

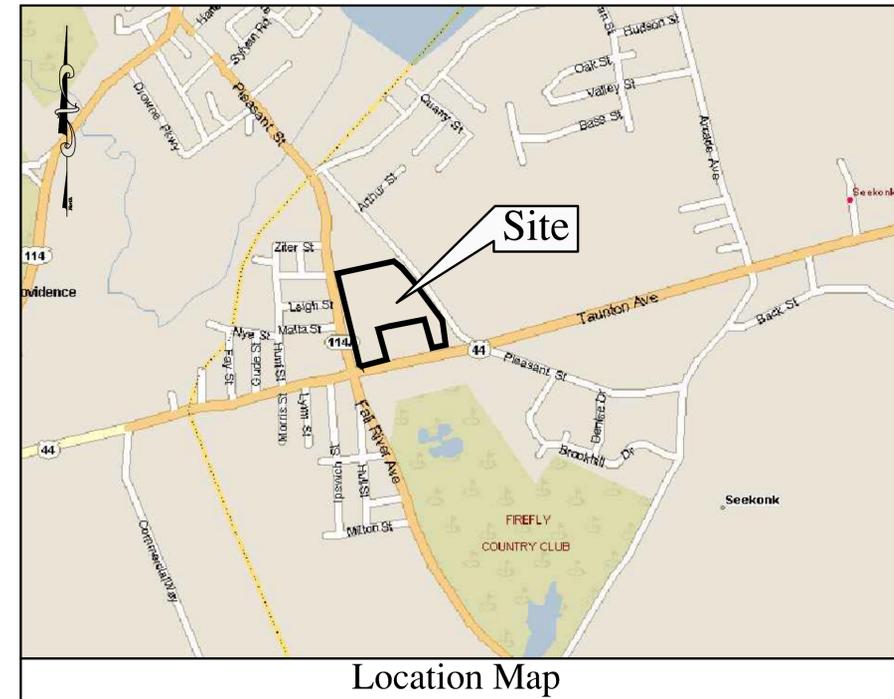
Site Plan Submission Seekonk Towne Centre

Taunton Avenue
Seekonk, MA

Assessor's Plat 20 and Lots 209 & 577

Sheet Index

1. Cover Sheet
2. Aerial Half Mile Radius
3. Existing Conditions
4. Proposed Site Plan
5. Detail Sheet 1



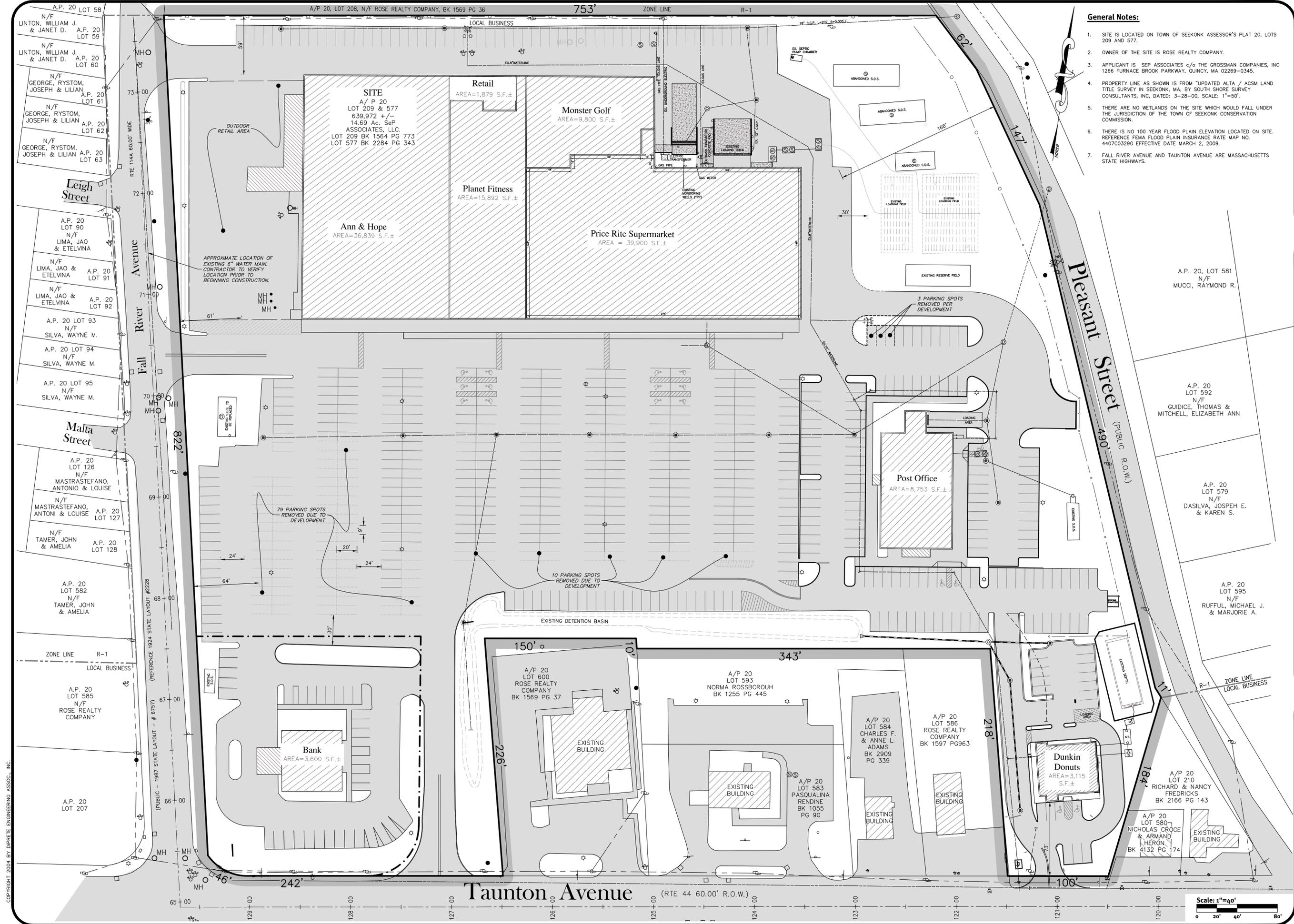
Location Map



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The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA compliance in the implementation of this plan and design.

No.	Date	Description	Drawn By: B.D.C.	Design By: B.D.C.
1	12-24-2012	Site Plan Review Submission		

Cover Sheet
Seekonk Town Centre
Assessor's Plat 20, Lots 209 & 577
Seekonk, Massachusetts
Sep Associates, LLC
c/o The Grosman Companies, Inc.
1266 Furnace Brook Parkway
Quincy, Massachusetts 02269-2520 Tel: 617-272-2000



- General Notes:**
1. SITE IS LOCATED ON TOWN OF SEEKONK ASSESSOR'S PLAT 20, LOTS 209 AND 577.
 2. OWNER OF THE SITE IS ROSE REALTY COMPANY.
 3. APPLICANT IS SEP ASSOCIATES c/o THE GROSSMAN COMPANIES, INC 1266 FURNACE BROOK PARKWAY, QUINCY, MA 02269-0345.
 4. PROPERTY LINE AS SHOWN IS FROM "UPDATED ALTA / ACSM LAND TITLE SURVEY" IN SEEKONK, MA, BY SOUTH SHORE SURVEY CONSULTANTS, INC, DATED: 3-28-00, SCALE: 1"=50'.
 5. THERE ARE NO WETLANDS ON THE SITE WHICH WOULD FALL UNDER THE JURISDICTION OF THE TOWN OF SEEKONK CONSERVATION COMMISSION.
 6. THERE IS NO 100 YEAR FLOOD PLAIN ELEVATION LOCATED ON SITE. REFERENCE FEMA FLOOD PLAIN INSURANCE RATE MAP NO. 44070329G EFFECTIVE DATE MARCH 2, 2009.
 7. FALL RIVER AVENUE AND TAUNTON AVENUE ARE MASSACHUSETTS STATE HIGHWAYS.

DiPrete Engineering
 Two Stafford Court, Cranston, RI 02920
 tel: (401)943-1000 fax: (401)64-6006 www.DiPrete-Eng.com
Engineers • Planners • Surveyors



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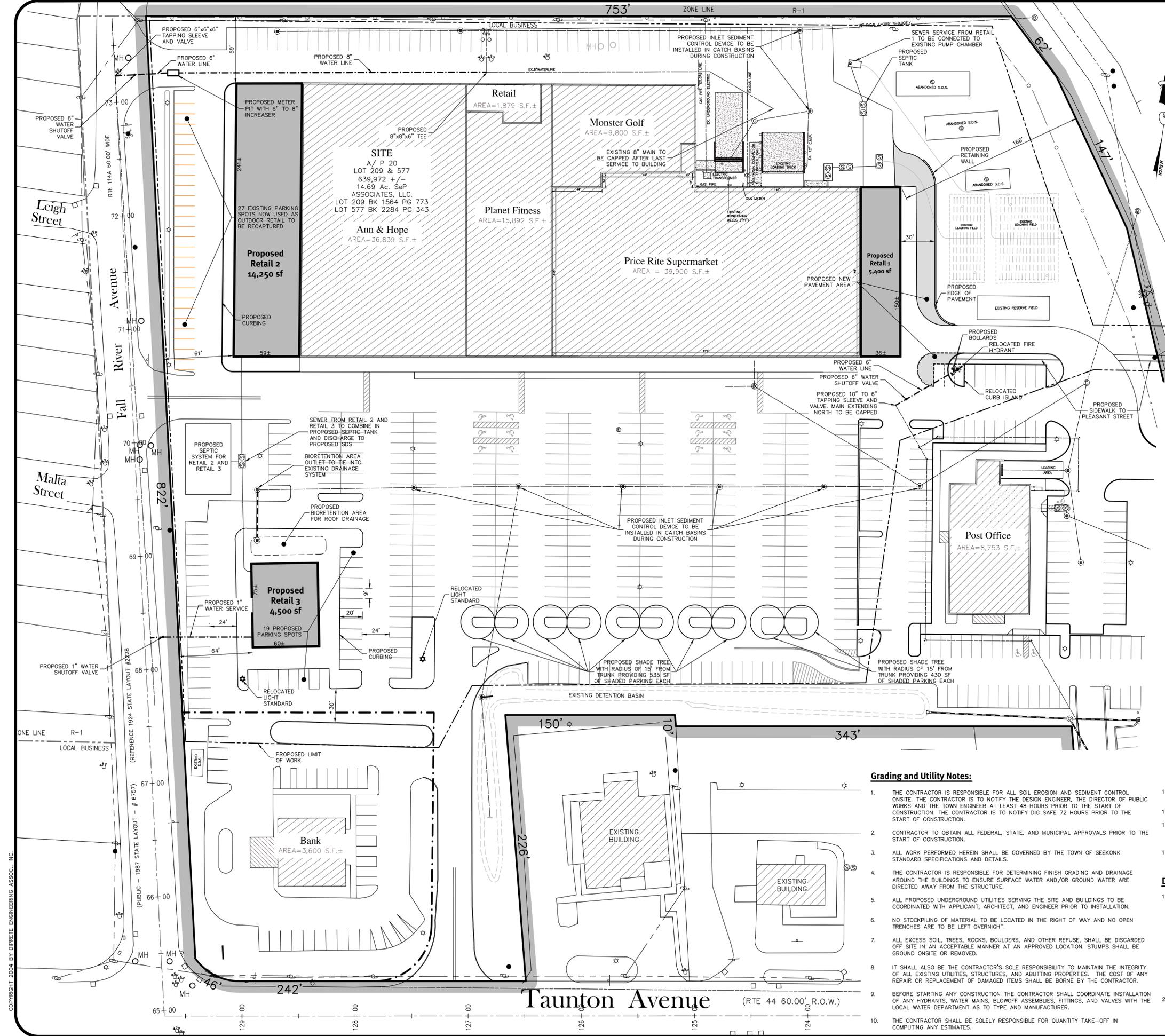
1	10-24-2012	Site Plan Review Submission	B.D.C.
2	10-24-2012	Site Plan Review Submission	B.K.
3	10-24-2012	Site Plan Review Submission	B.K.
No.	Date	Description	Design By: B.D.C.

Existing Conditions
Seekonk Town Centre
 Assessors Plat 20, Lots 209 & 577
 Seekonk, Massachusetts
Applicant
SEP Associates, LLC
 c/o The Grossman Companies, Inc.
 1266 Furnace Brook Parkway
 Quincy, Massachusetts 02269-0345 Tel: 617-972-2000
 DE Job No: 0401-031-1 Copyright 2012 by DiPrete Engineering Associates, Inc.

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Shade Tree Requirements:
30% OF NEW PARKING SPACES TO BE SHADED PER SECTION 10.6.3.3 OF THE TOWN OF SEEKONK ZONING REGULATIONS. TREES SHALL BE PRESUMED TO HAVE A CIRCULAR AREA HAVING A RADIUS OF 15' WITH THE TRUNK AS THE CENTER.

REQUIRED SHADED PARKING
46 NEW PARKING SPACES = 30% (46 X 20' X 9') = 2,484 SF

PROVIDED SHADED PARKING
10 TREES PROVIDING 5,140 SF

Zoning Requirements:

ZONING CLASSIFICATION - LOCAL BUSINESS		
	REQUIRED	PROPOSED
LOT AREA	NA	14.69 ACRES
FRONTAGE	NA	829.98' - FALL RIVER AVENUE
FRONT YARD	50'	398.12' - TAUNTON AVENUE
SIDE YARD	50'	72.9' EXISTING
REAR YARD	50'	61.1'
MAXIMUM BUILDING COVERAGE	40%	58.6'
MAXIMUM BUILDING HEIGHT	40'	22.1% 40' MAXIMUM

Parking Summary:

PARKING REQUIREMENTS:	
COMMERCIAL ESTABLISHMENTS LESS THAN 20,000 SF	1 PER 400 SF
COMMERCIAL ESTABLISHMENTS GREATER THAN 20,000 SF	1 PER 500 SF
RESTAURANT	1 PER FIVE SEATS
BANK	1 PER 400 SQ FT

Parking Calculations:

ANN AND HOPE - RETAIL	36,839 SF X 1 SPACE/500 SF =	74 SPACES
PLANET FITNESS - RETAIL	15,892 SF X 1 SPACE/400 SF =	40 SPACES
EXISTING RETAIL - RETAIL	1,879 SF X 1 SPACE/400 SF =	5 SPACES
MONSTER GOLF - RETAIL	9,800 SF X 1 SPACE/400 SF =	25 SPACES
PRICE RITE - RETAIL	39,900 SF X 1 SPACE/500 SF =	80 SPACES
POST OFFICE - RETAIL	8,753 SF X 1 SPACE/400 SF =	22 SPACES
BANK - BANK	3,600 SF X 1 SPACE/400 SF =	9 SPACES
DUNKIN DONUTS - RESTAURANT	50 SEATS X 1 SPACE/5 SEATS =	10 SPACES
PROPOSED RETAIL 1 - RETAIL	5,400 SF X 1 SPACE/400 SF =	14 SPACES
PROPOSED RETAIL 2 - RETAIL	14,250 SF X 1 SPACE/400 SF =	36 SPACES
PROPOSED RETAIL 3 - RETAIL	4,500 SF X 1 SPACE/400 SF =	12 SPACES
TOTAL REQUIRED SPACES =		327 SPACES

PROPOSED PARKING CONDITIONS:

EXISTING PARKING SPACES TO REMAIN	586
EXISTING PARKING SPACES TO BE REMOVED	92
PROPOSED PARKING SPACES TO BE ADDED OR RECAPTURED	46
FINAL NUMBER OF PROPOSED PARKING SPACES	540

- Grading and Utility Notes:**
- THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ON-SITE. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS AND THE TOWN ENGINEER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY DIG SAFE 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
 - CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
 - ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE TOWN OF SEEKONK STANDARD SPECIFICATIONS AND DETAILS.
 - THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDINGS TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE.
 - ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS TO BE COORDINATED WITH APPLICANT, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.
 - NO STOCKPILING OF MATERIAL TO BE LOCATED IN THE RIGHT OF WAY AND NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.
 - ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, SHALL BE DISCARDED OFF SITE IN AN ACCEPTABLE MANNER AT AN APPROVED LOCATION. STUMPS SHALL BE GROUND ON-SITE OR REMOVED.
 - IT SHALL ALSO BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF ALL EXISTING UTILITIES, STRUCTURES, AND ABUTTING PROPERTIES. THE COST OF ANY REPAIR OR REPLACEMENT OF DAMAGED ITEMS SHALL BE BORNE BY THE CONTRACTOR.
 - BEFORE STARTING ANY CONSTRUCTION THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ANY HYDRANTS, WATER MAINS, BLOWOFF ASSEMBLIES, FITTINGS, AND VALVES WITH THE LOCAL WATER DEPARTMENT AS TO TYPE AND MANUFACTURER.
 - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR QUANTITY TAKE-OFF IN COMPUTING ANY ESTIMATES.
 - EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" OF TOPSOIL AND SEEDED. SEE EROSION CONTROL PROGRAM. UNLESS OTHERWISE SPECIFIED.
 - ALL STORM DRAINAGE PIPING SHALL BE REINFORCED CONCRETE CLASS III PIPE.
 - THE LOCATION OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. "DIG SAFE" SHALL BE CONTACTED BY THE CONTRACTOR AS PART OF THIS VERIFICATION.
 - NO NEW LIGHTING STANDARDS ARE PROPOSED. ONE EXISTING LIGHTING STANDARD IN THE AREA OF PROPOSED RETAIL 3 IS TO BE RELOCATED. THERE WILL BE PROPOSED EXTERIOR LIGHTING INSTALLED ON ALL THE PROPOSED RETAIL AREAS.

- Drainage Notes:**
- AS A RESULT OF PROPOSED DEVELOPMENT, THE AMOUNT OF IMPERVIOUS COVER ON SITE WILL BE DECREASED.
 - THE ROOF AREAS FOR PROPOSED RETAIL 1 AND 2 ARE LOCATED IN AREAS THAT ARE IMPERVIOUS UNDER EXISTING CONDITIONS. THE SITE'S EXISTING DRAINAGE SYSTEM HAS BEEN PREVIOUSLY SIZED AND APPROVED TO TREAT THESE AREAS AS IMPERVIOUS. ROOF LEADERS FOR THESE ROOFS WILL BE TIED INTO THE SITE'S EXISTING DRAINAGE SYSTEM AND EXACT CONFIGURATIONS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
 - THE ROOF AREA FOR PROPOSED RETAIL 3 IS 4,500 SF AND IS LOCATED WITHIN AN AREA THAT UNDER EXISTING CONDITIONS IS IMPERVIOUS. THE STORMWATER FOR THIS AREA WILL BE TREATED USING A BIORETENTION AREA TO THE NORTH OF THE PROPOSED RETAIL 3 BUILDING THAT WILL DISCHARGE INTO THE SITE'S EXISTING DRAINAGE SYSTEM. THIS TREATMENT IS TO OFFSET THE PROPOSED INCREASE OF DRIVEWAY IMPERVIOUS AREA TO THE EAST OF THE PROPOSED RETAIL 1 EXPANSION, TOTALING 3,300 SF.
 - ALL PROPOSED STORMWATER IMPROVEMENTS TO CONFORM TO "MASSACHUSETTS DEP'S STORMWATER MANAGEMENT VOLUME 1: STORMWATER POLLUTION PREVENTION" AND "SEEKONK TOWN ORDINANCE CATEGORIES 20B AND 20C".

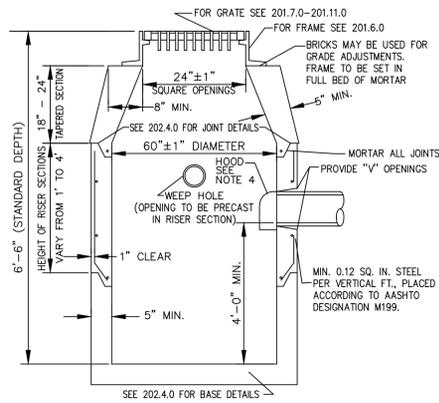
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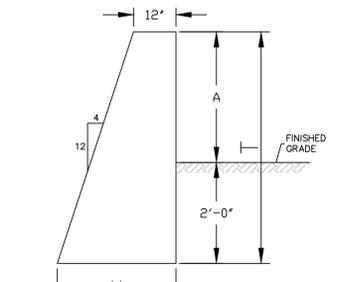
NO.	DATE	DESCRIPTION	BY	DESIGN BY
1	02/25/2012	Site Plan Review Submission	B.D.C.	B.D.C.
2	3/22/2012	Site Plan Review Submission	B.D.C.	B.D.C.
3	4/25/2012	Final Submission	B.D.C.	B.D.C.

Proposed Site Conditions
Seekonk Town Centre
Seekonk, Massachusetts
Adjacent: Blk 70, Lots 209 & 277
SEp Associates, LLC
1246 Furnace Brook Parkway
Quincy, Massachusetts 02269-9245 Tel: 617-477-2000



NOTES:
 DETAILS NOT INDICATED ABOVE ARE TO BE SIMILAR TO THOSE SHOWN ON 202.2.0, 201.3.0, FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.
 FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE SPECIFICATIONS.
 HOOD TO BE EQUIVALENT TO M.H.D. STD. 20

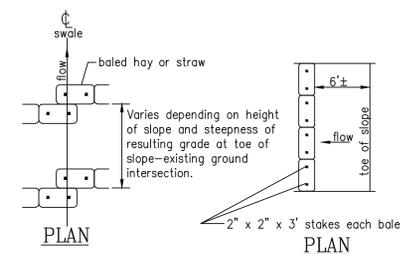
PRECAST CONCRETE CATCH BASIN
 NOT TO SCALE



NOTES:
 CLASS 'A' CEMENT CONCRETE TO BE USED.
 EXPANSION JOINTS TO BE PLACED 90" O.C. MAXIMUM WITH INTERMEDIATE CONSTRUCTION JOINTS PLACED AT 30" O.C. MAXIMUM.
 ALL CONCRETE DIMENSIONS SHOWN ARE MINIMUM.
 PAYMENTS WILL BE BASED ON TABLE BELOW.

HEIGHTS	WIDTH	AREA	CU. YDS. PER LIN. FT.
2'-0"	4'-0"	2'-4"	6.6667
2'-6"	4'-6"	2'-6"	7.875
3'-0"	5'-0"	2'-8"	9.165
3'-6"	5'-6"	2'-10"	10.541
4'-0"	6'-0"	3'-0"	12.000
4'-6"	6'-6"	3'-2"	13.541
5'-0"	7'-0"	3'-4"	15.162

LOW RETAINING WALLS
 NOT TO SCALE



NOTE:
 To be used in locations where the existing ground slopes in toward the toe of the embankment.

NOTE:
 To be used where existing ground slopes away from the toe of the embankment.

BALED HAY OR STRAW EROSION CHECKS
 NOT TO SCALE

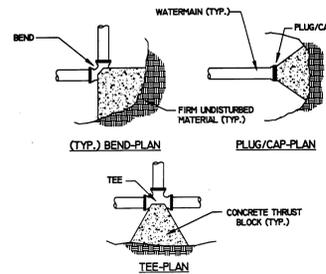
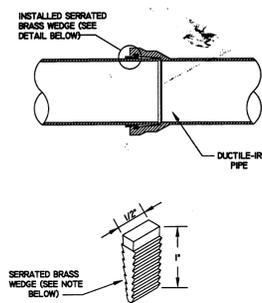


TABLE OF BEARING AREAS (S.F.)			
SIZE OF MAIN (IN.)	BENDS (100 LBS & UNDER)	TEES, CAPS (100 LBS & UNDER)	FLUGS
8 & UNDER	6	3	4
10 & 12	12	6	9
16	22	12	16

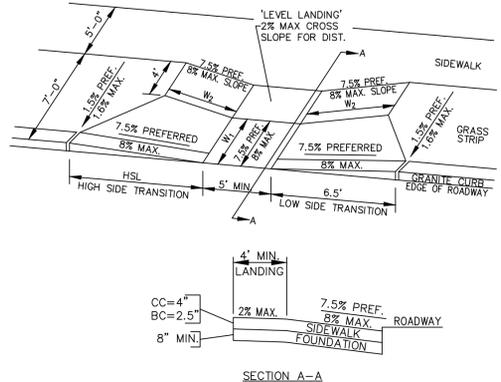
NOTES:
 1. CONCRETE FOR THRUST BLOCKS SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
 2. THRUST BLOCK BEARING AREAS TOO BE IN ACCORDANCE WITH TABLE, UNLESS DETERMINED OTHERWISE BY THE ENGINEER BECAUSE OF SOIL CONDITIONS.
 3. THRUST BLOCK SIDES SHALL BE FORMED WITH PLYWOOD.

THRUST BLOCK DETAILS
 NOT TO SCALE



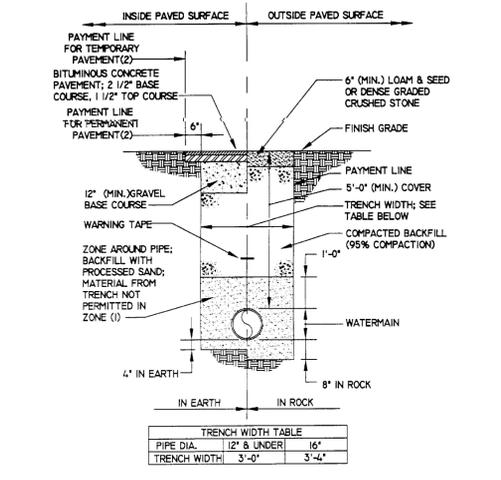
NOTES:
 BRASS WEDGES ARE TO BE INSTALLED ON ALL DUCTILE-IRON, PUSH-ON PIPING, INCLUDING HYDRANT BRANCHES, ETC. TO PROVIDE FOR ELECTRICAL DRAWING. FOR 2" THROUGH 12" PIPE, TWO WEDGES SHALL BE USED PER JOINT. FOR LARGER DIAMETER PIPE FOUR WEDGES SHALL BE USED PER JOINT. EACH WEDGE IS DRIVEN INTO THE OPENING BETWEEN THE PLAN END AND THE BELL UNTIL SNUG. WHEN FOUR WEDGES ARE USED, THEY ARE INSTALLED SIDE BY SIDE, IN PAIRS.

SERRATED BRASS WEDGE DETAIL
 NOT TO SCALE



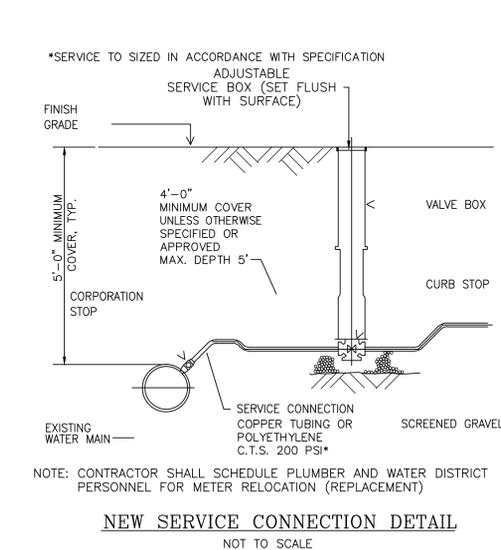
LEGEND
 HSL = HIGH SIDE FRONT TRANSITION LENGTH (SEE 107.9.0)
 W₂ = PARALLEL RAMP LENGTH
 LBL = LOW SIDE BACK TRANSITION LENGTH (SEE TABLE 110a&b)
 W₁ = PERPENDICULAR RAMP LENGTH
 CC = 4"
 BC = 2.5"
 8" MIN

WHEELCHAIR RAMP (REFERENCE M.H.D. 107.2.0)
 NOT TO SCALE



NOTE: PAYMENT FOR PAVEMENT INSTALLED BEYOND PAYMENT LINE WILL BE MADE ONLY WHEN SUCH INSTALLATION IS APPROVED BY THE ENGINEER.

WATERMAIN TRENCH DETAIL
 NOT TO SCALE



NOTE: CONTRACTOR SHALL SCHEDULE PLUMBER AND WATER DISTRICT PERSONNEL FOR METER RELOCATION (REPLACEMENT)

NEW SERVICE CONNECTION DETAIL
 NOT TO SCALE

8.0 EROSION AND SEDIMENTATION CONTROL MEASURES, PERMANENT STABILIZATION, AND MAINTENANCE

THE SOIL EROSION, SEDIMENT, STABILIZATION, AND RUNOFF CONTROL WILL BE ACCOMPLISHED BY THE USE OF THE FOLLOWING DURING AND AFTER CONSTRUCTION:
 ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER
 NON-STRUCTURAL MEASURES
 STRUCTURAL MEASURES
 THE OVERALL RESPONSIBILITY FOR IMPLEMENTING THE EROSION AND SEDIMENTATION CONTROL MEASURES, STABILIZATION, AND MAINTENANCE IS AS FOLLOWS:

ACTIVITY	RESPONSIBLE PARTY
ESTABLISHMENT OF VEGETATIVE COVER	CONTRACTOR
NON-STRUCTURAL MEASURES	CONTRACTOR
STRUCTURAL MEASURES	CONTRACTOR
SHORT TERM MAINTENANCE (UP TO 1 YEAR AFTER CONSTRUCTION)	CONTRACTOR
LONG TERM MAINTENANCE (1 YEAR AFTER CONSTRUCTION AND ON)	OWNER

8.1.1 SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHALL INITIATE APPROPRIATE VEGETATIVE PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.
 8.1.2 ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED OR PROTECTED.
 8.1.3 THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH THE TOWN OF SEEKONK STANDARDS AND SPECIFICATIONS.
 8.1.4 THE TEMPORARY SEEDING DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING:
 TYPE: WINTER RYE 100
 MILLET OR SUDANGRASS 40
 ANNUAL OR PERENNIAL RYE GRASS 60
 8.1.5 THE GENERAL PURPOSE SEED MIX SHALL BE COMPRISED OF THE FOLLOWING:
 LBS./AC: RED FESCUE 75
 KENTUCKY BLUEGRASS 15
 COLONIAL BENTGRASS 5
 PERENNIAL RYEGRASS 5

EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. PERMANENT SEEDING SHALL BE DURING THE APRIL 1 TO MAY 31 OR AUGUST 15 TO OCTOBER 15. TEMPORARY SEEDING MAY BE DONE ANYTIME BETWEEN MARCH 15 AND NOVEMBER 15 WITH THE APPROVAL OF THE ENGINEER OF RECORD. FERTILIZER AS REQUIRED BY SOIL TESTING TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS AND BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULANTS FOR EACH VARIETY.

8.1.6 TEMPORARY TREATMENTS SHALL CONSIST OF HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS MAT OR FIBER LINING. TEMPORARY HAY MULCH TO BE TACKED IN PLACE WITH NYLON MESH NETTING. SIDE SLOPES OF BASINS SHALL BE TREATED WITH NORTH AMERICAN GREEN EROSION CONTROL BLANKETS SUCH AS S150 OR APPROVED EQUAL. THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 2 TONS/ACRE.

8.1.7 ALL HAY BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.

8.1.8 ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE TOWN OF SEEKONK STANDARDS AND SPECIFICATIONS.

8.1.9 STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED.

8.1.10 ALL AREAS PROPOSED TO BE VEGETATED THAT ARE DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENTLY SEEDING AREAS SHALL BE PROTECTED DURING ESTABLISHMENT WITH MULCH. ALL SEEDING AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STANDARD IS MAINTAINED. WELL ESTABLISHED VEGETATION SHALL BE MAINTAINED. BARE OR ERODED AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEED BY THE CONTRACTOR. ACTIVITIES SHALL BE CONFINED TO WITHIN THE LIMIT OF WORK AS SHOWN ON THE PLANS.

8.1.11 MAXIMUM PERMANENT GRADED SLOPE WITHIN THE SITE IS TO BE 3:1 UNLESS NOTED OTHERWISE.

8.1.12 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.

8.1.13 REFERENCE THE "MASSACHUSETTS DEP'S STORMWATER MANAGEMENT VOLUME 1: STORMWATER POLICY HANDBOOK" AND "SEEKONK TOWN ORDINANCE CATEGORIES 20B AND 20C" AS A GUIDE.

8.2 NON-STRUCTURAL MEASURES

8.2.1 TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE SUBJECT TO APPROVAL BY THE PROJECT ENGINEER. A SEDIMENT BARRIER SHALL SURROUND ALL TOPSOIL STOCKPILES.

8.2.2 ALL TYPES OF WASTE GENERATED AT THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND ODC REGULATIONS. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF DAILY TO AVOID EXPOSURE TO PRECIPITATION.

8.2.3 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION OF NON-STRUCTURAL MEASURES AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.

8.2.4 REFERENCE THE "MASSACHUSETTS DEP'S STORMWATER MANAGEMENT VOLUME 1: STORMWATER POLICY HANDBOOK" AND "SEEKONK TOWN ORDINANCE CATEGORIES 20B AND 20C" AS A GUIDE.

8.3 STRUCTURAL MEASURES

8.3.1 RUNOFF WATER QUALITY IS IMPROVED UTILIZING A BIORETENTION AREA. THE BIORETENTION AREA SHALL BE BUILT TO CONTROL RUNOFF FOR 2 THROUGH 100 YEAR STORM FREQUENCIES.

8.3.2 HAY BALES OR SILT FENCE SHALL BE INSTALLED DOWNSTREAM OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION AS SHOWN ON THE SITE PLANS AND PRIOR TO THE COMMENCEMENT OF THE PROPOSED ALTERATION.

8.3.3 TEMPORARY BERMS AND / OR SWALES SHALL BE USED DURING CONSTRUCTION TO DIRECT SURFACE TO TEMPORARY SEDIMENTATION BASINS TO CAPTURE AND TREAT THE MAXIMUM AMOUNT OF STORM WATER.

8.3.4 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE THE OVERALL RESPONSIBILITY FOR STRUCTURAL MEASURE IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.

8.3.5 REFERENCE THE "MASSACHUSETTS DEP'S STORMWATER MANAGEMENT VOLUME 1: STORMWATER POLICY HANDBOOK" AND "SEEKONK TOWN ORDINANCE CATEGORIES 20B AND 20C" AS A GUIDE.

8.4 MAINTENANCE - SHORT TERM / LONG TERM

8.4.1 ALL HAY BALES/SILT FENCE, TEMPORARY TREATMENTS (HAY, STRAW, ETC.), AND TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. HAY BALES/SILT FENCE SHALL BE INSPECTED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH STORM EVENT OR EVERY 7 DAYS, WHICHEVER COMES FIRST, FOR UNDERMINING AND DETERIORATION. A STORM EVENT SHALL BE DEFINED AS 0.25 INCHES OF RAIN WITHIN A 24-HOUR PERIOD. THE HAY BALES/SILT FENCE SHALL BE REPAIRED OR REPLACED AS WARRANTED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY BALES/SILT FENCE BECOMES FILLED IN WITH SEDIMENT. THE HAY BALES/SILT FENCE SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. FOLLOWING CONFIRMATION FROM THE OWNER AND/OR THE ENGINEER OF RECORD THAT AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER HAS BEEN ESTABLISHED THE HAY BALES/SILT FENCE SHALL BE REMOVED.

8.4.2 THE CONTRACTOR SHALL MAINTAIN ALL TOPSOIL STOCKPILES AND SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT SPILL OVER THE SEDIMENT BARRIER. HAY BALES OR SILT FENCE SHALL BE STAKED AROUND THE STOCKPILES.

8.4.3 ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED, AND MAINTAINED BY THE CONTRACTOR FOLLOWING FINAL GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL CHECK ALL SEEDING AREAS REGULARLY TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.

8.4.4 THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE STORMWATER MANAGEMENT SYSTEM FOR UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER.

THE CONTRACTOR'S MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE:
 • RESEEDING ANY UN-STABILIZED AREAS WITHIN THE DRAINAGE BMS AT NO ADDITIONAL EXPENSE TO THE OWNER.
 • REMOVING ACCUMULATED SILT WHEN SEDIMENTS IN THE BIORETENTION AREA REACH 1.5" AND MAINTAINING THE GRASS TO A GROWING HEIGHT BETWEEN 2"-10".

INSPECTION, MAINTENANCE AND REPAIR TO THE DRAINAGE NETWORK INCLUDING STRUCTURES AND RELATED APPURTENANCES. ACCUMULATED SEDIMENTS IN ALL STRUCTURES SHALL BE REMOVED AND DRAINAGE PIPES FLUSHED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. DURING CONSTRUCTION, NEIGHBORING CATCH BASIN SUMPS SHALL BE CHECKED WEEKLY AND SEDIMENTS SHALL BE REMOVED IF THEY EXCEED 6" DEPTH.
 FOR THE BIORETENTION AREA, THE FOLLOWING MAINTENANCE PROCEDURES SHALL BE FOLLOWED BY THE CONTRACTOR FOR SIX MONTHS FOLLOWING EVERY MAJOR STORM EVENT THAT GENERATES 1 INCH OR MORE OF PRECIPITATION:

ACTIVITY	SCHEDULE
CHECK FILTER MEDIA FOR STANDING WATER OR OTHER EVIDENCE OF CLOGGING	MONTHLY OR AFTER HEAVY RAIN EVENTS
CHECK FOR SEDIMENT ACCUMULATION, TRASH, AND DEBRIS.	MONTHLY OR AS NECESSARY
CHECK FOR BLOCKAGES, STRUCTURAL INTEGRITY, AND EVIDENCE OF EROSION AT INLETS, OUTLETS, AND OVERFLOW SPILLWAYS	MONTHLY OR AS NECESSARY
CHECK FOR RAPID RELEASE OF STORMWATER	MONTHLY OR AS NECESSARY

8.4.5 THE OWNER IS RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, AND IMPLEMENTING THE MAINTENANCE PROGRAM FOR THE STORMWATER MANAGEMENT PLAN ONE YEAR AFTER COMPLETION OF CONSTRUCTION. A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT SHALL BE EXECUTED BETWEEN THE OWNER AND THE RESPONSIBLE AUTHORITY TO ENSURE THE MAINTENANCE SCHEDULES OUTLINED IN THIS REPORT ARE FOLLOWED.

THE RESPONSIBLE PARTY AND FUNDING SOURCE FOR THE STORMWATER MANAGEMENT PROGRAM IS:
 SEP ASSOCIATES, LLC
 C/O THE GROSSMAN COMPANIES, INC.
 1266 FURNACE BROOK PARKWAY
 QUINCY, MASSACHUSETTS 02269-0345
 TEL: 617-472-2000

BIORETENTION AREA MAINTENANCE PROCEDURE	
ACTIVITY	SCHEDULE
CHECK FILTER MEDIA FOR STANDING WATER OR OTHER EVIDENCE OF CLOGGING	MONTHLY OR AFTER HEAVY RAIN EVENTS
CHECK FOR BLOCKAGES, STRUCTURAL INTEGRITY, AND EVIDENCE OF EROSION AT INLETS AND OUTLETS	MONTHLY OR AS NECESSARY
REMOVE SEDIMENT FROM THE FILTER MEDIA BED	WHEN DEPTHS > 1.5 INCHES OR ANNUALLY
REMOVE AND REPLACE TOP LAYER OF MULCH	ANNUALLY
TREATING DISEASED TREES AND SHRUBS	SEASONALLY OR AS NECESSARY
INSPECT SOIL AND REPAIR ERODED AREAS	SEASONALLY OR AS NECESSARY
REMOVE LITTER AND DEBRIS	SEASONALLY OR AS NECESSARY
PRUNING AND GRASS MOWING	MINIMUM 3 TIMES PER SEASON, MAXIMUM GRASS HEIGHT OF 10"
REINFORCEMENT PLANTING	DEAD OR DYING VEGETATION, OVERSHADOWING, OR EVERY 3 YEARS

WATER INSTALLATION NOTES

- INSTALLATION OF WATER MAIN SHALL CONFORM TO THE SEEKONK WATER DISTRICT REGULATIONS AND IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION INSTALLATION MANUAL.
- DISTRIBUTION PIPING SHALL BE CL 52 DUCTILE IRON, DOUBLE CEMENT LINED, WITH PUSH ON JOINTS. PIPE SHALL MEET ANSI/AWWA C151 A21.5.1. JOINTS SHALL MEET ANSI/AWWA/C111/A21.11.
- FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CL 500 CEMENT MORTAR LINED AND MEET ANSI/AWWA C151/A21.5.1. MECHANICAL JOINTS SHALL MEET ANSI/AWWA/C111/A21.11 AMERICAN MANUFACTURER ONLY.
- VALVES UP TO 12" DIAMETER SHALL BE MECHANICAL JOINT, RESILIENT SEATED STYLE AND OPEN RIGHT.
- PRESSURE TEST OF THE WATER SYSTEM SHALL BE 1.5 TIMES THE MAXIMUM WORKING PRESSURE. THE SEEKONK WATER DISTRICT SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF SCHEDULED TEST.
- CHLORINATION OF SYSTEM AND SAMPLING SHALL CONFORM TO SEEKONK WATER DISTRICT STANDARDS.
- PRIOR TO CONNECTION TO THE SEEKONK WATER SYSTEM, ALL SERVICES SHALL BE PRESSURE TESTED AND CHLORINATED WITH A REPORT OF FINDINGS SUBMITTED TO THE SEEKONK WATER DISTRICT.
- NO NEW METERS ARE PROPOSED FOR THIS PROJECT.
- ALL WATER MAINS SHALL BE DEFLECTED ALONG A CURVE WITH A MINIMUM RADIUS OF 250' AT ANY LOCATION WHERE THIS IS NOT POSSIBLE, PROPER BENDS AND FITTINGS SHALL BE USED.

SEWER LINE/WATER LINE SEPARATION POLICY

- A MINIMUM OF TEN-FEET HORIZONTAL AND EIGHTEEN-INCH VERTICAL SEPARATION SHALL BE MAINTAINED IN THE PLACEMENT OF WATER MAINS, SERVICES OR APPURTENANCES WITHIN THE VICINITY OF SEWER FACILITIES OR VICE VERSA. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT, HORIZONTAL SEPARATION OR IN THE CASE OF CROSSING THE EIGHTEEN-INCH, VERTICAL SEPARATION, A DEVIATION FROM THIS RESTRICTION MAY BE ALLOWED ON A CASE BY CASE BASIS WITH PRIOR APPROVAL FROM THE ENGINEER AS TO THE PROPOSED MATERIALS AND INTERVENTIONS TO BE TAKEN TO PROTECT THE WATER SYSTEM FROM THE POSSIBILITY OF CONTAMINATION.
- WATER MAINS SHALL BE LAID WITH A MINIMUM OF TEN-FOOT HORIZONTAL CLEARANCE FROM ANY EXISTING SEWER FACILITIES. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. WATER MAINS CROSSING UNDER SEWERS SHALL BE FORBIDDEN. WATER MAINS CROSSING OVER SEWERS SHALL BE LAID TO PROVIDE A MINIMUM, VERTICAL SEPARATION OF EIGHTEEN-INCHES BETWEEN THE INVERT OF THE WATER MAIN AND THE CROWN OF THE SEWER. REALIGNMENT OF AN EXISTING WATER MAIN OR RELOCATION OF THE SEWER MAY BE NECESSARY TO ACHIEVE THIS VERTICAL SEPARATION. THE ENGINEER MUST APPROVE ANY DEVIATION FROM THESE REQUIREMENTS. CONCRETE ENCASEMENT SHALL NOT BE ALLOWED IN THE DESIGN FOR SEWER AND WATER CROSSINGS.

LEAKAGE AND PRESSURE TESTING FOR WATERMAINS

GENERAL:
 1. HYDROSTATIC AND LEAKAGE TESTS SHALL BE PERFORMED ON ALL COMPLETED SECTIONS OF NEWLY INSTALLED WATERMAIN PIPELINE IN ACCORDANCE WITH ANWA C600, PWSB, NBC, AND THE SEEKONK WATER DISTRICT AND AS SPECIFIED BELOW.

TESTING PROCEDURES:
 1. ALL AIR SHALL BE EXPELLED AT THE HIGH POINTS AND THE PIPELINE SLOWLY FILLED WITH POTABLE WATER.

2. THE INTERNAL PRESSURE SHALL BE BUILT UP TO 150 PSI AND MAINTAINED FOR A PERIOD OF NOT LESS THAN ONE (1) HOUR.

3. ALL LEAKS IN THE PIPELINE SHALL BE STOPPED, CRACKED OR DEFECTIVE PIPE, FITTINGS OR ACCESSORIES SHALL BE REMOVED AND REPLACED WITH NEW BY THE CONTRACTOR.

4. THE PIPELINE SHALL BE RETESTED AS MAY BE REQUIRED AND NECESSARY UNTIL AT WHICH TIME THE PIPELINE MAY BE CONSIDERED READY FOR THE DISINFECTION STEP.

DiPrete Engineering
 Two Stafford Court Cranston, RI 02920
 Tel: (401)943-1000 Fax: (401)646-6006 www.DiPrete-Eng.com

Engineers • Planners • Surveyors

LEONARD R. BRADLEY JR.
 CIVIL
 No. 39089
 REGISTERED PROFESSIONAL ENGINEER

This regulatory submission set shall not be used for construction purposes unless stamped for construction and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA compliance in the implementation of this plan and design.

No.	Date	Description	By	Check
1	12-24-2012	Site Plan Review Submission	BR	
2	12-24-2012	Final Design Submission	BR	

Design By: B.D.C.
 Drawn By: B.D.C.

Detail Sheet
Seekonk Town Centre
 Assessors: Plat 20, Lots 209 & 277
 Seekonk, Massachusetts

Applicant
SEP Associates, LLC
 1266 Furnace Brook Parkway
 Quincy, Massachusetts 02269-9505 Tel: 617-472-2000

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