

DEFINITIVE SUBDIVISION PLAN for FIELDS WAY

REVISIONS		
NO.	DATE	DESCRIPTION
3	6/1/23	ADD PARCEL A; MOVE LOT LINES
2	4/13/23	MOVE HYDRANTS; MOVE LOT 3 & 4 LOT LINE.
1	3/8/23	ADDRESS PEER REVIEW COMMENTS.

LIST OF ABBREVIATIONS:

AC	ACRES
APPROX	APPROXIMATE
BIT	BITUMINOUS
BK	BOOK
BVW	BORDERING VEGETATED WETLAND
CLDI	CEMENT LINED DUCTILE IRON
CONC	CONCRETE
DH	DRILL HOLE
DI	DUCTILE IRON
E	EAST
EL; ELEV	ELEVATION
ESRD	ESSEX SOUTH REGISTRY OF DEEDS
EXIST	EXISTING
INV	INVERT
LOW	LIMIT OF WORK
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
N/F	NOW / FORMERLY
PG	PAGE
PROP	PROPOSED
R	RADIUS
ROW	RIGHT OF WAY
S	SOUTH
SF	SQUARE FEET
STA	STATION
TP	TEST PIT
TYP	TYPICAL
W	WEST

170 ORCHARD STREET NEWBURY, MA JANUARY 2023

List of Drawings:

COVER SHEET

C-1: NOTES

C-2: EXISTING CONDITIONS PLAN I

C-3: EXISTING CONDITIONS PLAN II

C-4: LOTTING PLAN I

C-5: LOTTING PLAN II

C-6: SITE LAYOUT & UTILITIES PLAN

C-7: SITE GRADING & DRAINAGE PLAN

C-8: PROFILES & CROSS-SECTIONS

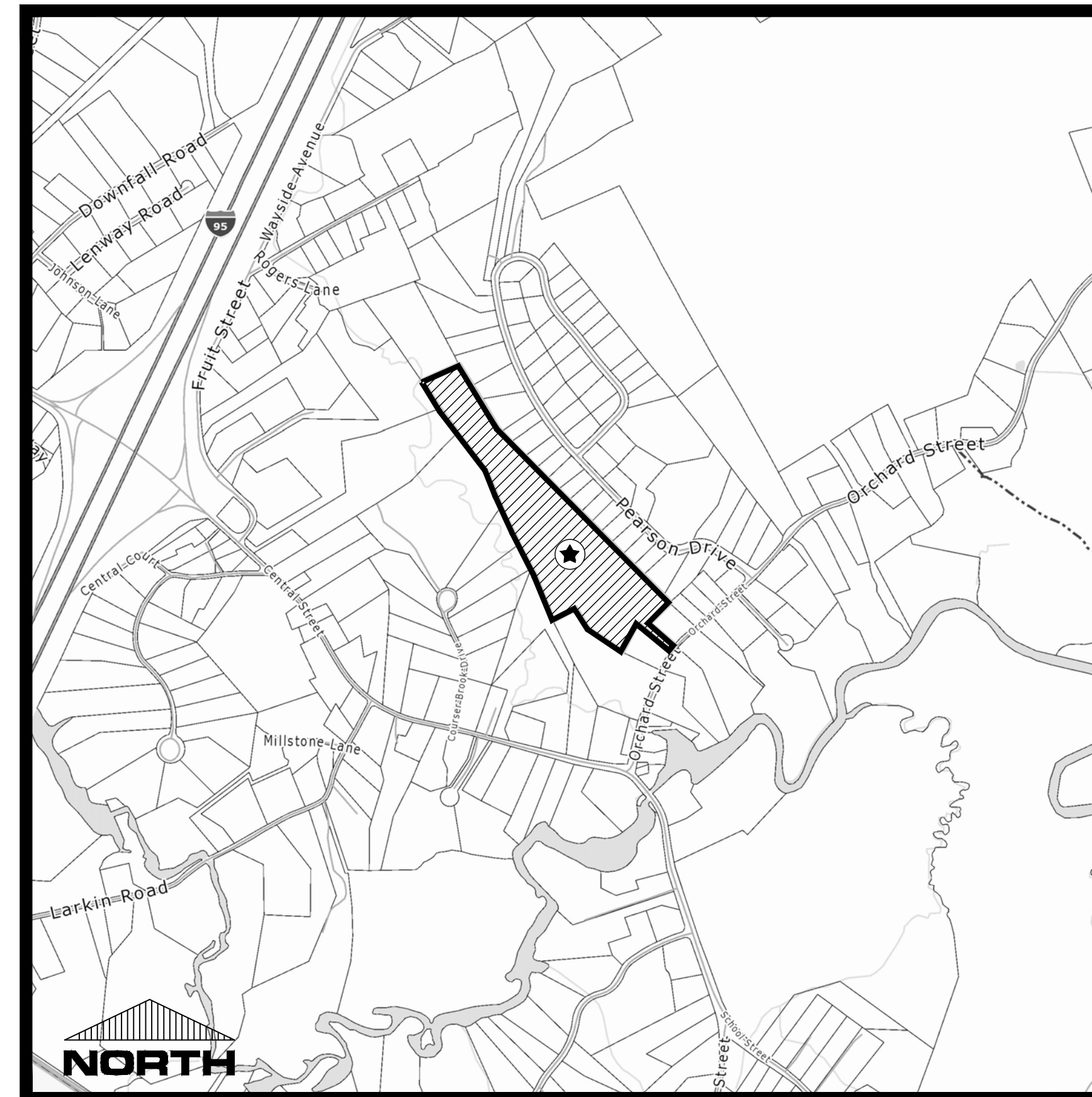
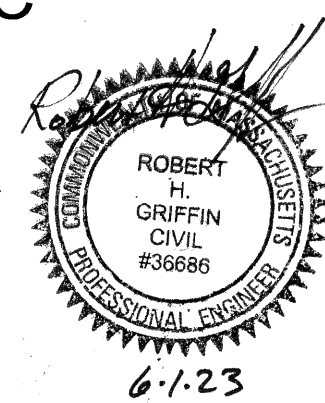
C-9: DETAILS I

C-10: DETAILS II

APPLICANT: ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLEE LANE
NEWBURYPORT, MA 01950

ENGINEER: GRIFFIN ENGINEERING GROUP, LLC
495 CABOT ST, 2ND FLOOR
BEVERLY, MA 01915

SURVEYOR: LEBLANC SURVEY ASSOCIATES
161 HOLTEN STREET
DANVERS, MA 01923



LOCUS MAP
SCALE: 1" = 800'

LIST OF WAIVERS

- SECTION 117-18C - ENVIRONMENTAL ANALYSIS
- BOARD MAY WAIVE ANALYSIS FOR SUBDIVISIONS OF 5 LOTS OR LESS.
- SECTION 117-23.D - GENERAL LAYOUT AND DIMENSIONS:
- REQUIRED: 30' PROPERTY LINE RADIUS AT STREET INTERSECTION
- PROVIDED: NONE
- SECTION 117-21 - STREET LOCATION AND ALIGNMENT:
- REQUIRED: MIN. WIDTH OF R.O.W. - 53'
- PROVIDED: MIN. WIDTH OF R.O.W. - 50'
- SECTION 117-24 & ATTACHMENT 1 - TYPICAL ROADWAY CROSS-SECTION:
- REQUIRED: ROADWAY CROWN; SWALE ON BOTH SIDES; STREET TREES
- PROVIDED: SUPER ELEVATION OF CUL-DE-SAC; NO STREET TREES
- SECTION 117-35 - SIDEWALKS/BIKEWAYS
- NO SIDEWALK PROVIDED
- SECTION 117-42 - TREES
- NO STREET TREES PROVIDED

TOWN OF NEWBURY
PLANNING BOARD

DATE:

I CERTIFY THAT THIS PLAN WAS PREPARED
IN ACCORDANCE WITH THE RULES AND
REGULATIONS OF THE REGISTERS OF DEEDS.

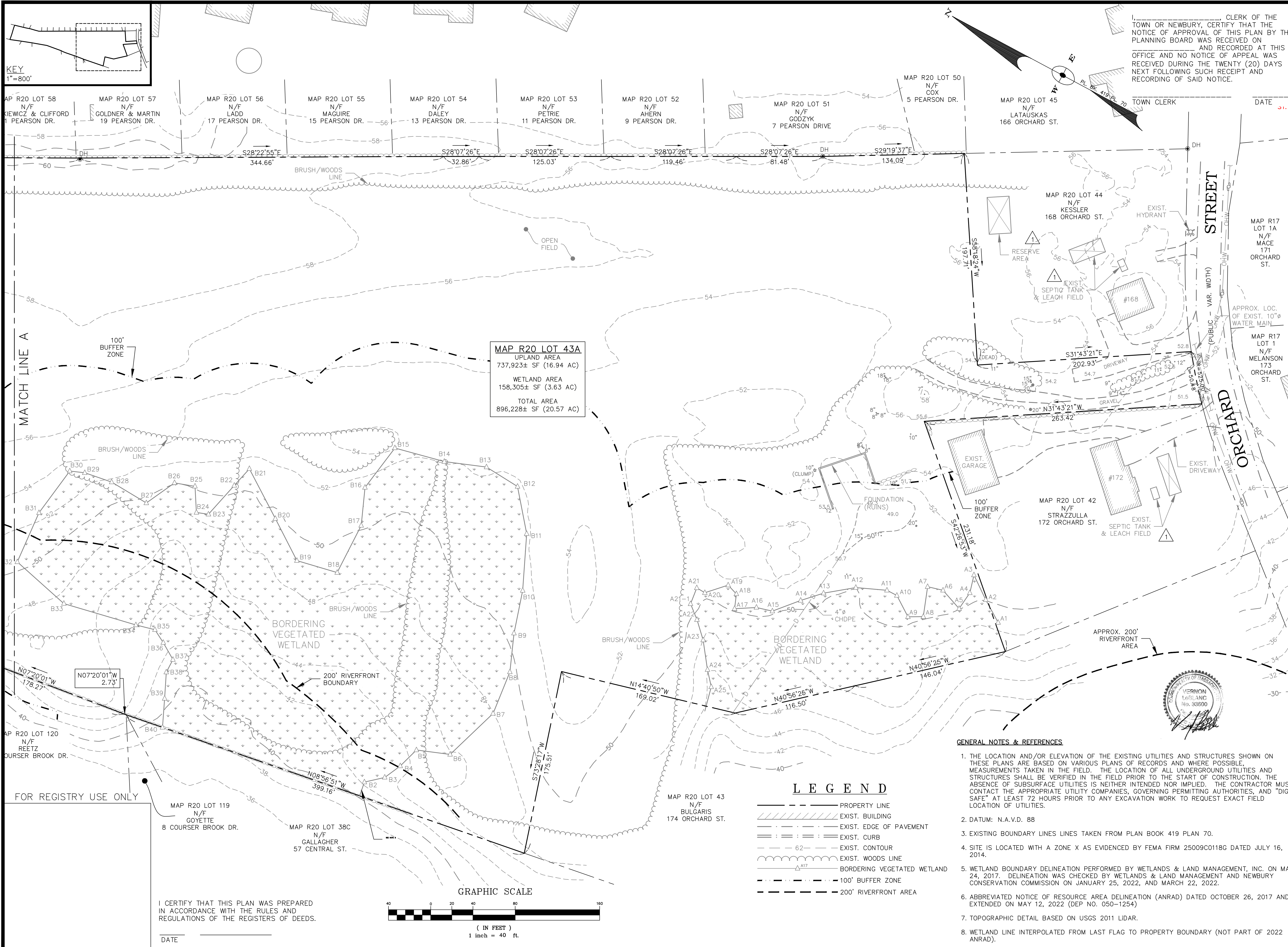
DATE _____

FOR REGISTRY USE ONLY

I, _____, CLERK OF THE
TOWN OF NEWBURY, CERTIFY THAT THE
NOTICE OF APPROVAL OF THIS PLAN BY THE
PLANNING BOARD WAS RECEIVED ON _____
AND RECORDED AT THIS
OFFICE AND NO NOTICE OF APPEAL WAS
RECEIVED DURING THE TWENTY (20) DAYS
NEXT FOLLOWING SUCH RECEIPT AND
RECORDING OF SAID NOTICE.

TOWN CLERK _____

DATE _____



KEY
1"=800'

I, _____, CLERK OF THE TOWN OF NEWBURY, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD WAS RECEIVED ON _____ AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT FOLLOWING SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN OF NEWBURY
PLANNING BOARD

DATE: _____

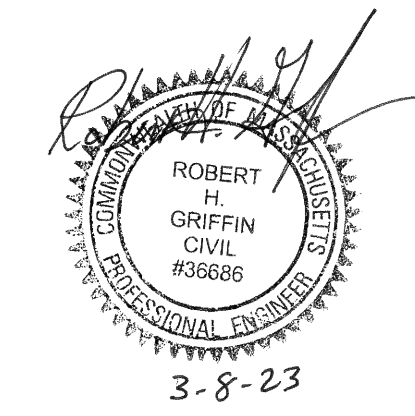
DATE: _____

OWNER & APPLICANT:
ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLEE LANE
NEWBURYPORT, MA 01950

MAP R20 LOT 43A
UPLAND AREA
737,923± SF (16.94 AC)
WETLAND AREA
158,305± SF (3.63 AC)
TOTAL AREA
896,228± SF (20.57 AC)

No.	Date	Description
1	3/8/23	SHOW #168 & 172 SEPTICS; SHOW MORE TOPO ON #168; ADD EXIST. SPOT GRADES.

Revisions



495 Cabot Street, 2nd Floor
Beverly, MA 01915
Tel: 978-927-5111
Fax: 978-927-5103

FIELDS WAY
SUBDIVISION

170 ORCHARD ST.
NEWBURY, MA

EXISTING
CONDITIONS
PLAN I

Scale: 1"=40'
Job No: 2043
Date: 1/4/23

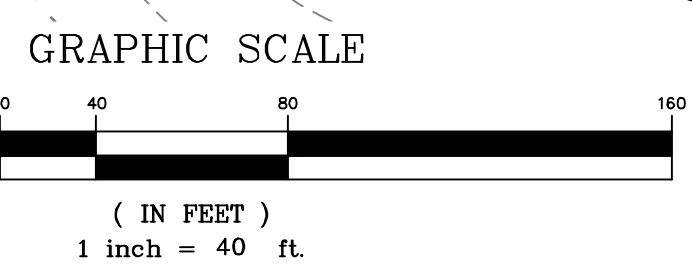
C-2

GENERAL NOTES & REFERENCES

1. THE LOCATION AND/OR ELEVATION OF THE EXISTING UTILITIES AND STRUCTURES SHOWN ON THESE PLANS ARE BASED ON VARIOUS PLANS OF RECORDS AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE ABSENCE OF SUBSURFACE UTILITIES IS NEITHER INTENDED NOR IMPLIED. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES, GOVERNING PERMITTING AUTHORITIES, AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
2. DATUM: N.A.V.D. 88
3. EXISTING BOUNDARY LINES TAKEN FROM PLAN BOOK 419 PLAN 70.
4. SITE IS LOCATED WITH A ZONE X AS EVIDENCED BY FEMA FIRM 25009C0118G DATED JULY 16, 2014.
5. WETLAND BOUNDARY DELINEATION PERFORMED BY WETLANDS & LAND MANAGEMENT, INC. ON MAY 24, 2017. DELINEATION WAS CHECKED BY WETLANDS & LAND MANAGEMENT AND NEWBURY CONSERVATION COMMISSION ON JANUARY 25, 2022, AND MARCH 22, 2022.
6. ABBREVIATED NOTICE OF RESOURCE AREA DELINEATION (ANRAD) DATED OCTOBER 26, 2017 AND EXTENDED ON MAY 12, 2022 (DEP NO. 050-1254)
7. TOPOGRAPHIC DETAIL BASED ON USGS 2011 LIDAR.
8. WETLAND LINE INTERPOLATED FROM LAST FLAG TO PROPERTY BOUNDARY (NOT PART OF 2022 ANRAD).

LEGEND

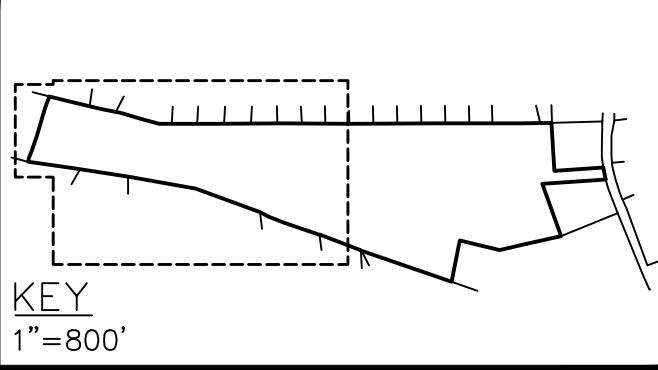
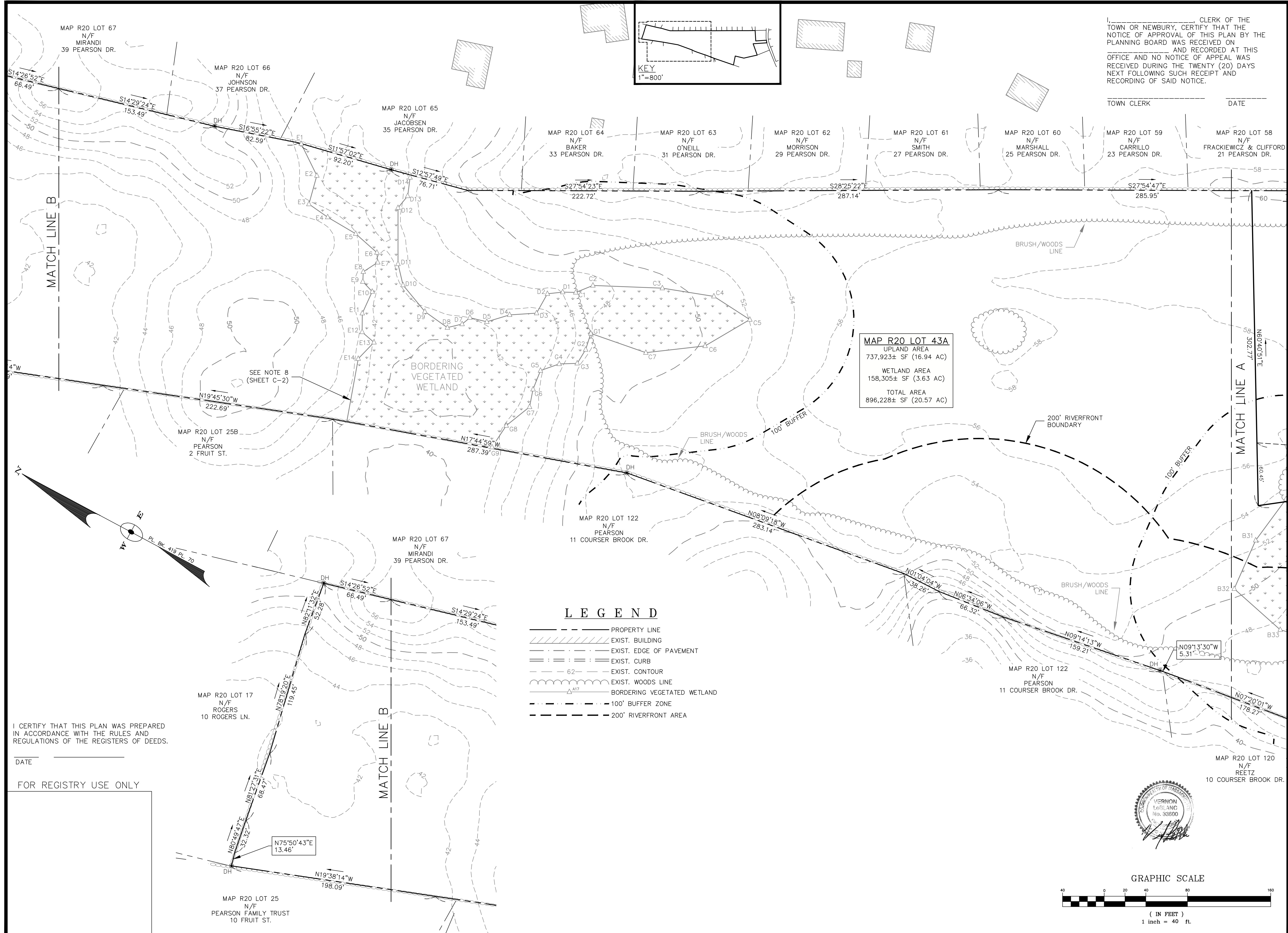
- PROPERTY LINE
- ▨ EXIST. BUILDING
- EXIST. EDGE OF PAVEMENT
- EXIST. CURB
- EXIST. CONTOUR
- EXIST. WOODS LINE
- BORDERING VEGETATED WETLAND
- 100' BUFFER ZONE
- 200' RIVERFRONT AREA



I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE: _____

FOR REGISTRY USE ONLY



I, _____ CLERK OF THE TOWN OR NEWBURY, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD WAS RECEIVED ON _____ AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT FOLLOWING SUCH RECEIPT AND RECORDING OF SAID NOTICE.

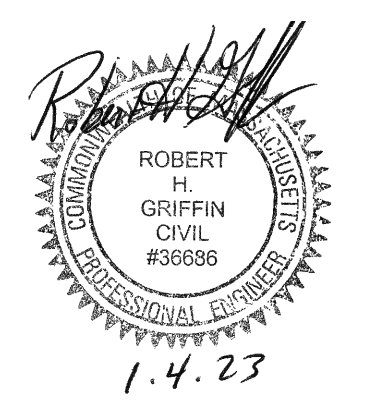
TOWN CLERK _____ DATE _____

TOWN OF NEWBURY
PLANNING BOARD

DATE: _____

OWNER & APPLICANT:
ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLEE LANE
NEWBURYPORT, MA 01950

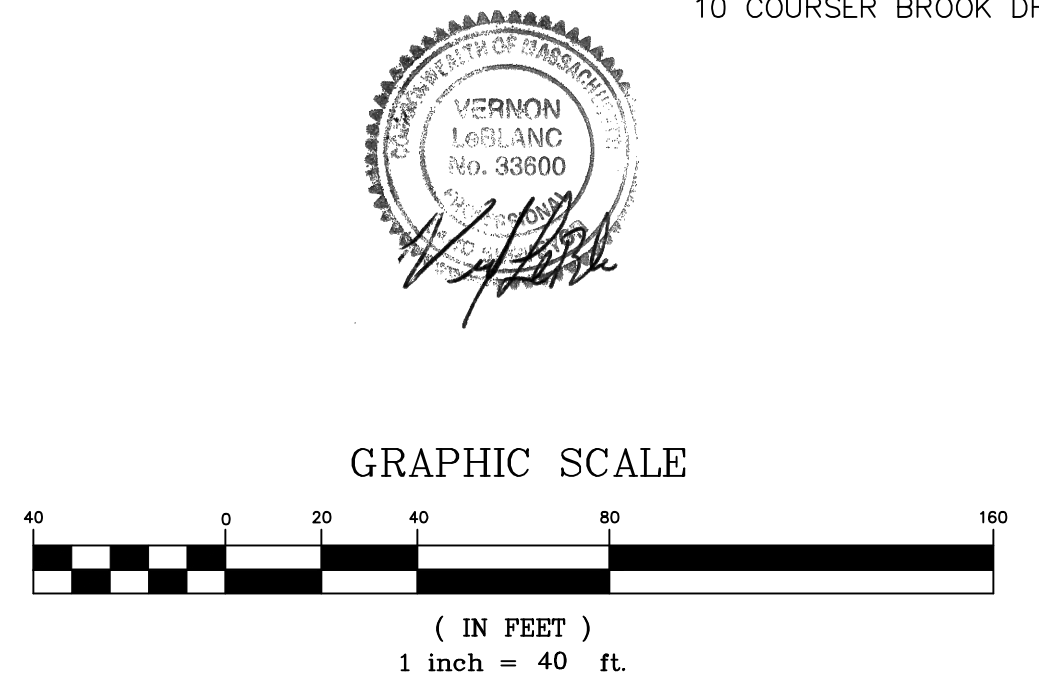
No.	Date	Description
Revisions		



- LEGEND**
- PROPERTY LINE
 - ▨ EXIST. BUILDING
 - - - EXIST. EDGE OF PAVEMENT
 - ==== EXIST. CURB
 - - - - EXIST. CONTOUR
 - ~~~~~ EXIST. WOODS LINE
 - △^{A17} BORDERING VEGETATED WETLAND
 - - - - 100' BUFFER ZONE
 - - - - 200' RIVERFRONT AREA

I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE _____
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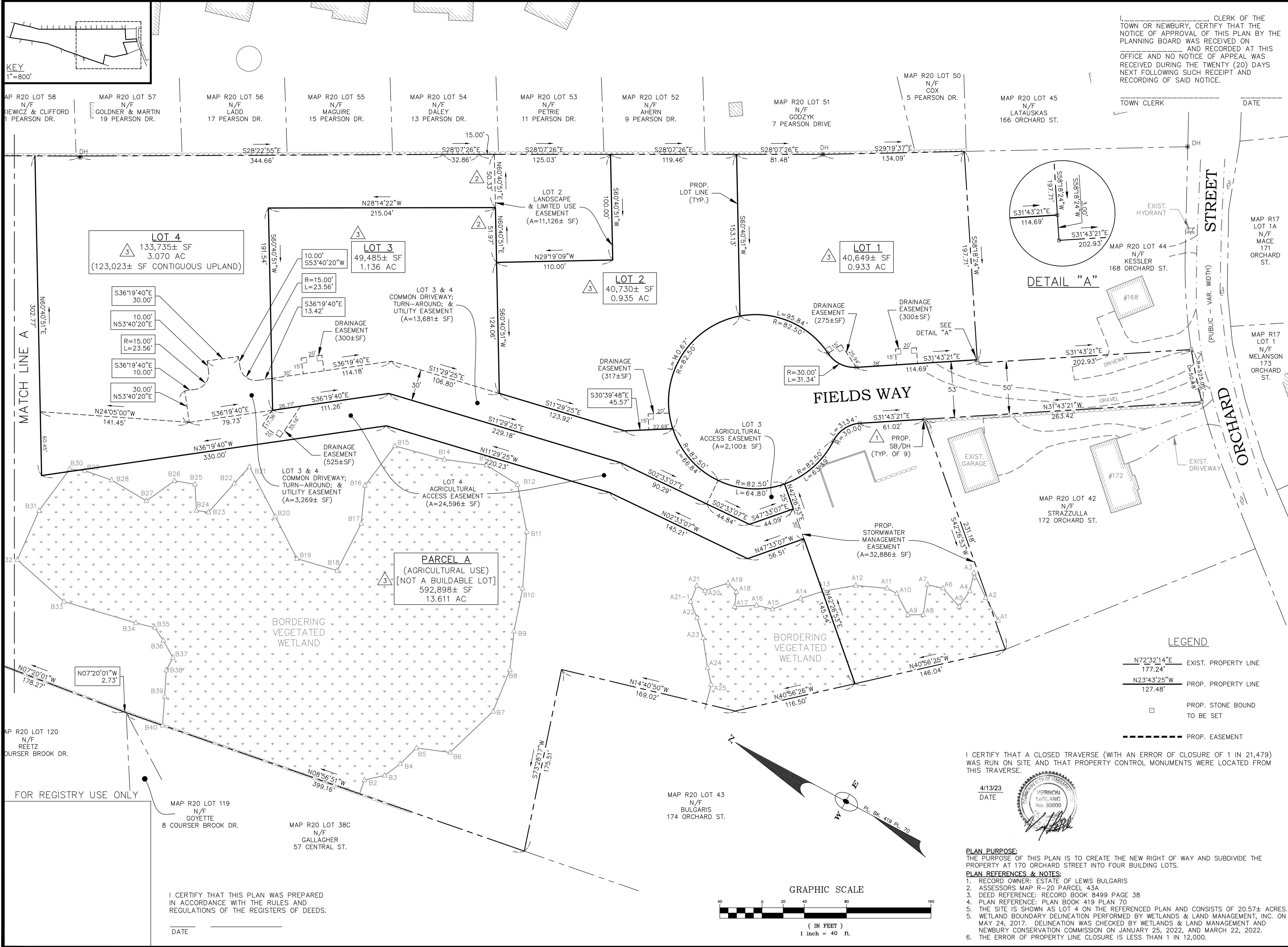


FIELDS WAY SUBDIVISION
170 ORCHARD ST.
NEWBURY, MA

EXISTING CONDITIONS
PLAN II

Scale: 1"=40'
Job No: 2043
Date: 1/4/23

C-3



I, _____ CLERK OF THE TOWN OF NEWBURY, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD WAS RECEIVED ON _____ AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT FOLLOWING SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK _____ DATE _____

TOWN OF NEWBURY
PLANNING BOARD

DATE: _____

OWNER & APPLICANT:
ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLÉE LANE
NEWBURYPORT, MA 01950

No.	Date	Description
3	6/1/23	ADD PARCEL A; MOVE LOT LINES.
2	4/13/23	MOVE LOT 3 & 4 LOT LINE.
1	3/8/23	ADD (2) SBDH @ ENTRANCE; ADD BLDGS ON ADJ. LOTS.

Revisions

LEBLANC SURVEY ASSOCIATES
161 HOLTEN STREET
DANVERS, MA 01923
978-774-6012

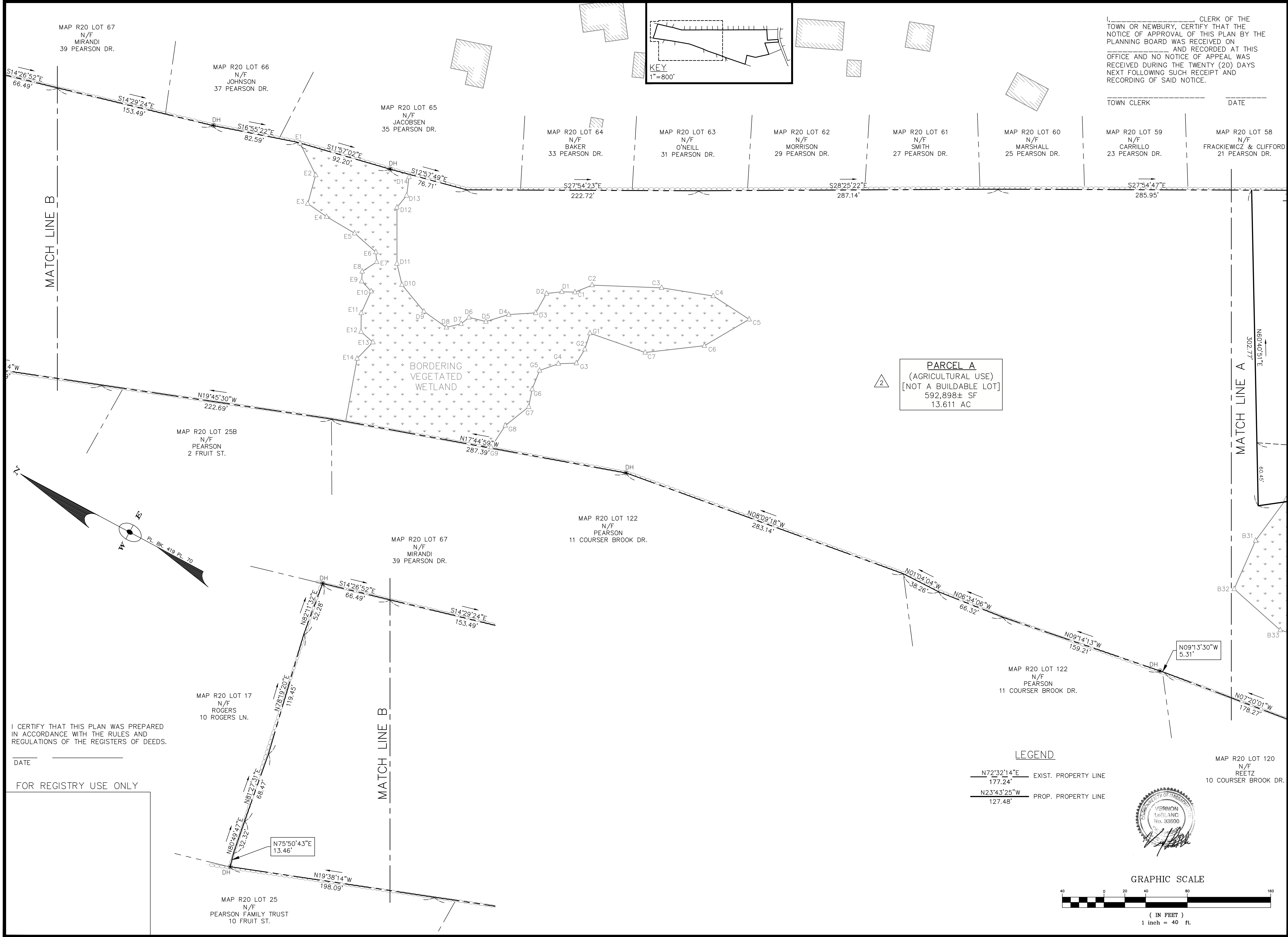
Griffin Engineering Group, LLC
495 Cabot Street, 2nd Floor
Beverly, MA 01915
Tel: 978-927-5111
Fax: 978-927-5103

FIELDS WAY SUBDIVISION
170 ORCHARD ST.
NEWBURY, MA

LOTING PLAN I
(1 OF 2)

Scale: 1"=40'
Job No: 2043
Date: 1/4/23

C-4



I, _____ CLERK OF THE TOWN OR NEWBURY, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD WAS RECEIVED ON _____ AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT FOLLOWING SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK _____ DATE _____

TOWN OF NEWBURY
PLANNING BOARD

DATE: _____

OWNER & APPLICANT:
ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLEE LANE
NEWBURYPORT, MA 01950

No.	Date	Description
2	6/1/23	ADD PARCEL A.
1	4/13/23	UPDATE LOT 4 AREA.

Revisions

LEBLANC SURVEY ASSOCIATES
161 HOLTEN STREET
DANVERS, MA 01923
978-774-6012

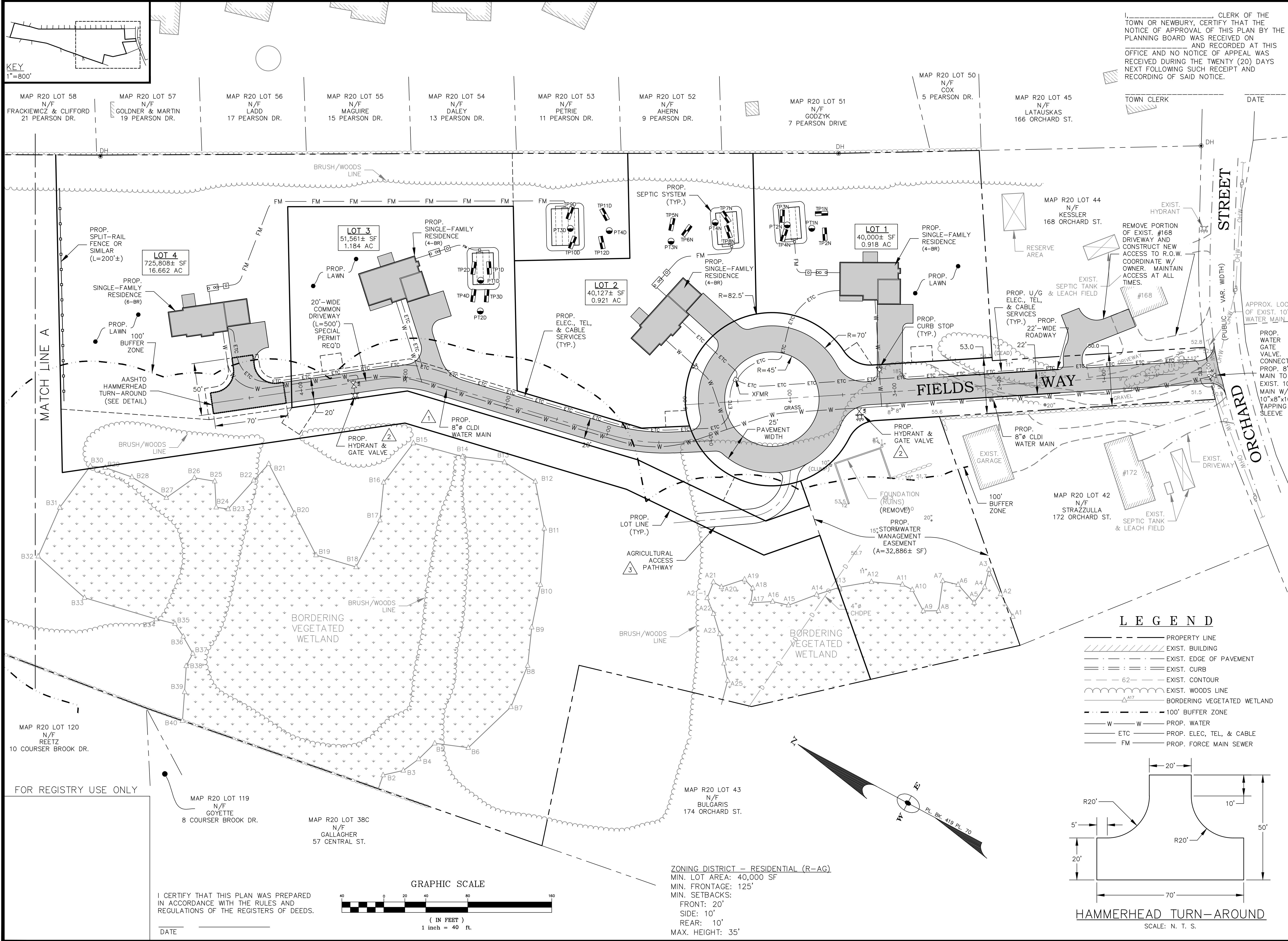
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FIELDS WAY SUBDIVISION
170 ORCHARD ST.
NEWBURY, MA

LOTING PLAN II
(2 OF 2)

Scale: 1"=40'
Job No: 2043
Date: 1/4/23

C-5



I, _____, CLERK OF THE TOWN OF NEWBURY, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD WAS RECEIVED ON _____ AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT FOLLOWING SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN OF NEWBURY
PLANNING BOARD

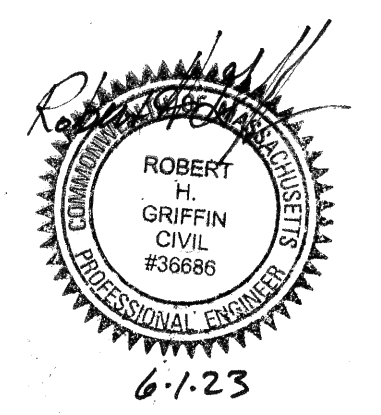
TOWN CLERK _____ DATE _____

DATE: _____

OWNER & APPLICANT:
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C/O DIANNE YURKAVICH
2 LAVALLEE LANE
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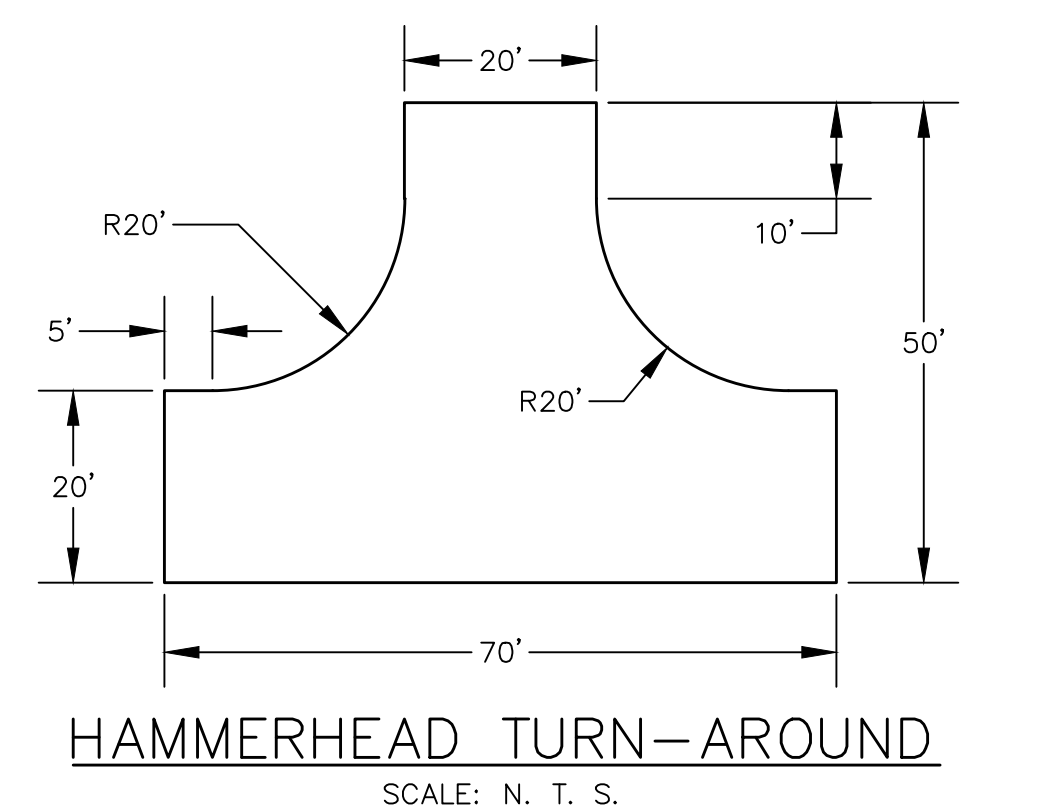
No.	Date	Description
3	6/1/23	ADD AG. ACCESS, MOVE LOT LINES.
2	4/13/23	RELOCATE HYDRANTS.
1	3/8/23	ADD HYD @ END OF CMN DWY PER FD COMMENTS.

Revisions

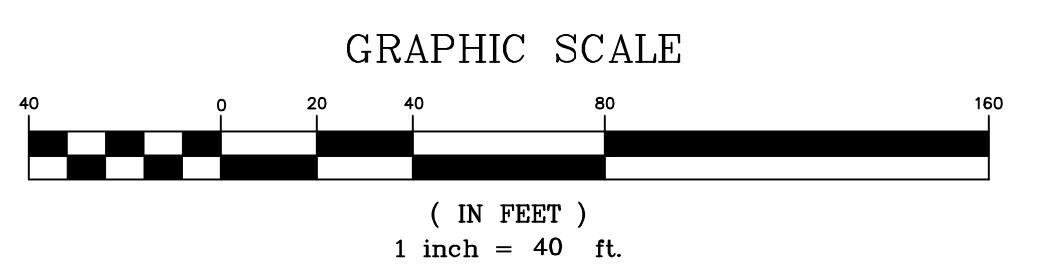


LEGEND

	PROPERTY LINE
	EXIST. BUILDING
	EXIST. EDGE OF PAVEMENT
	EXIST. CURB
	62' EXIST. CONTOUR
	EXIST. WOODS LINE
	BORDERING VEGETATED WETLAND
	100' BUFFER ZONE
	PROP. WATER
	PROP. ELEC., TEL., & CABLE
	PROP. FORCE MAIN SEWER



ZONING DISTRICT - RESIDENTIAL (R-AG)
MIN. LOT AREA: 40,000 SF
MIN. FRONTAGE: 125'
MIN. SETBACKS:
FRONT: 20'
SIDE: 10'
REAR: 10'
MAX. HEIGHT: 35'



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DATE _____

FOR REGISTRY USE ONLY



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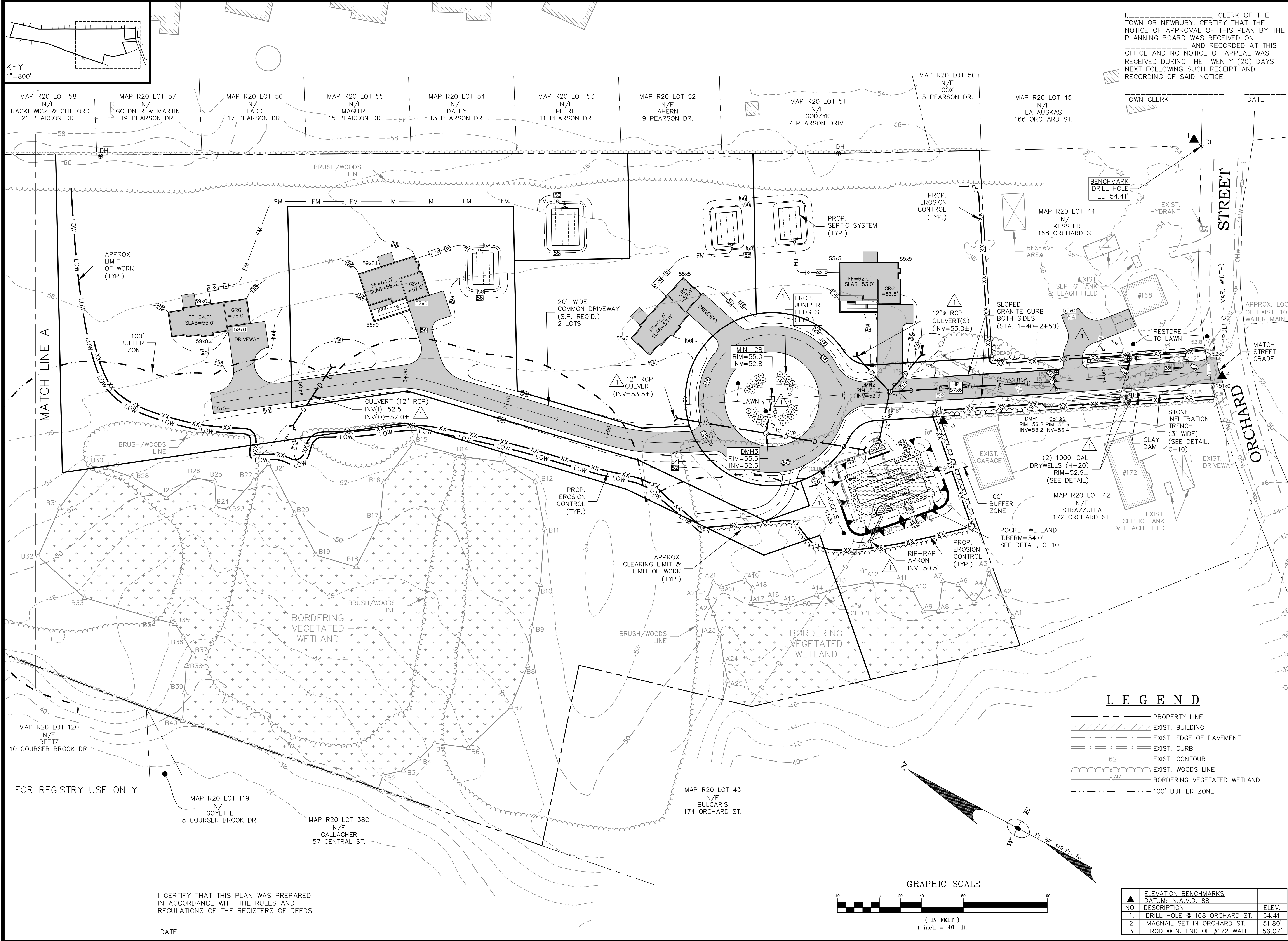
**FIELDS WAY
SUBDIVISION**

170 ORCHARD ST.
NEWBURY, MA

**SITE LAYOUT
&
UTILITIES PLAN**

Scale: 1"=40'
Job No: 2043
Date: 1/4/23

C-6



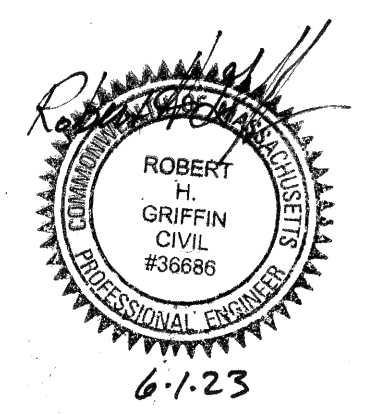
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TOWN OF NEWBURY
PLANNING BOARD

TOWN CLERK _____ DATE _____
DATE: _____

OWNER & APPLICANT:
ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLÉE LANE
NEWBURYPORT, MA 01950

No.	Date	Description
3	6/1/23	ADD AG. ACCESS; MOVE LOT LINES.
2	4/13/23	MOVE LOT 3 & 4 LOT LINE.
1	3/8/23	CLARIFY ROAD GRADES; ADD PROP. SPOT GRADES; ADD SEPTIC GRADES; ADD ISLAND PLANTS; MOVE RIPRAP APRON; ADD BM #3; ADD EXIST. DRAIN PIPE @ B.W. REV. 10" PIPES TO 12" PER TOWN REGS. ADD #168 ACCESS REV. SWM @ ENTRANCE.



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**FIELDS WAY
SUBDIVISION**

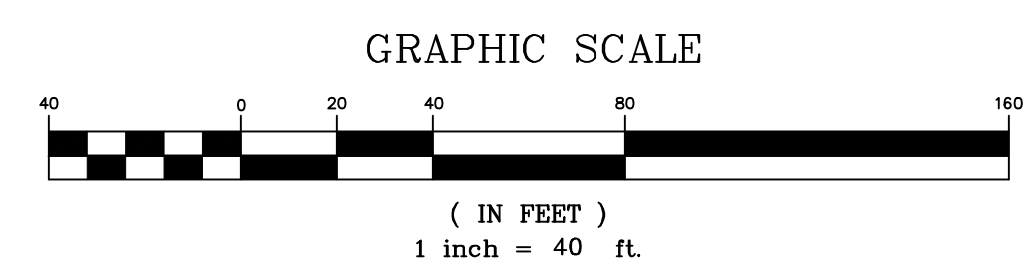
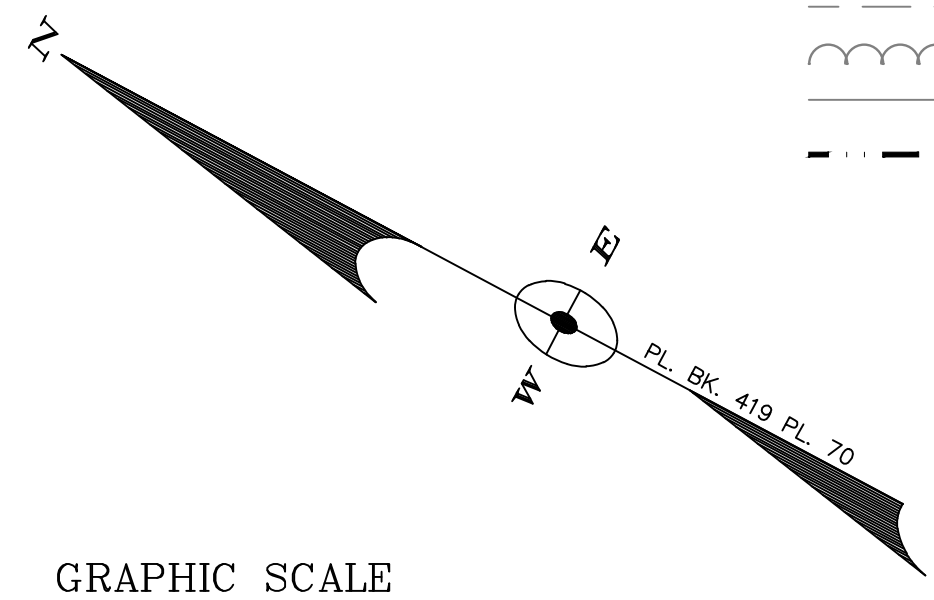
170 ORCHARD ST.
NEWBURY, MA

**SITE GRADING
&
DRAINAGE PLAN**

Scale: 1"=40'
Job No: 2043
Date: 1/4/23

LEGEND

- PROPERTY LINE
- ▨ EXIST. BUILDING
- - - EXIST. EDGE OF PAVEMENT
- : — : — EXIST. CURB
- - - 62 - - - EXIST. CONTOUR
- EXIST. WOODS LINE
- △ BORDERING VEGETATED WETLAND
- - - - - 100' BUFFER ZONE



ELEVATION BENCHMARKS		
DATUM: N.A.V.D. 88		
NO.	DESCRIPTION	ELEV.
1.	DRILL HOLE @ 168 ORCHARD ST.	54.41'
2.	MAGNAIL SET IN ORCHARD ST.	51.80'
3.	I.ROD @ N. END OF #172 WALL	56.07'

I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE _____

FOR REGISTRY USE ONLY

KEY
1"=800'

MAP R20 LOT 58
N/F
FRACKIEWICZ & CLIFFORD
21 PEARSON DR.

MAP R20 LOT 57
N/F
GOLDNER & MARTIN
19 PEARSON DR.

MAP R20 LOT 56
N/F
LADD
17 PEARSON DR.

MAP R20 LOT 55
N/F
MAGUIRE
15 PEARSON DR.

MAP R20 LOT 54
N/F
DALEY
13 PEARSON DR.

MAP R20 LOT 53
N/F
PETRIE
11 PEARSON DR.

MAP R20 LOT 52
N/F
AHERN
9 PEARSON DR.

MAP R20 LOT 51
N/F
GODZYK
7 PEARSON DRIVE

MAP R20 LOT 50
N/F
COX
5 PEARSON DR.

MAP R20 LOT 45
N/F
LATAUSKAS
166 ORCHARD ST.

BENCHMARK
DRILL HOLE
EL=54.41'

MAP R20 LOT 44
N/F
KESSLER
168 ORCHARD ST.

MAP R20 LOT 42
N/F
STRAZZULLA
172 ORCHARD ST.

MAP R20 LOT 43
N/F
BULGARIS
174 ORCHARD ST.

MAP R20 LOT 38C
N/F
GALLAGHER
57 CENTRAL ST.

MAP R20 LOT 119
N/F
GOYETTE
8 COURSER BROOK DR.

MAP R20 LOT 120
N/F
REETZ
10 COURSER BROOK DR.

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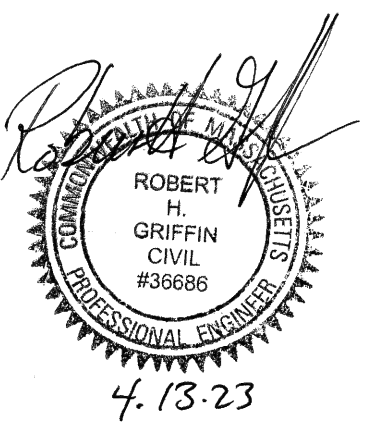
TOWN OF NEWBURY
PLANNING BOARD

DATE: _____

OWNER & APPLICANT:
ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLEE LANE
NEWBURYPORT, MA 01950

No.	Date	Description
2	4/13/23	RELOCATE HYDRANTS.
1	3/8/23	REV. GRAVEL BASE NOTE; ADD CUL-DE-SAC, X-SECT; REV. C.M. DWY. PROFILE.

Revisions



495 Cabot Street, 2nd Floor
Beverly, MA 01915

Tel: 978-927-5111
Fax: 978-927-5103

FIELDS WAY
SUBDIVISION

170 ORCHARD ST.
NEWBURY, MA

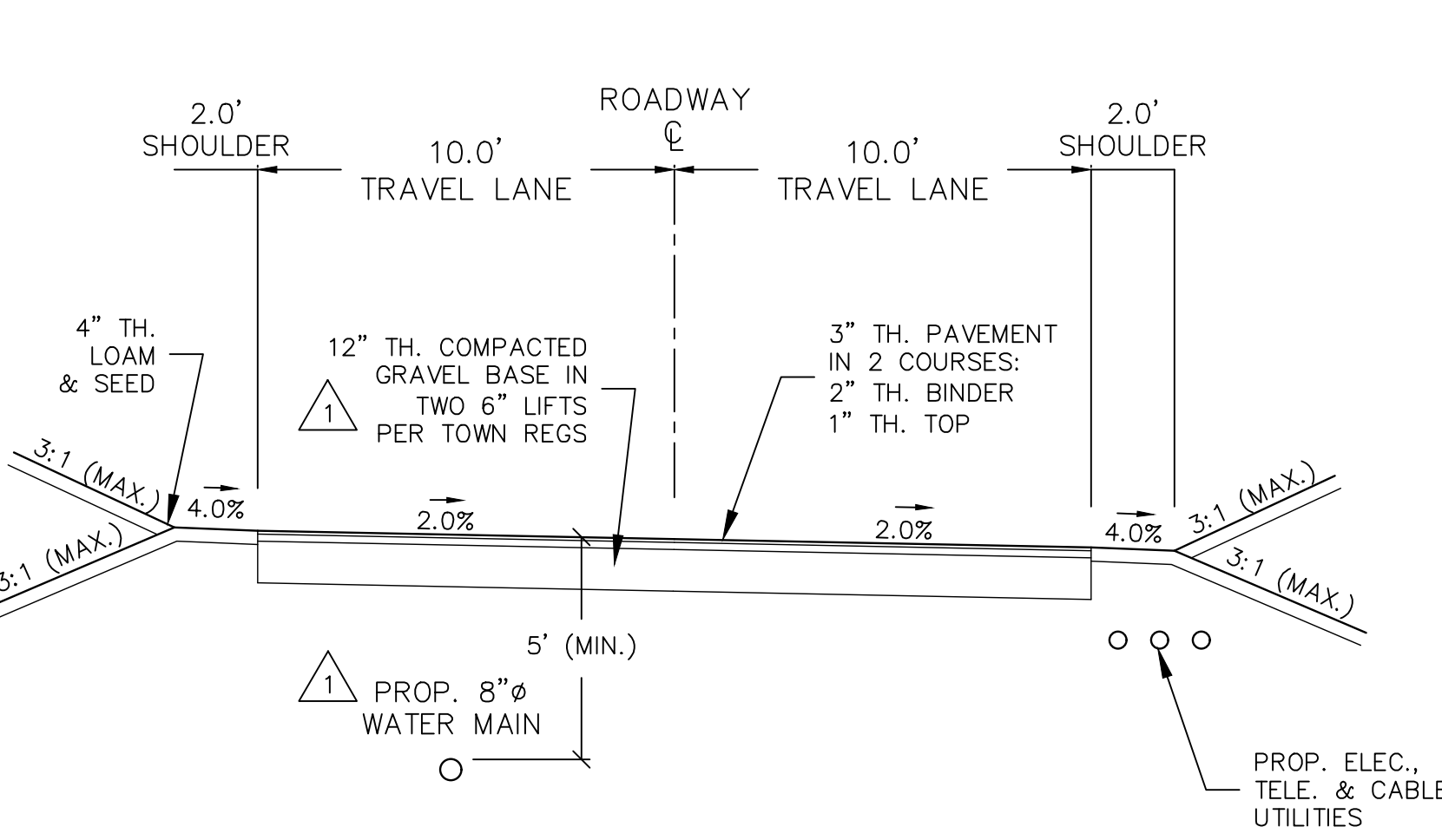
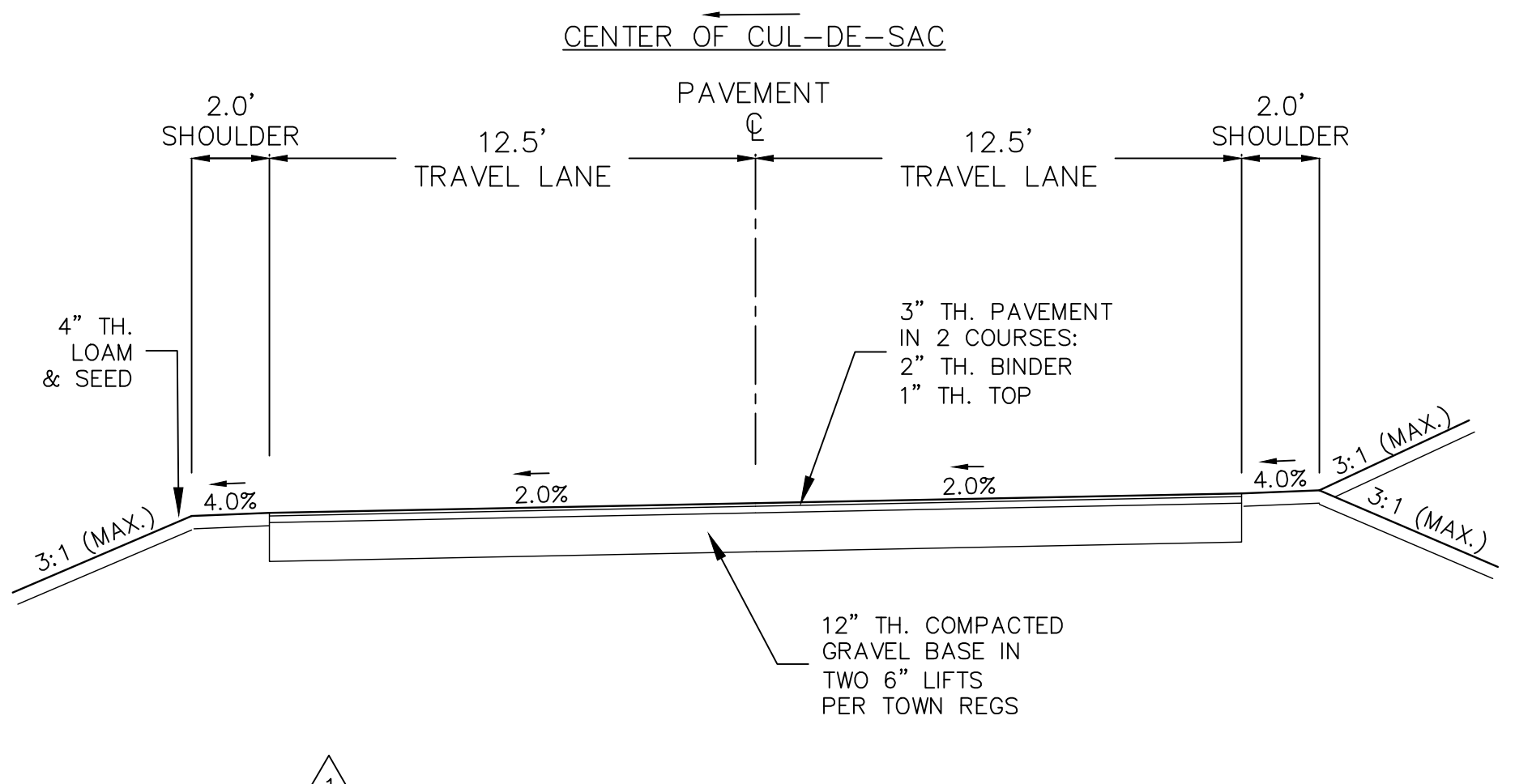
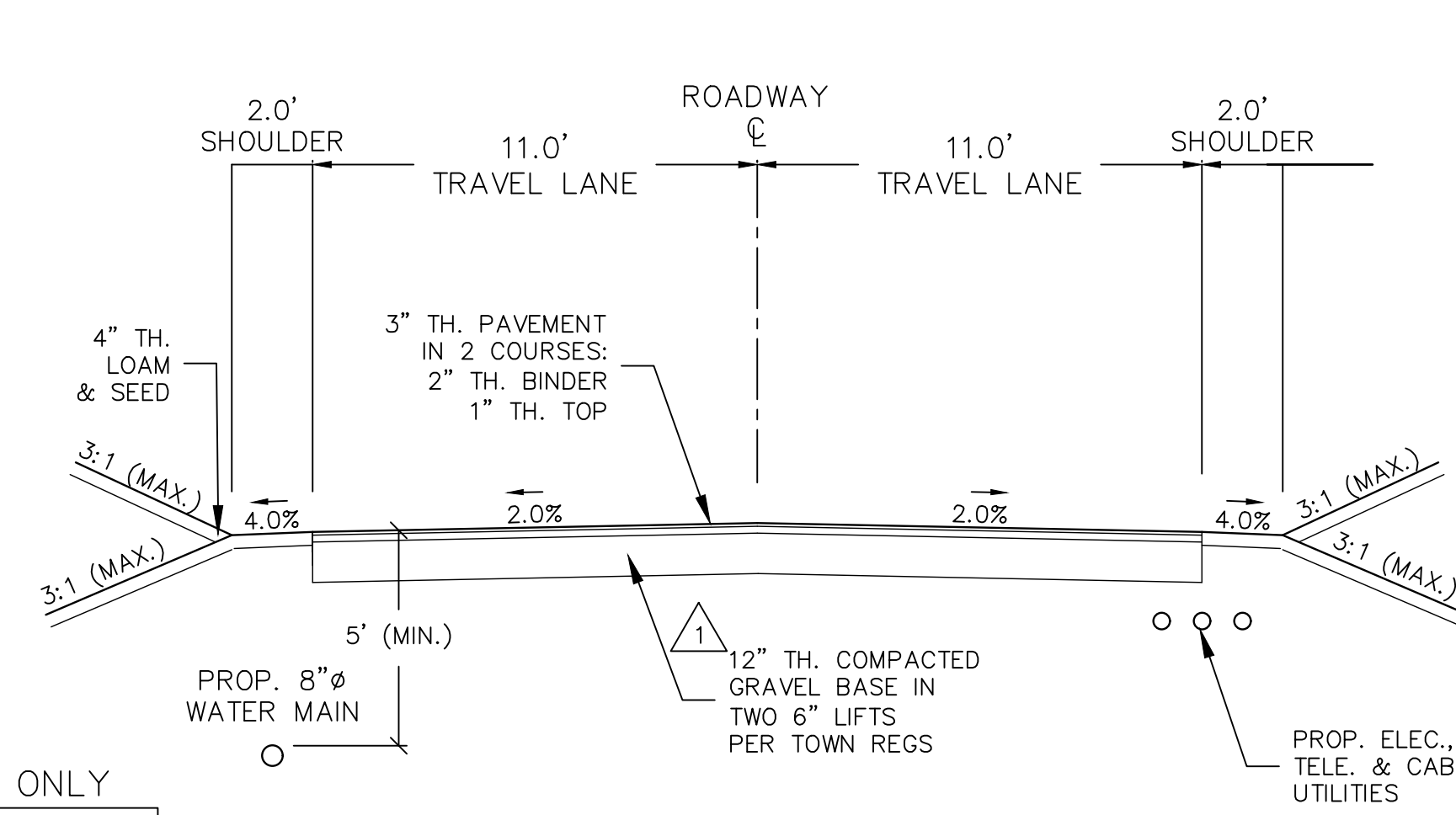
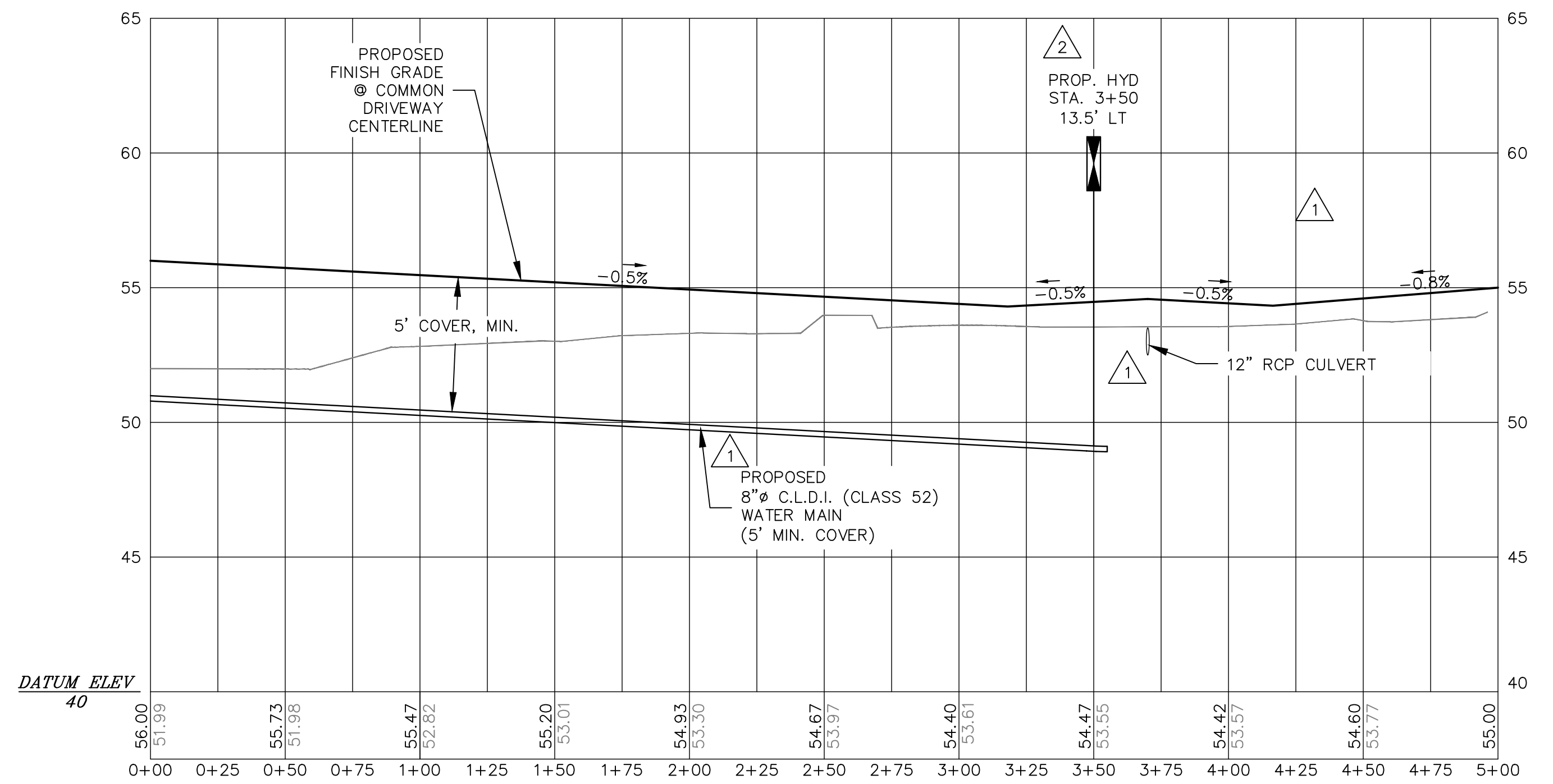
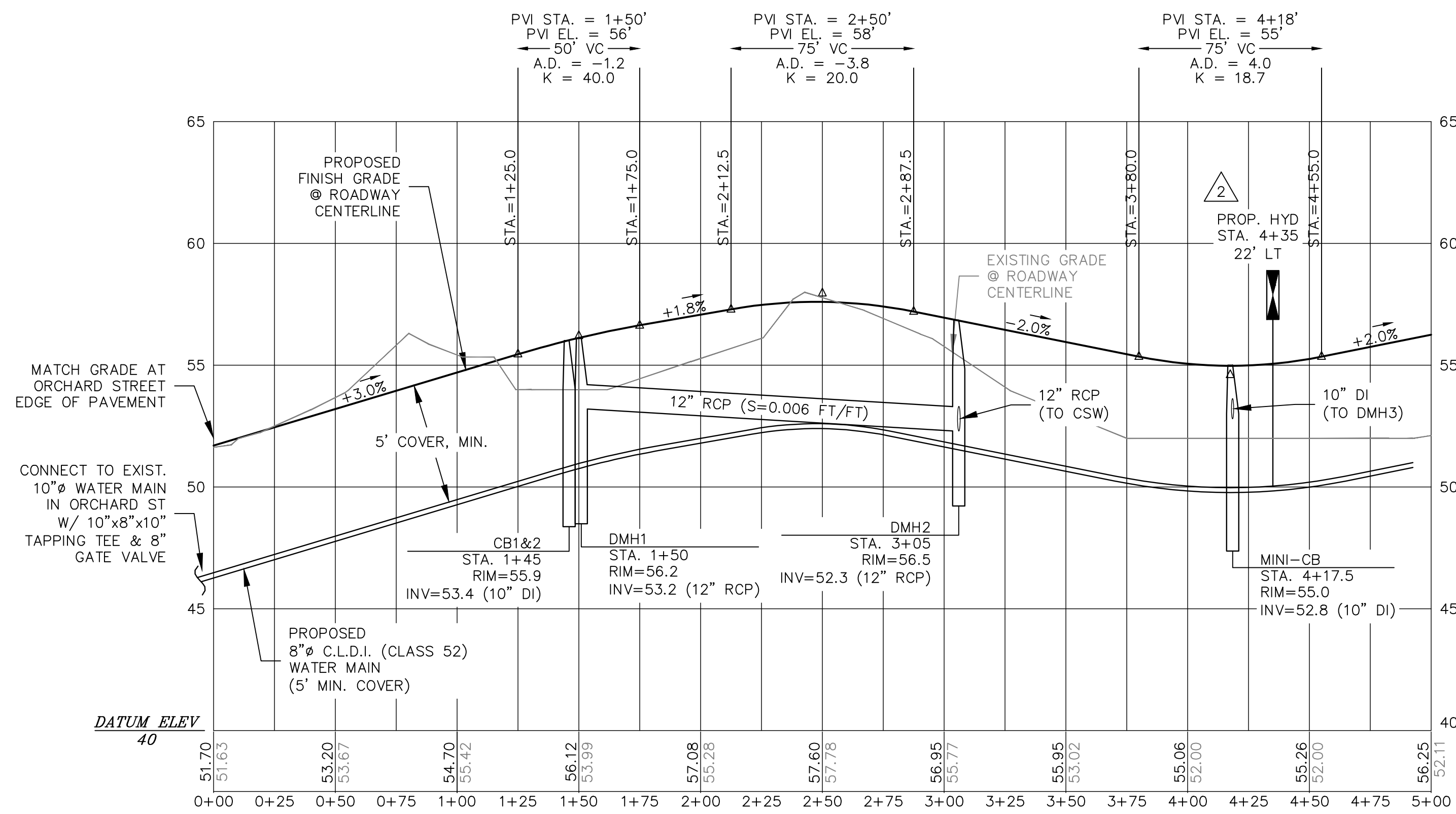
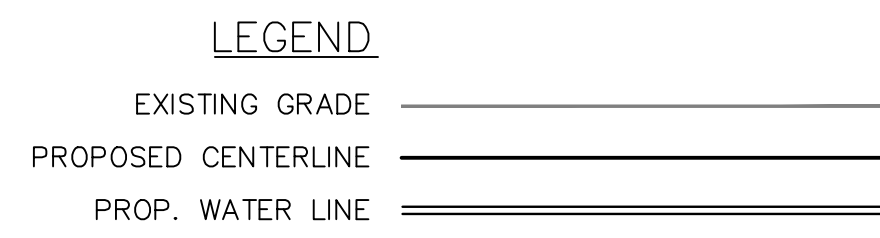
PROFILES &
CROSS-SECTIONS

Scale: AS-SHOWN

Job No: 2043

Date: 1/4/23

C-8



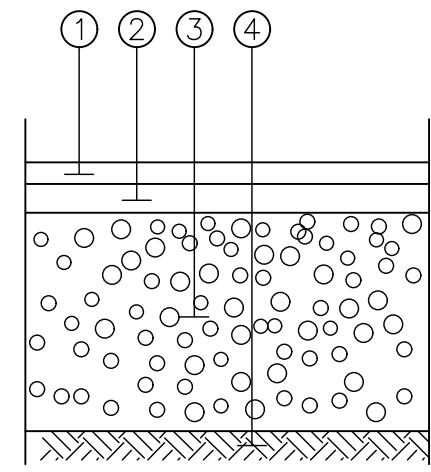
- NOTES:**
- REMOVE ALL LOAM, ROOTS, SUBSOIL AND DELETERIOUS MATERIALS.
 - 4" LOAM, SEED AND MULCH ALL DISTURBED AREAS.
LOAM = M 1.05.0
SEED = M 6.03.0
MULCH = M 6.04.0 ANY TYPE
 - COMPACT ALL LAYERS, AND SUBGRADE, TO 95% MOD. PROCTOR.
 - MATERIAL REFERENCES ARE TO 1995 EDITION OF MASS. HIGHWAY STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 - ALL UTILITIES TO MEET PROVIDER REQUIREMENTS.
 - ENGINEER TO SET BENCHMARKS IN THE FIELD PRIOR TO CONSTRUCTION.

I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE _____

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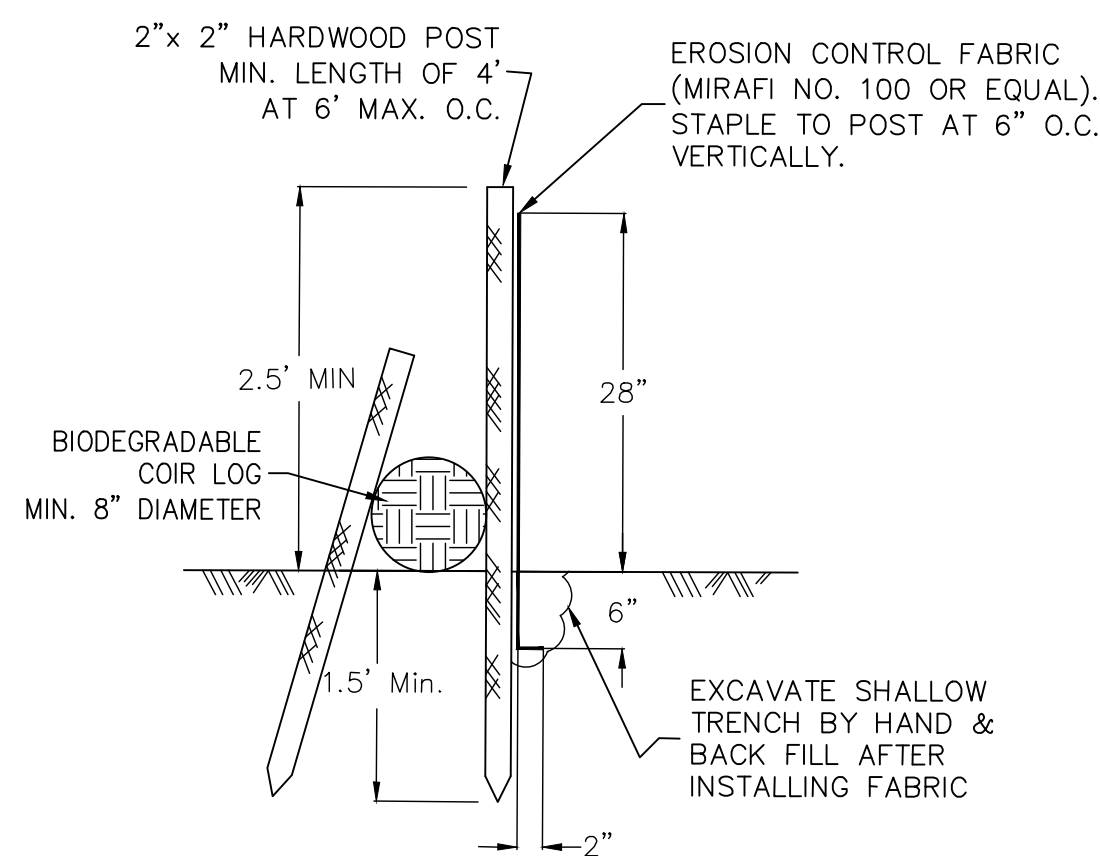
- KEY:**
- 1" CLASS 1 BIT. CONCRETE TOP COURSE TYPE I-1 (M3.11.0 - TABLE A).
 - 2" CLASS 1 BIT. CONCRETE BINDER COURSE (M3.11.0 - TABLE A).
 - 12" DENSE GRADED CRUSHED STONE FOR SUB-BASE (M2.01.7)
 - PREPARED SUBGRADE.



FULL DEPTH PAVEMENT

SCALE: N. T. S.

- NOTES:**
1. REMOVE ALL LOAM, ROOTS, SUBSOIL AND DELETERIOUS MATERIALS.
 2. COMPACT ALL LAYERS, AND SUBGRADE, TO 95% MOD. PROCTOR.
 3. MATERIAL REFERENCES ARE TO 1995 EDITION OF MASS HIGHWAY STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 4. 4" LOAM, SEED AND MULCH ALL DISTURBED AREAS.
LOAM = M 1.05.0
SEED = M 6.03.0 SLOPE MIX
MULCH = M 6.04.0 ANY TYPE
 5. IN LEDGE, REMOVE LEDGE TO MIN. DEPTH OF 24" BELOW FINISH GRADE; BACKFILL WITH COMPACTED GRAVEL.



**SILT FENCE & COIR LOG
EROSION CONTROL**

SCALE: N. T. S.

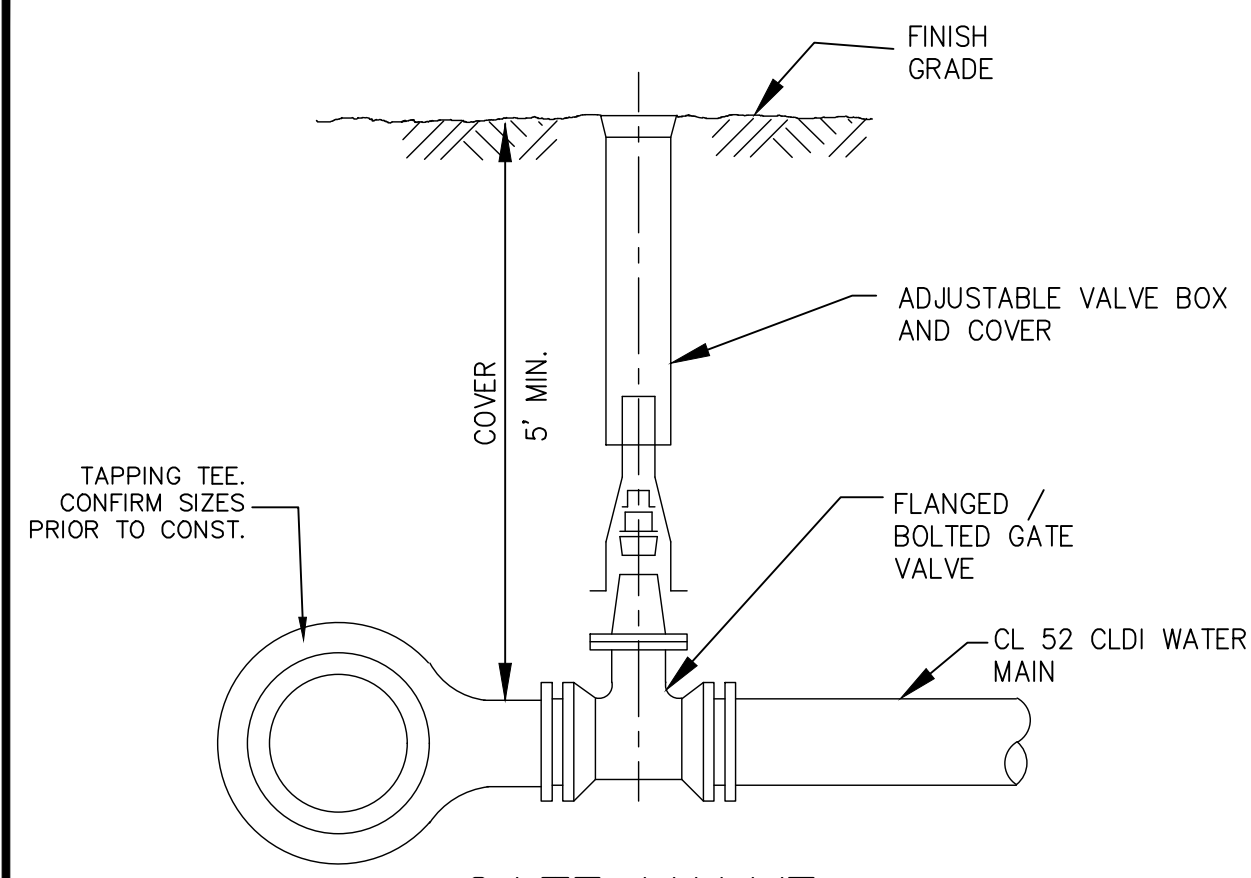
I, _____, CLERK OF THE TOWN OF NEWBURY, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD WAS RECEIVED ON _____ AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT FOLLOWING SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK _____ DATE _____

FOR REGISTRY USE ONLY

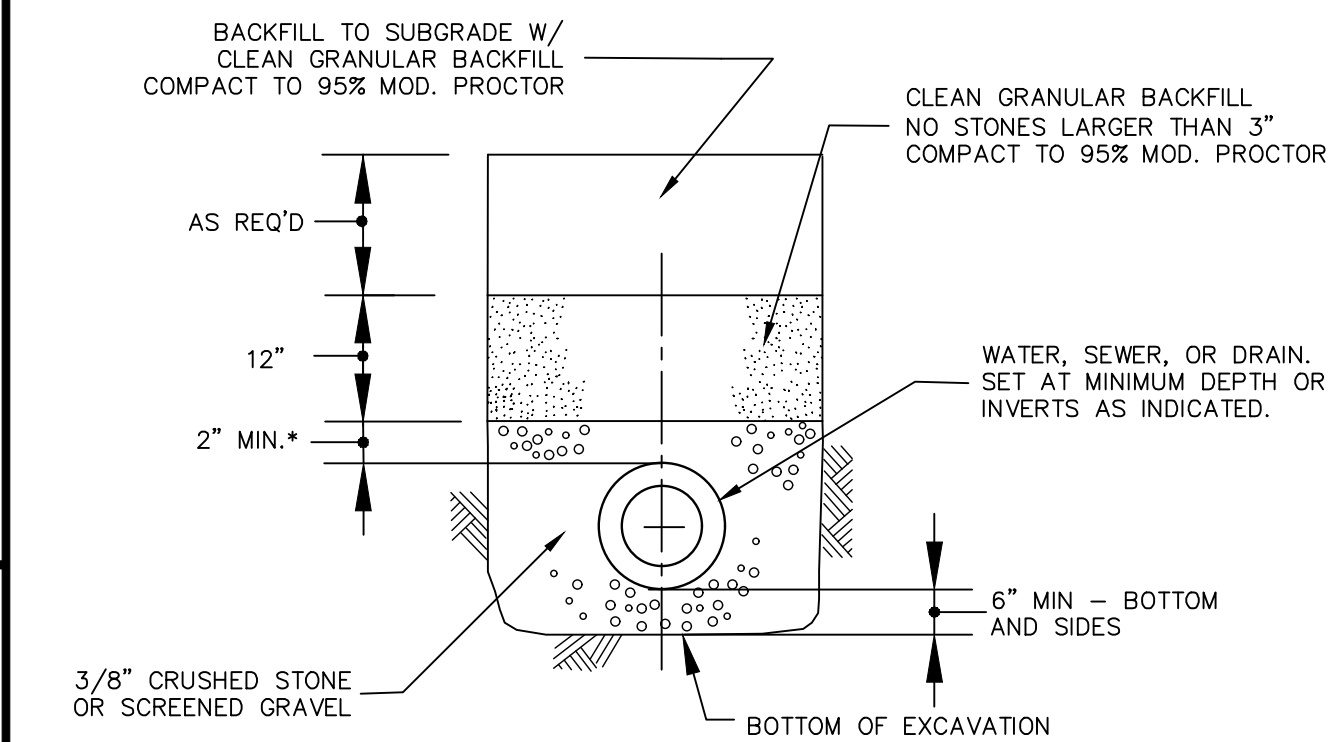
I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE _____



GATE VALVE

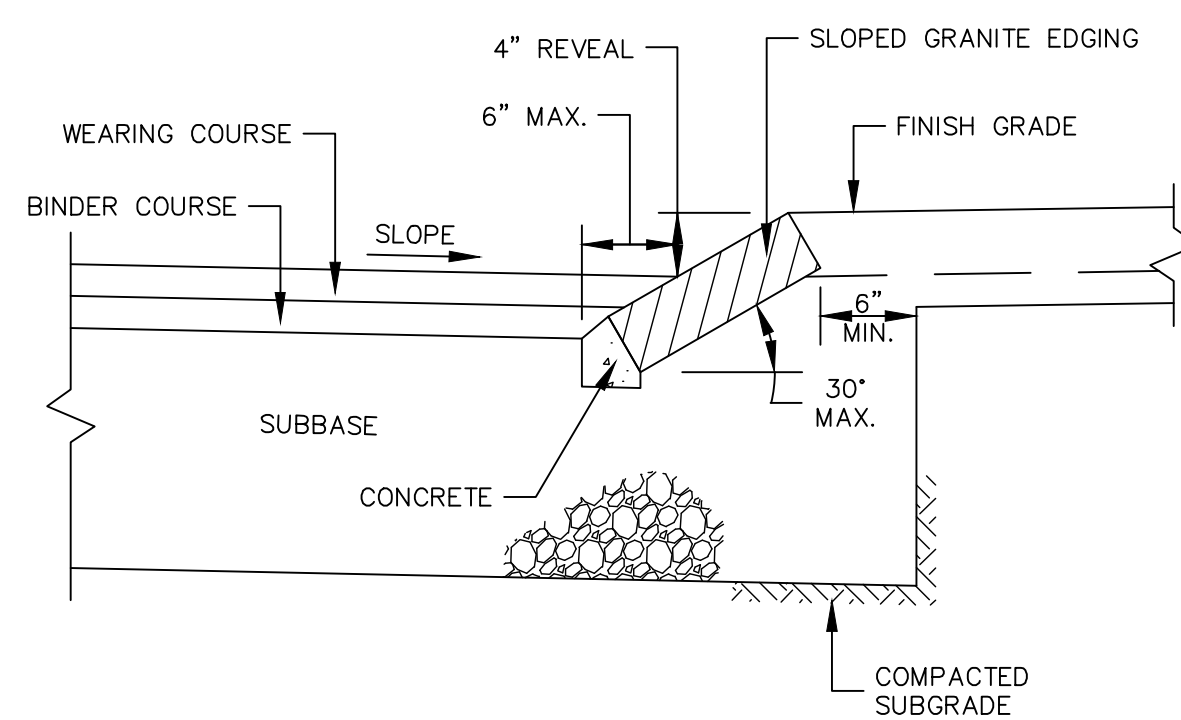
SCALE: N. T. S.



TYPICAL PIPE BEDDING SECTION

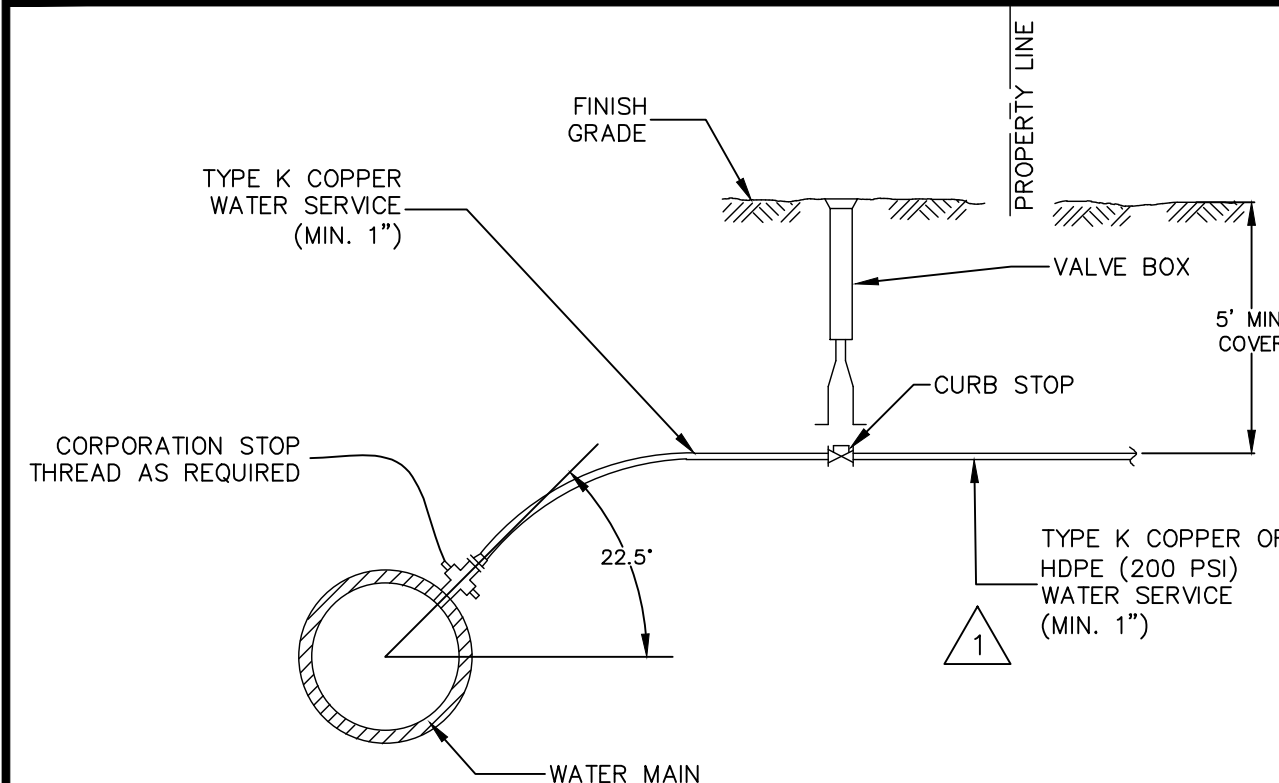
SCALE: N. T. S.

* FOR DUCTILE IRON OR RCP PIPE: TOP OF STONE IS MID-DEPTH (SPRING LINE) OF CONDUIT.



SLOPED GRANITE CURB

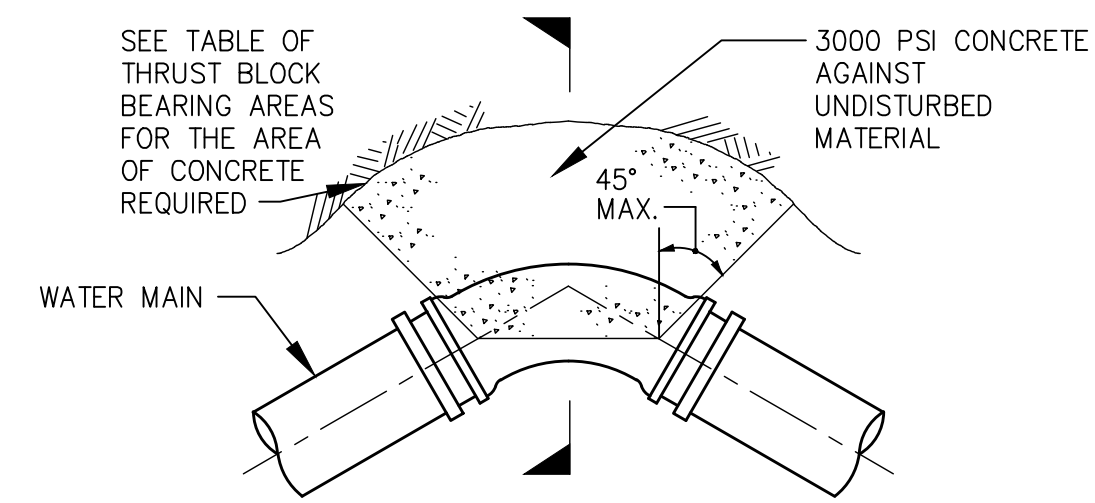
SCALE: N. T. S.



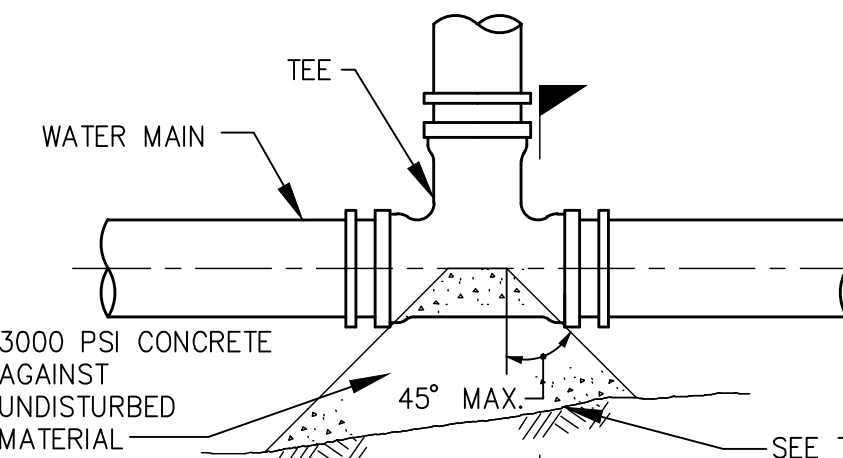
WATER SERVICE CONNECTION

SCALE: N. T. S.

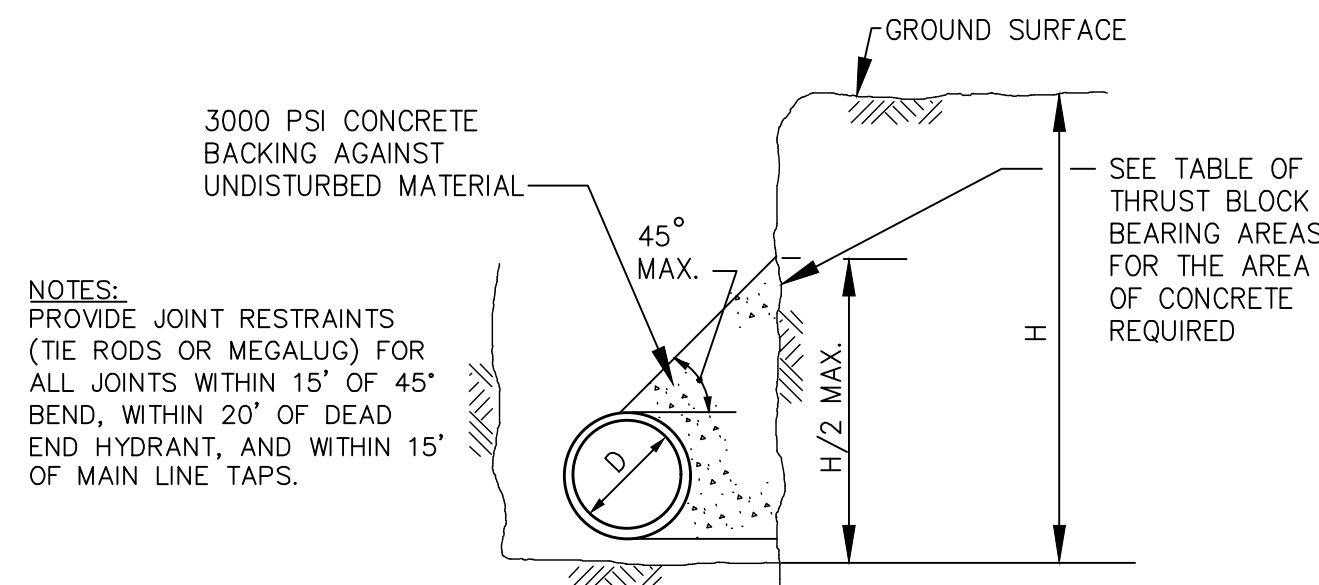
- NOTES:**
1. ALL CONNECTIONS PER TOWN OF NEWBURY REQUIREMENTS.



**PLAN OF THRUST
BLOCK AT BEND**



**PLAN OF THRUST
BLOCK AT TEE**



THRUST BLOCK SECTION

CONCRETE THRUST BLOCK

SCALE: N. T. S.

- NOTES:**
1. PROVIDE JOINT RESTRAINTS (TIE RODS OR MEGALUG) FOR ALL JOINTS WITHIN 15' OF 45° BEND, WITHIN 20' OF DEAD END HYDRANT, AND WITHIN 15' OF MAIN LINE TAPS.

**TABLE OF MINIMUM BEARING AREAS IN SQ. FT.
AGAINST UNDISTURBED MATERIAL**

PIPE SIZE	BEND	PRESSURE 150 PSI						
		TYPE OF SOIL CONDITION						
		A	B	C	D	E	F	G
6" and smaller	TEES & PLUGS	8.5	4.5	3	2.5	1.5	1.5	1
	90	12	6	4	3	2	1.5	1.5
	45	6.5	3.5	2.5	2	1.5	1	1
8"	22 1/2	3.5	2	1.5	1	1	0.5	0.5
	TEES & PLUGS	15.5	8	5.5	4	3	2	1.5
	90	21.5	11	7.5	5.5	4	3	2.5
8"	45	12	6	4	3	2	1.5	1.5
	22 1/2	6	3	2	1.5	1	1	1

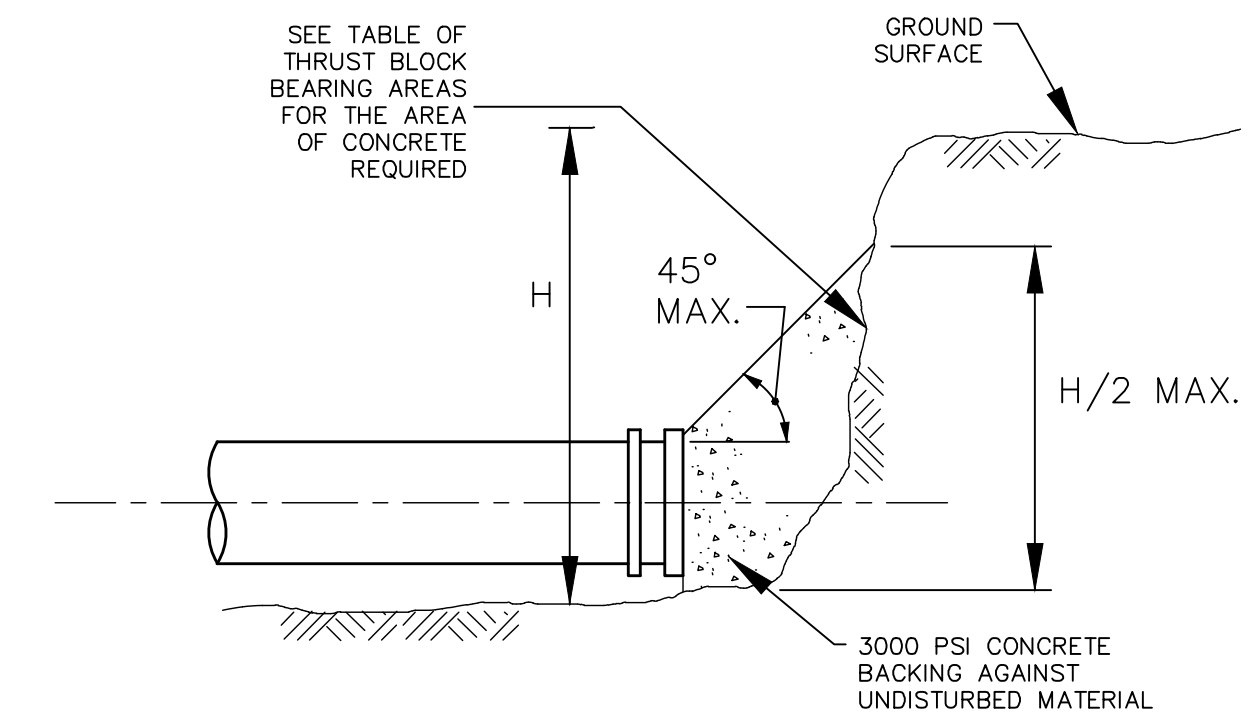
TYPE OF SOIL CONDITION

- A - SOFT CLAY; FINE LOOSE SAND
- B - SAND & CLAY; MIXED OR IN LAYERS; FINE CONFINED SAND
- C - HARD DRY CLAY
- D - COARSE SAND
- E - GRAVEL
- F - SOFT ROCK
- G - HARD PAN

- NOTES:**
1. FOR FITTINGS WITH LESS THAN 22 1/2 DEGREE DEFLECTION USE BEARING AREAS FOR 22 1/2 DEGREE BEND.
 2. JOINTS SHALL NOT BE ENCASED IN CONCRETE. BEARING AREAS MAY BE DISREGARDED FOR TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE IS AT OR ABOVE THE CROWN OF THE PIPE. HOWEVER, CONCRETE BACKING SHALL BE PLACED BETWEEN THE PIPE AND ROCK FACE.

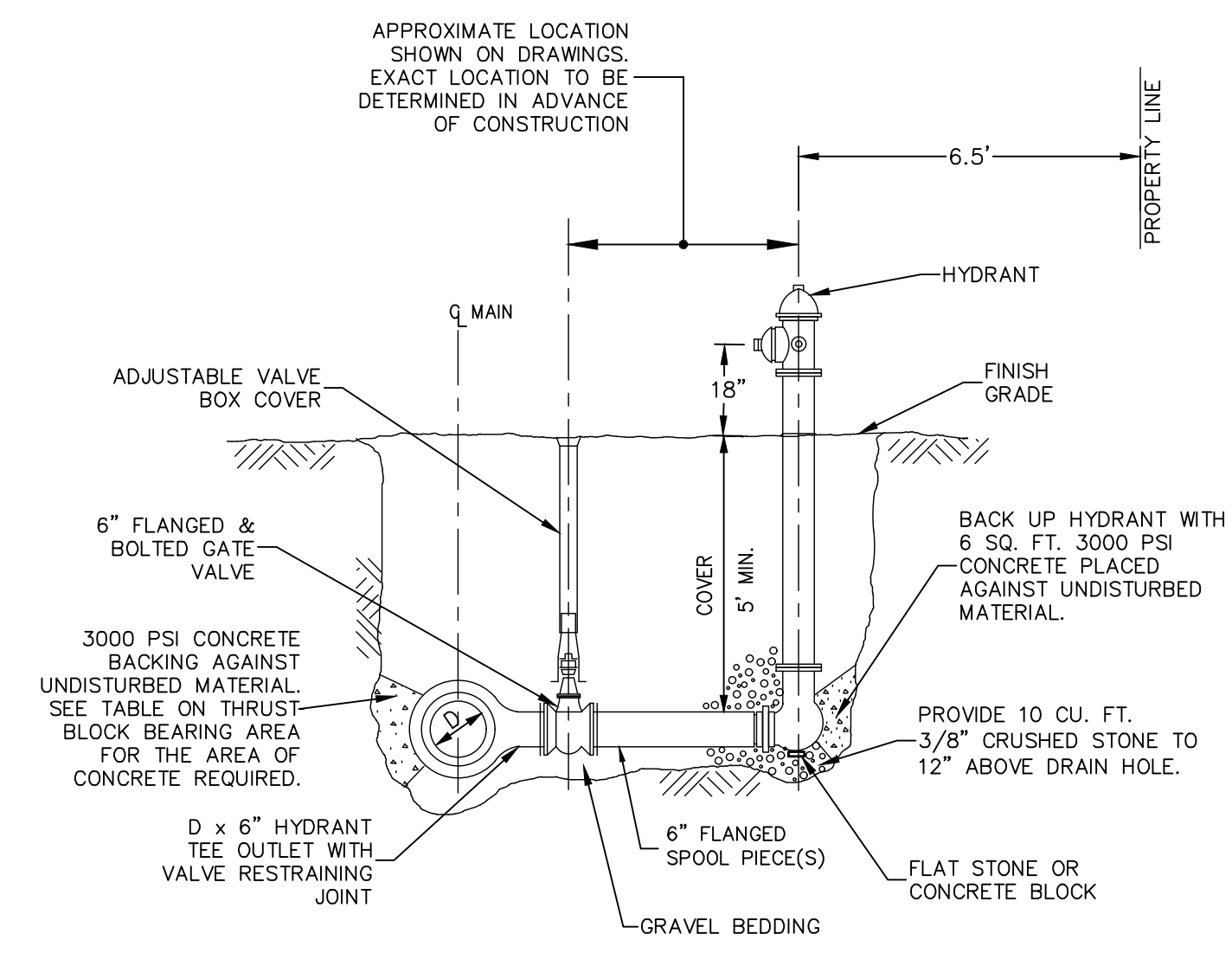
CONCRETE THRUST BLOCK BEARING AREA

SCALE: N. T. S.



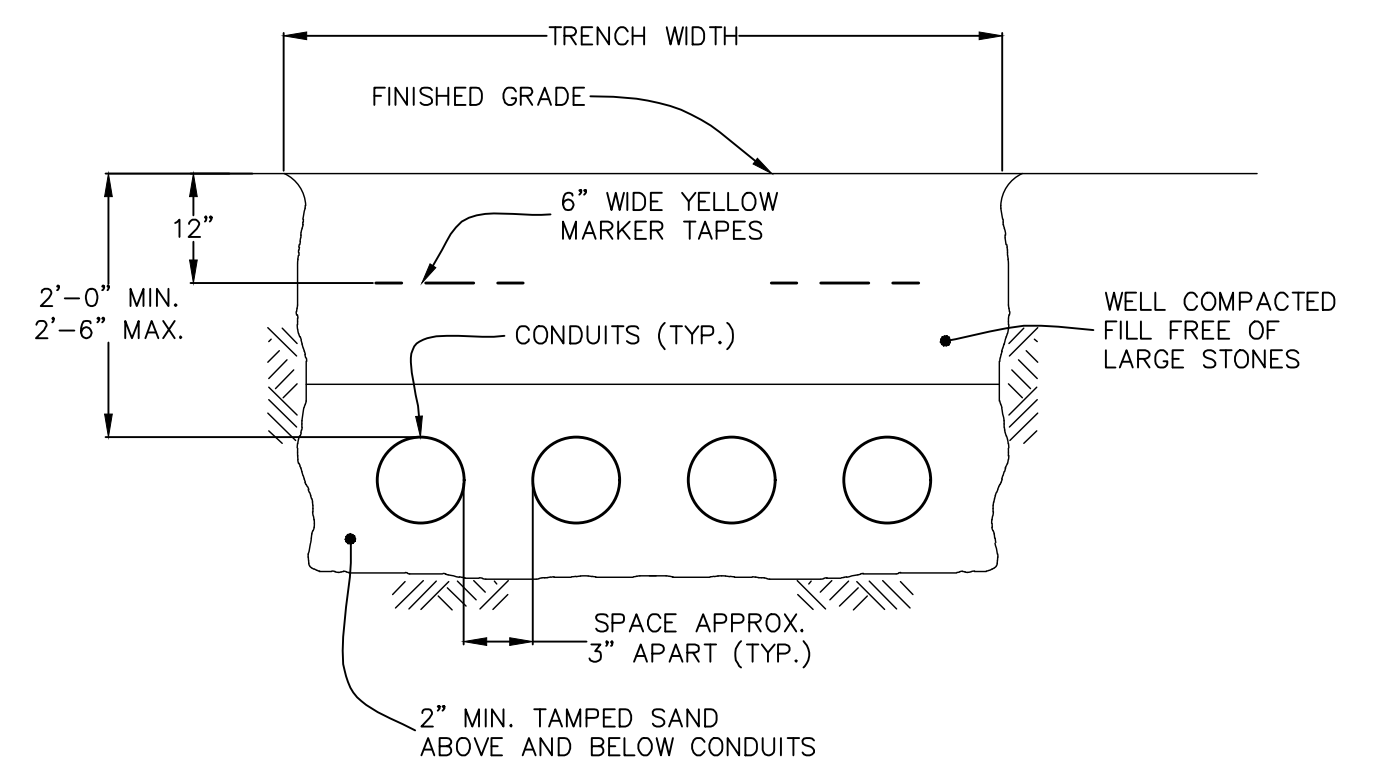
CONCRETE THRUST BLOCK AT PLUG

SCALE: N. T. S.



TYPICAL HYDRANT ASSEMBLY

SCALE: N. T. S.



**UNDERGROUND CONDUIT TRENCH
FOR MULTIPLE CONDUITS**

SCALE: N. T. S.

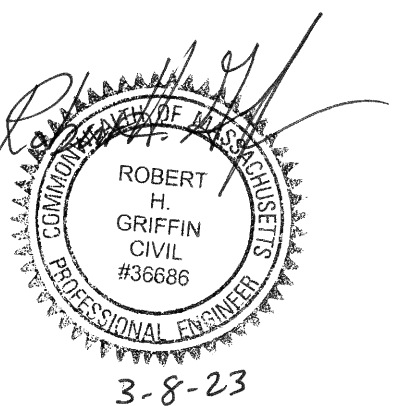
TOWN OF NEWBURY
PLANNING BOARD

DATE: _____

OWNER & APPLICANT:
ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLEE LANE
NEWBURYPORT, MA 01950

No.	Date	Description
1	3/8/23	ADD HDPE WTR SERVICE NOTE.

Revisions



495 Cabot Street, 2nd Floor
Beverly, MA 01915

Tel: 978-927-5111
Fax: 978-927-5103

**FIELDS WAY
SUBDIVISION**

170 ORCHARD ST.
NEWBURY, MA

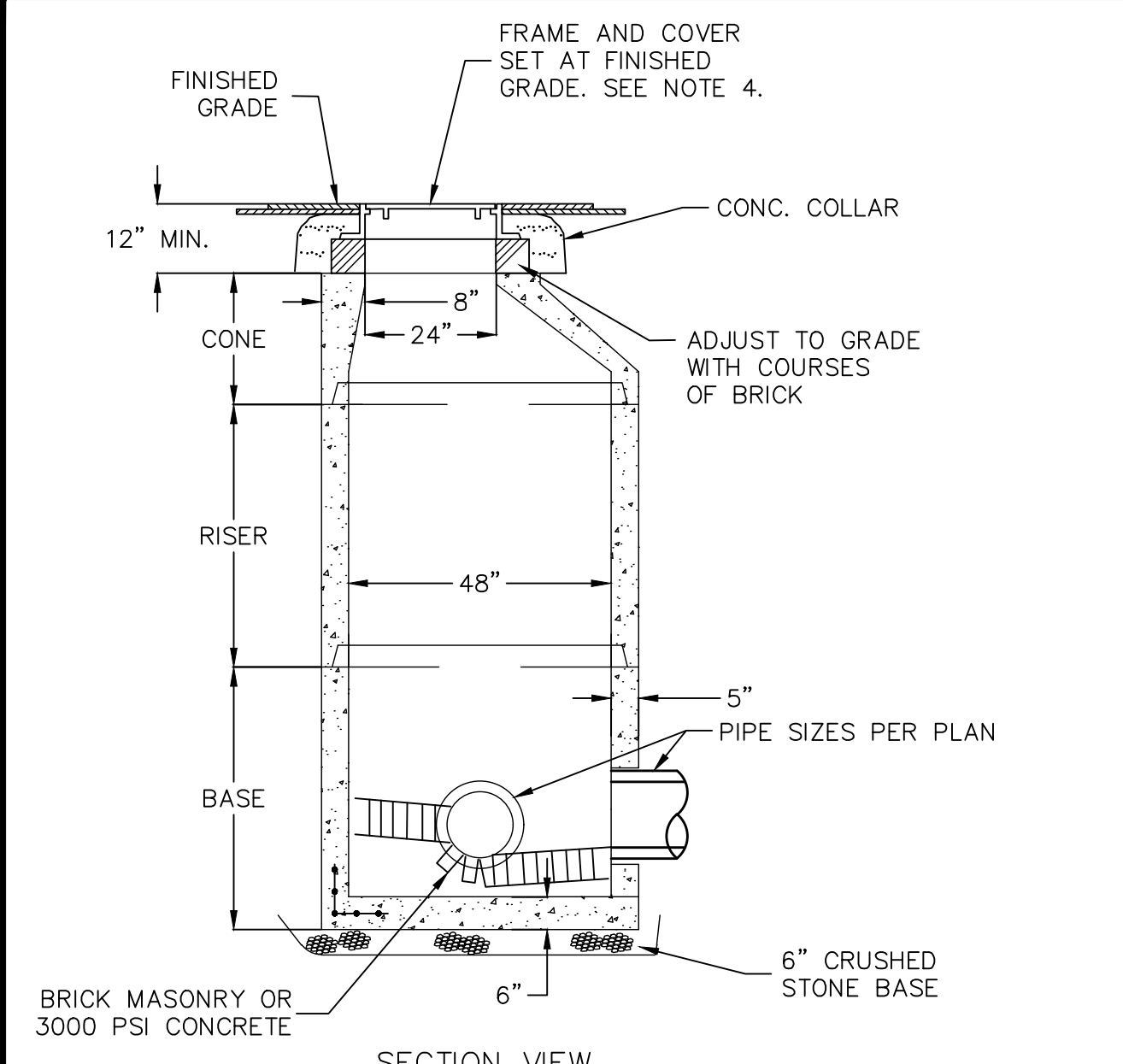
DETAILS I

Scale: AS-SHOWN

Job No: 2043

Date: 1/4/23

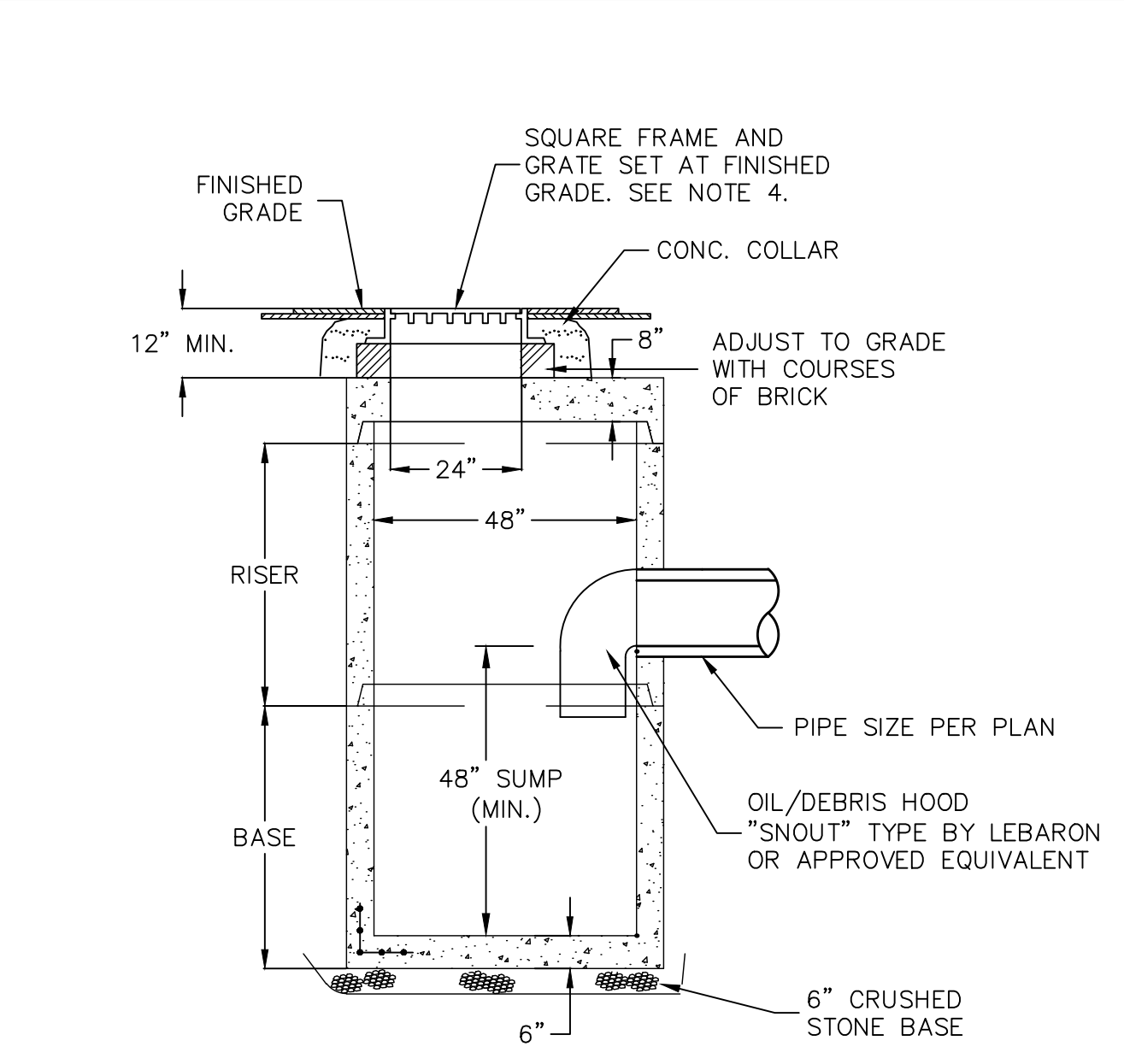
C-9



SECTION VIEW
SCALE: N. T. S.

NOTES:
1. CONCRETE 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL SHALL CONFORM TO LATEST ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. H-20 DESIGN LOADING.
4. EJCO OMA124000023 FRAME & SOLID COVER OMA124000026 (MARKED DRAIN) OR APPROVED EQUIVALENT.
5. SHEA PRECAST OR APPROVED EQUIVALENT.
6. TONGUE & GROOVE JOINTS SEALED WITH BUTYL RESIN. BUTYL RESIN.

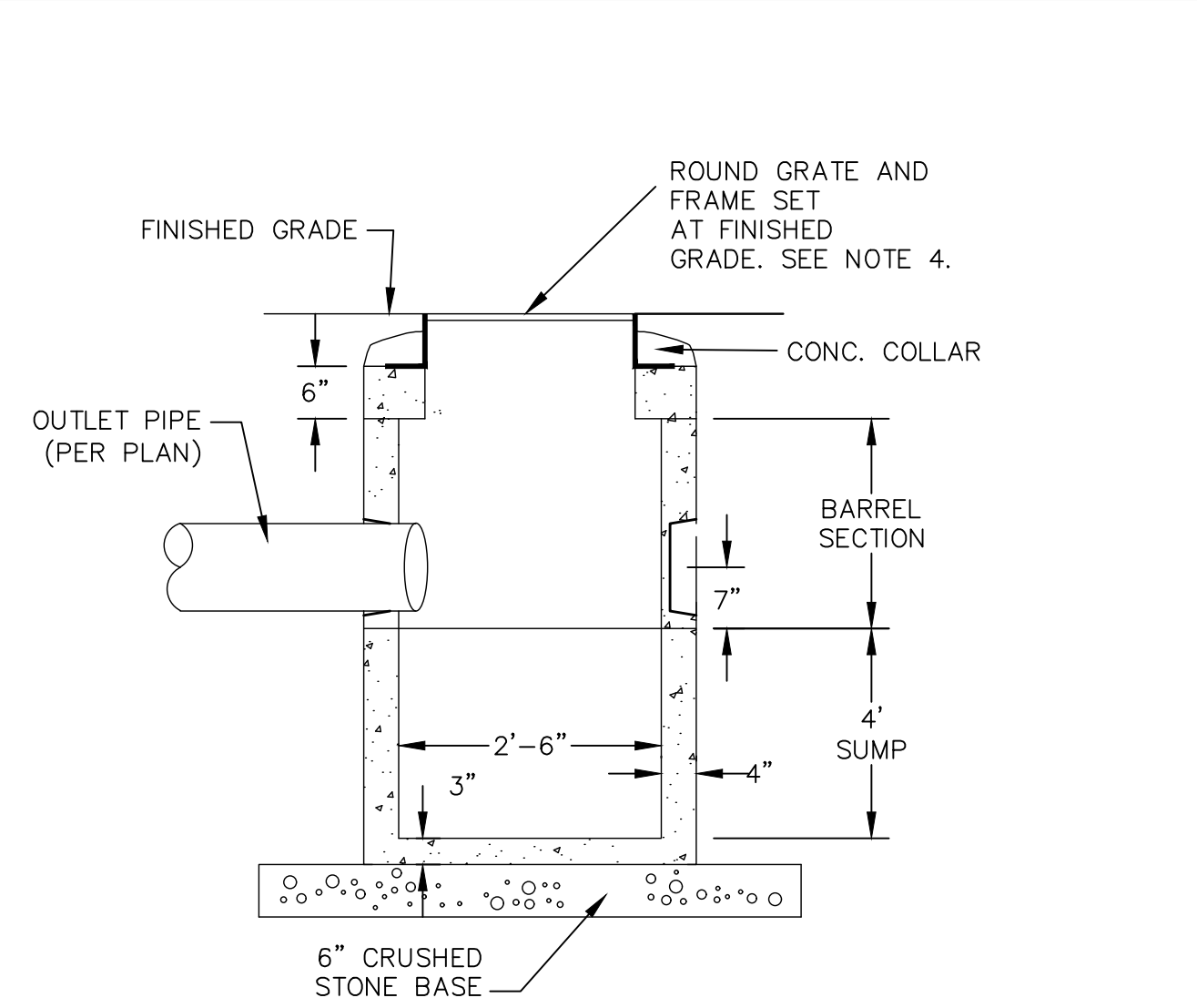
PRECAST DRAIN MANHOLE
SCALE: N. T. S.



SECTION VIEW
SCALE: N. T. S.

NOTES:
1. CONCRETE 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL SHALL CONFORM TO LATEST ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. H-20 DESIGN LOADING.
4. EJCO OMA552000029 FOUR FLANGE OR APPROVED EQUIVALENT.
5. SHEA PRECAST OR APPROVED EQUIVALENT.
6. TONGUE & GROOVE JOINTS SEALED WITH BUTYL RESIN. BUTYL RESIN.
7. FOUNDATION SUPPORT PER GEOTECHNICAL ENGINEER.

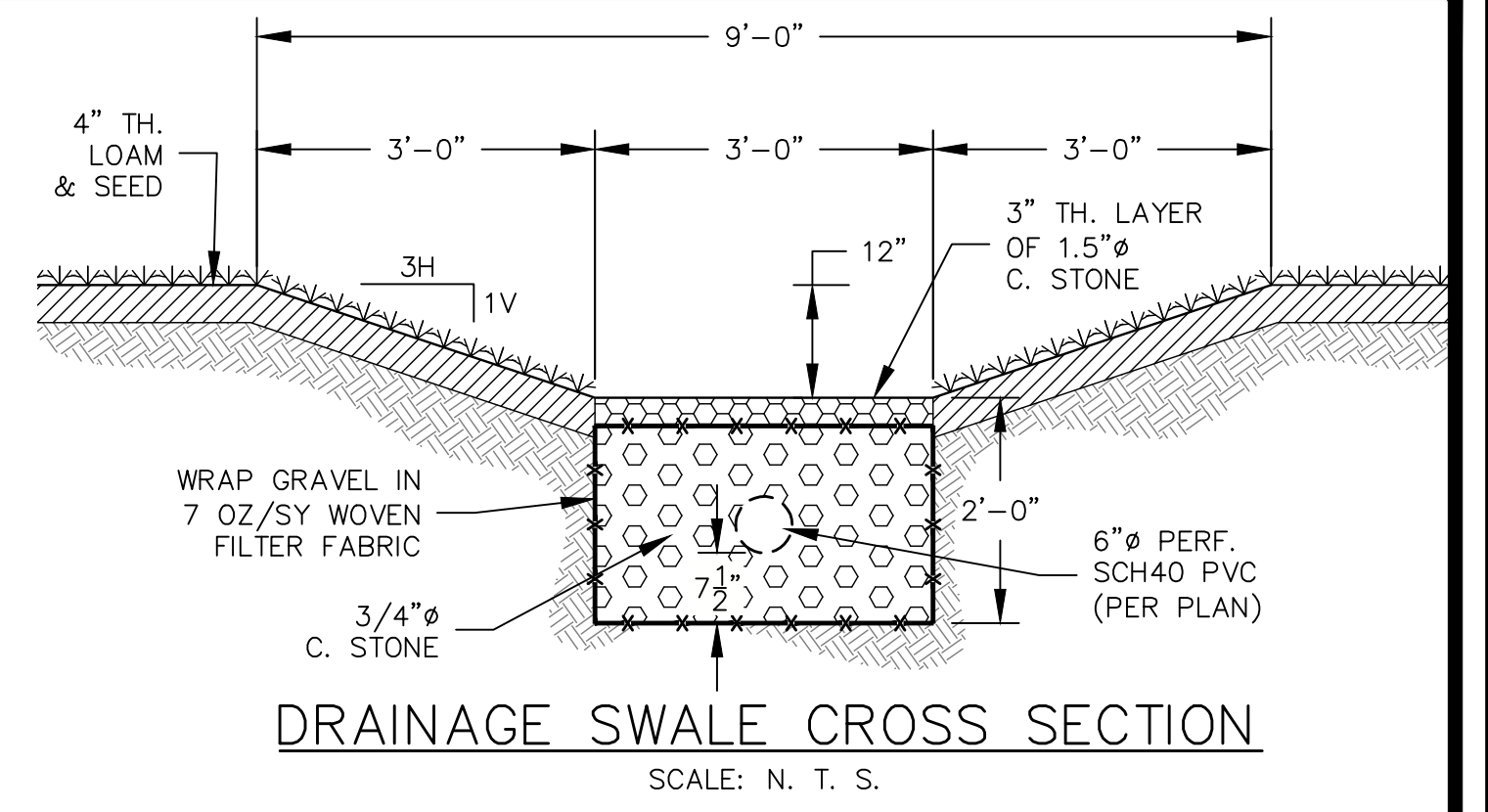
4" Ø PRECAST CATCH BASIN
SCALE: N. T. S.



SECTION VIEW
SCALE: N. T. S.

NOTES:
1. CONCRETE 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL SHALL CONFORM TO LATEST ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. H-20 DESIGN LOADING.
4. EAST JORDAN IRON WORKS, INC 24" DIA. HEAVY DUTY GRATE & FRAME (PRODUCT #00113040C03) OR APPROVED EQUIVALENT.
5. E.F. SHEA 30" PRECAST DRAIN MANHOLE OR APPROVED EQUIVALENT.
6. TONGUE & GROOVE JOINTS SEALED WITH BUTYL RESIN. BUTYL RESIN.
7. ALL DRAIN AND SEWER STRUCTURES AT THIS SITE REQUIRES FLEXIBLE RUBBER BOOT AT PIPE TO MANHOLE CONNECTIONS.

30" Ø MINI CATCH BASIN
SCALE: N. T. S.

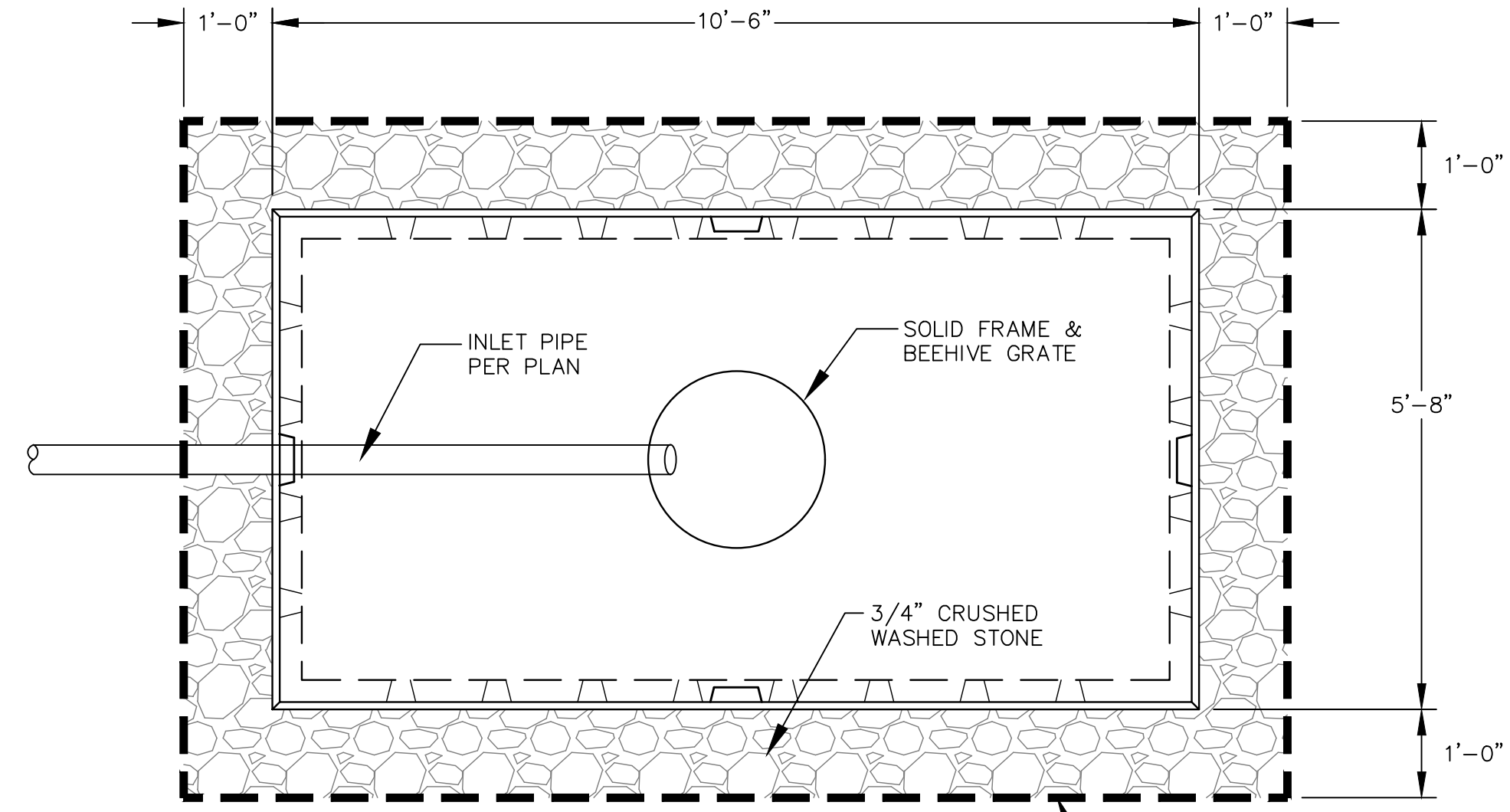


DRAINAGE SWALE CROSS SECTION
SCALE: N. T. S.

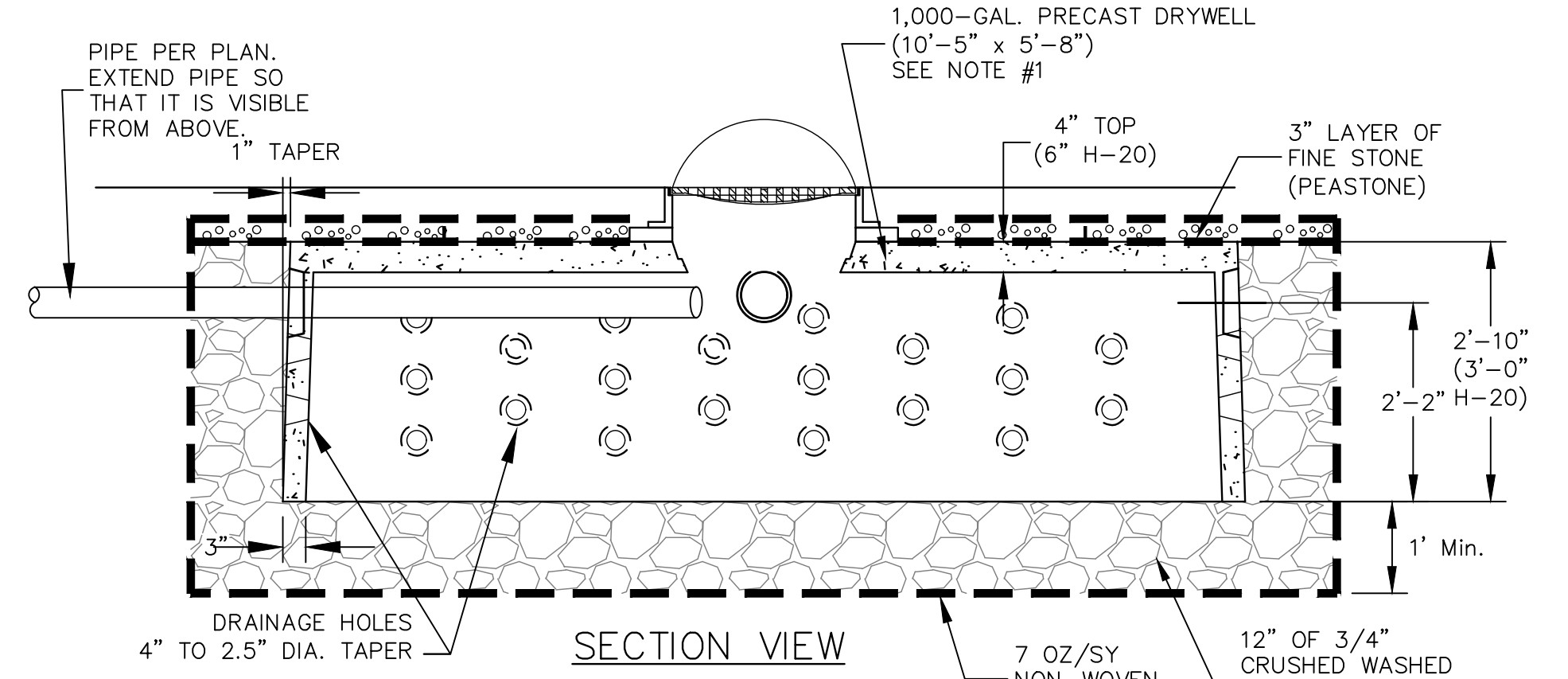
TREES AND SHRUBS	WETLAND PLANTS
Smooth Alder (<i>Alnus serrulata</i>)	Red Maple (<i>Acer rubrum</i>)
American Beech (<i>Fagus grandifolia</i>)	Red-osier Dogwood (<i>Cornus stolonifera</i>)
American Holly (<i>Ilex opaca</i>)	Rhododendron spp
Blackgum, Sourgum (<i>Nyssa sylvatica</i>)	River Birch (<i>Betula nigra</i>)
Black Willow (<i>Salix nigra</i>)	Shadbush, Common Serviceberry (<i>Amelanchier arborea</i>)
Buttonbush (<i>Cephalanthus occidentalis</i>)	Silky Dogwood (<i>Cornus amomum</i>)
Chokecherry (<i>Prunus virginiana</i>)	Silver Maple (<i>Acer saccharinum</i>)
Elderberry (<i>Sambucus canadensis</i>)	Southern Arrowwood (<i>Viburnum dentatum</i>)
Fringe Tree (<i>Chionanthus virginicus</i>)	Spice Bush (<i>Lindera benzoin</i>)
Green Ash, Red Ash (<i>Fraxinus pennsylvanica</i>)	Swamp Magnolia, Sweetbay (<i>Magnolia virginiana</i>)
Honey Locust (<i>Gleditsia triacanthos</i>)	Swamp Oak (<i>Quercus bicolor</i>)
Highbush Cranberry (<i>Viburnum trilobum</i>)	Sweetgum (<i>Liquidambar styraciflua</i>)
Larch, Tamarack (<i>Larix laricina</i>)	Sycamore (<i>Platanus occidentalis</i>)
Mountain Laurel (<i>Kalmia latifolia</i>)	Tulip-tree (<i>Liriodendron tulipifera</i>)
Persimmon (<i>Diospyros virginiana</i>)	Tupelo (<i>Nyssa sylvatica vari biflora</i>)
Red Chokeberry (<i>Pyrus arbutifolia</i>)	Willow Oak, Pin Oak (<i>Quercus phellos/palustris</i>)
	Winterberry (<i>Ilex laevigata</i>)
	Witch Hazel (<i>Hamamelis virginiana</i>)
	Arrow Arum, Duck Corn (<i>Peltandra virginica</i>)
	Arrowhead, Duck Potato (<i>Sagittaria latifolia</i>)
	Broomsedge (<i>Andropogon virginianus</i>)
	Cattail (<i>Typha spp</i>)
	Coontail (<i>Ceratophyllum demersum</i>)
	Common Three-Square (<i>Scirpus americanus</i>)
	Soft-stem Butrush (<i>Scirpus validus</i>)
	Lizard's Tail (<i>Saururus cernuus</i>)
	Pickerelweed (<i>Pontederia cordata</i>)
	Pondweed (<i>Potamogeton</i>)
	Rice Cutgrass (<i>Leersia oryzoides</i>)
	Sedges (<i>Carex spp</i>)
	Smartweed (<i>Polygonum spp</i>)
	Spatterdock (<i>Nuphar luteum</i>)
	Switchgrass (<i>Panicum virgatum</i>)
	Sweet Flag (<i>Acorus calamus</i>)
	Water Iris (<i>Iris pseudoacorus</i>)

NOTE:
1. PLANTS SHALL BE SELECTED FROM THIS LIST OR APPROVED ALTERNATIVE. SUBSTITUTIONS MAY BE MADE BASED ON NURSERY STOCK.
2. REF. SCHUELER 1992

PLANT LIST FOR CONSTRUCTED STORMWATER WETLAND
SCALE: N. T. S.



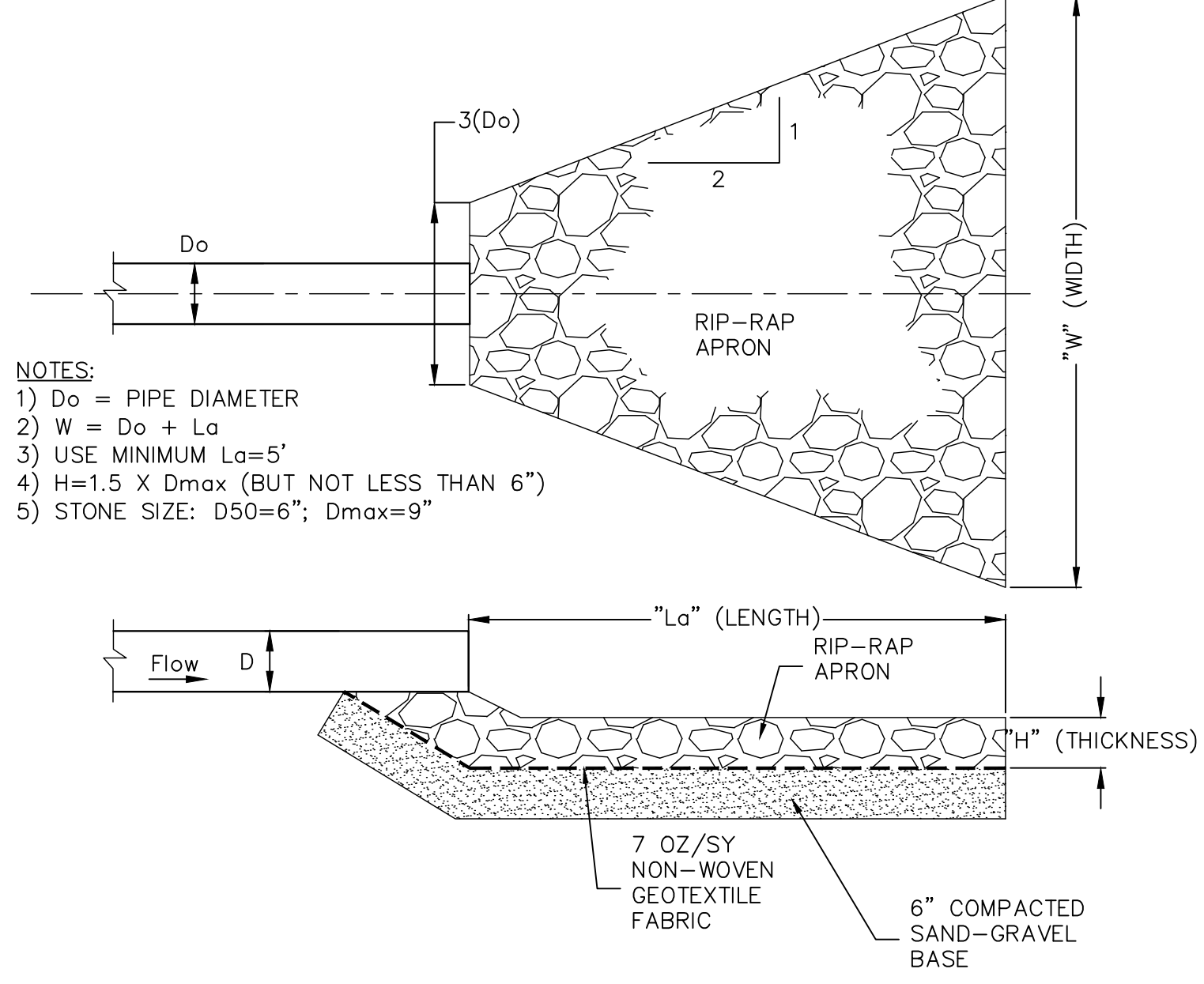
PLAN VIEW



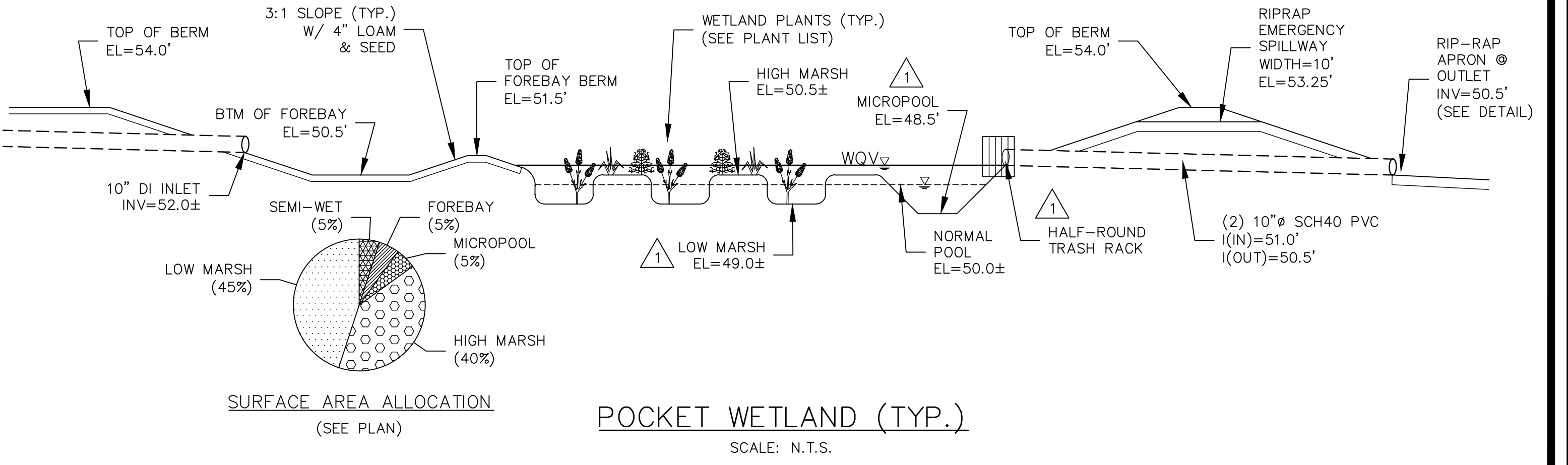
SECTION VIEW
SCALE: N. T. S.

NOTES:
1) 1,000 GALLON DRYWELL SHALLOW: SHEA DW-SDWH OR APPROVED ALTERNATE.
2) DRYWELL SHALL HAVE A CAST IRON FRAME & GRATE, UNLESS NOTED OTHERWISE.

1,000 GAL. DRYWELL DETAIL
SCALE: N. T. S.



RIP-RAP APRON DETAIL
SCALE: N. T. S.



SURFACE AREA ALLOCATION (SEE PLAN)
POCKET WETLAND (TYP.)
SCALE: N.T.S.

I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE _____

I, _____, CLERK OF THE TOWN OR NEWBURY, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD WAS RECEIVED ON _____ AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT FOLLOWING SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK _____ DATE _____

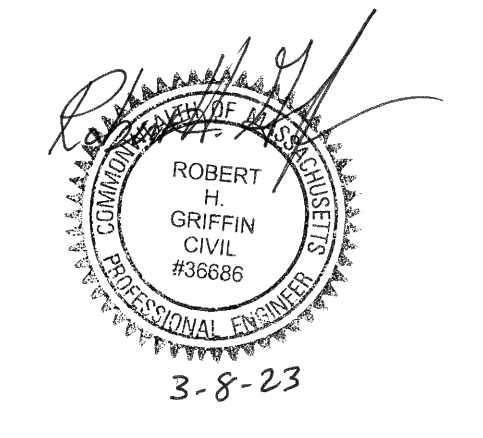
FOR REGISTRY USE ONLY

DATE: _____

OWNER & APPLICANT:
ESTATE OF LEWIS BULGARIS
C/O DIANNE YURKAVICH
2 LAVALLEE LANE
NEWBURYPORT, MA 01950

No.	Date	Description
1	3/8/23	REMOVE AREA DRAIN DETAIL; ADD DRYWELL DETAIL; REV. POCKET WETLAND ELEV.; ADD TRASH RACK.

Revisions



495 Cabot Street, 2nd Floor
Beverly, MA 01915

Tel: 978-927-5111
Fax: 978-927-5103

FIELDS WAY SUBDIVISION

170 ORCHARD ST.
NEWBURY, MA

DETAILS II