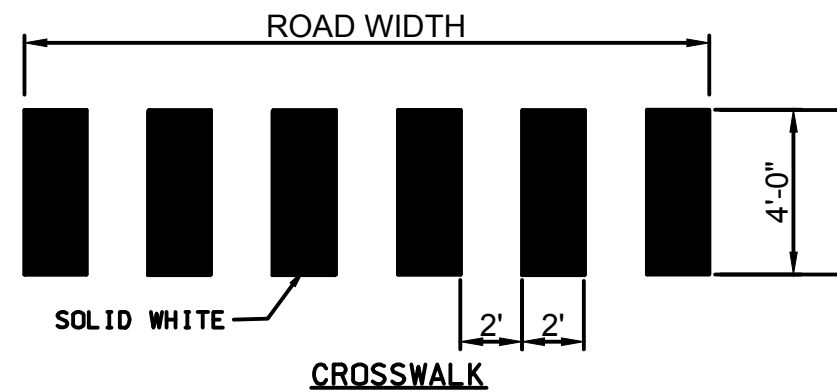
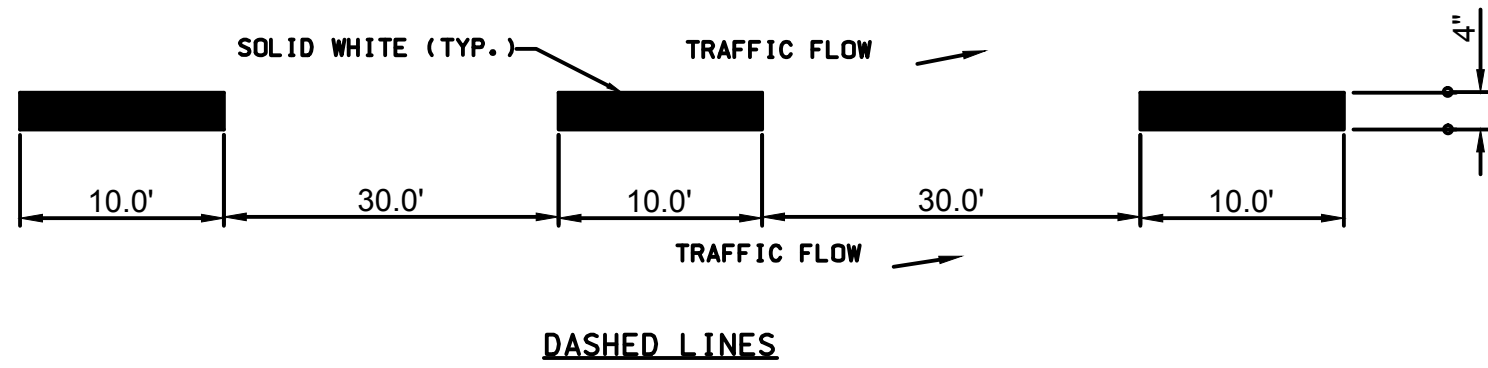
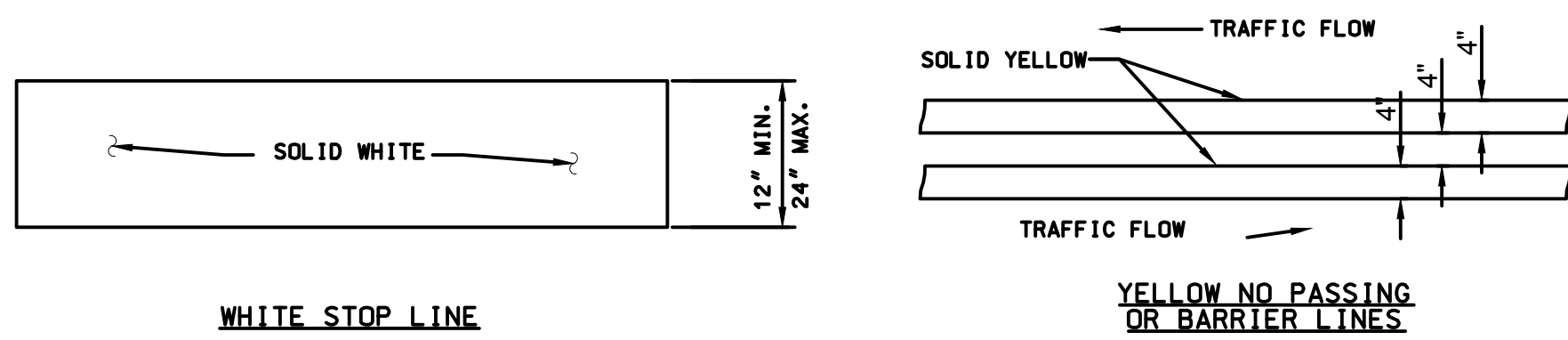
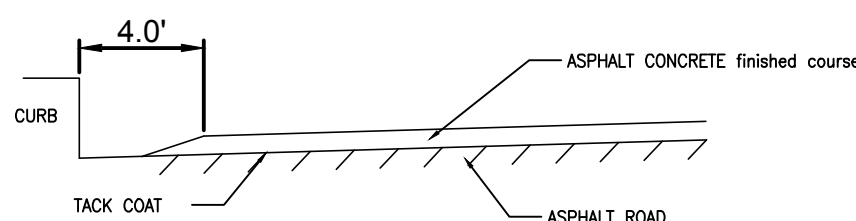
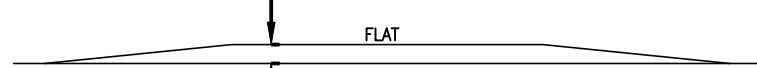
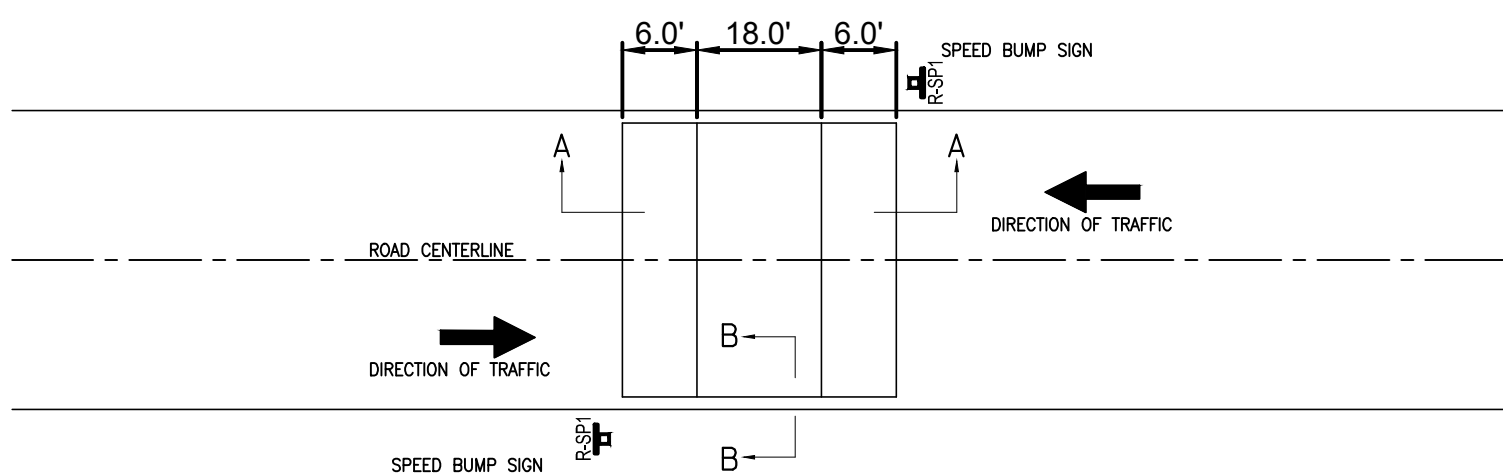
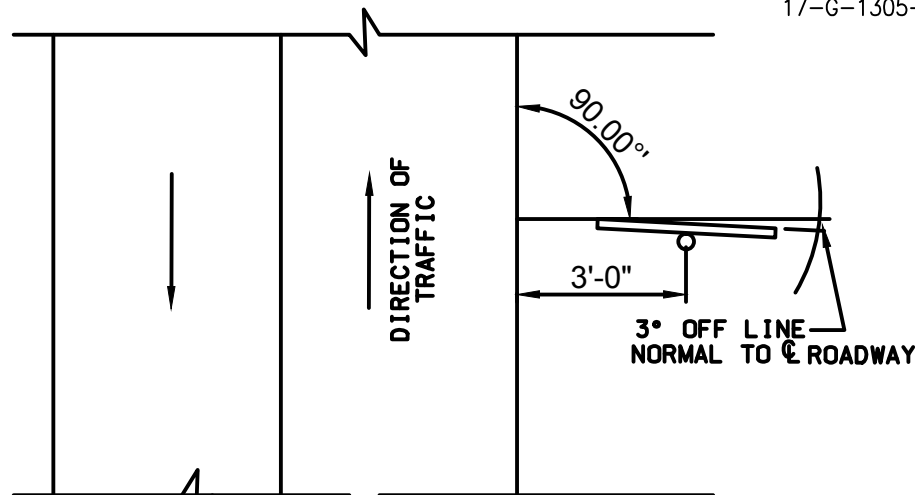




1 TYPICAL PAVEMENT MARKINGS
17-G-1305-D-12 N.T.S.

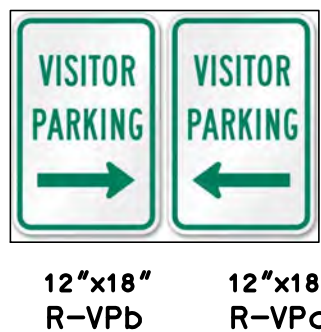
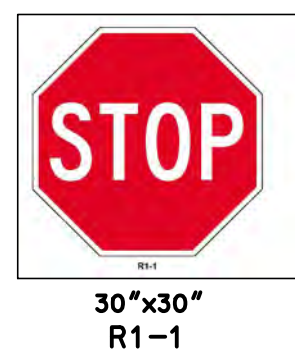


4 SPEED HUMP
17-G-1305-D-12 N.T.S.



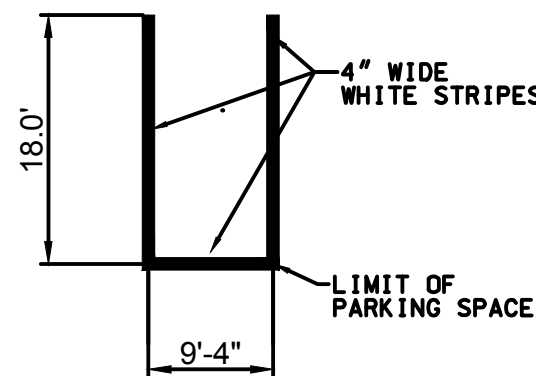
NOTE: SIGN SHALL BE POSITIONED TO ELIMINATE OR MINIMIZE SPECULAR REFLECTION DUE TO THE NUMEROUS VARIATIONS IN ROAD CURVES AND GRADES. A GENERAL RULE IS NOT ALWAYS APPLICABLE.

5 TYPICAL SIGNS POSITIONING
17-G-1305-D-12 N.T.S.

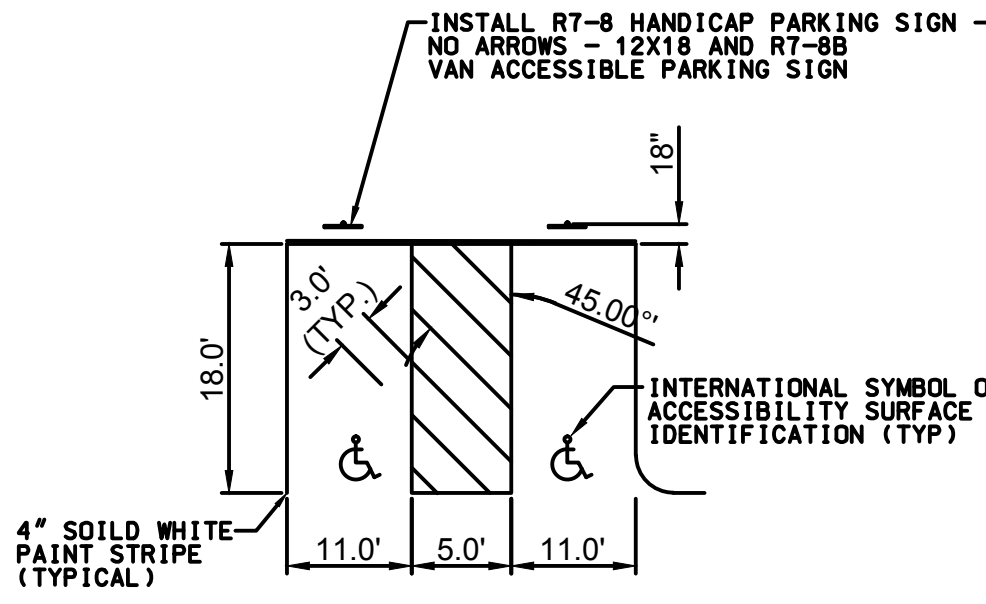


NOTES:
1. ALL SIGNS SHALL BE HIGH VISIBILITY AND HIGH LEGIBILITY BY DAY AND NIGHT.
2. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

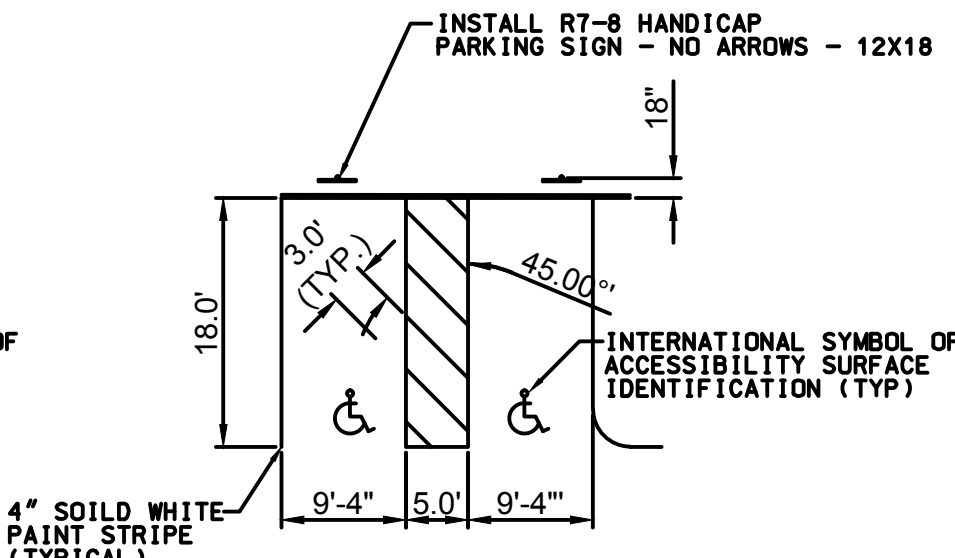
2 TYPICAL SIGNS
17-G-1305-D-12 N.T.S.



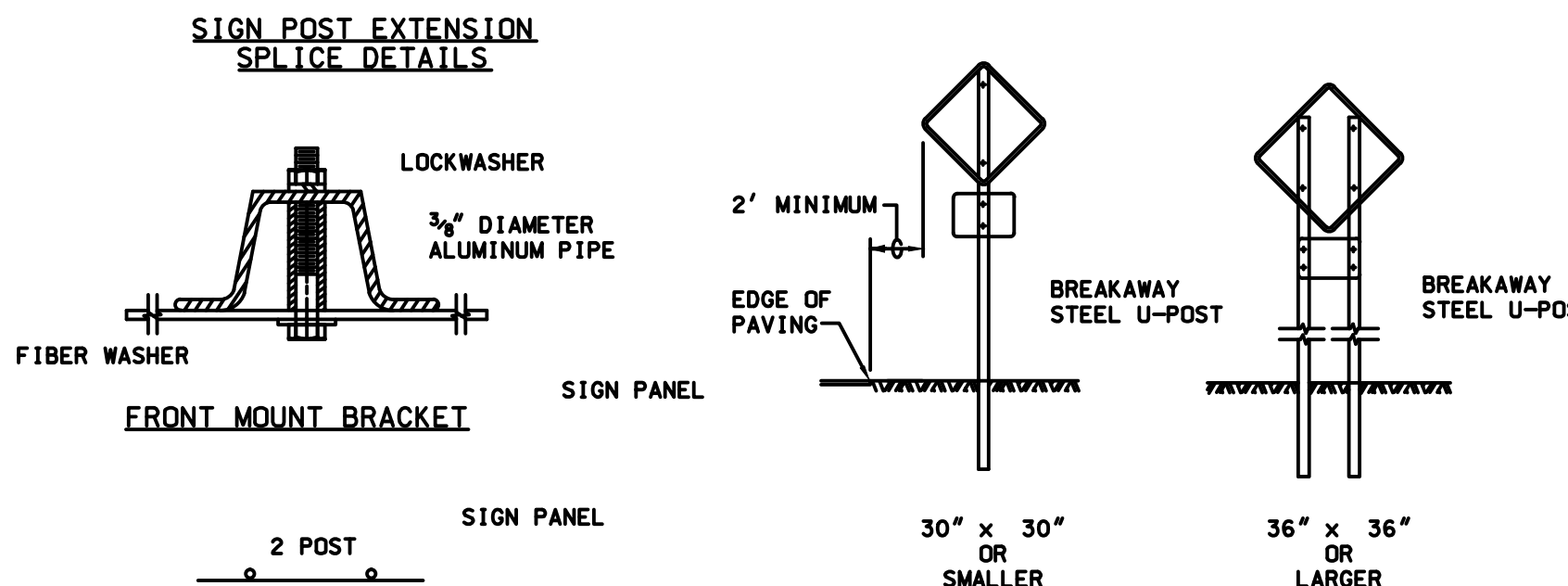
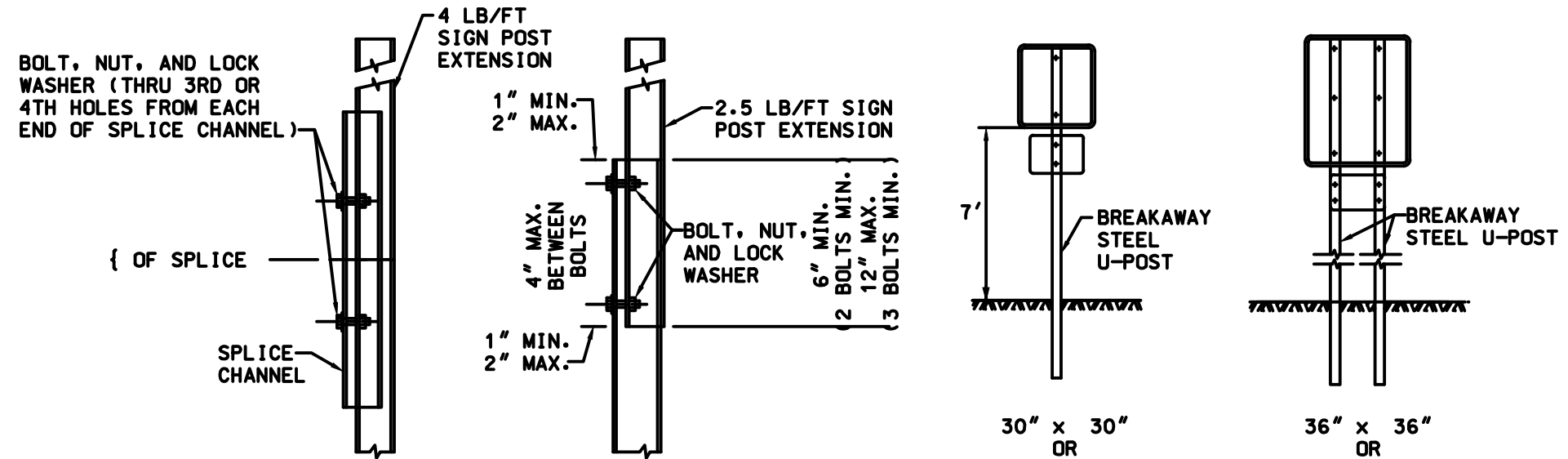
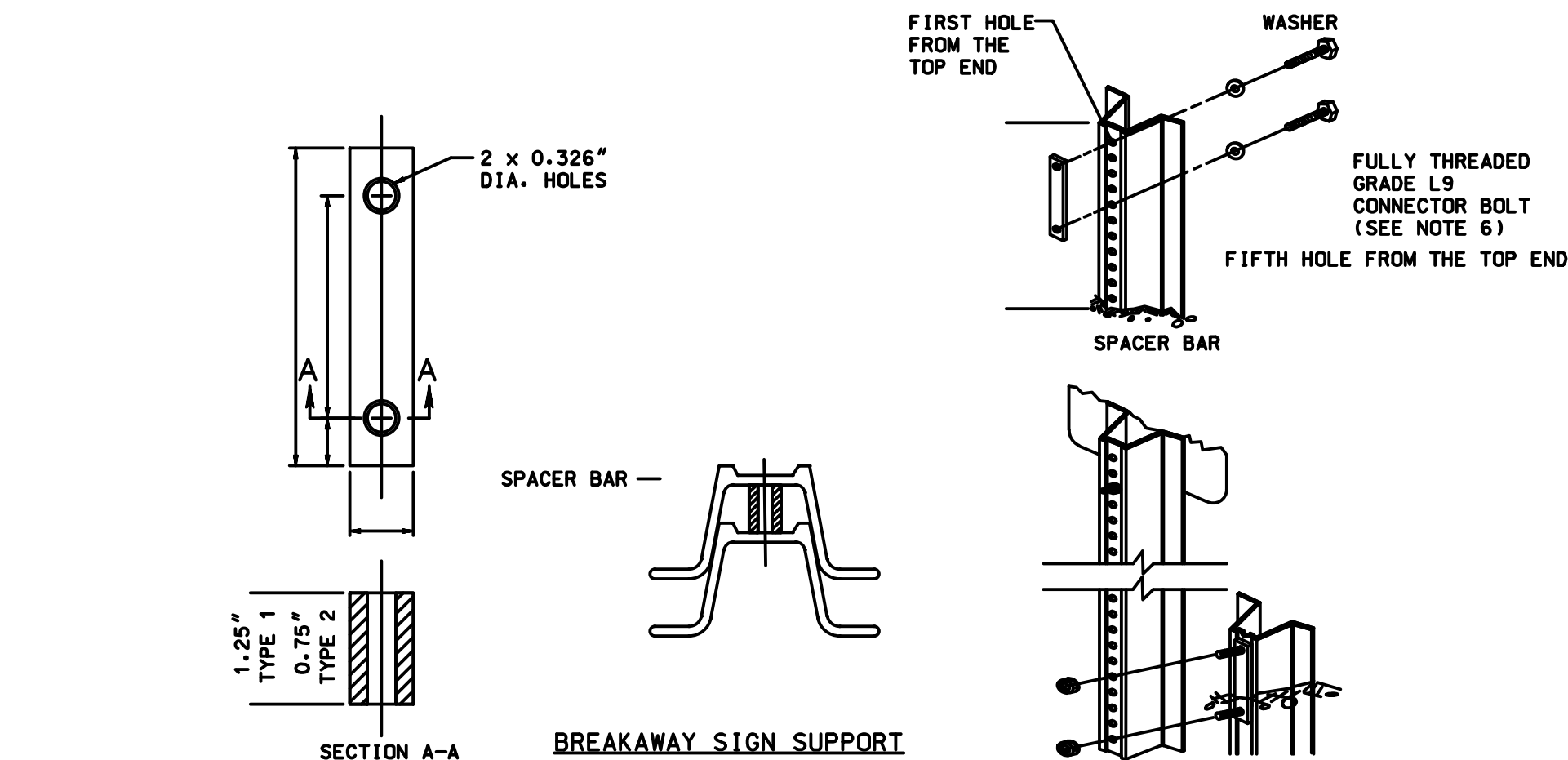
6 TYPICAL PARKING SPACE STRIPING
17-G-1305-D-12 N.T.S.



7 VAN ACCESSIBLE PARKING
17-G-1305-D-12 N.T.S.



8 ACCESSIBLE PARKING
17-G-1305-D-12 N.T.S.



PANEL SIZE (W x H)	# OF POST SIZE (LB/ FT)
18" x 18"	1 2.5
18" x 24"	1 2.5
24" x 24"	1 2.5
24" x 30"	1 2.5

U-POST SELECTION TABLE
BREAKAWAY SIGN SUPPORT

- NOTES:
1. DRIVE ANCHOR POST ASSEMBLY TO WITHIN APPROXIMATELY 12 INCHES ABOVE GROUND LEVEL. PLACE BOLT AND WASHER IN FIRST AND FIFTH HOLES FROM THE TOP END, AND SECURE BOLTS ONTO SPACER.
 2. DRIVE ANCHOR POST ASSEMBLY TO WITHIN A MAXIMUM OF 6 INCHES ABOVE GROUND LEVEL.
 3. DIG OUT AROUND BACK OF ANCHOR POST ASSEMBLY TO ALLOW ROOM FOR TOP POST TO BE ATTACHED.
 4. NEST TOP POST ASSEMBLY ONTO PROTRUDING ANCHOR POST ASSEMBLY BOLTS, THROUGH THE FIRST AND FIFTH HOLES FROM THE BOTTOM OF THE TOP POST.
 5. PLACE AND TIGHTEN A SELF-LOCKING FLANGE NUT ON EACH BOLT. WHEN INSTALLATION IS COMPLETE, TOP OF GROUND POST SHALL NOT EXCEED 6 INCHES ABOVE GROUND LEVEL.
 6. SIZE OF CONNECTOR BOLT FOR TYPE 1, 5/16" x 1 1/2". SIZE OF CONNECTOR BOLT FOR TYPE 2, 5/16" x 2".
 7. THE CONNECTOR BOLTS SHALL BE FULLY THREADED. EACH CONNECTOR BOLT AND NUT SHALL BE CLEARLY STAMPED WITH MANUFACTURER'S IDENTIFYING MARK.

- GENERAL NOTES:
1. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND AS INDICATED BELOW.
 2. ALL SIGN SUPPORTS SHALL BE OF THE BREAKAWAY TYPE WITH EXCEPTION OF THOSE INSTALLED BEHIND GUIDE RAIL OR OTHER ROADSIDE BARRIER.
 3. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT, AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT ASTM A123.
 4. ALL STEEL U-POST SIGN SUPPORTS MUST BE INSTALLED FACING THE PREDOMINANT TRAFFIC FLOW. A MOUNTING BRACKET SHOULD BE USED ON SIDE MOUNTED SIGNS SUCH AS "ONE WAY" SIGNS INSTALLED IN MEDIANS.
 5. SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBER AS SHOWN ON THIS DETAIL.
 6. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT, BUT SHALL ENGAGE ALL THREADS IN THE NUT.
 7. WHEN SIGNS ARE INSTALLED ON SLOPES 10H:1V OR FLATTER, THE MINIMUM VERTICAL CLEARANCE REQUIREMENTS FOR SIGNS ARE 5".
FOR SINGLE POST INSTALLATIONS - THE MINIMUM DISTANCE BETWEEN THE EDGE OF THE PAVEMENT AND THE BOTTOM OF ANY PANEL MUST BE 7 FEET. AND THE MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO THE TOP OF ANY SIGN PANEL MUST BE 9 FEET.
FOR MULTI-POST INSTALLATIONS - THE MINIMUM DISTANCE BETWEEN THE EDGE OF PAVEMENT AND THE BOTTOM OF A MAJOR SIGN PANEL MUST BE 7 FEET.
- SECONDARY SIGN PANELS (LAND SERVICE HIGHWAYS) - THE MINIMUM DISTANCE BETWEEN THE EDGE OF PAVEMENT AND THE BOTTOM OF A SECONDARY SIGN PANEL IS 6 FEET.
8. EXTRUDED ALUMINUM SIGN PANELS ARE NOT PERMITTED FOR USE WITH STEEL U-POST SIGN SUPPORTS.
 9. STEEL U-POST SIGN SUPPORTS SHALL NOT BE PLACED IN FRONT OF GUIDE RAIL AND THE POSTS MUST NOT STRADDLE GUIDE RAIL.

Rev #	Date	Description	Drawn By	Rev #	Date	Description	Drawn By
A	08 Oct 2018	ISSUED FOR PERMIT	JR				

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81 Columbia Turnpike
Rensselaer, NY 12144

Scale: AS NOTED

Bldg.:

SITE SIGNAGE DETAILS

File No.: 17-G-1305-D-12.DWG

Date: 8/10/2018

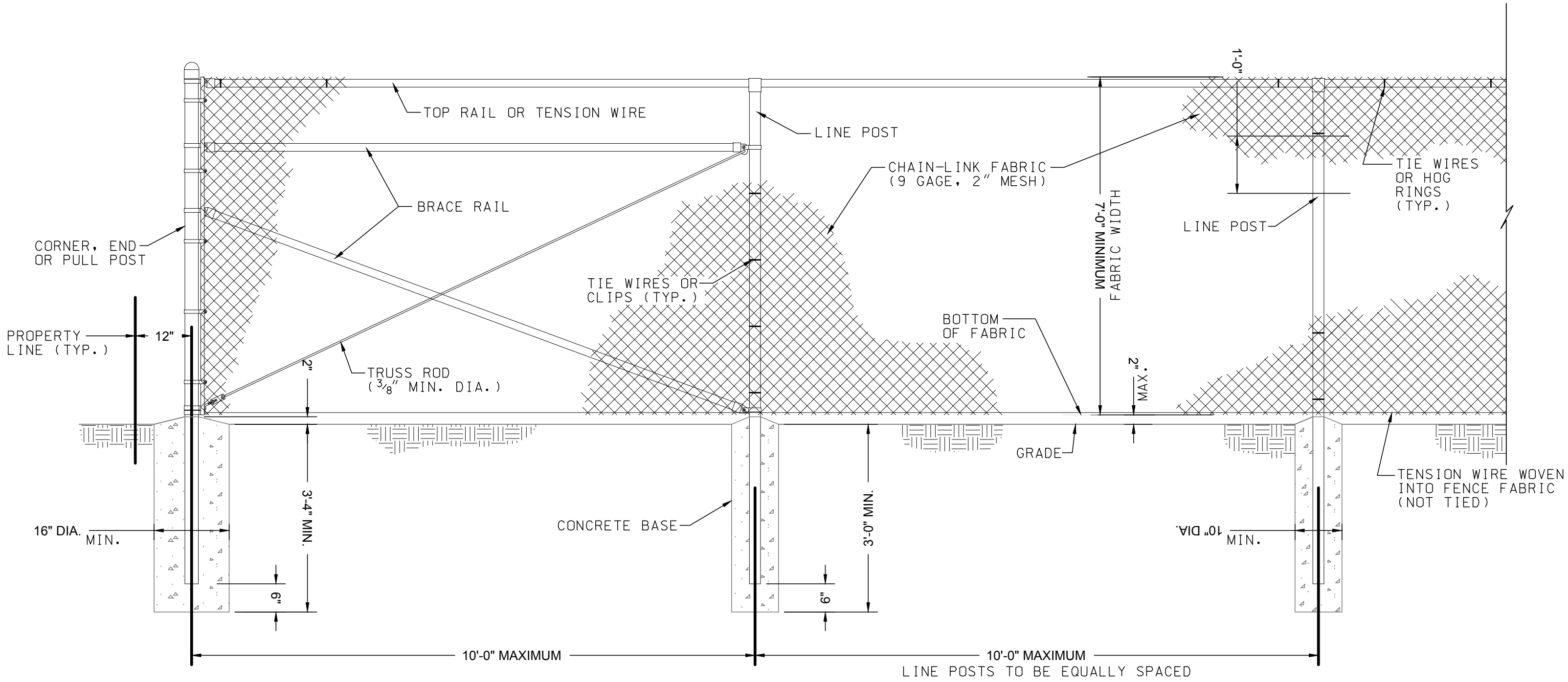
Planning Board-Town of East Greenbush
BY DIRECTION OF
CHAIRMAN OF THE PLANNING
BOARD THESE PLANS ARE APPROVED
SEE FIRST SHEET FOR DATE & SIGNATURE

Drawing No.
17-G-1305-D-12

Old Drawing No.

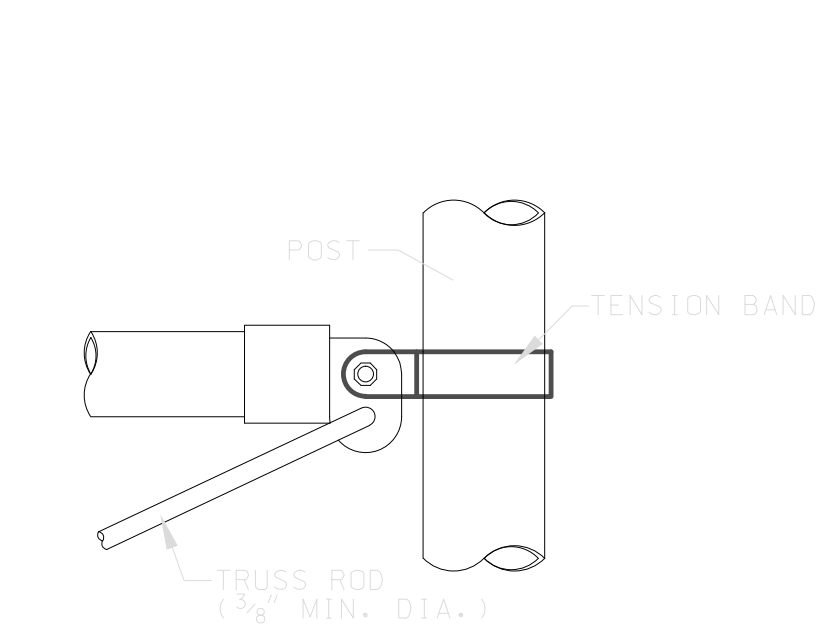
Revision: A

Sheet:

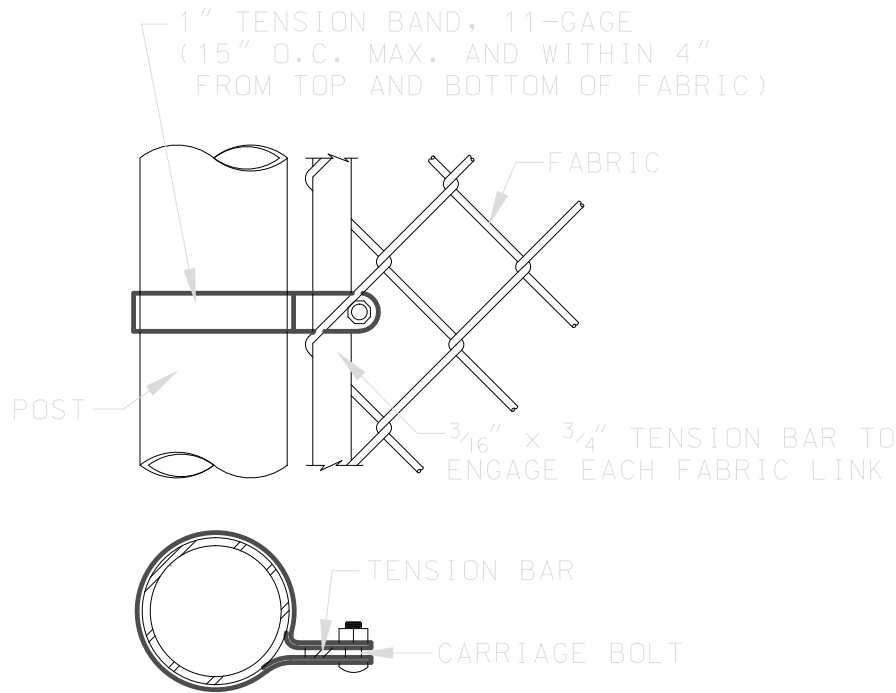


CHAIN-LINK SECURITY FENCE DETAIL
NOT TO SCALE

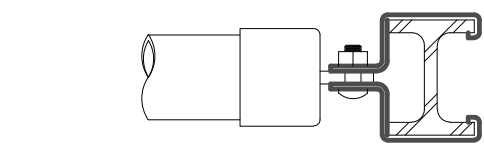
USE AND SECTION	MINIMUM OUTSIDE DIMENSIONS (NOMINAL)		
	FABRIC 72" OR LESS (SEE NOTE #6)	FABRIC 72" TO 96"	FABRIC OVER 96"
CORNER, END & PULL POSTS			
TUBULAR - ROUND	2.0" O.D.	2.5" O.D.	4.0" O.D.
TUBULAR - SQUARE	2.5" SO.	3.0" SO.	3.0" SO.
C-SECTION (ROLL-FORMED)	3.5" x 3.5"	3.5" x 3.5"	-----
LINE POSTS			
TUBULAR - ROUND	2.0" O.D.	2.0" O.D.	3.0" O.D.
H-SECTION	1.875" x 1.625"	2.25" x 1.70"	2.25" x 1.70"
C-SECTION (ROLL-FORMED)	1.875" x 1.625"	2.25" x 1.70"	-----
TOP, BOTTOM & BRACE RAILS			
TUBULAR - ROUND	1.25" O.D.		
TUBULAR - SQUARE	1.50" O.D.		
H-SECTION	1.625" x 1.50"		
C-SECTION (ROLL-FORMED)	1.625" x 1.25"		



ROUND POST

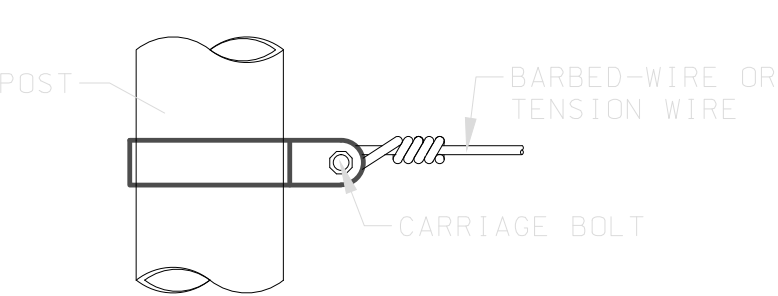


END OR GATE POST DETAIL

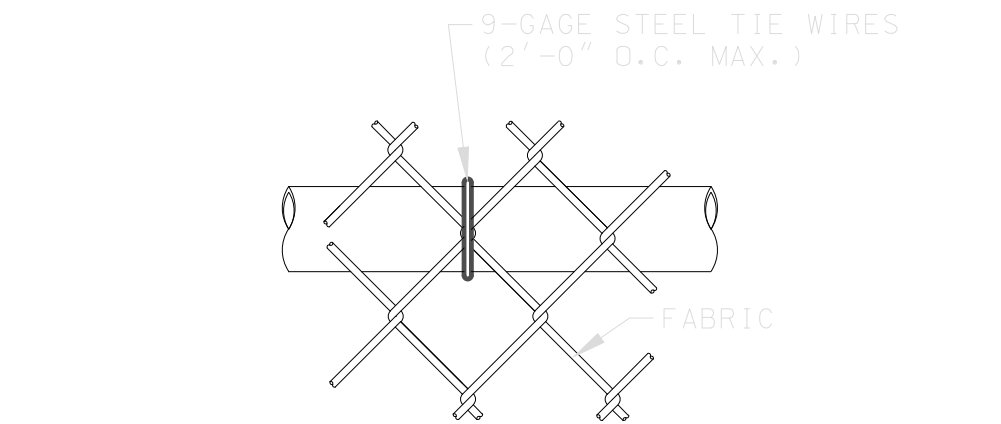


H-BEAM

BRACE RAIL CLAMP DETAILS



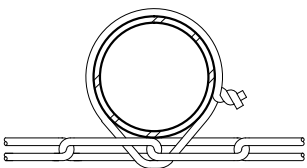
TENSION BAND DETAIL



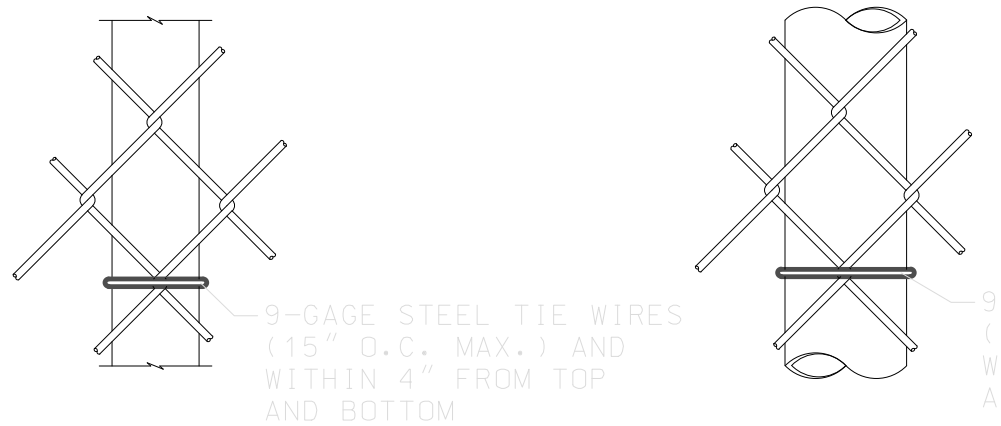
TOP OR BRACE RAIL ATTACHMENT



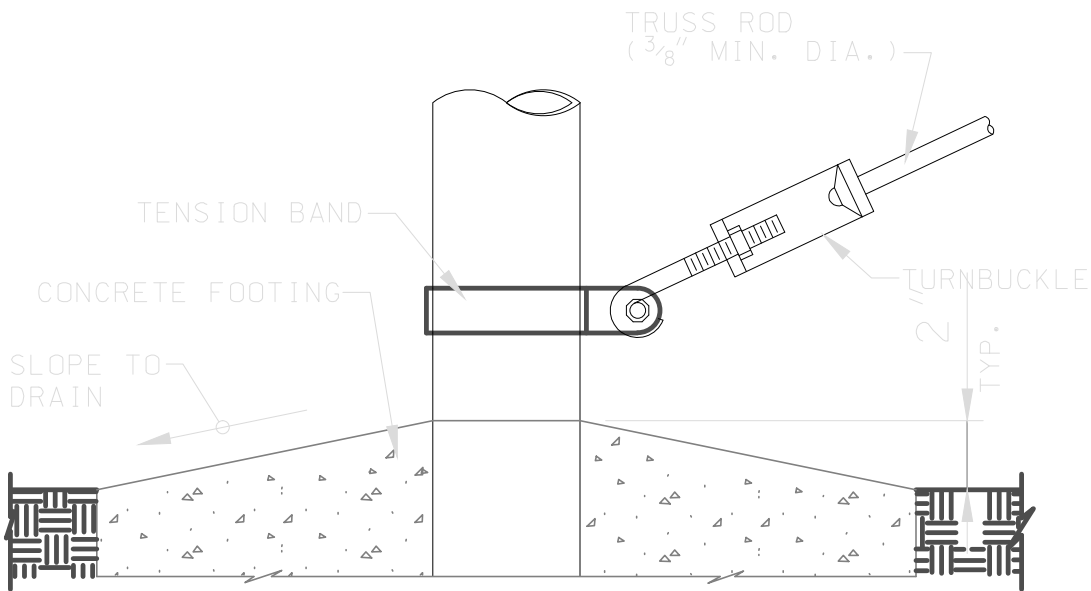
H-BEAM



ROUND POST



LINE POST ATTACHMENTS
NOT TO SCALE



TRUSS ROD AND BAND
NOT TO SCALE

1 TYPICAL FENCE
17-G-1305-D-13 N.T.S.

Planning Board-Town of East Greenbush
BY DIRECTION OF
CHAIRMAN OF THE PLANNING
BOARD THESE PLANS ARE APPROVED
SEE FIRST SHEET FOR DATE & SIGNATURE

Rev #	Date:	Description	Drawn By:	Rev #	Date:	Description	Drawn By:
A	25 Oct 2018	ISSUED FOR PERMIT					

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Rensselaer, NY 12144

Scale: AS NOTED

Bldg.:

SITE DETAILS

File No.: 17-G-1305-D-13.DWG

Date: 25/10/2018

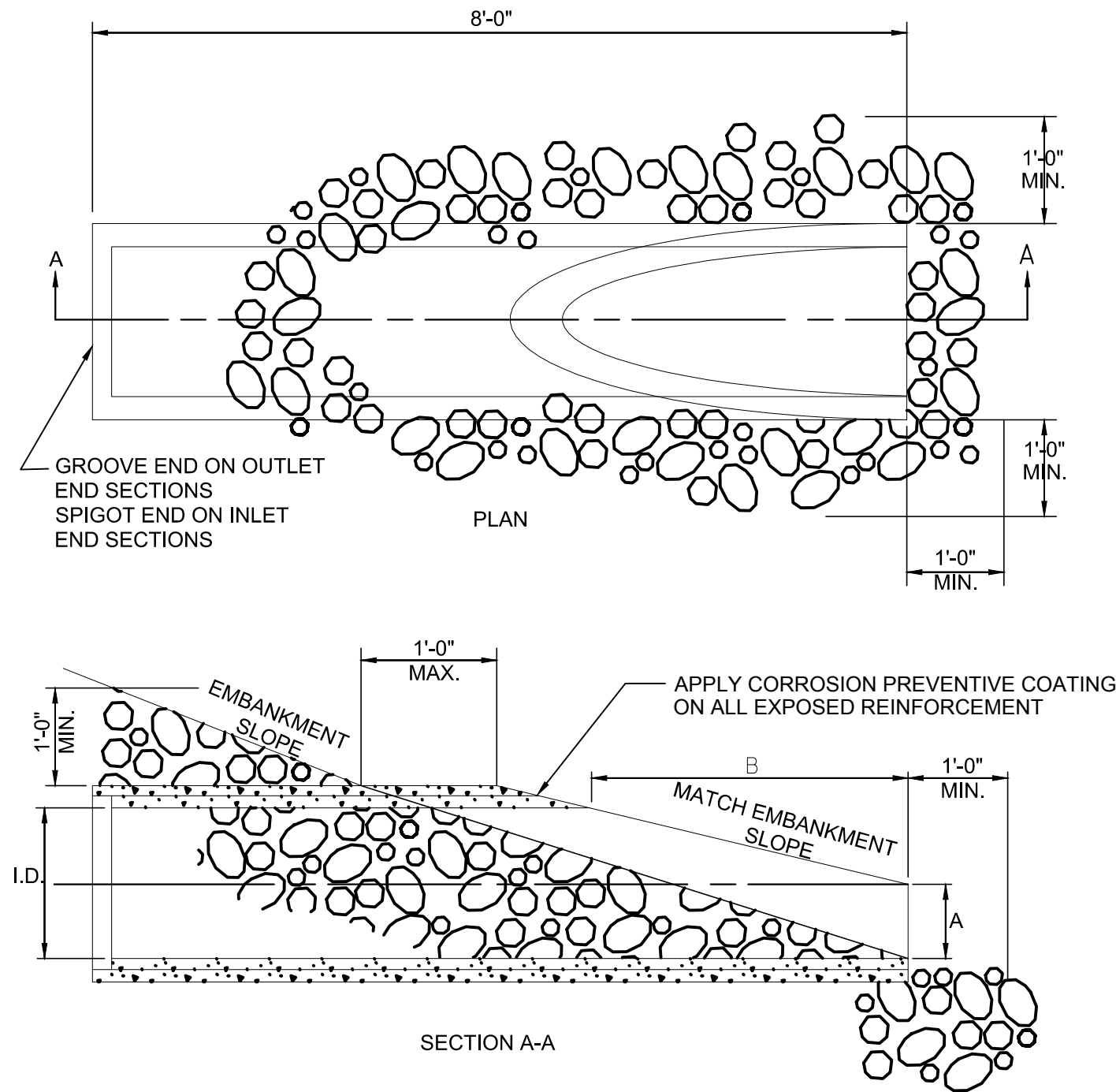
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17-G-1305-D-13

Old Drawing No.

Revision: A

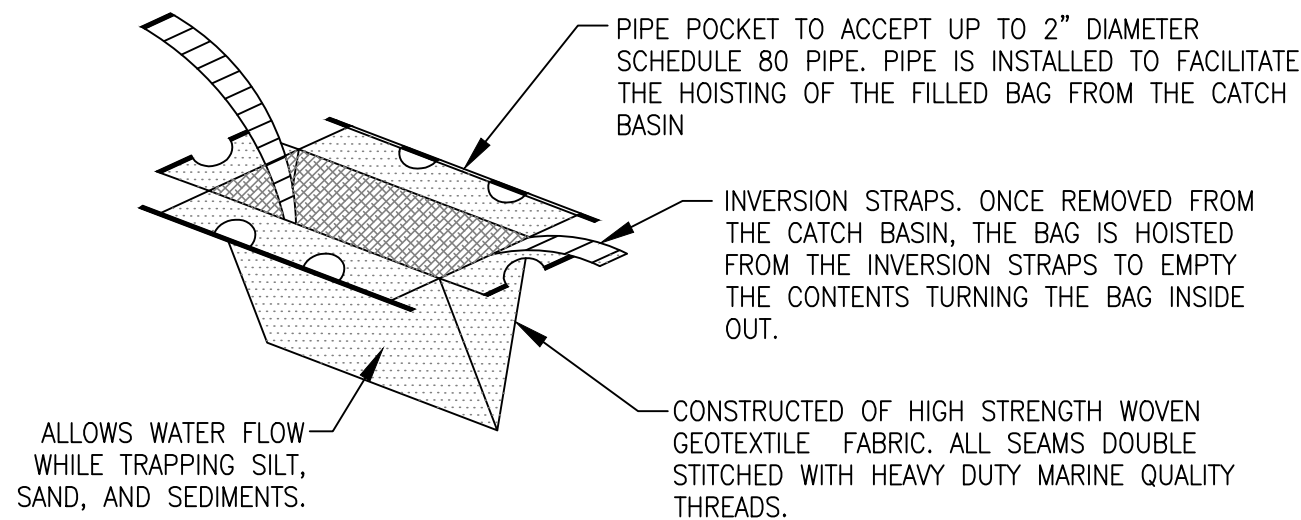
Sheet:



		EMBANKMENT SLOPE				
		6:1	5:1	4:1	3:1	2:1
		6	5	4	3	2
I.D. (IN.)	A (IN.)	B (BEVELED LENGTH) (IN.)				
15	6	54	45	36	27	18
18	9	54	45	36	27	18
24	10	NA	70	56	42	28
30	12	NA	NA	72	54	36
36	15	NA	NA	NA	63	42
42	20	NA	NA	NA	66	44
48	24	NA	NA	NA	72	48
54	24	NA	NA	NA	NA	60
60	24	NA	NA	NA	NA	72

1 OUTLET PROTECTION

17-G-1305-D-2 SCALE: N.T.S.

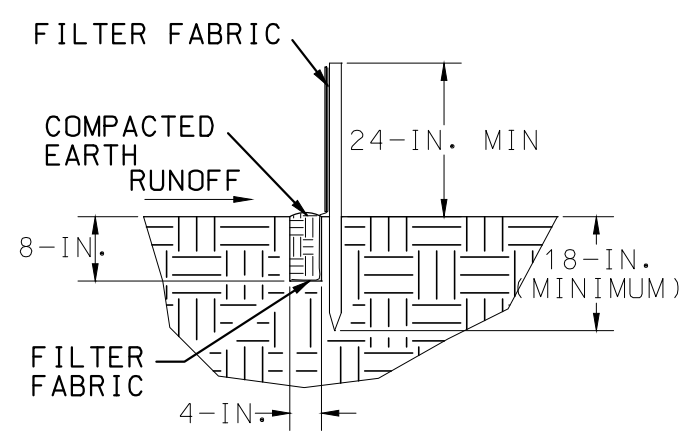


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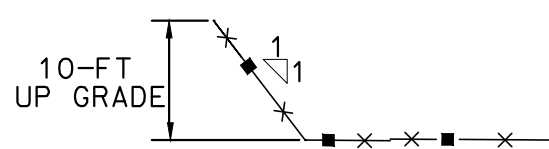
- PRODUCT TO BE "SILT SACK" MANUFACTURED BY REED AND GRAHAM, INC. SACRAMENTO, CA, OR APPROVED EQUAL.

4 SILT SACK (INLET PROTECTION)

17-G-1305-D-2 N.T.S.



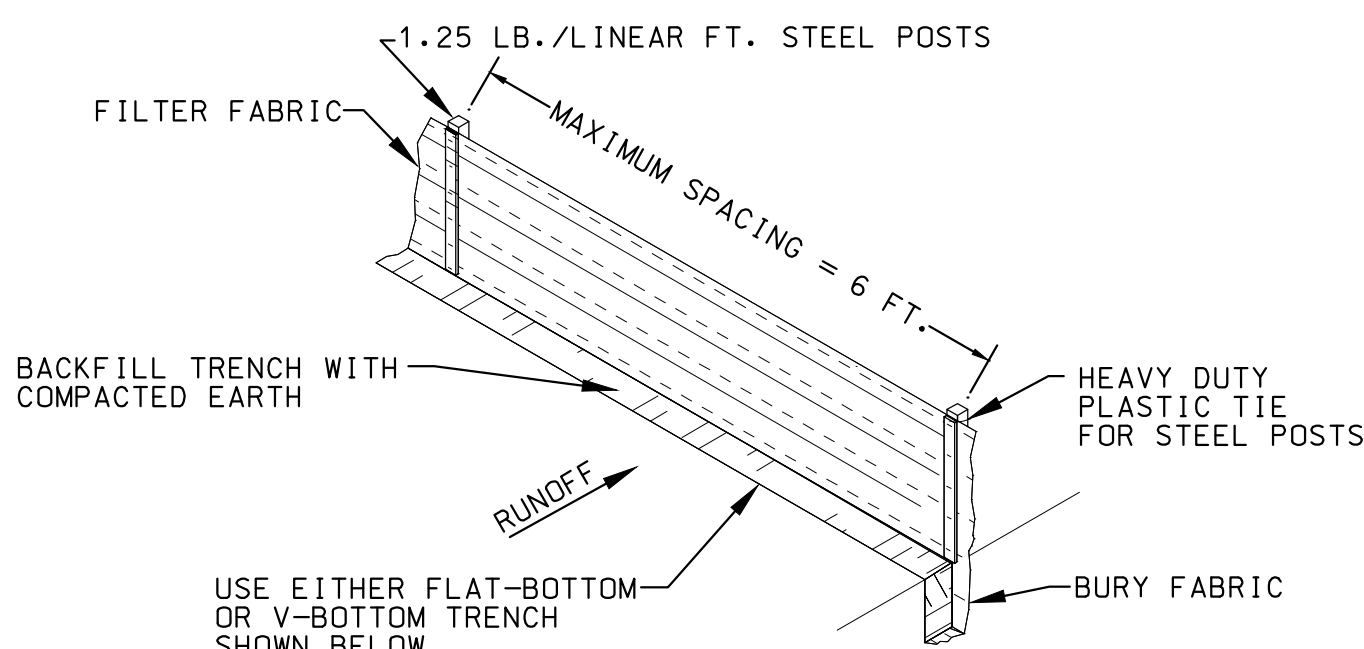
FLAT-BOTTOM TRENCH DETAIL



SEDIMENT FENCE INSTALLATION
(TYPICAL AT ALL ENDS)

5 SEDIMENT FENCE

17-G-1305-D-2 N.T.S.



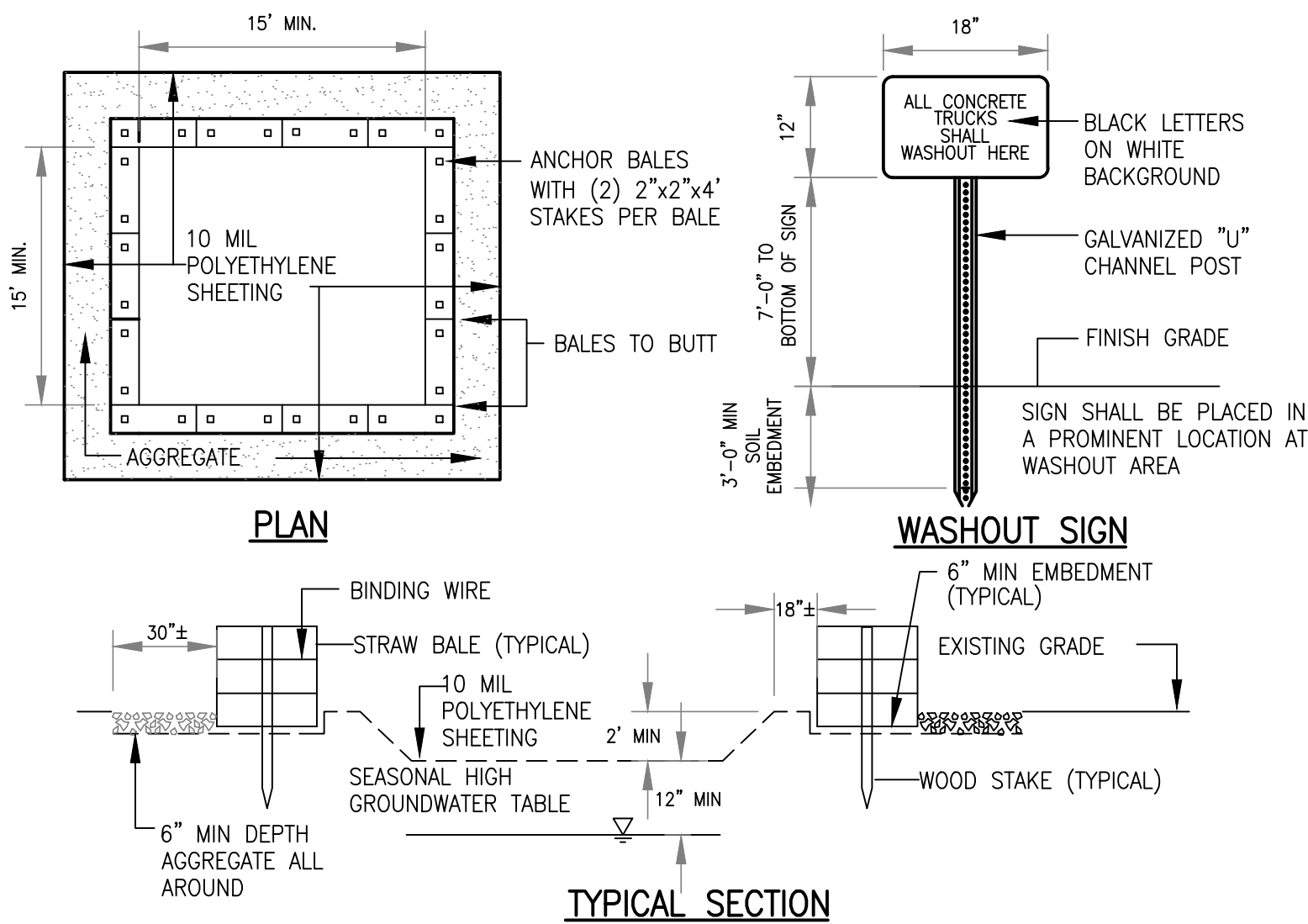
SEDIMENT FENCE INSTALLATION

NOTES:

- CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
- CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
- WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
- WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
- ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
- AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

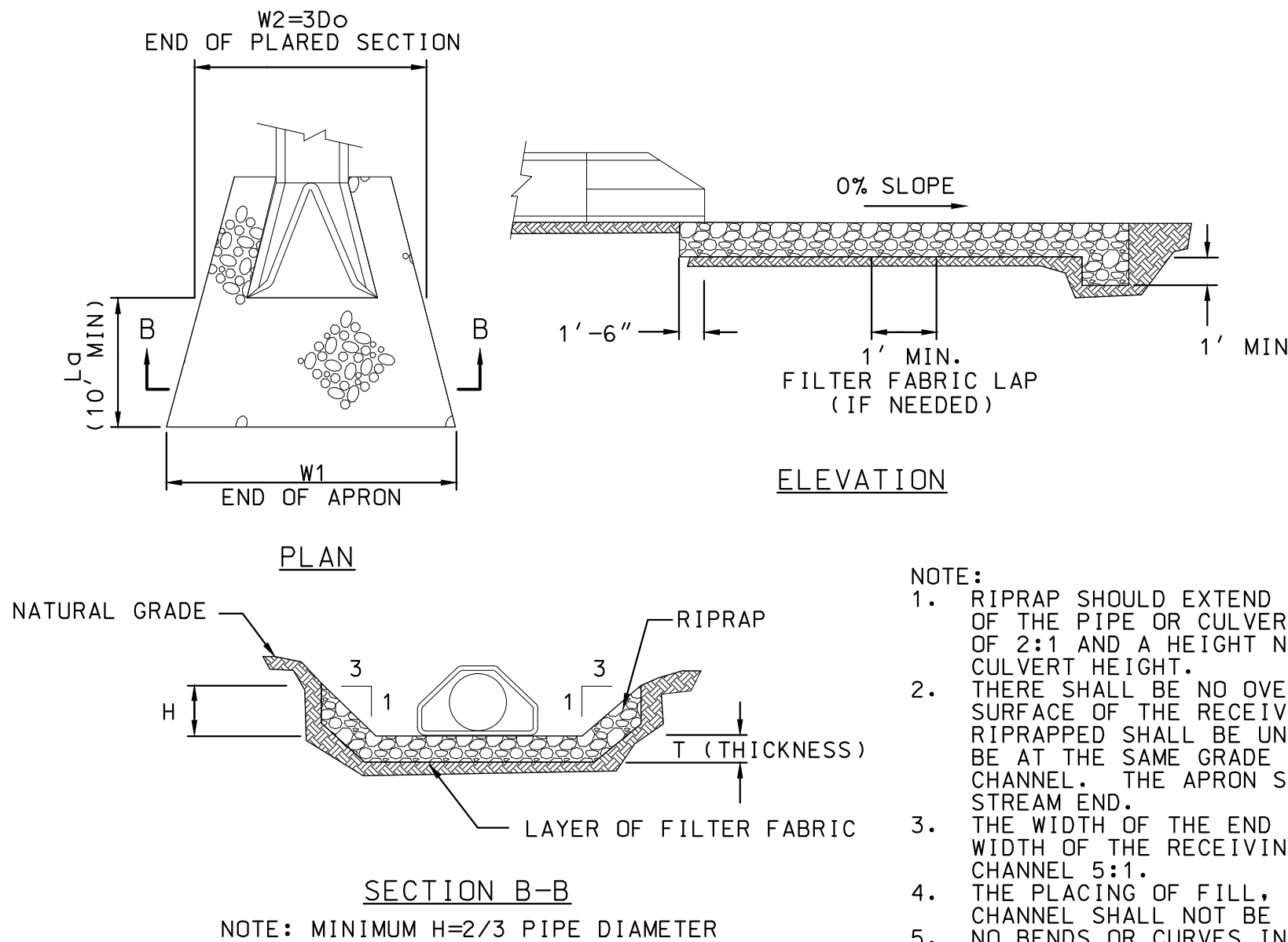
2 CONCRETE WASHOUT AREA

17-G-1305-D-2 N.T.S.



TYPICAL SECTION

WASHOUT SIGN



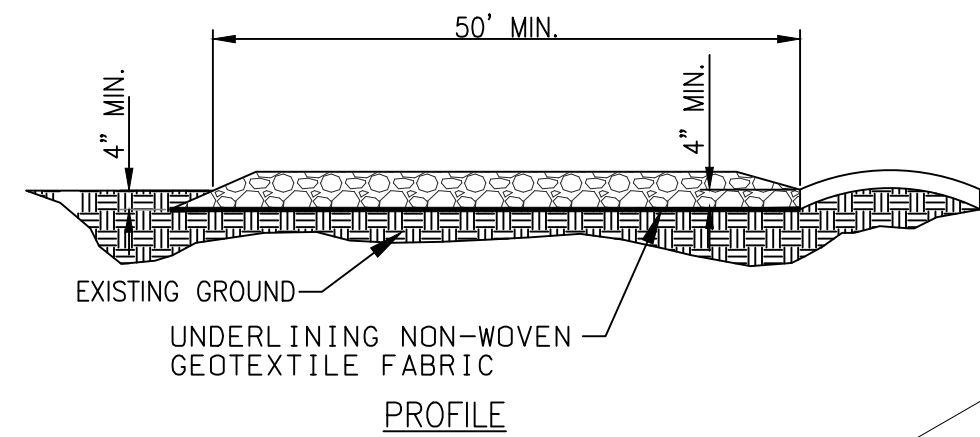
SECTION B-B

NOTE: MINIMUM H=2/3 PIPE DIAMETER

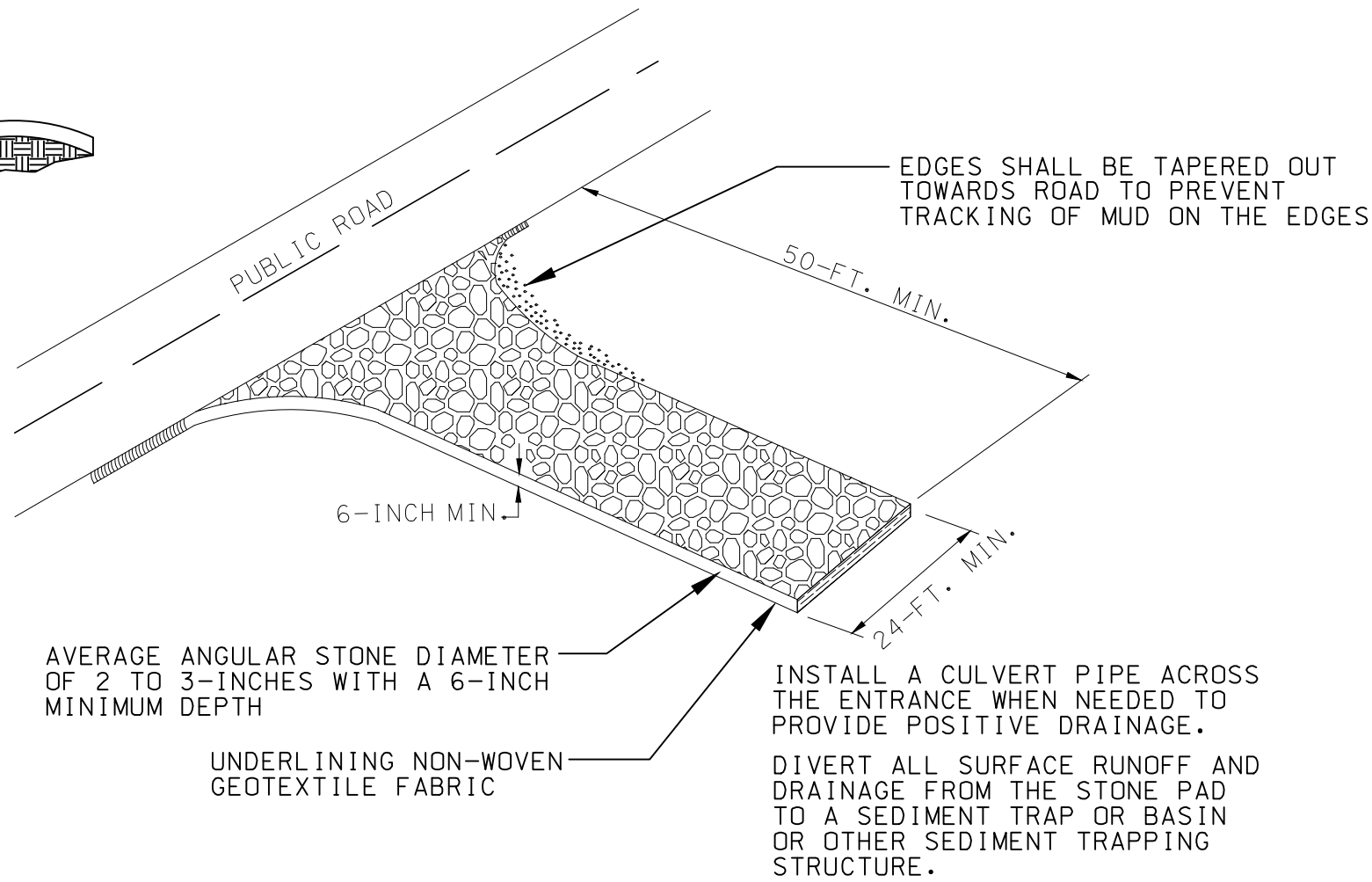
APRON No.	Do (in)	La (ft)	W1=La+Do (ft)	W2=3Do (ft)	*D50 (in)	*T (in)	MINIMUM H (in)
1	15	10	12	3.75	6	18	16
2	15	10	12	3.75	6	18	16
3	15	12	14	3.75	6	18	16
4	24	15	17	6	6	18	16
5	15	10	12	3.75	6	18	16
6	24	15	17	6	6	18	16
7	12	10	12	3	6	18	16
8	15	10	12	3.75	6	18	16

RIP RAP APRON OUTLET PROTECTION

17-G-1305-D-2 N.T.S.



PROFILE



AVERAGE ANGULAR STONE DIAMETER OF 2 TO 3-INCHES WITH A 6-INCH MINIMUM DEPTH

UNDERLINING NON-WOVEN GEOTEXTILE FABRIC

INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN OR OTHER SEDIMENT TRAPPING STRUCTURE.

6 CONSTRUCTION ENTRANCE

17-G-1305-D-2 N.T.S.

Planning Board-Town of East Greenbush
BY DIRECTION OF
CHAIRMAN OF THE PLANNING
BOARD THESE PLANS ARE APPROVED
SEE FIRST SHEET FOR DATE & SIGNATURE

Drawing No.

17-G-1305-D-2

Old Drawing No.

Revision: 2

Sheet:

Drawing No.

17-G-1305-D-2

Old Drawing No.

Revision: 2

Sheet:

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Scale: AS NOTED

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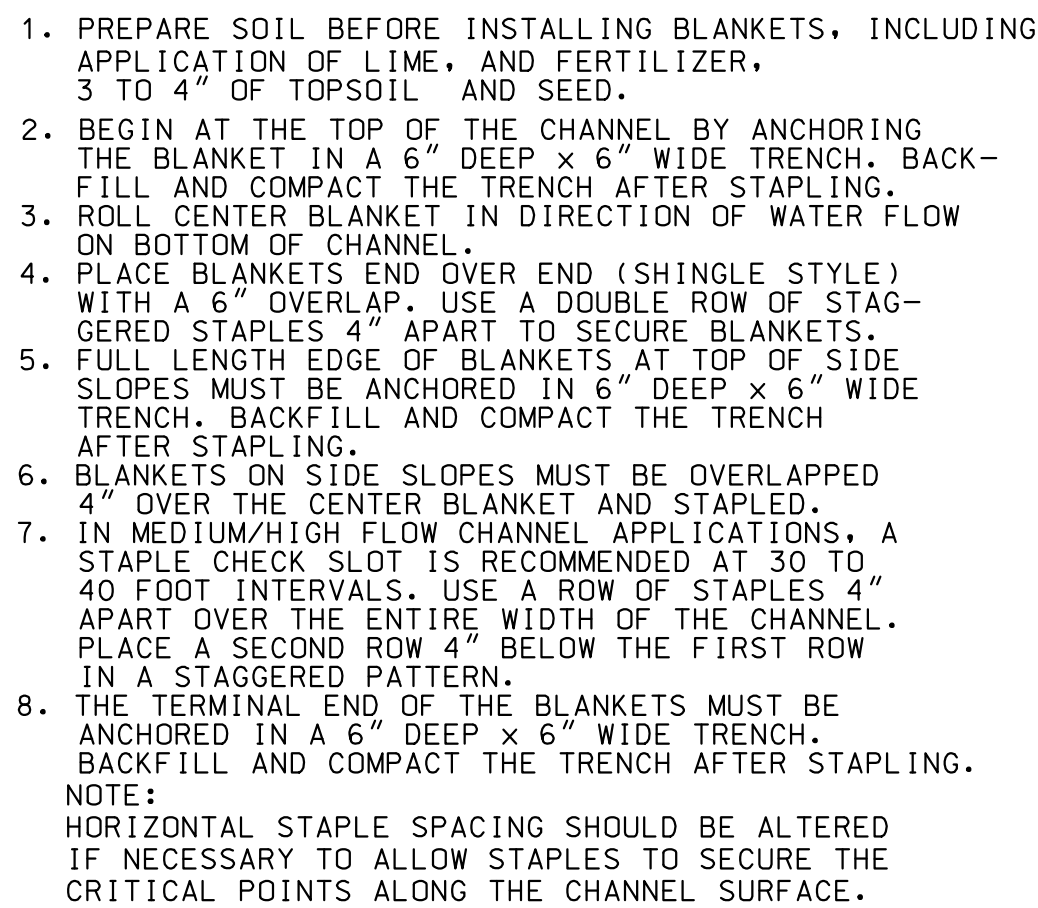
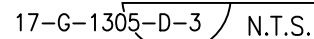
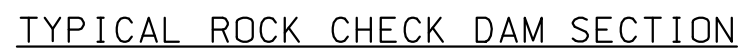
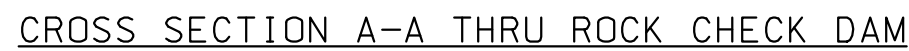
File No.: 17-G-1305-D-2.DWG

Date: 25/6/2018

Revision: 2

Sheet:

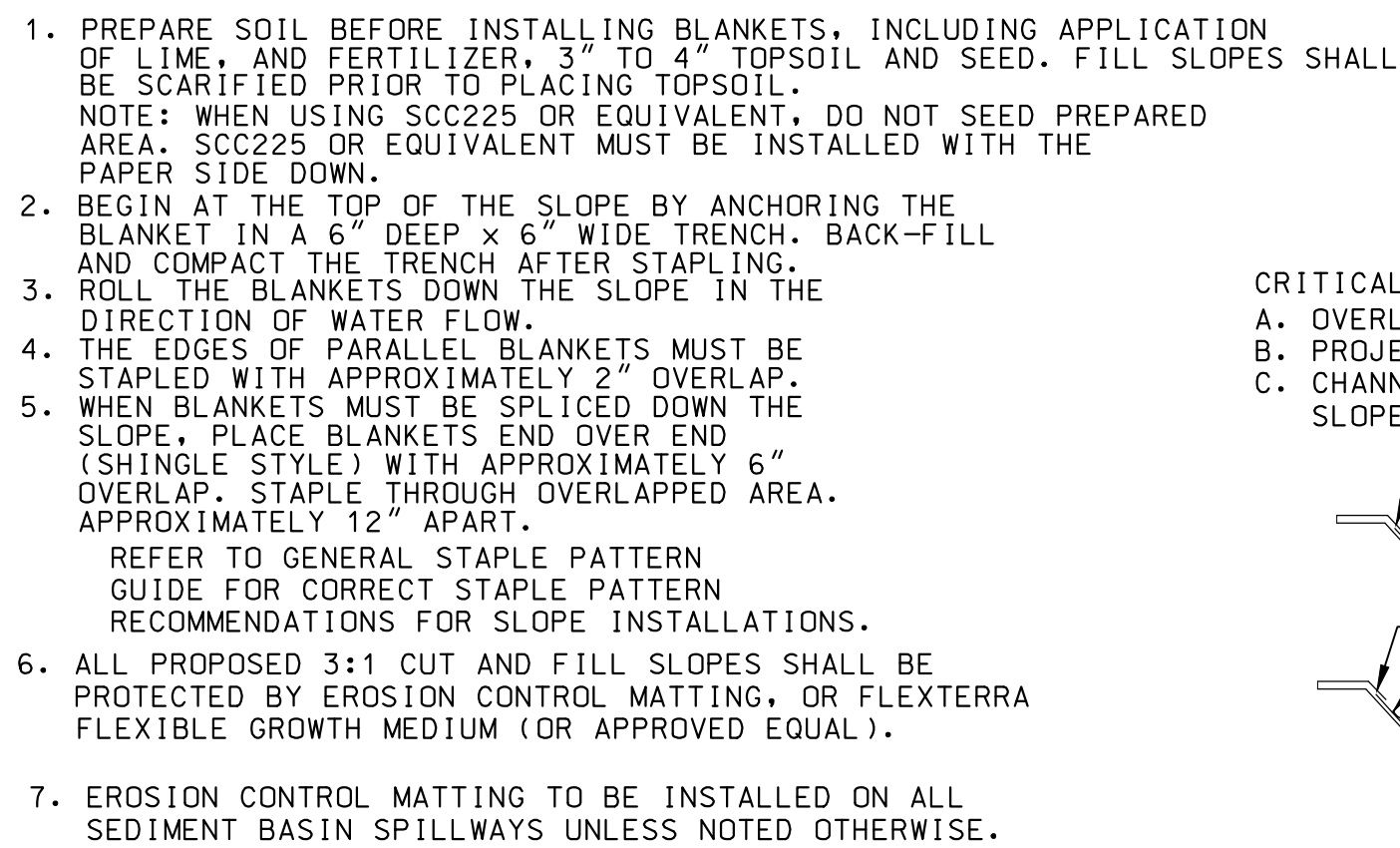
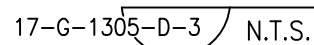
SITE EROSION CONTROL DETAILS



CHANNEL APPLICATIONS

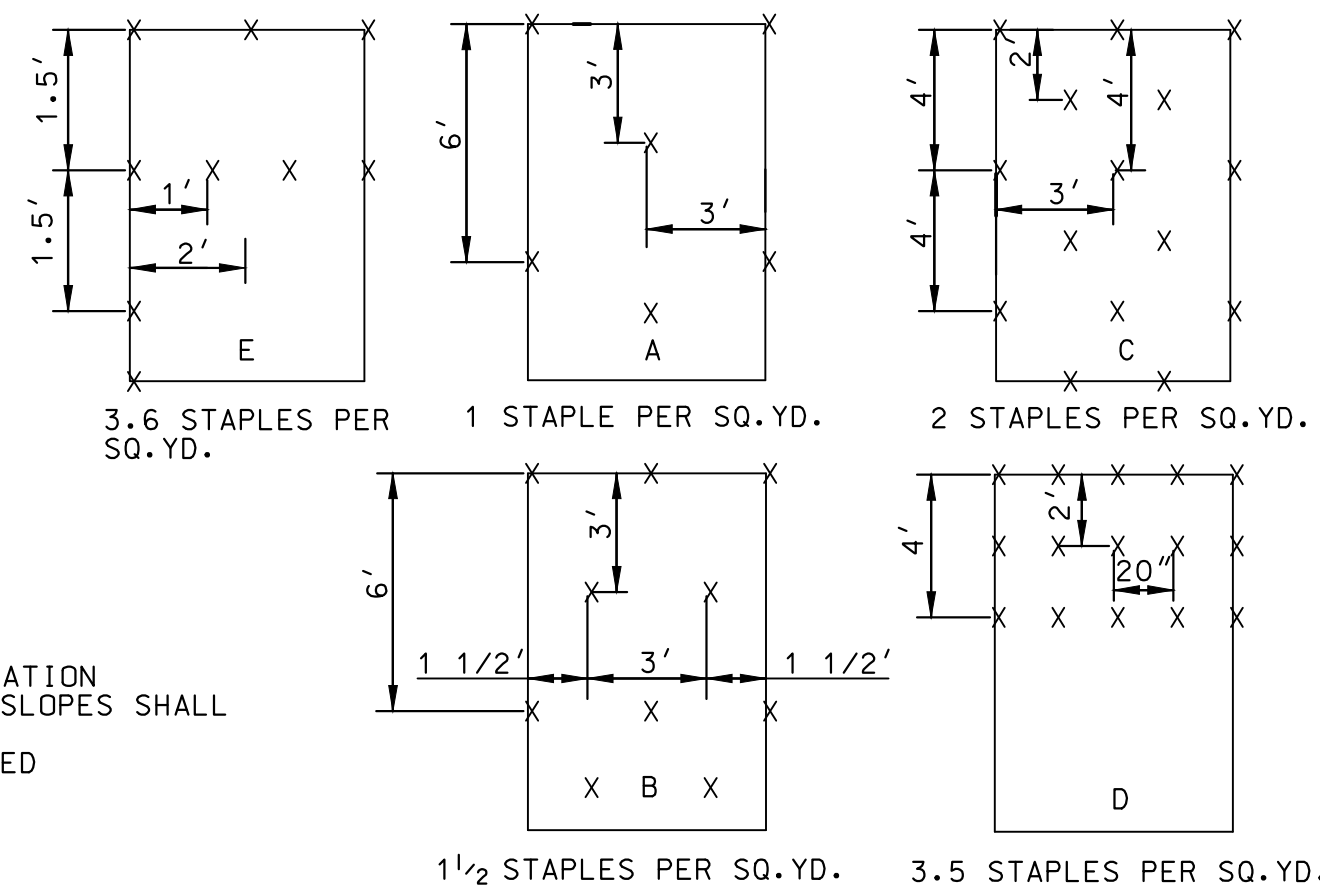
N.T.S.

ALL PROPOSED CUT AND FILL SLOPES WILL NOT EXCEED 2.5:1. CUT AND FILL SLOPES SHALL BE PROTECTED BY EROSION CONTROL MATTING NORTH AMERICAN GREEN S150 (OR APPROVED EQUAL). CENTER BLANKET IN CHANNEL APPLICATIONS SHALL BE ROLLED IN THE DIRECTION OF WATER FLOW. USE OF EROSION MATTING NORTH AMERICAN GREEN SC150BN (OR APPROVED EQUAL) SHALL BE INSTALLED UNLESS LINED WITH RIP RAP. REFER TO THE GENERAL STAPLE PATTERN GUIDE AND RECOMMENDATIONS DETAIL FOR STAPLE PATTERNS.



SLOPE APPLICATIONS

N.T.S.

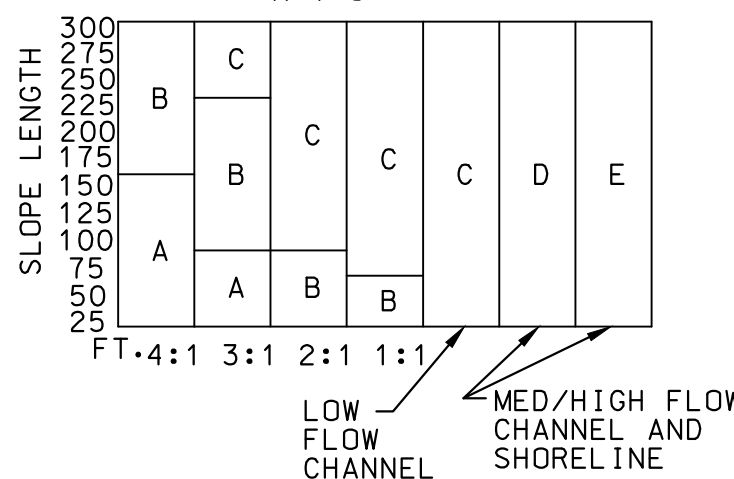


CRITICAL POINTS

- A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE
SLOPES VERTICES.

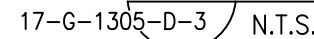


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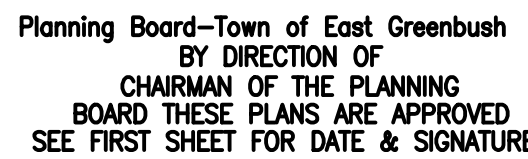


GENERAL STAPLE PATTERN GUIDE AND RECOMMENDATIONS

FOR OPTIMUM RESULTS, THESE RECOMMENDED
STAPLE PATTERN GUIDES MUST BE FOLLOWED.
INSTALL 2.5 STAPLES PER SQ. YD. FOR PYRAMAT



17-G-1305-D-3 / N.T.S.



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Scale: AS NOTED

Bldg.:

SITE EROSION CONTROL DETAILS

File No.: **17-G-1305-D-3.DWG**

Date: 6/6/2018

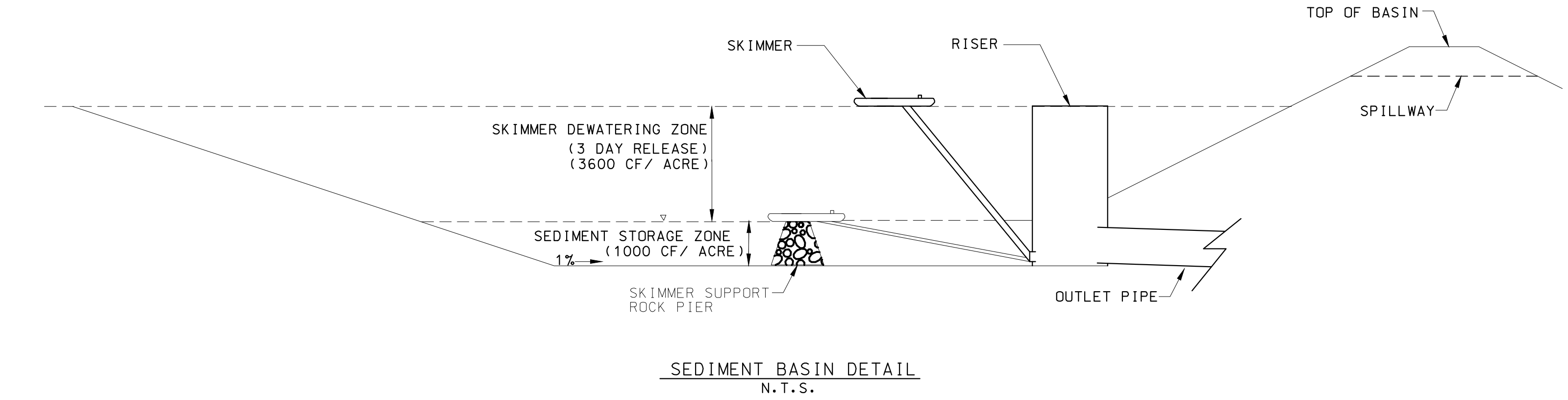
Drawing No.

17-G-1305-D-3

Old Drawing No.

Revision: **1**

Sheet:



	SEDIMENT BASIN 4A	SEDIMENT BASIN 4B	SEDIMENT BASIN 4C
DRAINAGE AREA	6.21	2.61	3.15
REQUIRED SEDIMENT STORAGE VOLUMES (cf)			
* SEDIMENT STORAGE	6,210	2,330	3,150
** DEWATERING ZONE	22,356	10,718	14,490
VOLUME OF SKIMMER DEWATERING ZONE (cf)	28,794	13,425	14,681
SKIMMER SIZE (in)	4	4	4
SKIMMER ORIFICE DIAMETER SIZE (in)	3.8	2.5	2.5
SKIMMER SUPPORT ELEVATION (ft)	216.14	225.31	217.30
BOTTOM OF BASIN ELEVATION (ft)	215.25	224.5	216.25
EMERGENCY SPILLWAY ELEVATION (ft)	219.25	229.00	219.50
TOP OF BASIN ELEVATION (ft)	220.00	230.00	220.00
SPILLWAY LENGTH	50	50	50
SEDIMENT CLEAN-OUT ELEVATION	215.79	225.05	216.90

* DUE TO SITE CONSTRAINTS INCLUDING WETLANDS, AND ROADWAY GEOMETRY THE BASINS WHERE PLACED IN THE ORIENTATION PROVIDING THE GREATEST VOLUME. DUE TO THESE CONSTRAINTS MINIMAL DEPTH OF 1’-0” REQUIRED BY THE BLUE BOOK COULD NOT BEEN MEET, HOWEVER ALL CAPACITIES HAVE BEEN MET PER BLUE BOOK STANDARDS

** DUE TO SITE CONSTRAINTS INCLUDING WETLANDS, AND ROADWAY GEOMETRY THE BASINS WHERE PLACED IN THE ORIENTATION PROVIDING THE GREATEST VOLUME. DUE TO THESE CONSTRAINTS MINIMAL DEPTH OF 3’-0” REQUIRED BY THE BLUE BOOK COULD NOT BEEN MEET, HOWEVER ALL CAPACITIES HAVE BEEN MET PER BLUE BOOK STANDARDS

TEMPORARY RISER- SEDIMENT BASIN 4A	
RISER DIAMETER	24” RCP
BARREL DIAMETER	15” CMP
TOP OF RISER ELEVATION	218.29
RISER INVERT ELEVATION	215.25

TEMPORARY RISER- SEDIMENT BASIN 4B	
RISER DIAMETER	24” RCP
BARREL DIAMETER	15” CMP
TOP OF RISER ELEVATION	227.00
RISER INVERT ELEVATION	224.50

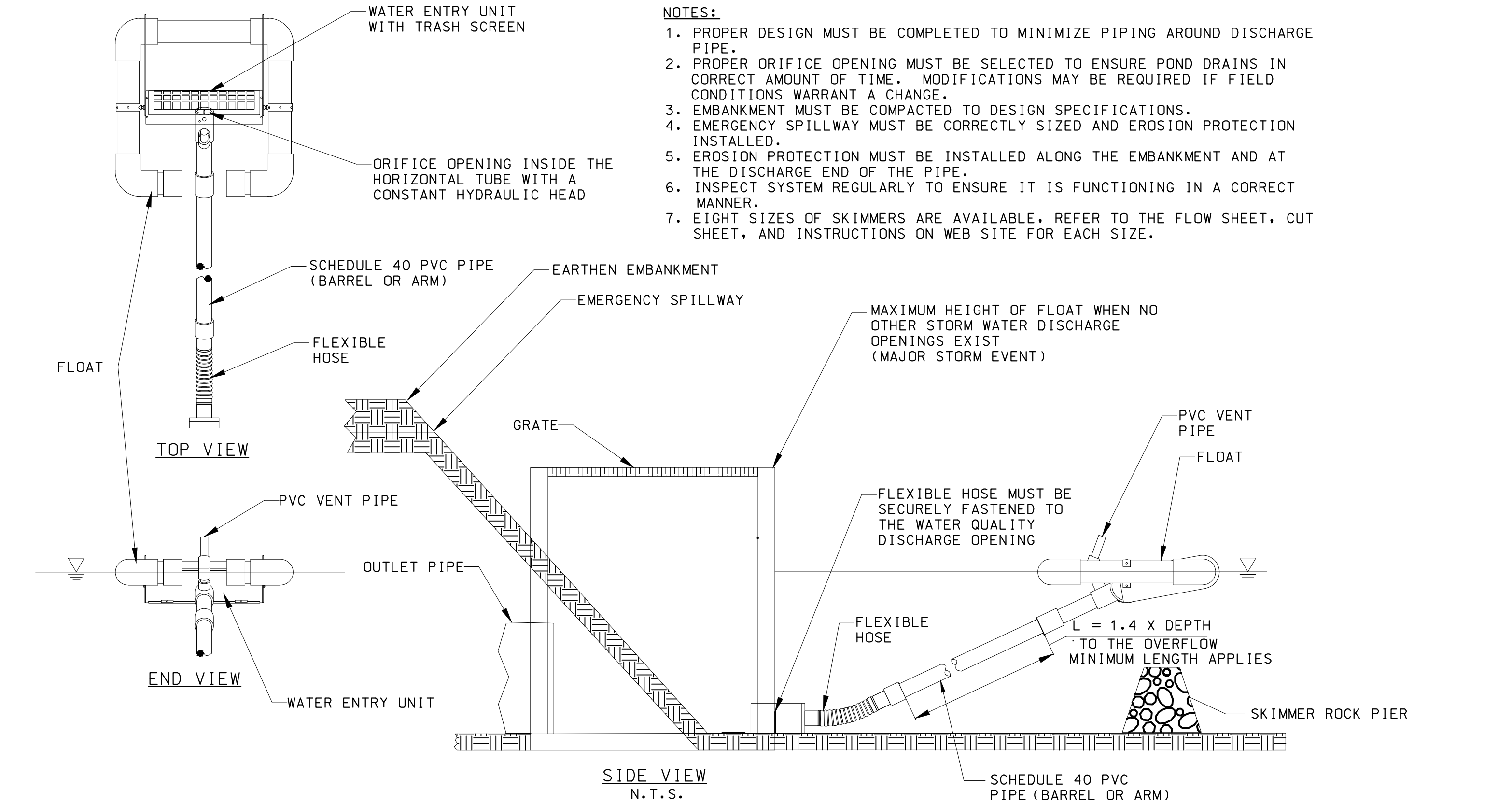
TEMPORARY RISER- SEDIMENT BASIN 4C	
RISER DIAMETER	24” RCP
BARREL DIAMETER	15” CMP
TOP OF RISER ELEVATION	219.12
RISER INVERT ELEVATION	216.25

1

SEDIMENT BASIN

17-G-1305-D-4

N.T.S.



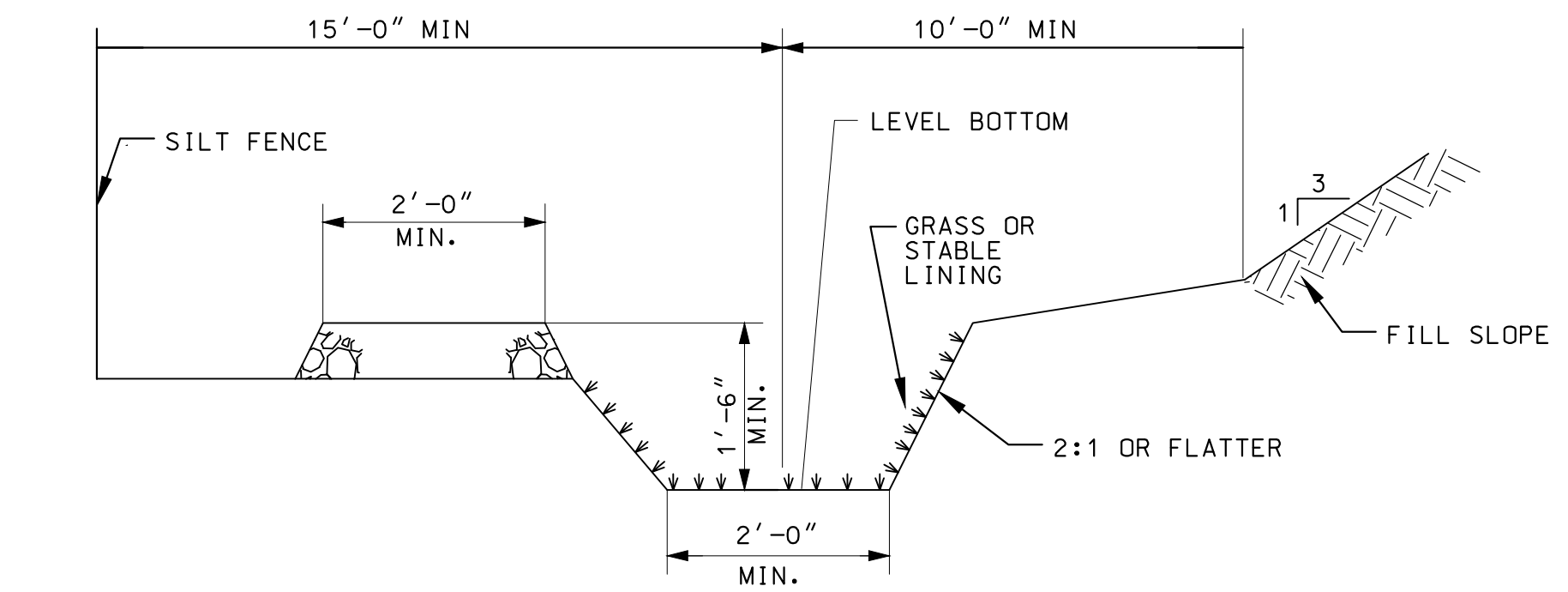
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SKIMMER DISCHARGE

17-G-1305-D-4

N.T.S.

MANUFACTURER: FAIRCLOTH SKIMMER (OR APPROVED EQUAL)



3

TEMPORARY DIVERSION SWALE

17-G-1305-D-4

N.T.S.

Rev #	Date:	Description	Drawn By:	Rev #	Date:	Description	Drawn By:
0	26 Jul 2018	Issued for Construction	AJW				
1	28 Aug 2018	ISSUED FOR CONSTRUCTION	JR				

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SITE EROSION CONTROL DETAILS

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Date: 6/6/2018

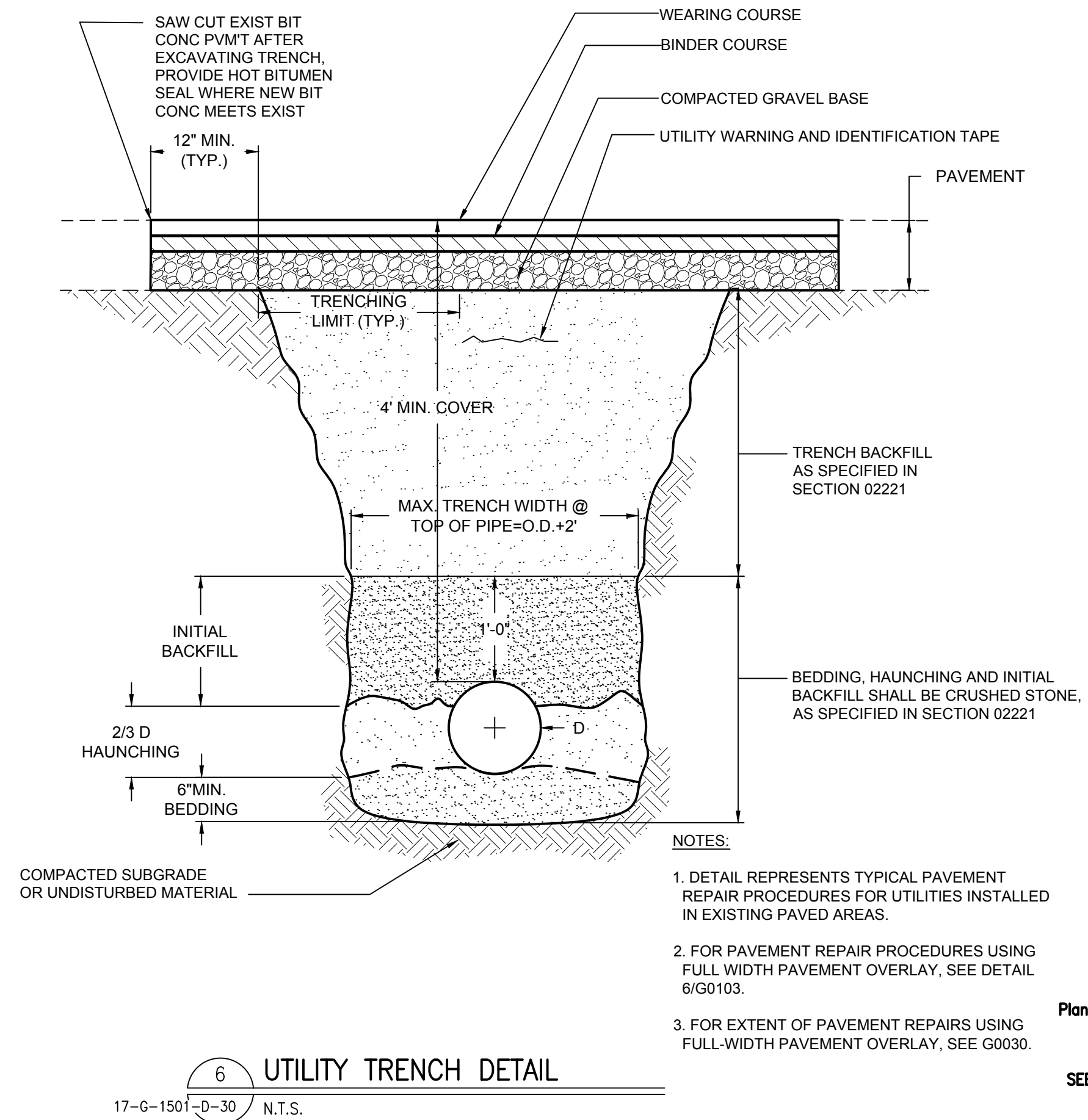
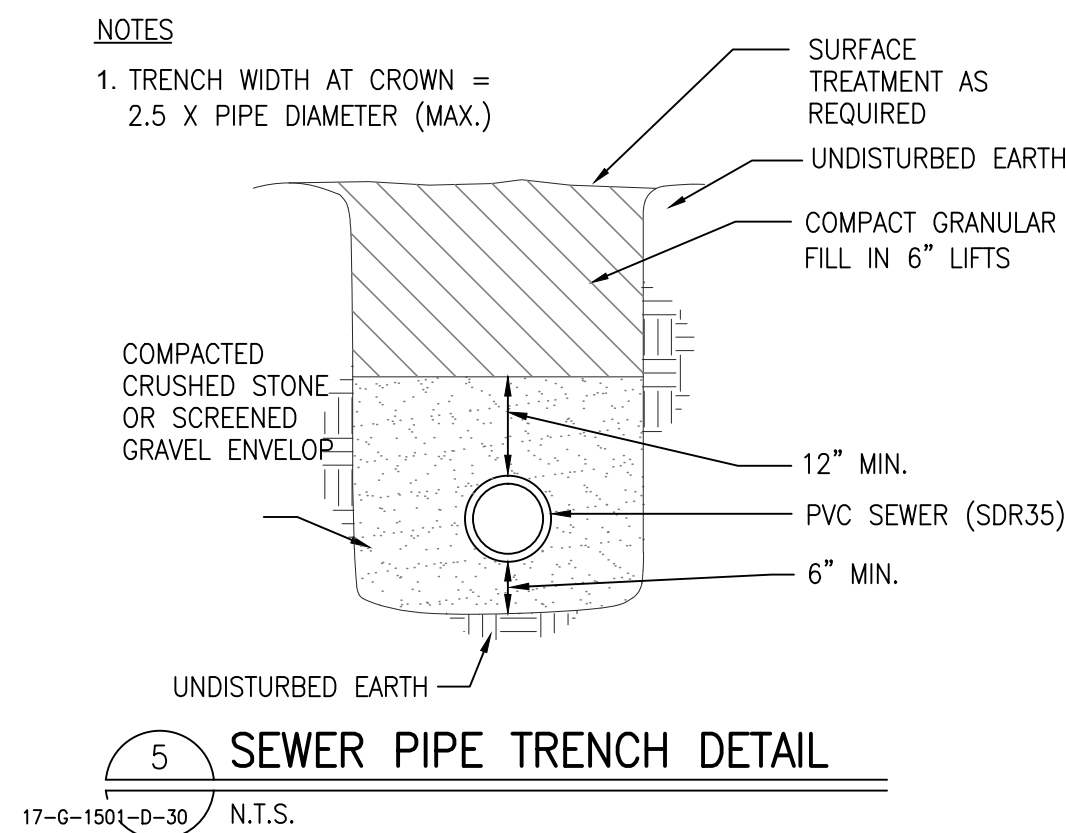
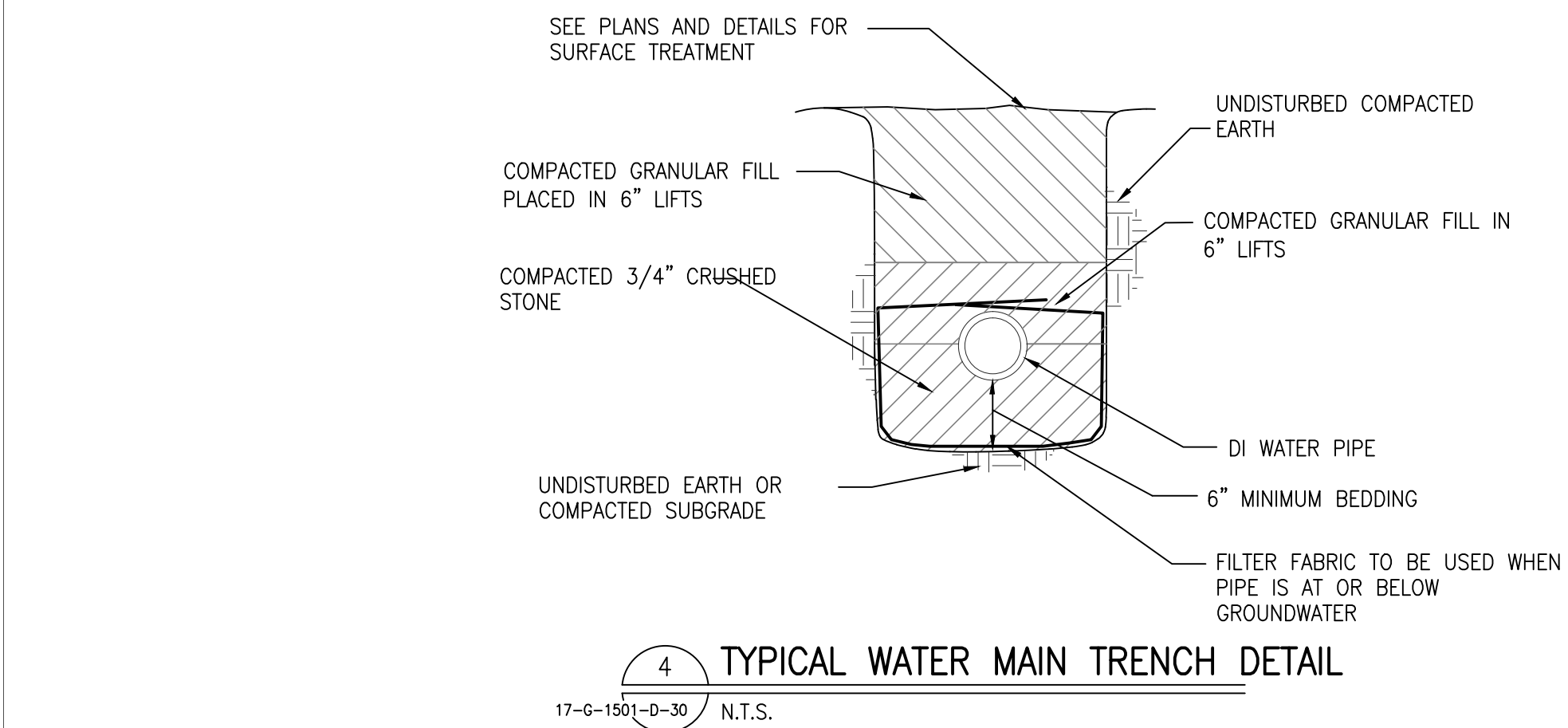
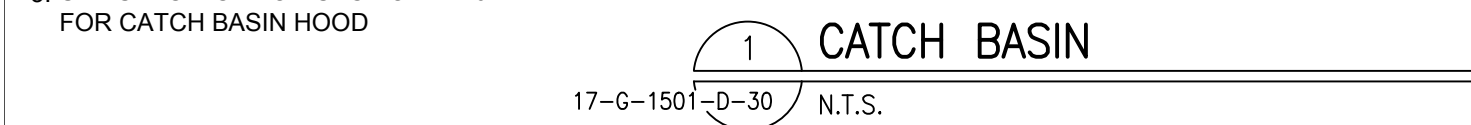
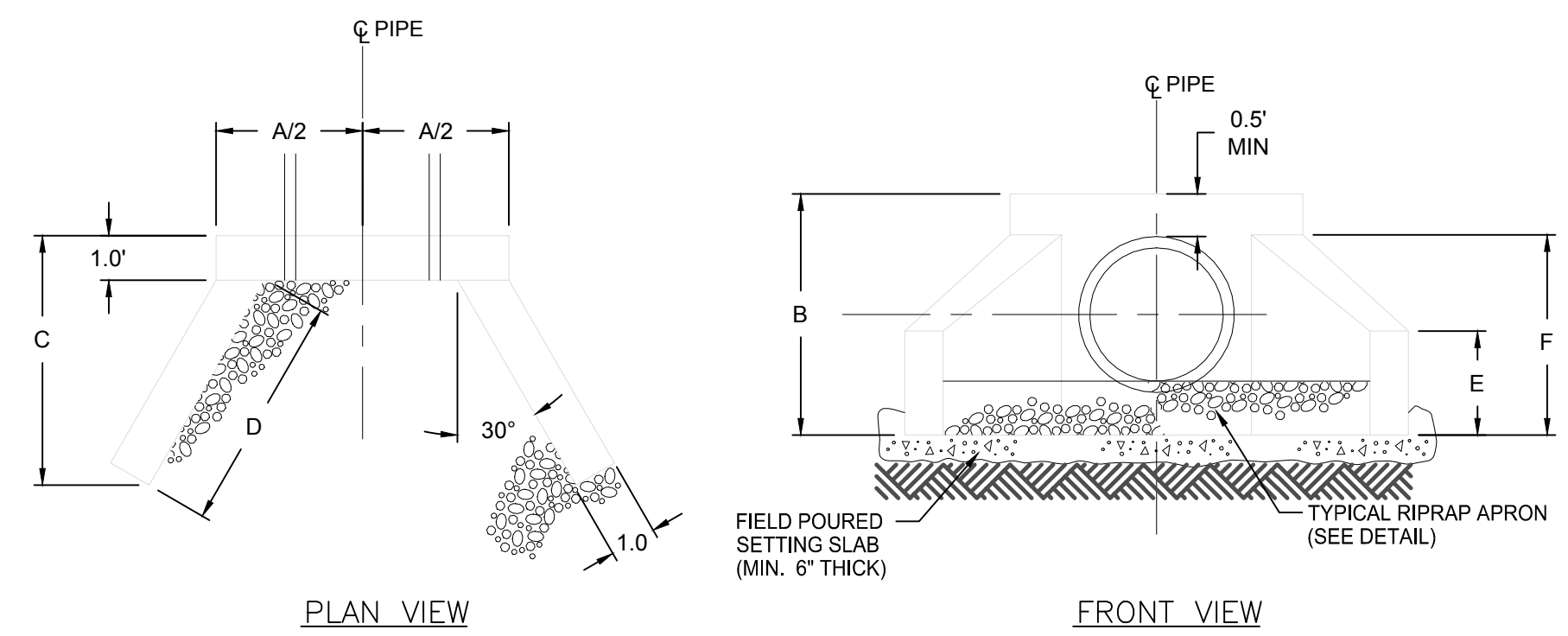
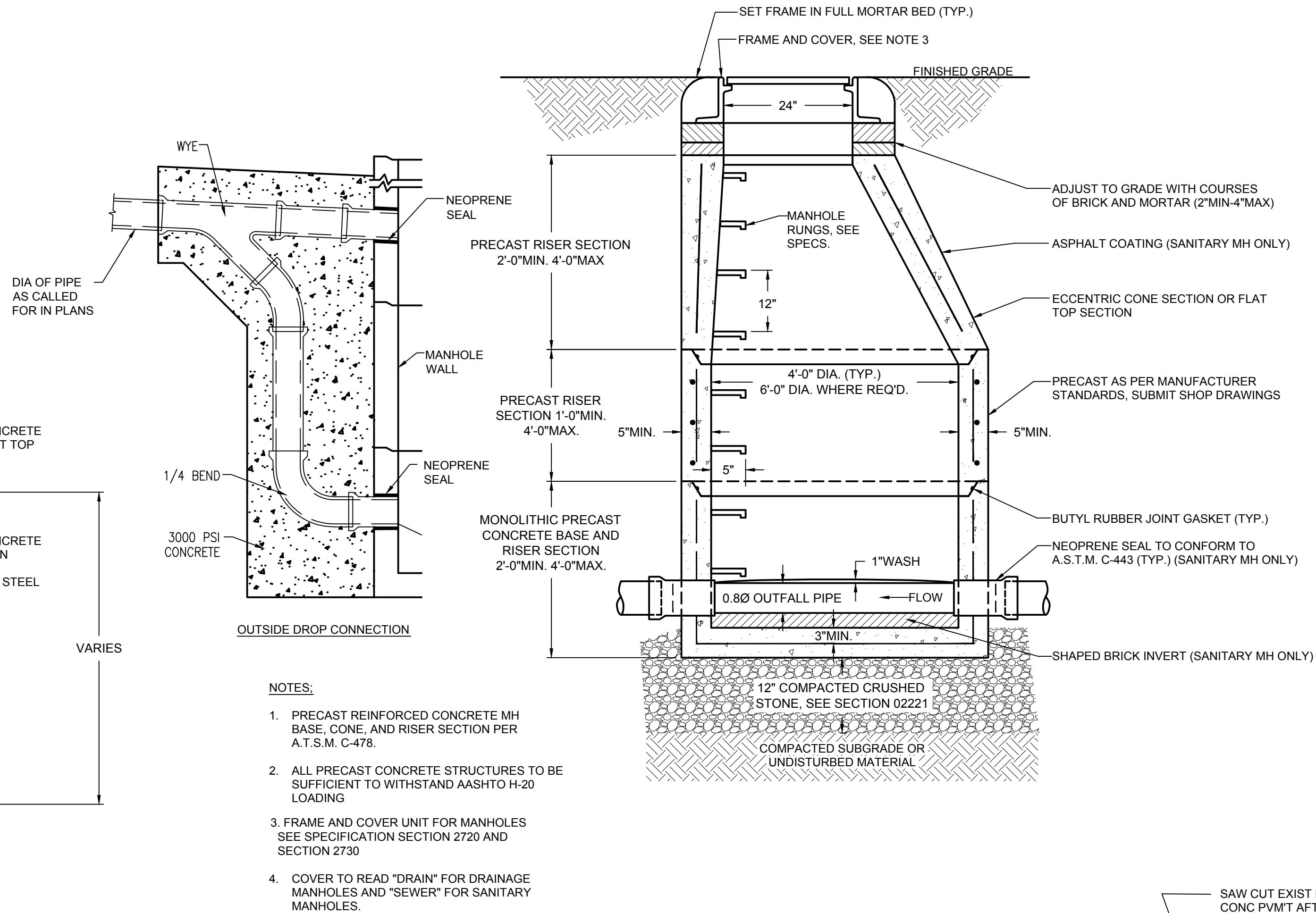
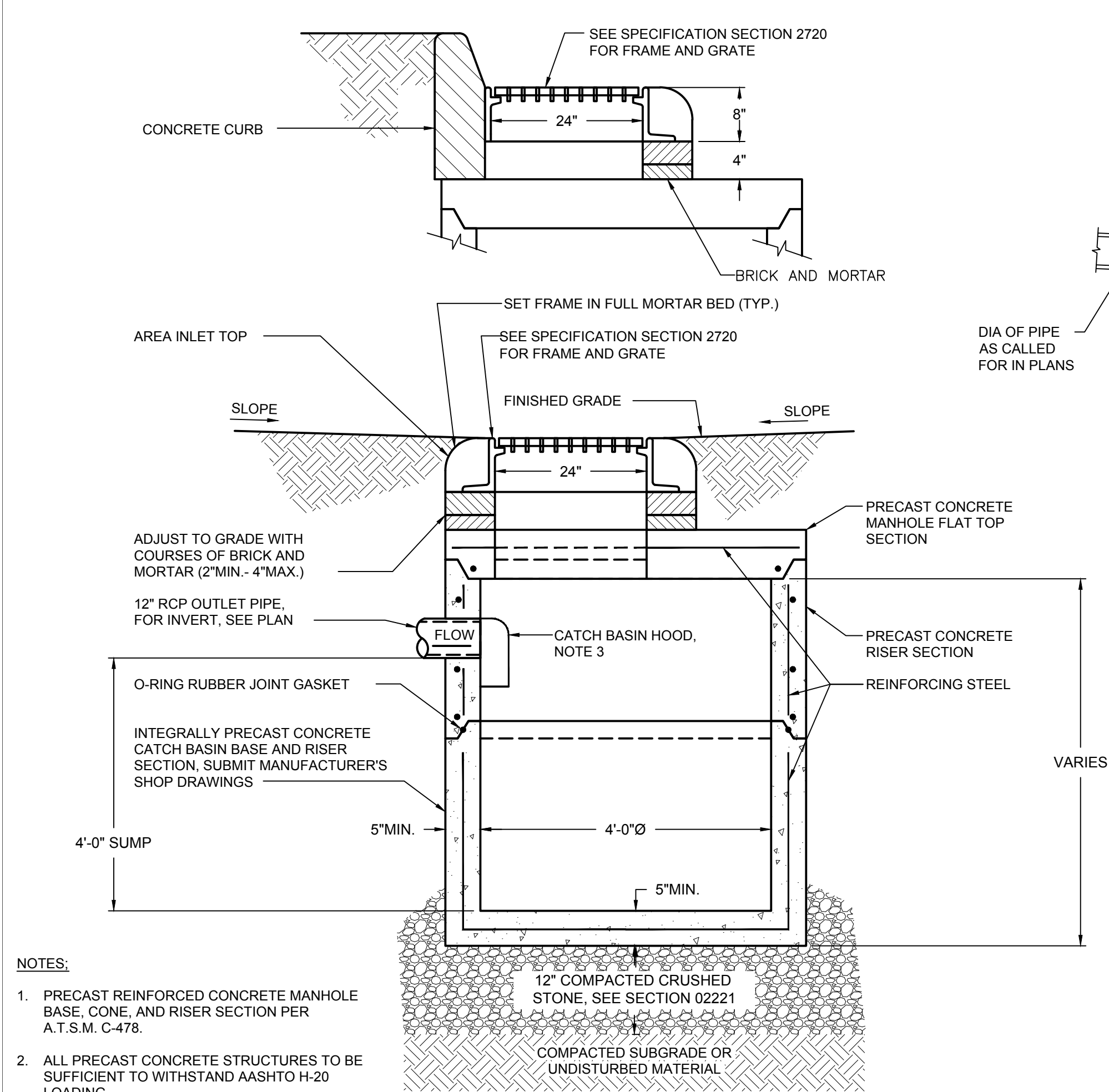
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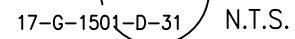
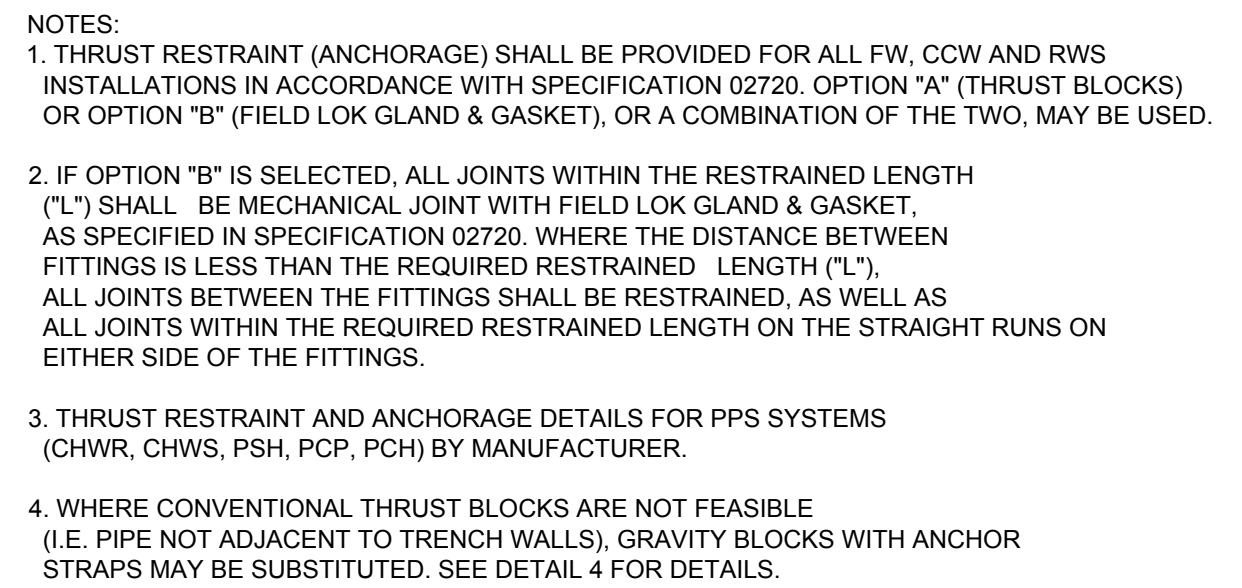
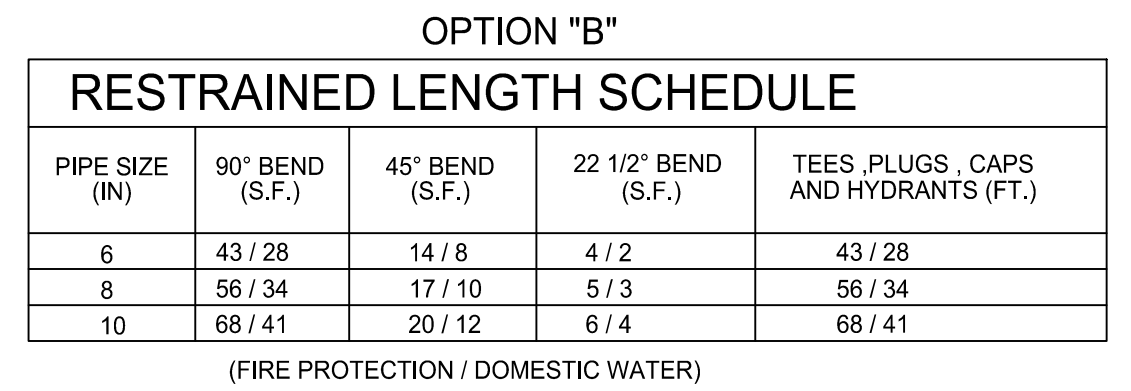
Date: 25/10/2018

Revision: **B**

Sheet:

UTILITY DETAILS

Planning Board—Town of East Greenbush
BY DIRECTION OF
CHAIRMAN OF THE PLANNING
BOARD THESE PLANS ARE APPROVED
SEE FIRST SHEET FOR DATE & SIGNATURE



Planning Board—Town of East Greenbush
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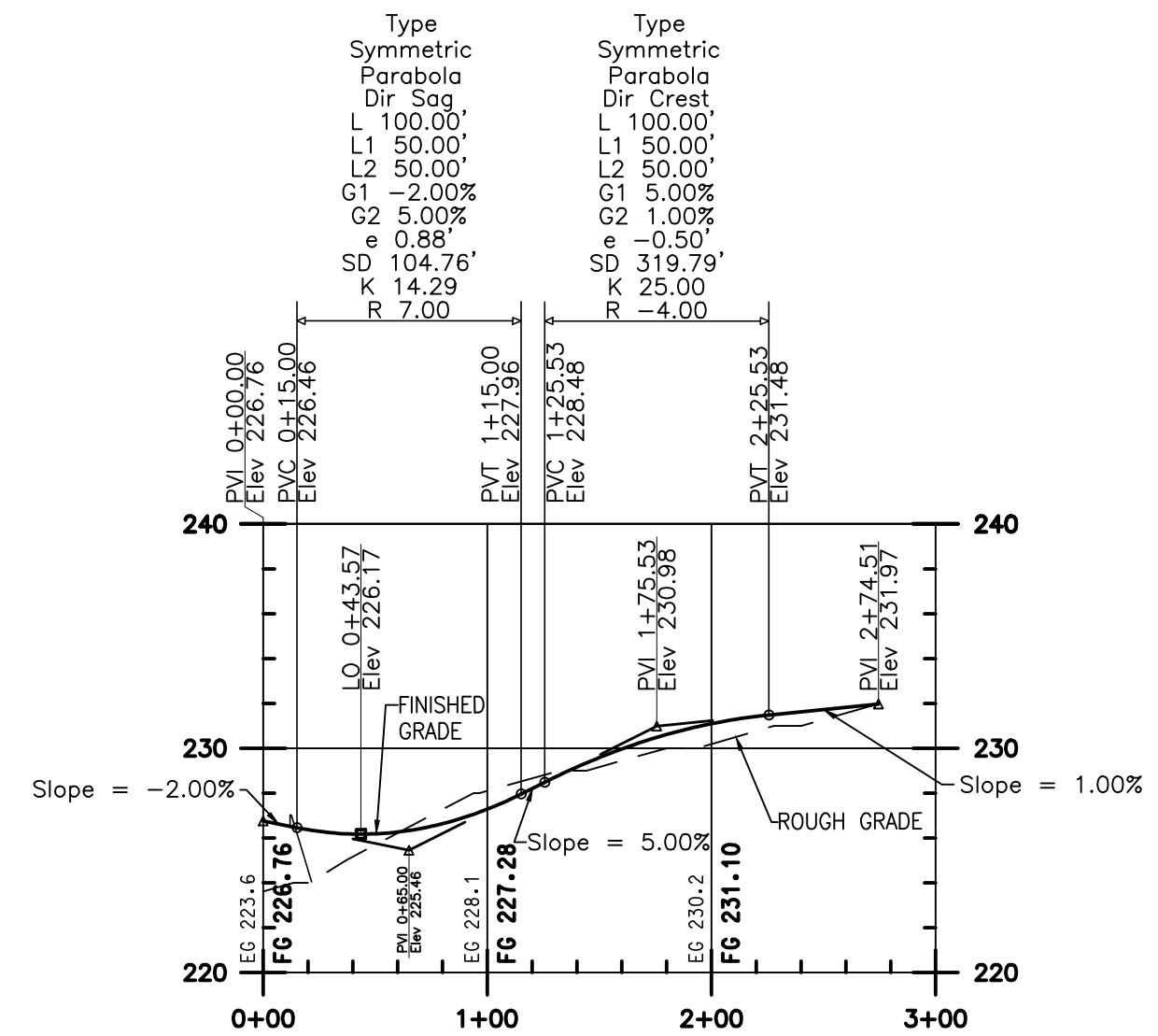
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UTILITY DETAILS

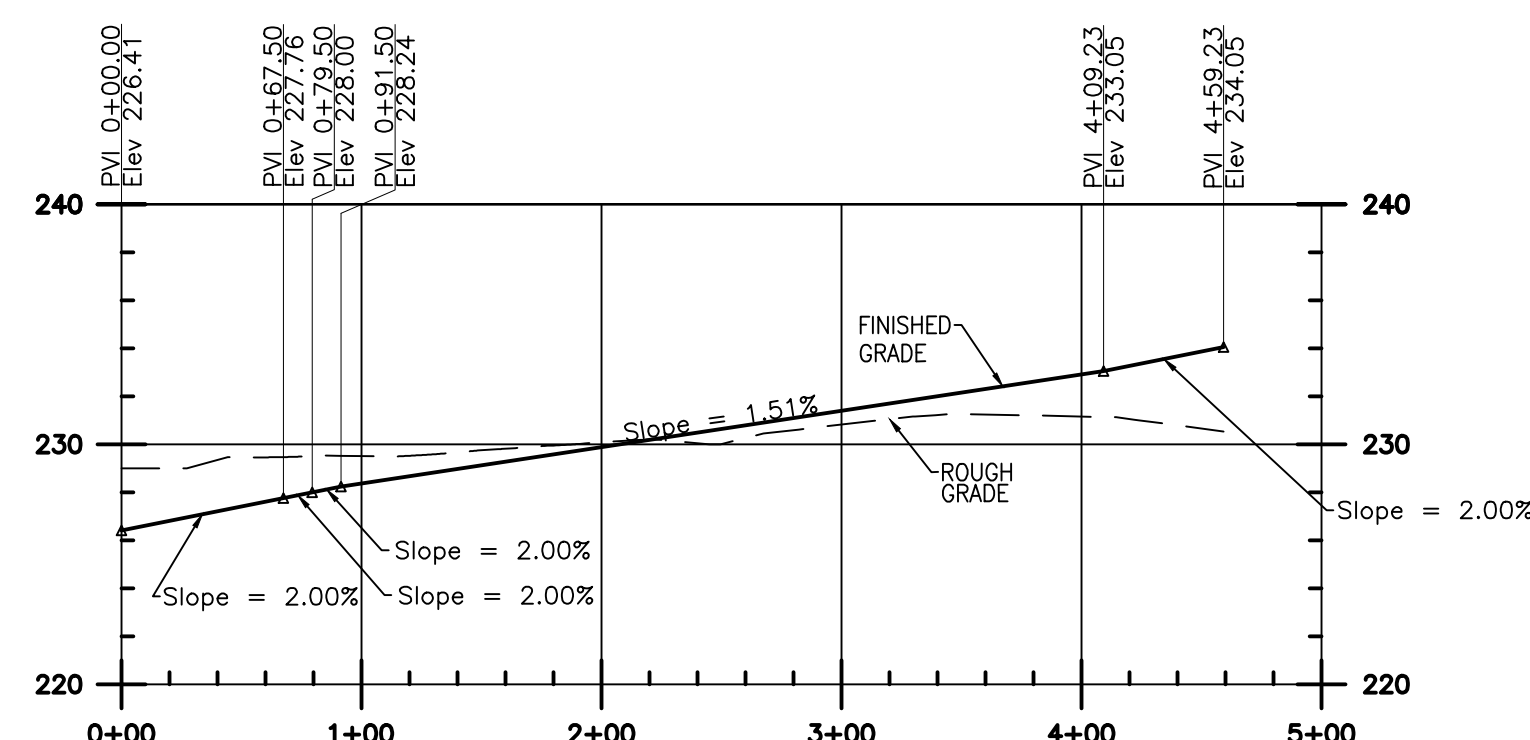
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Revision: **B**



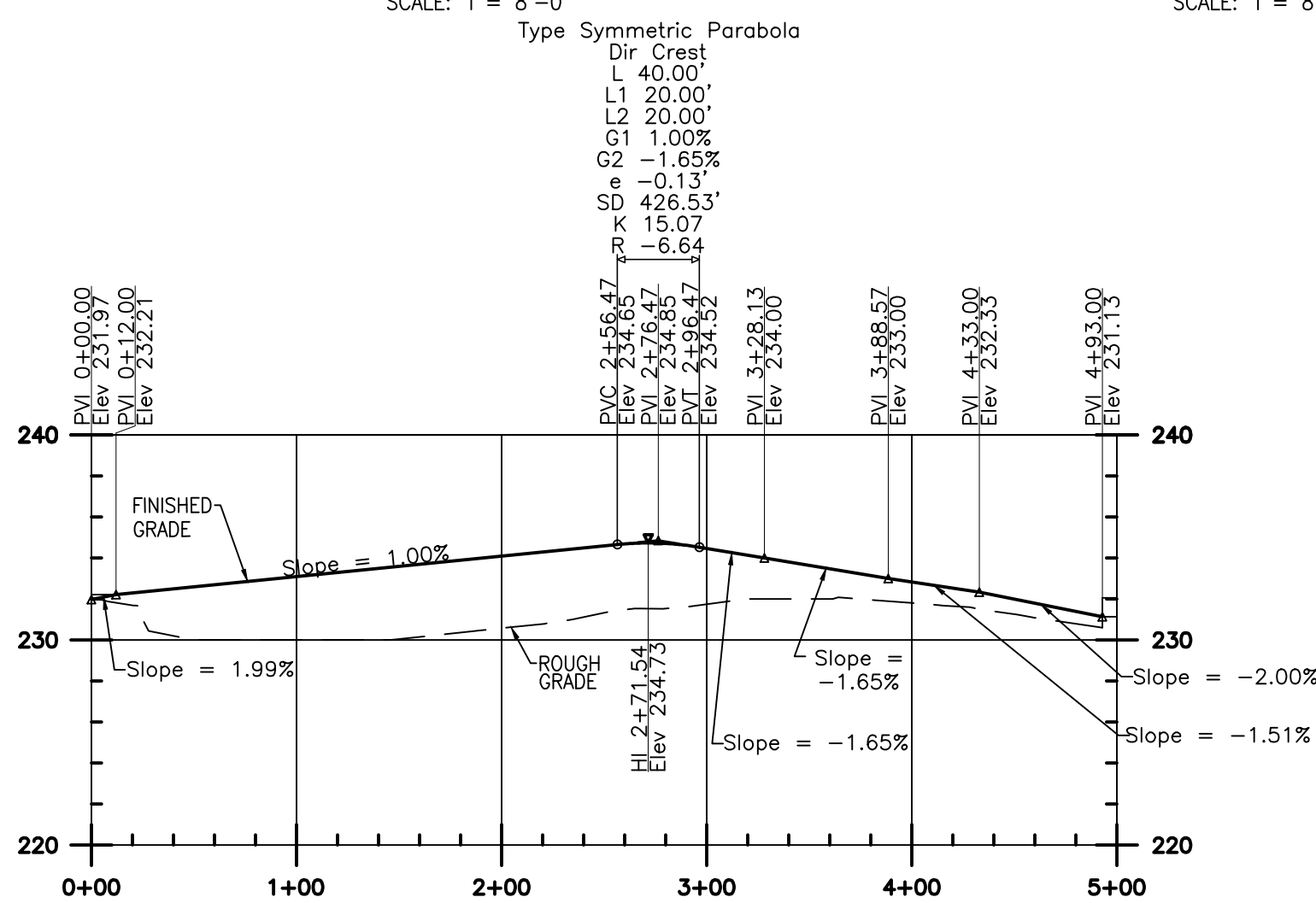
2 PARKING ROAD PROFILE

D-10 SCALE: 1" = 80'-0"
SCALE: 1" = 8'-0"



7 PARKING LANE 5 PROFILE

D-10 SCALE: 1" = 80'-0"
SCALE: 1" = 8'-0"



PARKING LANE 7 PROFILE

SCALE: 1" = 80'-0"
SCALE: 1" = 8'-0"

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ROAD PROFILES

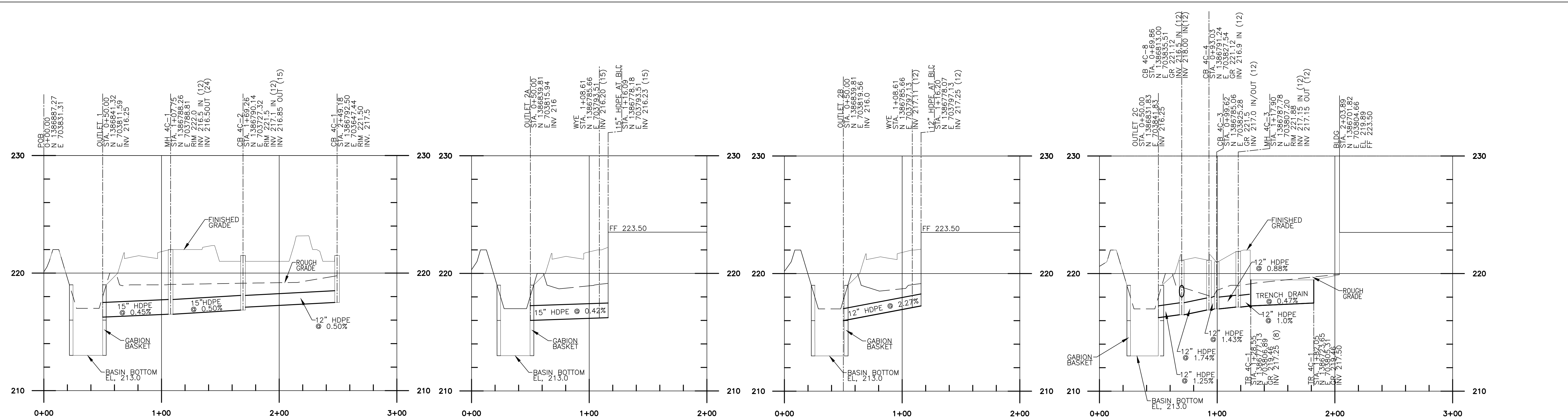
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Drawing No. **17-G-1302-D-10**

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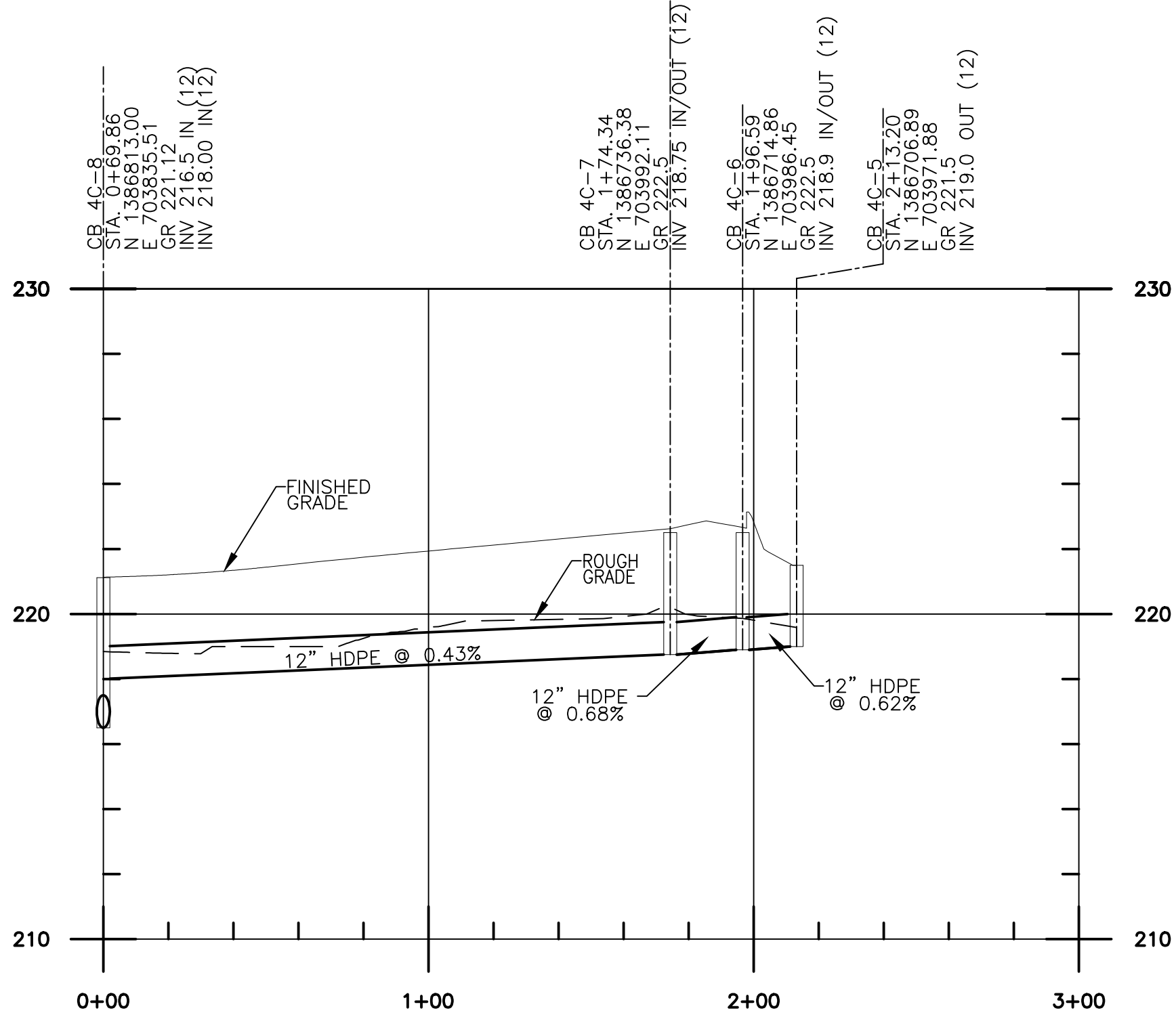


1 STORM 1 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

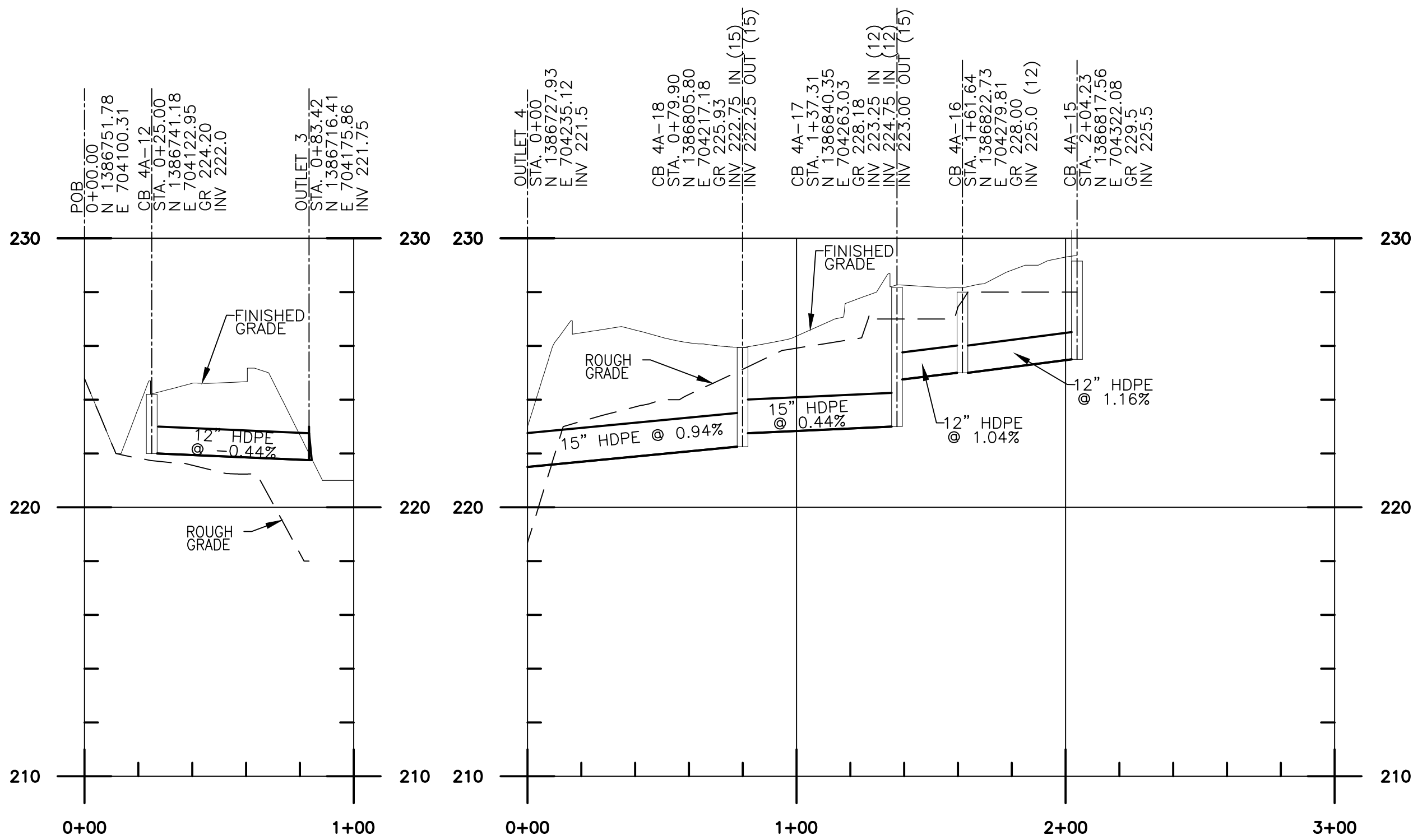
2 STORM 2 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

3 STORM 3 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

4 STORM 4 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"



5 STORM 5 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"



6 STORM 6 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

7 STORM 7 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

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STORMWATER PROFILES

SHEET 1

Scale: AS NOTED

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Date: 8/10/2018

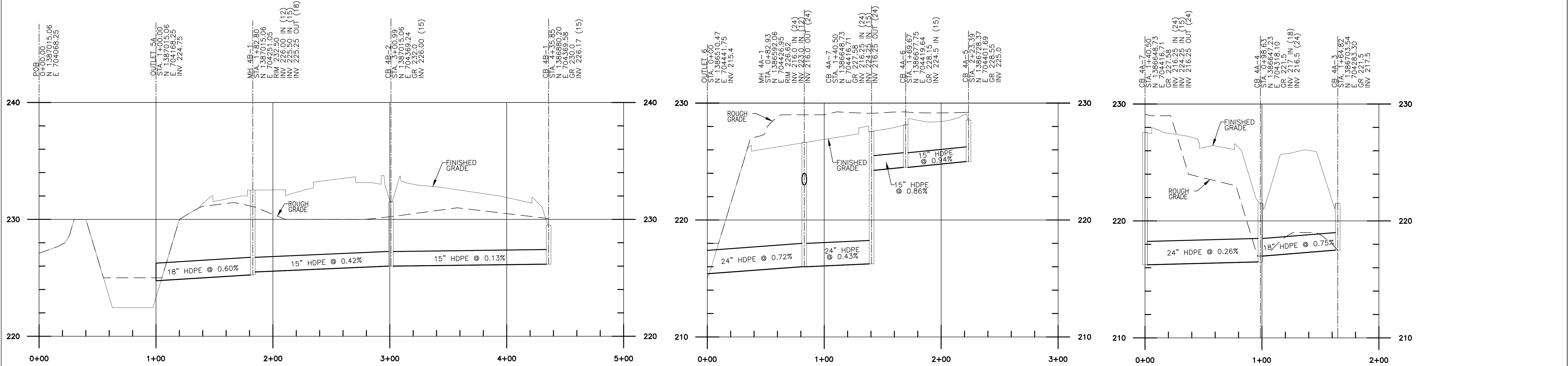
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17-G-1302-D-11

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Revision: A

Sheet:



8 STORM 8 PROFILE

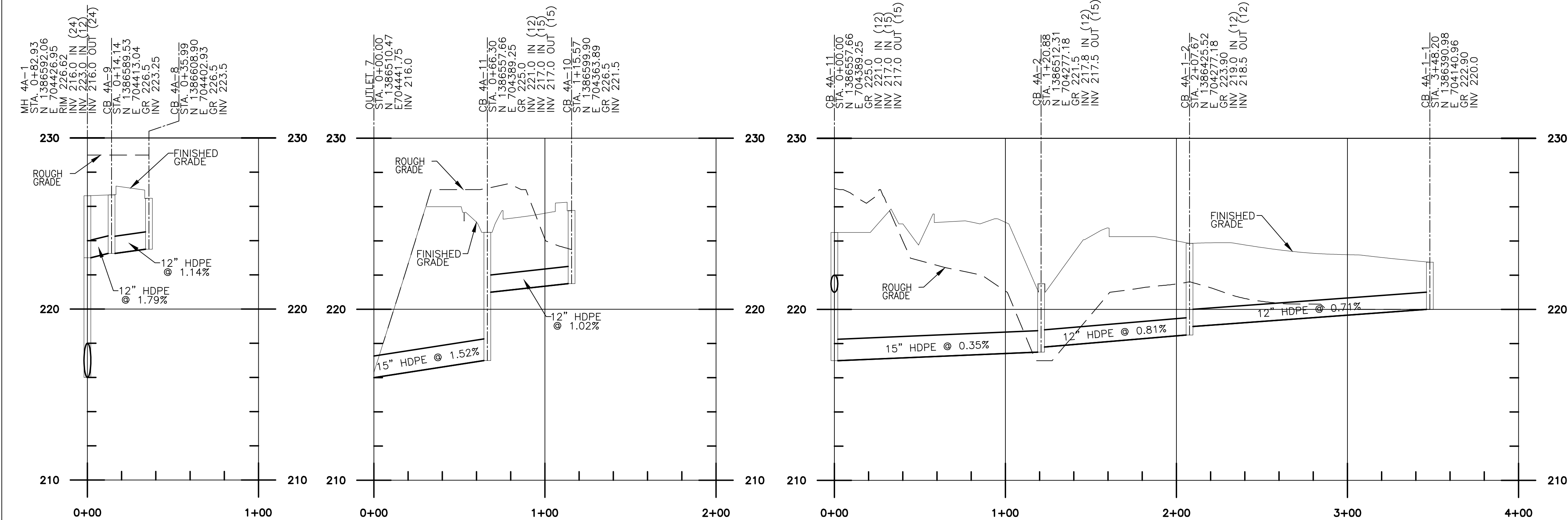
D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

9 STORM 9 PROFILE

D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

10 STORM 10 PROFILE

D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"



11 STORM 11 PROFILE

D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

12 STORM 12 PROFILE

D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

13 STORM 13 PROFILE

D-11 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

Rev #			Date:	Description	Drawn By:	Rev #			Date:	Description	Drawn By:	Planning Board--Town of East Greenbush BY DIRECTION OF CHAIRMAN OF THE PLANNING BOARD THESE PLANS ARE APPROVED SEE FIRST SHEET FOR DATE & SIGNATURE			Drawing No.	
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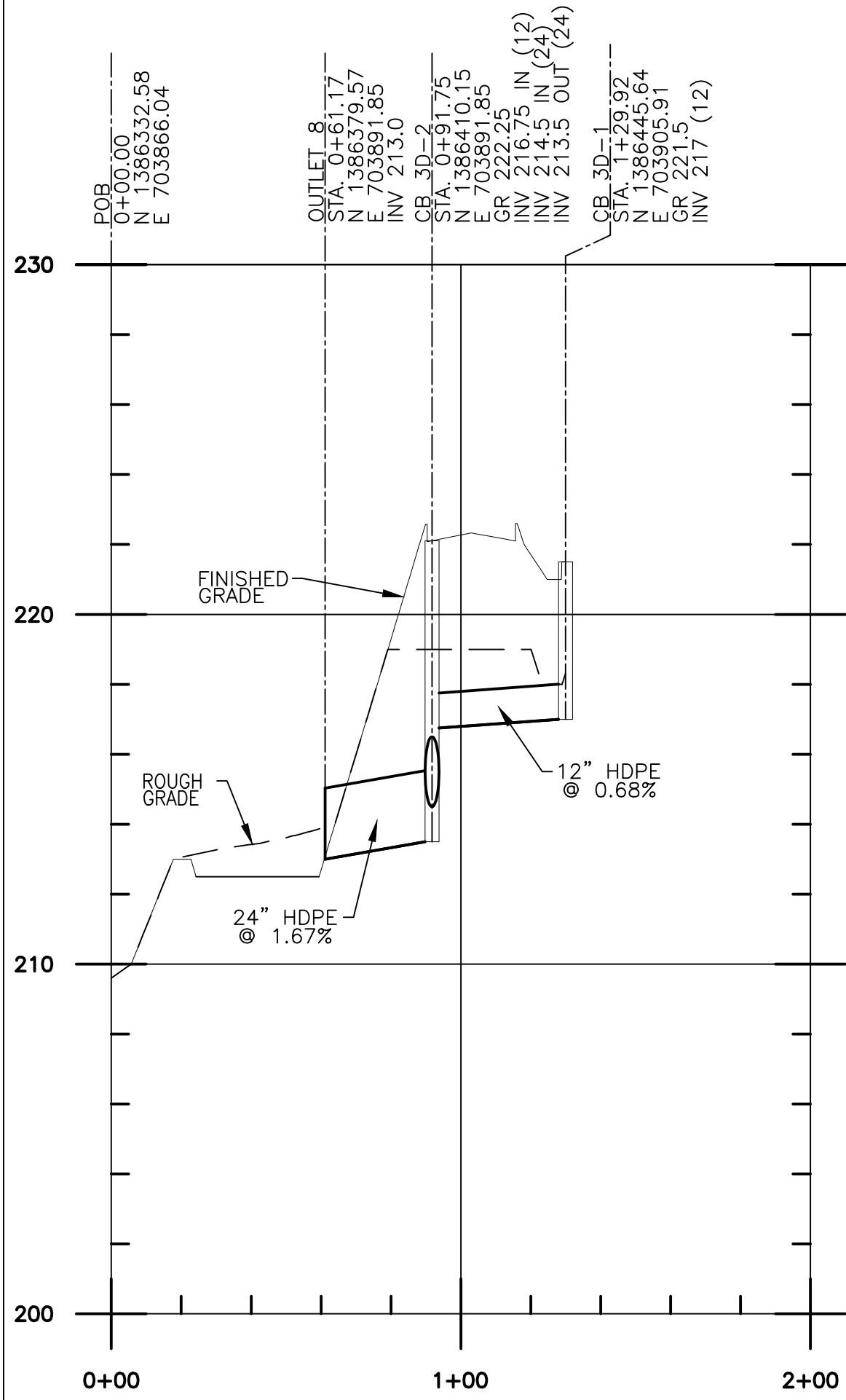
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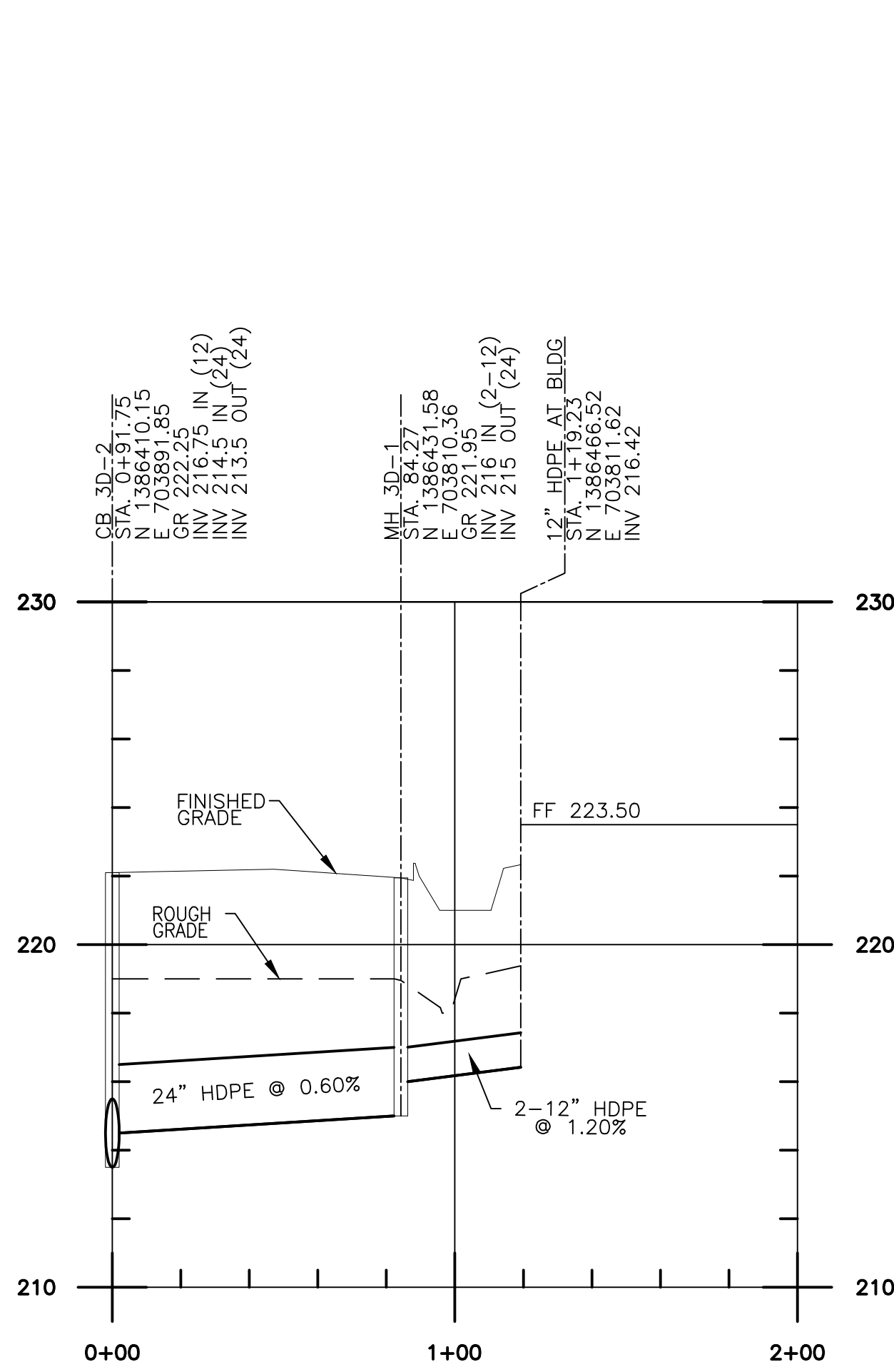
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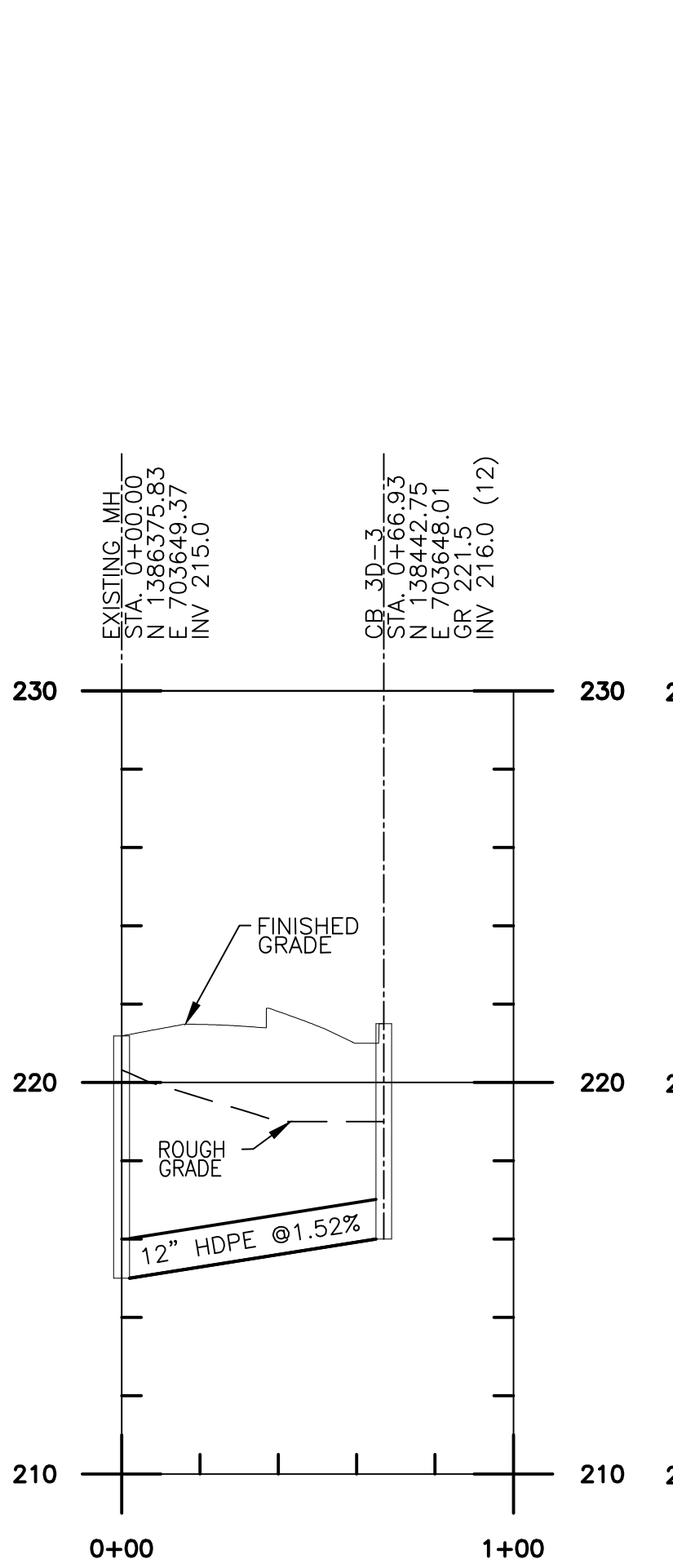
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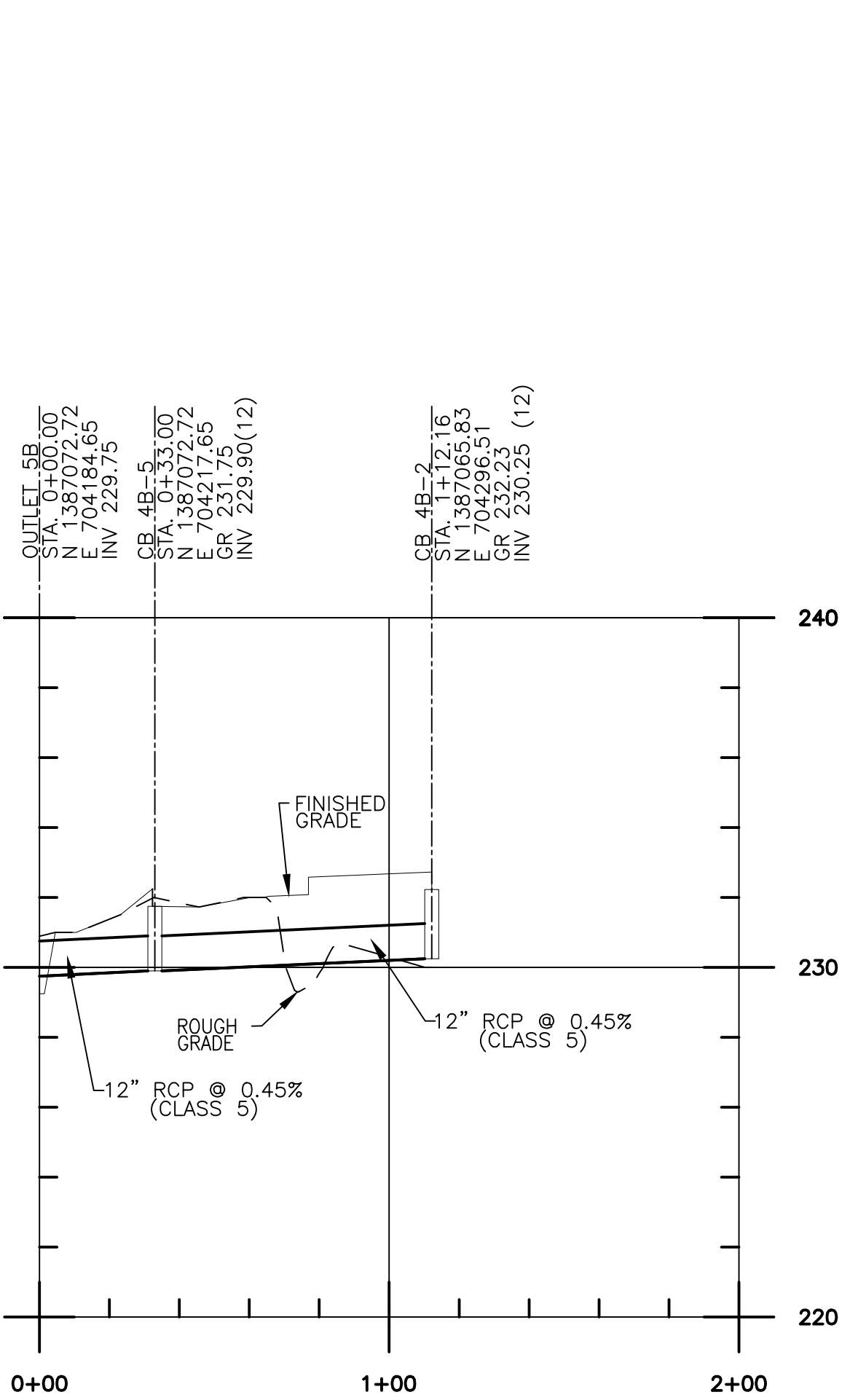
14 STORM 14 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1"= 4'-0"



15 STORM 15 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1"= 4'-0"



16 STORM 16 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1"= 4'-0"



17 STORM 17 PROFILE
D-11 SCALE: 1" = 40'-0"
SCALE: 1"= 4'-0"

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Bldg.:

STORMWATER PROFILES

SHEET 3

File No.: 17-G-1302-D-13.DWG

Date: 4/10/2018

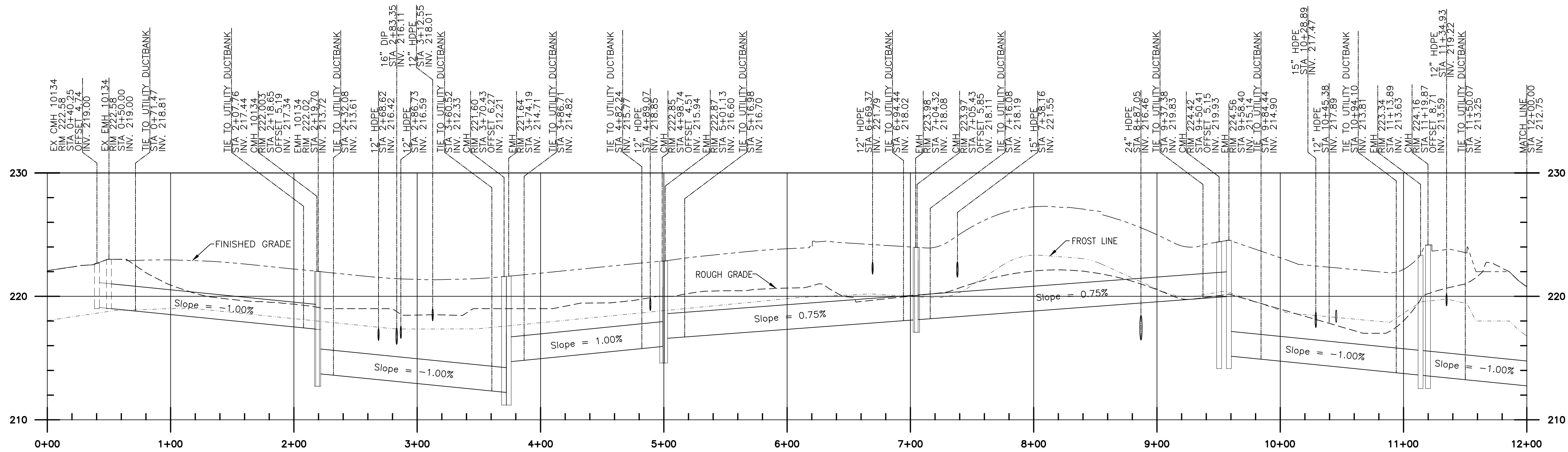
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17-G-1302-D-13

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Revision: A

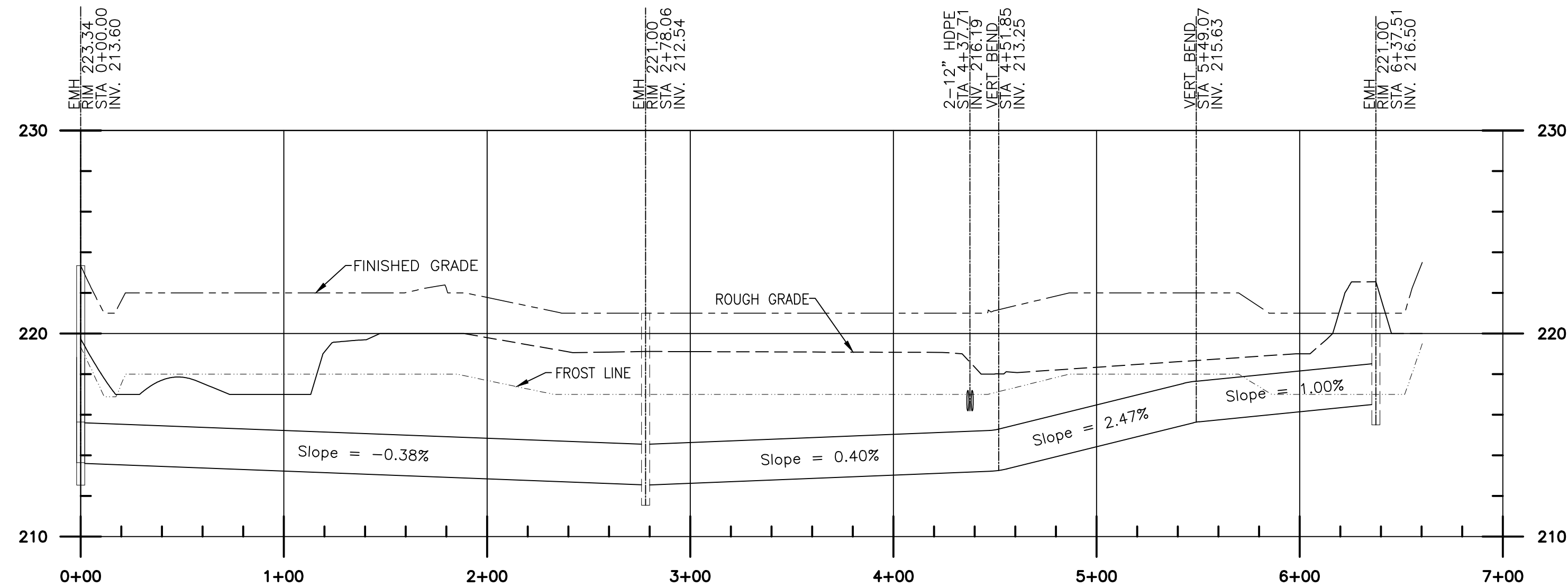
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1
D-14
CONBINATION ELECTRICAL DUCTBANK
AND TELECOMMUNICATION PROFILE
SCALE: 1" = 50'-0"
SCALE: 1" = 5'-0"

LEGEND

EMH = ELECTRICAL DUCTBANK MANHOLE
CMH = COMMUNICATION MANHOLE



2
D-14
ELECTRICAL DUCTBANK PROFILE
SCALE: 1" = 50'-0"
SCALE: 1" = 5'-0"

Planning Board--Town of East Greenbush
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ELECTRICAL DUCTBANK AND
TELECOMMUNICATION PROFILES
SHEET 1

Scale: AS NOTED

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Date: 15/10/2018

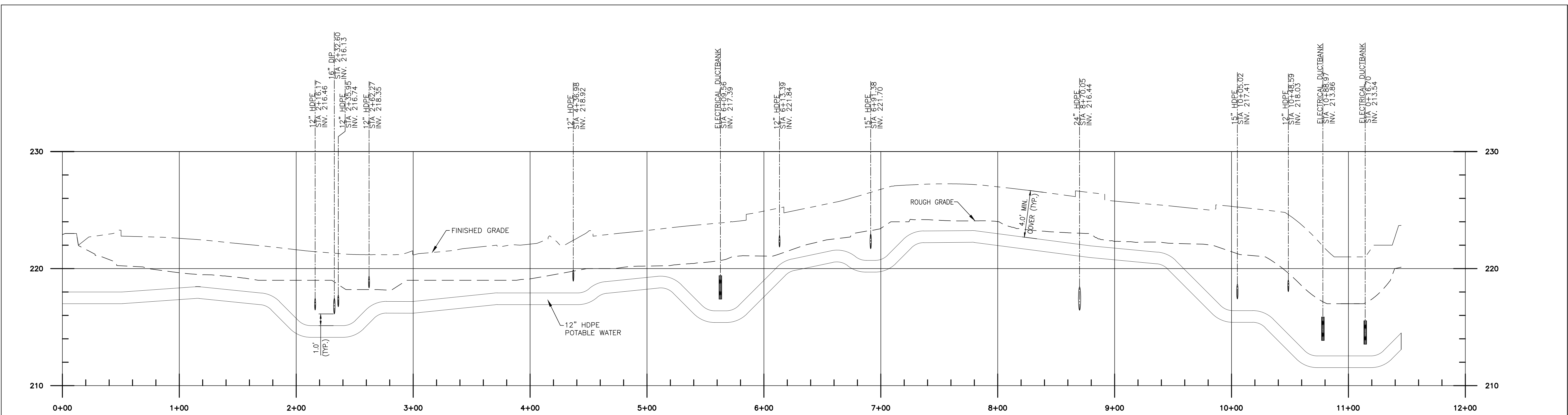
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17-G-1302-D-14

Old Drawing No.



1 POTABLE WATER LINE PROFILE
D-15 SCALE: 1" = 40'-0"
SCALE: 1" = 4'-0"

NOTE:
WATER LINE SHALL HAVE MINIMUM 4.0" COVER UNLESS NOTED OTHERWISE. ANY DISCREPANCIES SHALL BE REPORTED TO DESIGN ENGINEER.

Planning Board--Town of East Greenbush BY DIRECTION OF CHAIRMAN OF THE PLANNING BOARD THESE PLANS ARE APPROVED SEE FIRST SHEET FOR DATE & SIGNATURE																
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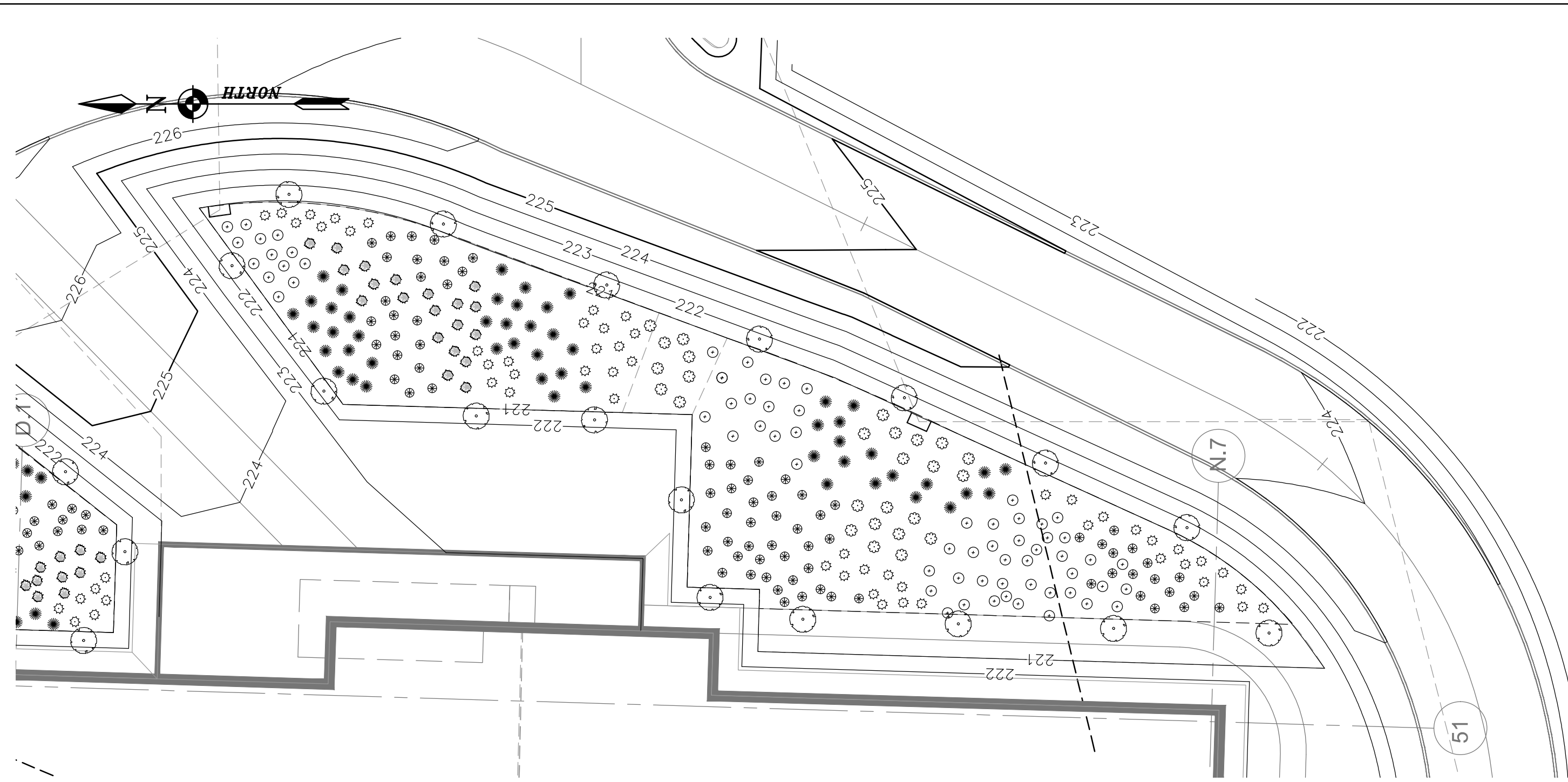
WATER AND SEWER PROFILES
SHEET 2

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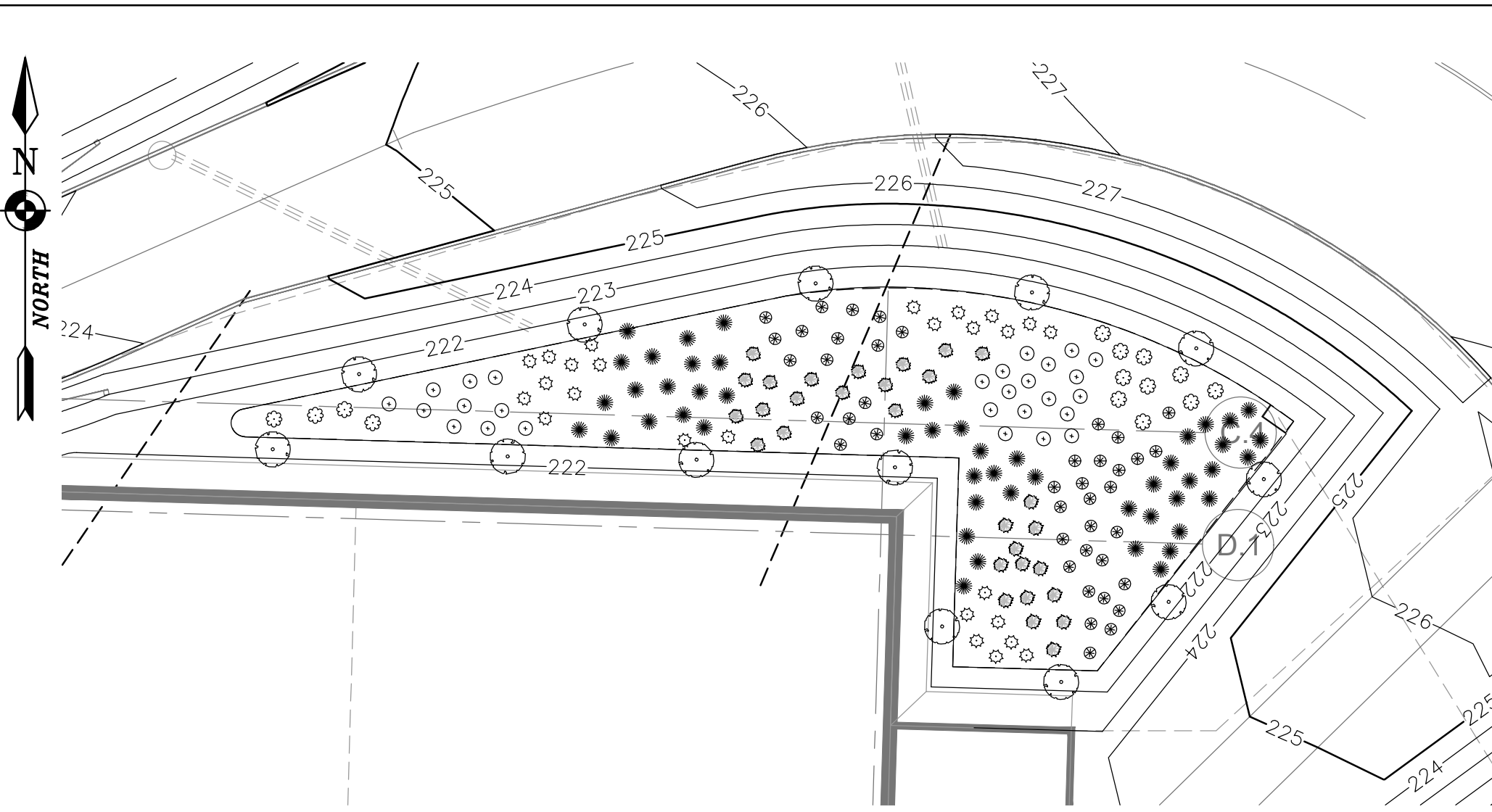
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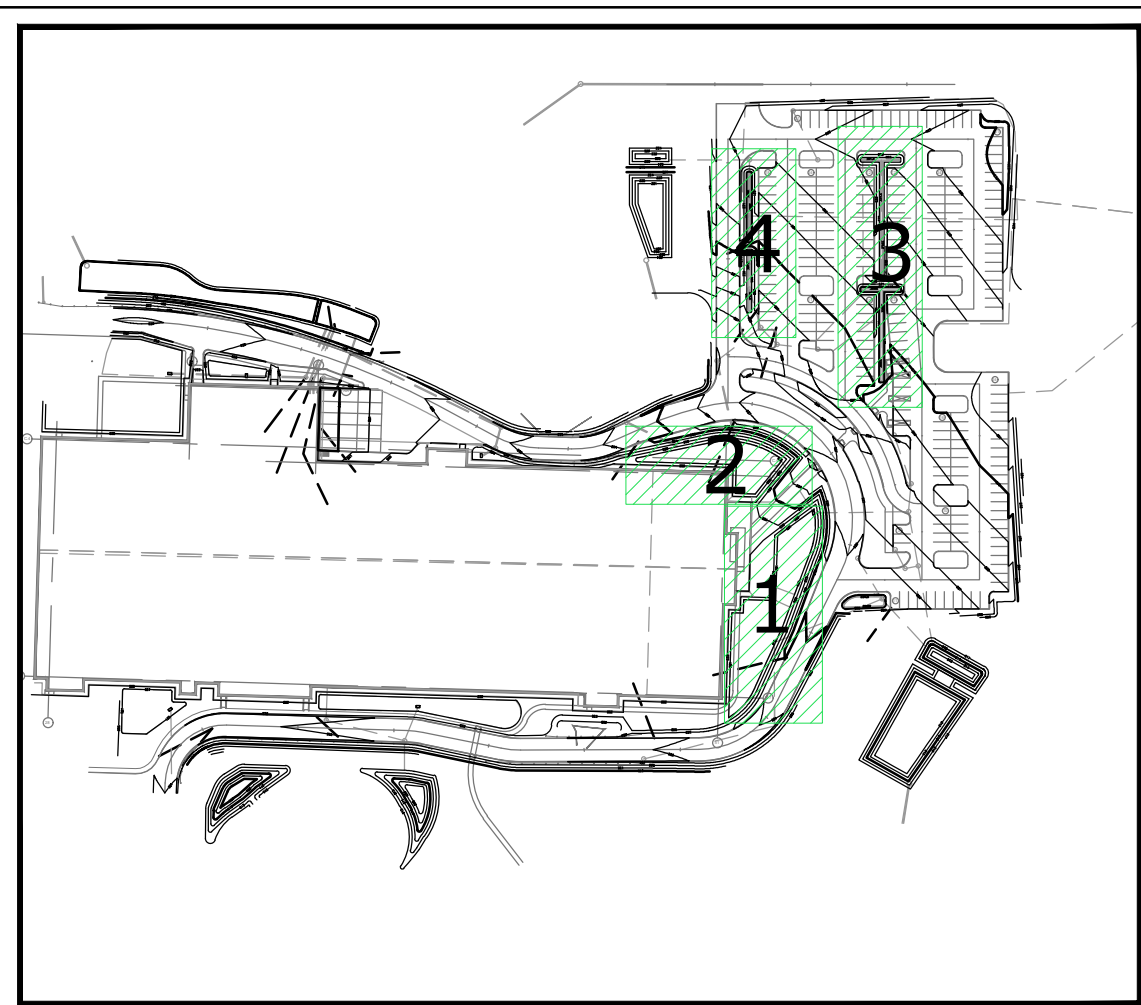
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1
D-3
BIORETENTION PLANTING PLAN
SCALE: 1" = 20'



2
D-3
BIORETENTION PLANTING PLAN
SCALE: 1" = 20'



KEY PLAN

FIRST YEAR MAINTENANCE OPERATIONS
SUCCESSFUL ESTABLISHMENT OF BIORETENTION AREAS REQUIRES THAT THE FOLLOWING TASKS BE UNDERTAKEN IN THE FIRST YEAR FOLLOWING INSTALLATION:

INITIAL INSPECTIONS. FOR THE FIRST 6 MONTHS FOLLOWING CONSTRUCTION, THE SITE SHOULD BE INSPECTED AT LEAST TWICE AFTER STORM EVENTS THAT EXCEED 1/2 INCH OF RAINFALL.
SPOT RESEEDING. INSPECTORS SHOULD LOOK FOR BARE OR ERODING AREAS IN THE CONTRIBUTING DRAINAGE AREA OR AROUND THE BIORETENTION AREA, AND MAKE SURE THEY ARE IMMEDIATELY STABILIZED WITH GRASS COVER.
FERTILIZATION. ONE-TIME, SPOT FERTILIZATION MAY BE NEEDED FOR INITIAL PLANTINGS.
WATERING. WATERING IS NEEDED ONCE A WEEK DURING THE FIRST 2 MONTHS, AND THEN AS NEEDED DURING FIRST GROWING SEASON (APRIL-OCTOBER), DEPENDING ON RAINFALL.
REMOVE AND REPLACE DEAD PLANTS. SINCE UP TO 10% OF THE PLANT STOCK MAY DIE OFF IN THE FIRST YEAR, CONSTRUCTION CONTRACTS SHOULD INCLUDE A CARE AND REPLACEMENT WARRANTY TO ENSURE THAT VEGETATION IS PROPERLY ESTABLISHED AND SURVIVES DURING THE FIRST GROWING SEASON FOLLOWING CONSTRUCTION. THE TYPICAL THRESHOLDS BELOW WHICH REPLACEMENT IS REQUIRED ARE 95% SURVIVAL OF PLANT MATERIAL AND 100% SURVIVAL OF TREES.

MAINTENANCE INSPECTIONS
IT IS HIGHLY RECOMMENDED THAT A SPRING MAINTENANCE INSPECTION AND CLEANUP BE CONDUCTED AT EACH BIORETENTION AREA. THE FOLLOWING IS A LIST OF SOME OF THE KEY MAINTENANCE PROBLEMS TO LOOK FOR:

CHECK TO SEE IF 75% TO 90% COVER (MULCH PLUS VEGETATIVE COVER) HAS BEEN ACHIEVED IN THE BED, AND MEASURE THE DEPTH OF THE REMAINING MULCH.
CHECK FOR SEDIMENT BUILDUP AT CURB CUTS, GRAVEL DIAPHRAGMS OR PAVEMENT EDGES THAT PREVENTS FLOW FROM GETTING INTO THE BED, AND CHECK FOR OTHER SIGNS OF BYPASSING.
CHECK FOR ANY WINTER- OR SALT-KILLED VEGETATION, AND REPLACE IT WITH HARDIER SPECIES.
NOTE PRESENCE OF ACCUMULATED SAND, SEDIMENT AND TRASH IN THE PRE-TREATMENT CELL OR FILTER BEDS, AND REMOVE IT.
INSPECT BIORETENTION SIDE SLOPES AND GRASS FILTER STRIPS FOR EVIDENCE OF ANY RILL OR GULLY EROSION, AND REPAIR IT.
CHECK THE BIORETENTION BED FOR EVIDENCE OF MULCH FLOTATION, EXCESSIVE PONDING, DEAD PLANTS OR CONCENTRATED FLOWS, AND TAKE APPROPRIATE REMEDIAL ACTION.
CHECK INFLOW POINTS FOR CLOGGING, AND REMOVE ANY SEDIMENT.
LOOK FOR ANY BARE SOIL OR SEDIMENT SOURCES IN THE CONTRIBUTING DRAINAGE AREA, AND STABILIZE THEM IMMEDIATELY.
CHECK FOR CLOGGED OR SLOW-DRAINING SOIL MEDIA, A CRUST FORMED ON THE TOP LAYER, INAPPROPRIATE SOIL MEDIA, OR OTHER CAUSES OF INSUFFICIENT FILTERING TIME, AND RESTORE PROPER FILTRATION CHARACTERISTICS.

MAINTENANCE OF BIORETENTION AREAS SHOULD BE INTEGRATED INTO ROUTINE LANDSCAPE MAINTENANCE TASKS. IF LANDSCAPING CONTRACTORS WILL BE EXPECTED TO PERFORM MAINTENANCE, THEIR CONTRACTS SHOULD CONTAIN SPECIFICS ON UNIQUE BIORETENTION LANDSCAPING NEEDS, SUCH AS MAINTAINING ELEVATION DIFFERENCES NEEDED FOR PONDING, PROPER MULCHING, SEDIMENT AND TRASH REMOVAL, AND LIMITED USE OF FERTILIZERS AND PESTICIDES. A CUSTOMIZED MAINTENANCE SCHEDULE MUST BE PREPARED FOR EACH BIORETENTION FACILITY, SINCE THE MAINTENANCE TASKS WILL VARY DEPENDING ON THE SCALE OF BIORETENTION, THE LANDSCAPING TEMPLATE CHOSEN, AND THE TYPE OF SURFACE COVER. A GENERALIZED SUMMARY OF COMMON MAINTENANCE TASKS AND THEIR FREQUENCY IS PROVIDED IN TABLE 1.

THE MOST COMMON NON-ROUTINE MAINTENANCE PROBLEM INVOLVES STANDING WATER. IF WATER REMAINS ON THE SURFACE FOR MORE THAN 48 HOURS AFTER A STORM, ADJUSTMENTS TO THE GRADING MAY BE NEEDED OR UNDERDRAIN REPAIRS MAY BE NEEDED. THE SURFACE OF THE FILTER BED SHOULD ALSO BE CHECKED FOR ACCUMULATED SEDIMENT OR A FINE CRUST THAT BUILDS UP AFTER THE FIRST SEVERAL STORM EVENTS. THERE ARE SEVERAL METHODS THAT CAN BE USED TO REHABILITATE THE FILTER (TRY THE EASIEST THINGS FIRST, AS LISTED BELOW):

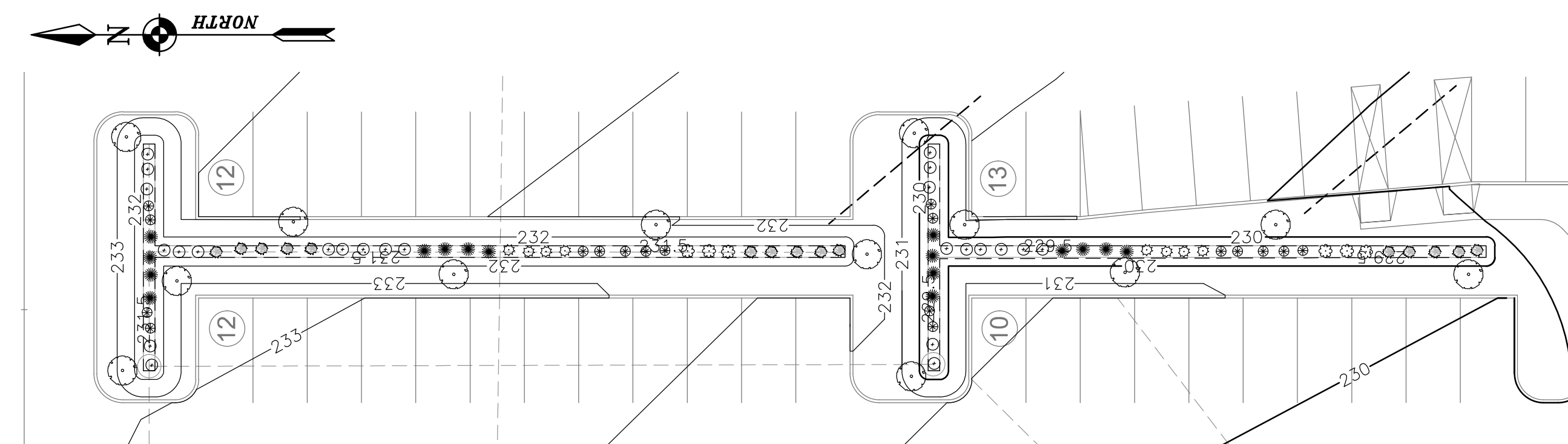
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REMOVE AND REPLACE SOME OR ALL OF THE SOIL MEDIA.

BIORETENTION PLANT MATERIAL SCHEDULE

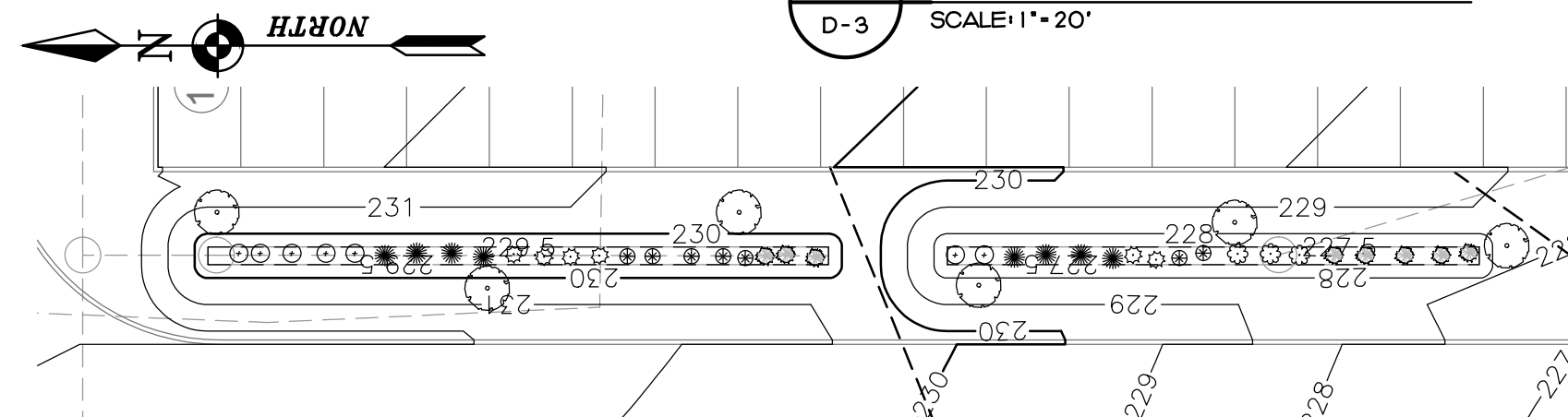
SYM	ABRV	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
○	BJ	CALAMAGROSTIS CANADENSIS	BLUE JOINT GRASS	2" PLUGS	329	
✱	IS	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUGS	347	
○	IV	ILEX VERICOLLATA	WINTERBERRY	2 GAL.	282	CONTAINER GROWN
○	NS	NYSSA SYLVATICA	BLUE GUM	1 1/2"-1 1/2" DIA.	106	
✱	PN	POTAMOGETON NODOSUS	LONG-LEAVED POND WEED	1 1/2"-1 1/2" DIA.	383	
○	RC	PYRUS ARBUTIFOLIO	RED CHUCKLE BERRY	1 GAL.	132	CONTAINER GROWN
○	SA	SCIRPUS ACUTUS	HARDSTEM BLURUSH	2" PLUGS	228	

TABLE 1. SUGGESTED ANNUAL MAINTENANCE ACTIVITIES FOR BIORETENTION

Maintenance Tasks	Frequency
MOVING OF GRASS FILTER STRIPS AND BIORETENTION TURF COVER	AT LEAST 4 TIMES A YEAR
SPOT WEEDING, EROSION REPAIR, TRASH REMOVAL, AND MULCH RAKING	TWICE DURING GROWING SEASON
ADD REINFORCEMENT PLANTING TO MAINTAIN DESIRED THE VEGETATION DENSITY REMOVE INVASIVE PLANTS USING RECOMMENDED CONTROL METHODS STABILIZE THE CONTRIBUTING DRAINAGE AREA TO PREVENT EROSION	AS NEEDED
SPRING INSPECTION AND CLEANUP SUPPLEMENT MULCH TO MAINTAIN A 3 INCH LAYER PRUNE TREES AND SHRUBS	ANNUALLY
REMOVE SEDIMENT IN PRE-TREATMENT CELLS AND INFLOW POINTS WHEN IT EXCEEDS 3"	ONCE EVERY 2 TO 3 YEARS
REPLACE THE MULCH LAYER	EVERY 3 YEARS



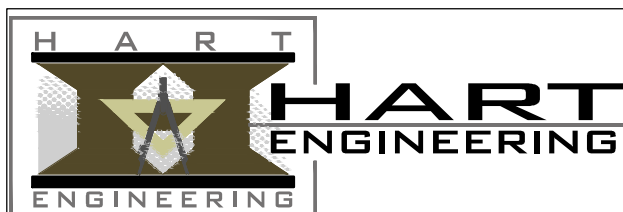
3
D-3
BIORETENTION PLANTING PLAN
SCALE: 1" = 20'



4
D-3
BIORETENTION PLANTING PLAN
SCALE: 1" = 20'

Rev #	Date:	Description	Drawn By:

STEVEN P. HART, P.E. #069039



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CASTLETON NY, 12033
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Rensselaer, NY 12144

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BIORETENTION PLANTING PLAN- I

Drawing No.
17-G-1601-D-3

Old Drawing No.

Date: OCTOBER 2018

Revision:

Sheet: 6

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BIORETENTION PLANTING PLAN - 2

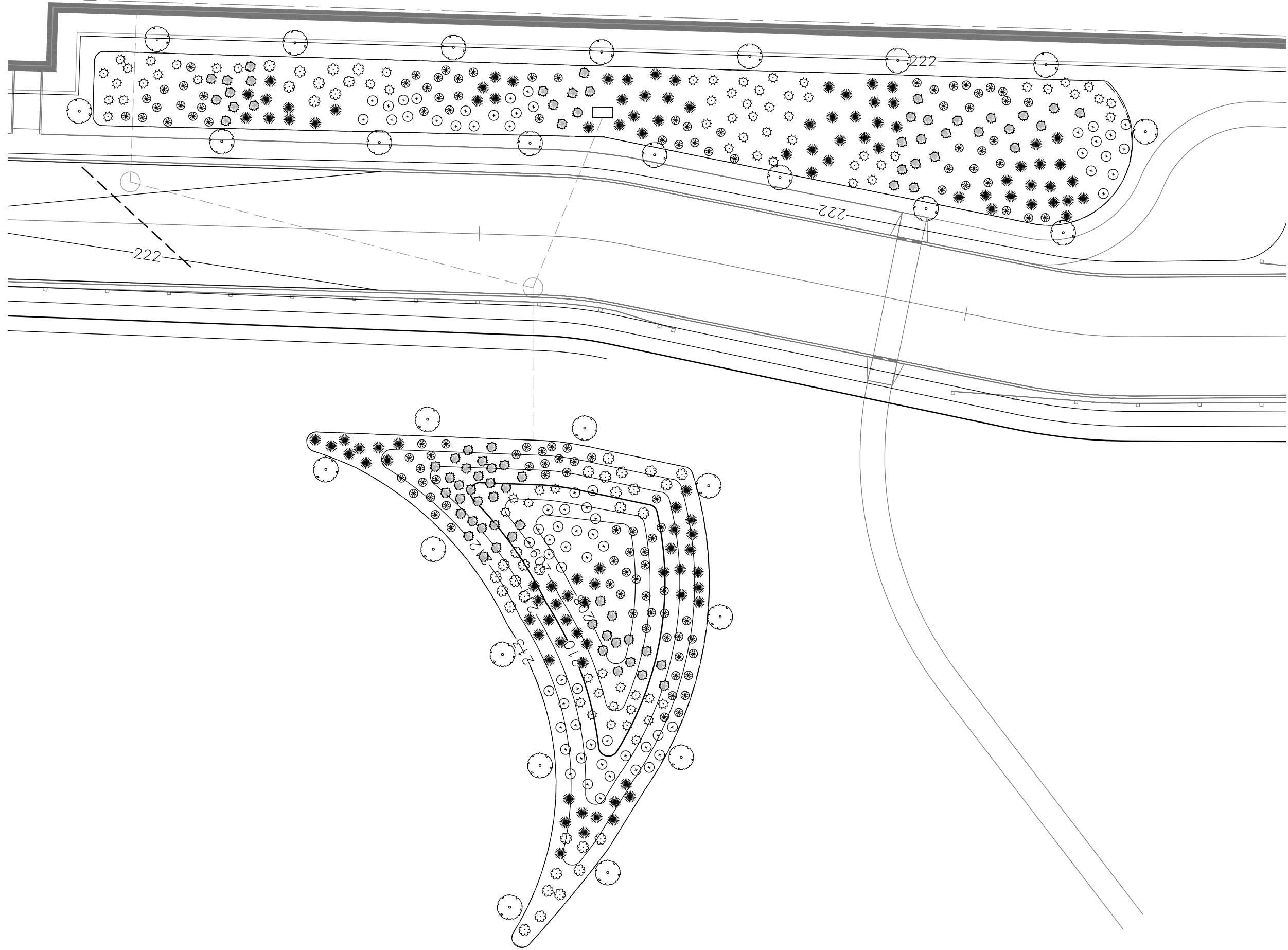
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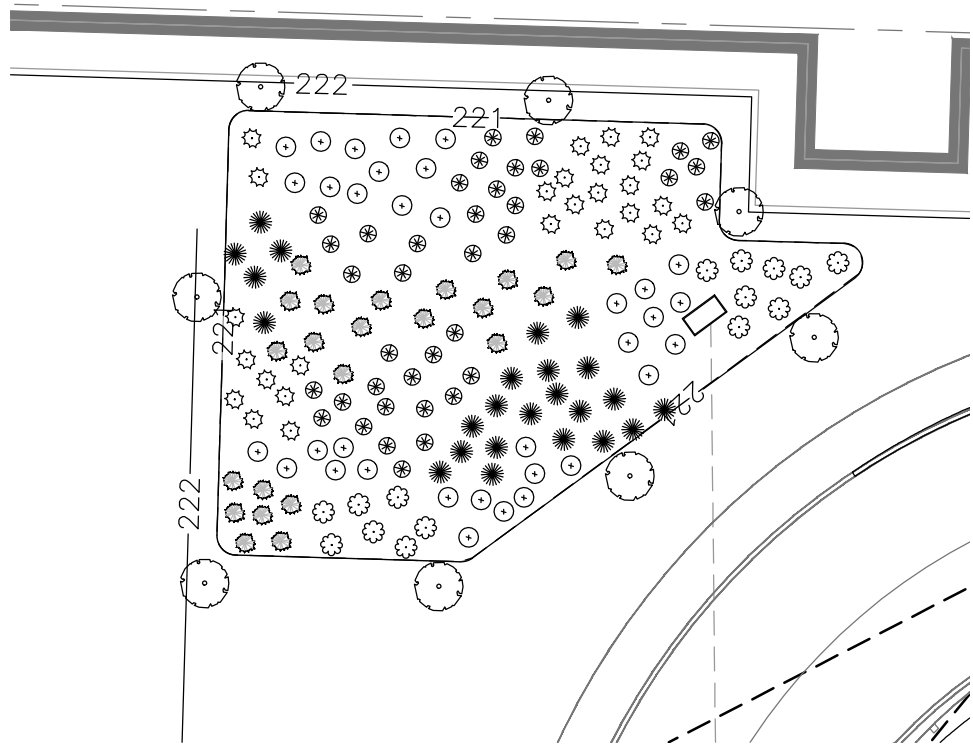
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Revision:

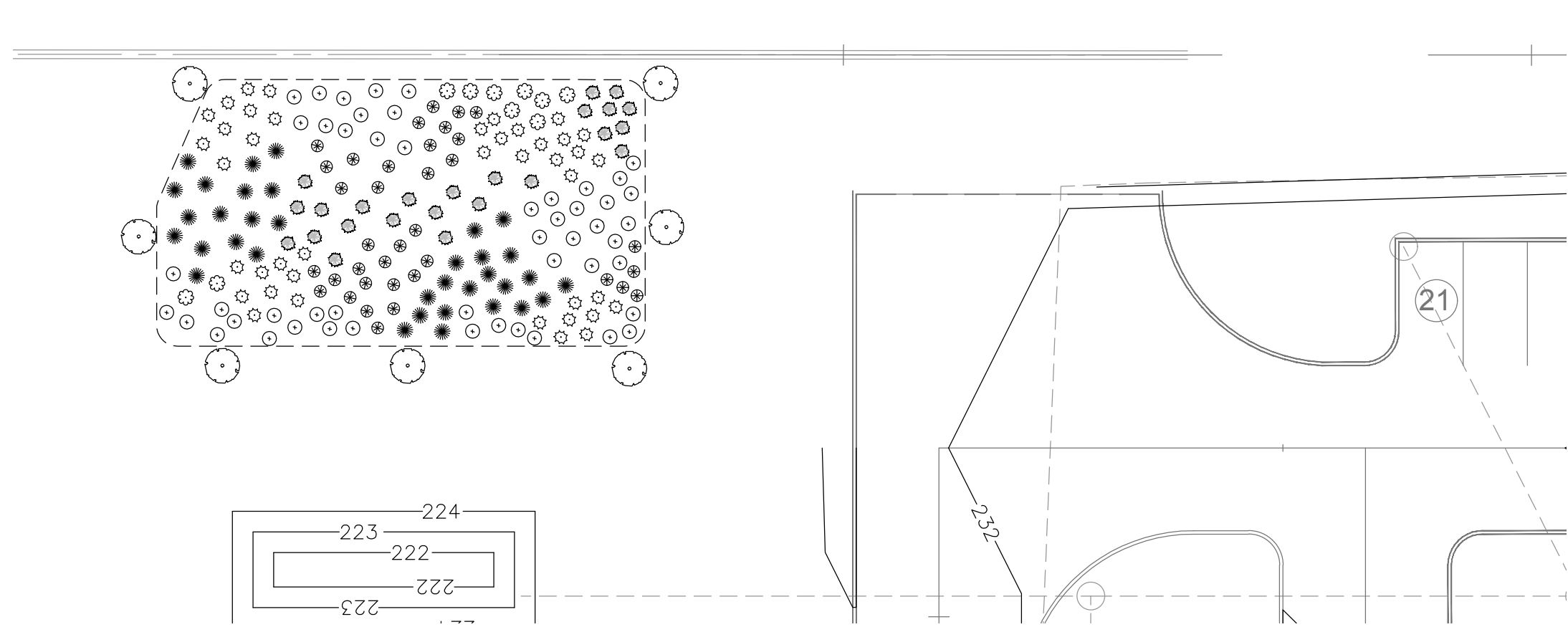
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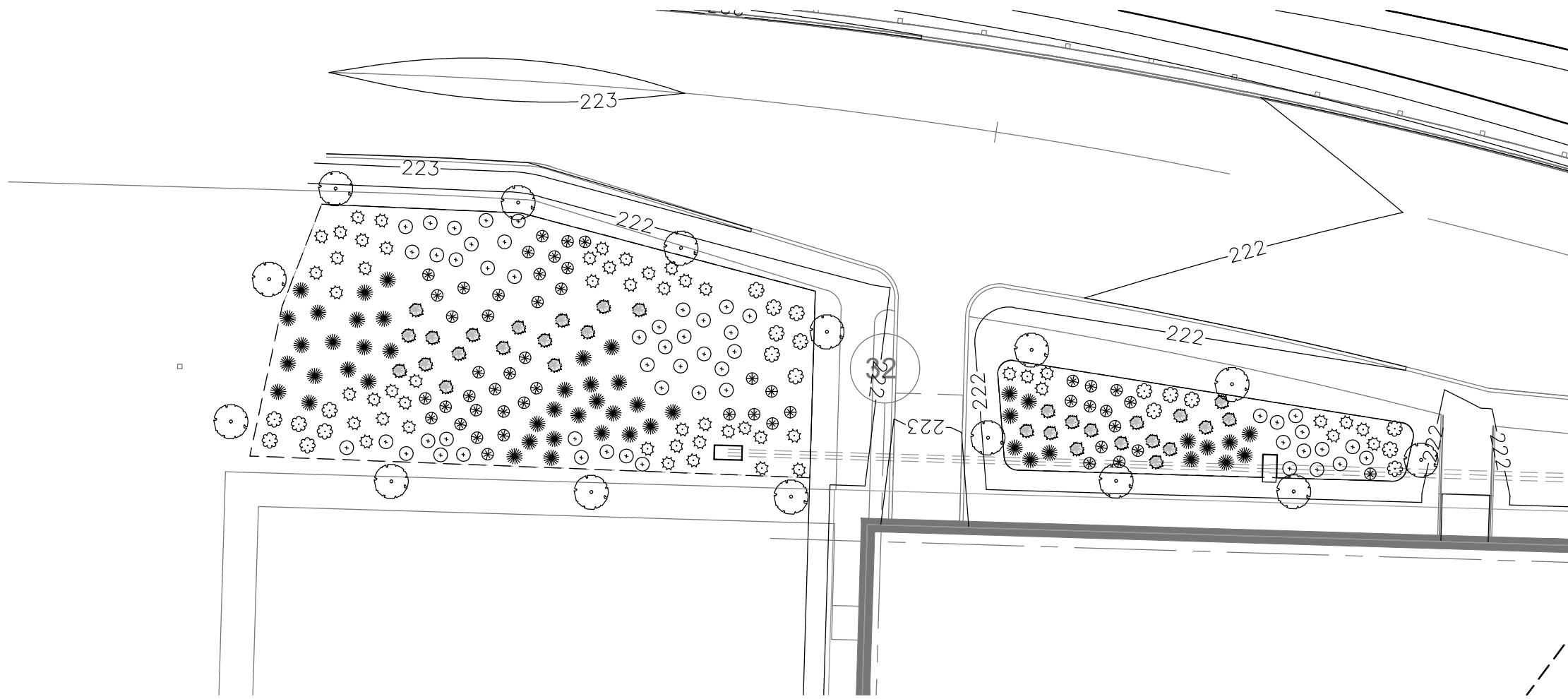
3 BIORETENTION PLANTING PLAN
SCALE: 1" = 20'



4 BIORETENTION PLANTING PLAN
SCALE: 1" = 20'



1 BIORETENTION PLANTING PLAN
SCALE: 1" = 20'

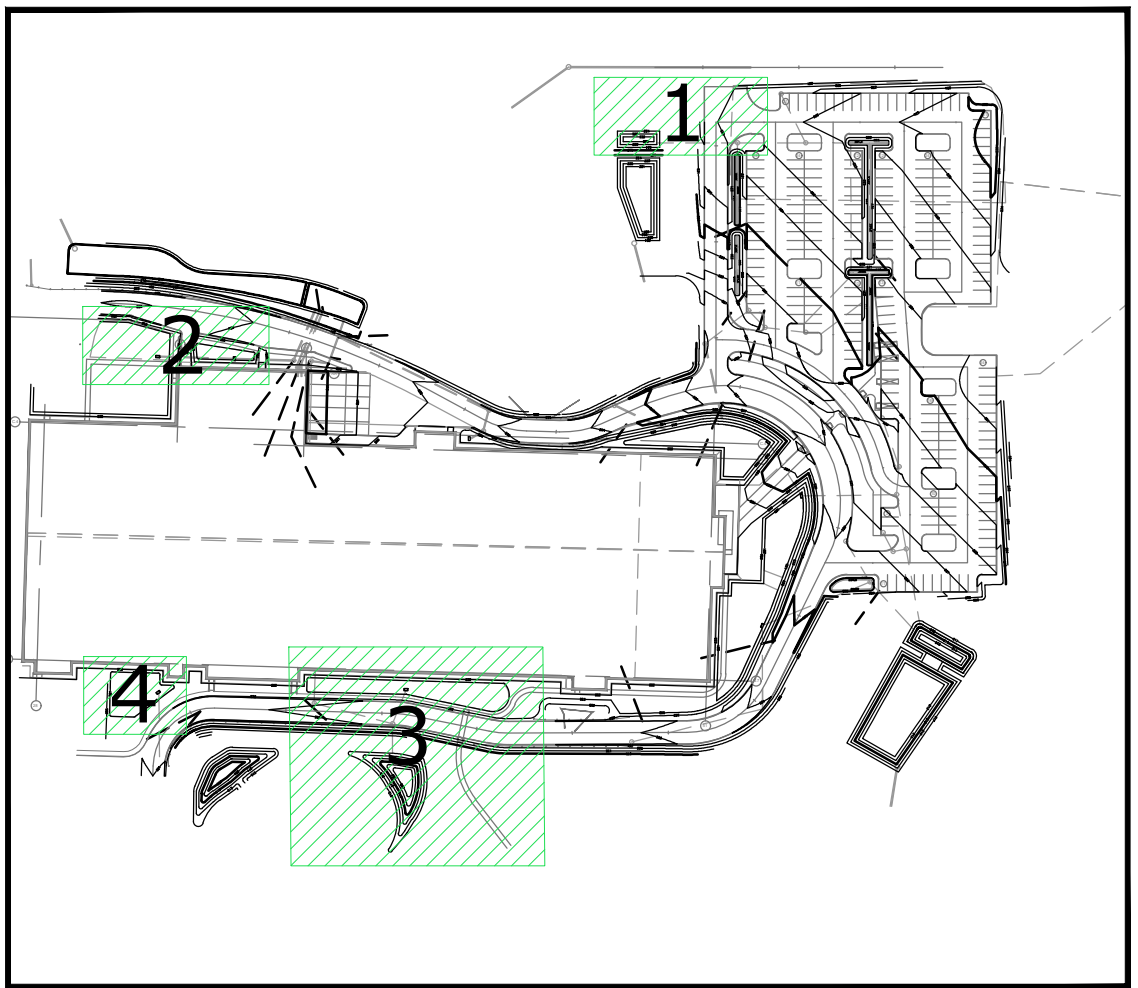


2 BIORETENTION PLANTING PLAN
SCALE: 1" = 20'

BIORETENTION PLANT MATERIAL SCHEDULE						
SYM	ABRV	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
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⊙	PN	POTAMOGETON NODOSUS	LONG-LEAVED POND WEED	1 1/2" - 1 1/2" DIA.	389	
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Maintenance Tasks	Frequency
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REMOVE SEDIMENT IN PRE-TREATMENT CELLS AND INFLOW POINTS WHEN IT EXCEEDS 36	ONCE EVERY 2 TO 3 YEARS
REPLACE THE MULCH LAYER	EVERY 3 YEARS



KEY PLAN

FIRST YEAR MAINTENANCE OPERATIONS
SUCCESSFUL ESTABLISHMENT OF BIORETENTION AREAS REQUIRES THAT THE FOLLOWING TASKS BE UNDERTAKEN IN THE FIRST YEAR FOLLOWING INSTALLATION:

INITIAL INSPECTIONS. FOR THE FIRST 6 MONTHS FOLLOWING CONSTRUCTION, THE SITE SHOULD BE INSPECTED AT LEAST TWICE AFTER STORM EVENTS THAT EXCEED 1/2 INCH OF RAINFALL.
SPOT RESEEDING. INSPECTORS SHOULD LOOK FOR BARE OR ERODING AREAS IN THE CONTRIBUTING DRAINAGE AREA OR AROUND THE BIORETENTION AREA, AND MAKE SURE THEY ARE IMMEDIATELY STABILIZED WITH GRASS COVER.
FERTILIZATION. ONE-TIME, SPOT FERTILIZATION MAY BE NEEDED FOR INITIAL PLANTINGS.
WATERING. WATERING IS NEEDED ONCE A WEEK DURING THE FIRST 2 MONTHS, AND THEN AS NEEDED DURING FIRST GROWING SEASON (APRIL-OCTOBER) DEPENDING ON RAINFALL.
REMOVE AND REPLACE DEAD PLANTS. SINCE UP TO 10% OF THE PLANT STOCK MAY DIE OFF IN THE FIRST YEAR, CONSTRUCTION CONTRACTS SHOULD INCLUDE A CARE AND REPLACEMENT WARRANTY TO ENSURE THAT VEGETATION IS PROPERLY ESTABLISHED AND SURVIVES DURING THE FIRST GROWING SEASON FOLLOWING CONSTRUCTION. THE TYPICAL THRESHOLDS BELOW WHICH REPLACEMENT IS REQUIRED ARE 85% SURVIVAL OF PLANT MATERIAL AND 100% SURVIVAL OF TREES.

MAINTENANCE INSPECTIONS
IT IS HIGHLY RECOMMENDED THAT A SPRING MAINTENANCE INSPECTION AND CLEANUP BE CONDUCTED AT EACH BIORETENTION AREA. THE FOLLOWING IS A LIST OF SOME OF THE KEY MAINTENANCE PROBLEMS TO LOOK FOR:

CHECK TO SEE IF 75% TO 90% COVER (MULCH PLUS VEGETATIVE COVER) HAS BEEN ACHIEVED IN THE BED, AND MEASURE THE DEPTH OF THE REMAINING MULCH.
CHECK FOR SEDIMENT BUILDUP AT CURB CUTS, GRAVEL DIAPHRAGMS OR PAVEMENT EDGES THAT PREVENTS FLOW FROM GETTING INTO THE BED, AND CHECK FOR OTHER SIGNS OF BYPASSING.
CHECK FOR ANY WINTER- OR SALT-KILLED VEGETATION, AND REPLACE IT WITH HARDIER SPECIES.
NOTE PRESENCE OF ACCUMULATED SAND, SEDIMENT AND TRASH IN THE PRE-TREATMENT CELL OR FILTER BEDS, AND REMOVE IT.
INSPECT BIORETENTION SIDE SLOPES AND GRASS FILTER STRIPS FOR EVIDENCE OF ANY RILL OR GULLY EROSION, AND REPAIR IT.
CHECK THE BIORETENTION BED FOR EVIDENCE OF MULCH FLOATATION, EXCESSIVE PONDING, DEAD PLANTS OR CONCENTRATED FLOWS, AND TAKE APPROPRIATE REMEDIAL ACTION.
CHECK INFLOW POINTS FOR CLOGGING, AND REMOVE ANY SEDIMENT.
LOOK FOR ANY BARE SOIL OR SEDIMENT SOURCES IN THE CONTRIBUTING DRAINAGE AREA, AND STABILIZE THEM IMMEDIATELY.
CHECK FOR CLOGGED OR SLOW-DRAINING SOIL MEDIA, A CRUST FORMED ON THE TOP LAYER, INAPPROPRIATE SOIL MEDIA, OR OTHER CAUSES OF INSUFFICIENT FILTERING TIME, AND RESTORE PROPER FILTRATION CHARACTERISTICS.

MAINTENANCE OF BIORETENTION AREAS SHOULD BE INTEGRATED INTO ROUTINE LANDSCAPE MAINTENANCE TASKS. IF LANDSCAPING CONTRACTORS WILL BE EXPECTED TO PERFORM MAINTENANCE, THEIR CONTRACTS SHOULD CONTAIN SPECIFICS ON UNIQUE BIORETENTION LANDSCAPING NEEDS, SUCH AS MAINTAINING ELEVATION DIFFERENCES NEEDED FOR PONDING, PROPER MULCHING, SEDIMENT AND TRASH REMOVAL, AND LIMITED USE OF FERTILIZERS AND PESTICIDES. A CUSTOMIZED MAINTENANCE SCHEDULE MUST BE PREPARED FOR EACH BIORETENTION FACILITY, SINCE THE MAINTENANCE TASKS WILL DIFFER DEPENDING ON THE SCALE OF BIORETENTION, THE LANDSCAPING TEMPLATE CHOSEN, AND THE TYPE OF SURFACE COVER. A GENERALIZED SUMMARY OF COMMON MAINTENANCE TASKS AND THEIR FREQUENCY IS PROVIDED IN TABLE 1.

THE MOST COMMON NON-ROUTINE MAINTENANCE PROBLEM INVOLVES STANDING WATER. IF WATER REMAINS ON THE SURFACE FOR MORE THAN 48 HOURS AFTER A STORM, ADJUSTMENTS TO THE GRADING MAY BE NEEDED OR UNDERDRAIN REPAIRS MAY BE NEEDED. THE SURFACE OF THE FILTER BED SHOULD ALSO BE CHECKED FOR ACCUMULATED SEDIMENT OR A FINE CRUST THAT BUILDS UP AFTER THE FIRST SEVERAL STORM EVENTS. THERE ARE SEVERAL METHODS THAT CAN BE USED TO REHABILITATE THE FILTER (TRY THE EASIEST THINGS FIRST, AS LISTED BELOW):

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