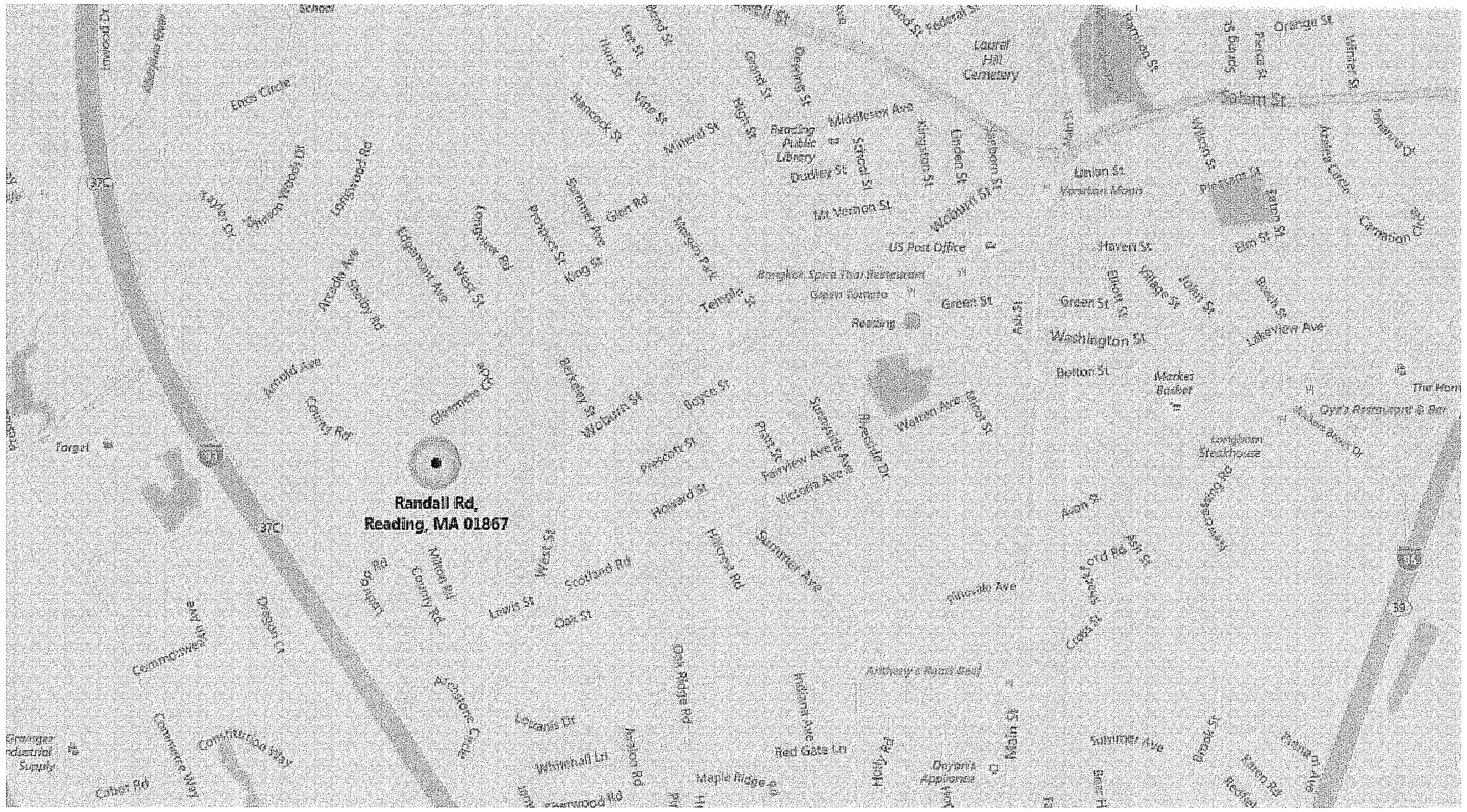


LOCUS
NOT TO SCALE

GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARDS OF THE READING PUBLIC WORKS DEPARTMENT.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN FIELD VERIFIED. THE CONTRACTOR SHALL VERIFY THEIR LOCATION PRIOR TO CONSTRUCTION. "DIG SAFE" SHALL BE CONTACTED AT 1-888-344-7233. MASSACHUSETTS STATE LAW REQUIRES THREE BUSINESS DAYS NOTICE PRIOR TO EXCAVATION.
3. REFERENCE ASSESSOR MAP 15 PARCELS 5, 6, 7, 8 MAP 10 PARCELS 294, 296.
4. IT IS THE INTENTION OF THE APPLICANT TO OFFER RANDALL ROAD EXTENSION TO THE TOWN OF READING FOR ACCEPTANCE AS A PUBLIC WAY.
5. THERE ARE NO EXISTING VARIANCES OR SPECIAL PERMITS ASSOCIATED WITH THIS SITE.

INDEX

SHEET 1	COVER
SHEET 2	LOCUS PLAN
SHEET 3	EXISTING CONDITIONS PLAN
SHEET 4	RECORD PLAN
SHEET 5	GRADING AND EROSION CONTROL
SHEET 6	ROADWAY AND UTILITIES
SHEET 7	STORMWATER DETAILS
SHEET 8	MISCELLANEOUS DETAILS

OWNER

ASSESSORS MAP 15 PARCELS 5,6,7,8
WILLIAM P. ANGELINI Jr.
C/O LISA ADAMS
4 POWERS CT.
BOSTON, MA 02109

OWNER

ASSESSORS MAP 10 PARCELS 294 & 296
KENNETH & LAUREN KESSARIS
25 SPRINGVALE RD
READING, MA 01867

APPLICANT

MARK G HALL
286 PARK STREET
NORTH READING, MA 01864

LEGEND

EXISTING CONTOUR	——100——
EXISTING SEWER LINE	—— S ——
EXISTING WATER LINE	—— W ——
EXISTING DRAIN LINE	—— D ——
PROPOSED 8" CLDI WATER LINE	—— PW ——
PROPOSED 12" DRAIN LINE	—— PD ——
PROPOSED 8 " SEWER LINE	—— PS ——
EDGE OF WETLANDS	—·—·—·—·—
PROPOSED ELEC,TEL,CABLE	═══════
LOT FRONTAGE	((100.00))
EXISTING FIRE HYDRANT	
PROPOSED FIRE HYDRANT	
INFILTRATION CHAMBER	
TREE BOX FILTER	TB
PROP. EROSION CONTROL	- - - - - - - -
PROPOSED TREE	●

LOT AREA CALCULATIONS

LOT	TOTAL AREA
1	18,675 SF
2	19,172
3	15,011
25 Springvale Rd	15,000
Randall Rd. Ext	13,401
Total	81,529 SF

ZONING DIMENSIONAL REQUIREMENTS

ZONING DISTRICT: S15

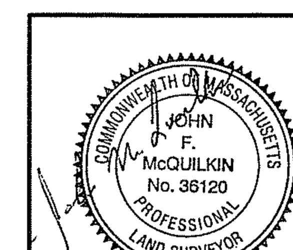
MIN. LOT AREA	15,000 SF
MIN. LOT FRONTAGE	100 L.F.
MAX. STORIES	--
MAX. HEIGHT	35 FT
MAX. BUILDING AREA	--
FRONT YARD SETBACK	20 FT
SIDE YARD SETBACK	15 FT
REAR YARD SETBACK	20 FT

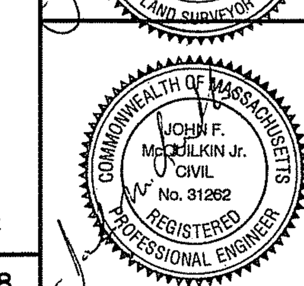
20 0 10 20 40 80
(IN FEET)
1 inch = 40 ft.

TOWN OF READING COMMUNITY
PLANNING & DEVELOPMENT COMMISSION

DATE

DATE	BY	REVISION
12-1-16	TH	INCORPORATE CPDC CONDITIONS
10-11-16	TH	SEE SHEET 5 OF 8





DEFINITIVE SUBDIVISION PLAN
RANDALL ROAD EXTENSION
READING, MA 01867

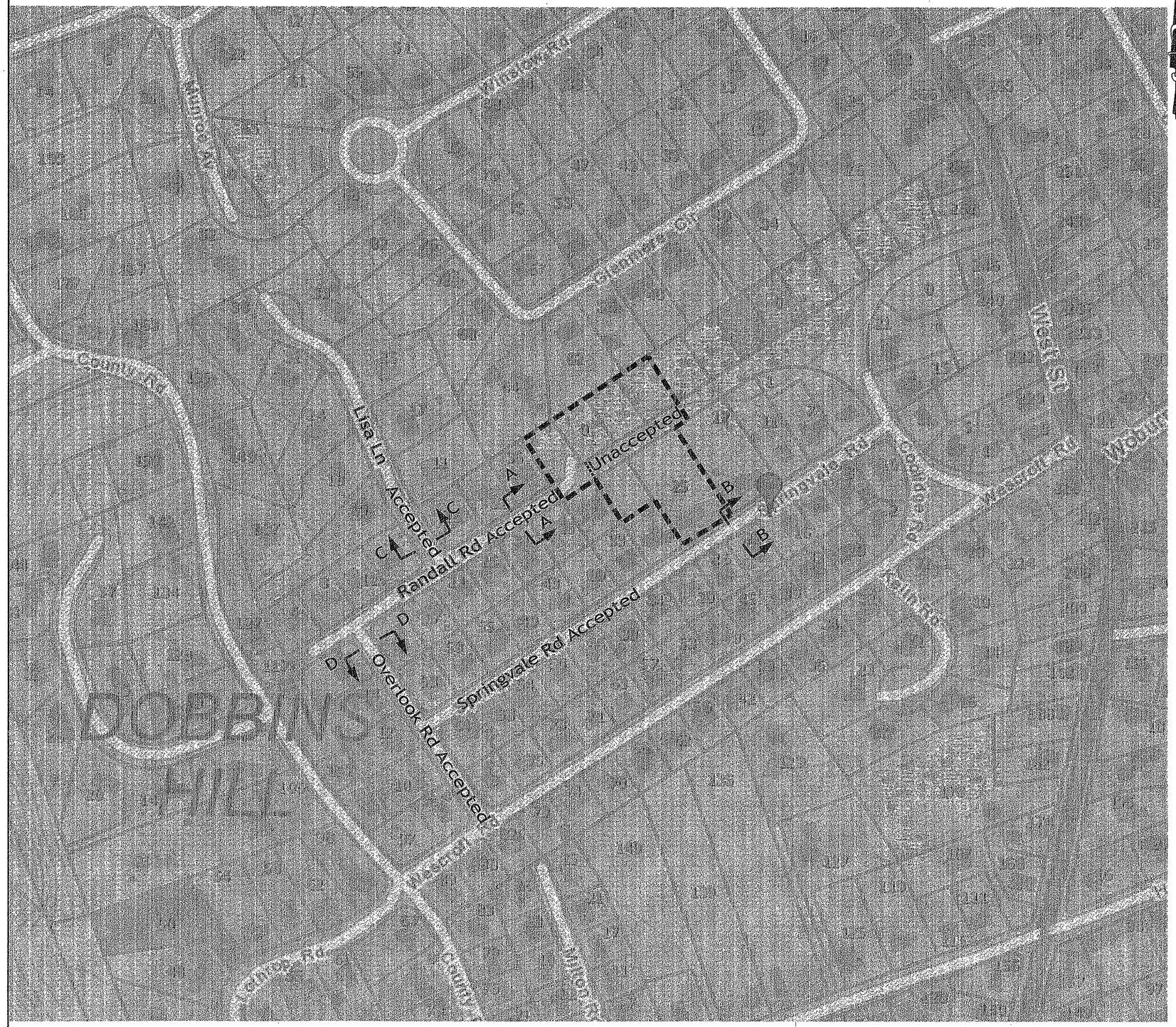
SCALE: NOT TO SCALE

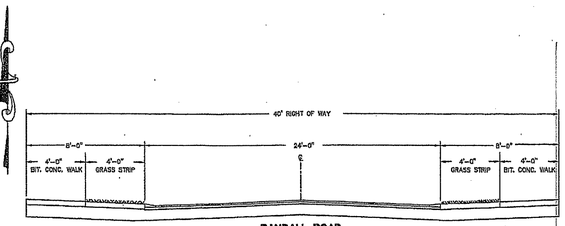
DATE: SEPT 26, 2016

Prepared For:
MG Hall Contractors
286 Park Street
North Reading, MA 01923

JM Associates
325 Main Street
N. Reading, MA 01864
978-664-6668
www.jmassociateseng.com

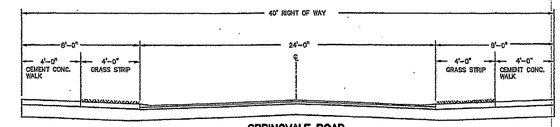
JOB#373-572





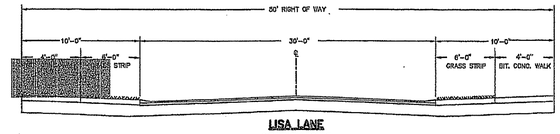
RANDALL ROAD
SECTION A–A

NOT TO SCALE



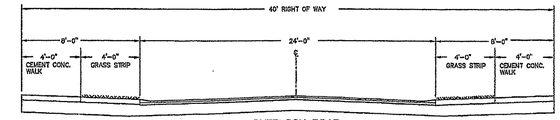
SPRINGVALE ROAD
SECTION B–B

NOT TO SCALE



LISA LANE
SECTION C–C

NOT TO SCALE



OVERLOOK ROAD
SECTION D–D

NOT TO SCALE

TOWN OF READING COMMUNITY
PLANNING & DEVELOPMENT COMMISSION

_____

_____

_____

_____

_____

_____

DATE

DATE	BY	REVISION
12-1-16	JM	NO CHANGE
10-11-16	JM	NO CHANGE

DEFINITIVE SUBDIVISION PLAN
LOCUS PLAN
RANDALL ROAD EXTENSION
READING, MA 01867

COMMONWEALTH OF MASSACHUSETTS
JOHN F. McMULKIN Jr.
CIVIL
NO. 51282
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1"=100'

DATE: SEPT 26, 2016

Prepared For:
MG Hall Contractors
286 Park Street
North Reading, MA 01923

JM Associates
325 Main Street
N. Reading, MA 01864
978–664–6668
www.jmassociateseng.com

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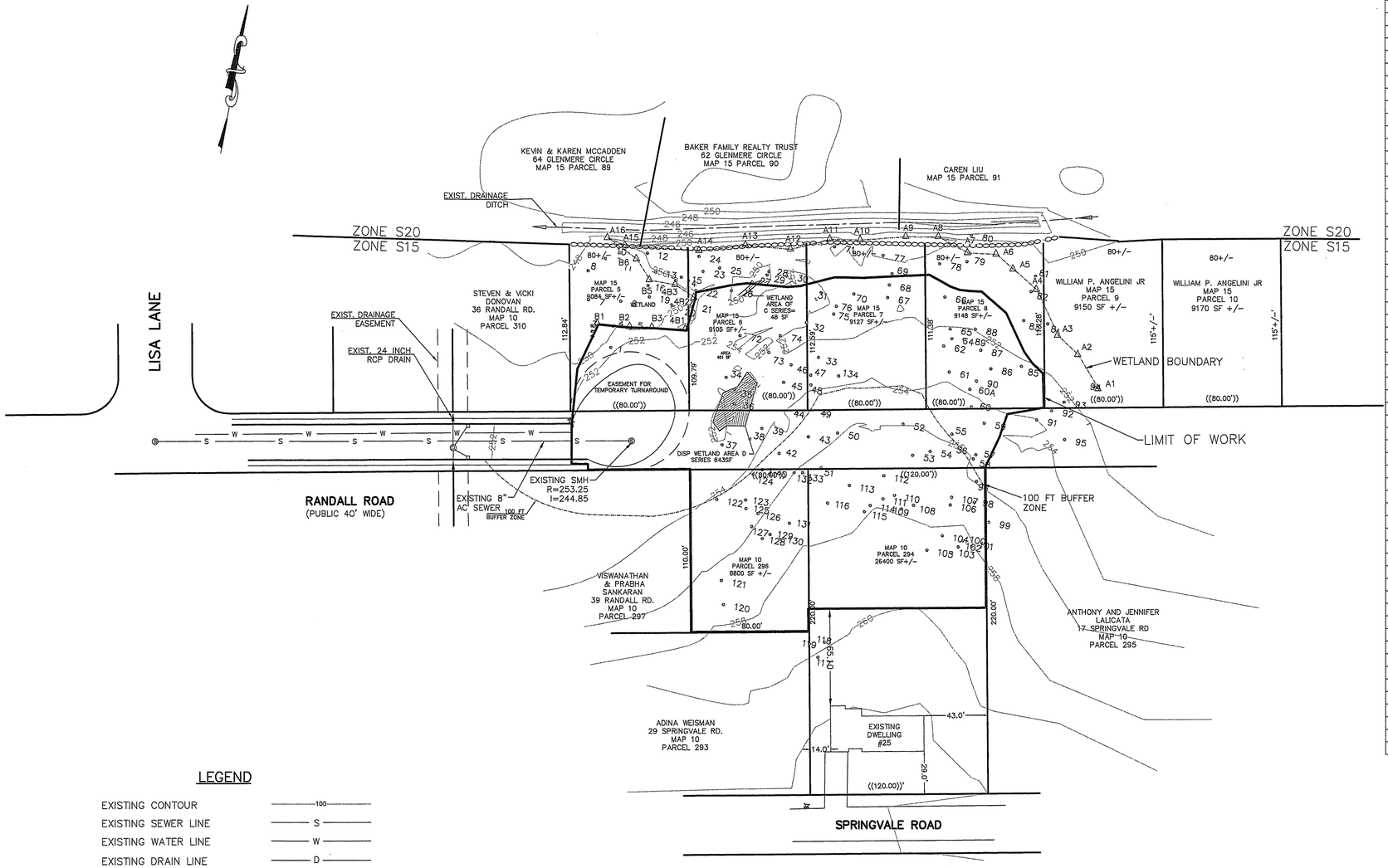
SH. 2 OF 8



LEGEND

EXISTING CONTOUR	100
EXISTING SEWER LINE	S
EXISTING WATER LINE	W
EXISTING DRAIN LINE	D
PROPOSED 8" CLDI WATER LINE	PW
PROPOSED 12" DRAIN LINE	PD
PROPOSED 8 " SEWER LINE	PS
EDGE OF WETLANDS	
PROPOSED ELEC,TEL,CABLE	
LOT FRONTAGE	((100.00))
EXISTING FIRE HYDRANT	
PROPOSED FIRE HYDRANT	
INFILTRATION CHAMBER	
TREE BOX FILTER	TB
PROP. EROSION CONTROL	
PROPOSED TREE	

20 0 10 20 40 80

(IN FEET)
1 inch = 40 ft.

TREE #	SPECIES	DBH (IN.)	Buffer	Displace
	INSIDE BUFFER ZONE			
1	Red maple (Acer rubrum)	15	In	Yes
2	American elm (Ulmus americana)	16	In	No
3	Red maple (Acer rubrum)	36	In	No
4	Red maple (Acer rubrum)	7	In	No
5	Red maple (Acer rubrum)	8	In	No
6	Red maple (Acer rubrum)	9	In	No
7	Red maple (Acer rubrum)	13	In	No
8	Norway maple (Acer platanoides)	17	In	No
9	Red maple (Acer rubrum)	10	In	No
10	Red maple (Acer rubrum)	7	In	No
11	American elm (Ulmus americana)	8	In	No
12	Red oak (Quercus rubra)	54	In	No
13	Red maple (Acer rubrum)	24	In	No
14	Shagbark hickory (Carya ovata)	15	In	No
15	Red maple (Acer rubrum)	10	In	No
16	Red maple (Acer rubrum)	12	In	No
17	American elm (Ulmus americana)	9	In	No
18	Red maple (Acer rubrum)	14	In	No
19	Red maple (Acer rubrum)	11	In	No
20	Red maple (Acer rubrum)	6	In	No
21	Norway maple (Acer platanoides)	11	In	No
22	Red maple (Acer rubrum)	11	In	No
23	White oak (Quercus alba)	17	In	No
24	Red maple (Acer rubrum)	11	In	No
25	Red maple (Acer rubrum)	12	In	No
26	Red maple (Acer rubrum)	27	In	Yes
27	Red maple (Acer rubrum)	18	In	No
28	Red maple (Acer rubrum)	10	In	No
29	Red maple (Acer rubrum)	13	In	No
30	Red oak (Quercus rubra)	24	In	Yes
31	Norway maple (Acer platanoides)	13	In	Yes
32	Red maple (Acer rubrum)	19	In	Yes
33	Norway maple (Acer platanoides)	15	In	Yes
34	White ash (Faxinus american)	19	In	Yes
35	Red maple (Acer rubrum)	15	In	Yes
36	Norway maple (Acer platanoides)	7	In	Yes
37	Red oak (Quercus rubra)	17	In	Yes
38	American elm (Ulmus americana)	6	In	Yes
39	Norway maple (Acer platanoides)	18	In	Yes
44	Norway maple (Acer platanoides)	14	In	Yes
45	Norway maple (Acer platanoides)	19	In	Yes
46	Norway maple (Acer platanoides)	24	In	Yes
47	Norway maple (Acer platanoides)	20	In	Yes
48	Norway maple (Acer platanoides)	24	In	Yes
55	Norway maple (Acer platanoides)	17	In	Yes
57	Red maple (Acer rubrum)	15	In	Yes
58	Red maple (Acer rubrum)	18	In	Yes
59	Red maple (Acer rubrum)	17	In	Yes
60	White ash (Faxinus american)	10	In	Yes
61	Norway maple (Acer platanoides)	15	In	Yes
62	Norway maple (Acer platanoides)	28	In	Yes
63	Norway maple (Acer platanoides)	11	In	Yes
64	Norway maple (Acer platanoides)	13	In	Yes
65	Norway maple (Acer platanoides)	17	In	Yes
66	Norway maple (Acer platanoides)	31	In	Yes
67	Norway maple (Acer platanoides)	27	In	Yes
68	Norway maple (Acer platanoides)	12	In	Yes
69	Norway maple (Acer platanoides)	25	In	No
70	Red maple (Acer rubrum)	24	In	Yes
71	Red maple (Acer rubrum)	10	In	No
72	Red maple (Acer rubrum)	10	In	Yes
73	American elm (Ulmus americana)	6	In	Yes
74	American elm (Ulmus americana)	6	In	Yes

TREE #	SPECIES	DBH (IN.)	Buffer	Displace
	INSIDE BUFFER ZONE			
75	Red maple (Acer rubrum)	12	In	Yes
76	Red maple (Acer rubrum)	7	In	Yes
77	European ash (Sorbus aucuparia)	6	In	No
78	Red maple (Acer rubrum)	14	In	No
79	Norway maple (Acer platanoides)	7	In	No
81	Red oak (Quercus rubra)	13	In	No
82	Red maple (Acer rubrum)	17	In	No
83	Red maple (Acer rubrum)	22	In	No
85	Norway maple (Acer platanoides)	8	In	Yes
86	Norway maple (Acer platanoides)	10	In	Yes
87	Norway maple (Acer platanoides)	22	In	Yes
88	Norway maple (Acer platanoides)	14	In	Yes
89	Norway maple (Acer platanoides)	13	In	Yes
90	Norway maple (Acer platanoides)	12	In	Yes
134	Red maple (Acer rubrum)	17	In	Yes
	OUTSIDE BUFFER ZONE			
40	Norway maple (Acer platanoides)	26	Out	Yes
41	Norway maple (Acer platanoides)	11	Out	Yes
42	Norway maple (Acer platanoides)	15	Out	Yes
43	Norway maple (Acer platanoides)	18	Out	Yes
49	Norway maple (Acer platanoides)	14	Out	Yes
50	Norway maple (Acer platanoides)	13	Out	Yes
51	Norway maple (Acer platanoides)	15	Out	Yes
52	Norway maple (Acer platanoides)	26	Out	Yes
53	Norway maple (Acer platanoides)	14	Out	Yes
54	Norway maple (Acer platanoides)	15	Out	Yes
56	Norway maple (Acer platanoides)	12	Out	Yes
96	Red maple (Acer rubrum)	19	Out	Yes
98	White pine (Pinus strobus)	12	Out	Yes
100	White pine (Pinus strobus)	10	Out	Yes
101	Red oak (Quercus rubra)	14	Out	Yes
102	Red maple (Acer rubrum)	17	Out	Yes
103	Red maple (Acer rubrum)	13	Out	Yes
104	Red maple (Acer rubrum)	18	Out	Yes
105	Red maple (Acer rubrum)	18	Out	Yes
106	Red maple (Acer rubrum)	15	Out	Yes
107	Norway maple (Acer platanoides)	12	Out	Yes
108	Norway maple (Acer platanoides)	13	Out	Yes
109	White pine (Pinus strobus)	9	Out	Yes
110	Red maple (Acer rubrum)	16	Out	Yes
111	Red maple (Acer rubrum)	10	Out	Yes
112	American elm (Ulmus americana)	6	Out	Yes
113	Silver maple (Acer saccarinum)	18	Out	Yes
114	Red cedar (Juniperus virginianaa)	7	Out	Yes
115	Red maple (Acer rubrum)	17	Out	Yes
116	Red maple (Acer rubrum)	19	Out	Yes
117	Red maple (Acer rubrum)	13	Out	No
118	Red oak (Quercus rubra)	10	Out	No
119	Red maple (Acer rubrum)	13	Out	No
120	Blue spruce (Picea pungens)	10	Out	Yes
121	Blue spruce (Picea pungens)	7	Out	Yes
122	Sycamore (Platanus occidentalis)	21	Out	Yes
123	Red maple (Acer rubrum)	21	Out	Yes
124	Red maple (Acer rubrum)	21	Out	Yes
125	Red maple (Acer rubrum)	21	Out	Yes
126	Red maple (Acer rubrum)	11	Out	Yes
127	Red maple (Acer rubrum)	9	Out	Yes
128	Red maple (Acer rubrum)	19	Out	Yes
129	Red maple (Acer rubrum)	16	Out	Yes
130	Red maple (Acer rubrum)	18	Out	Yes
131	Red maple (Acer rubrum)	17	Out	Yes
132	Red maple (Acer rubrum)	18	Out	Yes
133	Red maple (Acer rubrum)	10	Out	Yes

TOWN OF READING COMMUNITY
PLANNING & DEVELOPMENT COMMISSION

DATE

DATE	BY	REVISION
12–1–16	TH	ALL TREES >6" DBH SHOWN
11–3–16	JM	REVISE TREES IN BUFFER ZONE
10–11–16	TH	NO CHANGE

DEFINITIVE SUBDIVISION PLAN
EXISTING CONDITIONS
RANDALL ROAD EXTENSION
READING, MA 01867

COMMONWEALTH OF MASSACHUSETTS
James F. McQUILKIN
No. 36120
PROFESSIONAL LAND SURVEYOR

SCALE: 1"=40'

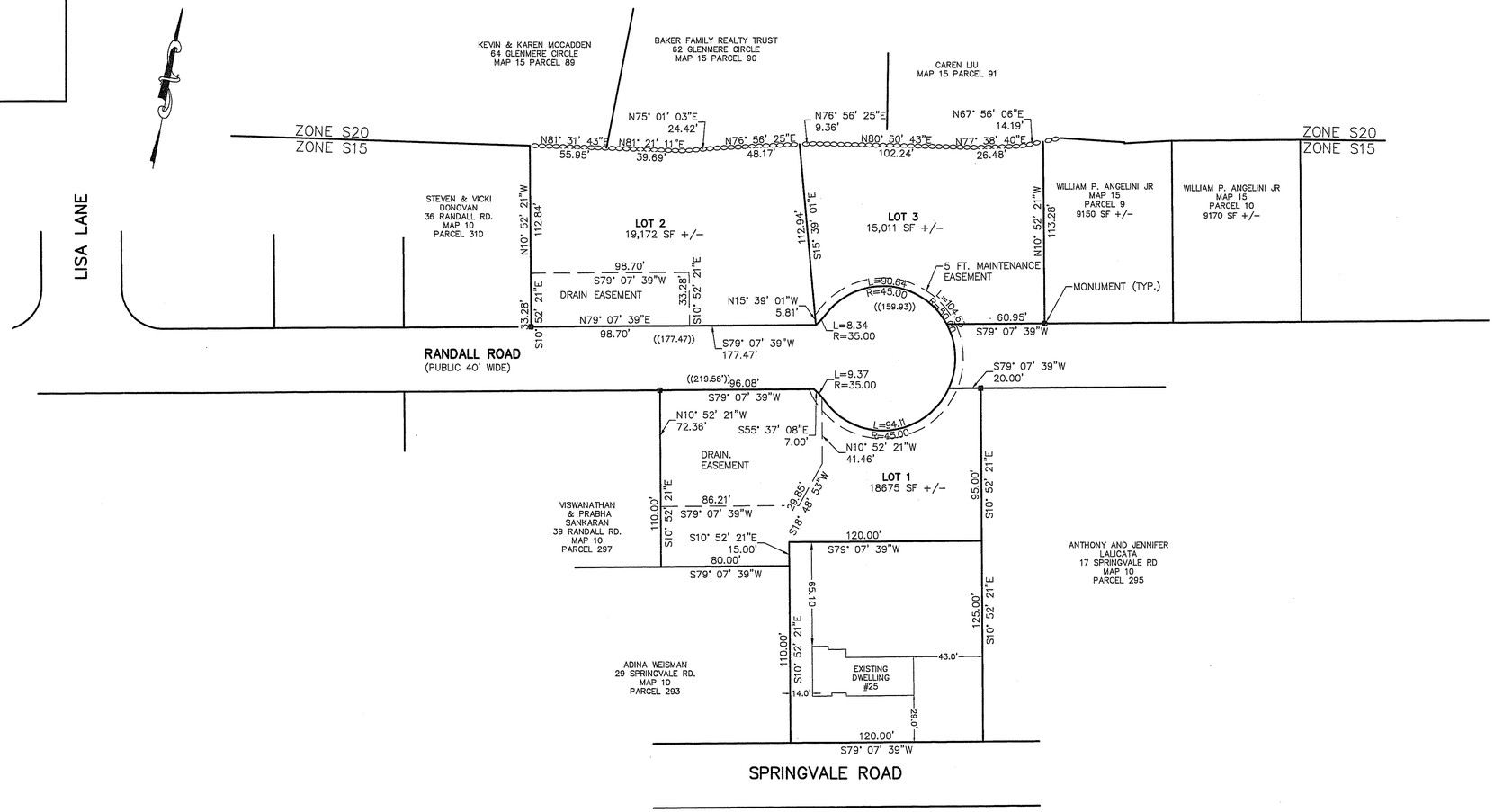
DATE: SEPT. 26, 2016

Prepared For:
MG Hall Contractors
286 Park Street
North Reading, MA 01923

JM Associates
325 Main Street
N. Reading, MA 01864
978–664–6668
www.jmassociateseng.com

JOB#373-572

SH. 3 OF 8



REFERENCES

1. TITLE REFERENCES MSRD BOOK 27955 PAGE 248
   MSRD BOOK 64007 PAGE 514
2. PLAN REFERENCES
   MSRD 801 1976
   MSRD 313 1970
   MSRD 381 1940

DEFINITIVE PLAN AND PROFILE, RANDALL RD, READING
PREPARED BY HAYES ENGINEERING 12.31.1968

OWNER

ASSESSORS MAP 15 PARCELS 5,6,7,8
WILLIAM P. ANGELINI Jr.
C/O LISA ADAMS
4 POWERS CT.
BOSTON, MA 02109

OWNER

ASSESSORS MAP 10 PARCELS 294 & 296
KENNETH & LAUREN KESSARIS
25 SPRINGVALE RD
READING, MA 01867

APPLICANT

MARK G HALL
286 PARK STREET
NORTH READING, MA 01864

NOTE:

EASEMENT RIGHTS FOR THE DRAINAGE EASEMENTS AND MAINTENANCE EASEMENTS SHALL BE CONVEYED TO THE TOWN OF READING.

LEGEND

EXISTING CONTOUR	——100——
EXISTING SEWER LINE	——— S ———
EXISTING WATER LINE	——— W ———
EXISTING DRAIN LINE	——— D ———
PROPOSED 8" CLDI WATER LINE	——— PW ———
PROPOSED 12" DRAIN LINE	——— PD ———
PROPOSED 8 " SEWER LINE	——— PS ———
EDGE OF WETLANDS	-·-·-·-·-·-
PROPOSED ELEC,TEL,CABLE	═══
LOT FRONTAGE	((100.00))
EXISTING FIRE HYDRANT	
PROPOSED FIRE HYDRANT	
INFILTRATION CHAMBER	
TREE BOX FILTER	TB
PROP. EROSION CONTROL	----------
PROPOSED TREE	

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH UNIFORM INSTRUCTIONS FOR THE PREPARATION OF PLANS AS SET FORTH BY THE REGISTRY OF DEEDS.

DATE

TABLE OF DIMENSIONAL REQUIREMENTS					
S-15 DISTRICT	REQUIRED	LOT 1	LOT 2	LOT 3	25 SPRINGVALE
AREA	15,000 SF	18,675 SF±	19,172 SF±	15,011 SF±	15,000 SF±
FRONTAGE	100 FT	219.56 FT	177.47 FT	159.93 FT	120.00 FT
FRONT YARD	20 FT	20.4 FT	20.8 FT	20.1 FT	29.0 FT
SIDE YARD	15 FT	29.0 FT	15.6 FT	15.5 FT	14.0 FT
REAR YARD	20 FT	20.5 FT	49.4 FT	35.0 FT	65.1 FT
LOT WIDTH	60 FT	69 FT	168 FT	87 FT	120 FT
LOT COVERAGE	25 %	10.5%	8.4%	13.6%	10.8%

LOT SHAPE TABLE

LOT	AREA	PERIMETER	AREA X 22	PERIM. SQUARED	UPLAND AREA
1	18,675	639.5	410,850	409,037	18,675
2	19,172 SF	571.5 FT	421790.6	326612.3	13,873 SF
3	15,011 SF	538.4 FT	330250.8	289874.6	14,202 SF
25 SPRINGVALE RD	15,000 SF	490.0 FT	330,000	240010	15,000 SF

(AREA OF GEOMETRIC SHAPE) x 22 > (PERIMETER OF GEOMETRIC SHAPE)

40' 0 20' 40' 80' 160'

(IN FEET)
1 inch = 40 ft.

TOWN OF READING COMMUNITY
PLANNING & DEVELOPMENT COMMISSION

DATE

DATE	BY	REVISION
12-1-16	TH	ZONING TABLE, NOTE
10-11-16	JM	NO CHANGE

DEFINITIVE SUBDIVISION PLAN
RECORD PLAN
RANDALL ROAD EXTENSION
READING, MA 01867

COMMONWEALTH OF MASSACHUSETTS
JOHN J. MEQUILKIN
No. 36120
REGISTERED PROFESSIONAL LAND SURVEYOR

SCALE: 1"=40'

DATE: SEPT 26, 2016

Prepared For:
MG Hall Contractors
286 Park Street
North Reading, MA 01923

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JOB#373-572

SH. 4 OF 8

PROPOSED DRAINAGE STRUCTURES

CB–1
STA 1+74.6 18.1'R
RIM= 259.00
INV= 256.50

CB–2
STA 1+74.6 17.5'R
RIM= 259.00
INV= 256.50

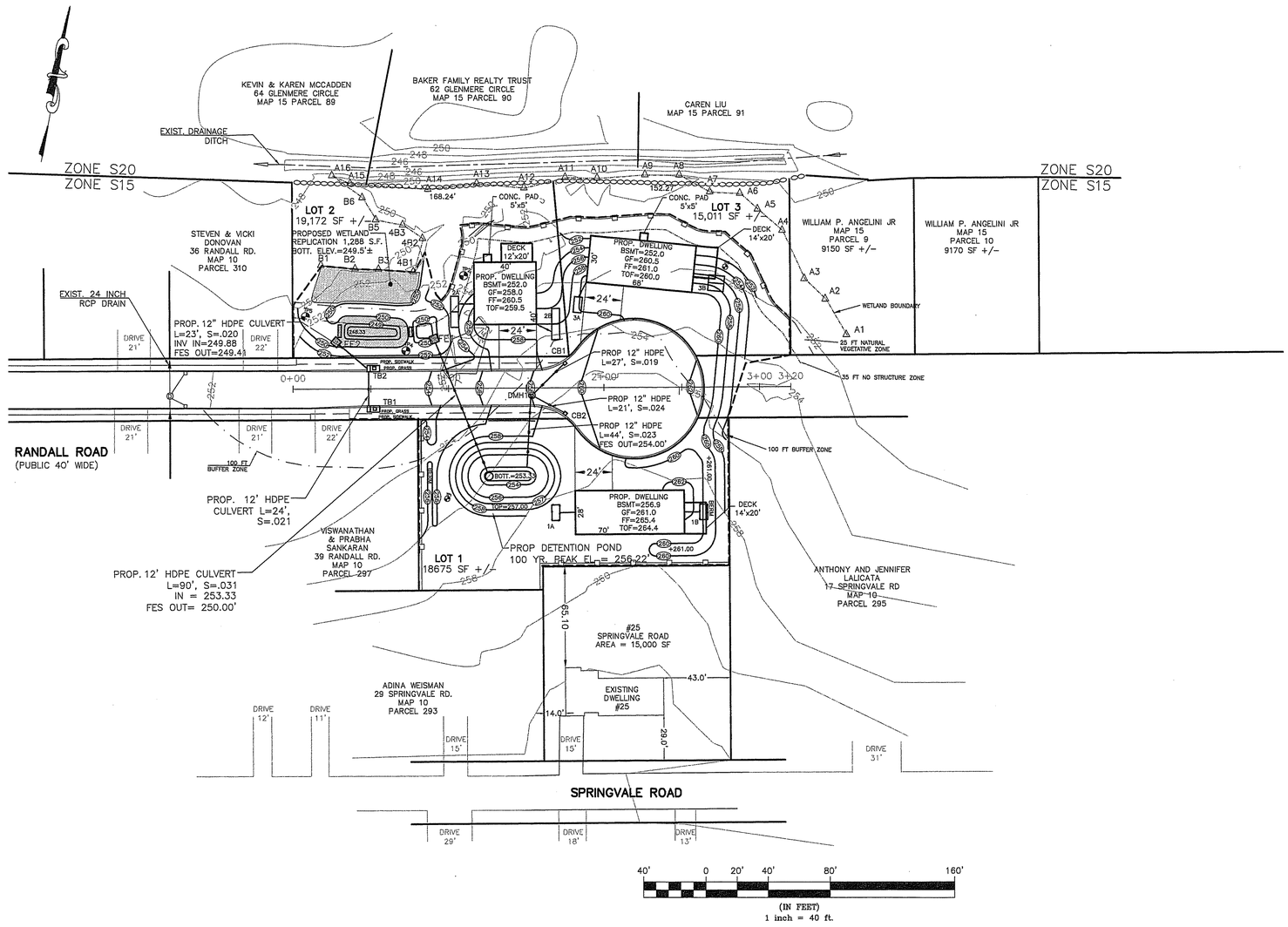
TB–1
STA 0+53.0 12'R
INLET= 253.30
INV= 250.38

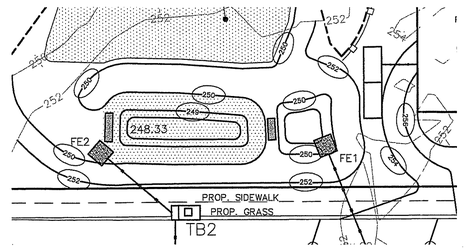
TB–2
STA 0+53.0 12'L
INLET= 253.30
INV IN= 249.88
INV OUT=24988

DMH 1
STA 1+54.0 4.6'R
RIM= 258.05
INV IN= 255.10
INV OUT=255.00

FE1 = 250.50

FE2 = 250.00





WATER QUALITY SWALE
1'=20'

LEGEND

EXISTING CONTOUR	——100——
EXISTING SEWER LINE	——— S ———
EXISTING WATER LINE	——— W ———
EXISTING DRAIN LINE	——— D ———
PROPOSED 8" CLDI WATER LINE	——— PW ———
PROPOSED 12" DRAIN LINE	——— PD ———
PROPOSED 8 " SEWER LINE	——— PS ———
EDGE OF WETLANDS	-·-·-·-·-·-
PROPOSED ELEC,TEL,CABLE	═══
LOT FRONTAGE	((100.00))
EXISTING FIRE HYDRANT	
PROPOSED FIRE HYDRANT	
INFILTRATION CHAMBER	
TREE BOX FILTER	TB
PROP. EROSION CONTROL	----------
PROPOSED TREE	

EROSION CONTROL NOTES:

1. PRIOR TO ANY EARTH MOVEMENT ON THE SITE, EROSION CONTROL SHALL BE SET UP AND STAKED IN A PERMANENT MANNER AS SHOWN ON THE DRAWINGS.
2. IMMEDIATELY UPON THE CONSTRUCTION OF THE CATCH BASINS, SILT SACKS SHALL BE SET IN THE INLET TO PREVENT SEDIMENTS FROM ENTERING THE DRAINAGE SYSTEMS.
3. THE EROSION CONTROL AND SEDIMENTATION BARRIERS SHALL BE MAINTAINED CONTINUOUSLY UNTIL ALL DISTURBED AREAS HAVE BEEN REVEGETATED.
4. UNLESS OTHERWISE NOTED, ALL SEDIMENT FOREBAYS, SWALES, CHANNELS AND DETENTION POND SIDE SLOPES AND ANY OTHER EXPOSED SURFACE SHALL BE COVERED WITH 6 INCHES OF LOAM AND SEEDED WITH AN APPROVED GRASS SEED MIXTURE.

NOTES:

1. WETLANDS DELINEATED BY NORSE ENVIRONMENTAL SERVICES OCTOBER 2015.
2. WET WATER QUALITY SWALE AND WETLAND REPLICATION AREA SHALL BE PLANTED UNDER THE SUPERVISION OF A CERTIFIED WETLAND SCIENTIST.
3. THE VOLUME OF EARTH MATERIAL TO BE BROUGHT INTO THE SITE = 2,900 C.Y.

TOWN OF READING COMMUNITY
PLANNING & DEVELOPMENT COMMISSION

DATE

DATE	BY	REVISION
12–1–16	TH	CONC. PAD, CURB CUTS, NOTE 3
10–11–16	TH	ADD DISPLACED WETLAND, DECKS, FENCE, NOTE 2

DEFINITIVE SUBDIVISION PLAN
GRADING & EROSION CONTROL PLAN
RANDALL ROAD EXTENSION
READING, MA 01867

SCALE: 1"=40'

DATE: SEPT 26, 2016

JOB#373-572

SH. 5 OF 8

COMMONWEALTH OF MASSACHUSETTS
JOHN F. McLAUGHLIN Jr.
No. 31262
CIVIL
REGISTERED PROFESSIONAL ENGINEER

Prepared For:
MG Hall Contractors
286 Park Street
North Reading, MA 01923

JM Associates
325 Main Street
N. Reading, MA 01864
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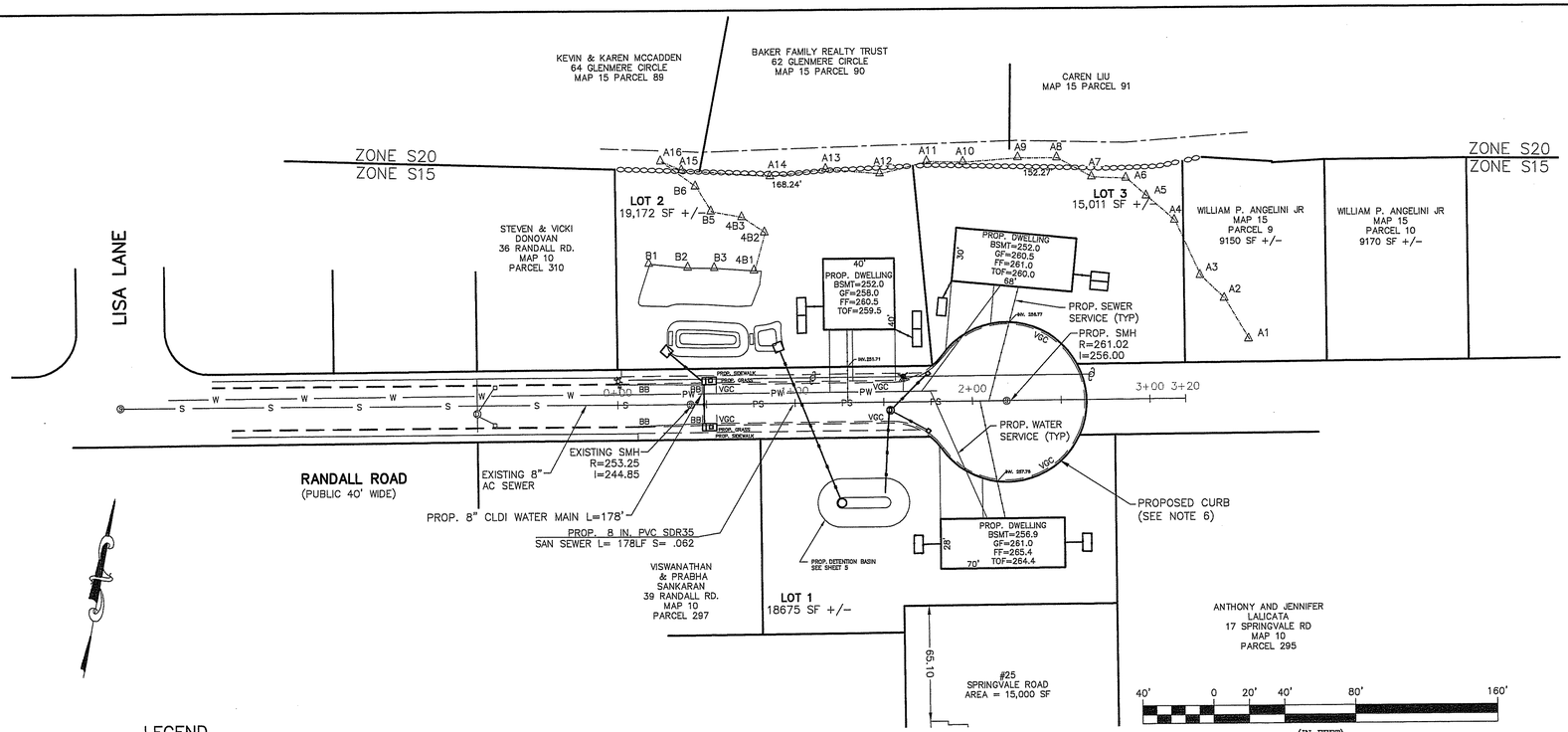
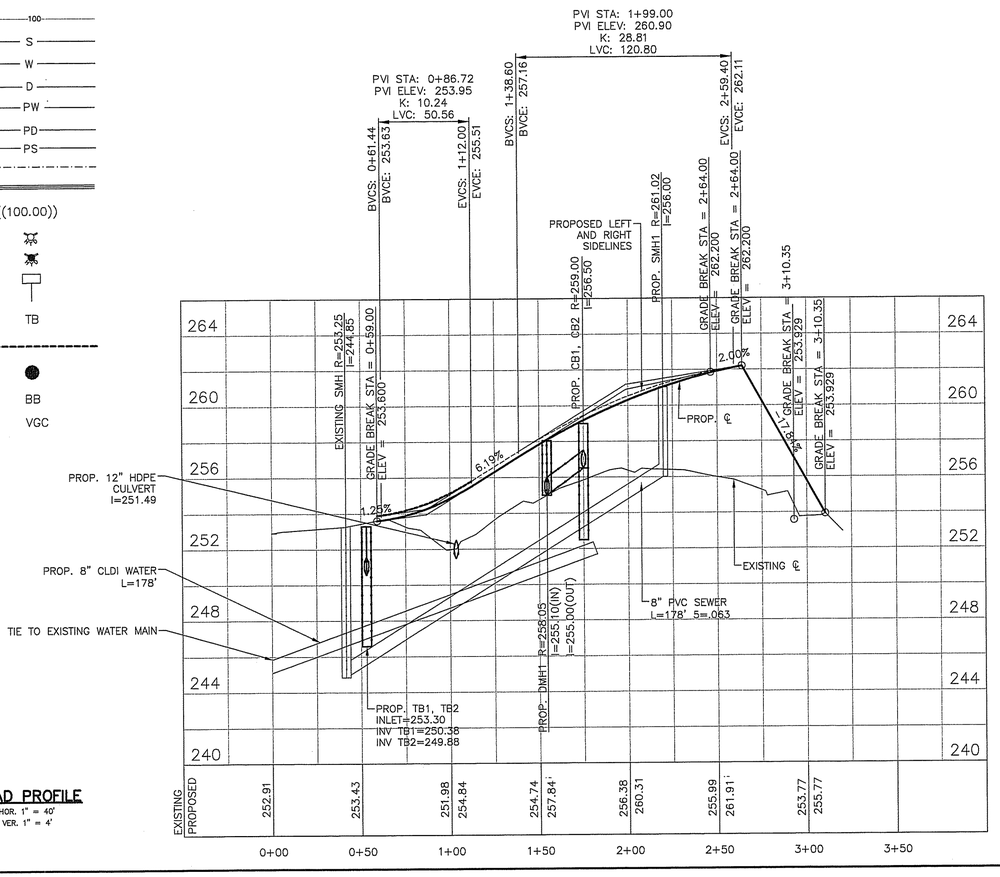


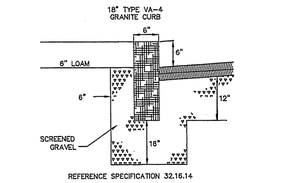
LEGEND

EXISTING CONTOUR	100
EXISTING SEWER LINE	S
EXISTING WATER LINE	W
EXISTING DRAIN LINE	D
PROPOSED 8" CLDI WATER LINE	PW
PROPOSED 12" DRAIN LINE	PD
PROPOSED 8 " SEWER LINE	PS
EDGE OF WETLANDS	
PROPOSED ELEC,TEL,CABLE	
LOT FRONTAGE	((100.00))
EXISTING FIRE HYDRANT	
PROPOSED FIRE HYDRANT	
INFILTRATION CHAMBER	
TREE BOX FILTER	TB
PROP. EROSION CONTROL	
PROPOSED TREE	
PROPOSED BIT. BERM	BB
PROPOSED VERTICAL GRANITE CURB	VGC



ROAD PROFILE

HOR. 1" = 40'
VER. 1" = 4'



REFERENCE SPECIFICATION 32.16.14

GRANITE CURB (TYPE VA-4)

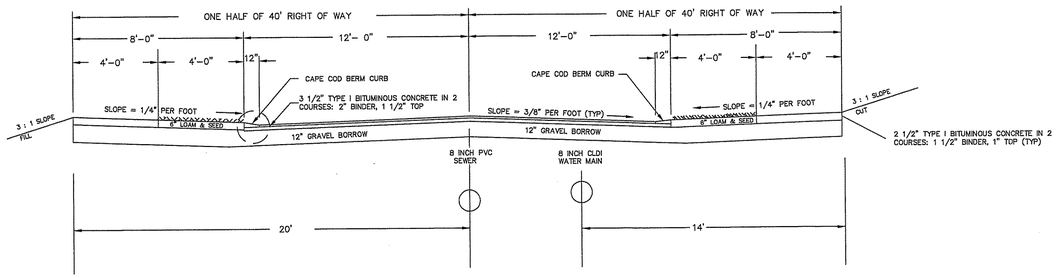
SCALE: N.T.S

NOTES:

1. PROJECTED SEWER USE
   3 DWELLINGS @ 4 BEDROOMS PER DWELLING = 12 BEDROOMS
   12 BEDROOMS @ 110 GPD = 1,320 GALLONS PER DAY
2. PROJECTED WATER USE
   3 DWELLINGS @ 5 OCCUPANTS PER DWELLING = 15 OCCUPANTS
   15 OCCUPANTS @ 75 GPD = 1,125 GALLONS PER DAY

MATERIAL NOTES:

1. DRAIN PIPE AND FITTING MATERIAL SHALL BE HANCOR HIQ HIGH DENSITY POLYETHYLENE AS MANUFACTURED BY HANCOR, INC. FINDLAY, OHIO OR APPROVED EQUAL.
2. DRAIN PIPE SHALL BE 12 INCH DIAMETER UNLESS OTHERWISE NOTED.
3. WATER MAIN SHALL BE CLASS 150, 8" DIAMETER CEMENT LINED DUCTILE IRON.
4. SEWER SERVICES SHALL BE 4 INCH DIAMETER SDR 35.
5. TELEPHONE AND CABLE CONDUIT SHALL BE UNDERGROUND AND CONSTRUCTED IN THE SAME TRENCH AS THE ELECTRICAL CONDUIT.
6. CURBING WEST OF THE TREE BOX FILTERS SHALL BE VERTICAL GRANITE TYPE VA-4. SEE DETAIL.



PROPOSED STREET CROSS SECTION

FACING WEST
NOT TO SCALE

TOWN OF READING COMMUNITY
PLANNING & DEVELOPMENT COMMISSION

DATE

JOB#373-572

SH. 6 OF 8

DATE	BY	REVISION
12-1-16	TH	ABOVE GROUND UTILITIES, CURBING
10-11-16	TH	NO CHANGE

DEFINITIVE SUBDIVISION PLAN
ROADWAY AND UTILITY PLAN
RANDALL ROAD EXTENSION
READING, MA 01867

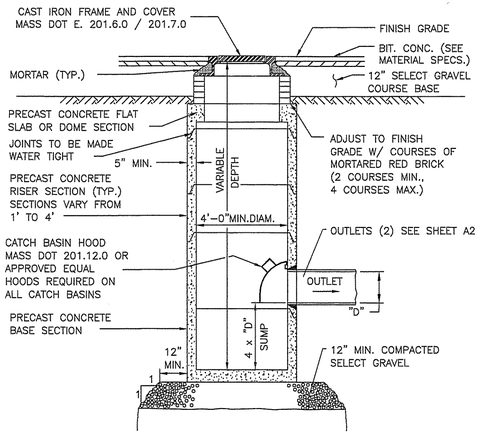
SCALE: 1"=40'

DATE: SEPT 26, 2016

Prepared For:
MG Hall Contractors
286 Park Street
North Reading, MA 01923

JM Associates
325 Main Street
N. Reading, MA 01864
978-664-6668
www.jmassociateseng.com

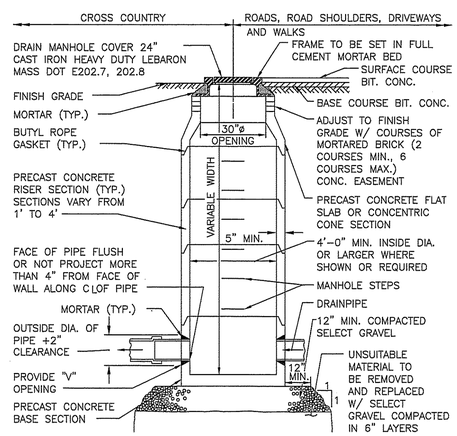
COMMONWEALTH OF MASSACHUSETTS
JOHN F. McLAUGHLIN Jr.
No. 31262
REGISTERED PROFESSIONAL ENGINEER



REFERENCE SPECIFICATION 33.40.00

DEEP SUMP CATCH BASIN DETAIL

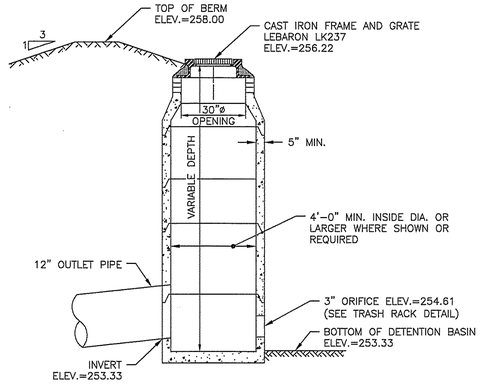
SCALE: N.T.S



REFERENCE SPECIFICATION 33.40.00

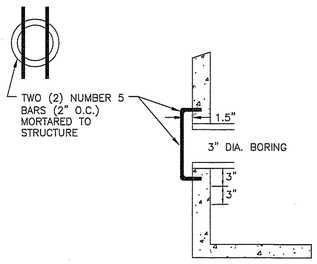
TYPICAL DRAIN MANHOLE DETAIL

SCALE: N.T.S



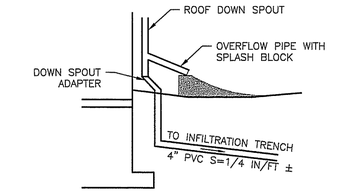
TYPICAL CONTROL STRUCTURE DETAIL

SCALE: N.T.S



TRASH RACK DETAIL

SCALE: N.T.S

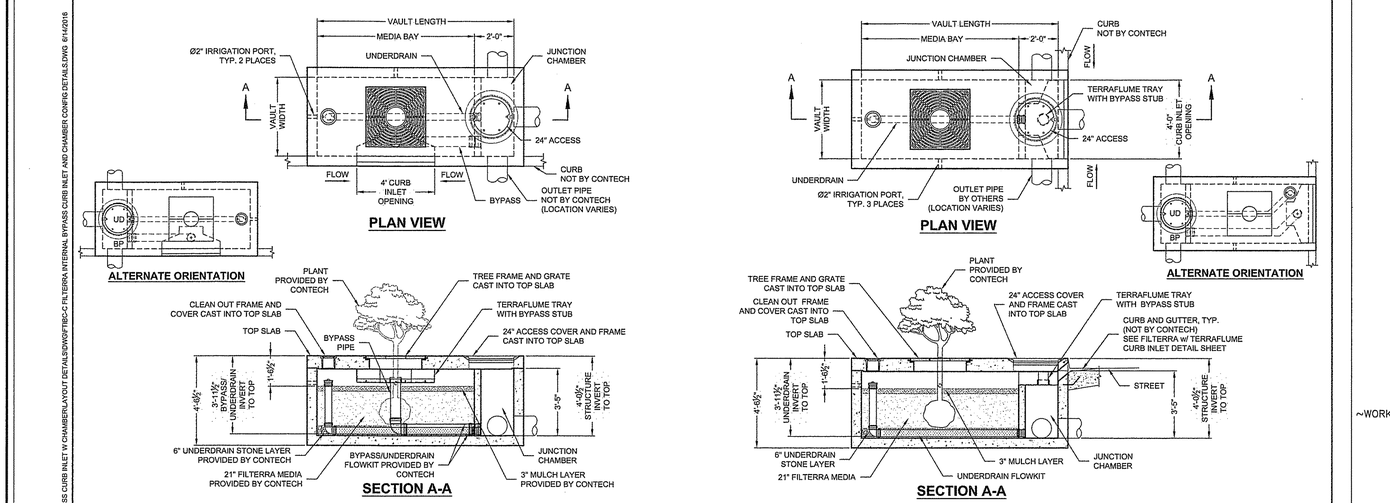


DOWNSPOUT OVERFLOW DETAIL

SCALE: N.T.S

INFILTRATION CHAMBER ELEVATION SCHEDULE						
	1A	1B	2A(2)	2B(2)	3A	3B(2)
PROPOSED FINISH GRADE	260.00	261.05	253.00	256.00	258.00	255.00
BOTTOM OF STONE	256.83	258.96	250.00	253.00	254.96	252.09
ESHGW	254.83	256.50	247.42	251.00	252.08	250.09

NOTE– CHAMBERS 2B & 3A SHALL BE INSTALLED SO THAT THE DOWNSPOUT OVERFLOWS SHALL DISCHARGE DOWN THE DRIVEWAYS TOWARD RANDALL RD.



PLAN VIEW

ALTERNATE ORIENTATION

SECTION A-A

FTIBC-C LONG SIDE CURB INLET							
DESIGNATION (LONG SIDE)	SIZE (MEDIA BAY)	VAULT LENGTH	VAULT WIDTH	MAX. BYPASS PIPE SIZE	MAX. BYPASS FLOW (CFS)	UNDERDRAIN PIPE DIA. (PERF.)	TREE GRATE QTY. & SIZE
FTIBC-C0404 LS	4' x 4'	6'-0"	4'-0"	6" SDR 35	1.42	4" SDR 35	(1) 3' x 3'
FTIBC-C0604	6' x 4'	8'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC-C0605 LS	6' x 6'	8'-0"	6'-0"	10" SDR 35	2.37	4" SDR 35	(1) 3' x 3'
FTIBC-C0804	8' x 4'	10'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC-C0806	8' x 6'	10'-0"	6'-0"	10" SDR 35	2.37	4" SDR 35	(1) 4' x 4'
FTIBC-C1006	10' x 6'	12'-0"	6'-0"	10" SDR 35	2.37	6" SDR 35	(1) 4' x 4'
FTIBC-C1204	12' x 4'	14'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(2) 3' x 3'
FTIBC-C1206	12' x 6'	14'-0"	6'-0"	10" SDR 35	2.37	6" SDR 35	(2) 4' x 4'
FTIBC-C1307	13' x 7'	15'-0"	7'-0"	10" SDR 35	2.37	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE

PLAN VIEW

ALTERNATE ORIENTATION

SECTION A-A

FTIBC-C SHORT SIDE CURB INLET							
DESIGNATION (SHORT SIDE)	SIZE (MEDIA BAY)	VAULT LENGTH	VAULT WIDTH	MAX. BYPASS PIPE SIZE	MAX. BYPASS FLOW (CFS)	UNDERDRAIN PIPE DIA. (PERF.)	TREE GRATE QTY. & SIZE
FTIBC-C0404 SS	4' x 4'	6'-0"	4'-0"	6" SDR 35	1.42	4" SDR 35	(1) 3' x 3'
FTIBC-C0406	4' x 6'	6'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC-C0408	4' x 8'	10'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC-C0412	4' x 12'	14'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(2) 3' x 3'
FTIBC-C0605 SS	6' x 6'	8'-0"	6'-0"	10" SDR 35	2.37	4" SDR 35	(1) 3' x 3'
FTIBC-C0608	6' x 8'	10'-0"	6'-0"	10" SDR 35	2.37	4" SDR 35	(1) 4' x 4'
FTIBC-C0610	6' x 10'	12'-0"	6'-0"	10" SDR 35	2.37	6" SDR 35	(1) 4' x 4'
FTIBC-C0612	6' x 12'	14'-0"	6'-0"	10" SDR 35	2.37	6" SDR 35	(2) 4' x 4'
FTIBC-C0713	7' x 13'	15'-0"	7'-0"	10" SDR 35	2.37	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE

* DIMENSIONS MAY VARY ±½" DEPENDING ON PRECASTER BUILD CONFIGURATION.

filterra® THE PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 8,277,672 B2; 8,431,011 B2; 8,802,001 B2; 9,magnolia 7,425,262; 7,470,366; 7,625,478. OTHER PATENTS ISSUED AND PENDING.

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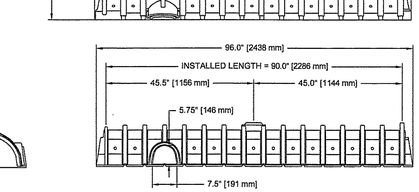
FILTERRA
INTERNAL BYPASS CURB WITH CHAMBER (FTIBC-C)
CONFIGURATION DETAILS

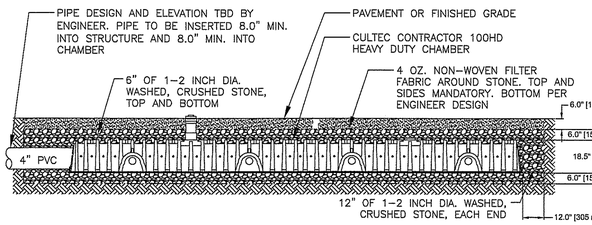
FILTERRA CHAMBER DETAIL

SCALE: N.T.S



SILT SOCK DETAIL

SCALE: N.T.S



CULTEC CHAMBER (100HD) DETAIL

SCALE: N.T.S

TOWN OF READING COMMUNITY
PLANNING & DEVELOPMENT COMMISSION

DATE

DATE	BY	REVISION
12–1–16	TH	INFILTRATION CHAMBERS ADDED
10–11–16	TH	NO CHANGE

DEFINITIVE SUBDIVISION PLAN
STORMWATER DETAILS
RANDALL ROAD EXTENSION
READING, MA 01867

COMMONWEALTH OF MASSACHUSETTS
JOHN F. McGUILKIN Jr.
CIVIL
No. 31262
REGISTERED PROFESSIONAL ENGINEER

SCALE: AS SHOWN

DATE: SEPT. 26, 2016

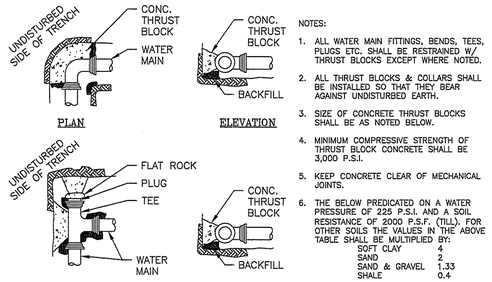
Prepared For:
MG Hall Contractors
286 Park Street
North Reading, MA 01923

JM Associates
325 Main Street
N. Reading, MA 01864
978–664–6668
www.jmassociateseng.com

JOB#373-572

SH. 7 OF 8

I:\COMMON\CAD\TREATMENT\H FILTERRA\0 STANDARD DRAWINGS\FTIBC-C - INTERNAL BYPASS CURB INLET W CHAMBER\LAYOUT DETAILS\DWG\FTIBC-C FILTERRA INTERNAL BYPASS CURB INLET AND CHAMBER CONFIG DETAILS.DWG 6/14/2016 10:40:44 AM



NOTES:

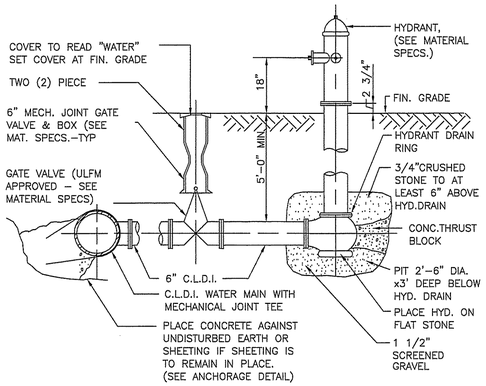
1. ALL WATER MAIN FITTINGS, BENDS, TEES, PLUGS ETC. SHALL BE RESTRAINED W/ THRUST BLOCKS EXCEPT WHERE NOTED.
2. ALL THRUST BLOCKS & COLLARS SHALL BE INSTALLED SO THAT THEY BEAR AGAINST UNDISTURBED EARTH.
3. SIZE OF CONCRETE THRUST BLOCKS SHALL BE AS NOTED BELOW.
4. MINIMUM COMPRESSIVE STRENGTH OF THRUST BLOCK CONCRETE SHALL BE 3,000 P.S.I.
5. KEEP CONCRETE CLEAR OF MECHANICAL JOINTS.
6. THE BELOW PREDICATED ON A WATER PRESSURE OF 225 P.S.I. AND A SOIL RESISTANCE OF 2000 P.S.F. (TN.L). FOR OTHER SOILS THE VALUES IN THE ABOVE TABLE SHALL BE MULTIPLIED BY:

SOFT CLAY	4
SAND	2
SAND & GRAVEL	1.33
SHALE	0.4

MINIMUM THRUST BEARING AREAS				
PIPE DIA. (SQ. FT.)	90° BEND (SQ. FT.)	45° BEND (SQ. FT.)	22.5° BEND (SQ. FT.)	TEES, PLUGS, CAPS, AND HYDRANTS (SQ. FT.)
6"	5	3	2	4
8"	8	5	3	6
10"	13	7	4	9
12"	18	10	5	13

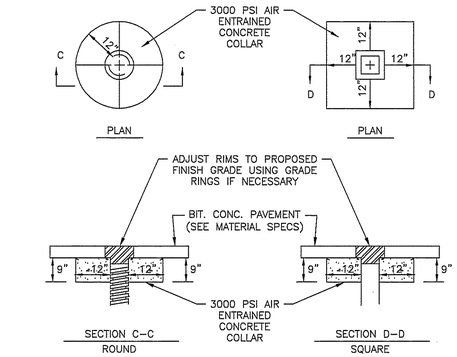
THRUST BLOCK DETAILS

SCALE: N.T.S



FIRE HYDRANT DETAIL

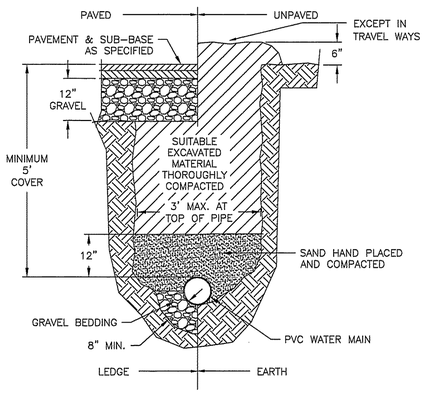
SCALE: N.T.S



NOTE: ALL GATES TO BE RAISED TO FINISH GRADE AFTER BINDER COURSE OR LEVELING COURSE PAVEMNET HAS BEEN PLACED.

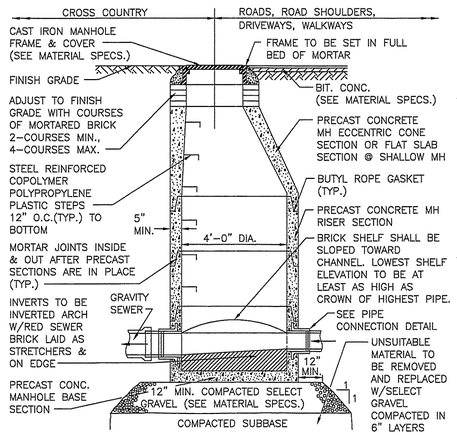
WATER GATE BOX DETAIL

SCALE: N.T.S



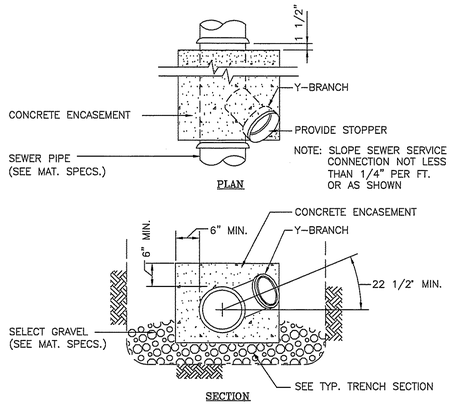
TYPICAL WATER TRENCH DETAIL

SCALE: N.T.S



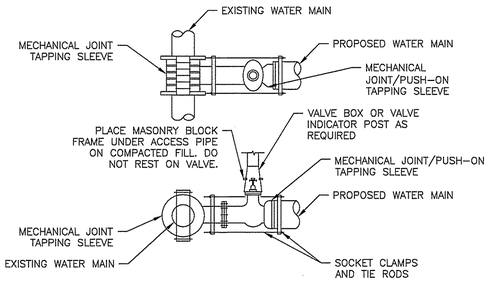
TYPICAL SEWER MANHOLE DETAIL

SCALE: N.T.S



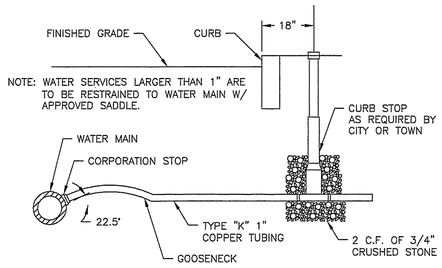
WYE BRANCH FOR PIPE SERVICE CONNECTION DETAIL

SCALE: N.T.S



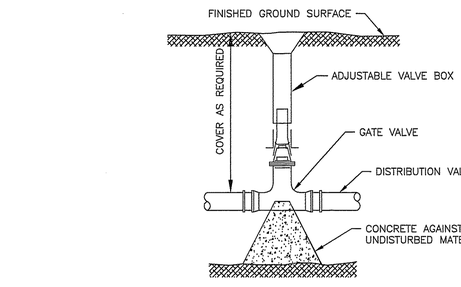
TAPPING SLEEVE AND VALVE DETAIL

SCALE: N.T.S



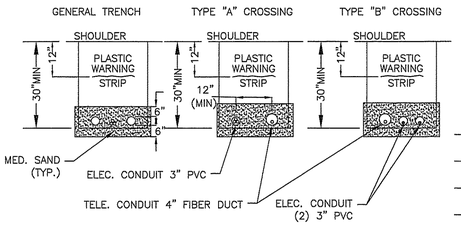
TYP. WATER SERVICE CONNECTION

SCALE: N.T.S



GATE VALVE

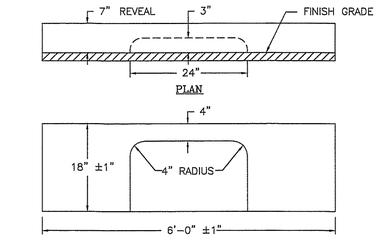
SCALE: N.T.S



*LOCATION OF UNDERGROUND UTILITIES TO BE DETERMINED BY ELECTRIC COMPANY

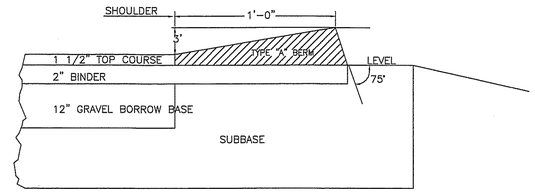
CROSS SECTIONS OF COMBINED ELEC. & TELE. INSTALLATION

SCALE: N.T.S



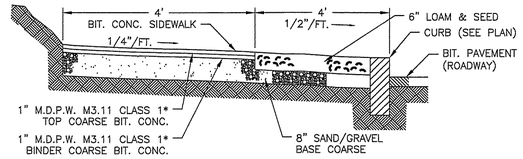
TYPICAL GRANITE CURB INLET DETAIL

SCALE: N.T.S



BITUMINOUS CONCRETE BERM–TYPE "A"

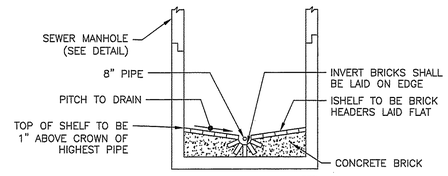
SCALE: N.T.S



TYPICAL BITUMINOUS CONCRETE SIDEWALK DETAIL

SCALE: N.T.S

MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, 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 FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF CEMENT CONCRETE OR BRICK IN MORTAR.



NOTE: INVERT & SHELF TO BE PLACED AFTER LEAKAGE TEST

TYP. BRICK INVERT SECTION FOR SEWER MANHOLES

SCALE: N.T.S

TOWN OF READING COMMUNITY PLANNING & DEVELOPMENT COMMISSION

DATE

JOB#373–572

SH. 8 OF 8

DATE	BY	REVISION
12–1–16	TH	NO CHANGE
10–11–16	TH	NO CHANGE

DEFINITIVE SUBDIVISION PLAN
MISCELLANEOUS DETAILS
RANDALL ROAD EXTENSION
READING, MA 01867

COMMONWEALTH OF MASSACHUSETTS — Joseph P. McMILLION Jr. — CIVIL — No. 31262 — REGISTERED PROFESSIONAL ENGINEER

SCALE: AS SHOWN

DATE: SEPT. 06, 2016

Prepared For:
MG Hall Contractors
286 Park Street
North Reading, MA 01923

JM Associates
325 Main Street
N. Reading, MA 01864
978–664–6668
www.jmassociateseng.com