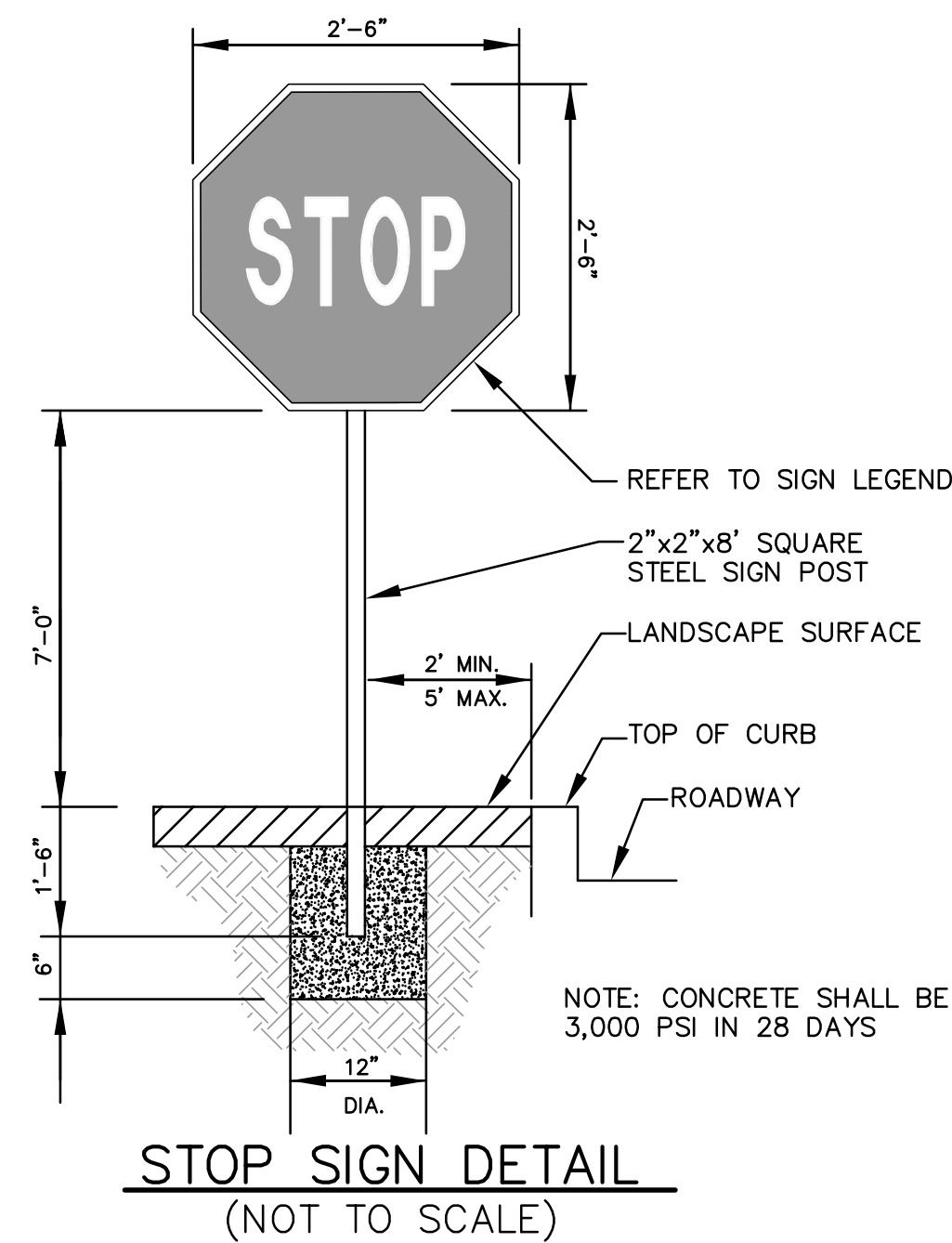
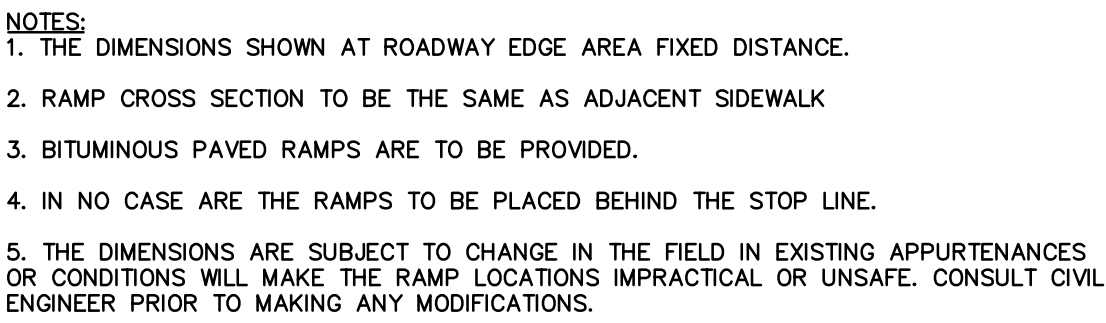
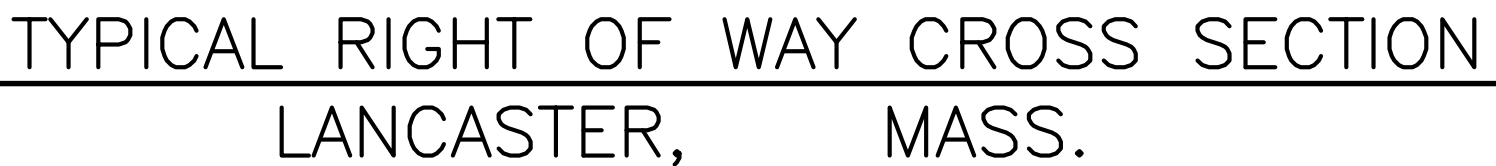




NOTES:

1. FILL MATERIAL IF REQUIRED, SHALL MEET THE SPECIFICATIONS OF MSSH B M3.01.0, ORDINARY BORROW.
2. GRAVEL SURFACE FOR ROADWAYS AND SIDEWALKS SHALL BE MSSH B M3.01.0.
3. SIEVE TEST RESULTS SHALL BE SUBMITTED TO THE TOWN OF LANCASTER REPRESENTATIVE FOR THE GRAVEL.
4. COMPACTION TEST MUST BE CONDUCTED AND RESULTS SUBMITTED FOR THE SUBBASE AND GRAVEL.
5. NO PAVING IS ALLOWED BETWEEN NOVEMBER 1 AND APRIL 15.
6. A PAVEMENT SHALL MEET MSSH B M3.11.03, SIMILAR TO THE SIDEWALK SPECIFICATION.
7. BITUMINOUS CONC. BERM SHALL BE INSTALLED IN ALL AREAS ALONG THE ROADWAY WHERE SIDEWALKS ARE PROPOSED.

NOTE:
ALL CONSTRUCTION SHALL BE IN ACCORDANCE
WITH THE TOWN OF LANCASTER CONSTRUCTION
STANDARDS AND SPECIFICATIONS.



REVISIONS	
1	04/10/18
2	07/06/18
3	07/25/18
4	09/18/18
5	11/06/18
6	12/27/18
7	2/13/19
8	2/19/19
9	3/07/19

SITE DEVELOPMENT PLAN
"GOODRIDGE BROOK ESTATES"
Multi Unit & Single Family Subdivision Layout
LANCASTER, MASSACHUSETTS

PREPARED FOR:

CRESCENT BUILDERS, INC.
94 NORTH MAIN STREET
BOYLSTON MA 01563

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

DRW.: RST	
JOB No.	12,274
DATE:	FEBRUARY 8, 2018
SCALE:	nts
SHEET:	21 of 27
PLAN #:	27,147

12' Height

5'-0"

2'-0"

12"

12"

PRUNE 1/3 OF CROWN BY THINNING AND SPACING BRANCHES. DO NOT CUT LEADER. DO NOT USE TREE PAINT.

3/4" REINFORCED RUBBER HOSE

3/16" GALVANIZED STEEL CABLE

2"x3"x10" WOOD STAKES (3 PER TREE) NOTCH STAKES FOR WIRE.

TREE WRAP W/30% OVERLAP

3" PINE BARK MULCH (MIN.)

6" SOIL SAUCER (MIN.)

TREE SHALL BE PLANTED SO AS TO MAINTAIN SAME RELATIONSHIP TO FINISHED GRADE AS IT PREVIOUSLY HAD.

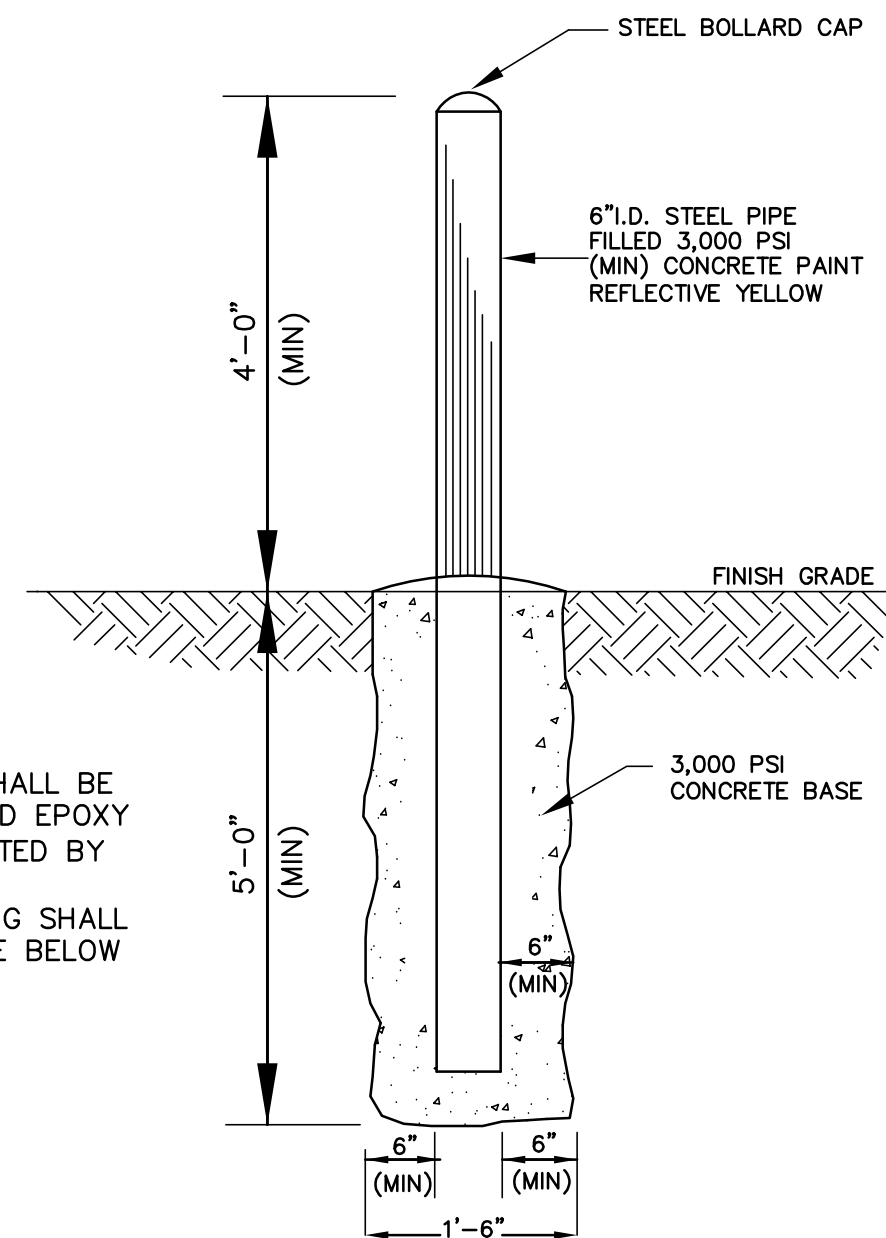
PLANTING SOIL

REMOVE TOP 1/3 OF BURLAP BEFORE BACKFILLING

TAMPED SETTING BED

NOTE:
ALL CONSTRUCTION SHALL BE IN ACCORDANCE
WITH THE TOWN OF LANCASTER CONSTRUCTION
STANDARDS AND SPECIFICATIONS.

NOTES:
1. ALL EXPOSED PIPE SHALL BE PAINTED WITH CATALYZED EPOXY POINT (COLOR AS DIRECTED BY THE SITE ENG.)
2. A BITUMASTIC COATING SHALL BE APPLIED TO ALL PIPE BELOW GRADE



20'-0"

4'-0"

48" max

4' min.

6' dia. Steel bollards conc. Filled (typ.)

Slope 1/4" per 1'-ft.

6' conc. Slab

12' clearance min.

12' clearance min.

Swing gate (typ.)

Drop pin hole (typ.)

MASONRY DUMPSTER ENCLOSURE WALL
- 8"x16" SPLIT FACE MCJ BLOCK
- GROUT ALL CELLS SOLID

PLAN
N.T.S.

Tie beam with

N.T.S.

12' clearance min.

12' clearance min.

6'

Grade

14"

8"

6"

3000 p.s.i. Concrete slab with fiber mesh reinforcing - monolithic, min 6' thickness, 6'x6' x 10x10 w.w.f.

8'x16' concrete footing w/ 2- #5 continuous rebar (typ.)

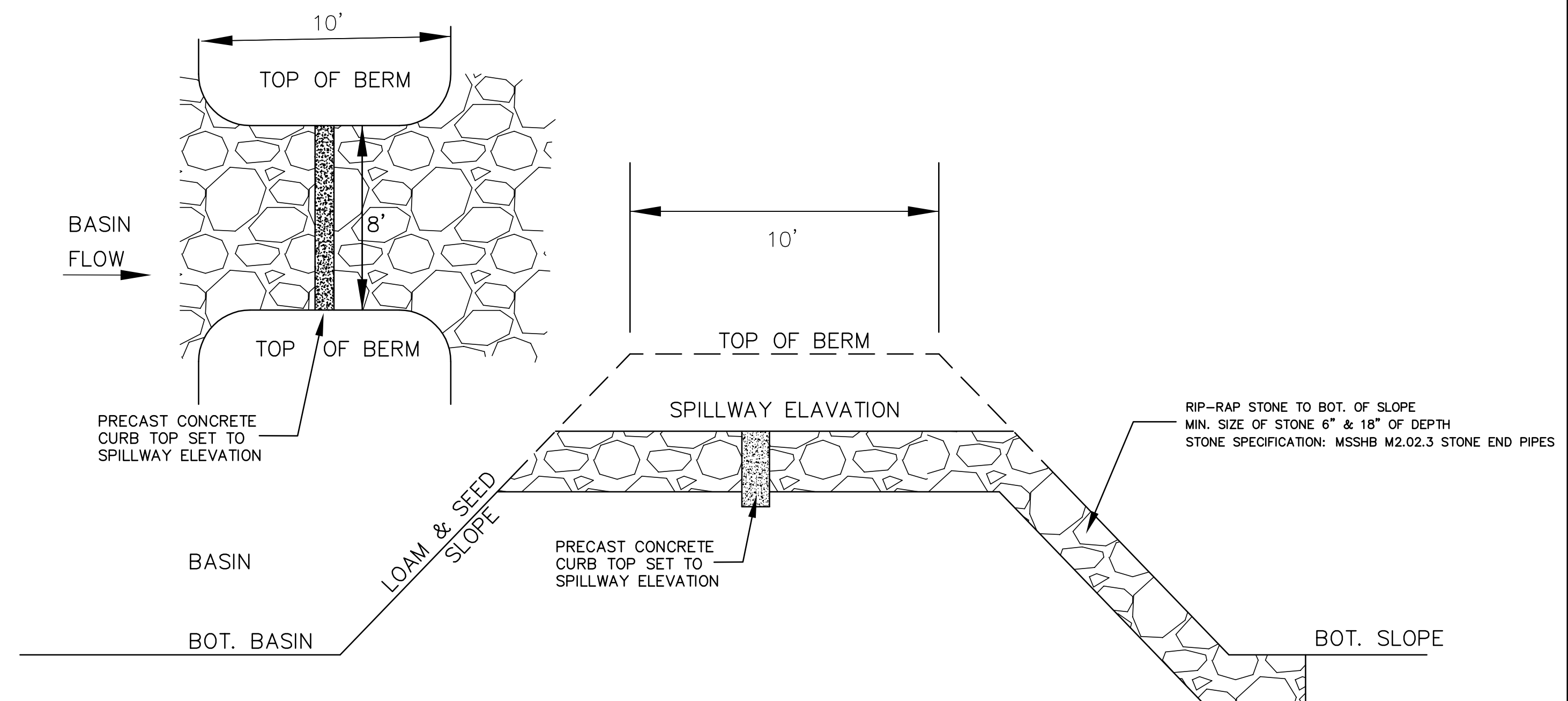
1-#5 at 4' center

Swing gate (typ.)

drop pin (typ.)

Tie beam with 2-#5 rebar continuous

DUMPSTER PAD & SCREENING DETAIL
NOT TO SCALE



	REVISIONS
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Multi Unit & Single Family Subdivision Layout
LANCASTER, MASSACHUSETTS

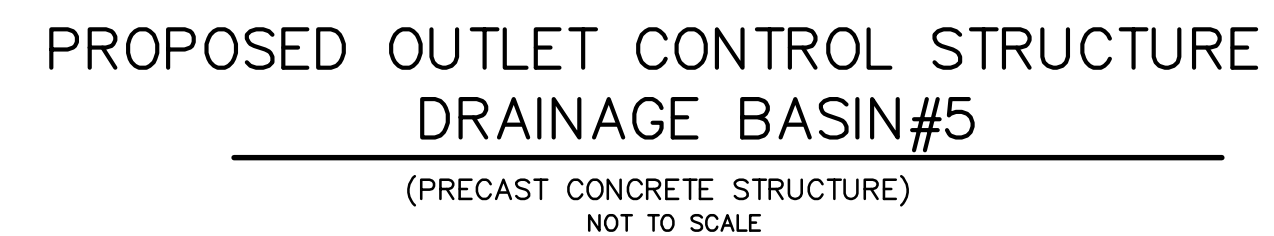
PREPARED FOR:
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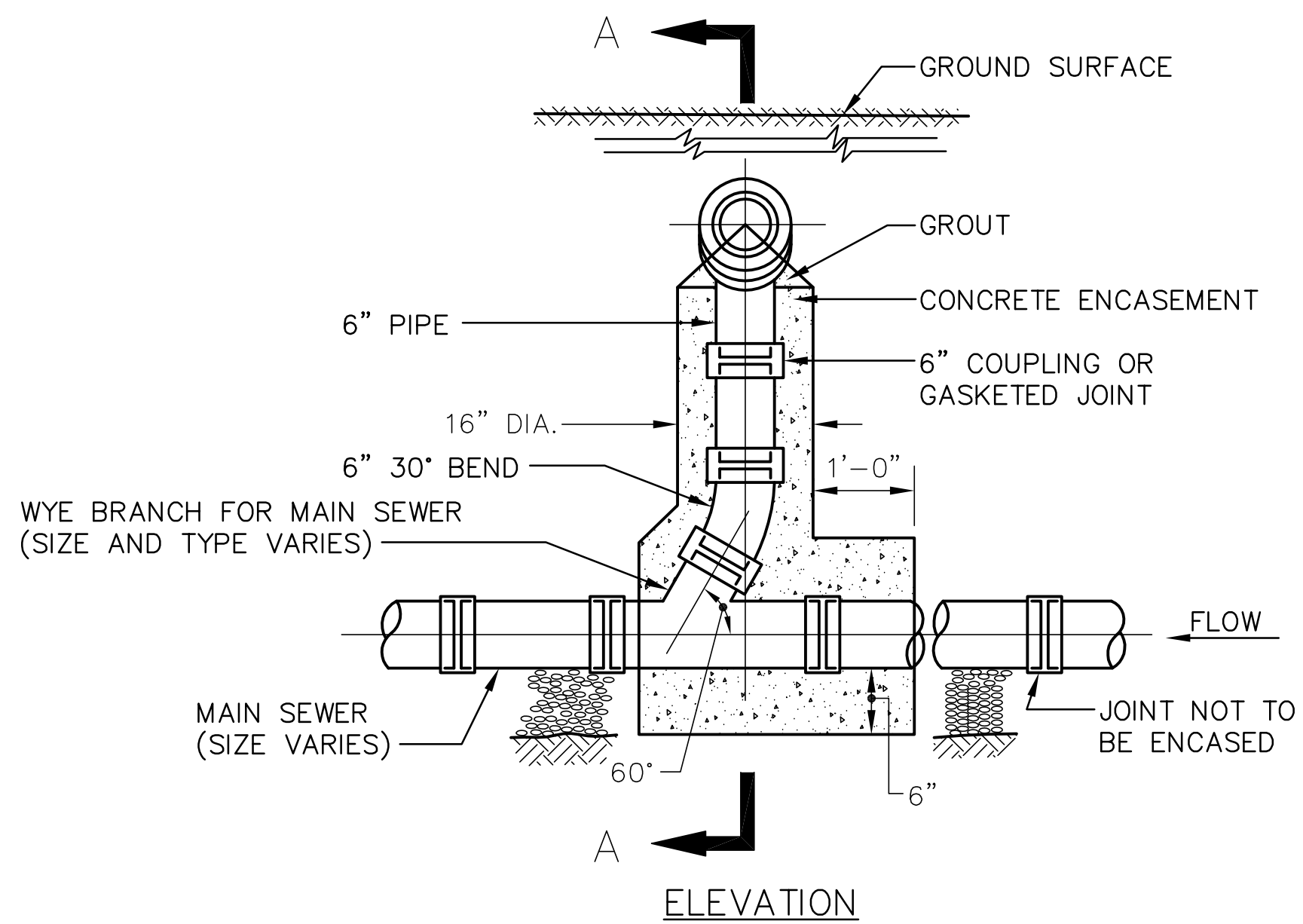
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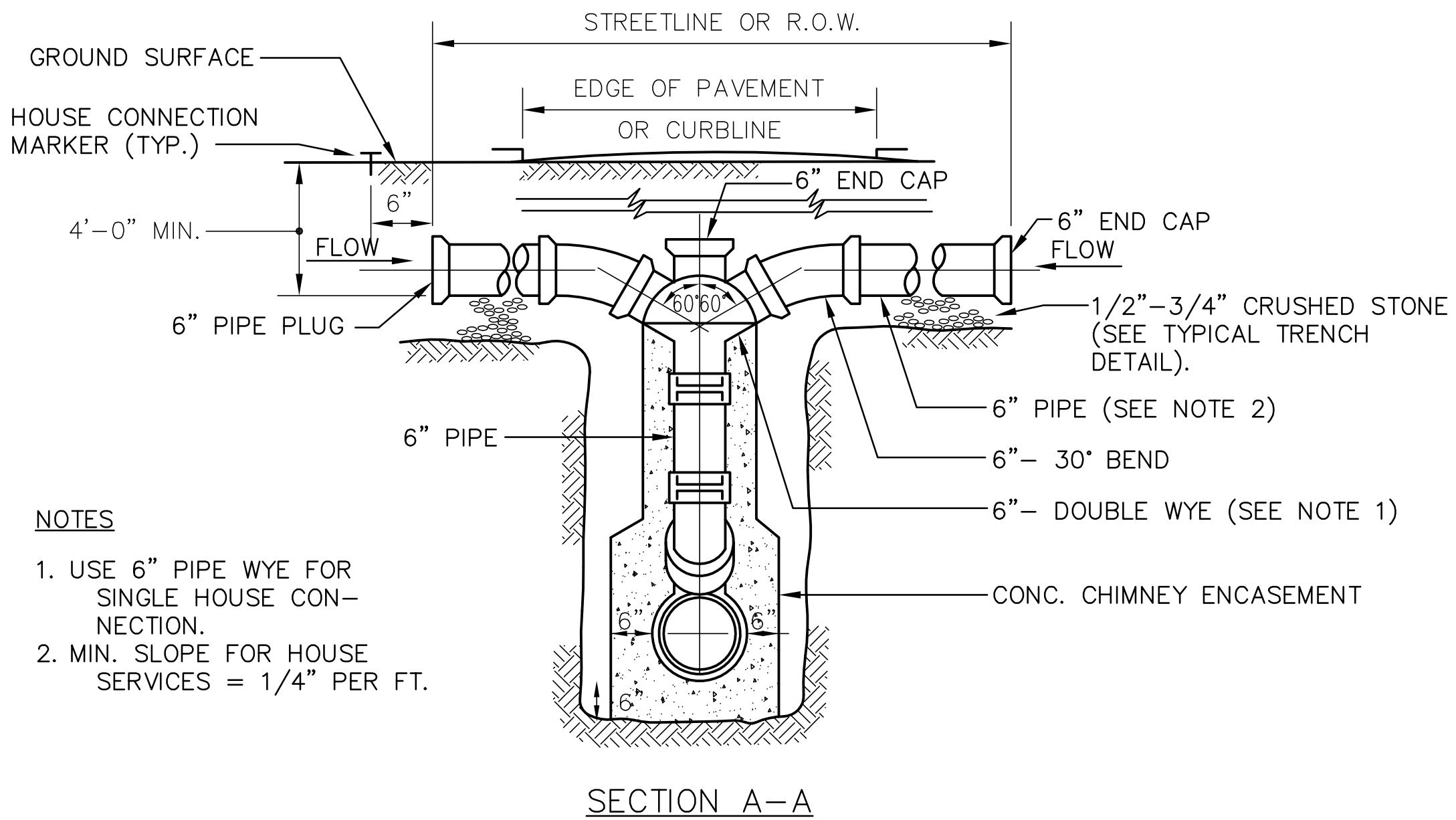
RIP-RAP STONE:
STONE SPECIFICATION: MSSHB M2.02.3 STONE FOR PIPE ENDS
WITH FABRIC

CONCRETE AND FIELD STONE MASONRY HEADWALL DETAILS
NOT TO SCALE

RIP-RAP IMPACT BASIN AT HEADWALLS
NOT TO SCALE



TYPICAL HOUSE SERVICE CONNECTION & CHIMNEY DETAIL
(FOR MAIN SEWER OVER 8'-0" DEEP)
NOT TO SCALE

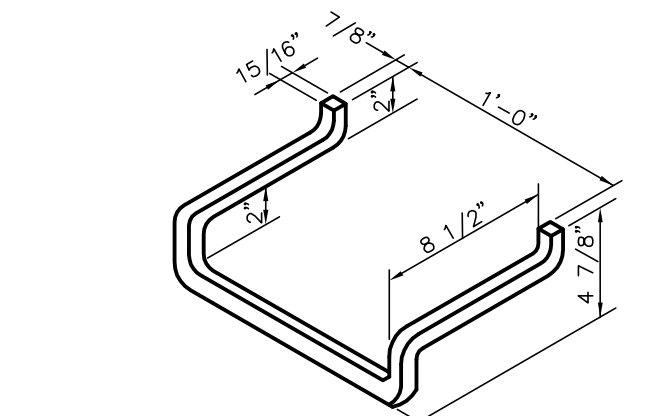


- NOTES**
1. USE 6" PIPE WYE FOR SINGLE HOUSE CONNECTION.
 2. MIN. SLOPE FOR HOUSE SERVICES = 1/4" PER FT.

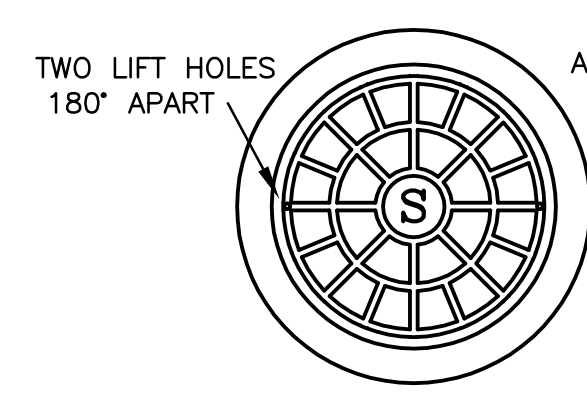
NOTE:
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION.
DIGSAFE 1-888-DIG-SAFE



NOTE:
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF LANCASTER CONSTRUCTION STANDARDS AND SPECIFICATIONS.



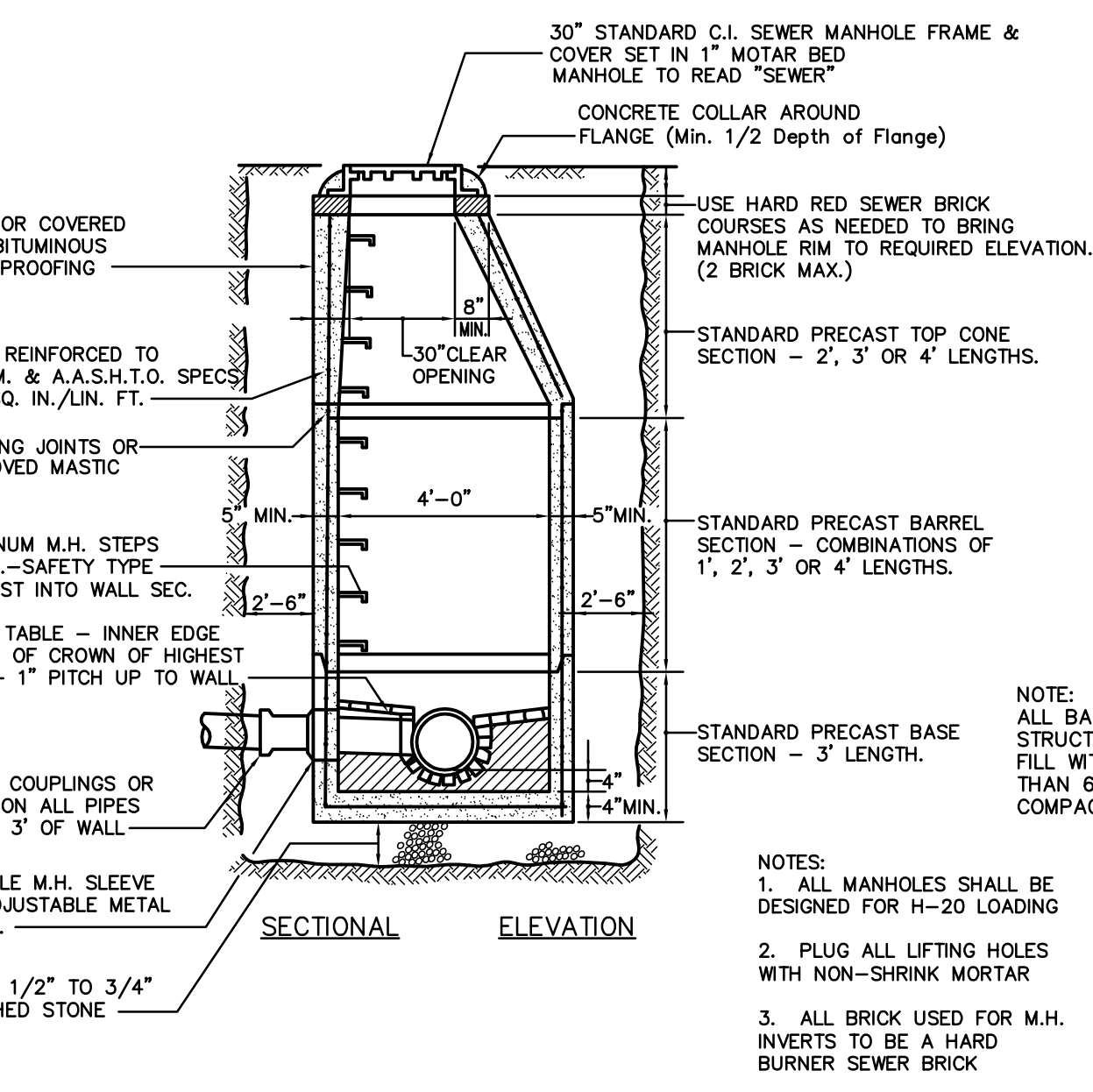
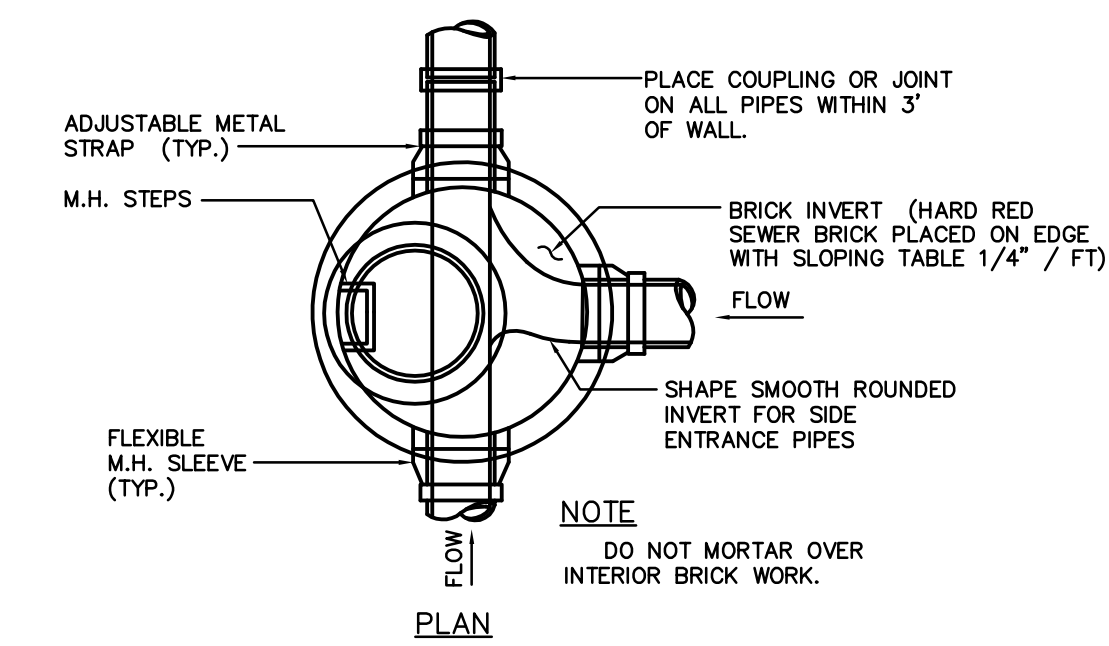
MANHOLE STEP DETAIL
NOT TO SCALE



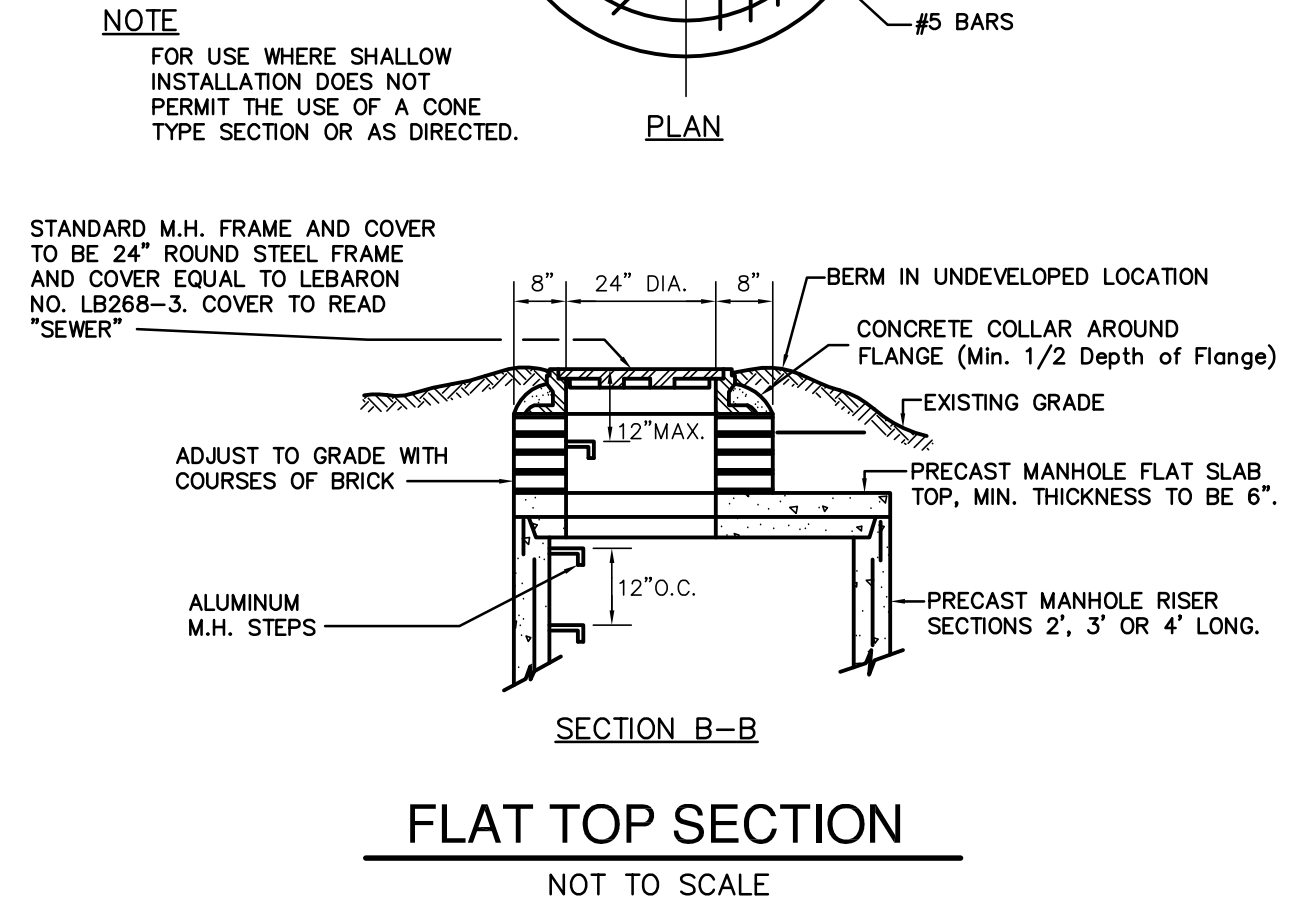
AS MANUFACTURED BY:
LE. BARON FONDRIY CO.
BROCKTON, MA
No. LT 101
MECHANICS IRON FOUNDRY CO.
BOSTON, MA
No. K 6004
C.M. WHITE IRON WORKS
NORTH READING, MA
No. R 258

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

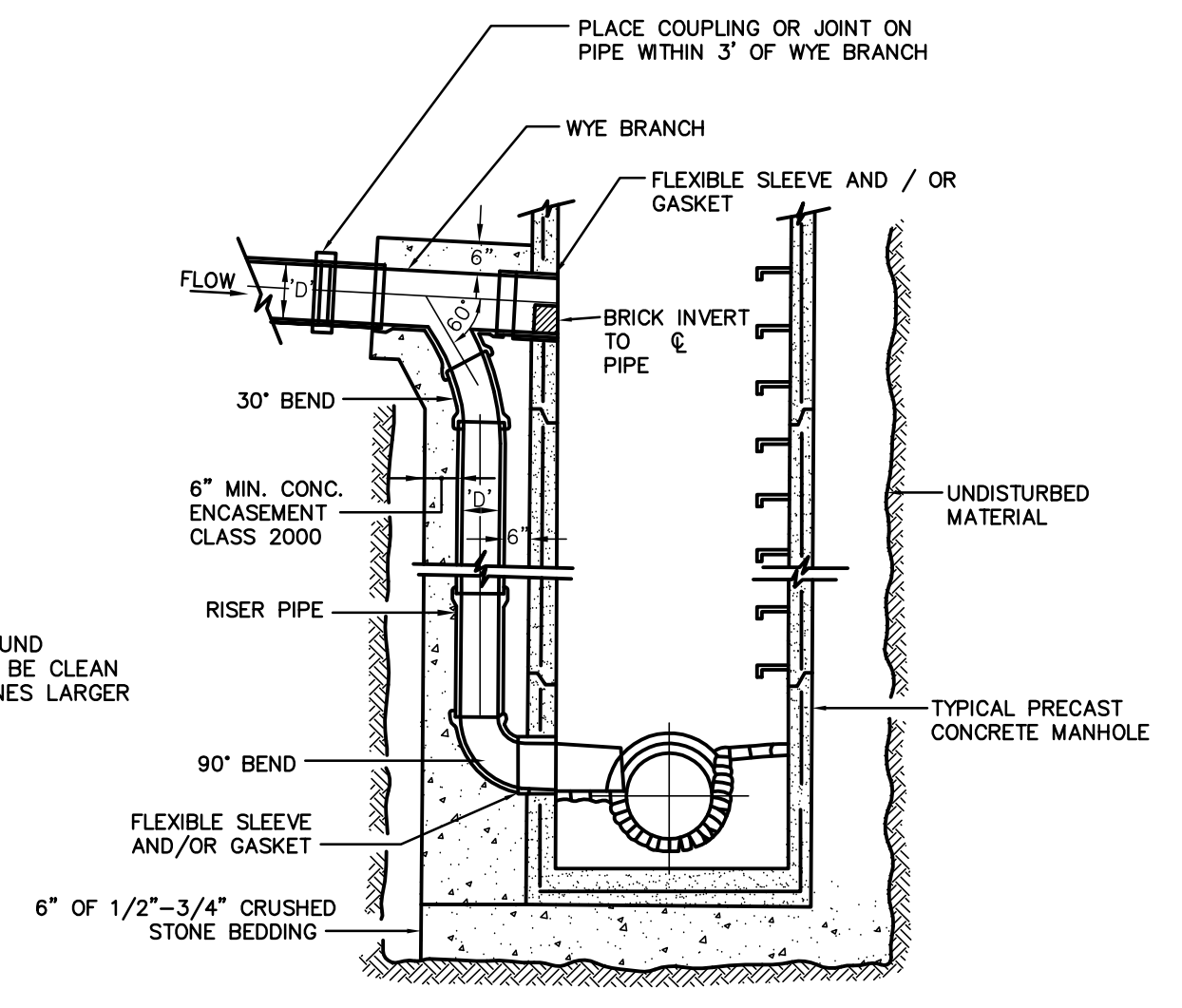
**CAST IRON
MANHOLE FRAME AND COVER**
MIN. WEIGHT=450# PER SET



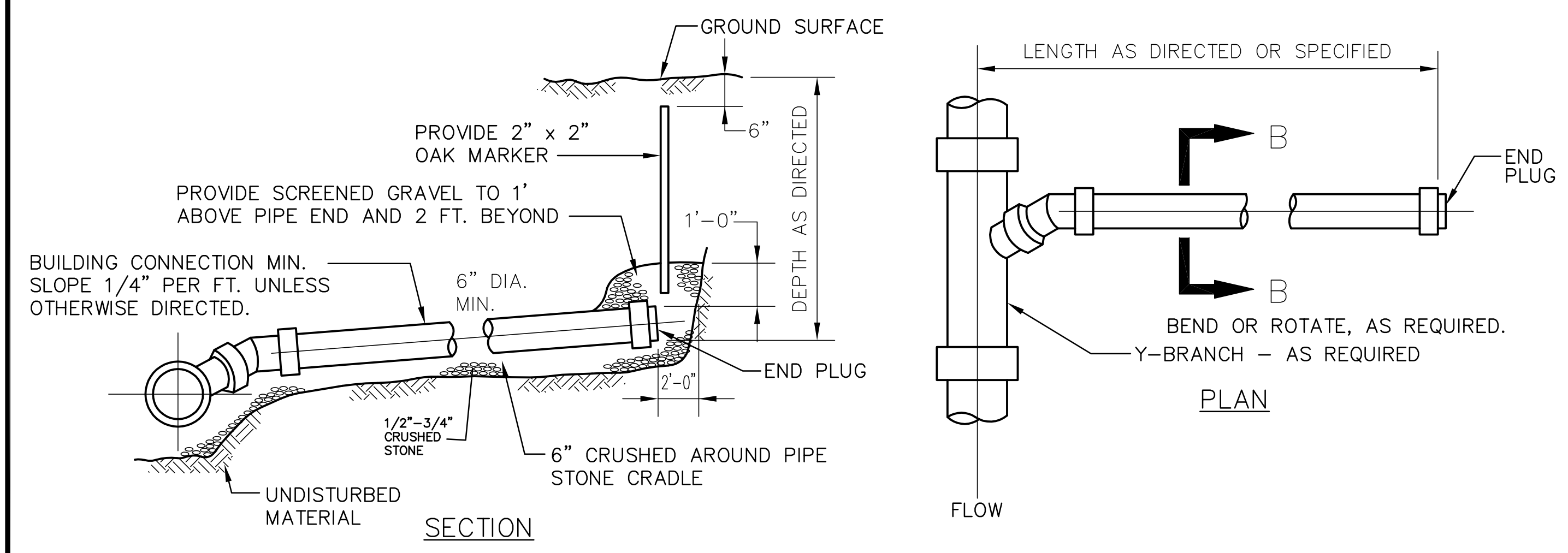
TYPICAL SEWER MANHOLE DETAIL
NOT TO SCALE



FLAT TOP SECTION
NOT TO SCALE



TYPICAL DROP INLET MANHOLE DETAILS
NOT TO SCALE



TYPICAL BUILDING CONNECTION
NOT TO SCALE

NOTE:

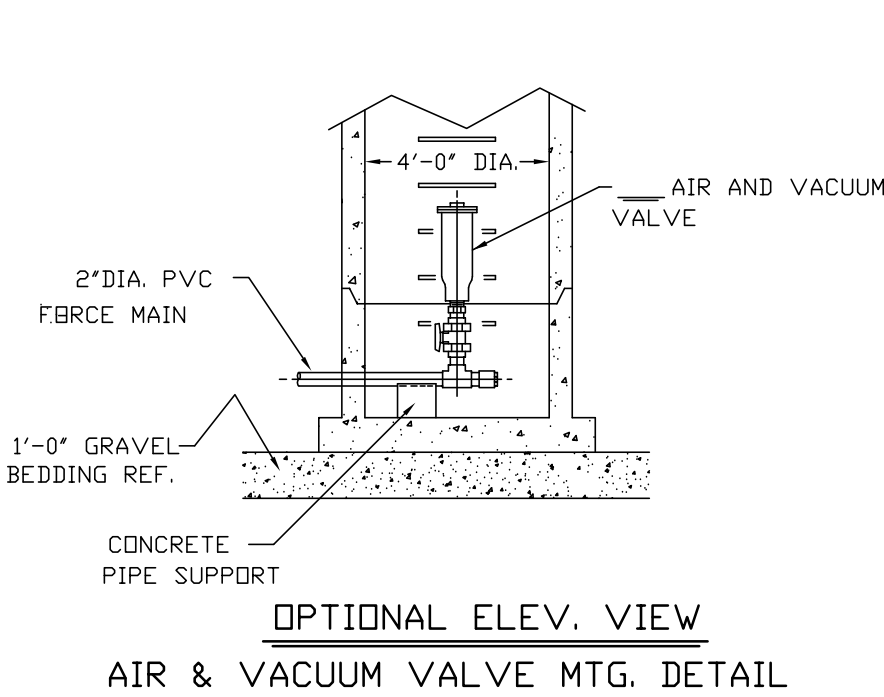
DIGSAFE 1-888-DIG-SAFE

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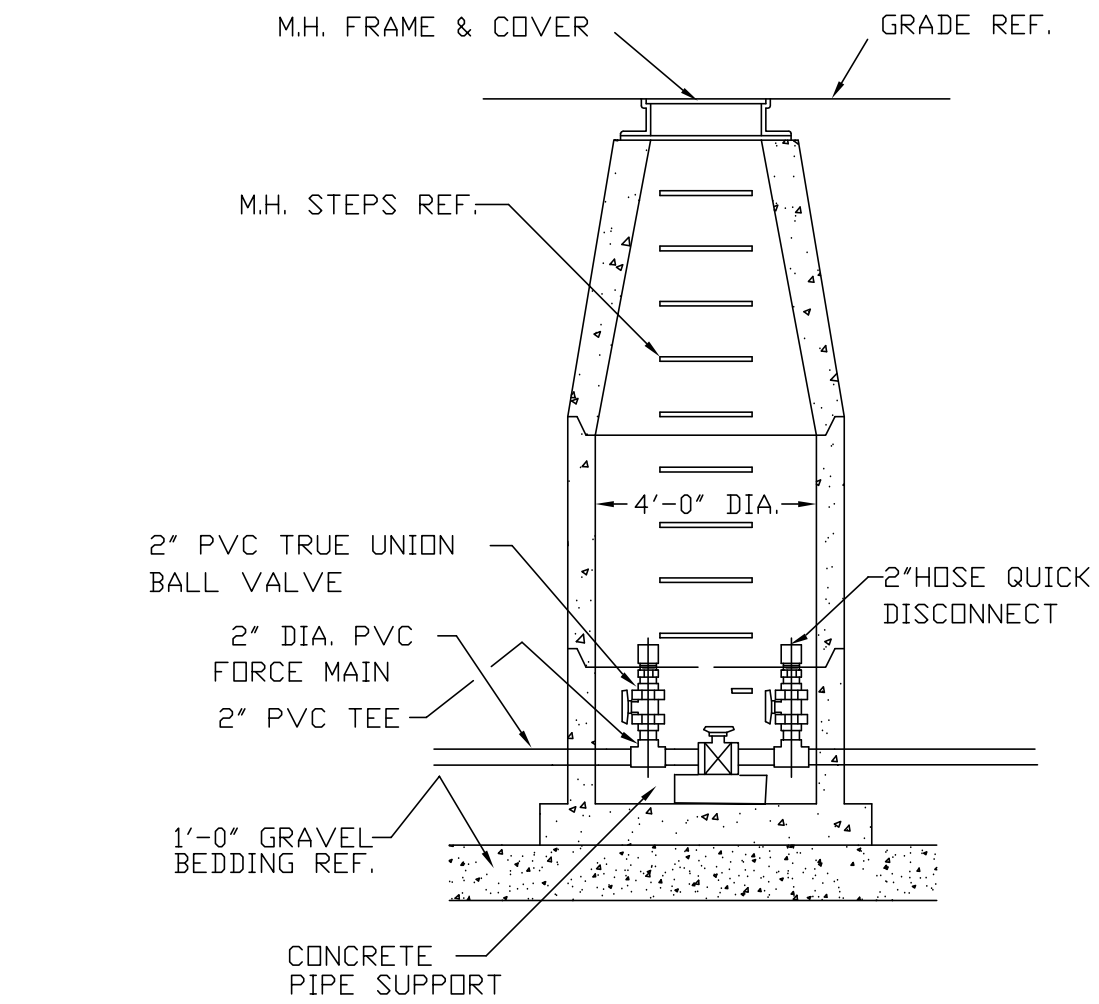
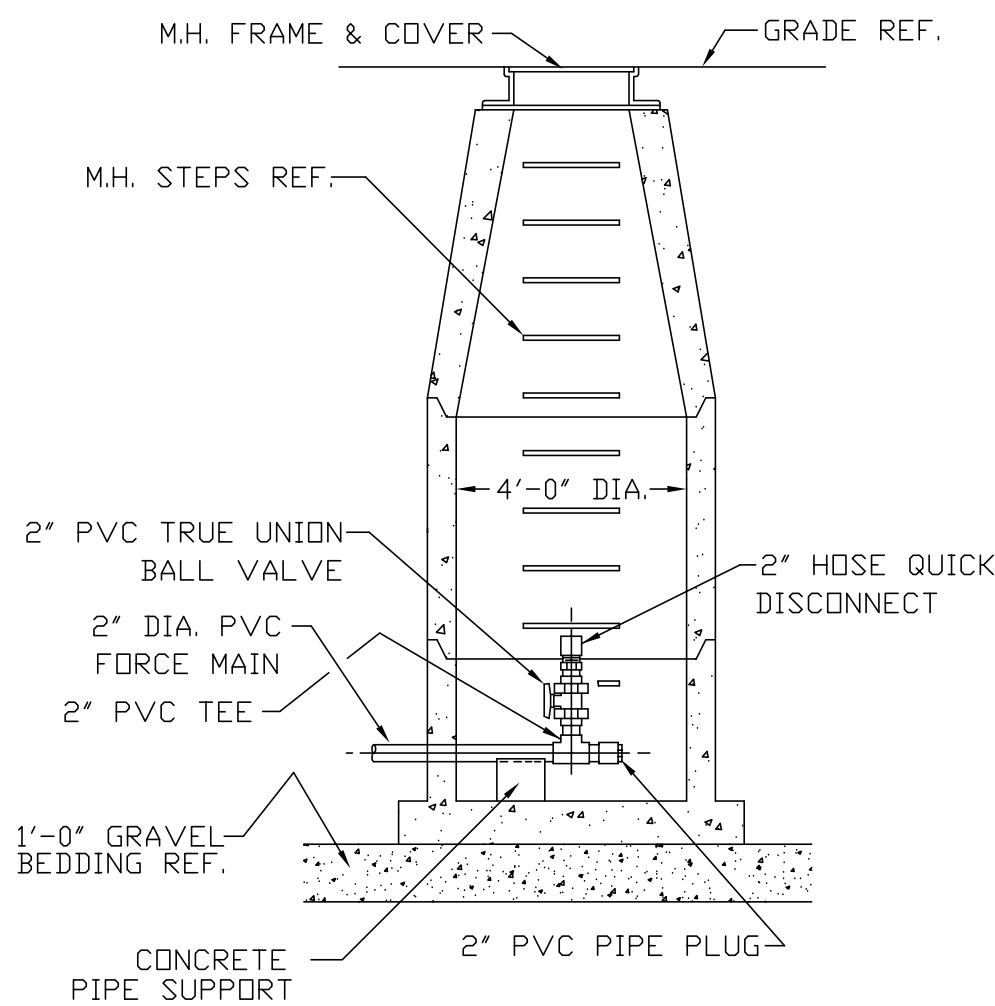
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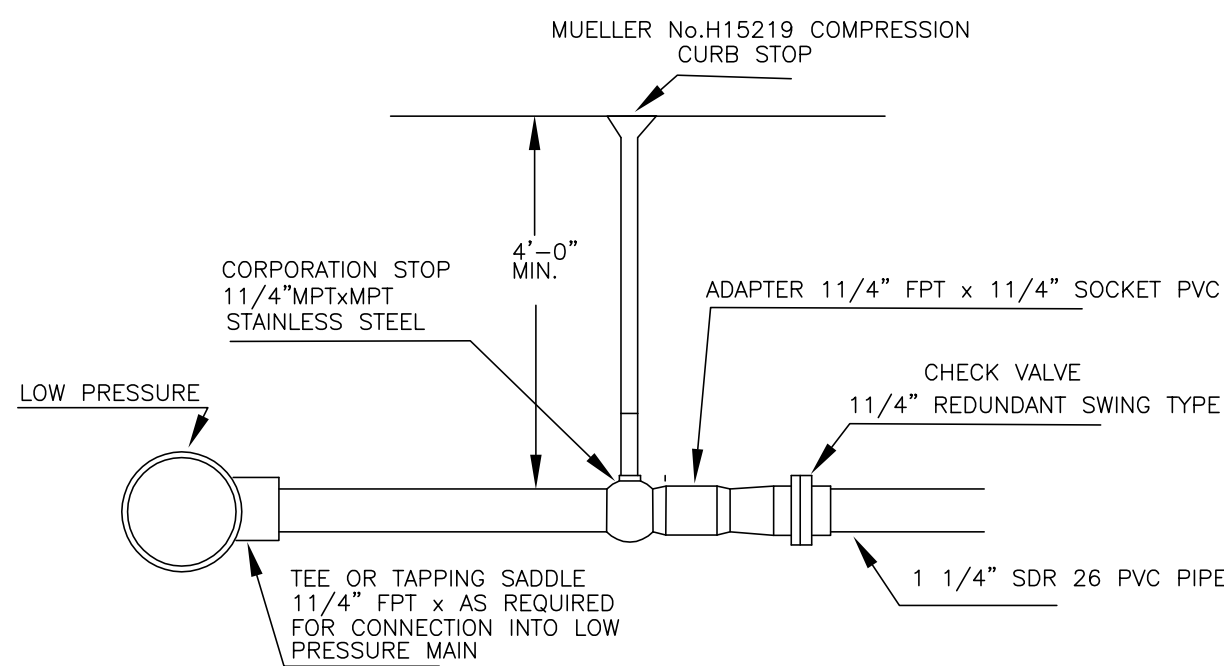
DRW.: RST	
JOB No.	12,274
DATE:	FEBRUARY 8, 2018
SCALE:	nts
SHEET:	24 of 27
PLAN #:	27,147



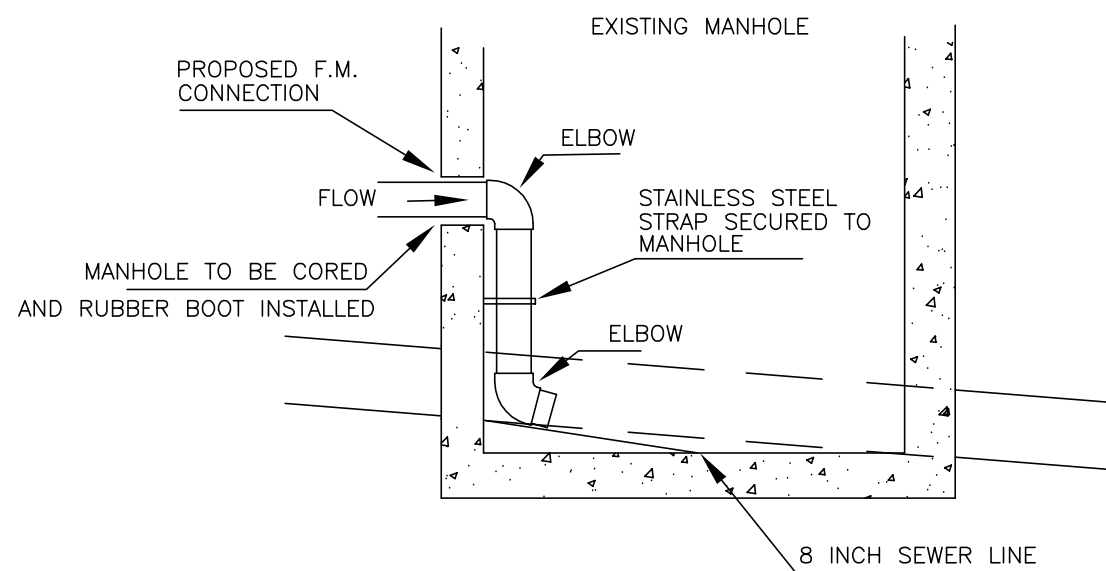
TERMINAL FLUSHING M.H. DETAIL- (SMH#3)
NOT TO SCALE



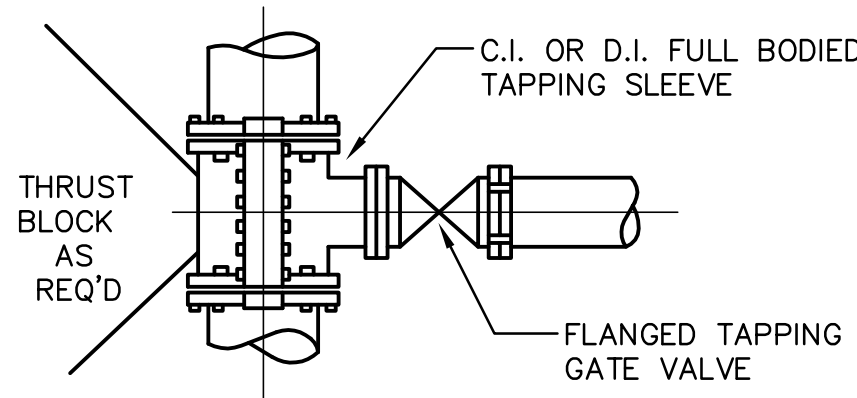
IN-LINE FLUSHING MANHOLE
CONNECTION (SMH#2)
NOT TO SCALE



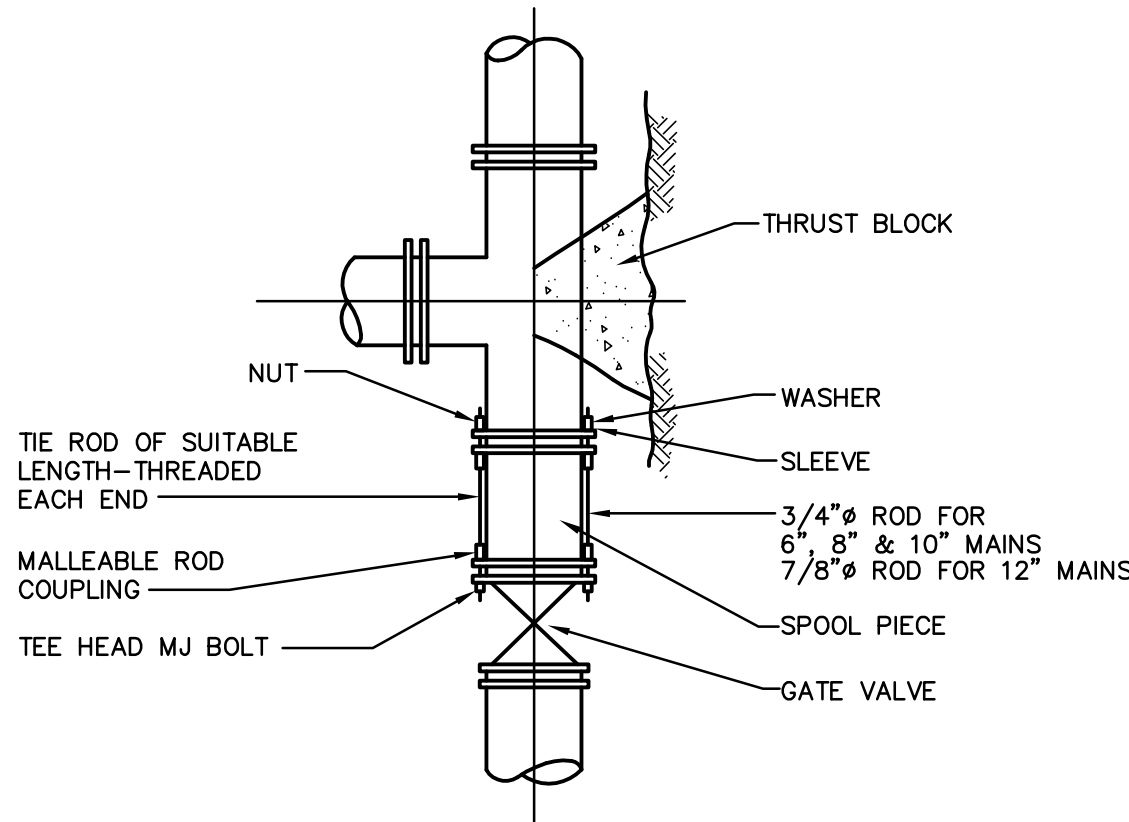
LOW PRESSURE SERVICE CONNECTION
NOT TO SCALE



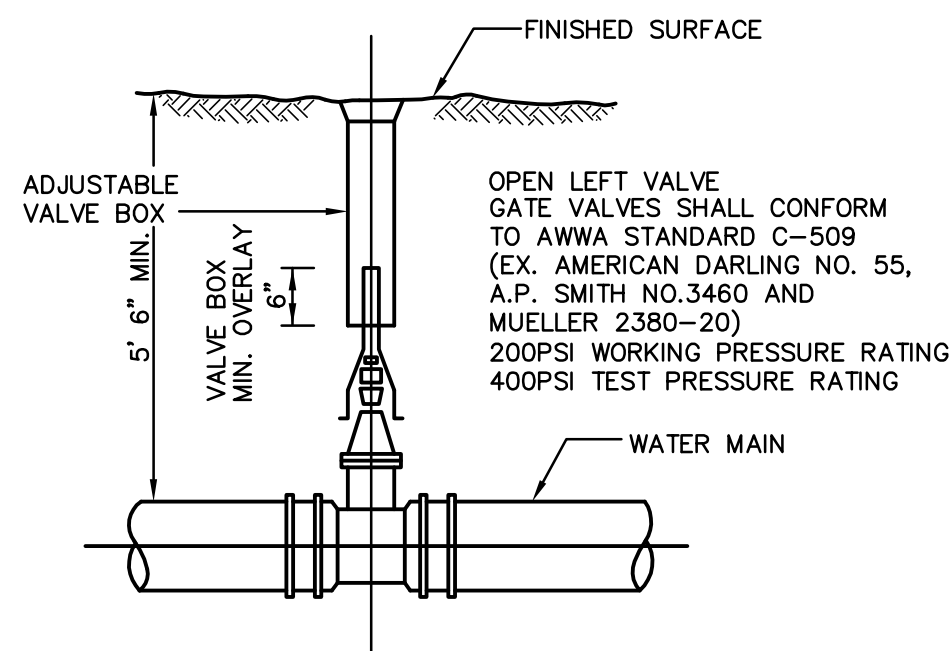
MANHOLE CONNECTION DETAIL
NOT TO SCALE



TAPPING SLEEVE AND
VALVE DETAIL
NOT TO SCALE



TYPICAL TIED MECHANICAL JOINT
VALVE CONNECTION DETAILS
NOT TO SCALE

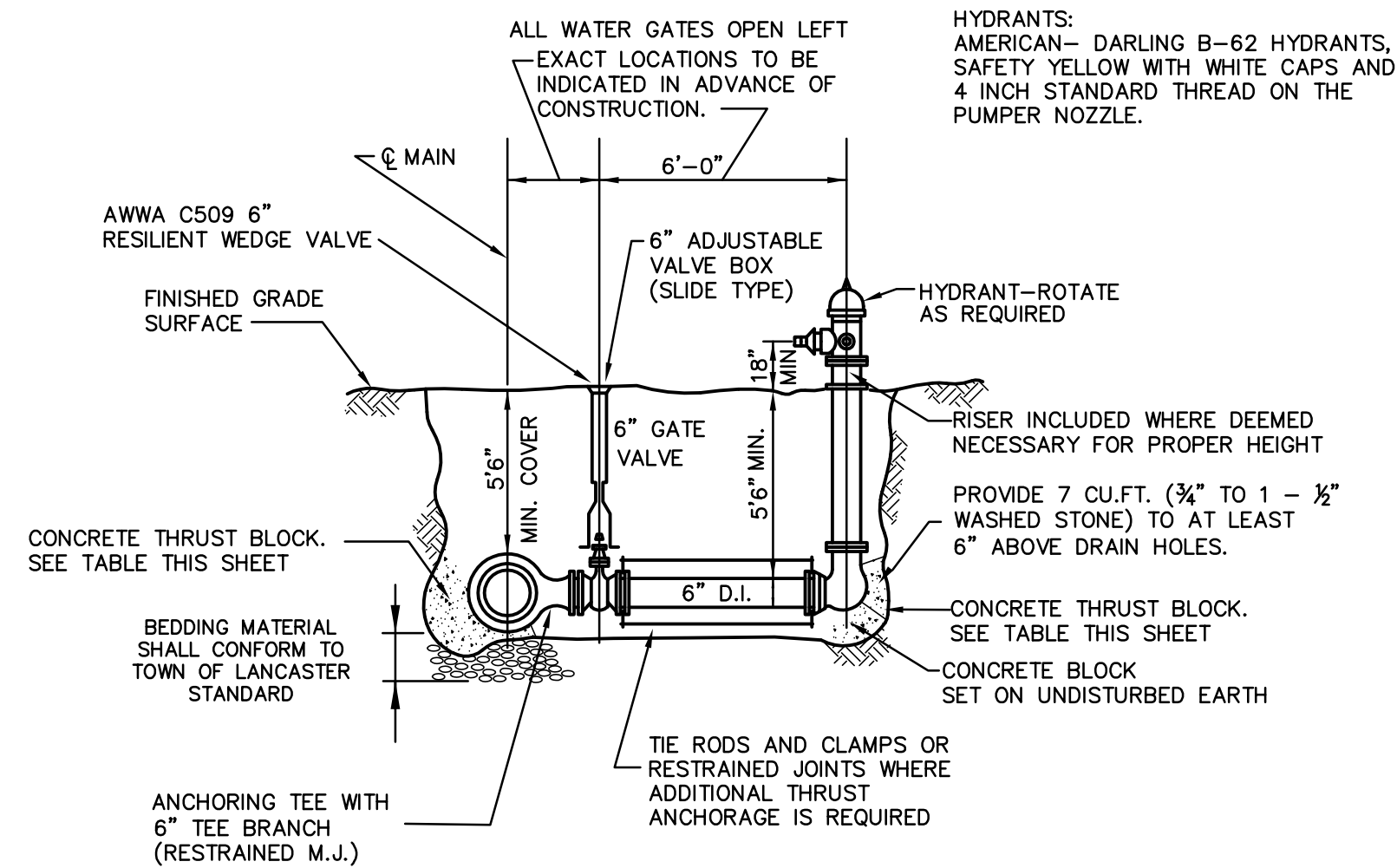


TYPICAL GATE VALVE
NOT TO SCALE

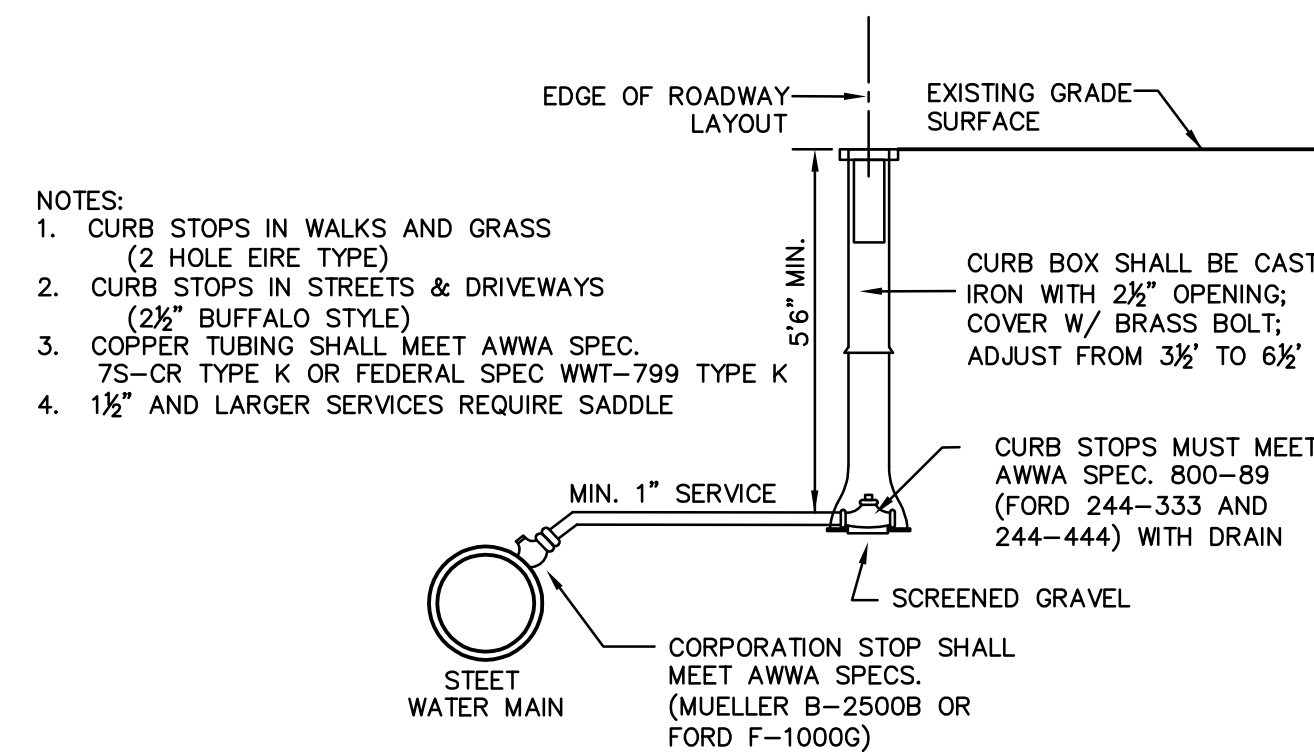
NOTE: CONCRETE FOR THRUST BLOCKS SHALL BE NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2 AND SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI (SO THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

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

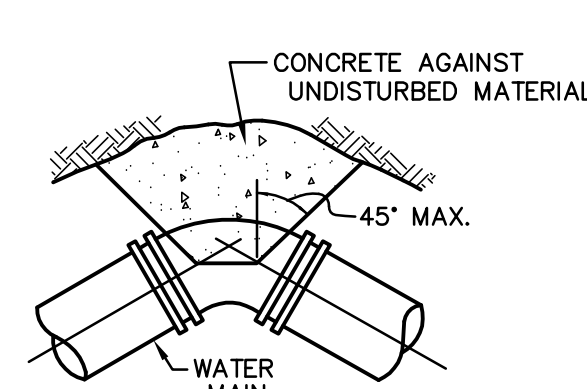
TYPICAL THRUST BLOCK DETAIL
NOT TO SCALE



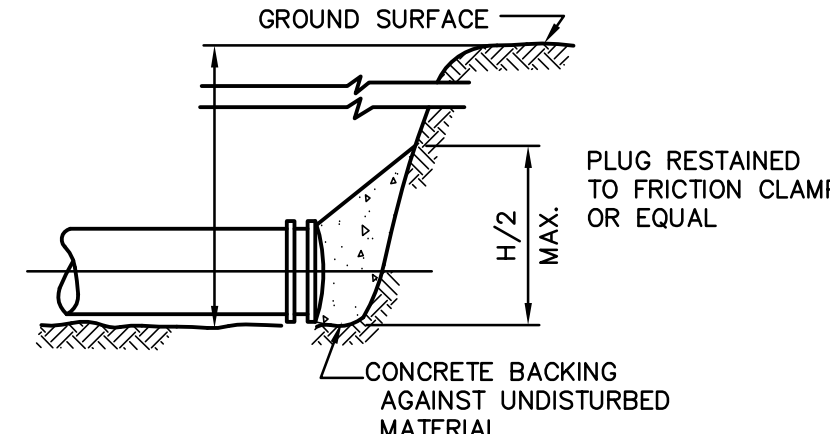
TYPICAL HYDRANT ASSEMBLY DETAIL
NOT TO SCALE



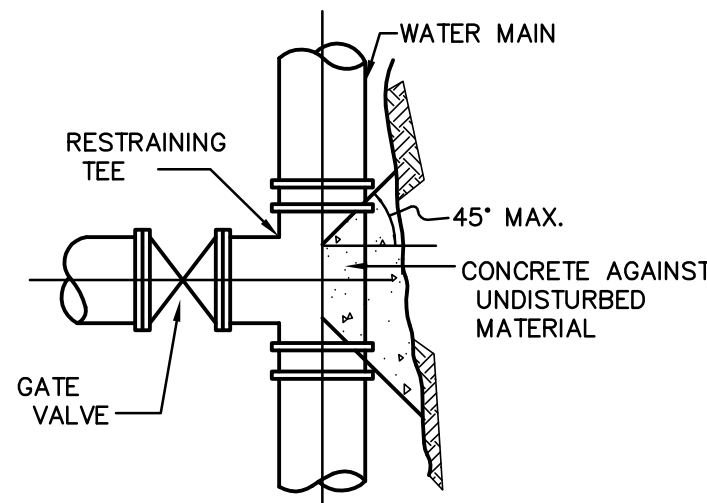
TYPICAL NEW WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



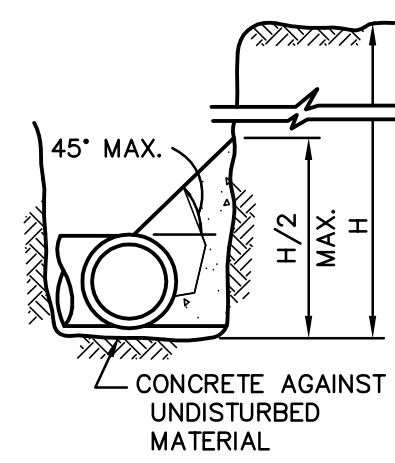
TYPICAL BEND



TYPICAL PLUG



TYPICAL TEE



TYPICAL SECTION

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

DETAILS

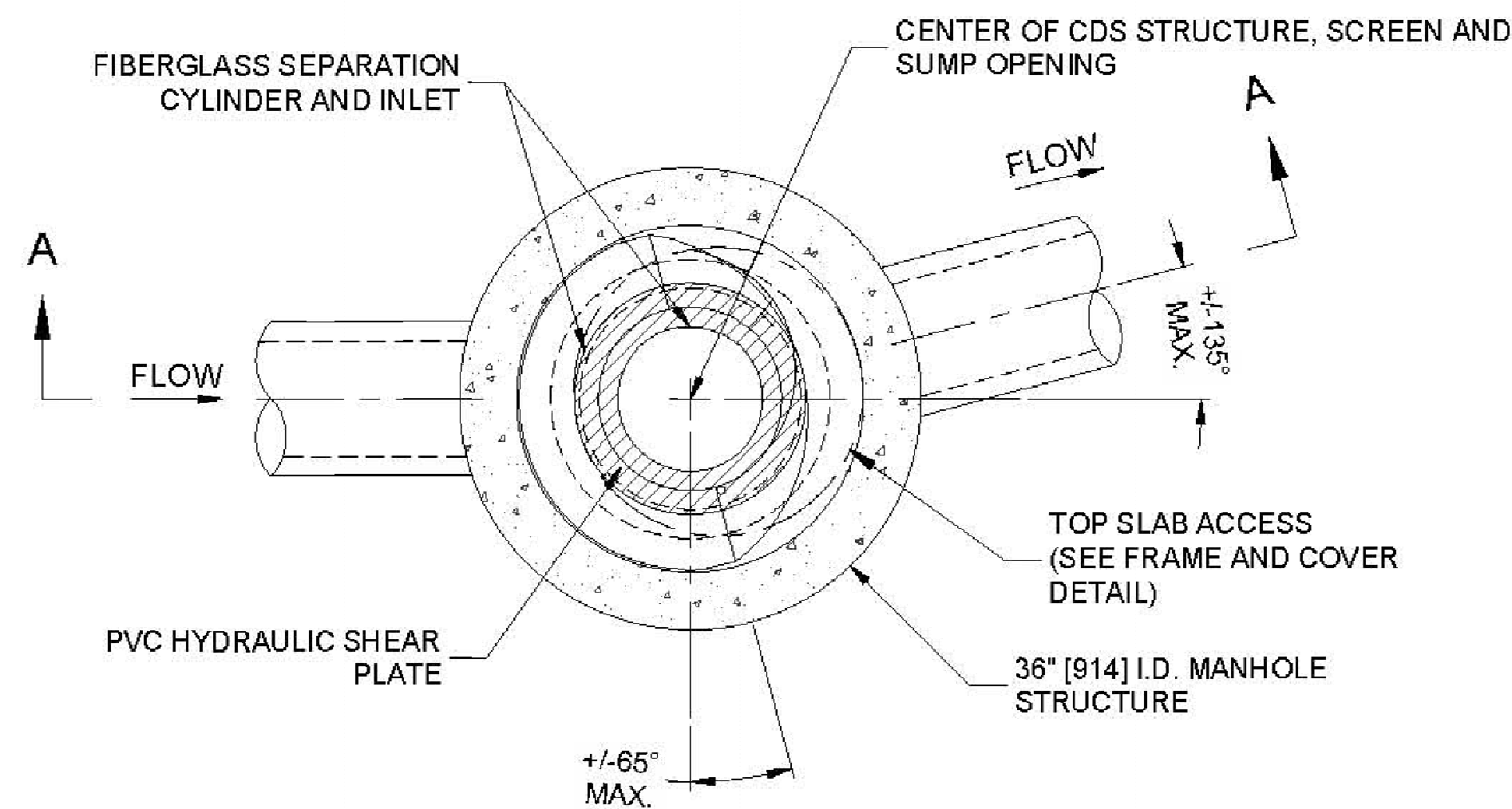
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LANCASTER, MASSACHUSETTS

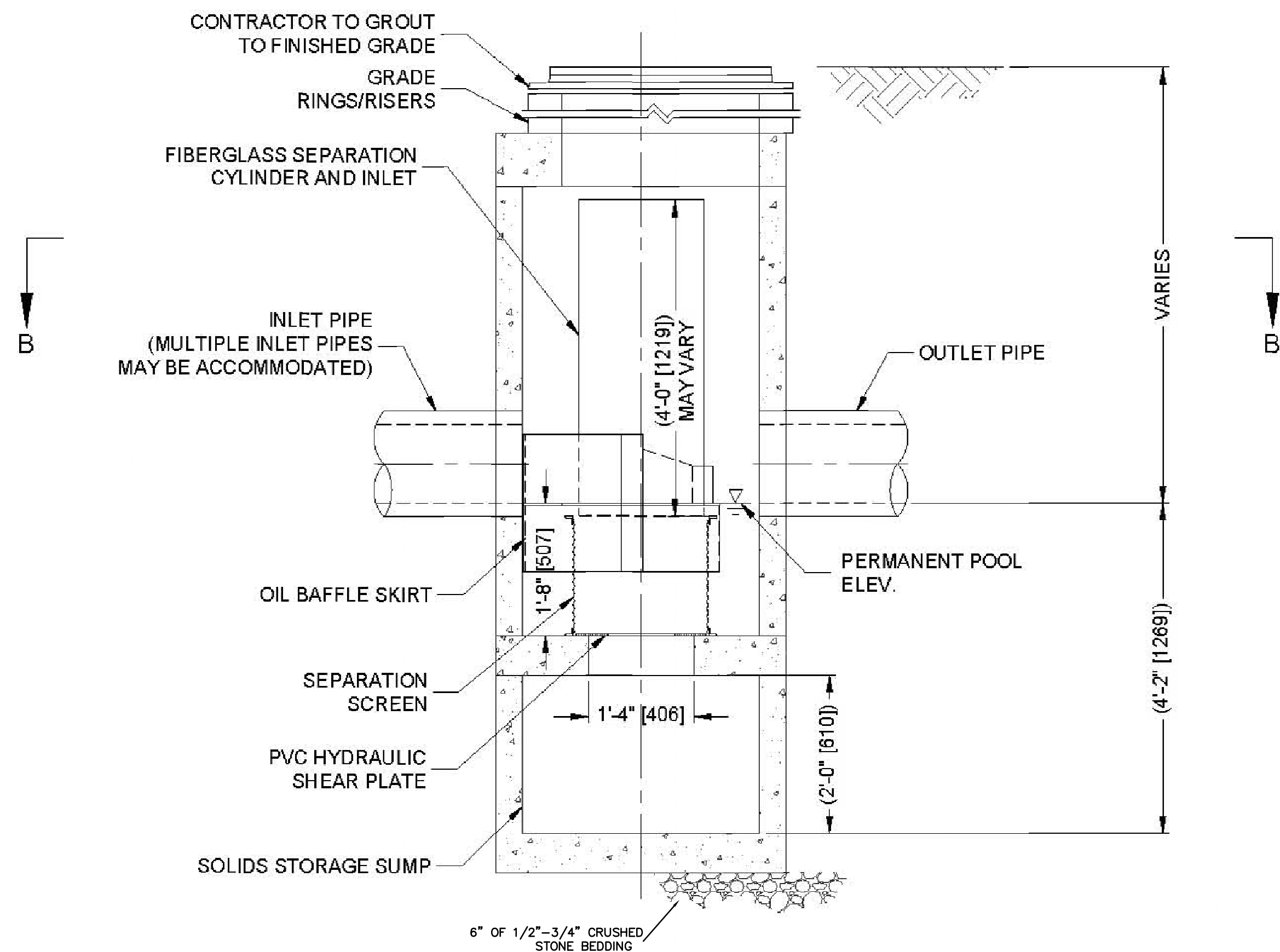
PREPARED FOR:
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SHEET:	25 of 27
PLAN #:	27,147



PLAN VIEW B-B
N.T.S.

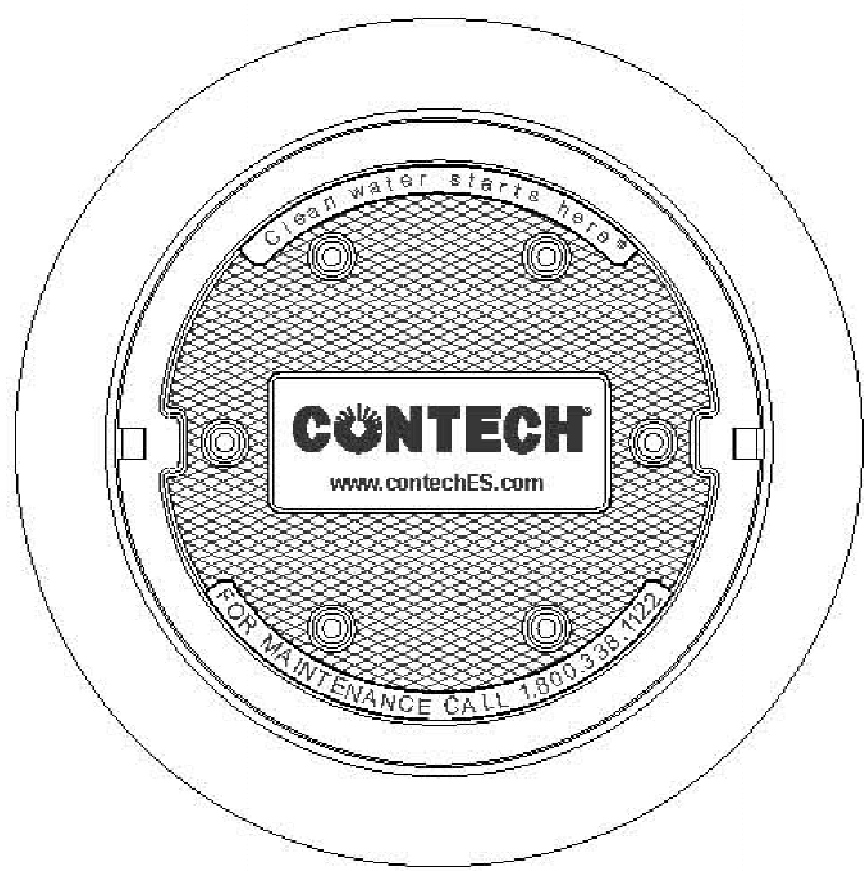


ELEVATION A-A
N.T.S.

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.

CDS UNITS TO BE INSTALLED AT:
DRAIN MH#57
DRAIN MH#66
DRAIN MH#77



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

- GENERAL NOTES
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
 - 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.
 - 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.
 - IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
 - CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

- INSTALLATION NOTES
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
 - 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.
 - 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.

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

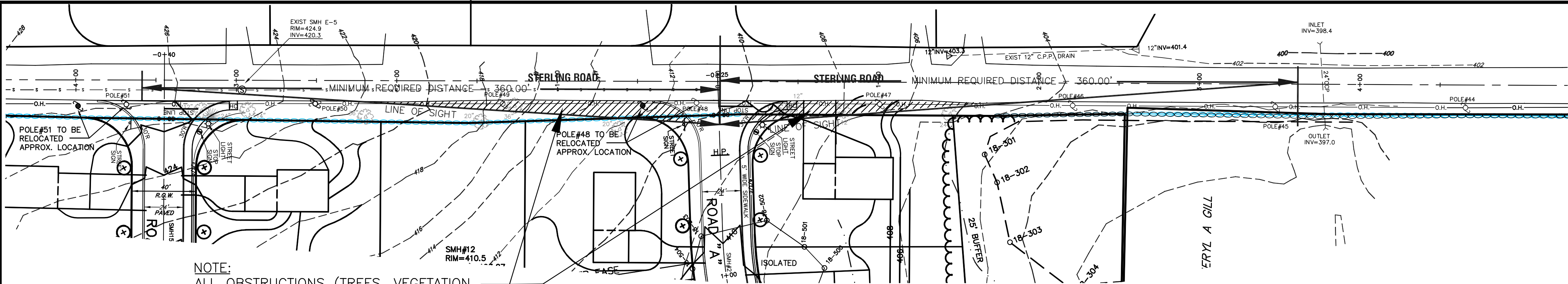
CDS1515-3-C
ONLINE CDS
STANDARD DETAIL

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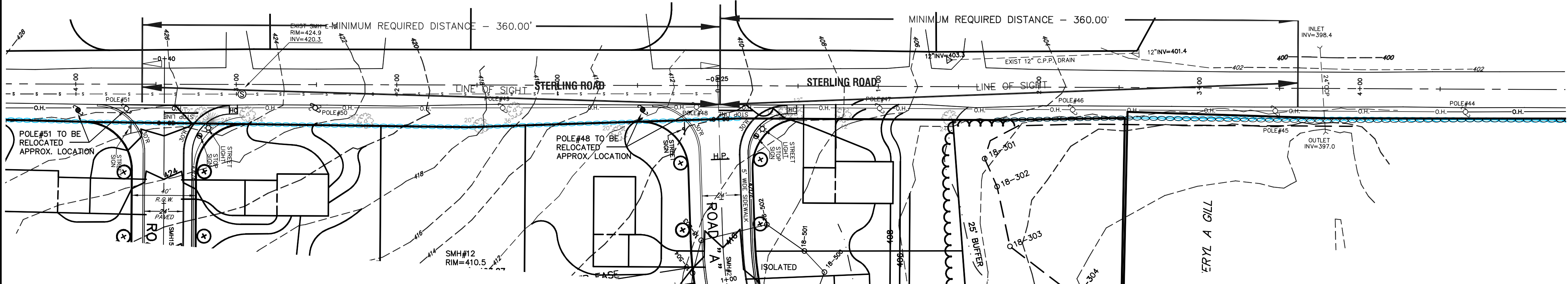
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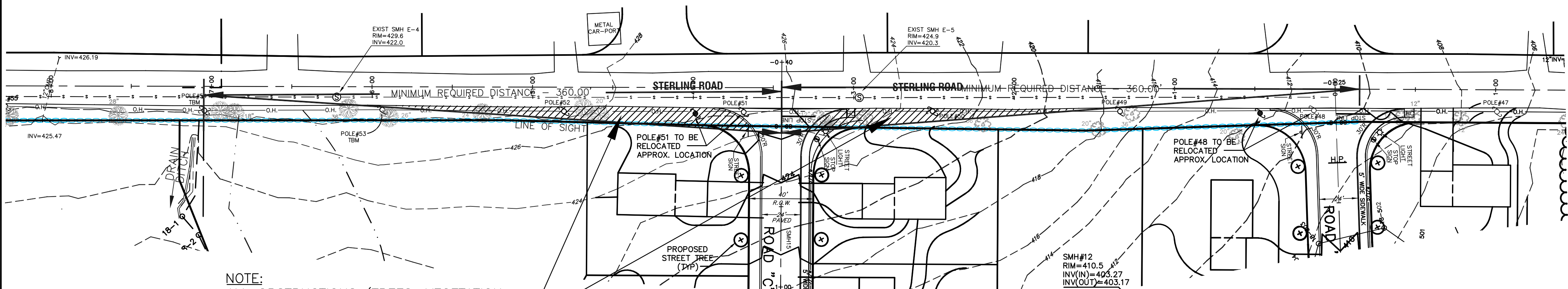
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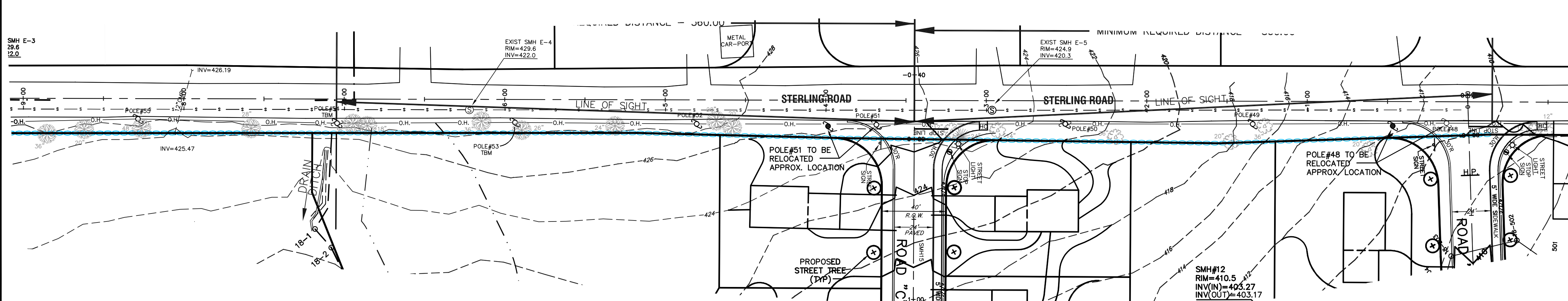
Intersection Sight Distance (ISD) - Road A



Stopping Sight Distance (SSD) - Road A

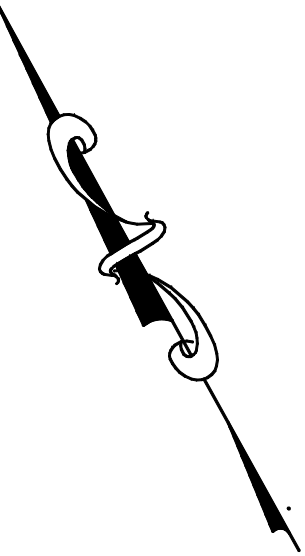


Intesection Sight Distance (ISD) - Road C



Stopping Sight Distance (SSD) - Road C

NOTES:
1. Signs, landscaping and other features located within sight triangle areas shall be designed, installed and maintained so as not to exceed 2.5-feet in height. Snow windrows located within sight triangle areas that exceed 3.5-feet in height or that would otherwise inhibit sight lines shall be promptly removed.



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9	3/07/19 COMMENTS & LANDSCAPE

SITE DEVELOPMENT PLAN

"GOODRIDGE BROOK ESTATES"

Multi Unit & Single Family Subdivision Layout

LANCASTER, MASSACHUSETTS

PREPARED FOR:

CRESCENT BUILDERS, INC.

94 NORTH MAIN STREET

BOYLSTON MA 01583

GLM Engineering Consultants, Inc.

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

DRW.: RST

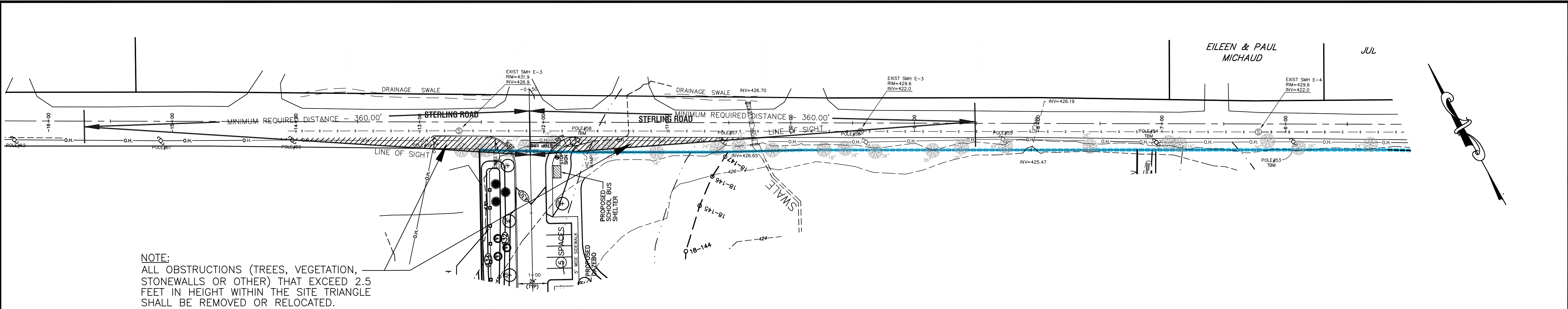
JOB No. 12,274

DATE: FEBRUARY 8, 2018

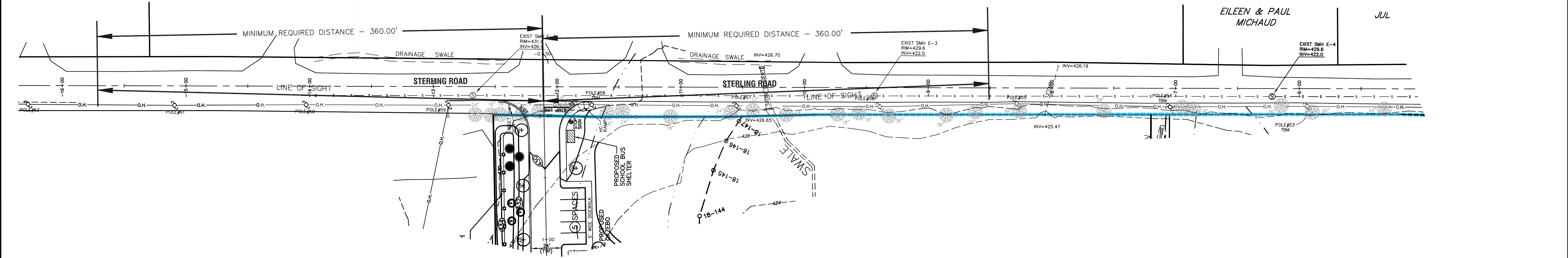
SCALE: 1"= 40'

SHEET: SUP-A1

PLAN #: 27,147



Intersection Sight Distance (ISD) - Apartment Drive



Stopping Sight Distance (SSD) - Apartment Drive

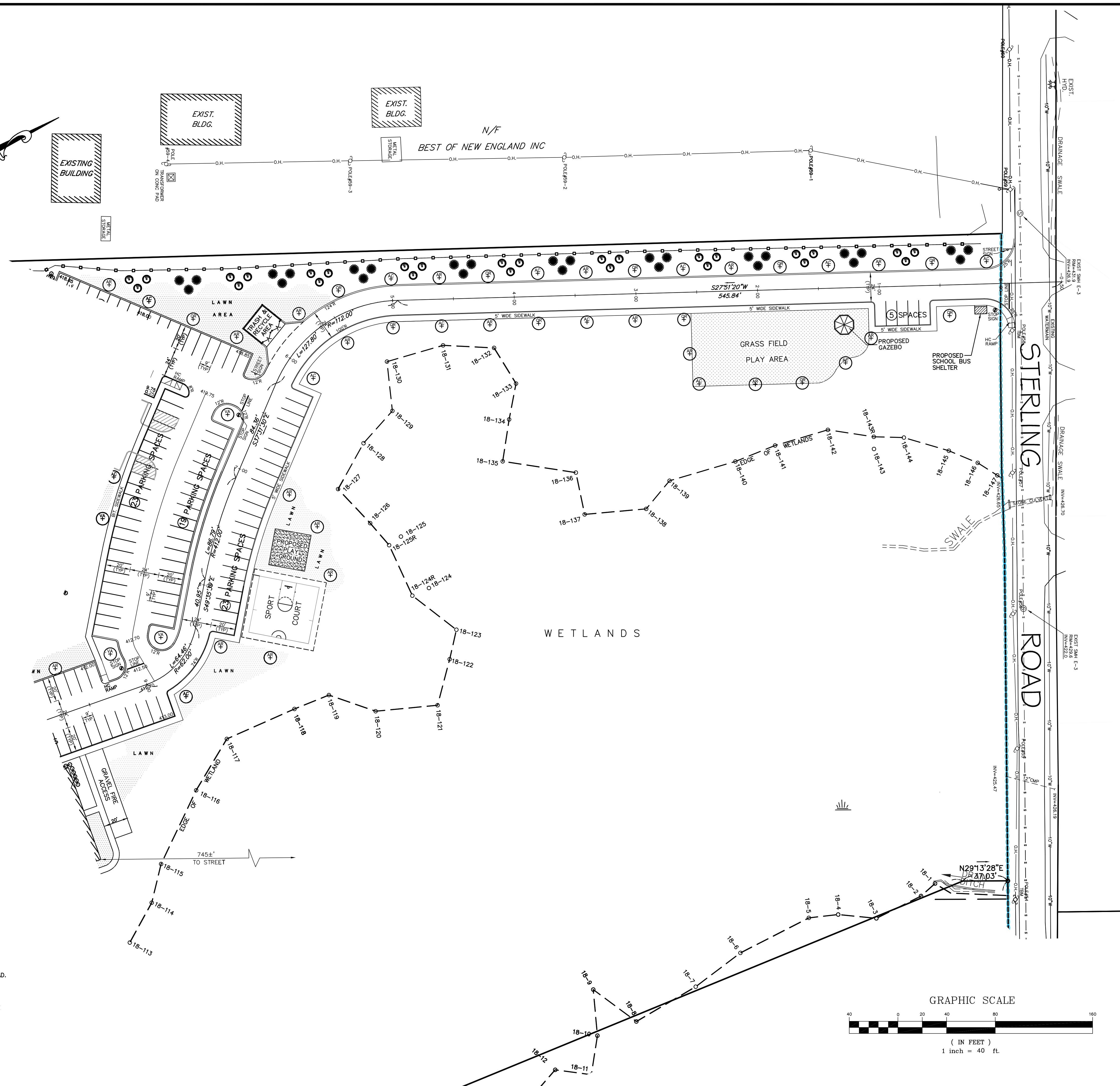
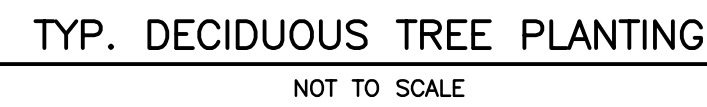
REVISIONS	
1	04/10/18 APARTMENTS 136 UNITS
2	07/06/18 PLAN LAYOUT & DRAINAGE
3	07/25/18 WATER SYSTEM COMMENTS
4	09/18/18 ENGINEERING COMMENTS
5	11/06/18 ENGINEERING COMMENTS
6	12/27/18 ENGINEERING COMMENTS
7	2/13/19 FIRE ACCESS
8	2/19/19 COMMENTS & LANDSCAPE
9	3/07/19 COMMENTS & LANDSCAPE

SITE DEVELOPMENT PLAN
"GOODRIDGE BROOK ESTATES"
Multi Unit & Single Family Subdivision Layout
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DRW.: RST
JOB No. 12,274
DATE: FEBRUARY 8, 2018
SCALE: 1"= 40'
SHEET: SUP-A2
PLAN #: 27,147



LANDSCAPE PLAN

REVISIONS	
1	04/10/18 APARTMENTS 135 UNITS
2	07/06/18 PLAN LAYOUT & DRAINAGE
3	07/25/18 WATER SYSTEM COMMENTS
4	09/18/18 ENGINEERING COMMENTS
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DRW.: RST

DATE: FEBRUARY 8, 2018

SCALE: 1" = 40'

SHEET:	L2
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PLAN #:	27,147
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