



Mead, Talerman & Costa, LLC
Attorneys at Law

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Newburyport, MA 01950
Phone 978.463.7700
Fax 978.463.7747

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November 28, 2017

Bonnie Sontag, Chair
Newburyport Planning Board
City Hall
60 Pleasant Street
Newburyport, Massachusetts 01950

RE: 2 Parker Street and Parcel A (the "Property")
Request for Major Site Plan Review, Subdivision Approval and Section VI-C
Special Permit
"Parker Hill Definitive Subdivision"

Dear Chair and Members of the Board;

Reference is made to the above captioned matter and the last hearing. In that connection, the Applicant has reviewed your request to consider additional public benefit relative to the section VI-C Special Permit. Please know that the Applicant, in an effort to finalize this matter and have the project underway, is proposing the following conditions be a part of the Special Permit should the Board determine it will issue one:

1. The Applicant shall provide three affordable housing units as follows: A 3-bedroom unit to be affordable at 80% AMI, one 2-bedroom unit to be affordable at 80% AMI and one 2-bedroom unit to be affordable at 70% AMI. I am attaching the current estimate of the sale price at the various AMI thresholds.¹
2. The Applicant shall construct a multimodal path for the length of the frontage of the Property in accordance with the City standards for multimodal pathways and as set forth on the Site Plan. Said path to extend approximately 15 linear feet beyond the Property line to the west to the drive as noted on the Site Plan and said path to extend 240 linear feet beyond the Property line to the east to the western cemetery gate. For all construction which occurs on property other than the Applicant's Property, the city shall provide a right of entry acceptable to the Applicant to permit said construction on City Property. The City shall be required to acquire and/or obtain all authorizations for construction activities on any property not-owned by the Applicant, but which is necessary to perform said construction. The City shall be required to obtain any and all permits for construction and any authorizations for the movement of any utility poles and/or trees which may be in the proposed multimodal path. The City shall provide all necessary engineering work to the Applicant in order that the Applicant can construct the multimodal path on property of others. In any event, the Applicant shall not be required to construct the

¹ Please keep in mind this may be adjusted up or down depending on when the sale occurs and what the other housing related expenses are associated with the condominium such as a common area maintenance fee.

Millis Office

730 Main Street, Suite 1F
Millis, MA 02054
Phone 508.376.8400

multi-modal path on property of others until after the sale of the 15th market rate unit and shall complete said construction prior to the issuance of the Certificate of Occupancy for the last unit, so long as the City has obtained all authorizations and completed all engineering prior to the sale of the 15th market rate unit. In all events the Applicant shall not be required to undertake any construction until all engineering and land acquisition or authorization has occurred and said lack of same shall not prohibit the Applicant from continuing to construct and obtain certificates of occupancy for its project. In the event the City has not completed its engineering and obtained authorization or acquisition of the necessary property rights prior to the last unit qualifying for the issuance of a certificate of occupancy, said certificate shall issue or if the City has not completed its engineering and obtained authorization or acquisition of the necessary property rights on or before December 15, 2023, the Applicant shall not be required to complete any construction on which is not directly along the frontage of the Applicant's property and this condition, except as to the multimodal path along the frontage of the Applicant shall be null and void.

Finally, the Applicant has submitted herewith the required revisions to the plan set as requested by the City Peer Review engineer.

Respectfully submitted,
Parker 2 Realty Trust
by its attorney,

A handwritten signature in black ink, appearing to read 'Lisa L. Mead', is written over a horizontal line. The signature is stylized and cursive.

Lisa L. Mead

Affordable Housing Price Calculator

Date: 11/16/2017

This model determines the price of an affordable housing unit based on assumptions input to the model. Figures in red may be changed, figures in black are calculated and should not be changed.

Model Assumptions		Source of Data:	
Interest Rate (%)	4.45%	Freddie Mac's Interest Rate + 1/2%	
Tax Rate (\$/K)	\$13.35	FY 17 Newburyport tax rate	
Hazard Insurance (\$/K)	\$1,008	\$4 to \$6/ \$1000 of Sales Price	
PMI (\$/K)	\$1,955.52	HUD PMI rate	
Condo/HOA fees (\$)			
# of Bedrooms	2		

Household Income:	80%
# of Bedrooms	2
Household Size	3
AMI for Family	\$70,350
Monthly AMI for Family	\$5,863
Target Monthly Housing Cost	\$1,759
Housing Cost as % of AMI	30.0%

Solution Calculated	
Optimum Sales Price	\$252,000
3% Down payment	\$7,560
Mortgage	\$244,440
Amortization	30
Monthly P&I Payments	\$1,231
Monthly property tax	\$280
Hazard Insurance	\$84
PMI	\$163
Condo/HOA fees	\$0
Monthly Cost	\$1,759

<---->

Change	<----
"Optimum Sales Price" until	
"Monthly Cost" equals	
"Target Monthly Housing	

Household Income:	70%
# of Bedrooms	2
Household Size	3
AMI for Family	\$65,170
Monthly AMI for Family	\$5,431
Target Monthly Housing Cost	\$1,629
Housing Cost as % of AMI	30.0%

Solution Calculated	
Optimum Sales Price	\$230,400
3% Down payment	\$6,912
Mortgage	\$223,488
Amortization	30
Monthly P&I Payments	\$1,126
Monthly property tax	\$256
Hazard Insurance	\$84
PMI	\$163
Condo/HOA fees	\$0
Monthly Cost	\$1,629

Household Income:	60%
# of Bedrooms	2
Household Size	3
AMI for Family	\$55,860
Monthly AMI for Family	\$4,655
Target Monthly Housing Cost	\$1,397
Housing Cost as % of AMI	30.0%

Solution Calculated	
Optimum Sales Price	\$191,700
3% Down payment	\$5,751
Mortgage	\$185,949
Amortization	30
Monthly P&I Payments	\$937
Monthly property tax	\$213
Hazard insurance	\$84
PMI	\$163
Condo/HOA fees	\$0
Monthly Cost	\$1,397

CONDOMINIUM SITE DEVELOPMENT PLANS

PARKER HILL DEFINITIVE SUBDIVISION

- TAX MAP 34 LOT 8-A -
2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS 01950

AUGUST 14, 2017

LAST REVISED: NOVEMBER 30, 2017

ABUTTER INFORMATION

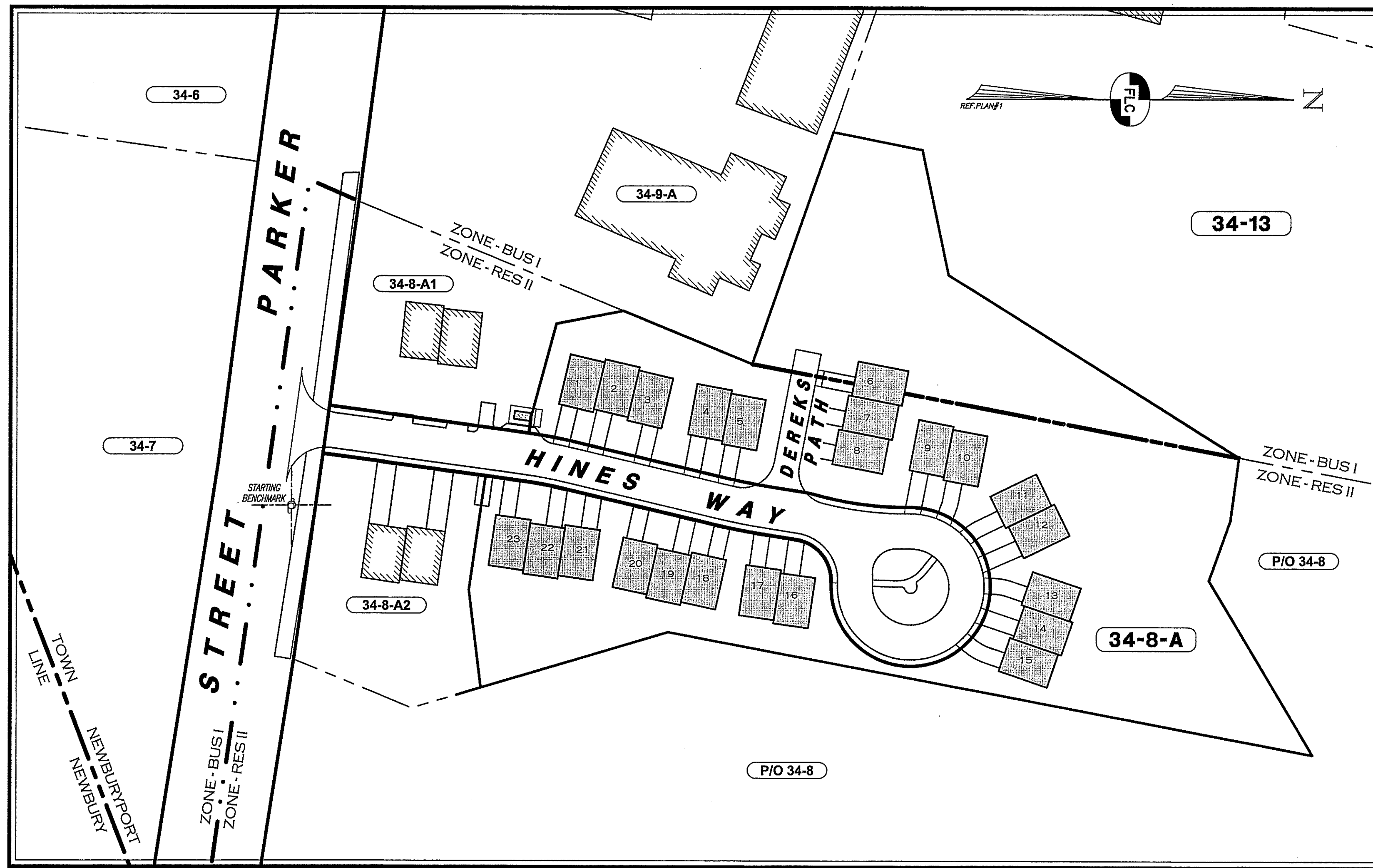
- | | | |
|--|--|---|
| <p>MAP 34 LOT 8-A
PARKER 2 REALTY TRUST
JOSEPH G. HILL, TRUSTEE
160 BRIDGE ROAD
SALISBURY, MA 01952
BK.34796 PG.59 3/25/16
(PARKER ST.)</p> <p>MAP 34 LOT 13
BROADWAY PLAZA TRUST II
NEIL A. TAGERMAN, TRUSTEE
75 OAK STREET
NEWTON, MA 02464
BK.13656 PG.56 7/11/96
(151-155 STATE ST.)</p> <p>MAP 34 LOT 8-A-1
PARKER 2 REALTY TRUST
JOSEPH G. HILL, TRUSTEE
160 BRIDGE ROAD
SALISBURY, MA 01952
BK.34796 PG.59 3/25/16
(PARKER ST.)</p> <p>MAP 34 LOT 8-A-2
PARKER 2 REALTY TRUST
JOSEPH G. HILL, TRUSTEE
160 BRIDGE ROAD
SALISBURY, MA 01952
BK.34796 PG.59 3/25/16
(PARKER ST.)</p> <p>MAP 34 LOT 8
OAK HILL CEMETERY
BOARD OF TRUSTEES
P.O. BOX 576
NEWBURYPORT, MA 01950
BK.1835 PG.175 8/18/1906
(4 BROWN ST.)</p> | <p>MAP 34 LOT 6
3 PARKER STREET NOMINEE TRUST
KENNETH R. LABRECQUE, TRUSTEE
P.O. BOX 182
NEWBURYPORT, MA 01950
BK.16930 PG.542 3/1/01
(3 PARKER ST.)</p> <p>MAP 34 LOT 7
C&D REALTY TRUST
DAVID L. &
CAROLYN SHEPARD, TRUSTEES
14 PINE STREET
NEWBURYPORT, MA 01950
BK.25756 PG.340 6/8/06
(PARKER ST.)</p> <p>MAP 34 LOT 9-A
C&D REALTY TRUST
DAVID L. &
CAROLYN SHEPARD, TRUSTEES
14 PINE STREET
NEWBURYPORT, MA 01950
BK.7596 PG.179 12/4/84
(4 PARKER ST.)</p> <p>MAP 34 LOT 11
HARDWARE NOMINEE TRUST
PETER G. &
LISA L. KELLY, TRUSTEES
163 STATE STREET
NEWBURYPORT, MA 01950
BK.14612 PG.374 2/25/98
(163 STATE ST.)</p> | <p>MAP 34 LOT 12
GRANT NOMINEE TRUST
PETER G. &
KATHERINE G. KELLY, TRUSTEES
161 STATE STREET
NEWBURYPORT, MA 01950
BK.14612 PG.405 2/25/98
(161 STATE ST.)</p> <p>MAP 34 LOT 14
BEBOSAM, LLC
149 STATE STREET
NEWBURYPORT, MA 01950
BK.29830 PG.19 10/1/10
(149 STATE ST.)</p> <p>MAP 34 LOT 15
PATRICIA GALLAGHER
147 STATE STREET
NEWBURYPORT, MA 01950
BK.12244 PG.390 11/16/93
(147 STATE ST.)</p> <p>MAP 34 LOT 16
JONATHAN G. YOUNG
145 STATE STREET
NEWBURYPORT, MA 01950
BK.31804 PG.116 10/10/12
(145 STATE ST.)</p> <p>MAP 34 LOT 17
143 STATE STREET TRUST
ROBERT A. HOFFMAN, TRUSTEE
143 STATE STREET
NEWBURYPORT, MA 01950
BK.2046 PG.252 1/21/99
(143 STATE ST.)
(SUITES 1-9)
(UNITS A THRU I)</p> |
|--|--|---|

REFERENCE PLANS:

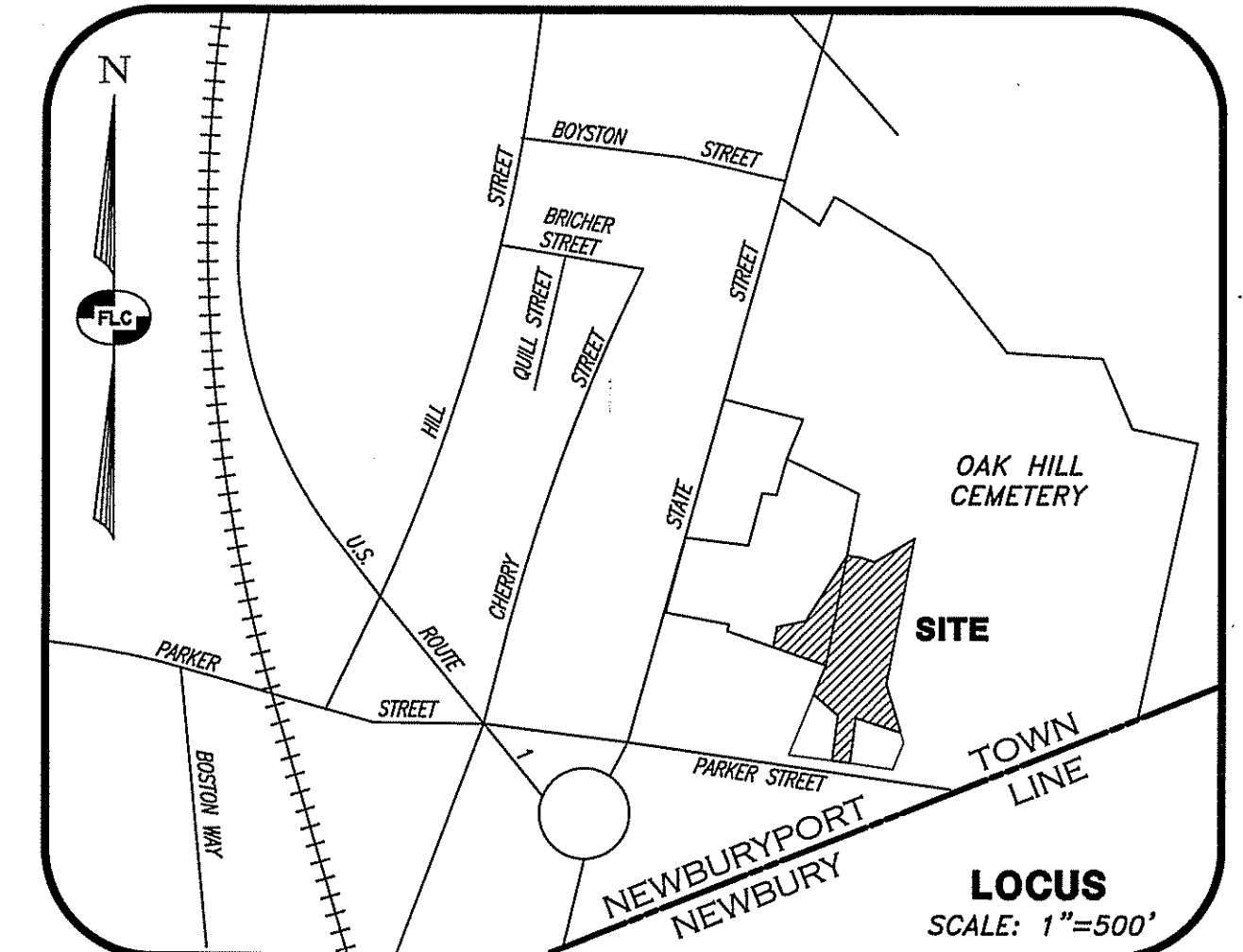
- "PLAN OF LAND - SHOWING DIVISION OF 34-8-A - PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952", SCALE 1"=40', DATED MARCH 8, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 452 PLAN #081 DATED MARCH 25, 2016.
- "PLAN OF DIVISION OF LAND - OF - ROBERT W.E. WALTERS - STATE & PARKER STS. - NEWBURYPORT, MASS.", SCALE 1"=40', DATED APRIL 30, 1969, BY HAROLD F. MAC WILLIAMS. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 114 PLAN #009 DATED MAY 9, 1969.
- "PLAN OF DIVISION OF LAND OF - DONALD C. GRAVELLE - PARKER ST. - NEWBURYPORT, MASS.", SCALE 1"=40', DATED JUNE 1970, BY HAROLD F. MAC WILLIAMS. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS AS PLAN #297 OF 1970 DATED AUGUST 20, 1970.
- "SITE PLAN - PARKER HILL CONDOMINIUM - PHASE 1 - OF - 2 PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952", SCALE 1"=40', 2 SHEETS, DATED NOVEMBER 5, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 457 PLAN #022 DATED DECEMBER 16, 2016.
- "PLAN AND PROFILE OF PROPOSED STATE HIGHWAY IN - NEWBURYPORT", 3 SHEETS - PLAN NO.0220-1 THRU 0220-3, SCALE 1"=40', DATED JUNE 9, 1972, BY THE OFFICE OF MASSACHUSETTS HIGHWAY COMMISSION, COUNTY OF ESSEX ENGINEER'S OFFICE RECORD #2211. COUNTY COMMISSIONERS DECREE #1128 DATED AUGUST 3, 1972. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 2372 PLAN #475.
- "PLAN OF LAND - IN - NEWBURYPORT, MA - J.J.F. REALTY TRUST - 149 STATE STREET - NEWBURYPORT, MA - MAP 34 LOT 14", SCALE 1"=10', DATED APRIL 7, 2008, BY GRIFFIN ENGINEERING GROUP, LLC. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 413 PLAN #045 DATED APRIL 11, 2008.
- "PLAN OF LAND - IN - NEWBURYPORT MASSACHUSETTS - OWNER - LABADINI REALTY CO., INC.", SCALE 1"=20', DATED JUNE 20, 1972, BY PORT ENGINEERING ASSOCIATES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 123 PLAN #074 DATED AUGUST 25, 1972.
- "PLAN OF THE HASKELL FIELD - CORNER OF STATE AND PARKER STREETS - NEWBURYPORT, MASS (AS PER DESCRIPTION OF 1846)", SCALE 1"=60', DATED JUNE 4, 1906, BY J.P. TITCOMB, C.E. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 1835 PLAN #1 DATED AUGUST 13, 1906.

STARTING BENCHMARK:

TOP OF FLAT NAIL FOUND
IN UTILITY POLE (MECO#6)
ELEV.=23.15'
DATUM=NAVD 1988 PER REF.PLAN#1



SCALE: 1"=50'



SHEET INDEX		
PAGE	SHEET	TITLE
1	CV-1	COVER SHEET
2	EX-1	EXISTING CONDITIONS PLAN
3	LR-1	LOT LINE ADJUSTMENT PLAN (ANR)
4	SP-1	SITE PLAN
5	GR-1	GRADING PLAN
6	UT-1	UTILITY PLAN
7	PP-1	PLAN AND PROFILE
8	PP-2	MISCELLANEOUS PLAN & PROFILES
9	LT-1	LIGHTING PLAN
10	LS-1	LANDSCAPING PLAN
11	DT-1	CONSTRUCTION DETAILS
12	DT-2	DRAINAGE DETAILS
13	DT-3	DRAINAGE & LANDSCAPING DETAILS
14	DT-4	EROSION CONTROL DETAILS
15	DT-5	WATER DETAILS
16	DT-6	WATER DETAILS
17	DT-7	SEWER DETAILS
18	DT-8	STORMTECH DETAILS

PREPARED FOR AND LAND OF:
PARKER 2 REALTY TRUST
160 BRIDGE ROAD
SALISBURY, MASSACHUSETTS 01952

1. THE LOCATION OF THE UTILITIES SHOWN ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PRESERVE ALL UTILITY SERVICES.

2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL JURISDICTIONAL AGENCIES AND UTILITY COMPANIES PRIOR TO AND DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND PROPOSED WORK PRIOR TO CONSTRUCTION.

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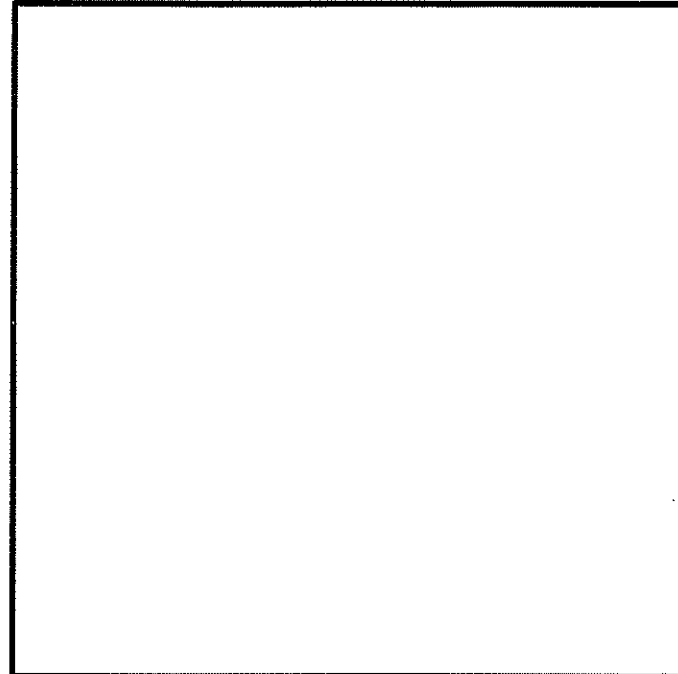
CITY OF NEWBURYPORT OFFICE OF THE CITY CLERK	APPLICATION FILED _____ FINAL PLAN FILED _____ HEARING DATE _____ PLAN APPROVED _____ BOARD OF HEALTH _____	"PLANNING BOARD APPROVAL UNDER SUBDIVISION CONTROL LAW" NEWBURYPORT PLANNING BOARD _____ _____ _____ _____ _____ DATE
CLERK _____ DATE _____	APPROVAL _____	DATE _____

REV.	DATE	DESCRIPTION	C/O	DR	CK
D	11/30/17	REVISED PER CSI 11/29/17 REVIEW	CSI	NRC	CEB
C	11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	MDP
B	11/07/17	REVISED PER CSI 9/12/17 REVIEW	CSI	NRC	MDP
A	8/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB

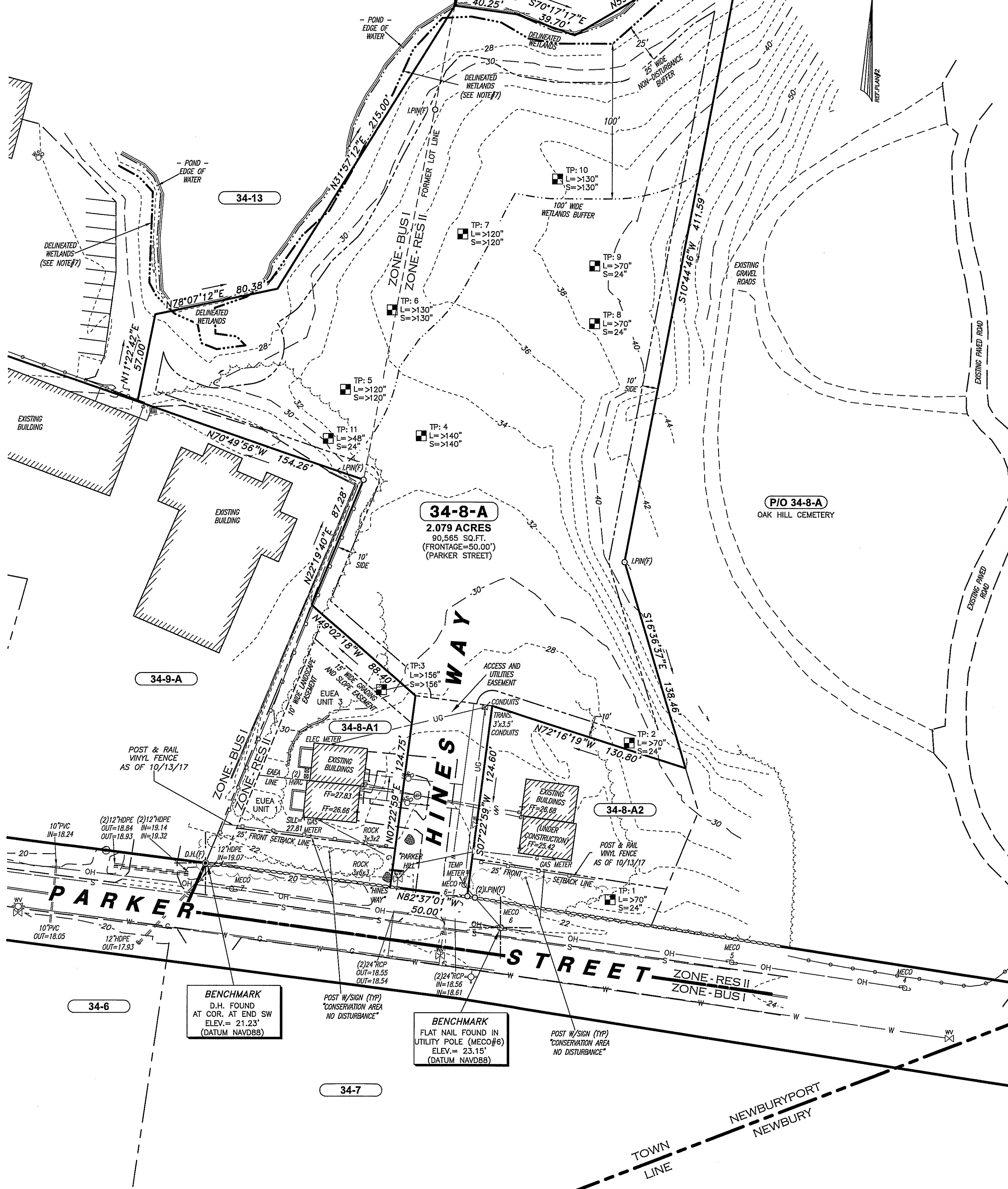
FILE: 1486CV00C.dwg PROJ. NO. 1486.00 SHEET: CV-1 PAGE NO. 1 OF 18

REFERENCE PLANS:

- "PLAN OF LAND - PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952, SCALE 1"=40', DATED JULY 20, 2015, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK #452 PLAN #0080 DATED MARCH 25, 2016.
- "PLAN OF LAND - SHOWING DIVISION OF 34-B-A - PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952, SCALE 1"=40', 2 SHEETS, DATED NOVEMBER 5, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK #452 PLAN #0081 DATED MARCH 25, 2016.
- "SITE PLAN - PARKER HILL CONDOMINIUM - PHASE 1 - OF - 2 PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952, SCALE 1"=40', 2 SHEETS, DATED NOVEMBER 5, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK #457 PLAN #0022 DATED DECEMBER 16, 2016.



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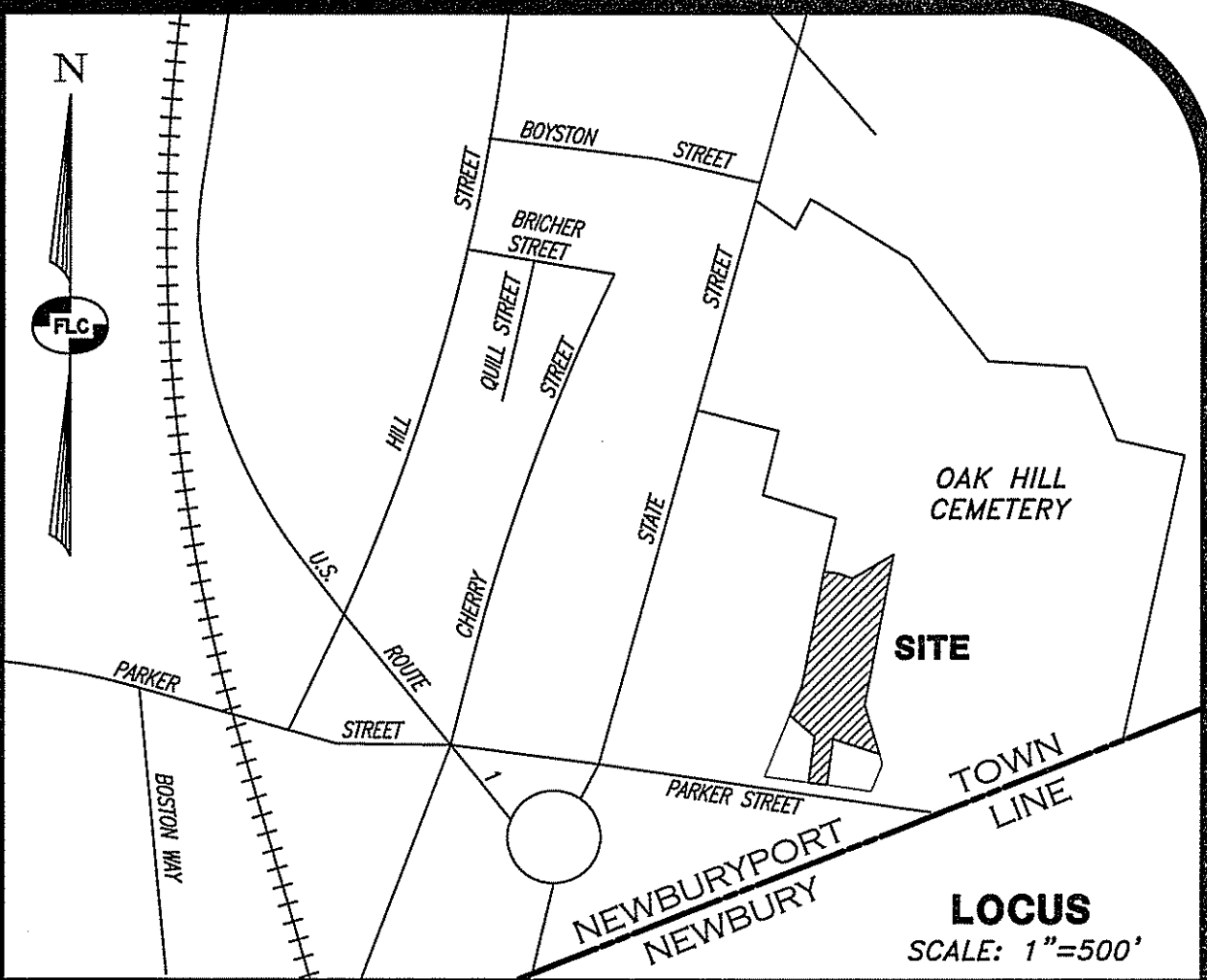


LEGEND:

- RIGHT-OF-WAY LINE
 - BOUNDARY LINE
 - ABUTTING LOT LINE
 - BUILDING SETBACK LINE
 - EDGE OF PAVED ROAD
 - EDGE OF GRAVEL ROAD
 - EDGE OF TREE LINE
 - - - 10' CONTOUR INTERVAL
 - - - 2' CONTOUR INTERVAL
 - WROUGHT IRON FENCE
 - CHAIN-LINK FENCE
 - STOCKADE FENCE
 - THE COURSE LINE
 - OVERHEAD UTILITY LINE
 - GAS LINE
 - WATER LINE
 - SEWER LINE
 - DRAIN LINE
 - TAX MAP & LOT NUMBER
- G.B.(F) GRANITE BOUND FOUND
 - C.B.(F) CONCRETE BOUND FOUND
 - C.B.(P) CONCRETE BOUND PER REF. PLAN
 - I.P.M.(F) IRON PIN FOUND
 - I.P.M.(T) IRON PIN TO BE SET
 - G.B.(S) GRANITE BOUND TO BE SET
 - UTILITY POLE & GUY
 - CATCH BASIN
 - DRAIN MANHOLE
 - SEWER MAN-HOLE (ROUND)
 - TELEPHONE MANHOLE
 - WATER HYDRANT
 - WATER VALVE
 - WATER SHUT-OFF
 - GAS VALVE
 - LANDSCAPED AREA
 - EXCLUSIVE USE EASEMENT AREA LINE

ABUTTER INFORMATION

- MAP 34 LOT 8-A**
PARKER 2 REALTY TRUST
JOSEPH G. HILL, TRUSTEE
160 BRIDGE ROAD
SALISBURY, MA 01952
BK.34796 PG.59 3/25/16
(PARKER ST.)
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(PARKER ST.)
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BK.34796 PG.59 3/25/16
(PARKER ST.)
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BOARD OF TRUSTEES
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BK.1835 PG.175 8/18/1906
(4 BROWN ST.)
- MAP 34 LOT 13**
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NEIL A. TAGERMAN, TRUSTEE
75 OAK STREET
NEWTON, MA 02464
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(151-155 STATE ST.)
- MAP 34 LOT 9-A**
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KENNETH R. LABRECQUE, TRUSTEE
P.O. BOX 162
NEWBURYPORT, MA 01950
BK.16930 PG.542 3/1/01
(3 PARKER ST.)



NOTES:

- THE OWNER OF RECORD FOR TAX MAP LOT 38-B-A IS PARKER 2 REALTY TRUST - JOSEPH G. HILL, TRUSTEE, 160 BRIDGE ROAD, SALISBURY, MA 01952. DEED REFERENCE IS BK. 34796 PG. 059 DATED MARCH 25, 2016 IN THE ESSEX SOUTH REGISTRY OF DEEDS.
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS OF TAX MAP LOT 34-B-A.
- THE EXISTING AREA OF TAX MAP LOT 38-B-A IS 90,565 SQ.FT. OR 2.079 ACRES WITH 50.00' OF FRONTAGE ALONG PARKER STREET.
- ZONING FOR LOT 34-B-A IS (R2) RESIDENTIAL II DISTRICT.

R2 ZONE - 2-FAMILY	REQUIRED	EXIST. 34-B-A
MIN LOT AREA	15,000 SF	90,565 SF
MIN FRONT SETBACK	25 FT	50.00 FT
MIN SIDE SETBACK	20 FT	— FT
MIN REAR SETBACK	25 FT	— FT
MAX. BUILDING HEIGHT	35 FT	— FT
MAXIMUM % LOT COVERAGE	25%	— %
OPEN SPACE FOR EACH LOT	40%	N/A
- THE DEMOLITION CONTROL OVERLAY DISTRICT (DCOD) IS LOCATED WITHIN THE R2 ZONE FOR THIS SITE.
- THE ENTIRE SITE LIES OUTSIDE THE BOUNDARY OF THE 100 YEAR FLOOD PLAIN PER FLOOD INSURANCE RATE MAP FOR THE TOWN OF NEWBURYPORT, ESSEX COUNTY, MA, F.I.R.M. COMMUNITY PANEL NUMBER 25009C0136G, MAP REVISED DATE, JULY 16, 2014.
- HORIZONTAL ORIENTATION IS BASED ON REFERENCE PLAN #2. VERTICAL DATUM IS NAVD88 PER REFERENCE PLAN#3.
- JURISDICTIONAL WETLANDS SHOWN HEREON FOR THE NORTHWESTERLY PORTION OF LOT 34-B-A WERE DEVELOPED FROM REFERENCE PLAN #3. THE REFERENCE WETLAND DELINEATION WAS REVIEWED AND CONFIRMED BY CHRISTOPHER A. GUIDA, C.W.S. IN APRIL 2017.
- TAX MAP LOT 34-B-A IS SUBJECT TO AN ELECTRIC UTILITY EASEMENT GRANTED TO MASSACHUSETTS ELECTRIC COMPANY, RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS, BOOK #35237, PAGE 592, DATED AUGUST 23, 2016.

CITY OF NEWBURYPORT OFFICE OF THE CITY CLERK	APPLICATION FILED _____	*PLANNING BOARD APPROVAL UNDER SUBDIVISION CONTROL LAW NEWBURYPORT PLANNING BOARD
	FINAL PLAN FILED _____	
THIS IS TO CERTIFY THAT ON I RECEIVED FROM THE PLANNING BOARD CERTIFICATION OF ITS APPROVAL OF THIS PLAN AND THAT DURING THE (20) TWENTY DAYS NEXT FOLLOWING, I HAVE RECEIVED NO NOTICE OF ANY APPEAL FROM SAID DECISION.	HEARING DATE _____	DATE _____
	PLAN APPROVED _____	
CLERK _____	DATE _____	APPROVAL _____

B	11/07/17	REVISED PER CSI REVIEW	CSI	TJB	MDP
A	8/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB
REV.	DATE	DESCRIPTION	C/O	DR	CK

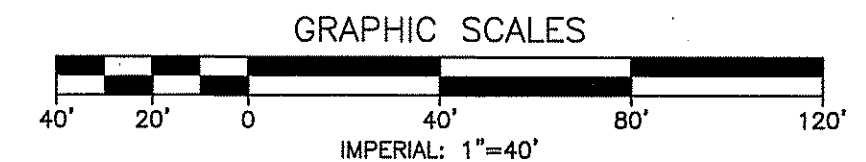
EXISTING CONDITIONS PLAN
PARKER HILL
DEFINITIVE SUBDIVISION
TAX MAP PARCEL 34-8-A - 2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS
PREPARED FOR AND LAND OF:
PARKER 2 REALTY TRUST
160 BRIDGE ROAD, SALISBURY, MA 01952

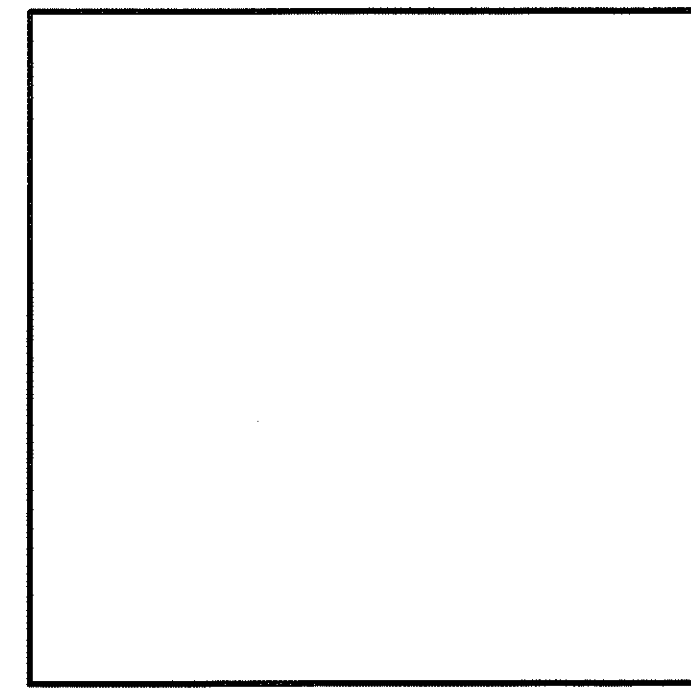
SCALE: 1" = 40' AUGUST 14, 2017

Surveying + Engineering + Land Planning + Permitting + Septic Designs



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FOR REGISTRY USE ONLY

LEGEND:

- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- - - ABUTTING LOT LINE
- - - BUILDING SETBACK LINE
- - - EDGE OF PAVED ROAD
- - - EDGE OF GRAVEL ROAD
- - - EDGE OF TREE LINE
- - - EDGE OF DELINEATED WETLANDS
- - - EDGE OF WATER OF POND
- - - 10' CONTOUR INTERVAL
- - - 2' CONTOUR INTERVAL
- - - WROUGHT IRON FENCE
- - - CHAIN-LINK FENCE
- - - STOCKADE FENCE
- - - THE COURSE LINE
- OH — OVERHEAD UTILITY LINE
- C — GAS LINE
- W — WATER LINE
- S — SEWER LINE
- D — DRAIN LINE
- G.B.(f) GRANITE BOUND FOUND
- C.B.(f) CONCRETE BOUND FOUND
- I.P.M.(f) IRON PIN OR "BOLT" FOUND
- D.H.(f) DRILL HOLE FOUND
- S.P.K.(f) SURVEYOR'S NAIL FOUND
- [] MONUMENT PER REFERENCE PLAN
- IRON PIN TO BE SET
- GRANITE BOUND TO BE SET
- EUEA EXCLUSIVE USE EASEMENT AREA
- 34-8-A TAX MAP & LOT NUMBER
- PROPOSED DRAINAGE EASEMENT

LOT LINE ADJUSTMENT AREA CHART			
LOT NO.	FORMER AREA	PROPOSED CHANGE	FINAL AREA
34-8-A	2,079 AC 90,565 SF	+ PARCEL A	2,578 AC 112,316 SF
34-13	3,913 AC 170,440 SF	- PARCEL A	3,413 AC 148,689 SF
PARCEL A	PART OF LOT 34-8-A	BECOMES PART OF LOT 34-8-A	0,499 AC 21,751 SF
*PARCEL B	PART OF LOT 34-8-A1	OF LOT 34-8-A	0,027 AC 1,170 SF
*PARCEL C	PART OF LOT 34-8-A1	OF LOT 34-8-A	0,027 AC 1,170 SF
*PARCEL D	PART OF LOT 34-8-A2	OF LOT 34-8-A	0,030 AC 1,328 SF
*PARCEL E	PART OF LOT 34-8-A	BECOMES PART OF LOT 34-8-A	0,025 AC 1,083 SF
*PARCEL F	PART OF LOT 34-8-A	BECOMES PART OF LOT 34-8-A	0,005 AC 245 SF

* PARCELS B, C, D, E & F CONSIST OF EQUAL LAND SWAPS BETWEEN LOTS 34-8-A, 34-8-A1 AND 34-8-A2. PARCELS A THRU F ARE NOT TO BE CONSIDERED SEPARATE BUILDING LOTS.

NOTES: (CONTINUED)

B. ZONING FOR THE PARCEL 34-13 IS (B1) BUSINESS I DISTRICT (RETAIL SERVICES):

DESCRIPTION	REQUIRED	EXISTING LOT 34-13	PROPOSED LOT 34-13
LOT AREA	10,000 SF	170,440 SF	148,689 SF
FRONTAGE	90 FT	215.06 FT	215.06 FT
FRONT YARD SETBACK	20 FT	14.2 FT	14.2 FT
SIDE A	20 FT	5.1 FT	5.1 FT
SIDE B	20 FT	69.9 FT	69.9 FT
REAR	20 FT	258.0 FT	136.5 FT
LOT COVERAGE	30%	11.5%	13.2%
OPEN SPACE	N/A	N/A	N/A
BLDG. HEIGHT	35 FT	<35 FT	<35 FT

9. ZONING FOR THE LOTS 34-8-A IS (R2) 2-FAMILY RESIDENTIAL II:

DESCRIPTION	REQUIRED	EXISTING LOT 34-8-A1	EXISTING LOT 34-8-A2	PROPOSED LOT 34-8-A2
LOT AREA	15,000 SF	15,012 SF	15,012 SF	15,000 SF
FRONTAGE	120 FT	244.75 FT	253.72 FT	244.60 FT
FRONT YARD SETBACK	25 FT	37.6 FT	35.0 FT	27.5 FT
SIDE A	10 FT	>10 FT	>10 FT	>10 FT
SIDE B	10 FT	>10 FT	>10 FT	>10 FT
REAR	20 FT	45.1 FT	41.2 FT	33.2 FT
LOT COVERAGE	25%	12.7%	12.7%	10.9%
OPEN SPACE	40%	83.0%	81.9%	78.8%
BLDG. HEIGHT	35 FT	<35 FT	<35 FT	<35 FT

10. ZONING FOR THE LOTS 34-8-A IS (R2) RESIDENTIAL II -

DESCRIPTION	REQUIRED	EXISTING LOT 34-8-A	PROPOSED LOT 34-8-A
LOT AREA	20,000 SF	90,565 SF	112,316 SF
FRONTAGE	120 FT	50.00 FT	720.80 FT
FRONT YARD SETBACK	20 FT	>20 FT	>20 FT
SIDE A	10 FT	>10 FT	>10 FT
SIDE B	10 FT	>10 FT	>10 FT
REAR	20 FT	>20 FT	>20 FT
LOT COVERAGE	40%	98%	41%
BLDG. HEIGHT	35 FT	N/A	31.5 FT
SIDE/REAR ADJ. TO PUBLIC OPEN SPACE	10 FT	>10 FT	>10 FT

THE DENSITY CALCULATION FOR MULTI-FAMILY IS 20,000 SF FOR THE FIRST 4 UNITS AND 4,000 SF FOR EACH ADDITIONAL UNIT THEREAFTER. THIS PROPERTY WOULD THEREFORE SUPPORT 27 UNITS AND THIS PROJECT PROPOSES 23 UNITS.

11. AT A PUBLIC HEARING HELD ON JULY 11, 2017 THE FOLLOWING APPLICATIONS WERE APPROVED BY THE NEWBURYPORT ZONING BOARD OF APPEALS:

A. SPECIAL PERMIT FOR USE UNDER ZONING ORDINANCE SECTION X-H.3 AND SECTION V.D. ALLOWING A TWO-FAMILY USE IN THE R2 ZONE AND A MULTI-FAMILY USE IN THE B-1 ZONE - ZONING BOARD OF APPEALS CASE NO. 2017-059.

B. USE VARIANCE UNDER THE ZONING ORDINANCE SECTION X-H.3, ALLOWING A THREE-FAMILY STRUCTURE IN THE R2 ZONE - ZONING BOARD OF APPEALS CASE NO. 2017-058

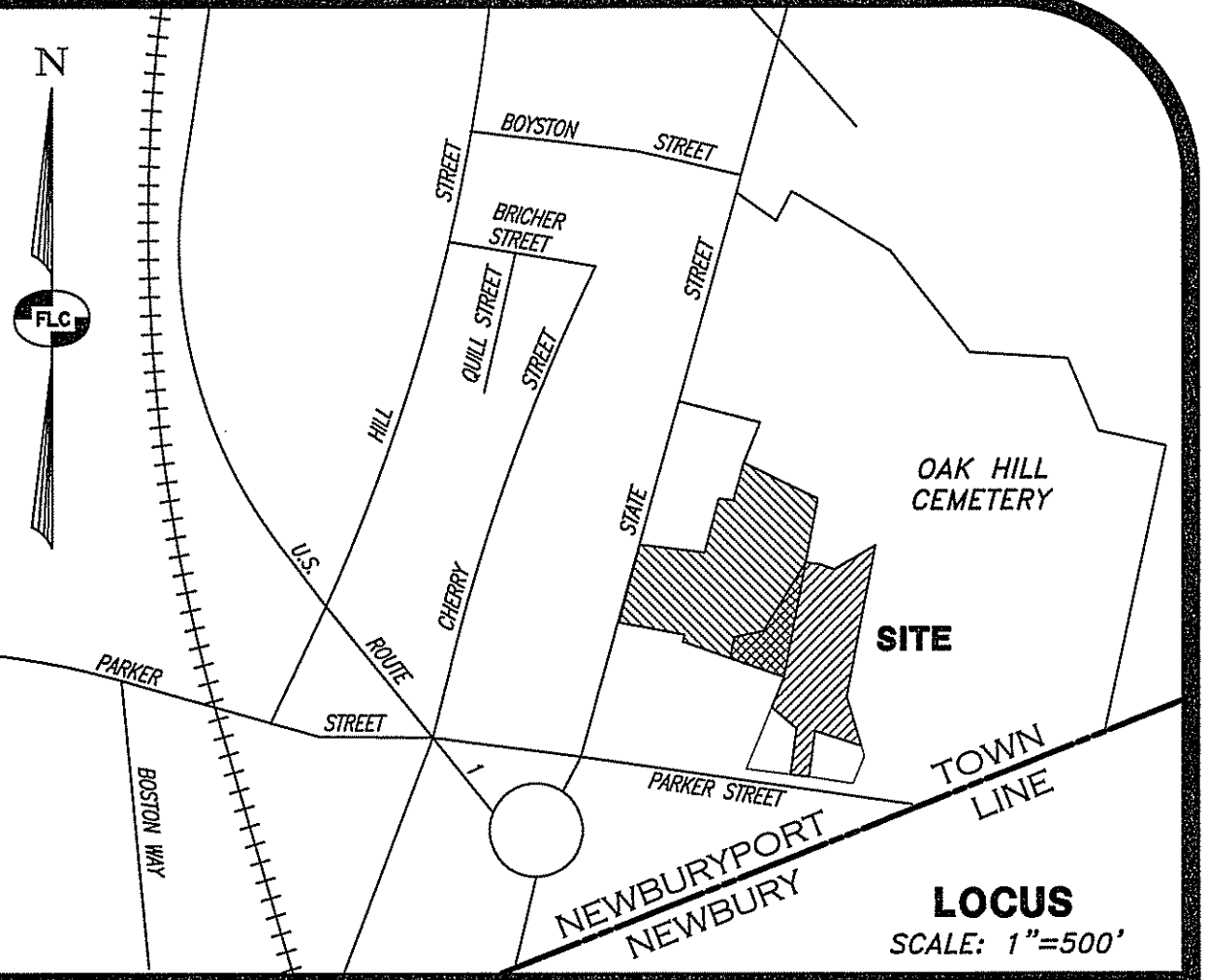
C. DIMENSIONAL VARIANCE UNDER ZONING ORDINANCE SECTION X-H.3 AND SECTION V.A. ALLOWING REDUCED FRONT AND SIDE YARD SETBACK CONDITIONS - ZONING BOARD OF APPEALS CASE NO. 2017-060.

ABUTTER INFORMATION

- MAP 34 LOT 6 - PARKER 2 REALTY TRUST JOSEPH G. HILL, TRUSTEE 160 BRIDGE ROAD NEWBURYPORT, MA 01952 BK.34796 PG.59 3/25/16 (151-155 STATE ST.)
- MAP 34 LOT 7 - PARKER 2 REALTY TRUST JOSEPH G. HILL, TRUSTEE 160 BRIDGE ROAD NEWBURYPORT, MA 01952 BK.34796 PG.59 3/25/16 (PARKER ST.)
- MAP 34 LOT 8-A-1 - PARKER 2 REALTY TRUST JOSEPH G. HILL, TRUSTEE 160 BRIDGE ROAD SALISBURY, MA 01952 BK.34796 PG.59 3/25/16 (PARKER ST.)
- MAP 34 LOT 8-A-2 - PARKER 2 REALTY TRUST JOSEPH G. HILL, TRUSTEE 160 BRIDGE ROAD SALISBURY, MA 01952 BK.34796 PG.59 3/25/16 (PARKER ST.)
- MAP 34 LOT 8 - OAK HILL CEMETERY BOARD OF TRUSTEES P.O. BOX 576 NEWBURYPORT, MA 01950 BK.1835 PG.175 8/18/1906 (4 BROWN ST.)
- MAP 34 LOT 12 - BROADWAY PLAZA TRUST II NEIL A. TAGERMAN, TRUSTEE 161 STATE STREET NEWBURYPORT, MA 01950 BK.25756 PG.340 6/8/06 (PARKER ST.)
- MAP 34 LOT 13 - BROADWAY PLAZA TRUST II NEIL A. TAGERMAN, TRUSTEE 161 STATE STREET NEWBURYPORT, MA 01950 BK.25756 PG.340 6/8/06 (PARKER ST.)
- MAP 34 LOT 14 - PATRICIA G. YOUNG JOHNATHAN G. YOUNG 145 STATE STREET NEWBURYPORT, MA 01950 BK.31804 PG.116 10/10/12 (145 STATE ST.)
- MAP 34 LOT 15 - PATRICIA G. YOUNG JOHNATHAN G. YOUNG 147 STATE STREET NEWBURYPORT, MA 01950 BK.12244 PG.390 11/16/93 (147 STATE ST.)
- MAP 34 LOT 16 - JOHNATHAN G. YOUNG PATRICIA G. YOUNG 145 STATE STREET NEWBURYPORT, MA 01950 BK.31804 PG.116 10/10/12 (145 STATE ST.)
- MAP 34 LOT 17 - HARDWARE NOMINEE TRUST PETER G. & LISA L. KELLY, TRUSTEES 163 STATE STREET NEWBURYPORT, MA 01950 BK.14612 PG.374 2/25/98 (163 STATE ST.)

REFERENCE PLANS:

1. "PLAN OF LAND - PARKER HILL - TAX MAP PARCEL 34-8A - 2 PARKER STREET - AND - TAX MAP PARCEL 34-13 - 150-155 STATE STREET - NEWBURYPORT, MASSACHUSETTS PREPARED FOR AND LAND OF (34-8-A) - PARKER 2 REALTY TRUST - AND LAND OF (34-13): BROADWAY PLAZA TRUST II, DATED AUGUST 14, 2017 AND LAST REVISED AUGUST 30, 2017, BY FIELDSTONE LAND CONSULTANTS, PLLC. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 482 PLAN #073 DATED SEPTEMBER 7, 2017.
2. "PLAN OF LAND - SHOWING DIVISION OF 34-8-A - PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952, SCALE 1"=40', DATED MARCH 6, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 452 PLAN #081 DATED MARCH 25, 2016.
3. "PLAN OF DIVISION OF LAND - OF - ROBERT W.E. WALTERS - STATE & PARKER STS. - NEWBURYPORT, MASS., SCALE 1"=40', DATED APRIL 30, 1969, BY HAROLD F. MAC WILLIAMS. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 114 PLAN #009 DATED MAY 9, 1969.
4. "PLAN OF DIVISION OF LAND OF - DONALD C. GRAVELLE - PARKER ST. - NEWBURYPORT, MASS., SCALE 1"=40', DATED JUNE 1970, BY HAROLD F. MAC WILLIAMS. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS AS PLAN #287 OF 1970 DATED AUGUST 1970.
5. "SITE PLAN - PARKER HILL CONDOMINIUM - PHASE 1 - OF 2 PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952, SCALE 1"=40', 2 SHEETS, DATED NOVEMBER 5, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK #022 DATED DECEMBER 16, 2016.
6. "PLAN AND PROFILE OF - PROPOSED STATE HIGHWAY IN - NEWBURYPORT", 3 SHEETS - PLAN NO.0220-1 THRU 0220-3, SCALE 1"=40', DATED JUNE 9, 1917, BY THE OFFICE OF MASSACHUSETTS HIGHWAY COMMISSION. COUNTY OF ESSEX ENGINEER'S OFFICE RECORD #2211. COUNTY COMMISSIONERS DECREE #1128 DATED AUGUST 3, 1917. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 2372 PLAN #475.
7. "PLAN OF LAND - IN - NEWBURYPORT, MA - J.J.F. REALTY TRUST - 149 STATE STREET - NEWBURYPORT, MA - MAP 34 LOT 14", SCALE 1"=10', DATED APRIL 7, 2008, BY GRIFFIN ENGINEERING GROUP, LLC. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 413 PLAN #045 DATED APRIL 11, 2008.
8. "PLAN OF LAND - IN - NEWBURYPORT MASSACHUSETTS - OWNER - LABADINI REALTY CO., INC., SCALE 1"=20', DATED JUNE 20, 1972, BY PORT ENGINEERING ASSOCIATES, RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 123 PLAN #074 DATED AUGUST 25, 1972.
9. "PLAN OF THE HASKELL FIELD - CORNER OF STATE AND PARKER STREETS - NEWBURYPORT, MASS (AS PER DESCRIPTION OF 1846), SCALE 1"=60', DATED JUNE 4, 1906, BY J.P. TITCOMB, C.E. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 1835 PLAN #1 DATED AUGUST 13, 1906.



NOTES:

1. THE OWNER OF RECORD FOR TAX MAP LOT 34-8-A IS PARKER 2 REALTY TRUST, JOSEPH G. HILL, TRUSTEE, 160 BRIDGE ROAD, SALISBURY, MA 01952. DEED REFERENCE IS BK. 34796 PG. 59 DATED MARCH 25, 2016 IN THE ESSEX SOUTH REGISTRY OF DEEDS.
2. THE OWNER OF RECORD FOR TAX MAP LOT 34-13 IS BROADWAY PLAZA TRUST II, NEIL A. TAGERMAN, TRUSTEE, 75 OAK STREET, NEWTON, MA 02464. DEED REFERENCE IS BK. 13656 PG. 56 DATED JULY 11, 1996 IN THE ESSEX SOUTH REGISTRY OF DEEDS.
3. THE PURPOSE OF THIS PLAN IS TO DEPICT LOT LINE ADJUSTMENTS BETWEEN LOTS 34-13, 34-8-A, 34-8-A1 AND 34-8-A2 AS SHOWN AND TO MEET THE FILING REQUIREMENTS OF THE NEWBURYPORT PLANNING BOARD SUBDIVISION REGULATIONS FOR A PLAN BELIEVED NOT TO REQUIRE APPROVAL UNDER SUBDIVISION CONTROL LAW (ANR). "PARCEL-A" SHOWN HEREIN, HAVING 21,751 SQ.FT. OR 0.499 ACRES, SHALL BE CONVEYED TO TAX MAP LOT 34-8-A FROM TAX MAP LOT 34-13. "PARCEL-A" SHALL NOT BE CONSIDERED A SEPARATE BUILDING LOT BUT SHALL BECOME PART OF TAX MAP LOT 34-8-A.
4. THE ENTIRE SITE LIES OUTSIDE THE BOUNDARY OF THE 100 YEAR FLOOD PLAIN PER FLOODED INSURANCE RATE MAP FOR THE TOWN OF TOWNSEND, MIDDLESEX COUNTY, MA, F.L.R.M. COMMUNITY PANEL NUMBER 25017C0060E, DATED JUNE 4, 2010.
5. HORIZONTAL ORIENTATION IS BASED ON REFERENCE PLAN #2. VERTICAL DATUM IS NAVD83 PER REF PLAN #5. BOUNDARY INFORMATION SHOWN FOR LOT 34-8-1 AND PARCEL-A IS THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE DURING THE MONTH OF MARCH 2017. PERIMETER INFORMATION SHOWN FOR THE REMAINDER OF LOT 34-13 WAS DEVELOPED FROM THE FIELD SURVEY AND THE REFERENCE PLANS CITED HEREON AND IS INTENDED FOR COMPLETION PURPOSES ONLY.
6. JURISDICTIONAL WETLANDS SHOWN HEREON FOR THE NORTHERLY PORTION OF PARCEL-A WERE DELINEATED IN THE FIELD BY MARK WEST OF WEST ENVIRONMENTAL, INC. DURING THE MONTH OF APRIL 2017. WETLANDS DELINEATION FLAGS WERE FIELD LOCATED BY THIS OFFICE ON APRIL 19, 2017.
7. PARKER STREET AND STATE STREET ARE PUBLIC ROADS.
8. ZONING FOR THE PARCEL 34-13 IS (B1) BUSINESS I DISTRICT (RETAIL SERVICES):

CITY OF NEWBURYPORT OFFICE OF THE CITY CLERK

APPLICATION FILED _____

FINAL PLAN FILED _____

HEARING DATE _____

PLAN APPROVED _____

BOARD OF HEALTH _____

APPROVAL _____

CLERK _____ DATE _____

APPROVAL _____ DATE _____

THIS IS TO CERTIFY THAT ON _____ I RECEIVED FROM THE PLANNING BOARD CERTIFICATION OF ITS APPROVAL OF THIS PLAN AND THAT DURING THE (20) TWENTY DAYS NEXT FOLLOWING, I HAVE RECEIVED NO NOTICE OF ANY APPEAL FROM SAID DECISION.

REV.	DATE	DESCRIPTION	CSI	TJB	MDP
B	11/07/17	REVISED PER CSI REVIEW			
A	8/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB

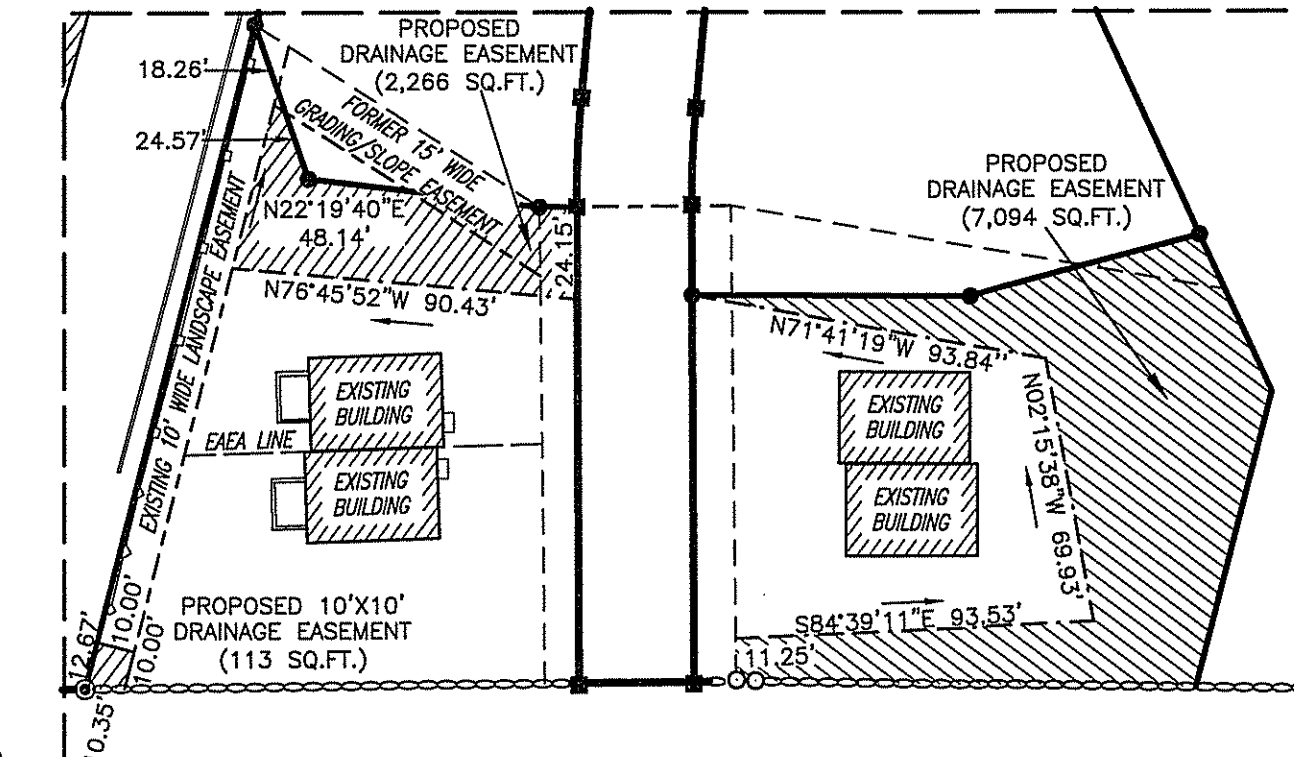
PLAN OF LAND
PARKER HILL
DEFINITIVE SUBDIVISION
TAX MAP PARCEL 34-8A - 2 PARKER STREET
AND
TAX MAP PARCEL 34-13 - 150-155 STATE STREET
NEWBURYPORT, MASSACHUSETTS
PREPARED FOR AND LAND OF (34-8-A),
PARKER 2 REALTY TRUST
160 BRIDGE ROAD, SALISBURY, MA 01952
AND LAND OF (34-13),
BROADWAY PLAZA TRUST II
75 OAK STREET, NEWTON, MA 02464

SCALE: 1" = 50' AUGUST 14, 2017

Surveying • Engineering • Land Planning • Permitting • Septic Designs

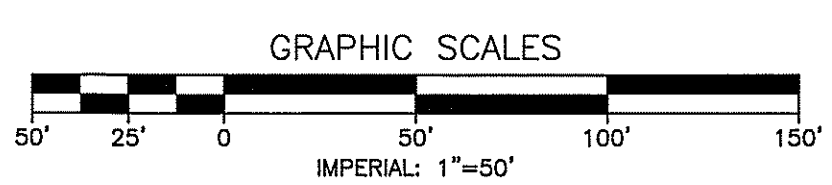
FIELDSTONE
LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055
 Phone: (603)-672-5456 Fax: (603)-413-5456
 www.FieldstoneLandConsultants.com



EASEMENT DETAIL - 1"=50'

CERTIFICATION:
 I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.



GRAPHIC SCALES



TOWN LINE

LEGEND:

EXISTING FEATURES	
	RIGHT-OF-WAY LINE
	BOUNDARY LINE
	ABUTTING LOT LINE
	BUILDING SETBACK LINE
	EDGE OF PAVED ROAD
	EDGE OF GRAVEL ROAD
	EDGE OF TREE LINE
	10' CONTOUR INTERVAL
	2' CONTOUR INTERVAL
	WROUGHT IRON FENCE
	CHAIN-LINK FENCE
	STOCKADE FENCE
	THE COURSE LINE
	OVERHEAD UTILITY LINE
	GAS LINE
	WATER LINE
	SEWER LINE
	DRAIN LINE
	TAX MAP & LOT NUMBER
	GRANITE BOUND FOUND
	CONCRETE BOUND FOUND
	CONCRETE BOUND PER REF. PLAN
	IRON PIN FOUND
	IRON PIN TO BE SET
	GRANITE BOUND TO BE SET
	UTILITY POLE & GUY
	CATCH BASIN
	DRAIN MANHOLE
	SEWER MAN-HOLE (ROUND)
	TELEPHONE MANHOLE
	WATER HYDRANT
	WATER VALVE
	WATER SHUT-OFF
	GAS VALVE
	LANDSCAPED AREA

PROPOSED FEATURES

	EDGE OF PAVEMENT		MISCELLANEOUS SIGN
	VERTICAL GRANITE CURB (VGC)		TRAFFIC SIGN
	SLOPED GRANITE CURB (SGC)		STOP SIGN
	REINFORCED CONCRETE SIDEWALK AND CURB		POLE MOUNTED LIGHT
	RETAINING WALL		TRAFFIC FLOW (NOT PAINTED ARROW)
	LIMITS OF CLEARING		BUILDING NUMBER
	EROSION CONTROL STONE		UNIT NUMBER
	PAVEMENT AREA		
	PAVED DRIVEWAY APRON		
	CONCRETE DRIVEWAY APRON		

ABUTTER INFORMATION

MAP 34 LOT 8-A
PARKER 2 REALTY TRUST
JOSEPH G. HILL, TRUSTEE
160 BRIDGE ROAD
SALISBURY, MA 01952
BK.34796 PG.59 3/25/16
(PARKER ST.)

MAP 34 LOT 8-A-1
PARKER 2 REALTY TRUST
JOSEPH G. HILL, TRUSTEE
160 BRIDGE ROAD
SALISBURY, MA 01952
BK.34796 PG.59 3/25/16
(PARKER ST.)

MAP 34 LOT 8-A-2
PARKER 2 REALTY TRUST
JOSEPH G. HILL, TRUSTEE
160 BRIDGE ROAD
SALISBURY, MA 01952
BK.34796 PG.59 3/25/16
(PARKER ST.)

MAP 34 LOT 8
OAK HILL CEMETERY
BOARD OF TRUSTEES
P.O. BOX 576
NEWBURYPORT, MA 01950
BK.1835 PG.175 8/18/1906
(4 BROWN ST.)

MAP 34 LOT 13
BROADWAY PLAZA TRUST
NEIL A. TAGERMAN, TRUSTEE
75 OAK STREET
NEWTON, MA 02464
BK.13656 PG.55 7/11/98
(151-155 STATE ST.)

MAP 34 LOT 8-A
C&D REALTY TRUST
DAVID L. & CAROLYN SHEPARD, TRUSTEES
14 PINE STREET
NEWBURYPORT, MA 01950
BK.7596 PG.179 12/4/84
(4 PARKER ST.)

MAP 34 LOT 7
C&D REALTY TRUST
DAVID L. & CAROLYN SHEPARD, TRUSTEES
14 PINE STREET
NEWBURYPORT, MA 01950
BK.25756 PG.340 6/6/06
(PARKER ST.)

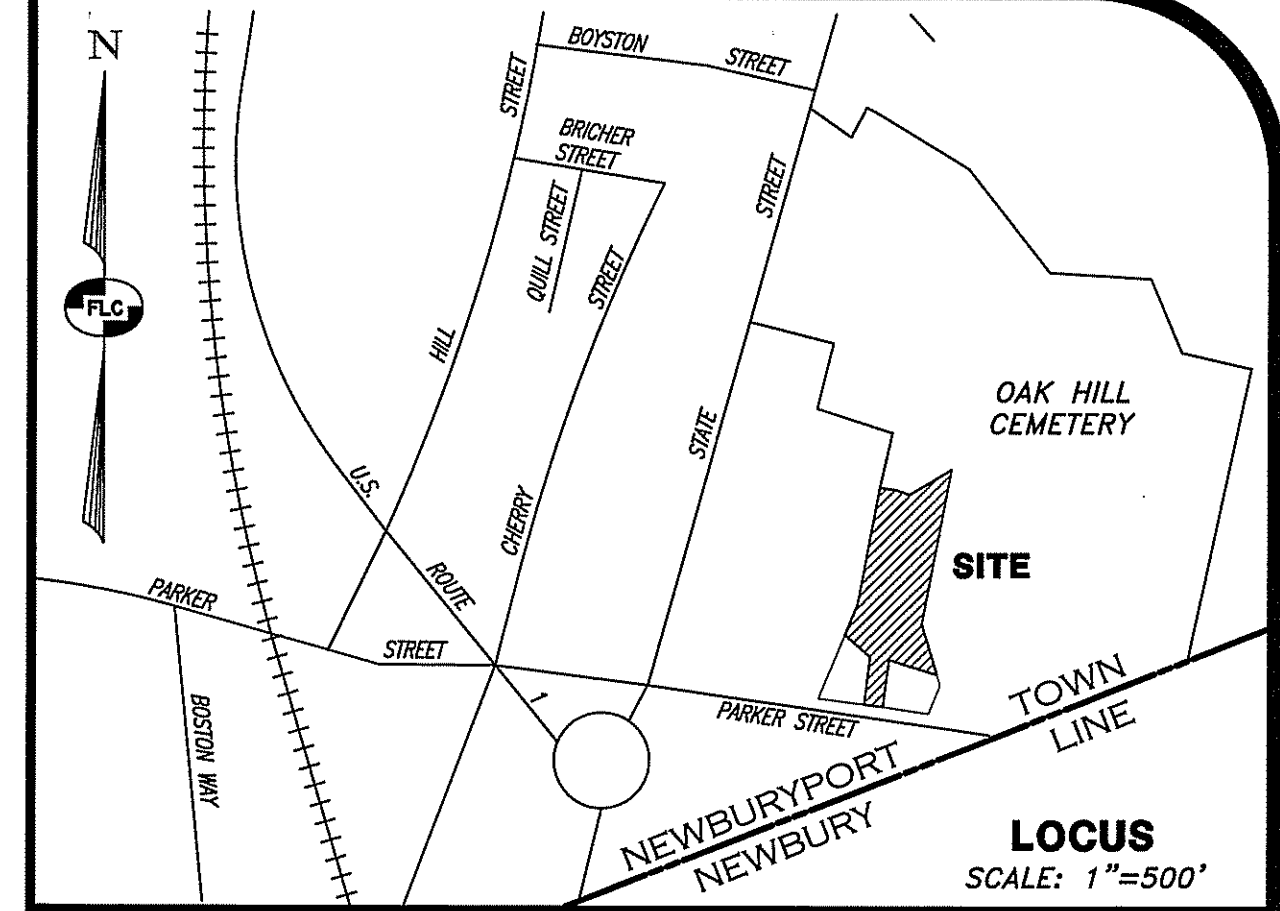
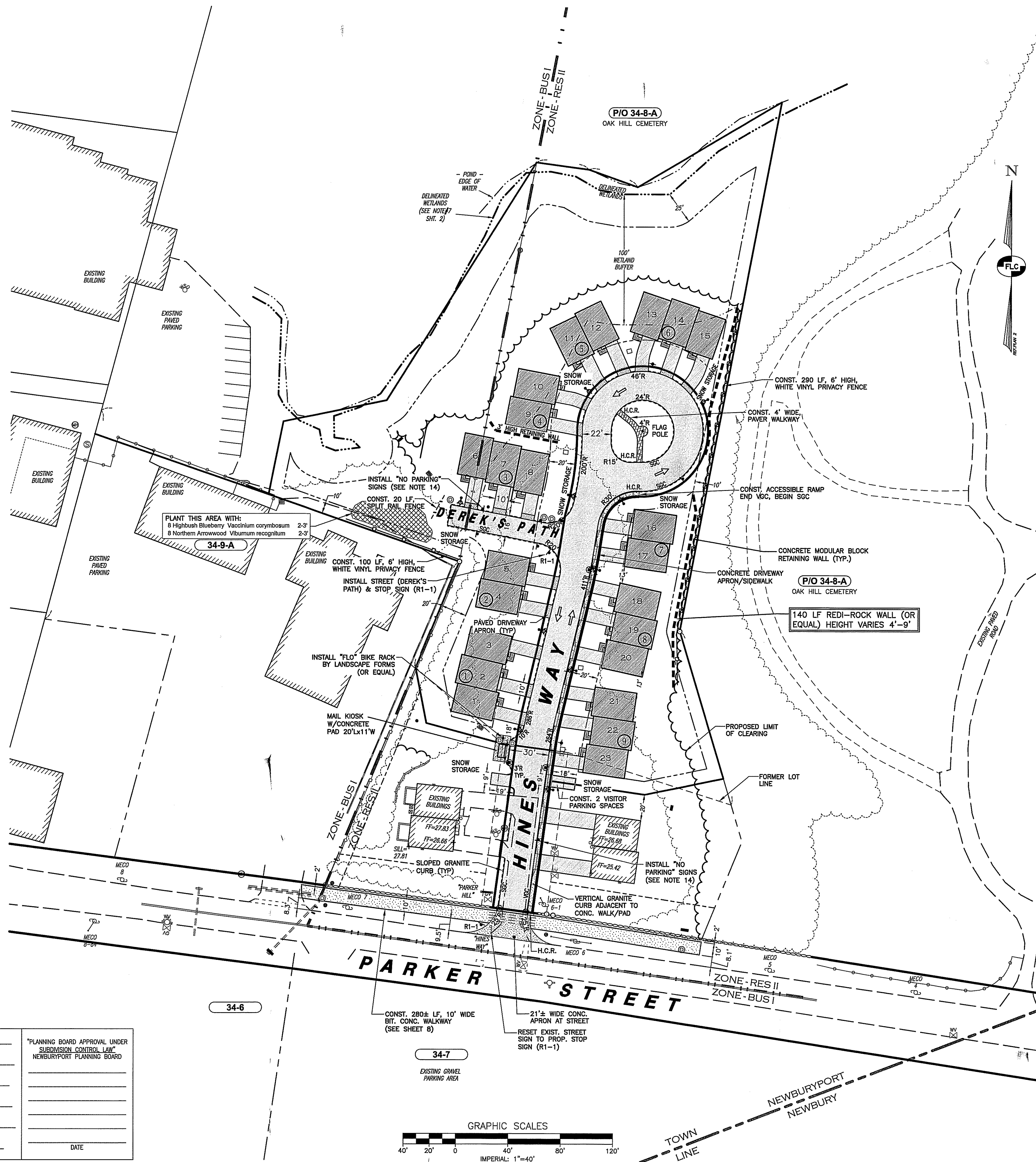
MAP 34 LOT 8
3 PARKER STREET NOMINEE TRUST
KENNETH R. LABRECQUE, TRUSTEE
P.O. BOX 162
NEWBURYPORT, MA 01950
BK.18930 PG.542 3/1/01
(3 PARKER ST.)

REFERENCE PLANS:

- "PLAN OF LAND - PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952" SCALE 1"=40' DATED JULY 20, 2015, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK #452 PLAN #0080 DATED MARCH 25, 2016.
- "PLAN OF LAND - SHOWING DIVISION OF 34-8-A - PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952", SCALE 1"=40', DATED MARCH 8, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK #452 PLAN #0081 DATED MARCH 25, 2016.
- "SITE PLAN - PARKER HILL CONDOMINIUM - PHASE 1 - OF - 2 PARKER STREET - NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE - SALISBURY, MA 01952", SCALE 1"=40', 2 SHEETS, DATED NOVEMBER 5, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK #457 PLAN #0022 DATED DECEMBER 16, 2016.



CITY OF NEWBURYPORT OFFICE OF THE CITY CLERK		APPLICATION FILED _____	*PLANNING BOARD APPROVAL UNDER SUBDIVISION CONTROL LAW NEWBURYPORT PLANNING BOARD
THIS IS TO CERTIFY THAT ON _____ I RECEIVED FROM THE PLANNING BOARD CERTIFICATION OF ITS APPROVAL OF THIS PLAN AND THAT DURING THE (20) TWENTY DAYS NEXT FOLLOWING, I HAVE RECEIVED NO NOTICE OF ANY APPEAL FROM SAID DECISION.		FINAL PLAN FILED _____	
CLERK _____ DATE _____		HEARING DATE _____	
		PLAN APPROVED _____	
		BOARD OF HEALTH _____	
		APPROVAL _____	DATE _____



NOTES:

- THE OWNER OF RECORD FOR TAX MAP LOT 38-8-A IS PARKER 2 REALTY TRUST, 1 MASON LANE, SALISBURY, MA 01952. DEED REFERENCE IS BK. 34796 PG. 059 DATED MARCH 25, 2016 IN THE ESSEX SOUTH REGISTRY OF DEEDS.
- THE PURPOSE OF THIS PLAN IS TO DEPICT A CONCEPTUAL MULTI-FAMILY RESIDENTIAL DEVELOPMENT OVER TAX MAP LOT 34-8-A WITH ASSOCIATED IMPROVEMENTS AND LOT LINE ADJUSTMENTS WITH ADJACENT PROPERTIES.
- THE EXISTING AREA OF TAX MAP LOT 38-8-A IS 112,315 SQ.FT. OR 2.578 ACRES WITH 50.00' OF FRONTAGE ALONG PARKER STREET.
- ZONING FOR THE LOT 34-8-A IS (R2) RESIDENTIAL II -
** A MULTI-FAMILY DEVELOPMENT IS PROPOSED (OVER 20 UNITS):

DESCRIPTION	REQUIRED	EXISTING LOT 34-8-A	PROPOSED LOT 34-8-A
LOT AREA	20,000 SF	90,565 SF	112,315 SF
FRONT	120 FT	50.00 FT	720.80 FT
SIDE A	10 FT	>20 FT	>20 FT
SIDE B	10 FT	>10 FT	>10 FT
REAR	20 FT	>20 FT	>20 FT
LOT COVERAGE	40%	OR	14.4%
OPEN SPACE	40%	98%	41%
BLDG. HEIGHT	35 FT	N/A	31.5 FT
SIDE/REAR ADJ. TO PUBLIC OPEN SPACE	10 FT	>10 FT	>10 FT

** THIS PROJECT WAS GRANTED A VARIANCE ON JULY 11, 2017 TO PERMIT THE PROPOSED USE IN THE RESIDENTIAL DISTRICT.

THE DENSITY CALCULATION FOR MULTI-FAMILY IS 20,000 SF FOR THE FIRST 4 UNITS AND 4,000 SF FOR EACH ADDITIONAL UNIT THEREAFTER. THIS PROPERTY WOULD THEREFORE SUPPORT 27 UNITS AND THIS PROJECT PROPOSES 23 UNITS.

- THE ENTIRE SITE LIES OUTSIDE THE BOUNDARY OF THE 100 YEAR FLOOD PLAN PER FLOOD INSURANCE RATE MAP FOR THE TOWN OF NEWBURYPORT, ESSEX COUNTY, MA, F.I.R.M. COMMUNITY PANEL NUMBER 2500C01366, MAP REVISED DATE, JULY 16, 2014.
- HORIZONTAL ORIENTATION IS BASED ON REFERENCE PLAN #3. VERTICAL DATUM IS ASSUMED.
- TAX MAP LOT 34-8-A IS SUBJECT TO AN ELECTRIC UTILITY EASEMENT GRANTED TO MASSACHUSETTS ELECTRIC COMPANY, RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS, BOOK #35237, PAGE 592, DATED AUGUST 23, 2016.
- THE PROPOSED SPUR ROAD ("T" ROAD) WHICH RUNS INTO THE B-1 DISTRICT SHALL NEVER BE EXTENDED.
- FIRE LANE SIGNS SHALL BE INSTALLED ON ONE SIDE OF THE PROPOSED ROAD AND SPUR ROAD ("T" ROAD) PER THE FIRE DEPARTMENT.
- SNOW STORAGE WILL BE PROVIDED ALONG THE ROADWAY.
- THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN ONE HUNDRED FEET OF THE PERIMETER OF THE SUBJECT PROPERTIES.
- THE PROJECT WILL REQUIRE THE EXPORT OF APPROXIMATELY 3,800 CUBIC YARDS OF EXCESS MATERIAL AND THE IMPORT OF APPROXIMATELY 1,800 CUBIC YARDS OF SELECT GRAVELS, FOR ROADWAY, DRIVEWAY, SIDEWALK AND UTILITY CONSTRUCTION.
- NO BUILDING OR STRUCTURE SHALL BE BUILT OR PLACES ON ANY LOT WITHOUT A PERMIT FROM THE HEALTH DEPARTMENT, IF SUCH PERMIT IS REQUIRED.
- NO PARKING SIGNS SHALL BE INSTALLED ON ONE SIDE OF HINES WAY AND BOTH SIDES OF DEREK'S PATH PRIOR TO THE ISSUANCE OF CERTIFICATE OF OCCUPANCY FOR BUILDING 3.
- THIS PROJECT REQUIRES A NPDES NOI TO BE FILED WITH THE EPA PRIOR TO CONSTRUCTION.

DATE	DESCRIPTION	WEI	NRC	CEB	
D	11/27/17	REVISED PER CSI 11/29/17 REVIEW	CSI	NRC	CEB
C	11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	CEB
B	11/07/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
A	08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB
			C/O	DR	CK

**SITE PLAN
PARKER HILL
DEFINITIVE SUBDIVISION**

TAX MAP PARCEL 34-8-A - 2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS
PREPARED FOR AND LAND OF:
PARKER 2 REALTY TRUST
160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: 1" = 40' AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

**FIELDSTONE
LAND CONSULTANTS, PLLC**

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Phone: (603)-413-5456 Fax: (603)-413-5456
www.FieldstoneLandConsultants.com

LEGEND:

EXISTING FEATURES	
	RIGHT-OF-WAY LINE
	BOUNDARY LINE
	ABUTTING LOT LINE
	BUILDING SETBACK LINE
	EDGE OF PAVED ROAD
	EDGE OF GRAVEL ROAD
	EDGE OF TREE LINE
	10' CONTOUR INTERVAL
	2' CONTOUR INTERVAL
	WROUGHT IRON FENCE
	CHAIN-LINK FENCE
	STOCKADE FENCE
	TIE COURSE LINE
	OVERHEAD UTILITY LINE
	GAS LINE
	WATER LINE
	SEWER LINE
	DRAIN LINE
	GRANITE BOUND FOUND
	CONCRETE BOUND FOUND
	CONCRETE BOUND PER REF. PLAN
	IRON PIN FOUND
	IRON PIN TO BE SET
	GRANITE BOUND TO BE SET
	UTILITY POLE & GUY
	CATCH BASIN
	DRAIN MANHOLE
	SEWER MAN-HOLE (ROUND)
	TELEPHONE MANHOLE
	WATER HYDRANT
	WATER VALVE
	WATER SHUT-OFF
	GAS VALVE
	LANDSCAPED AREA
	TAX MAP & LOT NUMBER

PROPOSED FEATURES

	EDGE OF PAVEMENT		TEMPORARY SILT FENCE
	VERTICAL GRANITE CURB		PAVED AREA
	SLOPED GRANITE CURB		EROSION CONTROL STONE
	REINFORCED CONCRETE SIDEWALK AND CURB		STONE CHECK DAM
	RETAINING WALL		SPOT ELEVATION
	2 FT. CONTOUR		SPOT ELEVATION AT CURB
	10 FT. CONTOUR		WATER HYDRANT
	STORM WATER DRAINAGE		WATER GATE VALVE
	SWALE		BUILDING NUMBER
	LIMITS OF CLEARING		UNIT NUMBER
	CB1 DRAINAGE CATCH BASIN		HW1 DRAINAGE HEADWALL
	MH1 DRAINAGE MANHOLE		

CITY OF NEWBURYPORT
OFFICE OF THE CITY CLERK

THIS IS TO CERTIFY THAT ON _____ I RECEIVED FROM THE PLANNING BOARD CERTIFICATION OF ITS APPROVAL OF THIS PLAN AND THAT DURING THE (20) TWENTY DAYS NEXT FOLLOWING, I HAVE RECEIVED NO NOTICE OF ANY APPEAL FROM SAID DECISION.

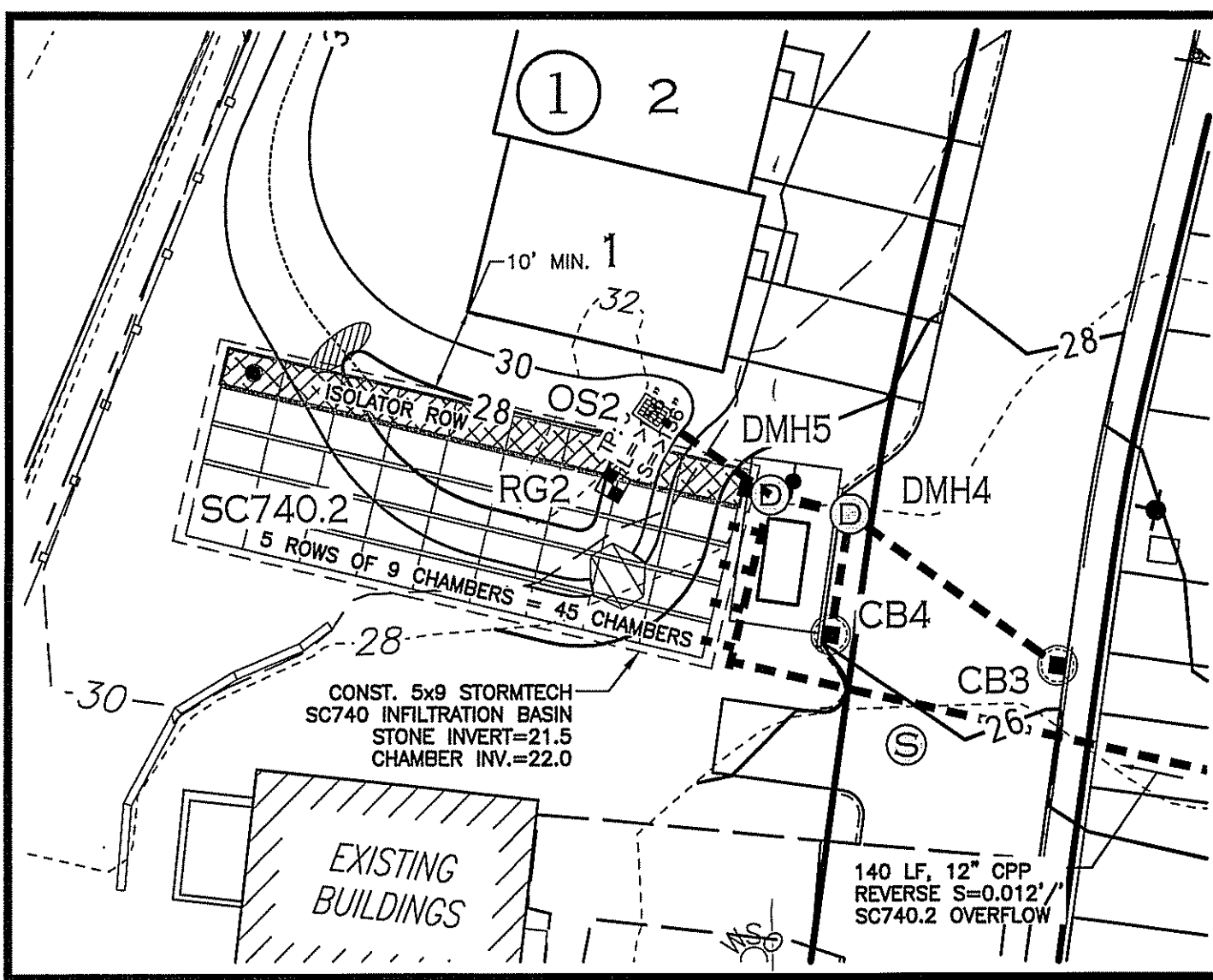
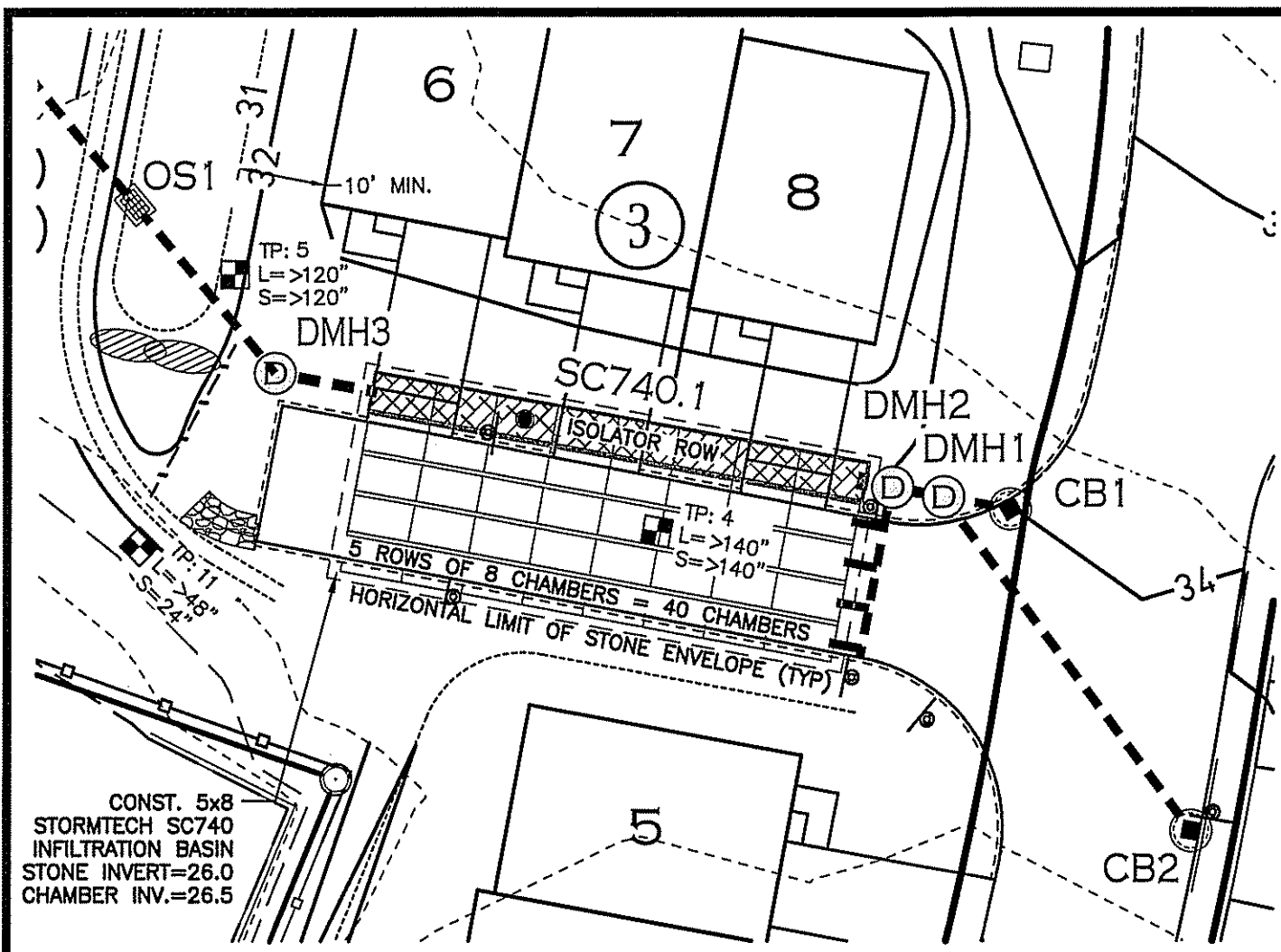
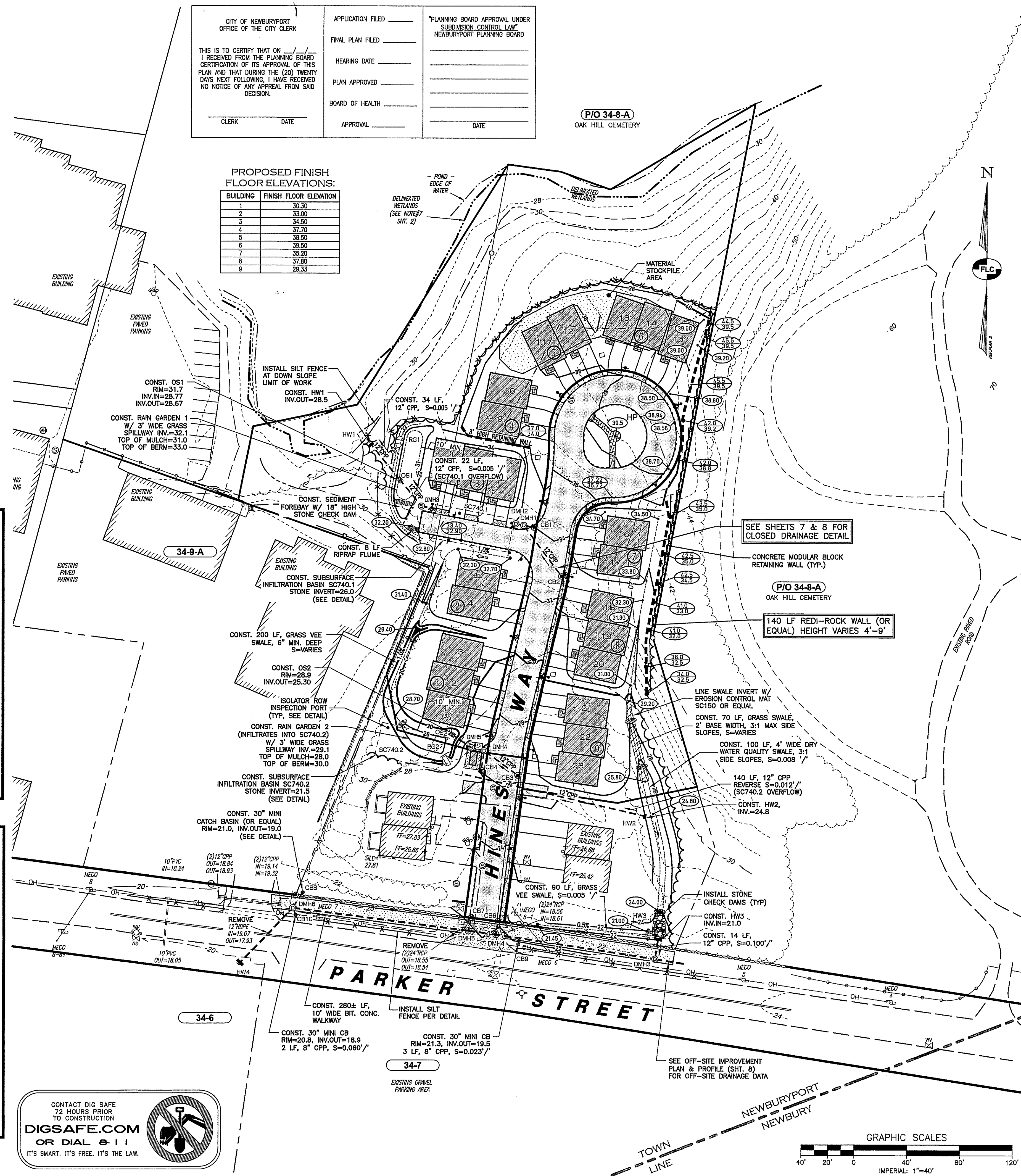
CLERK	DATE	APPROVAL	DATE
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APPLICATION FILED _____
FINAL PLAN FILED _____
HEARING DATE _____
PLAN APPROVED _____
BOARD OF HEALTH _____

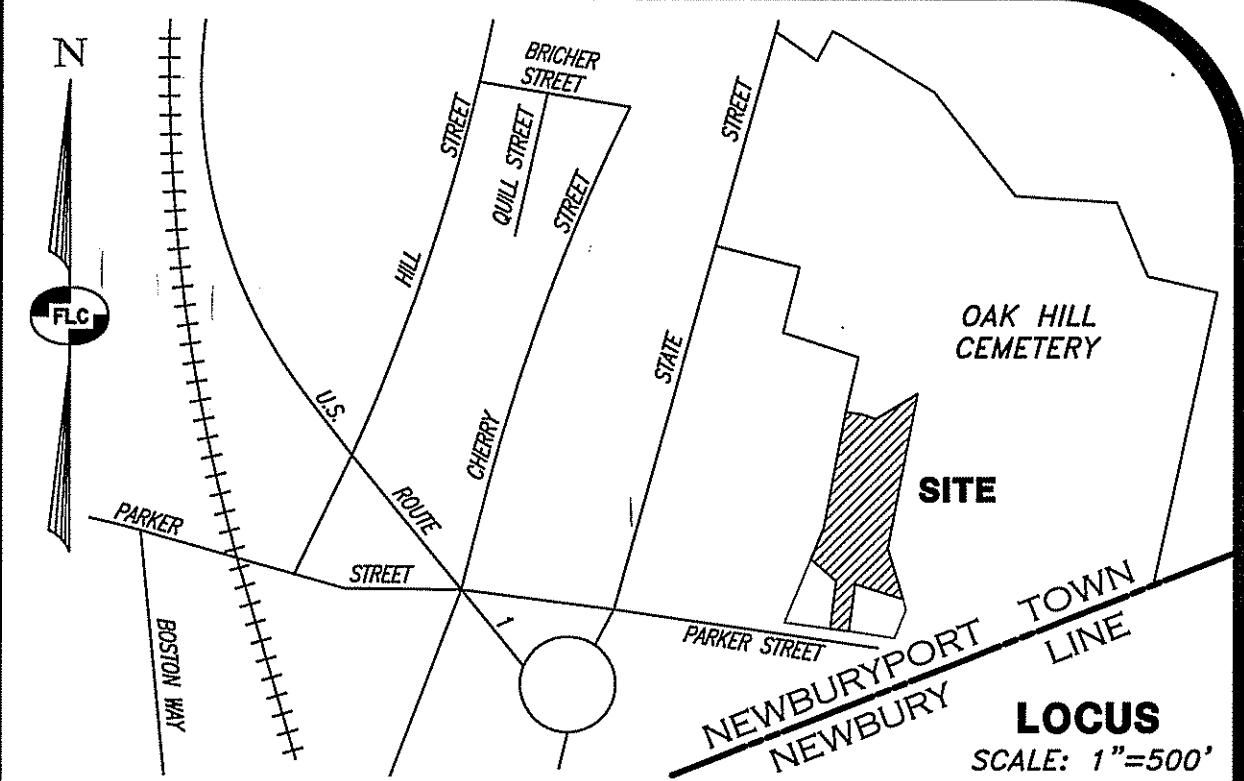
"PLANNING BOARD APPROVAL UNDER SUBDIVISION CONTROL LAW" NEWBURYPORT PLANNING BOARD

PROPOSED FINISH FLOOR ELEVATIONS:

BUILDING	FINISH FLOOR ELEVATION
1	30.30
2	33.00
3	33.50
4	37.70
5	38.50
6	39.50
7	35.20
8	37.80
9	29.33



CONTACT DIG SAFE
72 HOURS PRIOR
TO CONSTRUCTION
DIGSAFE.COM
OR DIAL 8-1-1
IT'S SMART. IT'S FREE. IT'S THE LAW.



- GENERAL CONSTRUCTION NOTES:**
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF NEWBURYPORT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. FIELDSTONE LAND CONSULTANTS, PLLC, AS THE DESIGN ENGINEER, SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
 - THE OWNER AND/OR CONTRACTOR SHALL VERIFY ALL ZONING REQUIREMENTS FOR CONFORMANCE PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR SHALL CONTACT 'DIGSAFE' 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-800-255-4977 IN NH, 1-888-344-7233 IN MA).
 - COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND SPECIAL CONDITIONS OF TOWN/CITY AGENCIES, SUCH AS THE PLANNING BOARD, CONSERVATION COMMISSION, AND OTHERS, IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER.
 - ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND FIELDSTONE LAND CONSULTANTS, PLLC PRIOR TO CONSTRUCTION.
 - ALL DRAINAGE STRUCTURES SHALL CONFORM TO MADOT STANDARDS. ALL CONSTRUCTION MATERIALS SHALL CONFORM TO MASS DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 - THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE TOWN DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR INSPECTIONS OF THE CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT INFORMATION OF ALL WORK, ESPECIALLY UNDERGROUND CONSTRUCTION OF UTILITY LINES, SERVICES, CONNECTIONS, ETC. AND APPROPRIATE TIES TO ABOVE GROUND PERMANENT STRUCTURES, FIELD SURVEY COORDINATES, OR SOME OTHER METHOD OF ESTABLISHING THE AS-BUILT CONDITION OF ALL CONSTRUCTION.
 - STUMPS ARE TO BE GROUND AND THE GRINDINGS STOCKPILED ON SITE. STUMP TAILINGS SHALL BE USED FOR EROSION CONTROL. EXCESS TAILINGS SHALL BE COMPACTED WITH SUITABLE MATERIAL IN NON STRUCTURAL FILL SLOPES. COVER WITH 4" OF LOAM AND SEED PER THE EROSION CONTROL NOTES.
 - EXPOSED OR DISTURBED AREAS DUE TO STRIPPING OF VEGETATION, SOIL REMOVAL, AND REGRADING SHALL BE PERMANENTLY STABILIZED WITHIN 6 MONTHS OF OCCUPANCY OF A STRUCTURE.
 - DURING CONSTRUCTION, TEMPORARY VEGETATION AND/OR MULCHING SHALL BE USED TO PROTECT EXPOSED AREAS FROM SOIL EROSION. UNTIL A DISTURBED AREA IS PERMANENTLY STABILIZED, SEDIMENT RUNOFF WATER SHALL BE TRAPPED BY USING STAKED HAY BALES OR SEDIMENT TRAPS.
 - BIORETENTION FILTER MEDIA SHALL BE PREPARED IN ACCORDANCE WITH THE UNIVERSITY OF NEW HAMPSHIRE STORMWATER CENTER'S 2017 SPECIFICATIONS.

REV.	DATE	DESCRIPTION	C/O	DR	CK
D	11/30/17	REVISED PER CSI 11/29/17 REVIEW	CSI	NRC	CEB
C	11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	CEB
B	11/07/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB

GRADING PLAN
PARKER HILL
DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8-A - 2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS

PREPARED FOR AND LAND OF:
PARKER 2 REALTY TRUST
180 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: 1" = 40' AUGUST 14, 2017

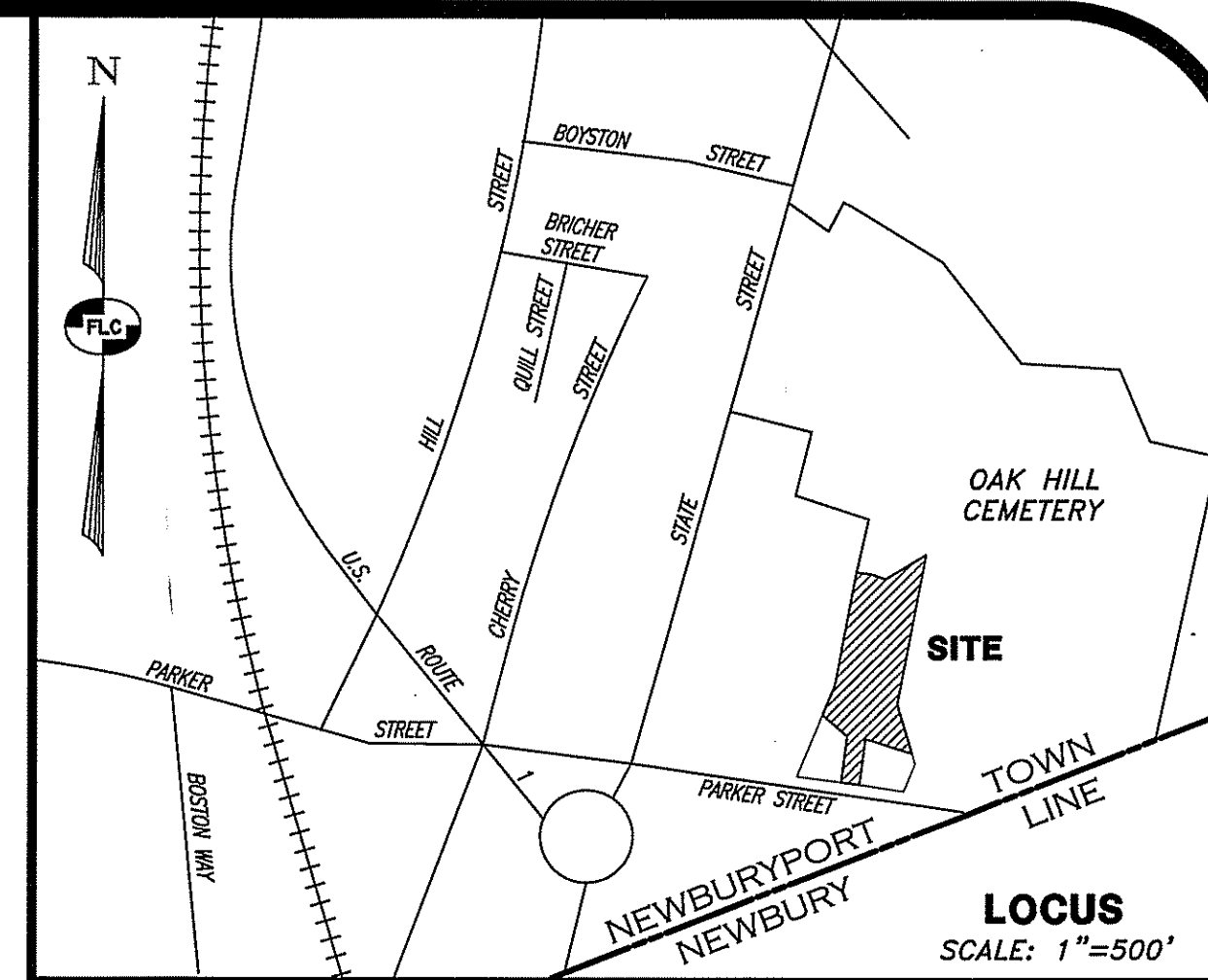
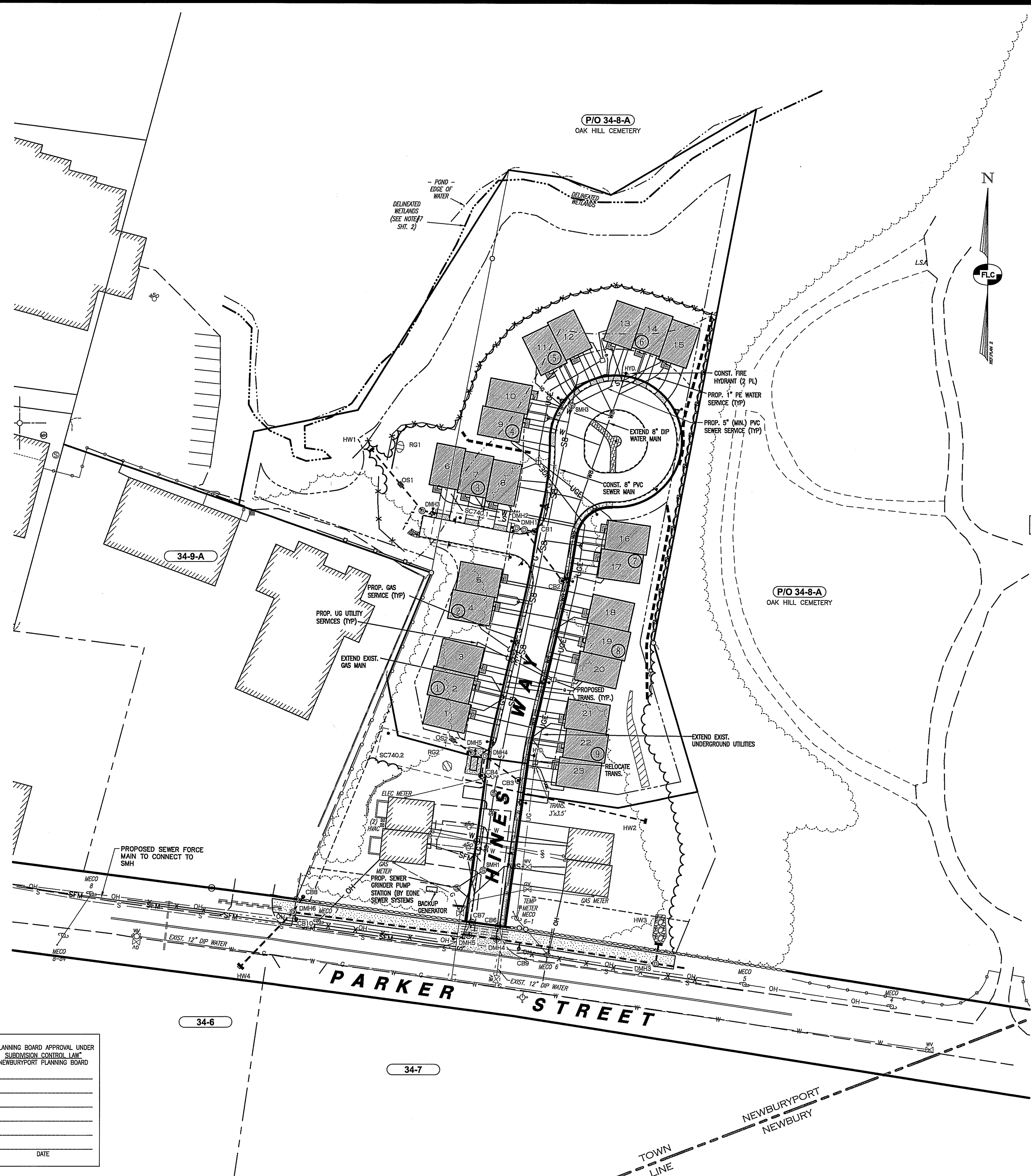
Surveying + Engineering + Land Planning + Permitting + Septic Designs



206 Elm Street, Milford, NH 03055
Phone: (603)-413-5456 Fax: (603)-413-5456
www.FieldstoneLandConsultants.com

UTILITY NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF CITY OF NEWBURYPORT AND THE MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACT "DIGSAFE" AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION (811).
4. ALL POWER WORK SHALL CONFORM TO EVERSOURCE STANDARDS.
5. ALL TELEPHONE WORK SHALL CONFORM TO FAIRPOINT COMMUNICATIONS SPECIFICATIONS.
6. STREET RESTORATION, IF ANY, SHALL BE IN ACCORDANCE WITH CITY OF NEWBURYPORT SPECIFICATIONS.
7. ALL DRAINAGE PIPE SHALL BE FURNISHED AND INSTALLED WITH FLEXIBLE GASKETS. JOINTS SHALL BE MADE WITH OIL RESISTANT COMPRESSION RINGS OF AN ELASTOMERIC MATERIAL CONFORMING TO ASTM C-443. MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE FOLLOWED.
8. ALL DRAINAGE PIPES SHALL BE SMOOTH INTERIOR (HDPE) UNLESS OTHERWISE NOTED. CATCH BASINS SHALL HAVE 3 FOOT SUMPS UNLESS OTHERWISE NOTED.
9. SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS OF THE CITY OF NEWBURYPORT.
10. ALL WATER LINE, HYDRANT, VALVES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL SPECIFICATIONS.
11. SEWER SHALL BE SOLID WALL SDR-35 PVC UNLESS OTHERWISE REQUIRED BY THESE SPECIFICATIONS. SEWER SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY AND 18 INCHES VERTICALLY FROM WATER LINES WHENEVER SEWER MUST CROSS WATER MAINS. ALL SEWER SERVICES SHALL BE EQUIPPED WITH BACKFLOW PREVENTERS OUTSIDE THE BUILDINGS.
12. GAS LINES SHOWN SHALL BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATIONS OF THE PROPOSED GAS LINES WITH THE OWNER AND UTILITY COMPANY PRIOR TO CONSTRUCTION.
13. THE CONTRACTOR SHALL COORDINATE THE SIZE, LOCATION AND ELEVATION OF ALL ROOF DRAINS AND SEWER SERVICE CONNECTIONS WITH THE OWNER AND ARCHITECT PRIOR TO CONSTRUCTION.
14. THE CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF THE UNDERGROUND TELEPHONE AND ELECTRICAL SERVICES WITH THE OWNER PRIOR TO CONSTRUCTION.
15. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN/CITY BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
16. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE CITY DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR NECESSARY INSPECTIONS.
17. BLASTING, IF REQUIRED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NEWBURYPORT FIRE DEPARTMENT REGULATIONS.
18. ROOF DRAINAGE LAYOUT & DESIGN SHALL BE FINALIZED WITH THE OWNER AND ARCHITECT OF EACH BUILDING.
19. UNDERGROUND ELECTRICAL CONDUIT SHALL BE SCHEDULE 80 IN PAVED AREAS.
20. A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL SEPARATION SHALL MAINTAINED BETWEEN PROPOSED SEWER AND WATER MAINS AND UNDERGROUND ELECTRICAL CONDUITS. A MINIMUM OF SIX (6) INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN PROPOSED SEWER, WATER, GAS, UNDERGROUND UTILITES AND PROPOSED DRAINAGE PIPES.



LEGEND:

—	RIGHT-OF-WAY LINE	□ C.B.(F)	GRANITE BOUND FOUND
—	BOUNDARY LINE	□ C.B.(F)	CONCRETE BOUND FOUND
—	ABUTTING LOT LINE	□ C.B.(*)	CONCRETE BOUND PER REF. PLAN
—	BUILDING SETBACK LINE	○ LPIN(F)	IRON PIN FOUND
—	EDGE OF PAVED ROAD	○ LPIN(TBS)	IRON PIN TO BE SET
—	EDGE OF GRAVEL ROAD	■ G.B.(S)	GRANITE BOUND TO BE SET
—	EDGE OF TREE LINE	—	UTILITY POLE & GUY
—	10' CONTOUR INTERVAL	—	CATCH BASIN
—	2' CONTOUR INTERVAL	—	DRAIN MANHOLE
—	WROUGHT IRON FENCE	—	SEWER MAN-HOLE (BOUND)
—	CHAIN-LINK FENCE	—	TELEPHONE MANHOLE
—	STOCKADE FENCE	—	WATER HYDRANT
—	THE CURVE LINE	—	WATER VALVE
—	OVERHEAD UTILITY LINE	—	WATER SHUT-OFF
—	GAS LINE	—	GAS VALVE
—	WATER LINE	—	LANDSCAPED AREA
—	SEWER LINE	—	
—	DRAIN LINE	—	

PROPOSED FEATURES

—	EDGE OF PAVEMENT	—	SWALE
—	VERTICAL GRANITE CURB	—	TEMPORARY SILT FENCE
—	SLOPED GRANITE CURB	—	EROSION CONTROL STONE
—	REINFORCED CONCRETE SIDEWALK AND CURB	—	PAVEMENT AREA
—	RETAINING WALL	—	POLE MOUNTED LIGHT
—	LIMITS OF CLEARING	—	BUILDING NUMBER
—	GAS LINE	—	UNIT NUMBER
—	WATER LINE	—	CB1 DRAINAGE CATCH BASIN
—	UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION	—	HW1 DRAINAGE HEADWALL
—	SEWER LINE	—	MH1 DRAINAGE MANHOLE
—	STORM WATER DRAINAGE	—	SMH1 SEWER MANHOLE
—		—	C.O. S SEWER CLEAN OUT

GRAPHIC SCALES

40' 20' 0 40' 80' 120'

IMPERIAL: 1"=40'

D	11/30/17	REVISED PER CSI 11/29/17 REVIEW	CSI	NRC	CEB
C	11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	CEB
B	11/07/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
	DATE	DESCRIPTION	C/O	DR	CK

UTILITY PLAN
PARKER HILL
DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8-A - 2 PARKER STREET
 NEWBURYPORT, MASSACHUSETTS

PREPARED FOR AND LAND OF:
PARKER 2 REALTY TRUST
 160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: 1" = 40' AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

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FILE: 1486SP00.dwg PROJ. NO. 1486.00 SHEET: UT-1 PAGE NO. 6 OF 18



CITY OF NEWBURYPORT OFFICE OF THE CITY CLERK	APPLICATION FILED _____	"PLANNING BOARD APPROVAL UNDER SUBDIVISION CONTROL LAW" NEWBURYPORT PLANNING BOARD
	FINAL PLAN FILED _____	
THIS IS TO CERTIFY THAT ON _____ I RECEIVED FROM THE PLANNING BOARD CERTIFICATION OF ITS APPROVAL OF THIS PLAN AND THAT DURING THE (20) TWENTY DAYS NEXT FOLLOWING, I HAVE RECEIVED NO NOTICE OF ANY APPEAL FROM SAID DECISION.	HEARING DATE _____	
	PLAN APPROVED _____	
BOARD OF HEALTH _____		
CLERK _____ DATE _____	APPROVAL _____	DATE _____

OFF-SITE CENTER LINE DATA

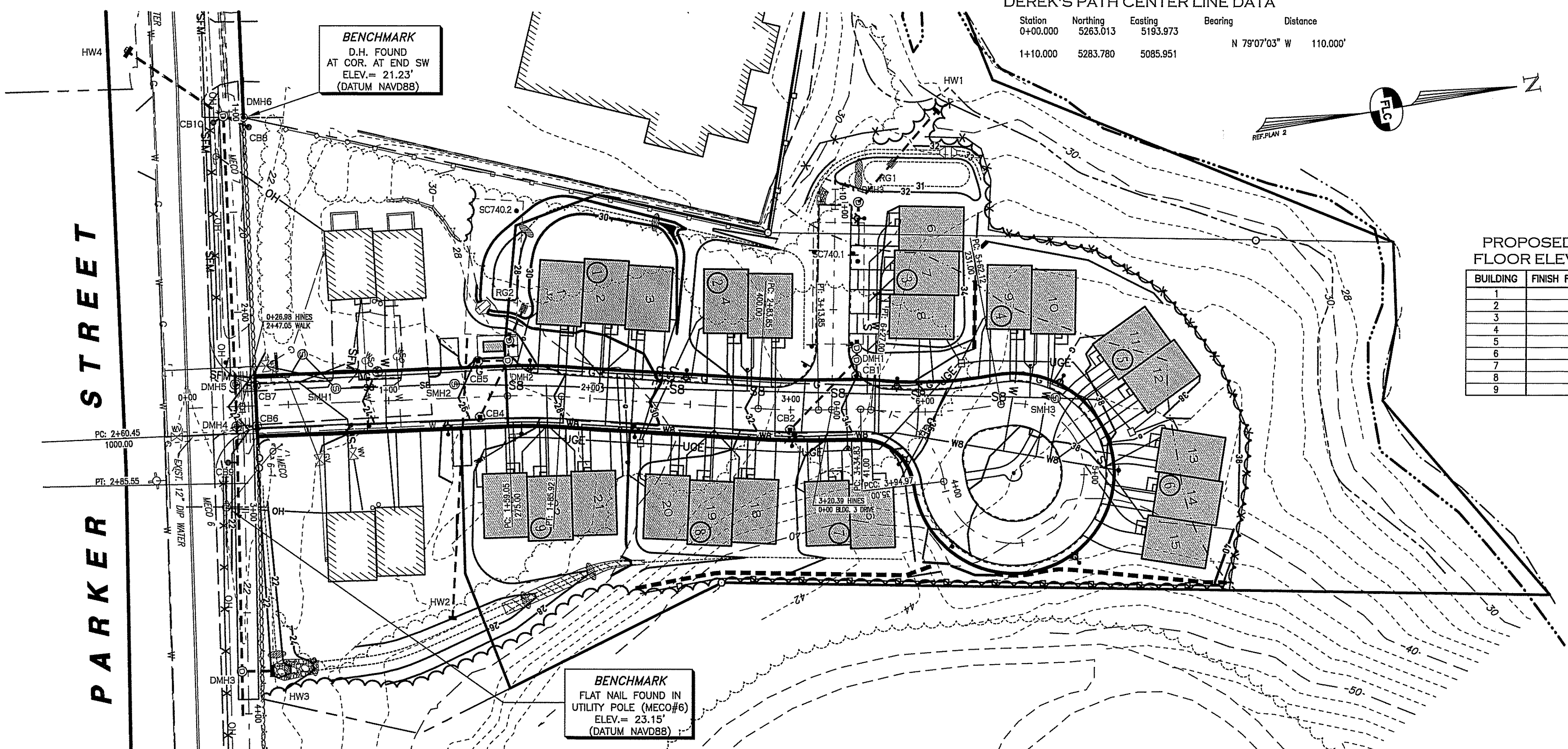
Station	Northing	Easting	Bearing	Distance
0+00.000	5006.305	4696.867	S 82°37'01" E	260.454'
2+60.454	4972.836	5155.162	PC	
	3981.127	5026.658	Radius Length: 1000.000'	
	4971.223	5167.806	2+73.003 Tangent: 12.544'	
	4971.223	5167.806	Delta: 0°12'59" Right Degree: 0°43'46"	
	4971.223	5167.806	Chord Len: 25.094'	
	4971.223	5167.806	Chord Brg: N 81°53'52" E	
	4971.223	5167.806	Radial-In: S 07°22'59" W Radial-Out: S 08°49'16" W	
	4971.223	5167.806	Tangential-In, Tangential-Out	
2+85.550	4989.239	5180.006	PT	
6+30.000	4916.478	5520.383	S 81°10'44" E	344.451'

HINES WAY CENTER LINE DATA

Station	Northing	Easting	Bearing	Distance
0+00.000	4947.827	5138.236	N 07°43'57" E	159.047'
1+59.047	5105.428	5159.636	PC	
	5068.427	5432.135	Radius Length: 275.000'	
	5118.755	5161.445	1+72.498 Tangent: 13.449'	
	5118.755	5161.445	Delta: 0°35'59" Right Degree: 20°50'05"	
	5118.755	5161.445	Chord Len: 28.886'	
	5118.755	5161.445	Chord Brg: N 10°31'57" E	
	5118.755	5161.445	Radial-In: S 82°16'03" E Radial-Out: S 76°40'04" E	
	5118.755	5161.445	Tangential-In, Tangential-Out	
1+85.924	5131.842	5164.547	PT	
2+83.851	5227.129	5187.128	PC	
	5319.369	4787.909	Radius Length: 400.000'	
	5241.733	5190.589	2+98.859 Tangent: 15.008'	
	5300.022	5171.511	Delta: 04°17'51" Left Degree: 14°18'26"	
	5299.955	5171.511	Chord Len: 29.995'	
	5299.955	5171.511	Chord Brg: N 11°11'01" E	
	5299.955	5171.511	Radial-In: N 76°40'04" W Radial-Out: N 51°03'35" E	
	5299.955	5171.511	Tangential-In, Tangential-Out	
3+13.853	5256.554	5192.946	PT	
3+34.830	5277.271	5196.240	PC	
	5270.833	5236.331	Radius Length: 41.000'	
	5313.761	5202.042	3+71.779 Tangent: 36.949'	
	5313.761	5202.042	Delta: 84°02'59" Right Degree: 139°44'45"	
	5313.761	5202.042	Chord Len: 54.895'	
	5313.761	5202.042	Chord Brg: N 51°03'35" E	
	5313.761	5202.042	Radial-In: S 80°57'54" E Radial-Out: S 03°05'04" W	
	5313.761	5202.042	Tangential-In, Tangential-Out	
3+94.974	5311.773	5238.937	PT	
3+94.974	5311.773	5238.937	PC	
	5346.723	5240.821	Radius Length: 35.000'	
	5313.541	5206.125	4+27.834 Tangent: 32.860'	
	5313.541	5206.125	Delta: 27°33'47" Left Degree: 163°42'08"	
	5313.541	5206.125	Chord Len: 47.912'	
	5313.541	5206.125	Chord Brg: N 43°43'19" W	
	5313.541	5206.125	Radial-In: N 03°05'04" E Radial-Out: N 89°28'17" E	
	5313.541	5206.125	Tangential-In, Tangential-Out	
5+62.115	5346.400	5205.822	PT	
5+62.115	5346.400	5205.822	PC	
	5346.400	5205.822	Radius Length: 231.000'	
	5313.744	5206.124	5+94.772 Tangent: 32.657'	
	5313.744	5206.124	Delta: 16°05'37" Right Degree: 24°48'12"	
	5313.744	5206.124	Chord Len: 64.885'	
	5313.744	5206.124	Chord Brg: S 07°31'05" W	
	5313.744	5206.124	Radial-In: S 89°28'17" W Radial-Out: N 74°28'06" W	
	5313.744	5206.124	Tangential-In	
6+27.000	5282.284	5197.361	PT	

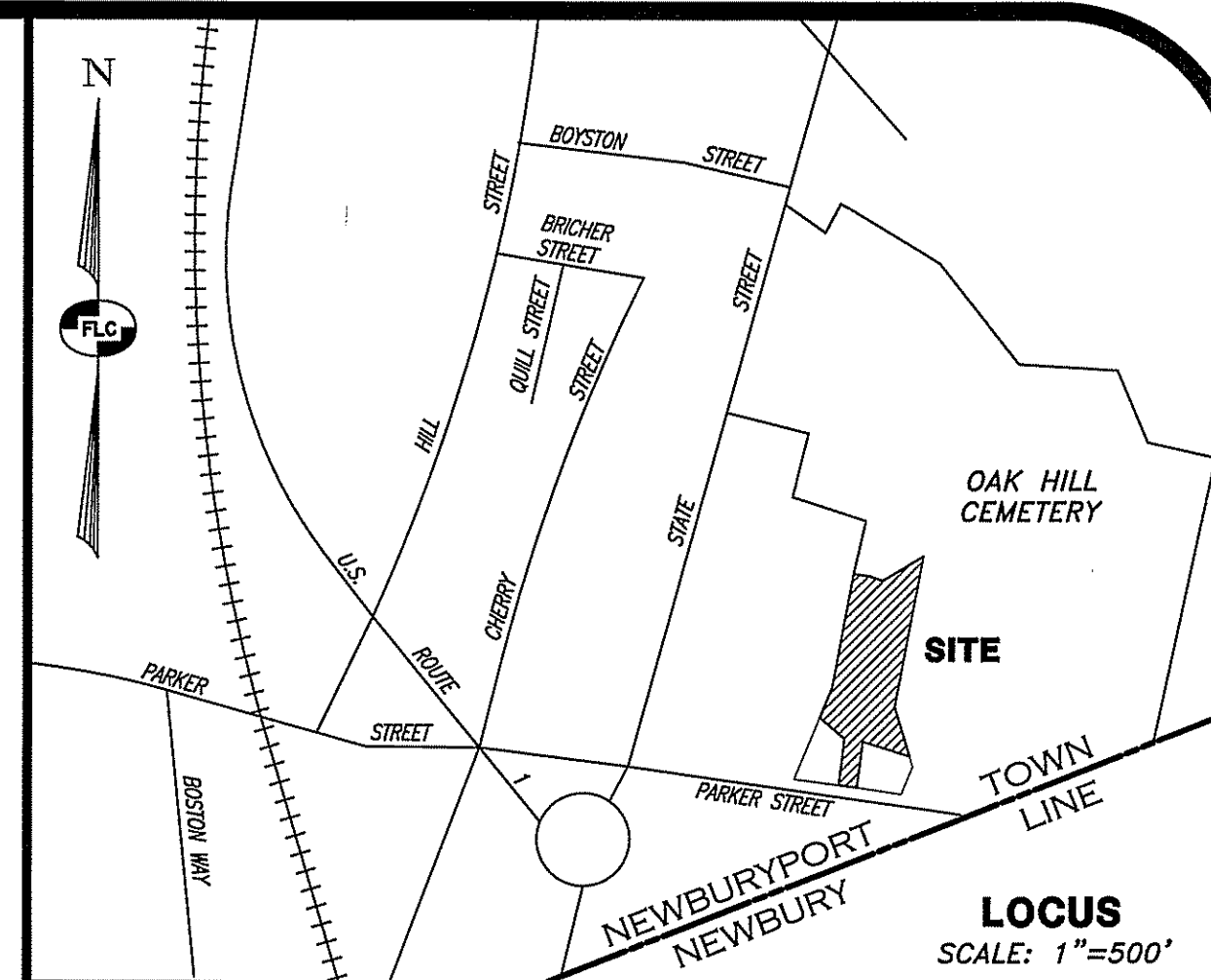
DEREK'S PATH CENTER LINE DATA

Station	Northing	Easting	Bearing	Distance
0+00.000	5283.013	5193.973	N 79°07'03" W	110.000'
1+10.000	5283.780	5085.951		



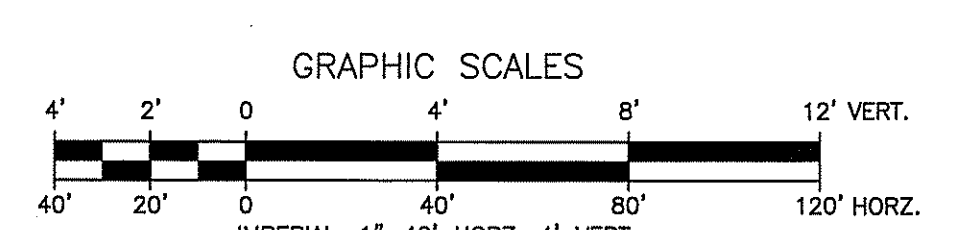
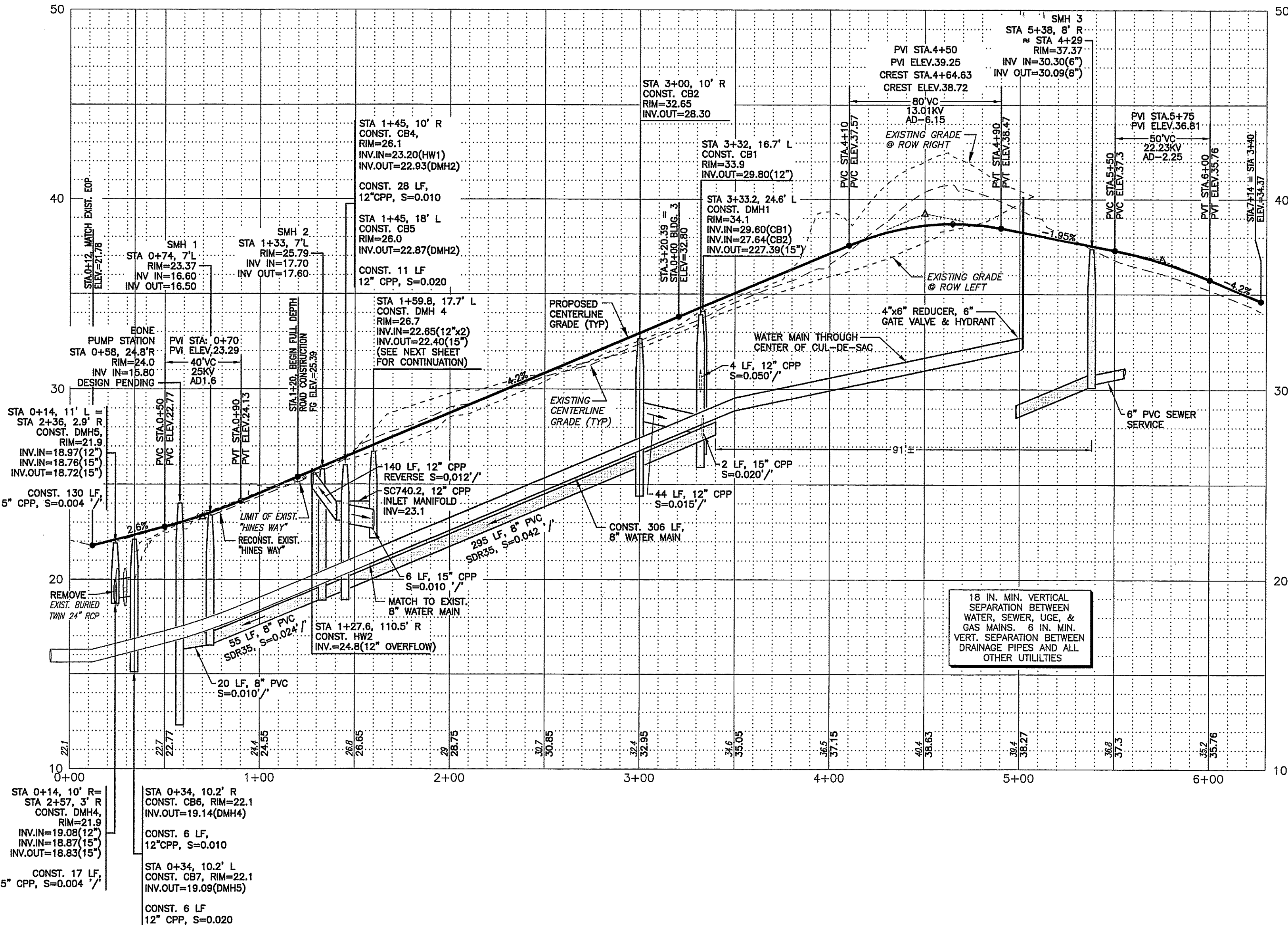
PROPOSED FINISH FLOOR ELEVATIONS:

BUILDING	FINISH FLOOR ELEVATION
1	30.30
2	33.00
3	34.50
4	37.70
5	38.50
6	39.50
7	35.20
8	37.80
9	29.33



LEGEND:

—	RIGHT-OF-WAY LINE	□ G.B.(F)	GRANITE BOUND FOUND
—	BOUNDARY LINE	□ C.B.(F)	CONCRETE BOUND FOUND
—	ABUTTING LOT LINE	□ C.B.(P)	CONCRETE BOUND PER REF. PLAN
—	BUILDING SETBACK LINE	□ LPN(F)	IRON PIN FOUND
—	EDGE OF PAVED ROAD	● LPN(T/S)	IRON PIN TO BE SET
—	EDGE OF GRAVEL ROAD	■ G.B.(S)	GRANITE BOUND TO BE SET
—	EDGE OF TREE LINE	—	UTILITY POLE & GUY
—	10' CONTOUR INTERVAL	—	CATCH BASIN
—	2' CONTOUR INTERVAL	—	DRAIN MANHOLE
—	WROUGHT IRON FENCE	—	SEWER MAN-HOLE (ROUND)
—	CHAIN-LINK FENCE	—	TELEPHONE MANHOLE
—	STOCKADE FENCE	—	WATER HYDRANT
—	TIE COURSE LINE	—	WATER VALVE
—	OVERHEAD UTILITY LINE	—	WATER SHUT-OFF
—	GAS LINE	—	GAS VALVE
—	WATER LINE	—	LANDSCAPED AREA
—	SEWER LINE	—	
—	DRAIN LINE	—	
D-75	TAX MAP & LOT NUMBER		



DATE	DESCRIPTION	C/S	NRC	CEB
11/30/17	REVISED PER CSI 11/29/17 REVIEW	CSI	NRC	CEB
11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	CEB
//17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
		C/O	DR	CK

HINES WAY PLAN & PROFILE
PARKER HILL
DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8-A - 2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS
PREPARED FOR AND LAND OF:
PARKER 2 REALTY TRUST
160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: 1" = 40' HORZ, 4' VERT. AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

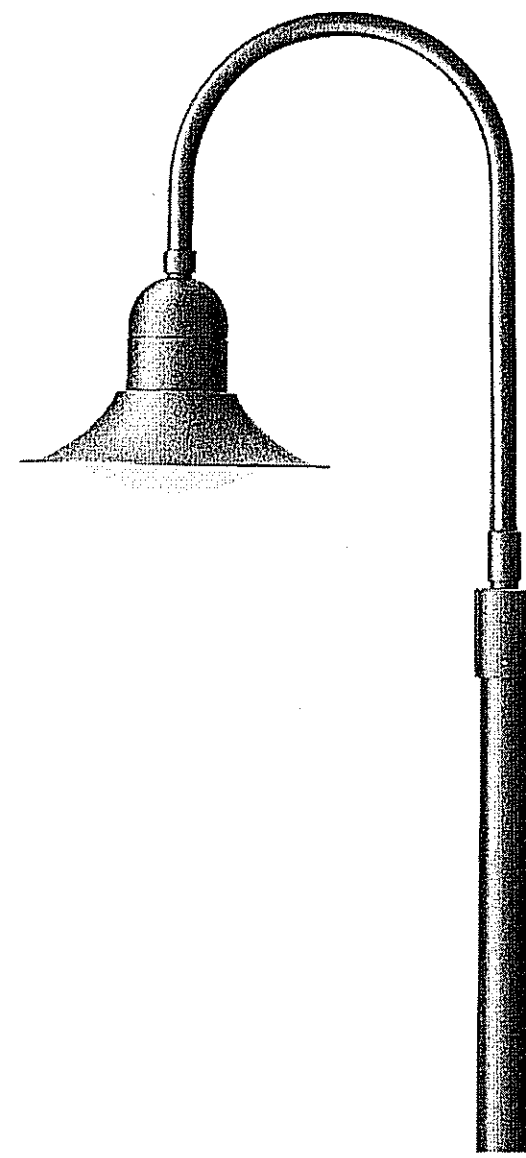
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72 HOURS PRIOR
TO CONSTRUCTION
DIGSAFE.COM
OR DIAL 811
IT'S SMART. IT'S FREE. IT'S THE LAW.

Housing: Two interlocking die-cast aluminum housings.
 Heavy gauge .087" spun aluminum shade with rolled edge,
 finished white inside. Die castings are marine grade, copper free
 (< 0.2% copper content) A960.0 aluminum alloy.
 Arm: Fabricated from .125" wall aluminum extrusion formed into
 a continuous smooth radius, extruding and welded into one
 piece die-cast aluminum filler. Filler slip fits a 3" O.D. pole top
 and is secured by six (6) socket head stainless steel set screws
 threaded into stainless steel inserts.
 Enclosure: Lamp enclosure/optical system comprises an
 assembly of two pure enameled aluminum asymmetrical main
 beam reflectors with clear impact resistant acrylic lens with
 optical texture fast to a heavy gauge .087" spun aluminum
 shade with rolled edge, finished white inside and rigidly fastened
 to the luminaire housing. Fasteners are stainless steel.
 Electrical: 28.5W LED luminaire, 27°C spot temperature.
 Integral 120V - 277V electronic LED driver, dimming not
 available. Standard LED color temperature is 4000K with a >80
 CRI. Available in 3000K (>80 CRI); add suffix 'K' to order.
 Note: Due to the dynamic nature of LED technology, LED
 luminaire data on this sheet is subject to change at the
 discretion of BEGA-US. For the most current technical data,
 please refer to www.bega-us.com.
 Finish: All BEGA standard finishes are polyester powder coat
 with minimum 3 mil thickness. Available in four standard BEGA
 colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV).
 To specify, add appropriate suffix to catalog number. Custom
 colors supplied on special order.
 UL listed for US and Canadian Standards, suitable for wet
 locations. Protection class: IP65.
 Weight: 23.1 lbs.
 Effective Projection Area (EPA): 1.7 ft²

Type: BEGA Product:
 Project: Voltage:
 Color: Options:
 Modified:



Single pole-top luminaires

Lens	LED	A	B	C
7910 LED	28.5W LED	L2-2	10%	40% 52%

Recommended for use with 1 1/2" to 1 3/4" poles.
 BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-0474 www.bega-us.com
 Copyright BEGA-US 2014 Updated 09/14

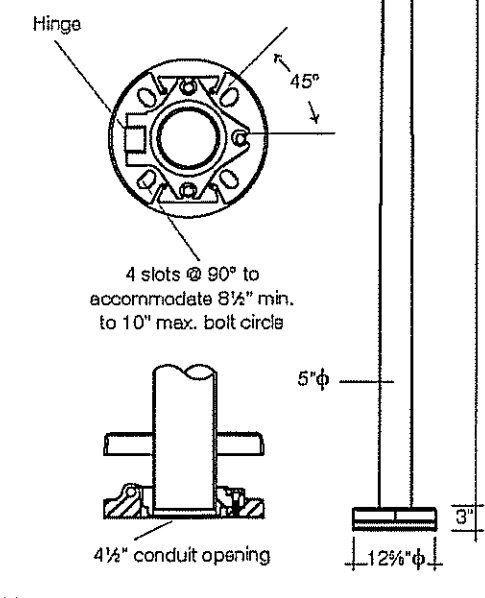
SINGLE POLE-TOP LUMINAIRES (OR EQUAL)

0906HR 3" - 5" Tapered round hinged pole

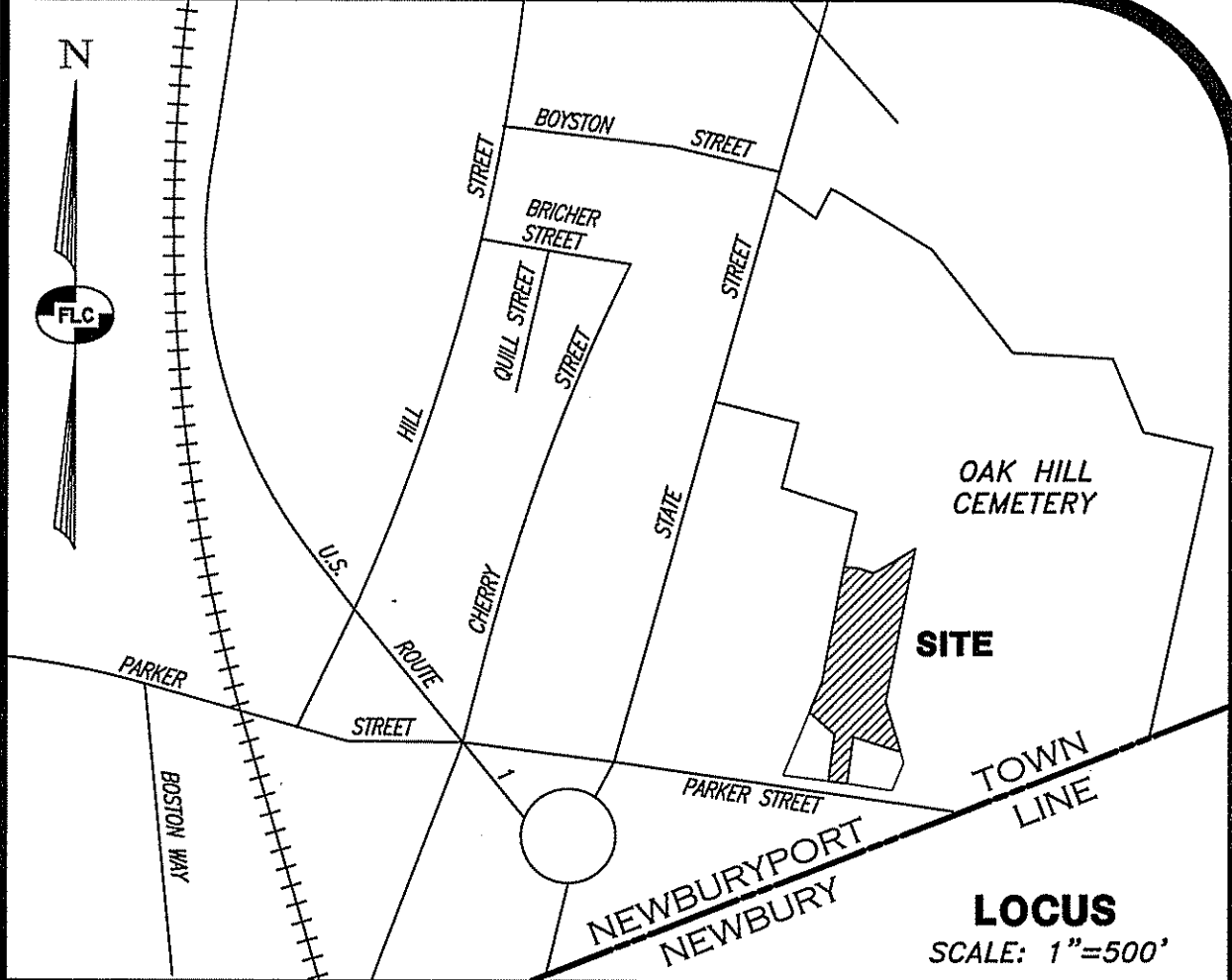
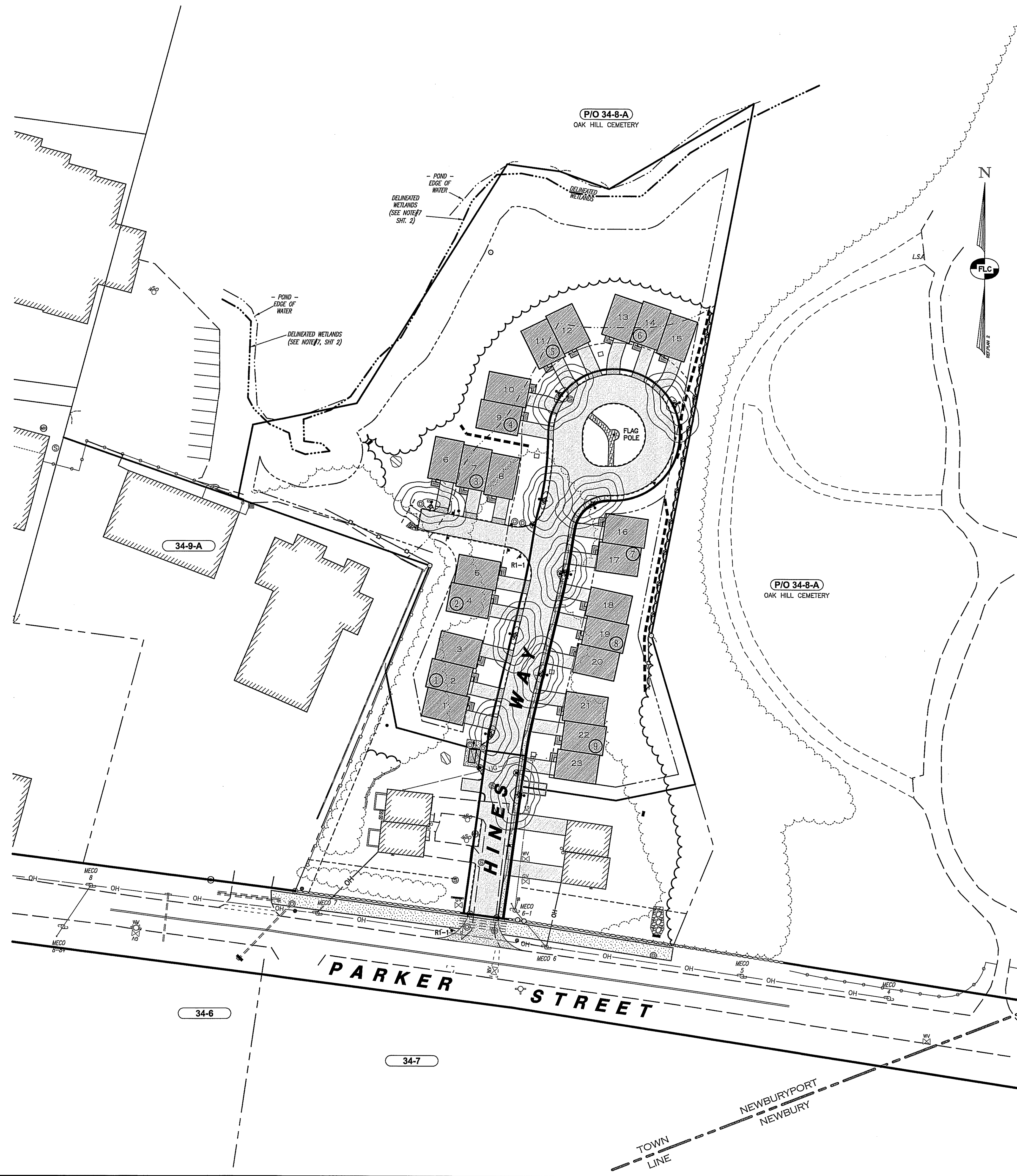
Shaft: Fabricated from all new seamless 6063 aluminum alloy tubing, heat treated to a T6 condition.
 Anchor base: Round cast aluminum A356 alloy, heat treated to a T6 condition. Anchor base and shaft continuously welded at the outside top and inside bottom of the anchor base casting.
 Pole base: To be round hinged two piece casting. Hinge Pole shaft to be welded to upper base casting which is secured to lower base casting by three (3) stainless steel bolts. Bolts to be fastened to cast-in stainless threaded inserts in lower casting. Cast round two piece base cover supplied with pole.
 Anchor bolts: Four (4) 3/4" x 1 1/2" galvanized steel anchor bolts supplied with double nuts and flat washers. Maximum bolt projection 3/4". For luminaires requiring threaded inserts and pole cap, specify: 1D (single); 2D (2 @ 180°); 3D (3 @ 120°).
 GCO or QFI: Standard GCO/QFI location is opposite the hinge.
 Height above base for ballast in luminaires @ 18". For single luminaires with a pole base mounted (PBM) ballast the minimum height is 24" and 42" minimum for double PBM luminaires.
 Weight: 42.0 lbs.

Disclaimer
 BEGA-US warrants the specific anchor bolts and pole combination according to the product number(s) and description(s) indicated on this submittal sheet. Structural changes to the pole requested by the customer, including changes to pole length, may affect the compatibility of the anchor bolts and corresponding poles. BEGA-US is not responsible for the incompatibility of the anchor bolts and poles resulting from such structural changes without review by the BEGA-US engineering department. This includes, but is not limited to, any labor charges, charges for replacement materials and shipping.

Pole wind load rating:
 MPE: 20 30 50 100 120
 EPA: 18.1 19.2 10.0 7.7 4.8
 Note: Data above assumes grade level installation and a maximum luminaire weight of 50 lbs.
 BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 (805) 566-0474
 Copyright BEGA-US 2014 Updated 04/14



LIGHT POLE DETAIL (OR EQUAL)



LEGEND:

—	RIGHT-OF-WAY LINE	□ C.B.(F)	GRANITE BOUND FOUND
—	BOUNDARY LINE	□ C.B.(C)	CONCRETE BOUND FOUND
—	ABUTTING LOT LINE	□ C.B.(M)	CONCRETE BOUND PER REF. PLAN
—	BUILDING SETBACK LINE	○ L.P.W.(F)	IRON PIN FOUND
—	EDGE OF PAVED ROAD	○ L.P.W.(T/S)	IRON PIN TO BE SET
—	EDGE OF GRAVEL ROAD	■ C.B.(S)	GRANITE BOUND TO BE SET
—	EDGE OF TREE LINE	—	UTILITY POLE & GUY
—	10' CONTOUR INTERVAL	—	CATCH BASIN
—	2' CONTOUR INTERVAL	—	DRAIN MANHOLE
—	WROUGHT IRON FENCE	—	SEWER MAN-HOLE (ROUND)
—	CHAIN-LINK FENCE	—	TELEPHONE MANHOLE
—	STOCKADE FENCE	—	WATER HYDRANT
—	THE COURSE LINE	—	WATER VALVE
—	OVERHEAD UTILITY LINE	—	WATER SHUT-OFF
—	GAS LINE	—	GAS VALVE
—	WATER LINE	—	LANDSCAPED AREA
—	SEWER LINE	—	
—	DRAIN LINE	—	

PROPOSED FEATURES

—	EDGE OF PAVEMENT	—	SWALE
—	VERTICAL GRANITE CURB	—	TEMPORARY SILT FENCE
—	SLOPED GRANITE CURB	—	EROSION CONTROL STONE
—	REINFORCED CONCRETE SIDEWALK AND CURB	—	PAVEMENT AREA
—	RETAINING WALL	—	POLE MOUNTED LIGHT
—	LIMITS OF CLEARING	—	BUILDING NUMBER
—	GAS LINE	—	1 UNIT NUMBER
—	WATER LINE	—	CB1 DRAINAGE CATCH BASIN
—	UGS UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION	—	HW1 DRAINAGE HEADWALL
—	SEWER LINE	—	MH1 DRAINAGE MANHOLE
—	STORM WATER DRAINAGE	—	SMH1 SEWER MANHOLE

GRAPHIC SCALES
 40' 20' 0 40' 80' 120'
 IMPERIAL: 1"=40'

C	11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	CEB
B	11/07/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
A	4/26/17	M. WEST WETLANDS LOCATION, SETBACK & BUFFER		XXX	XXX
	DATE	DESCRIPTION	C/O	DR	CK

LIGHTING PLAN
PARKER HILL
DEFINITIVE SUBDIVISION
 TAX MAP PARCEL 34-8-A - 2 PARKER STREET
 NEWBURYPORT, MASSACHUSETTS
 PREPARED FOR AND LAND OF:
PARKER 2 REALTY TRUST
 160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: 1" = 40' AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

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 206 Elm Street, Milford, NH 03055
 Phone: (603)-413-5456 Fax: (603)-413-5456
 www.FieldstoneLandConsultants.com

PLANT SYMBOLS

SYM	SCIENTIFIC NAME	(COMMON NAME)	QUANTITY	SIZE
TREES				
ACE	ACER x FREEMANI 'ARMSTRONG'	ARMSTRONG MAPLE	17	2.5-3" CAL.
BET	BETULA NIGRA (HERITAGE RIVER BIRCH)		12	12-14" CLUMP
MS	MAGNOLIA x SOULANGEANA (SAUCER MAGNOLIA)		11	8-10'
PP	PICEA PUNGENS 'HOOPSII' (HOOPS SPRUCE)		17	8-10'
AC	ABIES CONCOLOR (WHITE FIR)		10	8-10'
SHRUBS				
CA	CLETHRA ALNIFOLIA (DWARF SUMMER SWEET)		10	3 GAL
JGO	JUNIPERUS CHINENSIS (GREY OWL JUNIPER)		187	3 GAL
SYR	SYRINGA PATULA (MISS KIM LILAC)		34	3 GAL
HYD	HYDRANGEA PANICULATA (ENDLESS SUMMER HYDRANGEA)		107	3 GAL
JC	JUNIPERUS CHINENSIS (BLUE POINT JUNIPER)		43	3'-4'
PJ	PIERIS JAPONICA 'MOUNTAIN FIRE' (COMPACT ANDROMEDA)		81	3 GAL
IG	ILEX GLABRA COMPACTA (DWARF INKBERRY)		78	3 GAL
HS	HELIOTRICHON SEMPERVIRENS (BLUE OAT GRASS)		74	3 GAL
MSY	MISCANTHUS SINENSIS 'YAKUSHIMA' (DWARF MAIDEN GRASS)		93	3 GAL
LZ	MISCANTHUS SINENSIS 'LITTLE ZEBRA' (DWARF ZEBRA GRASS)		31	3 GAL
○	MIX PERENNIALS		987	1 GAL

MISCELLANEOUS:

GENERAL LAWN SEED (BLUE SEAL LAWN MIX 11-A) OR EQUAL

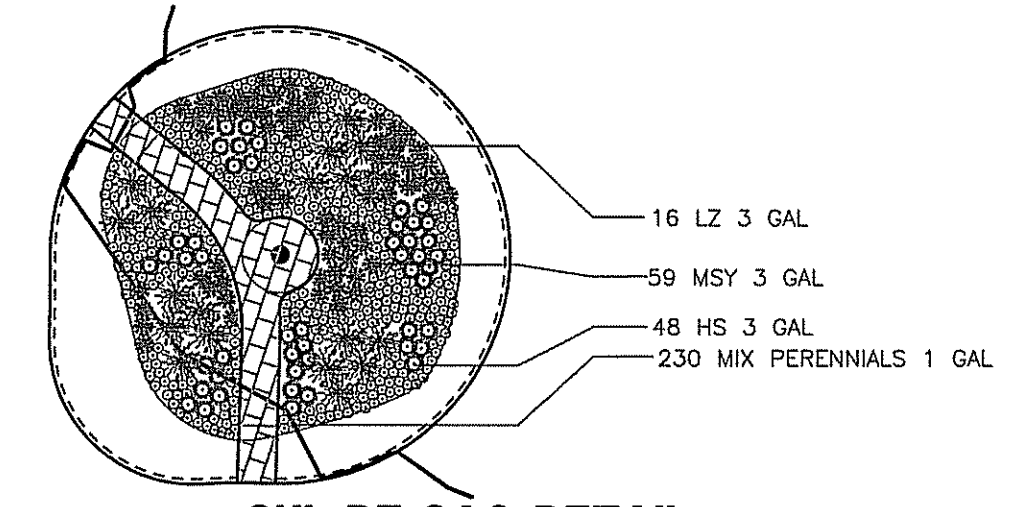
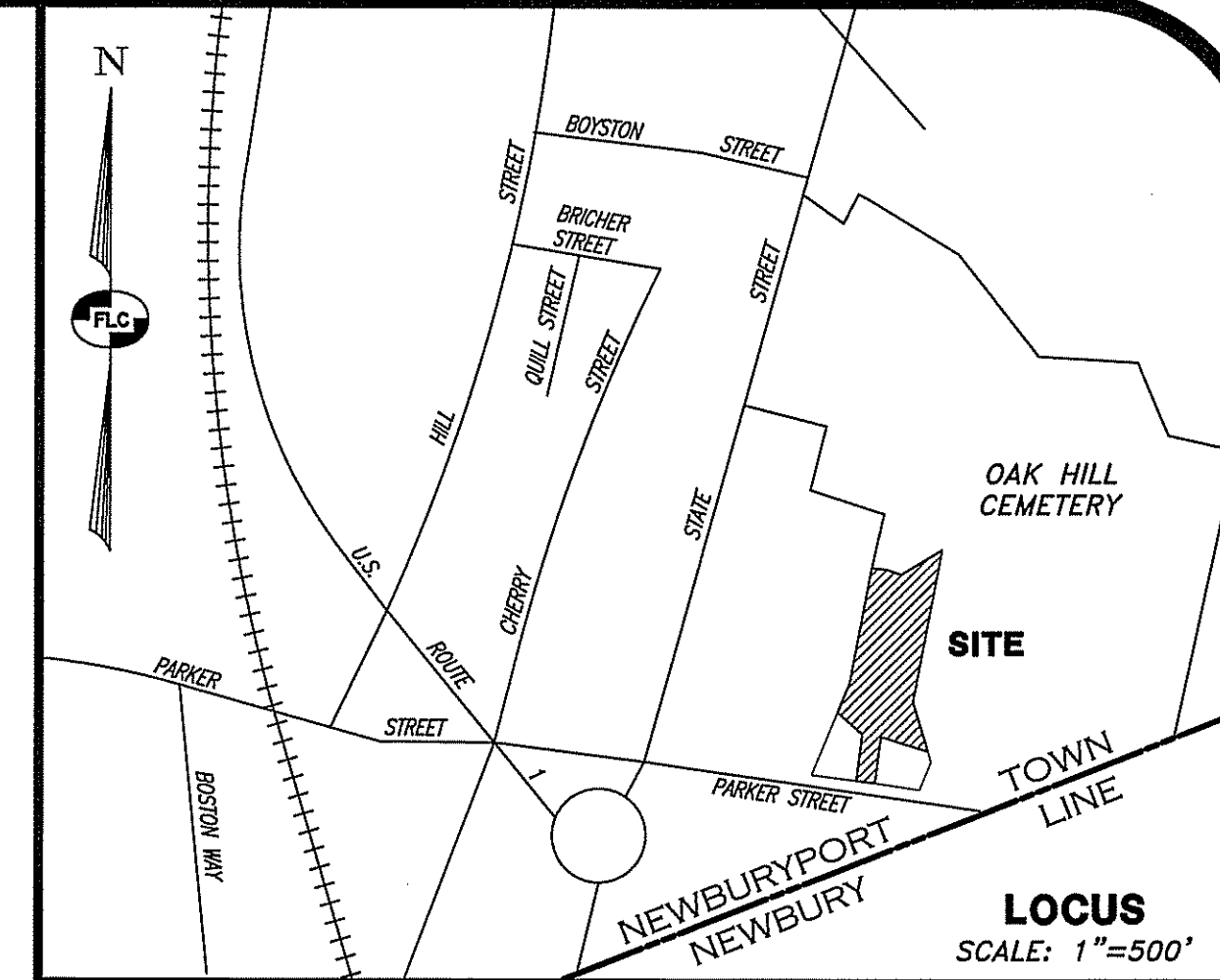
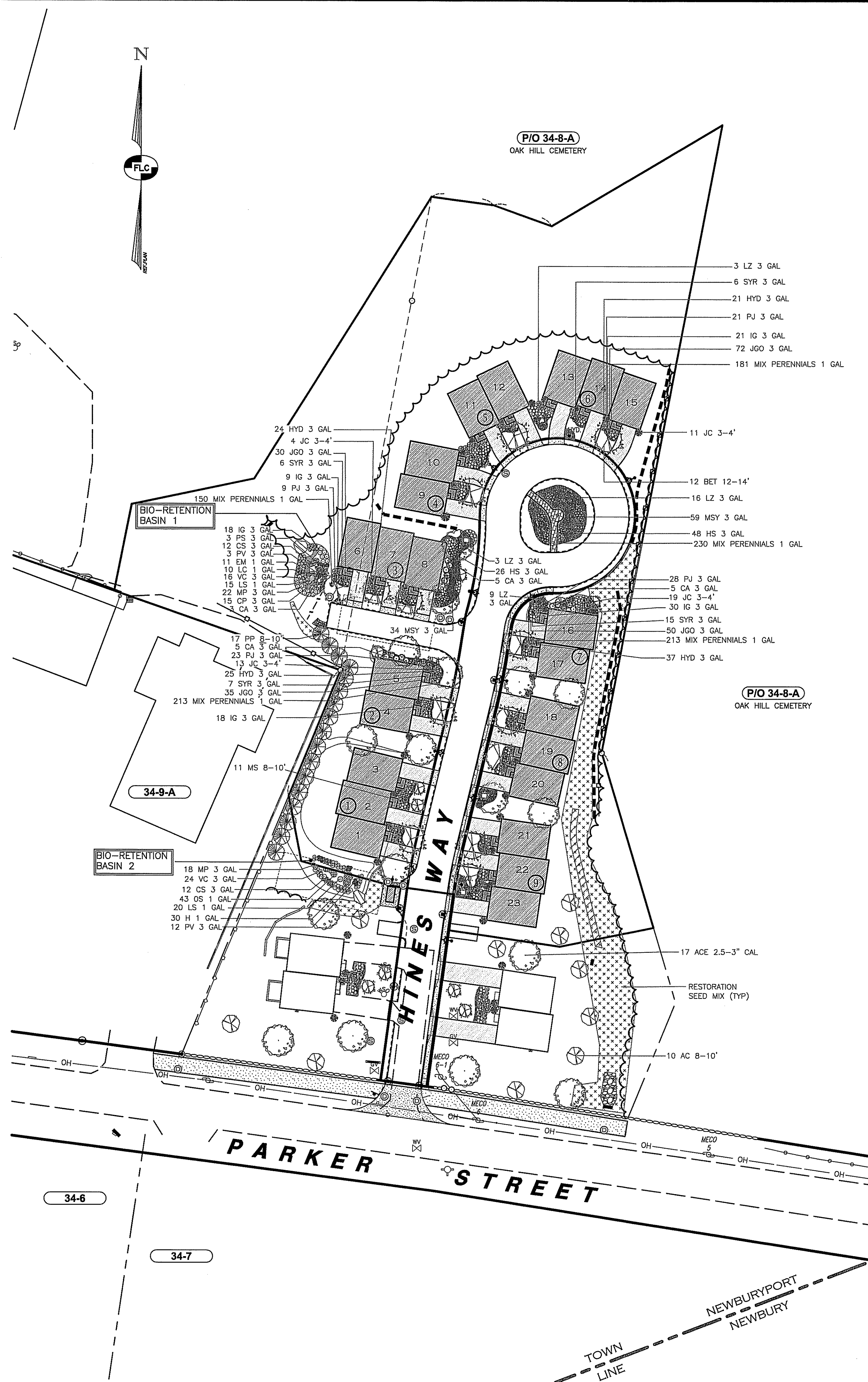
RESTORATION SEED MIX: ERNMX-181: NATIVE STEEP SLOPE MIX W/ ANNUAL RYEGRASS (OR EQUAL), ERNST SEEDS, 8884 Mercer Pike, Meadville PA 16335 (800) 873-3321

DETENTION SEED MIXTURE: ERNMX-126: RETENTION FLOOR MIX (OR EQUAL), ERNST SEEDS, 8884 Mercer Pike, Meadville PA 16335 (800) 873-3321

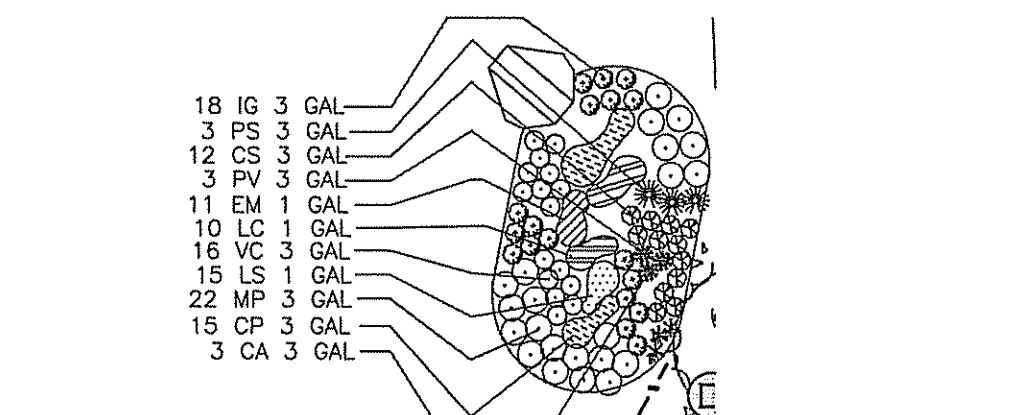
PREMIUM BLEND PINE/HEMLOCK BARK MULCH

PLANT SYMBOLS **PLANTING LIST: BIORETENTION AREAS**

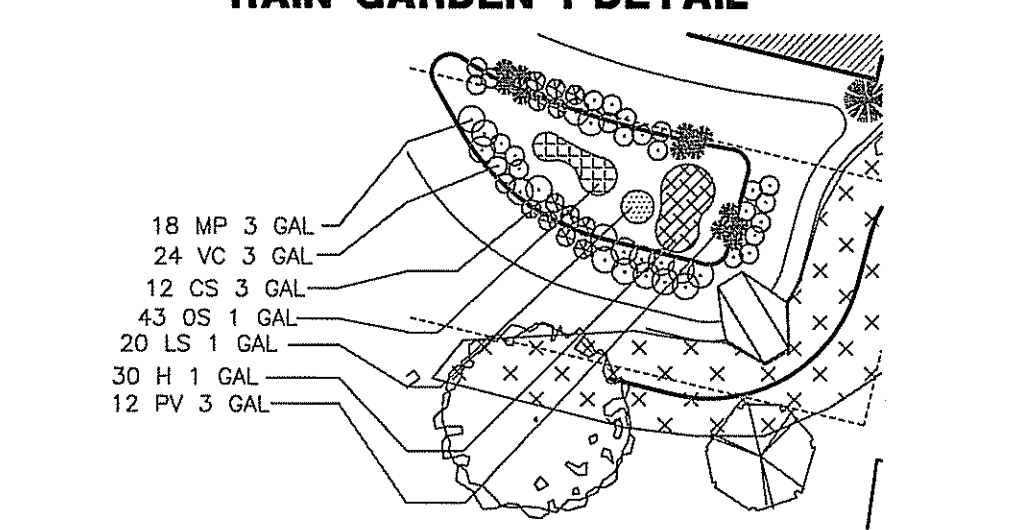
SYM	SCIENTIFIC NAME	(COMMON NAME)	QUANTITY	SIZE
SHRUBS				
CS	CONNUS SERICEA (SILVER DOGWOOD)		24	3 GAL
VC	VACCINIUM CORYMBOSUM (HIGH BUSH BLUEBERRY)		40	3 GAL
IG	ILEX GLABRA COMPACTA (DWARF INKBERRY)		18	3 GAL
MP	MYRICA PENNSYLVANICA (BAYBERRY)		40	3 GAL
FLOWERS/GRASSES				
LC	LOBELIA CARDINALIS (CARDINAL FLOWER)		10	1 GAL
CP	CALTHA PALUSTRIS (MARSH MARIGOLD)		15	3 GAL
PS	PSCHIZACHYRIUM SCOPARIUM (LITTLE BLUE STEM)		3	3 GAL
PV	PANICUM VIRGATUM (DWARF SWITCH GRASS)		15	3 GAL
LS	LOBELIA SILPHITICA (GREAT BLUE LOBELIA)		35	1 GAL
OS	ONOCLEA SENSIBILIS (SENSITIVE FERN)		43	1 GAL
H	HEMERACALLIS SP. (DAYLILY)		30	1 GAL
CA	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' (FEATHER REED GRASS)		3	3 GAL
EM	EUPATORIUM MACULATUM (SPOTTED JOE PYE WEED)		11	1 GAL



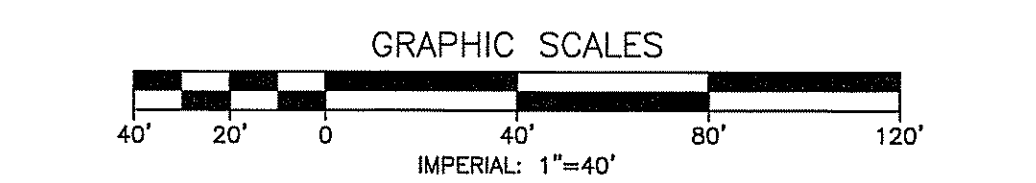
CUL-DE-SAC DETAIL



RAIN GARDEN 1 DETAIL



RAIN GARDEN 2 DETAIL



DATE	DESCRIPTION	C/O	DR	CK
11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	CEB
11/07/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB

LANDSCAPING PLAN
PARKER HILL
DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8-A - 2 PARKER STREET
 NEWBURYPORT, MASSACHUSETTS

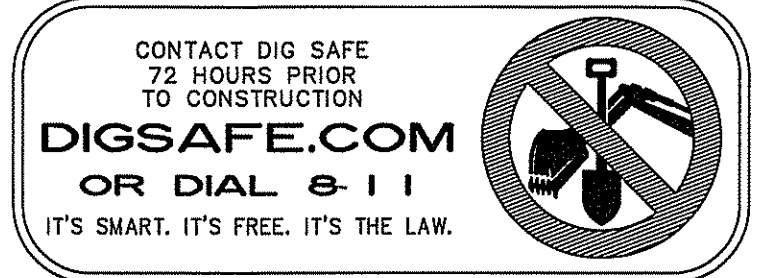
PREPARED FOR AND LAND OF:
PARKER 2 REALTY TRUST
 160 BRIDGE ROAD, SALISBURY, MA 01952

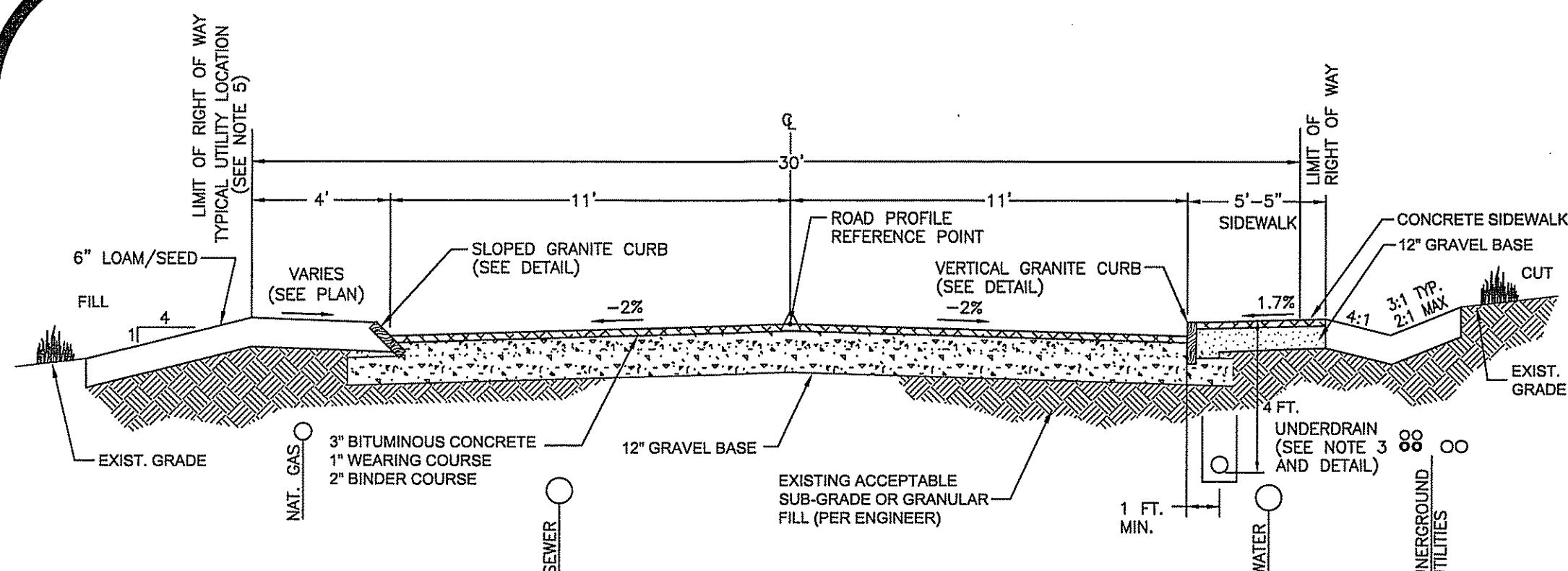
SCALE: 1" = 40' AUGUST 14, 2017

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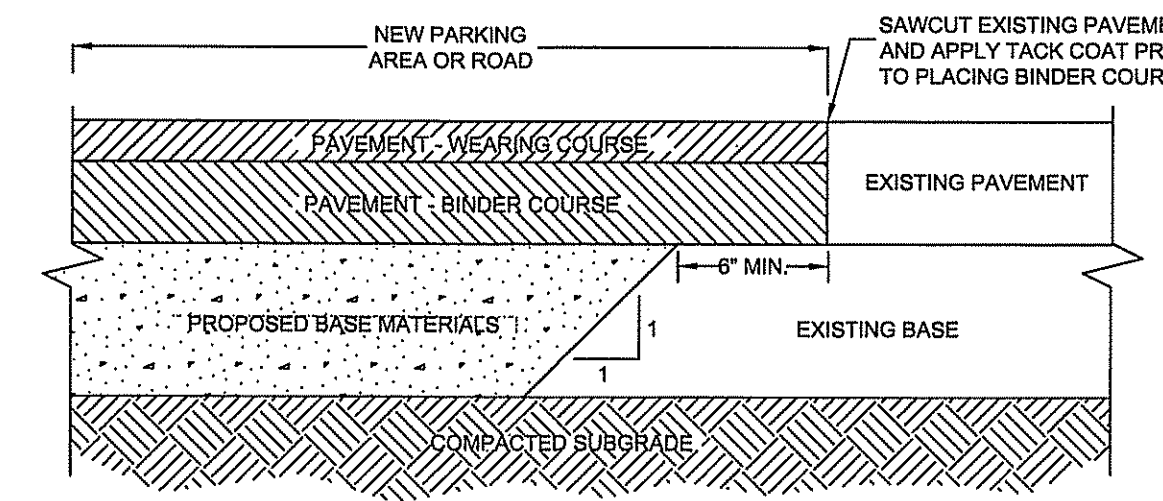
TYPICAL ROADWAY CROSS SECTION

SCALE: N.T.S.

1 DT-1

GENERAL ROAD CONSTRUCTION NOTES

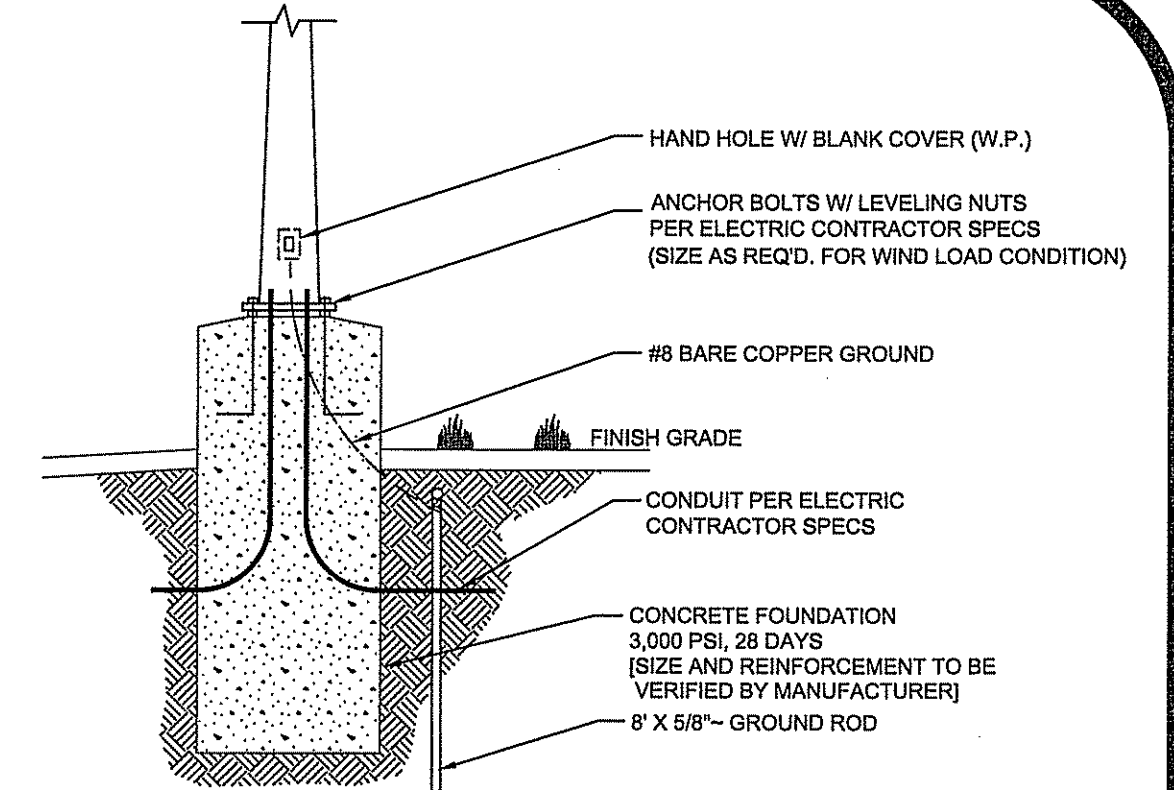
1. REMOVE ALL LOAM, CLAY, MUCK, STUMPS, AND OTHER IMPROPER ROAD FOUNDATION MATERIAL WITHIN 3' OF SUBGRADE. REPLACE WITH COMPACTED GRANULAR FILL MATERIAL ACCEPTABLE TO THE DIRECTOR OF PUBLIC WORKS. COMPACTION TO BE AT LEAST 95% OF THE DRY WEIGHT AS DETERMINED BY MODIFIED PROCTOR TESTING (ASTM 1557).
2. ALL MATERIALS AND CONSTRUCTION SHALL MEET AND BE COMPLETED IN STRICT ACCORDANCE WITH THE CITY OF NEWBURYPORT'S CURRENT ROAD AND DRAINAGE SPECIFICATIONS.
3. SHOULD UNDERDRAIN PIPE BE REQUIRED IN CUT SECTIONS, THE PIPE SHALL DISCHARGE THROUGH A MORTARED RUBBLE AND MASONRY ENDWALL OR INTO A CATCH BASIN/DRAIN MANHOLE.
4. WHERE ROAD GRADE IS 5% OR GREATER, ROAD SWALE SHALL BE LINED WITH RIPRAP (2 LAYERS, 6" TO 8" STONE, 6" WIDE WITH 6" GRAVEL BASE OR EROSION CONTROL FABRIC).
5. ALL UTILITY POLES AND TRANSFORMER SLABS SHALL BE LOCATED AT THE RIGHT OF WAY LINE.



PAVEMENT MATCH

SCALE: N.T.S.

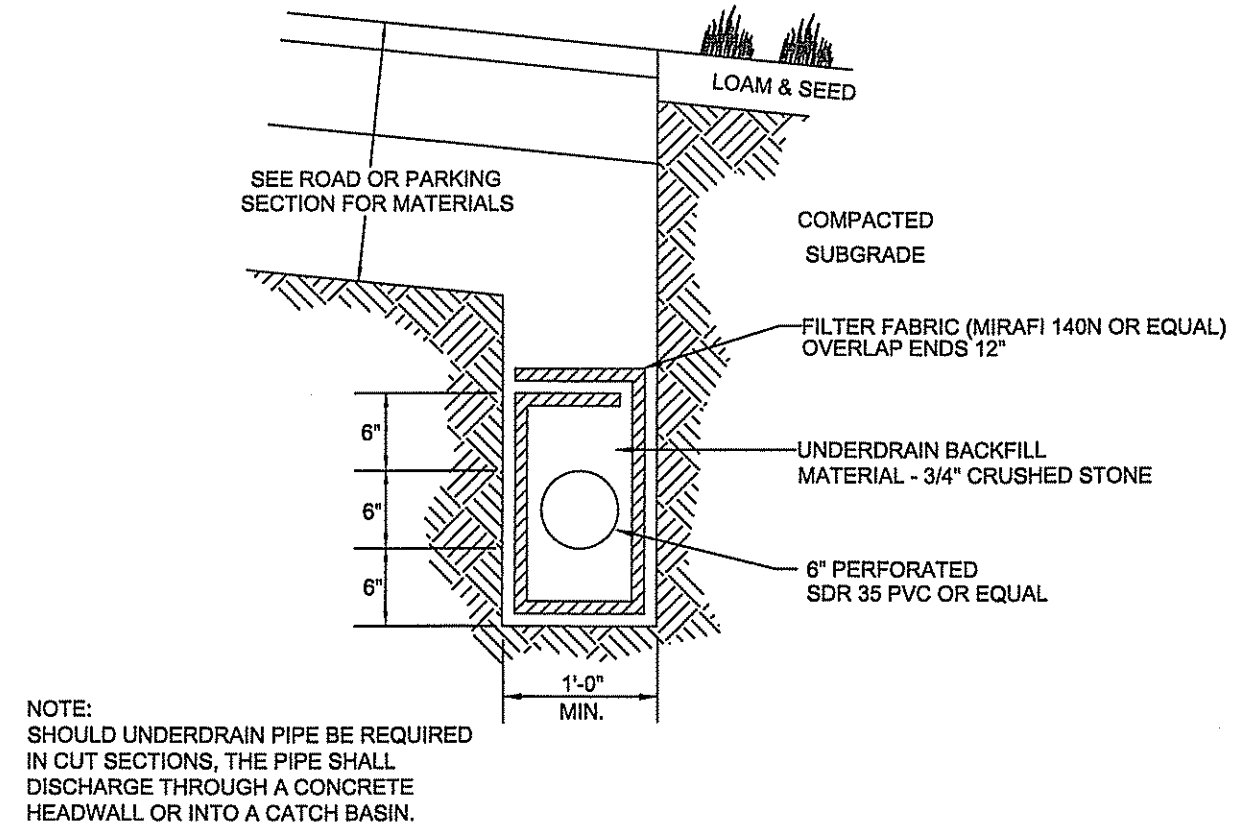
10 DT-1



- NOTE:
1. LIGHT POLE FOUNDATION SHALL EXTEND 2.0 FEET ABOVE FINISH GRADE TO PREVENT VEHICLES FROM DAMAGING THE LIGHT POLE WHEN INSTALLED NEAR PARKING. THE FOUNDATION SHALL BE INSTALLED FLUSH IN LANDSCAPED AREAS WHERE DAMAGE IS NOT A CONCERN.
 2. LIGHT POLE AND FIXTURES BY OTHERS.

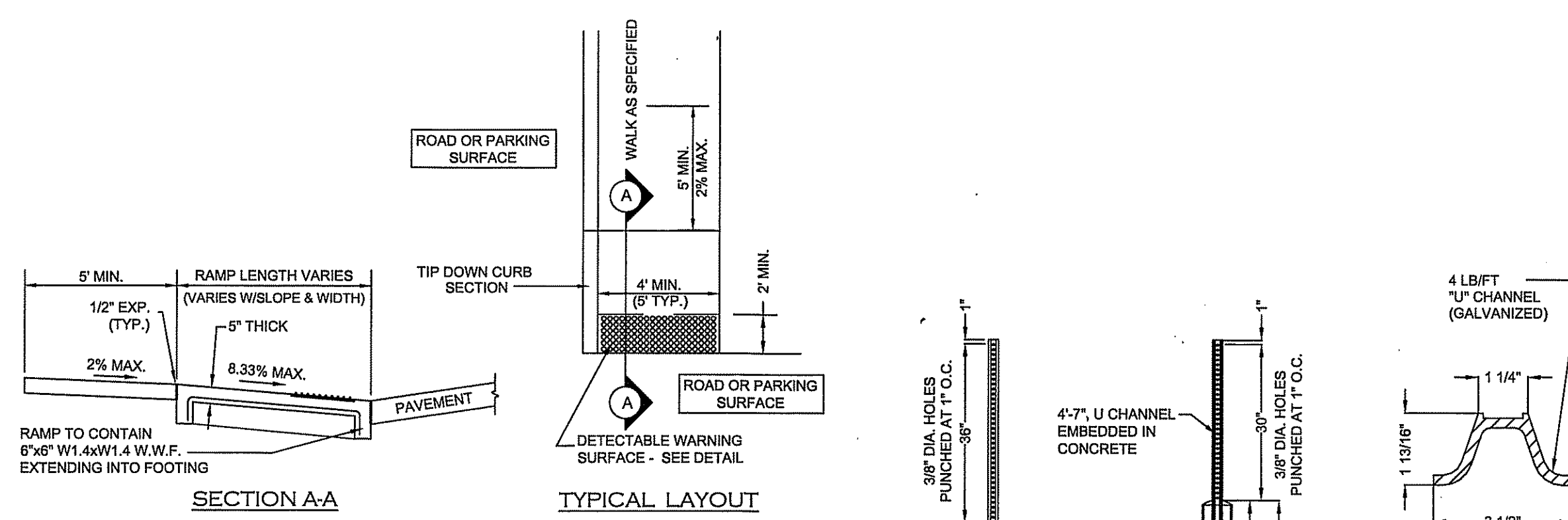
LIGHT POLE FOUNDATION

14 DT-1



UNDERDRAIN DETAIL

2 DT-1



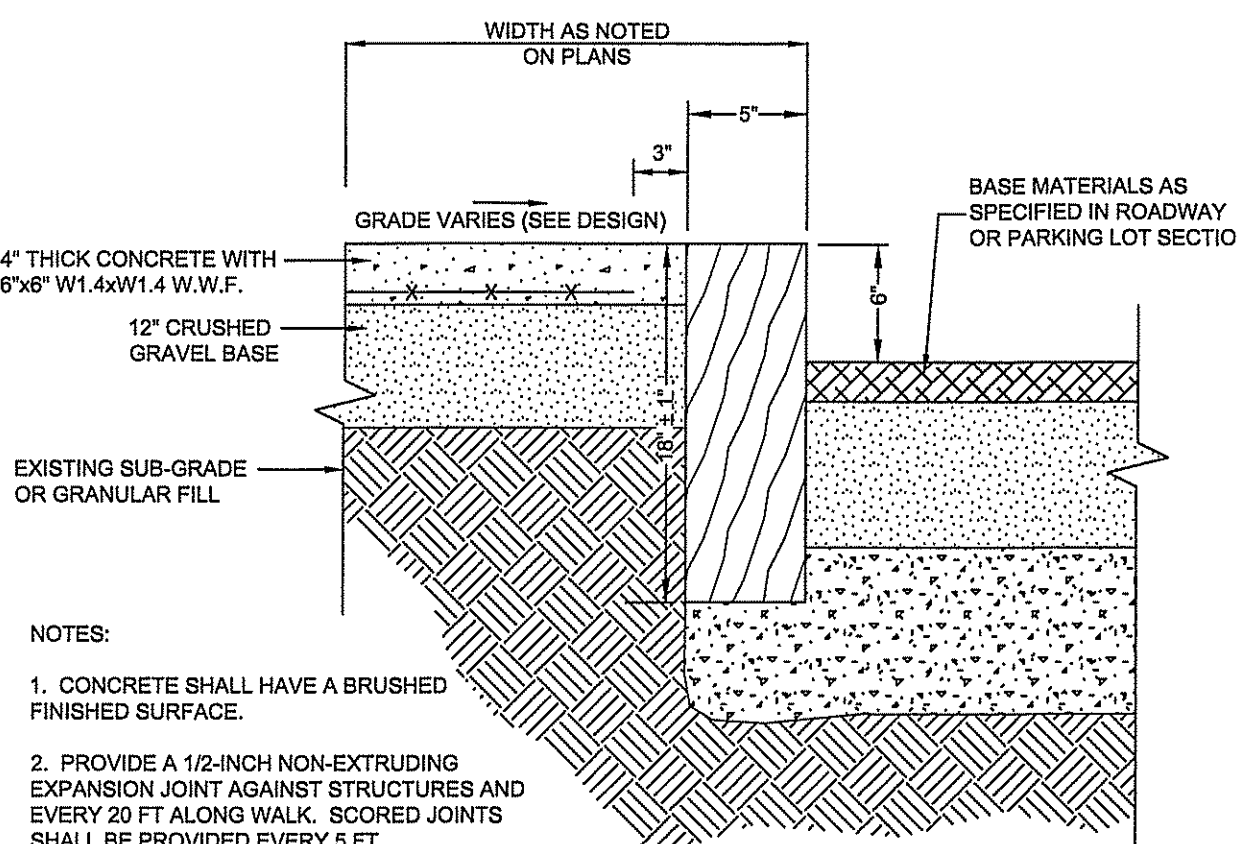
HANDICAP RAMP NOTES:

1. A SIDEWALK CURB RAMP IS DEFINED AS THE ENTIRE CONCRETE SURFACE WHICH INCLUDES THE RAMP AND FLARED SIDES (IF ANY).
2. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 8.33% (1:12). THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION. THE FLARED SIDE OF THE RAMP SHALL LIE ON A SLOPE OF 10% (1:10) MAXIMUM MEASURED ALONG THE CURB.
3. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING, EXCLUSIVE OF THE FLARED SIDES, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS. IT IS DESIRABLE THAT THE LOCATION OF THE RAMP BE AS CLOSE AS POSSIBLE TO THE CENTER OF THE CROSSWALK.
4. THE SIDEWALK CURB RAMP OR THE LANDING AREA (PARALLEL SIDEWALK CURB RAMP) SHALL CONTRAST VISUALLY WITH THE ADJOINING SIDEWALK SURFACE, EITHER ASPHALT/LIGHT-COLORED CONCRETE OR LIGHT-COLORED CONCRETE/DARK-STAINED CONCRETE. THE CONCRETE SURFACE SHALL BE SLIP RESISTANT (BROOM FINISHED).
5. DETECTABLE WARNING PANELS SHALL BE THE FULL WIDTH OF THE LANDING, BLENDED TRANSITION, OR CURB RAMP THEY ARE A PART OF AND SHALL BE A MINIMUM OF 2 FEET IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION OR LANDING AND THE STREET.
6. FOR NEW CONSTRUCTION - ALL DETECTABLE WARNINGS ARE TO BE CAST IRON AND SET IN CONCRETE.

HANDICAP SIDEWALK RAMP AT END OF WALK

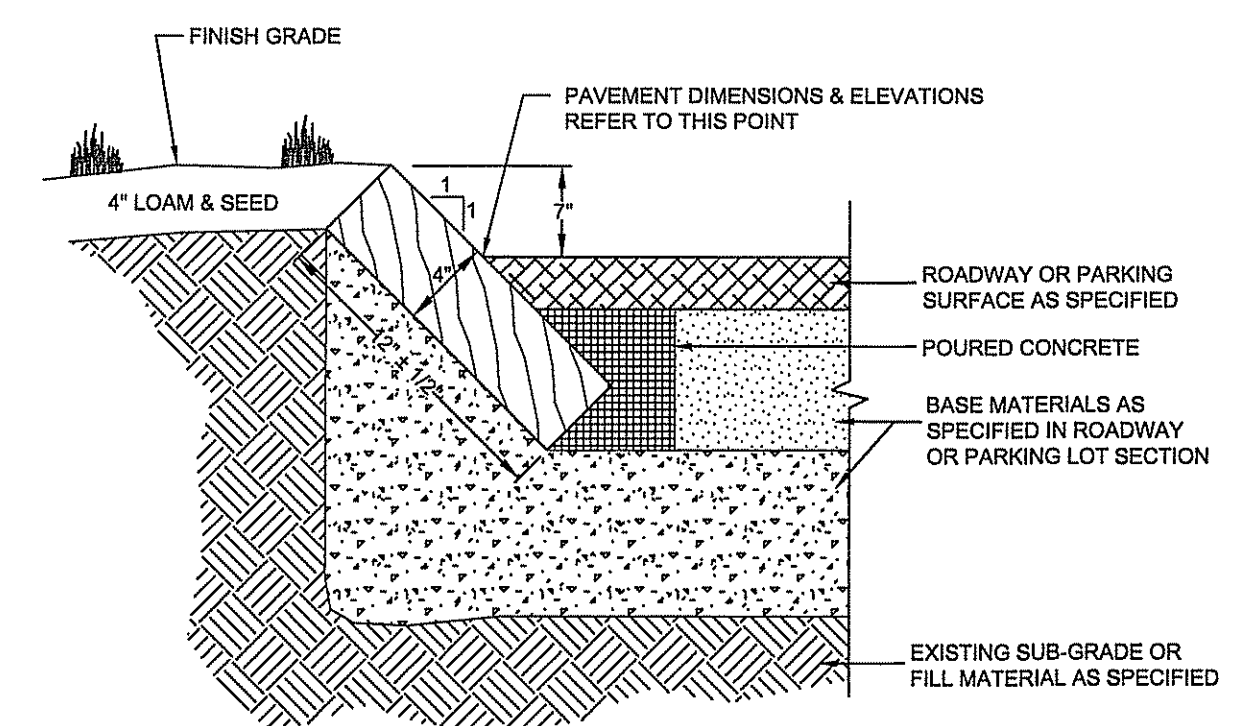
SCALE: N.T.S.

5 DT-1



SIDEWALK - CONCRETE (VERTICAL GRANITE CURB)

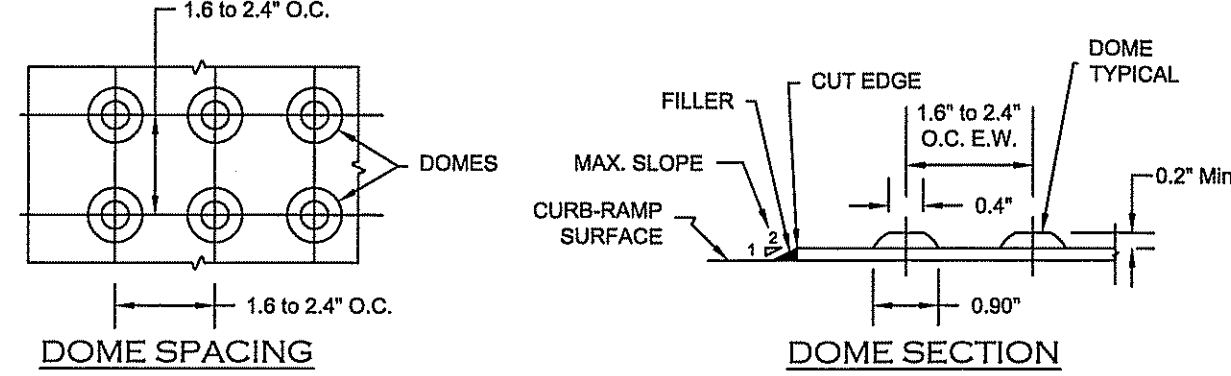
3 DT-1



CURB - SLOPED GRANITE

SCALE: N.T.S.

4 DT-1



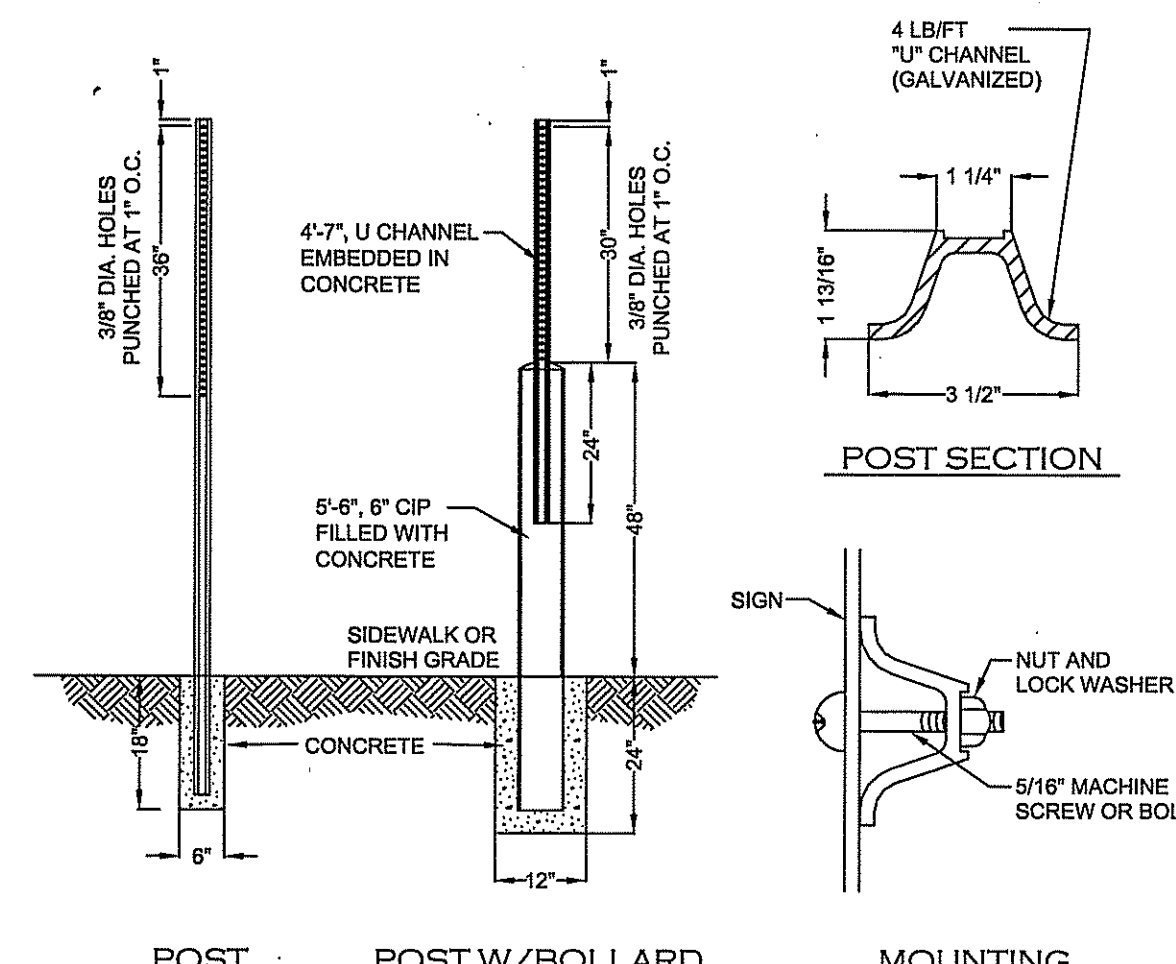
NOTES:

1. DETECTABLE WARNINGS SHALL BE PROVIDED WHERE EVER A CURB RAMP CROSSES A VEHICULAR WAY.
2. DETECTABLE WARNINGS SHALL BE PROVIDED 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. THE DETECTABLE WARNING SHALL BE LOCATED ADJACENT TO THE CURB LINE.
3. DETECTABLE WARNING MATERIALS SHALL BE TEXTURED TO PROVIDE SLIP RESISTANCE AND SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES - EITHER LIGHT OR DARK ON LIGHT. THE PREFERRED COLOR FOR A LIGHT BACKGROUND IS RED BRICK AND FOR A DARK BACKGROUND SHALL BE SAFETY YELLOW.
4. DETECTABLE WARNINGS SHALL BE PLACED 6" TO 8" BEHIND THE FACE OF THE CURB JOINT.
5. DETECTABLE WARNING SURFACES SHALL BE SURFACE MOUNTED, THIN MOLDED SHEETGOODS WHICH INCLUDES TILES OR MATS (RIGID OR FLEXIBLE, WITH TRUNCATED DOMES), BONDED AND/OR ANCHORED TO THE SURFACE OF THE RAMP. THE SURFACE SHALL CONFORM WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES GUIDELINES 4.28,10.3.

DETECTABLE WARNING SURFACE FOR HANDICAP RAMPS

SCALE: N.T.S.

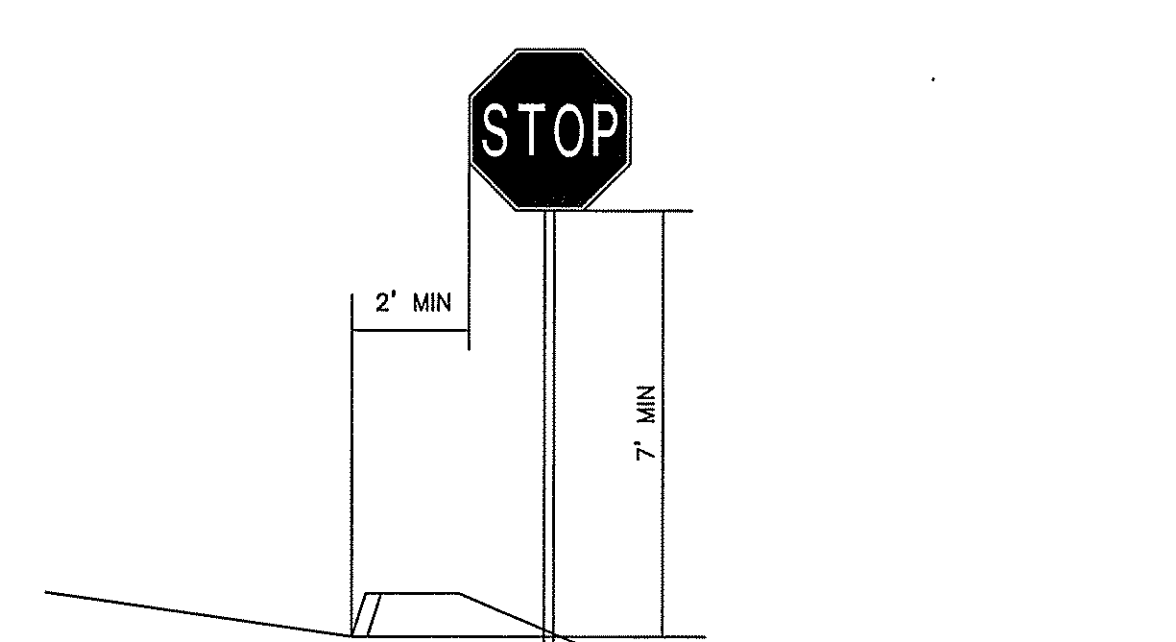
6 DT-1



SIGN POST - STANDARD & W/BOLLARD

SCALE: N.T.S.

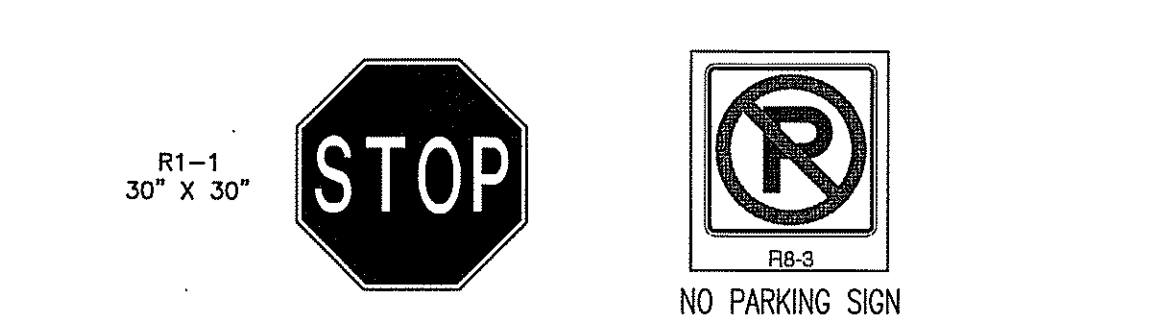
7 DT-1



STOP SIGN LOCATION DETAIL

SCALE: N.T.S.

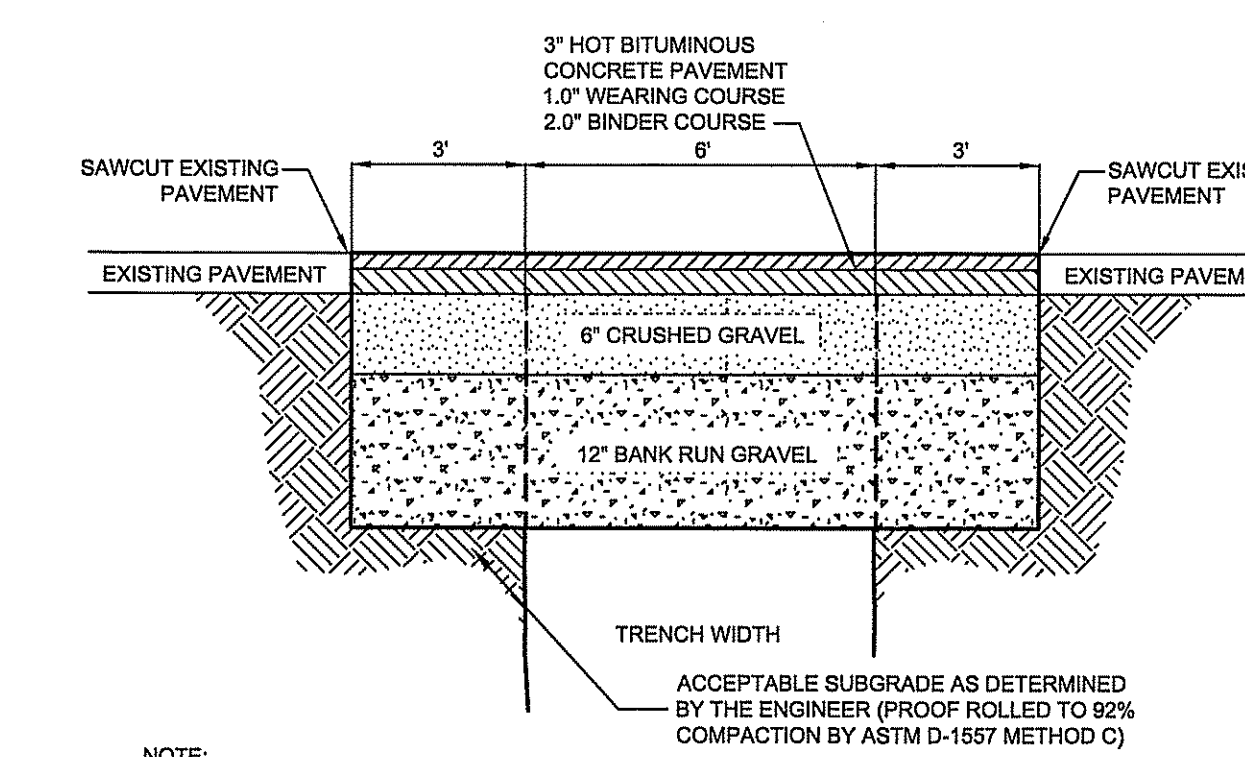
8 DT-1



TRAFFIC SIGNS - ON SITE

SCALE: N.T.S.

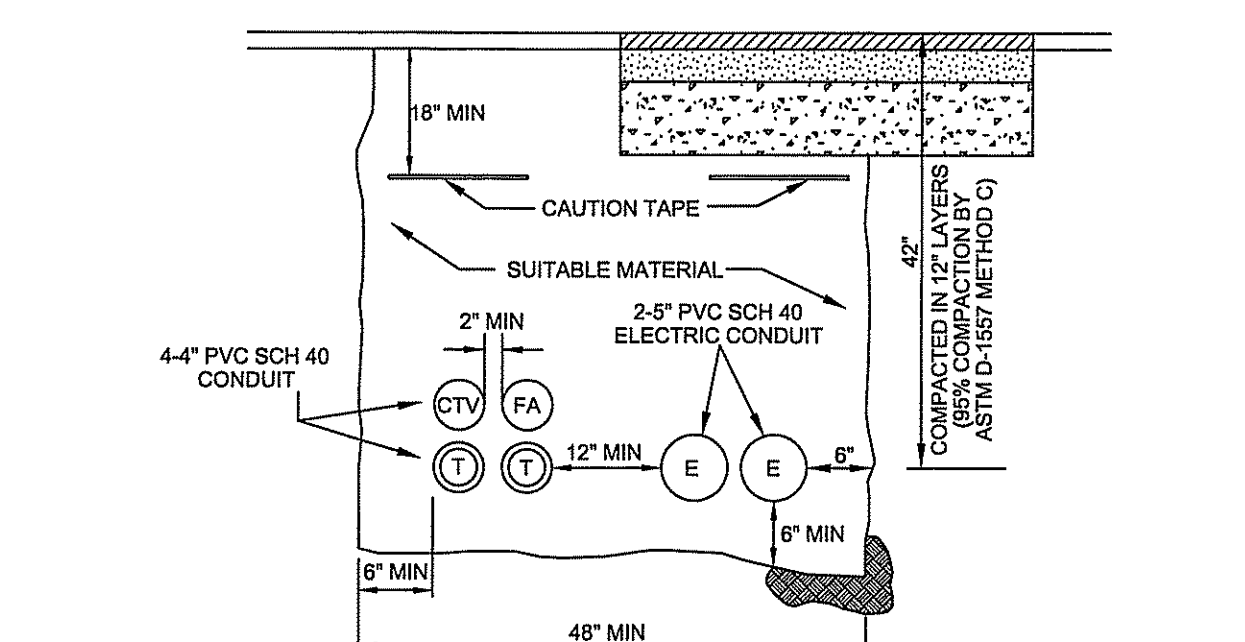
9 DT-1



PAVEMENT TRENCH PATCH

SCALE: N.T.S.

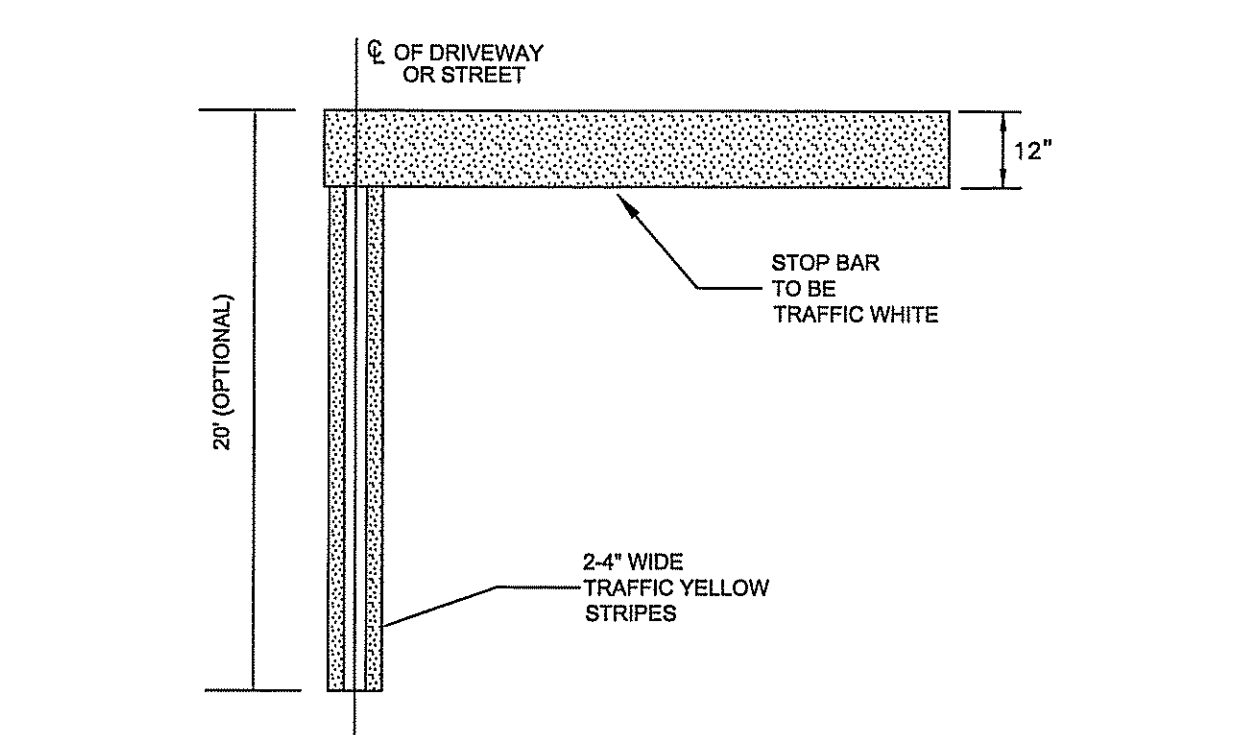
11 DT-2



TYPICAL UTILITY TRENCH

SCALE: N.T.S.

12 DT-1



STOP BAR DETAIL

SCALE: N.T.S.

13 DT-1

1. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF NEWBURYPORT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. FIELDSTONE LAND CONSULTANTS, PLLC, AS THE DESIGN ENGINEER, SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
3. THE OWNER AND/OR CONTRACTOR SHALL VERIFY ALL ZONING REQUIREMENTS FOR CONFORMANCE PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL CONTACT "DISSAFE" 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-800-255-4977 IN NH, 1-888-344-7233 IN MA).
5. COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND SPECIAL CONDITIONS OF TOWN/CITY AGENCIES, SUCH AS THE PLANNING BOARD, CONSERVATION COMMISSION, AND OTHERS, IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER.
6. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND FIELDSTONE LAND CONSULTANTS, PLLC PRIOR TO CONSTRUCTION.
7. ALL DRAINAGE STRUCTURES SHALL CONFORM TO MADOT STANDARDS. ALL CONSTRUCTION MATERIALS SHALL CONFORM TO MASS DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
8. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE TOWN DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR INSPECTIONS OF THE CONSTRUCTION.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT INFORMATION OF ALL WORK, ESPECIALLY UNDERGROUND CONSTRUCTION OF UTILITY LINES, SERVICES, CONNECTIONS, ETC. AND APPROPRIATE TIES TO ABOVE GROUND PERMANENT STRUCTURES, FIELD SURVEY COORDINATES, OR SOME OTHER METHOD OF ESTABLISHING THE AS-BUILT CONDITION OF ALL CONSTRUCTION.

GENERAL CONSTRUCTION NOTES

NOTE:
ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.

B	11/07/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
A	08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB
REV.	DATE	DESCRIPTION	C/O	DR	CK

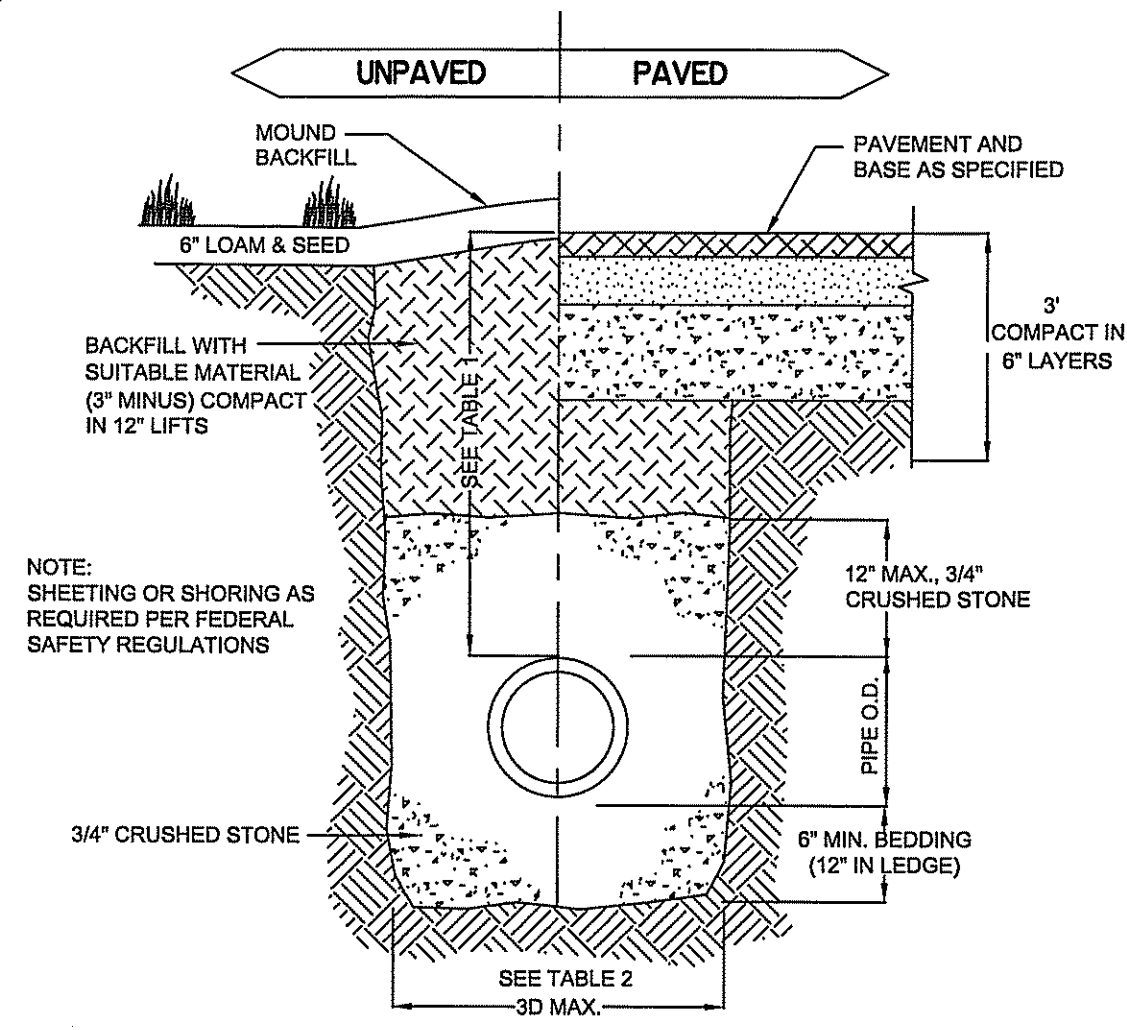
CONSTRUCTION DETAILS
PARKER HILL
DEFINITIVE SUBDIVISION
TAX MAP PARCEL 34-8A - 2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS
PREPARED FOR AND LAND OF (34-8-A),
PARKER 2 REALTY TRUST
160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: AS SHOWN AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

FIELDSTONE
LAND CONSULTANTS, PLLC

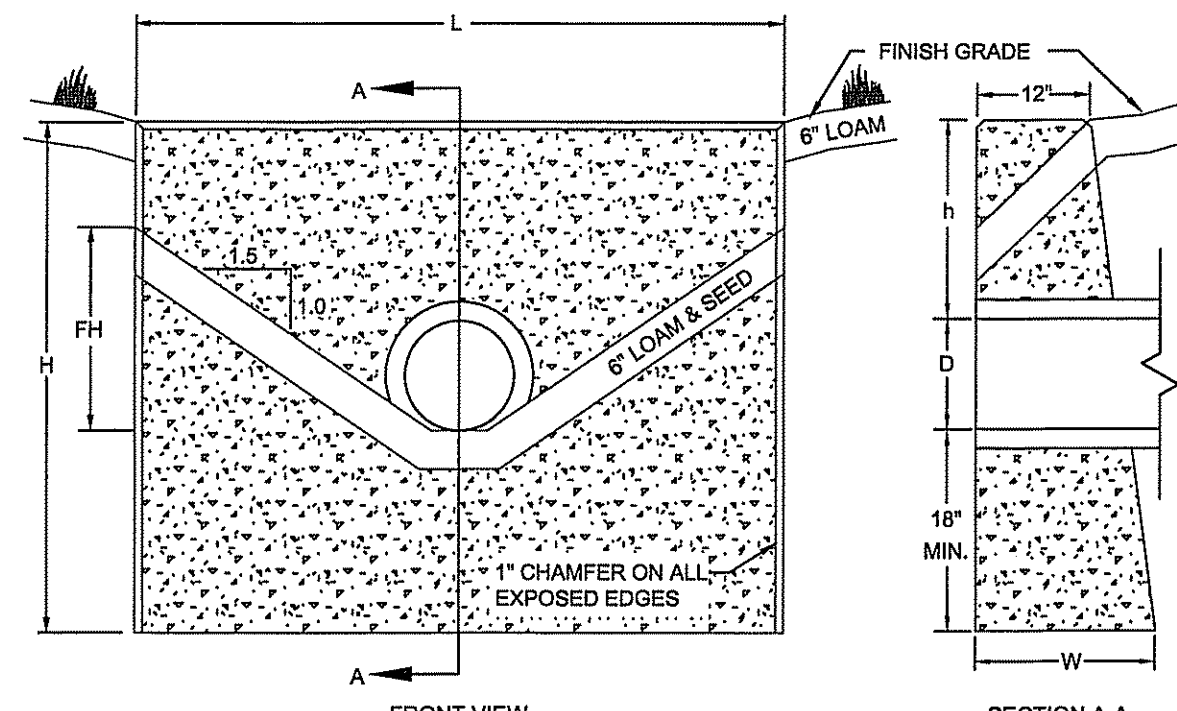
206 Elm Street, Milford, NH 03055
Phone: (603)-413-5456 Fax: (603)-413-5456
www.FieldstoneLandConsultants.com



LOCATION	PIPE MATERIAL	COVER
PAVED ROADS	ALL	2 FT.
GRAVEL ROADS	ALL	2 FT.
DRIVEWAYS	ALL	1 FT.
UNPAVED AREAS	ALL	2 FT.

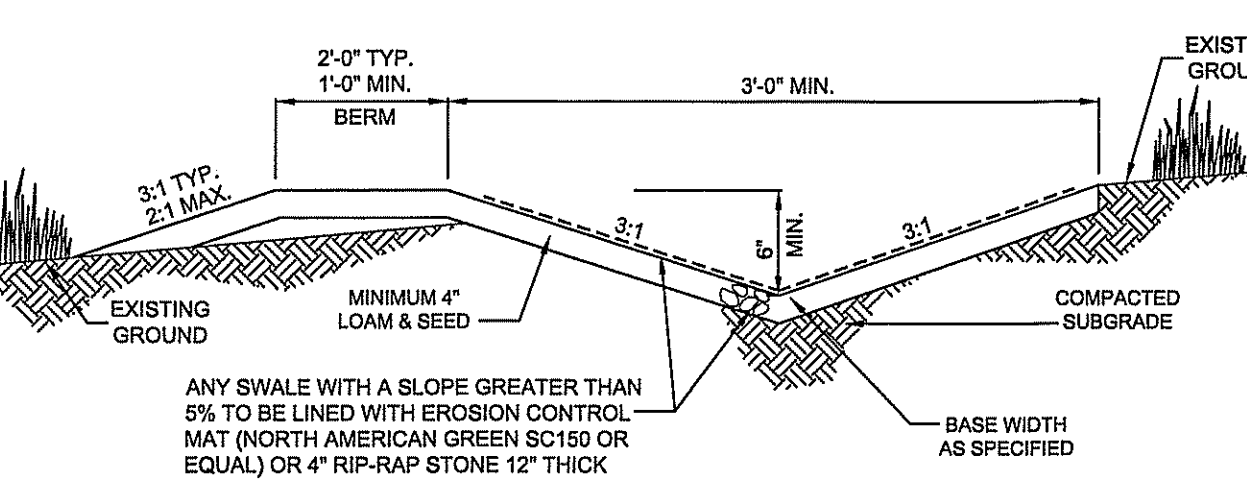
INSIDE DIAMETER	TOTAL WIDTH
12" TO 24"	I.D. + 24"
OVER 24"	2 x I.D.

DRAINAGE TRENCH (TYPICAL) 1 DT-2

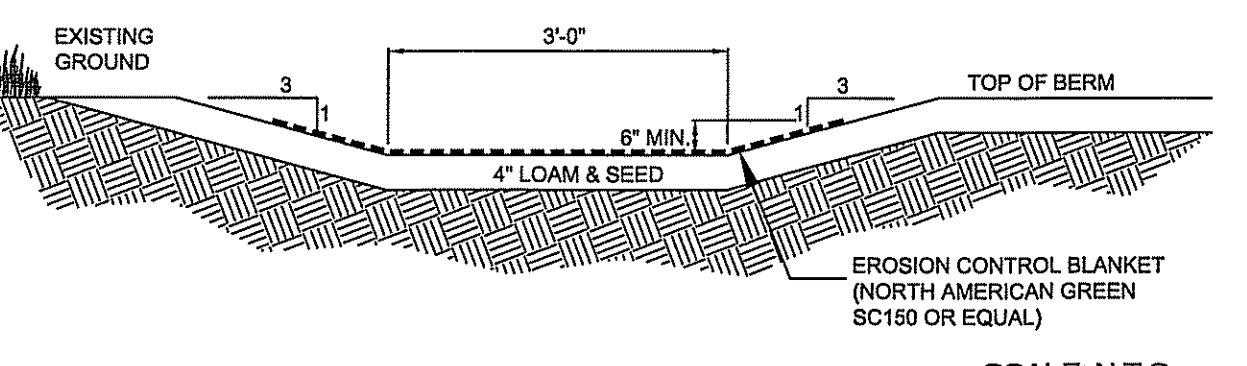


CULVERT DIAM. D	HEADWALL LENGTH L	HEADWALL HEIGHT H	FILL HEIGHT FH	TOP HEIGHT h	HEADWALL BOTTOM WIDTH W
12	4'-3"	3'-9"	1'-1"	1'-3"	1'-11.25"
15	6'-0"	4'-3"	1'-7"	1'-6"	2'-0.75"
18	7'-0"	4'-6"	1'-10"	1'-6"	2'-1.50"
24	9'-0"	5'-0"	2'-4"	1'-6"	2'-3.00"
30	11'-0"	5'-6"	2'-10"	1'-6"	2'-4.50"
36	13'-0"	6'-0"	3'-4"	1'-6"	2'-6.00"
48	17'-9"	7'-3"	4'-7"	1'-9"	2'-9.75"

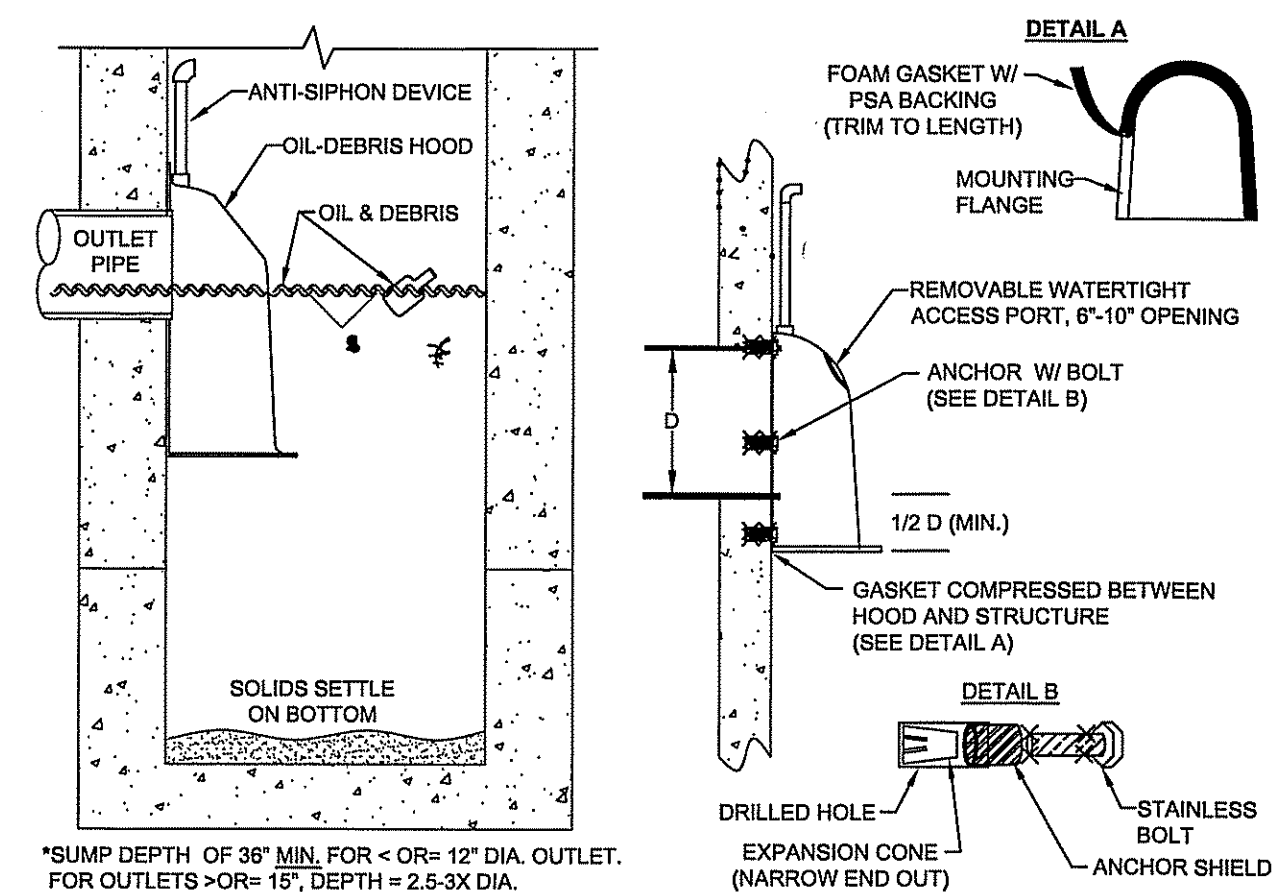
HEADWALL - PRECAST CONCRETE (OR EQUAL) 2 DT-2



TYPICAL SWALE DETAIL 3 DT-2



GRASS SPILLWAY DETAIL 4 DT-2



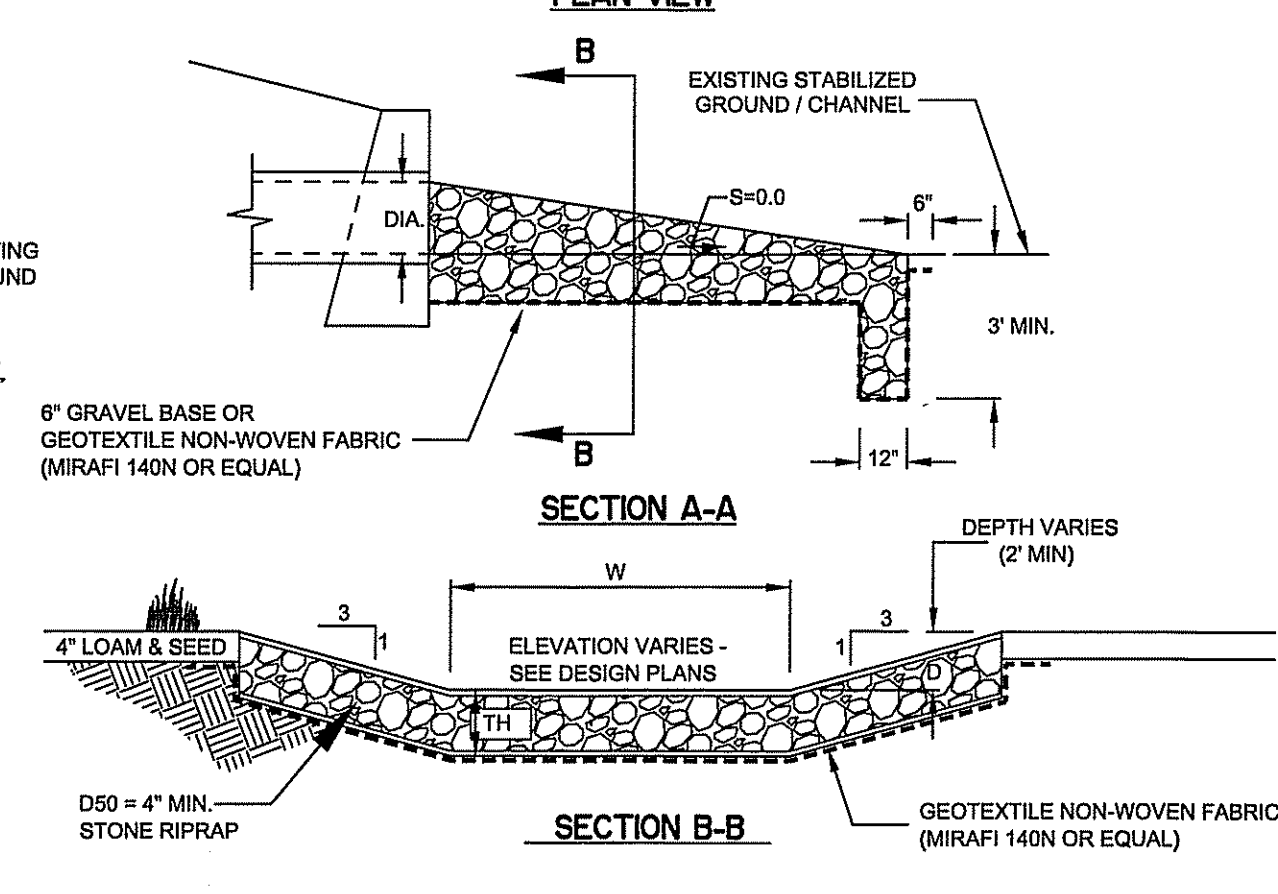
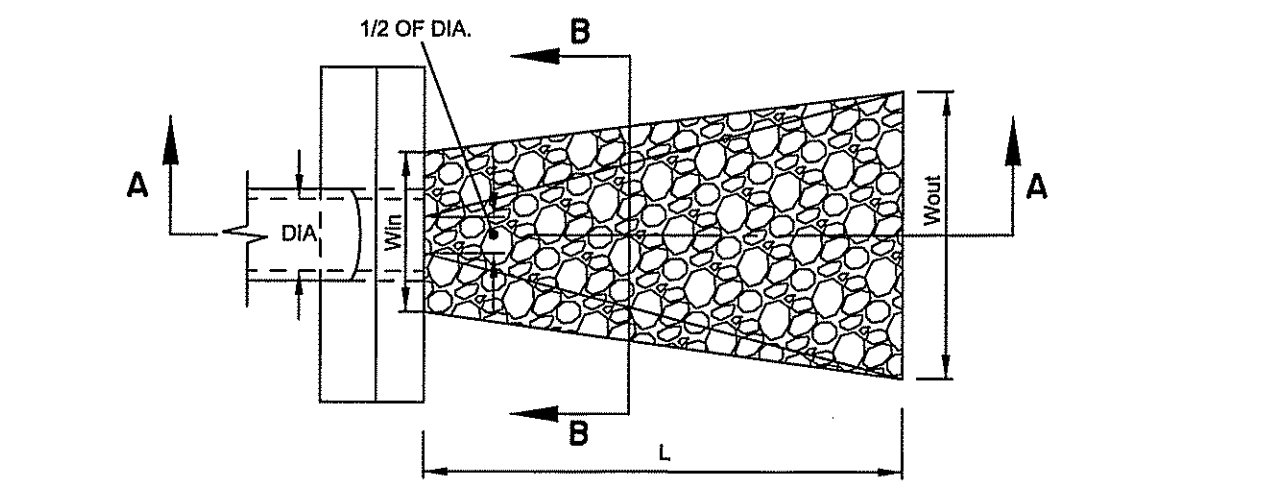
STRUCTURE OUTLET HOLE SIZE
 11.9" O.D. OR LESS
 12.0"-17.9" O.D.
 18.0"-23.9" O.D.
 24.0"-29.9" O.D.
 30.0"-47.9" O.D.
 48.0"-95.9" O.D.

HOOD SIZE
 12 F or R
 18 F or R
 24 F or R
 30 F or R
 48 F
 96 F

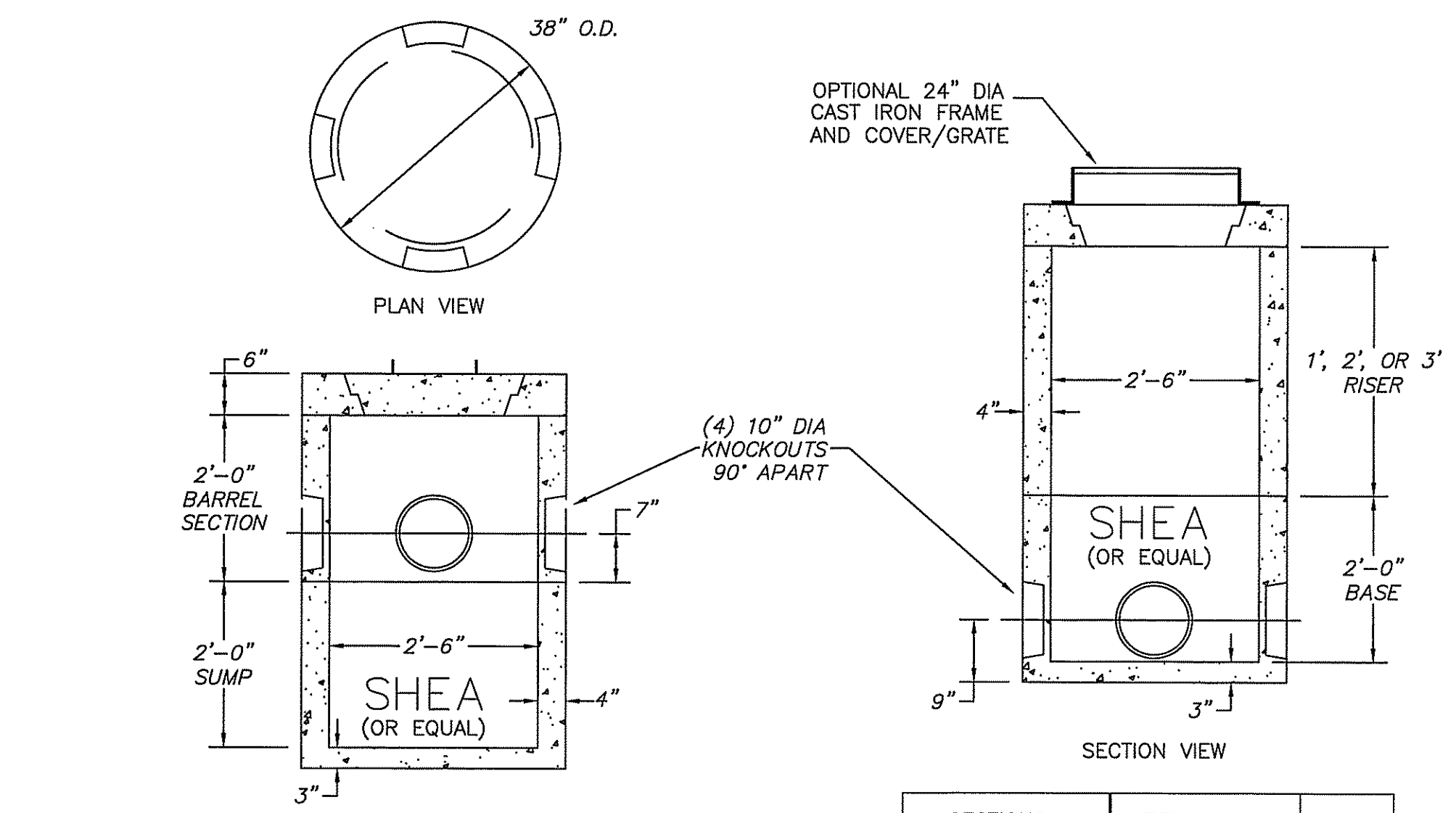
INSTALLATION NOTE:
 POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINIMUM DISTANCE FOR PIPES <12" I.D. IS 6".

- ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
- THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
- THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
- THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
- THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND THE PIPE SHALL BE TRIMMED FLUSH TO WALL.
- THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY BEST MANAGEMENT PRODUCTS, INC., LYME, CT OR EQUAL.

OIL - DEBRIS HOOD (OR APPROVED EQUAL) 5 DT-2

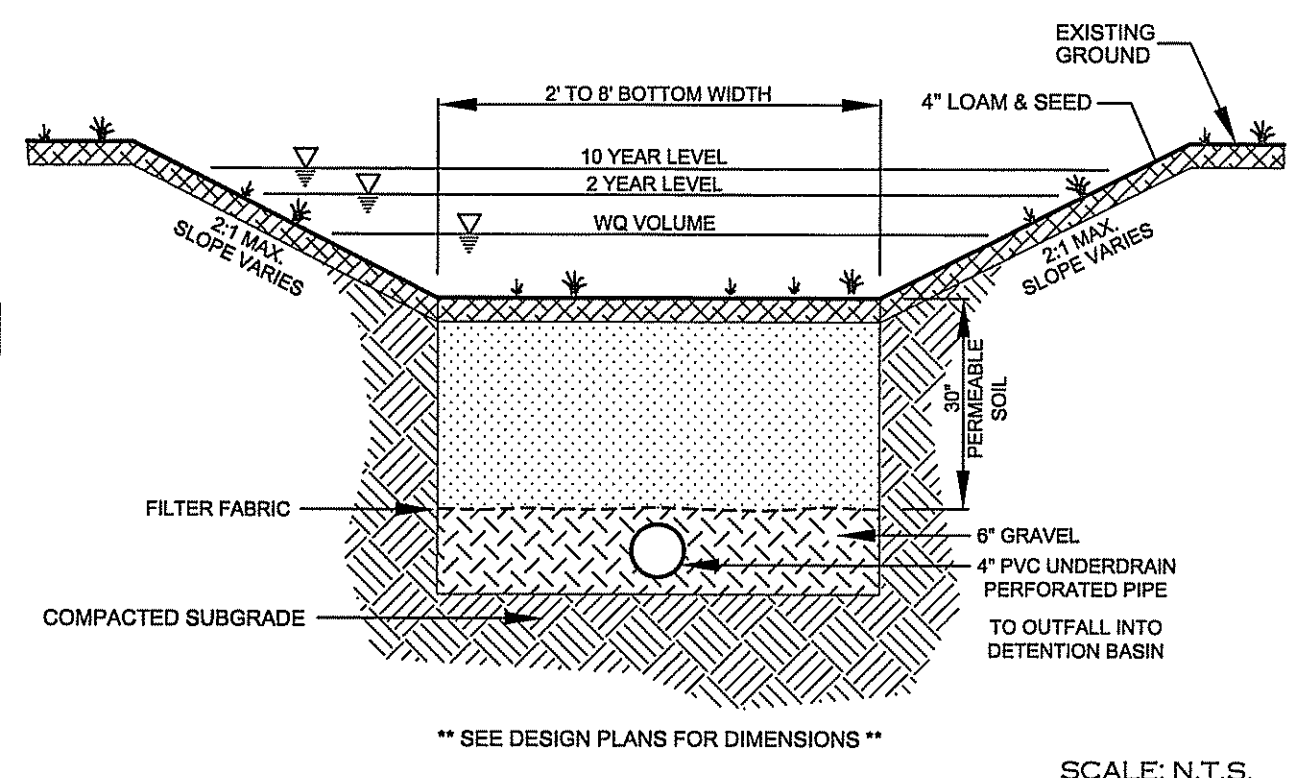


RIP-RAP OUTLET PROTECTION 6 DT-2

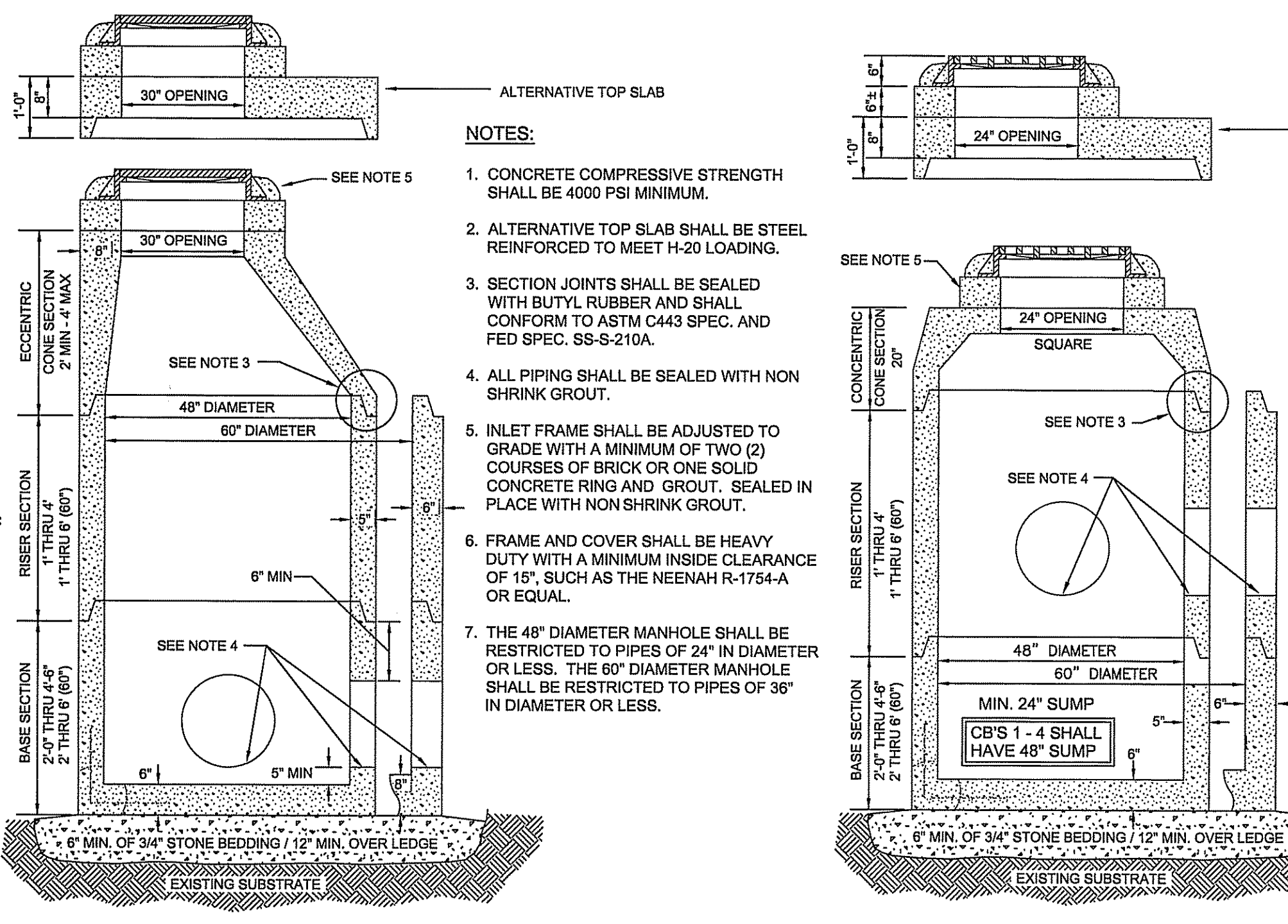


- NOTES:
- CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
 - DESIGNED FOR H-20 LOADING.
 - THIS CATCH BASIN TO BE USED FOR CB'S 8, 9 & 10.
 - INLET GRATE TO BE AS SPECIFIED IN DETAIL 10 BELOW.

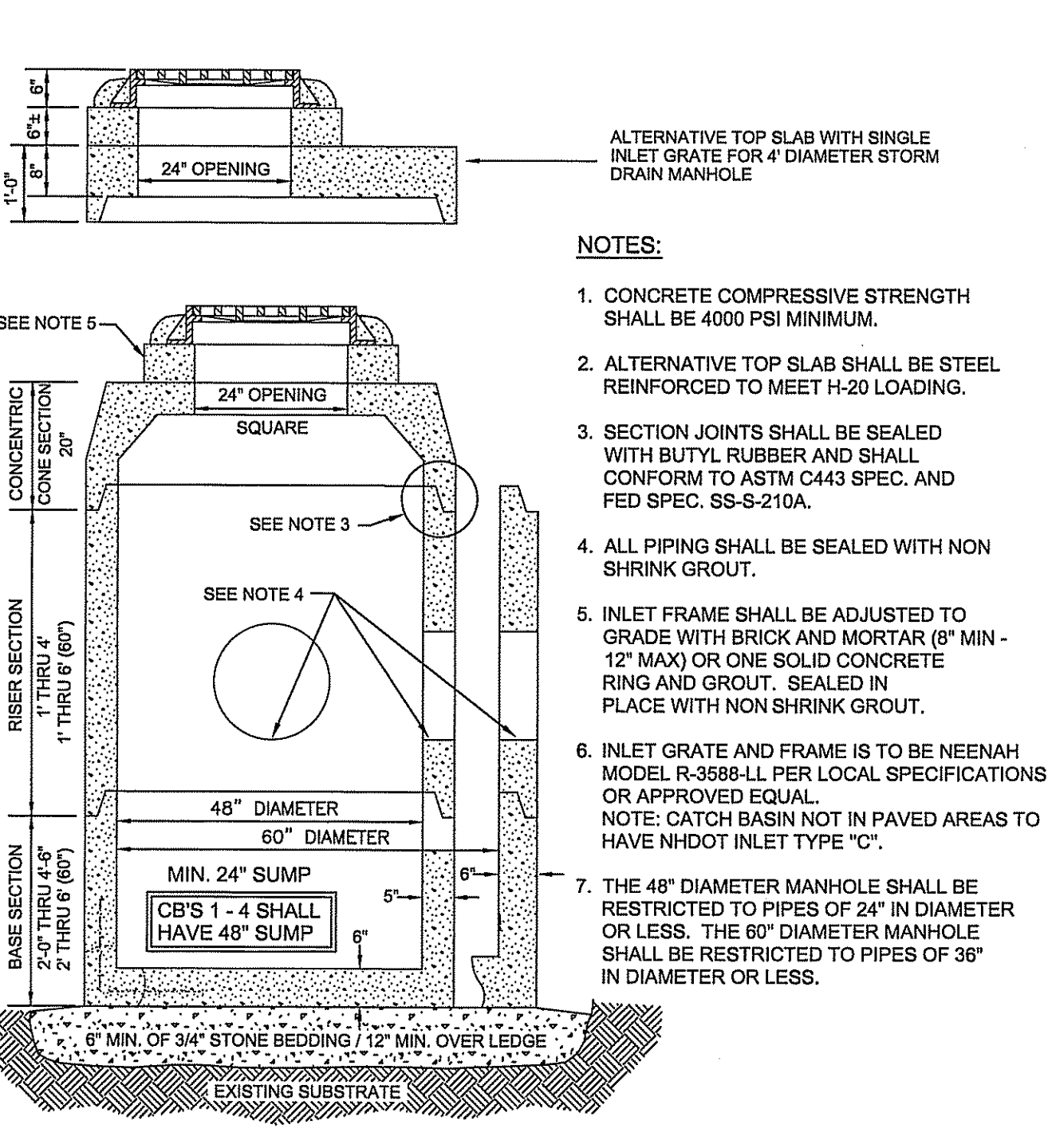
SHEA PRECAST MINI CATCH BASIN (OR EQUAL) 7 DT-2



WATER QUALITY SWALE (DRY SWALE) 8 DT-2



MANHOLE - STORM DRAIN 11 DT-2



CATCH BASIN 10 DT-2

- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF NEWBURYPORT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. FIELDSTONE LAND CONSULTANTS, PLLC, AS THE DESIGN ENGINEER, SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- THE OWNER AND/OR CONTRACTOR SHALL VERIFY ALL ZONING REQUIREMENTS FOR CONFORMANCE PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT "DIGSAFE" 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-800-255-4977 IN NH, 1-888-344-7233 IN MA).
- COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND SPECIAL CONDITIONS OF TOWN/CITY AGENCIES, SUCH AS THE PLANNING BOARD, CONSERVATION COMMISSION, AND OTHERS, IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER.
- ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND FIELDSTONE LAND CONSULTANTS, PLLC PRIOR TO CONSTRUCTION.
- ALL DRAINAGE STRUCTURES SHALL CONFORM TO MASS DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE TOWN DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR INSPECTIONS OF THE CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT INFORMATION OF ALL WORK, ESPECIALLY UNDERGROUND CONSTRUCTION OF UTILITY LINES, SERVICES, CONNECTIONS, ETC. AND APPROPRIATE TIES TO ABOVE GROUND PERMANENT STRUCTURES, FIELD SURVEY COORDINATES, OR SOME OTHER METHOD OF ESTABLISHING THE AS-BUILT CONDITION OF ALL CONSTRUCTION.

GENERAL CONSTRUCTION NOTES

CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION
DIGSAFE.COM
 OR DIAL 8-1-1
 IT'S SMART. IT'S FREE. IT'S THE LAW.

NOTE:
 ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.

REV.	DATE	DESCRIPTION	C/O	DR	CK
C	11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	CEB
B	11/07/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
A	08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB

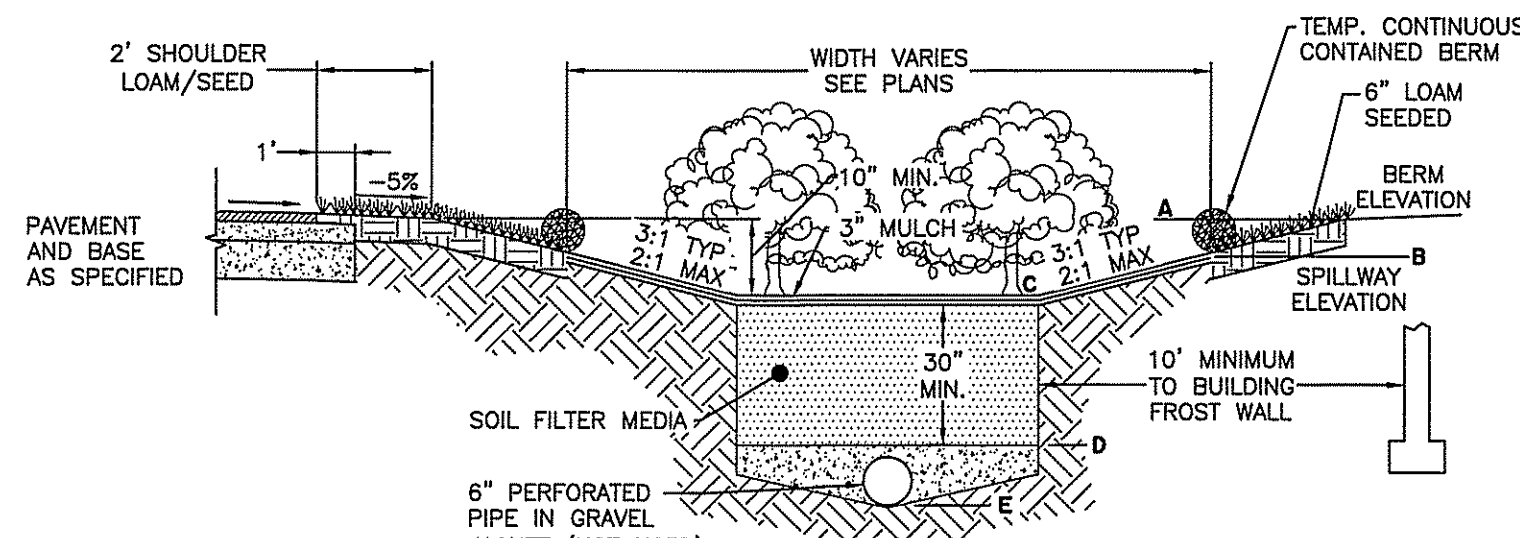
DRAINAGE DETAILS
PARKER HILL
DEFINITIVE SUBDIVISION
 TAX MAP PARCEL 34-8A - 2 PARKER STREET
 NEWBURYPORT, MASSACHUSETTS
 PREPARED FOR AND LAND OF (34-8-A),
PARKER 2 REALTY TRUST
 160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: AS SHOWN AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

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 LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055
 Phone: (603)-413-5456 Fax: (603)-413-5456
 www.FieldstoneandConsultants.com



NOTES:

- DO NOT PLACE RAIN GARDEN SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING DRAINAGE AREA(S) HAVE BEEN FULLY STABILIZED.
- TO PREVENT DEGRADATION OF INFILTRATION FUNCTION:
 - DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
 - DO NOT COMPACT THE EXCAVATION.
 - DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE RAIN GARDEN AREA DURING ANY STAGE OF CONSTRUCTION.

FROM UNHSC BIORETENTION SOIL SPECIFICATION FEBRUARY 2017

2.1 SOIL MEDIA SPECIFIED ACCORDING TO PERFORMANCE REQUIREMENTS
Particle Size Distribution according to ASTM D422 (Standard Test Method for Particle-Size Analysis of Soils).

- Particle Size Distribution by Separates:
 - Exclude any material > 4.76 mm - 0%
 - Very Coarse Sand/Gravel: Gravel (2.0 to 4.76 mm) 5% maximum (percent by dry weight).
 - Sand (0.42 to 2.0 mm) 60 - 85% (percent by dry weight).
 - Silt (0.075 to 0.42 mm) 20% maximum (percent by dry weight).
 - Clay (less than 0.075mm) 5% maximum (percent by dry weight).

Table 1: Acceptable particle size distribution of final bio-retention soil mix

Sieve #	Sieve Size - in (mm)	% Passing
4	0.187 (4.76)	100
10	0.079 (2)	95
40	0.017 (0.42)	40 - 15
200	0.003 (0.075)	10 - 20
<200	Pass	0 - 5

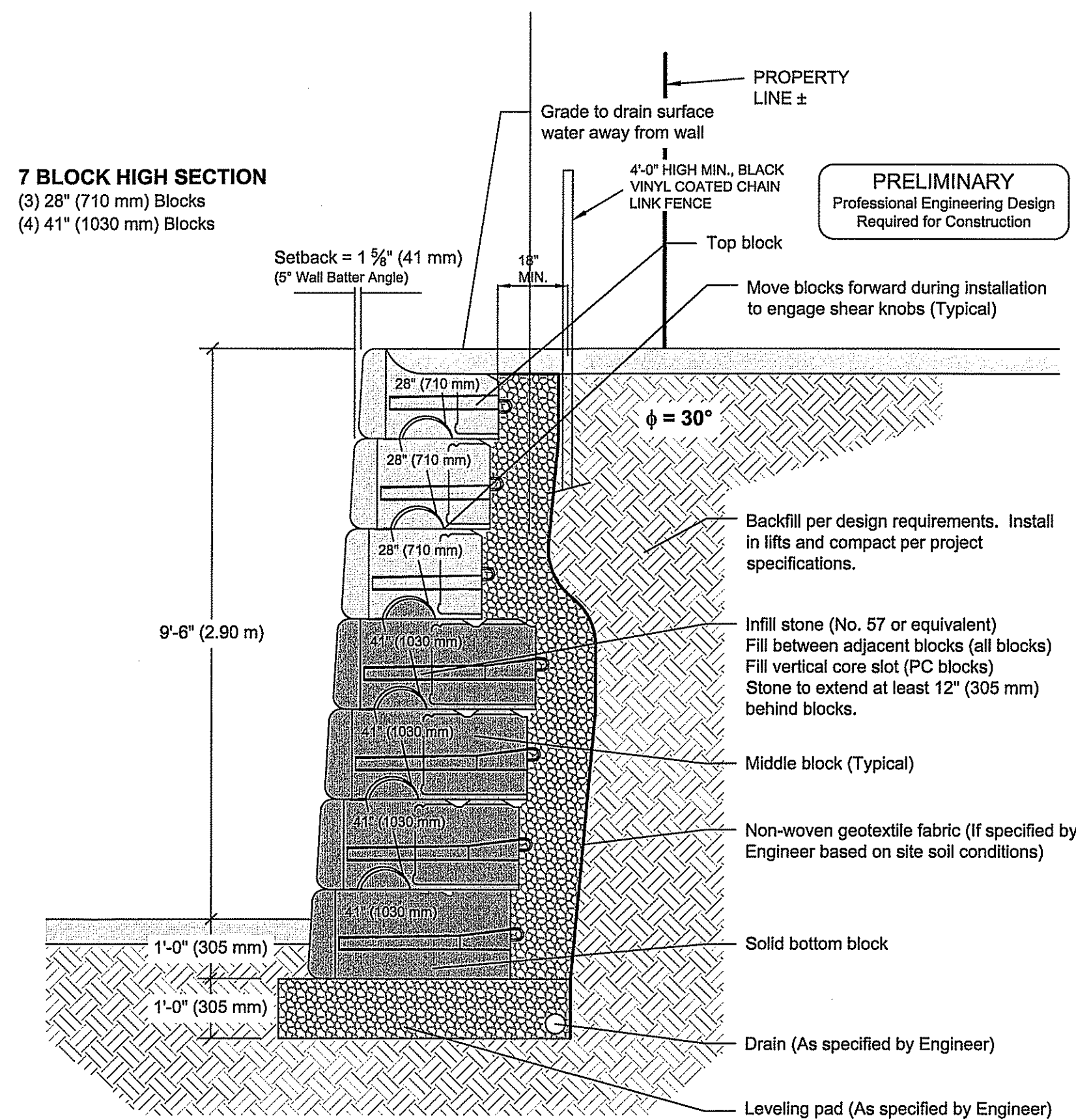
GARDEN #	RAIN GARDEN INVERT INFORMATION				
	A	B	C	D	E
1	33.0	31.7	31.0	28.0	NA
2	30.0	28.8	28.0	25.0	NA

** SEE LANDSCAPE PLAN FOR PLANTINGS

SCALE: N.T.S.

RAIN GARDEN TYPICAL SECTION

1
DT-3



This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site. Final wall design must address both internal and external drainage and all modes of wall stability.

DESIGN BY OTHERS

SCALE: N.T.S.

TYPICAL SECTION SEGMENTAL RETAINING WALL

2
DT-3

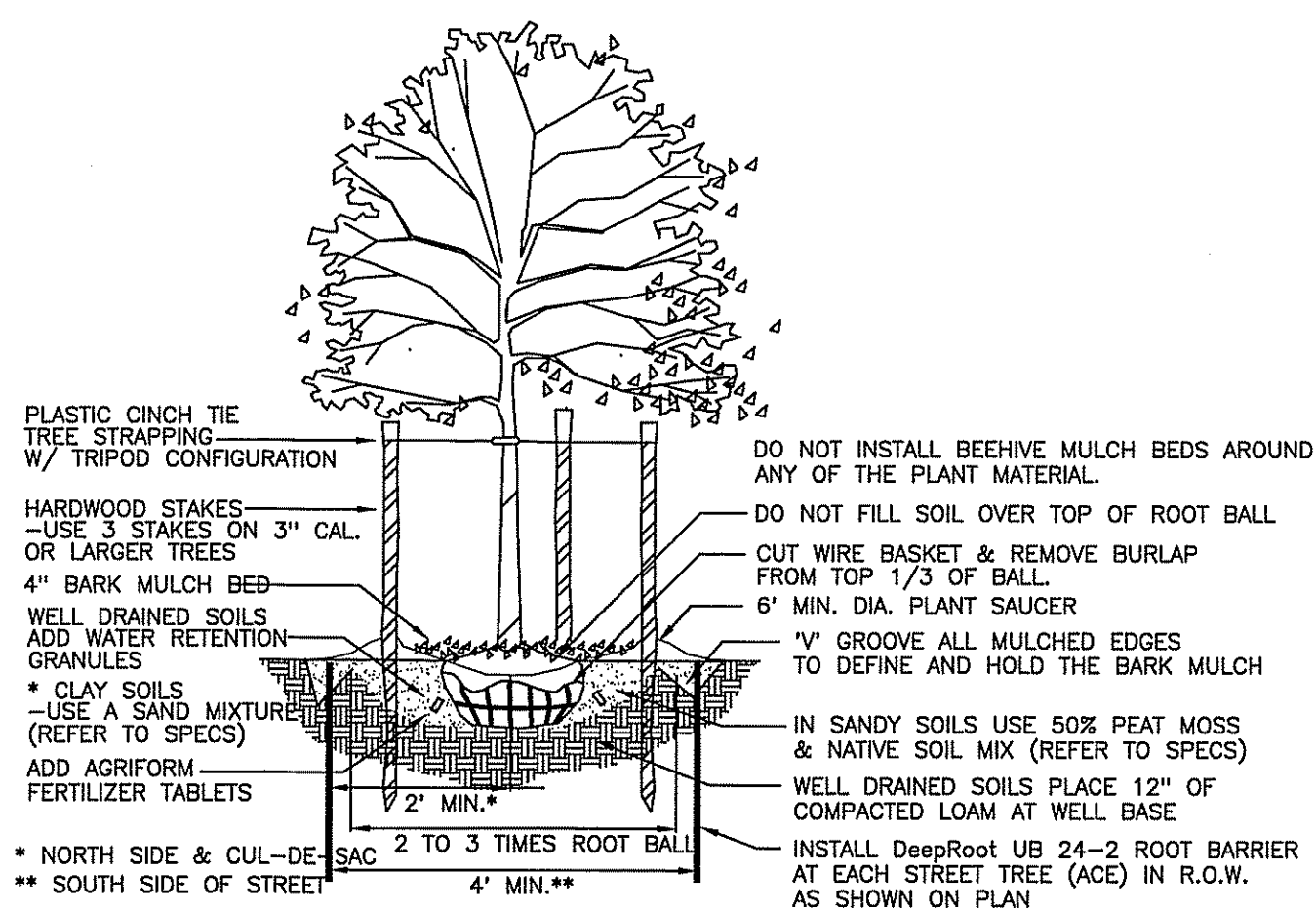
GENERAL SPECIFICATIONS:

- THE CONTRACTOR SHALL AT HIS EXPENSE FURNISH ALL THE MATERIALS, SUPPLIES, MACHINERY, EQUIPMENT, TOOL, SUPERINTENDENT, LABOR, INSURANCE, & OTHER ACCESSORIES AND SERVICES NECESSARY TO COMPLETE THE SAID PROJECT WITHIN THE UNIT COSTS STATED WITHIN THE BID PRICE.
- THE WORK TO BE DONE UNDER THIS CONTRACT IS AS SHOWN AND DESCRIBED ON THE DRAWINGS. EACH BIDDER SHALL MAKE A CAREFUL EXAMINATION OF THE PLANS AND SPECIFICATIONS (THE PLAN SHALL DICTATE QUANTITIES) AND ACCOUNT THEMSELVES WITH ALL CONDITIONS BEFORE MAKING THEIR PROPOSAL. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS IN THEIR PROPOSAL RESULTING FROM HIS FAILURE TO MAKE SUCH AN EXAMINATION. ALL BIDDERS SHALL VISIT THE SITE AND INFORM THEMSELVES OF ALL CONDITIONS.
- THE BIDS SHALL BE BASED ON MATERIALS AND EQUIPMENT COMPLYING WITH THE DRAWINGS AND THE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT PRICE FOR FURNISHING AND INSTALLING MATERIALS CONFORMING TO THE BID ITEMS. UNDER NO CIRCUMSTANCES MAY A SPECIES HYBRID BE SUBSTITUTED OR SIZE CHANGED WITHOUT WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SUCH EXISTING UTILITIES AS WATER MAINS, SEWER SYSTEMS, GAS MAINS, ELECTRICAL CONDUITS, TELEPHONE LINES AND ANY OTHER UTILITIES AND IF ANY DAMAGE OR DESTRUCTION MAY OCCUR TO THESE UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT AT HIS EXPENSE.
- THE CONTRACTOR SHALL MAKE PAYMENT FOR ALL DAMAGES TO BUILDINGS, STRUCTURES, TREES, SHRUBS AND/OR ANY OTHER PROPERTY OUTSIDE THE CONSTRUCTION AREA OR LOCATED WITHIN THOSE LIMITS BUT NOT DESIGNATED FOR REMOVAL OR RECONSTRUCTED PROVIDING SUCH DAMAGE SHALL RESULT FROM ACCIDENT CAUSED BY NEGLIGENCE FOR WHICH THE CONTRACTOR SHALL BE LEGALLY LIABLE.
- IF ADDITIONAL LABOR AND/OR MATERIALS IS REQUESTED OR REQUIRED, THE CONTRACTOR SHALL SUBMIT A PRICE TO THE OWNER. IF THE OWNER APPROVES THE PRICE THE CONTRACTOR SHALL PREPARE A CHANGE ORDER FOR APPROVAL AND SIGNATURE. THE CONTRACTOR SHALL NOT PROCEED WITHOUT A WRITTEN AUTHORIZATION FROM THE OWNER FOR THE ADDITIONAL WORK. IF THE CONTRACTOR PROCEEDS WITH THE ADDITIONAL WORK WITHOUT AUTHORIZATION THEY SHALL FORFEIT ANY CLAIM FOR ADDITIONAL COMPENSATION.
- THE LANDSCAPE ARCHITECT (L.A.) SHALL RESERVE THE RIGHT TO INSPECT THE PROJECT WORK AT ANY TIME DEEMED NECESSARY TO INSURE THAT THE SPECIFICATIONS AND PLANS AND ANY OTHER CONTRACT DOCUMENTS ARE BEING FOLLOWED.
- THE L.A. SHALL HAVE THE RIGHT TO REJECT ANY PLANT ON-SITE BASED UPON CONDITION, SIZE, OR INCORRECT SPECIES OR HYBRID. THE L.A. MUST BE CONTACTED PRIOR TO INSTALL, TO INSPECT MATERIALS DELIVERED TO THE SITE AND TO INSURE THAT SOIL AMENDMENTS, BARK MULCH, ROOF BALLUST, ETC. ARE TO THE WRITTEN SPECIFICATIONS.
- ALL SEEDED AREAS SHALL RECEIVE A MINIMUM 6\"/>

GENERAL PLANTING NOTES

SCALE: N.T.S.

3
DT-3

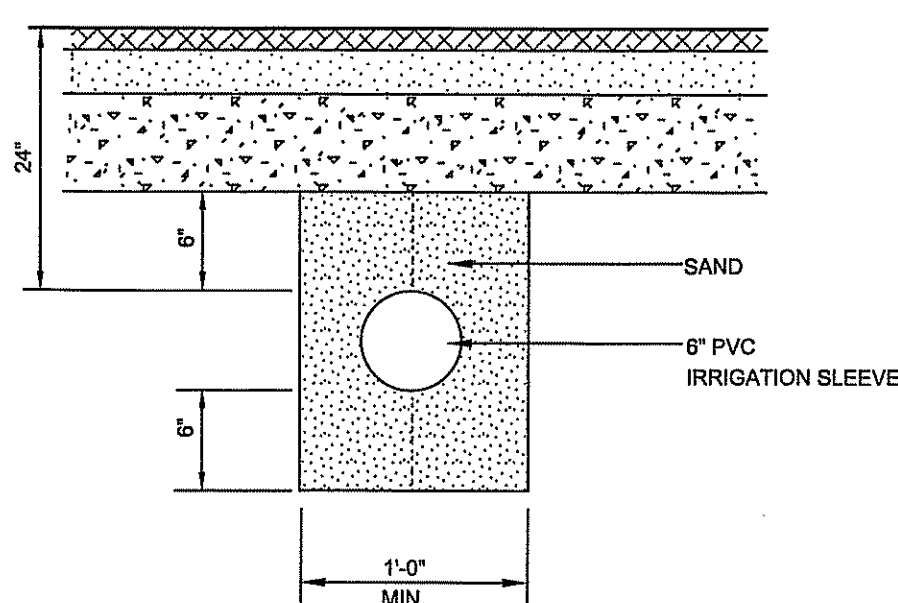


NOTE: ALL PYRAMIDAL EVERGREENS & DECIDUOUS TREES SHALL BE PLANTED W/ ROOTS HORMONE ENHANCER.

SCALE: N.T.S.

DECIDUOUS TREE PLANTING DETAIL

4
DT-3



SCALE: N.T.S.

IRRIGATION SLEEVE

5
DT-3

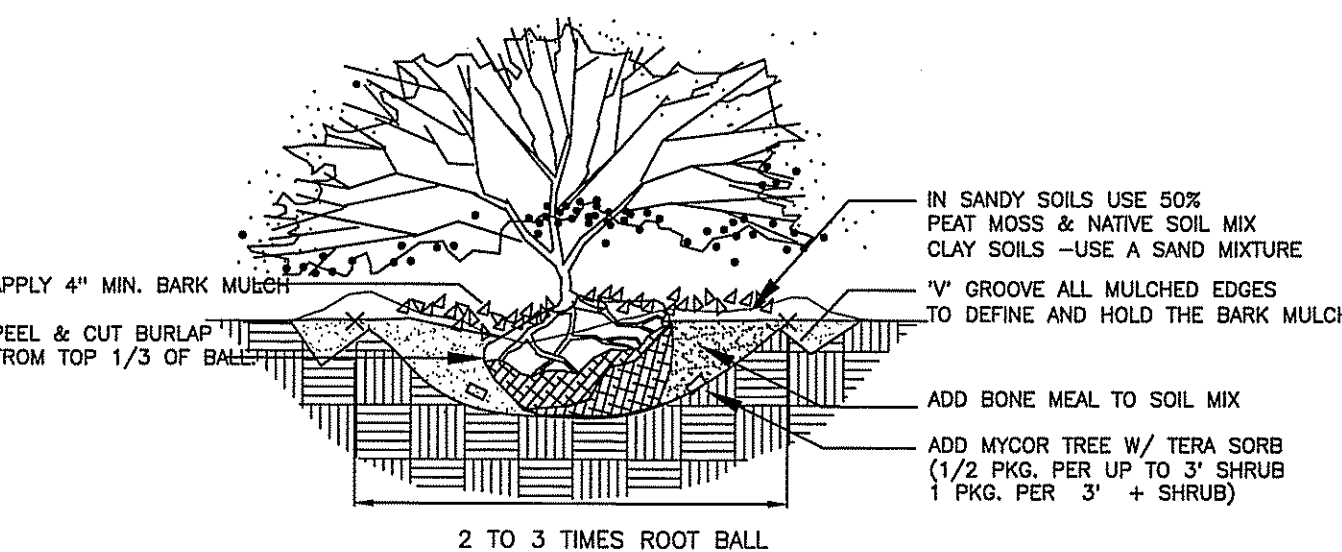
- ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOW A HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTORS EXPENSE WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL. WARRANTY DOES NOT COVER LOSS DUE TO MECHANICAL DAMAGE, I.E. SNOW STORAGE. CONTRACTOR SHOULD PROTECT SUSCEPTIBLE SPECIES FROM INSECT INFESTATION. USE A LIQUID SYSTEMIC APPLICATION ON BIRCH, ETC.
- PLANT BEDS AND SAUCERS VARY IN DIA. (REFER TO DWG). TREES AND SHRUBS SHALL RECEIVE A 4\"/>

NOTE: USE SOIL MIXTURE AS PER SPECS. & EXCAVATE HOLE 8\"/>

SCALE: N.T.S.

B & B SHRUB PLANTING DETAIL

6
DT-3



NOTE: USE SOIL MIXTURE AS PER SPECS. & EXCAVATE HOLE 8\"/>

SCALE: N.T.S.

EVERGREEN TREE PLANTING DETAIL

7
DT-3

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- ALL DRAINAGE STRUCTURES SHALL CONFORM TO MADOT STANDARDS. ALL CONSTRUCTION MATERIALS SHALL CONFORM TO MASS DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
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GENERAL CONSTRUCTION NOTES

NOTE: ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.

REV.	DATE	DESCRIPTION	WEI	NRC	CEB
C	11/17/17	REVISED PER CSI 11/09/17 REVIEW	CSI	NRC	CEB
B	10/20/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
A	06/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB
REV.	DATE	DESCRIPTION	C/O	DR	CK

DRAINAGE & LANDSCAPING DETAILS

**PARKER HILL
DEFINITIVE SUBDIVISION**

TAX MAP PARCEL 34-8A - 2 PARKER STREET

NEWBURYPORT, MASSACHUSETTS

PREPARED FOR AND LAND OF (34-8-A),

PARKER 2 REALTY TRUST

160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: AS SHOWN

AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

FIELDSTONE
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206 Elm Street, Milford, NH 03055
Phone: (603)-413-5456 Fax: (603)-413-5456
www.FieldstoneLandConsultants.com

EROSION CONTROL (GENERAL CONSTRUCTION)

- PRIOR TO STARTING ANY WORK ON THE SITE THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES.
- EROSION CONTROL MEASURES SHALL BE INSTALLED PER PLANS AND DETAILS. PERIMETER CONTROLS SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF EARTH DISTURBING ACTIVITIES.
- EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEN POSSIBLE.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE KEPT CLEAN DURING CONSTRUCTION. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EVERY 0.25-INCH OR GREATER RAINFALL. SEDIMENTS SHALL BE DISPOSED OF IN AN UPLAND AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND BE PERMANENTLY STABILIZED.
- THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION. AT NO TIME SHALL THE TOTAL UNSTABILIZED DISTURBED AREA, INCLUDING LOT DISTURBANCES, BE GREATER THAN FIVE (5) ACRES.
- THE LAND AREA EXPOSED SHALL BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. ALL NON-ACTIVE DISTURBED AREAS SHALL BE STABILIZED WITHIN 30 DAYS OF THE DISTURBANCE. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF FINAL GRADING.
- DITCHES, SWALES AND DRAINAGE BASINS SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- AN AREA SHALL BE CONSIDERED STABILIZED IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES THAT ARE STEEPER THAN 3:1 (HORIZONTAL/VERTICAL), UNLESS OTHERWISE SPECIFIED THE CONTRACTOR SHALL USE NORTH AMERICAN GREEN SCL160, OR APPROVED EQUAL.
- ALL AREAS RECEIVING EROSION CONTROL STONE OR RIPRAP SHALL HAVE A GEOTEXTILE MATERIAL INSTALLED BELOW THE STONE (SEE APPROPRIATE DETAILS).
- ALL DISTURBED AREAS TO TURF FINISHED SHALL BE COVERED WITH A MINIMUM THICKNESS OF 4 INCHES OF COMPACTED LOAM. LOAM SHALL BE COVERED WITH THE APPROPRIATE SEED MIXTURE AS INDICATED BELOW.

PERMANENT SEED (LAWN AREAS) POUNDS 1,000 SQUARE FEET

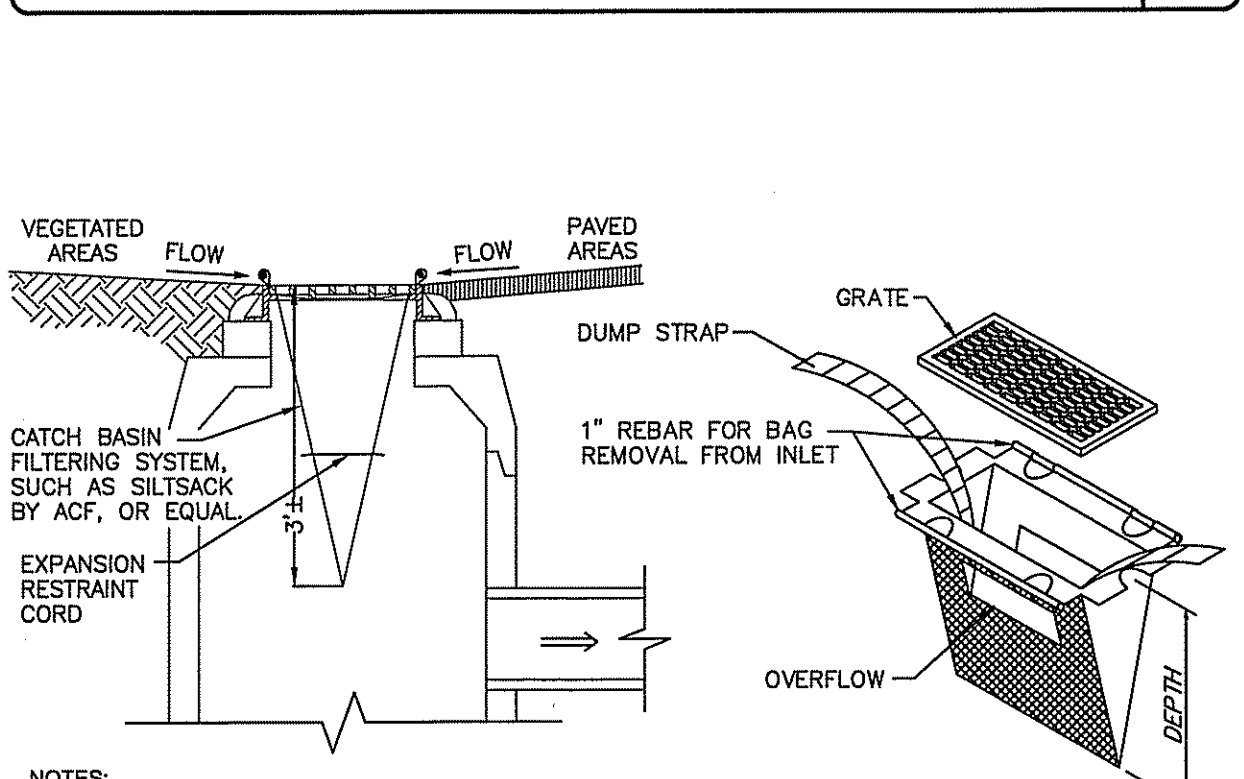
CREeping RED FESCUE	0.92 LBS
PERENNIAL RYEGRASS	1.15 LBS
KENTUCKY BLUEGRASS	0.58 LBS
REDTOP	0.12 LBS
APPLICATION RATE TOTALS 2.8 LBS PER 1,000 SF	

- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE (CRITICAL TIME FRAMES OR VARIABLE SITES) THEN APPLY FERTILIZER AT A RATE OF 11 POUNDS PER 1,000 SF AND LIMESTONE AT A RATE OF 90 POUNDS PER 1,000 SF. FERTILIZER SHALL BE LOW PHOSPHATE (LESS THAN 2% PHOSPHORUS).
- CAUTION SHOULD BE TAKEN WHEN THE PROPERTY IS LOCATED WITHIN 250 FEET OF A WATER BODY. IN THIS CASE ALL FERTILIZERS SHALL BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER. SLOW RELEASE FERTILIZERS MUST BE AT LEAST 50% SLOW RELEASE NITROGEN COMPONENT. NO FERTILIZER EXCEPT LIMESTONE SHALL BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER. THESE ARE REGULATED LIMITATIONS.
- PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS (SEE WINTER CONSTRUCTION NOTES). NO DISTURBED AREAS SHALL BE LEFT EXPOSED DURING THE WINTER MONTHS.
- A VIGOROUS DUST CONTROL PROGRAM SHALL BE APPLIED BY THE SITE CONTRACTOR. DUST SHALL BE MANAGED THROUGH THE USE OF WATER AND/OR CALCIUM CHLORIDE.
- IN NO WAY ARE THE MEASURES INDICATED ON THE PLANS OR IN THESE NOTES TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT TO INSTALL ADDITIONAL EROSION CONTROL MEASURES AS SITE CONDITIONS, WEATHER OR CONSTRUCTION METHODS WARRANT.
- FOLLOWING PERMANENT STABILIZATION, TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND ACCUMULATED SEDIMENTATION IS TO BE DISPOSED OF IN AN APPROVED LOCATION, OUTSIDE OF JURISDICTIONAL WETLANDS.

EROSION CONTROL (WINTER CONSTRUCTION)

- ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED. STABILIZATION METHODS SHALL INCLUDE SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, E.T.S. EROSION CONTROL BLANKETS COVERED WITH HAY. OTHER STABILIZATION OPTIONS ARE TO BE APPROVED BY THE APPROPRIATE AGENCIES AND THE DESIGN ENGINEER. IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER MONTHS THEN THE ROAD SHOULD BE CLEARED OF ACCUMULATED SNOW AFTER EACH STORM EVENT.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL OR PROPERLY INSTALLED EROSION CONTROL BLANKETS COVERED WITH HAY. OTHER STABILIZATION OPTIONS ARE TO BE APPROVED BY THE APPROPRIATE AGENCIES AND THE DESIGN ENGINEER. IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER MONTHS THEN THE ROAD SHOULD BE CLEARED OF ACCUMULATED SNOW AFTER EACH STORM EVENT.

EROSION CONTROL NOTES 1 DT-4



- NOTES:
- INSTALL AND MAINTAIN SACKS IN ALL CATCH BASINS.
 - TO INSTALL SACK, REMOVE CATCH BASIN GRATE AND PLACE SACK IN OPENING. HOLD OUT APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME FOR THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE SACK IN PLACE.
 - THE SACK SHOULD BE INSPECTED AFTER EVERY STORM, OR ONCE EVERY TWO WEEKS, WHICH EVER OCCURS FIRST.
 - THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF THE CORD IS COVERED WITH SEDIMENT, THE SACK SHOULD BE EMPTIED, EMPTY THE SACK AWAY FROM THE CATCH BASIN TO PREVENT SEDIMENT FROM RE-ENTERING THE CATCH BASIN. EMPTY THE SACK PER THE MANUFACTURER'S RECOMMENDATIONS.
 - REPLACE THE SACK IN THE CATCH BASIN AFTER THE SACK HAS BEEN EMPTIED. ONCE CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED BY PAYING OR A HEALTHY VEGETATIVE COVER, REMOVE THE SACK FROM THE CATCH BASIN.

SILT SACK SEDIMENT FILTER 2 DT-4

THE FOLLOWING PROVIDES AN ITEMIZATION OF SPECIFIC SITE MAINTENANCE PRACTICES THAT WILL BE EMPLOYED ON THE SITE TO MINIMIZE POLLUTANT GENERATION AND TRANSPORT FROM THE SITE. THE SITE MAINTENANCE PROGRAM INCLUDES ROUTINE INSPECTIONS, PREVENTATIVE MAINTENANCE AND "GOOD HOUSEKEEPING" PRACTICES.

ROUTINE INSPECTIONS

- THE CONTRACTOR SHALL INSPECT ALL CONTROL MEASURES AT LEAST ONCE A WEEK AND WITHIN TWELVE (12) HOURS OF THE END OF A STORM WITH RAINFALL AMOUNT GREATER THAN 0.5 INCHES. THE INSPECTIONS WILL VERIFY THAT THE STRUCTURAL SIPS DESCRIBED IN THE PLANS ARE IN GOOD CONDITION AND ARE MINIMIZING EROSION. A MAINTENANCE INSPECTION REPORT WILL BE MADE WITH EACH INSPECTION. COMPLETED INSPECTION FORMS SHALL BE KEPT ON-SITE FOR THE DURATION OF THE PROJECT. FOLLOWING CONSTRUCTION, THE COMPLETED FORMS SHALL BE RETAINED AT THE CONTRACTOR'S OFFICE FOR A MINIMUM OF ONE YEAR.

PREVENTATIVE MAINTENANCE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL TEMPORARY AND PERMANENT CONTROLS THROUGHOUT THE DURATION OF THIS CONTRACT. MAINTENANCE PRACTICES SHALL INCLUDE BUT ARE NOT LIMITED TO:

- CLEANING OF CATCH BASINS TWICE A YEAR OR MORE FREQUENTLY AS DICTATED BY QUARTERLY INSPECTIONS.
- CLEANING OF SEDIMENT AND DEBRIS FROM STORMWATER MANAGEMENT AREA FOREBAY TWICE A YEAR OR MORE FREQUENTLY AS DICTATED BY MONTHLY INSPECTIONS.
- IMPLEMENTATION OF OTHER MAINTENANCE OR REPAIR ACTIVITIES AS DEEMED NECESSARY BASED ON WEEKLY INSPECTIONS.
- REMOVAL OF BUILT UP SEDIMENT ALONG SILT FENCES, WATTLES AND/OR HAY BALE BARRIERS.
- REMOVAL OF BUILT UP SEDIMENT IN BOTH TEMPORARY AND PERMANENT CONTROLS SUCH AS GRASS SWALES, SEDIMENT FOREBAYS AND RECHARGE / DETENTION BASINS.
- RECONSTRUCTING THE STABILIZED CONSTRUCTION ENTRANCE IF NOT WORKING PROPERLY.
- TREATMENT OF NON-STORM WATER DISCHARGES SUCH AS WATER FROM WATER LINE FLUSHINGS OR GROUNDWATER FROM DEWATERING EXCAVATIONS. SUCH FLOWS SHOULD BE DIRECTED TO A TEMPORARY SEDIMENTATION BASIN OR STORM WATER MANAGEMENT AREA.

GOOD HOUSEKEEPING PRACTICES

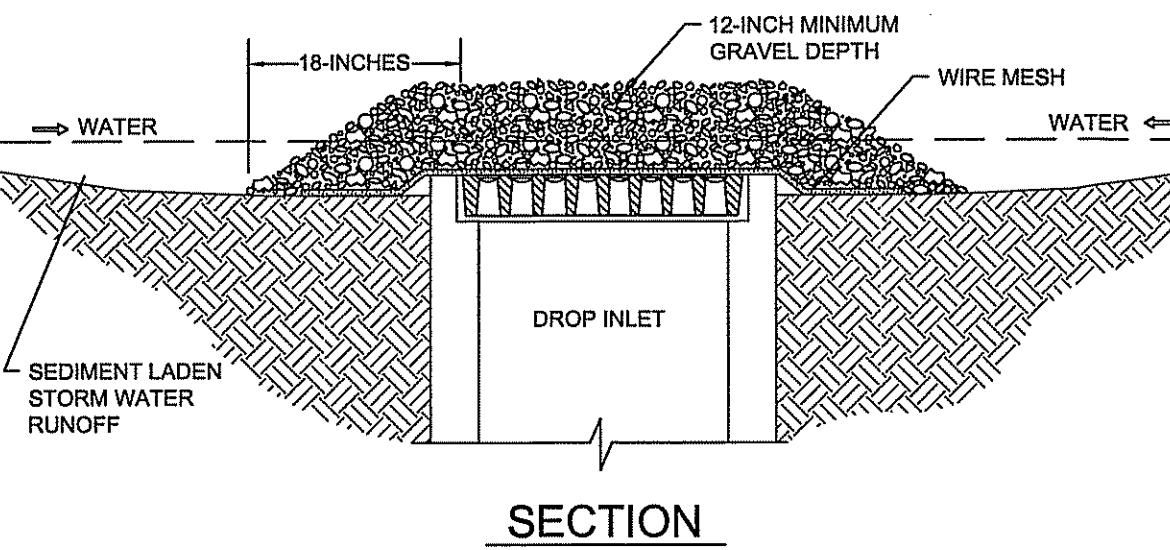
THE CONTRACTOR SHALL EMPLOY MEASURES AND PRACTICES TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS TO STORM AND WATER RUNOFF. THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO THE HANDLING, USE AND DISPOSAL OF MATERIALS SUCH AS PETROLEUM PRODUCTS, FERTILIZERS AND PAINTS TO ENSURE THAT THE RISK ASSOCIATED WITH THESE PRODUCTS IS MINIMIZED. THE FOLLOWING "GOOD HOUSEKEEPING" PRACTICES SHALL BE FOLLOWED DURING THE CONSTRUCTION OF THE PROJECT:

- AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT TO DO THE JOB.
- ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS, AND IS POSSIBLE UNDER A ROOF OR ENCLOSURE.
- PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THEIR MANUFACTURER'S LABELS.
- WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
- THE CONTRACTOR SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.

SPILL PREVENTION AND PRACTICES

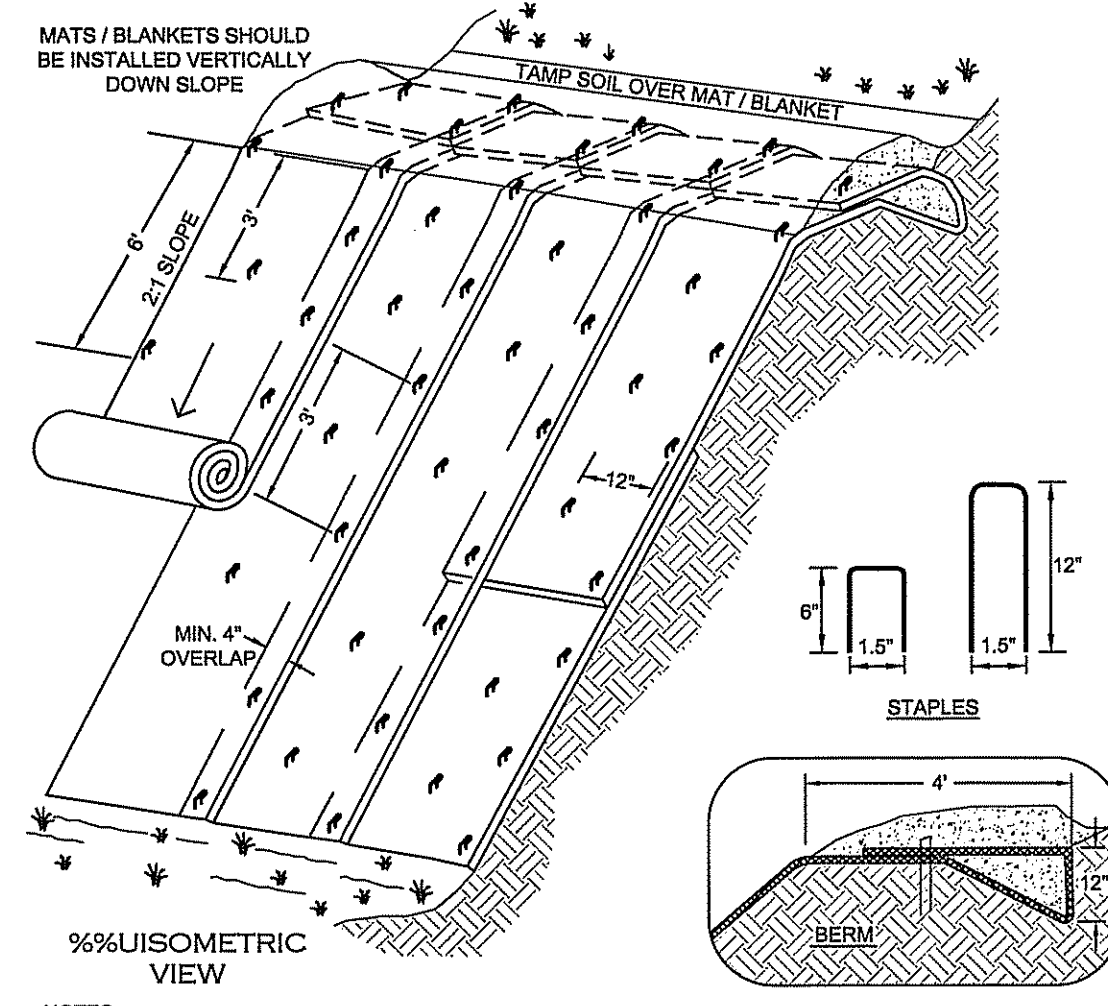
- MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. MATERIALS AND EQUIPMENT WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

SITE MAINTENANCE AND INSPECTION PROGRAM 3 DT-4



- NOTE:
- DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS (LESS THAN 5%).
 - THIS TYPE OF BARRIER HAS NO OVERFLOW PROVISION, WILL RESULT IN PONDING IF THE SEDIMENT IS NOT REMOVED REGULARLY AND SHOULD THEREFORE NOT BE USED WHEN OVERFLOW MAY ENDANGER DOWN SLOPE AREAS.
 - THE WIRE MESH SHOULD BE PLACED OVER THE DROP INLET SO THAT THE ENTIRE OPENING AND A MINIMUM OF 12-INCHES AROUND THE OPENING ARE COVERED BY THE MESH.
 - THE WIRE MESH SHOULD BE HARDWARE CLOTH OR WIRE WITH OPENINGS UP TO ONE HALF INCH.
 - THE GRAVEL FILTER SHOULD BE CLEAN COARSE AGGREGATE.
 - THE GRAVEL SHOULD EXTEND AT LEAST 18-INCHES ON ALL SIDES OF THE DRAIN OPENING AND SHALL BE AT LEAST 12-INCHES IN DEPTH.
 - IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE STRUCTURE, CLEANED AND REPLACED.

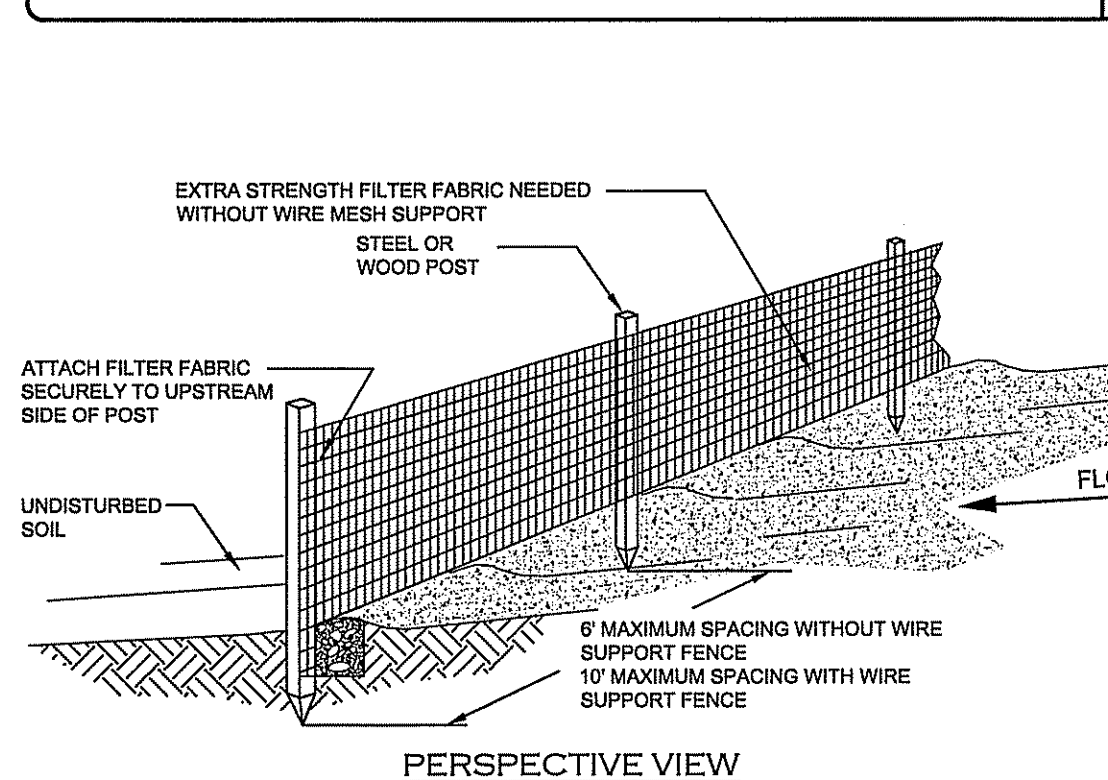
GRAVEL & WIRE MESH SEDIMENT BARRIER 4 DT-4



NOTES:

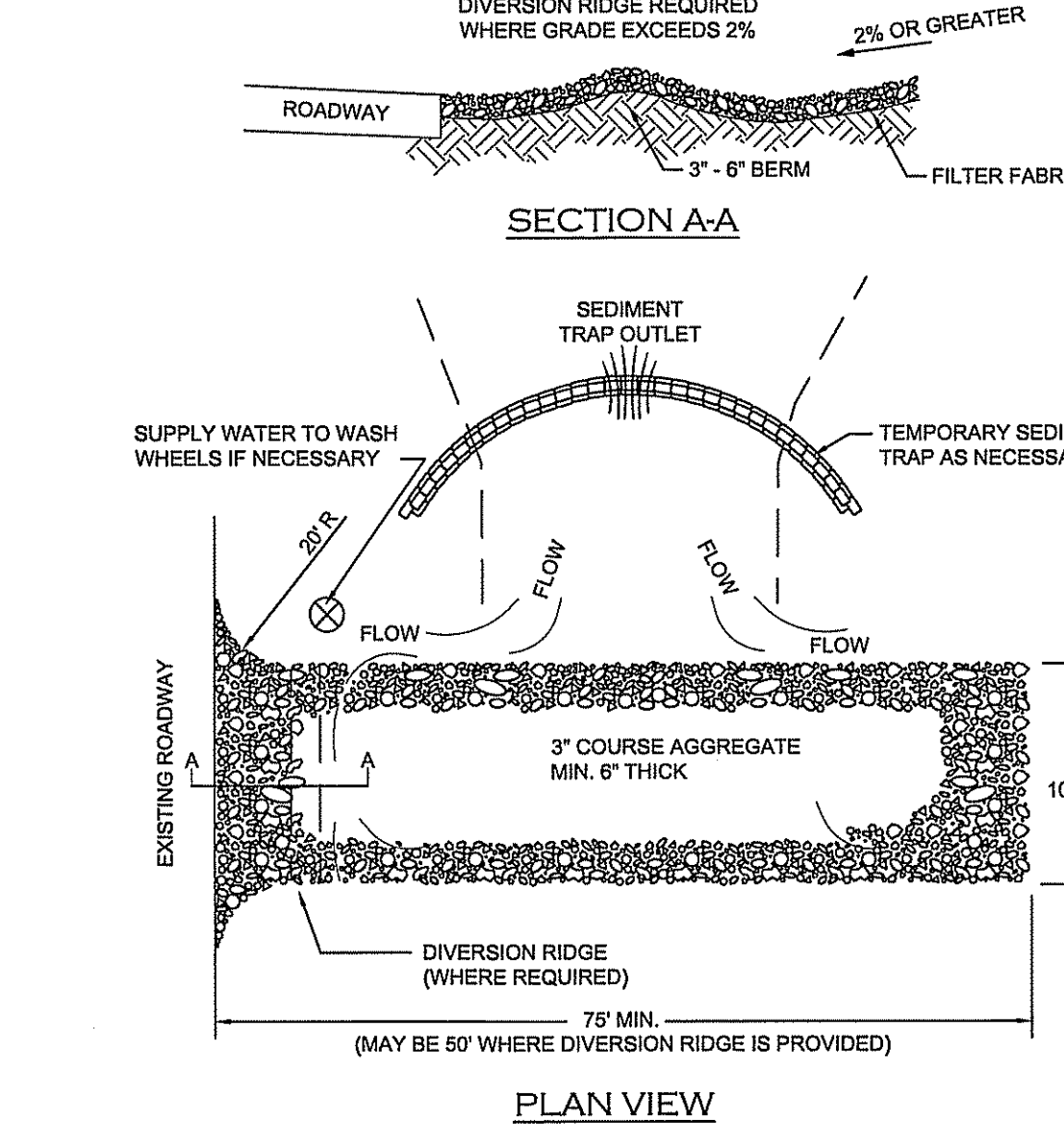
- DIMENSIONS GIVEN IN THIS DETAIL ARE EXAMPLES. DEVICE SHOULD BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- INSTALL STRAWCOCONUT FIBER EROSION CONTROL MAT SUCH AS NORTH AMERICAN GREEN SCL160 OR EQUAL ON ALL SLOPES EXCEEDING 3' HORIZ : 1' VERT.
- THE EROSION CONTROL MATERIAL(S) SHALL BE ANCHORED WITH "U" SHAPED 11 GAUGE WIRE STAPLES OR WOODEN STAKES WITH A MINIMUM TOP WIDTH OF 1 INCH AND LENGTH OF 6 INCH.
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS / BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- APPLY LIME, FERTILIZER AND PERMANENT SEEDING BEFORE PLACING BLANKETS.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET AS SHOWN. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES OR STAKES IN APPROPRIATE LOCATIONS. REFER TO MANUFACTURER'S STAPLE GUIDE FOR CORRECT STAPLE PATTERN.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
- IN LOOSE SOIL CONDITIONS THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 6 INCHES MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- THE CONTRACTOR SHALL MAINTAIN THE BLANKET UNTIL ALL WORK ON THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE SHALL CONSIST OF THE REPAIR OF AREAS WHERE DAMAGED BY ANY CAUSE. ALL DAMAGED AREAS SHALL BE REPAIRED TO REESTABLISH THE CONDITIONS AND GRADE OF THE SOIL PRIOR TO APPLICATION OF THE COVERING AND SHALL BE RESEEDING, RESEEDING AND REMULCHED AS DIRECTED.

EROSION BLANKETS - SLOPE INSTALLATION 5 DT-4

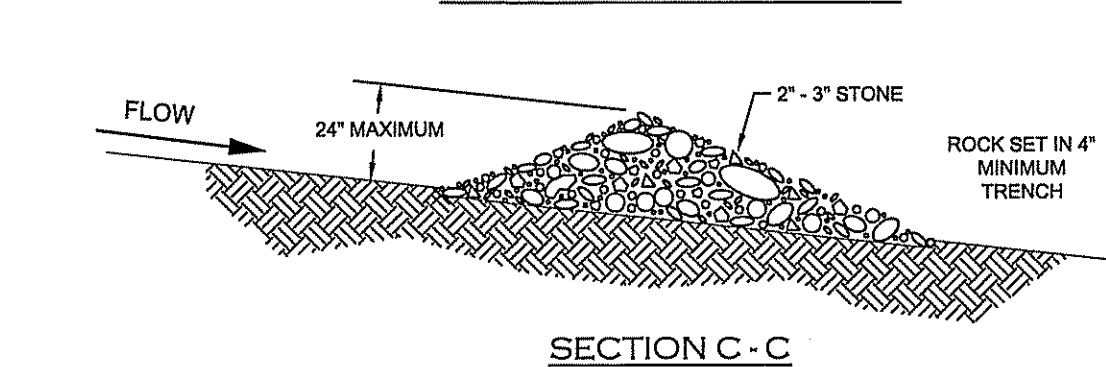
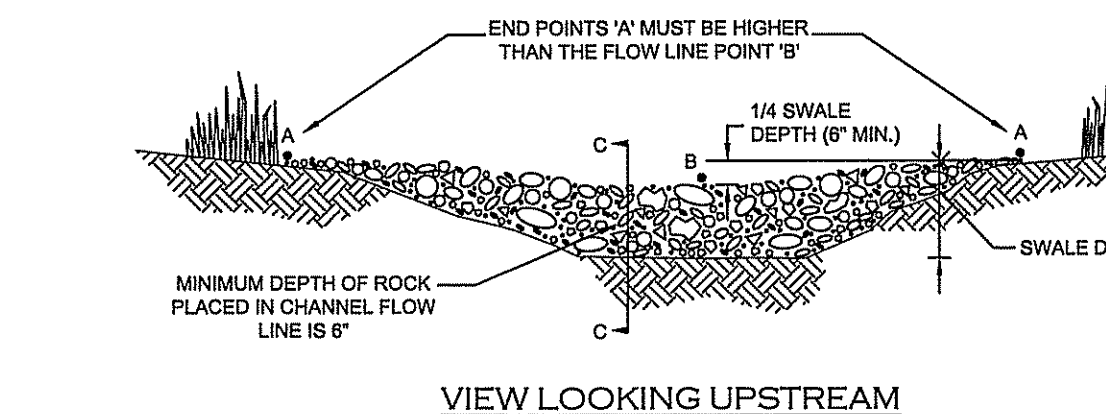


- NOTES:
- SILT FENCES SHOULD NOT BE USED ACROSS STREAMS, CHANNELS, SWALES, DITCHES OR OTHER DRAINAGE WAYS.
 - SILT FENCE SHOULD BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE AND THE ENDS OF THE SILT FENCE SHOULD BE FLARED UPSLOPE.
 - IF THE SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE OR THE PRESENCE OF HEAVY ROOTS THE BASE OF THE FABRIC SHOULD BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH STONE.
 - SILT FENCES PLACED AT THE TOE OF SLOPES SHOULD BE INSTALLED AT LEAST 6 FEET FROM THE TOE TO ALLOW SPACE FOR SHALLOW PONDING AND ACCESS FOR MAINTENANCE.
 - THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1 AND THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHOULD BE 100 FEET.
 - REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 - SILT FENCES SHOULD BE REMOVED WHEN THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILT FENCE 6 DT-4



GRAVEL CONSTRUCTION EXIT



PROFILE - CHECK DAM SPACING

- NOTES:
- STONE CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
 - THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE CHECK DAM SHOULD BE LESS THAN ONE ACRE.
 - STONE CHECK DAMS SHOULD NOT BE USED IN A FLOWING STREAM.
 - STONE CHECK DAMS SHOULD BE CONSTRUCTED OF WELL-GRADED ANGULAR 2 TO 3 INCH STONE. THE INSTALLATION OF 3/4-INCH STONE ON THE UPSLOPE FACE IS RECOMMENDED FOR BETTER FILTERING.
 - WHEN INSTALLING STONE CHECK DAMS THE CONTRACTOR SHALL KEY THE STONE INTO THE CHANNEL BANKS AND EXTEND THE STONE BEYOND THE ABUTMENTS A MINIMUM OF 18-INCHES TO PREVENT FLOW AROUND THE DAM.
 - STONE CHECK DAMS SHOULD BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED UNLESS OTHERWISE SPECIFIED.

STONE CHECK DAM 8 DT-4

NOTES:

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE.
- THE MINIMUM LENGTH OF THE PAD SHOULD BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AND THE ENTRANCE OF THE PROJECT SITE.
- THE PAD SHOULD EXTEND THE FULL WIDTH OF THE CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
- THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY.
- THE PAD SHOULD BE AT LEAST 6-INCHES THICK.
- THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
- THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
- NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- ROCK BAGS OR SANDBAGS SHALL BE PLACED SUCH THAT NO GAPS ARE EVIDENT. SEE NOTES ERO-03.

- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF NEWBURYPORT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. FIELDSTONE LAND CONSULTANTS, PLLC, AS THE DESIGN ENGINEER, SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- THE OWNER AND/OR CONTRACTOR SHALL VERIFY ALL ZONING REQUIREMENTS FOR CONFORMANCE PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT "DIGSAFE" 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-800-255-4877 IN NH, 1-888-344-7233 IN MA).
- COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND SPECIAL CONDITIONS OF TOWN/CITY AGENCIES, SUCH AS THE PLANNING BOARD, CONSERVATION COMMISSION, AND OTHERS, IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER.
- ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND FIELDSTONE LAND CONSULTANTS, PLLC PRIOR TO CONSTRUCTION.
- ALL DRAINAGE STRUCTURES SHALL CONFORM TO MAOTD STANDARDS. ALL CONSTRUCTION MATERIALS SHALL CONFORM TO MASS DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE TOWN DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR INSPECTIONS OF THE CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT INFORMATION OF ALL WORK, ESPECIALLY UNDERGROUND CONSTRUCTION OF UTILITY LINES, SERVICES, CONNECTIONS, ETC. AND APPROPRIATE TIES TO ABOVE GROUND PERMANENT STRUCTURES, FIELD SURVEY COORDINATES, OR SOME OTHER METHOD OF ESTABLISHING THE AS-BUILT CONDITION OF ALL CONSTRUCTION.

GENERAL CONSTRUCTION NOTES

NOTE: ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.

B	10/20/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
A	08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB
REV.	DATE	DESCRIPTION	C/O	DR	CK

EROSION CONTROL DETAILS

PARKER HILL

DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8A - 2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS

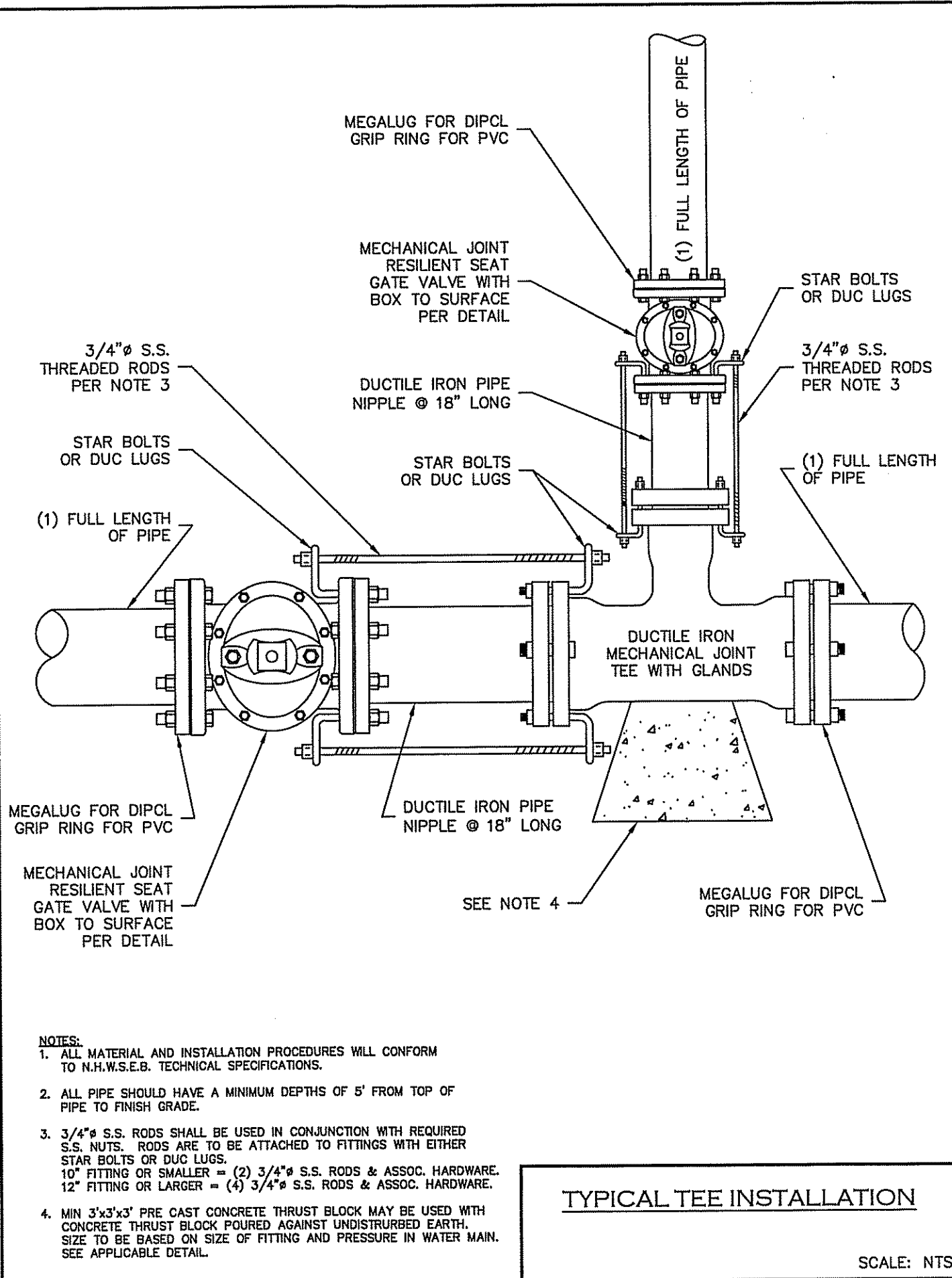
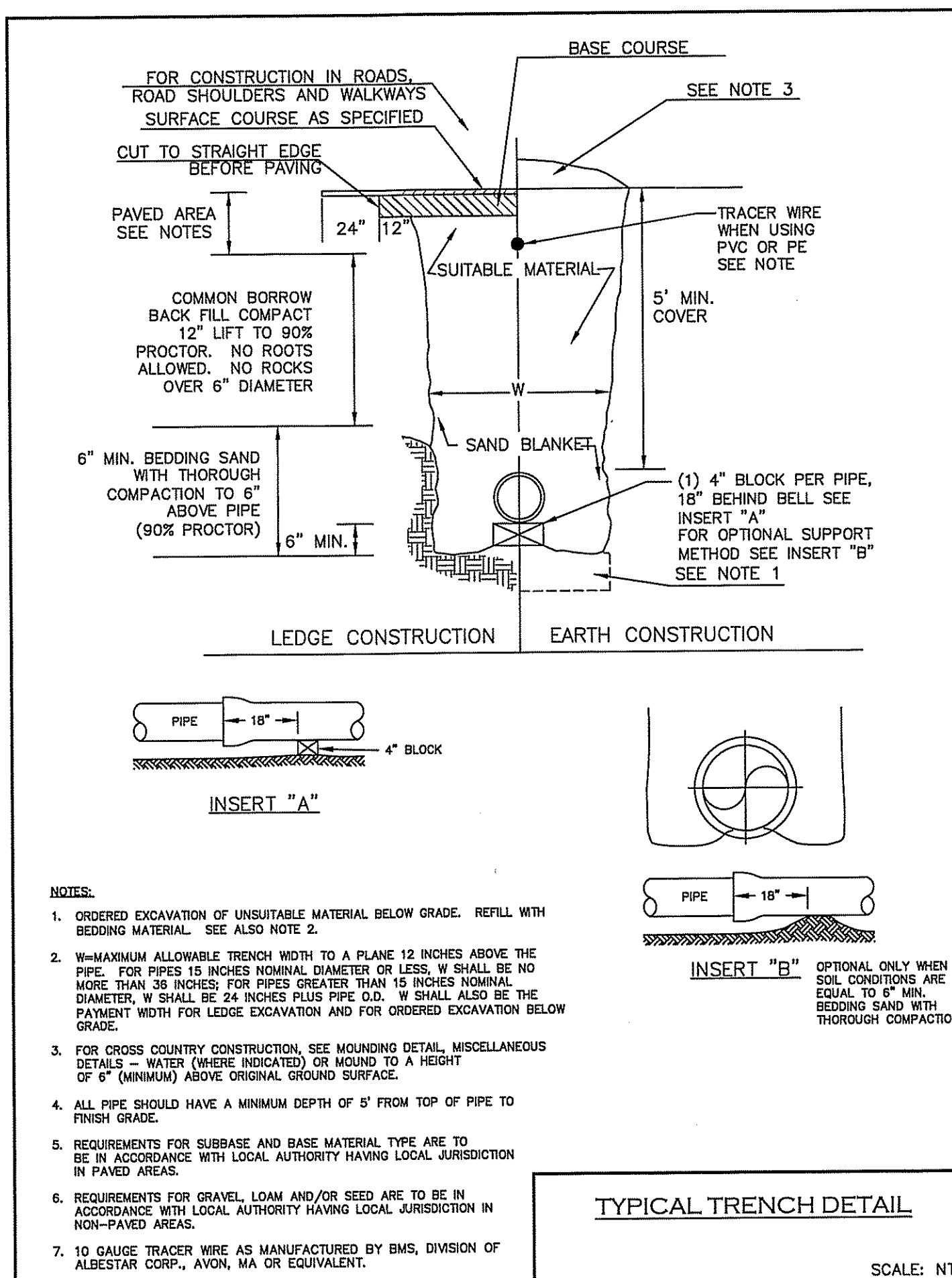
PREPARED FOR AND LAND OF (34-8-A)
PARKER 2 REALTY TRUST
160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: AS SHOWN AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

FIELDSTONE
LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055
Phone: (603)-413-5456 Fax: (603)-413-5456
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BEARING AREA REQUIRED, SQUARE FEET

TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS, pfs	4" AND LESS DEGREE BEND				6" AND 8" DEGREE BEND				10" AND 12" DEGREE BEND			
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90
LOOSE SAND OR MEDIUM CLAY - 2,000	1.0	2.0	2.7	4.0	1.5	3.0	6.0	10.0	3.0	6.2	12.0	22.0
PACKED GRAVEL AND SAND - 4,000	1.0	1.0	1.5	2.0	1.0	1.5	3.0	5.0	1.5	3.1	6.0	11.0
ROCK - 10,000	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	1.0	1.3	2.4	4.4

BEARING AREA REQUIRED, SQUARE FEET

TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS, pfs	14" AND 16" DEGREE BEND OR DEFLECTION				18" AND 20" DEGREE BEND OR DEFLECTION			
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90
LOOSE SAND OR MEDIUM CLAY - 2,000	6.0	12.0	22.5	40.0	9.5	19.0	37.0	67.0
PACKED GRAVEL AND SAND - 4,000	3.0	6.0	11.3	20.0	4.8	9.5	18.5	33.5
ROCK - 10,000	1.2	2.4	4.5	8.0	2.0	3.8	7.4	13.5

NOTE: THRUST BLOCKING FOR TEES SHALL HAVE THE SAME BEARING AREA AS 90° BEND OF THE PIPE SIZE OF THE OUTLET. DEAD ENDS SHALL HAVE THE SAME BEARING AREA AS 90° BENDS.

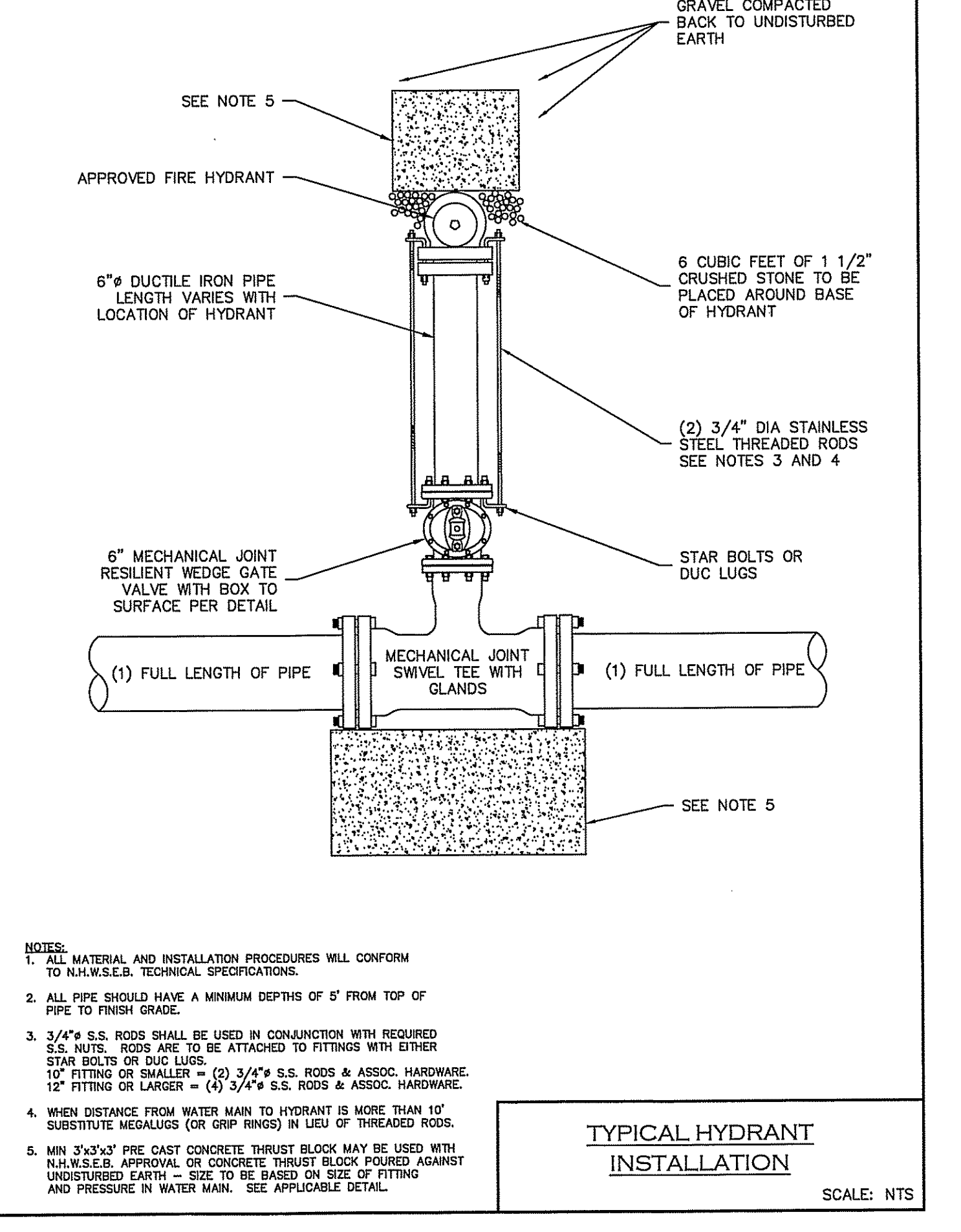
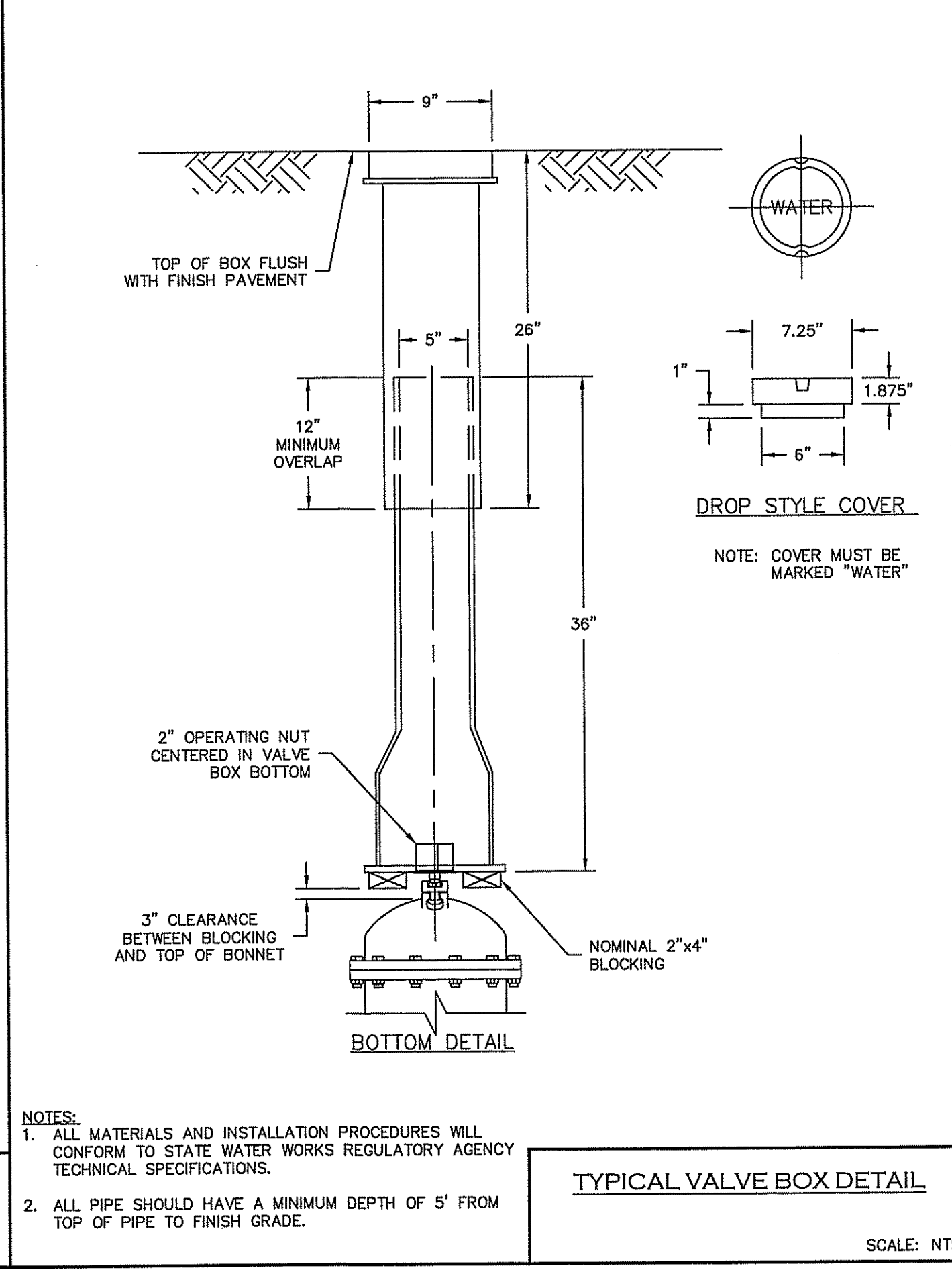
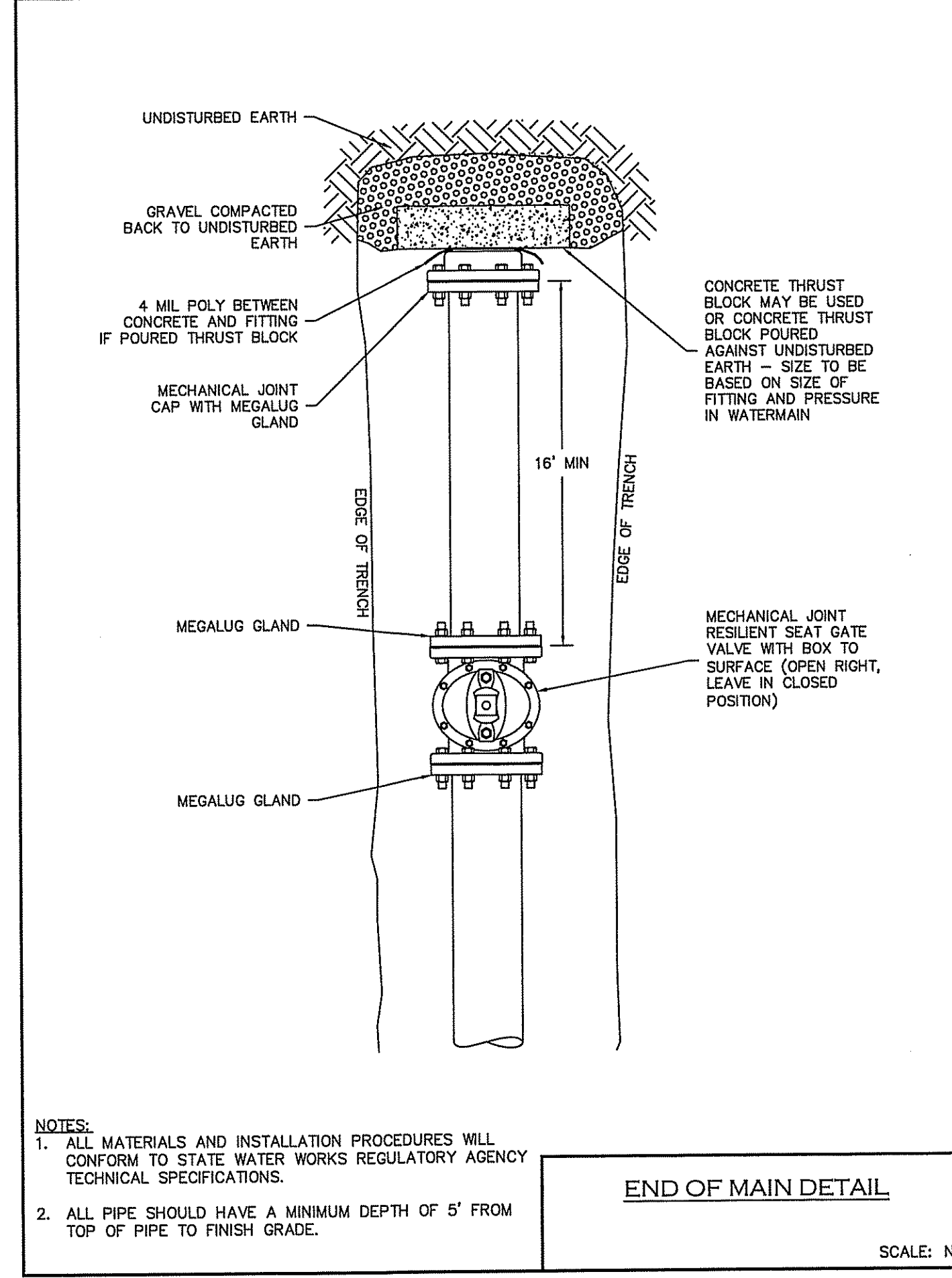
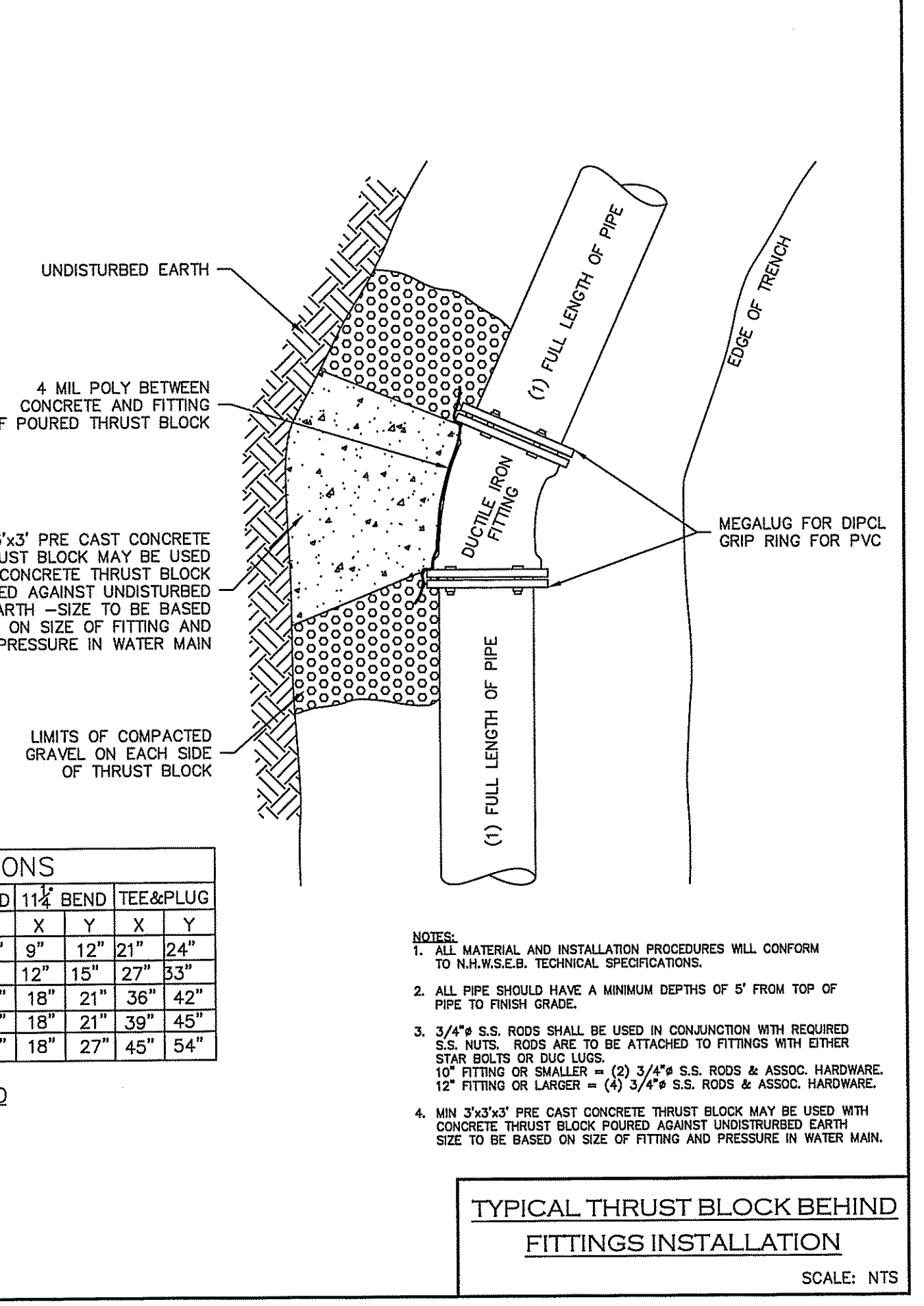
UNDISTURBED MATERIAL

CLASS D CONCRETE

TABLE OF DIMENSIONS

PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/2° BEND		TEE & PLUG	
	X	Y	X	Y	X	Y	X	Y	X	Y
6"	33"	21"	18"	21"	12"	18"	9"	12"	21"	24"
8"	45"	27"	24"	27"	18"	21"	12"	15"	27"	33"
10"	60"	36"	36"	36"	24"	30"	18"	21"	36"	42"
12"	66"	39"	36"	42"	24"	30"	18"	21"	39"	45"
14"	72"	45"	42"	48"	27"	36"	18"	27"	45"	54"

PLAN SECTION A-A HORIZONTAL BEND



NOTE: ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.

B	10/20/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
A	08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEJ	NRC	CEB
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WATER DETAILS

PARKER HILL

DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8A - 2 PARKER STREET

NEWBURYPORT, MASSACHUSETTS

PREPARED FOR AND LAND OF (34-8-A):

PARKER 2 REALTY TRUST

160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: AS SHOWN

August 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

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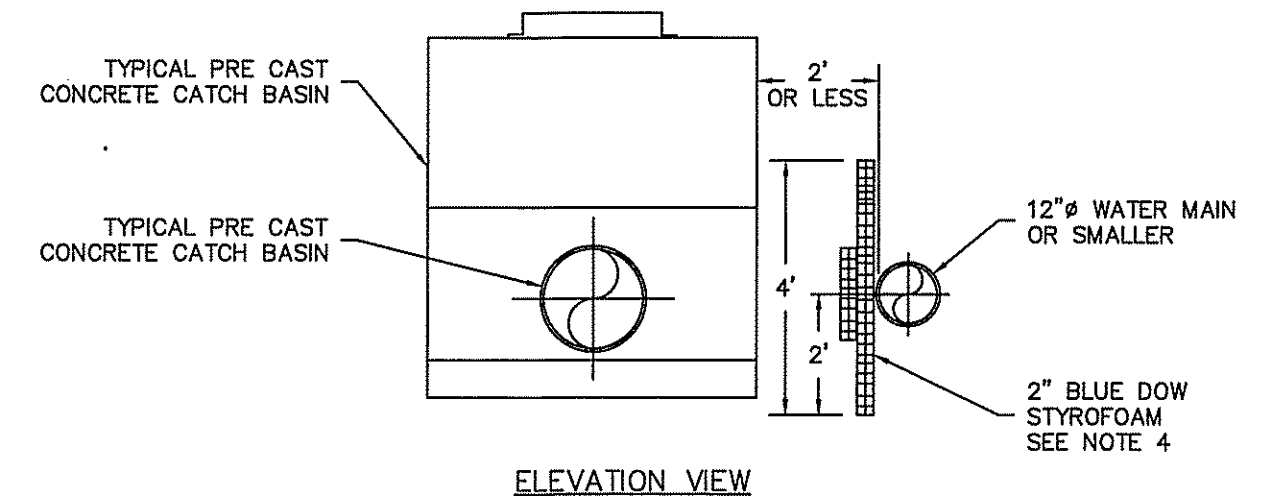
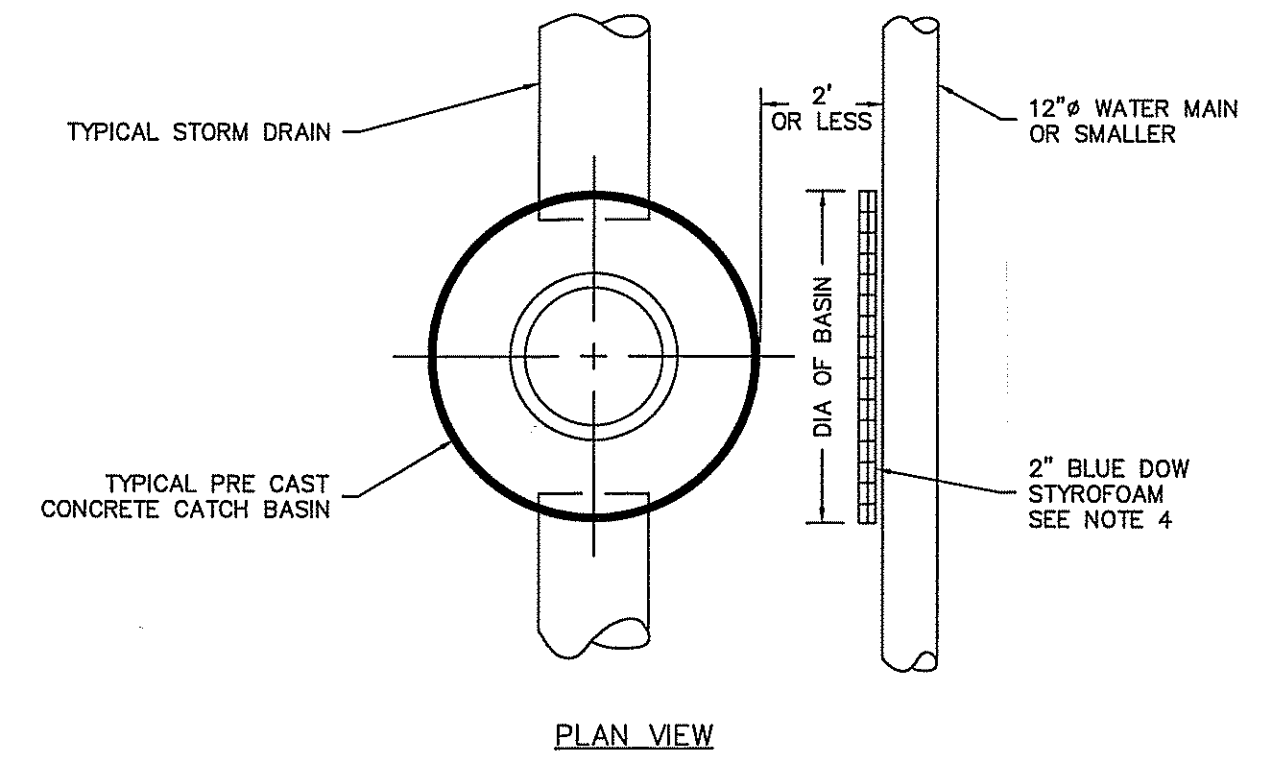
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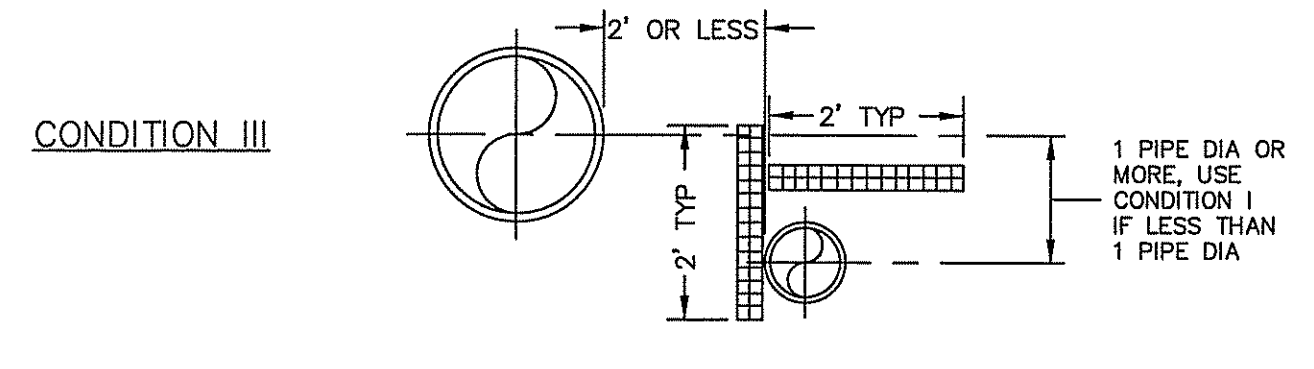
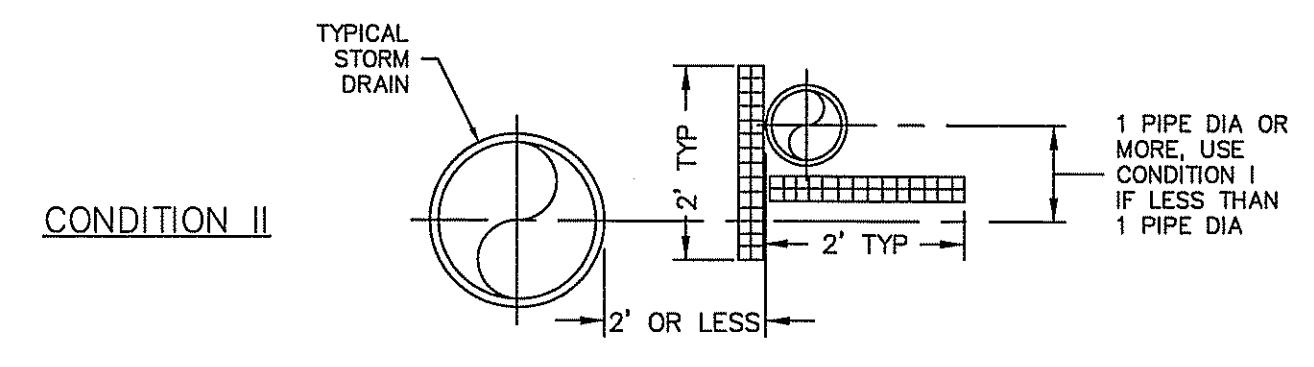
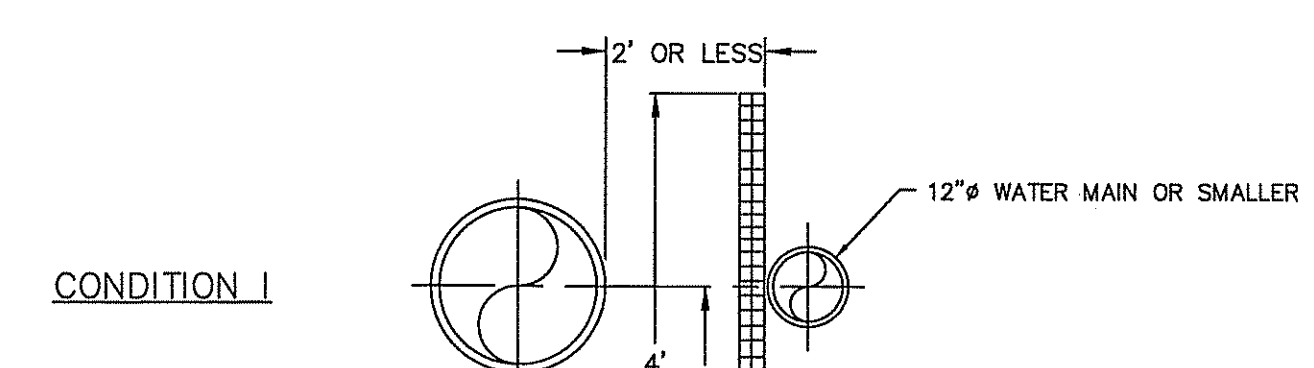
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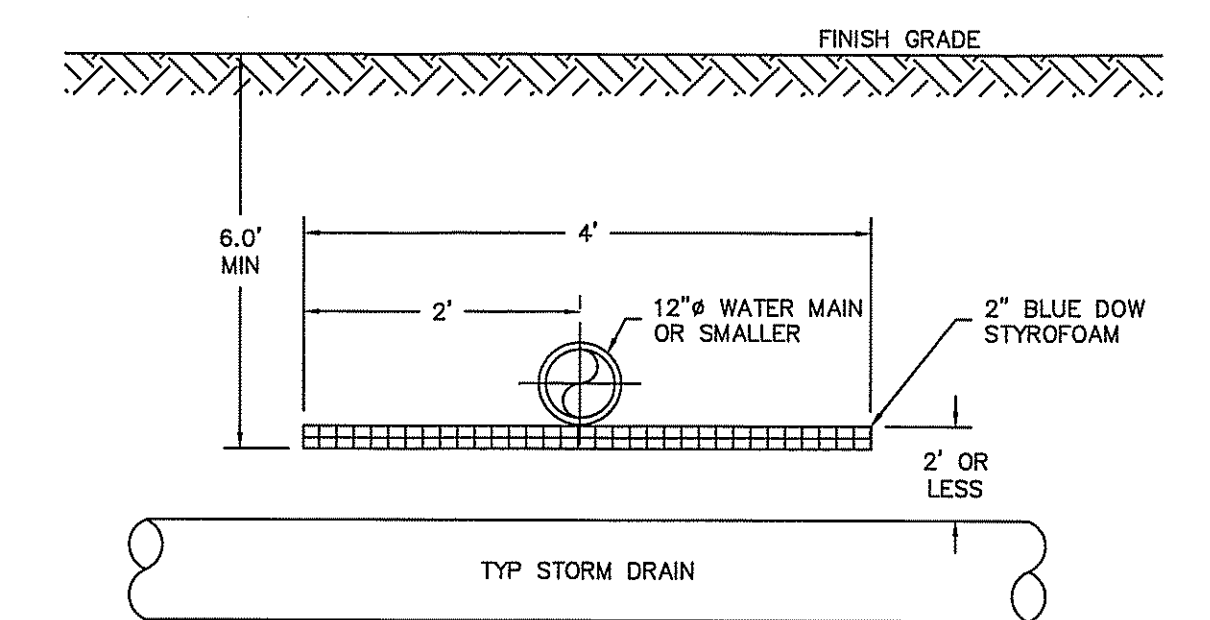
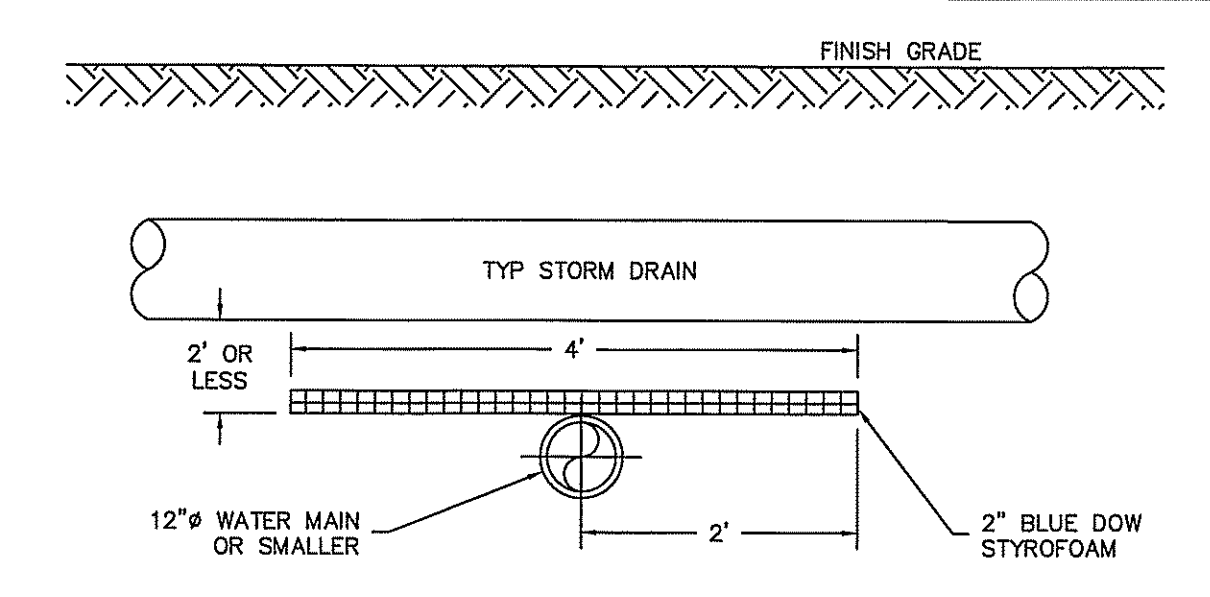
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO N.H.W.S.E.B. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. N.H.W.S.E.B., INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 1' PIECE OF INSULATION CENTERED OVER SEAM.

TYPICAL CATCH BASIN INSULATION DETAIL
SCALE: NTS



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO N.H.W.S.E.B. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. N.H.W.S.E.B., INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 4. INSULATION TO BE RUN HORIZONTALLY AS LONG AS CONDITIONS I, II, OR III ABOVE EXIST. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 1' PIECE OF INSULATION CENTERED OVER SEAM.
 5. [Symbol] - 1.5" (MIN) BLUE DOW STYROFOAM

STORM DRAIN / WATER MAIN PARALLEL RUNS - ELEV. VIEW
SCALE: NTS

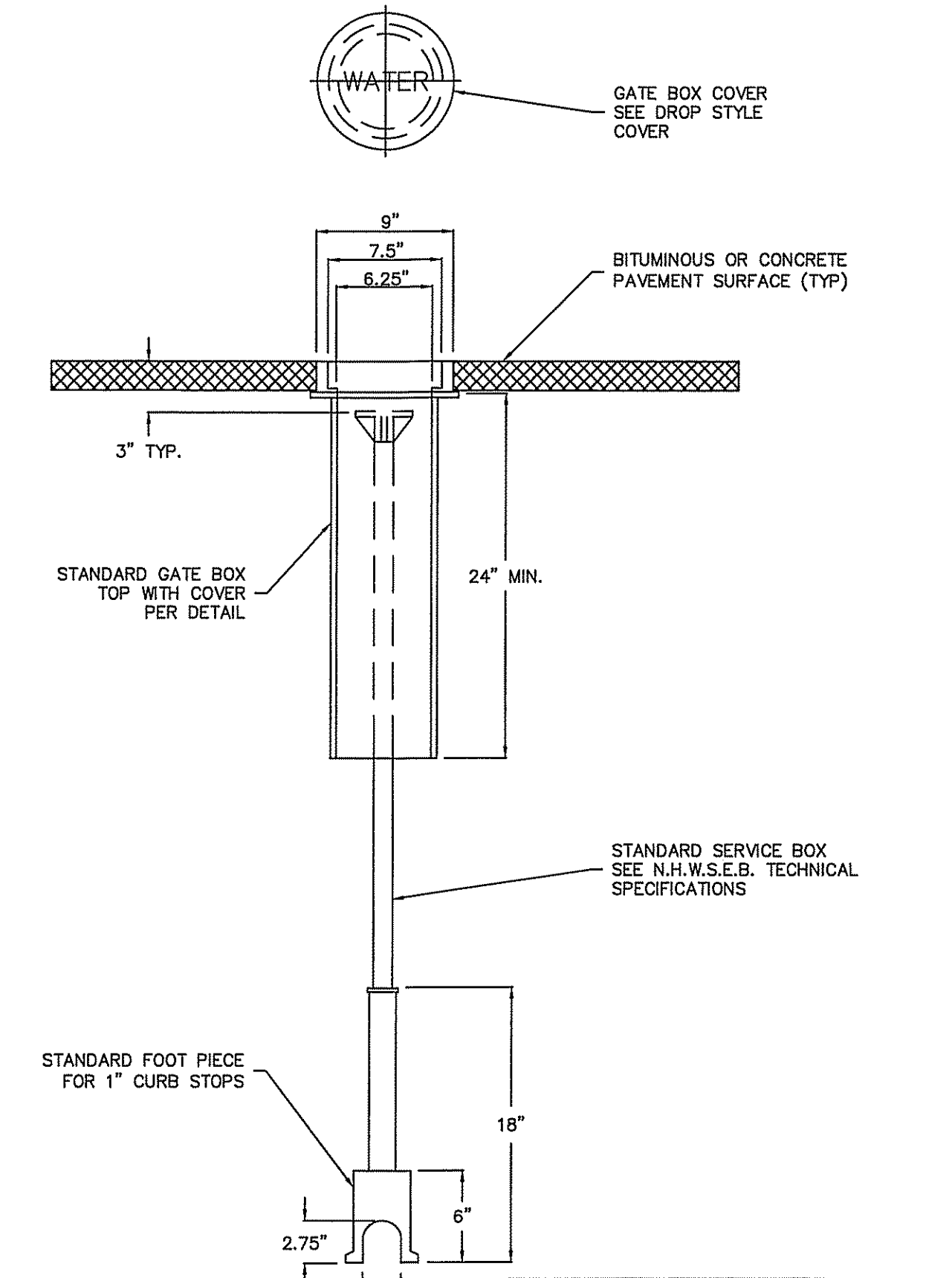


- NOTES:**
1. THE LOCAL MUNICIPALITY AND ENGINEER RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
 3. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A 1' PIECE OF INSULATION CENTERED OVER SEAM.

STORM DRAIN / WATER MAIN INTERSECTING RUNS - ELEV. VIEW
SCALE: NTS

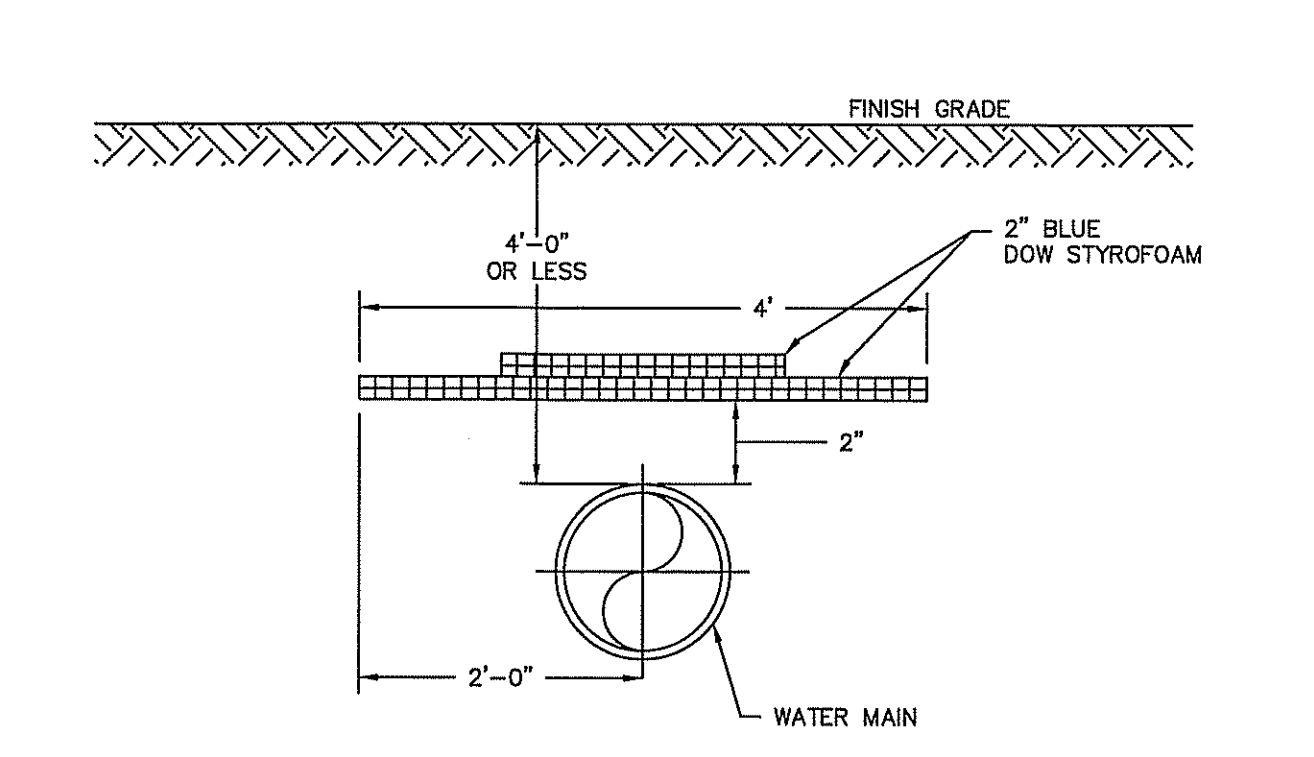
- NOTES:**
1. All distribution material including; mains, fittings, and valves to meet applicable state and local specifications and American Water Works Association (AWWA) standards, as applicable.
 2. All installation of material to conform to applicable Local Specifications and AWWA standards for potable water systems.
 3. All valves, tees, bends, fire hydrants, and their related joints to be properly restrained using approved "M-ego-Lug", "Grip-Ring", or equal, retainer kits.
 4. All water main and related appurtenances to be an approved manufacturer in accordance with current AWWA standards. All water main and appurtenances to be approved AWWA Ductile Iron Pipe (class 52) for the water main. All water main and service lines to be installed with a minimum of 60" of cover, and shall be properly sand bedded and backfilled with suitable material.
 5. Gate valves shall be installed at locations shown on the Project Plans. All gate valves AND Fire Hydrants shall be AWWA approved and installed per local specifications.
 6. As needed, separation of water mains and sewer shall be in accordance with local and state standards. On parallel installation, water mains shall be laid at least ten feet horizontally from any existing or proposed sewer. If less than ten feet, water main shall be laid in a separate trench, or on an undisturbed earth shelf located on one side of the sewer at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer with at least three feet horizontal separation. At crossings there shall be a minimum vertical distance of 18 inches between the water main and sewer.
 7. All water main shall be, flushed, pressure tested, and disinfected, in accordance with the latest provisions of AWWA C-600 and C-651, per local specifications, prior to acceptance. Written certification of testing and bacteriological test results shall be provided by an approved third party contractor.
 8. An As-built Plan shall be provided showing the constructed locations and any field adjustments. Field adjustments must be approved by the Engineer and the City of Newburyport.

WATER SYSTEM SPECIFICATIONS



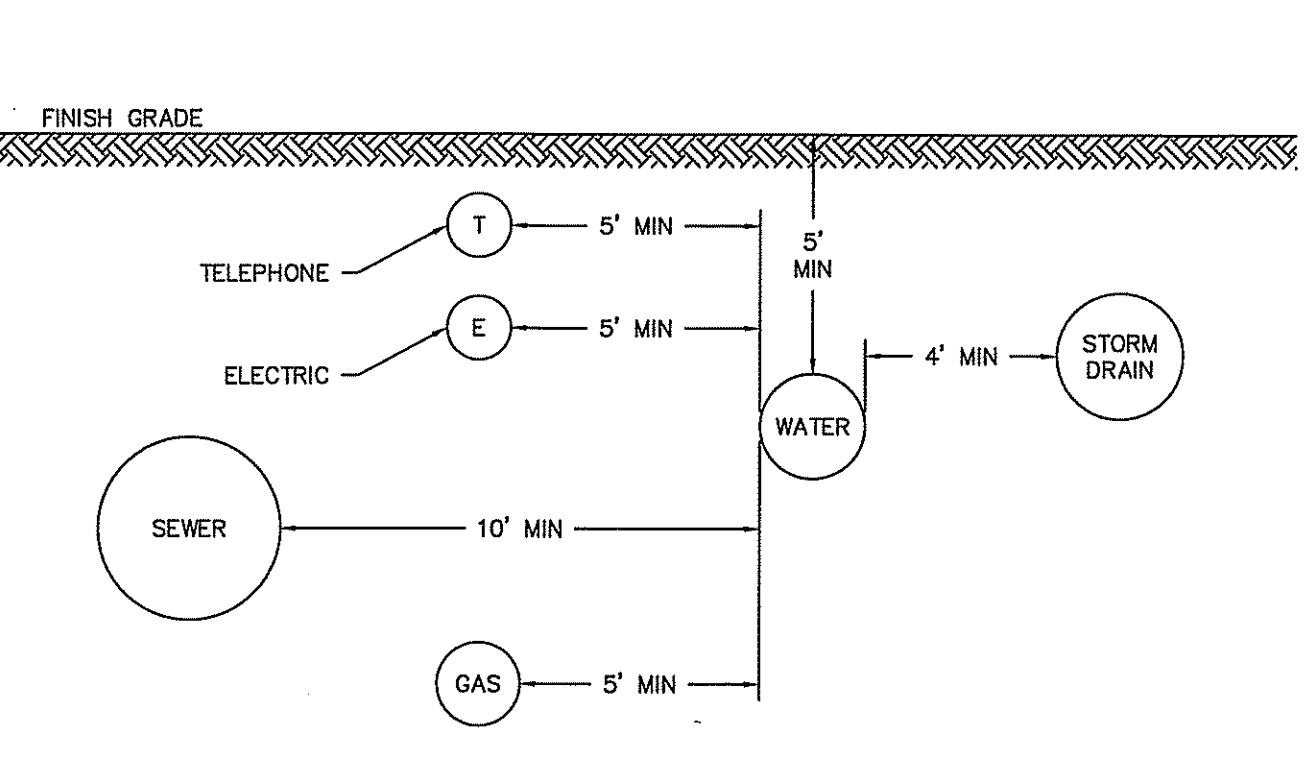
- NOTE:**
ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO N.H.W.S.E.B. TECHNICAL SPECIFICATIONS.

TYPICAL SERVICE BOX DETAIL IN PAVED AREAS
SCALE: NTS

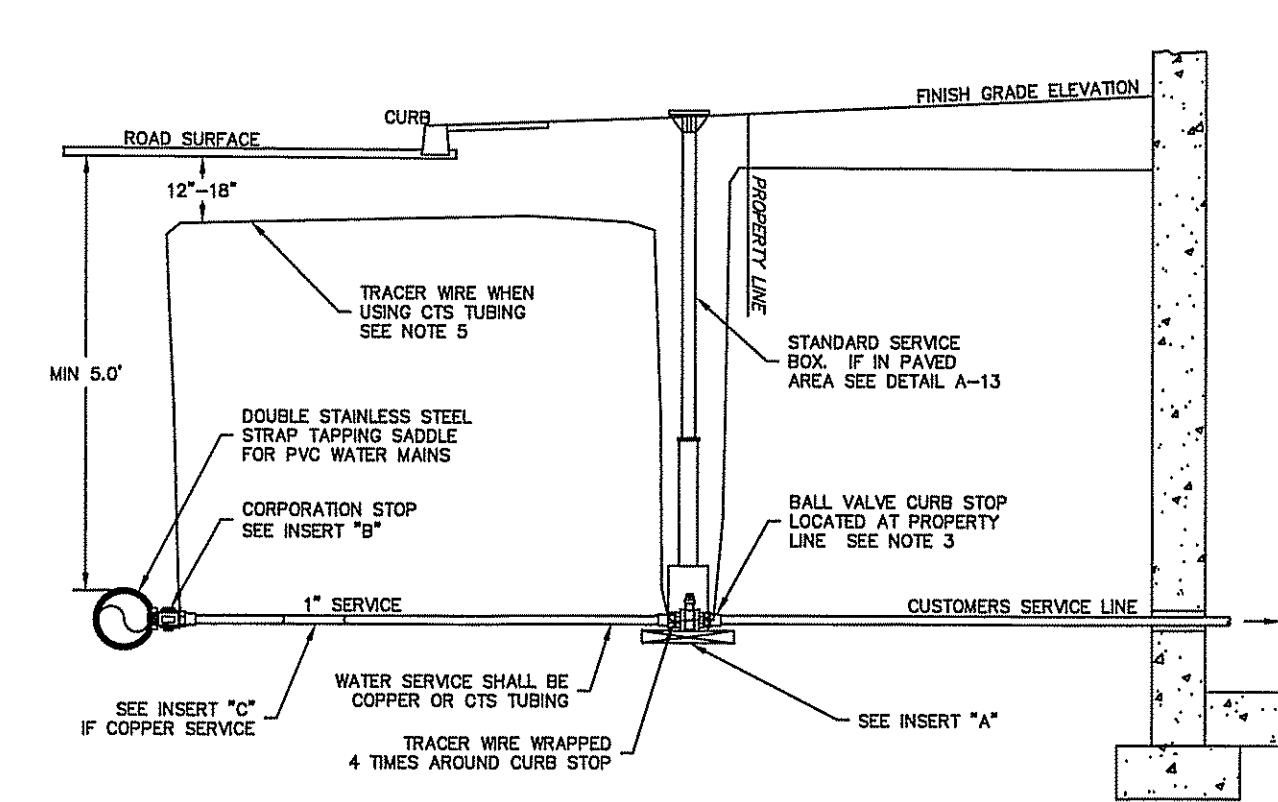


- NOTES:**
1. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 2. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 2' PIECE OF INSULATION CENTERED OVER SEAM.

TYPICAL INSULATION DETAIL FOR LESS THAN 4'-0" OF COVER
SCALE: NTS



TYPICAL UTILITY SEPARATION (MAIN) DETAIL
SCALE: NTS



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO N.H.W.S.E.B. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. IF WATER MAIN IS PVC, A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
 4. IF WATER MAIN IS PVC, AND THE NEW WATER SERVICE IS COPPER THEN SEE SEPARATE DETAIL.
 5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.

TYPICAL 1" SERVICE AND VALVE BOX INSTALLATION DETAIL
SCALE: NTS

NOTE:
ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.

REV.	DATE	DESCRIPTION	C/O	DR	CK
B	10/20/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
A	08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB

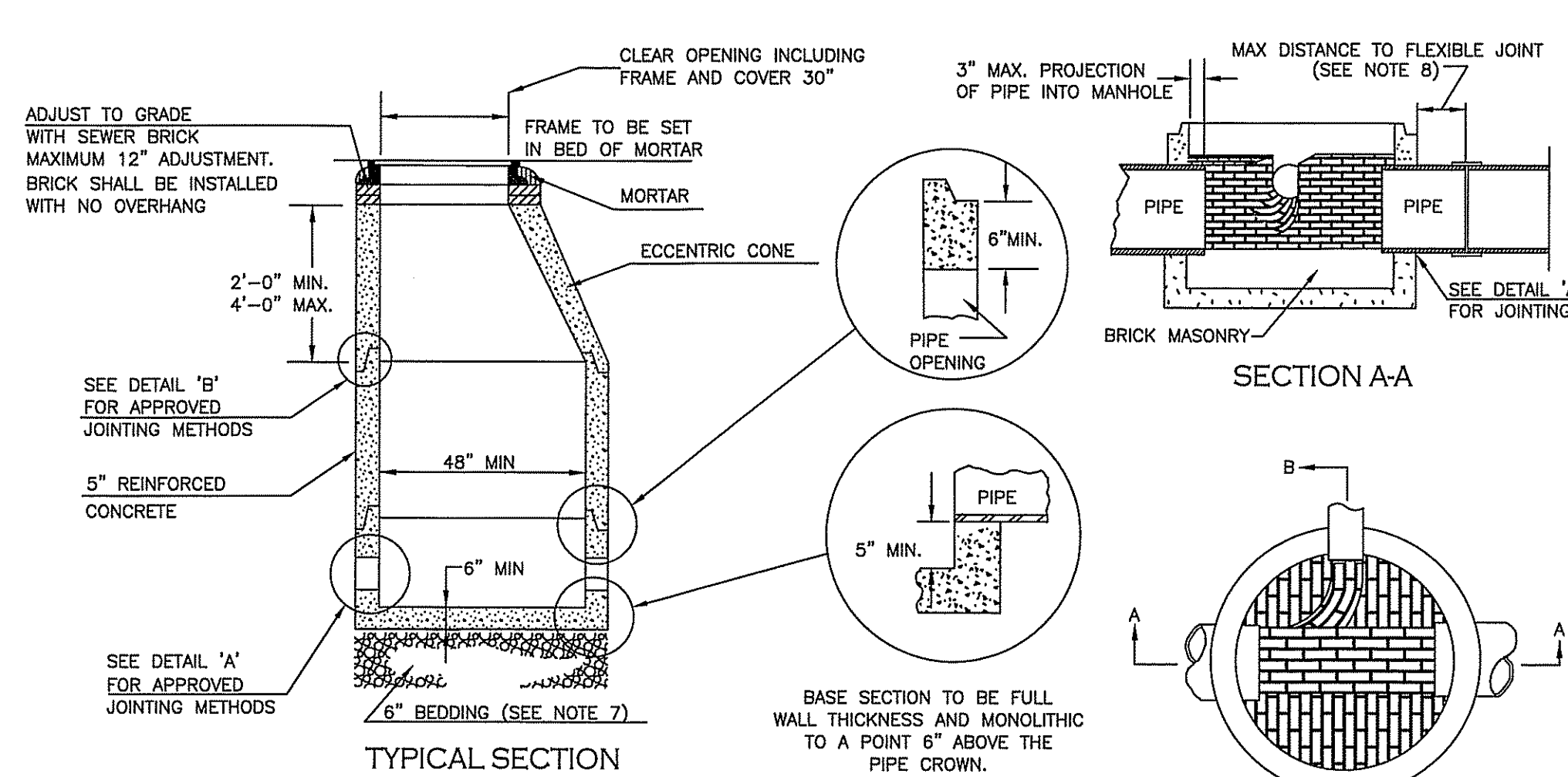
WATER DETAILS
PARKER HILL
DEFINITIVE SUBDIVISION
TAX MAP PARCEL 34-8A - 2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS
PREPARED FOR AND LAND OF (34-8-A):
PARKER 2 REALTY TRUST
160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: AS SHOWN AUGUST 14, 2017

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

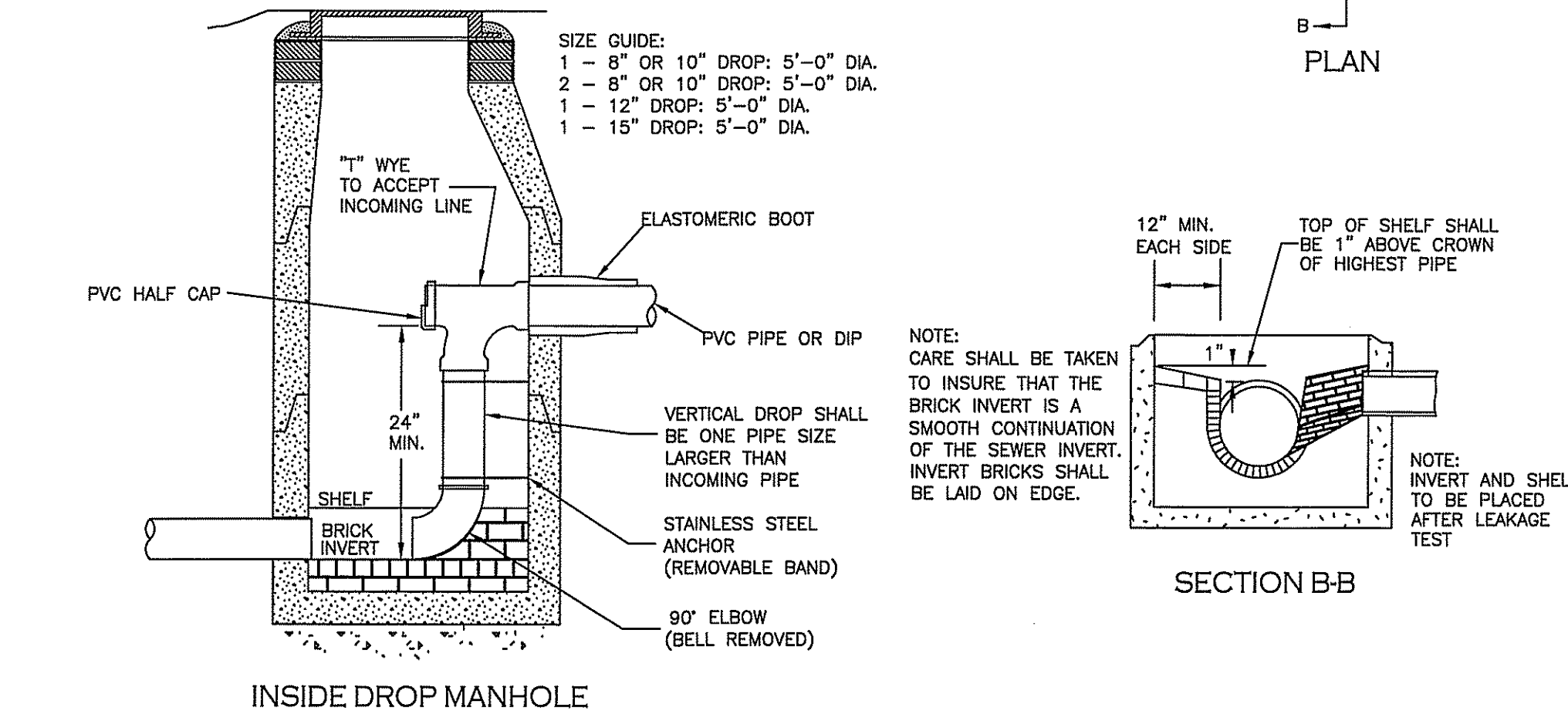
FIELDSTONE
LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055
Phone: (603)-413-5456 Fax: (603)-413-5456
www.FieldstoneLandConsultants.com



NOTES:

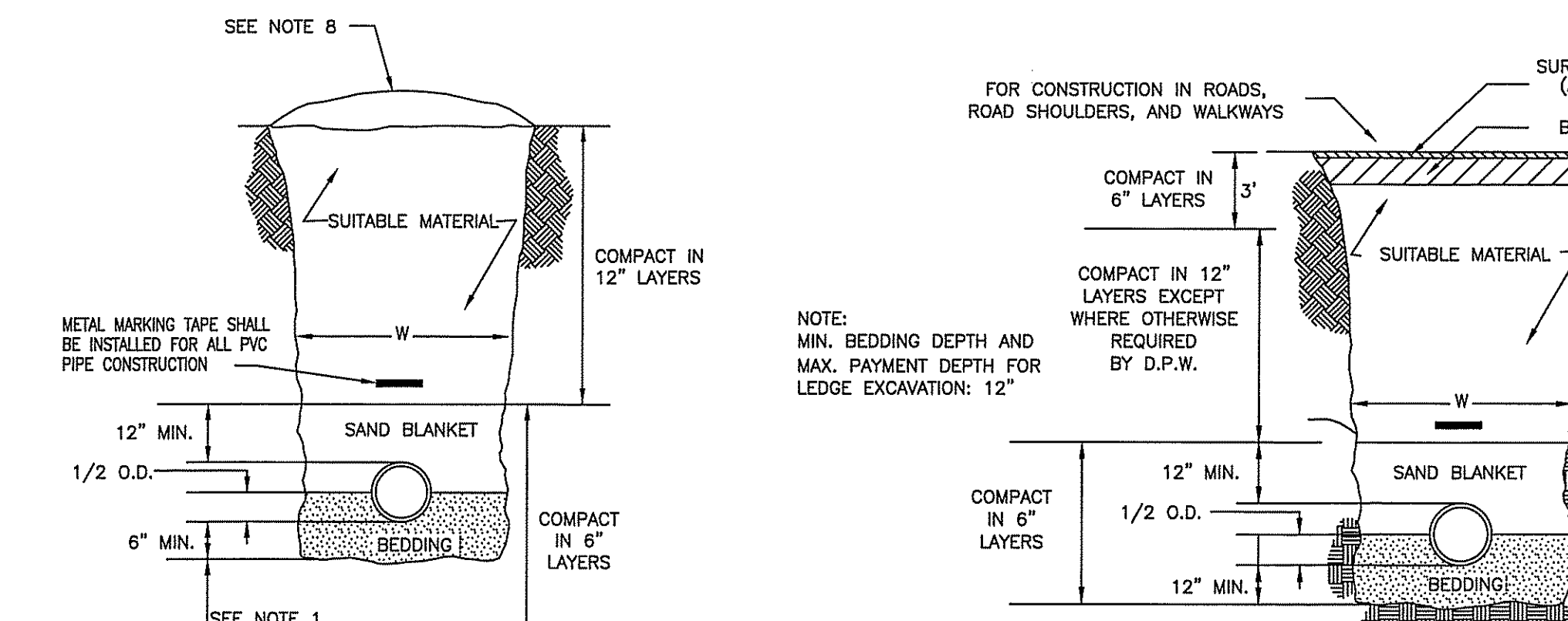
- IT IS INTENDED THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED USE. REQUIREMENTS AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OF PRECAST SECTIONS WITH STEEL REINFORCEMENT, WITH ADEQUATE JOINTING PER ENR-W 704.12 (I). IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
- BARRELS AND CONE SECTIONS: SHALL BE PRECAST REINFORCED CONCRETE
- PRECAST CONCRETE BARREL SECTIONS, CONES, AND BASES SHALL CONFORM TO ASTM C 478.
- BASE SECTIONS: SHALL BE MONOLITHIC TO A POINT 6" ABOVE THE CROWN OF THE INCOMING PIPE, AND SHALL BE PRE-CAST REINFORCED CONCRETE.
- INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE DIRECTION OF FLOW. THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE. CROWN AND SLOPE TO DRAIN TOWARD THE FLOW THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.
- FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN EQUAL TO CLASS 30, CONFORMING TO ASTM A48 AND PROVIDE A 30 INCH CLEAR OPENING. THE COVERS SHALL BE THE WORD "SEWER" IN 3 INCH HIGH LETTERS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 SIZE #67.
 - 100% PASSING 1 INCH SCREEN
 - 90-100% PASSING 3/4 INCH SCREEN
 - 20-55% PASSING 3/8 INCH SCREEN
 - 0-10% PASSING #4 SIEVE
 - 0-5% PASSING #8 SIEVE
 WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 TO 1/4 INCH SHALL BE USED.
- FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:
 - RCP & CI PIPE - ALL SIZES - 48"
 - PVC PIPE - UP THROUGH 15" DIAMETER - NO FLEXIBLE JOINT REQUIRED
- SHALLOW MANHOLE IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED. IT MUST HAVE AN ECCENTRIC ENTRANCE OPENING AND BE CAPABLE OF SUPPORTING H-20 LOADING.
- HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED WITH A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT. A TYPE APPROVED BY THE ENGINEER, WHICH TYPE SHALL, IN GENERAL, DEPEND FOR WATERTIGHTNESS UPON AN ELASTOMERIC SEALANT.
- PIPE TO MANHOLE JOINTS SHALL BE PER DETAIL A AS SHOWN HEREON (DETAIL A).
- ALL SEWER CONSTRUCTION AND TESTING SHALL CONFORM TO ALL LOCAL SPECIFICATIONS.



STANDARD MANHOLE - PART A

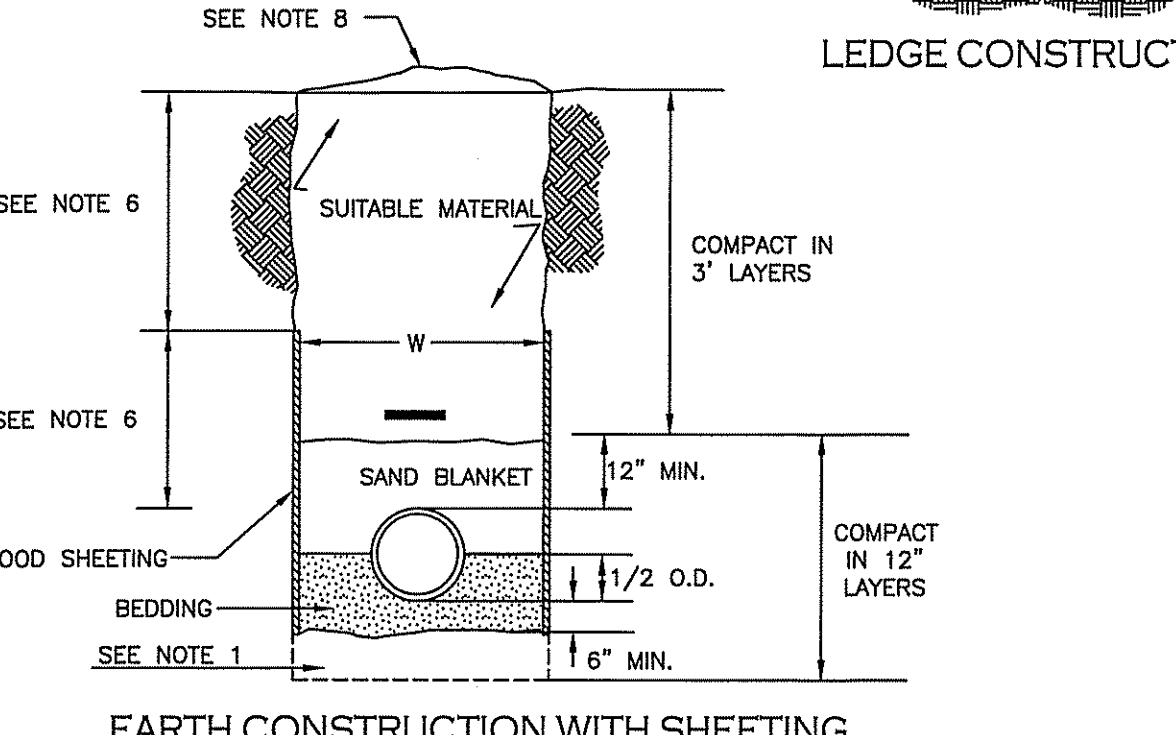
SCALE: N.T.S.

1 DT-7



NOTES:

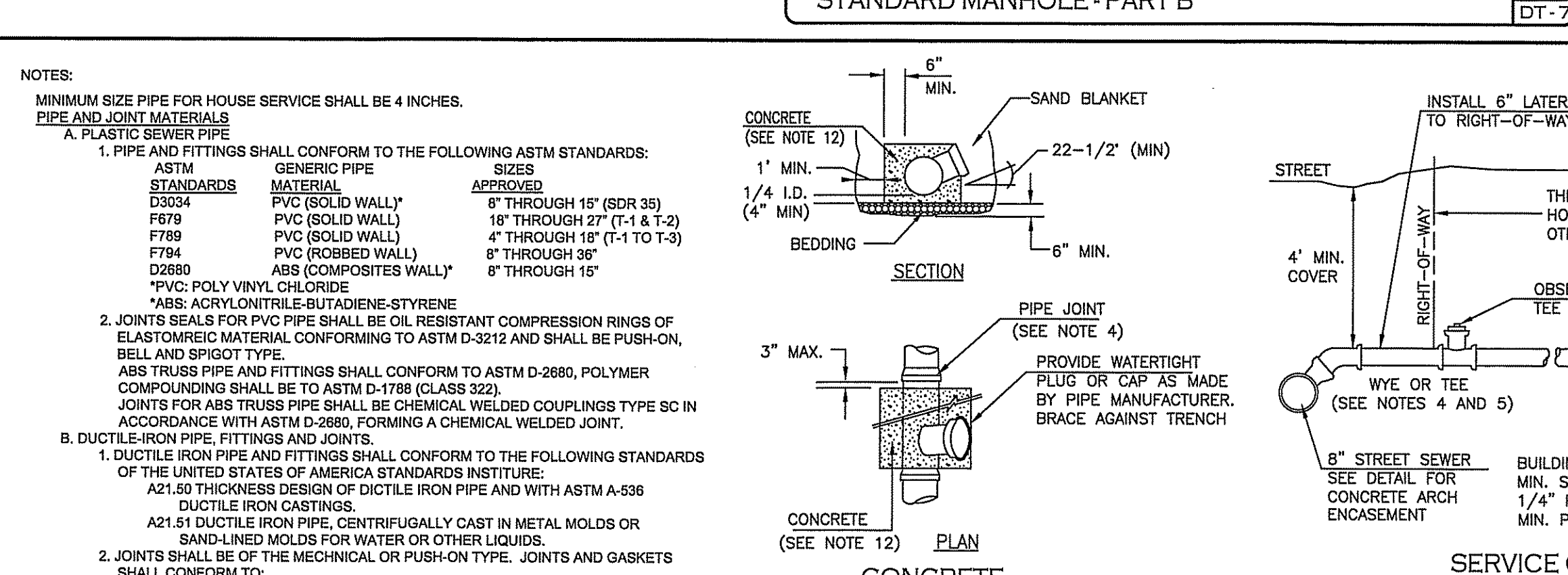
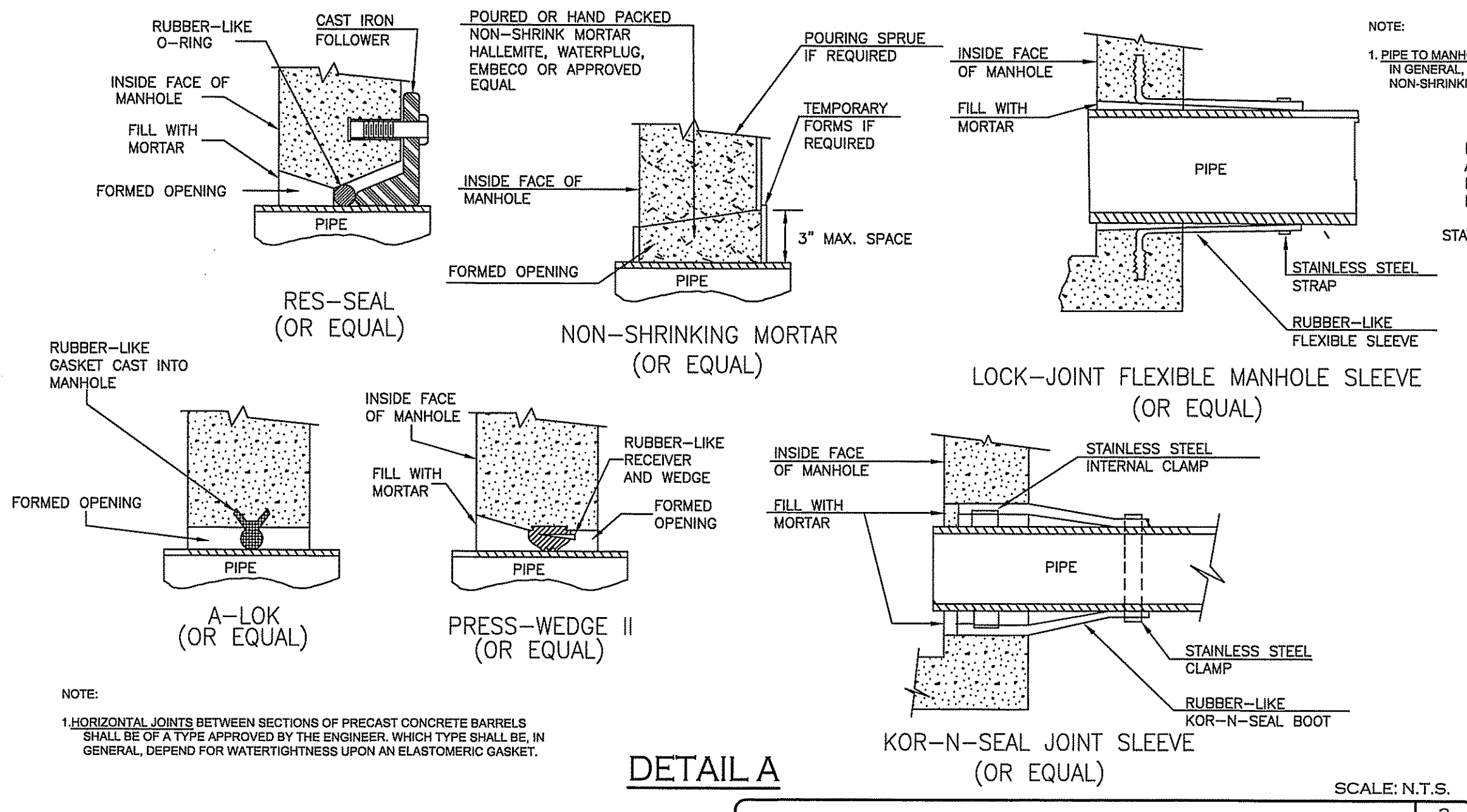
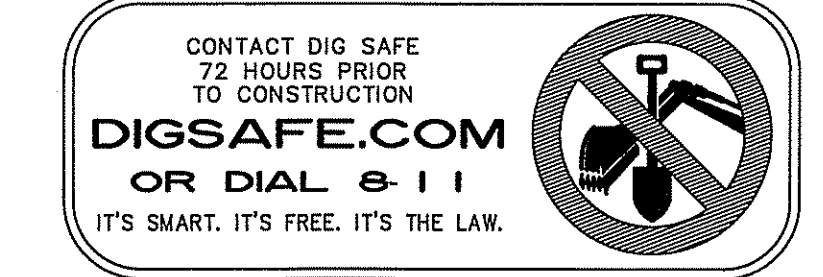
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE, REFILL WITH BEDDING MATERIAL. (SEE ALSO NOTE 7).
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33, STONE SIZE #67.
 - 100% PASSING 1 INCH SCREEN
 - 90-100% PASSING 3/4 INCH SCREEN
 - 20-55% PASSING 3/8 INCH SCREEN
 - 0-10% PASSING #4 SIEVE
 - 0-5% PASSING #8 SIEVE
- SAND BLANKET: CLEAN SAND, FREE FROM ORGANIC MATTER, SO GRADED THAT 90-100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #20 SIEVE. BLANKET MAY BE OMITTED FOR DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
- SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE NATURAL MATERIAL, EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOPSOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES, IN LARGEST DIMENSION OR ANY MATERIAL WHICH AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT TO MAINTAIN THE COMPLETED CONSTRUCTION. SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP-SOIL, LOAM, MUCK OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE (AND POSSIBLY RECONSTRUCTION, WHEN NECESSARY) WILL BE PRESERVED.
- BASE COURSE: IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- WOOD SHEETING: IF REQUIRED, IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER. IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE THE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISH GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
- W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 38 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
- FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUNDING TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- CONCRETE: FOR ENCASEMENT SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000) CONCRETE OF THE N.H. DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS:
 - CEMENT: 8.0 BAGS PER CUBIC YARD
 - WATER: 5.75 GALLONS PER BAG OF CEMENT
 - MAXIMUM AGGREGATE SIZE: 1 INCH
 - NOTE: ANY SEWER PIPE TO BE ENCASED MUST BE MADE OF DUCTILE IRON.



STANDARD TRENCH SECTION

SCALE: N.T.S.

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NOTES:

- MINIMUM PIPE SIZE FOR HOUSE SERVICE SHALL BE 4 INCHES.
- PIPE AND JOINT MATERIALS:
 - A. PLASTIC SEWER PIPE:
 - 1. PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

ASTM STANDARDS	MATERIAL	APPROVED SIZES
D3034	PVC (SOLID WALL)	6" THROUGH 15" (SDR 35)
F797	PVC (SOLID WALL)	15" THROUGH 27" (T-1 & T-2)
F798	PVC (SOLID WALL)	4" THROUGH 18" (T-1 TO T-3)
F794	PVC (ROBBER WALL)	8" THROUGH 36"
D2080	ABS (COMPOSITES WALL)	8" THROUGH 15"

 *PVC: POLY VINYL CHLORIDE
 *ABS: ACRYLONITRILE-BUTADIENE-STYRENE
 - JOINTS SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON, BELL AND SPIGOT TYPE.
 - ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2880, POLYMER COMPOUNDING SHALL BE TO ASTM D-1788 (CLASS 322).
 - JOINTS FOR ABS TRUSS PIPE SHALL BE CHEMICAL WELDED COUPLINGS TYPE SC IN ACCORDANCE WITH ASTM D-2880, FORMING A CHEMICAL WELDED JOINT.
 - DUCTILE IRON PIPE, FITTINGS AND JOINTS:
 - 1. DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE:
 - A21.50 DUCTILE IRON PIPE AND FITTINGS WITH ASTM A-536
 - A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS.
 - 2. JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO:
 - A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE AND FITTINGS.
 - 3. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE. JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATERTIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER "Y" OR AT THE FOUNDATION WALL, APPROPRIATE ADAPTERS SHALL BE USED. "T" AND "Y" WHERE A "T" OR "Y" IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE IN THE SEWER, FOLLOWING MANUFACTURERS INSTRUCTIONS USING A BOLTED, CLAMPED, OR EPOXY CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAUN OPENING. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER, STUFFING CLOTH (OR OTHER SUCH MATERIAL) AROUND THE JOINT OR APPLYING MORTAR TO HOLD THE CONNECTION AND ANY OTHER SIMILAR CRUDE PRACTICES OR INEPT OR HASTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE CONCRETE ENCASED, AS SHOWN IN THE DETAIL, UP TO AND INCLUDING 15" DIAMETER.
 - 4. HOUSE SEWER INSTALLATION THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL, AS SPECIFIED IN NOTE 10, BEDDING AND RE-FILL FOR A DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES. THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE HOUSE FOUNDATION AT A GRADE OF NOT LESS THAN 1/4 INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DRY THE TRENCH.
 - 5. TESTING THE COMPLETED HOUSE SEWER SHALL BE SUBJECT TO A LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS (PRIOR TO BACKFILLING):
 - A. AN OBSERVATION "T" SHALL BE INSTALLED AS SHOWN, WHEN READY TESTING, AN INFLATABLE BLANDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE "T". AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 8 FEET ABOVE THE LEVEL OF THE PLUG.
 - B. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS. IF THE TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTORS FOR LEAKS SHALL BE MADE THROUGH THE CLEANOUT WITH A FLASHLIGHT.
 - C. DRY FLUORESCENT DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER. IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN ANY OF THE ABOVE. ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG UP, IF NECESSARY, AND RELAID SO AS TO ASSURE WATERTIGHTNESS.
 - 6. ILLLEGAL CONNECTIONS NOTHING BUT SANITARY WASTE FLOW FROM THE HOUSE TOILETS SINKS, LAUNDRY, ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAIN, SUMP PUMPS OR ANY OTHER SIMILAR CONNECTION CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.
 - 7. HOUSE WATER SERVICE SHALL NOT BE LAID IN THE SAME TRENCH AS THE SEWER SERVICE.
 - 8. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C33-67.
 - 100% PASSING 1 INCH SCREEN
 - 90-100% PASSING 3/4 INCH SCREEN
 - 20-55% PASSING 3/8 INCH SCREEN
 - 0-10% PASSING #4 SIEVE
 - 0-5% PASSING #8 SIEVE
 WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR CRUSHED STONE (1-1/2 TO 1/2 INCH) SHALL BE USED.
 - 9. LOCATION THE LOCATION OF THE "T" OR "Y" SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE "T" OR "Y", AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPEFINDER.
 - 10. CONCRETE CONCRETE SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000 PSI) CONCRETE OF THE N.H. DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS:
 - CEMENT: 8.0 BAGS PER CUBIC YARD
 - WATER: 5.75 GALS/84 GALS PER CUBIC YARD
 - AGGREGATE: 1 INCH MAX
 - 11. CHIMNEYS IF VERTICAL DROP INTO THE SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED FOR THE HOUSE CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY THE PIPE MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.

NOTES:

- PIPE TO MANHOLE JOINTS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND, IN GENERAL, WILL DEPEND FOR WATERTIGHTNESS UPON EITHER AN APPROVED NON-SHRINKING MORTAR OR ELASTOMERIC SEALANT.
- ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

STATE OF NEW HAMPSHIRE APPROVED PRODUCTS

[A] SIKAFLEX-12-SL

[B] SONNEBORN BUILDING PRODUCTS SONNOLASTIC SL-1

DOUBLE ROW ELASTOMERIC SEALANT

ELASTOMERIC SEALANT (OR EQUAL)

DETAIL B

SCALE: N.T.S.

3 DT-7

REV.	DATE	DESCRIPTION	C/	W/	DR	CK
B	10/20/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB	
A	08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB	
		DESCRIPTION				

SEWER DETAILS

PARKER HILL

DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8A - 2 PARKER STREET

NEWBURYPORT, MASSACHUSETTS

PREPARED FOR AND LAND OF (34-8-A):

PARKER 2 REALTY TRUST

160 BRIDGE ROAD, SALISBURY, MA 01952

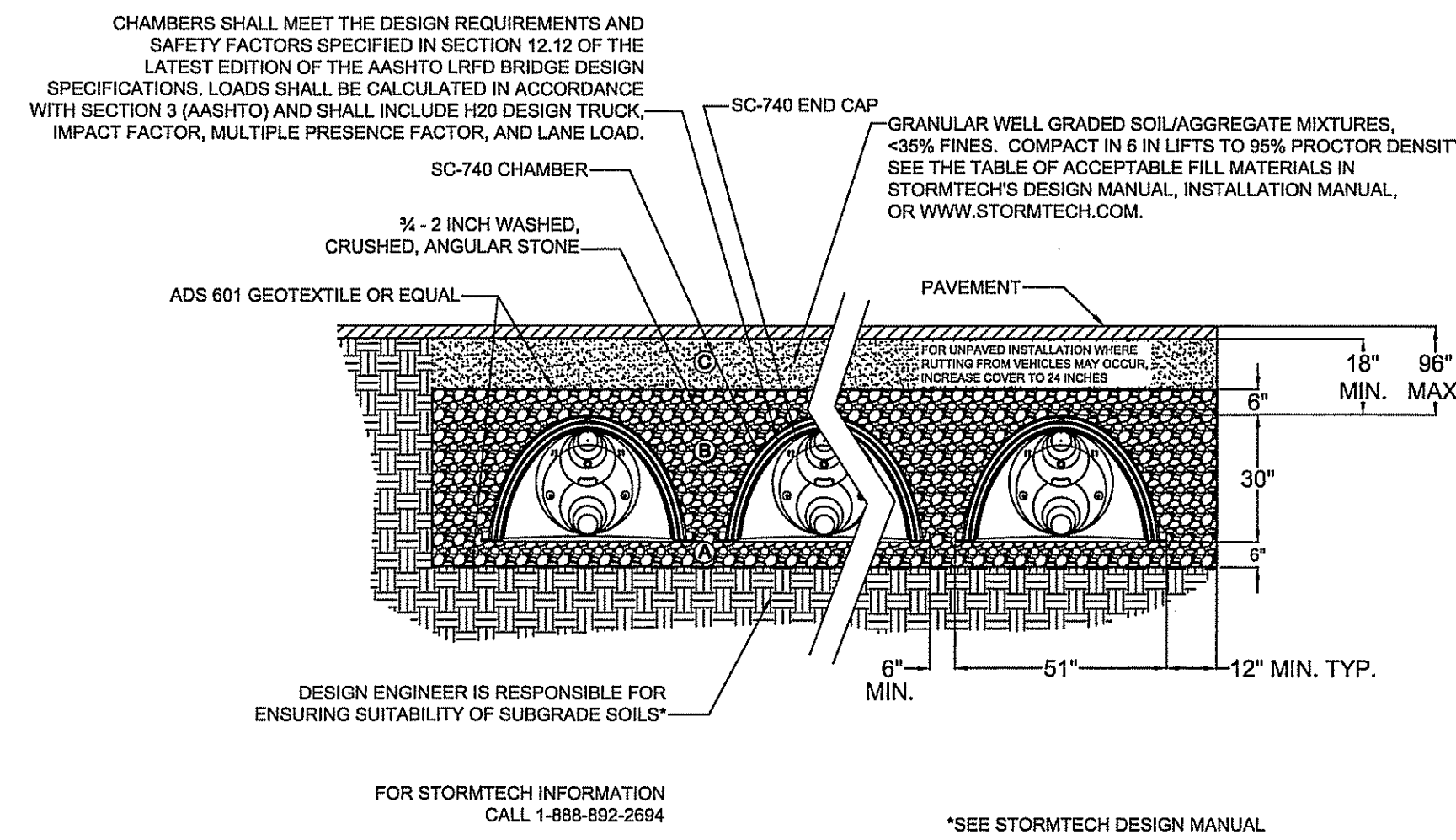
SCALE: AS SHOWN

AUGUST 14, 2017

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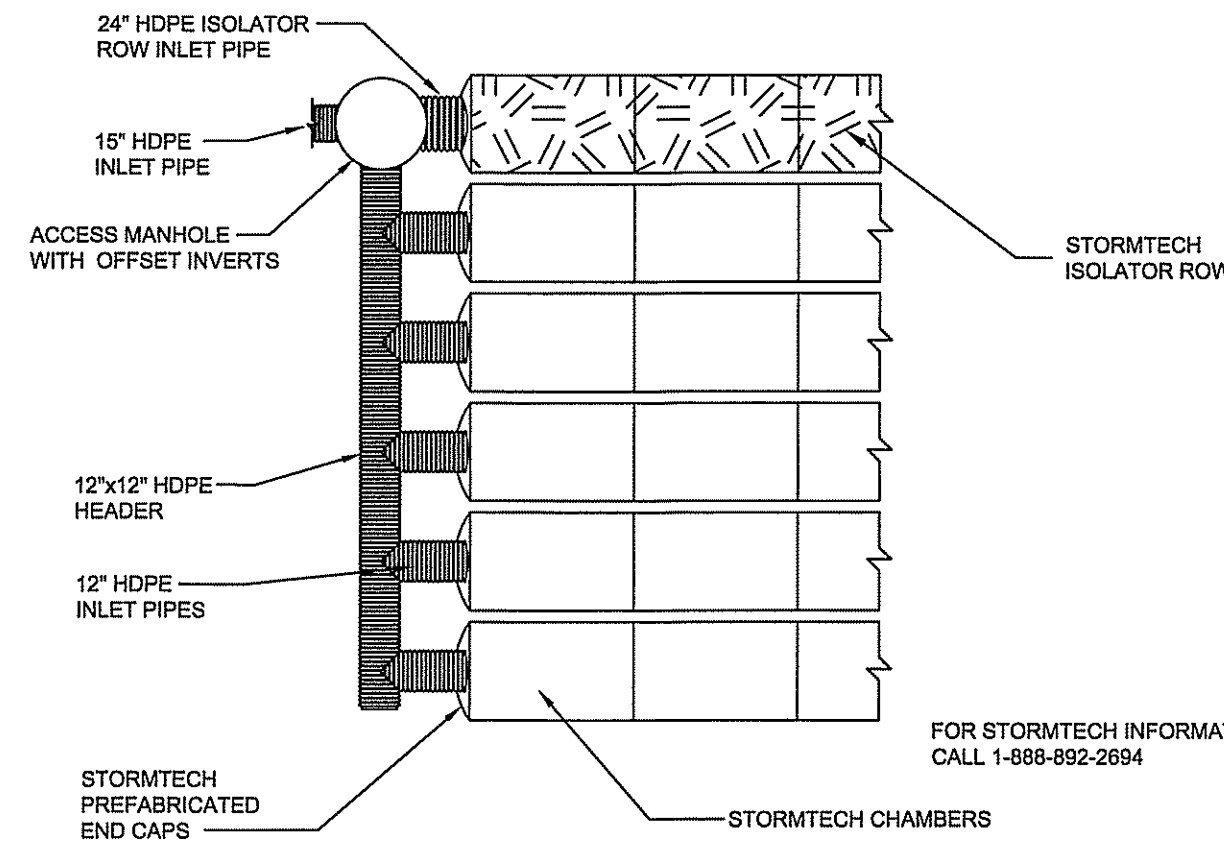
SC-740 TYPICAL CROSS SECTION

ACCEPTABLE FILL MATERIALS STORMTECH SC-740 CHAMBER SYSTEMS

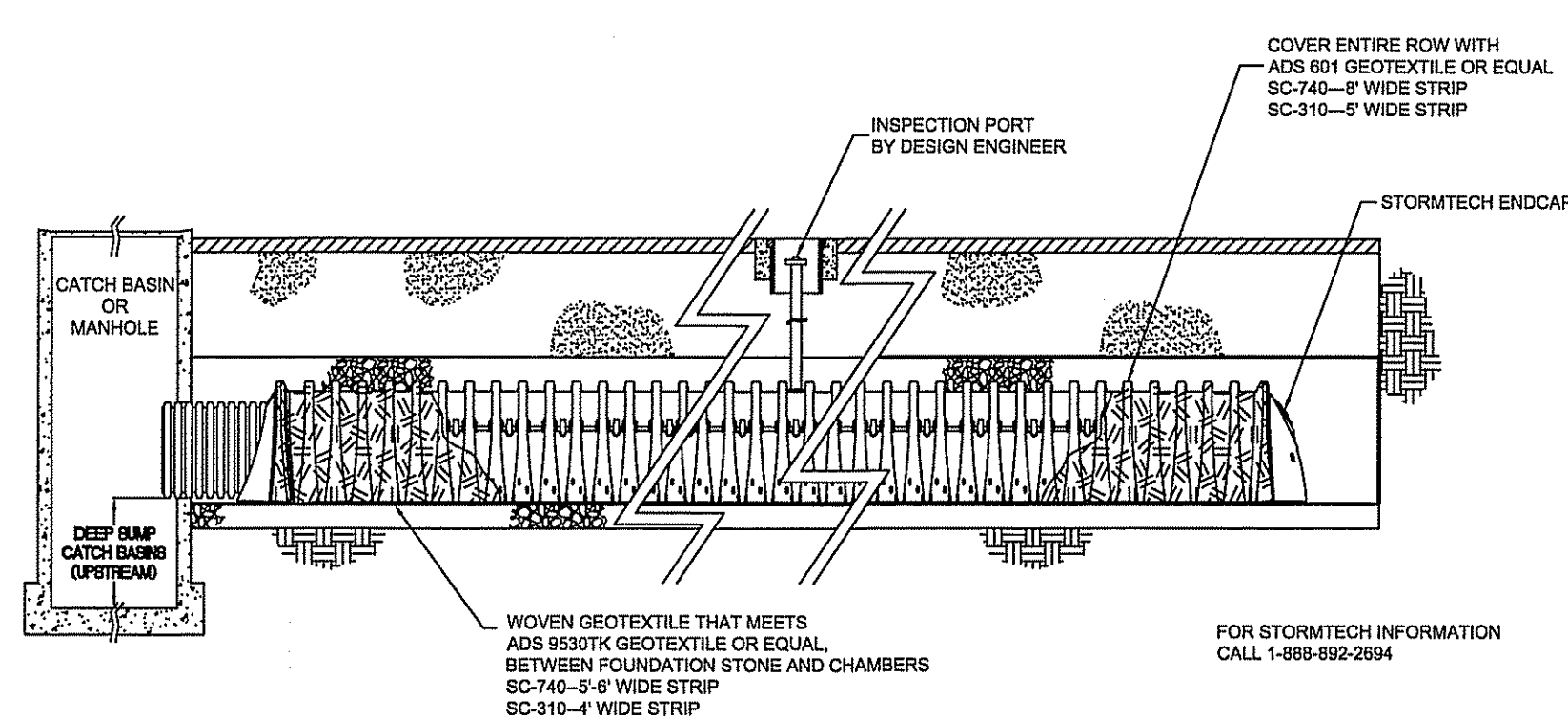
MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION	AASHTO M145 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
FILL MATERIAL FROM 18" TO GRADE ABOVE CHAMBERS	ANY SOIL/ROCK MATERIALS, NATIVE SOILS OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
FILL MATERIAL FOR 6" TO 18" ELEVATION ABOVE CHAMBERS (24" FOR UNPAVED INSTALLATIONS)	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 88, 9, 10	A-1, A-2, A-3	COMPACT IN 6" LIFTS TO A MINIMUM 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 LBS. DYNAMIC FORCE NOT TO EXCEED 20,000 LBS.
EMBEDMENT STONE SURROUNDING AND TO A 6" ELEVATION ABOVE CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN 3/4 - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	NO COMPACTION REQUIRED
FOUNDATION STONE BELOW CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN 3/4 - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY

PLEASE NOTE: THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE WASHED CRUSHED ANGULAR. FOR EXAMPLE, THE STONE MUST BE SPECIFIED AS WASHED, CRUSHED, ANGULAR NO. 4 STONE.

STORMTECH ACCEPTABLE FILL MATERIALS

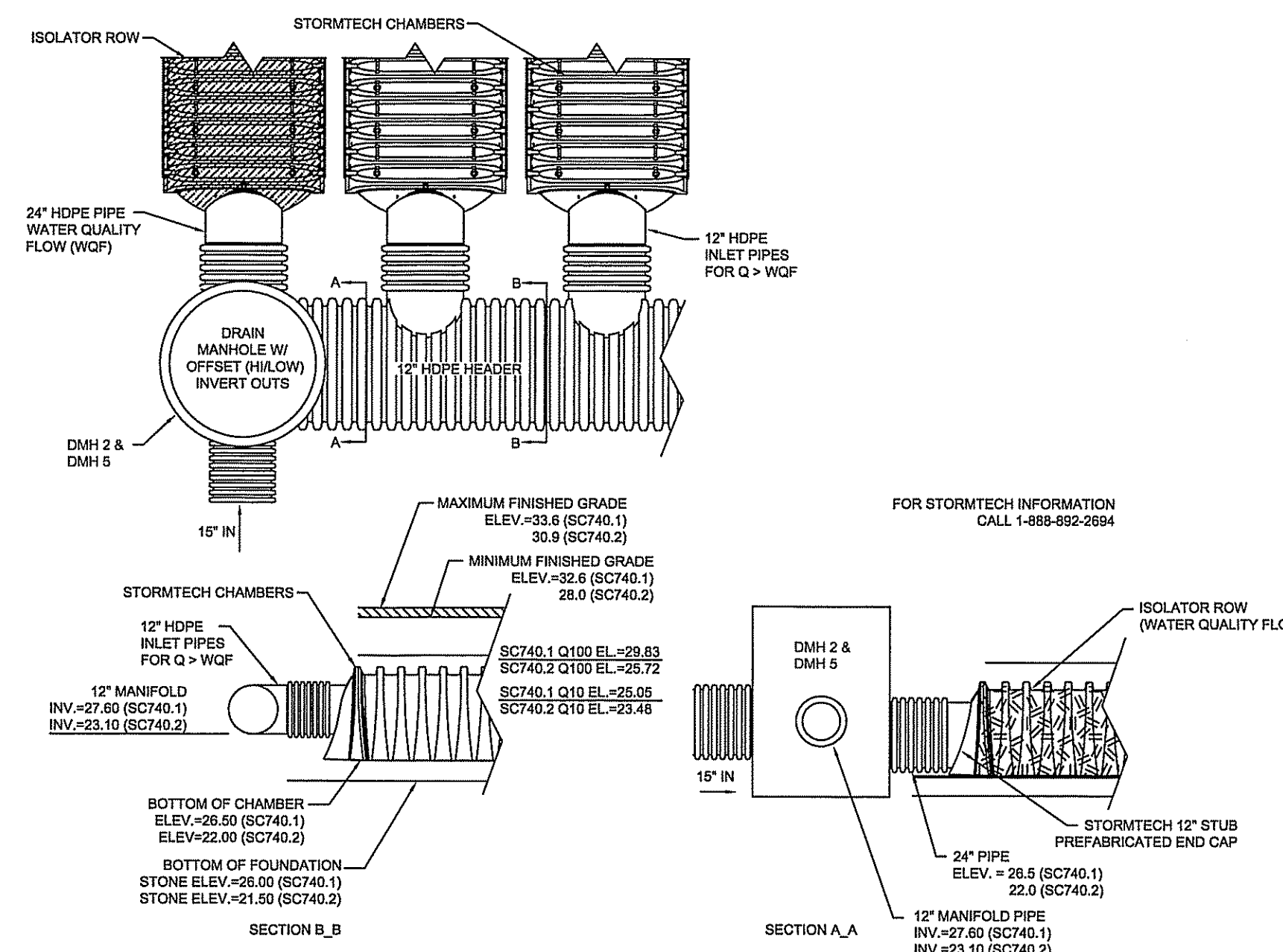


STORMTECH ISOLATOR ROW MANIFOLD DETAIL



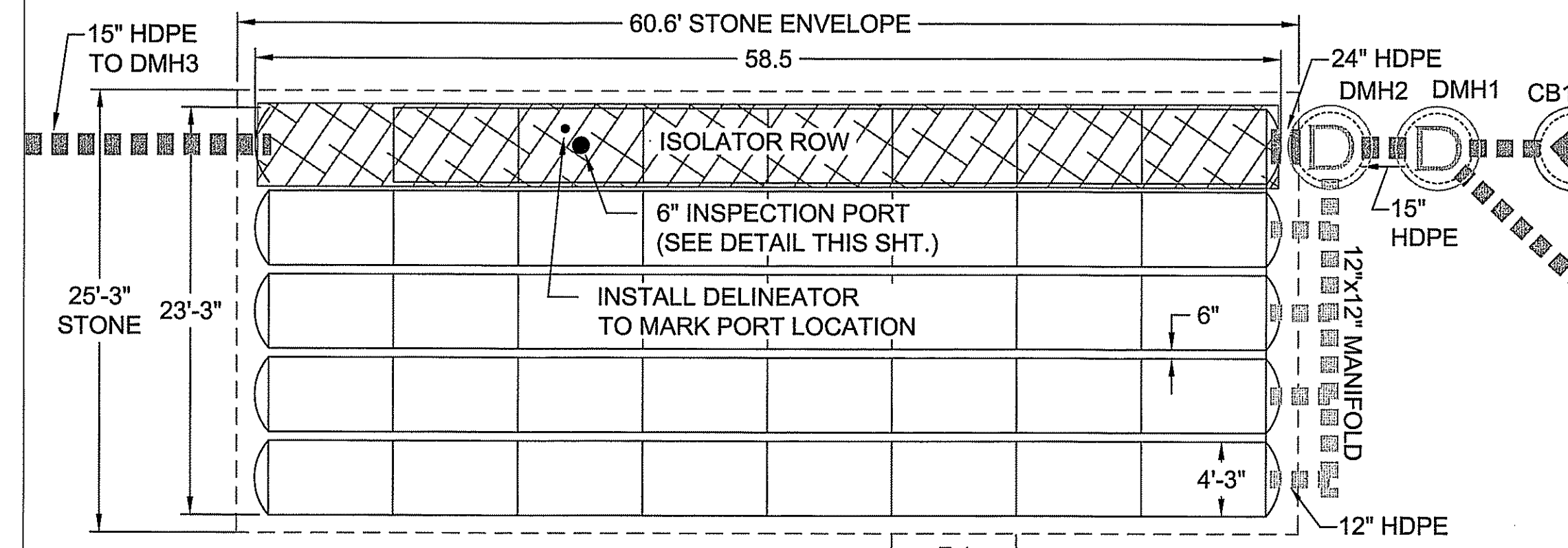
STORMTECH ISOLATOR ROW DETAIL

STORMTECH UNDERDRAIN DETAIL (NA)

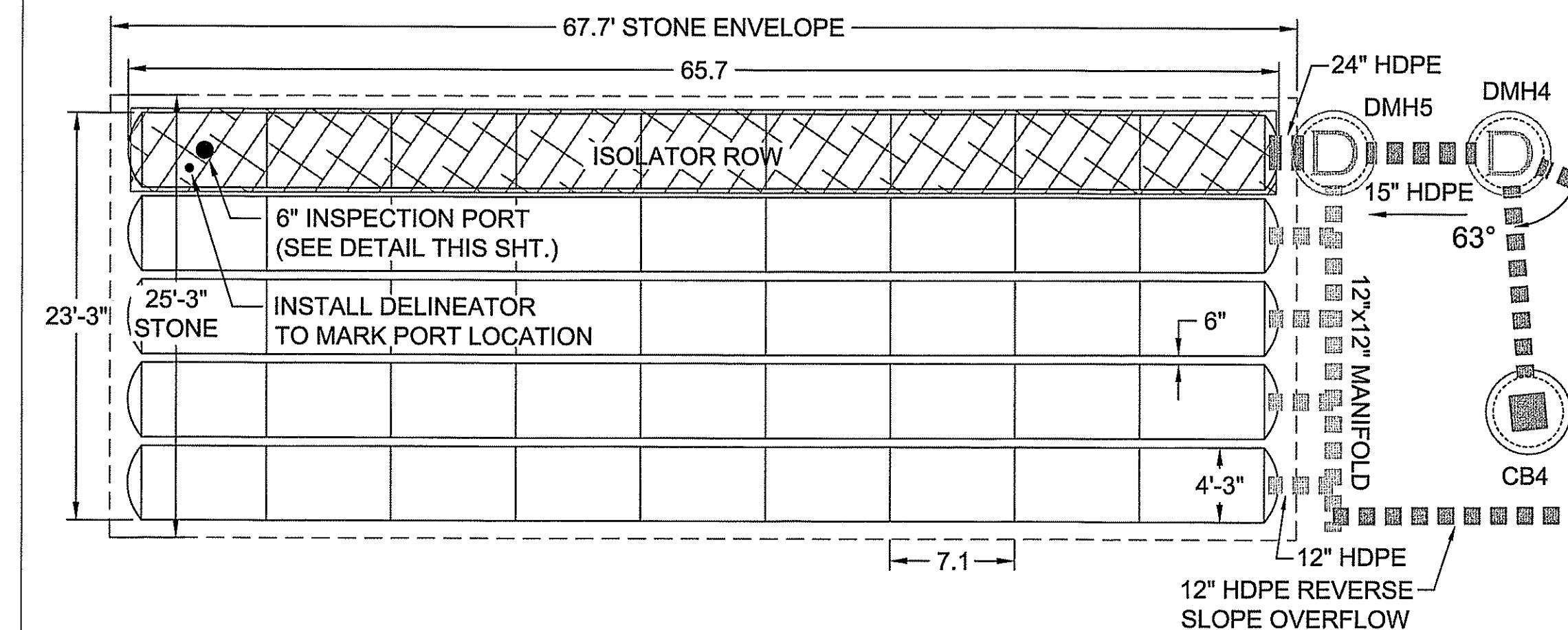


STORMTECH ELEVATIONS

SC740.1
5 ROWS OF 8 CHAMBERS = 40 CHAMBERS
STONE INV.=26.00, CHAMBER INV.=26.50



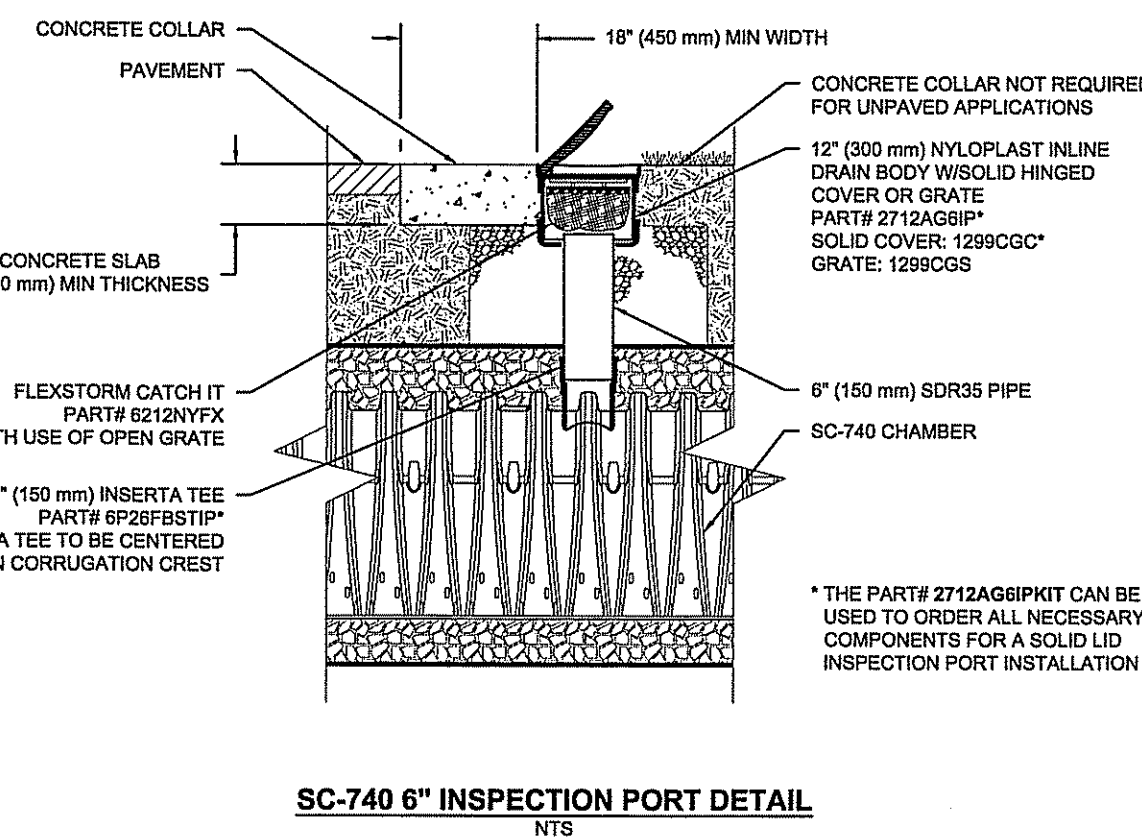
SC740.2
5 ROWS OF 9 CHAMBERS = 45 CHAMBERS
STONE INV.=21.50, CHAMBER INV.=22.00



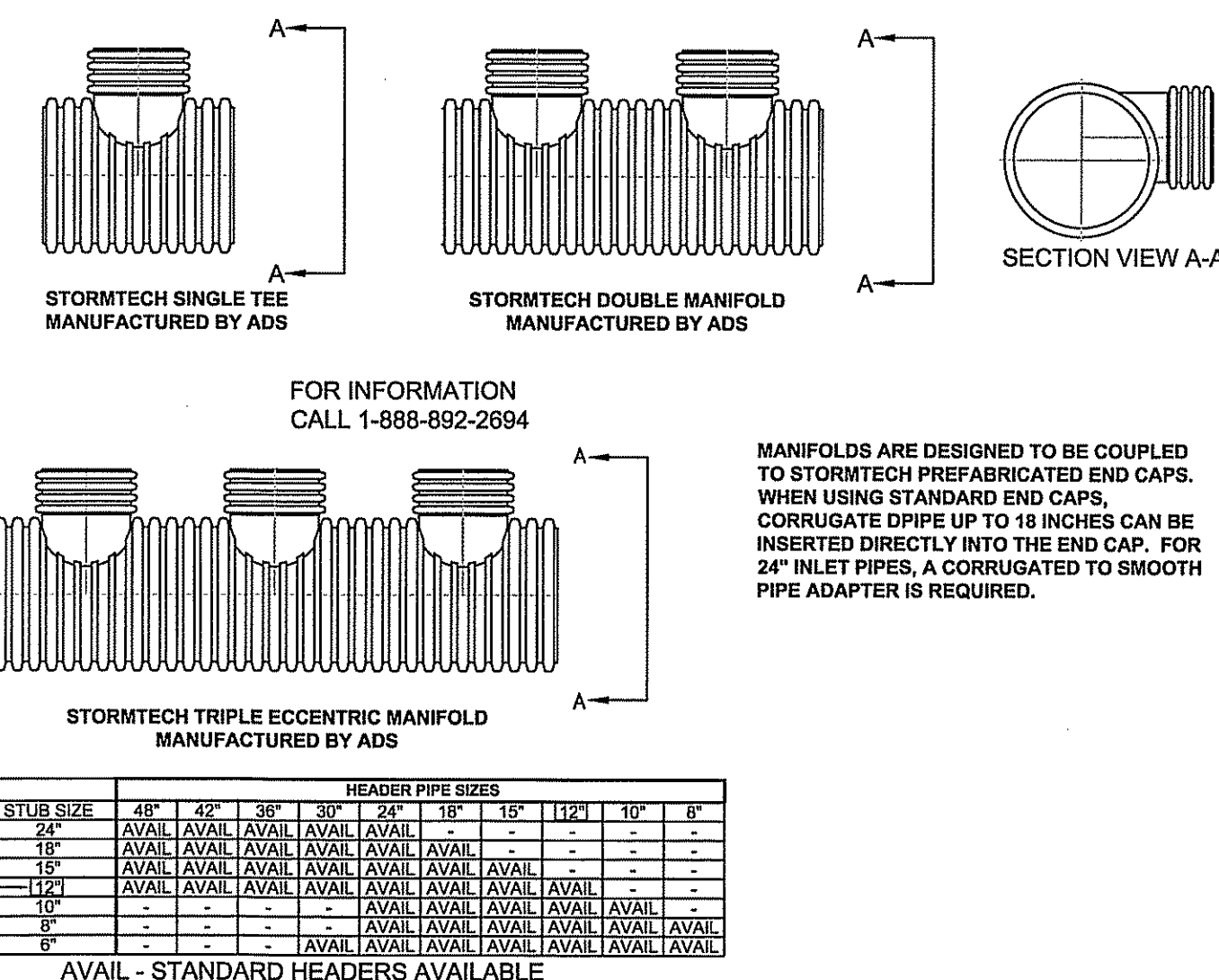
CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND SAFETY FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. LOADS SHALL BE CALCULATED IN ACCORDANCE WITH SECTION 3 AND SHALL INCLUDE H20 DESIGN TRUCK, IMPACT FACTOR, MULTIPLE PRESENCE, AND LANE LOAD.

STORMTECH SC-740 CHAMBER LAYOUT

- NOTES:
- ALL DESIGN SPECIFICATIONS FOR STORMTECH CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL.
 - THE INSTALLATION OF STORMTECH CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
 - THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-888-892-2694 OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
 - CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND SAFETY FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.



STORMTECH INSPECTION PORT DETAIL



ADS MANIFOLD DETAILS



SUBSURFACE INFILTRATION DETAILS
PARKER HILL
DEFINITIVE SUBDIVISION
TAX MAP PARCEL 34-8A - 2 PARKER STREET
NEWBURYPORT, MASSACHUSETTS
PREPARED FOR AND LAND OF (34-8-A),
PARKER 2 REALTY TRUST
160 BRIDGE ROAD, SALISBURY, MA 01962

This drawing was prepared to support the design engineer for the proposed conversion. It is the ultimate responsibility of the design engineer to assure that the stormwater system's design is in full compliance with all applicable laws and regulations. It is the design engineer's responsibility to ensure that the StormTech products are designed in accordance with StormTech's minimum requirements. StormTech LLC does not approve plans, sizing, or system designs. The designing engineer is responsible for all design decisions.

REVISIONS	DATE
ADDRESS CSI REVIEW	11/17/17

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20 BEAVERFIELD SUITE 104
WETHERSFIELD, CT 06099
Tel: 888-892-2694
Fax: 860-328-8401
WWW.STORMTECH.COM

STORMTECH DETAILS

SUBSURFACE INFILTRATION BASINS
SC740.1 & SC70.2

STORMTECH SC-740 CHAMBER DETAIL SHEET

SAVED AS	1468SC740_DT_A	CHECKED BY	CEB
DRAWN BY	NRC	SCALE	N.T.S.
DATE	11/07/2017	SHEET	DT-7
PROJECT NO.	1468.00	PAGE NO.	18 OF 18