

**200 Foot Property Owners List**  
 Compiled by the Township of Manchester on March 2, 2018

| Lot # | Block  | Property Owner                | Address            | City                   | State | Zip   |
|-------|--------|-------------------------------|--------------------|------------------------|-------|-------|
| 4     | 109    | CONCAST                       | 320 ROUTE 37 WEST  | TOWNSHIP OF MANCHESTER | NJ    | 08756 |
| 5     | 109    | STABLE, GARY & MELVA L.       | 3399 CHURCH STREET | MANCHESTER TOWNSHIP    | NJ    | 08752 |
| 14    | 109    | US HOME CORPORATION           | 2465 RUSSEL ROAD   | HAMILTON, NJ           | 08690 |       |
| 18    | 109.01 | US HOME CORPORATION           | 2465 RUSSEL ROAD   | HAMILTON, NJ           | 08690 |       |
| 19    | 109.01 | US HOME CORPORATION           | 2465 RUSSEL ROAD   | HAMILTON, NJ           | 08690 |       |
| 22    | 109.01 | US HOME CORPORATION           | 2465 RUSSEL ROAD   | HAMILTON, NJ           | 08690 |       |
| 11.87 | 111    | CORTIZ, LUIS & SEDA, MARIAL   | 1 MACKENZIE CT     | WHITING, NJ            | 08759 |       |
| 11.88 | 111    | POLSKY, BRUCE D & TERRY L.    | 150 HWY 539        | WHITING, NJ            | 08759 |       |
| 11.10 | 111    | MOR DEVELOPERS INC            | 519 CURTIS LN      | LAKEWOOD, NJ           | 08701 |       |
| 12    | 111    | ST STEPHENS CHURCH IN WHITING | 180 HWY 539        | WHITING, NJ            | 08759 |       |

**WHITING TOWN OFFICE PROFESSIONAL (WTO-P) ZONE REQUIREMENTS:**

| DESCRIPTION                    | REQUIRED    | EXISTING    | PROPOSED  |
|--------------------------------|-------------|-------------|---|
| MINIMUM LOT AREA               | 40,000 S.F. | 87,520 S.F. | 85,391 S.F. <sup>1</sup>                                    |
| MINIMUM LOT FRONTAGE           | 200 FT.     | 286 FT.     | 286 FT.   |
| MINIMUM LOT WIDTH              | 200 FT.     | 253.14 FT.  | 253.14 FT.  |
| IMPROVABLE LOT AREA            | 18,750 S.F. | 37,370 S.F. | 36,080 S.F.   |
| MINIMUM FRONT SETBACK          | 50 FT.      | N/A         | 58.6 FT. (BEFORE DEDICATION)<br>60.6 FT. (AFTER DEDICATION) |
| MINIMUM REAR SETBACK           | 50 FT.      | N/A         | 82 FT.  |
| MINIMUM SIDE SETBACK           | 50 FT.      | N/A         | 71 FT.  |
| MAXIMUM SITE IMPROVEMENT RATIO | 0.20        | N/A         | 0.136   |
| MAXIMUM BUILDING COVERAGE      | 20%         | N/A         | 15.5% <sup>1</sup>  |
| MAXIMUM IMPERVIOUS COVERAGE    | 85%         | N/A         | 59.1% <sup>1</sup>  |
| MAXIMUM BUILDING HEIGHT        | 40 FT.      | N/A         | 27.5 FT.  |
| MINIMUM FLOOR AREA             | 2,000 S.F.  | N/A         | 13,200 S.F.   |

\*\* DENOTES VARIANCE REQUIRED  
<sup>1</sup> AFTER DEDICATION

**COVERAGE CALCULATIONS:**

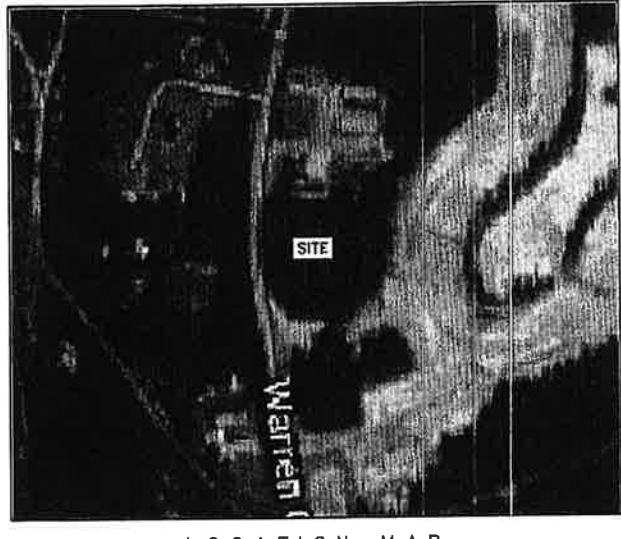
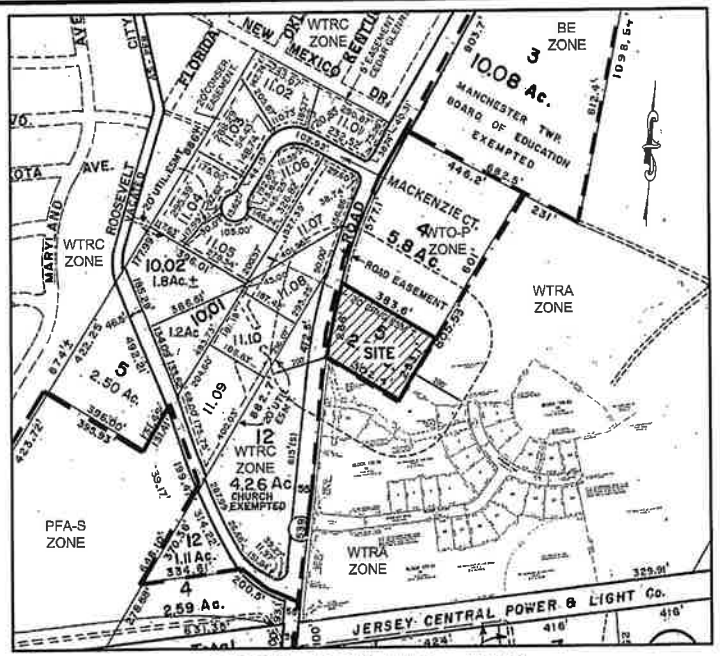
|   |  |
|---|--|
| USABLE BUILDING AREA  | 13,200 S.F.                              |
| IMPROVABLE LOT AREA   | 36,080 S.F.                              |
| MINIMUM YARD AREA   | 60,812 S.F.                              |
| SITE IMPROVEMENT RATIO  | 0.136                                    |
| USABLE BLDG AREA DIVIDED BY THE SUM IMPROVABLE LOT AREA & MINIMUM YARD AREA | $\frac{13,200}{(36,080+60,812)} = 0.136$ |
| IMPERVIOUS CALCULATIONS   |  |
| BUILDING  | 13,200 S.F.                              |
| DRIVE AISLES/PARKING (INCL CURB)  | 34,390 S.F.                              |
| CONCRETE WALK   | 1,129 S.F.                               |
| CONCRETE APRON  | 1,200 S.F.                               |
| CONCRETE DUMPSTER PAD&APRON   | 520 S.F.                                 |
| TOTAL IMPERVIOUS  | <b>50,439 S.F.</b>                       |

**PARKING REQUIREMENTS:**

INDUSTRIAL OR MANUFACTURING;  
 ONE SPACE PER 1.5 EMPLOYEE  
**REQUIRED: 65 EMPLOYEES / 1.5 = 43**  
**43 SPACES REQUIRED**  
**PROPOSED: 43 SPACES**  
 (MAXIMUM 65 EMPLOYEES)

**VARIANCES REQUESTED:**

- SECTION 245-33 A. -- USE VARIANCE REQUIRED AS GENERAL WAREHOUSING AND STORAGE NOT PERMITTED IN WTO-P ZONE.
- SECTION 245-28 D. (2) -- MINIMUM FRONT YARD SETBACK FOR PARKING FACILITIES REQUIRED IS 20' WHEREAS 8.8' IS PROPOSED.
- SECTION 245-28 D. (2) -- MINIMUM SIDE YARD SETBACK FOR PARKING FACILITIES REQUIRED IS 12.6' WHEREAS 5' IS PROPOSED.
- SECTION 245-28 E. -- ONE 12' X 36' LOADING SPACE IS REQUIRED, WHEREAS NONE IS PROVIDED.



LOCATION MAP  
 SCALE: 1"=300'

**PRELIMINARY & FINAL MAJOR SITE PLAN**  
 FOR  
**141 OFFICE PARK**  
 LOT 5 BLOCK 109  
 TOWNSHIP OF MANCHESTER, OCEAN COUNTY, NJ

| SHEET INDEX |   |               |       |
|-------------|---|---------------|-------|
| SHEET NO.   | DESCRIPTION                                     | LAST REVISION | REV.# |
| 1           | COVER SHEET & GENERAL NOTES                     | 1/20/21       | 6     |
| 2           | EXISTING CONDITIONS PLAN                        | 9/27/19       | 2     |
| 3           | SITE PLAN                                       | 1/20/21       | 4     |
| 4           | GRADING & UTILITIES PLAN                        | 1/20/21       | 5     |
| 5           | SITE LINE & STORM PROFILES                      | 1/20/21       | 5     |
| 6           | COUNTY 539 PROFILE                              | 12/04/19      | 4     |
| 7           | COUNTY 539 SECTIONS                             | 9/27/19       | 1     |
| 8           | LANDSCAPE & LIGHTING PLAN                       | 1/20/21       | 5     |
| 9           | SOIL EROSION & SEDIMENT CONTROL PLAN            | 1/20/21       | 5     |
| 10          | SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS | 9/27/19       | 2     |
| 11          | CONSTRUCTION DETAILS                            | 9/27/19       | 3     |
| 12          | CONSTRUCTION DETAILS                            | 1/20/21       | 4     |

APPROVED BY MANCHESTER DEPARTMENT OF UTILITIES ON \_\_\_\_\_  
 ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_  
 MANCHESTER TOWNSHIP DEPARTMENT OF UTILITIES # \_\_\_\_\_

**STATUS OF AGENCY APPROVALS:**

OCEAN COUNTY PLANNING BOARD APPROVED 10/16/2019  
 OCEAN COUNTY SOIL CONSERVATION DISTRICT APPROVED 8/5/2019  
 NEW JERSEY PINELANDS COMMISSION CERTIFICATE OF FILING 6/20/2019  
 MANCHESTER DEPARTMENT OF UTILITIES PENDING

IT IS HEREBY CERTIFIED THAT WE ARE THE REGISTERED HOLDERS OF THIS PLAN FOR LOT 5, BLOCK 109, MANCHESTER TOWNSHIP, OCEAN COUNTY, NEW JERSEY. WE HEREBY CERTIFY THAT WE HAVE NO PROBABLE, AND ONLY, AND HAVE CONTRACTED TO PURCHASE UNDEVELOPED LOTS. WE ALSO CERTIFY THAT WE ARE THE APPLICANT AND DO NOT CONSENT TO THE PROPOSED SITE PLAN AS SHOWN HEREON.  
 1/23/20  
 04/20  
 JEFFREY J. CARR  
 LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW JERSEY  
 LICENSE NO. 21147  
 1900-1905  
 1900-1905  
 1900-1905

**GENERAL NOTES:**

- PROPERTY BEING KNOWN AND DESIGNATED AS A PORTION OF LOT 9 IN BLOCK W-1 AS SHOWN ON A MAP ENTITLED "SUBDIVISION OF LOT 9, BLOCK W-1, TAX MAP SHEET 14, MANCHESTER TOWNSHIP, OCEAN COUNTY, N.J." FILED IN THE OFFICE OF THE OCEAN COUNTY CLERK ON MARCH 31, 1971, AS MAP 1-812. ALSO BEING KNOWN AS LOT 5 IN BLOCK 109 ON THE OFFICIAL TAX MAP SHEET 16 OF TOWNSHIP OF MANCHESTER, OCEAN COUNTY, NEW JERSEY.
- SURVEY AND TOPOGRAPHIC INFORMATION TAKEN FROM A MAP ENTITLED "OUTBOUND & TOPOGRAPHIC SURVEY, LOT 5, BLOCK 109, TOWNSHIP OF MANCHESTER, OCEAN COUNTY, NEW JERSEY" PREPARED BY LINDSTROM, DIESSNER & CARR, P.C., WILLIAM H. DOOLITTLE, PLS#24253324000, DATED 3/10/2018. ERROR OF CLOSURE MEETS OR EXCEEDS 1:10,000. ELEVATIONS BASED ON NAVD 88 DATUM UTILIZING GPS RTK OBSERVATIONS.
- THE TOTAL TRACT AREA IS 87,520 SQUARE FEET (2.009 ACRES).
- PROPERTY LOCATED IN FLOOD ZONE X, COMMUNITY NUMBER 340382, MAP NUMBER 34029C0260F, EFFECTIVE DATE SEPTEMBER 29, 2006.
- OWNER/APPLICANT: 141 OFFICE PARK, LLC  
 128 BORDER STREET  
 WOOD-BRIDGE, NJ 07075  
 201-807-9797
- THE PROPERTY IS LOCATED AT 141 COUNTY ROUTE 539 IN THE WTO-P ZONE. THE APPLICANT SEEKS A USE VARIANCE TO PERMIT CONSTRUCTION OF A 10 UNIT WAREHOUSE BUILDING.
- THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND REGULATORY AGENCY REVIEW AND APPROVAL. ANY SMALL NU I BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS. THIS PLAN IS FOR SITE PLAN PURPOSES ONLY AND SHALL NOT CONSTITUTE A SURVEY DRAWING.
- 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.
- THE CONTRACTOR SHALL VERIFY AND COORDINATE WITH ALL UTILITIES ALONG THE LINE OF THE PROPOSED WORK A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION. CONTRACTORS SHALL NOT PROCEED WITH WORK IN STREETS WHERE UTILITIES HAVE NOT BEEN LOCATED OR MARKED BY UTILITY COMPANIES.
- ALL CURBS SHALL BE DEPRESSED WHERE SIDEWALKS AND CROSSWALKS INTERSECT AND WHERE HANDICAP RAMPS ARE INSTALLED.
- ALL TRAFFIC SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- ALL FIRE LANES, ZONES, SIGNAGE AND STRIPING SHALL BE INSTALLED BY THE DEVELOPER AT THE REQUEST OF THE BUREAU OF FIRE SAFETY IN ACCORDANCE WITH THE TOWNSHIP ORDINANCES, STANDARDS, CONDITIONS AND REQUIREMENTS, CHAPTER 191.
- ADJACENT FEATURES SHALL NOT BE SCALED AS THEY MAY BE SCHEMATIC, EXCEPT WHERE DIMENSIONS MAY BE SHOWN.
- CONSTRUCTION DETAILS ARE INTENDED TO CONFORM TO TOWNSHIP REQUIREMENTS. IN THE EVENT OF DISCREPANCY, THE TOWNSHIP STANDARDS SHALL GOVERN.
- ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:  
 A. N.J. DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", 2019, AS AMENDED.  
 B. CURRENT, PREVAILING MUNICIPAL, COUNTY AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS AND REQUIREMENTS.  
 C. CURRENT, PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.  
 D. CURRENT MANUFACTURERS SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY INCLUDING PROVISION OF ALL APPROPRIATE SAFETY DEVICES AND TRAINING REQUIRED.
- ALL SUBGRADE SHALL BE REVIEWED AND APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO THE INSTALLATION OF IMPROVEMENTS.
- THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON AND/OR IF SUCH CONDITIONS, IN THE CONTRACTOR'S OPINION WOULD OR COULD RENDER THE DESIGN SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
- ANY UTILITY POLE RELOCATIONS WITHIN THE LIMITS OF THE PROPOSED ROAD WIDENING ON THE COUNTY ROAD ARE TO BE COMPLETED PRIOR TO THE ISSUANCE OF THE ROAD OPENING PERMIT FROM THE OCEAN COUNTY ENGINEER'S OFFICE.
- THE DEVELOPER IS REQUIRED TO OBTAIN A PERMIT FROM THE OCEAN COUNTY ENGINEERING DEPARTMENT PRIOR TO THE START OF CONSTRUCTION OF ANY IMPROVEMENTS OR SOIL EROSION CONTROL MEASURES WITHIN THE COUNTY RIGHT-OF-WAY.
- THE DEVELOPER SHALL OBTAIN A LETTER OF FINAL ACCEPTANCE FROM THE OCEAN COUNTY ENGINEER FOR THE ROAD IMPROVEMENTS PRIOR TO THE ISSUANCE OF A TCO/CO FROM THE MUNICIPALITY AND RELEASE OF ANY BOND OR ANY OTHER FINANCIAL SURETY POSTED WITH THE MUNICIPALITY FOR THE COMPLETION OF SAID IMPROVEMENT.
- ALIGNMENT AND GRADE FOR CURB AND ROAD IMPROVEMENTS ALONG THE COUNTY ROAD SHALL BE ESTABLISHED BY THE DEVELOPER'S ENGINEER AS APPROVED BY THE OCEAN COUNTY ENGINEER. STAKEOUT OF ALL CURB AND ROAD IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND SHALL BE EXECUTED BY A LICENSED NEW JERSEY PROFESSIONAL LAND SURVEYOR. CURB AS-BUILTS SHALL BE SUBMITTED TO THE OCEAN COUNTY ENGINEER PRIOR TO ANY PAVING OPERATIONS. FINAL AS-BUILT INFORMATION SHALL BE SUPPLIED ON A REPRODUCIBLE MEDIUM. ALL CURB AS-BUILTS SHALL INCLUDE TOP AND BOTTOM OF CURB, CENTERLINE AND QUARTER CROWN GRADES. MONUMENTS WHERE APPLICABLE SHALL BE SIGNED AND SEALED BY A LICENSED NEW JERSEY PROFESSIONAL LAND SURVEYOR AND ACCOMPANIED BY A MONUMENT CERTIFICATION WHERE APPLICABLE.
- COUNTY ROAD IMPROVEMENTS MUST HAVE BASE PAVEMENT COURSE PRIOR TO THE ISSUANCE OF CERTIFICATE OF OCCUPANCIES.
- ALL SITE LIGHTING SHALL BE TURNED OFF ONE HOUR AFTER CLOSE OF BUSINESS WITH THE EXCEPTION OF SECURITY LIGHTING.
- REMOVAL OF EXISTING TREES SHALL OCCUR IN ACCORDANCE WITH CHAPTER 403 OF THE MUNICIPAL LAND USE REGULATIONS.
- THESE GENERAL NOTES APPLY TO ALL SHEETS IN THE SET.

**Exhibit A3**  
**4/22/2021**

APPROVED BY MANCHESTER TOWNSHIP ZONING BOARD OF ADJUSTMENT ON \_\_\_\_\_ BY RESOLUTION \_\_\_\_\_  
 BOARD CHAIRPERSON \_\_\_\_\_ DATE \_\_\_\_\_  
 SECRETARY \_\_\_\_\_ DATE \_\_\_\_\_  
 ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

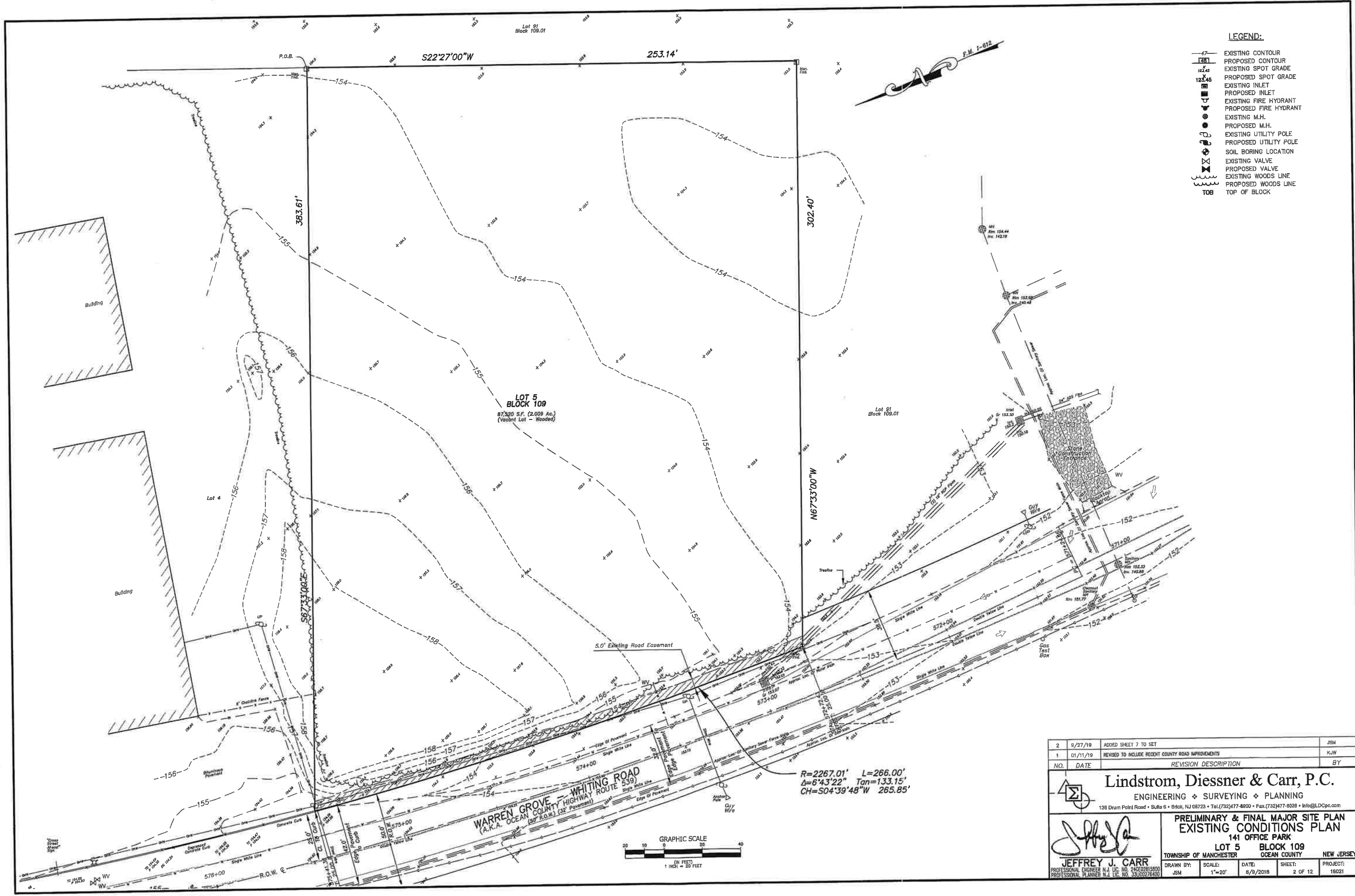
| NO. | DATE      | REVISION DESCRIPTION  | BY  |
|-----|-----------|---|-----|
| 6   | 1/20/21   | REVISED LAYOUT  | JSM |
| 5   | 1/22/2020 | UPDATED PROPERTY OWNERSHIP  | JGK |
| 4   | 12/04/19  | REVISED PER OCEAN COUNTY PLANNING BOARD LETTER DATED 10/15/19                               | JSM |
| 3   | 9/27/19   | REVISED PER OCEAN COUNTY ENGINEERING LETTER DATED 6/7/2019 & ADDED SHEET 7 TO SET           | JSM |
| 2   | 6/26/19   | REVISED PER PINELANDS COMMISSION LETTER 2/15/19, SCD LETTER 2/14/19 AND DCPB LETTER 2/20/19 | KJW |
| 1   | 01/11/19  | REVISED PER PINELANDS COMMISSION LETTER 9/13/18, SCD LETTER 10/2/18 AND DCPB LETTER 9/18/18 | KJW |

**Lindstrom, Diessner & Carr, P.C.**  
 ENGINEERING • SURVEYING • PLANNING  
 136 Drum Point Road • Suite 6 • Brick, NJ 08723 • Tel. (732)477-8800 • Fax. (732)477-8026 • Info@LDCpa.com

**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**COVER SHEET & GENERAL NOTES**  
**141 OFFICE PARK**  
**LOT 5 BLOCK 109**  
**TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY**

JEFFREY J. CARR  
 PROFESSIONAL ENGINEER N.J. LIC. NO. 24253324000  
 PROFESSIONAL PLANNER N.J. LIC. NO. 33-00278400

DRAWN BY: JSM SCALE: AS NOTED DATE: 8/9/2018 SHEET: 1 OF 12 PROJECT: 18021



- LEGEND:**
- - - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - 152.45 EXISTING SPOT GRADE
  - 123.45 PROPOSED SPOT GRADE
  - EXISTING INLET
  - PROPOSED INLET
  - ⊕ EXISTING FIRE HYDRANT
  - ⊕ PROPOSED FIRE HYDRANT
  - ⊙ EXISTING M.H.
  - ⊙ PROPOSED M.H.
  - ⊕ EXISTING UTILITY POLE
  - ⊕ PROPOSED UTILITY POLE
  - ⊗ SOIL BORING LOCATION
  - ⊕ EXISTING VALVE
  - ⊕ PROPOSED VALVE
  - EXISTING WOODS LINE
  - PROPOSED WOODS LINE
  - TOB TOP OF BLOCK

|     |          |  |     |
|-----|----------|--|-----|
| 2   | 8/27/19  | ADDED SHEET 7 TO SET                               | JSM |
| 1   | 01/11/19 | REVISED TO INCLUDE RECENT COUNTY ROAD IMPROVEMENTS | KJW |
| NO. | DATE     | REVISION DESCRIPTION                               | BY  |

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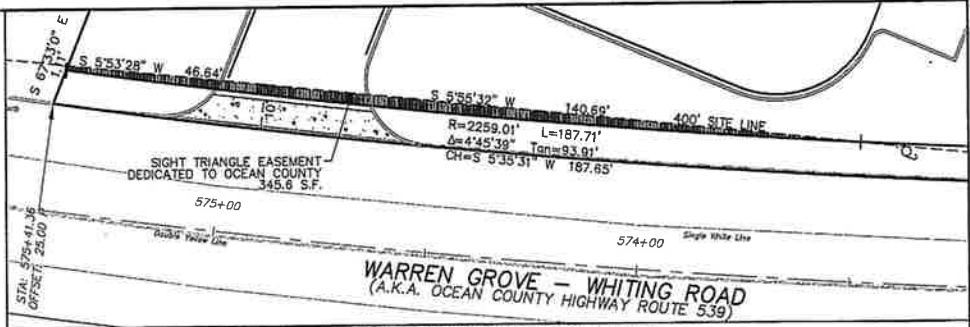
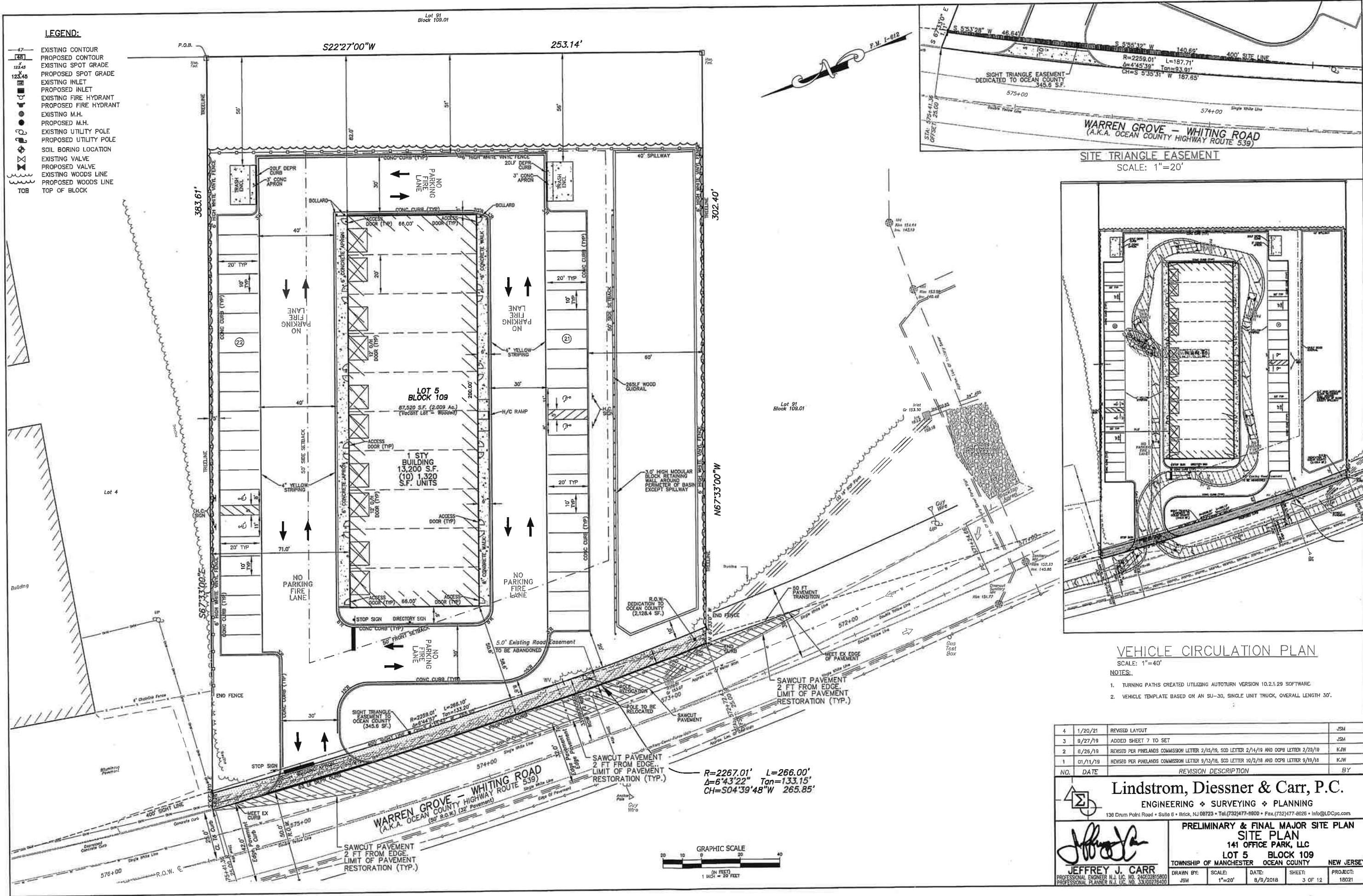
**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**EXISTING CONDITIONS PLAN**  
 141 OFFICE PARK  
 LOT 5 BLOCK 109  
 TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY

**JEFFREY J. CARR**  
 PROFESSIONAL ENGINEER N.J. LIC. NO. 246500015800  
 PROFESSIONAL PLANNER N.J. LIC. NO. 33-92276400

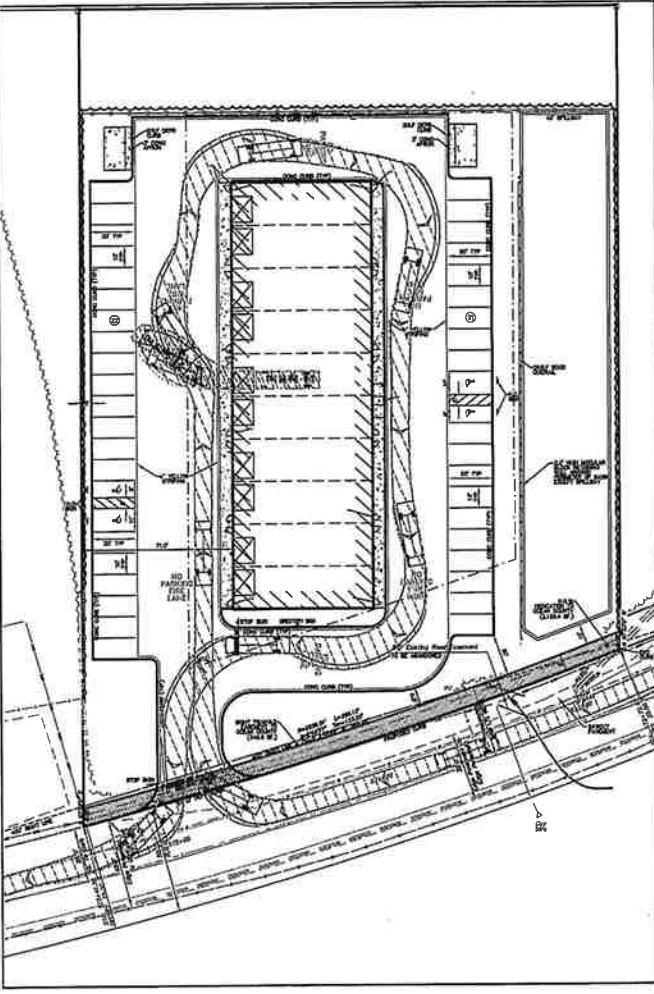
|           |        |          |         |          |
|-----------|--------|----------|---------|----------|
| DRAWN BY: | SCALE: | DATE:    | SHEET:  | PROJECT: |
| JSM       | 1"=20' | 8/9/2018 | 2 OF 12 | 18021    |

**LEGEND:**

- 47— EXISTING CONTOUR
- 12.46— PROPOSED CONTOUR
- 12.46— EXISTING SPOT GRADE
- 12.46— PROPOSED SPOT GRADE
- 12.46— EXISTING INLET
- 12.46— PROPOSED INLET
- 12.46— EXISTING FIRE HYDRANT
- 12.46— PROPOSED FIRE HYDRANT
- 12.46— EXISTING M.H.
- 12.46— PROPOSED M.H.
- 12.46— EXISTING UTILITY POLE
- 12.46— PROPOSED UTILITY POLE
- 12.46— SOIL BORING LOCATION
- 12.46— EXISTING VALVE
- 12.46— PROPOSED VALVE
- 12.46— EXISTING WOODS LINE
- 12.46— PROPOSED WOODS LINE
- 12.46— TOB
- 12.46— TOP OF BLOCK



**SITE TRIANGLE EASEMENT**  
SCALE: 1"=20'



**VEHICLE CIRCULATION PLAN**  
SCALE: 1"=40'

- NOTES:
1. TURNING PATHS CREATED UTILIZING AUTOTURN VERSION 10.2.1.29 SOFTWARE.
  2. VEHICLE TEMPLATE BASED ON AN SU-30, SINGLE UNIT TRUCK, OVERALL LENGTH 30'.

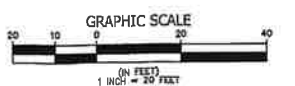
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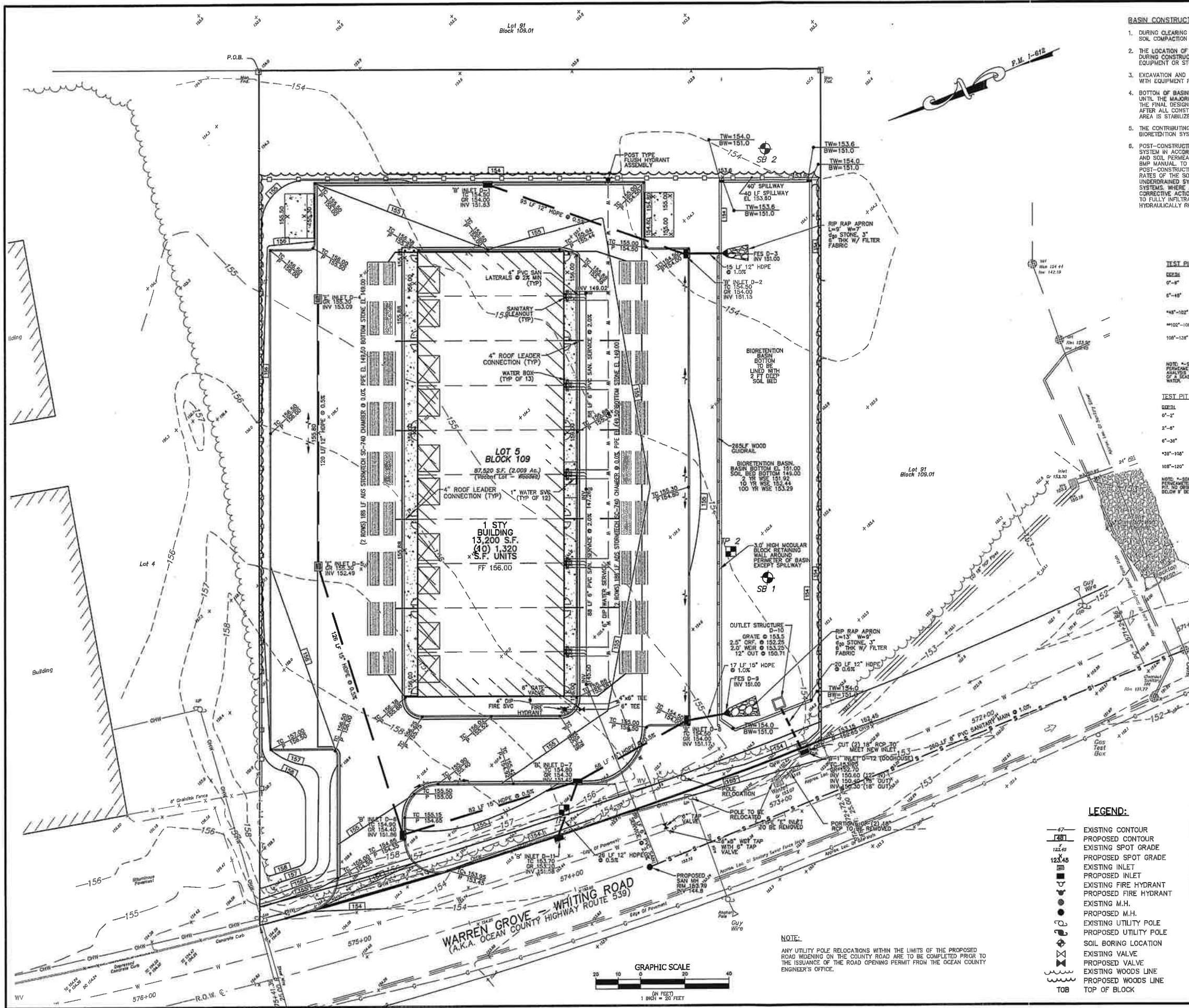
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**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**SITE PLAN**  
141 OFFICE PARK, LLC  
LOT 5 BLOCK 109  
TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY

JEFFREY J. CARR  
PROFESSIONAL ENGINEER N.J. LIC. NO. 24620815000  
PROFESSIONAL PLANNER N.J. LIC. NO. 3330078400

DRAWN BY: JSM SCALE: 1"=20' DATE: 8/9/2018 SHEET: 3 OF 12 PROJECT: 18021





- BIORETENTION NOTES:**
- DURING CLEARING AND GRADING OF THE SITE, MEASURES MUST BE TAKEN TO ELIMINATE SOIL COMPACTION AT THE LOCATION OF THE PROPOSED BIORETENTION SYSTEM.
  - THE LOCATION OF THE PROPOSED BIORETENTION SYSTEM MUST ALSO BE CORROBORATED DURING CONSTRUCTION TO PREVENT COMPACTION OF THE SUBSOIL BY CONSTRUCTION EQUIPMENT OR STOCKPILES.
  - EXCAVATION AND CONSTRUCTION OF THE BIORETENTION SYSTEM MUST BE PERFORMED WITH EQUIPMENT PLACED OUTSIDE THE LIMITS OF THE BASIN.
  - BOTTOM OF BASIN SHALL NOT BE FULLY EXCAVATED FOR THE BOTTOM 2 FEET OF SOIL UNTIL THE MAJORITY OF THE CONSTRUCTION HAS BEEN COMPLETED. THE EXCAVATION TO THE FINAL DESIGN ELEVATION OF THE BIORETENTION SYSTEM BOTTOM MAY ONLY OCCUR AFTER ALL CONSTRUCTION WITHIN ITS DRAINAGE AREA IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED.
  - THE CONTRIBUTING DRAINAGE AREA MUST BE COMPLETELY STABILIZED PRIOR TO BIORETENTION SYSTEM USE.
  - POST-CONSTRUCTION TESTING MUST BE PERFORMED ON THE AS-BUILT BIORETENTION SYSTEM IN ACCORDANCE WITH THE CONSTRUCTION AND POST-CONSTRUCTION OVERSIGHT AND SOIL PERMEABILITY TESTING SECTION IN APPENDIX E: SOIL TESTING CRITERIA OF THE SHP MANUAL. TO ENSURE THAT THE AS-BUILT SYSTEM FUNCTIONS AS DESIGNED, POST-CONSTRUCTION TESTING MUST INCLUDE: A DETERMINATION OF THE PERMEABILITY RATES OF THE SOIL BED AND THE HYDRAULIC CAPACITY OF THE UNDERDRAIN, IN UNDEGRADED SYSTEMS; OR THE PERMEABILITY OF THE SUBSOIL, IN INFILTRATION SYSTEMS. WHERE AS-BUILT TESTING RESULTS IN LONGER DRAIN TIMES THAN DESIGNED, CORRECTIVE ACTION MUST BE TAKEN. THE DRAIN TIME IS DEFINED AS THE TIME IT TAKES TO FULLY INFILTRATE THE MAXIMUM DESIGN STORM RUNOFF VOLUME THROUGH THE MOST HYDRAULICALLY RESTRICTIVE LAYER.

**TEST PIT 1 (EL. 156.2)**

| DEPTH   | COLOR/SMELL                 | SOIL  |
|---------|-----------------------------|---|
| 0'-0"   | GRAY (10 YR 5/1)            | TOPSOIL, MIXED SANDS, SINGLE GRAIN, LOOSE.  |
| 0'-6"   | YELLOWISH BROWN (10 YR 5/2) | SANDY LOAM, SINGLE GRAIN, LOOSE, W/ QUARTZ PEBBLES (8"), 20% OF MASS.   |
| 6'-8"   | YELLOWISH BROWN (10 YR 5/2) | LOAMY SAND, SINGLE GRAIN, LOOSE.  |
| 8'-10"  | YELLOWISH BROWN (10 YR 5/2) | SANDY CLAY, SINGLE GRAIN, SLIGHTLY HARD.  |
| 10'-12" | YELLOWISH BROWN (10 YR 5/2) | COARSE SAND WITH SOME SILT, SINGLE GRAIN, LOOSE, WITH INTERMITTENT STRONG BROWN (10 YR 5/3) VARIATED SILTY SANDS (NOT NOTICED). |

NOTE: -SOIL SAMPLE COLLECTED AT 6" BELOW GRADE FOR UNDISTURBED RISE PERMEABILITY TEST. -SOIL SAMPLE COLLECTED AT 10" FOR SOIL CLASS RATING. -NO EVIDENCE OF SEASONAL HIGH WATER TABLE WITHIN TEST PIT. NO OBSERVATION OF GROUND WATER.

**TEST PIT 2 (EL. 153.9)**

| DEPTH   | COLOR/SMELL                 | SOIL                                       |
|---------|-----------------------------|--|
| 0'-2"   | VERY DARK GRAY (10 YR 3/1)  | TOPSOIL, MIXED SANDS, SINGLE GRAIN, LOOSE. |
| 2'-0"   | GRAY (10 YR 5/1)            | SAND, SINGLE GRAIN, LOOSE.                 |
| 6'-30"  | YELLOWISH BROWN (10 YR 5/2) | SANDY LOAM, SINGLE GRAIN, LOOSE.           |
| 10'-10" | YELLOWISH BROWN (10 YR 5/2) | SAND, SINGLE GRAIN, LOOSE.                 |
| 10'-12" | BROWN (10 YR 5/3)           | MEDIUM - COARSE SAND, SINGLE GRAIN, LOOSE. |

NOTE: -SOIL SAMPLE COLLECTED AT 7" BELOW GRADE FOR UNDISTURBED RISE PERMEABILITY TEST. -NO EVIDENCE OF SEASONAL HIGH WATER TABLE WITHIN TEST PIT. NO OBSERVATION OF GROUND WATER. TEST PIT CONTINUOUSLY COLLAPSED BELOW 8" BELOW GRADE.

**Soil Boring No. 1**  
Lot 5, Block 109  
Township of Manchester, NJ  
Date Performed 07/27/2018

| DEPTH  | DESCRIPTION  |
|--------|--|
| 0'-0"  | LOAMY SAND, BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, TRACE ROOTS, NO STONE, MOIST.                            |
| 1'-0"  | MEDIUM SAND, YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST.                    |
| 1'-2"  | MEDIUM SAND, BROWNISH YELLOW TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST.                    |
| 1'-4"  | MEDIUM TO COARSE SAND, BROWNISH BROWN TO YR 5/2, NO ROOTS, TRACE STONE, MOIST.                               |
| 1'-6"  | MEDIUM TO COARSE SAND, YR 5/2 BROWN BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, TRACE GRANULES, MOIST. |
| 1'-8"  | LOAMY SAND, YELLOWISH BROWN TO YR 5/2 GRANULES STRUCTURE, NO ROOTS, NO STONE, MOIST.                         |
| 1'-10" | MEDIUM SAND, YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST.                    |
| 1'-12" | MEDIUM SAND, YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST.                    |

NO WATER ENCOUNTERED  
SHAFT @ 7"  
SOIL PERMEABILITY (L/100) 24" PER HOUR

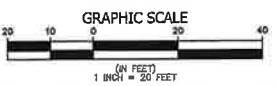
**Soil Boring No. 2**  
Lot 5, Block 109  
Township of Manchester, NJ  
Date Performed 07/27/2018

| DEPTH  | DESCRIPTION   |
|--------|---|
| 0'-0"  | LOAMY SAND, VERY DARK GRAY-BROWN BROWN TO YR 3/2 SINGLE GRAIN STRUCTURE, TRACE ROOTS, NO STONE, MOIST.  |
| 1'-2"  | FINE SAND, YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, TRACE ROOTS, NO STONE, MOIST.              |
| 1'-4"  | MEDIUM TO FINE SAND, LIGHT YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST. |
| 1'-6"  | LOAMY SAND, YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST.                |
| 1'-8"  | MEDIUM TO FINE SAND, YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST.       |
| 1'-10" | MEDIUM SAND, LIGHT YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST.         |
| 1'-12" | MEDIUM SAND, LIGHT YELLOWISH BROWN TO YR 5/2 SINGLE GRAIN STRUCTURE, NO ROOTS, NO STONE, MOIST.         |

NO WATER ENCOUNTERED  
SHAFT @ 7"  
SOIL PERMEABILITY (L/100) 24" PER HOUR

- LEGEND:**
- 47- EXISTING CONTOUR
  - 121.45- PROPOSED CONTOUR
  - 122.45- EXISTING SPOT GRADE
  - 123.45- PROPOSED SPOT GRADE
  - EXISTING INLET
  - PROPOSED INLET
  - EXISTING FIRE HYDRANT
  - PROPOSED FIRE HYDRANT
  - EXISTING M.H.
  - PROPOSED M.H.
  - EXISTING UTILITY POLE
  - PROPOSED UTILITY POLE
  - SOIL BORING LOCATION
  - EXISTING VALVE
  - PROPOSED VALVE
  - EXISTING WOODS LINE
  - PROPOSED WOODS LINE
  - TOP OF BLOCK

**NOTE:**  
ANY UTILITY POLE RELOCATIONS WITHIN THE LIMITS OF THE PROPOSED ROAD WIDENING ON THE COUNTY ROAD ARE TO BE COMPLETED PRIOR TO THE ISSUANCE OF THE ROAD OPENING PERMIT FROM THE OCEAN COUNTY ENGINEER'S OFFICE.



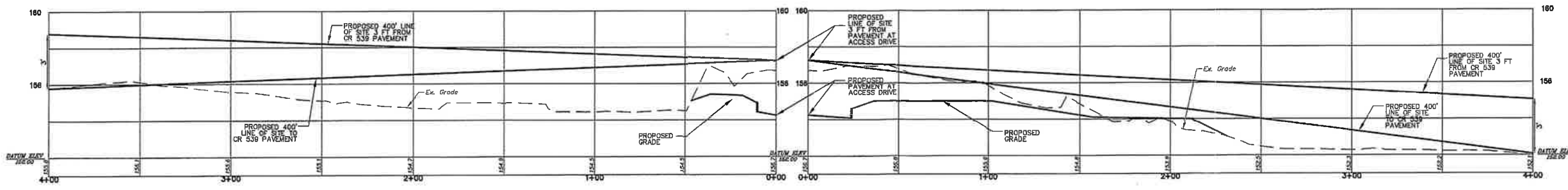
| NO. | DATE     | REVISION DESCRIPTION  | BY  |
|-----|----------|---|-----|
| 5   | 1/20/21  | REVISED LAYOUT  | JSM |
| 4   | 12/04/19 | REVISED PER OCEAN COUNTY PLANNING BOARD LETTER DATED 10/16/19                               | JSM |
| 3   | 9/27/19  | REVISED PER OCEAN COUNTY ENGINEERING LETTER DATED 8/7/2019 & ADDED SHEET 7 TO SET           | JSM |
| 2   | 8/28/19  | REVISED PER PINELANDS COMMISSION LETTER 2/15/19, SOI LETTER 2/14/19 AND OCPB LETTER 2/20/19 | KJW |
| 1   | 01/11/19 | REVISED PER PINELANDS COMMISSION LETTER 9/13/18, SOI LETTER 10/2/18 AND OCPB LETTER 9/19/18 | KJW |

**Lindstrom, Diessner & Carr, P.C.**  
ENGINEERING ♦ SURVEYING ♦ PLANNING  
138 Drum Point Road • Suite 6 • Brick, NJ 08723 • Tel: (732)477-8800 • Fax: (732)477-8026 • Info@LDcpc.com

**JEFFREY J. CARR**  
PROFESSIONAL ENGINEER N.J. LIC. NO. 24202081500  
PROFESSIONAL PLANNER N.J. LIC. NO. 33090726400

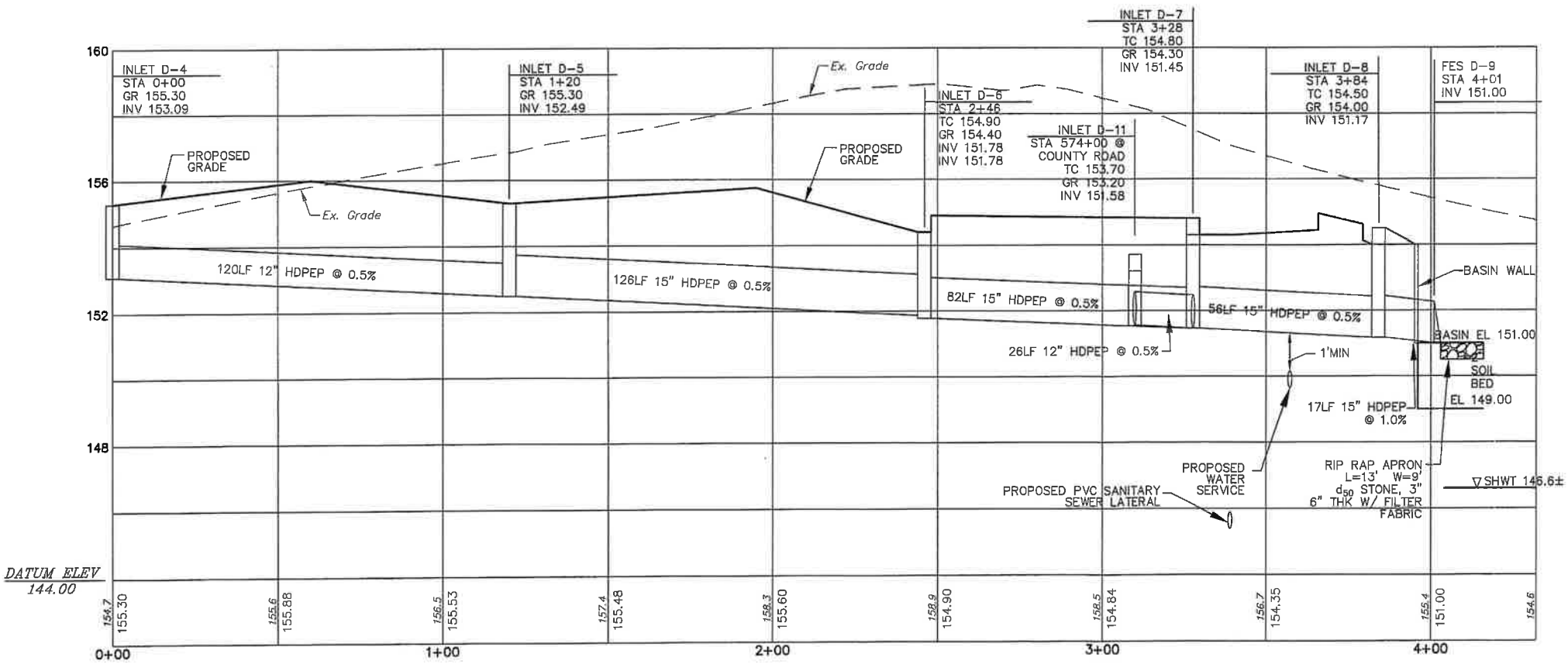
**PRELIMINARY & FINAL MAJOR SITE PLAN GRADING & UTILITIES PLAN**  
LOT 5 BLOCK 109  
141 OFFICE PARK, LLC  
TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY

DRAWN BY: JSM SCALE: 1"=20' DATE: 8/9/2018 SHEET: 4 OF 12 PROJECT: 18021

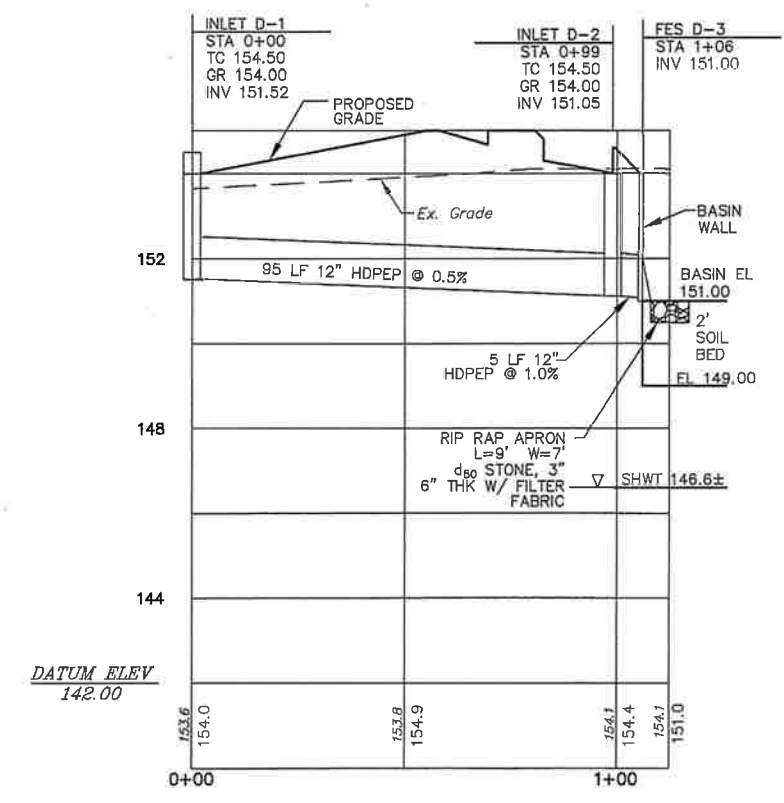
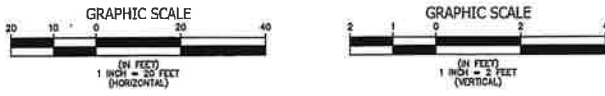


**SIGHT LINE PROFILE  
ACCESS DRIVE TO NORTH**

**SIGHT LINE PROFILE  
ACCESS DRIVE TO SOUTH**



**INLET D-4 TO FES D-9**



**INLET D-1 TO FES D-3**

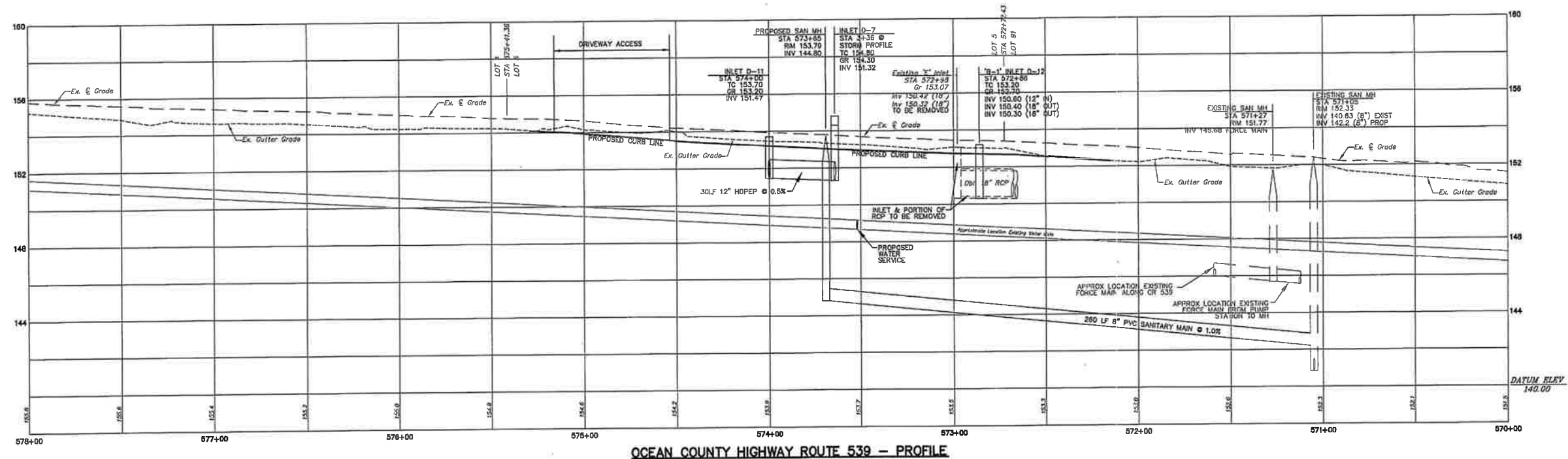
| NO. | DATE     | REVISION DESCRIPTION  | BY  |
|-----|----------|---|-----|
| 5   | 1/20/21  | REVISED LAYOUT  | JSM |
| 4   | 12/04/19 | REVISED PER OCEAN COUNTY PLANNING BOARD LETTER DATED 10/16/19                               | JSM |
| 3   | 9/27/19  | REVISED PER OCEAN COUNTY ENGINEERING LETTER DATED 8/7/2019 & ADDED SHEET 7 TO SET           | JSM |
| 2   | 6/26/19  | REVISED PER PINELANDS COMMISSION LETTER 2/15/18, SCD LETTER 2/14/19 AND OCPB LETTER 2/20/19 | KJW |
| 1   | 01/11/19 | REVISED PER PINELANDS COMMISSION LETTER 9/13/16, SCD LETTER 10/2/16 AND OCPB LETTER 9/19/16 | KJW |

**Lindstrom, Diessner & Carr, P.C.**  
ENGINEERING ♦ SURVEYING ♦ PLANNING  
138 Drum Point Road • Suite 6 • Brick, NJ 08723 • Tel: (732) 477-8900 • Fax: (732) 477-8026 • Info@LDcpc.com

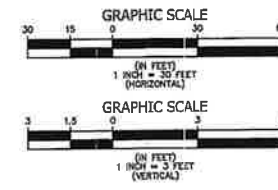
**JEFFREY J. CARR**  
PROFESSIONAL ENGINEER N.J. LIC. NO. 24020015800  
PROFESSIONAL PLANNER N.J. LIC. NO. 33000278420

**PRELIMINARY & FINAL MAJOR SITE PLAN  
SIGHT LINE & STORM PROFILES**  
141 OFFICE PARK, LLC  
LOT 5 BLOCK 109  
TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY

DRAWN BY: JSM SCALE: AS NOTED DATE: 8/9/2018 SHEET: 6 OF 12 PROJECT: 18021



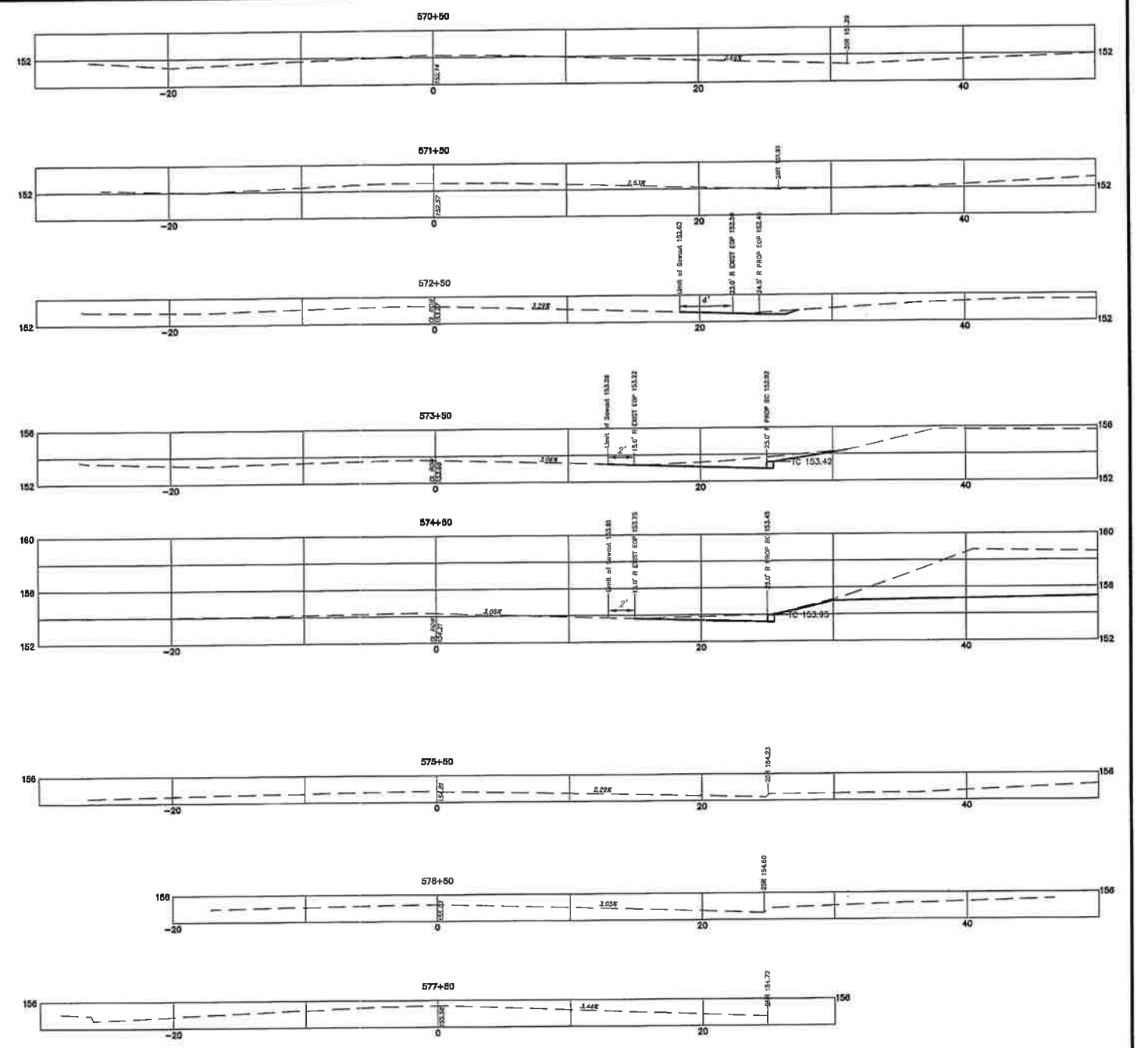
OCEAN COUNTY HIGHWAY ROUTE 539 - PROFILE



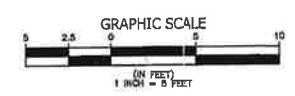
| NO. | DATE     | REVISION DESCRIPTION  | BY  |
|-----|----------|---|-----|
| 4   | 12/04/19 | REVISED PER OCEAN COUNTY PLANNING BOARD LETTER DATED 10/16/19                               | JSM |
| 3   | 9/27/19  | REVISED PER OCEAN COUNTY ENGINEERING LETTER DATED 8/7/2019 & ADDED SHEET 7 TO SET           | JSM |
| 2   | 6/26/19  | REVISED PER PINELANDS COMMISSION LETTER 2/15/19, SCD LETTER 2/14/19 AND OCPB LETTER 2/20/19 | KJW |
| 1   | 01/11/19 | REVISED PER PINELANDS COMMISSION LETTER 8/13/18, SCD LETTER 10/2/18 AND OCPB LETTER 9/19/18 | KJW |

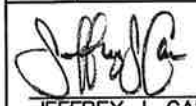
  

|   |                    |
|---|--------------------|
| <b>Lindstrom, Diessner &amp; Carr, P.C.</b><br>ENGINEERING ♦ SURVEYING ♦ PLANNING<br>136 Drum Point Road • Suite 6 • Brick, NJ 08723 • Tel.(732)477-8900 • Fax.(732)477-8026 • info@LDcpc.com |                    |
| <b>PRELIMINARY &amp; FINAL MAJOR SITE PLAN</b><br><b>COUNTY 539 PROFILE</b><br><b>141 OFFICE PARK, LLC</b><br><b>LOT 5 BLOCK 109</b><br>TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY        |                    |
| DRAWN BY:<br><br><b>JEFFREY J. CARR</b><br><small>PROFESSIONAL ENGINEER N.J. LIC. NO. 246502815800<br/>         PROFESSIONAL PLANNER N.J. LIC. NO. 3306078400</small>                         | SCALE:<br>AS NOTED |
| DATE:<br>8/9/2018   | SHEET:<br>8 OF 12  |
| PROJECT:<br>18021   |                    |



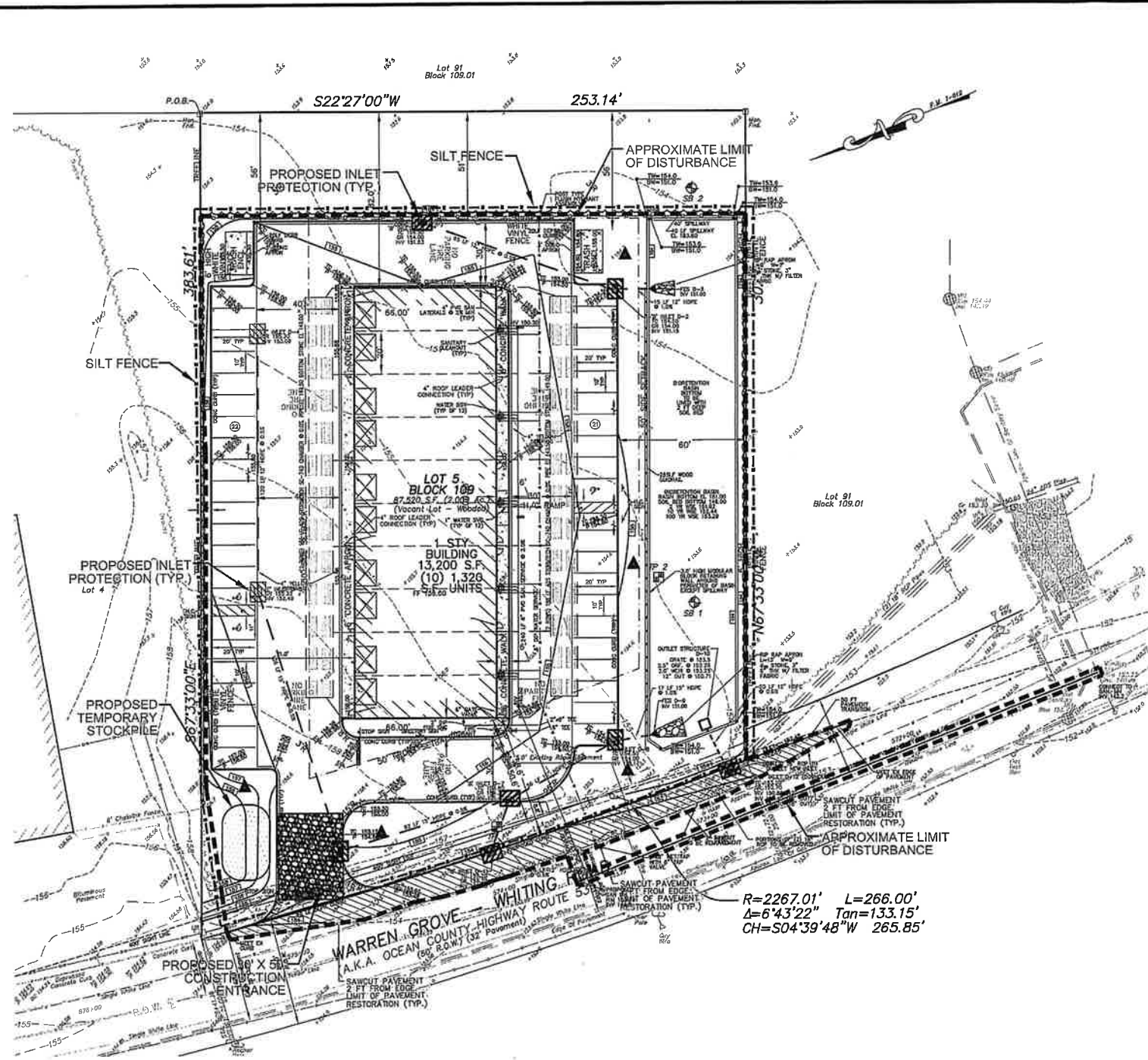
OCEAN COUNTY HIGHWAY ROUTE 539 - CROSS SECTIONS



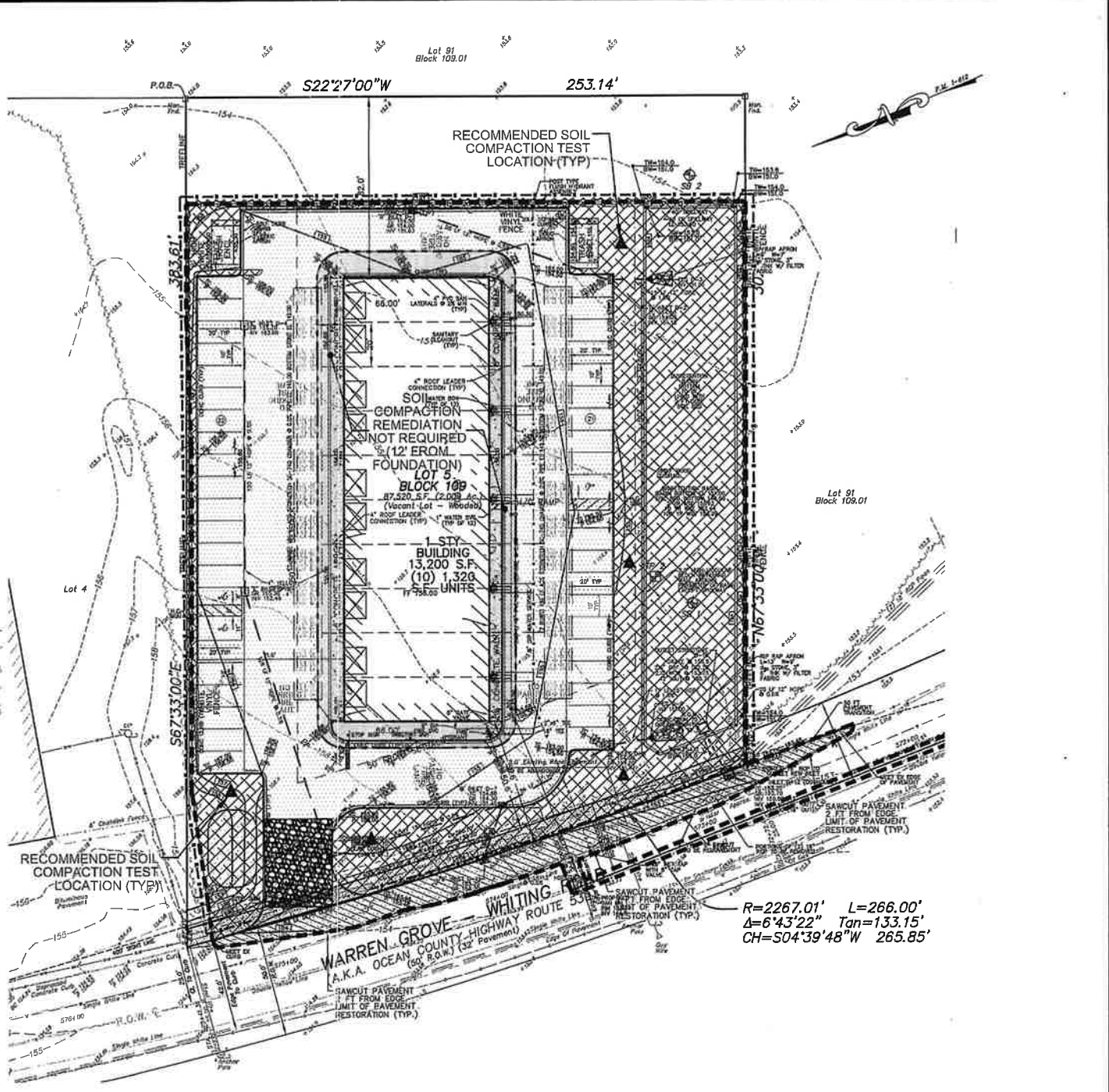
| 1   | 9/27/19 | REVISED PER OCEAN COUNTY ENGINEERING LETTER DATED 8/7/2019 & ADDED SHEET 7 TO SET   | JSM     |
|---|---------|---|---------|
| NO.   | DATE    | REVISION DESCRIPTION  | BY      |
| <b>Lindstrom, Diessner &amp; Carr, P.C.</b><br>ENGINEERING ♦ SURVEYING ♦ PLANNING<br>138 Drum Point Road • Suite 6 • Brick, NJ 08723 • Tel: (732)477-8900 • Fax: (732)477-9025 • Info@LDcpc.com                       |         |   |         |
| <br><b>JEFFREY J. CARR</b><br>PROFESSIONAL ENGINEER N.J. LIC. NO. 246302815000<br>PROFESSIONAL PLANNER N.J. LIC. NO. 33100275400 |         | <b>PRELIMINARY &amp; FINAL MAJOR SITE PLAN</b><br><b>COUNTY 539 SECTIONS</b><br>141 OFFICE PARK, LLC<br>LOT 5 BLOCK 109<br>TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY |         |
| DRAWN BY:   | SCALE:  | DATE:   | SHEET:  |
| JSM   | 1"=6'   | 9/27/2019   | 7 OF 12 |
| PROJECT:  |         |   | 18021   |



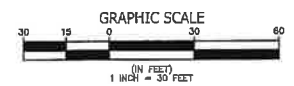




SOIL EROSION & SEDIMENT CONTROL PLAN



SOIL MITIGATION PLAN



- LEGEND**
- SOIL COMPACTION TESTING AREAS (>500 S.F. CONTINUOUS WITHIN L.O.D.)
  - AREAS NOT SUBJECT TO SOIL COMPACTION MITIGATION
  - RECOMMENDED SOIL COMPACTION TEST LOCATION

| NO. | DATE     | REVISION DESCRIPTION  | BY  |
|-----|----------|---|-----|
| 5   | 1/20/21  | REVISED LAYOUT  | JSM |
| 4   | 12/04/19 | REVISED PER OCEAN COUNTY PLANNING BOARD LETTER DATED 10/16/19                               | JSM |
| 3   | 9/27/19  | ADDED SHEET 7 TO SET  | JSM |
| 2   | 6/26/19  | REVISED PER PINELANDS COMMISSION LETTER 2/15/19, SCD LETTER 2/14/19 AND OCPB LETTER 2/20/19 | KJW |
| 1   | 01/11/19 | REVISED PER PINELANDS COMMISSION LETTER 9/13/18, SCD LETTER 10/2/18 AND OCPB LETTER 9/18/18 | KJW |

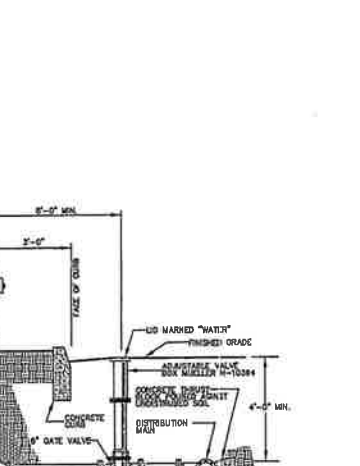
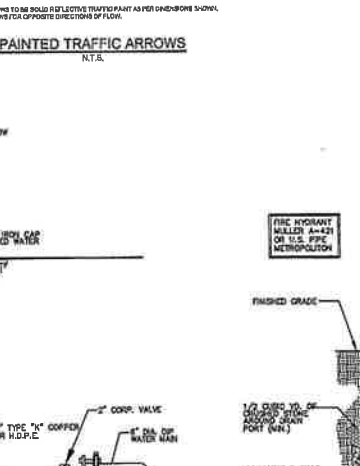
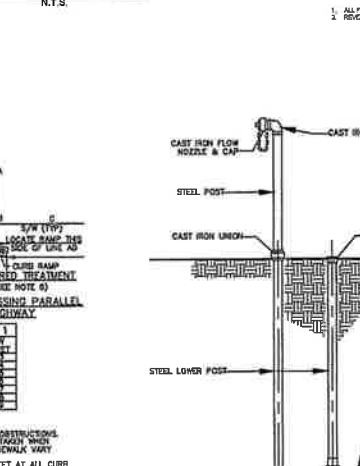
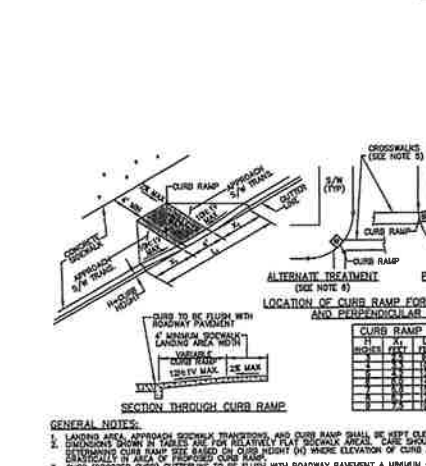
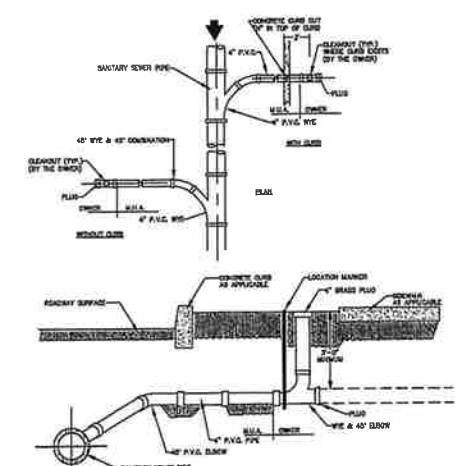
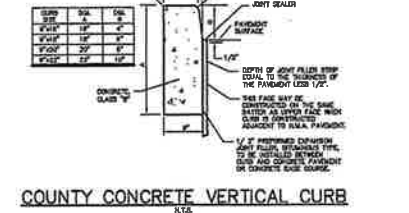
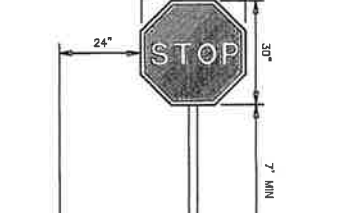
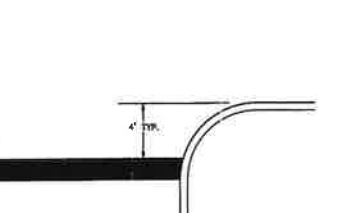
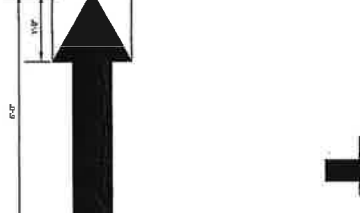
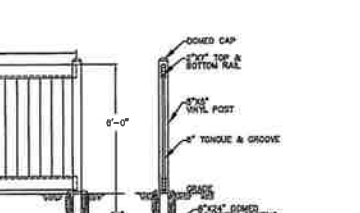
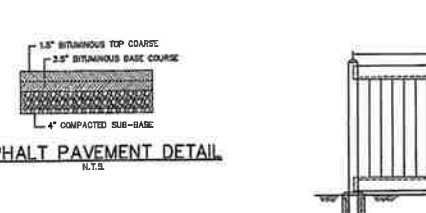
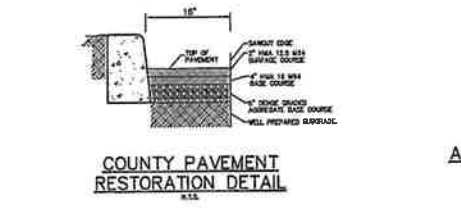
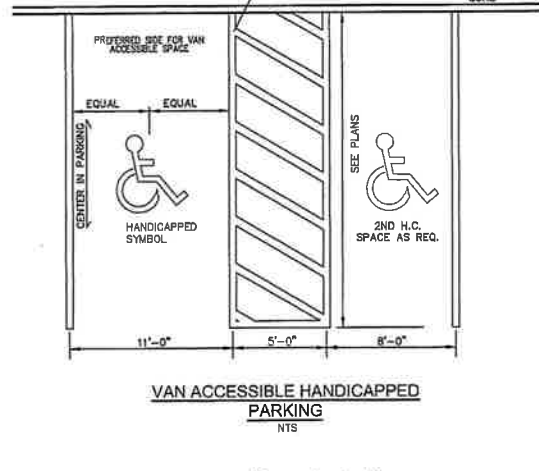
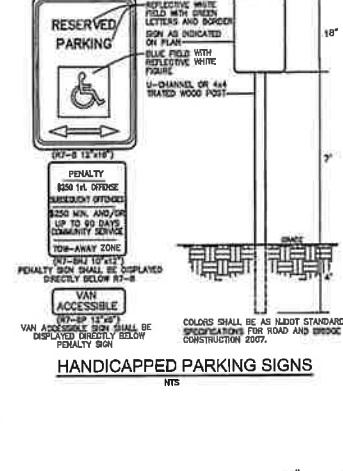
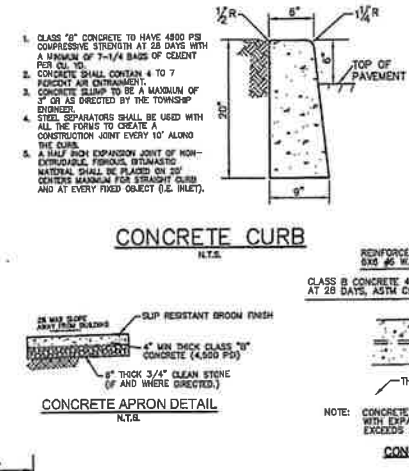
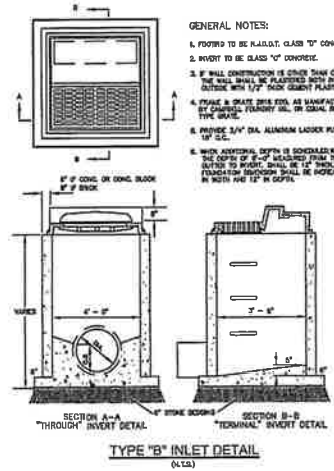
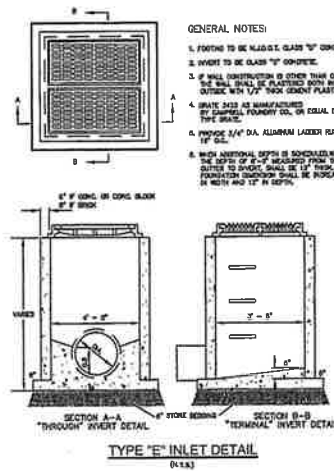
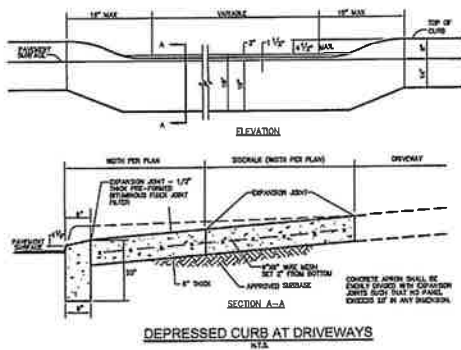
**Lindstrom, Diessner & Carr, P.C.**  
 ENGINEERING ♦ SURVEYING ♦ PLANNING  
 138 Drum Point Road • Suite 6 • Brick, NJ 08723 • Tel. (732)477-8900 • Fax (732)477-8026 • info@LDcpc.com

**PRELIMINARY & FINAL MAJOR SITE PLAN**  
**SOIL EROSION & SEDIMENT CONTROL PLAN**  
 141 OFFICE PARK, LLC  
 LOT 5 BLOCK 109  
 TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY

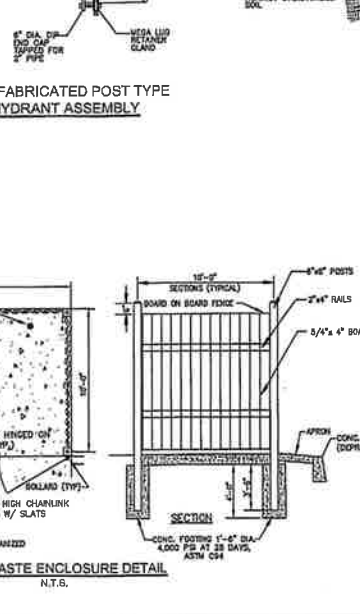
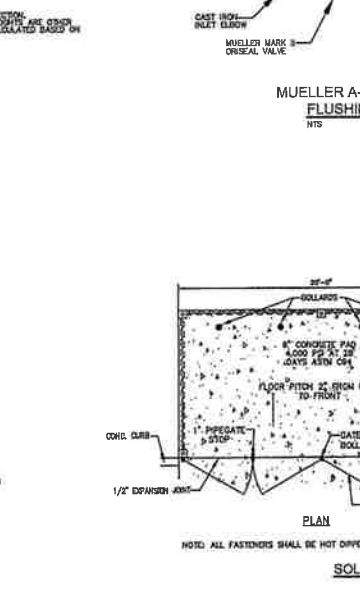
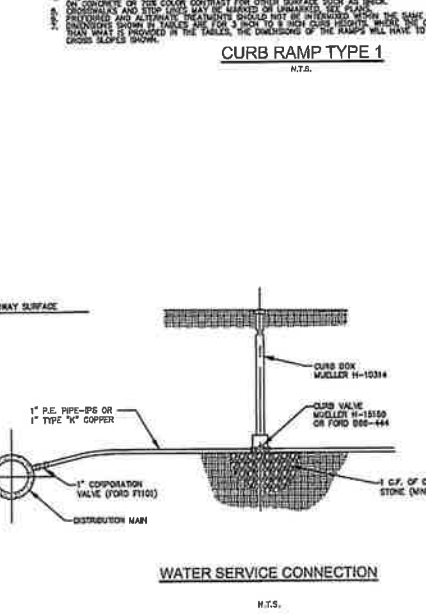
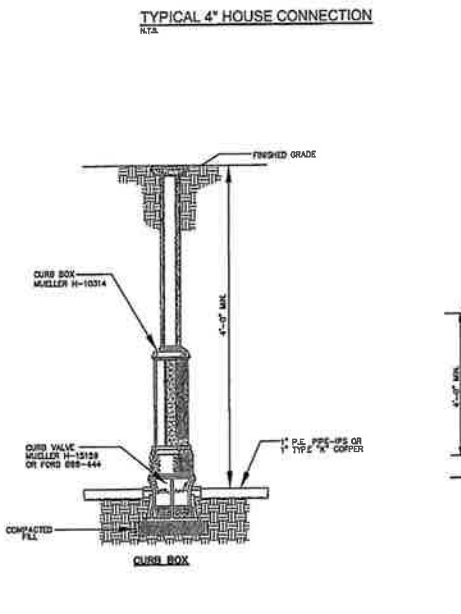
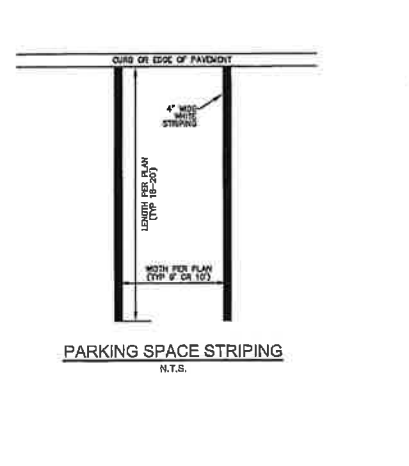
**JEFFREY J. CARR**  
 PROFESSIONAL ENGINEER N.J. LIC. NO. 246020813000  
 PROFESSIONAL PLANNER N.J. LIC. NO. 33000276400

DRAWN BY: JSM SCALE: 1"=30' DATE: 8/9/2018 SHEET: 9 OF 12 PROJECT: 18021





| RADIUS (R) OF PIPE | CONTACT AREA - SQUARE FEET |      |      |      |      |      |
|--------------------|----------------------------|------|------|------|------|------|
|                    | 6"                         | 8"   | 10"  | 12"  | 18"  | 20"  |
| 30"                | 3.0                        | 3.0  | 6.0  | 11.0 | 18.0 | 24.0 |
| 40"                | 6.0                        | 9.0  | 13.0 | 18.0 | 33.0 | 51.0 |
| 50"                | 4.0                        | 6.5  | 9.5  | 13.5 | 23.0 | 36.0 |
| 60"                | 4.0                        | 6.5  | 9.5  | 13.5 | 23.0 | 36.0 |
| 7.5"               | 7.5                        | 12.3 | 16.0 | 22.5 | 44.0 | 68.0 |



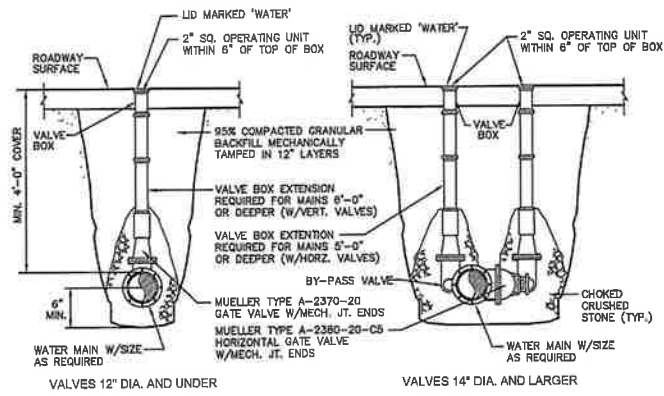
|     |          |   |     |
|-----|----------|---|-----|
| 3   | 9/27/19  | ADDED SHEET 7 TO SET  | JSM |
| 2   | 6/26/19  | REVISED PER PINELANDS COMMISSION LETTER 2/15/19, SCD LETTER 2/14/19 AND DCPB LETTER 2/20/19 | KJW |
| 1   | 01/11/19 | REVISED PER PINELANDS COMMISSION LETTER 9/13/18, SCD LETTER 10/2/18 AND DCPB LETTER 9/19/18 | KJW |
| NO. | DATE     | REVISION DESCRIPTION  | BY  |

**Lindstrom, Diessner & Carr, P.C.**  
ENGINEERING ♦ SURVEYING ♦ PLANNING  
136 Drum Point Road • Suite 8 • Brick, NJ 08723 • Tel. (732)477-8900 • Fax. (732)477-8026 • Info@LDcpc.com

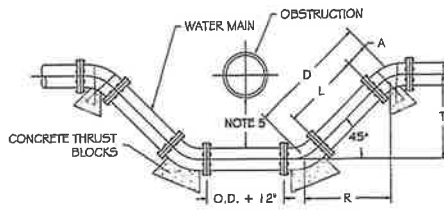
**PRELIMINARY & FINAL MAJOR SITE PLAN CONSTRUCTION DETAILS**  
141 OFFICE PARK, LLC  
LOT 5 BLOCK 109  
TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY

**JEFFREY J. CARR**  
PROFESSIONAL ENGINEER N.J. LIC. NO. 24020215800  
PROFESSIONAL PLANNER N.J. LIC. NO. 33100776400

DRAWN BY: JSM SCALE: 1"=30' DATE: 8/9/2018 SHEET: 11 OF 12 PROJECT: 16021



**UNDERGROUND GATE VALVE DETAILS**  
N.T.S.



**NOTES**

1. WATER MAIN SHALL BE LOCATED ABOVE OBSTRUCTION, IF IT MINIMUM COVER IS MAINTAINED ABOVE OBSTRUCTION.
2. WATER MAIN SHALL BE LOCATED ABOVE OBSTRUCTION, IF IT MINIMUM COVER IS MAINTAINED ABOVE OBSTRUCTION.
3. WATER MAIN SHALL BE LOCATED ABOVE OBSTRUCTION, IF IT MINIMUM COVER IS MAINTAINED ABOVE OBSTRUCTION.
4. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL POINTS OF CONTACT OF PIPES OR CONDUITS.
5. MINIMUM CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN SHALL BE 12\"/>

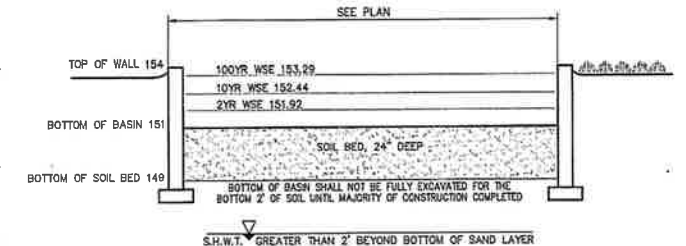
**MECHANICAL JOINTS**

| ANGLE  | D      | E      | F      | G      |
|--------|--------|--------|--------|--------|
| 45°    | 1.1414 | 1.0000 | 0.7071 | 0.7071 |
| 22.5°  | 1.0413 | 1.0000 | 0.3907 | 0.3907 |
| 11.25° | 1.0106 | 1.0000 | 0.1951 | 0.1951 |

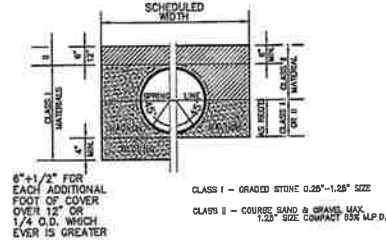
**UTILITY CROSSING DETAIL**

**BASIN CONSTRUCTION NOTES:**

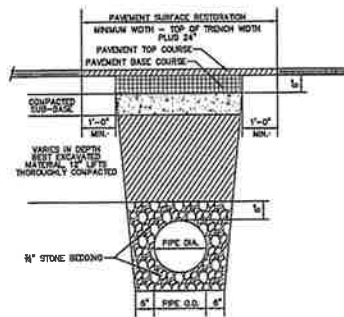
1. DURING CLEARING AND GRADING OF THE SITE, MEASURES MUST BE TAKEN TO ELIMINATE SOIL COMPACTION AT THE LOCATION OF THE PROPOSED BIORETENTION SYSTEM.
2. THE LOCATION OF THE PROPOSED BIORETENTION SYSTEM MUST ALSO BE CORRECTED OFF DURING CONSTRUCTION TO PREVENT COMPACTION OF THE SUBSOIL BY CONSTRUCTION EQUIPMENT OR STOCKPILES.
3. EXCAVATION AND CONSTRUCTION OF THE BIORETENTION SYSTEM MUST BE PERFORMED WITH EQUIPMENT PLACED OUTSIDE THE LIMITS OF THE BASIN.
4. BOTTOM OF BASIN SHALL NOT BE FULLY EXCAVATED FOR THE BOTTOM 2 FEET OF SOIL UNTIL THE MAJORITY OF THE CONSTRUCTION HAS BEEN COMPLETED. THE EXCAVATION TO THE FINAL DESIGN ELEVATION OF THE BIORETENTION SYSTEM BOTTOM MAY ONLY OCCUR AFTER ALL CONSTRUCTION WITHIN ITS DRAINAGE AREA IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED.
5. THE CONTRIBUTING DRAINAGE AREA MUST BE COMPLETELY STABILIZED PRIOR TO BIORETENTION SYSTEM USE.
6. POST-CONSTRUCTION TESTING MUST BE PERFORMED ON THE AS-BUILT BIORETENTION SYSTEM IN ACCORDANCE WITH THE CONSTRUCTION AND POST-CONSTRUCTION OVERSIGHT AND SOIL PERMEABILITY TESTING SECTION IN APPENDIX E; SOIL TESTING CRITERIA OF THE SUMP MANUAL, TO ENSURE THAT THE AS-BUILT SYSTEM FUNCTIONS AS DESIGNED. POST-CONSTRUCTION TESTING MUST INCLUDE A DETERMINATION OF THE PERMEABILITY RATES OF THE SOIL BED AND THE HYDRAULIC CAPACITY OF THE UNDERDRAIN, IN UNDERDRAINED SYSTEMS, OR THE PERMEABILITY OF THE SUBSOIL, IN INFILTRATION SYSTEMS, WHERE AS-BUILT TESTING RESULTS IN LONGER DRAIN TIMES THAN DESIGNED. CORRECTIVE ACTION MUST BE TAKEN, THE DRAIN TIME IS DEFINED AS THE TIME IT TAKES TO FULLY INFILTRATE THE MAXIMUM DESIGN STORM RUNOFF VOLUME THROUGH THE MOST HYDRAULICALLY RESTRICTIVE LAYER.



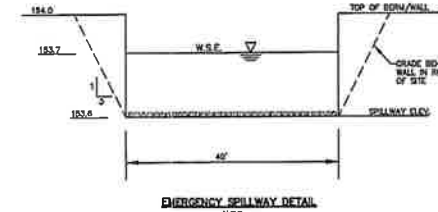
**BIO RETENTION BASIN CROSS SECTION DETAIL**  
N.T.S.



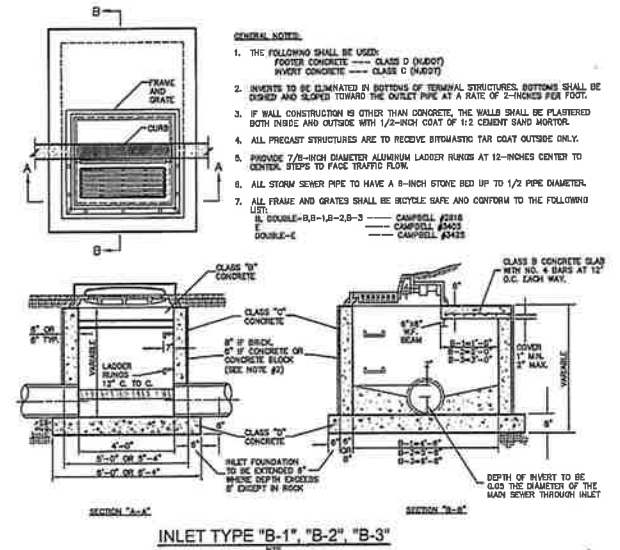
**BEDDING AND INITIAL BACKFILL**  
P.V.C. SEWERAGE  
N.T.S.



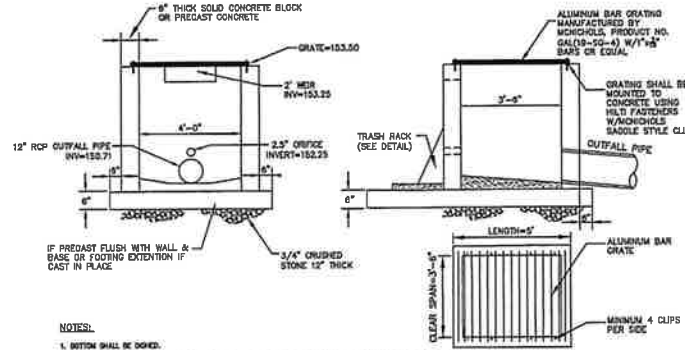
**BEDDING, BACKFILL & PAVEMENT RESTORATION DETAIL**  
N.T.S.



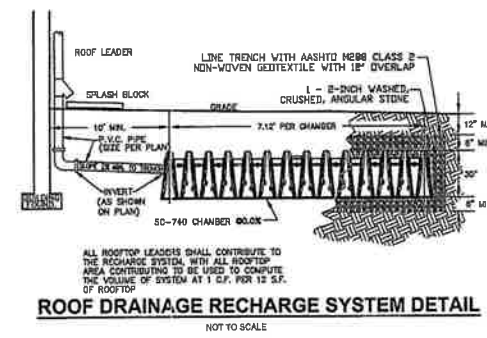
**EMERGENCY SPILLWAY DETAIL**  
N.T.S.



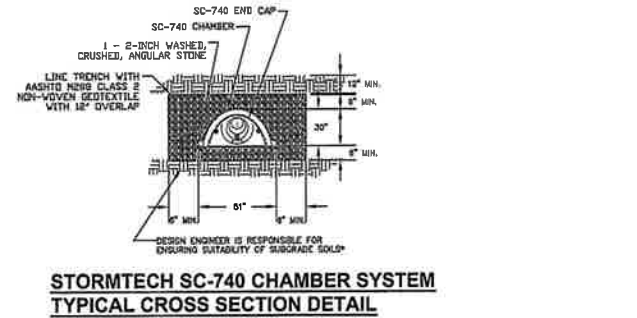
**INLET TYPE "B-1", "B-2", "B-3"**  
N.T.S.



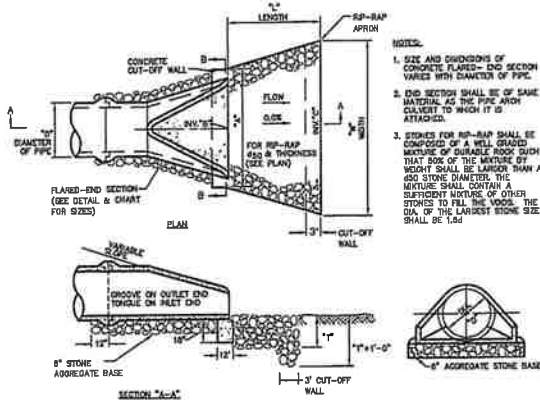
**OUTLET STRUCTURE**  
N.T.S.



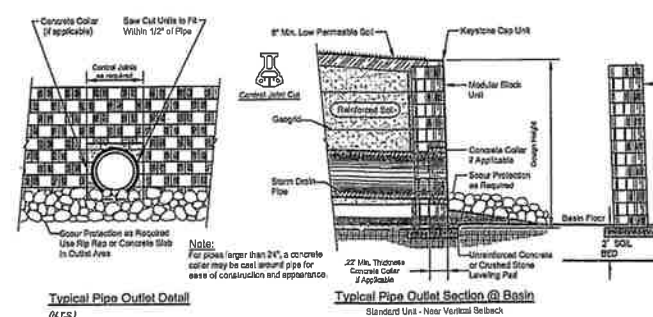
**ROOF DRAINAGE RECHARGE SYSTEM DETAIL**  
NOT TO SCALE



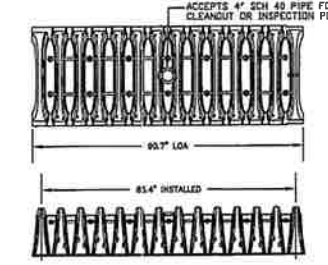
**STORMTECH SC-740 CHAMBER SYSTEM TYPICAL CROSS SECTION DETAIL**  
NOT TO SCALE



**FLARED-END SECTION & RIP-RAP APRON DETAIL**  
N.T.S.



**Typical Pipe Outlet Detail (N.T.S.)**



**STORMTECH SC-740 CHAMBER**  
MINIMUM CHAMBER SPECIFICATIONS  
SIZE: 60\"/>

| NO. | DATE     | REVISION DESCRIPTION  | BY   |
|-----|----------|---|------|
| 4   | 1/20/21  | ADDED DETAILS   | JSM  |
| 3   | 12/04/19 | REVISED PER OCEAN COUNTY PLANNING BOARD LETTER DATED 10/16/19                     | JSM  |
| 2   | 9/27/18  | REVISED PER OCEAN COUNTY ENGINEERING LETTER DATED 8/7/2018 + ADDED SHEET 7 TO SET | JSM  |
| 1   | 6/28/19  | ADDED SHEET TO SET  | K/JW |

**Lindstrom, Diessner & Carr, P.C.**  
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**PRELIMINARY & FINAL MAJOR SITE PLAN CONSTRUCTION DETAILS**  
141 OFFICE PARK, LLC  
LOT 5 BLOCK 109  
TOWNSHIP OF MANCHESTER OCEAN COUNTY NEW JERSEY

**JEFFREY J. CARR**  
PROFESSIONAL ENGINEER N.J. LIC. NO. 749200815800  
PROFESSIONAL PLANNER N.J. LIC. NO. 33100278400

SCALE: 1"=30'  
DATE: 8/26/2019  
SHEET: 12 OF 12  
PROJECT: 18021