) 526-2701
- SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
- A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN INCLUDING REVISION THEREOF MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
- IN NO CASE SHALL THE CERTIFICATION OF THE PROJECT BY THE DISTRICT EXTEND BEYOND THREE AND ONE HALF YEARS OF THE ORIGINAL CERTIFICATION DATE.
- PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES, A NJDES REQUEST FOR AUTHORIZATION ("RFA") FORM FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY MUST BE FILED WITH NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION ("NJDEP") IF THE CONSTRUCTION WILL DISTURB MORE THAN ONE ACRE. THE APPLICATION MUST BE COMPLETED BY THE ENTITY RESPONSIBLE FOR MAINTENANCE OF SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION, TYPICALLY THE DEVELOPER OR CONTRACTOR. THE APPLICATION IS A SIMPLE FORM FILED ON THE NJDEP WEBSITE USING PROJECT CODES PROVIDED BY THE SOIL CONSERVATION DISTRICT. IF REQUIRED, THE ENGINEER WILL ASSIST THE DEVELOPER OR CONTRACTOR BY PROVIDING TECHNICAL INFORMATION TO COMPLETE THE APPLICATION.
- ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
- ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE DISTRICT. THE REVISED PLAN MUST BE IN ACCORDANCE WITH THE CURRENT NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
- THE DISTRICT MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DETERMINED BY THE DISTRICT
- OFFSITE LAND DISTURBANCE MAY REQUIRE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE DETERMINED BY THE DISTRICT.
- STAGED CONSTRUCTION METHODS TO MINIMIZE EXPOSED SURFACES, WHERE APPLICABLE.
- THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
- APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
- NJSA 4:24-39, ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY, TEMPORARY OR PERMANENT, BE ISSUED BEFORE ALL PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH PERMANENT MEASURES. ALL SITE WORK FOR THE PROJECT MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY. INSPECTION FOR THE CERTIFICATE OF OCCUPANCY MUST BE SCHEDULED AT LEAST A WEEK IN ADVANCE.
- NJSA 4:24-39, ET SEQ., REQUIRES THAT UPON PERMANENT SITE STABILIZATION AND COMPLETION OF THE CONTRACTOR SHALL APPLY TO THE DISTRICT FOR FINAL COMPLIANCE INSPECTION TO CHECK THAT ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES.
- ANY CONVEYANCE OF THIS PROJECT, OR PORTION THEREOF, PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS. THE DISTRICT MUST BE NOTIFIED IN WRITING OF ANY CHANGE IN OWNERSHIP.
- A CRUSHED STONE, TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS EXISTS. THE STABILIZED PAD WILL BE INSTALLED ACCORDING TO THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS. THE PAD MUST BE 100 FEET IN LENGTH AND THE STONE MUST BE 1.5 - 4 INCHES IN SIZE, PLACED 12" THICK AND THE FULL WIDTH OF THE ENTRANCE. THE PAD SHALL BE UNDERLAIN WITH A SUITABLE SYNTHETIC FILTER FABRIC AND MAINTAINED. IF A CONSTRUCTION ACCESS IS TO BE USED AS AN EXIT ONTO A MAJOR HIGHWAY, A THIRTY (30) PAVED TRANSITION AREA SHALL BE INSTALLED. CONSTRUCTION ACCESS ONTO INDIVIDUAL LOTS MUST BE STABILIZED WITH 2.5" CRUSHED STONE OR SUBBASE.
- PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- ALL CATCH BASIN INLETS WILL BE PROTECTED ACCORDING TO THE CERTIFIED PLAN.
- ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED AS REQUIRED BEFORE THE DISCHARGE POINT BECOMES OPERATION.
- NATURAL VEGETATION AND SPECIES SHALL BE RETAINED WHERE SPECIFIED ON THE LANDSWF PLAN.
- ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE CONSTRUCTION SITE.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
- IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, THE STOCKPILE MUST BE STABILIZED ACCORDING TO THE STANDARD FOR TEMPORARY VEGETATIVE COVER. STABILIZE TOPSOIL PILE WITH STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING.
- ALL SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY AND THE BASE MUST BE PROTECTED WITH SEDIMENT BARRIER.
- MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ALL CRITICAL AREAS SUBJECT TO SOIL EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH AT A RATE OF 92 POUNDS PER 1000 SQUARE FEET ACCORDING TO THE NEW JERSEY STANDARDS IMMEDIATELY FOLLOWING ROUGH GRADING.
- TEMPORARY AND PERMANENT SEEDING MEASURES MUST BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS, AND MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER)
- MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ANY DISTURBED AREA THAT IS TO BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION IN ACCORDANCE WITH THE NEW JERSEY STANDARDS AND THEIR RATES SHOULD BE IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATION. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR THE EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
- MULCHING IS REQUIRED ON ALL SEEDED AREAS TO ENSURE AGAINST SOIL EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATION COVER.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME, FERTILIZER AND SEED APPLICATION AND RATES OF APPLICATION AT THE REQUEST OF THE SOIL CONSERVATION DISTRICT.
- ALL VEGETATIVE MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF THE NURSERYMEN AND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS.

- ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE FILTER FABRIC. (SEE DETAIL.) THE SEDIMENT FILTER MUST BE CAPABLE OF FILTERING THE SEDIMENT AND BE PLACED SO AS NOT TO CAUSE EROSION OF THE DOWNSTREAM AREA. FIELD PLACEMENT AND USE OF THE STRUCTURE MUST BE APPROVED BY THE DISTRICT PRIOR TO COMMENCEMENT OF DEWATERING ACTIVITIES. THE WATER QUALITY BASIN MUST BE DEWATERED TO NORMAL POOL WITHIN 10 DAYS OF THE DESIGN STORM.
- DUST IS TO BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO THE NEW JERSEY STANDARDS AND INCLUDE WATERING WITH A SOLUTION OF CALCIUM CHLORIDE AND WATER.
- METHODS FOR THE MANAGEMENT OF HIGH ACID PRODUCING SOILS SHALL BE IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. HIGH ACID PRODUCING SOILS ARE THOSE FOUND TO CONTAIN IRON SULFIDES OR HAVE A PH OF 4 OR LESS.

WORK HOURS AND NOISE CONTROL

- CONSTRUCTION HOURS
 - MONDAY THRU FRIDAY: 7:00AM-6:00PM
 - SATURDAY: 8:00AM-4:30PM
 - SUNDAY: NO WORK TO BE PERFORMED.
 - THE HOURS STATED SHALL BE ADHERED TO UNLESS DUE TO WEATHER AND OR SCHEDULE CHANGES. THE MUNICIPALITY SHALL BE NOTIFIED OF ALL TIME CHANGES.
- NOISE CONTROL EQUIPMENT TO BE UTILIZED SHALL BE STANDARD EARTH MOVING EQUIPMENT, CRANES, MIXERS, ETC. WHICH MEET STANDARDS ESTABLISHED BY STATE AND FEDERAL LAWS REGARDING THE AMOUNT OF NOISE PRODUCED.

DETAILED CONSTRUCTION SEQUENCE

- INSTALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES.
 - PLACE STABILIZED CONSTRUCTION ENTRANCE WHERE INDICATED ON PLAN.
 - PLACE SILT FENCE AND INLET PROTECTION FOR EXISTING INLETS WHERE INDICATED ON PLAN.
- EXCAVATE BASIN INCLUDING SOIL REPLACEMENT
- ROUGH GRADE PAVEMENT AREA BED AND BUILDING PADS
- CONSTRUCT CURBING AND SUBBASE FOR PAVEMENT AREAS.
- CONSTRUCT BASE PAVEMENT COURSE.
- ESTABLISH FINAL GRADING AND PERMANENT VEGETATIVE COVER.

SOIL COMPACTION TESTING IS NOT REQUIRED IF WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.
- EXCAVATE BASIN TO FINAL ELEVATION, REMOVE SEDIMENT, ADD K5 SAND
- LANDSCAPE AS NECESSARY.
- CONSTRUCT FINAL PAVEMENT COURSE.
- REMOVE SOIL CONSERVATION MEASURES WHEN CONSTRUCTION IS COMPLETED AND/OR SITE IS STABILIZED.
- REQUEST REPORT OF COMPLIANCE FROM THE SOIL CONSERVATION DISTRICT.

TEMPORARY AND PERMANENT STABILIZATION

- STABILIZATION COVER SHALL BE ACCOMPLISHED BY THE FOLLOWING METHODS AND MATERIALS:
- SITE PREPARATION
 - PREPARE SUBGRADE AS NEEDED AND FEASIBLE TO ALLOW USE OF CONVENTIONAL EQUIPMENT FOR TOPSOILING, SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 - INSTALL NEEDED SOIL EROSION CONTROL PRACTICES OR MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
 - THE SUBGRADE SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6 INCHES TO ENHANCE THE ESTABLISHMENT OF VEGETATIVE COVER. IF TESTING INDICATES EXCESSIVE SUBGRADE COMPACTION, THE SUBGRADE SHALL BE DE-COMPACTED TO A DEPTH OF 6 INCHES PRIOR TO THE APPLICATION OF TOPSOIL. THE SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 6" TO 12" WHERE THERE HAS BEEN EXCESSIVE SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY IN AREAS WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
 - THE SUBGRADE SHALL BE TESTED TO DETERMINE WHETHER COMPACTION EXCEEDS THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS. THE TEST SHALL BE PERFORMED AT ONE-HALF ACRE INTERVALS FOR SITES ONE ACRE OR MORE. FOR SITES LESS THAN ONE ACRE, AT LEAST TWO TESTS ARE REQUIRED REGARDLESS OF THE SIZE. CONTIGUOUS AREAS OF 500 SQUARE FEET OR LESS ARE EXEMPT FROM TESTING OR REMEDIATION. COMPACTION TESTING METHODS SHALL INCLUDE: (1) PROBING WIRE TEST, (2) HAND-HELD PENETROMETER TEST, (3) TUBE BULK DENSITY TEST, OR (4) NUCLEAR DENSITY TEST. THE MAXIMUM THRESHOLD FOR THE PROBING WIRE TEST IS DETERMINED IF A 15 GAUGE WIRE BENDS WHEN INSERTED INTO THE SUBGRADE TO A DEPTH OF 6 INCHES OR FOR THE PENETROMETER TEST IF THE PRESSURE AT A DEPTH OF 6 INCHES IS 300 PSI OR MORE. IF COMPACTION EXCEEDS THE MAXIMUM THRESHOLD, THE CONTRACTOR SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA, 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.
 - STRIPPING AND STOCKPILING
 - FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND/OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
 - STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
 - WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TEST TO BRING THE SOIL PH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TEST, SEE LINE RATE GUIDE IN SEEDBED PREPARATION.
 - A 4 TO 6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
 - STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
 - STOCKPILES OF TOPSOIL SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS FOR PERMANENT OR TEMPORARY STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.
 - TOPSOILING - THE CONTRACTOR SHALL PREPARE AREAS TO BE STABILIZED WITH PERMANENT

VEGETATIVE COVER BY APPLYING TOPSOIL TO A UNIFORM DEPTH OF 6 INCHES. TOPSOIL SHOULD BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMOHS PER CENTIMETER. MORE THAN 0.5 MILLIMOHS MAY DESICATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). TOPSOIL HAULED IN FROM OFFSITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.

TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. 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, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.

- SEEDBED PREPARATION - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAIERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, THE CONTRACTOR MAY APPLY PULVERIZED DOLOMITIC LIMESTONE AT THE RATE OF 90 POUNDS PER 1000 SQUARE FEET. APPLY 10-20-10 FERTILIZER OR EQUIVALENT AT THE RATE OF 11 POUNDS PER 1000 SQUARE FEET. IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOPDRESSING. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

| SOIL TEXTURE | TONS / ACRE |
|-------------------------------------|-------------|
| CLAY, CLAY LOAM & HIGH ORGANIC SOIL | 4 |
| SANDY LOAM, LOAM & SILT LOAM | 3 |
| LOAMY SAND, SAND | 2 |

THE LIME AND FERTILIZER SHALL THEN BE "WORKED" INTO THE SOIL TO A DEPTH OF 4" WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT.
- TEMPORARY VEGETATION SEEDING - ESTABLISH TEMPORARY VEGETATIVE COVER ON SOILS EXPOSED FOR PERIODS OF TWO TO SIX MONTHS WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION OR NOT SCHEDULED FOR PERMANENT SEEDING WITHIN 60 DAYS. SEEDING SHALL CONSIST OF PERENNIAL RYEGRASS APPLIED AT THE RATE OF 1 POUND PER 1000 SQUARE FEET DURING COOL SEASON OR WEEPING LOVEGRASS AT 5 LBS. PER ACRE DURING WARM SEASON PLANTING.
- PERMANENT VEGETATION SEEDING - IMMEDIATELY FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES AT THE SITE, THE CONTRACTOR SHALL STABILIZE WITH PERMANENT VEGETATIVE COVER, ALL EXPOSED AND DISTURBED SOILS.

| #15 MIXTURE (LAWN) | LBS/ACRE | LBS/1000 S.F. |
|----------------------------|----------|---------------|
| HARD FESCUE | 130 | 3.00 |
| CHEWING FESCUE | 45 | 1.00 |
| STRONG CREEPING RED FESCUE | 45 | 1.00 |
| PERENNIAL RYEGRASS | 10 | 0.25 |

| #11 MIXTURE (SWALE) | LBS/ACRE | LBS/1000 S.F. |
|-----------------------|----------|---------------|
| KENTUCKY BLUEGRASS | 45 | 1.00 |
| TURF-TYPE TALL FESCUE | 22 | 0.50 |

- SEEDING DATES - SEEDING DATES FOR VEGETATION SHALL OCCUR BETWEEN MARCH 1 AND APRIL 30 (OPTIMAL PLANTING PERIOD) OR BETWEEN AUGUST 15 AND NOVEMBER 15. IF SEED IS NOT PLANTED WITHIN THESE DATES, THE CONTRACTOR SHALL STABILIZE WITH MULCH AS SPECIFIED ABOVE.
- MULCHING - THE CONTRACTOR SHALL MULCH ALL NEWLY SEEDED AREAS WITH UNROTTED SMALL GRASS STRAW OR HAY FREE OF STONKS AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET. IT SHALL BE ANCHORED THROUGH THE USE OF THE PEG AND TWINE METHOD. THE PEG AND TWINE METHOD OF MULCH ANCHORING SHALL CONSIST OF DRIVING 8-10 INCH WOODEN PEGS TO WITHIN 2-3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- SODDING
 - CULTIVATED SOD IS PREFERRED OVER NATIVE SOD. SPECIFY "CERTIFIED SOD", OR OTHER HIGH QUALITY CULTIVATED SOD. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH). SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED. FOR DROUGHTY SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
 - REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
 - INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.
 - SOD PLACEMENT:
 - SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
 - PLACE SOD STRIPS WITH SMOG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
 - ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
 - ON SLOPES GREATER THAN 3:1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8" TO 10" LONG BY 3/4" WIDE). SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER- CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
 - IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
 - TOPDRESSING - IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOPDRESSING IS NOT MANDATORY. FALL INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.

| MATERIAL | WATER DILUTION | TYPE OF NOZZLE | APPLY GALLONS/AC |
|---|----------------|----------------|---|
| ANIONIC ASPHALT EMULSION | 7:1 | COARSE SPRAY | 1200 |
| LATEX EMULSION | 12.5:1 | FINE SPRAY | 235 |
| RESIN IN WATER | 4:1 | FINE SPRAY | 300 |
| POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD | | | APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, P. 26-1 |
| ACIDULATED SOY BEAN SOAP STICK | NONE | COARSE SPRAY | 1200 |

- IF HYDROSEEDING IS USED ALL SEEDING RATES SHALL BE INCREASED BY 25%. IF SODDING IS USED SEE SOD SPECIFICATIONS.
- SEEDING DATES - SEEDING DATES FOR VEGETATION SHALL OCCUR BETWEEN MARCH 1 AND APRIL 30 (OPTIMAL PLANTING PERIOD) OR BETWEEN AUGUST 15 AND NOVEMBER 15. IF SEED IS NOT PLANTED WITHIN THESE DATES, THE CONTRACTOR SHALL STABILIZE WITH MULCH AS SPECIFIED ABOVE.
- MULCHING - THE CONTRACTOR SHALL MULCH ALL NEWLY SEEDED AREAS WITH UNROTTED SMALL GRASS STRAW OR HAY FREE OF STONKS AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET. IT SHALL BE ANCHORED THROUGH THE USE OF THE PEG AND TWINE METHOD. THE PEG AND TWINE METHOD OF MULCH ANCHORING SHALL CONSIST OF DRIVING 8-10 INCH WOODEN PEGS TO WITHIN 2-3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- SODDING

- CULTIVATED SOD IS PREFERRED OVER NATIVE SOD. SPECIFY "CERTIFIED SOD", OR OTHER HIGH QUALITY CULTIVATED SOD. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH). SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED. FOR DROUGHTY SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
- REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
- INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.
- SOD PLACEMENT:
 - SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
 - PLACE SOD STRIPS WITH SMOG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
 - ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
 - ON SLOPES GREATER THAN 3:1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8" TO 10" LONG BY 3/4" WIDE). SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER- CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
 - IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
 - TOPDRESSING - IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOPDRESSING IS NOT MANDATORY. FALL INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.

MANAGEMENT OF HIGH ACID-PRODUCING SOILS

HIGH ACID-PRODUCING SOILS ARE SOILS WITH A PH OF 4.0 OR LESS OR CONTAIN IRON SULFIDE. HIGH ACID-PRODUCING SOILS MAY BE PRESENT IN UNDISTURBED SOILS AT VARYING DEPTHS, INCLUDING NEAR THE SOIL SURFACE TO EXCAVATIONS OR DEEP DISTURBANCES. ITS PRESENCE ON A SITE MAY BE SIGNIFICANT OR LIMITED IN THE SOIL PROFILE. HIGH ACID-

PRODUCING SOILS ARE COMMONLY BLACK, DARK BROWN, GRAY OR GREENISH WITH SILVERY PYRITE OR MARCASITE NUGGETS OR FLAKES. ALTERNATIVELY, SANDY SOILS OR REDDISH, YELLOWISH OR LIGHT TO MEDIUM BROWN SOIL MATERIALS ARE USUALLY FREE OF HIGH ACID-PRODUCING DEPOSITS.

TO PREVENT OR LIMIT EXPOSURE AREA, TIME, AND SPREADING BY EQUIPMENT OR RAINFALL ON- AND OFF-SITE AND TO MINIMIZE EROSION, SEDIMENTATION AND ACID LEACHATE-RELATED DAMAGES, HIGH ACID-PRODUCING SOIL MAY BE EXPOSED DURING EXCAVATION AND LAND GRADING ACTIVITIES, OR MAY BE INTRODUCED IN DREGGED SEDIMENT, SOILS AND SEDIMENT CONTAINING IRON SULFIDE, CHARACTERIZED BY PYRITE OR MARCASITE NUGGETS OR GREENSANDS, ARE CHEMICALLY OXIDIZED WHEN EXPOSED TO AIR, PRODUCING SULFURIC ACID AND RESULT IN SOIL PH LEVELS FALLING TO PH 4.0 AND LOWER. MOST VEGETATION IS INCAPABLE OF GROWTH AT THIS PH LEVEL. ADJACENT LAND AND RECEIVING WATERS WILL BE NEGATIVELY IMPACTED BY THE ACID LEACHATE. CALCIUM-CONTAINING MATERIALS SUCH AS SIDEWALKS, CULVERTS AND OTHER STRUCTURES AND SOME METALLIC MATERIALS ARE ALSO SUSCEPTIBLE TO DEGRADATION. AGRICULTURAL LIMESTONE MATERIALS APPLIED AT RATES OF 8 TONS PER ACRE HAVE RESULTED IN ONLY A TEMPORARY BUFFERING EFFECT, AND "LIMING-ONLY" IS THEREFORE NOT CONSIDERED AN ACCEPTABLE MITIGATION PRACTICE.

METHODS AND MATERIALS OF MANAGING HIGH ACID-PRODUCING SOILS

- LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED.
- TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS.
- 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.
- TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF 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 THE 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.
- HIGH ACID-PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DREGGED 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 5.0 OR MORE EXCEPT AS FOLLOWS:
 - AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OR 5 OR MORE.
 - 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.
- EQUIPMENT USED FOR MOVEMENT OF HIGH ACID-PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
- NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.
- 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), MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID-PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

DUST CONTROL:

DUST CONTROL SHALL BE ACCOMPLISHED BY THE METHODS DESCRIBED BELOW.

| MATERIAL | WATER DILUTION | TYPE OF NOZZLE | APPLY GALLONS/AC |
|---|----------------|----------------|---|
| ANIONIC ASPHALT EMULSION | 7:1 | COARSE SPRAY | 1200 |
| LATEX EMULSION | 12.5:1 | FINE SPRAY | 235 |
| RESIN IN WATER | 4:1 | FINE SPRAY | 300 |
| POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD | | | APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, P. 26-1 |
| ACIDULATED SOY BEAN SOAP STICK | NONE | COARSE SPRAY | 1200 |

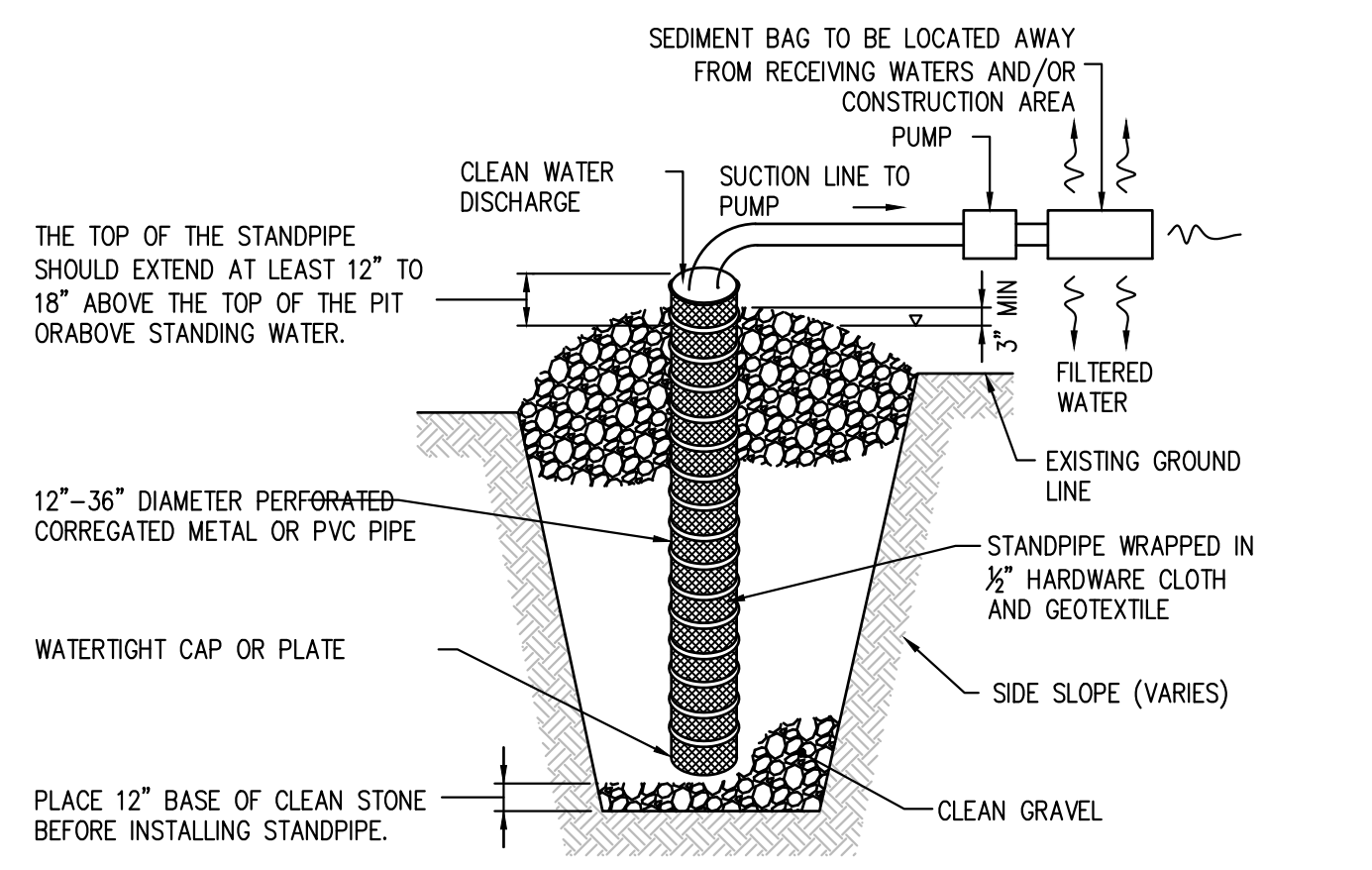
TILLAGE: TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS PLACED ABOUT 12 INCHES APART, AND SPRING TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE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

SPRINKLING: SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS: SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE: SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.

STONE: COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.



CONSTRUCTION SPECIFICATIONS

- PIT DIMENSIONS ARE VARIABLE, WITH THE MINIMUM DIAMETER BEING TWO TIMES THE STANDPIPE DIAMETER.
- THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12" TO 24" DIAMETER CORRUGATED OR PVC PIPE, THEN WRAPPING WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE PERFORATIONS SHALL BE 1/2" x 6" SLITS OR 1" DIAMETER HOLES.
- A BASE FILTER MATERIAL CONSISTING OF CLEAN GRAVEL OR ASTM C 333 STONE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD THEN BE BACKFILLED WITH THE SAME FILTER MATERIAL.
- THE STANDPIPE SHOULD EXTEND 12" TO 18" ABOVE THE LIP OF THE PIT OR THE RISER CREST ELEVATION (BASIN DEWATERING ONLY) AND THE FILTER MATERIAL SHOULD EXTEND 3" MINIMUM ABOVE THE ANTICIPATED STANDING WATER ELEVATION.
- WATER SURFACE ELEVATION.
- SEDIMENT CONTROL BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS. BAGS MAY NOT BE REUSED.

TEMPORARY SUMP PIT DURING CONSTRUCTION

N.T.S.

</