CERTIFIED PROPERTY OWNER'S LIST BOROLIGH OF TINTON FALLS NI

BOROUGH OF TINTON FALLS, NJ BLOCK 128.03, LOTS 47 AND 1.11								
BLK. NO.	LOT NO.	PROP ADDRESS	OWNER NAME / ADDRESS					
128.03	1.01	405 Essex Road	TDK-Lambda Americas Inc 405 Essex Road Tinton Falls, NJ 07753					
128.03	1.02	Essex Road	TDK-Lambda Americas Inc 405 Essex Road Tinton Falls, NJ 07753					
128.03	1.03	Essex Road	WCS Group, LLC C/O Sitar 1 Philadelphia Blvd. Sea Girt, NJ 08750					
128.03	1.04	371 Essex Road	Bethel Community Church Int'l., Inc 371 Essex Road Tinton Falls, NJ 07753					
128.03	1.05	359 Essex Road	89 Highway 35, LLC 216 Borden Road Middletown, NJ 07748					
128.03	1.07	349 Essex Road	Longo, Danette 349 Essex Road Tinton Falls, NJ 07753					
128.3	1.1	309 Essex Road	International Development Corp 465 Lewelen Circle Englewood, NJ 07631					
128.03	4	Essex Road	Pinnacle Towers Inc PMB353 4017 Washington Road McMurray, PA 15317					
128.03	4	Essex Road	Pinnacle Towers Inc PMB353 4017 Washington Road McMurray, PA 15317					
128.03	19.04	Essex Road	TF Campus LLC C/O Altus Group PO Box 92129					

Indianapolis, IN 46206

3000-3006 Essex Road

1 Premium Outlets Blvd

Southlake, TX 76092

TF Campus LLC

PO Box 92129

PO Box 6120

C/O Altus Group

Southlake, TX 7609

CPG Tinton Falls Urban Renewal, LL

one: IOP - Industrial Office Park

Bulk Regulations

/lin. Lot Area (AC

/lin. Lot Width (F

in. Lot Depth (F

/lin. Front Yard (F

/lin. Side Yard (FT

1in. Rear Yard (FT)

Max. Lot Coverage (%

Лin. Side Yard - Both (FT

Max. Building Coverage (%)

Max. Building Height (FT)

TOWNSHIP OF NEPTUNE, NJ BLOCK 128.03, LOT 47					
_	BLK. NO.	LOT NO.	PROP ADDRESS	OWNER NAME / ADDRESS	
J	3902	1	500 Essex Road	TDK-Lambda Americas Inc 405 Essex Road Tinton Falls, NJ 07724	
	3902	2	600 Exxex Road	WCS Group, LLC C/O Sitar 1 Philadelphia Blvd Sea Girt, NJ 08750	
_	3903	3	Jumping Brook Road	Sitar, William 1 Philadelphia Blvd Sea Girt, NJ 08750	
	3903	1	3585-3595 Route 66	Red Baron Prop Res c/o National Real 3 Manhattanville Road, Suite 20 Purchase, NY 10577	
	3903	2	355-3575 Route 66	Wal-Mart Real Estate Business P.O. Box 8050 MS 0555 Bentonville, AR 72712	
O	3903	3.01	1200 Jumping Brook Road	3535, LLC 3535 Route 66, Suite 7 Neptune, NJ 07753	
	3903	3.02	1400 Jumping Brook Road	Fifth Venture, LLC 1195 Route 70, Suite 2000 Lakewood, NJ 08701	
	3903	4	3535 Route 66	Neptune Park for Industry C/O EI Realty 8 Ridgedale Avenue Cedar Knolls, NJ 07927	
_	3903	5	1600 Jumping Brook Road	Township of Neptune PO Box 1125 Neptune, NJ 07753	
	3903	5.01	1800 Jumping Brook Road	Township of Neptune PO Box 1125 Neptune, NJ 07753	

WATER:	NEW JERSEY AMERICA WATER COMPANY, INC. ATTN: DONNA SHORT, GIS SUPERVISOR 1025 LAUREL OAK RD VOORHEES, NJ 08043
ELECTRIC:	JERSEY CENTRAL POWER & LIGHT COMPANY ATTN: LAND USE MATTERS 300 MADISON AVENUE MORRISTOWN, NJ 07960
TELEPHONE:	VERIZON- NEW JERSEY 9 GATE AVENUE MONTCLAIR, NJ 07042-3301
CABLE:	MONMOUTH CABLEVISION

UTILITY CONTACTS

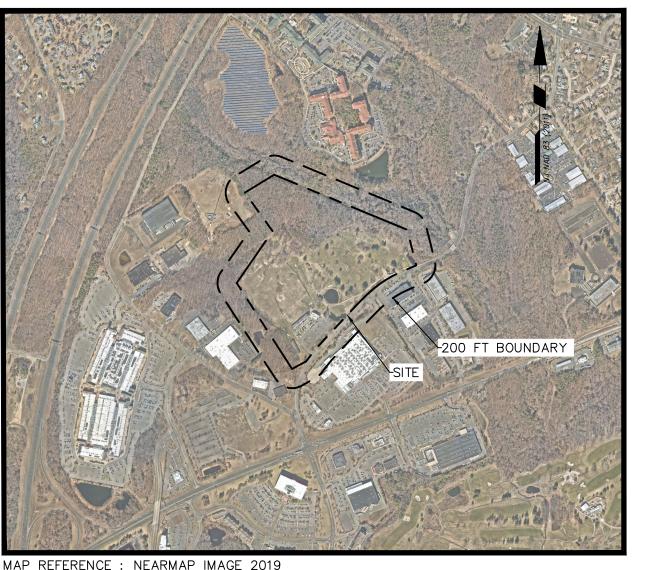
1501 18TH AVENUE WALL TOWNSHIP, NJ 07719 NEW JERSEY RESOURCES CORP. ATTN: RIGHT OF WAY DEPARTMENT 1415 WYCKOFF ROAD WALL. NJ 07719

ATTN: LAND USE MATTERS

TOWNSHIP OF NEPTUNE SEWERAGE AUTHORITY 634 OLD CORLIES AVE. NEPTUNE, NJ 07753

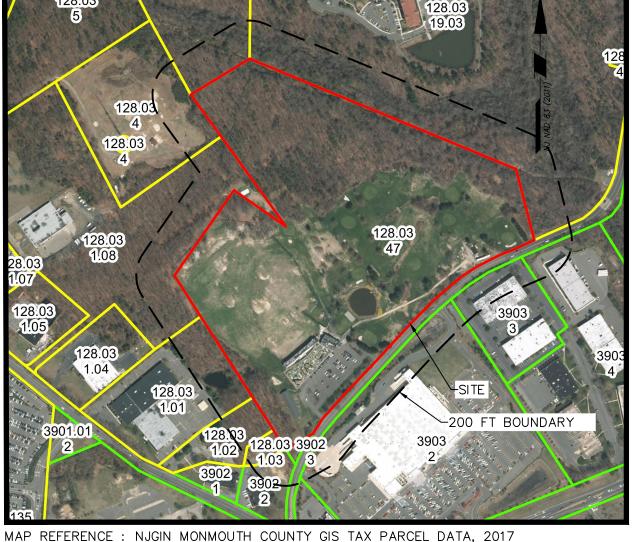
1251 JUMPING BROOK ROAD PRELIMINARY AND FINAL SITE PLAN APPLICATION

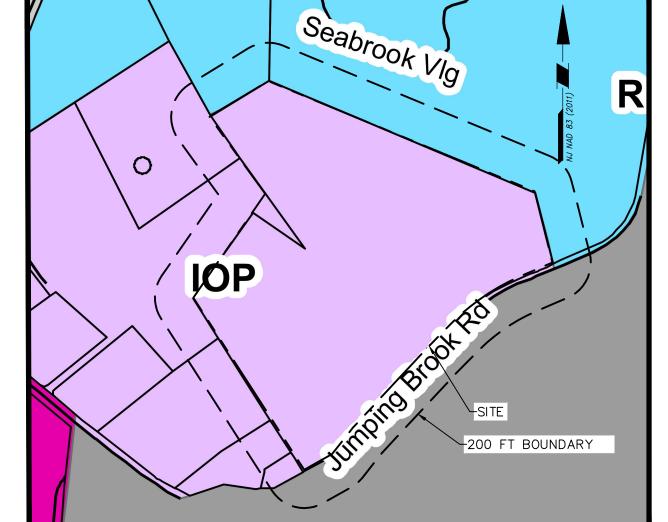
BLOCK 128.03, LOT 47 BOROUGH OF TINTON FALLS, MONMOUTH COUNTY, NEW JERSEY



PROJECT LOCATION

SCALE: 1'' = 1.000'





MAP REFERENCE: BOROUGH OF TINTON FALLS ZONING MAP - SEPTEMBER 2019

ZONING MAP

SCALE: 1'' = 500'

TAX MAP

SCALE: 1'' = 500'

GENERAL NOTES

BOUNDARY AND TOPOGRAPHIC INFORMATION FOR BLOCK 128.03, LOT 41 SHOWN HEREON WERE OBTAINED FROM PLAN TITLED "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY LANGAN ENGINEERING, DATED 06/24/2020. THE MERIDIAN SHOWN IS REFERENCED TO NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD 83 (2011) PER GPS

APPLICANT OR TENANT SHALL CONTRACT OUT SOLID WASTE DISPOSAL WITH PRIVATE CONTRACTING FIRM.

THE SITE SHALL BE CONSTRUCTED IN ACCORDANCE WITH TENANT DESIGN STANDARDS VERSION 1.4, ISSUED 03/03/2020. ALL SANITARY SEWERS AND WATER MAINS SHOWN HEREON SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE NJDEP. APPLICABLE UTILITY AUTHORITIES, NEW JERSEY AMERICAN WATER, AND THE BOROUGH OF

ALL ON-SITE SANITARY SEWER SHOWN HEREON SHALL BE PVC-SDR 35 SEWER PIPE WITH RING TIGHT FITTINGS UNLESS

THE CONTRACT DOCUMENTS. PRIOR TO WET TAP, CONTRACTOR SHALL CONSULT NEW JERSEY AMERICAN WATER FOR GAS, ELECTRIC, AND TELECOM SERVICE NETWORKS ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER, 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. 11 FXISTING 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. 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

B.P.U. CHARTERS 14. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL REQUIRED PERMITS AND

STANDARDS OF APPLICABLE GOVERNING AUTHORITIES. 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. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE APPLICABLE BOROUGH OF TINTON FALLSSTANDARD DETAILS.

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 E 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.

PROJECT GEOTECHNICAL ENGINEERING REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE

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

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.

24. 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. 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

ALL OPERATIONS SHALL BE CONDUCTED SO AS NOT TO DAMAGE, DESTROY, OR ENDANGER THE INTEGRITY OF ANY ADJACENT BUILDINGS, ROADWAYS, ACTIVE UTILITIES, AND RAILROADS. MATERIALS GENERATED DURING CONSTRUCTION SHALL BE HANDLED IN CONFORMANCE WITH ENVIRONMENTAL REQUIREMENTS

28. FINAL MONUMENT, WALL, AND DIRECTIONAL SIGNAGE DETAILS SHALL BE SUBMITTED TO LANGAN FOR REVIEW AND

GI101 COVER SHEET DEMOLITION PLAN OVERALL SITE PLAN PARTIAL SITE PLAN 1 PARTIAL SITE PLAN : PARTIAL SITE PLAN 3 PAVEMENT PLAN TE CIRCULATION PLAN EMERGENCY VEHICLE SITE CIRCULATION PLAN PARTIAL STRIPING AND SIGNAGE PLAN 1 PARTIAL STRIPING AND SIGNAGE PLAN 2 PARTIAL STRIPING AND SIGNAGE PLAN 3 VERALL GRADING AND DRAINAGE PLAN PARTIAL GRADING AND DRAINAGE PLAN 1 PARTIAL GRADING AND DRAINAGE PLAN 2 PARTIAL GRADING AND DRAINAGE PLAN 3 TORM PROFILES 1 STORM PROFILES 2 TORM PROFILES 3 OVERALL UTILITY PLAN PARTIAL UTILITY PLAN 1 PARTIAL UTILITY PLAN 2 PARTIAL UTILITY PLAN 3 SANITARY SEWER PROFILES VERALL SOIL EROSION AND SEDIMENT CONTROL PLAN PARTIAL SOIL EROSION AND SEDIMENT CONTROL PLAN 1 PARTIAL SOIL EROSION AND SEDIMENT CONTROL PLAN 2 SOIL EROSION AND SEDIMENT CONTROL DETAILS SOIL DECOMPACTION AND RESTORATION PLAN 2 SOIL DECOMPACTION AND RESTORATION PLAN 3 TREE REMOVAL PLAN VERALL LANDSCAPE PLAN PARTIAL LANDSCAPE PLAN 1 PARTIAL LANDSCAPE PLAN 2 PARTIAL LANDSCAPE PLAN 3 LANDSCAPE DETAILS 1 ANDSCAPE DETAILS 2 LP502 OVERALL LIGHTING PLAN PARTIAL LIGHTING PLAN 1 PARTIAL LIGHTING PLAN 2 PARTIAL LIGHTING PLAN 3 LIGHTING DETAILS SITE DETAILS 1 CS502 ITE DETAILS 2 SITE DETAILS 3 SITE DETAILS 4 SITE DETAILS 5 SURVEY SHEET INDEX ALTA/NSPS LAND TITLE SURVEY VL106 ALTA/NSPS LAND TITLE SURVEY

CIVIL SHEET INDEX

RAWING NO. | TITEL

PER TOWNSHIP COMMENTS Date Description REVISIONS

RICHARD BURROW

PROFESSIONAL ENGINEER NJ Lic. No.

24GE04459300

Landscape Architecture and Geology, D.P.C.

300 Kimball Drive

Parsippany, NJ 07054

T: 973.560.4900 F: 973.560.4901 www.langan.com

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

1251 JUMPING

BROOK ROAD

BOROUGH OF TINTON FALLS

BLOCK 128.03, LOT 47

SIGNATURE

09-21-2020

DATE SIGNEI

NEW JERSEY

SIGNATURE OF OWNER / APPLICANT (SIGNATURE TO BE NOTARIZED)

PROJECT CONTACTS

APPLICANT / OWNER: W&M ASSOCIATES, LLC 1481 OAK TREE ROAD, **ISELIN, NJ 08830**

ARCHITECT: PROGRESSIVE AE **18811 4 MILE ROAD NE GRAND RAPIDS, MI 49525** TEL: (616) 8361-1493

CIVIL ENGINEER/SURVEYOR:

LANGAN

300 KIMBALL DRIVE PARSIPPANY, NJ 07054 (973) 560-4900 NJ Certificate of Authorization No: 24GA27996400

APPROVED BY BOROUGH OF TINTON FALLS PLANNING BOARD PRELIMINARY & FINAL SITE PLAN

CHAIRMAN OF THE PLANNING BOARD

BOROUGH ENGINEER

SECRETARY OF THE PLANNING BOARD

COVER SHEET

Drawing No. 100775501

MONMOUTH COUNTY

06/25/2020 Drawn By

Sheet **1** of 50

Date: 9/21/2020 Time: 12:54 User: ryemerou Style Table: Langan.stb Layout: GI101 Document Code: 100775501-0102-GI001-0101

Checked By

EXCAVATION AND WILL PROVIDE LANGAN WITH THE RESULTS OF THESE EXPLORATIONS WITHIN 24 HOURS OF THEIR

COMPLETION. 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

13. ELECTRIC, TELEPHONE, GAS AND CABLE TO BE PROVIDED BY RESPECTIVE UTILITY COMPANY IN ACCORDANCE WITH THEIR 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

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND 18. ALL NEW UTILITIES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND UNLESS

20. CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE PLANS IS SUBJECT TO THE REQUIREMENTS DESCRIBED IN THE

CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE PLANS IS SUBJECT TO THE REQUIREMENTS SET FORTH BY THE ENVIRONMENTAL REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE

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

23. 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.

CONTRACTOR'S RESPONSIBILITY TO OBTAIN. REVIEW AND ADHERE TO ALL THESE DOCUMENTS.

APPROVAL OF COLORS AND MATERIALS PRIOR TO FABRICATION.

Min. Parking Setback 15 FT (If located adjacent to residential district) None proposed space for the first 5,000 SF and an additional space for each Ain. Number of Loading Docks 11 additional 40,000 SF. (4 loading docks required) Off-Street Parking Requirements Min. Size of Parking Space 9 FT x 18 FT 9 FT X 20 FT Min. Aisle Width for Two Way 90 Degree Parking 24 FT 24 FT Min. Parking Setback 25 FT from lot line or street R.O.W 25 FT Office: 1 Space per 250 SF of total floor area (35 spaces) 231 car parking spaces Shipping and Receiving: 1 Space per 5000 SF of total floor area Min. Number of Parking Spaces 670 van parking spaces (21 spaces required) Total = 901 parking spaces Fleet Vehicles: 511 Total= 567 spaces A min. of 10% of any parking surface facility other than single o landscaped area proposed Landscaping family homes shall be landscaped and shall include one shade every 5 parking spaces

		1 0 1		
Signage Requirem	ents			
Wall Sign	Location The lowest part of the sign shall be at least 8 FT above the walkway.		> 8 FT	Yes
	Size	Shall not project more than 15 inches.	5 IN	Yes
	Size	Wall signs up to 10 SF per separate office tenant on the premises shall be permitted but total wall signs shall not exceed 25 SF.	182 SF	No
	Amount	1	3	No*
Ground Sign	Max. Size	30 SF	30 SF	Yes
	Max. Height	6 FT	6 FT	Yes
	Setback	20 FT away from all property lines	10 FT	No*
	A	2	20	A 1.

Directional Sign Max. Size 20 SF No Yes

proposed maximum height of the retaining wall is 11 FT.

average entire area of 3.1 FC exceeds the requited footcandles of 4.0 FC and 2.0 FC respectively.

2. Relief is requested from Ordinance Section 40-26.G.7 for the number of driveways and distance between proposed driveways. The ordinance permits 2 driveways per lot frontage with a separation distance of at least 200 feet. Four driveways have been proposed and the 200 feet separation is not met. 3. Relief is requested from Ordinance Section 40-29.D.2 for the disturbance of an area with slopes in excess of 15%, as well as filling of existing freshwater

5. Relief is requested form Ordinance Section 40-26.N.1(e) for maximum height of freestanding lights. The ordinance permits a maximum height of 18 FT. The proposed maximum height is 25 FT.

FC at property lines. The proposed maximum illumination is 3.2 FC. 7. Relief is requested from Ordinance Section 40-26.N.1(j) for maximum light intensity. The proposed maximum on any location of 7.1 FC and maximum

9. Relief is requested from Ordinance Section 40-26.R.3 for loading space size. The ordinance requires loading spaces to be 15 feet wide by 60 feet long. The proposed loading spaces are 12 feet wide by 60 feet long.

Yes 431.6 Yes 1,073.1 70, but not less than 3X bldg. height (120 FT) 301.3 30, but not less than 2X bldg. height (80 FT 154.6 30, but not less than 2X bldg. height 231.2 Yes 33.9% Yes 40 Yes 0.05 Yes N/A

Warehouse (Shipping and

Receiving)

Max. FAR Aaximum Density oading Requirements Yes Yes Yes Yes Yes

ZONING TABLE

receiving, fabrication and assembly operations within an

Schedule B - District Bulk Regulation

Industrial facilities such as warehousing, shipping and

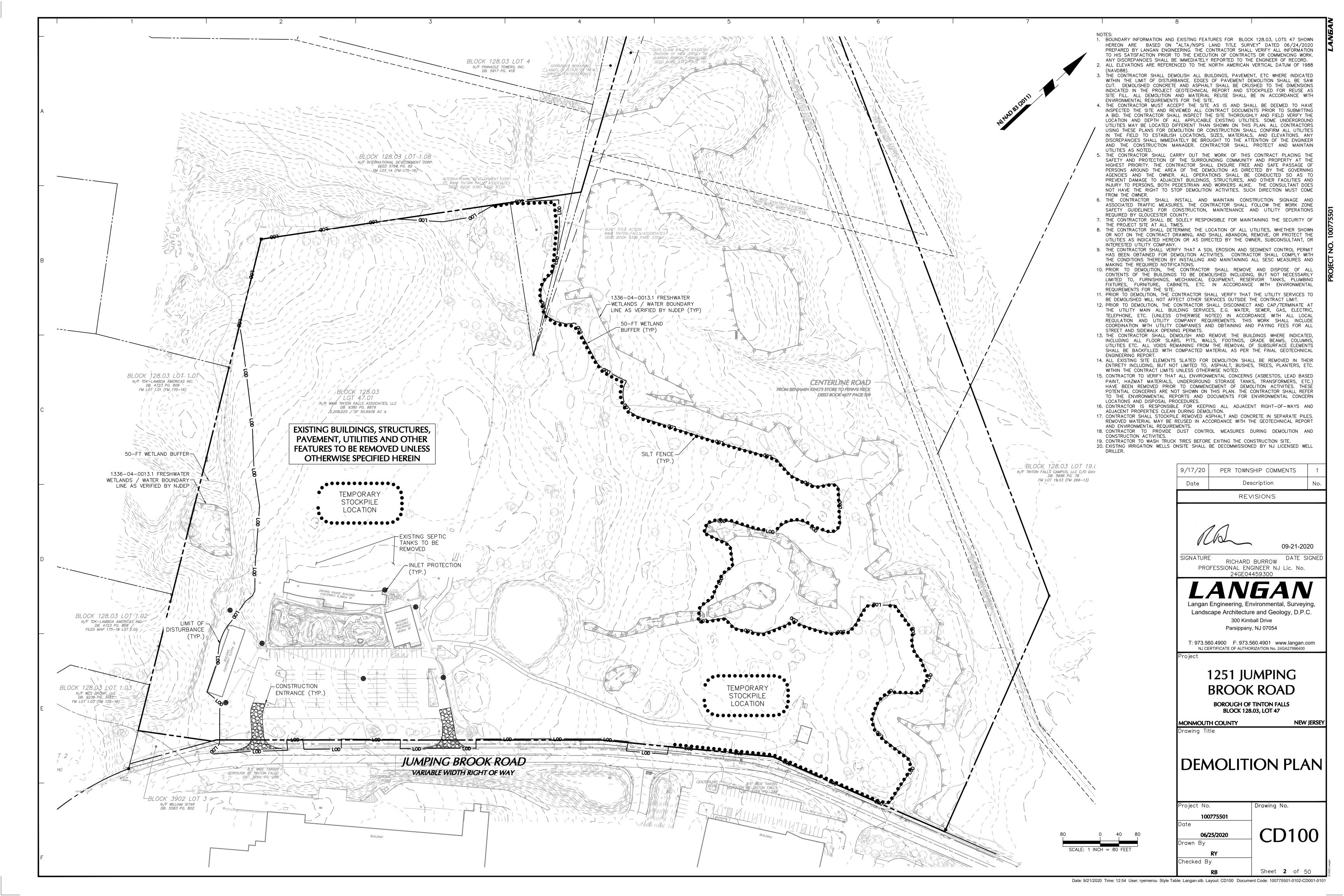
tree for every 5 parking spaces.

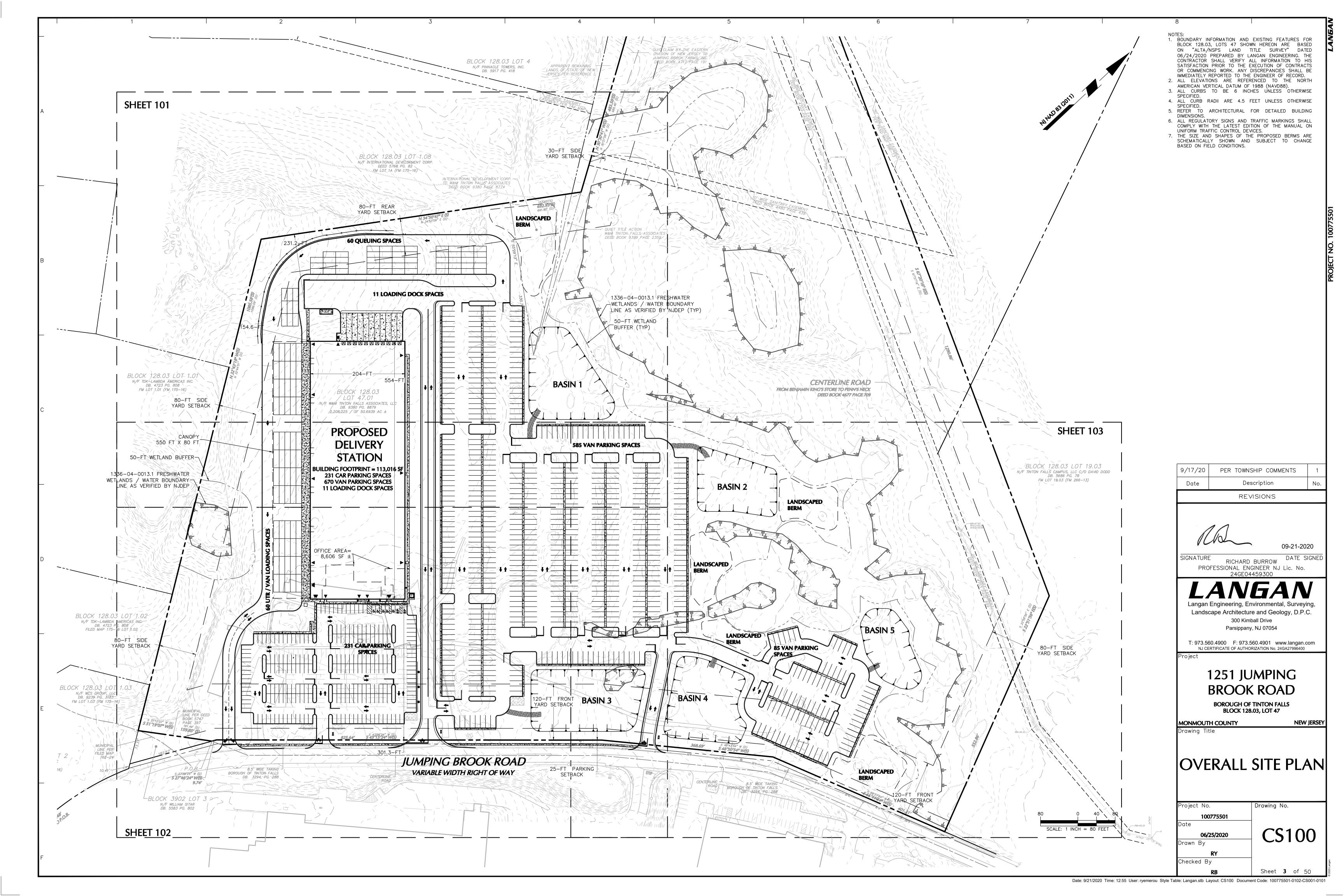
Proposed Permitted * Existing non-conformance. Requested Variances / Waivers 1. Relief is requested from Ordinance Section 40-26.J.8 for the height of the proposed retaining wall. The ordinance permits a maximum height of 6 FT. The

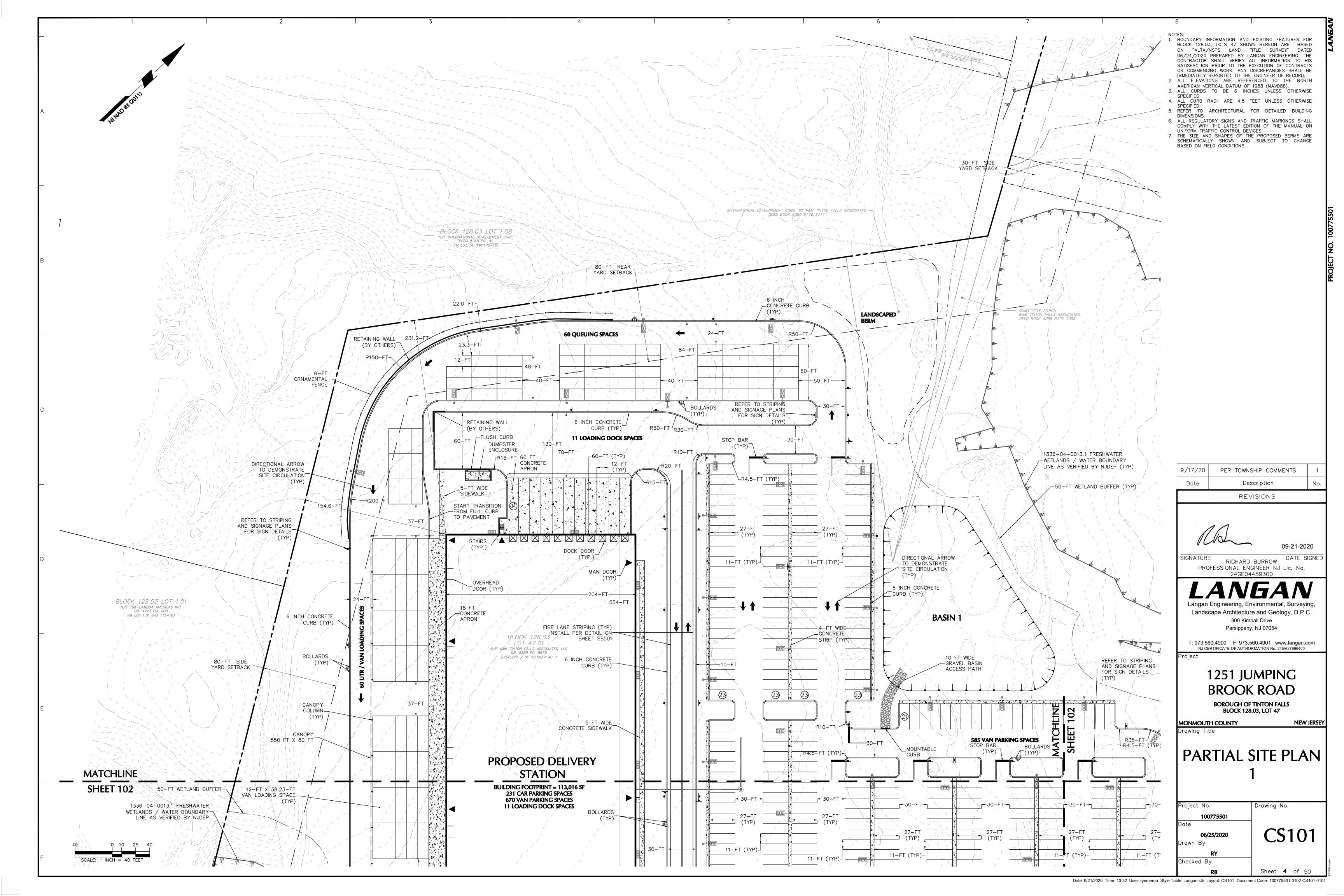
4. Relief is requested from Ordinance Section 40-35.G for maximum lot area for warehouses. The ordinance permits a maximum lot area of 10 AC for warehouses. The lot area for the proposed warehouse is 50 AC.

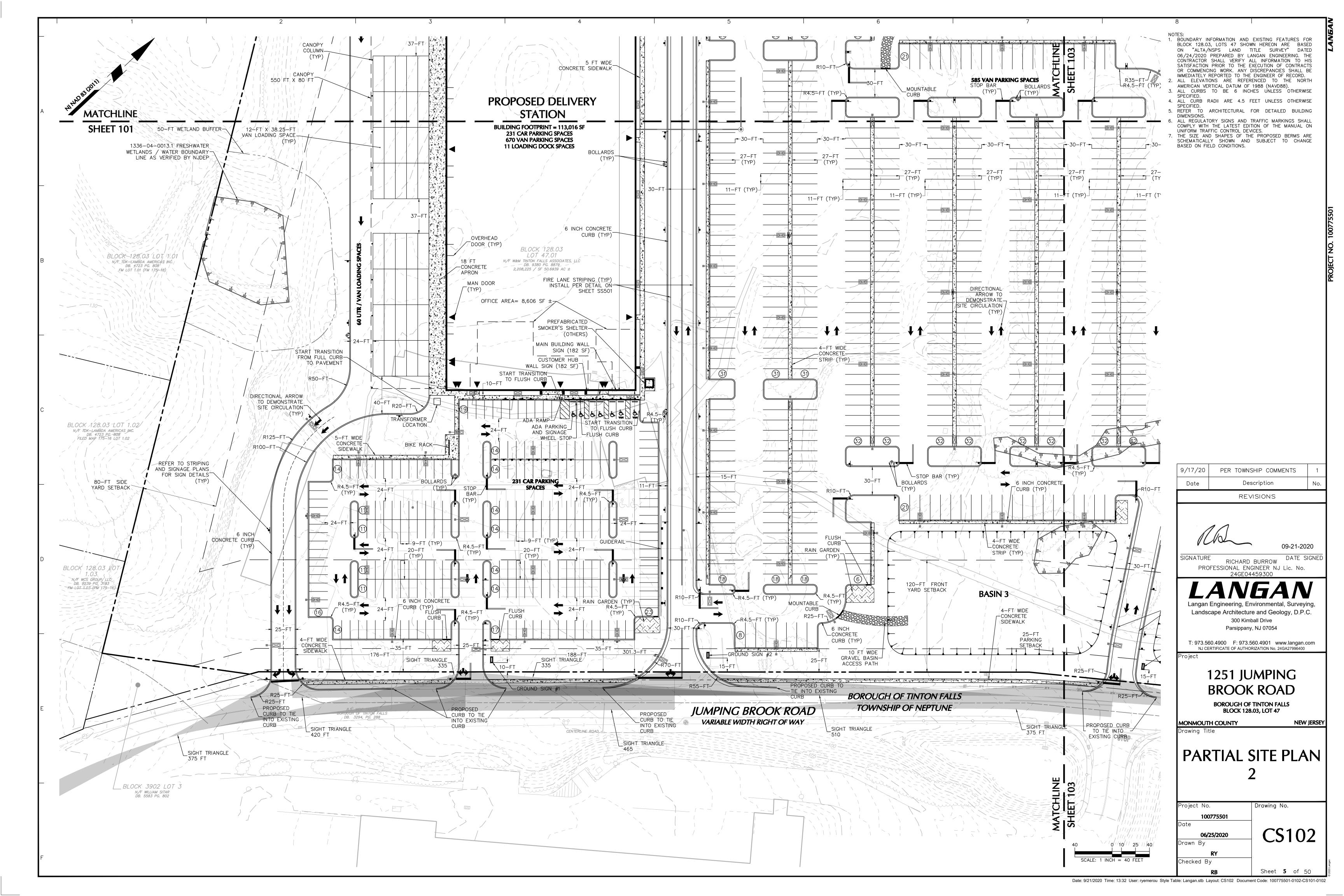
6. Relief is requested from Ordinance Section 40-26.N.1(h) for maximum illumination at property lines. The ordinance permits a maximum illumination of 0.1

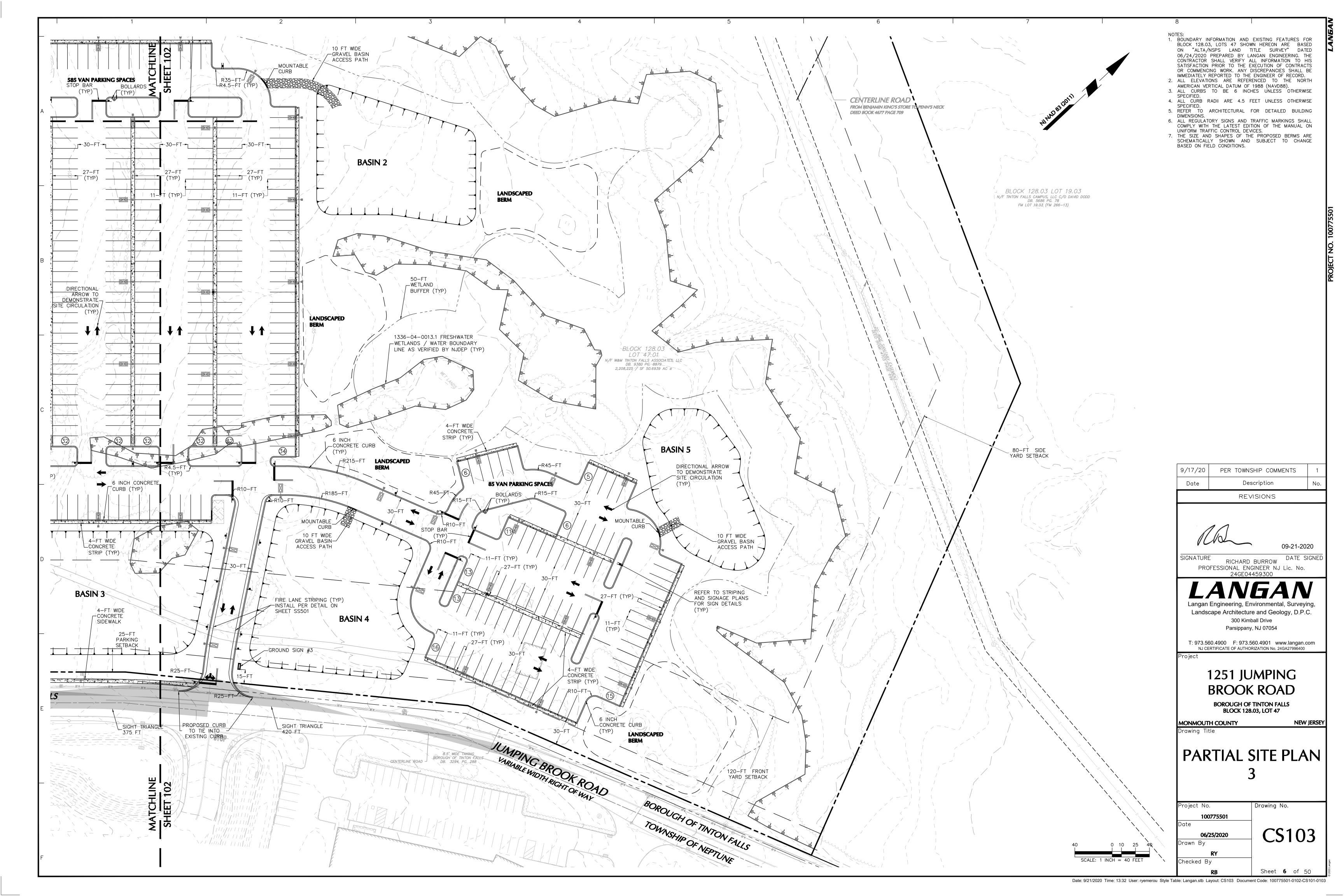
8. Relief is requested from Ordinance Section 40-26.Q.2.k for pavement sections. The ordinance requires a minimum of 4 inches of compacted base course of plant-mixed bituminous stabilized base course and a minimum of 2 inches thick compacted wearing surface of bituminous concrete. 2.5 inches of base course and 1.5 inches of surface course is proposed.

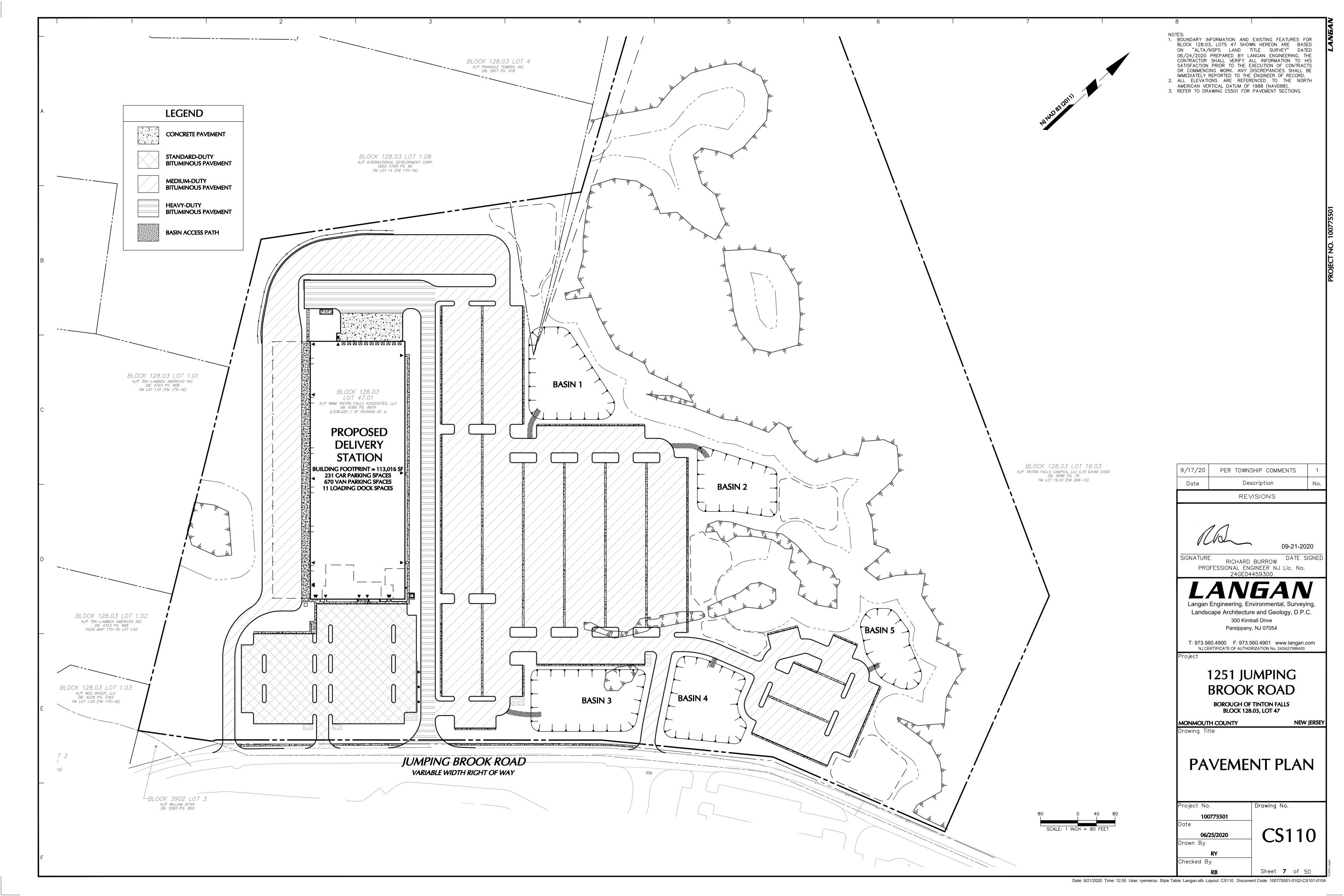


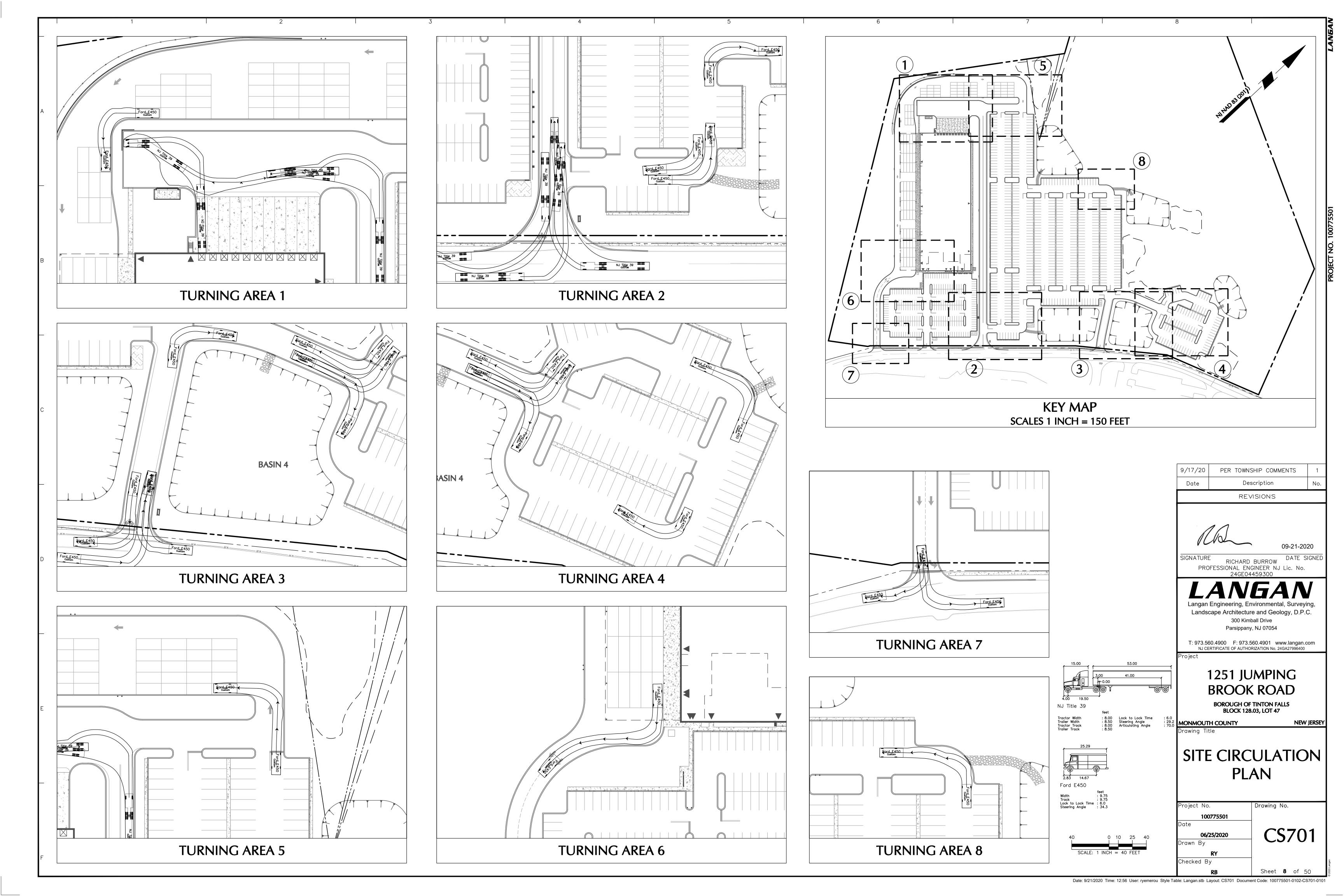


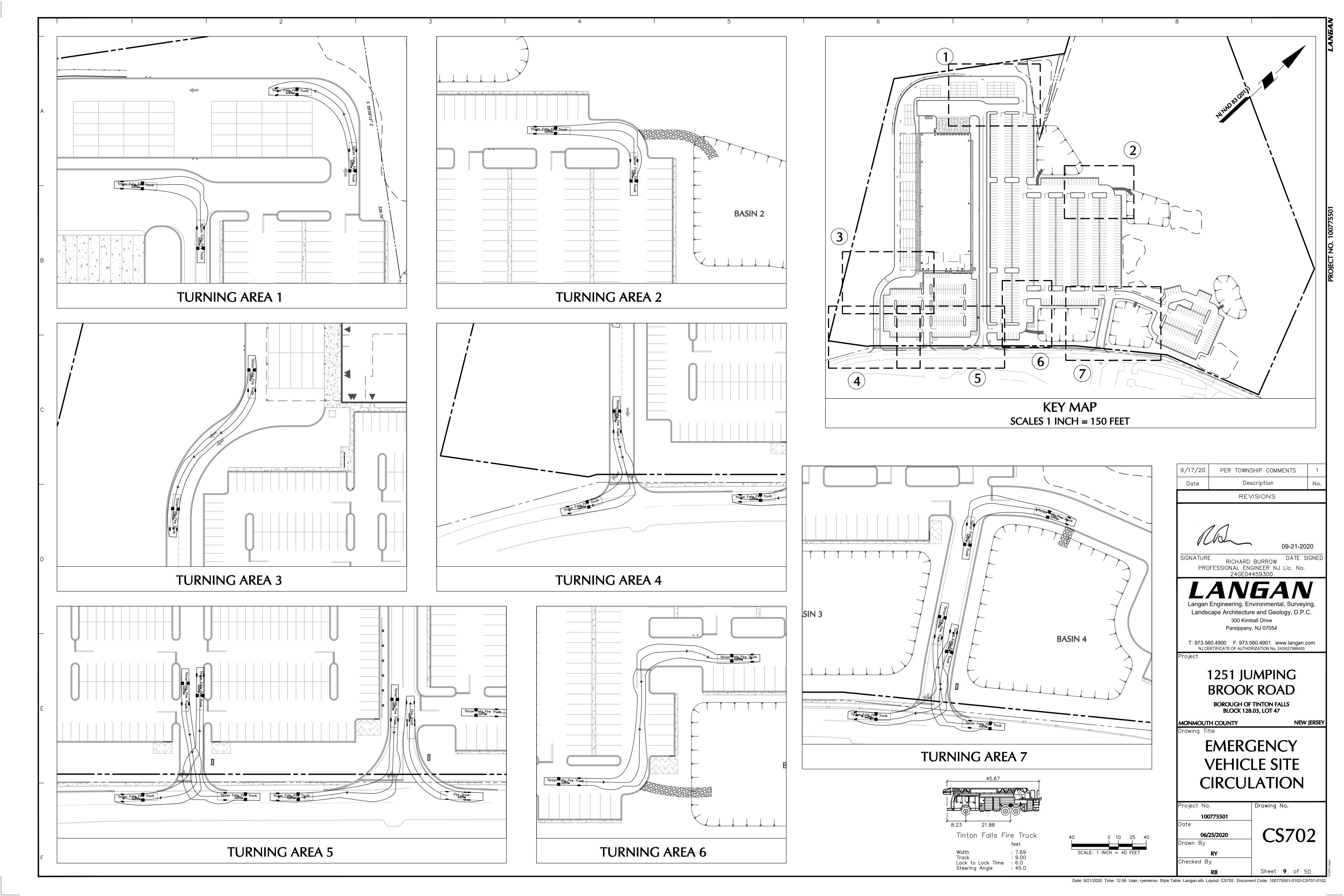


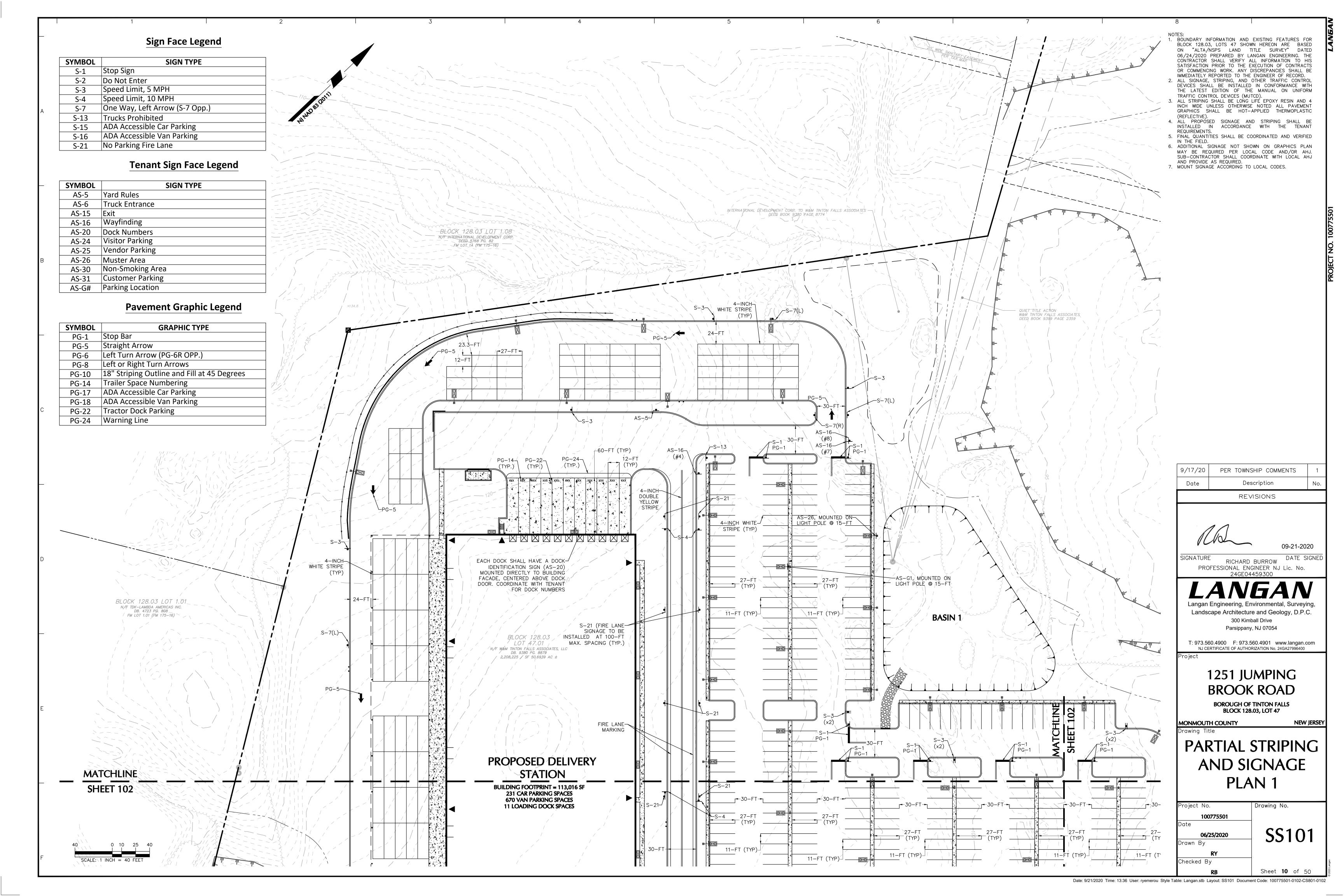


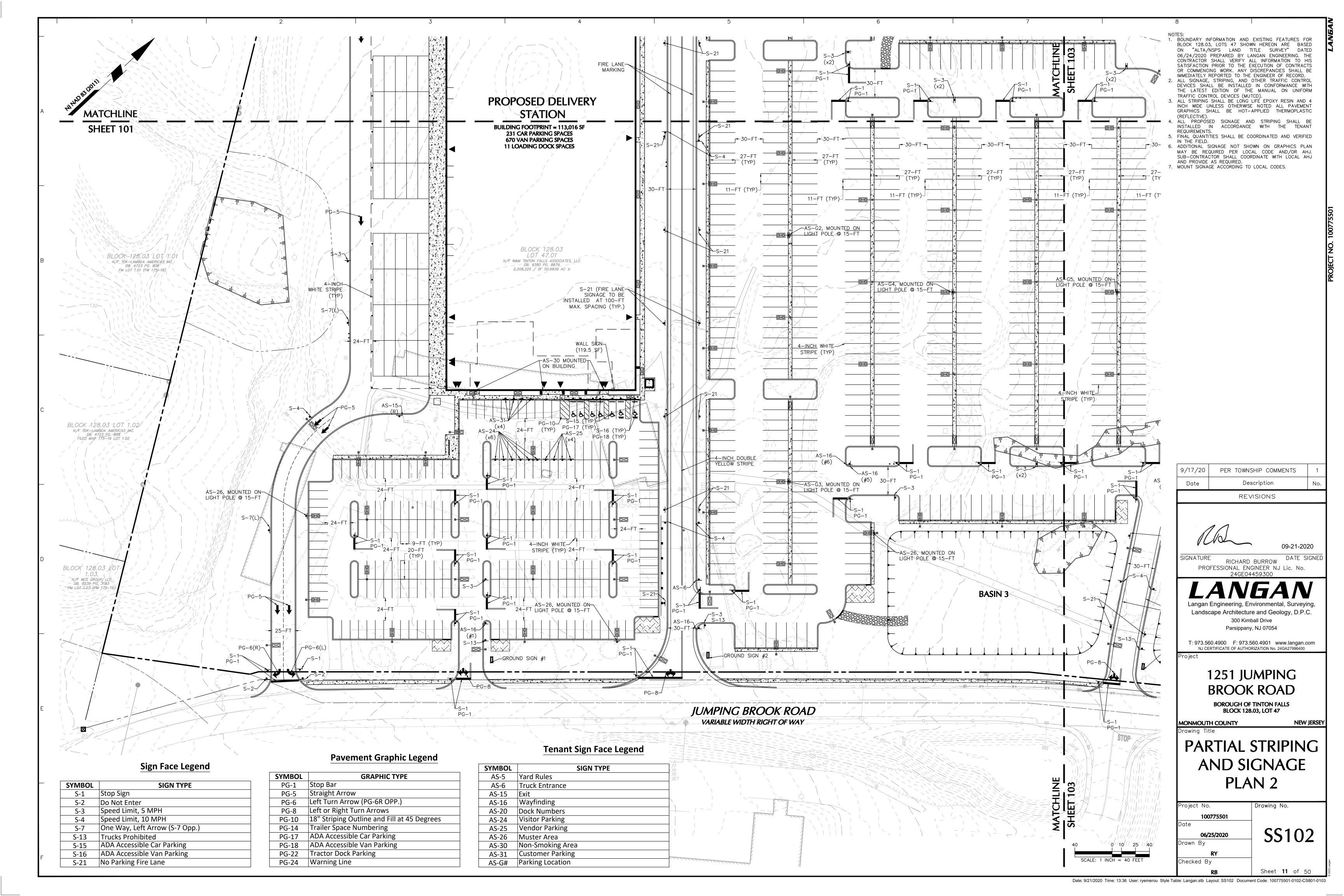


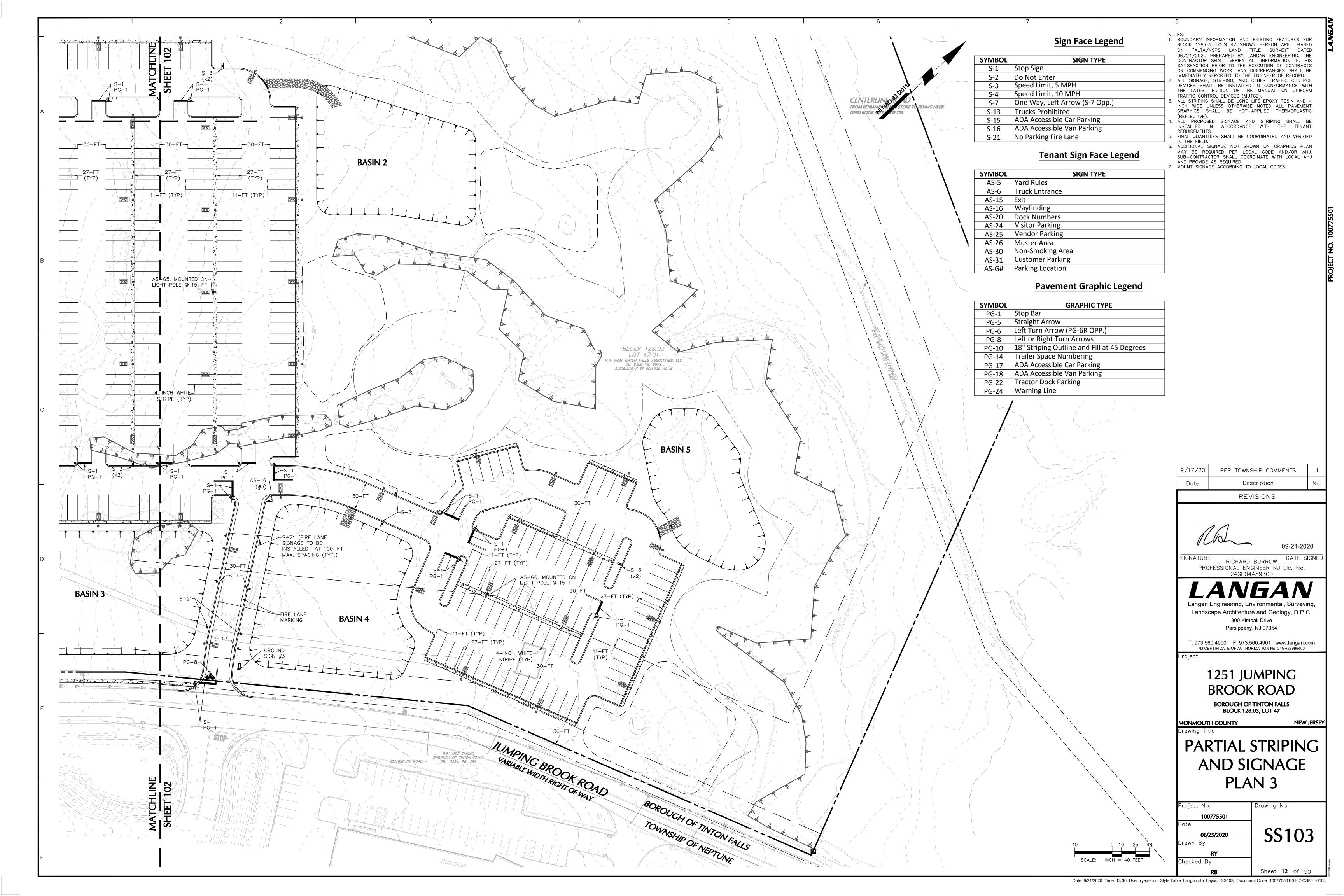


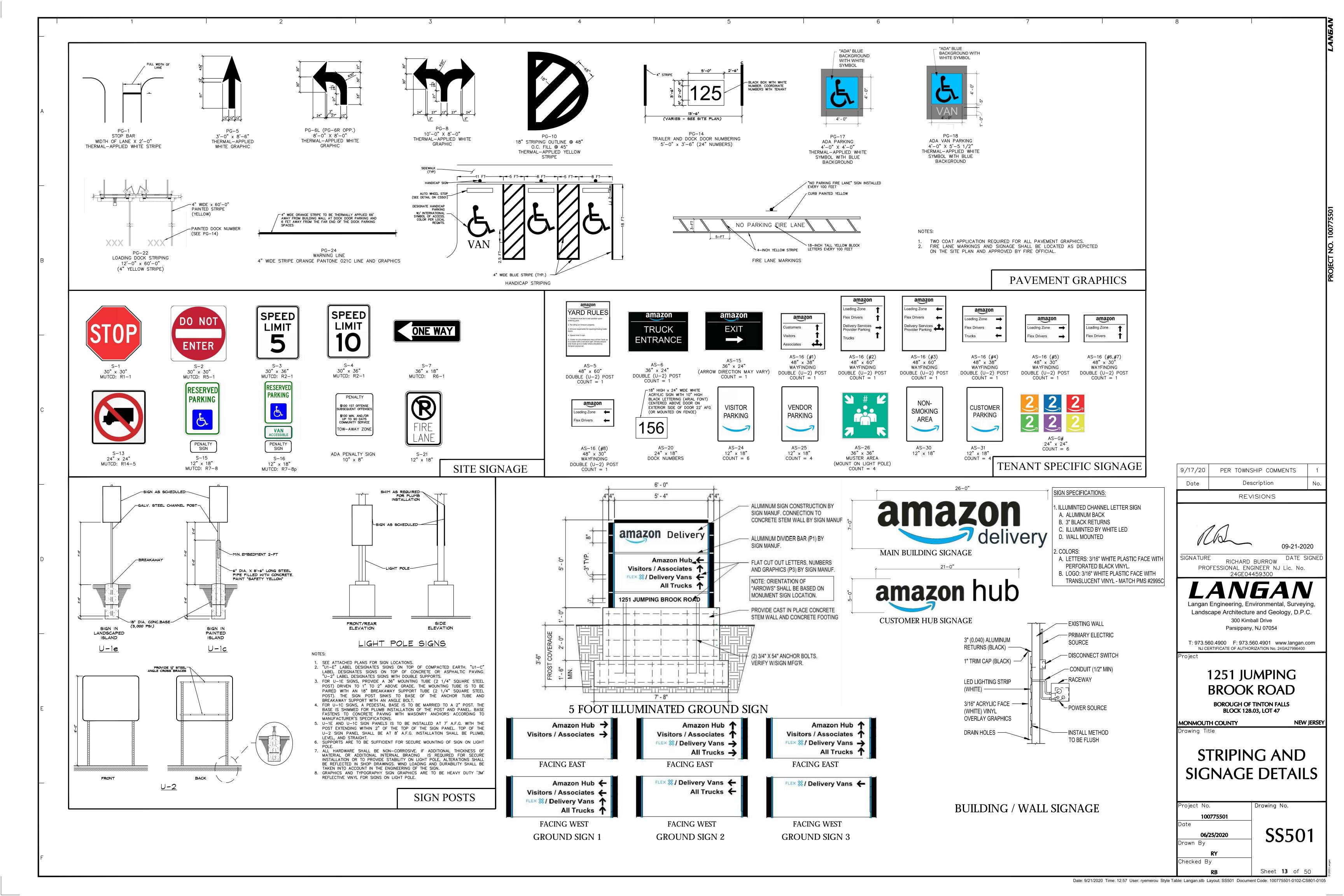


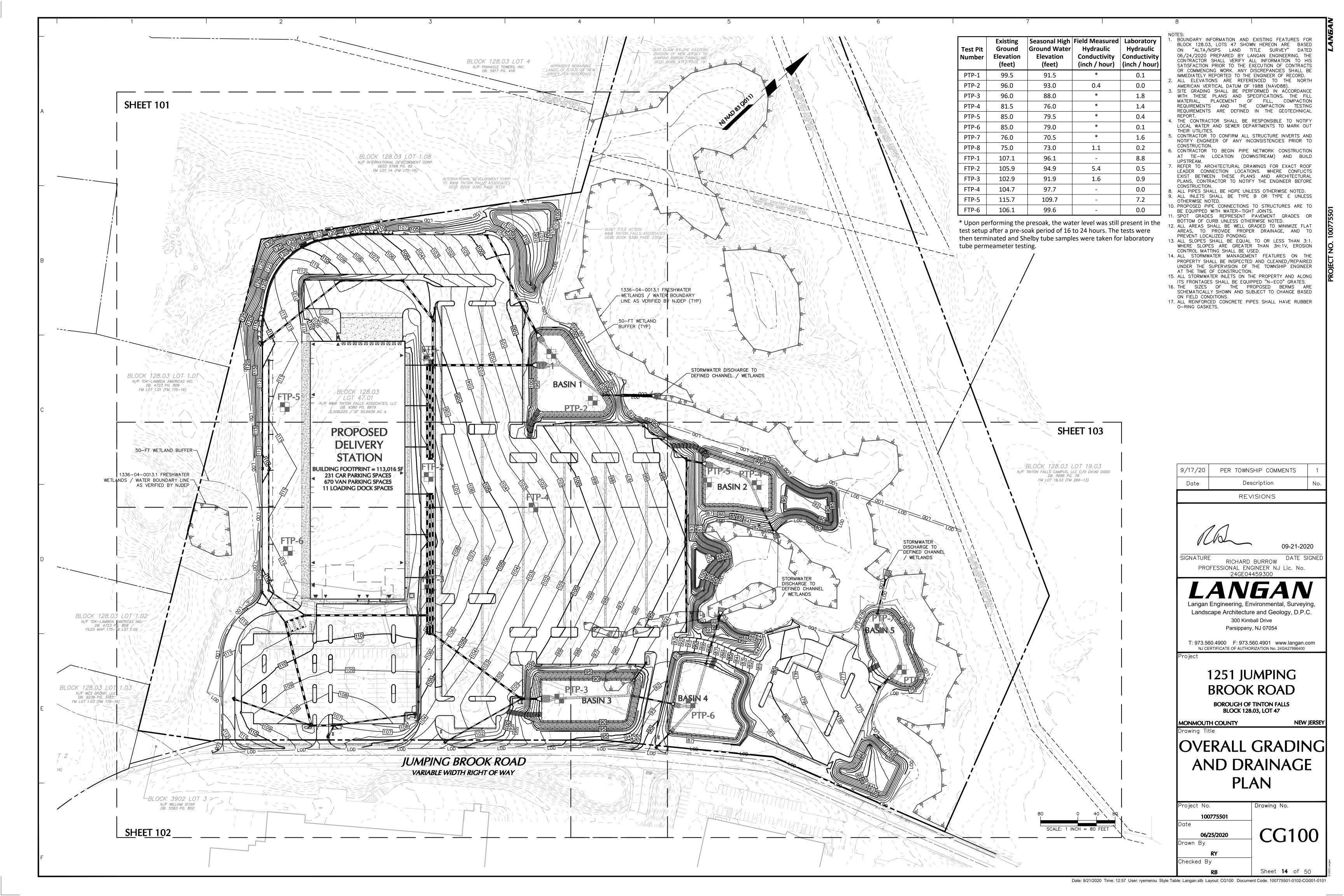


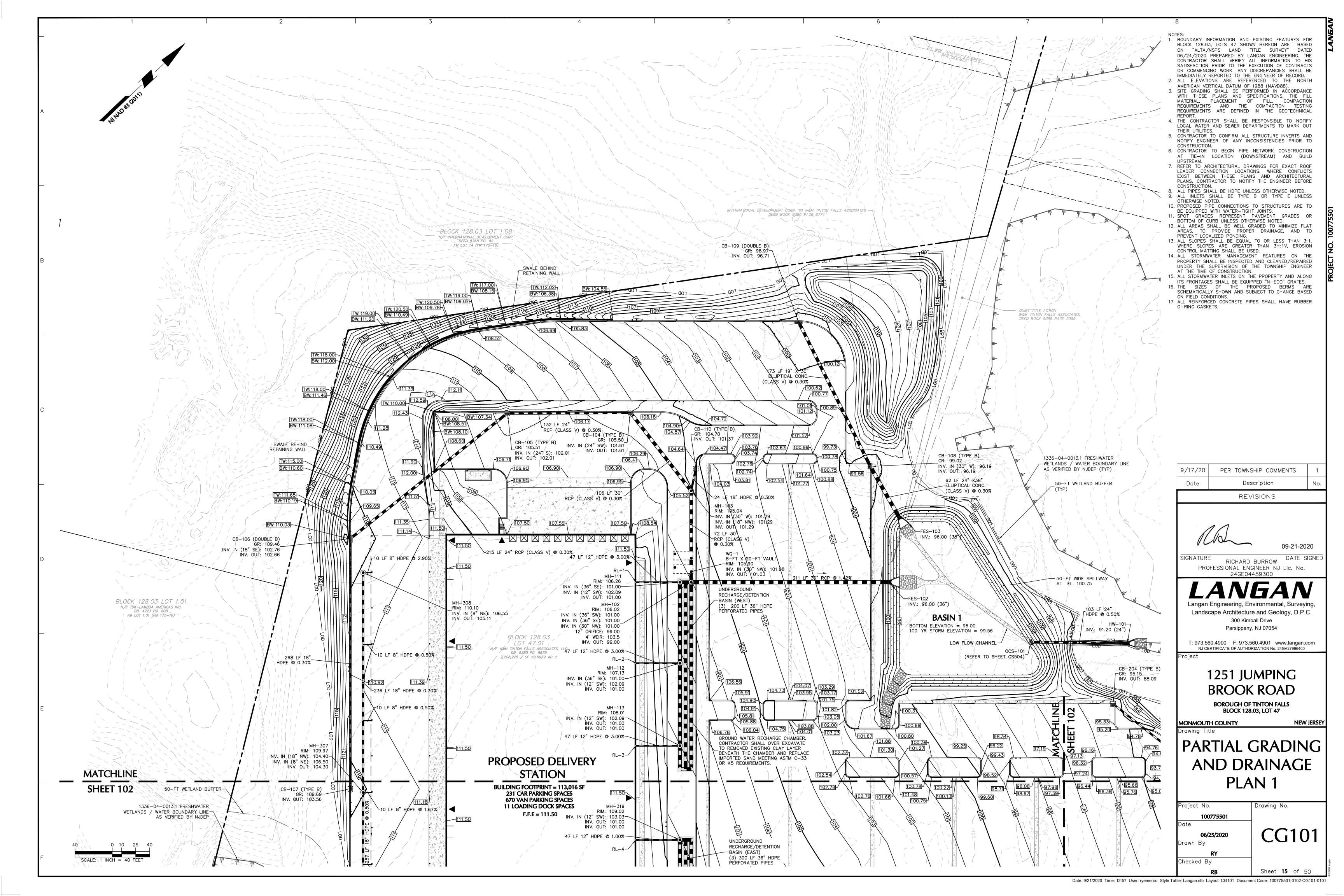


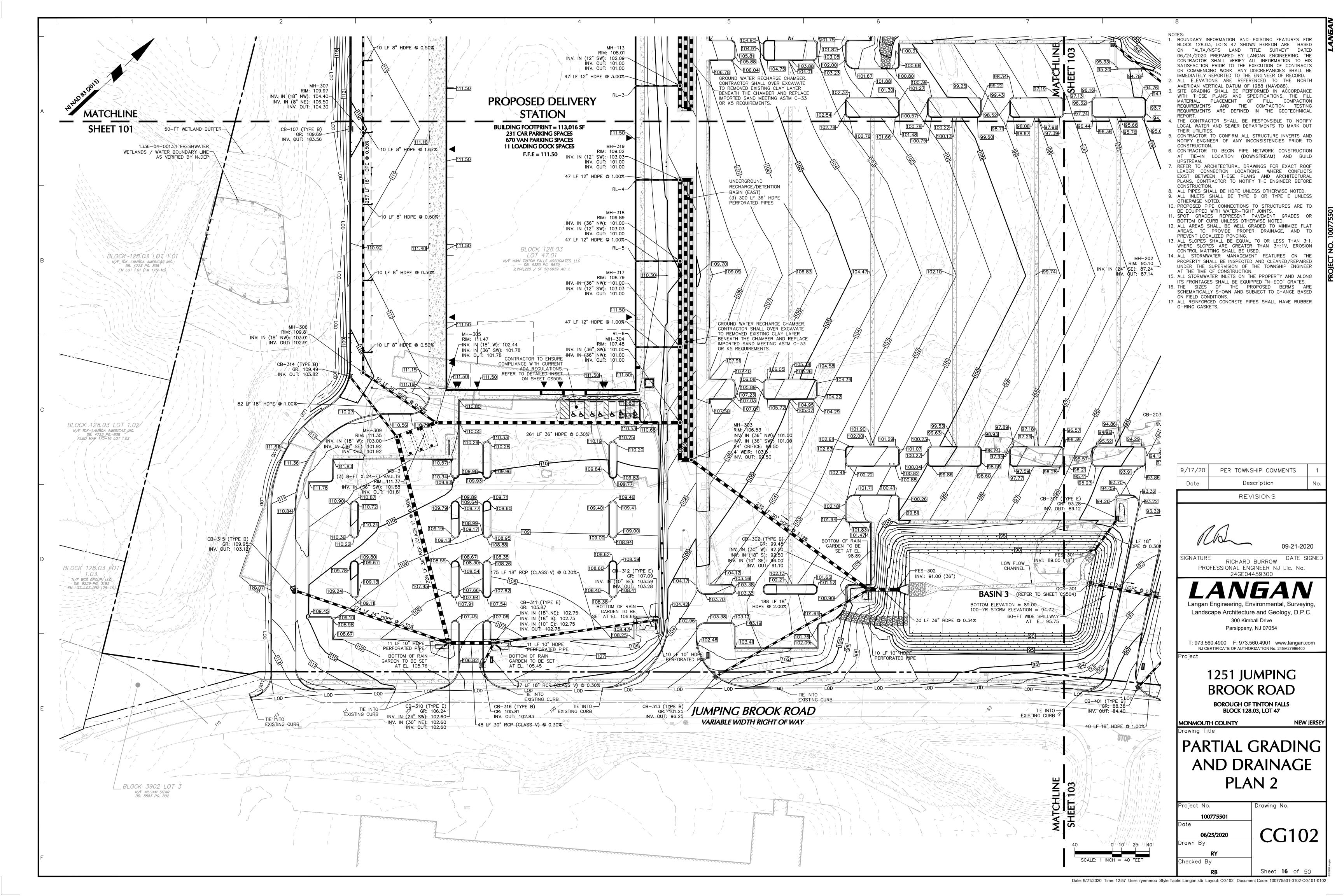


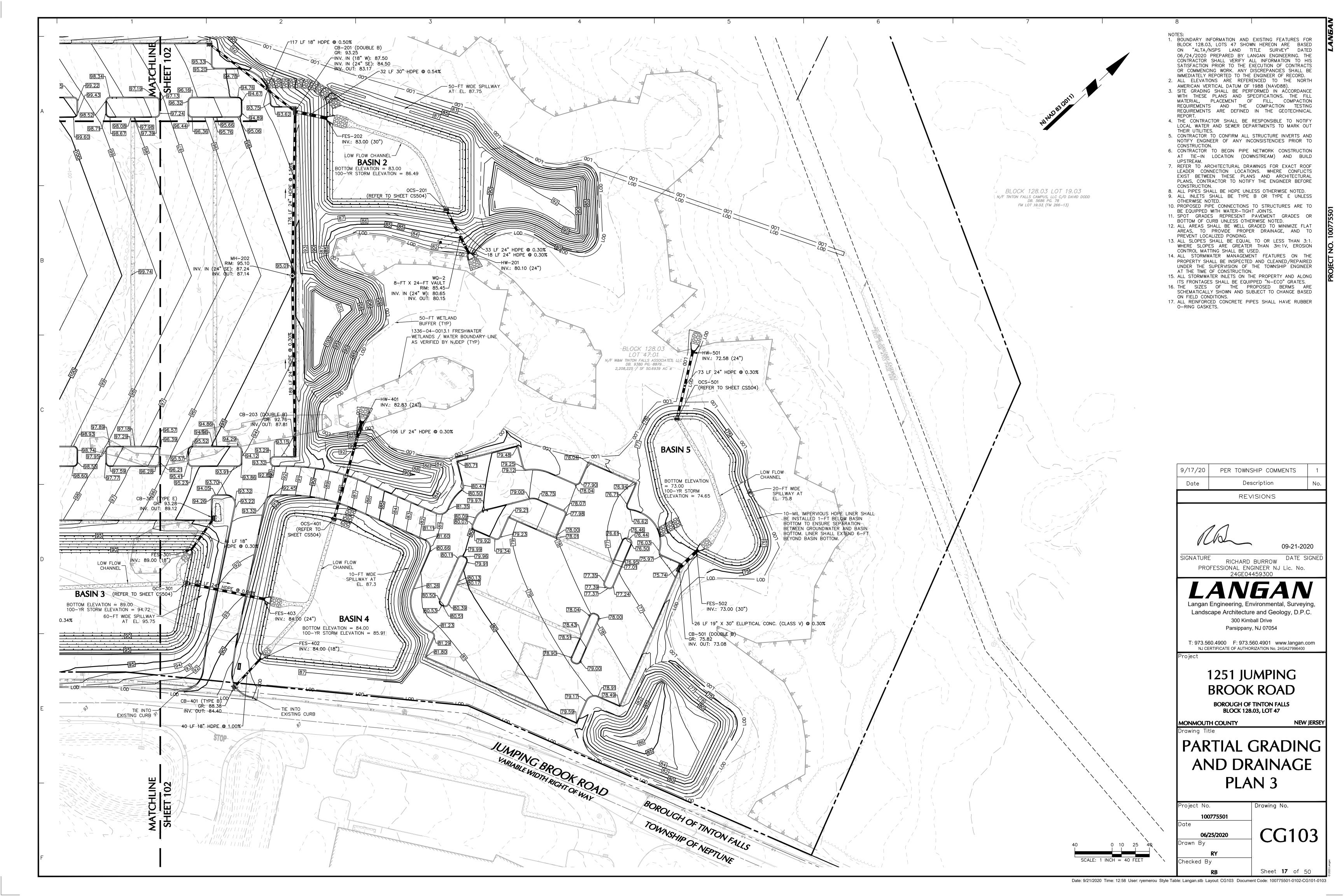


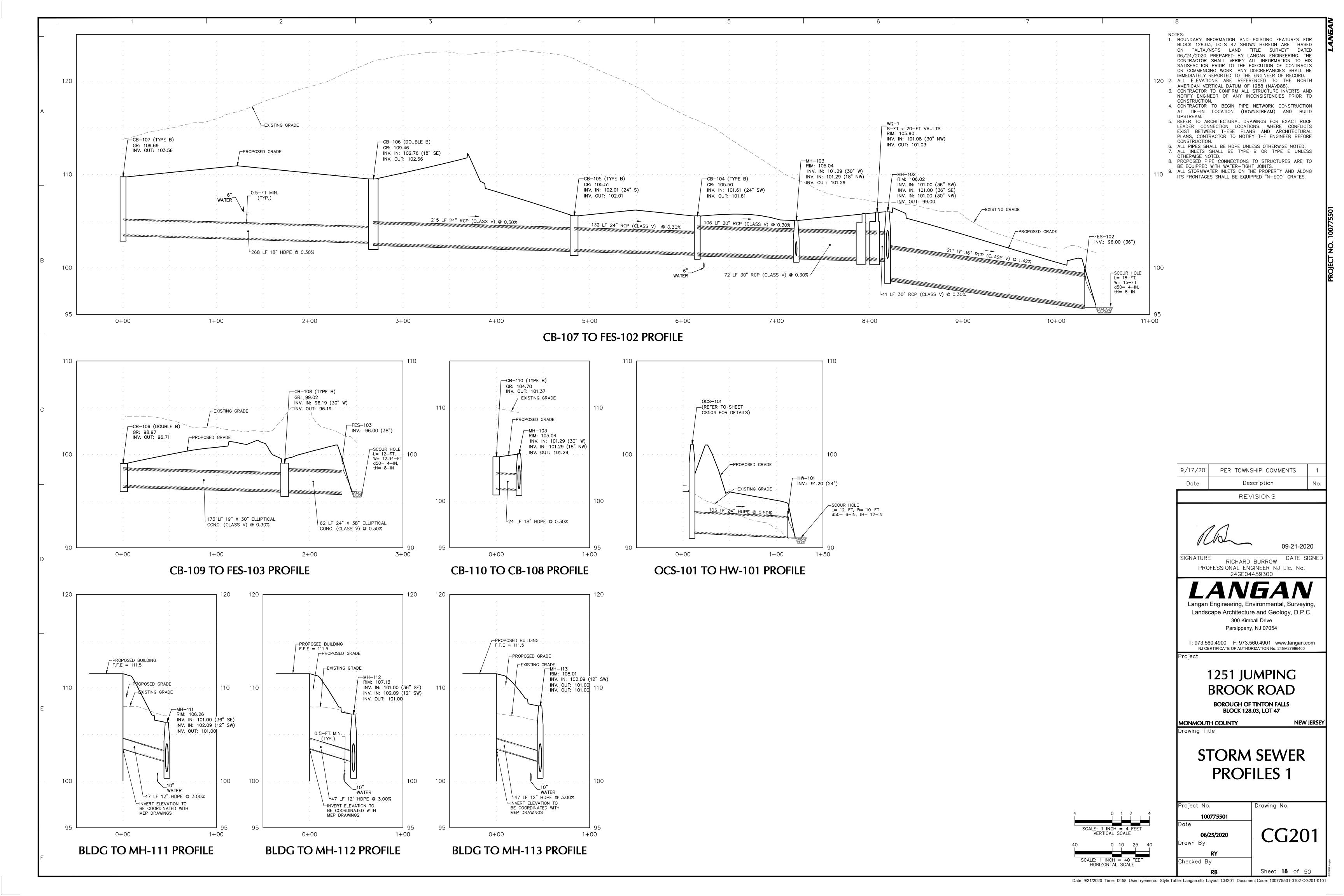


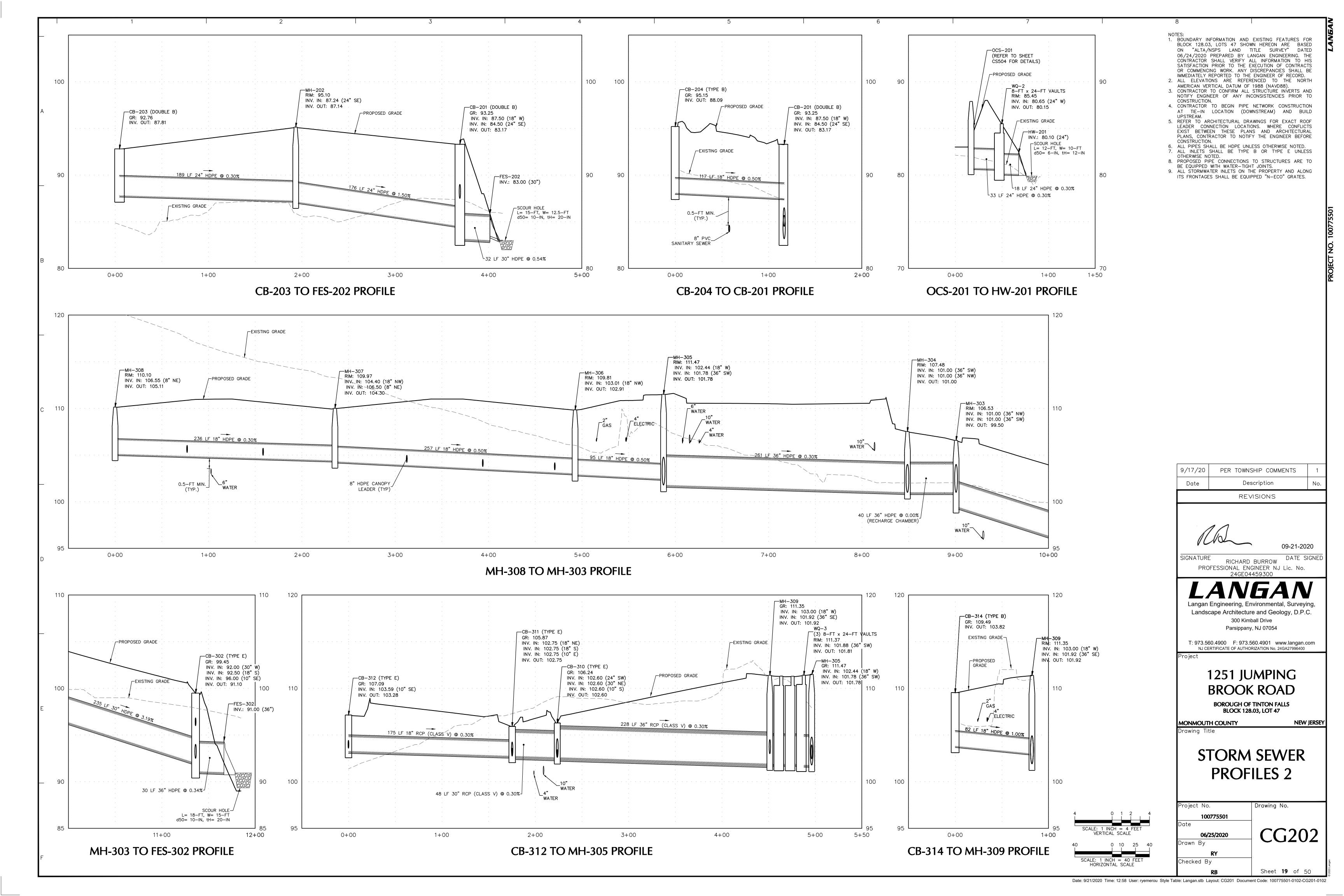


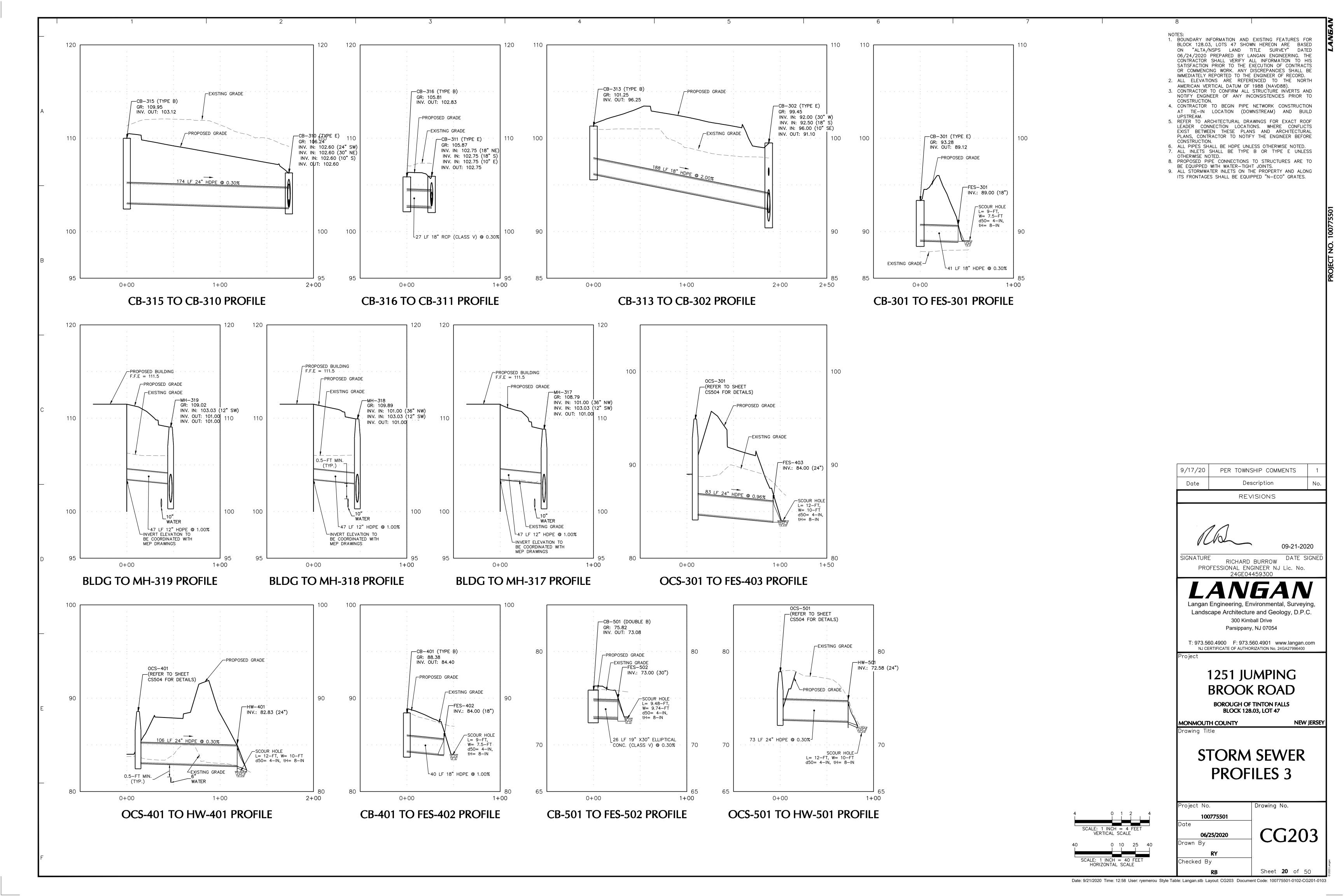


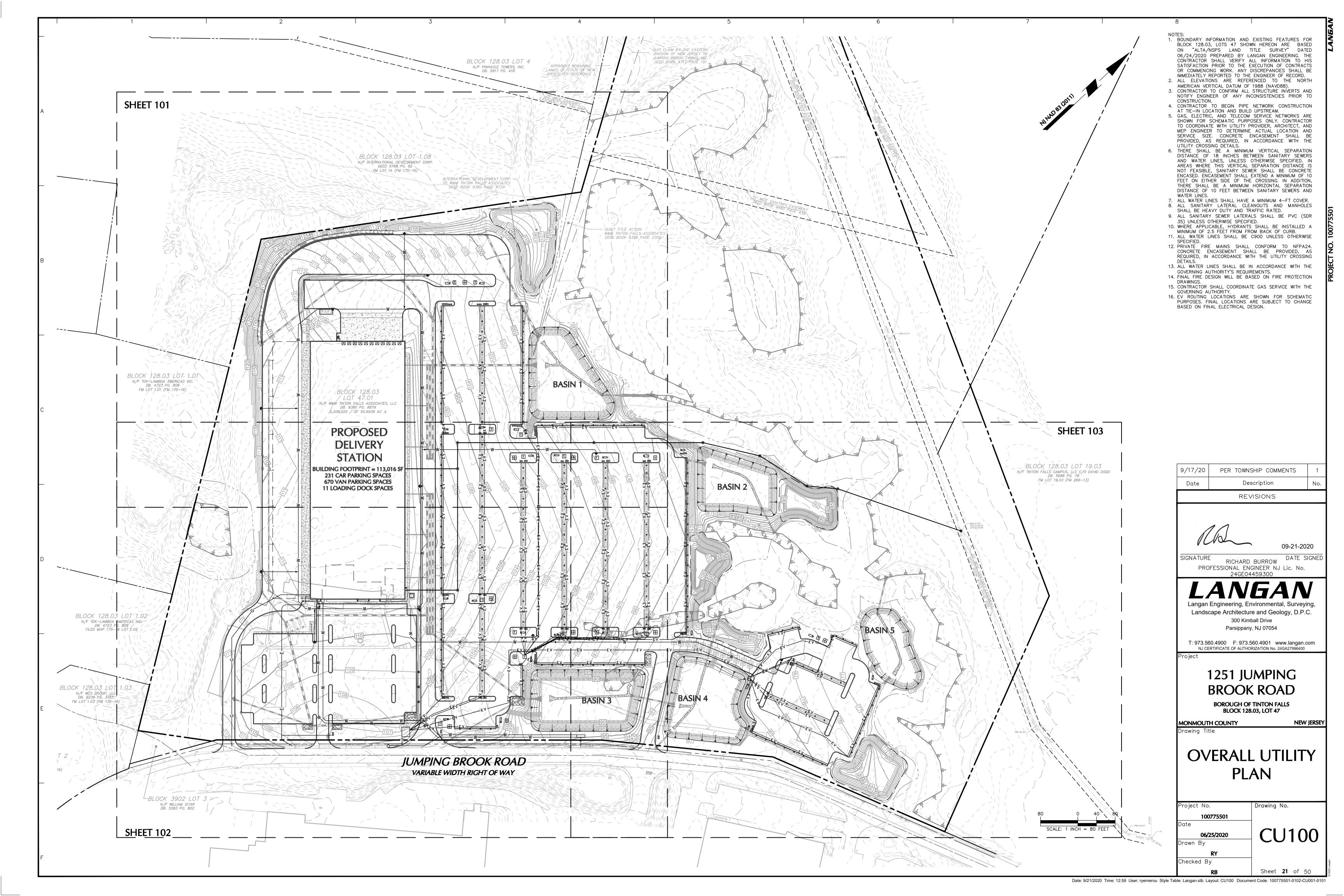


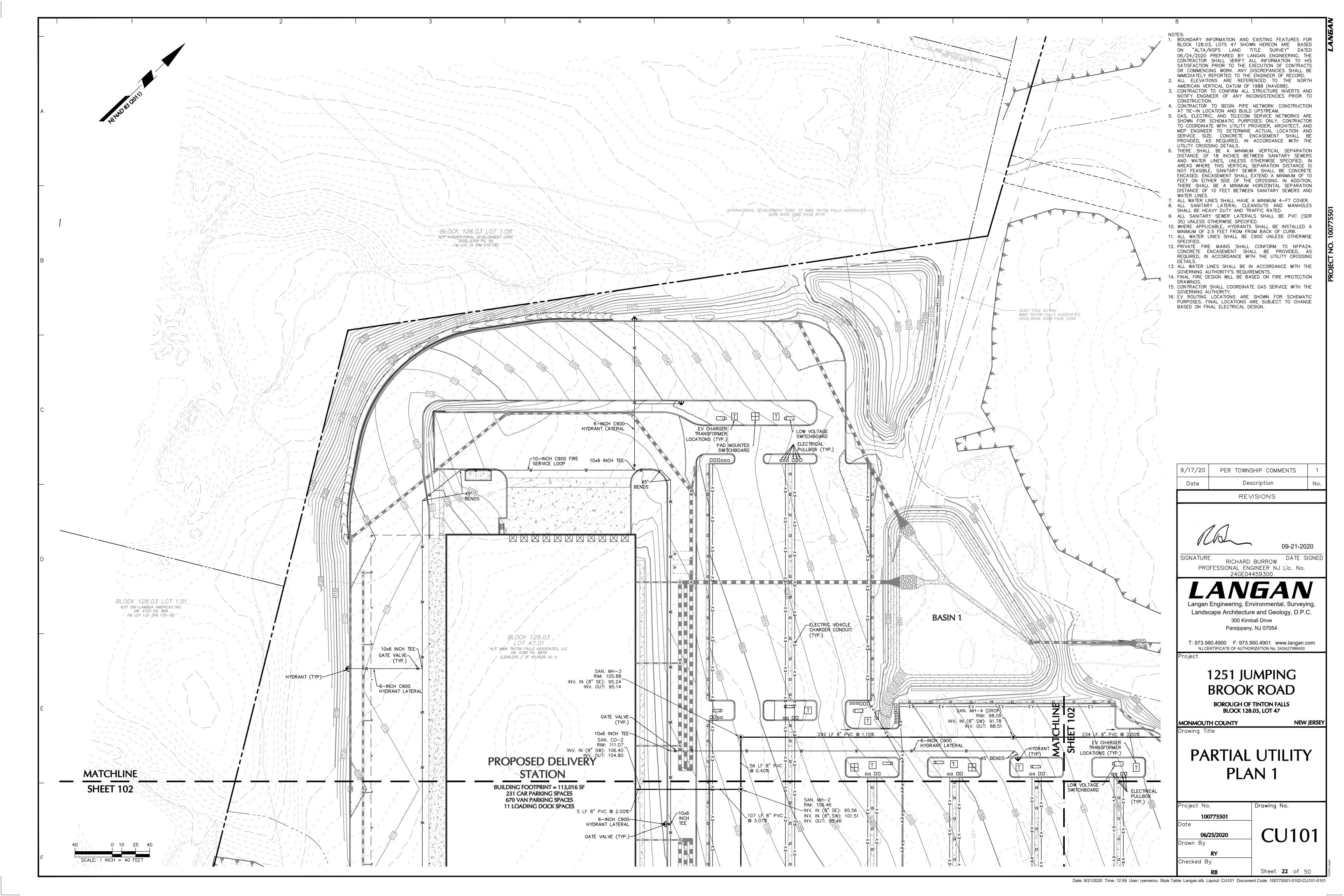


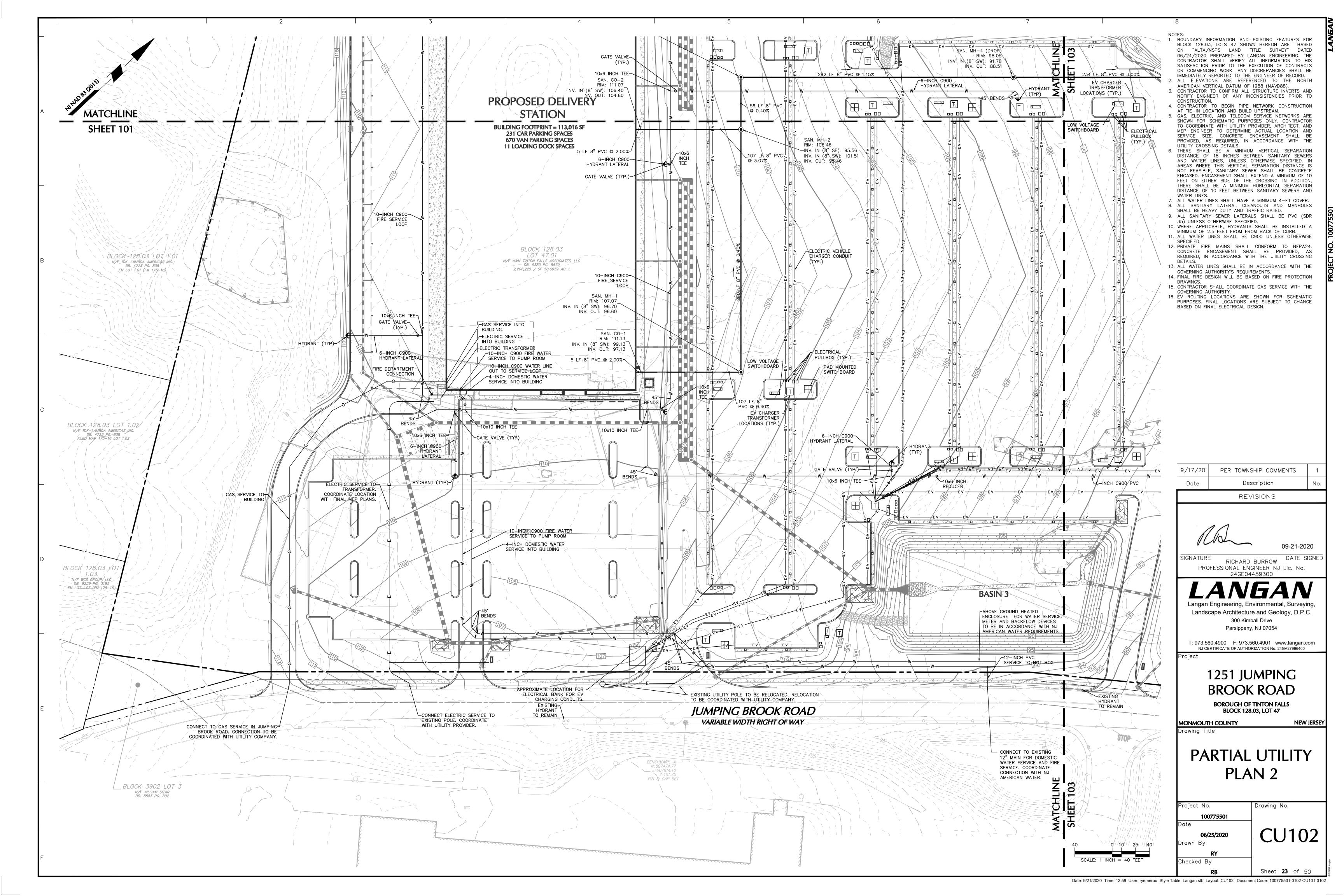


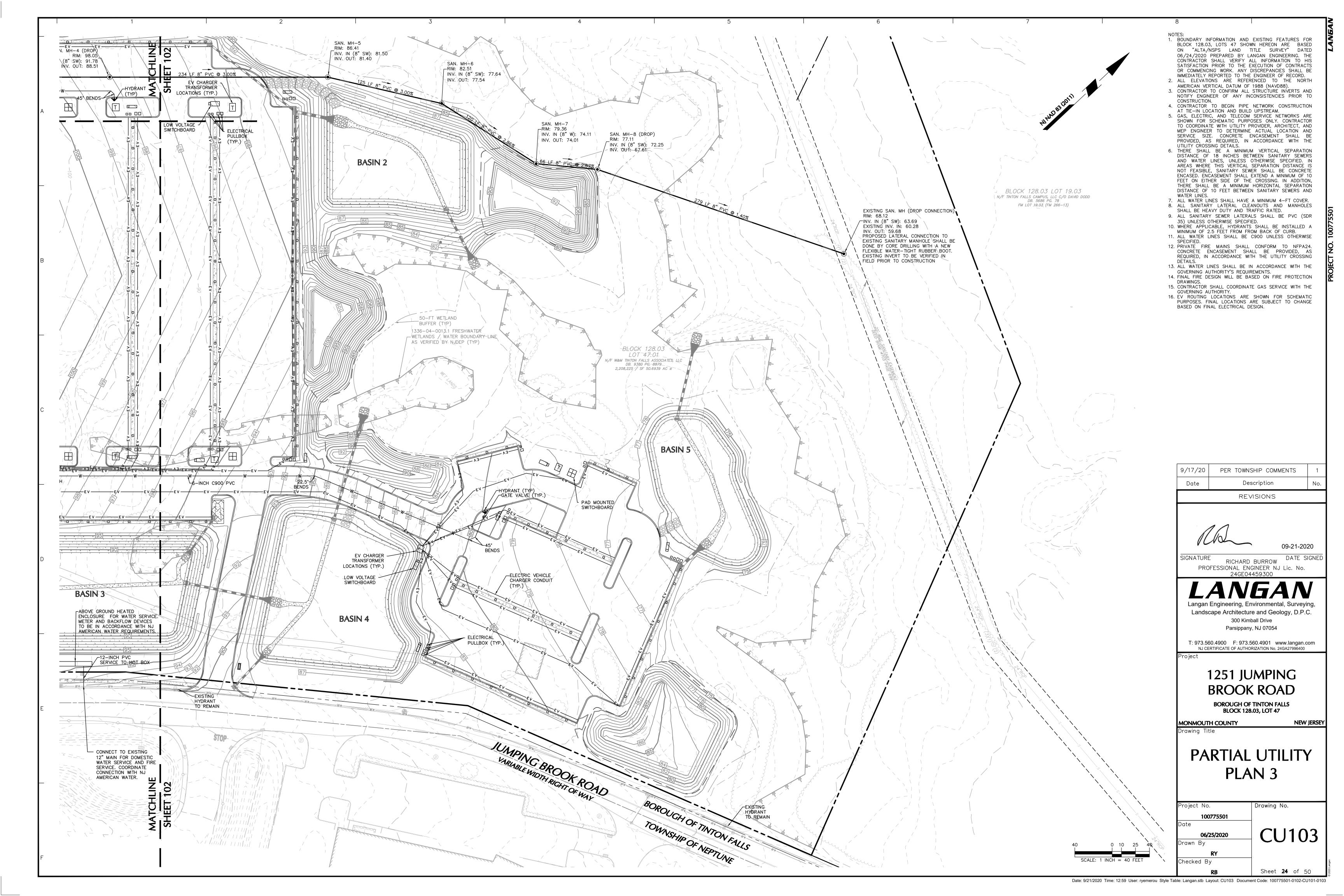


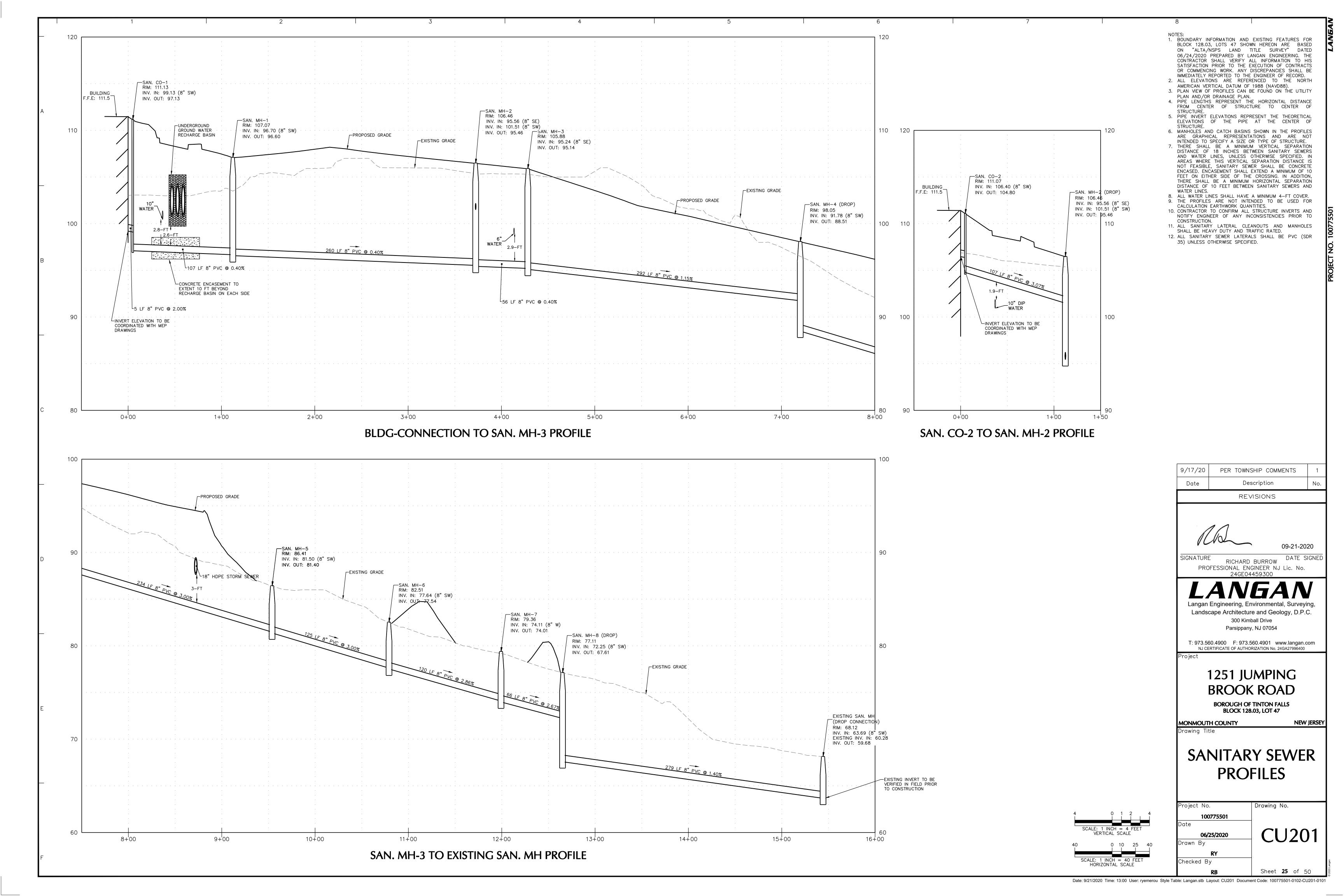


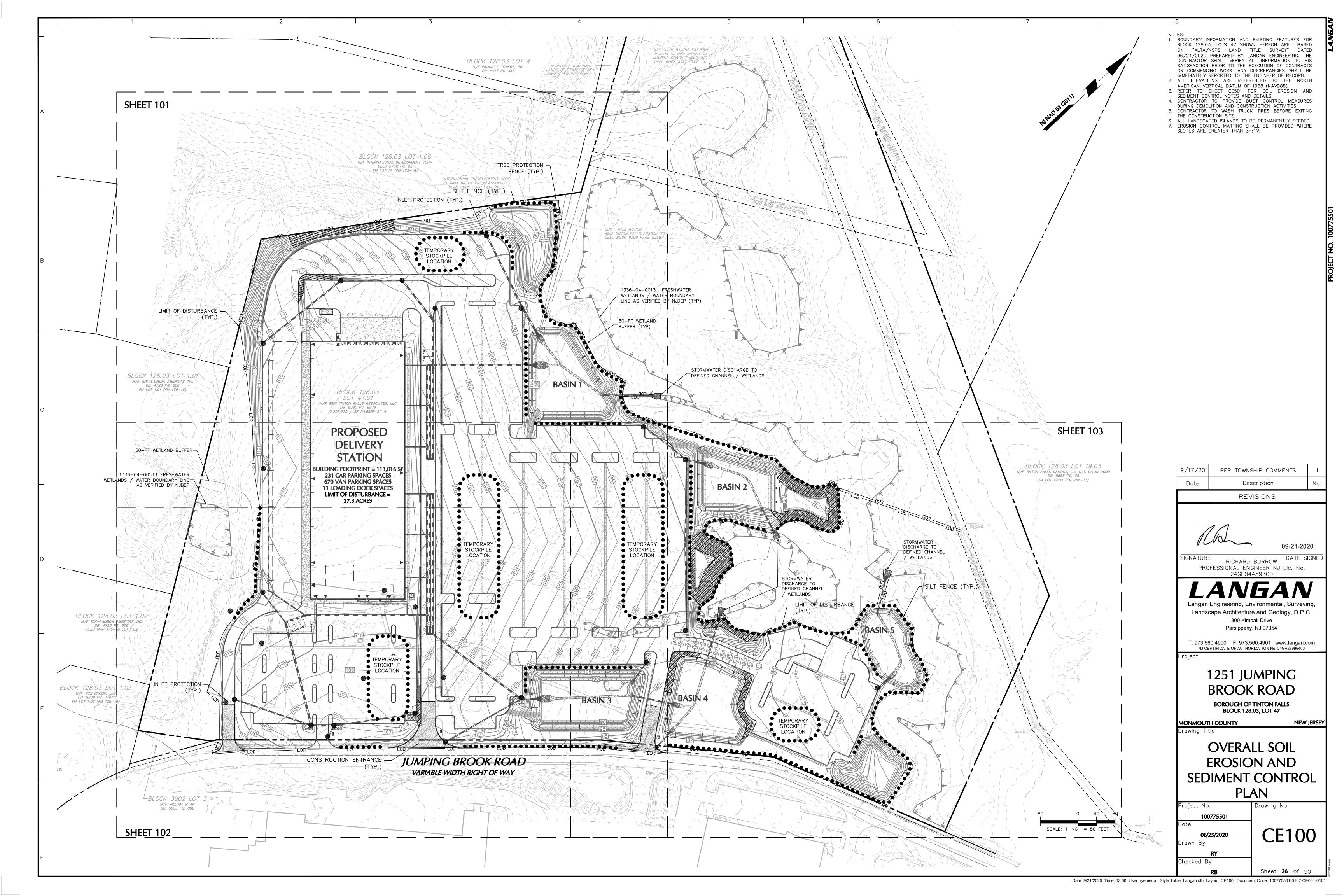


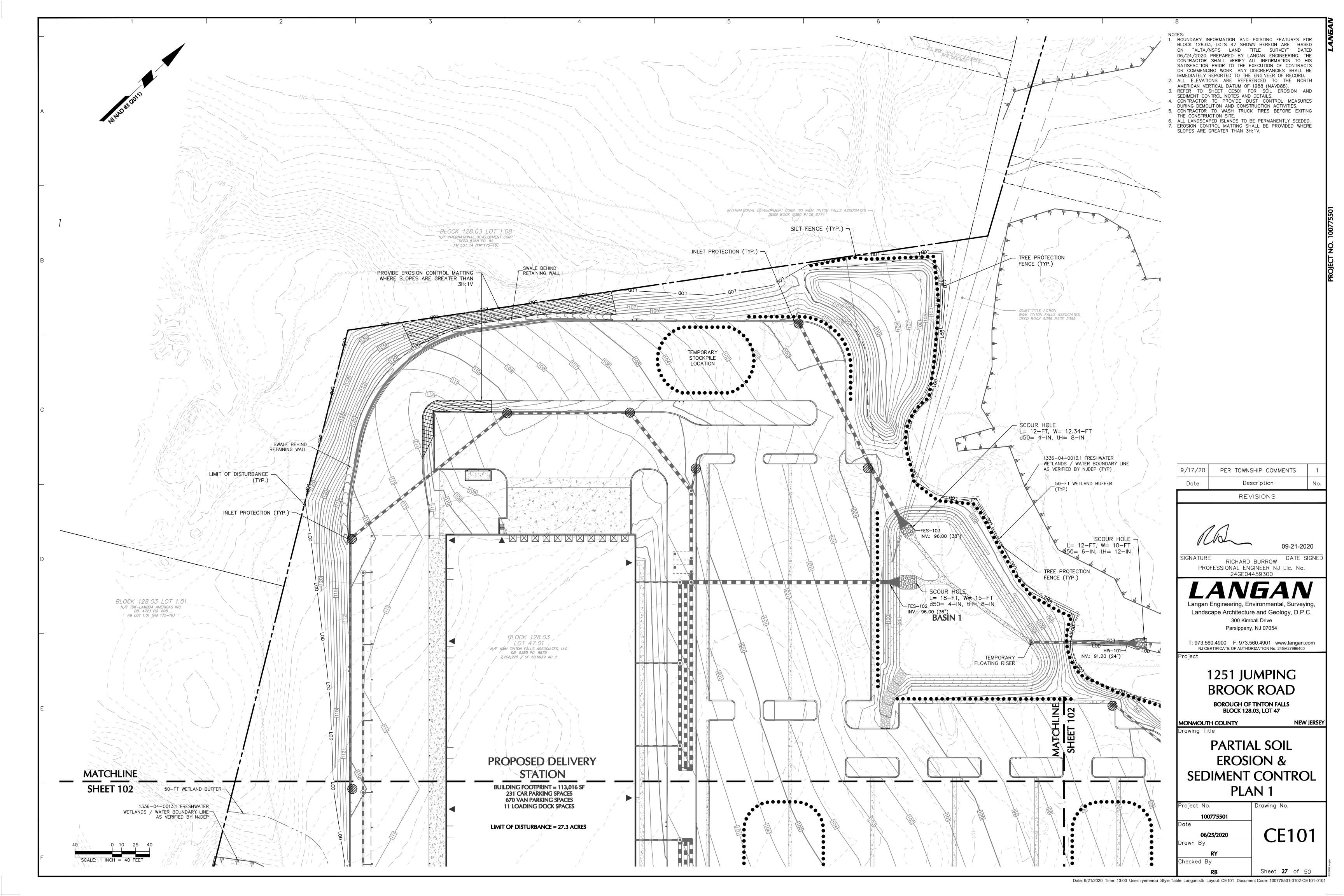


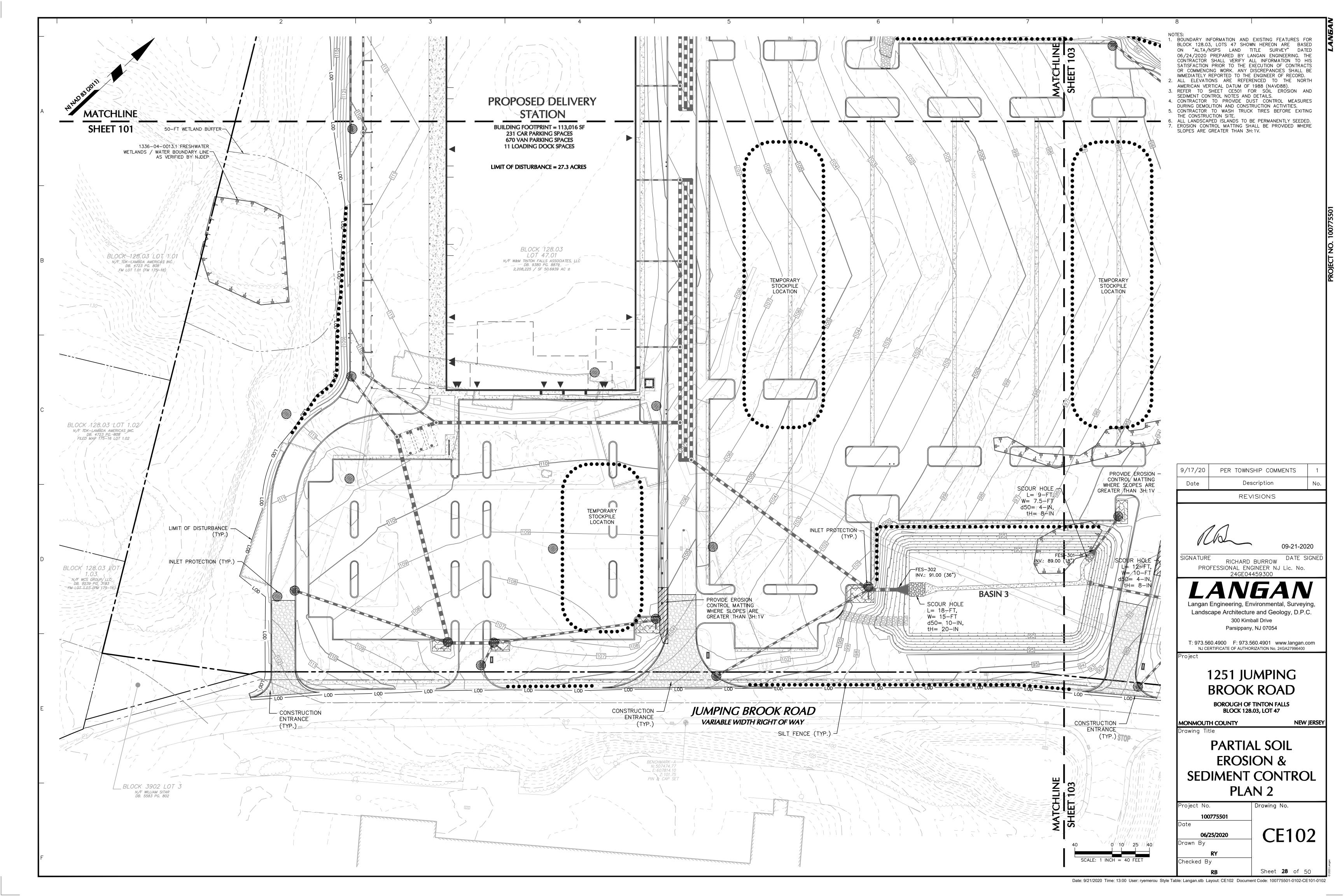


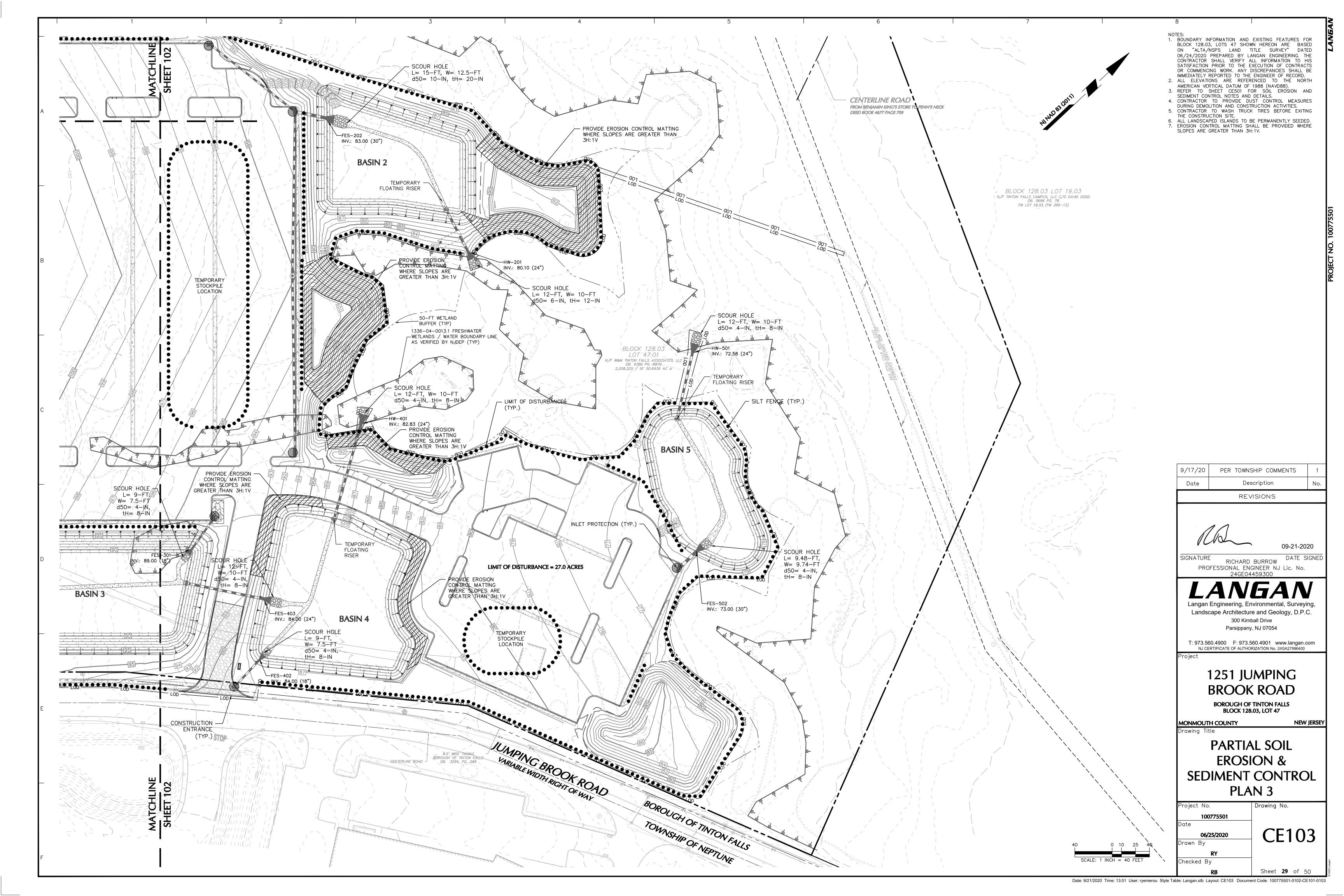


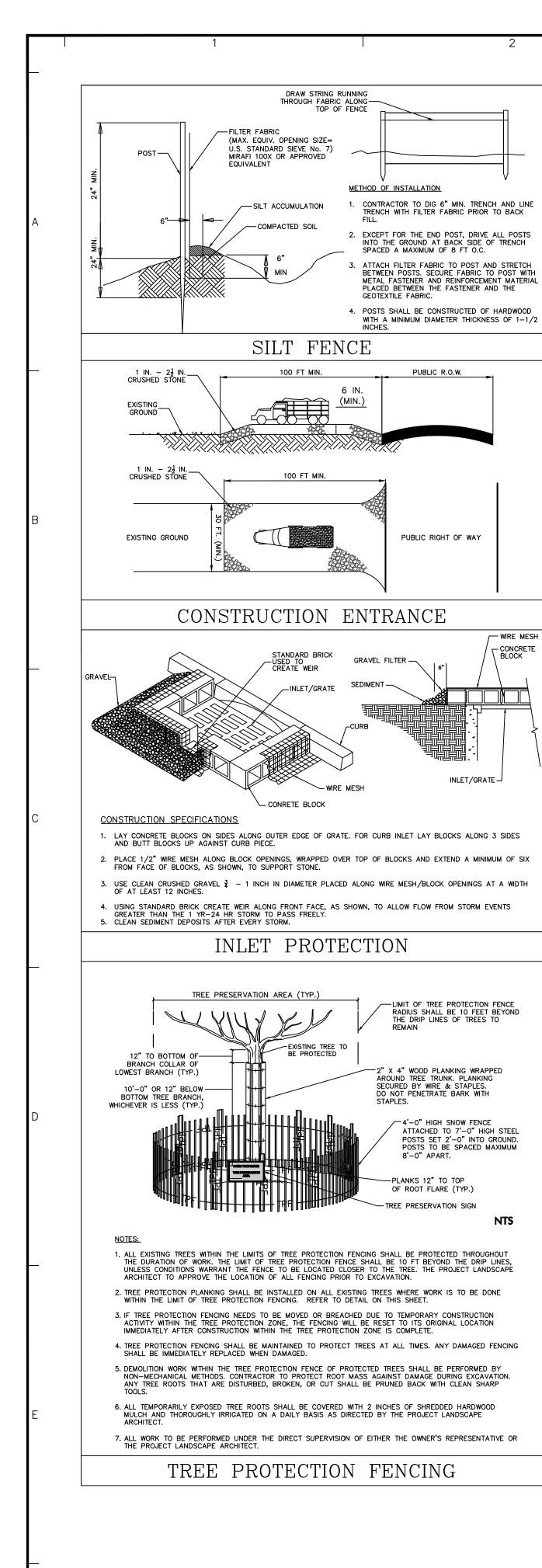


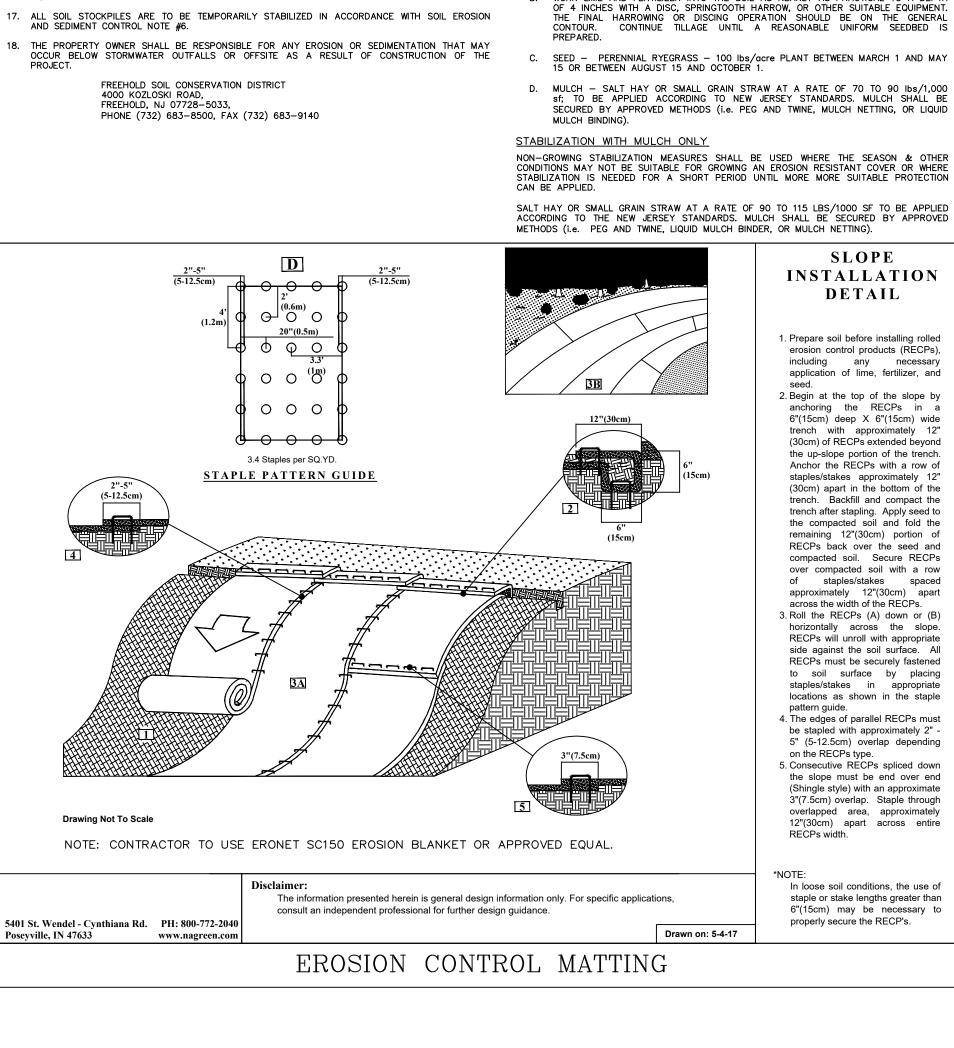












SOIL EROSION AND

SEDIMENT CONTROL NOTES

THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY—EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.

ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION

SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND

N.J.S.A 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH

THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.

ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE

MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE,

IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE

TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND

A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN

THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH TO TWO INCH (1" - 2") STONE FOR A MINIMUM

LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS

ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.

PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10)

AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE

CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE

. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY

SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT

OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12"OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24"WHERE TREES OR SHRUBS ARE TO BE PLANTED.

CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE

UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.

SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL

S. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN.

CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000

ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION

BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.

ACCORDING TO THE STANDARD FOR STABILIZATION WITH MULCH ONLY

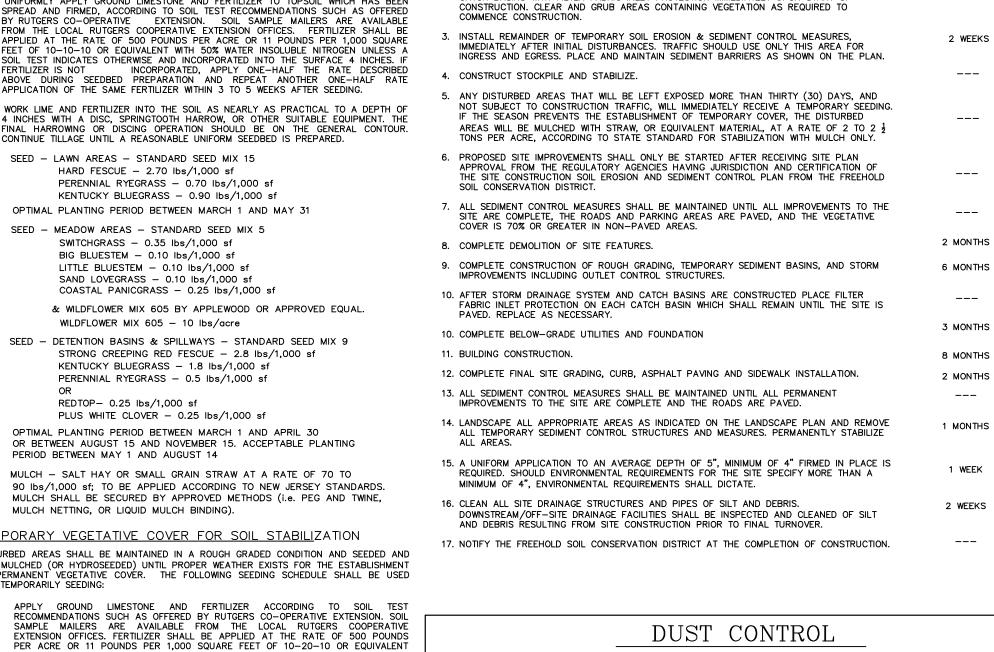
MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.

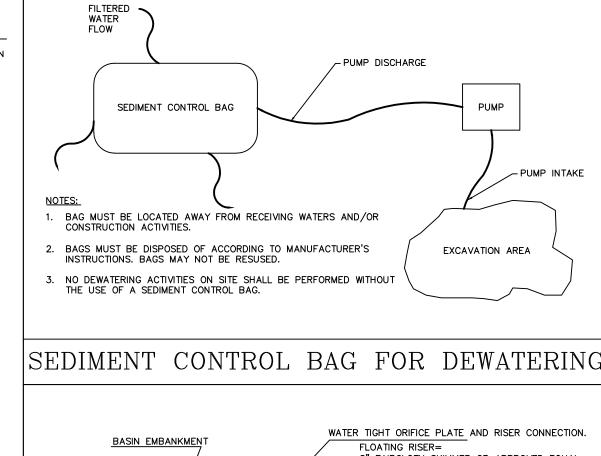
FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.

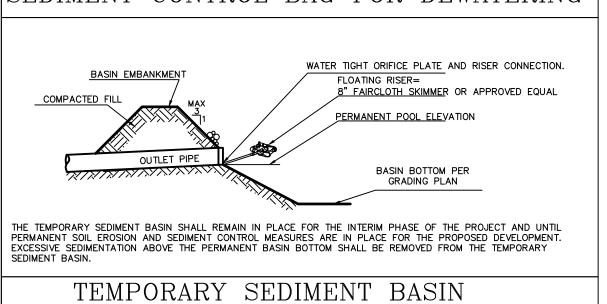
ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE

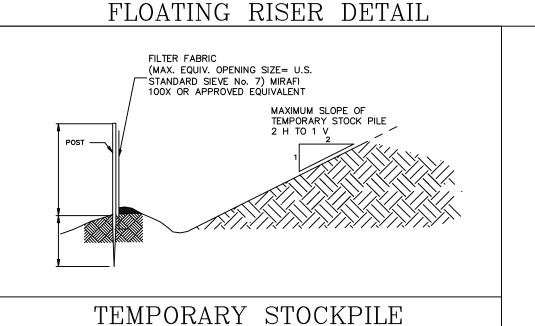
CONSTRUCTION OPERATIONS ACTIVITY DURATION NOTIFY THE FREEHOLD SOIL CONSERVATION DISTRICT IN WRITING AT LEAST 72 HOURS PRIOR TO ANY PROJECT PRE CONSTRUCTION MEETING OR SITE DISTURBANCES. INSTALL A CRUSHED STONE, VEHICLE WHEEL-CLEANING BLANKET OF 1 IN. TO 21/2 IN. WASHED STONE 6 IN. DEEP AT THE CONSTRUCTION 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 AND BARRIERS. EQUIP ALL EXISTING CATCH BASINS WITH FILTER FABRIC INLET PROTECTION IMMEDIATELY UPON START OF 1 WEEK CONSTRUCTION. CLEAR AND GRUB AREAS CONTAINING VEGETATION AS REQUIRED TO COMMENCE CONSTRUCTION. INSTALL REMAINDER OF TEMPORARY SOIL EROSION & SEDIMENT CONTROL MEASURES. 2 WEEKS 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 $\frac{1}{2}$ TONS PER ACRE, ACCORDING TO STATE STANDARD FOR STABILIZATION WITH MULCH ONL' 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 FREEHOLD 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. 2 MONTHS 8. COMPLETE DEMOLITION OF SITE FEATURES. 9. COMPLETE CONSTRUCTION OF ROUGH GRADING, TEMPORARY SEDIMENT BASINS, AND STORM 6 MONTHS IMPROVEMENTS INCLUDING OUTLET CONTROL STRUCTURES. 10. 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. 3 MONTHS 10. COMPLETE BELOW-GRADE UTILITIES AND FOUNDATION

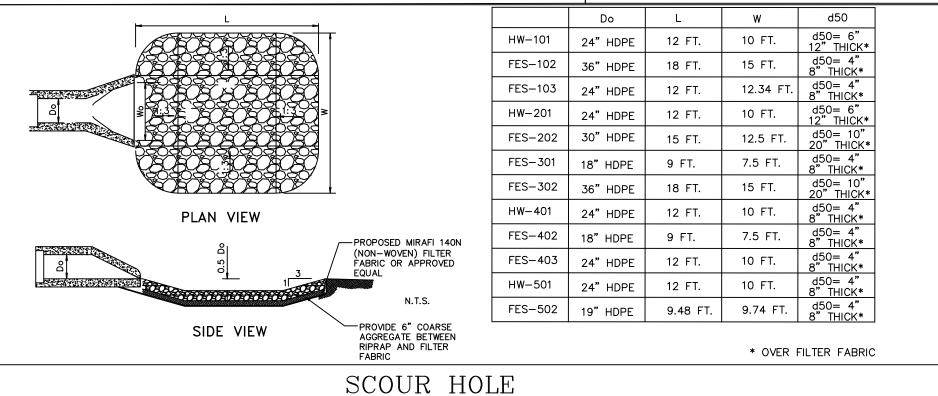
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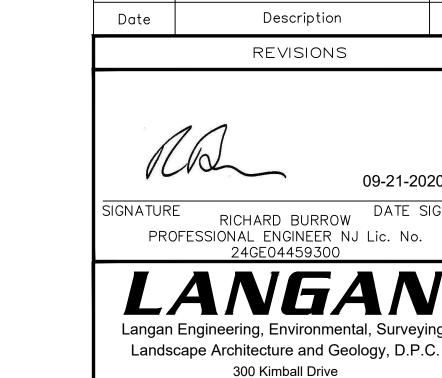












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PER TOWNSHIP COMMENTS

09-21-2020

DATE SIGNEI

NEW JERSEY

1251 JUMPING

MONMOUTH COUNTY

BROOK ROAD BOROUGH OF TINTON FALLS

BLOCK 128.03, LOT 47

|SOIL EROSION AND| **SEDIMENT** CONTROL DETAILS

Project No. Drawing No. 100775501 CE501 06/25/2020 Drawn By

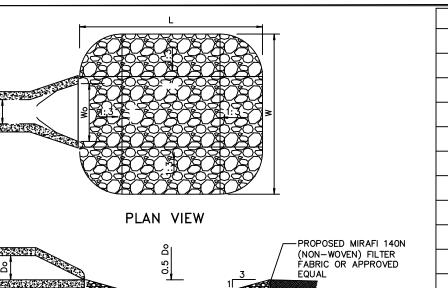
Sheet 30 of 50 Date: 9/21/2020 Time: 13:01 User: ryemerou Style Table: Langan.stb Layout: CE501 Document Code: 100775501-0102-CE501-0101

ANIONIC ASPHALT EMULSION LATEX EMULSION RESIN IN WATER

ACIDULATED SOY BEAN SOAP STICK

SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL



DUST CONTROL

 WATER DILUTION
 TYPE OF NOZZLE
 APPLY GALLONS/ACRE

 7:1
 COARSE SPRAY
 1200

 12.5:1
 FINE SPRAY
 235

 4:1
 FINE SPRAY
 300

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

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

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

APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS, MAY ALSO BE USED AS

remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12"(30cm) apart 3. Roll the RECPs (A) down or (B) horizontally across the slope RECPs will unroll with appropriate side against the soil surface. A RECPs must be securely fastened to soil surface by placing locations as shown in the staple

STABILIZATION NOTES

PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH "STANDARDS FOR SOIL EROSION AND

THE FOLLOWING SEEDING SCHEDULE SHOULD BE USED FOR PERMANENT SEEDING (UNLESS

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

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.

APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

KENTUCKY BLUEGRASS - 0.90 lbs/1,000 sf

OPTIMAL PLANTING PERIOD BETWEEN MARCH 1 AND MAY 31

D. SEED - LAWN AREAS - STANDARD SEED MIX 15

E. SEED - MEADOW AREAS - STANDARD SEED MIX 5

HARD FESCUE - 2.70 lbs/1,000 sf PERENNIAL RYEGRASS - 0.70 lbs/1,000 sf

SWITCHGRASS - 0.35 lbs/1,000 sf

BIG BLUESTEM - 0.10 lbs/1,000 sf

WILDFLOWER MIX 605 - 10 lbs/acre

REDTOP- 0.25 lbs/1,000 sf

PERIOD BETWEEN MAY 1 AND AUGUST 14

MULCH NETTING, OR LIQUID MULCH BINDING).

FOR TEMPORARILY SEEDING:

LITTLE BLUESTEM - 0.10 lbs/1.000 sf

SAND LOVEGRASS - 0.10 lbs/1,000 sf

COASTAL PANICGRASS - 0.25 lbs/1,000 sf

F. SEED - DETENTION BASINS & SPILLWAYS - STANDARD SEED MIX 9

KENTUCKY BLUEGRASS - 1.8 lbs/1,000 sf

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

MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.

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,

DISTURBED AREAS SHALL BE MAINTAINED IN A ROUGH GRADED CONDITION AND SEEDED AND

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

PERMANENT VEGETATIVE COVÉR. THE FOLLOWING SEEDING SCHEDULE SHALL BE USED

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

PERENNIAL RYEGRASS - 0.5 lbs/1,000 sf

STRONG CREEPING RED FESCUE - 2.8 lbs/1,000 sf

& WILDFLOWER MIX 605 BY APPLEWOOD OR APPROVED EQUAL.

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

SEDIMENT CONTROL IN NEW JERSEY

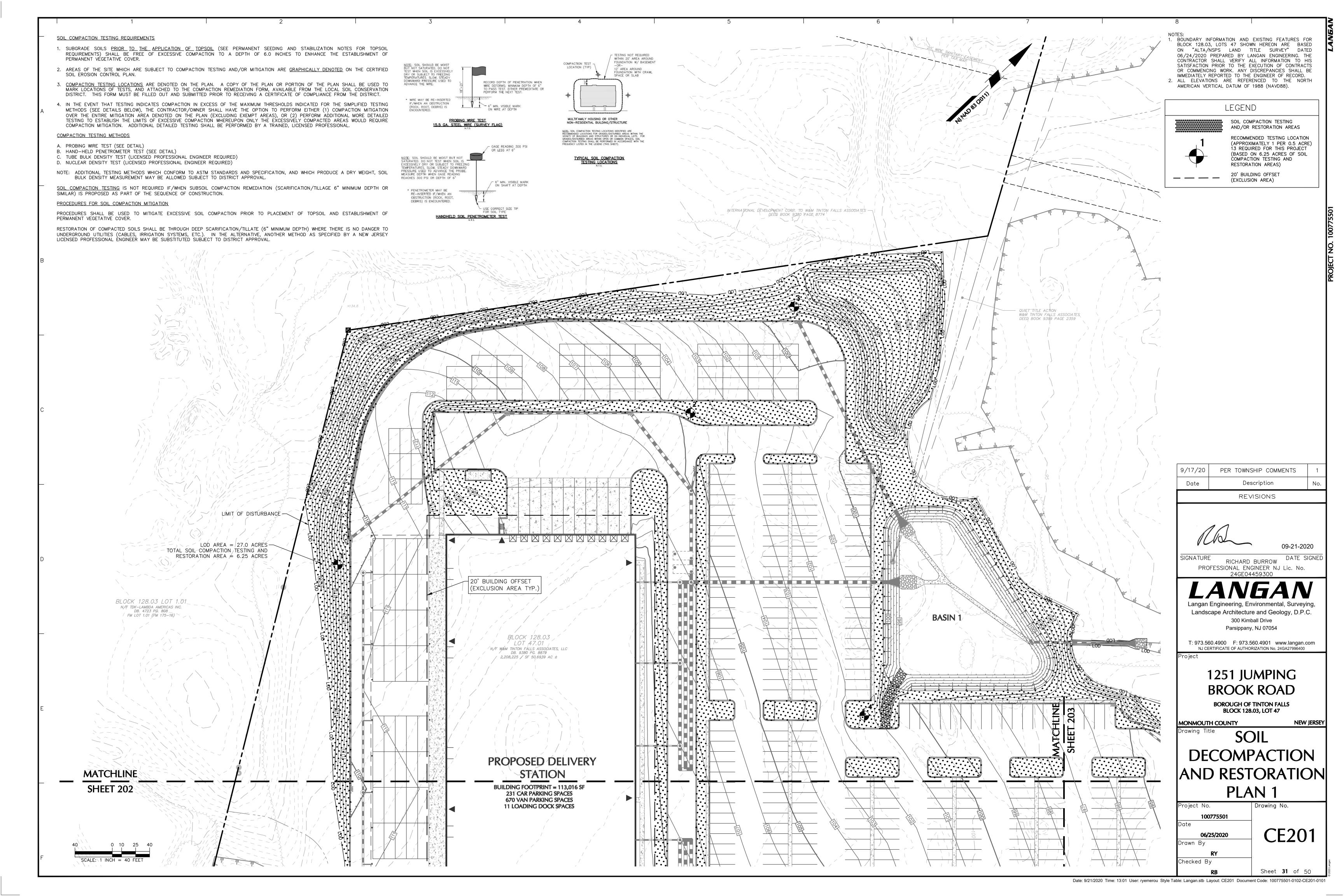
A. APPLY TOPSOIL TO A DEPTH OF 4".

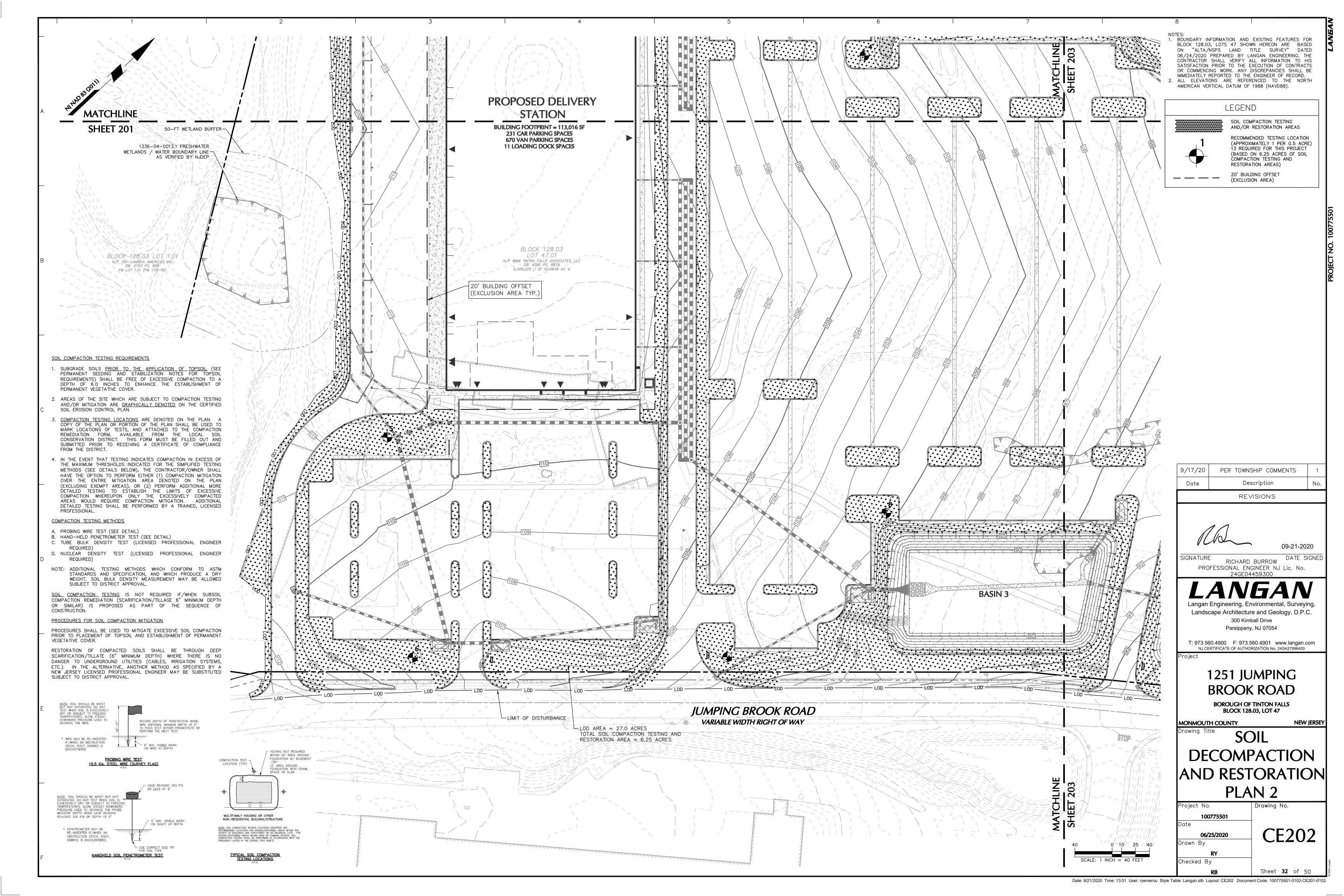
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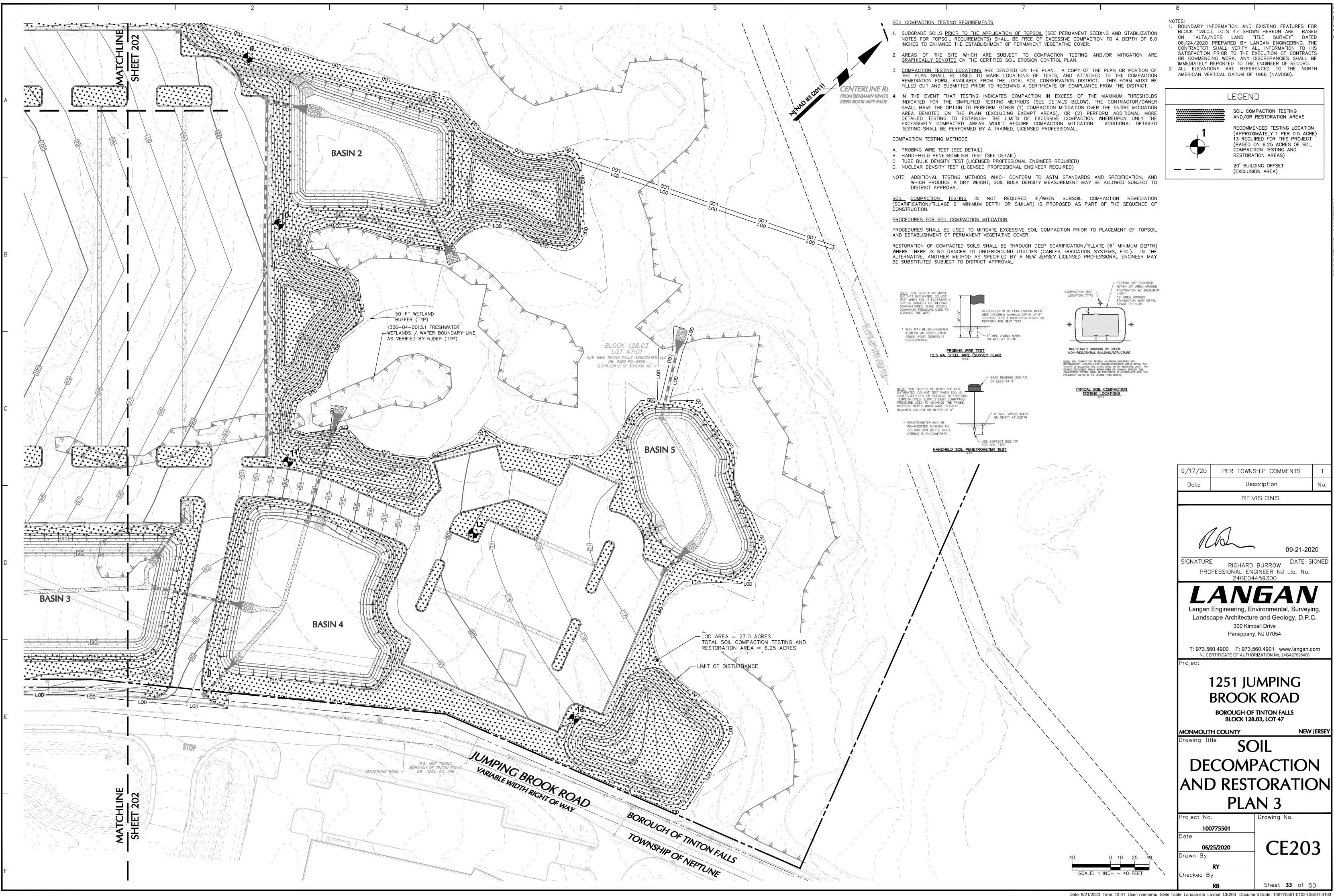
4. The edges of parallel RECPs must be stapled with approximately 2" 5" (5-12.5cm) overlap depending 5. Consecutive RECPs spliced down the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Staple through overlapped area, approximately 12"(30cm) apart across entire

In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to

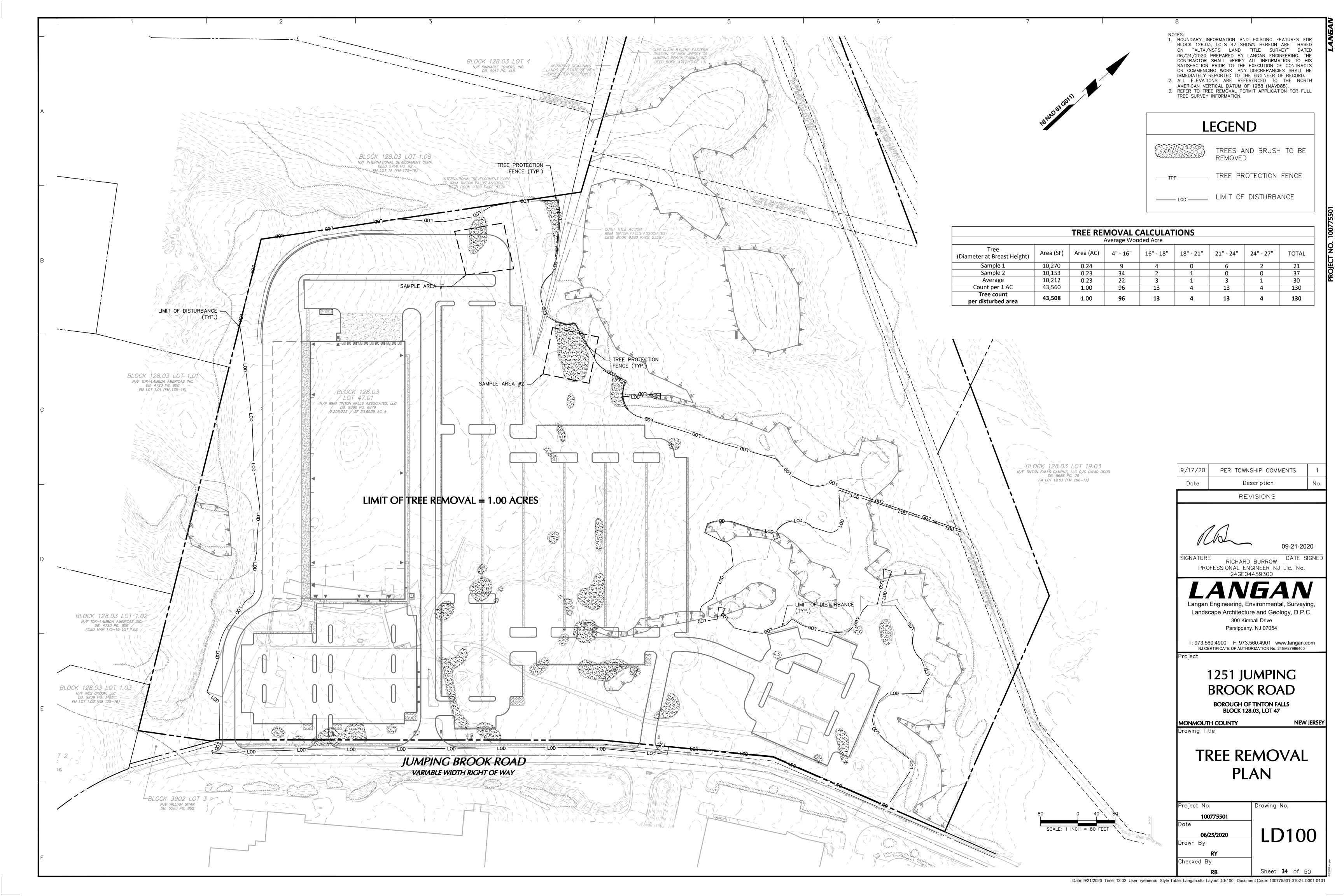
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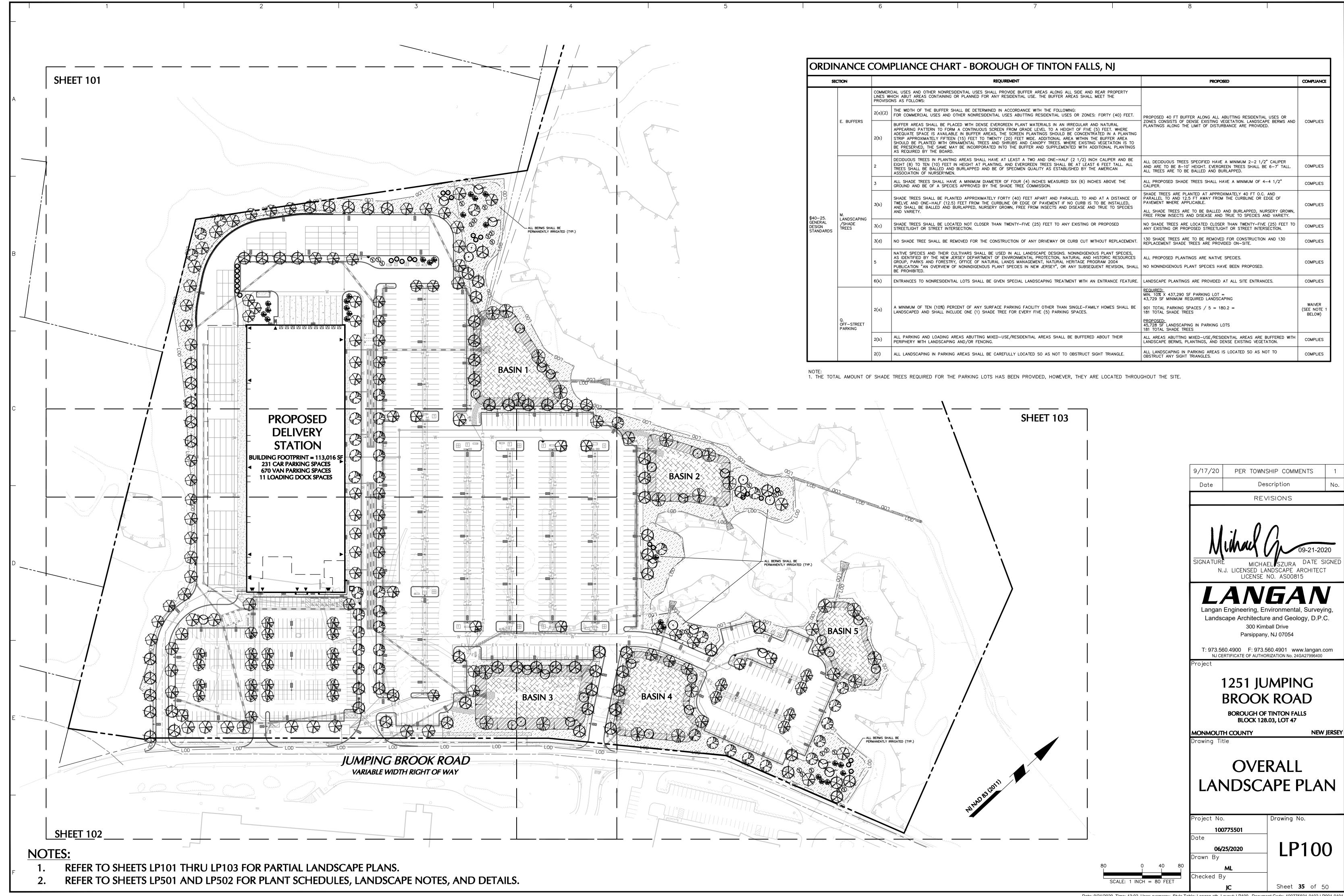


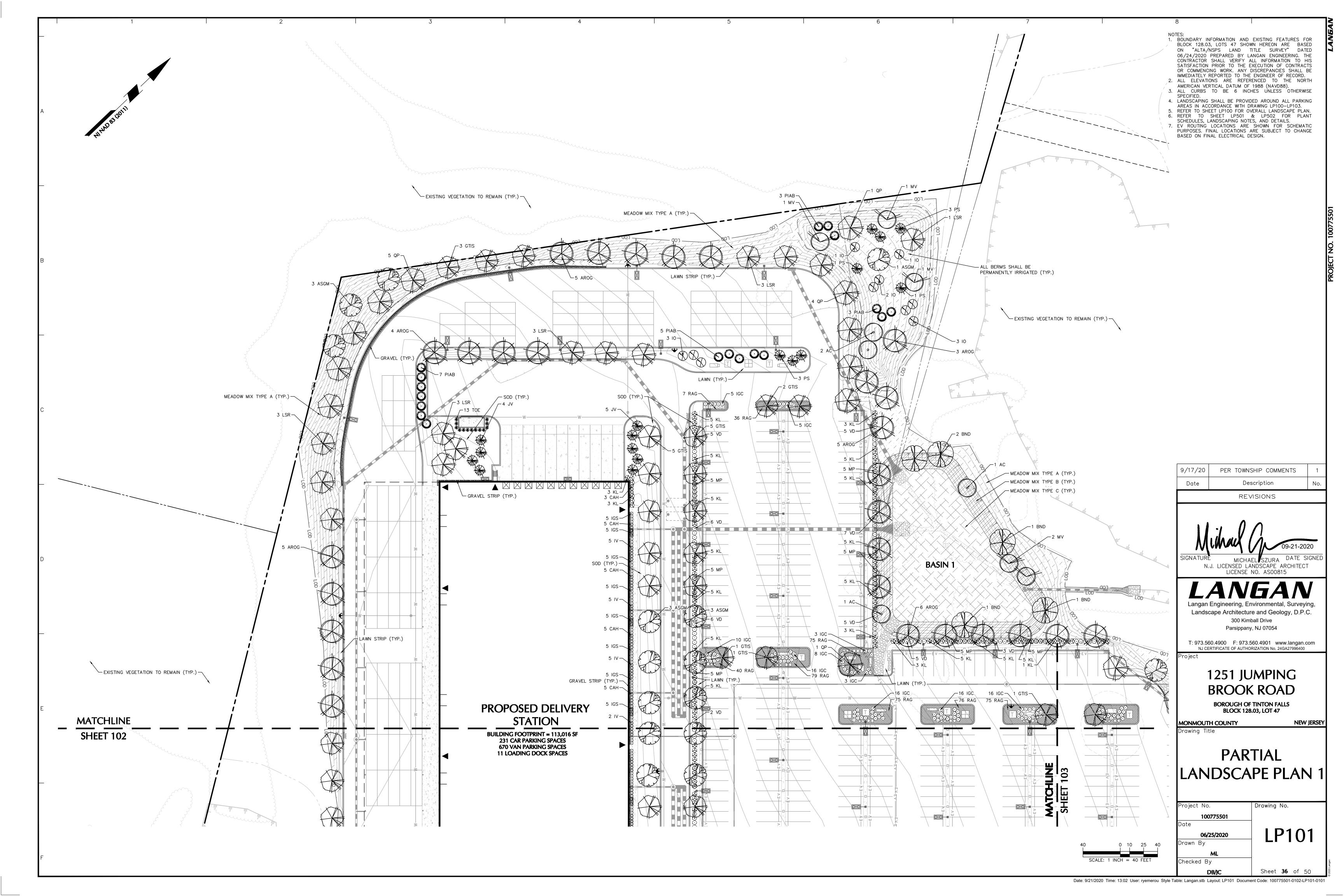


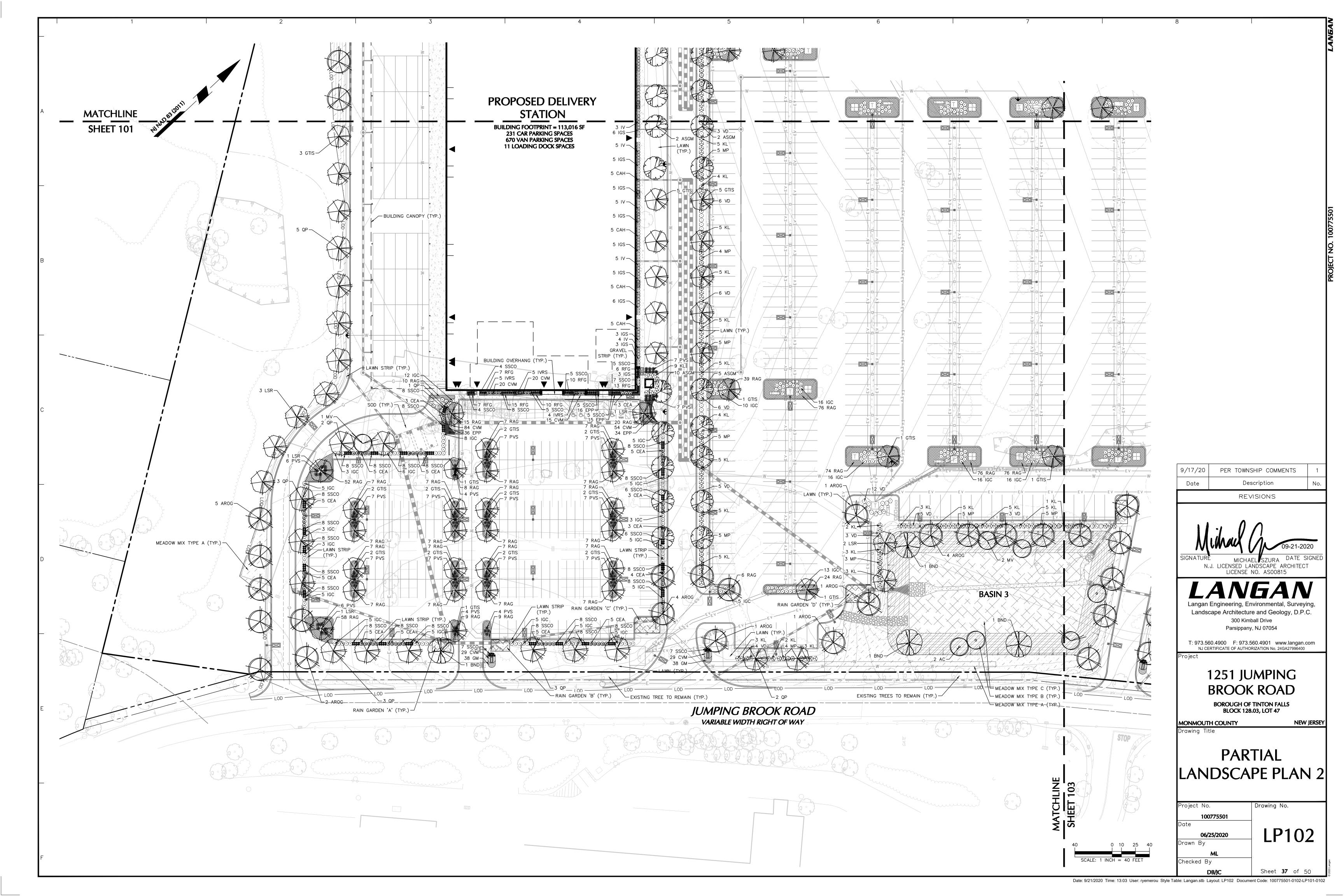


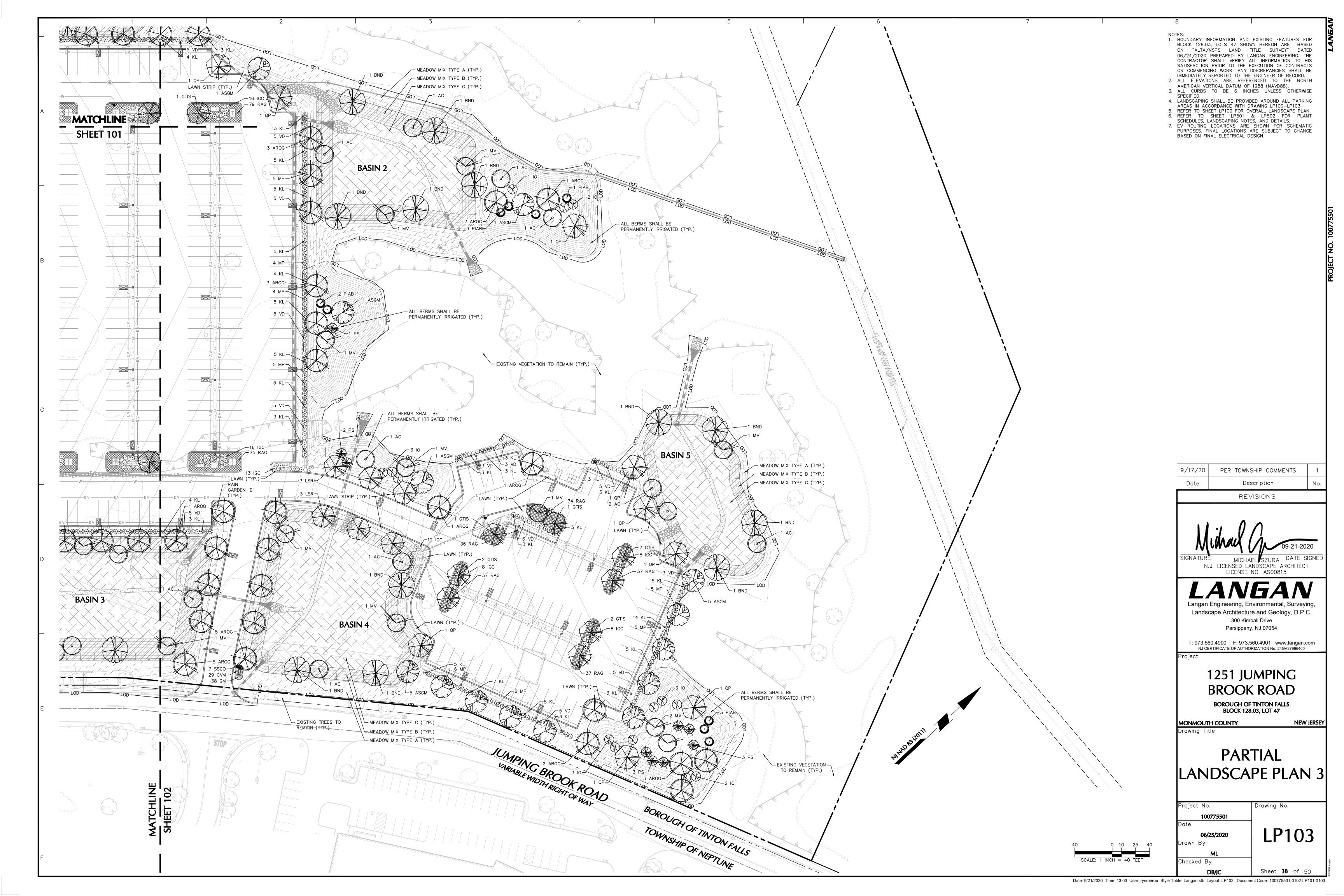
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PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND

- CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE 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.
- FREE FROM DISEASES AND INSECT INFESTATION. 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 TREES 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.
- 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.
- NO PLANT SHALL BE PUT INTO THE GROUND BEFORE FINISH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
- 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 LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.
- 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 CONSTRUCTION.
- 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
- 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 INSTRUCTED
- 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 ARCHITECT OR
- 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 HANDLING.
- 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 AT THE 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 SURFACE IN TWO LOCATIONS.
- 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
- 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 REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
- 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
- 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 HE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED ÂFTER
- 23. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
- 24. 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 TO 2-INCH DIAMETER RIVER STONE. WOOD MULCH SHALL NOT BE ACCEPTED. 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.
- 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. FOR ANY DISCREPANCIES BETWEEN THE PLANT SCHEDULE
- 26. 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 BUSINESS DAYS.
- 27. 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. 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.

PLANTING SOIL SPECIFICATIONS

2. PLANTING SOIL:

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

REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL 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

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.

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 SIT 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 ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT 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
- A. THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION a. PARTICLE SIZE ANALYSIS - LOAMY SAND: 70-85% SAND, 15-30% SILT AND

ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.

- b. FERTILITY ANALYSIS: pH (5.5-6.5), SOLUBLE SALTS (LESS THAN 2 MMHO/CM) NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM c. ORGANIC MATTER CONTENT: 2.5-5% IN NATIVE SOILS: UP TO 10% IN
- d. TOXIC SUBSTANCE ANALYSIS e. MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED f. NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE
- 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
- 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

A. ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MOLD WITH 60-90% ORGANIC

- 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
- c. MYCOR-ROOT SAVER BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.

MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE

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.

b. TERRA-SORB BY 'PLANT HEALTH CARE' 800-421-9051 (SEE

DECEMBER 15 SOIL FILL IN LANDSCAPE AREAS:

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. CONTRACTOR TO PROVIDE SIX INCHES (6") MINIMUM DEPTH PLANTING SOIL LAYER IN LAWN AREAS, 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 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 PLANTING AREAS.
- SOIL CONDITIONING: A. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM, LOWER DH USING FLEMENTAL SULFUR ONLY, PEAT MOSS OF 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

LANDSCAPE MAINTENANCE NOTES

- 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
- 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 GLYS AS ORIGINALLY INSTALLED. WATERING WHEN NEEDED OR DIRECTED, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY
- C. CONTRACTOR SHALL REMOVE AND REPLACE ALL DEAD, DEFECTIVE AND/OR REJECTED PLANTS AS REQUIRED BEFORE FINAL ACCEPTANCE.

MAINTENANCE DURING CONSTRUCTION:

- A. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING. PLANTS SHALL BE WATERED. MULCHED, WEEDED, PRUNED, SPRAYED, FERTILIZED, CULTIVATED, AND OTHERWISE MAINTAINED AND PROTECTED UNTIL PROVISIONAL 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 LANDSCAPE ARCHITECT.
- 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, ETC., AND 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 ACCEPTANCE.
- 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. MAINTENANCE GUARANTEE
- THE DEVELOPER SHALL GUARANTEE THAT EACH SHADE TREE SHALL FULLY SURVIVE UNTIL SUCH TIME AS THE RELEASE OF THE MAINTENANCE GUARANTEE. THE BOROUGH ENGINEER SHALL INSPECT THE SHADE TREES AT THE TIME OF THE REQUEST FOR THE RELEASE OF THE PERFORMANCE GUARANTEE AND SHALL REQUIRE THAT THE DEAD OR DYING TREES BE REPLACED. UPON REQUEST BY THE DEVELOPER FOR THE RELEASE OF THE MAINTENANCE GUARANTEE, THE BOROUGH ENGINEER SHALL INSPECT THE SHADE TREES AND SHALL REQUIRE THAT THE DEAD OR DYING TREES BE REPLACED.
- LAWN MAINTENANCE:
- A. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH PORTION OF LAWN IS PLANTED AND CONTINUE FOR 8 WEEKS AFTER ALL LAWN PLANTING IS COMPLETED
- 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 APPLICATION OF SELECTIVE HERBICIDE ONLY AFTER GRASS IS WELL-ESTABLISHED.

MEADOW SEEDING NOTES:

1. MEADOW SEED MIX A - NEW ENGLAND WILDFLOWER MIX (AS SUPPLIED BY NEW ENGLAND WETLAND PLANTS INC; PHONE: 413-548-8000)

LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), RED FESCUE (FESTUCA RUBRA), INDIAN GRASS (SORGHASTRUM NUTANS) PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), CANADA WILD RYE (ELYMUS CANADENSIS), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), BLUE VERVAIN (VERBENA HASTATA), BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), NARROWLEAFED BLUE EYED GRASS (SISYRINCHIUM ANGUSTIFOLIUM), BLACK EYED SUSAN (RUDBECKIA HIRTA). NEW ENGLAND ASTER (SYMPHYOTRICHUM NOVAE-ANGLIAE). SPIKED GAYEFATHER / MARSH BLAZING STAR (LIATRIS SPICATA). STARVED/CALICO ASTER (ASTER LATERIFLORUS/SYMPHYOTRICHUM LATERIFLORUM), FARLY GOLDENROD (SOLIDAGO JUNCEA). HOLLOW-STEM JOE PYE WEED (EUPATORIUM FISTULOSUM/EUTROCHIUM FISTULOSUM)

1. SEED AT A RATE OF 23 LBS./ACRE. 2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 20 LBS./ACRE. 3. FOR FALL SEEDING, APPLY A NURSE CROP OF BARLEY AT A RATE OF 20 LBS./ACRE. 2. <u>MEADOW SEED MIX B</u> — NEW ENGLAND WETMIX

(AS SUPPLIED BY NEW ENGLAND WETLAND PLANTS INC;

PHONE: 413-548-8000) FOX SEDGE (CAREX VULPINOIDEA). LURID SEDGE (CAREX LURIDA), BLUNT BROOM SEDGE (CAREX SCOPARIA), BLUE VERVAIN (VERBENA HASTATA), FOWL BLUEGRASS (POA PALUSTRIS) HOP SEDGE (CAREX LUPULINA). GREEN BULRUSH (SCIRPUS ATROVIRENS) CREEPING SPIKE RUSH (ELEOCHARIS PALUSTRIS), FRINGED SEDGE (CAREX CRINITA), SOFT RUSH (JUNCUS FFFUSUS). SPOTTED JOE PYE WEED (FUPATORIUM MACULATUM). RATTLESNAKE GRASS (GLYCERIA CANADENSIS). SWAMP ASTER (ASTER PUNICEUS). BLUFFLAG (IRIS VERSICOLOR). SWAMP MILKWEED (ASCLEPIAS INCARNATA).

SQUARE STEMMED MONKEY FLOWER (MIMULUS RINGENS)

RIVERBANK WILD RYE (ELYMUS RIPARIUS)

NOTES:

 SEED AT A RATE OF 18 LBS./ACRE 2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 20 LBS./ACRE. 3. FOR FALL SEEDING, APPLY A NURSE CROP OF BARLEY AT A RATE OF 20 LBS./ACRE.

3. MEADOW SEED MIX C - NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES (AS SUPPLIED BY NEW ENGLAND WETLAND PLANTS INC; PHONE: 413-548-8000)

CREEPING RED FESCUE (FESTUCA RUBRÁ) LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM) BIG BLUESTEM (ANDROPOGON GERARDII) SWITCH GRASS (PANICUM VIRGATUM) UPLAND BENTGRASS (AGROSTIS PERENNANS NODDING BUR MARIGOLD (BIDENS CERNUA) HOLLOW-STEM JOE PYE WEED (EUPATORIUM FISTULOSUM/EUTROCHIUM FISTULOSUM) NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE) BONESET (EUPATORIUM PERFOLIATUM) BLUE VERVAIN (VERBENA HASTATA) SOFT RUSH (JUNCUS EFFUSUS) WOOL GRASS (SCIRPUS CYPERINUS)

- 1. SEED AT A RATE OF 35 LBS./ACRE. 2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 20 LBS./ACRE. 3. FOR FALL SEEDING, APPLY A NURSE CROP OF BARLEY AT A RATE OF 20 LBS./ACRE.
- 1. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 1) OR THE FALL (SEPTEMBER 1 TO OCTOBER 1).
- 2. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD-SPECTRUM NON-SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
- 3. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL WHERE APPLICABLE. 4. CONTINUOUS MOISTURE FOR 4-6 WEEKS MUST BE INSURED TO ALLOW PROPER GERMINATION.
- WEED CONTROL/MAINTENANCE NOTES: 1. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NO MOW CLOSE, AS SOME
- OF THE MEADOW MIX MAY BE DAMAGED. 2. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW IIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.
- 3. MOW IN 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 1 TO AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR. DO NOT MOW IN WETLAND OR WETLAND TRANSITION AREAS ESTABLISHMENT.

LAWN SEED MIX

- PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1/2"
- 2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
- 3. SEEDING RATE AT 220 POUNDS PER ACRE:
 - 10% DEEPBLUE KENTUCKY BLUEGRASS 25% DAKOTA TALL FESCUE 25% BLACK MAGIC TALL FESCUE
- 40% FRONTIER PERENNIAL RYEGRASS SEEDING DATES FOR THIS MIXTURE SHALL BE BETWEEN MARCH 15TH TO MAY 15TH OR AUGUST 15TH TO OCTOBER
- 5. 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

LAWN WATERING SCHEDULE (seed)

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 TH 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 PREPARATION, ATTAINING OPTIMAL pH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

- 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 SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF
- 3. DEPENDING ON SOIL TEMPERATURES IT MAY TAKE SEVERAL WEEKS FOR CERMINATION 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 MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.
- 5. BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT. MOW TO A HEIGHT OF NO LESS THAN 2-1/2 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.

STANDARD FOR PERMANENT STABILIZATION WITH SOD

- METHODS AND MATERIALS 1. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD", OR OTHER HIGH QUALITY
- 2. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES
- 3. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
- 4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE
- 5. FOR DROUGHT TOLERANCE AND UP TO 40% SHADY SITES, A SOD OF APPROXIMATELY 90% TURF-TYPE TALL FESCUE AND 10% BLUEGRASS, OR APPROVED EQUAL, IS PREFERRED OVER A BLUEGRASS-ONLY SOD.

6. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN

- A PERIOD OF 36 HOURS. I. SITE PREPARATION
- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING B. INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES, SUCH AS INTERCEPTOR DITCHES, DIKES AND TERRACES, EROSION STOPS, AND DE-SILTING BASINS.
- II. SITE PREPARATION A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP DRESSING. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

	SOIL TEXTURE CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	TONS/ACRE 4	<u>LBS/1000 SQ. FT.</u> 180	
	SANDY LOAM, LOAM, SILT LOAM	3	135	
	LOAMY SAND, SAND	2	90	
ME	AND FERTILIZER INTO THE SOIL AS NI	EARLY AS PRACTICAL 1	TO A DEPTH OF 4 INCHES	WITH A DISC

- SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWNG OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE BED IS
- C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER D. INSPECT SITE JUST BEFORE INSTALLATION. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE
- RE-TILLED AND FIRMED AS ABOVE. III. SOD PLACEMENT
- A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
- B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION. C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH
- D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE). E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND
- CAN BE USED TO ANCHOR SOD IN WATER CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST THREE WEEKS, AND CONTINUE IRRIGATION THROUGHOUT ENTIRE SEASON. SEE LAWN WATERING SCHEDULE FOR SOD.

EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE

- IV. TOP DRESSING IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOP DRESSING IS NOT MANDATORY.
- A. EARLY SPRING INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET BETWEEN MARCH 15 AND

B. FALL INSTALLATION OF SOD WILL REQUIRE THE ABOVE BETWEEN SEPTEMBER 1 AND OCTOBER 15.

LAWN WATERING SCHEDULE FOR SOD

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SOD. 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, RE-SODDED AND RE-ESTABLISHED 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 SOIL BED PREPARATION, ATTAINING OPTIMAL pH FOR THE INTENDED PLANT SPECIES, FERTILIZING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

- 1. SODDING SHALL BE DONE BETWEEN MARCH 15TH TO MAY 15TH OR AUGUST 15TH TO OCTOBER 30TH.
- 2. AFTER THE TOPSOIL IS PREPARED, AND SOD IS INSTALLED, WATER LIGHTLY TO KEEP THE TOP 4 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR SHIFTING
- 3. AFTER THREE WEEKS, 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.
- 4. BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT. MOW TO A HEIGHT OF NO LESS THAN 2-1/2 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

CONTRACTOR NOTE:

THE IRRIGATION CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF THE IRRIGATION INSTALLATION PLAN AND CUT-SHEETS FOR ALL COMPONENTS FOR REVIEW AND APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION. THE IRRIGATION INSTALLATION PLAN SHALL BE COMPLETE WITH ZONE DESIGNATIONS AND WATER USAGE IN GALLONS PER MINUTE PER ZONE, RUN TIME SCHEDULE, LEGEND OF COMPONENTS AND PLAN GRAPHICS
WITH QUANTITIES, MINIMUM SYSTEM REQUIREMENTS INCLUDING STATIC PRESSURE A THE WATER CONNECTION POINT, ESTIMATED WATER BUDGET, CONSTRUCTION DETAILS AND IRRIGATION NOTES. THE PLAN SHALL ALSO INCLUDE LOCATIONS O ALL PROPOSED SLEEVES AND THEIR SIZES, LOCATIONS OF ALL LATERAL LINE SIZE STEP-DOWNS WITH SIZE INDICATIONS, LOCATION OF ALL SOIL MOISTURE SENSORS, CONTROLLER, VALVES AND ALL OTHER COMPONENTS NECESSARY FOR THE SYSTEMS OPERATION.

IRRIGATION NOTES:

- . LAWN SHALL BE IRRIGATED WITH POP-UP SPRAY AND ROTARY IRRIGATION HEADS, AND LANDSCAPE BEDS SHALL BE IRRIGATED WITH DRIP LINE TUBING IN SUFFICIENT DENSITY TO COVER THE ENTIRE AREA. 2. CONTRACTOR TO AVOID DISTURBANCE OF EXISTING PLANT MATERIAL
- WHEN LOCATING VALVES AND PIPE LINES. ANY PLANT MATERIAL DAMAGED AS A RESULT OF IRRIGATION INSTALLATION SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- ALL EXCAVATION MATERIAL SHALL BE PLACED BACK IN TRENCHES. ALL DISTURBED LANDSCAPE AND PAVED AREAS SHALL BE RESTORED O THE CONDITION FOUND PRIOR TO START OF INSTALLATION. DEPTH OF TRENCHES SHALL BE SUFFICIENT OR PROVIDE A MINIMUM
- 12" OVER NON-PRESSURE LATERAL LINES 18" OVER NON-PRESSURE LATERAL LINES UNDER PAVING 18" OVER CONTROL WIRES

COVER ABOVE THE TOP OF PIPE AS FOLLOWS:

- 18" OVER MAIN LINE 24" OVER MAIN LINE UNDER PAVING 6. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATION OF THE PLUMBING TIE-INS, SLEEVES UNDER PAVEMENTS (AS NECESSARY), AND CONTROL DEVICES WITH THE GENERAL CONTRACTOR,
- OWNER, AND OWNER'S REPRESENTATIVE. 7. CONTRACTOR TO COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND
- 8. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING INSTALLATION WORK.
- 9. WATERPROOF ALL WIRE CONNECTORS USING 3M 'DBY' WATERPROOF CONNECTORS OR EQUIVALENT.

 DRAIN VALVES ARE TO BE PROVIDED AT SUFFICIENT INTERVALS TO PROVIDE COMPLETE DRAINAGE OF ALL PIPING.
- 11. COORDINATE THE LOCATION OF CONTROLS, IRRIGATION CONTROLLER, AND SOIL MOISTURE SENSORS PRIOR TO INSTALLATION. 12. PROVIDE MATCHED PRECIPITATION RATE EMITTERS FOR ALL DRIP LINI TUBING. IRRIGATION CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO IRRIGATION DESIGN WHERE REQUIRED TO PROVIDE 100% COVERAGE OF

ALL LANDSCAPE AREAS, AS DESIGNATED ON THIS PLAN.

14. ALL IRRIGATION WORK SHALL BE GUARANTEED FOR 1 YEAR AFTER COMPLETION OF ALL WORK. 15. CONTRACTOR TO PROVIDE THREE (3) COPIES OF AS—BUILTS, SERVICE MANUALS AND INSTRUCTIONS TO THE OWNER OR OWNERS

13. INSTALLATION MUST COMPLY WITH ALL LOCAL CODES AND CONDITIONS.

REPRESENTATIVE. 16. ALL SPRINKLER HEADS SHALL BE SET BACK 4" MINIMUM FROM BACK OF ALL CURBS.

> PER TOWNSHIP COMMENTS Date Description

REVISIONS

Landscape Architecture and Geology, D.P.C.

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1251 JUMPING

BOROUGH OF TINTON FALLS

MONMOUTH COUNTY

LANDSCAPE NOTES AND DETAILS

Project No. 100775501 06/25/2020 Drawn By

Sheet **39** of 50

Date: 9/21/2020 Time: 13:03 User: ryemerou Style Table: Langan.stb Layout: LP501 Document Code: 100775501-0102-LP501-0101

NEW JERSEY

LICENSE NO. ASO0815

N.J. LICENSED LANDSCAPE ARCHITECT

300 Kimball Drive Parsippany, NJ 07054

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

BROOK ROAD

BLOCK 128.03, LOT 47

Drawing No.

Checked By

PLANT SCHEDULE - OVERALL SITE KEY QTY. BOTANICAL NAME COMMON NAME ROOT REMARKS ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE 4-4 1/2" CAL. B+B ASGM 38 ACER SACCHARUM 'GREEN MOUNTAIN' GREEN MOUNTAIN SUGAR MAPLE 4-4 1/2" CAL. B+B GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER' SHADEMASTER HONEYLOCUST 4-4 1/2" CAL. B+B 4-4 1/2" CAL. B+B LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA' SEEDLESS SWEETGUM 4-4 1/2" CAL. B+B QUERCUS PALUSTRIS PIN OAK ORNAMENTAL TREE(S MULTI STEM SHADBLOW SERVICEBERRY BETULA NIGRA 'DURA HEAT' DURA HEAT RIVER BIRCH 8-10' MAGNOLIA VIRGINIANA SWEETBAY MAGNOLIA EVERGREEN TREE(AMERICAN HOLLY ILEX OPACA EASTERN RED CEDAR JUNIPERUS VIRGINIANA NORWAY SPRUCE PICEA ABIES PINUS STROBUS EASTERN WHITE PINE ILEX GLABRA COMPACTA SHAMROCK INKBERRY HOLLY 24-30" #5 CAN ILEX GLABRA 'SHAMROCK' MOUNTAIN LAUREL 30-36" KALMIA LATIFOLIA MYRICA PENSYLVANICA NORTHERN BAYBERRY 30-36" THUJA OCCIDENTALIS 'EMERALD' EMERALD GREEN ARBORVITAE ECIDUOUS SHRUB(S) CLETHRA ALNIFOLIA 'HUMMINGBIRD SWEET PEPPERBUSH 18-24" CONTAINER CEANOTHUS AMERICANUS NEW JERSEY TEA 5 GAL. CONTAINER ITEA VIRGINICA 'HENRY'S GARNET' 24-30" GARNET SWEETSPIRE #5 CAN ILEX VERTICILLATA 'RED SPRITE' RED SPRITE WINTERBERRY HOLLY 3 GAL. CONTAINER RAG 1529 RHUS AROMATICA 'GRO LOW' GRO LOW FRAGRANT SUMAC 3 GAL. CONTAINER spaced @ 36" o.d 156 VIBURNUM DENTATUM ARROWWOOD VIBURNUM MOONBEAM COREOPSIS COREOPSIS VERTICILLATA 'MOONBEAM CONTAINER | spaced @ 12" o.d **IECHINACEA PURPUREA** PURPLE CONEFLOWER 1 GAL. CONTAINER spaced @ 18" o.c GERANIUM MACULATUM EASTERN WHITE CRANSEBILL 1 GAL. CONTAINER spaced @ 12" o.c |spaced @ 18" o.c. GOLDSTURM/BLACK-EYED SUSAN RUDBECKIA FULGIDA 'GOLDSTURM' 2 GAL. CONTAINER SHENANDOAH SWITCH GRASS PANICUM VIRGATUM 'SHENANDOAH' CONTAINER SCHIZACHYRIUM SCOPARIUM LITTLE BLUESTEM CONTAINER

IOTES:

1. IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

2. ALL TREES SHALL BE PROTECTED FROM DEER WITH BREAKAWAY PLASTIC MESH TREE GUARDS; TUBEX TREEGUARD MESH, OR APPROVED EQUAL.

3. ROUTINE MAINTENANCE OF SHADE TREES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND SHALL COMMENCE ONCE THE CERTIFICATE OF OCCUPANCY HAS BEEN ISSUED.

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
EVERG	REEN SHR	RUB(S)	·	•	•	•
IGC	4	ILEX GLABRA COMPACTA	DWARF INKBERRY HOLLY	24-30"	#5 CAN	_
PEREN	NIAL(S)		•	•	•	•
AS	30	ASCLEPIAS INCARNATA	SWAMP MILKWEED	PLUG	CONTAINER	spaced @ 12" o.c.
EPP	30	ECHINACEA PURPUREA	PURPLE CONEFLOWER	PLUG	CONTAINER	spaced @ 12" o.c.
IVE	30	IRIS VERSICOLOR	BLUE FLAG IRIS	PLUG	CONTAINER	spaced @ 12" o.c.
GM	30	GERANIUM MACULATUM	EASTERN WHITE CRANSEBILL	PLUG	CONTAINER	spaced @ 12" o.c.
RFG	30	RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM/BLACK-EYED SUSAN	PLUG	CONTAINER	spaced @ 12" o.c.
ORNAM	IENTAL G	RASS(ES)	·	·	•	
JE	30	JUNCUS EFFUSUS	COMMON RUSH	PLUG	CONTAINER	spaced @ 12" o.c.
PVS	30	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	PLUG	CONTAINER	spaced @ 12" o.c.
SSCO	30	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	PLUG	CONTAINER	spaced @ 12" o.c.

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
EVERG	REEN SHE	RUB(S)	•	•	•	•
IGC	2	ILEX GLABRA COMPACTA	DWARF INKBERRY HOLLY	24-30"	#5 CAN	_
DECIDU	JOUS SHR	UB(S)			•	•
CAH	2	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SWEET PEPPERBUSH	18-24"	CONTAINER	_
IVRS	2	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY HOLLY	3 GAL.	CONTAINER	_
VD	2	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3-4'	B+B	_
PEREN	NIAL(S)					
AS	57	ASCLEPIAS INCARNATA	SWAMP MILKWEED	PLUG	CONTAINER	spaced @ 12" o.c
EPP	57	ECHINACEA PURPUREA	PURPLE CONEFLOWER	PLUG	CONTAINER	spaced @ 12" o.c
IVE	57	IRIS VERSICOLOR	BLUE FLAG IRIS	PLUG	CONTAINER	spaced @ 12" o.c
GM	57	GERANIUM MACULATUM	EASTERN WHITE CRANSEBILL	PLUG	CONTAINER	spaced @ 12" o.c
RFG	57	RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM/BLACK-EYED SUSAN	PLUG	CONTAINER	spaced @ 12" o.c
ORNAM	MENTAL GI	RASS(ES)	•	·	·	•
JE	57	JUNCUS EFFUSUS	COMMON RUSH	PLUG	CONTAINER	spaced @ 12" o.d
PVS	57	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	PLUG	CONTAINER	spaced @ 12" o.d
SSCO	56	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	PLUG	CONTAINER	spaced @ 12" o.d

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
EVERG	REEN SHE	RUB(S)		<u>'</u>	<u> </u>	<u>'</u>
IGC	3	ILEX GLABRA COMPACTA	DWARF INKBERRY HOLLY	24-30"	#5 CAN	-
DECIDU	JOUS SHR	UB(S)		•	•	•
CAH	2	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SWEET PEPPERBUSH	18-24"	CONTAINER	_
IVRS	2	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY HOLLY	3 GAL.	CONTAINER	_
VD	2	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3-4'	B+B	_
PEREN	NIAL(S)					
AS	68	ASCLEPIAS INCARNATA	SWAMP MILKWEED	PLUG	CONTAINER	spaced @ 12" o.c.
EPP	68	ECHINACEA PURPUREA	PURPLE CONEFLOWER	PLUG	CONTAINER	spaced @ 12" o.c.
IVE	68	IRIS VERSICOLOR	BLUE FLAG IRIS	PLUG	CONTAINER	spaced @ 12" o.c.
GM	68	GERANIUM MACULATUM	EASTERN WHITE CRANSEBILL	PLUG	CONTAINER	spaced @ 12" o.c.
RFG	68	RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM/BLACK-EYED SUSAN	PLUG	CONTAINER	spaced @ 12" o.c.
ORNAM	ENTAL G	RASS(ES)	·	•	•	
JE	68	JUNCUS EFFUSUS	COMMON RUSH	PLUG	CONTAINER	spaced @ 12" o.c.
PVS	68	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	PLUG	CONTAINER	spaced @ 12" o.c.
SSCO	67	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	PLUG	CONTAINER	spaced @ 12" o.c.

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS	1_
EVERG	REEN SHR	RUB(S)					
IGC	2	ILEX GLABRA COMPACTA	DWARF INKBERRY HOLLY	24-30"	#5 CAN	-	
DECID	JOUS SHR	UB(S)		•	•	•	
CAH	1	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SWEET PEPPERBUSH	18-24"	CONTAINER	-	
IVRS	1	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY HOLLY	3 GAL.	CONTAINER	-	
VD	1	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3-4'	B+B	_	
PEREN	NIAL(S)						
AS	40	ASCLEPIAS INCARNATA	SWAMP MILKWEED	PLUG	CONTAINER	spaced @ 12" o.c.	
EPP	39	ECHINACEA PURPUREA	PURPLE CONEFLOWER	PLUG	CONTAINER	spaced @ 12" o.c.	Proje
IVE	39	IRIS VERSICOLOR	BLUE FLAG IRIS	PLUG	CONTAINER	spaced @ 12" o.c.	
GM	39	GERANIUM MACULATUM	EASTERN WHITE CRANSEBILL	PLUG	CONTAINER	spaced @ 12" o.c.	
RFG	39	RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM/BLACK-EYED SUSAN	PLUG	CONTAINER	spaced @ 12" o.c.	Date
ORNAN	IENTAL G	RASS(ES)					
JE	39	JUNCUS EFFUSUS	COMMON RUSH	PLUG	CONTAINER	spaced @ 12" o.c.	
PVS	39	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	PLUG	CONTAINER	spaced @ 12" o.c.	Draw
SSCO	39	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	PLUG	CONTAINER	spaced @ 12" o.c.	

PER TOWNSHIP COMMENTS Description Date REVISIONS N.J. LICENSED LANDSCAPE ARCHITECT LICENSE NO. AS00815

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1251 JUMPING **BROOK ROAD**

> **BOROUGH OF TINTON FALLS** BLOCK 128.03, LOT 47

MONMOUTH COUNTY

LANDSCAPE NOTES AND DETAILS

NEW JERSEY

Drawing No. 100775501 Date LP502 06/25/2020 Drawn By

Sheet **40** of 50

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5. NO STONES, WOOD CHIPS, OR DEBRIS LARGER THAN 1/2" SHALL BE ACCEPTABLE WITHIN IMPORTED OR AMENDED EXISTING PLANTING SOIL WITHIN AREAS OF RAISED GRADE **PLANTING SOIL**

SUBGRADE WITHIN 2'-6" OF FINISH GRADE IN PLANTING

*EXISTING SOIL PREVIOUSLY STRIPPED FROM FORMER

CONTRACTOR SHALL REFER TO PLANTING SOIL

SPECIFICATIONS FOR REQUIRED SUBMITTALS.

AREAS SHALL CONSIST OF FREE DRAINING SANDY SOIL FILL

LANDSCAPE AREAS CAN BE USED FOR PLANTING SOIL UPON APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT.

OF FINISH GRADE IN PROPOSED LANDSCAPE AREAS.

3. IMPORTED FILL SHALL CONTAIN NO CONTAMINATION IN EXCEEDENCE OF THE PROJECT STATE

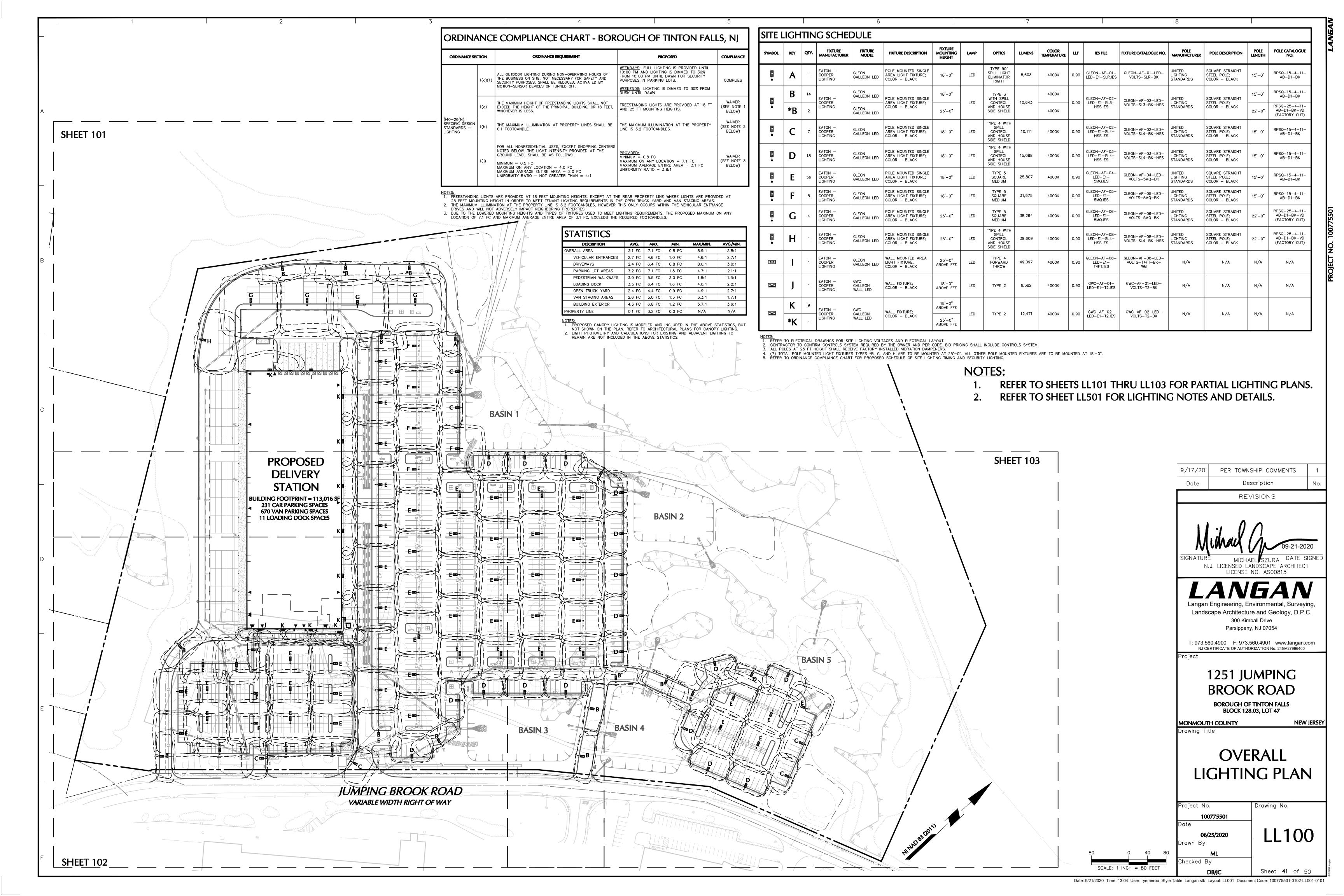
4. CONTRACTOR TO LIGHTLY COMPACT ALL PLACED PLANTING SOILS AND RAISE GRADES ACCORDINGLY TO ALLOW FOR FUTURE SETTLEMENT OF PLANTING SOILS (TYP.)

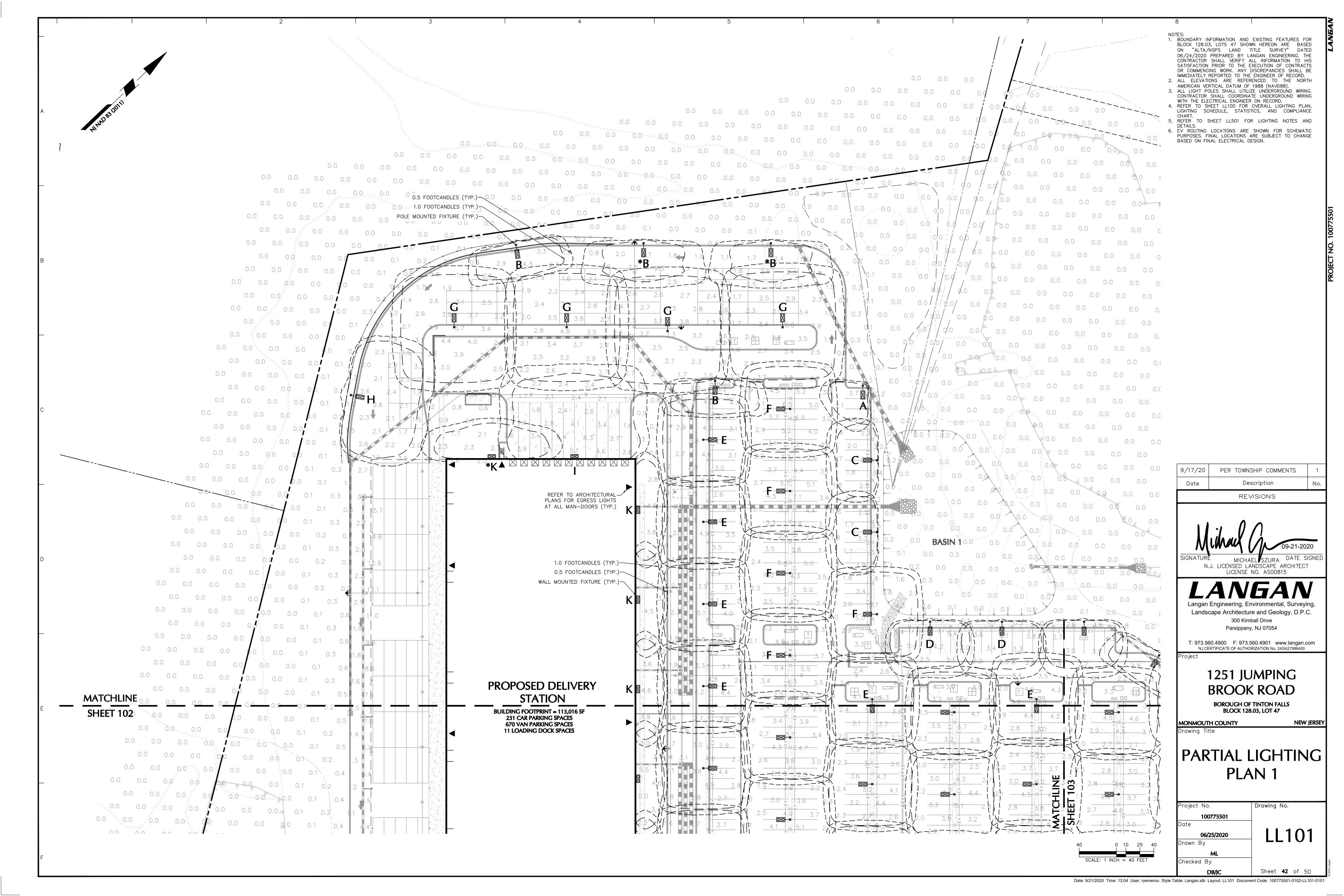
ENVIRONMENTAL REVIEW AGENCY STANDARDS AND MEET THE ENVIRONMENTAL REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF COMPLIANCE PRIOR TO DELIVERY OF ANY FILL TO THE SITE.

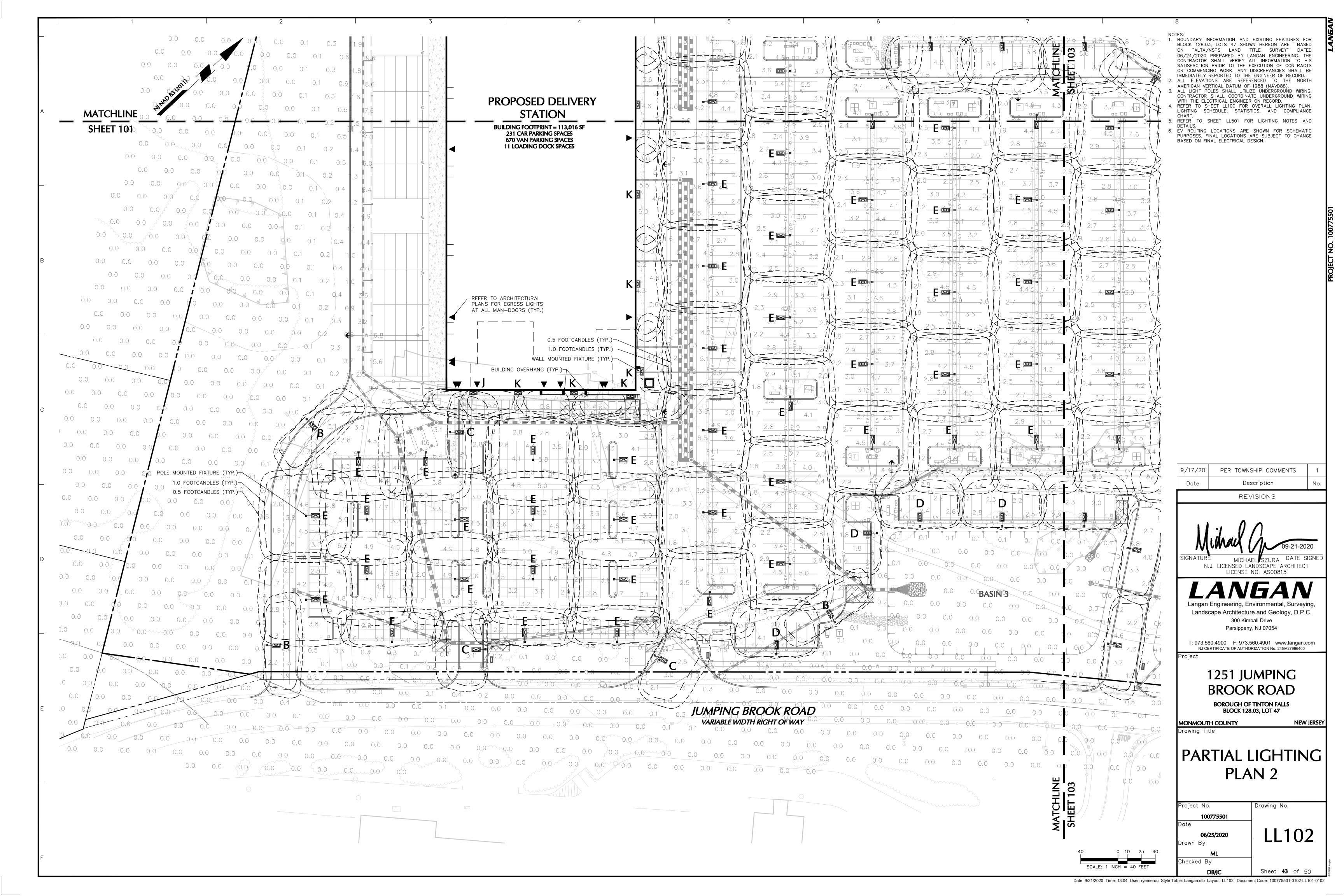
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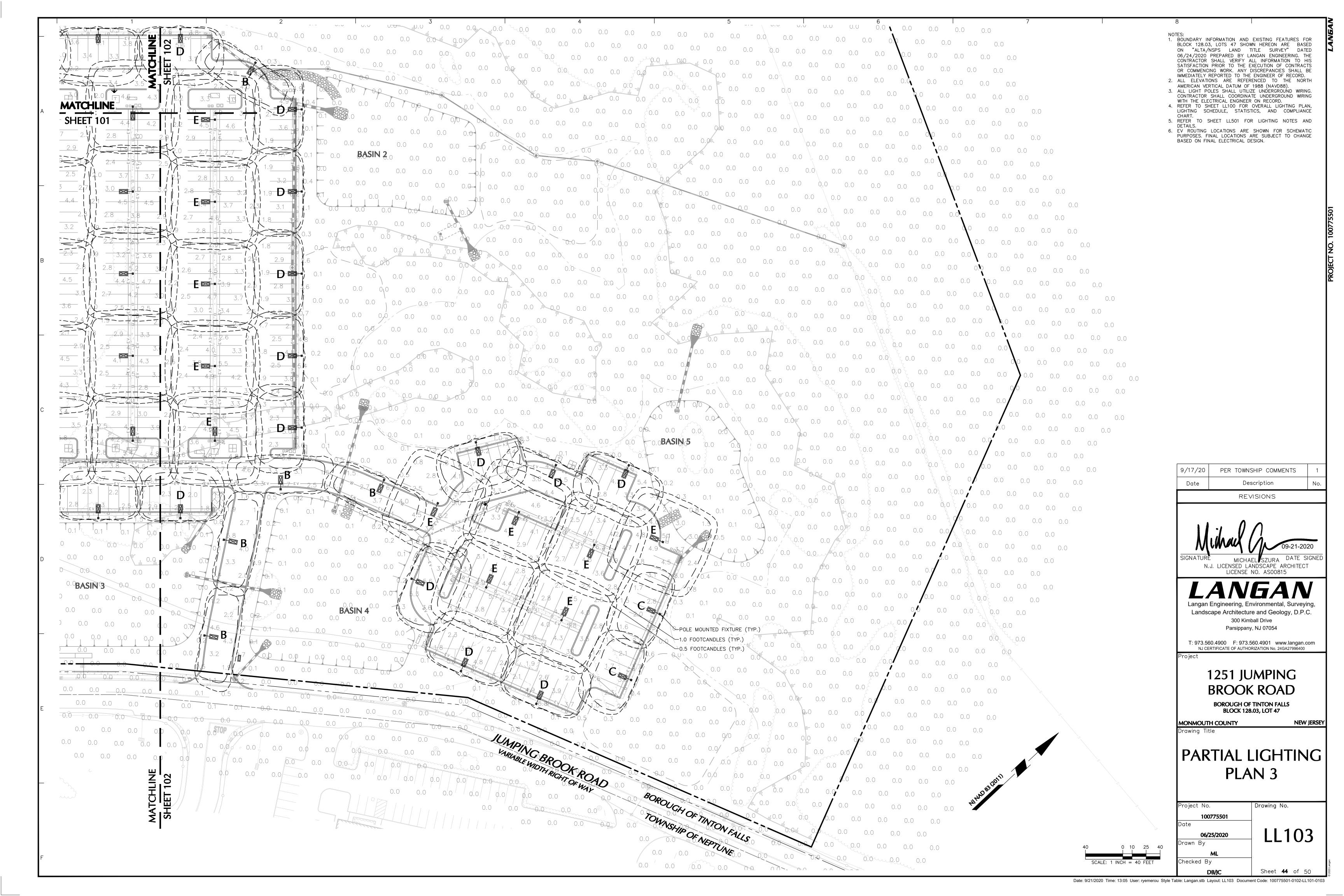
DISTANCE FROM TOP OF GRAVEL TO OVERFLOW TO BE MAXIMUM 10" CONCRETE CURB CUT - ASPHALT (2.5' - 4' DEPTH)- FILTER FABRIC (TYP) 10" PERFORATED PIPE OVERFLOW PIPE <u>NOTES:</u> 1. REFER TO GRADING AND DRAINAGE PLANS FOR EXACT LOCATION OF CATCH BASINS AND MANHOLES. 2. INVERTS PROVIDED ON GRADING AND DRAINAGE PLANS. 3. SAND/ SOIL MIX SHALL BE A 80/20 MIX. **RAIN GARDEN DETAIL**

N.T.S.









- 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
- 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 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
- 12. POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA. 13. ALL POLES HIGHER THAN 25 FT. 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

ADJUSTMENT AND INSPECTION

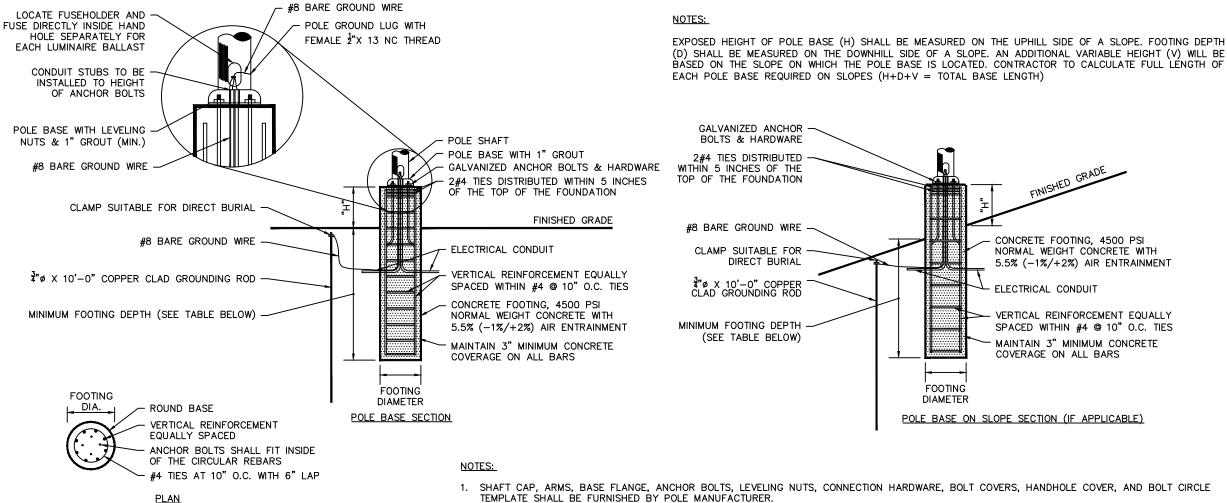
- 16. CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER
- 17. CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR
- 18. CONTRACTOR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

REQUIREMENTS FOR ALTERNATES

- 19. ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDI 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 E ENTIRELY BORNE BY THE CONTRACTOR 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. 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 F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.



MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	EXPOSED HEIGHT "H"	VERTICAL REINFORCEMENT
18'-0"	5'-0"	2'-0"	3'-0"	6#5 BARS
25'-0"	5'-9"	2'-0"	3'-0"	6#5 BARS

2. EACH STANDARD TO BE PROTECTED AGAINST LIGHTNING WITH AN INTERCONNECTED GROUND ROD. THIS ROD SHALL BE BONDED PER SECTION NUMBER . CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENT OF ACI 318. CAST-IN-PLACE SHALL HAVE UNCONFINED COMPRESSIVE STRENGTH OF AT LEAST 4,500 PSI AT 28-DAYS. DEFORMED REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60. 4. CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL

IF POLE BASE IS CAST-IN-PLACE, POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND-RUBBED SMOOTH. CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE PER EARTHWORK SPECIFICATIONS / GEOTECH REPORT. THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS. CONTRACTOR TO CONFIRM GROUNDING DESIGN WITH MEP.

9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM FINISH GRADES AT POLE BASE LOCATIONS VERSUS GRADES AT ADJACENT PAVEMENTS INTENDED TO BE LIT. ANY DISCREPANCIES BETWEEN INTENDED MOUNTING HEIGHT, EXPOSED POLE BASE HEIGHT, AND POLE LENGTH IN RELATION TO GRADE CHANGES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER PRIOR TO PURCHASE.

POLE-TO-BASE PLATE WELD -REFER TO SITE LIGHTING -SHALL COMPLY WITH AWS SPECS. AT TOP AND BOTTOM POLE SPECIFICATIONS AND OF BASE PLATE CATALOGUE NUMBERS BOLT COVER TYPICAL -BASE PLATE BOLT HOLE-POLE AS SPECIFIED IN SITE -LIGHTING SCHEDULE <u>PLAN</u> -3'-0" MIN. AT CAR PARKING 12'-0" MIN. AT TRAILER STORAGE FINISH GRADE COVER PLATE -ANCHOR BOLTS -GALVANIZED STEEL CONDUIT -(REFER TO ELECTRICAL PLANS) CONCRETE FOOTING -(SEE POLE BASE DETAIL)

SECTION

LIGHT FIXTURE AND POLE

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications, IP66 rated and UL/cUL Listed for wet locations.

SPECIFICATION FEATURES

Extruded aluminum driver

enclosure thermally isolated from

Light Squares for optimal thermal

performance, Heavy-wall, die-

cast aluminum end caps enclose

housing and die-cast aluminum

pending interlocking housing and

heat sink provides scalability with superior structural rigidity. 3G

vibration tested and rated. Optional

heat sinks. A unique, patent

tool-less hardware available

for ease of entry into electrica

Patented, high-efficiency

injection-molded AccuLED

Optics technology. Optics are

efficiency and application spacing.

AccuLED Optics create consistent

distributions with the scalability

to meet customized application

requirements. Offered standard

in 4000K (+/- 275K) CCT 70 CRI.

Optional 3000K, 5000K and 6000K

precisely designed to shape

the distribution maximizing

chamber. Housing is IP66 rated.

Construction

Date

McGraw-Edison

arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall moun bracket option OUICK MOUNT ARM: Adapter is bolted directly to the pole. Quick mount arm slide into place on the adapter and is secured via two screws, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Remova of the door on the quick mount

withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. arm enables wiring of the fixture For applications with ambient without having to access the drive temperatures exceeding 40°C specify the HA (High Ambient) compartment. A knock-out enables option. Light Squares are IP66 round pole mounting. rated. Greater than 90% lumer maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 600mA. 800mA and 1200mA drive currents 2.5 mil nominal thickness for

STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during mounting. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm

LED drivers are mounted to

removable tray assembly for ease

of maintenance 120-277V 50/60Hz

347V 60Hz or 480V 60Hz operation.

480V Wve systems only. Standard

480V is compatible for use with

with 0-10V dimming. Shipped

circuit module designed to

standard with Eaton proprietary

metallic. RAL and custom color matches available.

1-10 Light Squares Housing finished in super durable TGIC polyester powder coat paint superior protection against fade **AREA/SITE LUMINAIRE** and wear. Heat sink is powder coated black. Standard housing colors include black, bronze, grey, white, dark platinum and graphite

WaveLinx

GLEON

Solid State LED

CLICK HERE

GALLEON LED

may be required. Refer to the ---- 21-3/4" [553mm DRILLING PATTERN DIMENSION DATA TYPE "N"

15-1/2" 7" 10" (394mm) (178mm) (254mm) 33 (15.0 kgs.) 7/8" [22mm] 10" (254mm) 13" 54 (330mm) (24.5 kgs.) 1.07

Date

33-3/4" 7" 16" (857mm) (178mm) (406mm) NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA

JL/cUL Wet Location Listed ENERGY DATA lectronic LED Driver 20% Total Harmonic Distortion V-277V 50/60Hz 47V. 480V 60Hz 40°C Min. Temperature O°C Max. Temperature 50°C Max. Temperature (HA Option)

M79 / LM80 Compliant

IP66 Rated

CERTIFICATION DATA

DesignLights Consortium® Qualified

Dark Sky Approved (3000K CCT and

March 9, 2020 3:14 PM

PER TOWNSHIP COMMENTS

Description

7" (178mm)



GWC GALLEON

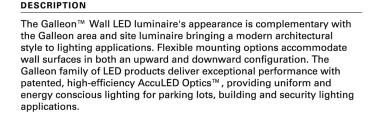
WALL

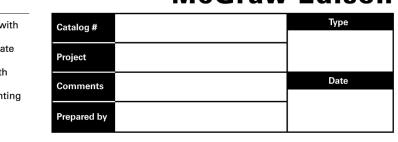
1-2 Light Squares

WALL MOUNT LUMINAIRE

Solid State LED

WaveLinx





Gasketed and zinc plated rigid stee

mounting attachment fits directly

to 4" j-box or wall with the Galleon

Wall "Hook-N-Lock" mechanism for quick installation. Secured with two

captive corrosion resistant black

from bottom of fixture.

oxide coated allen head set screws

which are concealed but accessible

Housing finished in super durable

Construction Driver enclosure thermally	and 6000K CCT. Greater than 90% lumen maintenance expected at
isolated from optics for optimal	60,000 hours. Available in standard
thermal performance. Heavy	1A drive current and optional
wall aluminum housing die-cast	1200mA, 800mA, and 600mA drive
with integral external heat sinks	currents.
to provide superior structural	
rigidity and an IP66 rated housing.	Electrical
Overall construction passes a 1.5G	LED drivers are mounted for
vibration test to ensure mechanical	ease of maintenance. 120-277V
integrity. UPLIGHTING: Specify	50/60Hz, 347V or 480V 60Hz
with the UPL option for inverted	operation. 480V is compatible
mount uplight housing with	for use with 480V Wye systems
additional protections to maintain	only. Drivers are provided
IP rating.	standard with 0-10V dimming.
	An optional Cooper Lighting
Ontics	Solutions proprietary surge

DIMENSIONS

O COOPER

SPECIFICATION FEATURES

50/60Hz, 347V or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems Choice of thirteen patented high-efficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED

only. Drivers are provided standard with 0-10V dimming Solutions proprietary surge Optics create consistent with ambient temperatures distributions with the scalability to meet customized application 4000K (+/- 275K) CCT and minimum environments and occupancy 70 CRI. Optional 3000K, 5000K

An optional Cooper Lighting protection module is available and designed to withstand 10kV of transient line surge. The Galleon Wall LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications exceeding 40°C, specify the HA (High Ambient) option. Emergency egress options for -20°C ambient

TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color

matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete

