

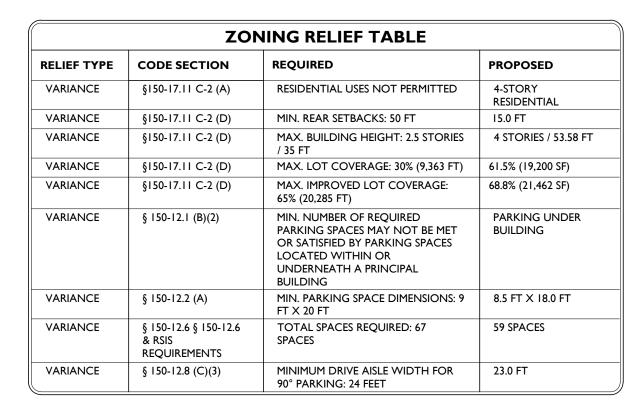
LOCATION MAP

PRELIMINARY & FINAL MAJOR SITE PLAN FOR 21 & 25 GROVE ASSOCIATES, LLC **PROPOSED RESIDENTIAL** APPROVED BY THE DEVELOPMENT



AERIAL MAP

SCALE: I" = 200'±



SOURCE: GOOGLE EARTH PRO: IMAGE DATED 05/23/2018



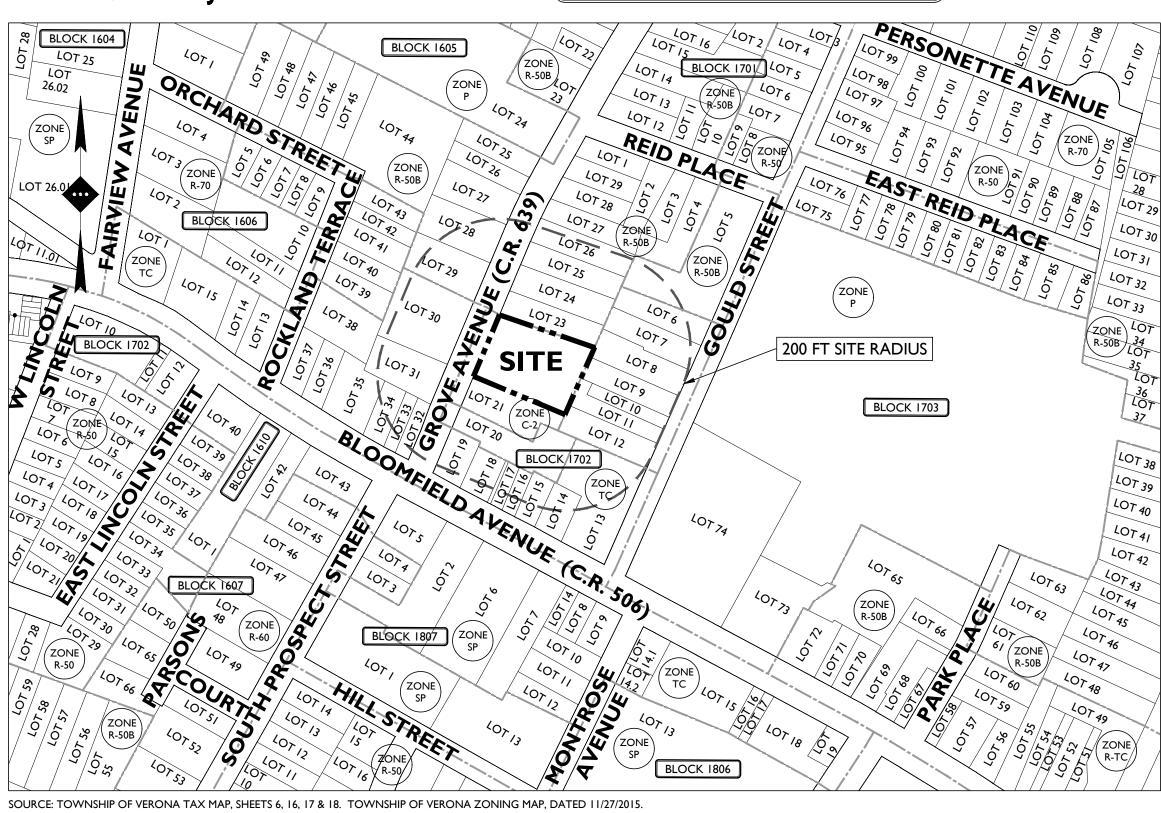
Know what's **below Call** before you dig.

BLOCK 1702, LOT 22 21 GROVE AVENUE (COUNTY ROUTE 639) TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY ATTESTED TO BY:

APPROVED BY THE TOWNSHIP OF VERONA LAND USE BOARD:

LAND USE BOARD CHAIRPERSON

LAND USE BOARD SECRETARY



PLANS PREPARED BY:



Rutherford, NJ \cdot New York, NY \cdot Boston, MA Princeton, NJ · Tampa, FL · Detroit, MI www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070 Phone 201.340.4468 · Fax 201.340.4472

PLAN REFERENCE MATERIALS:

I. THIS PLAN SET REFERENCES THE FOLLOWIN INCLUDING, BUT NOT LIMITED TO: **BOUNDARY & TOPOGRAPHIC SURVEY PREPARE**

STONEFIELD ENGINEERING, DATED 03/6/2019 ARCHITECTURAL PLANS PREPARED BY BILOW GARRETT

SCALE: I" = 200'±

- **GROUP ARCHITECTS AND PLANNERS, PC, DATED MARCH 2021.** AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO,
- **IMAGERY DATED 05/23/2018.**
- LOCATION MAP OBTAINED FROM USGS QUADRANGLE MAPS - 7.5 MINUTE SERIES, TOWNSHIP OF VERONA, NJ, DATED 2016 & CALDWELL, NJ, DATED 2016.
- TAX MAP OBTAINED FROM THE TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY, DATED 11/27/2015.
- ZONING MAP OBTAINED FROM THE TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY, DATED 07/11/2011. SITE PLAN PREPARED FOR DECAMP COMMONS PREPARED BY
- MCCUMSEY PETRY, P.C., DATED 04/24/1998.

2. ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

| | | 5 03/04/2021 SPM FOR MUNICIPAL RESUBMISSION | 4 07/31/2020 MEM FOR MUNICIPAL SUBMISSION | 2 3 02/28/2020 DBB FOR MUNICIPAL SUBMISSION | 2 10/10/2019 ANV FOR MUNICIPAL SUBMISSION | TI 09/20/2019 TL FOR MUNICIPAL SUBMISSION | SISUE DATE BY DESCRIPTION |
|--|--------------------------------|---|---|---|---|---|--|
| NOT APPROACH FOR CONSTRUCTION STOD NEELED Stod begin Bugineering & design Rutherford, NJ • New York, NY • Boston, MA Princeton, NJ • Tampa, FL • Detroit, MI www.stonefieldeng.com Madquarters: 92 Park Avenue, Rutherford, NJ 07070 Phone 201.340.4468 • Fax 201.340.4472 | | | | | | | |
| PRELIMINARY AND FINAL SITE PLAN | 21 & 25 GROVE ASSOCIATES, LLC. | PROPOSED RESIDENTIAL | | | | BLOCK 1702, LOT 22 | TOWNSHIP OF VERONA ESSEX COUNTY, NEW JERSEY |
| | | HEW J. JERSEY LIG ED PROFES TO Ingineer | | E No. al en | 4873 GINE | ER | LD |
| SCALE TITLE: DRAW | СС | | | - | | | -19059 |

APPLICANT

21 & 25 GROVE ASSOCIATES LLC 250 MOONACHIE ROAD, SUITE 302 **BOROUGH OF MOONACHIE, NEW JERSEY, 07074** PHONE NUMBER EMAIL ADDRESS

OWNER

GROVE REAL ESTATE, LLC 21 GROVE AVENUE TOWNSHIP OF VERONA, NEW JERSEY, 07044

ATTORNEY

JASON R. TUVEL, ESQ. PRIME LAW 2 UNIVERSITY PLAZA, SUITE 109 HACKENSACK, NJ 07601

TOWNSHIP OF VERONA SIGNATURE BLOCK

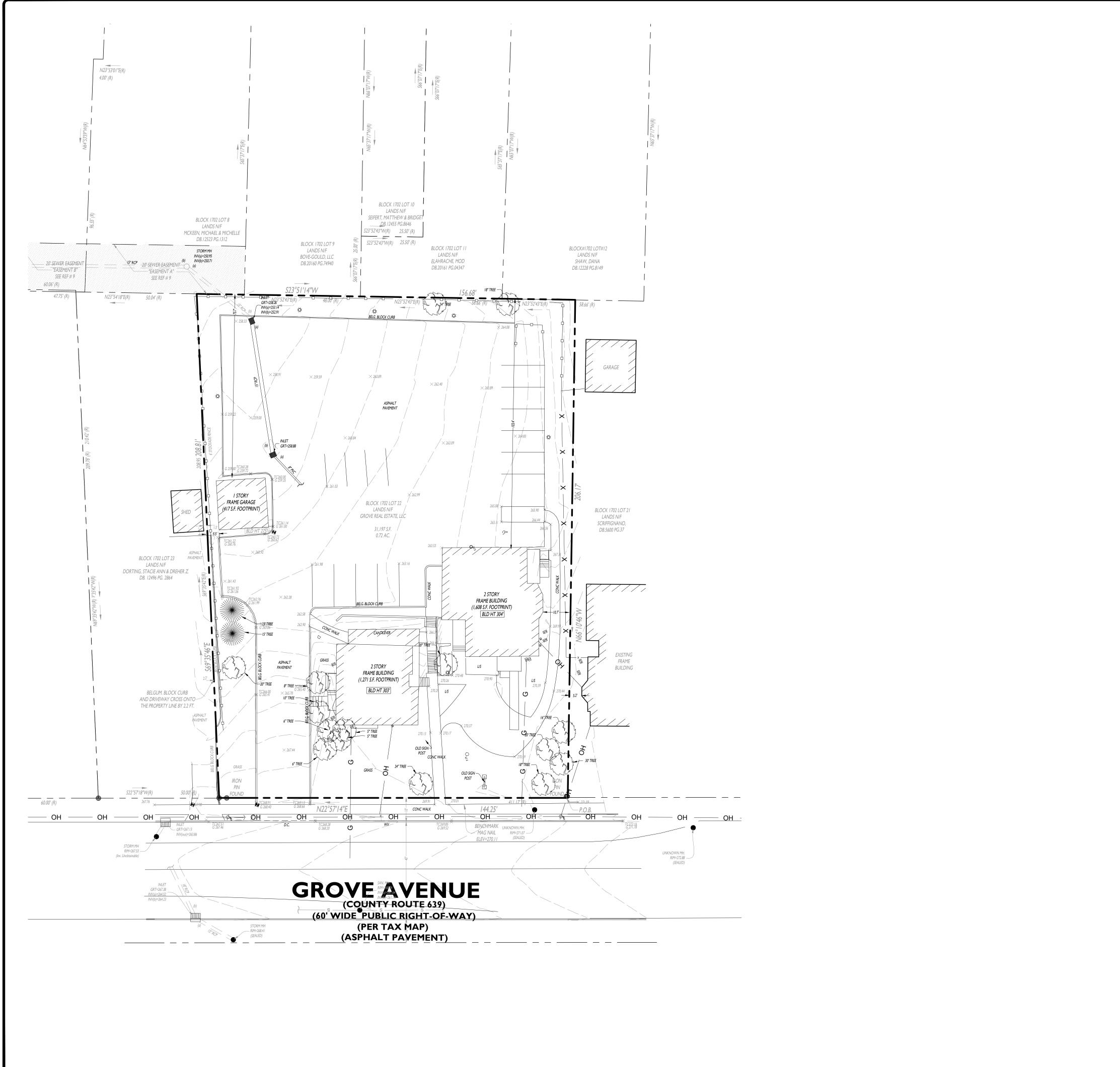
ENGINEER OF THE TOWNSHIP OF VERONA

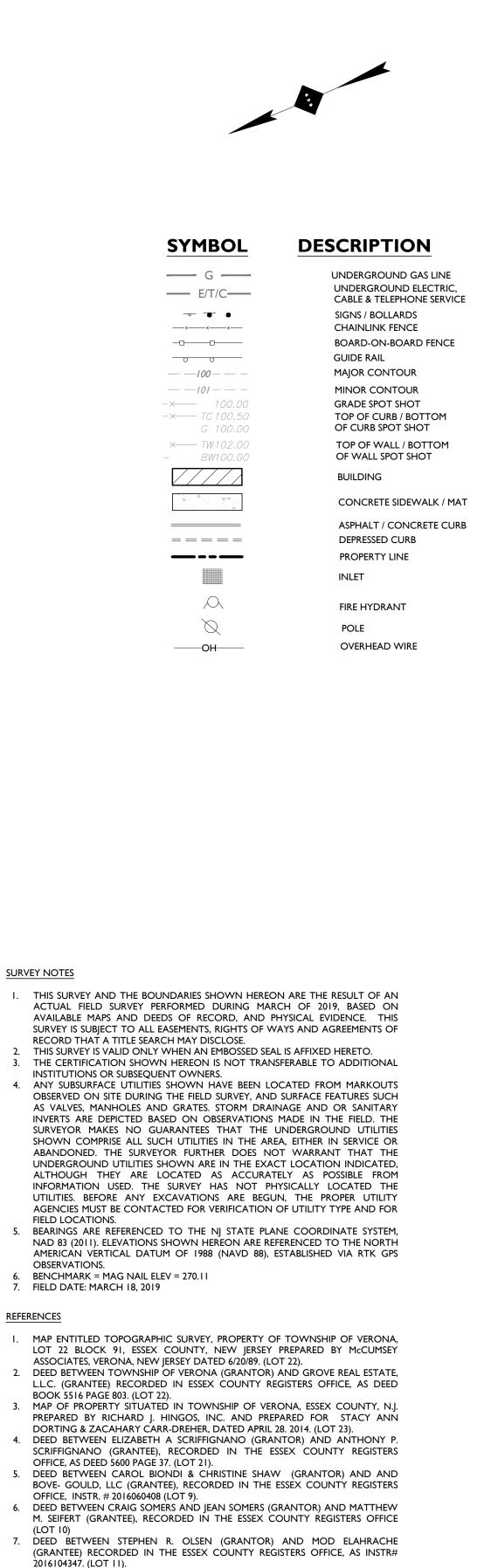
OWNSHIP OF VERONA SIGNATURE BLOCK

TAX & ZONING MAP

| IG | DOCUMENTS |
|----|-----------|
| ED | ВҮ |

| SHEET INDEX | | | | | | |
|--------------------------------------|-------------|--|--|--|--|--|
| DRAWING TITLE | SHEET # | | | | | |
| COVER SHEET | C-I | | | | | |
| EXISTING CONDITIONS PLAN | C-2 | | | | | |
| DEMOLITION PLAN | C-3 | | | | | |
| SITE PLAN | C-4 | | | | | |
| GRADING & DRAINAGE PLAN | C-5 | | | | | |
| UTILITY PLAN | C-6 | | | | | |
| LIGHTING PLAN | C-7 | | | | | |
| SOIL EROSION & SEDIMENT CONTROL PLAN | C-8 | | | | | |
| LANDSCAPING PLAN | C-9 & C-10 | | | | | |
| CONSTRUCTION DETAILS | C-11 - C-14 | | | | | |
| TRUCK TURNING | C-15 | | | | | |





2016104347. (LOT 11). 8. DEED BETWEEN BRIAN COLE AND KLERSTEN (GRANTOR) AND DANA A SHAW (GRANTEE), RECORDED IN THE ESSEX COUNTY REGISTERS OFFICE, DEED BOOK 6116 PAGE 810 (LOT 12).

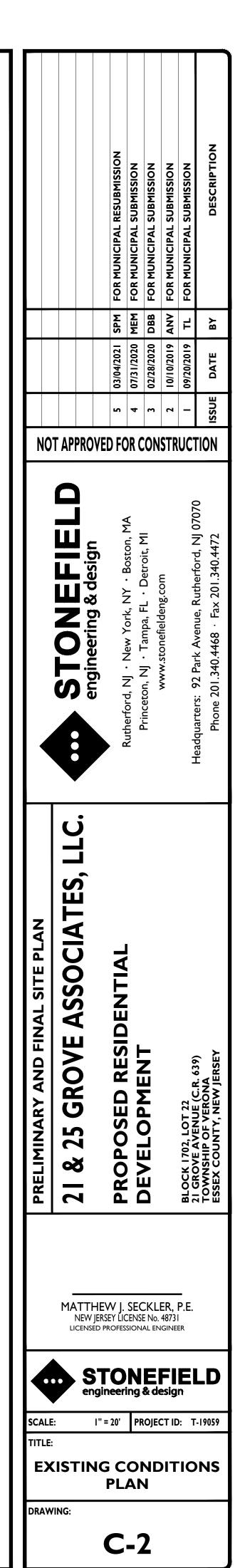
SURVEY NOTES

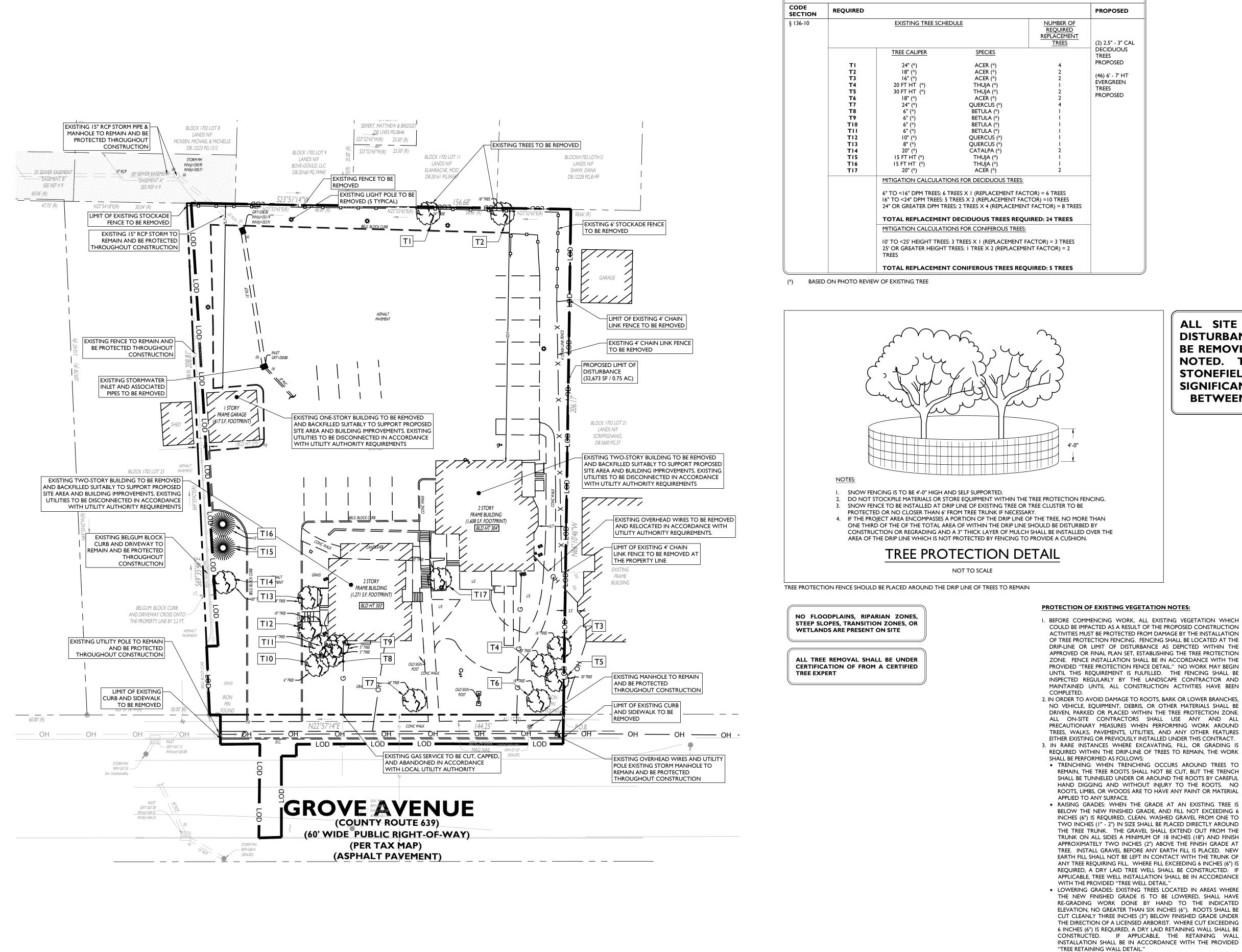
OBSERVATIONS.

REFERENCES

(LOT 10)

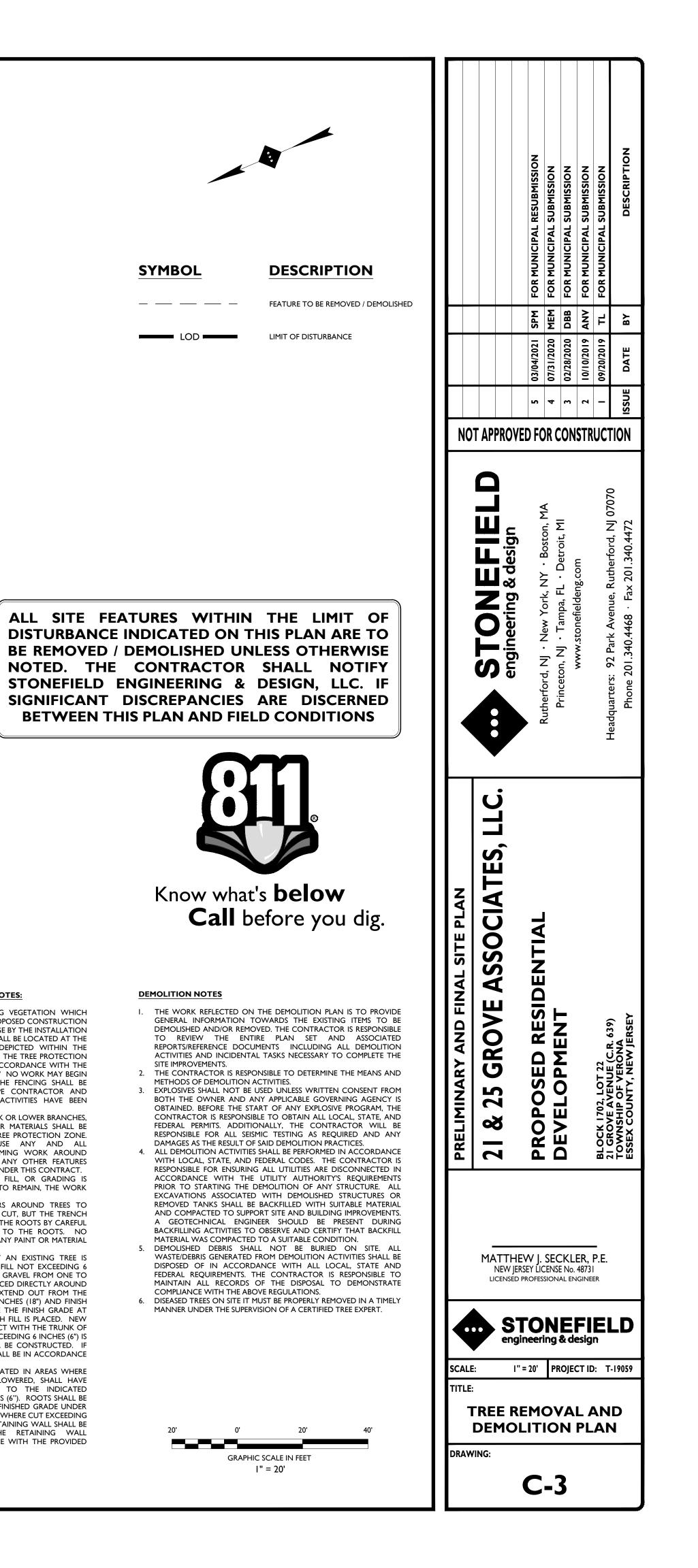
GRAPHIC SCALE IN FEET I" = 20'

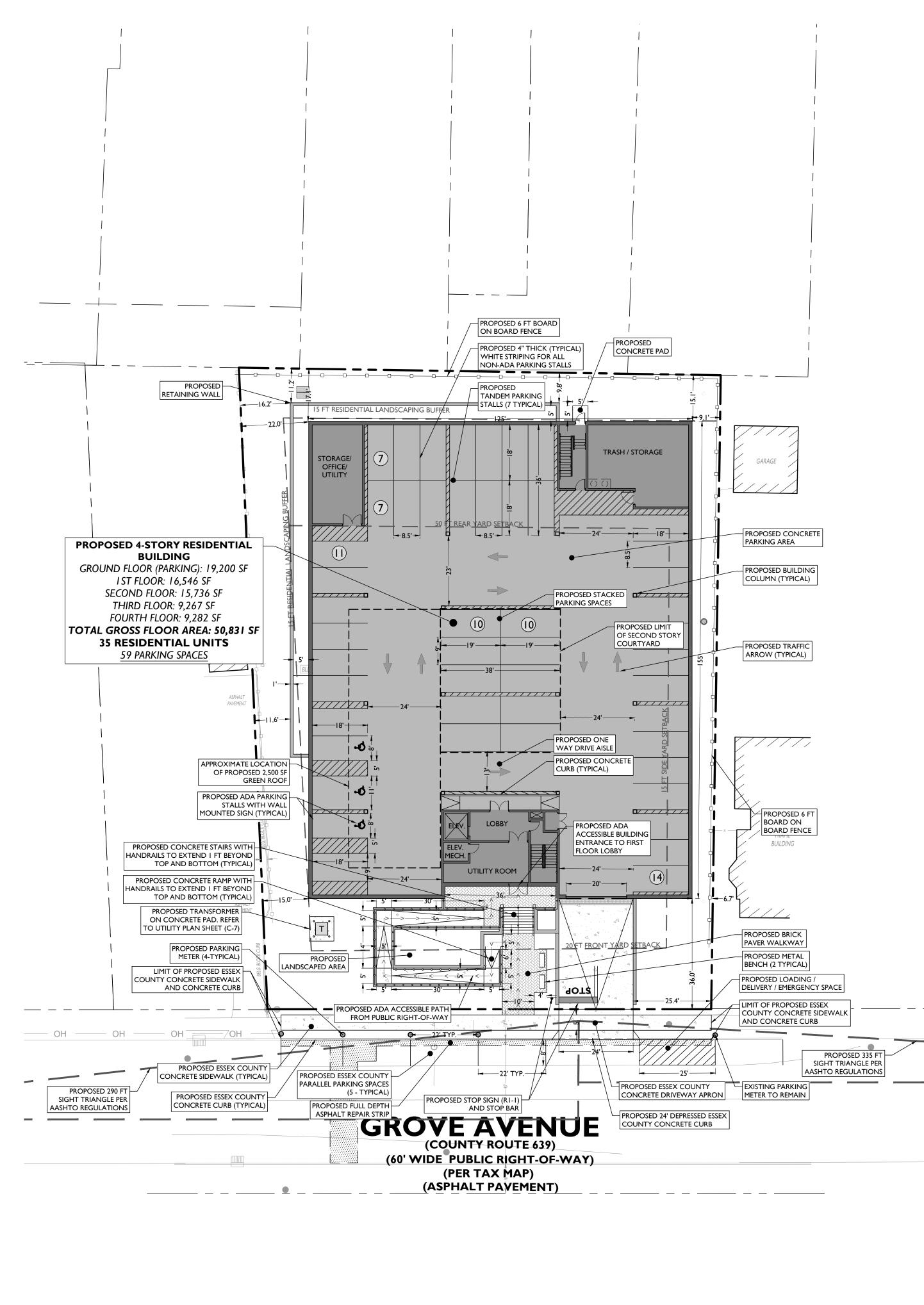




WITH THE PROVIDED "TREE WELL DETAIL." • LOWERING GRADES: EXISTING TREES LOCATED IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE RE-GRADING WORK DONE BY HAND TO THE INDICATED ELEVATION, NO GREATER THAN SIX INCHES (6"). ROOTS SHALL BE CUT CLEANLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST. WHERE CUT EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID RETAINING WALL SHALL BE CONSTRUCTED. IF APPLICABLE, THE RETAINING WALL

EXISTING TREE SCHEDULE AND MITIGATION REQUIREMENTS







BLOCK 1702, LOT 22

PROFESSIONAL OFFICE AND BUSINESS (C-2)

| PROPOSED USE | | | |
|--|---------------------|--|--|
| FOUR-STORY RESIDENTIAL | NON-PERMITTED (V) | | |
| ZONING REQUIREMENT | REQUIRED | EXISTING | PROPOSED |
| MINIMUM LOT SIZE | 15,000 SF (0.34 AC) | 31,197 SF (0.72 AC) | 31,197 SF (0.72 AC) |
| MINIMUM LOT WIDTH | 100 FT | 144.3 FT | 144.3 FT |
| MINIMUM FRONT YARD SETBACK | 20 FT | 30.1 FT | 36.0 FT |
| MINIMUM SIDE YARD SETBACK (ONE) | I5 FT | 12.8 FT | 6.7 FT (V) |
| MINIMUM SIDE YARD SETBACK (BOTH) | 35 FT | 62.4 FT | 21.7 FT (V) |
| MINIMUM REAR YARD SETBACK | 50 FT | 102.7 FT | 15.0 FT (V) |
| MAXIMUM BUILDING HEIGHT (*) | 2.5 STORIES / 35 FT | 2-STORIES | 4-STORIES / 53.58 FT (**) (V) |
| MAXIMUM LOT COVERAGE | 30% (9,359.1 SF) | 10.6% (3,294.9 SF) | 61.5% (19,200 SF) (V) |
| MAXIMUM IMPROVED LOT COVERAGE | 65% (20,278.1 SF) | 70.2% (21,908 SF) (EN) | 68.8% (21,462 SF) (V) |
| MAXIMUM FLOOR AREA RATIO | 50% (15,598 SF) | - | 162.9% (50,831 SF) (V) |
| MINIMUM LANDSCAPING BUFFER ALONG RESIDENTIAL ZONE | I5 FT | REAR YARD: 8.5 FT (EN) SIDE YARD: 9.1 FT (EN) | REAR YARD: 15.1 FT SIDE YARD: 15.0 FT |

VARIANCE (V) EXISTING NON-CONFORMITY (EN)

BUILDING HEIGHT DEFINITION: THE VERTICAL DISTANCE MEASURED FROM THE AVERAGE GROUND ELEVATION (265.42 FT) OF THE EXISTING NATURAL GRADE AT THE BUILDING LINE AROUND THE FULL PERIMETER OF THE BUILDING, TO THE (*) BUILDINGS HIGHEST POINT.

BASED OFF THE PREVIOUSLY PROPOSED PLAN SUBMITTED 02/28/2020, THE BUILDING HEIGHT WAS CALCULATED FROM (**) THE PROPOSED AVERAGE GROUND ELEVATION OF 264.49 FT. THE CURRENT PROPOSED BUILDING HEIGHT BASED ON THE PREVIOUS CALCULATION OF THE AVERAGE GRADE OF 264.49 FT WOULD RESULT IN A BUILDING HEIGHT OF 54.51 FT.

| | OFF-STREET PARKING REQUIREMENTS | | | | | | |
|--|--|-------------------------------|--|--|--|--|--|
| CODE SECTION | REQUIRED | PROPOSED | | | | | |
| § 150-12.1 (B)(2) MINIMUM NUMBER OF SPACES | THE MINIMUM NUMBER OF REQUIRED PARKING SPACES MAY NOT BE MET OR SATISFIED BY PARKING SPACES LOCATED WITHIN OR UNDERNEATH A PRINCIPAL BUILDING | PARKING UNDER BUILDING (V) | | | | | |
| § 150-12.2 (A) SIZE OF PARKING SPACES | MINIMUM PARKING SPACE DIMENSIONS: 9 FT X 20 FT | 8.5 FT X 18 FT (V) | | | | | |
| § 150-12.3. (B) ACCESS | NO DRIVEWAY OR ACCESS OR EGRESS FROM A PARKING AREA SHALL BE LOCATED CLOSER THAN 50 FEET FROM ANY INTERSECTION OR AS REQUIRED BY COUNTY OR STATE REGULATIONS. | COMPLIES | | | | | |
| § 150-12.3. (C) ACCESS | ALL DRIVEWAYS SHALL CROSS SIDEWALK AREAS AT SIDEWALK GRADE. | COMPLIES | | | | | |
| § 150-12.3 (D) ACCESS | MINIMUM DRIVEWAY SETBACK FROM ADJACENT PROPERTY LINE: | 25.4 FT | | | | | |
| § 150-12.4(A)(1) ACCESS WIDTH | DRIVEWAY WIDTH: MINIMUM: 12 FT | 24.0 FT | | | | | |
| § 150-12.4 (2)(A) ACCESS WIDTH | PARKING AREAS FOR THREE OR MORE VEHICLES AND ACCESS TO THIS PARKING SHALL BE PAVED AND SHALL BE DESIGNED AND PLANNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRINCIPLES. | COMPLIES | | | | | |
| § 150-12.6 & RSIS REQUIREMENTS | REQUIRED PARKING SPACES: I BEDROOM: 14 UNITS X 1.8 / UNIT = 25 SPACES 2 BEDROOM: 20 UNITS X 2 / UNIT = 40 SPACES 3 BEDROOM: 1 UNIT X 2.1 / UNIT = 2 SPACES TOTAL SPACES REQUIRED: 67 SPACES | 59 SPACES (V) | | | | | |
| § 150-12.8 (A) ADDITIONAL OFF-STREET PARKING REGULATIONS | ALL PARKING AREAS AND DRIVEWAYS SHALL BE PAVED WITH BITUMINOUS CONCRETE, CONCRETE OR OTHER APPROVED PERMANENT HARD-SURFACED MATERIAL, AND ALL PARKING SPACES SHALL BE LINED AND DESIGNATED ON SAID PAVEMENT. | COMPLIES | | | | | |
| § 150-12.8 (B) ADDITIONAL OFF-STREET PARKING REGULATIONS | ALL PARKING AREAS AND DRIVEWAYS MUST HAVE A SIX INCH SOLID CONCRETE OR BELGIAN BLOCK CURB TO SEPARATE THE PARKING AREA AND/OR DRIVEWAY FROM THE REQUIRED FRONT, SIDE AND REAR YARD WHEN THESE PARKING AREAS ARE LOCATED WITHIN SIX FEET OF THE YARD. | COMPLIES | | | | | |
| § 150-12.8 (C)(3) ADDITIONAL OFF-STREET PARKING REGULATIONS | MINIMUM DRIVE AISLE WIDTH FOR 90° PARKING: 24 FEET | 23.0 FT (V) | | | | | |
| § 150-12.8 (G) ADDITIONAL OFF-STREET PARKING REGULATIONS | ALL PARKING SPACES SHALL BE LAID OUT SO AS TO HAVE DIRECT ACCESS FROM A DRIVEWAY OR AISLE. | COMPLIES | | | | | |
| § 150-12.8 (H) ADDITIONAL OFF-STREET PARKING REGULATIONS | ALL OFF-STREET PARKING AREAS SHALL PROVIDE SPACE TO PERMIT A VEHICLE TO TURN AROUND ON THE SITE AS TO AVOID A BACKING MANEUVER WITHIN THE STREET. | COMPLIES | | | | | |

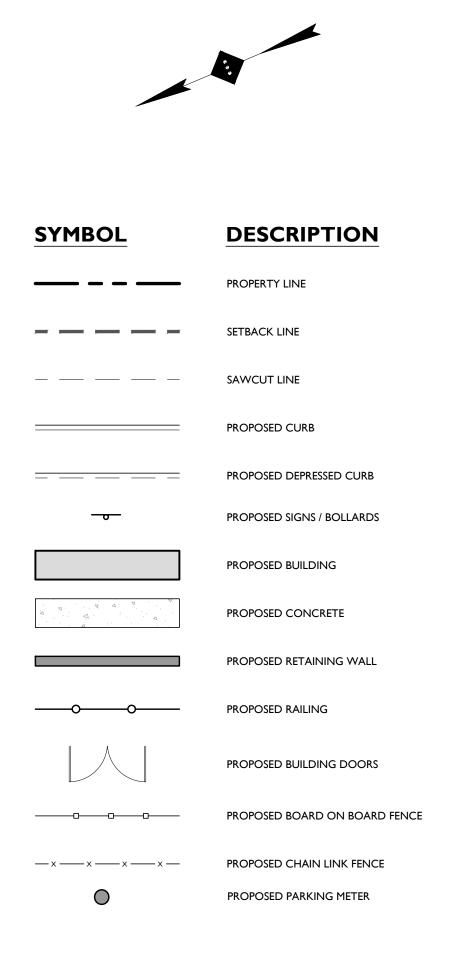
VARIANCE (V)

| 2 | | |
|--|--|---|
| | GENERAL DESIGN REQUIREMENTS | Ň |
| CODE SECTION | REQUIRED | PROPOSED |
| § 150-5.3 (F) YARD REGULAITONS | NO PAVEMENT IN REQUIRED FRONT YARD, SIDE YARD, OR REAR YARD EXCEPT TO ALLOW DRIVEWAY APRONS. | COMPLIES |
| § 150-7.12 (A) RETAINING WALLS | NO RETAINING WALL SHALL EXCEED FOUR (4) FEET IN HEIGHT IN THE MINIMUM FRONT YARD SETBACK AND SIX (6) FEET IN HEIGHT ELSEWHERE. | FRONT YARD: 10.1 FT (V) ELSEWHERE: 3.5 FT |
| § 150-7.12 (C) RETAINING WALLS | WHEN RETAINING WALLS ARE UTILIZED, A FENCE MUST BE PLACED UPON THE LAND BEHIND THE HIGHEST RETAINING WALL IF THE MEASUREMENT FROM THE BOTTOM OF THE LOWEST RETAINING WALL TO THE TOP OF THE HIGHEST RETAINING WALL EXCEEDS TEN FEET OVER A FIVE FOOT HORIZONTAL MEASUREMENT. | COMPLIES |
| § 150-7.12 (D) RETAINING WALLS | ALL RETAINING WALLS MUST BE DESIGNED NOT ONLY TO RETAIN THE SOIL BEHIND SAID WALL BUT ALSO CONTAIN STRUCTURES TO ENSURE ADEQUATE GROUND WATER DRAINAGE. | COMPLIES |
| § 150-7.13 (A) MECHANICAL EQUIPMENT | NO MECHANICAL EQUIPMENT SHALL BE LOCATED WITHIN A MINIMUM YARD REQUIREMENT AND SHALL NOT EXTEND MORE THAN FIVE FEET FROM THE STRUCTURE FOR WHICH THEY SERVE. | COMPLIES |
| § 150-7.18(D) SIDEWALKS, NON RESIDENTIAL | SIDEWALKS OF CONCRETE SHALL BE FIVE INCHES THICK EXCEPT AT POINTS OF VEHICULAR CROSSING, WHERE THEY SHALL BE AT LEAST EIGHT INCHES THICK AND SHALL BE REINFORCED WITH WELDED WIRE FABRIC MESH OR AN EQUIVALENT. | COMPLIES |
| § 150-7. 73(A) FENCES | MAXIMUM FENCE HEIGHT MEASURED FROM GROUND LEVEL: 6 FT | 6.0 FT |
| § 150-7. 73(G) FENCES | MINIMUM FENCE SETBACK FROM PROPERTY LINE: 0.5 FT | 1.0 FT |
| § 150-7. 73(L) FENCES | NO FENCE SHALL BE ERECTED THAT INTERFERES WITH THE PUBLIC RIGHT-OF-WAY OR INTERFERES WITH HE VISIBILITY OF VEHICULAR AND PEDESTRIAN TRAFFIC PROCEEDING ALONG ANY PUBLIC RIGHT-OF-WAY. | COMPLIES |

VARIANCE (V)

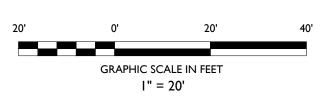
DESIGN VALUES FOR TURNING SIGHT DISTANCE (AASHTO)

| | | | VEHICLE | | | |
|--------|-------------|-----------|------------------------------|------|--------------|------|
| I | ntersection | | ce(d) Stop Co ane Highway | | nor Road | |
| Design | | Left-Turn | | Righ | t-Turn or Ci | '05S |
| Speed | P | SU | WB | P | SU | WB |
| 25 | 280 | 350 | 425 | 240 | 315 | 385 |
| 30 | 335 | 420 | 510 | 290 | 375 | 465 |
| 35 | 390 | 490 | 595 | 335 | 440 | 540 |
| 40 | 445 | 560 | 680 | 385 | 500 | 620 |
| 45 | 500 | 630 | 760 | 430 | 565 | 695 |
| 50 | 555 | 700 | 845 | 480 | 625 | 775 |
| 55 | 610 | 770 | 930 | 530 | 690 | 850 |
| 60 | 665 | 840 | 1015 | 575 | 750 | 930 |
| 65 | 720 | 910 | 1100 | 625 | 815 | 1005 |
| 70 | 775 | 980 | 1185 | 670 | 875 | 1085 |

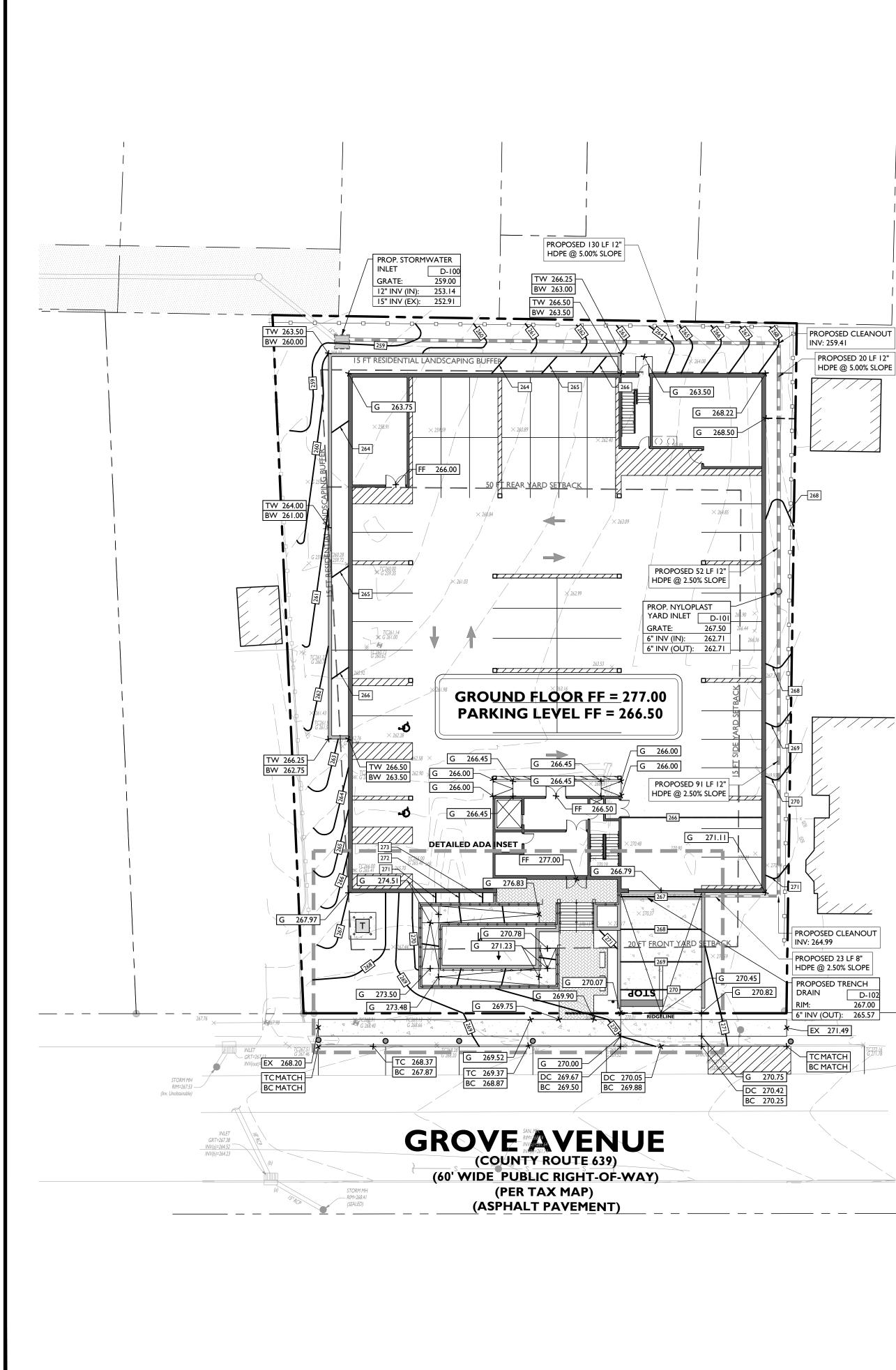


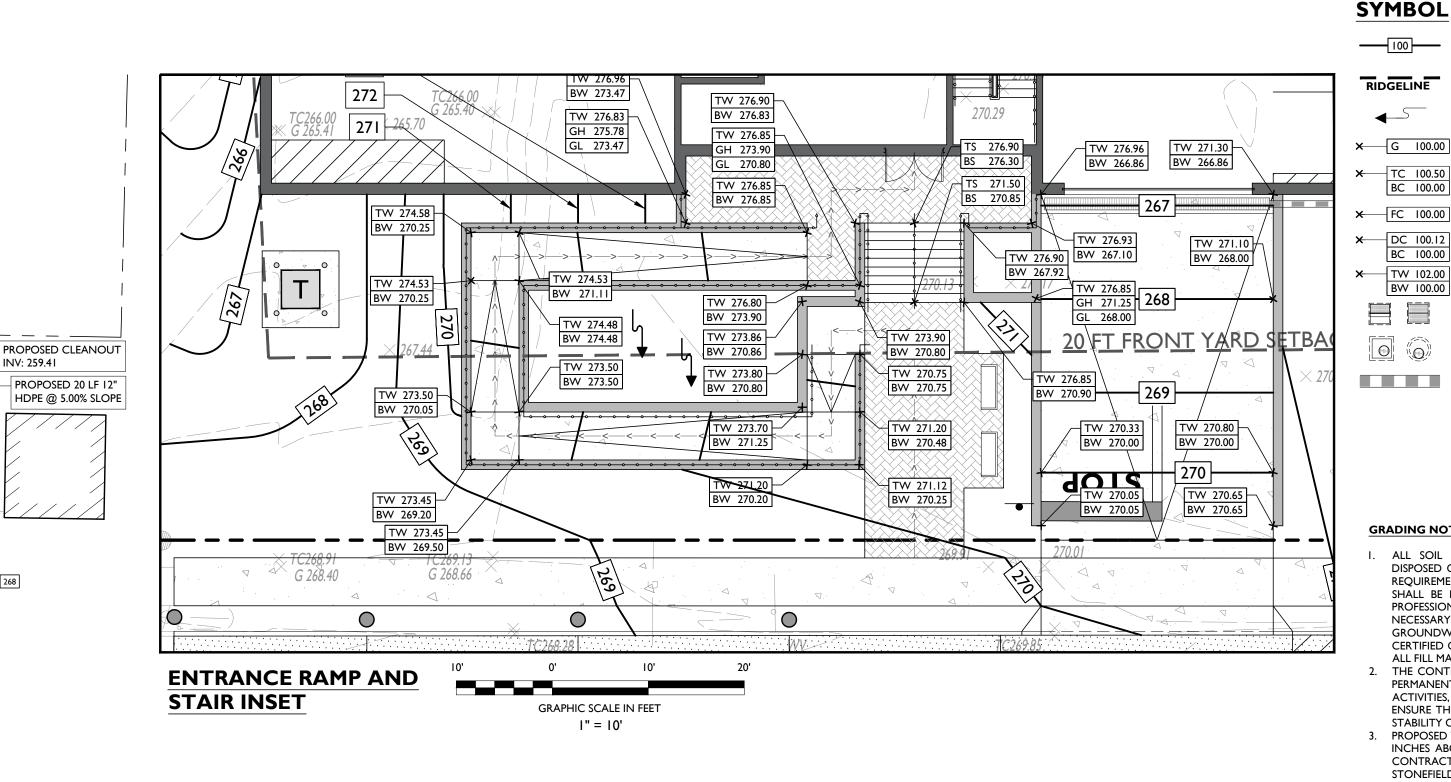
GENERAL NOTES

- I. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN. LLC. PRIOR TO THE START OF CONSTRUCTION.
- 2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION. 3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY
- LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND IT'S SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
- 4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN,
- 5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION. 6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
- 7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
- 8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET. 9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN
- ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. 10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE
- PROCUREMENT OF STREET OPENING PERMITS. 11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
- 12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



| 4/2021SPMFOR MUNICIPAL RESUBMISSION4/2021SPMFOR MUNICIPAL SUBMISSION1/2020MEMFOR MUNICIPAL SUBMISSION8/2020DBBFOR MUNICIPAL SUBMISSION8/2020DBBFOR MUNICIPAL SUBMISSION0/2019ANVFOR MUNICIPAL SUBMISSION0/2019TLFOR MUNICIPAL SUBMISSION | | | | | | | | | |
|--|--|---|------------|------------|------------|------------|------------|------------|--------|
| | | | | 03/04/2021 | 07/31/2020 | 02/28/2020 | 10/10/2019 | 09/20/2019 | DATE |
| | | | | ы | 4 | m | 2 | _ | ISSUE |
| NOT APPROVED FOR CONSTRUCTION | | | | | | | | | |
| | A Control of the second of the | | | | | | | | |
| PRELIMINARY AND FINAL SITE PLAN | PRELIMINARY AND FINAL SITE PLAN 21 & 25 GROVE ASSOCIATES, LLC. PROPOSED RESIDENTIAL PROPOSED RESIDENTIAL DEVELOPMENT BLOCK 1702, LOT 22 21 GROVE AVENUE (C.R. 639) 21 GROVE AVENUE (C.R. 639) 21 GROVE AVENUE (C.R. 639) 22 GROVE AVENUE (C.R. 639) 23 COUNTY, NEW JERSEY | | | | | | | | |
| SCALE | MATTHEW J. SECKLER, P.E. NEW JERSEY LICENSE No. 48731 LICENSED PROFESSIONAL ENGINEER | | | | | | | | |
| TITLE | | | =" "= | | | | | . 1 | -19059 |
| | ` | _ | | | | | | _) | |
| DRAW | (LOWER LEVEL) DRAWING: | | | | | | | | |





INV: 259.41

268

/ / / / /

PROPOSED CLEANOUT

PROPOSED 23 LF 8"

HDPE @ 2.50% SLOPE

PROPOSED TRENCH

EX 271.49

TCMATCH

BC MATCH

6" INV (OUT): 265.57

D-10

INV: 264.99

DRAIN

RIM:

DRAINAGE AND UTILITY NOTES

- CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS.
- NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING.
- THE LOWEST INVERT AND WORK UP-GRADIENT. 3. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO
- LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IMMEDIATELY IN WRITING. 4. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY
- LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

- I. THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION, THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
- BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
- ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL. SHORING DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC. AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
- EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS. 5. THE CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED

DISPOSAL.

I. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY 2. CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT

CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD

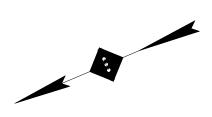
DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE

2. THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS

3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR

4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN

IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER



DESCRIPTION

PROPOSED STORMWATER PIPE

GRADING NOTES

BC 100.00

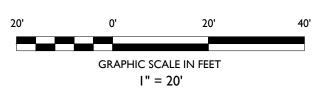
BC 100.00

BW 100.00

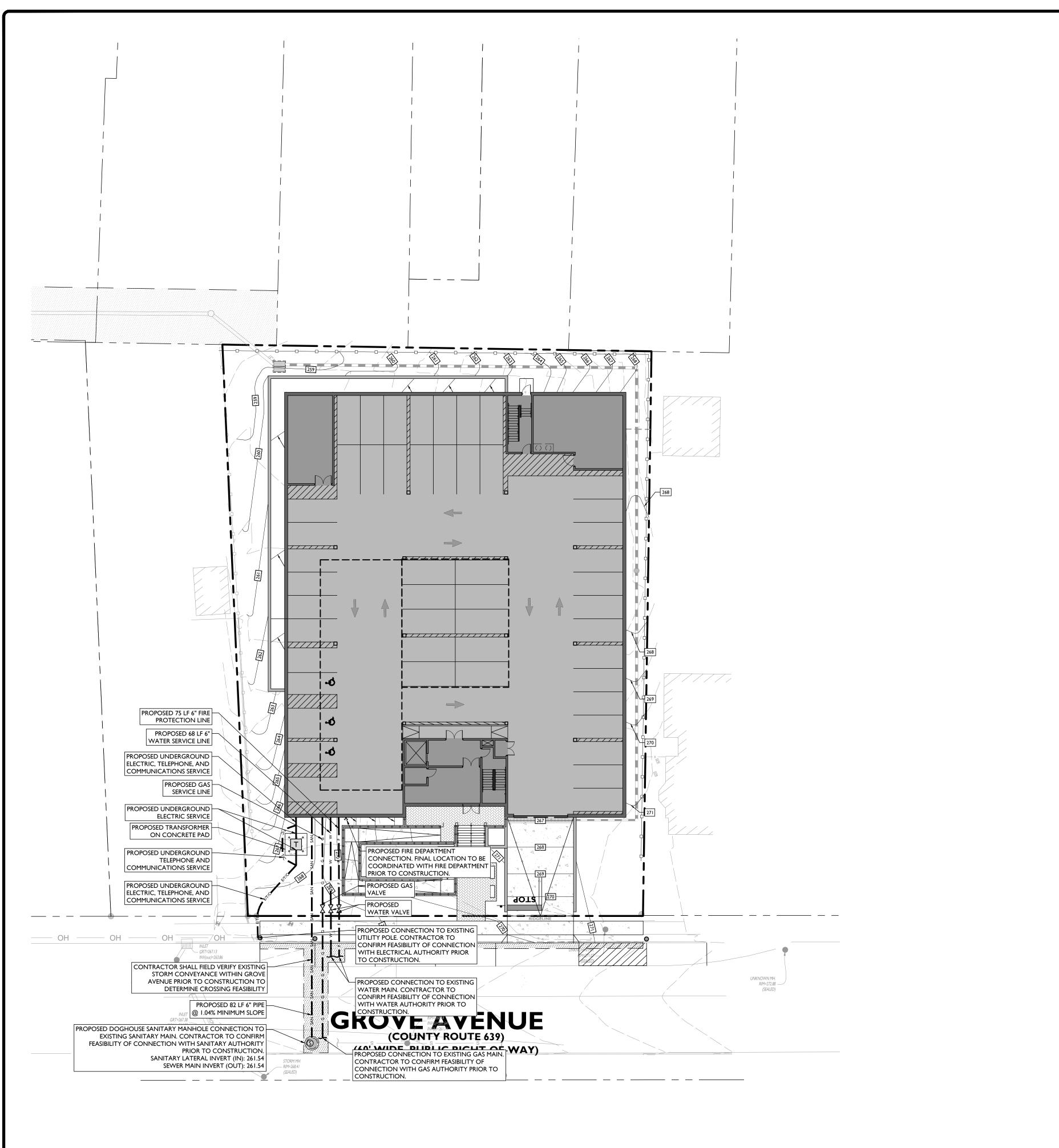
- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
- THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES, INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES, TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS. 3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7
- INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
- 4. THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL, COUNTY, STATE AND/OR UTILITY ALITHORITY RECLILATIONS 5. MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
- CURB GUTTER: 0.50% CONCRETE SURFACES: 1.00%
- ASPHALT SURFACES: 1.00% 5. A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF THIS CONDITION CANNOT BE MET. 6. FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE
- LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

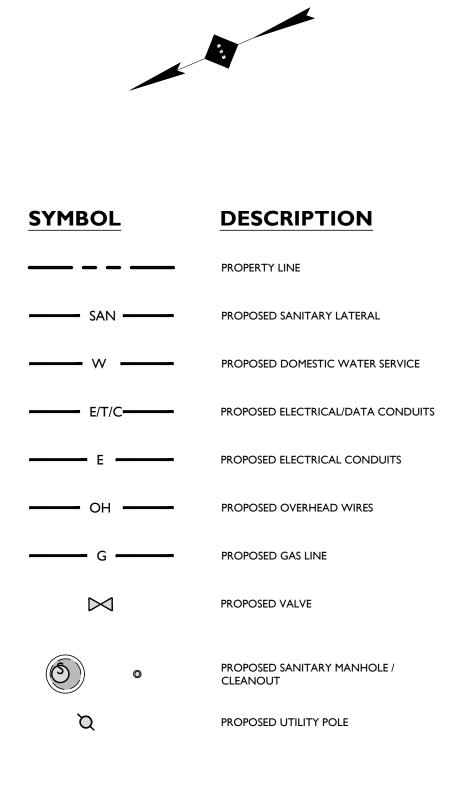
ADA NOTES

- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
- 2. THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES. 3. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN 4. ANY DIRECTION AT ALL LANDINGS. LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP, AT ACCESSIBLE BUILDING ENTRANCES, AT AN AREA IN FRONT OF A WALK-UP ATM, AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH OF TRAVEL. THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- 5. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 8.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00% IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP. FOR ALTERATIONS, A CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURBS RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
- 6. ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP. 7. A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE
- ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS. 8. THE CONTRACTOR SHALL ENSURE A MAXIMUM OF 1/4 INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH. WHERE A CHANGE IN LEVEL BETWEEN 1/4 INCHES AND 1/2 INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP 1/4 INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN I UNIT VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE).
- 9. THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN 1/2 INCH.



FOR FOR D A S <u>υ</u> 4 ω NOT APPROVED FOR CONSTRUCTION Ш Ď $\mathbf{\Pi}_{\mathbf{D}}^{\mathbf{A}}$ Jain, ç Ī O S Ш CIA Ъ Ŏ SITE F Ň Ζ S ш 4 ۷ GROVE RESI Δ Ζ PΔ S O Ь ΟĽ 2 PRELIM ФШ 8 0 > ш **M** 2 MATTHEW J. SECKLER, P.E. NEW JERSEY LICENSE No. 48731 LICENSED PROFESSIONAL ENGINEER STONEFIELD engineering & design I" = 20' PROJECT ID: T-19059 SCALE: TITLE: **GRADING & DRAINAGE PLAN** DRAWING: **C-5**

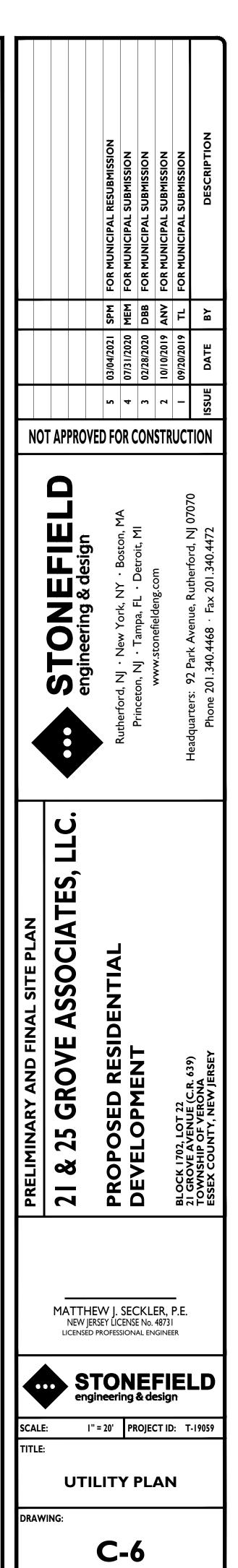


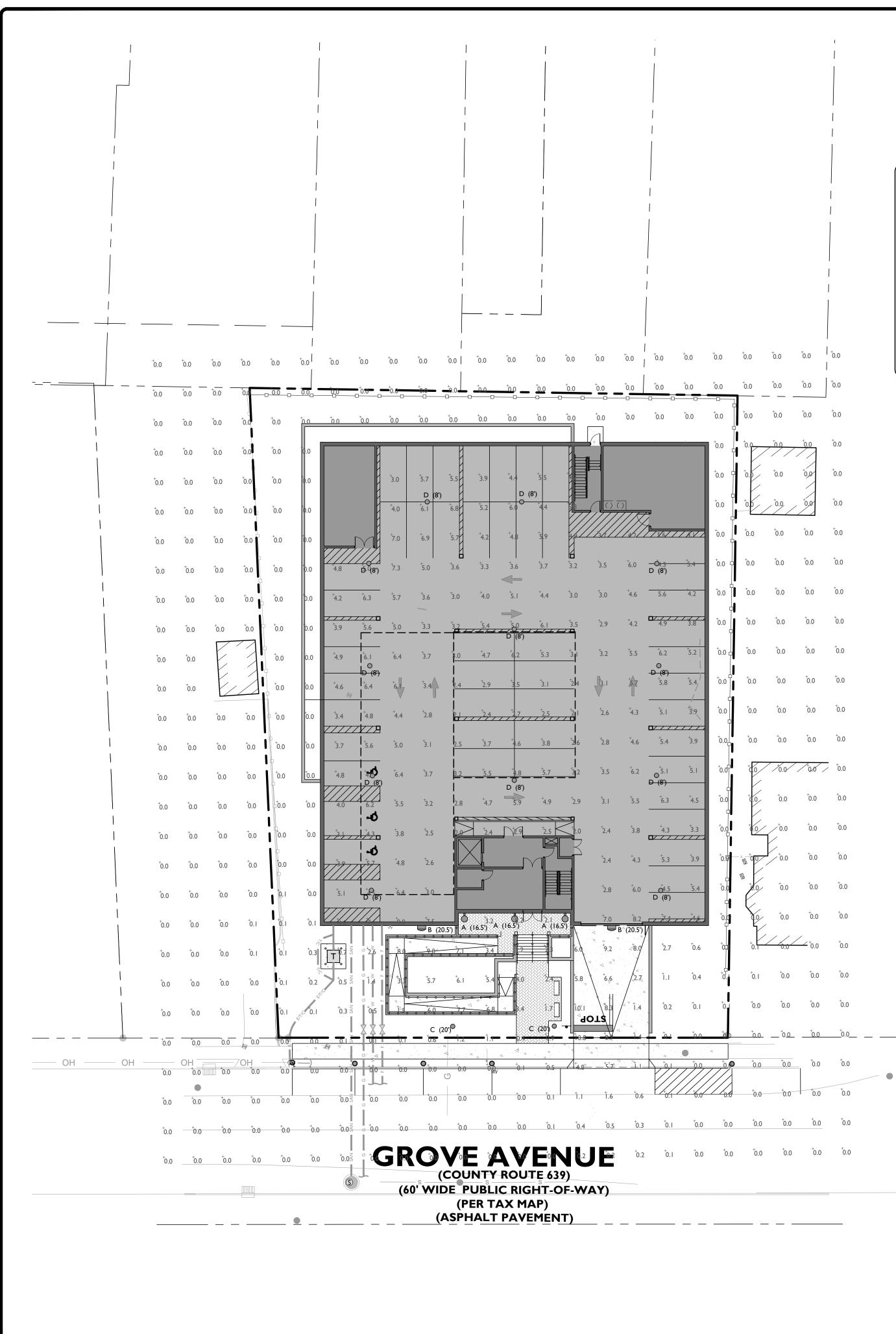


DRAINAGE AND UTILITY NOTES

- I. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IMMEDIATELY IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
 THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF
- THE PROPOSED WORK DURING CONSTRUCTION.
 A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE
- AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 5. ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 (1) THE CONTRACTOR AND THE SANITARY SEVER SERVICE AS APPROVED
- 6. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
- CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADIENT.
 THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT
- HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
 10. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE
- AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

GRAPHIC SCALE IN FEET I" = 20'





019/1-19059 21 AND 25 GROVE ASSOCIATES LLC - 21 GROVE AVENUE, VERONA, NJICADDIPLOTLDP-08-9-LGHT.D

| | PROPOSED LUMINAIRE SCHEDULE | | | | | | | |
|--------|-----------------------------|----------|--|--------------|------|--------------------|------------------|--|
| SYMBOL | LABEL | QUANTITY | SECURITY LIGHTING | DISTRIBUTION | LLF | MANUFACTURER | IES FILE | |
| P | A | 3 | WESTWOOD 912-2 SERIES WALL MOUNTED LIGHT - 50 WATTS | - | 0.90 | COOPER LIGHTING | 912-2-50 | |
| | В | 2 | LED PATRIOT WALL SCONCE LIGHT (XPWS3) - 55 WATTS | WT | 0.90 | LSI LIGHTING | XPWS3- -CW-UE | |
| O | с | 2 | XLXM3 SERIES AREA DECORATIVE LED AREA LIGHT - 108 WATTS | 3 | 0.90 | LSI LIGHTING | XLXM3- | |
| | D | 12 | EXCURSION LED RECESSED CANOPY LIGHT - 40K - 87.5 WATTS | - | 0.90 | LSI LIGHTING | EXN-EG | |

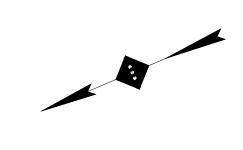
* MOUNTING HEIGHTS MEASURED FROM THE FIRST FLOOR FINISHED ELEVATION OF 261.50 FEET.

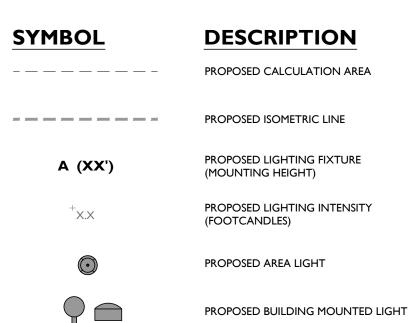
| LIGHTING CALCULATION SUMMARY | | | | | | | | |
|------------------------------|---------|---------|----------|--------------------|--------------------|--|--|--|
| LOCATION | AVERAGE | MINIMUM | MAXIMUM | AVG / MIN RATIO | MAX / MIN RATIO | | | |
| PEDESTRIAN WALKWAYS | 4.56 FC | 0.90 FC | 9.00 FC | 5.07 : I | 10.00 : 1 | | | |
| ACCESS POINT | 3.75 FC | 2.10 FC | 8.20 FC | 1.79 : 1 | 3.90 : I | | | |
| DRIVE WAY | 6.04 FC | 1.10 FC | 10.80 FC | 5.49 : I | 9.82 : I | | | |
| PARKING AREA (COVERED) | 4.40 FC | 1.00 FC | 9.00 FC | 4.40 : I | 9.00 : I | | | |



13-PT-3-LED-HO-NW.IES

EGLED-10L-T5W-40.IES



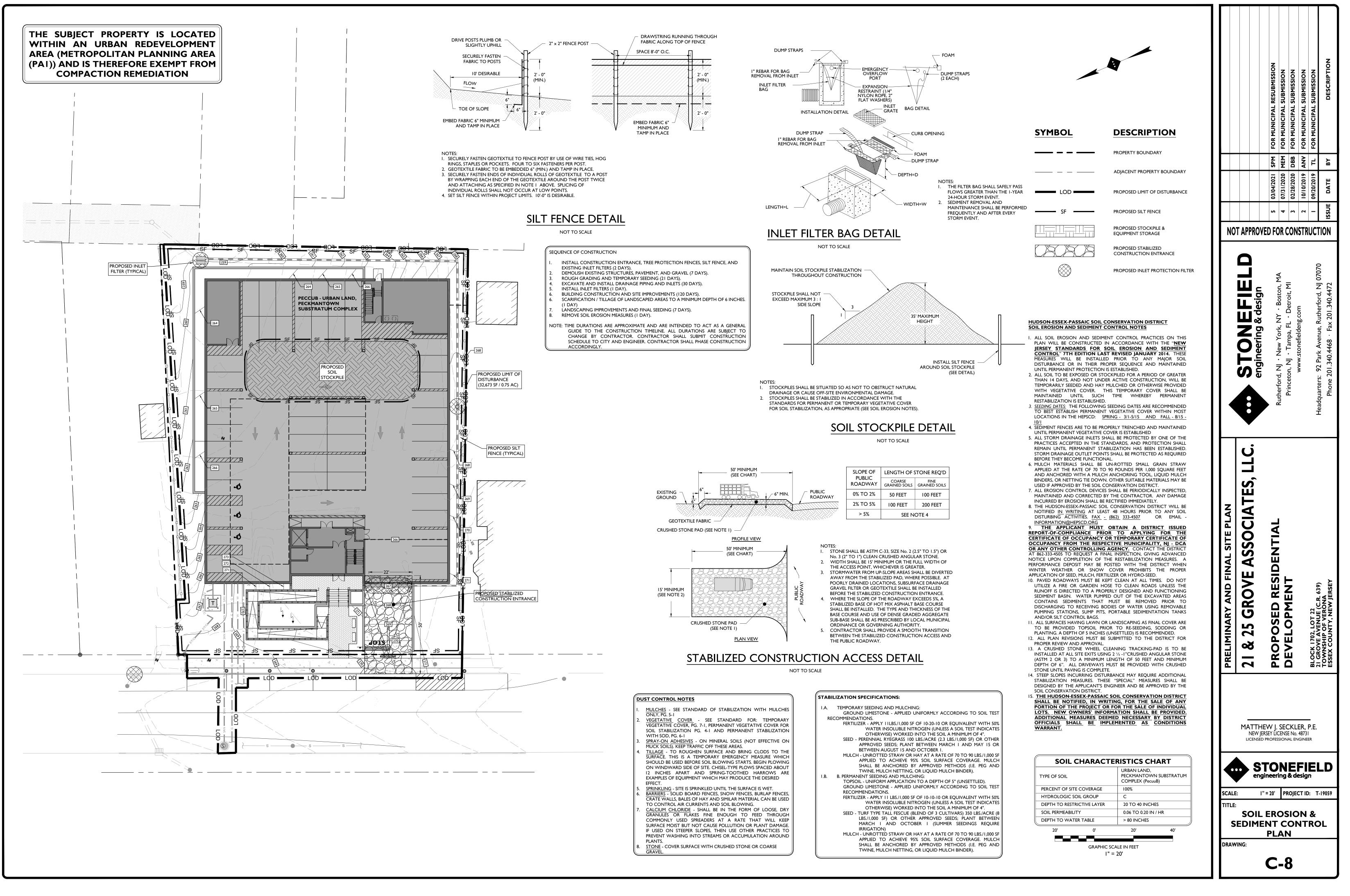


GENERAL LIGHTING NOTES

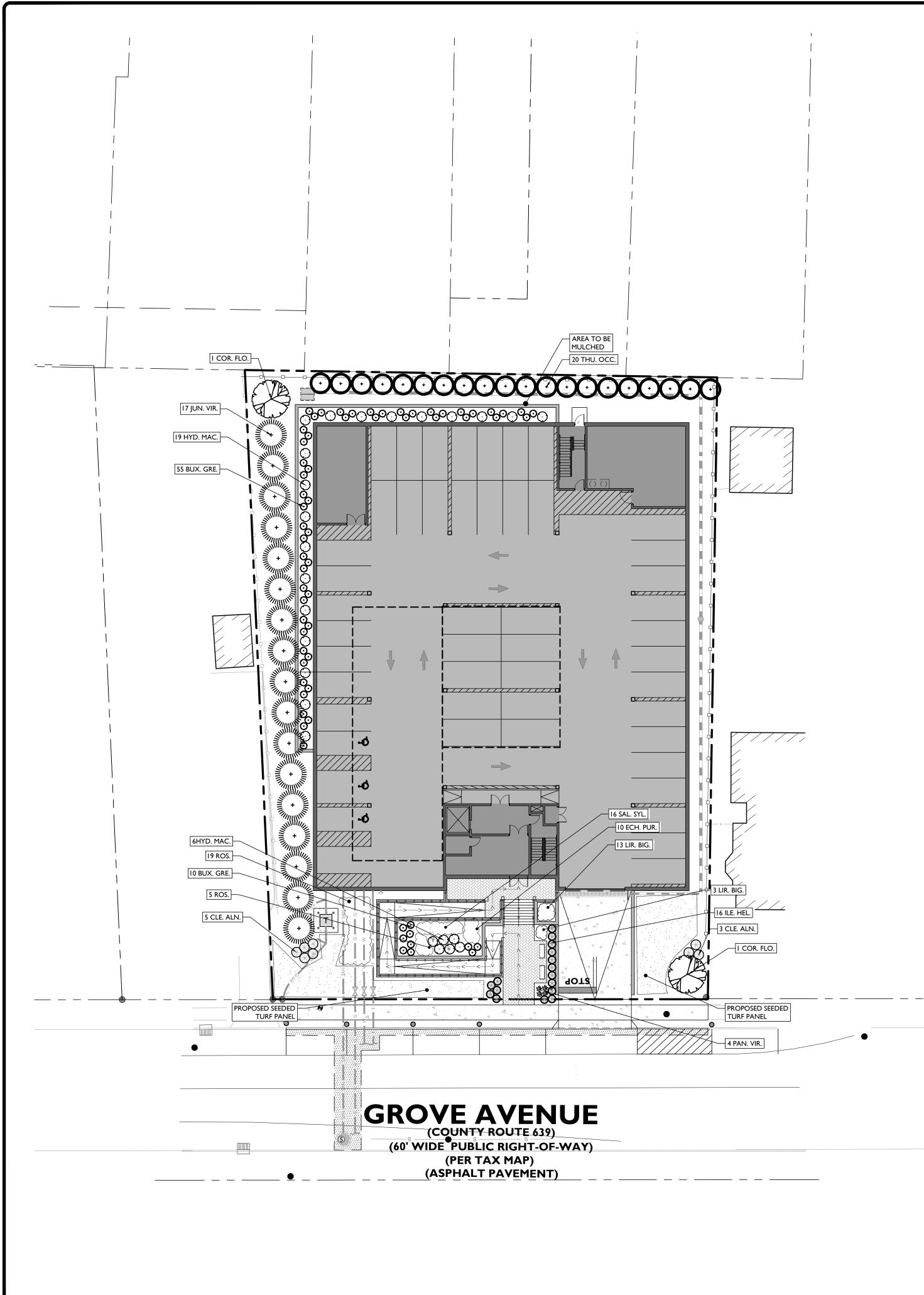
- THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER. ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURE MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH ARE WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
 WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN
- 2. WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURE MODEL.
- 3. UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
 LIGHT EMITTING DIODES (LED): 0.85
 HIGH PRESSURE SODIUM: 0.72
 METAL HALIDE: 0.72
- THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY PROPOSED LIGHTING LOCATIONS THAT CONFLICT WITH EXISTING/ PROPOSED DRAINAGE, UTILITY, OR OTHER IMPROVEMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRIC SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.

GRAPHIC SCALE IN FEET I" = 20'

| | | | 1 FOR MUNICIPAL RESUBMISSION | 1 FOR MUNICIPAL SUBMISSION | FOR MUNICIPAL SUBMISSION | / FOR MUNICIPAL SUBMISSION | FOR MUNICIPAL SUBMISSION | DESCRIPTION |
|---------------------------------|--|------|------------------------------|----------------------------|--------------------------|----------------------------|--------------------------|---------------|
| | | | 2021 SPM | 2020 MEM | 2020 DBB | 10/10/2019 ANV | 2019 TL | re BY |
| | | | 03/04/2021 | 07/31/2020 | 02/28/2020 | 10/10/ | 09/20/2019 | UE DATE |
| NO | Т арр | ROVE | `` D F(|)R (|]0N | STR | ר <u>י</u> ע וייע | ISSUE NOI: |
| | Bagineering & BEFIELL Bagineering & design Rutherford, NJ • New York, NY • Boston, MA Princeton, NJ • Tampa, FL • Detroit, MI www.stonefieldeng.com Headquarters: 92 Park Avenue, Rutherford, NJ 07070 Phone 201.340.4468 • Fax 201.340.4472 | | | | | | | |
| PRELIMINARY AND FINAL SITE PLAN | PRELIMINARY AND FINAL SITE PLAN 21 & 25 GROVE ASSOCIATES, LLC. PROPOSED RESIDENTIAL DEVELOPMENT BLOCK 1702, LOT 22 21 GROVE AVENUE (C.R. 639) 21 GROVE AVENUE (C.R. 639) 22 GROVE AVENUE (C.R. 639) 23 GROVE AVENUE (C.R. 639) 24 GROVE AVENUE (C.R. 639) 25 GROVE AVENUE (C.R. 639) 26 GROVE AVENUE (C.R. 639) 27 GROVE AVENUE (C.R. 639) 27 GROVE AVENUE (C.R. 639) 28 GROVE AVENUE (C.R. 639) 28 GROVE AVENUE (C.R. 639) 29 GROVE AVENUE (C.R. 639) 29 GROVE AVENUE (C.R. 639) 20 GROVE (C.R. | | | | | | | |
| | MATTHEW J. SECKLER, P.E. NEW JERSEY LICENSE No. 48731 LICENSED PROFESSIONAL ENGINEER STONEFIELD engineering & design SCALE: I'' = 20' PROJECT ID: T-19059 | | | | | | | |
| | | engi | neer | ing | & de | esig | n | |



9,T-19059 21 AND 25 GROVE ASSOCIATES LLC - 21 GROVE AVENUE, VERONA, NJICADDIPLOTILDP-10-55



| | | PLAN | IT SCHEDULE | | |
|---------------|----------|---|--------------------------|-----------------|--|
| PLANT KEY | QUANTITY | BOTANICAL NAME | COMMON NAME | SIZE | REMARKS |
| DECIDUOUS TRE | ES | | | | |
| COR. FLO. | 2 | CORNUS FLORIDA 'APPALACHIAN JOY' | WHITE FLOWERING DOGWOOD | 2.5"-3" CAL | B&B (LOW BRANCHED) (I DIGGING HAZARD) |
| EVERGREEN TRE | ES | | | | |
| THU. OCC. | 20 | THUJA OCCIDENTALIS 'NIGRA' | DARK AMERICAN ARBORVITAE | 8' - 10' HEIGHT | B&B |
| JUN. VIR. | 17 | JUNIPERUS VIRGINIANA | EASTERN RED-CEDAR | 8' - 10' HEIGHT | B&B |
| EVERGREEN SHR | UBS | | | | |
| BUX. GRE. | 64 | BUXUS X 'GREEN VELVET' | GREEN VELVET BOXWOOD | 18"-24" | B&B |
| ILE. HEL. | 16 | ILEX CRENATA 'HELLERI' | HELLERI HOLLY | 24"-36" | CONT. |
| DECIDUOUS SHE | RUBS | | | • | |
| HYD. MAC. | 26 | HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER' | BIGLEAF HYDRANGEA | 24"-30" | 5 GAL |
| ROS. | 24 | ROSA X CARPET ROSE | CARPET ROSE | 3 GAL. | CONT. 36" O.C. |
| CLE. ALN. | 8 | CLETHRA ALNIFOLIA | SUMMERSWEET | 24"-36" | B&B |
| GROUND COVER | RS | | | · | · |
| ECH. PUR. | 10 | ECHINACEA PURPUREA | CONE FLOWER | 2 GAL. | CONT. 18" O.C. |
| SAL. SYL. | 16 | SALVIA X SYLVESTRIS 'SNOW HILL' | MEADOW SAGE | 2 GAL. | CONT. 18" O.C. |
| GRASSES | | | | | |
| LIR. BIG. | 16 | LIRIOPE SPICATA 'BIG BLUE' | BIG BLUE LILYTURF | I GAL. | CONT. 18" O.C. |
| PAN. VIR. | 4 | PANICUM VIRGATUM 'SHANENDOAH' | RED SWITCH GRASS | 2 GAL. | CONT. 30" O.C. |

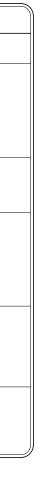
| | LANDSCAPING AND BUFFER REQUIREMEN | ITS |
|--|---|----------|
| CODE SECTION | REQUIRED | PROPOSED |
| § 150-11.1 (A) BUFFER ZONE REQUIREMENTS | ALL COMMERCIAL, INDUSTRIAL, OFFICE, APARTMENT, HEALTH CARE, INSTITUTIONAL, OR A PUBLIC USE ADJOINING OR ABUTTING A RESIDENTIAL ZONE, AN SHALL PROVIDE A BUFFER ZONE IN ACCORDANCE WITH THE STANDARDS SET FORTH BELOW: 5% OF LOT DEPTH MINIMUM: 5 FT MAXIMUM 30 FT | 12.0 FT* |
| § 150-11.1 (B) BUFFER ZONE REQUIREMENTS | NO PRINCIPAL OR ACCESSORY STRUCTURE, OTHER THAN AS MAY BE PROVIDED HEREIN, NOR ANY OFF-STREET PARKING OR LOADING AREAS OR OTHER USE SHALL BE PERMITTED WITHIN THE BUFFER ZONE. | COMPLIES |
| § 150-11.2 (B) GENERAL LANDSCAPING REQUIREMENTS | ANY USE WHICH IS NOT CONDUCTED WITHIN A COMPLETELY ENCLOSED BUILDING, SUCH AS REQUIRED OFF-STREET PARKING, SHALL BE SCREENED BY A SOLID OR CLOSELY WOVEN FENCE OR BY EVERGREEN HEDGES OR SHRUBS SPACED AT INTERVALS OF NOT MORE THAN FIVE FEET, LOCATED AND MAINTAINED IN GOOD CONDITION, WITHIN TEN FEET OF THE PROPERTY LINE OR THE ZONE DISTRICT BOUNDARY LINE | COMPLIES |
| § 150-11.4 (A) USE OF AREAS RESTRICTED | A PLANTED AREA AND A PLANTED BUFFER AREA REQUIRED BY THIS CHAPTER SHALL NOT BE USED FOR ANY BUILDINGS, STRUCTURES, PAVING OR PARKING OR FOR THE SALE, DISPLAY, STORAGE OR LEASING OF MATERIALS OR FOR ANY OTHER USE OTHER THAN A PLANTED AREA OR A PLANTED BUFFER AREA EXCEPT DETENTION BASINS | COMPLIES |
| § 150-11.6 (B) DESIGN CRITERIA | THE PLANTED AREA OR REQUIRED PLANTED BUFFER AREA SHALL BE PLANTED WITH APPROVED PLANT MATERIAL WITH SUFFICIENT ORGANIC SANITARY MATERIAL, TOPSOIL, PEAT MOSS AND THE LIKE, SO THAT THE SAME SHALL BE LIKELY TO THRIVE. MINIMUM DEPTH OF TOPSOIL IN ALL TURF AREAS SHALL BE FOUR INCHES. | COMPLIES |

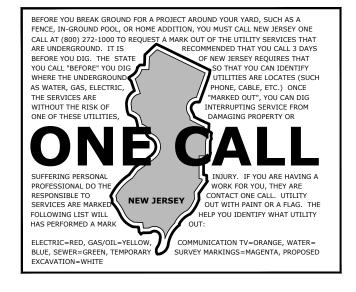
REFER TO THE TABLE OF LAND USE AND ZONING ON SHEET C-4 *

IRRIGATION NOTE:

IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.

| R. | |
|----|--|
| | |

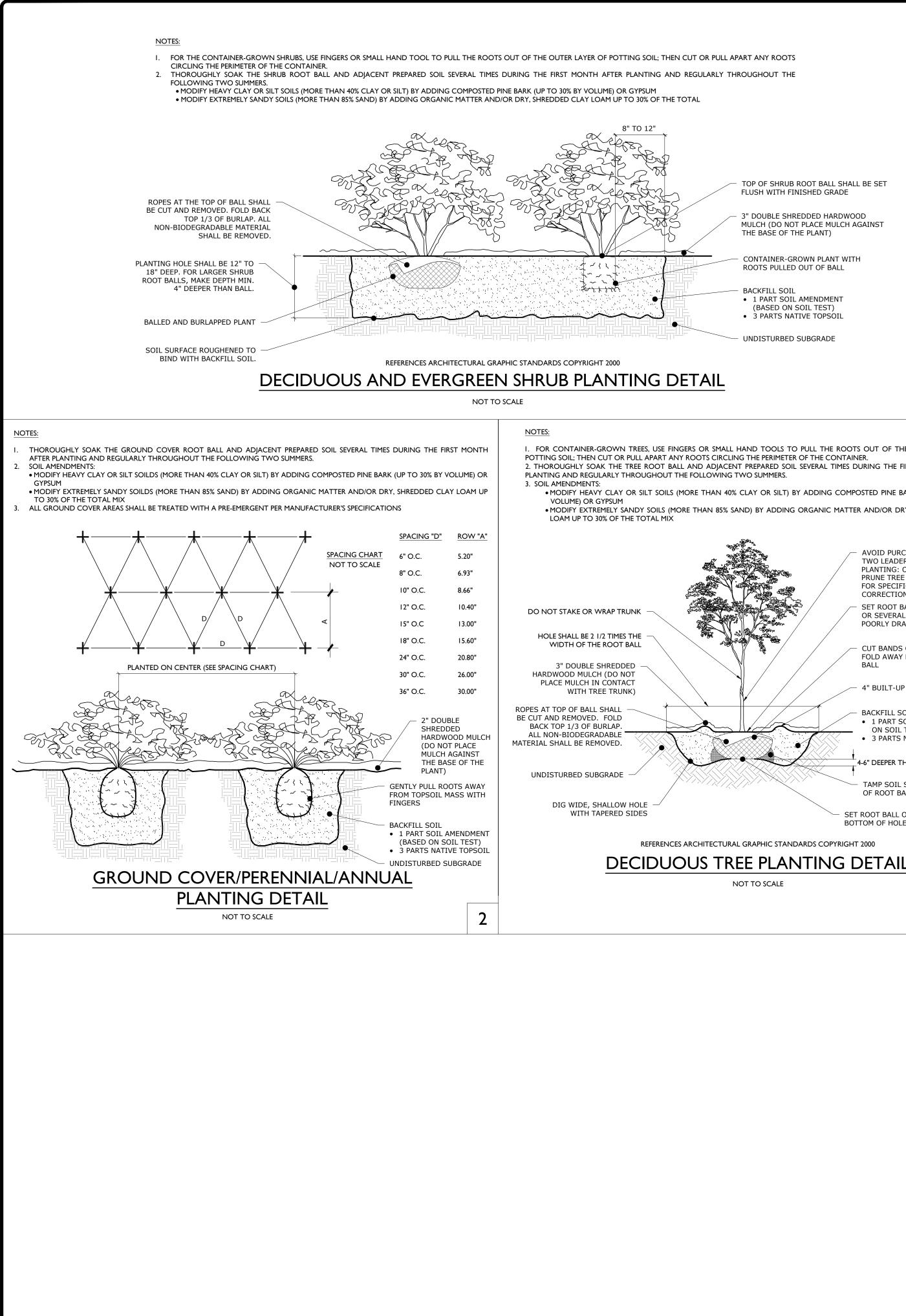




LANDSCAPING NOTES

- I. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED. 3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM
- 3 INCH LAYER OF MULCH . 4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO I FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS 5.
- IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE. 6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED
- LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS. CONTRACTOR TO MAINTAIN A MINIMUM DEPTH OF 4 INCHES OF TOPSOIL IN ALL TURF AREAS.
 - GRAPHIC SCALE IN FEET I" = 20'

| | | | | I FOR MUNICIPAL RESUBMISSION | 1 FOR MUNICIPAL SUBMISSION | FOR MUNICIPAL SUBMISSION | FOR MUNICIPAL SUBMISSION | FOR MUNICIPAL SUBMISSION | DESCRIPTION |
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| | | | | 2021 SPM | 2020 MEM | 2020 DBB | 10/10/2019 ANV | 2019 TL | re by |
| | | | | 5 03/04/2021 | 4 07/31/2020 | 3 02/28/2020 | 2 10/10/ | 09/20/2019 | |
| NO | T AP | PRO | VEI | D FC |)R C | CON | STR | UC | l ion |
| | STONEFIEL | | | AM action of NM shared and a shared and a shared at the sh | Dringston NI - Truck FOFK, NI - BOSCON, FIA | rrinceuon, NJ · Tampa, rL · Deuroit, I'll | | OZOZO IIN Progradni di concert di concertatione de concer | Phone 201.340.4468 · Fax 201.340.4472 |
| PRELIMINARY AND FINAL SITE PLAN | JI & JE CROVE ASSOCIATES II C | | | PROPOSED RESIDENTIAL | | | | BLOCK 1702, LOT 22 | TOWNSHIP OF VERONA ESSEX COUNTY, NEW JERSEY |
| | l | | JERSI D PF | EY ÉIC ROFES | SION/ | E No. Al EN | 4873 GINE | ER | |
| SCALE | | en | | eer | ingi | & de | esig | n | L D -19059 |



TOP OF SHRUB ROOT BALL SHALL BE SET FLUSH WITH FINISHED GRADE

- 3" DOUBLE SHREDDED HARDWOOD MULCH (DO NOT PLACE MULCH AGAINST THE BASE OF THE PLANT)
- CONTAINER-GROWN PLANT WITH ROOTS PULLED OUT OF BALL BACKFILL SOIL
- 1 PART SOIL AMENDMENT (BASED ON SOIL TEST) 3 PARTS NATIVE TOPSOIL UNDISTURBED SUBGRADE

- I. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF 2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER
- MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY • MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY
 - - AVOID PURCHASING TREES WITH TWO LEADERS OR REMOVE ONE AT PLANTING: OTHERWISE, DO NOT PRUNF TRFF AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS SET ROOT BALL FLUSH TO GRADE
 - OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS
 - CUT BANDS OF WIRE BASKET AND FOLD AWAY FROM TOP OF ROOT BALL
 - 4" BUILT-UP EARTH SAUCER
 - BACKFILL SOIL 1 PART SOIL AMENDMENT (BASE ON SOIL TEST) 3 PARTS NATIVE TOPSOIL
 - -6" DEEPER THAN ROOT BALL
 - TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL

3

SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE

REFERENCES ARCHITECTURAL GRAPHIC STANDARDS COPYRIGHT 2000

NOT TO SCALE

GENERAL LANDSCAPING NOTES

- I. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE I. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004) OR LATEST SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIALS, OR OWNER/OWNER'S REPRESENTATIVE. ALL WORK COMPLETED AND MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE INTENTION OF THE SPECIFICATIONS, DRAWINGS, AND INSTRUCTIONS AND EXECUTED WITH THE STANDARD LEVEL OF CARE FOR THE LANDSCAPE INDUSTRY. 2. WORK MUST BE CARRIED OUT ONLY DURING WEATHER CONDITIONS FAVORABLE TO LANDSCAPE CONSTRUCTION AND TO
- THE HEALTH AND WELFARE OF PLANTS. THE SUITABILITY OF SUCH WEATHER CONDITIONS SHALL BE DETERMINED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL. 3. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR, BEFORE ORDERING OR PURCHASING MATERIALS, TO PROVIDE SAMPLES OF THOSE MATERIALS TO THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL FOR APPROVAL,
- IF SO REQUESTED. 4. IF SAMPLES ARE REQUESTED, THE LANDSCAPE CONTRACTOR IS TO SUBMIT CERTIFICATION TAGS FROM TREES, SHRUBS AND SEED VERIFYING TYPE AND PURITY. 5. UNLESS OTHERWISE AUTHORIZED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL, THE
- LANDSCAPE CONTRACTOR SHALL PROVIDE NOTICE AT LEAST FORTY-EIGHT HOURS (48 HRS.) IN ADVANCE OF THE ANTICIPATED DELIVERY DATE OF ANY PLANT MATERIALS TO THE PROJECT SITE. A LEGIBLE COPY OF THE INVOICE, SHOWING VARIETIES AND SIZES OF MATERIALS INCLUDED FOR EACH SHIPMENT SHALL BE FURNISHED TO THE PROJECT LANDSCAPE DESIGNER. OR GOVERNING MUNICIPAL OFFICIAL.
- 6. THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL RESERVES THE RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND AT ANY PLACE.

PROTECTION OF EXISTING VEGETATION NOTES:

- . BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING. FENCING SHALL BE LOCATED AT THE DRIP-LINE OR LIMIT OF DISTURBANCE AS DEPICTED WITHIN THE APPROVED OR FINAL PLAN SET, ESTABLISHING THE TREE PROTECTION ZONE. FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE PROTECTION FENCE DETAIL." NO WORK MAY BEGIN UNTIL THIS REQUIREMENT IS FULFILLED. THE FENCING SHALL BE INSPECTED REGULARLY BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED
- 2. IN ORDER TO AVOID DAMAGE TO ROOTS, BARK OR LOWER BRANCHES, NO VEHICLE, EQUIPMENT, DEBRIS, OR OTHER MATERIALS SHALL BE DRIVEN, PARKED OR PLACED WITHIN THE TREE PROTECTION ZONE. ALL ON-SITE CONTRACTORS SHALL USE ANY AND ALL PRECAUTIONARY MEASURES WHEN PERFORMING WORK AROUND TREES, WALKS, PAVEMENTS, UTILITIES, AND ANY OTHER FEATURES EITHER EXISTING OR PREVIOUSLY INSTALLED UNDER THIS CONTRACT. 3. IN RARE INSTANCES WHERE EXCAVATING, FILL, OR GRADING IS REQUIRED WITHIN THE DRIP-LINE OF TREES TO REMAIN, THE
- WORK SHALL BE PERFORMED AS FOLLOWS: • TRENCHING: WHEN TRENCHING OCCURS AROUND TREES TO REMAIN. THE TREE ROOTS SHALL NOT BE CUT, BUT THE TRENCH SHALL BE TUNNELED UNDER OR AROUND THE ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO
- THE ROOTS. NO ROOTS, LIMBS, OR WOODS ARE TO HAVE ANY PAINT OR MATERIAL APPLIED TO ANY SURFACE. RAISING GRADES: WHEN THE GRADE AT AN EXISTING TREE IS BELOW THE NEW FINISHED GRADE. AND FILL NOT EXCEEDING 6 INCHES (6") IS REQUIRED, CLEAN, WASHED GRAVEL FROM ONE TO TWO INCHES (1" - 2") IN SIZE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES A MINIMUM OF 18 INCHES (18") AND FINISH APPROXIMATELY TWO INCHES (2") ABOVE THE FINISH GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNK OF ANY TREE REQUIRING FILL. WHERE FILL EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID TREE WELL SHALL BE CONSTRUCTED. IF APPLICABLE, TREE WELL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE WELL DETAIL."
- LOWERING GRADES: EXISTING TREES LOCATED IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE RE-GRADING WORK DONE BY HAND TO THE INDICATED ELEVATION, NO GREATER THAN SIX INCHES (6"), ROOTS SHALL BE CUT CLEANLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST. WHERE CUT EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID RETAINING WALL SHALL BE CONSTRUCTED. IF APPLICABLE, THE RETAINING WALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE RETAINING WALL DETAIL."

SOIL PREPARATION AND MULCH NOTES:

- I. LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN-SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL ALLOW FOR A TWO WEEK TURNAROUND TIME FROM SUBMITTAL OF SAMPLE TO NOTIFICATION OF RESULTS.
- 2. BASED ON SOIL TEST RESULTS, ADJUST THE RATES OF LIME AND FERTILIZER THAT SHALL BE MIXED INTO THE TOP SIX INCHES (6") OF TOPSOIL. THE LIME AND FERTILIZER RATES PROVIDED WITHIN THE "SEED SPECIFICATION" OR "SOD SPECIFICATION" IS APPROXIMATE AND FOR BIDDING PURPOSES ONLY. IF ADDITIONAL AMENDMENTS ARE NECESSARY, ADJUST THE TOPSOIL AS FOLLOWS • MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY
- VOLUME) OR GYPSUM. • MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX. . TOPSOIL SHALL BE FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMING CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL
- MATERIAL OBTAINED FROM A WELL-DRAINED ARABLE SITE, FREE FROM ALL CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIAL GREATER THAN ONE INCH (1"). 4. TOPSOIL SHALL HAVE A PH RANGE OF 5.0-7.0 AND SHALL NOT CONTAIN LESS THAN 6% ORGANIC MATTER BY WEIGHT
- 5. OBTAIN TOPSOIL ONLY FROM LOCAL SOURCES OR FROM AREAS HAVING SIMILAR SOIL CHARACTERISTICS TO THAT FOUND AT THE PROJECT SITE. 6. CONTRACTOR SHALL PROVIDE A SIX INCH (6") DEEP LAYER OF TOPSOIL IN ALL PLANTING AREAS. TOPSOIL SHALL BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS. THE SPREADING OF
- TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN SOIL CONDITIONS. . UNLESS OTHERWISE NOTED IN THE CONTRACT, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBED AREA OF THE SITE.
- . LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE SUB-GRADE ELEVATION MEETS THE FINISHED GRADE ELEVATION (LESS REQUIRED TOPSOIL), IN ACCORDANCE WITH THE APPROVED OR FINAL GRADING PLAN. 9. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THE APPROVED OR FINAL CONSTRUCTION SET UNLESS OTHERWISE DIRECTED BY THE
- PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL. 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SURFACE AND SUBSURFACE PLANT BED DRAINAGE PRIOR TO THE INSTALLATION OF PLANTINGS. IF POOR DRAINAGE CONDITIONS EXIST, CORRECTIVE ACTION SHALL BE TAKEN PRIOR TO INSTALLATION. ALL PLANTING AND LAWN AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW A FREE FLOW OF SURFACE WATER
- II. DOUBLE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL SHRUB PLANTING BEDS AND AROUND ALL TREES PLANTED BY LANDSCAPE CONTRACTOR. GROUND COVER, PERENNIAL, AND ANNUAL PLANTING BEDS SHALL BE MULCHED WITH A TWO INCH (2") TOP DRESSING. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO AVOID CONTACT WITH TRUNK OR PLANT STEM. MULCH SHALL BE OF SUFFICIENT CHARACTER AS NOT TO BE EASILY DISPLACED BY WIND OR WATER RUNOFF
- 12. WHENEVER POSSIBLE, THE SOIL PREPARATION AREA SHALL BE CONNECTED FROM PLANTING TO PLANTING. 13. Soil shall be loosened with a backhoe or other large coarse-tiling equipment unless the soil is frozen or EXCESSIVELY WET. TILING THAT PRODUCES LARGE, COARSE CHUNKS OF SOIL IS PREFERABLE TO TILING THAT RESULTS IN FINE GRAINS UNIFORM IN TEXTURE. AFTER THE AREA IS LOOSENED IT SHALL NOT BE DRIVEN OVER BY ANY VEHICLE. 14. APPLY PRE-EMERGENT WEED CONTROL TO ALL PLANT BEDS PRIOR TO MULCHING. ENSURE COMPATIBILITY BETWEEN
- PRODUCT AND PLANT MATERIAL 5. ALL PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:

MYCRO® TREE SAVER - A DRY GRANULAR MYCORRHIZAL FUNGI INOCULANT THAT IS MIXED IN THE BACKFILL WHEN PLANTING TREES AND SHRUBS. IT CONTAINS SPORES OF BOTH ECTOMYCORRHIZAL AND VA MYCORRHIZAL FUNGI (VAM), BENEFICIAL RHIZOSPHERE BACTERIA. TERRA-SORB SUPERABSORBENT HYDROGEL TO REDUCE WATER LEACHING. AND SELECTED ORGANIC MICROBIAL NUTRIENTS.

- DIRECTIONS FOR USE: USE 3-OZ PER EACH FOOT DIAMETER OF THE ROOT BALL, OR 3-OZ PER INCH CALIPER. MIX INTO THE BACKFILL WHEN TRANSPLANTING TREES AND SHRUBS. MIX PRODUCT IN A RING-SHAPED VOLUME OF SOIL AROUND THE UPPER PORTION OF THE ROOT BALL, EXTENDING FROM THE SOIL SURFACE TO A DEPTH OF ABOUT 8 INCHES, AND EXTENDING OUT FROM THE ROOT BALL ABOUT 8 INCHES INTO THE BACKFILL. APPLY WATER TO SOIL SATURATION.
- MYCOR® TREE SAVER® IS EFFECTIVE FOR ALL TREE AND SHRUB SPECIES EXCEPT RHODODENDRONS, AZALEAS, AND MOUNTAIN LAUREL, WHICH REQUIRE ERICOID MYCORRHIZAE. • SOIL PH: THE FUNGI IN THIS PRODUCT WERE CHOSEN BASED ON THEIR ABILITY TO SURVIVE AND COLONIZE PLANT ROOTS
- IN A PH RANGE OF 3 TO 9. FUNGICIDES: THE USE OF CERTAIN FUNGICIDES CAN HAVE A DETRIMENTAL EFFECT ON THE INOCULATION PROGRAM. SOIL
- APPLICATION OF ANY FUNGICIDE IS NOT RECOMMENDED FOR TWO WEEKS AFTER APPLICATION OTHER PESTICIDES: HERBICIDES AND INSECTICIDES DO NOT NORMALLY INTERFERE WITH MYCORRHIZAL FUNGAL DEVELOPMENT, BUT MAY INHIBIT THE GROWTH OF SOME TREE AND SHRUB SPECIES IF NOT USED PROPERLY.
- HEALTHY START MACRO TABS 12-8-8
- FERTILIZER TABLETS ARE PLACED IN THE UPPER 4 INCHES OF BACKFILL SOIL WHEN PLANTING TREES AND SHRUBS. • TABLETS ARE FORMULATED FOR LONG-TERM RELEASE BY SLOW BIODEGRADATION, AND LAST UP TO 2 YEARS AFTER PLANTING. TABLETS CONTAIN 12-8-8 NPK FERTILIZER, AS WELL AS A MINIMUM OF SEVEN PERCENT (7%) HUMIC ACID BY WEIGHT, MICROBIAL NUTRIENTS DERIVED FROM SEA KELP, PROTEIN BYPRODUCTS, AND YUCCA SCHIDIGERA, AND A COMPLEMENT OF BENEFICIAL RHIZOSPHERE BACTERIA. THE STANDARD 21 GRAM TABLET IS SPECIFIED HERE. DIRECTIONS FOR USE: FOR PLANTING BALLED & BURLAPPED (B&B) TREES AND SHRUBS, MEASURE THE THICKNESS OF THE TRUNK, AND USE ABOUT I TABLET (21-G) PER HALF-INCH. PLACE THE TABLETS DIRECTLY NEXT TO THE ROOT BALL, EVENLY DISTRIBUTED 3. REFERENCE LANDSCAPE PLAN FOR AREAS TO BE SEEDED OR LAID WITH SOD. AROUND ITS PERIMETER, AT A DEPTH OF ABOUT 4 INCHES.

4. SEEDING SHALL NOT BE PERFORMED IN WINDY WEATHER. IF THE SEASON OF THE PROJECT COMPLETION PROHIBITS PERMANENT STABILIZATION, TEMPORARY STABILIZATION SHALL BE PROVIDED IN ACCORDANCE WITH THE "TEMPORARY SEEDING SPECIFICATION." 5. PROTECT NEW LAWN AREAS AGAINST TRESPASSING WHILE THE SEED IS GERMINATING. FURNISH AND INSTALL FENCES, SIGNS, BARRIERS OR ANY OTHER NECESSARY TEMPORARY PROTECTIVE DEVICES. DAMAGE RESULTING FROM TRESPASS, EROSION, WASHOUT, SETTLEMENT OR OTHER CAUSES SHALL BE REPAIRED BY THE LANDSCAPE CONTRACTOR AT HIS EXPENSE. REMOVE ALL FENCES, SIGNS, BARRIERS OR OTHER TEMPORARY PROTECTIVE DEVICES ONCE LAWN HAS BEEN ESTABLISHED.

PLANT QUALITY AND HANDLING NOTES

DETAILS.

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REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. 2. IN ALL CASES, BOTANICAL NAMES LISTED WITHIN THE APPROVED OR FINAL PLANT LIST SHALL TAKE PRECEDENCE OVER

COMMON NAMES 3. ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEAVY, TIGHTLY KNIT, SO TRAINED OR FAVORED IN THEIR DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL HAVE A NORMAL HABIT OR SOUND. HEALTHY, VIGOROUS PLANTS WITH WELL DEVELOPED ROOT SYSTEM. PLANTS SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE. 4. PLANTS SHALL NOT BE PRUNED BEFORE DELIVERY. TREES WITH ABRASION OF THE BARK, SUNSCALDS, DISFIGURING KNOTS OR

FRESH CUTS OF LIMBS OVER ONE AND ONE-FOURTH INCHES (1-1/4") WHICH HAVE NOT COMPLETELY CALLOUSED SHALL BE REIECTED 5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH AND BE LEGIBLY

TAGGED WITH THE PROPER NAME AND SIZE. 6. THE ROOT SYSTEM OF EACH PLANT SHALL BE WELL PROVIDED WITH FIBROUS ROOTS. ALL PARTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF.

7. ALL PLANTS DESIGNATED BALL AND BURLAP (B&B) MUST BE MOVED WITH THE ROOT SYSTEM AS SOLID UNITS WITH BALLS OF EARTH FIRMLY WRAPPED WITH BURLAP. THE DIAMETER AND DEPTH OF THE BALLS OF EARTH MUST BE SUFFICIENT TO ENCOMPASS THE FIBROUS ROOT FEEDING SYSTEMS NECESSARY FOR THE HEALTHY DEVELOPMENT OF THE PLANT. NO PLANT SHALL BE ACCEPTED WHEN THE BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN PREPARATORY TO OR DURING THE PROCESS OF PLANTING. THE BALLS SHALL REMAIN INTACT DURING ALL OPERATIONS. ALL PLANTS THAT CANNOT BE PLANTED AT ONCE MUST BE HEELED-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL OR MULCH AND THEN WATERING. HEMP BURLAP AND TWINE IS PREFERABLE TO TREATED. IF TREATED BURLAP IS USED, ALL TWINE IS TO BE CUT FROM AROUND THE TRUNK AND ALL BURLAP IS TO BE REMOVED.

8. PLANTS TRANSPORTED TO THE PROJECT IN OPEN VEHICLES SHALL BE COVERED WITH TARPS OR OTHER SUITABLE COVERS SECURELY FASTENED TO THE BODY OF THE VEHICLE TO PREVENT INJURY TO THE PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF THE PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DIGGING, CARELESSNESS WHILE IN TRANSIT. OR IMPROPER HANDLING OR STORAGE SHALL BE CAUSE FOR REJECTION OF PLANT MATERIAL. ALL PLANTS SHALL BE KEPT MOIST, FRESH, AND PROTECTED. SUCH PROTECTION SHALL ENCOMPASS THE ENTIRE PERIOD DURING WHICH THE PLANTS ARE IN TRANSIT, BEING HANDLED, OR ARE IN TEMPORARY STORAGE. 9. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LANDSCAPE PLAN AND PLANTING

10. LANDSCAPE CONTRACTOR SHALL MAKE BEST EFFORT TO INSTALL PLANTINGS ON THE SAME DAY AS DELIVERY. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN TO PLACE THE PLANTINGS IN PARTIAL SHADE WHEN POSSIBLE. THE ROOT BALL SHALL BE KEPT MOIST AT ALL TIME AND COVERED WITH MOISTENED MULCH OR AGED WOODCHIPS. PROPER IRRIGATION SHALL BE SUPPLIED SO AS TO NOT ALLOW THE ROOT BALL TO DRY OUT. PLANTINGS HALL BE UNTIED AND PROPER SPACING SHALL BE ALLOTTED FOR AIR CIRCULATION AND TO PREVENT DISEASE, WILTING. AND LEAF LOSS. PLANTS THAT REMAIN UNPLANTED FOR A PERIOD OF TIME GREATER THAN THREE (3) DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH AND WATERED AS REQUIRED TO PRESERVE ROOT MOISTURE. II. NO PLANT MATERIAL SHALL BE PLANTED IN MUDDY OR FROZEN SOIL.

12. PLANTS WITH INJURED ROOTS OR BRANCHES SHALL BE PRUNED PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY DISEASED OR INJURED PLANTS SHALL BE REMOVED. 13. IF ROCK OR OTHER UNDERGROUND OBSTRUCTION IS ENCOUNTERED, THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO

RELOCATE OR ENLARGE PLANTING PITS OR DELETE PLANT MATERIAL FROM THE CONTRACT. 14. IF PLANTS ARE PROPOSED WITHIN SIGHT TRIANGLES, TREES SHALL BE LIMBED AND MAINTAINED TO A HEIGHT OF EIGHT FEET (8') ABOVE GRADE, AND SHRUBS, GROUND COVER, PERENNIALS, AND ANNUALS SHALL BE MAINTAINED TO A HEIGHT NOT TO EXCEED TWO FEET (2') ABOVE GRADE UNLESS OTHERWISE NOTED OR SPECIFIED BY THE GOVERNING MUNICIPALITY OR AGENCY

15. INSTALLATION SHALL OCCUR DURING THE FOLLOWING SEASONS:

PLANTS (MARCH 15 - DECEMBER 15) LAWNS (MARCH 15 - JUNE 15 OR SEPTEMBER 1 - DECEMBER 1)

16. THE FOLLOWING TREES ARE SUSCEPTIBLE TO TRANSPLANT SHOCK AND SHALL NOT BE PLANTED DURING THE FALL SEASON (STARTING SEPTEMBER 15 ABIES CONCOLOR COPNILIS VADIETIES OSTRYA VIRGINIANA

| IES CONCOLOR | CORINUS VARIETIES | OSTRTA VIRGINIANA |
|------------------------|---------------------------|--------------------------------------|
| ER BUERGERIANUM | CRATAEGUS VARIETIES | PINUS NIGRA |
| ER FREEMANII | CUPRESSOCYPARIS LEYLANDII | PLATANUS VARIETIES |
| ER RUBRUM | FAGUS VARIETIES | POPULUS VARIETIES |
| ER SACCHARINUM | HALESIA VARIETIES | PRUNUS VARIETIES |
| TULA VARIETIES | ILEX X FOSTERII | PYRUS VARIETIES |
| RPINUS VARIETIES | ILEX NELLIE STEVENS | QUERCUS VARIETIES (NOT Q. PALUSTRIS) |
| DRUS DEODARA | ILEX OPACA | SALIX WEEPING VARIETIES |
| LTIS VARIETIES | JUNIPERUS VIRGINIANA | SORBUS VARIETIES |
| RCIDIPHYLLUM VARIETIES | KOELREUTERIA PANICULATA | TAXODIUM VARIETIES |
| RCIS CANADENSIS | LIQUIDAMBAR VARIETIES | TAXUX B REPANDENS |
| RNUS VARIETIES | LIRIODENDRON VARIETIES | TILIA TOMENTOSA VARIETIES |
| ATAEGUS VARIETIES | MALUS IN LEAF | ULMUS PARVIFOLIA VARIETIES |
| | NYSSA SYLVATICA | ZELKOVA VARIETIES |

ARIETIES 17. IF A PROPOSED PLANT IS UNATTAINABLE OR ON THE FALL DIGGING HAZARD LIST, AN EQUIVALENT SPECIES OF THE SAME SIZE MAY BE REQUESTED FOR SUBSTITUTION OF THE ORIGINAL PLANT. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL PRIOR TO ORDERING AND INSTALLATION.

18. DURING THE COURSE OF CONSTRUCTION/PLANT INSTALLATION, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY AND PROMPTLY REMOVED AT THE END OF EACH WORK DAY. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF AND ALL PAVED AREAS SHALL BE CLEANED.

19. THE LANDSCAPE CONTRACTOR SHALL DISPOSE OF ALL RUBBISH AND EXCESS SOIL AT HIS EXPENSE TO AN OFF-SITE LOCATION AS APPROVED BY THE LOCAL MUNICIPALITY.

20. A 90-DAY MAINTENANCE PERIOD SHALL BEGIN IMMEDIATELY AFTER ALL PLANTS HAVE BEEN SATISFACTORILY INSTALLED. 21. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR other means, repairing and reshaping water rings or saucers, maintaining stakes and guys if originali REQUIRED, WATERING WHEN NEEDED OR DIRECTED, WEEDING, PRUNING, SPRAYING, FERTILIZING, MOWING THE LAWN, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.

2. MOW ALL GRASS AREAS AT REGULAR INTERVALS TO KEEP THE GRASS HEIGHT FROM EXCEEDING THREE INCHES (3"). MOWING SHALL BE PERFORMED ONLY WHEN GRASS IS DRY. MOWER BLADE SHALL BE SET TO REMOVE NO MORE THAN ONE THIRD (1/3) OF THE GRASS LENGTH. WHEN THE AMOUNT OF GRASS IS HEAVY, IT SHALL BE REMOVED TO PREVENT DESTRUCTION OF THE UNDERLYING TURF. MOW GRASS AREAS IN SUCH A MANNER AS TO PREVENT CLIPPINGS FROM BLOWING ON PAVED AREAS, AND SIDEWALKS. CLEANUP AFTER MOWING SHALL INCLUDE SWEEPING OR BLOWING OF PAVED AREAS AND SIDEWALKS TO CLEAR THEM FROM MOWING DEBRIS.

23. GRASSED AREAS DAMAGED DURING THE PROCESS OF THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL RESTORE THE DISTURBED AREAS TO A CONDITION SATISFACTORY TO THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE. THIS MAY INCLUDE FILLING TO GRADE, FERTILIZING, SEEDING, AND MULCHING.

24. SHOULD THE OWNER REQUIRE MAINTENANCE BEYOND THE STANDARD 90-DAY MAINTENANCE PERIOD, A SEPARATE CONTRACT SHALL BE ESTABLISHED. 25. LANDSCAPE CONTRACTOR SHALL WATER NEW PLANTINGS FROM TIME OF INSTALL AND THROUGHOUT REQUIRED 90-DAY

MAINTENANCE PERIOD UNTIL PLANTS ARE ESTABLISHED. IF ON-SITE WATER IS NOT AVAILABLE AT THE PROJECT LOCATION, THE LANDSCAPE CONTRACTOR SHALL FURNISH IT BY MEANS OR A WATERING TRUCK OR OTHER ACCEPTABLE MANNER. 26. THE OUANTITY OF WATER APPLIED AT ONE TIME SHALL BE SUFFICIENT TO PENETRATE THE SOIL TO A MINIMUM OF EIGHT INCHES (8") IN SHRUB BEDS AND SIX INCHES (6") IN TURF AREAS AT A RATE WHICH WILL PREVENT SATURATION OF THE SOIL. 27. IF AN AUTOMATIC IRRIGATION SYSTEM HAS BEEN INSTALLED, IT CAN BE USED FOR WATERING PLANT MATERIAL. HOWEVER, FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY OF PLANT HEALTH AND ESTABLISHMENT.

PLANT MATERIAL GUARANTEE NOTES:

THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR (1 YR.) FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE

2. THE LANDSCAPE CONTRACTOR SHALL REMOVE AND REPLACE DYING, DEAD, OR DEFECTIVE PLANT MATERIAL AT HIS EXPENSE. THE LANDSCAPE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS COMPANY'S OPERATIONS. 3. ALL REPLACEMENT PLANTS SHALL BE OF THE SAME SPECIES AND SIZE AS SPECIFIED ON THE APPROVED OR FINAL PLANT LIST. 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 OWNER.

4. THE CONTRACTOR SHALL INSTRUCT THE OWNER AS TO THE PROPER CARE AND MAINTENANCE OF ALL PLANTINGS.

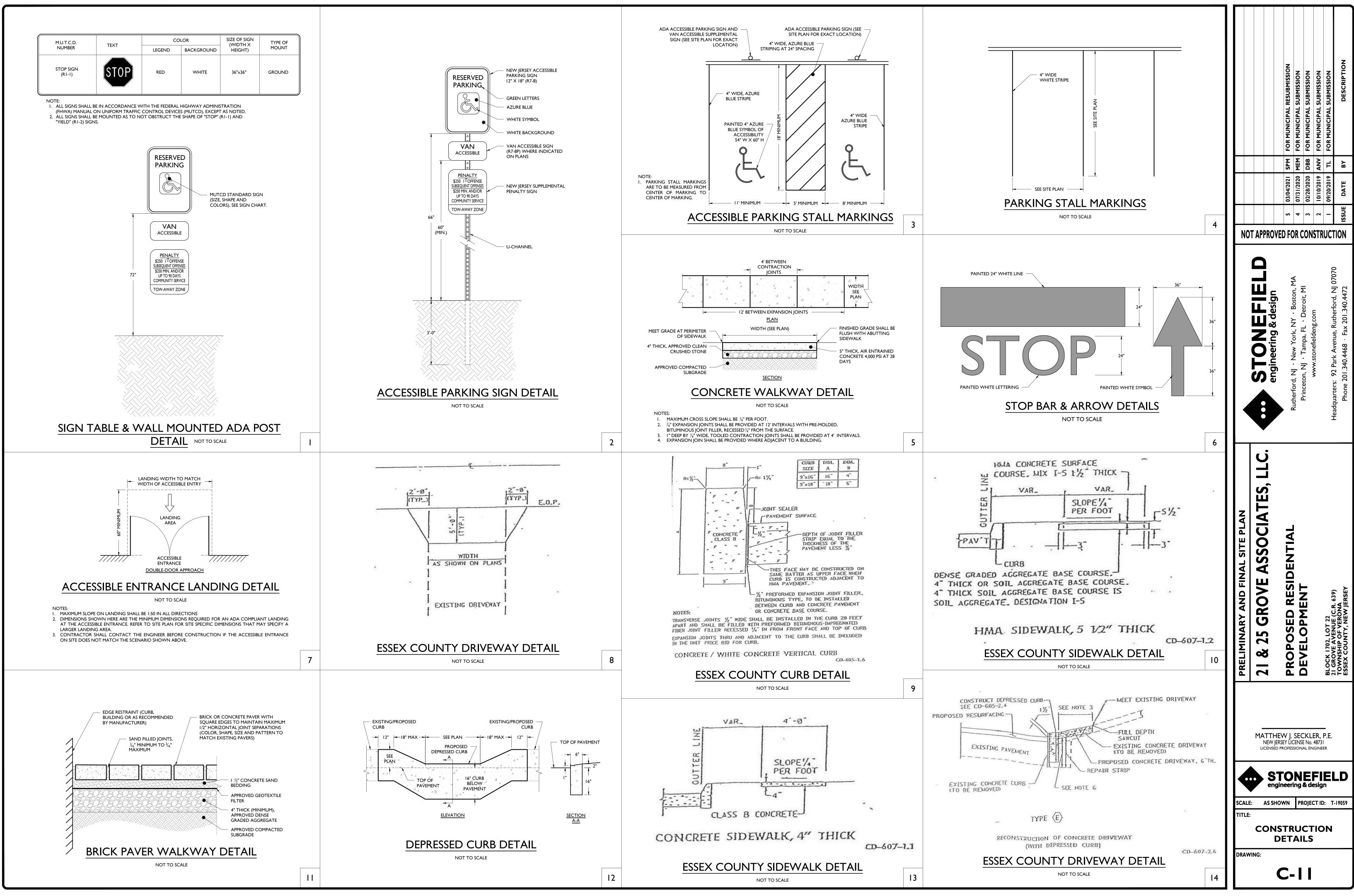
LAWN (SEED OR SOD) NOTES:

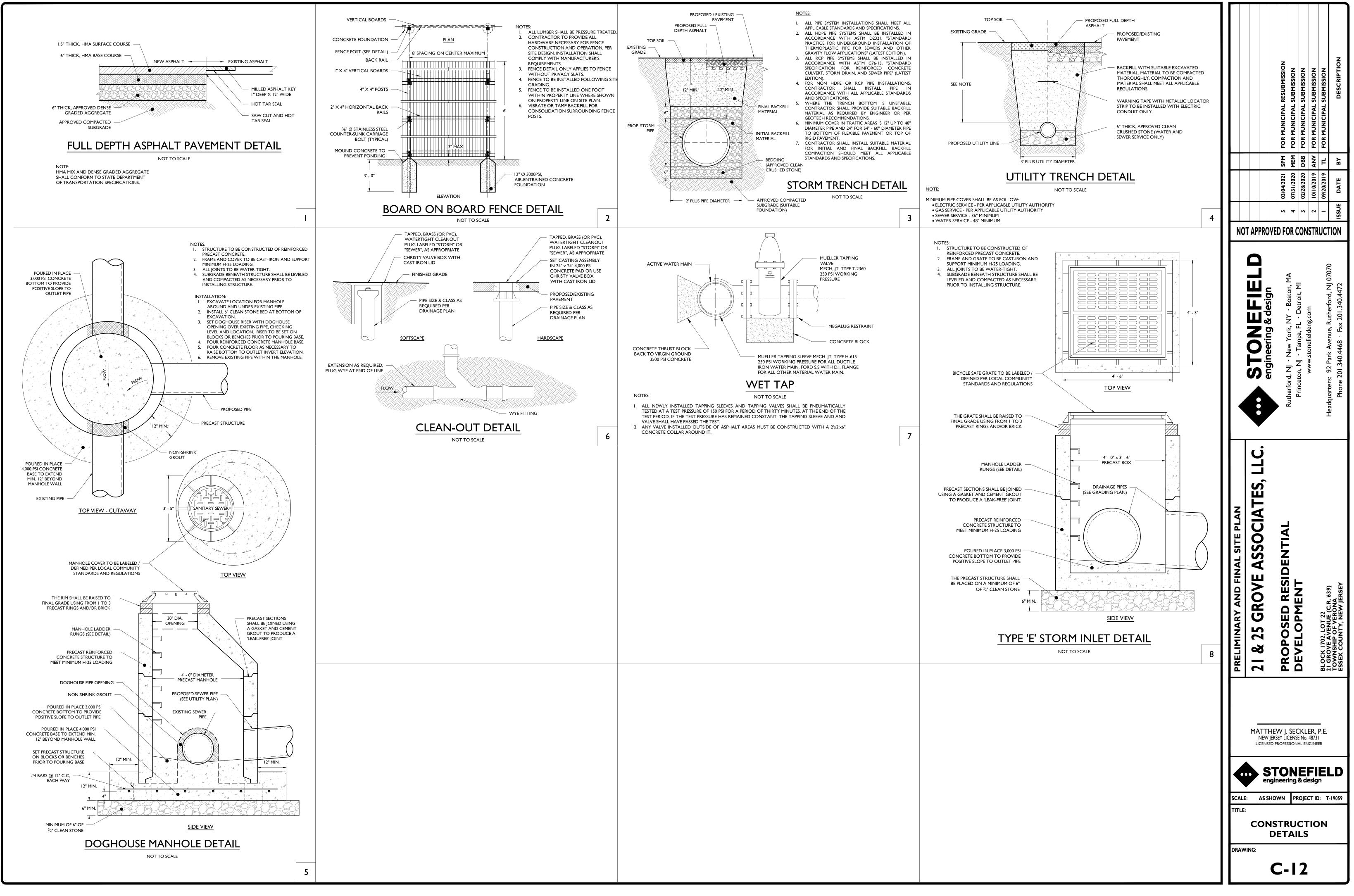
I. SEED MIXTURE SHALL BE FRESH, CLEAN, NEW CROP SEED. SOD SHALL BE STRONGLY ROOTED, UNIFORM IN THICKNESS, AND FREE OF WEEDS, DISEASE, AND PESTS. 2. SEED OR SOD SHALL BE PURCHASED FROM A RECOGNIZED DISTRIBUTOR AND SHALL BE COMPOSED OF THE MIX OR BLEND

WITHIN THE PROVIDED "SEED SPECIFICATION" OR "SOD SPECIFICATION."

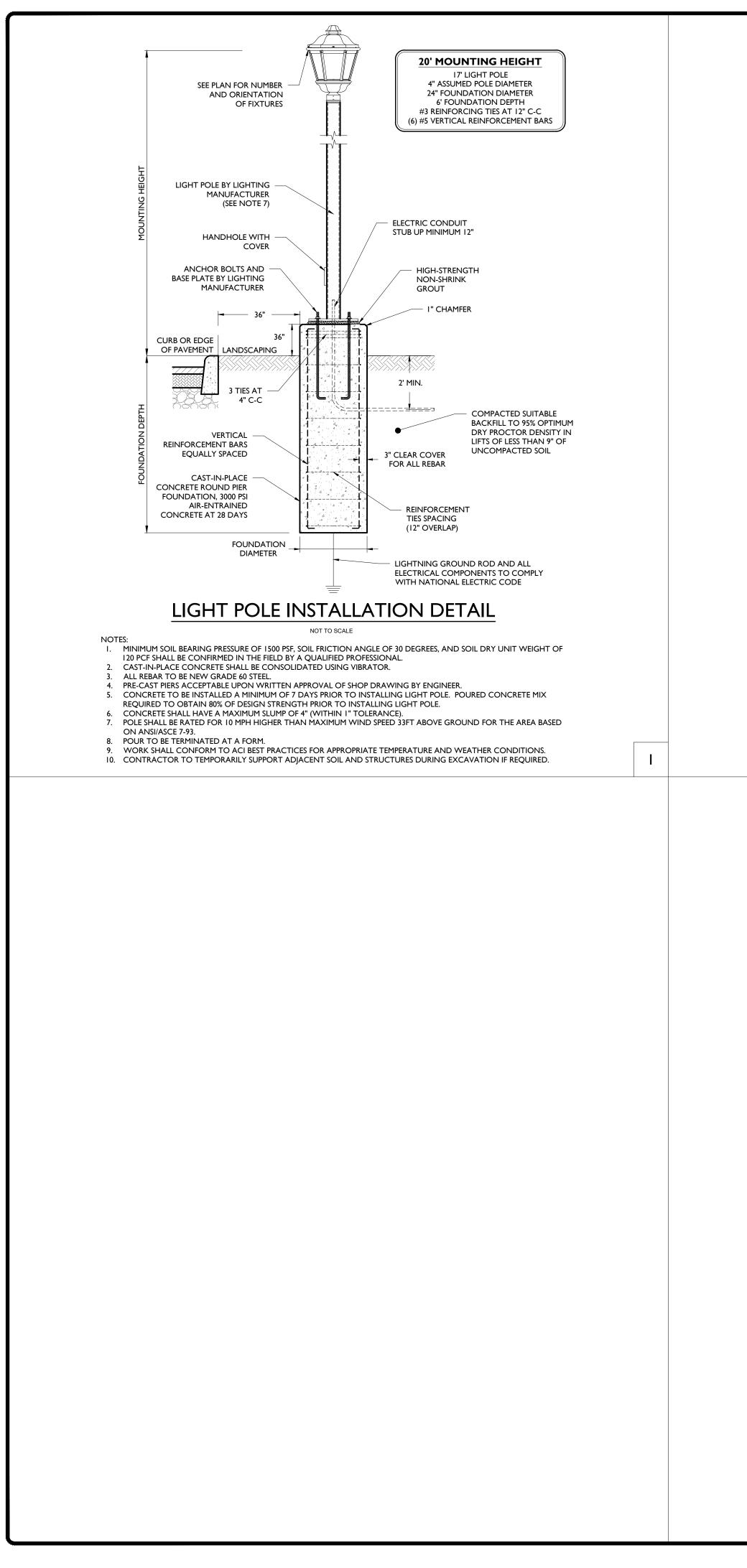
| PRELIMINARY AND FINAL SITE PLAN PRELIMINARY AND FINAL SITE PLAN 21 & 25 GROVE ASSOCIATES, LLC. | | | | | | | | | | |
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| FIS, LLC. STOUREFIELD Fight STOUREFIELD Rutherford, NJ · New York, NY · Boston, MA Princeton, NJ · Tampa, FL · Detroit, MI www.stonefieldeng.com Headquarters: 9. Park Avenue, Rutherford, NJ 07070 Phone 201.340.4468 · Fax 201.340.4472 | | | | | FOR MUNICIPAL RESUBMISSION | FOR MUNICIPAL SUBMISSION | FOR MUNICIPAL SUBMISSION | FOR MUNICIPAL SUBMISSION | FOR MUNICIPAL SUBMISSION | DESCRIPTION |
| FIS, LLC. STOUREFIELD Fig. LLC. STOUREFIELD Matherford, NJ STOUREFIELD Rutherford, NJ Now York, NY Boston, MA Princeton, NJ Tampa, FL Detroit, MI Madquarters: 9. Park Avenue, Rutherford, NJ 9. 07070 Phone 201.340.4468 Fax 201.340.4472 1 | | | | | | MEM | DBB | ANV | | BΥ |
| FIS, LLC. STOUREFIELD Fig. LLC. STOUREFIELD Magineering & design STOUREFIELD Rutherford, NJ · New York, NY · Boston, MA Princeton, MA Princeton, NJ · Tampa, FL · Detroit, MI Mana, FL · Detroit, MI Madquarters: 92 Park Avenue, Rutherford, NJ 07070 Phone 201.340.4468 · Fax 201.340.4472 1 | | | | | 03/04/2021 | 07/31/2020 | 02/28/2020 | 10/10/2016 | 09/20/201 | DATE |
| FES, LLC. STOUREFLED Rutherford, NJ · New York, NY · Boston, MA Rutherford, NJ · New York, NY · Boston, MA Princeton, NJ · Tampa, FL · Detroit, MI www.stonefieldeng.com Headquarters: 92 Park Avenue, Rutherford, NJ 07070 Phone 201.340.4468 · Fax 201.340.4472 | | | | | ъ | 4 | m | 2 | - | ISSUE |
| LES, LLC. | NO | T AP | PROV | /EC |) F(|)R C | ON | STR | UCI | TION |
| PRELIMINARY AND FINAL SITE PLAN 21 & 25 GROVE ASSOCIATES, LLC. PROPOSED RESIDENTIAL PEVELOPMENT BLOCK 1702, LOT 22 21 GROVE AVENUE (C.R. 639) TOWNSHIP OF VERONA ESEX COUNTY, NEW JERSEY | | | | | VIA -hero IIA heroheroheroh | | Frinceton, NJ • Tampa, FL • T | www.stoneneideng.cc | | Phone 201.340.4468 · Fax 201 |
| _ | PRELIMINARY AND FINAL SITE PLAN | 21 8. 25 GROVE ACCOUNTED 11 C | | | PROPOSED RESIDENTIAL | | | | BLOCK 1702, LOT 22 | TOWNSHIP OF VERONA ESSEX COUNTY, NEW JERSEY |
| | SCALE | | - | | | - - | | | | -19059 |
| engineering & design SCALE: AS SHOWN PROJECT ID: T-19059 | LA | ND | SC | A | ΡI | N | G C | DE. | ТА | ILS |
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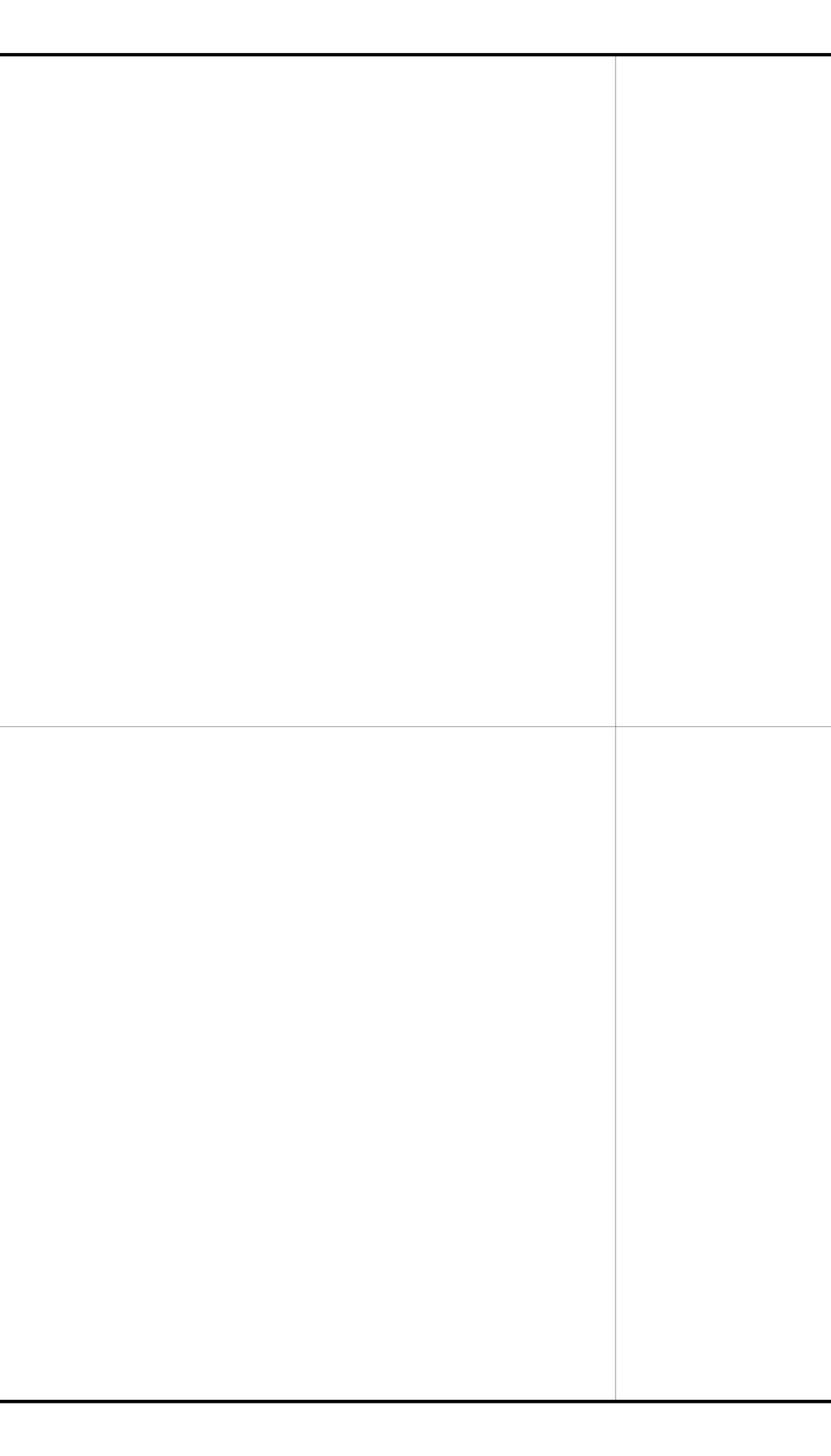
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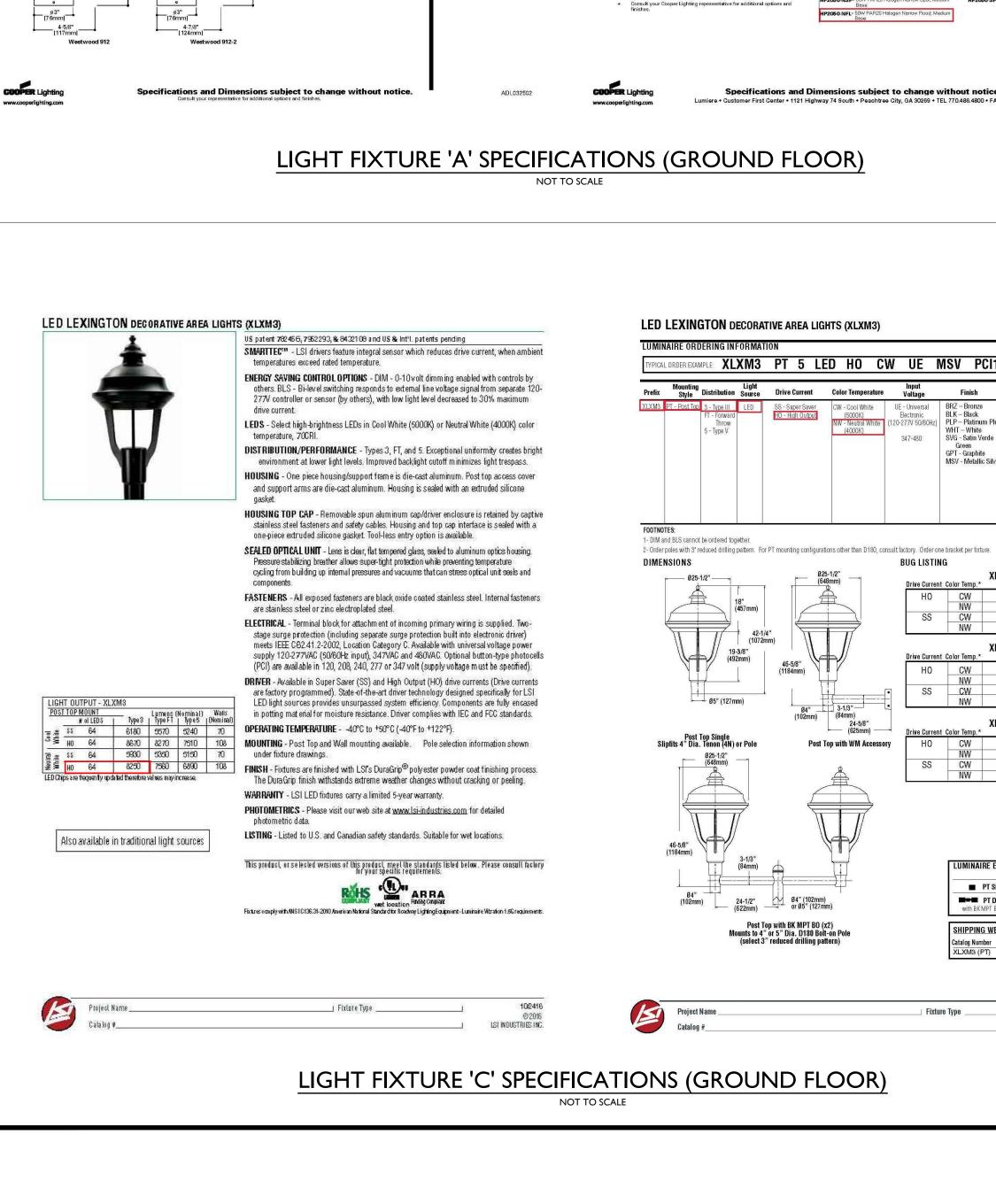


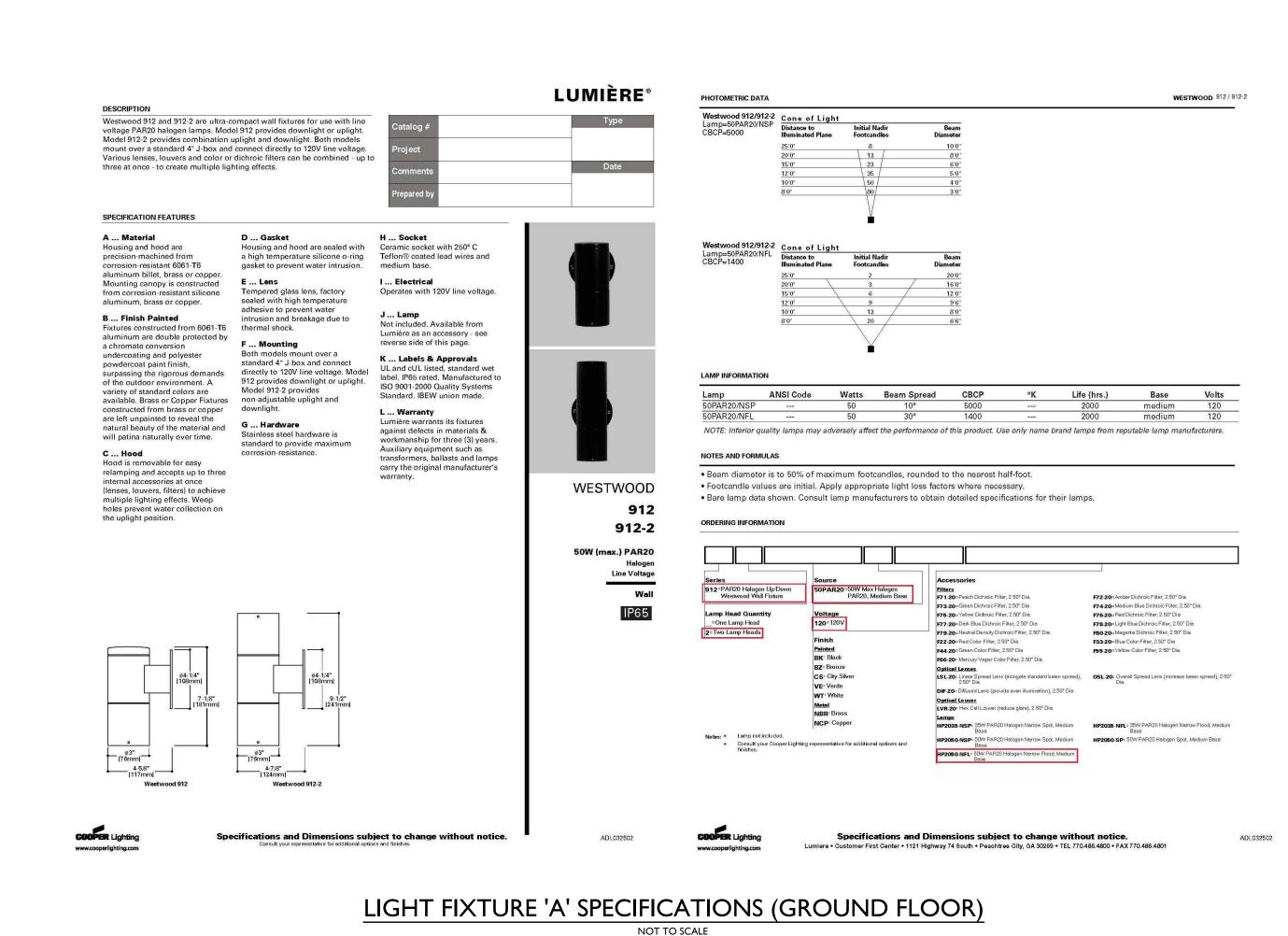
9/T-19059 21 AND 25 GROVE ASSOCIATES LLC - 21 GROVE AVENUE, VERONA, NJICADDIPLOT/LDP-13-16-DETL.D





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| PRELIMINARY AND FINAL SITE PLAN | | U I S JE GROVE ASSOCIATES II C | | | PROPOSED RESIDENTIAL | | | | BLOCK 1702, LOT 22 | ESSEX COUNTY, NEW JERSEY |
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temperatures exceed rated temperature ENERGY SAVING CONTROL OPTIONS - DIM- 0-10 volt dimming enabled with controls by others. PTDN AL INTEGRAL MOTION SENSOR - Passive infrared motion sensor activates switching of luminaire light levels. High level light is activated when passersby enter target zone and increased to full bright in 1-2 seconds. Low light level (30% of maximum drive current) is activated when target zone is absent of motion activity for 5 minutes and is gradually ramped down (10 seconds) to low level. Sensor detection range 110° horizontal x 93° vertical x 10 meters maximum distance. EXPECTED LIFE - Minimum 60,000 hours to 100,000 hours depending upon the ambient tem perature of the installation location. See LSI web site for specific guidance. LEDS - Available with 28 or 48 select high-brightness LEDs in Gool White (5000K) or Neutral DOE LIGHTING FACTS White (4000K) color temperature, 70 CRI. Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. OPTES/DISTRIBUTIONS - Ultra-high efficiency reflectors provide three distribution.s. Choose Visit www.lightingfacts.com for specific catalog strings. from Wide Throw (WT), Forward Throw (FT) or Wall Wash (WW). HOUSING - One-piece die-cast aluminum housing is smoothly contoured rectangular shape. Mounting hardware is stainless steel or electro-zinc plated steel. Housing and optical unit LIGHT OUTPUT - XPW 83 Distribution/Lumens (Nominal) Milliamps # of LEDs Type FT Type WT Type WW Wat are sealed with extruded silicone gasket; supply conductors with molded EPDM bushing. OPTCAL UNIT - Clear tempered optical-grade flat glass lens sealed to the aluminum optic 28 3100 3000 3200 3 48 6100 5100 5200 9 housing creates an IP65 rated unit. Pressure stabilizing breather allows super-tight protection while preventing cycling from building up internal pressures and vacuums that can stress optical unit seals. 6100 WALL MOUNTING - Galvanized-steel universal wall mounting plate easily mounts directly to 2900 2900 3100 4900 4800 4900 4" octagonal or square junction box. EPDM gasket is supplied to be installed between mounting plate and junction box, sealing junction box from entrance of water. Universal plate permits fixture to be mounted in uplighting (indoor only) or downlighting position. POLE MOUNTING - XPMA (for square) or XPMAR (for round) allows mounting to poles in e frequently updated therefore values may increase single and D180 configurations. Use with 3" reduced drilling pattern. **ELECTRICAL** - Two-stage surge protection (including separate surge protection built into Also available in traditional light sources electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (50/60Hz input) or 347-480VAC. DRIVER - Available in 350mA and 450mA drive currents (Drive currents are factory programmed). Components are fully encased in potting material for IP65 moisture resistance. Driver complies with IEC and FCC standards. Driver can be easily accessed. EMERGENCY OPTONS - Optional integral emergency battery-back-up options are available. BB option operates in 0°C to 60°C ambient temperature and CWBB operates in -20°C to 60°C ambient temperature. When primary AC power failure occurs, both options operate 10 LEDs for minimum of 90 minutes. This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific **FNEH** - Foctures are finished with LSI's Dura Grip[®] polyester powder coat finishing process. The Dura Grip finish withstands extreme weather changes without cracking or peeling. WARRANTY - LSI LED fixtures carry a limited 5-year warranty. PHOTOMETRICS - Please visit our web site at <u>www.lsi-industries.com</u> for detailed photometric (downlight only) ARRA IP65 SHIPPING WEIGHT (In carton) - 30 lbs/13.6Kg LISTING - ETL listed to AN SI/UL1598, UL8750 and other U.S. and international safety standards. Suitable for wet locations in downlight position. Optional Class 1 Division 2 (groups A, B, C &D) hazardous location rating is available (Select HL option). For a list of the specific products in this series that are DLC listed, please consult the LED Lighting section of our website or the Design Lights website at www.designlights.org. Project Name_ 07/28/18 🔄 Fixture Type 🔜 © 2016 LSI INDUSTRIES INC. LIGHT FIXTURE 'B' SPECIFICATIONS (GROUND FLOOR) NOT TO SCALE

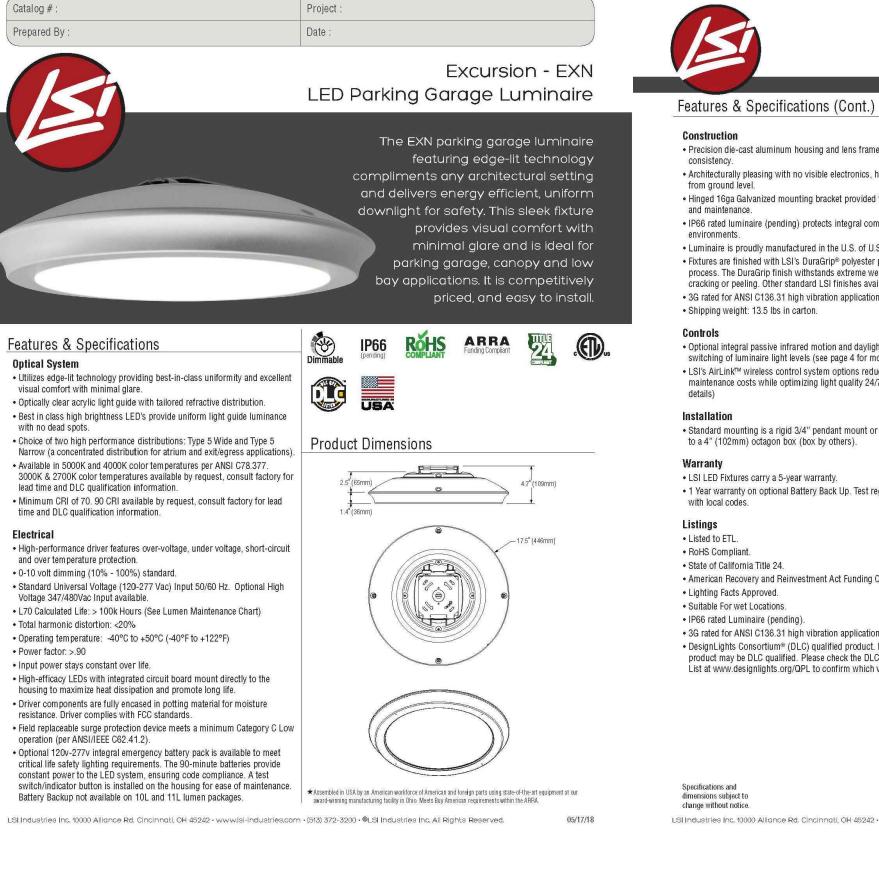
US pateni 7828456, 8002428 and CAN 2736757 & 2736757 and MX pateni 29631 and ISRL 49679 and AUS

SMART IECT - LSI drivers feature integral sensor which reduces drive current, when ambient

2008312668 and US & InPl. patents pending

LED PATRIOT[®] WALL SCONCE (XPWS3)

Prepared By : Date : E XLXM3 PT 5 LED HO CW UE MSV PCI120 Finish Options Z – Bronze K – Black P – Platinum Plus Button Type Photocells JE - Universa Electronic (5000K) NW - Neutral White (12) CHV208-277 - 208-277v 0-277V 50/60Hz) WHT – White SVG - Satin Verde Green GPT - Graphite MSV - Metallic Silver PCI 347 - 347v TE - Tool-less Entry DIM - 0-10V Dimming (from external signal)¹ BLS - Bi-level Switching (from external 120-277V (4000K) 347-480 Accessories WM - Wall Mount BK MPT BO4 - Medium Bolt on Bracket (for PT 180) For 4" Dia, Round Poles2 BK MPT B05 - Medium Bolt on Bracket (for PT 180) For 5" Dia. Round Poles² BUG LISTING XI XM3 PT - TYPE 3 BUG Rating rive Current Color Tem Features & Specifications **Optical System** • Utilizes edge-lit technology providing best-in-class uniformity and excellent XLXM3 PT - TYPE 5 visual comfort with minimal glare. Drive Current Color Temp.* Lumens LER BUG Ratin Optically clear acrylic light guide with tailored refractive distribution. 108 70 B3-U1-G1 108 64 B3-U1-G1 HO CW 7510 Best in class high brightness LED's provide uniform light guide luminance 6894 with no dead spots. 5243 70 75 B2-U1-G CW Choice of two high performance distributions: Type 5 Wide and Type 5 70 74 B2-U1-Narrow (a concentrated distribution for atrium and exit/egress applications). Available in 5000K and 4000K color temperatures per ANSI C78.377. XLXM3 PT - TYPE FT 24-5/8" (625mm) -3000K & 2700K color temperatures available by request, consult factory for Drive Current Color Temp.* Lumens Watts LER lead time and DLC qualification information. Post Top with WM Accessory CW • Minimum CRI of 70. 90 CRI available by request, consult factory for lead time and DLC qualification information. SS 5354 70 76 B1-U2-0 Electrical * Color Temperature: NW-4000K, CW-5000k • High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection. • 0-10 volt dimming (10% - 100%) standard. • Standard Universal Voltage (120-277 Vac) Input 50/60 Hz. Optional High Voltage 347/480Vac Input available. L70 Calculated Life: > 100k Hours (See Lumen Maintenance Chart) Total harmonic distortion: <20% LUMINAIRE EPA CHART - Lexington Operating temperature: -40°C to +50°C (-40°F to +122°F) MOUNTING STYLE Power factor: >.90 PT Single PT 1.4 • Input power stays constant over life. PT PT D180° PT 2.7 High-efficacy LEDs with integrated circuit board mount directly to the housing to maximize heat dissipation and promote long life. • Driver components are fully encased in potting material for moisture SHIPPING WEIGHTS - Lexington resistance. Driver complies with FCC standards. Catalog Number Est. Weight (kg/lbs.) • Field replaceable surge protection device meets a minimum Category C Low XM3 (PT) operation (per ANSI/IEEE C62.41.2). Optional 120v-277v integral emergency battery pack is available to meet critical life safety lighting requirements. The 90-minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. 10/241 Battery Backup not available on 10L and 11L lumen packages. Fixture Type © 2016 LSI INDUSTRIES INC.



LIGHT FIXTURE 'D' SPECIFICATIONS (GROUND FLOOR) NOT TO SCALE

| • | 5L | T5W | 0.38 | 0.22 | 0.19 | 0.16 | 0.13 | 0.09 |
|---|------------------------|------|-------------------------|-----------------------|-----------------------|------|-------------------|------------------------|
| igs | 5L | T5N | 0.38 | 0.22 | 0.19 | 0.16 | 0.13 | 0.09 |
| DETL. | 6L - | T5W | 0.46 | 0.26 | 0.23 | 0.20 | 0.16 | 0.11 |
| nt. | 0L | T5N | 0.46 | 0.26 | 0.23 | 0.20 | 0.16 | 0.11 |
| nia Title 24. | 81 | T5₩ | 0.59 | 0.34 | 0.30 | 0.26 | 0.20 | 100.000 |
| y and Reinvestment Act Funding Compliant. | UL I | T5N | 0.59 | 0.34 | 0.30 | 0.26 | 0.20 | |
| proved. | 10L | T5₩ | 0.73 | 0.42 | 0.37 | 0.32 | 0.25 | |
| ations. | | T5N | 0.73 | 0.42 | 0.37 | 0.32 | 0.25 | The second second |
| ninaire (pending). | 11L - | T5W | 0.88 | 0.51 | 0.44 | 0.38 | 0.30 | |
| C136.31 high vibration applications | *Electrical data | T5N | 0.88 | 0.51 | 0.44 | 0.38 | 0.30 | 0.22 |
| | Ambient Temperature | 0 hi | s . ² | 25K hrs. ² | 50K hrs. ² | 75K | hrs. ² | 100K hrs. ² |
| | 0 C | 100 |)% | 93% | 86% | 80 | % | 74% |
| | 10 C | 100 |)% | 93% | 86% | 80 | 1% | 74% |
| | 20 C | 100 |)% | 93% | 86% | 80 | % | 74% |
| | 25 C | 100 |)% | 94% | 88% | 83 | % | 78% |
| | 30 C | 100 | 10/ | 94% | 88% | 82 | % | 77% |
| | 50 0 | 100 | 170 | 3470 | 77.75 | | 1943 | |

| 10L | 1000 | 000 | | 01 | 3021 | 100 | 87.5 |
|----------------|--------------|------------|-------------|-------------|----------|------|------|
| TUL | T5N | 942 | 8 1 | 08 | 9601 | 110 | 87.5 |
| 441 | T5W | 1032 | 22 | 98 | 10511 | 100 | 105 |
| 11L | T5N | 1098 | 35 1 | 04 | 11186 | 106 | 105 |
| LED Chips a | are frequent | ly updated | therefore v | alues are r | iominal. | | |
| | | | | | | | |
| ELECTRIC | AL DATA* | | | | | | |
| Lumen Level | Watts | 120V | 208V | 240V | 277V | 347V | 480V |
| F1 | T5W | 0.38 | 0.22 | 0.19 | 0.16 | 0.13 | 0.09 |
| 5L | T5N | 0.38 | 0.22 | 0.19 | 0.16 | 0.13 | 0.09 |
| 01 | T5W | 0.46 | 0.26 | 0.23 | 0.20 | 0.16 | 0.11 |
| 6L | T5N | 0.46 | 0.26 | 0.23 | 0.20 | 0.16 | 0.11 |
| 01 | T5W | 0.59 | 0.34 | 0.30 | 0.26 | 0.20 | 0.15 |
| 8L | T5N | 0.59 | 0.34 | 0.30 | 0.26 | 0.20 | 0.15 |
| 101 | T5₩ | 0.73 | 0.42 | 0.37 | 0.32 | 0.25 | 0.18 |
| | | | | | | | |

| 441 | T5₩ | 11111 | 106 | 10941 | 104 | 1.05 |
|----------------|-------|---------------------|----------|---------------------|----------|---------------|
| 11L | T5N | 11825 | 112 | 11644 | 111 | 105 |
| | | 270 | IOK | 300 | IOK | |
| Lumen Level | Optic | Delivered Lumens | Efficacy | Delivered Lumens | Efficacy | Avg. Watts |
| e1. | T5₩ | 4866 | 109 | 4955 | 111 | 44.5 |
| 5L | T5N | 5179 | 116 | 5274 | 119 | 44.5 |
| CI. | T5W | 5957 | 109 | 6066 | 112 | 544 |
| 6L | T5N | 6340 | 117 | 6456 | 119 | 54.4 |
| 01 | T5₩ | 7440 | 105 | 7577 | 107 | 70.0 |
| 8L | T5N | 7918 | 112 | 8063 | 114 | 70.6 |
| 101 | T5W | 8859 | 101 | 9021 | 103 | 07.5 |
| 10L | T5N | 9428 | 108 | 9601 | 110 | 87.5 |
| 441 | T5₩ | 10322 | 98 | 10511 | 100 | 4.05 |
| 11L | T5N | 10985 | 104 | 11186 | 106 | 105 |

| - | | |
|---|---|--|
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| | | |
| | | |

• Precision die-cast aluminum housing and lens frame for durability and

Architecturally pleasing with no visible electronics, hardware, or seams

• Hinged 16ga Galvanized mounting bracket provided for ease of installation

IP66 rated luminaire (pending) protects integral components from harsh

• Luminaire is proudly manufactured in the U.S. of U.S. and imported parts.

• Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing

process. The DuraGrip finish withstands extreme weather changes without

cracking or peeling. Other standard LSI finishes available. Consult factory.

 Optional integral passive infrared motion and daylight sensor activates switching of luminaire light levels (see page 4 for more details).

maintenance costs while optimizing light quality 24/7. (see page 5 for more

• Standard mounting is a rigid 3/4" pendant mount or direct surface mount

• 1 Year warranty on optional Battery Back Up. Test regularly in accordance

LSI's AirLink[™] wireless control system options reduce energy and

• 3G rated for ANSI C136.31 high vibration applications.

to a 4" (102mm) octagon box (box by others).

• LSI LED Fixtures carry a 5-year warranty.

• Shipping weight: 13.5 lbs in carton.

Construction

consistency.

from ground level.

and maintenance.

environments.

Controls

details)

Installation

Warranty

with local codes.

Excursion - EXN LED Parking Garage Luminaire

Efficacy

5000K

Lumens

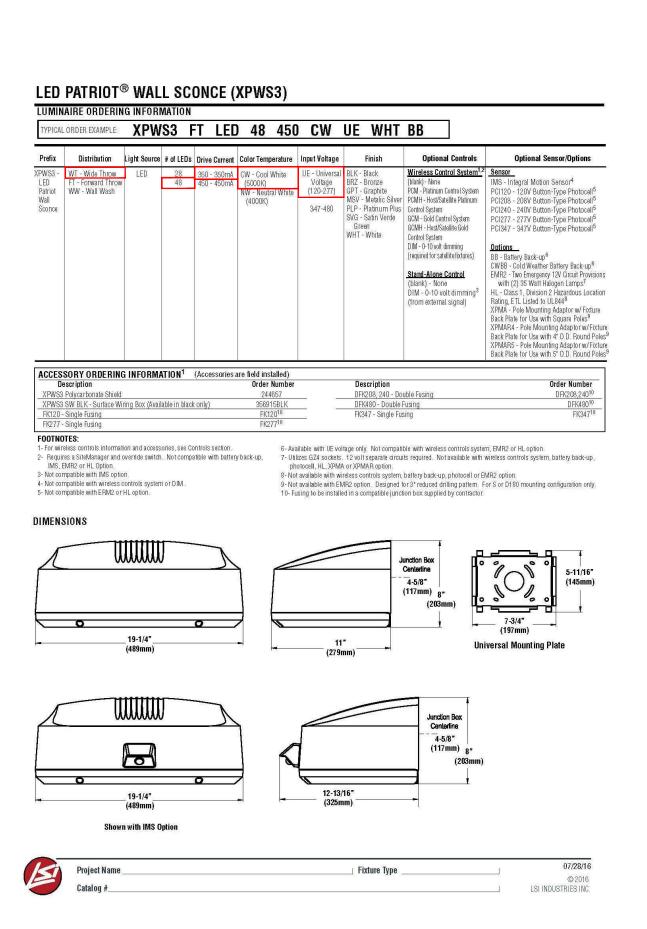
Efficacy

4

Performance

DELIVERED LUMENS*

Optic



| TITLE | SCALE | | PRELIMINARY AND FINAL SITE PLAN | | NO | | | |
|----------|----------------------|-----------------------|--|---------------------------------------|-----------|------------|-----|----------------------------|
| CON | er | MATT NEW LICENS | 21 & 25 GROVE ASSOCIATES, LLC. | STONEFIELD | T APPRO | | | |
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| LS | & de | E No. | | | ~ CON | 02/28/2020 | DBB | FOR MUNICIPAL SUBMISSION |
| | esig | 4873 | | www.stoneneideng.com | r Str | 10/10/2019 | ANV | FOR MUNICIPAL SUBMISSION |
| N | n | l | BLOCK 1702, LOT 22 | | – UC1 | 09/20/2019 | Ц | FOR MUNICIPAL SUBMISSION |
| | L D -19059 | | TOWNSHIP OF VERONA ESSEX COUNTY, NEW JERSEY | Phone 201.340.4468 · Fax 201.340.4472 | ISSUE | DATE | BΥ | DESCRIPTION |

