SITE PLANS

FOR

PROPOSED AUTO DEALERSHIP

SUBARU
Confidence in Motion

Balise Subaru

PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RHODE ISLAND 02893
ZONING DISTRICT: B (BUSINESS DISTRICT)

APPLICANT:
BALISE SUBARU
c/o NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE
RUMFORD, RI 02916

OWNER:
PLAT MAP 29, LOT 396
CHAMBERS 2012 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

ENGINEERS and LAND SURVEYORS:

- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying
- Landscape Architecture

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cei@crossmaneng.com

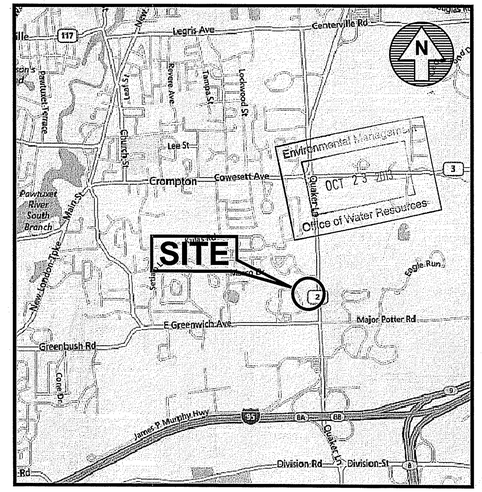
AUGUST 2013
SHEET 1 of 20

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

ARCHITECT:

VISION 3 ARCHITECTS
225 CHAPMAN STREET • PROVIDENCE, RHODE ISLAND 02905 • 401-461-7771



LOCATION MAP
NOT TO SCALE

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OCT 23 2013

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
Charles A Horbert

STEVEN M. CABRAL
No 4847
REGISTERED PROFESSIONAL ENGINEER
10-20-13

REVISIONS:

No.:	DATE:	DESCRIPTION:
1	08/15/13	50% REVIEW SET
2	09/05/13	ADDITIONAL LANDSCAPING
3	09/24/13	FINAL SUBMISSION
4	09/30/13	BID SET
5	10/18/13	RIDEM COMMENTS

1920-C00-COVER-R5.dwg

GENERAL NOTES

1. ALL EXISTING UTILITIES HAVE BEEN PROVIDED BY SURVEY PLANS CONDUCTED BY OTHERS AND PROVIDED BY THE OWNER. THE EXISTING UTILITIES IN THIS PLAN SET ARE BASED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY THE R.I. LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY CITY, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

2. SPECIFICATIONS TO GOVERN THIS PROJECT ARE R.I.D.O.T. STANDARD SPECIFICATIONS. FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE INSTALLATION, BITUMINOUS PAVEMENT, CUTTING INTO CATCHBASIN/MANHOLES, CONCRETE AND SAWCUTTING, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. THE "METHOD OF MEASUREMENT" AND "BASIS OF PAYMENT" ARE NOT APPLICABLE. THESE SPECIFICATIONS CAN BE OBTAINED ON-LINE AT:

   HTTP: //WWW.DOT.STATE.RI.US/ENGINEERING/STANDARDS/INDEX.ASP

3. FOR ALL EXCAVATION AND PLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.

4. RHODE ISLAND STANDARDS REFERENCED ARE ACCORDING TO THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS "RHODE ISLAND STANDARD DETAILS" DATED JUNE 27, 2008, WITH ALL REVISIONS AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION.

5. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.

6. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE, AND THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTABLE TO THE ENGINEER.

7. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT PRIOR TO THE INITIATION OF WORK. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS, RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

9. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN.

10. IN ADDITION TO THE PLANNING BOARD APPROVALS, THE FOLLOWING LIST OF APPROVALS ARE REQUIRED AND THE CONTRACTOR IS RESPONSIBLE TO OBTAIN THE PERMITS/APPROVALS FROM THE AGENCIES LISTED BELOW. ANY PERMIT/APPROVAL CONDITIONS OF APPROVAL SHALL BE INSTALLED BY THE CONTRACTOR.:
    - R.I.D.O.T.-PHYSICAL ALTERATION PERMIT
    - R.I.D.E.M.-RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM AND U.I.C.
    - KENT COUNTY WATER AUTHORITY APPROVAL
    - WEST WARWICK WASTEWATER TREATMENT FACILITY APPROVAL
    - WEST WARWICK FIRE DISTRICT APPROVAL
    - UTILITY COMPANIES: NATIONAL GRID GAS AND ELECTRIC, VERIZON AND/OR COX COMMUNICATION

LAYOUT NOTE

THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN, AND PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEM FOUND WHICH DOES NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY CONSTRUCTION SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)

2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.

3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS WILL NOT BE PARKED IN THE ROUTE 2 RIGHT-OF-WAY, QUAKER VALLEY MALL AREA OR THE GREENWICH ESTATES CONDOMINIUM AREA.

4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION, AND SUBSEQUENT ADDENDA.

5. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE STATE D.O.T. SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

FLOOD ZONE NOTE

THE SITE IS LOCATED IN ZONE 'X', AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON THE FLOOD INSURANCE MAP FOR KENT COUNTY, RHODE ISLAND (ALL JURISDICTIONS), PANEL 117 OF 251, MAP NUMBER 44003C0117G, EFFECTIVE DATE: DECEMBER 3, 2010.

MAP REFERENCES

1. PLAN SET ENTITLED "PROPOSED 16" D.I. WATER MAIN FOR BALISE-SUBARU, 561 QUAKER LANE, WEST WARWICK, RI 02893, A.P. 29 LOT 396, KENT COUNTY WATER AUTHORITY TRANSMISSION SUBMISSION", PREPARED BY BOYER ASSOCIATES, 1200 MAIN STREET WEST WARWICK, RI 02893, SHEET 1 AND 2, DATED JULY 15, 2013, REVISED JULY 18, 2013.

2. THE EXISTING CONDITIONS AND BOUNARY INFORMATION REFERENCED IN THIS PLAN SET HAVE BEEN SURVEYED BY BOYER ASSOCIATES. PLANS HAVE BEEN PROVIDED BY THE OWNER.

SITE CONSTRUCTION NOTE

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR ALL UTILITIES BEYOND 5' FROM THE BUILDING FOUNDATION.

CONSTRUCTION NOTES

1. THE CONTRACTOR IS REQUIRED TO OBTAIN AND REVIEW ALL ENGINEERING DOCUMENTS COMPLETED FOR FINAL DESIGN INCLUDING BUT NOT LIMITED TO GEOTECHNICAL REPORTS. THE GEOTECHNICAL REPORTS SPECIFY SOIL COMPACTION METHODS AND OTHER CONSTRUCTION RELATED REQUIREMENTS.

2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO INSTALLATION OF UTILITIES ON SITE. THE COORDINATION IS NECESSARY FOR THE ENGINEER TO SCHEDULE SITE INSPECTIONS. INSTALLATIONS PERFORMED WITHOUT INSPECTIONS BY THE ENGINEER MAY WARRANT COMPLETE REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S SOLE EXPENSE.

3. THE CONTRACTOR IS REQUIRED TO MAINTAIN DETAILED AS-BUILT INFORMATION FOR ALL UTILITY INSTALLATIONS. AS-BUILT INFORMATION MUST INCLUDE MATERIAL LIST, PIPE DEPTH AND SWING TIE LOCATIONS (2 MINIMUM) FROM NEW PIPE TO BUILDING CORNERS. ALL PIPE BEND/ELBOW LOCATIONS SHALL BE DIMENSIONED. FINAL PAYMENT WILL NOT BE MADE UNTIL SUITABLE AS-BUILT DATA IS PROVIDED.

STORMWATER MANAGEMENT SYSTEM - MAINTENANCE OPERATION

UPON PROJECT COMPLETION, THE SITE OWNER SHALL ADHERE TO THE FOLLOWING MAINTENANCE RECOMMENDATIONS.

FUTURE OWNER:
BALISE SUBARU
561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RHODE ISLAND 02818

1. CATCHBASINS, MANHOLES AND CLEAN-OUTS:

   INSPECTION SHALL OCCUR ON AN ANNUAL BASIS BY QUALIFIED PERSONNEL TO ENSURE PROPER OPERATION. THE INSPECTION SHOULD, AS A MINIMUM, CONCENTRATE ON THE FOLLOWING:

   - DAMAGE TO GRATE/COVER
   - EVIDENCE OF STANDING WATER
   - DEBRIS REMOVAL
   - STRUCTURAL ALIGNMENT/INTEGRITY

2. SEDIMENT REMOVAL:

   FOLLOWING CONSTRUCTION, SEDIMENT REMOVAL SHALL BE CONDUCTED AS DEEMED NECESSARY BY THE SYSTEM INSPECTIONS. ALL REMOVED SEDIMENT IS TO BE TESTED TO DETERMINE POLLUTANT CONTENT. THE SEDIMENT IS TO BE PROPERLY DISPOSED IN UPLAND AREAS BASED UPON THE TEST RESULTS AND LOCAL, STATE, AND FEDERAL REGULATIONS.

3. UNDERGROUND INFILTRATION SYSTEM AND DETENTION SYSTEM:

   THE UNDERGROUND INFILTRATION SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER STORMS EQUAL TO OR GREATER THAN THE 1-YEAR, 24 HOUR TYPE III STORM EVENT (2.7 INCHES IN 24 HOURS). INSPECT THE INLET PIPES AND OUTLET PIPES FOR CLOGGING. REMOVE ACCUMULATED SEDIMENT, TRASH AND DEBRIS. INSPECT SYSTEM AND OUTLET STRUCTURE FOR STRUCTURAL INTEGRITY AND STANDING WATER. INSPECT PAVEMENT AREA OVER SYSTEM FOR SETTLEMENT.

4. ANNUAL SWEEPING:

   ANNUAL PARKING LOT AND DRIVEWAY SWEEPING SHALL BE CONDUCTED DURING THE SPRING OF EVERY YEAR.

STORMWATER MANAGEMENT SYSTEM DESIGN INFILTRATION RATES

THE DESIGN INFILTRATION RATES USED FOR THE PROPOSED STORMWATER MANAGEMENT SYSTEM HAVE BEEN ESTABLISHED BY USING THE SOIL EVALUATION SOIL TEXTURES FOR THE C HORIZON IN REFERENCE TO TABLE 5-3 IN THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, DECEMBER 2010. THE DESIGN INFILTRATION RATE IS 2.41 in/hr (LOAMY SAND).

PROPOSED PAVEMENT STRUCTURE

1 1/2" BITUMINOUS CONCRETE SURFACE COURSE
2" BITUMINOUS CONCRETE BASE COURSE
6" GRAVEL BASE
8" SUBBASE

GEOTECHNICAL NOTE

REFER TO GEOTECHNICAL REPORT PROPOSED BALISE SUBARU 561 QUAKER LANE (ROUTE 2) WEST WARWICK, RI PREPARED BY GZA GEOENVIRONMENTAL, INC. AUGUST 2013. ALL REQUIREMENTS AND RECOMMENDATIONS BY GZA MUST BE INCLUDED IN THE BASE BID.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EASEMENT LINE	
	CURB	
XXX	CONTOURS	ELEV.
X ELEV.	SPOT GRADES	00x0
	TOP CURB ELEVATION	TC XXX.X
	BOTTOM CURB ELEVATION	BC XXX.X
NO.	UTILITY POLE	
LP	LIGHT POLE	
(SIZE) D	DRAIN LINE	(SIZE) D
(SIZE) S	SANITARY SEWER	(SIZE) S
(SIZE) G	GAS LINE	(SIZE) G
(SIZE) W	WATER SERVICE	(SIZE) W
OHW	OVERHEAD WIRES	
Tel	TELEPHONE CONDUIT	
UETCF	UNDERGROUND ELEC/TELE/CABLE/FIRE CONDUIT	
E	ELECTRIC POWER CONDUIT	UE
DMH	DRAINAGE MANHOLE	DMH
CB	CATCH BASIN	CB
SMH	SEWER MANHOLE	SMH
EMH	ELECTRIC MANHOLE	
TMH	TELEPHONE MANHOLE	
HH	HANDHOLE	
Hyd.	HYDRANT	HYD.
WG	WATER GATE	WG
GG	GAS GATE	GG
Sign	SIGN	
CO	CLEAN-OUT TO GRADE	CO
	GRADE TO DRAIN	
Height	CHAIN LINK FENCE	
Height	STOCKADE FENCE	
	RETAINING WALL	
	STONE WALL	
	GUARDRAIL	
(Size) Bollard	EDGE OF WOODS	
	TREE	
	BOLLARDS	BOL.
	BUILDING/STRUCTURE	
	SAW CUT AND MATCH PAVEMENT	
GI ZONE	ZONE LINE	
	LIMIT OF DISTURBANCE	
	SILT FENCE	
	FILTER SOXX	

SOIL EVALUATION DATA

SOIL EVALUATIONS WERE CONDUCTED BY CROSSMAN ENGINEERING ON JULY 15, 2013

NOTE

REFER TO GEOTECHNICAL DATA FOR ADDITIONAL INFORMATION.

TEST PIT 1

0"	Forest Litter	OI (Fibric)
2"	Dark Yellowish Brown Sandy Loam	A (Friable)
3"	Ledge (East Side) and Broken Ledge/gravely Loamy Sand Mix	C/HTM
118"		

3"-118" Refusal
No Water Seepage
No Redox Features
3" to Limiting Layer (East Side)

TEST PIT 2

0"	Forest Litter	OI (Fibric)
2"	Dark Yellowish Brown Sandy Loam	A (Friable)
3"	Fill-Loamy Sand Mix	HTM
19"	Dark Yellowish Brown Fine Sandy Loam	Ab (Friable)
21"	Dark Yellowish Brown Sandy Loam	BW (Friable)
30"	Light Yellowish Brown Gravely Loamy Sand	C (Friable)
46"		

46" Refusal
No Water Seepage
No Redox Features
46" to Limiting Layer

TEST PIT 3

0"	Forest Litter	OI (Fibric)
2"	Dark Brown Fine Sandy Loam	A (Friable)
8"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
17"	Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
32"	Light Olive Brown Silt Loam	BC (Friable)
42"	Light Yellowish Brown Gravely Loamy Fine Sand	C1 (Friable)
103"		

98"-103" Refusal
No Water Seepage
32" Redox Features
103" Design ESHWT

TEST PIT 4

0"	Forest Litter	OI (Fibric)
2"	Dark Yellowish Brown Fine Sandy Loam	A (Friable)
8"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
12"	Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
30"	Light Olive Brown Silt Loam	BC (Friable)
41"	Light Yellowish Brown Gravely Loamy Fine Sand	C1 (Friable)
122"		

122" Refusal
No Water Seepage
30" Redox Features
103" Design ESHWT

TEST PIT 5

0"	Forest Litter	OI (Fibric)
2"	Dark Yellowish Brown Fine Sandy Loam	A (Friable)
3"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
9"	Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
24"	Light Yellowish Brown Gravely Loamy Fine Sand w/Stones	C1 (Friable)
54"		

54" Refusal
No Water Seepage
No Redox Features

TEST PIT 6

0"	Forest Litter	OI (Fibric)
2"	Dark Yellowish Brown Fine Sandy Loam	A (Friable)
5"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
13"	Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
25"	Light Yellowish Brown Gravely Loamy Fine Sand w/Stones	C1 (Friable)
51"		

51" Refusal
No Water Seepage
No Redox Features

TEST PIT 7

0"	Forest Litter	OI (Fibric)
2"	Dark Yellowish Brown Fine Sandy Loam	HTM MIX (Friable)
24"	Dark Yellowish Brown Fine Sandy Loam	A (Friable)
27"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
34"	Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
41"	Yellowish Brown Sandy Loam	C1 (Friable)
44"		

44" Refusal
No Water Seepage
No Redox Features

SOILS NOTES

THE SOIL SURVEY FOR RHODE ISLAND PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE CLASSIFIES THE SOILS ON SITE AS FOLLOWS:

CeC - CANTON AND CHARLTON FINE LOAMS, VERY ROCKY, 3 TO 15% SLOPES
NbC - NARRAGANSETT VERY STONY SILT LOAM, 8 TO 15% SLOPES

OCT 21 2013

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
Charles A. Horbert

• Civil
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• Environmental
• Site Planning
• Land Surveying

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cel@crossmaneng.com

STEVEN M. CABRAL
No. 4847
10-20-13
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

GENERAL NOTES and LEGEND

DATE:	SCALE:
AUGUST 2013	NO SCALE

DWG. NAME: 1920-C01-NOTE-R5.dwg

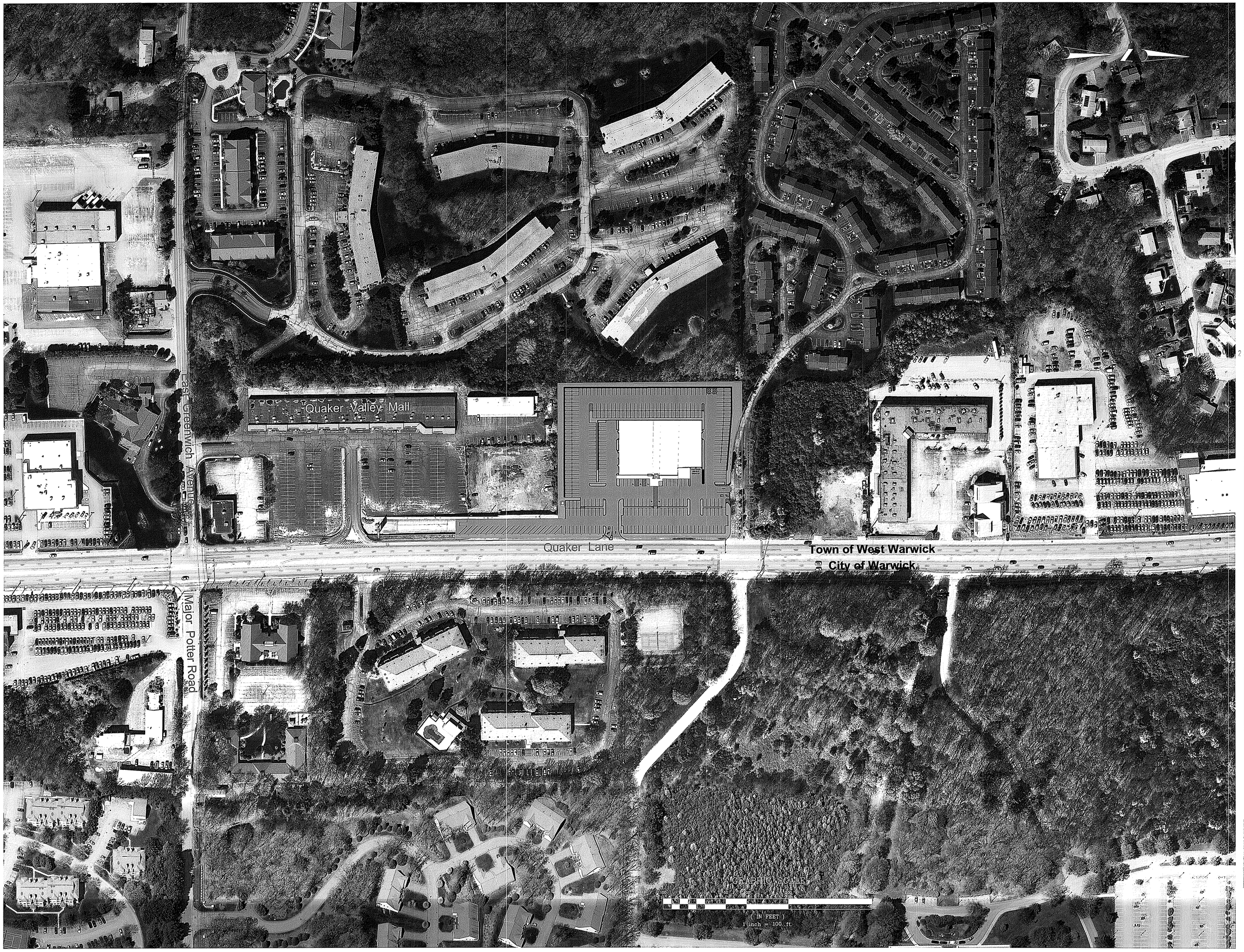
REVISIONS

NUMBER	REMARKS	DATE
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

C1

SHEET: 2 OF: 20



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DRAWING TITLE:

AERIAL MAP

DATE:	*SCALE:*
AUGUST 2013	1"=100'

DWG. NAME: 1920-C02-AERIAL-R5.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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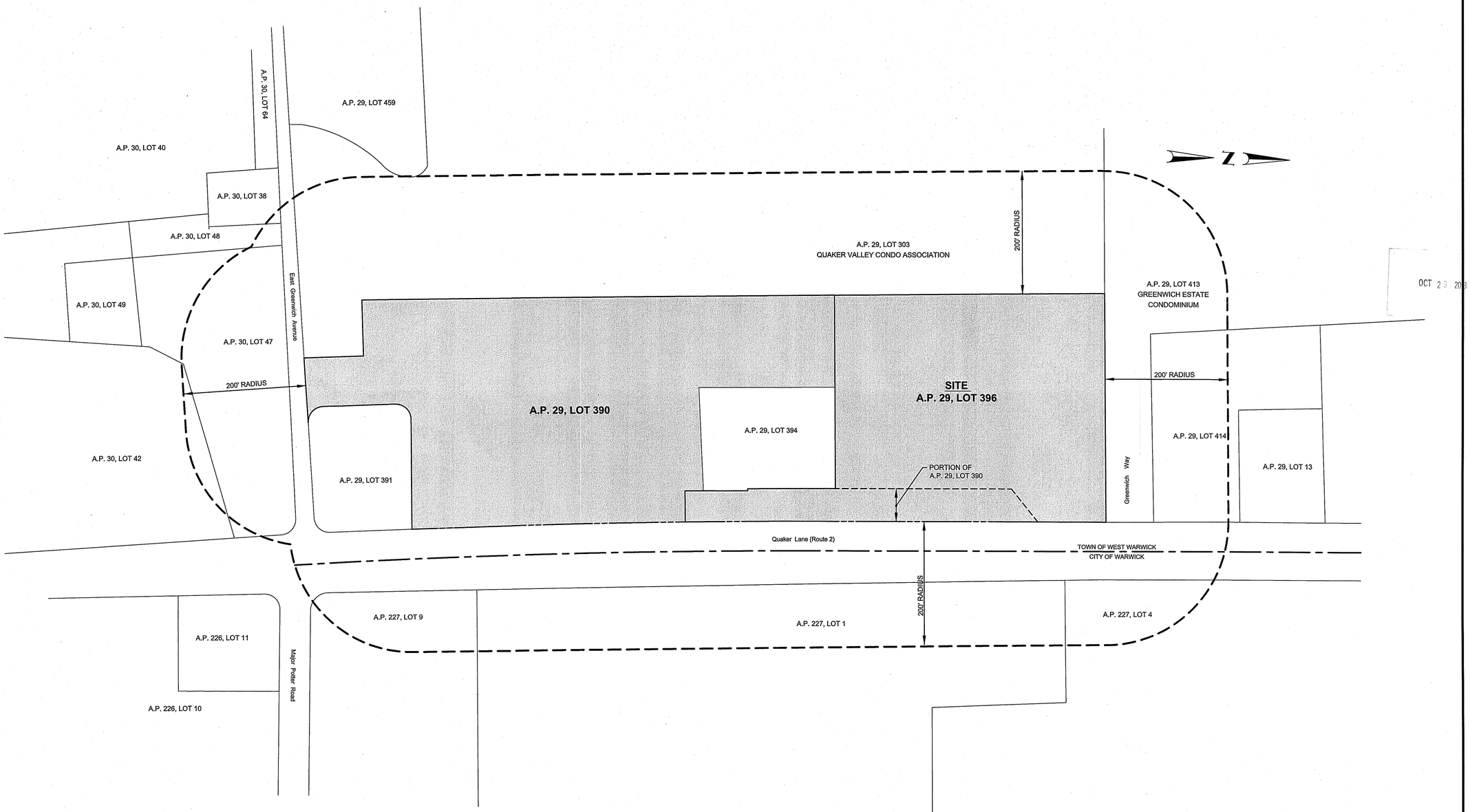
DATE NOV 6 2013
SEE LETTER OF SAME DATE.

DRAWING NUMBER:

C2

SHEET: 3 *OF:* 20

NOTE:
PROVIDED UNDER A SEPARATE COVER IS THE LIST OF ABUTTERS WITHIN 200' OF THIS SITE.



GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 ft.

OCT 23 2013

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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DRAWING TITLE:

200' RADIUS MAP

DATE:	*SCALE:*
AUGUST 2013	1"=80'

DWG. NAME: 1920-C03-RADIUS-R5.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

C3

SHEET: 4 *OF:* 20

SOIL LEGEND

SOIL BOUNDARY

BmB-BRIDGEHAMPTON SILT LOAM, TILL SUBSTRATUM, 3 TO 8% SLOPES

CdB-CANTON AND CHARLTON FINE SANDY LOAMS, 3 TO 8% SLOPES

CdC-CANTON AND CHARLTON FINE SANDY LOAMS, 8 TO 15% SLOPES

UD-UDORTHENTS-URBAN COMPLEX

Ur-URBAN LAND

NOTE:

ALL SURVEYS (TOPOGRAPHIC & PROPERTY LINE) WERE PREPARED BY BOYER ASSOCIATES, 1200 MAIN STREET, WEST WARWICK, RI.

CdC

UD

CdB

Ur

BmB

A.P. 29, LOT 303

A.P. 29, LOT 413

A.P. 29, LOT 390

A.P. 29, LOT 394

A.P. 227, LOT 1

A.P. 227, LOT 4

440.96'

519.96'

143.50'

102.47'

3.28'

256.26'

189.63'

179°50'26"

S89°47'30"E

S89°34'25"W

N90°13'29"W

N90°00'20"W

N90°03'57"W

269°29'24"

90°13'33"

180°15'44"

CH=167.475' Δ=00°38'10" ARC=167.477' RH

PLAT MAP 29, LOT 396
175,822 S.F.
(4.068 ACRES)

PORTION OF A.P. 29 LOT 390 (1,131 S.F.) TO BE MERGED WITH A.P. 29 LOT 394

PORTION OF A.P. 29 LOT 390 (29,292 S.F.) TO BE MERGED WITH A.P. 29 LOT 396

BENCHMARK:
TOP R.I.H.B
ELEV.=299.18
DATUM: NAVD88

Quaker Lane (Route 2)

TOWN OF WEST WARWICK
CITY OF WARWICK

Greenwich Way

Chain Link Fence

Rocks

Parking Area

Metal Storage Unit

15' Wide Sewer Easement In Favor of Lot 396

15' Wide Drainage Easement In Favor of Lot 396

20' Wide Easement

18" Wide Easement To Quaker Valley Mall Associates

Easement To A.P. 29 Lot 414

Dirt Pile

Meter Pit

Signal MH

Sign

Conc. Curb

Conc. Wall

Bit. Walk

Approx. 1st Siltation

S.H.L.C. Plat No. 1825

18" RCP

SMH
Rim=277.61
Inv.(N)=269.21
Inv.(S)=269.12

SMH
Rim=273.18
Inv.(N)=269.81
Inv.(S)=269.78

CB
Rim=272.36
Inv.(In)=268.47(S)
Inv.(In)=266.91(N)
Inv.(Out)=264.56(W)

CB
Rim=271.95
Inv.(Out)=267.82

Inv.=269.9

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NOTE:

THE BOUNDARY LINES FOR A.P. 29 LOT 396 SHOWN ON THIS PLAN IS IN REFERENCE TO A PROPOSED ADMINISTRATIVE SUBDIVISION PLAN PREPARED BY BOYER ASSOCIATES. THE ADMINISTRATIVE SUBDIVISION WILL BE RECORDED UPON SITE DEVELOPMENT PLAN APPROVAL FROM THE WEST WARWICK PLANNING BOARD.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
Charles A. Horbert

OCT 23 2013

• Civil
• Transportation
• Environmental
• Site Planning
• Land Surveying

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cel@crossmaneng.com

STEVEN M. CABRAL
No. 4847
10-7-13
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

EXISTING CONDITIONS PLAN

DATE:	*SCALE:*
AUGUST 2013	1"=30'

DWG. NAME: 1920-C04-EXCN-R5.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

C4

SHEET: 5 *OF:* 20

ZONING REQUIREMENTS:

ZONE: BUSINESS (B)

	REQUIRED	PROVIDED
MINIMUM LOT AREA:	10,000 SF	175,822 S.F.
MINUMUN LOT WIDTH:	100'	687±'
MINIMUM LOT DEPTH:	100'	369'
MINIMUM LOT FRONTAGE:	X	687'
YARD REQUIREMENTS FOR BUILDING		
FRONT (PRINCIPAL BLDG.):	5'	140'
INTERIOR SIDE (PRINCIPAL BLDG.):	15'	95'
CORNER SIDE (PRINCIPAL BLDG.):	15'	N/A
REAR (PRINCIPAL BLDG.):	30'	88'
MAXIMUM BUILDING HEIGHT:	90'	<90'
MAXIMUM LOT COVERAGE:	50%	15%

PARKING DATA: NEW AND USED VEHICLE SALES

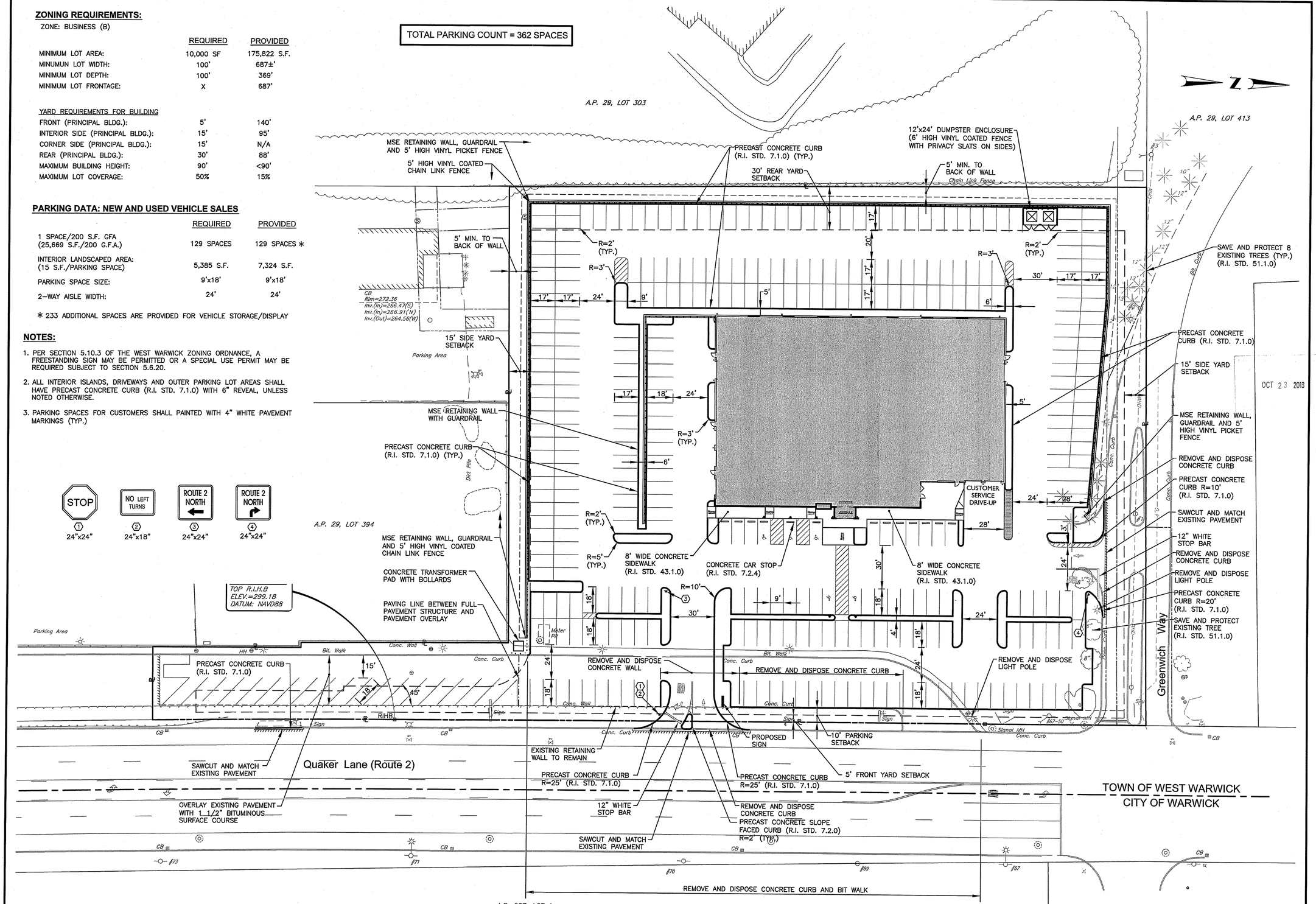
	REQUIRED	PROVIDED
1 SPACE/200 S.F. GFA (25,669 S.F./200 G.F.A.)	129 SPACES	129 SPACES *
INTERIOR LANDSCAPED AREA: (15 S.F./PARKING SPACE)	5,385 S.F.	7,324 S.F.
PARKING SPACE SIZE:	9'x18'	9'x18'
2-WAY AISLE WIDTH:	24'	24'

* 233 ADDITIONAL SPACES ARE PROVIDED FOR VEHICLE STORAGE/DISPLAY

NOTES:

1. PER SECTION 5.10.3 OF THE WEST WARWICK ZONING ORDNANCE, A FREESTANDING SIGN MAY BE PERMITTED OR A SPECIAL USE PERMIT MAY BE REQUIRED SUBJECT TO SECTION 5.6.20.
2. ALL INTERIOR ISLANDS, DRIVEWAYS AND OUTER PARKING LOT AREAS SHALL HAVE PRECAST CONCRETE CURB (R.I. STD. 7.1.0) WITH 6" REVEAL, UNLESS NOTED OTHERWISE.
3. PARKING SPACES FOR CUSTOMERS SHALL PAINTED WITH 4" WHITE PAVEMENT MARKINGS (TYP.)

TOTAL PARKING COUNT = 362 SPACES



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

BIDS SHALL PROVIDE ALTERNATIVE PRICING FOR 3 FENCE TYPES AT TOP OF WALL ALONG NORTHERN AND WESTERN PROPERTY:

1. 5' HIGH VINYL PICKET FENCE (NO GAPS)
2. 5' HIGH VINYL CAPPED TONGUE AND GROOVED RAINIER FENCE OR EQUAL.
3. 5' SEMI-PRIVATE VINYL CAPPED RAINIER FENCE (3" PICKETS, 1.7" GAP)

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

OCT 23 2013

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

SITE LAYOUT PLAN

DATE:	*SCALE:*
AUGUST 2013	1"=30'

DWG. NAME: 1920-C05-SITE-R5.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

C5

SHEET: 6 *OF:* 20

DRAINAGE NOTES

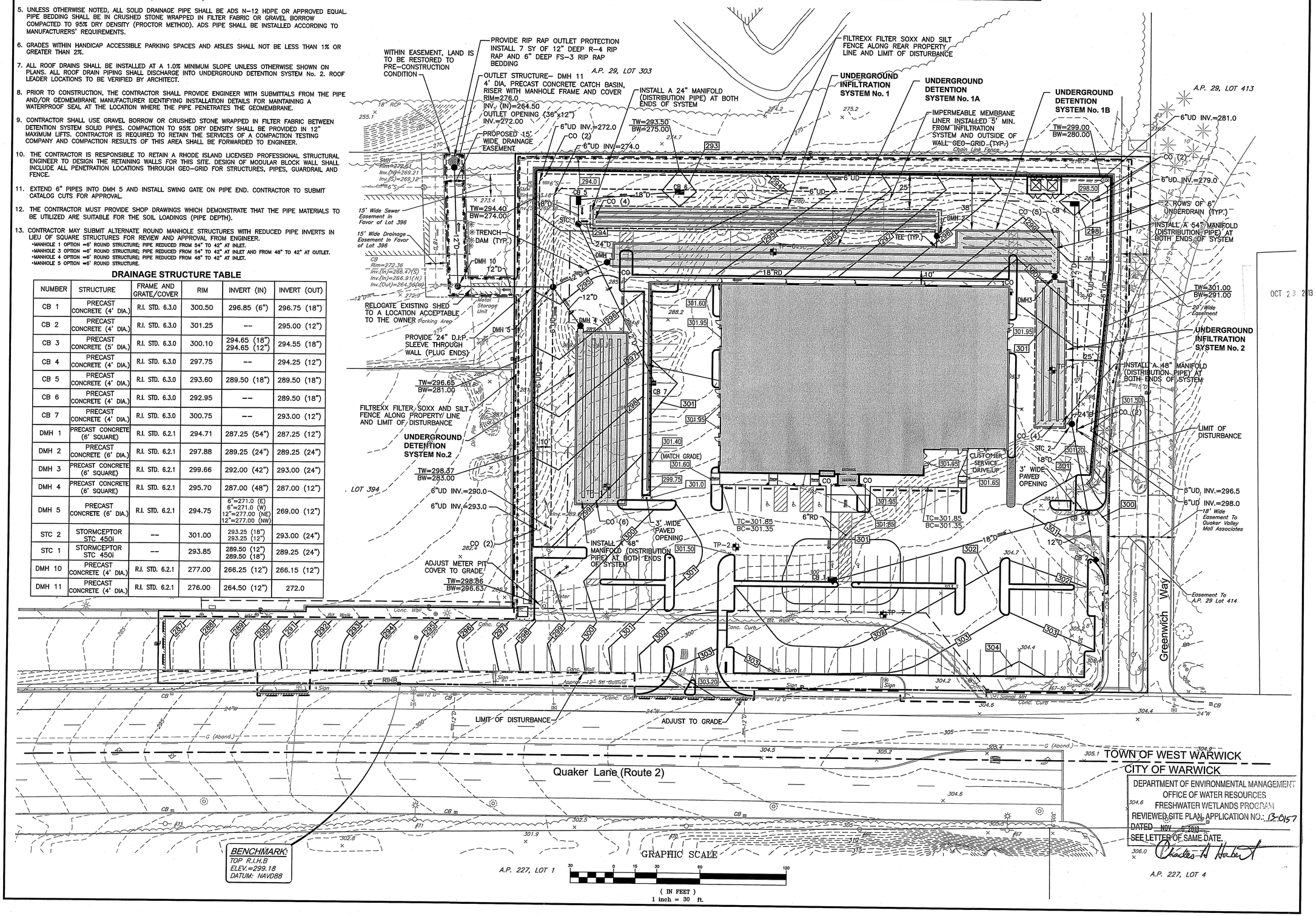
1. CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
2. CONTRACTOR IS RESPONSIBLE TO PROVIDE SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS FOR REVIEW AND APPROVAL BY THE ENGINEER, PRIOR TO ORDERING. CONCRETE MANUFACTURER SHALL REVIEW RIM TO TOP OF PIPE ELEVATIONS AND PROVIDE SPECIFIC DETAILS.
3. ALL STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING AND ALL CLEAN-OUTS (CO) SHALL BE EXTENDED TO GRADE.
4. ALL CATCH BASINS SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES WITH 4' DEEP SUMPS WITH A HOOD OR TEE ON THE OUTLET PIPE. (NO WEEP HOLES)
5. UNLESS OTHERWISE NOTED, ALL SOLID DRAINAGE PIPE SHALL BE ADS N-12 HDPE OR APPROVED EQUAL. PIPE BEDDING SHALL BE IN CRUSHED STONE WRAPPED IN FILTER FABRIC OR GRAVEL BORROW COMPACTED TO 95% DRY DENSITY (PROCTOR METHOD). ADS PIPE SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' REQUIREMENTS.
6. GRADES WITHIN HANDICAP ACCESSIBLE PARKING SPACES AND AISLES SHALL NOT BE LESS THAN 1% OR GREATER THAN 2%.
7. ALL ROOF DRAINS SHALL BE INSTALLED AT A 1.0% MINIMUM SLOPE UNLESS OTHERWISE SHOWN ON PLANS. ALL ROOF DRAIN PIPING SHALL DISCHARGE INTO UNDERGROUND DETENTION SYSTEM No. 2. ROOF LEADER LOCATIONS TO BE VERIFIED BY ARCHITECT.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ENGINEER WITH SUBMITTALS FROM THE PIPE AND/OR GEOMEMBRANE MANUFACTURER IDENTIFYING INSTALLATION DETAILS FOR MAINTAINING A WATERPROOF SEAL AT THE LOCATION WHERE THE PIPE PENETRATES THE GEOMEMBRANE.
9. CONTRACTOR SHALL USE GRAVEL BORROW OR CRUSHED STONE WRAPPED IN FILTER FABRIC BETWEEN DETENTION SYSTEM SOLID PIPES. COMPACTION TO 95% DRY DENSITY SHALL BE PROVIDED IN 12" MAXIMUM LIFTS. CONTRACTOR IS REQUIRED TO RETAIN THE SERVICES OF A COMPACTION TESTING COMPANY AND COMPACTION RESULTS OF THIS AREA SHALL BE FORWARDED TO ENGINEER.
10. THE CONTRACTOR IS RESPONSIBLE TO RETAIN A RHODE ISLAND LICENSED PROFESSIONAL STRUCTURAL ENGINEER TO DESIGN THE RETAINING WALLS FOR THIS SITE. DESIGN OF MODULAR BLOCK WALL SHALL INCLUDE ALL PENETRATION LOCATIONS THROUGH GEO-GRID FOR STRUCTURES, PIPES, GUARDRAIL AND FENCE.
11. EXTEND 6" PIPES INTO DMH 5 AND INSTALL SWING GATE ON PIPE END. CONTRACTOR TO SUBMIT CATALOG CUTS FOR APPROVAL.
12. THE CONTRACTOR MUST PROVIDE SHOP DRAWINGS WHICH DEMONSTRATE THAT THE PIPE MATERIALS TO BE UTILIZED ARE SUITABLE FOR THE SOIL LOADINGS (PIPE DEPTH).
13. CONTRACTOR MAY SUBMIT ALTERNATE ROUND MANHOLE STRUCTURES WITH REDUCED PIPE INVERTS IN LIEU OF SQUARE STRUCTURES FOR REVIEW AND APPROVAL FROM ENGINEER.
    - MANHOLE 1 OPTION =6' ROUND STRUCTURE; PIPE REDUCED FROM 54" TO 42" AT INLET.
    - MANHOLE 3 OPTION =6' ROUND STRUCTURE; PIPE REDUCED FROM 54" TO 42" AT INLET AND FROM 48" TO 42" AT OUTLET.
    - MANHOLE 4 OPTION =6' ROUND STRUCTURE; PIPE REDUCED FROM 48" TO 42" AT INLET.
    - MANHOLE 5 OPTION =6' ROUND STRUCTURE.

DRAINAGE STRUCTURE TABLE

NUMBER	STRUCTURE	FRAME AND GRATE/COVER	RIM	INVERT (IN)	INVERT (OUT)
CB 1	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	300.50	296.85 (6")	296.75 (18")
CB 2	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	301.25	--	295.00 (12")
CB 3	PRECAST CONCRETE (5' DIA.)	R.I. STD. 6.3.0	300.10	294.65 (18") 294.65 (12")	294.55 (18")
CB 4	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	297.75	--	294.25 (12")
CB 5	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	293.60	289.50 (18")	289.50 (18")
CB 6	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	292.95	--	289.50 (18")
CB 7	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	300.75	--	293.00 (12")
DMH 1	PRECAST CONCRETE (6' SQUARE)	R.I. STD. 6.2.1	294.71	287.25 (54")	287.25 (12")
DMH 2	PRECAST CONCRETE (6' DIA.)	R.I. STD. 6.2.1	297.88	289.25 (24")	289.25 (24")
DMH 3	PRECAST CONCRETE (6' SQUARE)	R.I. STD. 6.2.1	299.66	292.00 (42")	293.00 (24")
DMH 4	PRECAST CONCRETE (6' SQUARE)	R.I. STD. 6.2.1	295.70	287.00 (48")	287.00 (12")
DMH 5	PRECAST CONCRETE (6' DIA.)	R.I. STD. 6.2.1	294.75	6"=271.0 (E) 6"=271.0 (W) 12"=277.00 (NE) 12"=277.00 (NW)	269.00 (12")
STC 2	STORMCEPTOR STC 450i	--	301.00	293.25 (18") 293.25 (12")	293.00 (24")
STC 1	STORMCEPTOR STC 450i	--	293.85	289.50 (12") 289.50 (18")	289.25 (24")
DMH 10	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.2.1	277.00	266.25 (12")	266.15 (12")
DMH 11	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.2.1	276.00	264.50 (12")	272.0

INFILTRATION/DETENTION SYSTEM TABLE

SYSTEM	APPROXIMATE SYSTEM DIMENSIONS	ROWS	ROW LENGTH	PIPE SPACING	PIPE INVERT
INFILTRATION SYSTEM No. 1	244'x15.33'	4 OF 24" PERF. PIPE	240'	12"	289.25
INFILTRATION SYSTEM No. 2	102'x23.75'	4 OF 48" PERF. PIPE	100'	15"	292.00
DETENTION SYSTEM No. 1A	310'x17'	3 OF 54" PIPE	238'	12"	287.25
DETENTION SYSTEM No. 1B	70'x18'	5 OF 54" PIPE	61'	12"	287.25
DETENTION SYSTEM No. 2	120'x36'	6 OF 48" PIPE	110'	24"	287.00



OCT 23 2013

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

GRADING and DRAINAGE PLAN

DATE:	SCALE:
AUGUST 2013	1"=30'

DWG. NAME: 1920-C06-GRADE-R5.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

C6

SHEET: 7 *OF:* 20

UTILITY NOTES

1. PRIOR TO ANY UTILITY CONSTRUCTION AND WITHIN THE CONTRACT BID PRICE, THE CONTRACTOR MUST PERFORM ADDITIONAL TESTS TO:

   A. CONFIRM THE DEPTHS OF EXISTING UTILITIES AT ALL PROPOSED CONNECTION POINTS AND POTENTIAL CROSSOVER (CONFLICT) POINTS.

   B. CONFIRM THE EXTENT OF LEDGE WHICH MAY EXIST IN ALL ANTICIPATED UTILITY TRENCH AREAS. PRIOR TO CONSTRUCTION, THE FINDINGS ARE TO BE REVIEWED BY THE OWNER AND THE ENGINEER. IF NECESSARY, ALTERNATIVES TO MINIMIZE LEDGE REMOVAL AND UTILITY CONFLICTS WILL BE DEVELOPED. NO CONSTRUCTION WILL BE ALLOWED WITHOUT THE OWNERS AUTHORIZATION.

   C. THE CONTRACTOR SHALL DIG TEST HOLES TO VERIFY THE ELEVATIONS AND CONDITION OF THE EXISTING SANITARY SEWER MANHOLE AT THE PROPOSED TIE-IN LOCATION.

2. ANY MODIFICATIONS TO THE PROPOSED UTILITIES TO AVOID CONFLICTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. NO EXTRA PAYMENT TO THE CONTRACTOR DUE TO RELOCATIONS WILL BE AUTHORIZED.

3. THE UTILITY PLAN DOES NOT DEPICT THE NECESSARY IRRIGATION PIPING OR ELECTRICAL CONDUIT/WIRING TO SERVICE THE PROPOSED LIGHTING AND SIGNS, WHICH WILL BE PERFORMED BY THE CONTRACTOR WITHIN THE CONTRACT BID PRICE. INSTALLATION OF THE IRRIGATION PIPING SHALL HAVE A MINIMUM SEPARATION DISTANCE OF 10' TO ANY SEWER SYSTEM COMPONENT.

4. AS APPROPRIATE, EXISTING UTILITIES/IMPROVEMENTS/STRUCTURES ARE TO BE REMOVED AND DISPOSED BY THE CONTRACTOR.

5. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM ALL UTILITY PIPE SIZES INCLUDING WATER AND GAS WITH THE ARCHITECT PRIOR TO ORDERING PIPE OR RELATED MATERIAL. THE PROPOSED 8" WATER SERVICE SHALL BE CONFIRMED PRIOR TO ORDERING PIPE.

6. THE "UTILITY PLAN" DOES NOT REPRESENT THE SITE ELECTRIC/TELEPHONE/ COMMUNICATION SYSTEM DESIGNS.

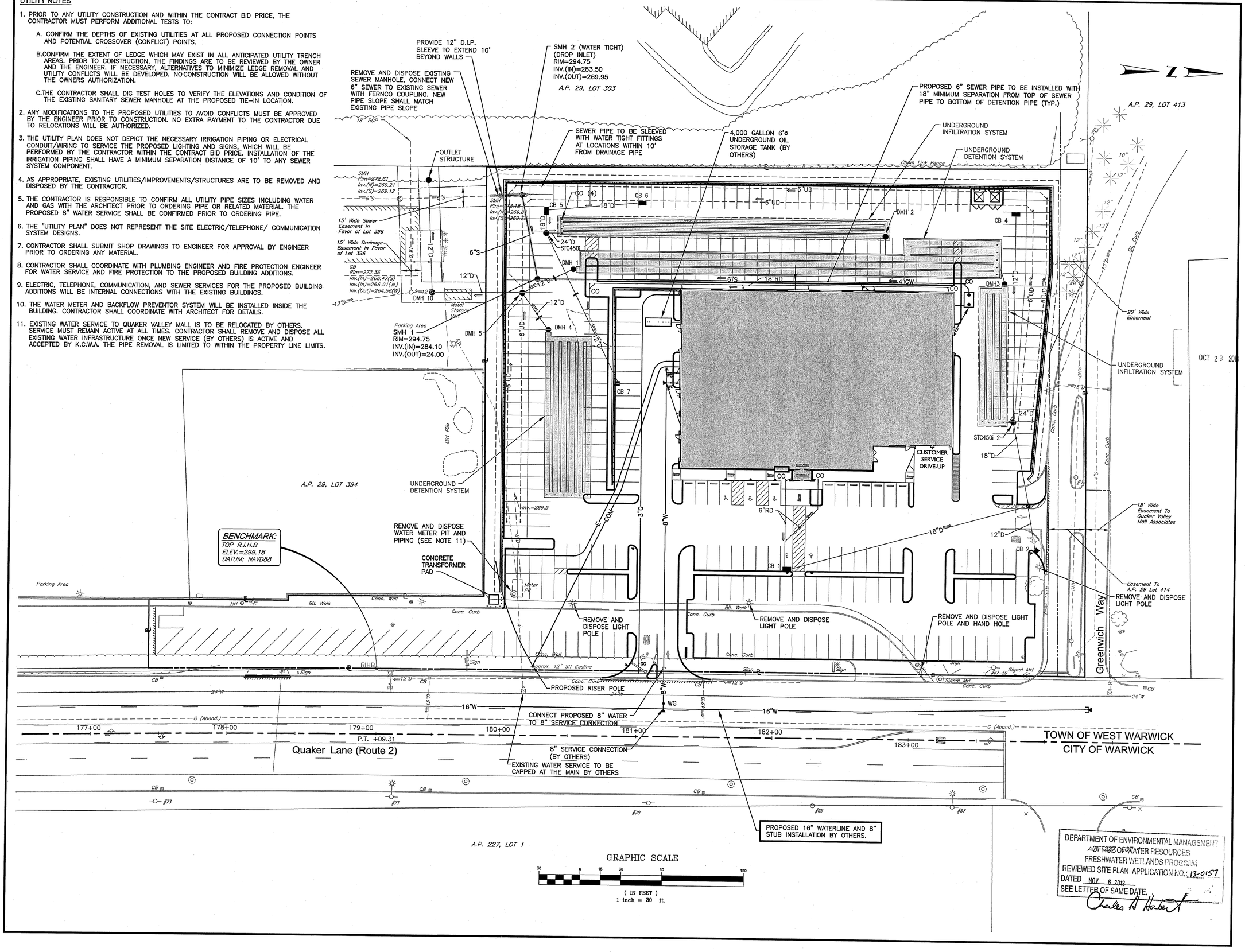
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL BY ENGINEER PRIOR TO ORDERING ANY MATERIAL.

8. CONTRACTOR SHALL COORDINATE WITH PLUMBING ENGINEER AND FIRE PROTECTION ENGINEER FOR WATER SERVICE AND FIRE PROTECTION TO THE PROPOSED BUILDING ADDITIONS.

9. ELECTRIC, TELEPHONE, COMMUNICATION, AND SEWER SERVICES FOR THE PROPOSED BUILDING ADDITIONS WILL BE INTERNAL CONNECTIONS WITH THE EXISTING BUILDINGS.

10. THE WATER METER AND BACKFLOW PREVENTOR SYSTEM WILL BE INSTALLED INSIDE THE BUILDING. CONTRACTOR SHALL COORDINATE WITH ARCHITECT FOR DETAILS.

11. EXISTING WATER SERVICE TO QUAKER VALLEY MALL IS TO BE RELOCATED BY OTHERS. SERVICE MUST REMAIN ACTIVE AT ALL TIMES. CONTRACTOR SHALL REMOVE AND DISPOSE ALL EXISTING WATER INFRASTRUCTURE ONCE NEW SERVICE (BY OTHERS) IS ACTIVE AND ACCEPTED BY K.C.W.A. THE PIPE REMOVAL IS LIMITED TO WITHIN THE PROPERTY LINE LIMITS.



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PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

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OWNER:

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PLAT MAP 29, LOT 390
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PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

UTILITY PLAN

DATE:	*SCALE:*
AUGUST 2013	1"=30'

DWG. NAME: 1920-C07-UTILITY-R5.dwg

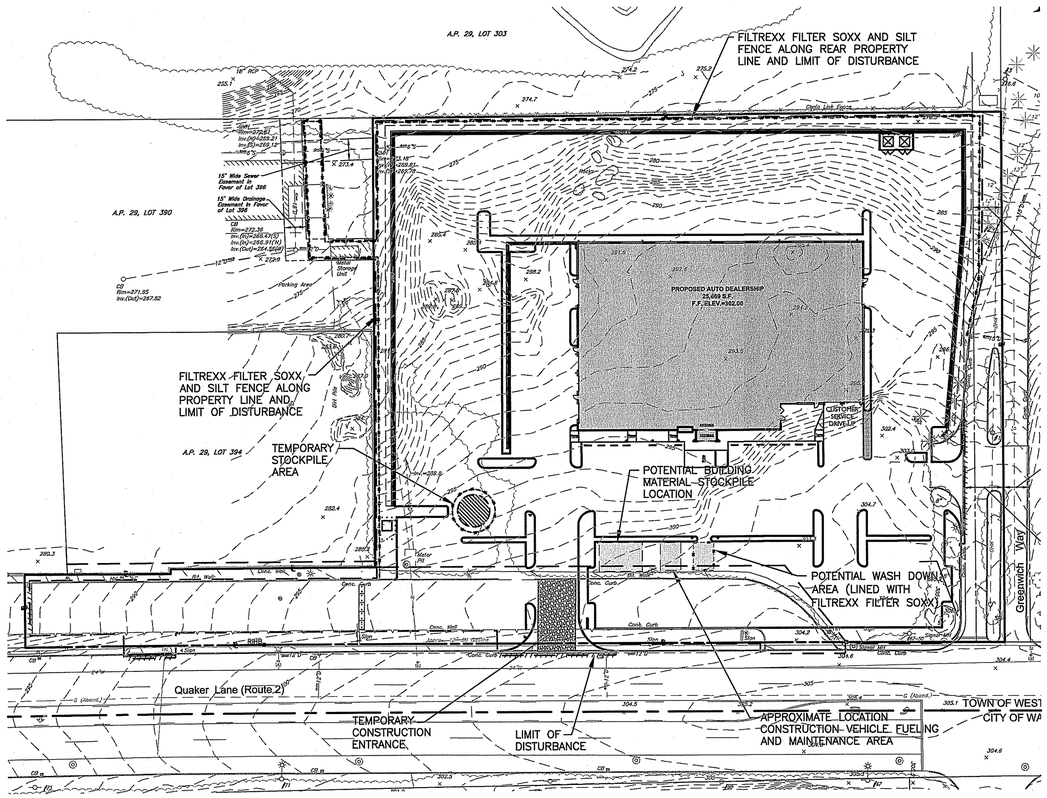
REVISIONS

NUMBER	REMARKS	DATE
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

C7

SHEET: 8 *OF:* 20

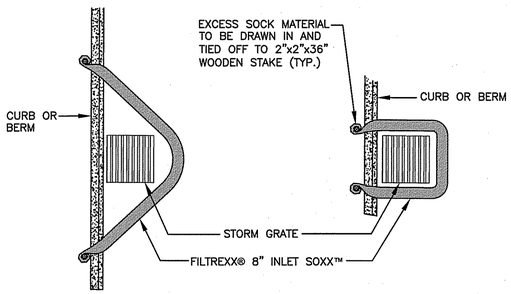


SITE PLAN

SCALE: 1"=60'

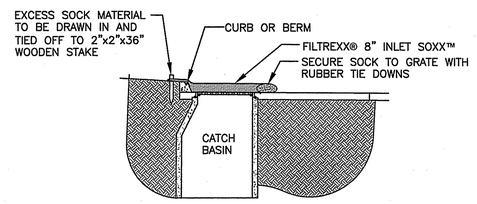
NOTES

1. CONTRACTOR SHALL INSTALL TEMPORARY MEASURES SUCH AS; FIBER MATTING, CRUSHED STONE, HAY OR STRAW IN AREAS WHERE SLOPES OR STABILIZATION HAS FAILED.
2. FILTER SOXX (OR SILT FENCE OR STAKED HAYBALES) SHALL BE INSTALLED AROUND THE PERIMETER OF THE AREA TO BE DISTURBED BY CONSTRUCTION. ADDITIONAL APPLICATIONS OF THESE CONTROLS MEASURES MAY BE REQUIRED DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL INSPECT THE SITE AT A MINIMUM OF ONCE PER WEEK OR WITHIN 24 HOURS AFTER A STORM EVENT. BOTH FILTER SOXX AND SILT FENCE WILL BE PLACED ALONG REAR PROPERTY LINE.
3. IF EROSION OR EROSIVE TENDENCIES ARE APPARENT ON THE SITE, THE CONTRACTOR IS RESPONSIBLE TO INSTALL ADDITIONAL CONSTRUCTION BMP'S SUCH AS SAND BAGS AS DIRECTED BY THE TOWN, STATE OR ENGINEER DURING CONSTRUCTION.
4. IF SEDIMENT OR DEBRIS IS TRACKED ONTO QUAKER LANE (ROUTE 2), GREENWICH WAY OR EXISTING PAVED AREAS ADJACENT TO THE CONSTRUCTION AREA, THE CONTRACTOR IS REQUIRED TO SWEEP THE PAVEMENT ON A DAILY BASIS. THE AREA SHALL BE INSPECTED DAILY.
5. THE CONTRACTOR IS RESPONSIBLE TO KEEP THE SITE CLEAN OF TRASH. RECOMMENDED DAILY PATROL OF THE CONSTRUCTION SHOULD BE CONDUCTED TO PICK-UP TRASH. THE OPERATOR SHALL REQUIRE THE CONTRACTOR TO HAVE PORTABLE SANITARY FACILITIES ON SITE. ROUTING CLEANING AND WASTE DISPOSAL OF THESE PORTABLE SANITARY FACILITIES IS REQUIRED.

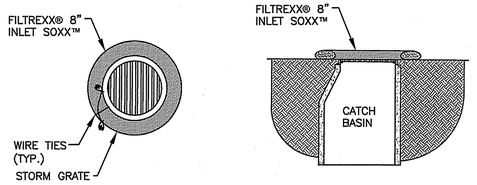


CURBSIDE OPTION "A" PLAN

CURBSIDE OPTION "B" PLAN



CURBSIDE SECTION



DRAIN INLET PLAN

DRAIN INLET SECTION

NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. SILT SOXX FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX® INLET SOXX ™ DETAILS

NOT TO SCALE

DUST CONTROL NOTES

ON AN AS-NEEDED BASIS OR AS DIRECTED BY R.I.D.E.M. OR OWNER, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS (AS RECOMMENDED BY THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK") TO CONTROL DUST:

A. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

B. CALCIUM CHLORIDE SHOULD BE EITHER LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.

THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

INSPECTION/MAINTENANCE NOTES

1. PRIOR TO COMMENCING GRUBBING OPERATIONS AND EARTHWORK, FILTERSOXX SHALL BE PLACED INSIDE SAWCUT EDGE TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY DRAINAGE SYSTEM, COASTAL AREAS AND ABUTTING PROPERTIES.
2. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM.
3. ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSIVE TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION – SUCH AS RIP-RAP.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPLACE DAILY DURING CONSTRUCTION, FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
6. ADDITIONAL FILTERSOXX OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
7. THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT-DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.

GENERAL PROJECT WIDE NOTES

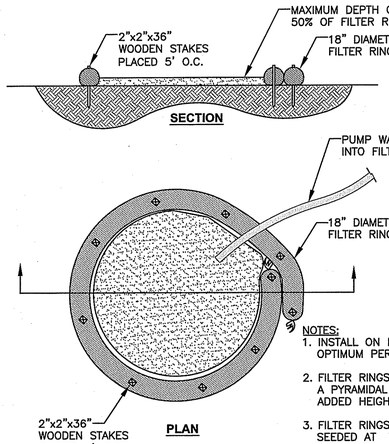
1. FILTERSOXX SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY AND WETLANDS.
2. THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO QUONSET DEVELOPMENT CORPORATION OR THE OWNER.
3. ALL FILTERSOXX OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
4. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE; THE AREA BEYOND THE DROPLINE SHALL BE FENCED OR ROPED OFF TO PROTECT TREES FROM CONSTRUCTION EQUIPMENT.
5. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDED, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
6. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED FILTERSOXX.
7. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, FIBER MATTING OR APPROVED EQUAL.
8. SILT FENCE OR STAKED HAYBALES MAY BE USED IN LIEU OF THE FILTREXX FILTER SOXX.

FILTREXX SOXX NOTE

CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE FILTREXX PRODUCTS AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.

EROSION CONTROL AND SOIL STABILIZATION PROGRAM

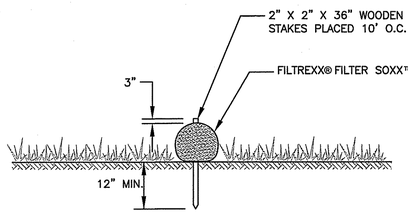
1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM, ADJACENT PROPERTY, COASTAL AREAS AND ROADWAYS.
2. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
3. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
4. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED HAY BALES OR SILT FENCING.
5. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
6. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
7. ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER, MUNICIPAL REPRESENTATIVES OR LOCAL D.O.T.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
9. THE CATCH BASINS ADJACENT TO THE CONSTRUCTION AREA SHALL BE PROTECTED BY HAY BALES OR SILT SACKS,
10. ALL PROPOSED CATCH BASINS SHALL BE PROTECTED BY STAKED HAY BALES, SILT FENCING OR SILT SACKS.
11. THE FILTREXX FILTER SOXX MAY BE INSTALLED ON THE EXISTING PAVEMENT/IMPERVIOUS AREAS WITH OUT STAKES. CONTRACTOR SHALL INSPECT DAILY, IF SOIL EROSION OR SEDIMENT IS OBSERVED IN THESE AREAS, THE CONTRACTOR SHALL RELOCATE OR INSTALL ADDITIONAL FILTREXX FILTER SOXX IN LOCATIONS THAT CAN BE STAKED. THIS WORK IS INCLUDED IN THE PROJECT SCOPE.



NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. FILTER RINGS MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
3. FILTER RINGS MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
4. THIS TYPICAL INSTALLATION SHALL BE USED FOR DEWATERING OPERATIONS.

FILTREXX ® FILTER RING ™

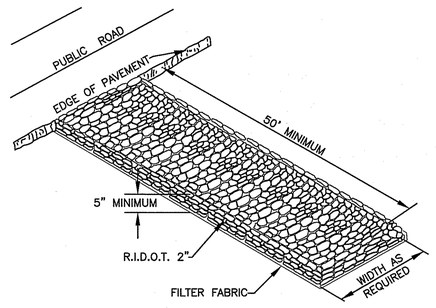
NOT TO SCALE



NOTE:
1. CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE FILTREXX PRODUCTS AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.
2. STAKED HAYBALES AND/OR SILT FENCE MAY BE USED IN LIEU OF FILTREXX FILTER SOXX.

FILTREXX® FILTER SOXX ™ SECTION

NOT TO SCALE



CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cel@crossmaneng.com

- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

STEVEN M. CABRAL No. 4847 REGISTERED PROFESSIONAL ENGINEER

OCT 23 2013

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

SOIL EROSION and SEDIMENT CONTROL PLAN

DATE:	*SCALE:*
AUGUST 2013	AS SHOWN

DWG. NAME: 1920-C08-SOIL-R5.dwg

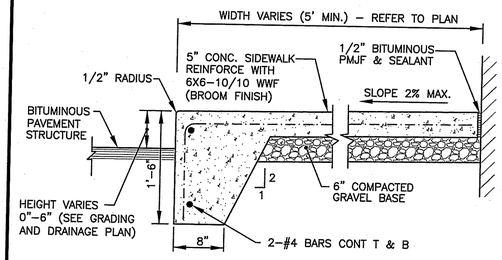
REVISIONS

NUMBER	REMARKS	DATE
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN, APPLICATION NO. 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
DRAWING REVIEWED

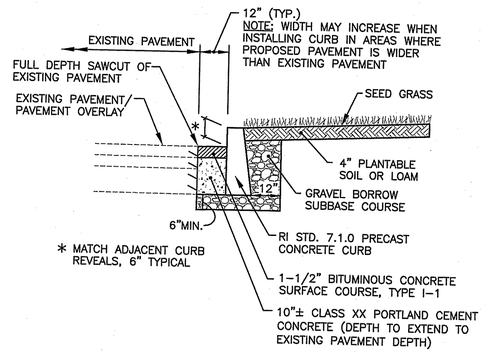
C8

SHEET: 9 *OF:* 20



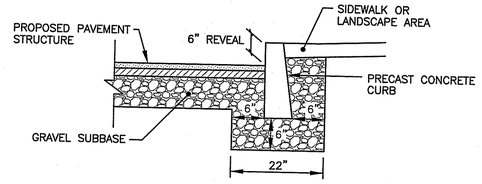
TYPICAL CONCRETE WALK AT BUILDING DETAIL

NOT TO SCALE



TYPICAL CURB INSTALLATION DETAIL

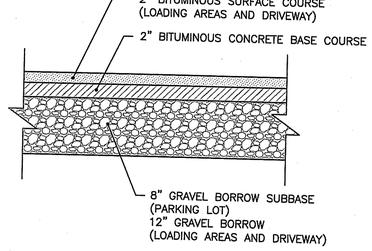
NOT TO SCALE



NOTE: CAST–IN–PLACE CONCRETE MAY BE UTILIZED

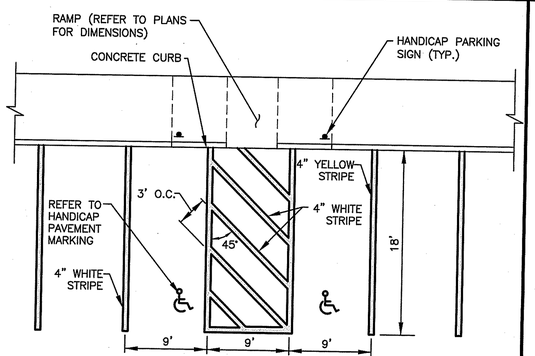
TYPICAL PRECAST CONCRETE CURB INSTALLATION WITHIN PARKING LOT

NOT TO SCALE



TYPICAL BITUMINOUS PAVEMENT STRUCTURE DETAIL

NOT TO SCALE

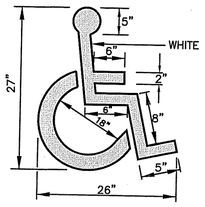


NOTE:

1. ALL HANDICAP PARKING SPACES SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE AND ADA REQUIREMENTS.

HANDICAP PARKING STALLS

NOT TO SCALE



NOTE:

1. ALL HANDICAP PARKING SPACES SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE AND ADA REQUIREMENTS.

HANDICAP PAVEMENT MARKING

NOT TO SCALE

NOTE:

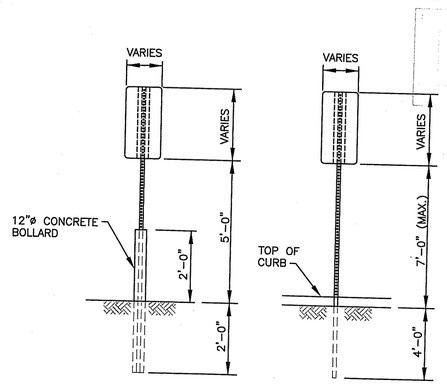
1. ALL LETTERS ARE 1" SERIES "C" PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.),
2. SIGN SHALL BE REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. CONTRACTOR SHALL VERIFY THE POSTED "FINE" AMOUNT WITH THE BUILDING OFFICIAL PRIOR TO INSTALLATION.
4. ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
5. INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24–23 OF THE M.U.T.C.D.
6. SIGN MAY BE MOUNTED ON BUILDING/WALL, AT PROPER HEIGHT, ALIGNED WITHIN 12" OF CENTER OF THE PARKING SPACE.
7. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE.

SIGN NOTES:

1. SIGN POSTS SHALL BE GALVINIZED STEEL U–CHANNEL (3 1/2" WIDE–MIN.) AND INSTALLED IN CONFORMANCE WITH MUTCD AND LOCAL STANDARDS AND SPECIFICATIONS.
2. POSTS SHALL BE DRIVEN TO A DEPTH OF 4 FEET (MIN.)
3. THE EDGE OF THE SIGN SHALL BE 18" FROM THE FACE OF THE CURB.
4. WITHIN SIDEWALK LOCATIONS THE SIGN POST WILL BE INSTALLED WITHIN A 8"x8"x6" SQUARE BOX FORM.

PROPOSED HANDICAPPED PARKING SIGNS

NOT TO SCALE

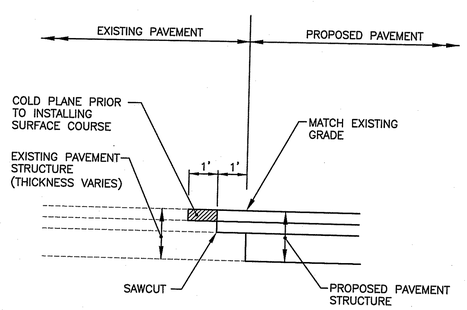


(MOUNTING DETAIL FOR SIGNS WITH NO SIDEWALK)

(MOUNTING DETAIL FOR SIGNS BEHIND SIDEWALK)

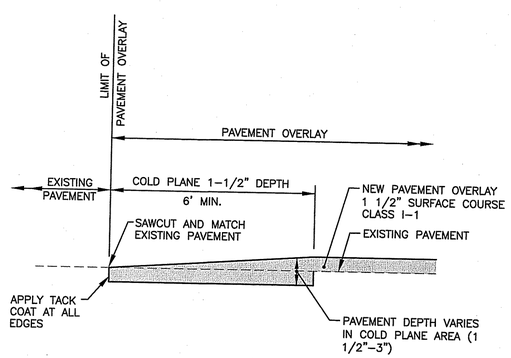
SIGN MOUNTING DETAIL

NOT TO SCALE



PROPOSED PAVEMENT MATCH AT EXISTING PAVEMENT

NOT TO SCALE

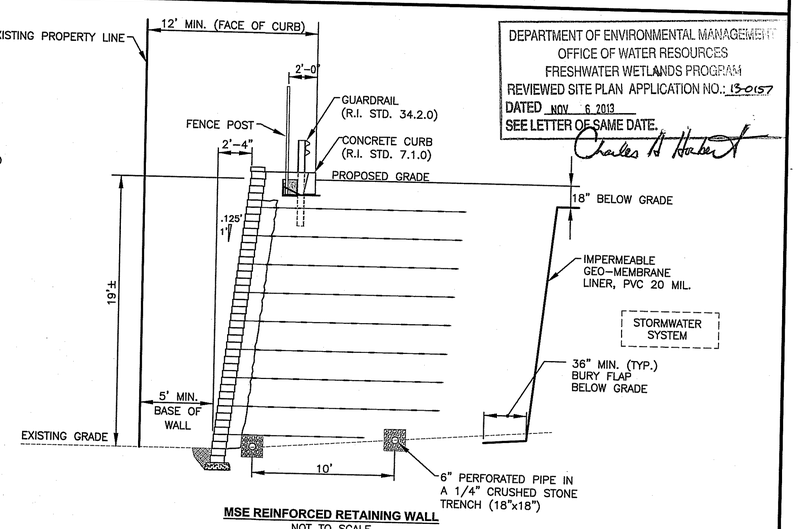


PAVEMENT OVERLAY SAWCUT and MATCH DETAIL

NOT TO SCALE

NOTES:

1. THE WALL SUPPLIER SHALL RETAIN THE SERVICES OF A LICENSED RHODE ISLAND STRUCTURAL ENGINEER FOR THE FINAL WALL DESIGN. DESIGN SHALL BE SUBMITTED TO OWNER AND ENGINEER FOR APPROVAL OF MATERIALS.
2. RETAINING WALL SHALL BE MSE REINFORCED WALL OR APPROVED EQUAL.
3. UPON APPROVAL BY THE OWNER, THE CONTRACTOR MAY SUBMIT ALTERNATE WALL DESIGNS BY A RHODE ISLAND PROFESSIONAL ENGINEER FOR USE ON THE SITE.
4. THE WALL SECTION SHOWN IS CONCEPTUAL AND DOES NOT REPRESENT A FINAL DESIGN.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
Charles A. Horbert

MSE REINFORCED RETAINING WALL

NOT TO SCALE

OCT 23 2013

• Civil
• Transportation
• Environmental
• Site Planning
• Land Surveying

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cel@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

MISCELLANEOUS DETAILS PLAN No.1

DATE:	*SCALE:*
AUGUST 2013	AS SHOWN

DWG. NAME: 1920–C09–DETAIL1–R5.dwg

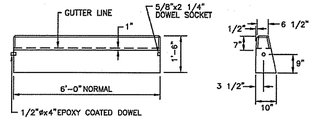
REVISIONS

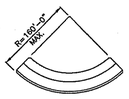
NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

C9

SHEET: 10 *OF:* 20





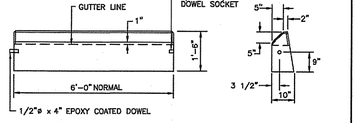
CIRCULAR CURB

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
5. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS			PRECAST CONCRETE CURB	R.I. STANDARD 7.1.0
NO.	BY	DATE		
1	MLP	Mar 05		

JUNE 15, 1998 (ISSUE DATE)



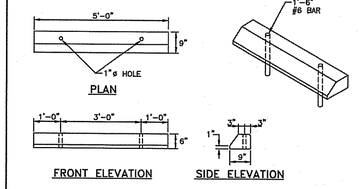
CIRCULAR CURB

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR PIECES TO BE 3'-0".
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
5. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS			PRECAST CONCRETE SLOPED FACE CURB	R.I. STANDARD 7.2.0
NO.	BY	DATE		
1	MLP	Mar 05		

JUNE 15, 1998 (ISSUE DATE)

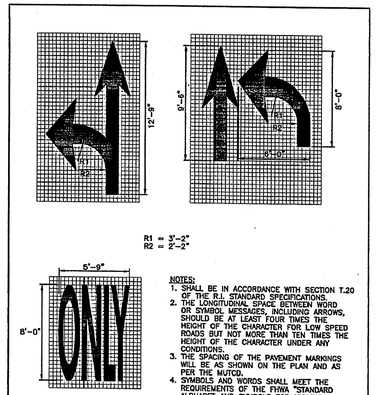


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. ALL EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
3. ALL SURFACES TO HAVE A SPONGE FLOAT FINISH.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS			PRECAST CONCRETE CAR STOPS	R.I. STANDARD 7.2.4
NO.	BY	DATE		
1	MLP	Mar 05		

JUNE 15, 1998 (ISSUE DATE)

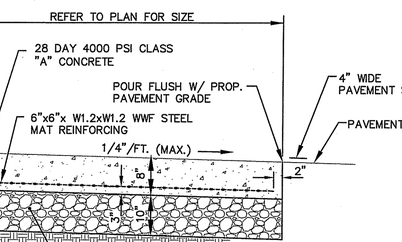


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION T.20 OF THE R.I. STANDARD SPECIFICATIONS.
2. THE LONGITUDINAL SPACE BETWEEN WORD OR SYMBOL MESSAGES, INCLUDING ARROWS, SHOULD BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTER FOR LOW SPEED ROADS BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTER UNDER ANY CONDITIONS.
3. THE SPACING OF THE PAVEMENT MARKINGS WILL BE AS SHOWN ON THE PLAN AND AS PER THE MUTCD.
4. SYMBOLS AND WORDS SHALL MEET THE REQUIREMENTS OF THE FHWA "STANDARD ALPHABET AND SYMBOLS FOR HIGHWAY PAVEMENT MARKINGS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS			PAVEMENT MARKINGS ARROWS AND ONLY	R.I. STANDARD 20.1.0
NO.	BY	DATE		

JUNE 15, 1998 (ISSUE DATE)



NOTES
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS			CEMENT CONCRETE SIDEWALK	R.I. STANDARD 43.1.0
NO.	BY	DATE		
1	MLP	3/7/06		
2	MLP	06/01/10		

JUNE 15, 1998 (ISSUE DATE)

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. POST AND OFFSET BRACKET TO BE FABRICATED FROM 6"x4" X 5/8"x1/2" STEEL "W" SECTIONS.
3. POST AND BRACKET BOLT HOLES TO BE OVAL UNLESS OTHERWISE SPECIFIED.
4. ALL HOLES IN OFFSET BRACKETS SHALL BE 13/16"ø.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS			STEEL BEAM GUARDRAIL	R.I. STANDARD 34.2.0
NO.	BY	DATE		

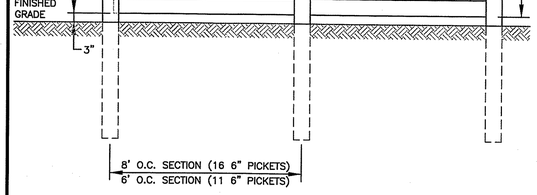
JUNE 15, 1998 (ISSUE DATE)

NOTE:
SHALL BE IN ACCORDANCE WITH SECTION L.11 OF THE R.I. STANDARD SPECIFICATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS			DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES	R.I. STANDARD 51.1.1
NO.	BY	DATE		

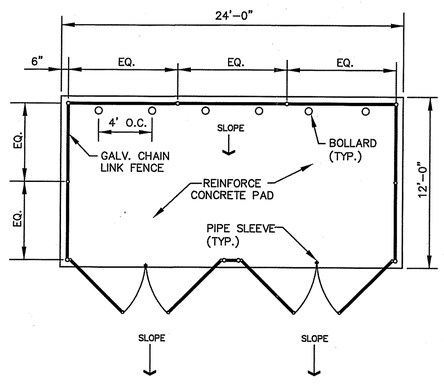
JUNE 15, 1998 (ISSUE DATE)



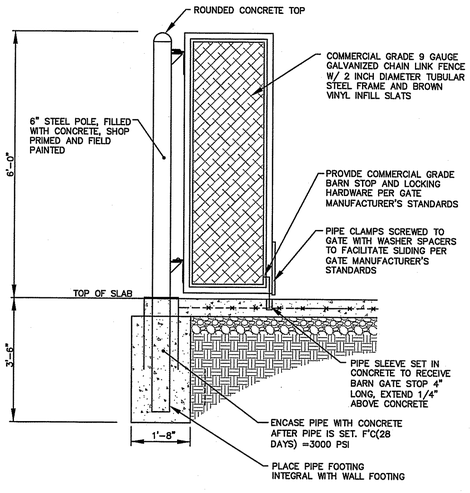
VINYL FENCE DETAIL
NOT TO SCALE

SECTION VIEW

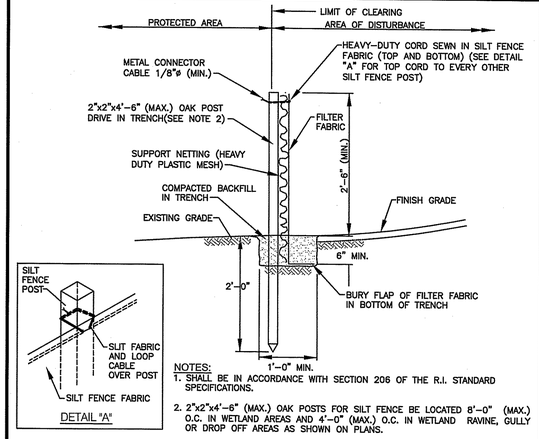
TRASH ENCLOSURE PAD DETAIL
NOT TO SCALE



TRASH ENCLOSURE PLAN
NOT TO SCALE



TRASH ENCLOSUREGATE-PARTIAL SECTION
NOT TO SCALE



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6" (MAX.) OAK POSTS FOR SILT FENCE BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP OFF AREAS AS SHOWN ON PLANS.
3. 1"x1"x4'-6" (MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

SILT FENCE DETAIL
NOT TO SCALE

• Civil
• Transportation
• Environmental
• Site Planning
• Land Surveying

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cel@crossmaneng.com

STEVEN M. CABR... No. 484... REGISTERED PROFESSIONAL ENGINEER

OCT 23 2013

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

MISCELLANEOUS DETAILS PLAN No.2

DATE:	*SCALE:*
AUGUST 2013	AS SHOWN

DWG. NAME: 1920-C10-DETAIL2-R5.dwg

REVISIONS

△ NUMBER	REMARKS	DATE
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 13-0152
DATED NOV 6 2013
SEE LETTER OF SAME DATE.

DRAWING NUMBER

C10

SHEET: 11 *OF:* 20

INFILTRATION SYSTEM CONSTRUCTION NOTE

1. WITHIN THE INFILTRATION SYSTEM, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND SUBSOIL AREAS (A AND B HORIZONS) AND ANY EXISTING SOILS THAT YIELD A PERMEABILITY RATE <2.41 INCHES/HOUR. AREA SHALL BE PREPARED WITH SAND FILL SOIL MEETING THE MEDIA REQUIREMENTS OF SAND FILTERS, AS DESCRIBED IN THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, DECEMBER 2010, SECTION 5.5 (ASTM C–33 SAND). THE DEPTH OF EXISTING SOIL REMOVAL SHALL BE VERIFIED BY THE ENGINEER. PLACEMENT OF THE SAND FILL (ASTM C–33 SAND), SHALL BE USED TO BRING THE BOTTOM OF BASIN TO THE DESIGN ELEVATIONS.

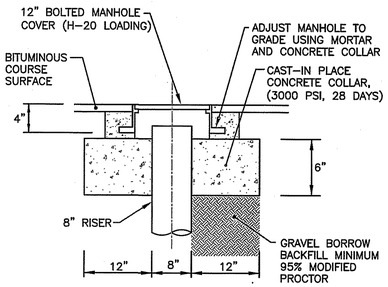
2. INFILTRATION SYSTEM CONSTRUCTION AND MATERIALS SHALL CONFORM TO RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL. DECEMBER 2010, APPENDIX F.3 CONSTRUCTION STANDARDS/SPECIFICATIONS FOR INFILTRATION BMP'S. AFTER CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE FINAL INSPECTIONS WITH THE OWNER IN ACCORDANCE WITH TABLE F–5 IN APPENDIX F.3.

3. THE CONTRACTOR IS REQUIRED TO SUBMIT A LIST OF MATERIALS, GRADATIONS AND THE NAME AND ADDRESS OF THE SUPPLIERS TO THE ENGINEER FOR APPROVAL PRIOR TO BRINGING MATERIAL ON SITE. MATERIAL CERTIFICATIONS SHALL ALSO BE REQUIRED FOR REVIEW AND APPROVAL.

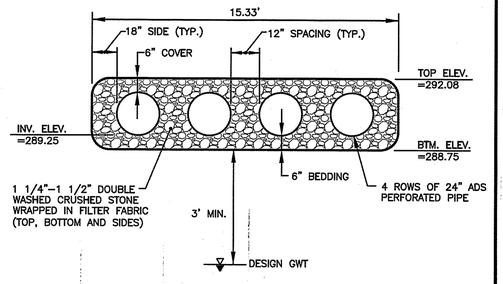
4. THE CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE ABOVE REFERENCED MANUAL. THE MANUAL CAN BE FOUND AT: http://www.dem.ri.gov/pubs/regs/water/swmanual.pdf.

5. GREAT CARE MUST BE TAKEN TO PREVENT THE INFILTRATION AREA FROM COMPACTION; BY MARKING OFF THE INFILTRATION BASIN AND UNDERGROUND INFILTRATION LOCATION BEFORE THE START OF CONSTRUCTION, AND BY CONNECTING UPSTREAM DRAINAGE AREAS ONLY AFTER CONSTRUCTION IS COMPLETE AND THE CONTRIBUTING AREA IS STABILIZED.

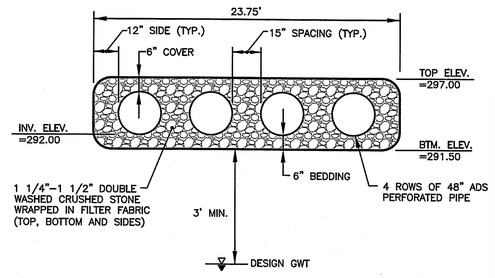
6. IF LARGE ROCKS OR BOULDERS ARE FOUND WITHIN 36" BELOW THE INFILTRATION SYSTEMS, OR WITHIN A 10' PERIMETER AROUND SYSTEM, THE CONTRACTOR SHALL REMOVE THE ROCKS/BOULDERS AND REPLACE WILL GRAVEL BORROW. CONTRACTOR SHALL COORDINATE WITH ENGINEER.



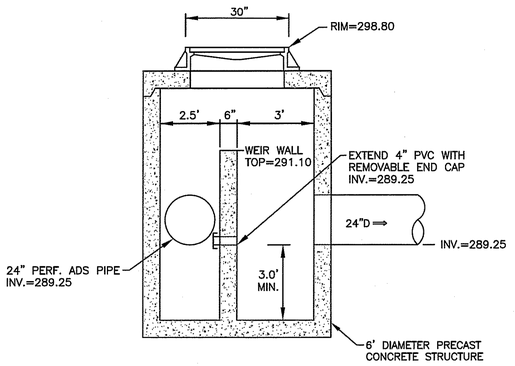
STORM DRAIN CLEAN-OUT DETAIL
NOT TO SCALE



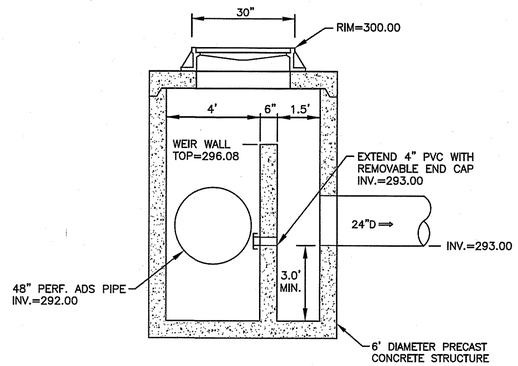
UNDERGROUND INFILTRATION SYSTEM No. 1 SECTION
NOT TO SCALE



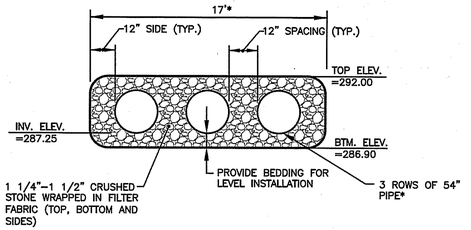
UNDERGROUND INFILTRATION SYSTEM No. 2 SECTION
NOT TO SCALE



UNDERGROUND INFILTRATION SYSTEM No. 1
OUTLET CONTROL STRUCTURE DETAIL (DMH 2)
NOT TO SCALE

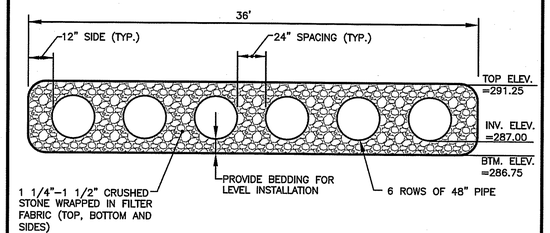


UNDERGROUND INFILTRATION SYSTEM No. 2
OUTLET CONTROL STRUCTURE DETAIL (DMH 3)
NOT TO SCALE

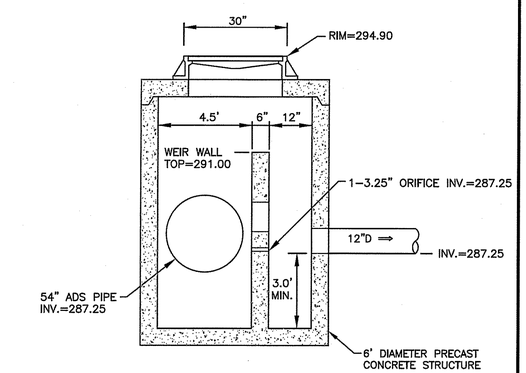


*NUMBER OF PIPE ROWS AND SYSTEM DIMENSIONS VARY. SEE SHEET C06.

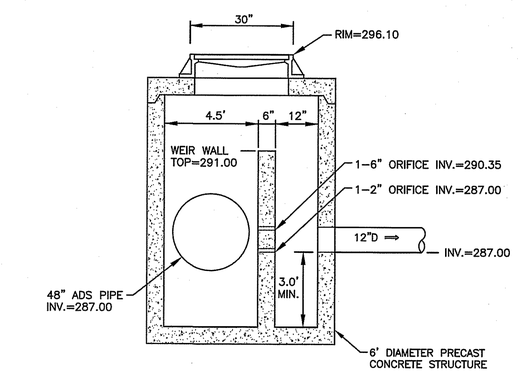
UNDERGROUND DETENTION SYSTEM No. 1 SECTION
NOT TO SCALE



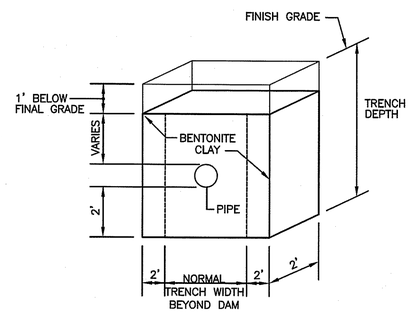
UNDERGROUND DETENTION SYSTEM No. 2 SECTION
NOT TO SCALE



UNDERGROUND DETENTION SYSTEM No. 1
OUTLET CONTROL STRUCTURE DETAIL (DMH 1)
NOT TO SCALE



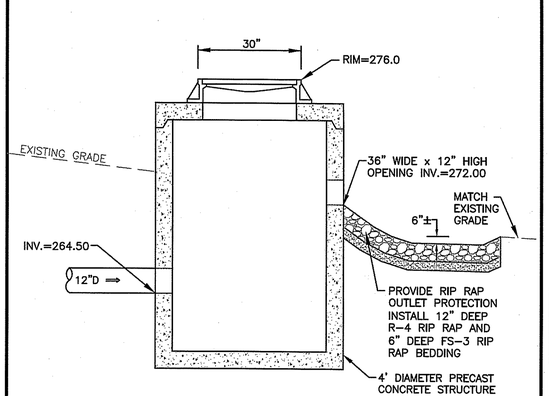
UNDERGROUND DETENTION SYSTEM No. 2
OUTLET CONTROL STRUCTURE DETAIL (DMH 4)
NOT TO SCALE



NOTES:

1. HEIGHT OF CLAY DAM SHALL ONLY VARY UPON COMPLETION OF SOIL AND ENGINEERING ASSESSMENT.
2. NO FITTING SHALL BE LOCATED WITHIN 4' OF DAM.
3. LOCATION, HEIGHT AND WIDTH OF DAM SHALL BE DETERMINED BY ENGINEER ON A SITE SPECIFIC BASIS.

TRENCH DAM DETAIL
NOT TO SCALE



OUTLET STRUCTURE DETAIL (DMH 11)
NOT TO SCALE

OCT 2 2013

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO. 13-057
DATED NOV 5 2013
SEE LETTER OF SAME DATE.

• Civil
• Transportation
• Environmental
• Site Planning
• Land Surveying

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cel@crossmaneng.com

STEVEN M. CABRAL No. 4847 REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

MISCELLANEOUS DETAILS PLAN No.3

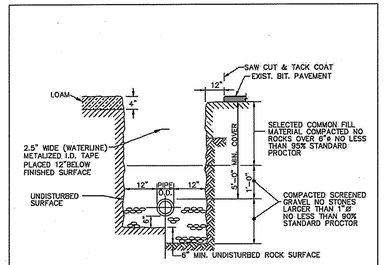
DATE:	*SCALE:*
AUGUST 2013	AS SHOWN

DWG. NAME: 1920–C11–DETAIL3–R5.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER:
C11
SHEET: 12 *OF:* 20



NOTES:

1. ROADWAY RESTORATION IN ACCORDANCE WITH COMMUNITY OR RIDOT.

KENT COUNTY WATER AUTHORITY

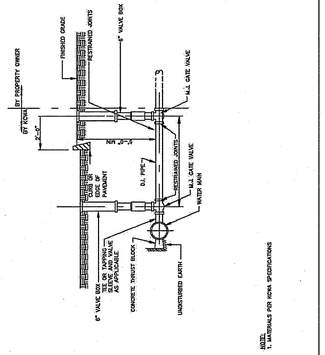
KCWA "proudly serving"

TRENCH INSTALLATION IN ROCK AND SOIL

NOT TO SCALE

DATE: 09/2006

TRENCHDRY.DWG



KENT COUNTY WATER AUTHORITY

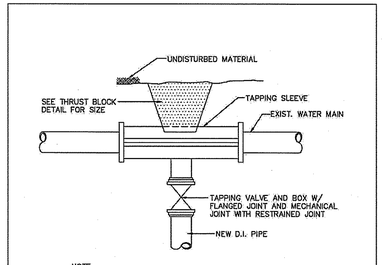
KCWA "proudly serving"

SERVICE CONNECTION GREATER THAN 4 INCHES

NOT TO SCALE

DATE: 09/2006

SERVICE.DWG



NOTE:

1.) TAPPING SLEEVE AND VALVE TO BE SWABBED WITH CHLORINE SOLUTION.

KENT COUNTY WATER AUTHORITY

KCWA "proudly serving"

TAPPING SLEEVE AND VALVE

NOT TO SCALE

DATE: 09/2006

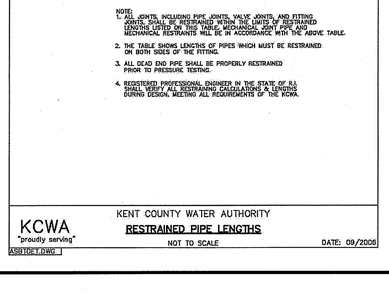
TAPPINGSLEEVE.DWG

WATER SERVICE NOTE

ANY CONFLICT ENCOUNTERED DURING CONSTRUCTION WITH THE PROPOSED WATER SYSTEM MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND KENT COUNTY WATER AUTHORITY PRIOR CONTINUATION OF CONSTRUCTION.

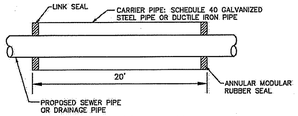
WATER NOTES

1. ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CURRENT RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY, ANSI/AWWA C600 STANDARDS, THE DUCTILE IRON PIPE RESEARCH ASSOCIATIONS INSTALLATION MANUAL AND GOVERNMENTAL REQUIREMENTS.
2. ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CLASS 350 CEMENT MORTAR LINED COMPACT STYLE (BY AMERICAN MANUFACTURER ONLY). FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C153/A21.53. MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11.
3. WATER PIPE SHALL BE DOUBLE CEMENT MORTAR LINED DUCTILE IRON PIPE CLASS 52 (AMERICAN MANUFACTURER ONLY) AND SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C151/A21.51.
4. CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, THRUST BLOCKS, GATE VALVES, GATE BOXES, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED SYSTEM.
5. CONCRETE THRUST, ANCHOR, OR BEARING BLOCKS SHALL BE INSTALLED IN LOCATIONS INDICATED AND AT ALL BENDS, FITTINGS, PLUGS, ETC. WHEN A THRUST BLOCK CANNOT BE PLACED AGAINST UNDISTURBED EARTH, A MECHANICAL RESTRAINED JOINT PIPE MAY BE UTILIZED.
6. PRESSURE AND LEAKAGE TESTS AND DISINFECTING PIPES SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO KENT COUNTY WATER AUTHORITY REQUIREMENTS, AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS SET FORTH IN SECTIONS 3.22 AND 3.23 OF THE RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY.
7. ALL GATE VALVES, FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 250 PSI.
8. WATER PIPE SHALL BE LOCATED AT A DEPTH OF COVER EQUAL TO 5' MINIMUM. A MINIMUM OF 10–FEET HORIZONTAL OR 18–INCH VERTICAL SEPARATION SHALL BE MAINTAINED IN THE PLACEMENT OF WATER MAINS, SERVICES, OR APPURTENANCES WITHIN THE VICINITY OF SEWER FACILITIES, OR VICE VERSA. WHERE THE ABOVE SEPARATION DISTANCES CANNOT BE ACHIEVED, THE SANITARY SEWER PIPE SHALL BE ENCASED WITHIN A DUCTILE IRON CARRIER PIPE FOR A DISTANCE EQUAL TO 10–FEET ON EITHER SIDE OF THE AREA OF CONCERN. CONCRETE ENCASEMENT IS NOT ALLOWED. UTILITY SEPARATION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY.
9. ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS GATE VALVE, PIPE, THRUST BLOCKS, FITTINGS, CASTINGS, ETC. SHALL BE SUBMITTED TO THE KENT COUNTY WATER AUTHORITY AND ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
10. WATER LINE TRENCH TO BE AWWA TYPE 5. COMPACTION MUST BE ACCOMPLISHED IN 6" LIFTS. A METALIZED DETECTABLE IDENTIFICATION TAPE 2.5" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1'–0" BELOW FINISHED GRADE.
11. GATE VALVES TO BE MUELLER IRON BODY BRONZE MOUNTED DOUBLE DISC PARALLEL SEAT TYPE OR AMERICAN DARLING RESILIENT VALVE SEAT MODEL CRS–80.
12. THE FINAL LOCATIONS FOR ALL INTERIOR PIPING, BACK FLOW PREVENTORS AND VALVES SHALL BE VERIFIED WITH THE PLUMBING AND FIRE SPRINKLER SYSTEM SUB–CONTRACTORS.
13. THE MANUFACTURER AND MODEL OF BACK FLOW PREVENTORS ARE TO BE VERIFIED BY THE APPROPRIATE PLUMBING AND FIRE SPRINKLER SUB–CONTRACTORS; AND MUST BE APPROVED FOR USE BY THE KENT COUNTY WATER AUTHORITY PRIOR TO ORDERING.
14. AS–BUILT DRAWINGS MUST BE FURNISHED BY THE CONTRACTOR TO, AND APPROVED BY, KENT COUNTY WATER AUTHORITY PRIOR TO WATER SERVICE ACTIVATION.
15. THE CONTRACTOR MUST INSTALL TEMPORARY BLOW–OFFS AT ALL DEAD–ENDS INSIDE THE PROPOSED BUILDINGS. THE BLOW–OFFS ARE TO BE USED FOR FLUSHING AND SAMPLES. THE CONTRACTOR MUST FLUSH THE FIRE LINE TO EACH BUILDING USING A 4–INCH TEMPORARY FLUSHING CONNECTION.
16. ALL VALVES MUST OPEN RIGHT.
17. WATER UTILIZED FOR DISINFECTION, PRESSURE TESTING AND FLUSHING WHICH IS OBTAINED DIRECTLY FROM THE KENT COUNTY WATER AUTHORITY SYSTEM, MUST FLOW THROUGH AN ISOLATED CONNECTION TO THE KENT COUNTY WATER AUTHORITY SYSTEM VIA AN APPROVED METER, TESTABLE BACK FLOW PREVENTION DEVICE AND JUMPER LINE. REFER TO THE CURRENT RULES AND REGULATIONS OF THE KENT COUNTY WATER AUTHORITY.
18. THE CONTRACTOR SHALL FURNISH AND INSTALL SUITABLE TEMPORARY TESTING PLUGS, CAPS, PUMPS, PIPE CONNECTIONS, AND OTHER APPURTENANCES, AS NECESSARY, TO OBTAIN SAMPLES.



NOTES:

1. THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED UTILITY SHALL BE A MINIMUM OF 18 INCHES.
2. THE HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED UTILITY SHALL BE A MINIMUM OF 10 FEET.
3. IF 1 OR 2 CANNOT BE MAINTAINED THE PROPOSED UTILITY SHALL BE INSTALLED WITHIN A CARRIER PIPE UPON WRITTEN APPROVAL BY THE KCWA.
4. SEWER MAIN AND SERVICES ARE NOT ALLOWED TO CROSS OVER THE TOP OF WATER MAIN.
5. CONCRETE ENCASEMENT IS NOT ALLOWED.



CARRIER PIPE DETAIL

KENT COUNTY WATER AUTHORITY

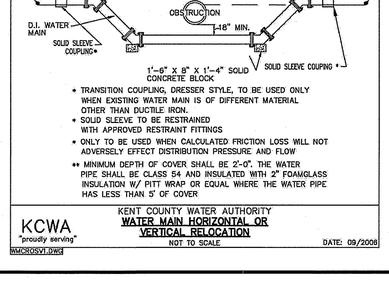
KCWA "proudly serving"

UTILITY SEPERATION

NOT TO SCALE

DATE: 09/2006

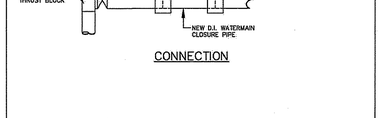
UTILSEPD.DWG



PRIOR TO CONNECTION

NOTE:

1. PRIOR TO FINAL APPROVAL FOR PERMANENT CONNECTION FROM KCWA, CONTRACTOR SHALL PERFORM A PRESSURE TESTING AND CHLORINATION.
2. SLEEVE FOR CLOSURE TO BE SWABBED WITH CHLORINE SOLUTION.



CONNECTION

KENT COUNTY WATER AUTHORITY

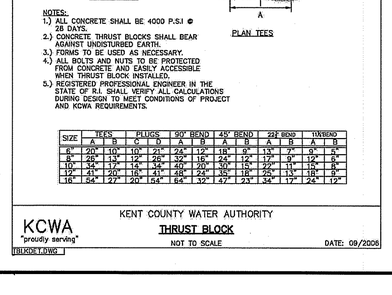
KCWA "proudly serving"

CONNECTION OF NEW WATER MAIN TO EXISTING WATER MAIN

NOT TO SCALE

DATE: 09/2006

CONVAL.DWG



KENT COUNTY WATER AUTHORITY

KCWA "proudly serving"

TEMPORARY CONNECTION FOR PRESSURE TESTING AND DISINFECTION

NOT TO SCALE

DATE: 09/2006

TEMPCONP.DWG

RESTRAINED PIPE LENGTHS FOR RESTRAINED FITINGS

FITTING	RESTRAINED LENGTH
12" PLUG	94'
12" TEE	44'
12" 90°	58'
12" 45°	44'
12" 22 1/2°	23'
12" 11 1/4°	22'
8" PLUG	58'
8" TEE	44'
8" 90°	44'
8" 45°	22'
8" 22 1/2°	22'
8" 11 1/4°	22'
8" X 6"	44'
6" PLUG	44'
6" TEE	22'
6" 90°	22'
6" 45°	22'
6" 22 1/2°	22'
6" 11 1/4°	22'

NOTE:

1. ALL JOINTS, INCLUDING PIPE JOINTS, VALVE JOINTS, AND FITTING JOINTS, SHALL BE RESTRAINED WITHIN THE LIMITS OF RESTRAINED LENGTHS LISTED ON THIS TABLE. MECHANICAL JOINT PIPE AND MECHANICAL RESTRAINTS WILL BE IN ACCORDANCE WITH THE ABOVE TABLE.
2. THE TABLE SHOWS LENGTHS OF PIPES WHICH MUST BE RESTRAINED ON BOTH SIDES OF THE FITTING.
3. ALL DEAD END PIPE SHALL BE PROPERLY RESTRAINED PRIOR TO PRESSURE TESTING.
4. REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF R.I. SHALL VERIFY ALL RESTRAINING CALCULATIONS & LENGTHS DURING DESIGN, MEETING ALL REQUIREMENTS OF THE KCWA.

KENT COUNTY WATER AUTHORITY

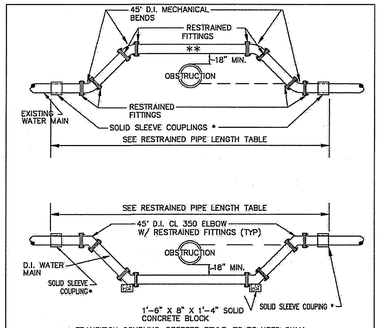
KCWA "proudly serving"

RESTRAINED PIPE LENGTHS

NOT TO SCALE

DATE: 09/2006

ASBTDEY.DWG



* TRANSITION COUPLING, DRESSER STYLE, TO BE USED ONLY WHEN EXISTING WATER MAIN IS OF DIFFERENT MATERIAL OTHER THAN DUCTILE IRON.
* SOLID SLEEVE TO BE RESTRAINED WITH APPROVED RESTRAINT FITTINGS
* ONLY TO BE USED WHEN CALCULATED FRICTION LOSS WILL NOT ADVERSELY EFFECT DISTRIBUTION PRESSURE AND FLOW
** MINIMUM DEPTH OF COVER SHALL BE 2'–0". THE WATER PIPE SHALL BE CLASS 54 AND INSULATED WITH 2" FOAMGLASS INSULATION W/ PITT WRAP OR EQUAL WHERE THE WATER PIPE HAS LESS THAN 5' OF COVER

KENT COUNTY WATER AUTHORITY

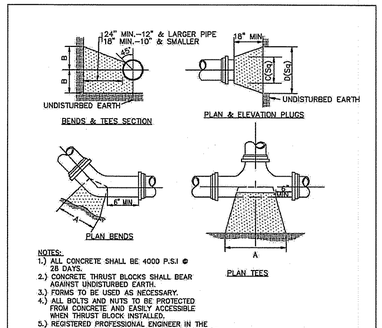
KCWA "proudly serving"

WATER MAIN HORIZONTAL OR VERTICAL RELOCATION

NOT TO SCALE

DATE: 09/2006

WMCROSVT.DWG



NOTES:

1.) ALL CONCRETE SHALL BE 4000 P.S.I @ 28 DAYS.
2.) CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
3.) FORMS TO BE USED AS NECESSARY.
4.) ALL BOLTS AND NUTS TO BE PROTECTED FROM CONCRETE AND EASILY ACCESSIBLE WHEN THRUST BLOCK INSTALLED.
5.) REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF R.I. SHALL VERIFY ALL CALCULATIONS DURING DESIGN TO MEET CONDITIONS OF PROJECT AND KCWA REQUIREMENTS.

SIZE	TEES		PLUGS		90° BEND		45° BEND		22½ BEND		11¼BEND	
	A	B	C	D	A	B	A	B	A	B	A	B
6"	20"	10"	10"	21"	24"	12"	18"	6"	13"	7"	9"	4"
8"	26"	13"	12"	28"	32"	16"	24"	12"	17"	9"	12"	6"
10"	34"	17"	14"	34"	40"	20"	30"	15"	22"	11"	15"	8"
12"	41"	20"	16"	41"	48"	24"	35"	18"	26"	13"	18"	9"
16"	54"	27"	20"	54"	64"	32"	47"	23"	34"	17"	24"	12"

KENT COUNTY WATER AUTHORITY

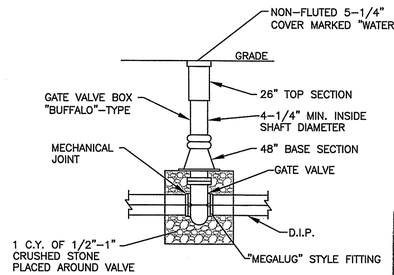
KCWA "proudly serving"

THRUST BLOCK

NOT TO SCALE

DATE: 09/2006

TBLKDET.DWG



ELEVATION

NOTE:

WRAP CRUSHED STONE WITH 4 oz. NON–WOVEN GEOTEXTILE FABRIC BEFORE FILLING EXCAVATION.

TYPICAL WATER GATE BOX INSTALLATION

NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
Charles A. Horbert
DIRECTOR/DESIGNEE

• Civil
• Transportation
• Environmental
• Site Planning
• Land Surveying

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cel@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

OCT 2 3 2013

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

MISCELLANEOUS DETAILS PLAN No. 4

DATE:	*SCALE:*
AUGUST 2013	AS SHOWN

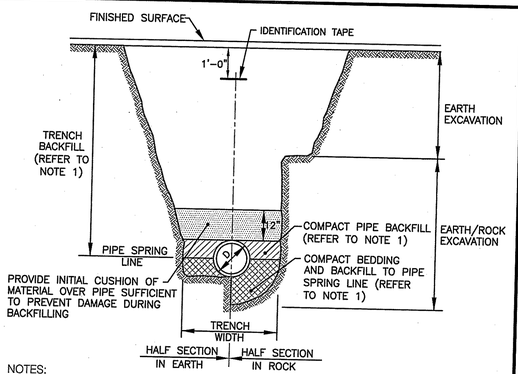
DWG. NAME: 1920–C12–DETAIL4–R5.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

C12

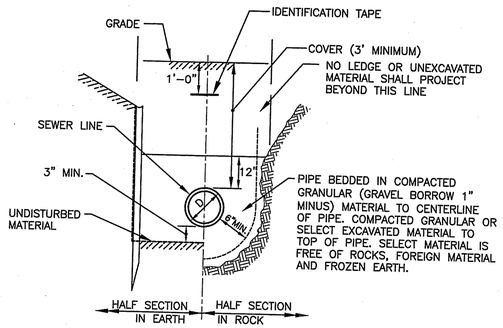
SHEET: 13 *OF:* 20



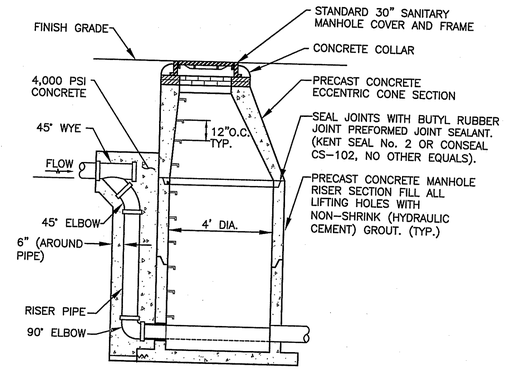
NOTES:

1. PIPE BEDDING AND BACKFILL TO SPRING LINE SHALL CONSIST OF CRUSHED STONE–3/4" MINUS. PIPE BACKFILL SHALL CONSIST OF CRUSHED STONE (WRAPPED IN FILTER FABRIC) OR GRAVEL (3" MINUS, WITH SIEVE ANALYSIS APPROVED BY ENGINEER), OR OTHER APPROVED MATERIAL. TRENCH BACKFILL SHALL CONSIST OF SUITABLE EXCAVATED MATERIAL OR OTHER APPROVED MATERIAL. ALL BEDDING/BACKFILL TO BE COMPACTED TO 95% DRY DENSITY, MODIFIED PROCTOR METHOD.
2. ALL TRENCH EXCAVATION AND ANY SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND OSHA REGULATIONS.
3. MINIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 12". MAXIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 24".

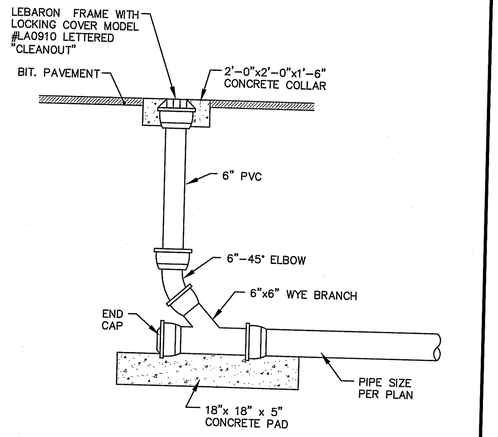
TRENCH DETAIL
NOT TO SCALE



TYPICAL SEWER LINE TRENCH DETAIL
NOT TO SCALE



DROP INLET SEWER DETAIL
NOT TO SCALE



SEWER CLEANOUT DETAIL
NOT TO SCALE

OCT 23 2013

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
Charles A. Horbert

• Civil
• Transportation
• Environmental
• Site Planning
• Land Surveying

CROSSMAN ENGINEERING
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Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cei@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

MISCELLANEOUS DETAILS PLAN No.5

DATE:	*SCALE:*
AUGUST 2013	AS SHOWN

DWG. NAME: 1920-C13-DETAIL5-R5.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

C13

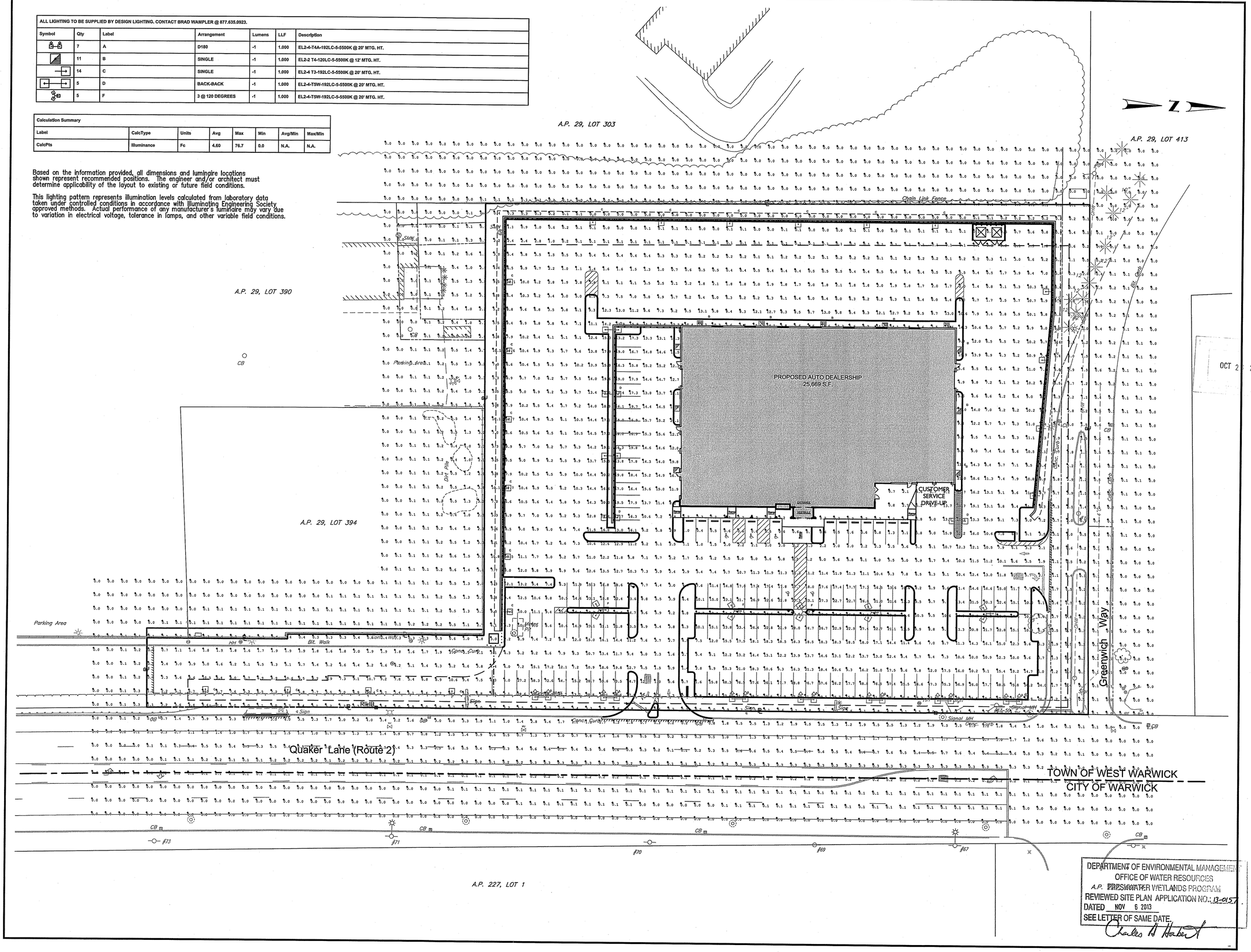
SHEET: 14 *OF:* 20

ALL LIGHTING TO BE SUPPLIED BY DESIGN LIGHTING. CONTACT BRAD WAMPLER @ 877.635.0923.						
Symbol	Qty	Label	Arrangement	Lumens	LLF	Description
	7	A	D180	-1	1.000	EL2-4-T4A-192LC-5-5500K @ 20' MTG. HT.
	11	B	SINGLE	-1	1.000	EL2-2 T4-120LC-5-5500K @ 12' MTG. HT.
	14	C	SINGLE	-1	1.000	EL2-4 T3-192LC-5-5500K @ 20' MTG. HT.
	5	D	BACK-BACK	-1	1.000	EL2-4-T5W-192LC-5-5500K @ 20' MTG. HT.
	5	F	3 @ 120 DEGREES	-1	1.000	EL2-4-T5W-192LC-5-5500K @ 20' MTG. HT.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts	Illuminance	Fc	4.60	76.7	0.0	N.A.	N.A.

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps, and other variable field conditions.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
A.P. FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
Charles A. Horbert

OCT 2 2013

Design Lighting
Ph: 877.635.0923
Fx: 256.635.6704

Brad Wampler
83 High Avenue
Valley Head, Alabama 35989
Cell: 256.996.2560

STEVEN M. CABRAL
No 4847
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

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PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

SITE LIGHTING PLAN

DATE:	*SCALE:*
AUGUST 2013	1"=30'

DWG. NAME: 1920-E01-LIGHT-R5.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

E1

SHEET: 15 *OF:* 20

PLANTING SCHEDULE

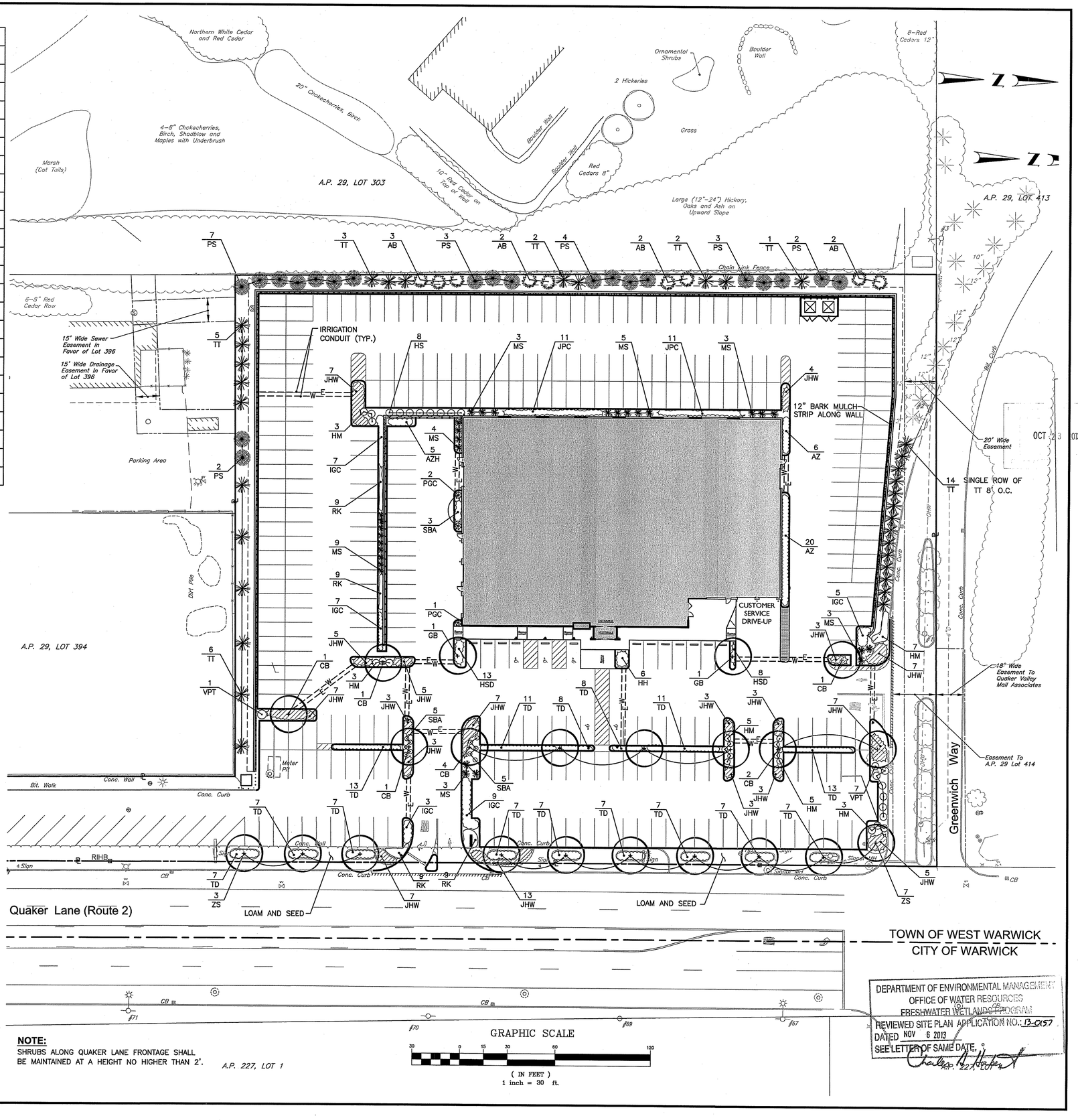
Key	Quantity	Botanical Name *Common Name*	Size	Remarks
TREES				
AB	9	Abies concolor White Fir	6'–7'	B&B
CB	9	Carpinus betulas 'Fastigiata' Columnar European Hornbeam	2 1/2–3" cal.	B&B
GB	2	Ginko biloba 'Prinston Sentry' Prinston Sentry Maidenhair Tree	2 1/2–3" cal.	B&B
PS	21	Pinus strobus 'Fastigiata' Columnar White Pine	6'–7'	B&B
TT	33	Thuja occidentalis 'Techney' Techney American Arborvitae	6'–7'	B&B
ZS	10	Zelkova serrata 'Green Vase' Green Vase Japanese Zelkova	2 1/2–3" cal.	B&B
SHRUBS				
AZ	26	Azalea 'Delaware Valley White' *White Evergreen Azalea*	5 gal.	cont.
AZH	5	Azalea 'Hino Crimson' *Red Evergreen Azalea*	5 gal.	cont.
HS	8	Hibiscus syriacus Variety Rose of Sharon	3'–4'	B&B
HM	26	Hydrangea macrophylla 'Nikko Blue' Nikko Blue Hydrangea	24"–30"	B&B
IGC	30	Ilex glabra 'Compacta' Compact Inkberry	18"–24"	B&B
JPC	22	Juniperus chin. 'Pfitzeriana Compacta' Compact Pfitzer Juniper	3 gal.	cont.
MS	30	Miscanthus sinensis 'Gracillimus' Maiden Hair Grass	3 gal.	cont.
PGC	3	Picea glauca 'Conica' Dwarf Alberta Spruce	3'–4'	B&B
RK	36	Rosa Double Knockout Double Red Knockout Rose	3 gal.	cont.
SBA	13	Spirea bumalda 'Anthony Waterer' Anthony Waterer Spirea	5 gal.	cont.
TD	148	Taxus media 'Densiformis' Densiformis Spreading Yew	18"–24"	B&B
VPT	8	Viburnum plicatum tom. 'Shasta' Shasta Double File Viburnum	5 gal.	Cont.
PERENNIALS/GROUNDCOVER				
HSD	21	Hemerocallis 'Stella D'Oro' Stella D'Oro Daylily–repeat	1 gal.	cont.
HH	6	Hosta 'Hadspen Blue' Hadspen Blue Hosta	1 gal.	cont.
JHW	88	Juniperus horizontalis 'Wiltoni' Blue Rug Juniper	2 gal.	cont.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON SITE AND SHALL IMMEDIATELY REPORT ANY DISCREPANCIES OR DEVIATIONS FROM THE CONSTRUCTION PLANS TO THE PROJECT ENGINEER. THE CONTRACTOR SHALL ALSO REPORT ANY CONDITIONS UNCOVERED IN THE WORK THAT ARE NOT REFLECTED WITHIN THE PLANS.
2. THE CONTRACTOR SHALL ESTABLISH CONSTRUCTION LIMITS ON THE SITE BY ACCEPTABLE VISIBLE MARKERS PLACED AT EYE LEVEL. ALL WORK AND EQUIPMENT SHALL BE CONFINED TO WITHIN THESE LIMITS. THE CONTRACTOR SHALL REMOVE ALL MARKERS WHEN DIRECTED BY THE OWNER.
3. THE SITE SHALL BE "ROUGH GRADED" TO THE ELEVATIONS AND CONTOURS SET FORTH ON THE PLANS, ALLOWING FOR GRAVEL, LOAMING AND FINAL GRADING.
4. THE CONTRACTOR SHALL STRIP AND STOCKPILE EXISTING LOAM FROM THOSE AREAS THAT ARE TO BE EXCAVATED OR FILLED AND TO WITHIN THE PROJECT LIMITS. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR OTHER UNSUITABLE MATERIAL UNLESS DIRECTED BY OWNER. ALL EXCESS SOIL REMAINS THE PROPERTY OF THE OWNER. EARTH EXCAVATION SHALL BE LIMITED TO THE DIMENSIONS AND REQUIREMENTS SHOWN ON THE DRAWINGS.
5. REMOVE AND PROPERLY DISPOSE ALL SOIL CONTAMINATED BY SITE CONSTRUCTION.
6. THE INTENTION OF THE OWNER IS TO MAINTAIN THE BOUNDARIES OF THE SITE IN ITS EXISTING CONDITION , THEREFORE THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFINING THE WORK TO WITHIN THE CONSTRUCTION LIMITS.
7. ALL EXISTING VEGETATION (TREES, SHRUBS, GRASSES, ETC.) TO REMAIN SHALL BE PROTECTED FROM INJURY. INDIVIDUAL TREES AND SHRUBS TO BE SAVED WITHIN THE DESIGNATED WORK AREA SHALL BE ADEQUATELY PROTECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE ALL PROTECTIVE BARRIERS AS DIRECTED BY THE OWNER.
8. ALL EXISTING GRASSED AREAS NOT ADEQUATELY PROTECTED AND DAMAGED DURING CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL WETLANDS, TOWN AND STATE REGULATIONS.
10. THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY DIG–SAFE A MINIMUM OF 72 BUSINESS HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
11. PLANT INSTALLATION MAY BE PERFORMED FROM MID–MARCH TO MID–OCTOBER ONLY, DEPENDING UPON THE REGION.
12. ALL PLANTINGS SHALL BE INSTALLED ONLY BY A REGISTERED LANDSCAPE CONTRACTOR.

GENERAL NOTES

1. TREE PROTECTION SHALL BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE LANDSCAPE ARCHITECT.
2. ALL EXISTING TREES SHALL BE PROTECTED WITH TREE TRUNK PROTECTION AND CANOPY SILT FENCE PROTECTION. EXISTING SHRUBS SHALL BE PROTECTED WITH SILT FENCE PROTECTION. (REFER TO DETAILS SHEET L2).
3. A IRRIGATION SYSTEM SHALL BE PROVIDED IN ALL LANDSCAPE BEDS (EXCLUDING LANDSCAPE AREAS AT BOTTOM OF SITE PERIMETER WALLS). IRRIGATION SYSTEM SHALL BE DESIGNED BY THE REGISTERED LANDSCAPE CONTRACTOR. IRRIGATION SHALL BE INSTALLED AND MAINTAINED BY THE LANDSCAPE CONTRACTOR FOR A PERIOD OF ONE (1) YEAR.
4. IRRIGATION CONDUIT SHALL BE 2 INCH SCHEDULE 40 PVC
5. NO LANDSCAPE INSTALLATION CAN OCCUR WITHOUT THE LANDSCAPE CONTRACTOR SCHEDULING AN INSTALLATION INSPECTION WITH THE PROJECT LANDSCAPE ARCHITECT. ANY INSTALLATION NOT INSPECTED WILL NOT BE ACCEPTED BY THE OWNER.
6. PRIOR TO THE ACCEPTANCE BY THE OWNER, THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN MUST BE INSTALLED, INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT.



NOTE:
SHRUBS ALONG QUAKER LANE FRONTAGE SHALL BE MAINTAINED AT A HEIGHT NO HIGHER THAN 2'.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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OCT 23 2013

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STEVEN M. CABRAL No. 4847 REGISTERED PROFESSIONAL ENGINEER

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PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
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PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

LANDSCAPE PLAN

DATE:	*SCALE:*
AUGUST 2013	1"=30'

DWG. NAME: 1920–L01–LAND–R5.dwg

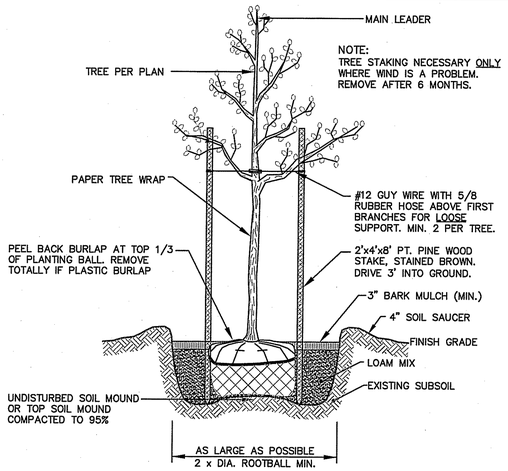
REVISIONS

NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

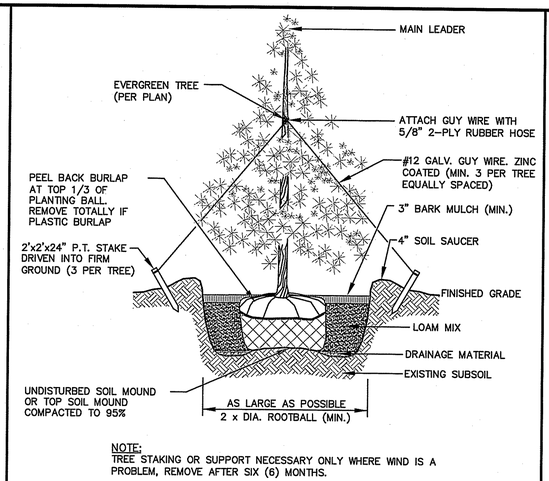
L1

SHEET: 16 *OF:* 20



DECIDUOUS TREE PLANTING DETAIL

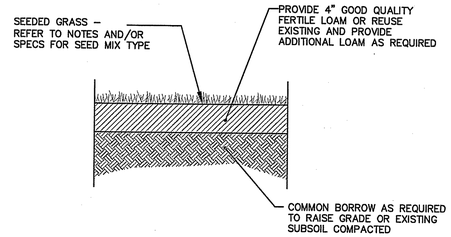
NOT TO SCALE



NOTE:
TREE STAKING OR SUPPORT NECESSARY ONLY WHERE WIND IS A PROBLEM, REMOVE AFTER SIX (6) MONTHS.

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE



NOTE:

THE CONTRACTOR WILL BE RESPONSIBLE FOR WATERING LAWN DURING THE COURSE OF THE GROWING SEASON FOR A PERIOD OF ONE (1) YEAR.

LOAM-SEED DETAIL

NOT TO SCALE

SEEDING NOTES

1. LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 4" OVER ALL AREAS DESIGNATED ON PLANS.
2. SHAPE AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
3. FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN A SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 3 TO 4 INCHES OF THE PLANTING SOIL. APPLY AT THE RATE OF 8 POUNDS PER 1,000 SQUARE FEET AT SEEDING.
4. LIME: SPREAD EVENLY AND WORK INTO THE SOIL DURING PREPARATION OF SEED BED AT THE RATE OF ONE TON PER ACRE. INCORPORATE INTO THE SOIL BY DICING OR OTHER APPROVED METHOD. DISTRIBUTE LIME UNIFORMLY AND WORK INTO TOP 4 INCHES OF TOP SOIL (MINIMUM) AND UNIFORMLY BLEND BY DICING OR ROTOTILLING.
5. APPLICATION OF SEED:
   A. RATE OF APPLICATION OF SEED SHALL BE 8 POUNDS PER 1,000 SQUARE FEET OR AS INDICATED ON PLANS.
   B. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS, AND ONLY DURING THE FOLLOWING DATES:
      SPRING SEEDING: MARCH 15 TO MAY 31
      FALL SEEDING: AUGUST 15 TO OCTOBER 15
   C. THE CONTRACTOR SHALL KEEP ALL SEEDED AREAS WATERED AND IN GOOD CONDITION, RESEEDING IF AND WHEN NECESSARY FOR AN 8 WEEK PERIOD OR UNTIL A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA. THE CONTRACTOR SHALL ALSO MAINTAIN THESE AREAS IN AN APPROVED CONDITION UNTIL PROVISIONAL ACCEPTANCE.
   D. DURING THIS PERIOD, WATER TURF AS NECESSARY TO MAINTAIN AN ADEQUATE SUPPLY OF MOISTURE WITHIN THE ROOT ZONE. AN ADEQUATE SUPPLY OF MOISTURE IS EQUIVALENT OF ONE INCH OF ABSORBED WATER PER WEEK THAT IS DELIVERED AT WEEKLY INTERVALS IN THE FORM OF NATURAL RAIN OR IS AUGMENTED AS REQUIRED BY PERIODIC WATERING.
   E. OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH.
   F. REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
   G. SEED:
      a. SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

SEED MIX No. 1

(SLOPES, MEADOWS AND GENERAL RESTORATION AREA)

TYPE	% BY WEIGHT
CREEPING RED FESCUE	70
ASTORIA BENTGRASS	5
BIRDSFOOT TREFOIL	15
PERENNIAL RYE GRASS	10

. APPLICATION RATE = 200 lbs. / ACRE

SEED MIX No. 2

(MOWED AREAS)

TYPE	% BY WEIGHT
NASSAU KENT BLUE	60
JAMESTOWN CHEWINGS FESCUE	20
PALMER PERENNIAL RYE GRASS	20

APPLICATION RATE = 200 lbs. / ACRE

SEED MIX No. 3

(DETENTION/RETENTION AREAS)

TYPE	% BY WEIGHT
CREEPING RED FESCUE	28
TALL FESCUE	24
PERENNIAL RYE GRASS	18
LITTLE BLUESTEM	15
REDTOP	4
NORTHEAST WILDFLOWER MIX	4

APPLICATION RATE = 220 lbs. / ACRE
OR 5 LBS. PER 1,000 S.F.

SEED MIX No. 4

(BIO-DETENTION AREAS)

TYPE	% BY WEIGHT
HARD FESCUE	60
SHEEP FESCUE	40

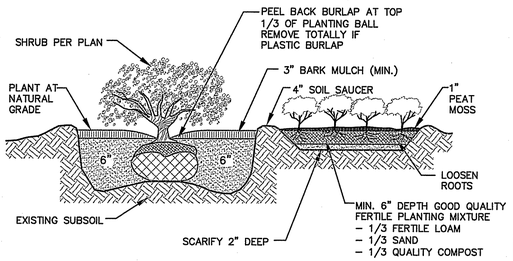
APPLICATION RATE =25-50 LBS./ACRE

SEED MIX No. 5

(WETLAND AREAS)

TYPE	% BY WEIGHT
REDTOP (AGROSTIS STOLONIFERA)	20
DEET TONGUE (PANICUM CLANDESTINUM)	20
BLUEJOINT GRASS (CALAMAGROSTIS CANAD.)	20
ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	10
SWITCHGRASS (PANICUM VGATUM)	10
JOE PYE WEED (EUPATORIUM FISTULOSUM)	5
YELLOW FLAG IRIS (IRIL VERSICOLOR)	5
RICEGRASS (LEERSIA ORYZOIDES)	

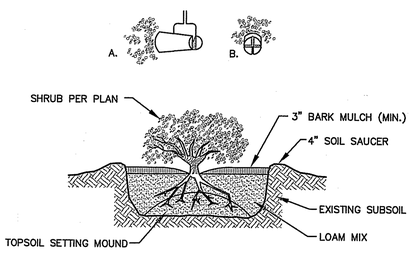
APPLICATION RATE = 60 lbs. / ACRE



BALL and BURLAP

SHRUB and GROUNDCOVER PLANTING DETAIL

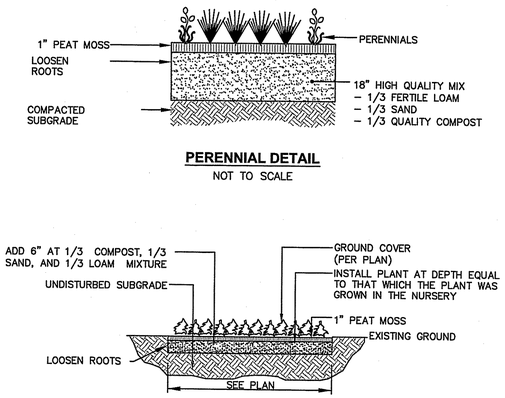
NOTE:
CUT APART ROOTBALL WITHOUT SEVERING MAIN ROOTS.



REMOVE CONTAINER AND BUTTERFLY ROOTBALL TO SPREAD ROOTS OVER SETTING MOUND. PLANT SHRUBS 1"-2" ABOVE EXISTING GRADE.

CONTAINER GROWN PLANTING DETAIL

NOT TO SCALE

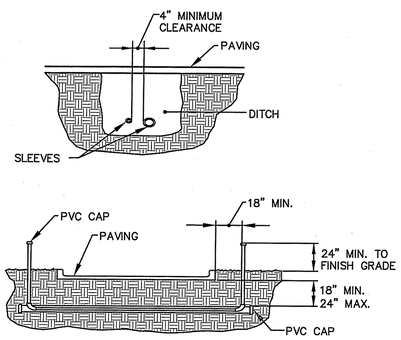


PERENNIAL DETAIL

NOT TO SCALE

PERENNIAL and GROUNDCOVER PLANTING DETAIL

NOT TO SCALE



NOTES:

1. ALL PVC IRRIGATION SLEEVING TO BE CLASS 200. SLEEVE SIZING SHALL BE COORDINATED WITH IRRIGATION DESIGNER AND LIGHTING INSTALLER.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND SMALLER SLEEVE TO 24" MIN. ABOVE FINISH GRADE.
4. MECHANICALLY TAMP TO 95% PROCTOR.

ELECTRICAL and IRRIGATION SLEEVING DETAIL

NOT TO SCALE

LANDSCAPE CONSTRUCTION NOTES

1. FURNISH AND INSTALL ALL PLANTS SHOWN ON THE DRAWINGS SPECIFIED HEREIN, AND IN THE QUANTITIES LISTED ON THE PLANT LIST. NO SUBSTITUTIONS WILL BE PERMITTED, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT.
2. LOAM TO BE SCREENED, GOOD QUALITY, FERTILE, FREE OF WEEDS, STICKS, STONES OVER 3/4", AND ROOTS. SPREAD TO A MINIMUM OF 4" OVER ALL PLANTED AREAS.
3. BIO-DETENTION AREAS-PLANTING SOIL AND MULCH: LOAMY SAND TO A SANDY LOAM-80% SAND <20% SILT, <2% CLAY. WELL AGED GRADED COMPOST (25% OF SOIL MIX). WELL AGED, AERATED DARK BROWN HARD-WOOD MULCH (AGED 6 MONTHS).
4. NURSERY STOCK SHALL MEET THE STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AS TO GRADING AND QUALITY.
5. ONLY NURSERY-GROWN PLANTS, GROWN IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES, AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS, WILL BE ACCEPTED.
6. SET PLANTS PLUMB AND AT A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. SETTLE BACKFILL MATERIAL FOR PLANTS, THOROUGHLY AND PROPERLY BY FIRMING OR TAMPING. FORM SAUCERS, CAPABLE OF HOLDING WATER ABOUT INDIVIDUAL PLANTS, BY PLACING RIDGES OF PLANTING SOIL AROUND EACH.
7. STAKE ALL TREES OVER 5 FEET AS SHOWN ON PLANS. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
8. WATERING: WATER ALL PLANTS WITHIN 48 HOURS AFTER PLANTING. IF CONDITIONS WARRANT, AND AS MANY TIMES THEREAFTER TO SUSTAIN HEALTHY CONDITIONS UNTIL LANDSCAPE INSTALLATION IS COMPLETED. SATURATE THE SOIL AROUND EACH PLANT THOROUGHLY AT EACH WATERING.
9. PRUNING: PRUNE PLANTS, AS DIRECTED BY OWNER, AT THE PROJECT SITE BEFORE OR IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE BEST HORTICULTURAL PRACTICE. CUT BROKEN, DEAD OR INJURED BRANCHES IMMEDIATELY ABOVE THE STEM COLLAR ON THE TRUNK OR LIMB. PRUNE ALL BROKEN ROOTS ON THE PLANT SIDE OF THE BREAK. PAINT CUTS OVER 3/4" IN DIAMETER WITH TREE WOUND PAINT. PRUNING SHALL NOT DEFORM OR OTHERWISE DESTROY THE TYPICAL SHAPE OR SYMMETRY OF THE PLANT, AND SHALL NOT REDUCE THE HEIGHT BY MORE THAN ONE-THIRD. DO NOT CUT BACK THE LEADER OF THE PLANT UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
10. FERTILIZING: FERTILIZE SHRUB BEDS WITH 10-6-4 FERTILIZER BROADCAST AT A RATE OF THREE POUNDS PER 100 SQUARE FEET OF SURFACE AREA BROADCAST. APPLY THE FERTILIZER UNIFORMLY TO THE SURFACE BEDS AND WORK INTO THE UPPER TWO INCHES OF SOIL. FERTILIZE INDIVIDUAL TREES AT A RATE OF ONE AGRIFORM PELLET PER INCH OF TRUNK DIAMETER (FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS). APPLY A SECOND APPLICATION OF FERTILIZER TO ALL PLANT ITEMS AT THE SAME SPECIFIED RATES OVER THE MULCH AT THE END OF AN EIGHT WEEK PERIOD.
11. LIMING: ADD POWDERED LIME EVERY SIX MONTHS – OR SLOW RELEASE GRANULAR LIME-AS PER MANUFACTURER'S INSTRUCTION.
12. MULCHING: WITHIN A 72 HOUR PERIOD AFTER PLANTING, COVER ALL PLANTED AREAS WITH 3" DARK HEMLOCK MULCH. NO RED OR DYED MULCH IS TO BE USED. MULCH SHOULD BE PULLED ONE INCH AWAY FROM PLANT TRUNK OR STEM, AND NOT ALLOWED TO REST DIRECTLY AGAINST THE TRUNK OR STEM.
13. GUARANTEE: ALL PLANTS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER PRELIMINARY INSPECTION AND SHALL BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD. ALL DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED AT ONCE BY THE CONTRACTOR, FREE OF CHARGE.

OCT 23 2013

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO. 13-0157
DATED NOV 6 2013
SEE LETTER OF SAME DATE.
Charles A. Horbert

• Civil
• Transportation
• Environmental
• Site Planning
• Land Surveying

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886
Phone: (401) 738-5660 | Fax: (401) 738-8157
Email: cel@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED AUTO DEALERSHIP
PLAT MAP 29, LOT 396
AND PORTION OF
PLAT MAP 29, LOT 390
ZONING DISTRICT B
BUSINESS DISTRICT

561 QUAKER LANE (ROUTE 2)
WEST WARWICK, RI

OWNER:

PLAT MAP 29, LOT 396
CHAMBERS 2112 ISSUED TRUST
47 EASTERN BOULEVARD
GLASTONBURY, CT 06033

PLAT MAP 29, LOT 390
QUAKER VALLEY MALL
LAND CONDOMINIUM
545 SOUTH MAIN STREET
PROVIDENCE, RI 02903

PREPARED FOR:

NEW ENGLAND CONSTRUCTION
293 BOURNE AVENUE - RUMFORD, RI 02916
401.434.0112 - WWW.NECONSTRUCTION.COM

DRAWING TITLE:

LANDSCAPE DETAIL PLAN

DATE:	*SCALE:*
AUGUST 2013	AS SHOWN

DWG. NAME: 1920-L02-LNDET-R5.dwg

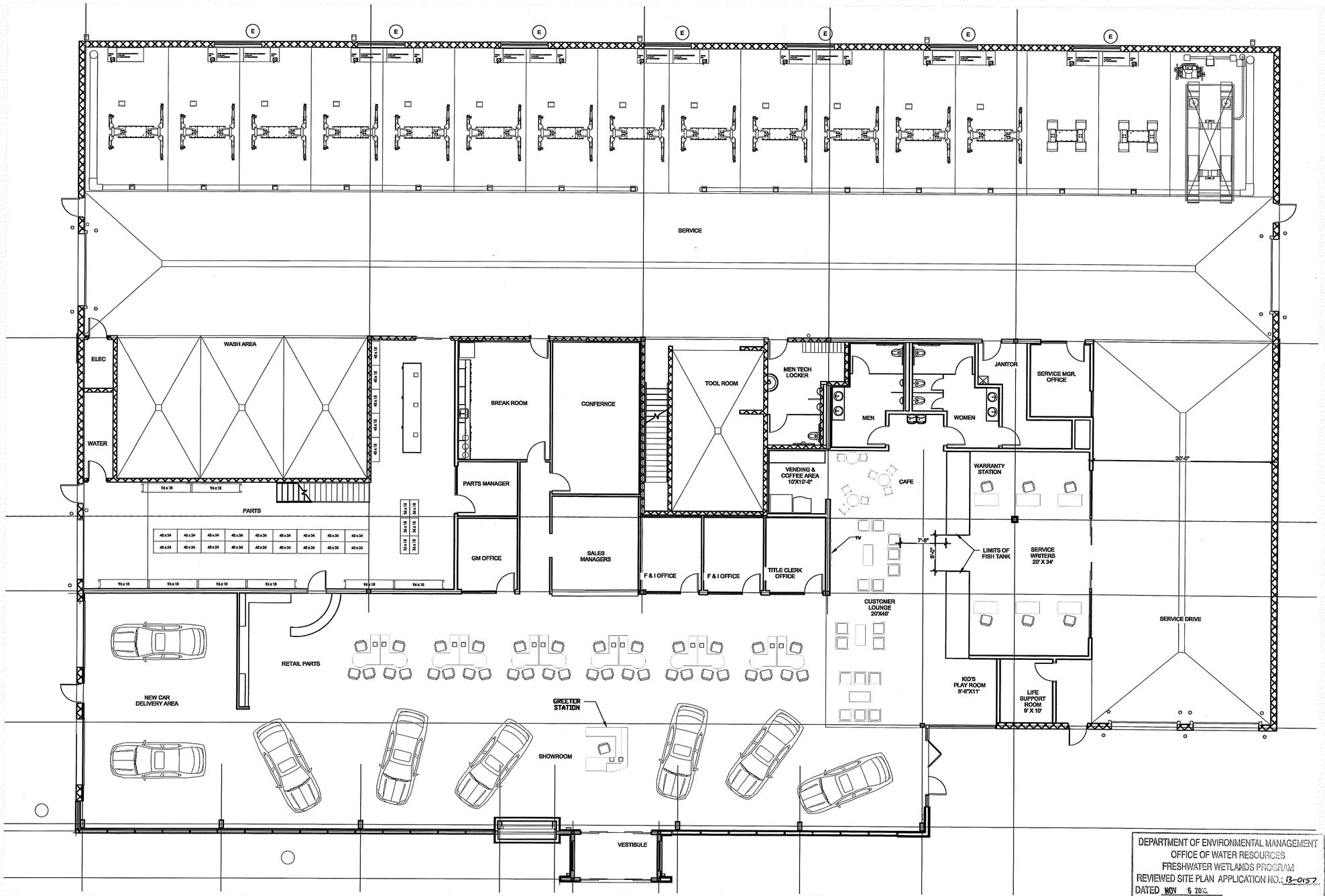
REVISIONS

NUMBER	*REMARKS*	*DATE*
1	50% REVIEW SET	08/15/13
2	ADDITIONAL LANDSCAPING	09/05/13
3	FINAL SUBMISSION	09/24/13
4	BID SET	09/30/13
5	RIDEM COMMENTS	10/18/13

DRAWING NUMBER

L2

SHEET: 17 *OF:* 20



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Charles A Horbert

STEVEN M. CABRAL
No. 4842
REGISTERED PROFESSIONAL ENGINEER

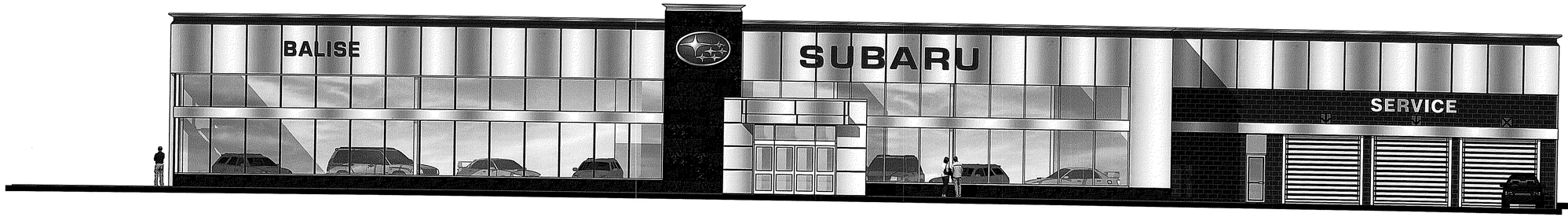
First Floor Plan
Scale: 1/8" = 1'-0"

BALISE SUBARU

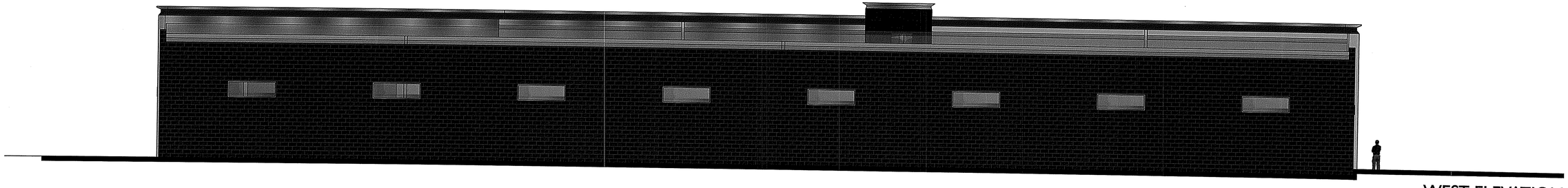
VISION ARCHITECTS

Project No. 13039a 08/09/13 - A1

SHEET 18 of 20



EAST ELEVATION
Scale: 1/8" = 1'-0"



WEST ELEVATION
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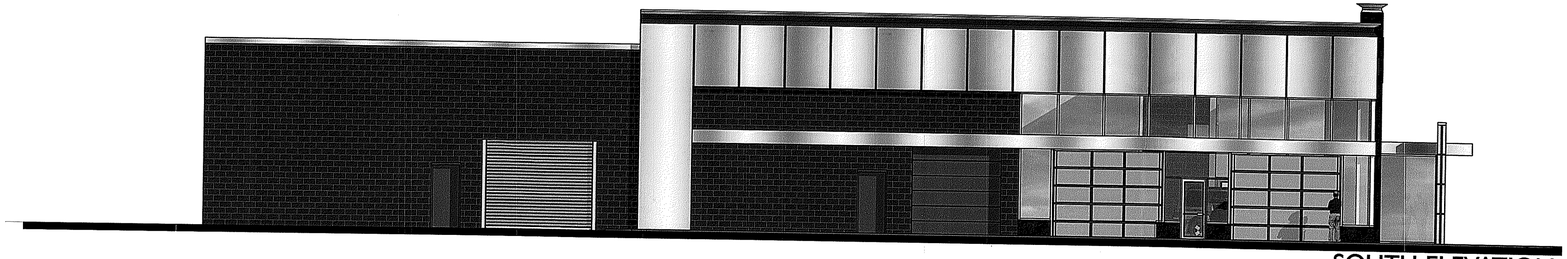

SOUTH ELEVATION
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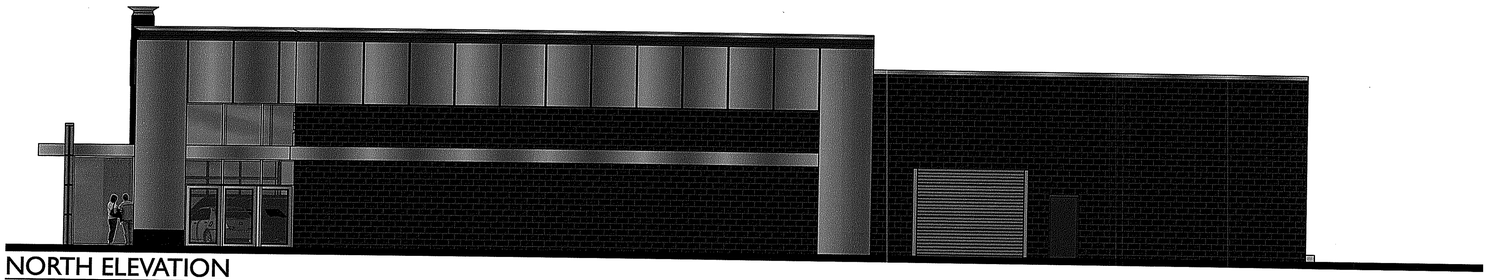

NORTH ELEVATION
Scale: 1/8" = 1'-0"

OCT 23 2013

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Charles A. Horbert

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No 4847
REGISTERED
PROFESSIONAL ENGINEER

BALISE SUBARU

VISION ARCHITECTS

Project No. 13039a 08/09/13 - A2

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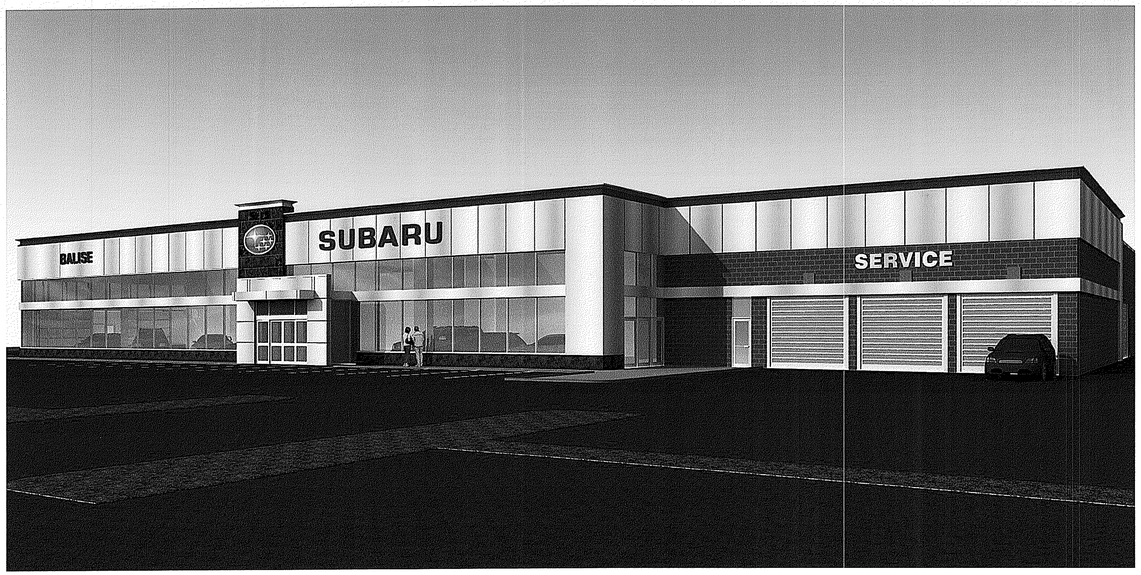

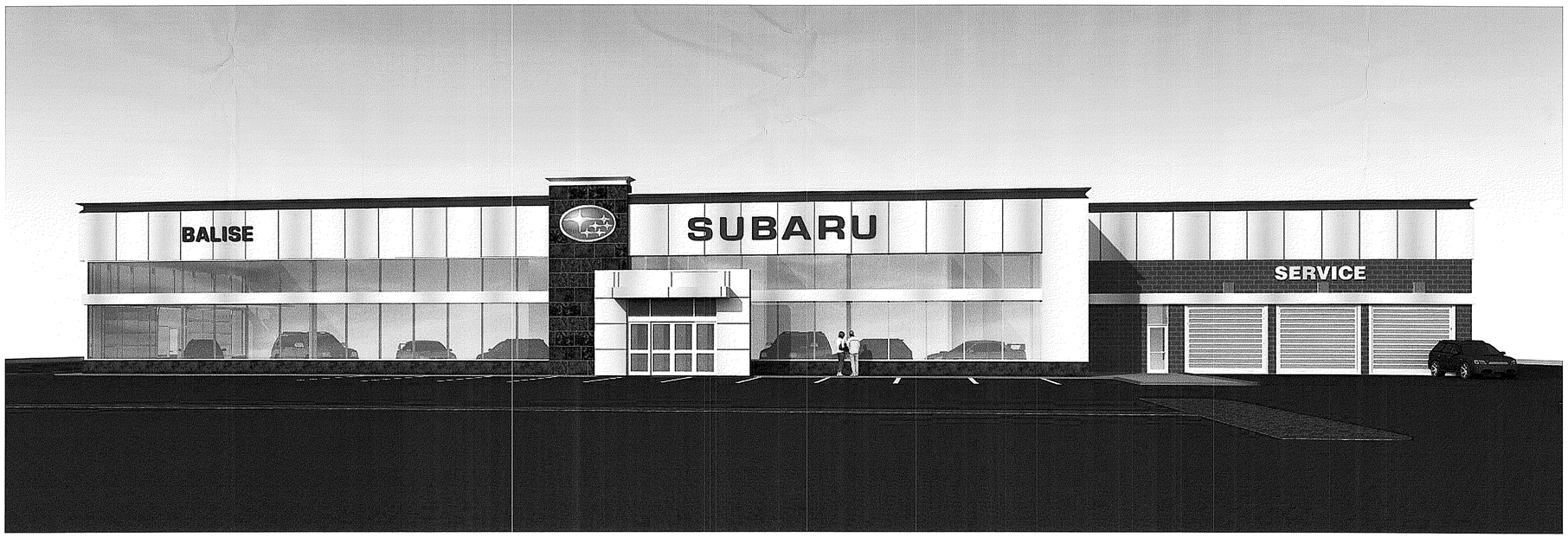

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BALISE SUBARU

VISION 3 ARCHITECTS

Project No. 13039a 08/09/13 - A3

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