

ISSUED FOR COMPREHENSIVE PERMIT ARBELLA AT ASHLAND

ASHLAND, MA



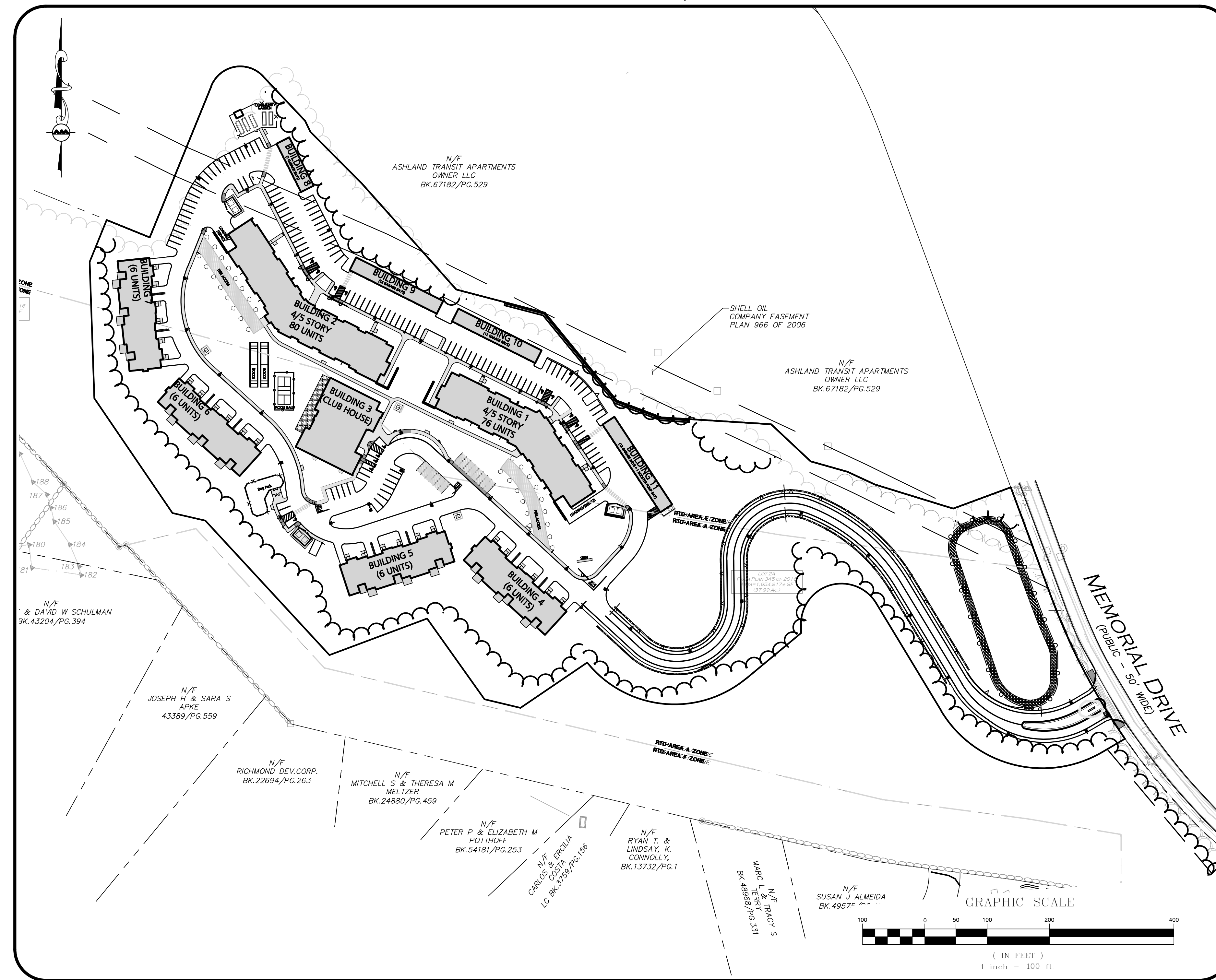
APPLICANT:
UA SENIOR MANAGER, LLC
RENSSELAER TECHNOLOGY PARK
300 JORDAN ROAD
TROY, NY 12180



SITE ENGINEERS:
ALLEN & MAJOR ASSOCIATES, INC.
10 MAIN STREET
LAKEVILLE, MA 02347



PROJECT ARCHITECT:
CUBE 3, LLC
370 MERRIMACK STREET, SUITE 337
LAWRENCE, MA 01843



LIST OF DRAWINGS			
DRAWING TITLE	SHEET NO.	ISSUED	REVISED
EXISTING CONDITIONS	V-101 - V-102	09-04-2020	05-11-2021
NOTES & ABBREVIATIONS	C-001 - C-002	09-04-2020	05-11-2021
EROSION CONTROL PLAN	C-101	09-04-2020	06-23-2021
LAYOUT & MATERIALS PLAN	C-102 - C-104	09-04-2020	06-23-2021
GRADING & DRAINAGE PLAN	C-105 - C-107	09-04-2020	06-23-2021
PROFILE PLAN	C-108	09-04-2020	06-23-2021
UTILITIES PLAN	C-109 - C-111	09-04-2020	06-23-2021
PHOTOMETRICS PLAN	C-112 - C-114	09-04-2020	06-23-2021
DETAILS	C-501 - C-507	09-04-2020	06-23-2021
VEHICLE MOVEMENT PLAN	C-601 - C-602	09-04-2020	06-23-2021
LANDSCAPE PLAN	L-101 - L-103	09-04-2020	06-23-2021
LANDSCAPE DETAILS	L-501 - L-502	05-11-2021	06-23-2021

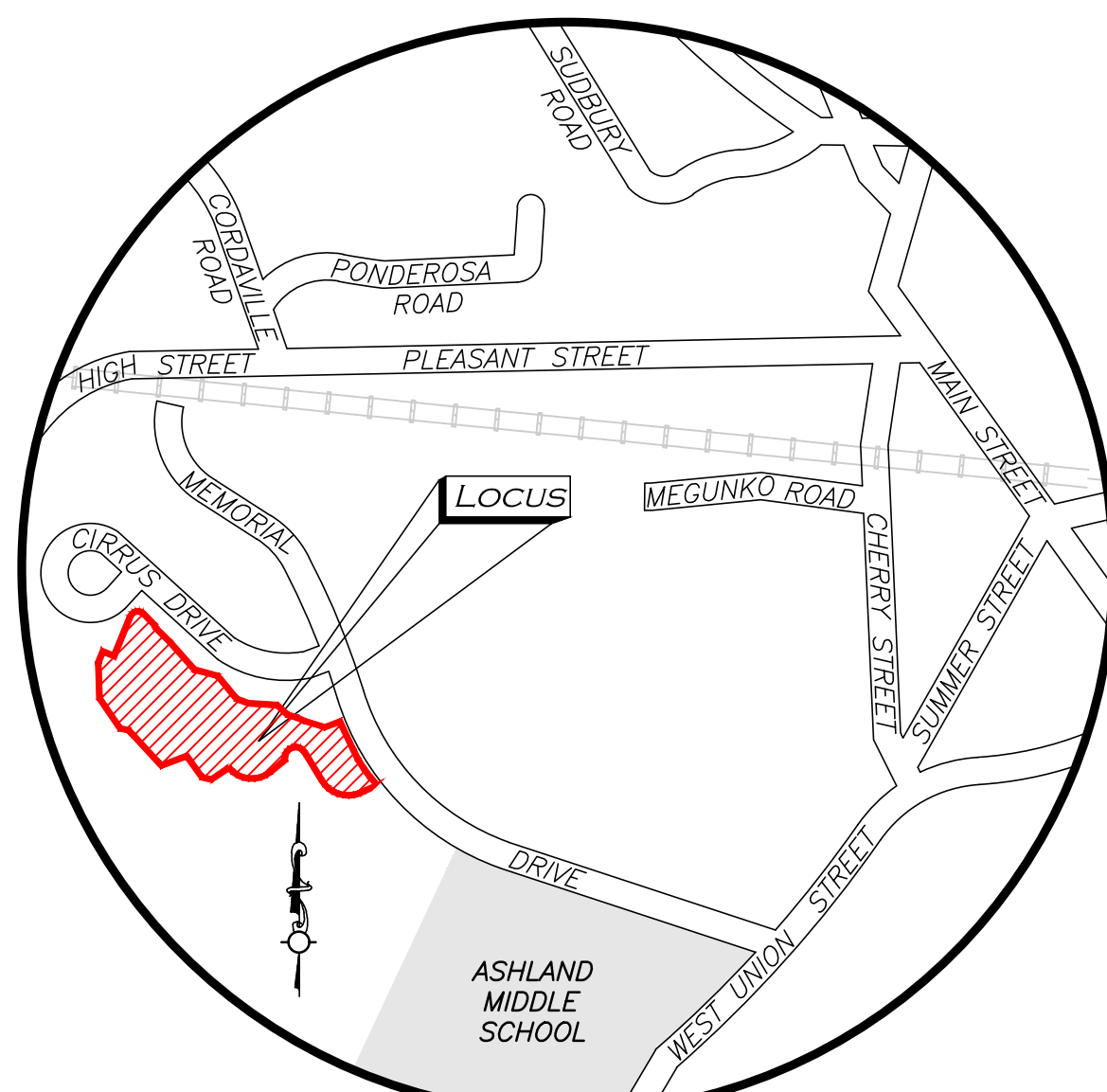
UNIT TABULATION TABLE				
TYPE OF BUILDING	BUILDING 1	BUILDING 2	TOWNHOME BUILDING (6)	TOTAL
NUMBER OF UNITS	76	80	24	180
NUMBER OF BEDROOMS	99	115	48	262
NUMBER OF BATHROOMS	103	115	48	266
SQUARE FOOTAGE (FPA)	17,637 FT ²	20,229 FT ²	8,903 FT ²	46,769 FT ²
NUMBER OF PARKING STALLS	66	93	48	207

* 25% OF TOTAL UNITS (45) SHALL BE DESIGNATED AS AFFORDABLE PER DHCD GUIDELINES

LAND USAGE TABLE - RAIL TRANSIT DISTRICT (A-E-F)		
ITEM	REQUIRED/ALLOWED	PROPOSED
LOT AREA	30,000 SF	17.97 ACRES
LOT FRONTAGE	150'	445'
BUILDING AREA ⁽¹⁾	10 UNITS/ACRE	10.02 UNITS/ACRE
FRONT YARD SETBACK	25'	564.6'
SIDE YARD SETBACK	25'	15.3'
REAR YARD SETBACK	30'	32.8'
LOT COVERAGE (MAX)	70%	STRUCTURES: 12.59% BUILDINGS: 19.68% SIDEWALK: 2.28% TOTAL: 34.55%
OPEN SPACE (MIN) ⁽²⁾	30%	USABLE: 65.45% UNUSABLE: 0% TOTAL: 65.45%
BUILDING HEIGHT (MAX)	3 STORIES	5 STORIES
PARKING SPACES: DWELLINGS (SINGLE FAMILY ATTACHED AND MULTI-FAMILY)	APARTMENT DWELLINGS: 156 UNITS TOWN HOME DWELLINGS: 24 UNITS REQUIRED: 1.8 SPACES/UNIT 324 TOTAL SPACES	TOWN HOMES: STANDARD STALLS: 24 GARAGE STALLS: 24 CLUBHOUSE: STANDARD STALLS: 35 ACCESSIBLE STALLS: 5 TOTAL SPACES: 247

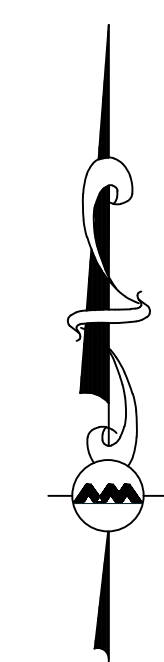
(1) DETERMINED BASED UPON THE TOTAL CUMULATIVE LAND AREA OF THE APPLICABLE AREAS (A, C, D OR E) AS SPECIFIED IN THE FORMULA SET FORTH HEREIN, AT A DENSITY OF: (i) 10 UNITS PER ACRE FOR AGE RESTRICTED, ATTACHED, AGE RESTRICTED, DETACHED, AND AGE RESTRICTED, MULTIFAMILY; AND (ii) TWENTY (20) UNITS PER ACRE FOR DWELLING MULTIFAMILY, FOR RENT (PERMITTED IN AREA E ONLY)

(2) THE MAXIMUM DEVELOPMENT COVERAGE IN A RAIL TRANSIT DISTRICT (RTD) SHALL NOT RESULT IN AGGREGATE OPEN SPACE BEING LESS THAN 30%



PREPARED BY:
ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
10 MAIN STREET
LAKEVILLE, MA 02347
TEL: (508) 923-1010
FAX: (508) 923-6309
WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

**ISSUED FOR
COMPREHENSIVE PERMIT**
09-04-2020 Revision 4: 06-23-2021



Arbella at Ashland

MBTA Access Road
 Ashland, MA 01721

U A Senior
 LLC

Rensselaer
 Technology Park
 300 Jordan Road
 Troy, NY 12180



ALLEN & MAJOR
 ASSOCIATES, INC.
 100 STATE STREET
 LAWRENCE, MA 01840
 TEL: 978.683.8800
 WWW.AM-MAJOR.COM

PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.

**COMPREHENSIVE
 PERMIT
 NOT FOR
 CONSTRUCTION**

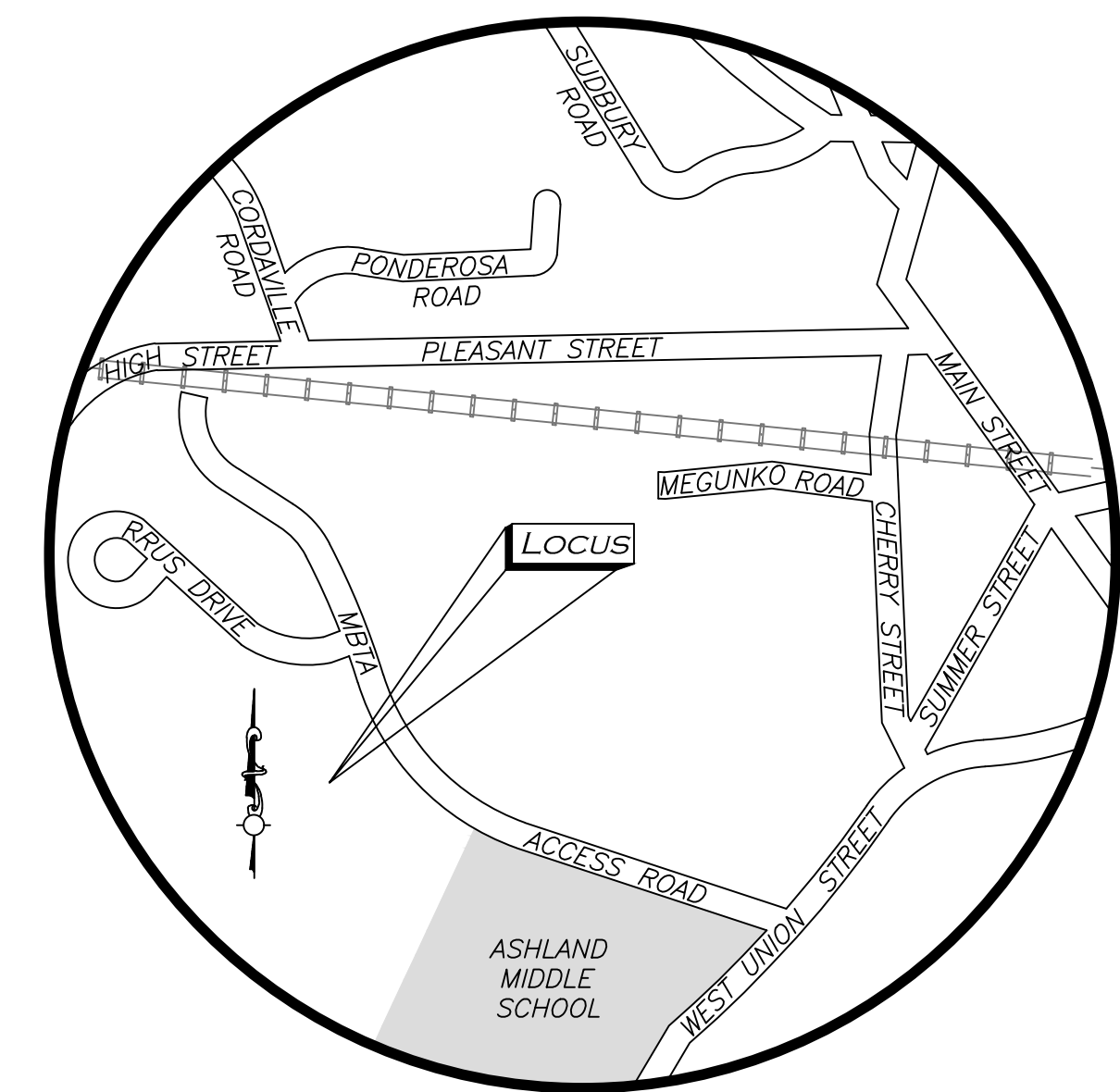
drawing by: SL
 drawing checked by: AD
 drawing scale: 1" = 60'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

drawing revisions:

No.	Description	Date
1	PREPARED FOR PERMITTING	03-24-2021
2	COMMENTS	05-11-2021

**EXISTING
 CONDITIONS**

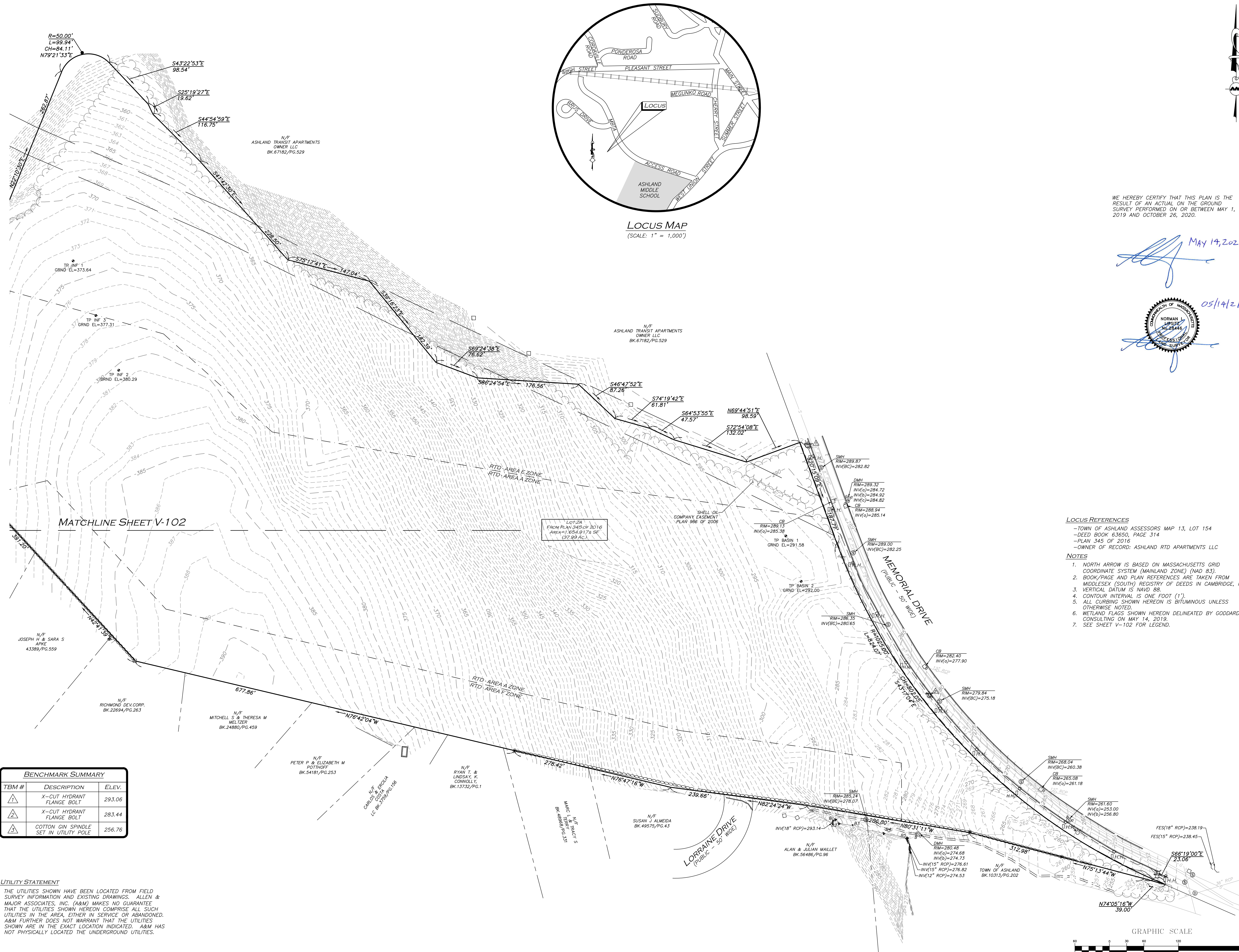
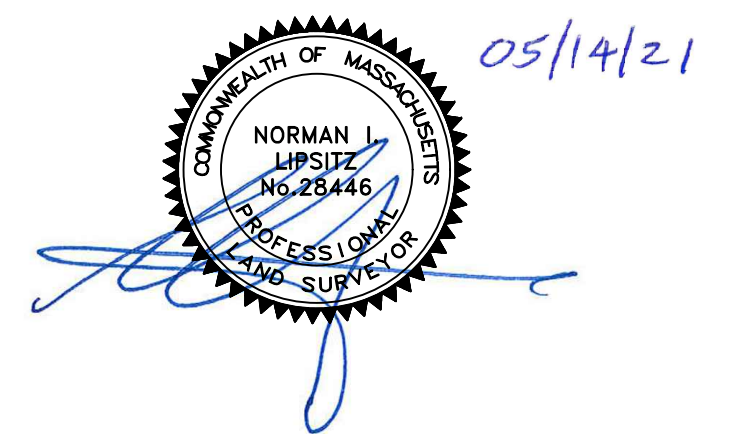
V-101



LOCUS MAP
 (SCALE: 1" = 1,000')

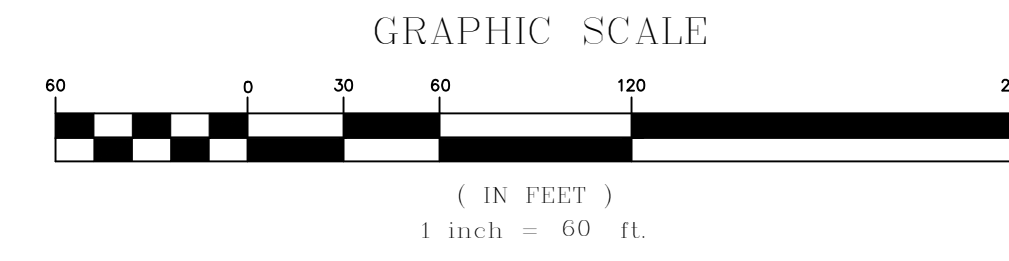
WE HEREBY CERTIFY THAT THIS PLAN IS THE
 RESULT OF AN ACTUAL ON THE GROUND
 SURVEY PERFORMED ON OR BETWEEN MAY 1,
 2019 AND OCTOBER 26, 2020.

[Signature] May 14, 2021



- LOCUS REFERENCES**
- TOWN OF ASHLAND ASSESSORS MAP 13, LOT 154
 - DEED BOOK 63650, PAGE 314
 - PLAN 345 OF 2016
 - OWNER OF RECORD: ASHLAND RTD APARTMENTS LLC

- NOTES**
1. NORTH ARROW IS BASED ON MASSACHUSETTS GRID COORDINATE SYSTEM (MAINLAND ZONE) (NAD 83)
 2. BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM MIDDLESEX (SOUTH) REGISTRY OF DEEDS IN CAMBRIDGE, MA.
 3. VERTICAL DATUM IS NAVD 88.
 4. CONTOUR INTERVAL IS ONE FOOT (1').
 5. ALL CURBING SHOWN HEREON IS BITUMINOUS UNLESS OTHERWISE NOTED.
 6. WETLAND FLAGS SHOWN HEREON DELINEATED BY GODDARD CONSULTING ON MAY 14, 2019.
 7. SEE SHEET V-102 FOR LEGEND.



BENCHMARK SUMMARY

TBM #	DESCRIPTION	ELEV.
1	X-CUT HYDRANT FLANGE BOLT	293.06
2	X-CUT HYDRANT FLANGE BOLT	283.44
3	COTTON GIN SPINDLE SET IN UTILITY POLE	256.76

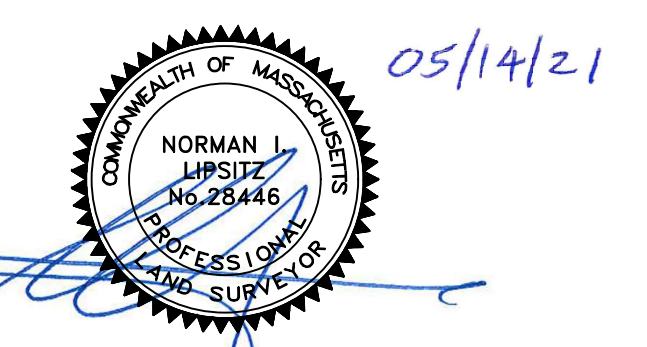
UTILITY STATEMENT
 THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. ALLEN & MAJOR ASSOCIATES, INC. (A&M) MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. A&M FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. A&M HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

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MAY 14, 2021
 PROFESSIONAL LAND SURVEYOR FOR ALLEN & MAJOR ASSOCIATES, INC.



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U A Senior LLC

Rensselaer
 Technology Park
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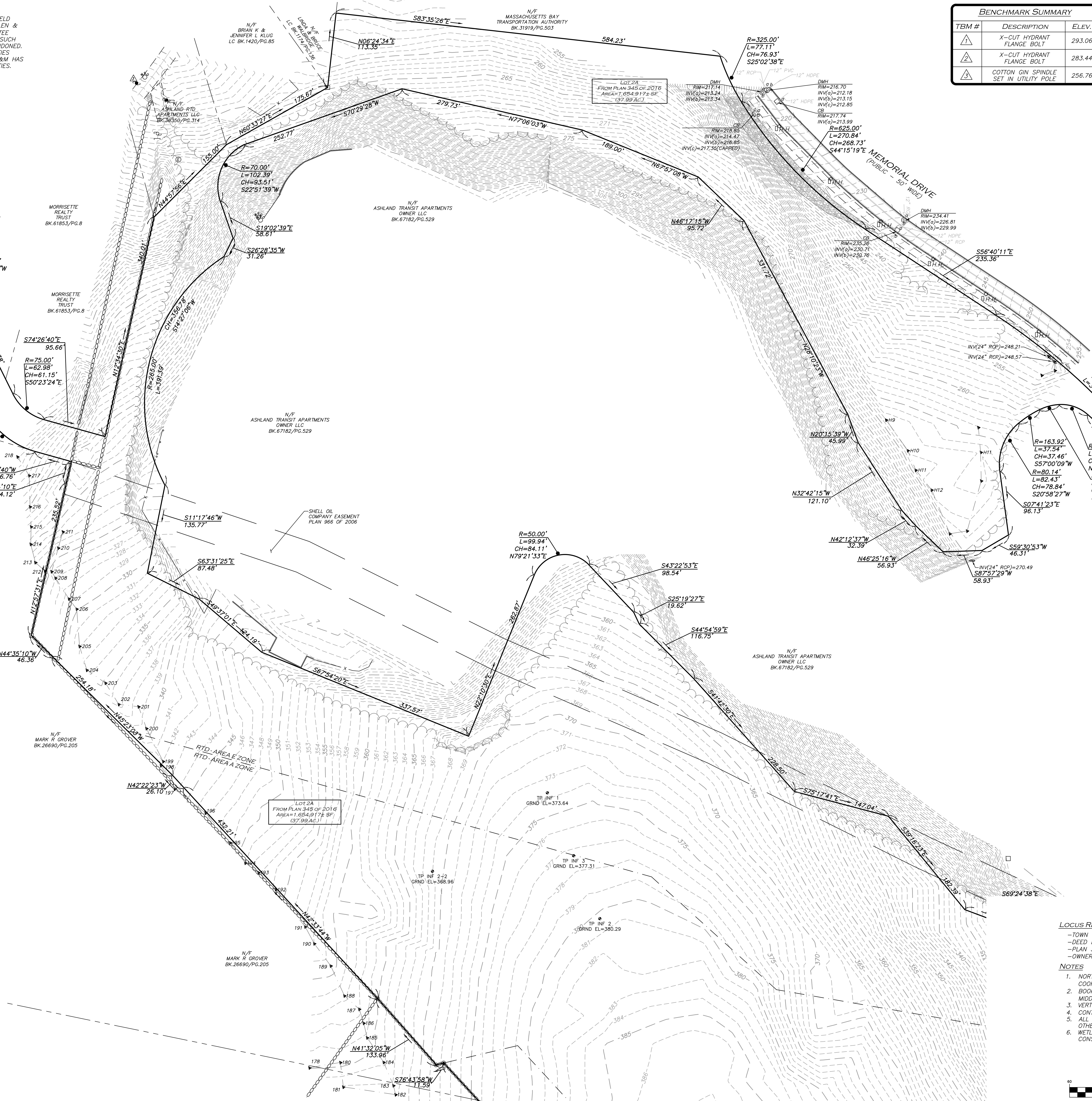
ALLEN & MAJOR ASSOCIATES, INC.
 1100 STATE STREET
 LAWRENCE, MA 01840
 TEL: 978.989.9900
 WWW.ALLENMAJOR.COM

COMPREHENSIVE PERMIT
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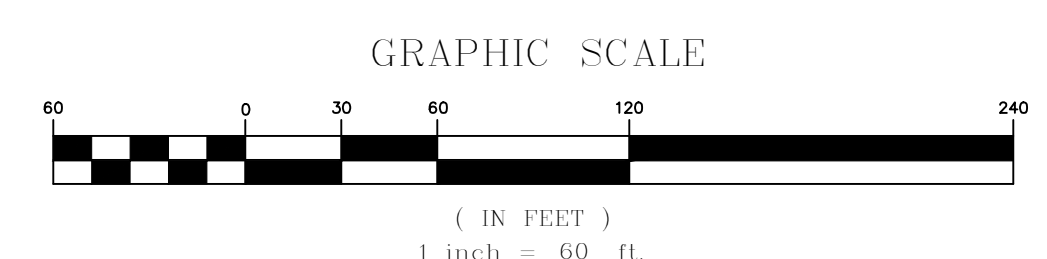
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1	PREPARED	03-24-2021
2	COMMENTS	05-11-2021

LEGEND	
DRILL HOLE (DH)	⊙
BOUND	⊠
DRAIN MANHOLE (DMH)	⊕
SEWER MANHOLE (SMH)	⊗
ELECTRIC MANHOLE (EMH)	⊙
CATCH BASIN (CB)	⊠
UTILITY POLE	⊙
UTILITY POLE W/RISER	⊙
UTILITY POLE W/LIGHT	⊙
GUY WIRE	—
FIRE HYDRANT	⊙
WATER GATE	⊙
INVERT (INV)	⊙
FLARED END SECTION	⊙
LIGHT	⊙
SIGN	⊙
WETLAND FLAG	▲A31
HAND HOLE	⊙
RIP-RAP	▨
BUILDING	▨
WETLAND	▨
EASEMENT LINE	---
1' CONTOUR	---
5' CONTOUR	---
PROPERTY LINE	---
ABUTTERS LINE	---
STONE WALL	---
RETAINING WALL	---
TREE LINE	---
EDGE OF PAVEMENT	---
EDGE OF GRAVEL	---
CURB	---
CHAIN LINK FENCE	---
GUARDRAIL	---
BITUMINOUS	BIT.
FOUND	FND
NOW OR FORMERLY	N/F
BOOK	BK.
PAGE	PG.
CERTIFICATE OF TITLE	COT
LAND COURT	L.C.
LAND COURT CASE	L.C.C.



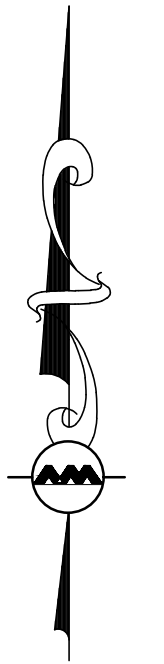
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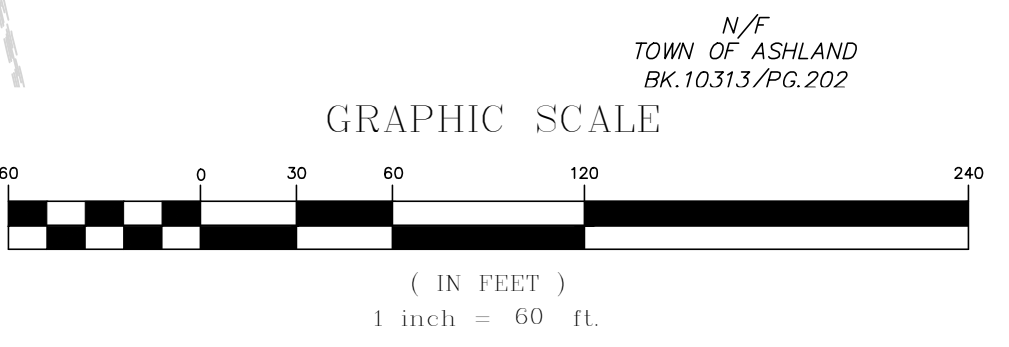
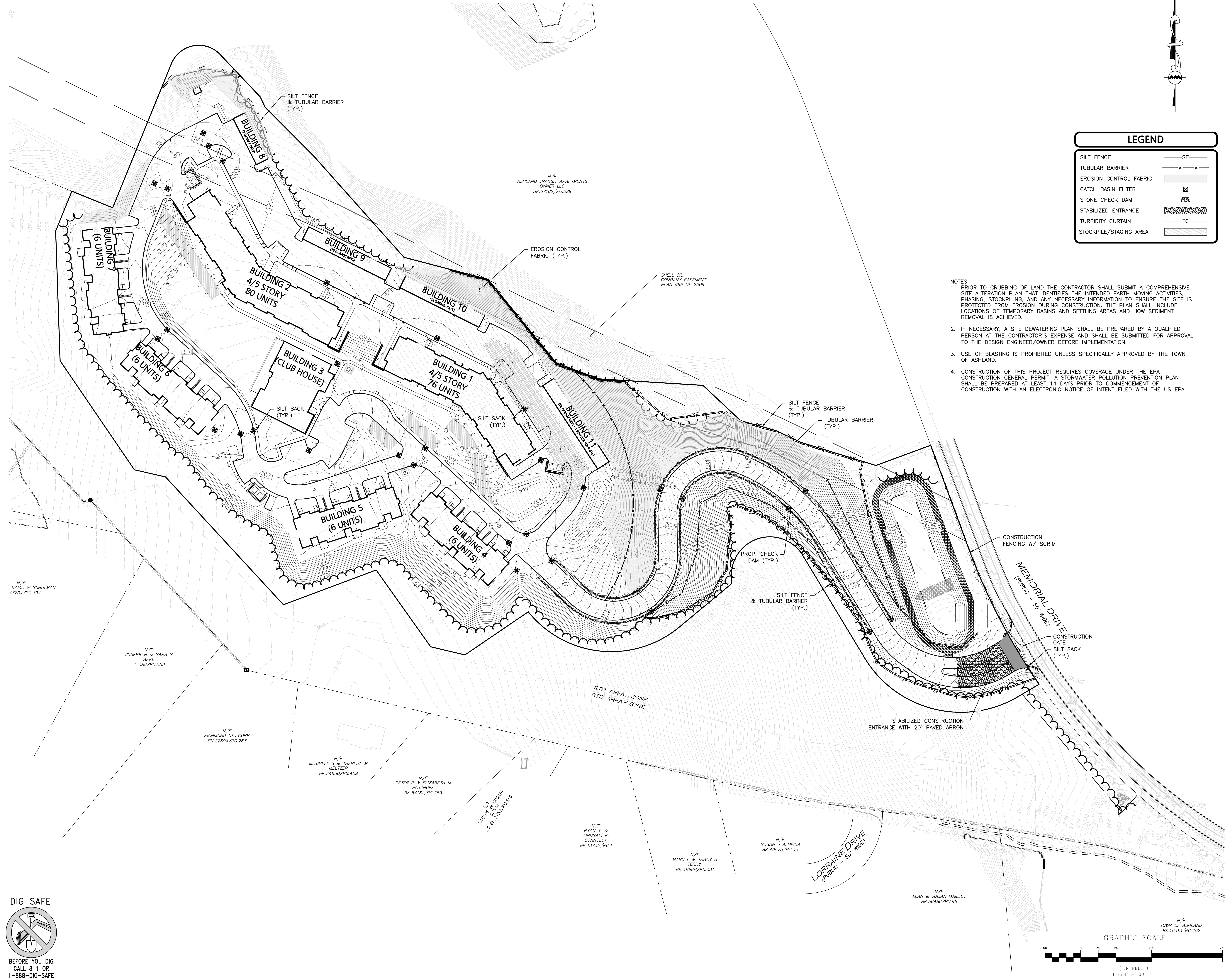
MATCHLINE SHEET V-101

No.	Description	Date
1	PER PERM REVIEW	03-24-2021
2	PER PERM REVIEW	05-11-2021
3	ADDED PLANT PALETTE	05-21-2021
4	PER PERM REVIEW	06-23-2021



LEGEND	
SILT FENCE	SF
TUBULAR BARRIER	X-X-X
EROSION CONTROL FABRIC	[Hatched Pattern]
CATCH BASIN FILTER	[Square with X]
STONE CHECK DAM	[Stippled Pattern]
STABILIZED ENTRANCE	[Cross-hatched Pattern]
TURBIDITY CURTAIN	TC
STOCKPILE/STAGING AREA	[Dotted Pattern]

- NOTES:**
1. PRIOR TO GRUBBING OF LAND THE CONTRACTOR SHALL SUBMIT A COMPREHENSIVE SITE ALTERATION PLAN THAT IDENTIFIES THE INTENDED EARTH MOVING ACTIVITIES, PHASING, STOCKPILING, AND ANY NECESSARY INFORMATION TO ENSURE THE SITE IS PROTECTED FROM EROSION DURING CONSTRUCTION. THE PLAN SHALL INCLUDE LOCATIONS OF TEMPORARY BASINS AND SETTLING AREAS AND HOW SEDIMENT REMOVAL IS ACHIEVED.
 2. IF NECESSARY, A SITE DEWATERING PLAN SHALL BE PREPARED BY A QUALIFIED PERSON AT THE CONTRACTOR'S EXPENSE AND SHALL BE SUBMITTED FOR APPROVAL TO THE DESIGN ENGINEER/OWNER BEFORE IMPLEMENTATION.
 3. USE OF BLASTING IS PROHIBITED UNLESS SPECIFICALLY APPROVED BY THE TOWN OF ASHLAND.
 4. CONSTRUCTION OF THIS PROJECT REQUIRES COVERAGE UNDER THE EPA CONSTRUCTION GENERAL PERMIT. A STORMWATER POLLUTION PREVENTION PLAN SHALL BE PREPARED AT LEAST 14 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WITH AN ELECTRONIC NOTICE OF INTENT FILED WITH THE US EPA.



DIG SAFE

 BEFORE YOU DIG
 CALL 811 OR
 1-888-DIG-SAFE
 1-888-344-7233

N/T
 DAVID W SCHULMAN
 43204/PG.394

N/T
 JOSEPH H & SARA S
 APKE
 43389/PG.559

N/T
 RICHMOND DEV CORP
 BK.22694/PG.263

N/T
 MITCHELL S & THERESA M
 MELTZER
 BK.24880/PG.459

N/T
 PETER P & ELIZABETH M
 POTTHOFF
 BK.54181/PG.253

N/T
 CAROL M
 LUCIA
 LC BK.3229/PG.188

N/T
 RYAN T &
 LINDSAY K
 CORNILEY
 BK.13732/PG.1

N/T
 MARC L & TRACY S
 TERRY
 BK.48968/PG.331

N/T
 SUSAN J ALMEIDA
 BK.49575/PG.43

N/T
 ALAN & JULIAN MAILLET
 BK.56486/PG.96

N/T
 ASHLAND TRANSIT APARTMENTS
 OWNER LLC
 BK.67182/PG.529

SHELL OIL
 COMPANY EASEMENT
 PLAN 966 OF 2008

RTD - AREA A ZONE
 RTD - AREA F ZONE

LORRRAINE DRIVE
 (PUBLIC - 50' WIDE)

MEMORIAL DRIVE
 (PUBLIC - 50' WIDE)

Arbella at Ashland
 Memorial Drive
 Ashland, MA 01721

U A Senior
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 Rensselaer
 Technology Park
 300 Jordan Road
 Troy, NY 12180



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 drawing scale: 1" = 60'
 drawing date: 04 SEPTEMBER 2020
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drawing revisions:

No.	Description	Date
1	PERMIT REVIEW	03-24-2021
2	CONSENT	05-11-2021
3	ADDED PLAY PALETTE	05-21-2021
4	PERMIT REVIEW PALETTE SCL	06-23-2021



OVERALL
 LAYOUT &
 MATERIALS
 PLAN

C-102

LAND USAGE TABLE - RAIL TRANSIT DISTRICT (A-E-F)

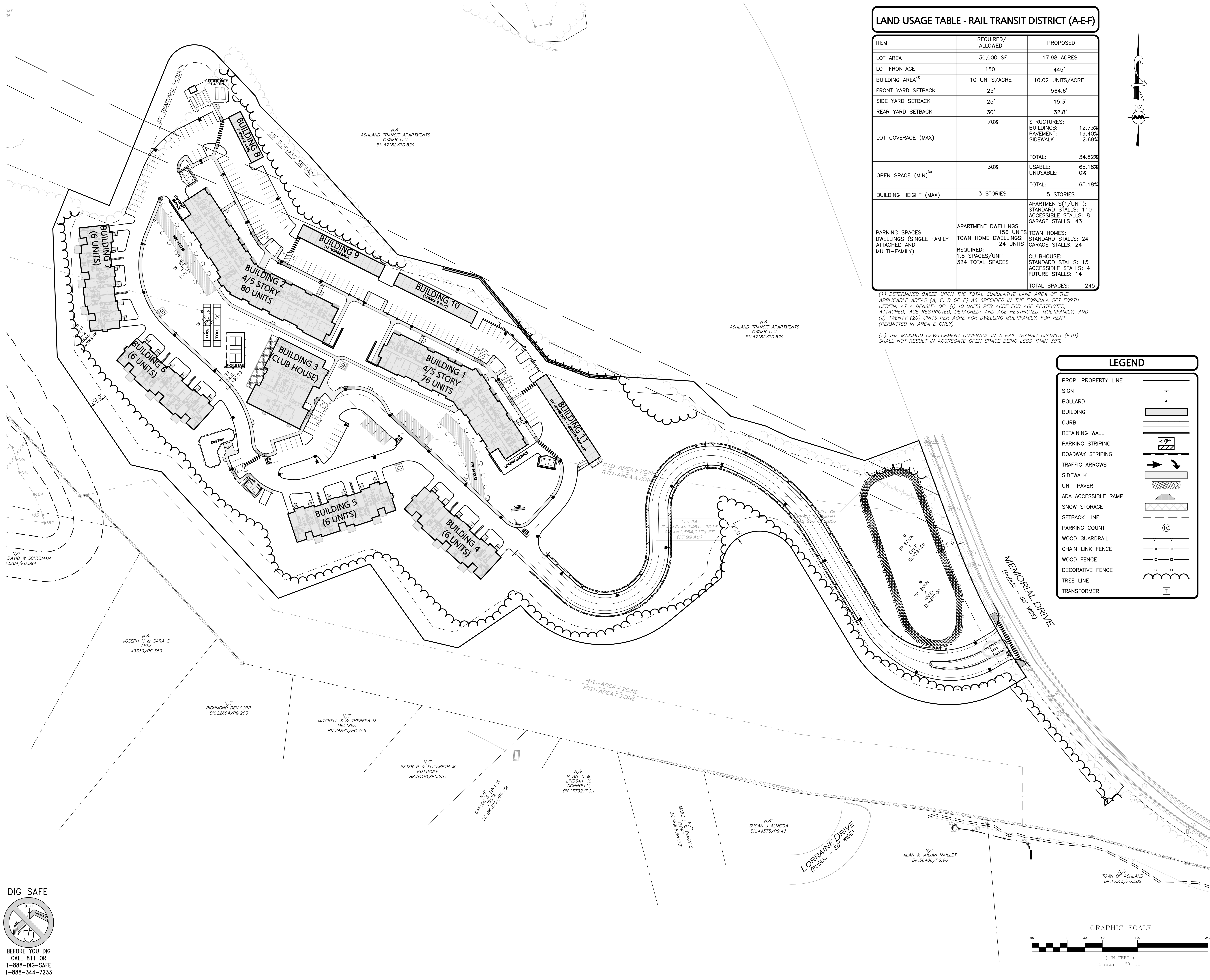
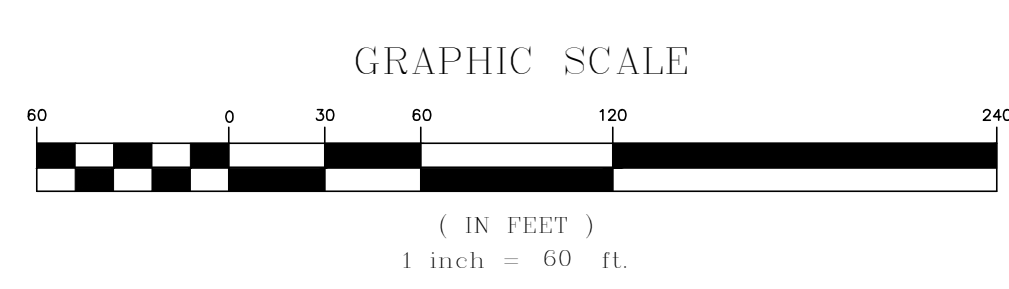
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		PAVEMENT: 19.40%
		SIDEWALK: 2.69%
TOTAL:	34.82%	
OPEN SPACE (MIN) ⁽²⁾	30%	USABLE: 65.18%
		UNUSABLE: 0%
		TOTAL: 65.18%
BUILDING HEIGHT (MAX)	3 STORIES	5 STORIES
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		TOWN HOMES: STANDARD STALLS: 24 GARAGE STALLS: 24
		CLUBHOUSE: STANDARD STALLS: 15 ACCESSIBLE STALLS: 4 FUTURE STALLS: 14
		TOTAL SPACES: 245

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LEGEND

- PROP. PROPERTY LINE
- SIGN
- BOLLARD
- BUILDING
- CURB
- RETAINING WALL
- PARKING STRIPING
- ROADWAY STRIPING
- TRAFFIC ARROWS
- SIDEWALK
- UNIT PAVEMENT
- ADA ACCESSIBLE RAMP
- SNOW STORAGE
- SETBACK LINE
- PARKING COUNT
- WOOD GUARDRAIL
- CHAIN LINK FENCE
- WOOD FENCE
- DECORATIVE FENCE
- TREE LINE
- TRANSFORMER



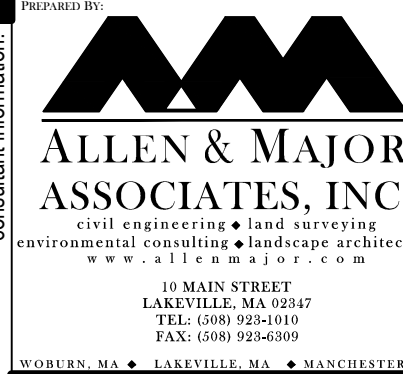
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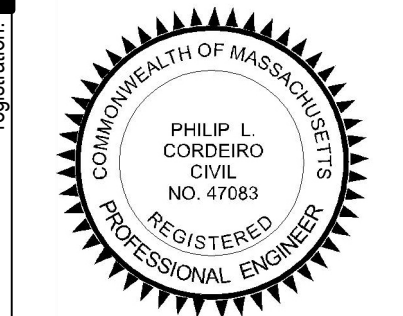
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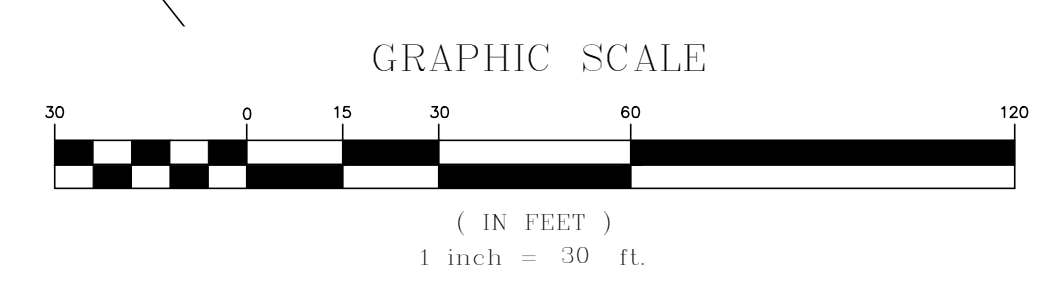
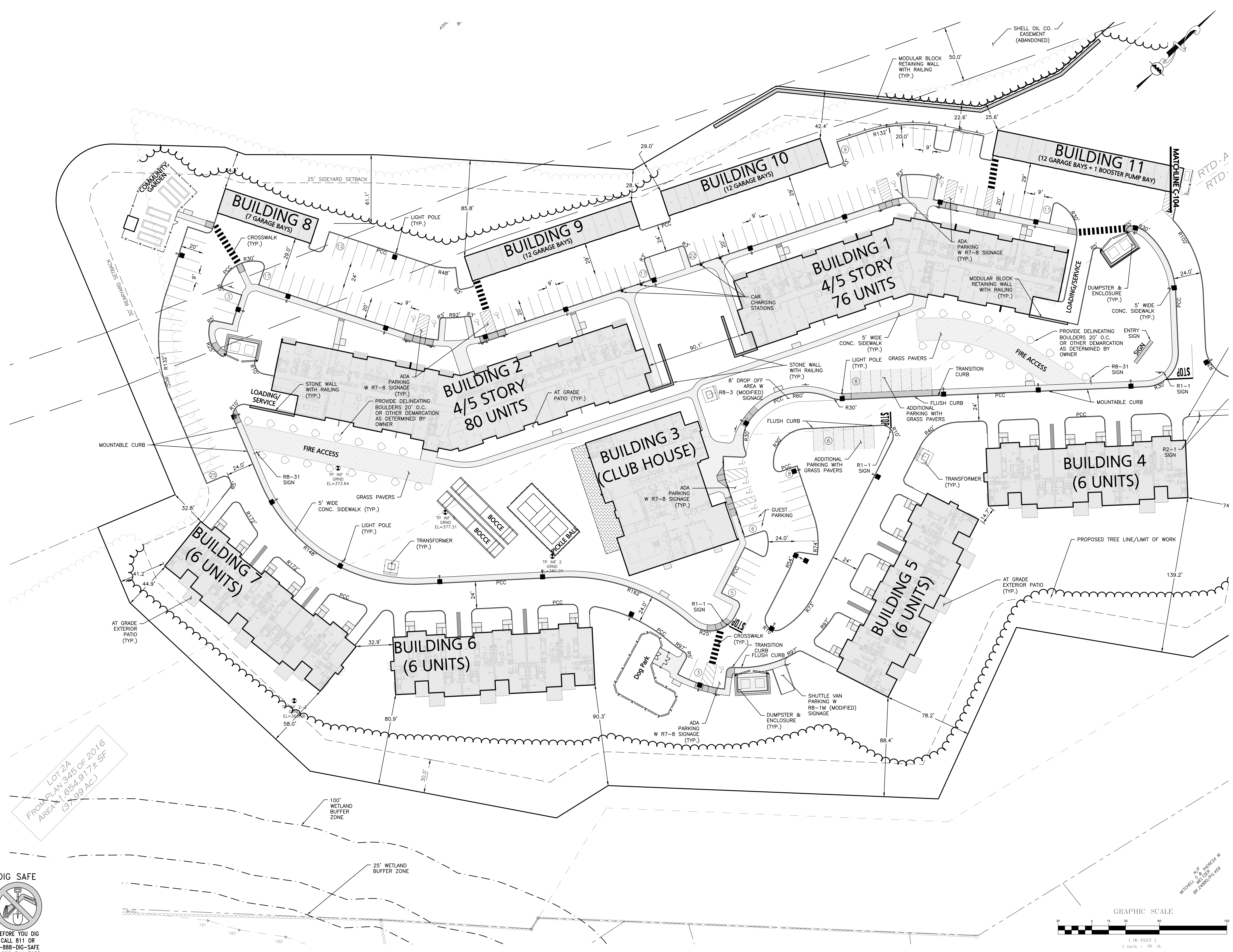
drawing revisions:

No.	Description	Date
1	PROPOSED	03-24-2021
2	COMMENTS	05-11-2021
3	ADD PART FLEETS	05-21-2021
4	PRELIMINARY FLEETS	06-23-2021



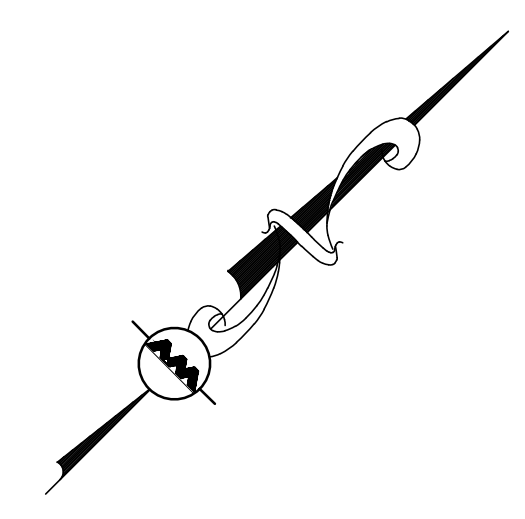
**LAYOUT &
 MATERIALS
 PLAN**

C-103



LOT 2A
 FROM PLAN 345 OF 2016
 AREA: 1,654,917 ± SF
 (37.99 AC.)

MITCHELL, IVF
 245 CANTON
 BR-24580/POC-459



Arbella at Ashland

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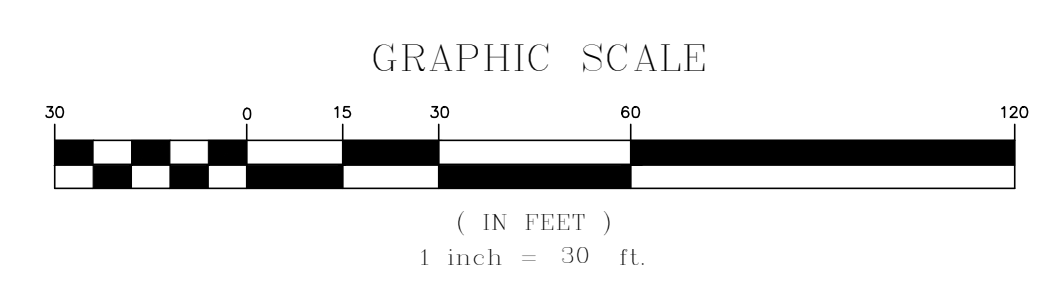
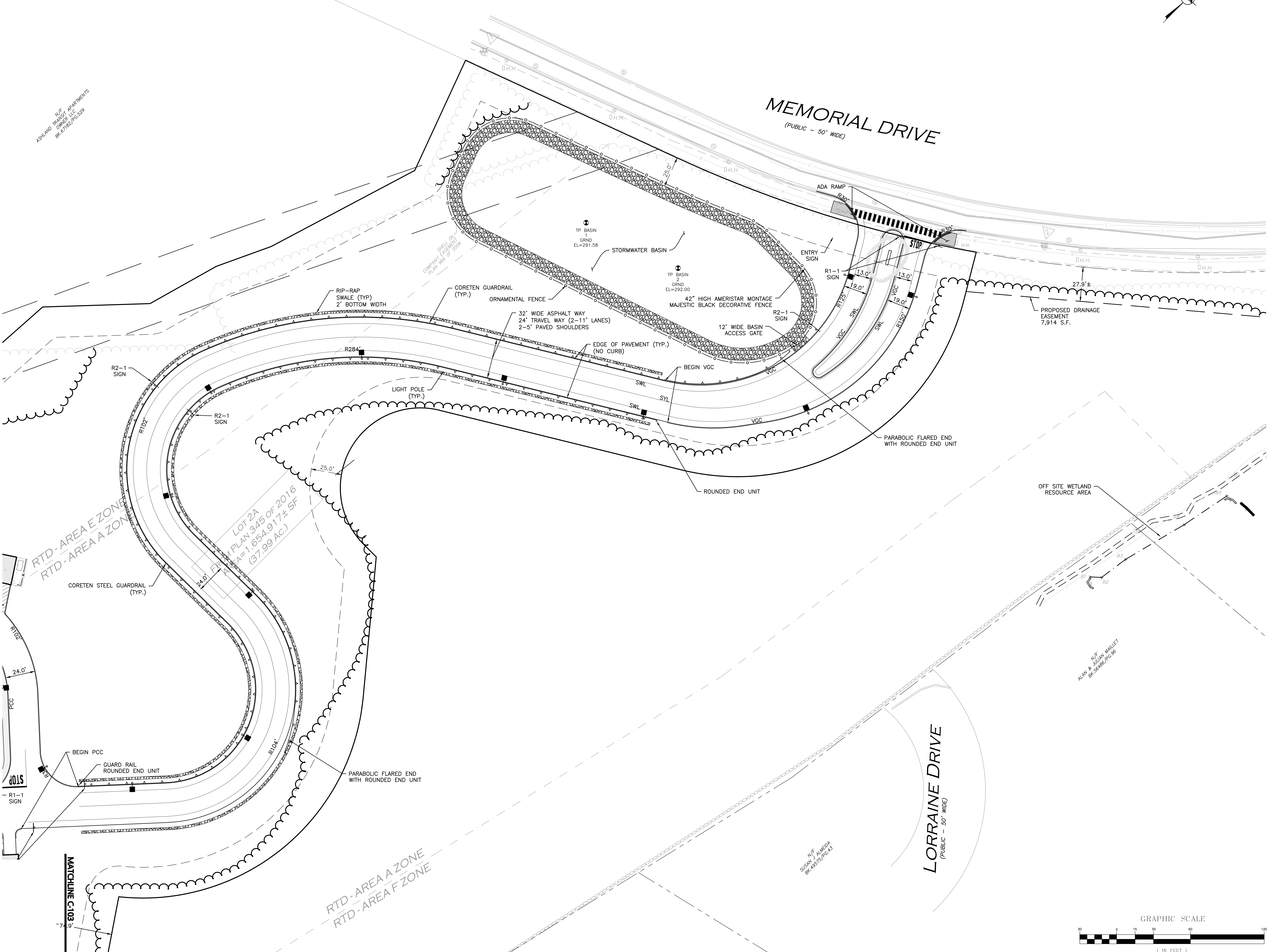
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No.	Description	Date
1	PROPOSED	03-24-2021
2	REVISION	05-11-2021
3	ADDED PAVEMENT	05-21-2021
4	PREPARED PLAN SHEET	06-23-2021



LAYOUT & MATERIALS PLAN

C-104



Arbella at Ashland

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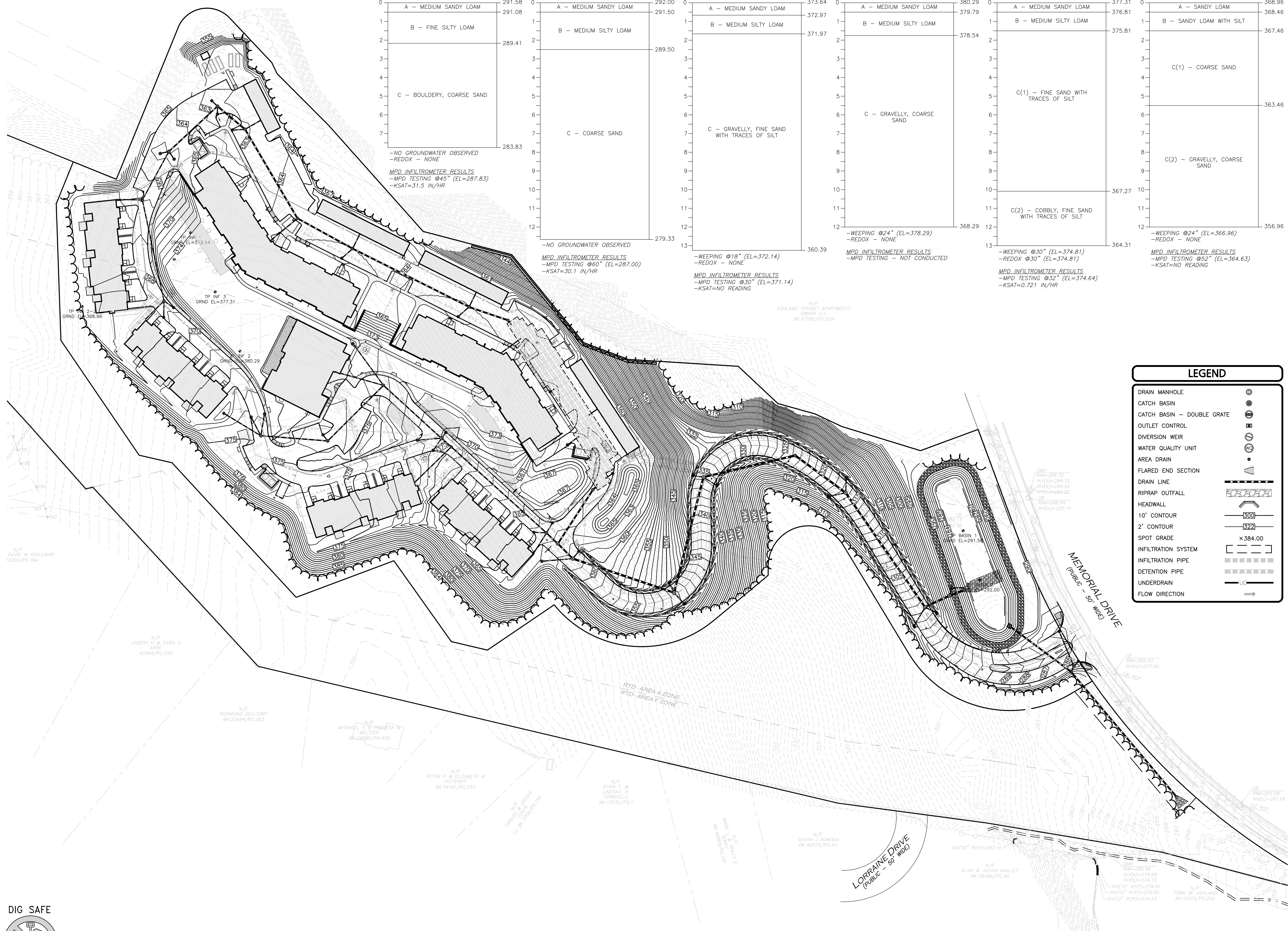
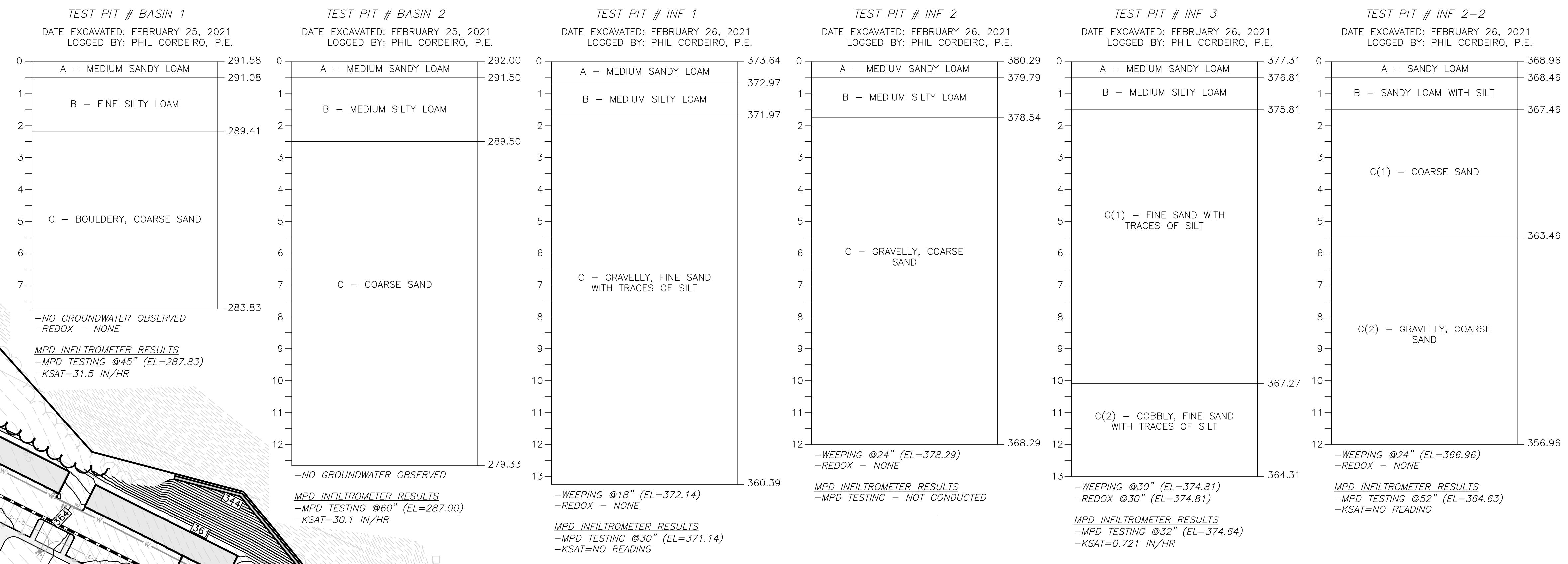
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 project number: 19021.00

No.	Description	Date
1	PERMIT REVIEW	03-24-2021
2	PERMIT REVIEW	05-11-2021
3	ADDED PLAY PILETS	05-21-2021
4	PERMIT REVIEW/REVISION	06-23-2021



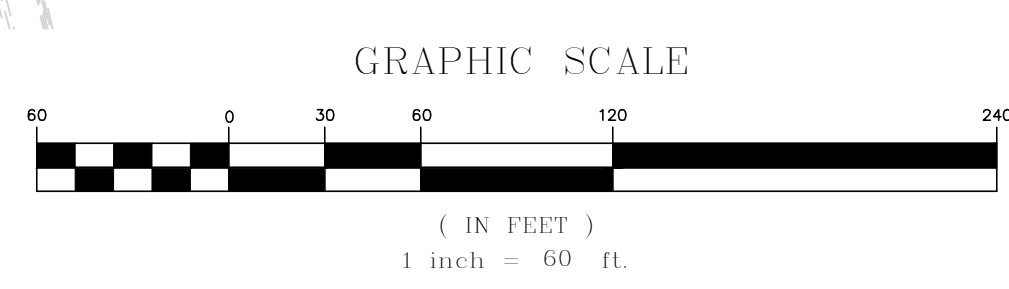
GRADING & DRAINAGE PLAN

C-105



LEGEND

- DRAIN MANHOLE
- CATCH BASIN
- CATCH BASIN - DOUBLE GRATE
- OUTLET CONTROL
- DIVERSION WEIR
- WATER QUALITY UNIT
- AREA DRAIN
- FLARED END SECTION
- DRAIN LINE
- RIPRAP OUTFALL
- HEADWALL
- 10' CONTOUR
- 2' CONTOUR
- SPOT GRADE
- INFILTRATION SYSTEM
- INFILTRATION PIPE
- DETENTION PIPE
- UNDERDRAIN
- FLOW DIRECTION



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**COMPREHENSIVE
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 NOT FOR
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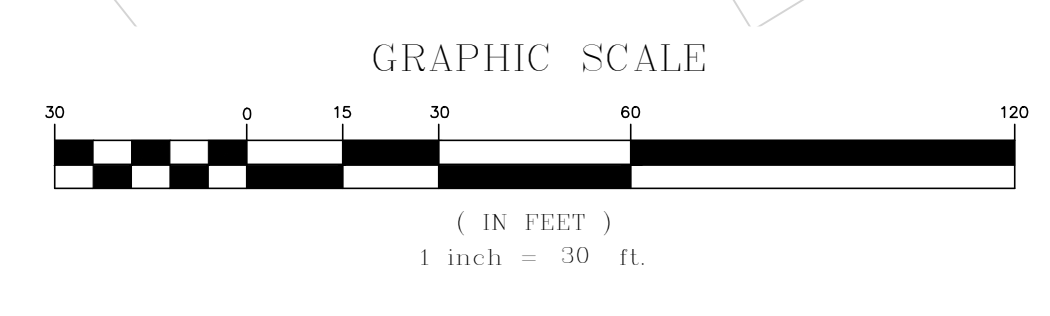
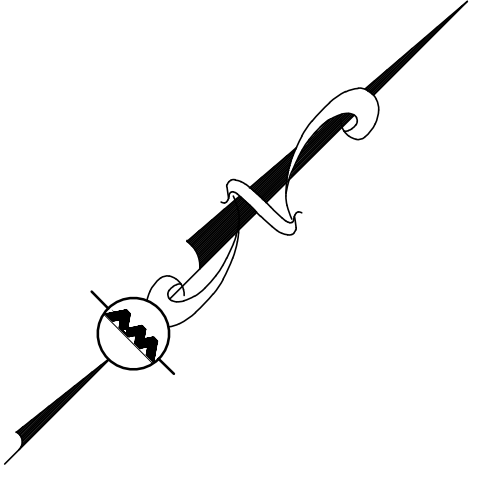
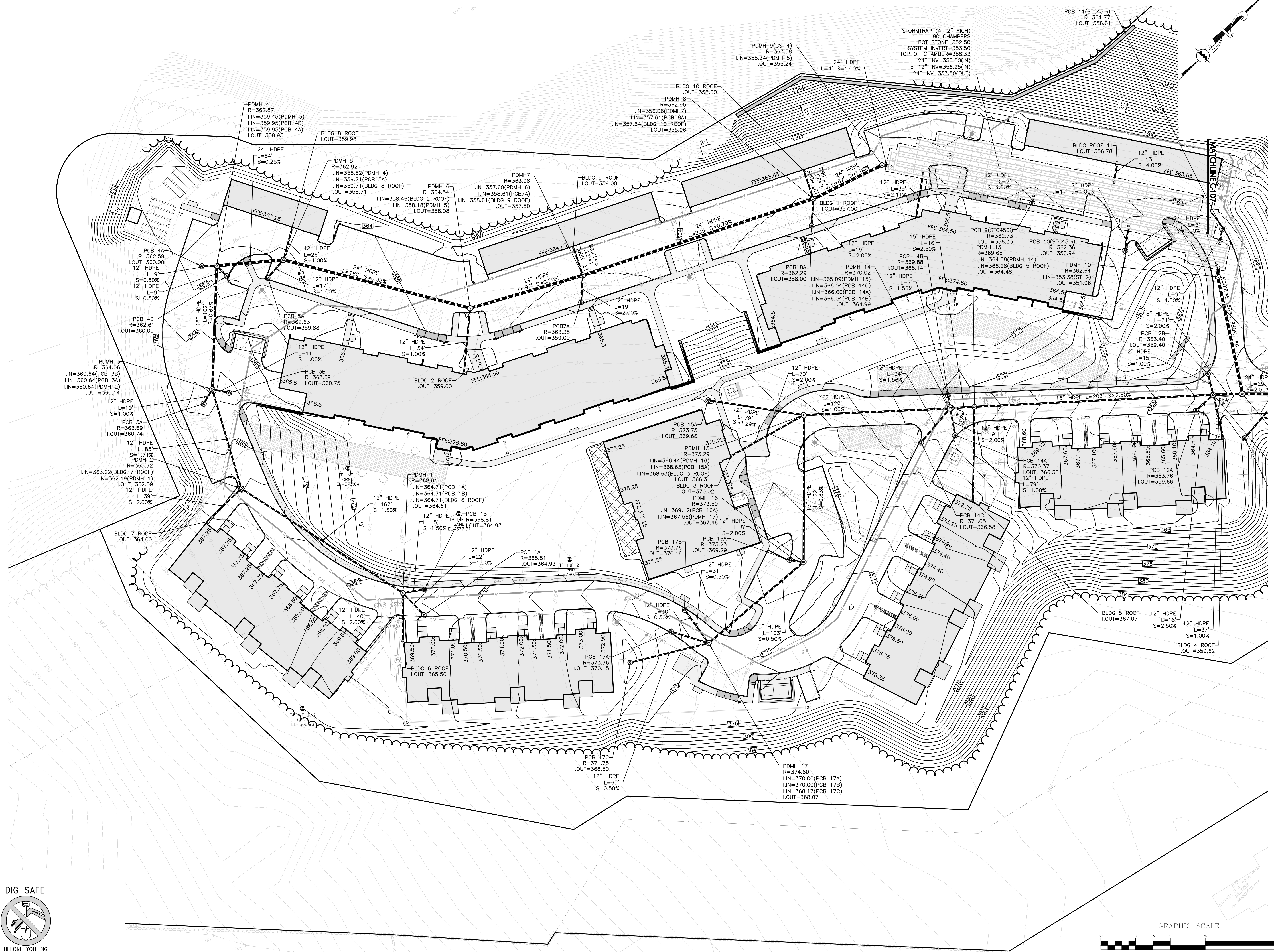
drawing by: SL
 drawing checked by: AD
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

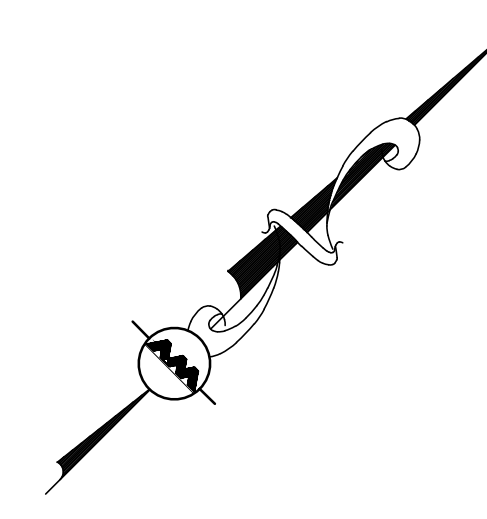
No.	Description	Date
1	PROPOSED	03-24-2021
2	REVISION	05-11-2021
3	ADD PLAN FILED	05-21-2021
4	PREPPT PLAN FILED	06-23-2021



**GRADING &
 DRAINAGE
 PLAN**

C-106



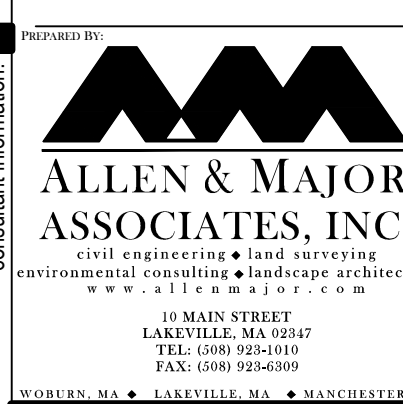


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drawing by: SL
 drawing checked by: AD
 drawing scale: 1" = 30'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

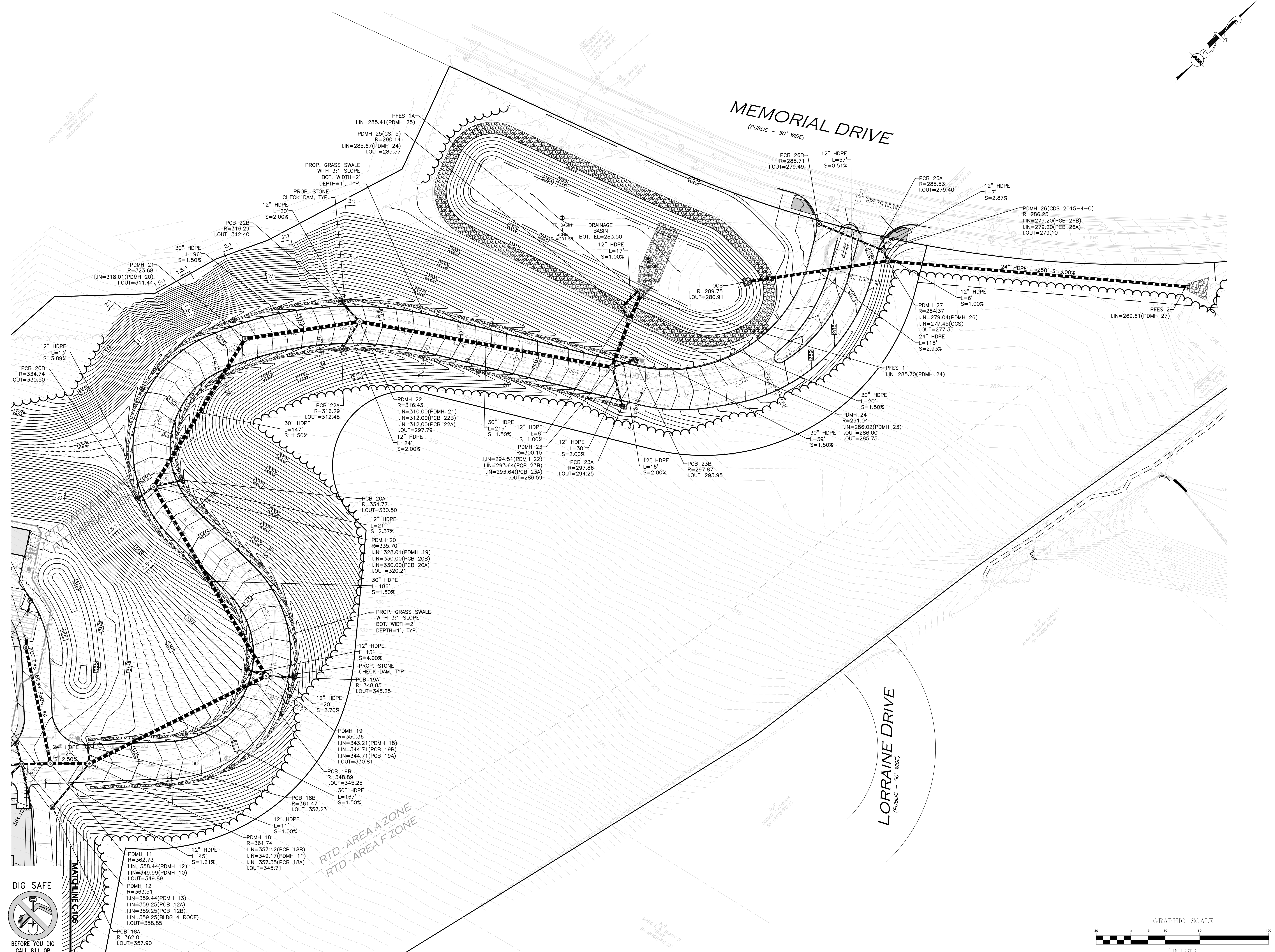
drawing revisions:

No.	Description	Date
1	ISSUED FOR PERMIT	03-24-2021
2	ISSUED FOR PERMIT	05-11-2021
3	ISSUED FOR PERMIT	08-21-2021
4	PRELIMINARY PLAN	06-23-2021



**GRADING &
 DRAINAGE
 PLAN**

C-107



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drawing by: SL
 drawing checked by: AD
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

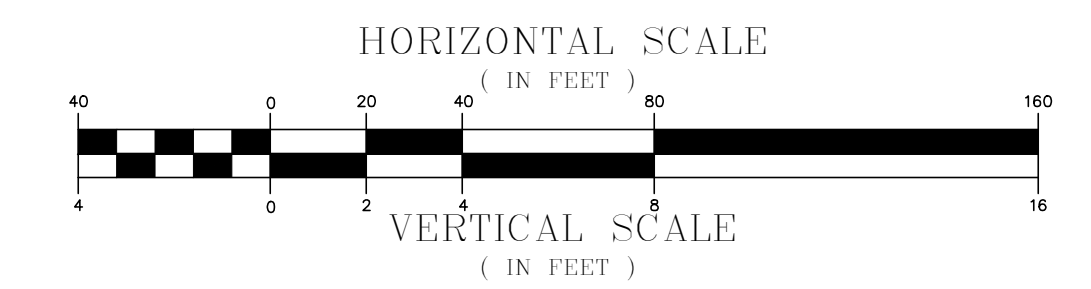
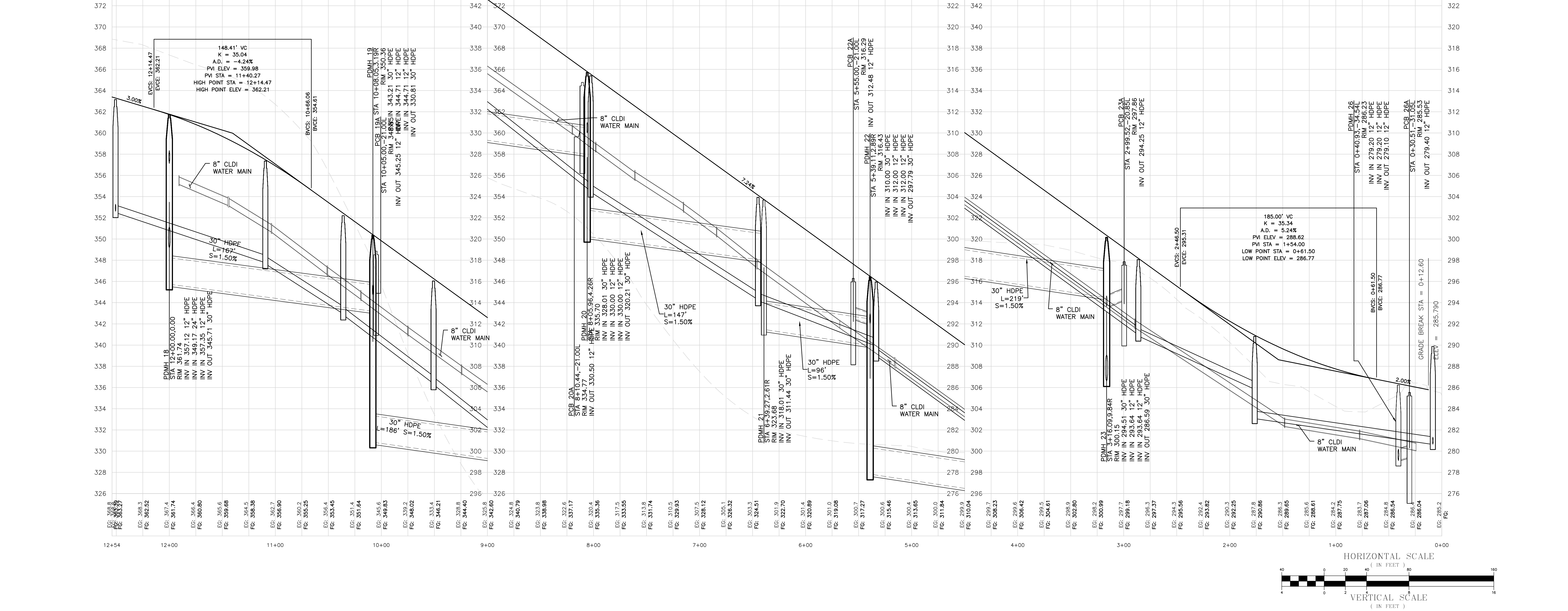
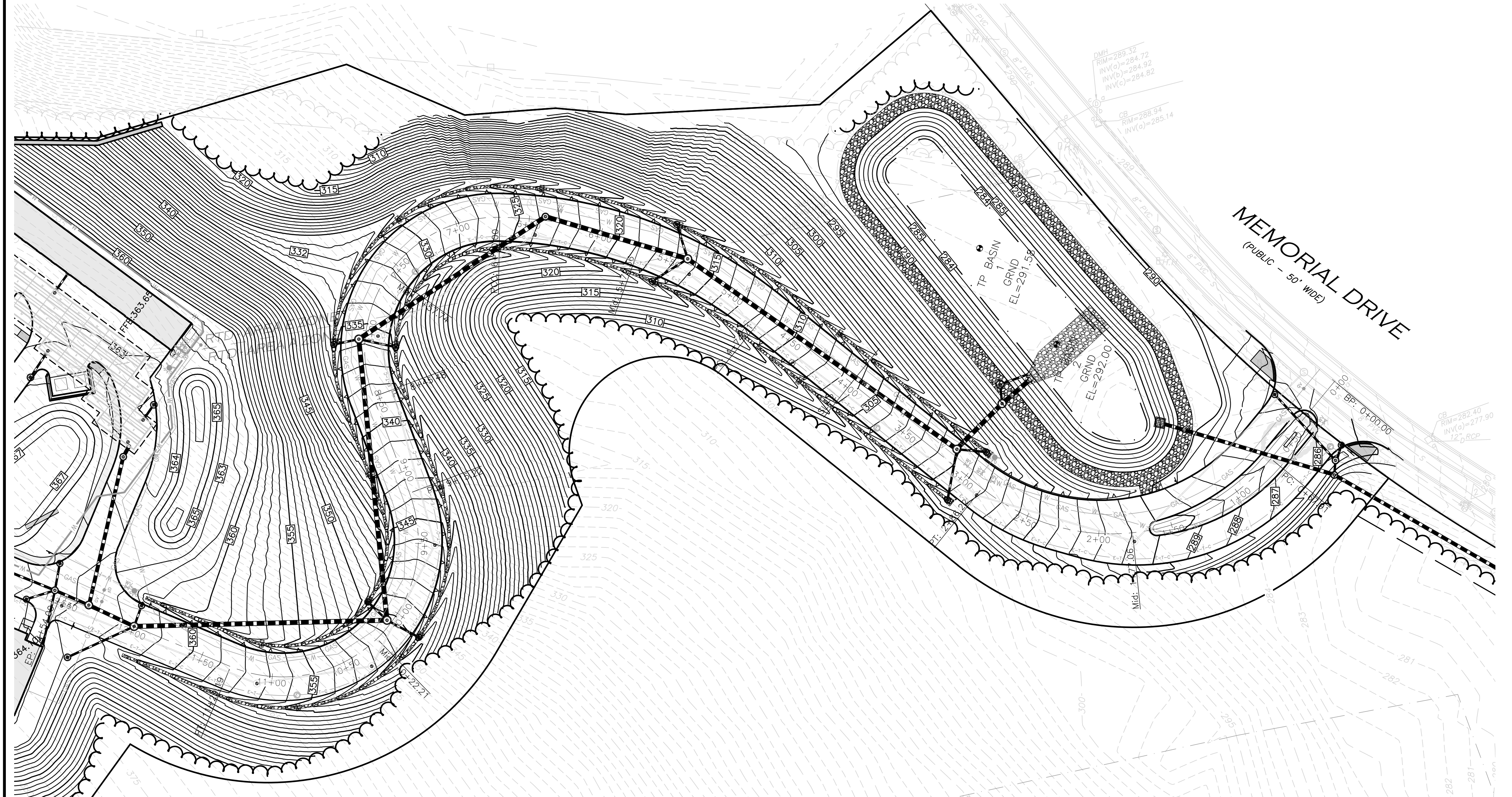
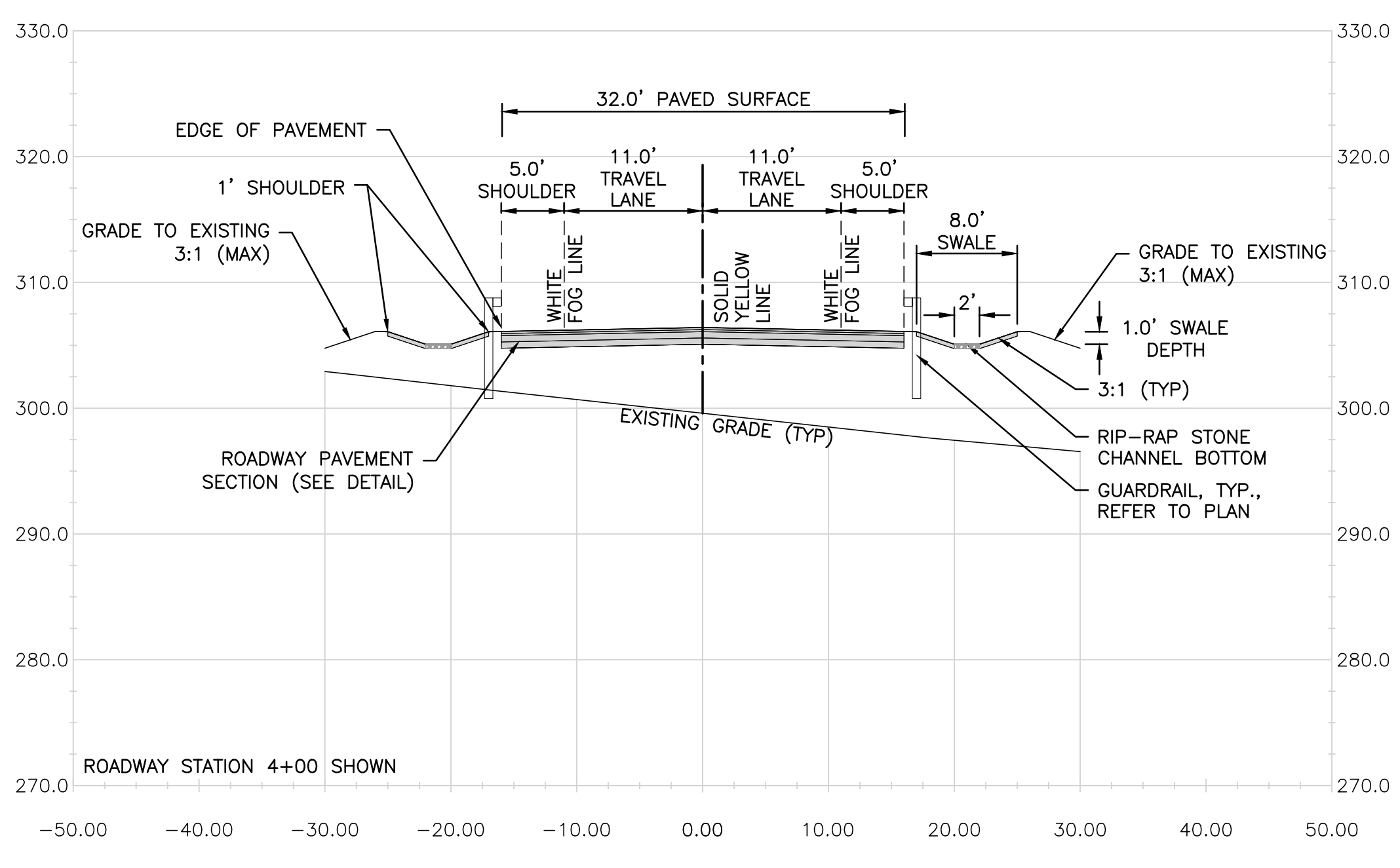
drawing revisions:

No.	Description	Date
1	ISSUED FOR PERMIT	03-24-2021
2	CONTRACT	05-11-2021
3	ADD IN PLAN TABLE	05-23-2021
4	PREPARE PLAN TABLE	06-23-2021

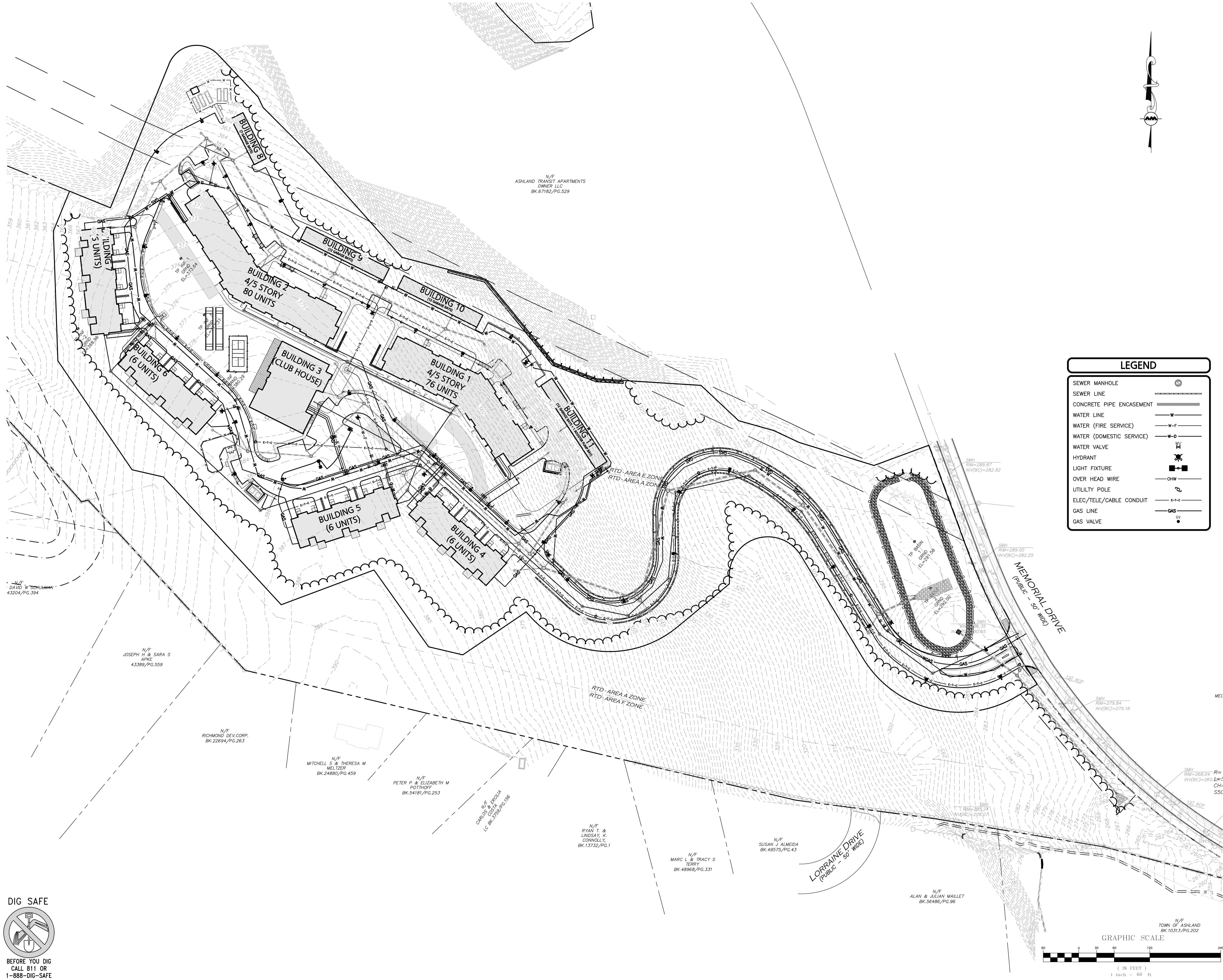


**PROFILE
 PLAN**

C-108

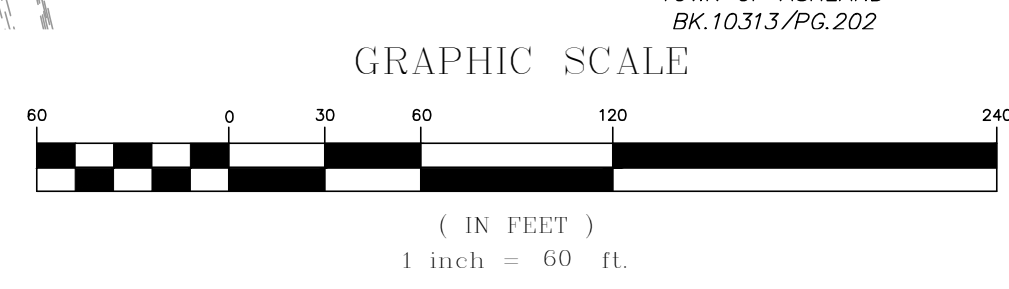


No.	Description	Date
1	PER PERMIT REVIEW	03-24-2021
2	PER PERMIT REVIEW	05-11-2021
3	ADD PLAN PALETTE	05-21-2021
4	PER PERMIT REVIEW	06-23-2021



LEGEND

- SEWER MANHOLE
- SEWER LINE
- CONCRETE PIPE ENCASEMENT
- WATER LINE
- WATER (FIRE SERVICE)
- WATER (DOMESTIC SERVICE)
- WATER VALVE
- HYDRANT
- LIGHT FIXTURE
- OVER HEAD WIRE
- UTILITY POLE
- ELEC./TELE./CABLE CONDUIT
- GAS LINE
- GAS VALVE



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drawing by: SL
 drawing checked by: AD
 drawing scale: 1" = 30'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

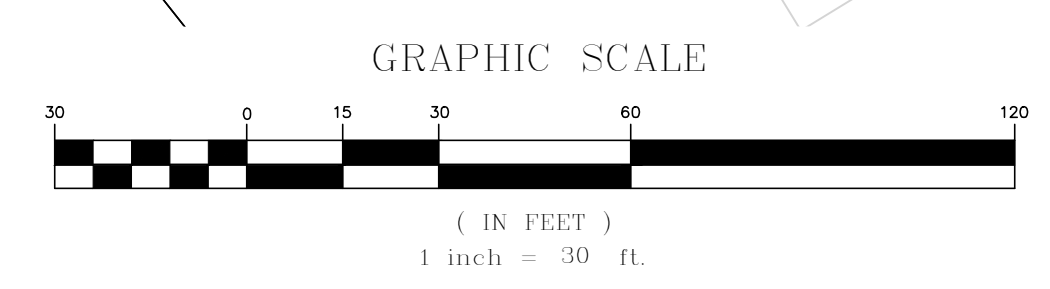
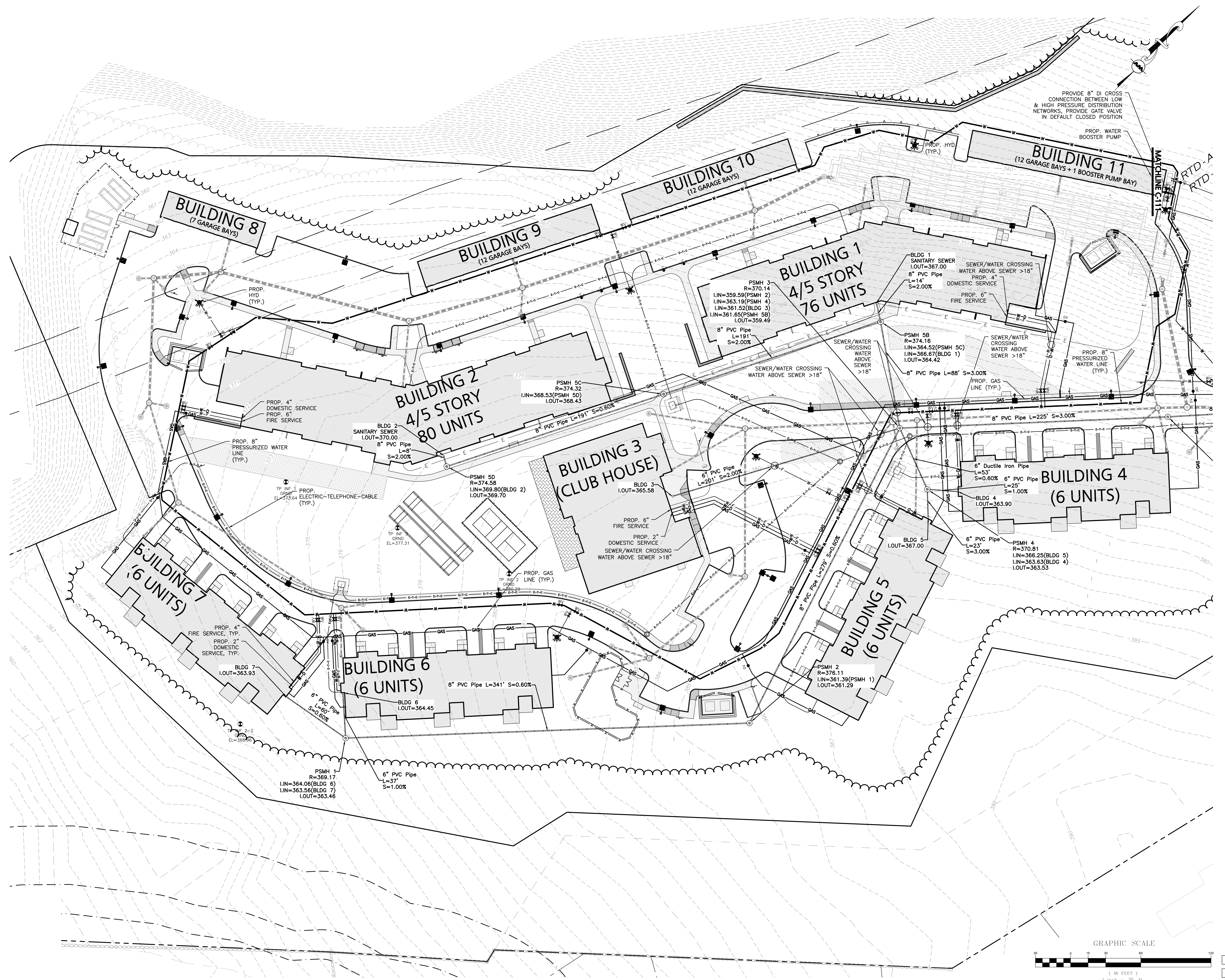
drawing revisions:

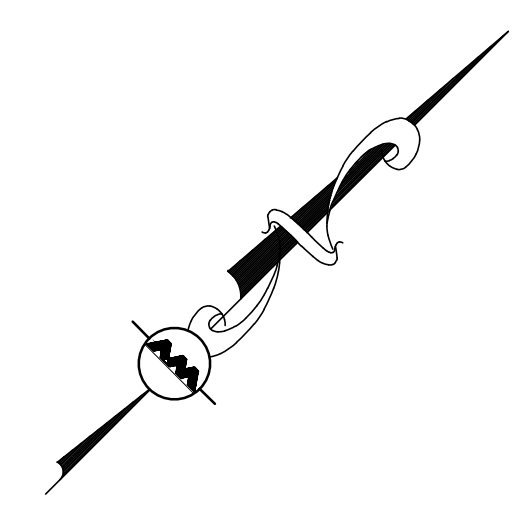
No.	Description	Date
1	PROPOSED	03-24-2021
2	REVISION	05-11-2021
3	ADDED PLANT MATERIAL	05-21-2021
4	PREPARED PLANT MATERIAL	06-23-2021



**UTILITIES
 PLAN**

C-110





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drawing by: SL
 drawing checked by: AD
 drawing scale: 1" = 30'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

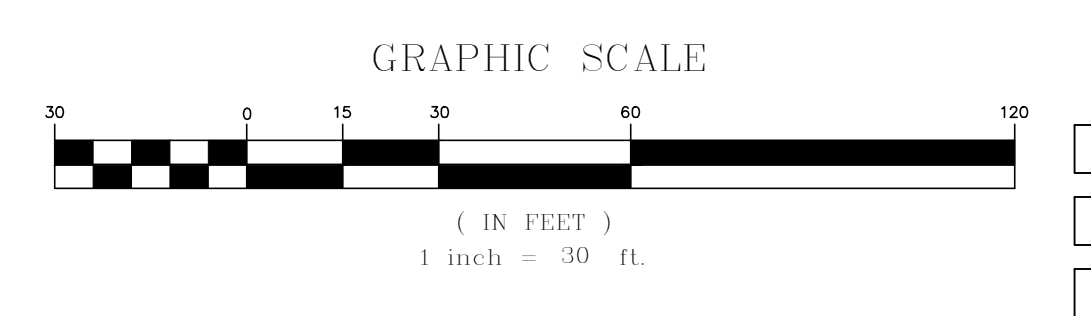
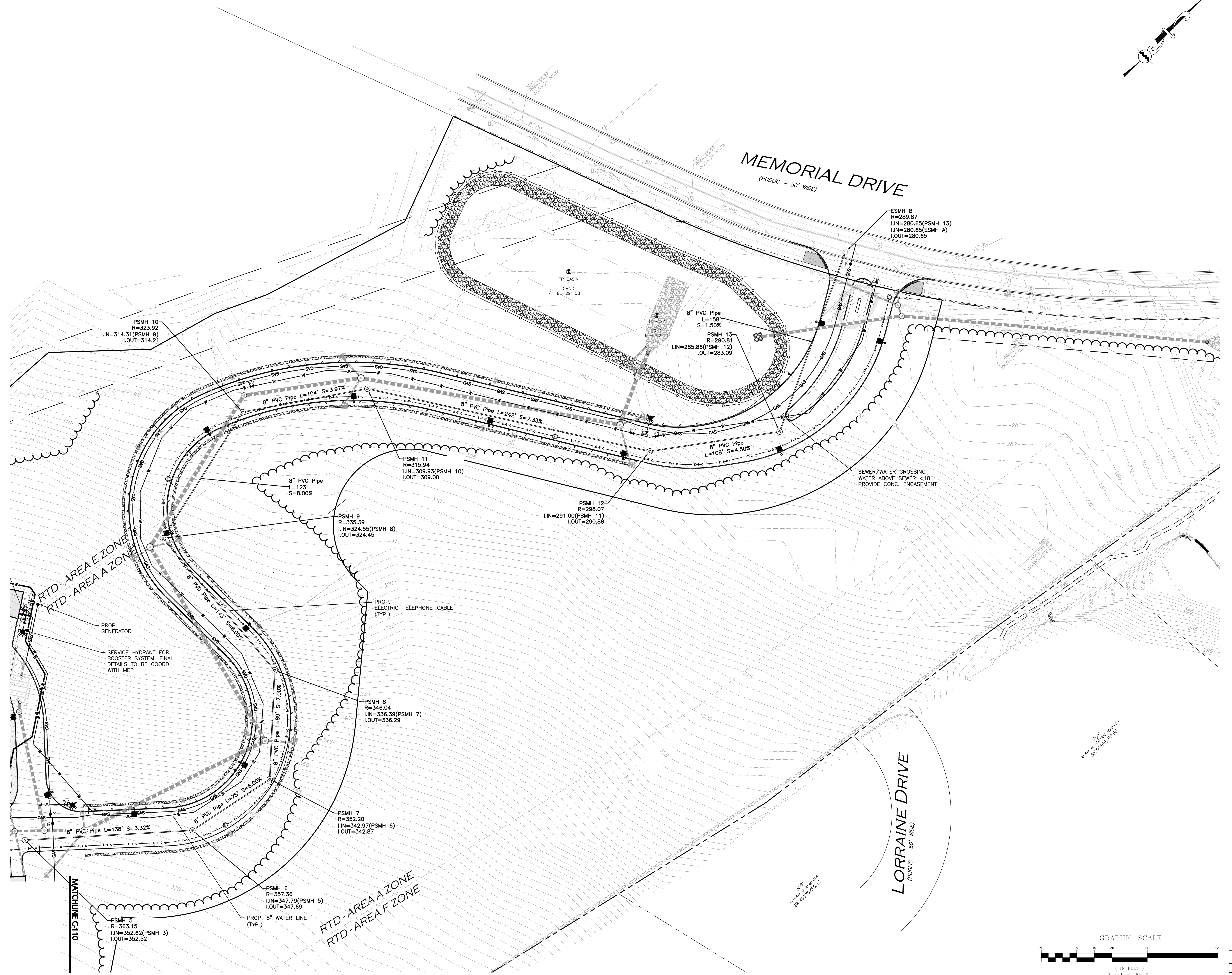
drawing revisions:

No.	Description	Date
1	PROPOSED	03-24-2021
2	REVISION	05-11-2021
3	ADDED PLAN SHEETS	05-21-2021
4	PRELIMINARY PLAN SHEETS	06-23-2021



**UTILITIES
 PLAN**

C-111



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drawing checked by: AD

drawing scale: 1" = 60'

drawing date: 04 SEPTEMBER 2020

project number: 19021.00

drawing revisions:

No.	Description	Date
1	PERMIT REVIEW	03-24-2021
2	PERMIT REVIEW	05-11-2021
3	ADDED PLANT PALETTE	05-21-2021
4	PERMIT REVIEW	06-23-2021



PHOTO-
 METRICS
 PLAN

C-112



LEGEND

DOUBLE POLE LIGHT

SINGLE POLE LIGHT

WALL MOUNT LIGHT

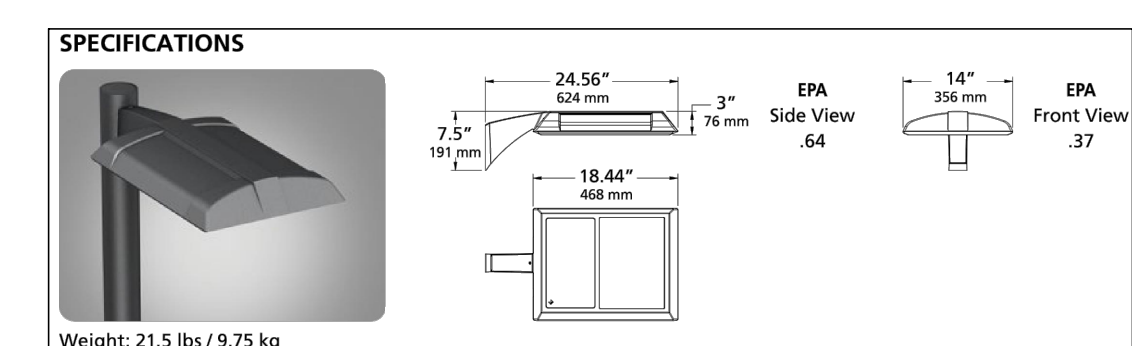
BOLLARD LIGHT

1 FOOTCANDLE CONTOUR

.5 FOOTCANDLE CONTOUR

LIGHTING LEVELS
 GIVEN IN FOOT-CANDLES 1.0 0.1 0.2 0.4 0.6

- NOTES:**
1. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.
 2. FOOT CANDLE VALUES SHOWN ON THE PLAN ARE PRODUCED UTILIZING DESIGN MASTER PHOTOMETRICS SOFTWARE AND ASSOCIATED IES FILES BY THE MANUFACTURER FOR THE PROPOSED LIGHT FIXTURE.
 3. ALL PHOTOMETRIC DATA REFERS TO UNITS IN FOOT CANDLES (FC). THE LIMIT OF 1.0 FC ILLUMINATION IS SHOWN IN A RED SOLID LINE AND THE LIMIT OF THE 0.5 FOOT CANDLE (FC) ILLUMINATION IS SHOWN IN BLUE.
 4. QUANTITIES SHOWN IN LUMINAIRE SCHEDULE TABLE DENOTES NUMBER OF FIXTURE HEADS. REFER TO PLAN FOR POLES WITH DOUBLE FIXTURES.
 5. MOUNTING HEIGHTS:
 - 5.1. A MOUNTING HEIGHT OF 12'-6" CONSIST OF A 12" POLE WITH A 6" REVEAL ON THE CONCRETE LIGHT POLE BASE;
 - 5.2. A MOUNTING HEIGHT OF 14'-6" CONSIST OF A 12" POLE WITH A 2'-6" REVEAL ON THE CONCRETE LIGHT POLE BASE;
 - 5.3. A MOUNTING HEIGHT OF 20'-6" CONSIST OF A 18" POLE WITH A 6" REVEAL ON THE CONCRETE LIGHT POLE BASE.



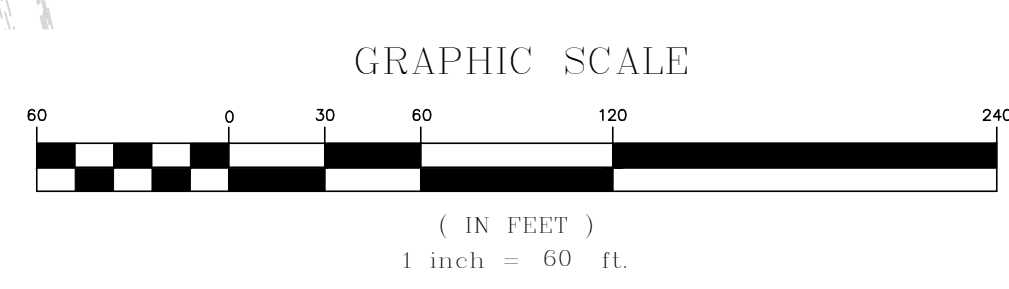
PARKING/SITE LIGHT FIXTURE
 KIM LIGHTING, ALTITUDE 2.0 - ALT1

**GENERAL
 PHOTOMETRIC
 SCHEDULE**

AVERAGE FOOT-CANDLES	1.33
MAXIMUM FOOT-CANDLES	16.8
MINIMUM FOOT-CANDLES	0.0

LUMINAIRE SCHEDULE

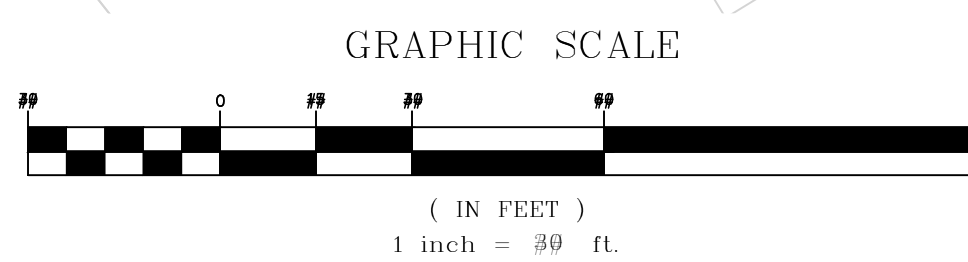
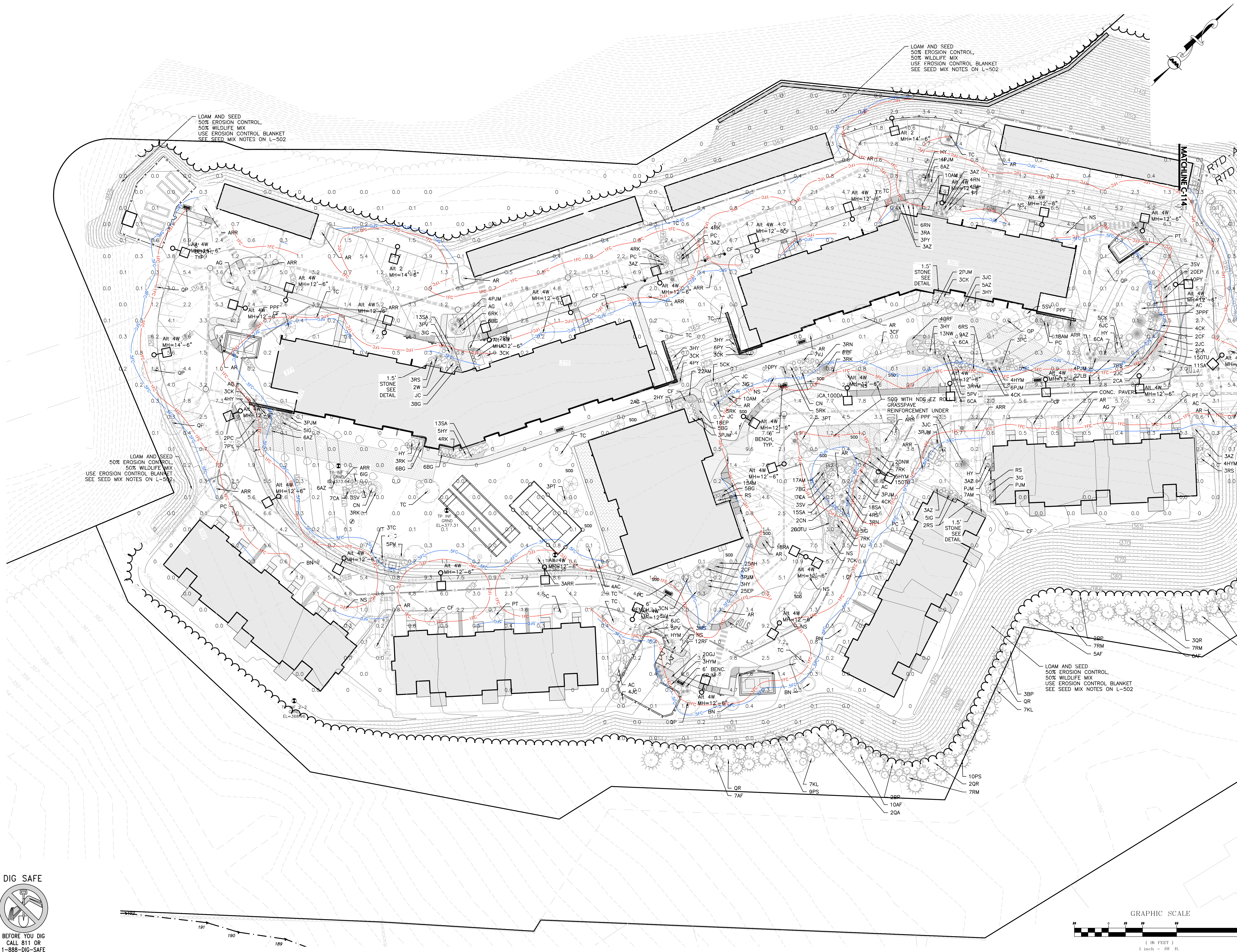
CALLOUT	SYMBOL	DESCRIPTION	MOUNTING	NOTE 1	TOTAL LUMENS	LAMP DEPRECIATION	QUANTITY
Alt 2		KIM LIGHTING, ALTITUDE 2.0 Type II ALT1-54L-155-4k7-2	POLE	Mounting Height Varies, See Plan	17310	0.9	12
Alt 4W		KIM LIGHTING, ALTITUDE 2.0 Type IV Wide ALT1-54L-155-4k7-4W	POLE	Mounting Height Varies, See Plan	17299	0.9	33

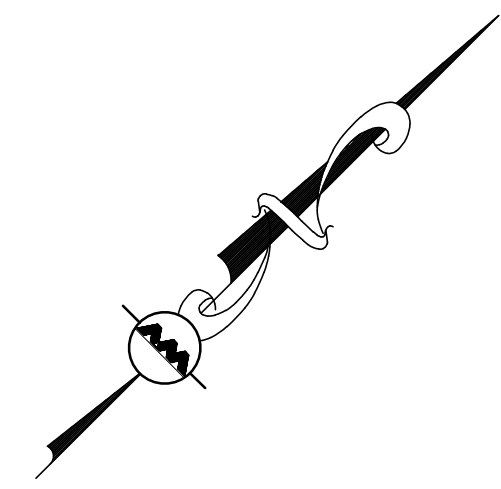


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No.	Description	Date
1	PERMIT REVIEW	03-24-2021
2	PERMIT REVIEW	05-11-2021
3	ADD PLAN PALETTE	05-21-2021
4	PERMIT PALETTE	06-23-2021





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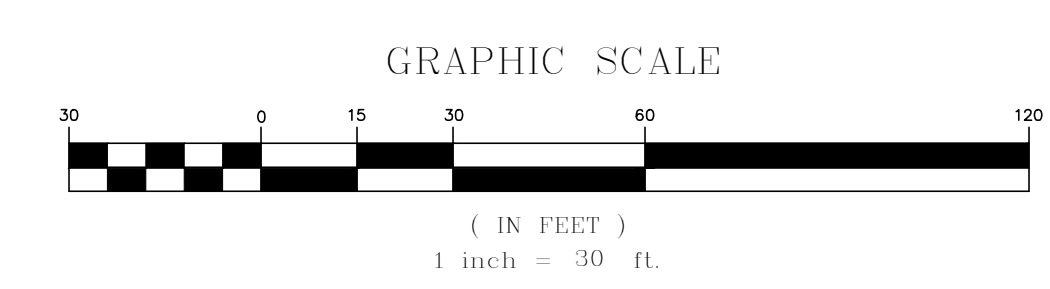
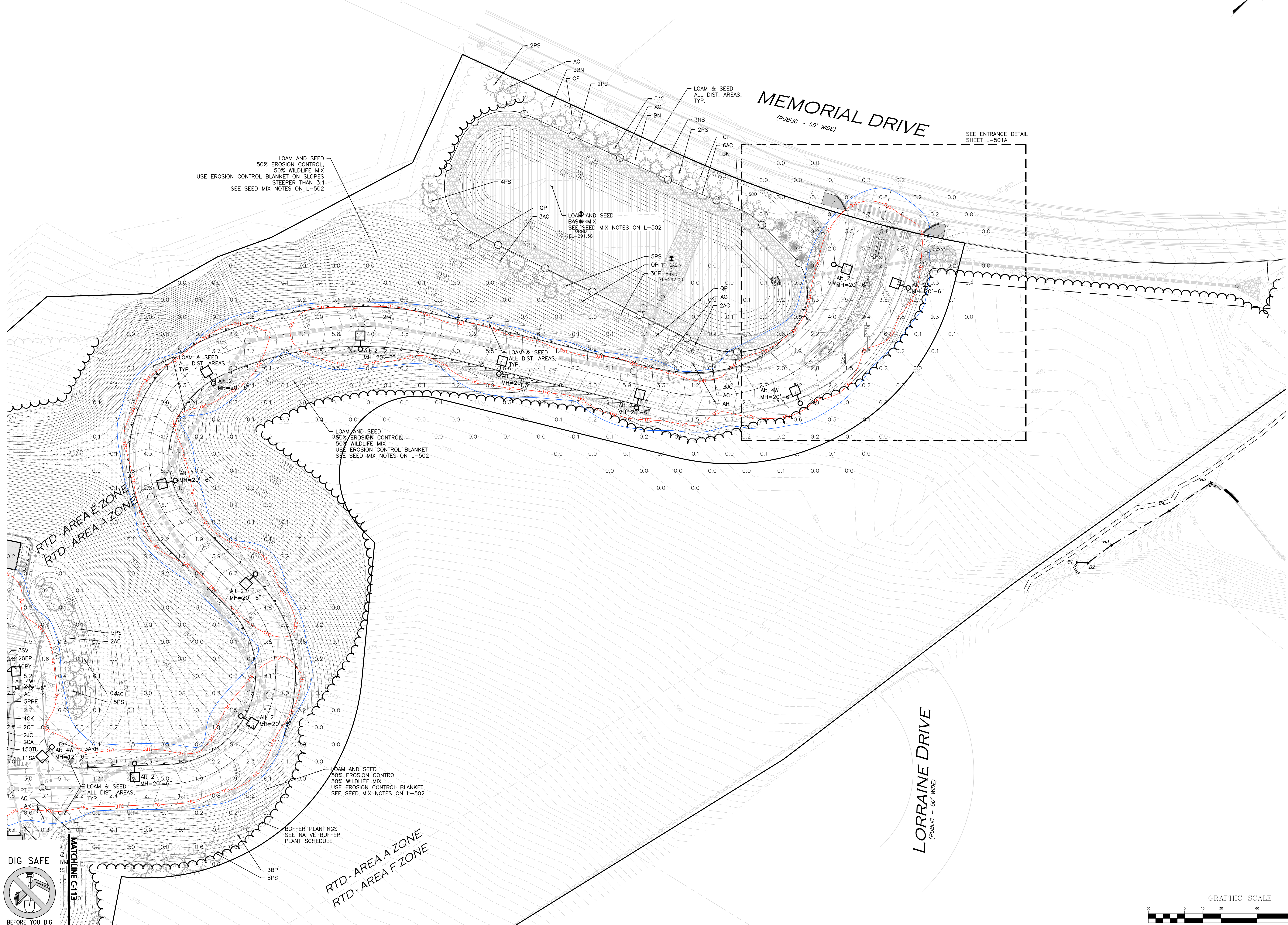
drawing by: SL
 drawing checked by: AD
 drawing scale: 1" = 30'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

drawing revisions		
No.	Description	Date
1	PER PERMIT REVIEW	03-24-2021
2	PER PERMIT REVIEW	05-11-2021
3	ADD PLANT PALETTE	05-21-2021
4	PER PERMIT REVIEW	06-23-2021



PHOTO-
 METRICS
 PLAN

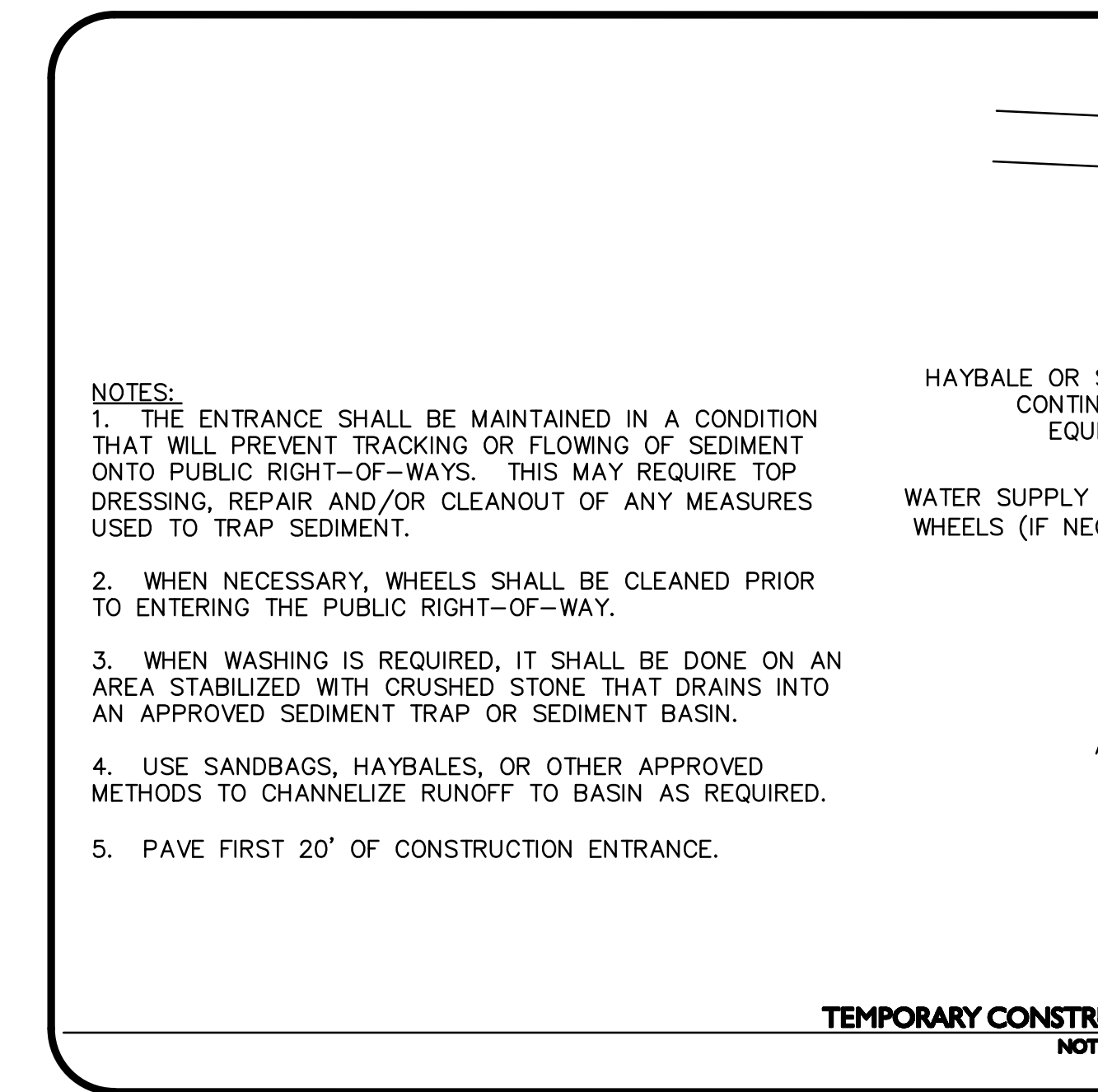
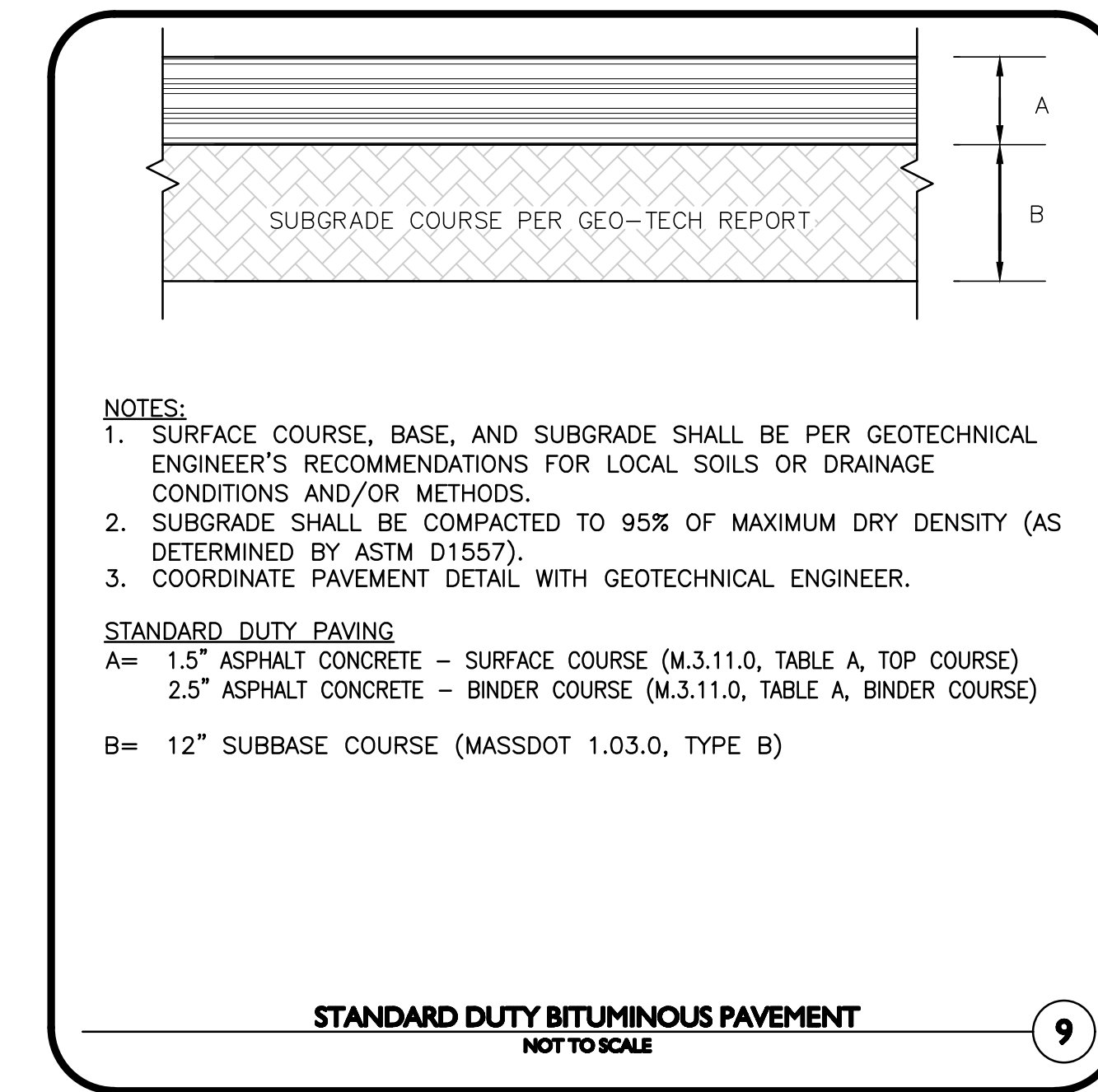
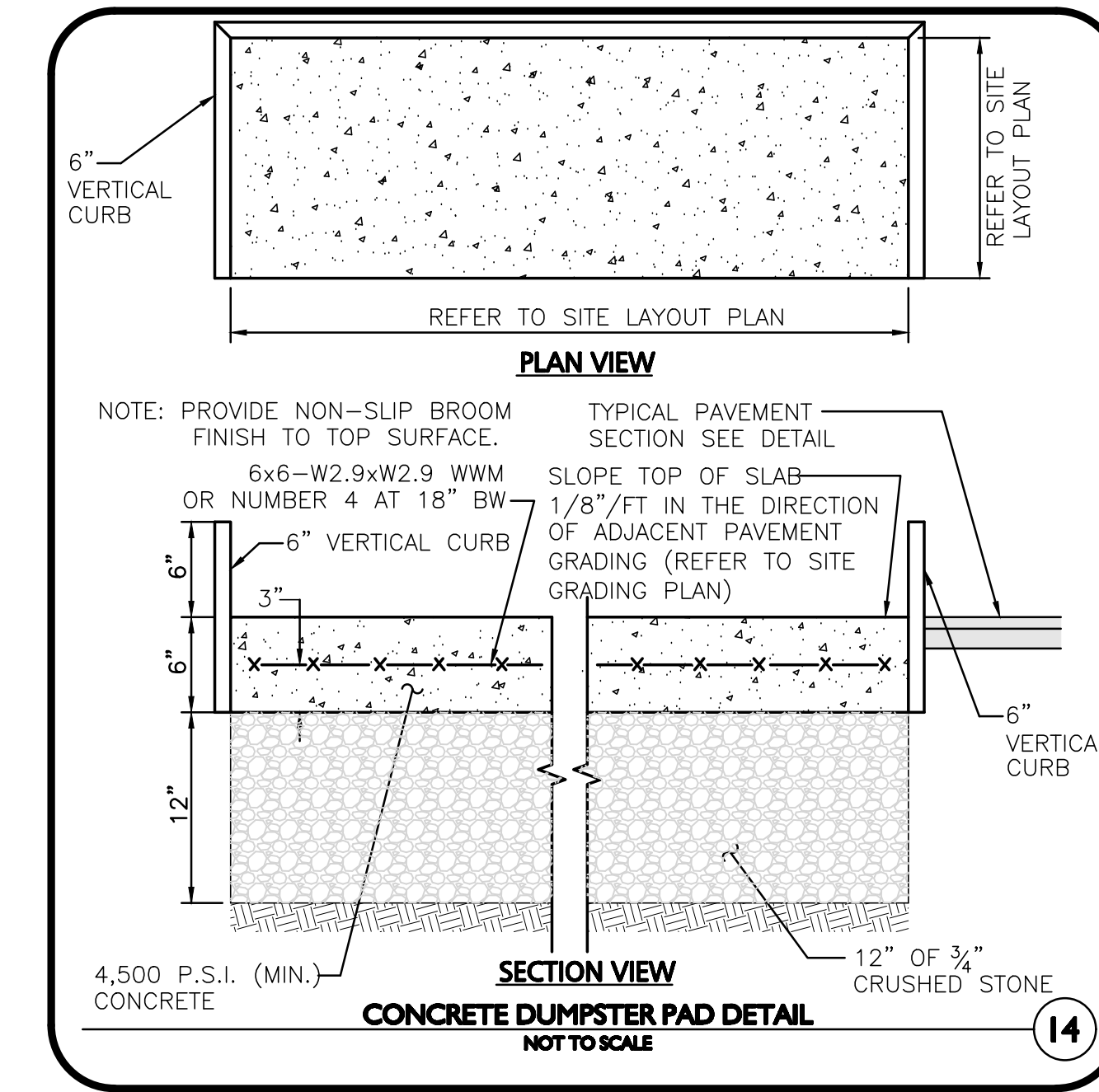
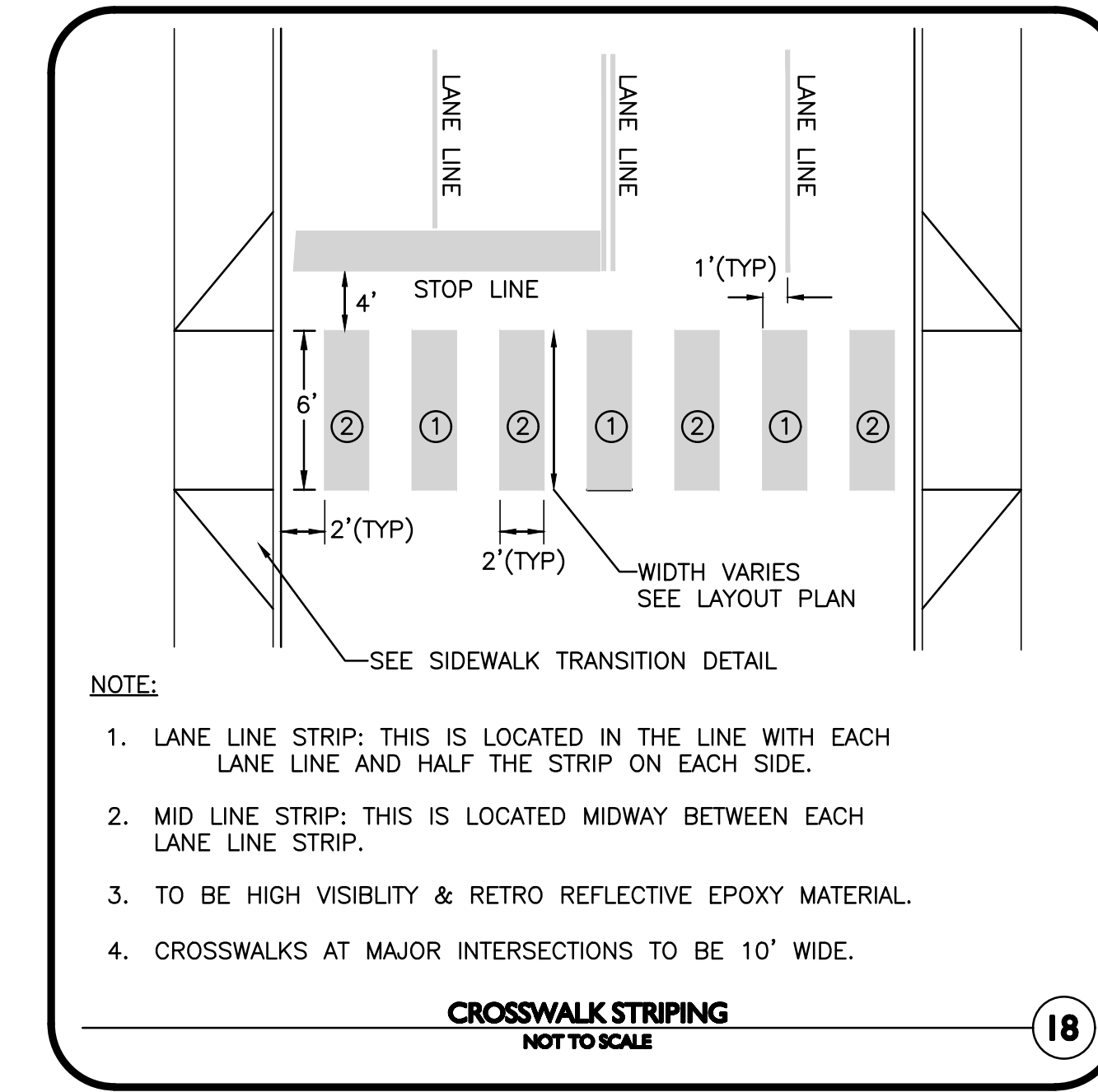
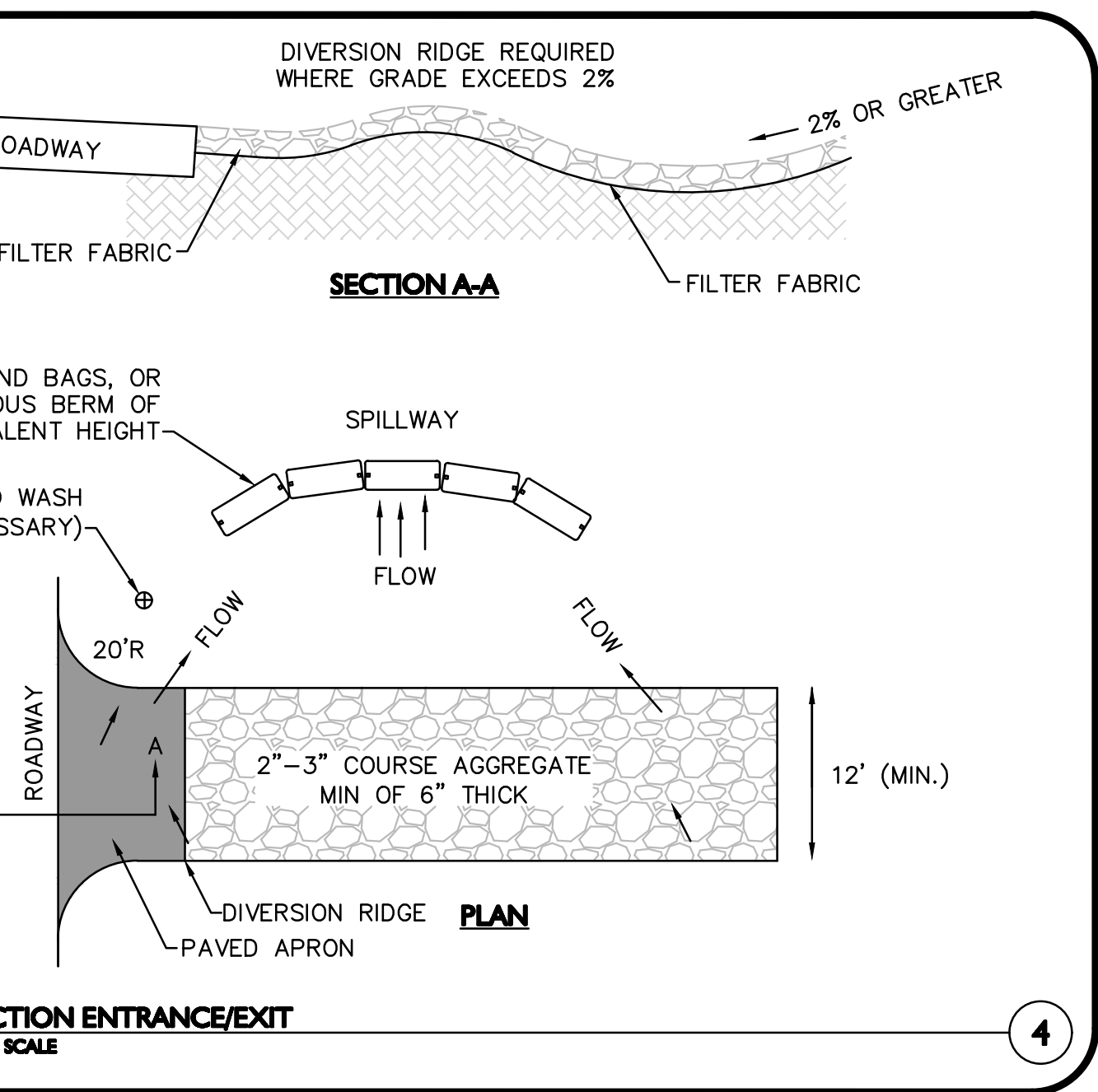
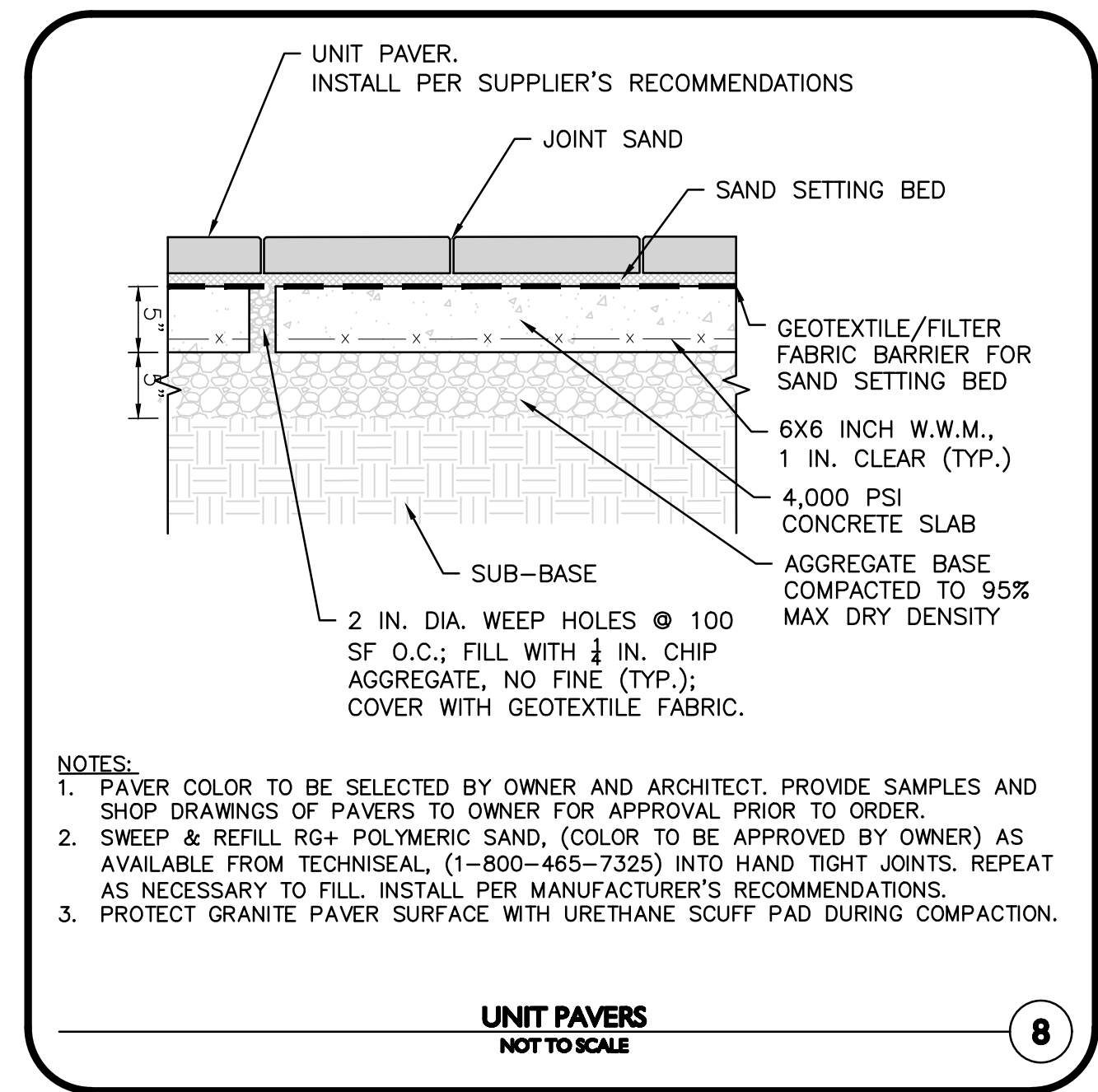
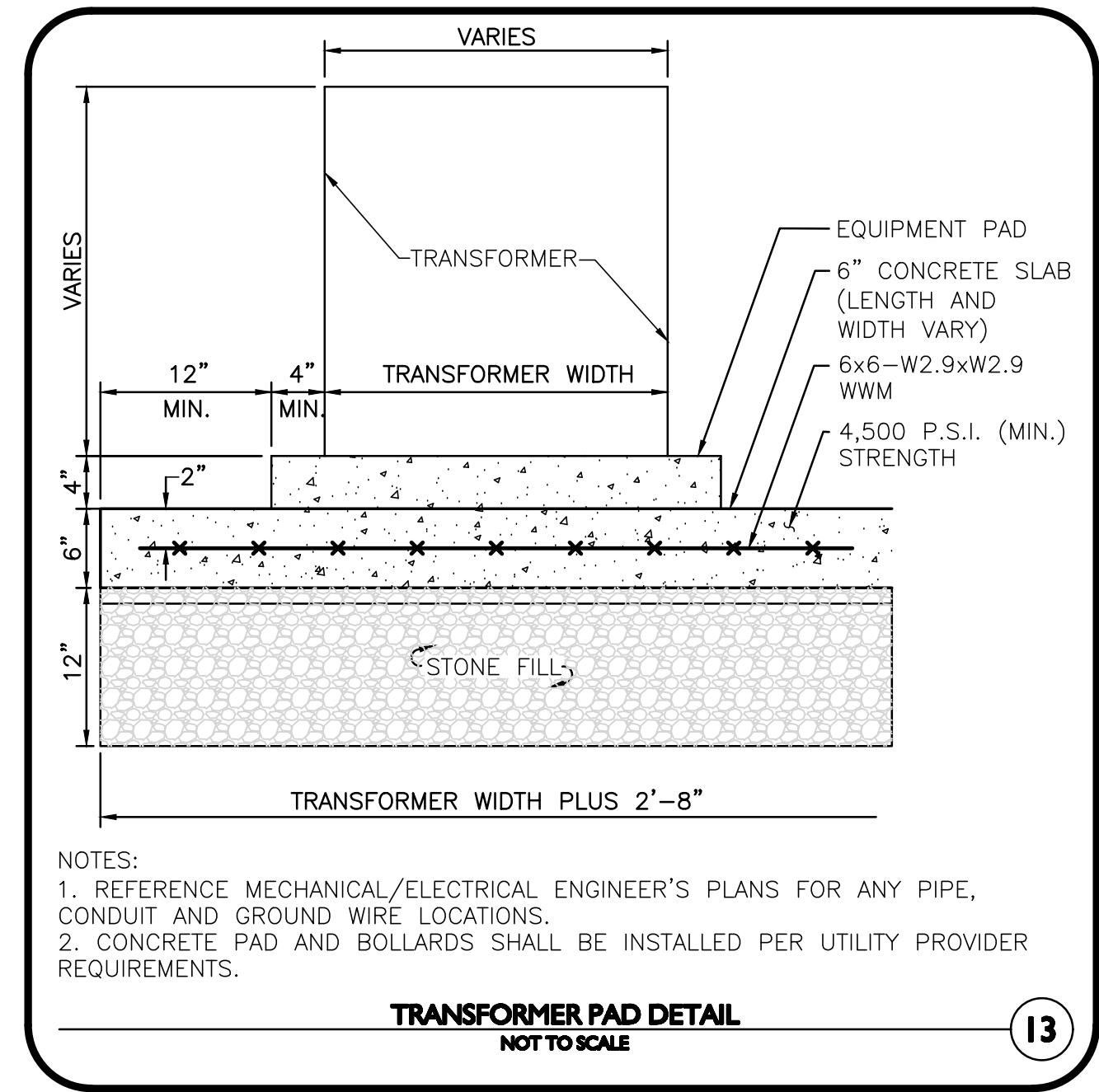
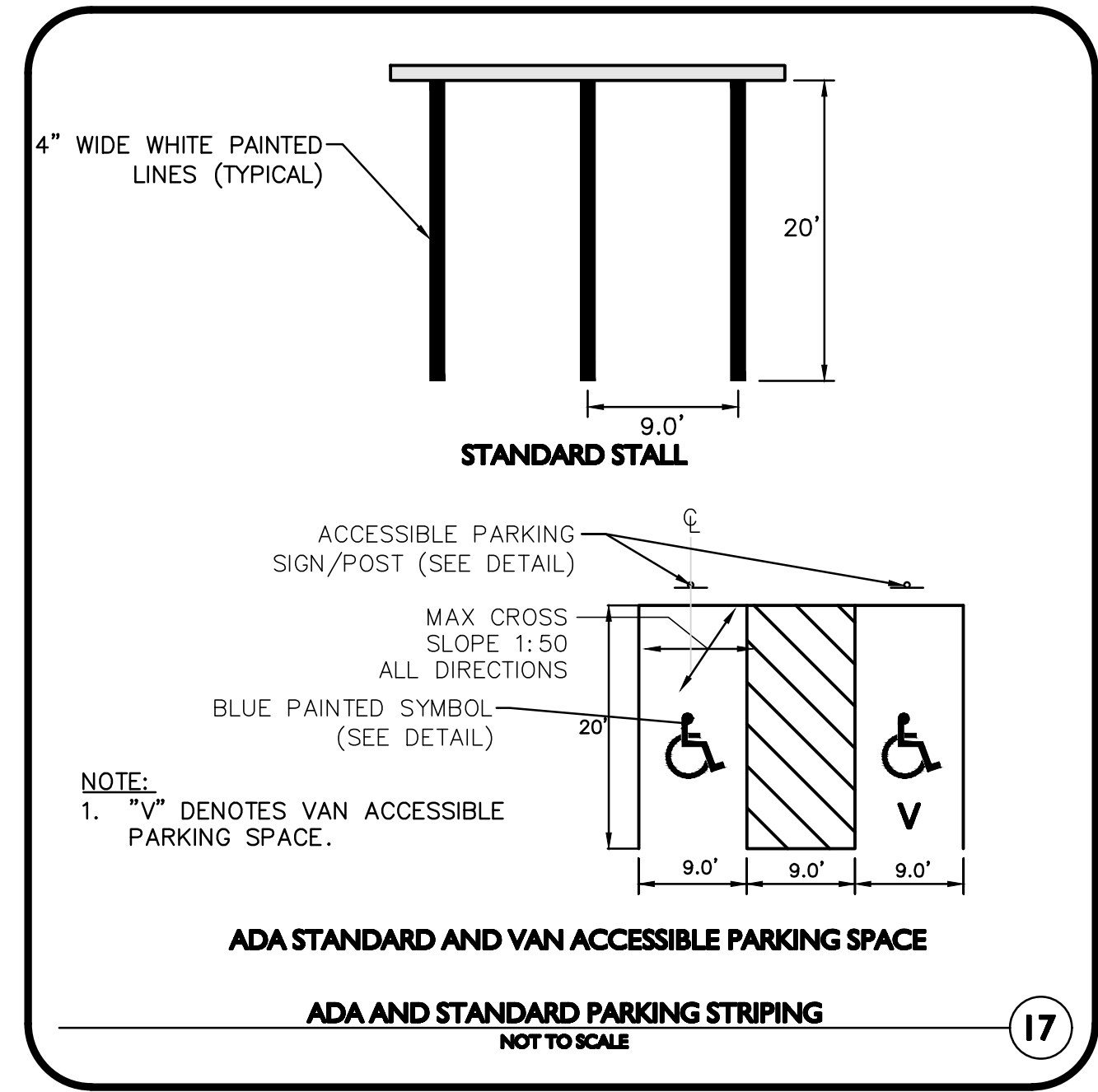
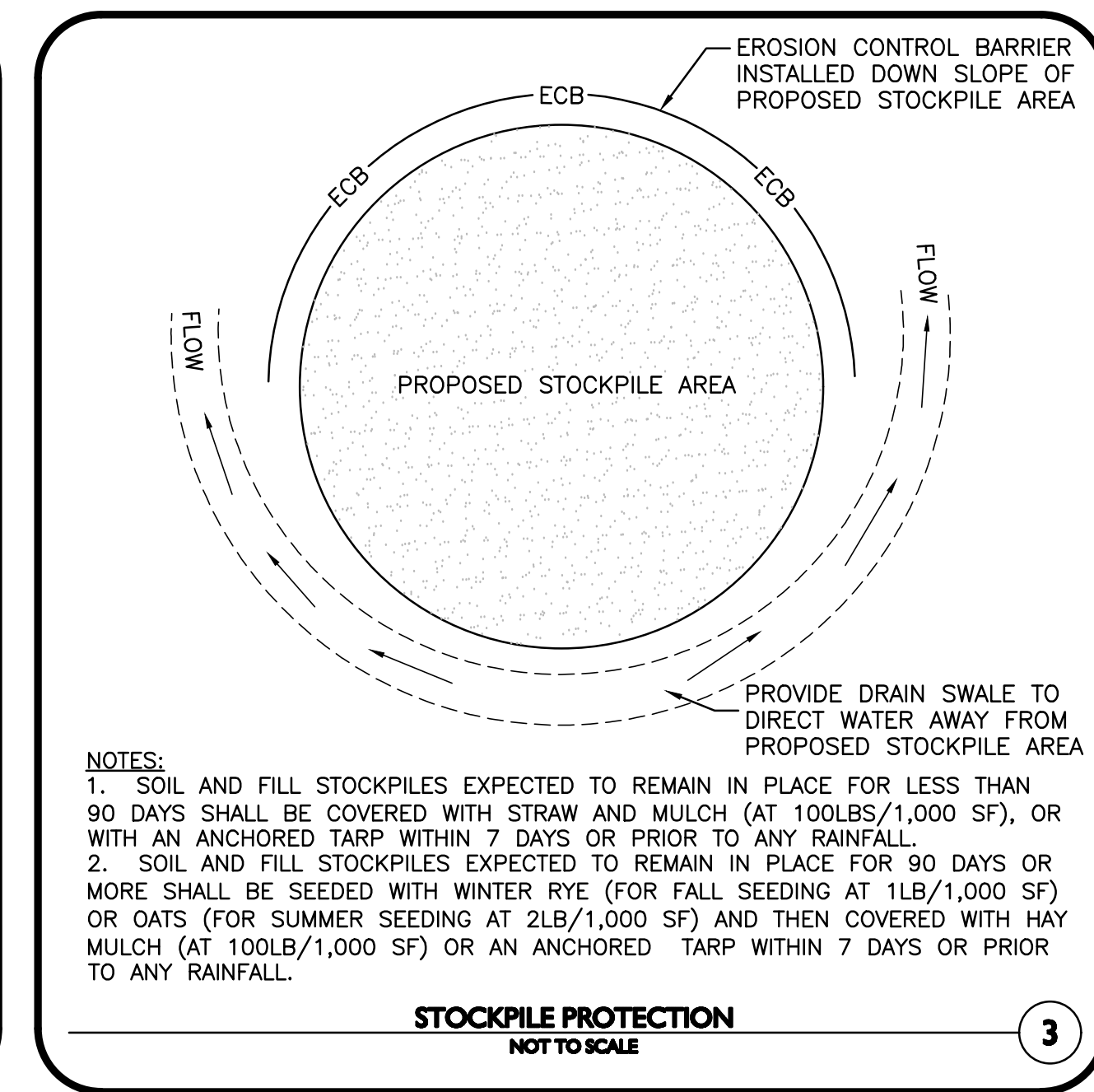
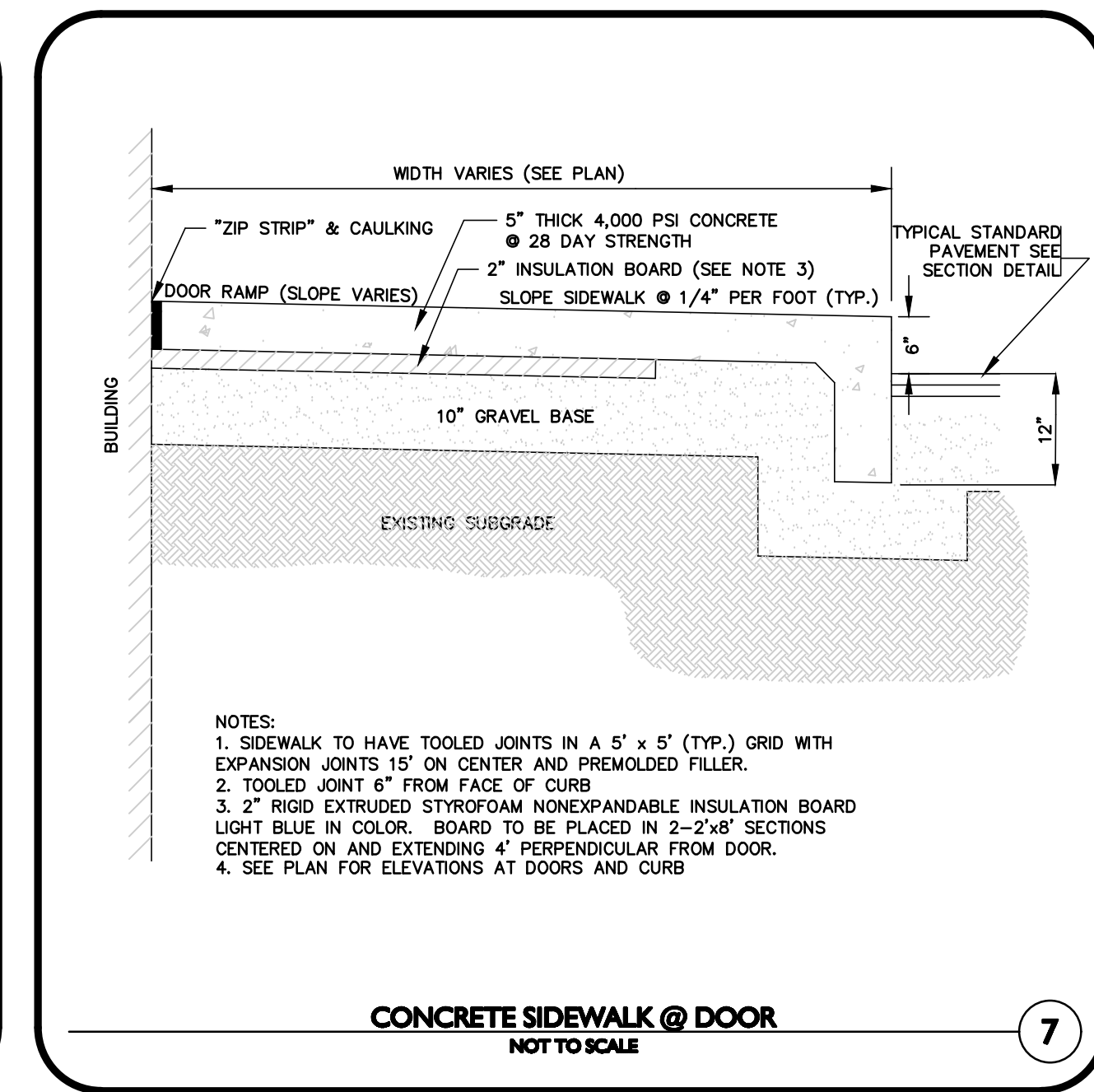
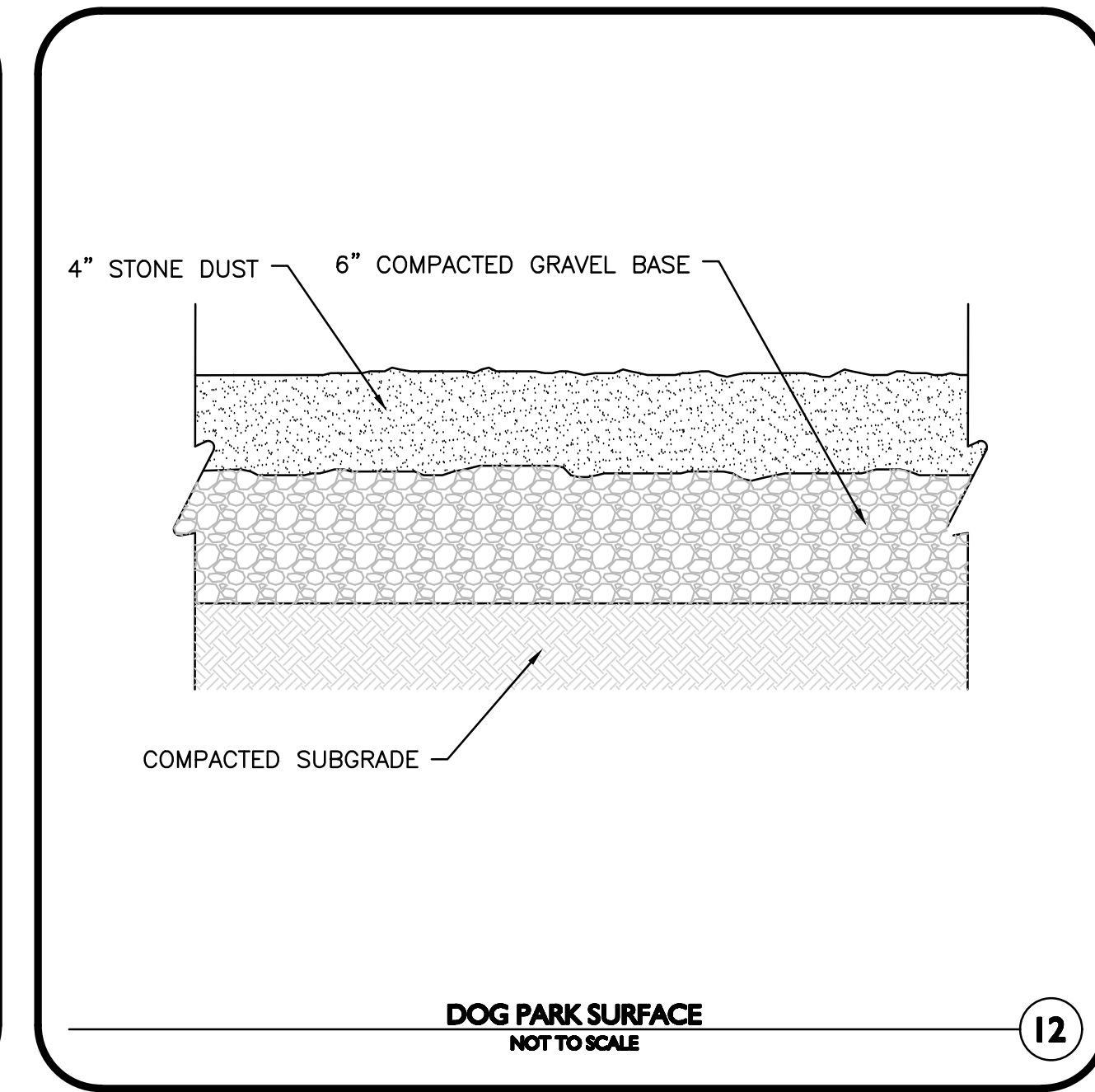
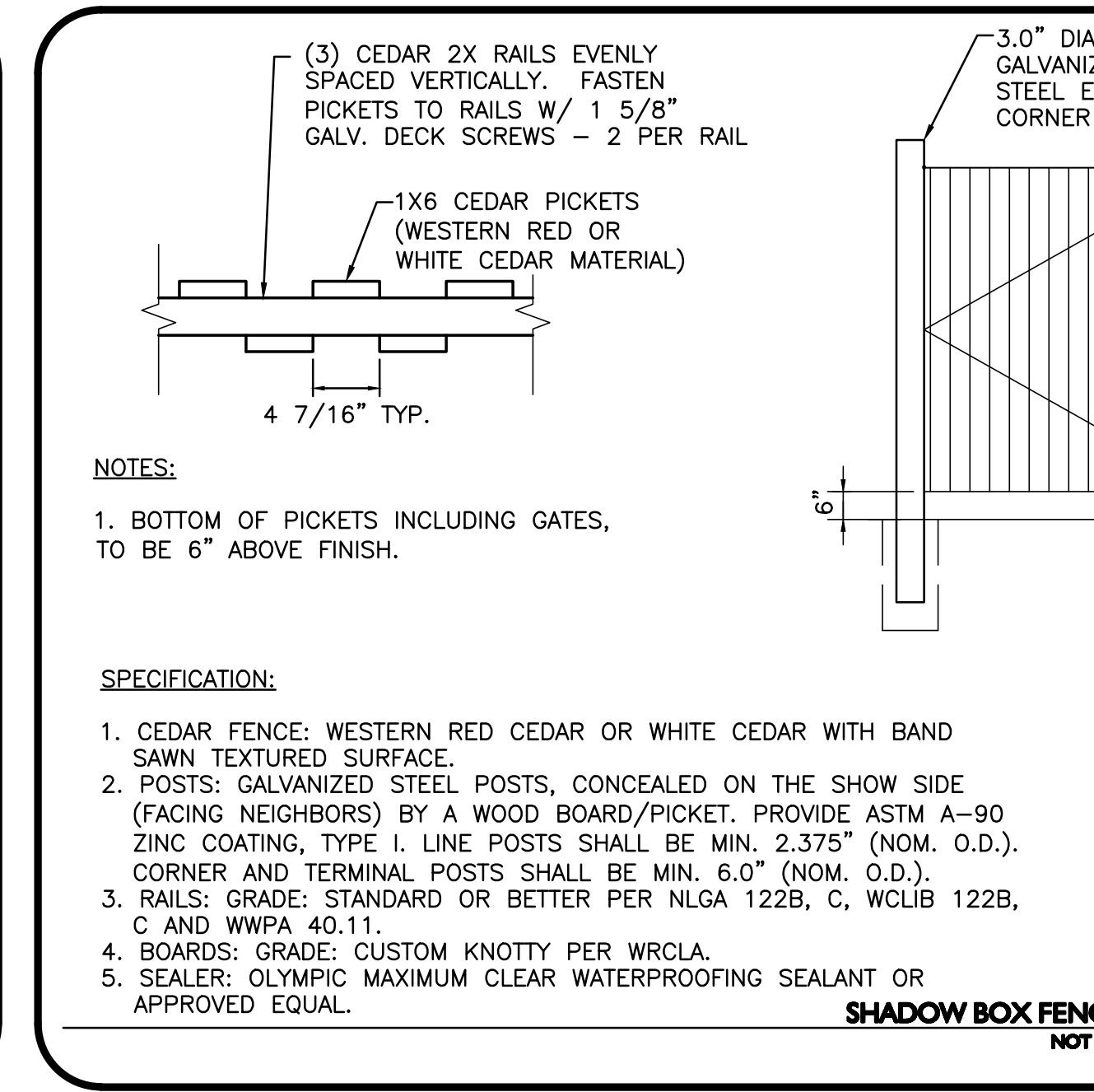
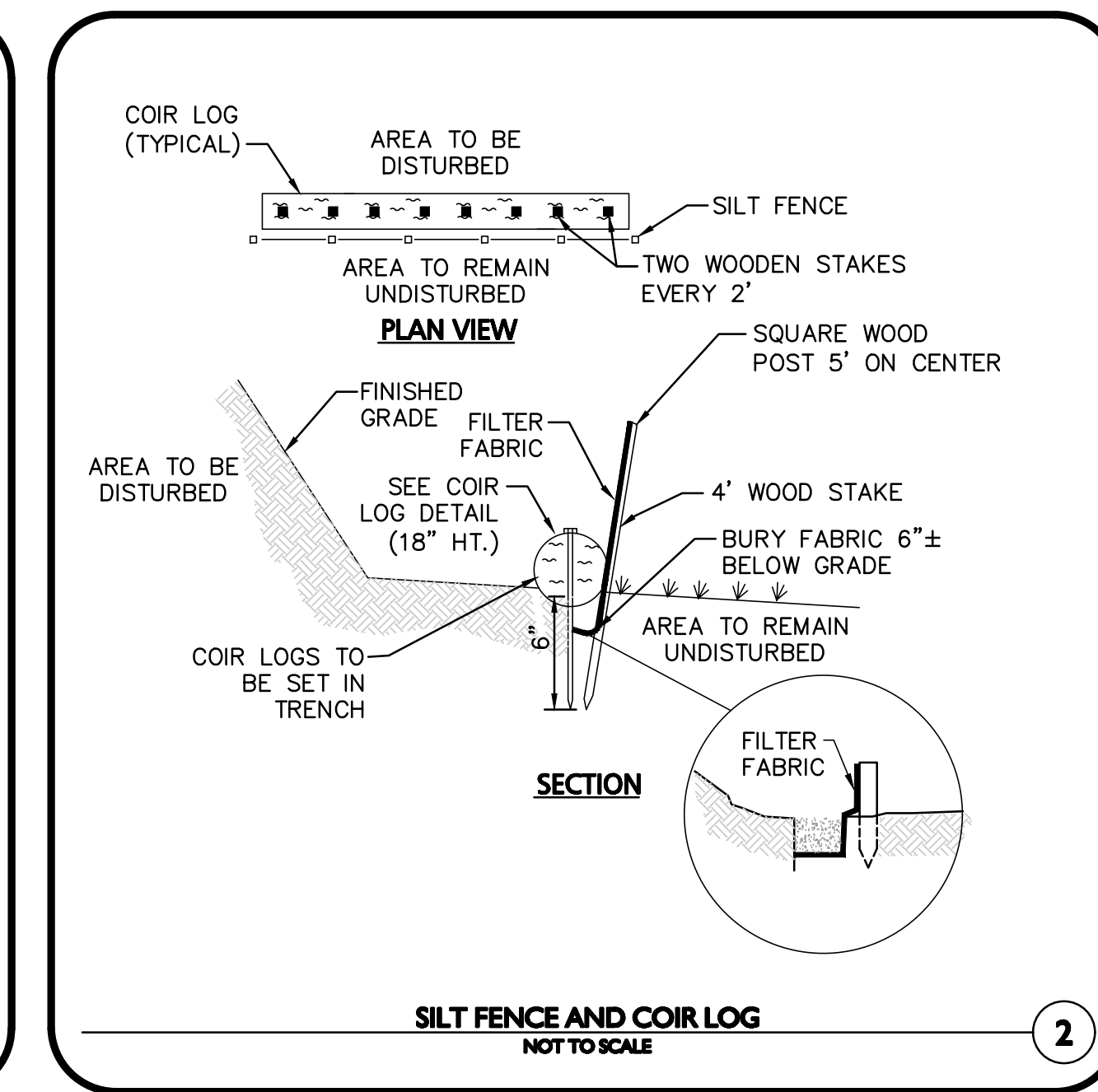
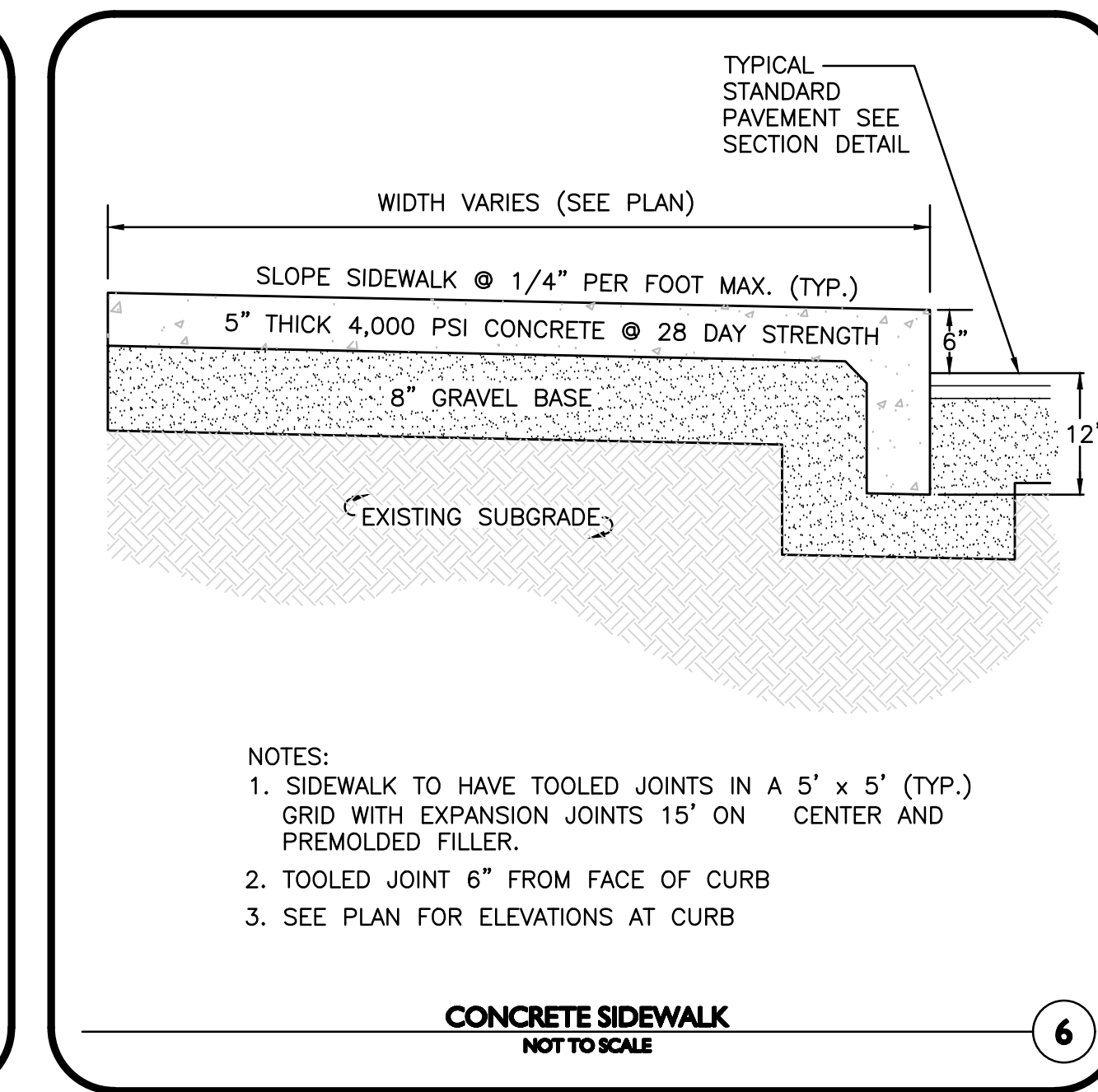
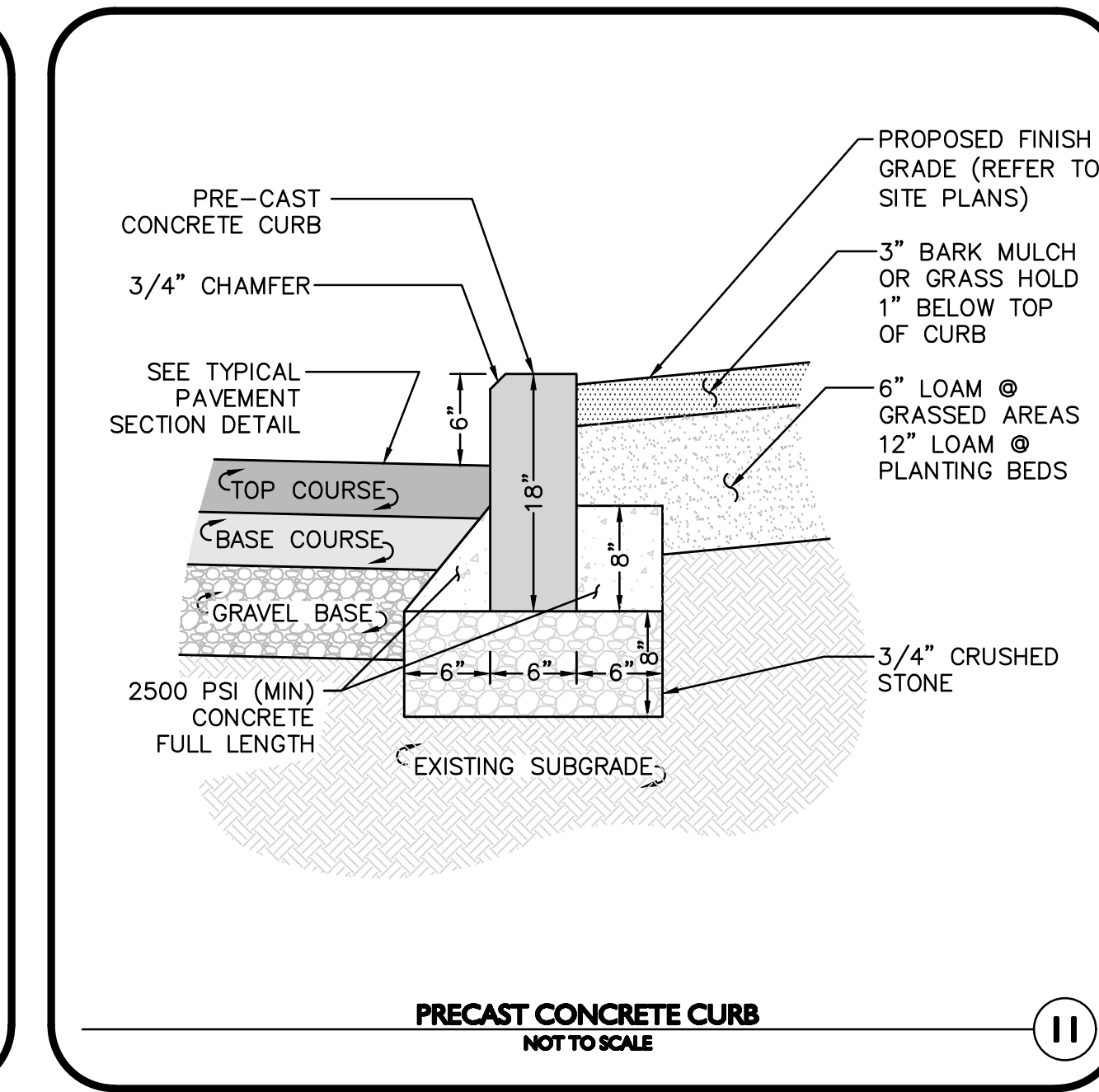
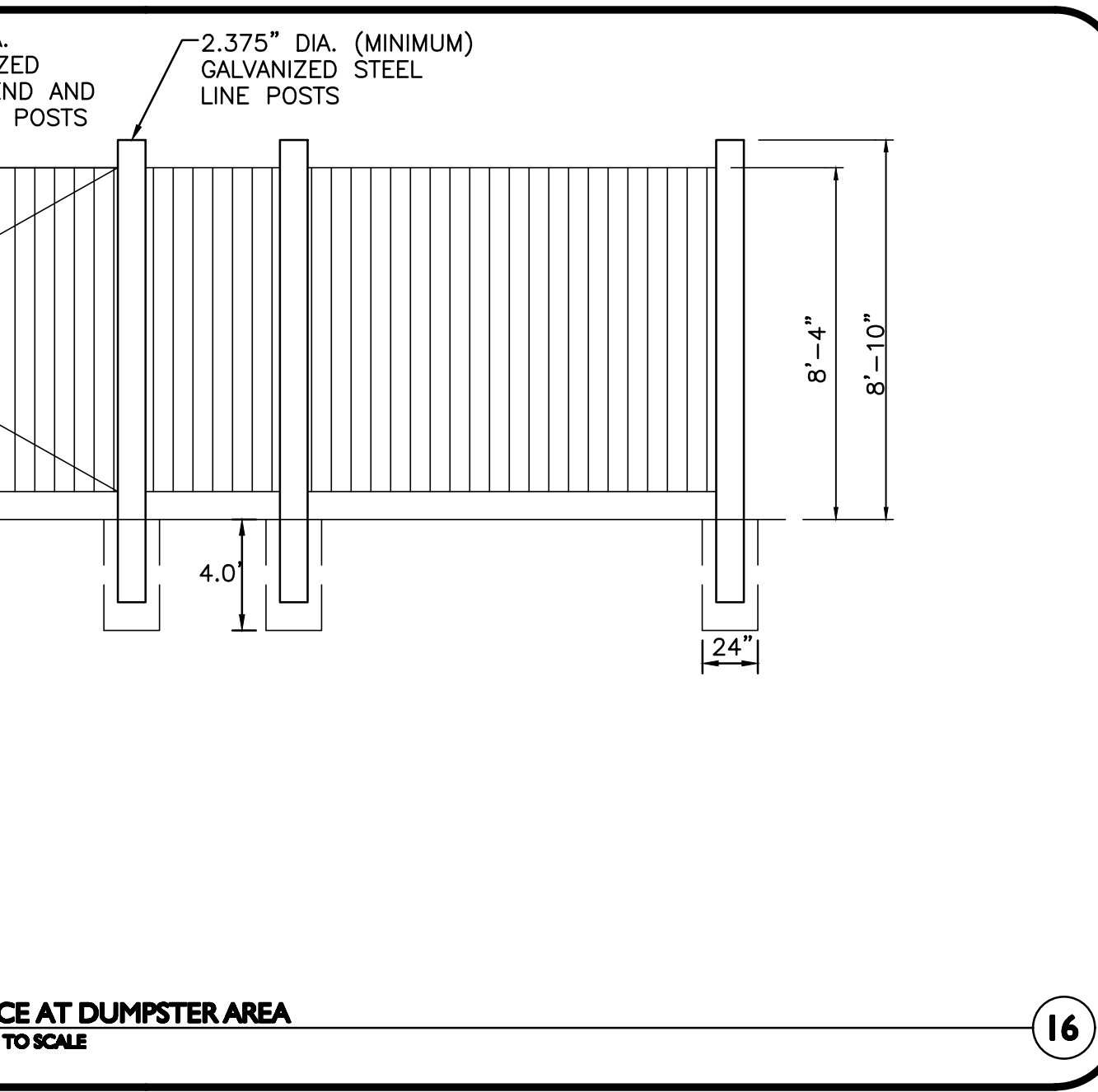
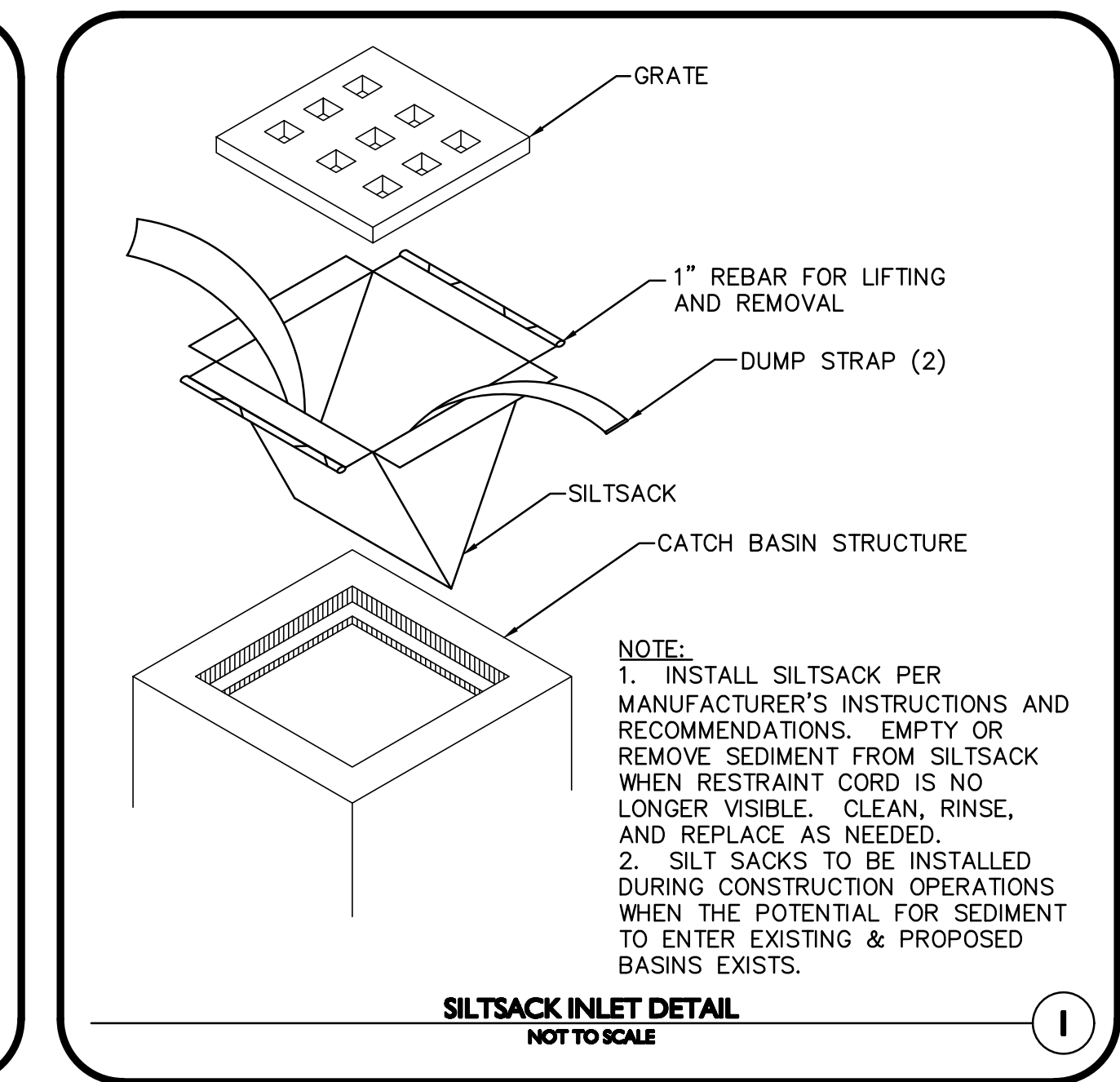
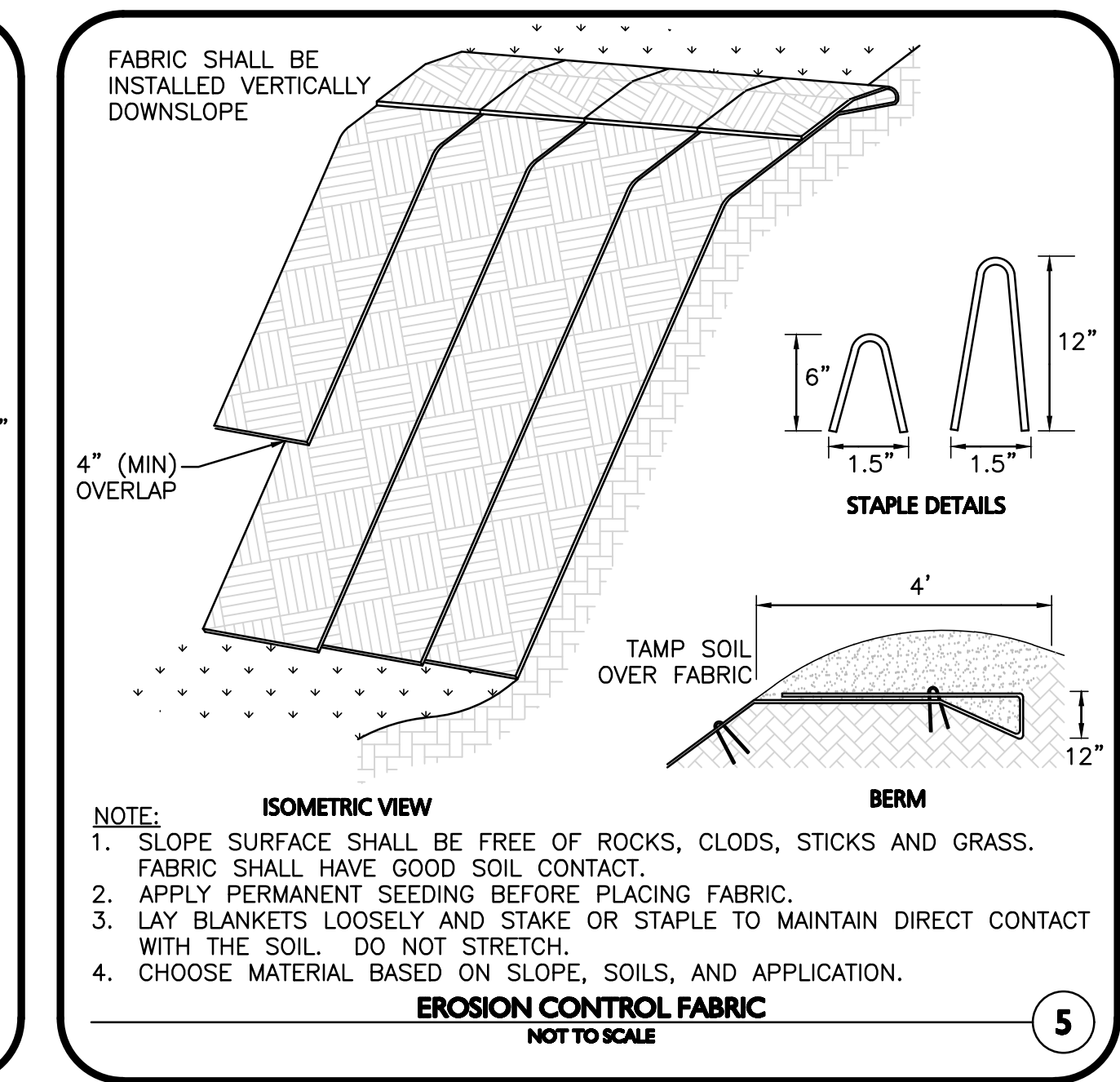
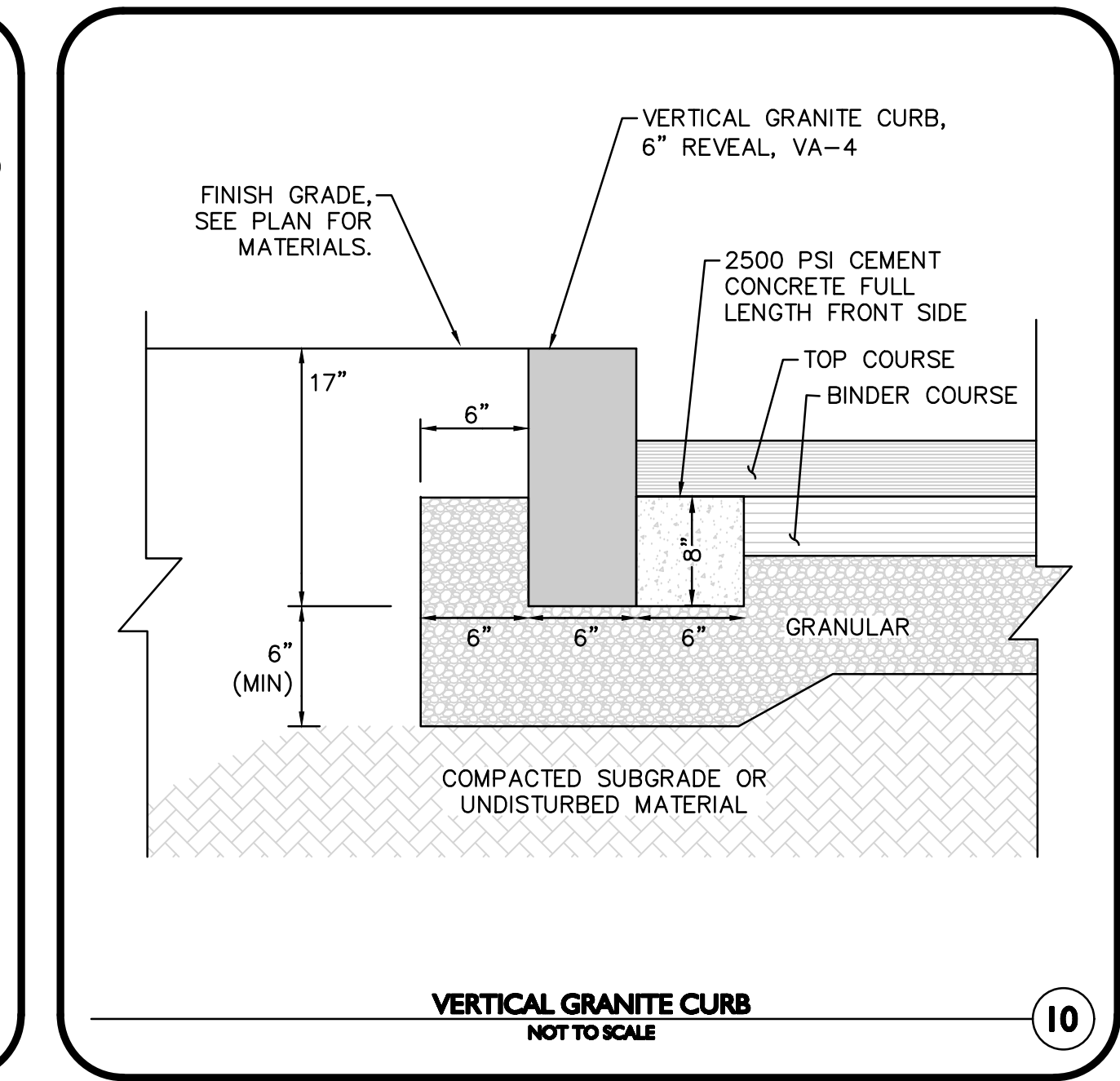
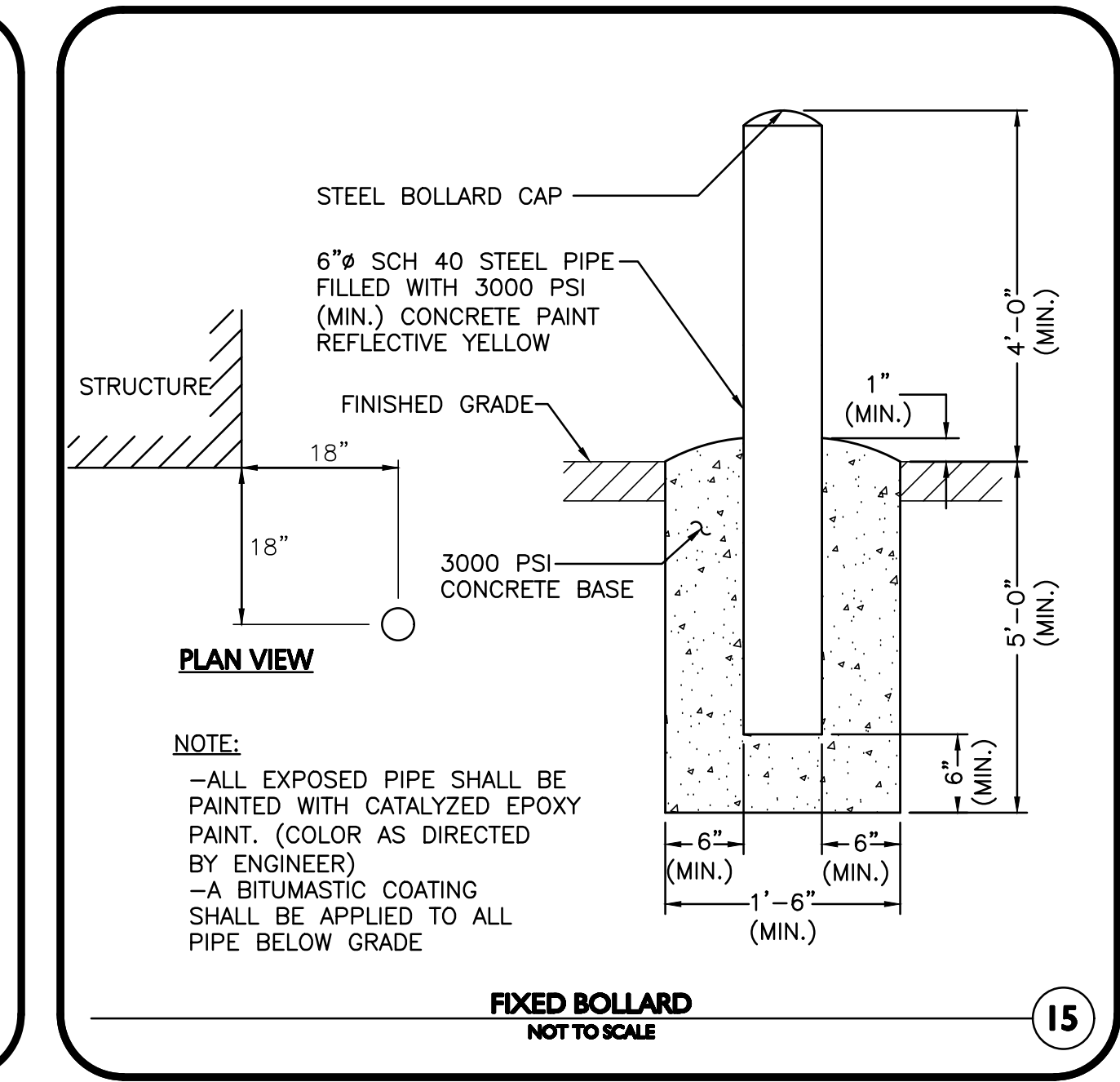
C-114



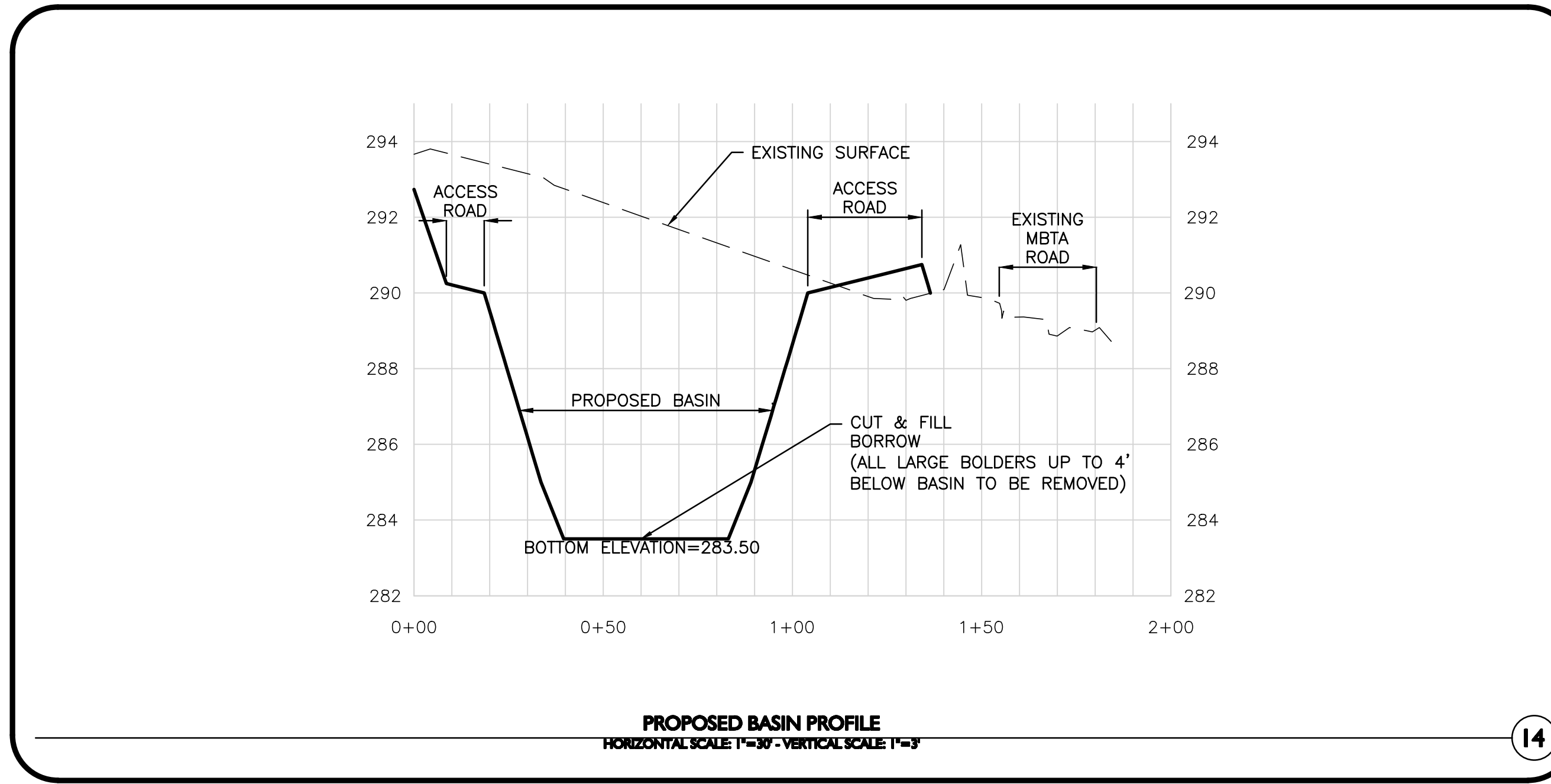
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No.	Description	Date
1	PERMIT REVIEW	03-24-2021
2	PERMIT REVIEW	05-11-2021
3	ASSET PLAN/PALLETTE	05-21-2021
4	PERMIT REVIEW	06-23-2021



No.	Description	Date
1	PER PER REVIEW	03-24-2021
2	PER PER REVIEW	05-11-2021
3	ADD PLAN PALETTE	05-21-2021
4	PER PER REVIEW	06-23-2021

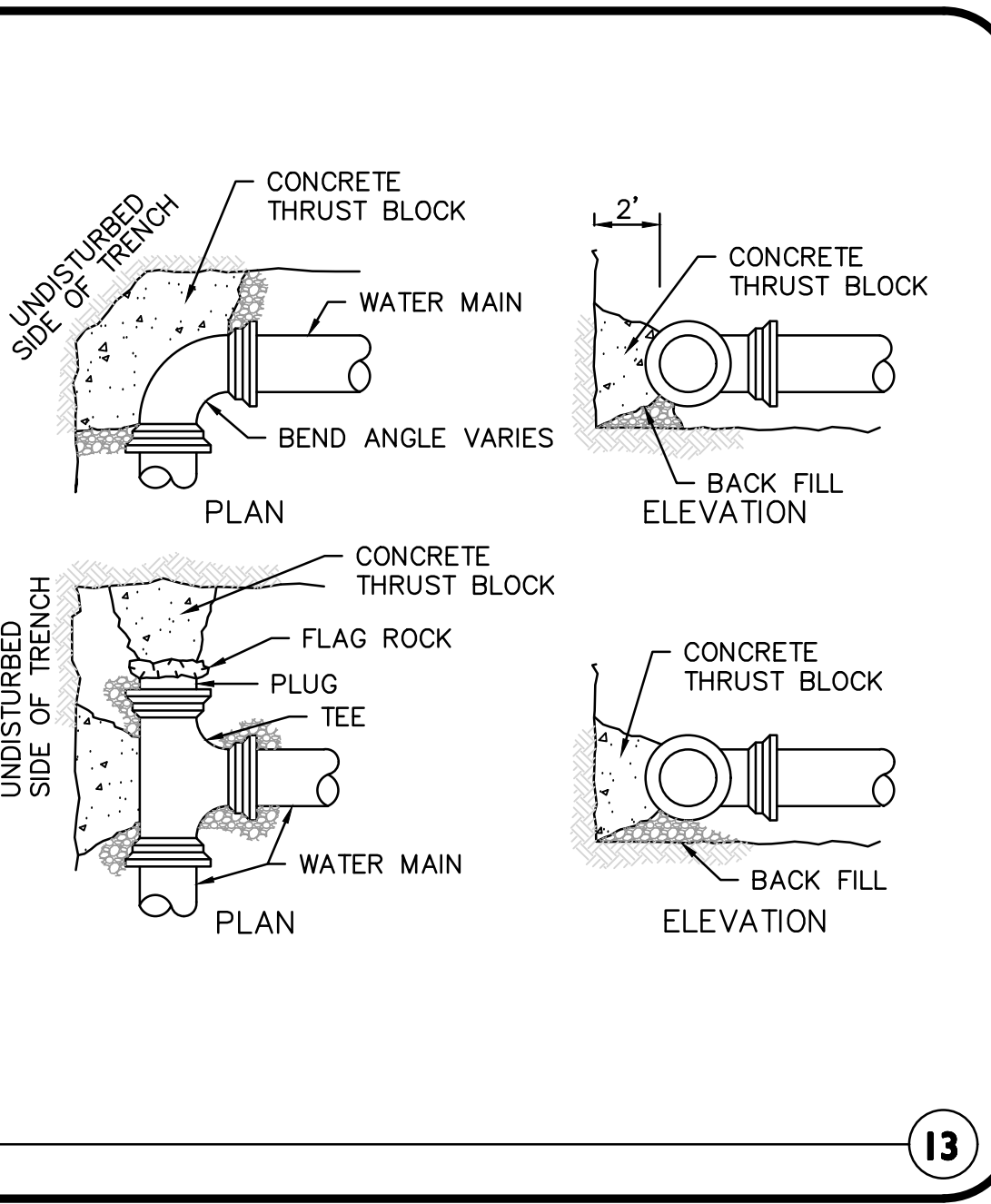


14

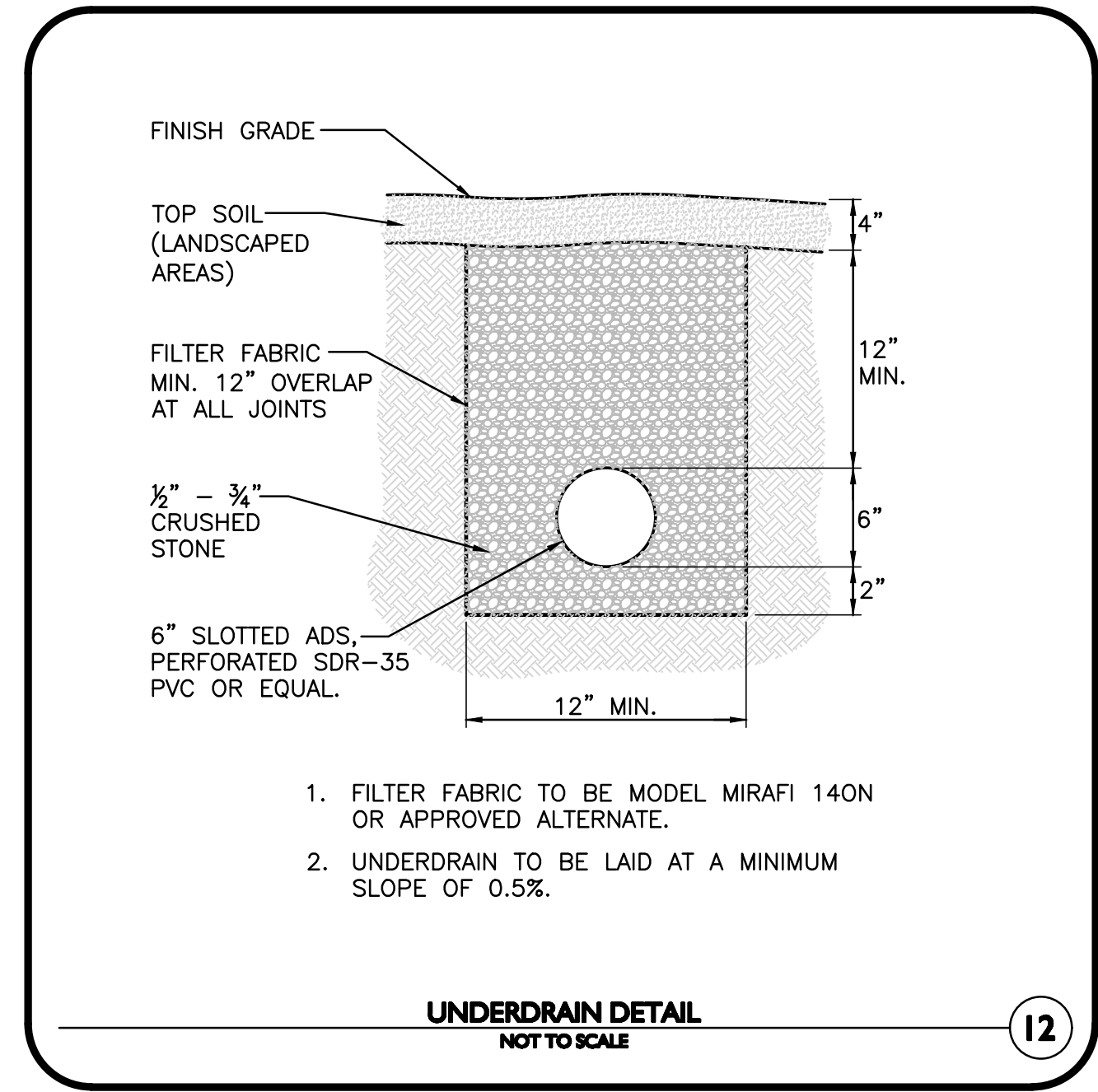
PIPE DIAMETER	MINIMUM THRUST BLOCK BEARING AREAS			TEES, PLUGS, CAPS & HYDRANTS (SQ.FT.)
	90° BEND (SQ. FT.)	45° BEND (SQ. FT.)	22.5° BEND (SQ. FT.)	
6"	5	3	3	4
8"	9	6	3	9
10"	13	7	4	12
12"	20	10	5	16

NOTES:
 1. ALL WATER MAIN FITTINGS, BENDS, TEES, PLUGS ETC. SHALL BE RESTRAINED W/ THRUST BLOCKS EXCEPT WHERE NOTED.
 2. ALL THRUST BLOCKS & COLLARS SHALL BE INSTALLED SO THAT THEY BEAR AGAINST UNDISTURBED EARTH.
 3. SIZE OF CONCRETE THRUST BLOCKS SHALL BE AS NOTED BELOW.
 4. MINIMUM COMPRESSIVE STRENGTH OF THRUST BLOCK CONCRETE SHALL BE 3,000 P.S.I.
 5. KEEP CONCRETE CLEAR OF MECHANICAL JOINTS.
 6. THE BELOW PREDICATED ON A WATER PRESSURE OF 225 PSI AND A SOIL RESISTANCE OF 2000 PSF (TILL). FOR OTHER SOILS THE VALUES IN THE ABOVE TABLE SHALL BE MULTIPLIED BY:
 SOFT CLAY 4
 SAND 2
 SAND & GRAVEL 1.33
 SHALE 0.4

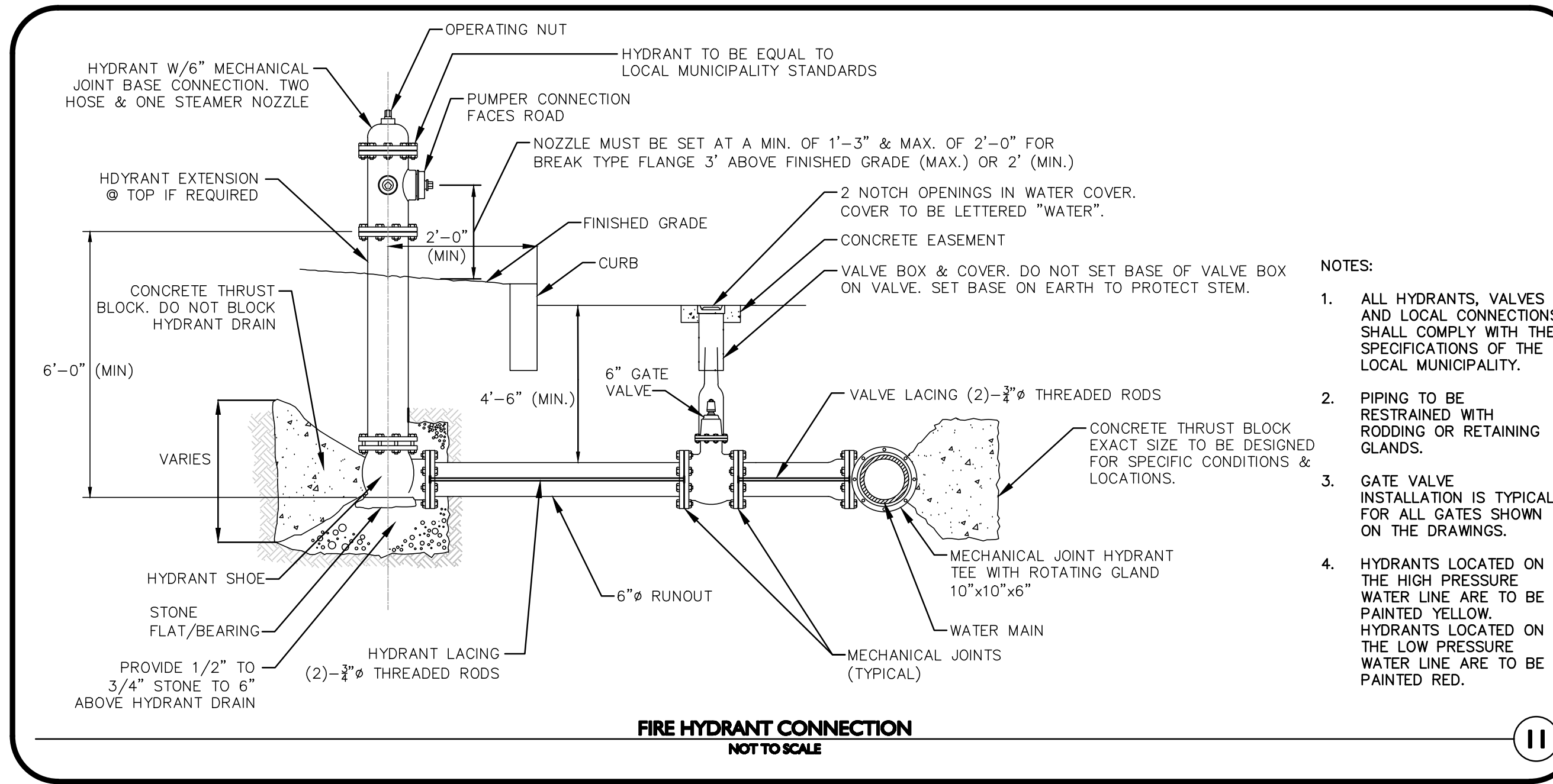
THRUST BLOCK DETAIL NOT TO SCALE



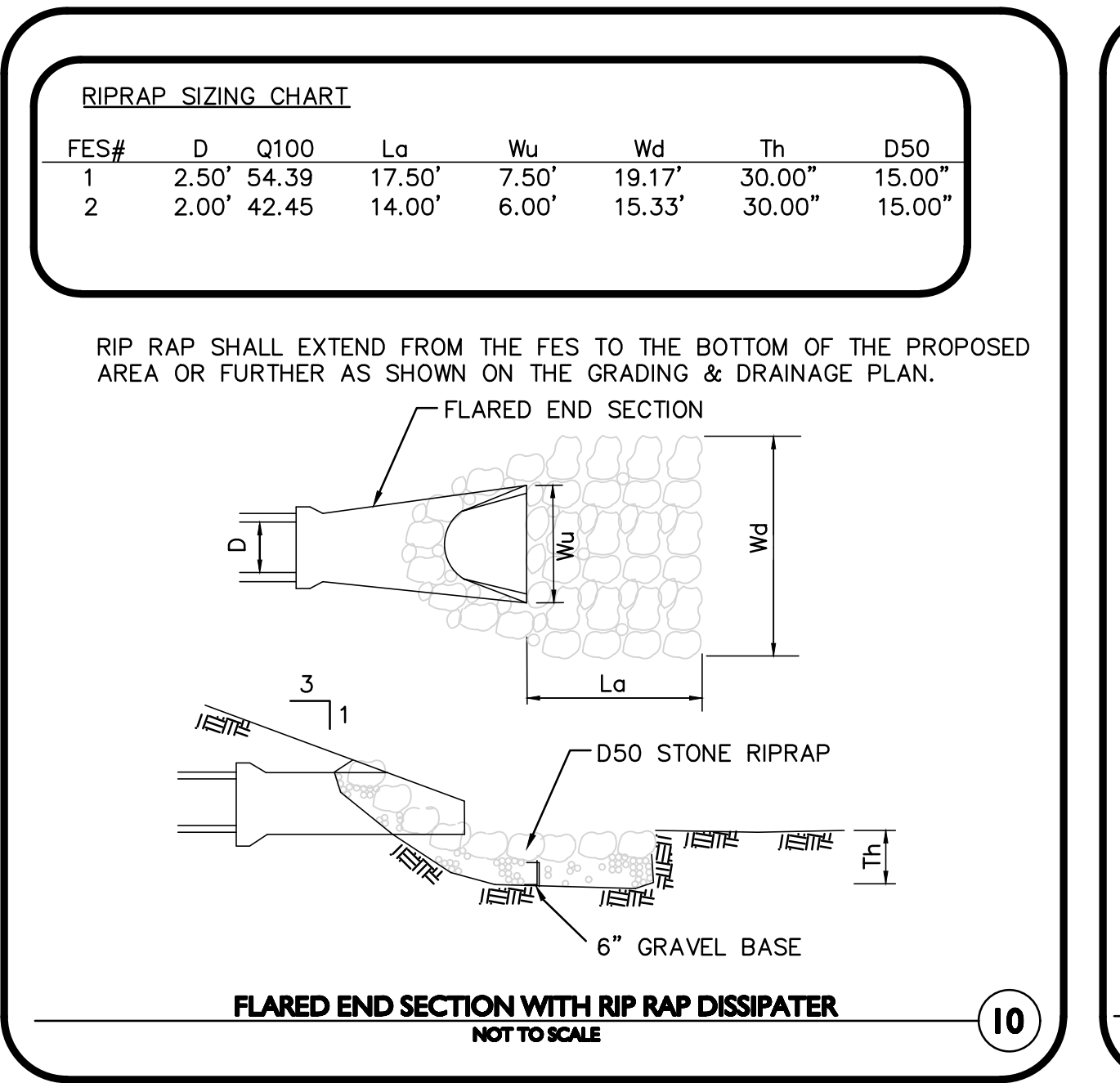
13



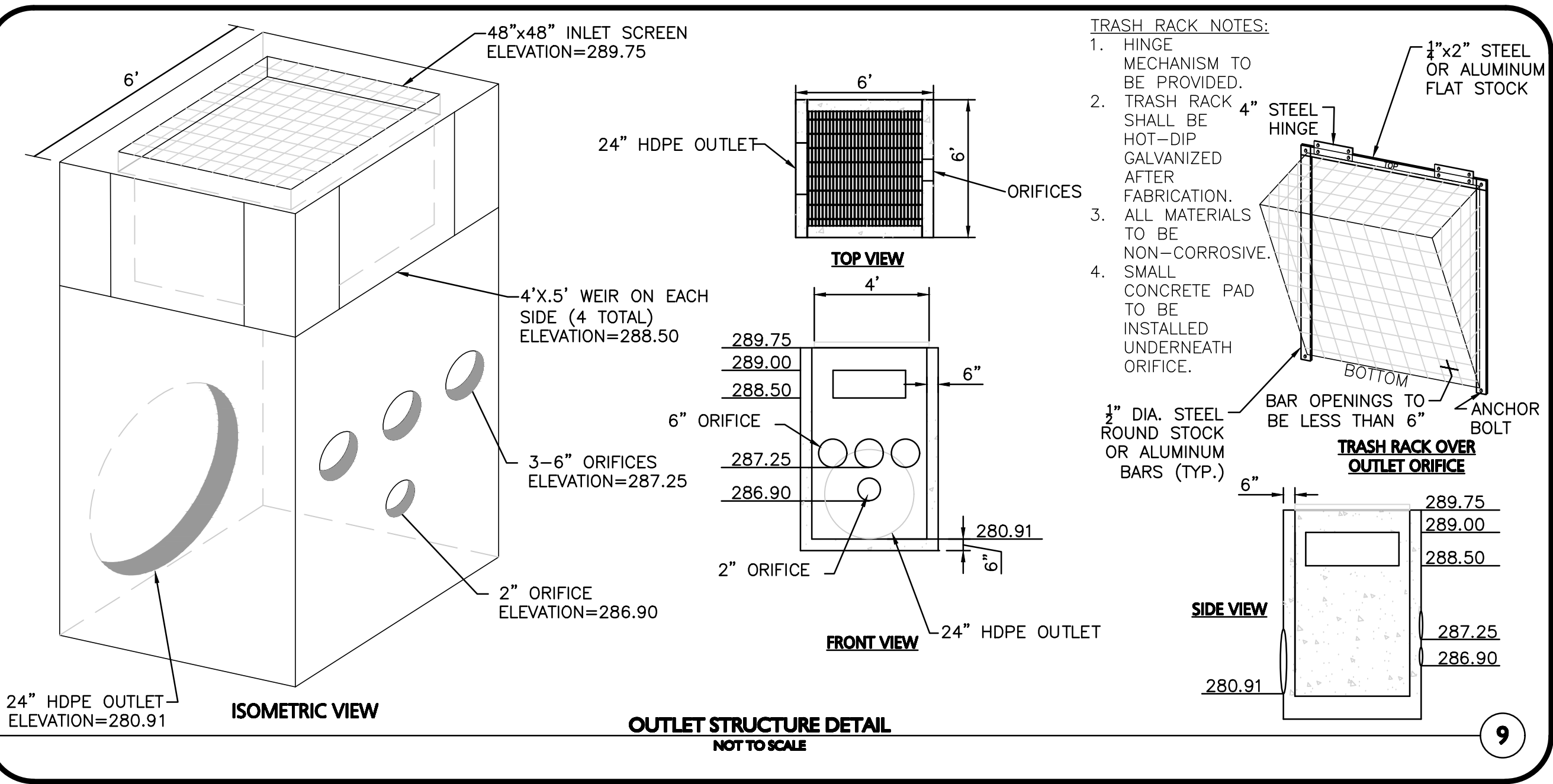
12



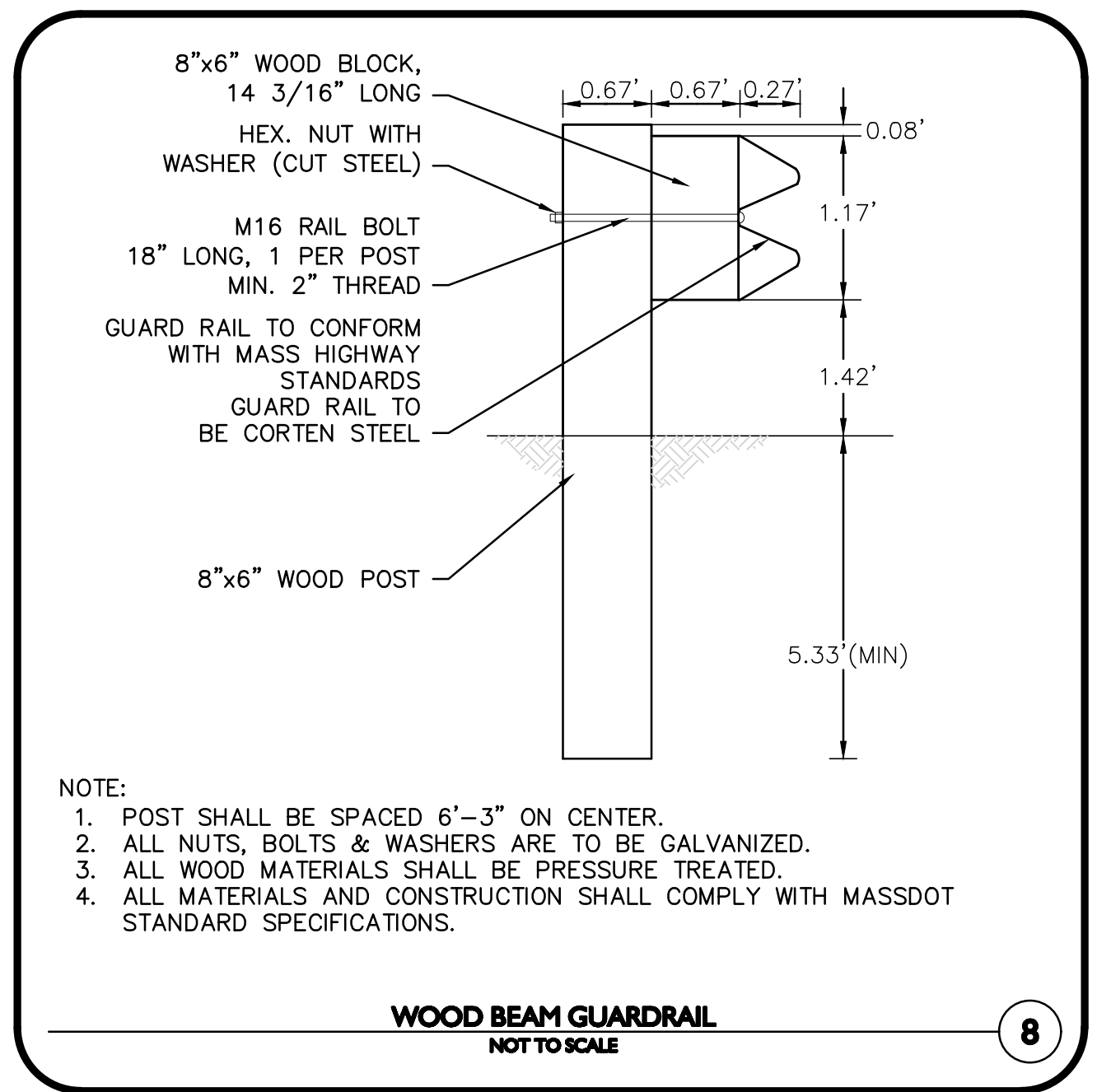
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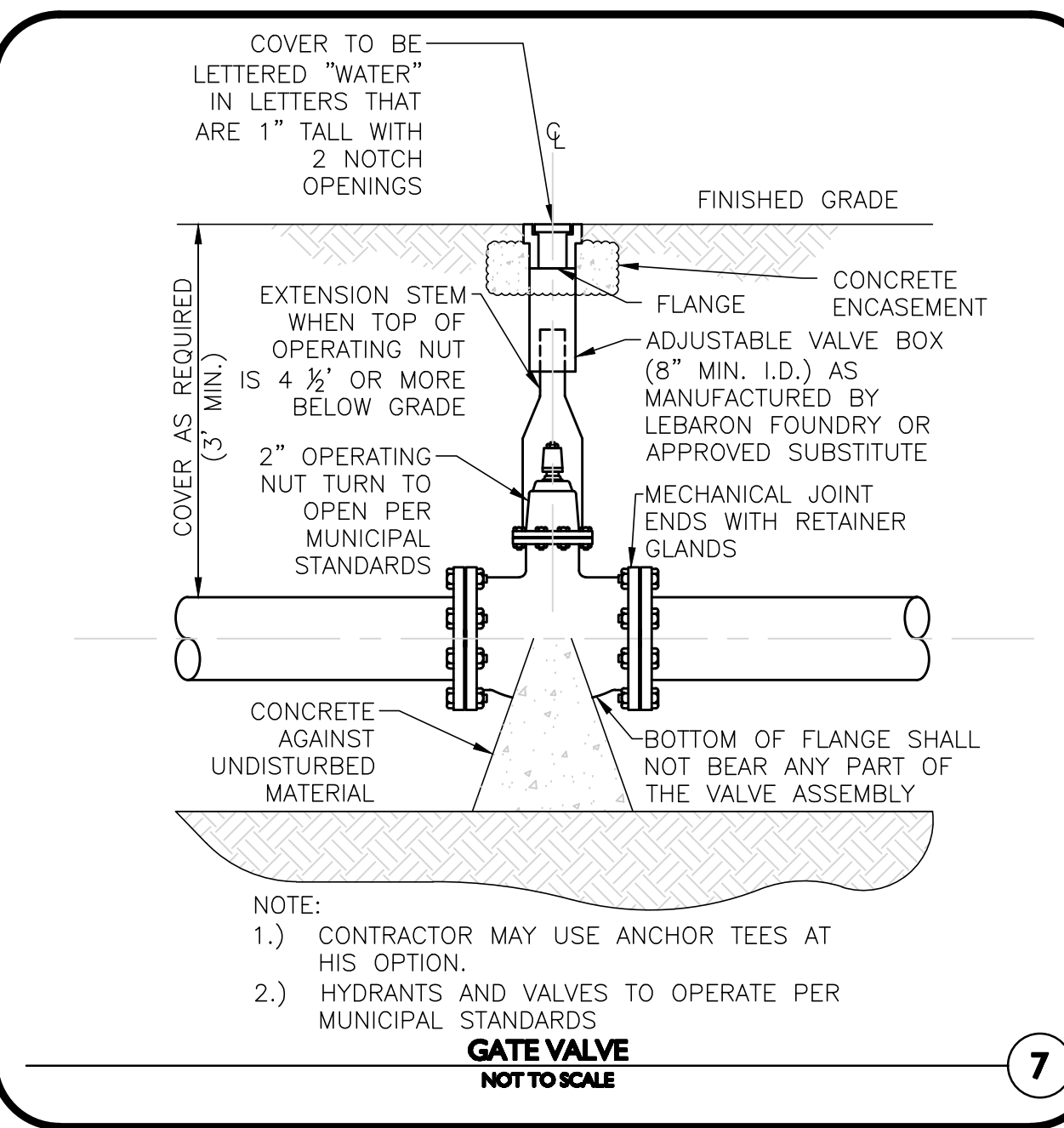
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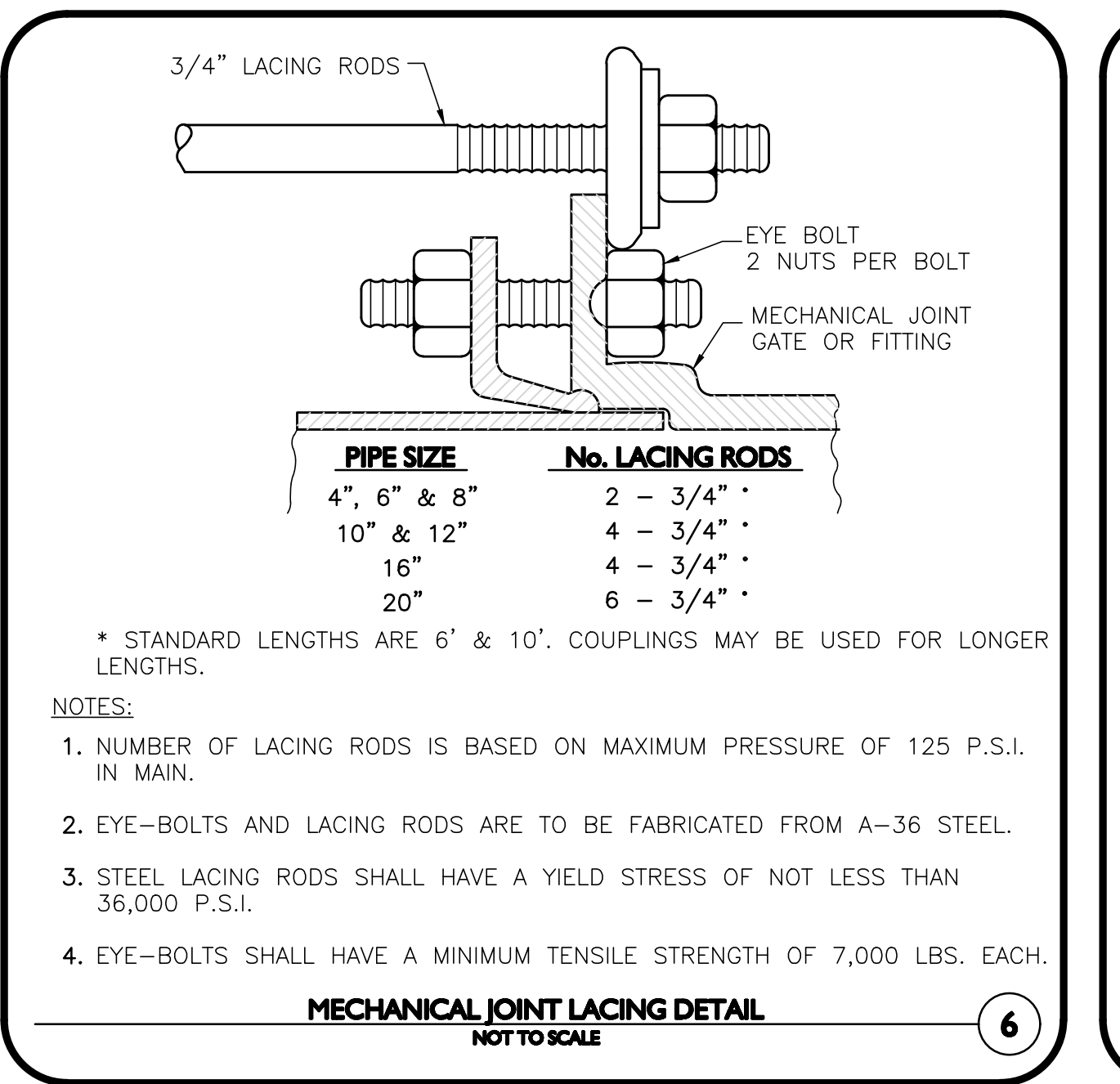
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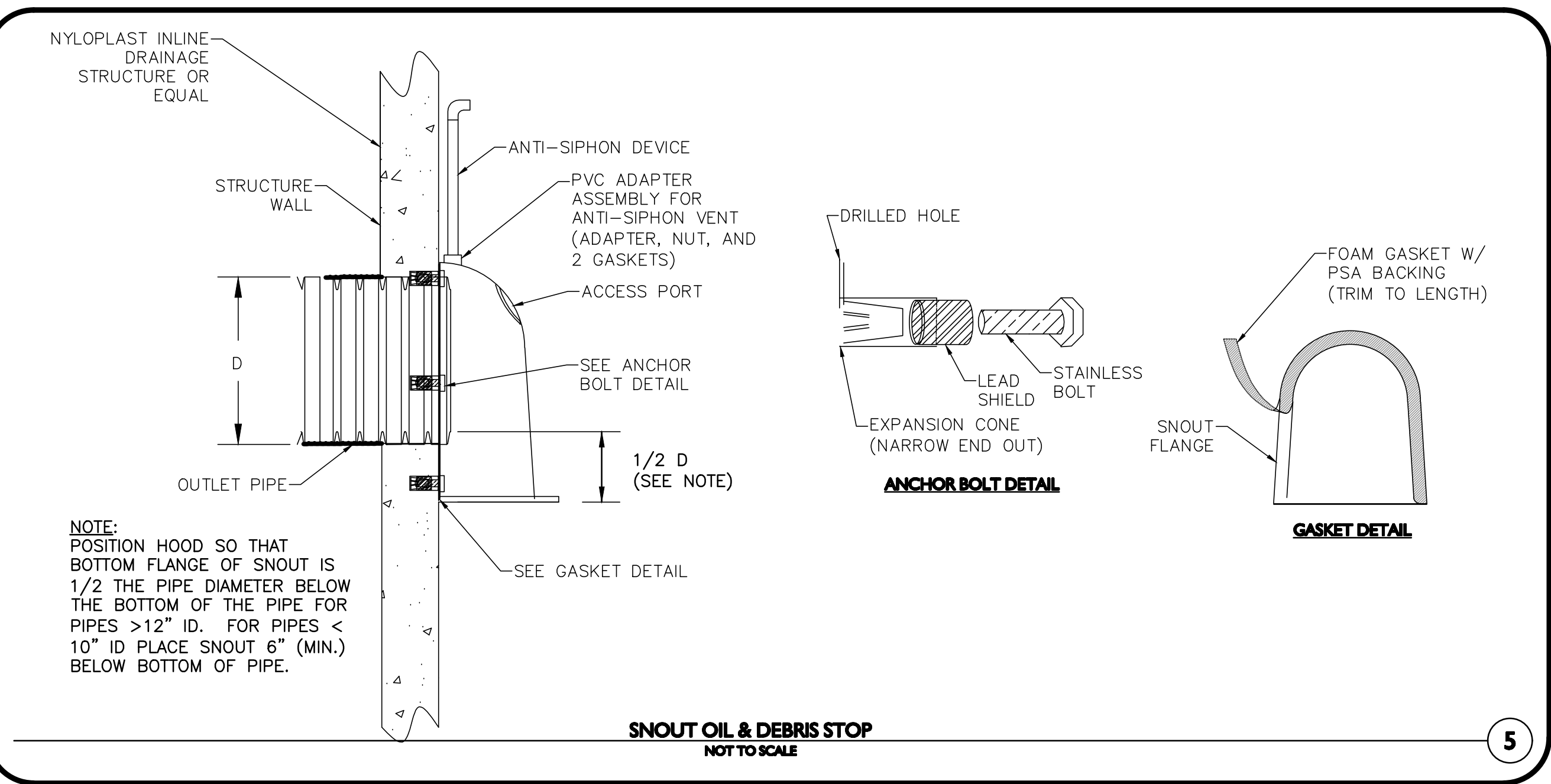
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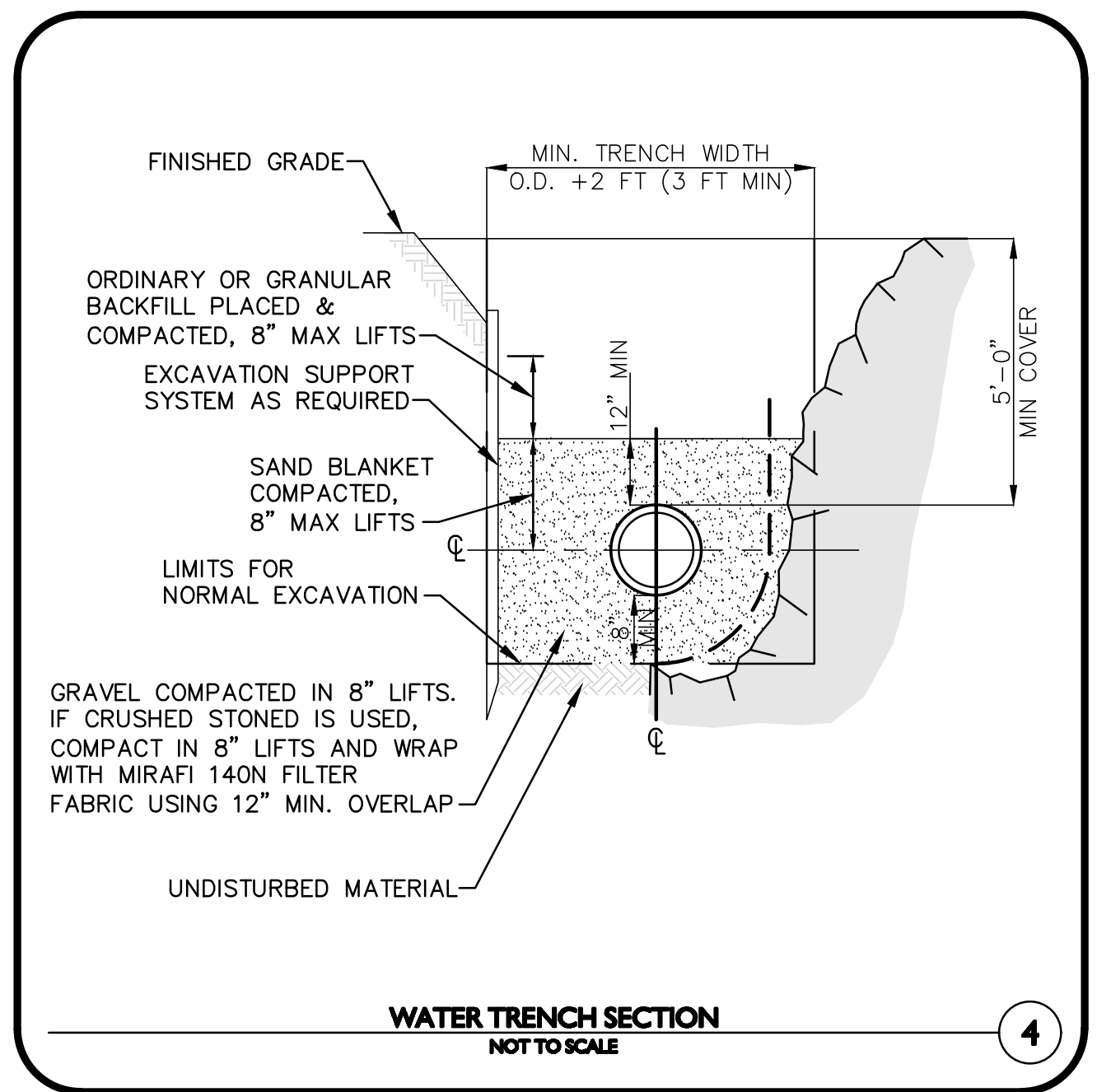
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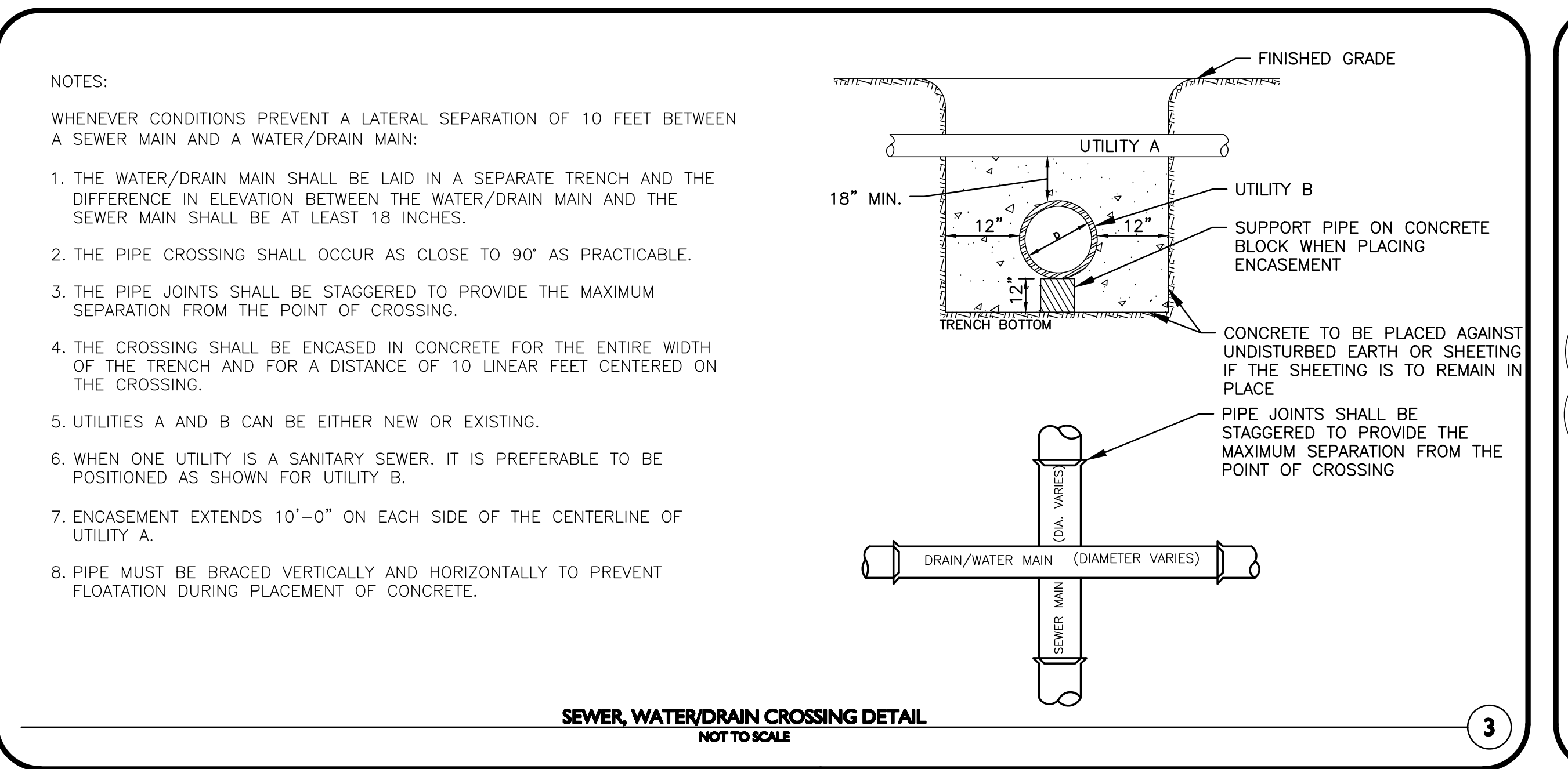
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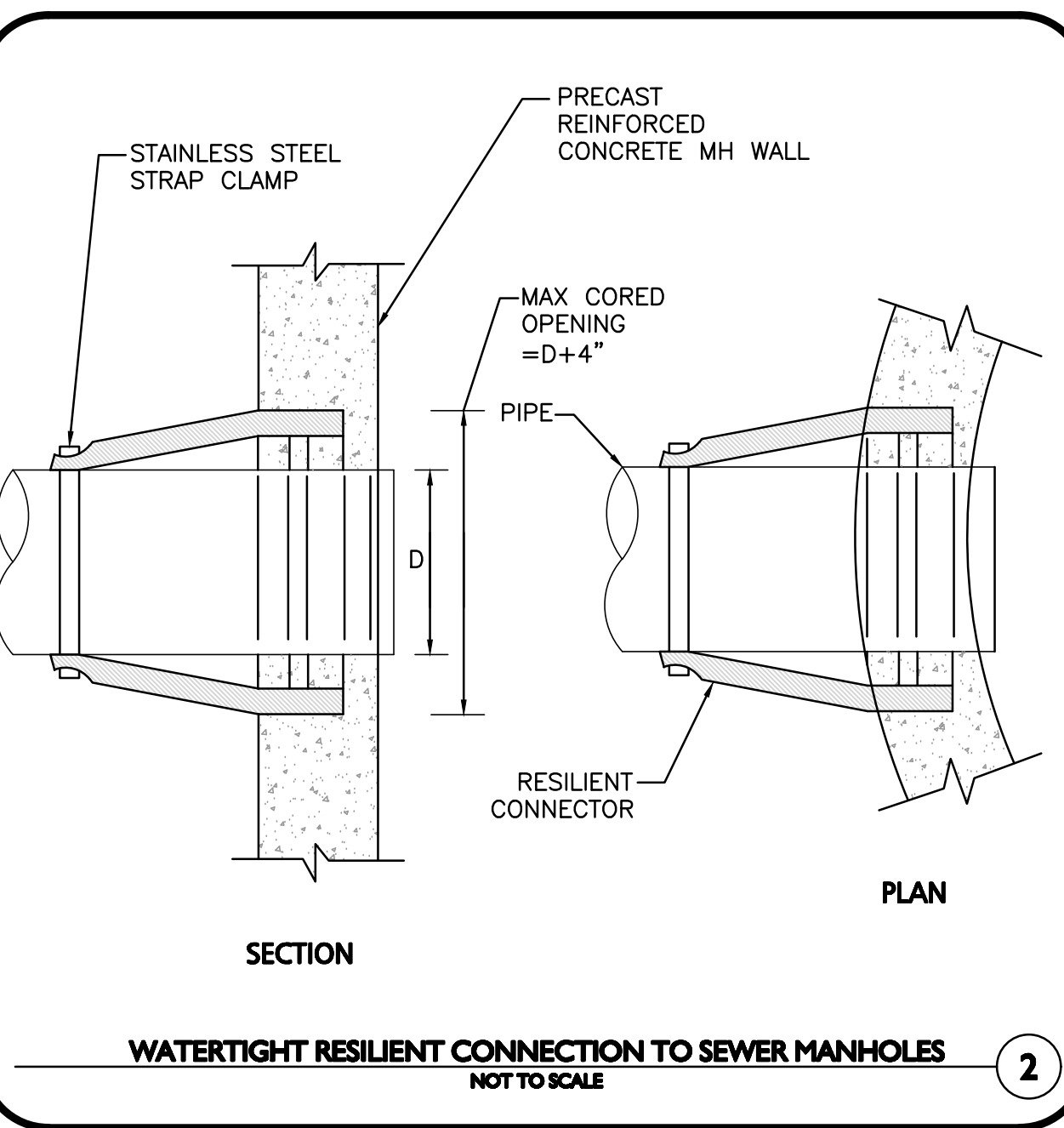
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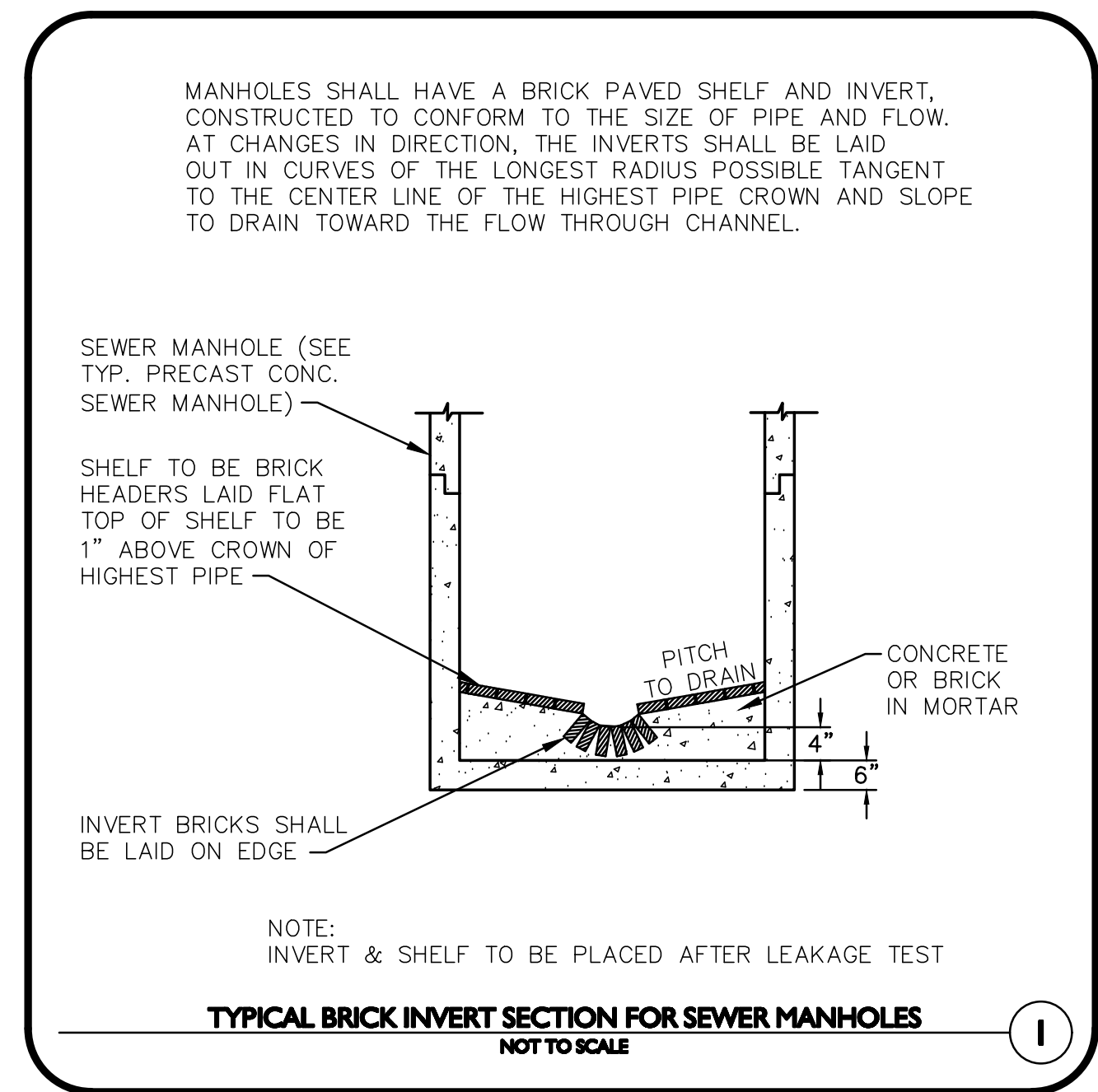
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3



2



1



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 300 Jordan Road
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ALLEN & MAJOR
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 FAX: 978.686.2220
 www.allenmajor.com

PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.

COMPREHENSIVE
 PERMIT
 NOT FOR
 CONSTRUCTION

drawing by: SL

drawing checked by: AD

drawing scale: AS SHOWN

drawing date: 04 SEPTEMBER 2020

project number: 19021.00

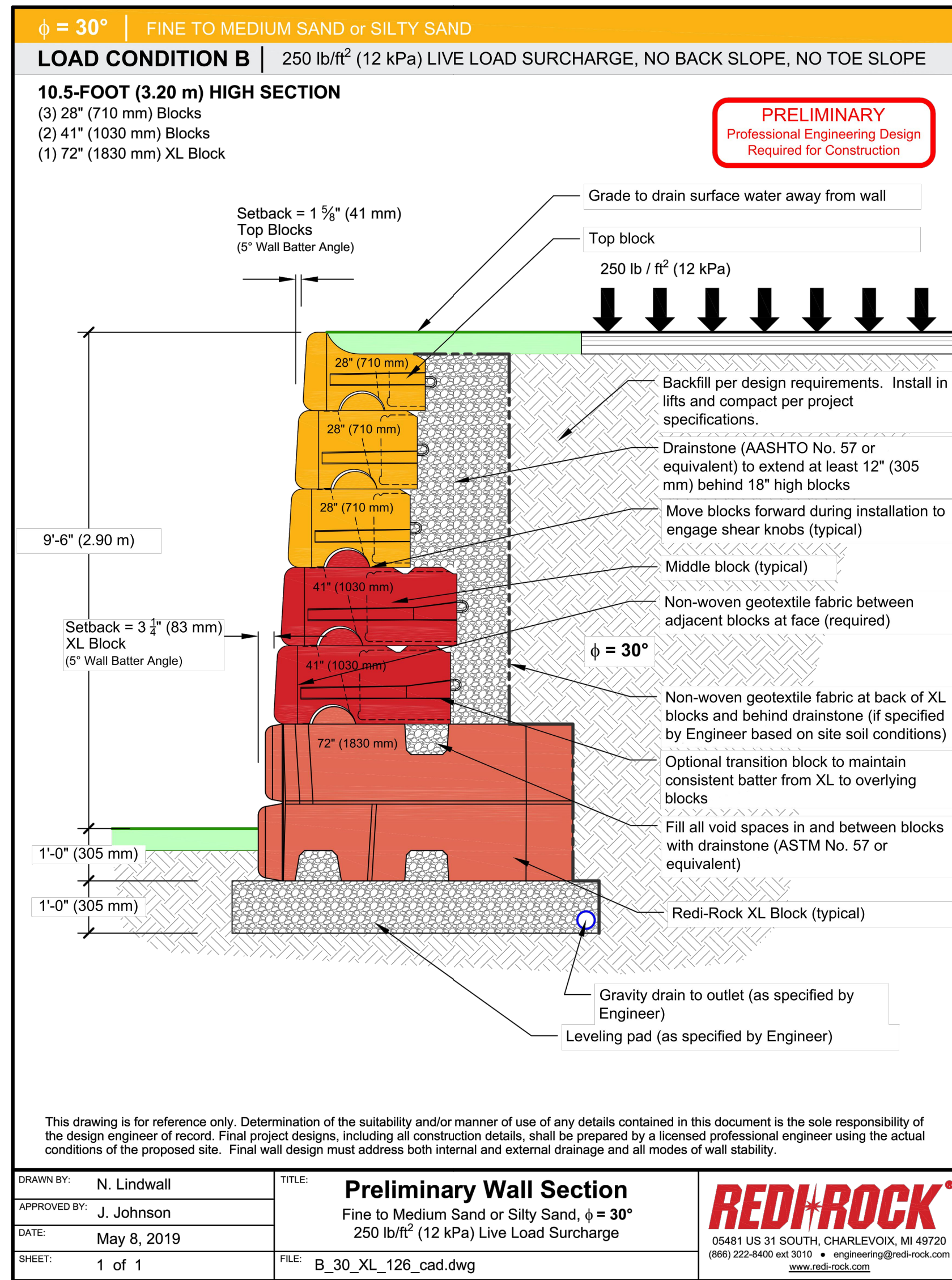
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No.	Description	Date
1	PER PER REVIEW	03-24-2021
2	PER PER REVIEW	05-11-2021
3	ADDED PLANT PALETTE	05-21-2021
4	PER PER REVIEW	06-23-2021

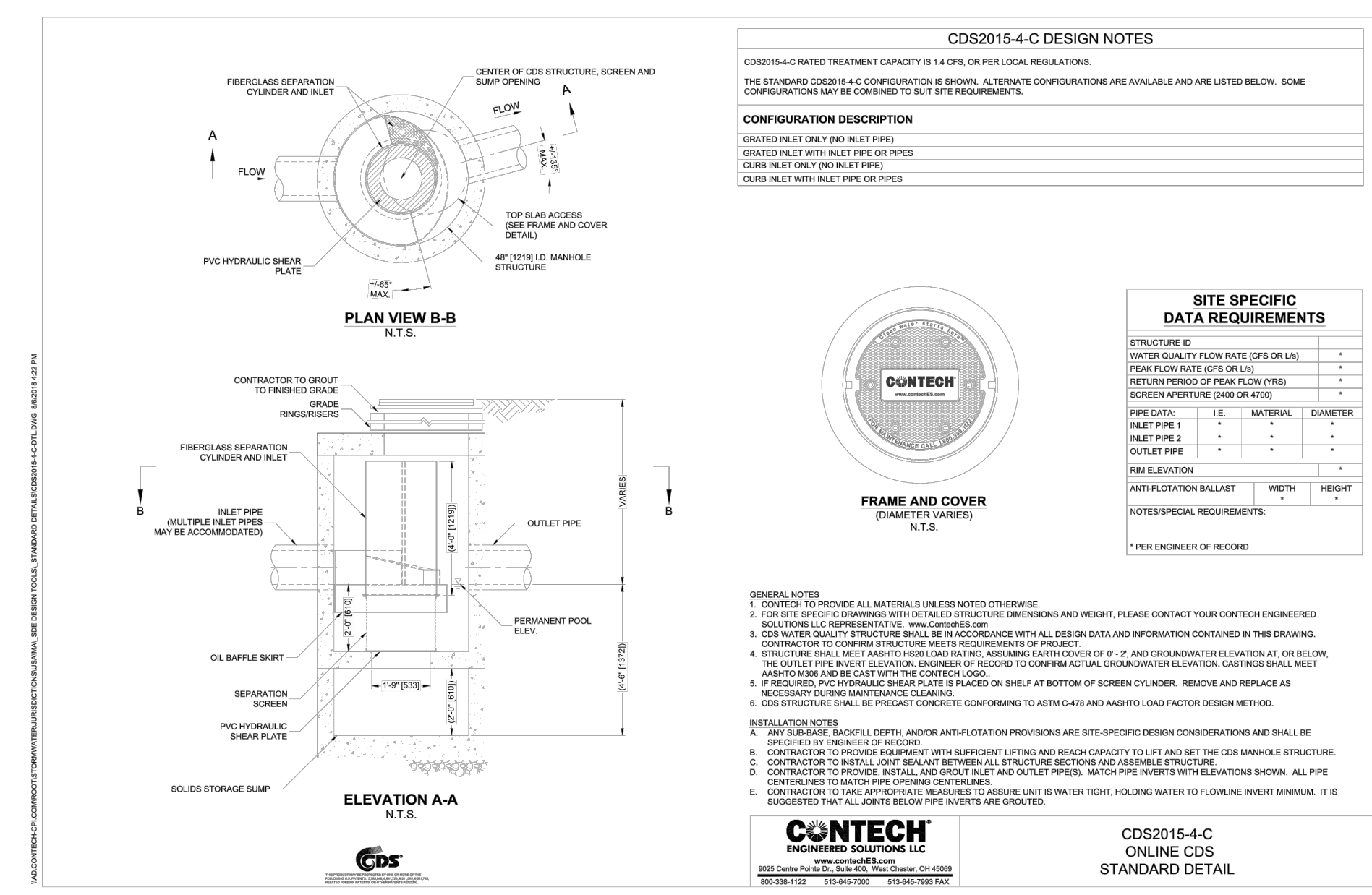


DETAILS

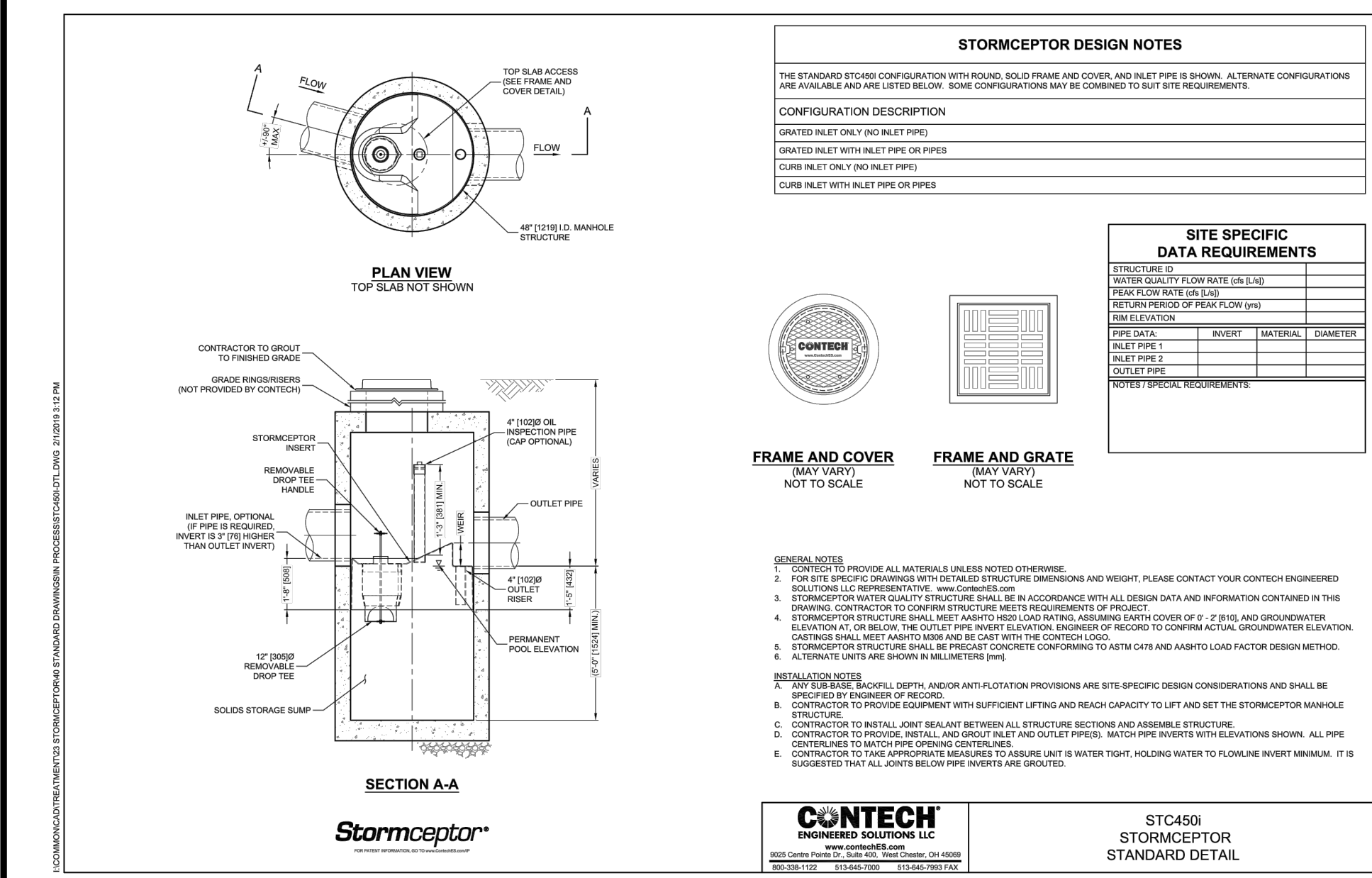
C-504



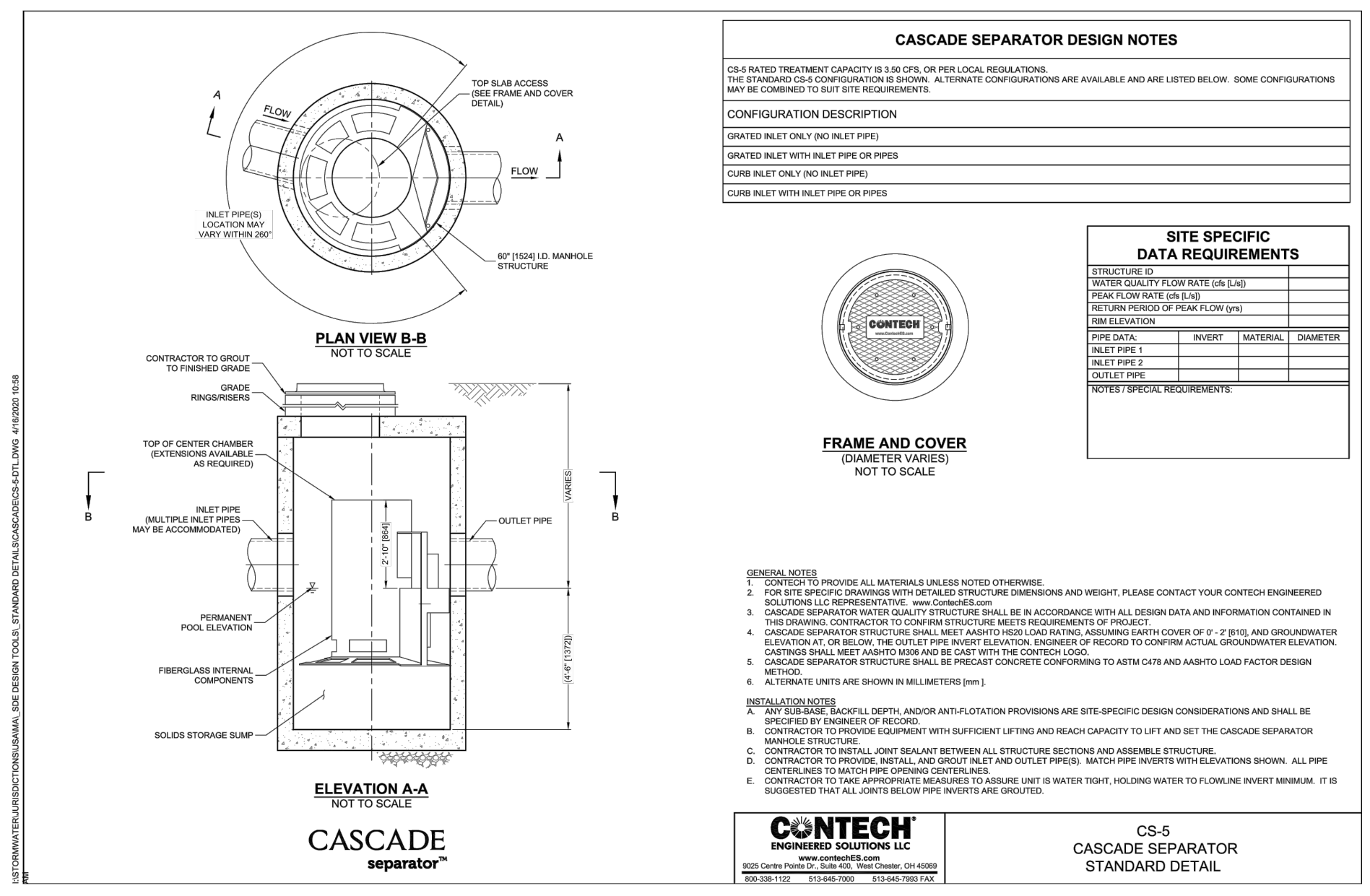
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 NOT TO SCALE



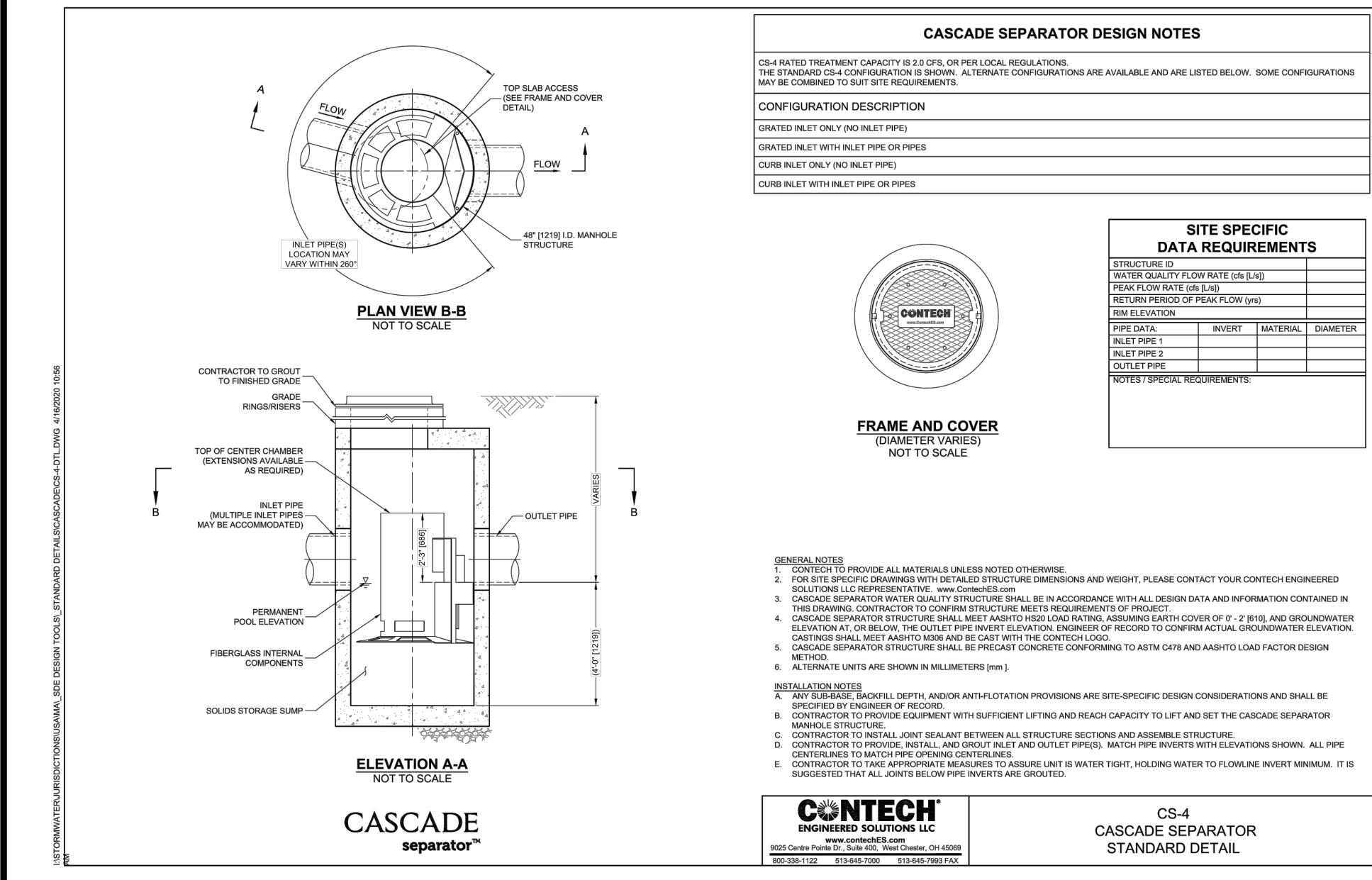
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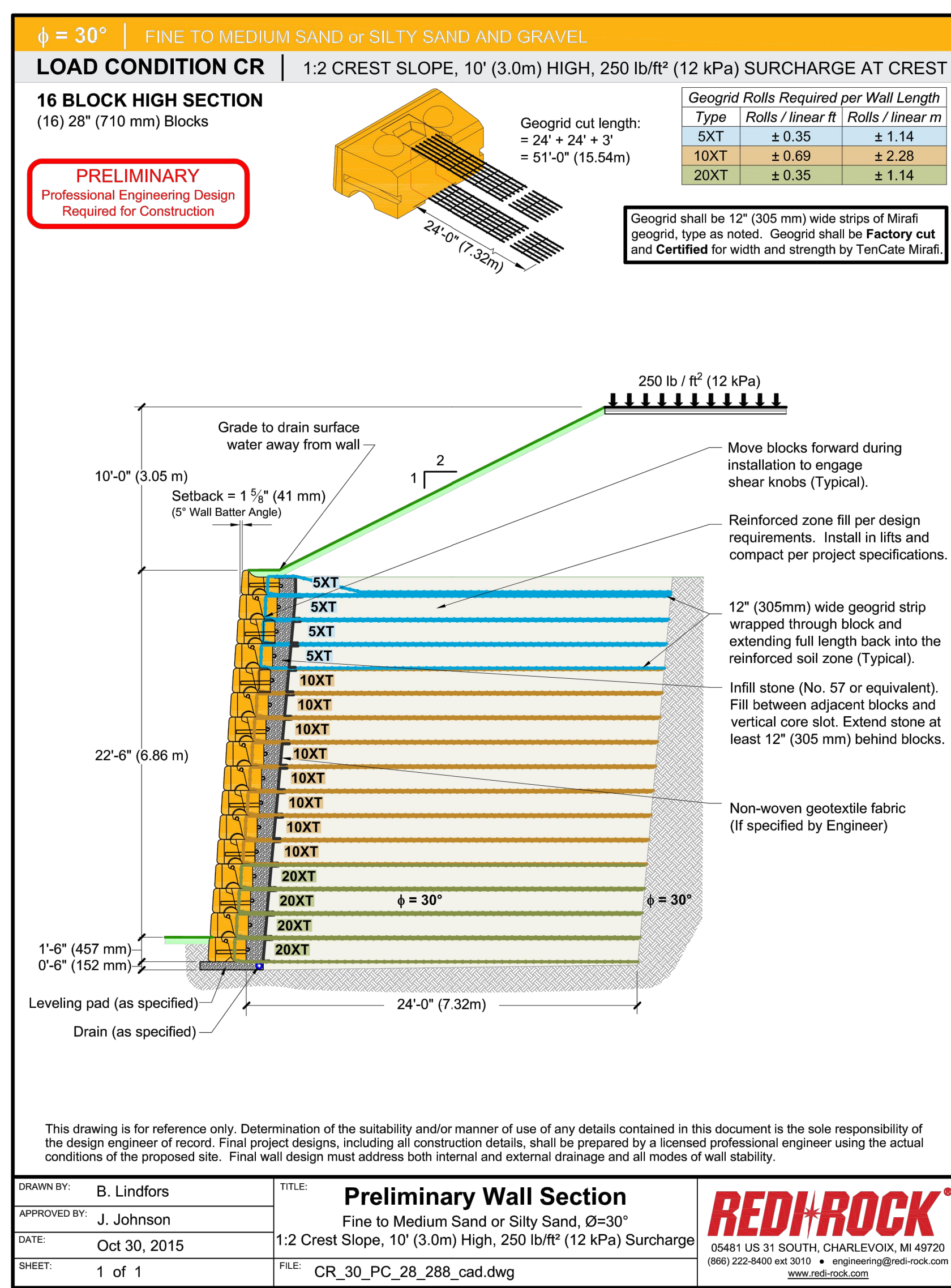
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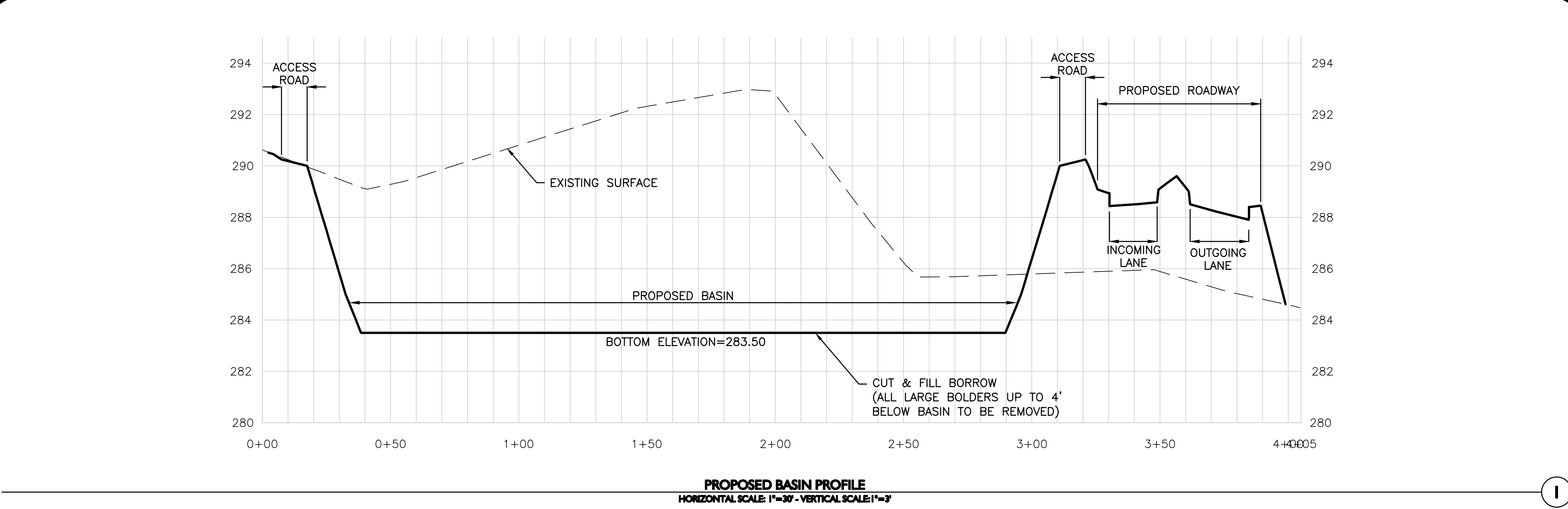
CONTECH CS-5 DETAIL
 NOT TO SCALE



CONTECH CS-4 DETAIL
 NOT TO SCALE



PRELIMINARY WALL SECTION DETAIL (1)
 NOT TO SCALE



1

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 300 Jordan Road
 Troy, NY 12180



PROFESSIONAL ENGINEER FOR
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COMPREHENSIVE PERMIT
 NOT FOR CONSTRUCTION

drawing by: SL
 drawing checked by: AD
 drawing scale: AS SHOWN
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

No.	Description	Date
1	PER PERE REVIEW COMMENTS	03-24-2021
2	PER PERE REVIEW COMMENTS	05-11-2021
3	ADDED PLANT PALETTE	05-21-2021
4	PER PERE COMMENTS	06-23-2021



DETAILS

C-505

RECOMMENDED ACCESS OPENING SPECIFICATION

- A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM AND 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 2'-0" IN DIAMETER MUST BE APPROVED BY STORMTRAP. ALL OPENINGS MUST BE LOCATED AT LEAST 2'-0" FROM THE EDGE OF THE STORMTRAP MODULE UNLESS OTHERWISE SPECIFIED. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE LEA UNLESS OTHERWISE SPECIFIED.
- PLASTIC COATED STEEL STRIPS PRODUCED BY RAL INDUSTRIES PART #R3-4PC OR APPROVED EQUAL (SEE STEP DETAIL) ARE PROVIDED INSIDE ANY MODULE WHERE DEMAND NECESSARY. THE HIGHEST STRIP IN THE MODULE IS TO BE PLACED A DISTANCE OF 1/4" FROM THE INSIDE EDGE OF THE STORMTRAP MODULE. ALL INSULATING STRIPS SHALL BE PLACED WITH A MINIMUM GAP OF 1/4" BETWEEN THEM. STRIPS ARE TO BE MOVED OR ADJUSTED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.
- STORMTRAP LIFTS INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
- STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH SLEET AND/OR OTHER PIPE OPENINGS OR PLACEMENT OF STEPS IS ATTAINABLE.
- ACCESS OPENINGS SHOULD BE LOCATED TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.
- USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2" TO USE PRECAST MANHOLE OR CONE INSPECTIONS (PROVIDED BY OTHERS).

RECOMMENDED PIPE OPENING SPECIFICATION

- MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 2'-0".
- MINIMUM OPENING SIZE TO BE DETERMINED BY THE MODULE HEIGHT. PREPARED OPENING SIZE IS 8" OR LESS. ANY OPENING NEEDED THAT DOES NOT FIT THIS CENTERLINE SHALL BE SUBJECT TO THE ATTENTION OF STORMTRAP FOR REVIEW.
- CONNECTING PIPES SHALL BE INSTALLED WITH A 1"-0" CONCRETE COLLAR AND AN AGGREGATE CHAMBE FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAIL). A STRUCTURAL BRIDGE CONCRETE COLLAR HIGH STRENGTH NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE USED FOR THIS LOCATION.
- THE ANNUAL SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

RECOMMENDED PIPE INSTALLATION INSTRUCTIONS

- CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
- IF PIPE IS CUT, CARE SHOULD BE TAKEN TO AVOID SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.
- ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCILLARY PRODUCTS RECOMMENDED AND SHOWN ON THIS SHEET ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLATION CONTRACT.

RISER / STAIR DETAIL

PIPE CONNECTION DETAIL

STEP DETAIL

StormTrap
1-877-867-6872

ENGINEER INFORMATION:

PROJECT INFORMATION:
 SINGLETRAP
 INFILTRATION

CURRENT ISSUE DATE:

ISSUED FOR:
 SAMPLE PROJECT

REV. DATE: ISSUED FOR: (FORM 89)

SCALE:
 NTS

SHEET TITLE:
 RECOMMENDED PIPE / ACCESS OPENING SPECIFICATIONS

SHEET NUMBER:
5.0

STORMTRAP PIPE/ACCESS OPENING SPECIFICATIONS
 NOT TO SCALE 6

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ENGINEER INFORMATION:

PROJECT INFORMATION:
 SINGLETRAP
 INFILTRATION

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 NTS

SHEET TITLE:
 RECOMMENDED PIPE / ACCESS OPENING SPECIFICATIONS

SHEET NUMBER:
5.0

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 INFILTRATION

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REV. DATE: ISSUED FOR: (FORM 89)

SCALE:
 NTS

SHEET TITLE:
 SINGLETRAP BACKFILL SPECIFICATIONS

SHEET NUMBER:
4.0

ZONE CHART

ZONE	ZONE DESCRIPTION	REMARKS
ZONE 1 A	FOUNDATION AGGREGATE	
ZONE 1 B	FOUNDATION AGGREGATE	
ZONE 2	BACKFILL	
ZONE 3	FINAL COVER OVERTOP	

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ENGINEER INFORMATION:

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 SINGLETRAP BACKFILL SPECIFICATIONS

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SCALE:
 NTS

SHEET TITLE:
 SINGLETRAP BACKFILL SPECIFICATIONS

SHEET NUMBER:
4.0

STORMTRAP BACKFILL SPECIFICATIONS
 NOT TO SCALE 5

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ENGINEER INFORMATION:

PROJECT INFORMATION:
 SINGLETRAP
 INFILTRATION

CURRENT ISSUE DATE:

ISSUED FOR:
 SAMPLE PROJECT

REV. DATE: ISSUED FOR: (FORM 89)

SCALE:
 NTS

SHEET TITLE:
 SINGLETRAP INSTALLATION SPECIFICATIONS

SHEET NUMBER:
3.0

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ENGINEER INFORMATION:

PROJECT INFORMATION:
 SINGLETRAP
 INFILTRATION

CURRENT ISSUE DATE:

ISSUED FOR:
 SAMPLE PROJECT

REV. DATE: ISSUED FOR: (FORM 89)

SCALE:
 NTS

SHEET TITLE:
 SINGLETRAP DESIGN CRITERIA

SHEET NUMBER:
1.0

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ENGINEER INFORMATION:

PROJECT INFORMATION:
 SINGLETRAP
 INFILTRATION

CURRENT ISSUE DATE:

ISSUED FOR:
 SAMPLE PROJECT

REV. DATE: ISSUED FOR: (FORM 89)

SCALE:
 NTS

SHEET TITLE:
 SINGLETRAP DESIGN CRITERIA

SHEET NUMBER:
1.0

STORMTRAP INSTALLATION SPECIFICATIONS
 NOT TO SCALE 2

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ENGINEER INFORMATION:

PROJECT INFORMATION:
 SINGLETRAP
 INFILTRATION

CURRENT ISSUE DATE:

ISSUED FOR:
 SAMPLE PROJECT

REV. DATE: ISSUED FOR: (FORM 89)

SCALE:
 NTS

SHEET TITLE:
 SINGLETRAP DESIGN CRITERIA

SHEET NUMBER:
1.0

StormTrap
1-877-867-6872

ENGINEER INFORMATION:

PROJECT INFORMATION:
 SINGLETRAP
 INFILTRATION

CURRENT ISSUE DATE:

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SCALE:
 NTS

SHEET TITLE:
 SINGLETRAP DESIGN CRITERIA

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ENGINEER INFORMATION:

PROJECT INFORMATION:
 SINGLETRAP
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 SAMPLE PROJECT

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SCALE:
 NTS

SHEET TITLE:
 SINGLETRAP DESIGN CRITERIA

SHEET NUMBER:
1.0

STORMTRAP DESIGN CRITERIA
 NOT TO SCALE 1

PROPOSED LAYOUT
 (90) STORMTRAP CHAMBERS

INSTALLED WITH 6" COVER STONE,
 12" BASE STONE, 40% STONE VOID
 AREA OF SYSTEM: 12,226 FT²
 PERIMETER OF SYSTEM: 761 FT

SYSTEM LAYOUT
 NTS

STORMTRAP CHAMBERS
 NOT TO SCALE 3

PROPOSED UIS ELEVATIONS

TOP OF CHAMBERS: 358.33
 SYSTEM INVERT: 353.50
 BOTTOM OF STONE: 352.50
 24" INV: 355.00 (IN)
 5-12" INV: 356.25 (IN)
 24" INV: 353.50 (OUT)

Arbella at Ashland

Memorial Drive
 Ashland, MA 01721

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 300 Jordan Road
 Troy, NY 12180



ALLEN & MAJOR
 ASSOCIATES, INC.

PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.

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 CONSTRUCTION

drawing by: SL

drawing checked by: AD

drawing scale: AS SHOWN

drawing date: 04 SEPTEMBER 2020

project number: 19021.00

drawing revisions:

No.	Description	Date
1	PER PERM REVIEW	03-24-2021
2	CONCRETE	05-11-2021
3	ADDED PLANT PALETTE	05-21-2021
4	PER PERM REVIEW	06-23-2021

ENGINEER INFORMATION:

PROJECT INFORMATION:

CURRENT ISSUE DATE:

ISSUED FOR:

SCALE:

SHEET TITLE:

SHEET NUMBER:

6.0

REGISTERED PROFESSIONAL ENGINEER

PHILIP L. CORDEIRO

NO. 47083

PROFESSIONAL ENGINEER

STATE OF MASSACHUSETTS

REGISTERED PROFESSIONAL ENGINEER

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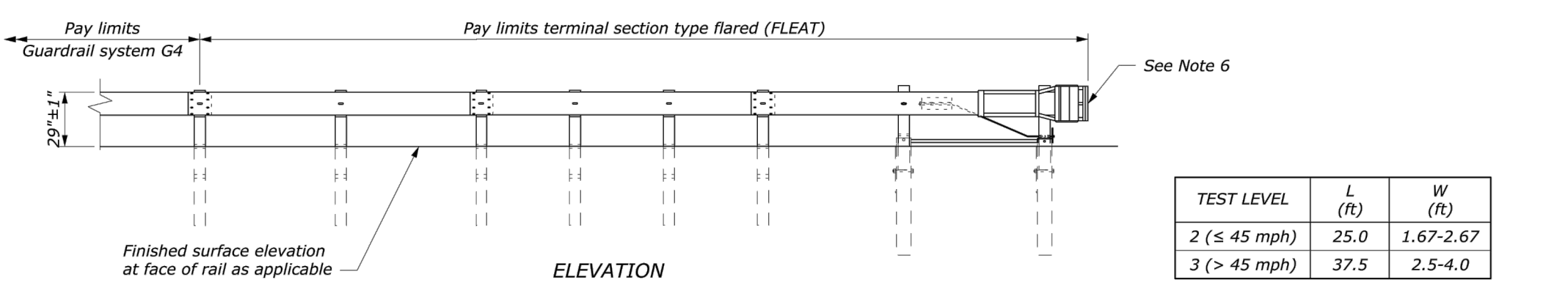
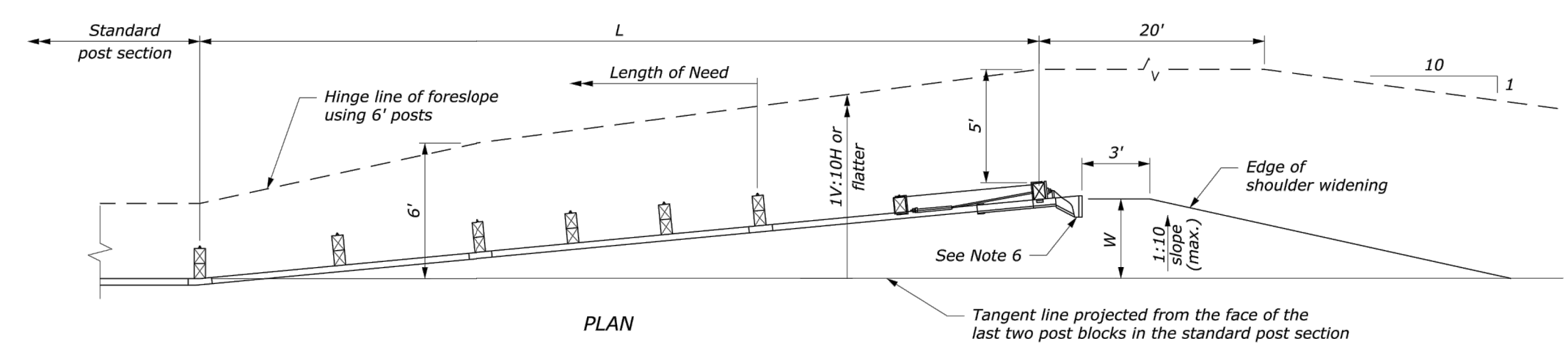
PHILIP L. CORDEIRO

NO. 47083

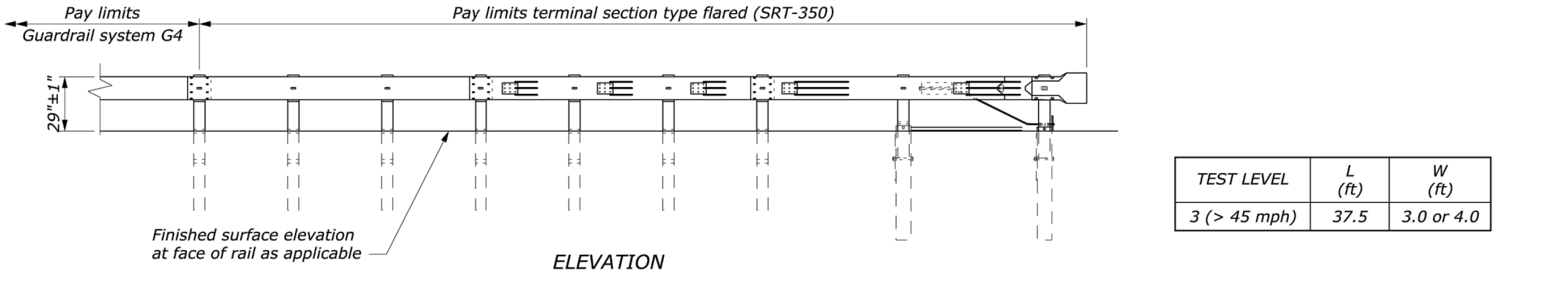
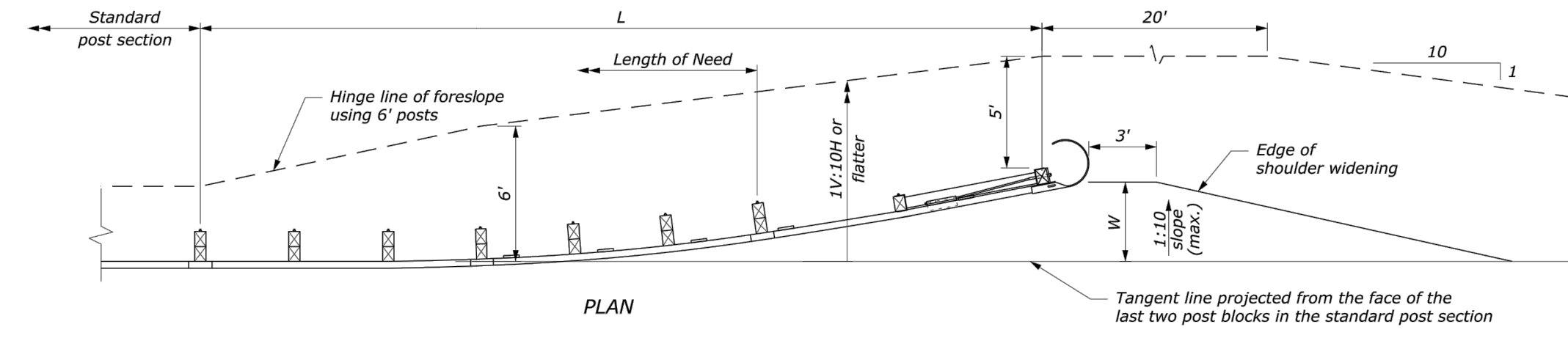
PROFESSIONAL ENGINEER

STATE OF MASSACHUSETTS

REGISTERED PROFESSIONAL ENGINEER

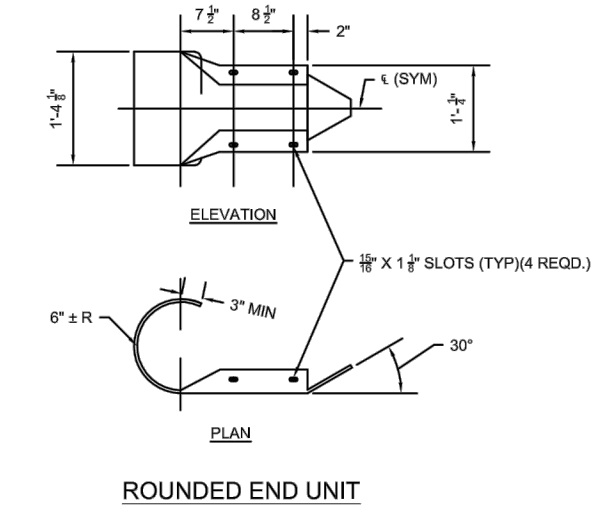


TEST LEVEL	L (ft)	W (ft)
2 (≤ 45 mph)	25.0	1.67-2.67
3 (> 45 mph)	37.5	2.5-4.0

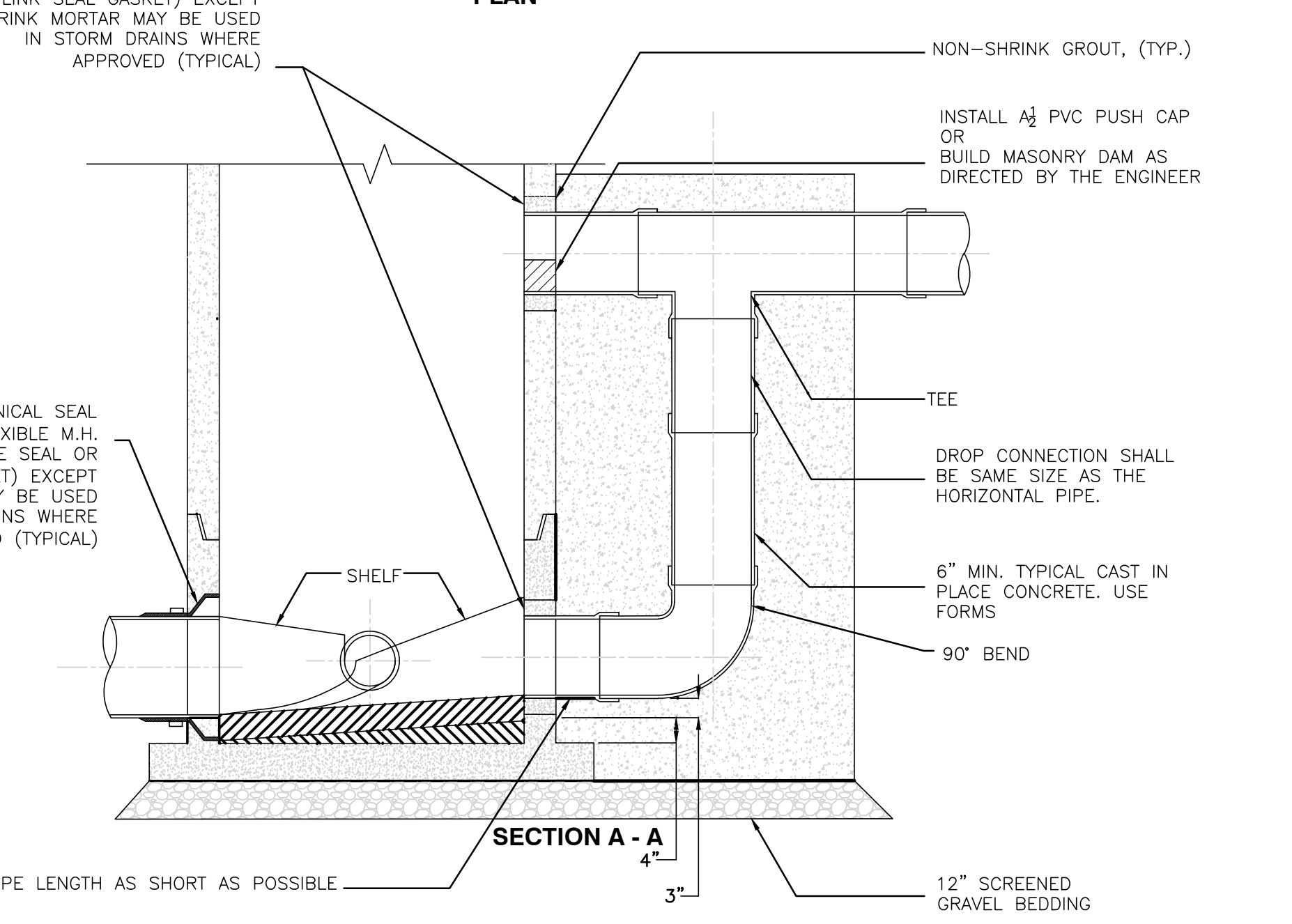
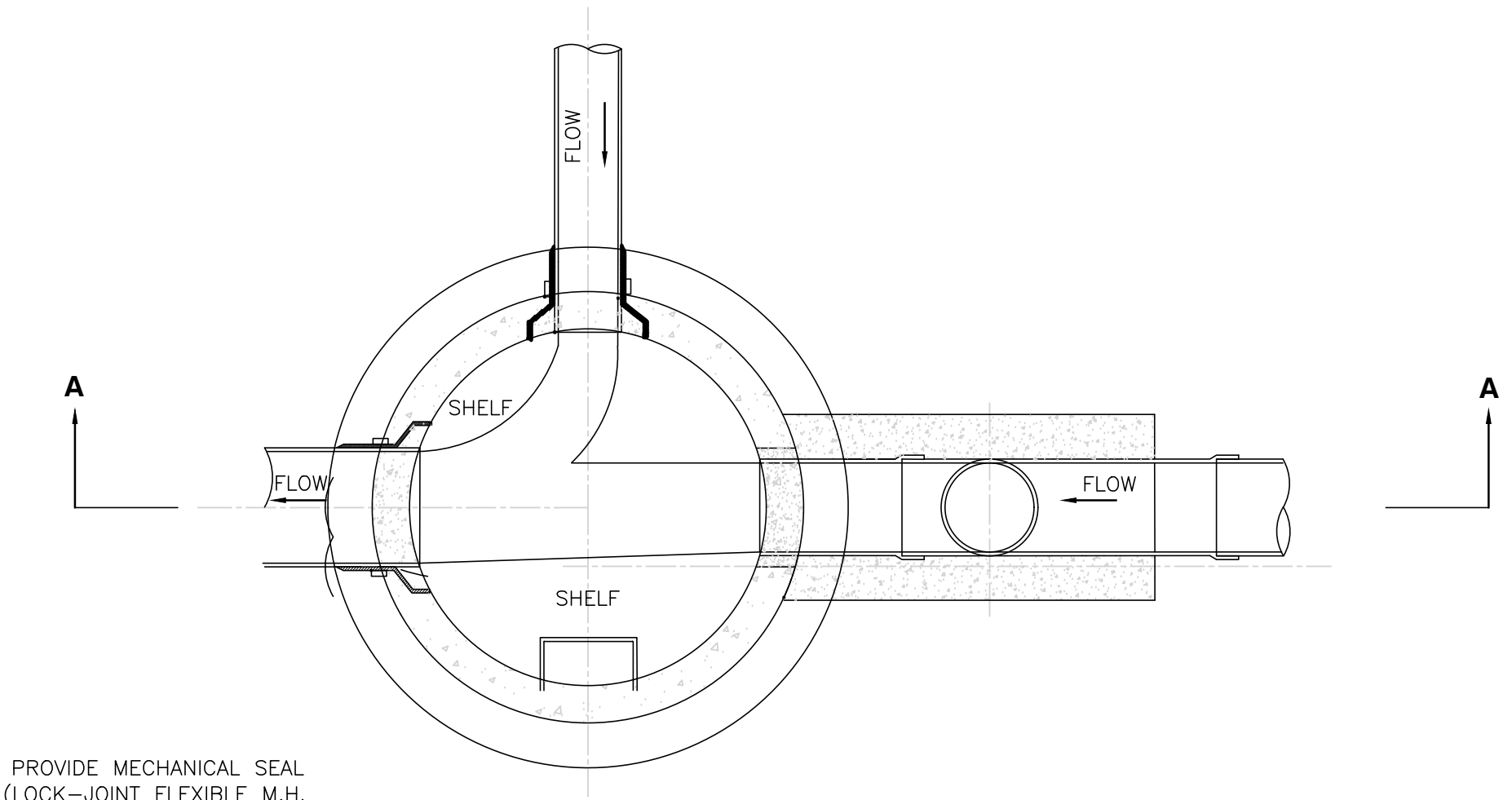


TEST LEVEL	L (ft)	W (ft)
3 (> 45 mph)	37.5	3.0 or 4.0

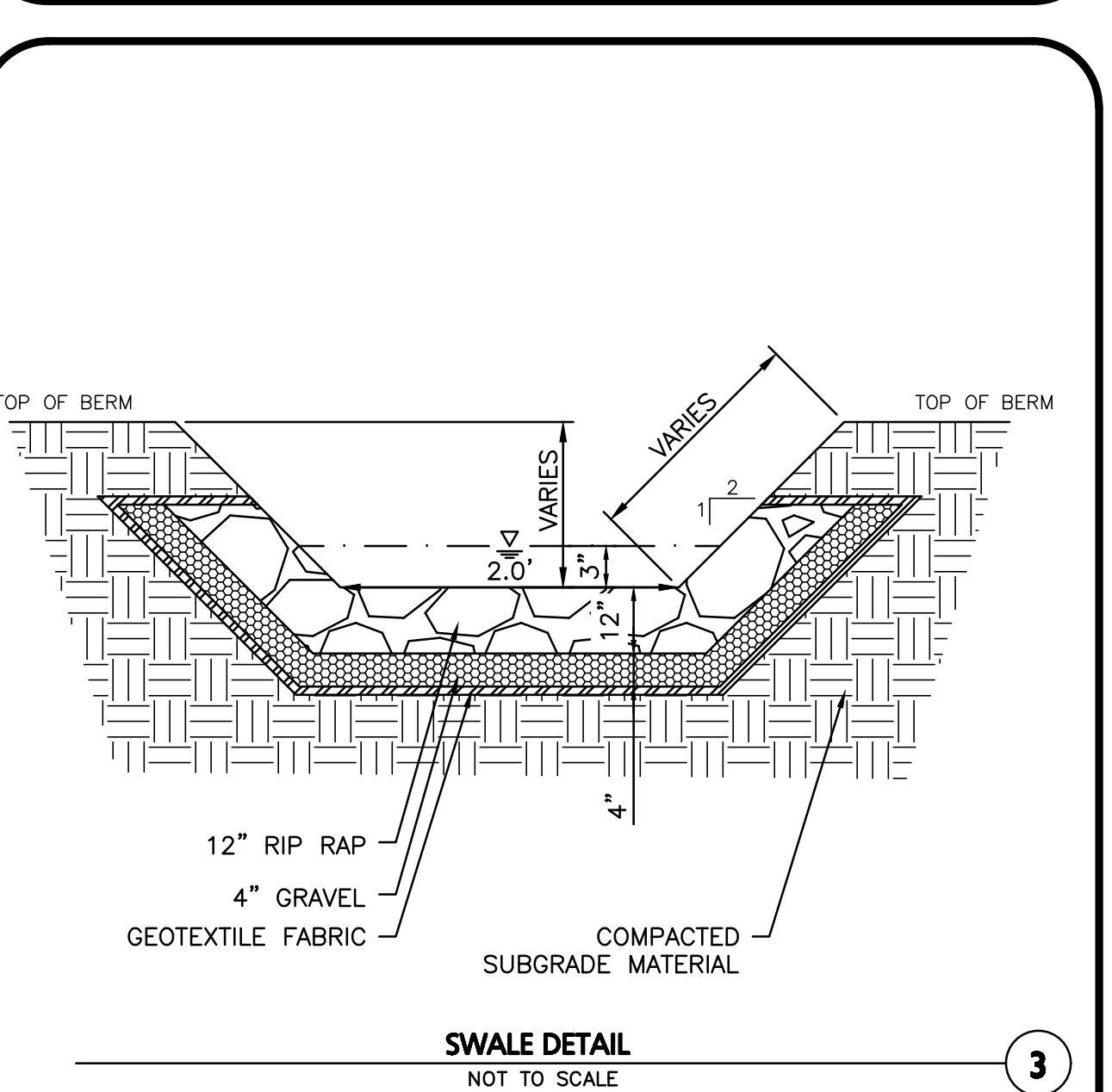
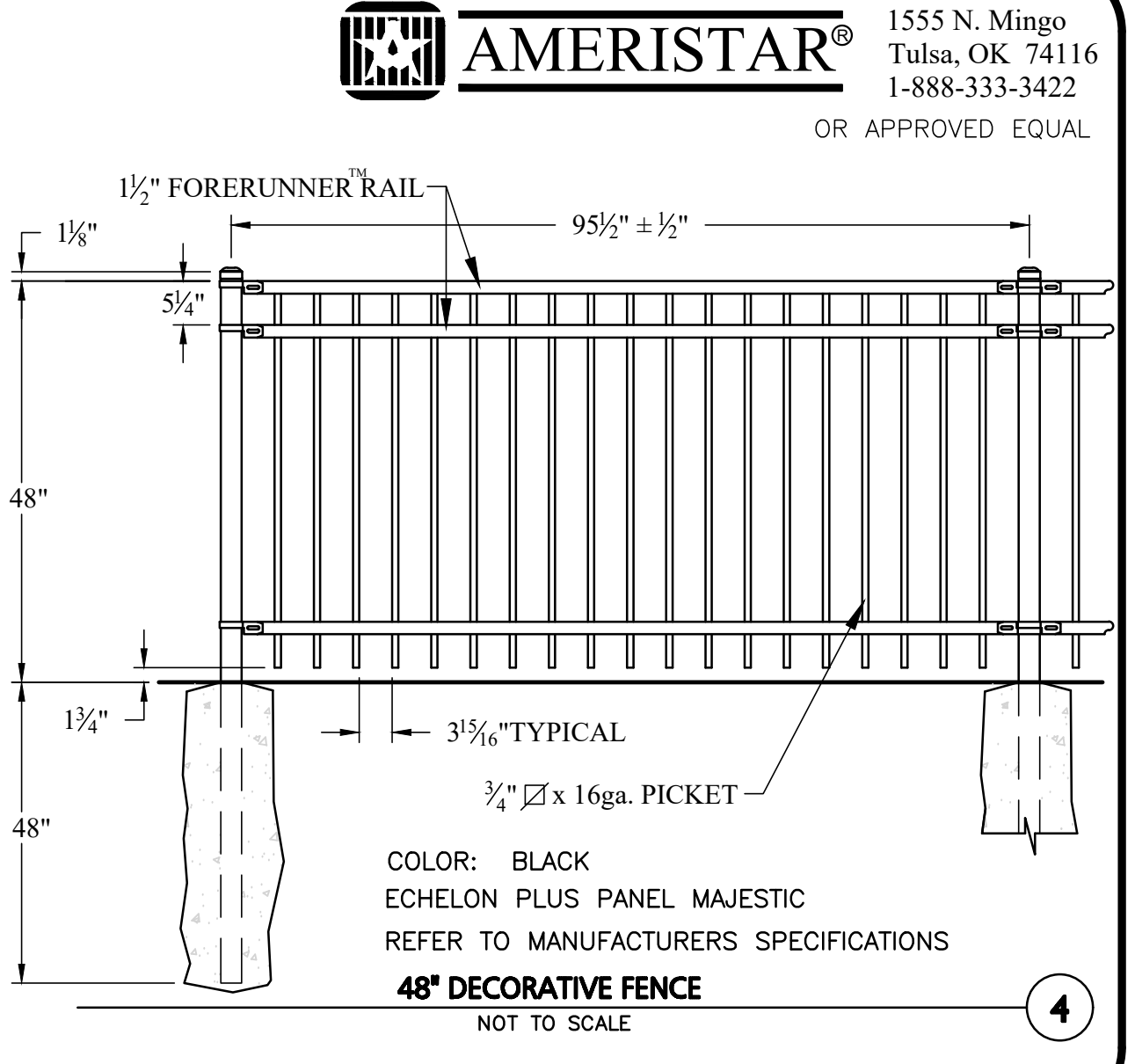
- NOTE:**
- Use details shown as a general guide since manufacturer's details vary. Install a flared G4 W-beam guardrail terminal that meets ACRIP-350 or MASH requirements per manufacturer's recommendations. Ensure that terminal meets appropriate test level for the project.
 - When placing terminal on a curve and post offsets would result in the rail encroaching onto the shoulder (e.g., the inside of a curve), install the posts so that the face of the rail is at the edge of the shoulder.
 - Pave widened shoulder on both ends of guardrail runs when indicated on the plans.
 - See manufacturer's drawings for other details.
 - Construction of widening for terminal installation is incidental to the terminal.
 - A flat attenuator terminal head is shown. A rounded W-beam rail end section may be used.
 - Install a retroflected object marker according to the manufacturer's recommendations.



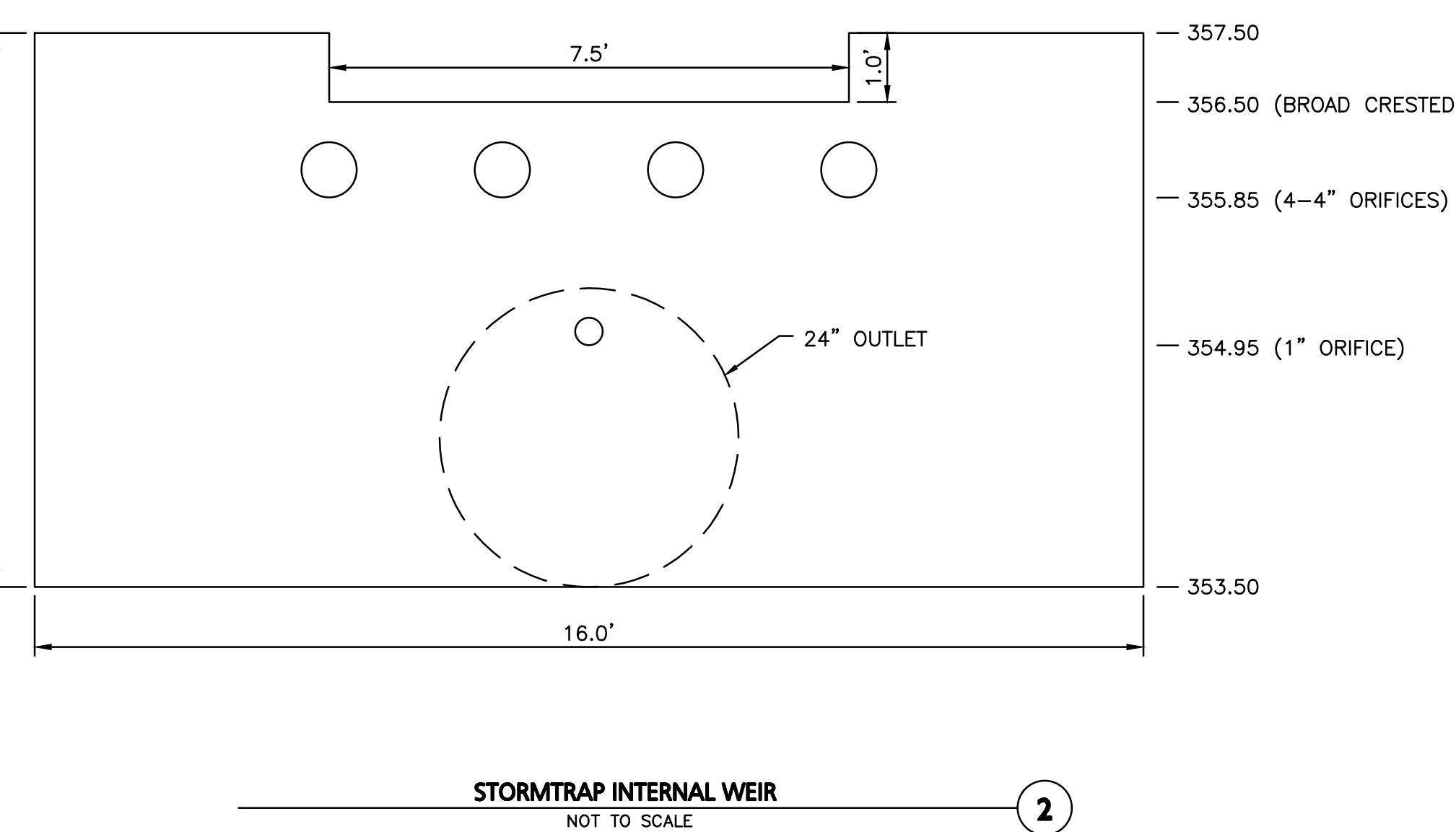
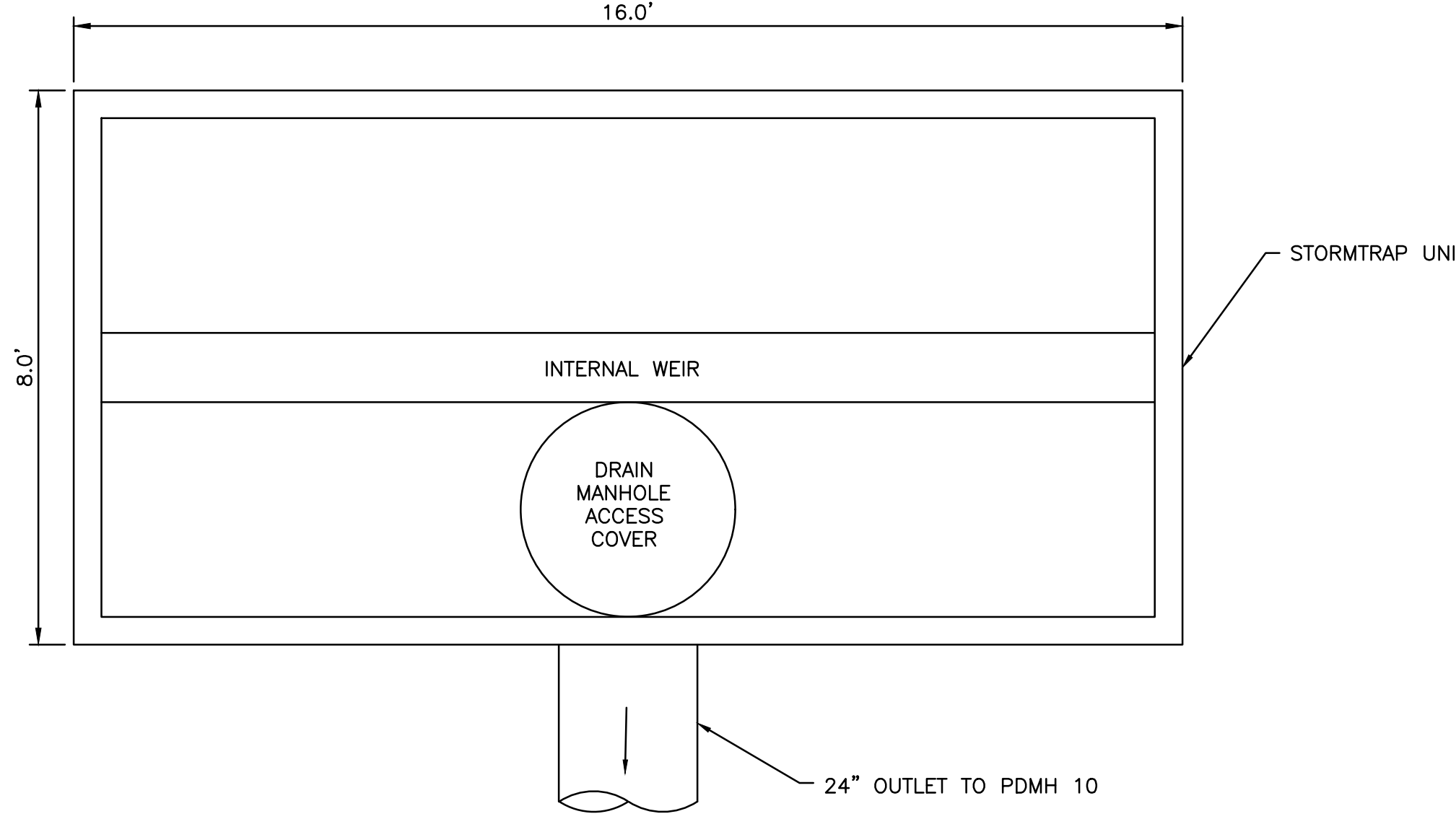
GUARDRAIL TERMINAL END
 NOT TO SCALE



EXTERNAL DROP MANHOLE
 NOT TO SCALE



SWALE DETAIL
 NOT TO SCALE



STORMTRAP INTERNAL WEIR
 NOT TO SCALE

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 1-877-867-6872

ENGINEER INFORMATION:

PROJECT INFORMATION:

CURRENT ISSUE DATE:

ISSUED FOR:

SCALE:

SHEET TITLE:

SHEET NUMBER:

6.0

NOTES:

- THE APPROVED GEOWEB SHALL BE PRESTO GEOWEB (GEOWEB). THE GEOWEB NOMINAL DIMENSIONS SHALL BE LEFT AS SHOWN.
- THE CONCRETE SPLASH PAD AND GEOWEB SHALL BE INSTALLED PRIOR TO INSTALLATION OF THE STORMTRAP MODULE.
- THE GEOWEB INFILL MATERIAL SHALL BE #5 AGGREGATE.
- THE CONCRETE SPLASH PAD SHALL BE INSTALLED WITHIN THE GEOWEB AND IS REQUIRED AT ALL ENTRY LOCATIONS.
- THE GEOWEB FLOOR SHALL BE INSTALLED 1/4\"/>



STORMTRAP SPLASH PAD & GEOWEB DETAILS
 NOT TO SCALE

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 1000 CONCORD STREET
 LAWRENCE, MA 01840
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 FAX: 978.686.2200

PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.

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 CONSTRUCTION

drawing by: SL

drawing checked by: AD

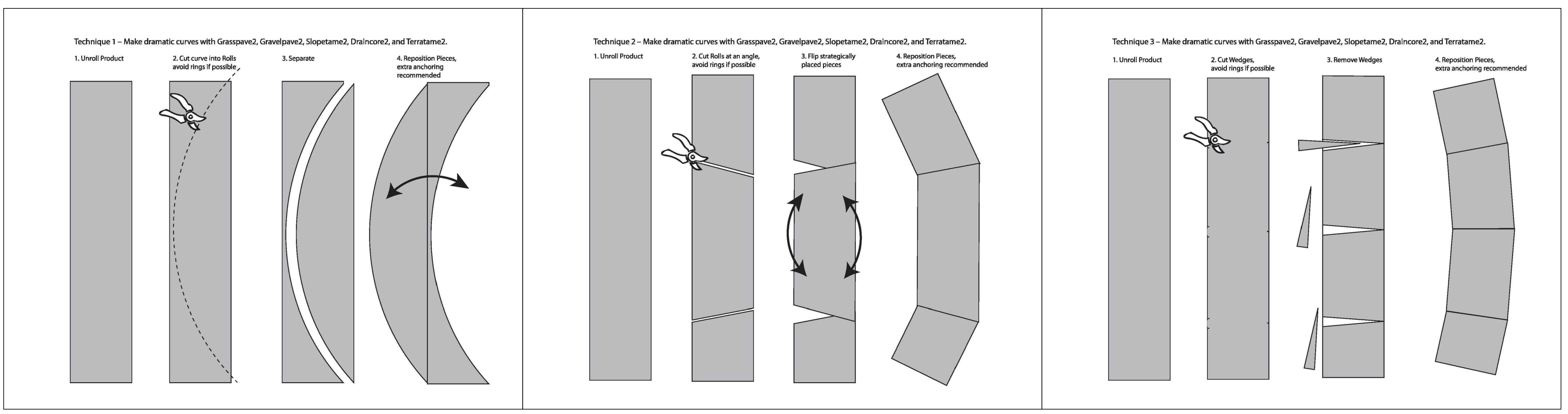
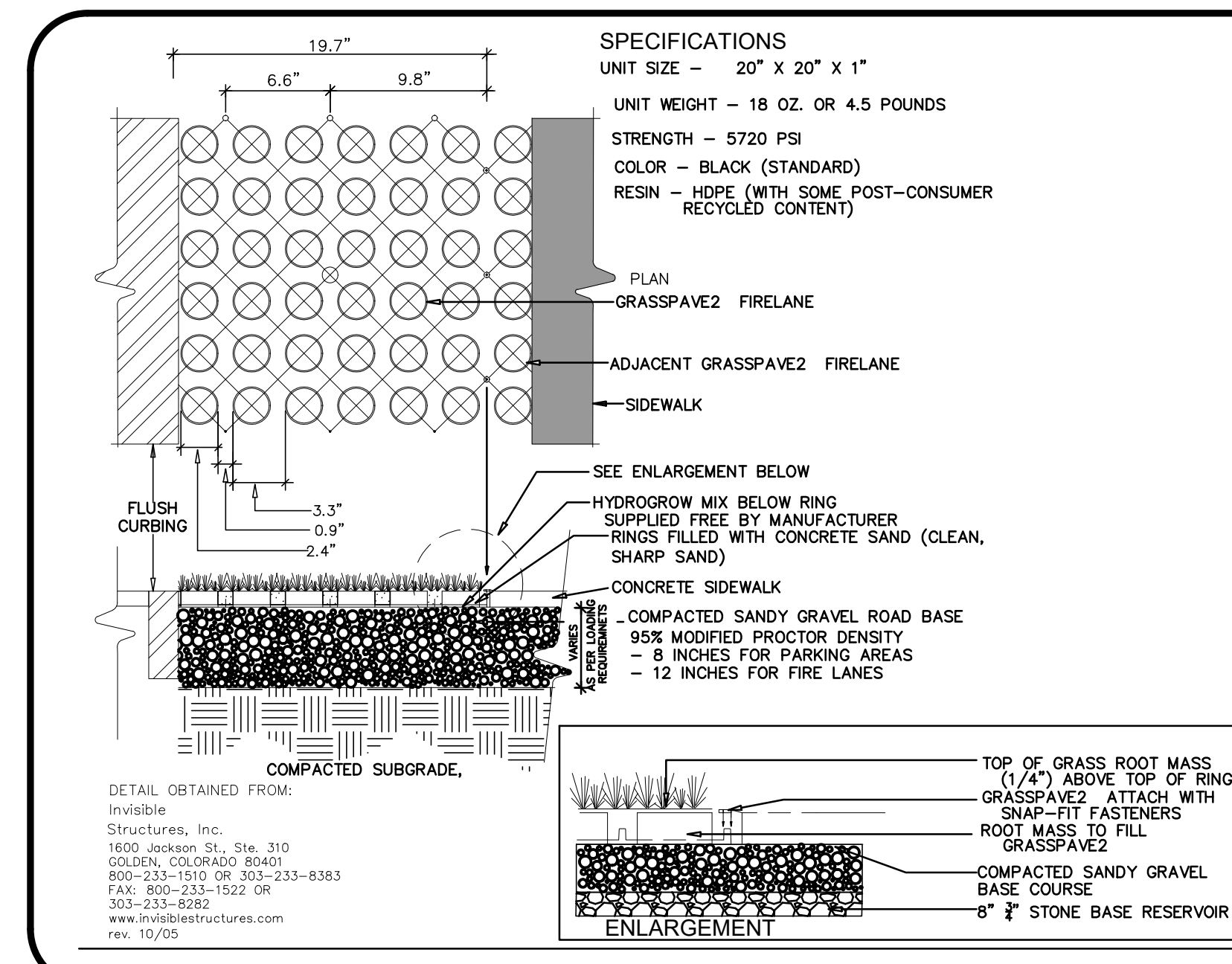
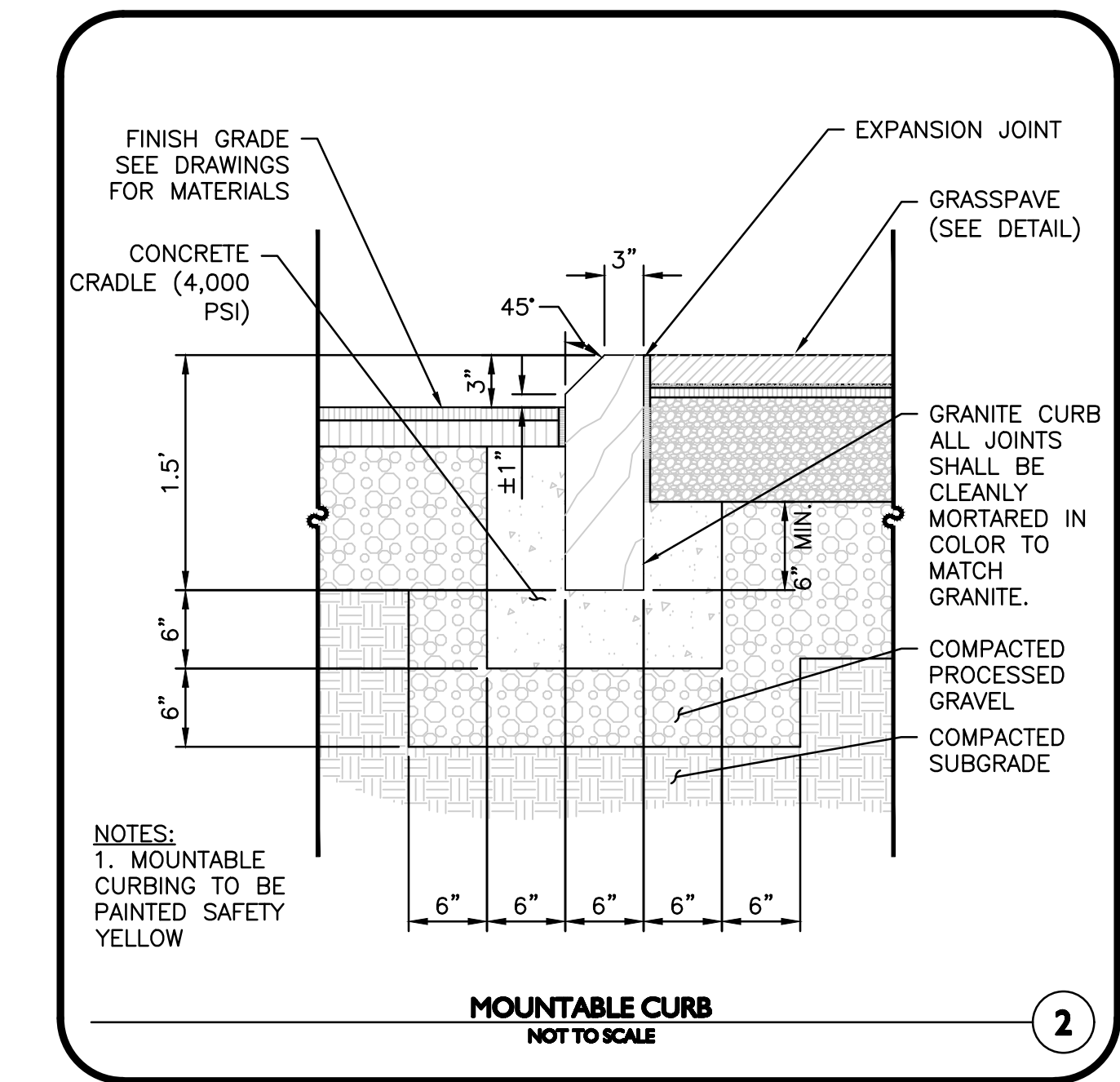
drawing scale: AS SHOWN

drawing date: 04 SEPTEMBER 2020

project number: 19021.00

drawing revisions:

No.	Description	Date
1	PER PERM REVIEW	03-24-2021
2	PER PERM REVIEW	05-11-2021
3	ADDED PLANT PALETTE	05-21-2021
4	PER PERM REVIEW	06-23-2021



NOTES:
 1. CONTRACTOR TO OBTAIN SITE SPECIFIC LAYOUT DRAWINGS FOR ENGINEER REVIEW PRIOR TO CONSTRUCTION.



DETAILS

C-507

Arbella at Ashland
 Memorial Drive
 Ashland, MA 01721

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drawing by: SL
 drawing checked by: AD
 drawing scale: 1" = 30'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

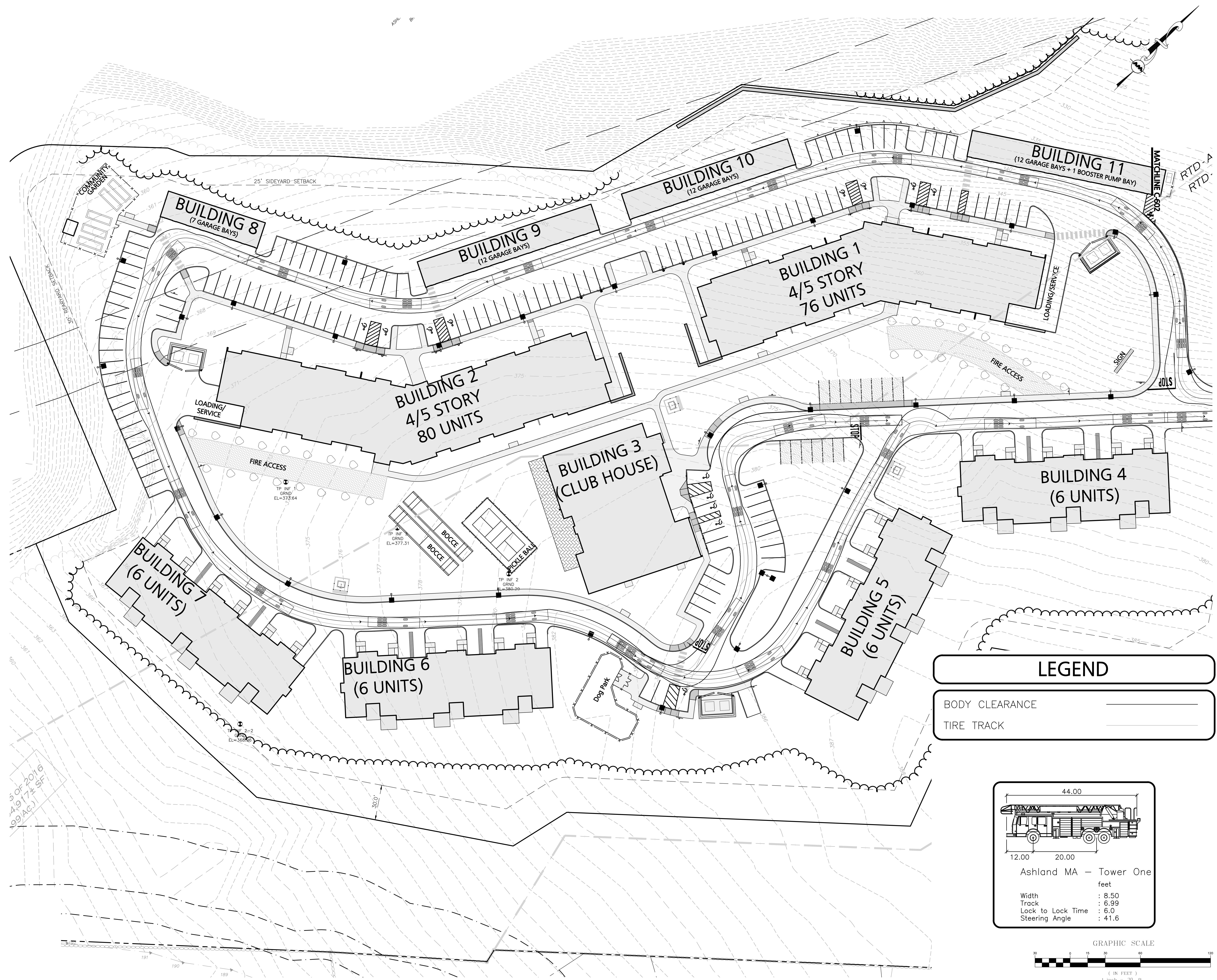
drawing revisions:

No.	Description	Date
1	PROPOSED	03-24-2021
2	COMMENTS	05-11-2021
3	ADDED PLANT MATERIAL	05-21-2021
4	FIRE DEPT PLANT MATERIAL	06-23-2021



VEHICLE
 MOVEMENT
 PLAN

C-601

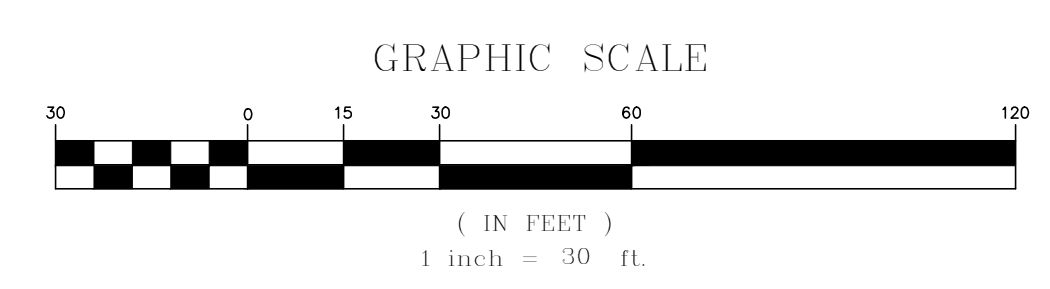
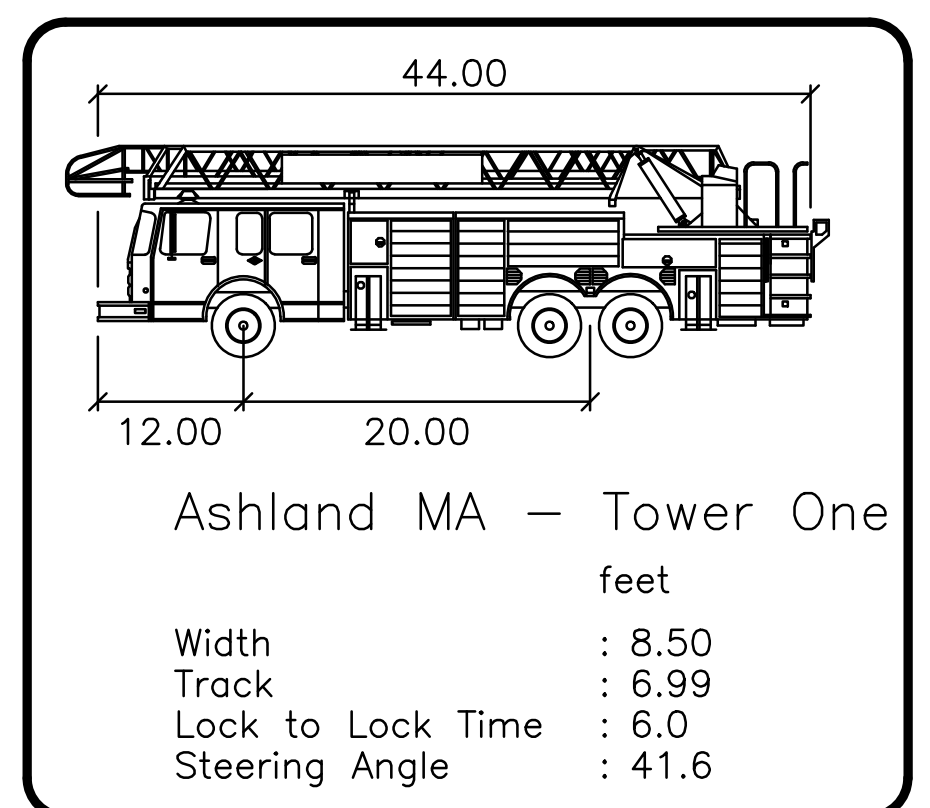
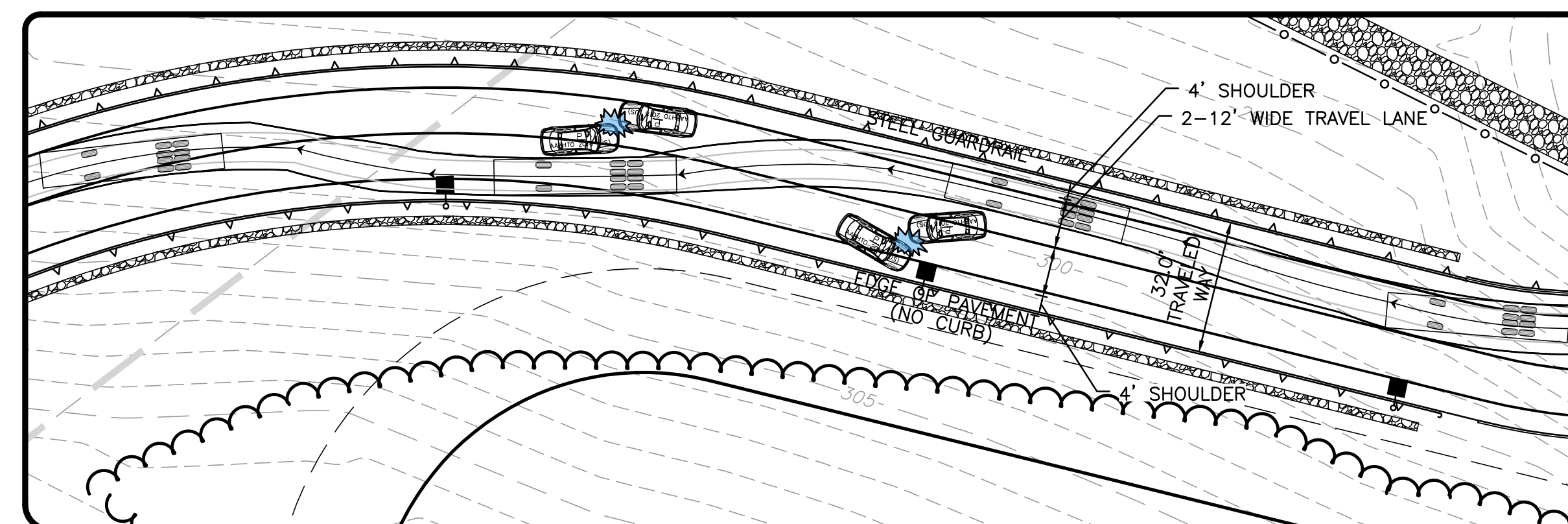
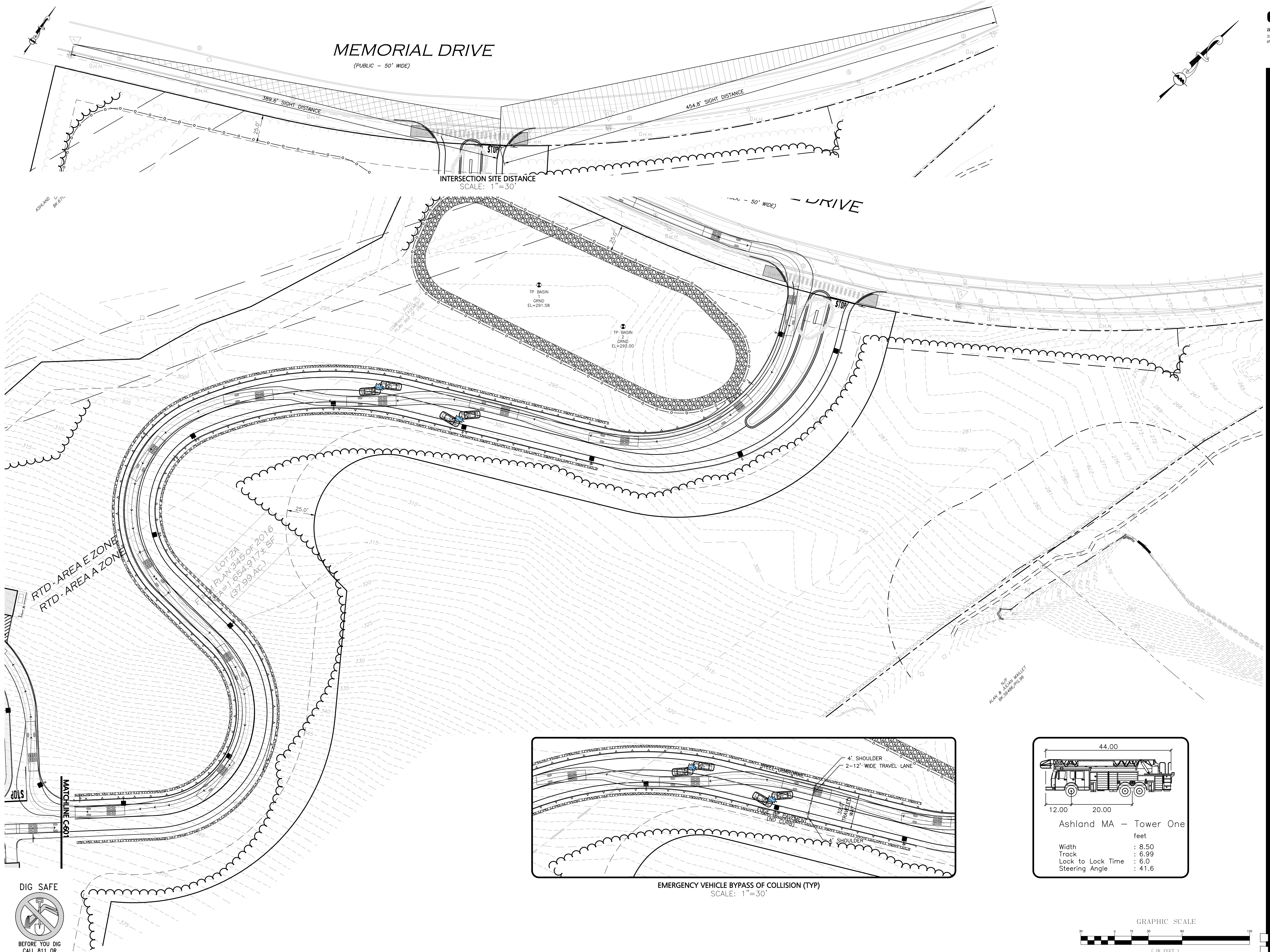


3 OF 2016
 49174 SF
 09 AC

MEMORIAL DRIVE

(PUBLIC - 50' WIDE)

INTERSECTION SITE DISTANCE
 SCALE: 1"=30'



Arbella at Ashland
 Memorial Drive
 Ashland, MA 01721

U A Senior
 LLC
 Rensselaer
 Technology Park
 300 Jordan Road
 Troy, NY 12180



PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.
COMPREHENSIVE PERMIT
 NOT FOR CONSTRUCTION

drawing by: SL
 drawing checked by: AD
 drawing scale: 1"=30'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

drawing revisions:

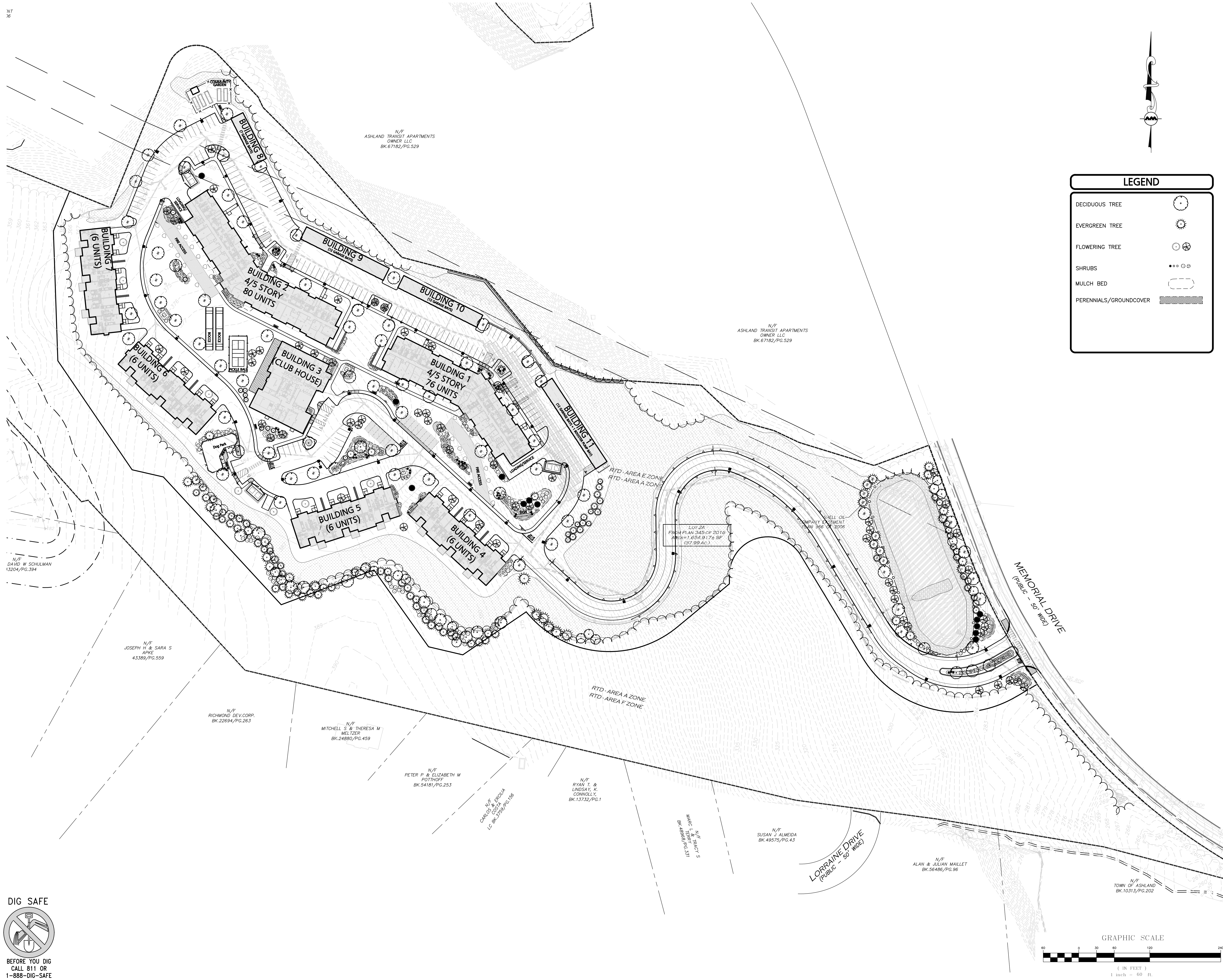
No.	Description	Date
1	PREPARED	03-24-2021
2	REVISIONS	05-11-2021
3	ADDED PLANT MATERIAL	05-21-2021
4	PREPARED PLANT MATERIAL	06-23-2021



VEHICLE MOVEMENT PLAN

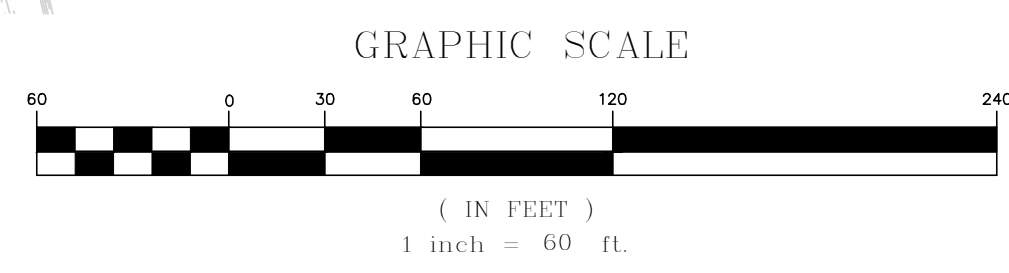
C-602

No.	Description	Date
1	PER PERMIT REVIEW	03-24-2021
2	PER PERMIT REVIEW	05-11-2021
3	ADD PLANT PALETTE	05-21-2021
4	PER PERMIT REVIEW	06-23-2021



LEGEND

- DECIDUOUS TREE
- EVERGREEN TREE
- FLOWERING TREE
- SHRUBS
- MULCH BED
- PERENNIALS/GROUNDCOVER



DIG SAFE
 BEFORE YOU DIG
 CALL 811 OR
 1-888-DIG-SAFE
 1-888-344-7233

Arbella at Ashland

Memorial Drive
 Ashland, MA 01721

U A Senior
 LLC

Rensselaer
 Technology Park
 300 Jordan Road
 Troy, NY 12180



PROFESSIONAL ENGINEER FOR
 ALL STATES AND TERRITORIES
 ALLIED PROFESSIONAL ENGINEERS, INC.

**COMPREHENSIVE
 PERMIT
 NOT FOR
 CONSTRUCTION**

drawing by: SL
 drawing checked by: AD
 drawing scale: 1" = 30'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

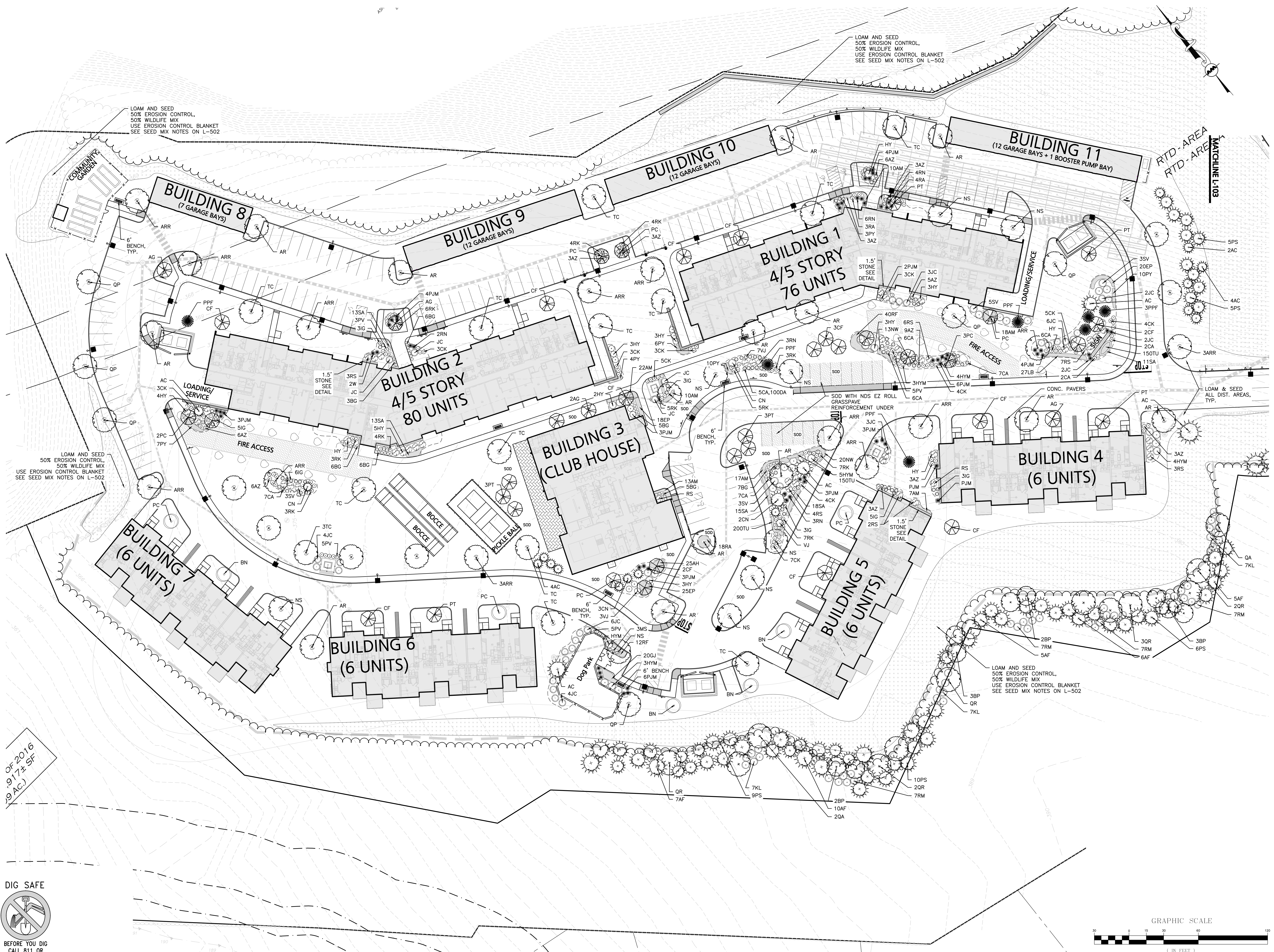
drawing revisions:

No.	Description	Date
1	PROPOSED	03-24-2021
2	REVISION	05-11-2021
3	ADDED PLANT MATERIAL	05-21-2021
4	PRELIMINARY PLANTING	06-23-2021



**LANDSCAPE
 PLAN**

L-102



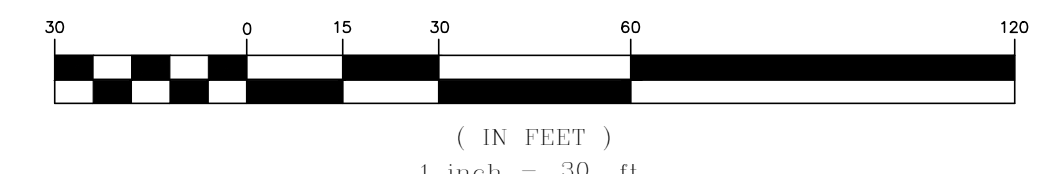
OF 2016
 9,17 ± SF
 (9 AC.)

DIG SAFE



BEFORE YOU DIG
 CALL 811 OR
 1-888-DIG-SAFE
 1-888-344-7233

GRAPHIC SCALE

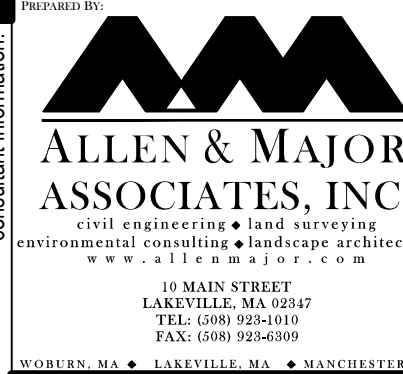


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PROFESSIONAL ENGINEER FOR
 ARBELL & MAJOR ASSOCIATES, INC.

COMPREHENSIVE
 PERMIT
 NOT FOR
 CONSTRUCTION

drawing by: SL

drawing checked by: AD

drawing scale: 1" = 30'

drawing date: 04 SEPTEMBER 2020

project number: 19021.00

drawing revisions:

No. Description Date

1 REVISION 03-24-2021

2 REVISION 05-11-2021

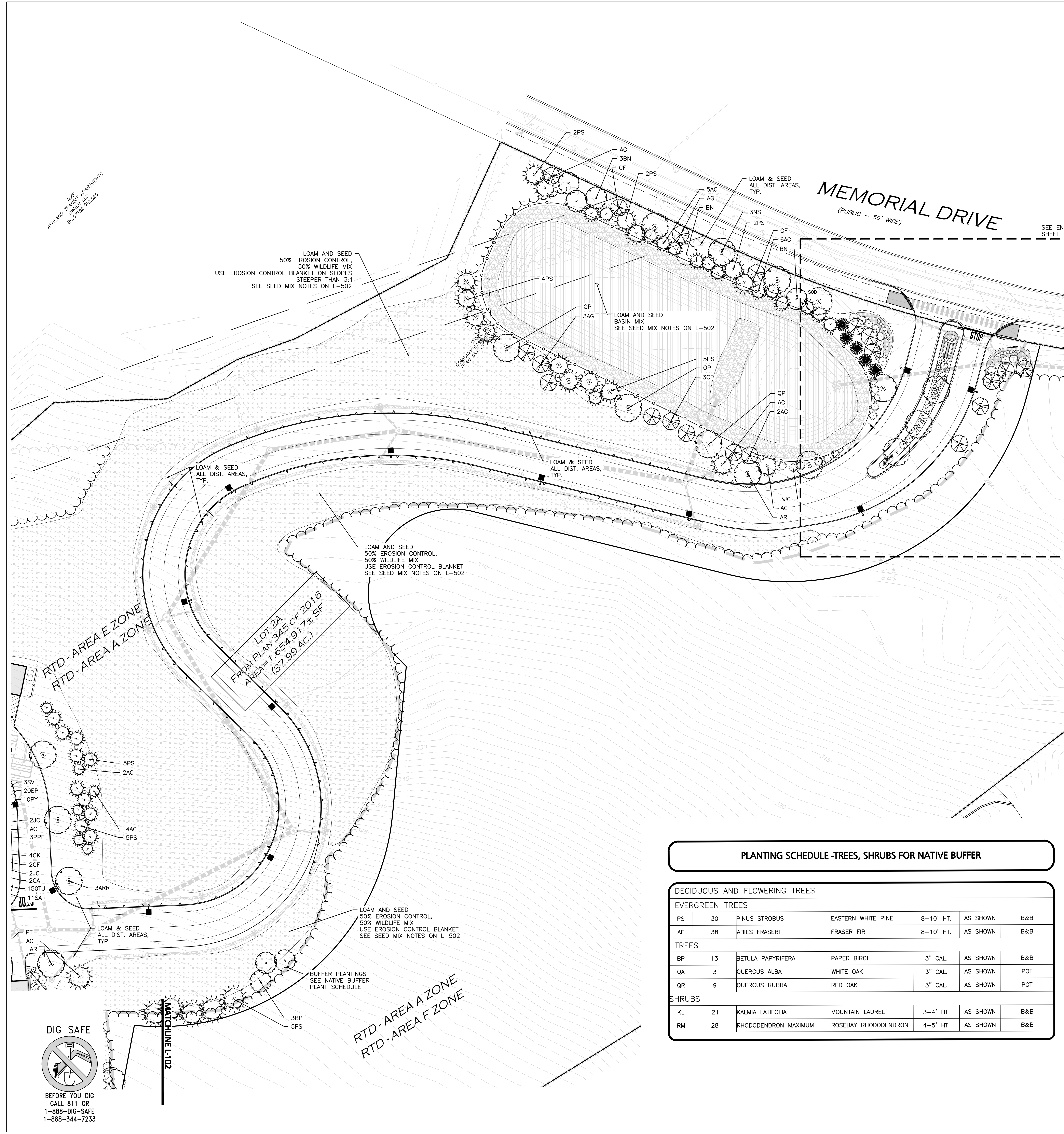
3 ADD PLANT SCHEDULE 05-21-2021

4 PREP. PLANT SCHEDULE 06-23-2021



LANDSCAPE
 PLAN

L-103

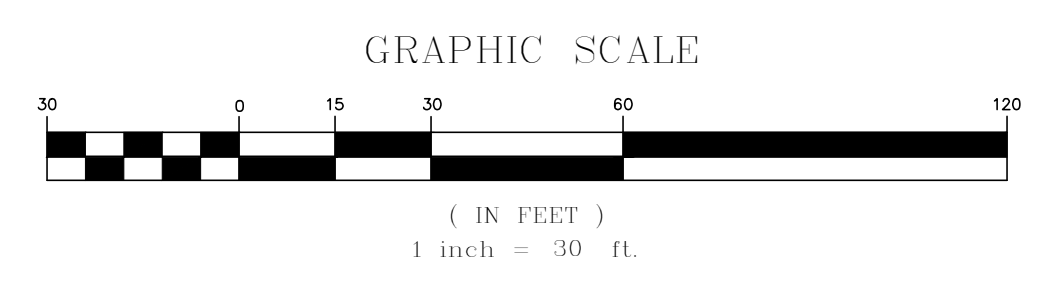


PLANTING SCHEDULE - TREES, SHRUBS, GROUNDCOVERS & PERENNIALS

DECIDUOUS AND FLOWERING TREES						
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	MIN. SIZE	SPACING	COMMENTS
ARR	17	ACER RUBRUM 'REDPOINTE'	REDPOINTE MAPLE	2.5-3" CAL.	AS SHOWN	B&B
AR	17	ACER RUBRUM 'KARPICK'	KARPICK RED MAPLE	2.5-3" CAL.	AS SHOWN	B&B
AG	14	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	2.5-3" CAL.	AS SHOWN	B&B
BN	9	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	12-14' HT.	AS SHOWN	B&B, MULTISTEM
CF	21	CORNUS FLORIDA 'APPALACHIAN SPRING'	APPALACHIAN SPRING DOGWOOD	2.5-3" CAL.	AS SHOWN	B&B
PT	16	PRUNUS CERASIFERA 'THUNDERCLOUD'	THUNDERCLOUD PLUM	2.5-3" CAL.	AS SHOWN	B&B
PC	15	PRUNUS SARGENTII 'COLUMNARIS'	COLUMNAR SARGENT CHERRY	2.5-3" CAL.	AS SHOWN	B&B
PCC	3	PRUNUS CALLERYANA 'CHANTICLEER'	CHANTICLEER FLOWERING PEAR	2.5-3" CAL.	AS SHOWN	B&B
QP	9	QUERCUS PALUSTRIS	PIN OAK	2.5-3" CAL.	AS SHOWN	B&B
TC	15	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5-3" CAL.	AS SHOWN	B&B
NS	12	NYSSA SYLVATICA 'GREEN GABLE'	GREEN GABLE TUPELO	2.5-3" CAL.	AS SHOWN	B&B
EVERGREEN TREES						
AC	31	ABIES CONCOLOR	WHITE FIR	7-8' HT.	AS SHOWN	B&B
CN	7	CHAMAECYPARIS NOOTKATENSIS 'GLAUCA PENDULA'	WEeping ALASKAN CEDAR	8-10' HT.	AS SHOWN	B&B
PPF	12	PICEA PUNGENS 'FAT ALBERT'	FAT ALBERT BLUE SPRUCE	7-8' HT.	AS SHOWN	B&B
PS	25	PINUS STROBUS	WHITE PINE	7-8' HT.	AS SHOWN	B&B
SHRUBS						
AZ	63	AZALEA 'DELAWARE VALLEY WHITE'	DELAWARE VALLEY WHITE AZALEA	#5	AS SHOWN	POT
BG	60	BUXUS 'GREEN GEM'	GREEN GEM BOXWOOD	2-2.5'	AS SHOWN	B&B
CA	48	CLETHRA ALNIFOLIA 'SIXTEEN CANDLES'	SIXTEEN CANDLES SUMMERSWEET	#7	AS SHOWN	POT
HYM	26	HYDRANGEA 'ENDLESS SUMMER'	ENDLESS SUMMER BLUE HYDRANGEA	#7	AS SHOWN	POT
HY	28	HYDRANGEA A. 'INCREDIBALL'	INCREDIBALL HYDRANGEA	#7	AS SHOWN	POT
IG	28	ILEX GLABRA 'DENSE'	DENSE INKBERRY	2-2.5'	AS SHOWN	B&B
JC	47	JUNIPERUS CHINENSIS 'MOUNTBATTEN'	COLUMNAR MOUNTBATTEN CHINESE JUNIPER	5-6' HT.	AS SHOWN	B&B
RN	21	RHODODENDRON 'NOVA ZEMBLA'	NOVA ZEMBLA RHODODENDRON	2.5-3' HT.	AS SHOWN	B&B
PJM	46	RHODODENDRON 'PJM'	PJM RHODODENDRON	2.5-3' HT.	AS SHOWN	B&B
RA	25	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	2.5-3' HT.	AS SHOWN	B&B
RK	51	ROSA BLUSHING KNOCK OUT	BLUSHING KNOCK OUT ROSE	#5	AS SHOWN	POT
RS	41	RHODODENDRON CAT. 'ALBUM'	RHODODENDRON CATAWBA	2.5-3' HT.	AS SHOWN	POT
SV	14	SYRINGA VULGARIS 'OLD GLORY'	OLD GLORY LILAC	5-6' HT.	AS SHOWN	B&B
VJ	11	VIBURNUM JUDDII	JUDD VIBURNUM	5-6' HT.	AS SHOWN	B&B
PERENNIALS/GRASSES						
AH	25	AMSONIA HUBRICHII	THREAD-LEAFED BLUESTAR	#2	24" O.C.	STAGGERED
AM	104	ALCHEMILLA MOLLIS	LADY'S MANTLE	#2	24" O.C.	STAGGERED
CK	44	CALAMAGROSTIS 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#5	30" O.C.	STAGGERED
DA	700	DAFFODIL KING ALFRED OR EQUAL	KING ALFRED DAFFODIL	BULBS	6" O.C.	STAGGERED
PV	18	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	#5	30" O.C.	STAGGERED
EP	63	ESCHINACEA PURPUREA 'POW WOW WILDBERRY'	PURPLE CONEFLOWER	#2	24" O.C.	STAGGERED
GJ	20	GERANIUM 'JOHNSON'S BLUE'	JOHNSON'S BLUE CRANESBILL	#2	24" O.C.	STAGGERED
LB	27	LEUCANTHEMUM 'SUPERBUM'	BECKY SHASTA DAISY	#2	24" O.C.	STAGGERED
MS	13	MISCANTHUS 'SINENSIS 'LITTLE ZEBRA'	LITTLE ZEBRA GRASS	#2	24" O.C.	STAGGERED
NW	59	NEPETA 'WALKER'S LOW'	WALKER'S LOW CATMINT	#2	24" O.C.	STAGGERED
PY	43	PEONY 'CORAL SUNSET'	CORAL SUNSET PEONY	#2	30" O.C.	STAGGERED
RF	52	RUDBECKIA FULGIDA 'GOLDSTURM'	BLACK EYED SUSAN	#1	24" O.C.	STAGGERED
SA	70	SEDUM 'AUTUMN FIRE'	AUTUMN FIRE SEDUM	#1	24" O.C.	STAGGERED
TU	630	TULIPA RED DARWIN HYBRID	RED IMPRESSION TULIP	BULBS	6" O.C.	STAGGERED

PLANTING SCHEDULE - TREES, SHRUBS FOR NATIVE BUFFER

DECIDUOUS AND FLOWERING TREES						
EVERGREEN TREES						
PS	30	PINUS STROBUS	EASTERN WHITE PINE	8-10' HT.	AS SHOWN	B&B
AF	38	ABIES FRASERI	FRASER FIR	8-10' HT.	AS SHOWN	B&B
TREES						
BP	13	BETULA PAPIRIFERA	PAPER BIRCH	3" CAL.	AS SHOWN	B&B
QA	3	QUERCUS ALBA	WHITE OAK	3" CAL.	AS SHOWN	POT
QR	9	QUERCUS RUBRA	RED OAK	3" CAL.	AS SHOWN	POT
SHRUBS						
KL	21	KALMIA LATIFOLIA	MOUNTAIN LAUREL	3-4' HT.	AS SHOWN	B&B
RM	28	RHODODENDRON MAXIMUM	ROSEBAY RHODODENDRON	4-5' HT.	AS SHOWN	B&B



drawing revisions:

No.	Description	Date
1	PROPOSED	03-24-2021
2	REVISION	05-11-2021
3	ADD PLAN SHEET	05-21-2021
4	REV. DEPT. PLAN SHEET	06-23-2021



TOPSOIL FOR LAWN, TREES, SHRUBS, & PERENNIALS 7
 NOT TO SCALE

TEXTURE CLASS	% OF TOTAL WEIGHT
SAND	45% - 65%
SILT	15% - 35%
CLAY	5% - 20%

SIEVE	% PASSING
3/8"	100
NO. 4	85-100
NO. 40	60-85
NO. 100	38-60
NO. 200	10-35
20 µm	LESS THAN 5%

NOTES:
 1. TOP OF LOAM (TOPSOIL) IS FINISH GRADE.
 2. ALL TOPSOIL (BOTH ONSITE AND OFFSITE SOURCES) SHALL BE COMPOSED OF A NATURAL, FERTILE, FRIBILE SOIL TYPICAL OF CULTIVATED TOPSOILS OF THE LOCALITY. OFFSITE SOIL SHALL BE SUITABLE FOR THE GERMINATION OF SEEDS AND SUPPORT OF VEGETATIVE GROWTH, WITH ADDITIVES, IF REQUIRED, TO ACHIEVE PARTICLE DISTRIBUTION AND ORGANIC CONTENT BELOW. TOPSOIL SHALL BE TAKEN FROM A WELL-DRAINED, ANTIABLE SITE, FREE OF SUBSOIL, LARGE STONES, EARTH CLODS, STICKS, STUMPS, CLAY LUMPS, ROOTS, OTHER OBJECTIONABLE, EXTRANEIOUS MATTER OR DEBRIS NOR CONTAIN TOXIC SUBSTANCES.
 3. THE CONTRACTOR SHALL PROVIDE THE OWNER / LANDSCAPE ARCHITECT WITH TOPSOIL TEST RESULTS (RECOMMEND UMMASS AMHERST SOIL TESTING LAB) FOR APPROVAL PRIOR TO OBTAINING AND PLACING THE SOIL. IF ANY TOPSOIL IS PURCHASED OR PLACED PRIOR TO APPROVAL BY OWNER / LANDSCAPE ARCHITECT, IT IS AT CONTRACTORS RISK, AND IT CAN BE REMOVED AT NO ADDITIONAL COST TO THE OWNER. IF THE PLANTING SOIL (BOTH ONSITE AND OFFSITE SOURCES) DOES NOT FALL WITHIN THE REQUIRED SIEVE ANALYSIS, TEXTURAL CLASS, ORGANIC CONTENT, OR PH RANGE, IT SHALL BE ADJUSTED TO MEET THE SPECIFICATIONS THROUGH THE ADDITION OF SAND, COMPOST, LIMESTONE, OR ALUMINUM SULFATE TO BRING IT WITHIN THE SPECIFIED LIMITS AT NO ADDITIONAL COST TO THE OWNER.
 4. TOPSOIL SHALL HAVE A PH VALUE BETWEEN 5.5 AND 6.5. TOPSOIL SHALL CONTAIN 8% ORGANIC MATTER OF TOTAL DRY WEIGHT AND SHALL CONFORM TO THE FOLLOWING GRADATION AND TEXTURE CLASS ABOVE.

EVERGREEN TREE DETAIL 3
 NOT TO SCALE

NOTES:
 1. TREES SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT BORE TO NURSERY OR FIELD GRADE. ROOT FLARE SHALL BE 2" ABOVE FINISH GRADE. REMOVE SOIL FROM TRUNK FLARE OF TREE TO DETERMINE ACTUAL TOP OF ROOTBALL AREA.
 2. INSTALL THREE GUYS PER TREE; EQUALLY SPACED AROUND BALL.
 3. ATTACH GUYS AT 2/3 HEIGHT OF TREE.
 4. BACKFILL WITH PLANTING MIX. PLANT MIX TO BE: 50% NATIVE TOPSOIL, 20% COMPOST (LEAVES & ORGANIC MATERIAL, NO ASH) 20% PEAT MOSS, 10% SAND.
 5. ADD MYCORRHIZA SOIL ADDITIVES AND SLOW RELEASE FERTILIZER WHEN PLANT HOLES ARE 50% FILLED AND WATER THOROUGHLY AT COMPLETION.

SHRUB PLANTING DETAIL 2
 NOT TO SCALE

NOTES:
 1. ALL SHRUBS SHALL HAVE THE SAME RELATIONSHIP TO FINISH GRADE AFTER PLANTING AS THEY HAD AT THE ORIGINAL NURSERY SETTING. SET SHRUB 1"-2" ABOVE FINISH GRADE.
 2. BACKFILL WITH PLANTING MIX. PLANT MIX TO BE: 50% NATIVE TOPSOIL, 20% COMPOST (LEAVES & ORGANIC MATERIAL, NO ASH) 20% PEAT MOSS, 10% SAND.
 3. ADD MYCORRHIZA SOIL ADDITIVES AND SLOW RELEASE FERTILIZER WHEN PLANT HOLES ARE 50% FILLED AND WATER THOROUGHLY AT COMPLETION.
 4. SHRUB BEDS TO HAVE 24" MIN. OF CONTINUOUS PLANTING SOIL.

LANDSCAPE STONE AROUND BUILDING DETAIL 1
 NOT TO SCALE

DECIDUOUS TREE DETAIL 6
 NOT TO SCALE

NOTES:
 1. ALL TREES SHALL HAVE THE SAME RELATIONSHIP TO FINISH GRADE AFTER PLANTING AS THEY HAD AT THE ORIGINAL NURSERY SETTING. ROOT FLARE SHALL BE 2" ABOVE FINISH GRADE. REMOVE SOIL FROM TRUNK FLARE OF TREE TO DETERMINE ACTUAL ROOTBALL AREA.
 2. BACKFILL WITH PLANTING MIX. PLANT MIX TO BE: 50% NATIVE TOPSOIL, 20% COMPOST (LEAVES & ORGANIC MATERIAL, NO ASH) 20% PEAT MOSS, 10% SAND.
 3. ADD MYCORRHIZA SOIL ADDITIVES AND SLOW RELEASE FERTILIZER WHEN PLANT HOLES ARE 50% FILLED AND WATER THOROUGHLY AT COMPLETION.

TEMP. CONST. FENCE / TREE PROTECTION 5
 NOT TO SCALE

NOTE:
 1. CONSTRUCTION FENCE TO BE "VISUAL BARRIER FENCE" AS MANUFACTURED BY EXXON CHEMICAL COMPANY ATLANTA, GA; "KONTROL SAFETY FENCE" AS MANUFACTURED BY MIRAFI, CHARLOTTE, N.C. OR APPROVED EQUAL.
 2. IF GROUPS OF TREES ARE TO BE PROTECTED, EXTEND FENCE AROUND PERIMETER TO CONFORM TO MINIMUM DIMENSIONS FOR TREE TRUNKS AND DRIPLINE.

NOT USED 4
 NOT TO SCALE

APPROXIMATE IRRIGATION AREAS 11
 SCALE: 1" = 100'-0"

NDS EZ ROLL GRASS PAVERS 8
 NOT TO SCALE

NDS, INC.
 851 NORTH HARVARD AVE.
 LINDSAY, CA 93247
 TOLL FREE: 1-800-726-1904
 PHONE: (559) 562-8888
 FAX: (559) 562-4488
 www.ndspro.com

EZ ROLL GRASS PAVER, PRODUCT DESCRIPTION
 STOCK ROLL SIZE: 3.9W X 24L (95.1 SF)
 3.9W X 152L (601.9 SQ. FT.)
 CUSTOM SIZES AVAILABLE UPON REQUEST: 1'4" X 152" (228 SQ. FT.)
 2' X 152" (304 SQ. FT.)
 NESTED HONEYCOMB CELLS 47,880 PSF
 LAYOUT COMPRESSIVE 400 PSF
 STRENGTH (OPEN CELL NO FILL) EXCEEDS 100 LBS/INCH

GRASS SEED OR SOD: TYPE TO BE AS SPECIFIED IN THE CONTRACT DOCUMENTS OR BY DESIGN LANDSCAPE ARCHITECT.
 SOIL INFILL: THE COMPOSITION OF THE MATERIAL WILL BE BASED ON LOCAL CONDITIONS AND DETERMINED BY THE LANDSCAPE ARCHITECT OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.

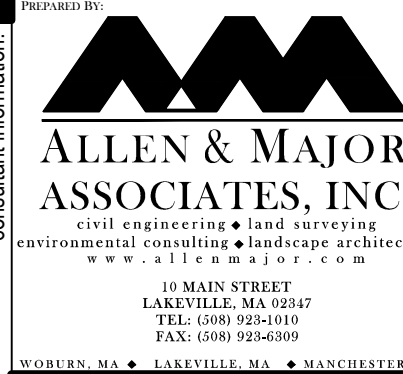
NOTES:
 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWING.
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
 4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

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drawing by: SL
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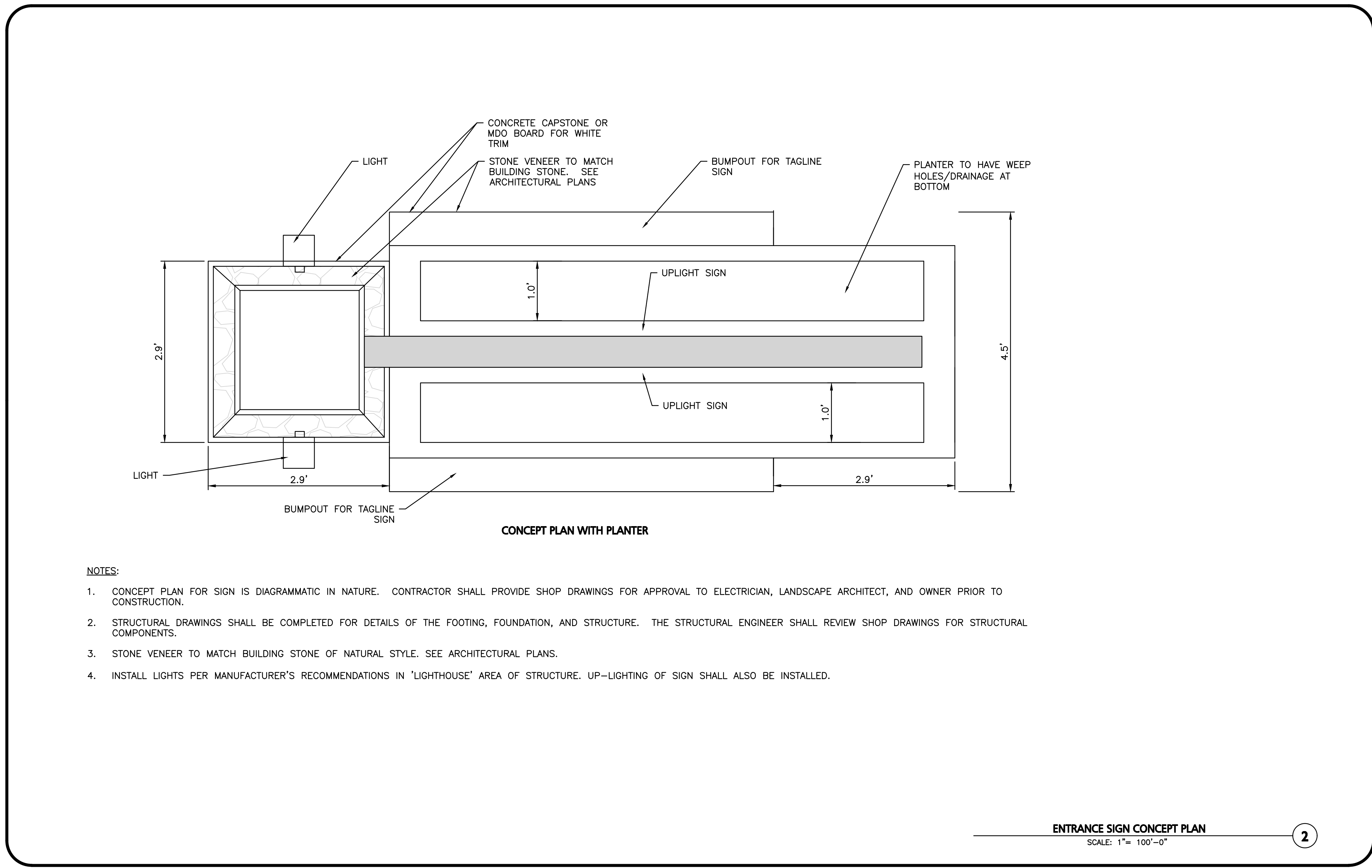
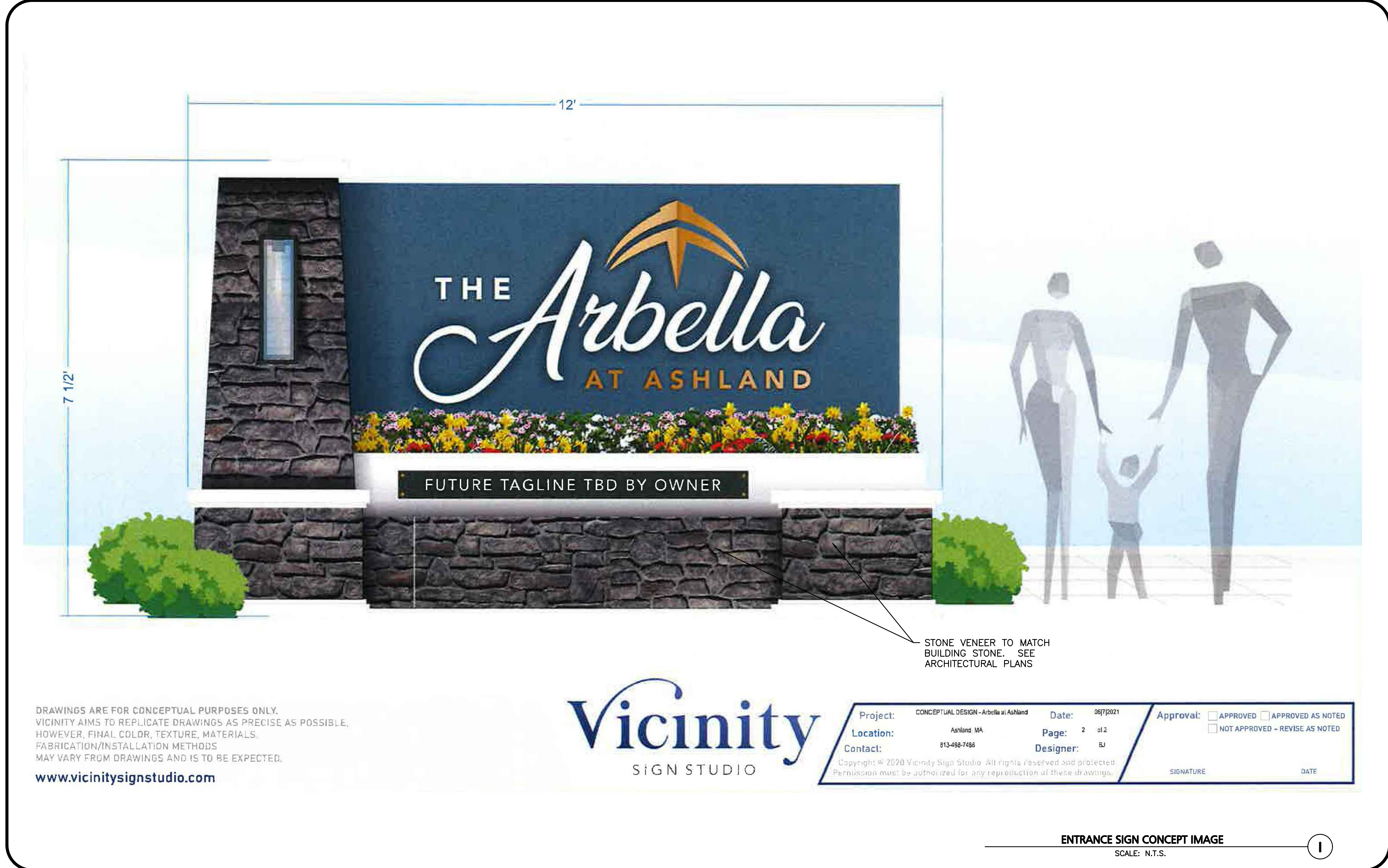
drawing revisions:

No.	Description	Date
1	ISSUED FOR PERMIT	03-24-2021
2	REVISIONS	05-11-2021
3	ADDED PLANT PALETTE	05-21-2021
4	PREPARED PLANT PALETTE	06-23-2021

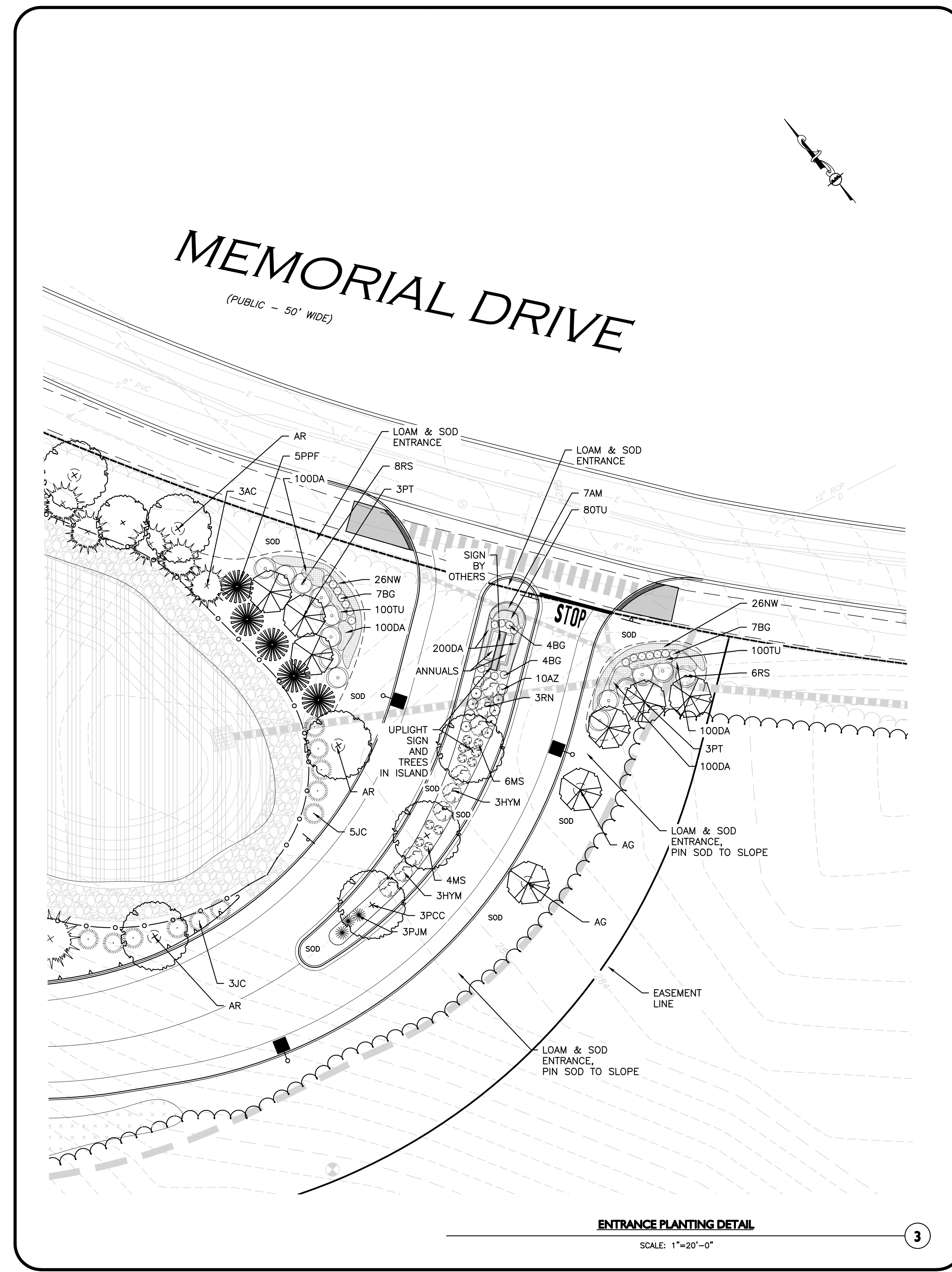


LANDSCAPE DETAILS

L-501A



- NOTES:
- CONCEPT PLAN FOR SIGN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL TO ELECTRICIAN, LANDSCAPE ARCHITECT, AND OWNER PRIOR TO CONSTRUCTION.
 - STRUCTURAL DRAWINGS SHALL BE COMPLETED FOR DETAILS OF THE FOOTING, FOUNDATION, AND STRUCTURE. THE STRUCTURAL ENGINEER SHALL REVIEW SHOP DRAWINGS FOR STRUCTURAL COMPONENTS.
 - STONE VENEER TO MATCH BUILDING STONE OF NATURAL STYLE. SEE ARCHITECTURAL PLANS.
 - INSTALL LIGHTS PER MANUFACTURER'S RECOMMENDATIONS IN 'LIGHTHOUSE' AREA OF STRUCTURE. UP-LIGHTING OF SIGN SHALL ALSO BE INSTALLED.



ADDITIONAL SEED MIX SPECIFICATIONS FOR DETENTION BASINS, AND ALL SLOPE AREAS: (AS NOTED ON THE PLAN)

SEED MIXES:

NEW ENGLAND WETLAND PLANTS
 820 WEST STREET, AMHERST, MA 01002
 PHONE: 413-548-8000 FAX 413-549-4000
 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM
NEW ENGLAND CONSERVATION/WILDLIFE MIX

BOTANICAL NAME	COMMON NAME	WETLAND INDICATOR
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	FACW
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
ANDROPOGON GERARDII	BIG BLUESTEM	FAC
FESTUCA RUBRA	RED FESCUE	FACU
SORGHASTRUM NUTANS	INDIAN GRASS	UPL
PANICUM VIRGATUM	SWITCH GRASS	FAC
CHAMAECRISTA FASCICULATA	PARTINGIDE PEA	FACU
DESMODIUM PANICULATUM	PANICLELEAF TICK TREFLOID	FACU
VERBENA HASTATA	BLUE VERVAIN	FACW
ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	FW
RUDEBECKIA HIRTA	BLACK EYED SUSAN	FACW
HELIENIUM AUTUMNALE	COMMON SNEEZEWEED	FACW+
ASTER PLOSIS (SYMPHYOTRICHUM PLOSIS)	HEATH ASTER	FACW+
SOLIDAGO JUNCEA	EARLY GOLDENROD	FACW
AGROSTIS PERENNANS	UPLAND BENTGRASS	FACU

THE NEW ENGLAND CONSERVATION/WILDLIFE MIX PROVIDES A PERMANENT COVER OF GRASSES, WILDFLOWERS, AND LEGUMES FOR BOTH GOOD EROSION CONTROL AND WILDLIFE HABITAT VALUE. THE MIX IS DESIGNED TO BE A NO MAINTENANCE SEEDING, AND IS APPROPRIATE FOR CUT AND FILL SLOPES, DETENTION BASIN SIDE SLOPES, AND DISTURBED AREAS ADJACENT TO COMMERCIAL AND RESIDENTIAL PROJECTS.

PRICE PER LB \$36.50 MIN. QUANTITY 2 LBS. TOTAL: \$73.00
 APPLY: 25 LBS/ACRE :1750 SQ FT/LB
 EROSION CONTROL BLANKET FOR SLOPES SEE LANDSCAPE NOTES

SEED MIXES:

NEW ENGLAND WETLAND PLANTS
 820 WEST STREET, AMHERST, MA 01002
 PHONE: 413-548-8000 FAX 413-549-4000
 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES

BOTANICAL NAME	COMMON NAME	INDICATOR
ELYMUS RIPARIUS	RIVERBANK WILD RYE	FACW
FESTUCA RUBRA	RED FESCUE	FACU
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
PANICUM VIRGATUM	SWITCH GRASS	FAC
ANDROPOGON GERARDII	BIG BLUESTEM	FAC
VERBENA HASTATA	BLUE VERVAIN	FACW
AGROSTIS PERENNANS	UPLAND BENTGRASS	FACU
BIGNES CERNUA	NODDING BUR MARIGOLD	OBL
EUPATORIUM FISTULOSUM	HOLLOW-STEM JOE PYE WEED	FACW
EUPATORIUM PERFORIATUM	SONSET	FACW
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	FACW
SCIRPUS CYPERINUS	WOOL GRASS	FACW
JUNCUS EFFUSUS	SOFT RUSH	FACW+

THE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES CONTAINS A SELECTION OF NATIVE GRASSES AND WILDFLOWERS DESIGNED TO COLONIZE GENERALLY MOIST, RECENTLY DISTURBED SITES WHERE QUICK GROWTH OF VEGETATION IS DESIRED TO STABILIZE THE SOIL SURFACE. IT IS AN APPROPRIATE SEED MIX FOR ECOLOGICALLY SENSITIVE RESTORATIONS THAT REQUIRE STABILIZATION AS WELL AS LONG-TERM ESTABLISHMENT OF NATIVE VEGETATION. THIS MIX IS PARTICULARLY APPROPRIATE FOR DETENTION BASINS THAT DO NOT HOLD STANDING WATER. MANY OF THE PLANTS IN THIS MIX CAN TOLERATE INFREQUENT INUNDATION, BUT NOT CONSTANT FLOODING. THE MIX MAY BE APPLIED BY HAND, BY MECHANICAL SPREADER, OR BY HYDROSEEDER AFTER SOWING, LIGHTLY RAKE, ROLL OR CULPACK TO INSURE GOOD SEED-TO-SOIL CONTACT. BEST RESULTS ARE OBTAINED WITH A SPRING OR LATE SUMMER SEEDING. LATE FALL AND WINTER DORMANT SEEDING REQUIRES AN INCREASE IN THE APPLICATION RATE. A LIGHT MULCHING OF CLEAN, WEED-FREE STRAW IS RECOMMENDED.

PRICE PER LB \$34.00 MIN. QUANTITY 3 LBS. TOTAL: \$102.00 APPLY: 35 LBS/ACRE :1250 SQ FT/LB

EROSION CONTROL BLANKET FOR SLOPES SEE LANDSCAPE NOTES

LOAM AND SODDING:

CONTRACTOR SHALL SOD AREAS NOTED ON THE PLANS OR AT ANY AREA DISTURBED BY CONSTRUCTION NOT NOTED TO BE ANOTHER MATERIAL.

SOD IS TO BE A BLEND OF FOUR TO FIVE CURRENT AND IMPROVED HYBRID BLUEGRASS AND FESCUE MIXES APPROPRIATE FOR BOTH SEMI-SHADED AND AREAS OF SUN.

HYBRIDS MAY INCLUDE: BLACKSTONE KENTUCKY BLUEGRASS, AWARD KENTUCKY BLUEGRASS, CHALLENGER KENTUCKY BLUEGRASS, BLACKBURG II KENTUCKY BLUEGRASS OR COMPARABLE AND EQUAL BLUEGRASS HYBRIDS.

- PROVIDE A&M A SHOP DRAWING FOR APPROVAL PRIOR TO ORDERING OF SOD.
- SOD SHALL BE HIGH QUALITY, NURSERY GROWN ON CULTIVATED MINERAL AGRICULTURAL SOILS. SOD SHALL BE MOIST, AND MACHINE CUT AT A UNIFORM SOIL THICKNESS OF AT LEAST 5/8" AT TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL INCLUDE TOP GROWTH AND THATCH. SOD SHALL BE FREE OF DISEASES, WEEDS, BARE SPOTS, OR INSECTS.
- SODDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RE-SODDING OF BARE SPOTS. IF UNABLE TO SOD WITHIN THESE TIMEFRAMES, CONTRACTOR TO INSTALL EROSION CONTROL MATS ON ALL SLOPES 3:1 AND OVER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER "FLUX TERRA HP-FGM SOIL STABILIZER" AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE), AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO COMPLETE ALL ABOVE "OUT OF SEASON" REQUIREMENTS AND THEN ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SODDING ALL DISTURBED, ERODED, OR BARE SPOTS WITHIN NEXT CLOSEST PLANTING SEASON IN FALL OR SPRING AT NO ADDITIONAL COST TO OWNER. CONTRACTOR RESPONSIBLE FOR ALL MAINTENANCE UNTIL FINAL ACCEPTANCE OF LAWN AREAS INCLUDING: WATERING, ADDING FERTILIZERS AND LIME AND MOWING AT NO ADDITIONAL COST TO OWNER.
- COMMERCIAL FERTILIZER SHALL BE APPLIED AT THE RATE OF 25 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. LIME TO BE APPLIED AT THE RATE OF 100 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FERTILIZER CONTAINING AT LEAST 50% OF THE NITROGEN OF WHICH IS DERIVED FROM NATURAL ORGANIZE SOURCES OF UREAFORM. IT SHALL CONTAIN THE FOLLOWING PERCENTAGES BY WEIGHT: NITROGEN (N) 10%, PHOSPHORUS (P) 6%, POTASH (K) 4%. LIME SHALL BE AN APPROVED AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES. LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT 50% WILL PASS A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 20 MESH SIEVE.
- CONTRACTOR RESPONSIBLE FOR WATERING, MOWING, AND RE-SODDING OF LAWN BARE SPOTS UNTIL A UNIFORM, HEALTHY STAND OF GRASS IS ESTABLISHED AND ACCEPTED. IF PROPOSED IRRIGATION SYSTEM IS NOT OPERATIONAL, LANDSCAPE CONTRACTOR RESPONSIBLE TO WATER WITH TEMPORARY IRRIGATION OR WATER TRUCKS UNTIL IRRIGATION SYSTEM IS OPERATIONAL AT NO ADDITIONAL COST.

DIG SAFE



BEFORE YOU DIG
 CALL 811 OR
 1-888-DIG-SAFE
 1-888-344-7233

SEED MIXES:

NEW ENGLAND WETLAND PLANTS
 820 WEST STREET, AMHERST, MA 01002
 PHONE: 413-548-8000 FAX 413-549-4000
 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES

BOTANICAL NAME	COMMON NAME	WETLAND INDICATOR
ELYMUS CANADENSIS	CANADA WILD RYE	FACU+
FESTUCA RUBRA	RED FESCUE	FACU
LOLIUM MULTIFLORUM	ANNUAL RYEGRASS	FAC
LOLIUM PERENNE	PERENNIAL RYEGRASS	FAC
PANICUM VIRGATUM	SWITCH GRASS	FAC
SORGHASTRUM NUTANS	INDIAN GRASS	UPL
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
AGROSTIS PERENNANS	UPLAND BENTGRASS	FACU

THE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES PROVIDES AN APPROPRIATE SELECTION OF NATIVE AND NATURALIZED GRASSES TO ENSURE THAT DRY AND RECENTLY DISTURBED SITES WILL BE QUICKLY REVEGETATED AND THE SOIL SURFACE STABILIZED. IT IS AN APPROPRIATE SEED MIX FOR ROAD CUTS, PIPELINES, STEEPER SLOPES, AND AREAS REQUIRING QUICK COVER DURING THE ECOLOGICAL RESTORATION PROCESS. THE MIX MAY BE APPLIED BY HYDRO-SEEDING, BY MECHANICAL SPREADER, OR ON SMALL SITES IT CAN BE SPREAD BY HAND, LIGHTLY RAKE, OR ROLL TO ENSURE PROPER SOIL-SEED CONTACT. BEST RESULTS ARE OBTAINED WITH A SPRING OR LATE SUMMER SEEDING. LATE SPRING THROUGH MID-SUMMER SEEDING WILL BENEFIT FROM A LIGHT MULCHING OF WEED-FREE STRAW TO CONSERVE MOISTURE. IF CONDITIONS ARE DRIER THAN USUAL, WATERING WILL BE REQUIRED. FERTILIZATION IS NOT REQUIRED UNLESS THE SOILS ARE PARTICULARLY INFERTILE. PREPARATION OF A CLEAN WEED FREE SEED BED IS NECESSARY FOR OPTIMAL RESULTS.

PRICE PER LB \$15.00 MIN. QUANTITY 5 LBS. TOTAL: \$75.00
 APPLY: 35 LBS/ACRE :1250 SQ FT/LB

EROSION CONTROL BLANKET FOR SLOPES SEE LANDSCAPE NOTES

LANDSCAPE NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF ASHLAND, MA.
- PLANTING PLAN IS DIAGRAMMATIC IN NATURE. FINAL PLACEMENT OF PLANTS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES, ANY PERMITTING AGENCIES, AND "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS IN ADVANCE OF ANY WORK THAT WILL REQUIRE EXCAVATION. CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY CONFLICTS IN WRITING.
- NO PLANT MATERIAL SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA, ANY TREES NOTED AS "SEAL OR SELECTED SPECIMEN" SHALL BE TAGGED AND SEALED BY THE LANDSCAPE ARCHITECT.
- ALL TREES SHALL BE BALLED AND BURLAPPED (B&B) UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON PLANT LIST. QUANTITIES SHOWN ON PLANS SHALL GOVERN OVER PLANT LIST.
- ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS INSTALLED SHALL MEET THE GUIDELINES ESTABLISHED BY THE STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE. ANY PLANT MATERIALS WHICH DIE WITHIN THE ONE YEAR PLANT GUARANTEE PERIOD WILL BE REPLACED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNERS. OWNERS TO COORDINATE DIRECTLY WITH THE LANDSCAPE CONTRACTOR FOR REPLACEMENT PLANTINGS.
- ALL DISTURBED AREAS NOT OTHERWISE NOTED SHALL RECEIVE 6" OF SUITABLE LOAM & SEED.
- LAWNS OR SEED MIX WITH 3:1 OR STEEPER (GREATER) SLOPES SHALL BE PROTECTED WITH JUTE EROSION CONTROL NETTING.
- ANY FALL TRANSPANTING HAZARD PLANTS SHALL BE DUG IN THE SPRING AND STORED FOR FALL PLANTING.
- TREES SHALL HAVE A MINIMUM CALIPER AS INDICATED ON THE PLANTING SCHEDULE TAKEN ONE FOOT ABOVE THE ROOT CROWN.
- ALL PLANT BEDS AND TREE SAUCERS TO RECEIVE 3" OF PINE BARK MULCH. GROUND COVER AREAS SHALL RECEIVE 1" OF PINE BARK MULCH
- ALL DECIDUOUS TREES ADJACENT TO WALKWAYS AND ROADWAYS SHALL HAVE A BRANCHING PATTERN TO ALLOW FOR A MINIMUM OF 7" OF CLEARANCE BETWEEN THE GROUND AND THE LOWEST BRANCH.
- ALL TREE STAKES SHALL BE STAINED DARK BROWN.
- CONTRACTOR RESPONSIBLE FOR WATERING, MAINTENANCE, FERTILIZING, AND RESEEDING OF LAWN BARE SPOTS UNTIL A UNIFORM STAND OF VEGETATION IS ESTABLISHED AND ACCEPTED.
- ALL PARKING ISLANDS PLANTED WITH SHRUBS OR PERENNIALS SHALL HAVE 24" OF TOPSOIL. FINISH GRADE SHALL BE EQUAL TO THE TOP OF CURB.
- SOIL SAMPLES, TESTS, AND SHOP DRAWINGS SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT OR THE OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
- A MINIMUM 18" WIDE BARRIER OF 1" GRAY OR TAN PEASTONE SHALL BE INSTALLED IN ALL PLANT BEDS WHICH ABUT THE BUILDINGS. NO MULCH IS ALLOWED WITHIN 18" OF ALL BUILDINGS PER THE EXECUTIVE OFFICE OF PUBLIC SAFETY AND SECURITY DEPARTMENT OF FIRE SERVICES REGULATION (527 CMR 17.00). INSTALL 4" DEEP OF PEASTONE WITH MIRAFI WEED FABRIC BENEATH AND STEEL EDGING BETWEEN THE PEASTONE AND ADJACENT MULCH BED. PROVIDE SHOP DRAWINGS TO A&M FOR APPROVAL PRIOR TO PURCHASE OF PEASTONE, MIRAFI WEED FABRIC & STEEL EDGING.
- ALL PROPOSED LANDSCAPE AREAS INCLUDING MOWED LAWNS, TREES, SHRUB BEDS, PERENNIALS, AND ANNUALS SHALL BE PROVIDED WITH WATER EFFICIENT UNDERGROUND IRRIGATION. DESIGN AND INSTALLATION OF IRRIGATION SYSTEM TO BE PERFORMED BY AN APPROVED IRRIGATION DESIGN BUILD CONTRACTOR OR BY AN APPROVED EQUAL, TO BE DETERMINED BY THE OWNERS REPRESENTATIVE AND LANDSCAPE ARCHITECT. IRRIGATION SYSTEM IS TO BE DESIGNED FOR EFFICIENT WATER USAGE INCLUDING: USE OF DRIP IRRIGATION FOR TREES, SHRUBS AND PERENNIALS, IRRIGATION SYSTEM WITH HEAD-TO-HEAD COVERAGE, A CENTRAL SHUT-OFF VALVE, SEPARATE ZONES FOR EACH TYPE OF BEDDING AREA BASED ON WATERING NEEDS, AND A RAIN SENSOR TO SHUT OFF IRRIGATION DURING RAIN EVENTS.
- PRIOR TO LAYING TOPSOIL, ALL SUBSOIL (BELOW PROPOSED TOPSOIL) TO BE TILLED TO A DEPTH OF AT LEAST 18" TO REMOVE CONSTRUCTION COMPACTION AND ALLOW FOR PROPER DRAINAGE OF TOPSOILS.

22. SEEDING OF DETENTION AREAS & OTHER SLOPE AREAS SHALL OCCUR IN THE DRY & AFTER SLOPES ARE COMPACTED. IT IS IMPORTANT THAT THE DETENTION BASIN BE SEED AT THE BEGINNING OF THE PROJECT & PRIOR TO ANY DRAINAGE BEING DIRECTED TOWARDS THE BASIN. THE SEED AT DETENTION AREAS & OTHER SLOPED AREAS WILL NEED A MIN. OF 8 MONTHS TO INITIALLY ESTABLISH PRIOR TO THE DETENTION BASIN BEING UTILIZED SO THAT THERE IS NOT EROSION & SLOPE FAILURE. SEED MIXES AVAILABLE FROM NEW ENGLAND WETLAND PLANTS, 820 WEST ST., AMHERST, MA, 413-548-8000. LIGHTLY RAKE SOIL TO ENSURE GOOD SEED-TO-SOIL CONTACT. SEE SEED MIX DETAIL NOTES.

ALL SEEDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RE-SEEDING OF BARE SPOTS. AT ALL SLOPED AREAS CONTRACTOR TO INSTALL COCONUT FIBER JUTE MESH NETTING ON ALL SLOPES 3:1 AND OVER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER "FLUX TERRA HP-FGM SOIL STABILIZER" AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE), AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SEEDING ALL DISTURBED, ERODED, OR BARE SPOTS AT NO ADDITIONAL COST TO OWNER & UNTIL SLOPES ARE FULLY STABLE. CONTRACTOR RESPONSIBLE FOR ALL MAINTENANCE UNTIL FINAL ACCEPTANCE OF LAWN AREAS INCLUDING: WATERING, ADDING FERTILIZERS AND LIME AND MOWING AT NO ADDITIONAL COST TO OWNER.

AFTER SEEDING, ALL AREAS TO BE LIGHTLY MULCHED WITH WEED FREE STRAW & CONTINUALLY WATERED EVERY DAY UNTIL SEED IS ESTABLISHED & APPROVED BY A&M LANDSCAPE ARCHITECT (USE NO HAY) SO THAT SEED IS KEPT MOIST. FOR SPREADING OF THE SEED WITH DRY DETENTION BASINS, WATER LEVELS MAY BE LOWERED IN THE DETENTION AREAS BY RELYING ON DRY SEASON AND OR DRY SPELLS; OR MAY BE ACCOMPLISHED THROUGH THE USE OF DEWATERING METHODS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ANY DEWATERING METHODS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. WATER FROM ANY DEWATERING OPERATION SHALL BE TREATED TO REDUCE TOTAL SUSPENDED SOLIDS AND BE IN COMPLIANCE WITH STATE AND FEDERAL STANDARDS.

SPREAD THE NEW ENGLAND SEED MIXES AT AREAS SHOWN ON THE PLAN. SEE SEED MIX DETAIL NOTES. SEED MIXES AVAILABLE FROM NEW ENGLAND WETLAND PLANTS, 820 WEST ST., AMHERST, MA, 413-548-8000. LIGHTLY RAKE SOIL TO ENSURE GOOD SEED-TO-SOIL CONTACT.

LOAM AND SEEDING NOTES:

CONTRACTOR SHALL SEED ALL DISTURBED AREAS NOT NOTED TO RECEIVE OTHER MATERIALS, AND AT AREAS SHOWN ON THE PLAN PER SPECIFICATIONS BELOW

SCIENTIFIC NAME	COMMON NAME	PROPORTION BY WEIGHT	PERCENT PURITY	PERCENT GERMINATION
FESTUCA RUBRA "RUBRA"	CREeping RED FESCUE	37%	95%	90%
PAO PRARENTENSIS "BARON"	BARON KENTUCKY BLUEGRASS	40%	85%	90%
LOLIUM PERENNE "PALMER"	PALMER PERENNIAL RYEGRASS	15%	95%	90%
FESTUCA RUBRA COMMUTATA WILMA	WILMA CHEWINGS	8%	95%	80%

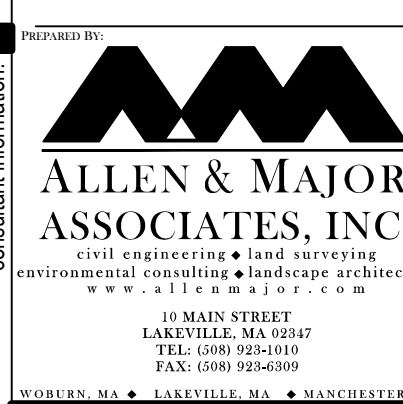
- SEED TO BE SPREAD AT MINIMUM RATE OF 5 LBS. PER 1000 SQ. FT.
- SEEDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RESEEDING OF BARE SPOTS. IF UNABLE TO SEED WITHIN THESE TIMEFRAMES, CONTRACTOR TO INSTALL EROSION CONTROL MATS ON ALL SLOPES 3:1 AND OVER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER "FLUX TERRA HP-FGM SOIL STABILIZER" AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE), AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO COMPLETE ALL ABOVE "OUT OF SEASON" REQUIREMENTS AND THEN ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SEEDING ALL DISTURBED, ERODED, OR BARE SPOTS WITHIN NEXT CLOSEST PLANTING SEASON IN FALL OR SPRING AT NO ADDITIONAL COST TO OWNER. CONTRACTOR RESPONSIBLE FOR ALL MAINTENANCE UNTIL FINAL ACCEPTANCE OF LAWN AREAS INCLUDING: WATERING, ADDING FERTILIZERS AND LIME AND MOWING AT NO ADDITIONAL COST TO OWNER.
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- LAWN AREAS TO BE SEED BY SOWING EVENLY WITH AN APPROVED MECHANICAL SEEDER AT THE RATE OF TEN POUNDS PER 1000 SQUARE FEET.
- CONTRACTOR RESPONSIBLE FOR WATERING, MOWING, AND RESEEDING OF LAWN BARE SPOTS UNTIL A UNIFORM, HEALTHY STAND OF GRASS IS ESTABLISHED AND ACCEPTED.

Arbella at Ashland

Memorial Drive
 Ashland, MA 01721

U A Senior LLC

Rensselaer
 Technology Park
 300 Jordan Road
 Troy, NY 12180



PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.

COMPREHENSIVE PERMIT NOT FOR CONSTRUCTION

drawing by: SL
 drawing checked by: AD
 drawing scale: 1" = 10'
 drawing date: 04 SEPTEMBER 2020
 project number: 19021.00

drawing revisions:

No.	Description	Date
1	DESIGN REVIEW	03-24-2021
2	COMMENTS	05-11-2021
3	ADD PLAN SHEETS	05-21-2021
4	PREPPT PLAN SHEETS	06-23-2021



LANDSCAPE NOTES

L-502