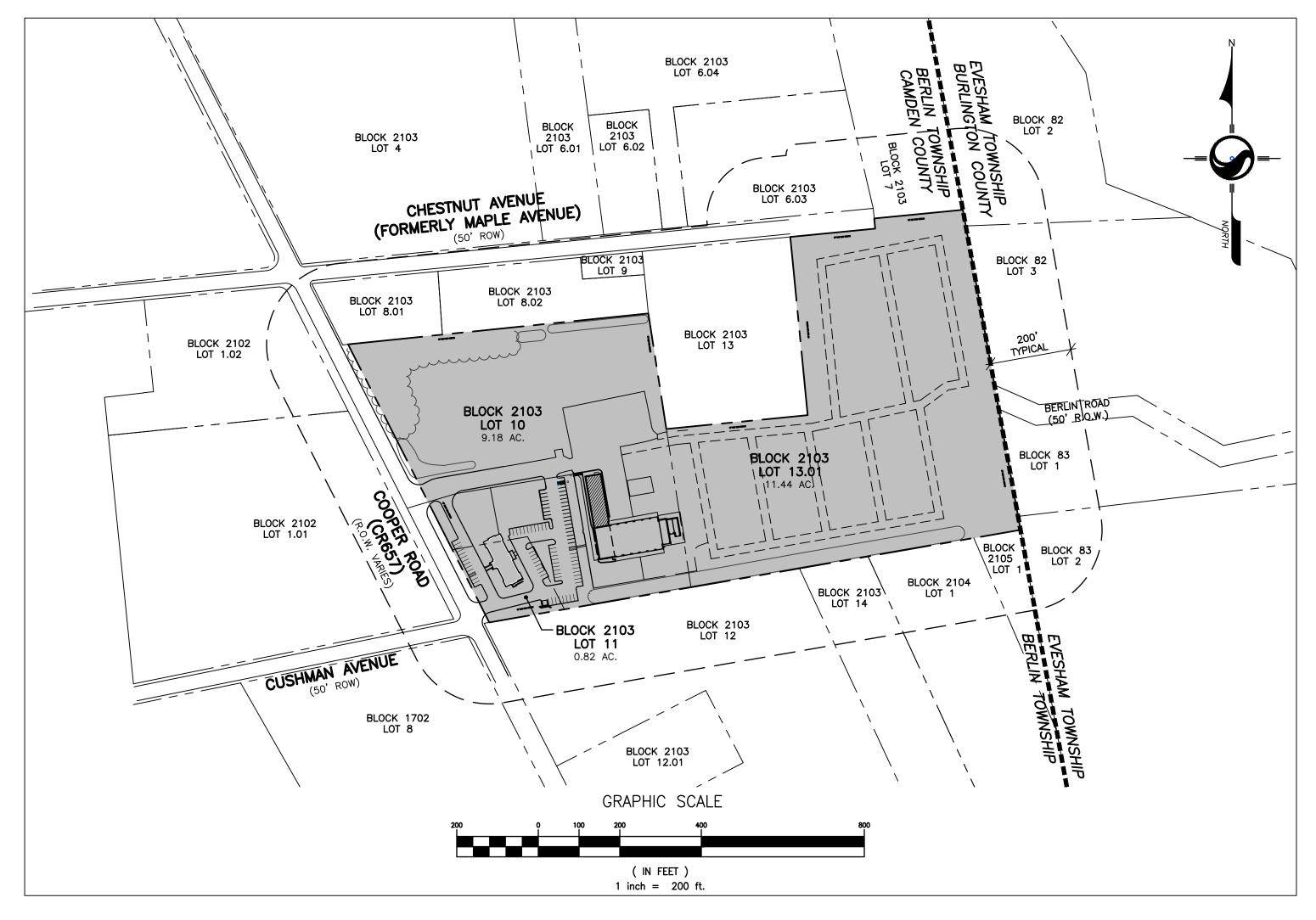
BUILDING ADDITION

551 COOPER ROAD, BLOCK 2103, LOTS 10, 11 & 13.01, PLATE 21 TOWNSHIP OF BERLIN, CAMDEN COUNTY, NEW JERSEY



PROPERTY OWNERS W/IN 200 FEET OF SUBJECT PROPERTY

| BERLIN TOWNSHIP | | | |
|------------------------------|--------------|------------|--|
| <u>OWNER</u> | BLOCK | <u>LOT</u> | |
| TO BE FURNISHED UPON RECEIPT | 2102 | 1.01 | |
| | 2102 | 1.02 | |
| | 2103 | 6.03 | |
| | 2103 | 7 | |
| | 2103 | 8.01 | |
| | 2103 | 8.02 | |
| | 2103 | 9 | |
| | 2103 | 12 | |
| | 2103 | 13 | |
| | 2103 | 14 | |
| | 2104 | 1 | |
| | 2105 | 1 | |
| EVESHAM TOWNSHIP | | | |
| <u>OWNER</u> | BLOCK | <u>LOT</u> | |
| TO BE FURNISHED UPON RECEIPT | 82 | 2 | |
| | 82 | 3 | |
| | 83 | 1 | |

PUBLIC UTILITIES

| - 05210 0 1121112 |
|--|
| ELECTRIC ATLANTIC CITY ELECTRIC 295 N. GROVE STREET BERLIN, NJ 08009 |
| |

100 LINCOLN DRIVE VOORHEES, NJ 08043 <u>gas</u> South Jersey gas <u>SEWER</u> BERLIN TWP. MUA 200 EDGEWOOD AVE.,BERLIN, NJ 08091 1 SO. JERSEY PLAZA, ROUTE 54 FOLSOM, NJ 08037

WATER
NEW JERSEY AMERICAN WATER

540 BROAD STREET

NEWARK, NJ 07101

CABLE TELEVISION COMCAST P.O. BOX 5025 CHERRY HILL, NJ 08034 (856) 354-1660

GENERAL NOTES:

PROPERTY IS KNOWN AS LOTS 10, 11 & 13.01, BLOCK 2103, 551 COOPER ROAD, CONTAINING 933,911 SQ. FT. OR 21.44 ACRES, AND IS LOCATED IN ZONING DISTRICT: I-1 LIGHT INDUSTRIAL ZONE

1. OWNER/APPLICANT: JENSTAR OF BERLIN, LLC P.O. BOX 1400

ROUTE 73 AND COOPER RD. VOORHEES, NEW JERSEY 08043 PHONE: (610) 277-0300 FAX: (610) 277-0328

2. THE PURPOSE OF THIS PLAN IS TO DEPICT THE CONSTRUCTION OF A 2-STORY OFFICE BUILDING ADDITION TO BE LOCATED ADJACENT TO THE MAINTENANCE GARAGE EXISTING ON LOT 10, ALONG WITH RELATED SITE IMPROVEMENTS.

INFORMATION TO PREPARE THESE PLANS OBTAINED FROM THE FOLLOWING

A. PLAN ENTITLED "TOPOGRAPHIC SURVEY", 551 COOPER ROAD, BLOCK 2103, LOTS 10, 11 & 13.01, PREPARED BY STANTEC CONSULTING SERVICES INC., DRAWING No. V-101.2, DATED 10/06/16. B. PLAN ENTITLED "BOUNDARY SURVEY", 551 COOPER ROAD, BLOCK 2103, LOTS 10, 11 & 13.01, PREPARED BY STANTEC CONSULTING SERVICES INC.,

DRAWING No. V-101.2, DATED 10/06/16. C. PLAN ENTITLED "SITE PLAN FOR TRAILER PARKING", LOTS 10 & 11, BLOCK 2103, PREPARED BY CLANCY & ASSOCIATES, INC., JOB # 9100-01, SHEET D. TOWNSHIP OF BERLIN, CAMDEN COUNTY, NJ TAX MAP, PLATE 21. E. EVESHAM TOWNSHIP, BURLINGTON COUNTY, NJ TAX MAP, PLATE 13.

4. PUBLIC SANITARY SEWER AND DOMESTIC WATER PRESENTLY SERVICE THE SITE.

EXISTING/PROPOSED USE: HALE TRAILER BRAKE & WHEEL OFFICES, STORAGE AND

SITE SAFETY:

THE OWNER, OR HIS REPRESENTATIVE, IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21 (e) OF THE N.J. UNIFORM CONSTRUCTION CODE AND CFR 1926.32 (f) (OSHA COMPETENT PERSON).

IMPERVIOUS COVERAGE

EXISTING PERVIOUS AREA BEING CONVERTED TO IMPERVIOUS COVER = 1,614 S.F. EXISTING IMPERVIOUS AREA BEING CONVERTED TO PERVIOUS COVER = 1.083 S.F. NET INCREASE IN IMPERVIOUS COVER = 531 S.F.

ZONING DATA ZONE: I-1 (LIGHT INDUSTRIAL ZONE 1)

| ZONING SCHEDULE | | | |
|---------------------------------|---------------|-----------------------------|-----------------------------|
| | LOTS 10, 11 & | 13.01, BLOCK 2103 | |
| CRITERIA | REQUIRED | EXISTING | PROPOSED |
| A. LOT INFORMATION | | | |
| MIN. TOTAL LOT AREA | 20,000 SF | 21.44 ACRES (933,911 SF) | 21.44 ACRES (933,911 SF) |
| MIN. WIDTH | 100 FEET | 673 FEET | 673 FEET |
| MIN. DEPTH | 150 FEET | 1,435 FEET | 1,435 FEET |
| MIN. LOT FRONTAGE | 100 FEET | 765.52 FEET | 765.52 FEET |
| BUILDING COVERAGE (MAXIMUM) | 65% | 2.21% (20,732 SF) | 2.76% (25,836 SF) |
| B. YARD AND HEIGHT REQUIREMENTS | | | |
| MIN. FRONT YARD | 40 FEET | 76.13 FEET | 76.13 FEET |
| MIN. SIDE YARD — EACH | 15 FEET | 78.98 FEET | 78.98 FEET |
| MIN. SIDE YARD — BOTH | 30 FEET | 579.56 FEET | 457.97 FEET |
| MIN. REAR YARD | 25 FEET | 822.17 FEET | 822.71 FEET |
| MAX. BUILDING HEIGHT | 50 FEET | <50 FEET | < 50 FEET |

| PARKING SCHEDULE | | | |
|---------------------------------|---------------------------|---------------------------|-------------------|
| EXISTING REQUIRED SPACES | ORDINANCE REQUIREMENT | | # SPACES REQUIRED |
| FRONT OFFICE BUILDING | 1 SPACE PER 250 SF GFA | BLDG GFA = 11,000 SF | 44 |
| MAINTENANCE BUILDING | | | |
| OFFICES (2 STORIES) | 1 SPACE PER 250 SF GFA | BLDG GFA = 6,236 SF | 25 |
| MAINTENANCE GARAGE (INDUSTRIAL) | 1 SPACE PER 1000 SF GFA | BLDG GFA = 10,880 SF | 11 |
| EMPLOYEES | 1 SPACE/EVERY 2 EMPLOYEES | 15 EMPLOYEES (MAX. SHIFT) | 8 |
| PROPOSED REQUIRED SPACES | | | • |
| OFFICE ADDITION (2 STORIES) | 1 SPACE PER 250 SF GFA | BLDG GFA =10,208 SF | 41 |
| | | | |
| TOTAL # OF PARKING SPACES REQ | UIRED: 129 | | |
| TOTAL # OF PARKING SPACES PRO | VIDED: 87 | | |

1. RELIEF IS REQUESTED FROM CHAPTER 340, ARTICLE XVI, 340-93, "OFF STREET PARKING AND AND LOADING AREAS" TO PERMIT THE PROVISION OF A TOTAL NUMBER OF 87 PARKING SPACES WHERE 129 PARKING SPACES ARE REQUIRED.

| DRAWING INDEX | | |
|---|---------|-------|
| SHEET TITLE | NO. | SHEET |
| GENERAL INFORMATION PLAN | G-001 | 1 |
| EXISTING CONDITIONS AND DEMOLITION PLAN | C-101 | 2 |
| OVERALL SITE PLAN | C-102 | 3 |
| SITE PLAN ENLARGEMENT | C-102.1 | 4 |
| GRADING PLAN | C-103 | 5 |
| ADA COMPLIANCE PLAN | C-103.1 | 6 |
| UTILITY PLAN | C-104 | 7 |
| SOIL EROSION AND SEDIMENT CONTROL PLAN | C-105 | 8 |
| SOIL EROSION AND SEDIMENT CONTROL NOTES | C-105.1 | 9 |
| | | |

SOIL EROSION AND SEDIMENT CONTROL DETAILS C-105.2 10

C-501 11

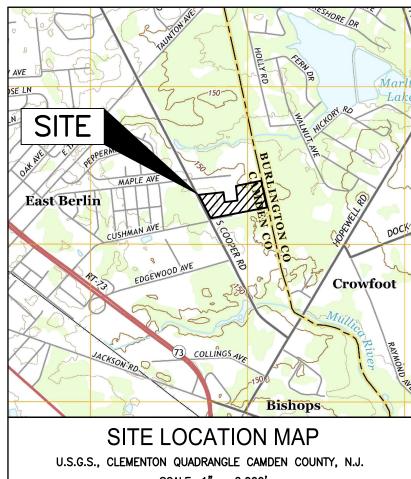
C-502 12

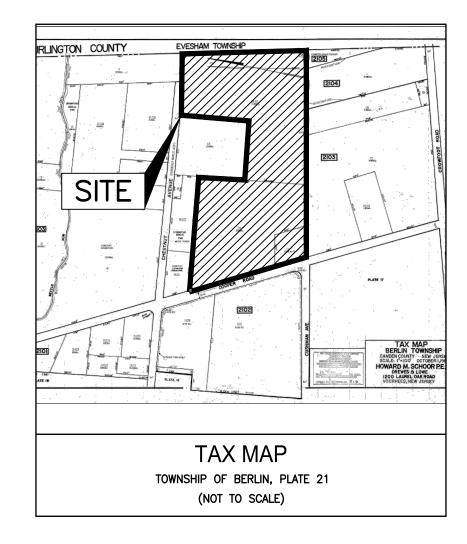
OTHER REQUIRED APPROVALS:

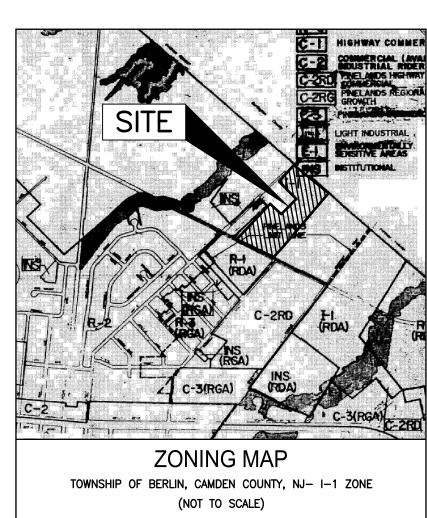
DETAIL SHEET 1

DETAIL SHEET 2

1) CAMDEN COUNTY PLANNING BOARD... 2) CAMDEN COUNTY SOIL CONSERVATION DISTRICT. ..PENDING







I HEREBY STATE THAT I AM THE OWNER/APPLICANT OF LANDS SHOWN HEREON.

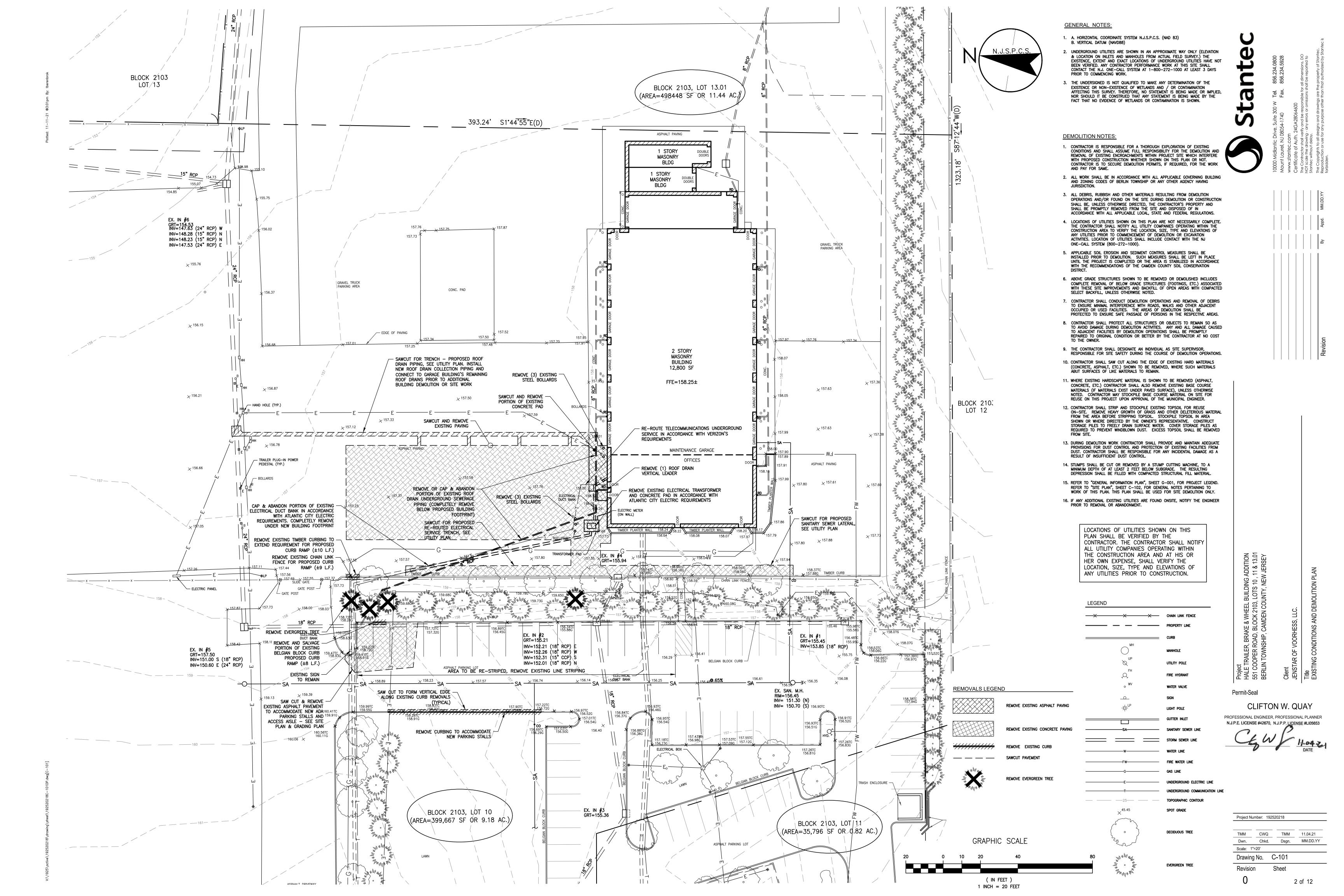
| OWNER | DATE: |
|--|----------------------------------|
| THIS PLAN IS HEREBY APPROVED BY THE TO | WNSHIP OF BERLIN PLANNING BOARD. |
| CHAIRMAN: | DATE: |
| SECRETARY: | DATE: |
| ENGINEER: | DATE: |
| TOWNSHIP CLERK: | DATE: |
| TOWNSHIP ENGINEER: | DATE: |

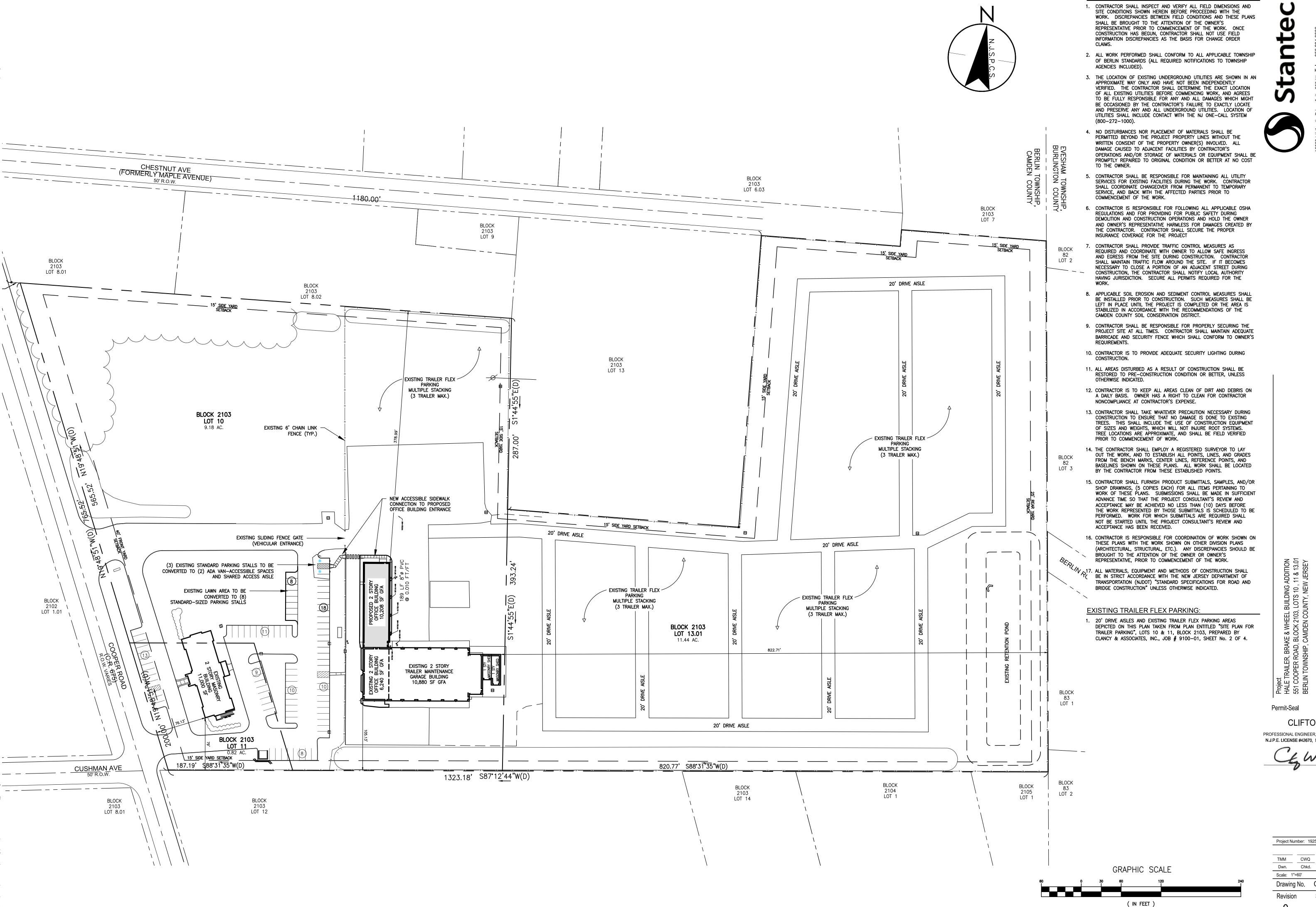
THIS PLAN IS HEREBY APPROVED BY THE CAMDEN COUNTY PLANNING BOARD SUBJECT THE THE RESTRICTIONS, AGREEMENTS AND CONDITIONS SET FORTH BY THE CAMDEN COUNTY

CLIFTON W. QUAY PROFESSIONAL ENGINEER, PROFESSIONAL PLANNER N.J.P.E. LICENSE #42670, N.J.P.P. LICENSE #LI05653

Permit-Seal

Project Number: 192520218 TMM CWQ TMM 11.04.21 Dwn. Chkd. Dsgn. MM.DD.YY Drawing No. G-001 Revision 1 of 12





GENERAL NOTES:

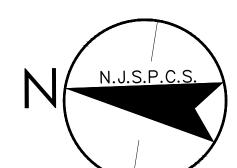
CLIFTON W. QUAY

PROFESSIONAL ENGINEER, PROFESSIONAL PLANNER N.J.P.E. LICENSE #42670, N.J.P.P. LICENSE #LI05653

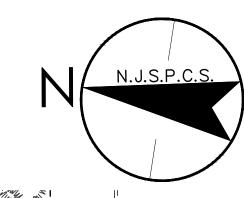
Project Number: 192520218 CWQ TMM 11.04.21 Dwn. Chkd. Dsgn. MM.DD.YY

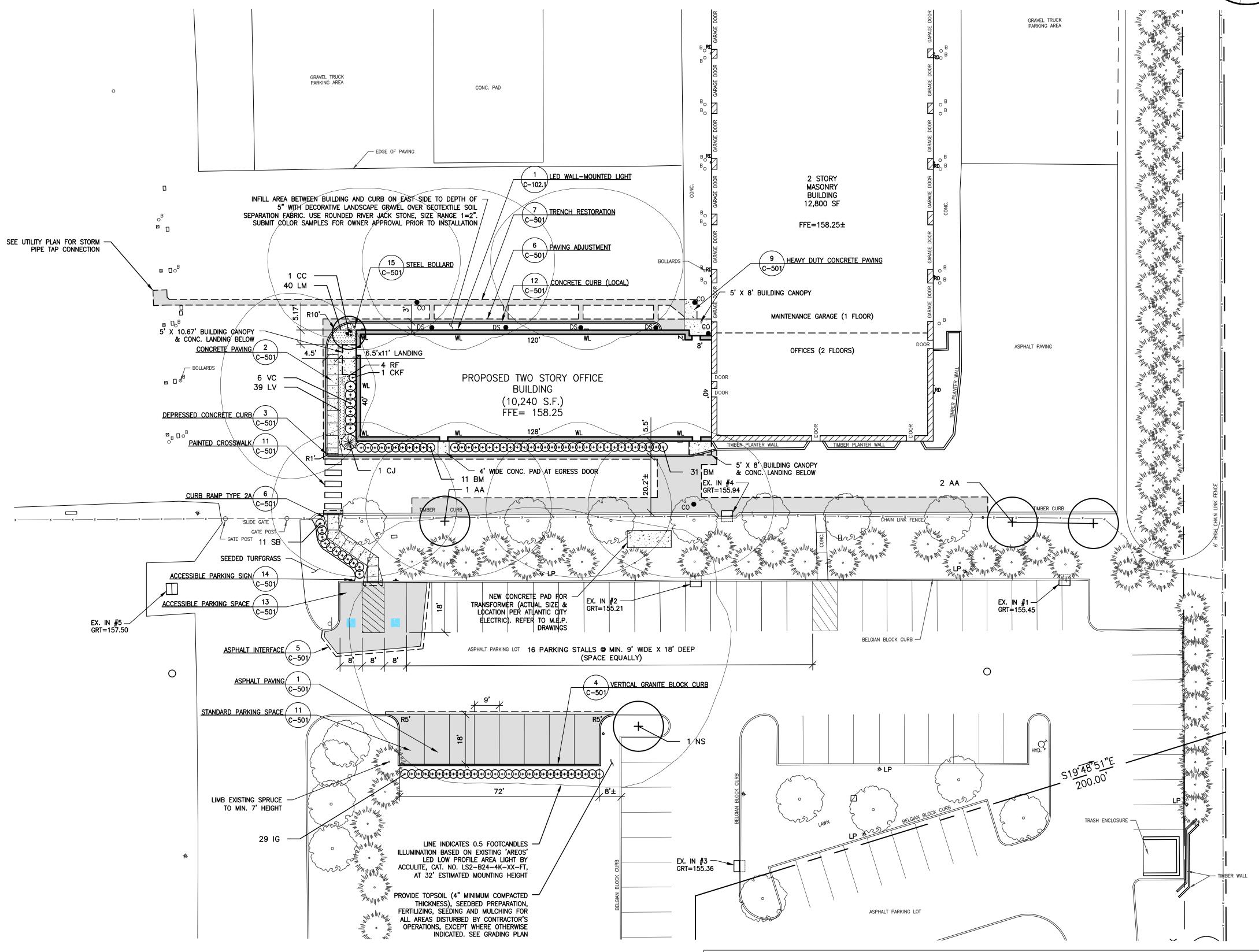
Drawing No. C-102

1 inch = 60 ft.



WPLED52



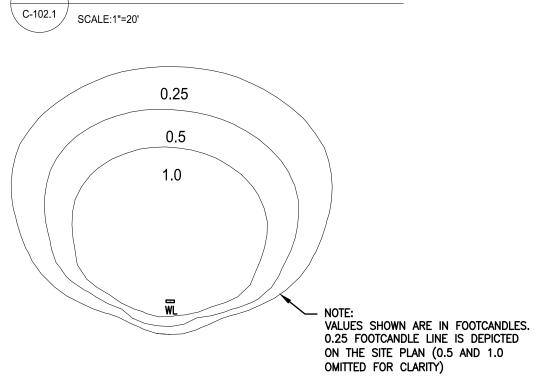


| QTY | KEY | BOTANICAL NAME | COMMON NAME | SIZE | ROOT | REMARKS |
|-----|-----|--|-----------------------------|-----------------|----------|----------------------------|
| | | TREES | | | | |
| 3 | AA | AMELANCHIER ARBOREA | SERVICEBERRY | 2 1/2 - 3" CAL. | B&B | TREE FORM |
| 1 | CC | CERCIS CANADENSIS | EASTERN REDBUD | 7-8' HT. | B&B | FULL, SPECIMEN, MULTI-STEM |
| 1 | CJ | CRYPTOMERIA JAPONICA 'BLACK DRAGON' | BLACK DRAGON JAPANESE CEDAR | 4 - 5' HT. | B&B | SPECIMEN |
| 1 | NS | NYSSA SYLVATICA 'WILDFIRE' | WILDFIRE BLACK TUPELO | 8 - 10' HT. | B&B | 7' BRANCH BREAK |
| | | | | | | |
| | | SHRUBS | | | | SPACING |
| 42 | BM | BUXUS MICROPHYLLA 'WINTER GEM' | WINTER GEM BOXWOOD | 18 - 24" | B&B. | 2.5' O.C. |
| 29 | IG | ILEX GLABRA 'SHAMROCK' | SHAMROCK INKBERRY HOLLY | 24 - 30" | #5 CONT. | 2.5' O.C. |
| 11 | SB | SPIREA BUMALDA 'ANTHONY WATERER' | ANTHONY WATERER' SPIREA | 18 - 24" | #3 CONT. | 2.5' O.C. |
| 6 | VC | VIBURNUM DENTATUM 'CHRISTOM' BLUE MUFFIN | BLUE MUFFIN VIBURNUM | 24-30" | #3 CONT. | 3' O.C. |
| | | | | | | |
| | | GROUNDCOVER/PERENNIALS | | | | |
| 1 | CKF | CALAMAGROSTIS x ACUTIFLORA 'KARL FOERSTER' | FEATHER REED GRASS | | 1 QT | |
| 36 | LM | LIRIOPE MUSCARI 'BIG BLUE' | BIG BLUE' LIRIOPE | | #1 CONT. | 12" O.C. |
| 39 | LV | LIRIOPE MUSCARI 'VARIEGATA' | VARIEGATED LIRIOPE | | #1 CONT. | 12" O.C. |
| 4 | RF | RUDBECKIA FULGIDA 'GOLDSTURM' | BLACK-EYED SUSAN | | 1 QT. | 15" O.C. |
| | | i | | | 1 | |





LED WALL-MOUNTED LIGHT



1. 'WPLED' 52W WALLPACK LUMINIAIRE BY RAB LIGHTING, TO MATCH EXISTING WALL-MOUNTED LIGHTS; COLOR: BRONZE, MOUNTED AT 15' ABOVE GRADE.

² WALL LIGHT ISOLUX DIAGRAM C-102.1 SCALE:1"=20'

PLANT MATERIAL INSTALLATION DETAILS: SEE DRAWING No. C-502 FOR INSTALLATION DETAILS FOR PLANT MATERIALS.

TURFGRASS/LAWN SEEDING & SODDING: REFER TO DRAWING C-502. "PLANTING DETAILS" FOR SEEDING NOTES & SPECIFICATIONS. REFER TO DRAWING C-105, "SOIL EROSION & SEDIMENT CONTROL PLAN" FOR TOPSOILING REQUIREMENTS AND SEED MIXES.

TEMPORARY SEEDING:

REFER TO SOIL EROSION & SEDIMENT CONTROL PLAN FOR TEMPORARY SEEDING AND/OR MULCHING REQUIRED FOR TEMPORARY STABILIZATION OF SOILS THAT ARE DISTURBED DURING CONSTRUCTION.

| LEGEND: | |
|---------|------------------------|
| | NEW BUILDING |
| | NEW BELGIAN BLOCK CURB |
| | NEW DEPRESSED CURB |
| | NEW ASPHALT PAVING |
| | NEW CONCRETE PAVING |
| *LP | EXISTING LIGHT POLE |
| + | NEW DECIDUOUS TREE |

NEW ORNAMENTAL TREE NEW EVERGREEN TREE

NEW SHRUB

GRAPHIC SCALE (IN FEET) 1 INCH = 20 FEET

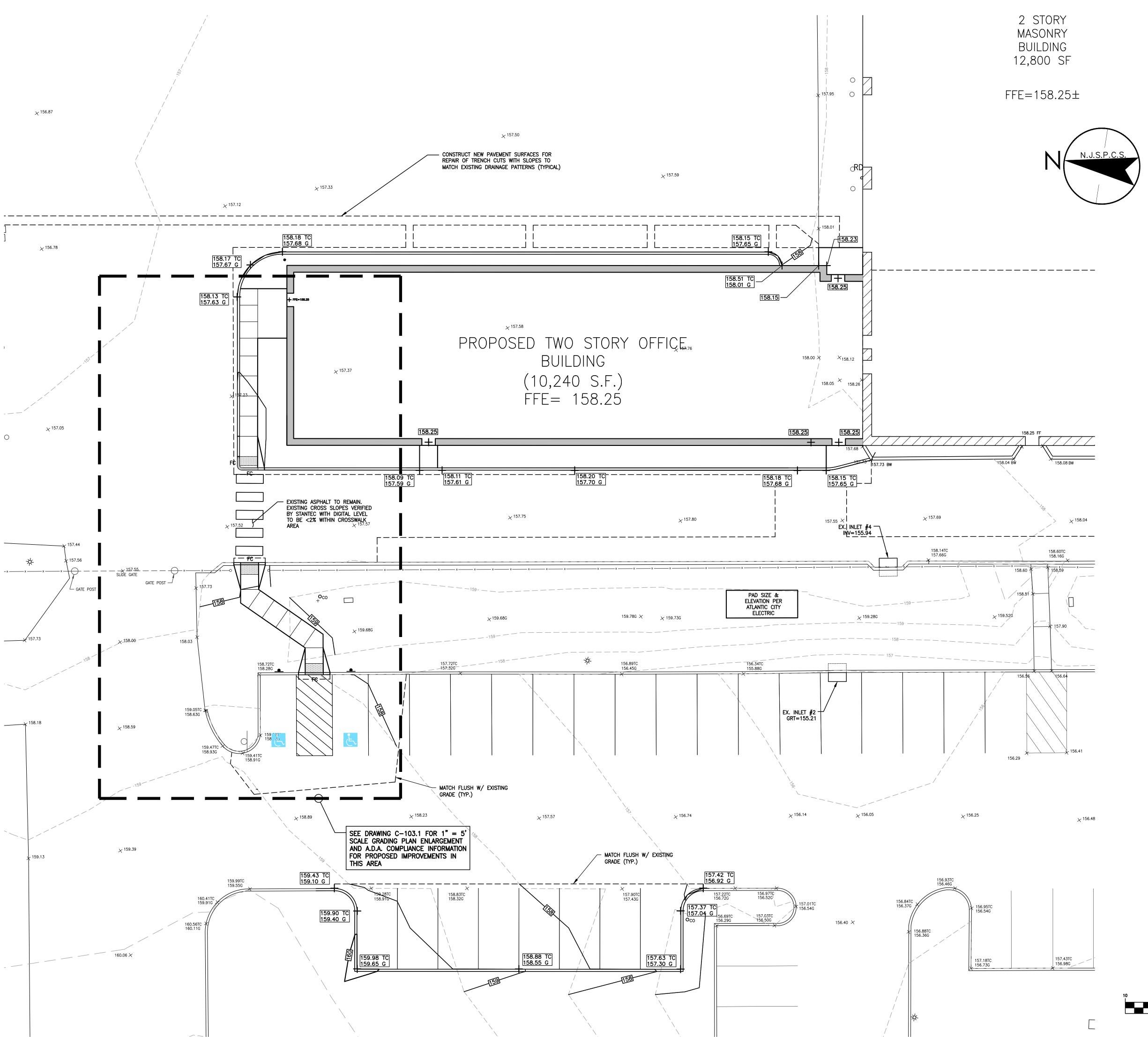
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| Drawing | No. | C- | 102.1 | | | |
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| 0 | | | | 4 of | 12 | |

Permit-Seal

CLIFTON W. QUAY

PROFESSIONAL ENGINEER, PROFESSIONAL PLANNER

N.J.P.E. LICENSE #42670, N.J.P.P. LICENSE #LI05653



EARTHWORK NOTES:

1. SITE PREPARATION:

A. ALL DELETERIOUS MATERIALS INCLUDING TOPSOIL, ROOT MASS. TREES AND VEGETATION, EXISTING FOUNDATIONS AND SUBGRADE WALLS AND OTHER MATERIALS DETERMINED IN FIELD BY THE OWNER'S REPRESENTATIVE TO BE UNSUITABLE SHALL BE REMOVED PRIOR TO CUT AND FILL OPERATIONS. B. STRIP AND STOCKPILE TOPSOIL FOR REUSE ON SITE.

C. REMOVE EXCESS TOPSOIL AND DELETERIOUS MATERIALS FROM SITE AND DISPOSE OF IN A LAWFUL MANNER.

2. EXCAVATION:

A. EXCAVATION IS UNCLASSIFIED AND INCLUDES EXCAVATION TO SUBGRADE ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIALS AND OBSTRUCTIONS ENCOUNTERED, OR ANY WATER

B. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. C. REMOVE BOULDERS PROTRUDING INTO SUBGRADE AREAS TO A DEPTH OF 6 INCHES BELOW FINISH SUBGRADE ELEVATIONS AND REPLACE WITH STRUCTURAL FILL.

3. PROOF ROLLING: A. IN THE PRESENCE OF OWNERS REPRESENTATIVE PROOF ROLL EXPOSED SUBGRADE AREAS WITH A HEAVY SMOOTH DRUM ROLLER (MINIMUM 15 TON STATIC WEIGHT OR EQUIVALENT) TO DETECT THE PRESENCE OF LOOSE OR SOFT ZONES.

B. REPAIR LOOSE OR SOFT ZONES TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. C. PERFORM PROOF ROLLING OPERATIONS WITHIN FILL AREAS PRIOR TO PLACEMENT OR FILLS AND WITHIN CUT AREAS WHEN SUBGRADE ELEVATIONS HAVE BEEN REACH AND IMMEDIATELY PRIOR TO PLACEMENT OF ADDITIONAL WORK.

PRIOR TO PLACEMENT OF ADDITIONAL WORK. E. GRADE PAVEMENT AND SIDEWALK SUBGRADES TO DRAIN WATER AND PREVENT PONDING FROM BENEATH THE PAVEMENT AND SIDEWALK SYSTEMS.

D. OWNER'S REPRESENTATIVE SHALL EVALUATE ALL SUBGRADE AREAS

4. FOUNDATION AND UTILITY TRENCHES:

A. BACKFILL WITH STRUCTURAL FILL UNDER DIRECTION OF OWNER'S REPRESENTATIVE. B. REMOVE LARGE BOULDERS ENCOUNTERED DURING EXCAVATION WITH ROCK REMOVAL TECHNIQUES. C. OVER EXCAVATE TRENCH AS REQUIRED TO REMOVE ROCK.

D. DEWATER TRENCH AS REQUIRED. E. PARTIAL REMOVAL OF BOULDERS TO A MINIMUM 18 INCHES BELOW FOOTING/TRENCH BOTTOM MAY BE ACCOMPLISHED UNDER DIRECTION OF OWNER'S REPRESENTATIVE.

F. BOULDER PROTRUSION INTO BOTTOM OR SIDE OF FOOTING IS NOT

5. FILL:
A. PLACE STRUCTURAL FILL WHEN SUPPORTING SLABS, PAVEMENTS AND FOUNDATIONS. B. PLACE ON APPROVED, PROOF ROLLED, NON-YIELDING SUBGRADE IN LIFTS NOT EXCEEDING 8 INCHES.

C. MAINTAIN STRUCTURAL FILL AT NOMINAL OPTIMUM MOISTURE CONTENT (ASTM D 698). D. COMPACT TO 98 PERCENT OF MAXIMUM DRY DENSITY (ASTM D698). E. STRUCTURAL FILL:

1) CLEAN SOILS WITHOUT DELETERIOUS INCLUSIONS. 2) MAINTAIN ON-SITE SOILS SELECTED BY OWNER'S REPRESENTATIVE AT NOMINAL OPTIMUM MOISTURE CONTENT BEFORE USE AS STRUCTURAL FILL. SOILS MAY REQUIRE AERATION AND DRYING WHICH IS BEST ACCOMPLISHED DURING SUMMER MONTHS. F. BORROW FILL:

1) CLEAN WELL GRADED SOILS WITH GOOD STRENGTH CHARACTERISTICS.

2) MAXIMUM PARTICLE SIZE: 3 INCHES. 3) CONTAIN NOT MORE THAN 20% SILT/CLAY (BY WEIGHT). G. SUBMIT TO OWNER'S REPRESENTATIVE SAMPLES OF ON-SITE OR BORROW SOURCES OF FILL FOR TESTING AT LEAST ONE (1) WEEK BEFORE USE ON-SITE.

6. OWNER RESERVES THE RIGHT TO EMPLOY A GEOTECHNICAL ENGINEER TO PROVIDE FIELD QUALITY CONTROL SERVICES DURING CONSTRUCTION.

A. PRIOR TO THE PLACING OF THE SURFACE COURSE, THE CONTRACTOR SHALL REPAIR ANY DEFECTS IN THE BASE COURSE. WHERE CRACKING OR ANY OTHER TYPE OF FAILURE HAS OCCURRED IN THE BASE COURSE, THE CONTRACTOR SHALL COMPLETELY REMOVE THE BASE COURSE, STABILIZE THE SUBGRADE IF NECESSARY AND CONSTRUCT NEW BASE COURSE. WHERE THE DEFICIENCY INVOLVES DEPRESSIONS OR RAVELING IN THE SURFACE OF THE BASE COURSE, THE REPAIR MAY BE MADE BY SKIN

PATCHING WITH A SUITABLE BITUMINOUS MATERIAL. B. PRIOR TO THE PLACEMENT OF THE SURFACE COUSE, THE CONTRACTOR SHALL SUPPLY SUFFICIENT WATER AT THE HIGH POINTS AS SHOWN ON THE PLANS AND SHALL RUN SAID WATER INTO THE GUTTERS IN ORDER TO DETERMINE WHETHER OR NOT GUTTER/PAVEMENT GRADES ARE SATISFACTORY AND PONDING DOES

NOT OCCUR. C. WHEREVER PUDDLES OCCUR, THE CONTRACTOR SHALL SKIN PATCH THE BASE COURSE TO ACHIEVE PROPER GRADES IN THE GUTTERS/PAVEMENT, AFTER REPAIR OF THE BASE COURSE, A TACK COAT SHALL BE APPLIED AS SPECIFIED IN SECTION 3.10 OF THE NEW JERSEY STATE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS.

LEGEND:

⁺97.78 EXISTING SPOT ELEVATION - - 98 - - EXISTING TOPOGRAPHIC CONTOUR

NEW SPOT ELEVATION

FLUSH CURB SPOT ELEVATION

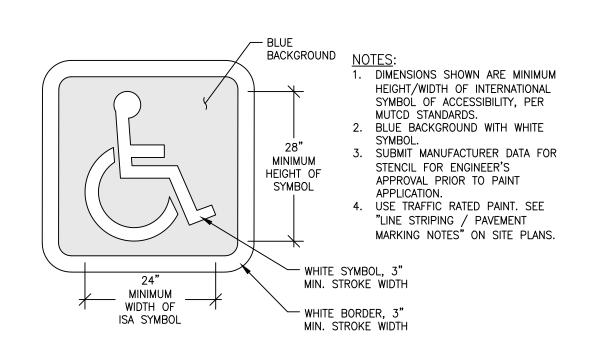
GUTTER SPOT ELEVATION 98.40 G NEW TOPOGRAPHIC CONTOUR

NEW FLUSH CURB

Permit-Seal CLIFTON W. QUAY PROFESSIONAL ENGINEER, PROFESSIONAL PLANNER N.J.P.E. LICENSE #42670, N.J.P.P. LICENSE #LI05653

| | GRAPHIC | SCALE | |
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| | | | |
| | (IN F 1 inch = | | |

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| Revision | າ | Sheet | | | |
| 0 | | | 5 of | 12 | |



ADA PAVEMENT MARKING SYMBOL C-103.1 NOT TO SCALE

KEY TO ADA PAVEMENT MARKINGS AND SIGNAGE REQUIREMENTS:

- S-1 ACCESSIBLE PARKING STALL PAVEMENT MARKINGS, MINIMUM 96" STALL WIDTH (MEASURED BETWEEN CENTERLINES OF 4" WIDE PAINTED STALL STRIPES)
- S-2 UNIVERSAL SYMBOL OF ACCESSIBILITY PAVEMENT MARKING
- S-3 ACCESSIBLE PARKING STALL ACCESS AISLE PAVEMENT MARKINGS, MINIMUM 96" WIDE (MEASURED BETWEEN CENTERLINES OF 4" WIDE PAINTED AISLE STRIPES), WITH DIAGONAL INFILL STRIPING SPACED 30" O.C.
- S-4 ACCESSIBLE PARKING SPACE SIGN ASSEMBLY, CENTERED AT HEAD OF PARKING STALL WITH AT LEAST 80" VERTICAL CLEARANCE BETWEEN WALKING SURFACE AND LOWEST PART OF SIGN PANEL (PNC REQUIREMENT) 1. ADA PARKING SIGN WITH UNIVERSAL SYMBOL OF ACCESSIBILITY 2. "VAN ACCESSIBLE" SIGN PANEL (WHERE APPLICABLE)

KEY TO ADA SLOPE & SPATIAL REQUIREMENTS:

- ACCESSIBLE PARKING SPACES AND SHARED ACCESS AISLE. SLOPES NOT TO EXCEED 2% IN ANY DIRECTION
- PERPENDICULAR CURB RAMP RUNNING SLOPE NOT TO EXCEED 8.33% CROSS SLOPE NOT TO EXCEED 2% 3. SIDE FLARE SLOPES NOT TO EXCEED 8.33%

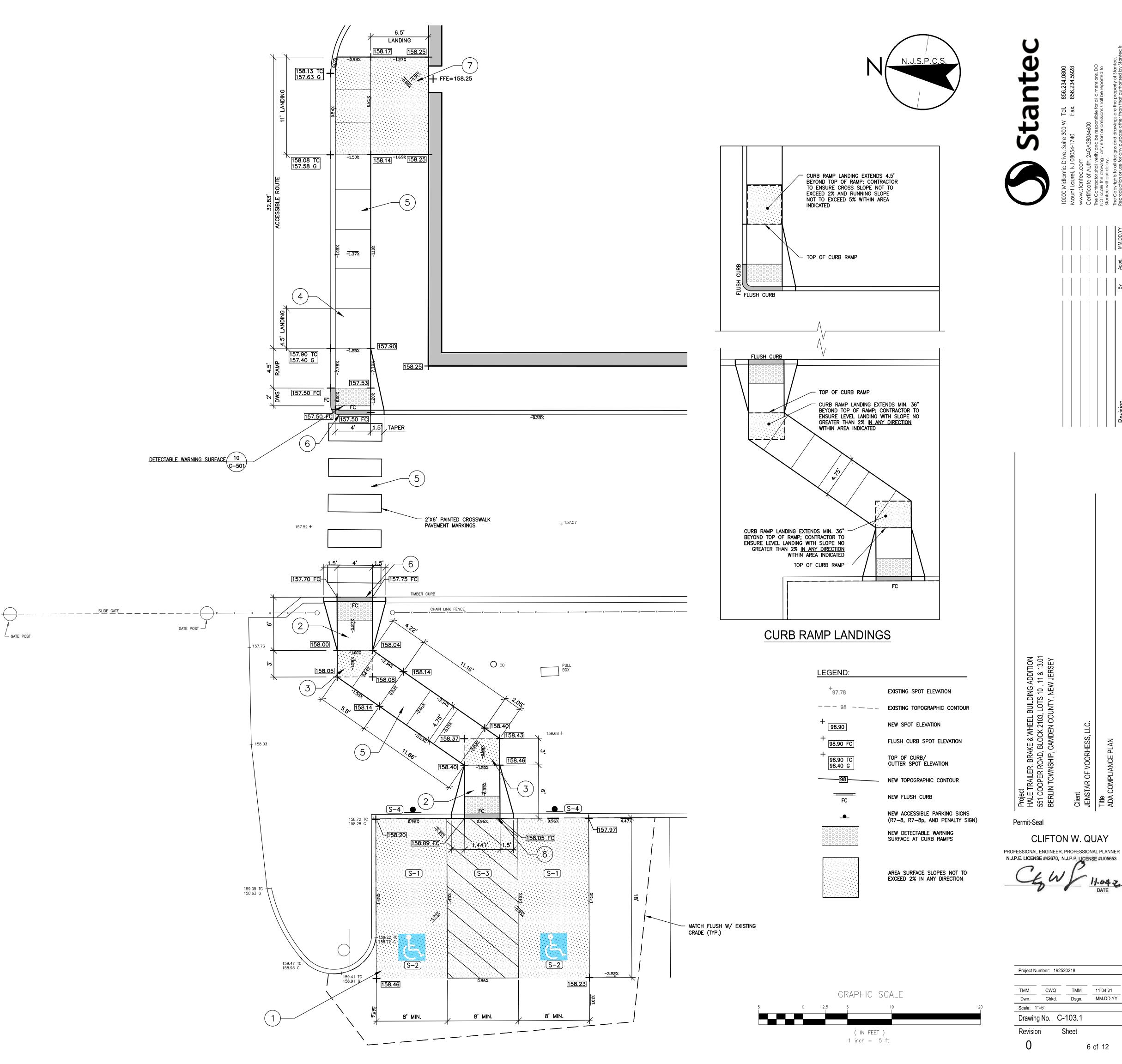
3. PENALTY SIGN PANEL

- CURB RAMP LANDING <u>WITH</u> TURN MANEUVER: SLOPES NOT TO EXCEED 2% IN ANY
- CURB RAMP LANDING <u>WITHOUT</u> TURN MANEUVER: RUNNING SLOPE NOT TO EXCEED 5% AND CROSS SLOPE NOT TO EXCEED 2%
- ACCESSIBLE ROUTE RUNNING SLOPE NOT TO EXCEED 5% AND CROSS SLOPE NOT TO EXCEED 2%
- (6) FLUSH TRANSITION BETWEEN CURBS, PAVEMENTS, DETECTABLE WARNING SURFACES
- LANDING SURFACE AT ACCESSIBLE ENTRANCE

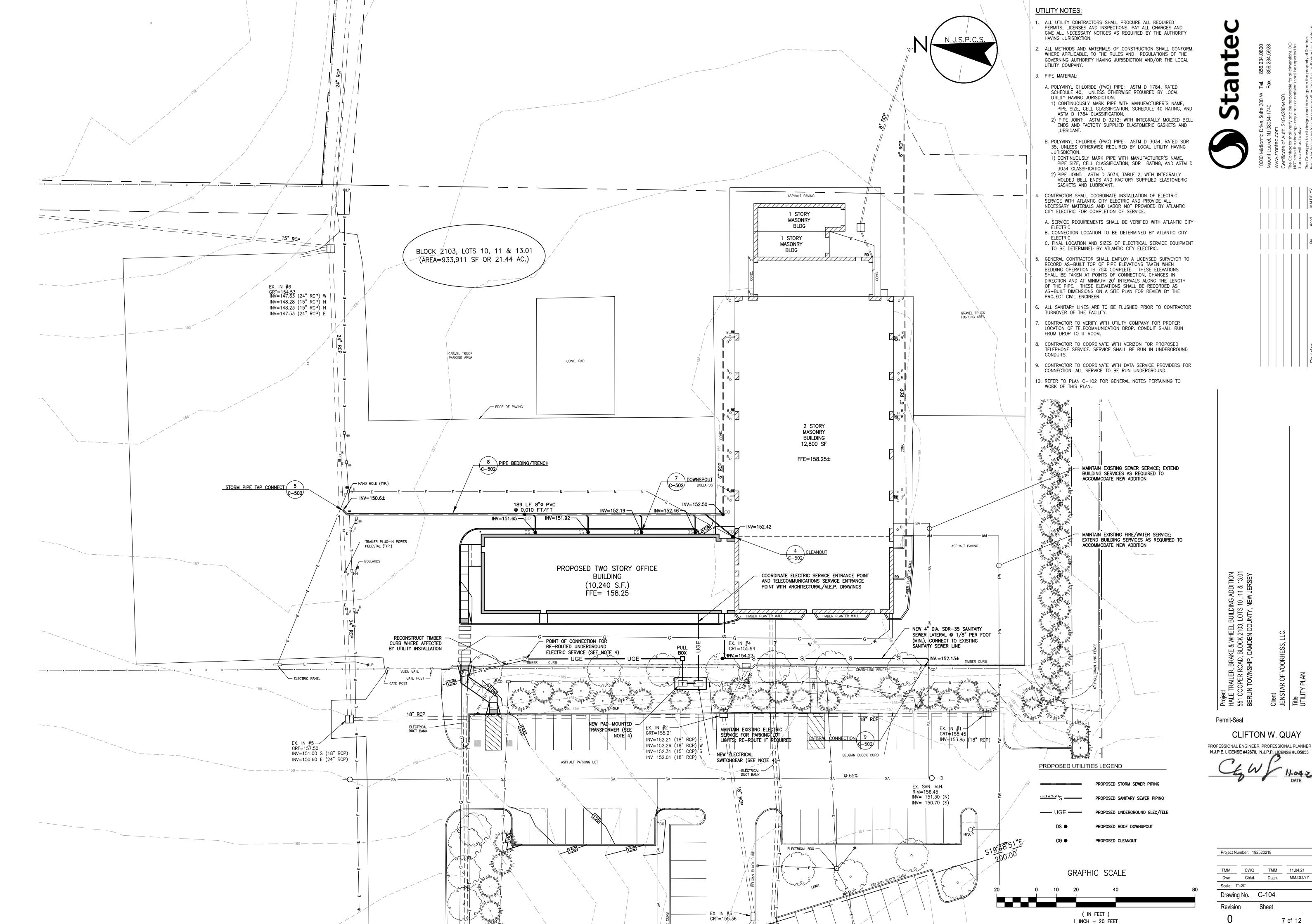
DIRECTION

1. MINIMUM 5'X5' CLEAR SPACE 2. SLOPES NOT TO EXCEED 2% IN ANY DIRECTION WITHIN 5'X5' CLEAR SPACE

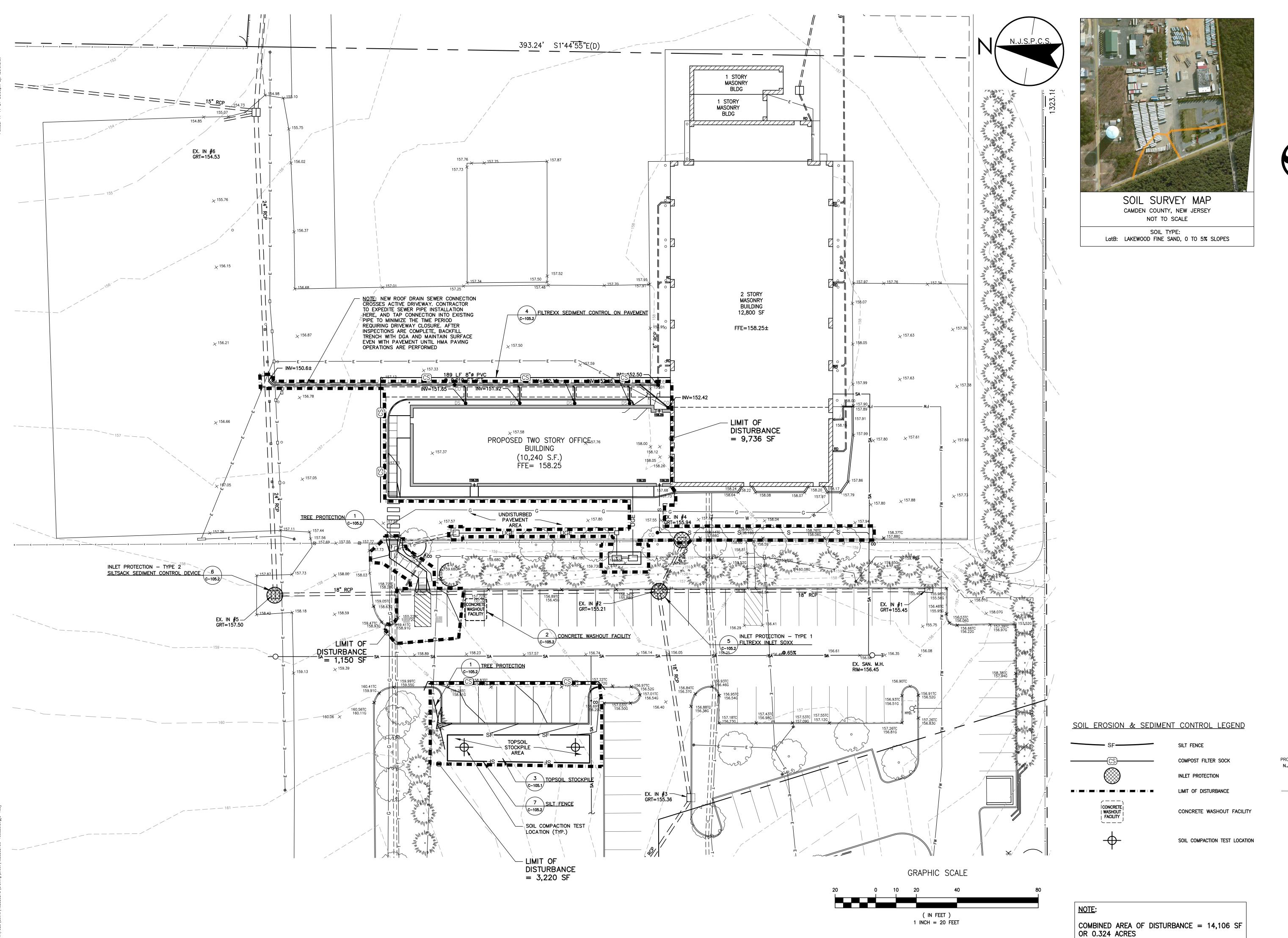
3. LANDING AT CHANGE OF DIRECTION - SLOPES NOT TO EXCEED 2% IN ANY



CLIFTON W. QUAY



| Project Nu | umber: 1925 | 20218 | |
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| Scale: 1 | "=20' | | |
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Permit-Seal

CLIFTON W. QUAY

PROFESSIONAL ENGINEER, PROFESSIONAL PLANNER

| Project Nu | ımber: 1925 | 20218 | |
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| Dwn. | Chkd. | Dsgn. | MM.DD.YY |
| Scale: 1' | | | |
| Drawing | y No. C | C-105 | |
| Revision | | Sheet | |

SITE PREPARATION

GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.

1.2. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11

2. PROTECTIVE MATERIALS

UNROTTED SMALL-GRAIN STRAW, AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN, OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH.

SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS

RECOMMENDED BY THE MANUFACTURER. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE

MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.

2.4. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.

WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED

GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.

3. MULCH ANCHORING - SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH AT THE RATE OF 70 TO 90 LBS PER 1000 SF TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF SLOPES.

3.1. PEG AND TWINE - DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

3.2. MULCH NETTINGS - STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER MULCH. USE DEGRADABLE NETTING IN AREAS TO BE MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG.

CRIMPER MULCH ANCHORING COULTER TOOL - A TRACTOR-DRAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL, BUT ITS USE IS LIMITED TO THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOIL PENETRATION SHOULD BE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE ON THE CONTOUR.

TEMPORARY VEGETATIVE COVER

SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.

B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES,

IRRIGATION SYSTEMS, ETC.). SEEDBED PREPARATION

A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES. LIMING RATE SHOULD BE ESTABLISHED VIA SOIL TESTING.

B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC. SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED

C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.

D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS.

SEEDING

A. SELECT SEED FROM RECOMMENDATIONS IN TABLE 7-2.

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH

| CEED CELECTIONS | SEEDING RATE ¹ (POUNDS) | | OPTIMUM SEEDING DATE ² BASED ON PLANT HARDINESS ZONE ³ | | | OPTIMUM SEED |
|---------------------------------|------------------------------------|---------------------|--|-----------------------|------------------------|-----------------|
| SEED SELECTIONS | PER ACRE | PER 1000 SQ. FT. | ZONE 5b, 6s | ZONE 6b | ZONE 7a, b | DEPTH (INCHES) |
| COOL SEASON GRASSES | | | | | | |
| 1. PERENNIAL RYEGRASS | 100 | 1.0 | 3/15-6/1 8/1-9/15 | 3/1-5/15 8/15-10/1 | 2/15-5/1 8/15-10/15 | 0.5 |
| 2. SPRING OATS | 86 | 2.0 | 3/15-6/1 8/1-9/15 | 3/1-5/15 8/15-10/1 | 2/15-5/1 8/15-10/15 | 1.0 |
| 3. WINTER BARLEY | 96 | 2.2 | 8/1-9/15 | 8/15-10/1 | 8/15-10/15 | 1.0 |
| 4. ANNUAL RYEGRASS | 100 | 1.0 | 3/15-6/1 8/1-9/15 | 3/15-6/1 8/15-9/15 | 2/15-5/1 8/15-10/15 | 1.0 |
| 5. WINTER CEREAL RYE | 112 | 2.8 | 8/1-11/1 | 8/1-11/15 | 8/1-12/15 | 1.0 |
| WARM SEASON GRASSES | | | | | | |
| 6. PEARL MILLET | 20 | 0.5 | 6/1-8/1 | 5/15-8/15 | 5/1-9/1 | 1.0 |
| 7. MILLET (GERMAN OR HUNGARIAN) | 30 | 0.7 | 6/1-8/1 | 5/15-8/15 | 5/1-9/1 | 1.0 |

1. SEEDING RATE FOR WARM SEASON GRASS, SELECTIONS 6 - 7 SHALL BE ADJUSTED TO REFLECT THE AMOUNT OF PURE LINE SEED (PLS) AS DETERMINED BY A GERMINATION TEST RESULT. NO ADJUSTMENT IS REQUIRED FOR COOL SEASON GRASSES.

2. MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR SEEDED AREA CAN BE IRRIGATED.

3. PLANT HARDINESS ZONE (SEE FIGURE 7-1, PG. 7-4.)

4. TWICE THE DEPTH FOR SANDY SOILS

B. CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.

C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION IV MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL, POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH, HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.

D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED

MULCHING MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

A. STRAW OR HAY, UNNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1.000 SQUARE FEET). EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH. DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER, THIS MAY

BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

3. CRIMPER (MULCH ANCHORING TOOL). A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.

4. LIQUID MULCH-BINDERS. - MAY BE USED TO ANCHOR HAY OR STRAW MULCH. a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT

CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE. b. USE ONE OF THE FOLLOWING:

(1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.

(2) SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

NOTE: ALL NAMES GIVE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

B. WOOD-FIBER OR PAPER-FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 PONDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORMA MULCH MAT. PELLETIZED MULCH SHALL BE APPLIES IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEE FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE. PERMANENT VEGETATIVE COVER

1. TREE STUMPS, MASONRY AND OTHER DEBRIS TO BE REMOVED TO A DEPTH OF 2' BELOW FINISHED GRADE.

2. APPLY TOPSOIL PER TOP SOILING SCHEDULE.

3. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

4. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

5. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE

SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION.

6. FIRM SOIL WITH ROLLER PRIOR TO SEEDING.

7. REMOVE STONES LARGER THAN 2" DIAMETER AND OTHER DEBRIS.

8. INSPECT SEEDBED, IF COMPACTED, REFILL AND FIRM AS NECESSARY.

9. APPLY SEED BY HAND. CYCLONE SEEDER OR OTHER SUITABLE EQUIPMENT TO A DEPTH OF 1/4" TO 1/2". FIRM SEEDBED BY LIGHT ROLLER OR DRAG. SEEDING TO FOLLOW GENERAL CONTOURS, SEED TO BE CERTIFIED FREE OF UNDESIRABLE WEEDS AND CONTAMINATES.

SEED MIXTURE 'A-3' (PER NJDOT 2007 SPECIFICATIONS): TALL FESCUE (REBEL OR FALCON),

KENTUCKY BLUEGRASS (KENBLUE, SOUTH DAKOTA, OR PARK), CHEWINGS FESCUE (BANNER OR JAMESTOWN), PERENNIAL RYEGRASS (LINN),

0.40 LBS. PER 1000 S.F.

2.40 LBS. PER 1000 S.F.

0.40 LBS. PER 1000 S.F.

0.80 LBS. PER 1000 S.F

TOTAL = 4.00 LBS, PER 1000 S.F.

INDICATED SEEDING RATES ARE BASED ON PURE LIVE SEED (PLS).* RECOMMENDED PLANTING DATES: 3/1 TO 5/15 OR 8/15 to 10/15 IF HYDROSEEDING WILL BE THE METHOD OF APPLICATION, THE SEED RATE SHOULD BE INCREASED BY 25%. HYDROSEEDED AREAS MUST STILL RECEIVE STRAW MULCH AND TACKIFIER.

MULCHING

A. MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING

B. COMPLY WITH MULCHING REQUIREMENTS SPECIFIED UNDER "TEMPORARY VEGETATIVE COVER" NOTES.

11. IRRIGATE TO ACHIEVE MINIMUM OF 1" OF WATER PER WEEK FOR A MINIMUM OF 4 WEEKS OR UNTIL GERMINATION IS COMPLETED AND VEGETATION IS ESTABLISHED.

*SEEDING RATES FOR ALL MIXTURES INDICATED ABOVE ARE FOR PURE LIVE SEED (PLS) 100%. TO CALCULATE PLS, THE PERCENTAGE OF PURE SEED IS MULTIPLIED BY THE PERCENTAGE OF GERMINATION, AND THE PRODUCT IS DIVIDED BY 100. (85% PURE SEED X 72% GERMINATION) DIVIDED BY 100 = 61 % PLS. TO DETERMINE HOW MUCH SEED TO PLANT, DIVIDE THE PERCENTAGE INTO 100. EXAMPLE: 100 DIVIDED BY 61 = 1.64. THUS, EVERY POUND OF SEED MIXTURE CALLED FOR SHOULD THEN BE 1.64 LBS.

STANDARDS FOR LAND GRADING

DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO PLANED GRADES WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT.

1. THE CUT FACE OF EARTH EXCAVATIONS AND FILLS SHALL BE NO STEEPER THAN THE SAFE ANGLE OF REPOSE FOR THE MATERIALS ENCOUNTERED AND FLAT ENOUGH FOR PROPER MAINTENANCE.

2. THE PERMANENTLY EXPOSED FACES OF EARTH CUTS AND FILLS SHALL BE VEGETATED OR OTHERWISE PROTECTED FROM

3. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.

4. SUBSURFACE DRAINAGE IS TO BE PROVIDED IN AREAS HAVING A HIGH WATER TABLE, TO INTERCEPT SEEPAGE THAT WOULD ADVERSELY AFFECT SLOPE STABILITY. BUILDING FOUNDATIONS OR CREATE UNDESIRABLE WETNESS.

5. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS

6. FILL SHALL NOT BE PLACED ADJACENT TO THE BANK OF A STREAM OR CHANNEL, UNLESS PROVISIONS ARE MADE TO PROTECT THE HYDRAULIC, BIOLOGICAL, AESTHETIC AND OTHER ENVIRONMENTAL FUNCTIONS OF THE STREAM.

7. INSTALLATION REQUIREMENTS: A. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETATIVE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO

B. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISH GRADING OF ALL EXPOSED AREAS REQUIRING TOPSOIL.

C. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS D. ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE

SLIPPING, EROSION OR EXCESSIVE SATURATION.

E. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM

F. TREES TO BE RETAINED SHALL BE PROTECTED IF NECESSARY IN ACCORDANCE WITH THE STANDARD FOR TREE PROTECTION DURING CONSTRUCTION, G. SOIL COMPACTION RESULTING FROM LAND GRADING ACTIVITIES CAN IMPACT THE INFILTRATION RATE OF THE SOIL. RESTORATION OF COMPACTED SOILS THROUGH DEEP TILLAGE (6" TO 12") AND THE ADDITION OF ORGANIC MATTER MAY BE REQUIRED IN P;ANNED PERVIOUS AREAS TO ENHANCE THE INFILTRATION RATE OF THE DISTURBED SOIL. THIS PRACTICE IS PERMISSIBLE ONLT WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.)

<u>TOP SOILING SCHEDULE</u>

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

2. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH

3. SCARIFY SURFACE OF SOIL PRIOR TO APPLYING TOPSOIL, HANDLE TOPSOIL ONLY WHEN IT IS DRY ENOUGH TO PREVENT DAMAGING THE SOIL STRUCTURE.

DUST CONTROL NOTES

1. DUST CONTROL MEASURES SHALL BE IMPLEMENTED, AS REQUIRED, TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON- AND OFF-SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

2. DUST CONTROL SHALL BE MAINTAINED BY TEMPORARY SEEDING, MULCHING, SPRAY ON ADHESIVES, APPLYING CALCIUM CHLORIDE AND/OR SPRINKLING THE SITE WITH WATER TO ALL DISTURBED AREAS DURING CONSTRUCTION IN ACCORDANCE WITH STATE STANDARDS.

STABILIZED CONSTRUCTION ENTRANCE NOTES

1. A STABILIZED PAD OF CRUSHED STONE (ASTM C-33, SIZE NO. 2 OR 3) SHALL BE LOCATED AT POINTS WHERE TRAFFIC WILL BE ENTERING OR LEAVING THE CONSTRUCTION SITE. USE CLEAN CRUSHED ANGULAR STONE. CRUSHED CONCRETE OF SIMILAR SIZE MAY BE SUBSTITUTED BUT WILL REQUIRE MORE FREQUENT UPGRADING AND MAINTENANCE.

2. STONE THICKNESS SHALL NOT BE LESS THAN 6". WIDTH SHALL NOT BE LESS THAN THE FULL WIDTH OF THE INGRESS OR EGRESS. LENGTH SHALL BE 50 FEET MINIMUM WHERE THE SOILS ARE COURSE GRAINED (SANDS OR GRAVELS) OR 100 FEET MINIMUM WHERE SOILS ARE FINE GRAINED (CLAYS OR SILTS), EXCEPT WHERE THE TRAVELED LENGTH IS LESS THAN 50 OR 100 FEET RESPECTIVELY. THESE LENGTHS MAY BE INCREASED WHERE FIELD CONDITIONS DICTATE. STORMWATER FROM UP-SLOPE AREAS SHALL BE DIVERTED AWAY FROM THE STABILIZED PAD.

3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT SEDIMENT FLOW ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.

4. AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE GRAVEL FILTER OR GEOTEXTILE SHALL BE INSTALLED BEFORE INSTALLING THE STABILIZED CONSTRUCTION ENTRANCE.

CAMDEN COUNTY SEDIMENT & EROSION CONTROL NOTES

COMPLETED AND/OR THE AREA IS STABILIZED.

OF SEDIMENT FROM THE CONSTRUCTION SITE.

SOIL EROSION AND SEDIMENT CONTROL FACILITIES.

12. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.

PROMOTE FARLIER VEGETATION COVER.

SITE DURING CONSTRUCTION.

DISTURBANCE.

TO NORMAL POOL WITHIN 10 DAYS OF THE DESIGN STORM.

COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.

(I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).

INCLUDE WATERING WITH A SOLUTION OF CALCIUM CHLORIDE AND WATER

29. USE STAGED CONSTRUCTION METHODS TO MINIMIZE EXPOSED SURFACES, WHERE APPLICABL

OTHERWISE APPROVED BY THE DISTRICT.

BY THE DISTRICT INSPECTOR.

ANTICIPATED SEQUENCE OF CONSTRUCTION:

AVAILABLE AT THE SITE AT ALL TIMES.

THROUGHOUT CONSTRUCTION.

CONSTRUCT CURBING.

10. CONSTRUCT SIDEWALKS AND RAMPS.

PLACE PARKING AREA PAVING.

13. PLACE LANDSCAPING AND MULCH.

1. ALL APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.

2. SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

3. APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS

4. THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO

ANY DISTURBED AREA THAT IS TO BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO

CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION IN ACCORDANCE

PROHIBITS TEMPORARY SEEDING. THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND

ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID

APPLICATION AND RATES OF APPLICATION AT THE REQUEST OF THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.

6 IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME FERTILIZER AND SEED

7. ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NEW JERSEY STANDARDS IMMEDIATELY FOLLOWING

8. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO

9. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY

10. A CRUSHED STONE, TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS EXISTS. THE

STABILIZED PAD WILL BE INSTALLED ACCORDING TO THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS

11. ALL DRIVEWAYS MUST BE STABILIZED WITH 2 ½" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT

14. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME

15. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER

16. NJSA 4:24-39, ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE ALL PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT

17. MULCHING IS REQUIRED ON ALL SEEDED AREAS TO INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED TO

19. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT

18. OFFSITE SEDIMENT DISTURBANCE MAY REQUIRE ADDITIONAL CONTROL MEASURES TO BE DETERMINED BY THE

20. THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 72 HOURS PRIOR TO ANY LAND

21. ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR

22. IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, THE STOCKPILE MUST BE STABILIZED ACCORDING TO THE STANDARD FOR TEMPORARY VEGETATIVE COVER. STABILIZE TOPSOIL PILE WITH

STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF

SLOPE, ROADWAY OR DRAINAGE FACILITY AND THE BASE MUST BE PROTECTED WITH A SEDIMENT BARRIER.

23. ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT. THE REVISED PLAN MUST BE IN

ACCORDANCE WITH THE CURRENT NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.

24. METHODS FOR THE MANAGEMENT OF HIGH ACID PRODUCING SOILS SHALL BE IN ACCORDANCE WITH THE STANDARDS.

HIGH ACID PRODUCING SOILS ARE THOSE FOUND TO CONTAIN IRON SULFIDES OR HAVE A pH OF 4 OR LESS.

AND MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS

25. TEMPORARY AND PERMANENT SEEDING MEASURES MUST BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS,

26. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS

27. DUST IS TO BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO THE NEW JERSEY STANDARDS AND MAY

28. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE PROPOSED SITE.

30. ALL VEGETATIVE MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK

31. NATURAL VEGETATION AND SPECIES SHALL BE RETAINED WHERE SPECIFIED ON THE LANDSCAPE PLAN.

OF THE AMERICAN ASSOCIATION OF THE NURSERYMEN AND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS.

32. THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED

CONTACT THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT AT 609-267-7410 A MINIMUM OF 72

THE ORIGINAL CAMDEN COUNTY SOIL CONSERVATION DISTRICT CERTIFICATION AND PLANS MUST BE

INSTALL SEDIMENT BARRIERS (SILT FENCE, COMPOST SOCK) AND INLET PROTECTION. MAINTAIN

HOURS PRIOR TO ANY SOIL DISTURBANCE TO ARRANGE A PRECONSTRUCTION MEETING.

REMOVE EXISTING HARDSCAPE, PAVEMENT AND CURBING AS SHOWN ON SHEET C-101.

REMOVE EXISTING TREES INDICATED FOR REMOVAL AND GRUB OUT ROOTS.

PLACE ALL UNDERGROUND UTILITIES AS BUILDING CONSTRUCTION CONTINUES.

15. CONTACT THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT FOR FINAL INSPECTION.

ROUGH GRADE BUILDING FOUNDATION AND PARKING AREAS.

FINE GRADE SITE AND PLACE STABILIZED BASE COURSE.

REMOVE EROSION CONTROL DEVICES UPON STABILIZATION.

REDISTRIBUTE TOPSOIL AND SEED PER SEEDING SPECIFICATIONS.

TEMPORARY SEEDING. ALL SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF A FLOODPLAIN,

SHOULD BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC. (SEE DETAIL) THE BASIN MUST BE DEWATERED

MEASURES. ALL SITE WORK FOR THE PROJECT MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.

13. ALL CATCH BASIN INLETS WILL BE PROTECTED ACCORDING TO THE CERTIFIED PLAN.

WITH THE NEW JERSEY STANDARDS AND THEIR RATES SHOULD BE INCLUDED IN THE NARRATIVE. IF THE SEASON

REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW

Permit-Seal CLIFTON W. QUAY PROFESSIONAL ENGINEER, PROFESSIONAL PLANNER N.J.P.E. LICENSE #42670, N.J.P.P. LICENSE #LI05653

Project Number: 192520218 CWQ TAB 11.04.21 Dwn. Chkd. Dsgn. MM.DD.YY Scale: AS NOTED

Drawing No. C-105.1 Revision

- 1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS)SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
- 2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOILEROSION CONTROL PLAN. SEE EXAMPLE SITE PLAN AT: HTTP://WWW.NJ.GOV/AGRICULTURE/DIVISIONS/ANR/NRC/NJEROSION.HTML
- 3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN SHALL BE USED TO MARKLOCATIONS OF TESTS, AND ATTACHED TO THE SOIL COMPACTION MITIGATION VERIFICATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT OR HTTP://WWW.NJ.GOV/AGRICULTURE/DIVISIONS/ANR/NRC/NJEROSION.HTML. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM
- 4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTINGMETHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

COMPACTION TESTING METHODS

- PROBING WIRE TEST (SEE DETAIL 1/C-105) HAND-HELD PENETROMETER TEST (SEE DETAIL 1/C-105)
- TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED) NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
- NOTE: ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE

Handheld Soil Penetrometer Test Gage reading 300 Note: soil should be moist but not saturated. Do not psi or less at 6" test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the probe. Probe must penetrate at least 6" with less than 300 psi reading on the gage. Penetrometer may be re-inserted 6.0" min. visible mark on shaft at if/when an obstruction (rock, root, debris) is encountered. *Use correct size tip for soil type

Probing Wire Test- 15.5 ga steel wire (survey flag)

Wire may be re-inserted if/when an

obstruction (rock, root, debris) is

18-21"

Note: soil should be moist but not

saturated. Do not test when soil is

excessively dry or subject to freezing

pressure used to advance the wire.

temperatures. Slow, steady downward

encountered.

PROCEDURES FOR SOIL COMPACTION MITIGATION

. PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

2. RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, JERSEY LICENSED PROFESSIONAL ENGINEER MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.

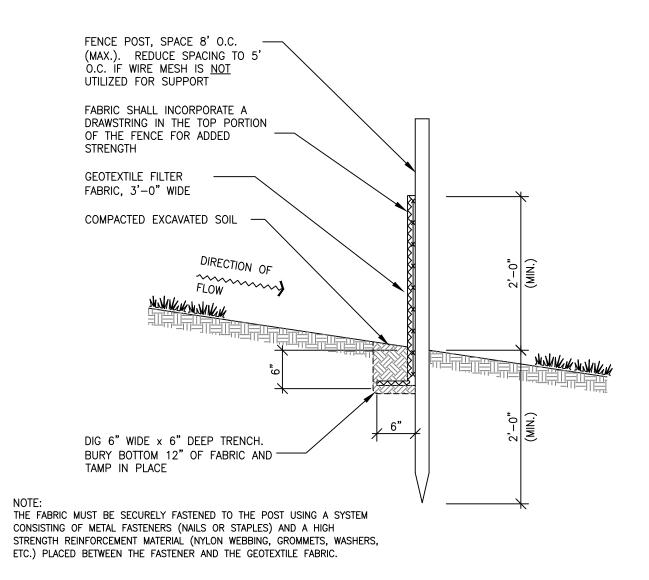
SIMPLIFIED COMPACTION TESTING METHODS C-105.2 NOT TO SCALE

Hold Wire here:

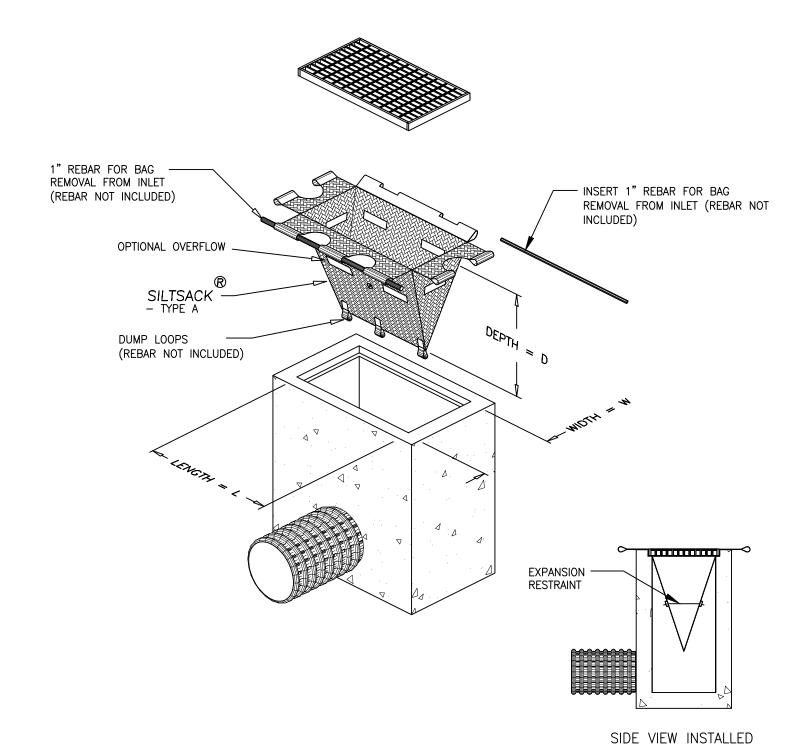
Wire must penetrate a minimum of

6.0" min. visible mark on wire at

6" without deformation.



SILT FENCE C-105.2 NOT TO SCALE



NOT TO SCALE

- 1. TO INSTALL SILTSACK IN THE CATCH BASIN, REMOVE THE GRATE AND PLACE THE SACK IN THE OPENING. HOLD OUT APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME. THIS IS THE AREA OF THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE SACK IN PLACE.
- 2. WHEN THE RESTRAINT CORD IS NO LONGER VISIBLE, SILTSACK IS FULL AND SHOULD BE EMPTIED.
- 3. TO REMOVE SILTSACK, TAKE TWO PIECES OF 1" DIAMETER REBAR AND PLACE THROUGH THE LIFTING LOOPS ON EACH SIDE OF THE SACK TO FACILITATE THE LIFTING OF SILTSACK.
- 4. TO EMPTY SILTSACK, PLACE IT WHERE THE CONTENTS WILL BE COLLECTED. PLACE THE REBAR THROUGH THE LIFT STRAPS (CONNECTED TO THE BOTTOM OF THE SACK) AND LIFT. THIS WILL TURN SILTSACK INSIDE OUT AND EMPTY THE CONTENTS. CLEAN OUT AND RINSE. RETURN SILTSACK TO ITS ORIGINAL SHAPE AND PLACE BACK IN THE BASIN.
- 5. SILTSACK IS REUSABLE. ONCE THE CONSTRUCTION CYCLE IS COMPLETE, REMOVE SILTSACK FROM THE BASIN AND CLEAN. SILTSACK SHOULD BE STORED OUT OF THE SUNLIGHT UNTIL NEEDED ON ANOTHER PROJECT.
- 6. SILTSACK SEDIMENT CONTROL DEVICE IS MANUFACTURED BY ACF ENVIRONMENTAL, RICHMOND, VA (800) 448-3636.

| REGULAR FLOW SILTSACK | | | | | | | |
|-----------------------|-------------------------------------|--|--|--|--|--|--|
| (FOR AREAS OF LOW TO | MODERATE PRECIPITATION AND RUN-OFF) | | | | | | |
| | | | | | | | |
| | | | | | | | |

| (FOR AREAS OF LOW TO | MODERATE PRECIPIT | ATION AND RUN-C |
|---|---|---|
| PROPERTIES | TEST METHOD | UNITS |
| GRAB TENSILE STRENGTH GRAB TENSILE ELONGATION PUNCTURE MULLEN BURST TRAPEZOID TEAR UV RESISTANCE APPARENT OPENING SIZE FLOW RATE PERMITTIVITY | ASTM D-4632 ASTM D-4632 ASTM D-4833 ASTM D-3786 ASTM D-4533 ASTM D-4355 ASTM D-4751 ASTM D-4491 ASTM D-4491 | 300 LBS 20 % 120 LBS 800 PSI 120 LBS 80 % 40 US SIEVE 40 GAL/MIN/SQ 0.55 SEC -1 |
| | | |

INLET PROTECTION - TYPE 2 SILTSACK SEDIMENT CONTROL DEVICE C-105



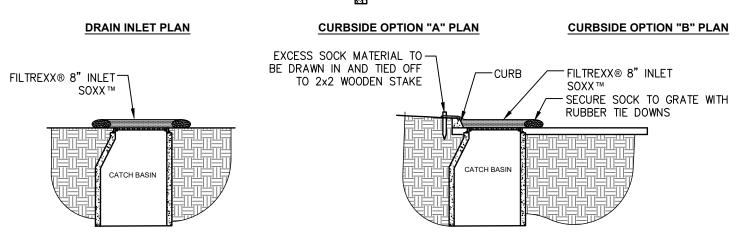
PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT

2. RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAY BE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.

3. SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE 6" MINIMUM DEPTH) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW

EXCESS SOCK MATERIAL TO -BE DRAWN IN AND TIED OFF TO 2x2 WOODEN STAKE, (TYP.) CURB-STÓRM GRÁTE -- STORM GRATE FILTREXX® 8" INLET — SOXX™ FILTREXX® 8" INLET SOXXT **DRAIN INLET PLAN CURBSIDE OPTION "A" PLAN**

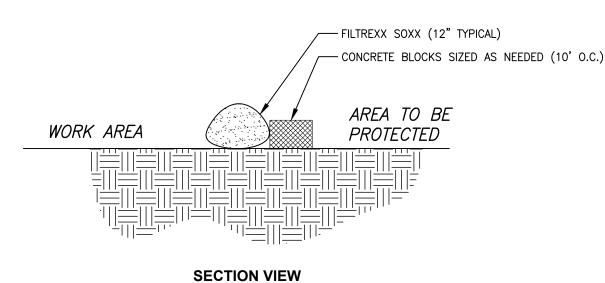


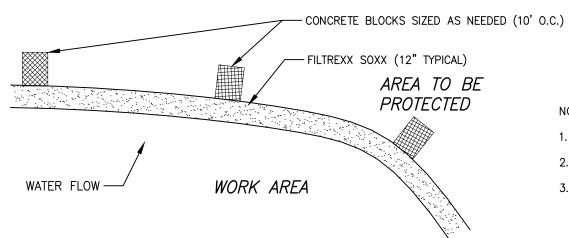
DRAIN INLET SECTION CURBSIDE SECTION ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS. . SILT SOXX™ FILL TO MEET APPLICATION REQUIREMENTS.

5. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

INLET PROTECTION - TYPE 1 FILTREXX INLET SOXX

C-105.2 / NOT TO SCALE



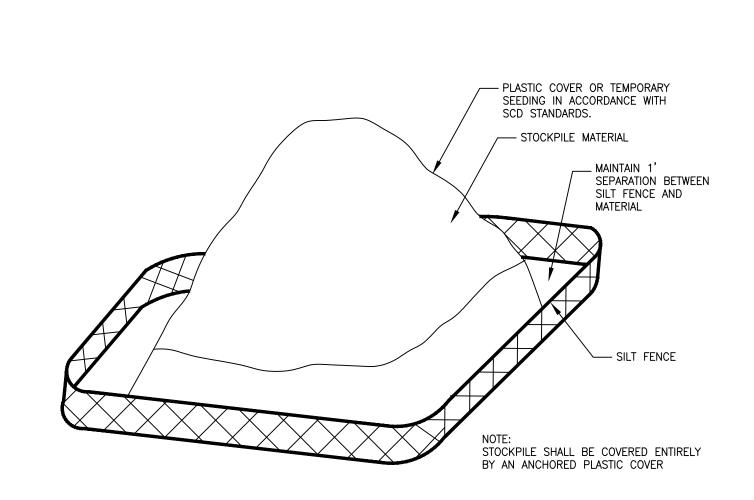


PLAN VIEW

NOTES: DETERMINED BY ENGINEER

1. ALL MATERIALS TO MEET FILTREXX SPECIFICATIONS. 2. FILTER MEDIA FILL TO MEET APPLICATOIN REQUIREMENTS. 3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS

FILTREXX SEDIMENT CONTROL ON PAVEMENT C-105.2 ∕ NOT TO SCALE



TOPSOIL STOCKPILE C-105.2 NOT TO SCALE



1. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE LOCATED A MINIMUM OF 15M (50 FT) FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHALL BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING.

2. A SIGN SHALL BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

3. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND 3. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. THE LENGTH AND WIDTH OF THE FACILITY MAY BE INCREASED AS NEEDED.

4. TEMPORARY WASHOUT FACILITIES SHALL HAVE A TEMPORARY PIT OR BERMED AREAS OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND WASTE CONCRETE MATERIALS GENERATED DURING WASHOUT PROCEDURES.

5. PERFORM WASHOUT OF CONCRETE MIXER TRUCKS IN DESIGNATED AREAS ONLY.

6. WASH CONCRETE ONLY FROM MIXER TRUCK CHUTES INTO APPROVED CONCRETE WASHOUT FACILITY. WASHOUT MAY BE COLLECTED IN AN IMPERMEABLE BAG FOR DISPOSAL.

7. PUMP EXCESS CONCRETE IN CONCRETE PUMP BIN BACK INTO CONCRETE MIXER TRUCK.

8. CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OFFSITE.

9. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHALL BE BROKEN UP, REMOVED AND DISPOSED OF PROPERLY.

REMOVAL OF TEMPORARY CONCRETE WASHOUT FACILITY NOTES:

1. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHALL BE REMOVED AND DISPOSED OF PROPERLY. DISPOSAL OF SLURRIES OR LIQUID WASTE SHALL BE DISPOSED OF OFFSITE EITHER TO A PERMITTED TREATMENT FACILITY OR BACK TO THE MIX PLANT. 2. THE CONTRACTOR'S WATER POLLUTION CONTROL MANAGER (WPCM) SHALL MONITOR ON SITE CONCRETE WASTE STORAGE AND DISPOSAL PROCEDURES AT LEAST WEEKLY OR AS DIRECTED BY THE RE. STORAGE AND DISPOSAL PROCEDURES AT LEAST WEERLY OR AS DIRECTED BY THE RE.

3. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A
MINIMUM FREEBOARD OF 100 MM (4 INCHES) FOR ABOVE GRADE FACILITIES AND 300 MM (12 INCHES) FOR BELOW
GRADE FACILITIES. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND
DISPOSING OF HARDENED CONCRETE AND LIQUID WASTE AND RETURNING THE FACILITIES TO A FUNCTIONAL

4. EXISTING FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USED ONCE 5. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED WEEKLY FOR DAMAGE (I.E. TEARS IN THE PVC LINER, MISSING SAND BAGS, ETC.). DAMAGED FACILITIES SHALL BE REPAIRED. STATEWIDE STORM PERMITTING PROGRAM NOTES:

1. CONCRETE TRUCK WASHOUT AREAS WILL BE MAINTAINED ON A CONTINUAL BASIS AND AS NEEDED.
2. THE STORMWATER POLLUTION PREVENTION PLAN AND THE SPILL RESPONSE PLAN SHALL BE AVAILABLE ON SITE FOR THE STORMWATER POLLUTION PREVENTION PLAN AND THE SPILL RESPONSE PLAN SHALL BE AVAILABLE ON SITE FOR REVIEW BY THE SCD INSPECTOR AND/OR THE NJDEP INSPECTOR.
 THE SCD INSPECTOR OR NJDEP INSPECTOR MAY REQUIRE ADDITIONAL MEASURES FOR STORMWATER POLLUTION PREVENTION TO BE INSTALLED.
 INSPECTIONS OF ALL STORMWATER POLLUTION PREVENTION PLAN MEASURES WILL BE CONDUCTED AND DOCUMENTED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
 WASTE COLLECTION CONTAINERS WILL NOT BE PERMITTED TO OVERFLOW.
 ANY SPILLS OF HAZARDOUS OR SANITARY WASTES WILL BE CLEANED UP IMMEDIATELY, AND IN ACCORDANCE WITH THE SPILL RESPONSE PLAN. SPILL KITS MUST BE AVAILABLE ONSITE OR ADJACENT TO THE SITE.
 ANY HAZARDOUS SUBSTANCE RELEASES IN EXCESS OF REPORTABLE QUANTITIES (RQ) ESTABLISHED UNDER 40 C.F.R. 110, 117 AND 302 THAT OCCUR WITHIN A 24 HOUR PERIOD MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (800-424-8802)

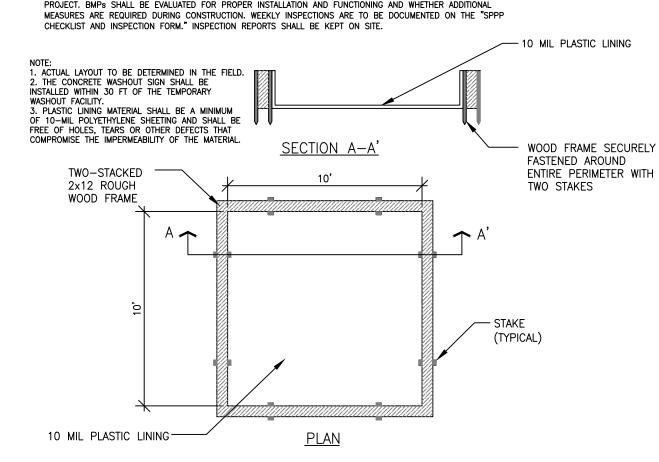
110, 117 AND 302 THAT OCCUR WITHIN A 24 HOUR PERIOD MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (800-424-8802).

8. NO VEHICLE MAINTENANCE SHALL BE PERFORMED ON SITE.

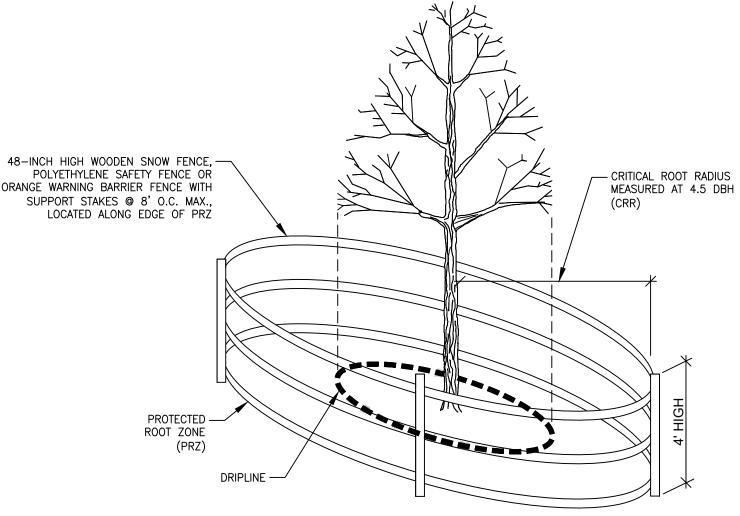
9. ANY CHEMICALS TO BE STORED ON SITE DURING CONSTRUCTION SHALL BE STORED AS TO ENSURE NO CONTAMINATION FROM THE CHEMICALS WILL OCCUR.

10. CONTRACTOR IS REQUIRED TO DEVELOPE AN ITEMIZED SPILL RESPONSE PLAN IN CONFORMANCE WITH APPLICABLE DEP REQUIREMENTS. SPILL RESPONSE PLAN SHALL BE AVAILABLE ON SITE.

11. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING WEEKLY SITE INSPECTIONS AND AFTER A RAIN EVENT PER THE NEW JERSEY STORM WATER POLLUTION PREVENTION PLAN (SPPP) INSPECTION AND MONITORING PROGRAM. THE INSPECTIONS WILL INSURE ONGOING BEST MANAGEMENT PRACTICE (BMP) PERFORMANCE DURING THE CONSTRUCTION PROJECT. BMPs SHALL BE EVALUATED FOR PROPER INSTALLATION AND FUNCTIONING AND WHETHER ADDITIONAL



CONCRETE WASHOUT FACILITY C-105.2 NOT TO SCALE



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

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

NOTES:

1. ALL TREES WITHIN THE PROJECT LIMITS THAT ARE TO REMAIN, ARE TO RECEIVE THIS 2. DO NOT LEAVE CONSTRUCTION EQUIPMENT RUNNING (IDLING) UNDER TREE CANOPY FENCING SHOULD BE PLACED SO THAT IT ENCOMPASSES THE PROTECTED ROOT

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

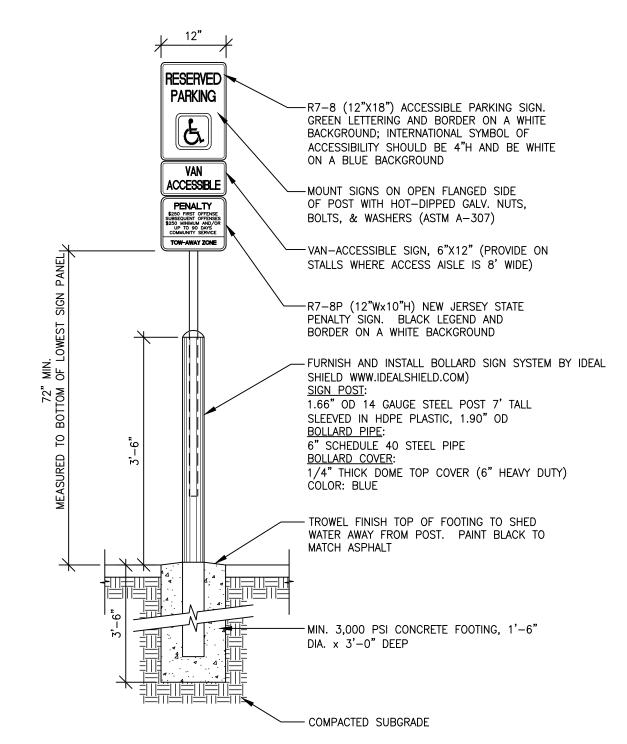
TREE PROTECTION \setminus C-105.2 $\Big/$ NOT TO SCALE

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Project Number: 192520218 CWQ TMM 11.04.21 Dwn. Chkd. Dsgn. MM.DD.YY Scale: AS NOTED Drawing No. C-105.2

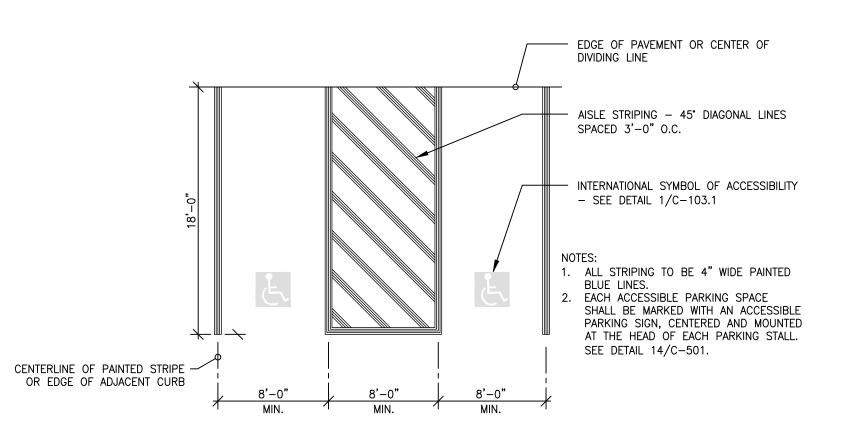
Revision

STEEL BOLLARD C-501 / NOT TO SCALE

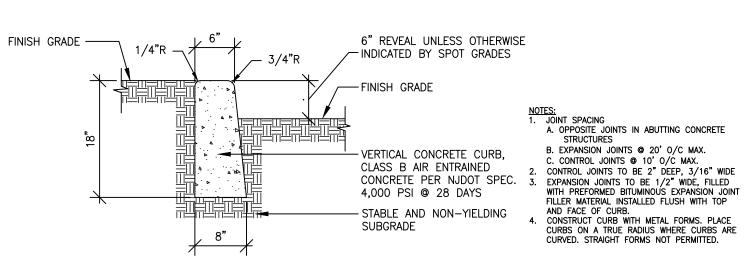


1. SIGN BLANKS SHALL BE FABRICATED FROM FLAT 0.80" ALUMINUM SHEETS. FLAT SHEET SIGNS SHALL BE FABRICATED OF A SINGLE PIECE OF ALUMINUM WITHOUT JOINTS AND WITHOUT SUPPORTING FRAME. ALL CORNERS SHALL BE ROUNDED. 2. SIGN FACES SHALL BE ENGINEER GRADE REFLECTIVE SHEETING.

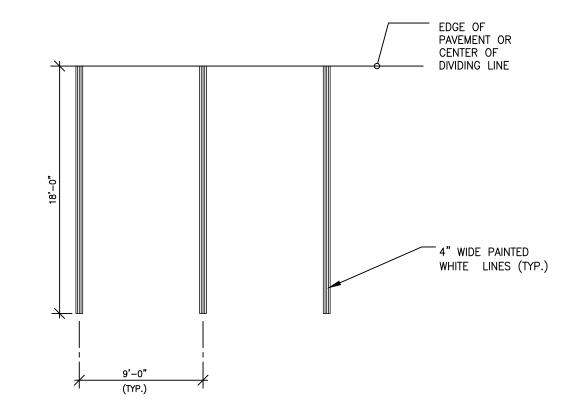
ACCESSIBLE PARKING SIGN / NOT TO SCALE



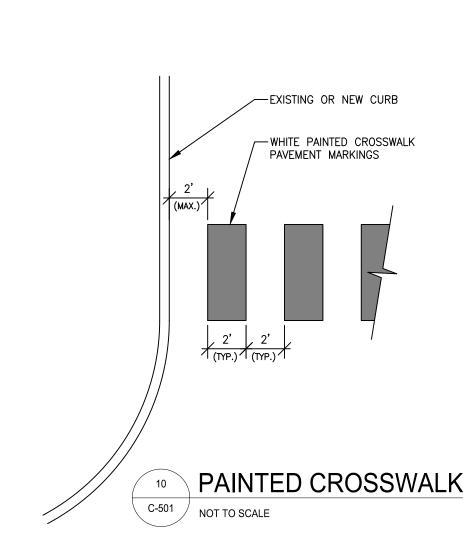
ACCESSIBLE PARKING SPACE C-501

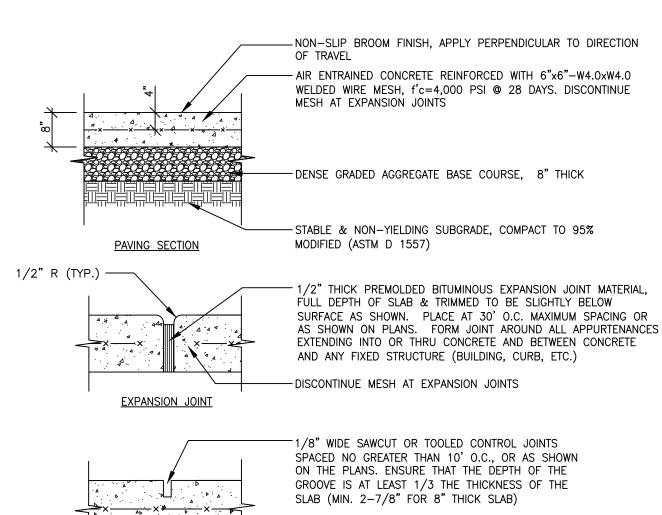


CONCRETE CURB (LOCAL) C-501



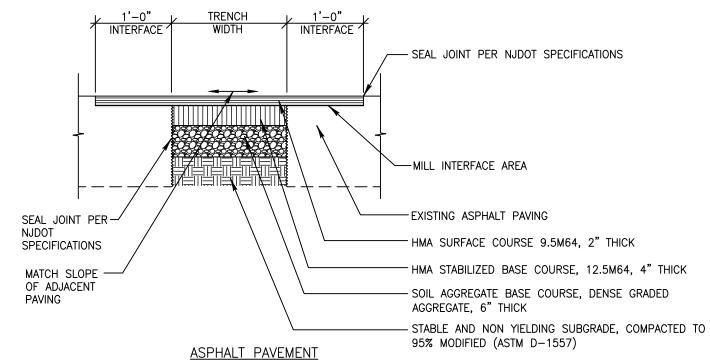
STANDARD PARKING SPACE C-501 NOT TO SCALE



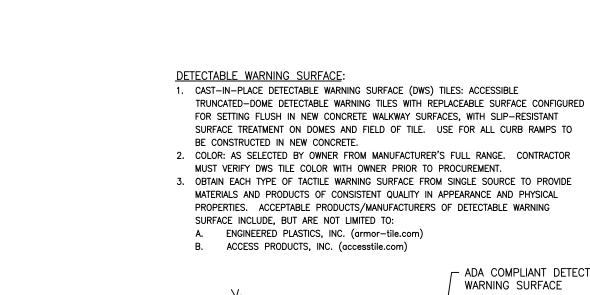


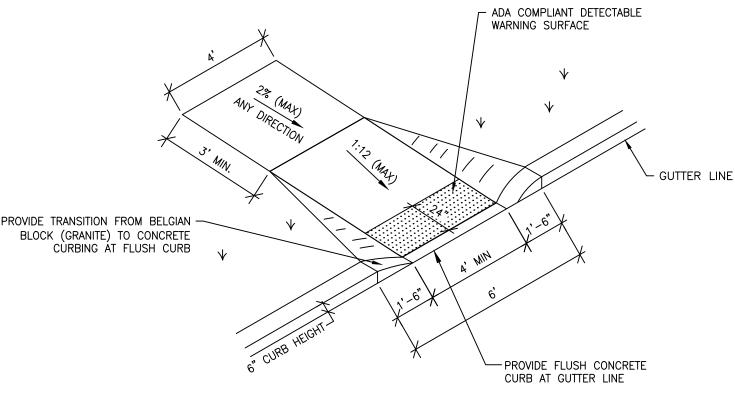


CONTROL JOINT

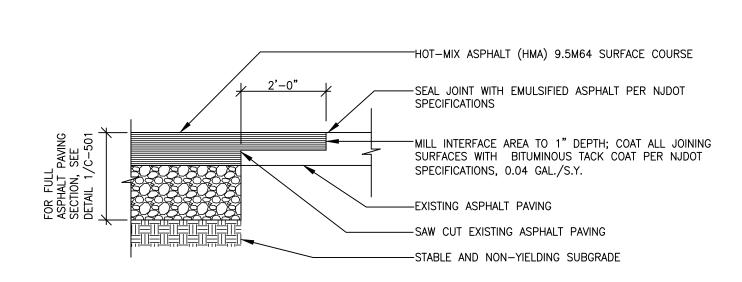


TRENCH RESTORATION NOT TO SCALE

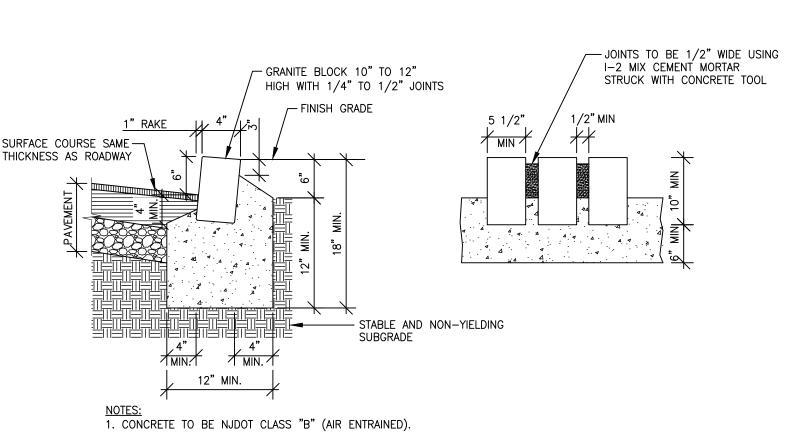




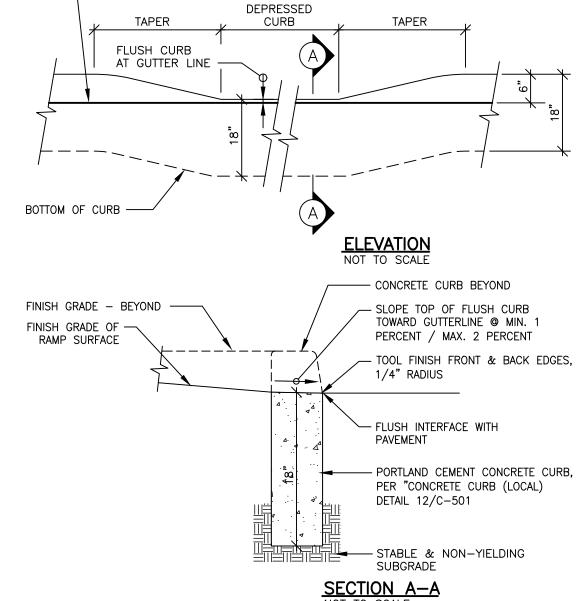
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ASPHALT PAVING INTERFACE NOT TO SCALE

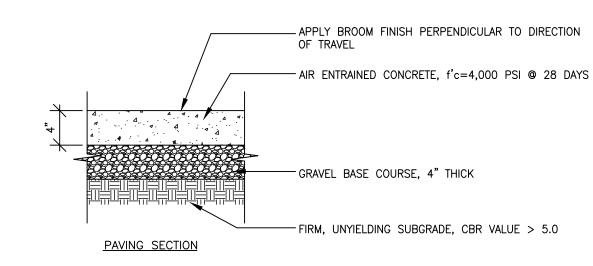


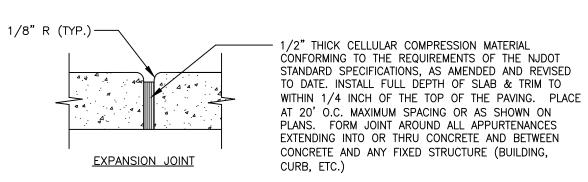
VERTICAL GRANITE BLOCK CURB C-501 /

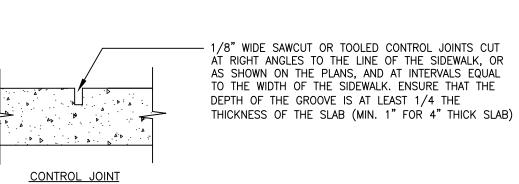


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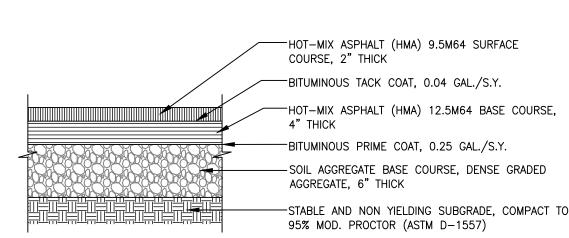
DEPRESSED CONCRETE CURB NOT TO SCALE











ASPHALT PAVING NOT TO SCALE

Project Number: 192520218 TMM CWQ TAB 11.04.21 Dwn. Chkd. Dsgn. MM.DD.YY

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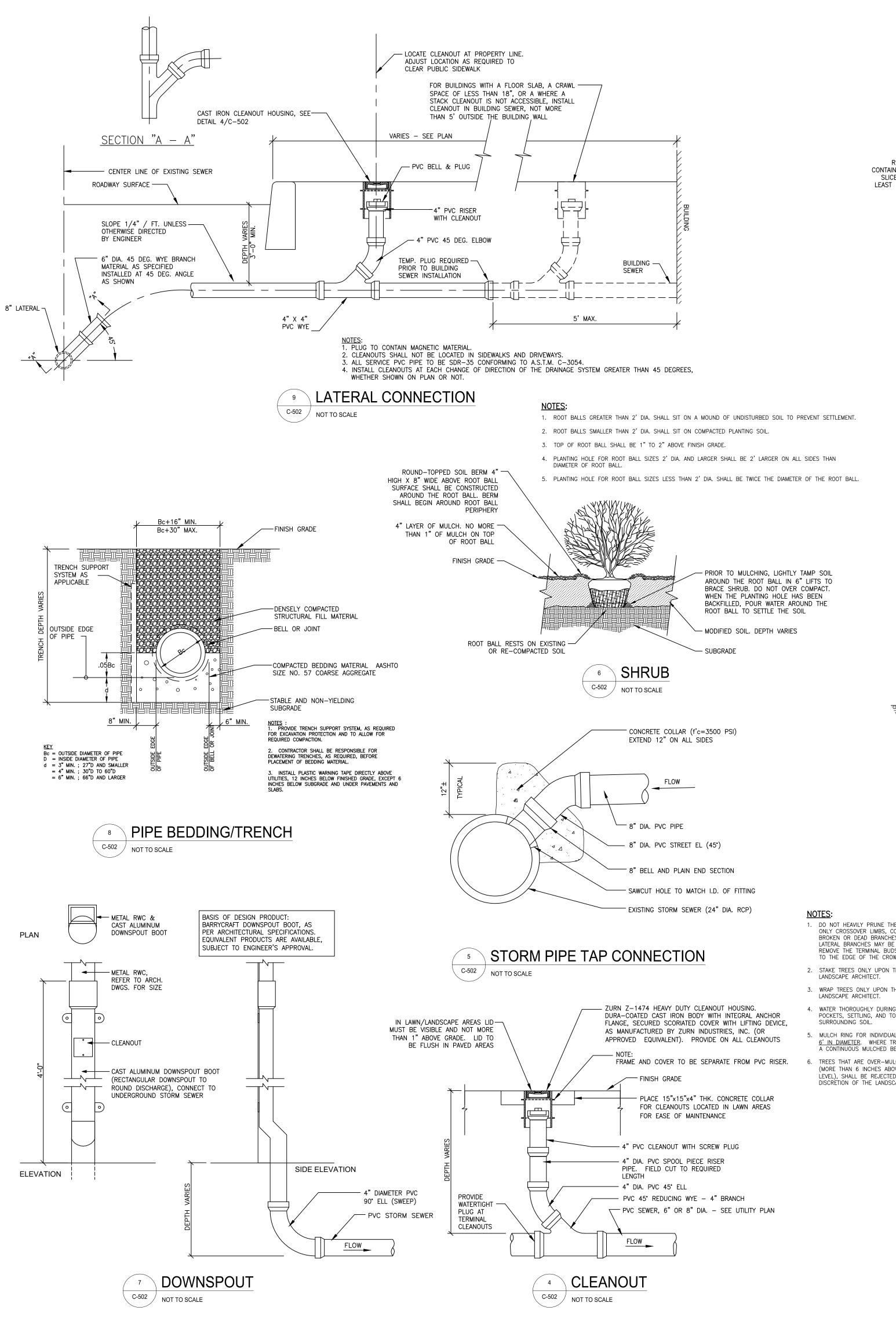
CLIFTON W. QUAY PROFESSIONAL ENGINEER, PROFESSIONAL PLANNER N.J.P.E. LICENSE #42670, N.J.P.P. LICENSE #LI05653

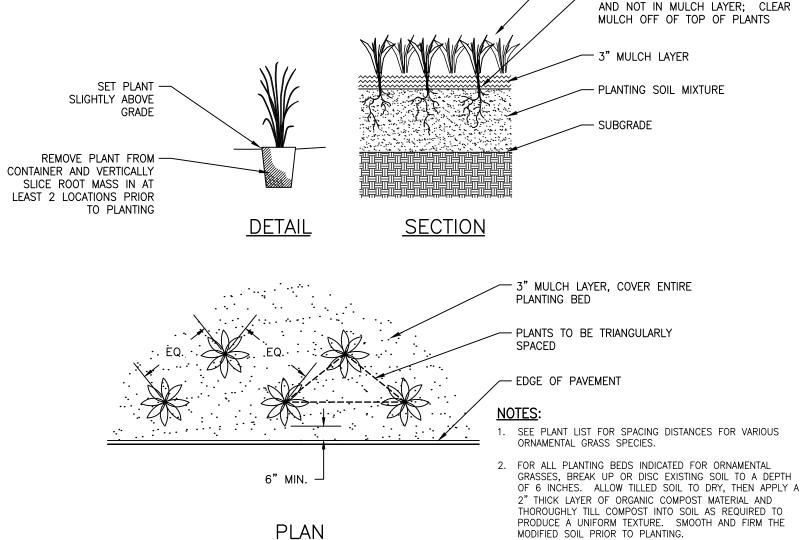
Scale: AS NOTED Drawing No. C-501 Revision Sheet

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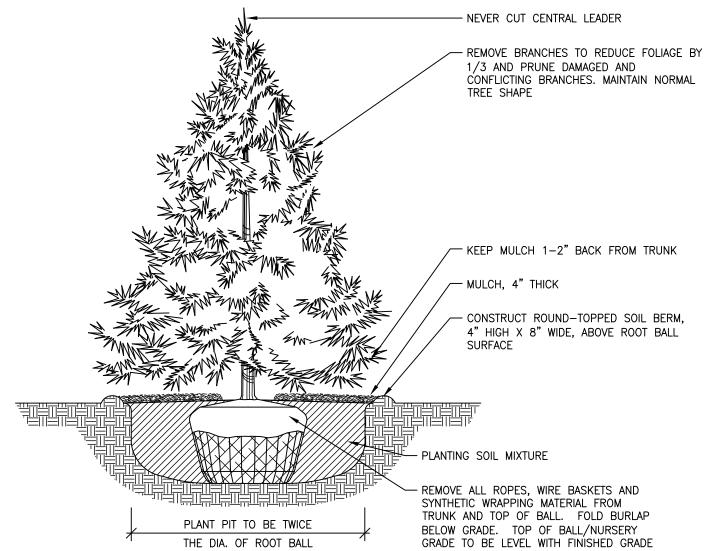
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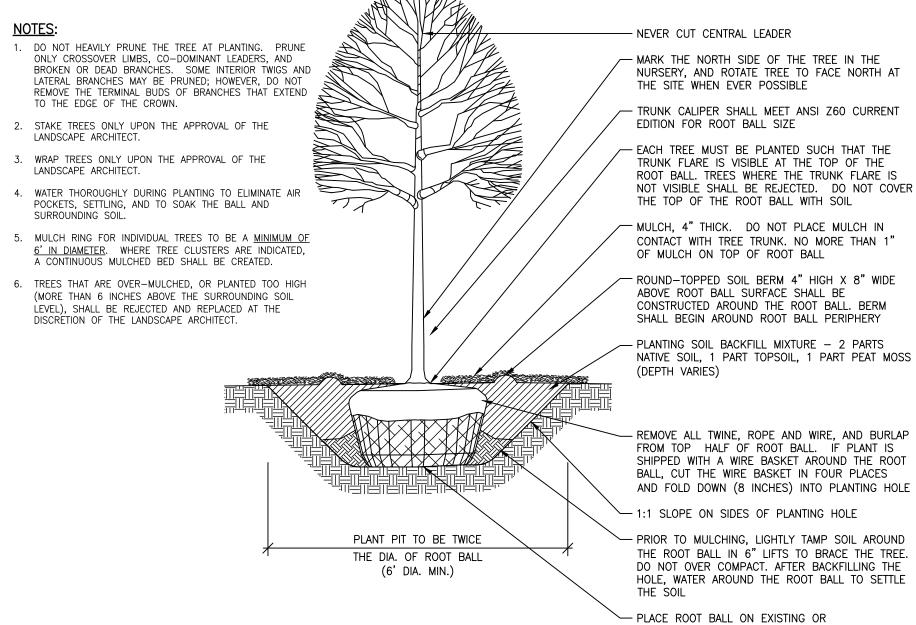




GROUND COVER / PERENNIAL C-502 NOT TO SCALE



EVERGREEN TREE C-502 NOT TO SCALE



DECIDUOUS TREE C-502 NOT TO SCALE

RE-COMPACTED SOIL

PLANTING NOTES AND SPECIFICATIONS

- PLANT SPACING AS PER PLAN PLANT LIST, AND SPECIFICATIONS

PLANT ROOTS IN PLANTING MIXTURE

- 1. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, INCIDENTALS
- 2. ALL PLANTS SHALL BE NURSERY GROWN. PLANT QUALITY AND SIZE, ROOT SPREAD AND ROOT BALL OR CONTAINER SIZE SHALL BE IN ACCORDANCE WITH ANSI Z60.1, AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION. ALL PLANTS SHALL BE TYPICAL
 OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH. THEY SHALL BE SOUND, HEALTHY, VIGOROUS,
 WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE AND INSECT PESTS, EGGS AND LARVAE. THEY SHALL HAVE HEALTHY AND WELL DEVELOPED ROOT SYSTEMS.
- 3. DECIDUOUS TREES SHALL BE SELECTED FOR STRAIGHT TRUNKS, SYMMETRICAL AND FULL HEADS WITH NO OPEN AREAS AND WITH ONE STRAIGHT LEADER. TREES WITH A CROTCH OR FORKED TRUNK SHALL BE REJECTED. CONIFEROUS EVERGREEN TREES SHALL BE FULLY BRANCHED FROM THE GROUND TO UPPERMOST WHORL WITH NO LARGE OPEN AREAS BETWEEN WHORLS. SHRUBS SHALL E FULL, DENSE AND SYMMETRICAL HEADS AND SHALL BE FOLIATED TO THE GROUND. LEGGY OR ONE-SIDED PLANTS SHALL BE
- REJECTED. GROUND COVER PLANTS SHALL BE THRIFTY, WELL BALANCED PLANTS, WELL-ESTABLISHED IN CONTAINERS. 4. ALL PLANTS (B&B OR CONTAINER) SHALL BE PROPERLY IDENTIFIED BY WEATHERPROOF LABELS SECURELY ATTACHED THERETO BEFORE DELIVERY TO THE PROJECT SITE. LABELS SHALL IDENTIFY THE PLANTS BY NAME, SPECIES AND SIZE. LABELS SHALL NOT
- 5. SUBSTITUTIONS: DUE TO POSSIBLE LIMITED PLANT AVAILABILITY, PLANT MATERIAL OF SIMILAR CHARACTER MAY BE SUBSTITUTED, UPON REQUEST BY THE CONTRACTOR, IF APPROVED BY THE OWNER.

BE REMOVED UNTIL FINAL INSPECTION BY THE PROJECT CONSULTANT OR OWNER'S AGENT.

- 6. BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH, OF DIAMETER AND DEPTH TO INCLUDE MOST OF THE FIBROUS ROOTS. ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT TIME
- 7. CONTAINER GROWN STOCK SHALL HAVE BEEN GROWN IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED
- SUFFICIENTLY TO HOLD ITS SOIL TOGETHER FIRM AND WHOLE. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. AFTER REMOVAL FROM THE CONTAINER, THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO VERTICAL
- 8. ROOT BALLS OF ALL PLANTS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN AND DRYING WINDS OR FROST. PLANTS WITH BROKEN ROOT BALLS OR EXCESSIVE DAMAGE TO THE CROWN SHALL BE REJECTED.
- 9. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIALS SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT THE STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER
- 10. PLANTING SOIL FOR BACKFILLING PLANTED AREAS SHALL CONSIST OF 2 PARTS BY VOLUME OF LOAMY TOPSOIL THOROUGHLY MIXED WITH ONE PART PEAT MOSS. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, DEBRIS, OR OTHER UNSUITABLE MATERIALS. SHALL BE USED FOR PLANTING.
- 11. ALL PLANTING SHALL BE INSTALLED AT THE LOCATIONS INDICATED ON THE DRAWINGS. MINOR ADJUSTMENTS TO PLANTING LOCATIONS MAY BE NECESSARY DUE TO FIELD CONDITIONS AND FINAL GRADING. THE CONTRACTOR SHALL ENSURE THAT LANDSCAPE INSTALLATION DOES NOT INTERRUPT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS. THE CONTRACTOR SHALL NOTIFY THE OWNER IF MAJOR ADJUSTMENTS ARE REQUIRED
- 12. ALL PLANTS SHALL BE PLUMB AND STRAIGHT AND INSTALLED AT SUCH A LEVEL THAT, AFTER SETTLEMENT, THE INDICATED RELATIONSHIP BETWEEN THE CROWN OF THE ROOT BALL AND THE GROUND SURFACE WILL BE ESTABLISHED. (SEE PLANTING DETAILS). ALL PLANTS SHALL BE LOCATED IN THE CENTER OF OF THEIR RESPECTIVE PLANTING PITS.
- 13. TREES IN LEAF WHEN PLANTED SHALL BE TREATED WITH ANTI-DESICCANT SUCH AS "WILT-PROOF".
- 14. MULCH: IMMEDIATELY AFTER PLANTING OPERATIONS ARE COMPLETED ALL TREE AND SHRUB PLANTING PITS SHALL BE COVERED WITH A 3" (THREE INCH) LAYER OF LICORICE ROOT MULCH OR OTHER MATERIAL APPROVED BY THE OWNER. THE LIMIT OF THIS MULCH FOR DECIDUOUS TREES AND SINGLE EVERGREEN TREES SHALL BE THE AREA OF THE PIT, FOR SHRUB BEDS AND EVERGREEN TREE CLUSTERS, A CONTINUOUS MULCHED BED SHALL BE CREATED.
- 15. ALL PLANTING BEDS ADJACENT TO LAWN, SOD OR SEEDED AREAS SHALL BE SPADE EDGED.
- 16. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT HERBICIDE PRIOR TO FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLICATION OF PRE-EMERGENT. APPLY PRE-EMERGENT AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 17. EACH TREE AND SHRUB SHALL BE PRUNED. AFTER INSTALLATION, IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL DEAD WOOD OR SUCKERS AND ALL
- 18. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND THE OWNER'S AGENT IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANTS, IF SUCH CONDITIONS ARE ENCOUNTERED DURING PLANTING. STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS, INCLUDING ANY CHANGE IN COST, FOR REVIEW AND ACCEPTANCE BY THE OWNER.
- 19. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES LISTED IN THE PLANT LIST AND THOSE QUANTITIES SHOWN ON THE PLANS,
- 20. NEW PLANTING AREAS AND NEW TURF AREAS SHALL BE ADEQUATELY IRRIGATED OR WATERED BY THE CONTRACTOR AS REQUIRED TO ESTABLISH THE NEW PLANTS AND LAWN, UNTIL OWNER'S ACCEPTANCE.
- 21. ANY MATERIAL/WORK MAY BE REJECTED IF IT DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. ALL REJECTED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
- 22. UPON COMPLETION OF ALL LANDSCAPING, A PROJECT MEETING FOR ACCEPTANCE OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER TO SCHEDULE THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED
- 23. CONTRACTOR SHALL MAINTAIN ALL PLANT MATERIAL UNTIL FINAL ACCEPTANCE BY OWNER. THE ONE-YEAR GUARANTEE PERIOD SHALL COMMENCE UPON FINAL ACCEPTANCE BY OWNER.
- 24. GUARANTEE: ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN A VIGOROUS GROWING CONDITION FOR A PERIOD OF NOT LESS THAN ONE FULL YEAR FROM THE DATE OF FINAL ACCEPTANCE BY OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MONITOR THE PROJECT DURING THE GUARANTEE PERIOD AND NOTIFY THE OWNER IF PROBLEMS DEVELOP WITH THE PLANT MATERIAL. ANY MATERIAL THAT IS 25% DEAD OR MORE SHALL BE CONSIDERED DEAD AND MUST BE REPLACED AT NO. CHARGE. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED BACK, OR THERE IS 25% OF THE CROWN REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. REPLACEMENT PLANTS SHALL BE GUARANTEED FOR A PERIOD OF 90 DAYS AFTER THEIR INSTALLATION.
- 25. REFER TO "SITE PLAN", SHEET C-102 FOR GENERAL NOTES PERTAINING TO WORK OF THIS PLAN. REFER TO SHEET C-101 FOR PROJECT LEGEND. THIS PLAN SHALL BE USED FOR LANDSCAPE PURPOSES ONLY. THE CONTRACTOR SHALL REVIEW RELATED ARCHITECTURAL/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH GRADING AND UTILITIES.

SEEDING NOTES AND SPECIFICATIONS

- GENERAL: PROVIDE TOPSOILING, SEEDBED PREPARATION, FERTILIZING, SEEDING AND MULCHING OF ALL NEWLY GRADED FINISHED EARTH SURFACES, UNLESS INDICATED OTHERWISE, AND AT ALL AREAS INSIDE OR OUTSIDE THE LIMITS OF CONSTRUCTION THAT ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS. SOW SEED FROM APRIL 1 TO MAY 31 FOR SPRING PLANTING AND FROM AUGUST 16 TO OCTOBER 15 FOR FALL PLANTING. SEEDING PERIOD MAY BE EXTENDED OR REDUCED ACCORDING TO PREVAILING WEATHER CONDITIONS AT THE TIME, AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- 2. TOPSOILING: COMPLY WITH SOIL EROSION & SEDIMENT CONTROL PLAN AND NOTES. ADDITIONAL REQUIREMENTS FOR LAWN AREAS: A. FINISHED SURFACE OF THE TOPSOIL SHALL CONFORM TO THE FINISHED GRADE AND SHALL BE FREE FROM DEPRESSIONS, HOLLOWS, OR OTHER IRREGULARITIES.
- B. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE RUBBLE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
- 3. SEEDBED PREPARATION: COMPLY WITH SOIL EROSION & SEDIMENT CONTROL PLAN AND NOTES.
- 4. SEED MIXTURES: COMPLY WITH SOIL EROSION & SEDIMENT CONTROL PLAN AND NOTES.
- 5. SEED APPLICATION: COMPLY WITH SOIL EROSION & SEDIMENT CONTROL PLAN AND NOTES.
- A. SOW SEED WITHIN 24 HOURS OF SEEDBED PREPARATION.
- B. SEED SHALL NOT BE APPLIED BY HYDROSEEDING UNLESS APPROVED BY THE LANDSCAPE ARCHITECT. MULCH ALL SEEDED LAWN AREAS AFTER SEED APPLICATION. COMPLY WITH SOIL EROSION & SEDIMENT CONTROL PLAN AND
- 7. STEEP SLOPES (3:1 OR GREATER): INSTALL SLOPE STABILIZATION FABRIC IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS, AFTER SEEDING APPLICATION.
- A. UNLESS OTHERWISE DIRECTED, WATER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SOURCE OF WATER SHALL BE OF SUITABLE QUALITY FOR IRRIGATION, CONTAINING NO ELEMENTS TOXIC TO PLANT LIFE.
- B. START WATERING AREAS SEEDED AS REQUIRED BY TEMPERATURE AND WIND CONDITIONS. APPLY WATER AT A RATE SUFFICIENT TO INSURE THOROUGH WETTING OF SOIL TO A DEPTH OF 2 INCHES WITHOUT RUN OFF.
- C. DURING THE GERMINATION PROCESS, SEED IS TO BE KEPT ACTIVELY GROWING AND NOT ALLOWED TO DRY OUT. D. IRRIGATE TO ACHIEVE MINIMUM OF 1" OF WATER PER WEEK FOR A MINIMUM OF 4 WEEKS OR UNTIL GERMINATION IS
- COMPLETED AND VEGETATION IS ESTABLISHED. SOD, IF AND WHERE INDICATED ON THE DRAWINGS, SHALL BE SAME AS GENERAL LAWN SEED MIX AND SHALL BE INSTALLED IN
- ACCORDANCE WITH AMERICAN ASSOCIATION OF SOD PRODUCERS' STANDARDS. SPECIFY "CERTIFIED SOD" OR HIGH QUALITY CULTIVATED SOD. IT IS TO BE FREE OF WEEDS AND UNDESIRABLE GRASSES AND ALSO BE OF UNIFORM THICKNESS. ALSO TO HAVE GOOD ROOT MAT WITHOUT BROKEN PADS OR TORN UNEVEN ENDS.
- MAINTENANCE DURING ESTABLISHMENT PERIOD: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL AREAS DURING THE PERIOD WHEN GRASS IS BECOMING ESTABLISHED AND UNTIL ALL WORK UNDER THIS CONTRACT IS COMPLETE AND ACCEPTED. MAINTAIN AND ESTABLISH TURF BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE MATERIALS AND INSTALLATION THE SAME AS THOSE USED IN THE ORIGINAL
- A. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MATERIALS AND TURF DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
- B. IN AREAS WHERE MULCH HAS BEEN DISTURBED BY WIND OR MAINTENANCE OPERATIONS, ADD NEW MULCH AND ANCHOR AS REQUIRED TO PREVENT DISPLACEMENT.
- C. IF ANY PORTION OF THE SURFACE BECOMES GULLIED OR OTHERWISE DAMAGED FOLLOWING SEEDING, THE EFFECTED CONDITIONS AND GRADE OF THE SOIL PRIOR TO SEEDING SHALL BE RESEEDED AS SPECIFIED HEREIN.
- 11. SEE SOIL EROSION & SEDIMENT CONTROL PLAN FOR TEMPORARY SEEDING AND STABILIZATION MEASURES FOR SOILS DISTURBED DURING CONSTRUCTION.
- 12. ACCEPTANCE OF SATISFACTORY LAWNS:
- A. SATISFACTORY SEEDED LAWN: AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90 PERCENT OVER ANY 10 SQ. FT. AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES.
- B. SATISFACTORY SODDED LAWN: AT END OF MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE LAWN HAS BEEN ESTABLISHED, FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES.
- C. REESTABLISH LAWNS THAT DO NOT COMPLY WITH REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY 13. GUARANTEE: ALL LAWN WORK INCLUDING THE REPAIR OF WASHOUTS, GULLIES, ETC., SHALL BE GUARANTEED FOR ONE CALENDAR YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.

Permit-Seal CLIFTON W. QUAY PROFESSIONAL ENGINEER, PROFESSIONAL PLANNER N.J.P.E. LICENSE #42670, N.J.P.P. LICENSE #LI05653

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Revision