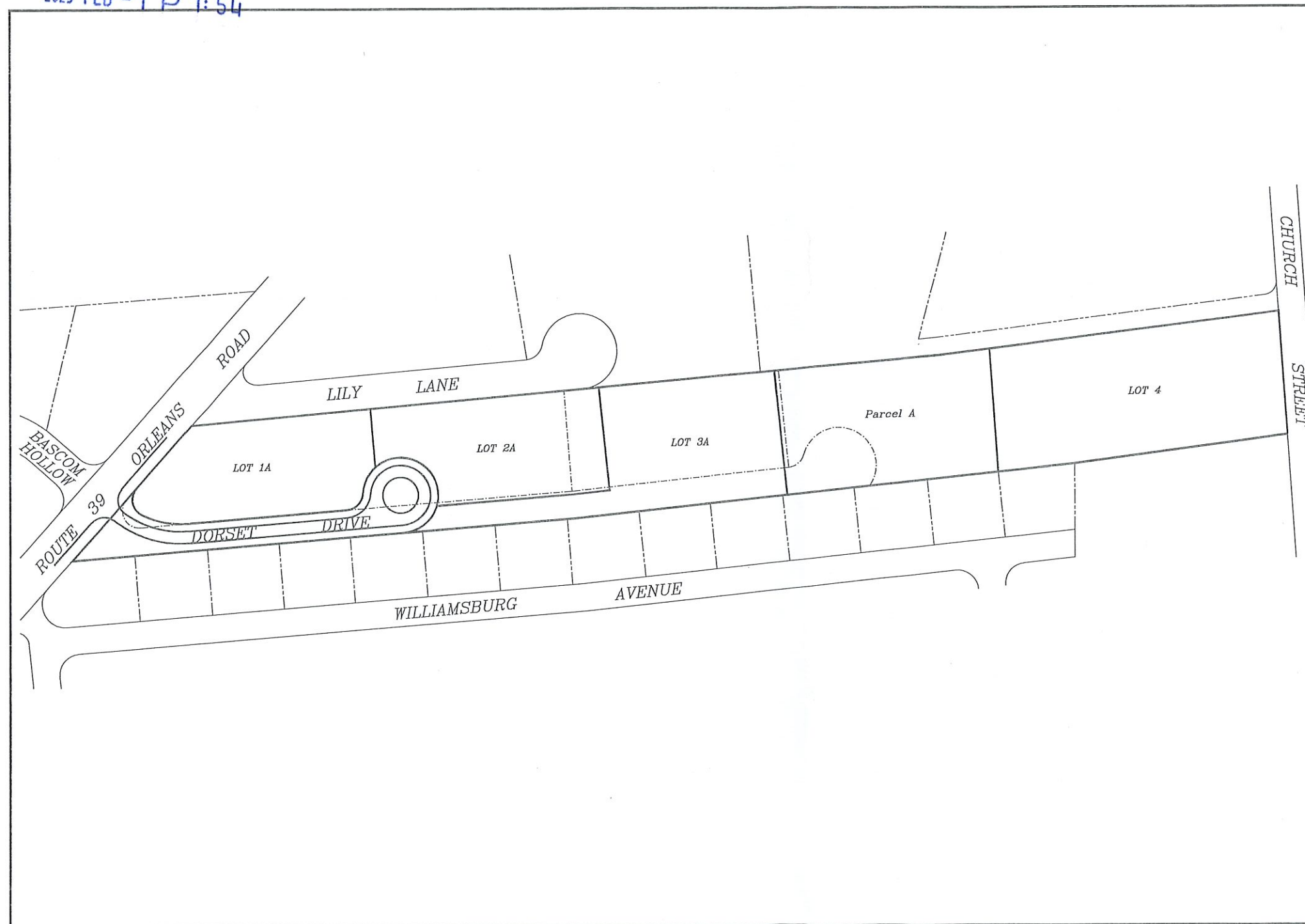


RECEIVED
TOWN CLERK
HARWICH, MA

2023 FEB -7 P 1:54

SUBDIVISION EAST HARWICH

Prepared For
EASTWARD HOMES BUSINESS TRUST

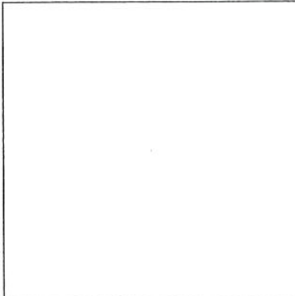


Prepared By
Clark Engineering LLC
156 Crowell Road, Chatham, MA 02633
&
Outermost Land Survey Inc.
46 Main Street, Brewster, MA 02631

TABLE OF CONTENTS

Sheet 1 Modification Subdivision Plan
Sheet 2 Topography Plan
Sheet 3 Road Profile Plan
Sheet 4 Drainage & Paving Details
Sheet 5 Water & Sewer Details
Sheet 6 Erosions Control Plan

Date: 02-03-2023	Drawing No.: 0010-202A
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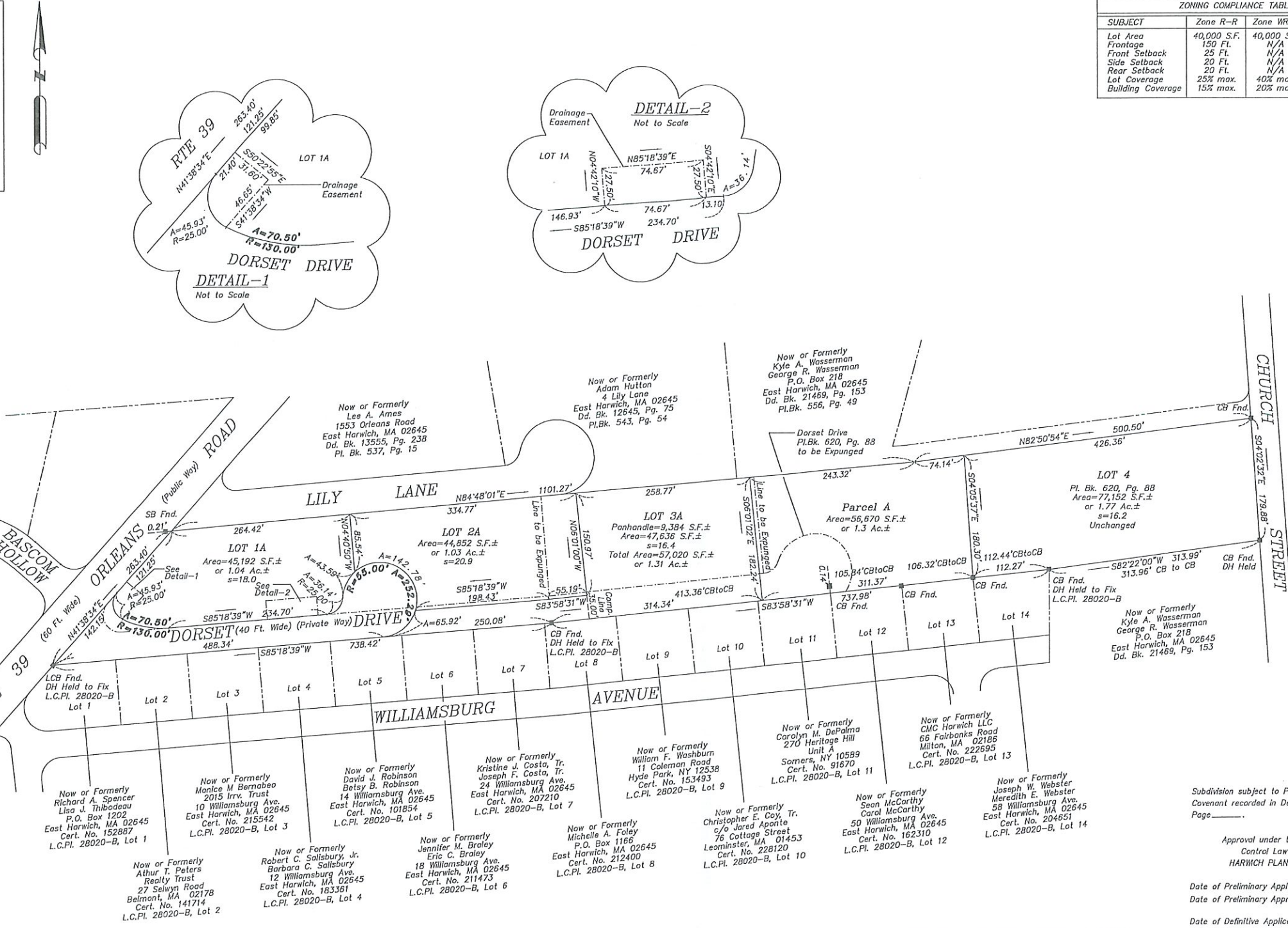
I certify that this plan was prepared in accordance with the rules and regulations of the Register of Deeds as adopted January 1, 1976 and amended January 7, 1988.

Date _____
P.L.S. _____

NOTE
Parcel A lacks frontage on a Way and is not considered a building lot. Parcel to be conveyed and combined with land of abutter.

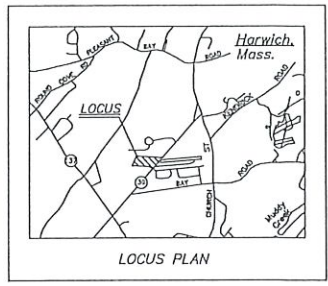
I, Emily Mitchell, Clerk of the Town of Harwich, hereby certify that notice of approval of this plan by the Planning Board has been received and recorded at this office and no notice of appeal was received during the twenty days next after such receipt and recording of said notice.

Date _____
Town Clerk _____



ZONING COMPLIANCE TABLE			
SUBJECT	Zone R-R	Zone WRPD	PROPOSED
Lot Area	40,000 S.F.	40,000 S.F.	40,000 S.F. min
Frontage	150 Ft.	N/A	65.92 Ft. min*
Front Setback	25 Ft.	N/A	25 Ft. min
Side Setback	20 Ft.	N/A	20 Ft. min
Rear Setback	20 Ft.	N/A	20 Ft. min
Lot Coverage	25% max.	40% max.	25 %
Building Coverage	15% max.	20% max.	15 %

* Panhandle



Assessors' Map 98 Parcels B1, B2, B3 & B4

OWNERS OF RECORD:

David W.L. Bascom
Laura Bascom
65 Phyllis Lane
Franklin, MA 02638
Deed Book 23743, Page 190
Plan Book 620, Page 88
Lot 1

Kimberly J. Veach
16 Elmwood Avenue
Salem, NH 03079
Deed Book 27642, Page 111
Plan Book 620, Page 88
Lot 2

Dawn K. Mossey
2 Elmwood Avenue
Salem, NH 03079
Deed Book 27642, Page 109
Plan Book 620, Page 88
Lot 3

Charles P.H. Bascom
Joan C. Bascom
65 Phyllis Lane
Franklin, MA 02638
Diane Bascom
224 Church Street
E. Harwich, MA 02645
Deed Book 22934, Page 134
Plan Book 620, Page 88
Lot 4

LOCUS TOTAL AREA
Area=309,414 S.F.±
or 7.1 Ac.±

MODIFICATION SUBDIVISION PLAN
2,6,10 Dorset Dr. & 224 Church St, East Harwich, MA

Prepared For
**EASTWARD HOMES
BUSINESS TRUST**
Applicant

CLARK ENGINEERING LLC
156 Crowell Road Suite B, Chatham, MA. 02633
Tel.: (508) 945-5454; Fax.: (508) 945-5458

OUTERMOST LAND SURVEY, INC.
46 Main Street, Brewster, MA 02631
Tel.: (508) 255-0477

Rev. #	Description of Revision	Date

Date: 02-03-2023
Scale: 1" = 80'
Drawing No.: 0010-202A
Sheet No.: 1

DEFINITIVE SUBDIVISION PLAN PRIOR WAIVERS GRANTED

DEFINITIVE SUBDIVISION PLAN

- Drainage Calculations
- Road Profile
- Road Cross-Section

FULL ROAD CONSTRUCTION

- As-Built Drawings
- 22 Ft. Pavement Width to 16 Ft. Wide Gravel
- Cul-De-Sac Construction

MODIFICATION SUBDIVISION PLAN WAIVERS

MODIFICATION SUBDIVISION PLAN

- Plan Scale
1" = 40' Maximum Scale Required
1" = 80' Scale Waiver Requested
- Roadway Width
20 Ft. Paved Roadway Required
14 Ft. Paved Roadway Proposed
6 Ft. Waiver Requested

Subdivision subject to Planning Board
Covenant recorded in Deed Book _____
Page _____

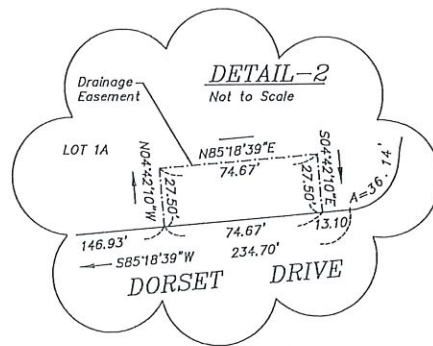
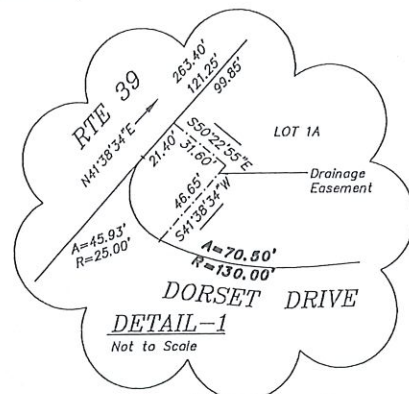
Approval under the Subdivision
Control Law required.
HARWICH PLANNING BOARD

Date of Preliminary Application _____
Date of Preliminary Approval _____

Date of Definitive Application _____
Date of Definitive Approval _____

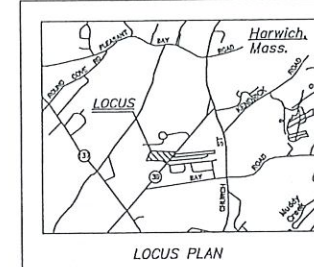
Date of Endorsement _____

	Existing Contour
	Proposed Contour
	Existing Spot Grade
	Proposed Spot Grade
	Water Service
	Overhead Utility Line(s)
	Underground Utility Line(s)
	Gas Line
	Concrete Bound (CB)
	Utility Pole
	Catch Basin
	Fire Hydrant
	Tree or Hedge Line
	Conc. Monument to be Set



SUBDIVISION RULES & REGULATIONS COMPLIANCE TABLE		
3 Lots — Way		
Subject	REQUIRED	PROPOSED
Right of Way Width	50 Ft.	40 Ft.
Roadway Width	22 Ft.	14 Ft.
Sidewalk	4 Ft.	None
Maximum Centerline Radius	150 Ft.	150 Ft.
Minimum Vertical Curve	100 Ft.	100 Ft.
Maximum Grade	8 %	3 %
Minimum Grade	1 %	2 %
Minimum Intersection Angle	70°	90°
Minimum Centerline Offset	125 Ft.	194 Ft./206 Ft.
Minimum Roundling	15 Ft.	15 Ft.
Cleared Intersection	100 Ft.	289 Ft.
Maximum Road Length	1,200 Ft.	688 Ft.
Minimum Circle Turnaround	45 Ft.	45 Ft.
Pavement Thickness	3 in.	4 in.
Base Course	8 in.	8 in.
Storm Frequency	25 years	100 years

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SUBJECT	Zone R-R	Zone WRPD	PROPOSED
Lot Area	40,000 S.F.	40,000 S.F.	40,000 S.F.
Frontage	150 Ft.	N/A	65.92 Ft. min
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* *Panhandl*

Assessors' Map 98 Parcels B1, B2, B3 & B4

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Lot 4

LOCUS TOTAL AREA
Area=309,414 S.F.±
or 7.1 Ac.±

TOPOGRAPHY PLAN

2,6,10 Dorset Dr. & 224 Church St, East Harwich, MA

Prepared For
**EASTWARD HOMES
BUSINESS TRUST**
Applicant

CLARK ENGINEERING LLC

156 Crowell Road Suite B, Chatham, MA. 02633
Tel.: (508) 945-5454; Fax.: (508) 945-5458

OUTERMOST LAND SURVEY, INC.

46 Main Street, Brewster, MA 02631
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Rev. #	Description of Revision	Date

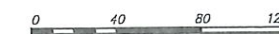
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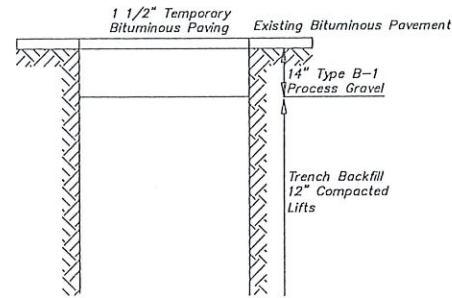
I hereby certify that the features shown hereon are located as they exist on the ground.

Date _____

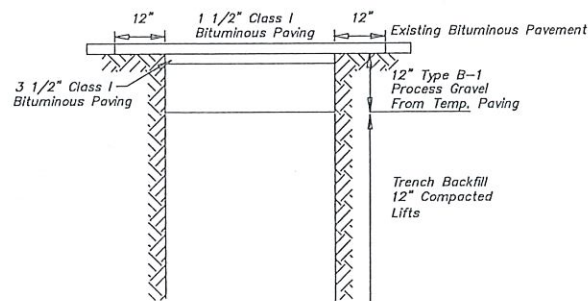
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P.L.S.

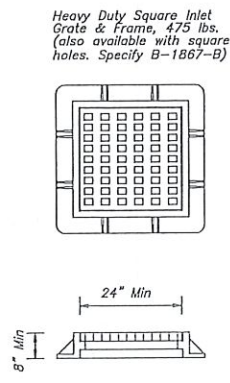




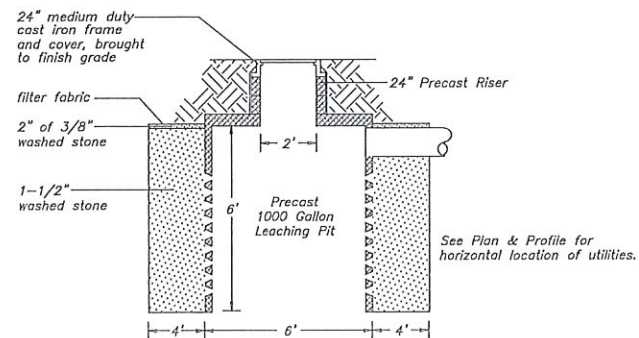
**TOWN ROAD TEMPORARY
PAVING DETAIL**
Not to Scale



**TOWN ROAD FINAL
PAVING DETAIL**
Not to Scale

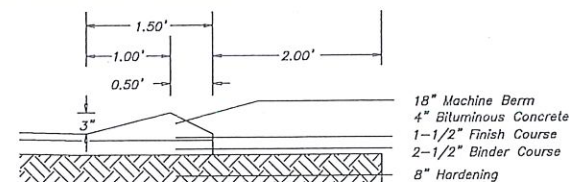
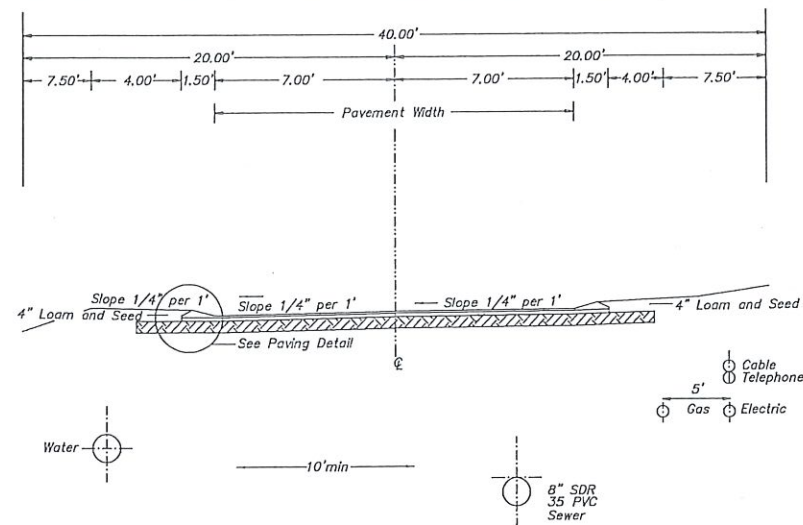


**FRAME & GRATE/
COVER DETAIL**
Not to Scale



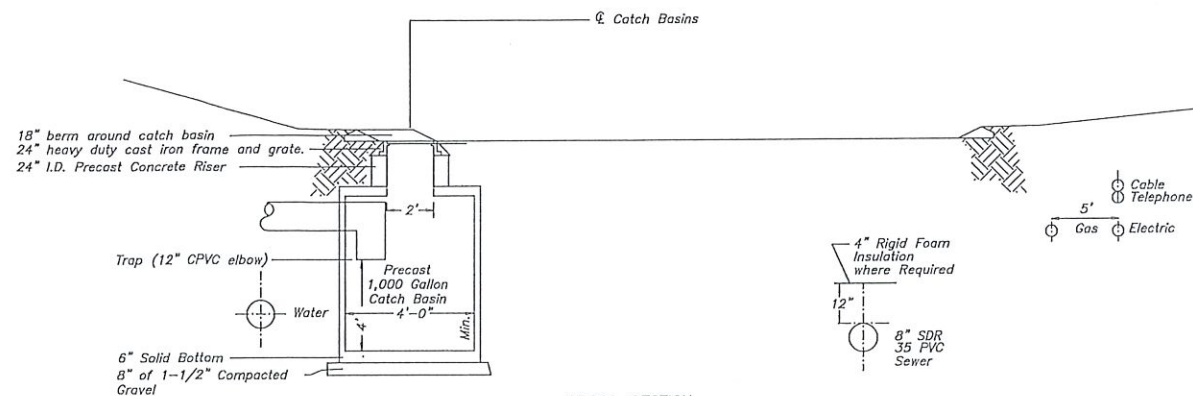
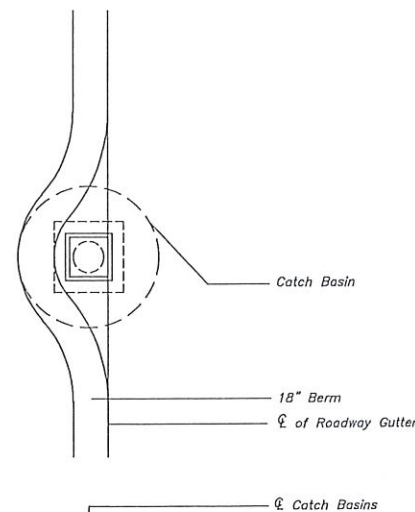
**CROSS-SECTION
LEACHING PIT**
Not to Scale

**TYPE-A CROSS-SECTION
ROADWAY**
Not to Scale



PAVING DETAIL
Not to Scale

**PLAN VIEW
CATCH BASIN**
Not to Scale



**CROSS-SECTION
CATCH BASIN**
Not to Scale

MANHOLE CONSTRUCTION

GENERAL: Manholes shall be of precast concrete, 4 feet in diameter. Precast concrete sections shall conform to ASTM C 478, except that Portland cement shall conform to ASTM C 150, Type I/A. Concrete shall have a minimum compressive strength of 4,000 psi at 28 days. All sections shall be cast solid, without lifting holes. The eccentric top shall have a minimum diameter of 30".

Joints for precast reinforced concrete manhole sections shall be O-Ring rubber gaskets or compressible filler such as ConSeal CS-101 joint sealant or approved equal.

Exterior surfaces of manholes shall be painted with two coats of Bitumastic No. 28 as manufactured by Koppers Company, or approved equal.

All manhole bases shall extend a minimum of 6" beyond the outside wall of the manhole and shall be a minimum of 8" thick.

Install on compacted gravel base in accordance with the drawings. Manhole steps shall be provided in all manholes. Steps shall be cast into the walls of the structures so as to form a continuous ladder with a distance of 12" between steps.

TRENCH CONSTRUCTION

(streets, sidewalks, berms, curbs or driveway aprons only)

1. All trenches opened within the town layout (streets, sidewalks, berms, curbs or driveway aprons) will be opened wide enough to allow a mechanical tamper to compact material in layers greater than six (6) inches. Each layer will be compacted to a density equal to that of adjacent original material so that pavement can be replaced immediately. All cross trenches will be opened so that they can be properly filled and compacted before sunset with a temporary patch of asphalt applied.

2. The backfill will consist of the excavated material if it is declared suitable by the Dept. of Public Works Director or his designee. Backfill will be placed in successive layers of not more than six (6) inches of compacted depth. If, in the opinion of the Dept. of Public Works Director, the excavated material is unsuitable, the entire rejected material will be disposed of by the applicant at no cost to the town. In its place, the applicant will bring in suitable fill material consisting of approved material as directed. After thorough tamping around the utility, the six (6) inch layers of back fill will be thoroughly compacted as follows: if dry, it shall be moistened and then compacted by tamping with a mechanical tamper. The final six (6) inches of a street, driveway apron, berm or sidewalk backfill will, in all cases, be processed stone (or equal) thoroughly tamped.

3. After backfill is in place and satisfactorily compacted, the applicant will apply at once a 3" inch temporary patch course over the entire excavated area. This temporary patch is to be left in place for at least 90 days and not more than four months, until no further settling can be reasonably expected. At this time the applicant under the direction of the highway superintendent will saw cut 12 inches past the farthest point of trench excavation setdage. The permanent patch must be four (4) inch bituminous concrete (Type 1-1) in two layers. A project could also call for a complete overlay depending on the condition (age) of the road. At no time will the temporary patch be removed by a machine bucket with teeth so not to destabilize the base material. When the patch has been completed, the joints should be painted with a suitable emulsion and sealed with fine sand.

WATER MAIN CONSTRUCTION

1. All work shall conform to the Town of Harwich Water and Sewer Department rules and regulations for the installation of water mains and appertenances.

2. The developer/contractor is responsible for paying for the necessary inspection of the water and sewer as well as providing a minimum of two weeks notification to the Department of Public Works for scheduling same.

DRAINAGE & PAVING DETAILS

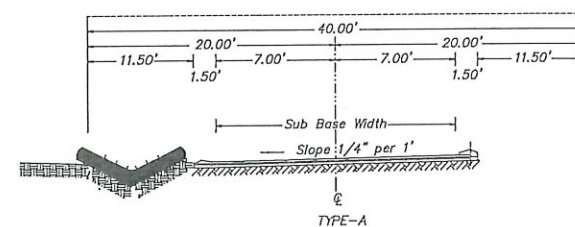
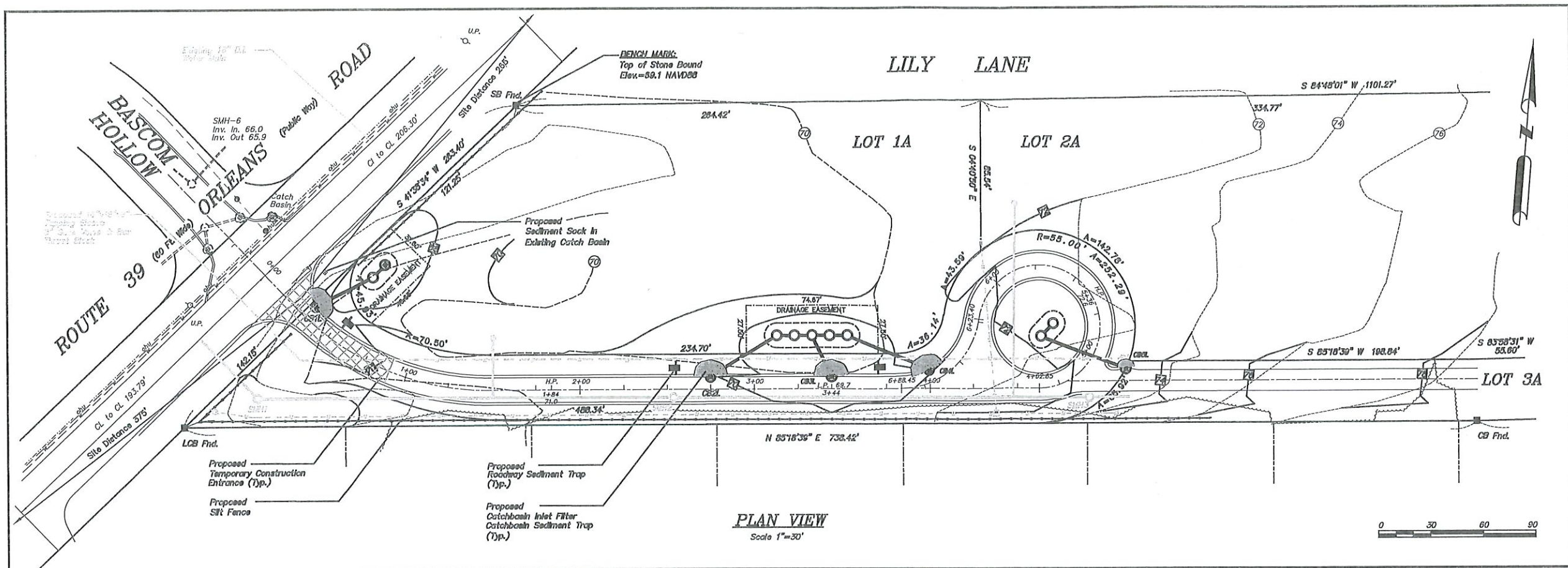
2,6,10 Dorset Dr. & 224 Church St., East Harwich, MA

Prepared For
**EASTWARD HOMES
BUSINESS TRUST**
Applicant

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156 Crowell Road Suite B, Chatham, MA, 02633
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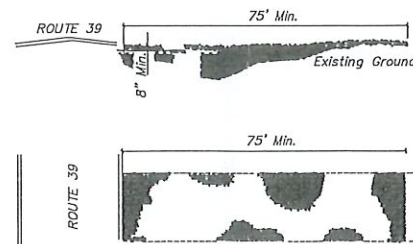
Rev. #	Description of Revision	Date

Date: 02-03-2023 Drawing No.: 0010-202A
Scale: SEE PLAN Sheet No.: 4 of 6



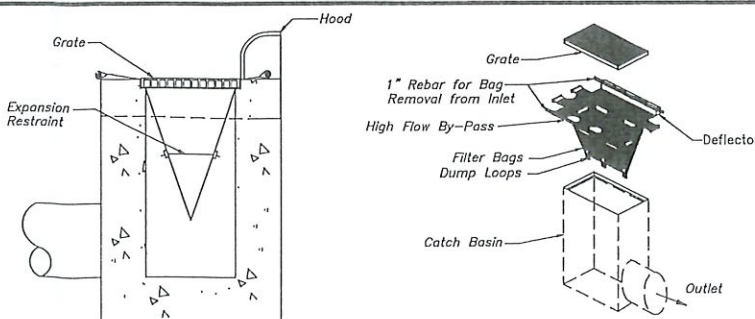
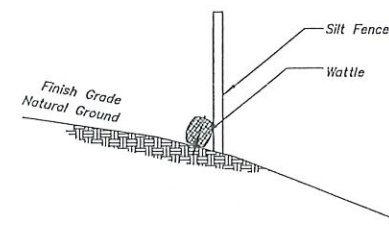
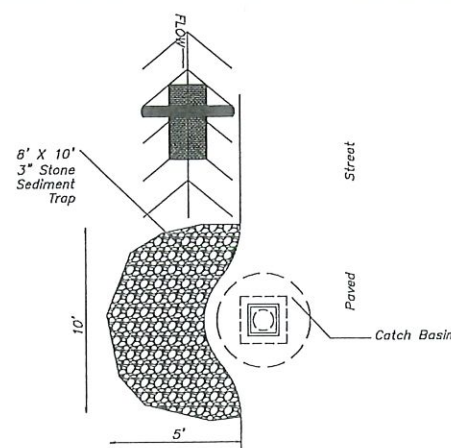
WATTLE CHECK DAM

1. Use Minimum 12 Inch Diameter Fiber Wattle.
2. Use 2 Ft. Wooden Slakes With A 2 In. x 2 In. Normal Cross Section.
3. Only Install Wattle(s) To A Height In Ditch So Flow Will Not Wash Around Wattle And Scour Ditch Slopes And As Directed.
4. Install A Minimum Of 2 Upslope Slakes And 4 Downslope Slakes At An Angle To Wedge Wattle To Bottom Of Ditch.
5. Provide Staples Made Of 0.125 In. Diameter Steel Wire Formed Into A U Shape Not Less Than 12" In Length.
6. Install Staples Approximately Every 1 Linear Foot On Both Sides Of The Wattle And At Each End To Secure It To The Soil.
7. Install Matting In Accordance With Manufacturers Specifications.



NOTES:

1. A Stabilized Entrance Pad Of 2"-3" Washed Stone Shall Be Located Where Traffic Will Enter Or Leave The Construction Site Onto A Public Street.
2. Filter Fabric Or Compacted Crusher Run Stone Shall Be Used As A Base For The Construction Entrance.
3. The Entrance Shall Be Maintained In A Condition Which Will Prevent Tracking Or Flowing Of Sediments Onto Public Streets Or Existing Pavement. This May Require Periodic Top Dressing With Additional Stone As Conditions Warrant And Repair Or Cleanout Of Any Measures Used To Trap Sediment.
4. Any Sediment Spilled, Drapped, Washed, Or Tracked Onto Public Streets Must Be Removed Immediately.
5. When Appropriate, Wheels Must Be Cleaned To Remove Sediment Prior To Entering A Public Street. When Washing Is Required, It Shall Be Done In An Area Stabilized With Crushed Stone Which Drains Into An Approved Sediment Basin.



NOTES

1. Inlet Maintenance Shall Be Documented In Project Log Book.
2. Filter Types Shall Be approved By The Inspector Prior To Installation.
3. Filter Bags May Be Removed When Site Is Stabilized At The Direction Of The Engineer.
4. Filter Bags Shall Be Removed Prior To Street Acceptance.
5. Filter Bags Shall Be Cleaned Or Replaced On A Regular Basis (NOT BE MORE THAN HALF FULL AT ANY TIME).
6. Filter Bags Shall Not Be Allowed In Existing Town or MA DOT Roads.

EROSION CONTROL PLAN

2,6,10 Dorset Dr. & 224 Church St., East Harwich, MA

Prepared For
**EASTWARD COMPANIES
BUSINESS TRUST**
Applicant

CLARK ENGINEERING LLC
156 Crowell Road Suite B, Chatham, MA. 02633
Tel.: (508) 945-5454; Fax.: (508) 945-5458

Rev. #	Description of Revision	Date

Date: 02-03-2023 Drawing No.: 0010-202A
Scale: SEE PLAN Sheet No.: 6 of 6