PRELIMINARY / FINAL MAJOR SITE PLAN

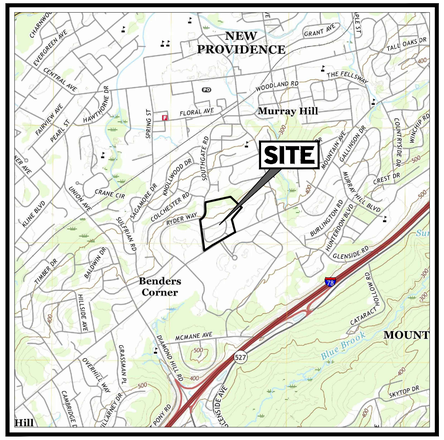
FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED

CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE, BOROUGH OF NEW PROVIDENCE
UNION COUNTY, NEW JERSEY
MAP 32, BLOCK 320, LOT 18.01



USGS MAP

SCALE: 1" = 2,000'
SOURCE: USGS

PROPERTY OWNERS LIST

WITHIN 200' RADIUS

BLOCK	LOT	OWNER
320	15	REDWOOD-ERC NEW PROVIDENCE II LLC 701 MAIDEN CHOICE LANE BALTIMORE, MD 21228
320	17	REDWOOD-ERC NEW PROVIDENCE LLC 701 MAIDEN CHOICE LANE BALTIMORE, MD 21228
321	1	LUCENT TECHNOLOGIES, INC 3520 PIEDMONT RD, NE-SU410 ATLANTA, GA 30305
321	2	LUCENT TECHNOLOGIES, INC 3520 PIEDMONT RD, NE-SU410 ATLANTA, GA 30305
335	8	COLE, JOHN & TINA 72 CANDLEWOOD DR MURRAY HILL, NJ 07974
335	9	MEYERS, THOMAS G & SUSAN W 80 CANDLEWOOD DR NEW PROVIDENCE, NJ 07974
335	24	FLANAGAN, JOHN J & HEATHER MARIE 10 DARBY CT NEW PROVIDENCE, NJ 07974
335	25	4 DARBY COURT LLC 263 SPRINGFIELD AVE S303 BERKLEY HEIGHTS, NJ 07922
335	26	LEPPE, CHRISTOPHER & AMY 3 DARBY CT NEW PROVIDENCE, NJ 07974
335	27	BUBNIAK, CHRISTOPHER & NICOLE 11 DARBY CT NEW PROVIDENCE, NJ 07974
335	29	GRIFFEL, RUDOLPH C & E BETH 216 SOUTHGATE RD MURRAY HILL, NJ 07974
335	30	KEYSER, DAVID M & GINA PRIANO-KEYSE 228 SOUTHGATE RD NEW PROVIDENCE, NJ 07974
350	1	D'ASCOLI, JOSEPH J 8 HATHAWAY DR NEW PROVIDENCE, NJ 07974
356	13	RAIMAN, ROBERT & CAROLYN 181 RYDER WAY NEW PROVIDENCE, NJ 07974
356	14	ZOUFALY, SCOTT & ANNMARIE 191 RYDER WAY NEW PROVIDENCE, NJ 07974
356	15	WOOD, DAVID B & ROBIN H 257 SOUTHGATE RD MURRAY HILL, NJ 07974
356	16	LESTINGI, TANIA A 253 SOUTHGATE RD NEW PROVIDENCE, NJ 07974
356	17	ANGRISANI, RUSSELL & MINAZ JOOMA 243 SOUTHGATE RD MURRAY HILL, NJ 07974
356	18	ARDOLIC, IBRAHIM & MEIREMEH 7 HATHAWAY DR NEW PROVIDENCE, NJ 07974
370	1	MURRAY HILL LLC 200 SOMERSET CRP BVD 7000 BRIDGEWATER, NJ 08807
382	6	LUCENT TECHNOLOGIES, INC 3520 PIEDMONT RD, NE-SU410 ATLANTA, GA 30305

ALSO TO BE NOTIFIED:

NEW JERSEY CENTRAL POWER & LIGHT CO
C/O CORPORATION TRUST CO.
820 BEAR TAVERN RD
WEST TRENTON, NJ 08628

NEW JERSEY-AMERICAN WATER COMPANY, INC.
DONNA SHORT, GIS SUPERVISOR
1025 LAUREL OAK ROAD
VOORHEES, NJ 08043

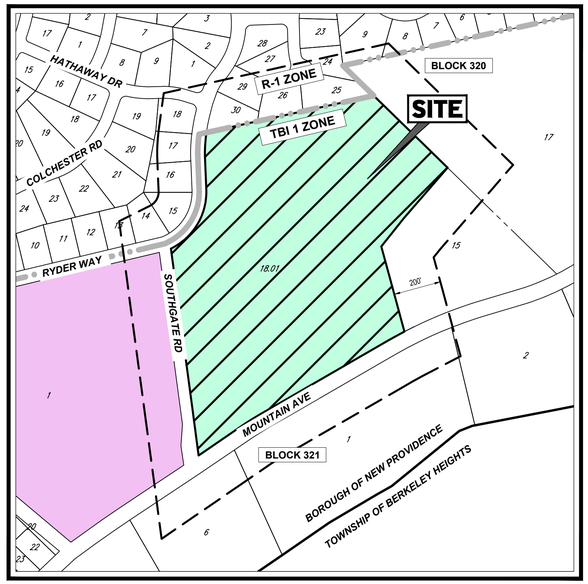
ALSO TO BE NOTIFIED:

COMCAST CORPORATION
LEGAL DEPT
150 MARKET STREET
PHILADELPHIA, PA 19102

UNION COUNTY PLANNING BOARD
DIVISION OF PLANNING & ECONOMIC DEVELOPMENT
ADMINISTRATIVE BUILDING, ELIZABETHTOWN PLAZA
ELIZABETH, NJ 07207

ALSO TO BE NOTIFIED:

BOROUGH OF NEW PROVIDENCE
CLERK
360 ELKWOOD AVE
NEW PROVIDENCE, NJ 07974

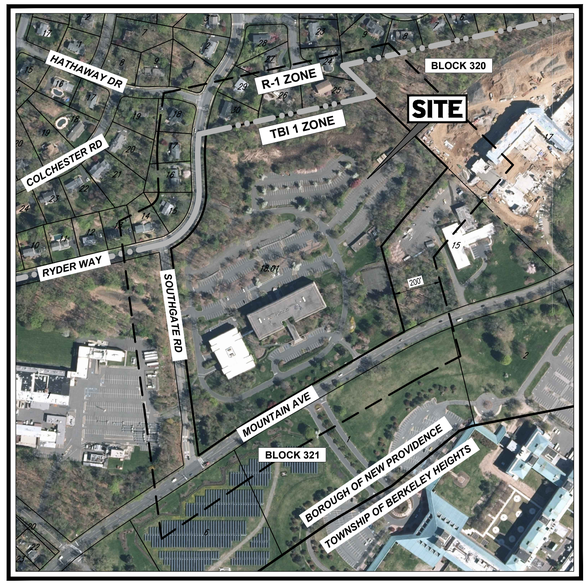


PACO: PLANNED ADULT COMMUNITY OVERLAY

CCRC-O: CONTINUING CARE RETIREMENT COMMUNITY OVERLAY (LOT 18.01)

TAX MAP

SCALE: 1" = 300'
SOURCE: ARCGIS PARCEL DATA



AERIAL MAP

SCALE: 1" = 300'
SOURCE: NJGIN INFORMATION WAREHOUSE

PREPARED BY

BOHLER

KEY MAP

SCALE: 1" = 1,000'
SOURCE: GOOGLE MAPS

DRAWING SHEET INDEX

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ALTA SURVEY BLOCK 320; LOT 18.01 (BY OTHERS)	1

APPROVAL BLOCK

BOROUGH PLANNING BOARD APPROVAL
APPROVED BY THE PLANNING BOARD OF THE BOROUGH OF NEW PROVIDENCE, NEW JERSEY.

BOARD CHAIRPERSON — DATE

BOROUGH ENGINEER — DATE

BOARD SECRETARY — DATE

OWNER CERTIFICATION

I CERTIFY THAT I AM THE OWNER OF BLOCK 320 LOTS 18.01, 15, 17 AND CONSENT TO THE FILING OF THE APPLICATION.

OWNER — DATE

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE DISCLOSED OR USED FOR ANY PURPOSE, WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

811 Know what's below. Call before you dig.
NEW JERSEY
YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-272-1000
www.nj1-call.org

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-CDS-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C-101

ORG. DATE - 03/04/2020

G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-CDS-0A-----LAYOUT, C-101 COVER

GENERAL NOTES (Rev. 1/2019)

1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING, NJ, LLC (HEREIN "BOHLER ENGINEERING") PRIOR TO THE DATE ON WHICH ENGINEER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER ENGINEERING, IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
2. THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS, THESE NOTES, AND THE REQUIREMENTS SET FORTH IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE ENGINEER OF RECORD THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.
4. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED, NO OBSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE CONSTRUCTION PLANS APPROVAL TO ALL PARTIES INVOLVED. THE CONTRACTOR MUST ENSURE THAT BOHLER ENGINEERING HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES HAVING JURISDICTION OVER THIS PROJECT AND/OR PROPERTY. THE CONTRACTOR'S EXECUTION OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME.
6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO: MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND ENGINEER OF RECORD, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
7. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, BUILDING OVERHANGS, BUILDING APPURTENANCES AND EXACT BUILDING UTILITY LOCATIONS.
8. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY ENGINEER OF RECORD, IN WRITING, IF ANY DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING ENGINEER OF RECORD WRITTEN NOTIFICATION OF SAME AND (B) ENGINEER OF RECORD, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. THESE PLANS AND DRAWINGS ARE NOT INTENDED FOR SHOP DRAWING PURPOSES. DRAWINGS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
10. THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH, AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
11. WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN: (A) THE PLANS; AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.
12. ENGINEER OF RECORD IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR MOLD THAT MAY BE ENCOUNTERED ON THE PROJECT.
13. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH OSHA STANDARDS) AND SHALL EMPLOY QUALIFIED PROFESSIONALS AS NEEDED TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE.
14. THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED FOR THE PROTECTION AND SAFETY OF SIDEWALKS, PAVEMENT, UTILITIES, ADJACENT BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
15. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS FOR THIS PROJECT OR OVER ANY PROPERTY.
16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
17. THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. TO INCLUDE, BUT NOT BE LIMITED TO, RE-GRADING, RE-SURVEY, RE-PERMITTING AND RE-CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH PROPERTY TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND ALL APPLICABLE STANDARDS. ALL COSTS ASSOCIATED WITH SAME SHALL BE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
18. THE ENGINEER OF RECORD AND BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY, JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME. THE ENGINEER OF RECORD AND BOHLER ENGINEERING HAVE NOT INDEPENDENTLY TO PERFORM TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY THE RESPONSIBILITY OF CONTRACTOR. THE ENGINEER OF RECORD'S AND BOHLER ENGINEERING SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD AND BOHLER ENGINEERING ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.
19. THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING, TO THE ENGINEER OF RECORD AND BOHLER ENGINEERING, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTORS OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER ENGINEERING FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.
20. THE ENGINEER OF RECORD AND BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE. IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH ALL CODES, LAWS, RULES, STATUTES, CODES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER ENGINEERING HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT ENGINEER AND BOHLER ENGINEERING SUFFER AND ANY AND ALL COSTS THAT ENGINEER AND BOHLER ENGINEERING INCUR AS RELATED TO SAME.
21. ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES. ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSUREDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE DEFEND, IF APPLICABLE, AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER. IN ADDITION, ALL CONTRACTORS AGREE THAT THEY WILL, TO THE FULLEST EXTENT PERMITTED UNDER LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, FINES, LIABILITY INCREASES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
22. THE ENGINEER OF RECORD AND BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK SPECIFIED BOTH ON THESE PLANS, AND FOR ANY CONSTRUCTION SCOPE AND RESPONSIBILITY SET FORTH IN THE CONTRACT DOCUMENTS IN WHOLE OR IN PART. THE CONTRACTOR IS SOLELY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
23. NEITHER THE PROFESSIONAL ACTIVITIES OF: BOHLER ENGINEERING, NOR THE PRESENCE OF BOHLER ENGINEERING AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE (HEREIN 'BOHLER ENGINEERING PARTIES'), RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS EMPLOYEES, PERSONNEL, AGENTS, SUBCONTRACTORS AND SUBCONSULTANTS HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO THEIR WORK AND ANY AND ALL HEALTH AND SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER ENGINEERING FROM AND FROM ANY LIABILITY TO BOHLER ENGINEERING RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THIS NOTE, THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST NAME BOHLER ENGINEERING AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE.
24. WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER ENGINEERING'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER ENGINEERING WILL REVIEW OR OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER ENGINEERING HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER ENGINEERING WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER ENGINEERING'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS THAT ARE NOT BROUGHT TO ITS ATTENTION IN WRITING. CONTRACTOR REMAINS RESPONSIBLE FOR ANY DEVIATIONS FROM CONSTRUCTION DOCUMENTS TO BOHLER ENGINEERING'S ATTENTION. BOHLER ENGINEERING IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD AND/OR BOHLER ENGINEERING FOR ALL DEVIATIONS WITHIN ENGINEER'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND, AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER ENGINEERING PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME.
26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY.
27. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN; AND, FURTHER, THE ENGINEER OF RECORD AND/OR BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER ENGINEERING PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT ENGINEER OF RECORD AND/OR BOHLER ENGINEERING INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.
28. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. ENGINEER OF RECORD AND BOHLER ENGINEERING HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA, AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD ENGINEER OF RECORD AND/OR BOHLER ENGINEERING PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO.
32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER OF RECORD, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE ENGINEER OF RECORD'S KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

DEMOLITION NOTES (Rev. 1/2019)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
   A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
   B. THIS PLAN IS NOT INTENDED TO PROVIDE DIRECTIVE MEANS, METHODS, TECHNIQUES, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, AND LOCAL JURISDICTIONAL REGULATIONS. THE CONTRACTOR MUST ENSURE THAT ALL MEANS AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEMOLISHED MATERIALS AND DEBRIS AS WORK PROGRESSES, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN, CONSTRUCTED AS PART OF THE EXISTING PAVEMENT, ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC RIGHT-OF-WAY.
6. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMANLIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
7. THE CONTRACTOR MUST REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.

ACCESSIBILITY DESIGN GUIDELINES (Rev. 1/2019)

1. ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE M

NAD83

SOUTHGATE ROAD
(FORMERLY KNOWN AS RYDER WAY)
(60' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

RYDER WAY
60' (WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

SOUTHGATE ROAD
(A.K.A. NORTH STREET)
(60' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

BLOCK 335
LOT 30
N/F LANDS OF
DAVID M. KEYSER &
GINA PRIANO-KEYSER

BLOCK 335
LOT 29

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

BLOCK 320
LOT 18.01
24.62 AC
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 6

CANDLEWOOD DRIVE
(50' WIDE R.O.W.)

BLOCK 320
LOT 17
N/F LANDS OF
REDWOOD-ERC NEW
PROVIDENCE LLC

PROPOSED
BUILDING 2.5
6 STORY

PROPOSED
BUILDING 2.3
6 STORY

PROPOSED
BUILDING 2.2
6 STORY

PROPOSED
BUILDING 2.4
5 STORY

PROPOSED
CC BUILDING
4 STORY

PROPOSED
BUILDING 2.1
5 STORY

BUILDING # 4

BUILDING # 3

BUILDING # 1

BUILDING # 5

BUILDING # 2

BLOCK 320
LOT 15
N/F LANDS OF
REDWOOD-ERC
NEW PROVIDENCE
II LLC

MOUNTAIN AVENUE
(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

80 0 40 80 160 320

GRAPHIC SCALE 1 INCH = 80 FEET

G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SPP-0A.----LAYOUT: C-103 DWRL

MS

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-SPP-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

OVERALL SITE LAYOUT PLAN

SHEET NUMBER:

C-103

ORG. DATE - 03/04/2020

NAD83

BLOCK 335
LOT 30
N/F LANDS OF
DAVID M. KEYSER &
GINA PRIANO-KEYSER

BLOCK 335
LOT 29

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

BLOCK 320
LOT 18.01
24.62 AC
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

SOUTHGATE ROAD
(FORMERLY KNOWN AS RYDER WAY)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

RYDER WAY
60' (WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

SOUTHGATE ROAD
(A.K.A. NORTH STREET)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

10' RIPARIAN SETBACK LINE

200' R1 ZONE SETBACK LINE

EX. DETENTION BASIN

REDWOOD

PHASE 4

PHASE 2

PHASE 3

PHASE 1

PHASE 5

PROPOSED
BUILDING 2.5
6 STORY

PROPOSED
BUILDING 2.3
6 STORY

PROPOSED
BUILDING 2.2
6 STORY

PROPOSED
BUILDING 2.4
5 STORY

PROPOSED
CC BUILDING
4 STORY

PROPOSED
BUILDING 2.1
5 STORY

PROP. ELEVATED
WALKWAY

100' SOUTHGATE 150' SETBACK LINE

100' MOUNTAIN AVE SETBACK LINE

FORMER
BLOCK 320
LOT 1

BLOCK 320
LOT 15
N/F LANDS OF
REDWOOD-ERC NEW
PROVIDENCE II LLC

MOUNTAIN AVENUE
(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

60 0 30 60 120 240
GRAPHIC SCALE 1 INCH = 60 FEET

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BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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DATE:	03/04/2020
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PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

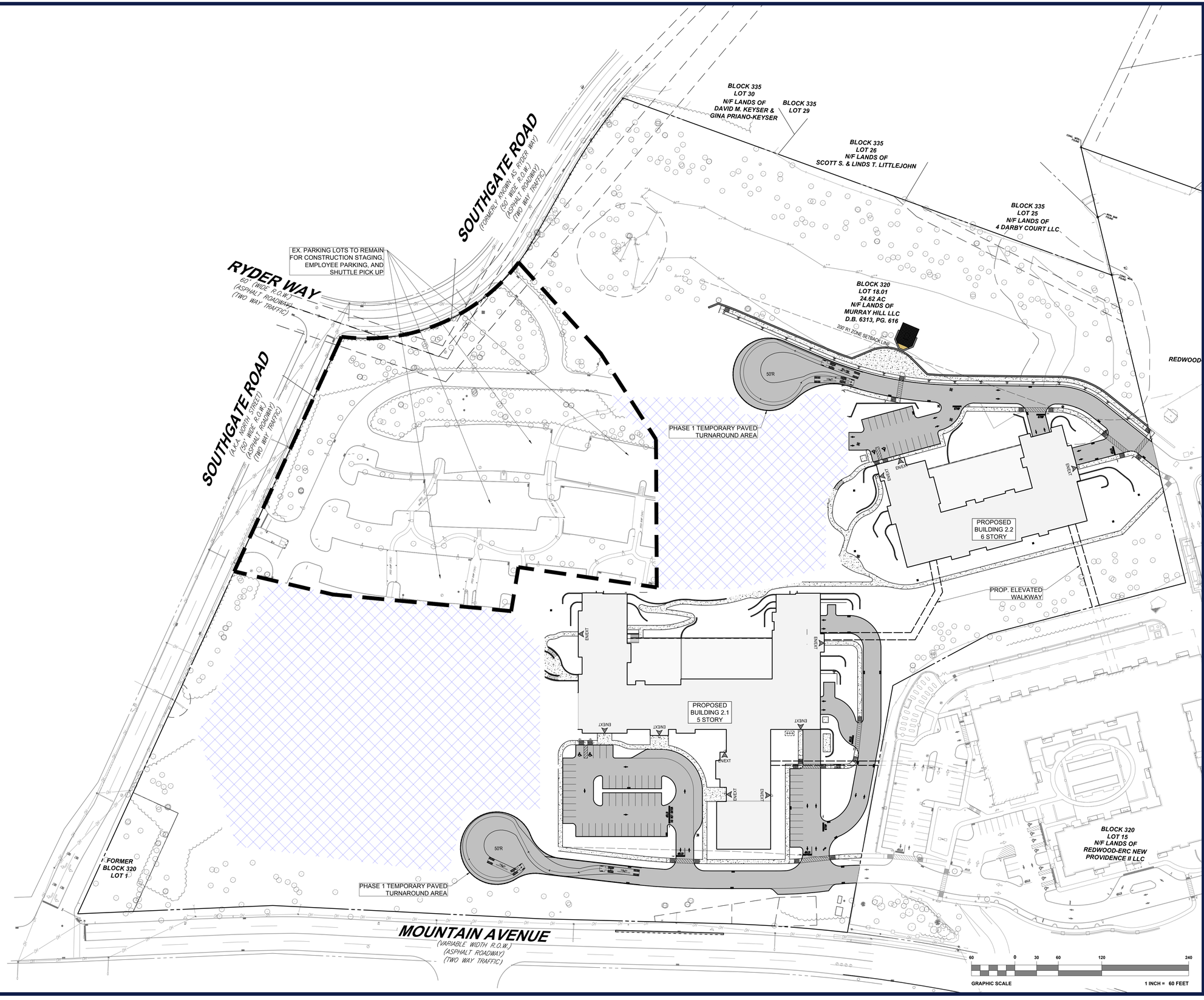
OVERALL SITE PHASING PLAN

SHEET NUMBER:

C-104

ORG. DATE - 03/04/2020

NAD83



VEGETATED STABILIZED SURFACE

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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DRAWN BY:	DM / MFS
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DATE:	03/04/2020
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PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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R.L. STREKER

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

SITE PLAN PHASE 1

SHEET NUMBER:

C-105

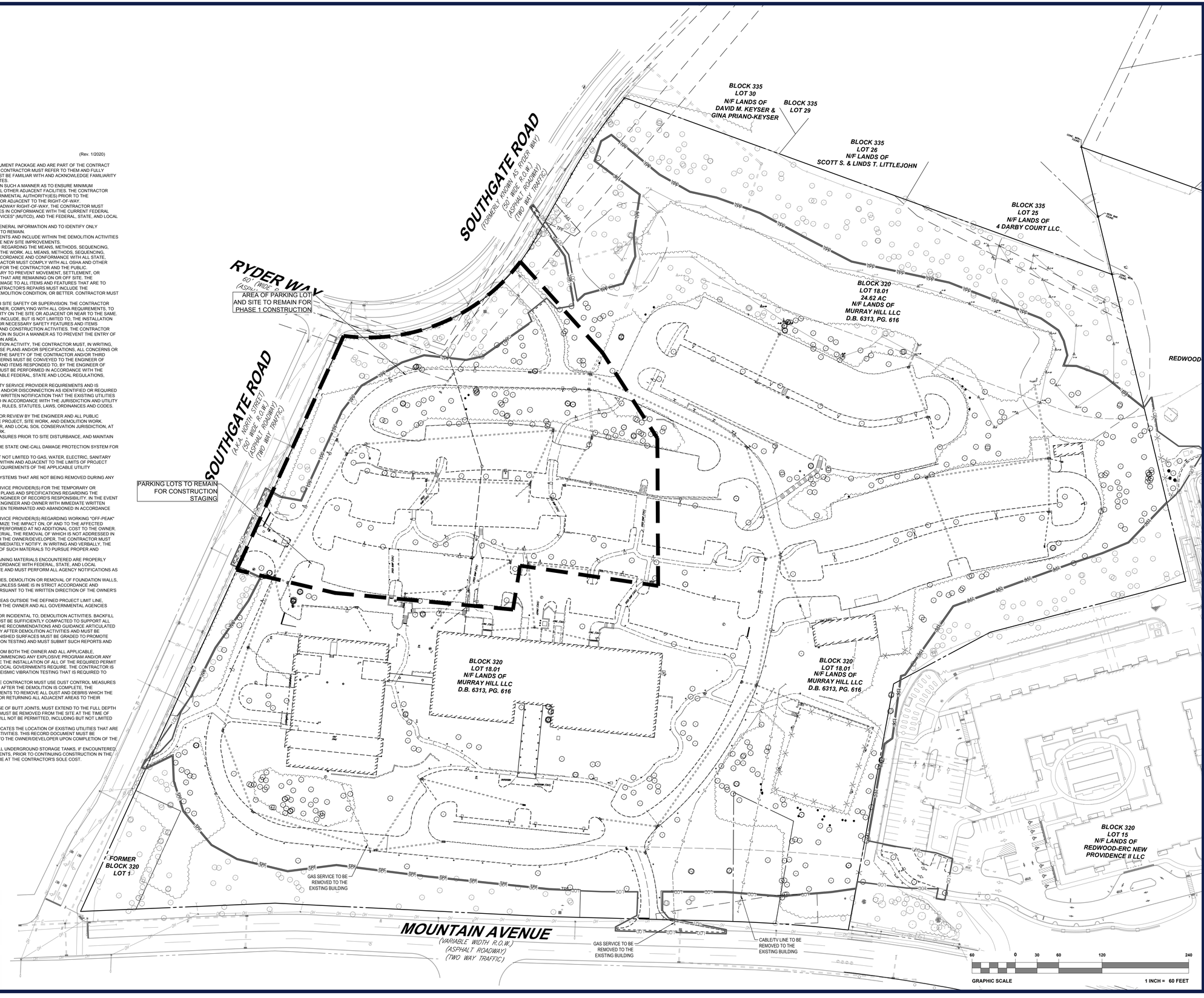
ORG. DATE - 03/04/2020

NAD83

DEMOLITION NOTES

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
   A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
   B. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
6. ENGINEER OF RECORD AND/OR BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.
7. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.
8. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS. ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. ANY SUCH CONCERNS MUST BE CONVEYED TO THE ENGINEER OF RECORD AND/OR BOHLER , IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO BY THE ENGINEER OF RECORD AND/OR BY BOHLER , IN WRITING. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
9. THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED, REMOVED AND/OR ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
10. PRIOR TO COMMENCING ANY DEMOLITION, THE CONTRACTOR MUST:
    A. OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.
    B. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION JURISDICTION, AT LEAST 72 BUSINESS HOURS PRIOR TO THE COMMENCEMENT OF WORK.
    C. INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS UNTIL SITE IS STABILIZED
    D. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT, IN ADVANCE OF ANY EXCAVATION.
    E. LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES.
    F. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION ACTIVITIES.
    G. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE ENGINEER OF RECORD'S RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
    H. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
    I. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, OR THE CONTRACT WITH THE OWNER/DEVELOPER, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER AND ENGINEER OF RECORD AND BOHLER , THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME.
11. THE CONTRACTOR MUST ENSURE THAT ANY EXISTING ASBESTOS-CONTAINING MATERIALS ENCOUNTERED ARE PROPERLY REMOVED FROM THE SUBJECT PREMISES AND ARE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. PRIOR TO THE COMMENCEMENT OF DEMOLITION ON SITE AND MUST PERFORM ALL AGENCY NOTIFICATIONS AS REQUIRED, AT THE CONTRACTOR'S SOLE EXPENSE.
12. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE, UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, OR PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
13. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
14. THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE ENGINEER OF RECORD AND THE OWNER.
15. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE, NECESSARY AND REQUIRED GOVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES, THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL, STATE, AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE.
16. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE, THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST.
17. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC RIGHT-OF-WAY.
18. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
19. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.



LEGEND

PROPOSED

- SAWCUT LINE
- TREE PROTECTION FENCE — TPF
- LIMIT OF DISTURBANCE — LOD

T.B.R. = FEATURE TO BE REMOVED

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-SPP-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

OVERALL DEMOLITION PLAN

SHEET NUMBER:

C-201

ORG. DATE - 03/04/2020

G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SPP-0A-----LAYOUT: C-201 OVRL
MS

NAD83

SOUTHGATE ROAD
(FORMERLY KNOWN AS RYDER WAY)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

RYDER WAY
60' (WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

SOUTHGATE ROAD
(A.K.A. NORTH STREET)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

10 16 APPROXIMATE LOCATION OF 15' WIDE SANITARY SEWER EASEMENT TO BOROUGH OF NEW PROVIDENCE PER D.B. 1630 PG. 179

15 APPROXIMATE LOCATION OF 30' WIDE EASEMENT TO JERSEY CENTRAL POWER AND LIGHT COMPANY PER D.B. 1561, PG. 354

MATCH LINE - SEE LAYOUT B

MATCH LINE - SEE LAYOUT C

MATCH LINE - SEE LAYOUT D

BLOCK 320
LOT 18.01
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

DEMOLITION OF THIS PORTION OF THE PROJECT TO BE PERFORMED BEYOND PHASE 1. THE EXISTING PARKING AREAS, INFRASTRUCTURE, AND UTILITIES WILL BE MAINTAINED AND PROTECTED DURING PHASE 1

SITE LOCATION MAP
SCALE: 1" = 800'

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY

T.B.R. = FEATURE TO BE REMOVED

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

GRAPHIC SCALE 30 0 15 30 60 120
1 INCH = 30 FEET

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DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-SPP-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
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www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

DEMOLITION PLAN (A)

SHEET NUMBER:

C-202

ORG. DATE - 03/04/2020

C:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SPP-0A_____LAYOUT C-202 DEMO

NAD83

MATCH LINE - SEE LAYOUT A

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

BLOCK 320
LOT 18.01
24.62 AC
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

BLOCK 320
LOT 17

N/F LANDS OF
REDWOOD-ERC NEW PROVIDENCE LLC

MATCH LINE - SEE LAYOUT D

APPROXIMATE LOCATION OF 15" WIDE STORM SEWER AND DRAINAGE EASEMENT TO BENEFIT OF NEW PROVIDENCE PER D.B. 2860 PG. 776

EXISTING ELECTRICAL EQUIPMENT, STRUCTURES, CONDUIT, AND CABLE ARE TO BE PROTECTED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF CONSTRUCTION.

1 STORY MASONRY BUILDING
B.F.P.A.= 641 S.F.
(T.B.R.)

5 STORY MASONRY BUILDING

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY

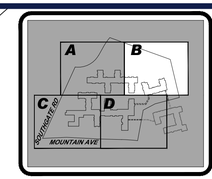
T.B.R. = FEATURE TO BE REMOVED

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

GRAPHIC SCALE 30 0 15 30 60 120 — 1 INCH = 30 FEET

SITE LOCATION MAP

SCALE: 1" = 800'



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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-SPP-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

DEMOLITON PLAN (B)

SHEET NUMBER:

C-203

ORG. DATE - 03/04/2020

C:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SPP-0A.dwg — LAYOUT: C-203 DEMO

NAD83

MATCH LINE - SEE LAYOUT A

PARKING LOTS TO REMAIN FOR CONSTRUCTION STAGING

MATCH LINE - SEE LAYOUT B

SITE ACCESS

TC=428.05
GRT=427.59

TC=427.72
GRT=427.22

ARM GATE (T.B.R.)

GUARD SHACK (T.B.R.)

"SPEED LIMIT" (T.B.R.)

D. SIGN "DIRECTIONS" (T.B.R.)

ASPHALT PAVEMENT (T.B.R.)

SPEED RAMP (T.B.R.)

BB CURB (T.B.R.)

GRASS (T.B.R.)

ASPHALT WALK (T.B.R.)

M.C. (T.B.R.)

CONC. WALL (T.B.R.)

CONC. (T.B.R.)

CONC. STEPS (T.B.R.)

"SIDE HANDRAILS" (T.B.R.)

BLOCK WALL (T.B.R.)

MASONRY

BUILDING HEIGHT 51.3'±

BUILDING HEIGHT 43.6'±

3 STORY MASONRY BUILDING
B.F.P.A.= 8,555 S.F.
(GROUND LEVEL)
B.F.P.A.= 23,247 S.F.
(FLOORS 2-3)
(T.B.R.)

4 STORY MASONRY BUILDING
B.F.P.A.= 35,153 S.F.
(T.B.R.)

BLOCK 320
LOT 18.01

N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

OVERHEAD ENCLOSED BRIDGE (T.B.R.)

"MAIN LOBBY" (T.B.R.)

COLUMN (T.B.R.)

STAND PIPE (T.B.R.)

OVERCROWN (T.B.R.)

PAVERS (T.B.R.)

D.I.C. (T.B.R.)

COLUMN (TYP.) (T.B.R.)

APPROXIMATE LOCATION OF WOODEN VAULT (T.B.R.)

FLAG POLES (T.B.R.)

GRT=448.80

TC=447.34
GRT=446.81

TC=444.80
GRT=444.31

TC=452.28
GRT=451.74

TC=449.94
GRT=449.44

GAS SERVICE TO BE REMOVED TO THE EXISTING BUILDING

FORMER BLOCK 320 LOT 1

TRUCKS OVER 4 TONS EXCLUDED"

"NO-PARKING"

TC=438.60
GRT=438.10

TC=456.56
GRT=455.98
INV=453.8

GRT=455.97
INV=453.8

GRT=456.75
INV=455.1

RIM=456.80

MOUNTAIN AVENUE
(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

APPROXIMATE LOCATION OF RIGHT OF WAY TO JERSEY CENTRAL POWER & LIGHT COMPANY PER D.B. 2872, PG. 681

ELEC. WITNESS POST

UP/1/4 24-1

UP/1/4 1304

UP/1/4 1305

UP/1/4 1306

GRT=376.77
INV=375.5

RIM=454.17
INV=451.4

RIM=457.06
INV=454.0
INV=452.3

RIM=443.04
INV=439.6

GRT=437.93
GRT=437.27
INV=434.1
INV=433.8
INV=433.6

RIM=429.93 (T.B.R.)

RIM=432.61

RIM=424.14 (T.B.R.)

RIM=422.79

GRT=429.67

TC=429.43
GRT=428.96

TC=424.06 (T.B.R.)

GRT=409.09

TC=411.83
GRT=411.34

GRT=410.99

TD=432.78

TD=432.81

TD=434.16

TD=434.12

TD=429.27 (T.B.R.)

TD=412.52

DRAIN=432.9 (T.B.R.)

DRAIN=432.90 (T.B.R.)

DRAIN=432.94 (T.B.R.)

DRAIN=449.75 (T.B.R.)

DRAIN=449.73 (T.B.R.)

DRAIN=449.81 (T.B.R.)

DRAIN=449.83 (T.B.R.)

DRAIN=449.88 (T.B.R.)

DRAIN=449.86 (T.B.R.)

DRAIN=449.84 (T.B.R.)

DRAIN=419.38 (T.B.R.)

DRAIN=419.49 (T.B.R.)

DRAIN=419.72 (T.B.R.)

DRAIN=418.76 (T.B.R.)

DRAIN=418.90 (T.B.R.)

DRAIN=419.15 (T.B.R.)

RIM=418.48

DRAIN=414.13 (T.B.R.)

DRAIN=414.91 (T.B.R.)

DRAIN=414.65 (T.B.R.)

RIM=415.03

DRAIN=414.35 (T.B.R.)

RIM=416.59

DRAIN=413.50 (T.B.R.)

GRT=413.98

GRT=413.98

GRT=411.83

GRT=411.34

GRT=410.99

GRT=409.09

TRASH COMPACTOR (T.B.R.)

CONC. RAMP (T.B.R.)

12"RCP (T.B.R.)

15"RCP (T.B.R.)

8"PVC (T.B.R.)

6"PVC (T.B.R.)

TPE

LBE (T.B.R.)

DA.W.L.

D.Y.L.

S.W.L.

GRASS MEDIAN

ASPHALT WALK

ASPHALT PAVEMENT

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T.B.R. = FEATURE TO BE REMOVED

GRAPHIC SCALE
30 0 15 30 60 120
1 INCH = 30 FEET

SITE LOCATION MAP

SCALE: 1" = 800'

A B C D

Summit Rd

MOUNTAIN AVE

BOHLER

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PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES
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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-SPP-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

DEMOLITION PLAN (C)

SHEET NUMBER:

C-204

ORG. DATE - 03/04/2020

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J:\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SPP-0A-----LAYOUT C-204 DEMO

NAD83

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT B

MATCH LINE - SEE LAYOUT C

4 STORY MASONRY BUILDING B.F.P.A.= 35,153 S.F. (T.B.R.)

1 STORY BRICK BUILDING B.F.P.A.= 2,911 S.F. (T.B.R.)

BUILDING HEIGHT 15.1'±

BLOCK 320
LOT 18.01

N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

FORMER BLOCK 320 LOT 11

5 STORY MASONRY BUILDING

TENNIS COURTS (T.B.R.)

CABLE/TV LINE TO BE REMOVED TO THE EXISTING BUILDING

GAS SERVICE TO BE REMOVED TO THE EXISTING BUILDING

SITE ACCESS

APPROXIMATE LOCATION OF 40' WIDE EASEMENT TO COMMONWEALTH WATER COMPANY PER D.B. 2185 PG. 592, D.B. 2185 PG. 594, & D.B. 2185 PG. 600

PORTION OF EASEMENT PER D.B. 2185 PG. 600

PORTION OF EASEMENT PER D.B. 2185 PG. 594

PORTION OF EASEMENT PER D.B. 2185 PG. 592

P.O.B. EXHIBIT "A" D.B. 6313, PG. 616

6' HIGH MESH FENCE

"NO STOPPING OR STANDING"

"SPEED LIMIT 10" (T.B.R.)

"STOP" (T.B.R.)

TRASH COMPACTOR (T.B.R.)

"WET" PIPE "NON-SPRINKLER" (T.B.R.)

APPROXIMATE LOCATION OF WOODEN VAULT (T.B.R.)

"METAL COVER ON CONCRETE"

FLAG POLES (T.B.R.)

BENCH ON CONC.

2ND FLOOR WALKWAY ELEV.=465.89

SITE LOCATION MAP

SCALE: 1" = 800'

A | B | C | D | SOUTHSIDE RD | MOUNTAIN AVE

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1 INCH = 30 FEET

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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

DEMOLITION PLAN (D)

SHEET NUMBER:

C-205

ORG. DATE - 03/04/2020

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NAD83

LEGEND

EXISTING		PROPOSED
	BUILDING	
	CANOPY	
	PROPERTY LINE	
	ADJACENT PROPERTY LINE	
	ROW LINE	
	EASEMENT LINE	
	SAWCUT LINE / LIMIT OF DISTURBANCE	
	CURB	
	FLUSH CURB	
	CURB WALL	
	RETAINING WALL	
	PAVEMENT MARKING	
	ACCESSIBLE SYMBOL	
	PARKING COUNT	2
	AREA LIGHT	
	UTILITY POLE	
	LIGHT POLE	
	SIGN / BOLLARD SIGN	
	DOOR LOCATION	ENTR
	BOLLARD	
	FENCE	
	DECORATIVE FENCE	
	HANDRAIL	
	GUIDE RAIL	
	MANHOLE DRAINAGE / SANITARY	
	MANHOLE	
	DRAINAGE INLET	
	FIRE HYDRANT	

ZONING TABLE

ZONE: CCRC-O (OVERLAY ZONE)
USE: CONTINUING CARE RETIREMENT COMMUNITY
BLOCK: 320 LOT(S): 18.01

APPLICANT / OWNER INFORMATION

APPLICANT:	REDWOOD-ERC NEW PROVIDENCE , LLC 701 MAIDEN CHOICE LANE BALTIMORE, MD 21228
PROPERTY OWNER:	REDWOOD-ERC NEW PROVIDENCE , LLC 701 MAIDEN CHOICE LANE BALTIMORE, MD 21228

BULK REQUIREMENTS

ITEM	CODE	PERMITTED	EXISTING	PROPOSED
MIN. LOT AREA	§ 310-9.1E (1)	20 AC	24.62 AC	24.62 AC
MIN. LOT WIDTH	§ 310-9.1E (2)	300'	> 300'	> 300'
MIN. YARD REQUIRERMENTS	§ 310-9.1E (3)	100' (MOUNTAIN AVE.) 100' (SOUTHGATE RD) 100' (RYDER WAY) 200' (R-1 ZONE) 0' (CCRC-O OVERLAY ZONE)	184.1' (MOUNTAIN AVE.) 166.6' (SOUTHGATE RD) 413.3' (RYDER WAY) 235.0' (R-1 ZONE) 66.7' (CCRC-O OVERLAY ZONE)	102.4' (MOUNTAIN AVE.) 111.9' (SOUTHGATE RD) 100.7' (RYDER WAY) 218.1' (R-1 ZONE) 87.5' (CCRC-O OVERLAY ZONE)
MAX. BUILDING HEIGHT	§ 310-9.1E (4) [1]	6 STORIES 80'	4 STORIES 51.3'	6 STORIES < 80'
MAX. BUILDING LENGTH	§ 310-9.1E (5) [2]	340' [2]	313'	334.4' [2]
MAX. BUILDING COVERAGE	§ 310-9.1E (6)	40%	5.78% (61,951 SF)	21.43% (229,861 SF)
MAX. IMPROVED COVERAGE	§ 310-9.1E (7)	60%	35.73% (383,268 SF)	46.32% (496,793 SF)
MAX. DENSITY	§ 310-9.1E (8-9) [3]	17 PER ACRE (419 UNITS) 24 (MAX) (590 UNITS) [3]	NA	23.80
			KEY =	VARIANCE REQUIRED

PARKING REQUIREMENTS

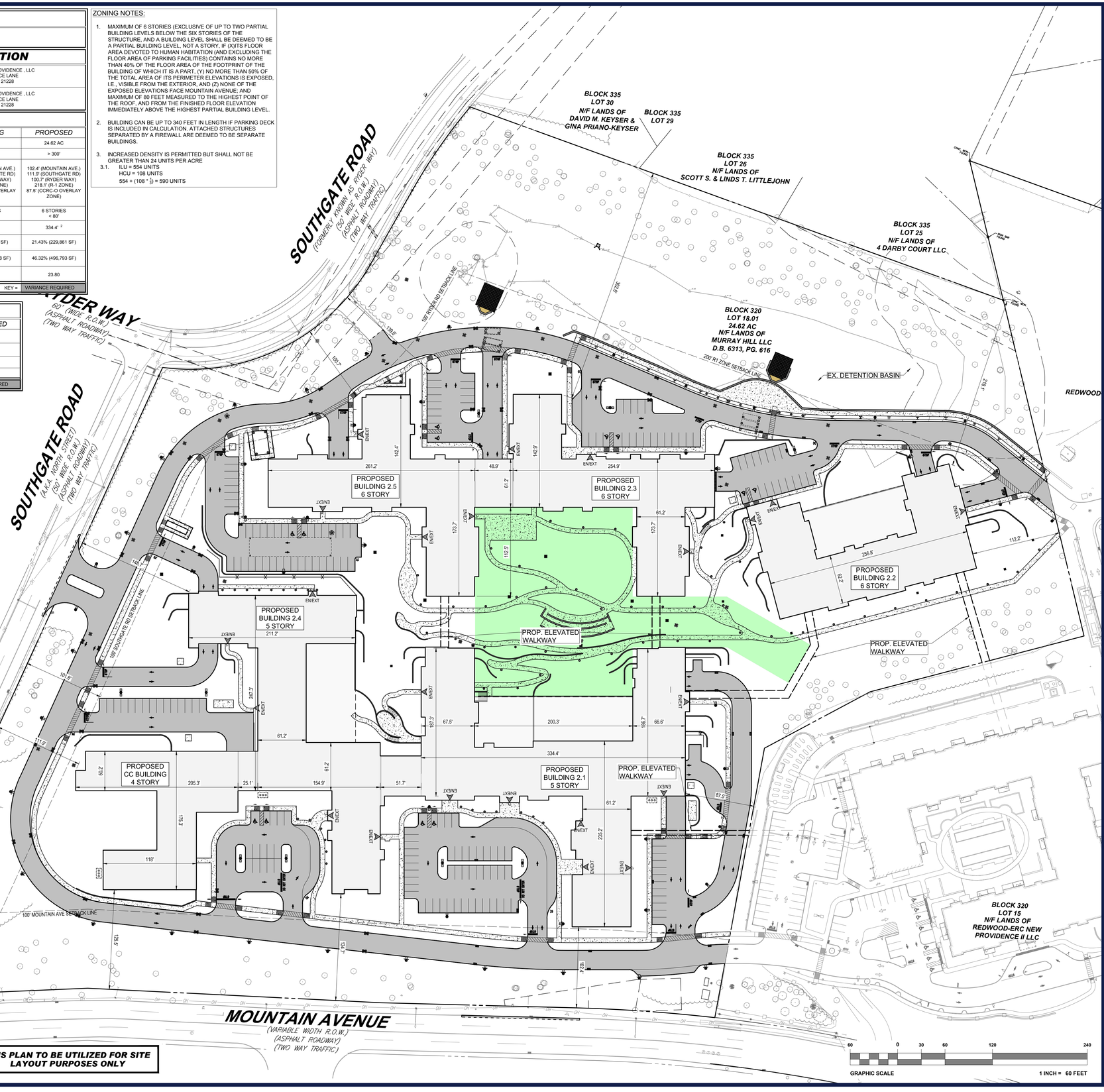
ITEM	CODE	PERMITTED	PROPOSED
MIN. STALL SIZE	§ 310-9.1 F (1.a)	9' X 18'	9' X 18'
MIN. AISLE WIDTH	§ 310-9.1F (1.b)	24'	24'
MIN. NUMBER OF STALLS	§ 310-9.1F (2) [1]	775	951
MIN. PARKING SETBACK	§ 310-9.1F (3)	70'	101.6'
			VARIANCE REQUIRED

PARKING NOTES:

1. PARKING FOR ILU'S WITHIN THE CCRC-O OVERLAY ZONE SHALL COMPLY WITH RSIS AT 1.3 PARKING SPACES PER ILU WHERE THE NUMBER OF BEDROOMS PER UNIT IS NOT SHOWN ON THE PLAN AND; PARKING FOR HCU'S SHALL COMPLY WITH THE NURSING HOME REQUIREMENTS IN THE BOROUGH AT 1 PARKING SPACE PER 2 BEDS.
   1.1. ILU = 554 UNITS
   HCU = 108 UNITS
   (554 * 1.3) + (108 * 1/2) = 775 PARKING SPACES
2. PROPOSED SUBSURFACE SPACES: 765 (31 ADA)
   PROPOSED SURFACE SPACES: 186 (12 ADA)
   PROPOSED TOTAL SPACES: 951 (43 ADA)
   2.1. REFER TO SHEETS C-308 AND C-309 FOR SUBSURFACE PARKING LAYOUT.
3. ADA REQUIREMENT:
   2% OF TOTAL PARKING = 939 SPACES X 2% = 19 ADA SPACES REQUIRED
   43 ADA SPACES PROVIDED

ZONING NOTES:

1. MAXIMUM OF 6 STORIES (EXCLUSIVE OF UP TO TWO PARTIAL BUILDING LEVELS BELOW THE SIX STORIES OF THE STRUCTURE, AND A BUILDING LEVEL SHALL BE DEEMED TO BE A PARTIAL BUILDING LEVEL, NOT A STORY, IF (X)ITS FLOOR AREA DEVOTED TO HUMAN HABITATION (AND EXCLUDING THE FLOOR AREA OF PARKING FACILITIES) CONTAINS NO MORE THAN 40% OF THE FLOOR AREA OF THE FOOTPRINT OF THE BUILDING OF WHICH IT IS A PART, (Y) NO MORE THAN 50% OF THE TOTAL AREA OF ITS PERIMETER ELEVATIONS IS EXPOSED, I.E., VISIBLE FROM THE EXTERIOR, AND (Z) NONE OF THE EXPOSED ELEVATIONS FACE MOUNTAIN AVENUE; AND MAXIMUM OF 80 FEET MEASURED TO THE HIGHEST POINT OF THE ROOF, AND FROM THE FINISHED FLOOR ELEVATION IMMEDIATELY ABOVE THE HIGHEST PARTIAL BUILDING LEVEL.
2. BUILDING CAN BE UP TO 340 FEET IN LENGTH IF PARKING DECK IS INCLUDED IN CALCULATION. ATTACHED STRUCTURES SEPARATED BY A FIREWALL ARE DEEMED TO BE SEPARATE BUILDINGS.
3. INCREASED DENSITY IS PERMITTED BUT SHALL NOT BE GREATER THAN 24 UNITS PER ACRE
   3.1. ILU = 554 UNITS
   HCU = 108 UNITS
   554 + (108 * 1/3) = 590 UNITS



PROPOSED ACTIVE/PASSIVE RECREATIONAL AREA. FINAL DESIGN TO BE PROVIDED WITH CONSTRUCTION DOCUMENTS.

SITE LAYOUT NOTES

(Rev. 1/2019)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY.
3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LIKE.
4. THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE PROJECT.
5. ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE, STAKE OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE.
6. WHEN APPLICABLE, OWNER/ OPERATOR MUST FILE THE NOI FOR NPDES PERMITS AT APPROPRIATE AND/OR REQUIRED TIMEFRAMES BASED UPON THE DESIRED START OF CONSTRUCTION. LAND DISTURBING ACTIVITIES MUST NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED FROM GOVERNING AUTHORITIES. THE CONTRACTOR MUST STRICTLY ADHERE TO THE APPROVED SWPPP PLAN DURING CONSTRUCTION OPERATIONS (IF PROVIDED).
7. ALL WEATHERED CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
8. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.

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G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SPP-01A.....\LAYOUT C-301 OVRL

MS

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FOR

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575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

C-301

ORG. DATE - 03/04/2020

NAD83

SOUTHGATE ROAD
(FORMERLY KNOWN AS RYDER WAY)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

RYDER WAY
60' (WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

SOUTHGATE ROAD
(A.K.A. NORTH STREET)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

SITE LOCATION MAP
SCALE: 1" = 800'

MATCH LINE - SEE LAYOUT B

MATCH LINE - SEE LAYOUT C

MATCH LINE - SEE LAYOUT D

PROPOSED BUILDING 2.5 6 STORY

PROPOSED 1 STORY CONNECTION

PROPOSED BUILDING 2.3 6 STORY

PROP. SAWCUT LINE (TYP.)

N06°29'44"E 108.08'

R=262.32'
D=068°07'06"
L=311.87'
CHB=N40°33'17"E
CHD=293.82'

N01°33'14"E 876.36'

PROP. OUTLET CONTROL STRUCTURE (TYP.)

EX. DETENTION BASIN

PROP. RIP-RAP APRON (TYP.)

PROP. MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. CONC. HEADWALL (TYP.)

PROP. G.B. CURB (TYP.)

PROP. SAN. MANHOLE (TYP.)

PROP. 'STOP FOR PEDESTRIANS IN CROSSWALK' SIGN (R1-5b) (TYP.)

PROP. STOP (R1-1) SIGN AND PAINTED STOP BAR (TYP.)

PROP. PAINTED PARKING STALL (TYP.)

PROP. PERPENDICULAR CURB RAMP WITH FLUSH CURB (TYP.)

PROP. TYPE 'B' INLET (TYP.)

PROP. CONCRETE STAIRS WITH HANDRAILS (TYP.)

PROP. TRANSFORMER PAD (TYP.)

PROP. PEDESTRIAN CROSSWALK (TYP.)

PROP. RETAINING WALL (WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. CONCRETE RAMP WITH HANDRAILS (TYP.)

PROP. LED BOLLARD LIGHT (TYP.)

PROP. TWO WAY DIRECTIONAL MARKINGS (TYP.)

PROP. PARKING GARAGE ENTRANCE

PROP. PARALLEL CURB RAMP WITH FLUSH CURB (TYP.)

PROP. ADA STRIPING (TYP.)

PROP. VAN ACCESSIBLE ADA SIGN (TYP.)

PROP. ADA SIGN (TYP.)

PROP. AREA LIGHT (TYP.)

PROP. YARD INLET (TYP.)

PROP. FIRE HYDRANT (TYP.)

PROP. RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. CONC. SIDEWALK (TYP.)

PROP. COLUMN LIGHT (TYP.)

PROP. OUTDOOR AMPHITHEATER SEATING

PROP. PARKING GARAGE ENTRANCE (TYP.)

PROP. RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. SAN. MANHOLE (TYP.)

50' SETBACK LINE

100' RYDER ROLLETBACK LINE

10 16 APPROXIMATE LOCATION OF 15' WIDE SANITARY SEWER EASEMENT TO BOROUGH OF NEW PROVIDENCE PER D.B. 1632 PG. 179

15 APPROXIMATE LOCATION OF 30' WIDE EASEMENT TO JERSEY CENTRAL POWER AND LIGHT COMPANY PER D.B. 1561, PG. 354

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GRAPHIC SCALE 30 0 15 30 60 120
1 INCH = 30 FEET

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MS

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SHEET TITLE:

SITE PLAN (A)

SHEET NUMBER:

C-302

ORG. DATE - 03/04/2020

NAD83

MATCH LINE - SEE LAYOUT A

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

N86°55'24"E
717.66'

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

CONC. MON. FOUND

IRON. BAR FOUND

MONUMENT FOUND

CONC. MON. FOUND

6' HIGH WOOD FENCE

APPROXIMATE LOCATION OF 15' WIDE STORM SEWER AND DRAINAGE EASEMENT TO BOROUGH OF NEW PROVIDENCE PER D.B. 2860 PG. 776

BLOCK 320
LOT 18.01
24.62 AC
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

BLOCK 320
LOT 17

N/F LANDS OF
REDWOOD-ERC NEW PROVIDENCE LLC

PROP. OUTLET CONTROL STRUCTURE (TYP.)

PROP. MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

EXIST. WETLANDS (TYP.)

EX. DETENTION BASIN

PROP. RIP-RAP SCOUR HOLE (TYP.)

PROP. CONC. HEADWALL (TYP.)

200' R.I.Z ZONE SETBACK LINE

PROP. LED BOLLARD LIGHT (TYP.)

PROP. 'STOP FOR PEDESTRIANS IN CROSSWALK' SIGN (R1-5b) (TYP.)

PROP. STOP (R1-1) SIGN AND PAINTED STOP BAR (TYP.)

PROP. WOODEN BARRIER RAIL

PROP. TWO WAY DIRECTIONAL MARKINGS (TYP.)

PROP. PAINTED PARKING STALL (TYP.)

PROP. ADA STRIPING (TYP.)

PROP. TYPE 'B' INLET (TYP.)

PROP. FIRE HYDRANT (TYP.)

PROP. G.B. CURB (TYP.)

PROP. SAN. MANHOLE (TYP.)

PROP. PERPENDICULAR CURB RAMP WITH FLUSH CURB (TYP.)

PROP. AREA LIGHT (TYP.)

PROP. PEDESTRIAN CROSSWALK (TYP.)

PROP. 'STOP FOR PEDESTRIANS IN CROSSWALK' SIGN (R1-5b) (TYP.)

PROP. PARKING GARAGE ENTRANCE

PROP. TRENCH DRAIN (TYP.)

PROP. TRANSFORMER PAD (TYP.)

PROPOSED BUILDING 2.3 6 STORY

PROP. TERRACE

PROPOSED BUILDING 2.2 6 STORY

PROP. CONC. SIDEWALK (TYP.)

PROP. CONCRETE STAIRS WITH HANDRAILS (TYP.)

PROP. YARD INLET (TYP.)

PROP. COLUMN LIGHT (TYP.)

PROP. RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. PARALLEL CURB RAMP WITH FLUSH CURB (TYP.)

PROP. TWO WAY DIRECTIONAL MARKINGS (TYP.)

PROP. STOP (R1-1) SIGN AND PAINTED STOP BAR (TYP.)

ROAD CONNECTION TO ADJACENT PROPERTY APPROVED UNDER SEPARATE APPLICATION

MATCH LINE - SEE LAYOUT D

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GRAPHIC SCALE 30 0 15 30 60 120

1 INCH = 30 FEET

SITE LOCATION MAP

SCALE: 1" = 800'

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-SPP-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28160700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

SITE PLAN (B)

SHEET NUMBER:

C-303

ORG. DATE - 03/04/2020

G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SPP-0A(——LAYOUT C-303 SITE MS

NAD83

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT D

N 33°14'E
876.36'

PROP. SAN. MANHOLE (TYP.)

PROP. RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. PARKING GARAGE ENTRANCE

PROP. PARKING GARAGE ENTRANCE (TYP.)

100' SOUTHSIDE RD SETBACK LINE

PROP. STOP (R1-1) SIGN AND PAINTED STOP BAR (TYP.)

PROP. TRANSFORMER PAD (TYP.)

PROP. TWO WAY DIRECTIONAL MARKINGS (TYP.)

PROPOSED BUILDING 2.4 5 STORY

PROP. TERRACE

PROP. TYPE 'B' INLET (TYP.)

PROP. PEDESTRIAN CROSSWALK (TYP.)

PROP. PERPENDICULAR CURB RAMP WITH FLUSH CURB (TYP.)

PROP. STOP (R1-1) SIGN AND PAINTED STOP BAR (TYP.)

PROP. PAINTED PARKING STALL (TYP.)

PROP. GENERATOR PAD (TYP.)

PROP. G.B. CURB (TYP.)

PROP. FIRE HYDRANT (TYP.)

PROP. RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. TRANSFORMER PAD (TYP.)

PROPOSED CC BUILDING 4 STORY

PROPOSED 1 STORY CONNECTION

PROP. PARALLEL CURB RAMP WITH FLUSH CURB (TYP.)

PROP. ADA SIGN (TYP.)

PROP. GREASE INTERCEPTOR (TYP.)

PROP. VAN ACCESSIBLE ADA SIGN (TYP.)

PROP. LED BOLLARD LIGHT (TYP.)

PROP. ADA STRIPING (TYP.)

PROP. 23 LF FLUSH CURB

PROP. ONE WAY DIRECTIONAL MARKING (TYP.)

DO NOT ENTER

PROP. PAINTED PARKING STALL (TYP.)

PROP. CONC. SIDEWALK (TYP.)

PROP. GREASE INTERCEPTOR (TYP.)

PROP. RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

100' MOUNTAIN AVE SETBACK LINE

PROP. TWO WAY DIRECTIONAL MARKINGS (TYP.)

PROP. 'STOP' (R1-1) & 'DO NOT ENTER' (R5-1) SIGNS AND PAINTED BAR

PROP. PEDESTRIAN CROSSWALK (TYP.)

PROP. PERPENDICULAR CURB RAMP WITH FLUSH CURB (TYP.)

PROP. CONC. SIDEWALK (TYP.)

PROP. G.B. CURB (TYP.)

PROP. AREA LIGHT (TYP.)

PROP. VAN ACCE
ADA SIGN

PROP. ADA
STRIPING (TYP.

PROPOS
1 STOR
CONNECT

31 APPROXIMATE LOCATION OF RIGHT OF WAY TO JERSEY CENTRAL POWER & LIGHT COMPANY PER D.B. 2872, PG. 691

FORMER BLOCK 320 LOT 1

TRUCKS OVER 4 TONS EXCLUDED

269.58'
S64°33'11"W

371.57'
S69°50'11"W

S68°29'06"W
244.93'

MOUNTAIN AVENUE
(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

"NO-PARKING"

CROSS WALK

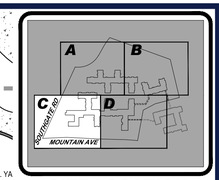
S.W.L.

D.Y.L.

D.A.W.L.

RIM=456.80

SITE LOCATION MAP
SCALE: 1" = 800'



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GRAPHIC SCALE
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1 INCH = 30 FEET

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UNION COUNTY
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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

SITE PLAN (C)

SHEET NUMBER:

C-304

ORG. DATE - 03/04/2020

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MSF

NAD83

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT B

MATCH LINE - SEE LAYOUT C

PROP. OUTDOOR AMPHITHEATER SEATING

PROP. CONC. SIDEWALK (TYP.)

PROP RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. YARD INLET (TYP.)

PROP. SAN. MANHOLE (TYP.)

PROP. YARD INLET (TYP.)

PROP. SAN. MANHOLE (TYP.)

PROP. COLUMN LIGHT (TYP.)

PROP RETAINING WALL WITH 42" HIGH DECORATIVE FENCE (TYP.)

PROP. TERRACE OVER PARKING GARAGE

PROP. PARKING GARAGE ENTRANCE

PROP. ELEVATED WALKWAY (TYP.)

PROPOSED 1 STORY CONNECTION

PROPOSED BUILDING 2.1 5 STORY

PROP. FIRE WALL (TYP.)

PROP. PARALLEL CURB RAMP WITH FLUSH CURB (TYP.)

PROP. ADA SIGN (TYP.)

PROP. VAN ACCESSIBLE ADA SIGN (TYP.)

PROP. ADA STRIPING (TYP.)

PROP. 28 LF FLUSH CURB

PROP. LED BOLLARD LIGHT (TYP.)

PROP. ONE WAY DIRECTIONAL MARKING (TYP.)

PROP. TYPE 'B' INLET (TYP.)

PROP. LANDSCAPED AREA

PROP. PAINTED PARKING STALL (TYP.)

DO NOT ENTER

PROP. FIRE HYDRANT (TYP.)

PROP. STOP (R1-1) SIGN AND PAINTED STOP BAR (TYP.)

PROP. SIDEWALK (TYP.)

PROP. PEDESTRIAN CROSSWALK (TYP.)

PROP. PERPENDICULAR CURB RAMP WITH FLUSH CURB (TYP.)

PROP. CONC. SIDEWALK (TYP.)

PROP. G.B. CURB (TYP.)

PROP. TYPE 'B' INLET (TYP.)

PROP. GREASE INTERCEPTOR (TYP.)

PROP. LOADING DOCK

PROP. GENERATOR PAD (TYP.)

PROP. TRANSFORMER PAD (TYP.)

PROP. AREA LIGHT (TYP.)

PROP. STOP (R1-1) SIGN AND PAINTED STOP BAR (TYP.)

PROP. CONCRETE STAIRS WITH HANDRAILS (TYP.)

PROP. TWO WAY DIRECTIONAL MARKINGS (TYP.)

PROP. HOT BOX

PROP. WATER METER VAULT

PROP. PEDESTRIAN CROSSWALK (TYP.)

PROP. TWO WAY DIRECTIONAL MARKINGS (TYP.)

PROP. "STOP FOR PEDESTRIANS IN CROSSWALK" SIGN (R1-5b) (TYP.)

PROP. PERPENDICULAR CURB RAMP WITH FLUSH CURB (TYP.)

ROAD CONNECTION TO ADJACENT PROPERTY APPROVED UNDER SEPARATE APPLICATION

151.27'
S38°52'15"W

S12°33'47"E
346.79'

S68°29'06"W
244.93'

S68°29'06"W
244.93'

R=2030.00'
D=005°01'38"
L=178.11'
CHB=S70°59'55"W

P.O.B.
DMHF 3"
D.B. 6313, PG. 616

PORTION OF EASEMENT PER D.B. 2185 PG. 600

PORTION OF EASEMENT PER D.B. 2185 PG. 594

PORTION OF EASEMENT PER D.B. 2185 PG. 592

APPROXIMATE LOCATION OF 40' WIDE EASEMENT TO COMMONWEALTH WATER COMPANY PER D.B. 2185 PG. 592, D.B. 2185 PG. 594, & D.B. 2185 PG. 600

PROP. SAWCUT LINE (TYP.)

PROP. COUNTY CURB AND PAVEMENT REPAIR STRIP

METAL COVER ON CONCRETE

2ND FLOOR WALKWAY ELEV.=465.89

5 STORY MASONRY BUILDING

ASPHALT PAVEMENT

CONC. WALK

CONC. STEPS

PORCH

GRASS

BB CURB

6" HIGH CLF

6' HIGH METAL FENCE

"NO STOPPING OR STANDING"

D.Y.L.

DA.W.L.

RIM=448.73

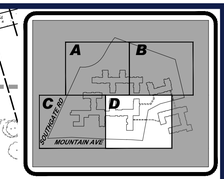
RIM=448.53

RIM=448.89

RIM=448.32

SITE LOCATION MAP

SCALE: 1" = 800'



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GRAPHIC SCALE 30 0 15 30 60 120

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PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

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PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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R.L. STREKER

PROFESSIONAL ENGINEER

NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

SITE PLAN (D)

SHEET NUMBER:

C-305

ORG. DATE - 03/04/2020

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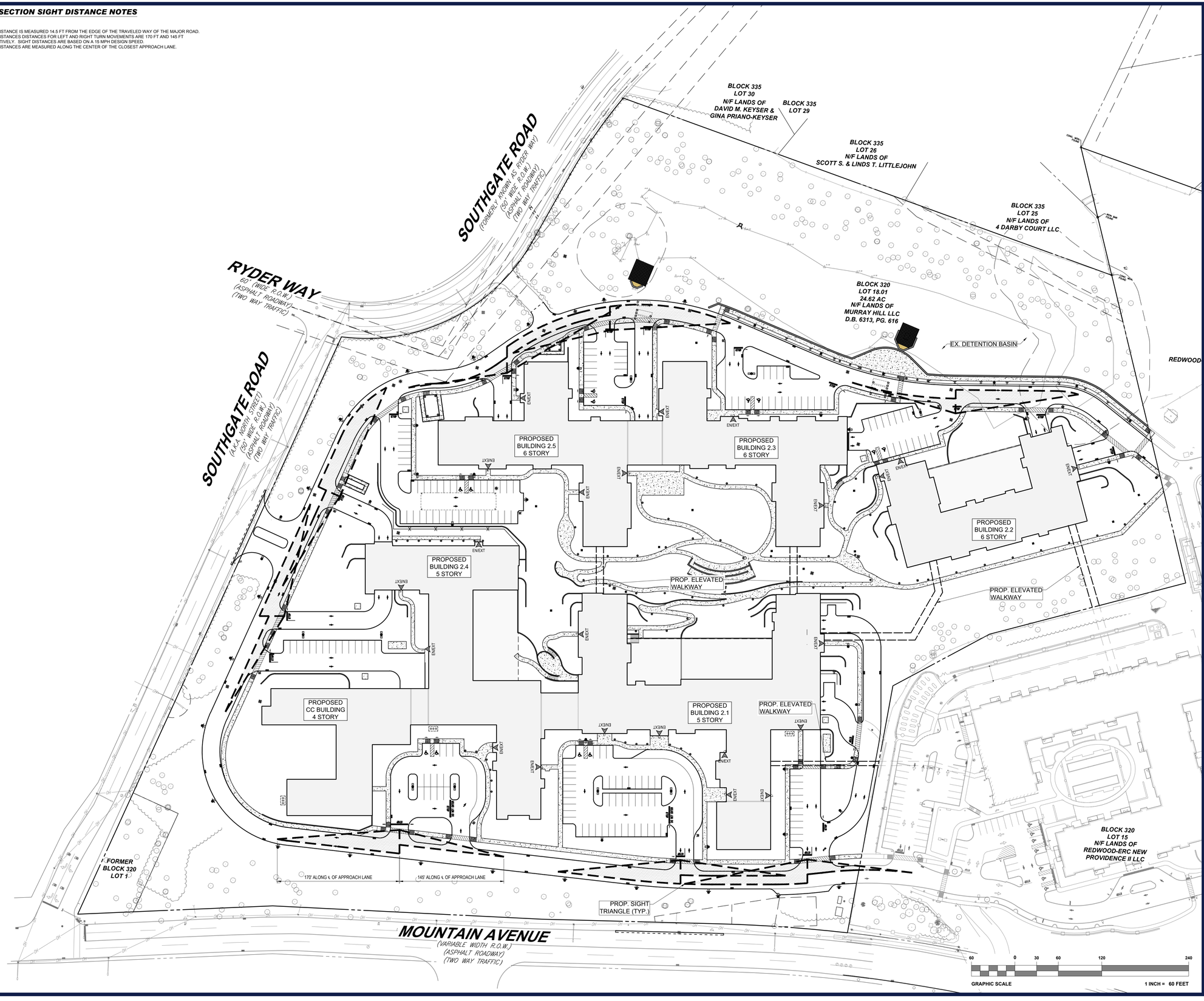
MFS

INTERSECTION SIGHT DISTANCE NOTES

1. SIGHT DISTANCE IS MEASURED 14.5 FT FROM THE EDGE OF THE TRAVELED WAY OF THE MAJOR ROAD.
2. SIGHT DISTANCES DISTANCES FOR LEFT AND RIGHT TURN MOVEMENTS ARE 170 FT AND 145 FT RESPECTIVELY. SIGHT DISTANCES ARE BASED ON A 15 MPH DESIGN SPEED.
3. SIGHT DISTANCES ARE MEASURED ALONG THE CENTER OF THE CLOSEST APPROACH LANE.

NAD83



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PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

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UNION COUNTY
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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

INTERSECTION SIGHT DISTANCE PLAN -1

SHEET NUMBER:

C-306

ORG. DATE - 03/04/2020

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MFS

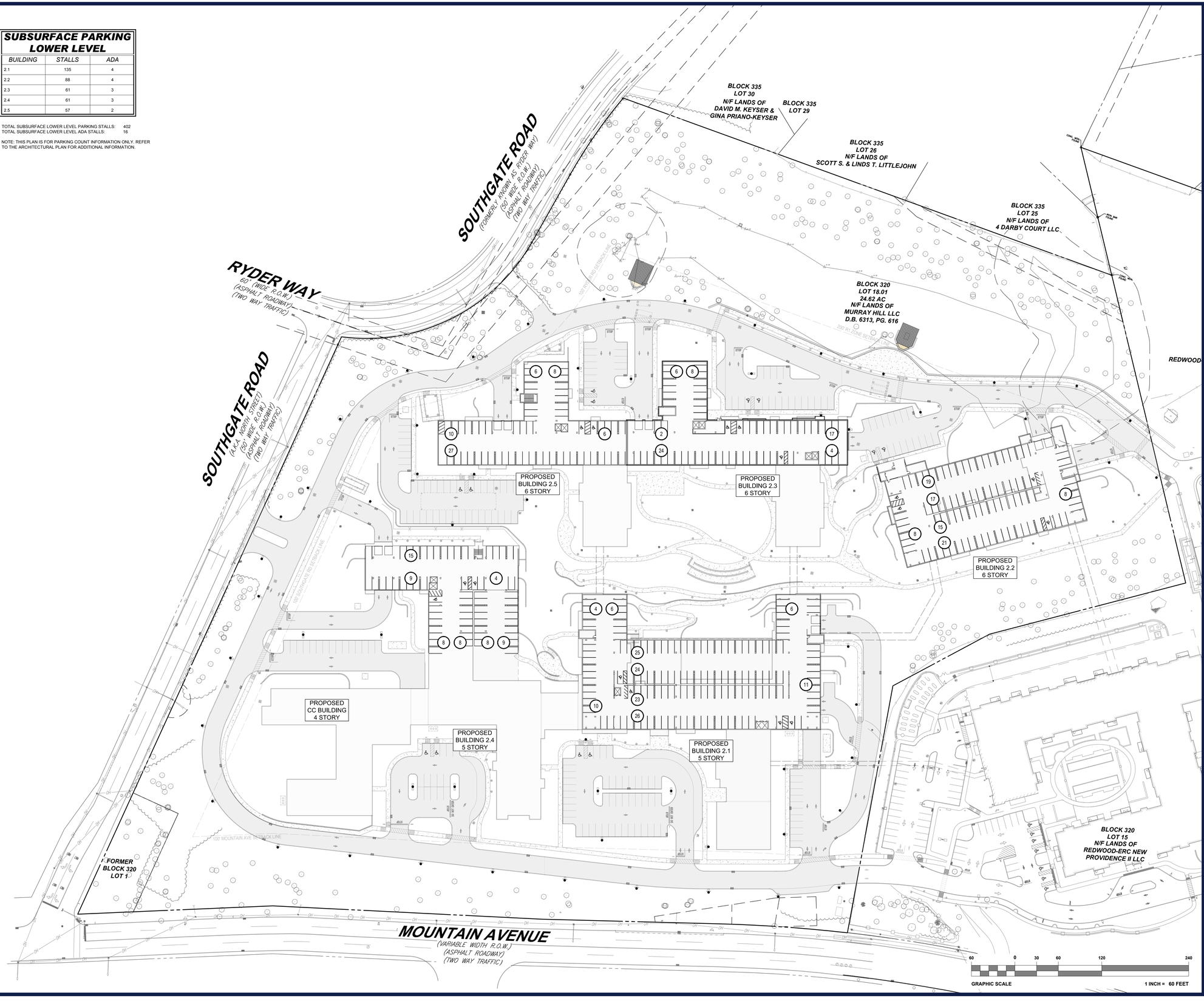
NAD83

SUBSURFACE PARKING LOWER LEVEL

BUILDING	STALLS	ADA
2.1	135	4
2.2	88	4
2.3	61	3
2.4	61	3
2.5	57	2

TOTAL SUBSURFACE LOWER LEVEL PARKING STALLS: 402
TOTAL SUBSURFACE LOWER LEVEL ADA STALLS: 16

NOTE: THIS PLAN IS FOR PARKING COUNT INFORMATION ONLY. REFER TO THE ARCHITECTURAL PLAN FOR ADDITIONAL INFORMATION.



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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

SUBSURFACE PARKING PLAN - LOWER LEVEL

SHEET NUMBER:

C-307

ORG. DATE - 03/04/2020

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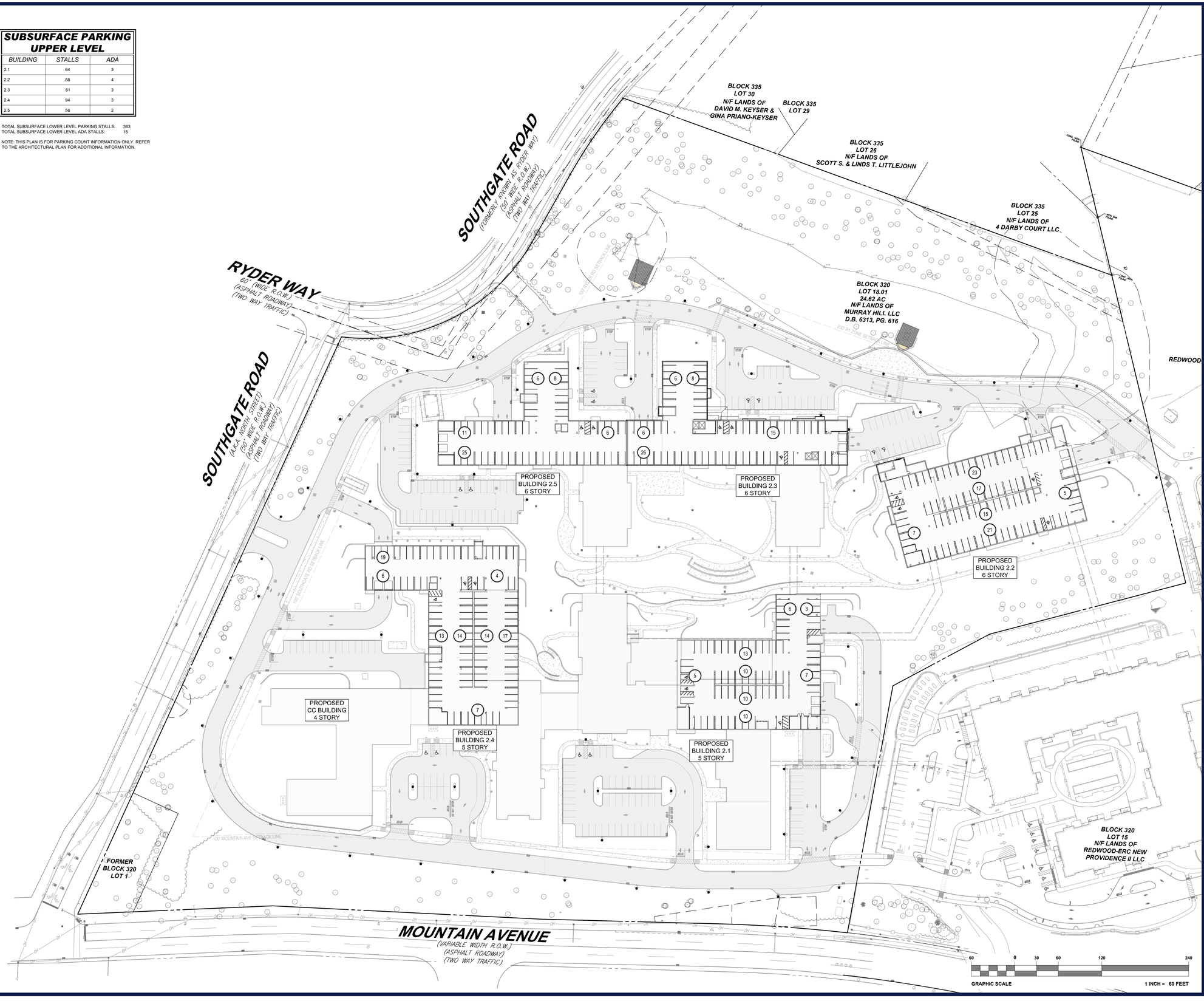
NAD83

SUBSURFACE PARKING UPPER LEVEL

BUILDING	STALLS	ADA
2.1	64	3
2.2	88	4
2.3	61	3
2.4	94	3
2.5	56	2

TOTAL SUBSURFACE LOWER LEVEL PARKING STALLS: 363
TOTAL SUBSURFACE LOWER LEVEL ADA STALLS: 15

NOTE: THIS PLAN IS FOR PARKING COUNT INFORMATION ONLY. REFER TO THE ARCHITECTURAL PLAN FOR ADDITIONAL INFORMATION.



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NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

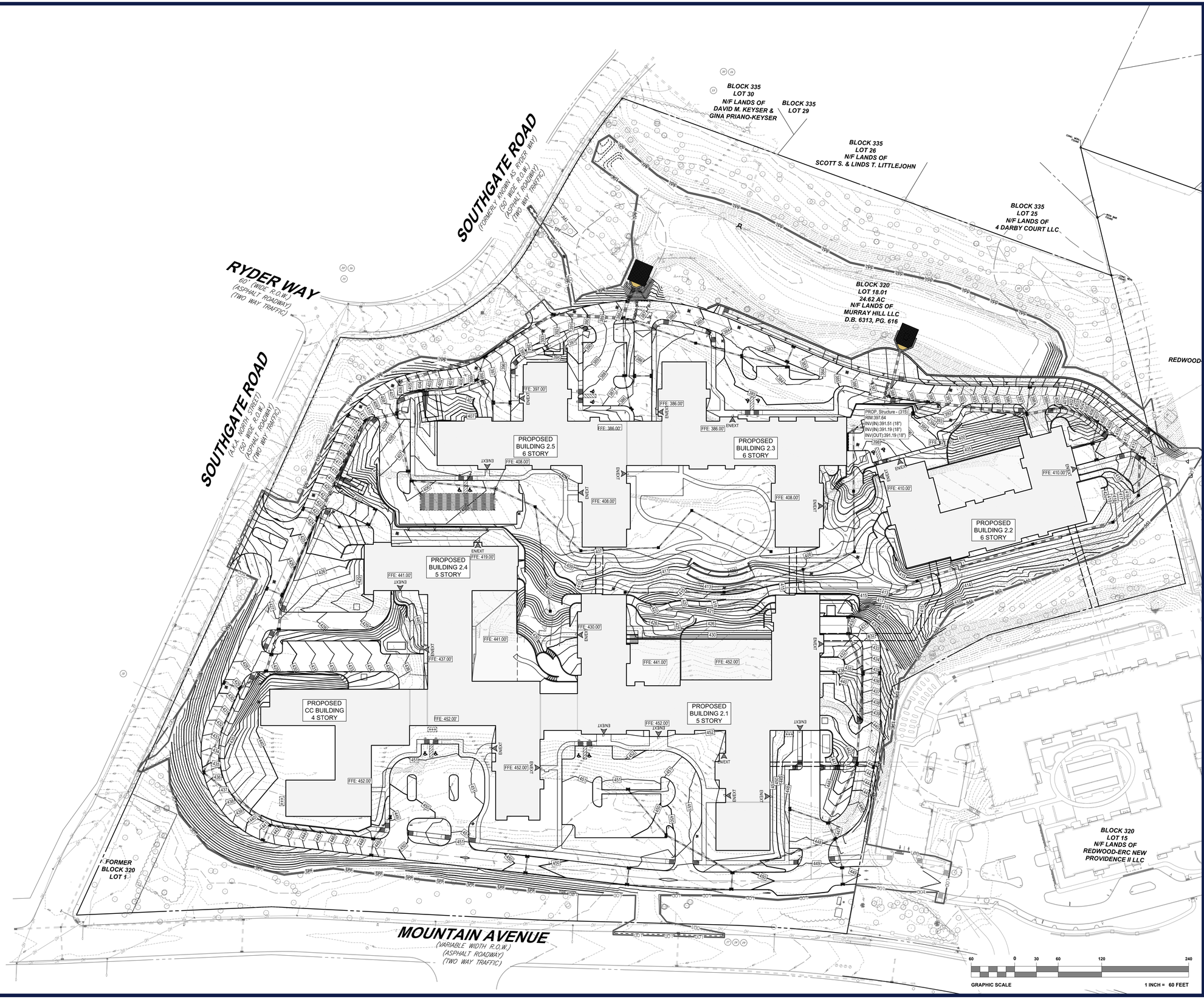
SUBSURFACE PARKING PLAN - UPPER LEVEL

SHEET NUMBER:

C-308

ORG. DATE - 03/04/2020

NAD83



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LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-GRD-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

OVERALL GRADING AND DRAINAGE PLAN

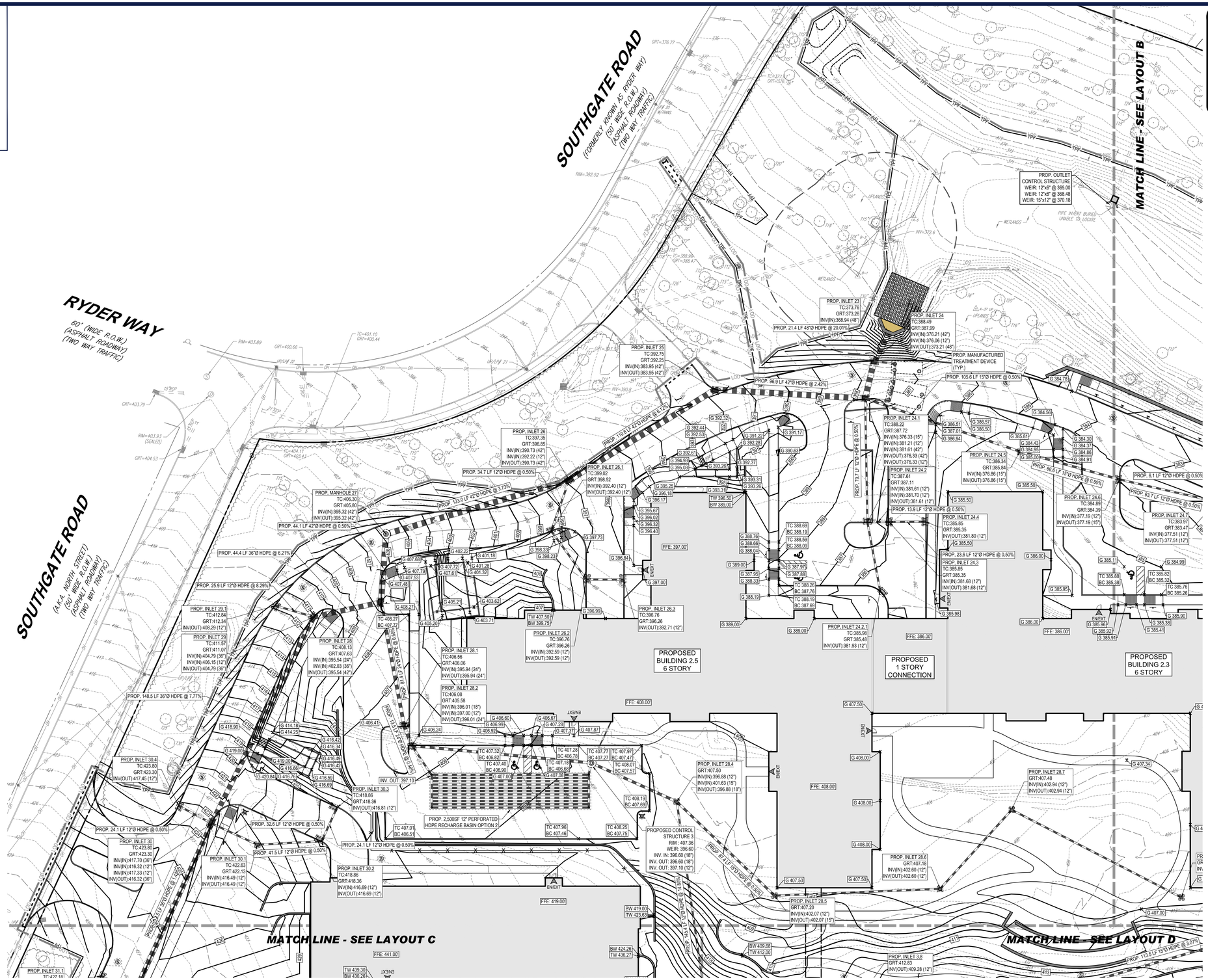
SHEET NUMBER:

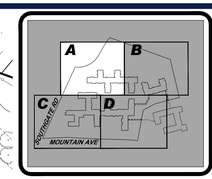
C-401

ORG. DATE - 03/04/2020

MSM
G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-GRD-0A-----LAYOUT: C-401 OVRL

NAD83





SITE LOCATION MAP

SCALE: 1" = 800'

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

30 0 15 30 60 120

GRAPHIC SCALE

1 INCH = 30 FEET

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PRELIMINARY/FINAL MAJOR SITE PLAN

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PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

GRADING AND DRAINAGE PLAN (A)

SHEET NUMBER:

C-402

ORG. DATE - 03/04/2020

G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-GRD-0A.——LAYOUT C-402 GRD
MS

NAD83

MATCH LINE - SEE LAYOUT A

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

BLOCK 320
LOT 18.01
24.62 AC.
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

BLOCK 320
LOT 17

N/F LANDS OF
REDWOOD-ERC NEW PROVIDENCE LLC

CONC. MON. FOUND

IRON. BAR FOUND

APPROXIMATE LOCATION OF 15" WIDE STORM SEWER AND DRAINAGE EASEMENT TO BOROUGH OF NEW PROVIDENCE PER D.B. 2860 PG. 176

WETLANDS

UPLANDS

PROP. OUTLET CONTROL STRUCTURE
WEIR: 12"x6" @ 365.00
WEIR: 12"x8" @ 368.48
WEIR: 15"x12" @ 370.18

PIPE INVERT BURIED UNABLE TO LOCATE

PROPOSED BUILDING 2.3
6 STORY
FFE: 386.00

PROPOSED BUILDING 2.2
6 STORY
FFE: 421.00
FFE: 410.00
FFE: 408.00

PROP. INLET 24.9
TC:383.50
GRT:383.00
INV(OUT):378.97 (12")
PROP. 24.1 LF 12"Ø HDPE @ 5.97%

PROP. INLET 24.8
TC:383.50
GRT:383.00
INV(IN):377.54 (12")
INV(OUT):377.54 (12")

PROP. 6.1 LF 12"Ø HDPE @ 0.50%
PROP. 63.7 LF 12"Ø HDPE @ 0.50%
PROP. 66.6 LF 15"Ø HDPE @ 0.50%

PROP. INLET 24.6
TC:384.89
GRT:384.39
INV(IN):377.19 (12")
INV(OUT):377.19 (15")

PROP. INLET 24.7
TC:383.97
GRT:383.47
INV(IN):377.51 (12")
INV(OUT):377.51 (12")

PROP. MANUFACTURED TREATMENT DEVICE (TYP.)

PROP. INLET 1
TC:375.24
GRT:374.74
INV(IN):371.44 (36")

PROP. INLET 3
TC:390.44
GRT:389.94
INV(IN):384.05 (36")
INV/OUT):384.05 (36")

PROP. 18.6 LF 36"Ø HDPE @ 10.24%

PROP. INLET 2
TC:388.24
GRT:387.74
INV(IN):382.14 (36")
INV(OUT):378.18 (36")
INV(OUT):382.14 (12")

PROP. 38.2 LF 12"Ø HDPE @ 5.93%

PROP. INLET 5
TC:401.11
GRT:400.61
INV(IN):395.01 (36")
INV(OUT):394.62 (36")

PROP. INLET 4.1
TC:398.50
GRT:398.00
INV(OUT):394.03 (12")

PROP. 53.6 LF 36"Ø HDPE @ 3.31%

PROP. INLET 6
TC:408.06
GRT:407.56
INV(IN):396.78 (30")
INV(IN):402.79 (12")
INV(OUT):396.78 (36")

PROP. 136.3 LF 36"Ø HDPE @ 4.32%

PROP. 25.9 LF 18"Ø HDPE @ 20.01%

PROP. Structure - (315)
RIM:397.64
INV(IN):391.51 (18")
INV(IN):391.19 (18")
INV(OUT):391.19 (18")

PROP. INLET 3.1
TC:395.50
GRT:395.00
INV(IN):390.77 (18")
INV(OUT):389.64 (18")

PROP. INLET 4
TC:398.55
GRT:398.05
INV(IN):390.04 (36")
INV(IN):391.77 (12")
INV(OUT):389.84 (36")

PROP. 50.7 LF 36"Ø HDPE @ 9.04%

PROP. 9.3 LF 18"Ø HDPE @ 4.34%

PROP. INLET 3.2
TC:397.53
GRT:397.03
INV(IN):391.91 (18")
INV(OUT):391.91 (18")

PROP. 24.1 LF 18"Ø HDPE @ 0.50%

PROP. INLET 3.3
TC:397.57
GRT:397.07
INV(OUT):392.03 (18")

PROP. 84.9 LF 18"Ø HDPE @ 6.04%

PROP. INLET 6.1
TC:410.23
GRT:409.73
INV(IN):406.06 (12")
INV(OUT):404.75 (12")

PROP. INLET 6.2
TC:410.23
GRT:409.73
INV(OUT):406.18 (12")

PROP. 73.7 LF 30"Ø @ 0.50%

PROP. INLET 7
TC:413.43
GRT:412.93
INV(IN):397.15 (30")
INV(OUT):397.15 (30")

PROP. INLET 3.4
GRT:400.50
INV(IN):396.32 (18")
INV(OUT):396.32 (18")

PROP. 55.0 LF 30"Ø @ 0.50%

PROP. INLET 8
GRT:415.44
INV(IN):397.43 (30")
INV(OUT):397.43 (30")

PROP. INLET 28.7
GRT:407.46
INV(IN):402.94 (12")
INV(OUT):402.94 (12")

PROP. INLET 28.8
GRT:407.11
INV(OUT):403.56 (12")

PROP. 83.8 LF 18"Ø HDPE @ 9.06%

PROP. INLET 10
GRT:419.20
INV(IN):398.26 (30")
INV(OUT):398.26 (30")

PROP. 114.8 LF 30"Ø @ 0.50%

PROP. INLET 9
GRT:418.61
INV(IN):397.68 (30")
INV(OUT):397.68 (30")

PROP. INLET 3.5
GRT:409.06
INV(IN):403.92 (18")
INV(OUT):403.92 (18")

PROP. INLET 11
GRT:413.99
INV(IN):399.09 (30")
INV(OUT):399.09 (30")

PROP. 74.9 LF 18"Ø HDPE @ 5.90%

PROP. 167.9 LF 30"Ø @ 0.50%

PROP. INLET 3.6
GRT:408.50
INV(IN):404.69 (15")
INV(IN):404.87 (12")
INV(OUT):404.29 (18")

PROP. 113.5 LF 12"Ø HDPE @ 5.07%

5 STORY MASONRY BUILDING

MATCH LINE - SEE LAYOUT D

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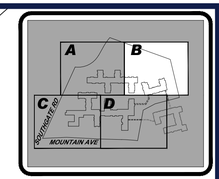
GRAPHIC SCALE 30 0 15 30 60 120
1 INCH = 30 FEET

SITE LOCATION MAP

SCALE: 1" = 800'



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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

GRADING AND DRAINAGE PLAN (B)

SHEET NUMBER:

C-403

ORG. DATE - 03/04/2020

G:\2019\J100690\0-BIDRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-GRD-0A-----LAYOUT C-403 .DWG

NAD83

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT D

PROPOSED BUILDING 2.4 5 STORY

PROPOSED CC BUILDING 4 STORY

PROPOSED 1 STORY CONNECTION

PROPOS 1 STOR CONNECT

FORMER BLOCK 320 LOT 1

MOUNTAIN AVENUE
(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

PROP. INLET 31.1
TC:427.18
GRT:426.68
INV(OUT):419.50 (12")

PROP. 24.1 LF 12"Ø HDPE @ 0.50%

PROP. INLET 31
TC:427.17
GRT:426.67
INV(IN):419.38 (12")
INV(IN):420.21 (36")
INV(OUT):419.38 (36")

PROP. INLET 32
TC:428.05
GRT:427.55
INV(IN):422.46 (30")
INV(OUT):421.96 (36")

PROP. 35.0 LF 30"Ø @ 1.86%

PROP. INLET 33
TC:429.06
GRT:428.56
INV(IN):423.16 (30")
INV(OUT):423.16 (30")

PROP. 25.3 LF 30"Ø @ 0.50%

PROP. 24.2 LF 15"Ø HDPE @ 0.50%

PROP. INLET 35.1
TC:429.71
GRT:429.21
INV(OUT):425.64 (15")

PROP. INLET 34
TC:428.87
GRT:428.37
INV(IN):423.65 (24")
INV(OUT):423.28 (30")

PROP. 42.5 LF 24"Ø HDPE @ 1.15%

PROP. INLET 35
TC:429.61
GRT:429.11
INV(IN):424.14 (18")
INV(IN):425.52 (15")
INV(OUT):424.14 (24")

PROP. 126.9 LF 18"Ø HDPE @ 5.61%

PROP. INLET 36
TC:436.31
GRT:435.81
INV(IN):431.25 (18")
INV(IN):431.45 (12")
INV(OUT):431.25 (18")

PROP. INLET 36.1
TC:435.62
GRT:435.12
INV(OUT):431.57 (12")

PROP. 24.4 LF 12"Ø HDPE @ 0.49%

PROP. 116.2 LF 18"Ø HDPE @ 1.55%

PROP. INLET 37
TC:441.78
GRT:441.28
INV(IN):437.47 (15")
INV(IN):435.41 (12")
INV(OUT):435.41 (18")

PROP. INLET 39
TC:449.12
GRT:448.62
INV(OUT):444.81 (15")

PROP. 144.5 LF 15"Ø HDPE @ 4.96%

PROP. 24.1 LF 12"Ø HDPE @ 9.36%

PROP. INLET 37.1
TC:442.21
GRT:441.71
INV(OUT):437.66 (12")

PROP. INLET 38
TC:449.10
GRT:448.60
INV(IN):444.63 (15")
INV(IN):444.91 (12")
INV(OUT):444.63 (15")

PROP. 37.0 LF 15"Ø HDPE @ 0.50%

PROP. INLET 22
TC:450.19
GRT:449.69
INV(OUT):446.14 (12")

PROP. 24.1 LF 12"Ø HDPE @ 0.50%

PROP. INLET 21
TC:450.19
GRT:449.69
INV(IN):446.02 (12")
INV(OUT):446.02 (12")

PROP. INLET 31
TC:427.67
GRT:426.67
INV(IN):419.38 (12")
INV(IN):420.21 (36")
INV(OUT):419.38 (36")

PROP. INLET 34
TC:428.87
GRT:428.37
INV(IN):423.65 (24")
INV(OUT):423.28 (30")

PROP. INLET 35
TC:429.61
GRT:429.11
INV(IN):424.14 (18")
INV(IN):425.52 (15")
INV(OUT):424.14 (24")

PROP. INLET 36.1
TC:435.62
GRT:435.12
INV(OUT):431.57 (12")

PROP. INLET 37
TC:441.78
GRT:441.28
INV(IN):437.47 (15")
INV(IN):435.41 (12")
INV(OUT):435.41 (18")

PROP. INLET 39
TC:449.12
GRT:448.62
INV(OUT):444.81 (15")

PROP. INLET 37.1
TC:442.21
GRT:441.71
INV(OUT):437.66 (12")

PROP. INLET 38
TC:449.10
GRT:448.60
INV(IN):444.63 (15")
INV(IN):444.91 (12")
INV(OUT):444.63 (15")

PROP. INLET 22
TC:450.19
GRT:449.69
INV(OUT):446.14 (12")

PROP. INLET 21
TC:450.19
GRT:449.69
INV(IN):446.02 (12")
INV(OUT):446.02 (12")

FFE: 419.00
FFE: 441.00
FFE: 437.00
FFE: 452.00
FFE: 452.00
FFE: 452.00

BW 419.00
TW 423.83
BW 424.26
TW 436.27
BW 423.00
TW 433.40
BW 433.75
TW 441.00
BW 433.83
TW 440.09
BW 430.00
TW 433.25
TW 440.66
BW 436.66
TW 439.30
BW 430.26
TW 438.77
BW 436.28
TW 452.00
BW 440.66
BW 440.55
TW 442.77

RIM=457.06
RIM=454.17
RIM=456.80
TC=456.56
GRT=455.58
GRT=455.97
GRT=456.75
TC=432.54
GRT=432.04

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GRAPHIC SCALE 30 0 15 30 60 120
1 INCH = 30 FEET

SITE LOCATION MAP

SCALE: 1" = 800'

A B C D
Summit Rd
MOUNTAIN AVE

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
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NEW YORK LICENSE No. 079512

SHEET TITLE:

GRADING AND DRAINAGE PLAN (C)

SHEET NUMBER:

C-404

ORG. DATE - 03/04/2020

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NAD83

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT C

MATCH LINE - SEE LAYOUT B

PROPOSED 1 STORY CONNECTION

PROPOSED BUILDING 2.1 5 STORY

PROP. INLET 28.5
INV(IN):402.07 (12")
INV(OUT):402.07 (15")

PROP. INLET 28.3.1
GRT:422.50
INV(OUT):418.40 (12")

PROP. INLET 3.8
GRT:412.83
INV(OUT):409.28 (12")

PROP. INLET 3.7
GRT:415.50
INV(IN):408.60 (12")
INV(OUT):408.18 (15")

PROP. INLET 3.6
GRT:408.50
INV(IN):404.69 (15")
INV(IN):404.87 (12")
INV(OUT):404.29 (18")

PROP. INLET 11
GRT:413.99
INV(IN):399.09 (30")
INV(OUT):399.09 (30")

PROP. INLET 12
TC:430.06
GRT:429.56
INV(IN):424.86 (24")
INV(OUT):420.47 (30")

PROP. INLET 13
TC:430.06
GRT:429.56
INV(IN):424.98 (24")
INV(OUT):424.98 (24")

PROP. INLET 14
TC:435.74
GRT:435.24
INV(IN):430.44 (24")
INV(IN):431.54 (12")
INV(OUT):430.44 (24")

PROP. INLET 14.1
TC:435.71
GRT:435.21
INV(OUT):431.66 (12")

PROP. INLET 15
TC:442.65
GRT:442.15
INV(IN):437.57 (24")
INV(IN):438.48 (12")
INV(OUT):437.36 (24")

PROP. INLET 15.1
TC:442.65
GRT:442.15
INV(OUT):438.60 (12")

PROP. INLET 16
TC:447.54
GRT:447.04
INV(IN):439.30 (24")
INV(IN):443.17 (12")
INV(OUT):439.30 (24")

PROP. INLET 17
TC:448.10
GRT:447.60
INV(IN):443.53 (18")
INV(IN):439.43 (12")
INV(OUT):439.43 (24")

PROP. INLET 17.1
TC:449.98
GRT:449.48
INV(IN):439.63 (12")
INV(OUT):439.63 (12")

PROP. INLET 17.2
TC:449.58
GRT:449.08
INV(OUT):444.44 (12")

PROP. INLET 18
TC:450.70
GRT:450.20
INV(IN):445.19 (18")
INV(IN):444.48 (12")
INV(OUT):444.48 (18")

PROP. INLET 18.1
TC:450.27
GRT:449.77
INV(IN):446.22 (12")
INV(OUT):445.71 (18")

PROP. INLET 18.2
TC:451.20
GRT:450.70
INV(OUT):447.15 (12")

PROP. INLET 19
TC:450.71
GRT:450.21
INV(IN):444.60 (12")
INV(OUT):444.60 (12")

PROP. INLET 19.1
TC:447.50
GRT:447.00
INV(OUT):443.45 (12")

PROP. INLET 20
TC:451.00
GRT:450.50
INV(IN):445.32 (12")
INV(IN):446.83 (12")
INV(OUT):445.32 (12")

PROP. INLET 20.1
TC:451.00
GRT:450.50
INV(OUT):446.95 (12")

PROP. 74.9 LF 18"Ø HDPE @ 3.00%
PROP. 113.5 LF 15"Ø HDPE @ 3.07%
PROP. 24.1 LF 24"Ø HDPE @ 0.50%
PROP. 24.1 LF 18"Ø HDPE @ 0.50%
PROP. 186.6 LF 30"Ø @ 20.01%
PROP. 24.1 LF 12"Ø HDPE @ 0.50%
PROP. 28.1 LF 12"Ø HDPE @ 5.82%
PROP. 90.1 LF 24"Ø HDPE @ 1.92%
PROP. 25.0 LF 24"Ø HDPE @ 0.50%
PROP. 24.1 LF 12"Ø HDPE @ 20.01%
PROP. 107.6 LF 30"Ø @ 0.50%
PROP. 56.6 LF 12"Ø HDPE @ 0.50%
PROP. 104.3 LF 18"Ø HDPE @ 0.83%
PROP. 149.5 LF 18"Ø HDPE @ 0.83%
PROP. 40.1 LF 12"Ø HDPE @ 0.50%
PROP. 144.2 LF 12"Ø HDPE @ 0.50%
PROP. 24.1 LF 12"Ø HDPE @ 0.50%
PROP. 24.1 LF 12"Ø HDPE @ 0.50%

APPROXIMATE LOCATION OF 40' WIDE EASEMENT TO COMMONWEALTH WATER COMPANY PER D.B. 2185, PG. 592, D.B. 2185 PG. 594, & D.B. 2185, PG. 600

PORTION OF EASEMENT PER D.B. 2185 PG. 600

PORTION OF EASEMENT PER D.B. 2185 PG. 592

5 STORY MASONRY BUILDING

2ND FLOOR WALKWAY ELEV.=465.89

17 18 19

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

GRAPHIC SCALE 30 0 15 30 60 120
1 INCH = 30 FEET

SITE LOCATION MAP

SCALE: 1" = 800'

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-GRD-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

GRADING AND DRAINAGE PLAN (D)

SHEET NUMBER:

C-405

ORG. DATE - 03/04/2020

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J:\PROJECTS\2019\J100690.04\CAD\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-GRD-0A-----LAYOUT C-405 GRD

NAD83

DRAINAGE AND UTILITIES NOTES

(Rev.1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM ALL SANITARY CONNECTION POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND OMISSIONS IN WRITING, TO THE ENGINEER OF RECORD.
3. THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER, THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION.
4. THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO CONFIRM EXACT DEPTH, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.
6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME.
7. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT HAS NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL.
8. DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE, IN ANY RESPECT, FROM THE INFORMATION CONTAINED IN THESE PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE SITE PLAN, WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.
9. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS, ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE. THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
10. FINAL LOCATIONS OF PROPOSED UTILITY POLES, AND/ OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE RESPECTIVE UTILITY COMPANY, REGARDLESS OF WHAT THIS PLAN DEPICTS.
11. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. THE CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
12. THE CONTRACTOR'S PRICE FOR WATER SERVICE MUST INCLUDE ALL FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE.
13. SEWERS CONVEYING SANITARY FLOW, COMBINED SANITARY AND STORMWATER FLOW, OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST BE IN SEPARATE TRENCHES WITH THE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE GOVERNMENTAL AGENCY WITH JURISDICTION OVER SAME. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER MUST BE PROVIDED.
14. WHEN THESE PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO STORM, SANITARY, UTILITIES, AND IRRIGATION LINES, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. THE CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 2X4 STAKE, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE PLAN, WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.
15. STORM AND SANITARY PIPE LENGTHS INDICATED ARE NOMINAL AND ARE MEASURED FROM CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.
16. THE CONTRACTOR MUST NOTIFY, IN WRITING, THE [MUNICIPAL ENGINEER, M.U.A. ENGINEER, ENGINEER OF RECORD] (PICK APPROPRIATE TITLES) AT LEAST THREE (3) BUSINESS DAYS PRIOR TO INSTALLATION OF SANITARY COMPONENTS. FAILURE TO HAVE SANITARY INSTALLATION AND TESTING OBSERVED BY THE DESIGNATED ENGINEER MAY REQUIRE RE-EXCAVATION OF SANITARY LINE, AND RE-TESTING, WHICH WILL BE DONE AT THE CONTRACTOR'S SOLE COST AND EXPENSE.
17. SEWERS CROSSING STREAMS AND/OR LOCATION WITHIN 10 FEET OF THE STREAM EMBANKMENT, OR WHERE SITE CONDITIONS SO INDICATE, MUST BE CONSTRUCTED OF REINFORCED CONCRETE, DUCTILE IRON OR OTHER SUITABLE MATERIAL.
18. SANITARY PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE CLEARLY INDICATED OTHERWISE.
    A. FOR PIPES LESS THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034.
    B. FOR PIPES GREATER THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 26 PER ASTM D3034.
    C. SANITARY LATERAL MUST BE PVC SCHEDULE 40 OR PVC SDR 26 UNLESS CLEARLY INDICATED OTHERWISE.
19. UNLESS CLEARLY INDICATED OTHERWISE, ALL STORM PIPES MUST BE REINFORCED CONCRETE PIPES (RCP) CLASS III WITH SILTSOIL TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILTSOIL TIGHT JOINT. PIPE FOR ROOF DRAIN CONNECTION MUST BE HDPE SDR 26 OR PVC SCHEDULE 40 UNLESS INDICATED OTHERWISE. HDPE PIPE JOINT GASKETS MUST BE PROVIDED AND CONFORM TO ASTM F477.
21. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER COMPANY. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (DIP) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
22. GAS METERS MUST BE PROTECTED BY BOLLARDS AND FENCES IF INSTALLED WITHIN THE EXTERIOR OF THE BUILDING AS REQUIRED BY THE JURISDICTIONAL GAS PURVEYOR.

LEGEND

EXISTING		PROPOSED
W	WATER LINE	W
F	FIRE LINE	F
E	ELECTRIC LINE	E
T	TELEPHONE LINE	T
G	GAS LINE	G
S	SANITARY SEWER	S
	STORM PIPE	
	GATE VALVE	
	REDUCER/INCREASER	

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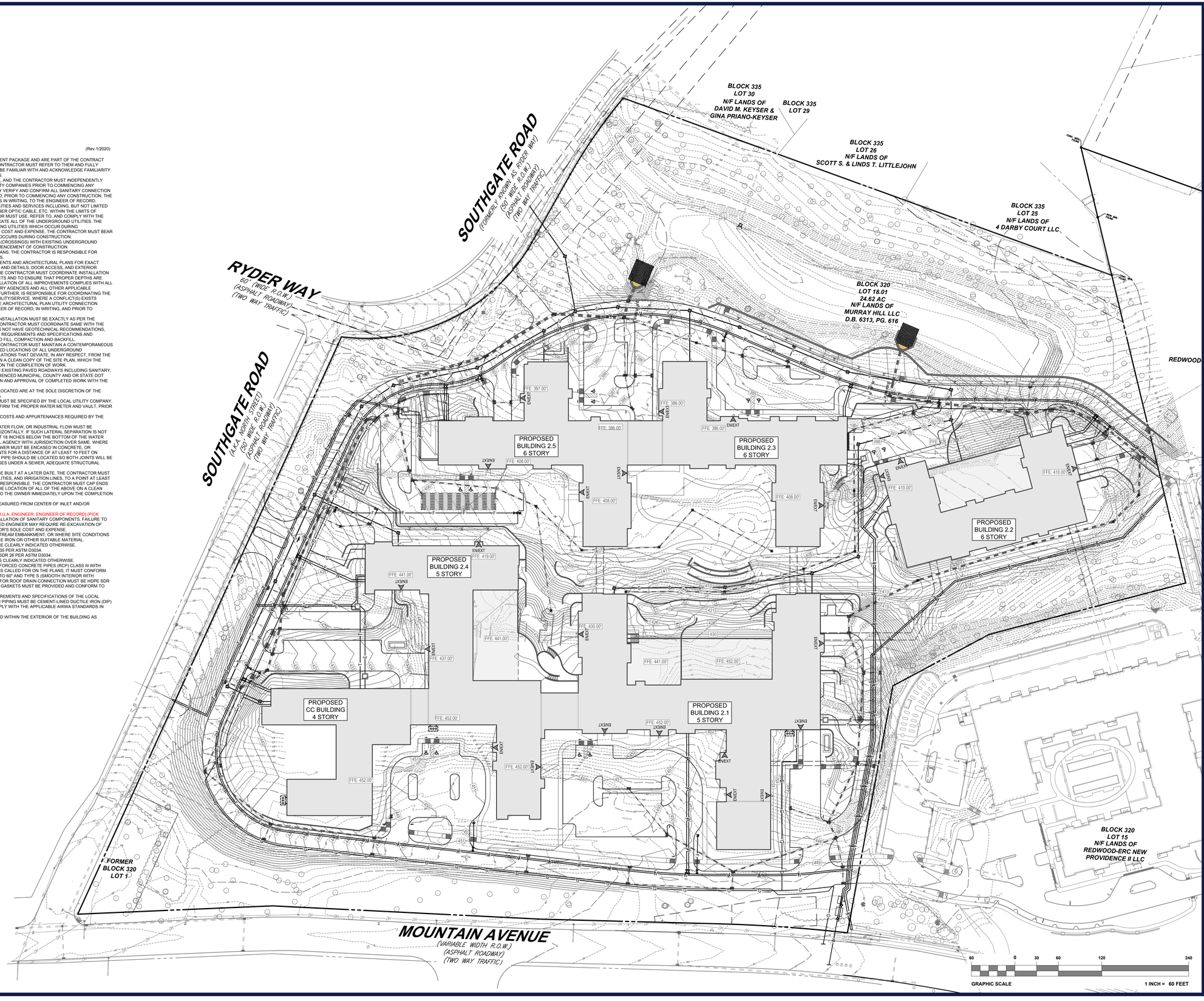

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PROJECT NO.: J100690.04
DRAWN BY: DM / MFS
CHECKED BY: MD
DATE: 03/04/2020
CAD I.D.: J100690.04-UTL-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

OVERALL UTILITY PLAN

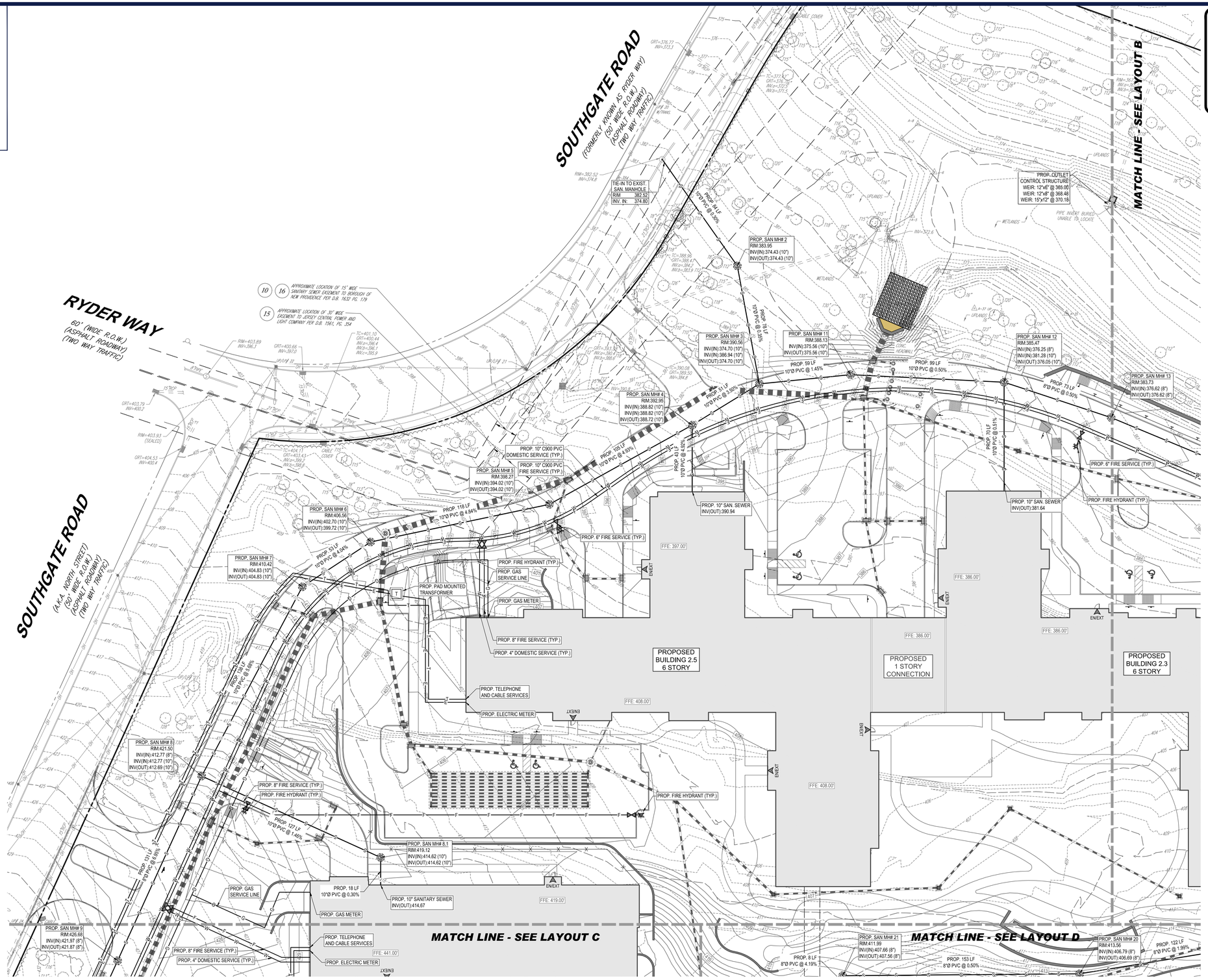
SHEET NUMBER:

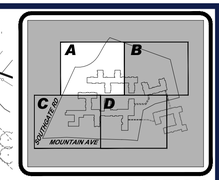
C-501

ORG. DATE - 03/04/2020

C:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-UTL-0A-----LAYOUT: C-501 10:09L
MS

NAD83





SECTION LOCATION KEY

SCALE: 1" = 800'

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30 0 15 30 60 120

GRAPHIC SCALE 1 INCH = 30 FEET

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R.L. STREKER

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

UTILITY PLAN (A)

SHEET NUMBER:

C-502

ORG. DATE - 03/04/2020

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NAD83

MATCH LINE - SEE LAYOUT A

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

BLOCK 320
LOT 18.01
24.62 AC
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

BLOCK 320
LOT 17

N/F LANDS OF
REDWOOD-ERC NEW PROVIDENCE LLC

CONC. MON. FOUND

IRON. BAR FOUND

CONC. MON. FOUND

APPROXIMATE LOCATION OF 15" WIDE STORM SEWER AND DRAINAGE EASEMENT TO BEARSON OF NEW PROVIDENCE PER D.B. 2860 PG. 776

10 32

WETLANDS

PROP. OUTLET CONTROL STRUCTURE
WEIR: 12"x6" @ 365.00
WEIR: 12"x8" @ 368.48
WEIR: 15"x12" @ 370.18

FIFE INVERT BURIED UNABLE TO LOCATE

EX. SAN MH# 12
RIM:385.47
INV(IN):376.25 (8")
INV(IN):381.28 (10")
INV(OUT):376.05 (10")

PROP. SAN MH# 13
RIM:383.73
INV(IN):376.62 (8")
INV(OUT):376.62 (8")

PROP. 73 LF 6"Ø PVC @ 0.50%

PROP. 161 LF 6"Ø PVC @ 1.16%

PROP. 6" FIRE SERVICE (TYP.)

PROP. FIRE HYDRANT (TYP.)

EX. 10" SAN. SEWER INV(OUT):381.64

PROP. SAN MH# 14
RIM:385.45
INV(IN):378.50 (8")
INV(OUT):378.50 (8")

PROP. 145 LF 8"Ø PVC @ 3.09%

PROP. SAN MH# 15
RIM:391.12
INV(IN):382.97 (8")
INV(OUT):382.97 (8")

PROP. 10" C900 PVC DOMESTIC SERVICE (TYP.)

PROP. 10" C900 PVC FIRE SERVICE (TYP.)

PROP. 42 LF 8"Ø PVC @ 0.76%

PROP. 6" FIRE SERVICE (TYP.)

PROP. GAS SERVICE LINE

PROP. FIRE HYDRANT (TYP.)

PROP. 8" FIRE SERVICE (TYP.)

PROP. 4" DOMESTIC SERVICE (TYP.)

PROP. GAS METER

PROP. SAN MH# 16
RIM:392.95
INV(IN):388.98 (8")
INV(IN):389.14 (8")
INV(OUT):383.29 (8")

PROP. 133 LF 8"Ø PVC @ 2.58%

PROP. 94 LF 8"Ø PVC @ 8.00%

PROP. SAN MH# 17
RIM:397.53
INV(IN):392.50 (8")
INV(OUT):392.40 (8")

PROP. ELECTRIC METER

PROP. TELEPHONE AND CABLE SERVICES

PROP. PAD MOUNTED TRANSFORMER

PROPOSED BUILDING 2.3
6 STORY

FFE: 386.00'

FFE: 408.00'

PROP. 8" SAN. SEWER INV(OUT):393.76

FFE: 421.00'

FFE: 410.00'

PROPOSED BUILDING 2.2
6 STORY

PROP. 155 LF 8"Ø PVC @ 8.65%

PROP. SAN MH# 19
RIM:409.45
INV(IN):404.27 (8")
INV(IN):405.67 (8")
INV(OUT):404.27 (8")

PROP. 68 LF 8"Ø PVC @ 2.00%

PROP. SAN MH# 18
RIM:409.54
INV(IN):402.92 (8")
INV(OUT):402.82 (8")

PROP. 28 LF 8"Ø PVC @ 4.74%

PROP. SAN MH# 20
RIM:413.56
INV(IN):406.79 (8")
INV(OUT):406.69 (8")

PROP. 122 LF 8"Ø PVC @ 1.99%

CONTRACTOR TO CONNECT PROP. FIRE AND DOMESTIC WATER LINES TO EX. 10" SERVICES.

CONTRACTOR TO CONNECT PROP. GAS LINE TO EX. SERVICE.

3 STORY MASONRY BUILDING

MATCH LINE - SEE LAYOUT D

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30 0 15 30 60 120

GRAPHIC SCALE

1 INCH = 30 FEET

SECTION LOCATION KEY

SCALE: 1" = 800'

A B C D

SOUTHGATE RD

MOUNTAIN AVE

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-UTL-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

UTILITY PLAN (B)

SHEET NUMBER:

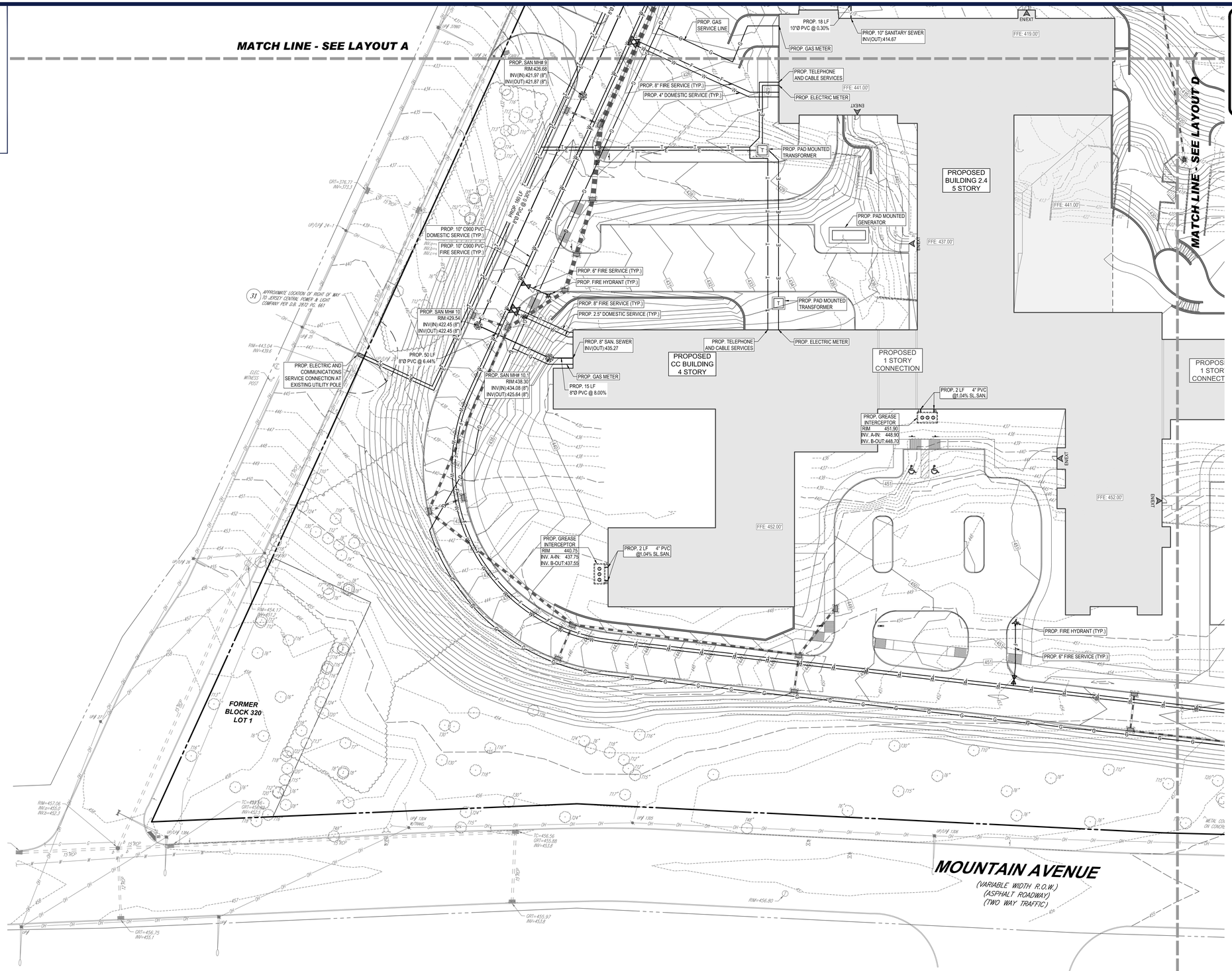
C-503

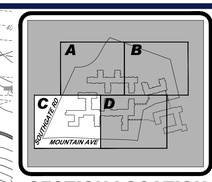
ORG. DATE - 03/04/2020

C:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-UTL-0A-----LAYOUT C-503 UTIL
MSJ

NAD83

MATCH LINE - SEE LAYOUT A





SECTION LOCATION KEY

SCALE: 1" = 800'

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GRAPHIC SCALE 30 0 15 30 60 120

1 INCH = 30 FEET

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PROJECT:

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PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

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NEW PROVIDENCE, NJ
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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

UTILITY PLAN (C)

SHEET NUMBER:

C-504

ORG. DATE - 03/04/2020

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NAD83

PROP. 8 LF 8"Ø PVC @ 4.19%

PROP. SAN MH# 21
RIM=411.99
INV(IN)=407.66 (8")
INV(OUT)=407.56 (8")

PROP. 153 LF 8"Ø PVC @ 0.50%

PROP. SAN MH# 20
RIM=413.56
INV(IN)=406.79 (8")
INV(OUT)=406.69 (8")

PROP. 122 LF 8"Ø PVC @ 1.99%

PROP. SAN MH# 19
RIM=409.45
INV(IN)=404.27 (8")
INV(IN)=405.67 (8")
INV(OUT)=404.27 (8")

PROP. 85 LF 8"Ø PVC @ 2.00%

PROP. SAN MH# 18
RIM=409.54
INV(IN)=402.92 (8")
INV(OUT)=402.82 (8")

PROP. 28 LF 8"Ø PVC @ 4.74%

PROP. 8" SAN. SEWER INV(OUT)=408.00

PROP. 8" SAN. SEWER INV(OUT)=407.00

FFE: 430.00'

FFE: 441.00'

FFE: 452.00'

PROPOSED 1 STORY CONNECTION

PROPOSED BUILDING 2.1 5 STORY

PROP. 10" DOMESTIC SERVICE (TYP.)

PROP. 10" FIRE SERVICE (TYP.)

PROP. ELECTRIC METER

PROP. TELEPHONE AND CABLE SERVICES

PROP. PAD MOUNTED TRANSFORMER

PROP. GAS METER

PROP. 2 LF 4" PVC @1.04% SL. SAN.

PROP. PAD MOUNTED GENERATOR

PROP. GREASE INTERCEPTOR
RIM 449.50
INV. A-IN: 446.50
INV. B-OUT-446.30

PROP. GAS SERVICE LINE

PROP. 6" DOMESTIC SERVICE (TYP.)

PROP. 6" FIRE SERVICE (TYP.)

PROP. FIRE HYDRANT (TYP.)

PROP. 6" FIRE SERVICE (TYP.)

PROP. 10" C900 PVC DOMESTIC SERVICE (TYP.)

PROP. 10" C900 PVC FIRE SERVICE (TYP.)

PROP. HOT BOX

PROP. WATER METER VAULT

PROP. 10" FIRE SERVICE

PROP. 6" DOMESTIC SERVICE

PROP. GAS SERVICE CONNECTION. CONTRACTOR TO FIELD VERIFY EXISTING GAS MAIN LOCATION AND NOTIFY ENGINEER IF CONFLICTS ARISE.

PROP. 12" WATER SERVICE CONNECTION. CONTRACTOR TO FIELD VERIFY EXISTING WATER MAIN LOCATION AND NOTIFY ENGINEER IF CONFLICTS ARISE.

PORTION OF EASEMENT PER D.B. 2185 PG. 600

PORTION OF EASEMENT PER D.B. 2185 PG. 594

APPROXIMATE LOCATION OF 40' WIDE EASEMENT TO COMMONWEALTH WATER COMPANY PER D.B. 2185 PG. 592, D.B. 2185 PG. 594, & D.B. 2185 PG. 600

17 18 19

2ND FLOOR WALKWAY ELEV.=465.89

5 STORY MASONRY BUILDING

METAL COVER ON CONCRETE

SECTION LOCATION KEY

SCALE: 1" = 800'

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30 0 15 30 60 120

GRAPHIC SCALE 1 INCH = 30 FEET

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PROJECT:

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FOR

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PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

UTILITY PLAN (D)

SHEET NUMBER:

C-505

ORG. DATE - 03/04/2020

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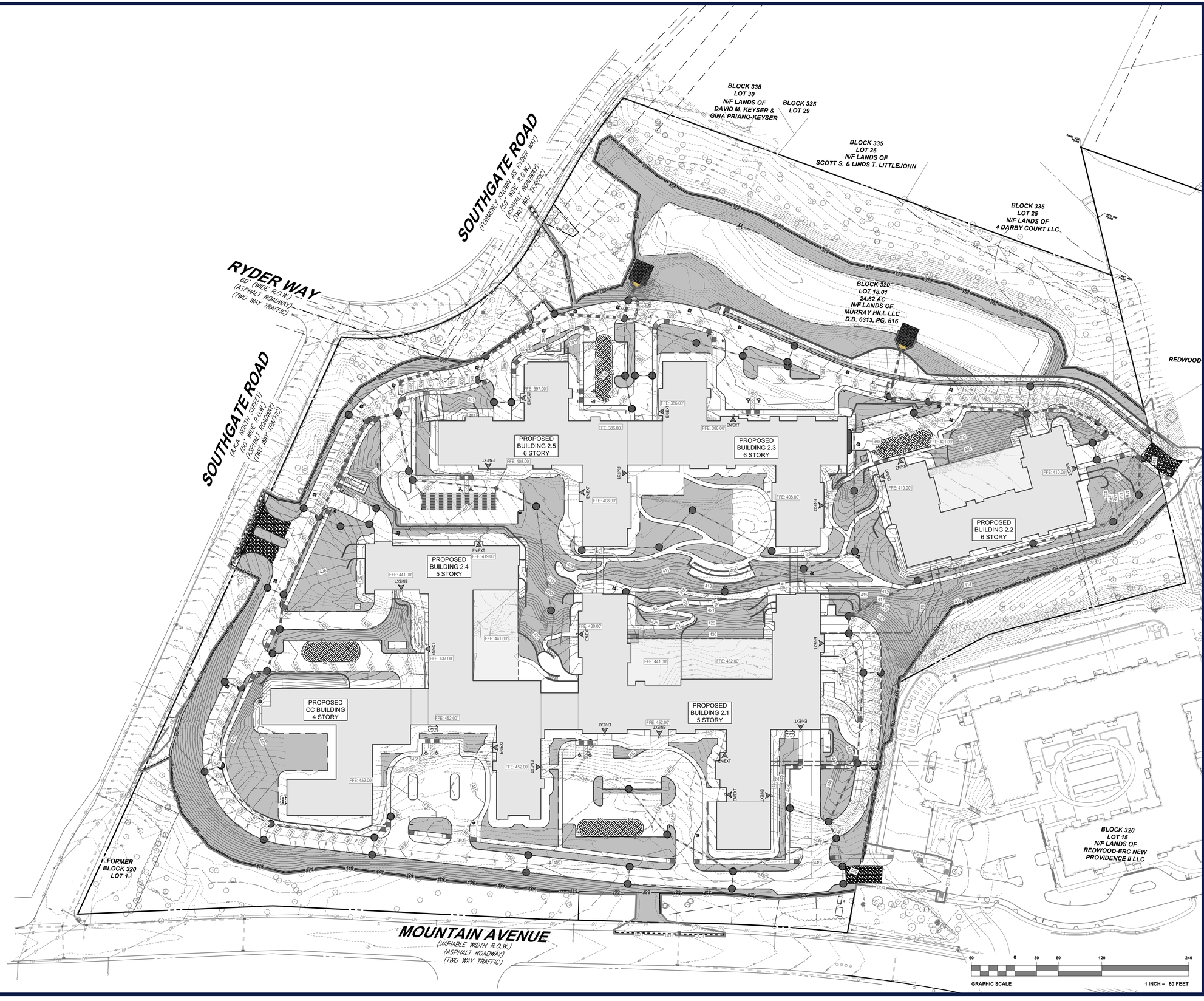
MS

NAD83



AREAS SUBJECT TO COMPACTION TESTING AND/OR MITIGATION
(5.99 ACRES TOTAL: 12 TEST REQUIRED)
(2 TESTS PER 1 ACRES REQUIRED)

LEGEND

PROPOSED

SUPER SILT FENCE	SSF
TREE PROTECTION FENCE	TPF
LIMIT OF DISTURBANCE	LOD
CONSTRUCTION ENTRANCE/EXIT	
DRAINAGE INLET PROTECTION	
STOCKPILE LOCATION	

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PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:
OVERALL SOIL EROSION & SEDIMENT CONTROL PLAN

SHEET NUMBER:
C-601

ORG. DATE - 03/04/2020

M:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SEC-0A-----LAYOUT: C-601 OVRL

NAD83

LEGEND

PROPOSED

SUPER SILT FENCE	SSF
TREE PROTECTION FENCE	TPF
LIMIT OF DISTURBANCE	LOD
CONSTRUCTION ENTRANCE/EXIT	
DRAINAGE INLET PROTECTION	INSERT
STOCKPILE LOCATION	

SOUTHGATE ROAD
(FORMERLY KNOWN AS RYDER WAY)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

RYDER WAY
60' (WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

SOUTHGATE ROAD
(A.K.A. NORTH STREET)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

10 16 APPROXIMATE LOCATION OF 15' WIDE SANITARY SEWER EASEMENT TO BOROUGH OF NEW PROVIDENCE PER D.B. 1630 PG. 179

15 APPROXIMATE LOCATION OF 30' WIDE EASEMENT TO JERSEY CENTRAL POWER AND LIGHT COMPANY PER D.B. 1561, PG. 354

PROP. SUPER SILT FENCE (TYP).

PROP. INLET FILTER (TYP)

PROP. STABILIZED CONSTRUCTION ENTRANCE (TYP)

TEMPORARY SOIL STOCKPILE (TYP)

PROPOSED BUILDING 2.5 6 STORY

PROPOSED 1 STORY CONNECTION

PROPOSED BUILDING 2.3 6 STORY

FFE: 397.00'

FFE: 386.00'

FFE: 386.00'

FFE: 408.00'

FFE: 408.00'

FFE: 419.00'

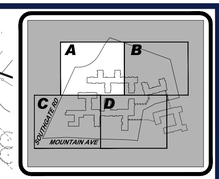
FFE: 441.00'

MATCH LINE - SEE LAYOUT B

MATCH LINE - SEE LAYOUT C

WETLANDS

UPLANDS



SITE LOCATION MAP
SCALE: 1" = 800'

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GRAPHIC SCALE
1 INCH = 30 FEET

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PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL PLAN (A)

SHEET NUMBER:
C-602

ORG. DATE - 03/04/2020

MSM
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NAD83

PER SILT FENCE
(TYP).

PROP. OUTLET
CONTROL STRUCTURE
WEIR: 12"x6" @ 365.00
WEIR: 12"x8" @ 368.48
WEIR: 15"x12" @ 370.18

MATCH LINE - SEE LAYOUT A

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

CONC. MON. FOUND

IRON. BAR FOUND

CONC. MON. FOUND

APPROXIMATE LOCATION OF 15" WIDE STORM SEWER AND DRAINAGE EASEMENT TO BOROUGH OF NEW PROVIDENCE PER D.B. 2860 PG. 776

BLOCK 320
LOT 18.01
24.62 AC
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

BLOCK 320
LOT 17

N/F LANDS OF
REDWOOD-ERC NEW PROVIDENCE LLC

PROP. SUPER SILT FENCE (TYP).

PROP. INLET FILTER (TYP)

PROP. STABILIZED CONSTRUCTION ENTRANCE (TYP)

PROP. TRENCH DRAIN FILTER (TYP)

TEMPORARY SOIL STOCKPILE (TYP)

PROPOSED BUILDING 2.3
6 STORY

PROPOSED BUILDING 2.2
6 STORY

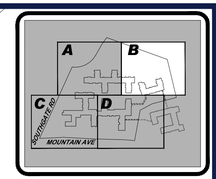
FFE: 386.00'
FFE: 408.00'
FFE: 421.00'
FFE: 410.00'
FFE: 410.00'

ENEXT
BNEXT

WETLANDS
UPLANDS

GRASS
GRT=411.39
5 STORY MASONRY BUILDING

MATCH LINE - SEE LAYOUT D



SITE LOCATION MAP
SCALE: 1" = 800'

LEGEND

PROPOSED

SUPER SILT FENCE	SSF
TREE PROTECTION FENCE	TPF
LIMIT OF DISTURBANCE	LOD
CONSTRUCTION ENTRANCE/EXIT	
DRAINAGE INLET PROTECTION	
STOCKPILE LOCATION	

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

30 0 15 30 60 120
GRAPHIC SCALE
1 INCH = 30 FEET

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PROJECT:

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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL PLAN (B)

SHEET NUMBER:
C-603

ORG. DATE - 03/04/2020

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NAD83

LEGEND

PROPOSED

SUPER SILT FENCE	SSF
TREE PROTECTION FENCE	TPF
LIMIT OF DISTURBANCE	LOD
CONSTRUCTION ENTRANCE/EXIT	
DRAINAGE INLET PROTECTION	
STOCKPILE LOCATION	

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT D

PROPOSED BUILDING 2.4 5 STORY

PROPOSED CC BUILDING 4 STORY

PROPOSED 1 STORY CONNECTION

TEMPORARY SOIL STOCKPILE (TYP)

PROP. INLET FILTER (TYP)

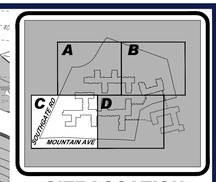
PROP. SUPER SILT FENCE (TYP).

FORMER BLOCK 320 LOT 1

APPROXIMATE LOCATION OF RIGHT OF WAY TO JERSEY CENTRAL POWER & LIGHT COMPANY PER D.B. 2872, PG. 181

MOUNTAIN AVENUE
(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

FFE: 419.00'
FFE: 441.00'
FFE: 437.00'
FFE: 452.00'



SITE LOCATION MAP
SCALE: 1" = 800'

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-SEC-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

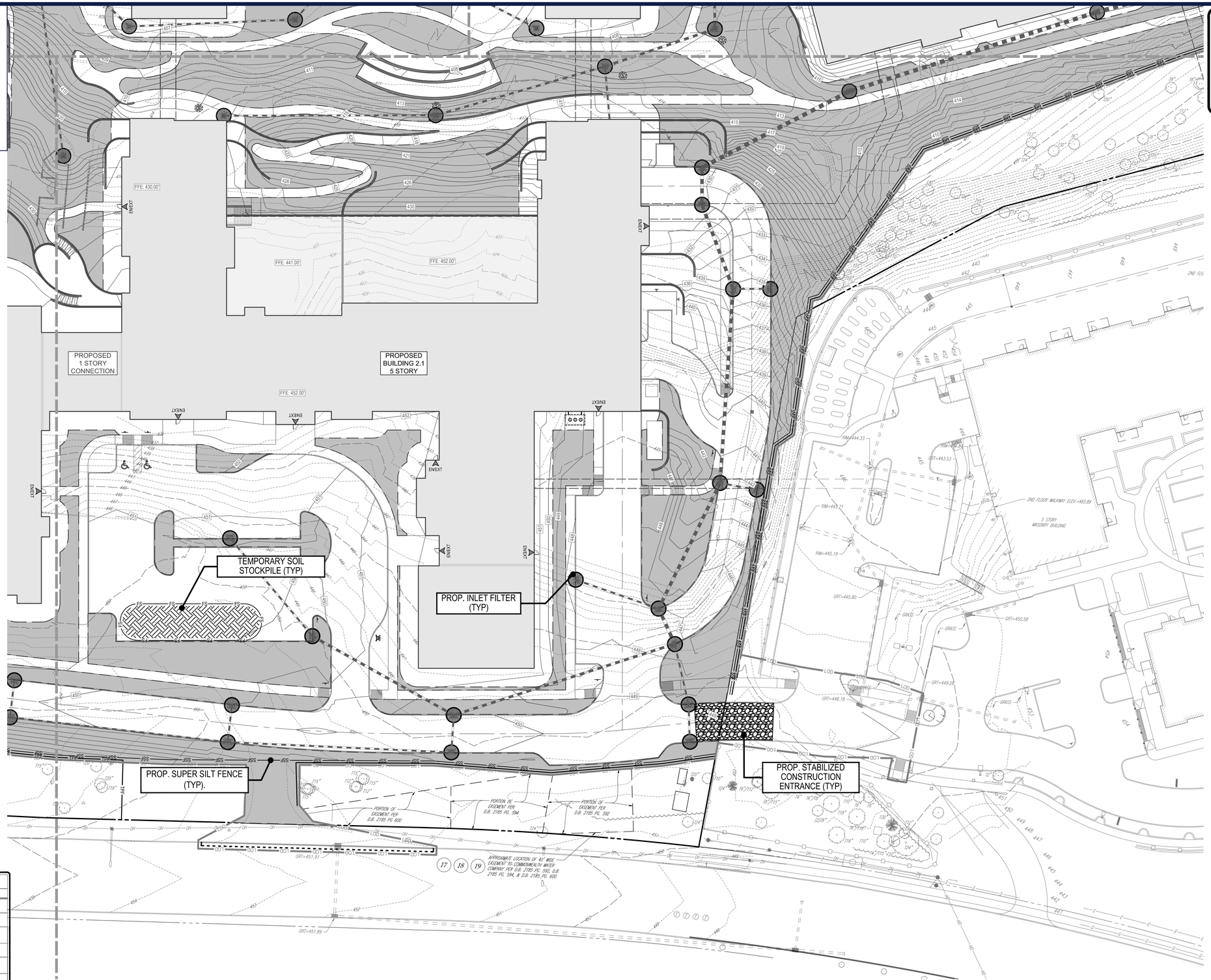
SHEET TITLE:
SOIL EROSION SEDIMENT CONTROL PLAN (C)

SHEET NUMBER:
C-604

ORG. DATE - 03/04/2020

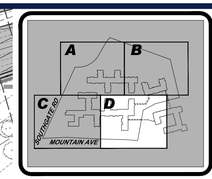
G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-SEC-0A.----LAYOUT C-604 SESC

NAD83



SITE LOCATION MAP

SCALE: 1" = 800'



LEGEND

PROPOSED

SUPER SILT FENCE	SSF
TREE PROTECTION FENCE	TPF
LIMIT OF DISTURBANCE	LOD
CONSTRUCTION ENTRANCE/EXIT	
DRAINAGE INLET PROTECTION	
STOCKPILE LOCATION	

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

30 0 15 30 60 120

GRAPHIC SCALE 1 INCH = 30 FEET

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MS

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LAND SURVEYING
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LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN (D)

SHEET NUMBER:

C-605

ORG. DATE - 03/04/2020

SOIL DE-COMPACTION AND TESTING REQUIREMENTS

(www.nj.gov/agriculture/divisions/anr/nrcr/njerosion.html) (12/8/2017)

SOIL COMPACTION TESTING REQUIREMENTS

1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) MUST 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 SOIL EROSION CONTROL PLAN.

3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN MUST BE USED TO MARK LOCATIONS OF TESTS, AND ATTACHED TO THE COMPACTION MITIGATION VERIFICATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.

4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (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 MUST BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

COMPACTION TESTING METHODS

A. PROBING WIRE TEST (SEE DETAIL)
B. HAND-HELD PENETROMETER TEST (SEE DETAIL)
C. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED
D. 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 OF CONSTRUCTION.

PROCEDURES FOR SOIL COMPACTION MITIGATION

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

RESTORATION OF COMPACTED SOILS MUST 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 MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.

SOMERSET - UNION COUNTY SCD NOTES:

(05/15/15)

1. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.

2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

3. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BE BOUND IN ACCORDANCE WITH THE STATE STANDARDS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

4. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.

5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NJ STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

6. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OR PRELIMINARY GRADING.

7. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO STATE STANDARDS.

8. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E.: SLOPES GREATER THAT 3:1)

9. TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50'X30'X6"PAD OF 1 1/2" OR 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.

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

11. IN THAT NJSA 4:24-39 ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.

12. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.

13. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT NJ STATE SOIL EROSION & SEDIMENT CONTROL STANDARDS.

14. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.

15. MULCHING TO THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.

16. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF CONSTRUCTION PROJECT

17. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF THE SOMERSET-UNION SOIL CONSERVATION DISTRICT.

18. HYDRO SEEDING IS A TWO- STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC,. ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE NJ STANDARDS.

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

BASIN COMPACTION NOTES:

(05/15/15)

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

2. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILED AND FIRMED IN ACCORDANCE WITH ABOVE.

3. IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" INCHES WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP INSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).

4. 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 PLANNED PERVIOUS AREAS TO ENHANCE THE INFILTRATION RATE OF THE DISTURBED SOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLE, IRRIGATION SYSTEMS, ETC.).

5. TO PREVENT COMPACTION OF THE SUBSOIL WHICH WILL REDUCE ITS INFILTRATION CAPACITY, BASINS SHOULD BE EXCAVATED WITH LIGHT EARTH MOVING EQUIPMENT, PREFERABLY WITH TRACKS OR OVER-SIZED TIRES RATHER THAN THE NORMAL RUBBER TIRES, ONCE THE FINAL CONSTRUCTION PHASE IS REACHED, THE FLOOR OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND SMOOTHED OVER WITH A LEVELING DRAG OR EQUIVALENT GRADING EQUIPMENT.

6. FOR BASINS, ANNUAL TILLING OPERATIONS MAINTAIN INFILTRATION CAPACITY. THESE TILLED AREAS SHOULD BE RE-VEGETATED IMMEDIATELY TO PREVENT EROSION. DEEP TILLING CAN BE USED TO BREAKUP CLOGGED SURFACE LAYERS FOLLOWED BY REGARDING AND LEVELING. SAND OR ORGANIC MATTER CAN BE TILLED INTO THE BASIN FLOOR TO PROMOTE A RESTORED INFILTRATION CAPACITY. SEDIMENT REMOVAL PROCEDURES SHOULD NOT BE UNDERTAKEN UNTIL THE BASIN IS THOROUGHLY DRY, THE TOP LAYER SHOULD BE REMOVED BY LIGHT EQUIPMENT TO PREVENT COMPACTION. THE REMAINING SOIL CAN BE RETILED AND DISTURBED VEGETATION REPLANTED.

STABILIZATION SPECIFICATIONS - PERMANENT SEEDING

- LIME - 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER - 14 LBS/1,000 SF; 20-10-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4".

- SEEDS:

HARD FESCUE:	120 LBS/ACRE	OR	2.7 LBS/1,000 S.F.
PERENNIAL RYEGRASS:	30 LBS/ACRE	OR	0.7 LBS/1,000 S.F.
KENTUCKY BLUEGRASS:	40 LBS/ACRE	OR	0.9 LBS/1,000 S.F.

- PERMANENT STABILIZATION SPECIFICATIONS: MULCHING
  A. MULCH MATERIALS TO BE UNROTTED SALT HAY, HAY, OR SMALL GRAIN STRAW AT THE RATE OF 1.5 TO 2 TONS/ACRE OR 70 TO 90 LBS/1,000 SQ. FT.
  B. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF SOIL SURFACE WILL BE COVERED.
  C. MULCH ANCHORING TO BE DONE IMMEDIATELY AFTER PLACEMENT BY
  ONE OF THE FOLLOWING METHODS:
  (1) PEG AND TWINE
  (2) MULCH NETTING
  (3) LIQUID MULCH-BINDERS

SWPPP NOTES

(3/2015)

CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.

REQUIREMENTS FOR LAND GRADING

(O009902-01/18)

THE CONTRACTOR MUST COMPLY WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY (SSESCNJ) IN GENERAL, AND LAND GRADING MORE SPECIFICALLY, CHAPTER 19. THESE REQUIREMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING SUMMARY:

1. SUBGRADE SOILS, PRIOR TO THE APPLICATION OF TOPSOIL, MUST BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. 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 OF CONSTRUCTION, AND PERFORMED JUST PRIOR TO PLACEMENT OF TOPSOIL AND SEEDING.
3. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
4. COMPACTION TESTING LOCATION ARE DENOTED ON THE PLAN. A COPY OF THE PLAN, OR PORTION OF THE PLAN, MUST BE USED TO MARK LOCATIONS OF TESTS AND BE ATTACHED TO THE COMPACTION MITIGATION VERIFICATION FORM, AVAILABLE AT THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT OR AGENCY HAVING JURISDICTION.
5. SOIL COMPACTION REMEDIATION OR TESTS TO PROVE REMEDIATION NOT NECESSARY IS REQUIRED IN AREAS WHERE PERMANENT VEGETATION IS TO BE ESTABLISHED THAT ARE NOT OTHERWISE EXEMPTED BY THE SSESCNJ. TESTING METHOD IS TO BE SELECTED, AND SOIL COMPACTION TESTING IS TO BE PERFORMED BY THE CONTRACTOR OR OTHER PROJECT OWNER'S REPRESENTATIVE (E.G., ENGINEER).
6. A MINIMUM OF TWO (2) TESTS ARE TO BE PERFORMED FOR PROJECTS WITH AN OVERALL LIMIT OF DISTURBANCE OF UP TO ONE (1) ACRE AND AT A RATE OF TWO (2) TESTS PER ACRE OF THE OVERALL LIMIT OF DISTURBANCE FOR LARGER AREAS WHICH ARE TO BE EVENLY DISTRIBUTED OVER THE AREA OF DISTURBANCE SUBJECT TO TESTING.
7. TESTS ARE TO BE PERFORMED IN AREAS REPRESENTATIVE OF THE CONSTRUCTION ACTIVITY PREVAILING IN THE AREA.
8. IN THE EVENT THIS TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE TESTING METHOD, THE CONTRACTOR/OWNER WILL HAVE THE OPTION TO PERFORM COMPACTION MITIGATION OVER THE ENTIRE DISTURBED AREA (EXCLUDING EXEMPT AREAS) OR TO PERFORM ADDITIONAL TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION.
9. SOIL TEST METHOD OPTIONS - THE OPTIONS THAT ARE PERMITTED ARE CONTAINED IN THE SSESCNJ, CHAPTER 19, WHICH PROVIDES SPECIFICATIONS FOR EACH OPTION THAT MUST BE FOLLOWED. THE OPTIONS INCLUDE THE FOLLOWING:
   A. PROBING WIRE TEST METHOD
   B. HANDHELD SOIL PENETROMETER TEST METHOD
   C. TUBE BULK DENSITY TEST METHOD
   D. NUCLEAR DENSITY TEST METHOD

MAXIMUM DRY BULK DENSITIES (GRAMS/CUBIC CENTIMETER) BY SOIL TYPE

SOIL TYPE/TEXTURE	*BULK DENSITY G/CC*
COARSE, MEDIUM AND FINE SANDS AND LOAMY SANDS	1.80
VERY FINE SAND AND LOAMY VERY FINE SAND	1.77
SANDY LOAM	1.75
LOAM, SANDY CLAY LOAM	1.70
CLAY LOAM	1.65
SANDY CLAY	1.60
SILT, SILT LOAM	1.55
SILTY CLAY LOAM	1.50
SILTY CLAY	1.45
CLAY	1.40

SOURCE: USDA NATURAL RESOURCE CONSERVATION SERVICE, SOIL QUALITY INFORMATION SHEET, SOIL QUANTITY RESOURCE CONCERNS: COMPACTION, APRIL 1996.

   E. 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 PRE-APPROVAL.
10. PROCEDURES FOR SOIL COMPACTION MITIGATION
    IF SUBGRADE SOILS ARE DETERMINED TO BE EXCESSIVELY COMPACTED BY TESTING OPTION INDICATED ABOVE, PROCEDURES MUST BE IMPLEMENTED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER. RESTORATION OF COMPACTED SOILS IS TO BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.) OR IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER.
11. INSTALLATION REQUIREMENTS
    A. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETATIVE MATTER WHICH CAN INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS MUST BE REMOVED AND DISPOSED OF ACCORDING TO THE PLAN.
    B. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISH GRADING OF ALL EXPOSED AREAS REQUIRING TOPSOIL. SSESCNJ STANDARD FOR TOPSOILING, PG. 8-1.
    C. TOPSOIL MUST BE APPLIED UNIFORMLY APPLIED TO AN AVERAGE DEPTH OF 5 INCHES, WITH A MINIMUM DEPTH OF 4 INCHES REQUIRED. IF SPECIAL REGULATIONS AND/OR INDUSTRY DESIGN STANDARDS ARE APPROPRIATE, ALTERNATE TOPSOIL DEPTHS MAY BE CONSIDERED. SEE SSESCNJ STANDARD FOR TOPSOILING, PG. 8-2.
    D. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT CAN BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
    E. ALL STRUCTURAL FILLS MUST BE COMPACTED AS DETERMINED BY STRUCTURAL ENGINEERING REQUIREMENTS FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESSIVE SATURATION.
    F. ALL DISTURBED AREAS MUST BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND MUST BE PROTECTED FROM EROSION. SEE SSESCNJ STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1.
    G. TREES TO BE RETAINED MUST BE PROTECTED AS NECESSARY IN ACCORDANCE WITH SSESCNJ STANDARD FOR TREE PROTECTION DURING CONSTRUCTION, PG. 9-1.
12. UPON COMPLETION OF SOIL COMPACTION TESTING, A COMPLETED "SOIL COMPACTION MITIGATION VERIFICATION FORM", ALONG WITH TEST RESULTS, MUST BE SUBMITTED TO THE SOIL CONSERVATION DISTRICT PRIOR TO A REQUEST FOR A "REPORT OF COMPLIANCE INSPECTION".

SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. EROSION CONTROL MEASURES MUST CONFORM TO THE NEW JERSEY GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL UNLESS OTHERWISE NOTED, OR UNLESS ENGINEER CLEARLY AND SPECIFICALLY, IN WRITING, DIRECTS OTHERWISE. INSTALLATION OF EROSION CONTROL, CLEARING, AND SITE WORK MUST BE PERFORMED EXACTLY AS INDICATED IN THE EROSION CONTROL CONSTRUCTION NOTES.
3. THE DISTURBED LAND AREA OF THIS SITE IS APPROXIMATELY 20.222 ACRES.
4. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE:
   A. STABILIZED CONSTRUCTION ENTRANCE/ EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT IS TO BE INSTALLED AT THE DESIGNATED LOCATION SHOWN ON THE PLAN. THIS AREA WILL BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE.
   B. SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK AROUND ALL OF THE DOWNSLOPE PERIMETERS OF THE SITE, TEMPORARY FILL AND SOIL STOCKPILES.
   C. INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EACH DRAINAGE INLET AS DRAINAGE STRUCTURES ARE INSTALLED TO REDUCE THE QUANTITY OF SEDIMENT. INSTALL TEMPORARY INLET PROTECTION ON INLETS DOWNSLOPE FROM DISTURBANCE, WHICH MAY BE BEYOND THE LIMITS OF DISTURBED AREA.
5. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY. THE CONTRACTOR MUST REMOVE ANY SILT DEPOSITS GREATER THAN 6". COLLECTED ON THE FILTER FABRIC AND/OR SILT SOCK BARRIERS AND EXCAVATE AND REMOVE ANY SILT FROM DROP INLET PROTECTION.
7. THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINISHED GRADE AND VEGETATED WITHIN 7 DAYS. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON, THE CONTRACTOR MUST STABILIZE SAME WITH GEOTEXTILE FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST MANAGEMENT PRACTICES.
8. THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF ENGINEER SO REQUIRES, TO PREVENT ANY, INCLUDING THE INCIDENTAL, DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
9. THE CONTRACTOR MUST BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT PAVING AND TURF/LANDSCAPING IS ESTABLISHED. THE COSTS OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS.
10. THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND THE ESTABLISHMENT OF VEGETATION.
11. THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER OR OTHER INSTALLING A DIFFERENT, SPECIFIED METHOD OF STABILIZATION.
12. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES, MEASURES AND STRUCTURES. ADDITIONAL FACILITIES, MEASURES AND STRUCTURES MUST BE INSTALLED WHERE NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS AND/OR TO PREVENT ANY, INCLUDING THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
13. THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS. THE CONTRACTOR MUST REFER TO THE LANDSCAPE AND/OR DEMOLITION PLAN(S) FOR TREE PROTECTION, FENCE LOCATIONS AND DETAILS.
14. THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION.
15. THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES ON OR OFF-SITE AS THE JURISDICTIONAL AGENCY REQUIRES, BOTH AT THE TIME OF SITE STABILIZATION AND AT END OF PROJECT.
16. SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION IN ORDER TO MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROL MEASURES.
17. THE CONTRACTOR MUST IDENTIFY, ON THE PLAN, THE LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED.
18. THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY THE COSTS ASSOCIATED WITH ANY AND ALL NECESSARY DISCHARGE PERMITS ASSOCIATED WITH SAME.
19. THE CONTRACTOR MUST LOCATE CONSTRUCTION WASTE MATERIAL STORAGE AREAS TO MINIMIZE EXPOSURE TO STORMWATER. THE CONTRACTOR MUST IMMEDIATELY PLACE CONSTRUCTION WASTE IN ON-SITE STORAGE CONTAINERS UNTIL THAT CONSTRUCTION WASTE IS READY FOR OFF-SITE DISPOSAL. THE CONTRACTOR MUST MAINTAIN SPILL PREVENTION & RESPONSE EQUIPMENT AND MAKE SAME CONTINUOUSLY AVAILABLE ON-SITE FOR USE BY THE CONTRACTOR'S EMPLOYEES WHO MUST BE PROPERLY TRAINED IN THE APPLICATION OF SPILL PREVENTION & RESPONSE PROCEDURES.

STANDARDS FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS

(O009901-03/17)

HIGH ACID PRODUCING SOILS MAY BE PRESENT IN UNDISTURBED SOILS AT VARYING DEPTHS INCLUDING NEAR THE SOIL SURFACE TO EXCAVATIONS OR DEEP DISTURBANCES. ITS PRESENCE ON A SITE MAY BE SIGNIFICANT OR LIMITED IN THE SOIL PROFILE. HIGH ACID PRODUCING SOILS ARE COMMONLY BLACK, DARK BROWN, GRAY OR GREENISH WITH SILVERY PYRITE OR MARCASITE NUGGETS OR FLAKED. ALTERNATIVELY, SANDY SOILS OR REDDISH, YELLOWISH OR LIGHT TO MEDIUM BROWN SOIL MATERIALS ARE USUALLY FREE OF HIGH ACID PRODUCING DEPOSITS.

METHODS AND MATERIALS

1. LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID PRODUCING SOILS ARE ENCOUNTERED.
2. TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOILS.
3. STOCKPILES OF HIGH ACID PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
4. TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOIL MATERIAL TO BE EXPOSED MORE THAN 30 DAYS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOP OF SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID PRODUCING SOIL.
5. HIGH ACID PRODUCING SOILS WITH A PH OF 4 OR LESS, OR CONTAINING IRON SULFIDE, (INCLUDING BORROW FROM CUTS) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 6 TONS PER ACRE (OR 275 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5 OR MORE EXCEPT AS FOLLOWS:
   A. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OR 5 OR MORE.
   B. DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES AND OTHERS TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
6. EQUIPMENT USED FOR MOVEMENT OF HIGH ACID PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYAN

DEFINITION

THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS

PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON- AND OFF-SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITION WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTIONS.

WATER QUALITY ENHANCEMENT

SEDIMENTS DEPOSITED AS "DUST" ARE OFTEN FINE COLLOIDAL MATERIAL WHICH IS EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED. USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES AND SUBSEQUENT BLOWING AND DEPOSITION INTO LOCAL SURFACE WATER RESOURCES.

PLANNING CRITERIA

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES - SEE STANDARDS FOR STABILIZATION WITH MULCHES ONLY

VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND PERMANENT STABILIZATION WITH SOD.

SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MOCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1,200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) -SPRAY ON POLYACRYLAMIDE (PAM) -DRY SPREAD	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD.		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1,200

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

SPRINKLING- SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

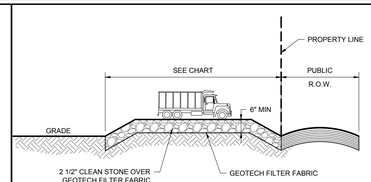
BARRIERS- SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

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

STONE- COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

4 NJSCD STANDARD FOR DUST CONTROL

NOT TO SCALE (O999916 - 2/2018)

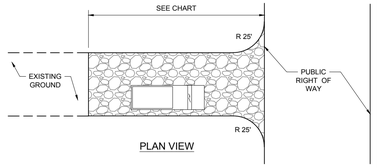


PROFILE

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIREMENTS	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0% TO 2%	50 Ft	100 Ft
2% TO 5%	100 Ft	200 Ft
>5%	ENTIRE ENTRANCE STABILIZED WITH HOT MIX ASPHALT BASE COURSE, MIX I-2*	

* AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

CHART

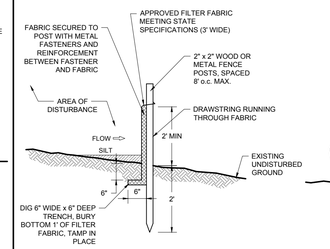


PLAN VIEW

NOTES:
1. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE ANTI-TRACKING PAD FOR THE DURATION OF THE PROJECT, SO THAT THE ROAD IS KEPT CLEAN.
2. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION EXIT AND PUBLIC R.O.W.
3. CONTRACTOR MUST APPLY TOP DRESSING WITH REPLACEMENT/ SUPPLEMENTAL STONE AS NECESSARY DURING THE PROJECT TO MAINTAIN ADEQUATE ANTI-TRACKING FUNCTION.
4. ANTI-TRACKING TO BE PROVIDED WHEREVER VEHICLES EXIT IN UN-STABILIZED PORTION OF THE CONSTRUCTION SITE.
5. TRACKING PAD IS TO EXTEND TO THE PAVED AREA IN THE PUBLIC R.O.W.

1 STABILIZED CONSTRUCTION EXIT/ACCESS & ANTI-TRACKING PAD DETAIL

NOT TO SCALE (O029901 - 08/2017)



NOTES:
1. CONTRACTOR SHALL SEPARATE TOP SOIL AND GENERAL EXCAVATED MATERIAL INTO SEPARATE STOCKPILES.
2. CONTRACTOR SHALL PROTECT EXCAVATED REUSABLE SOILS FROM SOILS CONTAMINATED WITH DELETERIOUS MATERIAL.

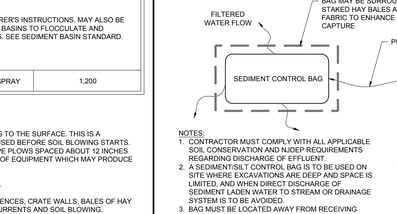
2 TEMPORARY SOIL STOCKPILE DETAIL

NOT TO SCALE (O079901 - 1/2017)

NOTES:
1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. THE SLOPE OF THE LAND FOR AT LEAST 30 FEET ADJACENT TO ANY SILT FENCE SHALL NOT EXCEED 5%.
3. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND THE SIDES.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.
5. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE INSTRUCTED BY THE MUNICIPAL ENGINEER OR SOIL CONSERVATION DISTRICT.
6. THE BARRIER SHALL BE REMOVED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE AND ACCEPTED BY THE MUNICIPAL ENGINEER OR SOIL CONSERVATION DISTRICT.
7. FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD A MIN. DIAMETER THICKNESS OF 1 ½ INCHES.
8. A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
9. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE GROUND. FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING TO INDICATE LIMIT OF SILT ACCUMULATION. CONTRACTOR MUST CLEAR THE ACCUMULATED SILT WHEN LIMIT IS REACHED.

3 SILT FENCE DETAIL

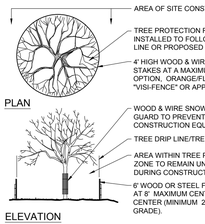
NOT TO SCALE (O039902 - 1/2017)



NOTES:
1. CONTRACTOR MUST COMPLY WITH ALL APPLICABLE SOIL CONSERVATION AND NJDEP REQUIREMENTS REGARDING DISCHARGE OF EFFLUENT.
2. A SEDIMENT/SILT CONTROL BAG IS TO BE USED ON SITE WHERE EXCAVATIONS ARE DEEP AND SPACE IS LIMITED, AND WHEN DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO STREAM OR DRAINAGE SYSTEM IS TO BE AVOIDED.
3. BAG MUST BE LOCATED AWAY FROM RECEIVING WATERS AND/OR CONSTRUCTION ACTIVITIES.
4. BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND FED, STATE, AND LOCAL REGULATIONS. BAGS MAY NOT BE REUSED.
5. DISCHARGE HOSE FROM PUMP MUST BE PLACED IN A STABILIZED AREA DOWN SLOPE OF UNSTABILIZED AREAS TO PREVENT EROSION.
6. MAINTENANCE MUST BE PERFORMED BY THE CONTRACTOR WHEN THE PUMP RUNS DRY AND BACK UP WATER REMAINS.

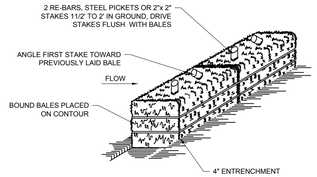
5 NJ SCD SEDIMENT CONTROL BAG FOR DEWATERING DETAIL

NOT TO SCALE (O089906-08/2016)



6 TREE PROTECTION DURING SITE CONSTRUCTION DETAIL

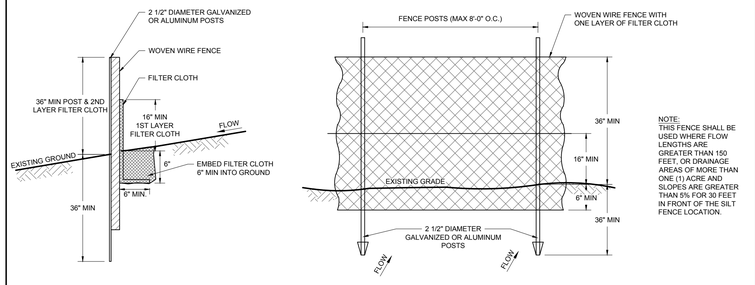
NOT TO SCALE (O039909 - 4/2017)



NOTES:
1. BALES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
6. DRAINAGE AREA NO MORE THAN 1/4 AC. PER 100 FEET OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%.

7 STRAW BALE & DIKE DETAIL

NOT TO SCALE (O055901-01/2013)



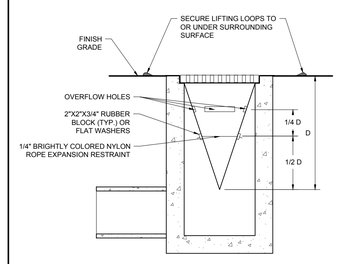
NOTE:
THIS FENCE SHALL BE USED WHERE FLOW LENGTHS ARE GREATER THAN 150 FEET, OR DRAINAGE AREAS OF MORE THAN ONE (1) ACRE AND SLOPES ARE GREATER THAN 5% FOR 30 FEET IN FRONT OF THE SILT FENCE LOCATION.

8 SUPER SILT FENCE DETAIL

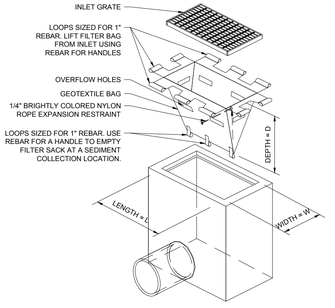
NOT TO SCALE (O039906 - 1/2017)

SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

1. REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN.
2. GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
3. PLACE AN OIL ADSORBENT PAD OR PILLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.
4. INSPECT PER REGULATORY REQUIREMENTS.
5. THE WIDTH, "W", OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH OF THE GRATED INLET BOX.
6. THE DEPTH, "D", OF THE FILTER SACK SHALL BE BETWEEN 24 INCHES AND 36 INCHES.
7. THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.
8. FOR INLET WITH CURB PIECE OPENING, THE CURB PIECE OPENING SHALL BE BLOCKED SO ALL STORMWATER RUNOFF WILL BE FILTERED THROUGH THE FILTER SACK.



SECTION VIEW
PROFILE VIEW OF INSTALLED FILTER SACK



ISOMETRIC VIEW

9 INLET FILTER SACK DETAIL

NOT TO SCALE (O049911 - 1/2017)

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
CONSTRUCTION SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-CDS-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOTS 18.01, 15, 17

BOHLER
BOHLER ENGINEERING NJ, LLC
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WARREN, NJ 07059
Phone: (908) 668-8300
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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL DETAILS

SHEET NUMBER:
C-607

ORG. DATE - 03/04/2020

G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-CDS-0A.dwg — 3/4/2020 12:52:01 PM — MFS

NAD83

SOUTHGATE ROAD
(FORMERLY KNOWN AS RYDER WAY)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

RYDER WAY
60' (WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

SOUTHGATE ROAD
(A.K.A. NORTH 3rd STREET)
(50' WIDE R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

BLOCK 335
LOT 30
N/F LANDS OF
DAVID M. KEYSER &
GINA PRIANO-KEYSER

BLOCK 335
LOT 29

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

BLOCK 320
LOT 18.01
24.62 AC
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

REDWOOD

PROPOSED BUILDING 2.5
6 STORY

PROPOSED BUILDING 2.3
6 STORY

PROPOSED BUILDING 2.2
6 STORY

PROPOSED BUILDING 2.4
5 STORY

PROPOSED CC BUILDING
4 STORY

PROPOSED BUILDING 2.1
5 STORY

FORMER
BLOCK 320
LOT 1

BLOCK 320
LOT 15
N/F LANDS OF
REDWOOD-ERC NEW
PROVIDENCE II LLC

MOUNTAIN AVENUE
(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

REFER TO LIGHTING NOTES & DETAILS SHEET FOR BOROUGH REQUIREMENTS, LUMINAIRE SCHEDULE, POLE SPECIFICATION & LIGHT POLE FOUNDATION DETAIL

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

GRAPHIC SCALE 60 0 30 60 120 240
1 INCH = 60 FEET

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MS

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-LGT-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

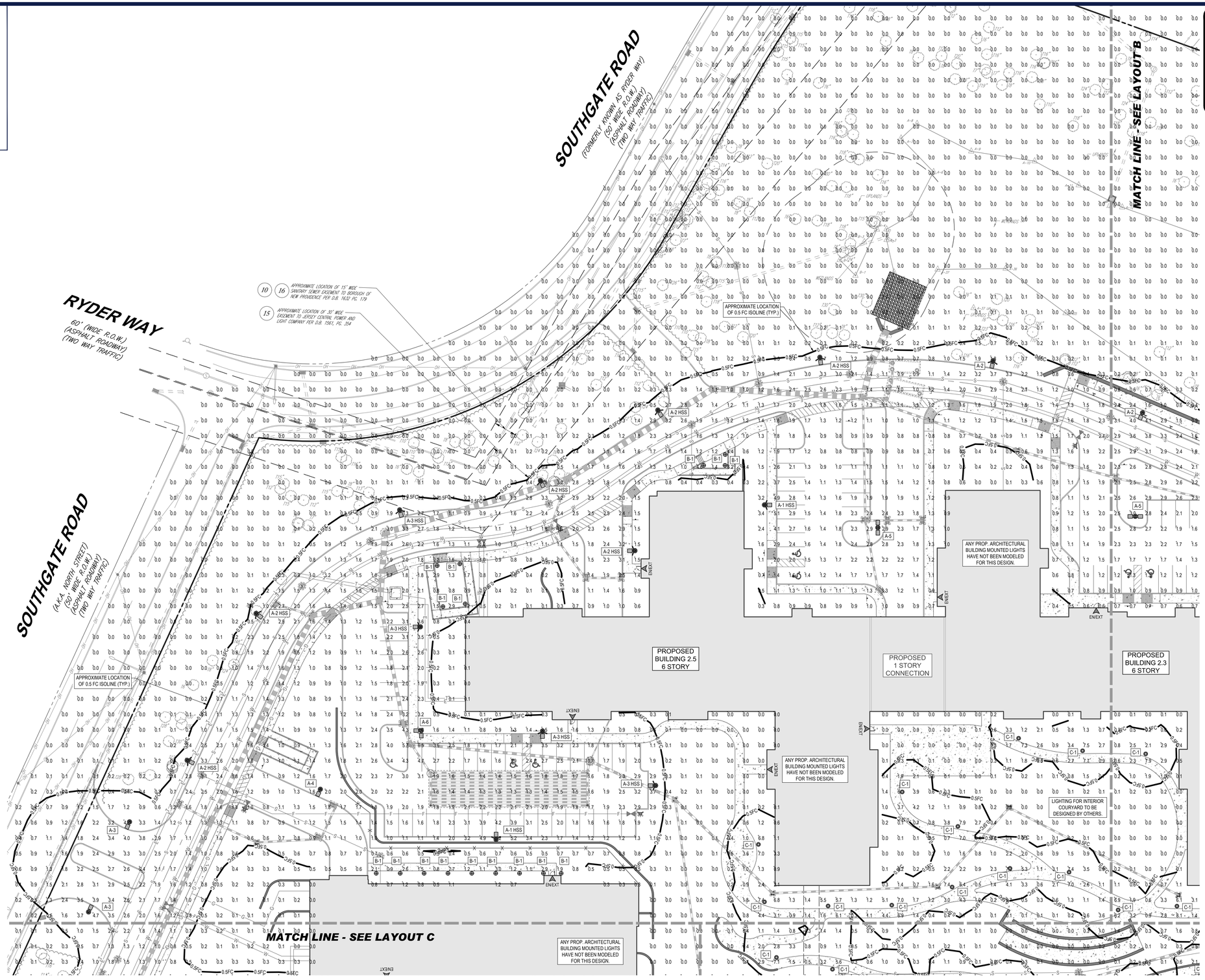
OVERALL LIGHTING PLAN

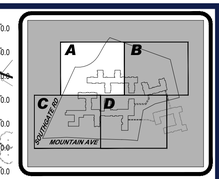
SHEET NUMBER:

C-701

ORG. DATE - 03/04/2020

NAD83





SITE LOCATION MAP

SCALE: 1" = 800'

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30 0 15 30 60 120

GRAPHIC SCALE

1 INCH = 30 FEET

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CAD I.D.:	J100690.04-LGT-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

LIGHTING PLAN (A)

SHEET NUMBER:

C-702

ORG. DATE - 03/04/2020

G:\2021\J100690.04\DRAWING\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-LGT-0A-----LAYOUT C-702 LIGHT MS

NAD83

MATCH LINE - SEE LAYOUT A

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

BLOCK 320
LOT 18.01
24.62 AC
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

BLOCK 320
LOT 17

N/F LANDS OF
REDWOOD-ERC NEW PROVIDENCE LLC

CONC. MON. FOUND

IRON BAR FOUND

APPROXIMATE LOCATION OF 0.5 FC ISOLINE (TYP.)

APPROXIMATE LOCATION OF 0.5 FC ISOLINE (TYP.)

APPROXIMATE LOCATION OF 0.5 FC ISOLINE (TYP.)

APPROXIMATE LOCATION OF THE RECEIVING SWALE AND DRAINAGE EASEMENT TO BE REMOVED OF NEW PROVIDENCE, PER D.B. 2869 PG. 78

PROPOSED BUILDING 2.3
6 STORY

ANY PROP. ARCHITECTURAL BUILDING MOUNTED LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

LIGHTING FOR INTERIOR COURYARD TO BE DESIGNED BY OTHERS.

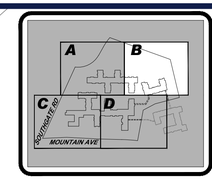
PROPOSED BUILDING 2.2
6 STORY

ANY PROP. ARCHITECTURAL BUILDING MOUNTED LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

5 STORY MASONRY BUILDING

MATCH LINE - SEE LAYOUT D

SITE LOCATION MAP
SCALE: 1" = 800'



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GRAPHIC SCALE 30 0 15 30 60 120
1 INCH = 30 FEET

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CAD I.D.:	J100690.04-LGT-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

LIGHTING PLAN (B)

SHEET NUMBER:

C-703

ORG. DATE - 03/04/2020

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NAD83

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT D

ANY PROP. ARCHITECTURAL BUILDING MOUNTED LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

PROPOSED BUILDING 2.4 5 STORY

LIGHTING FOR PLAZA AREA TO BE DESIGNED BY OTHERS.

PROPOSED CC BUILDING 4 STORY

PROPOSED 1 STORY CONNECTION

PROPOS 1 STOR CONNECT

ANY PROP. ARCHITECTURAL BUILDING MOUNTED LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

APPROXIMATE LOCATION OF 0.5 FC ISOLINE (TYP.)

APPROXIMATE LOCATION OF RIGHT OF WAY TO JERSEY CENTRAL POWER & LIGHT COMPANY PER D.B. 2940, PG. 0

EXIST. STREET LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

FORMER BLOCK 320 LOT 1

APPROXIMATE LOCATION OF 0.5 FC ISOLINE (TYP.)

EXIST. STREET LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

EXIST. STREET LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

MOUNTAIN AVENUE

(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

A-2 HSS
A-3 HSS
A-5
B-1
ENEXT

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30 0 15 30 60 120

GRAPHIC SCALE

1 INCH = 30 FEET

SITE LOCATION MAP

SCALE: 1" = 800'

A B C D

Summer Rd

MOUNTAIN AVE

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FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

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UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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R.L. STREKER

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

LIGHTING PLAN (C)

SHEET NUMBER:

C-704

ORG. DATE - 03/04/2020

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NAD83

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT B

MATCH LINE - SEE LAYOUT C

PROPOSED 1 STORY CONNECTION

PROPOSED BUILDING 2.1 5 STORY

ANY PROP. ARCHITECTURAL BUILDING MOUNTED LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

LIGHTING FOR PLAZA AREA TO BE DESIGNED BY OTHERS.

ANY PROP. ARCHITECTURAL BUILDING MOUNTED LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

APPROXIMATE LOCATION OF 0.5 FC ISOLINE (TYP.)

EXIST. SITE AREA LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN (TYP.)

PROP. GREASE INTERCEPTOR RIM 449.50

APPROXIMATE LOCATION OF 0.5 FC ISOLINE (TYP.)

EXIST. STREET LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

2ND FLOOR WALKWAY ELEV.=465.89

5 STORY MASONRY BUILDING

PORTION OF PARKWAY DEDICATION PER DLB. 2185 PG. 600

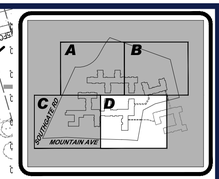
PORTION OF PARKWAY DEDICATION PER DLB. 2185 PG. 600

NATURAL GAS EASEMENT TO COMMONWEALTH WATER COMPANY PER D.B. 2185 PG. 600 AND AMENDED BY AGREEMENT DATED 10/24/1974 PER D.B. 2185 PG. 600

17 18 19

A-1 A-2 HSS A-3 HSS A-4 A-5 B-1 C-1

ENEXT



SITE LOCATION MAP

SCALE: 1" = 800'

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R.L. STREKER

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

LIGHTING PLAN (D)

SHEET NUMBER:

C-705

ORG. DATE - 03/04/2020

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LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	MTG. HT.	DESCRIPTION	ARRNGMNT.	LUMENS	LLF	COLOR TEMP.	IES FILENAME	CATALOG #
	1	A-1	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT	SINGLE	10,755	0.900	4000K	P26-48L-500-NW-G2-2.IES	P26-48L-500-NW-G2-AR-2-XXX-BLP
	2	A-1 HSS	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT W/ INTERNAL HOUSING SIDE SHIELD	SINGLE	8,439	0.900	4000K	P26-48L-500-NW-G2-2-HIS.IES	P26-48L-500-NW-G2-AR-2-XXX-HIS-BLP
	6	A-2	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT	SINGLE	10,401	0.900	4000K	P26-48L-500-NW-G2-3.IES	P26-48L-500-NW-G2-AR-3-XXX-BLP
	15	A-2 HSS	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT W/ INTERNAL HOUSING SIDE SHIELD	SINGLE	8,439	0.900	4000K	P26-48L-500-NW-G2-3-HIS.IES	P26-48L-500-NW-G2-AR-3-XXX-HIS-BLP
	2	A-3	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT	SINGLE	10,790	0.900	4000K	P26-48L-500-NW-G2-4.IES	P26-48L-500-NW-G2-AR-4-XXX-BLP
	16	A-3 HSS	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT W/ INTERNAL HOUSING SIDE SHIELD	SINGLE	8,802	0.900	4000K	P26-48L-500-NW-G2-4-HIS.IES	P26-48L-500-NW-G2-AR-4-XXX-HIS-BLP
	7	A-4	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT	SINGLE	11,141	0.900	4000K	P26-48L-500-NW-G2-5W.IES	P26-48L-500-NW-G2-AR-5W-XXX-BLP
	9	A-5	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT	BACK-TO-BACK	11,141 (X2)	0.900	4000K	P26-48L-500-NW-G2-5W.IES	P26-48L-500-NW-G2-AR-5W-XXX-BLP
	1	A-6	20'	GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT W/ INTERNAL HOUSING SIDE SHIELD	DOUBLE @ 90°	8,802 (X2)	0.900	4000K	P26-48L-500-NW-G2-4-HIS.IES	P26-48L-500-NW-G2-AR-4-XXX-HIS-BLP
	37	B-1	3`	PERFORMANCE IN LIGHTING KHA SLIM 36 INCH SERIES LED BOLLARD LIGHT	SINGLE	546	0.900	4000K	PIL-076419_KHA_SLIM_36IN_14_120_277V_840_IRO_GR.IES	076419
	46	C-1	11'-6"	SISTEMALUX STELO SERIES LED COLUMN LIGHT	SINGLE	3,581	0.900	3000K	S4120W.IES	S.4120W

NOTES: 1. ANY EXISTING STREET AND SITE AREA LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.
2. ANY PROPOSED ARCHITECTURAL BUILDING MOUNTED LIGHTS HAVE NOT BEEN MODELED FOR THIS DESIGN.

BOROUGH REQUIREMENTS

	ORDINANCE	REQUIRED	PROPOSED
MAXIMUM MOUNTING HEIGHT	CCRCO CONTINUING CARE RETIRMENET COMMUNITY OVERLAY - J(B) DESIGN STANDARDS - EXTERIOR LIGHTING	20'	20' (COMPLIES)
MINIMUM WITHIN PARKING AREAS	§ 305-11 LIGHTING PER ORDINANCE NO. 2008-22	0.5 FC	0.8 FC (COMPLIES)
MINIMUM WITHIN PEDESTRIAN AREAS		0.5 FC	0.6 FC** (COMPLIES)
AVERAGE TO MINIMUM WITHIN PARKING AREAS		4:1	2.43:1 (COMPLIES)
AVERAGE TO MINIMUM WITHIN PEDESTRIAN AREAS		4:1	2.58:1 (COMPLIES)
MAXIMUM AT COMMERCIAL PROPERTY LINES		0.5 FC	1.8 FC * (WAIVER)
MAXIMUM AT RESIDENTIAL PROPERTY LINES		0.1 FC	0.0 FC (COMPLIES)
MAXIMUM MOUNTING HEIGHT		25'	20' (COMPLIES)
MINIMUM WITHIN PARKING AREAS	§ 310-20(E) - OFF-STREET PARKING REQUIREMENTS	0.5 FC	0.8 FC (COMPLIES)
MINIMUM WITHIN PEDESTRIAN WALKWAYS		0.5 FC	0.6 FC** (COMPLIES)
MAXIMUM POLE HEIGHT (PEDESTRIAN AREAS)		15'	11'-6" (COMPLIES)
MAXIMUM POLE HEIGHT (OTHER AREAS)		20'	20' (COMPLIES)
MAXIMUM HEIGHT FOR SURFACE MOUNTED LIGHTS		20'	NOT APPLICABLE

* VALUE OCCURS AT THE INGRESS/EGRESS DRIVEWAY ALONG SOUTHGATE ROAD
** CALCULATION INCLUDES SIDEWALKS ALONG INTERIOR ROADS & AT PARKING AREAS. CALCULATION DOES NOT INCLUDE SIDEWALKS WITHIN THE INTERIOR COURTYARD

CALCULATION SUMMARY

LOCATION	UNITS	AVG.	MAX.	MIN.	AVG./MIN.	MAX./MIN.
PARKING AREAS	FC	1.94	6.2	0.8	2.43	7.75
PEDESTRIAN AREAS	FC	1.55	7.0	0.6	2.58	11.67
PROPERTY LINE (NORTH - RESIDENTIAL)	FC	0.0	0.0	0.0	N.A.	N.A.
PROPERTY LINE (SOUTH - COMMERCIAL)	FC	0.0	0.0	0.0	N.A.	N.A.
PROPERTY LINE (EAST - COMMERCIAL)	FC	0.35	1.7	0.0	N.A.	N.A.
PROPERTY LINE (WEST - COMMERCIAL)	FC	0.17	1.8	0.0	N.A.	N.A.
PROPERTY LINE (WEST - RESIDENTIAL)	FC	0.0	0.0	0.0	N.A.	N.A.

LIGHT POLE FOUNDATION NOTES

1. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND CONDITIONS, COORDINATE WITH ALL CONTRACT DRAWINGS, PROJECT SHOP DRAWINGS AND FIELD CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR MUST ENSURE NO CONFLICTS ARISE BETWEEN LIGHT POLE FOUNDATIONS, STRUCTURES, AND UTILITIES. IF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND DESIGN PLANS ARISE, THE ENGINEER MUST BE NOTIFIED IMMEDIATELY IN WRITING.

2. THE CONTRACTOR IS TO HAVE A GEOTECHNICAL ENGINEER, LICENSED IN THE PROJECT'S STATE, ON SITE TO INSPECT FILL, MONITOR FILL COMPACTION AND TO VERIFY SUBGRADE ALLOWABLE BEARING CAPACITY AND SOIL DESIGN CRITERIA PRIOR TO CONSTRUCTION IN ACCORDANCE TO THE DESIGN ASSUMPTIONS STATED. UNSUITABLE MATERIALS FOUND MUST BE REMOVED OR BE REMEDIED AS PER THE DIRECTION OF THE ON SITE GEOTECHNICAL ENGINEER.

3. IF CONDITIONS IN THE FIELD ARE DIFFERENT THAN THOSE INDICATED, THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER IN WRITING.

4. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT APPROPRIATE SELECT BACKFILL IS USED, AND THOROUGHLY COMPACTED TO 98% MAX. DENSITY ASTM D 698.

5. STRUCTURAL CONCRETE AND CONCRETING PRACTICES SHALL CONFORM WITH ACI-318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE." DETAILS ARE TO BE IN ACCORDANCE WITH ACI-315, "MANUAL OF STANDARD PRACTICE: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT." FORM WORK SHALL CONFORM ACI-347 "GUIDE TO FORM WORK FOR CONCRETE", UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS.

6. CONCRETE MUST BE NORMAL WEIGHT STONE AGGREGATE WITH THE STATED MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS. HISTORICAL DATA OR LABORATORY TESTS FOR THE PRELIMINARY DESIGN MIX IS TO BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. THE WATER-CEMENT RATIO FOR THE PROPOSED MIX DESIGN MUST ACHIEVE AN AVERAGE 28-DAY STRENGTH OF 1,200 PSI GREATER THAN THE REQUIRED STRENGTH ON LABORATORY TEST RESULTS

7. CONCRETE IS TO HAVE A SLUMP NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".

8. EXPOSED CONCRETE IS TO BE AIR ENTRAINED, 6% (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.

9. CONCRETE TO BE CONSOLIDATED IN PLACE USING AN INTERNAL VIBRATOR.

10. REINFORCING STEEL BARS SHALL BILLET STEEL, ASTM A615, GRADE 60. ALL REINFORCEMENT TO BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS OR STIRRUPS TO BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES TO BE PLASTIC TIPPED. ALL ACCESSORIES MUST BE GALVANIZED.

11. ALL SPLICES OF REINFORCING BARS NOT INDICATED ARE TO BE LTS AS PER THE REINFORCING SPLICE SCHEDULE OR 40 BAR DIAMETERS. DISCONTINUOUS ENDS OF CONTINUOUS BARS ARE TO BE STANDARD HOOKS.

12. IF CAVING OF DRILLED HOLES ARE ENCOUNTERED, CONTRACTOR SHALL PROVIDE BENTONITE SLURRY IN PERMANENT CASINGS FOR DRILLED CONCRETE PIER FOUNDATIONS.

13. CONCRETE MUST ATTAIN 80% OF THE DESIGN STRENGTH OR CURE FOR A MINIMUM OF 7-DAYS PRIOR TO THE INSTALLATION OF THE LIGHT POLES OR ALL LIGHT POLES ARE TO BE SUITABLY BRACED AGAINST WIND LOADS DURING THE ABOVE MENTIONED TIMEFRAME.

14. ALL ELECTRICAL COMPONENTS TO COMPLY WITH N.E.C.

15. WHEN 2'-6" CLEARANCE CAN NOT BE PROVIDED, CONCRETE FOUNDATION MUST BE EXTENDED TO 30" ABOVE SURFACE, OR PROVIDE BOLLARD PROTECTION FOR LIGHT POLE.

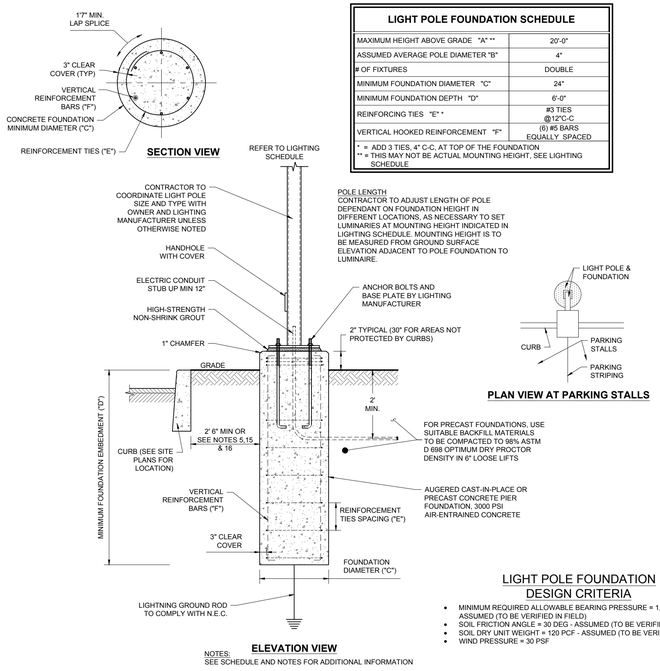
16. VERIFY WITH LOCATIONS SHOWN ON LIGHTING PLAN

17. CONTRACTOR IS TO RECORD ON A CLEAN COPY OF THE LIGHTING PLANS. THE LOCATION OF CONDUIT SUPPLYING POWER TO LIGHTS. A COMPLETED COPY OF THIS RECORD PLAN IS TO BE PROVIDED TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE WORK.

18. UPON ACCEPTANCE OF THE COMPLETED WORK BY THE OWNER, THE OWNER IS RESPONSIBLE FOR APPROPRIATE MAINTENANCE OF THE LIGHTING SYSTEM

LIGHT POLE FOUNDATION SCHEDULE	
MAXIMUM HEIGHT ABOVE GRADE "A" **	20'-0"
ASSUMED AVERAGE POLE DIAMETER "B"	4"
# OF FIXTURES	DOUBLE
MINIMUM FOUNDATION DIAMETER "C"	24"
MINIMUM FOUNDATION DEPTH "D"	6'-0"
REINFORCING TIES "E" *	#3 TIES @12"C-C
VERTICAL HOOKED REINFORCEMENT "F"	(6) #5 BARS EQUALLY SPACED

* = ADD 3 TIES, 4" C-C, AT TOP OF THE FOUNDATION
** = THIS MAY NOT BE ACTUAL MOUNTING HEIGHT, SEE LIGHTING SCHEDULE



SECTION VIEW

PLAN VIEW AT PARKING STALLS

NOTES:
SEE SCHEDULE AND NOTES FOR ADDITIONAL INFORMATION

ELEVATION VIEW

LIGHT POLE FOUNDATION DESIGN CRITERIA

- MINIMUM REQUIRED ALLOWABLE BEARING PRESSURE = 1,000 PSF - ASSUMED (TO BE VERIFIED IN FIELD)
- SOIL FRICTION ANGLE = 30 DEG - ASSUMED (TO BE VERIFIED IN FIELD)
- SOIL DRY UNIT WEIGHT = 120 PCF - ASSUMED (TO BE VERIFIED IN FIELD)
- WIND PRESSURE = 30 PSF

LIGHTING NOTES

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE LIGHTING CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
3. THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNER'S.
6. THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES. POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEER'S AND/OR LIGHTING CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE LIGHTING CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
7. THE CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
8. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
9. THE ACTUAL LIGHTING LEVELS MUST BE VERIFIED IN THE FIELD AND FIXTURES ADJUSTED ACCORDINGLY, BY THE CONTRACTOR, TO ACHIEVE THE APPROVED LIGHT LEVELS.
10. ILLUMINATION LEVELS SHOWN ON THE PLAN HAVE BEEN CALCULATED FOR PROPOSED LIGHTS ONLY. ACTUAL ILLUMINATION LEVELS IN THE FIELD MAY DIFFER FROM THOSE DEPICTED ON THE PLAN DUE TO INTERFERENCE FROM EXISTING/AMBIENT LIGHTS WHOSE ILLUMINATION LEVELS ARE NOT REFLECTED ON THIS PLAN.
11. ILLUMINATION LEVELS SHOWN ON THE PLAN WERE CALCULATED WITH LIGHTING DESIGN SOFTWARE AGI32 BY LIGHTING ANALYST.

GARDCO BY SIGNIFY PUREFORM (P26) SERIES MEDIUM LED AREA LIGHT (A-1 THRU A-6)
NOT TO SCALE

PERFORMANCE IN LIGHTING KHA SLIM 36 INCH SERIES LED BOLLARD LIGHT (B-1)
NOT TO SCALE

SISTEMALUX STELO SERIES LED COLUMN LIGHT (C-1)
NOT TO SCALE

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

GARDCO by Signify | Site & Area | PureForm | P26 medium area light

Gardco PureForm LED area medium P26 features a sleek, low profile design and optimal performance. PureForm area medium is designed to achieve maximum pole spacing, with lumen output up to 28,900 lumens. Multiple distribution and shielding options are available to achieve maximum control. A full range of control options provides additional energy savings.

Project:
Location:
Cat.No:
Type:
Lumens: Qty:
Notes:

Ordering guide

example: P26-64L-800-NW-G2-AR-3-120-HIS-MGY

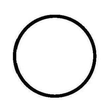
Prefix	Number of LEDs	Drive Current	LED Color – Generation	Mounting	Distribution	Voltage
P26 PureForm area medium, 26"	48L 48 LEDs (3 modules)	400 400mA 500 500mA 600 600mA 700 700mA	WW-G2 Warm White 3000K, 70CRI Generation 2 NW-G2 Neutral White 4000K, 70CRI Generation 2 CW-G2 Cool White 5000K, 70CRI Generation 2 WY-G2 Warm Yellow 2700K, 80CRI Generation 2 BW-G2 Balanced White 3500K 80CRI Generation 2 AM-G2 Direct Amber (590nm) Generation 2 [2]	AR Arm Mount (standard)[1] *The following mounting kits must be ordered separately (See accessories)* SF Slip Fitter Mount [1] (fits to 2 ⅛" O.D. tenon) WS Wall mount with surface conduit ear entry permitted RAM Retrofit arm mount kit [1]	Type 2 2 Type 2 Rotated left 90° 2-270 Rotated right 270° Type 3 3 Type 3 Rotated left 90° 3-270 Rotated right 270° Type 4 4 Type 4 Rotated left 90° 4-270 Rotated right 270° Type 5 5 Type 5 5W Type 5W AFR Auto Front Row AFR-90 Auto Front Row, rotated left 90° AFR-270 Auto Front Row, rotated right 270° BLC Back Light Control BLC-90 Back Light Control rotated at 90° BLC-270 Back Light Control rotated at 270°	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V (50/60Hz) HVU 347-480V (50/60Hz)
	64L 64 LEDs (4 modules)	600 600mA 700 700mA 800 800mA				
	80L 80 LEDs (5 modules)	700 700mA 800 800mA 900 900mA				

Options						
Dimming controls	Motion sensing lens	Photo-sensing	Electrical	Luminaire	Finish
D0 0–10V External dimming (by others)[4] DCC Dual Circuit Control[4,5] FAWS Field Adjustable Wattage Selector[4,6] SW Interface module for SiteWise[4,6,7] LLC Integral wireless module[4,6,7,8] EL Bi-level functionality[4,9] DynaDimmer: Automatic Profile Dimming CS50 Security 50% Dimming, 7 hours[10] CM50 Median 50% Dimming, 8 hours[10] CE50 Economy 50% Dimming, 9 hours[10] DA50 All Night 50% Dimming[10] CS30 Security 30% Dimming, 7 hours[10] CM30 Median 30% Dimming, 8 hours[10] CE30 Economy 30% Dimming, 9 hours[10] DA30 All Night 30% Dimming[10]	IMR3 Integral with #3 lens[4] IMR7 Integral with #7 lens[4] IMRO Pole-mounted motion sensor (see accessories)[3]	PCB Photocontrol Button[4,11] TLR05 Twist Lock Receptacle 5 Pin[4,11] TLR07 Twist Lock Receptacle 7 Pin[4,11] TLRPC Twist Lock Receptacle w/Photocell[4,11]	Fusing F1 Single (120, 277, 347VAC)[4] F2 Double (208, 240, 480VAC)[4] F3 Canadian Double Pull (208, 240, 480VAC)[4,12] Pole-Mount Fusing FP1 Single (120, 277, 347VAC)[4] FP2 Double (208, 240, 480VAC)[4] FP3 Canadian Double Pull (208, 240, 480VAC)[4] Surge Protection (10kA standard) SPD Increased 20kA	Square Pole Adapter Included as standard TB Terminal Block[4] RPA Round Pole Adapter (fits to 2"- 3.9" O.D. pole)[4] WS Internal Housing Side Shield[4]	Textured BK Black WH White BZ Bronze DGT Dark Gray MGY Medium Gray Customer specified RAL Specify optional color or RAL (ex: RAL7024) CC Custom color (Must supply color chip for required factory quote)

1. Extended lead times apply. Contact factory for details.
2. Mounts to a 4-5" round pole with adapter included for square poles.
3. Limited to a maximum of 45 degrees aiming above horizontal.
4. Not available with other dimming control options.
5. Not available with motion sensor.
6. Not available with photocontrol.
7. Available only in 120 or 277V.
8. Not available in 347 or 480V.
9. Must specify input voltage.
10. Dimming will not be connected to NEMA receptacle if ordering with other control options.
11. Not available to 480V.
12. Not available with DCC.
13. Not available with SF and WS. RPAs provided with black finish standard.
14. HIS not available with Type 5, 5W, and ELC optics.
15. Limited to max. 600mA configurations.
16. Not available with DD, DCC, and FAWS dimming control options.
17. Not available with DD, DCC, FAWS and LLC dimming control options.
18. Not available with DD, DCC, FAWS, LLC, and EL dimming control options (SW or DynaDimmer required).
19. Must specify a motion sensor lens.

P26_PureForm_area_medium 03/19 page 1 of 9

GARDCO by Signify | Pole/Bracket | Site and Area Poles | Straight Round Steel



The Gardco SRS straight round steel pole consists of a one-section design fabricated steel tubing circumferentially welded to a structural quality hot rolled carbon steel plate. The poles are finished with an electrostatically applied, thermally cured TGIC polyester powdercoat.

Project:
Location:
Cat.No:
Type:
Lamps: Qty:
Notes:

Ordering Guide **example:** SRS-20-4-D2-BRP

Prefix	Height	Size	Drilling	Finish	Options
SRS	10' 14' 16' 20' 25', 25H' 30', 30H'	3" 4" 5"	D1 1 Way D2 2 Way D2@90 2 Way at 90° D3 3 Way D3@120 3 Way at 120° D4 4 Way T2 2 3/8" OD Tenon T4 4" OD Tenon	PP Prime Painted BRP Bronze Paint BLP Black Paint WP White Paint NP Natural Aluminum Paint GV Galvanized (No Paint) FPGV Finished Paint over Galvanized (specify color) OC Optional Color Paint. *Specify RAL designation, ex: OC-RAL7024* SC Special Color Paint. *Specify. Must supply color chip.*	FES Festoon Outlet AHH Additional Hand Holes *For Festoon Outlet, VOA Vibration Dampener, and Additional Hand Holes; Indicate height above base and orientation to original hand hole. See Pole Orientation Information on Page 4.* **Nipples and Couplings** CL Coupling - Internal thread *Indicate size (5/8", 3/4", 1", 1-1/4", 1-1/2".) Indicate height above base and orientation to hand hole. See Pole Orientation Information on Page 4.* **Single Mount Bullhorn Brackets** GM-080-19 Single - 1.9" OD GM-080-24 Single - 2.4" OD *Indicate height above base and orientation to hand hole. See Pole Orientation Information on Page 4.* **Motion Response Provisions** MSM Motion Sensor Mounting Provision for LED Luminaires available with Motion Response *Minimum Pole Height is 16'. Includes a special hand hole with 1/2" coupling placed in the cover plate, 180° to the hand hole, 15" above the pole base.*

Enter the order code into the appropriate box above. Note: Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid.
Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.
1. Refers to relative strength based on wind load factors.
H = Heavy

CONTRACTOR TO COORDINATE LIGHT POLE SPECIFICS W/ MANUFACTURER
LIGHT POLE COLOR TO MATCH FIXTURE: BLACK

10-SRS_Spec_Sheet 08/19 page 1 of 4

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-LGT-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

LIGHTING NOTES & DETAILS

SHEET NUMBER:

C-706

ORG. DATE - 03/04/2020

1 ***LIGHT POLE FOUNDATION DETAIL***
NOT TO SCALE (I020101-01/2013)

2 ***AREA LIGHT SPECIFICATION (A-1 THRU A-6)***
NOT TO SCALE SOURCE: GARDCO BY SIGNIFY

3 ***LIGHT POLE SPECIFICATION (A-1 THRU A-6)***
NOT TO SCALE SOURCE: GARDCO BY SIGNIFY

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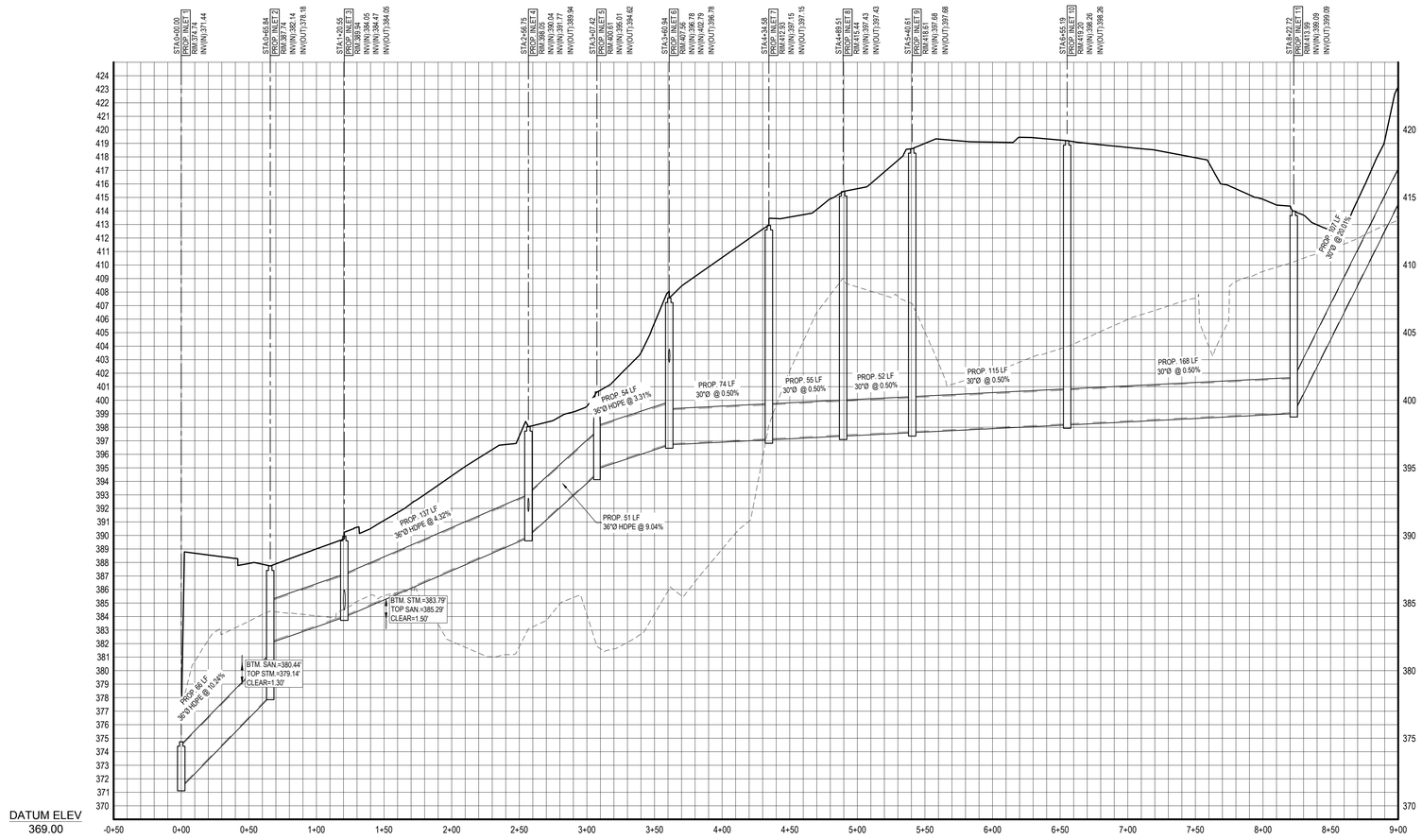

PROP. INLET 1 TO PROP. INLET 11

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

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FOR

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PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOTS 18.01, 15, 17

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R.L. STREKER

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

DRAINAGE PROFILE

SHEET NUMBER:

C-801

ORG. DATE - 03/04/2020

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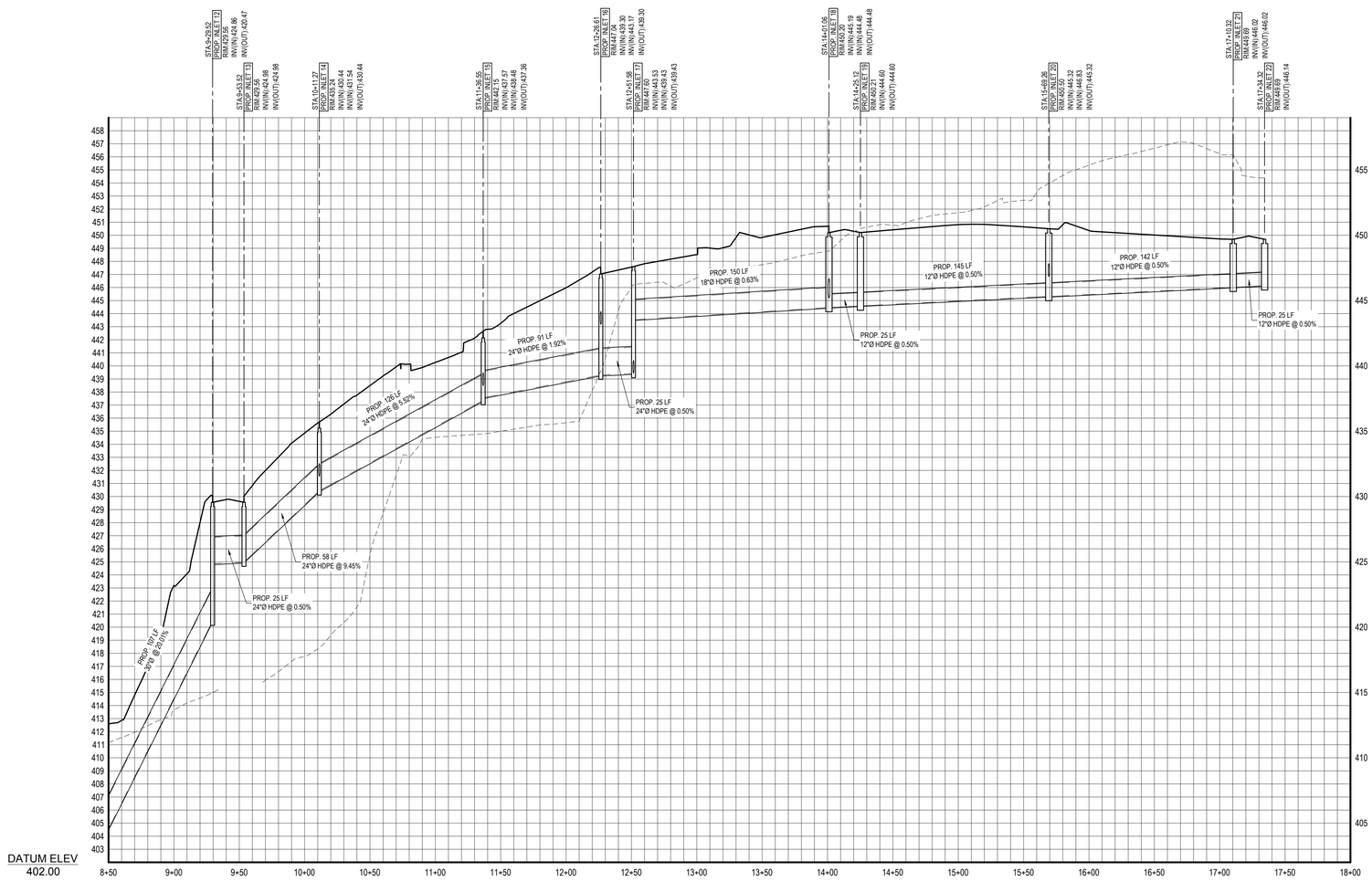

PROP. INLET 12 TO PROP. INLET 22

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

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DATE:	03/04/2020
CAD I.D.:	J100690.04-PRD-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOTS 18.01, 15, 17

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
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Phone: (908) 668-8300
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NJ CERT. OF AUTHORIZATION NO. 24GA28160700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 075512

SHEET TITLE:

DRAINAGE PROFILE

SHEET NUMBER:

C-802

ORG. DATE - 03/04/2020

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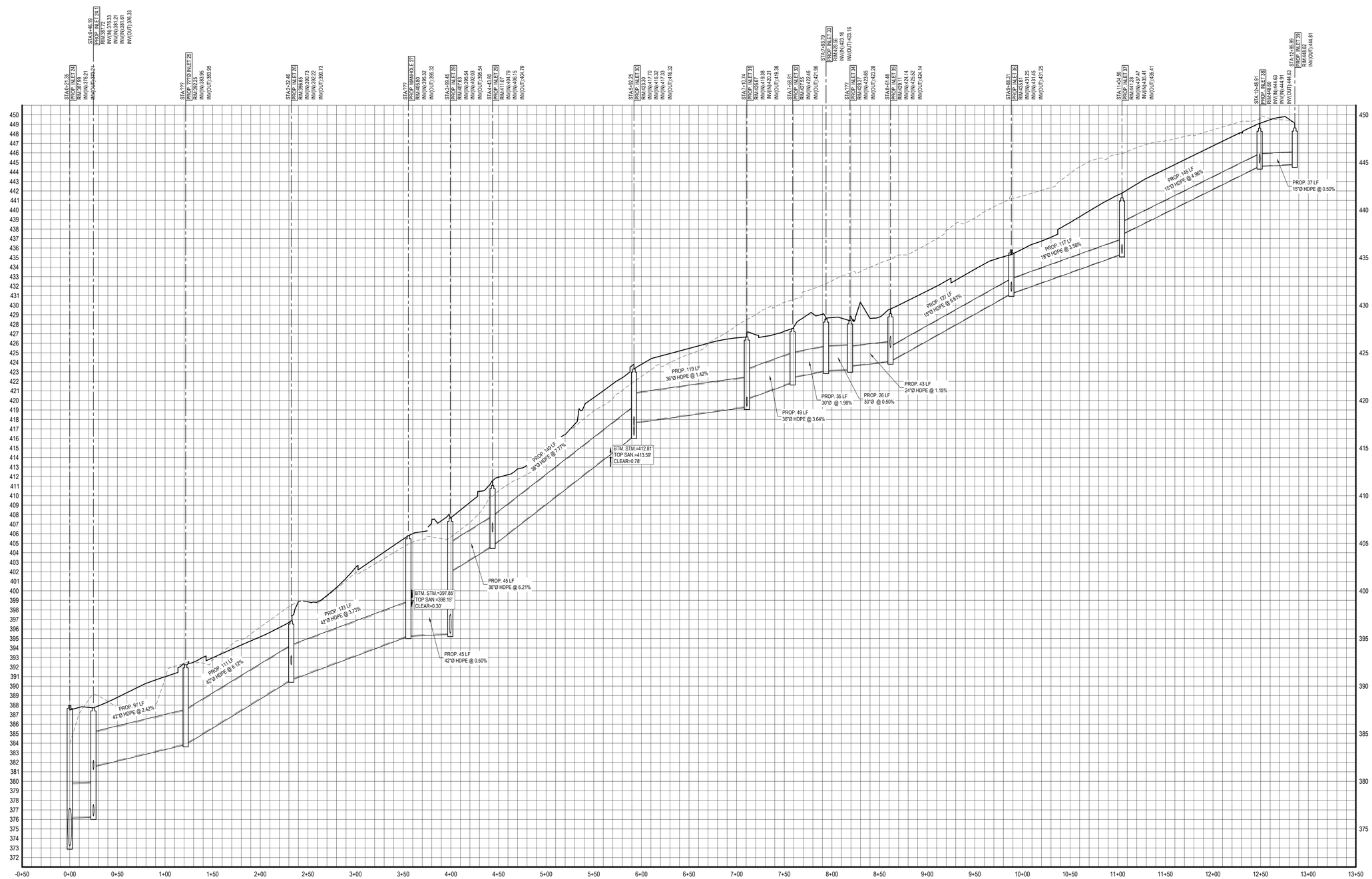

PROP. INLET 24 TO PROP. INLET 29

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-PRD-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOTS 18.01, 15, 17

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

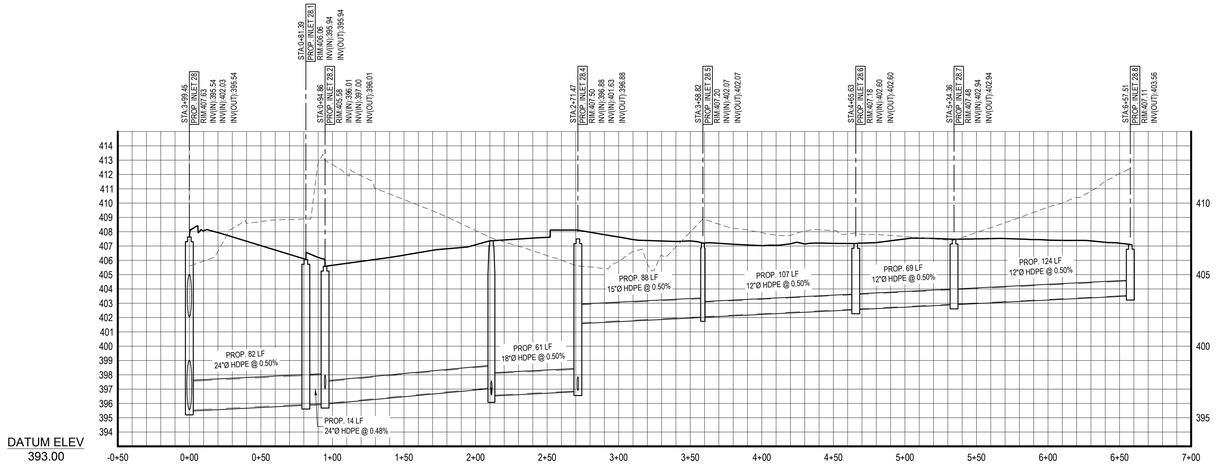
SHEET TITLE:

DRAINAGE PROFILE

SHEET NUMBER:

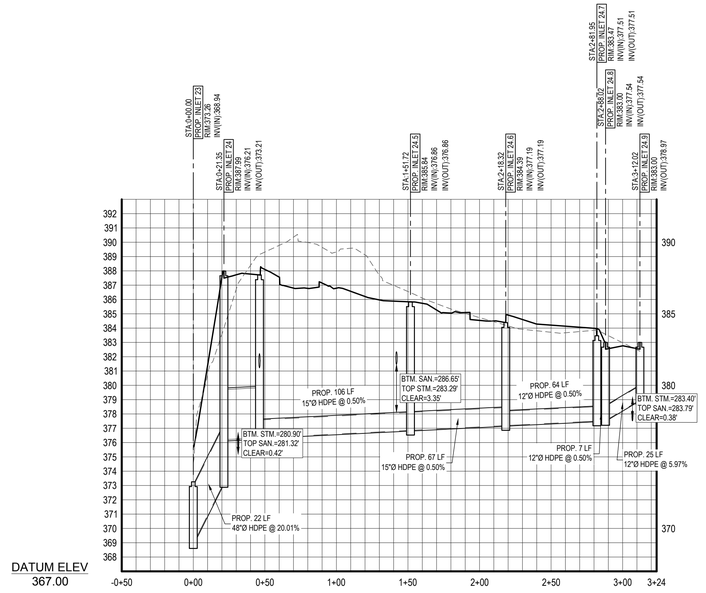
C-803

ORG. DATE - 03/04/2020



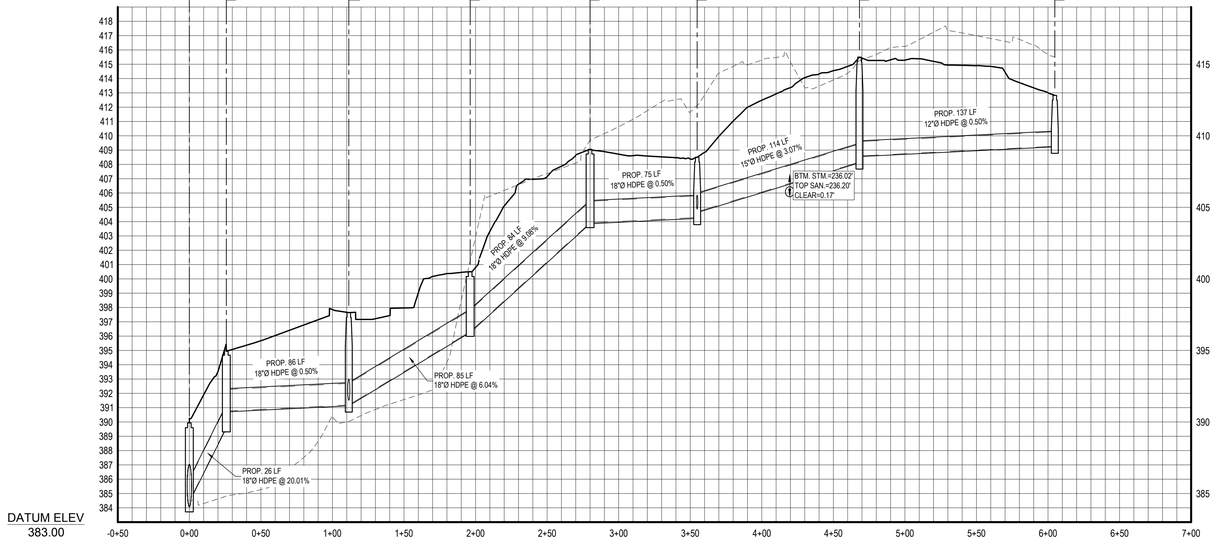
PROP. INLET 28 TO PROP. INLET 28.7

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL



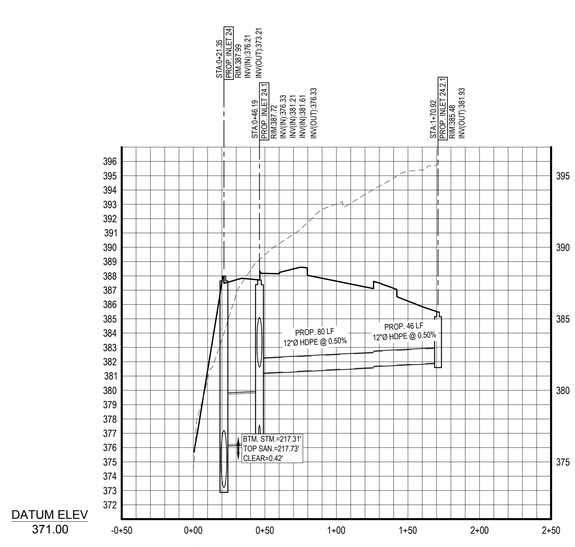
PROP. INLET 23 TO PROP. INLET 24.9

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL



PROP. INLET 3 TO PROP. INLET 3.8

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL



PROP. INLET 24 TO PROP. INLET 24.2.1

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

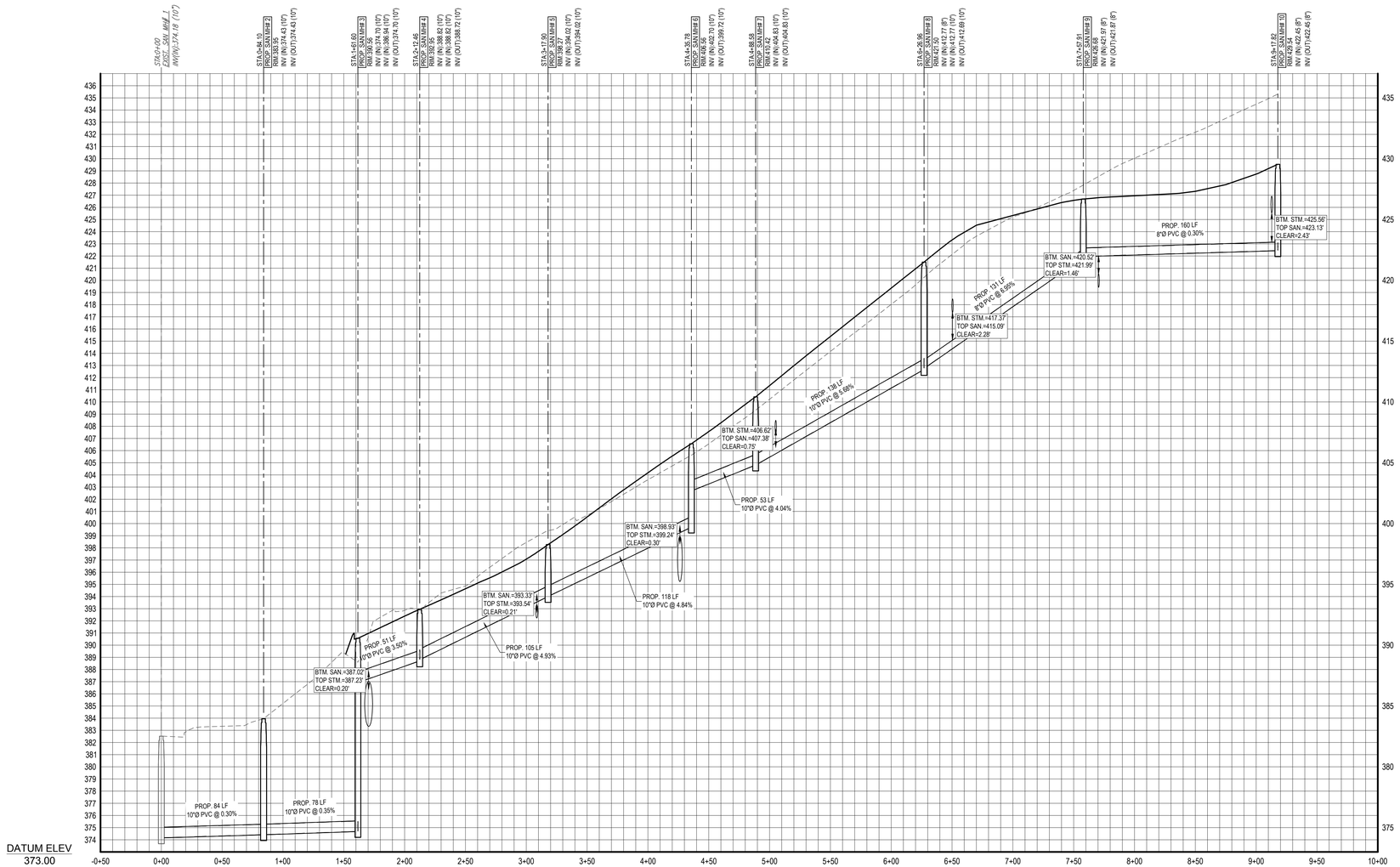
SHEET TITLE:

DRAINAGE PROFILE

SHEET NUMBER:

C-804

ORG. DATE - 03/04/2020



EXIST. MH# 1 TO PROP. MH# 10

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

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SHEET TITLE:

SANITARY PROFILE

SHEET NUMBER:

C-805

ORG. DATE - 03/04/2020

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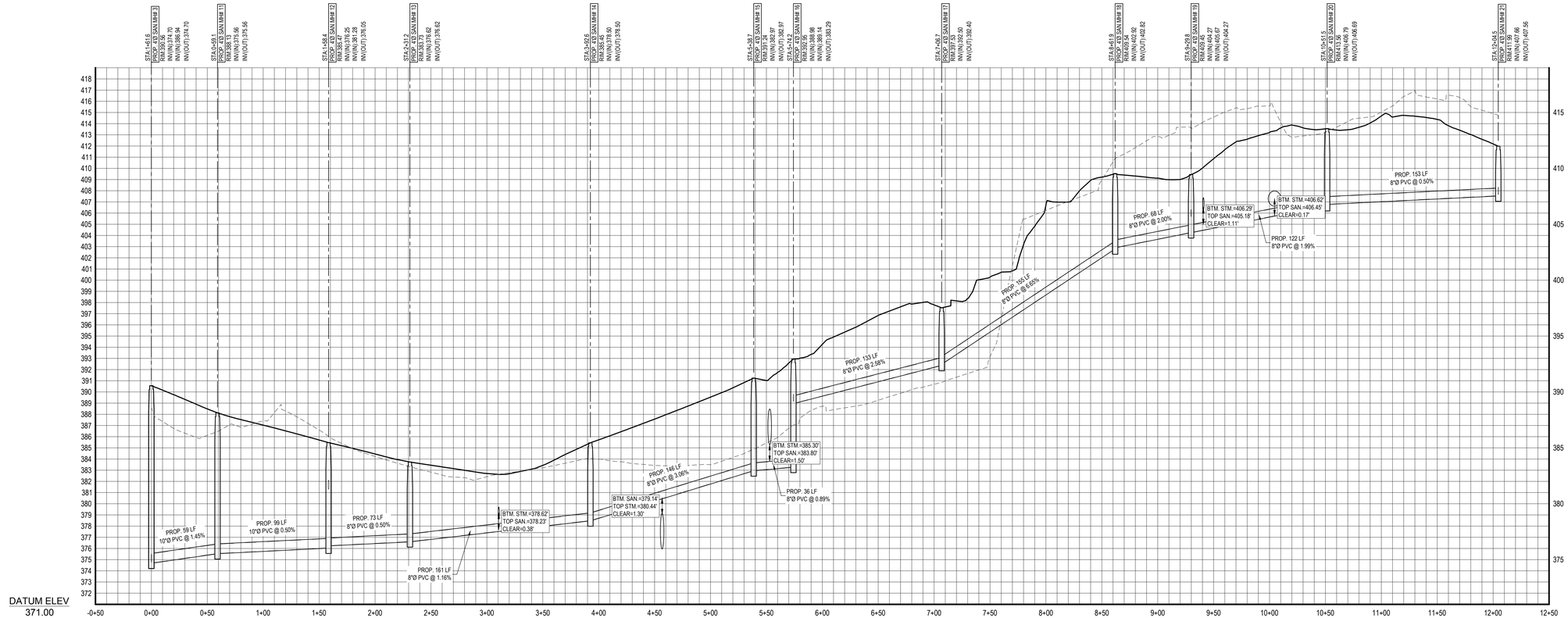

PROP. SAN MH# 3 TO PROP SAN. MH# 21

SCALE: 1"= 50 ' HORIZONTAL
1"= 5 ' VERTICAL

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SHEET TITLE:

SANITARY PROFILE

SHEET NUMBER:

C-806

ORG. DATE - 03/04/2020

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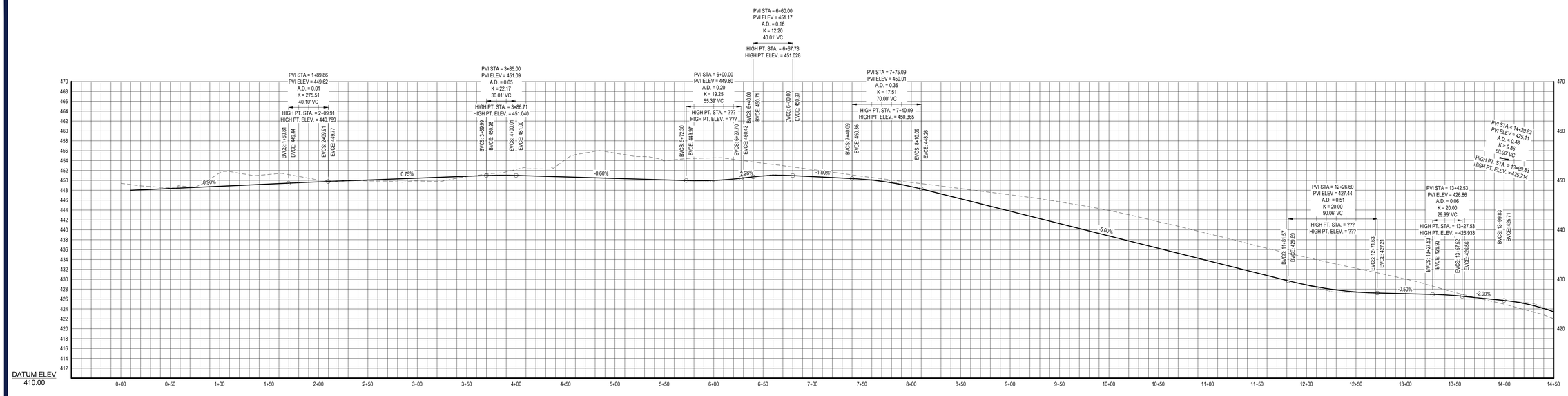
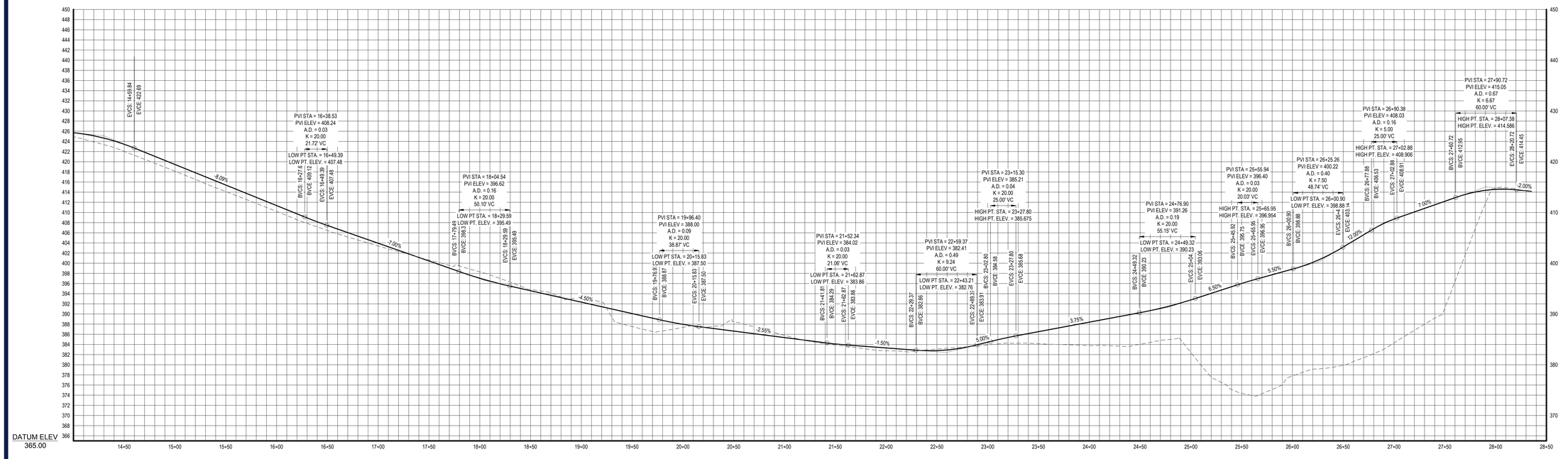


LOOP ROAD STA -0+50 TO STA 14+50

SCALE: 1"= 50 ' HORIZONTAL
1"= 10 ' VERTICAL



LOOP ROAD STA 14+00 TO STA 28+00

SCALE: 1"= 50 ' HORIZONTAL
1"= 10 ' VERTICAL

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NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

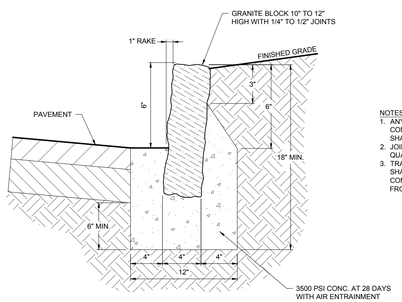
SHEET TITLE:

ROAD PROFILE

SHEET NUMBER:

C-807

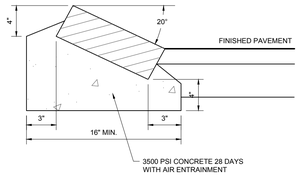
ORG. DATE - 03/04/2020



NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. JOINTS SHALL BE NOT MORE THAN 1/4" WIDE FOR DRESSED BLOCK AND 3/8" WIDE FOR QUARRY SPLIT BLOCK. THE JOINTS SHALL BE POINTED WITH 1:1 CEMENT-SAND MORTAR.
3. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.

1 VERTICAL GRANITE BLOCK CURB (RSIS) DETAIL

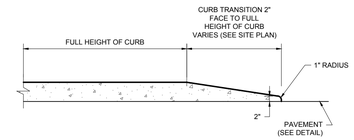
NOT TO SCALE (S030103-01/2013)



NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. JOINTS SHALL BE NOT MORE THAN 1/4" WIDE FOR DRESSED BLOCK AND 3/8" WIDE FOR QUARRY SPLIT BLOCK. THE JOINTS SHALL BE POINTED WITH 1:1 CEMENT-SAND MORTAR.

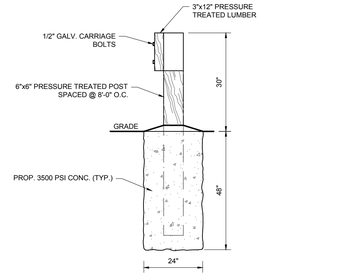
2 MOUNTABLE GRANITE BLOCK CURB (RSIS) DETAIL

NOT TO SCALE (S030105-01/2013)



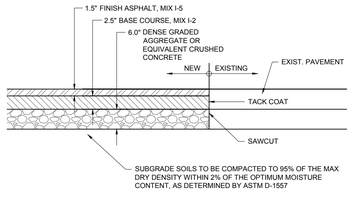
3 TRANSITION CURB DETAIL

NOT TO SCALE (S039907-01/2013)



4 WOODEN BARRIER RAIL DETAIL

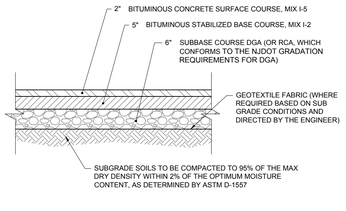
NOT TO SCALE (S060201.02-01/2013)



NOTES:
- REFER TO GEOTECHNICAL REPORT FOR OTHER REQUIREMENTS.

5 STANDARD PAVING DETAIL

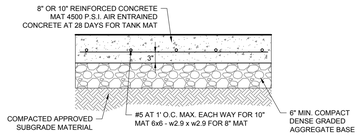
NOT TO SCALE (S080102-01/2013)



NOTES:
- REFER TO GEOTECHNICAL REPORT FOR OTHER REQUIREMENTS.

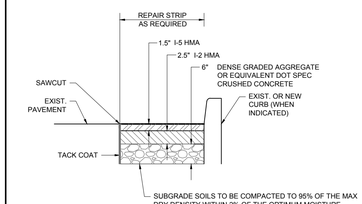
6 HEAVY DUTY PAVEMENT SECTION DETAIL

NOT TO SCALE (S080101-01/2013)



7 8" OR 10" CONCRETE MAT DETAIL

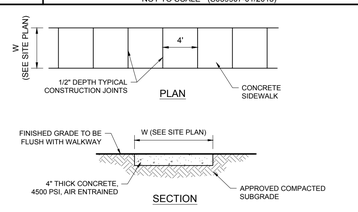
NOT TO SCALE (S029902 - 9/2016)



NOTES:
- THIS DETAIL IS FOR PAVEMENT REPAIR ALONG NEW CURB LINES OR FOR EXCAVATED AREA WITHIN EXIST. PAVED SURFACES
- MAINTAIN EXISTING PAVEMENT CROSS SLOPE
- REFER TO GEOTECHNICAL REPORT FOR OTHER REQUIREMENTS.
- COMPLY WITH DOT SPECIFICATIONS UNLESS OTHERWISE INDICATED.

8 PAVEMENT REPAIR DETAIL

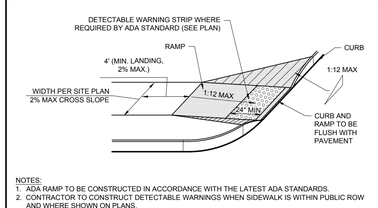
NOT TO SCALE (S080402-07/2016)



NOTE:
1. MAX. CROSS SLOPE ¼" PER FOOT MIN ⅛" PER FOOT PITCHED TOWARDS ROADWAY.
2. PROVIDE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT AT 12' INTERVALS, TO BE RECESSED 1/4" - 1/2" FROM SIDEWALK SURFACE.
3. REFER TO SITE PLAN FOR SIDEWALK WIDTH (W).
4. LONGITUDINAL SLOPE AND WIDTH TO COMPLY WITH ADA BARRIER FREE REQUIREMENTS.

9 CONCRETE SIDEWALK DETAIL

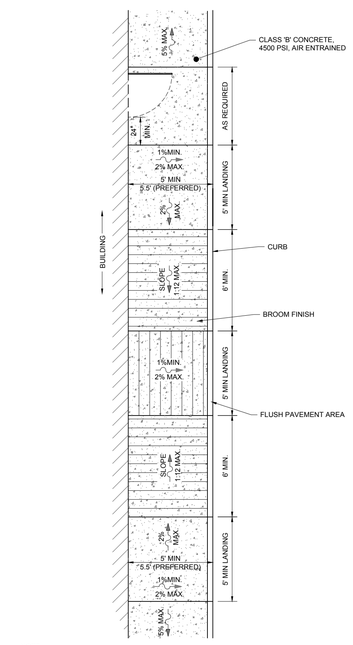
NOT TO SCALE (S090105-01/2013)



NOTES:
1. ADA RAMP TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA STANDARDS.
2. CONTRACTOR TO CONSTRUCT DETECTABLE WARNINGS WHEN SIDEWALK IS WITHIN PUBLIC ROW AND WHERE SHOWN ON PLANS.
3. DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A BOTTOM DIAMETER OF NOMINAL 0.9 INCH, A TOP DIAMETER OF 0.4 INCH, A HEIGHT OF NOMINAL 0.2 INCH, A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCH, AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT. (SEE DETAIL)
4. TOP OF CURB TO HAVE SAME SLOPE AS ADJACENT CURB RAMP.

10 ADA CURB RAMP DETAIL

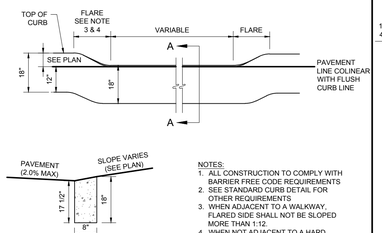
NOT TO SCALE (S070101-01/2013)



NOTE:
DOOR OPENING MINIMUM DIMENSIONS AND LANDINGS MAY OVERLAP IF APPROVED BY BUILDING CODE OFFICIAL, BUT LESS DESIRABLE.

13 ADA RAMP ALONG BUILDING DETAIL

NOT TO SCALE (S070104 - 8/2017)

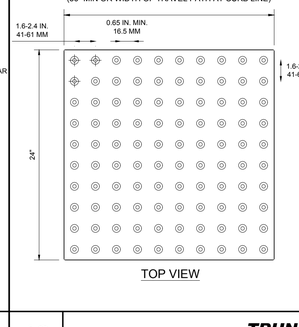


SECTION A-A

NOTES:
1. ALL CONSTRUCTION TO COMPLY WITH BARRIER FREE CODE REQUIREMENTS
2. SEE STANDARD CURB DETAIL FOR OTHER REQUIREMENTS
3. WHEN ADJACENT TO A WALKWAY, FLARED SIDE SHALL NOT BE SLOPED MORE THAN 1:12.
4. WHEN NOT ADJACENT TO A HARD SURFACE WALKWAY, FLARE CAN BE REDUCED TO 18".
5. CURB REVEAL TYPICALLY 6" BUT CONTRACTOR SHALL REFER TO PLAN AND CURB DETAIL FOR CURB REVEAL SPECIFIC TO SITE LOCATION.

11 ADA FLUSH CURB DETAIL

NOT TO SCALE (S039904-01/2013)



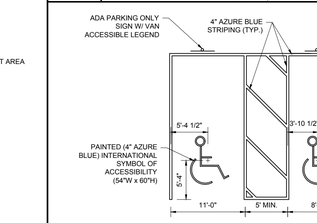
TOP VIEW

ELEVATION (ENLARGED)

NOTE:
1. TRUNCATED DOMES THAT PROVIDE THE DETECTABLE WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT.
2. CONTRACTOR TO INSTALL DETECTABLE WARNING SURFACES WHEN SIDEWALK IS WITHIN PUBLIC ROW AND WHERE INDICATED ON THE PLAN.
3. DOMES SHALL HAVE A BASE DIAMETER OF 0.9 IN (23 mm) MIN. TO 1.4 IN (36 mm) MAX, AND A TOP DIAMETER OF 50% TO 65% MAX. OF THE BASE DIAMETER.
4. TRUNCATED DOMES SHALL HAVE A HEIGHT OF 0.2" (5.1 mm).
5. TRUNCATED DOMES SHALL HAVE A CENTER TO CENTER SPACING OF 1.6 IN (41 mm) MIN. AND 2.4 IN. (61 mm) MAX. AND A BASE TO BASE SPACING OF 0.65 IN. (16.5 mm) MIN., MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID.
6. TRUNCATED DOMES SHALL BE AN INTEGRAL PART OF THE ADA CURB RAMP CONSTRUCTION CONSISTING OF CAST IN PLACE COMPOSITE TILES/MAT. THE TILE/MAT MATERIAL SHALL BE A HOMOGENEOUS GLASS AND CARBON REINFORCED COMPOSITE, COLOR FAST AND UV STABLE, COMP. STRENGTH 23,800 PSI ASTM D695 AND FLEXUAL STRENGTH 24,600 PSI ASTM D796. PRECAST CONCRETE PAVER BLOCKS HAVING COMPLIANT TRUNCATED DOMES, MAY ALSO BE USED FOR THE DETECTABLE WARNING SURFACE. RUBBERIZED MATERIAL TO BE GLUED TO RAMP SURFACE SHALL NOT BE ACCEPTABLE.
7. TRUNCATED DOMES SHALL EXTEND THE FULL WIDTH OF THE TRAVEL PATH EXCLUDING FLARES.

12 TRUNCATED DOME PATTERN DETAIL

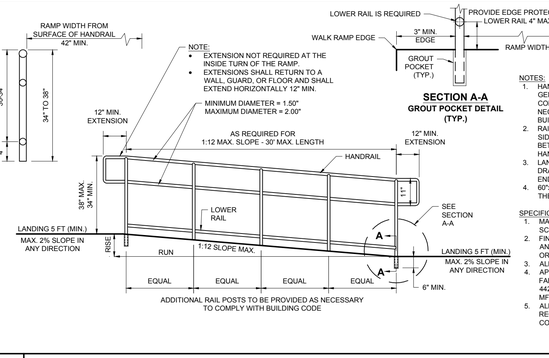
NOT TO SCALE (S070117-01/2013)



NOTES:
1. PARKING SPACES AND PARKING AISLE SLOPE MUST NOT EXCEED 1:48 (¼" PER FOOT OR 2%) IN ANY DIRECTION.
2. CURB RAMP SLOPE MUST NOT EXCEED 1:12 (8.3% FOR A MAXIMUM OF 6 FEET.)
3. LANDINGS MUST BE PROVIDED AT EACH END OF THE RAMPS AND MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:48 (¼" PER FOOT OR 2%) CROSS SLOPE.
4. ON-SITE A MINIMUM ACCESSIBLE ACCESS ROUTE WIDTH OF 36 INCHES MUST BE PROVIDED AND MAINTAINED. A WHEEL STOP CAN BE PROVIDED WHERE NECESSARY TO PREVENT VEHICLE OVERHANG FROM REDUCING WIDTH OF THE PATH OF TRAVEL TO LESS THAN 36".

14 ADA PARKING STALL MARKING DETAIL

NOT TO SCALE (S070302-01/2013)



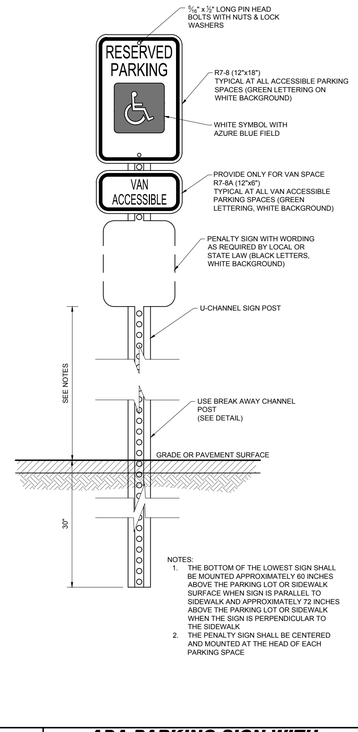
SECTION A-A
GROUT POCKET DETAIL (TYP.)

NOTES:
1. HANDRAIL INFORMATION SHOWN IS GENERIC FOR TYPICAL CONDITION. RAIL COMPONENT MUST BE ADJUSTED AS NECESSARY TO COMPLY WITH ALL BUILDING CODE AND ADA REQUIREMENTS.
2. RAILINGS ARE TO BE PROVIDED ON BOTH SIDES OF RAMP WITH A MIN. OF 42" BETWEEN INSIDE EDGE SURFACE OF HANDRAILS.
3. LANDING (MAX. 2% SLOPE FOR POSITIVE DRAINAGE) MUST BE PROVIDED AT EACH END OF RAMP.
4. 60"x60" LANDING MUST BE PROVIDED WHEN THERE IS A TURNING MOVEMENT.

SPECIFICATIONS:
1. MATERIAL: MARINE GRADE STAINLESS STEEL, SCH 40 ALUMINUM, OR STEEL PIPE.
2. FINISH: NATURAL OR HARDCOAT BLACK ANODIZED OR SEMI GLOSS BLACK PAINTED OR AS DIRECTED BY OWNER.
3. ALL WELDS SHALL BE GROUND SMOOTH
4. APPROVED MANUFACTURERS: LOCAL FABRICATION OR CRANE VEYOR CORP (818) 442-1524 MODEL NO. C4300 OR MOULTRIE MFG. CO. (800) 841-8674 WESRAIL SYSTEM.
5. ALL COMPONENTS TO COMPLY WITH REQUIREMENTS OF STATE CONSTRUCTION CODE LATEST EDITION.

15 ADA RAMP WITH HANDRAIL DETAIL

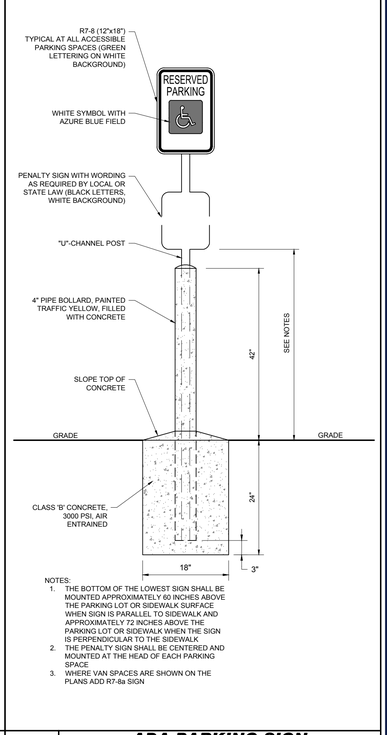
NOT TO SCALE (S070108.01-10/2016)



NOTES:
1. THE BOTTOM OF THE LOWEST SIGN SHALL BE MOUNTED APPROXIMATELY 60 INCHES ABOVE THE PARKING LOT OR SIDEWALK SURFACE WHEN SIGN IS PARALLEL TO SIDEWALK AND APPROXIMATELY 72 INCHES ABOVE THE PARKING LOT OR SIDEWALK WHEN THE SIGN IS PERPENDICULAR TO THE SIDEWALK
2. THE PENALTY SIGN SHALL BE CENTERED AND MOUNTED AT THE HEAD OF EACH PARKING SPACE

16 ADA PARKING SIGN WITH VAN ACCESSIBLE SIGN DETAIL

NOT TO SCALE (S070206 - 11/2016)



NOTES:
1. THE BOTTOM OF THE LOWEST SIGN SHALL BE MOUNTED APPROXIMATELY 60 INCHES ABOVE THE PARKING LOT OR SIDEWALK SURFACE WHEN SIGN IS PARALLEL TO SIDEWALK AND APPROXIMATELY 72 INCHES ABOVE THE PARKING LOT OR SIDEWALK WHEN THE SIGN IS PERPENDICULAR TO THE SIDEWALK
2. THE PENALTY SIGN SHALL BE CENTERED AND MOUNTED AT THE HEAD OF EACH PARKING SPACE
3. WHERE VAN SPACES ARE SHOWN ON THE PLANS ADD R7-8a SIGN

17 ADA PARKING SIGN ON BOLLARD DETAIL

NOT TO SCALE (S070207 - 11/2016)

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MS

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-CDS-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOTS 18.01, 15, 17

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

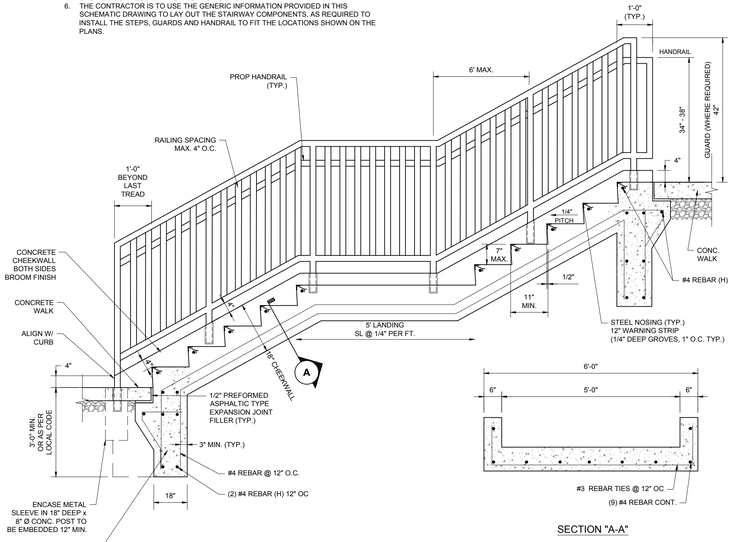
DETAIL SHEET

SHEET NUMBER:

C-901

ORG. DATE - 03/04/2020

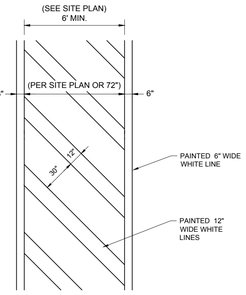
NOTES:
1. ALL STAIRS REQUIRE TWO HANDRAILS (ONE ON EACH SIDE) EXTENDING 1' FROM THE TOP RISER & 1' FROM THE LOWEST TREAD. TOTAL NUMBER OF STEPS WILL VARY.
2. PROVIDE FALL PROTECTION WHERE REQUIRED BY STATE BUILDING CODE
3. THE TOTAL NUMBER OF STEPS MAY VARY, RISER (4" MIN.-7" MAX.), AND TREAD (11" MIN.) DIMENSIONS ARE TO BE UNIFORM. ADJUST TREAD HEIGHT, AS NECESSARY, TO PROVIDE UNIFORM HEIGHT FROM BOTTOM STEP TO TOP STEP.
4. COMPONENTS AND CONSTRUCTION TO COMPLY WITH ALL APPLICABLE BUILDING CODE REQUIREMENTS.
5. CONTRACTOR TO PROVIDE SHOP DRAWING TO BE REVIEW AND APPROVED BY ENGINEER OF RECORD PRIOR TO FABRICATION.
6. THE CONTRACTOR IS TO USE THE GENERIC INFORMATION PROVIDED IN THIS SCHEMATIC DRAWING TO LAY OUT THE STAIRWAY COMPONENTS, AS REQUIRED TO INSTALL THE STEPS, GUARDS AND HANDRAIL TO FIT THE LOCATIONS SHOWN ON THE PLANS.



SECTION "A-A"

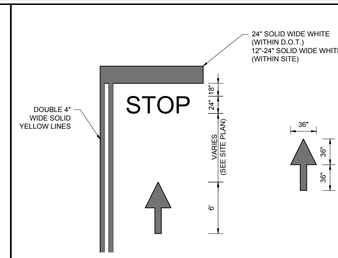
1 CONCRETE STEPS WITH CHEEK WALLS AND LANDING DETAIL

NOT TO SCALE (S110103.01 - 11/2016)



2 PAINTED CROSSWALK DETAIL

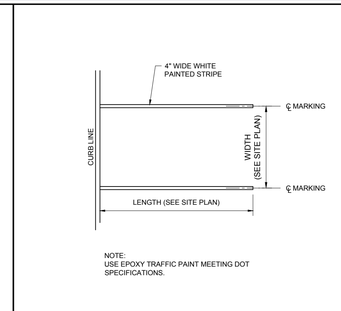
NOT TO SCALE (S080601-08/2016)



NOTES:
1. ARROWS AND WORDS CAN BE ARRANGED IN DIFFERENT COMBINATIONS TO ACHIEVE DESIRED RESULT.
2. STOP BAR, LETTERS, AND ARROW TO BE THERMOPLASTIC.
3. LINES TO BE EPOXY PAINT PER DOT STANDARD SPECIFICATIONS.

3 PAINTED MARKING DETAILS

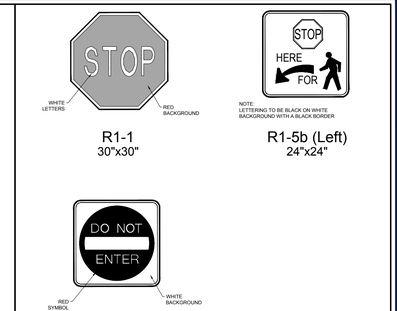
NOT TO SCALE (S080501-01/2013)



NOTE:
USE EPOXY TRAFFIC PAINT MEETING DOT SPECIFICATIONS.

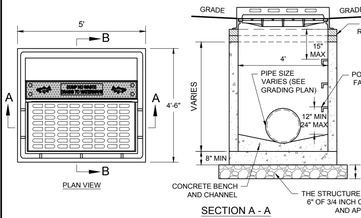
4 STANDARD STRIPING DETAIL

NOT TO SCALE (S080506-01/2013)



5 SIGNAGE DETAIL

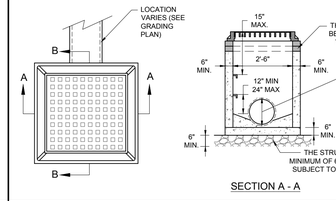
NOT TO SCALE



NOTES:
1. THE TYPE B INLET CONCRETE STRUCTURE SHALL BE PRECAST CONCRETE TO MEET A MINIMUM OF H-25 LOADING. ALL UNITS SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE APPROPRIATE ASTM, ACI, NJPDES, AND AASHTO STANDARDS. ALL PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUT TO PRODUCE A "LEAK-PROOF" JOINT.
2. THE INLET GRATE SHALL BE BICYCLE SAFE WITH A CURB PIECE OF TYPE "N-ECO" AS DEFINED BY CAMPBELL FOUNDRY COMPANY PATTERN NO. 2515, OR EQUIVALENT. CONTRACTOR TO VERIFY WITH MUNICIPALITY THE TYPE OF ECO CURB PIECE AND GRATE TO BE USED.
3. THE INLET FRAME AND GRATE/COVER SHALL BE FABRICATED TO MEET A MINIMUM OF H-25 LOADING, UNLESS PRE-APPROVED IN WRITING BY THE ENGINEER, OR UNLESS NOTED ON THE INDIVIDUAL STRUCTURE NOTES.
4. ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
5. A 3000 PSI MIN. CONCRETE PIPE FLOW CHANNEL SHALL BE INSTALLED IN THE STRUCTURE BOTTOM, AFTER ALL THE PIPES ARE INSTALLED, OR THE FLOW CHANNELS CAN BE PRECAST WITH THE BASE
6. THE CLEAR SPACE IN THE CURB OPENING (OR EACH INDIVIDUAL CLEAR SPACE, IF THE CURB OPENING HAS 2 OR MORE CLEAR SPACES) MUST HAVE AN AREA OF NO MORE THAN 7 SQUARE INCHES OR BE NO GREATER THAN 2 INCHES ACROSS THE SMALLEST DIMENSION.
7. STORM DRAIN INLET LABEL SHOULD READ "DUMP NO WASTE, DRAINS TO WATERWAYS" OR OTHERWISE APPROVED BY THE ENGINEER. FISH LOGOS SHALL ALSO BE INCLUDED ON BOTH SIDES OF THE LABEL.
8. DETAIL IS FOR CAST IRON CLASS 30B ONLY. ANY OTHER CLASS OF CAST IRON OR TYPE OF MATERIAL MUST BE ON THE BUREAU OF MATERIALS APPROVED PRODUCTS LIST OR NEW TECHNOLOGY'S AND PRODUCTS APPROVED PRODUCTS LIST.
9. LADDER RUNGS SHOULD NOT BE INSTALLED OVER PIPE OPENINGS.
10. INSIDE DIMENSIONS ARE NOMINAL AND ARE SUBJECT TO MODIFICATION BY PRE CASTER AS NECESSARY TO ACCOMMODATE ACTUAL PIPE SIZES AND ALIGNMENT. STRUCTURES LARGER THAN THAT SHOWN SHALL HAVE A SLAB TOP WHICH SHALL MEET THE SAME LOADING REQUIREMENTS.

6 TYPE 'B' INLET WITH ECO CURB PIECE DETAIL

NOT TO SCALE (G020308.01-01/2013)



NOTES:
1. THE YARD INLET (2'0" x 2'6") STRUCTURE SHALL BE PRECAST CONCRETE TO MEET A MINIMUM OF H-25 LOADING. ALL UNITS SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE APPROPRIATE ASTM, ACI, AND AASHTO STANDARDS. ALL PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUT TO PRODUCE A "LEAK-PROOF" JOINT. THE STRUCTURE SHALL NOT BE PLACED IN A PAVED AREA, OR IN OTHER AREAS WHERE HIGH LOADS MAY BE INCURRED.
2. THE INLET FRAME AND GRATE/COVER SHALL BE FABRICATED FOR "HEAVY DUTY".
3. THE INLET FRAME AND GRATE/COVER SHALL BE CAMPBELL FOUNDRY PATTERN NO. 3084 OR APPROVED EQUAL.
4. ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
5. A 2500 PSI MIN. CONCRETE PIPE FLOW CHANNEL SHALL BE INSTALLED IN THE STRUCTURE BOTTOM, AFTER ALL THE PIPES ARE INSTALLED, OR THE FLOW CHANNELS CAN BE PRECAST WITH THE BASE.
6. LADDER RUNGS SHOULD NOT BE INSTALLED OVER PIPE OPENINGS.

7 YARD INLET 2'-0" x 2'-6" DETAIL

NOT TO SCALE (G020311-01/2013)

GENERAL INLET NOTES

1. INLETS SHALL MEET H-25 LOADING.
2. INLETS MAY BE CONSTRUCTED OF BRICK, CONCRETE SOLID, CONCRETE BLOCK OR PRECAST CONCRETE. WALLS SHALL BE 8 INCHES THICK IF BRICK AND 6 INCHES THICK IF CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. INLET FOUNDATIONS AND INVERTS SHALL BE CLASS B CONCRETE.
3. CORBELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF ½ INCH PER 8 INCHES OF HEIGHT; MAXIMUM CORBEL 6 INCHES PER WALL.
4. EXCEPT FOR INLETS TYPE A AND C, FOUNDATIONS AND INVERTS SHALL BE CONSTRUCTED IN TWO STAGES, AND THE BOTTOM OF THE FOOTINGS SHALL BE 6 INCHES BELOW THE OUTER WALL OF THE LOWEST PIPE IN THE INLET.
5. WHEN THE DEPTH OF AN INLET THAT IS NOT PRECAST EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, WALLS BELOW A DEPTH OF 8 FEET SHALL BE 12 INCHES THICK AND THE DEPTH OF FOUNDATION INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATIONS SHALL NOT BE INCREASED.
6. INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6 INCH THICK BED OF COMPACTED COARSE AGGREGATE SIZE NO. 57. THE COARSE AGGREGATE SHALL EXTEND 6 INCHES BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
7. CASTINGS FOR PRECAST INLETS SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12 INCHES MAXIMUM.
8. WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
9. MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPES A, B, C, E, D-1, AND B MODIFIED:

DEPTH BELOW TOP OF GRATE	HORIZONTAL REINF.	VERTICAL REINF.	WALL THK.
0' TO 10'-0"	#4 @ 10" C.C.	#4 @ 18" C.C.	6"
10'-1" TO 15'-0"	#4 @ 8" C.C.	#4 @ 18" C.C.	6"
15'-1" TO 20'-0"	#4 @ 6" C.C.	#4 @ 18" C.C.	6"

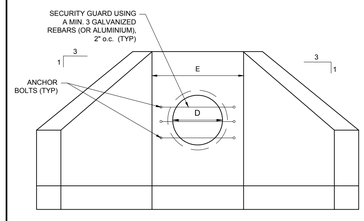
REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.

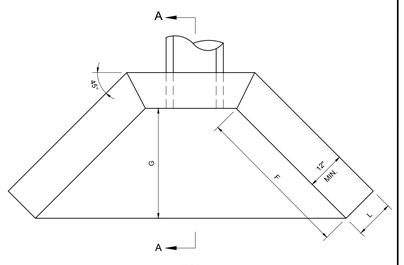
ALTERNATE REINFORCEMENT DEPTH BELOW TOP OF GRATE	
0' TO 10'-0"	WWF 3X6 W6 WIRES SPACED AT 3" TO RUN HORIZONTAL IN ALL CASES.
10'1" TO 15'-0"	WWF 3X6 W6 ADD #10 BAR @ 18" HORIZONTAL
15'1" TO 20'-0"	WWF 3X6 ADD #10 BAR @ 9" HORIZONTAL, OR ADD #13 BAR AT 15" HORIZONTAL

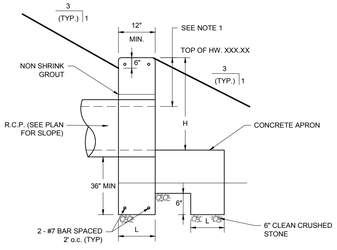
10. ALL INLETS AND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.
11. FOR CAST IRON CLASS 30 B ONLY. ANY OTHER CLASS OF CAST IRON OR TYPE OF MATERIAL MUST BE ON THE BUREAU OF MATERIALS APPROVED PRODUCTS LIST OR NEW TECHNOLOGIES AND PRODUCTS APPROVED PRODUCTS LIST.
12. ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
13. A 2500 PSI MIN. CONCRETE PIPE FLOW CHANNEL SHALL BE INSTALLED IN THE STRUCTURE BOTTOM, AFTER ALL THE PIPES ARE INSTALLED, OR THE FLOW CHANNELS CAN BE PRECAST WITH THE BASE.
14. INSIDE DIMENSIONS OF STRUCTURES ARE NOMINAL AND ARE SUBJECT TO MODIFICATION BY PRE CASTER AS NECESSARY TO ACCOMMODATE ACTUAL PIPE SIZES AND ALIGNMENT. STRUCTURES LARGER THAN THAT SHOWN SHALL HAVE A SLAB TOP WHICH SHALL MEET THE SAME LOADING REQUIREMENTS AS THE FRAME.

8 GENERAL INLET NOTES

NOT TO SCALE (G020001-01/2013)





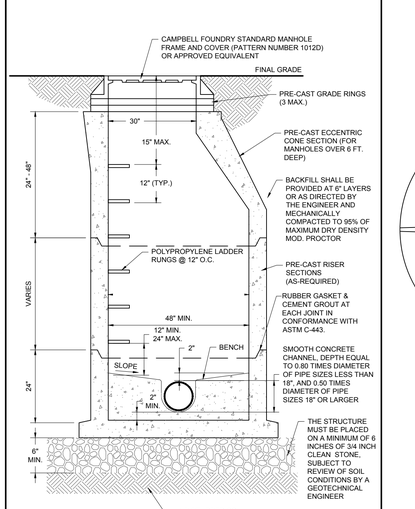


DIMENSION TABLE						
D	E	F	G	H	L	
12"	2'-0"	2'-10"	2'-0"	2'-6"	1'-0"	
15"	2'-3"	3'-2"	2'-3"	2'-9"	1'-1"	
18"	2'-6"	3'-3"	2'-6"	3'-0"	1'-2"	
21"	2'-9"	3'-11"	2'-9"	3'-3"	1'-3"	
24"	3'-6"	5'-0"	3'-6"	3'-6"	1'-4"	
27"	3'-9"	5'-4"	3'-9"	3'-9"	1'-5"	
30"	4'-0"	5'-8"	4'-0"	4'-0"	1'-6"	
33"	4'-3"	6'-0"	4'-3"	4'-3"	1'-7"	
36"	4'-6"	6'-4"	4'-6"	4'-6"	1'-8"	
39"	4'-9"	6'-8"	4'-9"	4'-9"	1'-9"	
42"	5'-0"	7'-1"	5'-0"	5'-0"	1'-10"	
48"	5'-6"	7'-9"	5'-6"	5'-6"	2'-0"	

NOTE:
1. VARIES AS NECESSARY TO MATCH GRADING PLAN 18" MIN.
2. ALL CONCRETE TO BE CLASS "B" CONCRETE, 4500 PSI MIN, AIR ENTRAINED. ALL REINFORCED CONCRETE PIPES SHALL HAVE 2 INCHES OF COVER TO FACE OF WALL, OR AS DIRECTED BY THE MUNICIPAL ENGINEER
3. REINFORCING TO HAVE MIN. 2" COVER.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER PRIOR TO FABRICATION.

9 HEADWALL CAST IN PLACE DETAIL

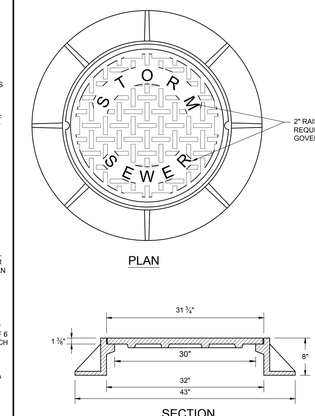
NOT TO SCALE (G020204-01/2013)



NOTES:
1. THE STORM MANHOLE CONCRETE STRUCTURE MUST BE PRECAST CONCRETE TO MEET A MINIMUM OF H5-25 LOADING. ALL UNITS SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE APPROPRIATE ASTM, ACI, AND AASHTO STANDARDS. ALL PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUT TO PRODUCE A LEAK-PROOF JOINT.
2. THE INLET FRAME AND GRATE/COVER SHALL BE CAMPBELL FOUNDRY PATTERN NO. 1012D, OR APPROVED EQUAL.
3. ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
4. SUITABLE EXCAVATED SOIL MAY BE USED AS BACKFILL IN NON-STRUCTURALLY SUPPORTING AREAS OR AS DIRECTED BY THE MUNICIPAL ENGINEER. AREAS SUPPORTING ANY STRUCTURE SHALL BE BACKFILLED USING DENSE GRADED AGGREGATE OR AS DIRECTED BY THE ENGINEER.
5. THE INSIDE DIAMETER IS A MINIMUM DIMENSION. INSIDE DIAMETER TO BE ADJUSTED AS NECESSARY TO ACCOMMODATE STORM PIPE SIZES AND ALIGNMENT.

10 STORM MANHOLE DETAIL

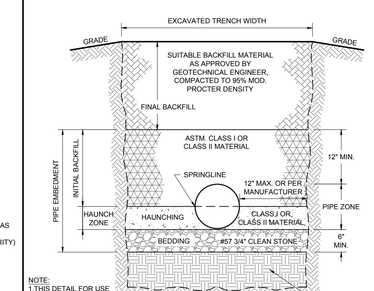
NOT TO SCALE (G020407-04/2019)



NOTES:
1. STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR SEWER AUTHORITY.
2. STANDARD MANHOLE FRAME & COVER SHALL BE CAMPBELL FOUNDRY PATTERN #1012B, OR APPROVED EQUAL, WITH NON-PENETRATING PICK HOLES.

11 STORM MANHOLE FRAME & COVER DETAIL

NOT TO SCALE (G020410-01/2013)

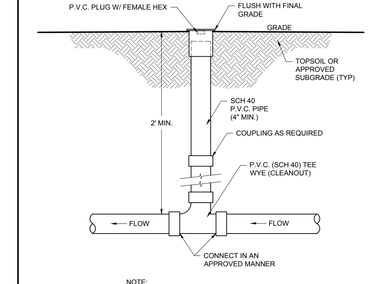


NOTE:
1.THIS DETAIL FOR USE WITH HDPE PIPES ONLY.
2. CLASS I - #5 OR #56 STONE
CLASS II - #57, #6 OR #67 STONE
3. CONTRACTOR TO INSTALL IN ACCORDANCE WITH MANUFACTURE REQUIREMENTS

TRENCH CROSS SECTION

12 STORM TRENCH FOR HDPE PIPE DETAIL

NOT TO SCALE (G029911-01/2013)



NOTE:
PIPE SIZE, MATERIAL AND INSTALLATION THEREOF TO CONFORM TO PLUMBING CODE.

13 ROOF DRAIN CLEANOUT LANDSCAPE AREAS DETAIL

NOT TO SCALE (G020110-01/2013)

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
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ENVIRONMENTAL SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.: J100690.04
DRAWN BY: DM / MFS
CHECKED BY: MD
DATE: 03/04/2020
CAD I.D.: J100690.04-CDS-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOTS 18.01, 15, 17

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

SHEET TITLE:

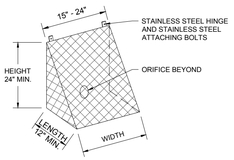
DETAIL SHEET

SHEET NUMBER:

C-902

ORG. DATE - 03/04/2020

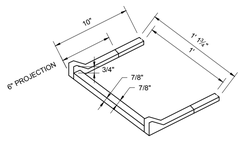
C:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-CDS-0A-----LAYOUT C-902 DETL



NOTES:
1. MAX. GRATE SPACING = 2"
2. CORROSIVE RESISTANT MATERIALS REQUIRED (ALUMINUM OR STAINLESS STEEL)
3. RACK MUST BE HINGED OR REMOVABLE FOR ACCESS
4. RACK MUST COMPLETELY SURROUND ORIFICE AREA. MINIMUM WIDTH 12" + DIAMETER OF ORIFICE (MIN. 15"); MINIMUM HEIGHT 21" + DIAMETER OF ORIFICE (MIN. 24); LENGTH 8" + DIAMETER OF ORIFICE. (MIN. 12")
5. LENGTH= ½ HEIGHT

1 TRASH RACK DETAIL

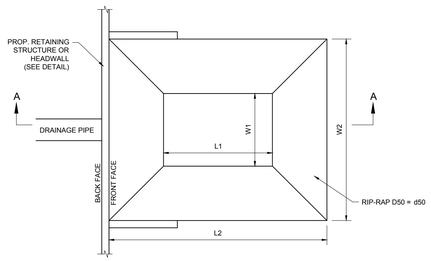
NOT TO SCALE (G020305-01/2013)



NOTES:
1. STEPS SHALL BE POLYPROPYLENE WITH ½" ASTM A-615 STEEL REINFORCEMENT MIN. 3" INBEDMENT IN ACCORDANCE WITH ASTM C-478 AND O.S.H.A. STANDARDS.
2. ALL MANHOLE STEPS TO MEET OR EXCEED ASTM AND O.S.H.A. REQUIREMENTS.
3. FOR ROADWAY LOCATIONS STEPS SHALL BE ORIENTED TO ALLOW VIEWING OF ONCOMING TRAFFIC WHEN EXITING STRUCTURE.

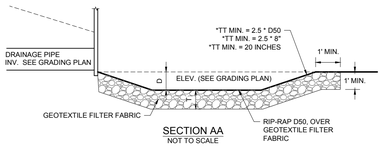
2 MANHOLE POLYPROPYLENE LADDER RUNG DETAIL

NOT TO SCALE (G020405-01/2013)



SCOUR HOLE DESIGN TABLE

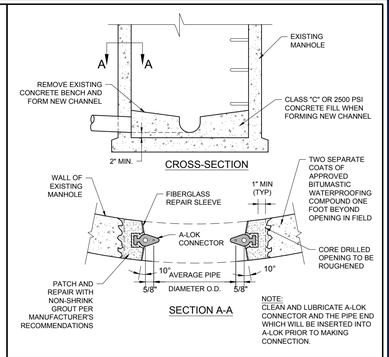
	W1	L1	W2	L2	D	T	d50
SCOUR HOLE 1	6'	9'	24'	27'	12in.	12in.	6in.
SCOUR HOLE 2	8'	12'	26'	30'	12in.	12in.	6in.



SECTION AA
NOT TO SCALE

3 SCOUR HOLE DETAIL

(G019901.01-01/2013) (MOD.)



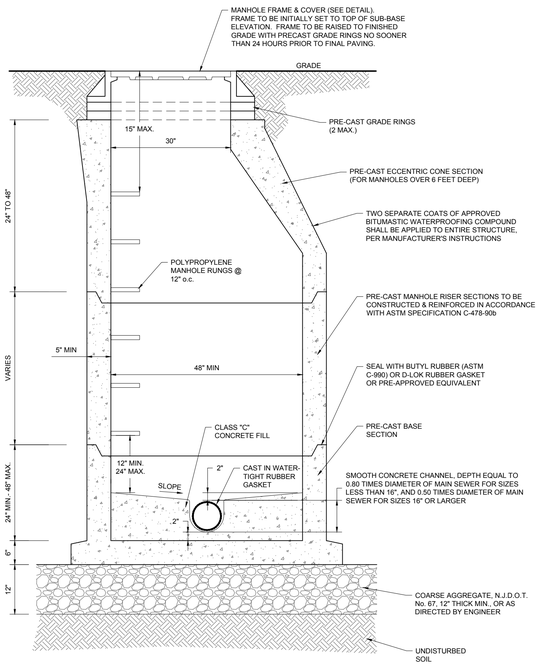
NOTE:
CLEAN AND LUBRICATE A-LOK CONNECTOR AND THE PIPE END WHICH WILL BE INSERTED INTO A-LOK PRIOR TO MAKING CONNECTION.

4 PIPE TO EXISTING SANITARY MANHOLE DETAIL

NOT TO SCALE (U030202-01/2013)

SPECIFICATIONS:

- THE CONCRETE SHALL HAVE A MIN. DESIGN STRENGTH OF 4000 PSI IN 28 DAYS.
- THE REINFORCING STEEL SHALL HAVE A YIELD STRENGTH OF 60,000 PSI.
- THE MANHOLE SHALL MEET THE REQUIREMENTS OF ASTM C-478, "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.."
- THE REINFORCED CONCRETE STRUCTURE SHALL WITHSTAND AASHTO HS-25 LIVE LOAD CONDITIONS (DESIGN OF HATCH AND/OR FRAME AND COVER SEE DETAIL).
- GASKETS SHALL MEET THE REQUIREMENTS OF ASTM C-923 "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE MANHOLE STRUCTURES AND PIPES."

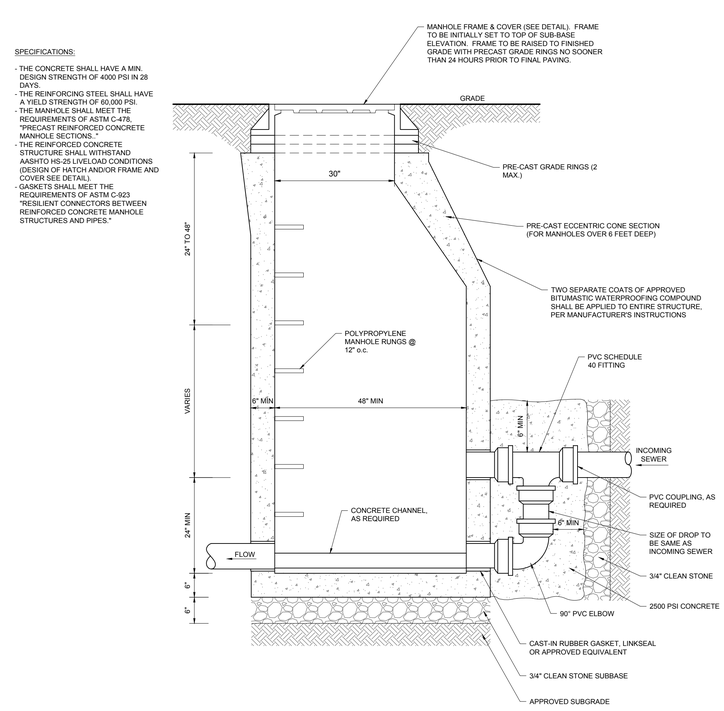


5 PRE-CAST SANITARY MANHOLE DETAIL

NOT TO SCALE (U030203-07/2015)

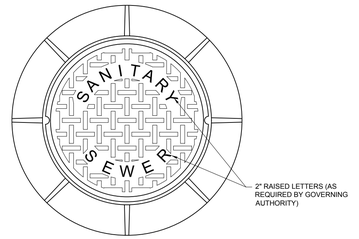
SPECIFICATIONS:

- THE CONCRETE SHALL HAVE A MIN. DESIGN STRENGTH OF 4000 PSI IN 28 DAYS.
- THE REINFORCING STEEL SHALL HAVE A YIELD STRENGTH OF 60,000 PSI.
- THE MANHOLE SHALL MEET THE REQUIREMENTS OF ASTM C-478, "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.."
- THE REINFORCED CONCRETE STRUCTURE SHALL WITHSTAND AASHTO HS-25 LIVELOAD CONDITIONS (DESIGN OF HATCH AND/OR FRAME AND COVER SEE DETAIL).
- GASKETS SHALL MEET THE REQUIREMENTS OF ASTM C-923 "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE MANHOLE STRUCTURES AND PIPES."



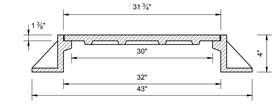
6 SANITARY DROP MANHOLE DETAIL

NOT TO SCALE (U030201-01/2013)



2" RAISED LETTERS (AS REQUIRED BY GOVERNING AUTHORITY)

PLAN

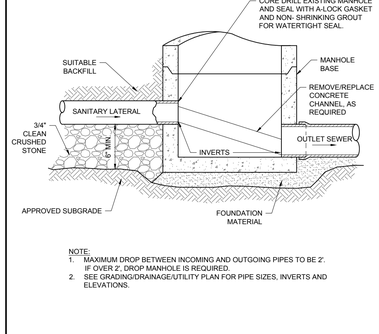


SECTION

NOTES:
1. STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR SEWER AUTHORITY.
2. STANDARD MANHOLE FRAME & COVER SHALL BE CAMPBELL FOUNDRY PATTERN #1012D, OR APPROVED EQUIVALENT, WITH NON-PENETRATING PICK HOLES.
3. WATERTIGHT MANHOLE COVERS SHALL BE USED ON MANHOLES LOCATED WITHIN EASEMENTS, IN UNPAVED AREAS, AND OUTSIDE OF THE CENTERLINE OF PAVED ROADS AS DIRECTED BY ENGINEER OR SEWER AUTHORITY.

7 SANITARY MANHOLE FRAME & COVER DETAIL

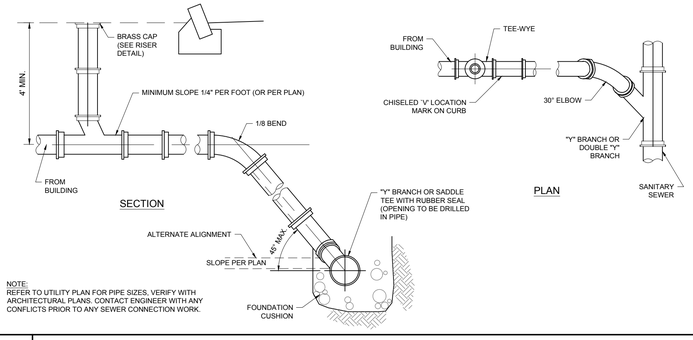
NOT TO SCALE (U030204-01/2013)



NOTE:
1. MAXIMUM DROP BETWEEN INCOMING AND OUTGOING PIPES TO BE 2'.
2. SEE GRADING/DRAINAGE/UTILITY PLAN FOR PIPE SIZES, INVERTS AND ELEVATIONS.

8 SANITARY LATERAL TO MANHOLE CONNECTION DETAIL

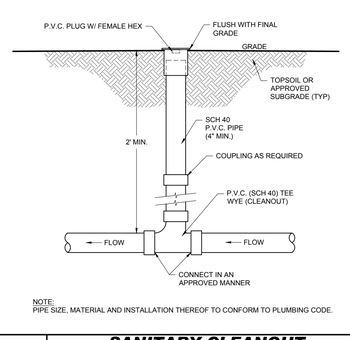
NOT TO SCALE (U030102-01/2013)



NOTE:
REFER TO UTILITY PLAN FOR PIPE SIZES, VERIFY WITH ARCHITECTURAL PLANS. CONTACT ENGINEER WITH ANY CONFLICTS PRIOR TO ANY SEWER CONNECTION WORK.

9 STANDARD CONNECTION DETAIL

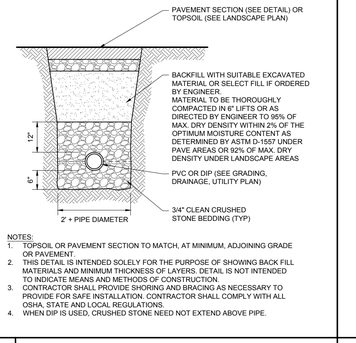
NOT TO SCALE (U039904-01/2013)



NOTE:
PIPE SIZE, MATERIAL AND INSTALLATION THEREOF TO CONFORM TO PLUMBING CODE.

10 SANITARY CLEANOUT LANDSCAPE AREAS DETAIL

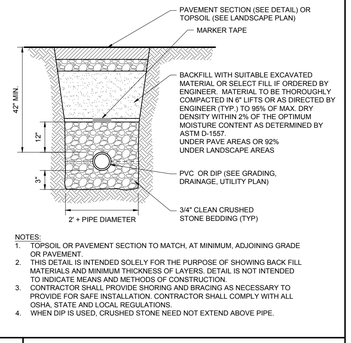
NOT TO SCALE (U020101-01/2013)



NOTES:
1. TOPSOIL OR PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING GRADE OR PAVEMENT.
2. THIS DETAIL IS INTENDED SOLELY FOR THE PURPOSE OF SHOWING BACK FILL MATERIALS AND MINIMUM THICKNESS OF LAYERS. DETAIL IS NOT INTENDED TO INDICATE MEANS AND METHODS OF CONSTRUCTION.
3. CONTRACTOR SHALL PROVIDE SHORING AND BRACING AS NECESSARY TO PROVIDE FOR SAFE INSTALLATION. CONTRACTOR SHALL COMPLY WITH ALL OSHA, STATE AND LOCAL REGULATIONS.
4. WHEN DIP IS USED, CRUSHED STONE NEED NOT EXTEND ABOVE PIPE.

11 SANITARY TRENCH DETAIL

NOT TO SCALE (U039908-04/2019)



NOTES:
1. TOPSOIL OR PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING GRADE OR PAVEMENT.
2. THIS DETAIL IS INTENDED SOLELY FOR THE PURPOSE OF SHOWING BACK FILL MATERIALS AND MINIMUM THICKNESS OF LAYERS. DETAIL IS NOT INTENDED TO INDICATE MEANS AND METHODS OF CONSTRUCTION.
3. CONTRACTOR SHALL PROVIDE SHORING AND BRACING AS NECESSARY TO PROVIDE FOR SAFE INSTALLATION. CONTRACTOR SHALL COMPLY WITH ALL OSHA, STATE AND LOCAL REGULATIONS.
4. WHEN DIP IS USED, CRUSHED STONE NEED NOT EXTEND ABOVE PIPE.

12 WATER PIPE INSTALLATION DETAIL

NOT TO SCALE (U049910 - 04/2019)

G:\2019\L\190690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\L190690.04-CDS-0A-----LAYOUT: C-903 DETL
MS

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CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-CDS-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOTS 18.01, 15, 17

BOHLER
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35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

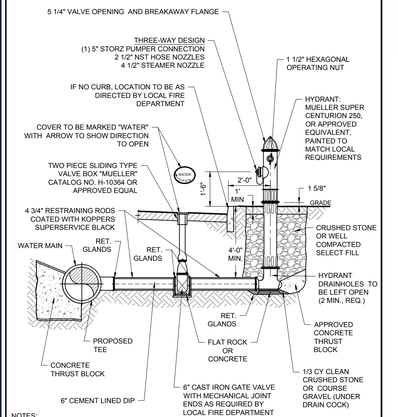
SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-903

ORG. DATE - 03/04/2020



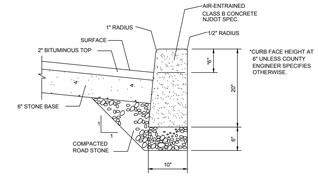
NOTES:

1. CONTRACTOR TO CONFIRM TYPE OF HYDRANT TO USE WITH LOCAL WATER PURVEYOR AND LOCAL FIRE DEPT. PRIOR TO ORDERING HYDRANT AND APPURTENANCES.
2. CONTRACTOR TO READ AND REVIEW THE LOCAL FIRE CODE FOR VALVE/HYDRANT SPECIFICATIONS PRIOR TO THE PURCHASE OR INSTALLATION OF ANY EQUIPMENT. ANY QUESTION OF MATERIAL OR REQUIREMENTS TO BE RESOLVED WITH LOCAL FIRE MARSHAL.
3. UNLESS SUPERSEDED BY LOCAL REQUIREMENTS, SIZE, TYPE, AND INSTALLATION OF HYDRANTS SHALL CONFORM TO THE FOLLOWING SPECIFICATION, INCORPORATED HEREIN BY REFERENCE, AS APPROPRIATE:
4. SIZE, TYPE, AND INSTALLATION OF HYDRANTS SHOULD BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY OR THE WATER PURVEYOR, OR SHALL CONFORM TO THE AWWA STANDARD FOR DRY-BARREL FIRE HYDRANTS, ANSI/AWWA C502. HYDRANTS SHALL HAVE AT LEAST THREE (3) OUTLETS: ONE OUTLET SHALL BE A PUMPER OUTLET, THE OTHER OUTLETS SHALL BE AT LEAST TWO AND ONE-HALF (2½) INCH NOMINAL SIZE. THE PUMPER OUTLET SHALL FACE THE STREET. ALL OUTLET NOZZLES SHALL BE AT LEAST 12 INCHES ABOVE THE ADJOINING GRADE. WHEN A CONCRETE SLAB IS PROVIDED AROUND THE HYDRANT RISER, THE FLANGE WHERE THE HYDRANT CONNECTS TO THE RISER SHALL BE AT LEAST TWO INCHES ABOVE THE ADJACENT GRADE. STREET MAIN CONNECTIONS SHALL NOT BE LESS THAN SIX INCHES IN DIAMETER. HOSE THREADS ON OUTLETS SHALL BE COMPATIBLE WITH EXISTING MUNICIPAL EQUIPMENT AND SHALL EITHER CONFORM TO NFPA 1963 OR SHALL MATCH EXISTING MUNICIPAL REQUIREMENTS. A VALVE SHALL BE PROVIDED ON CONNECTIONS BETWEEN HYDRANTS AND STREET MAINS. ALL PIPES, FITTINGS, AND APPURTENANCES SUPPLYING FIRE HYDRANTS SHALL BE AWWA OR ASTM APPROVED. (RSIS)
5. ALL FIRE HYDRANTS SHALL CONFORM TO NFPA STANDARD 291.
6. DISTANCE FROM CURB IS TYPICAL, HOWEVER CONTRACTOR MUST REFER TO UTILITY PLAN FOR HYDRANT LOCATION

1 FIRE HYDRANT DETAIL

NOT TO SCALE (U049901-01/2017)

NOTE: MUNICIPAL OR COUNTY STANDARD DETAILS SUPERCEDE BOHLER DETAILS



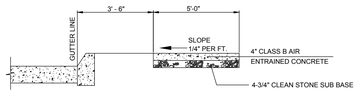
NOTE: EXPANSION JOINTS TO BE SET AT 10' INCREMENTS.

AT CURB TAPERS, TRANSITION CURB FACE FROM 6" TO 1 1/2" IN 5 FEET.

CONCRETE CURB

NOT TO SCALE
7/11/2000

CONC-CURB.DWG



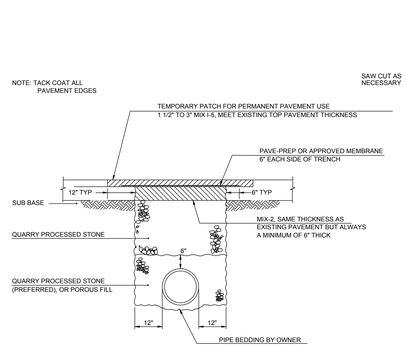
CONCRETE SIDEWALK

NOT TO SCALE
5/09/2001

CONC-SDWLK.DWG

2 UNION COUNTY DETAILS

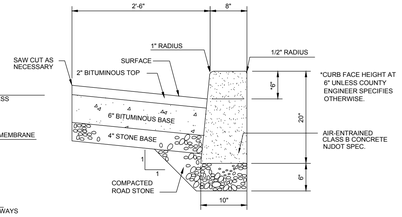
NOT TO SCALE (TO BE USED FOR IMPROVEMENTS ALONG MOUNTAIN AVENUE)



ROAD EXCAVATION & RESTORATION

NOT TO SCALE
REV. 8/11/2000

RD-EXC-REST.DWG



NOTE: EXPANSION JOINTS TO BE SET AT 10' INCREMENTS.

2 BITUMINOUS TOP - NJDOT BITUMINOUS CONCRETE SURFACE COURSE, MIX I-5.

6" BITUMINOUS BASE - NJDOT BITUMINOUS - STABILIZED BASE COURSE, MIX I-2
NOTE: CONSTRUCT IN LAYERS NOT MORE THAN 3" COMPACTED THICKNESS.

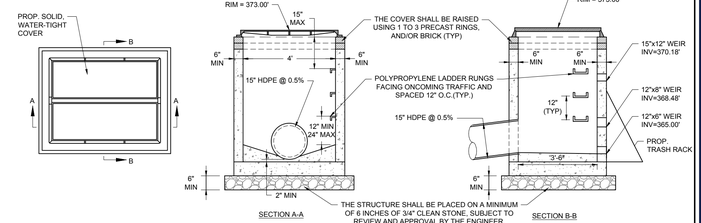
4" STONE BASE - NJDOT DENSE GRADED AGGREGATE BASE COURSE 4" THICK
FORMERLY NJDOT QUARRY PROCESSED STONE

ROAD STONE - NJDOT DENSE GRADED AGGREGATE, VARIABLE THICKNESS

TYPICAL ROADWAY EXCAVATION AT CURBS

NOT TO SCALE
7/11/2000

FOR USE IN R.O.W.

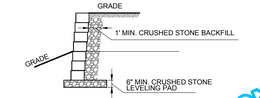


NOTES:

1. THE OUTLET CONCRETE STRUCTURE SHALL BE PRECAST CONCRETE TO MEET A MINIMUM OF H-25 LOADING. ALL UNITS SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE APPROPRIATE ASTM, ACI, NJPDES, AND AASHTO STANDARDS. ALL PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUT TO PRODUCE A "LEAK-PROOF" JOINT.
2. THE COVER SHALL BE FABRICATED TO MEET A MINIMUM OF H-25 LOADING, UNLESS PRE-APPROVED IN WRITING BY THE ENGINEER, OR UNLESS NOTED ON THE INDIVIDUAL STRUCTURE NOTES.
3. ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
4. A 3000 PSI MIN. CONCRETE PIPE FLOW CHANNEL SHALL BE INSTALLED IN THE STRUCTURE BOTTOM, AFTER ALL THE PIPES ARE INSTALLED, OR THE FLOW CHANNELS CAN BE PRECAST WITH THE BASE.
5. DETAIL IS FOR CAST IRON CLASS 30B ONLY. ANY OTHER CLASS OF CAST IRON OR TYPE OF MATERIAL MUST BE ON THE BUREAU OF MATERIALS APPROVED PRODUCTS LIST OR NEW TECHNOLOGY'S AND PRODUCTS APPROVED PRODUCTS LIST.
6. LADDER RUNGS SHOULD NOT BE INSTALLED OVER PIPE OPENINGS.

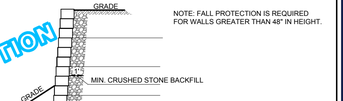
3 OUTLET STRUCTURE #1 DETAIL

NOT TO SCALE (G020310-01/2013) (MOD.)



RETAINING WALL DETAIL
(MAX. WALL HEIGHT 30")

NOTE: NOT FOR CONSTRUCTION, FINAL SHOP DRAWINGS TO BE PROVIDED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER PRIOR TO CONSTRUCTION



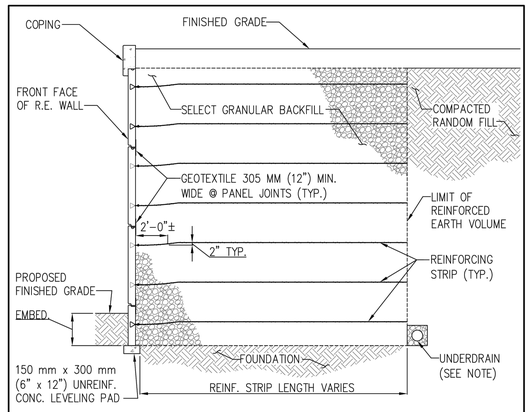
RETAINING WALL DETAIL

NOTE: NOT FOR CONSTRUCTION. CONTRACTOR TO HAVE PREPARED A SHOP DRAWINGS (PREPARED BY A PROFESSIONAL ENGINEER IF WALL HEIGHT IS GRATER THEN 48") TO BE PROVIDED TO THE ENGINEER PRIOR TO CONSTRUCTION

NOT FOR CONSTRUCTION

4 RETAINING WALL SCHEMATIC DETAIL

NOT TO SCALE (S130205 - 9/2016) MOD



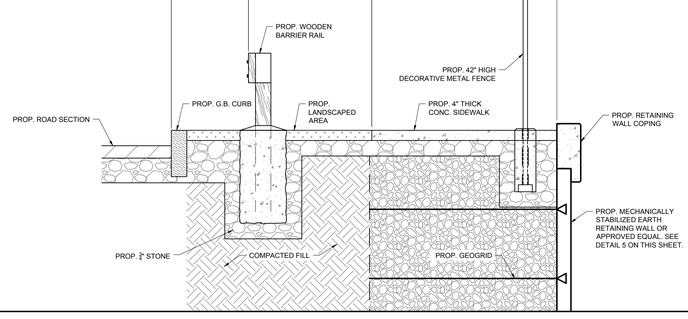
EMBEDMENT NOTE:
MIN. EMBEDMENT PER AASHTO C11.10.2.2 OR PER GEOTECHNICAL ENGINEER OF RECORD.
UNDERDRAIN NOTE:
UNDERDRAIN SYSTEM SHALL BE DESIGNED BY THE PROJECT CIVIL OR GEOTECHNICAL ENGINEER OF RECORD BASED ON SITE CONDITIONS. UNDERDRAIN SHALL BE SLOPED TO DRAIN AND OUTLET TO ADJACENT DRAINAGE STRUCTURES OR BEYOND THE LIMITS OF THE MSE WALL.
FOUNDATION NOTE:
FOUNDATION SOILS TO BE ANALYZED BY THE PROJECT GEOTECHNICAL ENGINEER FOR BEARING CAPACITY, SETTLEMENT AND GLOBAL STABILITY.
PRIOR TO MSE WALL CONSTRUCTION, FOUNDATION SOILS SHALL BE PROOF-ROLLED AND ANY UNSUITABLE MATERIAL (AS DETERMINED BY THE GEOTECHNICAL ENGINEER) SHALL BE REMOVED AND REPLACED WITH COMPACTED GRANULAR FILL, OR OTHERWISE STABILIZED.

IMPORTANT NOTE ABOUT DIMENSIONS
Dimensions used in this document are for illustrative purposes only and may vary slightly from precise design or fabrication dimensions due to English/Metric conversion or due to simplification appropriate to the guideline character of this manual. When required for design, precise dimensions (each project uses either English or Metric) should be obtained from contract plans or directly from The Reinforced Earth Company. RECo reserves the right to change the dimensions of fabricated materials as needed.

REINFORCED EARTH	TYPICAL SECTION WITH COPING	FIGURE NO. TYP.SECT.COP.
		DATE 10/27/2016

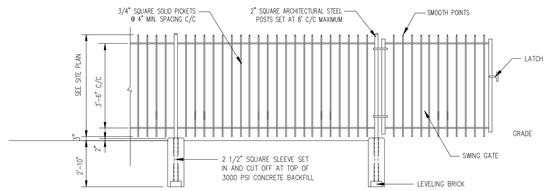
5 PROP. RETAINING ALONG LOOP ROAD

NOT TO SCALE



6 PROP. RETAINING WALL AT LOOP ROAD ALONG DETENTION BASIN

NOT TO SCALE

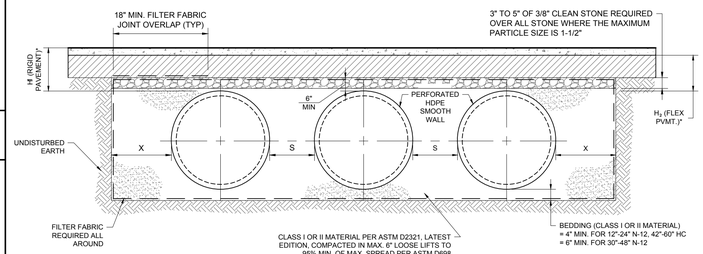


7 DECORATIVE METAL FENCE - TYPICAL

NOT TO SCALE (SOURCE: LANTZ- BOGGIO ARCHITECTS, P.C.)

NOMINAL DIAMETER	MINIMUM X	MINIMUM S	MAXIMUM PARTICLE SIZE (IN.)
12"	8"	10.9"	5/8
15"	8"	10.9"	5/8
18"	9"	14.3"	1-1/2
24"	10"	13.4"	1-1/2
30"	18"	17.1"	1-1/2
36"	18"	21"	1-1/2
42"	18"	24"	1-1/2
48"	18"	24.5"	1-1/2
60"	18"	23"	1-1/2

DIMENSIONS INDICATED ARE NOMINAL BASED ON ADS,INC, DESIGN HANDBOOK (DATA PUBLISHED 2009). CONTRACTOR TO CONFIRM WITH MANUFACTURER.



NOTES:

1. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOR MORE DETAILED INFORMATION, SEE ADS TECHNICAL NOTE 2.120, "STORM WATER DETENTION/RETENTION SYSTEM DESIGN".
4. PIPE TO BE HIGH DENSITY POLYETHYLENE CONFORMING TO ASTM D3350, AASHTO M294 TYPES, AND ASTM F2306.

*H , H_2 = 12" FOR UP TO AND INCLUDING 48" N-12
= 24" FOR 60" N-12

* FOR LIVE LOAD INSTALLATIONS PROVIDE 24" COVER FOR 42"-60" N-12.

8 PERFORATED HDPE PIPE DETENTION/INFILTRATION BASIN SECTION DETAIL

NOT TO SCALE (G010110-10/2015)

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CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-CDS-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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35 TECHNOLOGY DRIVE
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R.L. STREKER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 45344
NEW YORK LICENSE No. 079512

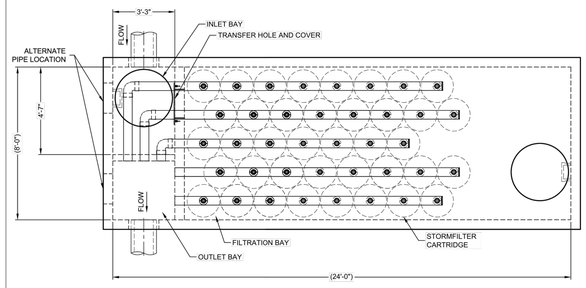
SHEET TITLE:

DETAIL SHEET

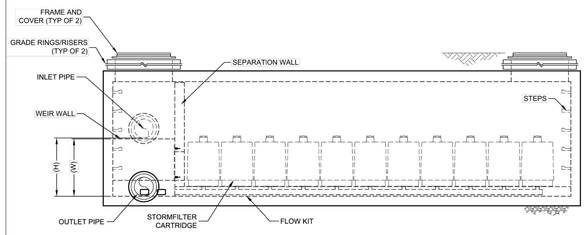
SHEET NUMBER:

C-904

ORG. DATE - 03/04/2020



PLAN



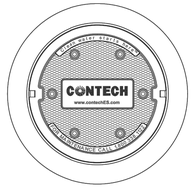
ELEVATION

The Stormwater Management StormFilter® SEE PATENTS: WWW.CONTECHES.COM/ABOUT-US/LEGAL/PATENT-MARKING FOR INCLUDED, EXPIRING, PENDING, AND FOREIGN PATENTS

STORMFILTER DESIGN TABLE

- THE 8' x 24' PEAK DIVERSION STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.
- THE PEAK DIVERSION STORMFILTER IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR RIGHT INLET CONFIGURATION.
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.

CARTRIDGE HEIGHT	27"		18"		LOW DROP	
SYSTEM HYDRAULIC DROP (H - REQ'D. MIN.)	3.05'		2.3'		1.8'	
HEIGHT OF WEIR (W)	3.00'		2.25'		1.75'	
TREATMENT BY MEDIA SURFACE AREA	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

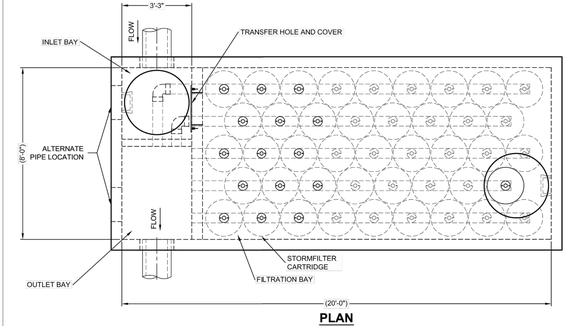
STRUCTURE ID			*
WATER QUALITY FLOW RATE (cfs)			*
PEAK FLOW RATE (cfs)			*
RETURN PERIOD OF PEAK FLOW (yrs)			*
# OF CARTRIDGES REQUIRED			*
CARTRIDGE FLOW RATE			*
MEDIA TYPE (CSF, PERLITE, ZPG)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE	*	*	*
OUTLET PIPE	*	*	*
INLET BAY RIM ELEVATION			*
FILTER BAY RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*

NOTES/SPECIAL REQUIREMENTS:

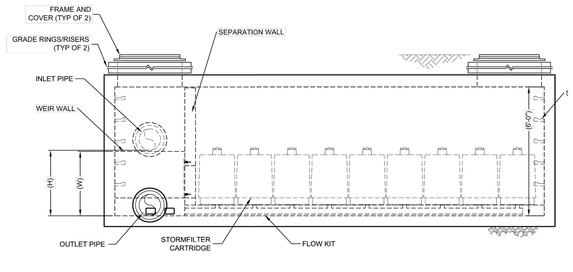
PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES**. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **37 SECONDS**. SPECIFIC FLOW RATE SHALL BE **2 GPM/SF (MAXIMUM)**. SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM)**.

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.



PLAN



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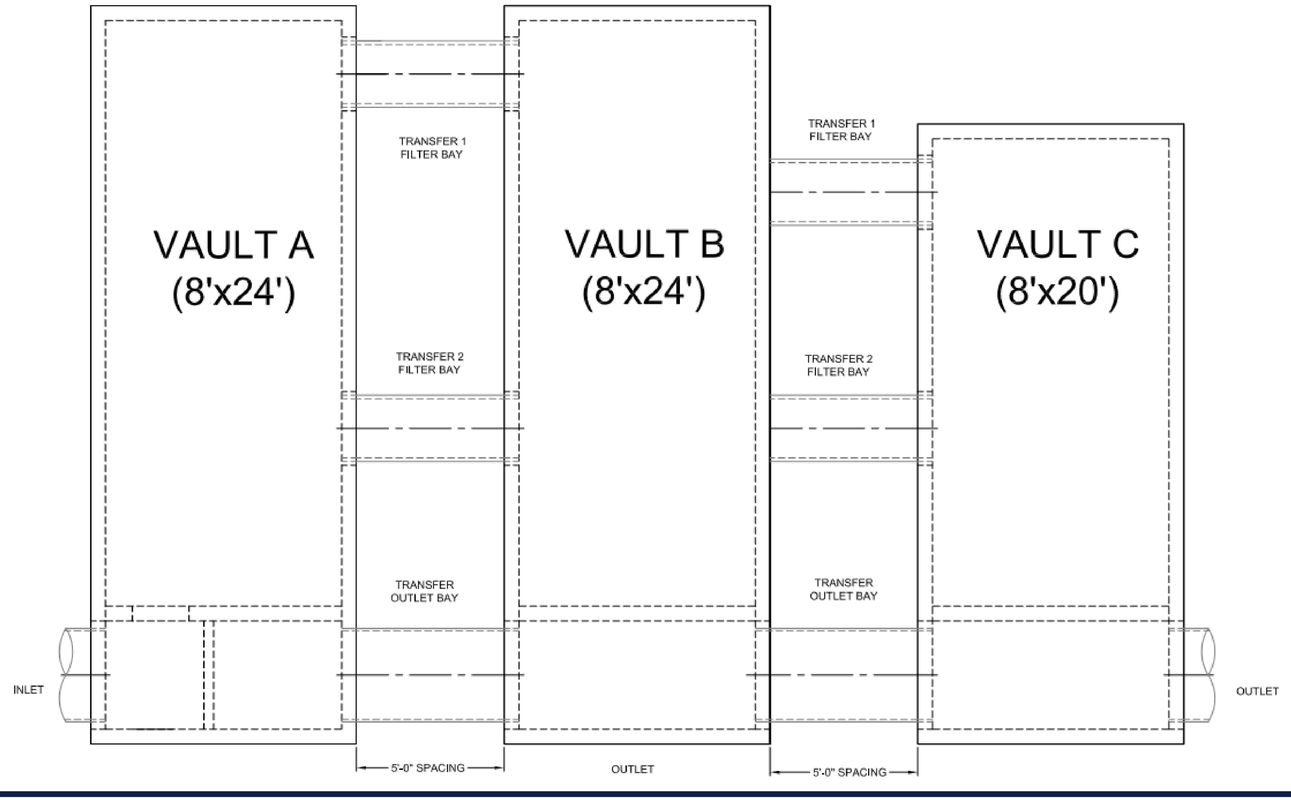

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MSB

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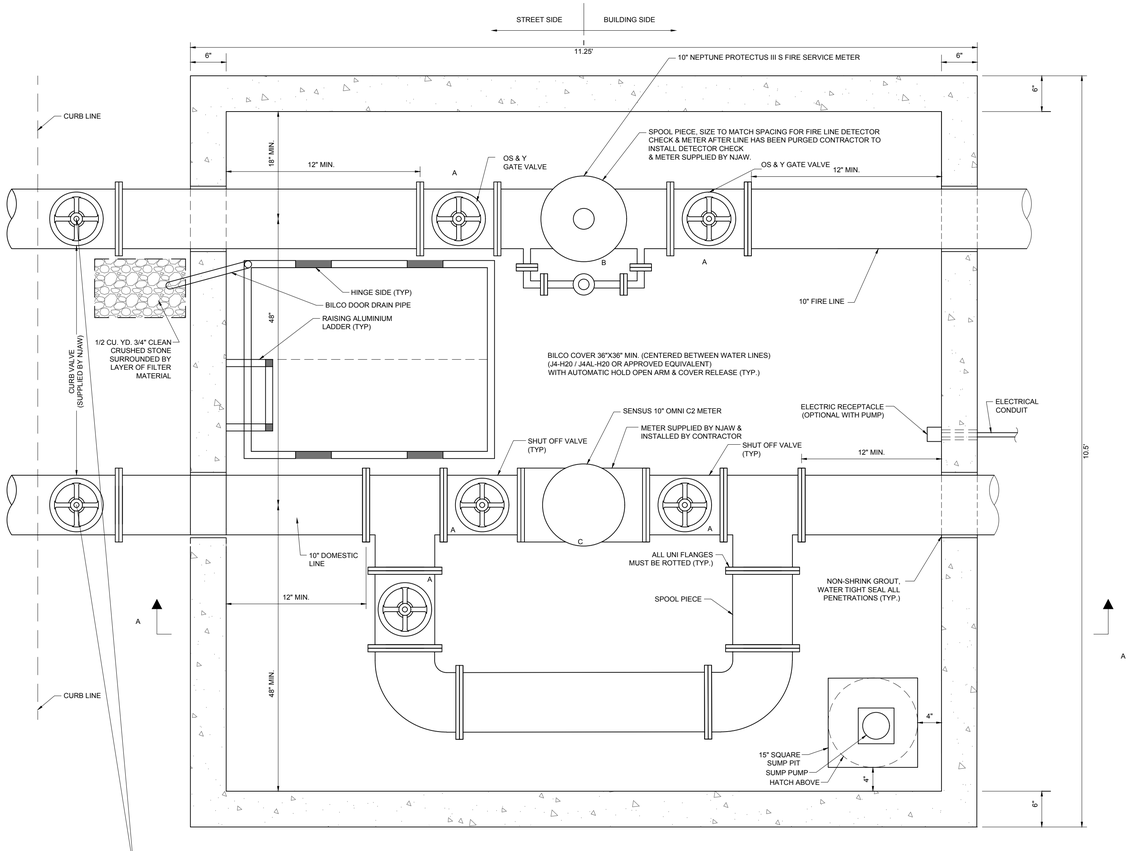
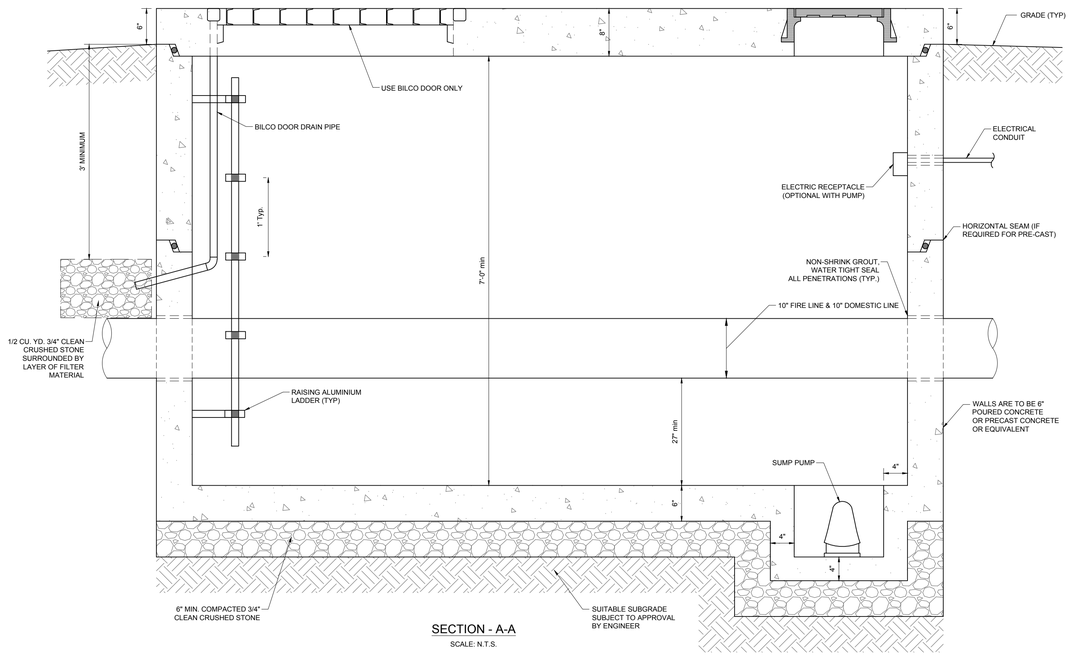


CONTRACTOR TO CONFIRM WITH WATER COMPANY THE VALVING REQUIREMENTS BETWEEN THE EXISTING MAIN AND THE METER VAULT.

PLAN

SCALE: N.T.S.



SECTION - A-A

SCALE: N.T.S.

NOTES:

1. ALL DIMENSIONS ARE MINIMUM.
2. ACCESS DOOR SHALL BE A BILCO TYPE J4-H20, J4AL-H20 OR APPROVED EQUIVALENT.
3. METER PIT IS TO BE LOCATED A SAFE DISTANCE FROM ANY VEHICULAR TRAFFIC, UNLESS DESIGNED TO MEET H20 LOADING.
4. THE VAULT MUST BE FREE OF STANDING WATER; SUMP PUMP RECOMMENDED, BUT NOT REQUIRED. MAINTENANCE OF THE VAULT IS THE RESPONSIBILITY OF THE OWNER.
5. THE METER VAULT SHALL BE DESIGNED FOR HEAVY LOADING, HIGHWAY H-20 LOADING.
6. ELECTRIC LINES ARE NOT TO BE GROUNDED TO WATER PIPING.
7. ALL PIPING 3' AND SMALLER SHALL BE COPPER AND LARGER THAN 3" SHALL BE DUCTILE IRON OR STEEL WITH FLANGED JOINTS.
8. PVC PIPING IS NOT PERMITTED IN VAULT.
9. ALL PIPE JOINTS AT 200 PSI ARE TO BE RESTRAINED ON EITHER SIDE OF THE METER FOR THE DISTANCES INDICATED BELOW.

PIPE SIZE	DISTANCE (FT)
2"-4"	30
6"	43
8"	55
10"	67

PIPE SIZE	DISTANCE (FT)
12"	79
14"	91
16"	103

10. PIPING AND COMPONENTS SHALL BE SUPPORTED FROM FLOOR.
11. METER VAULT PIT IS REQUIRED IN ANY INSTALLATION WHERE METER LOCATION WITHIN THE BUILDING WOULD BE LOCATED 150 FEET OR MORE FROM THE CURB LINE. ANY DEVIATION MUST BE PRE-APPROVED BY THE NJAW.
12. CUSTOMER MUST PROVIDE CLEAR ACCESS TO METER FOR SERVICE AND TESTING PURPOSES. TESTING REQUIRES A 2'-6" HOSE CONNECTION FROM THE WATER COMPANY'S TEST TRUCK TO THE METER.
13. OPERATIONS SERVICES TO PROVIDE FROM (OS-1) FOR TYPE AND LAYING LENGTH OF METERS LARGER THAN 8" IN DIA. FOR TURBO METERS, 6" IN DIA. FOR COMPOUND METERS AND 6" IN DIA. FOR FIRELINE DETECTOR CHECK METERS.
14. THE METER VAULT MUST BE LOCATED ON THE CUSTOMER'S PROPERTY WITHIN 10' OF THE PROPERTY LINE WHICH IS ADJACENT TO THE WATER LINE. THE LOCATION IS TO BE APPROVED BY NJAW.
15. METER VAULT DIMENSIONS ARE BASED ON STANDARD VALUE AND FITTING DIMENSIONS. NOMINAL AND FINAL VAULT SIZE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY NJAW.
16. ELECTRIC CONDUIT IS NOT REQUIRED, BUT IS RECOMMENDED. IF PROVIDED, THE OWNER WILL HAVE THE ABILITY TO ADD LIGHT OR HEATING EQUIPMENT IN THE FUTURE, IF NEEDED.

1

NJAW METER VAULT DETAIL

NOT TO SCALE (U049908-01/2013)

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MAS

NAD83

COMPLIANCE CHART

SECTION	REQUIREMENT	CALCULATIONS	COMPLIANCE
CCRCO CONTINUING CARE RETIRMENET COMMUNITY OVERLAY - J. DESIGN STANDARDS	J(A)(1). LANDSCAPING. ANY LANDSCAPING WHICH, WITHIN 2 YEARS OF PLANTING DIES FOR ANY REASON, SHALL BE REPLACED BY THE DEVELOPER(S) AT THEIR EXPENSE BY WAY OF WRITTEN AGREEMENT.	-(REFER TO NOTE 12(A) IN THE LANDSCAPE SPECIFICATIONS ON THE LANDSCAPE NOTES & DETAILS SHEET.)-	COMPLIES
	J(A)(2). STREET TREES SHALL BE PLANTED 40 TO 50 FEET APART ALONG ALL INTERNAL STREETS/ROADWAYS.	STREET TREES HAVE BEEN PLANTED BETWEEN 40 AND 50 FEET ON CENTER WHERE ALLOWABLE ALONG ALL INTERNAL ROADS.	COMPLIES
	J(A)(3). STREET TREES SHALL BE AT LEAST 2.5 INCH CALIPER AT PLANTING AND ADHERE TO THE AMERICAN STANDARDS FOR NURSERY STOCK.	STREET TREES HAVE BEEN PROPOSED AT A MINIMUM OF 3 INCHES IN CALIPER. -(REFER TO NOTE 2(F) IN THE LANDSCAPE SPECIFICATIONS ON THE LANDSCAPE NOTES & DETAILS SHEET.)-	COMPLIES
	J(A)(4). ALL AREAS NOT OCCUPIED BY BUILDINGS, ROADWAYS, PARKING AREAS, PATIOS, WALKWAYS, AND/OR ANY OTHER IMPERVIOUS SURFACE SHALL BE ADEQUATELY LANDSCAPED.	LANDSCAPING HAS BEEN PROVIDED THROUGHOUT THE SITE WHERE ALLOWABLE.	COMPLIES
	J(A)(5). A MINIMUM OF 1 TREE PER 20 SURFACE PARKING SPACES SHALL BE PLANTED AROUND THE PERIMETER OF, OR ADJACENT TO, THE OUTDOOR SURFACE PARKING AREAS.	TOTAL SURFACE PARKING SPACES: 186 REQUIRED: 186 SPACES / 20 = 9.3 OR 10 TREES PROPOSED: 41 TREES	COMPLIES
	J(A)(6). NO LANDSCAPING AT ANY LOCATION SHALL INTERFERE WITH SIGHT TRIANGLES.	LANDSCAPING HAS BEEN PROPOSED OUTSIDE OF SIGHT TRIANGLES WHERE ALLOWABLE. TREES WITHIN SIGHT TRIANGLES ARE TO BE MAINTAINED WITH A LIMB HEIGHT OF 7 FEET ABOVE GRADE AS THEY MATURE.	VARIANCE
305-11 SUBDIVISION OF LAND AND SITE PLAN REVIEW - SITE PLAN REVIEW STANDARDS	D. BUFFER AREAS. BUFFERING SHALL BE LOCATED AROUND THE PERIMETER OF THE SITE TO MINIMIZE HEADLIGHTS OF VEHICLES, NOISE, LIGHT FROM STRUCTURES AND THE MOVEMENT OF PEOPLE AND VEHICLES AND TO SHIELD ACTIVITIES FROM ADJACENT PROPERTIES WHEN NECESSARY. BUFFERING MAY CONSIST OF FENCING, EVERGREENS, SHRUBS, BUSHES, DECIDUOUS TREES OR COMBINATIONS THEREOF TO ACHIEVE THE STATED OBJECTIVES.	EXISTING WOODED AREAS ARE TO REMAIN ALONG THE NORTHERN AND WESTERN PROPERTY LINES WHERE THE SITE ABUTES A RESIDENTIAL ZONE.	COMPLIES
	E. LANDSCAPING. LANDSCAPING SHALL BE PROVIDED AS PART OF THE OVERALL SITE PLAN DESIGN AND INTEGRATED INTO BUILDING ARRANGEMENTS, TOPOGRAPHY AND PARKING AND BUFFERING REQUIREMENTS. LANDSCAPING SHALL INCLUDE TREES, BUSHES, SHRUBS, GROUND COVER, PERENNIALS, ANNUALS, PLANTS, SCULPTURE, ART AND THE USE OF BUILDING AND PAVING MATERIALS IN AN IMAGINATIVE MANNER.	LANDSCAPING HAS BEEN PROVIDED THROUGHOUT THE SITE WHERE ALLOWABLE.	COMPLIES
310-21 SUPPLEMENTARY REGULATIONS - BUFFER REQUIREMENTS	C. WHEN NO SPECIFIC REQUIREMENTS ARE SET FORTH, THE MINIMUM SHALL NOT BE LESS THAN ANY MINIMUM PROVIDED IN THIS SECTION.	A MINIMUM BUFFER AREA OF 30 FEET HAS BEEN PROVIDED ALONG THE NORTHERN AND WESTERN PROPERTY LINE WHERE THE SITE ABUTS A RESIDENTIAL ZONE. EXISTING WOODED AREAS ARE TO REMAIN ALONG THE NORTHERN AND WESTERN PROPERTY LINES WHERE THE SITE ABUTES A RESIDENTIAL ZONE.	COMPLIES

2020-03-05 15:45

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	SPACING	DEER RESISTANCE	FLOWER	FALL COLOR	REMARKS
AF	27	ACER RUBRUM `FRANKSRED` TM	RED SUNSET RED MAPLE	3" CAL	B&B	AS SHOWN	2	MAR, RED	YES	
AL	15	ACER SACCHARUM `LEGACY`	LEGACY SUGAR MAPLE	3" CAL	B&B	AS SHOWN	2	NOT SIG	YES	
AR2	6	AESCULUS X CARNEA	RED HORSECHESTNUT	8`-10` HT	B&B	AS SHOWN	2	MAY, SHOWY	NOT SIG	
BH	5	BETULA NIGRA `HERITAGE`	HERITAGE RIVER BIRCH	3" CAL	B&B	AS SHOWN	1	MAY	YES	MULTISTEM, NO SINGLES
BP	11	BETULA PAPYRIFERA	PAPER BIRCH	3" CAL	B&B	AS SHOWN	1	APR	YES	MULTISTEM, NO SINGLES
GC	2	GLEDITSIA TRIACANTHOS VAR INERMIS `SKYLINE`	SKYLINE HONEYLOCUST	3" CAL	B&B	AS SHOWN	2	MAY	YES	
NW	6	NYSSA SYLVATICA `WILDFIRE`	BLACK GUM	3" CAL	B&B	AS SHOWN		NOT SIG	YES	
PB2	4	PLATANUS X ACERIFOLIA `BLOODGOOD`	LONDON PLANE TREE	3" CAL	B&B	AS SHOWN	1	NOT SIG	NOT SIG	
QA	8	QUERCUS ALBA	WHITE OAK	3" CAL	B&B	AS SHOWN	3	NOT SIG	NOT SIG	
QB	4	QUERCUS BICOLOR	SWAMP WHITE OAK	3" CAL	B&B	AS SHOWN	3	NOT SIG	YES	
QP	3	QUERCUS PHELLOS	WILLOW OAK	3" CAL	B&B	AS SHOWN		NOT SIG	NOT SIG	
QR	84	QUERCUS RUBRA	RED OAK	3" CAL	B&B	AS SHOWN	3	NOT SIG	NOT SIG	
UL	12	ULMUS PARVIFOLIA	CHINESE LACEBARK ELM	3" CAL	B&B	AS SHOWN		NOT SIG	NOT SIG	

EVERGREEN	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	SPACING	DEER RESISTANCE	FLOWER	FALL COLOR	REMARKS
IJ	10	ILEX OPACA `JERSEY KNIGHT`	JERSEY KNIGHT HOLLY	5`HT.	B&B	AS SHOWN	1			
IJ2	35	ILEX OPACA `JERSEY PRINCESS`	JERSEY PRINCESS HOLLY	5`HT.	B&B	AS SHOWN	1			
JE	11	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8`-10` HT	B&B	AS SHOWN	2			
PS	37	PINUS STROBUS	WHITE PINE	8`-10` HT	B&B	AS SHOWN	2			
TF	33	TAXUS BACCATA `FASTIGIATA`	FASTIGA ENGLISH YEW	8`-10` HT	B&B	AS SHOWN				

ORNAMENTAL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	SPACING	DEER RESISTANCE	FLOWER	FALL COLOR	REMARKS
AS	6	ACER PALMATUM `SANGO KAKU`	CORAL BARK MAPLE	10`-12` HT.	B&B	AS SHOWN	2	NOT SIG.	YES	
AP	12	AESCULUS PARVIFLORA SEROTINA	BOTTLEBRUSH BUCKEYE	3" CAL	B&B	AS SHOWN	1	JUNE, SHOWY	YES	
AP2	23	AMELANCHIER X GRANDIFLORA `PRINCESS DIANA`	PRINCESS DIANA SERVICEBERRY	3" CAL	B&B	AS SHOWN	2	APR, SHOWY	YES	
CA	3	CAMELLIA JAPONICA `APRIL REMEMBERED`	APRIL REMEMBERED CAMELLIA	6` HT.	B&B	AS SHOWN		SUMMER, SHOWY		
CC	65	CORNUS KOUSA `CHEROKEE PRINCESS`	CHEROKEE PRINCESS DOGWOOD	3" CAL	B&B	AS SHOWN	2	APR, SHOWY	YES	
CV	15	CRATAEGUS VIRIDIS `WINTER KING`	WINTER KING HAWTHORN	10`-12` HT.	B&B	AS SHOWN	2	MAY, SHOWY		
SM	4	STEWARTIA PSEUDOCAMELLIA `MILK AND HONEY`	JAPANESE STEWARTIA	10` HT	B&B	AS SHOWN		JUNE, SHOWY	YES	

GENERAL LANDSCAPE NOTES:

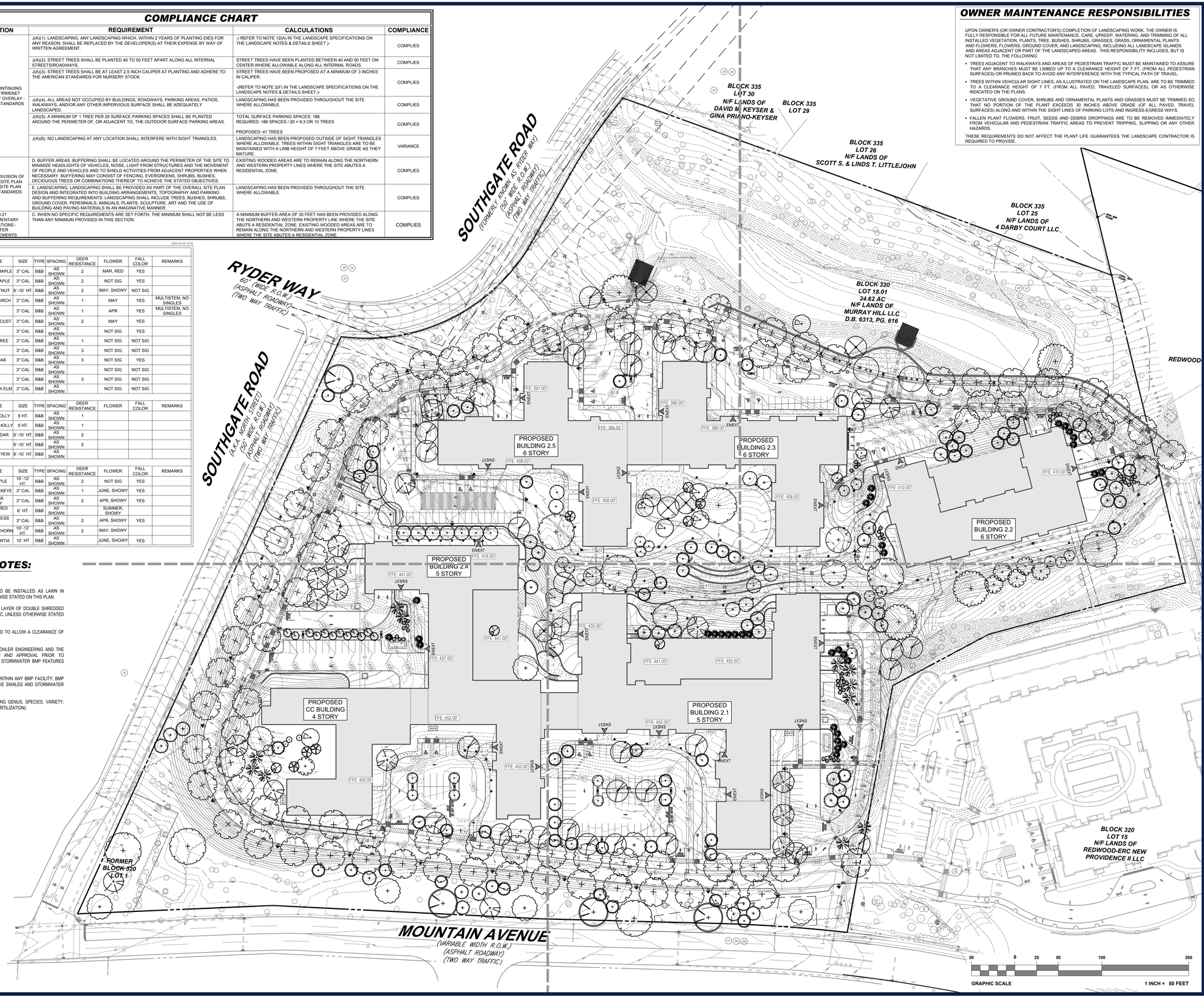
1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
2. ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH THE LANDSCAPE SPECIFICATION #2.C., UNLESS OTHERWISE STATED ON THIS PLAN.
3. ALL PROPOSED LANDSCAPE BEDS ARE TO BE TREATED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH OVER WATER PERMEABLE WEED BARRIER FABRIC, UNLESS OTHERWISE STATED ON THIS PLAN.
4. SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS ARE TO BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
5. PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT IS TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.
6. WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE RAIN GARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.
7. ALL LANDSCAPE PLANTINGS ARE TO BE TAGGED WITH LABELS INDICATING GENUS, SPECIES, VARIETY, CULTIVARE, AND ANY SPECIFIC REQUIREMENTS (INCLUDING WATERING & FERTILIZATION).

THIS PLAN REFERENCES A LANDSCAPE DESIGN PREPARED BY LSG LANDSCAPE ARCHITECTURE

REFER TO LANDSCAPE NOTES & DETAILS SHEET

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.



OWNER MAINTENANCE RESPONSIBILITIES

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-LND-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
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www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA28161700

M. F. DWYER
LICENSED LANDSCAPE ARCHITECT
NEW JERSEY LICENSE No. 21AS00120900

SHEET TITLE:

OVERALL LANDSCAPE PLAN

SHEET NUMBER:

L-101

ORG. DATE - 03/04/2020

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MS

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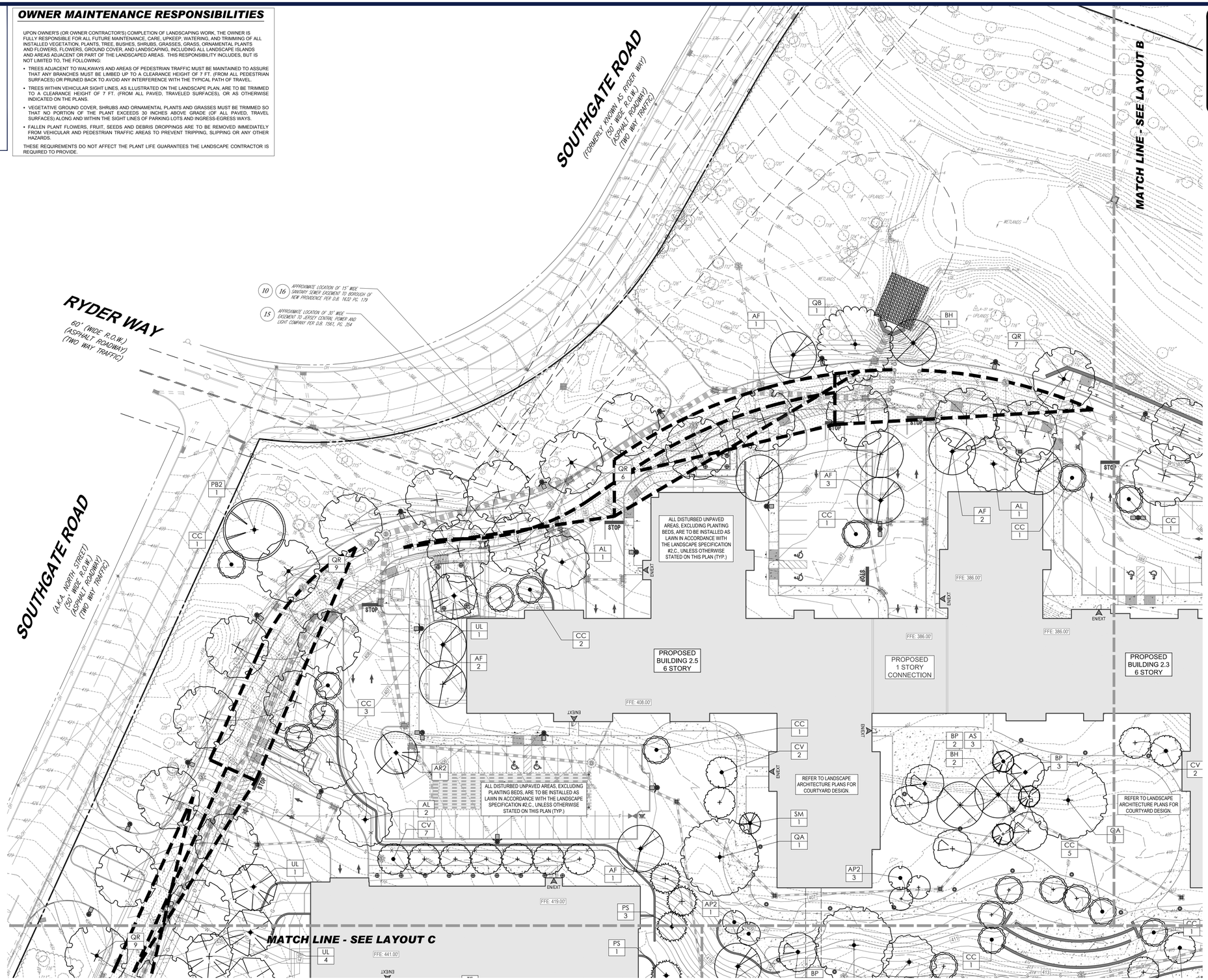

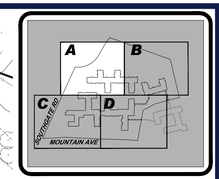

SITE LOCATION MAP

SCALE: 1" = 800'

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GRAPHIC SCALE 30 0 15 30 60 120

1 INCH = 30 FEET

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PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

M. F. DWYER
LICENSED LANDSCAPE ARCHITECT
NEW JERSEY LICENSE No. 21AS00120900

SHEET TITLE:

LANDSCAPE PLAN (A)

SHEET NUMBER:

L-102

ORG. DATE - 03/04/2020

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NAD83

MATCH LINE - SEE LAYOUT A

BLOCK 335
LOT 26
N/F LANDS OF
SCOTT S. & LINDS T. LITTLEJOHN

BLOCK 335
LOT 25
N/F LANDS OF
4 DARBY COURT LLC

CONC. MON. FOUND

IRON BAR FOUND

CONC. MON. FOUND

APPROXIMATE LOCATION OF 15' WIDE STORM SEWER AND DRAINAGE EASEMENT TO BOROUGH OF NEW PROVIDENCE PER D.B. 2860 PG. 776

BLOCK 320
LOT 18.01
24.62 AC.
N/F LANDS OF
MURRAY HILL LLC
D.B. 6313, PG. 616

BLOCK 320
LOT 17

N/F LANDS OF
REDWOOD-ERC NEW PROVIDENCE LLC

PROPOSED BUILDING 2.3
6 STORY
FFE: 386.00'

PROPOSED BUILDING 2.2
6 STORY
FFE: 410.00'

FFE: 408.00'

ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH THE LANDSCAPE SPECIFICATION #2.C., UNLESS OTHERWISE STATED ON THIS PLAN (TYP.)

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REFER TO LANDSCAPE ARCHITECTURE PLANS FOR COURTYARD DESIGN.

5 STORY MASONRY BUILDING

MATCH LINE - SEE LAYOUT D

BP 1 · BH 1 · QR 5 · CC 1 · GC 2 · AL 1 · AR2 2 · CC 2 · CC 1 · PS 2 · CC 4 · CC 4 · IJ2 4 · IJ 1 · TF 5 · QB 1 · QR 13 · PS 2 · TF 2 · IJ 2 · IJ2 6 · PS 4 · CC 3 · QA 1 · CC 1 · AP2 3 · NW 5 · IJ2 3 · IJ 1 · AP2 4 · TF 3 · BP 3 · CV 2 · QA 1 · CC 5 · PS 2 · IJ2 4 · IJ 1 · QP 2 · TF 2 · CC 1 · QP 1 · QA 1

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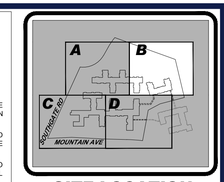

SITE LOCATION MAP

SCALE: 1" = 800'

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GRAPHIC SCALE 30 0 15 30 60 120 — 1 INCH = 30 FEET

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PROJECT:

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FOR

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PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

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M. F. DWYER
LICENSED LANDSCAPE ARCHITECT
NEW JERSEY LICENSE No. 21AS00126900

SHEET TITLE:

LANDSCAPE PLAN (B)

SHEET NUMBER:

L-103

ORG. DATE - 03/04/2020

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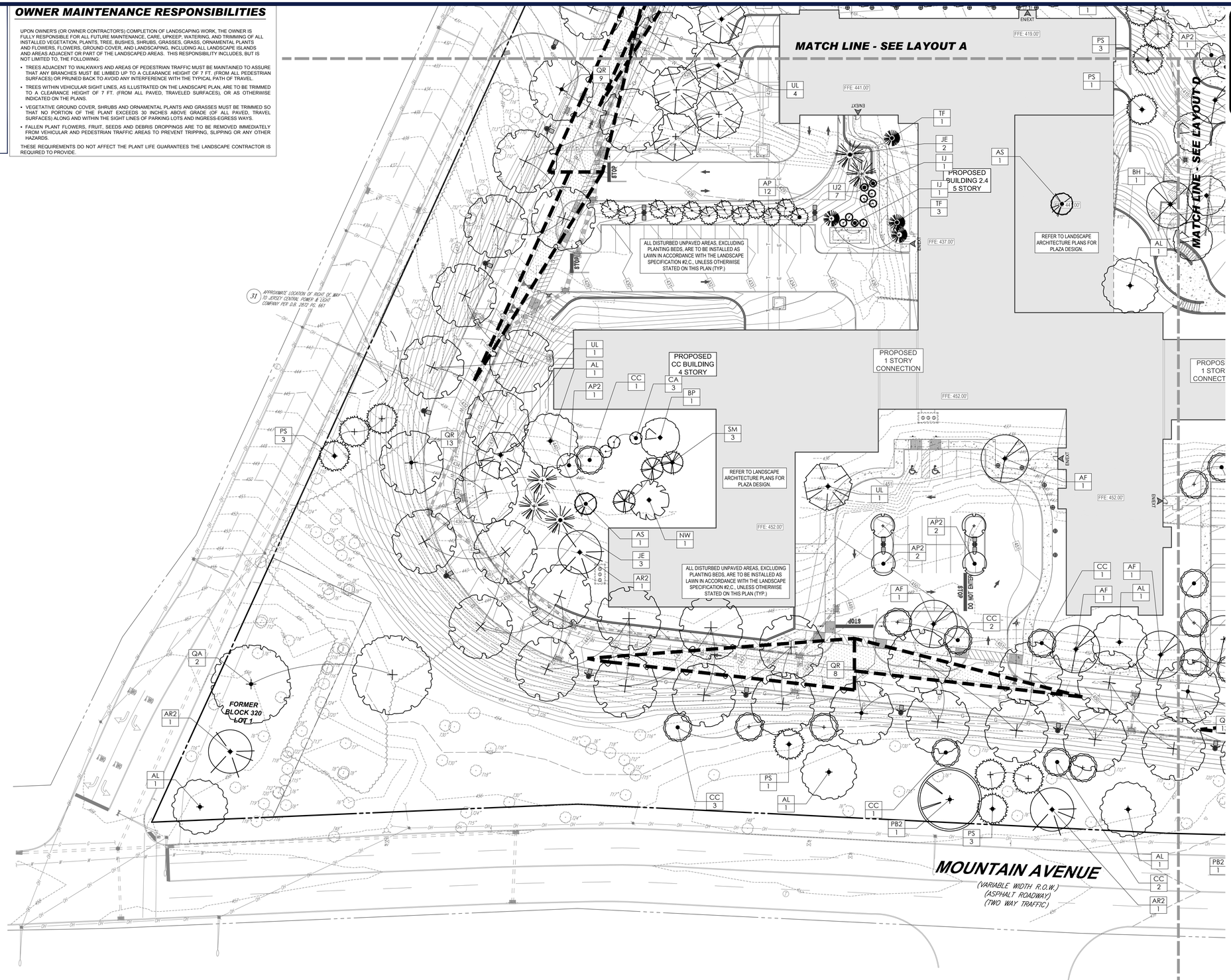
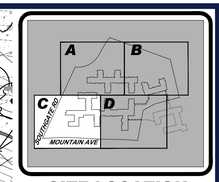
THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

NAD83





SITE LOCATION MAP

SCALE: 1" = 800'

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

THIS PLAN REFERENCES A LANDSCAPE DESIGN PREPARED BY LSG LANDSCAPE ARCHITECTURE

REFER TO NOTES AND REFERENCES SHEET FOR ADDITIONAL NOTES, REFERENCES AND SPECIFICATIONS.

30 0 15 30 60 120

GRAPHIC SCALE

1 INCH = 30 FEET

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABILITY SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.:	J100690.04
DRAWN BY:	DM / MFS
CHECKED BY:	MD
DATE:	03/04/2020
CAD I.D.:	J100690.04-LND-0A

PROJECT:

PRELIMINARY/FINAL MAJOR SITE PLAN

FOR

REDWOOD-ERC NEW PROVIDENCE, LLC

PROPOSED CONTINUING CARE RETIREMENT COMMUNITY

575 MOUNTAIN AVE
UNION COUNTY
NEW PROVIDENCE, NJ
BLOCK 320 | LOT 18.01

BOHLER
BOHLER ENGINEERING NJ, LLC
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
Phone: (908) 668-8300
Fax: (908) 754-4401
www.BohlerEngineering.com
NJ CERT. OF AUTHORIZATION NO. 24GA2816700

M. F. DWYER

LICENSED LANDSCAPE ARCHITECT
NEW JERSEY LICENSE No. 21AS00120900

SHEET TITLE:

LANDSCAPE PLAN (C)

SHEET NUMBER:

L-104

ORG. DATE - 03/04/2020

G:\2019\J100690.04\DRAWINGS\CURRENT DRAWINGS\SITE PLAN PACKAGE\J100690.04-LND-0A-----LAYOUT L-104.LSCP

NAD83

MATCH LINE - SEE LAYOUT A

MATCH LINE - SEE LAYOUT B

MATCH LINE - SEE LAYOUT C

PROPOSED 1 STORY CONNECTION

PROPOSED BUILDING 2.1 5 STORY

FFE: 430.00'

FFE: 452.00'

REFER TO LANDSCAPE ARCHITECTURE PLANS FOR PLAZA DESIGN.

ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH THE LANDSCAPE SPECIFICATION #2,C., UNLESS OTHERWISE STATED ON THIS PLAN (TYP.)

ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH THE LANDSCAPE SPECIFICATION #2,C., UNLESS OTHERWISE STATED ON THIS PLAN (TYP.)

DO NOT ENTER

STOP

ENEXT

EXIT

2ND FLOOR WALKWAY ELEV.=465.89

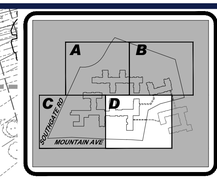
5 STORY MASONRY BUILDING

PORTION EASEMENT FOR SUBDRAIN TO BE ABANDONED

PORTION EASEMENT TO BE ABANDONED PER D.B. 2185 PG. 594

PORTION EASEMENT TO BE ABANDONED PER D.B. 2185 PG. 592

APPROXIMATE LOCATION OF 40' WIDE EASEMENT TO COMMONWEALTH WATER COMPANY PER D.B. 2185 PG. 592, D.B. 2185 PG. 594, & D.B. 2185, PG. 600



SITE LOCATION MAP

SCALE: 1" = 800'

OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
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GRAPHIC SCALE 30 0 15 30 60 120

1 INCH = 30 FEET

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DRAWN BY: DM / MFS
CHECKED BY: MD
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CAD I.D.: J100690.04-LND-0A

PROJECT:

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NJ CERT. OF AUTHORIZATION NO. 24GA28161700

M. F. DWYER
LICENSED LANDSCAPE ARCHITECT
NEW JERSEY LICENSE No. 21AS00126900

SHEET TITLE:

LANDSCAPE PLAN (D)

SHEET NUMBER:

L-105

ORG. DATE - 03/04/2020

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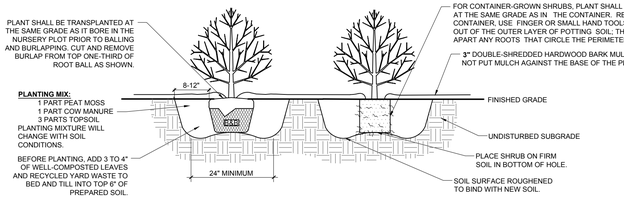
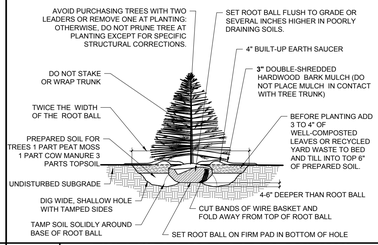


1 DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE (L101102-01/2013)

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. CUT BANDS OF WIRE BASKET AND FOLD BURLAP BACK 1/3 FROM TOP OF ROOT BALL.
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



2 EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE (L101104-01/2013)

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
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3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
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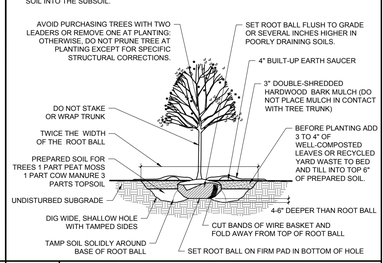
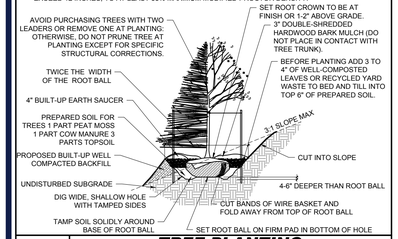


3 DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE (L101103-01/2013)

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. CUT BANDS OF WIRE BASKET AND FOLD BURLAP BACK 1/3 FROM TOP OF ROOT BALL.
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. WHEN TREES ARE TO BE PLANTED ON TOP OF, OR ON THE SIDE SLOPES OF A LANDSCAPE BERM, THE BERM MATERIAL, BELOW ONE FOOT OF THE SURFACE, MUST BE COMPACTED IN LIFTS NOT TO EXCEED 12 INCHES, TO AT LEAST 85% MAXIMUM MODIFIED PROCTOR DENSITY.



4 TREE PLANTING ON SLOPE DETAIL

NOT TO SCALE (L101107 - 1/2017)

SEEDING SPECIFICATIONS: (L021101 - 06/2012)

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.

2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

3. SEEDING RATES:

PERENNIAL RYEGRASS	1/2 LB/1,000 SQ FT
KENTUCKY BLUEGRASS	1 LB/1,000 SQ FT
RED FESCUE	1 1/2 LBS/1,000 SQ FT
SPREADING FESCUE	1 1/2 LBS/1,000 SQ FT
FERTILIZER (20:10:10)	14 LBS/1,000 SQ FT
MULCH	90 LBS/1,000 SQ FT

4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

OWNER MAINTENANCE RESPONSIBILITIES

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- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
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THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:
   THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.
2. MATERIALS:
   A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE MOST CURRENT VERSION OF THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
   B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT OF NOT LESS THAN 5% BY WEIGHT AND A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF ALL DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
   C. LAWN - ALL DISTURBED AREAS ARE TO BE COVERED WITH A MINIMUM 5" THICK LAYER OF TOPSOIL AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SEEDING SPECIFICATION ON THE APPROVED SOIL EROSION PLAN.
      a. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
      b. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS OF AT LEAST ¾". SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD THE SOD IN PLACE.
   D. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE SPECIFIED OR DEPICTED ON THE LANDSCAPE PLAN.
   E. FERTILIZER
      a. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
      b. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE AS SPECIFIED OR, AS A MINIMUM, 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE PURCHASED OR APPLIED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY AND THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT OR ENGINEER.
   F. PLANT MATERIAL
      a. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).
      b. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
      c. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER BOTANICAL NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
      d. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1¼", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
      e. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL EXHIBIT NORMAL GROWTH. WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
      f. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
      g. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
      h. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.
3. GENERAL WORK PROCEDURES:
   A. THE CONTRACTOR SHALL UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
   B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.
4. SITE PREPARATIONS:
   A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH THE GENERAL WORK PROCEDURES OUTLINED HEREIN.
   B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. THE CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR THE DURATION OF THE PROJECT AND WARRANTY PERIOD FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. THE CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
   C. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF N.J.S.A. 48:2-74, et seq., THE UNDERGROUND UTILITY PROTECTION ACT. IN PARTICULAR, THE CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL.
5. TREE PROTECTION:
   A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
   B. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON WOOD/STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
   C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
   D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.
6. SOIL MODIFICATIONS:
   A. CONTRACTOR SHALL OBTAIN A SOIL TEST FOR ALL AREAS OF THE SITE AND SUBMIT THE SAME TO THE LANDSCAPE ARCHITECT OR ENGINEER FOR APPROVAL PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
   B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN OR DIRECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER, IN WRITING, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
   C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
   D. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
   E. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
   F. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
7. FINISHED GRADING
   A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
   B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT A PROPER SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).
   C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
   D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.
8. TOPSOILING
   A. CONTRACTOR SHALL PROVIDE A 5" THICK MINIMUM LAYER OF TOPSOIL IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
   B. ON-SITE TOPSOIL MAY, UPON THE PROVISION OF A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY AND THE SUBMISSION TO AND APPROVAL BY THE LANDSCAPE ARCHITECT OR ENGINEER, BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
   C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
   D. ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA):
      a. 20 POUNDS 'GROW POWER' OR APPROVED EQUAL
      b. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP
   E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.
9. PLANTING
   A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
   B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
   C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
   D. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
   E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
   F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
      a. PLANTS: MARCH 15 TO DECEMBER 15
      b. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1

   PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY, LANDSCAPE ARCHITECT AND/OR ENGINEER FOR POTENTIAL SUBSTITUTIONS.

   G. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS RECOMMENDED THAT THESE SPECIES NOT BE PLANTED DURING THE FALL PLANTING SEASON:

ACER RUBRUM	*PLATANUS X ACERIFOLIA*
BETULA VARIETIES	*POPULUS VARIETIES*
CARPINUS VARIETIES	*PRUNUS VARIETIES*
CRATAEGUS VARIETIES	*PYRUS VARIETIES*
KOELREUTERIA	*QUERCUS VARIETIES*
LIQUIDAMBAR STYRACIFLUA	*TILIA TOMENTOSA*
LIRIODENDRON TULIPIFERA	*ZELKOVA VARIETIES*

   H. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
      a. 1 PART PEAT MOSS
      b. 1 PART COMPOSTED COW MANURE BY VOLUME
      c. 3 PARTS TOPSOIL BY VOLUME
      d. 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
      - 2 TABLETS PER 1 GALLON PLANT
      - 3 TABLETS PER 5 GALLON PLANT
      - 4 TABLETS PER 15 GALLON PLANT
      - LARGER PLANTS: 2 TABLETS PER ½" CALIPER OF TRUNK
   I. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
   J. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
   K. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
   L. GROUND COVER AREAS SHALL RECEIVE A ½" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
   M. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, PERENNIALS/ANNUALS SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
   N. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
   O. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.
10. TRANSPLANTING (WHEN REQUIRED)
   A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
   B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
   C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
   D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
   E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
   F. IF T