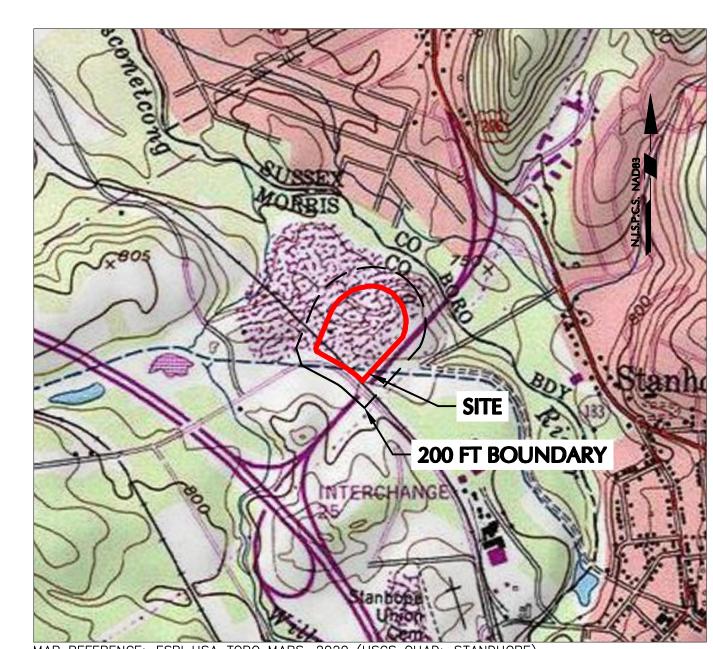
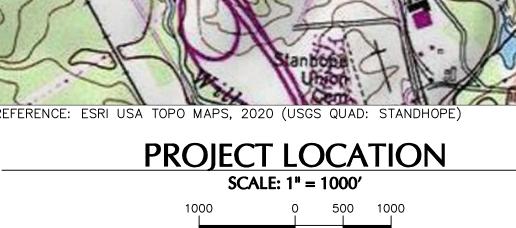
PRELIMINARY AND FINAL MAJOR SITE PLAN APPLICATION 2000 INTERNATIONAL DRIVE WAREHOUSE DEVELOPMENT

TOWNSHIP OF MOUNT OLIVE, MORRIS COUNTY, NEW JERSEY BLOCK 202, LOT 1

CERTIFIED PROPERTY OWNER'S LIST 2000 International Drive, Town of Mount Olive, NJ BLOCK 202, Lot 1

BLK. NO.	LOT NO.	PROP ADDRESS	OWNER NAME / ADDRESS
105	1	250 Continental Drive	New Jersey Foreign Trade Zone Vent 1271 Avenue of the Americas New York, NY 10020
106	4	40 Continental Drive	State of NJ DEP CN 114 Division of Law Trenton, NJ 08625
106	6	2011 International Drive	State of NJ Dept of Transportation 1035 Parkway Avenue Trenton, NJ 08625
200	1	3000 Continental Drive	3000 Contintal Drive Associates 4000 Forsgate Drive Cranbury, NJ 08512
201	1	120 Continental Drive	State of NJH John Fitch Plaza Trenton, NJ 08625
201	3	110 Continental Drive	Musconetcong Sewerage Authority P.O. Box 416 Stanhope, NJ 07874
201	4	2011 Internaltional Drive	State of NJ Dept of Transportation 1035 Parkway Avenue Trenton, NJ 08625
202	1	2000 International Drive	TEIF 2000 Mount Olive LLC CN 4000 Forsgate Drive Cranbury, NJ 08512
204	1.01	271 Continental Drive	NE Stanhope Owner LLC c/o SLK Global 2727 LBJ Freeway, Suite 806 Dallas, TX 75234





ZONING TABLI

The principal uses permitted in the G-I, C-1 and C-2 Zones.

products, utilities, lumberyards, airports, motels and hotels,

warehousing, shipping and receiving, outside storage areas, the

manufacturing, finishing and assembly of products, and public

0.4

10 FT X 60 FT

1 space for the first 5,000 SF and 1 space for the next 40,000 SF. Add a space for each additional 30,000 SF after the first two

space for the first 10,000 SF and 1 space for the next 100,000.

SF. Add a space for each additional 100,000 SF after the first two

10 FT X 18 FT OR 9 FT x 20 FT

25 FT from lot line or street R.O.W

No fence or wall shall be erected, altered or constructed in any

55.25 SF

10 FT from street ROW

*In accordance with Ordinance Section 550-39.F.1.b., impervious coverage of any site shall be calculated by excluding all steep slopes and 50% of the

1. Relief is requested from Ordinance Section 550-82.A.2 for the height of the proposed retaining wall. The ordinance permits a maximum height of 6

2. Relief is requested from Ordinance Section 550-39.F.2.a for disturbing critical slope areas. The ordinance permits no site disturbance, structures,

and impervious coverage within critical slope areas except driveways and roads. The proposed development disturbs 863 SF of critical slope areas

each developable lot, pursuant to the appicable zone district standards, may be utilized for structures and/or impervious coverage. The proposed

4. Relief is requested from Ordinance Section 550-53 for the average light intensity, which is permitted to be a maximum of 0.5 footcandles over the

5. Relief is requested from Ordinance Section 550-71 for the minimum street tree diameter. The ordinance requires that all street trees shall have a

3. Relief is requested from Ordinance Section 550-39.F.2.b fo disturbing moderate slope areas. The ordinance permits 50% of the rate of coverage for

**In accordance with Ordinance Section 550-56.J., a maximum of 20% of GFA can be office use without additonal parking for the office use. Office

nonresidential zone which shall exceed 6 feet in height above

requirements are met. (7 loading docks required)

requirements are met. (2 loading docks required)

Warehouse (196,748 SF): 1 Space per 5,000 SF GFA

Total loading docks required = 9 loading docks

Narehouse (178, 748 SF)

Office (18,000 SF):

(40 spaces required)

G-I: Offices and office buildings, research laboratories or other experimental testing or research establishments, assembly of

Zone: FTZ-4 Foreign Trade Zone Special District

Accessory Building

Bulk Regulations

Min. Lot Area (AC

Min. Lot Width (FT

Min. Side Yard (FT)
Min. Rear Yard (FT)

Max. Lot Coverage (%

Max. FAR

Min. Lot Depth (FT)

Min. Front Yard (FT)

Max. Building Coverage (%)

Max. Building Height (FT)

oading Requirements.

Min. size of Loading Space

Min. Number of Loading Docks

Off-Street Parking Requirements

Min. Number of Parking Spaces

Requested Variances / Waivers

Min. Aisle Width for Two Way 90 Degree Parking

Max. Height

use above 20% shall require parking at the appropriate rate.

development disturbs 16,410 SF of moderate slope areas.

FT. The proposed maximum height of the retaining wall is 18 FT.

minimum diameter of 2.5 IN. Street trees with a minimum diameter of 1.5 IN are proposed.

Min. Size of Parking Space

Fence/Wall Requirements

Max. Fence/Wall Height

Signage Requirements

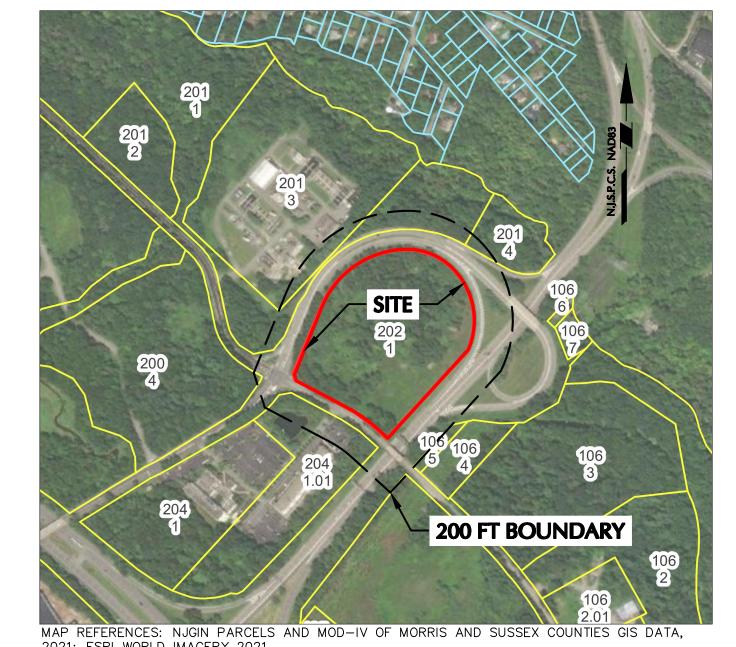
Directional Sign

Ground Sign

llumination

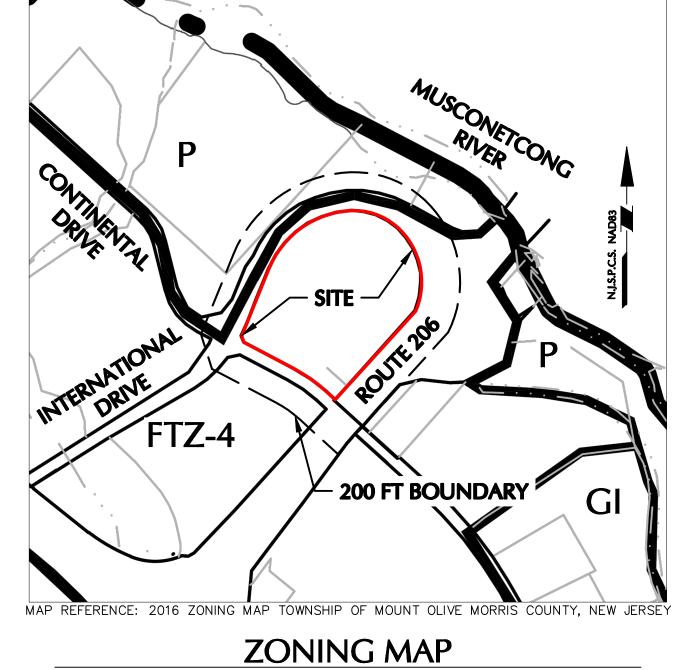
(Type M)

Min. Parking Setback



TAX MAP

SCALE: 1'' = 500'



G	MAP	TOWNSHIP	OF	MOUNT	OLIVE			
	Z	NINC	IC	M	AP			
SCALE: 1" = 500'								
	500 L		0 	250 	500 			
	S	CALE: 1 INC	H =	500 FE	ET			

GENERAL	NO.
ULINLIVAL	

Proposed Complies

Yes

Yes

N/A

Yes*

Yes

Yes

Yes

Yes

Warehouse

±13.629

N/A

N/A

N/A

N/A

±63.8%

<47

±0.33

12.5 FT x 60 FT

9 FT X 20 FT

±42 FT

110 car parking spaces

±18 FT

55.25 SF

- 1. BOUNDARY INFORMATION AND EXISTING FEATURES FOR BLOCK 202, LOT 1 WAS OBTAINED FROM "ALTA/NSPS LAND TITLE SURVEY LOT 1 BLOCK 202" DATED 05/19/2022 PREPARED BY CHESTER, PLOUSSAS, LISOWSKY PARTNERSHIP, LLC.
- 2. THE MERIDIAN SHOWN IS REFERENCED TO NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD 83 (2011) PER GPS METHODS.
- 3. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
- 4. APPLICANT OR TENANT SHALL CONTRACT OUT SOLID WASTE DISPOSAL WITH PRIVATE CONTRACTING FIRM.
- 5. ALL CONSTRUCTION SHOWN HEREON SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE TOWNSHIP OF MOUNT OLIVE EXCEPT WHERE NOTED.
- 7. ALL ON-SITE SANITARY SEWER SHOWN HEREON SHALL BE PVC-SDR 35 SEWER PIPE WITH RING TIGHT FITTINGS UNLESS OTHERWISE SPECIFIED.
- 7. ALL ON-SITE SANITARY SEWER SHOWN HEREON SHALL BE PVC-SDR 35 SEWER PIPE WITH RING TIGHT FITTINGS UNLESS OTHERWISE SPECIFIED.

 8. ALL WATER MAINS SHOWN HEREON SHALL BE C900 UNLESS OTHERWISE SPECIFIED. PRIOR TO WET TAP, CONTRACTOR SHALL CONSULT NEW JERSEY
- 9. GAS, ELECTRIC, AND TELECOM SERVICE NETWORKS ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER,

6. ALL SANITARY SEWERS AND WATER MAINS SHOWN HEREON SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE TOWNSHIP

- ARCHITECT, AND MEP ENGINEER TO DETERMINE ACTUAL LOCATION AND SERVICE SIZE. CONCRETE ENCASEMENT SHALL BE PROVIDED, AS REQUIRED, IN ACCORDANCE WITH THE UTILITY CROSSING DETAILS.
- 10. EXISTING UTILITIES:

A. OWNER AND CONTRACTOR ARE HEREBY NOTIFIED THAT EXISTING UTILITIES ARE PRESENT IN THE VICINITY OF THE PROJECT. 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 INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION.

B. THE CONTRACTOR SHALL NOTIFY AND COOPERATE WITH ALL UTILITIES ALONG THE LINE OF THE PROPOSED WORK THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION. CONTRACTORS SHALL NOT PROCEED WITH WORK IN STREETS WHERE UTILITIES HAVE NOT BEEN LOCATED.

C. 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, MATERIALS AND SIZES, SUCH THAT CONFLICTS MAY BE AVOIDED. THESE TEST PITS SHALL BE EXCAVATED AT THE START OF CONSTRUCTION, PRIOR TO THE CONSTRUCTION OF ANY UTILITIES. THE CONTRACTOR WILL NOTIFY LANGAN 48 HOURS PRIOR TO THE TEST PIT EXCAVATION AND WILL PROVIDE LANGAN WITH THE RESULTS OF THESE EXPLORATIONS WITHIN 24 HOURS OF THEIR COMPLETION.

- 11. LOCATION AND SIZE OF ROOF LEADER CONNECTION AND SANITARY SEWER, WATER, ELECTRIC, TELEPHONE AND GAS SERVICES INTO BUILDING ARE APPROXIMATE AND MUST BE COORDINATED WITH ARCHITECT AND RESPECTIVE UTILITY COMPANIES. WHERE CONFLICTS EXIST BETWEEN THESE PLANS AND ARCHITECTURAL PLANS, CONTRACTOR TO NOTIFY THE ENGINEER BEFORE CONSTRUCTION.
- 12. ELECTRIC, TELEPHONE, GAS AND CABLE TO BE PROVIDED BY RESPECTIVE UTILITY COMPANY IN ACCORDANCE WITH THEIR B.P.U. CHARTERS.
- 13. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- 14. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF APPLICABLE GOVERNING AUTHORITIES.
- 15. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 16. ALL NEW UTILITIES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE SPECIFIED.
- 17. THESE PLANS REPRESENT THE OVERALL SITEWORK IMPROVEMENTS REQUIRED FOR PROJECT CONSTRUCTION. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
- 18. CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE PLANS SHALL BE IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REQUIREMENTS.
- THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER MAKES NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY AVAILABLE INFORMATION WHICH WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS, CORRELATE CONDITIONS WITH THE DRAWINGS, AND RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL MAKE ADDITIONAL TOPOGRAPHIC SURVEYS HE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
- 20. THE CONTRACTOR SHALL, WHEN THEY DEEM NECESSARY, PROVIDE WRITTEN REQUESTS FOR INFORMATION (RFIS) TO THE OWNER AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE RFI SHALL BE IN A FORM ACCEPTABLE TO OWNER AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF TWO WORK DAYS OR ADDITIONAL REASONABLE TIME FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
- 21. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO CONSTRUCTION. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO CONSTRUCTION.
- 22. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
- 23. ALL OPERATIONS SHALL BE CONDUCTED SO AS NOT TO DAMAGE, DESTROY, OR ENDANGER THE INTEGRITY OF ANY ADJACENT BUILDINGS, ROADWAYS, ACTIVE UTILITIES, AND RAILROADS.
- 24. REFER TO LP101 AND LT101 FOR LIGHTING AND LANDSCAPING COMPLIANCE CHARTS.

DRAWING TITLE NUMBER **COVER SHEET** SITE PLAN PAVEMENT PLAN CP100 CIRCULATION PLAN **GRADING AND DRAINAGE PLAN** STORM SEWER PROFILES 1 STORM SEWER PROFILES 2 CG203 STORM & SANITARY SEWER PROFILES 3 CU101 UTILITY PLAN SOIL EROSION AND SEDIMENT CONTROL PLAN SOIL EROSION AND SEDIMENT CONTROL DETAILS SOIL DECOMPACTION AND RESTORATION PLAN STEEP SLOPES PLAN TREE REMOVAL PLAN LANDSCAPE PLAN LANDSCAPE NOTES AND DETAILS LIGHTING PLAN LL501 LIGHTING NOTES AND DETAILS CS501 SITE DETAILS 1 CS502 SITE DETAILS 2 CS503 SITE DETAILS 3 CS504 SITE DETAILS 4

CIVIL SHEET INDEX

UTILITIES AND AGENCIES

Bruce D. Smith Hackettstown Municipal Utilities Authority P.O. Box 450 Hackettstown, NJ 07840

R. Albanese New Jersey Natural Gas 1415 Wyckoff Road Wall, NJ 07719

Bruce Reynolds Columbia Gas Transmission Corp 1470 Poorhouse Road Downington, PA 19335-342

Mt. Olive Township, Water & Sewer Department P.O. Box 450 204 Flanders-Drakestown Road Mt. Olive, NJ 07828

NJ Department of Transportation 1035 Parkway Dr CN 600 Trenton, NJ 08625

Public Service Electric & Gas Company Manager - Corporate Properties 80 Park Plaza, T6B Newark, NJ 07102

New Jersey - American Water Co. Inc. P.O. Box 5627 Cherry Hill, NJ 08034

Applied Wastewater Management 2 Clerico Lane Hillsborough, NJ 08844

PROJECT CONTACTS

APPLICANT/OWNER:

PPLICANT/OWNER:
TEIF 2000 MOUNT OLIVE, LLC
CN 4000, FORSGATE DRIVE
CRANBURY, NJ 08512

ARCHITECT:

FORD & ASSOCIATES ARCHITECTS, INC. 1500 WEST FIRST AVENUE COLUMBUS, OHIO 43212 (614) 488-6252

CIVIL ENGINEER:

LANGAN
300 KIMBALL DRIVE

PARSIPPANY, NJ 07054
(973) 560-4900

NJ Certificate of Authorization No: 24GA27996400

Approved by The Township Of Mount Olive Planning Board
Preliminary & Final Site Plan

Chairman of the Planning Board

Date

Secretary of the Planning Board

Signature RICHARD BURROW Date PROFESSIONAL ENGINEER NJ Lic. No. 24GE04459300

LANGAN
Langan Engineering and Environmental Services, Inc.
300 Kimball Drive Parsippany, NJ 07054

T: 973.560.4900 F: 973.560.4901 www.langan.com NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

2000 INTERNATIONAL DRIVE WAREHOUSE DEVELOPMENT BLOCK No. 202, LOT No. 1 TOWNSHIP OF MOUNT OLIVE MORRIS COUNTY NEW JERSEY Drawing Title

COVER SHEET

Description

Revisions

SL
Checked By
KMR Sheet 1 of 2

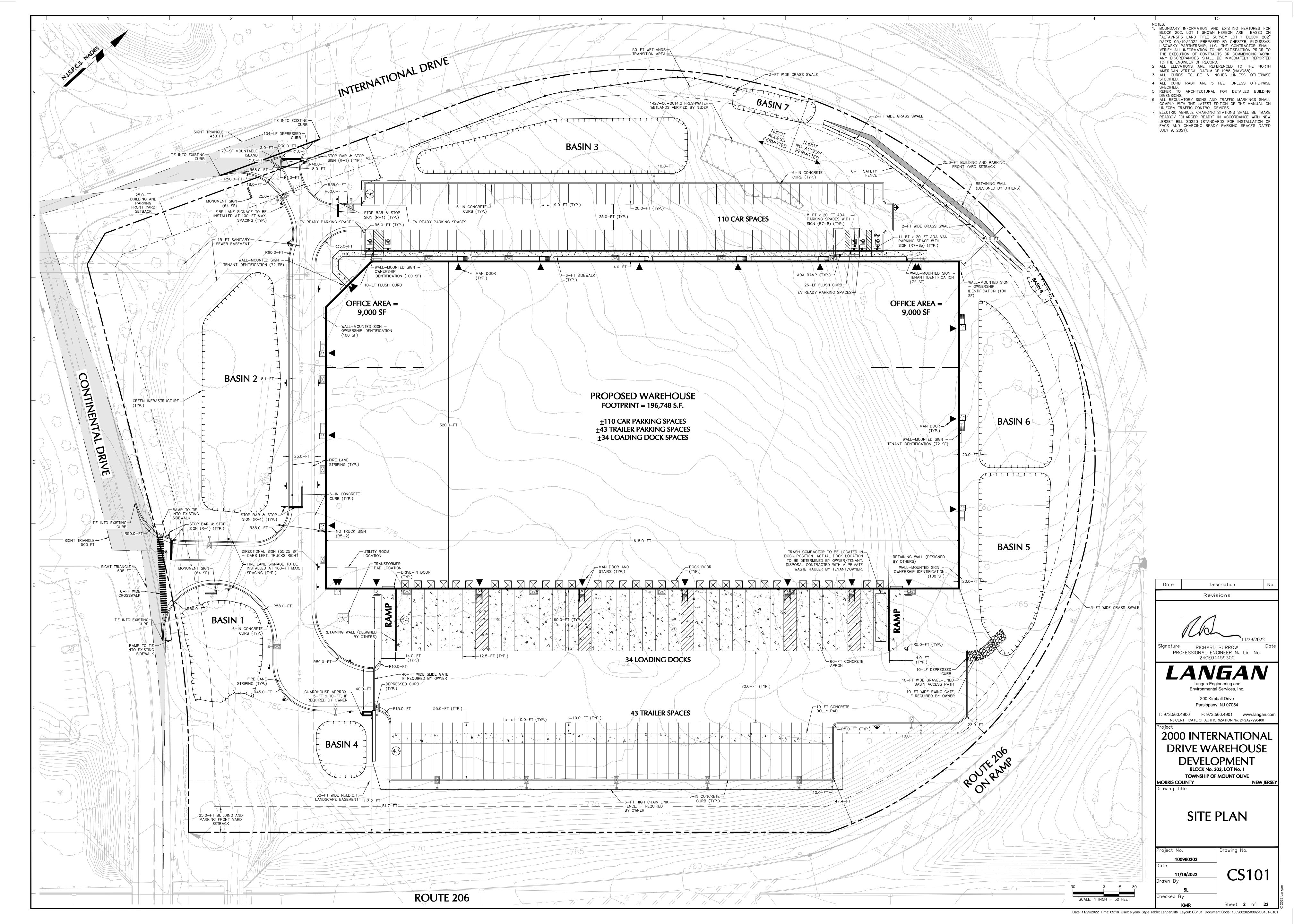
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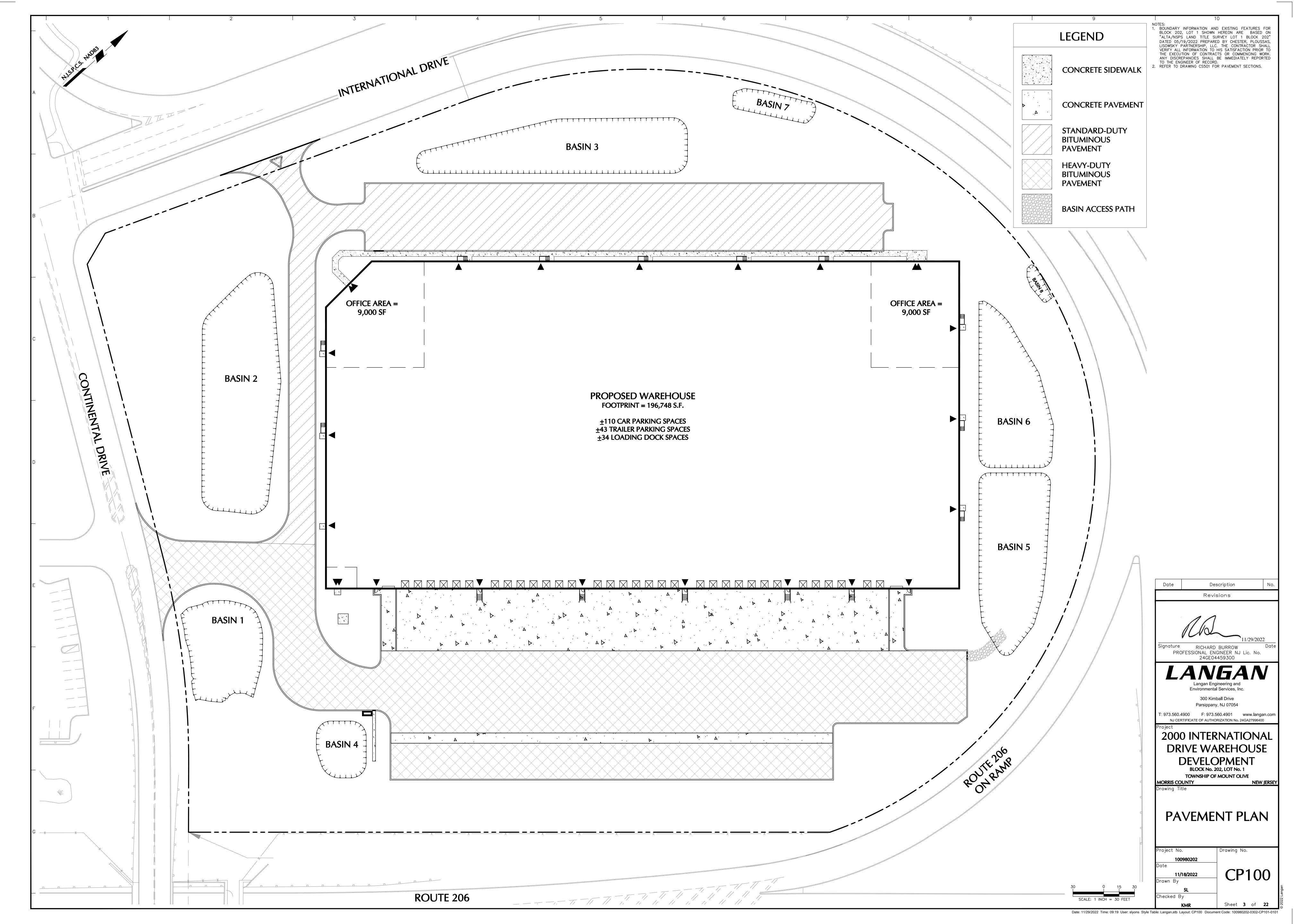
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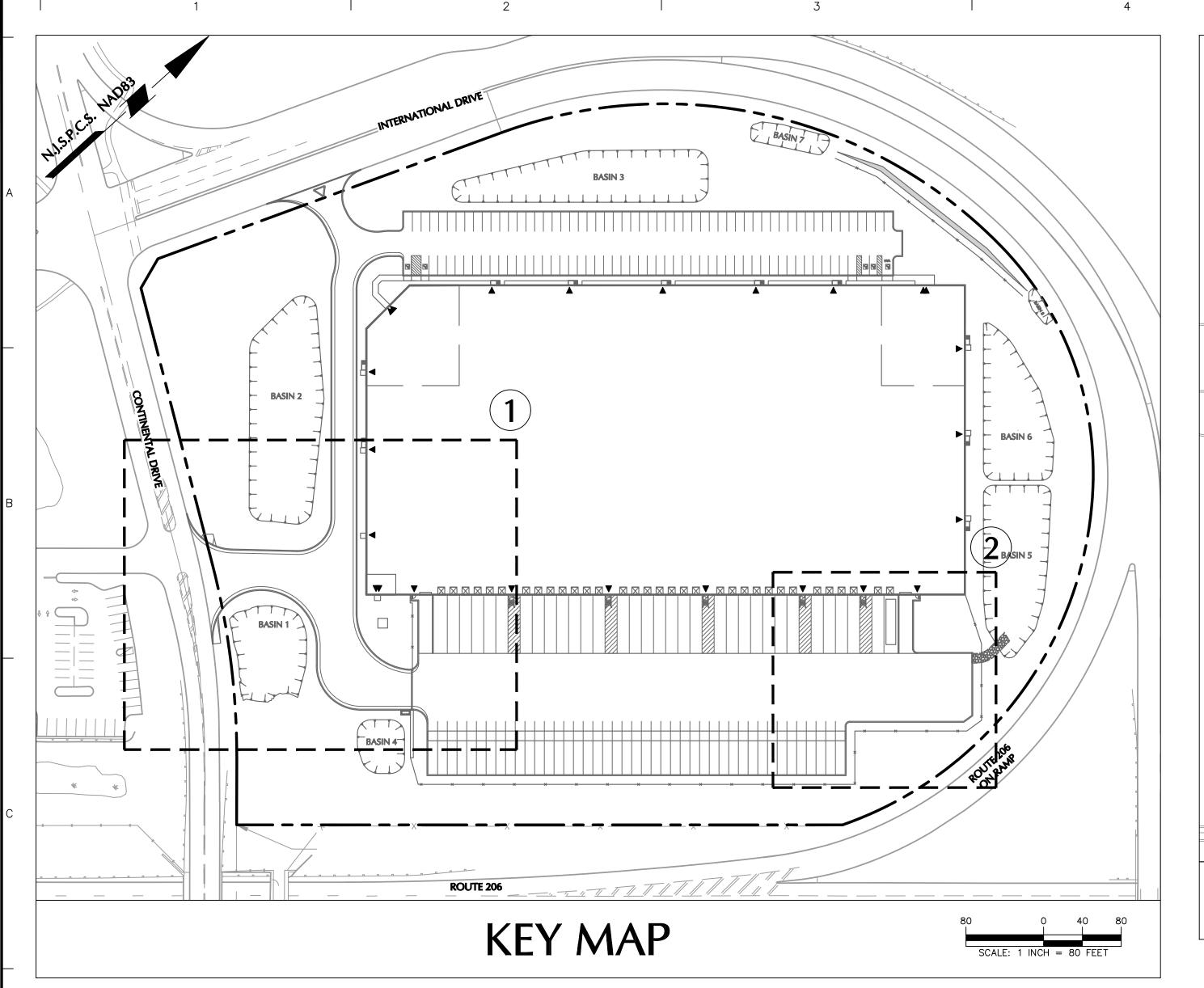
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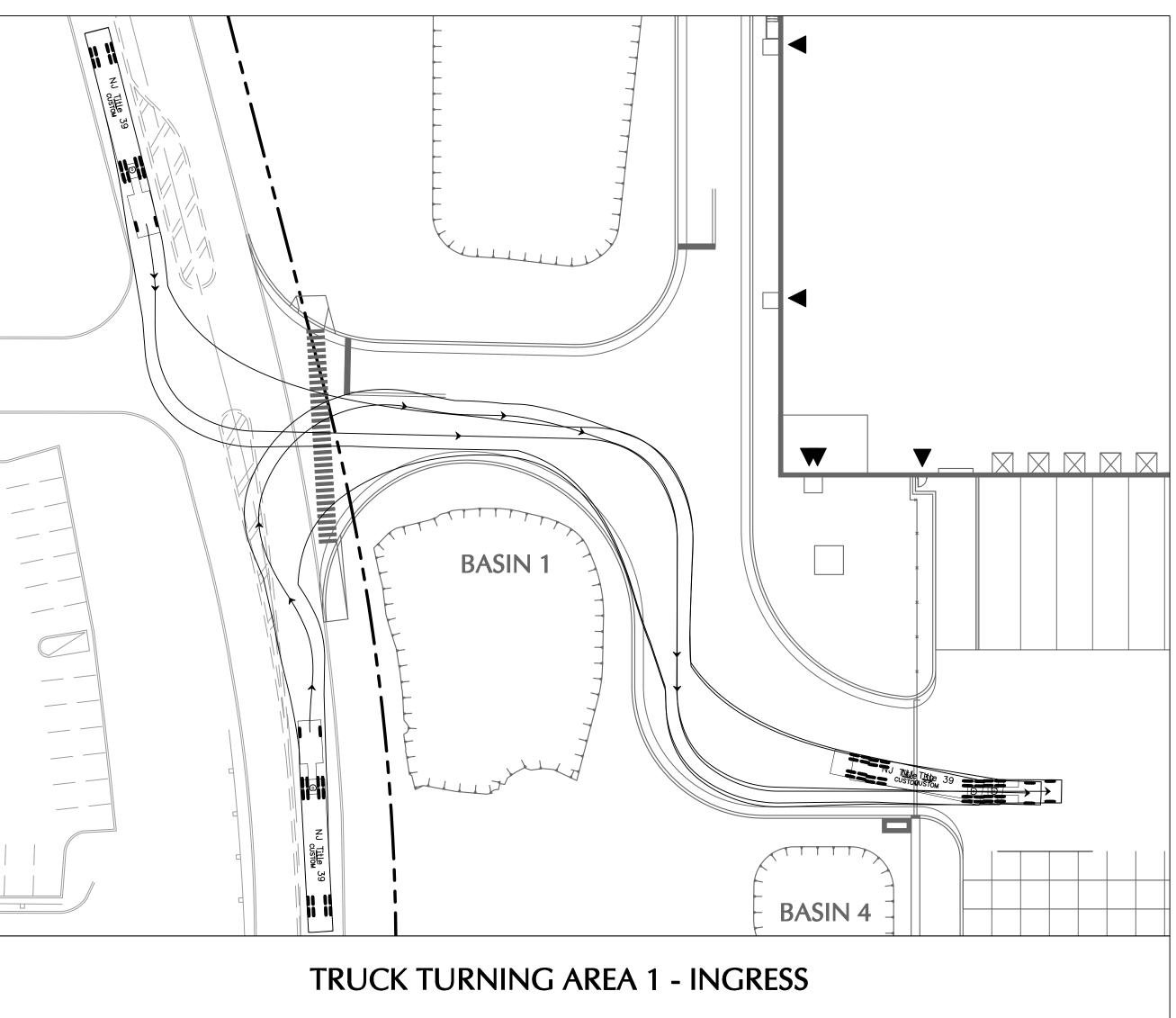
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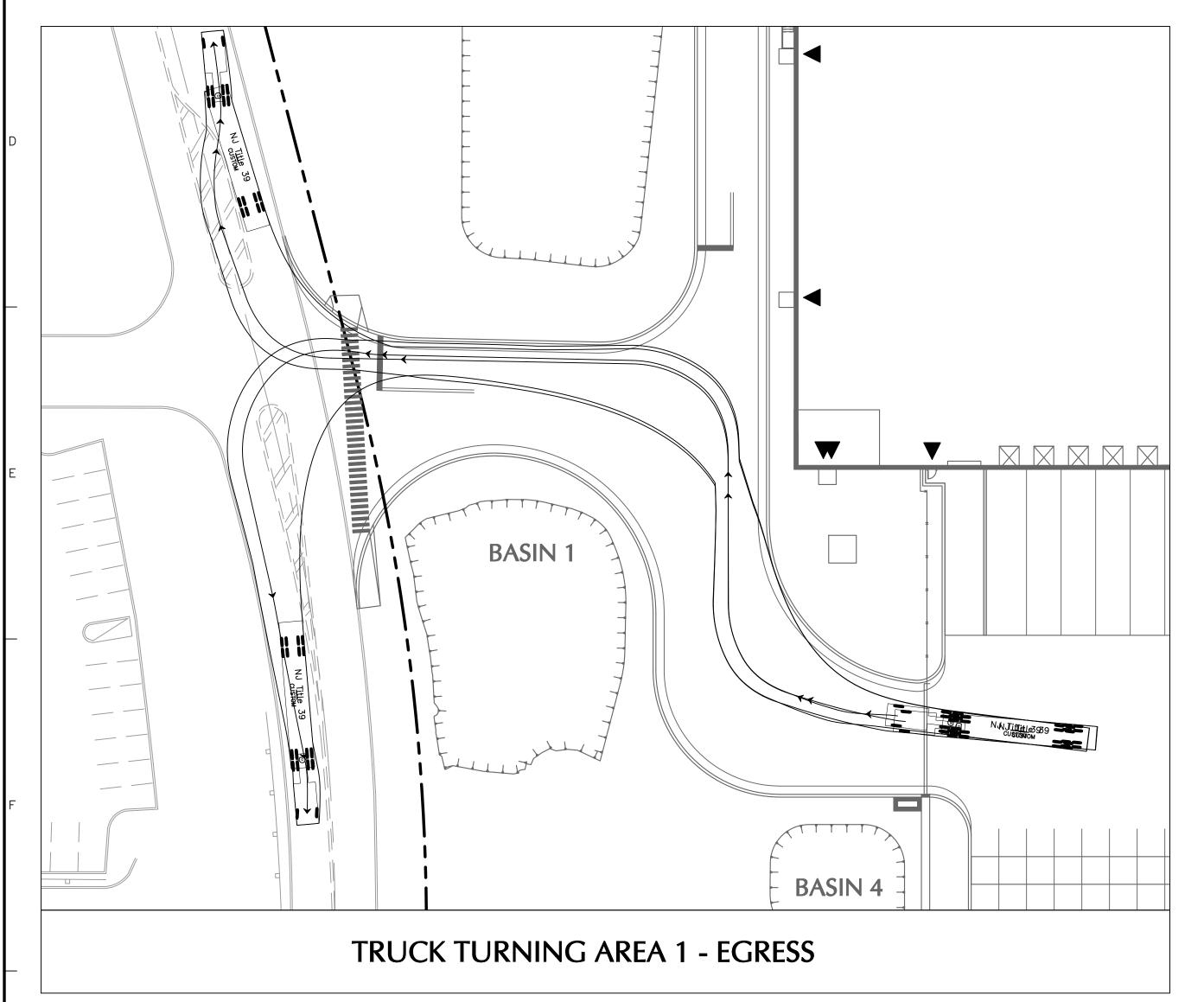
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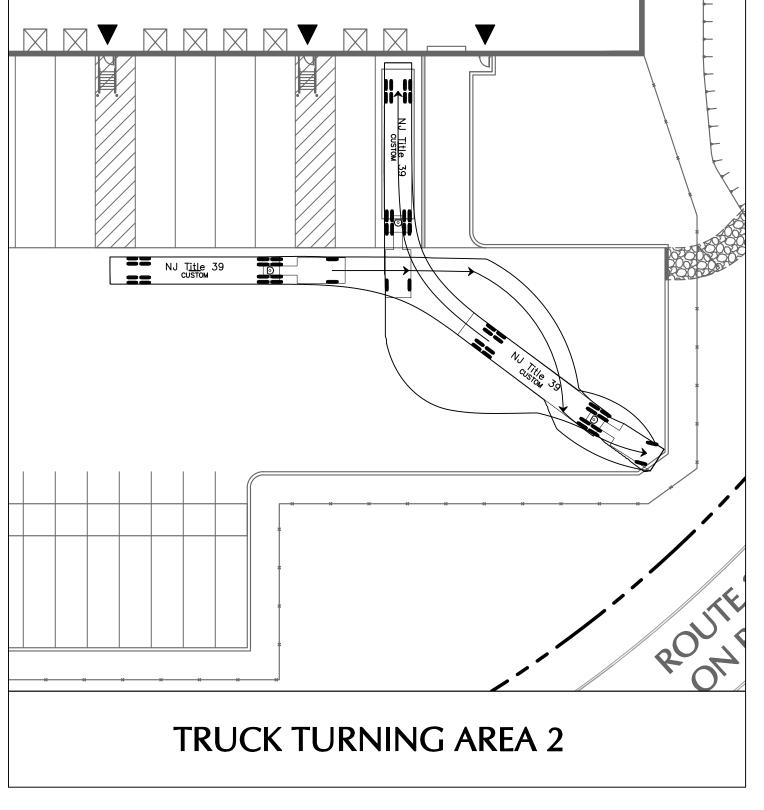


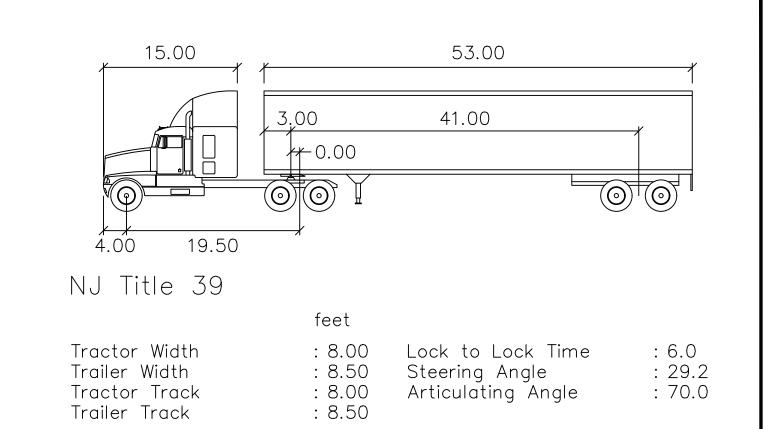


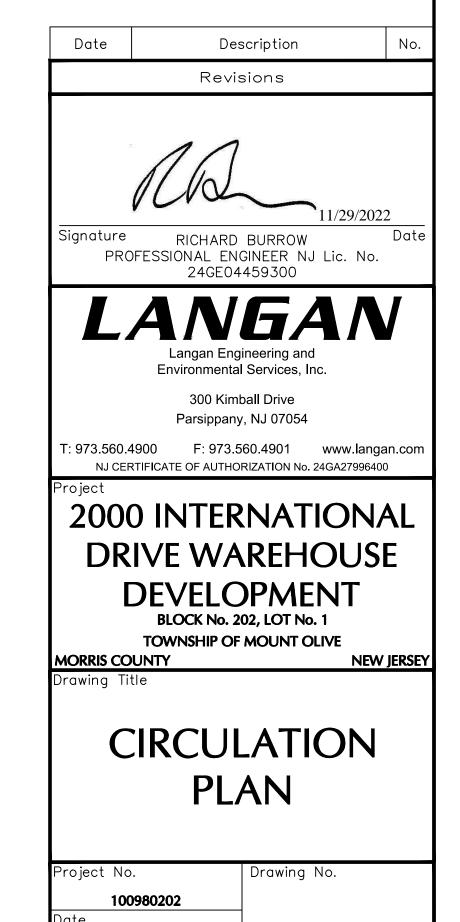








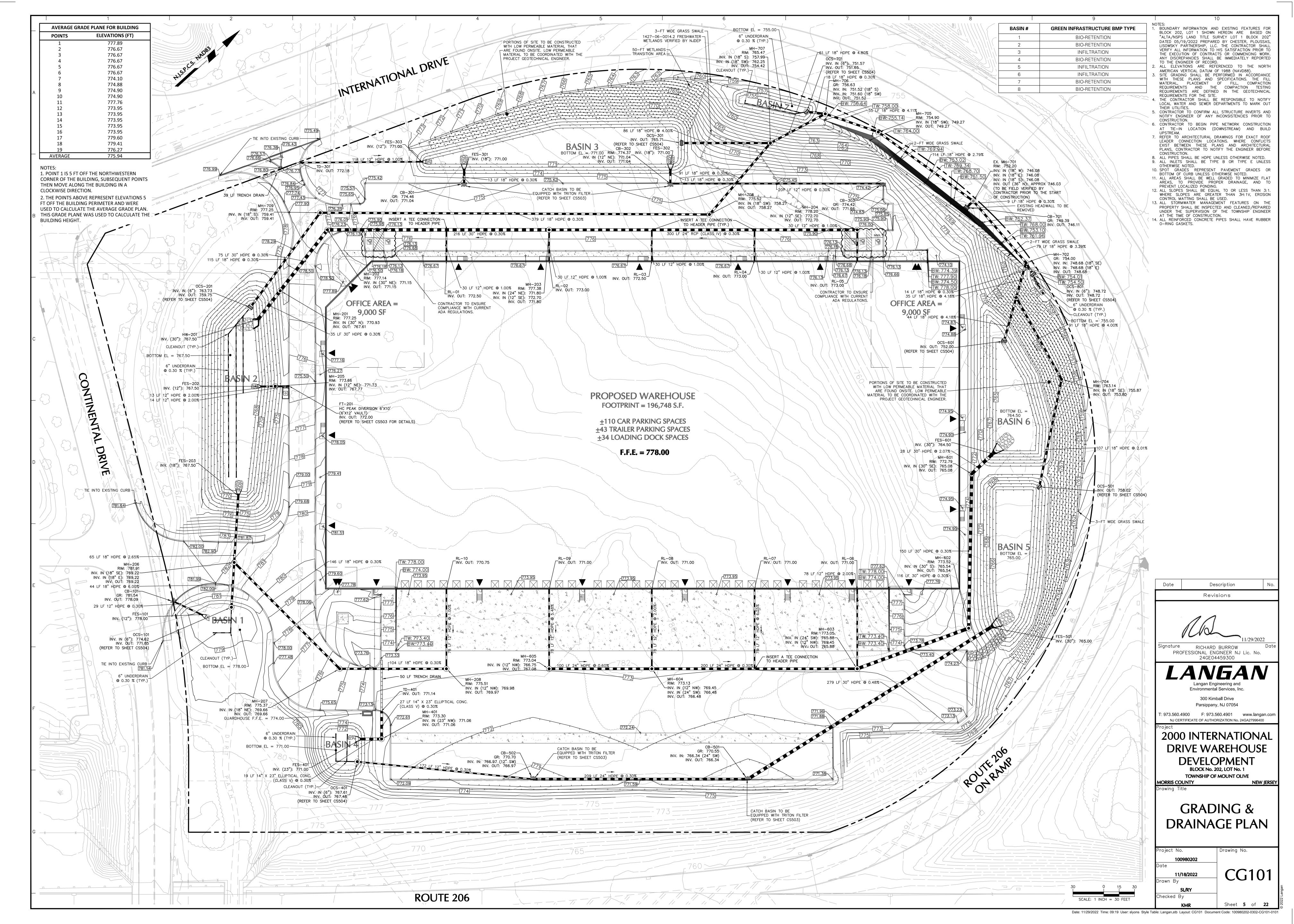


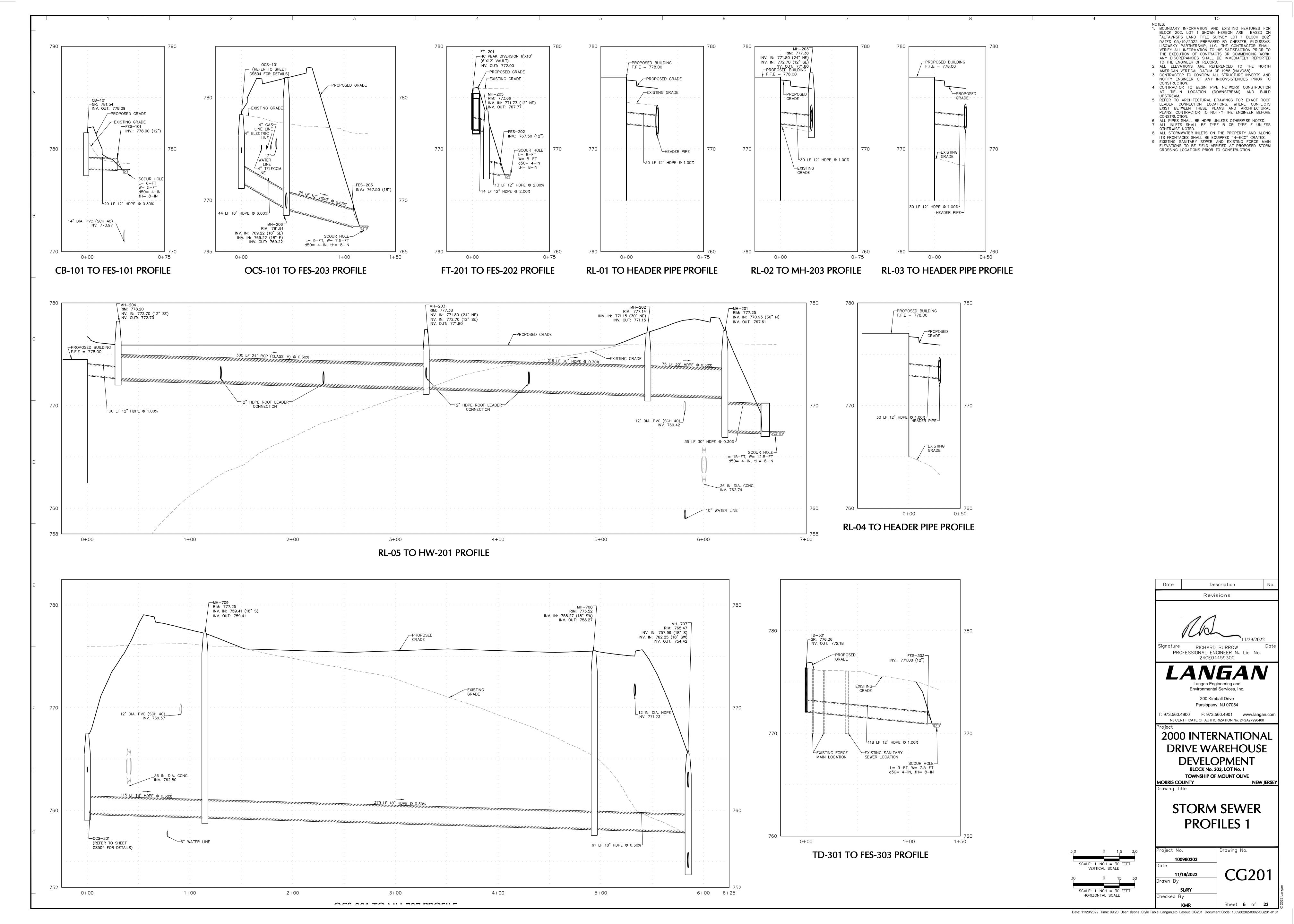


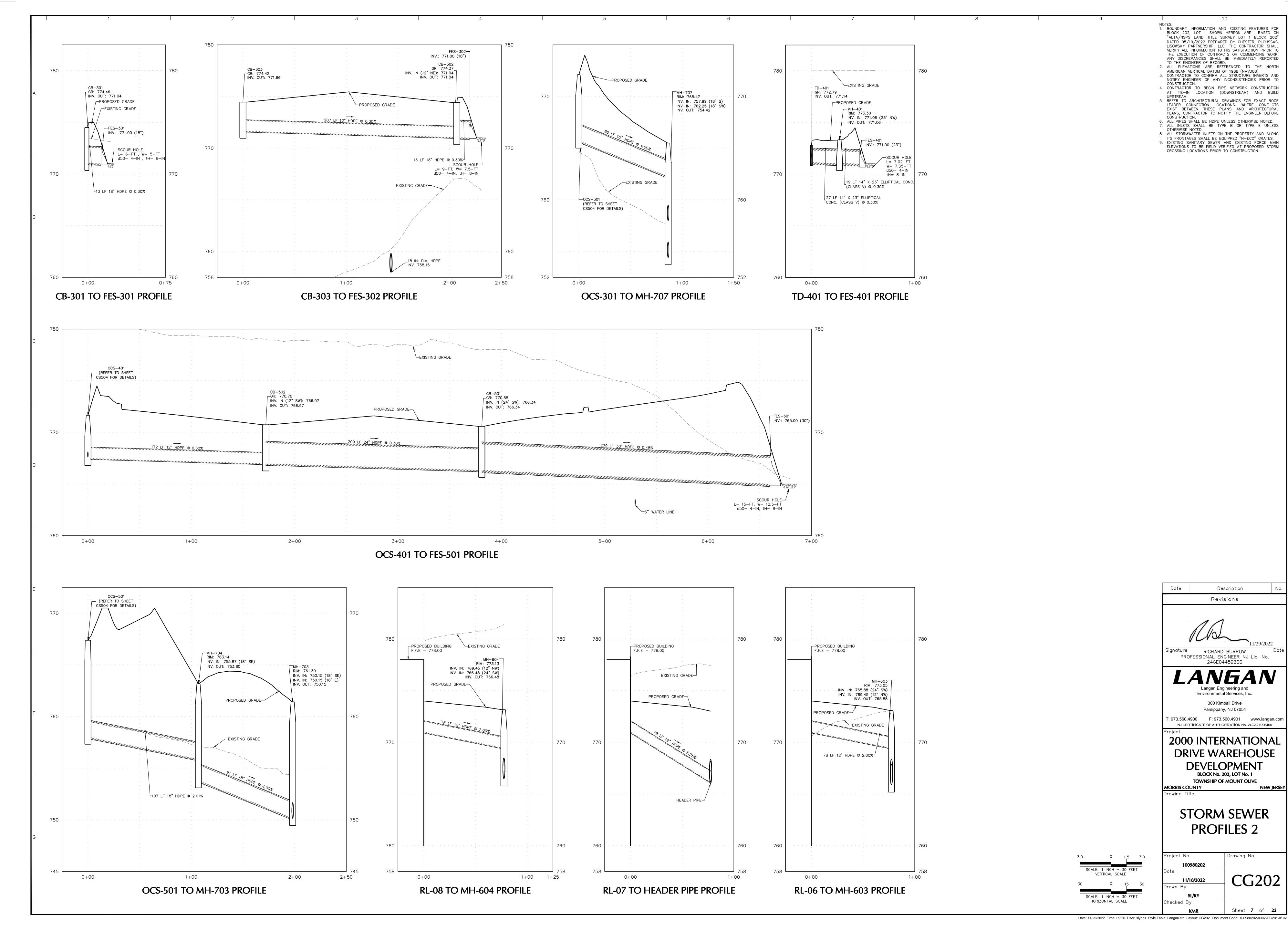
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CS701



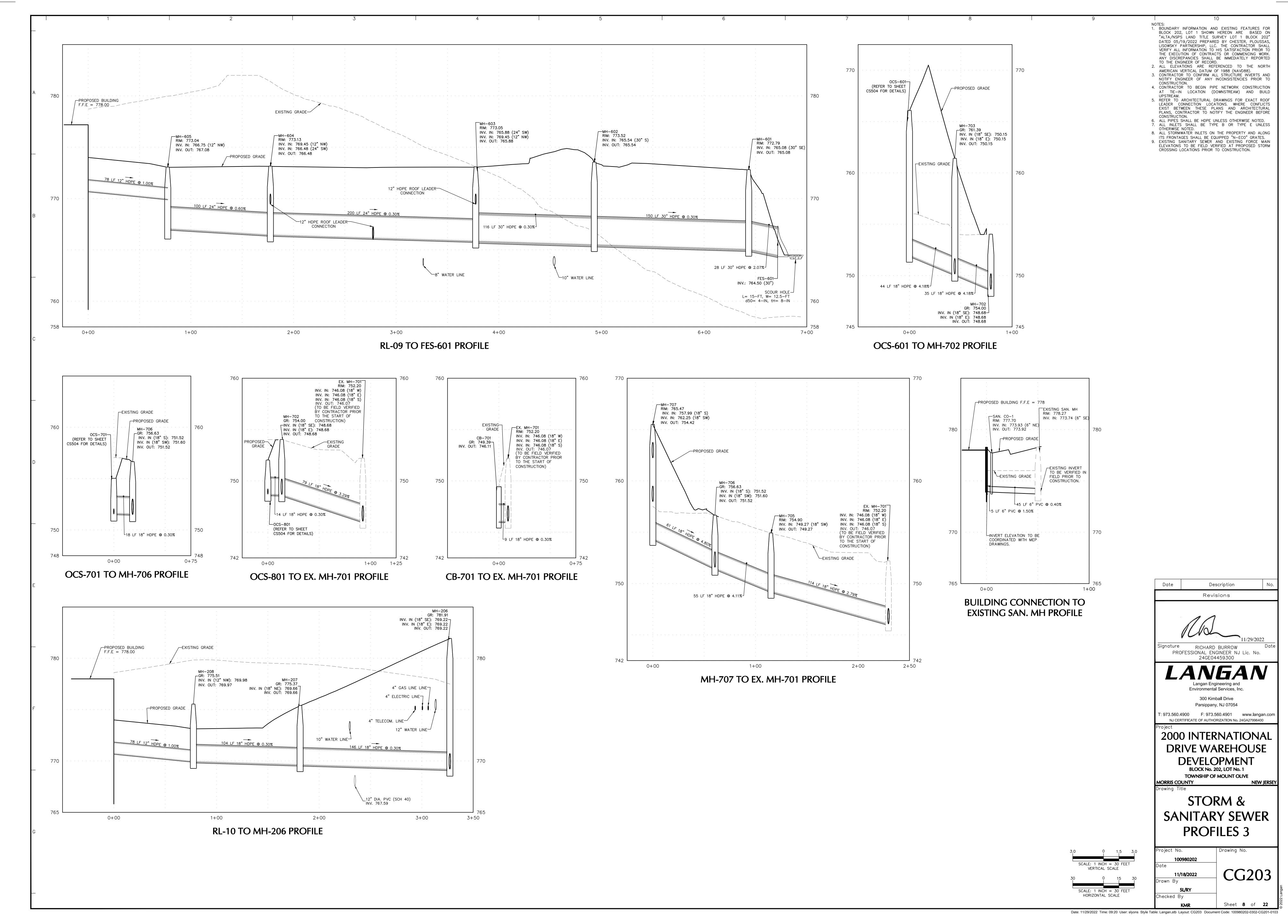


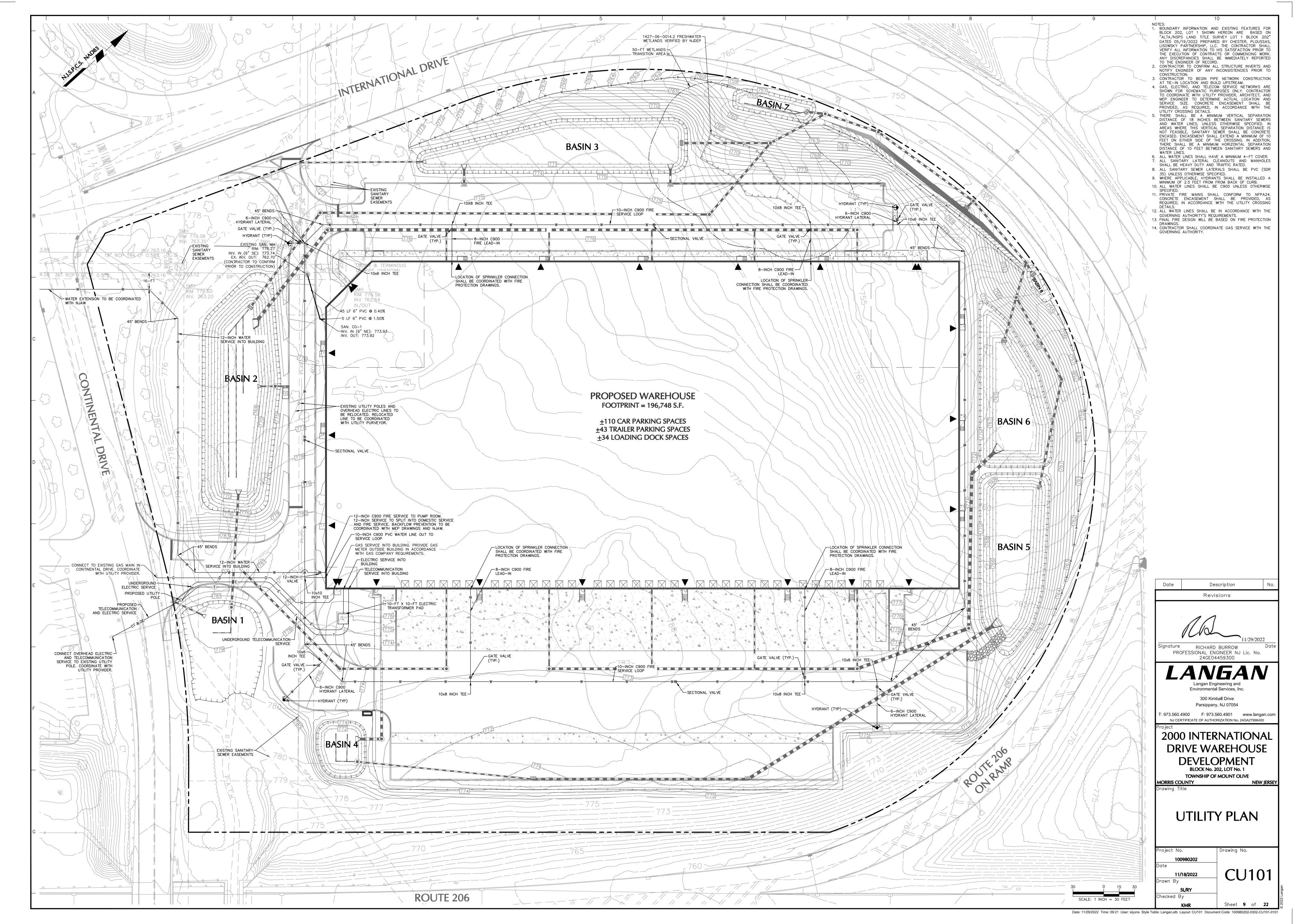


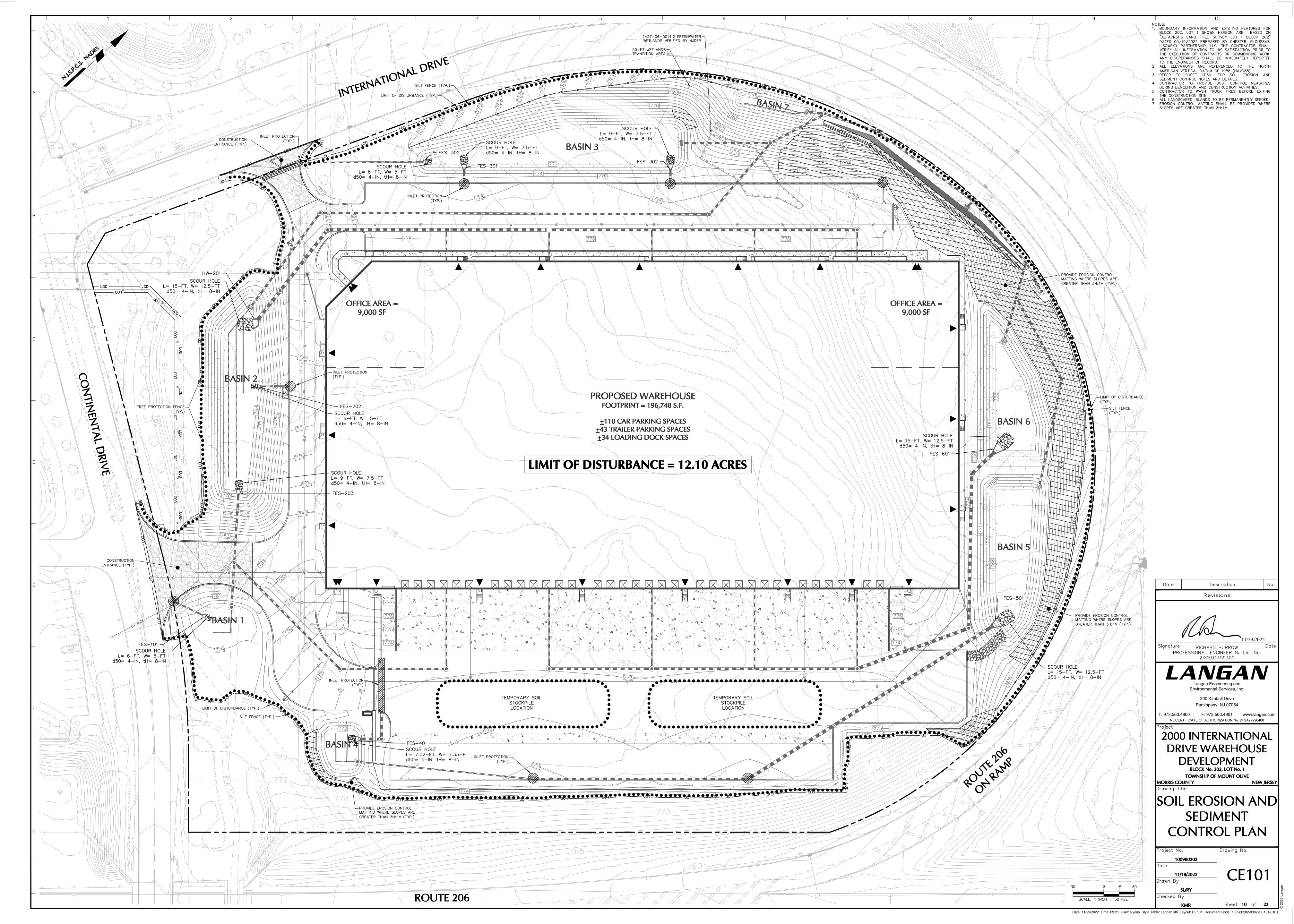
Description

CG202

Revisions







SOIL EROSION AND SEDIMENT CONTROL NOTES

- . ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE STANDARDS FOR EROSION AND SEDIMENT CONTROL IN NEW JERSEY, AND ARE TO BE IN PLACE PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS SHALL BE MULCHED WITH STRAW OR HAY AND TACKED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. SEE NOTE 22 BELOW.
- PERMANENT VEGETATION TO BE ESTABLISHED ON EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH TO BE USED FOR PROTECTION UNTIL VEGETATION IS ESTABLISHED. SEE NOTE 23 BELOW.
- . IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS (STEEP SLOPES, SANDY SOILS, WET CONDITIONS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN ACCORDANCE WITH NOTE 22.
- 5. TEMPORARY DIVERSION BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS.
- . PERMANENT SEEDING AND STABILIZATION TO BE IN ACCORDANCE WITH THE "STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION". SPECIFIED RATES AND LOCATIONS SHALL BE ON THE APPROVED SOIL EROSION AND AND SEDIMENT CONTROL PLAN.
- . THE SITE SHALL, AT ALL TIMES, BE GRADED AND MAINTAINED SO THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- 8. ALL SEDIMENTATION STRUCTURES (SILT FENCE, INLET FILTERS, AND SEDIMENT BASINS) TO BE INSPECTED AND MAINTAINED
-). STOCKPILES SHALL NOT BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN. SLOPE, DRAINAGE FACILITY, OR ROADWAY, ALL STOCKPILES BASES SHALL HAVE A SILT FENCE PROPERLY ENTRENCHED AT THE TOE OF SLOPE.
- 10. A STABILIZED CONSTRUCTION ACCESS TO BE INSTALLED, WHENEVER AN EARTHEN ROAD INTERSECTS WITH A PAVED ROAD. SEE THE STABILIZED CONSTRUCTION ACCESS DETAIL AND CHART FOR DIMENSIONS.
- 11. ALL NEW ROADWAYS TO BE TREATED WITH SUITABLE SUB BASE UPON ESTABLISHMENT OF FINAL GRADE ELEVATIONS. 12. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- 13. BEFORE DISCHARGE POINTS BECOME OPTIONAL, ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED AS REQUIRED.
- 14. ALL DEWATERING OPERATIONS MUST BE DISCHARGED DIRECTLY INTO A SEDIMENT FILTER AREA. THE FILTER TO BE COMPOSED OF A FABRIC OR APPROVED MATERIAL. 15. ALL SEDIMENT BASINS ARE TO BE CLEANED WHEN THE CAPACITY HAS BEEN REDUCED BY 50%. A CLEAN OUT ELEVATION
- WILL BE IDENTIFIED ON THE PLAN AND A MARKER INSTALLED ON THE SITE. 16. DURING AND AFTER CONSTRUCTION, THE APPLICANT WILL BE RESPONSIBLE FOR THE MAINTENANCE AND UPKEEP OF THE
- DRAINAGE STRUCTURES, VEGETATION COVER, AND ANY OTHER MEASURES DEEMED APPROPRIATE BY THE DISTRICT. SAID RESPONSIBILITY TO END WHEN COMPLETED WORK IS APPROVED BY THE MORRIS COUNTY SOIL CONSERVATION DISTRICT. 17. ALL TREES OUTSIDE THE DISTURBANCE LIMIT INDICATED ON THE SUBJECT PLAN OR THOSE TREES WITHIN THE DISTURBANCE
- AREA WHICH ARE DESIGNATED TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH TREE PROTECTION DEVICES. 18. THE MORRIS COUNTY SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON SITE OR OFF SITE EROSION PROBLEMS DURING CONSTRUCTION.
- 19. THE MORRIS COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED, IN WRITING, AT LEAST 48 HOURS PRIOR TO ANY
- LAND DISTURBANCES, AND A PRE-CONSTRUCTION MEETING HELD. 20. CONTRACTOR TO SET UP A MEETING WITH THE INSPECTOR FOR PERIODIC INSPECTIONS OF THE TEMPORARY SEDIMENT BASIN
- 21. TOPSOIL STOCKPILE PROTECTION:
- A. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS PER 100 SQ. FT. B. APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS,. PER 1000 SQ. FT. APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1000 SQ. FT. . MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90LBS. PER 1000 SQ. FT. APPLY LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.
- 22. TEMPORARY STABILIZATION SPECIFICATIONS:

PRIOR TO AND DURING ITS CONSTRUCTION.

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.

F. PROPERTY ENTRENCH A SILT FENCE AT THE BOTTOM OF THE STOCKPILE

- APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1000 SQ. FT. . MULCH DISTURBED SOIL 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.
- 23. PERMANENT STABILIZATION SPECIFICATIONS:
- A. APPLY TOPSOIL TO A DEPTH OF 5 INCHES (UNSETTLED). B. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS PER 1000 SQ. FT. AND WORK FOUR
- C. APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ. FT. D. APPLY HARD FESCÙE SEED AT 2.7 LBS. PER 1000 SQ. FT. AND CREEPING RED FESCUE SEED AT 0.7 LBS PER 1000 SQ. FT. AND PERENNIAL RYEGRASS SEED AT 0.25 LBS PER
- E. MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT. F. APPLY LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.

DUST CONTROL

ANIONIC ASPHALT EMULSION LATEX EMULSION RESIN IN WATER POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD ACIDULATED SOY BEAN SOAP STICK

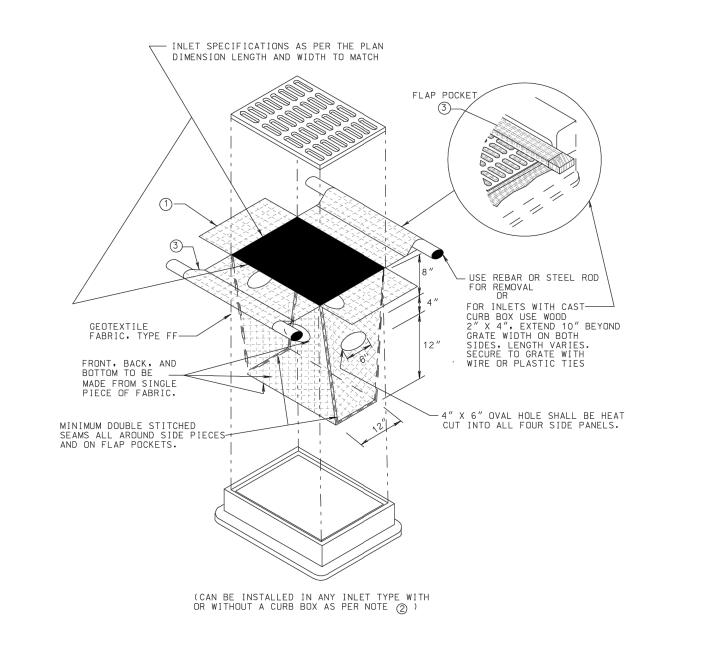
WATER DILUTION TYPE OF NOZZLE APPLY GALLONS/ACRE COARSE SPRAY FINE SPRAY FINE SPRAY APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, P. 26-1 COARSE SPRAY

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

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

STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL



FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

FOR INLET PROTECTION WITH CURB BOX AN ADDITIONAL

18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH
STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF
THE CURB BOX OPENING. 3 FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INLET PROTECTION

STABILIZATION NOTES

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY"

THE FOLLOWING SEEDING SCHEDULE SHOULD BE USED FOR PERMANENT SEEDING (UNLESS OTHERWISE NOTED):

- A. APPLY TOPSOIL TO A DEPTH OF 5".
- B. 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. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED. APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- C. 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 DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- D. SEED LAWN AREAS STANDARD SEED MIX 15 HARD FESCUE - 2.70 lbs/1,000 sf PERENNIAL RYEGRASS - 0.70 lbs/1,000 sf
 - KENTUCKY BLUEGRASS 0.90 lbs/1,000 sf
- OPTIMAL PLANTING PERIOD BETWEEN MARCH 1 AND MAY 31
- E. SEED MEADOW AREAS STANDARD SEED MIX 5 SWITCHGRASS - 0.35 lbs/1,000 sf BIG BLUESTEM - 0.10 lbs/1,000 sf
 - LITTLE BLUESTEM 0.10 lbs/1,000 sf SAND LOVEGRASS - 0.10 lbs/1,000 sf COASTAL PANICGRASS - 0.25 lbs/1,000 sf
 - & WILDFLOWER MIX 605 BY APPLEWOOD OR APPROVED EQUAL. WILDFLOWER MIX 605 - 10 lbs/acre
- F. SEED DETENTION BASINS & SPILLWAYS STANDARD SEED MIX 9 STRONG CREEPING RED FESCUE - 2.8 lbs/1,000 sf KENTUCKY BLUEGRASS - 1.8 lbs/1,000 sf PERENNIAL RYEGRASS - 0.5 lbs/1,000 sf
 - REDTOP- 0.25 lbs/1,000 sf

MAY 1 AND AUGUST 14

Slope Installation Guidelines:

confirmed with your local distributor.

seeding and fertilizing).

questions with the installation should be

Dig a 6" by 6" trench both up-slope and down-slope of the area the matting is to be applied. Prepare the slope soil surface (raking,

Begin by placing the blanket a minimum of

trench with staples placed 12" apart. Backfill and compact the trench. Apply seed, and fold the blanket over soil, secure with a row of

staples placed 12" apart across the width of

Roll the blanket vertically down the slope.

below, specified by slope. (See Staple

Parallel blankets must be overlapped by a

Additional vertical blankets can be joined

using a minimum 4" overlapping or shingle

water flow. Connect the blankets by placing

staples approximately 12" apart across the

For maximum performance a check slot should

be placed at 25'-40' intervals. Place a row of

staples 4" apart along the entire width of the slope. A second row should be placed 4"

below in a staggered pattern. Then continue

The end of blanket must be secured in a 6" x

6" trench with a row of staples placed at 12'

443 Bricker Road Bernville, PA 19506

DRAWN BY: MR | DRAWING #: EC-SLOPE

EASTCOAST

erosion contro

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with general installation. (See Diagrams D)

style (See Diagrams C) in the direction of

width of the blankets.

intervals. (Diagram E)

minimum of 4", and secured with a row of

staples placed approximately 3'-0" apart. (See

Secure using the appropriate staple pattern

the blanket. (See Diagram A)

12" down-slope of the up-slope trench.

Secure the blanket at the bottom of the

PLUS WHITE CLOVER - 0.25 lbs/1,000 sf

- OPTIMAL PLANTING PERIOD BETWEEN MARCH 1 AND APRIL 30 OR BETWEEN AUGUST 15 AND NOVEMBER 15. ACCEPTABLE PLANTING PERIOD BETWEEN
- G. MULCH SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 lbs/1,000 sf; TO BE APPLIED ACCORDING TO NEW JERSEY STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (i.e. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDING).

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION DISTURBED AREAS SHALL BE MAINTAINED IN A ROUGH GRADED CONDITION AND TEMPORARILY SEEDED

PERMANENT VEGETATIVE COVER. THE FOLLOWING SEEDING SCHEDULE SHALL BE USED FOR TEMPORARILY APPLY GROUND LIMESTONE AND FERTILIZER 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. 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

AND HAY MULCHED (OR HYDROSEEDED) UNTIL PROPER WEATHER EXISTS FOR THE ESTABLISHMENT OF

- WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES. 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 DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- SEED PERENNIAL RYEGRASS 100 lbs/acre; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.
- MULCH SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 lbs/1,000 sf; TO BE APPLIED ACCORDING TO NEW JERSEY STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (i.e. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDING). STABILIZATION WITH MULCH ONLY

NON-GROWING STABILIZATION MEASURES SHALL BE USED WHERE THE SEASON AND OTHER CONDITIONS MAY NOT BE SUITABLE FOR GROWING AN EROSION RESISTANT COVER OR WHERE STABILIZATION IS NEEDED FOR A SHORT PERIOD UNTIL MORE SUITABLE PROTECTION CAN BE APPLIED.

SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 90 TO 115 lbs/1,000 sf TO BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (i.e. PEG AND TWINE, LIQUID MULCH BINDER, OR MULCH NETTING).

X

1.2 staples/yd2

3:1 SLOPES

-XX X XX

' *** * * * *** *

XXXX

3.8 staples/vo

1:1 SLOPES

DIAGRAM (B)

DIAGRAM (D)

Up-slope Trench Installation Detail (Diagram A)

Down-slope Trench Installation Detail (Diagram E)

0.7 staples/yd²

1.75 staples/vd²

pecifications and Equivalency:

All product material and performand

oduct label, code and installation guide.

eet the following requirements:

cifications are available from East Coast

on Blankets via the product specification

et. Utilization of a 11 gauge staple, a minimu

' long by 1" crown, is recommended. The tightl

pressed blankets are wrapped and include a

າ addition to meeting all data available on the

The product must be listed with the NTPE

specification requirements established

he Erosion Control Technology Counc

REV. # 1 | DATE: 1/2/0

cification sheet, equivalent products shall

The product must meet the Type 2.

The product must meet the Federal Highway Administrations's (FHWA) FP-03 Section 713.17 specification.

4:1 SLOPES

SCHEDULE OF OPERATIONS

- NOTIFY THE MORRIS COUNTY SOIL CONSERVATION DISTRICT IN WRITING AT LEAST ____ 72 HOURS PRIOR TO ANY PROJECT PRE CONSTRUCTION MEETING OR SITE 2. INSTALL A CRUSHED STONE, VEHICLE WHEEL—CLEANING BLANKET OF 1 IN. TO 21/2 IN. WASHED STONE 6 IN. DEEP AT THE CONSTRUCTION ENTRANCE(S) IMMEDIATELY AFTER INITIAL DISTURBANCES AS PER STANDARDS ON DRAWINGS. SITE TRAFFIC SHOULD USE ONLY THESE AREAS FOR INGRESS AND EGRESS. INSTALL SILT FENCE 1 WEEK AND BARRIERS. EQUIP ALL EXISTING CATCH BASINS WITH FILTER FABRIC INLET PROTECTION IMMEDIATELY UPON START OF CONSTRUCTION. CLEAR AND GRUB AREAS CONTAINING VEGETATION AS REQUIRED TO COMMENCE CONSTRUCTION. 3. INSTALL REMAINDER OF TEMPORARY SOIL EROSION & SEDIMENT CONTROL
- MEASURES, IMMEDIATELY AFTER INITIAL DISTURBANCES. TRAFFIC SHOULD USE ONLY THIS AREA FOR INGRESS AND EGRESS. PLACE AND MAINTAIN SEDIMENT BARRIERS AS SHOWN ON THE PLAN.
- 4. CONSTRUCT STOCKPILE AND STABILIZE.
- 5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN THIRTY (30) 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 STATE STANDARD FOR STABILIZATION WITH MULCH ONLY.
- 6. PROPOSED SITE IMPROVEMENTS SHALL ONLY BE STARTED AFTER RECEIVING SITE PLAN APPROVAL FROM THE REGULATORY AGENCIES HAVING JURISDICTION AND CERTIFICATION OF THE SITE CONSTRUCTION SOIL EROSION AND SEDIMENT CONTROL PLAN FROM THE MORRIS COUNTY SOIL CONSERVATION DISTRICT.
- 7. ALL SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL IMPROVEMENTS TO THE SITE ARE COMPLETE, THE ROADS AND PARKING AREAS ARE PAVED, AND THE VEGETATIVE COVER IS 70% OR GREATER IN NON-PAVED AREAS.
- 8. COMPLETE CONSTRUCTION OF ROUGH GRADING, STORM IMPROVEMENTS, 10 MONTHS BELOW-GRADE UTILITIES AND FOUNDATION. 9. AFTER STORM DRAINAGE SYSTEM AND CATCH BASINS ARE CONSTRUCTED PLACE FILTER FABRIC INLET PROTECTION ON EACH CATCH BASIN WHICH SHALL REMAIN ____ UNTIL THE SITE IS PAVED. REPLACE AS NECESSARY.
- 10. BUILDING CONSTRUCTION. 6 MONTHS 11. COMPLETE FINAL SITE GRADING, CURB, ASPHALT PAVING AND SIDEWALK 2 MONTHS
- INSTALLATION. 12. ALL SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL PERMANENT IMPROVEMENTS TO THE SITE ARE COMPLETE AND THE ROADS ARE PAVED.
- 13. LANDSCAPE ALL APPROPRIATE AREAS AS INDICATED ON THE LANDSCAPE PLAN 1 MONTHS AND REMOVE ALL TEMPORARY SEDIMENT CONTROL STRUCTURES AND MEASURES. PERMANENTLY STABILIZE ALL AREAS. 14. A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5". MINIMUM OF 4" FIRMED IN
- PLACE IS REQUIRED. SHOULD ENVIRONMENTAL REQUIREMENTS FOR THE SITE 1 WEEK SPECIFY MORE THAN A MINIMUM OF 4", ENVIRONMENTAL REQUIREMENTS SHALL DICTATE. 15. CLEAN ALL SITE DRAINAGE STRUCTURES AND PIPES OF SILT AND DEBRIS
- DOWNSTREAM/OFF-SITE DRAINAGE FACILITIES SHALL BE INSPECTED AND CLEANED 2 WEEKS OF SILT AND DEBRIS RESULTING FROM SITE CONSTRUCTION PRIOR TO FINAL TURNOVER.
- 16. NOTIFY THE MORRIS COUNTY SOIL CONSERVATION DISTRICT AT THE COMPLETION OF CONSTRUCTION.

CONSTRUCTION NOTES

CONTRACTOR TO COORDINATE STAGING AREAS WITH OWNER.

AND UNAUTHORIZED ENTRY.

- . VEHICLE WASH DOWN PADS TO BE PROVIDED THROUGHOUT THE DURATION OF THE PROJECT.
- OF WORK. ANY AND ALL INLETS WHICH COULD BE AFFECTED BY RUNOFF SHALL BE PROTECTED. CONTRACTOR MAY ELECT TO PROVIDE HAY BALES OR ALTERNATIVE MEANS OF INLET PROTECTION TO EXISTING INLETS. ALL ALTERNATIVES MUST BE APPROVED BY THE BERGEN COUNTY SOIL CONSERVATION DISTRICT.

INLET PROTECTION REQUIREMENTS SHALL NOT BE LIMITED TO STRUCTURES LOCATED WITHIN THE PHASE LIMITS

- COPIES OF DETAIL AND APPROVAL TO BE PROVIDED TO THE OWNER AND OWNER'S REPRESENTATIVE. CONTRACTOR MUST PROTECT WORK, EXISTING PREMISES AND OWNER'S OPERATION FROM THEFT, VANDALISM
 - CONTRACTOR MUST RESTRICT ENTRANCE OF PERSONS AND VEHICLES INTO PROJECT SITE. ALLOW ENTRANCE TO AUTHORIZED PERSONS WITH PROPER IDENTIFICATION ONLY. MAINTAIN A LOG OF WORKERS AND VISITORS TO BE AVAILABLE TO OWNER ON REQUEST.

·_____· ____ MAXIMUM MAXIMUM SLOPE=5% SLOPE=5% 30'-0" 5% MAX. 5% MAX.

PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER. 3. STOCKPILE SHALL RECIEVE A VEGETATIVE COVER IN ACCORDANCE WITH

EXISTING GRADE

HAY BALE FILTER

-SILT FENCE OR

MINIMUM STABILIZATION REQ. SILT FENCE OR HAY BALE FILTER SHALL BE INSTALLED AS DETAILED

NOT TO SCALE

TEMPORARY STOCKPILE

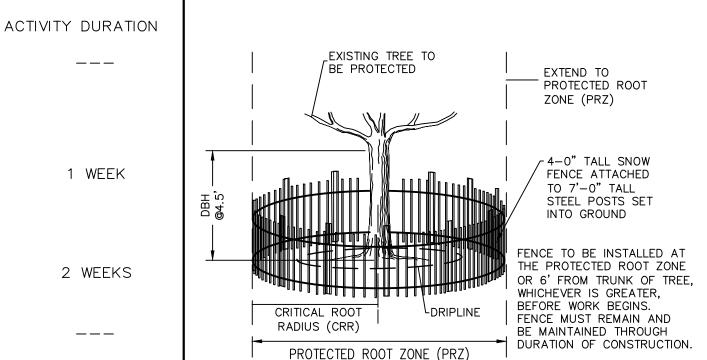


TABLE 27-1: LENGTHS OF CONSTRUCTION

Length of Stone Required

ENTIRE SURFACE STABILIZED

WITH HOT MIX ASPHALT

BASE COURSE, MIX I-2

Soils

EXITS ON SLOPING ROADBEDS

of Roadway | Coarse-Grained | Fine-Grained

2 to 5% 100 ft. 200 ft.

THROUGH FABRIC ALONG

TOP OF FENCE

Soils

ELEVATION

Percent Slope

0 to 2%

>5%

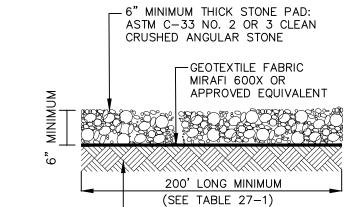
ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS

- 1. MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5 FEET ABOVE GROUND ON THE UPHILL SIDE OF TREE) IN INCHES.
- 2. MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET. CRR = DBH x 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES.

CRR = DBH x 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY, OR TOLERANT SPECIES.

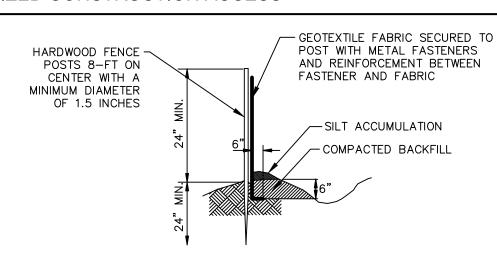
- 1. CONTRACTOR SHALL NOT CUT AND ROOTS AND/OR BRANCHES. 2. TREE PROTECTION FENCE SHALL BE REMOVED AFTER CONSTRUCTION.
- ALL EXPOSED ROOT STUBS AND ROOTS ARE TO BE BACK FILLED WITH APPROVED
- 4. REFER TO STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY -TABLE 9-1 FOR POTENTIAL CONSTRUCTION IMPACTS TO TREES.

TREE PROTECTION FENCE



-WELL COMPACTED SUB-GRADE

STABILIZED CONSTRUCTION ACCESS

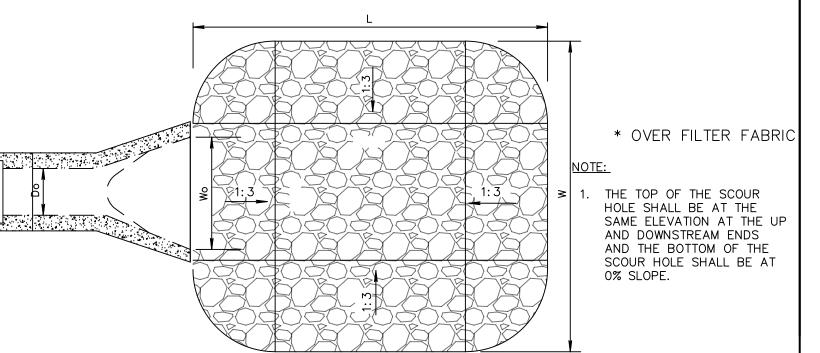


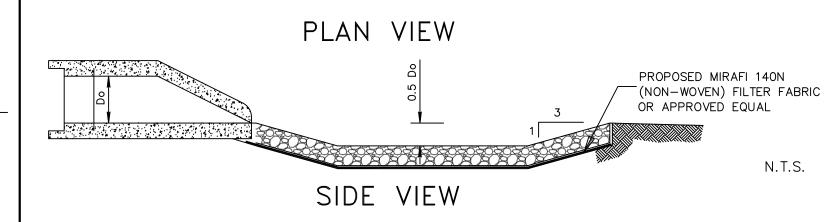
METHOD OF INSTALLATION

2 WEEKS

- CONTRACTOR TO DIG 6" MIN. TRENCH AND LINE TRENCH WITH FILTER FABRIC PRIOR TO BACK FILL. . EXCEPT FOR THE END POST, DRIVE ALL POSTS INTO THE GROUND AT BACK SIDE OF TRENCH SPACED A MAXIMUM OF 8 $^{ ext{r}}$
- ATTACH FILTER FABRIC TO POST AND STRETCH BETWEEN POSTS. SECURE FABRIC TO POST WITH METAL FASTENER AND REINFORCEMENT MATERIAL PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC.
- . POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1-1/2 INCHES.

SLIT FENCE





	Do	TOTAL L	TOTAL W	воттом L	воттом w	d50	THICKNESS
FES-101	12" HDPE	6 FT.	5 FT.	3 FT.	2 FT.	4 IN.	8 IN.*
HW-201	30" HDPE	15 FT.	12.5 FT.	7.5 FT.	5 FT.	4 IN.	8 IN.*
FES-202	12" HDPE	6 FT.	5 FT.	3 FT.	2 FT.	4 IN.	8 IN.*
FES-203	18" HDPE	9 FT.	7.5 FT.	4.5 FT.	3 FT.	4 IN.	8 IN.*
FES-301	18" HDPE	9 FT.	7.5 FT.	4.5 FT.	3 FT.	4 IN.	8 IN.*
FES-302	18" HDPE	9 FT.	7.5 FT.	4.5 FT.	3 FT.	4 IN.	8 IN.*
FES-303	12" HDPE	6 FT.	5 FT.	3 FT.	2 FT.	4 IN.	8 IN.*
FES-401	14" X 23" ELLIPTICAL	7.02 FT.	7.35 FT.	3.51 FT.	3.84 FT.	4 IN.	8 IN.*
FES-501	30" HDPE	15 FT.	12.5 FT.	7.5 FT.	5 FT.	4 IN.	8 IN.*
FES-601	30" HDPE	15 FT.	12.5 FT.	7.5 FT.	5 FT.	4 IN.	8 IN.*

SCOUR HOLE

Description Revisions

RICHARD BURROW

Environmental Services, Inc.

PROFESSIONAL ENGINEER NJ Lic. No.

24GE04459300

300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

2000 INTERNATIONAL DRIVE WAREHOUSE **DEVELOPMENT**

MORRIS COUNTY SOIL EROSION AND **SEDIMENT**

TOWNSHIP OF MOUNT OLIVE

CONTROL DETAILS Drawing No. 100980202 **CE501** 11/18/2022 Orawn By

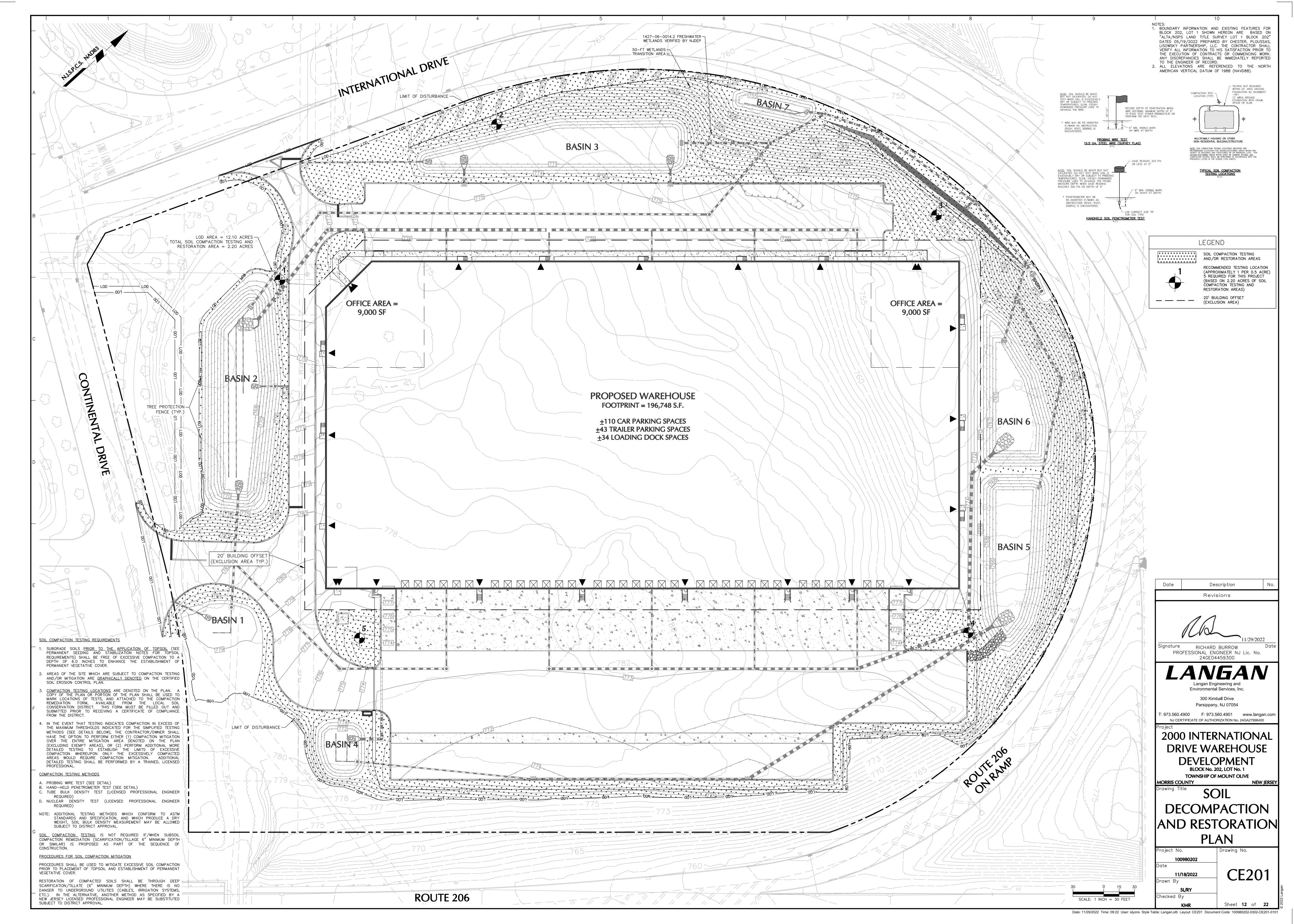
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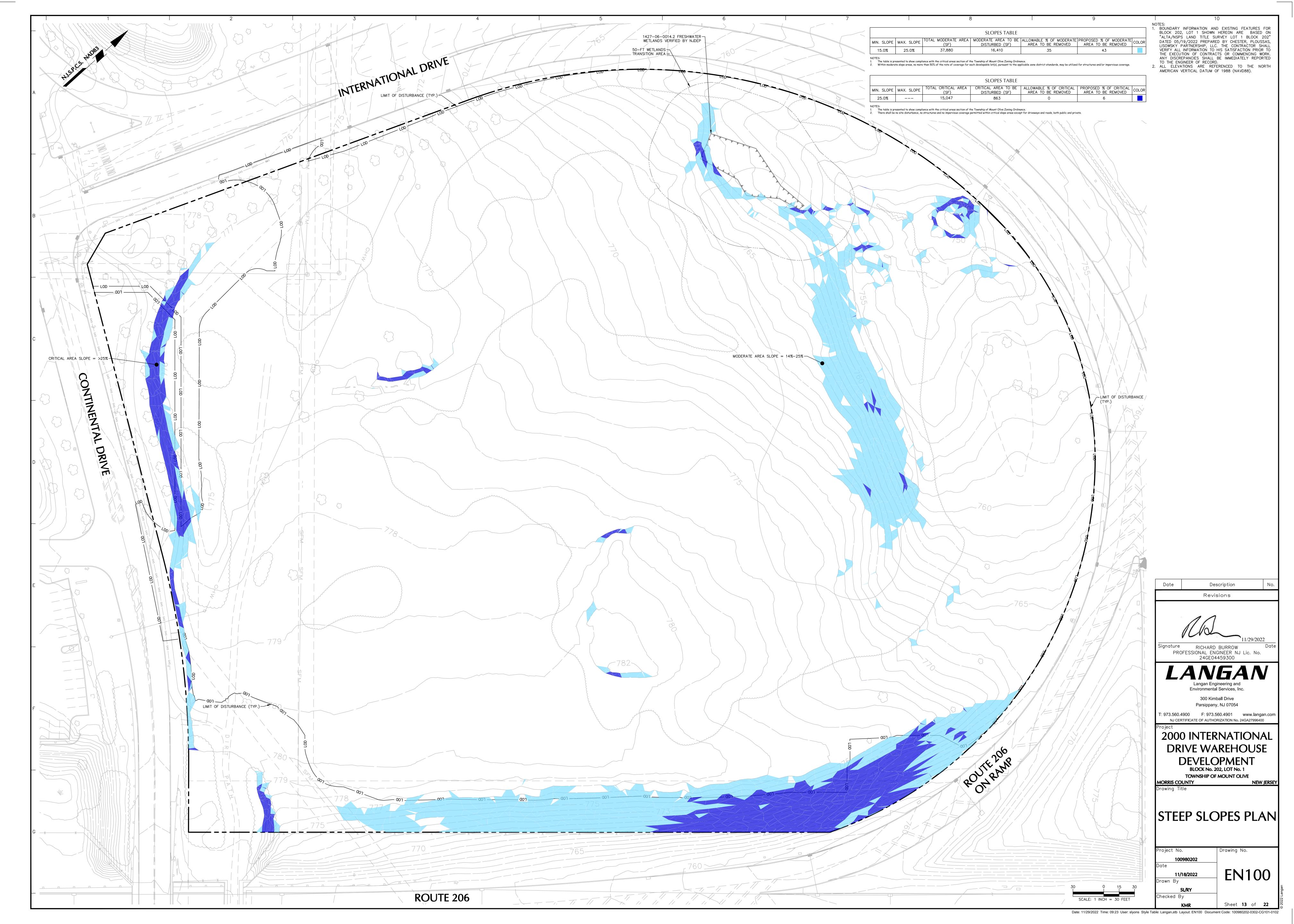
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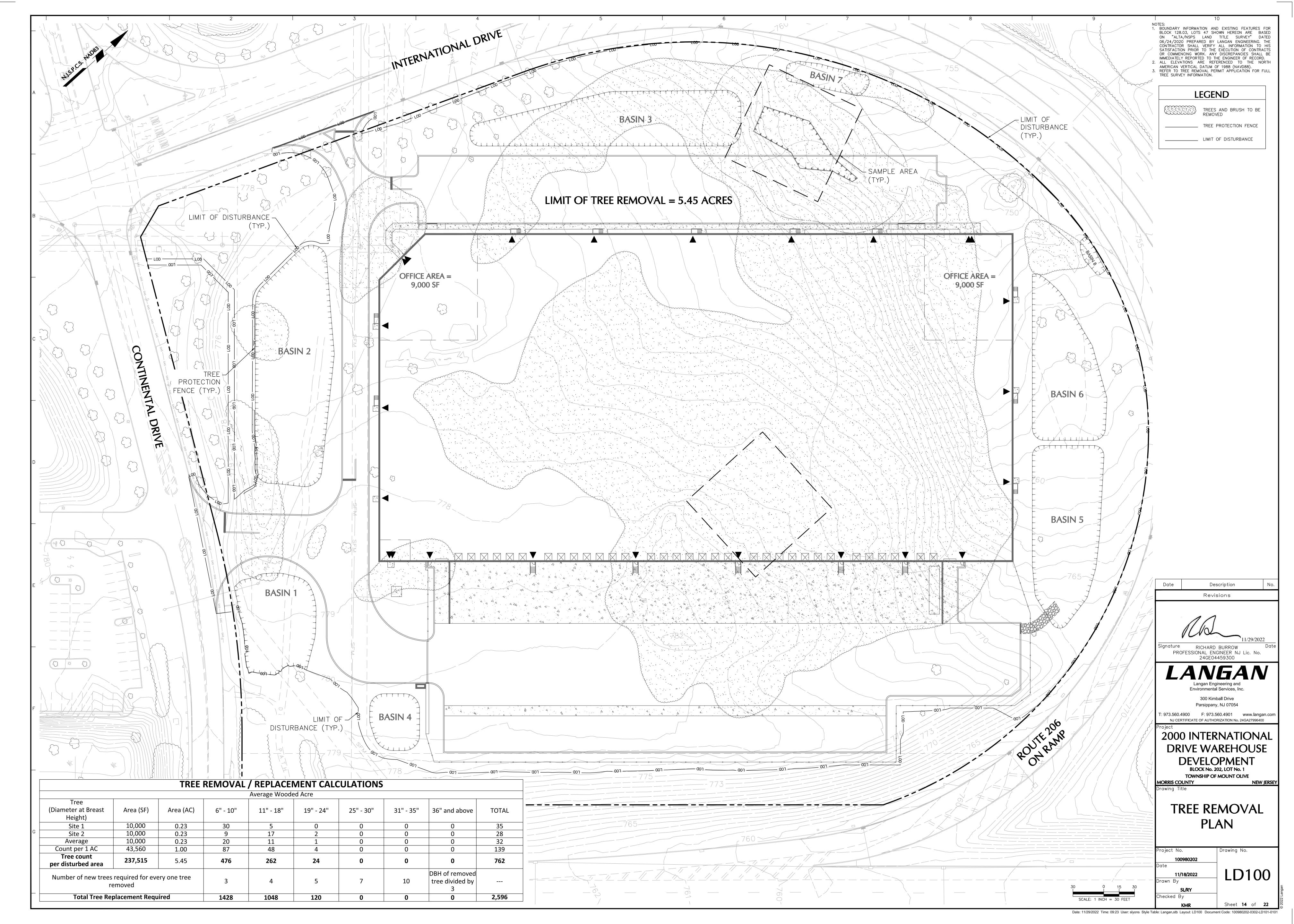
EROSION CONTROL BLANKET

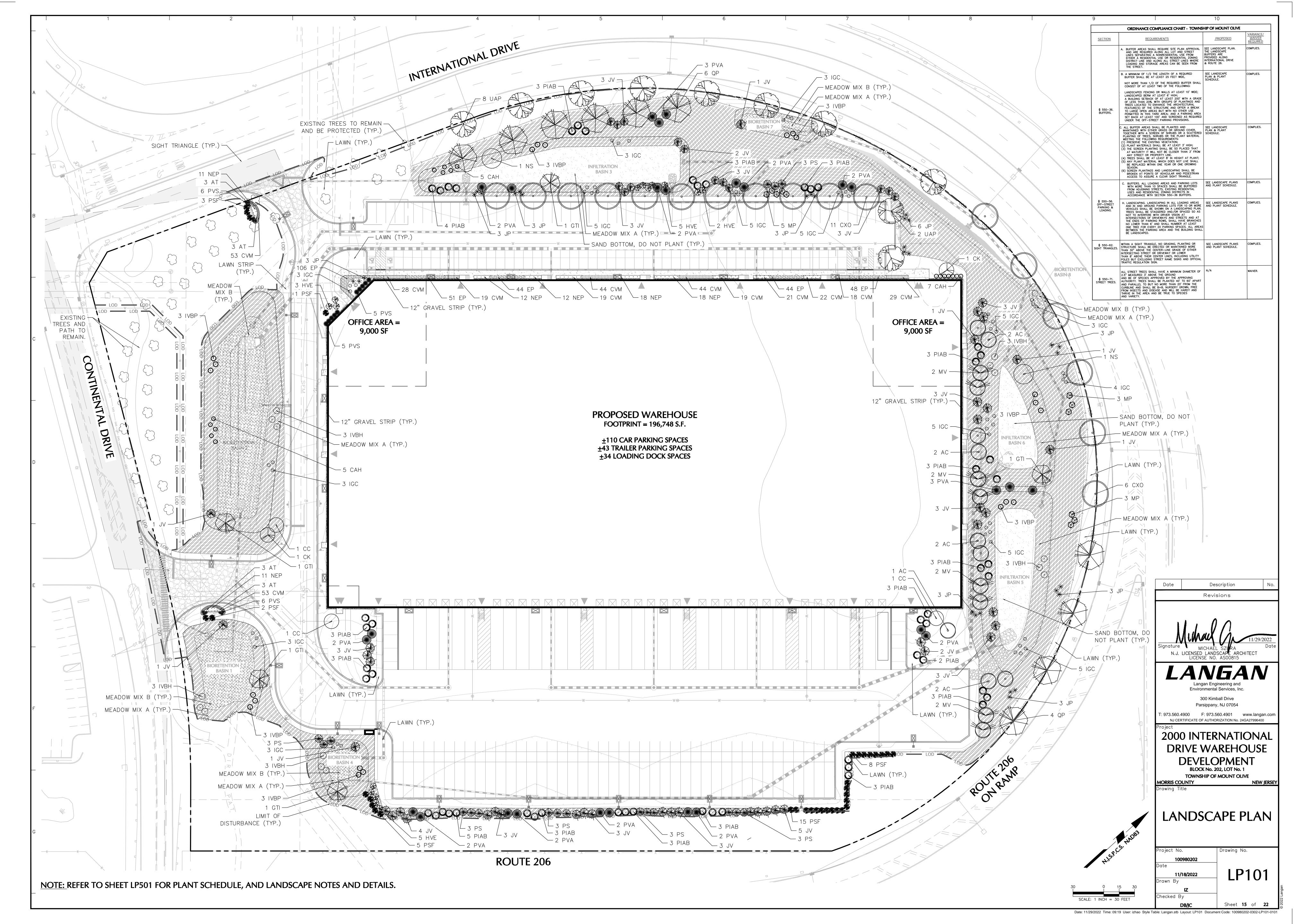
Proud Member of:

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GENERAL LANDSCAPE PLANTING NOTES

- 1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES". 1942 EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE
- 2. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT
- 3. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES. ALL REES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD AND MEET ALL REQUIREMENTS SPECIFIED. ANY
- TREE THAT LOSES THE MAIN LEADER SHALL BE REPLACED. 4. THE BACKFILL MIXTURE AND SOIL MIXES TO BE INSTALLED PER THE SPECIFICATIONS.

LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.

- 5. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE AND SUBGRADE DRAINAGE OR PERCOLATION CHARACTERISTICS, WHETHER THE SUBGRADE SOILS ARE EXISTING TO REMAIN OR IMPORTED AND PLACED. CONTRACTOR TO ENSURE POSITIVE VERTICAL DRAINAGE THROUGHOUT PLANTED AREAS. DISCREPANCIES SHALL BE ADDRESSED WITH THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANT MATERIALS. 6. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE FINISH GRADING HAS BEEN COMPLETED AND
- APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER. 7. ALL PLANT INSTALLATIONS SHALL BE COMPLETED EITHER BETWEEN APRIL 1 - JUNE 15 OR AUGUST 15 -NOVEMBER 1, UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT. SEE LAWN
- SEEDING DATES IN SEEDING NOTES. 8. ALL FENCE AND GUIDE RAIL INSTALLATIONS SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY
- 9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF CONSTRUCTION, NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
- 10. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA 2) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE
- 11. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER, TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.
- 12. LANDSCAPE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE
- 13. ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE
- 14. ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE. ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, MISSING, 25% OR MORE DEAD, WHICH DO NOT DEVELOP FROM PLANTING STOCK, THAT APPEAR UNHEALTHY OR UNSIGHTLY AND/OR HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES DEAD, OR REJECTED FOR ANY OTHER REASON (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
- 16. DELIVERY, STORAGE, AND HANDLING A. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT SITE.
- B. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP BALLED AND BURLAPPED STOCK DURING DELIVERY OR
- C. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOTBALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8 INCHES INTO THE PLANTING HOLE. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE
- D. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE
- 17. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.
- 18. ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES. 19. CONTRACTOR'S GUARANTEE: ALL PLANTINGS AND PLANTING AREAS SHALL BE PERMANENTLY MAINTAINED NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF TWO YEARS FOLLOWING ACCEPTANCE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, PRUNING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN FOR THE DURATION OF THE GUARANTEED

PERIOD. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE

20. THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF-SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.

REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.

- 21. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24- HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.
- 22. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.
- 23. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL MULCH FROM A LOCAL SOURCE HARVESTED IN A SUSTAINABLE MANNER THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST. MULCH SHALL BE A FIBROUS SHREDDED HARDWOOD MULCH. MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.
- 24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. FOR ANY DISCREPANCIES BETWEEN THE PLANT SCHEDULE AND PLANTING PLAN THE GRAPHIC QUANTITY SHOWN SHALL GOVERN.
- 25. LANDSCAPE PUNCH LIST SITE VISITS TO BE PERFORMED BY THE PROJECT LANDSCAPE ARCHITECT. IF UNDER CONTRACT FOR SUCH WORK, WILL NOT BE SCHEDULED UNTIL CONFIRMATION IS RECEIVED THAT ALL PROPOSED LANDSCAPE ITEMS HAVE BEEN INSTALLED. OR DEFICIENCIES NOTED IN THE PRIOR PUNCH LIST REPORT HAVE BEEN CORRECTED. THE PUNCH LIST SITE VISIT WILL THEN BE PERFORMED WITHIN 10
- 26. CONTRACTOR SHALL ASSESS THE NEED FOR DEER PROTECTION ON SITE, IF DEEMED NECESSARY, SHADE AND ORNAMENTAL TREES SHALL BE PROTECTED THROUGH WINTER WITH SPIRAL WRAP TREE GUARDS, OF APPROVED EQUAL. PROTECTION LENGTH TO BE FROM BELOW THE LOWEST BRANCH AND DOWN TO WITHIN A FEW INCHES OF THE GROUND. THE GUARDS CAN BE REMOVED IN SPRING AND SAVED FOR RE-INSTALLATION DURING FOLLOWING WINTERS AS PART OF A MAINTENANCE PROGRAM. ANY TREE REPLACEMENT REQUIRED BASED ON ANIMAL DAMAGE WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER
- 27. CONTRACTOR SHALL ASSESS THE NEED FOR DEER PROTECTION ON SITE. IF DEEMED NECESSARY, SHADE AND ORNAMENTAL TREES SHALL BE PROTECTED THROUGH WINTER WITH BREATHABLE SPIRAL WRAP TREE GUARDS, OR APPROVED EQUAL. PROTECTION LENGTH TO BE FROM BELOW THE LOWEST BRANCH AND DOWN TO WITHIN A FEW INCHES OF THE GROUND. THE GUARDS CAN BE REMOVED IN SPRING AND SAVED FOR RE-INSTALLATION DURING FOLLOWING WINTERS AS PART OF A MAINTENANCE PROGRAM.
- 28. ALL SLOPES 3:1 OR GREATER AND ALL SIDE SLOPES OF BASINS SHALL REQUIRE AN EROSION CONTROL BLANKET: ERONET SC150 BY NORTH AMERICAN GREEN, OR APPROVED EQUAL.

LANDSCAPE MAINTENANCE NOTES

2. MAINTENANCE DURING CONSTRUCTION:

. MAINTENANCE OPERATIONS BEFORE APPROVAL:

- A. PLANT CARE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS SATISFACTORILY INSTALLED AND SHALL CONTINUE THROUGHOUT THE LIFE OF THE CONTRACT UNTIL FINAL ACCEPTANCE OF THE PROJECT. B. CARE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RINGS OR SAUCERS, MAINTAINING STAKES AND GUYS AS ORIGINALLY INSTALLED, WATERING WHEN NEEDED OR DIRECTED, AND PERFORMING ANY OTHER WORK REQUIRED TO
- KEEP THE PLANTS IN A HEALTHY CONDITION. C. CONTRACTOR SHALL REMOVE AND REPLACE ALL DEAD, DEFECTIVE AND/OR REJECTED PLANTS AS REQUIRED BEFORE FINAL ACCEPTANCE.
- A. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING. PLANTS SHALL BE WATERED. MULCHED. WEEDED. PRIMED SPRAYED FERTILIZED CULTIVATED AND OTHERWISE MAINTAINED AND PROTECTED UNTIL PROVISIONA ACCEPTANCE. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE AND POSITION, PLANTING SAUCER RESTORED AND DEAD MATERIAL REMOVED. STAKES AND WIRES SHALL BE TIGHTENED AND REPAIRED. DEFECTIVE WORK SHALL BE CORRECTED AS SOON AS POSSIBLE AFTER IT BECOMES APPARENT AND WEATHER AND SEASON
- B. IF A SUBSTANTIAL NUMBER OF PLANTS ARE SICKLY OR DEAD AT THE TIME OF INSPECTION, ACCEPTANCE SHALL NOT BE GRANTED AND THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF ALL PLANTS SHALL BE EXTENDED FROM THE TIME REPLACEMENTS ARE MADE OR EXISTING PLANTS ARE DEEMED ACCEPTABLE BY THE
- C. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE SPECIFIED ON THE PLANT LIST OR THAT WHICH WAS TO REMAIN OR BE RELOCATED. THEY SHALL BE FURNISHED AND PLANTED AS SPECIFIED. THE COST SHALL BE BORNE BY THE CONTRACTOR. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART VANDALISM PHYSICAL DAMAGE BY ANIMALS VEHICLES, FTC., ANI LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE
- D. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS AFTER INSPECTION AND PROVISIONAL
- E. AT THE END OF THE ESTABLISHMENT PERIOD, INSPECTION SHALL BE MADE AGAIN. ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR UNSATISFACTORY TO THE LANDSCAPE ARCHITECT OR OWNER SHALL BE REMOVED FROM THE SITE AND REPLACED DURING THE NORMAL PLANTING SEASON. 3. LAWN MAINTENANCE:
- A. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH PORTION OF LAWN IS PLANTED AND CONTINUE FOR 8 WEEKS AFTER ALL LAWN PLANTING IS COMPLETED.

APPLICATION OF SELECTIVE HERBICIDE ONLY AFTER GRASS IS WELL-ESTABLISHED.

B. WATER TO KEEP SURFACE SOIL MOIST, REPAIR WASHED OUT AREAS BY FILLING WITH TOPSOIL, LIMING FERTILIZING AND RE-SEEDING: MOW TO 2 1/2 - 3 INCHES AFTER GRASS REACHES 3 1/2 INCHES IN HEIGHT, AND MOW FREQUENTLY ENOUGH TO KEEP GRASS FROM EXCEEDING 3 1/2 INCHES. WEED BY LOCAL SPOT

PLANTING SOIL SPECIFICATIONS

P:888-325-1522, OR APPROVED EQUAL.

1. PLANTING SOIL, ALTERNATELY MAY BE REFERRED TO AS TOPSOIL, SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF DEBRIS, TOXINS, TRASH AND STONES OVER 1" DIA., IT SHOULD HAVE A HIGH ORGANIC CONTENT SUITABLE TO SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVING NO NOXIOUS ODORS. 2. PLANTING SOIL:

REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOI CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOD, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON-SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON-SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS AND SPECIFICATIONS.

SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.

AT A MINIMUM, PLANTING SOILS MEETING THESE SPECIFICATIONS MAY BE OBTAINED FROM WECARE DENALI,

CONTRACTOR SHALL TEST SOILS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE

UNOPENED BAGS OR CONTAINERS, EACH BEARING A NAME, GUARANTEE, AND TRADEMARK OF THE PRODUCER, MATERIAL COMPOSITION, MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS, SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM INTRUSION OF CONTAMINANTS AND EROSION. AFTER MIXING, SOIL MATERIALS SHALL BE COVERED WITH A TARPAULIN UNTIL TIME OF ACTUAL USE. ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED EQUAL, PRIOR TO DELIVERY TO THE SITE. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND

- SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO FNSURF CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULT SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THA THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS. THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.
- THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION: A. WHERE A PERMANENT IRRIGATION SYSTEM IS PLANNED:
- a. PARTICLE SIZE ANALYSIS LOAMY SAND: 60-75% SAND, 25-40% SILT, AND 5-15% CLAY. b. GRAVEL CONTENT (2mm): LESS THAN 10% c. FERTILITY ANALYSIS: pH (5.5-6.5), SOLUBLE SALTS (0.2 to 1.5 MMHO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM
- d. ORGANIC MATTER CONTENT: 2.5-5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED
- g. NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE B. WHERE NO PERMANENT IRRIGATION IS PLANNED:

g. NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE

- a. PARTICLE SIZE ANALYSIS LOAM: 40-65% SAND, 25-60% SILT, AND 5-20% CLAY. b. GRAVEL CONTENT (2mm): LESS THAN 10% c. FERTILITY ANALYSIS: pH (5.5-6.5), SOLUBLE SALTS (0.2 to 1.5 MMHO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM
- d. ORGANIC MATTER CONTENT: 2.5-5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED
- SOIL AMENDMENT FOR PLANT MATERIAL:
 IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPOSTED, PH RANGE OF 6-8; MOISTURE CONTENT 35-55% BY WEIGHT 100% PASSING THROUGH 1" SIEVE: SOLUBLE SALT CONTENT LESS THAN 0.5 MM HOS/CM; MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL
- A. ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MOLD WITH 60-90% ORGANIC CONTENT BY WEIGHT. SHREDDED LEAF LITTER, COMPOSTED FOR A MINIMUM OF 1 YR. SHOULD BE FREE OF DEBRIS, STONES OVER 1/2". WOOD CHIPS OVER 1".
- B. SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.
- C. AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PITS: a. GROUND LIMESTONE (WITH A MIN. OF 88% OF CALCIUM AND MAGNESIUM CARBONATES) USED PENDING RESULTS OF SOIL ANALYSIS. - BRING pH LEVELS TO 5.5 MIN. TO 6.5 FOR NON-ERICACEOUS PLANTS - BRING PH LEVELS TO 4.5 MIN. TO 5.5 FOR ERICACEOUS PLANTS
- b. TERRA-SORB BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE WITH TREES AND SHRUBS. c. MYCOR-ROOT SAVER BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.
- 4. WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS. BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.
- 5. <u>CLEAN SOIL FILL IN LANDSCAPE AREAS:</u>
 LANDSCAPE FILL MATERIAL, BELOW PLANTING SOILS, SHALL HAVE THE PHYSICAL PROPERTIES OF A SANDY LOAM WITH AN ORGANIC CONTENT OF LESS THAN 2% AND A PH BETWEEN 5 - 7.
- TWELVE INCHES (12") MINIMUM DEPTH PLANTING SOIL LAYER IN GROUNDCOVER AND PERENNIAL AREAS, EIGHTEEN INCHES (18") MINIMUM DEPTH PLANTING SOIL LAYER IN SHRUB AREAS, AND THIRTY-SIX INCHES (36") MINIMUM DEPTH PLANTING SOIL LAYER IN TREE PLANTING AREAS. B. SCARIFY AND/OR TILL COMPACTED SUBSOILS TO A MINIMUM DEPTH OF 6 INCHES. THOROUGHLY MIX A 6 INCH DEPTH LAYER OF PLANTING SOIL INTO THE SUBSOIL PRIOR TO PLACING PLANTING SOIL AT THE DEPTHS INDICATED ABOVE. PLANTING SOIL SHALL BE PLACED IN 12-18" LIFTS AND WATER

A, CONTRACTOR TO PROVIDE SIX INCHES (6") MINIMUM DEPTH PLANTING SOIL LAYER IN LAWN AREAS,

- THOROUGHLY BEFORE INSTALLING NEXT LIFT. REPEAT UNTIL DEPTHS AND FINISH GRADES HAVE BEEN ACHIEVED. NO SOILS SHALL BE PLACED IN A FROZEN OR MUDDY CONDITION. C. PLANTING SOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON-SITE PLANTING SOIL UTILIZED IN ALL
- . SOIL CONDITIONING:

 A. ADJUST PH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM. LOWER DH USING ELEMENTAL SULFUR ONLY. PEAT MOSS OR COPPER SULFATE MAY NOT BE USED. GROUND LIMESTONE AS A SOIL AMENDMENT MATERIAL WILL ONLY BE USED PENDING RESULTS OF SOIL ANALYSIS. PROVIDE WITH MINIMUM 88% CALCIUM AND MAGNESIUM CARBONATES AND SHALL HAVE TOTAL 100% PASSING THE 10 MESH SIEVE, MINIMUM 90% PASSING 20 MESH SIEVE, AND MINIMUM 60% PASSING 100 MESH SIEVE.
- B. ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
- C. SOIL MODIFICATIONS (PENDING RESULTS OF SOIL ANALYSIS): a. THOROUGHLY TILL ORGANIC MATTER (LEAF COMPOST) INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.0. PEAT MOSS MAY NOT BE USED AS ORGANIC MATTER AMENDMENT.
- b. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.
- c. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

SEEDING NOTES

- 1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1/2" DIAMETER.
- 2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
- 3. SCD SEED MIX #14 SEEDING RATE AT 305 POUNDS PER ACRE:
 - 10% DEEPBLUE KENTUCKY BLUEGRASS 40% DAKOTA TALL FESCUE
- 40% TAOS TALL FESCUE 10% FRONTIER PERENNIAL RYEGRASS

SOLIDAGO NEMORALIS, PA ECOTYPE

SOLIDAGO ODORA, PA ECOTYPE

- 4. SEEDING DATES FOR THIS MIXTURE SHALL BE BETWEEN APRIL 1ST TO JUNE 1ST OR SEPTEMBER 1ST TO

GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL A STAND OF COVER IS ESTABLISHED AND FOUND ACCEPTABLE TO THE OWNER. SEE LAWN WATERING SCHEDULE NOTES.

MEADOW SEED MIX A ERNST SEED MIX ERNMX-168 "NORTHEAST PERENNIAL & ANNUAL WILDFLOWER MIX" BACHELOR'S BUTTON TALL MIXED/CORNFLOWER CENTAUREA CYANUS, TALL MIXED PURPLE CONEFLOWER FCHINACEA PURPURÉA SCARLET FLAX _INUM_GRANDIFLORUM_RUBRUM LANCELEAF COREOPSIS COREOPSIS LANCEOLATA ROCKET LARKSPUR ELPHINIUM AJACIS BLACKEYED SUSAN RUDBECKIA HIRTA PERENNIAL BLUE LUPINE, COMMON COMMERCIAL LUPINUS PERENNIS CALENDULA CALENDULA OFFICINALIS LAVATERA TRIMESTRIS TRFF MALLOW PERENNIAL BLUE FLAX CRIMSON CLOVER, VARIETY NOT STATED RIFOLIUM INCARNATUM, VARIETY NOT STATED CALIFORNIA ORANGE POPPY ESCHSCHOLZIA CALIFORNICA OXEYE SUNFLOWER, PA ECOTYPE HELIOPSIS HELIANTHOIDES, PA ECOTYPE CHRYSANTHEMUM MAXIMUM SHASTA DAISY WALLFLOWFR HEIRANTHUS ALLIONI RED PRAIRIE CONEFLOWER (MEXICAN RED HAT) RATIBIDA COLUMNARIS ACHILLEA MILLEFOLIUM MARSH BLAZING STAR LIATRIS SPICATA NARROWLEAF MOUNTAINMINT PYCNANTHEMUM TENUIFOLIUM SWEET ALYSSUM I OBULARIA MARITIMA ALL WHITE BEARDTONGUE PENSTEMON DIGITALIS TRADESCANTIA OHIENSIS, PA ECOTYPE OHIO SPIDERWORT, PA ECOTYPE WILD BERGAMOT, FORT INDIANTOWN GAP-PA ECOTYPE MONARDA FISTULOSA, FORT INDIANTOWN GAP-PA ECOT RED CORN POPPY, RED PAPAVER RHOEAS, RED BUTTERFLY MILKWEED ASCLEPIAS TUBEROSA SMOOTH BLUE ASTER, NY ECOTYPE ASTER LAEVIS NY ECOTYP ASTER OBLONGIFOLIUS, PA ECOTYPE AROMATIC ASTER, PA ECOTYPE BLUE FALSE INDIGO, SOUTHERN WV ECOTYPE BAPTISIA AUSTRALIS, SOUTHERN WV ECOTYPE CLARKIA FLEGANS CLARKIA SILENE ARMERIA CATCHFLY

APPLY SEED AT THE RATES RECOMMENDED BY THE SEED SUPPLIER. SEED WITH NURSE CROP(S) SPECIES AS RECOMMENDED BY THE SEED SUPPLIER FOR THE INTENDED USE,

GRAY GOLDENROD. PA ECOTYPF

LICORICE SCENTED GOLDENROD, PA ECOTYPE

SEEDING NOTES (CONT.)

VERBENA HASTATA, PA ECOTYPE

ASCLEPIAS INCARNATA, PA ECOTYPE

SCIRPLIS CYPERINUS PA ECOTYPE

HELENIUM AUTUMNALE, PA ECOTYPE

ASTER UMBELLATUS, PA ECOTYPE

LOBELIA SIPHILITICA, PA ECOTYPE

ASTER PUNICEUS, PA ECOTYPE

ASTER NOVAE-ANGLIAE, PA ECOTYPE

EUPATORIUM PERFOLIATUM, PA ECOTYPE

JUNCUS FFFUSUS

MEADOW SEED MIX B ERNST SEED MIX ERNMX-127 "RETENTION BASIN WILDLIFE MIX"

PANICUM CLANDESTINUM, TIOGA CAREX VULPINOIDEA, PA ECOTYPE FLYMUS VIRGINICUS MADISON-NY ECOTYPE CAREX LURIDA, PA ECOTYPE CAREX SCOPARIA, PA FCOTYP

TRANSITION AREAS AFTER ESTABLISHMENT OF MEADOW MIX.

VIRGINIA WILDRYE, MADISON-NY ECOTYPE LURID SEDGE, PA ECOTYPE BLUNT BROOM SEDGE, PA ECOTYPE BLUE VERVAIN, PA ECOTYPE AGROSTIS PERENNANS. ALBANY PINE BUSH-NY ECOTYPE AUTUMN BENTGRASS, ALBANY PINE BUSH-NY ECOTYPE SWAMP MILKWEED, PA ECOTYPE WOOLGRASS, PA ECOTYPE COMMON SNEEZEWEED. PA ECOTYF NEW ENGLAND ASTER PA ECOTYPE PURPLESTEM ASTER, PA ECOTYPE FLAT TOPPED WHITE ASTER, PA ECOTYPE BONESET, PA ECOTYPE

GREAT BLUE LOBELIA, PA ECOTYPE

DEERTONGUE, TIOGA

FOX SEDGE, PA ECOTYPE

APPLY SEED AT THE RATES RECOMMENDED BY THE SEED SUPPLIER. SEED WITH NURSE CROP(S) SPECIES AS RECOMMENDED BY THE SEED SUPPLIER FOR THE INTENDED USE, USDA ZONE, AND

MEADOW MIX

GENERAL SEEDING NOTES:

- 1. MOWING MEADOW AREAS SHALL BE DONE VIA STRING TRIMMER, WHERE LARGER MACHINES CANNOT REASONABLY BE USED AND WHERE DAMAGE OR RUTTING COULD OCCUR. 2. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NOT MOW CLOSE. AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
- AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH. 4. MOW IN BASINS, WETLAND AND WETLAND TRANSITION AREAS DURING DRIER SITE CONDITIONS WHEN SOIL DISTURBANCE WILL NOT OCCUR. MAINTENANCE FOR WETLAND AND WETLAND TRANSITION AREAS SHALL OCCUR DURING LATE SUMMER (JULY 15 -AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR. DO NOT MOW IN WETLAND OR WETLAND
- 5. DURING THE FIRST 2-4 YEARS OF ESTABLISHMENT, AND AFTER ESTABLISHMENT DEPENDING ON THE LOOK DESIRED. SELECTIVE WEEDING WITH A BROADLEAF WEED-CONTROL HERBICIDE, OVER-SEEDING BARE SPOTS AND WATERING TO PROMOTE A UNIFORM DROUGHT-TOLERANT STAND OF PLANTS MAY BE NECESSARY. 6. FERTILIZERS ARE NOT GENERALLY NEEDED OR RECOMMENDED FOR NATIVE MEADOWS UNLESS SOIL TEST RESULTS SHOW A
- SIGNIFICANT LACK OF NUTRIENTS. USE ONLY SLOW-RELEASE FERTILIZERS WITH LITTLE TO NO NITROGEN IN APRIL OR SEPTEMBER.
- 1. MEADOW SEED MIXTURES ARE SUBJECT TO CHANGE BY THE SUPPLIER DEPENDING ON AVAILABILITY OF EXISTING AND NEW PRODUCTS, CHANGES WILL NOT AFFECT THE FUNCTION OF THE MIX. 2. FINAL SEED MIXTURES, RATES & SPECIES TO BE DETERMINED BASED ON SCD REVIEW.
- SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 1) OR THE FALL (SEPTEMBER 1 TO OCTOBER 4. ELIMINATE UNWANTED VECETATION PRIOR TO SEEDING USING A BROAD-SPECTRUM NON-SELECTIVE HERBICIDE PER 5. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL WHERE APPLICABLE.
- 6. MULCHING/TACKING IS REQUIRED ON ALL SEEDING IN ACCORDANCE WITH THE STANDARDS. AN EROSION CONTROL BLANKET WITH A MINIMUM 12-MONTH DEGRADABLE LIFE SPAN MAY BE USED IN LIEU OF STANDARD MULCHING/TACKING. PERMANENT BLANKETS WILL NOT BE ACCEPTED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL USE ANIMAL CONTROL MEASURES AS NECESSARY FOR BASIN SEEDING, INCLUDING BUT NOT LIMITED TO
- GOOSE NETTING, TO PROTECT PLANTS DURING ESTABLISHMENT. 8. CONTINUOUS MOISTURE MUST BE INSURED DURING ESTABLISHMENT TO ALLOW PROPER GERMINATION. SOIL WILL REMAIN CONTINUOUSLY MOIST FOR THE TOP 4 INCHES OF TOPSOIL. DO NOT SATURATE OR WATER TO THE POINT OF RUNOFF OR THE
- 9. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT. 10. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6 INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.

LAWN WATERING SCHEDULE (seed)

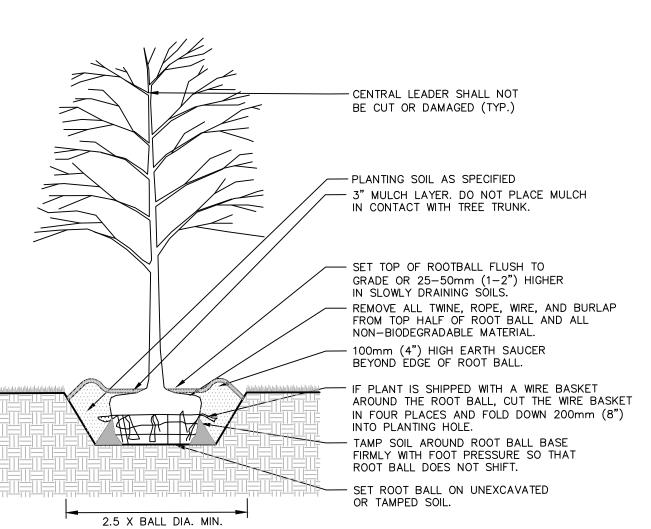
MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SEED. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RESEEDED AND REESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER. IMPORTANT ASPECTS TO ATTAINING AND SUSTAINING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SEED BED

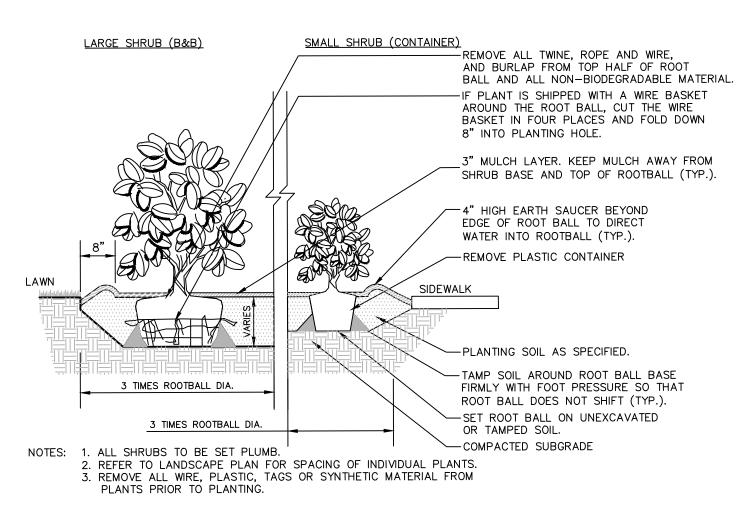
PER THESE NOTES AND/OR PROJECT SPECIFICATIONS. 1. SEEDING SHALL BE DONE DURING THE SEASONS SPECIFIED IN THE LAWN SEED MIX NOTES AND/OR PROJECT SPECIFICATIONS. 2. AFTER THE SEEDBED IS PREPARED, SEED IS INSTALLED, AND MULCH IS APPLIED, WATER LIGHTLY TO KEEP THE TOP 2 INCHES OF

PREPARATION. ATTAINING OPTIMAL OH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING

- SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED. 5. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE
- MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT. 4. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6 INCH
- 5. BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT. MOW TO A HEIGHT OF NO LESS THAN 2-1%INCHES. AFTER 2 TO 3 WEEKS OF MOWING, CONTINUE TO WATER TO A 6 INCH MINIMUM SOIL DEPTH AS NECESSARY PER WEATHER CONDITIONS, AND SOIL MOISTURE SENSORS IF APPLICABLE.



DECIDUOUS TREE PLANTING



 $2 \setminus \mathsf{SHRUB} \; \mathsf{PLANTING}$

NTS

NTS

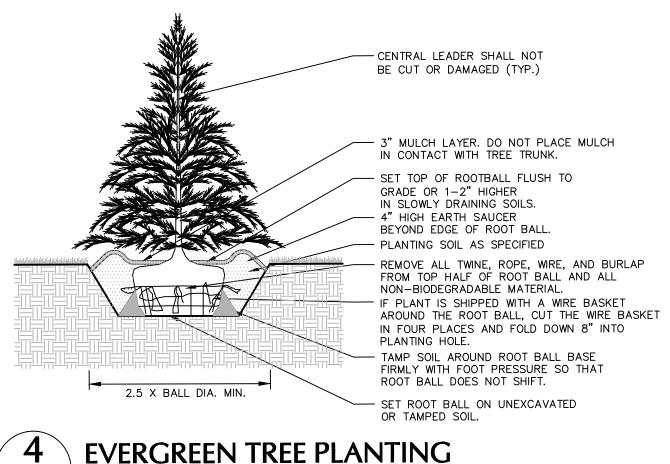
-TYPICAL O.C. PLANTING SPACING PLANTS TO BE INSTALLED ALTERNATELY. -PRIOR TO PLANTING, REMOVE PLANT FROM CONTAINER AND GENTLY COMB OUT ROOTS -PLANTING SOIL AS SPECIFIED -2" MULCH LAYER, MULCH TO BE PLACED DOWN BEFORE PLANTINGS SIDEWALK The state of the s -UNDISTURBED SUBGRADE NOTES: 1. PLANTS ARE TO BE SPACED EQUIDISTANT FROM EACH OTHER.

GROUNDCOVER/ PERENNIAL PLANTING

REFER TO PLAN AND SCHEDULE FOR SPACING OF INDIVIDUAL PLANTS.

REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM

PLANTS PRIOR TO PLANTING.



-MULCH/ TOPSOIL BACKFILL — RUBBER HOSE AT BARK - ROOTBALL AND TRUNK UP SLOPE TREE STAKE AND GUY - GUY WIRES (3), WHITE FLAG ON EACH TO (TYP. OF 3) VISIBILITY. AVOID TIGHT GUY WIRES AS THEY PREVENT NATURAL SWAY. — PLANTING SOIL AS SPECIFIED TURNBUCKLE (3), GALVANIZED OR DIP-PAINTED MULCH IN CONTACT WITH TREE - SET TOP OF ROOTBALL FLUSH TO GRADE OR 25-50mm (1-2") HIGHER IN SLOWLY DRAINING SOILS. CORNER OF ROOT SYSTEM TO BE AT LINE OF ORIGINAL GRADE. REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP HALF OF ROOT BALL AND ALL NON-BIODEGRADABLE MATERIAL. 100mm (4") HIGH EARTH SAUCER - WOOD STAKES (3) - IF PLANT IS SHIPPED WITH A WIRE BASKET IN FOUR PLACES AND FOLD DOWN 200mm (8") INTO TAMP SOIL AROUND ROOT BALL BAS FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

TREE STAKING SHOULD BE CONSIDERED FOR TREES PLANTED ON SLOPES GREATER THAN 3:1 AND/OR ON WINDY SITES PER THE FOLLOWING: STAKE TREES WITH 2.5" X 2.5" CEDAR OR PRESSURE TREATED STAKES TALL ENOUGH TO REACH ABOVE THE FIRST SET OF BRANCHES (3 PER TREE). STAKES SHALL BE PLACED ON EITHER SIDE OF THE IREE PERPENDICULAR TO THE SLOPE AND ARE TÒ BE DRIVEN AT LEAST 12 INCHES INTO THE GROUND OUTSIDE OF THE TREE PIT AND ANGLED SLIGHTLY AWAY FROM THE TREE. SECURE STAKES TO TREE USING ARBORTIES BY LOOSELY LOOPING THE TIES AROUND TREE ABOVE THE FIRST SET OF BRANCHES AND ALLOWING ENOUGH SLACK FOR TREE MOVEMENT IN THE WIND, AND NAIL TO STAKES. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR ARBORTIES, OR APPROVED EQUAL, AT GEMPLERS 1-800-332-6744 OR GEMPLERS.COM. ALL STAKING MATERIALS SHALL BE REMOVED FOLLOWING THE PLANT GUARANTEE PERIOD.

- SET ROOT BALL ON UNEXCAVATED

OR TAMPED SOIL.

EVERGREEN TREE PLANTING ON SLOPE > 3:1 NTS

2.5 X BALL DIA. MIN.

PLANT SCHEDULE ROOT REMARKS SIZE COMMON NAME KEY QTY. BOTANICAL NAME SHADE TREE(S) 1-1 1/2" CAL.|B+B CELTIS X OCCIDENTALIS 1-1 1/2" CAL. B+B GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER' SHADEMASTER HONEYLOCUST 1-1 1/2" CAL. B+B SOURGUM OR TUPELO NYSSA SYLVATICA 1-1 1/2" CAL. B+B PIN OAK QUERCUS PALUSTRIS 1-1 1/2" CAL. B+B PRINCETON AMERICAN ELM ULMUS AMERICANA 'PRINCETON' RNAMENTAL TREE(1-1 1/2" CAL. B+B MULTI STEM SHADBLOW SERVICEBERRY AMELANCHIER CANADENSIS 1-1 1/2" CAL. B+B EASTERN REDBUD CERCIS CANADENSIS 1-1 1/2" CAL. B+B CORNUS KOUSA KOUSA DOGWOOD 1-1 1/2" CAL. B+B SWEETBAY MAGNOLIA MAGNOLIA VIRGINIANA EASTERN RED CEDAR JUNIPERUS VIRGINIANA IORWAY SPRUCE PICEA ABIES WHITE PINE PINUS STROBUS B+B PYRAMIDAL WHITE PINE PINUS STROBUS 'FASTIGIATA' VIRGINIA PINE PINUS VIRGINIANA EVERGREEN SHRUB(S) CONTAINER DWARF INKBERRY HOLLY ILEX GLABRA COMPACTA CONTAINER 30-36" JUNIPERUS X PFITZERIANA 'ARMSTRONG' ARMSTRONG JUNIPER CONTAINER NORTHERN BAYBERRY MYRICA PENSYLVANICA DECIDUOUS SHRUB(S) CONTAINER SWEET PEPPERBUSH CLETHRA ALNIFOLIA 'HUMMINGBIRD 36-48" CONTAINER VERNAL WITCH HAZEL HAMEMELIS VERNALIS CONTAINER |spaced @ 18" o.c. MOONBEAM COREOPSIS 2 GAL. COREOPSIS VERTICILLATA 'MOONBEAM' 2 GAL. CONTAINER spaced @ 18" o.c. PURPLE CONEFLOWER ECHINACEA PURPUREA 'KIM'S KNEE HIGH' CONTAINER NEPETA RACEMOSA 'WALKER'S LOW' WALKER'S LOW spaced @ 24" o. NEP | 293 ORNAMENTAL GRASS(E CONTAINER PANICUM VIRGATUM 'SHENANDOAH' SHENANDOAH SWITCH GRASS l 2 GAL. NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

GENERAL NOTES: 1. WHERE PLANTING AREAS ARE PROPOSED AT FORMER PAVED OR GRAVEL AREAS, BEDS SHALL

BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES. 2. SIMILARLY, DUE TO GENERAL CONSTRUCTION ACTIVITIES AND ADJACENT SITE COMPACTION REQUIREMENTS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS TEND TO BECOME HIGHLY COMPACTED. IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS. THIS SUBGRADE SOIL MUST UNDERGO A RESTORATION PROCESS. IN ADDITION, IMPORTED OR AMMENDED EXISTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE.

PLANTING AREAS.

NTS

EXISTING PLANTING SOIL) SHALL BE ROTO-TILLED INTO SUBGRADE TO A DEPTH OF 12". - PRIOR TO PLACEMENT OF 6" DEPTH PLANTING SOIL LAYER, THE CONTRACTOR SHALL APPLY 3" OF COMPOST AND ROTO-TILL INTO SUBGRADE TO A MIN. DEPTH OF SUBGRADE WITHIN 2'-6" OF FINISH GRADE IN PLANTING AREAS SHALL CONSIST OF FREE DRAINING SANDY SOIL FILL

*EXISTING SOIL PREVIOUSLY STRIPPED FROM FORMER

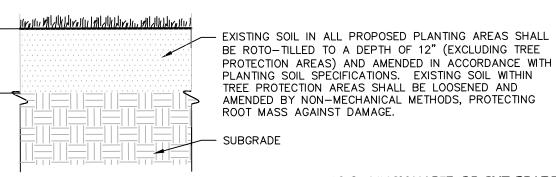
LANDSCAPE AREAS CAN BE USED FOR PLANTING SOIL

ARCHITECT. CONTRACTOR SHALL REFER TO PLANTING

UPON APPROVAL BY THE PROJECT LANDSCAPE

- 6" IMPORTED PLANTING SOIL (OR AMENDED

SOIL SPECIFICATIONS FOR REQUIRED SUBMITTALS. IMPORTED OR AMENDED EXISTING PLANTING SOIL WITHIN AREAS OF RAISED GRADE



AMENDED EXISTING PLANTING SOIL WITHIN AREAS OF UNCHANGED OR CUT GRADE

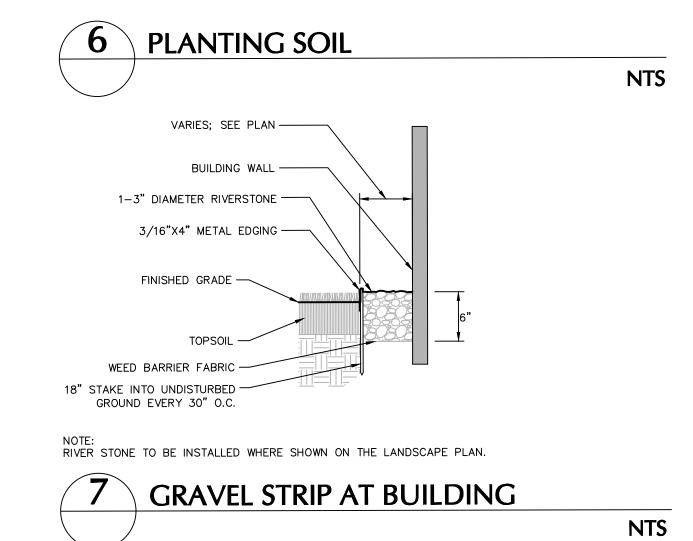
2. RECYCLED CRUSHED CONCRETE AND ASPHALT MILLINGS SHALL NOT BE PLACED WITHIN 2'-6"

1. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING SOILS INTENDED FOR USE IN PLANTING AREAS (1 PER 500 CY.) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE.

3. IMPORTED FILL SHALL CONTAIN NO CONTAMINATION IN EXCEEDENCE OF THE PROJECT STATE ENVIRONMENTAL REVIEW AGENCY STANDARDS AND MEET THE ENVIRONMENTAL REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF COMPLIANCE PRIOR TO DELIVERY OF ANY FILL TO THE SITE.

OF FINISH GRADE IN PROPOSED LANDSCAPE AREAS.

4. CONTRACTOR TO LIGHTLY COMPACT ALL PLACED PLANTING SOILS AND RAISE GRADES ACCORDINGLY TO ALLOW FOR FUTURE SETTLEMENT OF PLANTING SOILS (TYP.) 5. NO STONES, WOOD CHIPS, OR DEBRIS LARGER THAN 1/2" SHALL BE ACCEPTABLE WITHIN



Description Revisions N.J. LICENSED LANDSCAPE ARCHITECT

> Environmental Services, Inc 300 Kimball Drive

> > Parsippany, NJ 07054

T: 973.560.4900 F: 973.560.4901 www.langan.com

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400 2000 INTERNATIONAL **DRIVE WAREHOUSE**

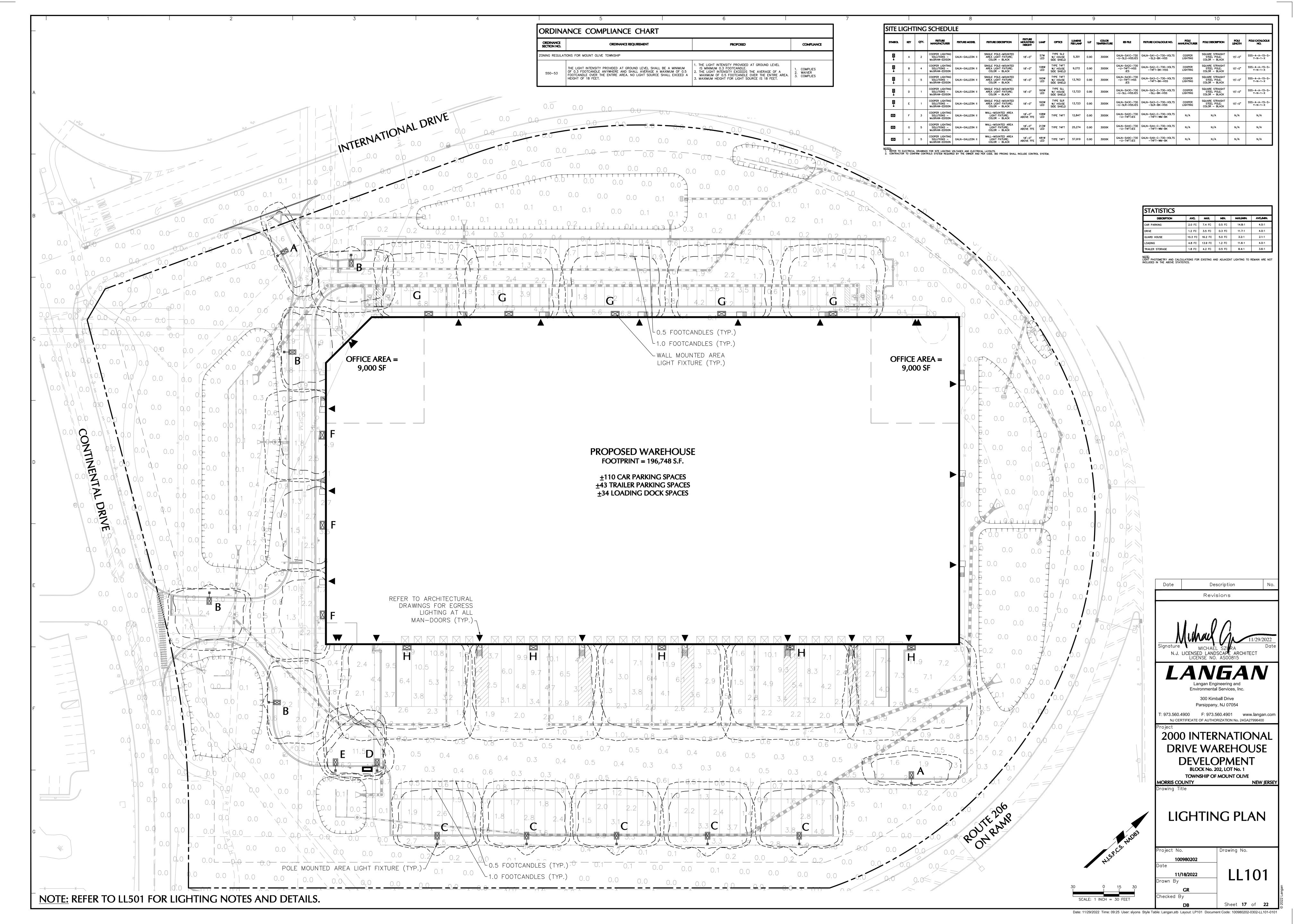
DEVELOPMENT TOWNSHIP OF MOUNT OLIVE MORRIS COUNTY

|LANDSCAPE NOTES| & DETAILS

Project No. Drawing No. 100980202 LP501 11/18/2022 Orawn By

Checked By

Date: 11/23/2022 Time: 14:02 User: izhao Style Table: Langan.stb Layout: Lp501 Document Code: 100980202-0302-LP501-0101



LIGHTING NOTES:

CENTERAL

1. POINT-BY-POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY STANDARD LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP/ DIRT DEGRADATION ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY STANDARD LLF IN ACCORDANCE WITH GUIDANCE AS PROVIDED BY IESNA. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS—BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS.NO GUARANTEE OF LIGHT LEVELS IS EXPRESSED OR IMPLIED BY THE POINT BY POINT CALCULATIONS SHOWN ON THESE

2. LIGHT LEVEL POINT SPACING IS 20 FT. LEFT TO RIGHT AND 20 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.

- 3. ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.
- 4. LIGHTING LAYOUT COMPLIES WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) SAFETY STANDARDS FOR LIGHT LEVELS.

COORDINATION

- CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.
- 6. REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.
- CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
- ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.

 9. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY

NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND

8. INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH

DURING EXCAVATIONS. POLES AND FOOTINGS

- 10. PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND/OR IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST—IN—PLACE CONCRETE. THE USE OF ALTERNATE LIGHTING FOUNDATIONS, SUCH AS PRECAST, MAY CHANGE THE SIZING AND REINFORCEMENT REQUIREMENTS FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.
- 11. CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERTED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.
- 12. POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.13. ALL POLES 25 FT. OR GREATER SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.

WALL MOUNTED FIXTURES

- 14. CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING MEP, ARCHITECT, AND/OR OWNER.
- 15. INSTALLATION AND ELECTRICAL CONNECTIONS FOR WALL MOUNTED FIXTURES TO BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, UTILITY AND SITE PLANS AND TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES.

ADJUSTMENT AND INSPECTION

- 16. CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.
- 17. CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER
- 18. CONTRACTOR TO CONFIRM THAT LIGHT FIXTURES, TILT ANGLE AND AIMING MATCH SPECIFICATIONS ON THE

REQUIREMENTS FOR ALTERNATES

BE ENTIRELY BORNE BY THE CONTRACTOR

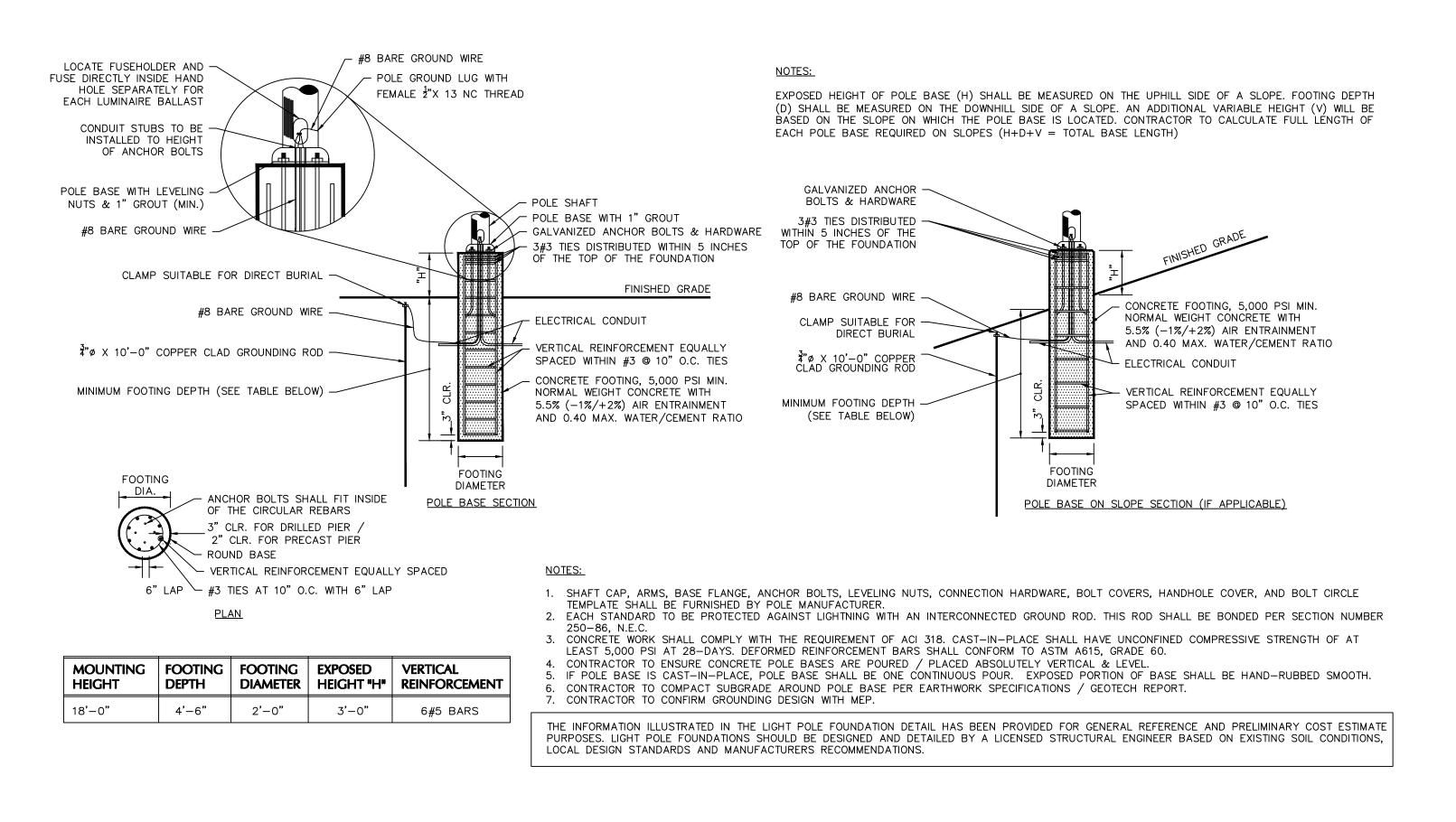
- 19. ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:

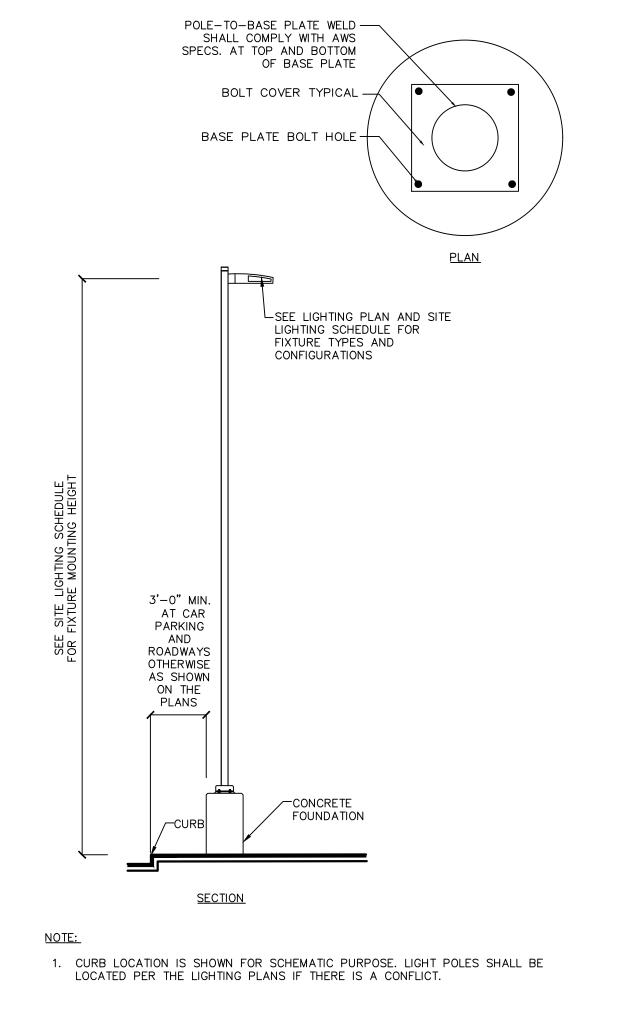
 A. ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL
- B. COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES, BY ISOFOOTCANDLE, THE SYSTEM'S PERFORMANCE.
 C. A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS; IES CALCULATIONS, POINT BY POINT FOOT CANDLE PLAN, STATISTIC ZONES SHOWING AVERAGE, MAXIMUM, MINIMUM AND
- UNIFORMITY RATIOS, SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, WATTAGE, VOLTAGE, FINISH HOUSING DESCRIPTION AND ALL OTHER PERTINENT INFORMATION.

 D. POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING
- SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

 E. THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE
- UTILIZED.

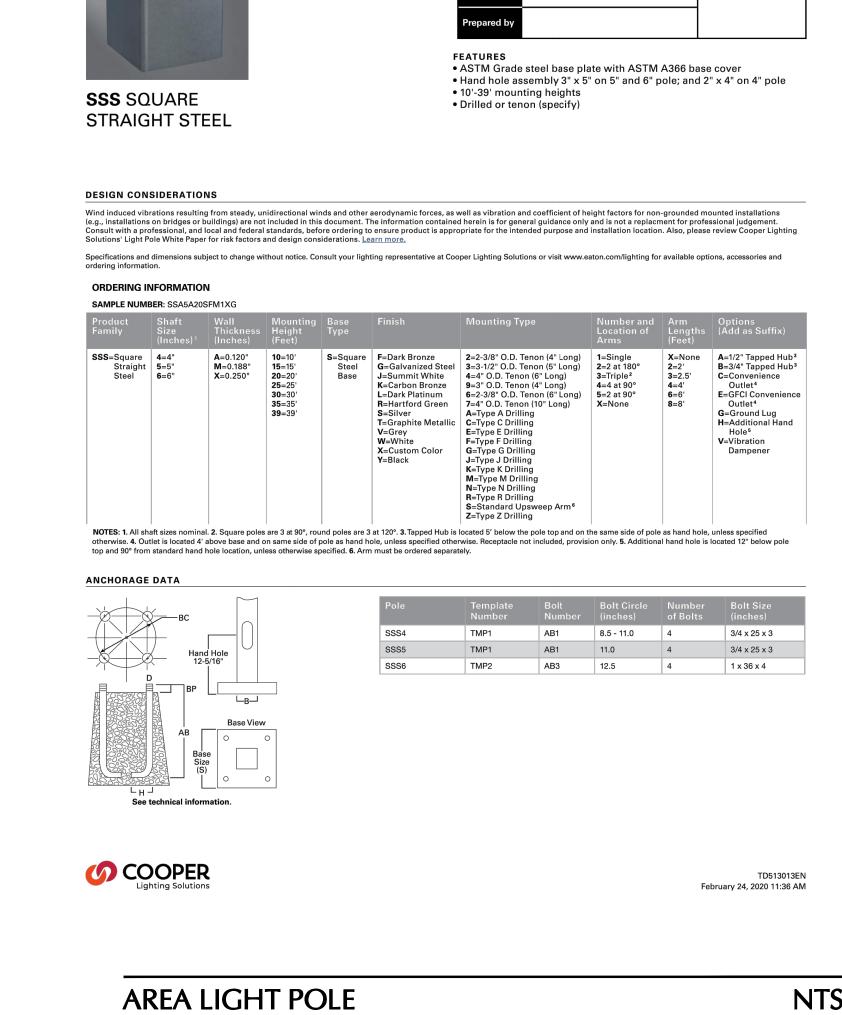
 F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.





LIGHT POLE BASE NTS LIGHT POLE FIXTURE NTS

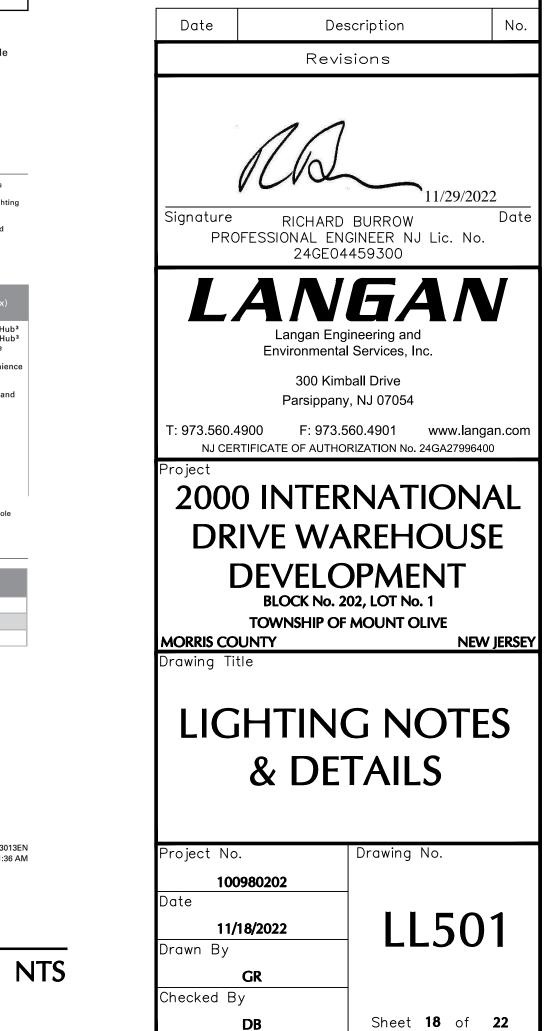


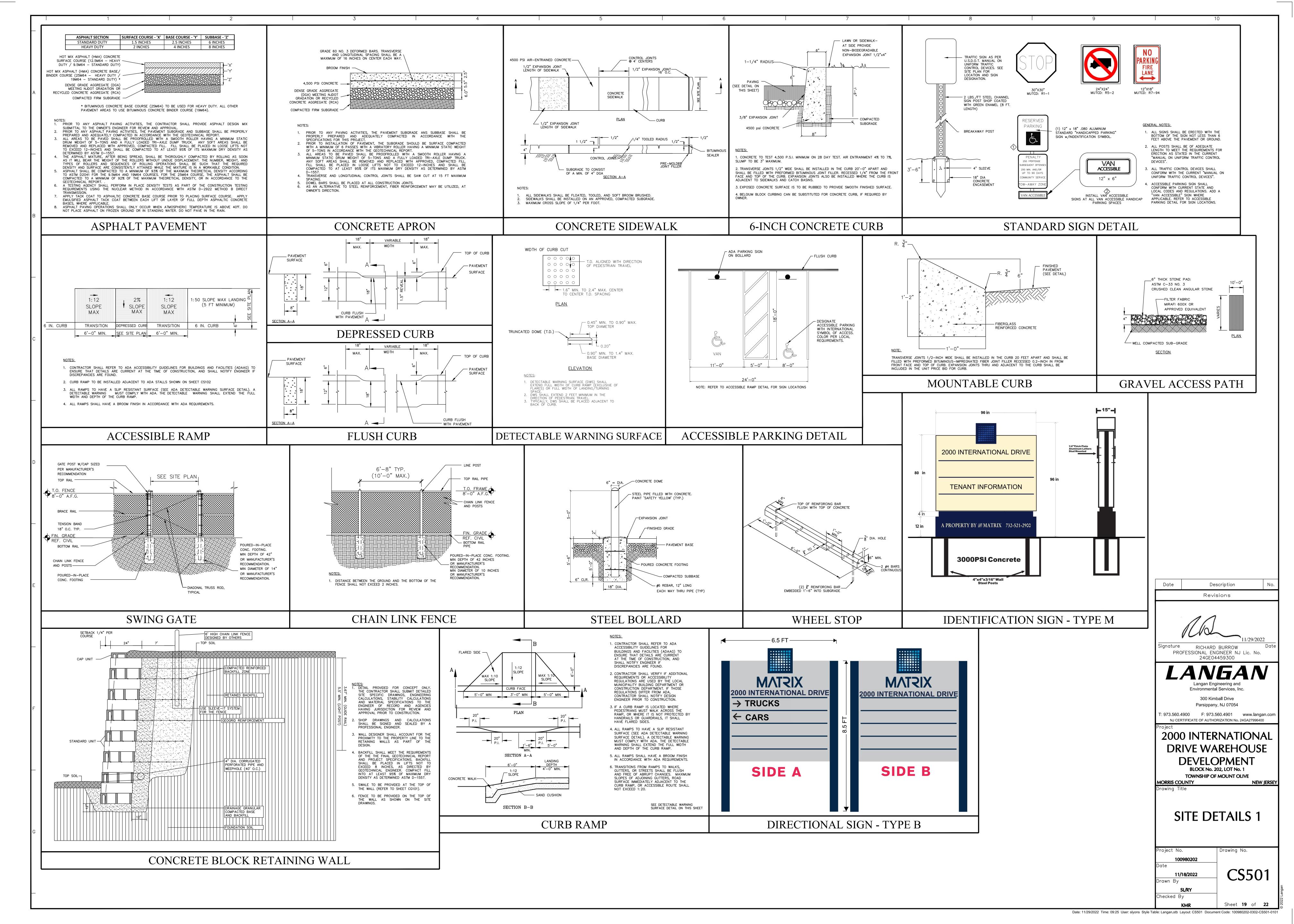


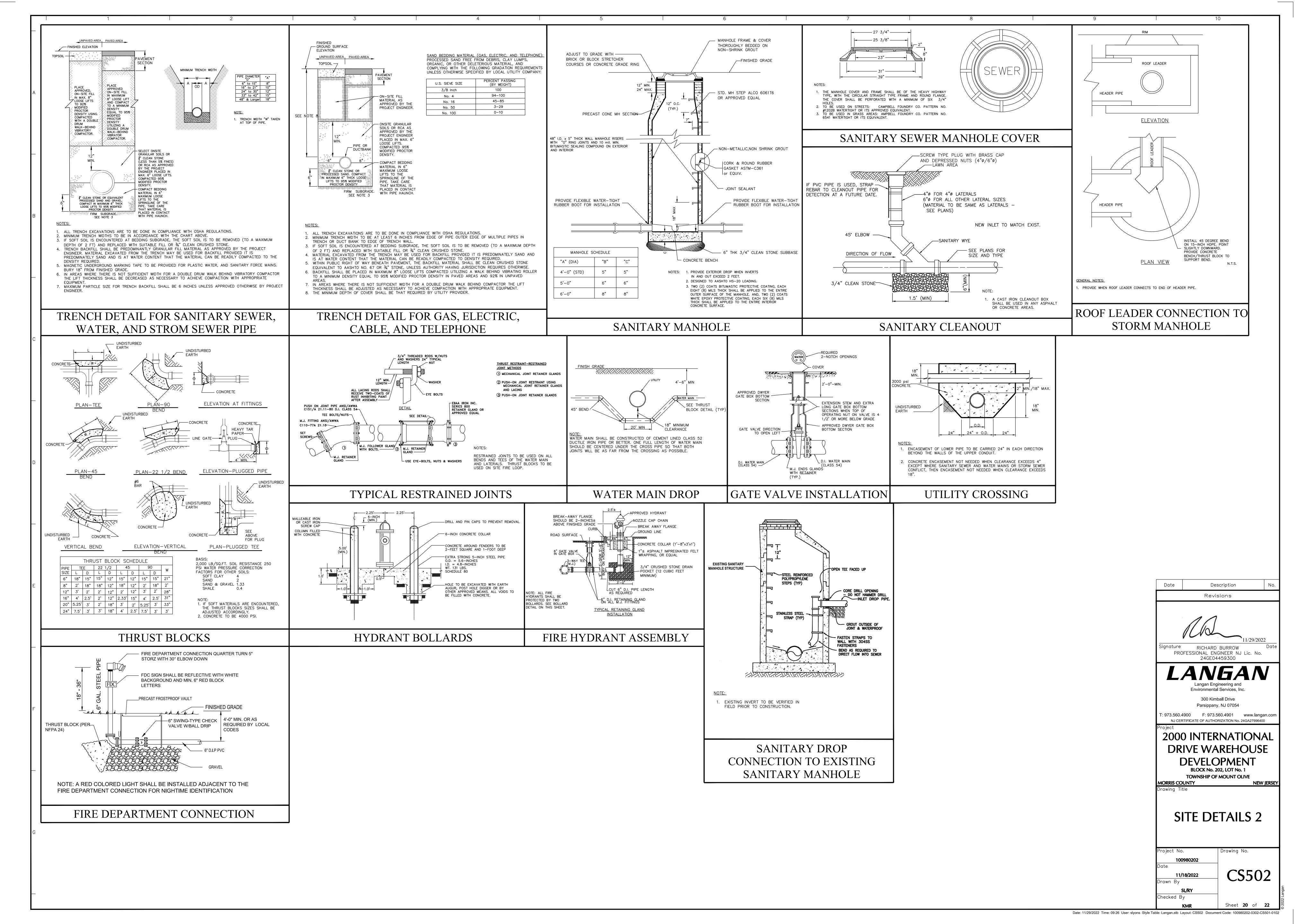
Steel Poles

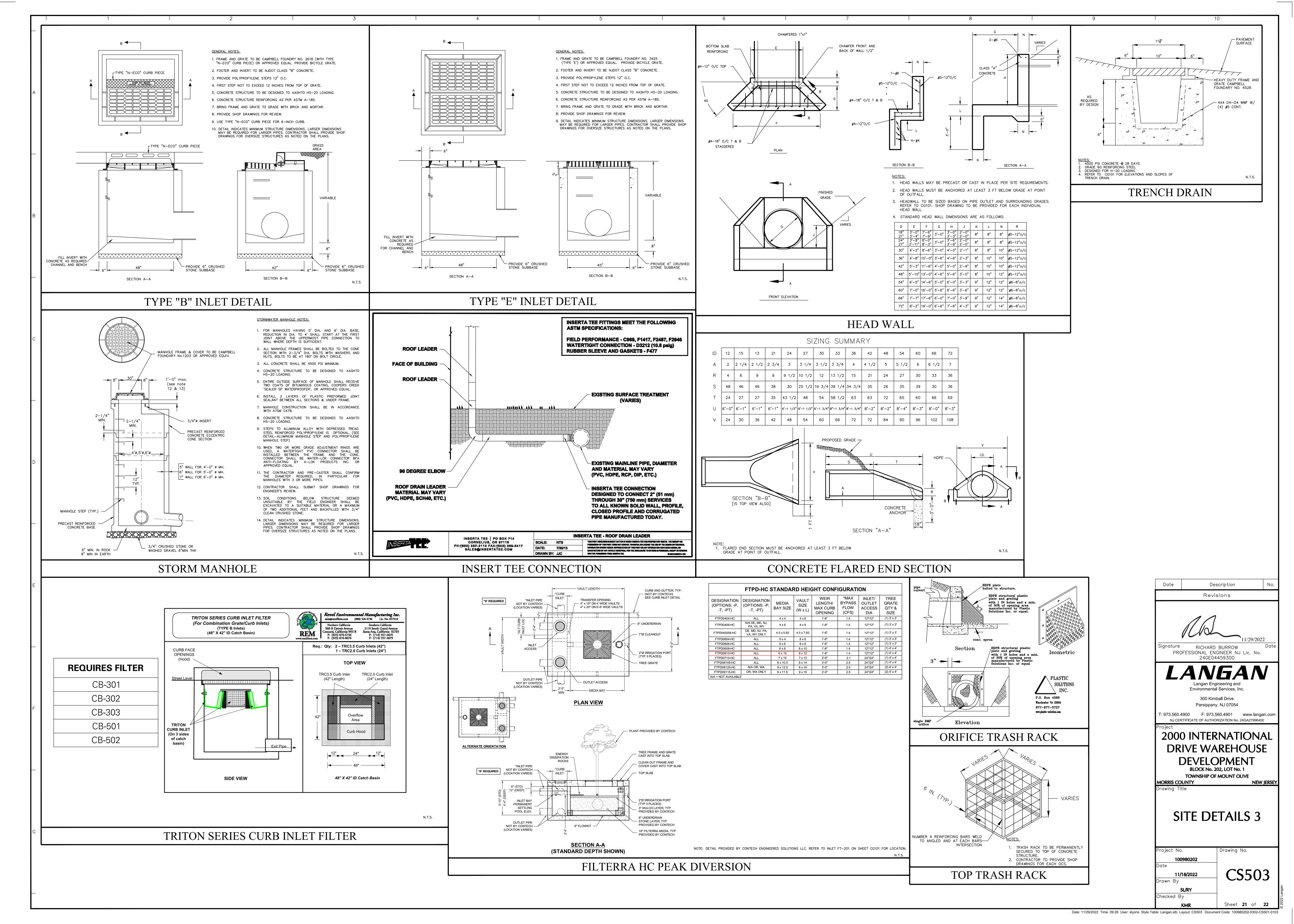
Туре

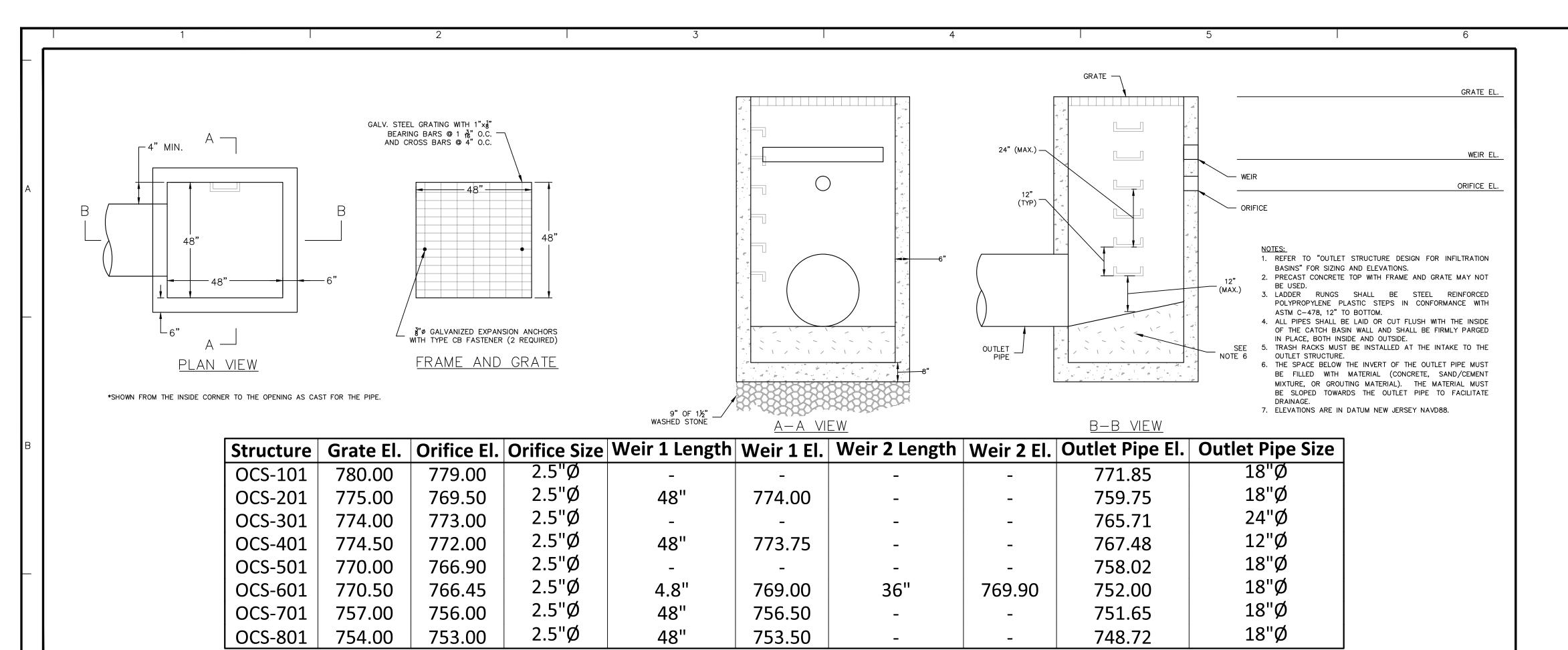
Date



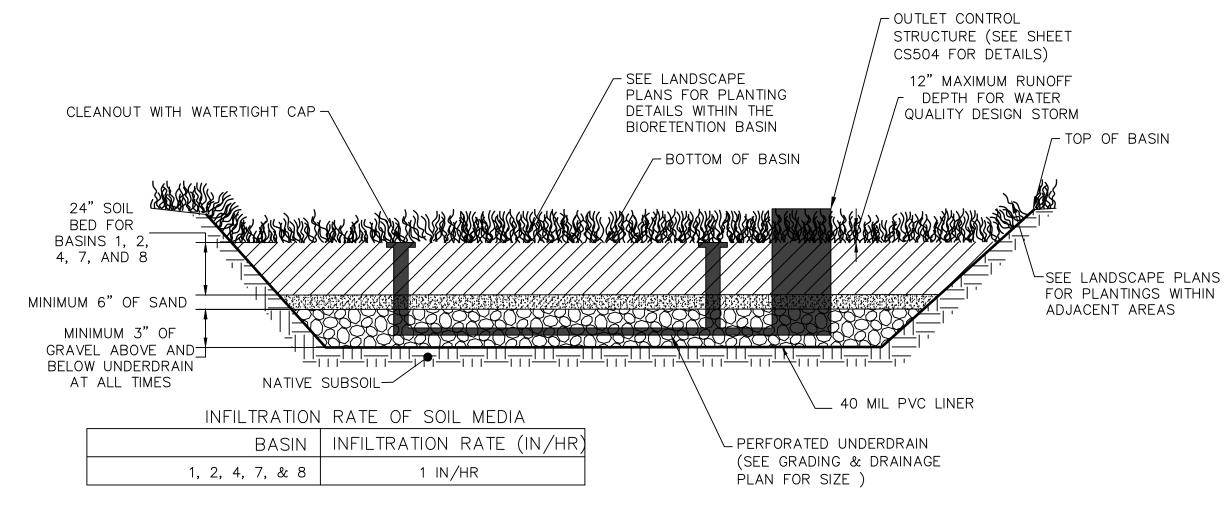








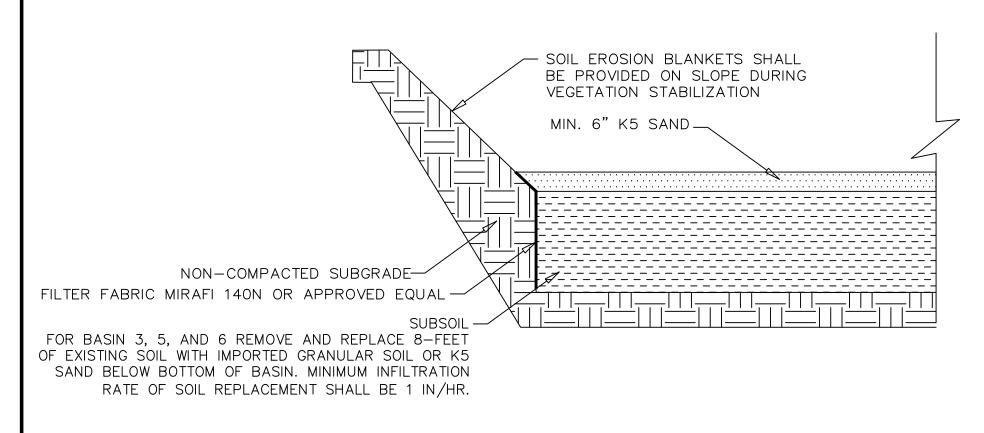
OCS DETAIL



NOTES:

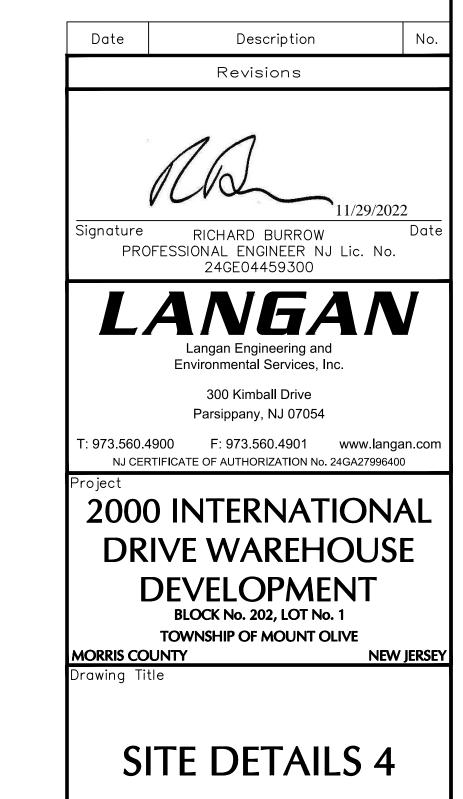
- . BIORETENTION BASINS (INCLUDING THE MULCH, SOIL BED, SAND AND GRAVEL LAYER) SHALL BE CONSTRUCTED IN CONFORMANCE WITH NEW JERSEY STORMWATER BEST MANAGEMENT PRACTICES MANUAL SECTION 9.7 FOR SMALL—SCALE BIORETENTION SYSTEMS AND SECTION 10.1 FOR LARGE—SCALE BIORETENTION SYSTEMS.
- 2. BIORETENTION SOIL BED MATERAIL MUST CONSIST OF THE FOLLOWING MIX, BY VOLUME: 85 TO 95% SAND, WITH NO MORE THAN 25% OF THE SAND AS FINE OR VERY FINE SANDS; NO MORE THAN 15% SILT AND CLAY WITH 2% TO 5% CLAY CONTENT. THE ENTIRE MIX MUST THEN BE AMENDED WITH 3 TO 7% ORGANICS, BY WEIGHT. THE SOIL BED MATERIAL SHALL BE FREE OF CONTAMINANTS. THE PH OF THE SOIL BED MATERIAL IS RECOMMENDED TO RANGE FROM 5.5 TO 6.5. THE SOIL BED MATERIAL MUST BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES.
- 3. PRE-MIXED SOIL MUST BE CERTIFIED TO BE CONSISTENT WITH THE REQUIREMENT ABOVE BY EITHER THE VENDOR OR BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEW JERSEY. THE CONTENT OF ANY SOIL MIXED ON-SITE MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEW JERSEY; IN ADDITION, THE ENGINEER MUST BE PRESENT WHILE THE SOIL IS MIXED.
- 4. SAND MUST BE AT LEAST 6 INCHES IN DEPTH AND MUST CONSIST OF CLEAN, MEDIUM—AGGREGATE CONCRETE SAND (AASHTO M—6/ASTM C—33). TO ENSURE PROPER SYSTEM OPERATION, THE PERMEABILITY RATE OF THE SAND LAYER MUST BE AT LEAST TWICE THE DESIGN PERMEABILITY RATE OF THE SOIL BED.
- 5. THE GRAVEL LAYER MUST HAVE SUFFICIENT DEPTH TO PROVIDE AT LEAST 3 INCHES OF GRAVEL BOTH ABOVE AND BELOW THE PIPE NETWORK AND MUST CONSIST OF 0.5 TO 1.5 INCH CLEAN, BROKEN STONE OR PEA GRAVEL (AASHTO M-43). THE SIDES OF THE UNDERDRAIN PIPES SHOULD SIMILARLY BE PROTECTED BY THE SAME GRAVEL. TO ENSURE PROPER SYSTEM OPERATION, THE PERMEABILITY RATE OF THE GRAVEL LAYER MUST BE AT LEAST TWICE THE DESIGN PERMEABILITY RATE OF THE SAND LAYER.
- 6. AT LEAST ONE (1) INSPECTION PORT, WITH A REMOVABLE CAP, MUST BE PROVIDED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE PERFORATED SECTION OF THE NETWORK OF PIPES AND EXTEND ABOVE THE SURFACE OF THE SOIL BED.
- 7. INSPECTION PORT EXTERIOR OF UNDERDRAINS SHALL BE COVERED IN SUCH A WAY AS TO PREVENT THE MIGRATION OF MATERIAL INTO THE STRUCTURE.
- 8. THE DEPTH OF RUNOFF GENERATED BY THE MAXIMUM DESIGN STORM SHALL BE MARKED ON ALL INSPECTION PORTS.

BIORETENTION BASIN CROSS SECTION



- NOTES:
- SAND SHALL ONLY BE INSTALLED AFTER UPSTREAM DRAINAGE AREA HAS BEEN STABILIZED AND ACCUMULATED SEDIMENT HAS BEEN REMOVED.
- BASIN SUBGRADE SHALL BE TILLED OR DISCED TO A DEPTH OF SIX TO TWELVE INCHES TO LOOSEN SOIL IMMEDIATELY PRIOR TO INSTALLATION OF SAND LAYER.
- INFILTRATION BASINS SHALL BE PROTECTED FROM SEDIMENT ACCUMULATION DURING CONSTRUCTION.
- K5 SAND:
 - •• MUST MEET ALL THE SPECIFICATIONS FOR CLEAN, MEDIUM—AGGREGATE CONCRETE SAND IN ACCORDANCE WITH AASHTO M—6 OR ASTM C—33, AS CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY.
 - THE MINIMUM TESTED PERMEABILITY RATE IS 20 INCHES/HOUR.
 THE MAXIMUM PERCENTAGE OF FINES IS 15%
- MEASURES MUST BE TAKEN TO ELIMINATE SOIL COMPACTION AT THE LOCATION OF A PROPOSED SMALL—SCALE INFILTRATION BASIN DURING AND AFTER THE PLACEMENT OF THE SOIL BENEATH THE BOTTOM OF THE BASINS. THE LOCATION OF THE PROPOSED SMALL—SCALE INFILTRATION BASIN MUST BE CORDONED OFF DURING CONSTRUCTION TO PREVENT COMPACTION OF THE SUBSOIL BY CONSTRUCTION EQUIPMENT OR STOCKPILES.
- FILTER FABRIC IS REQUIRED ALONG THE SIDES OF THE SMALL—SCALE INFILTRATION BASIN TO PREVENT THE MIGRATION OF FINE PARTICLES FROM THE SURROUNDING SOIL; FILTER FABRIC MAY NOT BE USED ALONG THE BOTTOM OF THE BASIN.

INFILTRATION BASIN CROSS SECTION



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