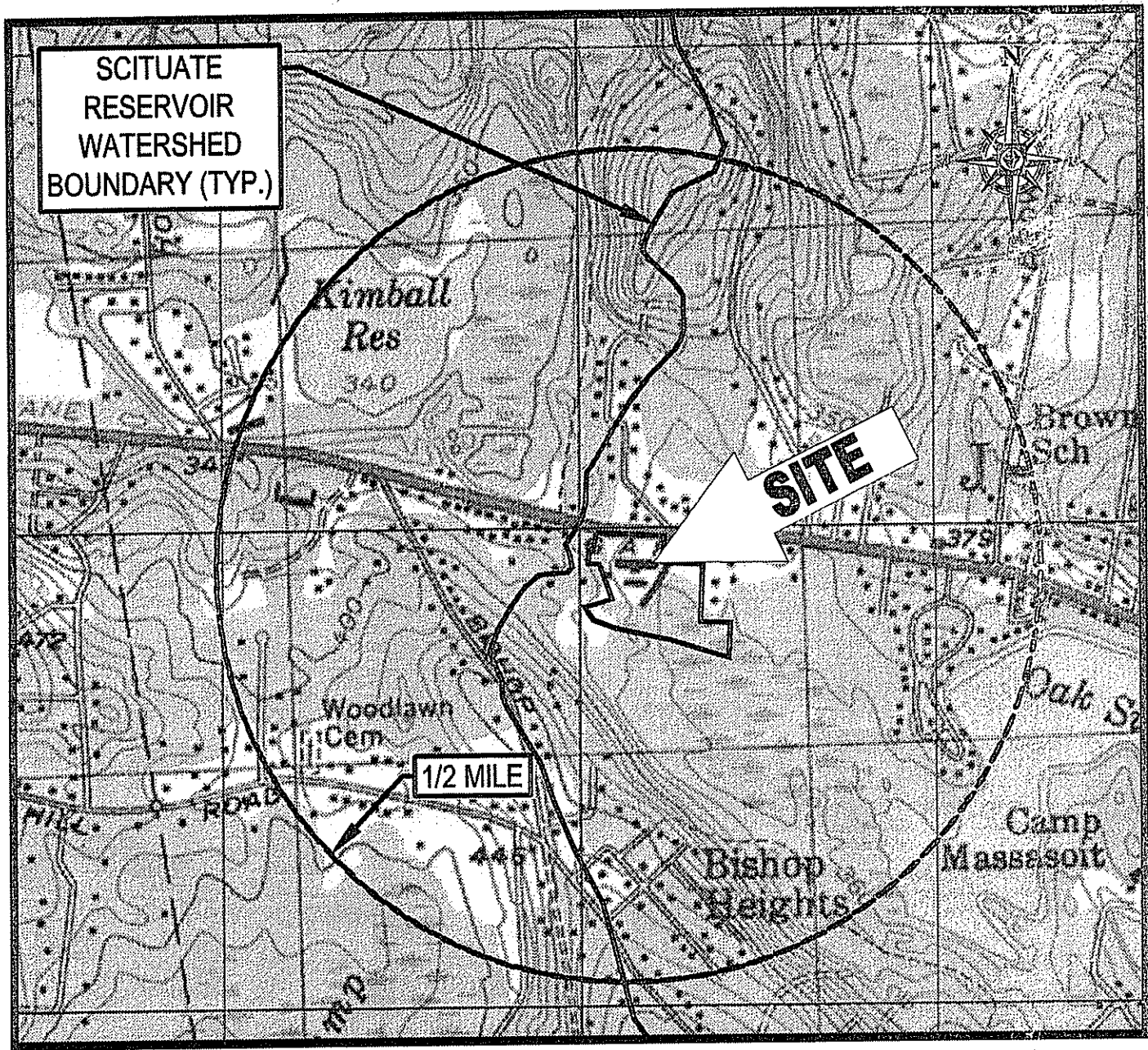


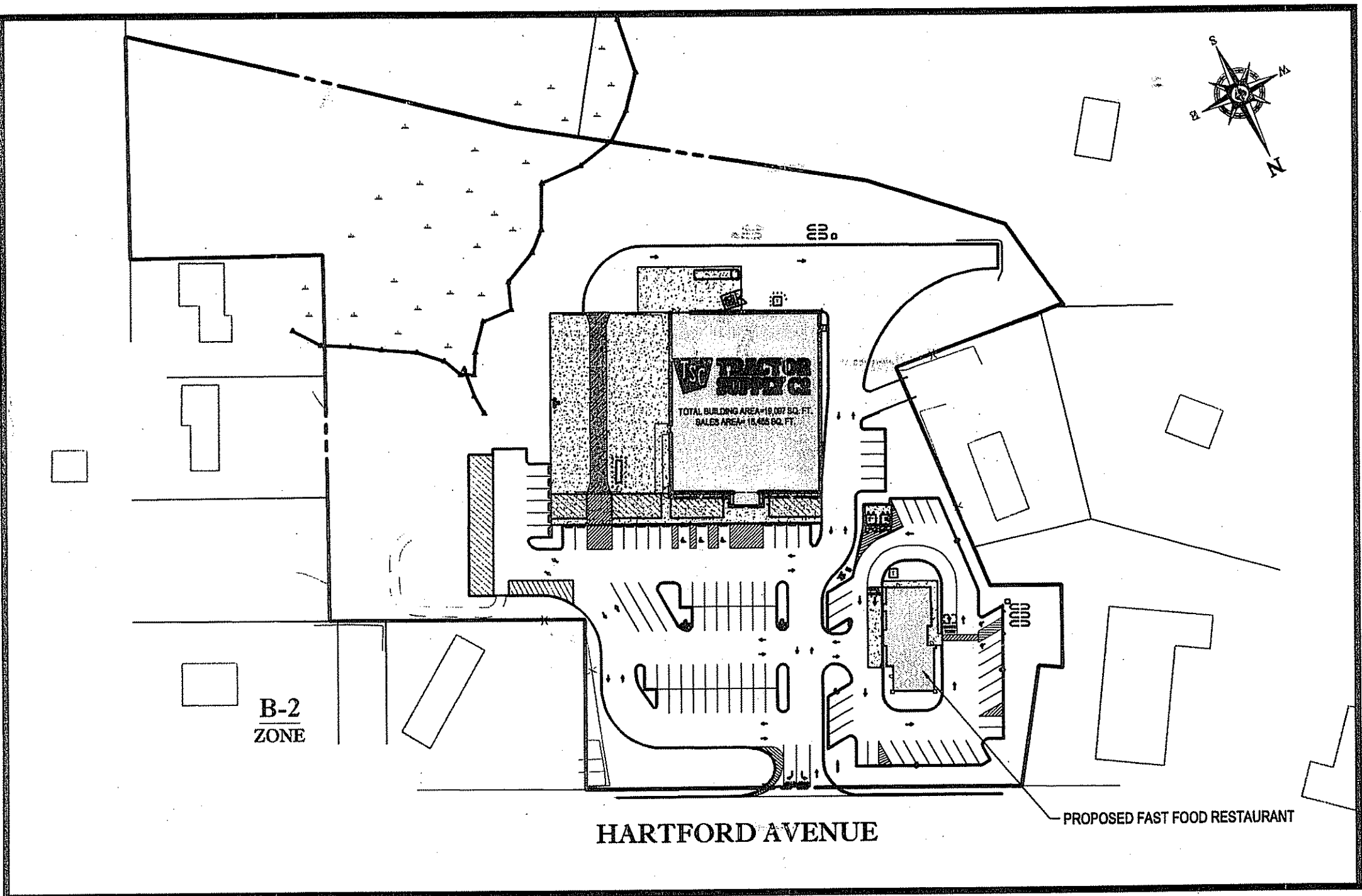
MAJOR LAND DEVELOPMENT
PRELIMINARY PLAN
COMMERCIAL SITE
DEVELOPMENT PLANS

FOR:
NERP HOLDING &
ACQUISITIONS COMPANY, LLC

LOCATION OF SITE:
2750 HARTFORD AVENUE (ROUTE 6)
TOWN OF JOHNSTON
PROVIDENCE COUNTY, RHODE ISLAND
PLAT #57/3, LOT #208 & #287



LOCATION MAP
SCALE: 1"=1,000'
PLAN REFERENCE: USGS QUADRANGLE



AREA PLAN
SCALE: 1"=100'

Kindly be advised that this
Form is not equivalent to a
verification of the type or extent
of freshwater wetlands on site.

SHEET TITLE	SHEET NUMBER
COVER SHEET	1 OF 15
GENERAL NOTES SHEET	2 OF 15
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DEMOLITION PLAN	4 OF 15
SITE PLAN	5 OF 15
GRADING & DRAINAGE PLAN	6 OF 15
UTILITY PLAN	7 OF 15
SOIL EROSION & SEDIMENT CONTROL PLAN	8 OF 15
SOIL EROSION CONTROL NOTES & DETAILS SHEET	9 OF 15
LANDSCAPE PLAN	10 OF 15
LANDSCAPE NOTES & DETAILS SHEET	11 OF 15
LIGHTING PLAN	12 OF 15
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CONSTRUCTION DETAIL SHEET	15 OF 15
ALTA / ACSM SURVEY (BY OTHERS)	1 OF 1

SHEET INDEX

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
CRASH OF WATER IN COURSE
FRESH WATER WITH LOSS OF FLOW
APPROXIMATELY 1000 GPM
AS SPECIFIED IN THE LATEST
DATED MAR 28 2014 FILE # B-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
MARTIN D. WOODWARD

Environmental Management
MAR - 7 2014
Office of Water Resources

- NOTES:
- EXISTING OR PROPOSED EASEMENTS ON SUBJECT PROPERTY ARE AS INDICATED.
 - THERE ARE NO EXTRAORDINARY / UNUSUAL NATURAL FEATURES, HISTORIC AREAS, CEMETERIES, FOUNDATIONS, ETC. ON OR NEAR THE SUBJECT PROPERTY.
 - THE PROPERTY IS OUTSIDE OF ANY FEMA MAPPED FLOOD HAZARD ZONES, AS SHOWN ON FIRM MAP #440702283 G, EFFECTIVE MARCH 2, 2009.
 - THERE ARE NO WETLAND AREAS ON OR NEAR THE SUBJECT PROPERTY AS INDICATED.
 - THERE ARE NO POTENTIAL IMPACTS OUTSIDE OF THE PROPOSED LIMIT OF WORK.
 - THE PROPOSED PROJECT WILL LIKELY BE PHASED.
 - EXISTING UTILITIES LOCATED WITHIN HARTFORD AVENUE INCLUDE WATER, GAS, ELECTRIC AND TELEPHONE. IT IS ASSUMED THAT THERE IS CAPACITY IN THESE EXISTING UTILITIES FOR CONNECTION OF THE PROJECT.
 - MUNICIPAL SEWER IS NOT AVAILABLE AT THIS SITE. THE PROJECT WILL REQUIRE ON-SITE SEPTIC SYSTEM(S).

OWNER / APPLICANT:

APPLICANT:
NERP HOLDING & ACQUISITIONS COMPANY, LLC
100 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06109
OWNER:
HAPRI, LLC
91 GOVERNORS HILL, WEST WARWICK, RI 02883
ATTN: MARYANN L. JT AND RONALD A. MAGGIACOMO
CC: JOHN DEION
PROPERTY ID: LOTS 208 & 287 / PLAT 57/3
PROPERTY ADDRESS: 2750 HARTFORD AVENUE

THIS PLAN IS TO BE INDEXED UNDER THE FOLLOWING STREETS:
HARTFORD AVE. (ROUTE 6)

BOHLER ENGINEERING

CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

CORPORATE OFFICE:
♦ WARREN, NJ
OFFICE:
♦ SOUTHBOROUGH, MA
♦ BOWNE, MD
♦ TOWNSON, VA
♦ TONKONOMA, NY
♦ CENTER VALLEY, PA
♦ TAMPA, FL

REV	DATE	COMMENT	BY
1	10/4/13	TOWN COMMENTS	AWP
2	10/21/13	CLIENT COMMENTS	AWP
3	11/08/13	RIDEM WETLAND ALTERATION	AWP
4	12/06/13	RIDOT COMMENTS	AWP
5	3/04/14	ADDED PROPANE RIDOT COMMENTS	AWP
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

PRELIMINARY

PROJECT No.: W131021
DRAWN BY: AWP / CFD
CHECKED BY: SPD
DATE: 09/13/2013
SCALE: AS NOTED
CAD ID: W131021SS5

PROJECT:
MAJOR LAND DEVELOPMENT
Preliminary Plan
FOR
NERP HOLDING & ACQUISITIONS COMPANY, LLC
MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9090
www.BohlerEngineering.com

SPECIAL DECOURSEY
No. 7990
PROFESSIONAL ENGINEER
RHODE ISLAND LICENSE No. 7990
REGISTERED PROFESSIONAL ENGINEER
CIVIL

SHEET TITLE:
COVER SHEET
SHEET NUMBER:
1
OF 15
REV 5 - 03/04/2014

PREPARED BY
BOHLER ENGINEERING

Dem. copy

GENERAL NOTES

CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:

- BOUNDARY & TOPOGRAPHIC SURVEY, PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED 04/10/13.
- ARCHITECTURAL PLAN, LATEST EDITION.
- GEOTECHNICAL REPORT, LATEST EDITION.
- SEPTIC SYSTEM PLANS, LATEST EDITION.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST VERIFY THAT HEISHE HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE. THIS IS CONTRACTOR'S RESPONSIBILITY.

2. ALL ACCESSIBLE (AKIA ADA) PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 et seq. AND 42 U.S.C. § 4151 et seq.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT IS TO BE CONSTRUCTED, AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED.

3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN OBTAINED. CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.

4. THE OWNER/CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

5. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.

6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN 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 THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.

7. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.

8. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE OR REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO CONTRACTOR GIVING ENGINEER WRITTEN NOTIFICATION OF SAME AND ENGINEER, THEREAFTER, PROVIDING CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.

9. CONTRACTOR MUST REFER TO THE ARCHITECTURAL BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.

10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE ENTIRE SITE PLAN AND THE LATEST ARCHITECTURAL PLANS INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE, CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.

11. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONSTRUCTION.

12. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES.

13. THE CONTRACTOR IS TO EXERCISE EXTREME CARE 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 CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.

14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY 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 SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND 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 CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STANDARDS. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGES AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.

15. ALL CONCRETE MUST BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.

16. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEAN, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

17. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.

18. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKERS' COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). 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 INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS SHALL, TO THE FULLEST EXTENT PERMITTED UNDER THE 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, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEY'S FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.

19. BOHLER ENGINEERING WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMISSIONS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR 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 HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREUNDER. BOHLER ENGINEERING'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WITHOUT UNDUE DELAY TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM MUST NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT PROMPTLY AND IMMEDIATELY BROUGHT TO ITS ATTENTION, IN WRITING, BY THE CONTRACTOR. BOHLER ENGINEERING WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

20. 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 ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION SITE SHALL RELIEVE THE GENERAL CONTRACTOR OF 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 ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND MUST BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE IN NOTE 19 FOR JOB SITE SAFETY.

21. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL CONCOMITANT OR PUNITIVE DAMAGES RESULTING THEREFROM, AND FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, IN ACCORDANCE WITH PARAGRAPH 19 HEREIN, FOR AND FROM ALL FEES, ATTORNEY'S FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.

22. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.

23. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.

24. ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF CONTRACTOR AND/OR OWNER FAIL BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.

25. 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 PLANS AND DESIGN, AND FURTHER ENGINEER IS 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 ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

26. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.

27. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.

28. CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

29. 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 IT) 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.

30. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THE WORDS CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF "PROFESSIONAL OPINION" REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL KNOWLEDGE, OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED.

GENERAL GRADING & UTILITY PLAN NOTES

1. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS MUST BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES MUST IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION MUST COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, 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 UTILIZATION SCHEDULE TO LOCATE ALL UTILITIES AND SERVICES UNDERGROUND. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.

3. 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. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD. IN WRITING, OF AND COMPLY WITH THE APPLICABLE AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES, AND FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.

4. THE CONTRACTOR MUST LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.

5. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION 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 AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

6. THE CONTRACTOR MUST INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.

7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITIES/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 COMPLY WITH ALL UTILITY REQUIREMENTS WITH JURISDICTION AND/OR CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES, AND FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY/TELEPHONE CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE SITE PLANS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, AND PRIOR TO CONSTRUCTION, RESOLVE SAME.

8. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE MUST INCLUDE ALL FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FILL AND COMPLETE WORKING SERVICE. CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VALVE, PRIOR TO COMMENCING CONSTRUCTION.

9. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE, TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.

10. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOSTLY CONCENTRATED AT THE TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. SUBGRADE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. UNSUITABLE MATERIALS, SUCH AS ORGANIC WASTE, OR OTHER UNSUITABLE MATERIALS, MUST BE REMOVED AND REPLACED WITH APPROVED FILL MATERIAL, COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.

11. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION SHALL BE A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.

12. THE CONTRACTOR MUST COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.

13. 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 WILL NOT BE PERMITTED.

14. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

15. DURING THE INSTALLATION OF SANITARY SEWER, STORM SEWER, 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 FROM THE INFORMATION CONTAINED WITHIN THE UTILITY PLAN. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF THE WORK.

16. WHEN THE SITE IMPROVEMENT 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 SEWER, SANITARY SEWER, UTILITY, AND IRRIGATION LINE, TO A POINT AT LEAST 10 FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 2X4, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF THE WORK.

17. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST CONFIRM AND ENSURE 0.7% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS, 1.0% ON ALL CONCRETE SURFACES, AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS OR EXISTING TOPOGRAPHY LIMIT GRADES), TO PREVENT FLOODING. CONTRACTOR MUST IMMEDIATELY IDENTIFY, IN WRITING, TO THE ENGINEER, ANY DISCREPANCIES IN THE INFORMATION PROVIDED TO THE CONTRACTOR. IF CONTRACTOR DISCOVERS ANY DISCREPANCIES, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS, IN WRITING, BEFORE COMMENCEMENT OF WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ADA REQUIREMENTS.

18. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 1' ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.

19. REFER TO THIS SHEET FOR ADDITIONAL NOTES.

20. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE AND CONTROL. CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.

21. CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK ANY WORK.

22. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.

23. STORM DRAINAGE PIPE UNLESS INDICATED OTHERWISE, ALL STORM SEWER PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SLT TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M24 AND TYPE B (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SLT TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 35 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE.

24. SANITARY SEWER PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE INDICATED OTHERWISE. SANITARY LATERAL MUST BE PVC SCHEDULE 40 OR PVC SDR 26 UNLESS INDICATED, IN WRITING, OTHERWISE.

25. STORM AND SANITARY SEWER PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.

26. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON PRELIMINARY ARCHITECTURAL PLANS. CONTRACTOR IS RESPONSIBLE TO AND FOR VERIFYING LOCATIONS OF SAME BASED ON FINAL ARCHITECTURAL PLANS.

27. SEWERS CROSSING STREAMS AND/OR LOCATION WITHIN 10 FEET OF THE STREAM EMBANKMENT, OR WHERE SITE CONDITIONS SO INDICATE, MUST BE CONSTRUCTED OF STEEL, REINFORCED CONCRETE, DUCTILE IRON OR OTHER SUITABLE MATERIAL.

28. 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 SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLP-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.

29. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER PURVEYOR. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (DIP) MINIMUM CLASS 25 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.

30. CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SEWER, WATER AND STORM SYSTEMS, MUST BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.

31. WHERE BASEMENTS ARE TO BE PROVIDED FOR PROPOSED DWELLING UNITS, THE DEVELOPER SHALL, BY BORING OR BY TEST PIT, DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED DWELLINGS. WHERE GROUNDWATER IS ENCOUNTERED IN THE BASEMENT AREA, BASEMENTS WILL NOT BE INSTALLED UNLESS SPECIAL CONSTRUCTION METHODS ARE UTILIZED, TO BE REVIEWED AND APPROVED BY THE MUNICIPAL CONSTRUCTION CODE OFFICIAL. IF AND WHERE SUMP PUMPS ARE INSTALLED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER. A CLEANOUT MUST BE PROVIDED PRIOR TO THE CONNECTION TO THE STORM DRAIN IN ORDER THAT BLOCKAGES CAN BE DISCHARGED.

32. FOR SINGLE AND TWO-FAMILY RESIDENTIAL PROJECTS, WHERE THE PROPOSED DWELLING AND ADJACENT SLOPE ELEVATION(S) ARE SCHEMATIC FOR GENERIC BUILDING FOOTPRINT, GRADES MUST BE ADJUSTED BASED ON FINAL ARCHITECTURAL PLANS TO PROVIDE A MINIMUM OF 8X6 (8) INCHES BELOW TOP OF BLOCK AND/OR 3X6 (6) INCHES BELOW SIDING, WHICHEVER IS LOWEST, AND MUST PROVIDE POSITIVE DRAINAGE (2% MIN.) AWAY FROM DWELLING. ALL CONSTRUCTION, INCLUDING GRADING, MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODE AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

33. CONSULTANT IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, SHALL HAVE NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.

GENERAL DEMOLITION NOTES

1. THIS PLAN REFERENCES DOCUMENTS AND INFORMATION BY:

BOUNDARY & TOPOGRAPHIC SURVEY
2750 HARTFORD AVENUE
JOHNSTON, RI
PREPARED BY CONTROL POINT ASSOCIATES, INC.
SOUTHBOROUGH, MA
04101/13
JOB#CM13032

2. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE 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.

3. BOHLER ENGINEERING HAS NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME.

4. THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION, ONLY, REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR MUST ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.

5. CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, WITH BOHLER ENGINEERING, IN WRITING, AND RESPONDED TO BY BOHLER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. 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.

6. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR TO:

- A. OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES HAVING JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK AND DEMOLITION WORK.

ADA INSTRUCTIONS TO CONTRACTOR:

CONTRACTORS MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (HANDICAP) ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH ALL APPLICABLE STATE AND LOCAL ACCESSIBILITY LAWS AND REGULATIONS AND THE CURRENT ADA AND/OR STATE ARCHITECTURAL ACCESS BOARD STANDARDS AND REGULATIONS' BARRIER FREE ACCESS AND ANY MODIFICATIONS, REVISIONS OR UPDATES TO SAME. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, WALK-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THESE ADA AND/OR ARCHITECTURAL ACCESS BOARD CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

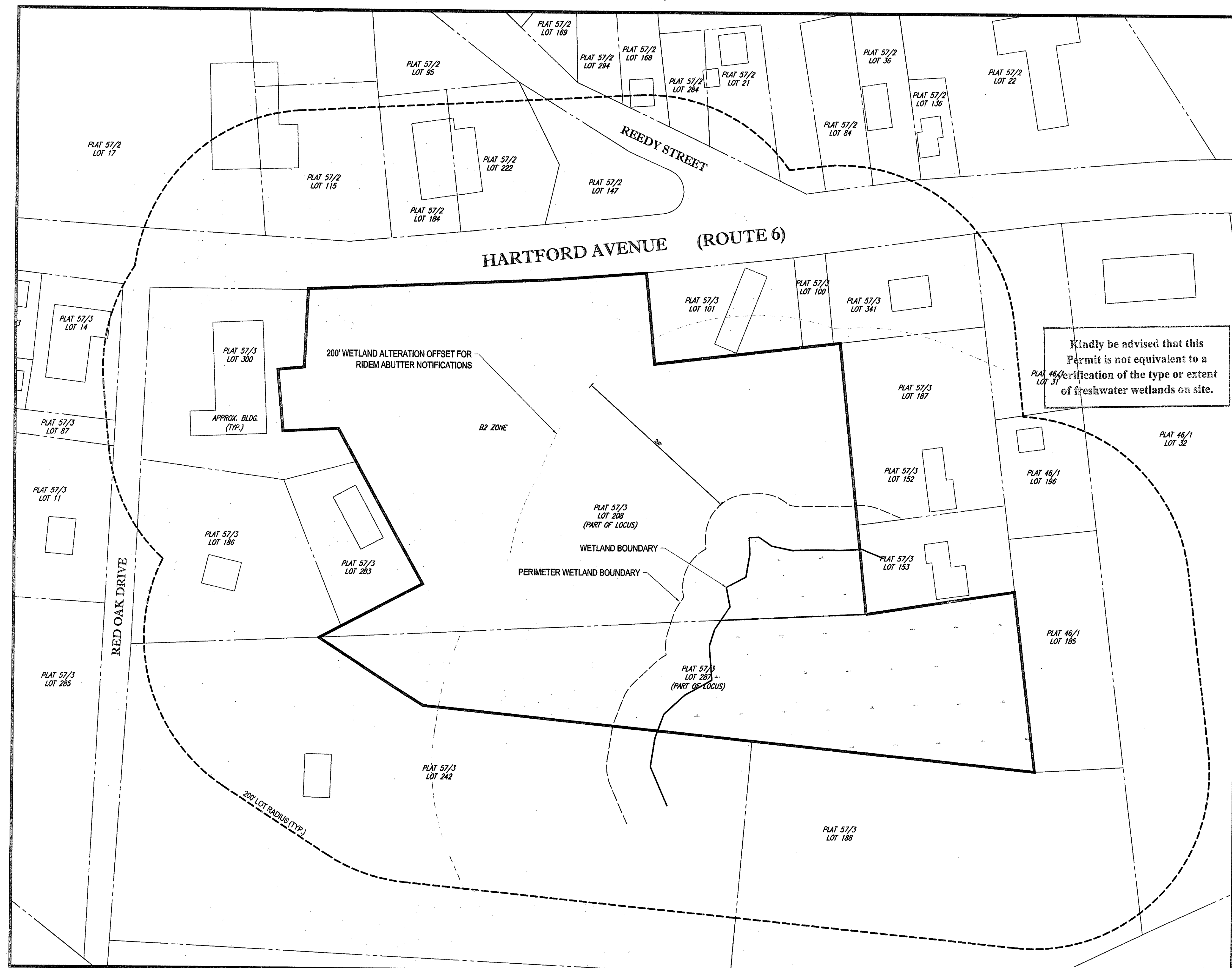
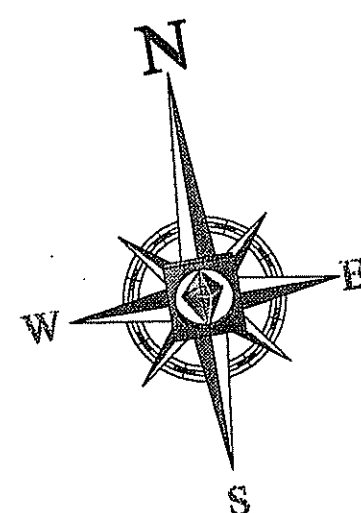
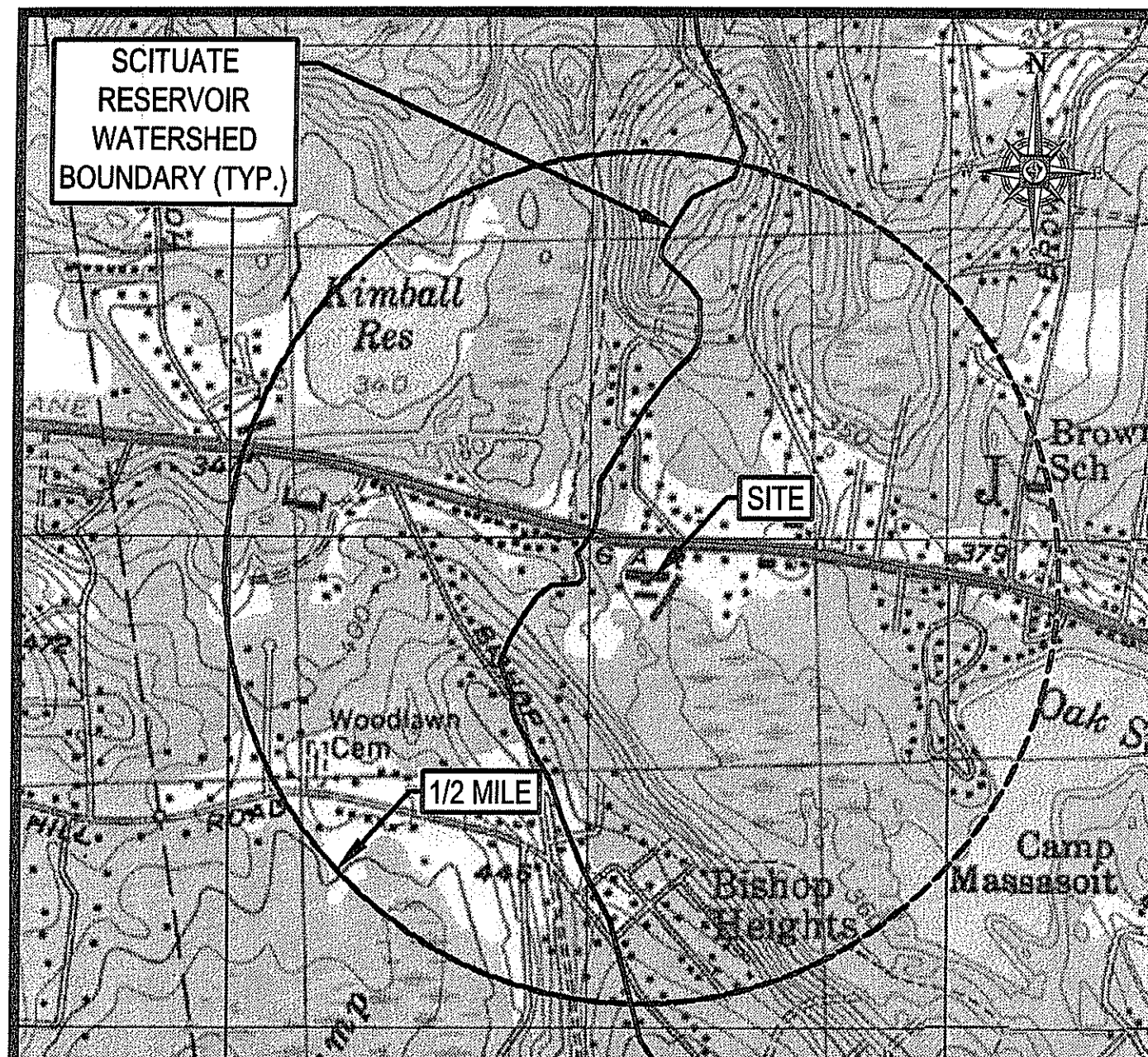
- PARKING SPACES AND PARKING AISLES - SLOPE SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

- CURB RAMPS - SLOPE MUST NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.

- LANDINGS - MUST BE PROVIDED AT EACH END OF RAMPS, MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

- PATH OF TRAVEL ALONG ACCESSIBLE ROUTE - MUST PROVIDE A 36-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS CANNOT REDUCE THIS MINIMUM WIDTH). THE SLOPE MUST BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL, AND MUST NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 120 (8.0%), ADA RAMP MUST BE ADHERED TO. A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 2.5 FEET, MUST BE PROVIDED. THE RAMP MUST HAVE ADA HAND RAILS AND "LEVEL" LANDINGS ON EACH END THAT ARE CROSS SLOPED NO MORE THAN 1:50 IN ANY DIRECTION (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.

- DOORWAYS - MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO LESS THAN 60 INCHES (6 FEET) LONG, EXCEPT WHERE OTHERWISE PERMITTED BY



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

REVISIONS			
REV	DATE	COMMENT	BY
1	10/4/13	TOWN COMMENTS	AWR
2	10/21/13	CLIENT COMMENTS	AWR
3	11/08/13	RIDEM WETLAND ALTERATION	AWR
4	12/06/13	RIDOT COMMENTS	AWR
5	3/04/14	ADDED PROPANE RIDEM COMMENTS	AWR
6			
7			
8			
9			
11			
12			
13			
14			
15			

PRELIMINARY

PROJECT No.:	W131021
DRAWN BY:	AWP / CFD
CHECKED BY:	SPD
DATE:	09/13/2013
SCALE:	AS NOTED
CAD I.D.:	W131021SS5

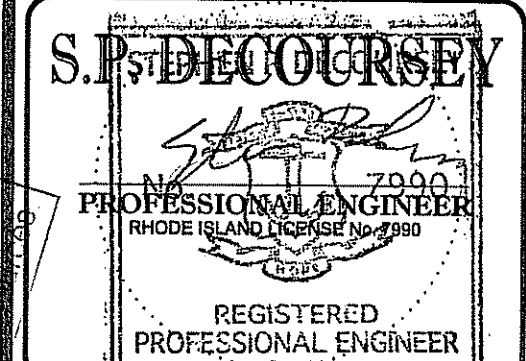
PROJECT:
**MAJOR LAND
DEVELOPMENT**
Preliminary Plan

**NERP HOLDING
& ACQUISITIONS
COMPANY, LLC**

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND



352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com



SHEET TITLE:

200'
RADIUS
PLAN

SHEET NUMBER: 3 OF 15

REV 5 - 03/04/2014

AREA PLAN

SCALE: 1" = 6'

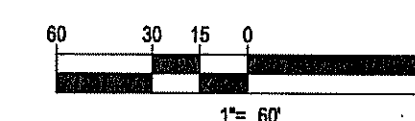
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 28 2014 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

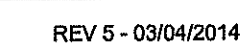
Master D. Jensen

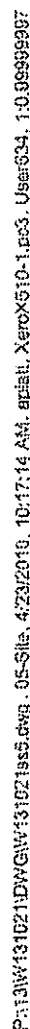
APPLICANT:
NERP HOLDING & ACQUISITIONS COMPANY, LLC
150 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06109

OWNER:
HAPRI, LLC
91 GOVERNORS HILL, WEST WARWICK, RI 02893
ATTN: MARYANN L JT AND RONALD A. MAGGIACOMO
CC: JOHN DEION

PROPERTY ID: LOTS 208 & 287 / PLAT 57/3
PROPERTY ADDRESS: 2750 HARTFORD AVENUE







MAP 57/3, LOT 242
N/F LANDS OF HAROLD J. FERA
BK. 207, PG. 1035

1. EXISTING OR PROPOSED EASEMENTS ON SUBJECT PROPERTY ARE AS INDICATED.
2. THERE ARE NO EXTRAORDINARY / UNUSUAL, NATURAL FEATURES, HISTORIC AREAS, CEMETERIES, FOUNDATIONS, ETC. ON OR NEAR THE SUBJECT PROPERTY.
3. THE PROPERTY IS OUTSIDE OF ANY FEMA PAMPED FLOOD HAZARD ZONES, AS SHOWN ON FIRM MAP #440700283 EFFECTIVE MARCH 2, 2009.
4. THERE ARE WETLAND AREAS ON OR NEAR THE SUBJECT PROPERTY AS INDICATED.
5. THERE ARE NO POTENTIAL IMPACTS OUTSIDE OF THE PROPOSED LIMIT OF WORK.
6. THE PROPOSED PROJECT WILL NOT BE USED.
7. EXISTING UTILITIES LOCATED WITHIN HARTFORD AVENUE INCLUDE WATER, GAS, ELECTRIC AND TELEPHONE. IT IS ASSUMED THAT THERE IS CAPACITY IN THESE EXISTING UTILITIES FOR CONNECTION OF THE PROJECT.
8. MINERAL SEVER IS NOT AVAILABLE AT THIS SITE. THE PROJECT WILL REQUIRE ON-SITE SEPTIC SYSTEM(S).

ZONING DISTRICT	GENERAL BUSINESS (B-2) ZONE	
	PROPOSED USES: RETAIL / FAST FOOD RESTAURANT	
ZONE CRITERIA	REQUIRED	PROPOSED (B-2)
MINIMUM LOT AREA	NONE	6.6 AC. (NO CHANGE)
MIN. FRONT SETBACK	40'	80'± (RETRY) 232'± (TSC)
MIN. SIDE SETBACK	40'	48' (RETRY) 63' (TSC)
MIN. REAR SETBACK	40'	111'±
MAX. BUILDING HEIGHT	35'	<35'
MAX. BUILDING COVERAGE	40%	8%±
TOTAL SITE IMPERVIOUSNESS	NOT SPECIFIED	46%
PARKING SPACES	58	64 (TSC)
	50	30 (RETRY)
PARKING CRITERIA	RETAIL USE: 3 SPACES PER 1,000 SF OF GROSS LEASABLE AREA 10,097 / 1,000 x 3 = 57.2 OR 58 SPACES REQUIRED (4,014,000 MAX.) RESTAURANT: 1 SPACE / 4 SEATS (ASSUME 120 SEATS) = 30 REQ.	
FRONT PARKING SETBACK	40'	17'± *

LOT 208 AREA = 202,441± S.F. OR 4.647± AC.,
LOT 287 AREA = 87,120± S.F. OR 2.000± AC.
TOTAL AREA = 289,561± S.F. OR 6.647± AC.

WETLAND DELINEATION FLAGS PLACED IN THE FIELD BY NATURAL
RESOURCES SERVICES, INC. ON MARCH 27, 2013 AND LOCATED BY
CONTROL POINT ASSOCIATES, INC.

STANDARD DUTY CONCRETE SIDEWALK DISPLAY AREA. CROSS-HATCHING FOR ILLUSTRATIVE PURPOSES ONLY, NOT TO BE PAINTED


HEAVY DUTY PAVEMENT

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 28 2014 FILE # B-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

EXISTING	PROPOSED
PROPERTY LINE	
SETBACK	
EASEMENT	
CURB	
STORM MANHOLE	Ⓢ
SEWER MANHOLE	Ⓢ
CATCH BASIN	Ⓢ
WETLAND FLAG	
WETLAND LINE	
SPOT ELEVATION	53.92
TOP & BOTTOM OF CURB	TC=54.32 BC=53.64
CONTOUR	3
FLOW ARROW	
PAINTED ARROW	←
RIDGE LINE	
GAS LINE	G
TELEPHONE LINE	T
ELECTRIC LINE	E
WATER LINE	W
OVERHEAD WIRE	OH
STORM PIPE	S
SANITARY LINE	S

APPLICANT:
NERP HOLDING & ACQUISITIONS COMPANY, LLC
150 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06109

OWNER:
HAPRI, LLC
91 GOVERNORS HILL, WEST WARWICK, RI 02893
ATTN: MARYANN L JT AND RONALD A. MAGGIACOMO
CC: JOHN DEION

PROPERTY ID: LOTS 208 & 287 / PLAT 57/3
PROPERTY ADDRESS: 2750 HARTFORD AVENUE

[illegible]

REV	DATE	COMMENT	BY
1	10/4/13	TOWN COMMENTS	AWP
2	10/21/13	CLIENT COMMENTS	AWP
3	11/08/13	RIDEM WETLAND ALTERATION	AWP
4	12/06/13	RIDOT COMMENTS	AWP
5	3/04/14	ADDED PROPANE RIDEM COMMENTS	AWP
6			
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14			
15			

PROJECT No.:	W131021
DRAWN BY:	AWP / CFD
CHECKED BY:	SPD
DATE:	09/13/2013
SCALE:	AS NOTED
CAD I.D.:	W131021SS5

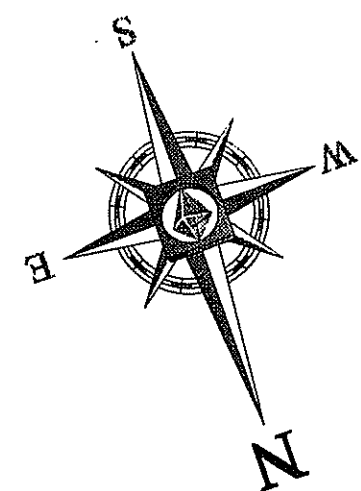
**NERP HOLDING
& ACQUISITIONS
COMPANY, LLC**

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND



SHEET NUMBER:
5
OF 15

EV 5 - 03/04/2014 :



MAP 57/3, LOT 287
N/F LANDS OF HAPRI, LLC
BK. 2109, PG. 189

MAP 57/3, LOT 153
N/F LANDS OF DORIS
VIGLIOTTI
BK. 114, PG. 90

MAP 57/3, LOT 152
N/F LANDS OF JULISSA
MENDEZ
BK. 2148, PG. 304

MAP 57/3, LOT 187
N/F LANDS OF DORIS M.
VIGLIOTTI
BK. 703, PG. 3

MAP 57/3, LOT 341
N/F LANDS OF HARTFORD
AVE. REALTY ASSOCIATES,
LLC
BK. 1731, PG. 24

MAP 57/3, LOT 101
N/F LANDS OF RONALD & ELAINE
FRARACCIO
BK. 269, PG. 203

MAP 57/3, LOT 283
N/F LANDS OF ANA RAPOSO
BK. 2140, PG. 13

**TSC TRACTOR
SUPPLY CO.**
TOTAL BUILDING AREA=19,097 SQ. FT.
SALES AREA=15,455 SQ. FT.
FFE=367.00
N/F LANDS OF HAPRI, LLC
BK. 2109, PG. 189
MAP 57/3, LOT 208

PROP. RESTAURANT
3,500± SF
FFE=367.00

TYPICAL LEGEND

EXISTING	PROPERTY LINE	PROPOSED
---	SETBACK	---
---	EASEMENT	---
---	CURB	---
⊙	STORM MANHOLE	⊙
⊙	SEWER MANHOLE	⊙
⊙	CATCH BASIN	⊙
△	WETLAND FLAG	△
---	WETLAND LINE	---
×	SPOT ELEVATION	---
×	TOP & BOTTOM OF CURB	---
---	CONTOUR	---
---	FLOW ARROW	---
---	PAINTED ARROW	---
---	RIDGE LINE	---
---	GAS LINE	---
---	TELEPHONE LINE	---
---	ELECTRIC LINE	---
---	WATER LINE	---
---	OVERHEAD WIRE	---
---	STORM PIPE	---
---	SANITARY LINE	---

Kindly be advised that this
Permit is not equivalent to a
verification of the type or extent
of freshwater wetlands on site.

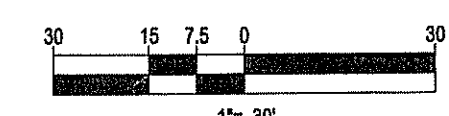
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 28 2014 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

LONG TERM OPERATION AND
MAINTENANCE OF THE STORMWATER
MANAGEMENT SYSTEM SHALL BE
PERFORMED IN ACCORDANCE WITH
THE SITE SPECIFIC O&M PLAN FOR
THIS SITE

THIS PLAN TO BE UTILIZED FOR SITE
GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET
FOR GRADING & UTILITY NOTES

HARTFORD AVENUE
(A.K.A. ROUTE 6)
(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLAT. No.305)



BOHLER ENGINEERING
CORPORATE OFFICE
1000 ROUTE 1
SOUTH BOROUGH, MA 01772
PHONE: (508) 480-9900
FAX: (508) 480-9900
WWW.BOHLENGINEERING.COM

PROJECT MANAGERS
• CHAUFONT, PA
• PHILADELPHIA, PA
• WARRENTON, OR
• ALBANY, NY
• WEST VALLEY, NY
• TAMPA, FL

ENVIRONMENTAL CONSULTANTS
• LANDSCAPE ARCHITECTS

REV	DATE	COMMENT	BY
1	10/4/13	TOWN COMMENTS	AWP
2	10/21/13	CLIENT COMMENTS	AWP
3	11/08/13	RIDEM WETLAND ALTERATION	AWP
4	12/06/13	RIDOT COMMENTS	AWP
5	3/04/14	ADDED PROPANE RIDEM COMMENTS	AWP
6			
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PRELIMINARY

PROJECT No.: W131021
DRAWN BY: AWP / CFD
CHECKED BY: SPD
DATE: 09/13/2013
SCALE: AS NOTED
CAD I.D.: W131021SSS

MAJOR LAND DEVELOPMENT Preliminary Plan
FOR
NERP HOLDING & ACQUISITIONS COMPANY, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTH BOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9900
www.BohlerEngineering.com

STEPHEN P. DECOURSEY
No. 7990
PROFESSIONAL ENGINEER
PROVIDENCE, RHODE ISLAND No. 7990
REGISTERED PROFESSIONAL ENGINEER
CIVIL

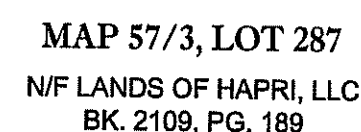
SHEET TITLE:
GRADING & DRAINAGE PLAN

SHEET NUMBER:
6
OF 15

REV 5 - 03/04/2014



Know what's below.
Call before you dig.



MAP 57/3, LOT 15
/F LANDS OF DON
VIGLIOTTI
BK. 114, PG. 90

MAP 57/3, LOT 152
N/F LANDS OF JULISSA
MENDEZ
BK. 2148. PG. 304

MAP 57/3, LOT 187
N/F LANDS OF DORIS M.
VIGLIOTTI
BK. 703, PG. 3

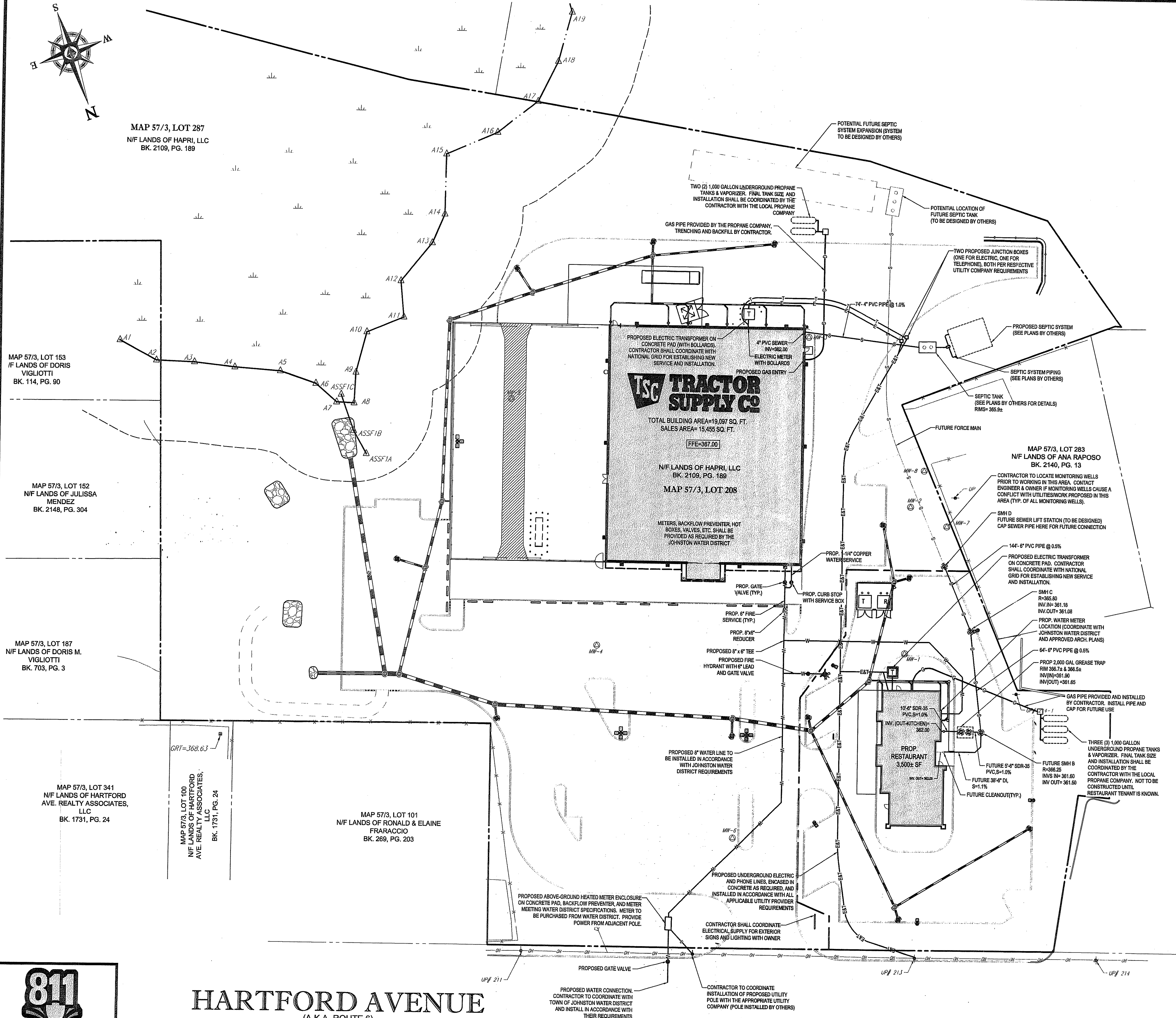
MAP 57/3, LOT 341
N/F LANDS OF HARTFORD
AVE. REALTY ASSOCIATES,
LLC
BK. 1731, PG. 24

MAP 57/3, LOT 100
N/F LANDS OF HARTFORD
AVE. REALTY ASSOCIATES,
LLC
BK. 1731, PG. 24

MAP 57/3, LOT 101
N/F LANDS OF RONALD & ELAINE
FRARACCIO
BK 269 PG 203

HARTFORD AVENUE

(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLAT. No. 305)



TYPICAL LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	SETBACK	
	EASEMENT	
	CURB	
	STORM MANHOLE	
	SEWER MANHOLE	
	CATCH BASIN	
	WETLAND FLAG	
	WETLAND LINE	
	SPOT ELEVATION	
	TOP & BOTTOM OF CURB	
	CONTOUR	
	FLOW ARROW	
	PAINTED ARROW	
	RIDGE LINE	
	Gas LINE	
	TELEPHONE LINE	
	ELECTRIC LINE	
	WATER LINE	
	OVERHEAD WIRE	
	STORM PIPE	
	SANITARY LINE	

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

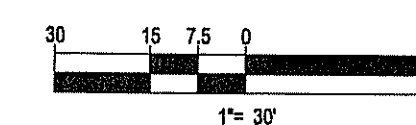
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 28 2014 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**NOTE: CONTRACTOR SHALL
COORDINATE WATER SYSTEM
MARKOUTS / DEMOLITION /
CONSTRUCTION WITH THE
JOHNSTON WATER CONTROL
DISTRICT**

**NOTE: CONTRACTOR SHALL
COORDINATE SEPTIC SYSTEM
CONSTRUCTION WITH FINAL
APPROVED SEPTIC SYSTEM PLAN**

**THIS PLAN TO BE UTILIZED FOR
UTILITIES PURPOSES ONLY**

REFER TO GENERAL NOTES SHEET
FOR GRADING & UTILITY NOTES



BOHLER
ENGINEERING

CIVIL & CONSULTING ENGINEERS

SURVEYORS

PROJECT MANAGERS

ENVIRONMENTAL CONSULTANTS

LANDSCAPE ARCHITECTS

PLANNING, DESIGN AND CONSTRUCTION OF TOWN PLANS, RECREATION AND TRAIL DEVELOPMENT

CORPORATE OFFICE:

♦ WARREN, NJ OFFICES:

♦ SOUTHERBOROUGH, MA ♦ PHILADELPHIA, PA
♦ BOWIE, MD ♦ PHILADELPHIA, PA
♦ TOWSON, MD ♦ STERLING, VA
♦ ALBANY, NY ♦ WARRENTON, VA
♦ ALBANY, NY ♦ FORT LAUDERDALE, FL
♦ CENTER VALLEY, PA ♦ TAMPA, FL

REVISIONS			
REV	DATE	COMMENT	BY
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PRELIMINARY

PROJECT No.:	W131021
DRAWN BY:	AWP / CFD
CHECKED BY:	SPD
DATE:	09/13/2013
SCALE:	AS NOTED
CAD I.D.:	W131021SS5

PROJECT:
**MAJOR LAND
DEVELOPMENT**
Preliminary Plan

**NERP HOLDING
& ACQUISITIONS
COMPANY, LLC**

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND


BOHLER
ENGINEERING

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

STEPHEN A. DECOURSEY
 7990
 PROFESSIONAL ENGINEER
 RHODE ISLAND LICENSE NO. 7990
 REGISTERED
 PROFESSIONAL ENGINEER

UTILITY PLAN

SHEET NUMBER:

7
OF 15

REV 5 - 03/04/2014

MAP 57/3, LOT 242
N/F LANDS OF HAROLD J. FERA
BK. 207, PG. 1035

CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

- INSTALLATION OF STABILIZED CONSTRUCTION EXIT
- INSTALLATION OF EROSION CONTROL BARRIER (SILT FENCE AND HAY BALES)
- DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)
- DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
- CLEARING AND GRUBBING
- INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS. ESTABLISH PERMANENT STABILIZATION IN BASINS AS SOON AS POSSIBLE
- EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
- BEGIN CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES. RUNOFF SHALL NOT BE DISCHARGED TO THE SAND FILTER UNTIL ALL UPSTREAM AREAS ARE STABILIZED.
- CONSTRUCTION OF UTILITIES
- STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
- INSTALLATION OF INLET PROTECTION ON ON-SITE UTILITIES (AS SHOWN)
- CONSTRUCTION OF BUILDING
- CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
- SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
- FINAL GRADING OF ALL SLOPED AREAS
- PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED REQUIRED.
- PAVE PARKING LOT
- LANDSCAPING PER LANDSCAPING PLAN
- REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER.

Kindly be advised that this
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of freshwater wetlands on site.

REVISIONS

REV	DATE	COMMENT	BY
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5	3/04/14	ADDED PROPANE RIDEM COMMENTS	AWP
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PRELIMINARY

PROJECT No.: W131021
DRAWN BY: AWP / CFD
CHECKED BY: SPD
DATE: 08/13/2013
SCALE: AS NOTED
CAD ID: W131021SS5

PROJECT:
MAJOR LAND DEVELOPMENT
Preliminary Plan

FOR
NERP HOLDING & ACQUISITIONS COMPANY, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING

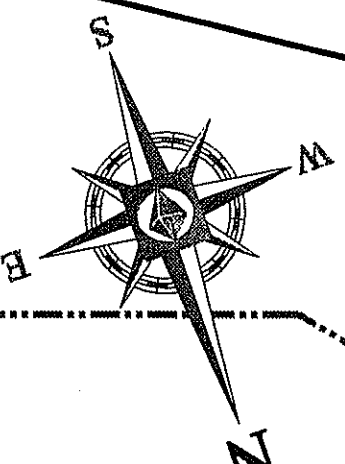
352 TURNPIKE ROAD
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www.BohlerEngineering.com

S.P. DECOURSEY
STEPHEN P. DECOURSEY
PROFESSIONAL ENGINEER
RHODE ISLAND LICENSE NO. 7500
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE: CIVIL
SOIL EROSION & SEDIMENT CONTROL PLAN

SHEET NUMBER:
8
OF 15

REV 5 - 03/04/2014



MAP 57/3, LOT 287
N/F LANDS OF HAPRI, LLC
BK. 2109, PG. 189

WETLANDS ULTIMATELY DRAIN TO OAK
SWAMP RESERVOIR AND DRY BROOK,
APPROXIMATELY 1/2 MILE TO SOUTHEAST

MAP 57/3, LOT 153
N/F LANDS OF DORIS
VIGLIOTTI
BK. 114, PG. 90

MAP 57/3, LOT 152
N/F LANDS OF JULISSA
MENDEZ
BK. 2148, PG. 304

MAP 57/3, LOT 187
N/F LANDS OF DORIS M.
VIGLIOTTI
BK. 703, PG. 3

MAP 57/3, LOT 341
N/F LANDS OF HARTFORD
AVE. REALTY ASSOCIATES,
LLC
BK. 1731, PG. 24

MAP 57/3, LOT 100
N/F LANDS OF HARTFORD
AVE. REALTY ASSOCIATES,
LLC
BK. 1731, PG. 24

MAP 57/3, LOT 101
N/F LANDS OF RONALD & ELAINE
FRARACCIO
BK. 269, PG. 203

MAP 57/3, LOT 283
N/F LANDS OF ANA RAPOSO
BK. 2140, PG. 13

MAP 57/3, LOT 300
N/F LANDS OF JPMIR, LLC
BK. 1991, PG. 296

ISC TRACTOR SUPPLY CO.

TOTAL BUILDING AREA=18,097 SQ. FT.
SALES AREA=15,455 SQ. FT.

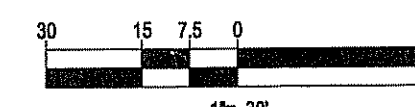
N/F LANDS OF HAPRI, LLC
BK. 2109, PG. 189
MAP 57/3, LOT 208

SOIL LEGEND

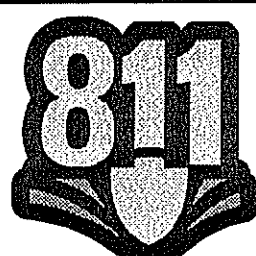
- PdD PAXTON FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES, VERY STONY
- SWA SWANSEA MUCKY PEAT, 0 TO 2 PERCENT SLOPES
- UD UDORIENTS-URBAN LAND COMPLEX

THIS PLAN TO BE UTILIZED FOR SITE
SOIL AND EROSION CONTROL
PURPOSES ONLY

REFER TO SOIL EROSION CONTROL
NOTES & DETAIL SHEET FOR EROSION
NOTES AND DETAILS



HARTFORD AVENUE
(A.K.A. ROUTE 6)



Know what's below.
Call before you dig.

ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" (1889), AS AMENDED.

THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).

SEDIMENT BARRIERS (SILT FENCE, STAWM WATTLES, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MUCH NETTING SHALL BE USED TO ANCHOR WALLS IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 6%.

INSTALL SILT FENCE AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILT FENCE DETAIL FOR PROPER INSTALLATION. SILT FENCE WILL REMAIN IN PLACE PER NOTE #5.

ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL, OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UNSLOPE ARE STABILIZED BY TURF.

NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).

IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MUCK (DORMANT SEEDING) MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.

DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADDED ONTO OPEN AREAS.

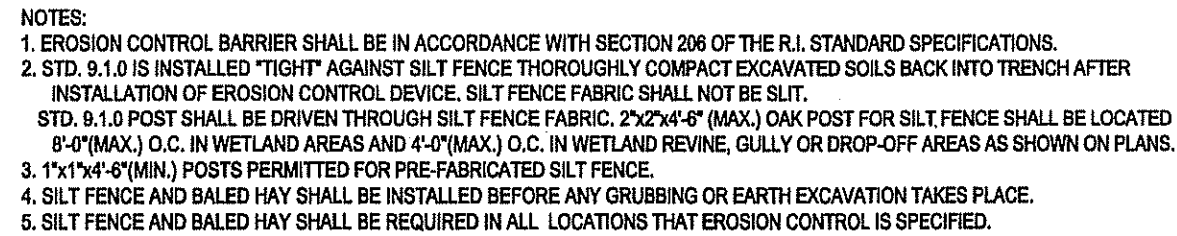
REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:

- SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIME IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SF).
- FOLLOWING SEED BED PREPARATION, DITCHES AND BANK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREeping REED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED TO A PREMIUM TURF MIXTURE OF 95% CENTURY BLUE-GRASS, 4% CREeping REED FESCUE, AND 1% PERENNIAL RYEGRASS. SEEDING RATE IS 1.53 LBS PER 1,000 SF LAWN QUALITY SOED MAY BE SUBSTITUTED FOR SEED.
- APPLY FILL WITH THE RATE OF 70-80 LBS PER 1,000 SF. A HYDRO-APPLYMENT OF WOOD OR PAPER BARK SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE INERT SUCH AS CURSACOL OR RMB PLUS WILL BE USED ON HAY MUCK FOR WIND CONTROL.

LOCATION PROTECT AREA	MULCH STRAW OR HAY	RATE (1000 SF) 100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW OR HAY (ANCHORED)*	165-275 POUNDS 100 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCELSIOR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	

* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL, OR RMP PLUS SHALL BE USED ON HAY MULCH FOR WIND CONTROL.

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
3. EXPOSED AREA SHOULD BE LIMITED TO THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
4. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE OF THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 100 LBS. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDING, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED, DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 200 - 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ON ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
7. MULCHING REQUIREMENTS:
 - 7.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
 - 7.2. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 6%.
 - 7.3. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 6%.
8. AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
9. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
10. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFFS.
11. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.



R.I. STD. 9.3.0

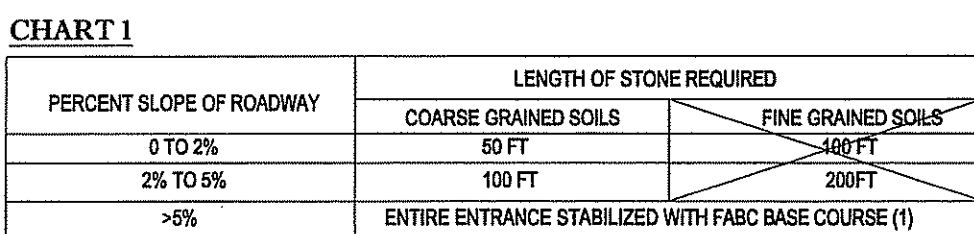
N.T.S.

NOTE: SEE SITE MAP FOR
LOCATION OF CHECK DAM(S)



N.T.S.

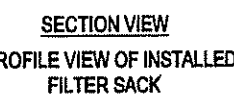
N.T.S.



(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY

N.T.S.

N.T.S.



N.T.S.

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4832	20 %
PUNCTURE RESISTANCE	ASTM D-4833	120 LBS
MILLEN BURST	ASTM D-3786	600 PSI
TRAPOID TEAR	ASTM D-4833	120 LBS
UV RESISTANCE	ASTM D-4356	80 LBS
APPROX. OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4941	40 GAL/MIN/50 FT
PERMITTIVITY	ASTM D-4941	0.5 SEC -1

MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4832	20 %
PUNCTURE RESISTANCE	ASTM D-4833	135 LBS
MILLEN BURST	ASTM D-3786	420 PSI
TRAPOID TEAR	ASTM D-4833	45 LBS
UV RESISTANCE	ASTM D-4356	80 LBS
APPROX. OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4941	200 GAL/MIN/50 FT
PERMITTIVITY	ASTM D-4941	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 18 INCHES AND 36 INCHES.
7. THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.

DO NOT USE IN PAVED AREAS WHERE PONDING
MAY CAUSE TRAFFIC HAZARDS.

TO BE USED IN EXISTING RIGHT OF WAY

Environmental Management

CIVIL & CONSULTING ENGINEERS

SURVEYORS

PROJECT MANAGERS

ENVIRONMENTAL CONSULTANTS

LANDSCAPE ARCHITECTS

CORPORATE OFFICE:
♦ WARREN, NJ OFFICES:

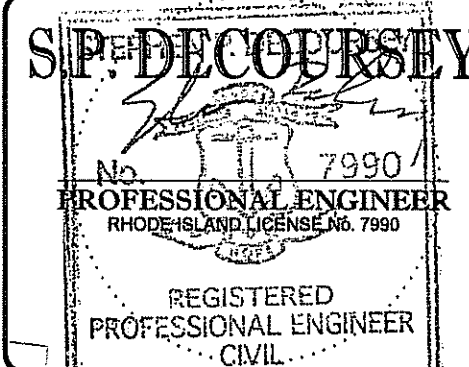
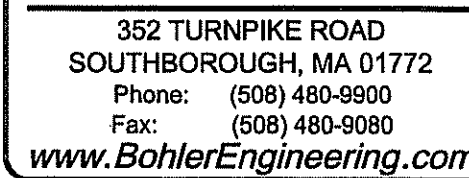
♦ SOUTHBOROUGH, MA ♦ CHALFONT, PA
♦ BOWIE, MD ♦ PHILADELPHIA, PA
♦ LAWSON, MO ♦ STERLING, VA
♦ ROKONKON, NY ♦ FORT LAUDERDALE, FL
♦ CENTER VALLEY, PA ♦ TAMPA, FL

1	10/4/13	TOWN COMMENTS	AV
2	10/21/13	CLIENT COMMENTS	AV
3	11/08/13	RIDEM WETLAND ALTERATION	AV
4	12/08/13	RIDOT COMMENTS	AV
5	3/04/14	ADDED PROPANE RIDEM COMMENTS	AV
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

PROJECT No.:	W13102
DRAWN BY:	AWP / CFB
CHECKED BY:	SP
DATE:	09/13/2011
SCALE:	AS NOTE
CAD I.D.:	W131021SS

NERP HOLDING
& ACQUISITION
COMPANY, LLC

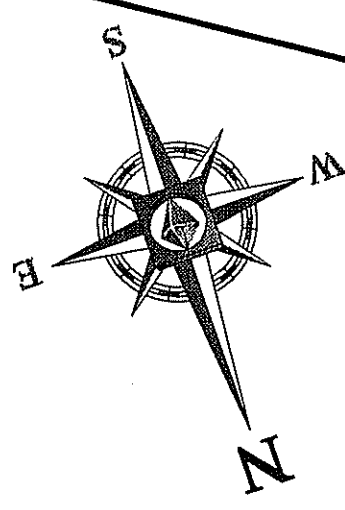
MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND



SHEET TITLE:
**SOIL EROSION
CONTROL
NOTES &
DETAILS SHEET**

SHEET NUMBER:

REV 5 - 03/04/2014



MAP 57/3, LOT 287
N/F LANDS OF HAPRI, LLC
BK. 2109, PG. 189

MAP 57/3, LOT 242
N/F LANDS OF HAROLD J. FERA
BK. 207, PG. 1035

PER RIDEM:

- Install Inkberry (*Llex glabra*) shrubs along the limits of disturbance within freshwater wetlands. The shrubs must be three (3) to four (4) feet tall after planting and installed five (5) feet on center, and must also be installed instead of the proposed four (4) Highbush blueberry (*Vaccinium corymbosum*) shrubs.

MAP 57/3, LOT 153
N/F LANDS OF DORIS
VIGLIOTTI
BK. 114, PG. 90

PROP. 3" LAYER OF DOUBLE SHREDDED
MULCH OVER WATER
PERMEABLE WEED BARRIER FABRIC (TYP.)

MAP 57/3, LOT 152
N/F LANDS OF JULISSA
MENDEZ
BK. 2148, PG. 304

PROP. HYDROSEED LAWN OVER 6" OF
NEW TOPSOIL FOR ALL AREAS
DISTURBED BY CONSTRUCTION (TYP.)

MAP 57/3, LOT 187
N/F LANDS OF DORIS M.
VIGLIOTTI
BK. 703, PG. 3

MINIMIZE REMOVAL OF EXISTING VEGETATION TO
PLANT PROPOSED SPRUCE TREES TO MAINTAIN
MAXIMUM EXISTING VEGETATIVE BUFFER

MAP 57/3, LOT 341
N/F LANDS OF HARTFORD
AVE. REALTY ASSOCIATES,
LLC
BK. 1731, PG. 24

MAP 57/3, LOT 100
N/F LANDS OF HARTFORD
AVE. REALTY ASSOCIATES,
LLC
BK. 1731, PG. 24

MAP 57/3, LOT 101
N/F LANDS OF RONALD & ELAINE
FRARACCIO
BK. 269, PG. 203

**TRACTOR
SUPPLY CO.**
TOTAL BUILDING AREA=19,097 SQ. FT.
SALES AREA=15,455 SQ. FT.

N/F LANDS OF HAPRI, LLC
BK. 2109, PG. 189
MAP 57/3, LOT 208

MAP 57/3, LOT 283
N/F LANDS OF ANA RAPOSO
BK. 2140, PG. 13

MAP 57/3, LOT 186

MAP 57/3, LOT 300
N/F LANDS OF JPMRI, LLC
BK. 1991, PG. 296

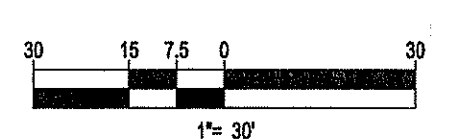
Kindly be advised that this
Permit is not equivalent to a
verification of the type or extent
of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATE: MAR 28 2014 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wenzel

THIS PLAN TO BE UTILIZED FOR
LANDSCAPE PURPOSES ONLY

REFER TO LANDSCAPE NOTES &
DETAILS SHEET FOR LANDSCAPE
NOTES AND DETAILS

HARTFORD AVENUE
(A.K.A. ROUTE 6)



LANDSCAPE SCHEDULE				
KEY	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
SHADE TREE				
ARA	6	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMNAR RED MAPLE	2 1/2" CAL
GB	13	GINKGO BILOBA	MAIDENHAIR TREE-GINKGO	2 1/2" CAL
ZS	6	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2 1/2" CAL
ORNAMENTAL TREE				
CF	2	CORNUS FLORIDA	WHITE FLOWERING DOGWOOD	2-2 1/2" CAL
EVERGREEN TREE				
PPG	33	PICEA PUNGENS GLAUCA	COLORADO BLUE SPRUCE	7-8'
EVERGREEN SHRUB				
AH	9	AZALEA 'HINO CRIMSON'	HINO CRIMSON AZALEA	18-24"
BMWG	10	BUXUS MICROPHYLLA 'WINTER GEM'	WINTER GEM BOXWOOD	18-24"
IGS	55	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	24-30"
JHP	107	JUNIPERUS HORIZONTALIS FLUMOSA	ANDORRA JUNIPER	15-18" SPDR.
RPJM	21	RHOODODENDRON CAROLINANA X PJM	PJM RHOODODENDRON	24-30"
TH	22	TAXUS MEDIA 'HICKSII'	HICKS YEW	30-36"
DECIDUOUS SHRUB				
MP	10	MYRTICA PENNSYLVANICA	NORTHERN BAYBERRY	30-36"
SJLP	18	SPIREA JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS SPIREA	15-18"
VC	4	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	30-36"

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

TOWN OF JOHNSTON LANDSCAPE REQUIREMENTS			
SECTION OF BYLAW	DESCRIPTION	REQUIRED	PROPOSED
SECTION 340.27.2B	1) ONE SHADE TREE SHALL BE PROVIDED PER 30' OF FRONTAGE. 275 LF/30' = 9	9 TREES	2 TREES*
	2) YEAR ROUND BUFFER HEIGHT OF AT LEAST 8' SHALL BE PRODUCED WITHIN THREE GROWING SEASONS.	8' HEIGHT	8' HEIGHT
	3) A MINIMUM OF 10 SQ. FT. OF PLANTING AREA FOR EACH PARKING SPACE SHALL BE PROVIDED. 88 SPACES = 880 SQ. FT.	880 SQ. FT.	3593 SQ. FT.
	4) 20% OF INTERIOR OF PARKING AREA SHALL BE SHADED BY DECIDUOUS TREES. 18,750 SQ. FT. x 20% = 3,750 SQ. FT.	3,750 SQ. FT. (20%)	4,182 SQ. FT. (22 TREES)

* VARIANCE / WAIVER REQUIRED

BOHLER ENGINEERING

CORPORATE OFFICE:
WARREN, NJ
OFFICES:
CHALMONT, PA
SOUTHBOURGH, MA
TOWNSEND, MA
ALBANY, NY
CENTER VALLEY, PA
TAMPA, FL
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS
CIVIL & CONSULTING ENGINEERS
SURVEYORS

REVISIONS				
REV	DATE	COMMENT	BY	
1	10/4/13	TOWN COMMENTS	AWP	
2	10/21/13	CLIENT COMMENTS	AWP	
3	11/08/13	RIDEM WETLAND ALTERATION	AWP	
4	12/08/13	RIDOT COMMENTS	AWP	
5	3/04/14	ADDED PROPANE RIDEM COMMENTS	AWP	
6				
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11				
12				
13				
14				
15				

PRELIMINARY

PROJECT No.: W131021
DRAWN BY: GMW
CHECKED BY: MJM
DATE: 08/13/2013
SCALE: AS NOTED
CAP I.D.: W131021SS5

MAJOR LAND DEVELOPMENT Preliminary Plan FOR NERP HOLDING & ACQUISITIONS COMPANY, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING

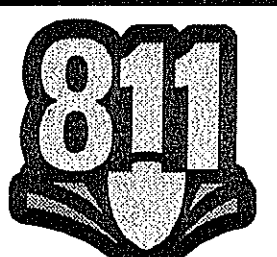
352 TURNPIKE ROAD
SOUTHBOURGH, MA 01772
Phone: (508) 480-9800
Fax: (508) 480-9800
www.BohlerEngineering.com

M.J. MRVA
REGISTERED LANDSCAPE ARCHITECT
MASSACHUSETTS No. 1217
RHODE ISLAND No. 419

SHEET TITLE: LANDSCAPE PLAN

SHEET NUMBER: 10 OF 15

REV 5 - 03/04/2014



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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 CONTRADICTED BY THE GENERAL CONTRACTOR.

2. MATERIALS
A. GENERAL - ALL LANDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATIONS SPECIFICATIONS.

B. TOPSOIL - NATURAL, FRABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

C. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEeded OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN.
I. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CRIP SEED.
II. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/FREE PEST WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.

D. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES/DETAILS.

E. FERTILIZER
I. 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.
II. FOR THE PURPOSE OF BIDDOING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 8% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

F. PLANT MATERIAL
I. 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 NURSERMEN].
II. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
III. ALL PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
IV. TREES WITH ABRASSION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1¼", WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED.
PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
V. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH; WELL DEVELOPED BRANCHES, DENSELY FOLIATED , VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSESTS, PESTS, EGGS OR LARVAE.
VI. 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 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.
VII. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
VIII. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO UTILIZE WORKMANNLIKE 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 CONTRACTORS 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 GENERAL WORK PROCEDURES OUNTING 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 BRANCH BASE. CONTRACTOR SHALL INSURE 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 ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.

C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

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 EQUIV. MOUNTED ON STEEL POSTS SHALL BE ADJECED 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 UNTILL 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 ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE 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, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.

C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDOING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
I. 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.
II. 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 OPYRM. 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.
III. MODIFY EXTREMELY SANDY SOILS (MORE THAN 65%) BY ADDING ORGANIC MATTER AND/OR DRV, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADINGS
A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRAINING WITHIN THE DISTURBANCE AREA OF THE SITE.

B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1½").

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 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, 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 BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM ON-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 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 A 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 - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A]):
I. 20 POUNDS "/GRO-POWER" OR APPROVED SOIL CONDITIONER/FERTILIZER
II. 20 POUNDS NITRO-PROM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER

E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING
A. INSOPART 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 HEADED 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 USING 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:
I. PLANTS: MARCH 16 TO DECEMBER 16
II. LAWN: MARCH 16 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 FOR POTENTIAL SUBSTITUTIONS.

G. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE USUALLY SUSCEPTIBLE TO WINTER DAMAGE, WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:
ACER RUBRUM PLATANUS X ACERIFOLIA
BETULA VARIETIES POPULUS VARIETIES
CARPINUS VARIETIES PRUNUS VARIETIES
CRATAEGUS VARIETIES PYRUS VARIETIES
KOELNERUTERIA QUERCUUS VARIETIES
LIQUIDAMBAR STYRACIFLIA TLIA TOMENTOSA
LIRIODENDRON TULIPIFERA ZELKOVIA VARIETIES

H. PLANTING FITS 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:
I. 1 PART PEAT MOSS
II. 1 PART COMPOSTED COW MANURE BY VOLUME
III. 5 PARTS TOPSOIL BY VOLUME
IV. 21 GRAMS "/AGRIFORM" PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
A) 2 TABLETS PER

Diagram illustrating the components and preparation for planting a tree in a container:

- REINFORCED RUBBER HOSE (1/2" DIA. BLACK)
- FOLD BURLAP AWAY FROM TOP OF ROOT BALL
- 12 GAUGE GALVANIZED WIRE GUYS
- TWISTED 2" DIA. HARDWOOD STAKES X 6' TREES HIT. 3 PER TREE
- TWICE THE WIDTH OF ROOTBALL FOR PREPARED SOIL FOR TREES.
- PREPARED SOIL FOR TREES
 - 1 PART PEAT MOSS
 - 1 PART COW MANURE
 - 3 PARTS TOPSOIL
 - (RECOMMENDATION ONLY. SEE SOIL MOD. CHART)
- UNDISTURBED SUBGRADE
- DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
- TAMP SOIL SOLIDLY AROUND BOTTOM OF ROOT BALL
- AVOID PURCHASING TREES WITH TWO LEADERS OR REMOVE ONE AT PLANTING OTHERWISE, DO NOT PRUNE TREE AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS
- SET ROOT BALL YOUNG TREES OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS.
- 4" BUILT-UP EARTH SAUCER
- 3" DOUBLE SHREDDED HARDWOOD BARK MULCH (UNLESS OTHERWISE SPECIFIED NOT PLACE MULCH IN CONTACT WITH TRUNK)
- LANDSCAPE FABRIC AS SPECIFIED.
- ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM BASKETS
- SET ROOT BALL ON UNDISTURBED SOIL IN BOTTOM OF HOLE

NOTES:

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK AND TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM ROOT BALL.
3. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

REINFORCED RUBBER HOSE (1/2" DIA. B

DOUBLE #16 GA. GALVANIZED WIRE GUY

2" DIA. HARDWOOD STAKES 213 TREE IT 3 PER TREE

3" DOUBLE SHREDDED HARDWOOD BARK/MULCH

SAUCER RIM

FINISHED TOPSOIL

TOPSOIL

Permit is not eq

verification of the

of freshwater wet

PLANTING MIX
1 PART PEAT MOSS
1 PART COW MANURE
3 PARTS TOPSOIL

ROOT BALL

4"-5" TOPSOIL MOUND

UNDISTURBED SUBGRADE

PLANT SHALL BE PLANTED SO THAT THE POINT AT WHICH THE ROOT FLARE BEGINS IS SET LEVEL WITH GRADE. CUT AND REMOVE BURGLAR FROM TOP ONE-THIRD OF ROOT BALL AS SHOWN.

PLANTING MIX:
1 PART PEAT MOSS
1 PART COW MANURE
3 PARTS TOPSOIL
(SEE SOIL MODIFICATION CHART)

8" - 12"

24" MINIMUM

BEFORE PLANTING, ADD 3" TO 4" OF WELL-COMPOSTED LEAVES AND RECYCLED YARD WASTE TO BED AND TILL INTO TOP 9" OF PREPARED SOIL.

SOIL SURFACE ROUGHENED TO 8" - 12"

24" MINIMUM

FOR CONTAINER-GROWN SHRUBS, PLANT SHALL BE TRANSPLANTED AT THE SAME GRADE AS IN CONTAINER. REMOVE THE CONTAINER, USE FINGER OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOTS TO CIRCLE THE PERIMETER OF THE CONTAINER.

3" DOUBLE-SHREDDED HARDWOOD BARK MULCH (DO NOT PUT MULCH AGAINST THE BASE OF THE PLANT).

LANDSCAPE FABRIC AS SPECIFIED

FINISHED GRADE

PLACE SHRUB ON FIRM SOIL IN BOTTOM OF HOLE

UNDISTURBED SUBGRADE

WHEN APPROPRIATE, PLANT MULTIPLE

POCKET PLANTING NOT ALLOWED

REF. PLAN FOR SHRUB TYPE

3" LAYER OF SPECIFIED BARK MULCH

FINISH GRADE

ROOTBALL, DO NOT DISTURB

PREPARED SOIL MIX PER SPECS. 6" MIN. OF PREPARED SOIL MIX TILLED INTO EXISTING SOIL TO A DEPTH OF 6"

6"

SPACING PER PLANT LIST

The diagram illustrates a cross-section of a pocket planting method. Two shrub rootballs are shown side-by-side, separated by a 6-inch gap. Each rootball is contained within a rectangular frame representing the planting pocket. Above the rootballs, a layer of bark mulch is indicated, followed by the finish grade. A note specifies that the rootballs should not be disturbed. Below the rootballs, a layer of prepared soil mix is shown, which is to be tilled into the existing soil to a depth of 6 inches. A reference plan for the shrub type is indicated. A spacing per plant list is also shown.

[illegible]

Diagram illustrating the correct method for planting a tree, showing the root ball, soil preparation, and various instructions for avoiding damage and ensuring proper growth.

Instructions for Planting:

- DO NOT STAKE OR WRAP TRUNK
- TWICE THE WIDTH OF THE ROOT BALL
- PREPARED SOIL FOR TREES:
 - 1 PART PEAT MOSS
 - 1 PART COM MANURE
 - 3 PARTS TOPSOIL
- UNDISTURBED SUBGRADE
- DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
- TAMP SOLIDLY AROUND BASE OF ROOT BALL
- DO NOT PRUNE TREE AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS.
- FOLD BURLAP AWAY FROM TOP OF ROOT BALL
- SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS
- 4" BUILT-UP EARTH SAUCER
- 3" DOUBLE-SHREDDED HARDWOOD BARK MULCH. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK.
- BEFORE PLANTING, ADD 3-4" OF WELL-COMPOSTED LEAVES OR RECYCLED YARD WASTE TO BED AND TILL INTO TOP OF PREPARED SOIL.
- 4-6" DEEPER THAN ROOT BALL
- CUT BANDS OF WIRE BASKET AND FOLD AWAY FROM TOP OF ROOT BALL
- SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE

NOTES:

1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CONCRETE SIDEWALKS SHOULD BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.

CONC. SIDEWALK

10' MAX.

BIOBARRIER ROOT BARRIER FABRIC OR APPROVED EQUAL

BIOBARRIER ROOT BARRIER FABRIC TO BE INSTALLED TO THE DEPTH OF THE BOTTOM OF STONE BASE COURSE OR 10', WHICHEVER IS GREATER

TREE

SEE DECIDUOUS OR EVERGREEN TREE DETAIL FOR PLANTING PURPOSES

UNDISTURBED SUBGRADE

PREPARED SOIL FOR TREES (SEE PLANTING DETAIL)

Diagram illustrating the construction of a tree pit. The diagram shows a cross-section of the ground with a tree in the center. The following labels and dimensions are provided:

- CUT BACK SLOPE TO PROVIDE A FLAT SURFACE FOR PLANTING PROPOSED GRADE FOR PLANTING AREA NOT TO EXCEED 2:1
- EXISTING GRADE
- UNDISTURBED SUBGRADE
- DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
- TAMP SOIL SOIDLY AROUND BASE OF ROOT BALL
- SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN ORDER DRAINING SOLS
- 4" BUILT-UP EARTH SAUCER
- SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE
- TOP SOIL FILL (COMPACTED) (SLOPE NOT TO EXCEED 2:1)
- 4"-6" DEEPER THAN ROOT BALL
- EXISTING

REVISIONS			
REV	DATE	COMMENT	BY
1	10/4/13	TOWN COMMENTS	AWP
2	10/21/13	CLIENT COMMENTS	AWP
3	11/08/13	RIDEM WETLAND ALTERATION	AWP
4	12/06/13	RIDOT COMMENTS	AWP
5	3/04/14	ADDED PROPANE RIDEM COMMENTS	AWP
6			
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15			

PROJECT No.:	W131021
DRAWN BY:	AWP / CFD
CHECKED BY:	SPD
DATE:	09/13/2013
SCALE:	AS NOTED
CAD ID:	W131021S00

_____ FOR _____

 ENGINEERING

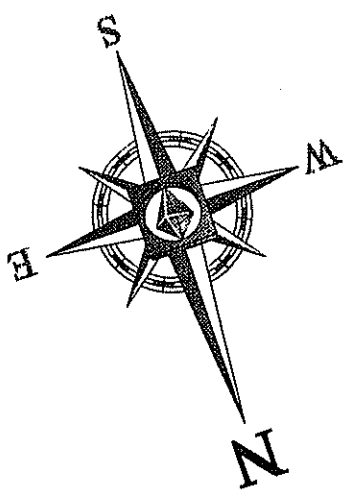
www.BohlerEngineering.com

REGISTERED

LANDSCAPE
NOTES:

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
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11
25-15



Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Lumen/Lamp	LLF
1	2	3M-ES	3 @ 90 DEGREES	11076	0.920
2	3	3M-ES	SINGLE	11076	0.920
3	1	3M-ETR	3 @ 90 DEGREES	11076	0.920
4	1	3M-ES	SINGLE	8193	0.920
5	13	4M-D	SINGLE	8543	0.920
6	3	H-15120	SINGLE	3920	1.000
Total Watts					
1072					
Description					
STR-LWY-3M-HT-06-E-UL-BZ-700					
STR-LWY-3M-HT-06-E-UL-BZ-700					
STR-LWY-3M-HT-06-E-UL-BZ-700					
STR-LWY-3M-HT-06-E-UL-BZ-700					
SEC-EDG-4M-WM-04-D-UL-BZ-700					
H-15120					
Footcandle calculations using predicted lumen values after 50K hours of operation					
Label	Avg	Max	Min	Avg/Min	Max/Min
Display Area	1.55	4.5	0.3	6.50	15.00
Entry	1.31	4.6	0.0	N/A	N/A
Front Display	2.81	9.3	0.1	28.10	93.00
Outer	0.21	2.3	0.0	N/A	N/A
Parking	2.00	6.4	0.0	N/A	N/A
Property Line	0.03	0.3	0.0	N/A	N/A
Restaurant	1.61	3.8	0.2	8.06	19.00

- Pole Schedule
- (3) P84827RTBZ (27' X 4" X 0.188" Square Steel Pole)
- (5) P84820CTBZ (20' X 4" X 0.188" Square Steel Pole)
- (5) PD-1H48Z
- (1) PD-3H4 (30') BZ
- (2) PD-4H4 (90') BZ

Proposed poles meet 110 MPH sustained winds.

APPLICABLE LIGHTING REGULATIONS FROM TOWN ZONING BYLAWS:
§ 340-27.1 (e) - GLARE FROM THE INSTALLATION OF OUTDOOR LIGHTS AND SIGNS AND FROM THE MOVEMENT OF VEHICLES ON THE SITE SHALL BE SHIELDED FROM THE VIEW OF ADJACENT PROPERTIES IN A RESIDENTIAL ZONE.
NO RESTRICTIONS ON POLE HEIGHTS OR LIGHTING LEVELS IS NOTED IN THE BYLAWS.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 2 8 2014 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Matthew D. Wenechew

BOHLER ENGINEERING

CORPORATE OFFICE:
400 WASHINGTON AVE., SUITE 200
WARREN, NJ 07059
TELEPHONE: (201) 261-1000
FAX: (201) 261-1001
WWW.BOHLENGINEERING.COM

REVISIONS			
REV	DATE	COMMENT	BY
1	10/4/13	TOWN COMMENTS	AWP
2	10/21/13	CLIENT COMMENTS	AWP
3	11/08/13	RIDEM WETLAND ALTERATION	AWP
4	12/06/13	RIDOT COMMENTS	AWP
5	3/04/14	ADDED PROPANE RIDOT COMMENTS	AWP
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PRELIMINARY

PROJECT NO.: W131021
DRAWN BY: AWP / JFC
CHECKED BY: SPD
DATE: 09/13/2013
SCALE: AS NOTED
CALC. I.D.: W131021SSS

PROJECT: MAJOR LAND DEVELOPMENT
Preliminary Plan
FOR
NERP HOLDING & ACQUISITIONS COMPANY, LLC

MAP #573, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9800
www.BohlerEngineering.com

SP. DECOURSEY
PROFESSIONAL ENGINEER
REGISTERED PROFESSIONAL ENGINEER
PROVIDENCE, RHODE ISLAND
LICENSE NO. 7980

SHEET TITLE: LIGHTING PLAN
SHEET NUMBER: 12 OF 15
REV 5 - 03/04/2014

CREE

1200 82nd Street - Shelton, CT 06484
www.cree.com (800) 235-6900

Project Name: TSC - JOHNSTON, RI
Date: 10/2/2013 Scale: 1"=30'
Footcandle calculations at grade
Filename: V:\Common\Eng\OUT\130910\130910C1B2R2.AGI Layout by: CHRIS BOSANEC

Illustration results shown on this lighting design are based on project parameters provided to Cree, Inc. in conjunction with luminaires test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect field results. The customer is responsible for verifying dimensional accuracy along with compliance with any applicable electrical, lighting, or energy code.

STR-LWY-3M-HT-IP-02-06

LEDway® IP66 Street Light - Type II Medium - Horizontal Tension Mount - 20-60 LEDs

Product Description
Luminaire housing is all aluminum construction. Stranded luminaire utilizes universal bracket to permit fixture suitable for 4-7" dia. 2000 watt luminaire is designed to mount on 2" dia. 2000 watt luminaire. The luminaire is designed to be used with 2" dia. 2000 watt luminaire. The luminaire is designed to be used with 2" dia. 2000 watt luminaire. The luminaire is designed to be used with 2" dia. 2000 watt luminaire.

Performance Summary
• Made in the USA, all U.S. and imported parts
• CRI Minimum 90 CRI
• 50,000 Hours Life Expectancy (L70, 50,000 Hours)
• Limited Warranty: 5 years on luminaire/7 years on luminaire components
• ENEC and VDE Approved (VDE and VDE Approved)

Accessories
• 1/2" dia. 2000 watt luminaire
• 1/2" dia. 2000 watt luminaire
• 1/2" dia. 2000 watt luminaire
• 1/2" dia. 2000 watt luminaire
• 1/2" dia. 2000 watt luminaire
• 1/2" dia. 2000 watt luminaire
• 1/2" dia. 2000 watt luminaire
• 1/2" dia. 2000 watt luminaire

Ordering Information
Cree Lighting Inc. 1200 82nd Street Shelton, CT 06484
Tel: 800-235-6900 Fax: 203-235-6900
www.cree.com

STR-LWY-3M-HT-IP-02-06	HT	IP	LED	Wattage	Life Expectancy	Notes
1	HT	IP	LED	Wattage	Life Expectancy	Notes
2	HT	IP	LED	Wattage	Life Expectancy	Notes
3	HT	IP	LED	Wattage	Life Expectancy	Notes
4	HT	IP	LED	Wattage	Life Expectancy	Notes
5	HT	IP	LED	Wattage	Life Expectancy	Notes
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98	HT	IP	LED	Wattage	Life Expectancy	Notes
99	HT	IP	LED	Wattage	Life Expectancy	Notes
100	HT	IP	LED	Wattage	Life Expectancy	Notes

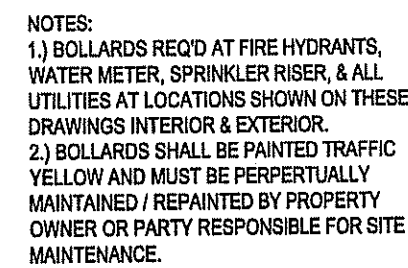
STR-LWY-3M-HT-IP-02-06

LEDway® IP66 Street Light - Type II Medium - Horizontal Tension Mount - 20-60 LEDs

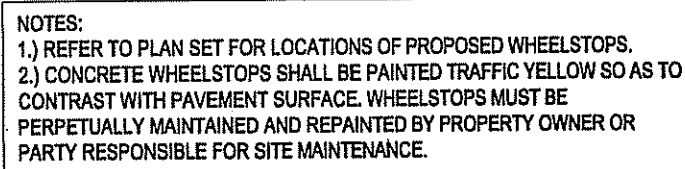
Product Specifications
• Housing is all aluminum construction
• Luminaire is designed to mount on 2" dia. 2000 watt luminaire
• Luminaire is designed to be used with 2" dia. 2000 watt luminaire
• Luminaire is designed to be used with 2" dia. 2000 watt luminaire
• Luminaire is designed to be used with 2" dia. 2000 watt luminaire
• Luminaire is designed to be used with 2" dia. 2000 watt luminaire
• Luminaire is designed to be used with 2" dia. 2000 watt luminaire
• Luminaire is designed to be used with 2" dia. 2000 watt luminaire

Electrical System
• Input Voltage: 120V/277V/347V/480V/525V/600V, Class 1
• Power Factor: 0.99
• Total Harmonic Distortion: <20% at full load
• Grounding: Grounding terminal for safety and ground fault protection
• Grounding: Grounding terminal for safety and ground fault protection
• Grounding: Grounding terminal for safety and ground fault protection
• Grounding: Grounding terminal for safety and ground fault protection
• Grounding: Grounding terminal for safety and ground fault protection
• Grounding: Grounding terminal for safety and ground fault protection
• Grounding: Grounding terminal for safety and ground fault protection

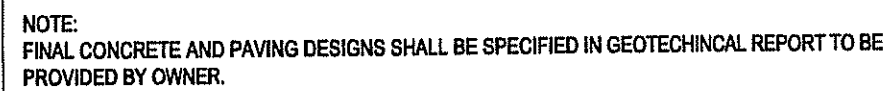
Regulatory & Voluntary Qualifications
• UL Listed
• ENEC Approved
• VDE Approved
• CUL Approved
• CE Marked
• RoHS Compliant
• REACH Compliant
• ISO 9001 Certified
• ISO 14001 Certified
• ISO 45001 Certified
• ISO 50001 Certified
• ISO 60001 Certified
• ISO 70001 Certified
• ISO 80001 Certified
• ISO 90001 Certified
• ISO 100001 Certified
• ISO 110001 Certified
• ISO 120001 Certified
• ISO 130001 Certified
• ISO 140001 Certified
• ISO 150001 Certified
• ISO 160001 Certified
• ISO 170001 Certified
• ISO 180001 Certified
• ISO 190001 Certified
• ISO 200001 Certified
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• ISO 1710001 Certified
• ISO 1720001 Certified
• ISO 1730001 Certified
• ISO 174000



N.T.S.



N.T.S.



N.T.S.



N.T.S.

PRELIMINARY

PROJECT:
**MAJOR LAND
DEVELOPMENT**
Preliminary Plan
— FOR —
**NERP HOLDING
& ACQUISITIONS
COMPANY, LLC**


BOHLER
ENGINEERING

S.P. DECOURSEY
S.P. Decoursey
 PROFESSIONAL ENGINEER
 RHODE ISLAND LICENSE No. 7990
 REGISTERED
 PROFESSIONAL ENGINEER
 CIVIL

SHEET NUMBER: 13 OF 15

REV 5 - 03/04/2014

N.T.S.



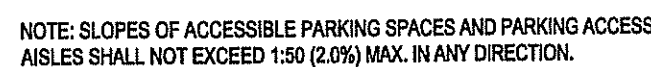
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N.T.S



N.T.S.



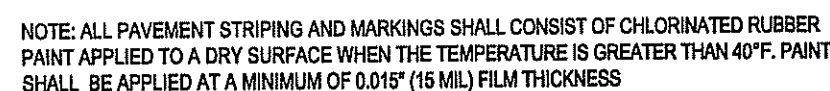
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N.T.S



NT:



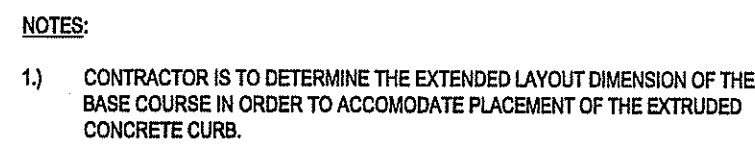
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NT



N.T.5



N.T.S.



N.T.S



N.T.S.



- NOTES:
1. SEE SITE PLAN FOR WIDE AND GRADES
2. PROVIDE MINIMUM 1/8" FT. CROSS-SLOPE
3. PROVIDE CONTROL JOINTS 5'-0" O.C. MIN.
4. PROVIDE EXPANSION JOINTS 20'-0" O.C. MIN.

REVISIONS			
REV	DATE	COMMENT	BY
1	10/4/13	TOWN COMMENTS	AWF
2	10/21/13	CLIENT COMMENTS	AWF
3	11/08/13	RIDEM WETLAND ALTERATION	AWF
4	12/06/13	RIDOT COMMENTS	AWF
5	3/04/14	ADDED PROPANE RIDEM COMMENTS	AWF
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

PRELIMINARY

PROJECT No.:	W131021
DRAWN BY:	AWP / CFD
CHECKED BY:	SPD
DATE:	09/13/2013
SCALE:	AS NOTED
CAD I.D.:	W131021SS5

PROJECT:
**MAJOR LAND
DEVELOPMENT**
Preliminary Plan

**NERP HOLDING
& ACQUISITIONS
COMPANY, LLC**

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND



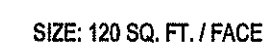
BOHLER
ENGINEERING

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

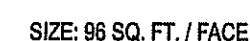
CONSTRUCTION DETAIL SHEET

SHEET NUMBER:
14
OF 15

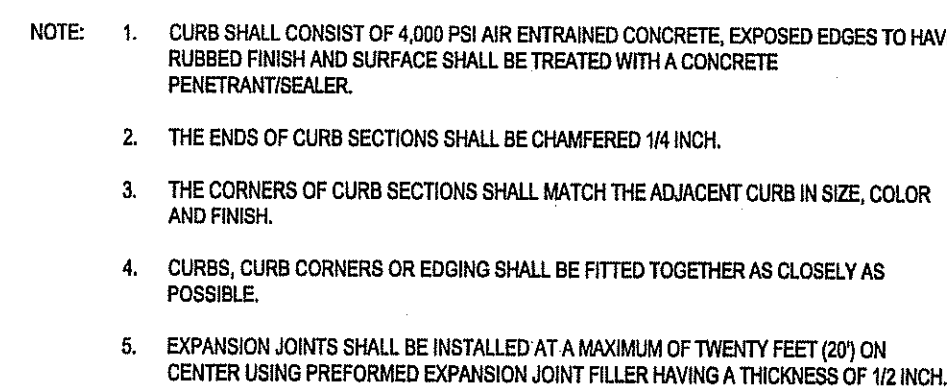
REV 5 - 03/04/2014



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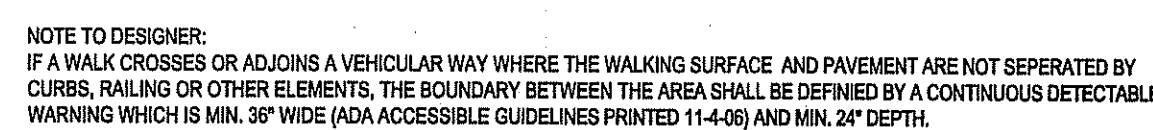
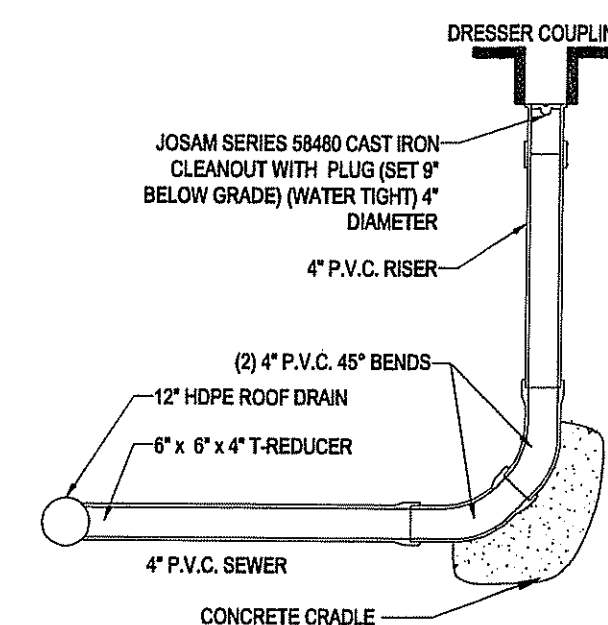
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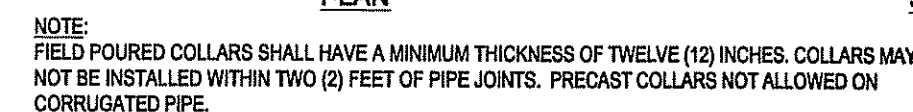


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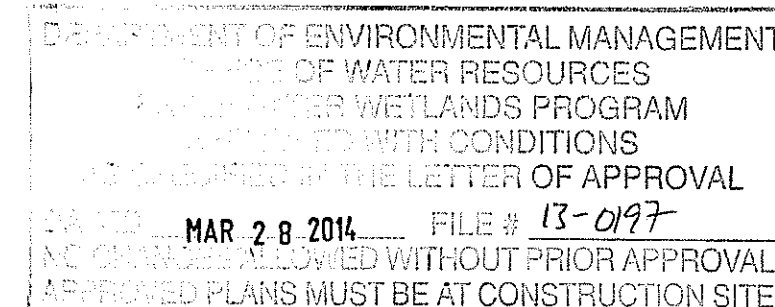


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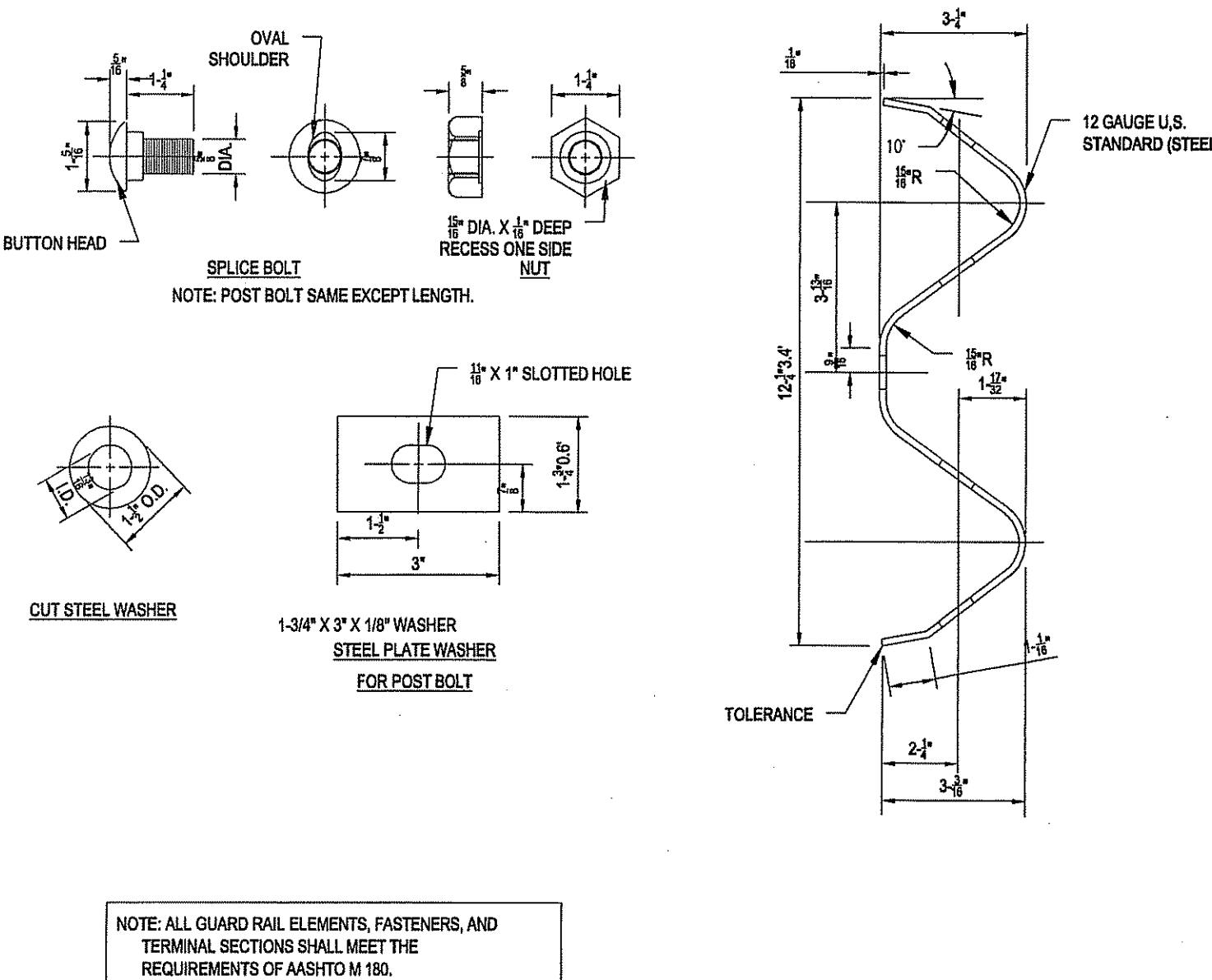




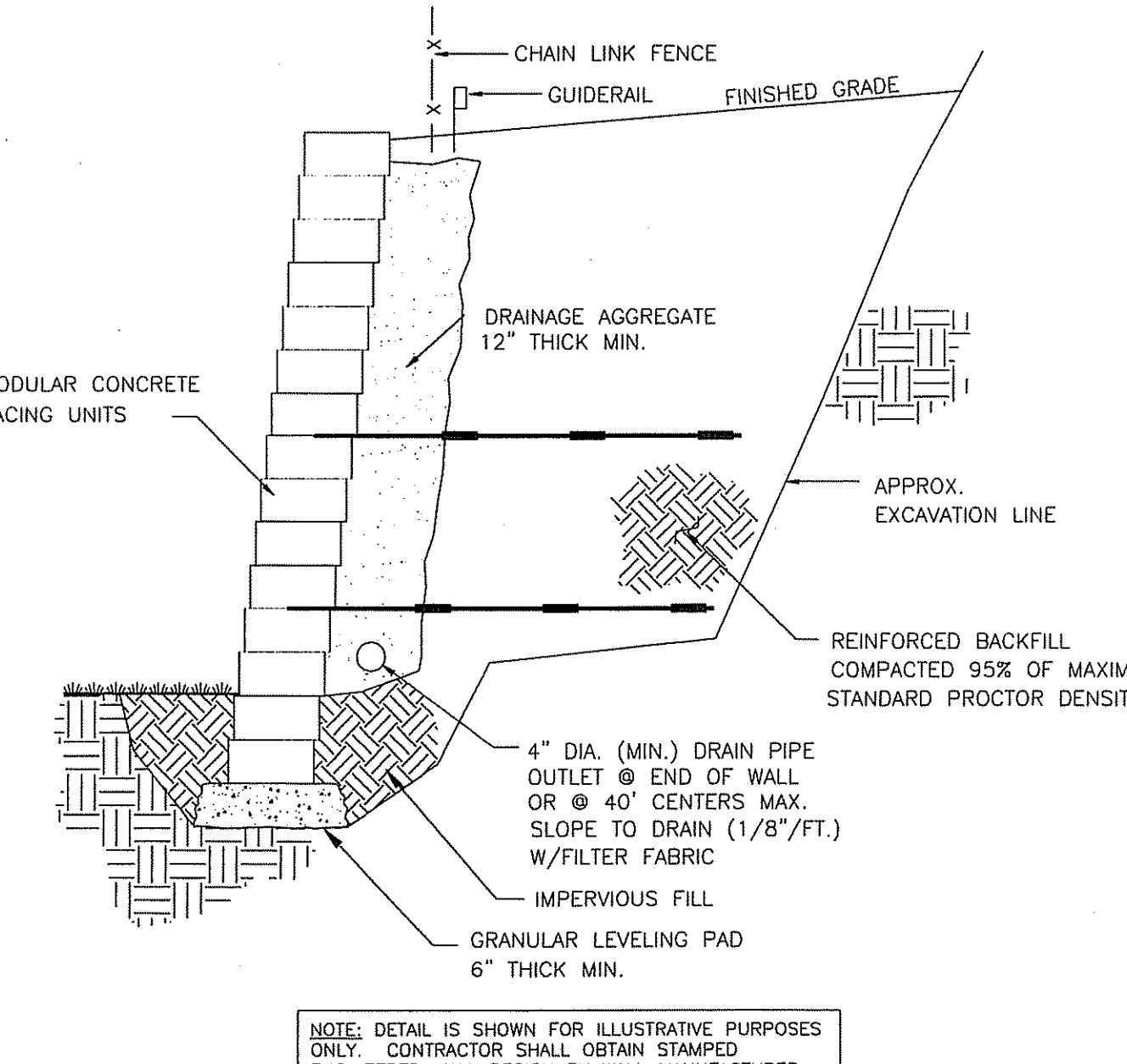
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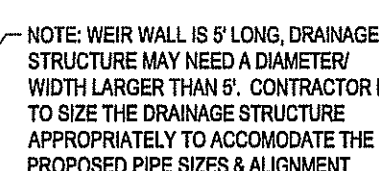
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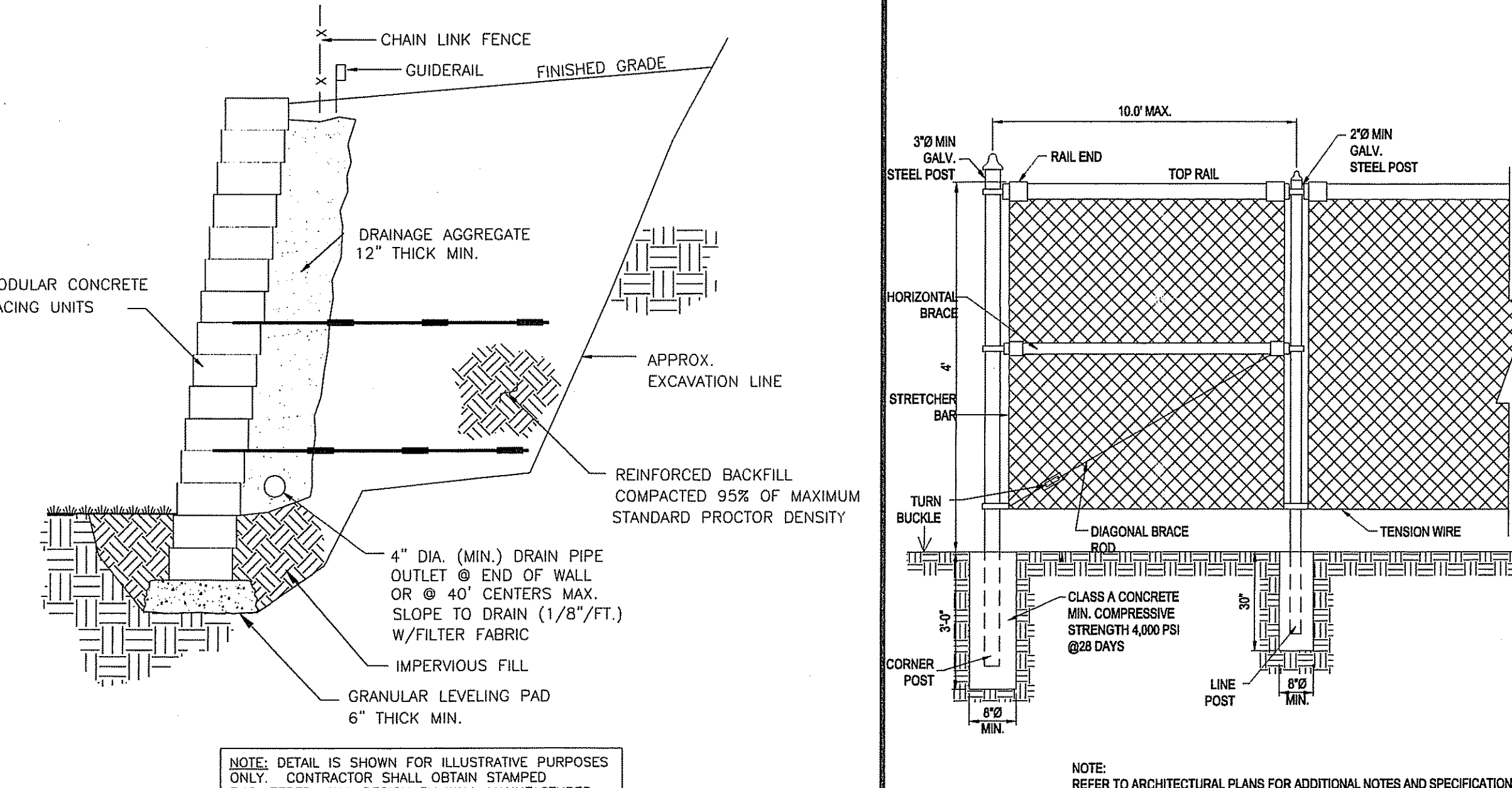
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N.T.S



N.T.S.



N.T.S.

CIVIL & CONSULTING ENGINEERS

♦ WARREN, NJ OFFICE:

SURVEYORS

PROJECT MANAGERS

ENVIRONMENTAL CONSULTANTS

LANDSCAPE ARCHITECTS

♦ SOUTHBROOK, MA
♦ CHALENT PA
♦ PHILADELPHIA, PA
♦ STERLING VA
♦ WAREHOUT, VA
♦ FORT LAUDERDALE
♦ FORT MYERS, FL
♦ ALBANY, NY
♦ ROMANUSKY, PA

PRELIMINARY

PROJECT No.:	W131021
DRAWN BY:	AWP /
CHECKED BY:	\$
DATE:	09/13/2
SCALE:	AS NO
CAD I.D.:	W131021

PROJECT:
**MAJOR LAND
DEVELOPMENT**
Preliminary Plan

NERP HOLDING
& ACQUISITION
COMPANY, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND


BOHLE
ENGINEERING

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.co

A circular professional engineer seal for S.P. Decoursey. The seal contains the text: "S.P. DECOURSEY", "No. 7930", "PROFESSIONAL ENGINEER", "RHODE ISLAND LICENSE No. 7930", and "REGISTERED PROFESSIONAL ENGINEER". There is a signature across the seal.

SHEET TITLE:

CONSTRUCTION DETAIL SHEET

SHEET NUMBER:
15
OF 15

REV 5 - 03/04/2014

LEGEND	
---	EXISTING CONTOUR
X 123.45	EXISTING SPOT ELEVATION
X 123.45	EXISTING TOP OF CURB ELEVATION
X 123.45	EXISTING GUTTER ELEVATION
X 123.45	EXISTING TOP OF WALL ELEVATION
X 123.45	EXISTING BOTTOM OF WALL ELEVATION
X 123.45	EXISTING FINISHED FLOOR ELEVATION
EM	ELECTRIC METER
OH	OVERHEAD WIRES
UP #	UTILITY POLE
MW #	APPROXIMATE MONITORING WELL LOCATION (PER REF #9)
●	SIGN
●	BOLLARD
P	POST
CL.F.	CHAIN LINK FENCE
D.C.	DEPRESSED CURB
E.O.C.	EDGE OF CONCRETE
E.O.P.	EDGE OF PAVEMENT
L.S.A.	LANDSCAPED AREA
(TYP.)	TYPICAL
SMH	SANITARY/SEWER MANHOLE
W	APPROXIMATE LOCATION UNDERGROUND WATER LINE (NOT FIELD VERIFIED - SEE NOTE 3)
S	APPROXIMATE LOCATION UNDERGROUND SANITARY LINE (NOT FIELD VERIFIED - SEE NOTE 3)
WETLAND DELINEATION FLAG	
TREE & TRUNK SIZE (TREES 12" > SHOWN)	
S.Y.L.	SOLID YELLOW LINE
HT.	HEIGHT
BLDG.	BUILDING
CONC.	CONCRETE
GR	GRATE ELEVATION
(11)	TITLE EXCEPTION

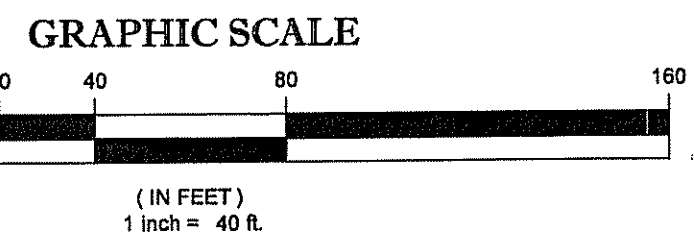
UTILITIES:
THE FOLLOWING COMPANIES WERE NOTIFIED BY THE STATE OF RHODE ISLAND ONE-CALL SYSTEM (1-888-344-7233) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST. SERIAL NUMBER: 20131203519

UTILITY COMPANY	PHONE NUMBER
NATIONAL GRID ELECTRIC-NARR ELEC	401-335-8258
VERIZON	401-942-2331
NATIONAL GRID GAS- PROVIDENCE	800-670-1684
COX COMMUNICATIONS INC.	401-243-1900
ON TARGET LOCATING	508-429-1022
INNOVATIVE DATA MANAGEMENT	



HARTFORD AVENUE

(A.K.A. ROUTE 8)
(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLAT. No.305)

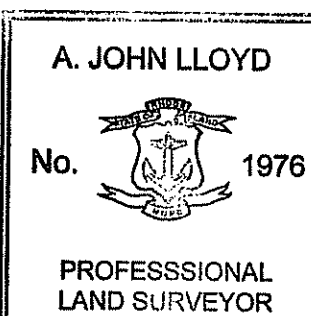


THIS SURVEY IS CERTIFIED TO:
TRACTOR SUPPLY COMPANY, A DELAWARE CORPORATION
CHICAGO TITLE INSURANCE COMPANY
NERP HOLDING & ACQUISITIONS COMPANY LLC
HAPRI LLC
LENDER TBD

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT WAS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(a), 6(b), 8, 9, 10(a), 13, 14, 17, 18, 19, 20(a), 20(b), 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL.

A. John Lloyd
A. JOHN LLOYD
RHODE ISLAND PROFESSIONAL LAND SURVEYOR #1978

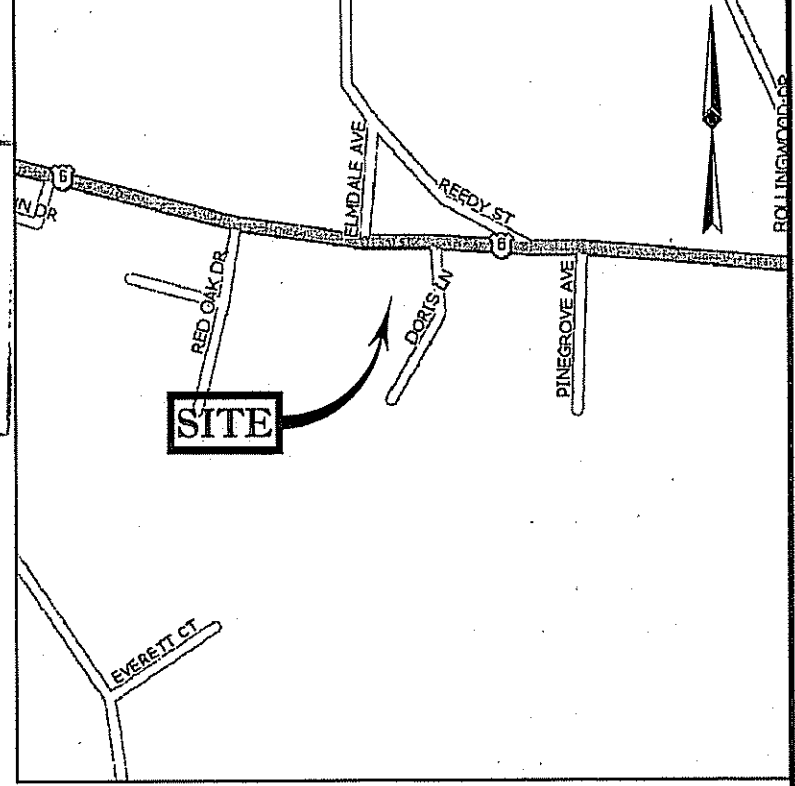


ALTA/ACSM LAND TITLE SURVEY
TRACTOR SUPPLY COMPANY
2750 HARTFORD AVENUE
LOTS 208 & 287, MAP 57/3
TOWN OF JOHNSTON, PROVIDENCE COUNTY,
STATE OF RHODE ISLAND

FIELD CREW B.S.B.			CONTROL POINT ASSOCIATES, INC.			
DRAWN: IDV-VW			352 TURNPIKE ROAD SOUTHBORO, MA 01772 508.948.3000 - 508.948.3003 FAX		WARREN, NJ 08668-0099 CHALFONT, PA 215.712.9800	
REVIEWED: R.G.B.	APPROVED: A.J.L.		DATE 4-10-13	SCALE 1"=40'	FILE NO. CM13052	DWG. NO. 1 OF 1

ZONING INFORMATION	
BUSINESS-B-2 DISTRICT (ANY PERMITTED USE OR BY SPECIAL PERMIT)	
ITEMS	REQUIRED
MIN LOT AREA	-
MIN FRONTAGE	-
MIN FRONT YARD	20 FT.
MIN SIDE YARD	20 FT.
MIN REAR YARD	35 FT.
MAX BUILDING HEIGHT	30 FT.
MAX BUILDING COVERAGE	40%

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



- NOTES:
- PROPERTY KNOWN AS LOTS 208 & 287, MAP 57/3, TOWN OF JOHNSTON, PROVIDENCE COUNTY, STATE OF RHODE ISLAND.
 - LOT 208 AREA = 202,441± S.F. OR 4.647± AC. LOT 287 AREA = 87,120± S.F. OR 2.000± AC. TOTAL AREA = 289,561± S.F. OR 6.647± AC.
 - LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD. THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY, AVAILABLE AS-BUILT PLANS AND UTILITY MARK-OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGAIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
 - THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
 - THIS SURVEY IS PREPARED WITH REFERENCE TO A TITLE REPORT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO. 4278822, WITH AN EFFECTIVE DATE OF DECEMBER 28, 2013, WHERE THE FOLLOWING SURVEY RELATED EXCEPTIONS APPEAR IN SCHEDULE B, SECTION II:
(10) RESERVATION AS SET FORTH IN BOOK 89 AT PAGE 493. - AFFECTS PARCEL A; ACCESS RIGHTS ACROSS PARCEL A FROM HARTFORD AVENUE TO A DWELLING WEST OF SUBJECT PARCEL. EXACT LOCATION UNCLEAR.
(11) ZONING AMENDMENT ORDINANCE 2013-09 DATED JULY 8, 2013 AND RECORDED JULY 10, 2013 IN BOOK 2305 AT PAGE 276. - AFFECTS PARCELS A AND B; CURRENT ZONING DISTRICT SHOWN.
 - BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2
 - ELEVATIONS ARE BASED UPON NAVD 88 OBTAINED WITH GPS EQUIPMENT UTILIZING THE KEYSTONE KEYNET NETWORK.
 - THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
 - WETLAND DELINEATION FLAGS PLACED IN THE FIELD BY NATURAL RESOURCES SERVICES, INC. ON MARCH 27, 2013 AND LOCATED BY CONTROL POINT ASSOCIATES, INC.
 - NO EVIDENCE OF USE AS SOLID WASTE DUMP, SLUMP OR SANITARY LANDFILL WAS OBSERVED DURING THE FIELD SURVEY
 - CHANGES IN STREET RIGHT OF WAY LINES EITHER COMPLETED OR PROPOSED REVEALED IN THE TITLE REPORT AND REFERENCED MAPS HAVE BEEN SHOWN.

- REFERENCES:
- THE TAX ASSESSOR'S MAPS OF THE TOWN OF JOHNSTON, PROVIDENCE COUNTY, RHODE ISLAND MAP NOS. 461 AND 57/3.
 - MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, RHODE ISLAND (ALL JURISDICTIONS), PANEL 283 OF 451", MAP NUMBER 44007C0283G, EFFECTIVE DATE: MARCH 2, 2009.
 - MAP ENTITLED "SITE SKETCH DEPICTING APPROXIMATE WETLAND DELINEATION", PREPARED BY NATURAL RESOURCES SERVICES, INC., DATED: MARCH 27, 2013.
 - MAP ENTITLED "JOHNSTON SOIL/LATE, HARTFORD PIKE DANIELSON PIKE," PROVIDED BY RHODE ISLAND STATE BOARD OF PUBLIC ROADS, SHEET # 20 OF 25, PLAT. No. 305.
 - MAP ENTITLED "JOHNSTON MOTOR LODGE - EXISTING CONDITIONS PLAN," PROVIDED BY CASALI & DAMICO ENGINEERING, INC., DATED: JANUARY 2007, (LAST REVISION DATED: MAY 28, 2009) SHEET # 3 OF 7.
 - MAP ENTITLED "SURVEY OF LAND SITUATED-JOHNSTON, R.I. OWNED BY, THE GLORIOUS GOSPEL CHURCH INC. A.P. NO. 57, LOTS 208, PORTION OF 188." PREPARED BY NORTHERN CONSULTING ASSOCIATES LTD., DATED: NOVEMBER 28, 1977.
 - ELECTRIC MAPPING PROVIDED BY NATIONAL GRID N.E., DATED: MARCH 21, 2013.
 - WATER MAPPING PROVIDED BY THE TOWN OF JOHNSTON WATER DEPARTMENT, SKETCH DATED: MAY 20, 2009.
 - MAP ENTITLED "PHASE I ENVIRONMENTAL SITE ASSESSMENT, SITE PLAN," PREPARED BY FJA ENVIRONMENTAL ASSOCIATES, DATED: OCTOBER 1, 2013.

SCHEDULE A:

PARCEL A:
THAT CERTAIN TRACT OR PARCEL OF LAND WITH ALL THE BUILDINGS AND IMPROVEMENTS THEREON, SITUATED ON THE SOUTHWESTERLY SIDE OF HARTFORD AVENUE, IN THE TOWN OF JOHNSTON, COUNTY OF PROVIDENCE, STATE OF RHODE ISLAND, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THIS SOUTHWESTERLY LINE OF HARTFORD AVENUE, ON THE ARC OF A CURVE AND AT THE NORTHWESTERLY CORNER OF THE LAND HEREBY DESCRIBED, SAID POINT BEING FIFTEEN AND 78/100(15.78) FEET NORTHWESTERLY FROM A RHODE ISLAND HIGHWAY BOUND THIRTY (30) FEET ON THE LEFT OF STATION 249 PLUS 87 ON SHEET NO. 20 OF STATE HIGHWAY PLAT 305 AS THE SAME IS RECORDED IN THE LAND EVIDENCE RECORDS OF JOHNSTON, RHODE ISLAND; THENCE SOUTHEASTERLY AND A LITTLE MORE EASTERLY BY AND WITH THE ARC OF A CIRCLE WITH A RADIUS OF THIRTEEN HUNDRED SIXTY-SEVEN AND 57/100 (1387.67) FEET, BOUNDED NORTHWESTERLY BY HARTFORD AVENUE, A DISTANCE OF FIFTEEN AND 78/100 (15.78) FEET TO A SAID RHODE ISLAND HIGHWAY BOUND AND A POINT OF TANGENCY; THENCE SOUTHEASTERLY, BOUNDED NORTHEASTERLY BY SAID HARTFORD AVENUE, THREE HUNDRED FORTY-SEVEN (347) FEET, MORE OR LESS, TO LAND NOW OR FORMERLY OF F. DEMARCO CARPIO ET AL. THENCE AT RIGHT ANGLES PROCEEDING SOUTHWESTERLY, BOUNDED SOUTHEASTERLY BY SAID CARPIO LAND, ONE HUNDRED FORTY (140) FEET TO A CORNER; THENCE AT RIGHT ANGLES PROCEEDING SOUTHEASTERLY, BOUNDED NORTHEASTERLY BY SAID CARPIO LAND IN PART AND IN PART BY LAND NOW OR FORMERLY OF JOSEPH A. CAMPANO ET AL. IN ALL A DISTANCE OF ONE HUNDRED ELEVEN AND 82/100 (111.82) FEET TO A CORNER; THENCE AT AN INTERIOR ANGLE OF 90° 45' 00" PROCEEDING SOUTHWESTERLY, BOUNDED SOUTHEASTERLY BY OTHER LAND NOW OR FORMERLY OF JOSEPH W. ACCETTA ET UX, THREE HUNDRED ONE AND 98/100 (301.98) FEET TO A CORNER; THENCE NORTHEASTERLY, BOUNDED SOUTHWESTERLY, BY THE PARCEL B HEREINAFTER DESCRIBED, SIX HUNDRED TWENTY (620) FEET, MORE OR LESS TO A CORNER; THENCE EASTERLY, BOUNDED NORTHEASTERLY BY LAND NOW OR FORMERLY OF JOSEPH W. ACCETTA ET UX, ONE HUNDRED FORTY-FIVE AND 18/100 (145.18) FEET TO A CORNER; THENCE AT AN INTERIOR ANGLE OF 27° 20' 00" PROCEEDING NORTHERLY, BOUNDING NORTHEASTERLY BY LAND NOW OR FORMERLY OF DOMENIC SCOTTI ET UX, SIXTY EIGHT AND 60/100 (68.60) FEET TO A CORNER; THENCE AT AN INTERIOR ANGLE OF 84° 58' 48" PROCEEDING SOUTHEASTERLY, BOUNDED NORTHEASTERLY BY LAND NOW OR FORMERLY OF JOSEPH W. ACCETTA ET UX, TWENTY (20) FEET TO A CORNER; THENCE AT AN INTERIOR ANGLE OF 28° 30' 55" PROCEEDING NORTHEASTERLY, BOUNDED NORTHEASTERLY BY SAID ACCETTA LAND, ONE HUNDRED (100) FEET TO HARTFORD AVENUE AT THE POINT AND PLACE OF BEGINNING. THE LAST DESCRIBED LINE FORMING AN INTERIOR CHORD ANGLE OF 98° 00' 40" WITH THE CHORD OF THE FIRST ARC DISTANCE HEREIN DESCRIBED, AND THE PARCEL OF LAND HEREBY.

THE AFORESAID PARCEL BEING ASSESSORS LOT 208 ON ASSESSORS PLAT 57 CURRENTLY ON FILE IN THE OFFICE OF THE TAX ASSESSOR IN SAID TOWN OF JOHNSTON.

PARCEL B:
THAT CERTAIN TRACT OR PARCEL OF LAND WITH ALL THE BUILDINGS AND IMPROVEMENTS THEREON, SITUATED IN THE TOWN OF JOHNSTON, COUNTY OF PROVIDENCE, STATE OF RHODE ISLAND, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY LINE OF DORIS LANE SO-CALLED, WHICH POINT IS THE NORTHEASTERLY CORNER OF THE PREMISES HEREBY CONVEYED AND THE SOUTHEASTERLY CORNER OF LAND NOW OR LATELY OF D. VIGLIOTTI (SAID VIGLIOTTI PROPERTY BEING ALSO OTHERWISE DESCRIBED AS LOT 153 ON JOHNSTON ASSESSORS PLAT 57), THENCE SOUTHERLY BOUNDING EASTERLY ON SAID DORIS LANE 183.382' TO A CORNER; THENCE TURNING AN INTERIOR ANGLE OF 78° 33' 45" AND RUNNING NORTHEASTERLY 829.104' TO A POINT; THENCE TURNING AN INTERIOR ANGLE OF 184° 44' 49" AND RUNNING WESTERLY 300 FEET, BOUNDING SOUTHERLY ON LAND NOW OR FORMERLY OF THE TENNIS CENTER, INC. TO A POINT; THENCE TURNING AN INTERIOR ANGLE OF 171° 14' 50" AND RUNNING NORTHWESTERLY 118.632' FEET TO A POINT; THENCE TURNING AN INTERIOR ANGLE 143° 48' 21" AND RUNNING NORTHWESTERLY 82.160' FEET TO A POINT, WHICH POINT IS THE SOUTHWESTERLY CORNER OF OTHER LAND NOW OR LATELY OF BARBARA A. DALLESSANDRO THENCE TURNING AN INTERIOR ANGLE OF 49° 38' 20" AND RUNNING EASTERLY 517.899' FEET TO A POINT, WHICH POINT IS THE SOUTHWESTERLY CORNER OF LAND NOW OR FORMERLY OF D. VIGLIOTTI AND THE SOUTHEASTERLY CORNER OF PARCEL A, NOW OR LATELY OF BARBARA A. DALLESSANDRO HEREBEFORE DESCRIBED, THENCE TURNING AN INTERIOR ANGLE OF 185° 00' 19" AND RUNNING EASTERLY 160 FEET TO DORIS LANE AND THE POINT AND PLACE OF BEGINNING.

SAID PARCELS ARE OTHERWISE DESCRIBED AS PARCEL A AND B OF THAT CERTAIN PLAN ENTITLED, "NORTHERN CONSULTING ASSOCIATES LTD. PROVIDENCE, RHODE ISLAND SURVEY OF LAND SITUATED-JOHNSTON, R.I. OWNED BY THE GLORIOUS GOSPEL CHURCH INC. A.P. 57, LOTS 208, PORTION OF 188" DATED 11-28-77.

O'REILLY AUTO PARTS

LOCATION OF SITE:
2750 HARTFORD AVE (ROUTE #6)
CITY OF JOHNSTON
PROVIDENCE COUNTY, RHODE ISLAND
MAP #57/3, LOT #208 & #287



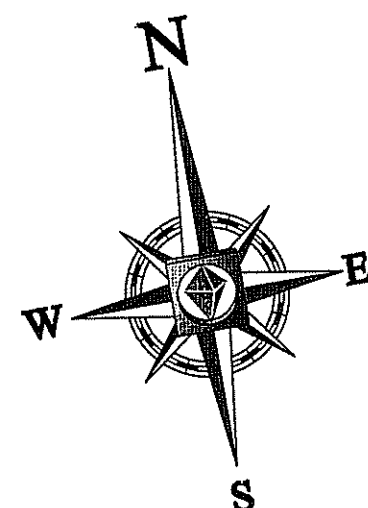
AREA PLAN

<i>SHEET TITLE</i>	<i>SHEET NUMBER</i>
COVER SHEET	CT1 OF 3
GENERAL NOTES SHEET	CT2 OF 3
200' RADIUS PLAN	CT3 OF 3
SITE GRADING AND DRAINAGE PLAN	C1 OF 7
SITE DEVELOPMENT PLAN	C2 OF 7
SITE DEVELOPMENT DETAILS	C3 OF 7
EROSION AND SEDIMENT CONTROL PLAN W/ DEMOLITION	C4 OF 7
EROSION AND SEDIMENT CONTROL DETAILS	C5 OF 7
SITE UTILITY PLAN	C6 OF 7
UTILITY DETAILS	C7 OF 7
LANDSCAPE PLAN	L1 OF 3
LANDSCAPE DETAILS	L2 OF 3
IRRIGATION COVERAGE PLAN	L3 OF 3

THIS PLAN IS TO BE INDEXED UNDER THE FOLLOWING STREETS:
HARTFORD AVE. (ROUTE 6)

REV 5 - 01/06/2016

131W131021DWG1W131021Of:as5 dwg, 51-Cover, 4 : 2010, 10:17:14 AM, mrdyden, XeroX510-1.pcs, Use:634, 1:1



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB. 01 2016 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



OWNER / APPLICANT:
JOHNSTON PARTNERS, LLC
C/O NEW ENGLAND RETAIL PROPERTIES, INC.
150 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06109

PROPERTY ID: LOTS 208 & 287 / PLAT 57/3
PROPERTY ADDRESS: 2750 HARTFORD AVENUE

REVISIONS			
REV	DATE	COMMENT	BY
1	8/24/15	REVS TO CONCRETE PAYING LIMITS	KBS
2	9/28/15	REVS PER DEM	KBS
3	10/09/15	ISSUE FOR ADMIN. REVIEW	CFD
4	12/01/15	REVISED PER TOWN COMMENTS	CFD
5	01/06/16	REVISED PER DEM	CFD
6			
7			
8			
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11			
12			
13			
14			
15			

PRELIMINARY

PROJECT No.:	W131021
DRAWN BY:	AWP /ACWB
CHECKED BY:	MBB
DATE:	06/22/2015
SCALE:	AS NOTED
CAD I.D.:	W131021ORSS5

PROJECT:
MAJOR LAND
DEVELOPMENT
FINAL PLAN
AMENDMENT
— FOR —

JOHNSTON
PARTNERS, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

 **BOHLER**
ENGINEERING

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772

Phone: (508) 480-9900
Fax: (508) 480-9080

www.BohlerEngineering.com

MATTHEW D. SMITH
M.D. SMITH
 No. *Matthew D. Smith* 8145
 PROFESSIONAL ENGINEER
 RHODE ISLAND STATE No. 8145
 REGISTERED
 PROFESSIONAL ENGINEER
 CIVIL

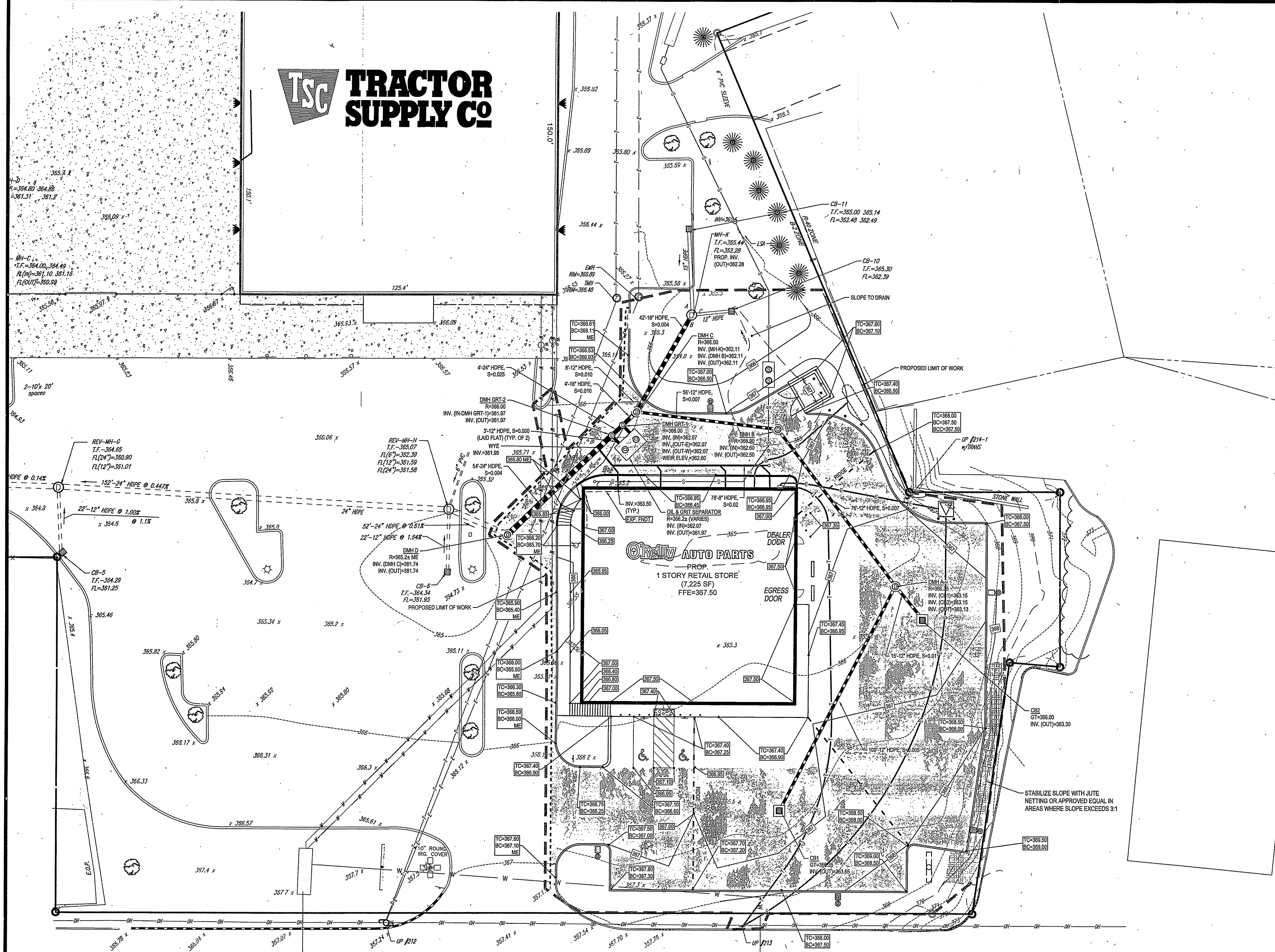
SHEET TITLE:

200'
RADIUS
PLAN

SHEET NUMBER:

CT3

REV 5 - 01/06/2016



HARTFORD AVENUE

(A.K.A. ROUTE 6)
(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLATE No. 305)

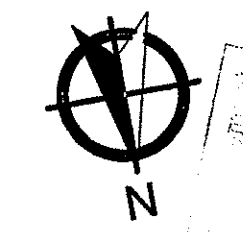
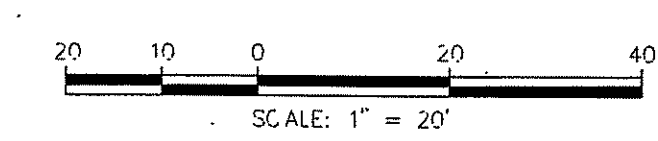
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED Feb 01 2016 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

REFER TO GENERAL NOTES SHEET
FOR GRADING & UTILITY NOTES

THIS PLAN TO BE UTILIZED FOR SITE
GRADING PURPOSES ONLY

1 SITE GRADING PLAN

C1 SCALE: 1" = 20'



OWNER/APPLICANT:
JOHNSTON PARTNERS, LLC
C/O NEW ENGLAND RETAIL PROPERTIES, INC.
150 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06109
PROPERTY ID: LOTS 228 & 287 / PLAT 570
PROPERTY ADDRESS: 2750 HARTFORD AVENUE

BOHLER
ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING

LAND SURVEYING
SUSTAINABLE DESIGN
PROGRAM MANAGEMENT
PERMITTING SERVICES

LANDSCAPE ARCHITECTURE
TRANSPORTATION SERVICES

NEW YORK
NEW JERSEY
NEW HAMPSHIRE
MASSACHUSETTS
CONNECTICUT
VIRGINIA
NORTH CAROLINA
SOUTH CAROLINA
FLORIDA

PHILADELPHIA
BALTIMORE
BOSTON
CHICAGO
DENVER
HOUSTON
LOS ANGELES
MINNEAPOLIS
SAN ANTONIO
SAN JOSE
WASHINGTON, DC

REVISIONS			
REV	DATE	COMMENT	BY
1	8/24/15	REVS TO CONCRETE PAVING LIMITS	KBS
2	9/28/15	REVS PER DEM	KBS
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6	01/21/16	REVISED PER DEM	KBS
7			
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PRELIMINARY

PROJECT No.: W131021

DRAWN BY: AWP

CHECKED BY: WMS

DATE: 08/22/2015

SCALE: AS NOTED

CAD ID: W131021ORSSS

PROJECT:

MAJOR LAND DEVELOPMENT
FINAL PLAN
AMENDMENT
FOR

JOHNSTON PARTNERS, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER
ENGINEERING

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

MATTHEW R. SMITH
PROFESSIONAL ENGINEER
RHODE ISLAND LICENSE No. 8145
REGISTERED PROFESSIONAL ENGINEER
CIVIL

SHEET TITLE:

SITE GRADING
AND DRAINAGE
PLAN

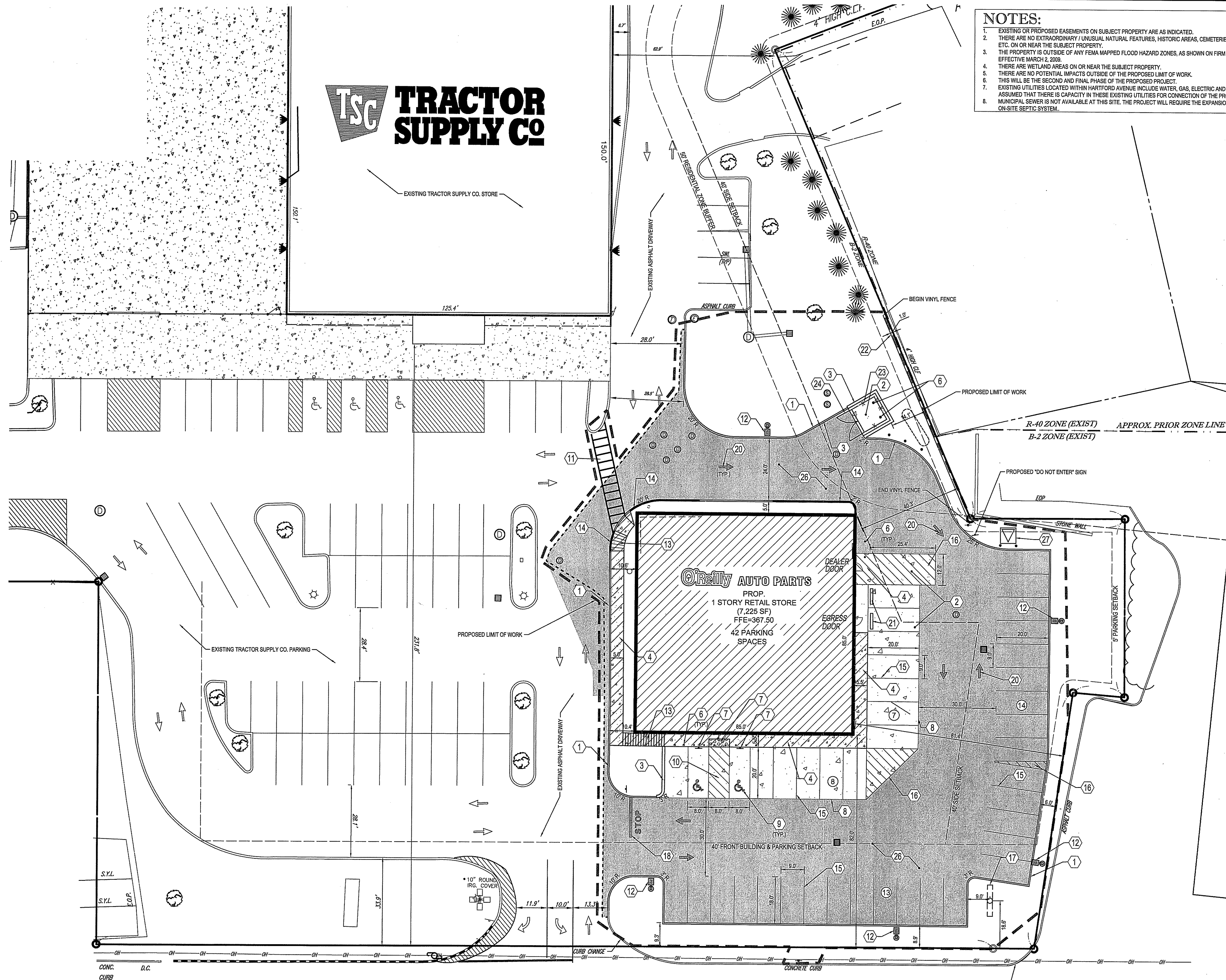
SHEET NUMBER:

C1

REV 6 - 01/21/2016

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Know what's below.
Call before you dig.



NOTES:

- EXISTING OR PROPOSED EASEMENTS ON SUBJECT PROPERTY ARE AS INDICATED.
- THERE ARE NO EXTRAORDINARY / UNUSUAL NATURAL FEATURES, HISTORIC AREAS, CEMETERIES, FOUNDATIONS, ETC. ON OR NEAR THE SUBJECT PROPERTY.
- THE PROPERTY IS OUTSIDE OF ANY FEMA MAPPED FLOOD HAZARD ZONES, AS SHOWN ON FIRM MAP #400700283 G, EFFECTIVE MARCH 2, 2009.
- THERE ARE WETLAND AREAS ON OR NEAR THE SUBJECT PROPERTY.
- THERE ARE NO POTENTIAL IMPACTS OUTSIDE OF THE PROPOSED LIMIT OF WORK.
- THIS WILL BE THE SECOND AND FINAL PHASE OF THE PROPOSED PROJECT.
- EXISTING UTILITIES LOCATED WITHIN HARTFORD AVENUE INCLUDE WATER, GAS, ELECTRIC AND TELEPHONE. IT IS ASSUMED THAT THERE IS CAPACITY IN THESE EXISTING UTILITIES FOR CONNECTION OF THE PROJECT.
- MUNICIPAL SEWER IS NOT AVAILABLE AT THIS SITE. THE PROJECT WILL REQUIRE THE EXPANSION OF THE EXISTING ON-SITE SEPTIC SYSTEM.

ZONING ANALYSIS TABLE

ZONING DISTRICT	GENERAL BUSINESS (B-2) ZONE	
	PROPOSED USE: RETAIL (AUTOMOBILE ACCESSORIES STORE), PERMITTED BY RIGHT	PROPOSED (B-2)
ZONE CRITERIA	REQUIRED	PROPOSED (B-2)
MINIMUM LOT AREA	NONE	6.6 AC. (NO CHANGE)
MIN. FRONT SETBACK	40'	82'
MIN. SIDE SETBACK	40'	40.3'
MIN. REAR SETBACK	40'	325' ± *
MAX. BUILDING HEIGHT	35'	<35'
MAX. BUILDING COVERAGE	40%	8.1% ±
TOTAL SITE IMPERVIOUSNESS	NOT SPECIFIED	47.1%
LANDSCAPED BUFFER TO R-40 ZONE	5'	>5'
STRUCTURE BUFFER TO R-40 ZONE	50'	43.8' (W) *
PARKING BUFFER TO R-40 ZONE	50'	45.7' (W) *
PARKING LOT LANDSCAPING	10 SF PER SPACE (420 SF)	1,108 SF *
STREET TREES	1 PER 35 LF (4 REQ'D)	0 (W) (1)
FRONT PARKING SETBACK	40'	8.8' (W) *
PARKING SPACES	22 MIN., 29 MAX.	42 (W) *
PARKING CRITERIA	RETAIL USE: 3 SPACES PER 1,000 SF OF GROSS LEASEABLE AREA: 7,225 / 1,000 x 3 = 21.7 OR 22 SPACES REQUIRED 4.0 SPACES / 1,000 SF BUILDING AREA MAXIMUM	

* RELATES ONLY TO THE PROPOSED O'REILLY AUTO PARTS STORE

NOTES:

(W) WAIVER / VARIANCE MAY BE REQUIRED

(1) VARIANCE REQUESTED SIMILAR TO THE VARIANCE GRANTED FOR THE TRACTOR SUPPLY CO. 28R FILE 2013-37, DATED JANUARY 14, 2014, GRANTING RELIEF FOR THIS REQUIREMENT PROVIDED THAT THE REQUIRED STREET TREES ARE INCORPORATED INTO THE INTERIOR LANDSCAPING.

LOT 28R AREA = 202,441 ± S.F. OR 4.647 ± AC.
LOT 28T AREA = 87,100 ± S.F. OR 2.000 ± AC.
TOTAL AREA = 289,541 ± S.F. OR 6.647 ± AC.

WETLAND DELINEATION FLAGS PLACED IN THE FIELD BY NATURAL RESOURCES SERVICES, INC. ON MARCH 27, 2013 AND LOCATED BY CONTROL POINT ASSOCIATES, INC.

SYMBOLS LEGEND

REFER TO SURVEY FOR EXISTING
CONDITION SYMBOLS LEGEND

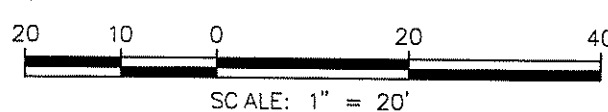
	NEW BUILDING CONSTRUCTION
	AREA OF CONCRETE
	AREA OF PAVING
	STANDARD DUTY CONCRETE SIDEWALK DISPLAY AREA. CROSS-HATCHING FOR ILLUSTRATIVE PURPOSES ONLY, NOT TO BE PAINTED
	NEW LIGHT POLE LOCATION
	NEW FENCE CONSTRUCTION

KEY NOTES:

- PRE-CAST CONCRETE CURB
REFER TO DETAIL 2C3.
- CONCRETE PAVING:
REFER TO DETAIL 1C3.
- CONCRETE CURB:
REFER TO DETAIL 3C3.
- CONCRETE SIDEWALK:
REFER TO DETAIL 4C3.
- CONCRETE DOOR LANDING:
REFER TO DETAIL 4C3 AND STRUCTURAL DETAILS. RAMP
PAVING AS INDICATED. LANDING CAN BE POURED
MONOLITHIC IF CONCRETE PAVING IS USED.
- STEEL BOLLARD:
REFER TO DETAIL 6C3. PROVIDE (2) AT TRASH PAD AND
OVERHEAD DOOR. PROVIDE (8) AT SIDEWALK. REFER TO
STRUCTURAL PLAN FOR LOCATION.
- ACCESSIBLE PARKING SIGN:
REFER TO DETAIL 7C3.
- EDGE OF CONC. PAVING
- ACCESSIBLE PARKING SYMBOL:
REFER TO DETAIL 9C3.
- ACCESSIBLE ACCESS UNLOADING ZONE:
SLOPE 2% MAX. EACH WAY (ADA COMPLIANT) AND STRIPE
AS SHOWN.
- CROSSWALK - REFER TO DETAIL 13C3.
- PARKING LOT LIGHTING:
BY OTHERS.
- PROPOSED RAMP - REFER TO DETAIL 11C3.
- ROLL DOWN CURB:
TERMINATE AND ROLL DOWN NEW CURB WHERE INDICATED.
ROLL DOWN AT 12.
- STRIPING:
PROVIDE 4" WIDE PARKING LOT STRIPING AS SHOWN. USE
HIGHWAY MARKING PAINT - YELLOW (2 COATS)
- PROPOSED STRIPED ISLAND - SYSL4" @ 45°, 2" O.C.
- SIGN LOCATION:
PROPOSED INTERNALLY ILLUMINATED 32 SF (15' HIGH) PYLON
SIGN.
- STOP SIGN AND STOP BAR:
REFER TO DETAIL 12C3.
- DETECTABLE WARNING PANEL
- PAINTED TRAFFIC ARROW. REFER TO DETAIL 10C3.
- CONCRETE BUMPER BLOCK:
8" x 8" x 6'-0" LONG CONCRETE. ANCHOR TO PAVING WITH (2)
1'-6" LONG #4 REBAR (TO SIT LEVEL WITH PAVING). REFER TO
DETAIL 15C3.
- 6' HIGH VINYL FENCE:
REFER TO DETAIL 16C3.
- SCREEN FENCE:
REFER TO DETAIL 9C3.
- SCREEN FENCE GATES:
REFER TO DETAIL 8C3.
- DO NOT ENTER SIGN AND DO NOT ENTER BAR:
REFER TO DETAIL 13C3.
- ASPHALT PAVING:
REFER TO DETAIL 14C3.
- PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

1 SITE DEVELOPMENT PLAN

C2 SCALE: 1" = 20'



OWNER / APPLICANT:
JOHNSTON PARTNERS, LLC
C/O NEW ENGLAND RETAIL PROPERTIES, INC.
150 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06109
PROPERTY ID: LOTS 208 & 287 / PLAT 573
PROPERTY ADDRESS: 2750 HARTFORD AVENUE

THIS PLAN TO BE UTILIZED FOR SITE
LAYOUT PURPOSES ONLY

**TSC TRACTOR
SUPPLY CO.**

EXISTING TRACTOR SUPPLY CO. STORE

HARTFORD AVENUE

(A.K.A. ROUTE 6)

(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLATE No. 305)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Matthew D. Smith



Know what's below.
Call before you dig.

BOHLER ENGINEERING

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

• PHILADELPHIA, PA
• PITTSBURGH, PA
• RALEIGH, NC
• TAMPA, FL
• WASHINGTON, DC
• NEW YORK, NY
• SOUTH FLORIDA
• SOUTH CAROLINA
• VIRGINIA

REVISIONS			
REV	DATE	COMMENT	BY
1	8/24/15	REVS TO CONCRETE PAVING LIMITS	KBS
2	9/28/15	REVS PER DEM	KBS
3	10/09/15	ISSUE FOR ADMIN. REVIEW	CFD
4	12/01/15	REVISED PER TOWN COMMENTS	CFD
5	01/08/16	REVISED PER DEM	CFD
6			
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PRELIMINARY

PROJECT No.: W131021
DRAWN BY: AWP
CHECKED BY: MDS
DATE: 08/22/2015
SCALE: AS NOTED
CAD ID: W131021ORSS5

PROJECT:
**MAJOR LAND DEVELOPMENT
FINAL PLAN
AMENDMENT
FOR**

JOHNSTON PARTNERS, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING

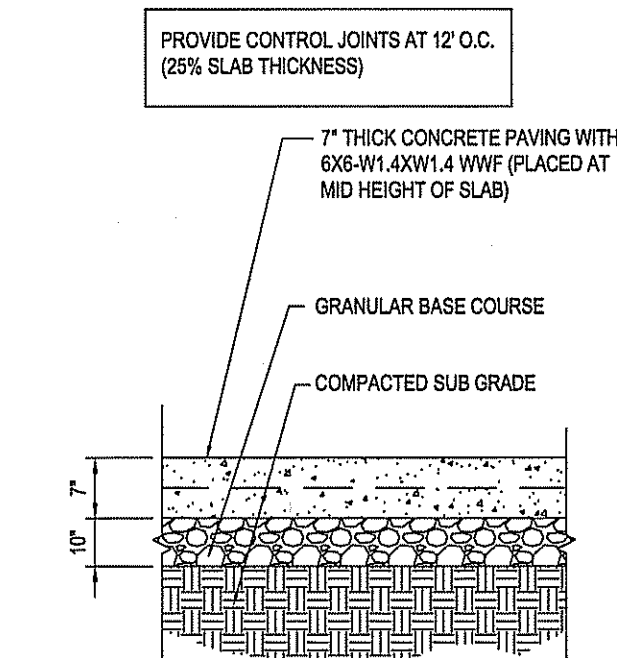
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

M.D. SMITH
1145
REGISTERED PROFESSIONAL ENGINEER
CIVIL

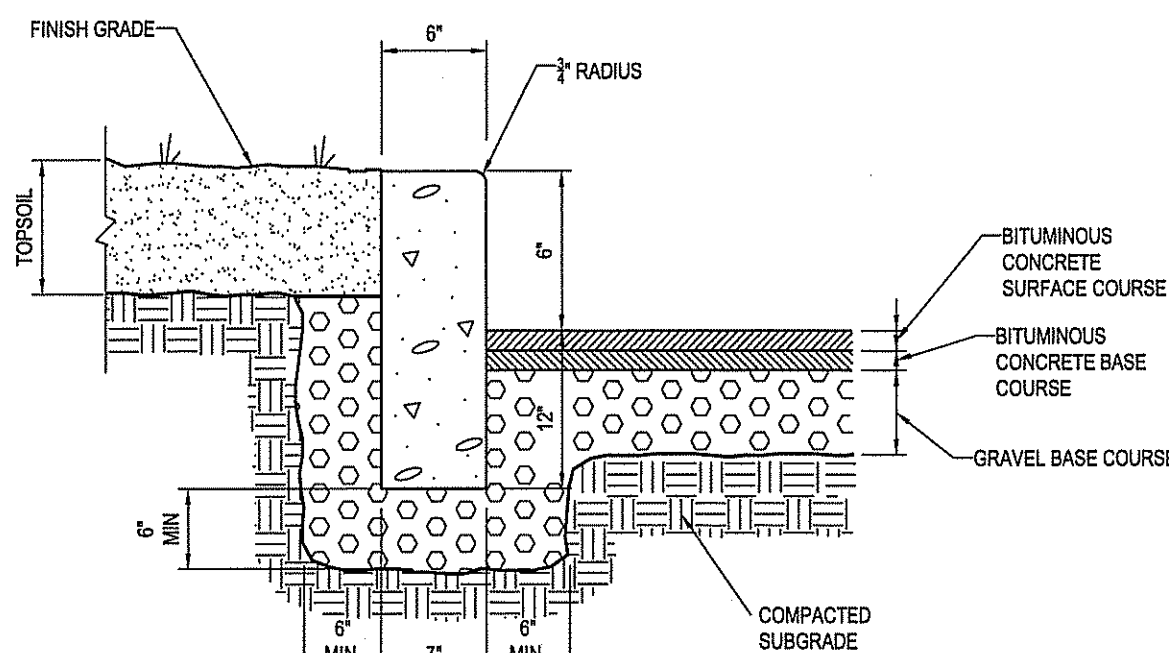
SHEET TITLE:
SITE DEVELOPMENT PLAN

SHEET NUMBER:
C2

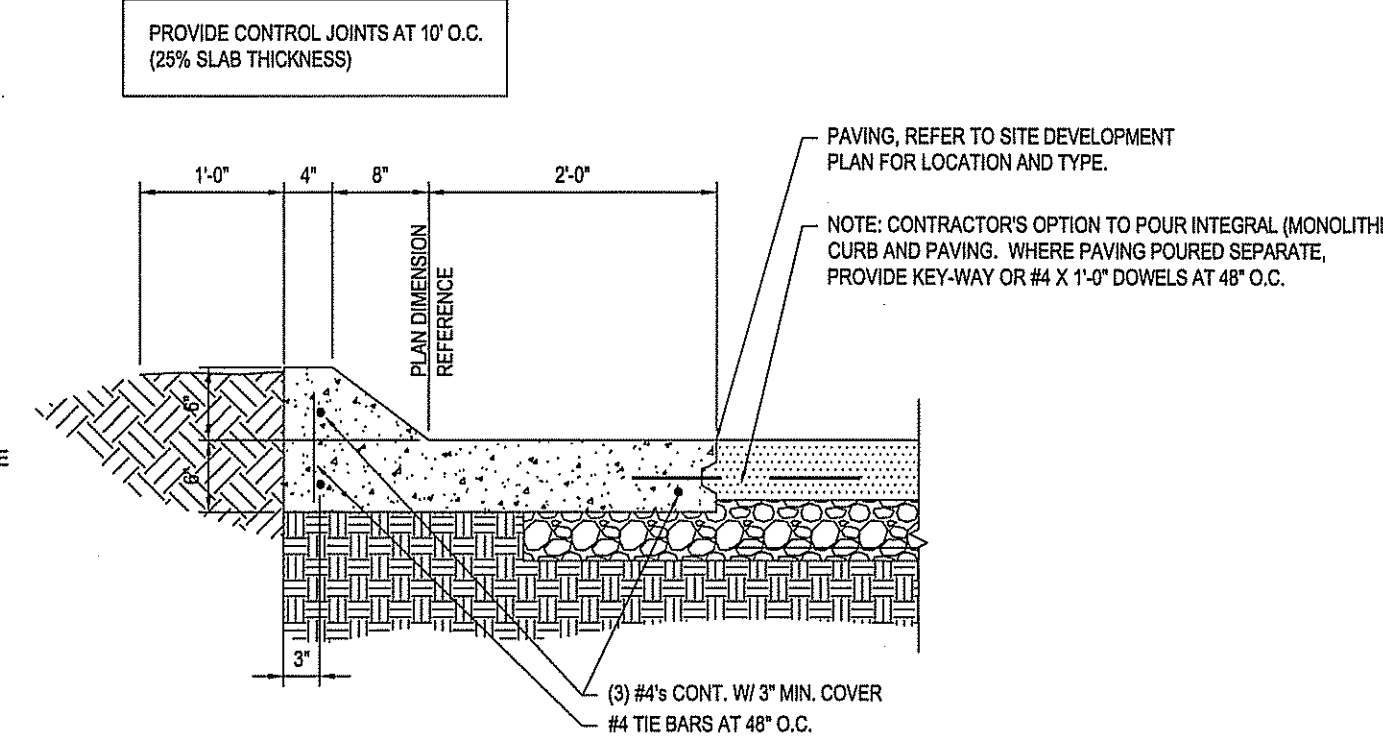
REV 5 - 01/05/2016



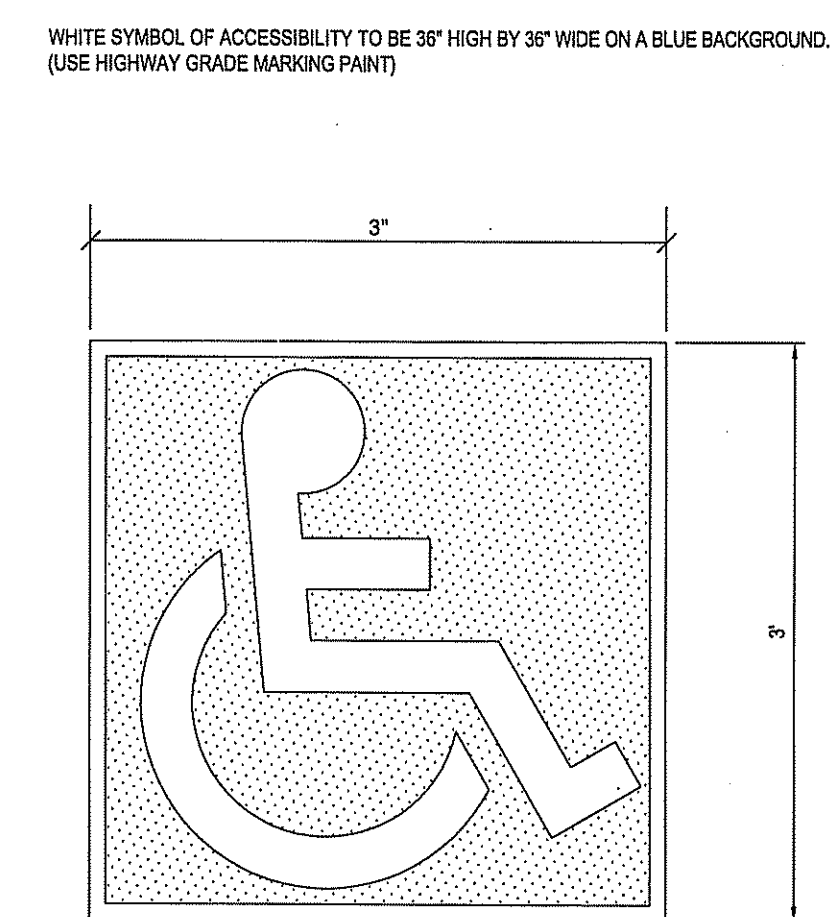
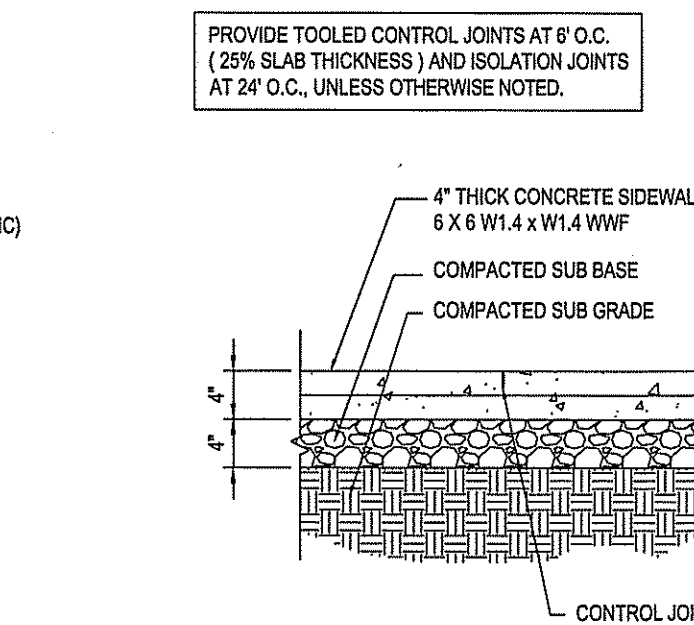
1 CONCRETE PAVING SECTION
C3 SCALE: N.T.S.



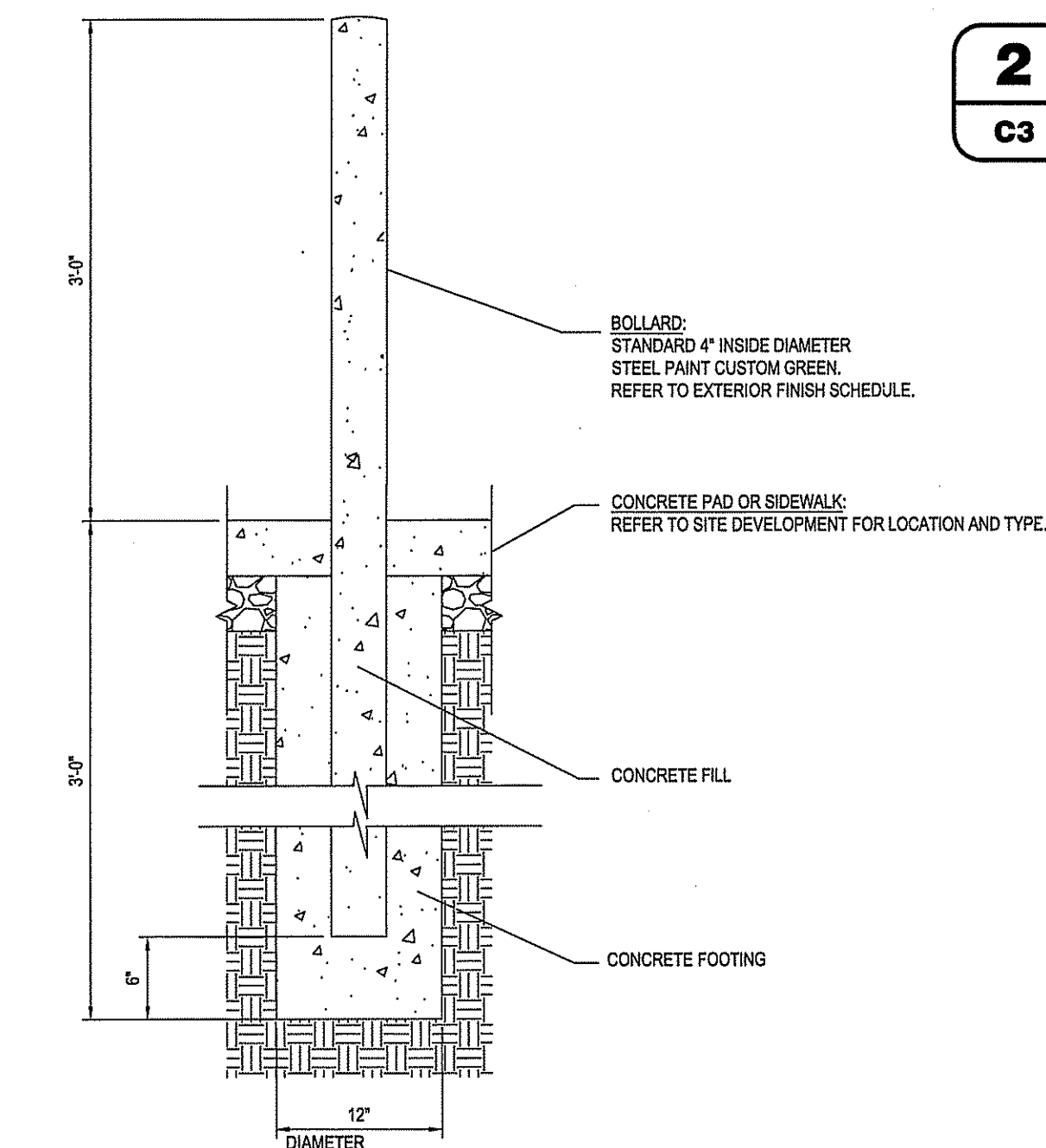
3 CONCRETE CURB SECTION
C3 SCALE: N.T.S.



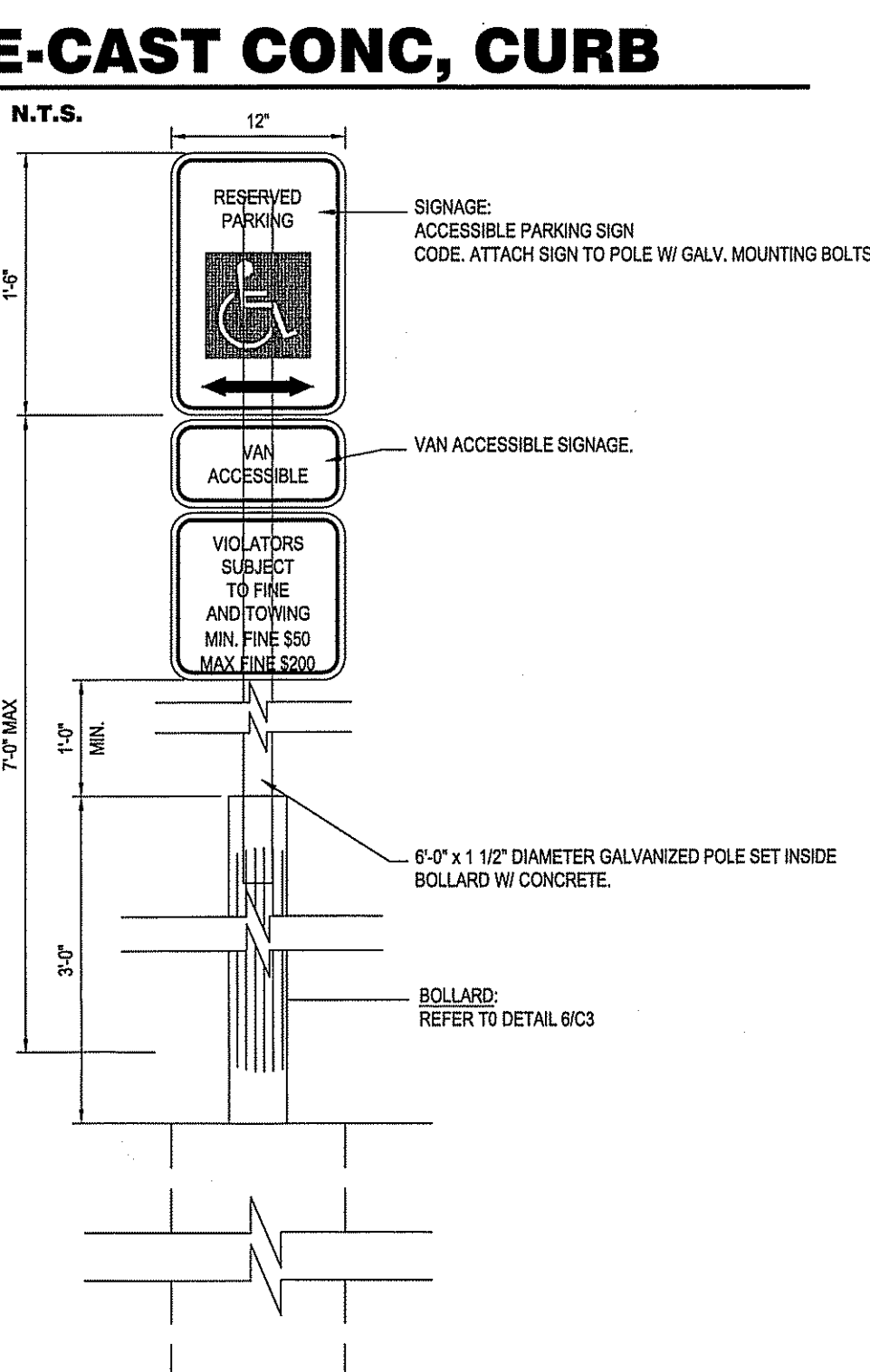
4 CONCRETE SIDEWALK SECTION
C3 SCALE: N.T.S.



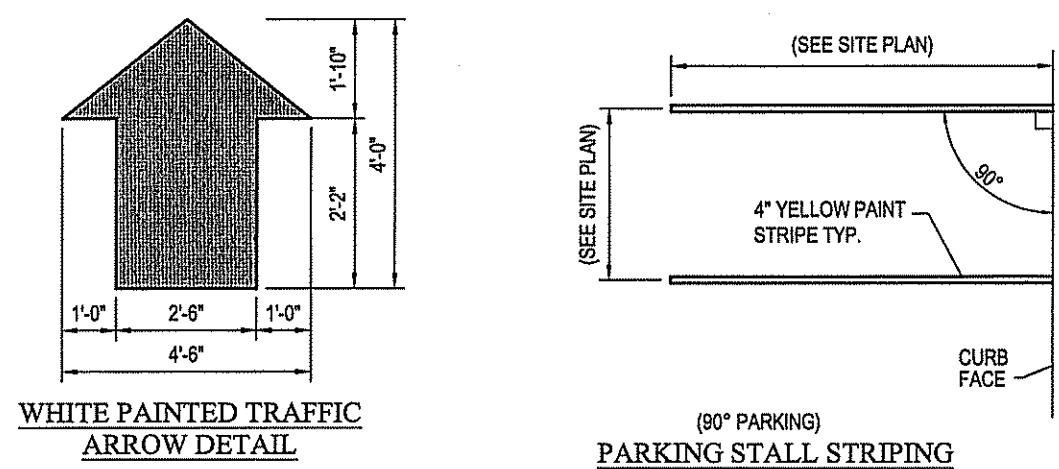
5 ACCESSIBLE PARKING SYMBOL
C3 SCALE: N.T.S.



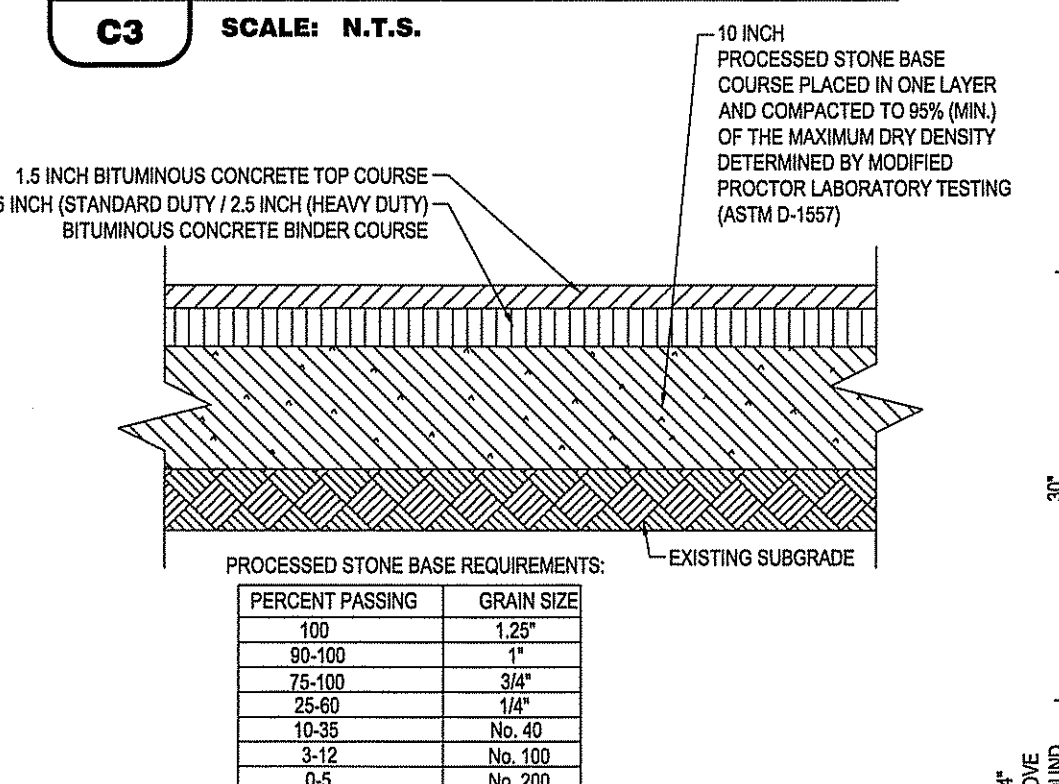
6 STEEL BOLLARD SECTION
C3 SCALE: N.T.S.



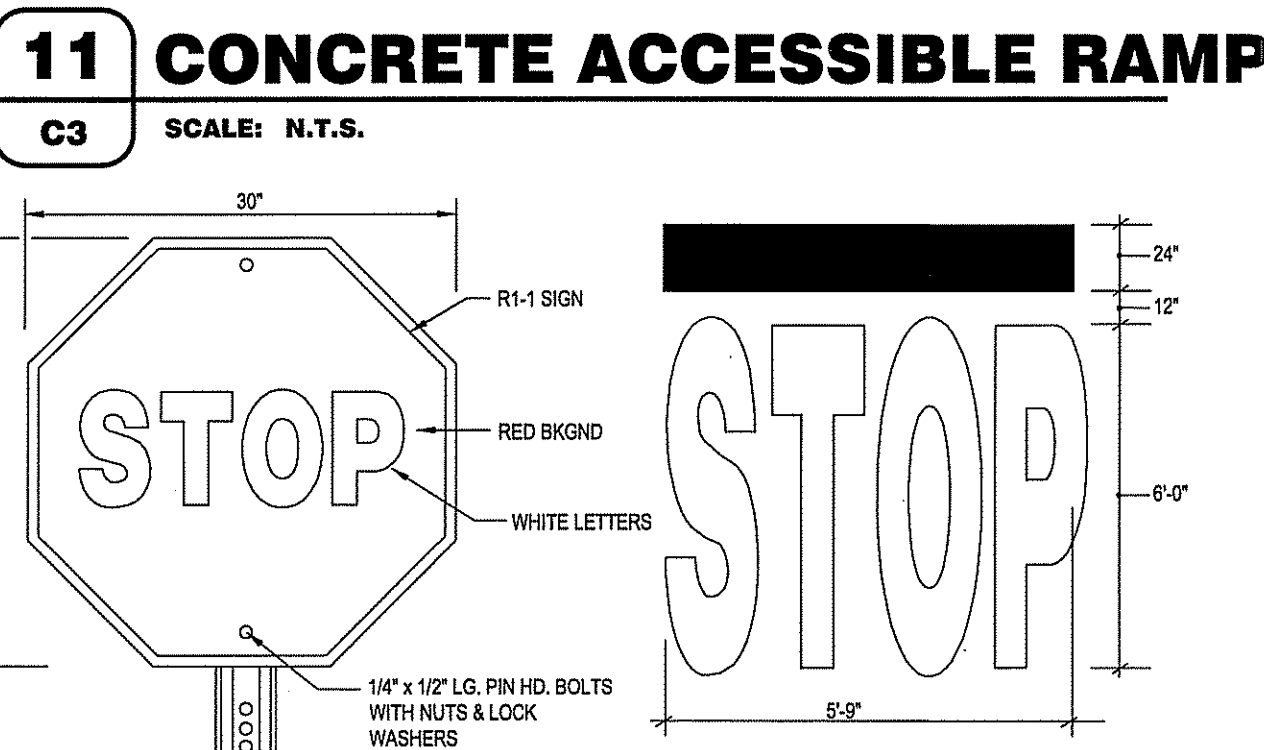
7 ACCESSIBLE PARKING SIGN
C3 SCALE: N.T.S.



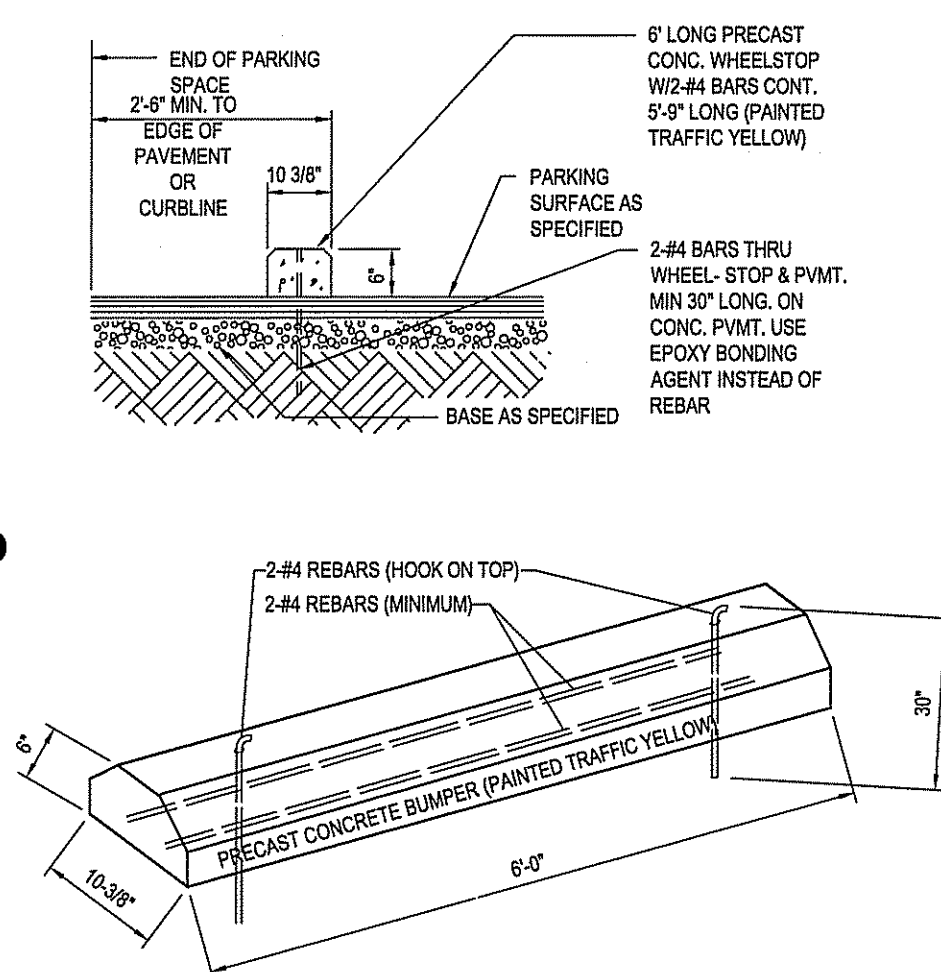
10 STRIPING DETAILS
C3 SCALE: N.T.S.



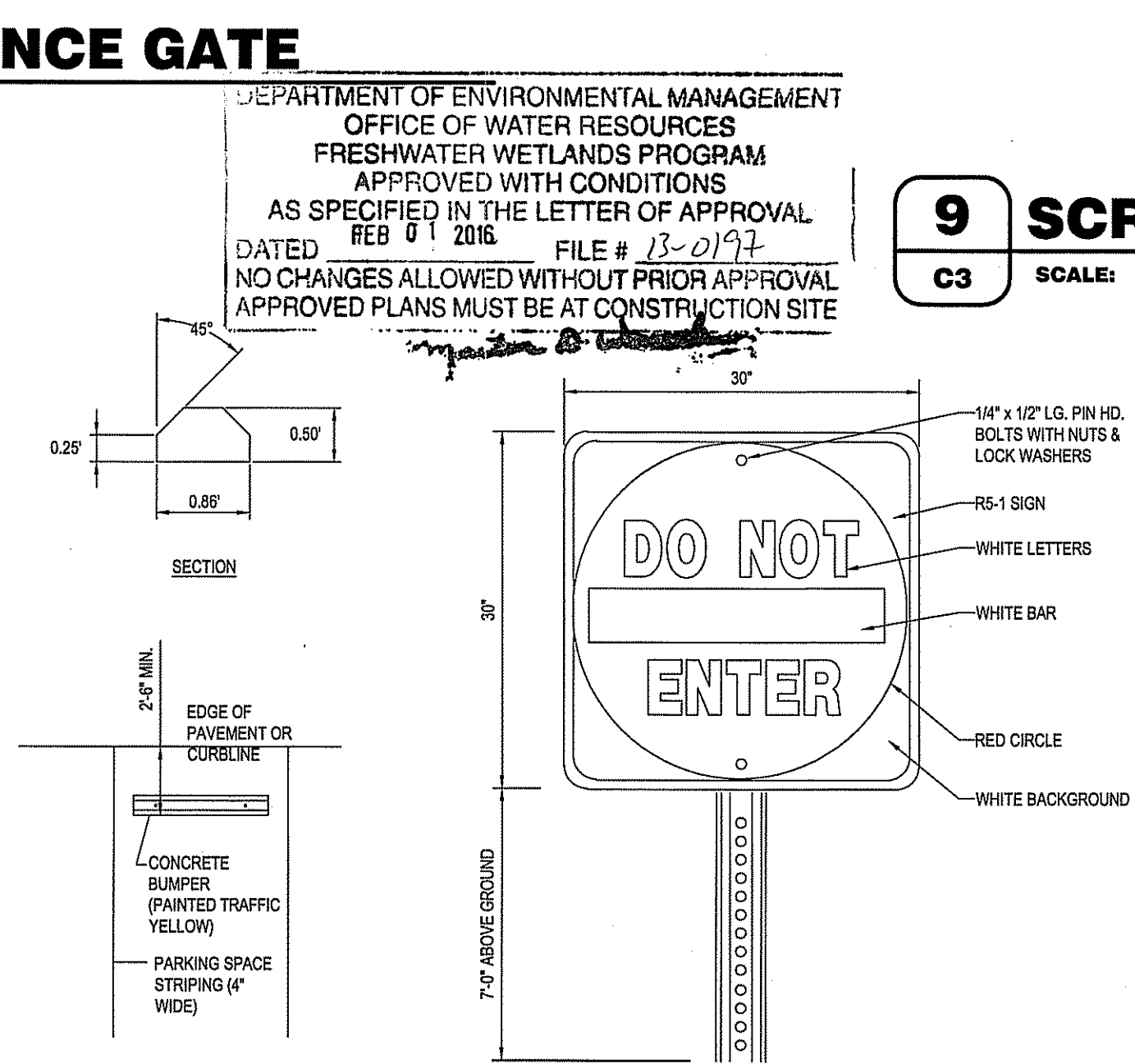
14 PAVING SECTION
C3 SCALE: N.T.S.



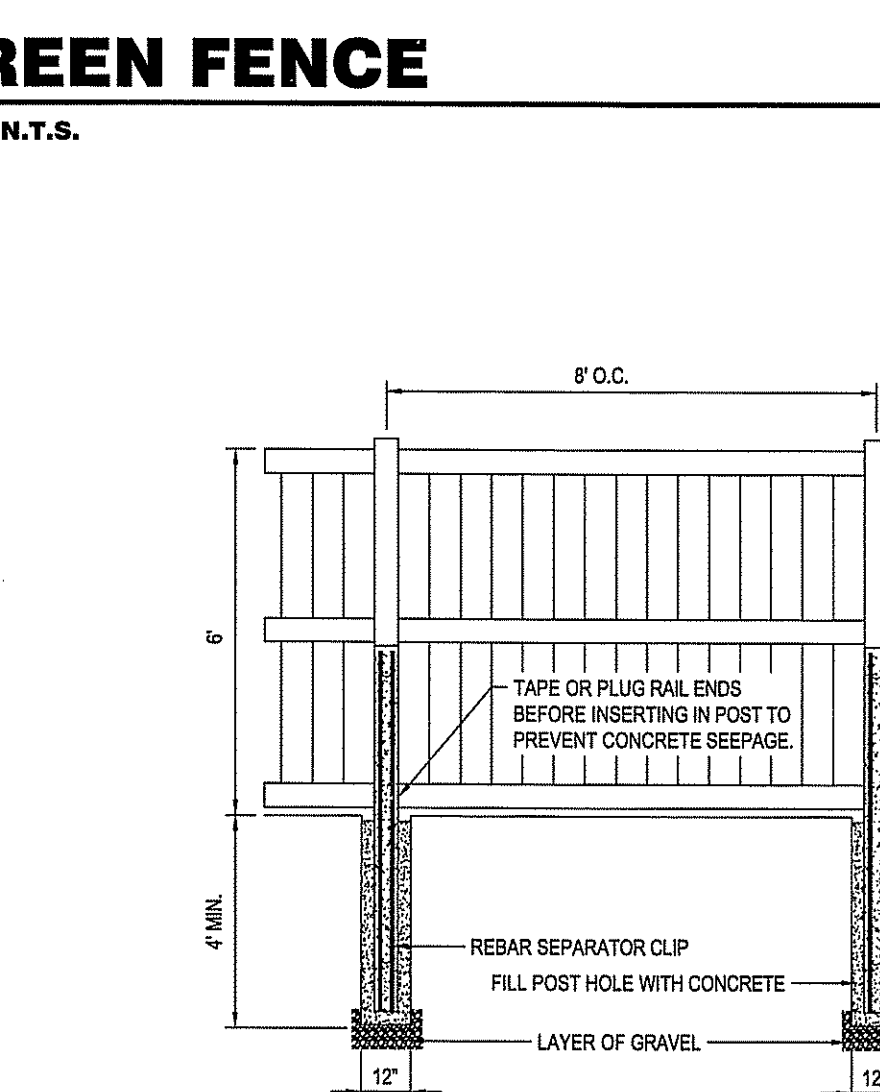
12 STOP SIGN AND STOP BAR
C3 SCALE: N.T.S.



15 CONCRETE WHEEL STOP
C3 SCALE: N.T.S.



13 DNE SIGN AND DNE BAR
C3 SCALE: N.T.S.



16 VINYL FENCE DETAIL
C3 SCALE: N.T.S.

BOHLER ENGINEERING

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

PHILADELPHIA, PA
BALTIMORE, MD
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FLORIDA

REVISIONS			
REV	DATE	COMMENT	BY
1	8/24/15	REVS TO CONCRETE PAVING LIMITS	KBS
2	9/28/15	REVS PER DEM	KBS
3	10/09/15	ISSUE FOR ADMIN. REVIEW	CFD
4	12/01/15	REVISED PER TOWN COMMENTS	CFD
5	01/06/16	REVISED PER DEM	CFD
6			
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PRELIMINARY

PROJECT No.: W131021
DRAWN BY: AWP
CHECKED BY: MDS
DATE: 06/22/2015
SCALE: AS NOTED
CAD I.D.: W131021ORSS5

PROJECT: MAJOR LAND DEVELOPMENT FINAL PLAN AMENDMENT FOR JOHNSTON PARTNERS, LLC

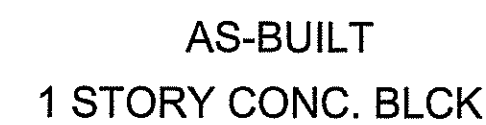
MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

M.D. SMITH
REGISTERED PROFESSIONAL ENGINEER
CIVIL

SHEET TITLE: SITE DEVELOPMENT DETAILS
SHEET NUMBER: C3
REV 5 - 01/06/2016



N/F JOHNSTON PARTNERS, LLC
BK. 2362, PG. 176
MAP 57/3, LOT 287

MAP 57/3, LOT 283
N/F LANDS OF ANA RAPOSO
BK. 2140, PG. 13

MAP 57/3, LOT 186
N/F LANDS OF MICHELE
TEDESCHI AND JOSEPH
& CHRISTINE BRITO
BK. 2084, PG. 211

MAP 57/3, LOT 300
N/F LANDS OF JPMRI, LLC
BK. 1991, PG. 296

MAP 57/3, LOT 300
N/F LANDS OF
JPMRI, LLC
BK. 1991, PG. 296

HARTFORD AVENUE

(A.K.A. ROUTE 6)
(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLATE No. 305)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
FEB 01 2018
DATED: FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THIS PLAN TO BE UTILIZED FOR SITE
SOIL AND EROSION CONTROL
PURPOSES ONLY

REFER TO SOIL EROSION CONTROL
NOTES & DETAIL SHEET FOR EROSION
NOTES AND DETAILS

1 EROSION AND SEDIMENT CONTROL PLAN W/ DEMOLITION

SCALE: 1" = 20'

20 10 0 20 40

SCALE: 1" = 20'

OWNER / APPLICANT:
JOHNSTON PARTNERS, LLC
C/O NEW ENGLAND RETAIL PROPERTIES, INC.
150 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06109

PROPERTY ID: LOTS 208 & 287 / PLAT 57/3
PROPERTY ADDRESS: 2750 HARTFORD AVENUE



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ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING

- LAND SURVEYING
- LAND SURVEYING
- UNDESIGNATED DESIGN

PERMITTING SERVICES

- PERMITTING SERVICES
- PERMITTING SERVICES
- PERMITTING SERVICES

LANDSCAPE ARCHITECTURE

- LANDSCAPE ARCHITECTURE
- LANDSCAPE ARCHITECTURE
- LANDSCAPE ARCHITECTURE

◆ UPRSTATE NEW YORK

◆ BOSTON, MA

◆ NEW YORK METRO

◆ NEW JERSEY

◆ PHILADELPHIA PA

◆ SOUTHEASTERN PA

◆ RENOIR BEACH, DE

◆ SOUTHERN MARYLAND

◆ NORTHERN VIRGINIA

◆ BALTIMORE, MD

◆ CHARLOTTE, NC

◆ SOUTH FLORIDA

THE INFORMATION LISTED HEREIN IS NOT INTENDED TO BE AN OFFER OF ANY FINANCIAL PRODUCT OR SERVICE. ANY INVESTMENT INVOLVES RISK. PLEASE CONSULT YOUR FINANCIAL ADVISOR.

REVISIONS			
REV	DATE	COMMENT	BY
1	9/24/16	REVS TO CONCRETE PAVING LIMITS	KE
2	9/28/16	REVS PER DEM	KE
3	10/09/16	ISSUE FOR ADMIN. REVIEW	CF
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5	01/06/16	REVISED PER DEM	CF
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15			

PRELIMINARY

PROJECT No.:	W131021ORSS
DRAWN BY:	AWW
CHECKED BY:	MD
DATE:	06/22/201
SCALE:	AS NOTED
CAD I.D.:	W131021ORSS

PROJECT:
MAJOR LAND
DEVELOPMENT
FINAL PLAN
AMENDMENT
FOR

JOHNSTON
PARTNERS, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND


BOHLER
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352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

SHEET TITLE: EROSION
& SEDIMENT
CONTROL PLAN
W/ DEMOLITION

BER:

REV 5 - 01/06/2016



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

EROSION & SEDIMENT CONTROL NOTES

- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
- THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).
- SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 6%.
- INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #5.
- ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).
- IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
- REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
 - SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 600 LB PER ACRE OR 18.1 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SF).
 - FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN QUALITY SOO MAY BE SUBSTITUTED FOR SEED.
 - STRAW MULCH AT THE RATE OF 70-80 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS WILL BE USED ON STRAW MULCH FOR WIND CONTROL.
- ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
- WETLANDS WILL BE PROTECTED WITH STRAW BALES AND/OR SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
- ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
- ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.

MULCH

LOCATION PROTECT AREA	MULCH STRAW	RATE (1000 SF) 100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED)	185-275 POUNDS 100 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCELSIOR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	

* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS SHALL BE USED ON straw MULCH FOR WIND CONTROL.

MULCH ANCHORING
ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERRATED STRAIGHT DISK. NETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

- WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
- WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
- EXPOSED AREA SHOULD BE LIMITED TO THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
- CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR siltw AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
- BETWEEN THE DATES OF OCTOBER 15 AND APRIL 15TH, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEED AT A RATE OF 200 - 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF siltw OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
- MULCHING REQUIREMENTS:
 - BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
 - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 6%.
 - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 15TH THE SAME APPLIES FOR ALL SLOPES GREATER THAN 6%.
- AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
- DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
- STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
- EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.

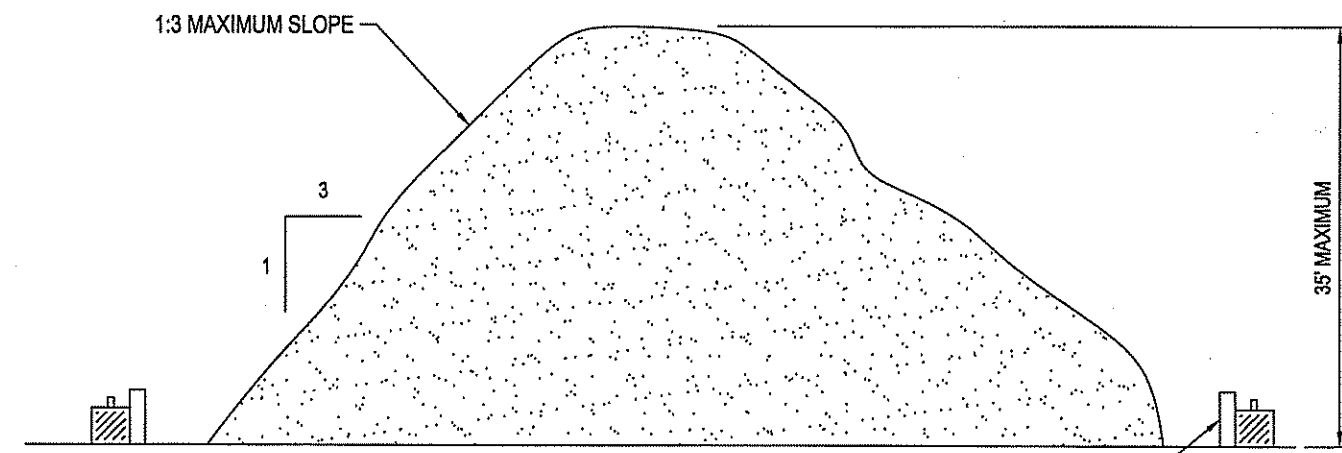
CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

- INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN)
- INSTALLATION OF EROSION CONTROL BARRIER (STRAW BALES AND SILT FENCE) (AS SHOWN)
- INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)
- DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)
- DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
- CLEARING AND GRUBBING
- INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS
- EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
- CONSTRUCTION OF UTILITIES
- STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
- INSTALLATION OF INLET PROTECTION ON ON-SITE UTILITIES (AS SHOWN)
- CONSTRUCTION OF BUILDINGS
- CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
- SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
- FINAL GRADING OF ALL SLOPED AREAS
- PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED REQUIRED.
- REMOVAL OF THE TEMPORARY SEDIMENT BASINS
- PAVE PARKING LOT
- LANDSCAPING PER LANDSCAPING PLAN
- REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER.

TREE PROTECTION DURING CONSTRUCTION

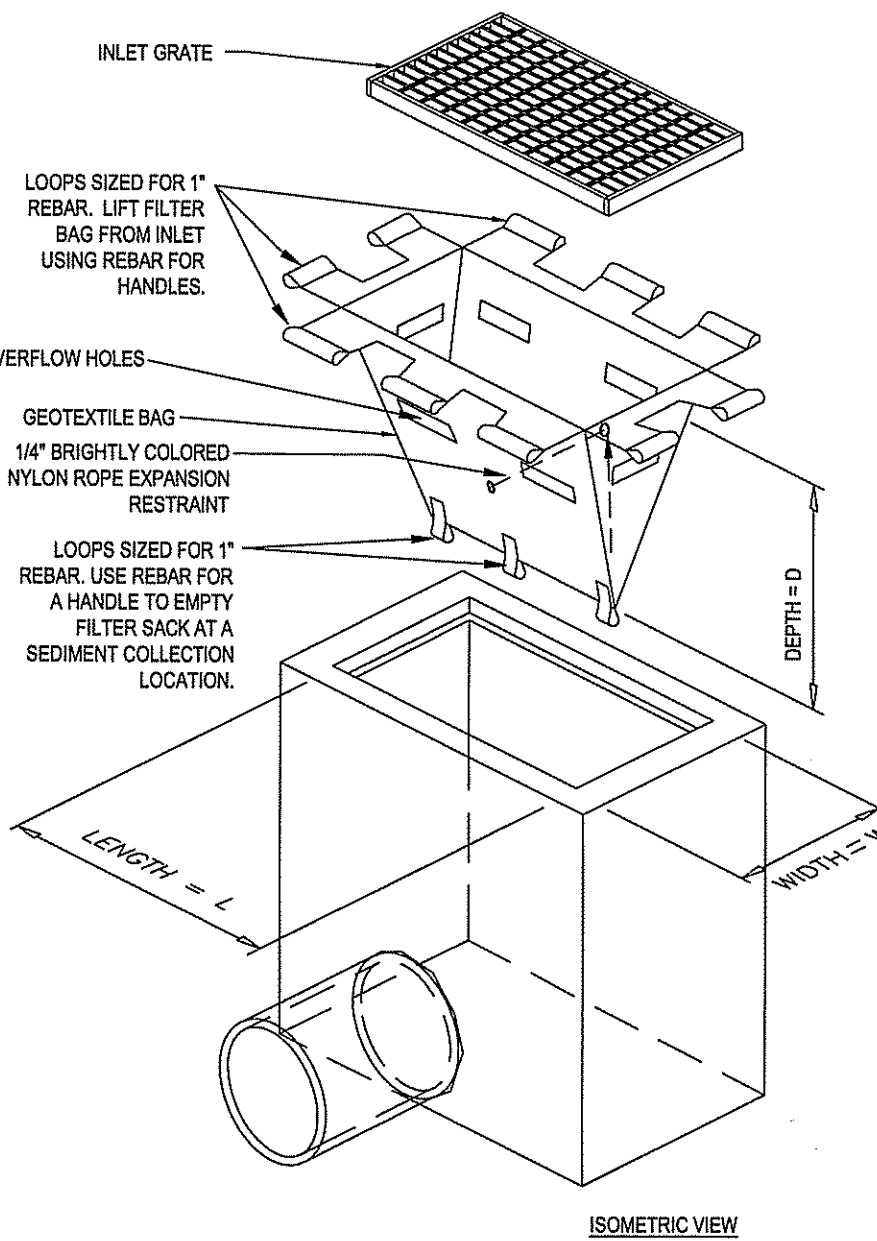
N.T.S.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 01 2016 FILE # 13-0194
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

TEMPORARY STOCKPILE DETAIL

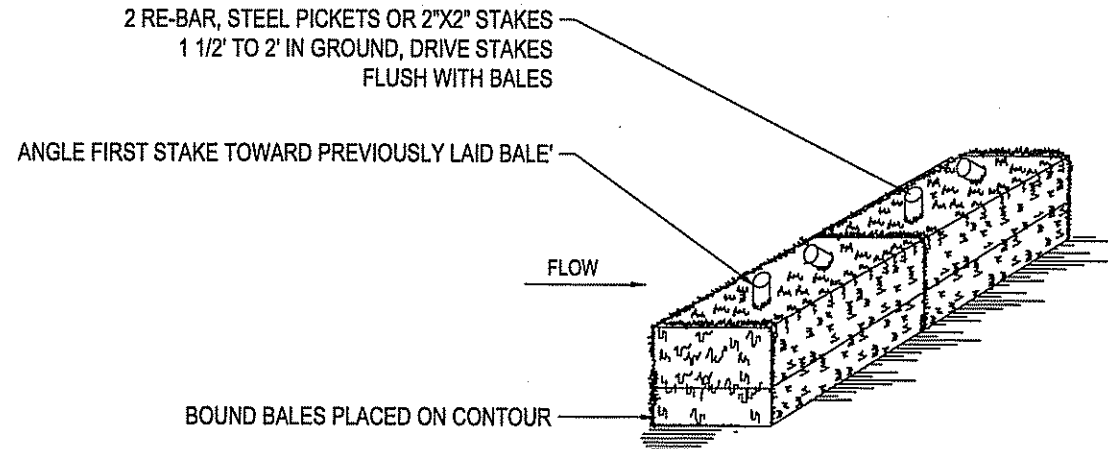
N.T.S.



- MAINTENANCE NOTES:
- INSPECT STABILIZED CONSTRUCTION ENTRANCE / ANTI-TRACKING PAD AND SEDIMENT DISPOSAL AREA WEEKLY OF AFTER EVERY MAJOR RAIN STORM EVENT.
 - WASH WATER (IF USED) SHALL BE DIRECTED TOWARD A SEDIMENT TRAP. SUFFICIENTLY SIZED FOR SPECIFIC SITE CONDITIONS.
 - EXCESSIVELY MUD-CLOGGED STONE SHALL BE REMOVED AND REPLACED, AS NEEDED.

STABILIZED CONSTRUCTION EXIT

N.T.S.



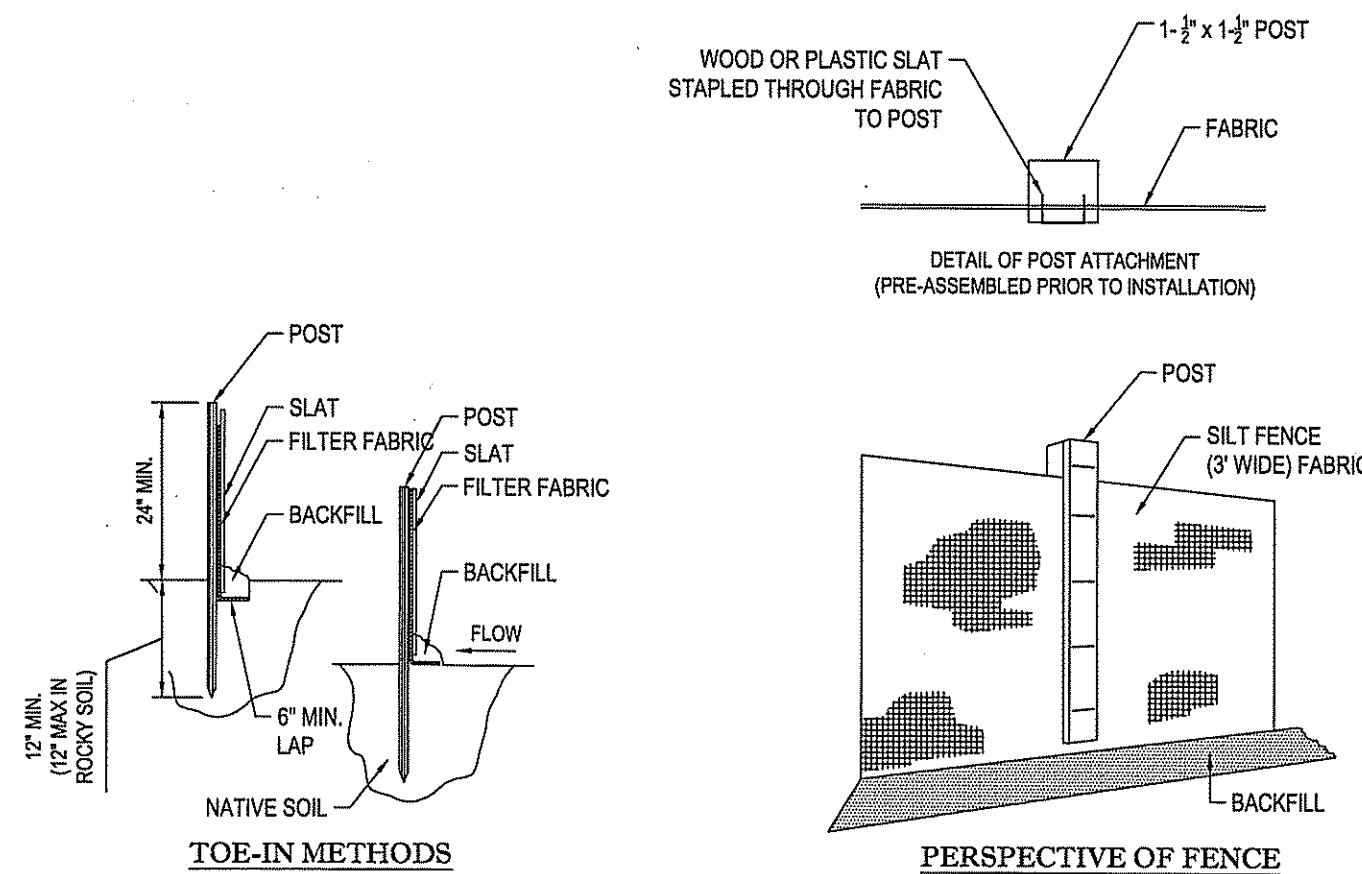
DRAINAGE AREA NO MORE THAN 1/4 AC. PER 100 FEET OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%

- NOTES:
- BALES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ADJUTING THE ADJACENT BALES.
 - EACH BALE SHALL BE PLACED SO THE BINDINGS ARE HORIZONTAL.
 - 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.
 - INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
 - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE DETAIL

N.T.S.

- INSTALLATION:
- EXCAVATE A 6\"/>



TEMPORARY STOCKPILE DETAIL

N.T.S.

TYP. SILTATION FENCE DETAIL

N.T.S.

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE			
PROPERTIES	TEST METHOD	UNITS	
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS	
GRAB TENSILE ELONGATION	ASTM D-4632	20 %	
PUNCTURE	ASTM D-4633	120 LBS	
MULLEN BURST	ASTM D-3786	800 PSI	
TRAPEZOID TEAR	ASTM D-4633	120 LBS	
UV RESISTANCE	ASTM D-4355	60 %	
APPARENT OPENING SIZE	ASTM D-4761	40 US SIEVE	
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ. FT	
PERMITTIVITY	ASTM D-4491	0.55 SEC-1	

MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE			
PROPERTIES	TEST METHOD	UNITS	
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS	
GRAB TENSILE ELONGATION	ASTM D-4632	20 %	
PUNCTURE	ASTM D-4633	135 LBS	
MULLEN BURST	ASTM D-3786	420 PSI	
TRAPEZOID TEAR	ASTM D-4633	45 LBS	
UV RESISTANCE	ASTM D-4355	20 %	
APPARENT OPENING SIZE	ASTM D-4761	20 US SIEVE	
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ. FT	
PERMITTIVITY	ASTM D-4491	1.5 SEC-1	

- REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN.
- GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
- PLACE AN OIL ADSORBENT PAD OR FLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.
- INSPECT PER REGULATORY REQUIREMENTS.
- THE WIDTH, "W", OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH OF THE GRATED INLET BOX.
- THE DEPTH, "D", OF THE FILTER SACK SHALL BE BETWEEN 18 INCHES AND 36 INCHES.
- THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.

DO NOT USE IN PAVED AREAS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

TO BE USED IN EXISTING RIGHT OF WAY

OWNER / APPLICANT:
JOHNSTON PARTNERS, LLC
C/O NEW ENGLAND RETAIL PROPERTIES, INC.
150 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06109
PROPERTY ID: LOTS 208 & 281 / PLAT 573
PROPERTY ADDRESS: 2750 HARTFORD AVENUE

N.T.S.



Know what's below.
Call before you dig.

BOHLER ENGINEERING

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

NEW YORK
NEW JERSEY
NEW HAMPSHIRE
MASSACHUSETTS
CONNECTICUT
RHODE ISLAND
VIRGINIA
NORTH CAROLINA
SOUTH CAROLINA
ALABAMA
MISSISSIPPI
LOUISIANA
ARKANSAS
OKLAHOMA
TEXAS
FLORIDA
GEORGIA
SOUTH FLORIDA

REVISIONS

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PRELIMINARY

PROJECT NO.: W131021
DRAWN BY: AWP
CHECKED BY: MDS
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SCALE: AS NOTED
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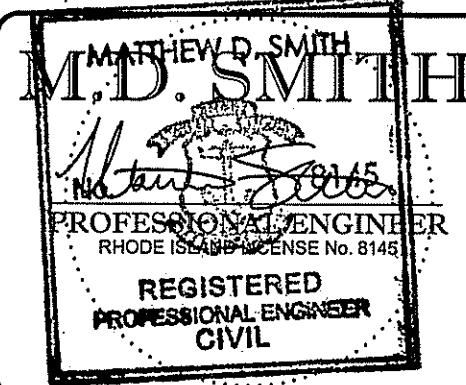
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JOHNSTON PARTNERS, LLC

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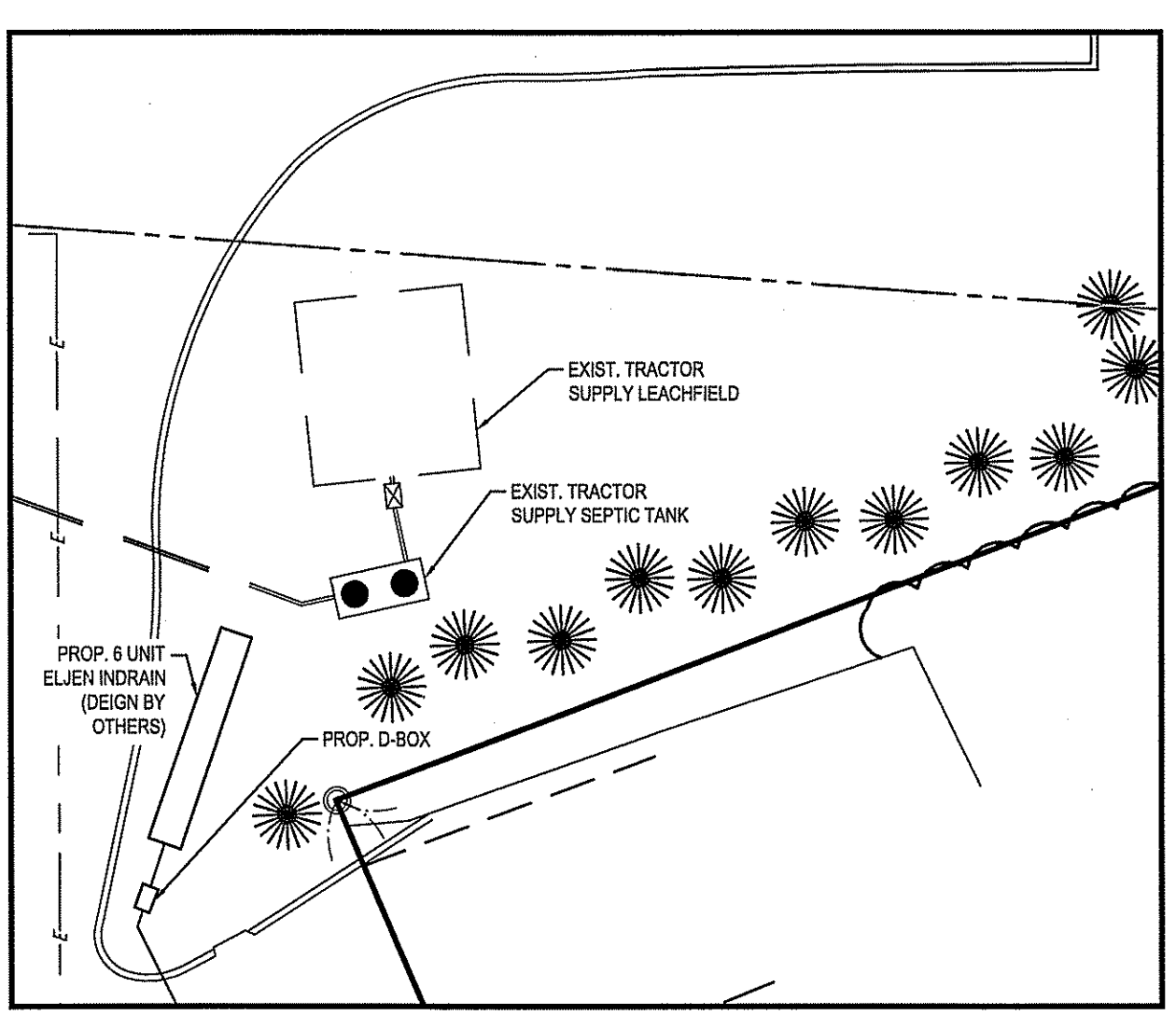
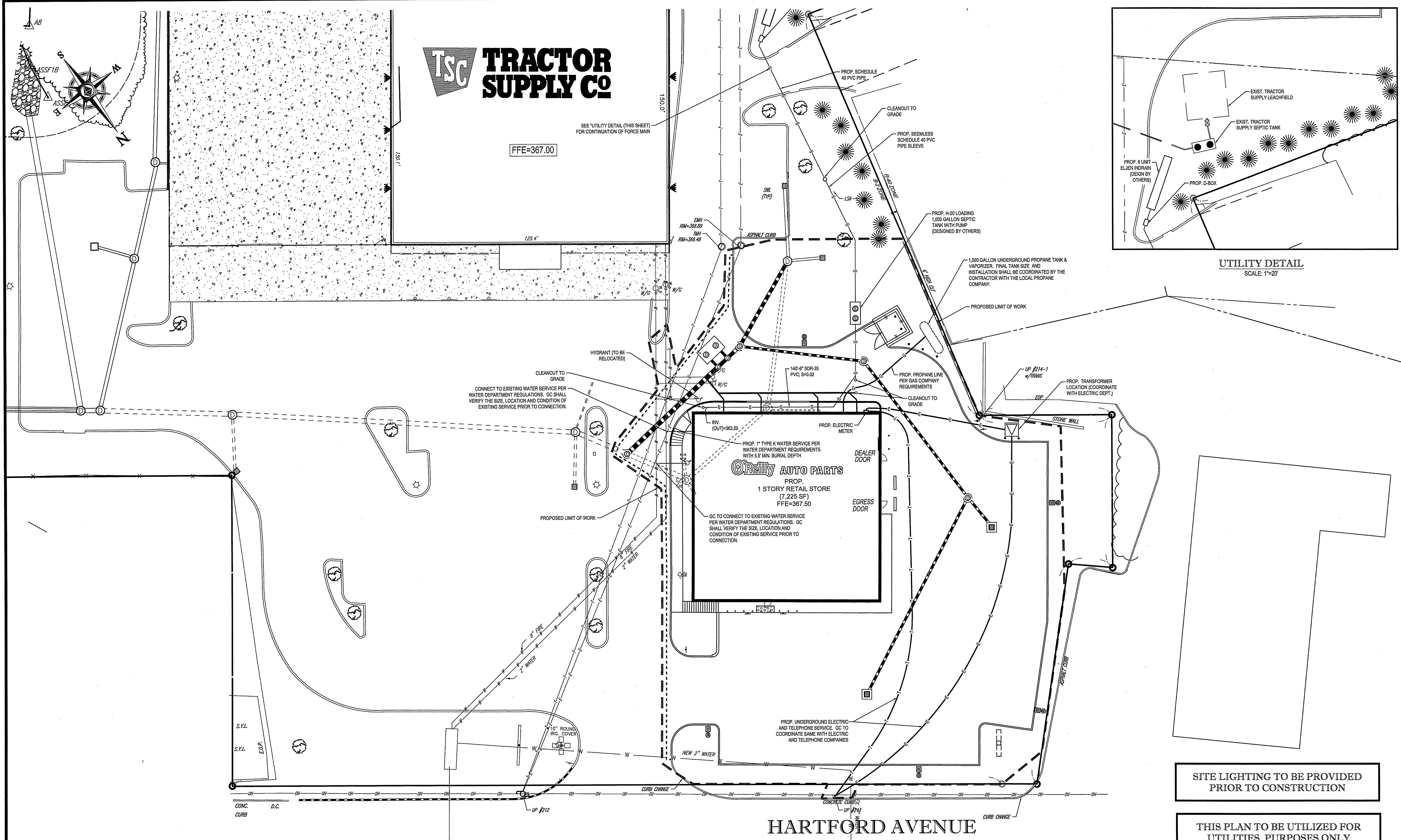
EROSION & SEDIMENT CONTROL DETAILS

SHEET NUMBER:

C5

REV 5 - 01/06/2016

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

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FAX: (508) 480-9900
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REGISTERED PROFESSIONAL ENGINEER
RHODE ISLAND LICENSE NO. 0161

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REVISIONS				
REV	DATE	COMMENT	BY	
1	8/24/15	REVS TO CONCRETE PAVING LIMITS	KBS	
2	9/28/15	REVS PER DEM	KBS	
3	10/09/15	ISSUE FOR ADMIN. REVIEW	CFD	
4	12/01/15	REVISED PER TOWN COMMENTS	CFD	
5	01/08/16	REVISED PER DEM	CFD	
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PRELIMINARY

PROJECT No.: W13102
DRAWN BY: AWP
CHECKED BY: MDS
DATE: 08/22/2015
SCALE: AS NOTED
CAD LD.: W1310210R6SS

MAJOR LAND DEVELOPMENT FINAL PLAN AMENDMENT FOR

JOHNSTON PARTNERS, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9900
www.BohlerEngineering.com

M.D. SMITH
REGISTERED PROFESSIONAL ENGINEER
RHODE ISLAND LICENSE NO. 0161

SHEET TITLE:
SITE UTILITY PLAN

SHEET NUMBER:
C6

REV 5 - 01/08/2016

811

Know what's below.
Call before you dig.

HARTFORD AVENUE
(A.K.A. ROUTE 6)
(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLATE No. 305)

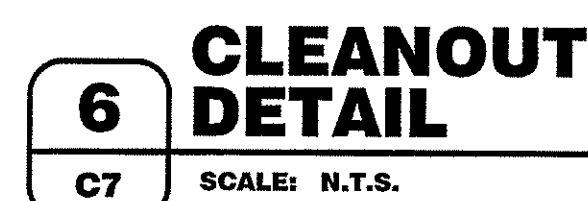
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 01 2016 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

1 SITE UTILITY PLAN
C6 SCALE: 1" = 20'

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SCALE: 1" = 20'

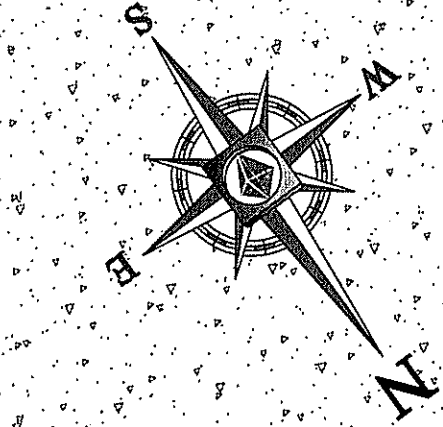
OWNER / APPLICANT:
JOHNSTON PARTNERS, LLC
C/O NEW ENGLAND RETAIL PROPERTIES, INC.
150 HARTFORD AVENUE
WETHERFIELD, CONNECTICUT 06199

PROPERTY ID: LOTS 208 & 287 / PLAT 573
PROPERTY ADDRESS: 2750 HARTFORD AVENUE



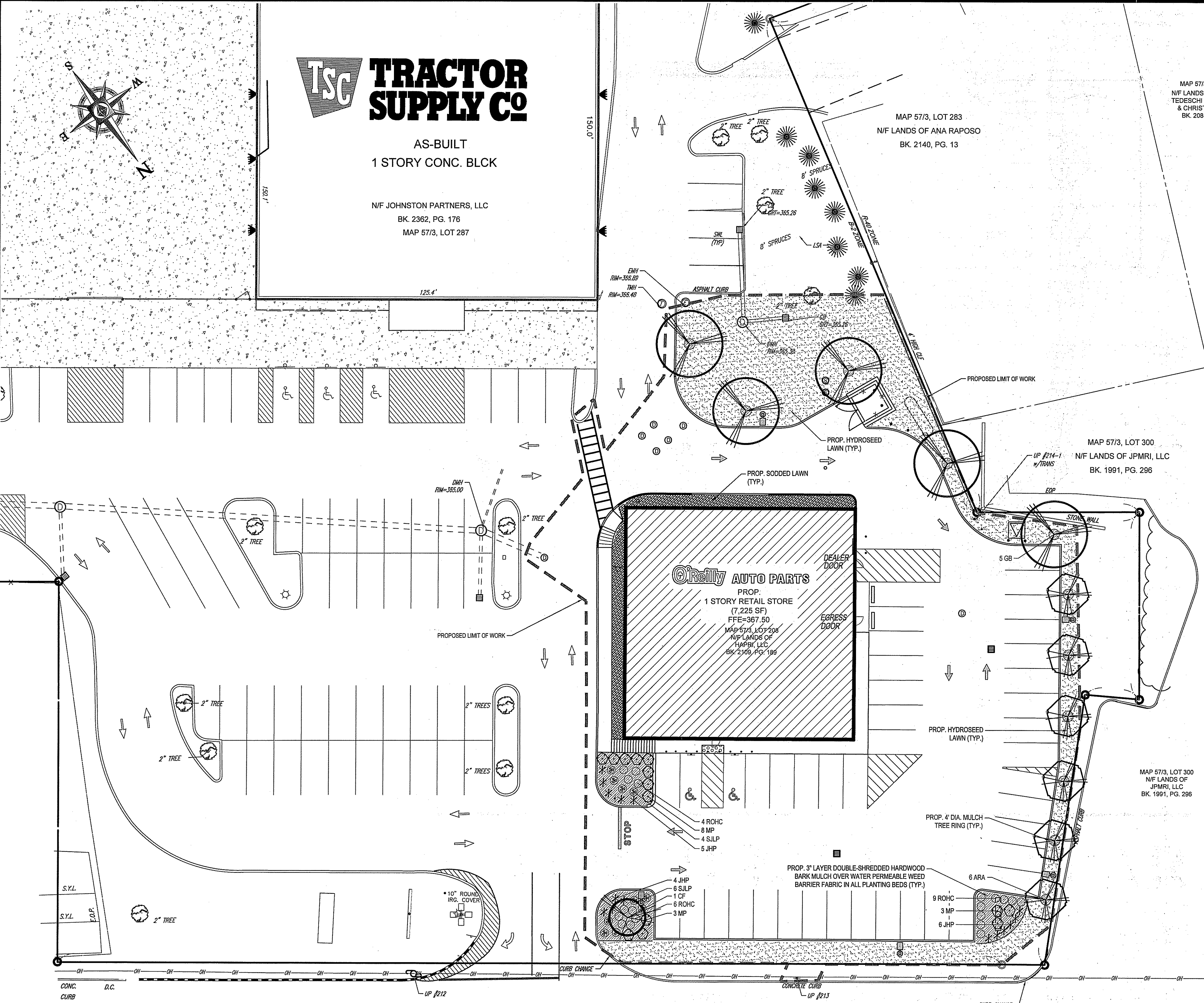
REV 6 - 01/21/2016

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AS-BUILT
1 STORY CONC. BLCK

N/F JOHNSTON PARTNERS, LLC
BK. 2362, PG. 176
MAP 57/3, LOT 287



HARTFORD AVENUE

(A.K.A. ROUTE 6)
(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLATE No. 305)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 10/1/2016 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Matthew D. Wernick

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE					
ARA	6	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMBIAN RED MAPLE	2 1/2-3" CAL.	B+B
GB	5	GINKGO BILOBA	MAIDENHAIR TREE-GINKO	2 1/2-3" CAL.	B+B
ORNAMENTAL TREE					
CF	1	CORNUS FLORIDA	WHITE FLOWERING DOGWOOD	2 1/2" CAL.	B+B
EVERGREEN SHRUB					
JHP	15	JUNIPERUS HORIZONTALIS PLUMOSA	ANDORRA JUNIPER	15-18" SPDR.	#3 CAN
ROCH	15	RHOCCENDRON X OBTUSUM 'HINO CRIMSON'	HINO CRIMSON AZALEA	18-24"	#3 CAN
DECIDUOUS SHRUB					
MB	14	MYRTICA PENSYLVANICA	NORTHERN BAYBERRY	30-35"	#3 CAN
SJLP	10	SPIREA JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS SPIREA	15-18"	#3 CAN
	24				

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

TOWN OF JOHNSTON LANDSCAPE REQUIREMENTS

SECTION OF BYLAW	DESCRIPTION	REQUIRED	PROPOSED
SECTION 340.27.2B	7.a ONE SHADE TREE SHALL BE PROVIDED PER 35' OF FRONTAGE. 155 LF/35' = 4.4 TREES	4.4 TREES	5 TREES*
	8.b(4) YEAR ROUND BUFFER HEIGHT OF AT LEAST 8' SHALL BE PRODUCED WITHIN THREE GROWING SEASONS.	8' HEIGHT	EXISTING TO REMAIN**
	9.b A MINIMUM OF 10 SQ. FT. OF PLANTING AREA FOR EACH PARKING SPACE SHALL BE PROVIDED WITHIN PARKING AREAS. 42 SPACES = 420 SQ. FT.	420 SQ. FT.	980 SQ. FT.
	9.c 20% OF INTERIOR OF PARKING AREA SHALL BE SHADED BY DECIDUOUS TREES. 14,725 SQ. FT. x 20% = 2,945 SQ. FT.	2,945 SQ. FT. (4.2 TREES AT 705.5 SF SHADE EACH)	4,945 SQ. FT. (7 TREES)

VALUES INDICATED IN COMPLIANCE TABLE ABOVE ARE RESTRICTED TO THE LIMIT OF WORK ASSOCIATED WITH THE PROPOSED O'REILLY AUTO PARTS STORE.

* VARIANCE REQUESTED SIMILAR TO THE VARIANCE GRANTED FOR THE TRACTOR SUPPLY CO. ZBR FILE 2013-37, DATED JANUARY 14, 2014, GRANTING RELIEF FOR THIS REQUIREMENT PROVIDED THAT THE REQUIRED STREET TREES ARE INCORPORATED INTO THE INTERIOR LANDSCAPING.
** EVERGREEN BUFFER PLANTINGS WERE INSTALLED PER TRACTOR SUPPLY CO. ZBR FILE 2013-37, DATED JANUARY 14, 2014.

GENERAL NOTES:

- REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- SITE CONDITIONS BASED UPON SURVEY PROVIDED BY OWNER/CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BY DETAILED INSPECTION PRIOR TO SUBMITTING BID AND BEGINNING CONSTRUCTION.
- REFER TO CIVIL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- ALL PLANTING TYPES SHALL COMPLY WITH LOCAL COVERING CODES AND REGULATIONS. CONFORM TO REQUIREMENTS OF PLANT LIST AND TO THE AMERICAN ASSOCIATION OF NURSEYMEN 'AMERICAN STANDARD OF NURSERY STOCK' AND 'HORTICULTURAL STANDARDS' AS TO SPECIES, AGE, SIZE, AND PLANTING RECOMMENDATIONS.
- NO MATERIAL SUBSTITUTIONS SHALL BE MADE WITHOUT THE ARCHITECT'S PRIOR WRITTEN APPROVAL. ALTERNATE MATERIALS OF SIMILAR SIZE AND CHARACTER MAY BE CONSIDERED IF SPECIFIED PLANT MATERIALS CANNOT BE OBTAINED.
- PLANT LOCATIONS ARE APPROXIMATE. ADJUST AS NECESSARY TO AVOID CONFLICTS.
- QUANTITIES OF MATERIALS SHOWN ON LANDSCAPING PLAN TAKE PRECEDENCE OVER QUANTITIES SHOWN ON PLANTING SCHEDULE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES ON LANDSCAPING PLAN.
- PROVIDE 4" TOPSOIL AT ALL SOO, SEED AND PLANTING AREAS. GRADE SHALL BE ADJUSTED FOR SOO THICKNESS. REFER TO CIVIL SITE GRADING PLAN FOR SLOPE REQUIREMENTS.
- WHEN CLAY SOIL IS ENCOUNTERED IN THE ESTABLISHMENT OF THE LAWN OR THE INSTALLATION OF PLANT MATERIAL IT SHALL BE IMPROVED IN ACCORDANCE WITH STANDARD TRADE PRACTICE.
- REESTABLISH TURF IN AREAS DISTURBED BY GRADING OR UTILITY TRENCHING IN THE RIGHT-OF-WAY.
- COORDINATE WORK WITH OTHER SITE RELATED DEVELOPMENT DRAWINGS.

LANDSCAPE SYMBOLS LEGEND

REFER TO SURVEY FOR EXISTING CONDITION SYMBOLS LEGEND

	AREA OF SHREDDED CYPRESS MULCH (COLOR TO BE APPROVED BY O'REILLY REPRESENTATIVE)
	AREA OF HYDROSEED
	AREA OF NEW SHRUB REFER TO PLANTING SCHEDULE FOR SIZE AND TYPE

OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNERS (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION PLANTS, TREES, 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 RIGHT 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.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVELED SURFACES) ALONG AND WITHIN THE RIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

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

THIS PLAN TO BE UTILIZED FOR
LANDSCAPE PURPOSES ONLY

1 LANDSCAPE PLAN

L1 SCALE: 1" = 20'

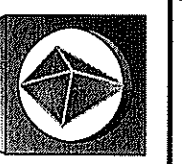
SCALE: 1" = 20'



OWNER / APPLICANT:
JOHNSTON PARTNERS, LLC
151 HARTFORD AVENUE
WETHERSFIELD, CONNECTICUT 06091

PROPERTY ID: LOTS 288 & 287 / PLAT 57/3
PROPERTY ADDRESS: 2750 HARTFORD AVENUE

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SITE CIVIL AND CONSULTING ENGINEERING
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REVISIONS

REV	DATE	COMMENT	BY
1	8/24/15	REVS TO CONCRETE PAVING LIMITS	KBS
2	9/28/15	REVS PER DEM	KBS
3	10/09/15	ISSUE FOR ADMIN. REVIEW	CFD
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5	01/08/16	REVISED PER DEM	CFD
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PRELIMINARY

PROJECT No.: W131021
DRAWN BY: AWP
CHECKED BY: MDS
DATE: 08/22/2015
SCALE: AS NOTED
CAD I.D.: W131021ORSS5

MAJOR LAND DEVELOPMENT FINAL PLAN AMENDMENT FOR

JOHNSTON PARTNERS, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND



352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9900
www.BohlerEngineering.com

M.J. MRVA

LANDSCAPE ARCHITECT
MASSACHUSETTS No. 1217
RHODE ISLAND No. 419

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

L1

REV 5 - 01/06/2016



Know what's below.
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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 STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
C. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDING OR SODDING IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN.
1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/FEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
D. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES/DETAILS.
E. FERTILIZER
1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER.
2. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
3. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.
F. PLANT MATERIAL
1. 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 NURSERMEN).
2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION DURING THE FINAL INSPECTION.
4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1", WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED.
5. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
6. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
7. 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.
8. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
9. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO 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.
C. SITE PREPARATIONS
1. 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 GENERAL WORK PROCEDURES OUTLINED HEREIN.
2. 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 BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND THE TPOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
3. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
4. 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 (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY VIS-FENCE, OR APPROVED EQUAL, MOUNTED ON 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.
5. SOIL MODIFICATIONS
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE 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, 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.
1. 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.
2. 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.
3. 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 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 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, 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 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 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 - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A]):
1. 20 POUNDS "GRO-POWER" OR APPROVED SOIL CONDITIONER/FERTILIZER
2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER
E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.
9. PLANTING
A. INsofar as 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:
I. PLANTS: MARCH 15 TO DECEMBER 15
II. 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 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 NOT RECOMMENDED THAT THESE SPECIES 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 STRYCIPLUA 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:
I. 1 PART PEAT MOSS
II. 1 PART COMPOSTED COW MANURE BY VOLUME
III. 3 PARTS TOPSOIL BY VOLUME
IV. 21 GRAMS "GRO-POWER" PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
A) 2 TABLETS PER 1 GALLON PLANT
B) 3 TABLETS PER 5 GALLON PLANT
C) 4 TABLETS PER 15 GALLON PLANT
D) LARGER PLANTS: 2 TABLETS PER 1/2" 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 1" 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, 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 TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.
11. WATERING
A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.
12. GUARANTEE
A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF EROSION OR BARE AREAS.
13. CLEANUP
A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
14. MAINTENANCE (ALTERNATIVE BID)
A. 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPE HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MAINTAINED TO THE APPROVAL OF THE OWNER/OPERATOR.
EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED.
C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
D. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
III. SOD PLACEMENT
A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
B. PLACE SOD STRIPS WITH SMUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS, AND CONTINUE IRRIGATION THROUGHOUT ENTIRE SEASON.
IV. TOP-DRESSING
IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOP-DRESSING IS NOT MANDATORY.
A. SPRING INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET BETWEEN MARCH 15 AND APRIL 1.
B. FALL INSTALLATION OF SOD WILL REQUIRE THE ABOVE BETWEEN SEPTEMBER 1 AND OCTOBER 15.

NOTES:
1.) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2.) REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3" FROM 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 PREFERRED TO TILL THE FIRST LIFT (2 TO 3 IN) OF PLANTING SOIL INTO THE SUBSOIL.
6.) REFER TO THE CHART "GENERAL RANGE OF SOIL MODIFICATIONS & VOLUMES FOR VARIOUS SOIL CONDITIONS" TO DETERMINE MINIMUM WIDTH OF PREPARED SOIL (X).
7.) SUBSTITUTE ABORTIVE STAKING SYSTEM WHEN SPECIFIED.

REINFORCED RUBBER HOSE (1/2" DIA. BLACK)
FOLD BURLAP AWAY FROM TOP OF ROOT BALL
12 GAUGE GALVANIZED WIRE GUSSET TWISTED
2" DIA. HARDWOOD STAKES 2/3 TREE HT. 3 PER TREE
TWICE THE WIDTH OF ROOTBALL FOR PREPARED SOIL FOR TREES
PREPARED SOIL FOR TREES
1 PART PEAT MOSS
3 PARTS TOPSOIL
(RECOMMENDATION ONLY. SEE SOIL MOD. CHART)
UNDISTURBED SUBGRADE
DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL
SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS.
4" BUILT-UP EARTH SAUCER
2" DOUBLE SHREDDED HARDWOOD BARK MULCH (UNLESS OTHERWISE SPECIFIED) (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)
LANDSCAPE FABRIC AS SPECIFIED.
ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS.
SET ROOT BALL ON UNDISTURBED SOIL IN BOTTOM OF HOLE.

AREA OF SITE CONSTRUCTION
TREE PROTECTION FENCE SHALL BE INSTALLED TO FOLLOW TREE CANOPY DRIP LINE OR PROPOSED LIMITS OF DISTURBANCE.
4" HIGH WOOD & WIRE SNOW FENCE W/WOOD STAKES AT A MAXIMUM OF 8' ON CENTER. AS AN OPTION, ORANGE/FLUORESCENT HIGH-DENSITY "VIS-FENCE" OR APPROVED EQUAL CAN BE USED.
WOOD & WIRE SNOW FENCE USED AS TREE GUARD TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT.
TREE DRIP LINE/TREE PROTECTION ZONE
AREA WITHIN TREE PROTECTION ZONE TO REMAIN UNDISTURBED DURING CONSTRUCTION.
6" WOOD OR STEEL FENCE POSTS AT 8' MAXIMUM CENTER TO CENTER (MINIMUM 2' BELOW GRADE).

PLAN
ELEVATION

SHRUB PLANTING DETAIL
N.T.S.

PLANT SHALL BE PLANTED SO THAT THE POINT AT WHICH THE ROOT FLARE BEGINS IS SET LEVEL WITH GRADE, OUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF ROOT BALL AS SHOWN.
PLANTING MIX:
1 PART PEAT MOSS
1 PART COMPOSTED COW MANURE
3 PARTS TOPSOIL
(SEE SOIL MODIFICATION CHART)
FOR CONTAINER-GROWN SHRUBS, PLANT SHALL BE TRANSPORTED AT THE SAME GRADE AS IN THE CONTAINER. REMOVE THE CONTAINER, USE FINGER OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS THAT CIRCLE THE PERIMETER OF THE CONTAINER.
2" DOUBLE SHREDDED HARDWOOD BARK MULCH (DO NOT PUT MULCH AGAINST THE BASE OF THE PLANT).
LANDSCAPE FABRIC AS SPECIFIED
FINISHED GRADE
PLACE SHRUB ON FIRM SOIL IN BOTTOM OF HOLE.
UNDISTURBED SUBGRADE
WHEN APPROPRIATE, PLANT MULTIPLE SHRUBS IN CONTINUOUS PLANTING HOLE.
BEFORE PLANTING, ADD 3" TO 4" OF WELL-COMPOSTED LEAVES AND RECYCLED YARD WASTE TO BED AND TILL INTO TOP 9" OF PREPARED SOIL.
SOIL SURFACE ROUGHENED TO BIND WITH NEW SOIL.
24" MINIMUM
8" - 12"

TREE PLANTING DETAIL - ON SLOPE
N.T.S.

EXISTING GRADE
OUT BACK SLOPE TO PROVIDE A FLAT SURFACE FOR PLANTING
PROPOSED GRADE FOR PLANTING AREA NOT TO EXCEED 2:1
UNDISTURBED SUBGRADE
DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL
4" - 6" DEEPER THAN ROOT BALL
REFER TO TREE PLANTING DETAIL FOR GENERAL PLANTING SPECIFICATIONS
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EXISTING GRADE

STANDARD FOR PERMANENT STABILIZATION WITH SOD

METHODS AND MATERIALS
1. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
2. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
3. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 58 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING, (EXCLUDES TOP GROWTH).
4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN EDGES WILL NOT BE ACCEPTABLE.
5. FOR DRAUGHT SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD.
6. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
I. SITE PREPARATION
A. GRADING AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
B. INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES, SUCH AS INTERCEPTOR DITCHES, DIKES AND TERRACES, EROSION STOPS, AND DE-SILTING BASINS.
II. SOIL PREPARATION
A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
B. IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOP-DRESSING IS NOT MANDATORY.
C. SPRING INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET BETWEEN MARCH 15 AND APRIL 1.
D. FALL INSTALLATION OF SOD WILL REQUIRE THE ABOVE BETWEEN SEPTEMBER 1 AND OCTOBER 15.
B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE

EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED.
C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
D. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
III. SOD PLACEMENT
A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
B. PLACE SOD STRIPS WITH SMUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
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IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOP-DRESSING IS NOT MANDATORY.
A. SPRING INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET BETWEEN MARCH 15 AND APRIL 1.
B. FALL INSTALLATION OF SOD WILL REQUIRE THE ABOVE BETWEEN SEPTEMBER 1 AND OCTOBER 15.

HYDROSEED SPECIFICATIONS

- PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
- PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
- SEEDING RATES:
• PERENNIAL RYEGRASS 1/2 LB/1000 SQ FT
• KENTUCKY BLUEGRASS 1 LB/1000 SQ FT
• RED FESCUE 1/2 LB/1000 SQ FT
• SPREADING FESCUE 1/2 LB/1000 SQ FT
• FERTILIZER (16-32-16) 2 LB/1000 SQ FT
• LIME 1 GAL/800 GAL
• TANK TACOFER 35 LB/800 GAL
• TANK FIBER MULCH 30 LB/1000 SQ FT
- GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDING AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

BIOBARRIER ROOT BARRIER DETAIL

NOTES:
1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CONCRETE SIDEWALKS SHOULD BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN.
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.
CONC. SIDEWALK 10" MAX.
TREE
SEE DECIDUOUS OR EVERGREEN TREE DETAIL FOR PLANTING PURPOSES
UNDISTURBED SUBGRADE
PREPARED SOIL FOR TREES (SEE PLANTING DETAIL)
BIOBARRIER ROOT BARRIER FABRIC TO BE INSTALLED TO THE DEPTH OF THE BOTTOM OF STONE BASE COURSE OR 10", WHICHEVER IS GREATER

GROUND COVER PLANTING

SHRUB PLANTING DETAIL

FOR CONTAINER-GROWN SHRUBS, PLANT SHALL BE TRANSPORTED AT THE SAME GRADE AS IN THE CONTAINER. REMOVE THE CONTAINER, USE FINGER OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS THAT CIRCLE THE PERIMETER OF THE CONTAINER.
2" DOUBLE SHREDDED HARDWOOD BARK MULCH (DO NOT PUT MULCH AGAINST THE BASE OF THE PLANT).
LANDSCAPE FABRIC AS SPECIFIED
FINISHED GRADE
PLACE SHRUB ON FIRM SOIL IN BOTTOM OF HOLE.
UNDISTURBED SUBGRADE
WHEN APPROPRIATE, PLANT MULTIPLE SHRUBS IN CONTINUOUS PLANTING HOLE.
BEFORE PLANTING, ADD 3" TO 4" OF WELL-COMPOSTED LEAVES AND RECYCLED YARD WASTE TO BED AND TILL INTO TOP 9" OF PREPARED SOIL.
SOIL SURFACE ROUGHENED TO BIND WITH NEW SOIL.
24" MINIMUM
8" - 12"

TREE PLANTING DETAIL

REINFORCED RUBBER HOSE (1/2" DIA. BLACK)
FOLD BURLAP AWAY FROM TOP OF ROOT BALL
12 GAUGE GALVANIZED WIRE GUSSET TWISTED
2" DIA. HARDWOOD STAKES 2/3 TREE HT. 3 PER TREE
TWICE THE WIDTH OF ROOTBALL FOR PREPARED SOIL FOR TREES
PREPARED SOIL FOR TREES
1 PART PEAT MOSS
3 PARTS TOPSOIL
(RECOMMENDATION ONLY. SEE SOIL MOD. CHART)
UNDISTURBED SUBGRADE
DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL
SET ROOT BALL FLUSH TO GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS.
4" BUILT-UP EARTH SAUCER
2" DOUBLE SHREDDED HARDWOOD BARK MULCH (UNLESS OTHERWISE SPECIFIED) (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)
LANDSCAPE FABRIC AS SPECIFIED.
ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS.
SET ROOT BALL ON UNDISTURBED SOIL IN BOTTOM OF HOLE.

TREE PROTECTION DURING SITE CONSTRUCTION

EXISTING GRADE
OUT BACK SLOPE TO PROVIDE A FLAT SURFACE FOR PLANTING
PROPOSED GRADE FOR PLANTING AREA NOT TO EXCEED 2:1
UNDISTURBED SUBGRADE
DIG WIDE, SHALLOW HOLE WITH TAMPED SIDES
TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL
4" - 6" DEEPER THAN ROOT BALL
REFER TO TREE PLANTING DETAIL FOR GENERAL PLANTING SPECIFICATIONS
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EQUAL
EXISTING GRADE

BOHLER ENGINEERING

SITE CIVIL AND CONSTRUCTION ENGINEERING
LAND SURVEYING, DESIGN, AND CONSTRUCTION ARCHITECTURE
SUSTAINABLE DESIGN, PERMITTING SERVICES, TRANSPORTATION SERVICES

NORTHERN VIRGINIA
• PHILADELPHIA, PA
• LEHIGH VALLEY, PA
• RICHMOND, VA
• RENO, NV
• NEW YORK, NY
• NEW JERSEY
• SOUTH CAROLINA
• SOUTH FLORIDA

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• SOUTH CAROLINA
• SOUTH FLORIDA

THE INFORMATION AND CONTENTS OF THESE PLANS AND SPECIFICATIONS SHALL BE USED FOR CONSTRUCTION OF THE PROJECT AND SHALL NOT BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN AUTHORIZATION OF BOHLER ENGINEERING. ANY REVISIONS TO THESE PLANS AND SPECIFICATIONS SHALL BE MADE BY THE DESIGNER AND SHALL BE INDICATED BY A REVISION TABLE.

REVISIONS				
REV	DATE	COMMENT	BY	
1	8/24/15	REVS TO CONCRETE PAVING LIMITS	KBS	
2	9/28/15	REVS PER DEM	KBS	
3	10/09/15	ISSUE FOR ADMIN. REVIEW	CFD	
4	12/01/15	REVISED PER TOWN COMMENTS	CFD	
5	01/08/16	REVISED PER DEM	CFD	
6				
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8				
9				
10				
11				
12				
13				
14				
15				

PRELIMINARY

PROJECT: MAJOR LAND DEVELOPMENT FINAL PLAN AMENDMENT FOR

JOHNSTON PARTNERS, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

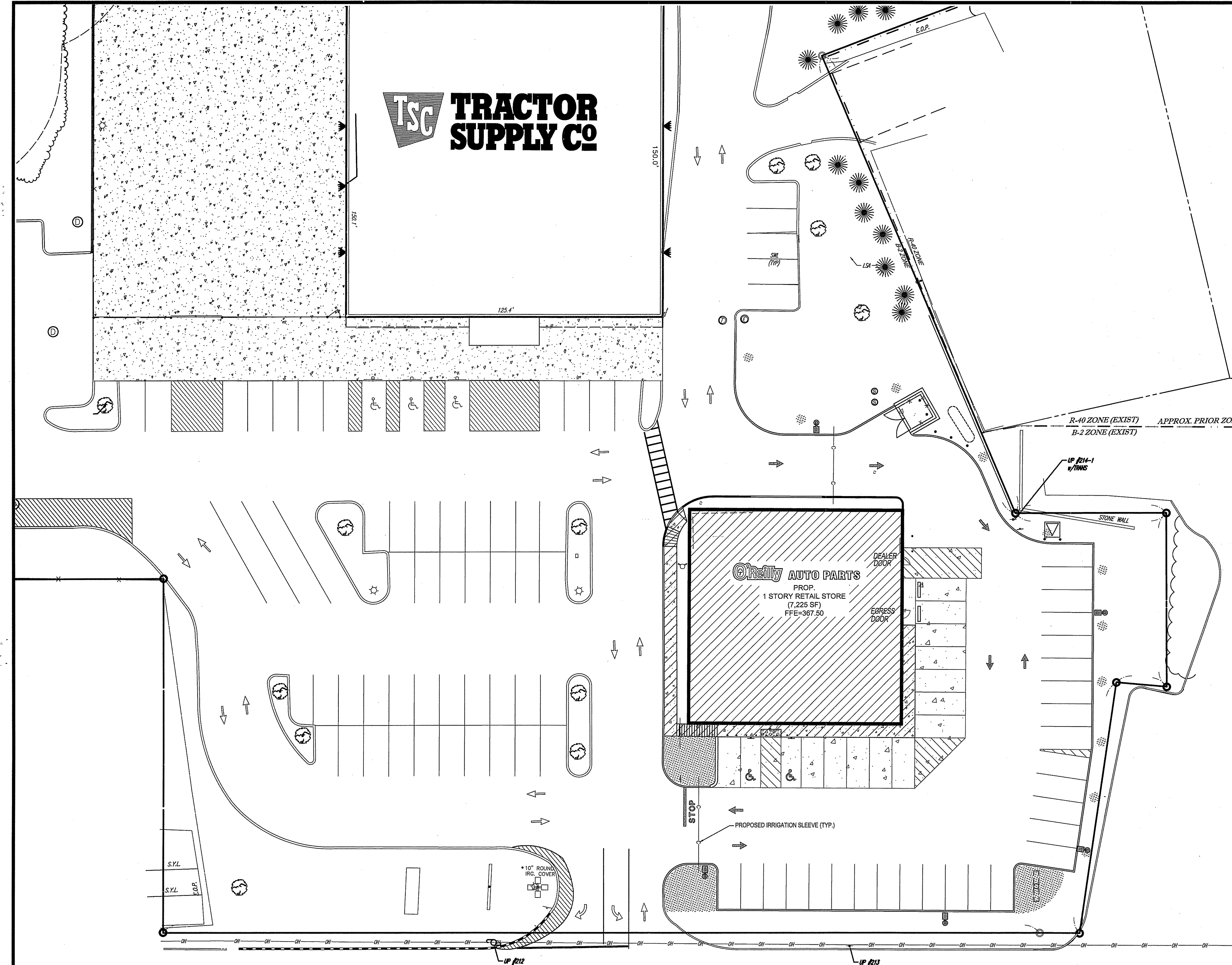
PROJECT NO.: W131021
DRAWN BY: AWP
CHECKED BY: MDS
DATE: 06/22/2015
SCALE: AS NOTED
CAD I.D.: W131021ORSS5

JOHNSTON PARTNERS, LLC

MAP #57/3, LOT #208 & #287
2750 HARTFORD AVENUE (ROUTE 6)
PROVIDENCE COUNTY
JOHNSTON, RHODE ISLAND

BOHLER ENGINEERING

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-990



IRRIGATION SYMBOLS LEGEND

REFER TO SURVEY FOR EXISTING CONDITION SYMBOLS LEGEND

	NEW BUILDING CONSTRUCTION
	AREA OF CONCRETE
	AREA OF DESIRED IRRIGATION COVERAGE
	NEW CONCRETE PAVING BLOCK
	NEW LIGHT POLE LOCATION
	NEW FENCE CONSTRUCTION

REFER TO LANDSCAPE PLAN FOR PLANTINGS

COVERAGE DETAIL:

- IRRIGATION HEAD SHALL BE PLACED TO PROVIDE 100 OVERLAP HEAD-TO-HEAD COVERAGE.
- A RAIN SENSOR AND ANTI-FREEZE ASSEMBLY SHALL BE INSTALLED ON IRRIGATION SYSTEM.
- THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE AND OPERABLE SYSTEM FOR THE IRRIGATION OF ALL LANDSCAPE PLANTING(S) AND DESIRED COVERAGE AREAS ON SITE.
- THE IRRIGATION CONTRACTOR IS FULLY RESPONSIBLE FOR THE WORK UNTIL OWNER GIVES FINAL ACCEPTANCE.
- NO WATER TO BE SPRAYED ON SIDEWALK, PARKING LOT, ROAD OR ADJACENT PROPERTY. ADJUST ARC AND RADIUS OF REQUIRED SPRINKLERS AS NEEDED.
- ALL CIRCUIT PIPE IS TO BE CLASS 100 PVC OR HIGHER GRADE.
- ALL MAIN FITTINGS SHALL BE REINFORCED WITH 2000PSI POURED CONCRETE THRUST BLOCKS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING THE REQUIRED SYSTEM IN COMPLETE ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND LAWS. ANY MODIFICATION MADE AFTER INSTALLATION TO CONFORM WITH SAID CODES, LAWS AND ORDINANCES SHALL BE PERFORMED AT CONTRACTOR'S EXPENSE AT NO ADDITIONAL COST TO O'REILLY.

GENERAL NOTES:

- REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- COORDINATE WORK WITH OTHER SITE RELATED DEVELOPMENT DRAWINGS.

HARTFORD AVENUE

(A.K.A. ROUTE 6)
(VARIABLE WIDTH - STATE OF RHODE ISLAND HIGHWAY LAYOUT) (PLATE No. 305)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 01 2016 FILE # 13-0197
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THIS PLAN TO BE UTILIZED FOR
IRRIGATION PURPOSES ONLY

1 IRRIGATION COVERAGE PLAN

L3 SCALE: 1" = 20'

20 10 0 20 40
SCALE: 1" = 20'



BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING, DESIGN, AND ARCHITECTURE
SUSTAINABLE DESIGN, PERMITTING SERVICES, TRANSPORTATION SERVICES
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♦ BALTIMORE, MD ♦ REHOBOTH BEACH, DE
♦ NEW YORK, NY ♦ NEW YORK METRO
♦ NEW ENGLAND ♦ TAMPA, FL
♦ SOUTH FLORIDA ♦ MIAMI, FL
♦ HONOLULU, HI
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PRELIMINARY

PROJECT No.: W131021
DRAWN BY: AWP
CHECKED BY: MDS
DATE: 09/22/2015
SCALE: AS NOTED
CAD L.D.: W131021ORSS5

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**MAJOR LAND DEVELOPMENT
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352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9800
Fax: (508) 480-9800
www.BohlerEngineering.com

M.D. SMITH
PROFESSIONAL ENGINEER
RHODE ISLAND REG. NO. 8145
REGISTERED PROFESSIONAL ENGINEER
CIVIL

SHEET TITLE:
IRRIGATION COVERAGE PLAN

SHEET NUMBER:
L3

REV 5 - 01/08/2016

811
Know what's below.
Call before you dig.