SITE DEVELOPMENT PLAN OF LAND
A 40B Comprehensive Permit Project
"GEOFFREY PARK"
HOLLISTON, MASSACHUSETTS

DATE: FEB. 29, 2020

REVISED: MAY 14, 2020
JULY 10, 2020
SEPT. 16, 2020

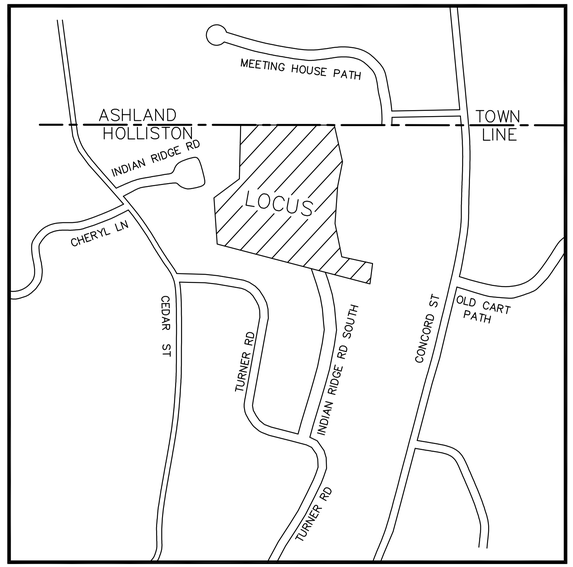
PREPARED BY:

GLM ENGINEERING CONSULTANTS, INC.

19 EXCHANGE STREET
HOLLISTON, MASSACHUSETTS 01746
(508)429-1100 fax:(508)429-7160

PREPARED FOR:

INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746



LOCUS MAP
N.T.S.

APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

_____

_____

_____

_____

_____

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

_____ _____
TOWN CLERK DATE

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES & REGULATIONS OF THE REGISTER OF DEEDS.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

_____ _____
JOYCE E. HASTINGS P.L.S. DATE

ZONING CLASSIFICATION:
AGRICULTURAL RESIDENCE B
AREA: 40,000 S.F
FRONTAGE: 180 Feet
DEPTH: 200 Feet
SETBACKS:
FRONT: 40'
SIDE: 30'
REAR: 40'

PROJECT SUMMARY:
TOTAL LAND AREA: 12.67 ± ACRES
UPLANDS AREA: 11.70 ± ACRES
WETLAND AREA: 0.97 ± ACRES

TOTAL LOTS: 23 LOTS
SINGLE FAMILY DWELLINGS: 20 Dwellings
DUPLEX STYLE DWELLINGS: 2 Bldgs – 4 Units
TOTAL RESIDENTIAL UNITS: 24 UNITS

PROPOSED ROAD: 1655 Ft.
(From Exist Indian Ridge Rd. South)

ASSESSOR'S REFERENCE:
MAP 14, BLOCK 3, LOT 1

DEED REFERENCE:
LAND COURT
CERTIFICATE No. 206577
DOCCUMENT No. 1015755

PLAN REFERENCE:
LAND COURT PLAN No. 36376C

OWNER OF RECORD:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER
2	LAYOUT PLAN
3	EXISTING CONDITIONS
4	EXISTING CONDITIONS
5	DRAINAGE & GRADING
6	DRAINAGE & GRADING
7	UTILITY LAYOUT
8	PLAN & PROFILE
9	PLAN & PROFILE
10	EROSION CONTROL PLAN
11	EROSION CONTROL PLAN
12	WETLAND REPLICATION
13	WETLAND CROSSING DETAIL
14–18	DETAILS

DATE:	FEB. 29, 2020
SCALE:	As Shown
SHEET:	1 of 18
PLAN #:	27,337

WORCESTER REGISTRY OF DEEDS

N/F DARRELL G. & LORI P. DILLAHUNT

N/F VLADIMIR & CECILLE FREILICH
10 INDIAN RIDGE ROAD

N/F RUGNY PROPERTIES, LLC
750 CONCORD STREET

N/F MATTHEW & ANNE BUCKLEY
7 INDIAN RIDGE ROAD

N/F 126 RESIDENTIAL ANR REALTY LLC
(MAP 14, BLOCK 3, LOT 4.1)

N/F ROBERT A. PRINCIPE & JOY F. CHEN
203 TURNER ROAD

N/F JOSEPH E. JR. & ANDREA MINIHAN
195 TURNER ROAD

N/F MARK F. & LYNNE F. DIGREGORIO
51 INDIAN RIDGE RD. SOUTH

N/F JOHN P. & PAMELA C. POOR
50 INDIAN RIDGE RD. SOUTH

INDIAN RIDGE ROAD

INDIAN RIDGE ROAD SOUTH
(50' WIDE R.O.W.)

PARCEL A
LC LOT 26
36,487 ± S.F.

LOT 10
LC LOT 25
12,199 ± S.F.

LOT 9
LC LOT 24
11,250 ± S.F.

LOT 8
LC LOT 23
11,331 ± S.F.

LOT 7
LC LOT 22
16,786 ± S.F.

LOT 6
LC LOT 21
17,361 ± S.F.

LOT 5
LC LOT 20
13,286 ± S.F.

LOT 4
LC LOT 19
11,711 ± S.F.

LOT 3
LC LOT 18
11,964 ± S.F.

LOT 2
LC LOT 17
12,662 ± S.F.

LOT 1
LC LOT 16
60,814 ± S.F.
1.40 ± AC

LOT 11
LC LOT 27
14,361 ± S.F.

LOT 12
LC LOT 28
14,891 ± S.F.

LOT 13
LC LOT 29
34,781 ± S.F.

LOT 14
LC LOT 30
51,030 ± S.F.

LOT 15
LC LOT 31
40,124 ± S.F.

LOT 16
LC LOT 32
18,104 ± S.F.

LOT 17
LC LOT 33
27,613 ± S.F.

LOT 18
LC LOT 34
10,498 ± S.F.

LOT 19
LC LOT 35
9,994 ± S.F.

LOT 20
10,789 ± S.F.

LOT 21
LC LOT 37
11,228 ± S.F.

LOT 22
LC LOT 38
11,234 ± S.F.

LOT 23
LC LOT 39
10,545 ± S.F.

ABANDONED EASEMENT

EXISTING DRAINAGE EASEMENT

10' WIDE SEWER EASEMENT
Δ=2°05'01"
L=4.55'

20' WIDE UTILITY EASEMENT

10' WIDE SEWER EASEMENT

INDIAN RIDGE ROAD

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES & REGULATIONS OF THE REGISTER OF DEEDS.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

JOYCE E. HASTINGS P.L.S. _____ DATE _____

ASSESSOR'S REFERENCE:
MAP 14, BLOCK 3, LOT 1

DEED REFERENCE:
LAND COURT
CERTIFICATE No. 206577
DOCCUMENT No. 1015755

PLAN REFERENCE:
LAND COURT PLAN No. 36376C

OWNER OF RECORD:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

TOTAL LAND AREA
12.67 ± ACRES

PROPOSED ROAD
1655 Ft.
(From Exist Indian Ridge Rd. South)

REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
A 40B Comprehensive Permit Project
"GEOFFREY PARK"
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	2 of 18
PLAN #:	27,337

LAYOUT

WORCESTER REGISTRY OF DEEDS

N/F DARRELL G. & LORI P. DILLAHUNT

ABANDONED EASEMENT

S02°25'23"W 60.00'

133.02' N81°35'34"E

N/F VLADIMIR & CECILLE FREILICH 10 INDIAN RIDGE ROAD

INDIAN RIDGE ROAD

S10°50'49"E 70.00'

S64°51'02"E 130.00'

N/F MATTHEW & ANNE BUCKLEY 7 INDIAN RIDGE ROAD

EXISTING DRAINAGE EASEMENT

EXISTING DRAINAGE EASEMENT

N10°28'28"W 47.10'

100' WETLAND BUFFER

WETLAND

EDGE OF WETLAND

N/F RUGNY PROPERTIES, LLC 750 CONCORD STREET

ILSF

EXISTING GAS LINE EASEMENT

N/F 126 RESIDENTIAL ANR REALTY LLC (MAP 14, BLOCK 3, LOT 4.1)

100' WETLAND BUFFER

N/F ROBERT A. PRINCIPE & JOY F. CHEN 203 TURNER ROAD

N/F JOSEPH E. JR. & ANDREA MINIHAN 195 TURNER ROAD

INTERMITTENT STREAM

N/F MARK F. & LYNNE F. DIGREGORIO 51 INDIAN RIDGE RD. SOUTH

INDIAN RIDGE ROAD SOUTH

N/F JOHN P. & PAMELA G. POOR 50 INDIAN RIDGE RD. SOUTH

N/F 126 RESIDENTIAL ANR REALTY LLC (MAP 14, BLOCK 3, LOT 4.1)

LEGEND:

--186--	EXISTING CONTOUR
163x2	EXISTING SPOT ELEVATION
	EXISTING WATER GATE
	EXISTING TREE LINE
TP 1	EXISTING TEST PIT LOCATION
202	PROPOSED CONTOUR
163x2	PROPOSED SPOT ELEVATION
	PROPOSED HYDRANT
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED DOUBLE CATCHBASIN
S	PROPOSED SEWER LINE
S	PROPOSED SEWER MANHOLE
FM	PROPOSED SANITARY FORCE MAIN
8"W	PROPOSED WATER LINE
	PROPOSED TREE LINE / LIMIT OF WORK
UGE	PROPOSED UNDERGROUNG ELECTRIC, TELEPHONE AND CABLE
	PROPOSED ELECTRIC TRANSFORMER
GV	PROPOSED DRAINLINE GATE VALVE
CCB	PROPOSED CAPE COD BERM
VGC	PROPOSED VERTICAL GRANITE CURB
	PROPOSED STREET TREE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

NOTE: THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM AN AERIAL SURVEY BY SCHOFIELD BROTHERS AND DOES NOT REPRESENT AN ON THE GROUND SURVEY BY GLM ENGINEERING CONSULTANTS, INC.

ELEVATION DATUM NAVD88.

THE WETLAND FLAGS HAVE BEEN LOCATED IN A FIELD SURVEY BY GW SITE SOLUTIONS AND GLM ENGINEERING CONSULTANTS, INC.

WETLANDS DELINEATED BY
APPLIED ECOLOGICAL SCIENCES
P.O. BOX 184
NORFOLK, MA

APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES & REGULATIONS OF THE REGISTER OF DEEDS.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

JOYCE E. HASTINGS P.L.S. _____ DATE _____

ASSESSOR'S REFERENCE:
MAP 14, BLOCK 3, LOT 1

DEED REFERENCE:
LAND COURT
CERTIFICATE No. 206577
DOCCUMENT No. 1015755

PLAN REFERENCE:
LAND COURT PLAN No. 36376C

OWNER OF RECORD:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

TOTAL LAND AREA
12.67 ± ACRES

PROPOSED ROAD
1655 Ft.
(From Exist Indian Ridge Rd. South)

EXISTING CONDITIONS

REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
A 40B Comprehensive Permit Project
"GEOFFREY PARK"
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	3 of 18
PLAN #:	27,337

N/F
MATTHEW & ANNE
BUCKLEY
7 INDIAN RIDGE ROAD

N/F
ROBERT A. PRINCIPE &
JOY F. CHEN
203 TURNER ROAD

N/F
JOSEPH E. JR. & ANDREA
MINIHAN
195 TURNER ROAD

N/F
BEATRICE M. JOHNSON
187 TURNER ROAD

N/F
MARK F. & LYNNE F.
DIGREGORIO
51 INDIAN RIDGE RD. SOUTH

N/F JOHN P. & PAMELA C. POOR
50 INDIAN RIDGE RD. SOUTH

N/F 126 RESIDENTIAL ANR REALTY LLC
(MAP 14, BLOCK 3, LOT 4.1)

N/F
MORCO BUILDERS
C/O VINFEN
CORPORATION

N/F
JASON & SANDRA
MARINO

EXISTING DRAINAGE EASEMENT

N01°08'28"E
147.00'

S89°51'02"E
150.00'

100' WETLAND BUFFER

EDGE OF WETLAND

INTERMITTENT STREAM

LEACHING BASIN

TEMPORARY TURNAROUND EASEMENT

INDIAN RIDGE ROAD SOUTH

N83°54'20"W
139.33'

NOTE: THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM AN AERIAL SURVEY BY SCHOFIELD BROTHERS AND DOES NOT REPRESENT AN ON THE GROUND SURVEY BY GLM ENGINEERING CONSULTANTS, INC.

ELEVATION DATUM NAVD88.

THE WETLAND FLAGS HAVE BEEN LOCATED IN A FIELD SURVEY BY GW SITE SOLUTIONS AND GLM ENGINEERING CONSULTANTS, INC.

WETLANDS DELINEATED BY
APPLIED ECOLOGICAL SCIENCES
P.O. BOX 184
NORFOLK, MA

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES & REGULATIONS OF THE REGISTER OF DEEDS.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

JOYCE E. HASTINGS P.L.S. _____ DATE _____

ASSESSOR'S REFERENCE:
MAP 14, BLOCK 3, LOT 1

DEED REFERENCE:
LAND COURT
CERTIFICATE No. 206577
DOCCUMENT No. 1015755

PLAN REFERENCE:
LAND COURT PLAN No. 36376C

OWNER OF RECORD:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

TOTAL LAND AREA
12.67 ± ACRES

PROPOSED ROAD
1655 Ft.
(From Exist Indian Ridge Rd. South)

REVISIONS

No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
"GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	4 of 18
PLAN #:	27,337

EXISTING CONDITIONS

WORCESTER REGISTRY OF DEEDS

INDIAN RIDGE ROAD

PARCEL A

PROPOSED SEWAGE DISPOSAL SYSTEM

LOT 1 | LOT 2 | LOT 3 | LOT 4 | LOT 5 | LOT 6 | LOT 7 | LOT 8 | LOT 9 | LOT 10 | LOT 11 | LOT 12 | LOT 13 | LOT 14 | LOT 15 | LOT 16 | LOT 17 | LOT 18 | LOT 19 | LOT 20 | LOT 21 | LOT 22 | LOT 23

PROPOSED HOUSE

PROPOSED FAMILY HOUSE

PROPOSED DRIVEWAY

PROPOSED SUBDRAIN (SEE DETAIL)

PROPOSED WATER LINE TO TERMINATE AT THE PROPERTY LINE FOR FUTURE EXTENSION

EROSION CONTROL BARRIER

PROPOSED EROSION CONTROL BARRIER

20' WIDE UTILITY EASEMENT

EXISTING DRAINAGE EASEMENT

SLOPE 2%

SLOPE 4%

100' WETLAND BUFFER

INTERMITTENT STREAM

TREATMENT UNIT #1 RIM=273.5 INV(IN)=269.80 INV(OUT)=268.20

TREATMENT UNIT #2 RIM=273.5 INV(IN)=268.90 INV(OUT)=268.10

10' WIDE TOP EL=273.5

HEADWALL W/RIPRAP 18" INV=269.00

HEADWALL W/RIPRAP INV=268.50

HEADWALL W/RIPRAP 24" INV=269.50

OUTLET STRUCTURE (SEE DETAIL)

EMERGENCY SPILLWAY (SEE DETAIL)

PROPOSED RETWALL OUTLET W/RIPRAP INV=261.00

PROPOSED CULVERT (SEE DETAIL)

I.E. F. 18" INV=257.50

LEGEND:

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING WATER GATE
- EXISTING TREE LINE
- EXISTING TEST PIT LOCATION
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED HYDRANT
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED DOUBLE CATCHBASIN
- PROPOSED SEWER LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SANITARY FORCE MAIN
- PROPOSED WATER LINE
- PROPOSED TREE LINE / LIMIT OF WORK
- PROPOSED UNDERGROUNG ELECTRIC, TELEPHONE AND CABLE
- PROPOSED ELECTRIC TRANSFORMER
- PROPOSED DRAINLINE GATE VALVE
- PROPOSED CAPE COD BERM
- PROPOSED VERTICAL GRANITE CURB
- PROPOSED STREET TREE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

NOTE: THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM AN AERIAL SURVEY BY SCHOFIELD BROTHERS AND DOES NOT REPRESENT AN ON THE GROUND SURVEY BY GLM ENGINEERING CONSULTANTS, INC.

THE WETLAND FLAGS HAVE BEEN LOCATED IN A FIELD SURVEY BY GW SITE SOLUTIONS AND GLM ENGINEERING CONSULTANTS, INC.

WETLANDS DELINEATED BY
APPLIED ECOLOGICAL SCIENCES
P.O. BOX 184
NORFOLK, MA

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES & REGULATIONS OF THE REGISTER OF DEEDS.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

JOYCE E. HASTINGS P.L.S. _____ DATE _____

ASSESSOR'S REFERENCE:
MAP 14, BLOCK 3, LOT 1

DEED REFERENCE:
LAND COURT
CERTIFICATE No. 206577
DOCCUMENT No. 1015755

PLAN REFERENCE:
LAND COURT PLAN No. 36376C

OWNER OF RECORD:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

TOTAL LAND AREA
12.67 ± ACRES

PROPOSED ROAD
1655 Ft.
(From Exist Indian Ridge Rd. South)

GRADING & DRAINAGE

No.	DATE	REVISIONS DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
A 40B Comprehensive Permit Project
"GEOFFREY PARK"
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	5 of 18
PLAN #:	27,337

APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES & REGULATIONS OF THE REGISTER OF DEEDS.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

JOYCE E. HASTINGS P.L.S. _____ DATE _____

ASSESSOR'S REFERENCE:
MAP 14, BLOCK 3, LOT 1

DEED REFERENCE:
LAND COURT
CERTIFICATE No. 206577
DOCCUMENT No. 1015755

PLAN REFERENCE:
LAND COURT PLAN No. 36376C

OWNER OF RECORD:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

TOTAL LAND AREA
12.67 ± ACRES

PROPOSED ROAD
1655 Ft.
(From Exist Indian Ridge Rd. South)

N/F MATTHEW & ANNE BUCKLEY
7 INDIAN RIDGE ROAD

N/F ROBERT A. PRINCIPE & JOY F. CHEN
203 TURNER ROAD

N/F JOSEPH E. JR. & ANDREA MINIHAN
195 TURNER ROAD

N/F BEATRICE M. JOHNSON
187 TURNER ROAD

N/F LYNNE F. & MARK F. DIGREGORIO
51 INDIAN RIDGE RD. SOUTH

N/F JOHN P. & PAMELA C. POOR
50 INDIAN RIDGE RD. SOUTH

N/F 126 RESIDENTIAL ANR REALTY LLC
(MAP 14, BLOCK 3, LOT 4.1)

N/F MORCO BUILDERS C/O VINFEN CORPORATION

N/F JASON & SANDRA MARINO

INDIAN RIDGE ROAD SOUTH

EXISTING DRAINAGE EASEMENT

LOT 13 · LOT 14 · LOT 15 · LOT 16 · LOT 17 · LOT 18 · LOT 19 · LOT 23 · LOT 1 · LOT 2 · LOT 3

PROPOSED HOUSE TC=307.6 FF=299.5

PROPOSED HOUSE TC=307.0 FF=299.0

PROPOSED HOUSE TC=310.0 FF=302.0

PROPOSED HOUSE TC=307.5 FF=299.5

PROPOSED HOUSE TC=307.6 FF=299.5

PROPOSED HOUSE TC=307.0 FF=299.0

PROPOSED HOUSE TC=307.0 FF=299.0

PROPOSED HOUSE TC=307.0 FF=299.0

PROPOSED 2-FAMILY HOUSE TC=310.0 FF=302.0

PROPOSED 2-FAMILY HOUSE TC=310.0 FF=302.0

PROPOSED SUBDRAIN (SEE DETAIL)

PROPOSED EROSION CONTROL BARRIER

100' WETLAND BUFFER

INTERMITTENT STREAM

EDGE OF WETLAND

PROPOSED HEADWALL W/RIPRAP INV=267.50

PROPOSED HEADWALL W/RIPRAP INV=268.50

PROPOSED HEADWALL W/RIPRAP INV=268.10

PROPOSED HEADWALL W/RIPRAP 24" INV=259.50

PROPOSED HEADWALL W/RIPRAP INV=268.50

PROPOSED RETAINING WALL (SEE DETAIL)

PROPOSED RETAINING WALL (SEE DETAIL)

PROPOSED GUARDRAIL (SEE DETAIL)

EMERGENCY SPILLWAY (SEE DETAIL)

OUTLET CONTROL STRUCTURE (SEE DETAIL)

TREATMENT UNIT #1 RIM=273.5 INV(IN)=269.50 INV(OUT)=268.20

TREATMENT UNIT #2 RIM=273.5 INV(IN)=268.50 INV(OUT)=268.10

10' WIDE TOP EL=273.5

LEACHING BASIN

CONNECT PROPOSED WATER TO EXISTING 8 INCH STUB AT EXISTING GATE VALVE

TEMPORARY TURNAROUND EASEMENT

TEMPORARY TURNAROUND EASEMENT

VERIZON ELECTRIC CATV

TRANSFORMER 20120

CONDUITS VERIZON

139.33' N83°54'20"W

24" ROP

15" RCP

8" W

8" SAN

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

LEGEND:

—186—	EXISTING CONTOUR
163x2	EXISTING SPOT ELEVATION
WV	EXISTING WATER GATE
	EXISTING TREE LINE
TP 1	EXISTING TEST PIT LOCATION
202	PROPOSED CONTOUR
163x2	PROPOSED SPOT ELEVATION
	PROPOSED HYDRANT
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED DOUBLE CATCHBASIN
S	PROPOSED SEWER LINE
S	PROPOSED SEWER MANHOLE
FM	PROPOSED SANITARY FORCE MAIN
8"W	PROPOSED WATER LINE
	PROPOSED TREE LINE / LIMIT OF WORK
UGE	PROPOSED UNDERGROUNG ELECTRIC, TELEPHONE AND CABLE
	PROPOSED ELECTRIC TRANSFORMER
GV	PROPOSED DRAINLINE GATE VALVE
CCB	PROPOSED CAPE COD BERM
VGC	PROPOSED VERTICAL GRANITE CURB
	PROPOSED STREET TREE

NOTE: THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM AN AERIAL SURVEY BY SCHOFIELD BROTHERS AND DOES NOT REPRESENT AN ON THE GROUND SURVEY BY GLM ENGINEERING CONSULTANTS, INC.

THE WETLAND FLAGS HAVE BEEN LOCATED IN A FIELD SURVEY BY GW SITE SOLUTIONS AND GLM ENGINEERING CONSULTANTS, INC.

WETLANDS DELINEATED BY
APPLIED ECOLOGICAL SCIENCES
P.O. BOX 184
NORFOLK, MA

GRADING & DRAINAGE

REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND "GEOFFREY PARK" A 40B Comprehensive Permit Project HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	6 of 18
PLAN #:	27,337

WORCESTER REGISTRY OF DEEDS

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

LEGEND:

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING WATER GATE
- EXISTING TREE LINE
- EXISTING TEST PIT LOCATION
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED HYDRANT
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED DOUBLE CATCHBASIN
- PROPOSED SEWER LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SANITARY FORCE MAIN
- PROPOSED WATER LINE
- PROPOSED TREE LINE / LIMIT OF WORK
- PROPOSED UNDERGROUNG ELECTRIC, TELEPHONE AND CABLE
- PROPOSED ELECTRIC TRANSFORMER
- PROPOSED DRAINLINE GATE VALVE
- PROPOSED CAPE COD BERM
- PROPOSED VERTICAL GRANITE CURB
- PROPOSED STREET TREE

PROPOSED WATER LINE TO TERMINATE AT THE PROPERTY LINE FOR FUTURE EXTENSION

EXISTING DRAINAGE EASEMENT

EXISTING DRAINAGE EASEMENT

N07°08'28"E 147.00'

S07°08'28"W 158.02'

PARCEL A

PROPOSED SEWER EASEMENT

PROPOSED 20' WIDE SEWER EASEMENT

S00°26'23"W 60.42'

20' WIDE UTILITY EASEMENT

100' WETLAND BUFFER

LOT 1 · LOT 2 · LOT 3 · LOT 4 · LOT 5 · LOT 6 · LOT 7 · LOT 8 · LOT 9 · LOT 10 · LOT 11 · LOT 12 · LOT 13 · LOT 14 · LOT 15 · LOT 16 · LOT 17 · LOT 18 · LOT 19 · LOT 20 · LOT 21 · LOT 22 · LOT 23

PROPOSED HOUSE TC=324.0 GF=320.0 · PROPOSED HOUSE TC=318.0 · PROPOSED HOUSE TC=316.0 GF=312.0 · PROPOSED 2-FAMILY BLDG TC=316.0 GF=312.0 · PROPOSED HOUSE TC=293.0 GF=289.0 · PROPOSED HOUSE TC=303.0 GF=300.0 · PROPOSED HOUSE TC=307.0 GF=304.0 · PROPOSED HOUSE TC=307.0 · PROPOSED HOUSE TC=298.0 GF=294.0 · PROPOSED HOUSE TC=302.0 GF=298.0 · PROPOSED HOUSE TC=304.0 GF=300.0 · PROPOSED HOUSE TC=310.0 GF=306.0 · PROPOSED HOUSE TC=322.0 GF=318.0 · PROPOSED HOUSE TC=316.0 GF=312.0 · PROPOSED HOUSE TC=307.0 · PROPOSED HOUSE TC=292.0 GF=287.0

ROOF RECHARGE · 1500 GAL TANK · SEEPAGE PIT

PROPOSED 8" WATER LINE CLOV

PROPOSED SEWER FORCE MAIN

5' WIDE BIT SIDEWALK

PROPOSED SUBDRAIN (SEE DETAIL)

PROPOSED STREET TREE (TYP)

PAINTED CROSSWALK

HANDICAP RAMP

STOP LINE

HIGHWAY

SMH1 · SMH2 · SMH3 · SMH4 · SMH5 · SMH6 · SMH7 · SMH10 · SMH11

DMH1 · DMH2 · DMH3 · DMH4 · DMH5 · DMH6 · DMH7 · DMH8 · DMH9 · DMH10 · DMH11 · DMH12

CB1 · CB2 · CB3 · CB4 · CB5 · CB6 · CB7 · CB8 · CB9 · CB10 · CB11 · CB12 · CB13 · CB14

PROPOSED HEADWALL W/RIPRAP INV=267.50

EXISTING PAVEMENT & CURBING TO BE REMOVED. AREA TO BE LOAMED AND SEEDED. (TYP)

TEMPORARY TURNAROUND EASEMENT

PROPOSED DRIVEWAY APRON RECONSTRUCTION

PROPOSED DRIVEWAY

PROPOSED LIMIT OF ROADWAY RECONSTRUCTION

TIMBER WALL

MATCH EXISTING

Mailbox

8" WATER

15" RCP

12" RCP

PROPOSED VERT. GRANITE CURB (TYP)

PROPOSED DRIVEWAY APRON RECONSTRUCTION

CONNECT PROPOSED WATER TO EXISTING 8 INCH STUB AT EXISTING GATE VALVE.

PROPOSED VERT. GRANITE CURB

PROPOSED GUARDRAIL (SEE DETAIL)

PROPOSED RETAINING WALL (SEE DETAIL)

PROPOSED RETWALL OUTLET W/RIPRAP INV=261.00

TREATMENT UNIT#4 RIM=273.5 INV(IN)=268.90 INV(OUT)=268.70

PROPOSED GUARDRAIL (SEE DETAIL)

HEADWALL #5 W/RIPRAP INV=268.50

HEADWALL #6 W/RIPRAP 18"INV=269.00

TREATMENT UNIT#7 RIM=273.5 INV(IN)=269.50 INV(OUT)=269.20

EMERGENCY SPILLWAY (SEE DETAIL)

HEADWALL W/RIPRAP 24"INV=259.50

OUTLET STRUCTURE (SEE DETAIL)

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 ft.

UTILITY LAYOUT

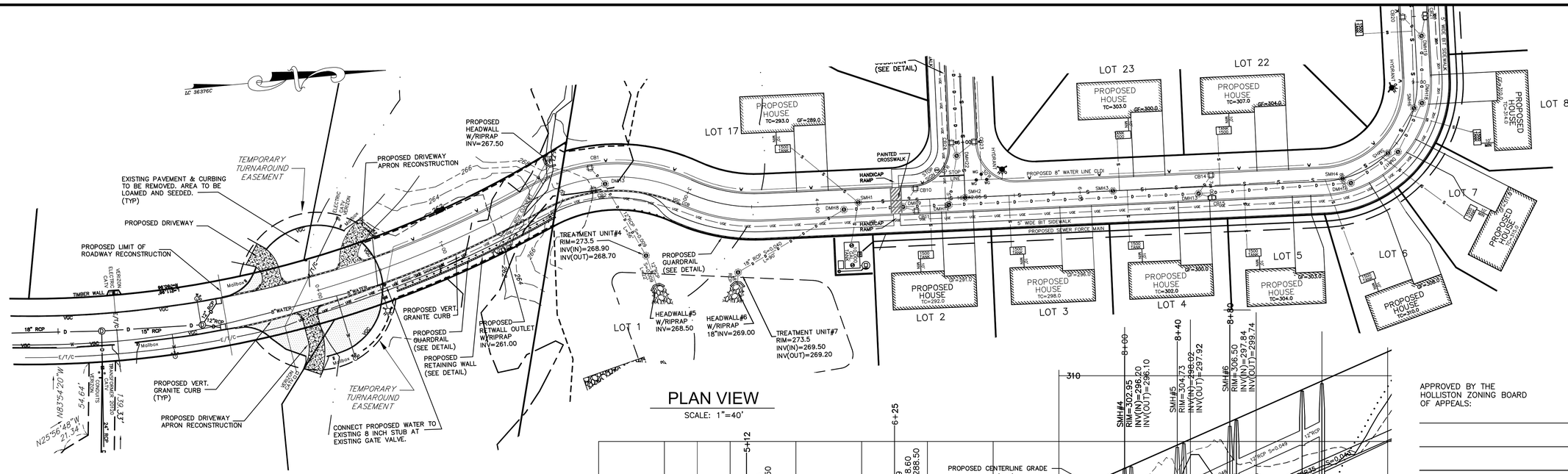
REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
A 40B Comprehensive Permit Project
"GEOFFREY PARK"
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

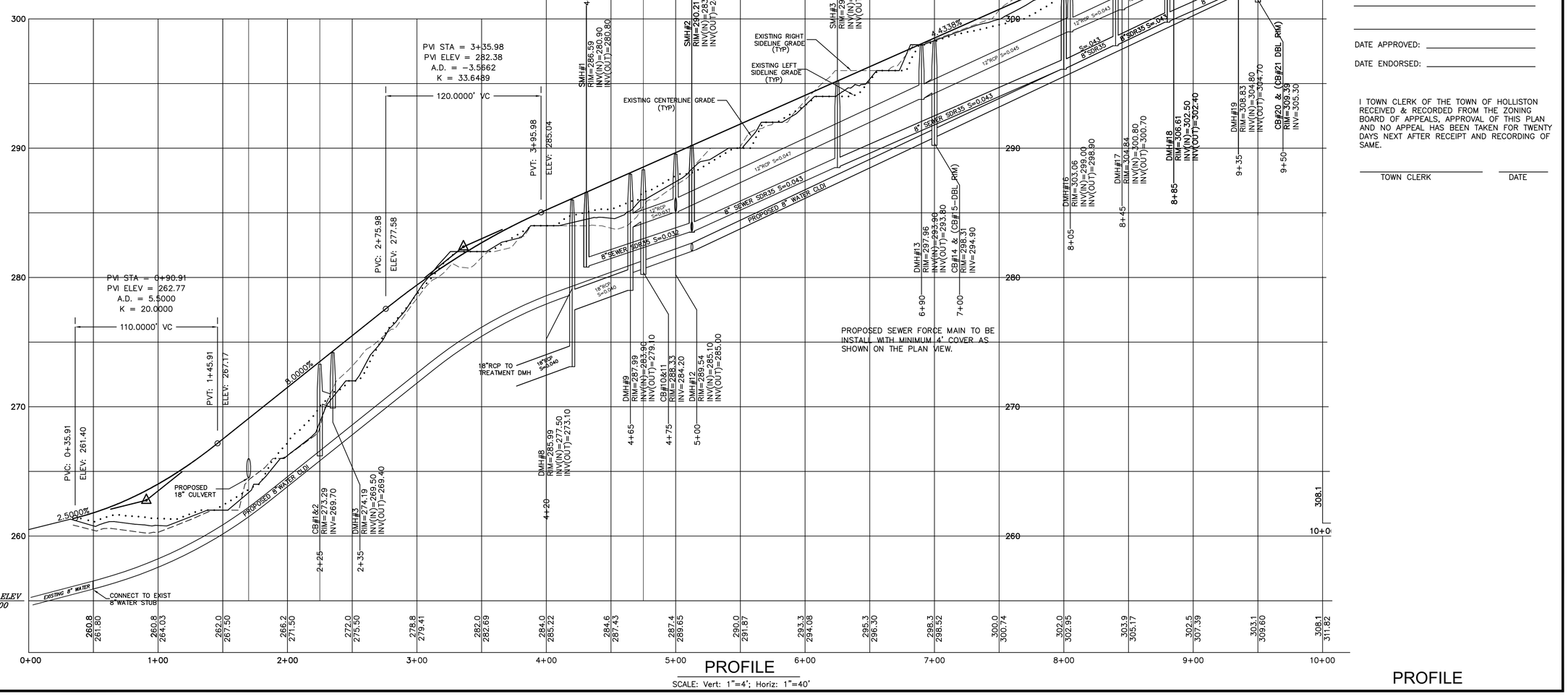
GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	7 of 18
PLAN #:	27,337



PLAN VIEW

SCALE: 1"=40'



PROFILE

SCALE: Vert: 1"=4'; Horiz: 1"=40'

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

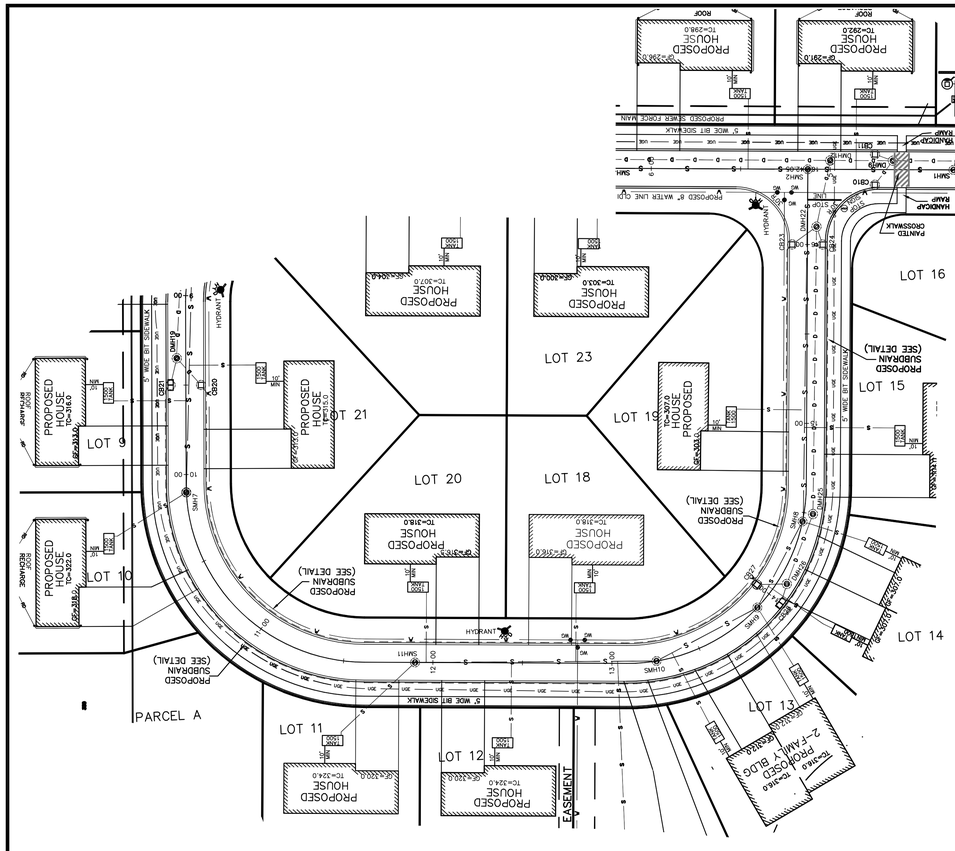
SITE DEVELOPMENT PLAN OF LAND "GEOFFREY PARK" A 40B Comprehensive Permit Project HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

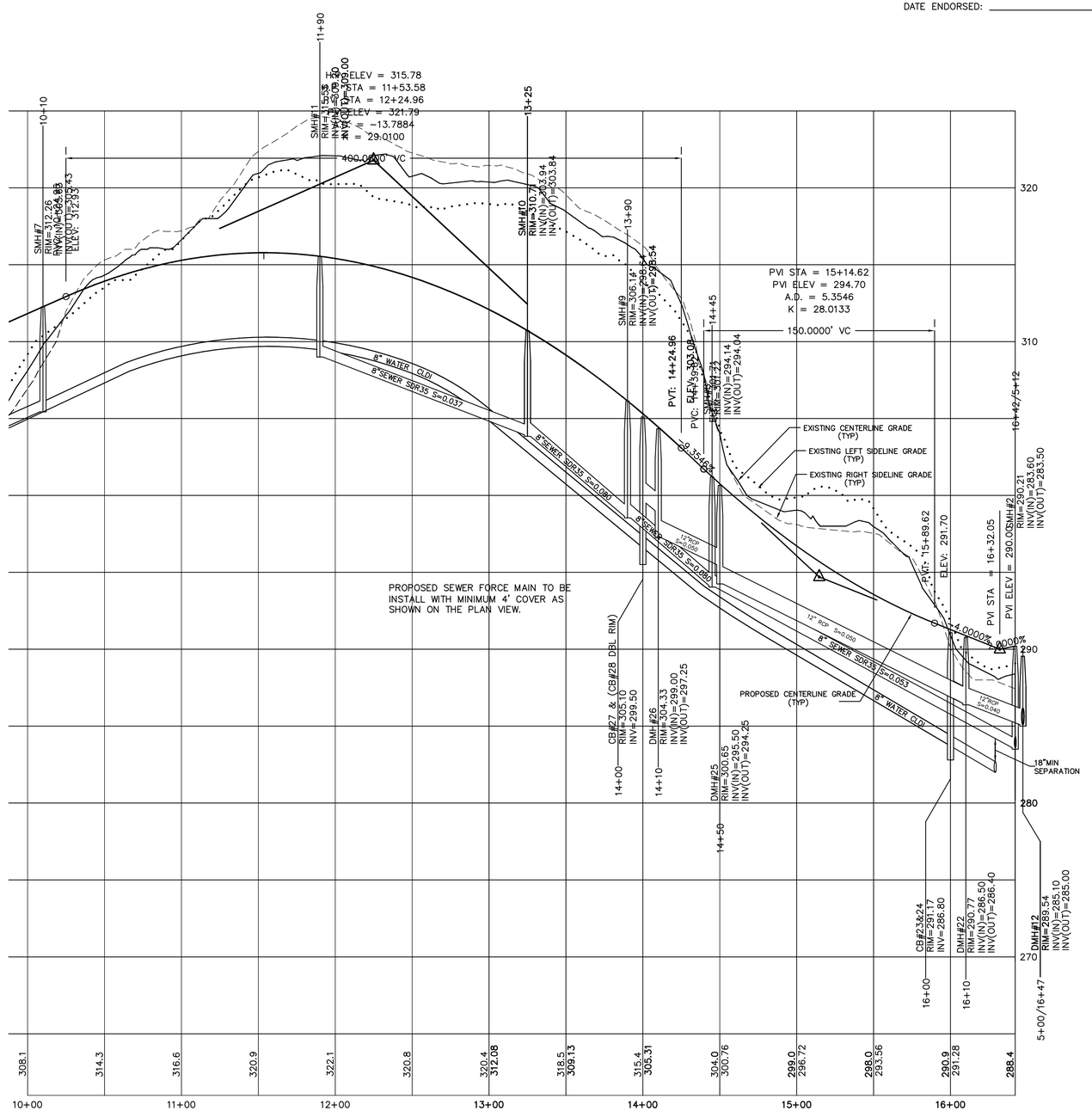
JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	8 of 18
PLAN #:	27,337

PROFILE



PLAN VIEW

SCALE: 1"=40'



PROFILE

SCALE: Vert: 1"=4'; Horiz: 1"=40'

PROFILE

LEGEND:

--186--	EXISTING CONTOUR
163x2	EXISTING SPOT ELEVATION
W	EXISTING WATER GATE
	EXISTING TREE LINE
TP 1	EXISTING TEST PIT LOCATION
202	PROPOSED CONTOUR
163x2	PROPOSED SPOT ELEVATION
	PROPOSED HYDRANT
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED DOUBLE CATCHBASIN
S	PROPOSED SEWER LINE
S	PROPOSED SEWER MANHOLE
FM	PROPOSED SANITARY FORCE MAIN
8"W	PROPOSED WATER LINE
	PROPOSED TREE LINE / LIMIT OF WORK
E/T/C	PROPOSED UNDERGROUNG ELECTRIC, TELEPHONE AND CABLE
	PROPOSED ELECTRIC TRANSFORMER
GV	PROPOSED DRAINLINE GATE VALVE
CCB	PROPOSED CAPE COD BERM
VGC	PROPOSED VERTICAL GRANITE CURB
	PROPOSED STREET TREE

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

No.	DATE	REVISIONS DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND "GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	9 of 18
PLAN #:	27,337

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

N/F MATTHEW & ANNE BUCKLEY 7 INDIAN RIDGE ROAD

N/F ROBERT A. PRINCIPE & JOY F. CHEN 203 TURNER ROAD

N/F JOSEPH E. JR. & ANDREA MINIHAN 195 TURNER ROAD

N/F MARK F. & LYNNE F. DIGREGORIO 51 INDIAN RIDGE RD. SOUTH

N/F JOHN P. & PAMELA G. POOR 50 INDIAN RIDGE RD. SOUTH

N/F 126 RESIDENTIAL ANR REALTY LLC (MAP 14, BLOCK 3, LOT 4.1)

N/F 19R DEGRAW

EXISTING DRAINAGE EASEMENT

LOT 13 · LOT 14 · LOT 15 · LOT 16 · LOT 17 · LOT 18 · LOT 19 · LOT 23 · LOT 2 · LOT 1

PROPOSED HOUSE TC=319.0

PROPOSED HOUSE TC=320.0

PROPOSED HOUSE TC=307.0

PROPOSED 2-FAMILY FIELDS TC=310.0

PROPOSED HOUSE TC=307.0

PROPOSED HOUSE TC=307.5

PROPOSED HOUSE TC=306.5

PROPOSED HOUSE TC=306.0

PROPOSED HOUSE TC=305.5

PROPOSED HOUSE TC=304.5

PROPOSED HOUSE TC=303.5

PROPOSED HOUSE TC=302.5

PROPOSED HOUSE TC=301.5

PROPOSED HOUSE TC=300.5

PROPOSED HOUSE TC=299.5

PROPOSED HOUSE TC=298.5

PROPOSED HOUSE TC=297.5

PROPOSED HOUSE TC=296.5

PROPOSED HOUSE TC=295.5

PROPOSED HOUSE TC=294.5

PROPOSED HOUSE TC=293.5

PROPOSED HOUSE TC=292.5

PROPOSED HOUSE TC=291.5

PROPOSED HOUSE TC=290.5

PROPOSED HOUSE TC=289.5

PROPOSED HOUSE TC=288.5

PROPOSED HOUSE TC=287.5

PROPOSED HOUSE TC=286.5

PROPOSED HOUSE TC=285.5

PROPOSED HOUSE TC=284.5

PROPOSED HOUSE TC=283.5

PROPOSED HOUSE TC=282.5

PROPOSED HOUSE TC=281.5

PROPOSED HOUSE TC=280.5

PROPOSED HOUSE TC=279.5

PROPOSED HOUSE TC=278.5

PROPOSED HOUSE TC=277.5

PROPOSED HOUSE TC=276.5

PROPOSED HOUSE TC=275.5

PROPOSED HOUSE TC=274.5

PROPOSED HOUSE TC=273.5

PROPOSED HOUSE TC=272.5

PROPOSED HOUSE TC=271.5

PROPOSED HOUSE TC=270.5

PROPOSED HOUSE TC=269.5

PROPOSED HOUSE TC=268.5

PROPOSED HOUSE TC=267.5

PROPOSED HOUSE TC=266.5

PROPOSED HOUSE TC=265.5

PROPOSED HOUSE TC=264.5

PROPOSED HOUSE TC=263.5

PROPOSED HOUSE TC=262.5

PROPOSED HOUSE TC=261.5

PROPOSED HOUSE TC=260.5

PROPOSED HOUSE TC=259.5

PROPOSED HOUSE TC=258.5

PROPOSED HOUSE TC=257.5

PROPOSED HOUSE TC=256.5

PROPOSED HOUSE TC=255.5

PROPOSED HOUSE TC=254.5

PROPOSED HOUSE TC=253.5

PROPOSED HOUSE TC=252.5

PROPOSED HOUSE TC=251.5

PROPOSED HOUSE TC=250.5

PROPOSED HOUSE TC=249.5

PROPOSED HOUSE TC=248.5

PROPOSED HOUSE TC=247.5

PROPOSED HOUSE TC=246.5

PROPOSED HOUSE TC=245.5

PROPOSED HOUSE TC=244.5

PROPOSED HOUSE TC=243.5

PROPOSED HOUSE TC=242.5

PROPOSED HOUSE TC=241.5

PROPOSED HOUSE TC=240.5

PROPOSED HOUSE TC=239.5

PROPOSED HOUSE TC=238.5

PROPOSED HOUSE TC=237.5

PROPOSED HOUSE TC=236.5

PROPOSED HOUSE TC=235.5

PROPOSED HOUSE TC=234.5

PROPOSED HOUSE TC=233.5

PROPOSED HOUSE TC=232.5

PROPOSED HOUSE TC=231.5

PROPOSED HOUSE TC=230.5

PROPOSED HOUSE TC=229.5

PROPOSED HOUSE TC=228.5

PROPOSED HOUSE TC=227.5

PROPOSED HOUSE TC=226.5

PROPOSED HOUSE TC=225.5

PROPOSED HOUSE TC=224.5

PROPOSED HOUSE TC=223.5

PROPOSED HOUSE TC=222.5

PROPOSED HOUSE TC=221.5

PROPOSED HOUSE TC=220.5

PROPOSED HOUSE TC=219.5

PROPOSED HOUSE TC=218.5

PROPOSED HOUSE TC=217.5

PROPOSED HOUSE TC=216.5

PROPOSED HOUSE TC=215.5

PROPOSED HOUSE TC=214.5

PROPOSED HOUSE TC=213.5

PROPOSED HOUSE TC=212.5

PROPOSED HOUSE TC=211.5

PROPOSED HOUSE TC=210.5

PROPOSED HOUSE TC=209.5

PROPOSED HOUSE TC=208.5

PROPOSED HOUSE TC=207.5

PROPOSED HOUSE TC=206.5

PROPOSED HOUSE TC=205.5

PROPOSED HOUSE TC=204.5

PROPOSED HOUSE TC=203.5

PROPOSED HOUSE TC=202.5

PROPOSED HOUSE TC=201.5

PROPOSED HOUSE TC=200.5

PROPOSED HOUSE TC=199.5

PROPOSED HOUSE TC=198.5

PROPOSED HOUSE TC=197.5

PROPOSED HOUSE TC=196.5

PROPOSED HOUSE TC=195.5

PROPOSED HOUSE TC=194.5

PROPOSED HOUSE TC=193.5

PROPOSED HOUSE TC=192.5

PROPOSED HOUSE TC=191.5

PROPOSED HOUSE TC=190.5

PROPOSED HOUSE TC=189.5

PROPOSED HOUSE TC=188.5

PROPOSED HOUSE TC=187.5

PROPOSED HOUSE TC=186.5

PROPOSED HOUSE TC=185.5

PROPOSED HOUSE TC=184.5

PROPOSED HOUSE TC=183.5

PROPOSED HOUSE TC=182.5

PROPOSED HOUSE TC=181.5

PROPOSED HOUSE TC=180.5

PROPOSED HOUSE TC=179.5

PROPOSED HOUSE TC=178.5

PROPOSED HOUSE TC=177.5

PROPOSED HOUSE TC=176.5

PROPOSED HOUSE TC=175.5

PROPOSED HOUSE TC=174.5

PROPOSED HOUSE TC=173.5

PROPOSED HOUSE TC=172.5

PROPOSED HOUSE TC=171.5

PROPOSED HOUSE TC=170.5

PROPOSED HOUSE TC=169.5

PROPOSED HOUSE TC=168.5

PROPOSED HOUSE TC=167.5

PROPOSED HOUSE TC=166.5

PROPOSED HOUSE TC=165.5

PROPOSED HOUSE TC=164.5

PROPOSED HOUSE TC=163.5

PROPOSED HOUSE TC=162.5

PROPOSED HOUSE TC=161.5

PROPOSED HOUSE TC=160.5

PROPOSED HOUSE TC=159.5

PROPOSED HOUSE TC=158.5

PROPOSED HOUSE TC=157.5

PROPOSED HOUSE TC=156.5

PROPOSED HOUSE TC=155.5

PROPOSED HOUSE TC=154.5

PROPOSED HOUSE TC=153.5

PROPOSED HOUSE TC=152.5

PROPOSED HOUSE TC=151.5

PROPOSED HOUSE TC=150.5

PROPOSED HOUSE TC=149.5

PROPOSED HOUSE TC=148.5

PROPOSED HOUSE TC=147.5

PROPOSED HOUSE TC=146.5

PROPOSED HOUSE TC=145.5

PROPOSED HOUSE TC=144.5

PROPOSED HOUSE TC=143.5

PROPOSED HOUSE TC=142.5

PROPOSED HOUSE TC=141.5

PROPOSED HOUSE TC=140.5

PROPOSED HOUSE TC=139.5

PROPOSED HOUSE TC=138.5

PROPOSED HOUSE TC=137.5

PROPOSED HOUSE TC=136.5

PROPOSED HOUSE TC=135.5

PROPOSED HOUSE TC=134.5

PROPOSED HOUSE TC=133.5

PROPOSED HOUSE TC=132.5

PROPOSED HOUSE TC=131.5

PROPOSED HOUSE TC=130.5

PROPOSED HOUSE TC=129.5

PROPOSED HOUSE TC=128.5

PROPOSED HOUSE TC=127.5

PROPOSED HOUSE TC=126.5

PROPOSED HOUSE TC=125.5

PROPOSED HOUSE TC=124.5

PROPOSED HOUSE TC=123.5

PROPOSED HOUSE TC=122.5

PROPOSED HOUSE TC=121.5

PROPOSED HOUSE TC=120.5

PROPOSED HOUSE TC=119.5

PROPOSED HOUSE TC=118.5

PROPOSED HOUSE TC=117.5

PROPOSED HOUSE TC=116.5

PROPOSED HOUSE TC=115.5

PROPOSED HOUSE TC=114.5

PROPOSED HOUSE TC=113.5

PROPOSED HOUSE TC=112.5

PROPOSED HOUSE TC=111.5

PROPOSED HOUSE TC=110.5

PROPOSED HOUSE TC=109.5

PROPOSED HOUSE TC=108.5

PROPOSED HOUSE TC=107.5

PROPOSED HOUSE TC=106.5

PROPOSED HOUSE TC=105.5

PROPOSED HOUSE TC=104.5

PROPOSED HOUSE TC=103.5

PROPOSED HOUSE TC=102.5

PROPOSED HOUSE TC=101.5

PROPOSED HOUSE TC=100.5

PROPOSED HOUSE TC=99.5

PROPOSED HOUSE TC=98.5

PROPOSED HOUSE TC=97.5

PROPOSED HOUSE TC=96.5

PROPOSED HOUSE TC=95.5

PROPOSED HOUSE TC=94.5

PROPOSED HOUSE TC=93.5

PROPOSED HOUSE TC=92.5

PROPOSED HOUSE TC=91.5

PROPOSED HOUSE TC=90.5

PROPOSED HOUSE TC=89.5

PROPOSED HOUSE TC=88.5

PROPOSED HOUSE TC=87.5

PROPOSED HOUSE TC=86.5

PROPOSED HOUSE TC=85.5

PROPOSED HOUSE TC=84.5

PROPOSED HOUSE TC=83.5

PROPOSED HOUSE TC=82.5

PROPOSED HOUSE TC=81.5

PROPOSED HOUSE TC=80.5

PROPOSED HOUSE TC=79.5

PROPOSED HOUSE TC=78.5

PROPOSED HOUSE TC=77.5

PROPOSED HOUSE TC=76.5

PROPOSED HOUSE TC=75.5

PROPOSED HOUSE TC=74.5

PROPOSED HOUSE TC=73.5

PROPOSED HOUSE TC=72.5

PROPOSED HOUSE TC=71.5

PROPOSED HOUSE TC=70.5

PROPOSED HOUSE TC=69.5

PROPOSED HOUSE TC=68.5

PROPOSED HOUSE TC=67.5

PROPOSED HOUSE TC=66.5

PROPOSED HOUSE TC=65.5

PROPOSED HOUSE TC=64.5

PROPOSED HOUSE TC=63.5

PROPOSED HOUSE TC=62.5

PROPOSED HOUSE TC=61.5

PROPOSED HOUSE TC=60.5

PROPOSED HOUSE TC=59.5

PROPOSED HOUSE TC=58.5

PROPOSED HOUSE TC=57.5

PROPOSED HOUSE TC=56.5

PROPOSED HOUSE TC=55.5

PROPOSED HOUSE TC=54.5

PROPOSED HOUSE TC=53.5

PROPOSED HOUSE TC=52.5

PROPOSED HOUSE TC=51.5

PROPOSED HOUSE TC=50.5

PROPOSED HOUSE TC=49.5

PROPOSED HOUSE TC=48.5

PROPOSED HOUSE TC=47.5

PROPOSED HOUSE TC=46.5

PROPOSED HOUSE TC=45.5

PROPOSED HOUSE TC=44.5

PROPOSED HOUSE TC=43.5

PROPOSED HOUSE TC=42.5

PROPOSED HOUSE TC=41.5

PROPOSED HOUSE TC=40.5

PROPOSED HOUSE TC=39.5

PROPOSED HOUSE TC=38.5

PROPOSED HOUSE TC=37.5

PROPOSED HOUSE TC=36.5

PROPOSED HOUSE TC=35.5

PROPOSED HOUSE TC=34.5

PROPOSED HOUSE TC=33.5

PROPOSED HOUSE TC=32.5

PROPOSED HOUSE TC=31.5

PROPOSED HOUSE TC=30.5

PROPOSED HOUSE TC=29.5

PROPOSED HOUSE TC=28.5

PROPOSED HOUSE TC=27.5

PROPOSED HOUSE TC=26.5

PROPOSED HOUSE TC=25.5

PROPOSED HOUSE TC=24.5

PROPOSED HOUSE TC=23.5

PROPOSED HOUSE TC=22.5

PROPOSED HOUSE TC=21.5

PROPOSED HOUSE TC=20.5

PROPOSED HOUSE TC=19.5

PROPOSED HOUSE TC=18.5

PROPOSED HOUSE TC=17.5

PROPOSED HOUSE TC=16.5

PROPOSED HOUSE TC=15.5

PROPOSED HOUSE TC=14.5

PROPOSED HOUSE TC=13.5

PROPOSED HOUSE TC=12.5

PROPOSED HOUSE TC=11.5

PROPOSED HOUSE TC=10.5

PROPOSED HOUSE TC=9.5

PROPOSED HOUSE TC=8.5

PROPOSED HOUSE TC=7.5

PROPOSED HOUSE TC=6.5

PROPOSED HOUSE TC=5.5

PROPOSED HOUSE TC=4.5

PROPOSED HOUSE TC=3.5

PROPOSED HOUSE TC=2.5

PROPOSED HOUSE TC=1.5

PROPOSED HOUSE TC=0.5

PROPOSED HOUSE TC=-0.5

PROPOSED HOUSE TC=-1.5

PROPOSED HOUSE TC=-2.5

PROPOSED HOUSE TC=-3.5

PROPOSED HOUSE TC=-4.5

PROPOSED HOUSE TC=-5.5

PROPOSED HOUSE TC=-6.5

PROPOSED HOUSE TC=-7.5

PROPOSED HOUSE TC=-8.5

PROPOSED HOUSE TC=-9.5

PROPOSED HOUSE TC=-10.5

PROPOSED HOUSE TC=-11.5

PROPOSED HOUSE TC=-12.5

PROPOSED HOUSE

WORCESTER REGISTRY OF DEEDS

APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
A 40B Comprehensive Permit Project
"GEOFFREY PARK"
HOLLISTON, MASSACHUSETTS

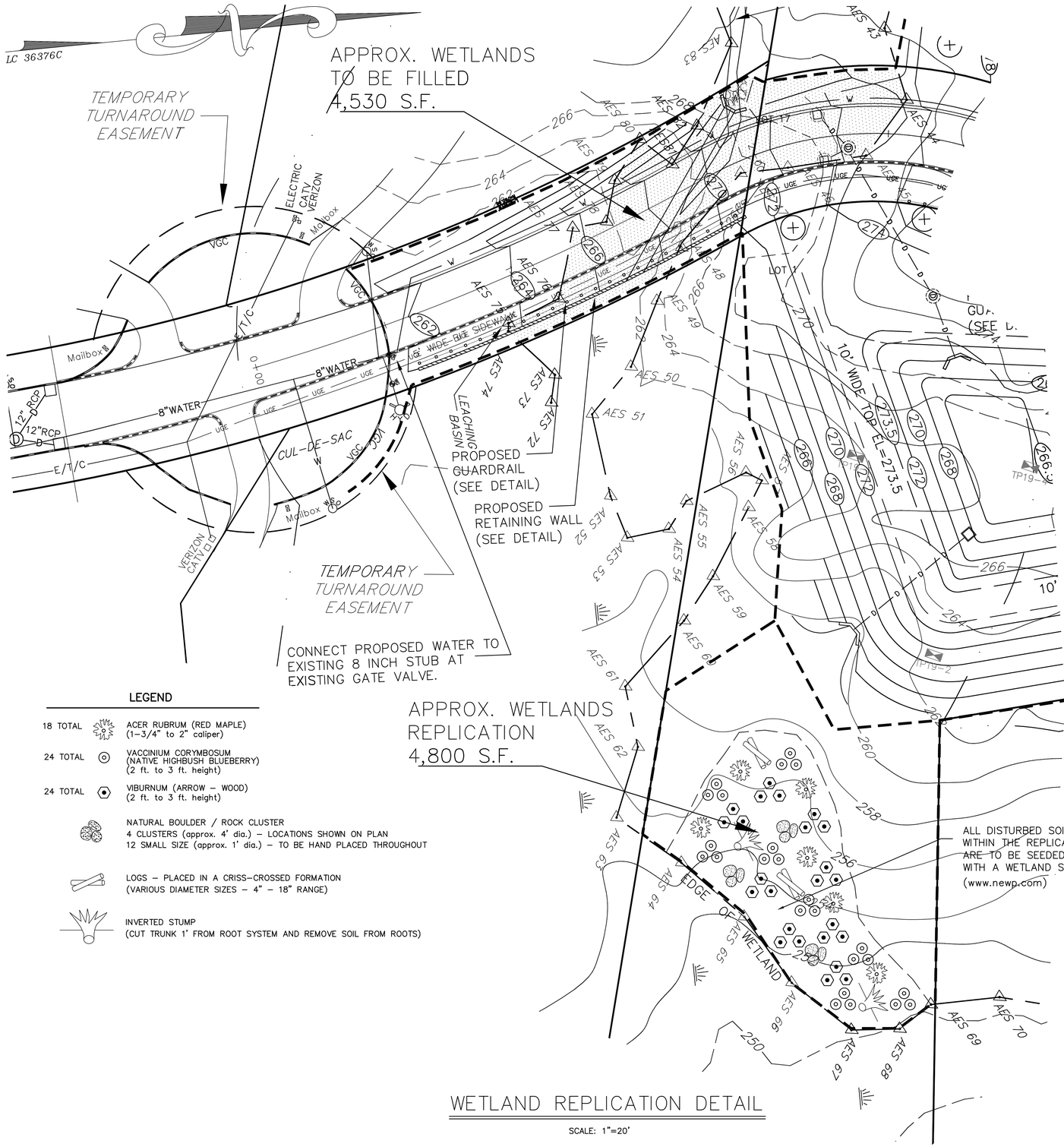
PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	11 of 18
PLAN #:	27,337

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

EROSION CONTROL



LEGEND

18 TOTAL		ACER RUBRUM (RED MAPLE) (1–3/4" to 2" caliper)
24 TOTAL		VACCINIUM CORYMBOSUM (NATIVE HIGHBUSH BLUEBERRY) (2 ft. to 3 ft. height)
24 TOTAL		VIBURNUM (ARROW – WOOD) (2 ft. to 3 ft. height)
		NATURAL BOULDER / ROCK CLUSTER 4 CLUSTERS (approx. 4' dia.) – LOCATIONS SHOWN ON PLAN 12 SMALL SIZE (approx. 1' dia.) – TO BE HAND PLACED THROUGHOUT
		LOGS – PLACED IN A CRISS–CROSSED FORMATION (VARIOUS DIAMETER SIZES – 4" – 18" RANGE)
		INVERTED STUMP (CUT TRUNK 1' FROM ROOT SYSTEM AND REMOVE SOIL FROM ROOTS)

WETLAND REPLICATION DETAIL

SCALE: 1"=20'

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

CONSTRUCTION SPECIFICATIONS

1.1 STANDARD CONSTRUCTION PROCEDURES

Prior to commencement of work, the limit of the work area shall be clearly marked and siltation barriers shall be in place.

CLEARING

Clearing is confined to the minimum amount necessary for construction. When cutting and clearing trees, they shall be felled away from wetlands. All limbs and brush shall be chipped. In the resource areas, the dominant wetland plants shall be excavated, roots intact, balled and set aside in a protected area. The general clearing operation will consist of removing the trees, brush, rocks, etc. needed within the limits of construction. Various clearing methods will be employed depending on the tree size, contour of land and the ability of ground to support equipment. At no time shall any stumps, debris or other materials be disposed of in a resource area or buffer zone.

GRADING

Rock outcroppings, ridges, boulders and tree stumps will be removed from the work area and sharp topographical irregularities will be graded to ensure rapid and safe passage of work crews and equipment. During grading, effort shall be made not to alter existing drainage patterns.

DEWATERING

Pumping and dewatering the excavation areas shall be done in a manner which will not discharge any silt and sediment into a resource area. Discharges from a dewatering construction procedure will be filtered through a siltation basin constructed upland from the work site. The siltation basin area shall be a depression surrounded by a hay bale dike or silt fence. Overflow from the siltation basin shall be planned to be located over a thickly and naturally mulched upland area. All basins shall be located at least 100 feet upslope from any resource area.

1.2 CONSTRUCTION PROCEDURE FOR WETLAND FILLING

The proposed project involves filling of **4530** square feet of vegetated wetlands. The wetlands loss have been minimized by limiting the amount of fill in the area disturbed.

The limits of construction shall be clearly marked and siltation barriers in place prior to commencement of work. The area shall be cleared as described in Section 1.1.

Prior to removal of the organic soil, the proposed replication area shall be prepared. This will allow the organic soils to be placed directly into the replication area.

The area will be dredged, filled and embankments constructed until finish grade is achieved. The area shall be graded and slopes stabilized upon completion.

1.3 CONSTRUCTION WITHIN BUFFER ZONES

All construction within wetland buffer zones will incorporate all erosion and sediment controls deemed appropriate for the site. No construction will commence until erosion control barriers have been employed to prevent siltation into wetland areas. Following construction, disturbed areas will be graded and seeded with a dense cover until such time as the natural vegetation of the area is re–established.

2.1 TECHNICAL SPECIFICATIONS FOR WETLAND REPLICATION

In an attempt to preserve the functions of a naturally occurring wetland, the replication area should mimic the natural wetlands physical characteristics as closely as possible. Before the vegetated wetland is disturbed, the replication area will be clearly marked to show the boundaries of the work area and siltation barriers will be placed along the limits. Prior to excavation, the dominant wetland plants from the disturbed area will be excavated, roots intact, balled and set aside for replanting in the replication area. The dominant plants to be transplanted shall be decided by a qualified wetland scientist prior to commencement of work in the resource area.

The replication area will be prepared by excavating the topsoil until an elevation of approximately 12 inches below the adjacent wetland and/or proposed elevations.
The existing wetlands have approximately 8 to 10 inches of organic soil throughout. The proposal is to mimic this soil structure as closely as possible. The subgrade of the replication area will be excavated in some instances to a depth of below the existing topsoil and subsoil. In an effort to mimic the existing soil stratum, organic soil from the natural wetland area shall be placed throughout the replication area. Thence, the area will be covered with the organic soil from the natural wetland until finish grades are established. If additional organic soil is necessary, it shall comply with Mass. D.P.W. Spec. M1.06.0 peat borrow. When the organic soil is in place, transplanting will begin. Revegetation can be supplemented by purchasing plant species.

Under supervision of a qualified wetland scientist, the dominant plants selected from the disturbed area are then planted in the replication area. Upon completion, the wetland scientist will determine what additional plantings are necessary to complete the replication area. Reed Canary Grass and Perennial Rye Grass will be planted along the embankment to help stop erosion.

The plant stocks chosen should be of good quality. One or two year old deciduous seedlings properly handled may be selected from the disturbed wetland. Fertilizer with a low nitrogen content will be applied with each planting. The fertilizer can be thoroughly worked into the soil when planting or applied as a side dressing after planting. The plants should be planted at the approximate depth they were found at in nature or in a nursery. The roots should be uncrowded and the soil should be packed firmly around them. The shrubs should be mulched to a depth of 4 inches with wood chips, leaf litter or peat moss. Lime should not be applied to any wetland planting areas to allow acid soil conditions to develop.

2.2 WETLAND REPLICATION MONITORING/MAINTENANCE PLAN

The wetland replication area is to be inspected to assess the overall condition of the wetland in terms of general restoration to estimate the percent vegetative cover. The critical value in terms of vegetation as required by the State Performance Standards is that "...at least 75 percent of the surface of the replacement area be re–established with indigenous wetland plant species within two growing seasons following disturbance..." (310 CMR 10.55 (4)(b)).

Follow up inspections shall occur after the first and second growing season, normally 3 to 6 months and 12 to 15 months after plantings. Revegetation shall be considered successful if perennial vegetation attains 75 percent or more of each square yard of replication area, based on representative random sampling in the field. If vegetative cover is less, the judgment of the professional conducting the inspection shall be used to determine the need for replanting or fertilizing based on site conditions and these actions shall be undertaken.

The inspections shall be done in report form and submitted to the Conservation Commission and Department of Environmental Protection, Wetlands Division within two weeks following the field inspection.

3.1 EROSION AND SEDIMENTATION CONTROL

To control erosion and sedimentation during and after construction, it is advised to disturb only the areas needed for construction, remove only those trees and grasses that must be removed for construction and protect the remaining to preserve their aesthetic and erosion control values.

Backfill, compact and seed disturbed areas as soon as possible after they are opened.

Grasses used for slope stabilization are to be perennial, deep rooted and fast growing variety that will produce a dense uniform cover and can withstand small amounts of sedimentation. Seed mixture to be used is Crown Vetch 5 pounds and Perennial Rye Grass 25 pounds. All loamed (minimum depth of four inches) and newly seeded slopes shall be treated with hay mulch for stabilization.

The erosion control barriers must be periodically checked and replaced when clogging is such that they are no longer efficient in their purpose.

WETLAND REPLICATION PLAN

REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
"GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508–429–1100
F: 508–429–7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	12 of 18
PLAN #:	27,337

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

_____

_____

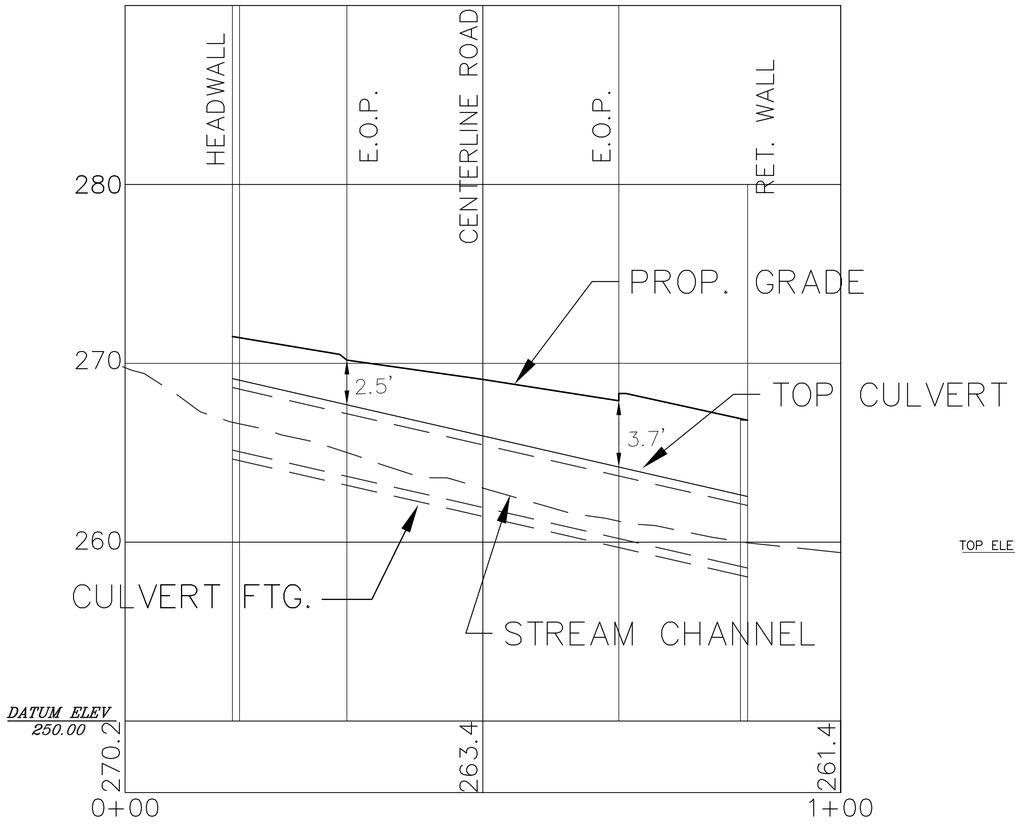
_____

_____

_____

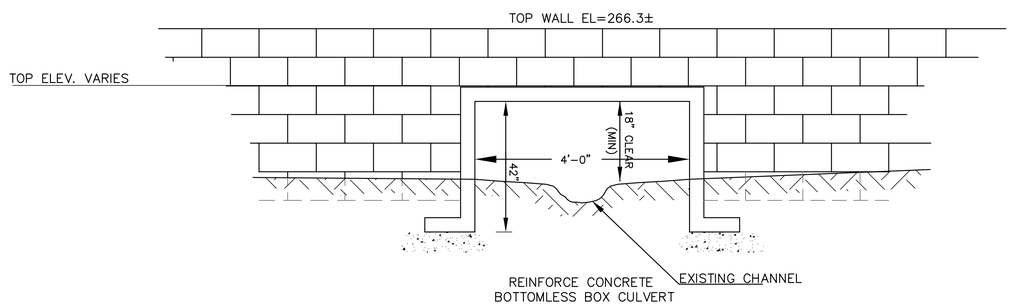
DATE APPROVED: _____

DATE ENDORSED: _____



CULVERT CROSSING SECTION

SCALE: Horiz: 1"=10': Vert: 1"=4'



END SECTION

WETLAND REPLICATION PLAN

REVISIONS

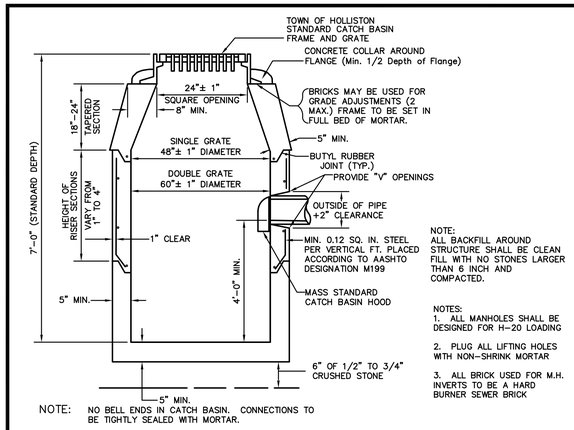
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
"GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	13 of 18
PLAN #:	27,337



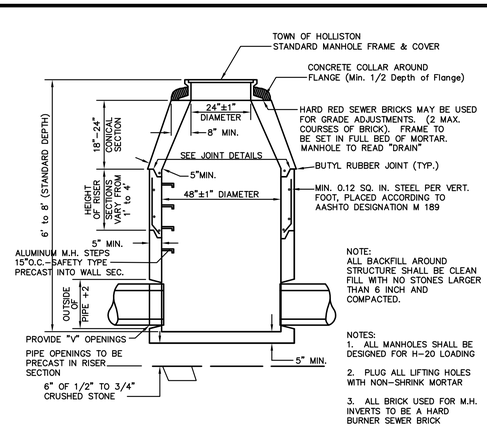
NOTE:
ALL BACKFILL AROUND STRUCTURE SHALL BE CLEAN FILL WITH NO STONES LARGER THAN 6 INCH AND COMPACTED.

NOTES:
1. ALL MANHOLES SHALL BE DESIGNED FOR H-20 LOADING
2. PLUG ALL LIFTING HOLES WITH NON-SHRINK MORTAR
3. ALL BRICK USED FOR M.H. INVERTS TO BE A HARD BURNER SEWER BRICK

NOTE: NO BELL ENDS IN CATCH BASIN. CONNECTIONS TO BE TIGHTLY SEALED WITH MORTAR.

PRECAST CONCRETE CATCH BASIN DETAILS

NOT TO SCALE

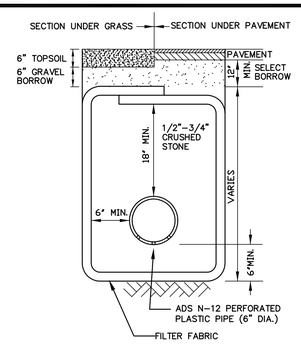


NOTE:
ALL BACKFILL AROUND STRUCTURE SHALL BE CLEAN FILL WITH NO STONES LARGER THAN 6 INCH AND COMPACTED.

NOTES:
1. ALL MANHOLES SHALL BE DESIGNED FOR H-20 LOADING
2. PLUG ALL LIFTING HOLES WITH NON-SHRINK MORTAR
3. ALL BRICK USED FOR M.H. INVERTS TO BE A HARD BURNER SEWER BRICK

PRECAST CONCRETE MANHOLE DETAILS

NOT TO SCALE



NOTES:
1. SUBDRAIN TO BE INSTALLED ALONG ROADWAY IN AREAS WHERE SHOWN ON PLAN.
2. SUBDRAINS SHALL BE INSTALLED ALONG BOTH SIDES OF THE ROADWAY FROM CB's AT STA. 9+50 TO HIGH POINT STA. 11+53, AND FROM CB"S STA. 16+00 TO HIGH POINT STA. 11+53. (SEE PLAN)
3. SUBDRAIN SHALL CONNECT TO CATCH BASINS AS SHOWN ON PLAN.

SUBDRAIN DETAIL

N.T.S.

DEEP OBSERVATION HOLE LOGS

DEEP HOLE – 19-1		
HORIZ DEPTH	DATE: 9/16/19 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	264.0
6"		263.5
24"	Bw SANDY LOAM 10YR5/6	262.0
48"	C1 LOAMY SAND 2.5Y6/4 MED-COARSE 20% GRAVEL Cob's-Bldrs	260.0
	Large Boulders	
None	GROUNDWATER OBSERVED	260.0
None	SOIL MOTTLING	
	GROUNDWATER MONITORED	
	ESTIMATED SEASONAL HIGH GROUNDWATER	

DEEP HOLE – 19-2		
HORIZ DEPTH	DATE: 9/16/19 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	262.3
6"		261.8
24"	Bw SANDY LOAM 10YR5/6	261.3
58"	C1 LOAMY SAND 2.5Y6/4 MED-COARSE 20% GRAVEL Cob's-Bldrs	257.4
	Large Boulders	
None	GROUNDWATER OBSERVED	257.4
None	SOIL MOTTLING	
	GROUNDWATER MONITORED	
	ESTIMATED SEASONAL HIGH GROUNDWATER	

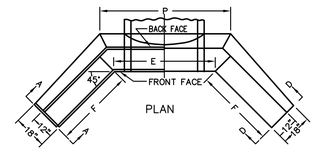
DEEP HOLE – 19-3		
HORIZ DEPTH	DATE: 9/16/19 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	263.0
6"		262.5
24"	Bw SANDY LOAM 10YR5/6	261.0
62"	C1 LOAMY SAND 2.5Y6/4 MED-COARSE 20% GRAVEL Cob's-Bldrs	257.8
	Large Boulders	
None	GROUNDWATER OBSERVED	257.8
None	SOIL MOTTLING	
	GROUNDWATER MONITORED	
	ESTIMATED SEASONAL HIGH GROUNDWATER	

DEEP HOLE – 19-4		
HORIZ DEPTH	DATE: 9/16/19 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	267.4
6"		266.9
24"	Bw SANDY LOAM 10YR5/6	265.4
62"	C1 LOAMY SAND 2.5Y6/4 MED-COARSE 20% GRAVEL Cob's-Bldrs	262.2
	Large Boulders	
None	GROUNDWATER OBSERVED	262.2
None	SOIL MOTTLING	
	GROUNDWATER MONITORED	
	ESTIMATED SEASONAL HIGH GROUNDWATER	

DEEP HOLE – 19-5		
HORIZ DEPTH	DATE: 9/16/19 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	271.5
6"		271.0
24"	Bw SANDY LOAM 10YR5/6	269.5
64"	C1 LOAMY SAND 2.5Y6/4 MED-COARSE 20% GRAVEL Cob's-Bldrs	266.2
	Large Boulders	
None	GROUNDWATER OBSERVED	266.2
None	SOIL MOTTLING	
	GROUNDWATER MONITORED	
	ESTIMATED SEASONAL HIGH GROUNDWATER	

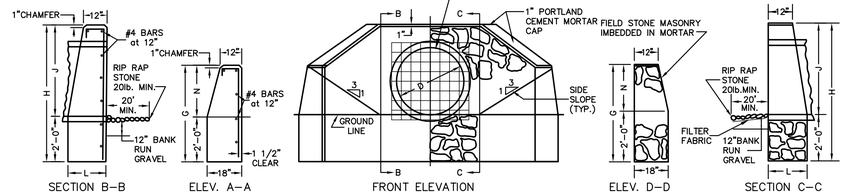
SOIL TEST LOGS

N.T.S.



D	E	F	G	H	J	L	N	P
12"	2'-6"	4'-8"	3'-2"	4'-0"	2'-0"	1'-6"	1'-2"	3'-5"
15"	2'-9"	5'-4"	3'-3"	4'-3"	2'-3"	1'-6"	1'-3"	3'-9"
18"	3'-0"	6'-4"	3'-6"	4'-6"	2'-6"	1'-6"	1'-6"	4'-1"
21"	3'-3"	7'-0"	3'-8"	4'-9"	2'-9"	1'-6"	1'-8"	4'-4"
24"	3'-6"	7'-5"	3'-9"	5'-0"	3'-0"	1'-6"	1'-9"	4'-7"

1.) ALL CONCRETE DIMENSIONS SHOWN ARE MINIMUM
2.) CONCRETE SHALL BE 4000 P.S.I. MINIMUM
3.) ALL REINFORCING SHALL BE #4 MINIMUM



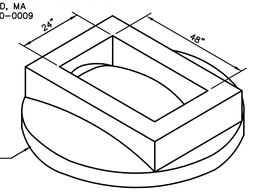
RIP-RAP STONE:
STONE SPECIFICATION: MSSHB M2.02.3 STONE FOR PIPE ENDS WITH FABRIC

CONCRETE AND FIELD STONE MASONARY HEADWALL DETAILS

NOT TO SCALE

MANUFACTURED BY:
SOITUATE/RAY
PRECAST CONCRETE PRODUCTS CORP.
MARSHFIELD, MA
1-800-440-0009

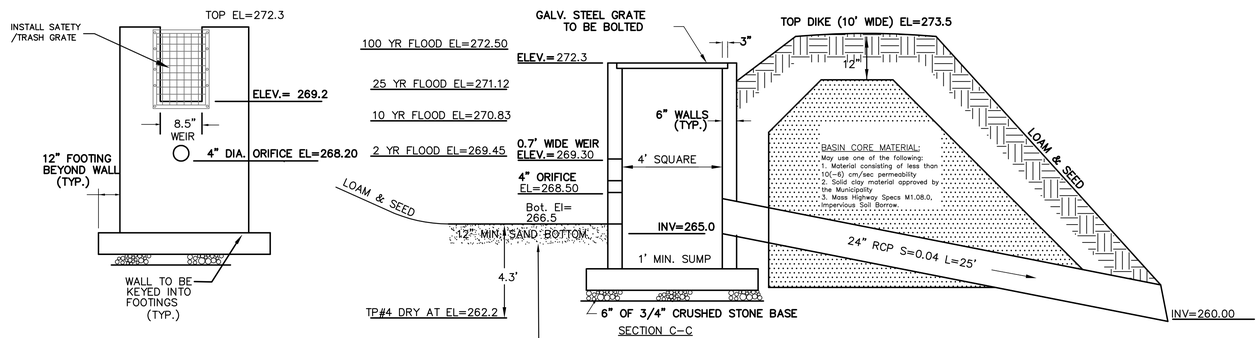
NOTE:
DOUBLE RIMS SHALL BE INSTALLED AT CATCH BASINS #15, 21 & 28.



1. MANUFACTURED TO MEET OR EXCEED ASTM C-478 & AASHTO M 199 SPECS.
2. REINFORCING SHALL CONFORM TO ASTM A-185 AND BE PLACED AS PER ASTM C-478 (8.1, 8.3)
3. CONCRETE = 4000 PSI MIN. AND CEMENT PER ASTMC-478 (6.1)
4. MANHOLE STEPS – POLYPROPLENE COATED GRADE 60 R-BAR PER ASTM C-478 & OSHA (STD. 1-19)
5. BUTYL RUBBER JOINT SEALANT PER ASTM C-990 & AASHTO M-198
6. WATERPROOFING PER CONTRACT SPECS. AS REQUIRED.
7. DESIGNED FOR H-20 LOADING.

DOUBLE RIM CATCH BASIN DOME TOP

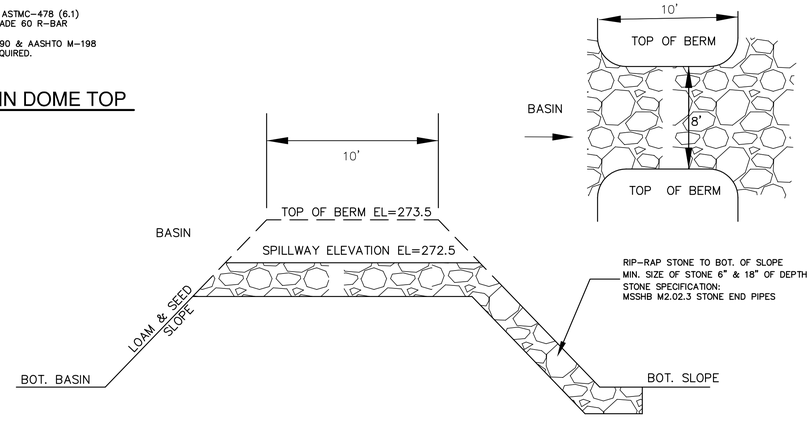
NOT TO SCALE



BASIN BOTTOM EXCAVATION:
ALL TOPSOIL, SUBSOIL AND ANY DELETERIOUS MATERIAL MUST BE REMOVED FROM THE BOTTOM AREA OF THE DRAINAGE BASIN AND FILLED WITH APPROVED, CLEAN, GRANULAR SAND. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 2 INCHES AND BE GRADED SO NOT MORE THAN 45% OF THE SAMPLE IS RETAINED IN A #4 SIEVE, OF THAT PASSING, 20% OR LESS SHALL PASS A #100 SIEVE AND 5% OR LESS SHALL PASS THE #200 SIEVE.

DETENTION BASIN TYPICAL SECTION

NOT TO SCALE



DETENTION BASIN EMERGENCY SPILLWAY DETAIL

NOT TO SCALE

APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION.
DIGSAFE 1-888-344-7233

DETAILS

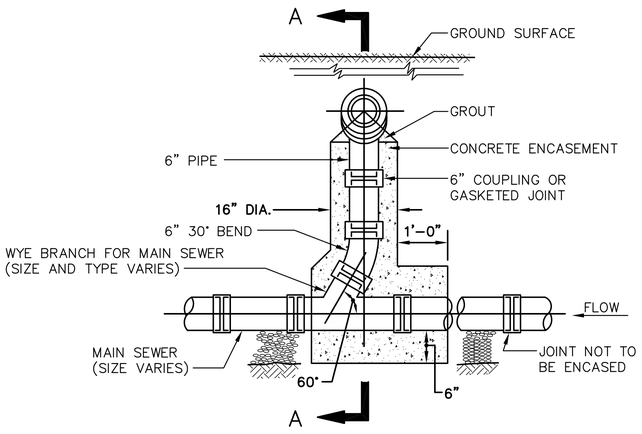
REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
"GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS

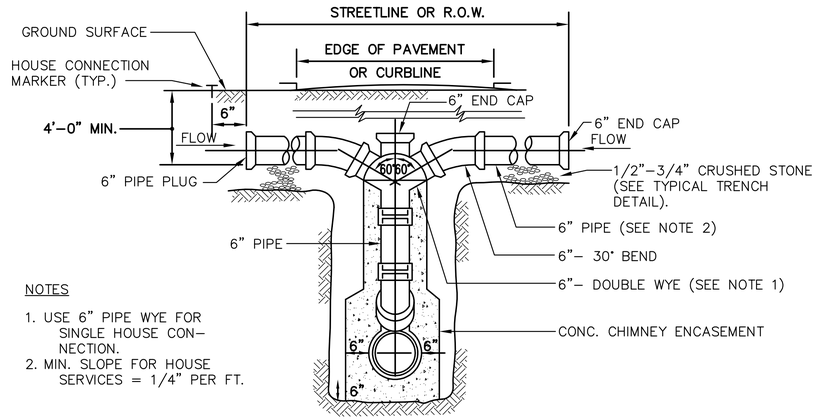
PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	14 of 18
PLAN #:	27,337



ELEVATION



NOTES

1. USE 6" PIPE WYE FOR SINGLE HOUSE CONNECTION.
2. MIN. SLOPE FOR HOUSE SERVICES = 1/4" PER FT.

SECTION A–A

TYPICAL HOUSE SERVICE CONNECTION & CHIMNEY DETAIL

(FOR MAIN SEWER OVER 8'–0" DEEP)
NOT TO SCALE

APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

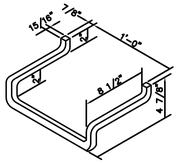
DATE APPROVED: _____

DATE ENDORSED: _____

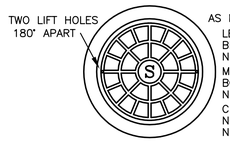
I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS



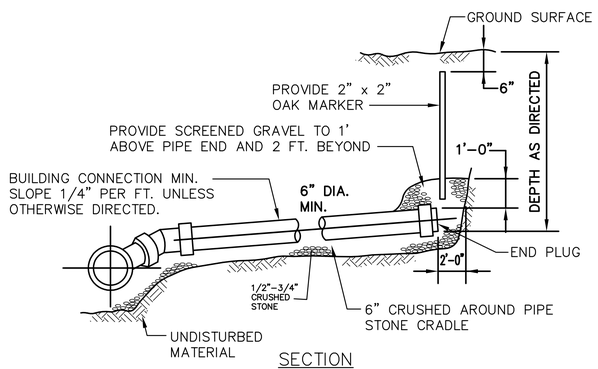
MANHOLE STEP DETAIL
NOT TO SCALE



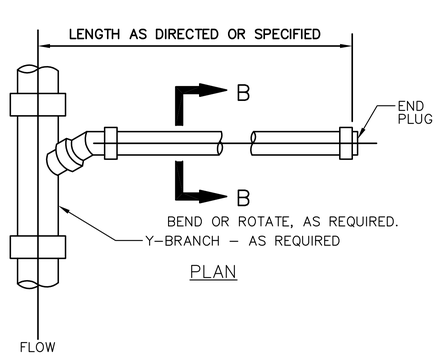
AS MANUFACTURED BY:
LE BARON FONDRY CO.
BROCKTON, MA
No. LT 101
MECHANICS IRON FOUNDRY CO.
BOSTON, MA
No. K 6004
C.M. WHITE IRON WORKS
NORTH READING, MA
No. R 258

NOTE:
FOR WATERTIGHT APPLICATIONS USE THE FOLLOWING CASTINGS:
LE BARON FOUNDRY CO.
WATERTIGHT M.H. FRAME & COVER
No. LBW268–2
OR
LE BARON FOUNDRY CO.
BOLTED & GASKETED FRAME & COVER
No. LBB268–2
OR APPROVED EQUAL

CAST IRON
MANHOLE FRAME AND COVER
MIN. WEIGHT=450# PER SET

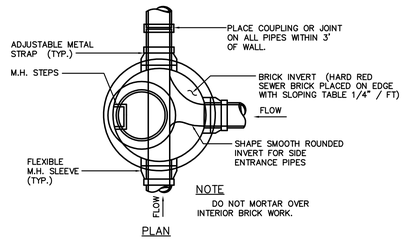


SECTION



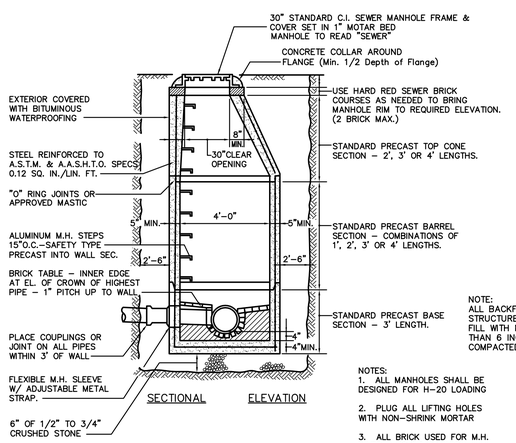
PLAN

TYPICAL BUILDING CONNECTION
NOT TO SCALE



NOTE
DO NOT MORTAR OVER INTERIOR BRICK WORK.

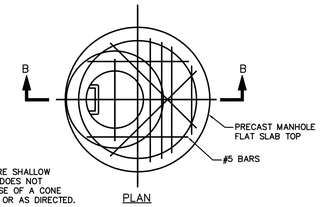
PLAN



NOTE:
ALL BACKFILL AROUND STRUCTURE SHALL BE CLEAN FILL WITH NO STONES LARGER THAN 6 INCH AND COMPACTED.

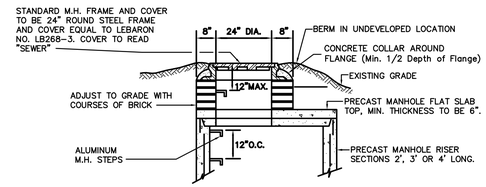
NOTES:
1. ALL MANHOLES SHALL BE DESIGNED FOR H–20 LOADING
2. PLUG ALL LIFTING HOLES WITH NON–SHRINK MORTAR
3. ALL BRICK USED FOR M.H. INVERTS TO BE A HARD BURNER SEWER BRICK

TYPICAL SEWER MANHOLE DETAIL
NOT TO SCALE



NOTE
FOR USE WHERE SHALLOW INSTALLATION DOES NOT PERMIT THE USE OF A CONE TYPE SECTION OR AS DIRECTED.

PLAN



SECTION B–B

FLAT TOP SECTION
NOT TO SCALE

DIG SAFE 1–888–344–7233

NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION.
DIGSAFE 1–888–344–7233

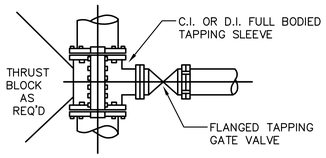
SITE DEVELOPMENT PLAN OF LAND "GEOFFREY PARK" A 40B Comprehensive Permit Project HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508–429–1100
F: 508–429–7160
www.GLMengineering.com

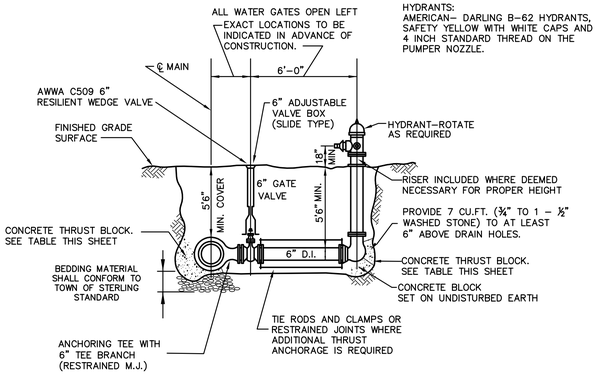
JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	15 of 18
PLAN #:	27,337

DETAILS



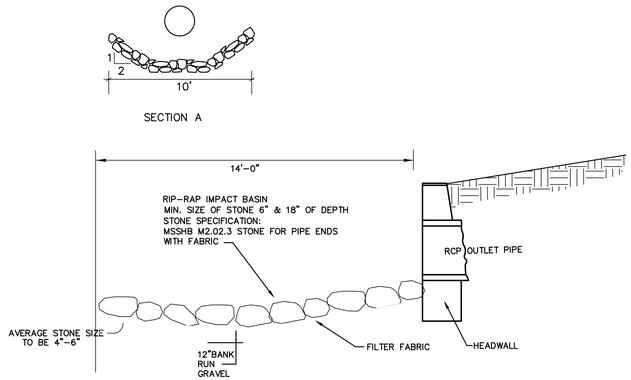
TAPPING SLEEVE AND VALVE DETAIL

NOT TO SCALE



TYPICAL HYDRANT ASSEMBLY DETAIL

NOT TO SCALE



RIP-RAP DETAIL HEADWALLS

NOT TO SCALE

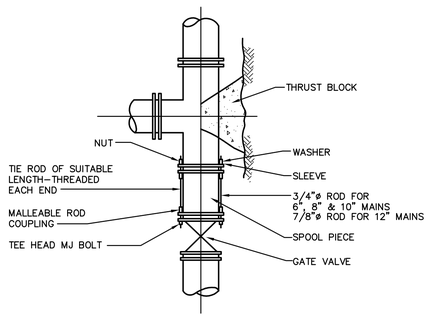
APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

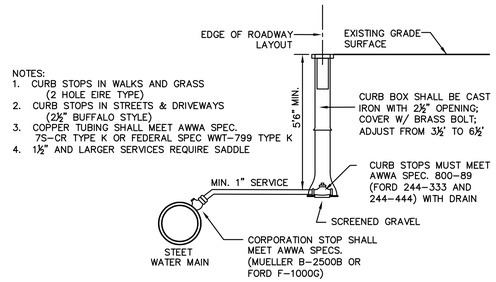
I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____



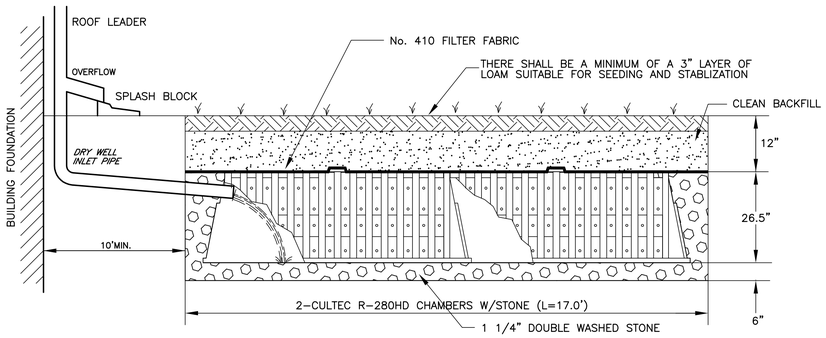
TYPICAL TIED MECHANICAL JOINT VALVE CONNECTION DETAILS

NOT TO SCALE



TYPICAL NEW WATER SERVICE CONNECTION DETAIL

NOT TO SCALE

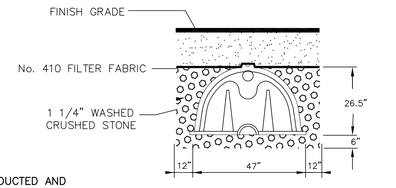


LEACHING CHAMBER STORAGE REQUIRED:
PROPOSED DWELLING IMPERVIOUS AREA = 1,700 sq.ft.
STORAGE CAPACITY REQUIRED:
1.0 inch rainfall x 1,700 s.f. = 141 cu. ft.
PROVIDED LEACHING CAPACITY:
2-CULTEC r-280HD CHAMBERS W/STONE: 163.6 cu.ft.

PROVIDE SYSTEMS AS SHOWN ON PLAN.
ALL DOWNSPOUTS TO BE DIRECTED TO CULTEC INFILTRATION SYSTEM.

•INSTALL LEACHING SYSTEMS ON LOTS 2, 3, 4, 5, 6, 9, 10 & 13 AS SHOWN ON THE SITE PLAN.

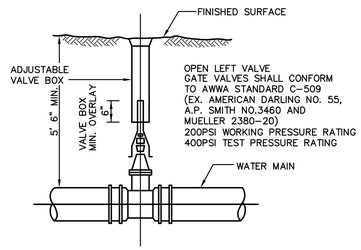
PRIOR TO INSTALLATION A SOIL TEST SHALL BE CONDUCTED AND WITNESSED BY THE BOARD OF HEALTH IN THE AREA OF RECHARGE SYSTEM TO CONFIRM GROUNDWATER ELEVATION.



2-CULTEC CONTRACTOR C-100HD UNITS PER HOUSE

RESIDENTIAL ROOF RUNOFF CULTEC DRY WELL CULTEC CONTACTOR RECHARGER R-280HD

N.T.S.



TYPICAL GATE VALVE

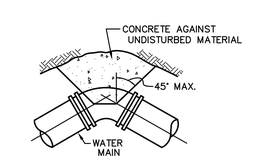
NOT TO SCALE

NOTE: CONCRETE FOR THRUST BLOCKS SHALL BE NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2 AND SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI (SO THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

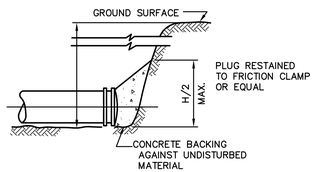
BEARING AREAS OF THRUST BLOCKS (BEARING AREA IN SQUARE FT.)				
PIPE SIZE INCHES	1/4 BEND	1/8 BEND	1/16 BEND OR LESS	PLUG TEES
6 AND 8	8	8		8
10 AND 12	22	13	8	16

TYPICAL THRUST BLOCK DETAIL

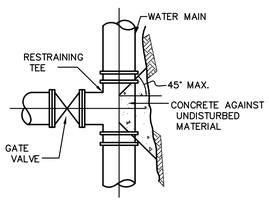
NOT TO SCALE



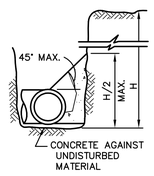
TYPICAL BEND



TYPICAL PLUG



TYPICAL TEE



TYPICAL SECTION

NOTES:
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF HOLLISTON CONSTRUCTION STANDARDS AND SPECIFICATIONS.
2. ALL WATER DETAILS MANUFACTURERS & CONSTRUCTION STANDARDS SHALL CONFORM TO THE TOWN OF HOLLISTON STANDARDS,

NOTES:
1. ALL WORK SHALL CONFORM WITH THE TOWN OF HOLLISTON CONSTRUCTION OF ROADWAYS STANDARDS AND SPECIFICATIONS.

DIG SAFE 1-888-344-7233

NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION. DIGSAFE 1-888-344-7233

DETAILS

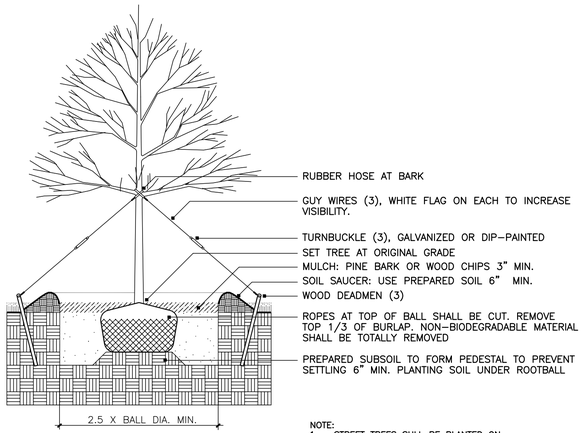
REVISIONS		
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND "GEOFFREY PARK" A 40B Comprehensive Permit Project HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

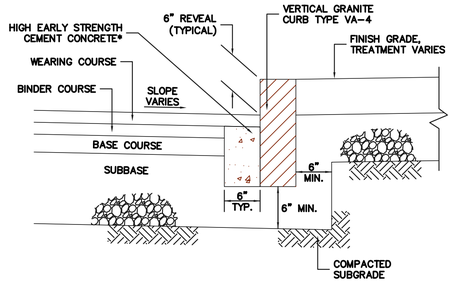
JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	as shown
SHEET:	16 of 18
PLAN #:	27,337



NOTE:
1. STREET TREES SHLL BE PLANTED ON BOTH SIDES OF THE STREET AT 50 FOOT INTERVALS.
2. TREES SHALL BE MIN. 8' HEIGHT.
3. TREE PLANTING SHALL CONFORM TO TOWN OF HOLLISTON RULES AND REGULATIONS SECTION 5.5.5.3.

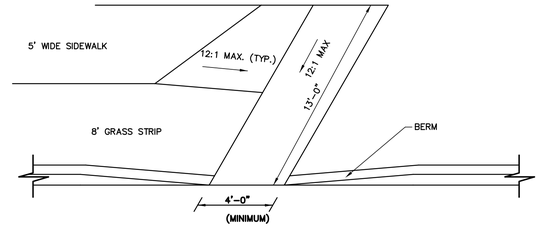
TREE PLANTING DETAIL

NOT TO SCALE



GRANITE CURB DETAIL

NOT TO SCALE



HANDICAP SIDEWALK RAMP

NOT TO SCALE

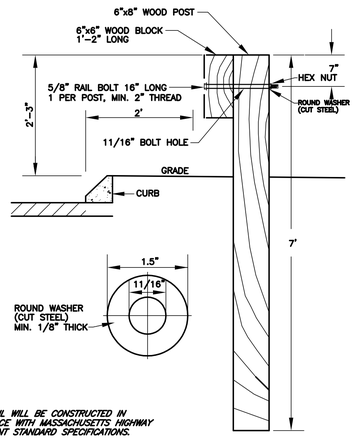
APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

DATE APPROVED: _____

DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

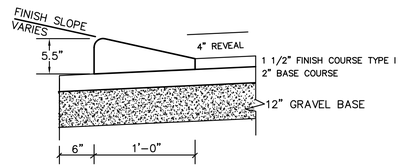
TOWN CLERK _____ DATE _____



NOTE:
GUARD RAIL WILL BE CONSTRUCTED IN ACCORDANCE WITH MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS.

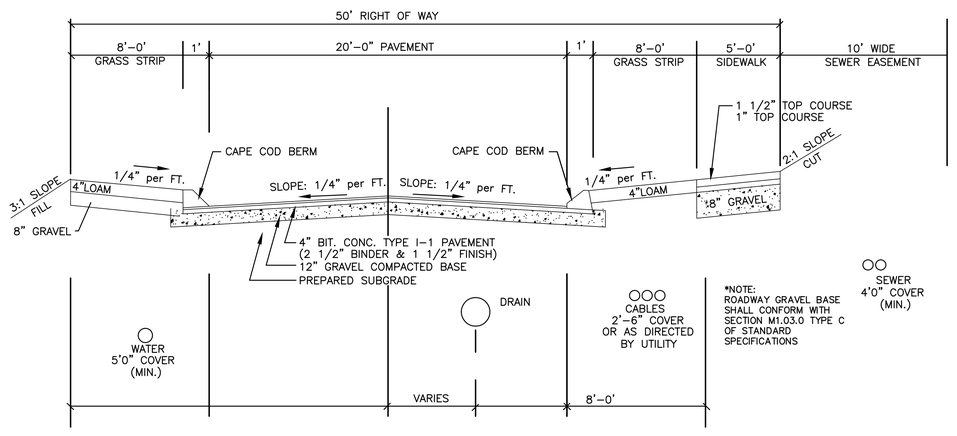
SINGLE FACE GUARD RAIL WITH WOOD POST

NOT TO SCALE



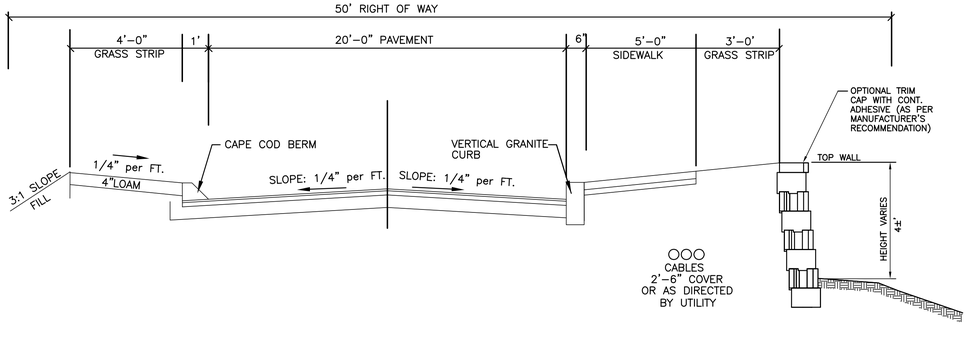
CAPE COD BERM DETAIL

NOT TO SCALE



TYPICAL RIGHT OF WAY CROSS SECTION

NOT TO SCALE



ALLAN BLOCK RETAINING WALL TO BE DESIGNED BY MANUFACTURERS OR OTHER. ALLAN BLOCK WALL OR APPROVED EQUAL

WETLAND FILLING CROSS SECTION

NOT TO SCALE

NOTES:
1. ALL WORK SHALL CONFORM WITH THE TOWN OF HOLLISTON CONSTRUCTION OF ROADWAYS STANDARDS AND SPECIFICATIONS.

DIG SAFE 1-888-344-7233

NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION.
DIGSAFE 1-888-344-7233

DETAILS

REVISIONS

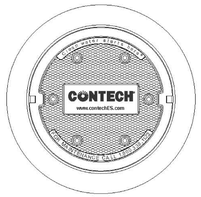
No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
"GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	17 of 18
PLAN #:	27,337



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

_____

_____

_____

_____

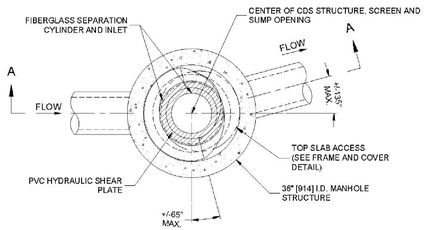
_____

DATE APPROVED: _____

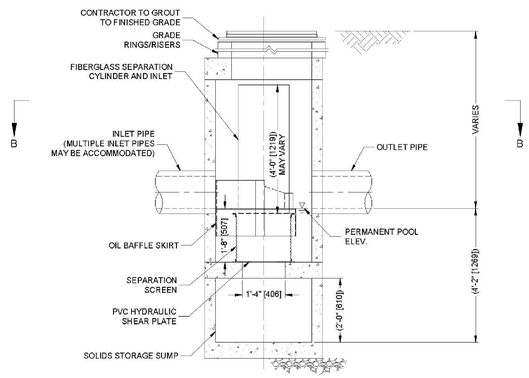
DATE ENDORSED: _____

I TOWN CLERK OF THE TOWN OF HOLLISTON RECEIVED & RECORDED FROM THE ZONING BOARD OF APPEALS, APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

_____ _____
TOWN CLERK DATE



PLAN VIEW B-B
N.T.S.

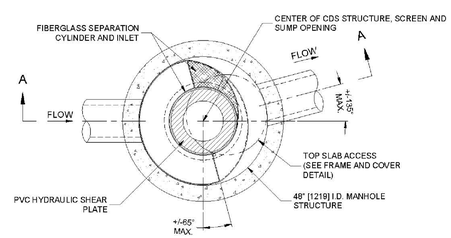


ELEVATION A-A
N.T.S.

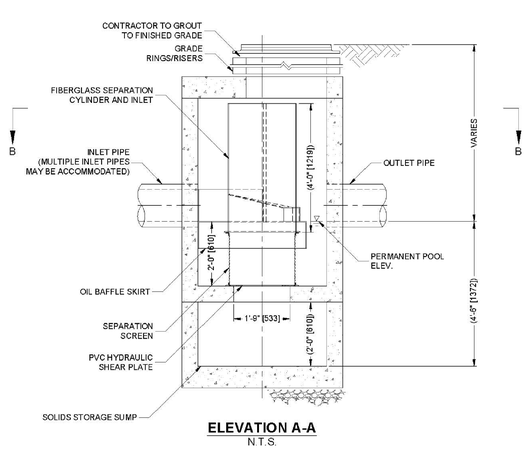
CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL

TREATMENT UNIT #4 (SEE PLAN)
N.T.S.



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C
ONLINE CDS
STANDARD DETAIL

TREATMENT UNIT #7 (SEE PLAN)
N.T.S.

NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION.
DIGSAFE 1-888-344-7233

DETAILS (TREATMENT UNITS)

REVISIONS

No.	DATE	DESCRIPTION
1	05/14/20	REVISED DRAINAGE
2	07/10/20	REVISED PER ZBA REVIEW COMMENTS
3	09/16/20	REVISED PER REVIEW COMMENTS

SITE DEVELOPMENT PLAN OF LAND
"GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS

PREPARED FOR:
INDIAN RIDGE REALTY TRUST
223 COURTLAND STREET
HOLLISTON, MA 01746

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40'
SHEET:	18 of 18
PLAN #:	27,337