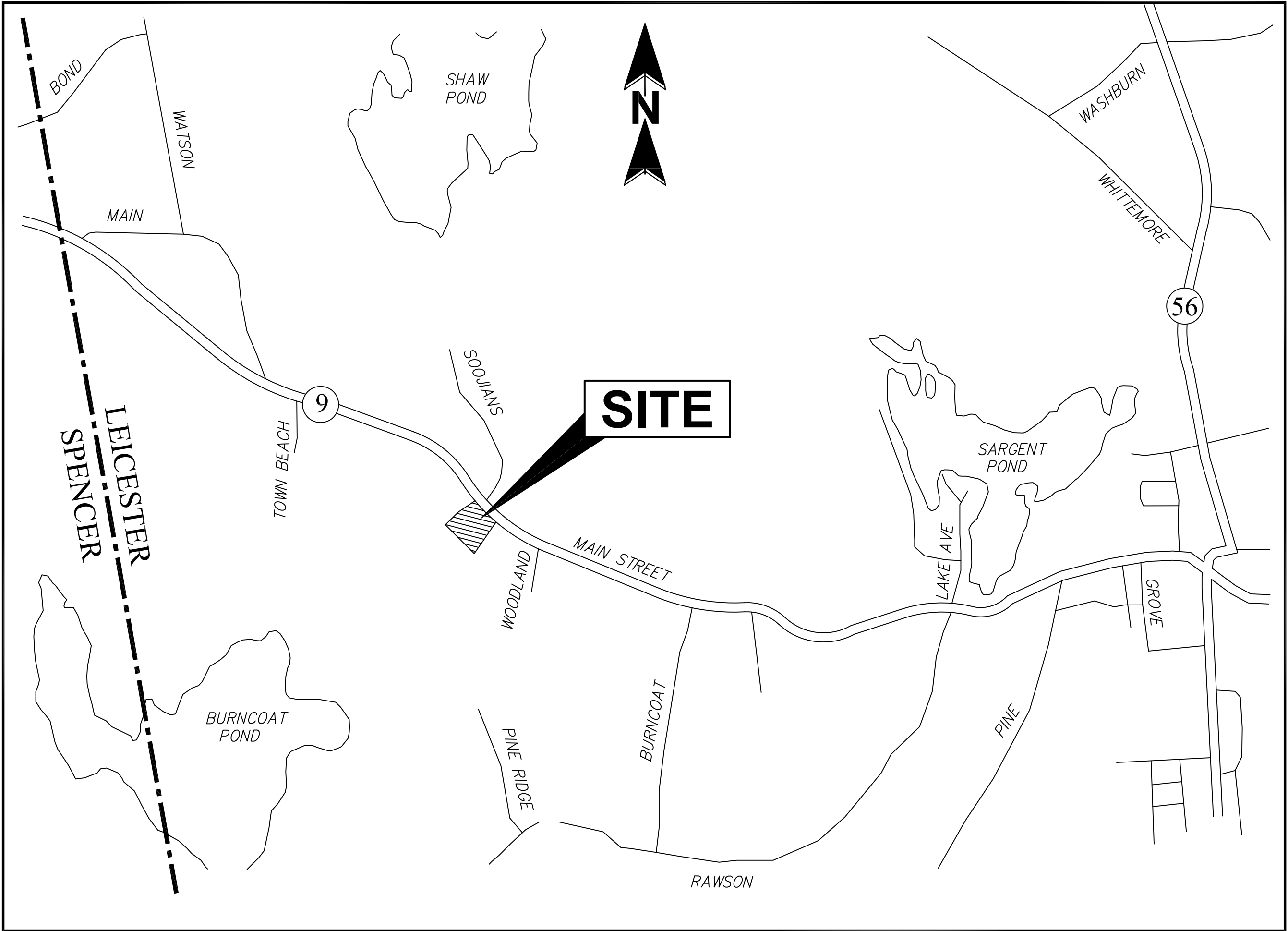


Site Development Plan
at
#1603 - #1605 Main Street
Leicester, Massachusetts

Plan Date: September 23, 2021

Revisions			
1	11/12/21	PER COMMENTS	BSW
2	11/19/21	PER COMMENTS	BSW
NO.	DATE	DESCRIPTION	BY



LOCUS MAP

Scale: 1 " = 1,000 ± Feet

Prepared By:

Architect
Bertin Engineering
66 Glen Avenue,
Glen Rock, NJ 07452



**ALLEN ENGINEERING
& ASSOCIATES, INC.**

Civil Engineers • Surveyors
Land Development Consultants

One Charlesview Road
Suite 2

Hopedale, Ma 01747
(508) 381-3212 • Phone
www.allen-ea.com

Traffic Consultant
Ron Müller & Associates
56 Teresa Road,
Hopkinton, MA

APPROVED BY THE LEICESTER PLANNING BOARD

DATE: _____

Owner
Leicester Main, LLC
One Charlesview Road, Suite 1
Hopedale, MA 01747

Applicant
Skaff Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

PLAN INDEX	
COVER SHEET	1
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LIGHTING ISOMETRIC ELEVATION	13



NOTES:
THE ENTIRE AREA SHOWN IS WITHIN THE HB-1 ZONING DISTRICT.
THE STREET ADDRESSES AND USES SHOWN TAKEN FROM THE TOWN GIS WEBSITE AND ON-LINE PROPERTY DATABASE.

MFR - MULTI-FAMILY RESIDENTIAL
SFR - SINGLE-FAMILY RESIDENTIAL
TFR - TWO FAMILY RESIDENTIAL

LOCUS REFERENCES
ASSESSORS PARCEL: 18-8.1
#1603 MAIN STREET
OWNER: LEICESTER MAIN, LLC
LAND COURT CERT. 16956
LAND COURT PLAN 40185-B, LOT 1
2.83 Acres

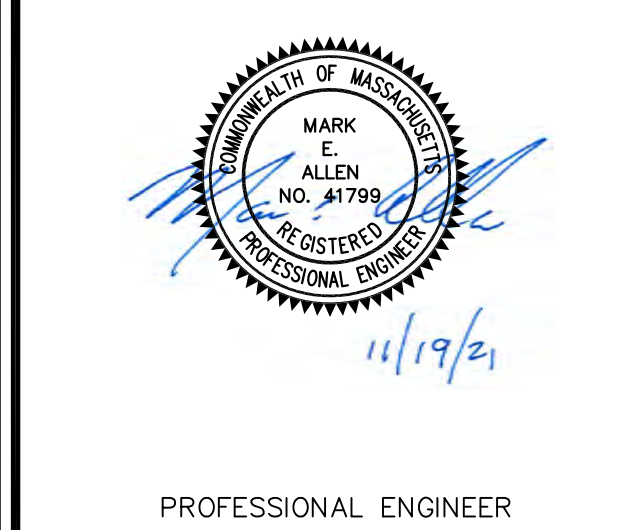
ASSESSORS PARCEL: 18A-14 & 15
0 & #1605 MAIN STREET
OWNER: LEICESTER MAIN, LLC
DEED BOOK 41309, PAGE 153
1.05 Acres

LOCUS LOTS ARE LOCATED WITHIN THE HIGHWAY BUSINESS-INDUSTRIAL 1 DISTRICT.

NOTES
1. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY ODOE SURVEY & MAPPING IN DECEMBER 2012, AND UPDATED BY ALLEN ENGINEERING & ASSOCIATES, INC. IN DECEMBER 2020. PROPERTY LINES AND STRUCTURES BEYOND THE IMMEDIATE VICITY OF LOCUS HAVE BEEN COMPILED FROM AVAILABLE GIS MAPS AND ARE APPROXIMATE ONLY.

3. LOCUS FALLS WITHIN A FLOOD ZONE X (AREA OF MINIMAL FLOOD HAZARD) ACCORDING TO FLOOD INSURANCE RATE MAP PANEL NUMBER 25027C0780E.

4. THIS SITE DOES NOT CONTAIN CERTIFIED VERNAL POOLS OR HABITATS OF RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE WEB SITE AS OF DECEMBER 2020.



PROFESSIONAL ENGINEER

PREPARED FOR:

Skaff Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:

LOCUS PLAN
For
#1603 - #1605 Main Street
In
Leicester, MA

PREPARED BY:

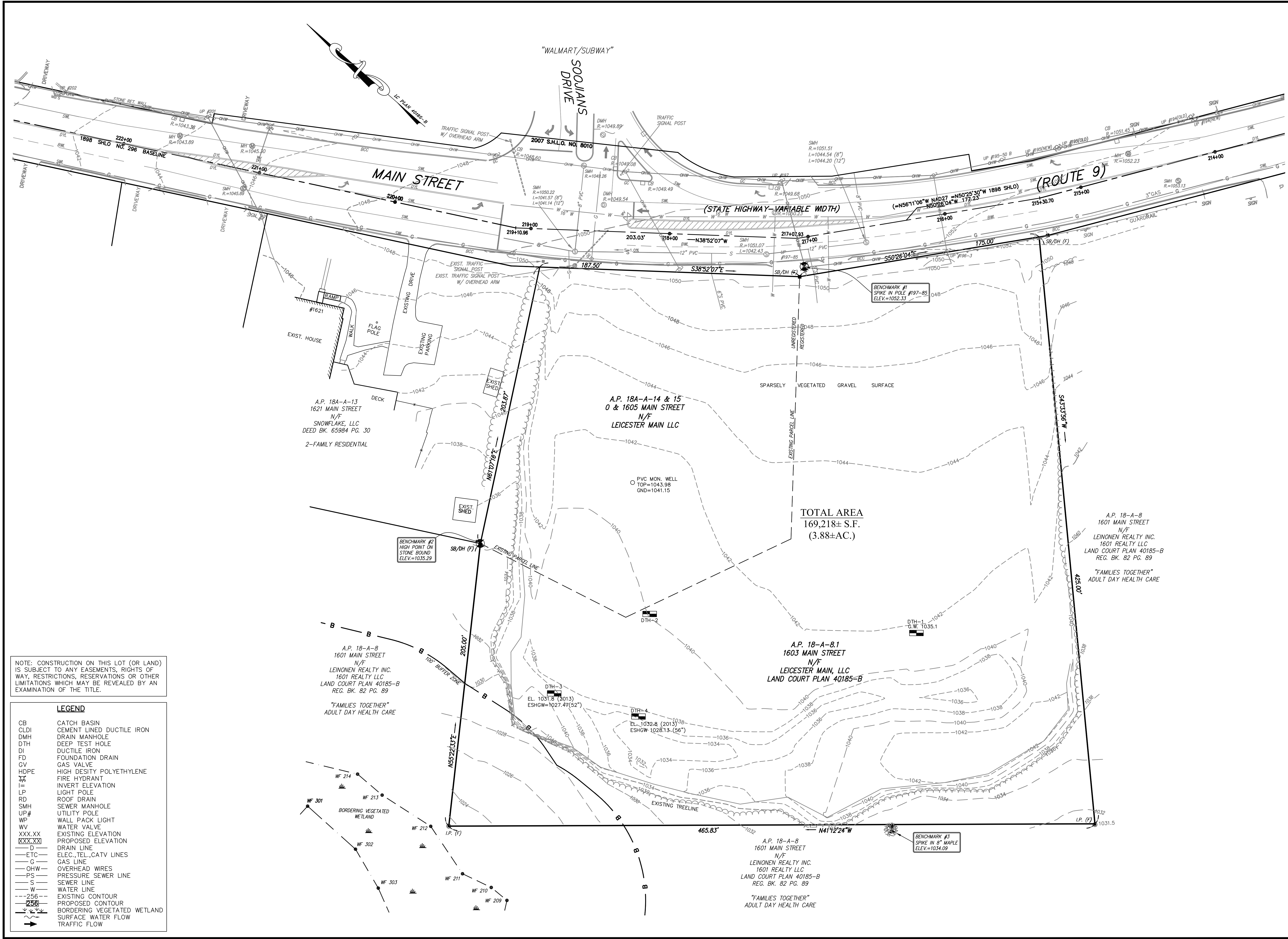
ALLEN ENGINEERING & ASSOCIATES, INC.
Civil Engineers • Surveyors
Land Development Consultants
One Charlesview Road
Suite 2
Hopedale, Ma 01747
(508) 381-3212 • Phone
www.allen-rea.com

SCALE: 1"=120 FEET

DATE: September 23, 2021

REVISIONS			
#	DATE	DESCRIPTION	INIT
1	11/12/21	PER COMMENTS	BSW
2	11/19/21	PER COMMENTS	BSW

JOB NO:	SHEET:
00047	2 of 13



NOTE: CONSTRUCTION ON THIS LOT (OR LAND) IS SUBJECT TO ANY EASEMENTS, RIGHTS OF WAY, RESTRICTIONS, RESERVATIONS OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

LEGEND	
CB	CATCH BASIN
CLDI	CEMENT LINED DUCTILE IRON
DMH	DRAIN MANHOLE
DTH	DEEP TEST HOLE
DI	DUCTILE IRON
FD	FOUNDATION DRAIN
GV	GAS VALVE
HDPE	HIGH DENSITY POLYETHYLENE
PS	FIRE HYDRANT
I=	INVERT ELEVATION
LP	LIGHT POLE
RD	ROOF DRAIN
SMH	SEWER MANHOLE
UP#	UTILITY POLE
WP	WALL PACK LIGHT
WV	WATER VALVE
XXX.XX	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION
-D-	DRAIN LINE
-ETC-	ELEC., TEL., CATV LINES
-G-	GAS LINE
-OHW-	OVERHEAD WIRES
-PS-	PRESSURE SEWER LINE
-S-	SEWER LINE
-W-	WATER LINE
---256---	EXISTING CONTOUR
256	PROPOSED CONTOUR
	BORDERING VEGETATED WETLAND
	SURFACE WATER FLOW
	TRAFFIC FLOW

LOCUS REFERENCES

ASSESSORS PARCEL: 18-A-8.1
#1603 MAIN STREET
OWNER: LEICESTER MAIN, LLC
LAND COURT CERT. 16956
REG. BK. 85, PG. 156
LAND COURT PLAN 40185-B, LOT 1

ASSESSORS PARCEL: 18A-A-14 & 15
0 & #1605 MAIN STREET
OWNER: LEICESTER MAIN, LLC
DEED BOOK 41309, PAGE 153

LOCUS LOTS ARE LOCATED WITHIN THE HIGHWAY BUSINESS-INDUSTRIAL 1 DISTRICT.

NOTES

1. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY ODONE SURVEY & MAPPING IN DECEMBER 2012, AND UPDATED BY ALLEN ENGINEERING & ASSOCIATES, INC. IN DECEMBER 2020.

2. ELEVATIONS REFER TO NAD 88 VERTICAL DATUM.

3. THE SITE FALLS WITHIN A FLOOD ZONE X (AREA OF MINIMAL FLOOD HAZARD) ACCORDING TO FLOOD INSURANCE RATE MAP PANEL NUMBER 25027C0780E.

4. THIS SITE DOES NOT CONTAIN CERTIFIED VERNAL POOLS OR HABITATS OF RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE WEB SITE AS OF DECEMBER 2020.

5. EXISTING UTILITY LINES SHOWN ON THESE DRAWINGS ARE BASED ON AVAILABLE RECORD INFORMATION OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. EXISTING UTILITY LINES OTHER THAN THOSE SHOWN MAY BE ON THE SITE. CALL "DIG SAFE" AT 811.

6. THERE SHALL BE NO USE OF FILL CONTAINING HAZARDOUS MATERIALS.

PROFESSIONAL ENGINEER

PREPARED FOR:

Scaff Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:

EXISTING CONDITIONS
PLAN

For

#1603 - #1605 Main Street
In
Leicester, MA

PREPARED BY:

**ALLEN ENGINEERING
& ASSOCIATES, INC.**
Civil Engineers • Surveyors
Land Development Consultants
One Charlesview Road
Suite 2
Hopedate, Ma 01747
(508) 381-3212 • Phone
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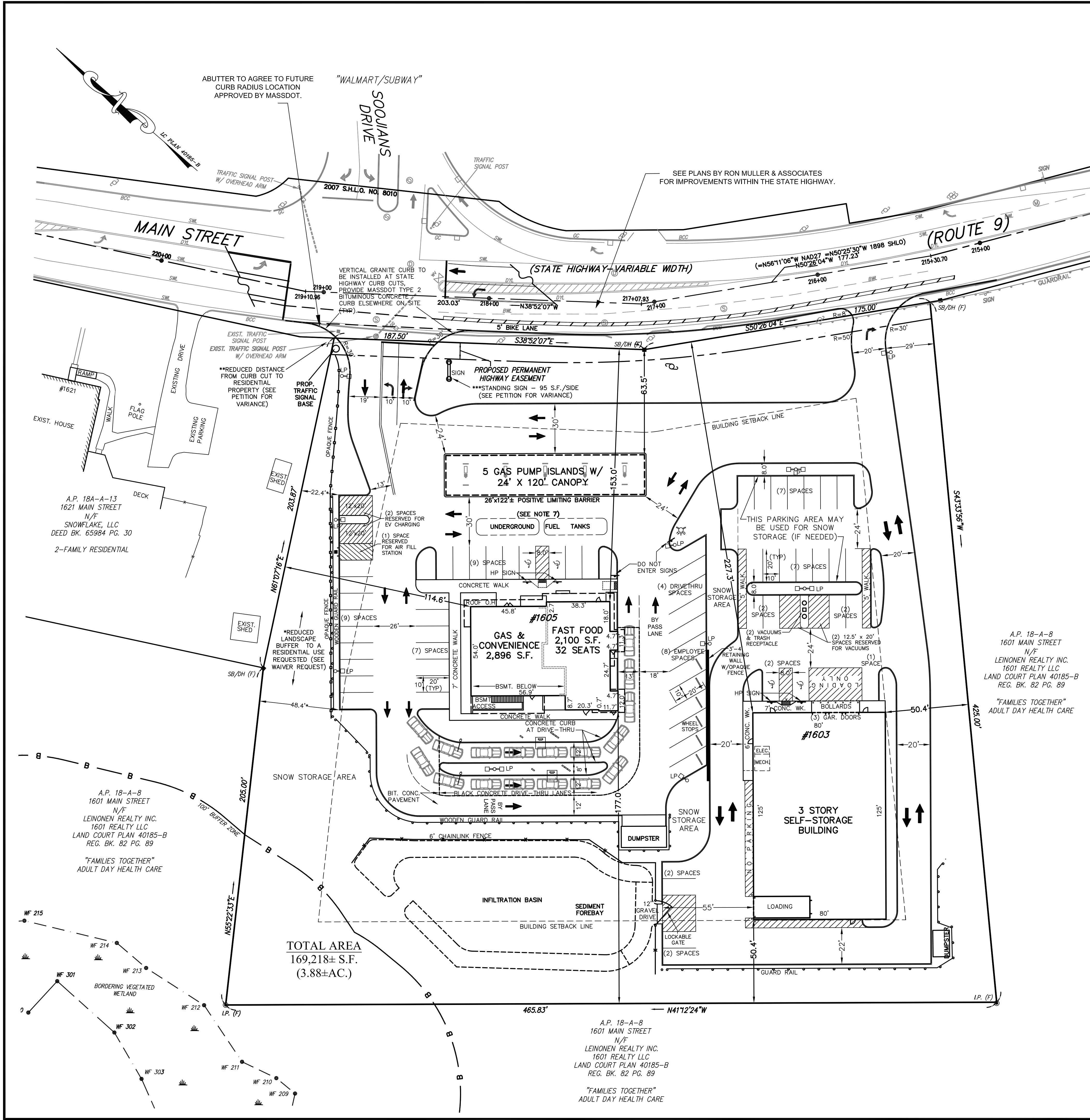
SCALE: 1"=30 FEET

DATE: September 23, 2021

REVISIONS			
#	DATE	DESCRIPTION	INIT
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2	11/19/21	PER COMMENTS	BSW

JOB NO: 00047

SHEET: 3 of 13



LEGEND

CB CATCH BASIN
CLDI CEMENT LINED DUCTILE IRON
DMH DRAIN MANHOLE
DTH DEEP TEST HOLE
DI DUCTILE IRON
FD FOUNDATION DRAIN
GV GAS VALVE
HDPE HIGH DENSITY POLYETHYLENE
FH FIRE HYDRANT
I= INVERT ELEVATION
LP LIGHT POLE
RD ROOF DRAIN
SMH SEWER MANHOLE
UP# UTILITY POLE
WP WALL PACK LIGHT
WV WATER VALVE
XXX.XX EXISTING ELEVATION
XXX.XX PROPOSED ELEVATION
D DRAIN LINE
ETC ELEC., TEL., CATV LINES
G GAS LINE
OHW OVERHEAD WIRES
PS PRESSURE SEWER LINE
S SEWER LINE
W WATER LINE
-256- EXISTING CONTOUR
256 PROPOSED CONTOUR
BORDERING VEGETATED WETLAND
SURFACE WATER FLOW
TRAFFIC FLOW

NOTE: CONSTRUCTION ON THIS LOT (OR LAND) IS SUBJECT TO ANY EASEMENTS, RIGHTS OF WAY, RESTRICTIONS, RESERVATIONS OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

PLANNING BOARD WAIVER REQUEST:
*REDUCED LANDSCAPE BUFFER TO A RESIDENTIAL USE REQUESTED, BYLAW SECT. 5.5.02.2B. (50 FEET REQUIRED).

PROPOSED - 48.4 FEET, AND REQUEST TO ALLOW PARKING AND DRIVEWAY WITHIN THE BUFFER ADJACENT TO #1621 MAIN STREET. AN OPAQUE FENCE IS PROPOSED WITHIN THE BUFFER TO #1621 TO MITIGATE SCREENING LOST BY REDUCTION OF THE BUFFER.

ZONING BOARD OF APPEALS PETITION FOR VARIANCE:
**REDUCED DISTANCE FROM CURB CUT TO RESIDENTIAL PROPERTY, BYLAW SECT. 5.5.02.1.C.1. (24 FEET REQUIRED).

PROPOSED - 1 FOOT AT #1621 MAIN STREET PROPERTY. THE REDUCTION IS REQUESTED TO ALLOW THE NEW SITE ENTRANCE TO ALIGN WITH THE EXISTING SOOJIAN DRIVE INTERSECTION ACROSS MAIN STREET (ROUTE 9). GRANTING THIS VARIANCE WILL ALLOW A SAFER SIGNALIZED INTERSECTION ON THE STATE HIGHWAY. THIS REQUEST IS MADE NECESSARY DUE TO THE SPECIFIC SHAPE AND TOPOGRAPHY OF THE LOCUS LOT, AND DOES NOT GENERALLY AFFECT THE HB-1 DISTRICT IN WHICH IT IS LOCATED. (VARIANCE APPROVED OCTOBER 27, 2021)

ZONING BOARD OF APPEALS PETITION FOR VARIANCE:
***STANDING SIGN - SIZE, BYLAW SECT. 3.2.07-2 (NOT TO EXCEED 30 SQUARE FEET).

PROPOSED - STANDING SIGN WITH AN AREA OF 95 SQUARE FEET ON EACH SIDE. THE VARIANCE IS REQUESTED IN ORDER TO ALLOW THE DISPLAY OF PRICES FOR SEVERAL FUEL GRADES AT SUCH A SIZE AS CAN BE READILY SEEN BY DRIVERS, AND ADDITIONALLY PROVIDE SIGNAGE FOR THE THREE OTHER BUSINESSES ON THE PROJECT SITE. THIS PETITION OWES TO THE CIRCUMSTANCES RELATED SPECIFICALLY TO THE STRUCTURES INVOLVED, WHICH INCLUDE FOUR SEPARATE AND DISTINCT USES PROPOSED ON THIS PARTICULAR SITE, AND NOT AFFECTING GENERALLY THE HB-1 DISTRICT. (VARIANCE APPROVED NOVEMBER 17, 2021)

ZONING TABLE		#1603	#1605
ZONING DISTRICT: HIGHWAY BUSINESS-INDUSTRIAL 1	REQUIRED	PROPOSED	PROPOSED
MIN. LOT SIZE	60,000 S.F.	169,218 S.F.	
MINIMUM LOT FRONTAGE	200 FEET	362.50 FEET	
SETBACKS:			
FRONT	50 FEET	227.3 FEET	153.0 FEET
SIDE	50 FEET	50.4 FEET	114.6 FEET
REAR	50 FEET	50.4 FEET	177.0 FEET
BUILDING COVERAGE:			
MAXIMUM BUILDING HEIGHT	40% MAX.	9%	
	55 FEET	36.2 FEET	18.7 FEET
	5 1/2 STY.	3 STY.	1 STY.
PARKING REQUIREMENTS:			
STALL DIMENSIONS	10' x 20'	10' x 20'	10' x 20'
aisle width			
90° PARKING	24'	24'	26'
60° PARKING	16'		18'
NUMBER OF SPACES REQUIRED BY USE:			
RENTAL ENCLOSED SELF-STORAGE (3+1 PER 100 UNITS)	3+3	6	25
RESTAURANT (1 PER EMP. + 1 PER 3 SEATS)	8+32/3=19	33	
RETAIL (1 PER 200 S.F. GROSS FLOOR SPACE)	2896/200=14		37
ADA PARKING REQUIREMENT (26-50 SPACES)		2 SPACES	2 SPACES
2 SPACES REQUIRED INCLUDING 1 VAN ACCESSIBLE			
LANDSCAPING REQUIREMENTS:			
5% INTERIOR PARKING LANDSCAPE REQUIRED			
68 PARKING SPACES (10W x 20L) = 13,600 S.F.	680 S.F.		4,215 S.F.
5% (0.05) x 13,600 S.F. = 680 S.F.			
(1) TREE PER 35 SPACES (68/35) = 1.9	2 TREES		17 TREES

- LOCUS REFERENCES**
ASSESSORS PARCEL: 18-8.1
#1603 MAIN STREET
OWNER: LEICESTER MAIN, LLC
LAND COURT CERT. 16956
LAND COURT PLAN 40185-B, LOT 1
2.83 Acres
- ASSESSORS PARCEL: 18A-14 & 15
0 & #1605 MAIN STREET
OWNER: LEICESTER MAIN, LLC
DEED BOOK 41309, PAGE 153
1.05 Acres
- LOCUS LOTS ARE LOCATED WITHIN THE HIGHWAY BUSINESS-INDUSTRIAL 1 DISTRICT.
- NOTES**
1. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY ODORE SURVEY & MAPPING IN DECEMBER 2012, AND UPDATED BY ALLEN ENGINEERING & ASSOCIATES, INC. IN DECEMBER 2020.
2. ELEVATIONS REFER TO NAD 88 VERTICAL DATUM.
3. THE SITE FALLS WITHIN A FLOOD ZONE X (AREA OF MINIMAL FLOOD HAZARD) ACCORDING TO FLOOD INSURANCE RATE MAP PANEL NUMBER 25027C0780E.
4. THIS SITE DOES NOT CONTAIN CERTIFIED VERNAL POOLS OR HABITATS OF RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE WEB SITE AS OF DECEMBER 2020.
5. EXISTING UTILITY LINES SHOWN ON THESE DRAWINGS ARE BASED ON AVAILABLE RECORD INFORMATION OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. EXISTING UTILITY LINES OTHER THAN THOSE SHOWN MAY BE ON THE SITE. CALL "DIG SAFE" AT 811.
6. THERE SHALL BE NO USE OF FILL CONTAINING HAZARDOUS MATERIALS.
7. APPLICANT SHALL PROVIDE CONSTRUCTION DRAWINGS FOR UNDERGROUND STORAGE TANKS WITH APPLICATION FOR BUILDING PERMIT. DEPTH OF LEDGE/REFUSAL TO BE DETERMINED PRIOR TO DESIGN.

PROFESSIONAL ENGINEER

PREPARED FOR:

Skaff Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:

SITE LAYOUT PLAN
For
#1603 - #1605 Main Street
in
Leicester, MA

PREPARED BY:

ALLEN ENGINEERING & ASSOCIATES, INC.
Civil Engineers • Surveyors
Land Development Consultants
One Charlesview Road
Suite 2
Hopedale, Ma 01747
(508) 381-3212 • Phone
www.allenrea.com

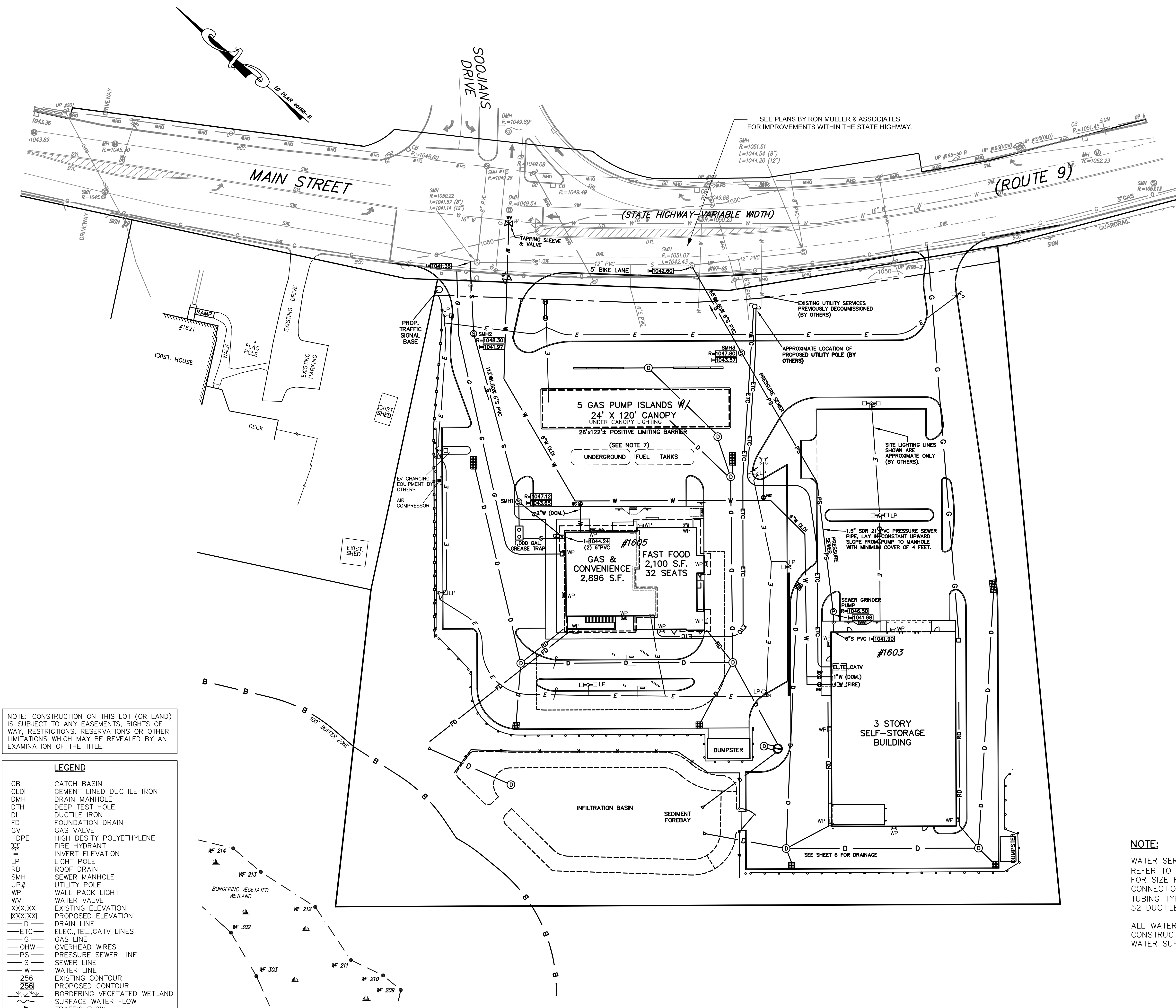
SCALE: 1"=30 FEET

DATE: September 23, 2021

REVISIONS

#	DATE	DESCRIPTION	INIT
1	11/12/21	PER COMMENTS	BSW
2	11/19/21	PER COMMENTS	BSW

JOB NO: 00047 SHEET: 4 of 13



LOCUS REFERENCES
ASSESSORS PARCEL: 18-8.1
#1603 MAIN STREET
OWNER: LEICESTER MAIN, LLC
LAND COURT CERT. 16956
LAND COURT PLAN 40185-B, LOT 1
2.83 Acres

ASSESSORS PARCEL: 18A-14 & 15
0 & #1605 MAIN STREET
OWNER: LEICESTER MAIN, LLC
DEED BOOK 41309, PAGE 153
1.05 Acres

LOCUS LOTS ARE LOCATED WITHIN THE HIGHWAY BUSINESS-INDUSTRIAL 1 DISTRICT.

NOTES
1. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY ODRONE SURVEY & MAPPING IN DECEMBER 2012, AND UPDATED BY ALLEN ENGINEERING & ASSOCIATES, INC. IN DECEMBER 2020.

2. ELEVATIONS REFER TO NAD 88 VERTICAL DATUM.

3. THE SITE FALLS WITHIN A FLOOD ZONE X (AREA OF MINIMAL FLOOD HAZARD) ACCORDING TO FLOOD INSURANCE RATE MAP PANEL NUMBER 25027C0780E.

4. THIS SITE DOES NOT CONTAIN CERTIFIED VERNAL POOLS OR HABITATS OF RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE WEB SITE AS OF DECEMBER 2020.

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6. THERE SHALL BE NO USE OF FILL CONTAINING HAZARDOUS MATERIALS.

7. APPLICANT SHALL PROVIDE CONSTRUCTION DRAWINGS FOR UNDERGROUND STORAGE TANKS WITH APPLICATION FOR BUILDING PERMIT. DEPTH OF LEDGE/REFUSAL TO BE DETERMINED PRIOR TO DESIGN.



PROFESSIONAL ENGINEER

PREPARED FOR:
Skaff Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:
SITE UTILITIES &
LIGHTING PLAN
For
#1603 - #1605 Main Street
In
Leicester, MA

PREPARED BY:

ALLEN ENGINEERING & ASSOCIATES, INC.
Civil Engineers • Surveyors
Land Development Consultants

One Charlesview Road
Suite 2
Hopedale, Ma 01747
(508) 381-3212 • Phone
www.allenrea.com

SCALE: 1"=30 FEET
0 30 60 90

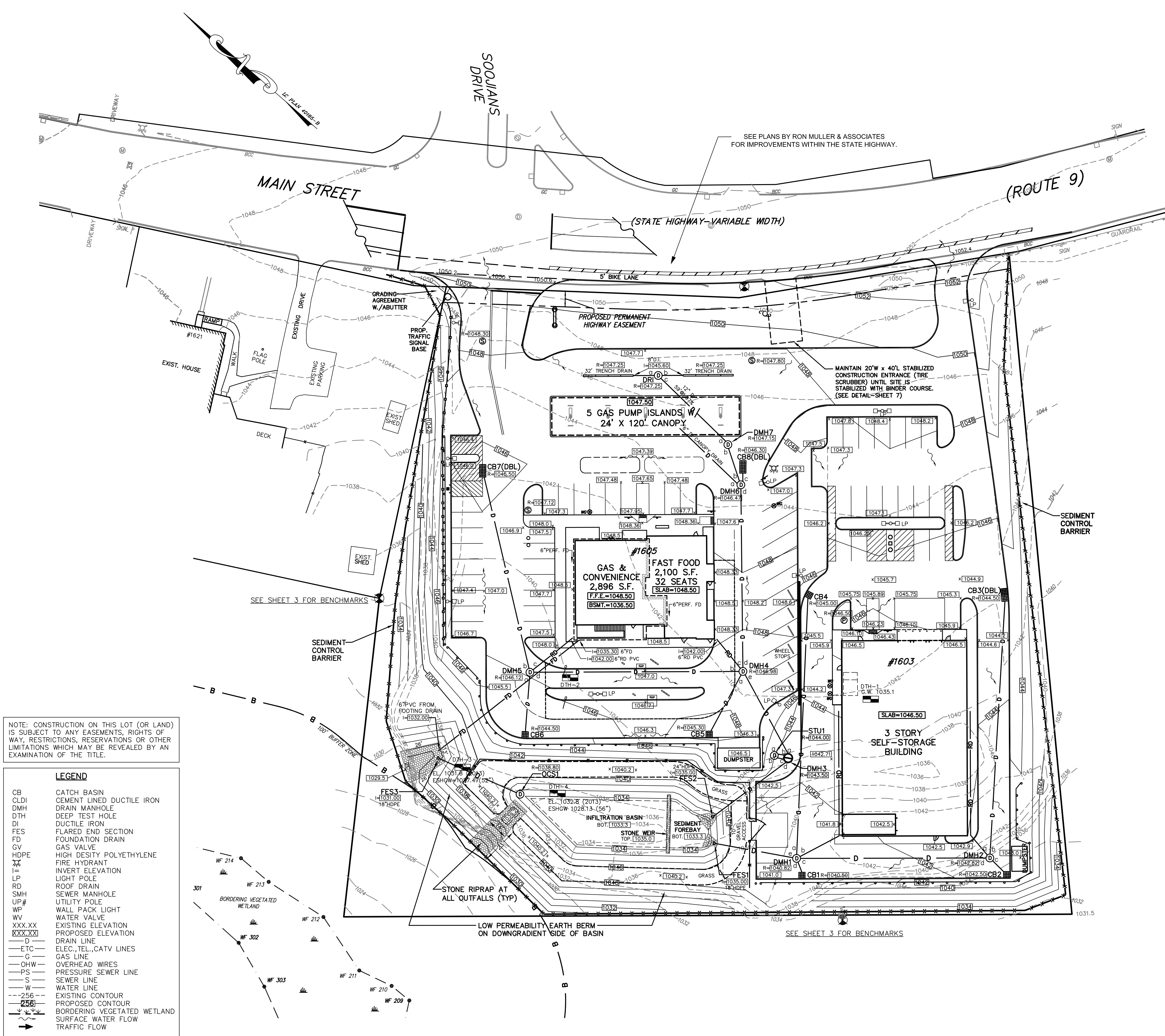
DATE: September 23, 2021

REVISIONS			
#	DATE	DESCRIPTION	INIT
1	11/12/21	PER COMMENTS	BSW
2	11/19/21	PER COMMENTS	BSW

JOB NO: 00047 SHEET: 5 of 13

NOTE:
WATER SERVICE SIZES ARE SUBJECT TO CHANGE - REFER TO BUILDING MECHANICAL/PLUMBING PLANS FOR SIZE REQUIREMENTS. WATER SERVICE CONNECTIONS UP TO 2 INCHES SHALL BE COPPER TUBING TYPE "K". LARGER SERVICES SHALL BE CLASS 52 DUCTILE IRON DOUBLE CEMENT LINED.

ALL WATER AND SEWER CONNECTIONS SHALL BE CONSTRUCTED PER REGULATIONS OF THE LEICESTER WATER SUPPLY DISTRICT.



NOTE: CONSTRUCTION ON THIS LOT (OR LAND) IS SUBJECT TO ANY EASEMENTS, RIGHTS OF WAY, RESTRICTIONS, RESERVATIONS OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

LEGEND	
CB	CATCH BASIN
CLDI	CEMENT LINED DUCTILE IRON
DMH	DRAIN MANHOLE
DT	DEEP TEST HOLE
DI	DUCTILE IRON
FES	FLARED END SECTION
FD	FOUNDATION DRAIN
GV	GAS VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HP	FIRE HYDRANT
I=	INVERT ELEVATION
LP	ROOF DRAIN
RD	SEWER MANHOLE
SMH	UTILITY POLE
UP#	WALL PACK LIGHT
WP	WATER VALVE
WV	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION
---D---	DRAIN LINE
---E---	ELEC. TEL. CATV LINES
---G---	GAS LINE
---OHW---	OVERHEAD WIRES
---PS---	PRESSURE SEWER LINE
---S---	SEWER LINE
---W---	WATER LINE
---256---	EXISTING CONTOUR
---258---	PROPOSED CONTOUR
WETLAND	BORDERING VEGETATED WETLAND
WATER	SURFACE WATER FLOW
ARROW	TRAFFIC FLOW

DRAINAGE SCHEDULE

- CB1
R=1040.50
I=1036.50 12"HDPE
- CB2
R=1042.50
I=1037.95 12"HDPE
- CB3 (DOUBLE)
R=1044.50
I=1040.00 12"HDPE
- CB4
R=1045.00
I=1040.00 12"HDPE
- CB5
R=1045.30
I=1040.30 12"HDPE
- CB6
R=1044.50
I=1040.75 12"HDPE
- CB7 (DOUBLE GRATE)
R=1045.50
I=1041.50 12"HDPE
- CB8 (DOUBLE GRATE)
R=1046.30
I=1040.78 18"HDPE
- DMH1
R=1040.82
I(a)=1036.38 12"HDPE
I(b)=1036.32 6"PVC ROOF DRAIN
I(c)=1036.02 15"HDPE
I(d)=1036.38 12"HDPE
I(e)=1035.77 18"HDPE
- DMH2
R=1042.82
I(a)=1038.32 6"PVC ROOF DRAIN
I(b)=1037.77 12"HDPE
I(c)=1037.77 12"HDPE
I(d)=1037.52 15"HDPE
- DMH3 (5'I.D.)
R=1043.5
I(a)=1036.37 24"HDPE
I(b)=1036.37 12"HDPE
I(c)=1036.20 12"HDPE
I(d)=1035.86 24"HDPE
TOP DIVERSION WEIR=1036.75
(SEE SHEET 10)
- DMH4
R=1046.98
I(a)=1039.67 12"HDPE
I(b)=1038.44 18"HDPE
I(c)=1041.50 6"PVC RD
I(d)=1038.84 18"HDPE
I(e)=1037.35 24"HDPE
- DMH5
R=1046.12
I(a)=1040.39 12"HDPE
I(b)=1040.22 12"HDPE
I(c)=1041.40 6"PVC RD
I(d)=1039.89 18"HDPE
- DMH6
R=1046.47
I(a)=1042.30 6"DI
I(b)=1042.04 12"HDPE
I(c)=1040.68 18"HDPE
I(d)=1040.58 18"HDPE
- DMH7 (4' SUMP & OUTLET TRAP)
R=1047.15
I(a)=1042.59 12"DI
I(b)=1042.49 12"HDPE
- DRI (DROP INLET)
R=1047.25
I(a)=1045.18 8"DI
I(b)=1045.18 8"DI
I(c)=1043.75 12"DI
- OCS1 (OUTLET CONTROL STRUCTURE)
R=1038.88
I=1033.50 18"HDPE
(SEE SHEET 9 FOR INLET ELEVATIONS)
- STU1 (STORMWATER TREATMENT UNIT)
R=1044.0
I(a)=1036.30 12"HDPE
I(b)=1036.30 12"HDPE
(SEE SHEET 10)

NOTE:
PROPOSED GRADING SHOWN
REQUIRES 17,400± CUBIC YARDS
OF FILL.

LOCUS REFERENCES
ASSESSORS PARCEL: 18-8.1
#1603 MAIN STREET
OWNER: LEICESTER MAIN, LLC
LAND COURT CERT. 16956
LAND COURT PLAN 40185-B, LOT 1
2.83 Acres

ASSESSORS PARCEL: 18A-14 & 15
0 & #1605 MAIN STREET
OWNER: LEICESTER MAIN, LLC
DEED BOOK 41309, PAGE 153
1.05 Acres

LOCUS LOTS ARE LOCATED WITHIN THE
HIGHWAY BUSINESS-INDUSTRIAL 1
DISTRICT.

NOTES
1. THIS PLAN IS BASED ON A FIELD
SURVEY PERFORMED BY ODONE SURVEY
& MAPPING IN DECEMBER 2012, AND
UPDATED BY ALLEN ENGINEERING &
ASSOCIATES, INC. IN DECEMBER 2020.

2. ELEVATIONS REFER TO NAD 88
VERTICAL DATUM.

3. THE SITE FALLS WITHIN A FLOOD
ZONE X (AREA OF MINIMAL FLOOD
HAZARD) ACCORDING TO FLOOD
INSURANCE RATE MAP PANEL NUMBER
25027C0780E.

4. THIS SITE DOES NOT CONTAIN
CERTIFIED VERNAL POOLS OR HABITATS
OF RARE SPECIES ACCORDING TO THE
MASSACHUSETTS NATURAL HERITAGE
WEB SITE AS OF DECEMBER 2020.

5. EXISTING UTILITY LINES SHOWN ON
THESE DRAWINGS ARE BASED ON
AVAILABLE RECORD INFORMATION OF
UTILITY COMPANIES AND PUBLIC
AGENCIES AND ARE APPROXIMATE ONLY.
EXISTING UTILITY LINES OTHER THAN
THOSE SHOWN MAY BE ON THE SITE.
CALL "DIG SAFE" AT 811.

6. THERE SHALL BE NO USE OF FILL
CONTAINING HAZARDOUS MATERIALS.

7. APPLICANT SHALL PROVIDE
CONSTRUCTION DRAWINGS FOR
UNDERGROUND STORAGE TANKS WITH
APPLICATION FOR BUILDING PERMIT.
DEPTH OF LEDGE/REFUSAL TO BE
DETERMINED PRIOR TO DESIGN.

PROFESSIONAL ENGINEER

PREPARED FOR:
Skaff Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:
**GRADING & DRAINAGE
PLAN**
For
#1603 - #1605 Main Street
In
Leicester, MA

PREPARED BY:

**ALLEN ENGINEERING
& ASSOCIATES, INC.**
Civil Engineers - Surveyors
Land Development Consultants
One Charlesview Road
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Hopkinton, MA 01747
(508) 381-3212 • Phone
www.allenrea.com

SCALE: 1"=30 FEET
0 30 60 90

DATE: September 23, 2021

REVISIONS			
#	DATE	DESCRIPTION	INIT
1	11/12/21	PER COMMENTS	BSW
2	11/19/21	PER COMMENTS	BSW

JOB NO: 00047 SHEET: 6 of 13



SEDIMENTATION CONTROL BARRIER
STRAW BALES & SILTATION FENCE
NOT TO SCALE



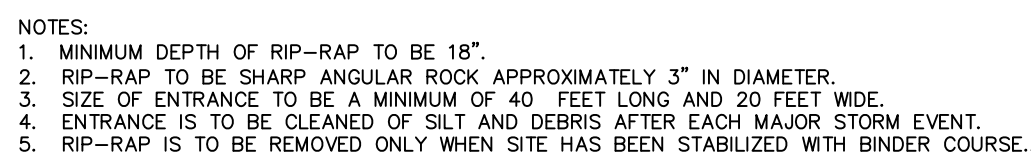
TREE SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	NO.
LS	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2 – 2 1/2" CAL.	B&B	3
TC	TSUGA CANADENSIS	CANADIAN HEMLOCK	6' – 8'	B&B	6
TCG	TILIA CORDATA GREENSPIRE	GREENSPIRE LITTLE LEAF LINDEN	2 – 2 1/2" CAL.	B&B	4
ZSG	ZELCOVA SERRATA GREEN VASE	GREEN VASE ZELCOVA	2 – 2 1/2" CAL.	B&B	5

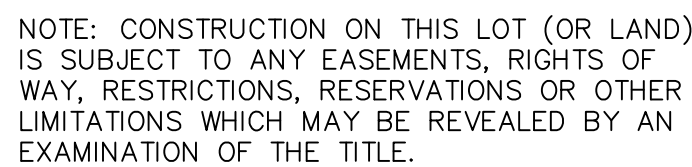
SHRUB SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE*	NO.
AZ	AZALEA DELAWARE VALLEY WHITE	DELAWARE VALLEY WHITE AZALEA	#5	6
IL	ILEX OPACA	AMERICAN HOLLY	#5	5
TX	TAXUS CUSPIDATA NANA AURESCENS	DWARF GOLDEN JAPANESE YEW	#6	7
VIB	VIBURNUM CARLESII	MAYFLOWER VIBURNUM	#5	9

*2.5' HIGH MIN.



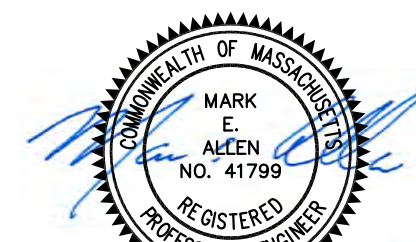
STABILIZED CONSTRUCTION ENTRANCE
(NOT TO SCALE)



(STATE HIGHWAY-VARIABLE WIDTH)

SEE PLANS BY RON MULLER & ASSOCIATES
FOR IMPROVEMENTS WITHIN THE STATE HIGHWAY.

- MAINTAIN 20'W x 40'L STABILIZED CONSTRUCTION ENTRANCE (TIRE SCRUBBER) UNTIL SITE IS STABILIZED WITH BINDER COURSE. (SEE DETAIL-SHEET 7)

-SEDIMENT
CONTROL
BARRIER

PROFESSIONAL ENGINEER

PREPARED FOR:

Skaft Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:
LANDSCAPE & EROSION
CONTROL PLAN

For
#1603 - #1605 Main Street
In
Leicester, MA

PREPARED BY:



**ALLEN ENGINEERING
& ASSOCIATES, INC.**

Civil Engineers • Surveyors
Land Development Consultants

One Charlesview Road
Suite 2
Hopedale, Ma 01747
(508) 381-3212 • Phone
www.allen-ea.com

SCALE: 1"=30 FEET

DATE: September 23, 2021

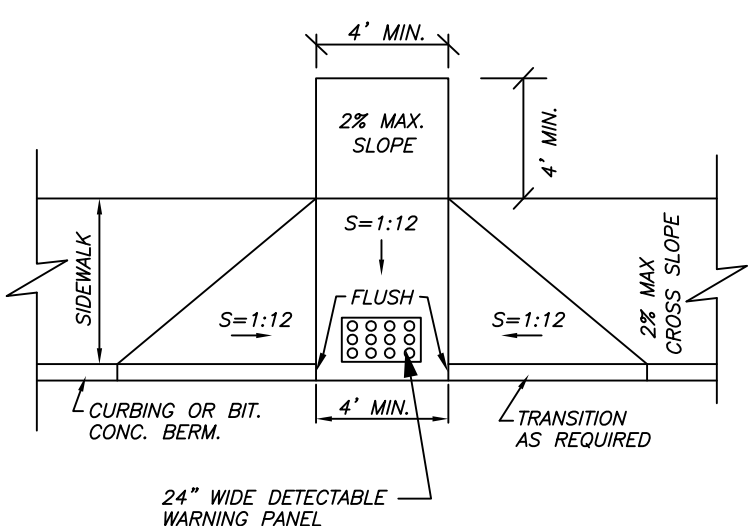
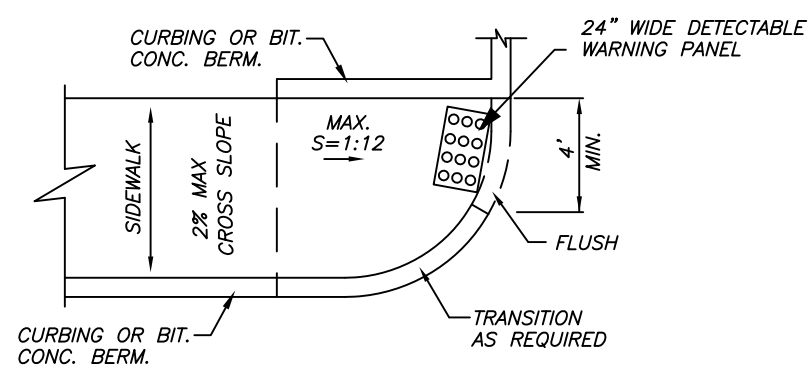
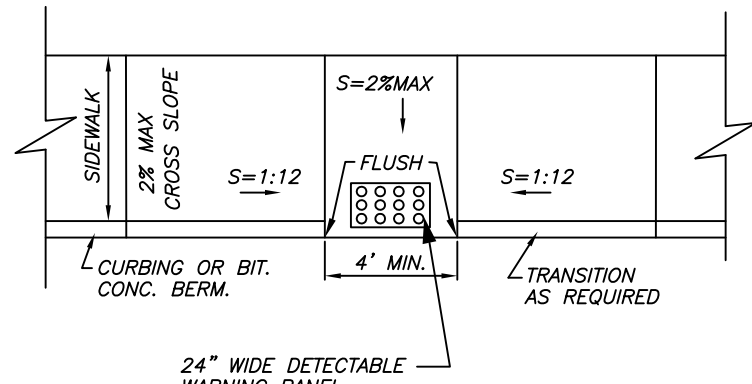
REVISIONS			
#	DATE	DESCRIPTION	INITIALS
1	11/12/21	PER COMMENTS	BSK
2	11/19/21	PER COMMENTS	BSK

JOB NO:
00047

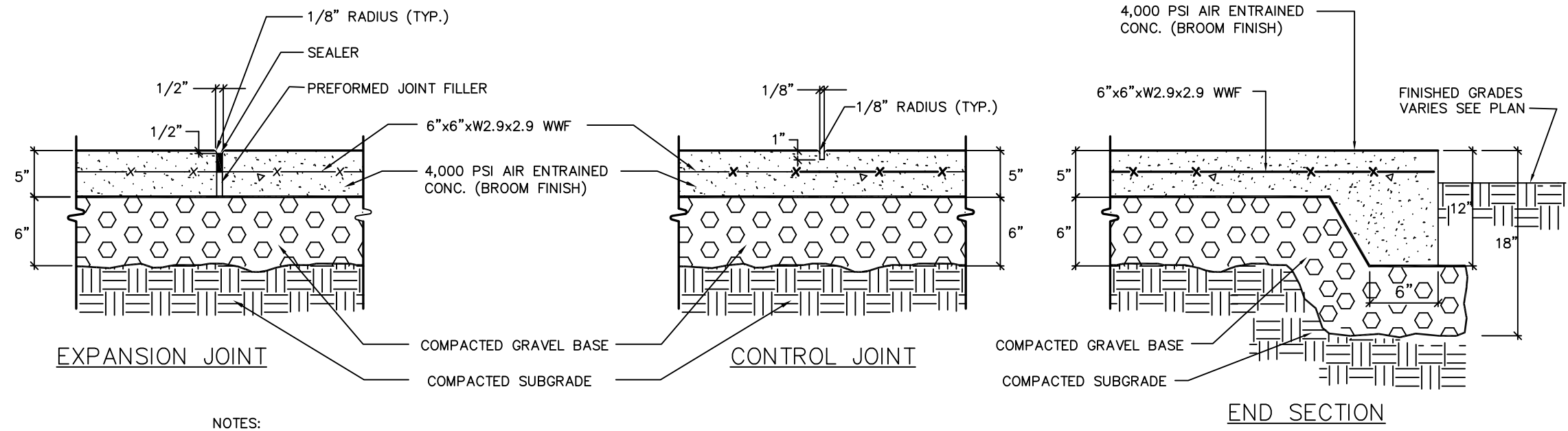
SHEET: 7 of 13

NOTE: PROVIDE 6 INCH DEPTH PREPARED LOAM BED FOR GRASSES.

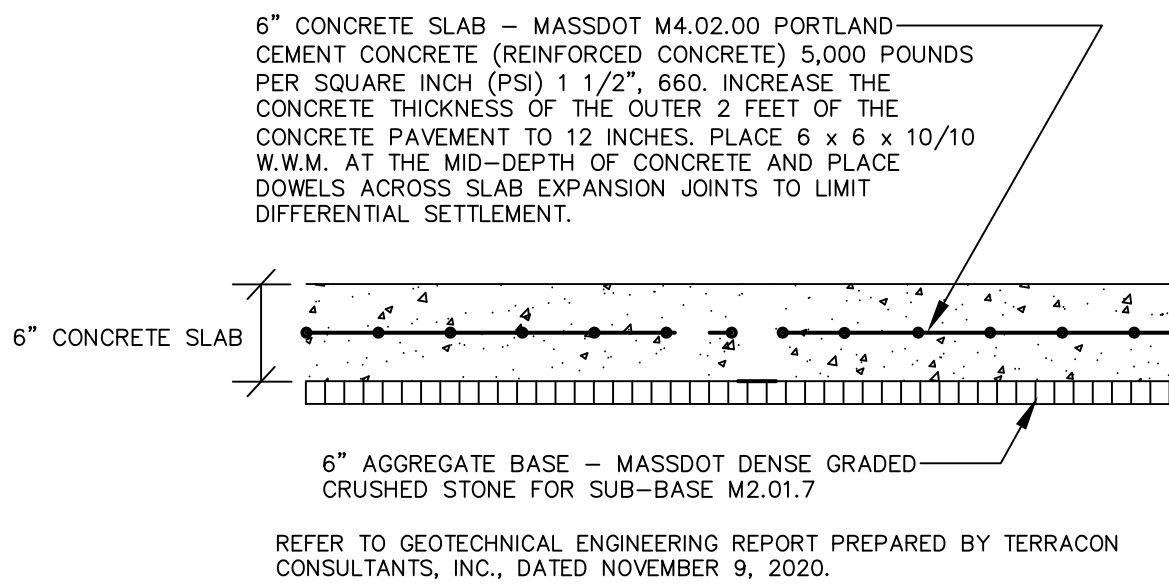
LANDSCAPE SURFACE TREATMENT KEY



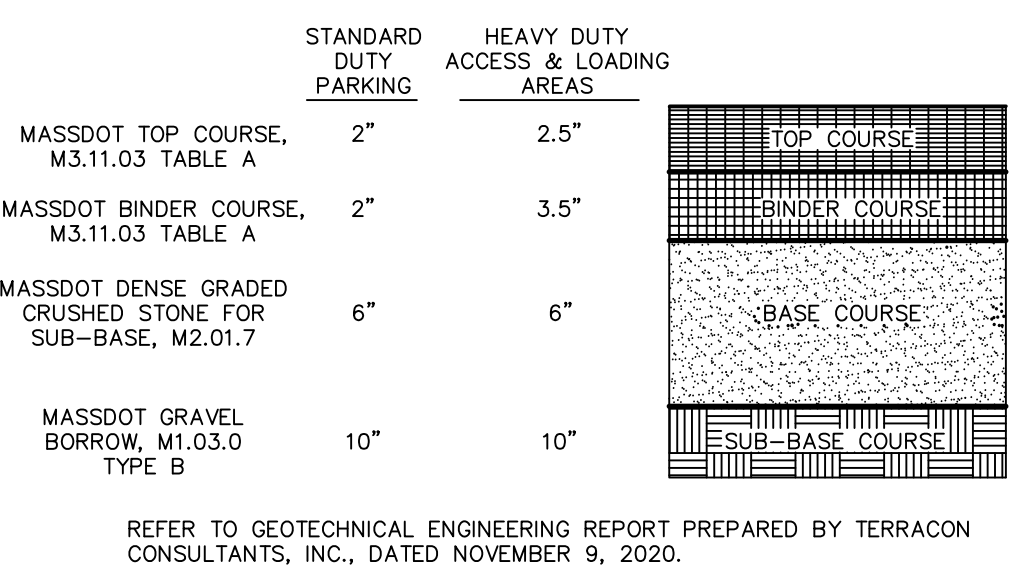
TYPICAL SIDEWALK RAMPS
(NOT TO SCALE)



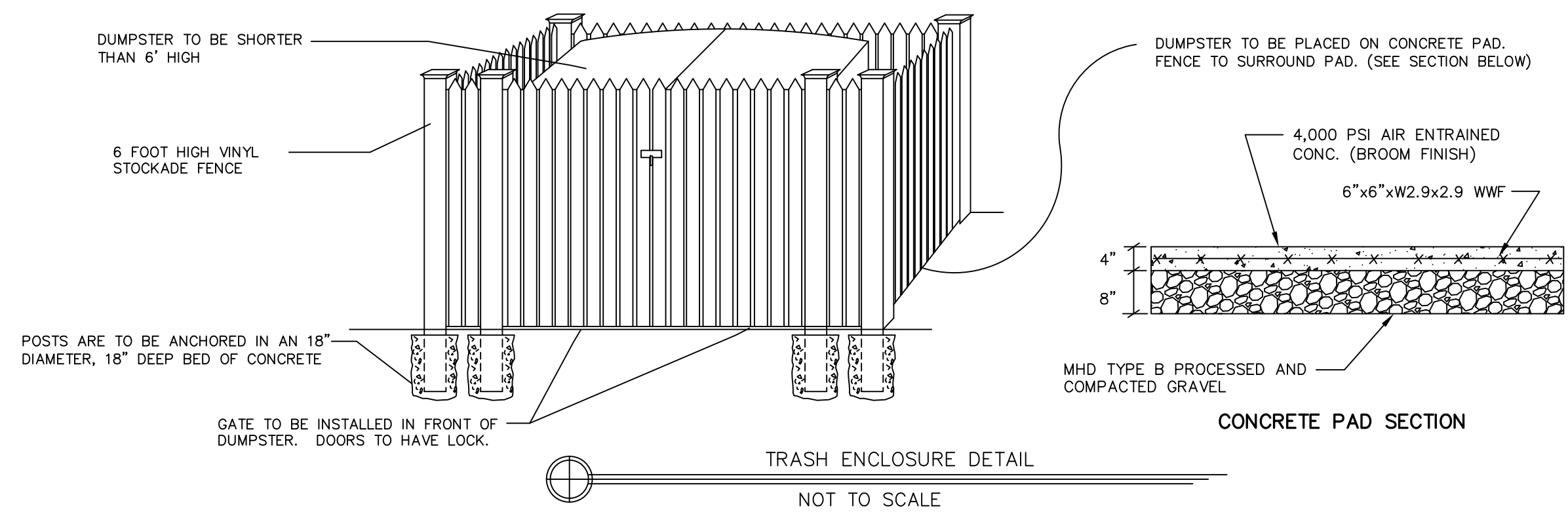
CONCRETE WALK
(NOT TO SCALE)



CONCRETE PAD FOR VEHICULAR TRAFFIC
(NOT TO SCALE)

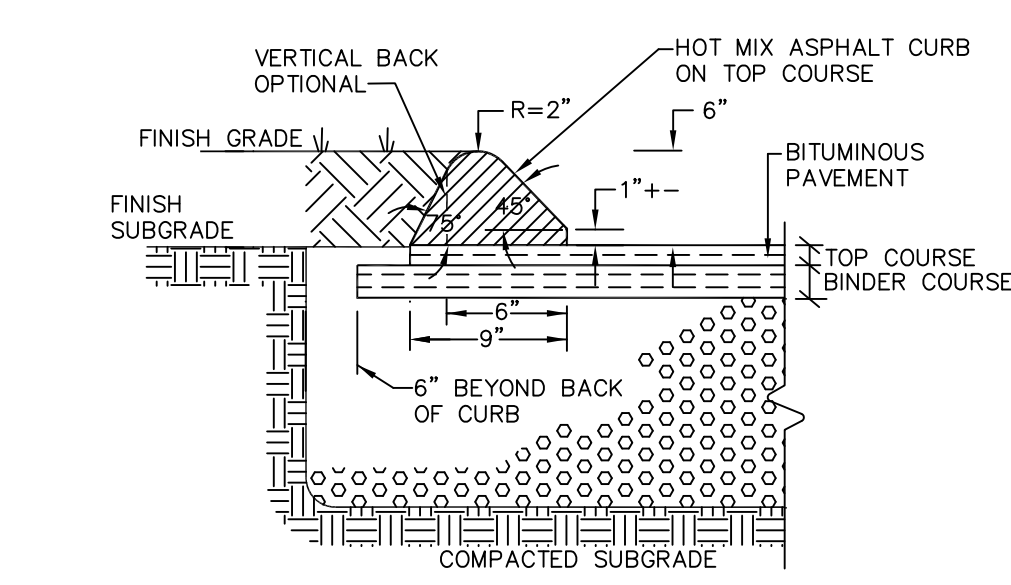


BITUMINOUS CONCRETE PAVEMENT SECTION
(NOT TO SCALE)

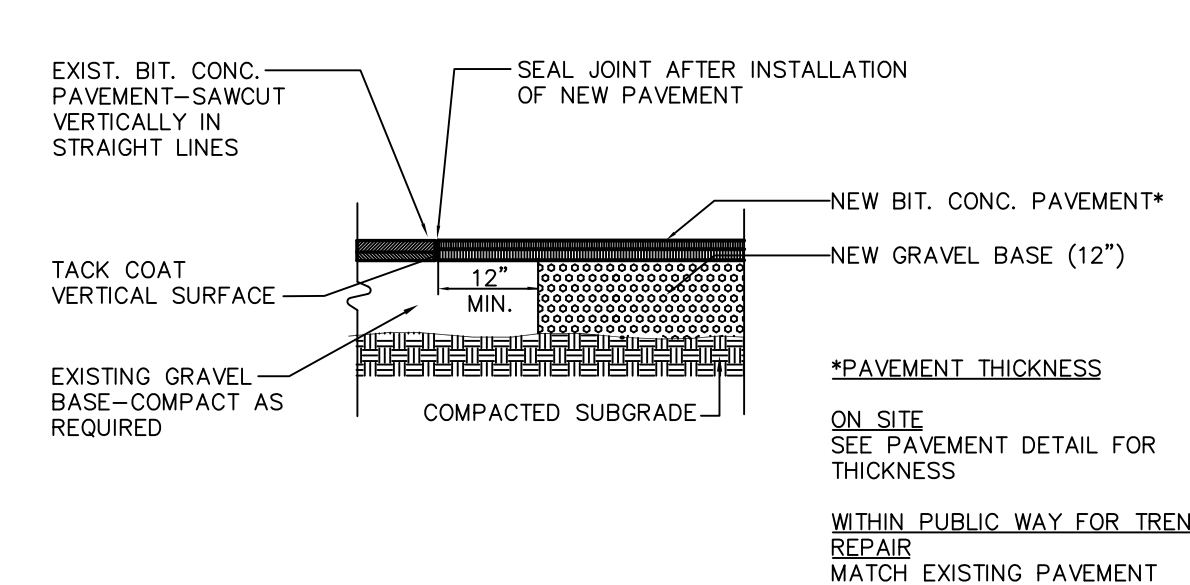


TRASH ENCLOSURE DETAIL

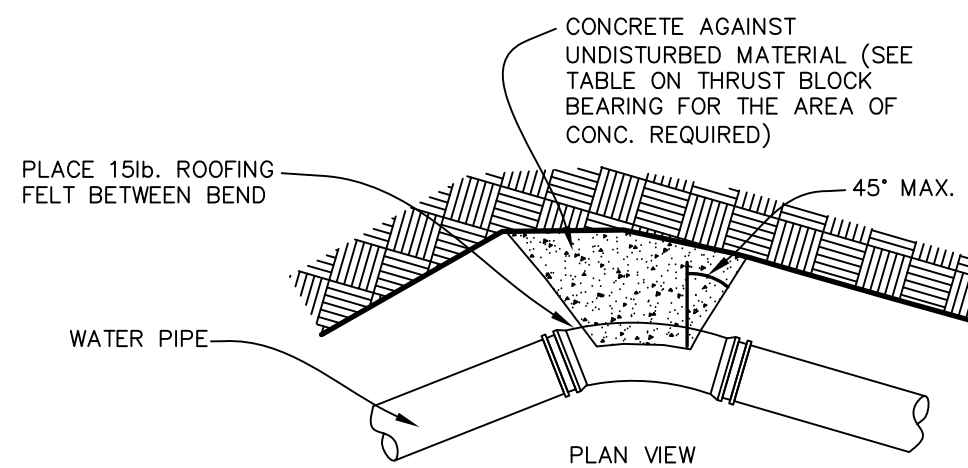
CONCRETE PAD SECTION



MASSDOT TYPE 2 BITUMINOUS CONCRETE CURB
(NOT TO SCALE)



PAVEMENT JOINTING
(NOT TO SCALE)



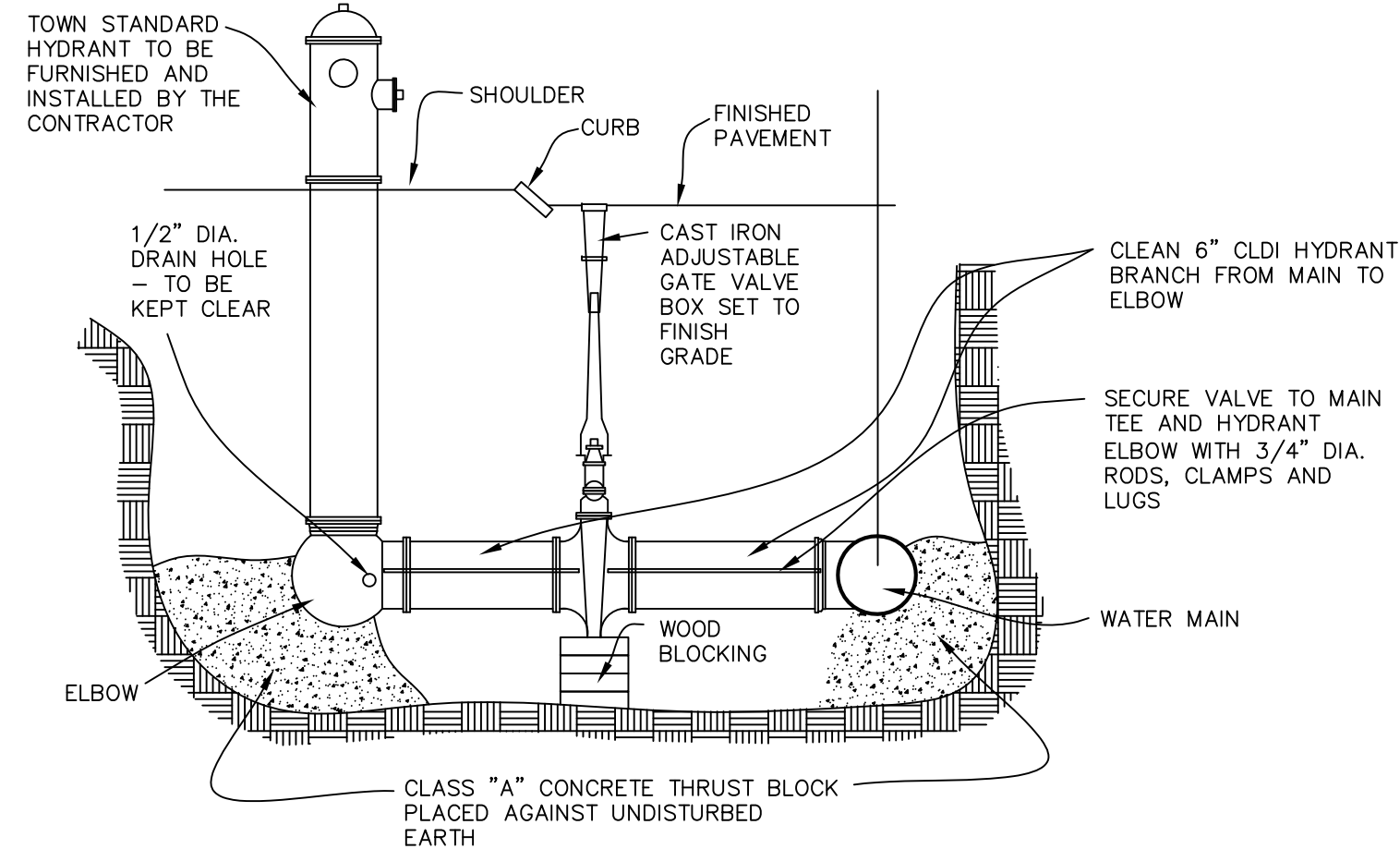
- * THIS TABLE IS BASED ON A TYPE OF SOIL THAT IS MEDIUM CLAYEY 6 OR MORE BLOW/FT., OR LOOSE GRANULAR, 9 OR MORE BLOW/FT. SOIL CONDITIONS OTHER THAN THOSE GIVEN WILL REQUIRE LARGER BEARING AREAS.
- NOTES:
- FOR FITTINGS WITH LESS THAN 45° DEFLECTION USE BEARING AREAS FOR 45° BEND.
 - BEARING AREAS BASED ON HORIZONTAL PASSIVE SOIL PRESSURE OF 2000 PSI AND INTERNAL WATER PRESSURE OF 150 PSIG JOINTS SHALL NOT BE ENCASED IN CONCRETE. BEARING AREAS MAY BE DISREGARDED FOR TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE IS AT OR ABOVE THE CROWN OF THE PIPE. HOWEVER, CONCRETE BACKING SHALL BE PLACED BETWEEN THE PIPE AND THE ROCK FACE.
 - THE CONTRACTOR SHALL SUBMIT 2 WEEKS IN ADVANCE OF PLACEMENT, WORKING DRAWINGS FOR EACH THRUST BLOCK TO THE WATER DEPARTMENT FOR APPROVAL PRIOR TO INSTALLATION.

DUCTILE IRON WATER PIPE THRUST BLOCK
NOT TO SCALE

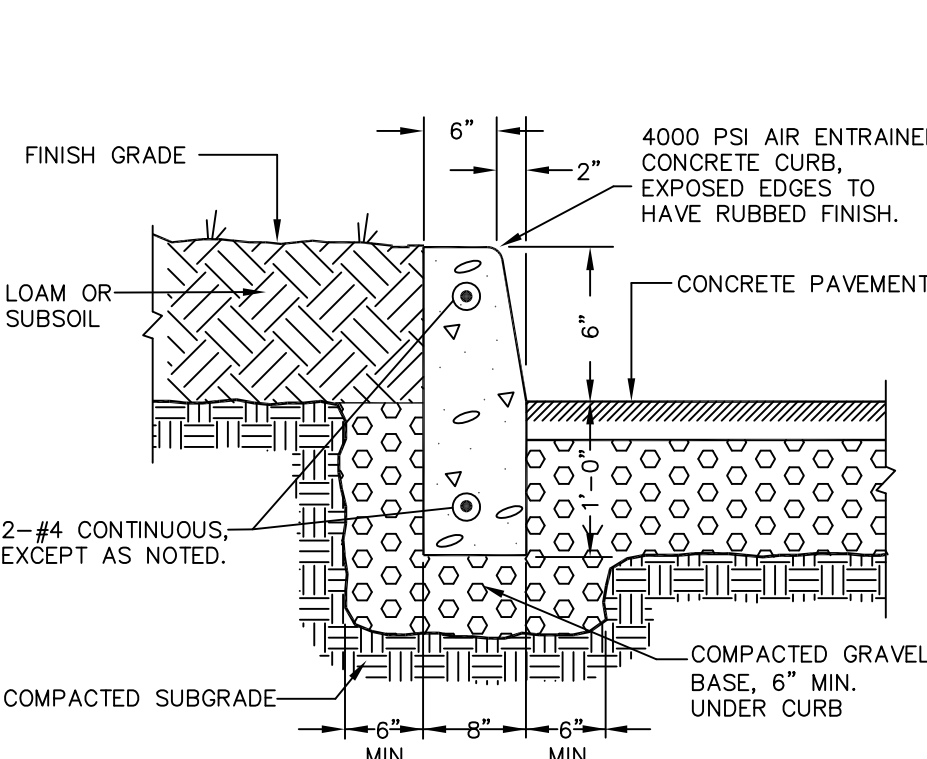
THRUST BLOCK BEARING AREAS FOR PIPE

TABLE OF BEARING AREAS IN SQUARE FEET AGAINST UNDISTURBED MATERIAL FOR PIPE FITTINGS*

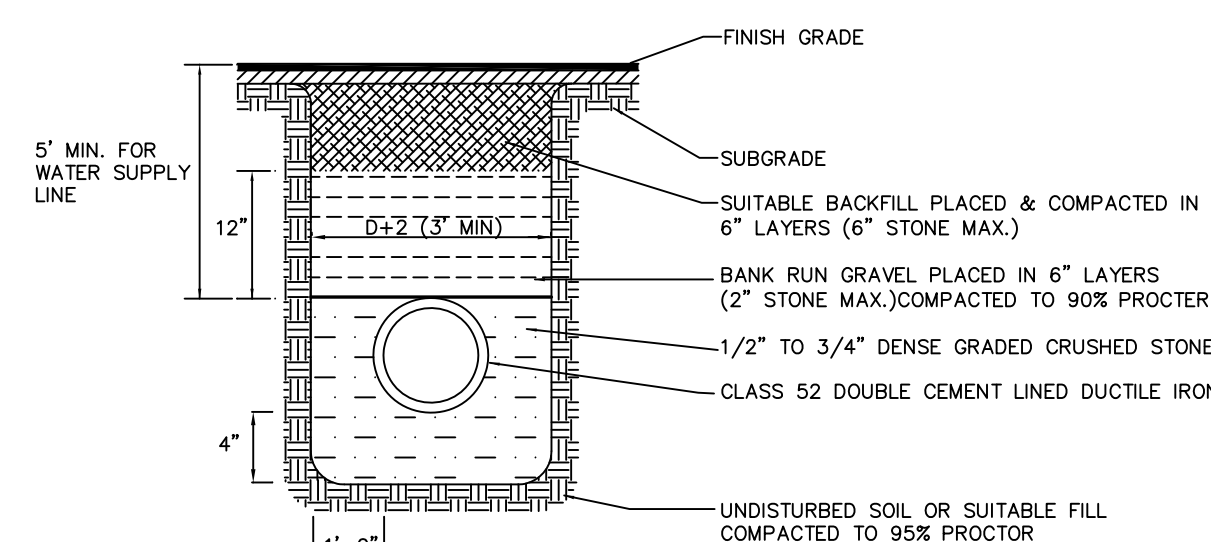
SIZE OF WATER MAIN IN INCHES	90° BEND	45° BEND
6"	4 SF	2 SF
8"	6 SF	3 SF
12"	12 SF	7 SF
16"	21 SF	12 SF



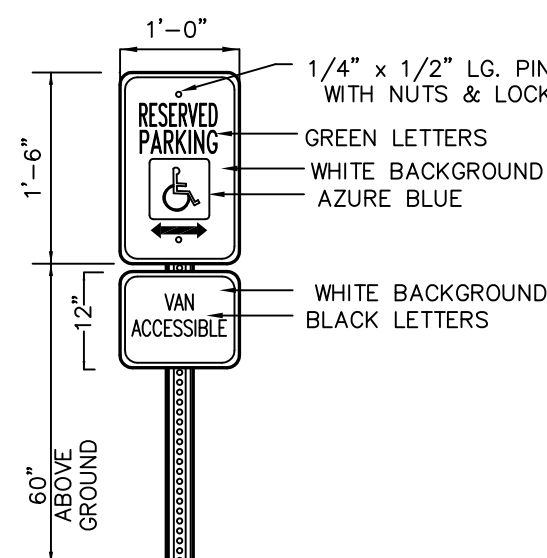
FIRE HYDRANT
NOT TO SCALE



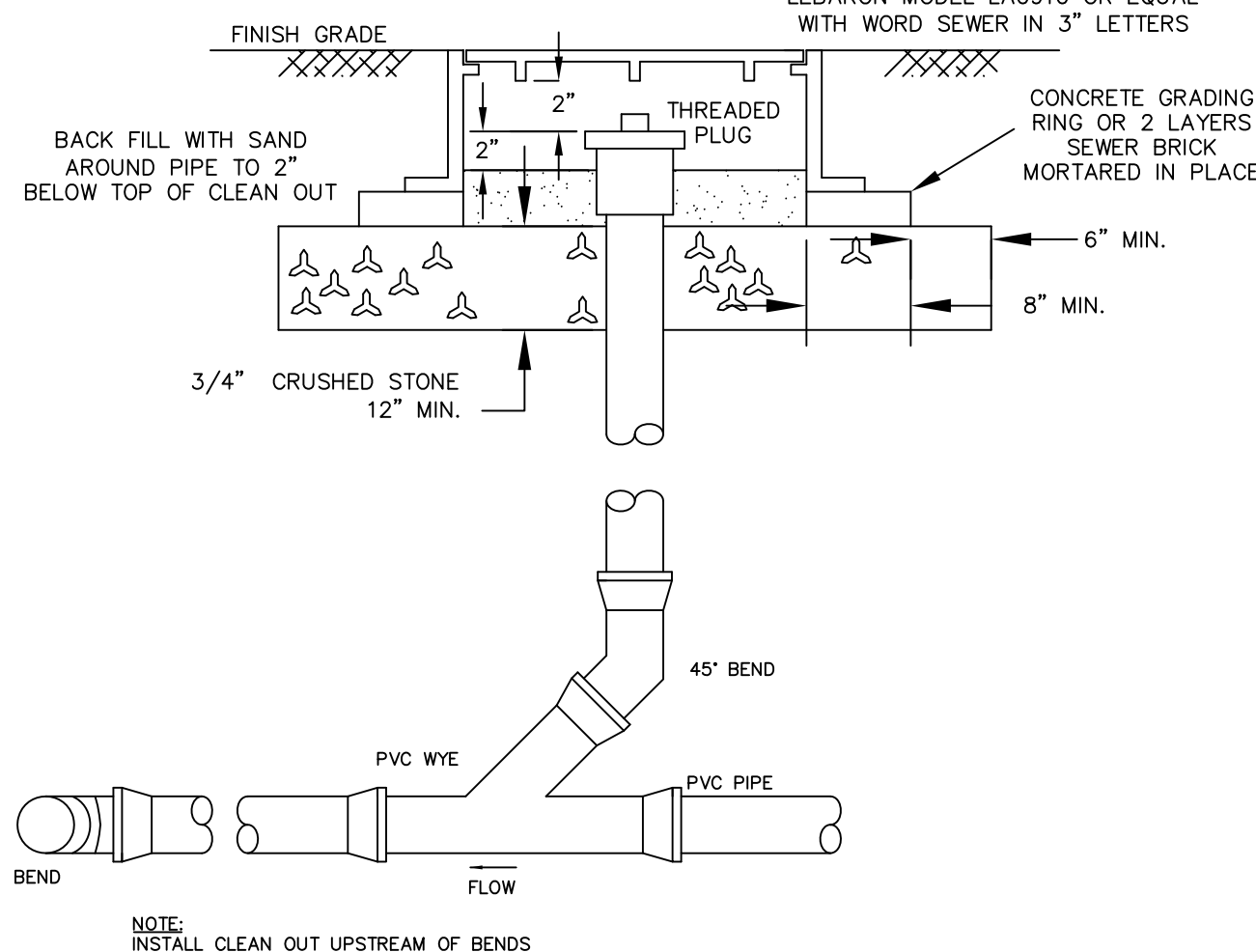
TYPICAL PRECAST CONCRETE CURB
(NOT TO SCALE)



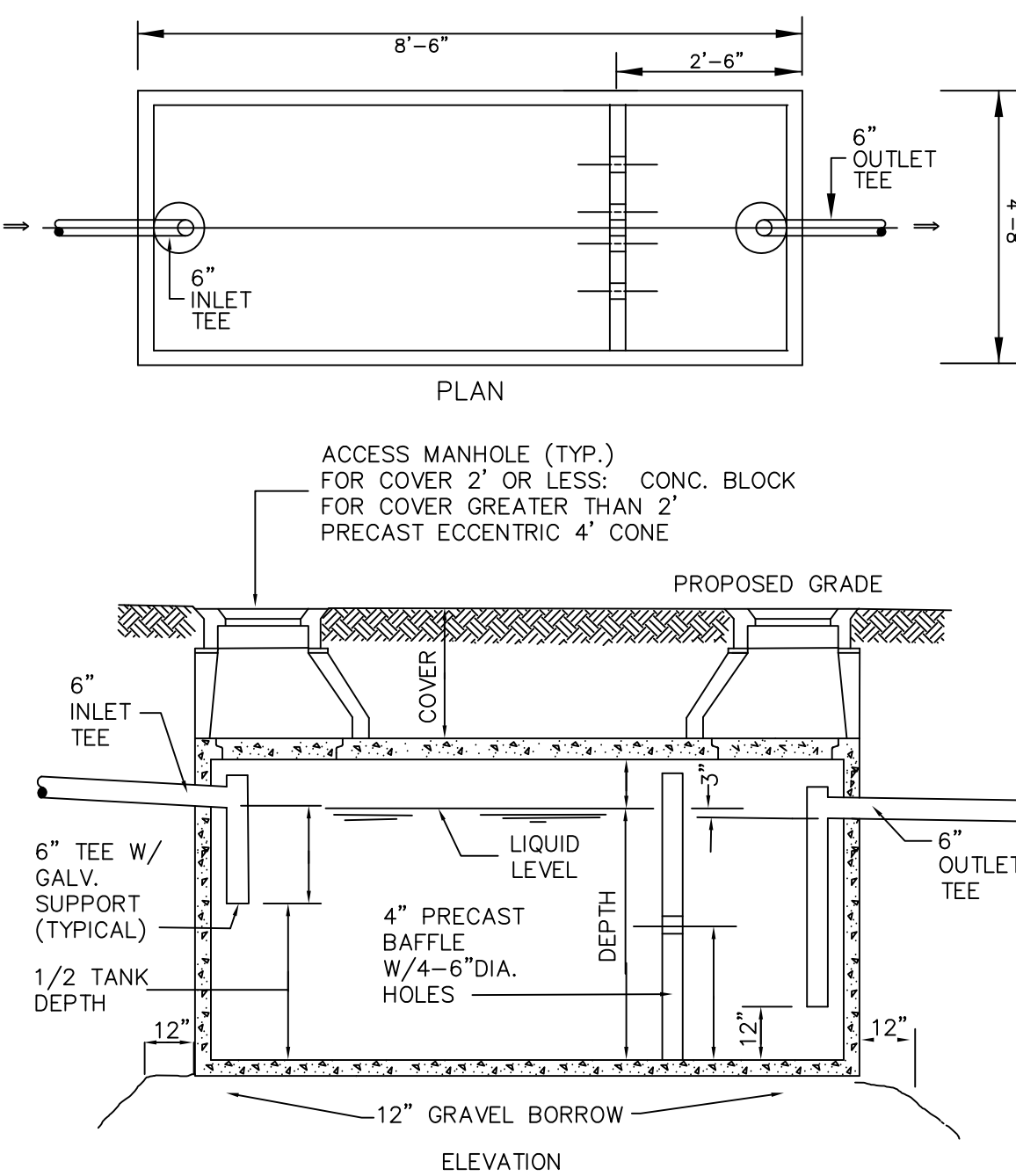
DUCTILE IRON WATER PIPE TRENCH CROSS SECTION
(NOT TO SCALE)



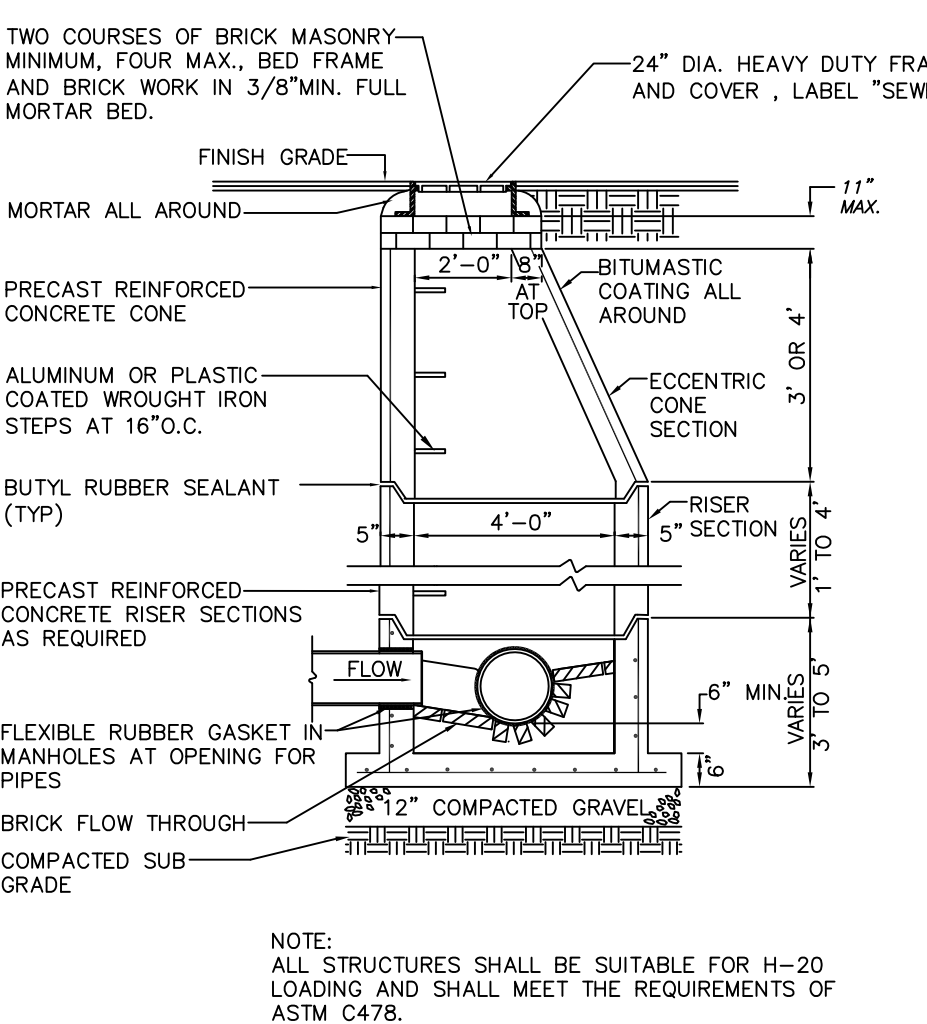
HANDICAP PARKING SIGN
(NOT TO SCALE)



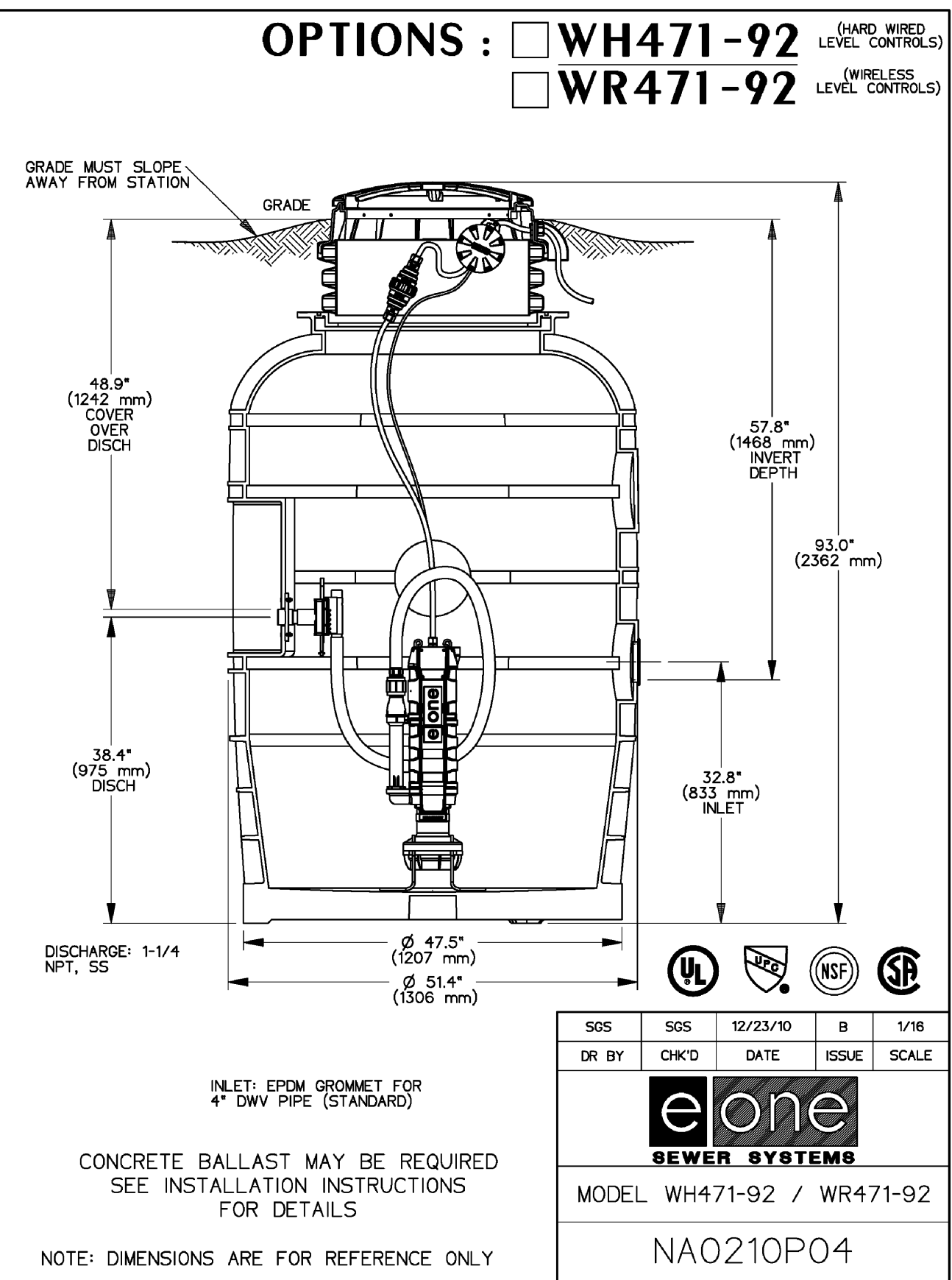
SEWER CLEAN OUT
NOT TO SCALE



1,000 GALLON GREASE TRAP
NOT TO SCALE



PRE-CAST CONCRETE SEWER MANHOLE
NOT TO SCALE



SEWER GRINDER PUMP STATION
NOT TO SCALE

LOCUS REFERENCES
ASSESSORS PARCEL: 18-8.1
#1603 MAIN STREET
OWNER: LEICESTER MAIN, LLC
LAND COURT CERT. 16956
LAND COURT PLAN 40185-B, LOT 1
2.83 Acres

ASSESSORS PARCEL: 18A-14 & 15
0 & #1605 MAIN STREET
OWNER: LEICESTER MAIN, LLC
DEED BOOK 41309, PAGE 153
1.05 Acres

LOCUS LOTS ARE LOCATED WITHIN THE
HIGHWAY BUSINESS-INDUSTRIAL 1
DISTRICT.

NOTES
1. THIS PLAN IS BASED ON A FIELD
SURVEY PERFORMED BY ODORE SURVEY
& MAPPING IN DECEMBER 2012, AND
UPDATED BY ALLEN ENGINEERING &
ASSOCIATES, INC. IN DECEMBER 2020.

2. ELEVATIONS REFER TO NAD 88
VERTICAL DATUM.

3. THE SITE FALLS WITHIN A FLOOD
ZONE X (AREA OF MINIMAL FLOOD
HAZARD) ACCORDING TO FLOOD
INSURANCE RATE MAP PANEL NUMBER
25027C0780E.

4. THIS SITE DOES NOT CONTAIN
CERTIFIED VERNAL POOLS OR HABITATS
OF RARE SPECIES ACCORDING TO THE
MASSACHUSETTS NATURAL HERITAGE
WEB SITE AS OF DECEMBER 2020.

5. EXISTING UTILITY LINES SHOWN ON
THESE DRAWINGS ARE BASED ON
AVAILABLE RECORD INFORMATION OF
UTILITY COMPANIES AND PUBLIC
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EXISTING UTILITY LINES OTHER THAN
THOSE SHOWN MAY BE ON THE SITE.
CALL "DIG SAFE" AT 811.

6. THERE SHALL BE NO USE OF FILL
CONTAINING HAZARDOUS MATERIALS.

7. APPLICANT SHALL PROVIDE
CONSTRUCTION DRAWINGS FOR
UNDERGROUND STORAGE TANKS WITH
APPLICATION FOR BUILDING PERMIT.
DEPTH OF LEDGE/REFUSAL TO BE
DETERMINED PRIOR TO DESIGN.



PROFESSIONAL ENGINEER

PREPARED FOR:

Skaff Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:
**CONSTRUCTION
DETAIL PLAN**
For
#1603 - #1605 Main Street
In
Leicester, MA

PREPARED BY:



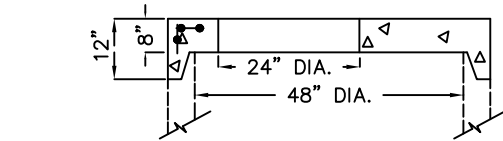
**ALLEN ENGINEERING
& ASSOCIATES, INC.**
Civil Engineers • Surveyors
Land Development Consultants
One Charlesview Road
Suite 2
Hopdale, Ma 01747
(508) 381-3212 • Phone
www.allenrea.com

SCALE: AS NOTED

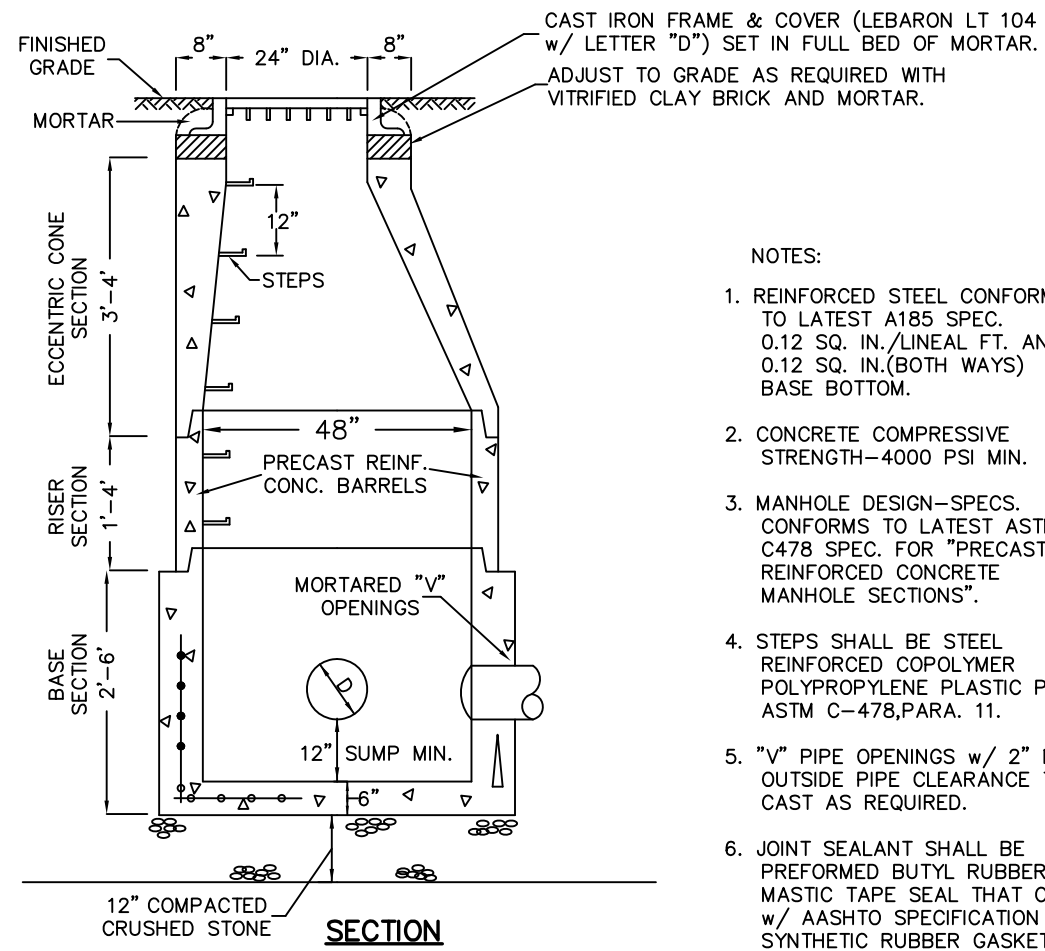
DATE: September 23, 2021

REVISIONS			
#	DATE	DESCRIPTION	INIT
1	11/12/21	PER COMMENTS	BSW
2	11/19/21	PER COMMENTS	BSW

JOB NO: 00047 SHEET: 8 of 13

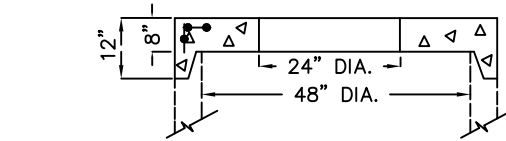


ALTERNATE TOP SLAB FOR SHALLOW CUT
(STEEL REINFORCED FOR H-20 LOADING)

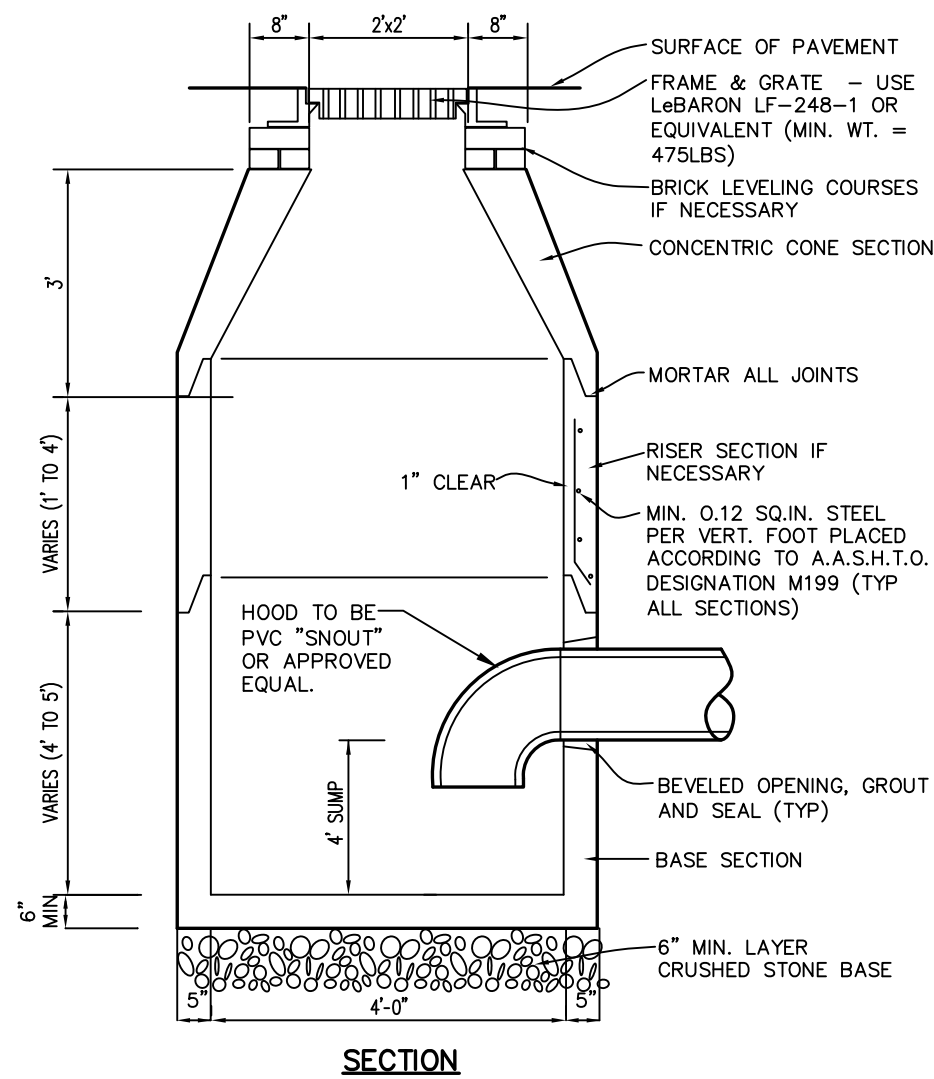


- NOTES:
1. REINFORCED STEEL CONFORMS TO LATEST A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN.(BOTH WAYS) BASE BOTTOM.
 2. CONCRETE COMPRESSIVE STRENGTH-4000 PSI MIN.
 3. MANHOLE DESIGN-SPECS. CONFORMS TO LATEST ASTM C478 SPEC. FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS".
 4. STEPS SHALL BE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC PER ASTM C-478, PARA. 11.
 5. "V" PIPE OPENINGS W/ 2" MAX. OUTSIDE PIPE CLEARANCE TO BE CAST AS REQUIRED.
 6. JOINT SEALANT SHALL BE PREFORMED BUTYL RUBBER MASTIC TAPE SEAL THAT COMPLIES W/ AASHTO SPECIFICATION M-198 OR SYNTHETIC RUBBER GASKET THAT COMPLIES W/ C-443 OR C-361.
 7. BASE SECTION SHALL BE ONE POUR MONOLITHIC.

PRECAST CONCRETE DRAIN MANHOLE
(NOT TO SCALE)

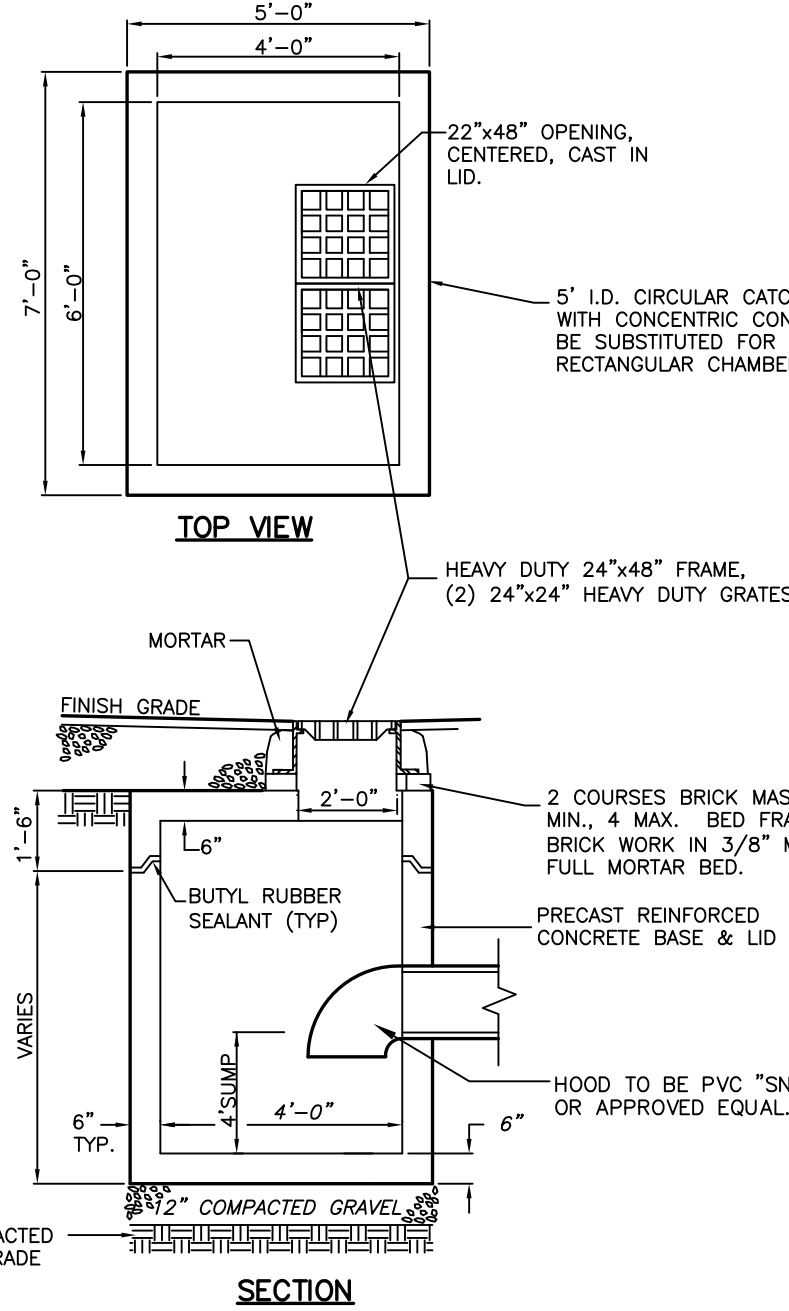


ALTERNATE TOP SLAB FOR SHALLOW CUT
(STEEL REINFORCED FOR H-20 LOADING)



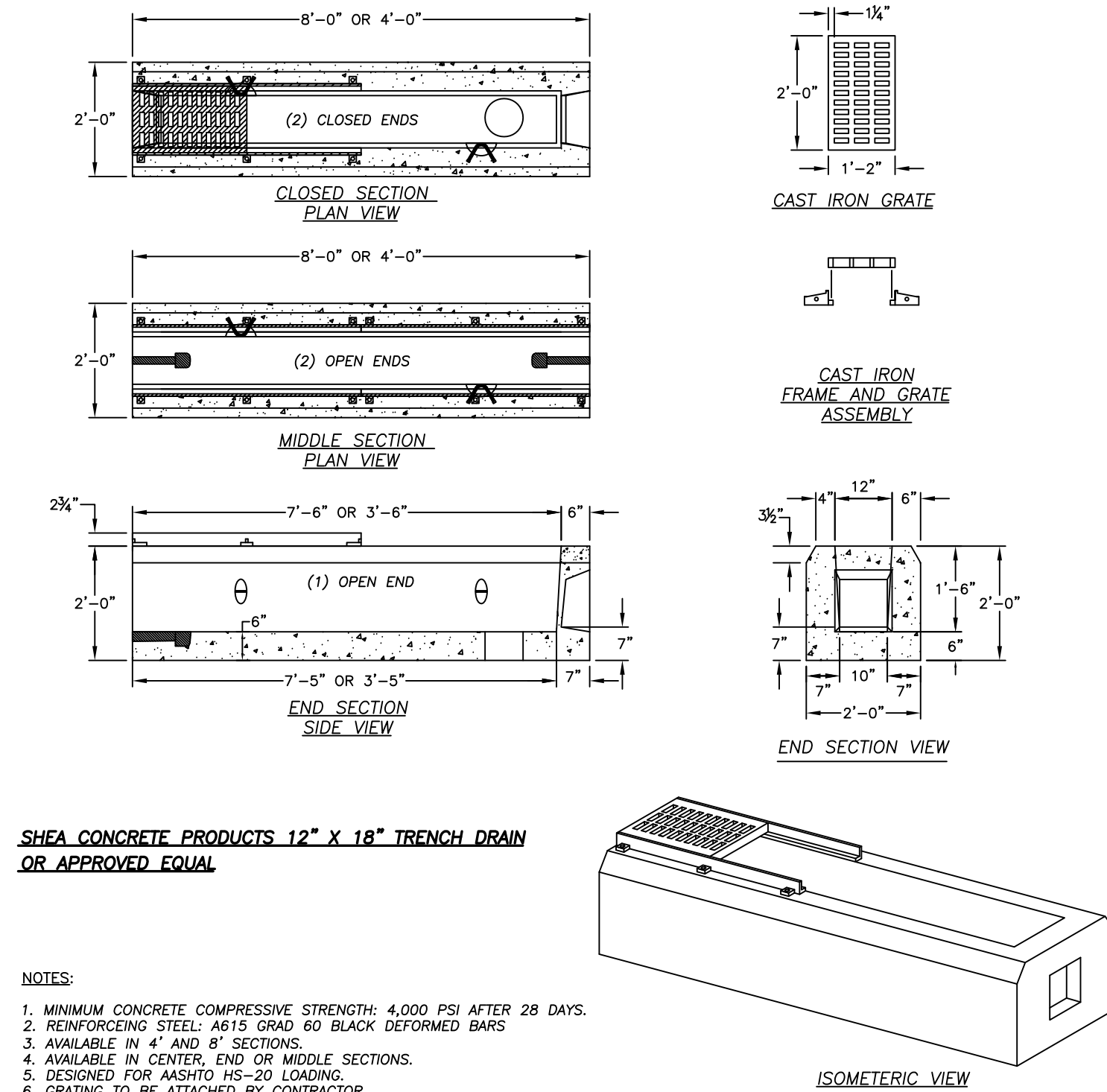
- NOTES:
1. PIPE OPENINGS TO BE PRECAST IN CATCH BASIN SECTIONS.
 2. SURFACE OF FRAME AND GRATE TO SLOPE DOWN 1" FROM FRONT TO BACK.
 3. FACE OF PIPE TO BE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.

PRECAST CONCRETE CATCH BASIN
(NOT TO SCALE)



- NOTE:
- ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.

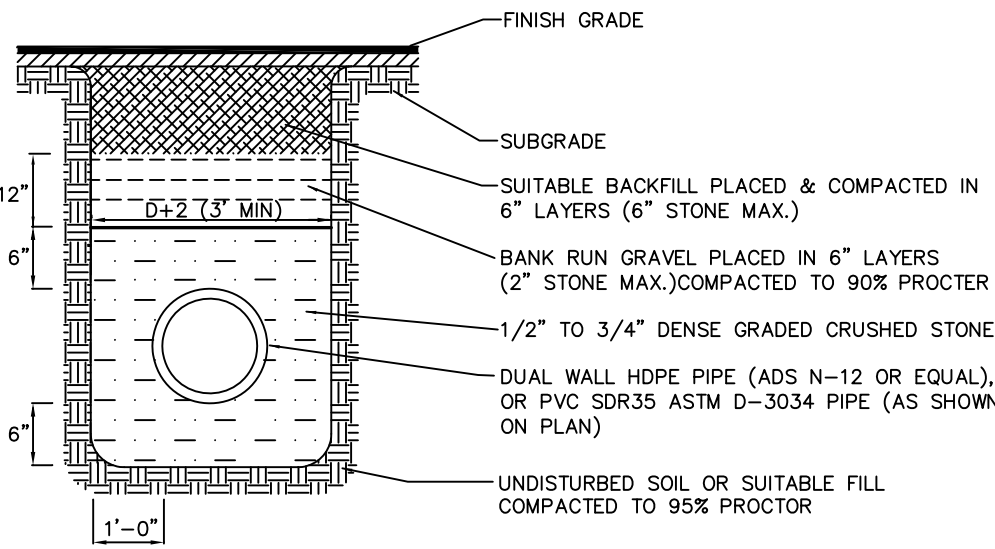
DOUBLE GRATE CATCH BASIN
(NOT TO SCALE)



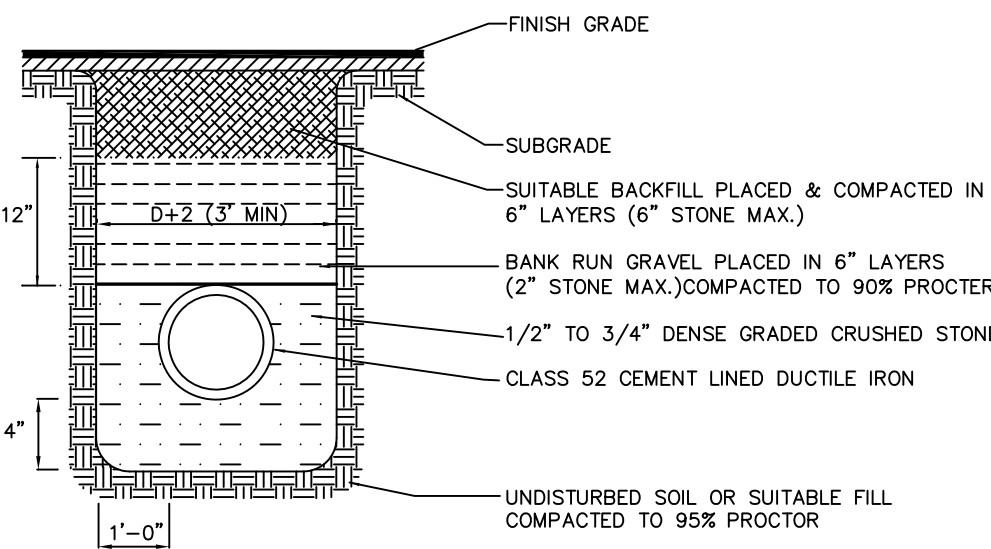
SHEA CONCRETE PRODUCTS 12" X 18" TRENCH DRAIN
OR APPROVED EQUAL

- NOTES:
1. MINIMUM CONCRETE COMPRESSIVE STRENGTH: 4,000 PSI AFTER 28 DAYS.
 2. REINFORCING STEEL #615 GRAD 60 BLACK DEFORMED BARS
 3. AVAILABLE IN 4' AND 8' SECTIONS.
 4. AVAILABLE IN CENTER, END OR MIDDLE SECTIONS.
 5. DESIGNED FOR AASHTO H5-20 LOADING.
 6. GRATING TO BE ATTACHED BY CONTRACTOR.
 7. END KNOCK OUTS SIZED FOR MAXIMUM #8" PIPE.
 8. SLOPED FLOOR IF REQUIRED TO BE INSTALLED BY OTHERS AFTER INSTALLATION.

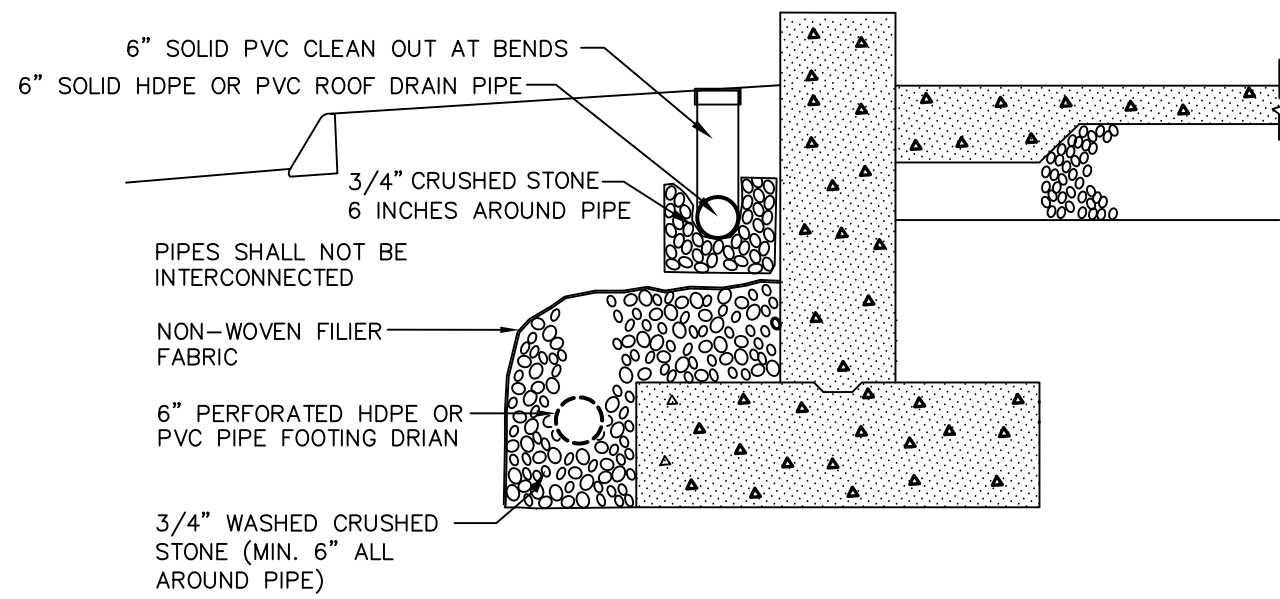
TRENCH DRAIN
(NOT TO SCALE)



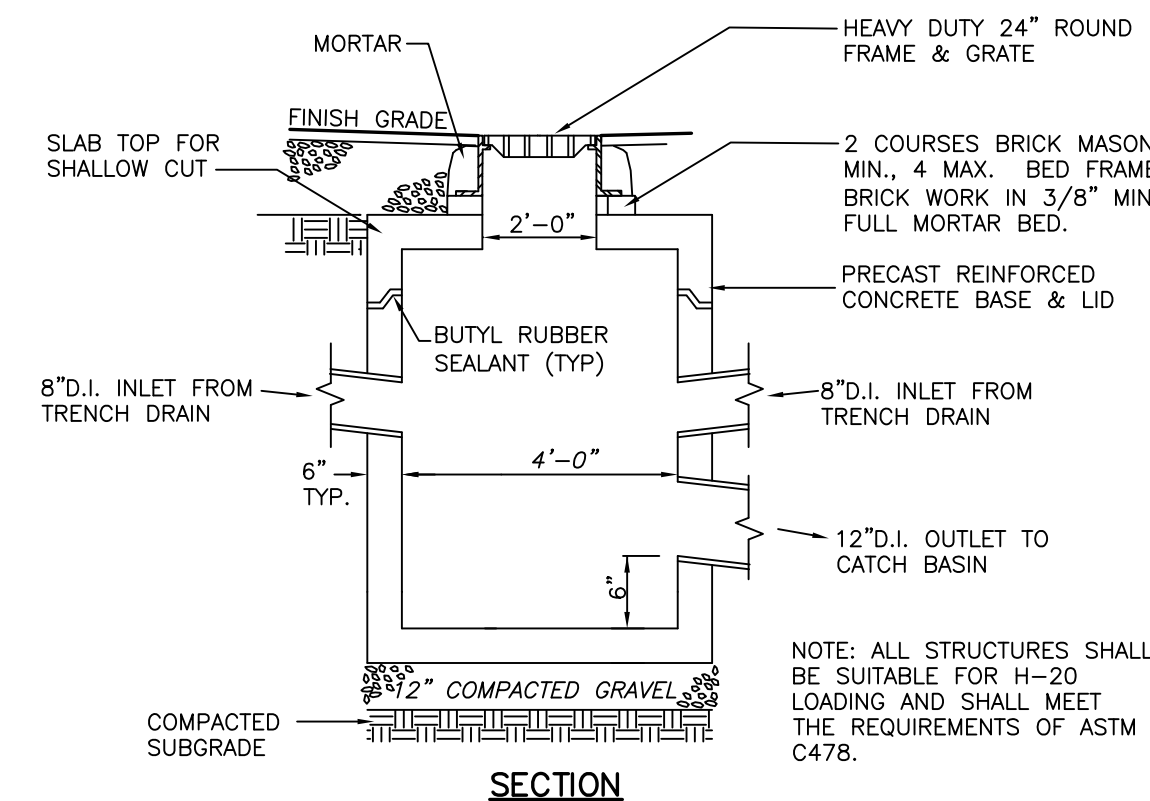
HDPE/PVC PIPE
TRENCH CROSS SECTION
(NOT TO SCALE)



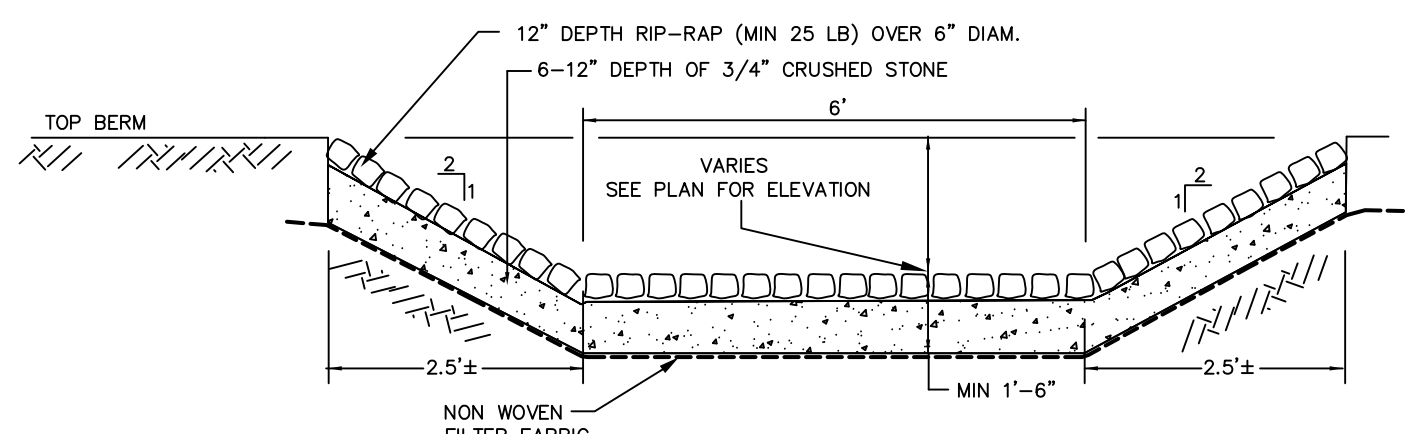
DUCTILE IRON DRAIN PIPE
TRENCH CROSS SECTION
(NOT TO SCALE)



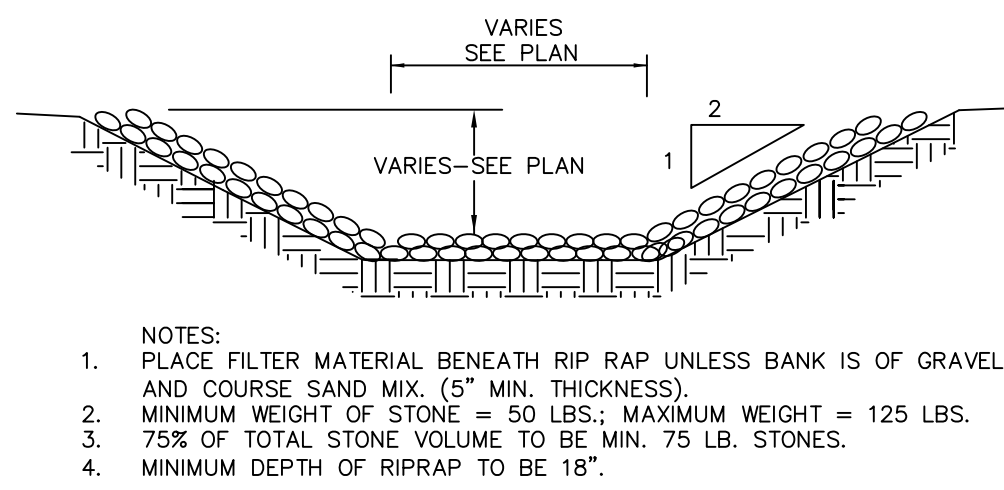
TYPICAL SECTION-ROOF DRAIN & FOOTING DRAIN
(NOT TO SCALE)



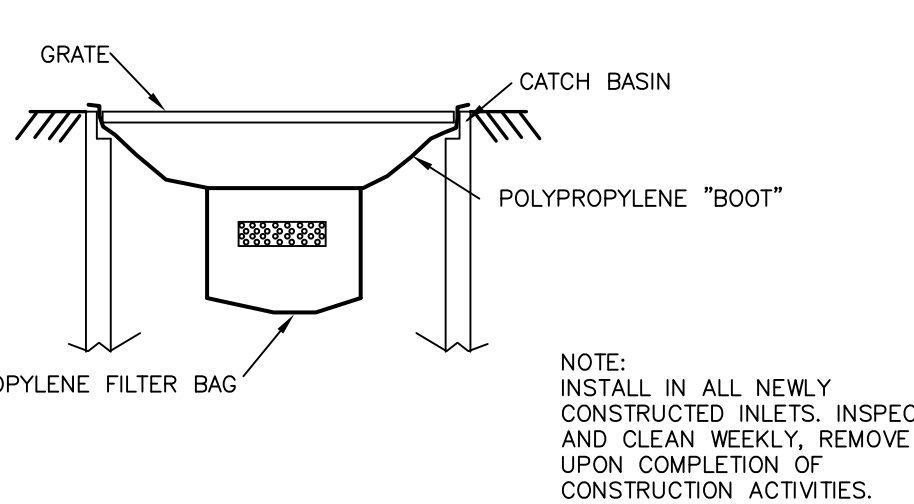
DROP INLET
(NOT TO SCALE)



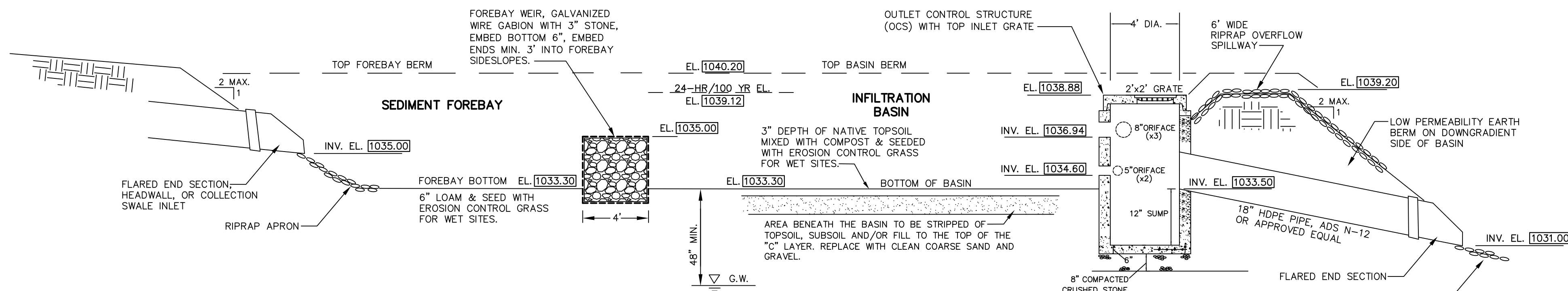
INFILTRATION BASIN
RIPRAP OVERFLOW SPILLWAY
(NOT TO SCALE)



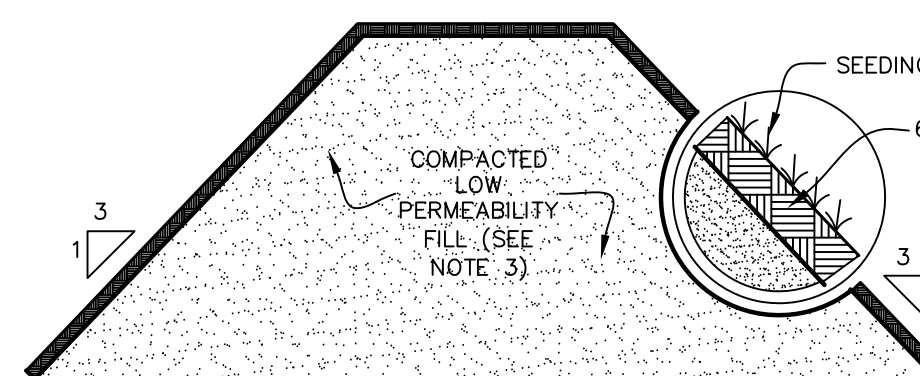
RIPRAP APRON
FOR PIPE ENDS
(NOT TO SCALE)



CATCH BASIN SEDIMENT
FILTER INSERT
(NOT TO SCALE)



STORMWATER SEDIMENT FOREBAY & INFILTRATION BASIN
(NOT TO SCALE)



LOW PERMEABILITY EARTH BERM - SECTION
NOT TO SCALE

- NOTES:
1. ALL WORK TO BE STAKED AND INSPECTED BY THE DESIGN ENGINEER.
 2. AREA UNDER THE EMBANKMENT AND ANY STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
 3. COMPACTED LOW PERMEABILITY FILL MATERIAL SHALL BE WELL GRADED, SILTY, GRAVELLY SAND WITH A MINIMUM OF 15% PASSING SIEVE #200, AND SHALL BE FREE OF STONES GREATER THAN 6" IN DIAMETER, ORGANIC MATTER, CONSTRUCTION DEBRIS, SNOW OR FROZEN SOIL. MATERIALS SHALL BE PLACED IN LAYERS NOT EXCEEDING 8" IN THICKNESS, AND SHALL BE COMPACTED BY CONTINUOUS PASSES OF HEAVY DOZERS, HAULING EQUIPMENT AND APPROPRIATE COMPACTORS. MINIMUM DEGREE OF COMPACTION SHALL BE 95% OF MAXIMUM DRY DENSITY AS SPECIFIED BY A.S.T.M. D 1556 C.
 4. THE EMBANKMENT WILL BE CONSTRUCTED TO THE DESIGN ELEVATION PLUS 0.5 FT. TO ALLOW FOR SETTLEMENT.
 5. S.C.S. APPROVED SEED MIX TO BE SPREAD AS SOON AS IS PRACTICAL TO MINIMIZE EROSION.

LOCUS REFERENCES
ASSESSORS PARCEL: 18-8.1
#1603 MAIN STREET
OWNER: LEICESTER MAIN, LLC
LAND COURT CERT. 16956
LAND COURT PLAN 40185-B, LOT 1
2.83 Acres

ASSESSORS PARCEL: 18A-14 & 15
0 & #1605 MAIN STREET
OWNER: LEICESTER MAIN, LLC
DEED BOOK 41309, PAGE 153
1.05 Acres

LOCUS LOTS ARE LOCATED WITHIN THE
HIGHWAY BUSINESS-INDUSTRIAL 1
DISTRICT.

NOTES
1. THIS PLAN IS BASED ON A FIELD
SURVEY PERFORMED BY ODORE SURVEY
& MAPPING IN DECEMBER 2012, AND
UPDATED BY ALLEN ENGINEERING &
ASSOCIATES, INC. IN DECEMBER 2020.

2. ELEVATIONS REFER TO NAD 88
VERTICAL DATUM.

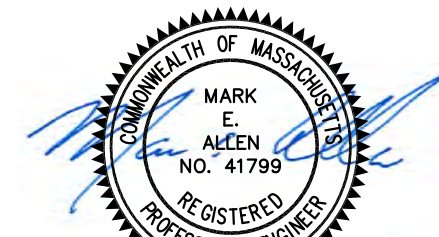
3. THE SITE FALLS WITHIN A FLOOD
ZONE X (AREA OF MINIMAL FLOOD
HAZARD) ACCORDING TO FLOOD
INSURANCE RATE MAP PANEL NUMBER
25027C0780E.

4. THIS SITE DOES NOT CONTAIN
CERTIFIED VERNAL POOLS OR HABITATS
OF RARE SPECIES ACCORDING TO THE
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APPLICATION FOR BUILDING PERMIT.
DEPTH OF LEDGE/REFUSAL TO BE
DETERMINED PRIOR TO DESIGN.



PROFESSIONAL ENGINEER

PREPARED FOR:

Skaff Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:
CONSTRUCTION
DETAIL PLAN

For
#1603 - #1605 Main Street
In
Leicester, MA

PREPARED BY:



ALLEN ENGINEERING
& ASSOCIATES, INC.

Civil Engineers • Surveyors
Land Development Consultants

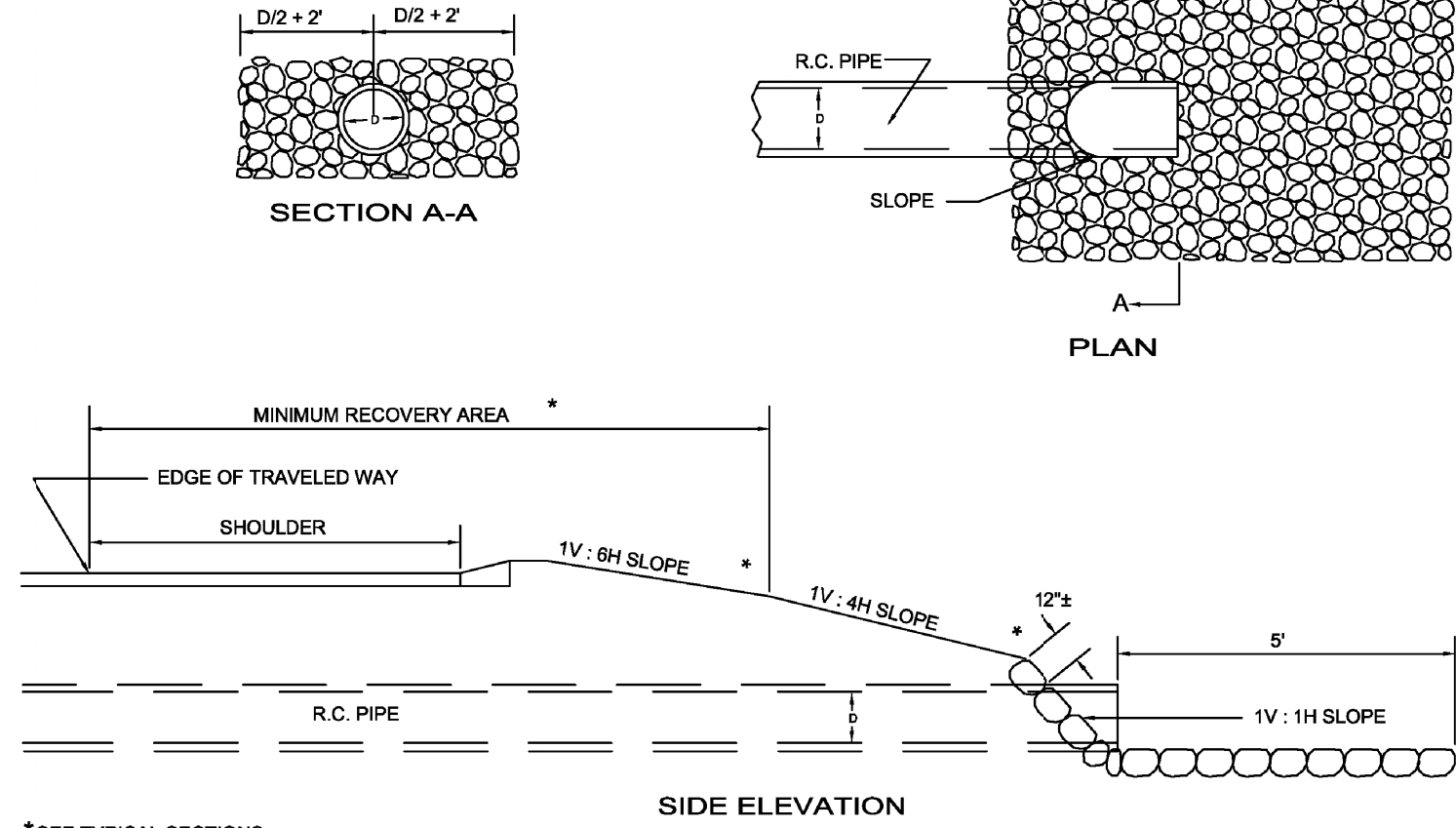
One Charlesview Road
Suite 2
Hopedale, Ma 01747
(508) 381-3212 • Phone
www.allenrea.com

SCALE: AS NOTED

DATE: September 23, 2021

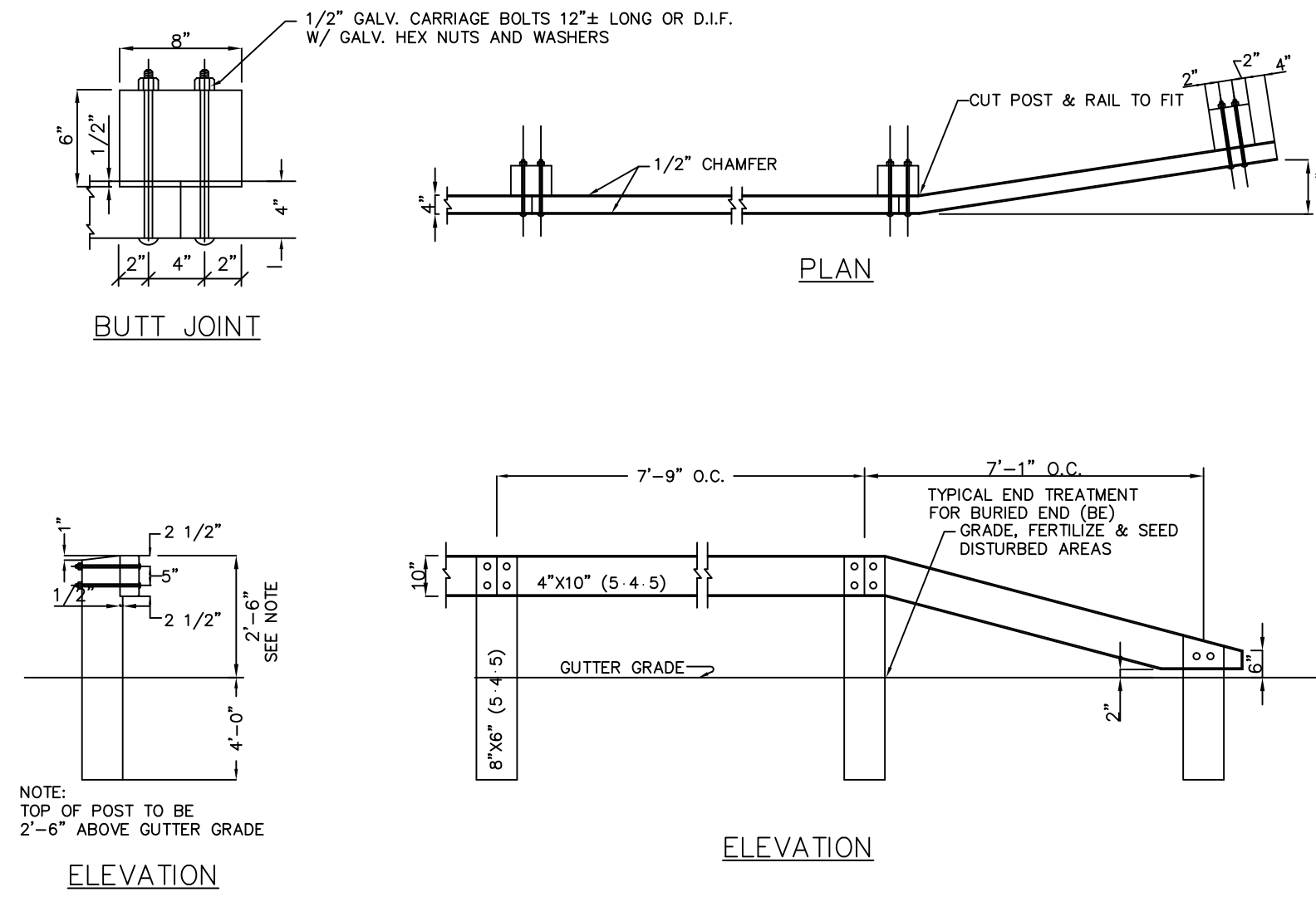
REVISIONS			
#	DATE	DESCRIPTION	INIT
1	11/12/21	PER COMMENTS	BSW
2	11/19/21	PER COMMENTS	BSW

JOB NO: 00047 SHEET: 9 of 13



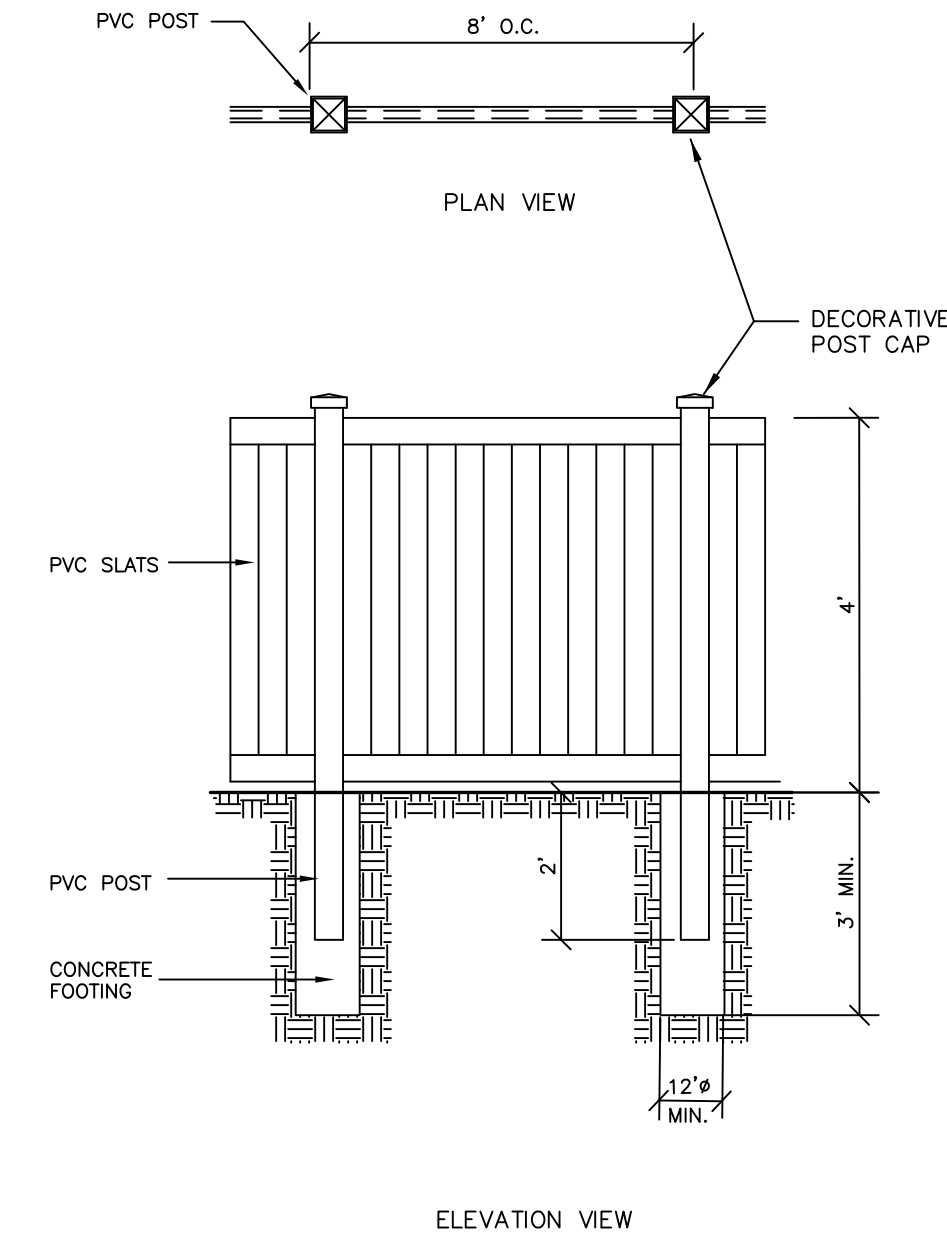
- NOTES:
1. STONE TREATMENT OF PIPE ENDS SHALL NOT BE USED IN THE VEHICLE RECOVERY AREA.
 2. MINIMUM MASS PER STONE = 50 LBS, MAXIMUM MASS PER STONE = 125 LBS.
 3. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHODS, SEE STANDARD SPECIFICATIONS.

PIPE END RIPRAP APRON
(NOT TO SCALE)



WOODEN GUARD RAIL
(NOT TO SCALE)

- GENERAL NOTES
1. WOOD RAILS TO BE LONGLEAF YELLOW PINE OR DOUGLAS FIR - STRUCTURAL GRADE OR BETTER.
 2. POSTS TO BE DOUGLAS FIR OR SPRUCE - STRUCTURAL GRADE OR BETTER.
 3. TIMBER PRESERVATIVES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-133. THE METHODS OF TREATMENT SHALL CONFORM TO AMER. WOOD PRESERVERS ASSN. STANDARDS C1, C2 & C3. ANY CUTS MADE IN FIELD SHALL BE PAINTED W/ 2 BRUSH COATS OF AFOREMENTIONED METHOD OF TREATMENT.
 4. METAL GUARDRAIL CONFORMING TO MASSDOT STANDARD SPECIFICATIONS MAY BE INSTALLED IN LIEU OF WOODEN GUARDRAIL.



- NOTES:
1. INSTALL PER MANUFACTURES RECOMMENDATIONS.
 2. ALL FENCE COMPONENTS TO BE WHITE FINISH.

OPAQUE PVC FENCE DETAIL
(NOT TO SCALE)

LOCUS REFERENCES
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LAND COURT CERT. 16956
DEED BOOK 41309, PAGE 153
1.05 Acres

ASSESSORS PARCEL: 18A-14 & 15
0 & #1605 MAIN STREET
OWNER: LEICESTER MAIN, LLC
DEED BOOK 41309, PAGE 153
1.05 Acres

LOCUS LOTS ARE LOCATED WITHIN THE HIGHWAY BUSINESS-INDUSTRIAL 1 DISTRICT.

NOTES
1. THIS PLAN IS BASED ON A FIELD SURVEY PERFORMED BY ODORE SURVEY & MAPPING IN DECEMBER 2012, AND UPDATED BY ALLEN ENGINEERING & ASSOCIATES, INC. IN DECEMBER 2020.

2. ELEVATIONS REFER TO NAD 88 VERTICAL DATUM.

3. THE SITE FALLS WITHIN A FLOOD ZONE X (AREA OF MINIMAL FLOOD HAZARD) ACCORDING TO FLOOD INSURANCE RATE MAP PANEL NUMBER 25027C0780E.

4. THIS SITE DOES NOT CONTAIN CERTIFIED VERNAL POOLS OR HABITATS OF RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE WEB SITE AS OF DECEMBER 2020.

5. EXISTING UTILITY LINES SHOWN ON THESE DRAWINGS ARE BASED ON AVAILABLE RECORD INFORMATION OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. EXISTING UTILITY LINES OTHER THAN THOSE SHOWN MAY BE ON THE SITE. CALL "DIG SAFE" AT 811.

6. THERE SHALL BE NO USE OF FILL CONTAINING HAZARDOUS MATERIALS.

7. APPLICANT SHALL PROVIDE CONSTRUCTION DRAWINGS FOR UNDERGROUND STORAGE TANKS WITH APPLICATION FOR BUILDING PERMIT. DEPTH OF LEDGE/REFUSAL TO BE DETERMINED PRIOR TO DESIGN.



PROFESSIONAL ENGINEER

PREPARED FOR:

Skaft Petroleum, Inc.
334 Grafton Street,
Worcester, MA 01604

TITLE:
**CONSTRUCTION
DETAIL PLAN**
For
#1603 - #1605 Main Street
In
Leicester, MA

PREPARED BY:



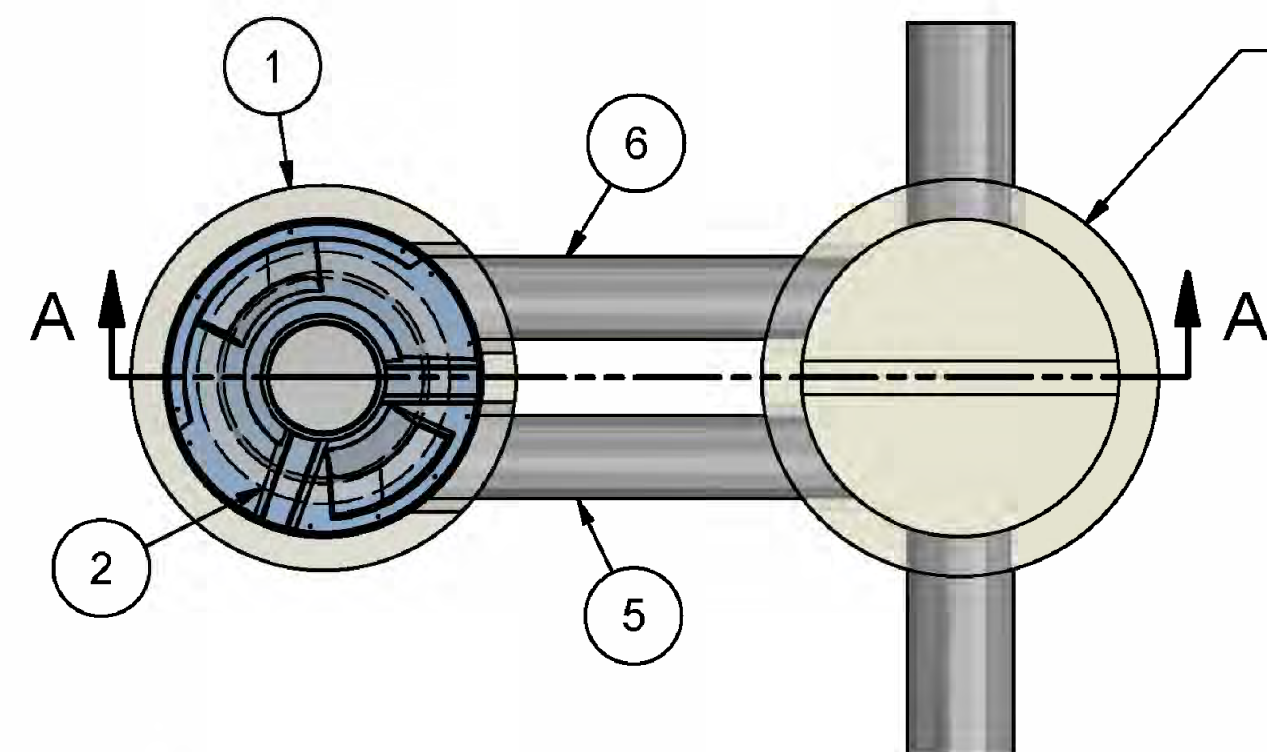
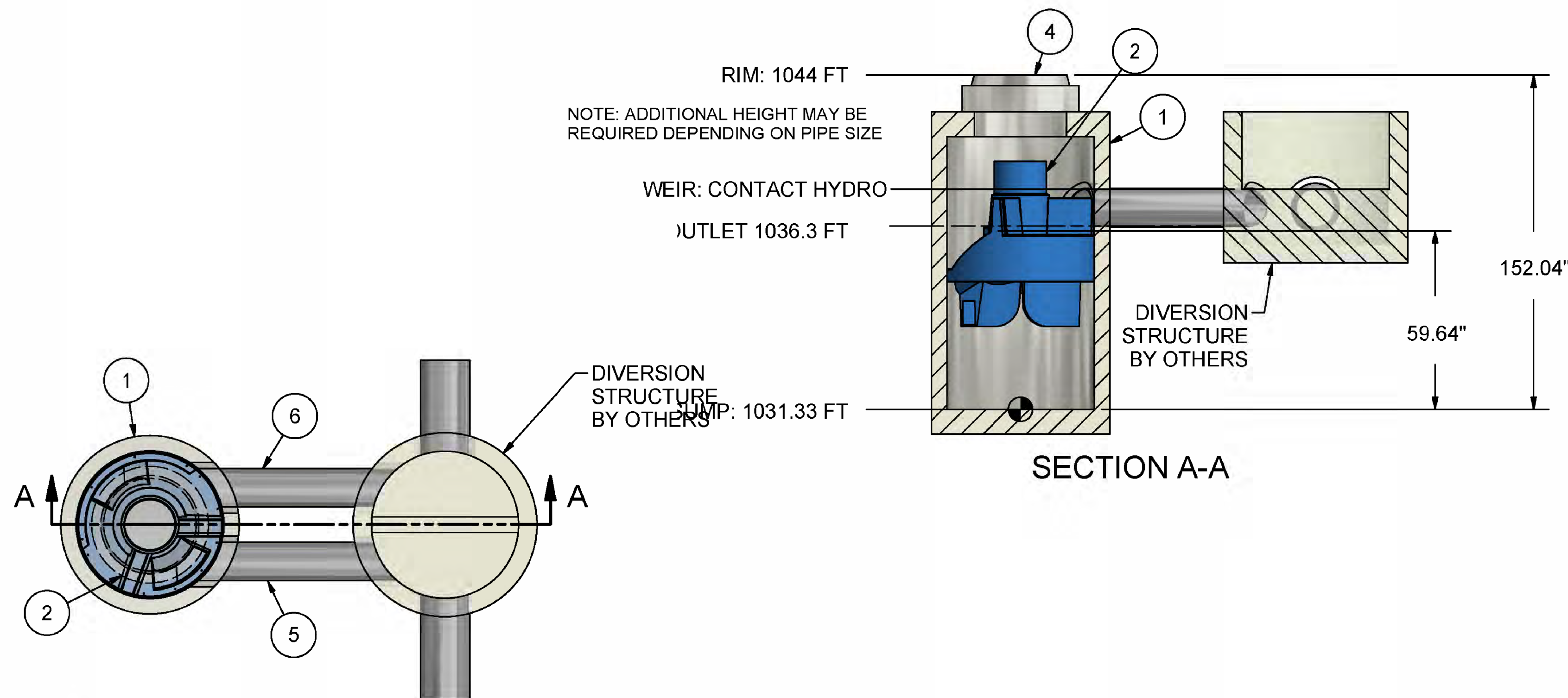
**ALLEN ENGINEERING
& ASSOCIATES, INC.**
Civil Engineers • Surveyors
Land Development Consultants
One Charlesview Road
Suite 2
Hopedale, Ma 01747
(508) 381-3212 • Phone
www.allenrea.com

SCALE: AS NOTED

DATE: September 23, 2021

REVISIONS			
#	DATE	DESCRIPTION	INIT
1	11/12/21	PER COMMENTS	BSW
2	11/19/21	PER COMMENTS	BSW

JOB NO: 00047 SHEET: 10 of 13

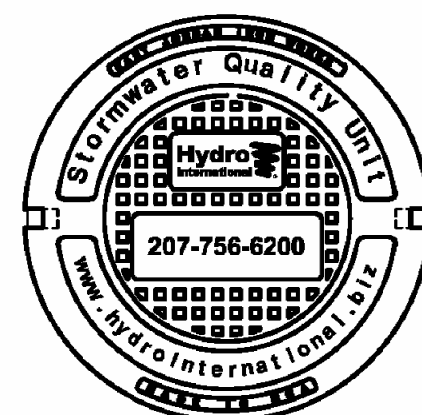


CAPACITIES:

1. PEAK HYDRAULIC FLOW: 17.89 cfs
2. SEDIMENT STORAGE CAPACITY: 0.7 yd3
3. OIL STORAGE CAPACITY: 191 gal
4. MAXIMUM INLET/OUTLET PIPE DIAMETERS: 24 in. (600 mm)
5. THE TREATMENT SYSTEM SHALL USE AN INDUCED VORTEX TO SEPARATE POLLUTANTS FROM STORMWATER RUNOFF.

GENERAL NOTES :

1. General Arrangement drawings only. Contact Hydro International for site specific drawings.
2. Inlet/outlet pipe angle can vary to align with drainage network (refer to project plans)
3. Peak flow rate and minimum height limited by available cover and pipe diameter.



**HYDRO FRAME AND
COVER (INCLUDED)**
GRADE RINGS BY OTHERS
AS REQUIRED

NOTE:

- NOT FOR CONSTRUCTION. CONTACT HYDRO FOR SITE SPECIFIC DETAIL.
- MAX PIPE SIZE MAY NOT BE POSSIBLE IN OFFLINE CONFIGURATION.

PARTS LIST		
ITEM	DESCRIPTION	SIZE (in)
1	I.D. PRECAST MANHOLE	48
2	INTERNAL COMPONENTS (PRE-INSTALLED)	
4	FRAME AND COVER (ROUND)	30
5	OUTLET PIPE(BY OTHERS)	12
6	INLET PIPE(BY OTHERS)	12

WEIGHT: N/A	MATERIAL:
REFERENCE NUMBER: 21_12_1395	
DRAWING NO.:	
SHEET SIZE: B	SHEET: 1 OF 1
Rev: -	

Bruce@Allen-EA.com 4/5/2021

PROJECTION

IF IN DOUBT ASK

COMMENTS:
1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.

2. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

REVISION HISTORY		
REV	BY	DESCRIPTION
-	ER	FIRST RELEASE

DATE:	SCALE: NTS
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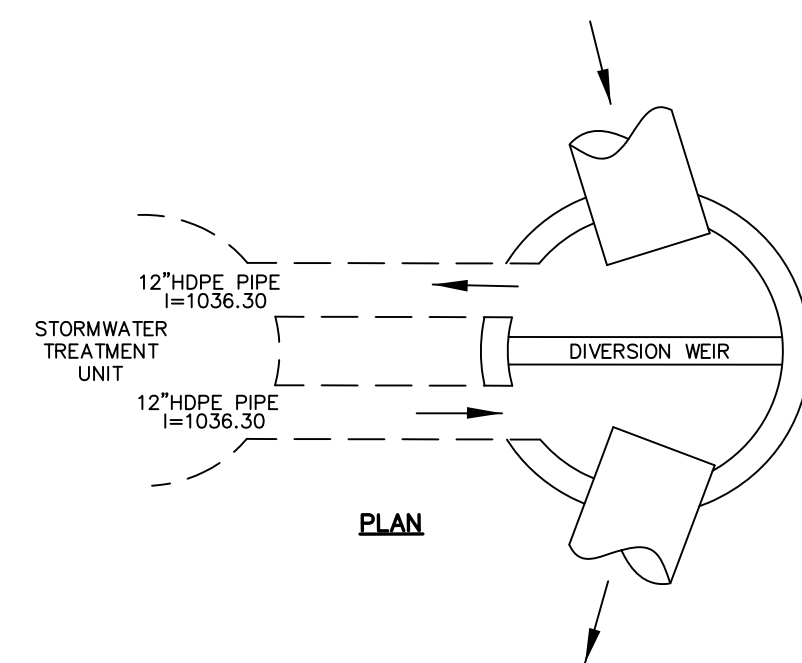
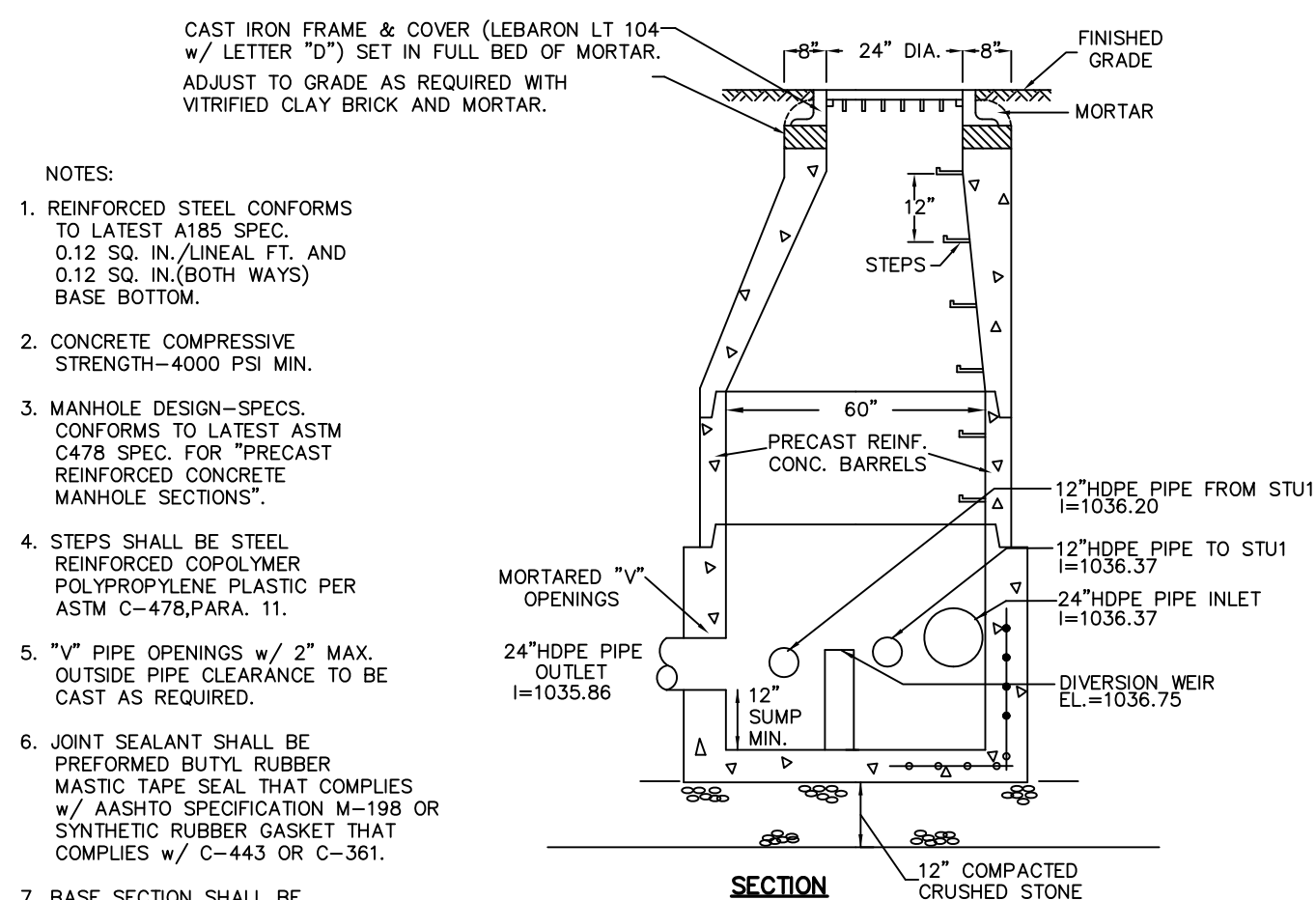
DRAWN BY: ER	CHECKED BY:	APPROVED BY:
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Title
**4 FT FIRST DEFENSE®
HIGH CAPACITY**

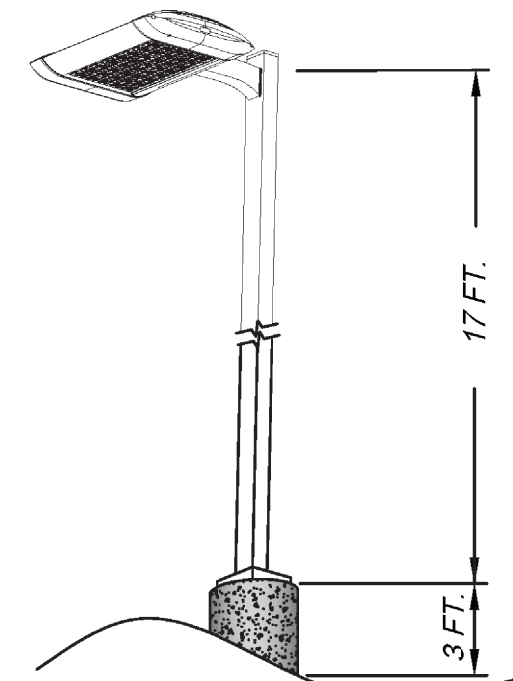
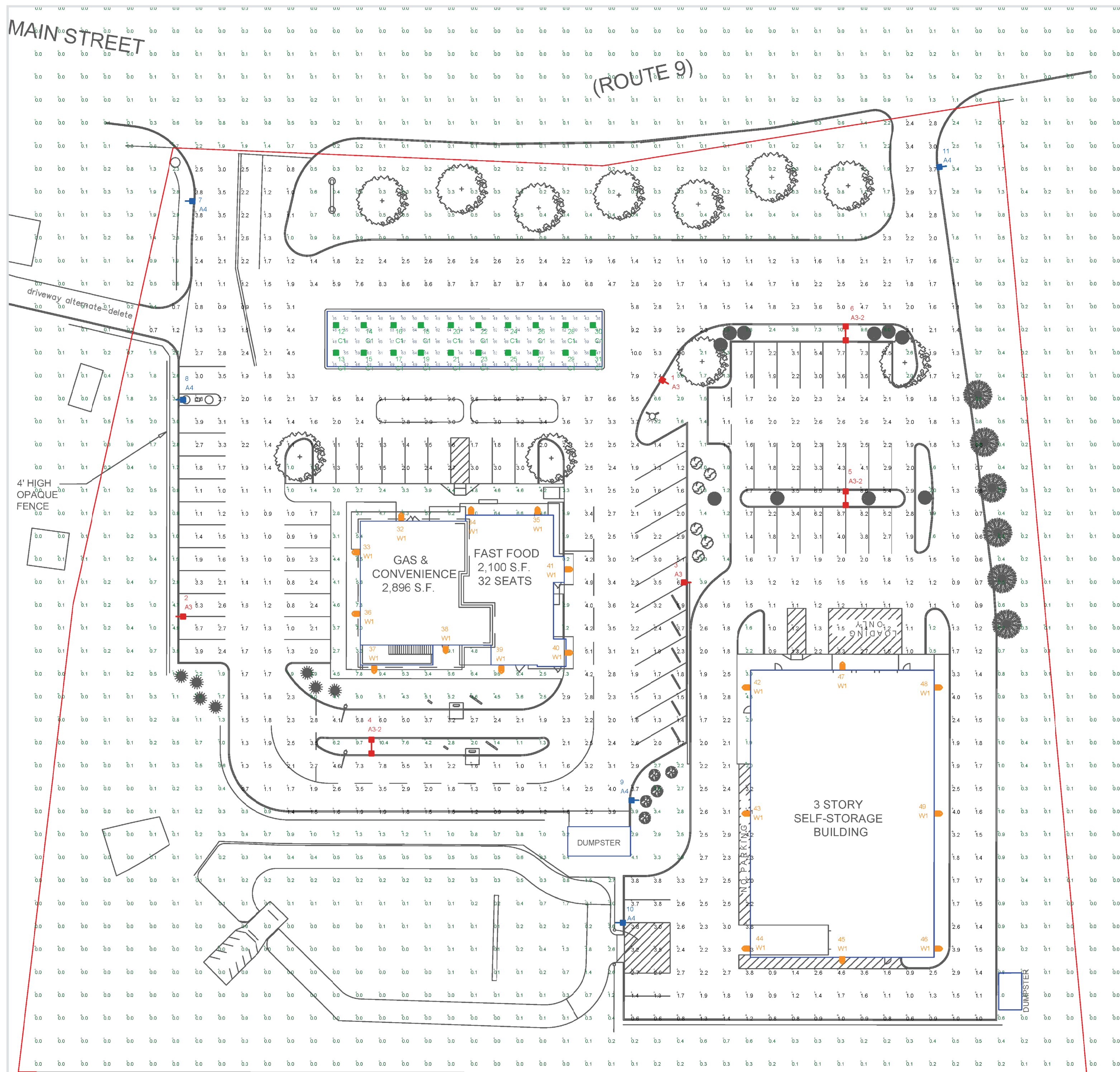
Site:
Leicester

Structure No:
STU1

Hydro International
hydro-int.com
HYDRO INTERNATIONAL



PRECAST CONCRETE DIVERSION MANHOLE
(NOT TO SCALE)



NOTE:
- ALL AREA LIGHTS ON NEW 17 FT. POLES MOUNTED ON 3 FT. CONCRETE BASES

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
CANOPY	56.03	68	35	1.60	1.94
PAVED	2.54	10.0	0.6	4.23	16.67
UNDEFINED	0.60	10.4	0.0	N.A.	N.A.

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	A3	20
2	A3	20
3	A3	20
4	A3-2	20
5	A3-2	20
6	A3-2	20
7	A4	20
8	A4	20
9	A4	20
10	A4	20
11	A4	20
12	C1	15
13	C1	15
14	C1	15
15	C1	15
16	C1	15
17	C1	15
18	C1	15
19	C1	15
20	C1	15
21	C1	15
22	C1	15
23	C1	15
24	C1	15
25	C1	15
26	C1	15
27	C1	15
28	C1	15
29	C1	15
30	C1	15
31	C1	15
32	W1	12
33	W1	12
34	W1	12
35	W1	12
36	W1	12
37	W1	12
38	W1	12
39	W1	12
40	W1	12
41	W1	12
42	W1	15
43	W1	15
44	W1	15
45	W1	15
46	W1	15
47	W1	15
48	W1	15
49	W1	15

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	3	A3	SINGLE	11175	1.030	B2-U0-G2	72	216	Cree Lighting	OSQ-ML-B-XX-XX + OSQM-B-11L-57K7-3M-UL-NM-XX
	3	A3-2	D180	11175	1.030	B2-U0-G2	72	432	Cree Lighting	OSQ-ML-B-XX-XX + OSQM-B-11L-57K7-3M-UL-NM-XX
	5	A4	SINGLE	11174	1.030	B2-U0-G2	72	360	Cree Inc	OSQ-ML-B-XX-XX + OSQM-B-11L-57K7-4M-UL-NM-XX
	20	C1	SINGLE	12516	1.030	B3-U0-G1	91.19	1823.8	Cree Lighting	CPY250-B-DM-F-13L-UL-XX-57K
	18	W1	SINGLE	4270	1.030	B1-U0-G1	31	558	Cree Inc	XSPW-B-VM-3ME-4L-57K-UL-XX

DISCLAIMER

ANY SITE PLANS, FLOOR PLANS, RENDERINGS, LIGHTING LAYOUTS AND PHOTOMETRIC PLANS (INCLUDING BUT NOT LIMITED TO ANY PROJECTS) CREATED/PRODUCED BY RED LEONARD ASSOCIATES INC., ARE ONLY INTENDED FOR ILLUSTRATION AND QUOTING PURPOSES ONLY. RED LEONARD ASSOCIATES HAS THE RIGHT TO USE THIRD PARTY LASERS, SCANNERS, AND CAMERAS BUT ACTUAL PROJECT CONDITIONS, DIMENSIONS, AND ACCURACY OF MEASUREMENTS MAY DIFFER FROM THESE OR ANY PARAMETERS. RED LEONARD ASSOCIATES INC. ASSUMES NO LIABILITY FOR WHAT IS CREATED/PRODUCED IN THESE RECREATIONS. THIS INCLUDES BUT IS NOT LIMITED TO THE USE OF, INSTALLATION OF AND/OR INTEGRITY OF EXISTING BUILDINGS, SURROUNDING AREA FOR PROJECTS (SUCH AS EXISTING POLES), ANCHOR BOLTS, BASE(S), ARCHITECTURAL AND SIGNAGE STRUCTURES, LANDSCAPING PLANS, LIGHTING PLANS, FUTURE SELECTIONS AND PLACEMENT, MATERIALS, COLOR ACCURACY, TEXTURES, AND ANYTHING ATTRIBUTED TO PHOTO REALISM THAT IS CREATED. FURTHERMORE, RED LEONARD ASSOCIATES INC., DOES NOT ASSUME LIABILITY WHATSOEVER FOR ANY PURCHASES MADE BY CLIENT BEFORE, DURING, OR AT THE CONCLUSION OF THE PUBLISHED WORK. THE CUSTOMER, ITS RELATIVE AFFILIATES, AS WELL AS ANY OTHER PERSON(S) IN VIEWING OF THIS PRODUCT IS RESPONSIBLE FOR VERIFYING COMPLIANCE WITH ANY BUT NOT LIMITED TO ALL CODES, PERMITS, RESTRICTIONS, INSTRUCTIONS, PURCHASES, AND INSTALLATIONS OF OBJECTS VIEWED WITHIN THIS DOCUMENT(S) OR PROJECT(S). SYMBOLS ARE NOT DRAWN TO SCALE. SIZE IS FOR CLARITY PURPOSES ONLY. SIZES AND DIMENSIONS ARE APPROXIMATE. ACTUAL MEASUREMENTS MAY VARY. DRAWINGS ARE NOT INTENDED FOR ENGINEERING OR CONSTRUCTION USE. THIS DOCUMENT, ANY RED LEONARD DRAWINGS, OR PROJECT(S) IS NOT TO BE USED AND/OR INTENDED FOR ENGINEERING OR CONSTRUCTION PURPOSES, BUT FOR ILLUSTRATIVE PURPOSES ONLY. ANY LOCATIONS OF EMERGENCY LIGHTING SHOWN WERE PROVIDED BY OTHERS. RED LEONARD ASSOCIATES IS NOT RESPONSIBLE FOR INSUFFICIENT LIGHTING DURING AN EMERGENCY EVENT. ANY USE OF THIS DOCUMENTATION AND/OR OTHER ARTICLES PRODUCED BY RED LEONARD WITHOUT WRITTEN AUTHORIZATION FROM JAYME J. LEONARD IS STRICTLY PROHIBITED.

SCALE:
1" = 30'
DATE:
04/30/21

PROJECT NAME:
MOBIL/BURGER KING
LEICESTER, MA
DRAWING NUMBER:
RL-7353-S1-R1






RED LEONARD
ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-674-9600 | redleonard.com

REV.	BY	DATE	DESCRIPTION
R1	LMP	08/19/21	REVISED TO INCLUDE SELF STORAGE PARKING

LIGHTING
PHOTOMETRIC PLAN

JOB NO:
00047
SHEET:
11 of 13

AREA	QTY	LABEL	DESCRIPTION
	3	A3	OSQ-ML-B-XX-XX + OSQM-B-1L-57K7-3M-UL-NM-XX
	3	A3-2	OSQ-ML-B-XX-XX + OSQM-B-1L-57K7-3M-UL-NM-XX
	6	A4	OSQ-ML-B-XX-XX + OSQM-B-1L-57K7-4M-UL-NM-XX

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Dree TrueWhite® Technology - Medium & Large

File Date: Version 01/02/2020

Product Description
The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management, and rugged, shock resistant, built-in shock mount with rugged, shock resistant, built-in shock mount, weatherlight LED driver, compact, versatile mounting configurations offer simple installation. The rugged design meets the requirements and demands of the most demanding applications, providing even quality illumination. The 4 luminaire package is a suitable upgrade for M2 applications up to 250 Watts, and the 7 luminaire package is a suitable upgrade for M2 applications up to 350 Watts. The 30 luminaire package is a suitable upgrade for M2 applications up to 700 Watts, and the 30 luminaire package is a suitable upgrade for M2 applications up to 700 Watts.

Performance Summary
Utilizes Dree TrueWhite® Technology on 5000K Luminaire
Standard 5000K Luminaire (5000K)
Assembled in the U.S.A. of U.S. and imported parts
Initial Delivered Lumens: 1000 - 30000
Efficiency: 100 lm/W
CRI: Minimum 90 (CRI 90, 95, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 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