

# CARDINAL PLACE

## DEFINITIVE PLAN FOR A RESIDENTIAL SUBDIVISION

### CARDINAL STREET & AVA'S WAY, NEW BEDFORD, MASSACHUSETTS

**OWNERS:**  
 THOMAS GRENIER  
 560 ROCKDALE AVE.  
 NEW BEDFORD, MASSACHUSETTS

**APPLICANT:**  
 RICHARD HOPPS  
 302 ELM STREET  
 DARTMOUTH, MASSACHUSETTS



**LOCUS PLAN**  
**SCALE: 1"=300'±**



**APRIL 22, 2013**  
 REVISED FEBRUARY 25, 2014

**REQUESTED WAIVERS:**

THE FOLLOWING WAIVERS ARE HEREBY REQUESTED:

1. A WAIVER TO ELIMINATE THE CUL-DE-SAC ISLAND.
2. A WAIVER TO ALLOW FOR A 40-FOOT RIGHT OF WAY.
3. A WAIVER TO ALLOW FOR A 24' PAVEMENT WIDTH.

**SCHEDULE OF DRAWINGS**

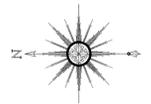
SHEET NUMBER	PLAN TITLE
CS1	COVER SHEET
DF1	DEFINITIVE LOTTING SHEET
EX1	EXISTING CONDITIONS PLAN
GD1	GRADING AND DRAINAGE PLAN
UT1	UTILITY PLAN
RP1	ROAD PLAN AND PROFILE
DE1-2	DETAIL SHEET
LP1	LANDSCAPE AND LIGHTING PLAN
ER1-2	EROSION CONTROL PLANS

  
*Richard J. Rheaume*

**PREPARED BY:**



CIVIL ENGINEERING—LAND SURVEYING—ENVIRONMENTAL ASSESSMENT  
 P.O. BOX 1088, 350 BEDFORD STREET, LAKEVILLE, MA 02347  
 TEL: 508.947.0050 FAX: 508.947.2004



CHEROKEE STREET (PUBLIC - 50' WIDE)

PEQUOT STREET (PUBLIC - 50' WIDE)

TOBEY (PUBLIC - 50' WIDE) STREET

CARDINAL STREET (EXISTING PRIVATE - 15' WIDE)

CARDINAL STREET (40' WIDE ROW)

SWALLOW (PUBLIC - 30' WIDE) STREET

CARDINAL (PUBLIC - 30' WIDE) STREET

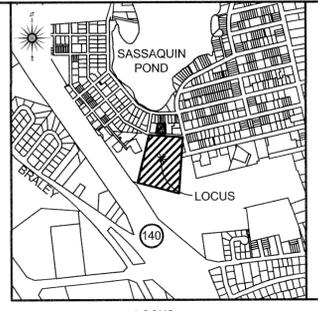
SWALLOW STREET EXT. (40' WIDE - P.B. 157, PG. 8)

APPLICANT  
RICHARD HOPPS  
302 ELM STREET  
DARTMOUTH, MA 02748  
  
OWNER  
THOMAS GRENIER  
560 ROCKDALE AVENUE  
NEW BEDFORD, MA 02740

DIMENSIONAL REQUIREMENTS  
MINIMUM LOT AREA 8000 S.F.  
MINIMUM FRONTAGE 75 FT  
MINIMUM FRONT SETBACK 15 FT  
MINIMUM REAR SETBACK 30 FT  
MINIMUM SIDE SETBACK 12 FT AND 10 FT

TABLE OF FRONTAGES AND AREAS

	FRONTAGE	LOT AREA
MIN. REQUIRED	75'	8,000 S.F.
LOT 1	75.00'	8,796 S.F.
LOT 2	163.76'	26,427 S.F.
LOT 3	75.00'	109,896 S.F.
LOT 4	75.00'	88,891 S.F.
LOT 5	75.00'	17,274 S.F.
LOT 6	76.55'	18,487 S.F.
LOT 7	75.10'	10,804 S.F.



LOCUS  
SCALE: 1" = 1000'

FOR REGISTRY USE ONLY

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS



2/25/2014  
DATE  
BERNARD N. PERROTTY, P.L.S.

NOTES:

- THE SUBJECT PROPERTY IS SHOWN ON THE CITY OF NEW BEDFORD ASSESSORS' MAP 136 AS LOT 353.
- FOR TITLE REFERENCE TO THE SUBJECT PROPERTY REFER TO DEED BOOK 5380, PAGE 116 ON FILE AT THE BRISTOL COUNTY REGISTRY OF DEEDS.
- THE SUBJECT PROPERTY IS ZONED "RESIDENTIAL A" AS SHOWN ON THE ZONING MAP FOR THE CITY OF NEW BEDFORD.
- THE SUBJECT PROPERTY IS LOCATED IN ZONE X (UNHATCHED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE MAP FOR BRISTOL COUNTY, MASSACHUSETTS, PANEL 377 OF 550, MAP NUMBER 25005-C-0377, EFFECTIVE DATE: JULY 7, 2009.
- THE EASEMENTS SHOWN HEREON ARE DEFINED AS FOLLOWS:  
EASEMENT 1-A IS A DRAINAGE EASEMENT ON LOT 1.  
EASEMENT 2-A IS A DRAINAGE EASEMENT ON LOT 2.  
EASEMENT 2-B IS A DRAINAGE EASEMENT ON LOT 2.  
EASEMENT 3-A IS A DRAINAGE EASEMENT ON LOT 3.  
EASEMENT 4-A IS A DRAINAGE EASEMENT ON LOT 4.  
EASEMENTS AU-1 AND AU-2 ARE EASEMENTS THAT HAVE BEEN GRANTED BY THE OWNER OF THE SWALLOW STREET EXTENSION TO CONSTRUCT A ROADWAY AND PROVIDE UTILITIES.

NEW BEDFORD PLANNING BOARD  
APPROVED UNDER THE SUBDIVISION CONTROL LAW

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\_\_\_\_\_

DATE: \_\_\_\_\_

DEFINITIVE PLAN OF  
CARDINAL PLACE  
IN  
NEW BEDFORD, MASSACHUSETTS

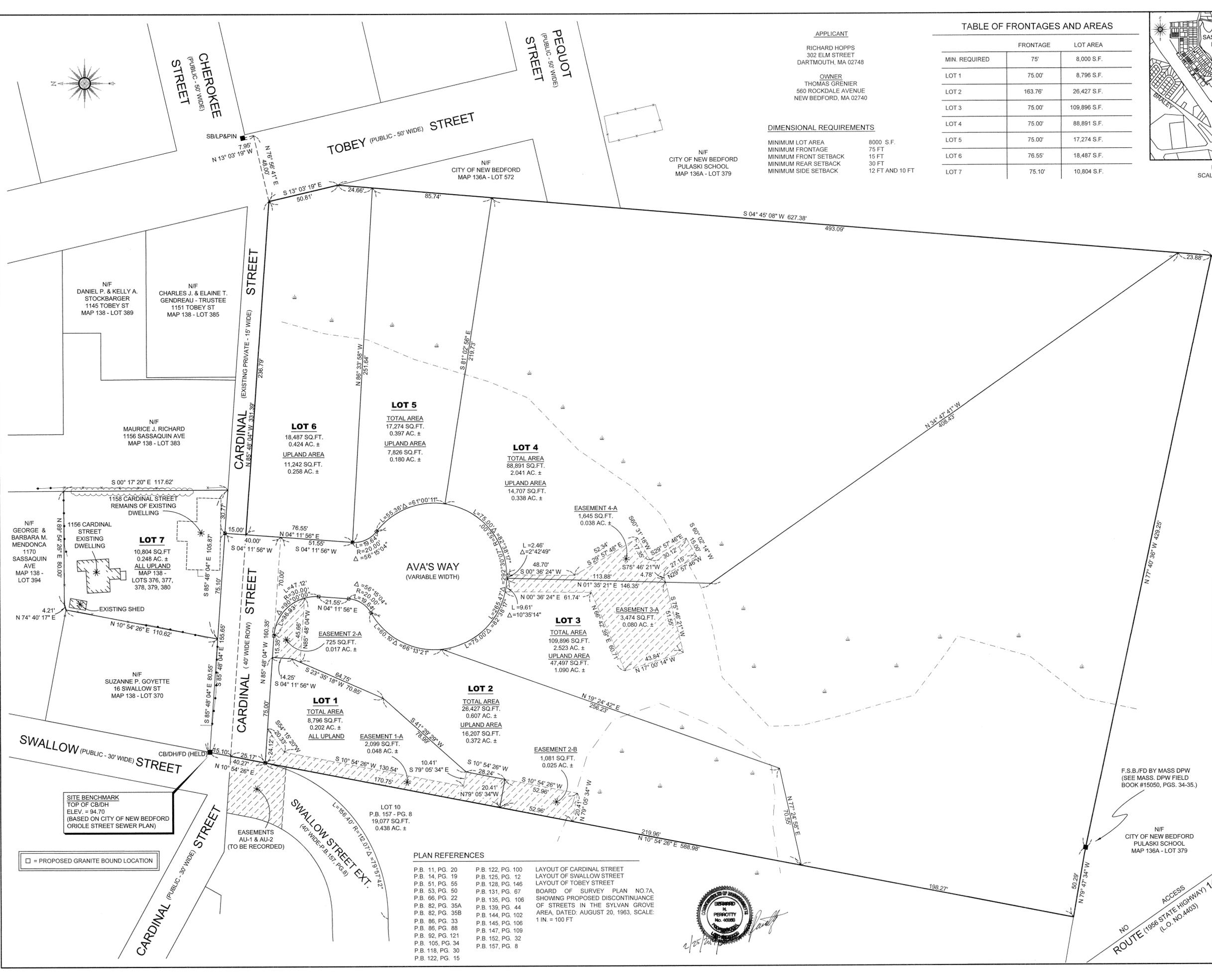
RICHARD HOPPS

DATE: DECEMBER 27, 2013 SCALE: 1"=30'  
REV. DATE: JANUARY 7, 2014 ; REV. DATE: FEBRUARY 3, 2014  
FINAL REV. DATE: FEBRUARY 25, 2014



PREPARED BY:  
  
PRIME ENGINEERING

CIVIL ENGINEERING-LAND SURVEYING-ENVIRONMENTAL ASSESSMENT  
P.O. BOX 1088, 350 BEDFORD STREET, LAKEVILLE, MA 02347  
TEL: 508.947.0050 FAX: 508.947.2004



PLAN REFERENCES

P.B. 11, PG. 20	P.B. 122, PG. 100	LAYOUT OF CARDINAL STREET
P.B. 14, PG. 19	P.B. 125, PG. 12	LAYOUT OF SWALLOW STREET
P.B. 51, PG. 55	P.B. 128, PG. 146	LAYOUT OF TOBEY STREET
P.B. 53, PG. 50	P.B. 131, PG. 67	BOARD OF SURVEY PLAN NO. 7A,
P.B. 66, PG. 22	P.B. 135, PG. 106	SHOWING PROPOSED DISCONTINUANCE
P.B. 82, PG. 35A	P.B. 139, PG. 44	OF STREETS IN THE SYLVAN GROVE
P.B. 82, PG. 35B	P.B. 144, PG. 102	AREA, DATED: AUGUST 20, 1963, SCALE:
P.B. 86, PG. 33	P.B. 145, PG. 106	1 IN. = 100 FT
P.B. 86, PG. 88	P.B. 147, PG. 109	
P.B. 92, PG. 121	P.B. 152, PG. 32	
P.B. 105, PG. 34	P.B. 157, PG. 8	
P.B. 119, PG. 30		
P.B. 122, PG. 15		



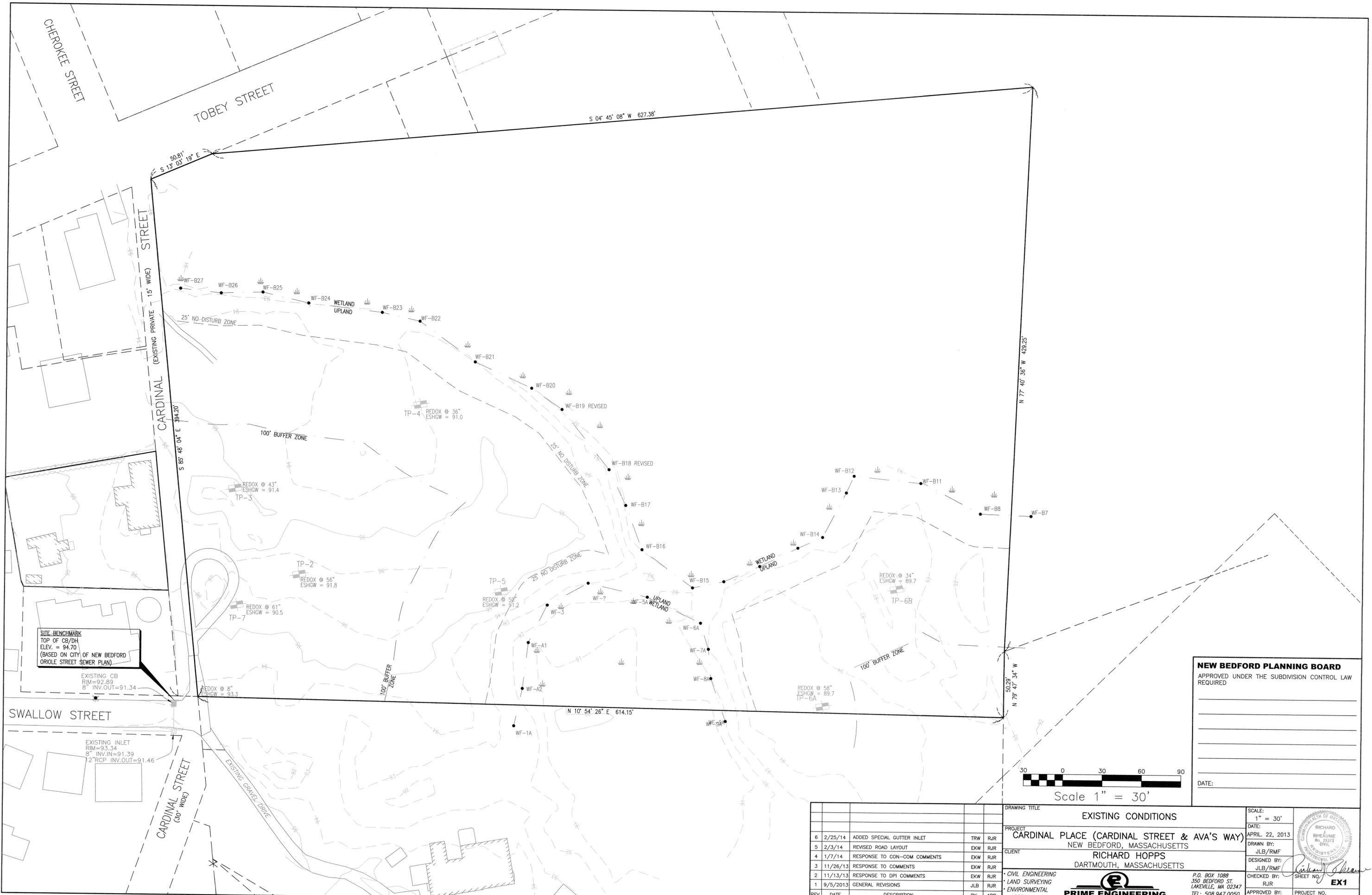
F.S.B./FD BY MASS DPW  
(SEE MASS. DPW FIELD  
BOOK #15050, PGS. 34-35.)

N/F  
CITY OF NEW BEDFORD  
PULASKI SCHOOL  
MAP 136A - LOT 379

NO ACCESS  
ROUTE (1956 STATE HIGHWAY) 140  
(L.O. NO. 44003)

SITE BENCHMARK  
TOP OF CB/DH  
ELEV. = 94.70  
(BASED ON CITY OF NEW BEDFORD  
ORIOLE STREET SEWER PLAN)

□ = PROPOSED GRANITE BOUND LOCATION



**SITE BENCHMARK**  
 TOP OF CB/DH  
 ELEV. = 94.70  
 (BASED ON CITY OF NEW BEDFORD  
 ORIOLE STREET SEWER PLAN)

EXISTING CB  
 RIM=92.89  
 8" INV.OUT=91.34

SWALLOW STREET  
 EXISTING INLET  
 RIM=93.34  
 8" INV.IN=91.39  
 12" RCP INV.OUT=91.46

**NEW BEDFORD PLANNING BOARD**  
 APPROVED UNDER THE SUBDIVISION CONTROL LAW  
 REQUIRED

DATE: \_\_\_\_\_

\_\_\_\_\_

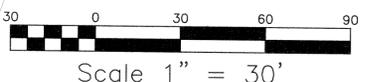
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DATE: \_\_\_\_\_

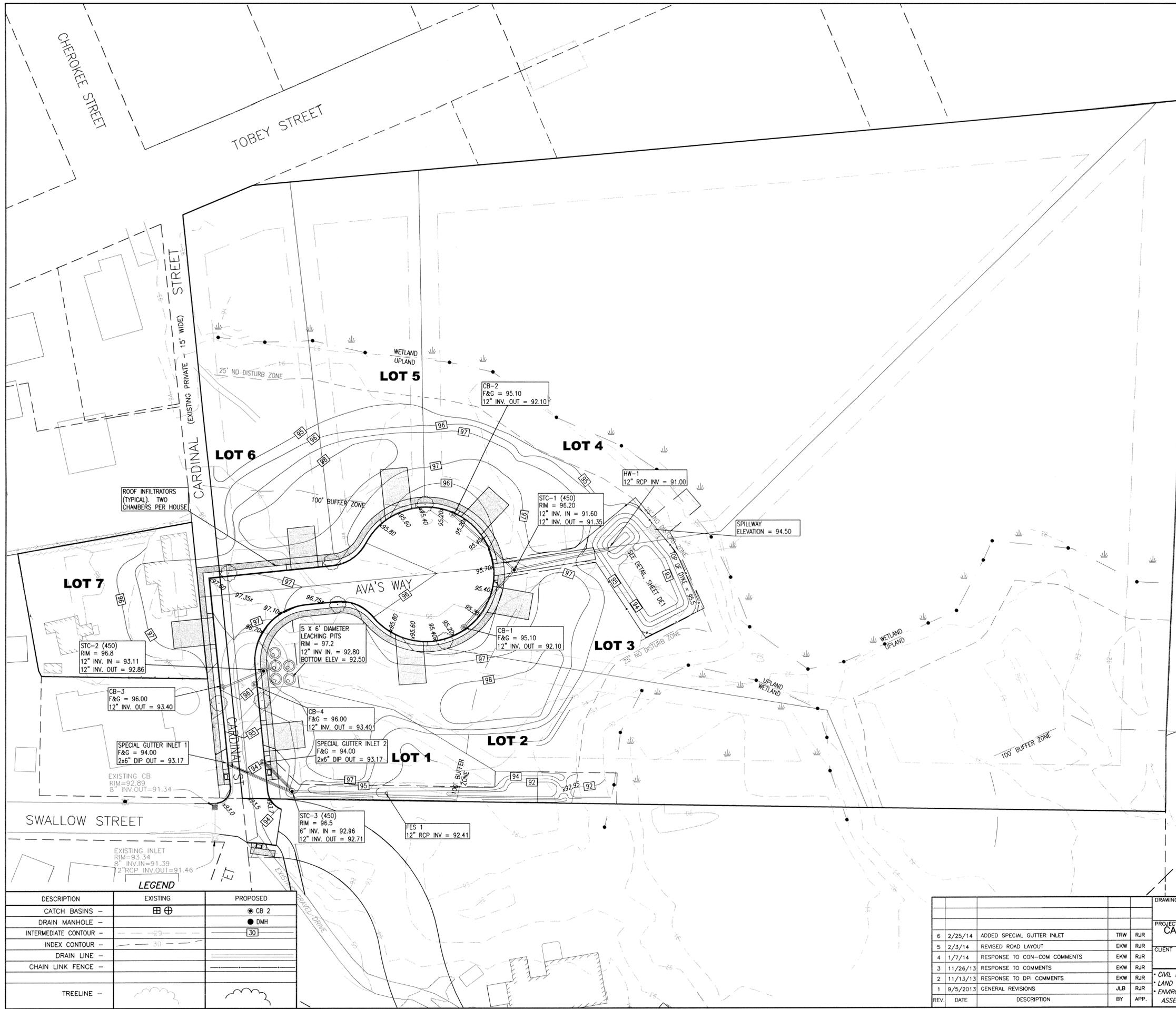


REV.	DATE	DESCRIPTION	BY	APP.
6	2/25/14	ADDED SPECIAL GUTTER INLET	TRW	RJR
5	2/3/14	REVISED ROAD LAYOUT	EKW	RJR
4	1/7/14	RESPONSE TO CON-COM COMMENTS	EKW	RJR
3	11/26/13	RESPONSE TO COMMENTS	EKW	RJR
2	11/13/13	RESPONSE TO DPI COMMENTS	EKW	RJR
1	9/5/2013	GENERAL REVISIONS	JLB	RJR

DRAWING TITLE <b>EXISTING CONDITIONS</b>		SCALE: 1" = 30'
PROJECT <b>CARDINAL PLACE (CARDINAL STREET &amp; AVA'S WAY) NEW BEDFORD, MASSACHUSETTS</b>		DATE: APRIL 22, 2013
CLIENT <b>RICHARD HOPPS DARTMOUTH, MASSACHUSETTS</b>		DRAWN BY: JLB/RMF
DESIGNED BY: JLB/RMF		CHECKED BY: RJR
APPROVED BY: RJR		PROJECT NO. 1931-0101

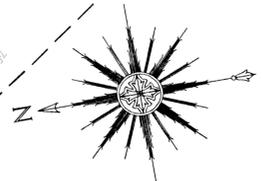
**PRIME ENGINEERING**  
 P.O. BOX 1088  
 350 BEDFORD ST.  
 LAKEVILLE, MA 02347  
 TEL: 508.947.0050  
 FAX: 508.947.2004

**RICHARD HOPPS**  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 25373  
 CIVIL



- NOTES:**
1. THE LOT GRADING AND DRIVEWAYS SHOWN ARE CONCEPTUAL AND ARE SHOWN IN ORDER TO DEMONSTRATE HOW THE DRAINAGE SYSTEM WILL FUNCTION AND IN ORDER TO DESIGN THE RETENTION BASIN.
  2. SEPARATE NOTICES OF INTENT WILL BE FILED FOR EACH DWELLING FOR WORK THAT IS WITHIN 100' OF WETLAND RESOURCE AREAS.
  3. ALL DRIVEWAY APRONS, SIDEWALKS, AND WHEELCHAIR RAMPS TO BE PORTLAND CEMENT CONCRETE. SIDEWALKS TO TERMINATE WITH WHEELCHAIR RAMPS (SEE PLAN).
  4. ACCESS DRIVE TO BASIN TO BE 12" OF CRUSHED STONE MIXED WITH LOAM, COMPACTED AND SEEDED.
  5. ROOF GUTTERS TO DISCHARGE TO ROOF INFILTRATORS, TWO CHAMBERS PER HOUSE (SEE DETAIL)
  6. ALL DRAINAGE PIPING TO BE 12" CLASS V RCP UNLESS OTHERWISE SPECIFIED.
  7. WITHIN THE LIMITS OF CARDINAL STREET, SWALLOW STREET TO BE BUILT IN ACCORDANCE WITH CITY OF NEW BEDFORD SUBDIVISION REGULATIONS

**NEW BEDFORD PLANNING BOARD**  
 APPROVED UNDER THE SUBDIVISION CONTROL LAW  
 REQUIRED



DATE: \_\_\_\_\_

**LEGEND**

DESCRIPTION	EXISTING	PROPOSED
CATCH BASINS -	⊕	● CB 2
DRAIN MANHOLE -	○	● DMH
INTERMEDIATE CONTOUR -	---	--- 30
INDEX CONTOUR -	---	---
DRAIN LINE -	---	---
CHAIN LINK FENCE -	---	---
TREELINE -	---	---

REV	DATE	DESCRIPTION	BY	APP.
6	2/25/14	ADDED SPECIAL GUTTER INLET	TRW	RJR
5	2/3/14	REVISED ROAD LAYOUT	EKW	RJR
4	1/7/14	RESPONSE TO CON-COM COMMENTS	EKW	RJR
3	11/26/13	RESPONSE TO COMMENTS	EKW	RJR
2	11/13/13	RESPONSE TO DPI COMMENTS	EKW	RJR
1	9/5/2013	GENERAL REVISIONS	JLB	RJR

**DRAWING TITLE**  
 GRADING AND DRAINAGE SHEET

**PROJECT**  
 CARDINAL PLACE (CARDINAL STREET & AVA'S WAY)  
 NEW BEDFORD, MASSACHUSETTS

**CLIENT**  
 RICHARD HOPPS  
 DARTMOUTH, MASSACHUSETTS

**SCALE:**  
 1" = 30'

**DATE:**  
 APRIL 22, 2013

**DRAWN BY:**  
 JLB/RMF

**DESIGNED BY:**  
 JLB/RMF

**CHECKED BY:**  
 RJR

**APPROVED BY:**  
 RJR

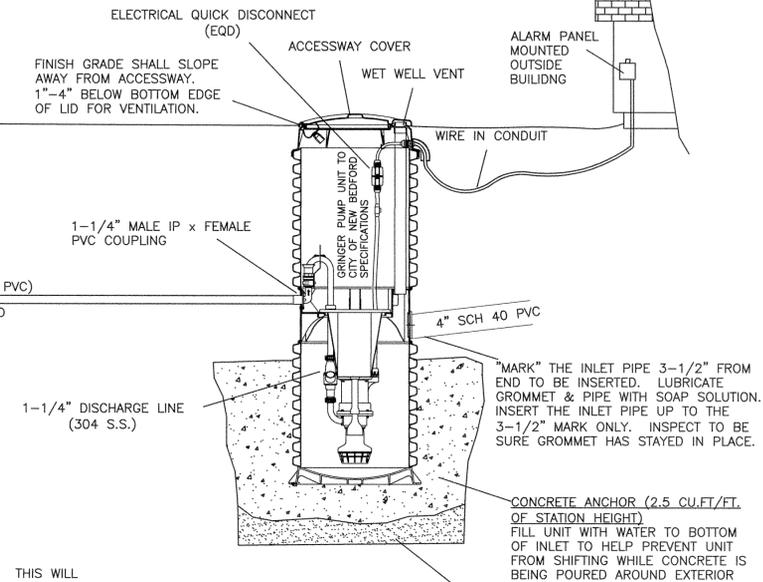
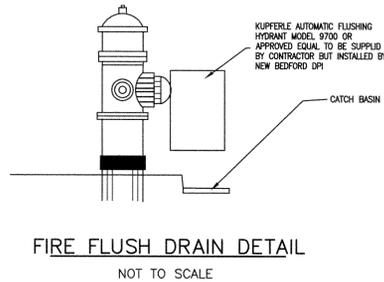
**PROJECT NO.**  
 1931-0101

**SHEET NO.**  
 GD1

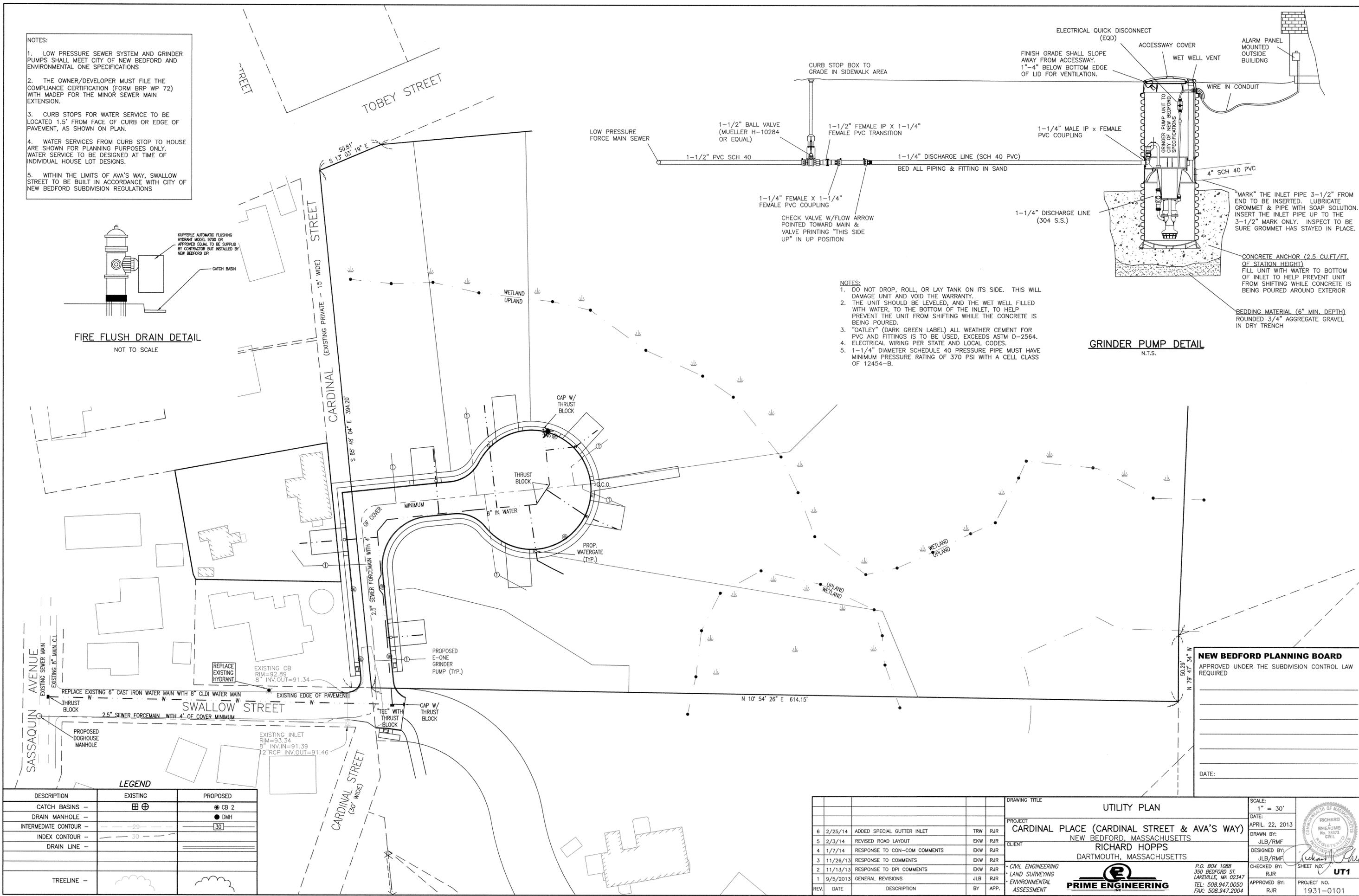
**PRIME ENGINEERING**  
 P.O. BOX 1088  
 350 BEDFORD ST.  
 LAKEVILLE, MA 02347  
 TEL: 508.947.0050  
 FAX: 508.947.2004



- NOTES:
1. LOW PRESSURE SEWER SYSTEM AND GRINDER PUMPS SHALL MEET CITY OF NEW BEDFORD AND ENVIRONMENTAL ONE SPECIFICATIONS
  2. THE OWNER/DEVELOPER MUST FILE THE COMPLIANCE CERTIFICATION (FORM BRP WP 72) WITH MADEP FOR THE MINOR SEWER MAIN EXTENSION.
  3. CURB STOPS FOR WATER SERVICE TO BE LOCATED 1.5' FROM FACE OF CURB OR EDGE OF PAVEMENT, AS SHOWN ON PLAN.
  4. WATER SERVICES FROM CURB STOP TO HOUSE ARE SHOWN FOR PLANNING PURPOSES ONLY. WATER SERVICE TO BE DESIGNED AT TIME OF INDIVIDUAL HOUSE LOT DESIGNS.
  5. WITHIN THE LIMITS OF AVA'S WAY, SWALLOW STREET TO BE BUILT IN ACCORDANCE WITH CITY OF NEW BEDFORD SUBDIVISION REGULATIONS



- NOTES:
1. DO NOT DROP, ROLL, OR LAY TANK ON ITS SIDE. THIS WILL DAMAGE UNIT AND VOID THE WARRANTY.
  2. THE UNIT SHOULD BE LEVELED, AND THE WET WELL FILLED WITH WATER, TO THE BOTTOM OF THE INLET, TO HELP PREVENT THE UNIT FROM SHIFTING WHILE THE CONCRETE IS BEING POURED.
  3. "OATLEY" (DARK GREEN LABEL) ALL WEATHER CEMENT FOR PVC AND FITTINGS IS TO BE USED, EXCEEDS ASTM D-2564.
  4. ELECTRICAL WIRING PER STATE AND LOCAL CODES.
  5. 1-1/4" DIAMETER SCHEDULE 40 PRESSURE PIPE MUST HAVE MINIMUM PRESSURE RATING OF 370 PSI WITH A CELL CLASS OF 12454-B.



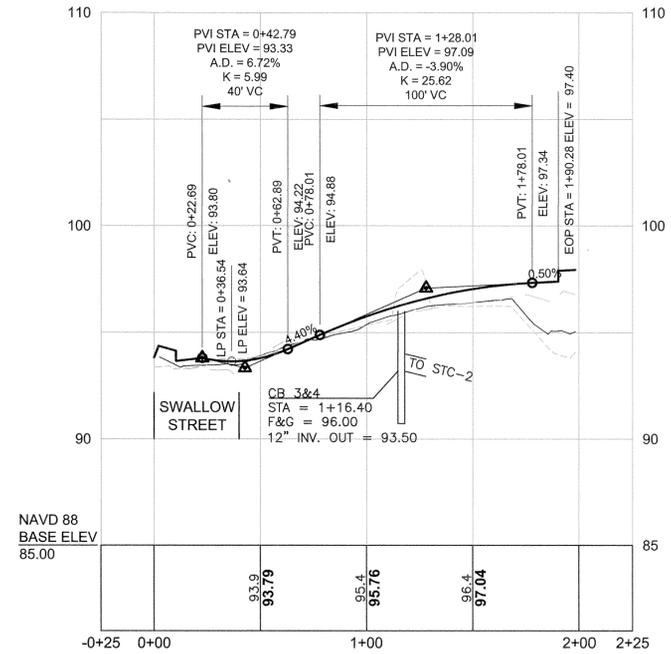
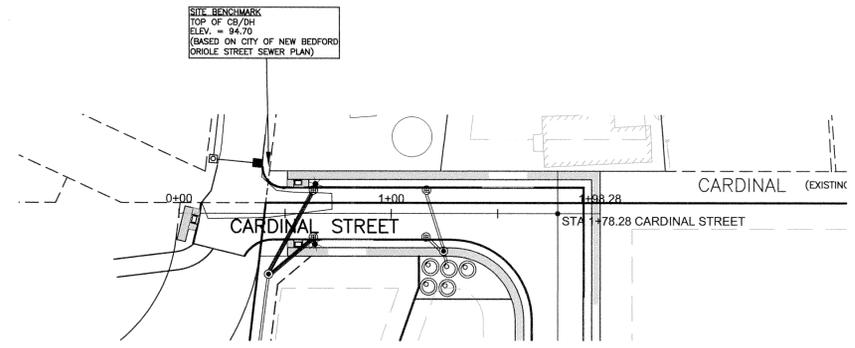
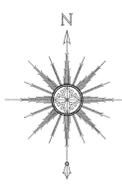
**NEW BEDFORD PLANNING BOARD**  
APPROVED UNDER THE SUBDIVISION CONTROL LAW REQUIRED

DATE: \_\_\_\_\_

**LEGEND**

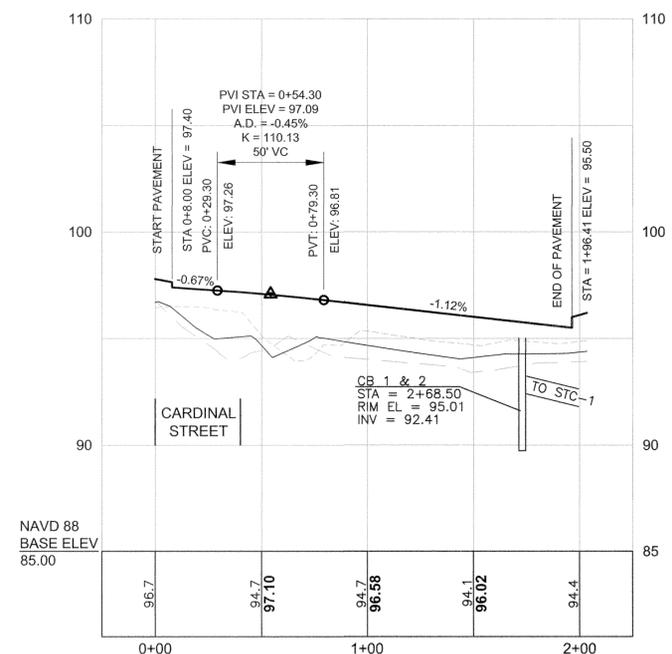
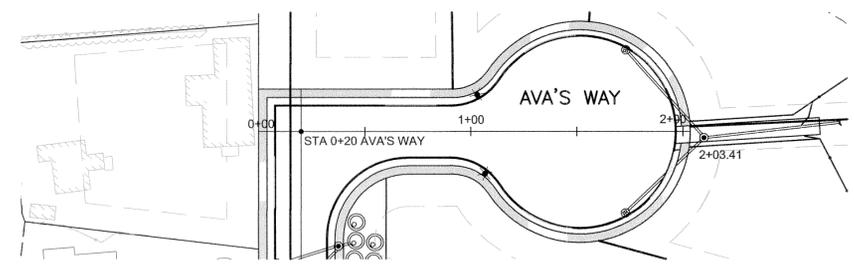
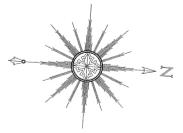
DESCRIPTION	EXISTING	PROPOSED
CATCH BASINS	⊕	⊕
DRAIN MANHOLE	●	●
INTERMEDIATE CONTOUR	- - - 29	- - - 30
INDEX CONTOUR	- - - 30	- - - 30
DRAIN LINE	- - -	- - -
TREELINE	- - -	- - -

REV.	DATE	DESCRIPTION	BY	APP.	DRAWING TITLE	SCALE:
6	2/25/14	ADDED SPECIAL GUTTER INLET	TRW	RJR	<b>UTILITY PLAN</b> PROJECT: <b>CARDINAL PLACE (CARDINAL STREET &amp; AVA'S WAY)</b> NEW BEDFORD, MASSACHUSETTS CLIENT: <b>RICHARD HOPPS</b> DARTMOUTH, MASSACHUSETTS P.O. BOX 1089 350 BEDFORD ST. LAKEVILLE, MA 02347 TEL: 508.947.0050 FAX: 508.947.2004	1" = 30'
5	2/3/14	REVISED ROAD LAYOUT	EKW	RJR		DATE: APRIL 22, 2013
4	1/7/14	RESPONSE TO CON-COM COMMENTS	EKW	RJR		DRAWN BY: JLB/RMF
3	11/26/13	RESPONSE TO COMMENTS	EKW	RJR		DESIGNED BY: JLB/RMF
2	11/13/13	RESPONSE TO DPI COMMENTS	EKW	RJR		CHECKED BY: RJR
1	9/5/2013	GENERAL REVISIONS	JLB	RJR		APPROVED BY: RJR
REV.	DATE	DESCRIPTION	BY	APP.	<b>PRIME ENGINEERING</b> CIVIL ENGINEERING LAND SURVEYING ENVIRONMENTAL ASSESSMENT	SHEET NO. <b>UT1</b> PROJECT NO. 1931-0101



**CARDINAL STREET PLAN AND PROFILE**

SCALES:  
 1" = 40' HOR  
 1" = 4' VER

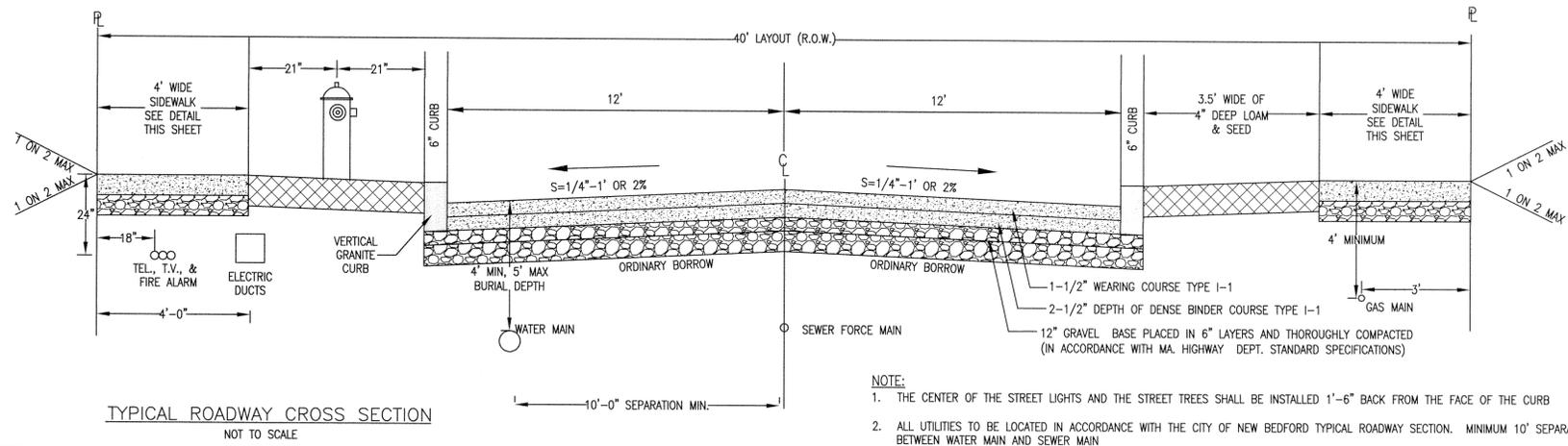


**AVA'S WAY PLAN AND PROFILE**

SCALES:  
 1" = 40' HOR  
 1" = 4' VER

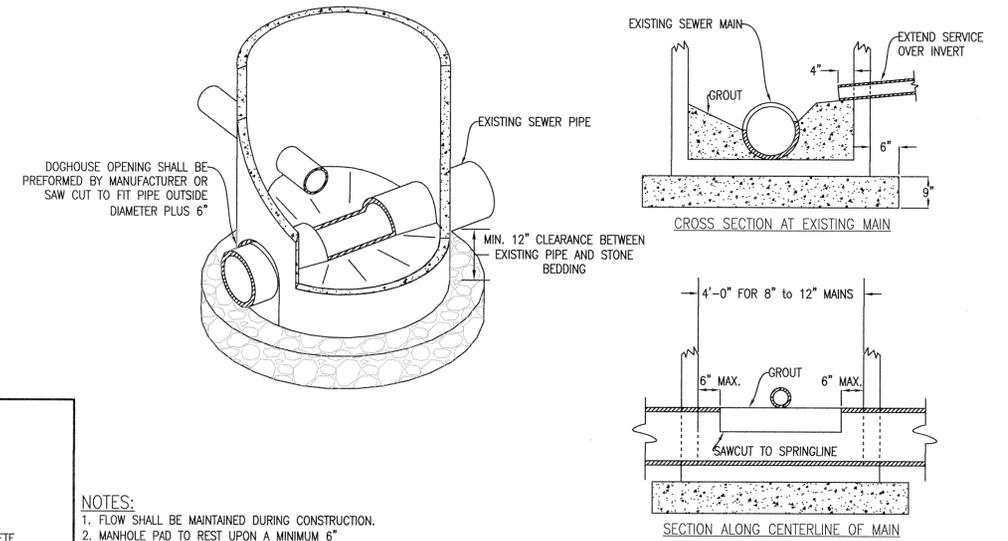
DRAWING TITLE <b>ROADWAY PLAN AND PROFILE</b>			SCALE: AS NOTED
PROJECT <b>CARDINAL PLACE (CARDINAL STREET &amp; AVA'S WAY)</b> NEW BEDFORD, MASSACHUSETTS			DATE: APRIL 22, 2013
CLIENT <b>RICHARD HOPPS</b> DARTMOUTH, MASSACHUSETTS			DRAWN BY: JLB/RMF
DESIGNED BY: JLB/RMF			CHECKED BY: RJR
APPROVED BY: RJR			PROJECT NO. 1931-0101
P.O. BOX 1088 350 BEDFORD ST. LAKEVILLE, MA 02347 TEL: 508.947.0050 FAX: 508.947.2004 			
REV.	DATE	DESCRIPTION	BY
5	2/25/14	ADDED SPECIAL GUTTER INLET	TRW RJR
5	2/3/14	REVISED ROAD LAYOUT	EKW RJR
4	1/7/14	RESPONSE TO CON-COM COMMENTS	EKW RJR
3	11/26/13	RESPONSE TO COMMENTS	EKW RJR
2	10/29/13	RESPONSE TO DPI COMMENTS	EKW RJR
1	9/5/2013	GENERAL REVISIONS	JLB RJR





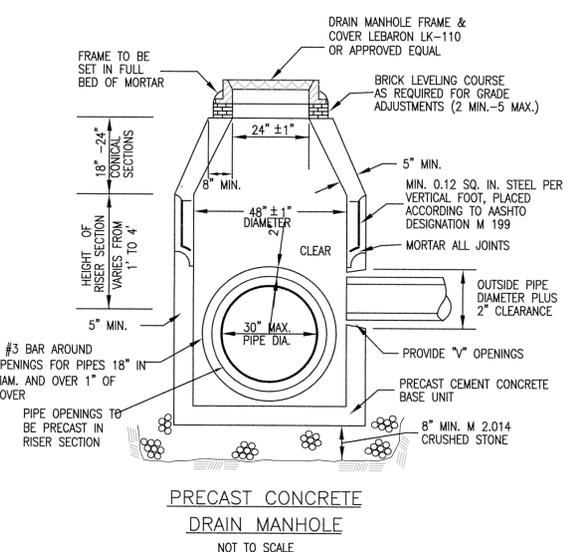
TYPICAL ROADWAY CROSS SECTION  
NOT TO SCALE

- NOTE:
1. THE CENTER OF THE STREET LIGHTS AND THE STREET TREES SHALL BE INSTALLED 1'-6" BACK FROM THE FACE OF THE CURB
  2. ALL UTILITIES TO BE LOCATED IN ACCORDANCE WITH THE CITY OF NEW BEDFORD TYPICAL ROADWAY SECTION. MINIMUM 10' SEPARATION BETWEEN WATER MAIN AND SEWER MAIN

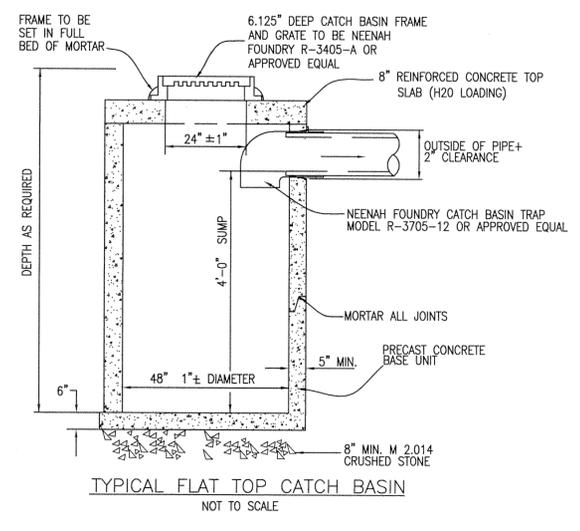


DOGHOUSE MANHOLE INSTALLATION OVER EXISTING SEWER MAIN  
NOT TO SCALE

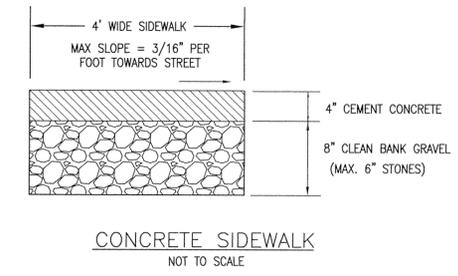
- NOTES:
1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
  2. MANHOLE PAD TO REST UPON A MINIMUM 6" COMPACTED #67 STONE BASE.
  3. A WATER TIGHT SEAL MUST BE CONSTRUCTED BETWEEN THE MANHOLE, THE BASE AND THE MANHOLE SECTIONS AROUND THE PIPES.



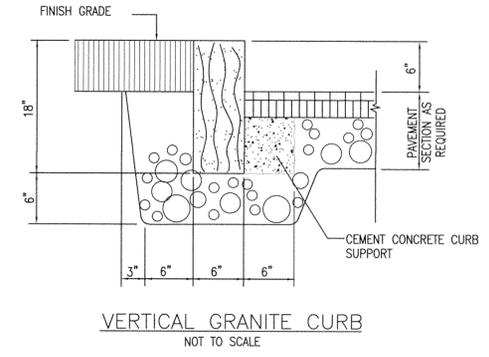
PRECAST CONCRETE DRAIN MANHOLE  
NOT TO SCALE



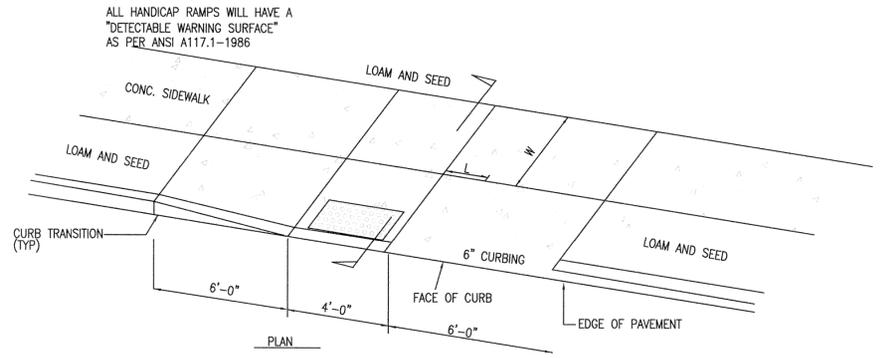
TYPICAL FLAT TOP CATCH BASIN  
NOT TO SCALE



CONCRETE SIDEWALK  
NOT TO SCALE



VERTICAL GRANITE CURB  
NOT TO SCALE



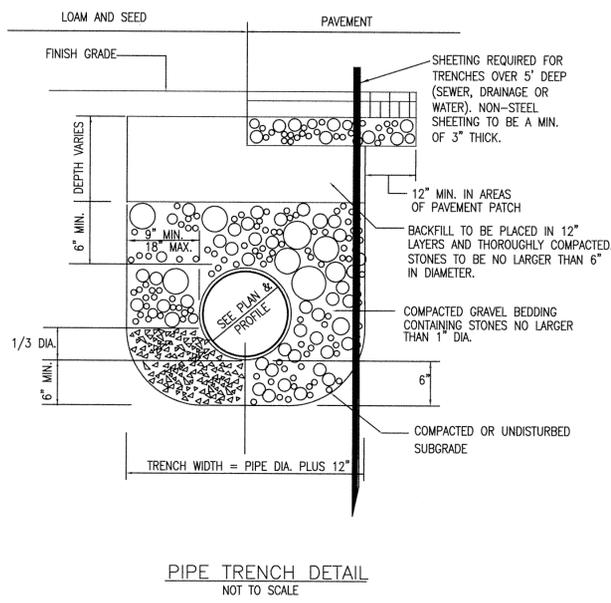
WHEELCHAIR RAMP DETAIL  
NOT TO SCALE

1. THE DIMENSIONS SHOWN AT ROADWAY EDGE ARE FIXED DISTANCES.
2. RAMP CROSS SECTION TO BE THE SAME AS ADJACENT SIDEWALK.
3. CEMENT CONCRETE RAMP ARE TO BE TEXTURED BY BROOMING IN A DIRECTION PARALLEL TO THE LENGTH OF THE RAMP.
4. IN NO CASE ARE THE RAMP TO BE PLACED BEHIND THE STOP SIGN.
5. SIDEWALKS THAT CROSS DRIVEWAYS SHALL BE RAMPED TO MEET THE GRADE OF THE DRIVEWAY.
6. THESE DIMENSIONS ARE SUBJECT TO CHANGE IN THE FIELD IF EXISTING CONDITIONS WILL MAKE THE RAMP LOCATIONS IMPRACTICAL OR UNSAFE.

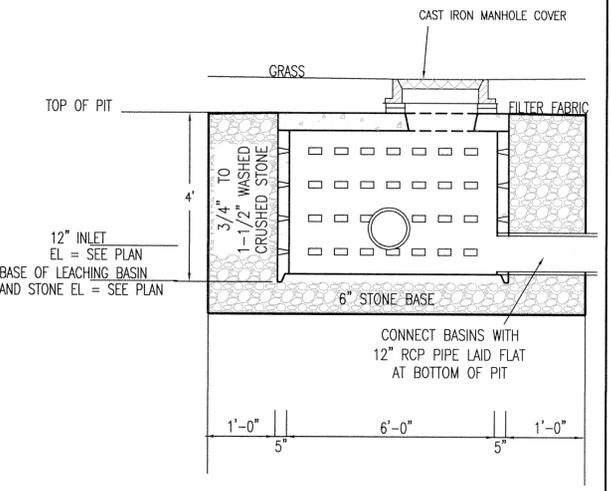
W	L
4'-0"	3'-6"±
5'-0"	2'-9"±
6'-0"	2'-0"±
7'-0"	1'-3"±
8'-0"	0'-0"±

**NEW BEDFORD PLANNING BOARD**  
APPROVED UNDER THE SUBDIVISION CONTROL LAW REQUIRED

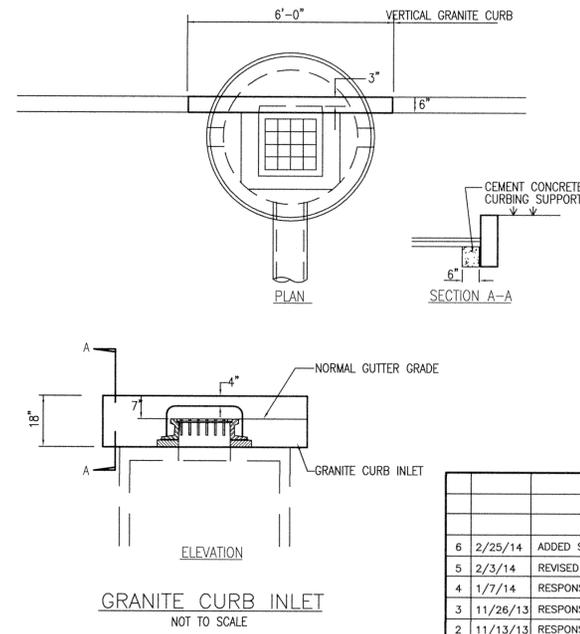
DATE: \_\_\_\_\_



PIPE TRENCH DETAIL  
NOT TO SCALE



LEACHING PIT DETAIL  
NOT TO SCALE



GRANITE CURB INLET  
NOT TO SCALE

REV.	DATE	DESCRIPTION	BY	APP.
6	2/25/14	ADDED SPECIAL GUTTER INLET	TRW	RJR
5	2/3/14	REVISED ROAD LAYOUT	EKW	RJR
4	1/7/14	RESPONSE TO CON-COM COMMENTS	EKW	RJR
3	11/26/13	RESPONSE TO COMMENTS	EKW	RJR
2	11/13/13	RESPONSE TO DPI COMMENTS	EKW	RJR
1	9/5/2013	GENERAL REVISIONS	JLB	RJR

DRAWING TITLE: **DETAIL SHEET**

PROJECT: **CARDINAL PLACE (CARDINAL STREET & AVA'S WAY) NEW BEDFORD, MASSACHUSETTS**

CLIENT: **RICHARD HOPPS DARTMOUTH, MASSACHUSETTS**

SCALE: AS NOTED

DATE: APRIL 22, 2013

DRAWN BY: JLB/RMF

DESIGNED BY: JLB/RMF

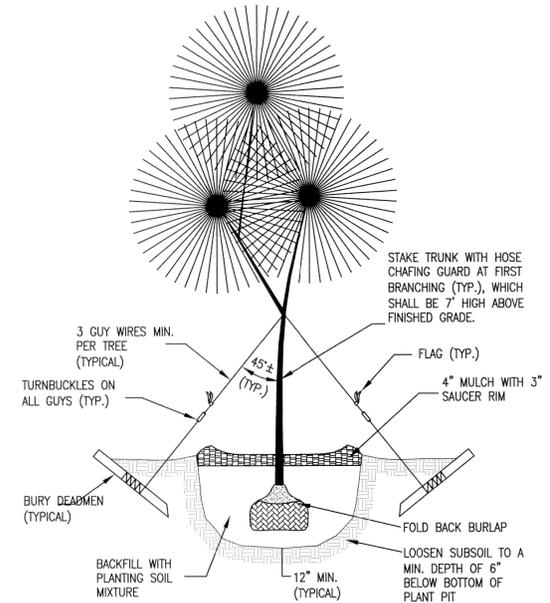
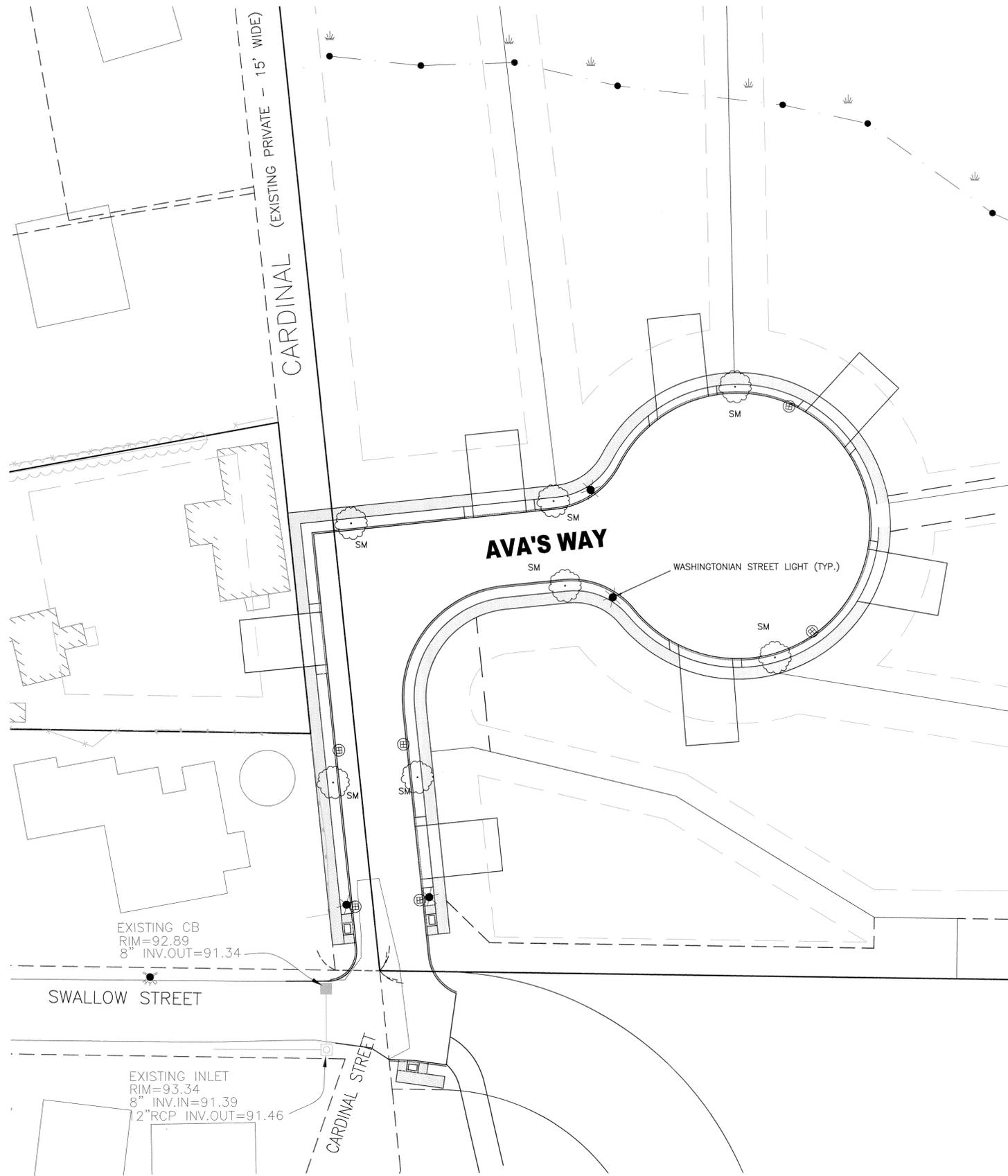
CHECKED BY: RJR

APPROVED BY: RJR

SHEET NO. **DE2**

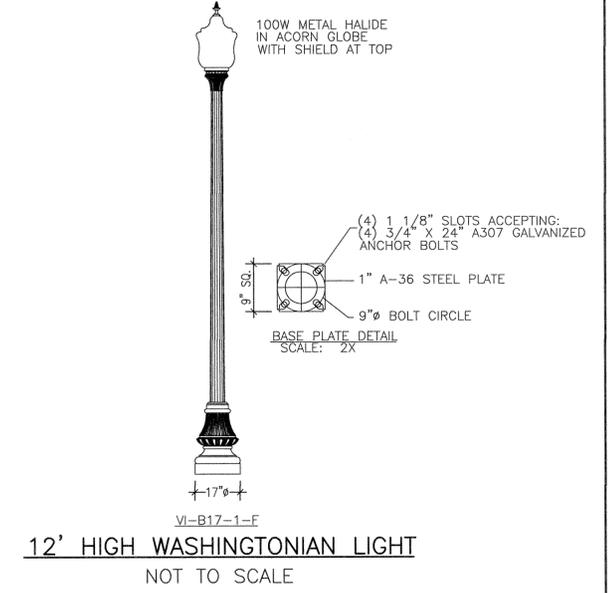
PROJECT NO. 1931-0101

PRIME ENGINEERING INC. 350 BEDFORD ST. LAKEVILLE, MA 02347 TEL: 508.947.0050 FAX: 508.947.2004



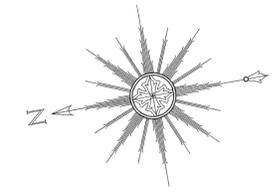
NOTE: ALL STREET TREES SHALL HAVE A MIN. 3" CALIPER AT A HEIGHT OF 12'.  
**STREET TREE PLANTING**  
 NOT TO SCALE

- NOTES:
- ONE STREET TREE TO BE PROVIDED PER LOT AND SHALL BE PLANTED IN ACCORDANCE WITH ARTICLE VII, SECTION J OF THE CITY OF NEW BEDFORD REGULATIONS.
  - THE ACTUAL INTERVAL, FREQUENCY, CANDLEPOWER AND SIZE OF LIGHTING FIXTURE SHALL BE DETERMINED BY THE INSPECTOR OF WIRES OF THE CITY OF NEW BEDFORD AND SHALL BE INSTALLED IN ACCORDANCE WITH SUBDIVISION REGULATIONS, ARTICLE VII, SECTION H.
  - THE DEVELOPER OR GENERAL CONTRACTOR SHALL ALSO PROVIDE TO THE CITY A NUMBER OF LIGHT POLES AND FIXTURES EQUIVALENT TO TEN PERCENT OF THE TOTAL NUMBER INSTALLED AS PART OF THE SUBDIVISION, BUT IN NO CASE LESS THAN ONE LIGHT POLE AND ONE FIXTURE.



**PLANT KEY**

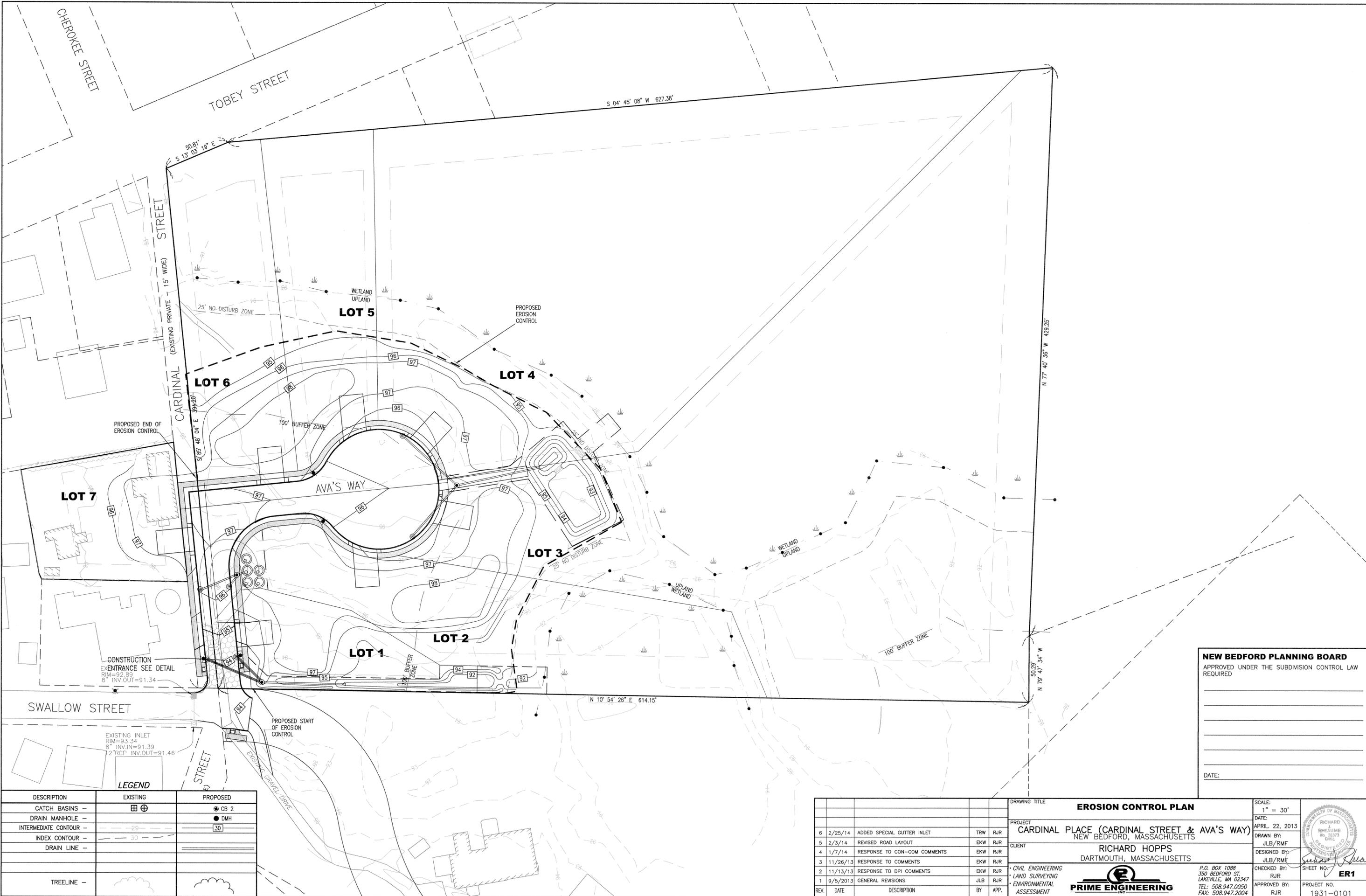
SYMBOL	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE
SM	7	ACER SACCHARUM	SUGAR MAPLE	12' TALL 2" CALIPER



**NEW BEDFORD PLANNING BOARD**  
 APPROVED UNDER THE SUBDIVISION CONTROL LAW REQUIRED

DATE:

DRAWING TITLE: <b>LANDSCAPE AND LIGHTING PLAN</b>				SCALE: 1" = 20' DATE: APRIL 22, 2013
PROJECT: <b>CARDINAL PLACE (CARDINAL STREET &amp; AVA'S WAY)</b> NEW BEDFORD, MASSACHUSETTS				DRAWN BY: JLB/RMF DESIGNED BY: JLB/RMF CHECKED BY: RJR APPROVED BY: RJR
CLIENT: <b>RICHARD HOPPS</b> DARTMOUTH, MASSACHUSETTS				
6 2/25/14 ADDED SPECIAL GUTTER INLET TRW RJR 5 2/3/14 REVISED ROAD LAYOUT EKW RJR 4 1/7/14 RESPONSE TO CON-COM COMMENTS EKW RJR 3 11/26/13 RESPONSE TO COMMENTS EKW RJR 2 11/13/13 RESPONSE TO DPI COMMENTS EKW RJR 1 9/5/2013 GENERAL REVISIONS JLB RJR	P.O. BOX 1088 350 BEDFORD ST. LAKEVILLE, MA 02347 TEL: 508.947.0050 FAX: 508.947.2004		SHEET NO. <b>LP1</b> PROJECT NO. 1931-0101	



**NEW BEDFORD PLANNING BOARD**  
 APPROVED UNDER THE SUBDIVISION CONTROL LAW  
 REQUIRED

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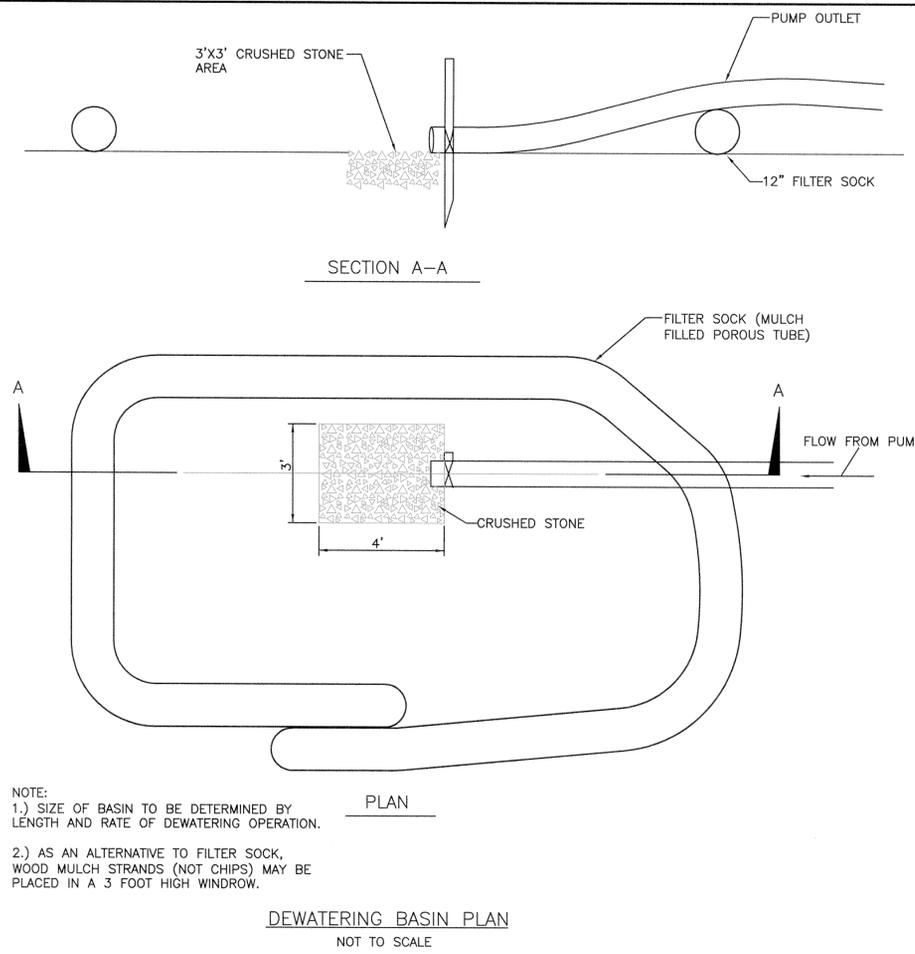
DATE: \_\_\_\_\_

**LEGEND**

DESCRIPTION	EXISTING	PROPOSED
CATCH BASINS	⊕	⊕ CB 2
DRAIN MANHOLE	—	● DMH
INTERMEDIATE CONTOUR	-29-	30
INDEX CONTOUR	-30-	—
DRAIN LINE	—	—
TREELINE	—	—

REV.	DATE	DESCRIPTION	BY	APP.
6	2/25/14	ADDED SPECIAL GUTTER INLET	TRW	RJR
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4	1/7/14	RESPONSE TO CON-COM COMMENTS	EKW	RJR
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2	11/13/13	RESPONSE TO DPI COMMENTS	EKW	RJR
1	9/5/2013	GENERAL REVISIONS	JLB	RJR

DRAWING TITLE <b>EROSION CONTROL PLAN</b>		SCALE: 1" = 30'
PROJECT <b>CARDINAL PLACE (CARDINAL STREET &amp; AVA'S WAY)</b> NEW BEDFORD, MASSACHUSETTS		DATE: APRIL 22, 2013
CLIENT <b>RICHARD HOPPS</b> DARTMOUTH, MASSACHUSETTS		DRAWN BY: JLB/RMF
DESIGNED BY: JLB/RMF		CHECKED BY: RJR
P.O. BOX 1089 350 BEDFORD ST. LAKEVILLE, MA 02347 TEL: 508.947.0050 FAX: 508.947.2004		APPROVED BY: RJR
SHEET NO. <b>ER1</b>		PROJECT NO. 1931-0101

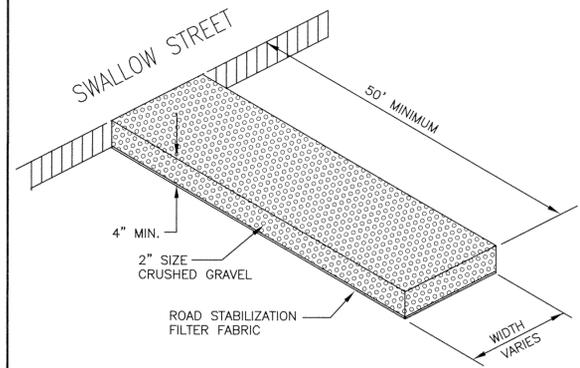


NOTE:  
 1.) SIZE OF BASIN TO BE DETERMINED BY LENGTH AND RATE OF DEWATERING OPERATION.  
 2.) AS AN ALTERNATIVE TO FILTER SOCK, WOOD MULCH STRANDS (NOT CHIPS) MAY BE PLACED IN A 3 FOOT HIGH WINDROW.

DEWATERING BASIN PLAN  
 NOT TO SCALE

**CONSTRUCTION OPERATION AND MAINTENANCE SCHEDULE**

- THE OPERATION AND MAINTENANCE (O&M) SCHEDULE DURING THE CONSTRUCTION PHASE IS THE RESPONSIBILITY OF THE DEVELOPER AND/OR SITE CONTRACTOR. THE OUTLINE BELOW SHALL BE ADHERED TO AS CLOSELY AS POSSIBLE TO ENSURE THE PROPER CONSTRUCTION AND FUNCTION OF THE DRAINAGE SYSTEM.
- PRIOR TO CONSTRUCTION, HAYBALES AND SILT FENCE SHALL BE INSTALLED PER THE APPROVED PLANS. THE HAY BALES AND SILT FENCE SHALL BE INSPECTED PRIOR TO A LARGE STORM EVENT TO ENSURE THAT THE EROSION CONTROL WILL FUNCTION AS REQUIRED AND FOLLOWING A STORM TO INSPECT FOR DAMAGE TO THE EROSION CONTROL ELEMENTS. ANY DAMAGE OR IMPROPER INSTALLATION THAT IS NOTICED PRIOR TO OR FOLLOWING A STORM EVENT SHALL BE PROMPTLY REPLACED OR REPAIRED IN A SATISFACTORY MANNER SO AS TO PREVENT SEDIMENT FROM BYPASSING THE EROSION CONTROL BARRIER.
  - THE LIMIT OF CLEARING SHOWN ON THE APPROVED PLAN SHALL BE STRICTLY ADHERED TO. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE LEVEL OF SAFETY OF STANDING TREES.
  - IN CONJUNCTION WITH THE ROADWAY CONSTRUCTION, ALL DRAINAGE STRUCTURES, INCLUDING THE RETENTION BASIN, SHALL BE CONSTRUCTED AND STABILIZED AS SOON AS POSSIBLE. METHODS OF STABILIZATION INCLUDE, BUT ARE NOT LIMITED TO, HYDROSEED, LOAM AND SEED, STRAW MULCH, EROSION CONTROL BLANKETS, ETC.
  - THE CATCH BASINS AND SEDIMENT FOREBAYS SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. ANY SEDIMENT BUILDUP OF EIGHT (8) INCH DEPTH IN EITHER OF THE STRUCTURES SHALL BE PROMPTLY REMOVED BY HAND OR MECHANICAL METHODS AND ALL DEBRIS REMOVED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
  - THE RETENTION BASIN AND FOREBAYS SHALL BE INSPECTED WEEKLY OR AFTER ALL RAINFALL EVENTS GREATER THAN 1/2 INCH, WHICHEVER OCCURS SOONER. ANY EROSION WITHIN THE BASIN OR FOREBAYS SHALL BE FILLED AND RESTABILIZED IN A MANNER TO PREVENT FUTURE EROSION. IN ADDITION, THE OUTER PORTIONS OF THE RETENTION BASINS SHALL BE INSPECTED IN A SIMILAR MANNER.
  - THIS SCHEDULE MUST BE ADHERED TO BY THE OWNER AND/OR CONTRACTOR UNTIL THE ROADWAY IS ACCEPTED BY THE TOWN.



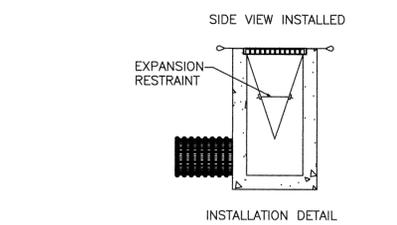
ANTI-TRACKING PAD  
 NOT TO SCALE

**EROSION & SEDIMENT CONTROL NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND PREVENT SEDIMENTATION WITHIN THE 25' NO DISTURB ZONE OR OFFSITE PROPERTIES. IT IS INTENDED THAT THE IMPLEMENTATION OF THE FOLLOWING MEASURES WILL MEET THIS GOAL. WHEN IT IS CLEAR TO THE DESIGNER THAT EROSION AND SEDIMENTATION HAVE BEEN ADEQUATELY CONTROLLED WITHOUT THE IMPLEMENTATION OF EVERY MEASURE, ADDITIONAL MEASURES NEED NOT BE IMPLEMENTED. ALTERNATIVELY, IF ALL OF THE FOLLOWING MEASURES HAVE BEEN IMPLEMENTED AND THE CONTROL OF EROSION AND SEDIMENTATION IS INADEQUATE, THE CONTRACTOR MUST EMPLOY SUFFICIENT SUPPLEMENTAL MEASURES BEYOND THE SCOPE OF THIS PLAN.
- EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO STUMP REMOVAL AND CONSTRUCTION. STABILIZATION OF ALL REGRADED AND SOIL STOCKPILE AREAS WILL BE INITIATED AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
  - ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL MUNICIPAL REGULATIONS. ALL EROSION CONTROL MEASURES ARE TO BE MAINTAINED AND UPGRADED AS REQUIRED TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION. A STAKED HAYBALE DAM SHALL BE INSTALLED DOWN GRADIENT OF ALL DRAINAGE OUTFALLS.
  - ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF DEEMED NECESSARY BY THE OWNER OR AGENTS OF THE OWNER.
  - CATCH BASINS WILL BE PROTECTED WITH HAYBALE FILTERS THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED. SILT SOCKS SHOULD BE INSTALLED UNDER GRATE OPENING UNTIL PAVEMENT IS IN PLACE AND GROUND SURFACE IS STABILIZED.
  - SEEDING MIXTURE FOR FINISHED GRASSED AREAS WILL BE AS FOLLOWS:
 

KENTUCKY BLUE GRASS	45%
CREeping RED FESCUE	45%
PERENNIAL RYEGRASS	10%

 SEED TO BE APPLIED AT A RATE OF 4 LBS./1000 SQ. FT. PLANTING SEASONS SHALL BE APRIL 1 TO JUNE 1 AND AUGUST 1 TO OCTOBER 15. AFTER OCTOBER 15, AREAS WILL BE STABILIZED WITH HAYBALE CHECK, FILTER FABRIC, OR WOODCHIP MULCH, AS REQUIRED, TO CONTROL EROSION.
  - AREAS THAT ARE NOT THE LOCATION OF ACTIVE CONSTRUCTION WHICH ARE TO BE LEFT BARE FOR OVER ONE MONTH BEFORE FINISHED GRADING AND SEEDING IS ACHIEVED, SHALL BE MULCHED OR RECEIVE TEMPORARY STABILIZATION SUCH AS JUTE NETTING OR SHALL RECEIVE A TEMPORARY SEEDING OF PERENNIAL RYEGRASS APPLIED TO A RATE OF 2 LBS./1,000 SQ. FT. LIMESTONE (EQUIVALENT TO BE 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) SHALL BE APPLIED AS SEEDBED PREPARATION AT A RATE OF 90 LBS./1,000 SQ. FT. PLANTING SEASONS SHALL BE APRIL 1 TO JUNE 1 AND AUGUST 1 TO OCTOBER 1. AREAS TO BE LEFT BARE BEFORE FINISH GRADING AND SEEDING OUTSIDE OF PLANTING SEASONS SHALL RECEIVE AN AIR-DRIED WOOD CHIP MULCH, FREE OF COARSE MATTER.
  - AT ALL PROPOSED FILL AREAS WHICH ARE NOT CURRENTLY SHOWN ON THESE PLANS, THE CONTRACTOR SHALL ESTABLISH AN EROSION CONTROL LINE (HAYBALE CHECK OR FILTER FABRIC) ABOUT TEN (10') FEET FROM TOE TO SLOPE OF PROPOSED FILL AREAS PRIOR TO BEGINNING FILL INSTALLATION. STABILIZATION OF SLOPES IN FILL AREAS (USING MULCH OR GRASS) SHALL BE INITIATED WITHIN THIRTY (30) DAYS OF COMMENCEMENT OF FILL INSTALLATION.
  - STABILIZATION OF SLOPES IN CUT AREAS (USING MULCH OR GRASS) AND THE INSTALLATION OF CONTROL LINE (HAYBALE CHECK OR FILTER FABRIC) AT THE TOE OF SLOPE SHALL BE INITIATED WITHIN THIRTY (30) DAYS OF COMPLETION.
  - SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THE PLAN. ALL HAYBALES OR SILT FENCE RETAINING SEDIMENT OVER 1/2 THEIR HEIGHT SHALL HAVE THE SEDIMENT REMOVED AND ALL DAMAGED EROSION CONTROLS SHALL BE REPAIRED OR REPLACED.
  - CONTRACTOR WILL BE ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE ROCHESTER PLANNING BOARD OF ANY TRANSFER OF THIS RESPONSIBILITY. THE OWNER SHALL BE RESPONSIBLE FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.
  - THE CONTRACTOR SHALL SECURE THE SERVICES OF A PROFESSIONAL ENGINEER, WHO SHALL VERIFY IN THE FIELD THAT THE CONTROLS REQUIRED BY THIS PLAN ARE PROPERLY INSTALLED, SHALL MAKE INSPECTION OF SUCH FACILITIES NOT LESS FREQUENTLY THAN EVERY 14 DAYS OR AFTER A RAINFALL IN EXCESS OF 1/2 INCH, WHICHEVER OCCURS FIRST. THE INSPECTION REPORTS SHALL BE SUBMITTED TO THE PLANNING DEPARTMENT AND CONSERVATION COMMISSION OFFICE ON A MONTHLY BASIS.
  - STOCKPILES OF SOIL SHALL BE SURROUNDED BY A SEDIMENT BARRIER. SOIL STOCKPILES TO BE LEFT BARE FOR MORE THAN THIRTY (30) DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR MULCH. IF SOIL STOCKPILES ARE TO REMAIN FOR MORE THAN SIXTY (60) DAYS, FILTER FABRIC SHALL BE USED IN PLACE OF HAYBALES. SIDE SLOPES SHALL NOT EXCEED 2:1.
  - THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE LIFE OF HIS CONTRACT. DUST CONTROL SHALL INCLUDE, BUT IS NOT LIMITED TO SPRINKLING OF WATER ON EXPOSED SOILS AND HAUL ROADS. CONTRACTOR SHALL CONTROL DUST TO PREVENT A HAZARD TO TRAFFIC.
  - IF FINAL GRADING IS TO BE DELAYED FOR MORE THAN THIRTY (30) DAYS AFTER LAND DISTURBANCES CEASE, TEMPORARY VEGETATION OR MULCH SHALL BE USED TO STABILIZE SOILS.
  - HAYBALES SHALL BE USED ONLY AS A TEMPORARY MEASURE. WHERE CONTROL MEASURES WILL BE REQUIRED FOR LONGER THAN SIXTY (60) DAYS, FILTER FABRIC SHALL BE USED.
  - WHERE DEWATERING IS NECESSARY, THERE SHALL NOT BE A DISCHARGE DIRECTLY INTO WETLANDS OR WATERCOURSES. PROPER METHODS AND DEVICES SHALL BE UTILIZED TO THE EXTENT PERMITTED BY LAW, SUCH AS PUMPING WATER INTO A TEMPORARY SEDIMENTATION BOWL, PROVIDING SURGE PROTECTION AT THE INLET AND THE OUTLET OF PUMPS, OR FLOATING THE INTAKE OF THE PUMP, OR OTHER METHODS TO MINIMIZE AND RETAIN THE SUSPENDED SOLIDS. IF A PUMPING OPERATION IS CAUSING TURBIDITY PROBLEMS, SAID OPERATION SHALL CEASE UNTIL SUCH TIME AS FEASIBLE MEANS OF CONTROLLING TURBIDITY ARE DETERMINED AND IMPLEMENTED. SAID DISCHARGE POINTS SHALL BE LOCATED OVER 100 FEET FROM THE DELINEATED WETLANDS AS INDICATED ON THIS PLAN.



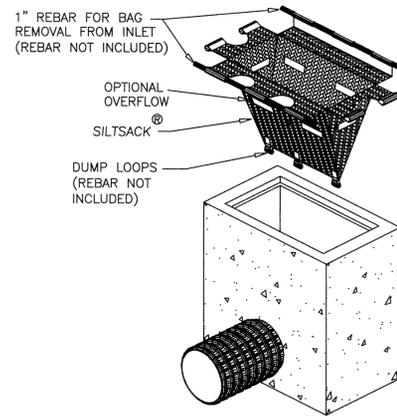
NOTE: THE SILTSACK® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

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

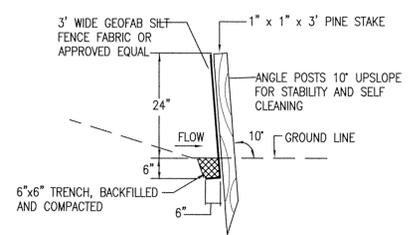
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE	ASTM D-4632	300 LBS
STRENGTH GRAB	ASTM D-4632	20%
TENSILE ELONGATION	ASTM D-4833	120 LBS
PUNCTURE MULLEN	ASTM D-3786	800 PSI
BURST TRAPEZOID	ASTM D-4533	120 LBS
TEAR UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING	ASTM D-4751	40 US SIEVE
SIZE FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT 0.55
PERMITTIVITY	ASTM D-4491	SEC -1

**HI-FLOW SILTSACK®**  
 (FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

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

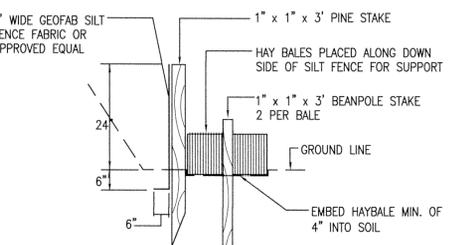


DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB DEFLECTOR ("SILT SACK")  
 NOT TO SCALE



NOTE: SILT FENCE ONLY WILL BE PLACED AS SHOWN ON THE "EROSION CONTROL PLAN".

SILT FENCE DETAIL  
 NOT TO SCALE



NOTE: SILT FENCE ONLY WILL BE PLACED AS SHOWN ON THE "EROSION CONTROL PLAN".

HAY BALE AND SILT FENCE DETAIL  
 NOT TO SCALE

**NEW BEDFORD PLANNING BOARD**

APPROVED UNDER THE SUBDIVISION CONTROL LAW REQUIRED

DATE: \_\_\_\_\_

REV.	DATE	DESCRIPTION	BY	APP.
6	2/25/14	ADDED SPECIAL GUTTER INLET	TRW	RJR
5	2/3/14	REVISED ROAD LAYOUT	EKW	RJR
4	1/7/14	RESPONSE TO CON-COM COMMENTS	EKW	RJR
3	11/26/13	RESPONSE TO COMMENTS	EKW	RJR
2	11/13/13	RESPONSE TO DPI COMMENTS	EKW	RJR
1	9/5/2013	GENERAL REVISIONS	JLB	RJR

DRAWING TITLE		<b>EROSION CONTROL DETAIL SHEET</b>		SCALE:	AS-NOTED
PROJECT		CARDINAL PLACE (CARDINAL STREET & AVA'S WAY) NEW BEDFORD, MASSACHUSETTS		DATE:	APRIL 22, 2013
CLIENT		RICHARD HOPPS DARTMOUTH, MASSACHUSETTS		DRAWN BY:	JLB/RMF
DESIGNED BY:		JLB/RMF		CHECKED BY:	RJR
APPROVED BY:		RJR		APPROVED BY:	RJR
PROJECT NO.		1931-0101		SHEET NO. <b>ER2</b>	

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 TEL: 508.947.0050  
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