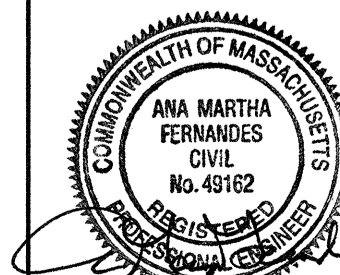
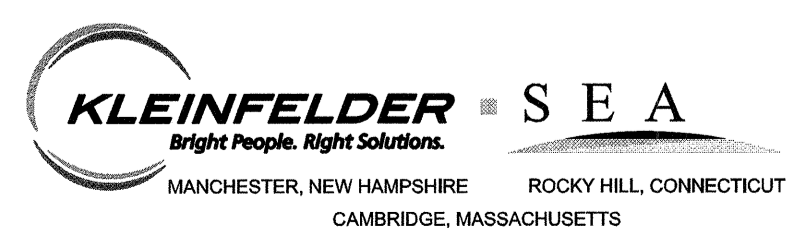


CATCH BASIN SCHEDULE											CATCH BASIN SCHEDULE CONTINUED										
NUMBER	STATION	INV. OUT	INV. FROM 6" Ø POROUS UNDER-DRAIN OR BIOBASIN	SUMP DEPTH	DETAIL NO.	RIM (EG)	RIM (FG)	LATERAL PIPE	CURB MARKER	SHEET	NUMBER	STATION	INV. OUT	INV. FROM 6" Ø POROUS UNDER-DRAIN OR BIOBASIN	SUMP DEPTH	DETAIL NO.	RIM (EG)	RIM (FG)	LATERAL PIPE	CURB MARKER	SHEET
CB-1	103+07 (12'R)	36.58	38.71	6	9	42.77	42.74	PVC	ALEWIFE	C-1	CB-45	413+30 (19'R)	41.67	-	6	9	MATCH EXIST.	MATCH EXIST.	PVC	ALEWIFE	C-10
CB-2	102+96 (12'L)	37.95	-	6	9	42.08	42.15	PVC	ALEWIFE	C-1	CB-46	413+57 (16'R)	40.83	43.46	6	9	46.71	46.87	PVC	ALEWIFE	C-10
CB-3	107+07 (12'R)	42.63	42.63	4	9	46.39	46.66	PVC	ALEWIFE	C-2	CB-47	413+53 (15'L)	38.43	42.64	6	9	46.58	46.73	PVC	ALEWIFE	C-10
CB-4	107+46 (11'R)	40.60	41.06	4	9	45.24	45.19	DI	ALEWIFE	C-2	CB-48	416+75 (16'L)	48.63	54.97	6	9	59.07	59.07	PVC	ALEWIFE	C-10
CB-5	107+54 (12'L)	41.60	41.94	4	9	44.74	44.89	DI	ALEWIFE	C-2	CB-49	416+79 (16'R)	55.16	55.73	6	9	59.12	59.17	PVC	ALEWIFE	C-10
CB-6	108+48 (12'R)	40.78	39.95 (N) 41.10 (S)	4	9	44.10	44.11	DI	ALEWIFE	C-2	CB-50	500+60 (13'R)	17.13	-	6	9	21.05	21.72	DI	ALEWIFE	C-12
CB-7	108+55 (12'L)	40.98	40.98 (N) 41.01 (S)	4	9	43.79	44.00	DI	ALEWIFE	C-2	CB-51	501+18 (12'R)	18.63	-	6	9	21.08	21.18	DI	ALEWIFE	C-12
CB-8	109+87 (12'R)	43.03	44.66	4	9	47.65	47.57	PVC	ALEWIFE	C-2	CB-52	501+17 (12'L)	18.63	-	6	9	20.98	21.18	DI	ALEWIFE	C-12
CB-9	200+63 (19'R)	41.26	-	6	9	44.74	44.53	DI	ALEWIFE	C-3	CB-53	503+53 (12'R)	17.21	-	6	9	21.24	21.23	PVC	ALEWIFE	C-12
CB-10	200+54 (11'L)	41.26	-	6	9	43.97	43.77	DI	ALEWIFE	C-3	CB-54	504+59.5 (12'R)	18.73	-	6	9	21.07	21.16	DI	ALEWIFE	C-12
CB-11	202+61.4 (29'R)	40.30	-	6	9	48.94	MATCH EXIST.	PVC	ALEWIFE	C-3	CB-55	504+75 (12'L)	18.63	-	6	9	20.93	21.18	DI	ALEWIFE	C-12
CB-12	202+64 (17'L)	39.79	-	6	9	UNK.	MATCH EXIST.	PVC	ALEWIFE	C-3	CB-56	505+70 (12'L)	20.68	-	6	9	22.78	22.73	DI	ALEWIFE	C-12
CB-13	203+43 (14'R)	41.54	-	6	9	48.35	48.58	PVC	ALEWIFE	C-3	CB-57	507+81 (12'L)	23.30	-	6	9	29.82	29.98	PVC	ALEWIFE	C-13
CB-14	204+25 (14'R)	40.80	44.91	6	9	47.76	47.91	PVC	ALEWIFE	C-3	CB-58	508+09 (6'R)	29.32	-	12*	31.53	31.49	DI	ALEWIFE	C-13	
CB-15	204+18 (14'L)	44.05	44.44	6	9	47.97	48.09	PVC	ALEWIFE	C-3	CB-59	11+14 (16'L)	19.14	-	6	9	21.14	21.14	DI	ALEWIFE	C-14
CB-16	206+14 (14'R)	43.75	43.98 (N) 43.98 (S)	6	9	46.46	46.97	DI	ALEWIFE	C-4	CB-60	12+48 (18'L)	18.98	-	6	9	21.73	22.11	DI	ALEWIFE	C-14
CB-17	206+19 (14'L)	42.97	43.29 (N) 43.34 (S)	6	9	46.78	46.96	PVC	ALEWIFE	C-4	CB-61	13+48 (16'R)	18.88	-	12	21.54	21.22	DI	ALEWIFE	C-14	
CB-18	207+72 (14'R)	46.85	46.85	6	9	49.36	49.79	DI	ALEWIFE	C-4	CB-62	14+13 (9'L)	19.07	-	6	9	21.70	21.25	DI	ALEWIFE	C-14
CB-19	207+74 (14'L)	45.80	46.21	6	9	49.59	49.84	PVC	ALEWIFE	C-4	CB-63	14+22 (16'R)	19.10	-	12	21.48	21.11	DI	ALEWIFE	C-14	
CB-20	302+33 (8'R)	18.63	-	-	12	21.71	21.61	DI	ALEWIFE	C-5	CB-64	14+38 (18.5'L)	19.27	-	6	33	21.55	21.78	DI	ALEWIFE	C-14
CB-21	302+42 (14'L)	19.20	-	6	9	21.20	21.35	DI	ALEWIFE	C-5	CB-65	14+73.2 (32.6'L)	17.70	-	6	33	21.00	21.68	PVC	ALEWIFE	C-14
CB-22	303+31 (14'R)	17.17	-	6	9	22.03	22.10	PVC	ALEWIFE	C-5	CB-66	14+74.1 (26'L)	18.51	-	6	9	20.90	20.86	DI	ALEWIFE	C-14
CB-23	303+30 (14'L)	17.17	-	6	9	22.05	22.09	PVC	ALEWIFE	C-5	CB-67	15+20 (5'L)	18.66	-	6	9	21.31	22.08	DI	ALEWIFE	C-14
CB-24	303+76 (13.5'R)	18.50	-	6	9	22.13	22.44	PVC	ALEWIFE	C-5	CB-68	15+00 (26'R)	19.52	-	6	9	21.46	21.79	DI	ALEWIFE	C-14
CB-25	305+75 (14'R)	20.70	-	6	9	24.32	24.58	PVC	ALEWIFE	C-5	CB-69	42+22 (12'L)	21.15	-	6	9	25.52	25.37	PVC	ALEWIFE	C-16
CB-26	305+76 (14'L)	21.50	-	6	9	24.23	24.46	DI	ALEWIFE	C-5	CB-70	42+22 (12'R)	21.15	-	6	9	25.79	26.16	PVC	ALEWIFE	C-16
CB-27	306+13 (14'R)	22.48	-	6	9	25.50	25.68	DI	ALEWIFE	C-5	CB-71	53+33.8 (12'L)	25.52	-	6	9	29.79	29.67	PVC	ALEWIFE	C-17
CB-28	308+54 (14'R)	31.90	-	6	9	35.61	35.65	PVC	ALEWIFE	C-6	CB-72	31+06 (23'L)	18.30	-	6	9	21.21	21.54	DI	ALEWIFE	C-18
CB-29	308+71 (14'L)	33.12	-	6	9	36.47	36.46	DI	ALEWIFE	C-6	CB-73	31+26 (12'L)	18.05	-	6	9	21.17	21.39	DI	ALEWIFE	C-18
CB-30	311+66 (14'R)	45.77	46.37	6	9	49.15	49.26	PVC	ALEWIFE	C-6	CB-74	31+19 (12'R)	19.08	-	6	9	21.23	21.48	DI	ALEWIFE	C-18
CB-31	311+72 (13'L)	43.52	45.47	6	9	49.59	49.43	PVC	ALEWIFE	C-6	CB-75	115+89 (30.3'R)	46.00	46.1	6	9	50.11	50.11	PVC	CHARLES	U-2
CB-32	314+16 (14'R)	50.99	52.02	6	9	54.79	54.98	PVC	ALEWIFE	C-7	CB-76	115+78 (12.9'L)	45.27	45	6	9	49.69	49.77	PVC	CHARLES	U-2
CB-33	314+16 (13'L)	50.18	50.96	6	9	54.83	55.12	PVC	ALEWIFE	C-7	CB-77	214+42 (11.9'L)	43.43	-	6	9	46.43	46.43	DI	CHARLES	U-4
CB-34	315+33 (13'L)	50.70	51.56	6	9	55.48	55.72	PVC	ALEWIFE	C-7	CB-78	320+93.5 (10.1'L)	50.05	-	6	9	53.55	53.92	DI	CHARLES	U-6
CB-35	400+94.2 (12'R)	19.64	-	6	9	22.38	22.38	DI	ALEWIFE	C-8	CB-79	321+74 (9.8'L)	50.26	-	6	9	53.46	53.71	DI	CHARLES	U-6
CB-36	401+44 (15.5'L)	20.44	-	-	12*	22.65	22.61	DI	ALEWIFE	C-8	CB-80	322+75 (17.6'R)	49.31	-	6	9	52.91	52.98	DI	CHARLES	U-6
CB-37	402+65.8 (11.5'R)	21.45	-	-	12	23.39	23.37	DI	ALEWIFE	C-8	CB-81	423+58 (15.4'L)	53.47	-	6	9	57.87	57.99	PVC	CHARLES	U-10
CB-38	403+76 (15.5'L)	21.66	-	-	12*	23.83	23.96	DI	ALEWIFE	C-8	CB-82	423+62 (15.7'R)	55.64	-	6	9	57.84	57.95	DI	CHARLES	U-10
CB-39	404+24 (11'R)	22.22	-	-	12*	24.22	24.30	DI	ALEWIFE	C-8	CB-83	426+06 (15.7'R)	48.50	-	6	9	54.92	54.49	DI	CHARLES	U-10
CB-40	404+37 (13.5'L)	22.18	-	-	12*	24.38	24.35	DI	ALEWIFE	C-8	CB-84	428+93.5 (15.4'L)	44.60	44.81	-	12	47.31	47.31	DI	CHARLES	U-10
CB-41	408+20 (14'L)	25.11	-	-	12*	27.19	27.14	DI	ALEWIFE	C-9	CB-85	428+93.8 (15.4'R)	44.60	44.81	-	12	47.31	47.31	DI	CHARLES	U-10
CB-42	408+34 (13.5'R)	25.15	-	-	12*	27.24	27.87	DI	ALEWIFE	C-9	CB-86	503+34.2 (12'L)	18.78	-	6	9	21.19	21.23	DI	CHARLES	C-12
CB-43	410+91 (14'R)	32.34	-	6	9	35.74	35.81	DI	ALEWIFE	C-9	CB-87	100+93 (12.5'R)	28.93	28.93	6	9	32.63	33.07	PVC	CHARLES	C-1
CB-44	410+93 (7.5'L)	33.72	-	-	12*	35.89	36.07	DI	ALEWIFE	C-9	CB-88	100+93 (12'L)	29.10	-	6	9	33.08	33.03	PVC	CHARLES	C-1
											CB-89	302+15.7 (16'L)	19.20	-	6	12*	21.25	21.20	DI	CHARLES	C-5
											CB-90	302+67 (14'R)	19.51	-	-	9 **	21.51	21.60	DI	CHARLES	C-5

\* STRUCTURES NOTED WITH THIS SYMBOL ARE LOCATED IN CLOSE PROXIMITY TO EXISTING SHALLOW UNDERGROUND UTILITIES AND SHALL HAVE A MINIMUM INSIDE DIMENSION DEPTH OF 18" (SEE DETAIL NO. 12, SHEET CG-5).  
 \*\* THE GRATE OF THIS STRUCTURE SHALL BE OFFSET FROM CENTER AS SHOWN ON THE DRAWINGS

CONFORMED SET



Scale	NOT TO SCALE	
Date	SEPTEMBER 2012	
Job No.	1010691	
Designed by	AMF	
Drawn by	ZSH	
Checked by	BFR	
Approved by	AMF	
No.	Description	Date
	REVISIONS	



CITY OF CAMBRIDGE, MASSACHUSETTS  
 HURON A SEWER SEPARATION PROJECT  
 CONTRACT NO. 8A  
 CIVIL GENERAL  
 CATCH BASIN SCHEDULE

Sheet No.  
**CG-16**  
 File No.

## LAYOUT AND GRADING:

- ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
- ALL LINE AND GRADE WORK PER DRAWINGS AND SPECIFICATIONS SHALL BE LAID OUT BY A REGISTERED CIVIL ENGINEER OR SURVEYOR ENGAGED BY THE CONTRACTOR.
- STORAGE AREAS FOR CONTRACTOR'S EQUIPMENT AND MATERIALS SHALL BE WITHIN THE CONTRACTOR STAGING AREA OR AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- PRIOR TO COMMENCING ANY EXCAVATION WORK, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH "DIG SAFE" NOTIFICATION PROCEDURES PROMOTED BY RESPECTIVE UTILITY COMPANIES. THE "DIG SAFE" TELEPHONE NUMBER FOR MASSACHUSETTS IS 1-888-344-7233.
- CONTRACTOR SHALL VERIFY ALL EXISTING GRADES IN THE FIELD AND SHALL REPORT ANY DISCREPANCIES BETWEEN EXISTING AND PROPOSED CONDITION TO THE OWNER'S REPRESENTATIVE. ALL GRADES ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
- PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM SLOPE OF ONE-EIGHTH INCH (1/8") PER FOOT. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.
- WHERE NEW PAVING OR EARTHWORK MEETS EXISTING PAVING OR EARTHWORK, SMOOTHLY BLEND LINE AND GRADE OF EXISTING WITH NEW. PROVIDE VERTICAL CURVES OR ROUNDINGS AT TOP AND BOTTOM OF ALL SLOPES.
- EXCAVATION REQUIRED WITHIN PROXIMITY OF UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE UTILITY COMPANIES OR THE OWNER.
- ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS, ADJACENT WETLANDS, AND ADJUTING PROPERTIES.
- ALL GRADING SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG), LATEST EDITION. IN CASE OF CONFLICT BETWEEN REGULATIONS, THE GUIDELINE PROVIDING GREATER ACCESS SHALL APPLY.
- ROLL EDGES OF PLANTING SOIL FOR SEEDING WHERE ADJACENT TO WALKS AND DRIVES.

## LEGEND:

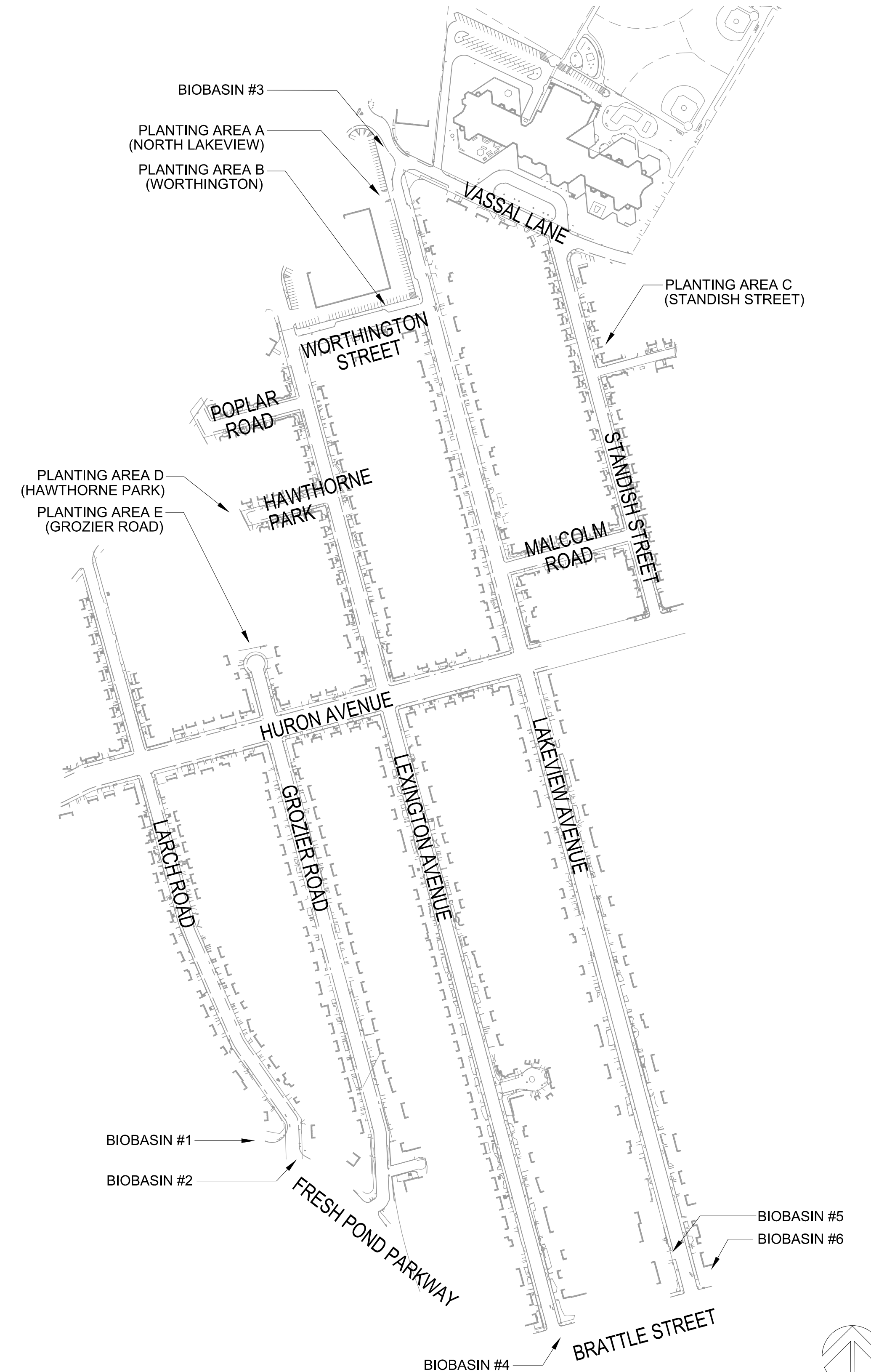
	PROPERTY LINE		EXISTING TREE TO REMAIN
	STATION POINTS		STREET TREE PLANTING
	SECTION LINE		FLOWERING OR MULTISTEM TREE PLANTING
	CENTERLINE		DECIDUOUS/EVERGREEN TREE PLANTING
	ALIGN		SHRUB PLANTING
	PROPOSED CONTOUR		PERENNIAL/GROUNDCOVER PLANTING
	SPOT GRADE		LAWN SODDING (SEE SPEC SECTION 02900)
	GRANITE CHECK DAM		
	CATCH BASIN (BY OTHERS)		
	BIOBASIN INLET SUMP		
	METAL INLET TRENCH GRATE		
	BEEHIVE INLET GRATE		
	BASIN UNDERDRAIN		
	DRAIN CONNECTION		
	UNDERDRAIN CLEANOUT		
	CONCRETE SPLASH PAD		
	PLACED BOULDER		
	GRANITE LANDSCAPE EDGE		

## MAINTENANCE DURING CONSTRUCTION:

- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL EVENT OR AT LEAST ONCE WEEKLY. ALL NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
- SEDIMENT TRAPS SHALL BE INSPECTED WEEKLY IN ADDITION TO FOLLOWING ALL RUNOFF PRODUCING RAIN EVENTS FOR SEDIMENT ACCUMULATION. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED IMMEDIATELY AND STOCKPILED ON SITE IN THE LOCATION SHOWN ON THE EROSION AND SEDIMENT CONTROL PLANS.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND WITHIN 12 HOURS FOLLOWING 0.25 INCH RAINFALL EVENTS BY A COMPETENT PROFESSIONAL EDUCATED IN EROSION CONTROL BEST MANAGEMENT PRACTICE INSTALLATION AND FUNCTION. NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
- IN THE EVENT THAT STORMWATER RUNOFF LEAVES THE SITE AND IS CONVEYED TOWARD OFFSITE CATCH BASINS, INLET PROTECTION SHALL IMMEDIATELY BE INSTALLED TO PREVENT SEDIMENTATION INTO STORMWATER DRAINAGE. ANY INLET PROTECTION DEPLOYED DURING CONSTRUCTION SHALL BE REMOVED FOLLOWING STABILIZATION OF UPGRADIENT AREAS.
- ALL SEEDED AREAS WILL BE RESEDED AS NECESSARY AND MULCHED TO MAINTAIN A VIGOROUS DENSE VEGETATIVE COVER ACCORDING TO SPECIFICATIONS.

## PLANTING:

- IF DISCREPANCIES EXIST BETWEEN THE NUMBER OF PLANTS DRAWN ON THE PLANTING PLAN AND THE NUMBER OF PLANTS IN THE PLANT SCHEDULE, THE PLANTING PLAN SHALL GOVERN.
- ALL NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. IN ADDITION, ALL NEW PLANT MATERIAL FOR THE PROJECT SHALL BE OF SPECIMEN QUALITY.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN. NO FIELD - COLLECTED SPECIMENS WILL BE ALLOWED.
- ALL NEW PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN, UNLESS OTHERWISE NOTED ON THE PLANT SCHEDULE.
- THE CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
- ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE, AND ONLY AFTER WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- ALL NEW PLANTS SHALL BE TAGGED AND APPROVED BY THE OWNER'S REPRESENTATIVE AT THE NURSERY PRIOR TO DIGGING OR DELIVERY TO THE SITE.
- CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS TO THE OWNER'S REPRESENTATIVE. NO TREES SHALL BE PLANTED CLOSER THAN TEN FEET (10') TO ANY UNDERGROUND WATER AND DRAINAGE LINES OR STRUCTURES.
- STAKE LOCATION OF ALL PROPOSED PLANTING FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF PLANTING.
- NO TREES OR SHRUBS SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING BY THE OWNER'S REPRESENTATIVE.
- NEW SHRUBS AND GROUNDCOVER SHALL BEAR THE SAME RELATIONSHIP TO GRADE AS IT BORE TO PREVIOUS GRADE. TREES SHALL BEAR SAME RELATIONSHIP TO GRADE AS THEY BORE TO PREVIOUS GRADE IN NURSERY OR HIGHER TO PREVENT COVERING ROOT FLARE.
- ALL SHRUB PLANTING BEDS TO RECEIVE TWO INCHES (2") OF BARK MULCH AS PER DRAWINGS.
- ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. PROTECTION TECHNIQUES SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- SEED AND/OR HYDROMULCH ALL DISTURBED AREAS WITH APPROVED SEED MIX (SEE SPEC SECTION 02900 - LANDSCAPING).
- ALL AREAS TO BE SEEDED SHALL RECEIVE A MINIMUM OF SIX INCHES (6") OF PLANTING SOIL, MEASURED AFTER COMPACTION, PRIOR TO SEEDING, EXCEPT AS NOTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED, STOLEN, DEAD, DECLINING OR LOST MATERIAL UNTIL COMPLETION OF MAINTENANCE AND GUARANTEE PERIOD.

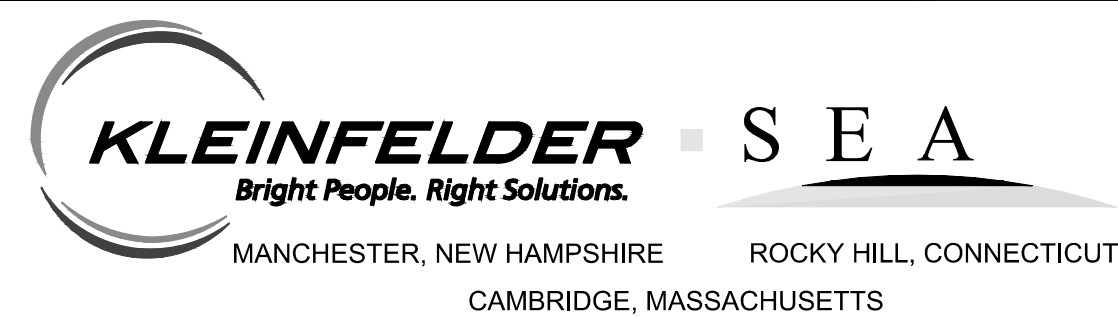


**1 KEY PLAN: BIOBASINS AND PLANTING AREAS**  
SCALE: 1" = 200'-0"

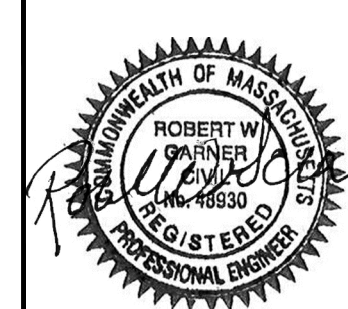


CONFORMED SET

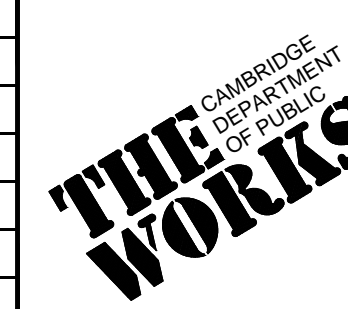
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18 Commercial St.  
Salem, MA 01970  
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978/740-0097 (fax)  
www.bioengineering.com



Scale	AS NOTED		
Date	SEPTEMBER 2012		
Job No.	2011010.01-A		
Designed by	D. BITSKO		
Drawn by	AK/JB		
Checked by	D. BITSKO	No.	Description
Approved by	B. GARNER		REVISIONS



Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - NOTES, KEY PLAN AND LEGEND

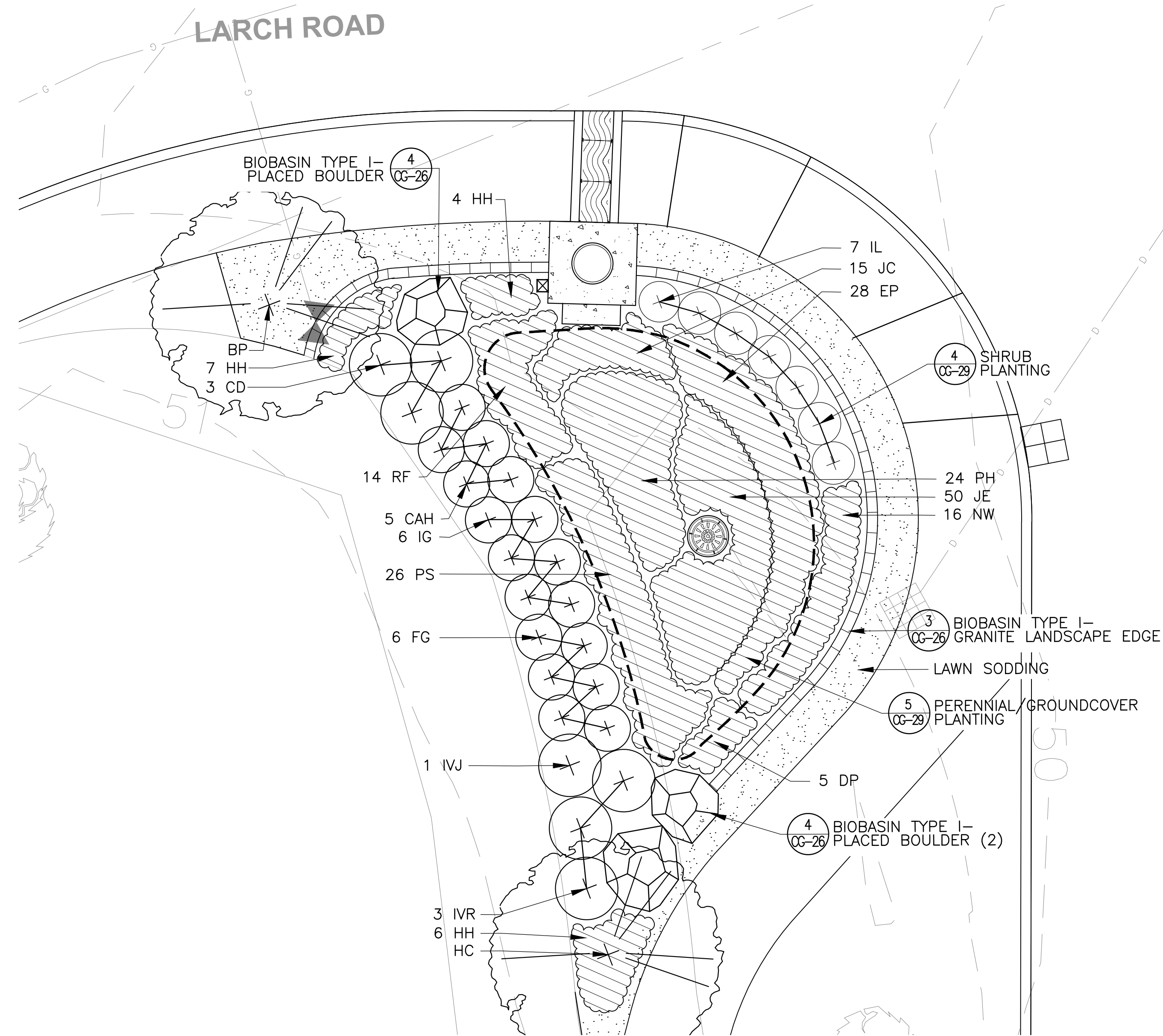
Sheet	CG-17
File No.	

**NOTES:**

1. FOR DEPTH TO CLAY ELEVATIONS SEE APPENDIX B - BORING LOG.
2. HIGHEST GROUNDWATER ELEVATION (OBSERVED) AT 39.51' BETWEEN 10.27.11 AND 6.8.2012
3. SEE SHEET CG-30 FOR PLANT SCHEDULE

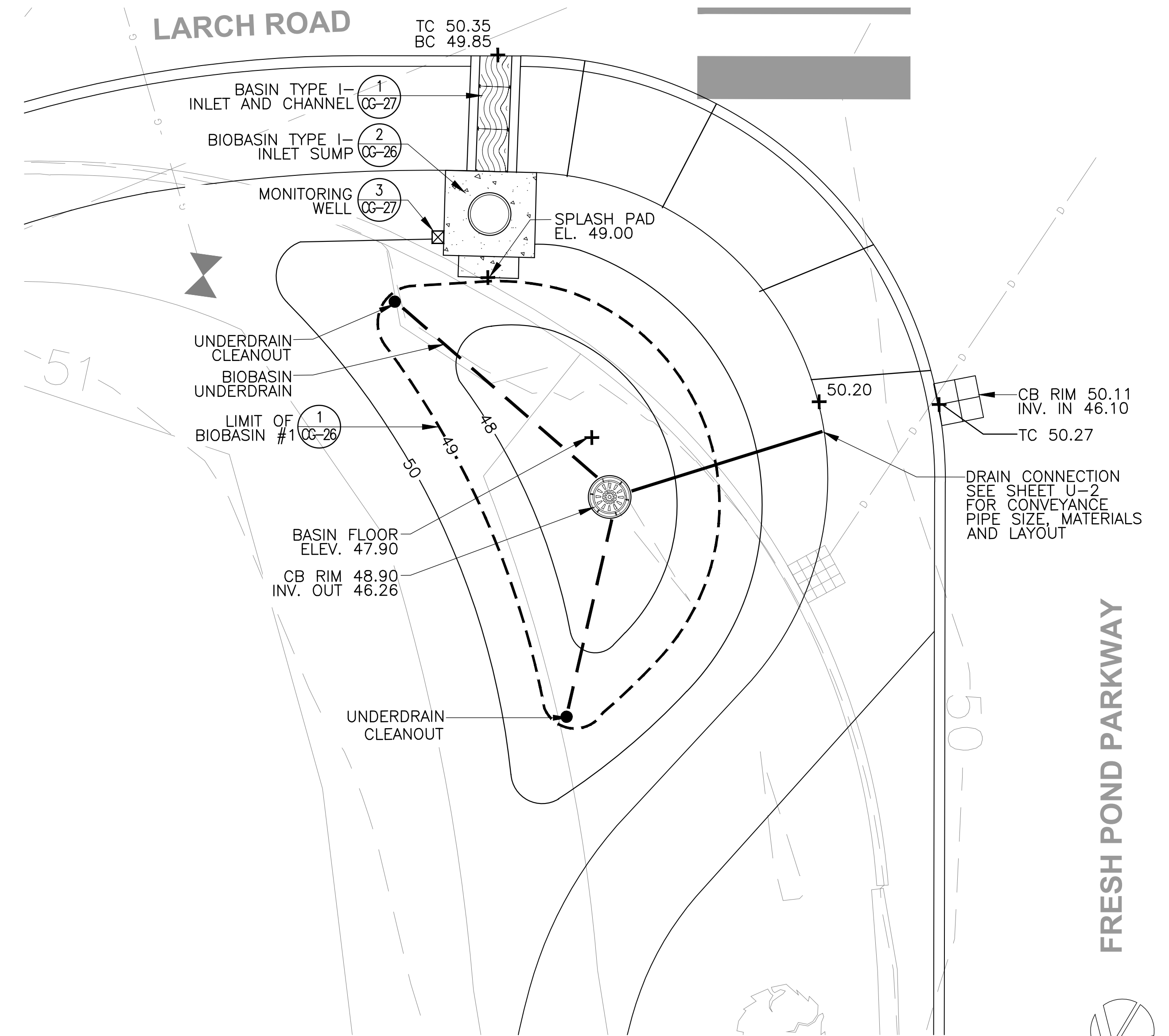
**LEGEND**

---	PROPERTY LINE		BIOBASIN INLET SUMP		GRANITE LANDSCAPE EDGE
0+00	STATION POINTS		METAL INLET TRENCH GRATE		EXISTING TREE TO REMAIN
— A'	SECTION LINE		BEEHIVE INLET GRATE		STREET TREE PLANTING
⊕	CENTERLINE		BASIN UNDERDRAIN		SHRUB PLANTING
⤵	ALIGN		DRAIN CONNECTION		PERENNIAL/GROUNDCOVER PLANTING
—54—	PROPOSED CONTOUR		UNDERDRAIN CLEANOUT		LAWN SODDING (SEE SPEC SECTION 02900)
+ 6.09	SPOT GRADE		CONCRETE SPLASH PAD		PLACED BOULDER
—	GRANITE CHECK DAM				
⊠	CATCH BASIN (BY OTHERS)				



**BIOBASIN 1 - PLANTING PLAN**

SCALE: 1/4" = 1'-0"



**BIOBASIN 1 - LAYOUT AND GRADING PLAN**

SCALE: 1/4" = 1'-0"

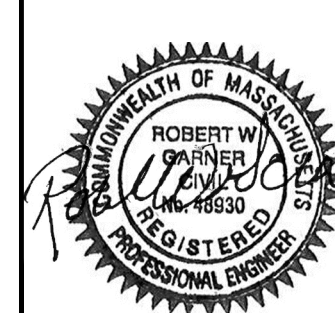


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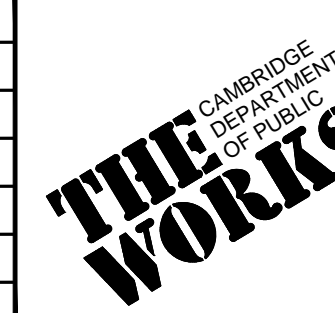
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		REVISIONS	



Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - BIOBASIN 1 (TYPE I) - LAYOUT, GRADING AND PLANTING PLANS

Sheet	<b>CG-18</b>
File No.	

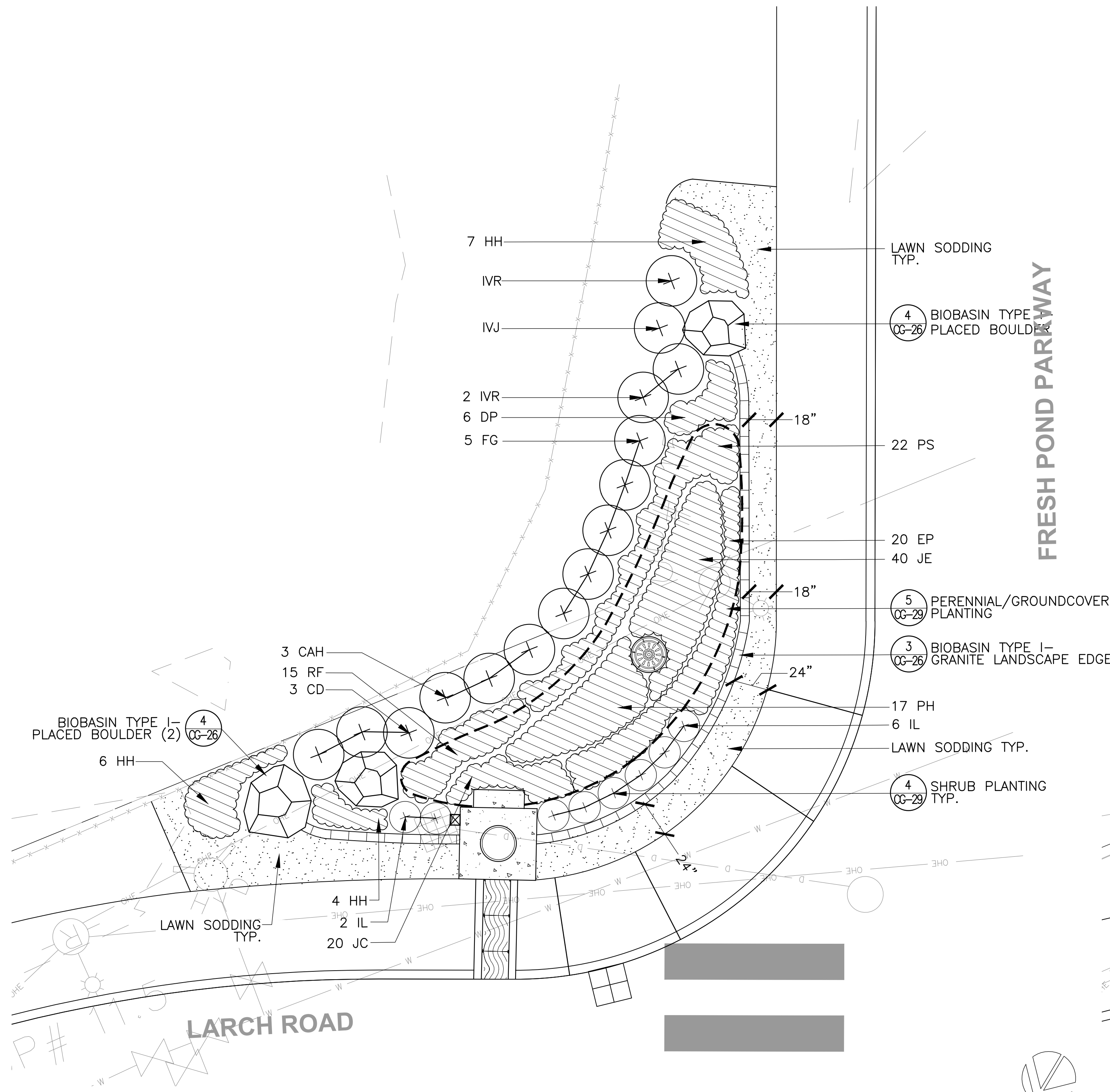
CONFORMED SET

**NOTES:**

1. FOR DEPTH TO CLAY ELEVATIONS SEE APPENDIX B - BORING LOG.
2. HIGHEST GROUNDWATER ELEVATION (OBSERVED) AT 39.51' BETWEEN 10.27.11 AND 6.8.2012.
3. SEE SHEET CG-30 FOR PLANT SCHEDULE.

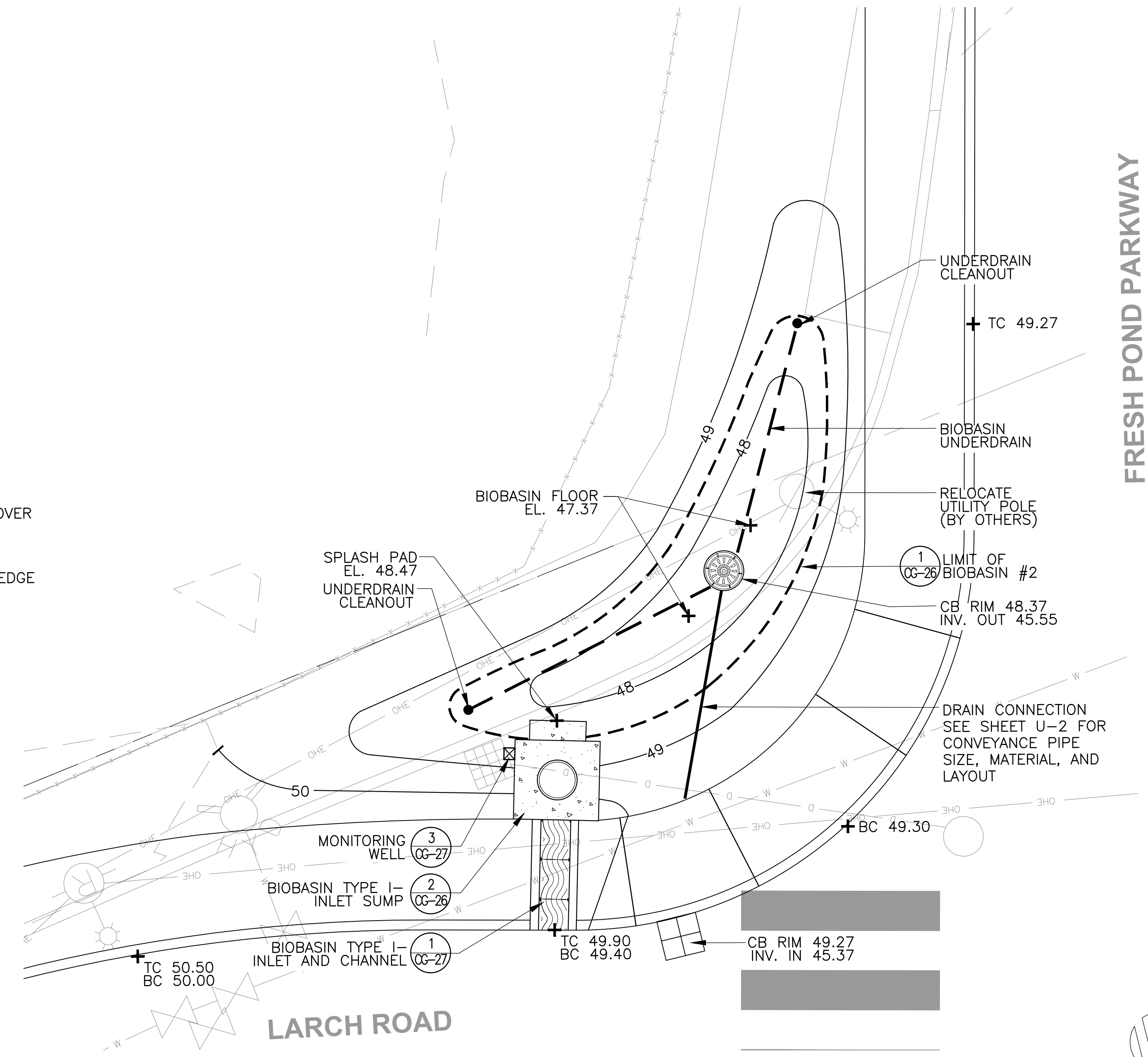
**LEGEND**

---	PROPERTY LINE		BIOBASIN INLET SUMP		GRANITE LANDSCAPE EDGE
0+00	STATION POINTS		METAL INLET TRENCH GRATE		EXISTING TREE TO REMAIN
— — A'	SECTION LINE		BEEHIVE INLET GRATE		SHRUB PLANTING
⊕	CENTERLINE	---	BASIN UNDERDRAIN		PERENNIAL/GROUNDCOVER PLANTING
— —	ALIGN	---	DRAIN CONNECTION		LAWN SODDING (SEE SPEC SECTION 02900)
—54—	PROPOSED CONTOUR	— —	UNDERDRAIN CLEANOUT		
+ 6.09	SPOT GRADE	●	CONCRETE SPLASH PAD		
— —	GRANITE CHECK DAM		PLACED BOULDER		
	CATCH BASIN (BY OTHERS)				



**BIOBASIN 2 (TYPE I) - PLANTING PLAN**

SCALE: 1/4" = 1'-0"



**BIOBASIN 2 (TYPE I) - LAYOUT AND GRADING PLAN**

SCALE: 1/4" = 1'-0"

PLOT DATE=9/6/2012 6:19:15 PM USER=ANDREW KEEL FILENAME=F:\Projects - Active\10092.00\_Huron\_Ave\_Contract\_A13\_Project\_Execution\Reference Data\CADD\CG-PLANS.dwg

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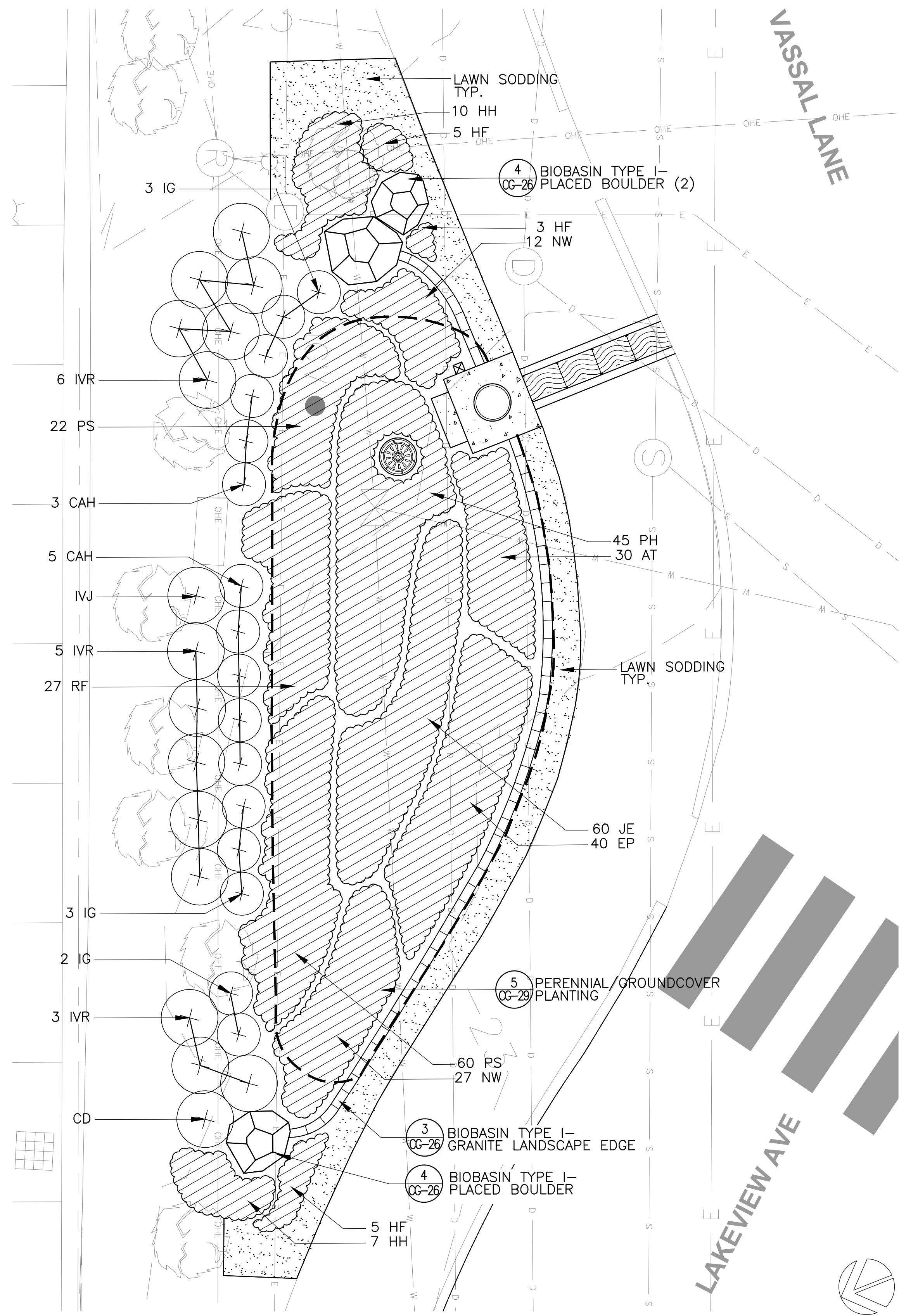


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Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - BIOBASIN 2 (TYPE I) - LAYOUT, GRADING AND PLANTING PLANS

Sheet	<b>CG-19</b>
File No.	

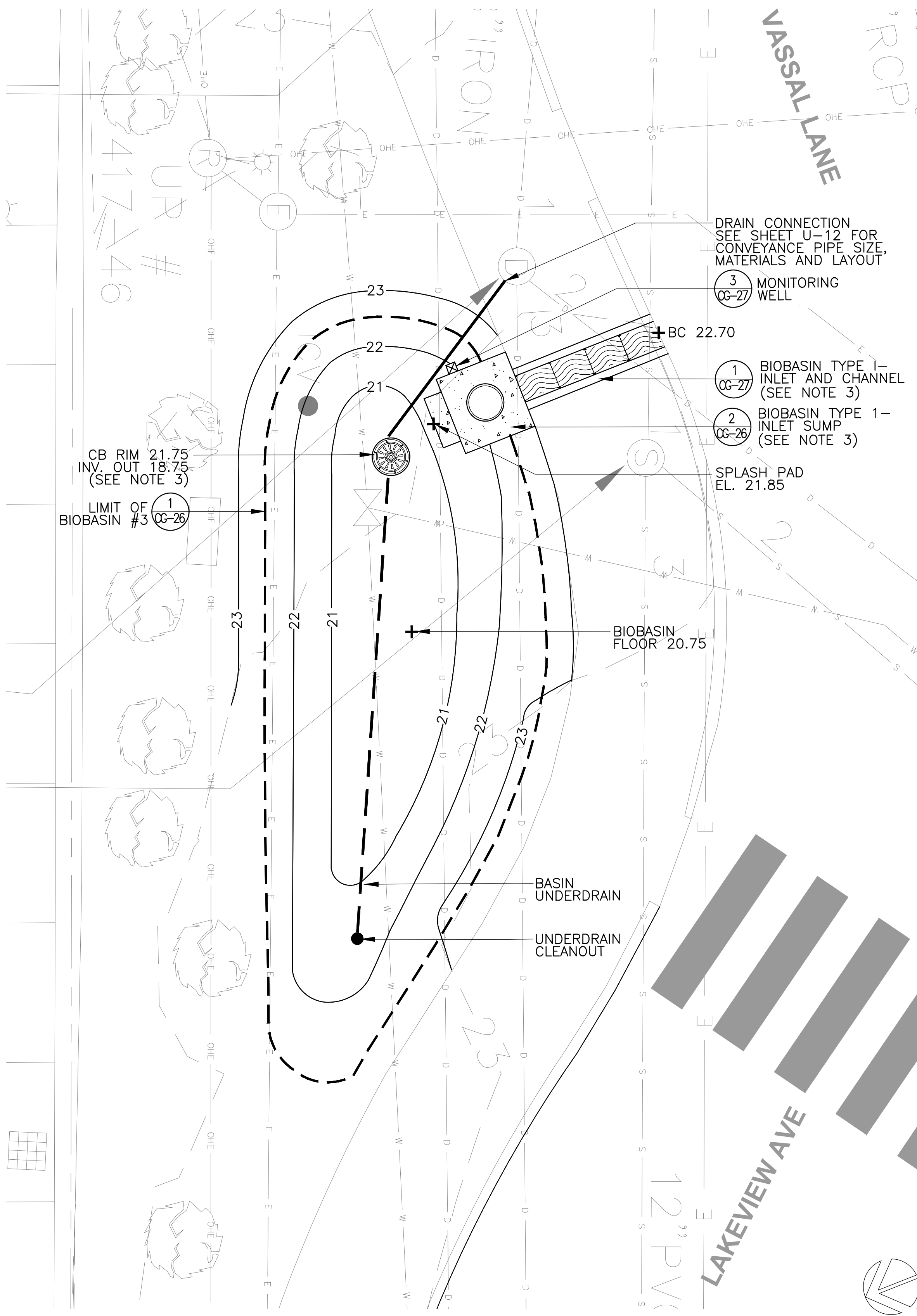
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**BIOBASIN 3 (TYPE I) - PLANTING PLAN**

SCALE: 1/4" = 1'-0"



**BIOBASIN 3 (TYPE I) - LAYOUT AND GRADING PLAN**

SCALE: 1/4" = 1'-0"

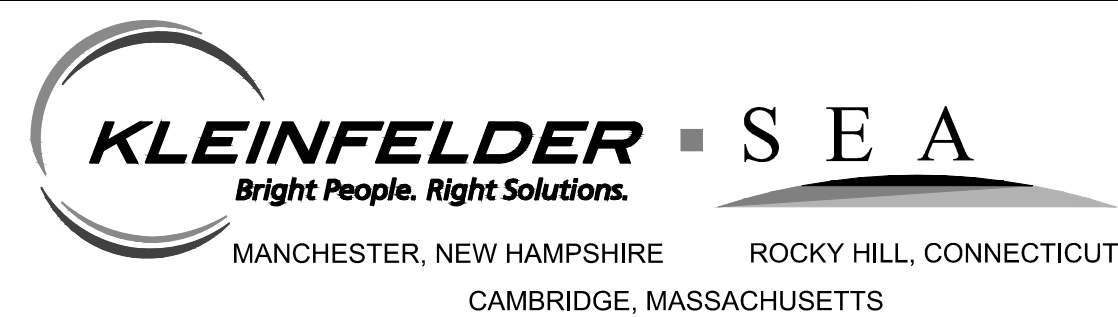
**LEGEND**

- PROPERTY LINE
- 0+00 STATION POINTS
- SECTION LINE
- ⊕ CENTERLINE
- ALIGN
- 54--- PROPOSED CONTOUR
- +6.09 SPOT GRADE
- GRANITE CHECK DAM
- ⊕ CATCH BASIN (BY OTHERS)
- ⊕ BIOBASIN INLET SUMP
- METAL INLET TRENCH GRATE
- ⊕ BEEHIVE INLET GRATE
- BASIN UNDERDRAIN
- DRAIN CONNECTION
- UNDERDRAIN CLEANOUT
- CONCRETE SPLASH PAD
- ⊕ PLACED BOULDER
- GRANITE LANDSCAPE EDGE
- ⊕ EXISTING TREE TO REMAIN
- ⊕ SHRUB PLANTING
- PERENNIAL/GROUNDCOVER PLANTING
- LAWN SODDING (SEE SPEC SECTION 02900)

**NOTES:**

1. FOR DEPTH TO CLAY ELEVATIONS SEE APPENDIX B - BORING LOG.
2. HIGHEST GROUND WATER ELEV (OBSERVED) AT 15.35' BETWEEN 10.27.2011 AND 6.8.2012.
3. CONTRACTOR SHALL EXCAVATE TEST PITS AT LOCATIONS OF PROPOSED BIOBASIN INLET SUMP AND BEEHIVE GRATE CATCH BASIN TO VERIFY LOCATIONS AND DEPTHS OF EXISTING UTILITIES PRIOR TO PROCUREMENT OF MATERIALS.
4. WATER MAINS WITHIN THE LIMITS OF BIOBASIN 3 WITH LESS THAN 4 FEET OF COVER FROM TOP OF PIPE TO PROPOSED GRADE SHALL HAVE INSULATING MATERIAL WITH WATERPROOF JACKETS INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF CAMBRIDGE DEPARTMENT OF PUBLIC WORKS.
5. SEE SHEET CG-30 FOR PLANT SCHEDULE.

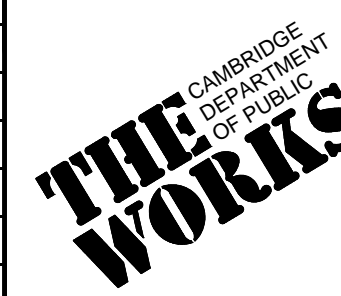
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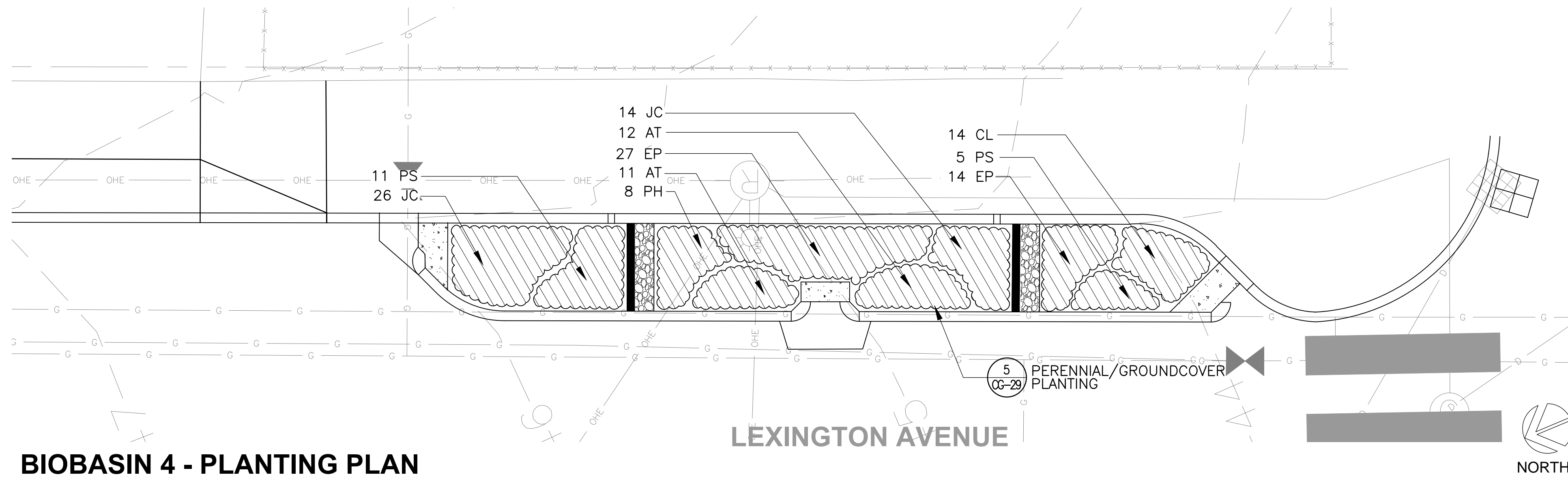


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Job No.	2011010.01-A		
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Checked by	D. BITSKO	No.	Description
Approved by	B. GARNER		REVISIONS



Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - BIOBASIN 3 (TYPE I) - LAYOUT, GRADING AND PLANTING PLANS

Sheet	CG-20
File No.	



**BIOBASIN 4 - PLANTING PLAN**

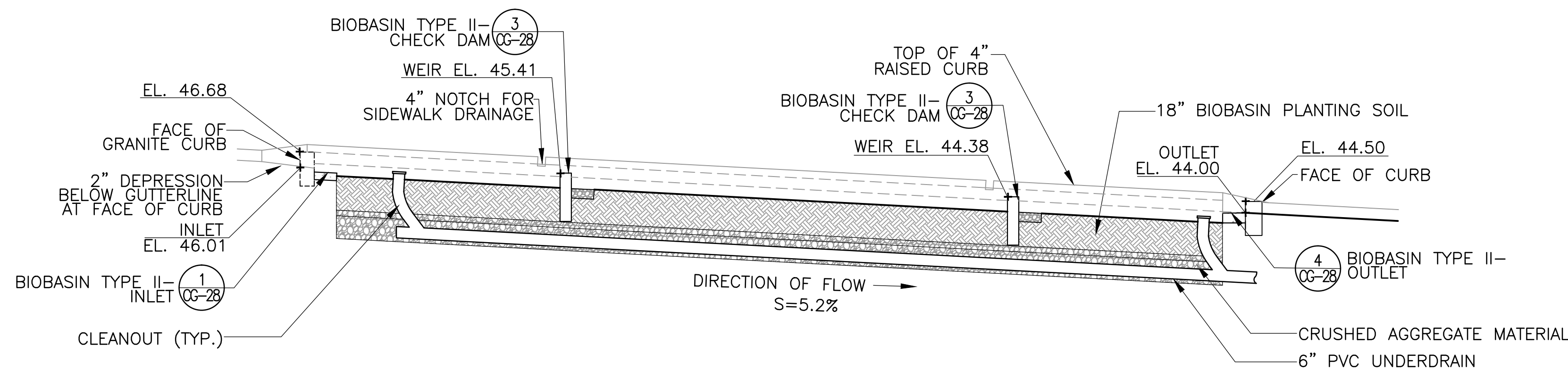
SCALE: 1/4" = 1'-0"

**LEGEND**

- PROPERTY LINE
- 0+00 STATION POINTS
- |— SECTION LINE
- ⊕ CENTERLINE
- ⤵ ALIGN
- 54— PROPOSED CONTOUR
- +6.09 SPOT GRADE
- GRANITE CHECK DAM
- ⊠ CATCH BASIN (BY OTHERS)
- BASIN UNDERDRAIN
- DRAIN CONNECTION
- UNDERDRAIN CLEANOUT
- ▨ CONCRETE SPLASH PAD
- ▨ PERENNIAL/GROUNDCOVER PLANTING

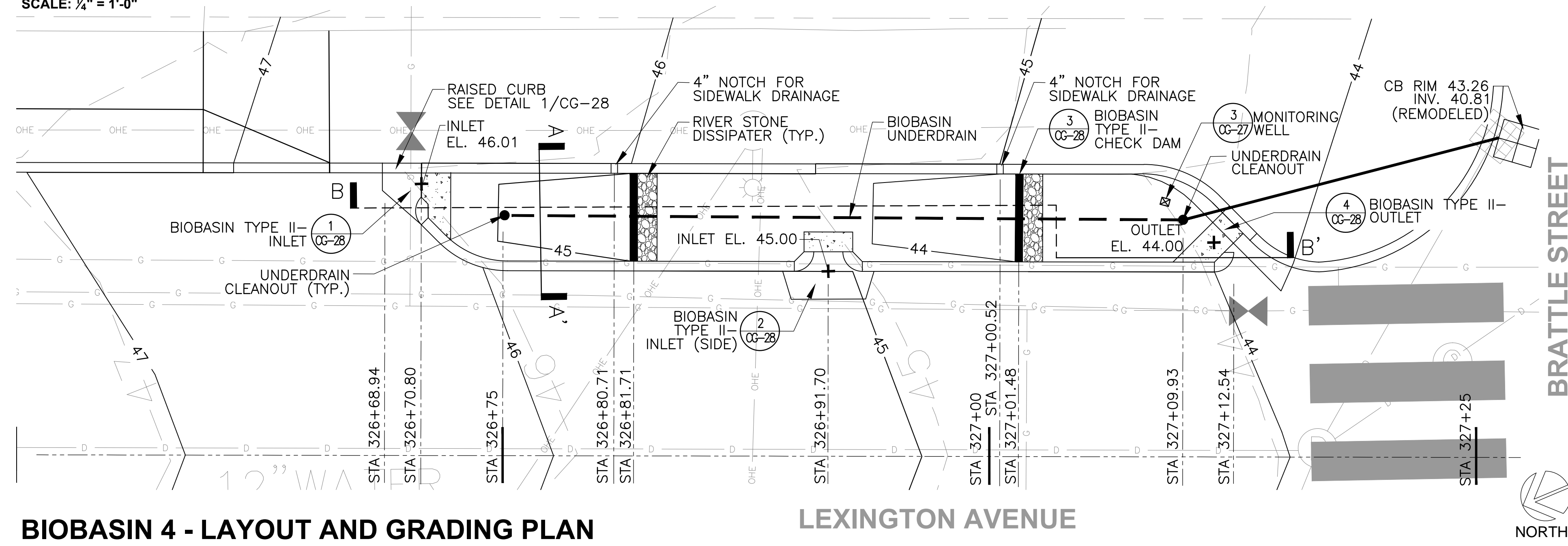
**NOTES:**

1. CLAY ELEVATION ESTIMATED AT ±3' BELOW EXISTING GRADE.
2. GROUNDWATER ELEVATION ESTIMATED AT ±10' BELOW EXISTING GRADE.
3. FOR WATER SERVICE LINES THROUGH BIOBASINS, TAPE WRAP AND SLEEVE WATER SERVICE IN 4" PVC D1785 SCH 80 WITH MOLDED PIPE SLEEVE END SEALS.
4. SEE SHEET CG-30 FOR PLANT SCHEDULE.



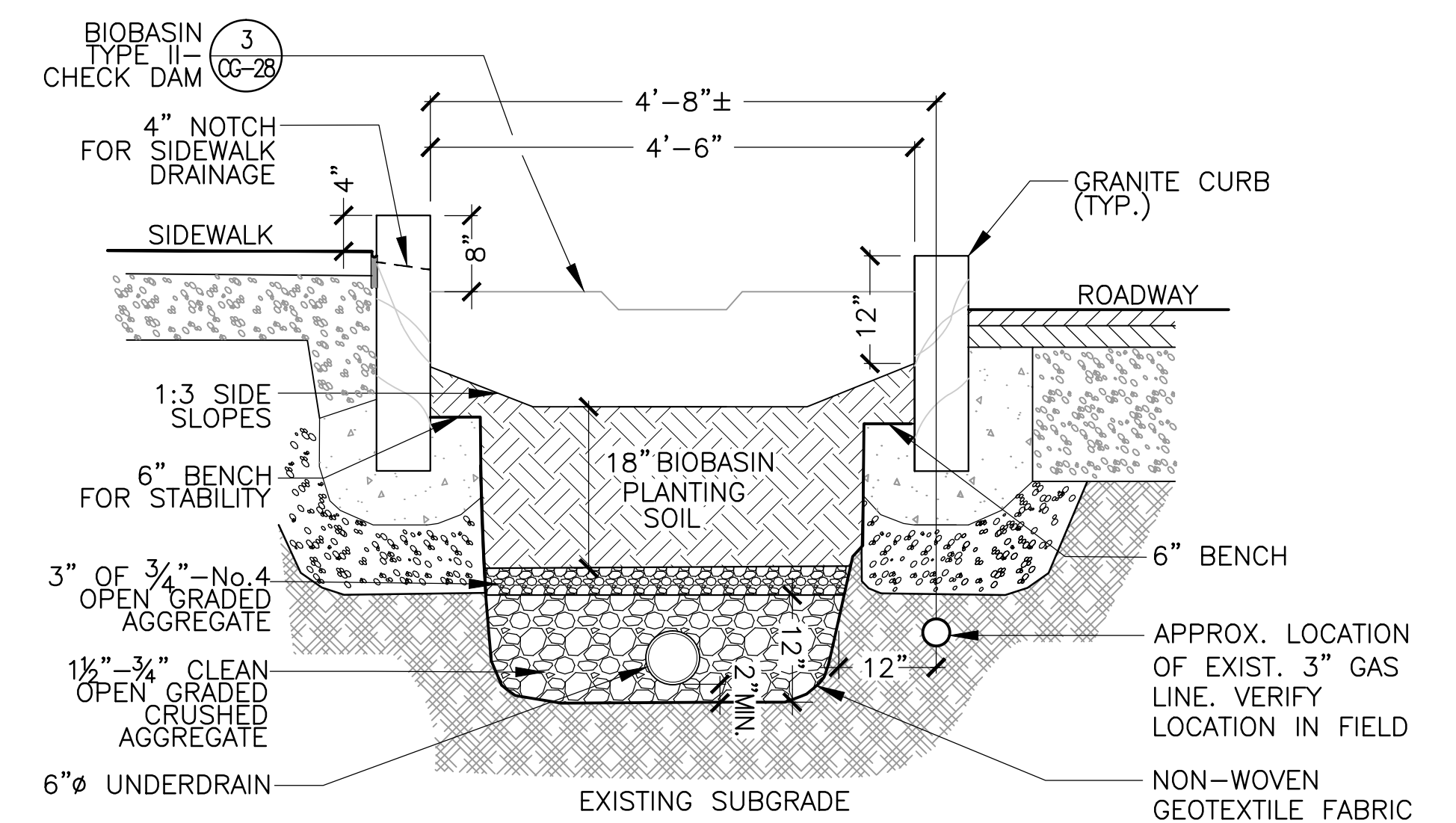
**BIOBASIN 4 - SECTION B-B'**

SCALE: 1/4" = 1'-0"



**BIOBASIN 4 - LAYOUT AND GRADING PLAN**

SCALE: 1/4" = 1'-0"



**BIOBASIN 4 - SECTION A-A'**

SCALE: 3/4" = 1'-0"

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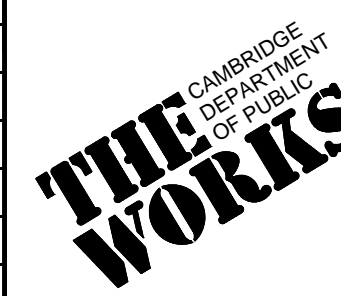
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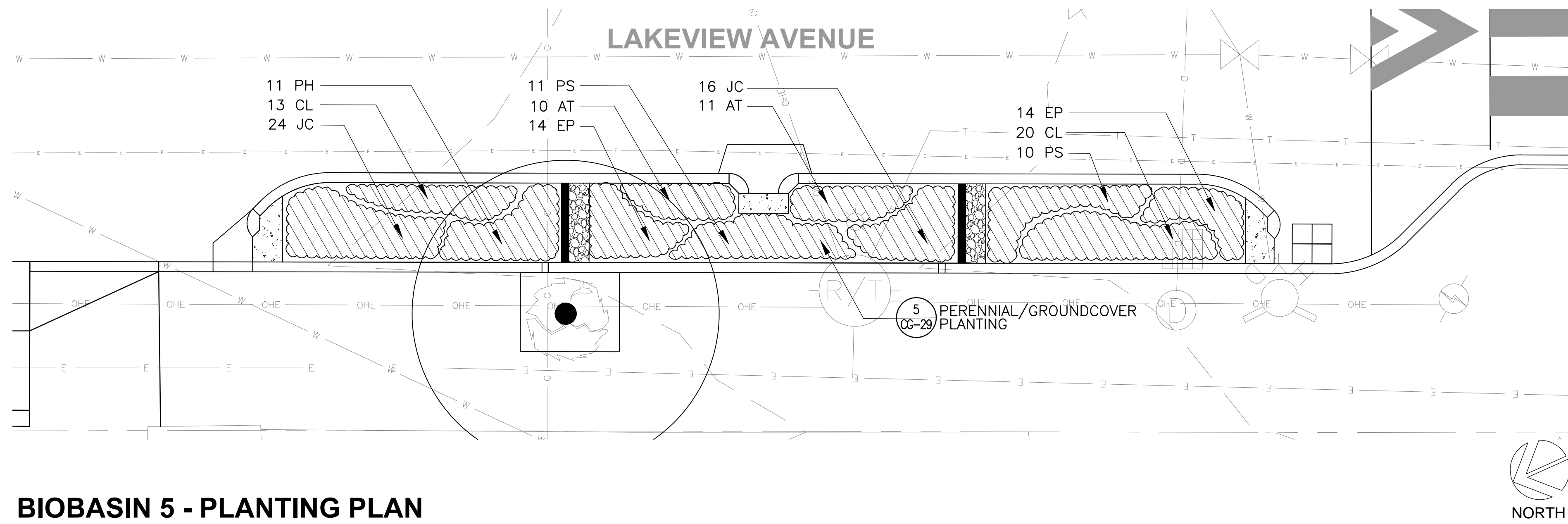
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Job No.	2011010.01-A		
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Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - BIOBASIN 4 (TYPE II) - LAYOUT, GRADING AND PLANTING PLANS

CONFORMED SET

Sheet	<b>CG-21</b>
File No.	



**BIOBASIN 5 - PLANTING PLAN**

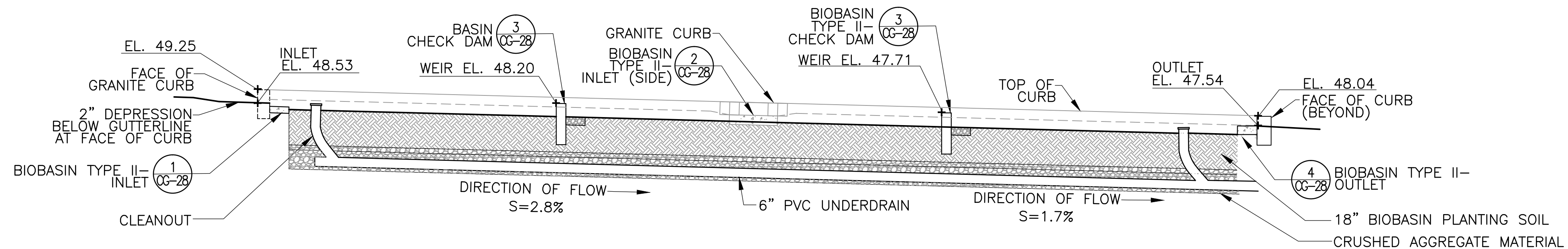
SCALE: 1/4" = 1'-0"

**LEGEND**

- PROPERTY LINE
- 0+00 STATION POINTS
- A' SECTION LINE
- ⊕ CENTERLINE
- ↷ ALIGN
- 54 PROPOSED CONTOUR
- + 6.09 SPOT GRADE
- GRANITE CHECK DAM
- ⊕ CATCH BASIN (BY OTHERS)
- ⊕ CATCH BASIN (BY OTHERS)
- BASIN UNDERDRAIN
- DRAIN CONNECTION
- UNDERDRAIN CLEANOUT
- ▨ CONCRETE SPLASH PAD
- ⊕ EXISTING TREE TO REMAIN
- ▨ PERENNIAL/GROUNDCOVER PLANTING

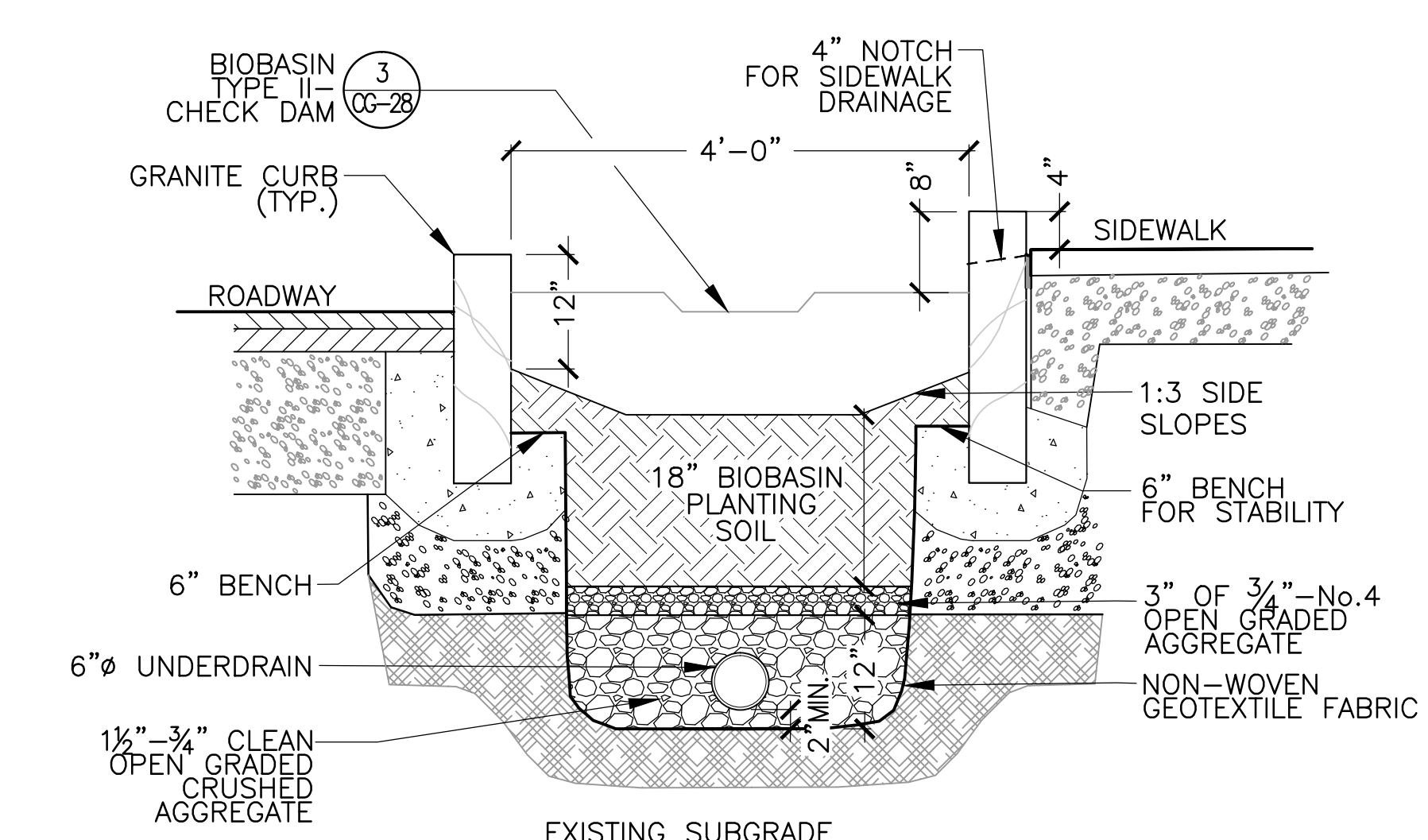
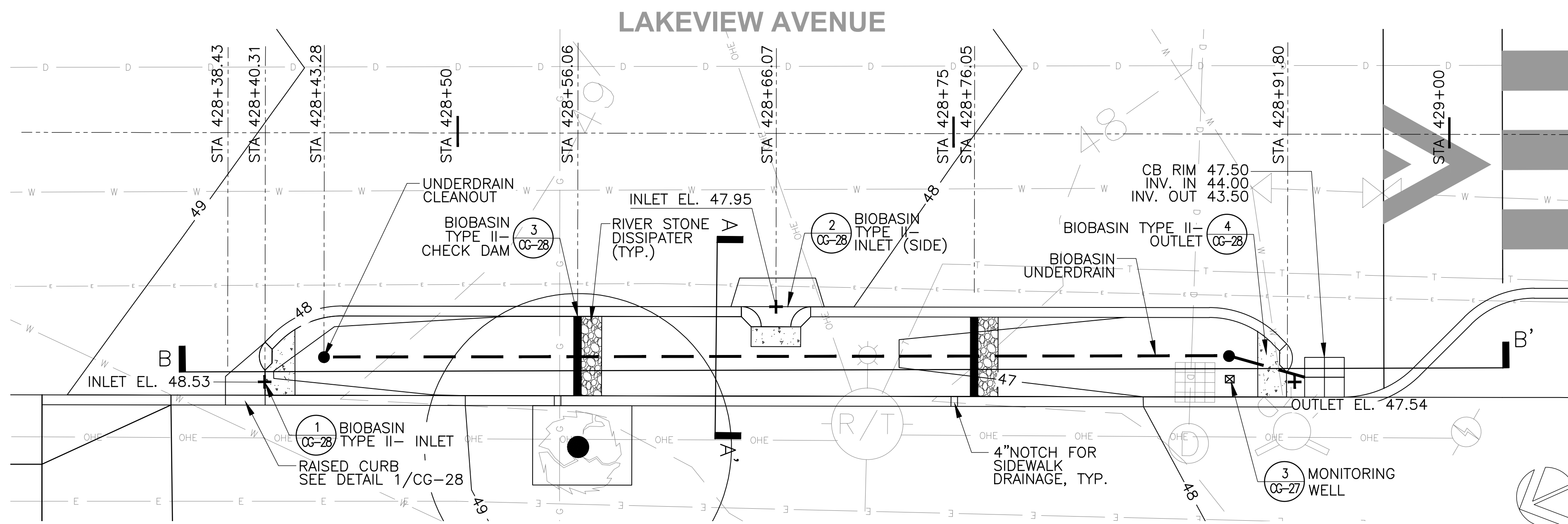
**NOTES:**

1. CLAY ELEVATION ESTIMATED AT ±2.5' BELOW EXISTING GRADE.
2. GROUNDWATER ELEVATION ESTIMATED AT ±10' BELOW EXISTING GRADE.
3. FOR WATER SERVICE LINES THROUGH BIOBASINS, TAPE WRAP AND SLEEVE WATER SERVICE IN 4" PVC D1785 SCH 80 WITH MOLDED PIPE SLEEVE END SEALS.
4. SEE SHEET CG-30 FOR PLANT SCHEDULE.



**BIOBASIN 5 - SECTION B-B'**

SCALE: 1/4" = 1'-0"



**BIOBASIN 5 - SECTION A-A'**

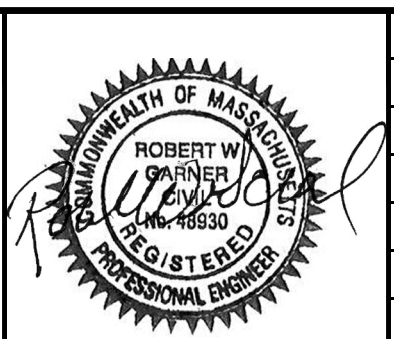
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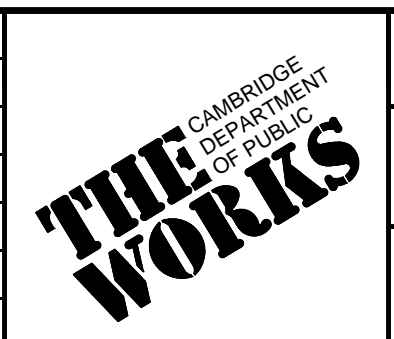
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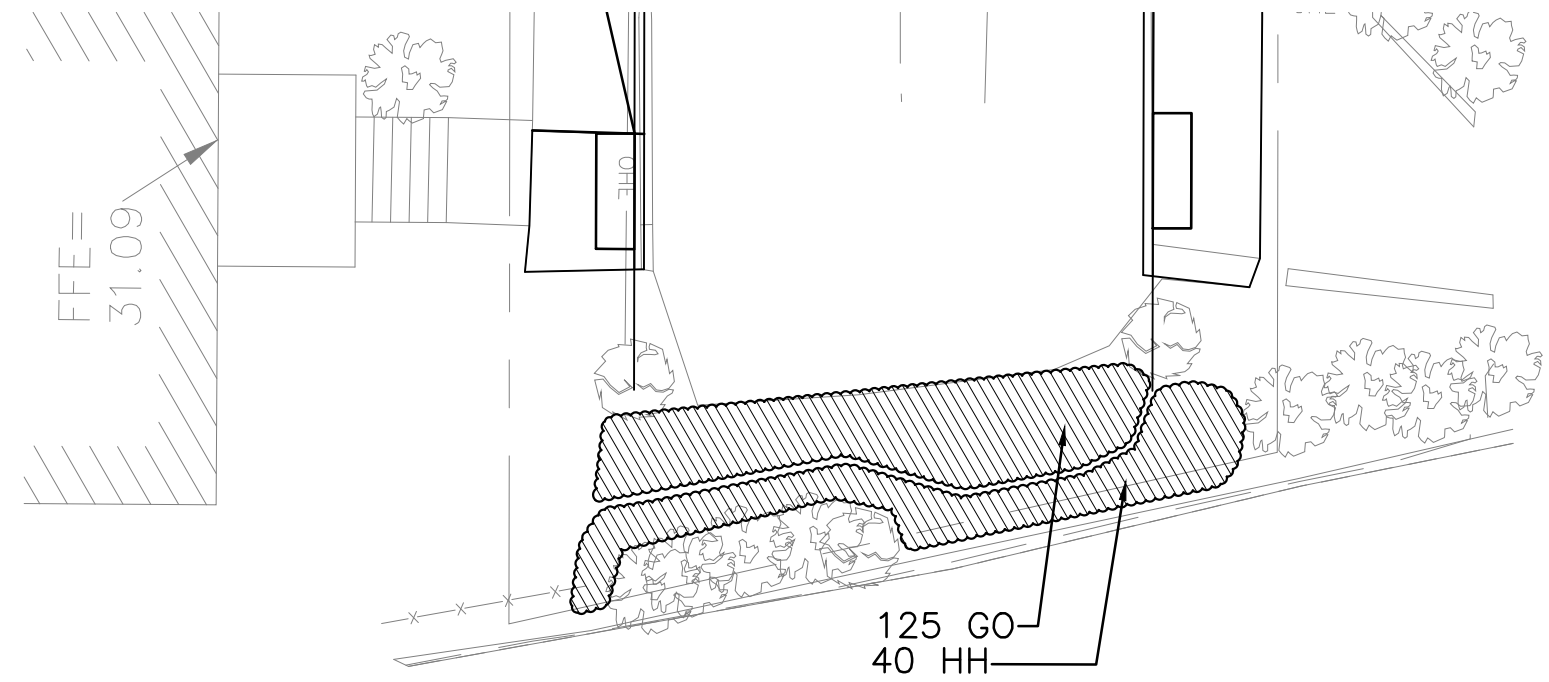
Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - BIOBASIN 5 (TYPE II) - LAYOUT, GRADING AND PLANTING PLANS

Sheet	<b>CG-22</b>
File No.	





248-73  
 NOW OR FORMERLY  
 DENNY, EDWARD B. &  
 JENNIFER MILES  
 15 HAWTHORNE PK



**PLANTING AREA D (HAWTHORNE PARK)**

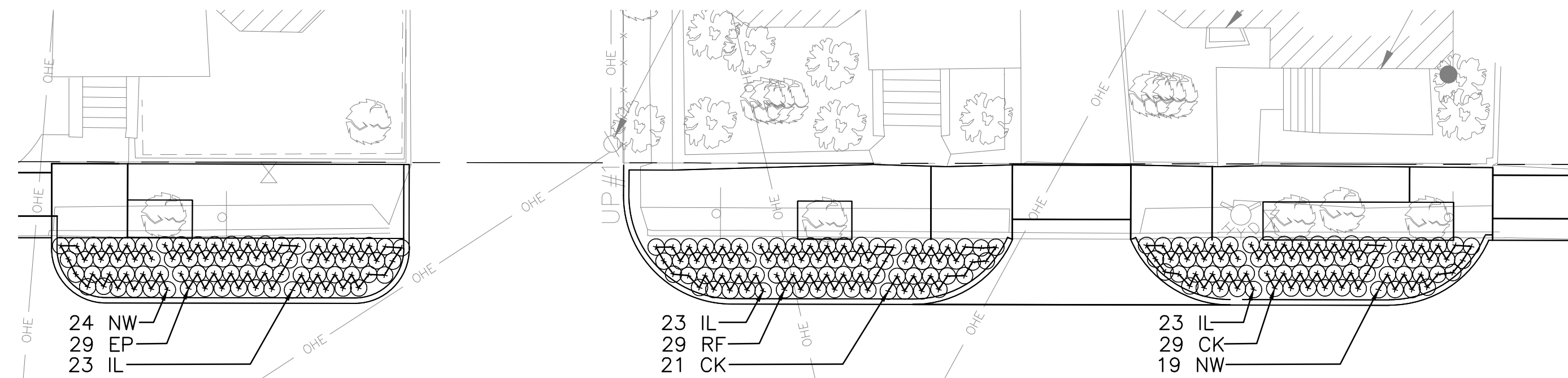
SCALE: 1" = 10'-0"



**NOTES:**  
 1. SEE SHEET CG-30 FOR PLANT SCHEDULE.

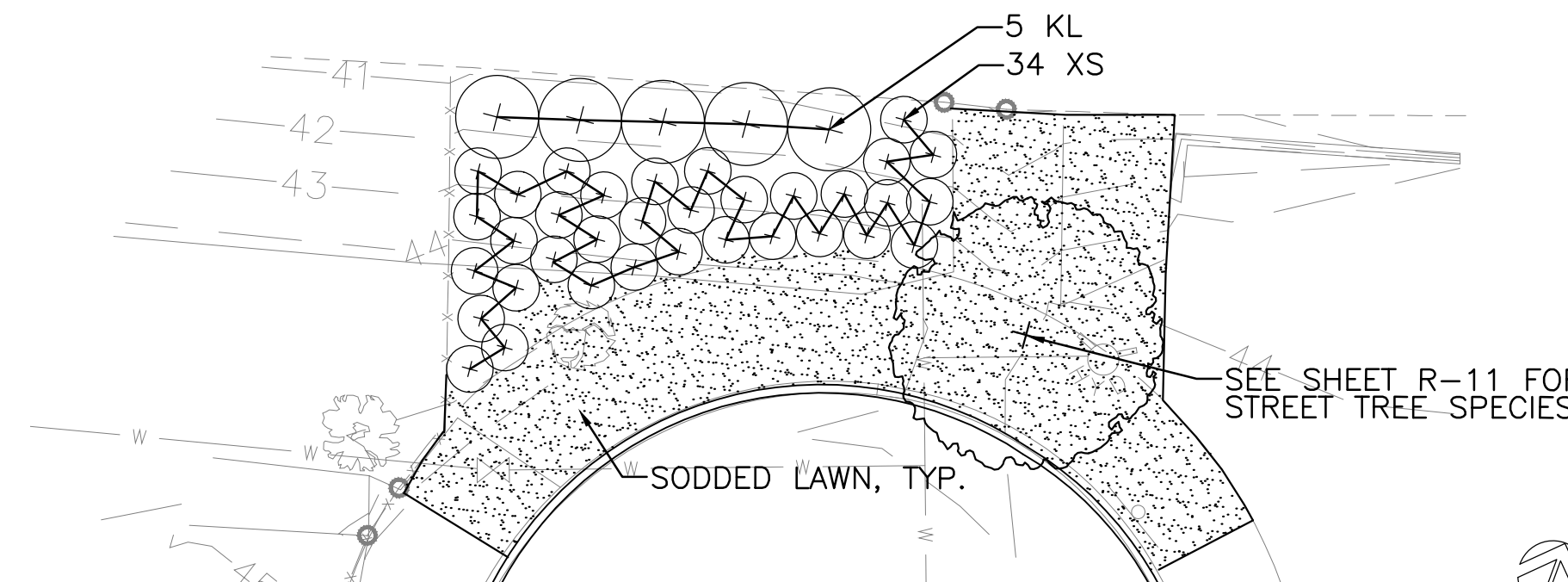
**LEGEND**

- PROPERTY LINE
- 0+00 STATION POINTS
- EXISTING TREE TO REMAIN
- STREET TREE PLANTING
- FLOWERING OR MULTISTEM TREE PLANTING
- DECIDUOUS/EVERGREEN TREE PLANTING
- SHRUB PLANTING
- PERENNIAL/GROUNDCOVER PLANTING
- LAWN SODDING (SEE SPEC SECTION 02900)



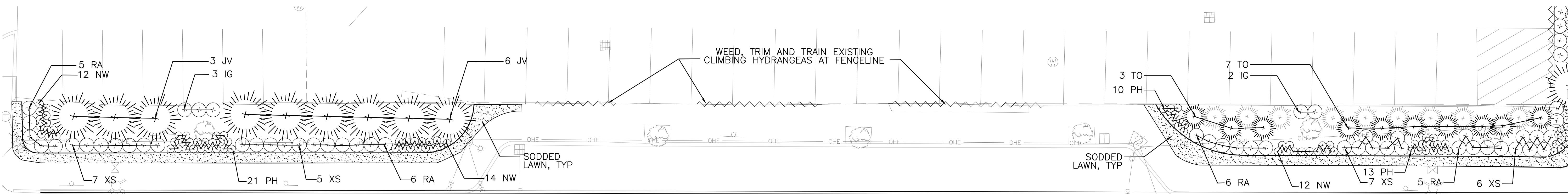
**PLANTING AREA C (STANDISH STREET)**

SCALE: 1" = 10'-0"



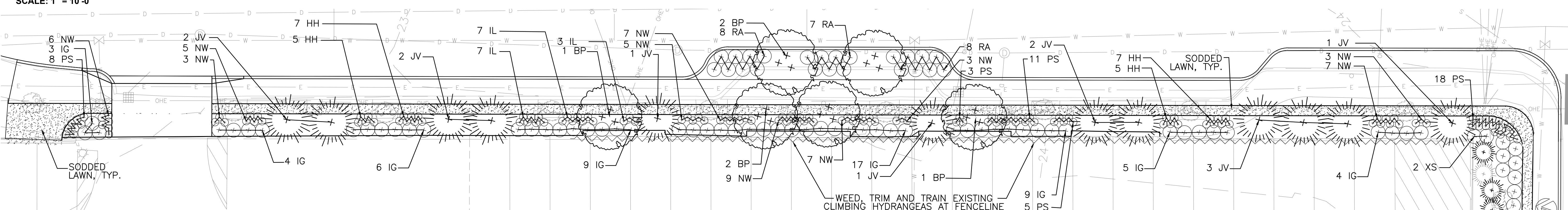
**PLANTING AREA E (GROZIER ROAD)**

SCALE: 1" = 10'-0"



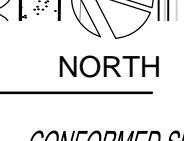
**PLANTING AREA B (WORTHINGTON STREET)**

SCALE: 1" = 10'-0"



**PLANTING AREA A (LAKEVIEW AVENUE)**

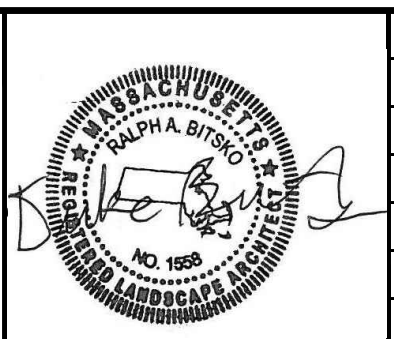
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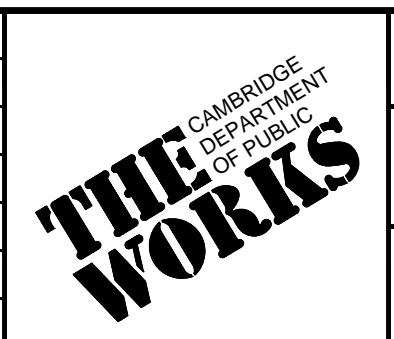
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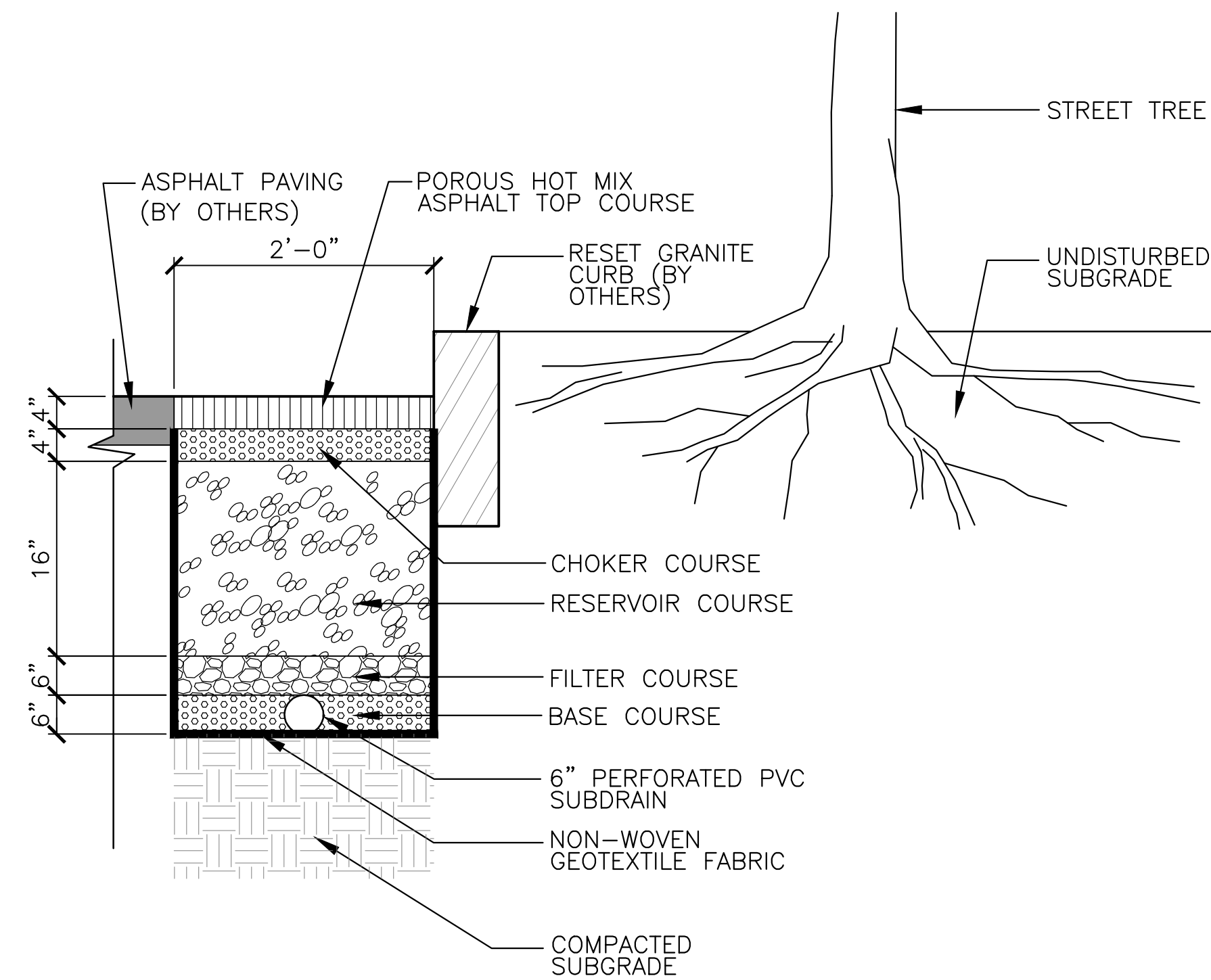
Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - PLANTING ENLARGEMENTS (AREAS A-E)

Sheet	<b>CG-24</b>
File No.	

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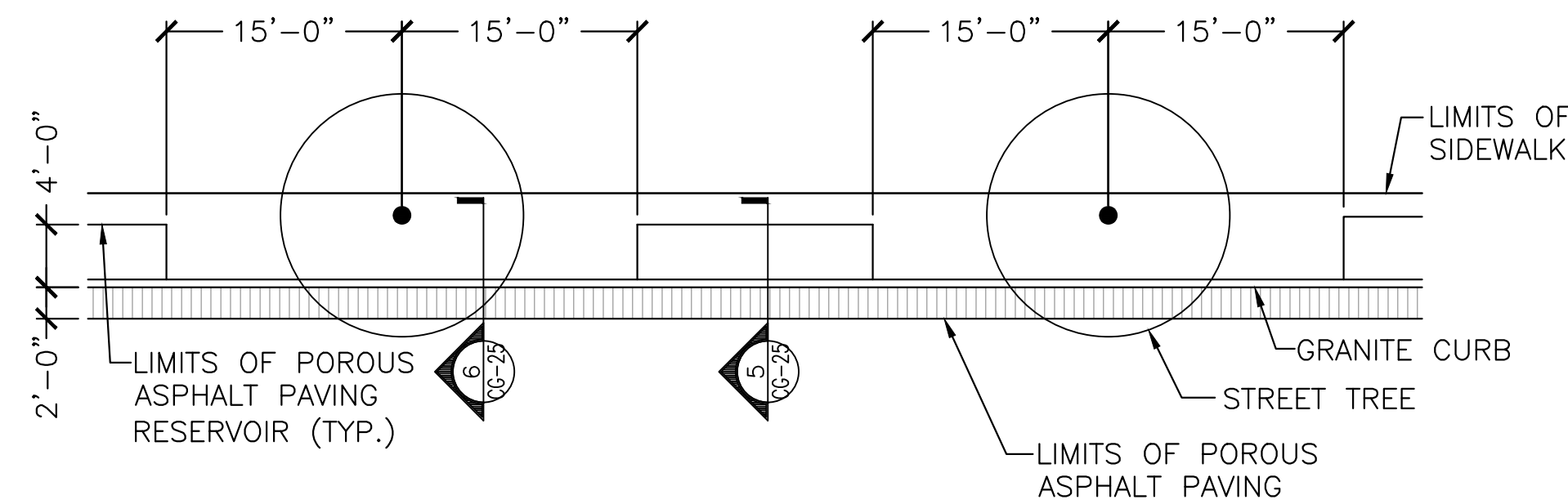
**NOTES:**

1. FOR LAYOUT AND LIMITS OF POROUS PAVING SECTIONS, SEE SHEETS U-1, U-3, U-5, U-6, AND U-9.
2. FOR POROUS PAVING, SEE SPECIFICATION SECTION 02510.
3. FOR CONSTRUCTION SEQUENCE OF POROUS PAVING, SEE SPECIFICATION SECTION 01010, SUMMARY OF WORK.



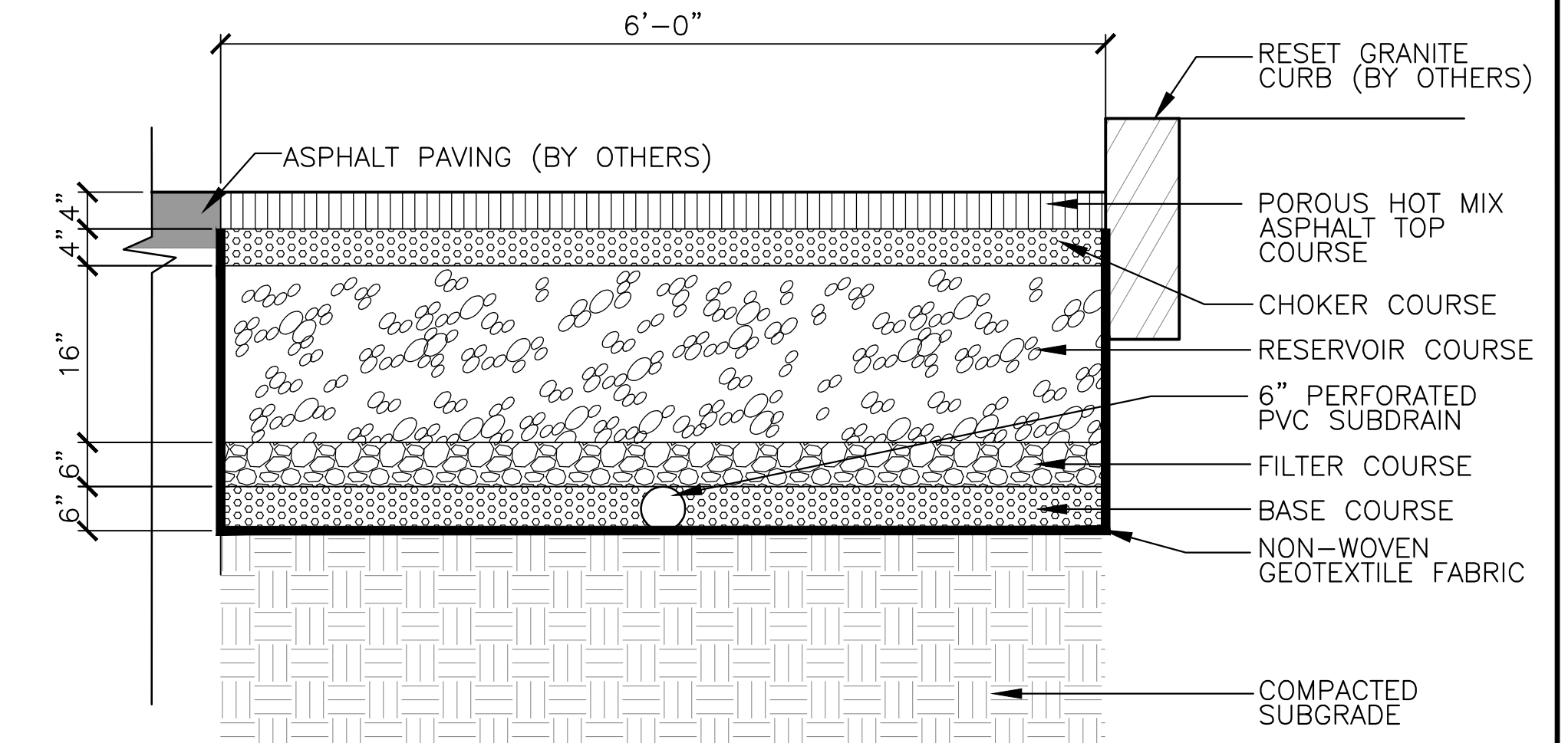
**HOT MIX ASPHALT POROUS PAVING, TYPE B  
(2' WIDTH IN STREET)**

6 SCALE: NTS



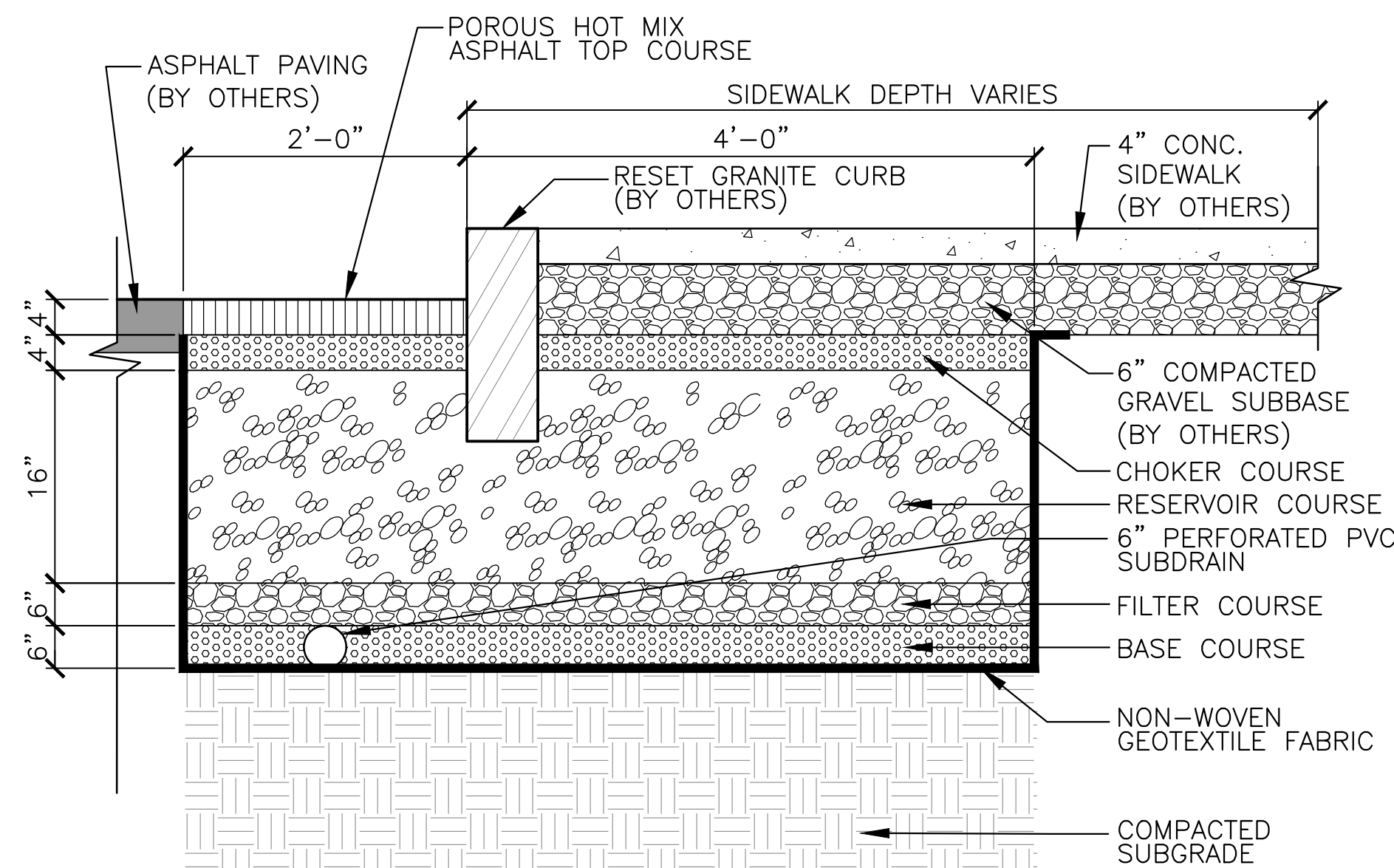
**HOT MIX ASPHALT POROUS PAVING AROUND  
STREET TREES - PLAN**

4 SCALE: NTS



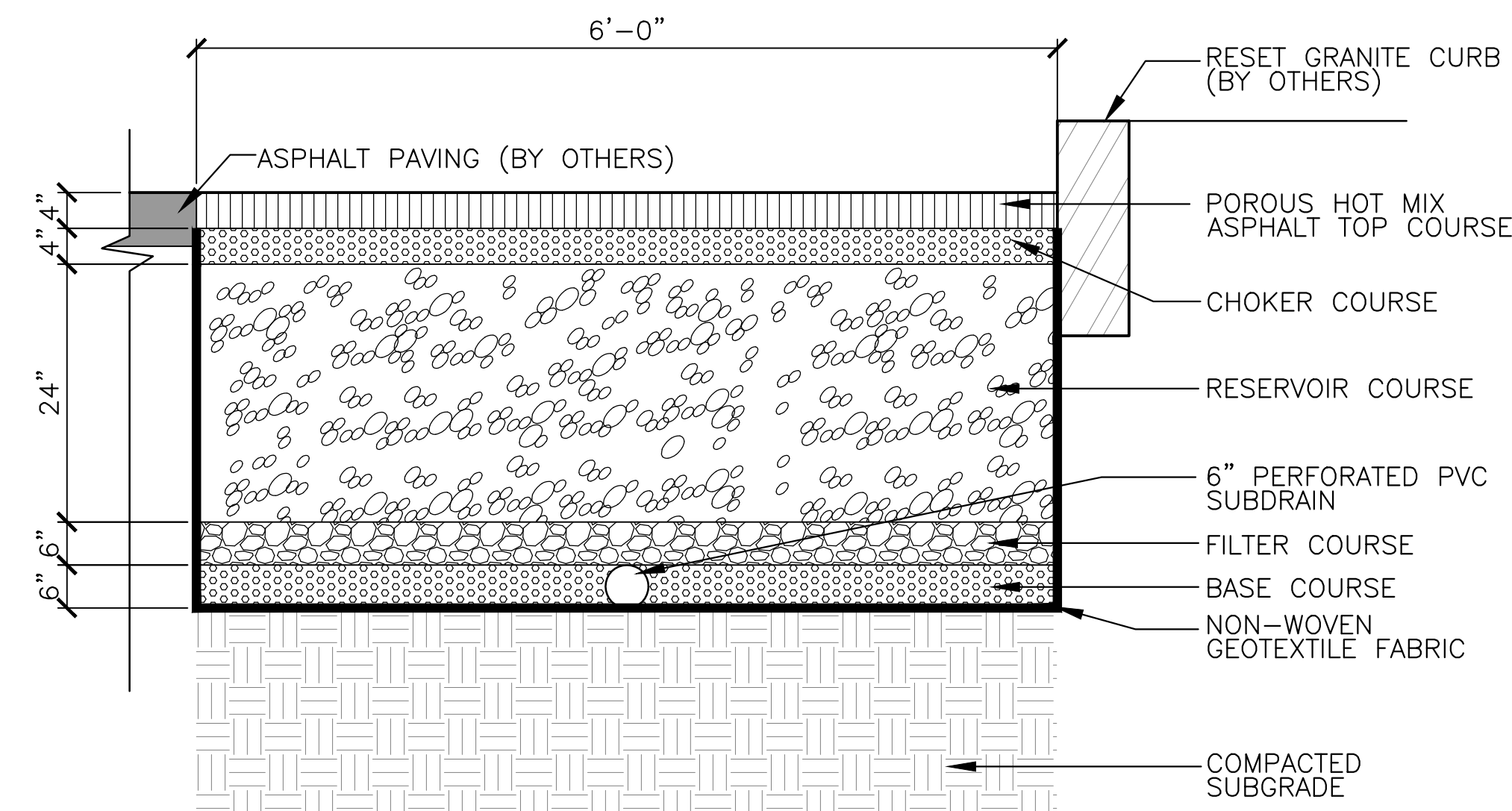
**HOT MIX ASPHALT POROUS PAVING (36" DEPTH, 6' WIDTH)**

2 SCALE: NTS



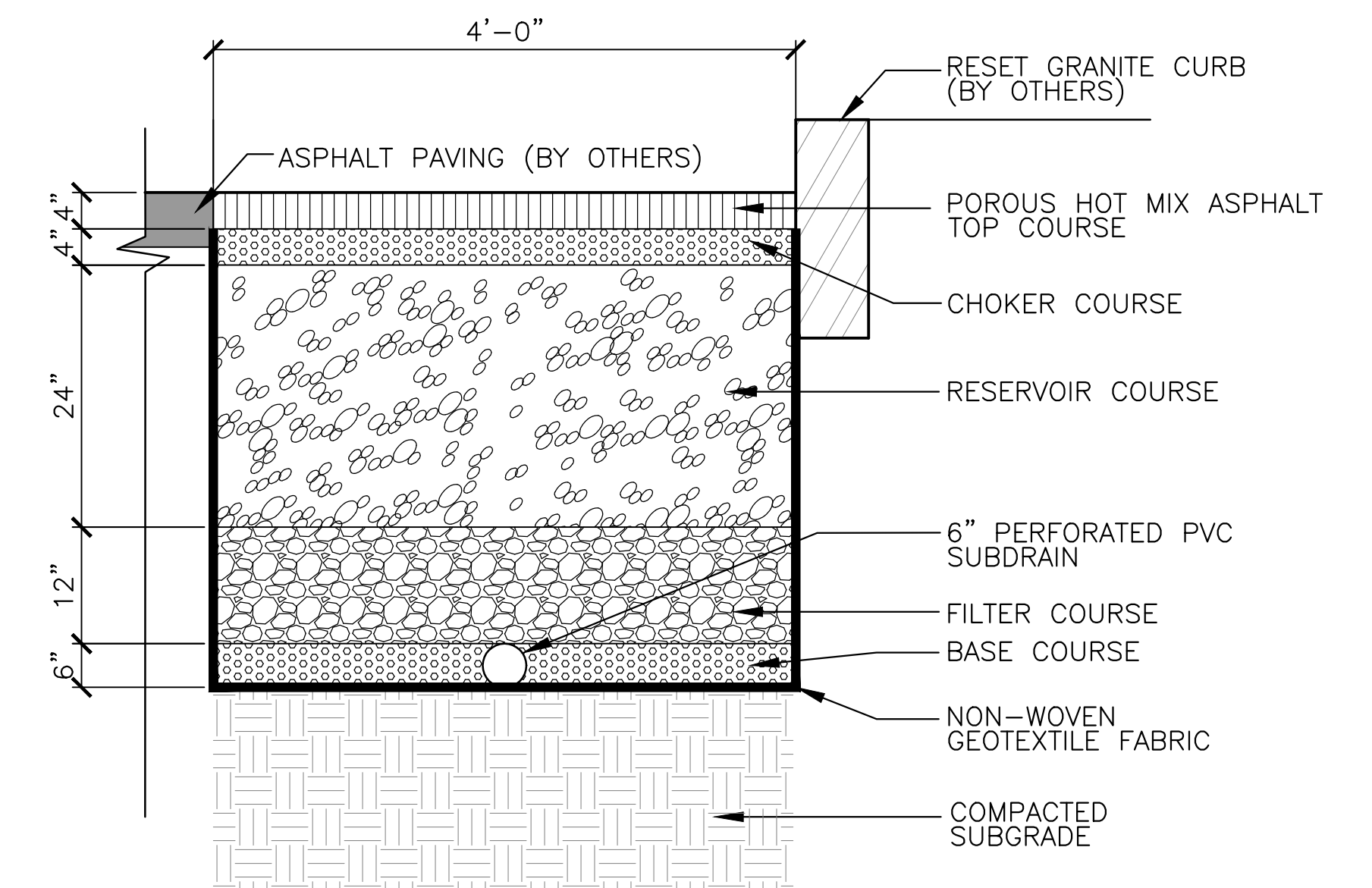
**HOT MIX ASPHALT POROUS PAVING, TYPE A  
(2' WIDTH IN STREET)**

5 SCALE: NTS



**HOT MIX ASPHALT POROUS PAVING (44" DEPTH, 6' WIDTH)**

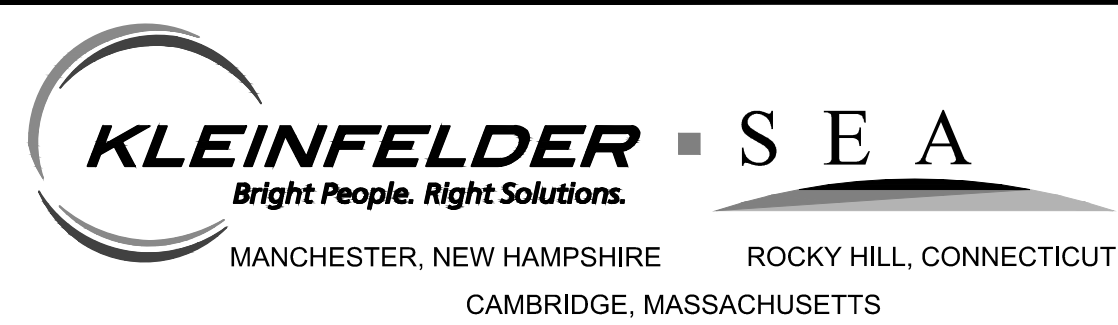
3 SCALE: NTS



**HOT MIX ASPHALT POROUS PAVING (50" DEPTH, 4' WIDTH)**

1 SCALE: NTS

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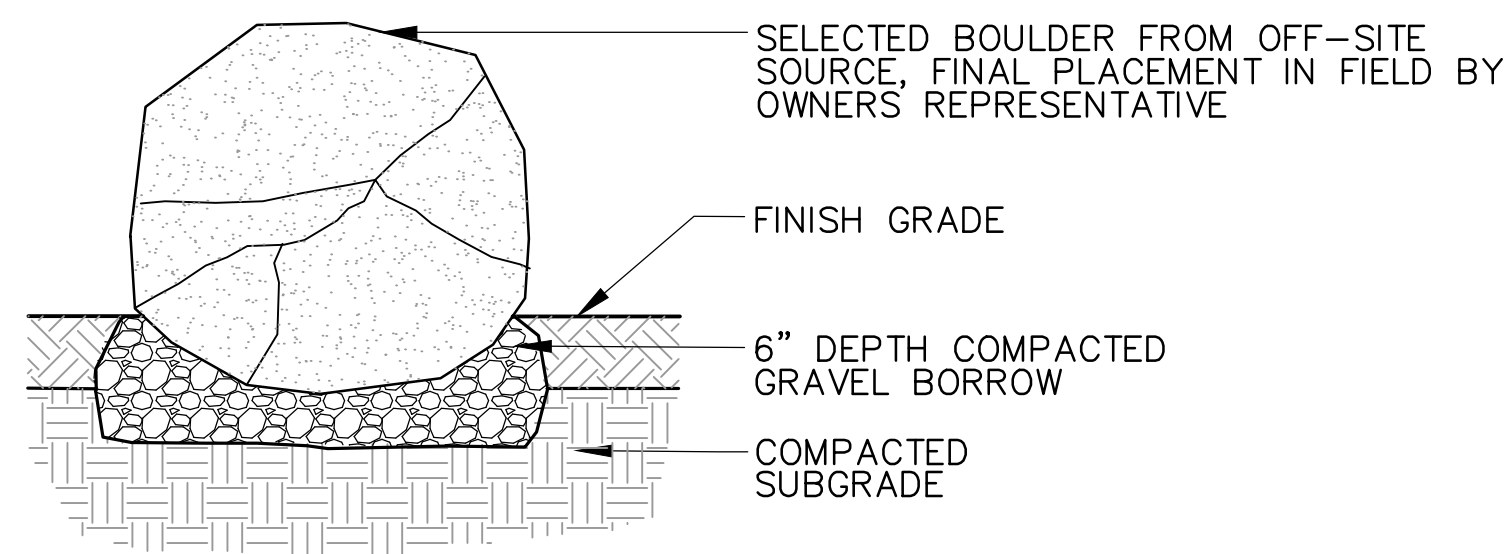
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Job No.	2011010.01-A		
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Drawn by	AK/JB/MO		
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Approved by	B. GARNER		REVISIONS



Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - POROUS PAVING DETAILS

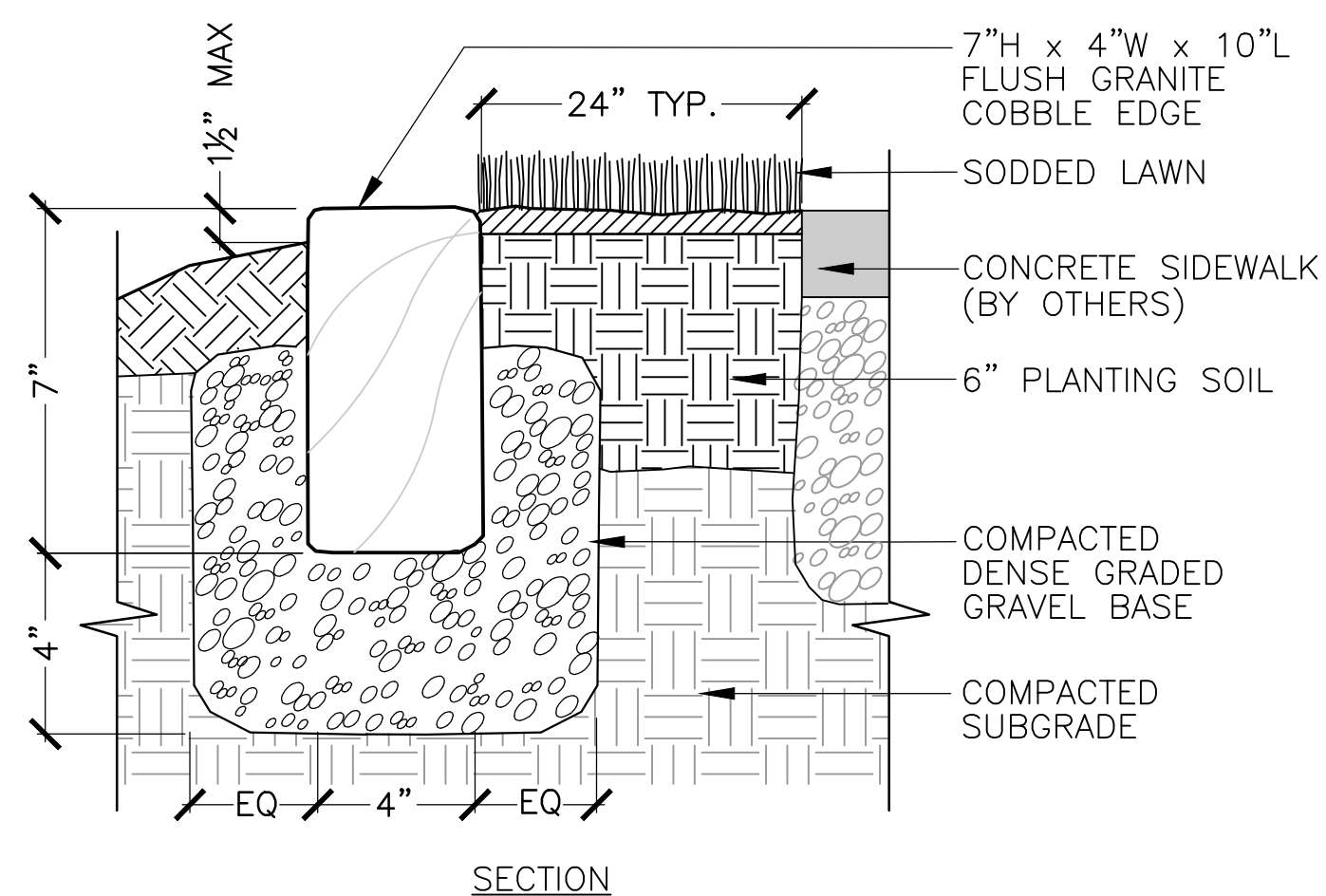
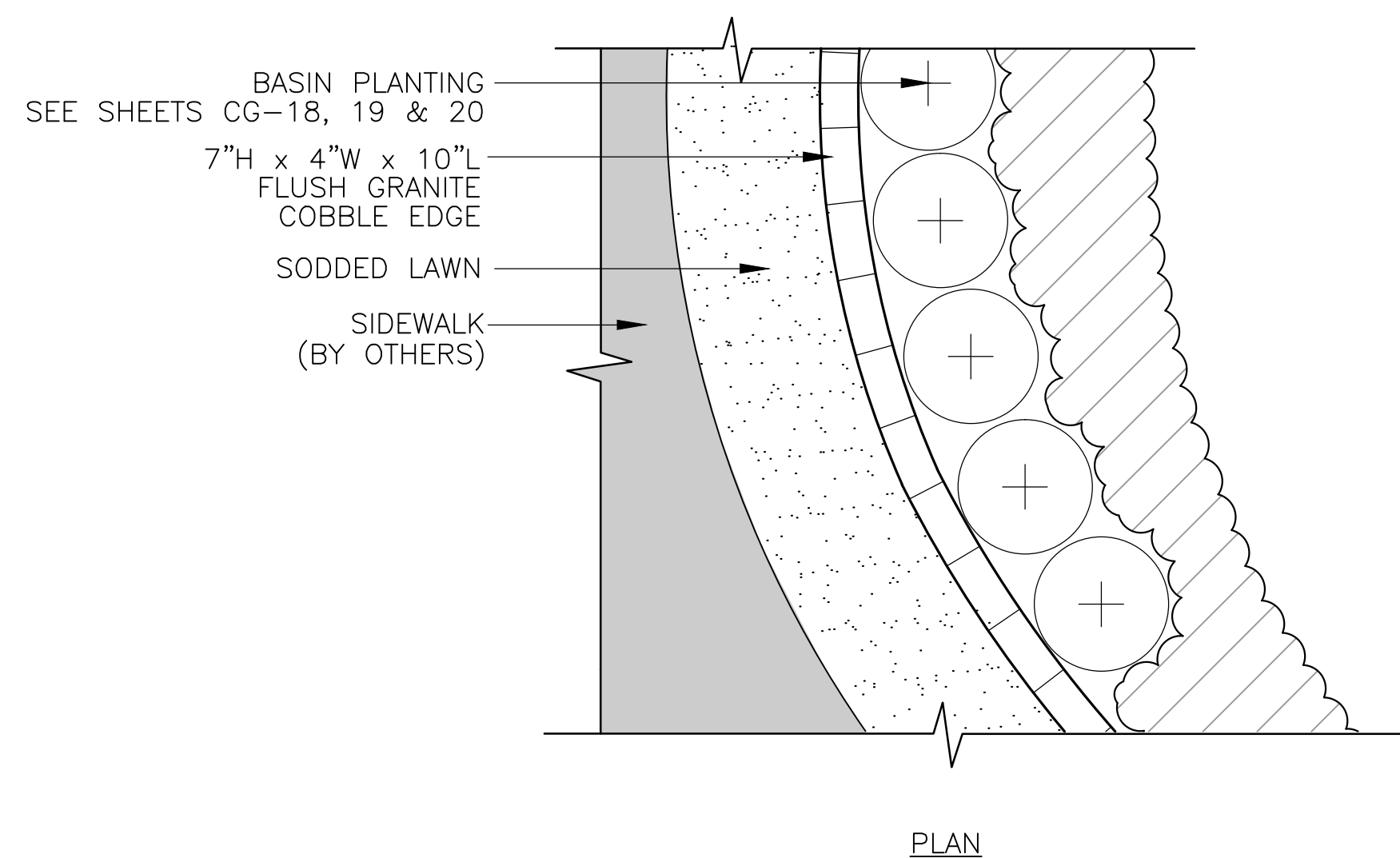
Sheet	<b>CG-25</b>
File No.	

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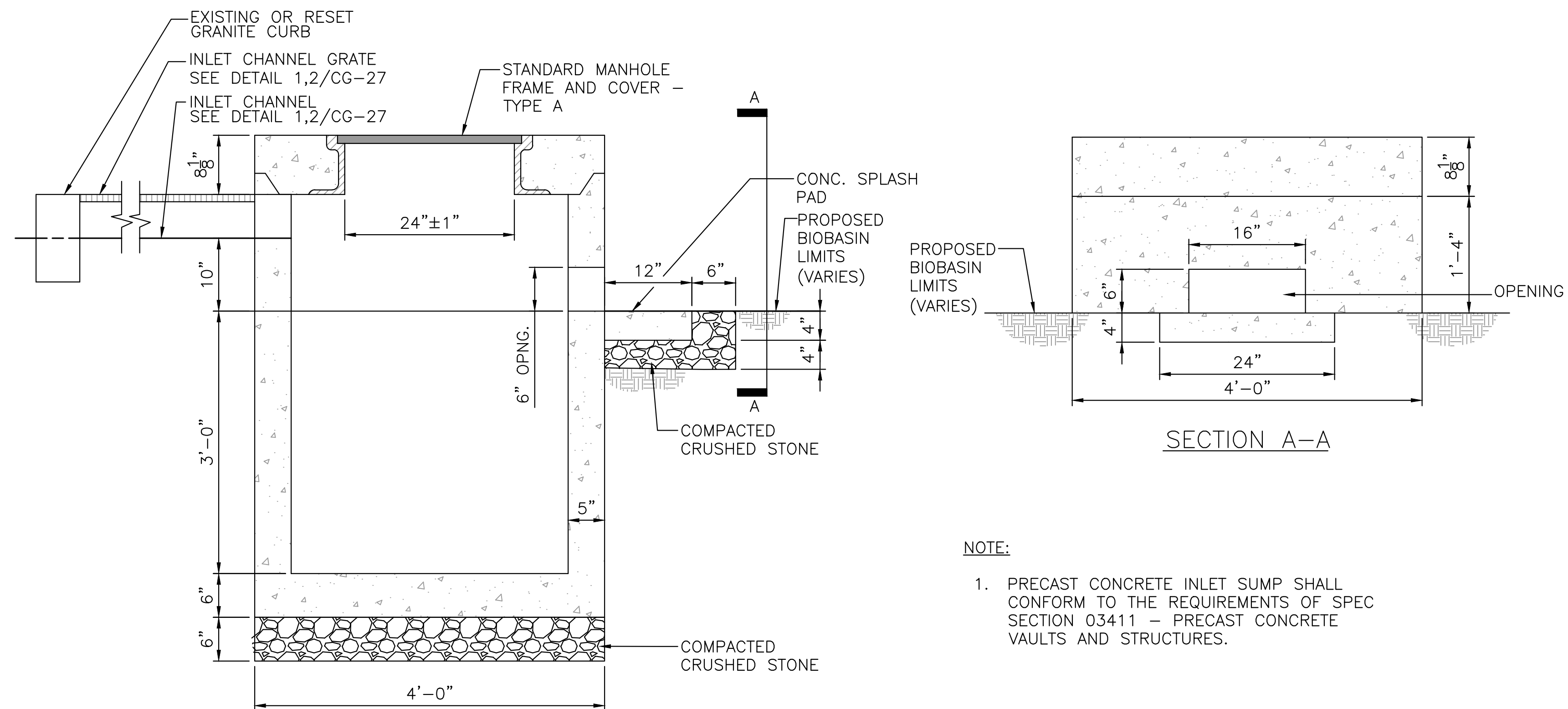
NOTE: SEE SPEC SECTION 02905 FOR BOULDER SIZES

**4 BIOBASIN TYPE I - PLACED BOULDER**  
SCALE: NTS



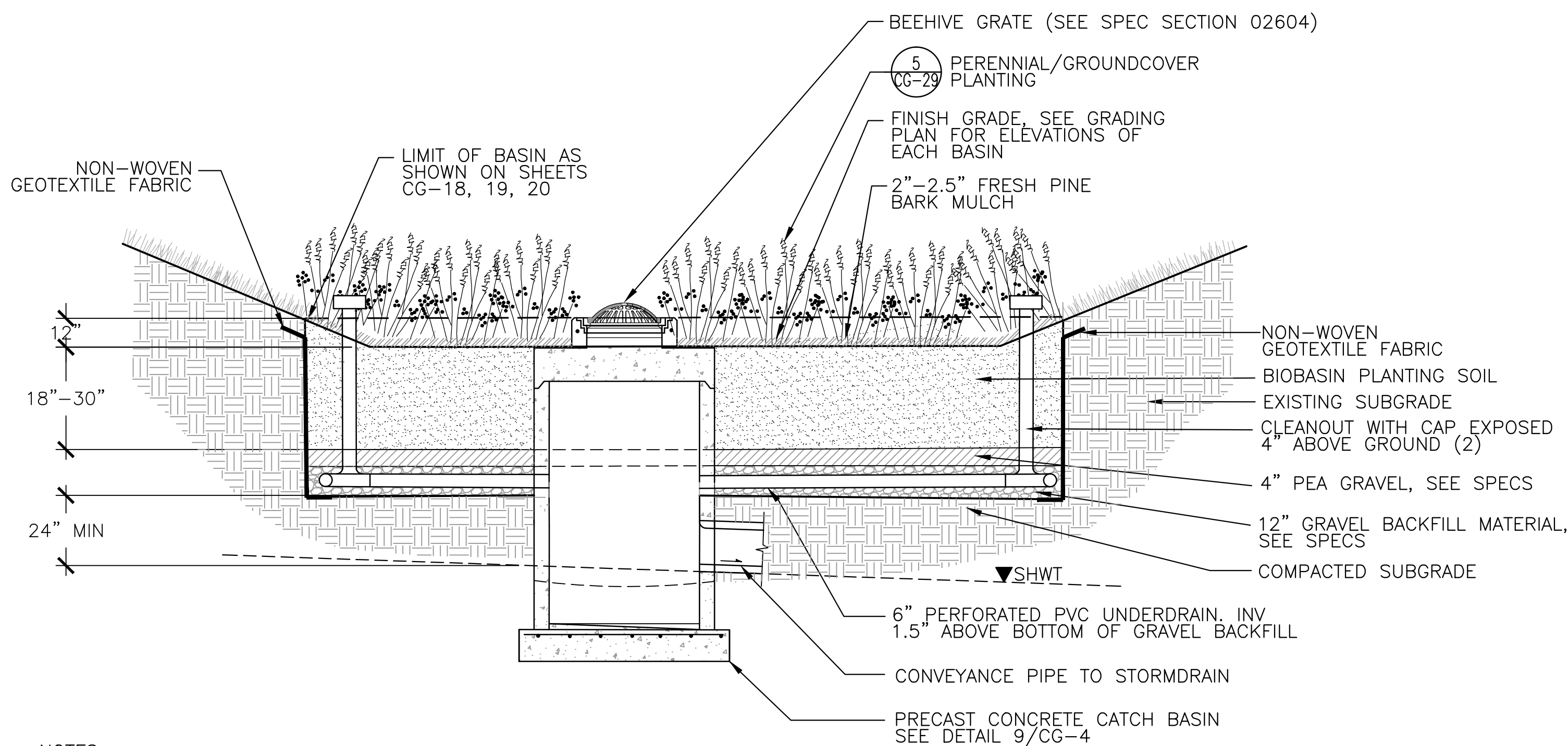
**3 BIOBASIN TYPE I - GRANITE LANDSCAPE EDGE**  
SCALE: NTS

**2 BIOBASIN TYPE I - INLET SUMP**  
SCALE: NTS



NOTE:  
1. PRECAST CONCRETE INLET SUMP SHALL CONFORM TO THE REQUIREMENTS OF SPEC SECTION 03411 - PRECAST CONCRETE VAULTS AND STRUCTURES.

**1 BIOBASIN TYPE I**  
SCALE: NTS



NOTES:  
1. BIOBASINS 1, 2 AND 3 ARE TYPE I BIOBASINS  
2. TYPE I BIOBASINS ARE SET IN A GRADED DEPRESSION AND OVERFLOW TO THE STORMDRAIN SYTEM.  
3. TYPE I BIOBASINS MUST BE ESTABLISHED WITH DENSE AND HEALTHY VEGETATION PRIOR TO INTRODUCTION OF STORMWATER (SEE SPEC SECTION 02905)

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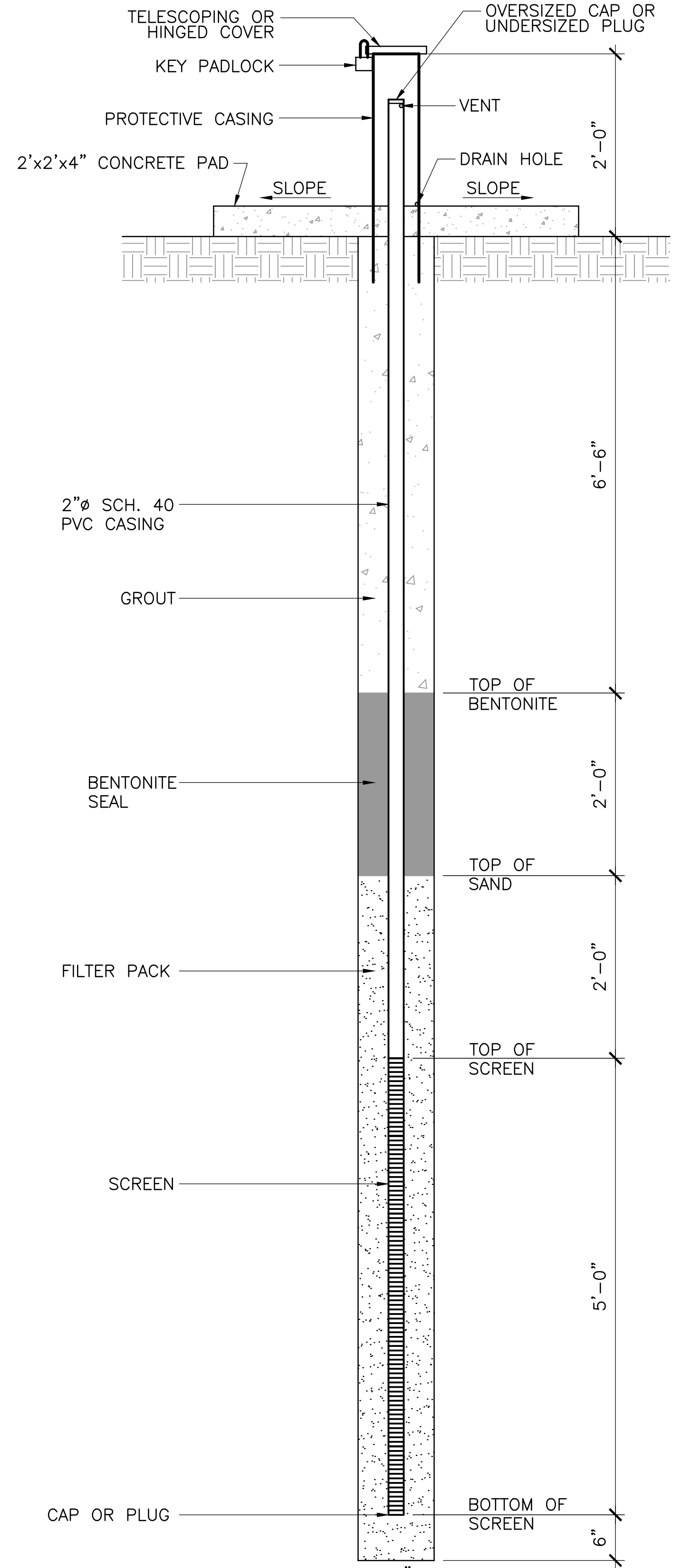


Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - BIOBASIN (TYPE I) DETAILS

Sheet	<b>CG-26</b>
File No.	

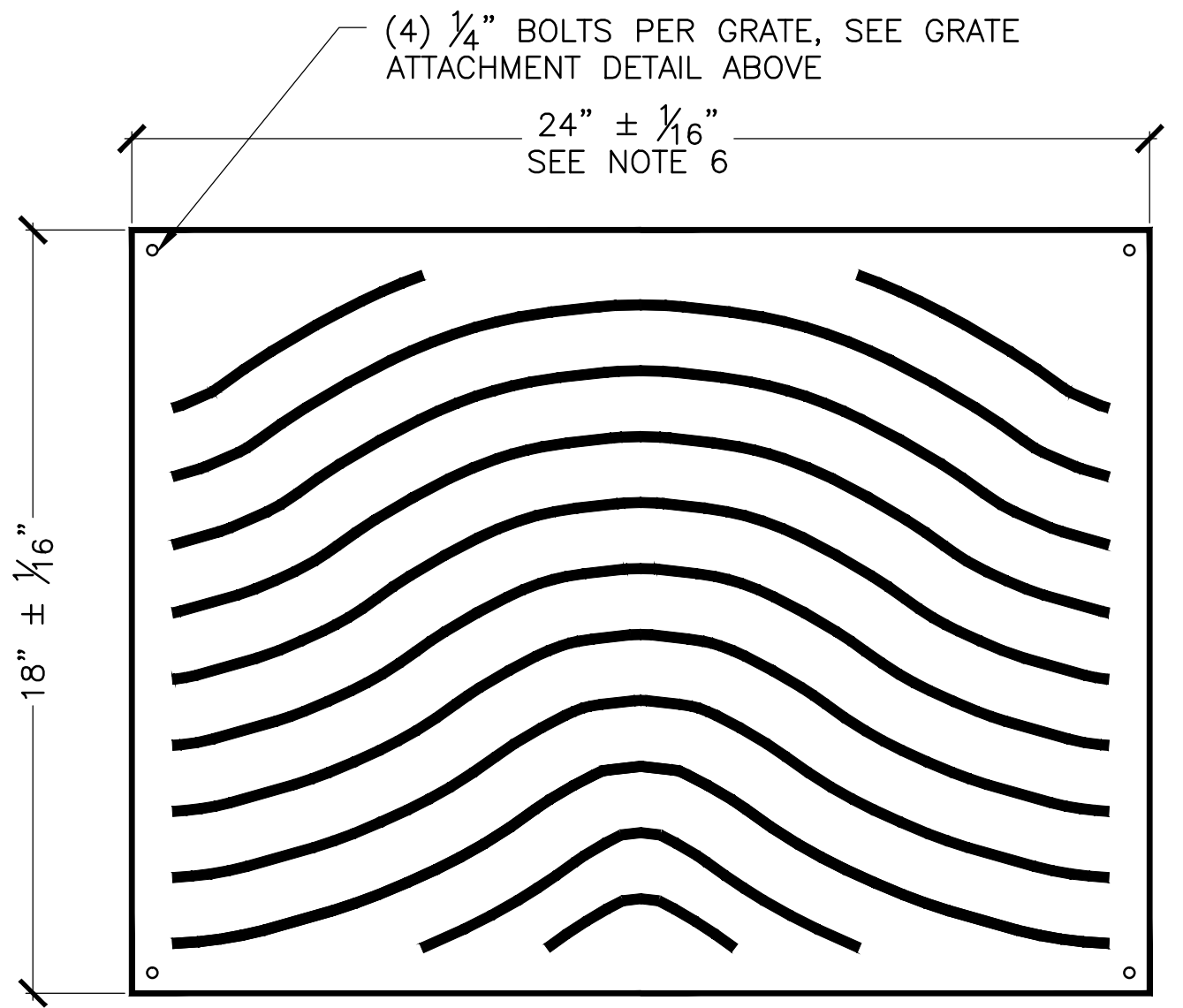
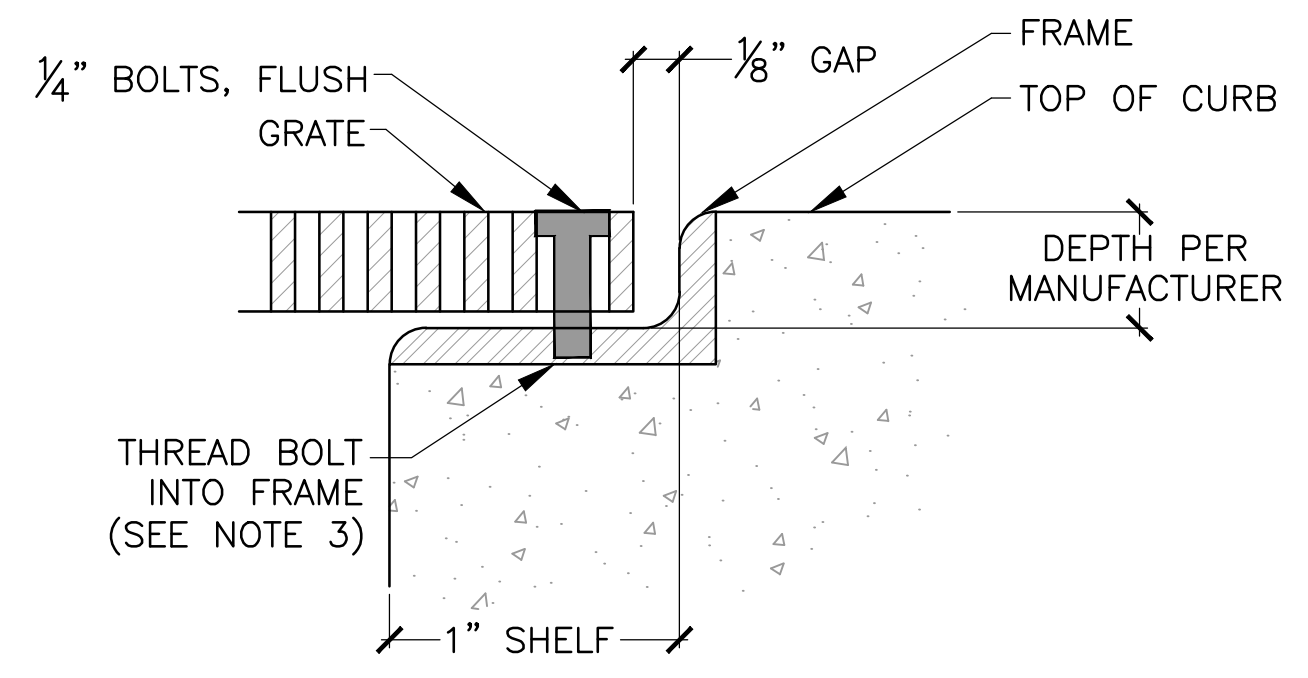
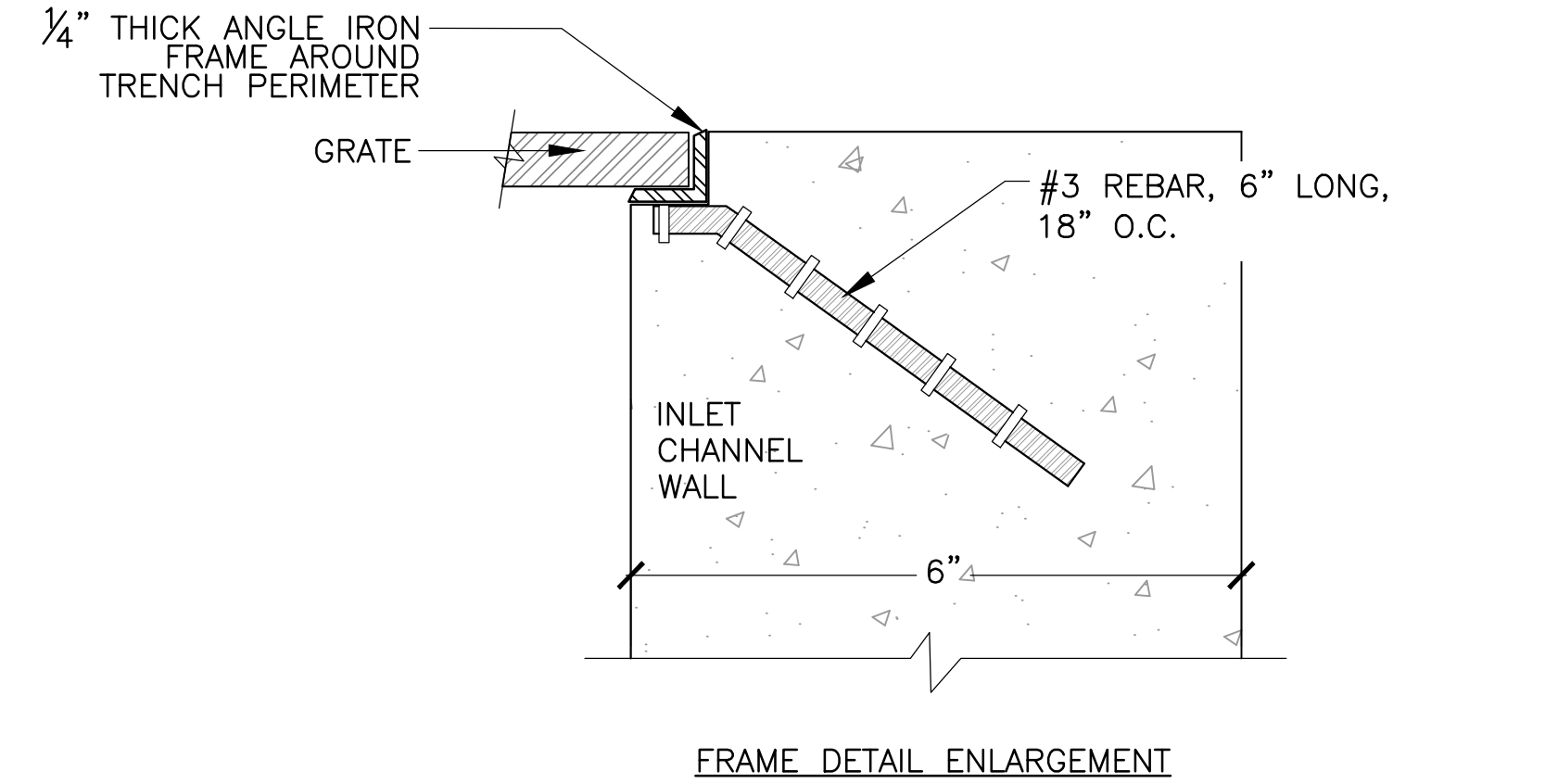
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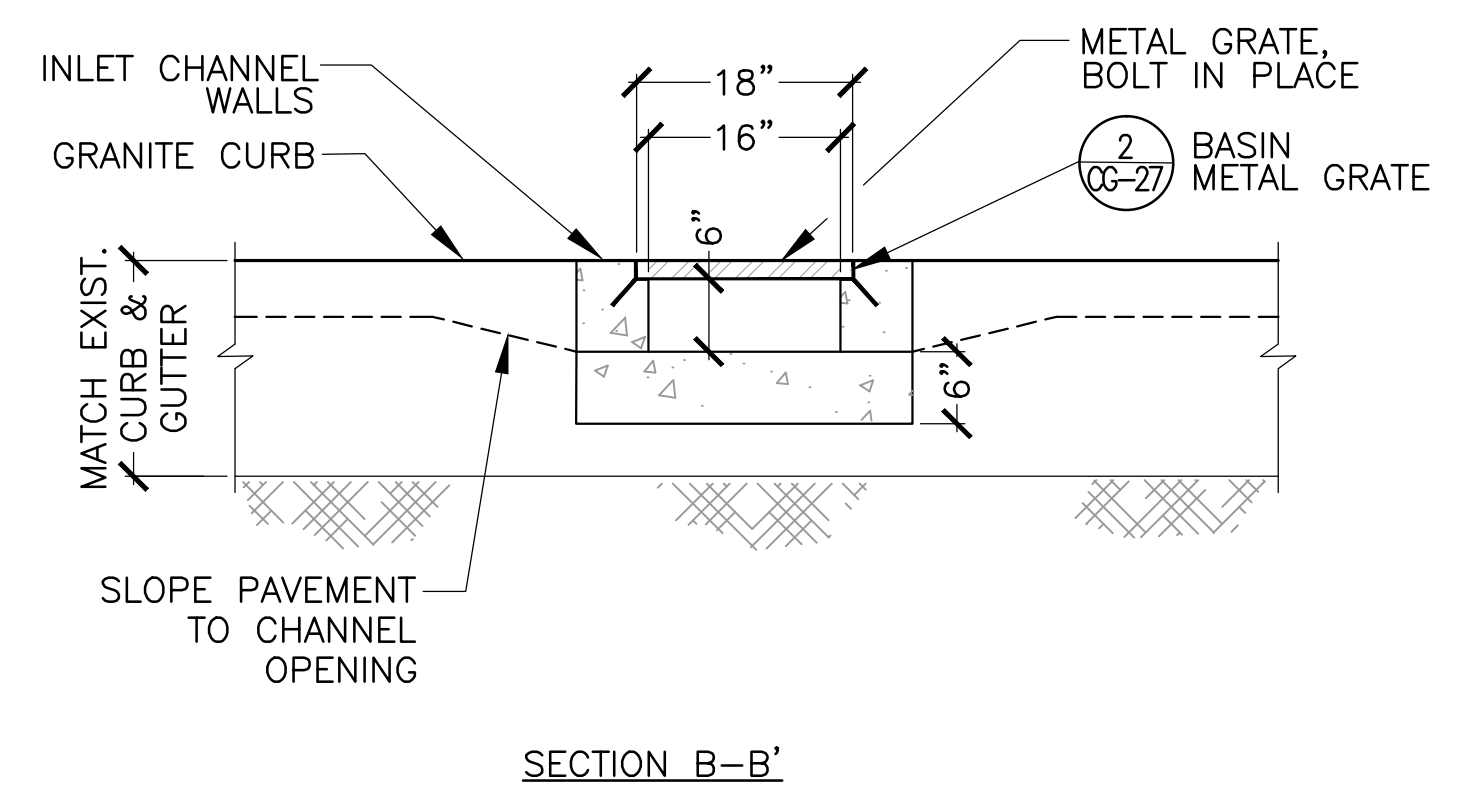
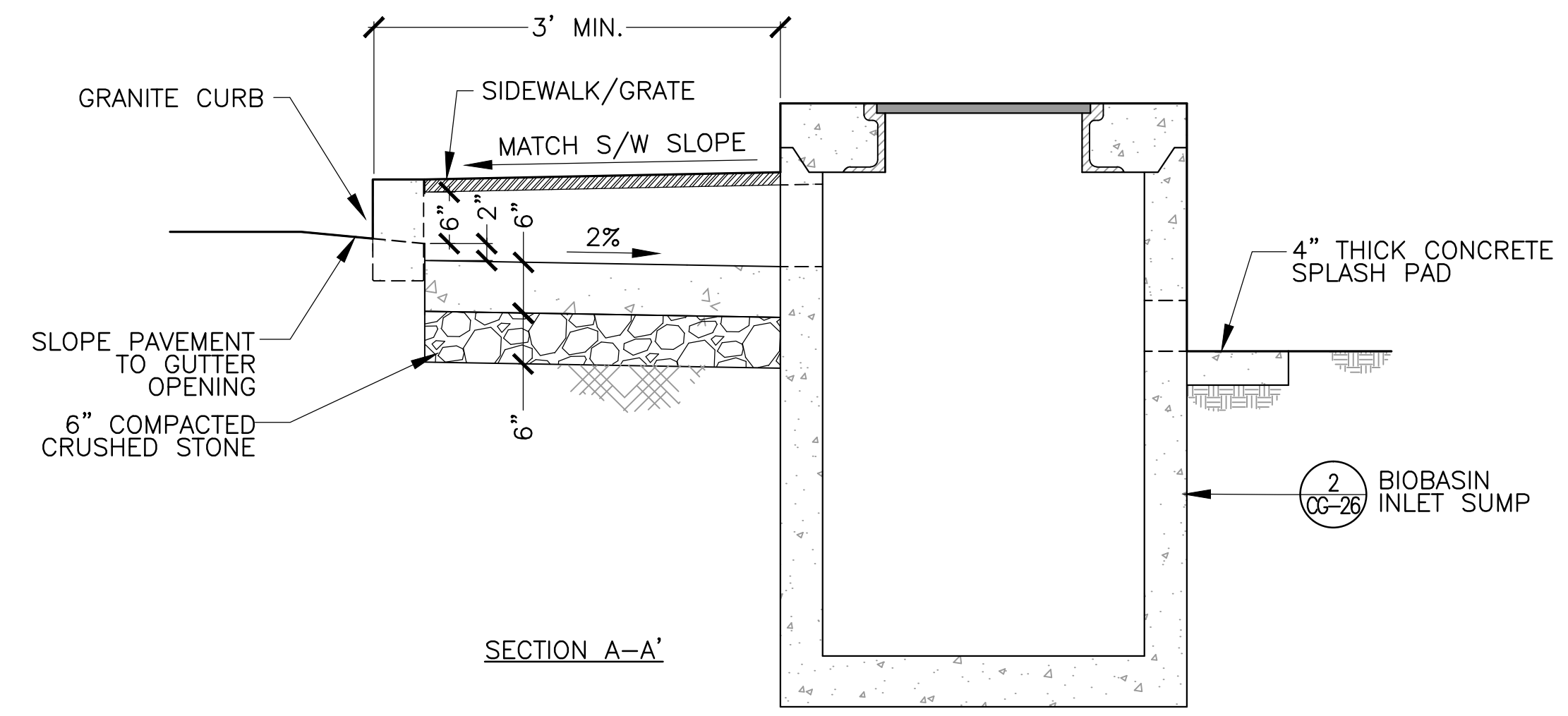
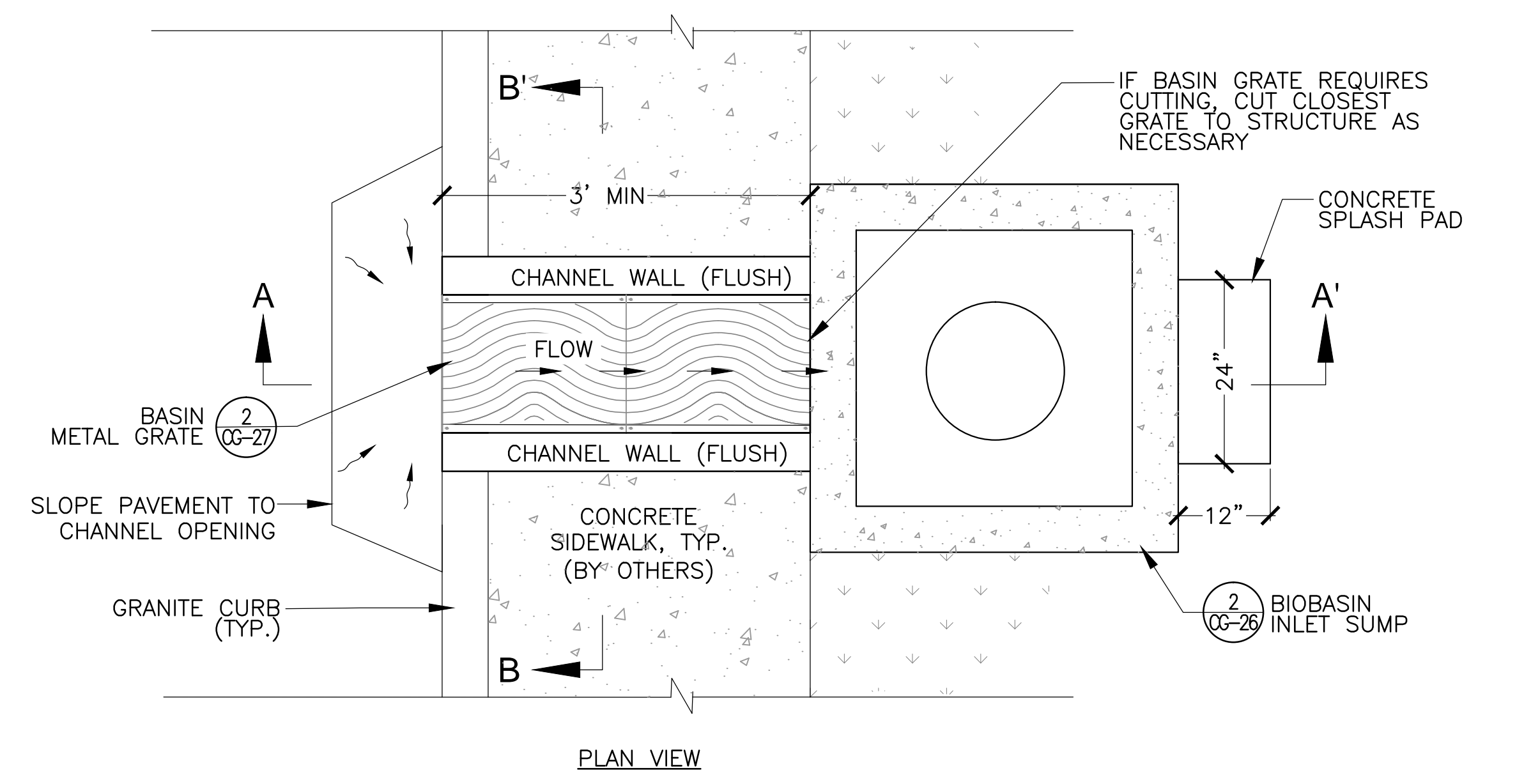
**NOTES:**  
 1. ACTUAL LOCATION OF MONITORING WELL IN EACH BASIN SHALL BE DETERMINED IN THE FIELD.

**3 BIOBASIN MONITORING WELL**  
 SCALE: NTS



**NOTES:**  
 1. CAST IRON FINISH.  
 2. NO OPENING GREATER THAN 3/8".  
 3. PROTECT THREADED HOLES IN FRAME FROM CLOGGING DURING FRAME INSTALLATION.  
 4. GRATE TO BE RATED FOR H-20 LOADING, WITH A NON-SLIP SURFACE HAVING A STATIC COEFFICIENT OF FRICTION BETWEEN 0.60 AND 1.0 PER ASTM C1020. GRATES ON INCLINES GREATER THAN 4% SHALL HAVE A COEFFICIENT OF .80 TO 1.0.  
 5. WAVY GRATE AS SHOWN OR APPROVED ADA-COMPLIANT EQUIVALENT.  
 6. CONTRACTOR TO VERIFY SIDEWALK WIDTHS AT BIOBASIN 1,2, AND 3 LOCATIONS TO DETERMINE CHANNEL FRAME AND GRATE TOTAL LENGTHS PRIOR TO PROCUREMENT OF MATERIALS.

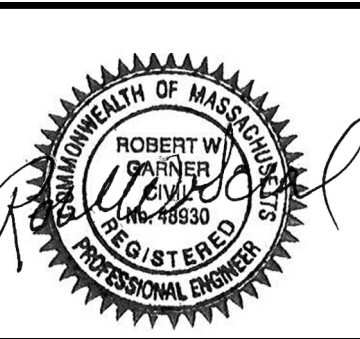
**2 BIOBASIN TYPE I - METAL GRATE**  
 SCALE: NTS



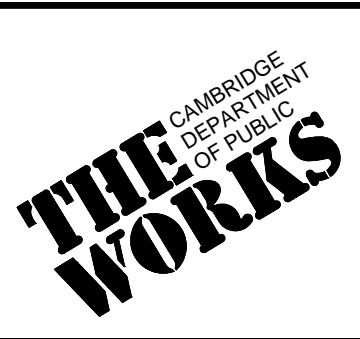
**1 BIOBASIN TYPE I - INLET AND CHANNEL**  
 SCALE: NTS

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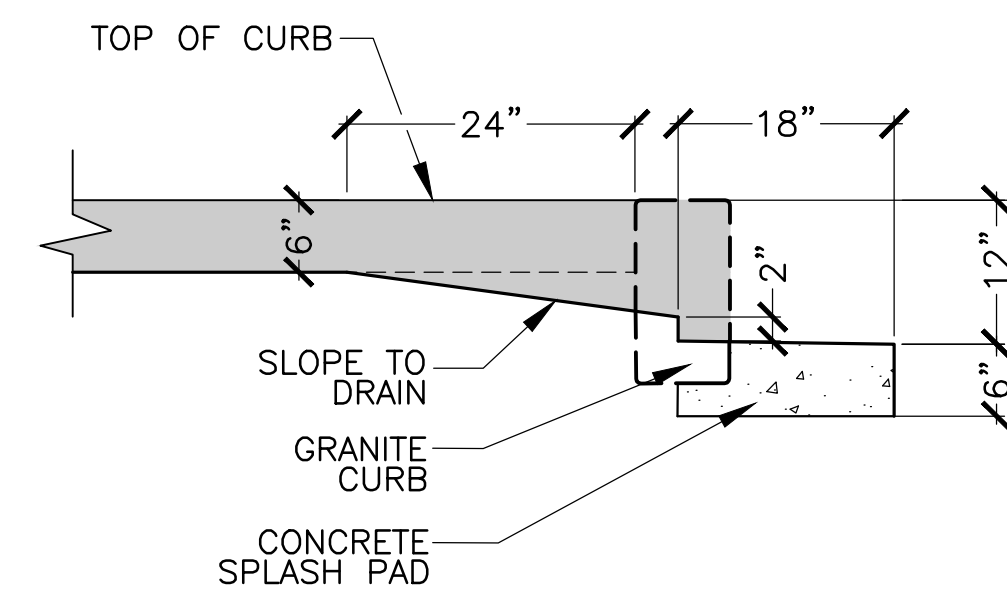
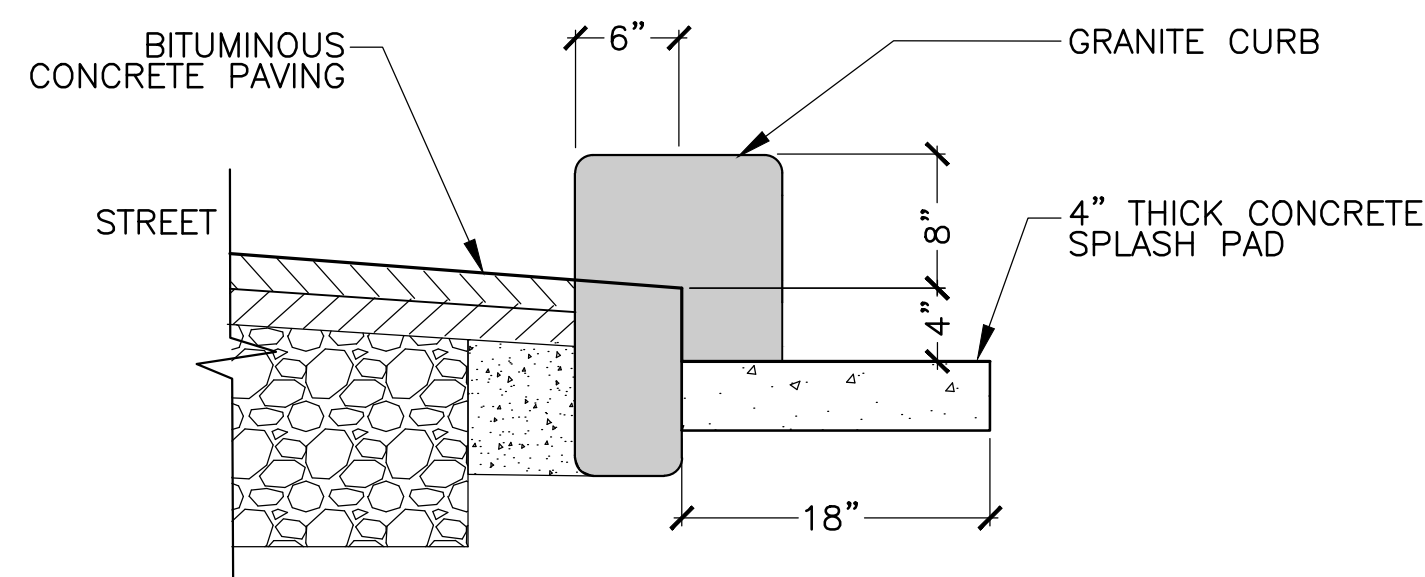
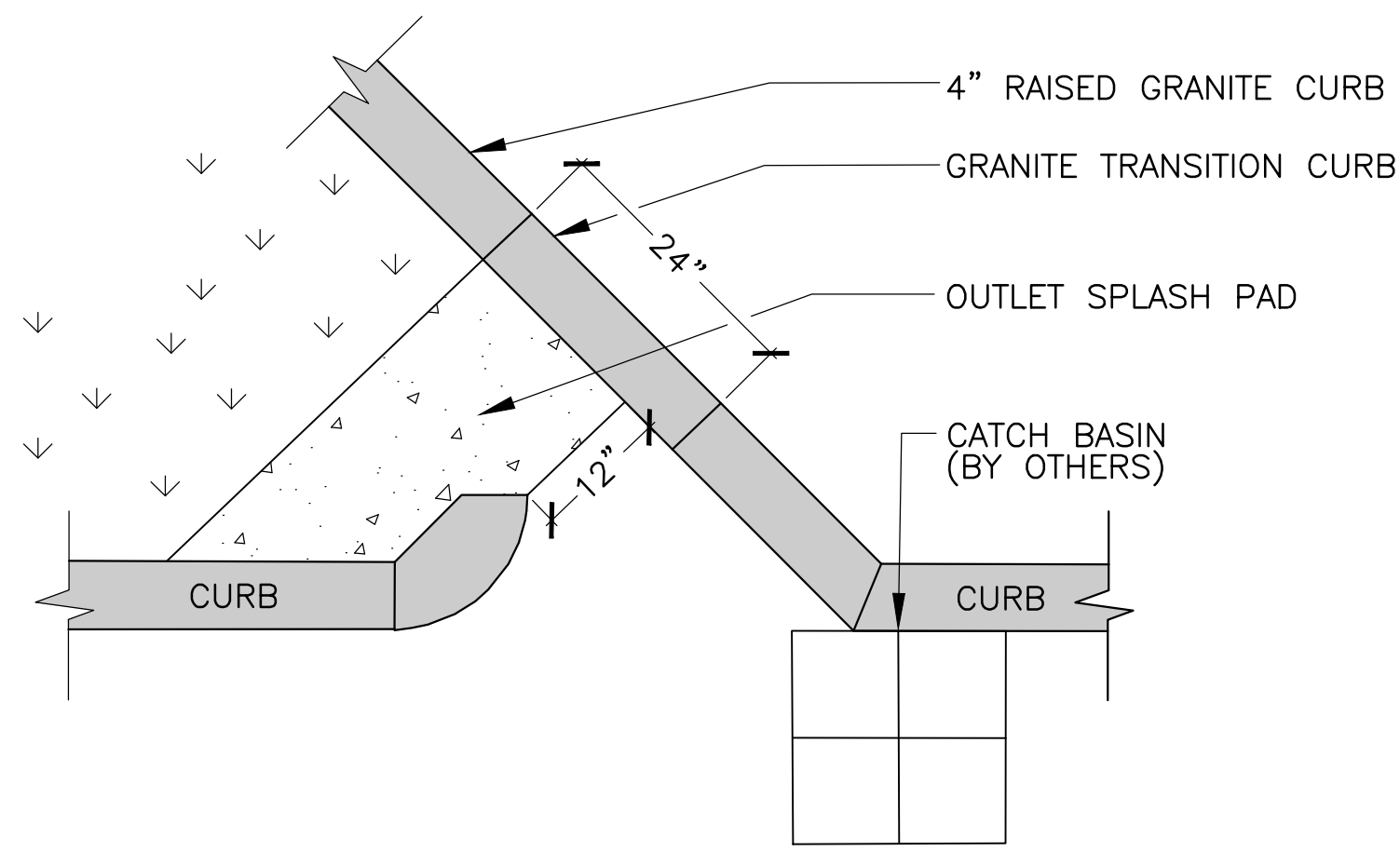
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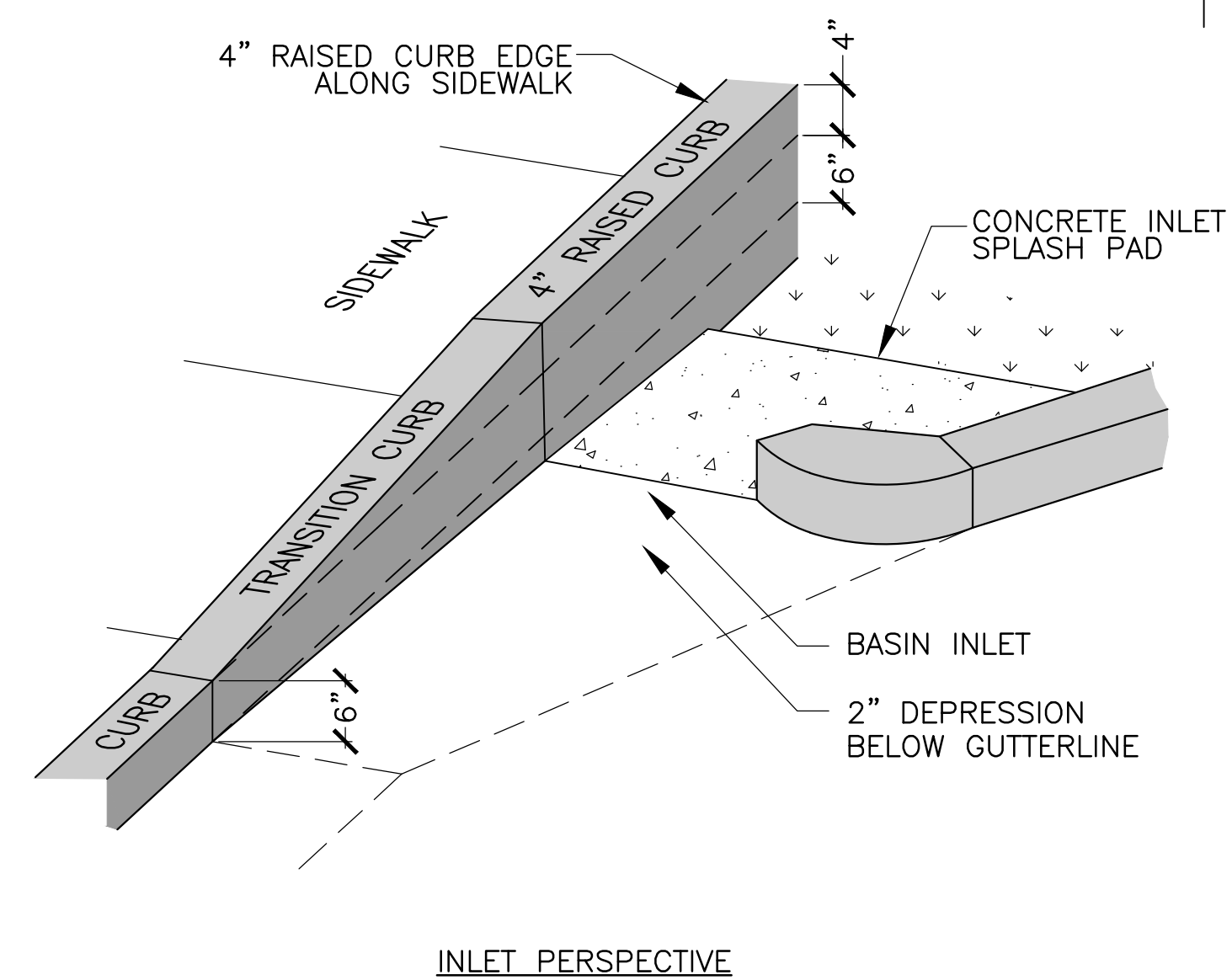
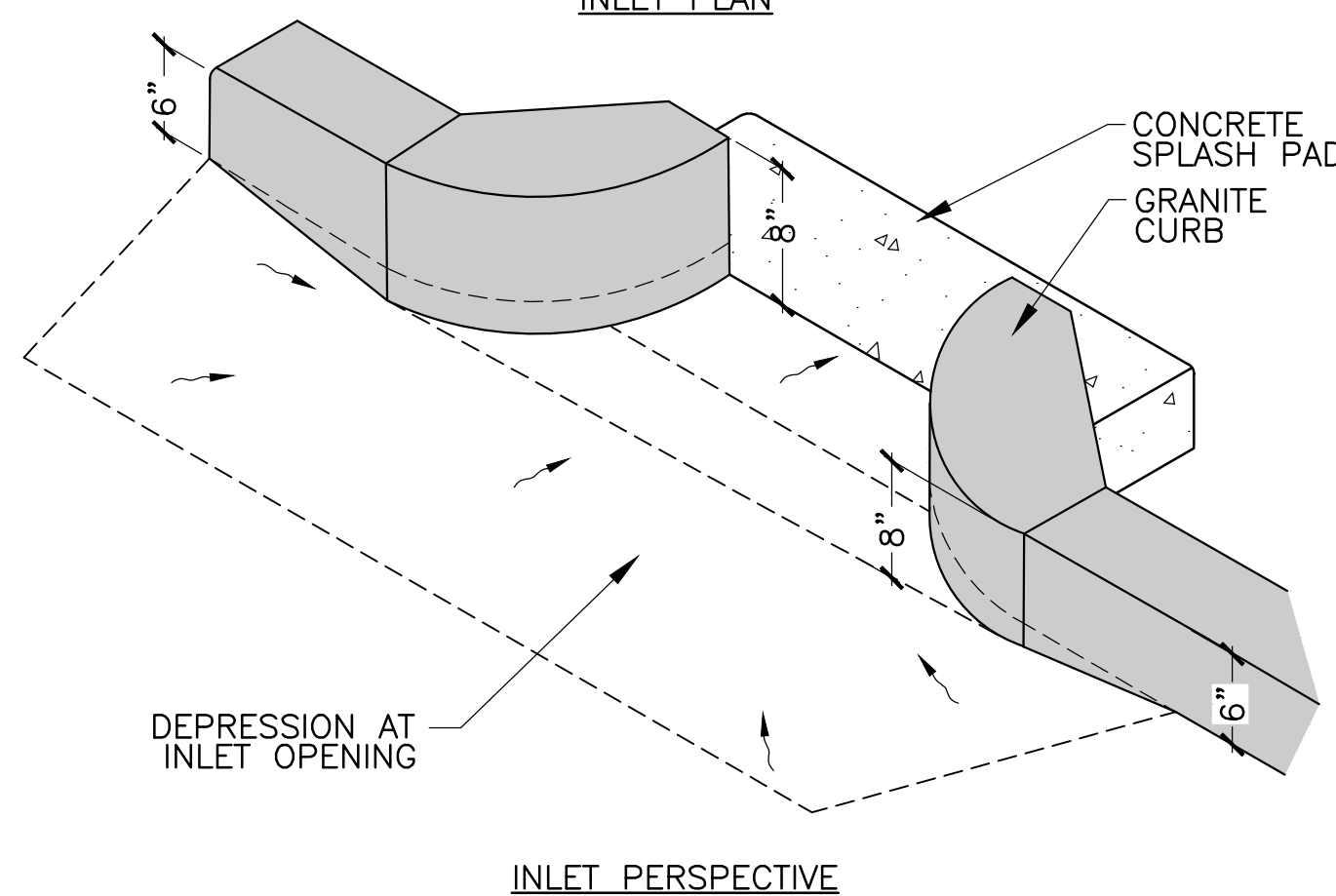
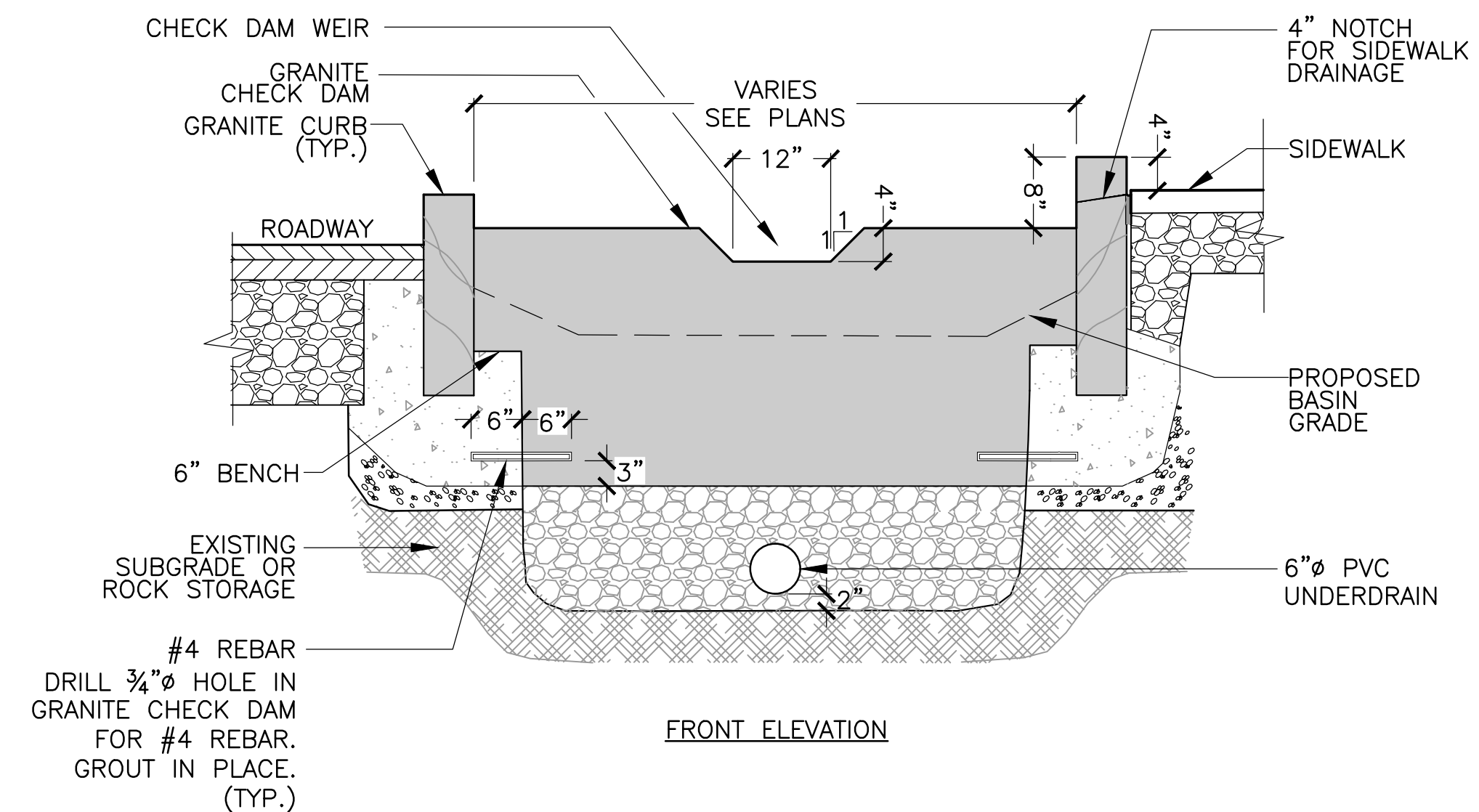
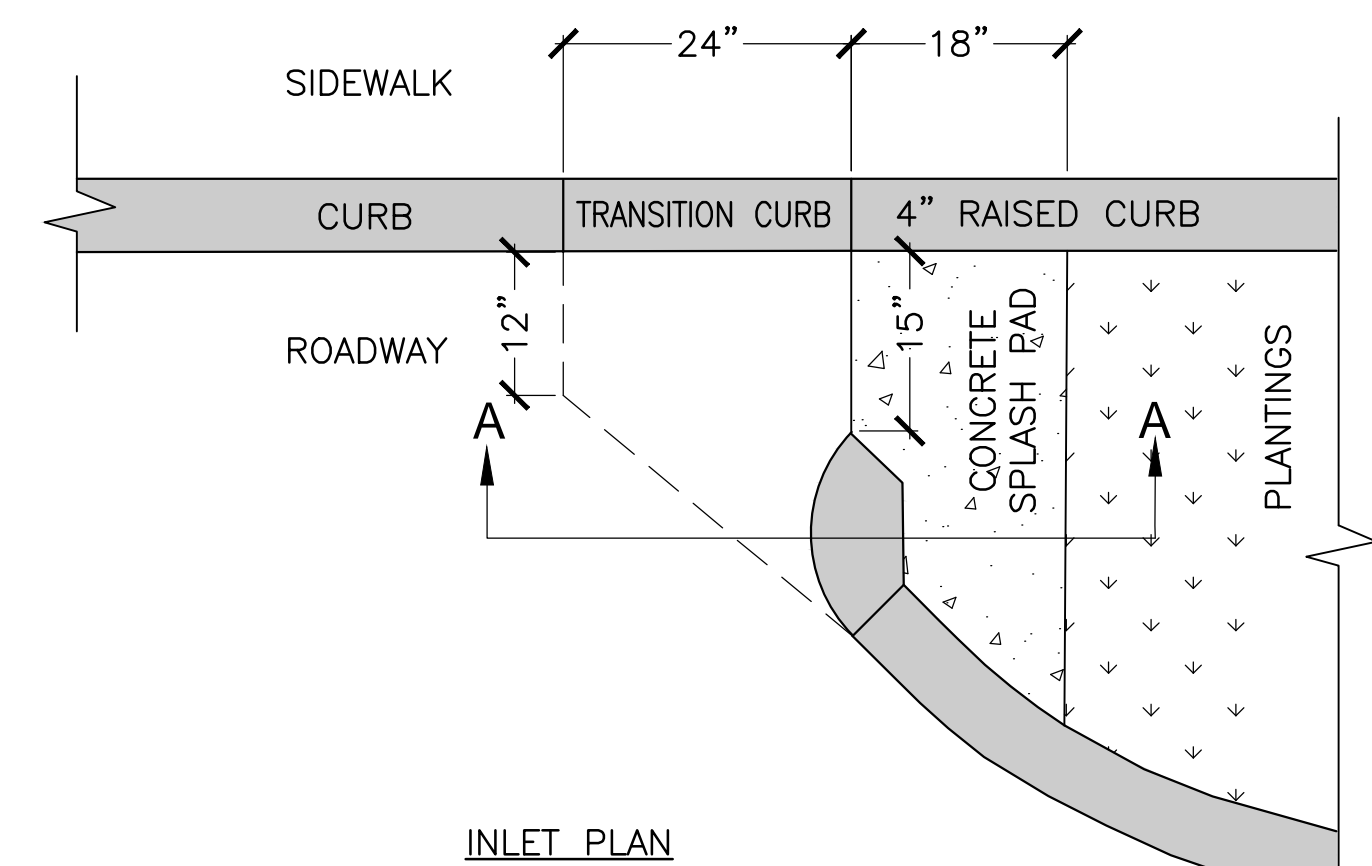
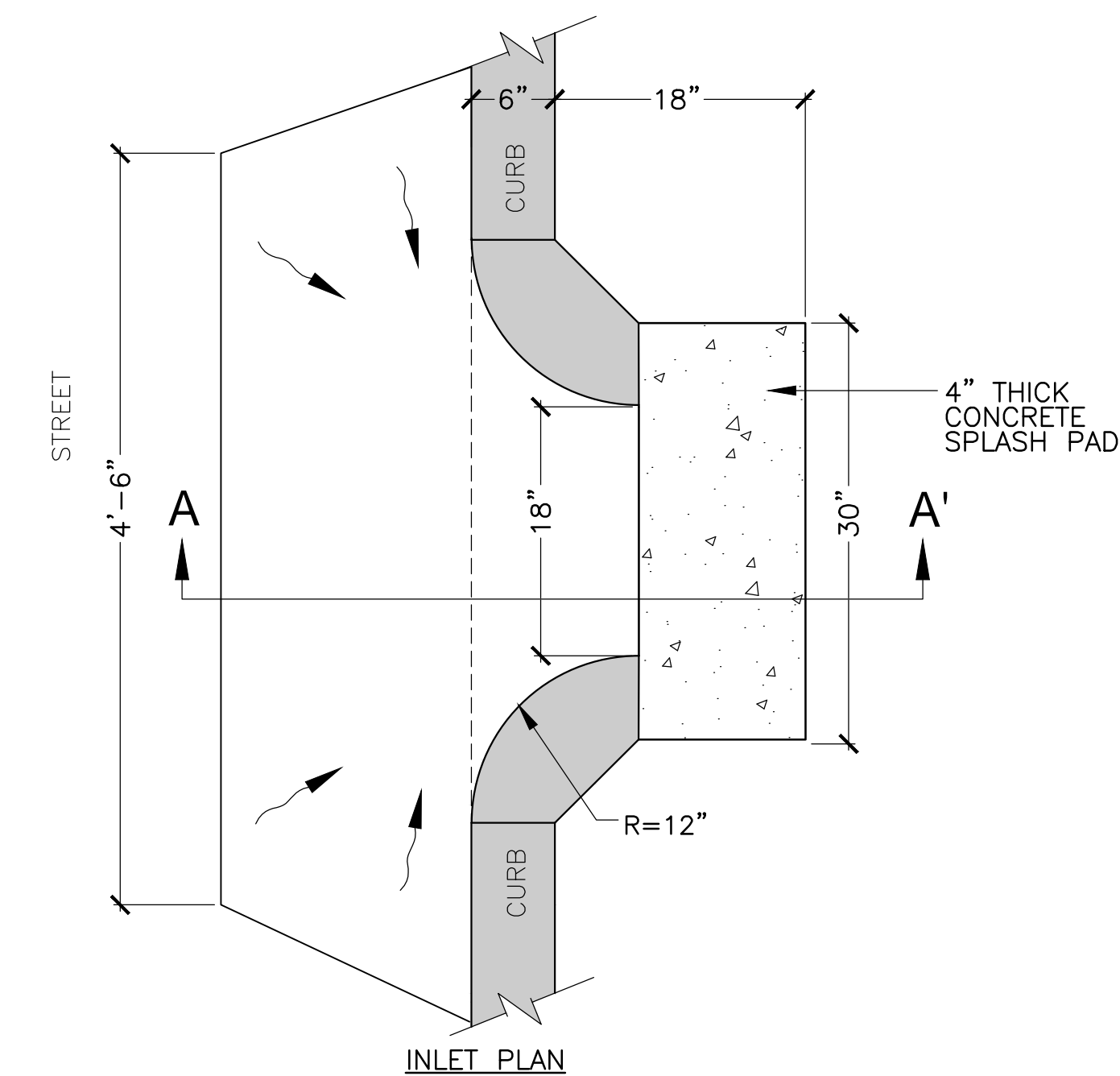
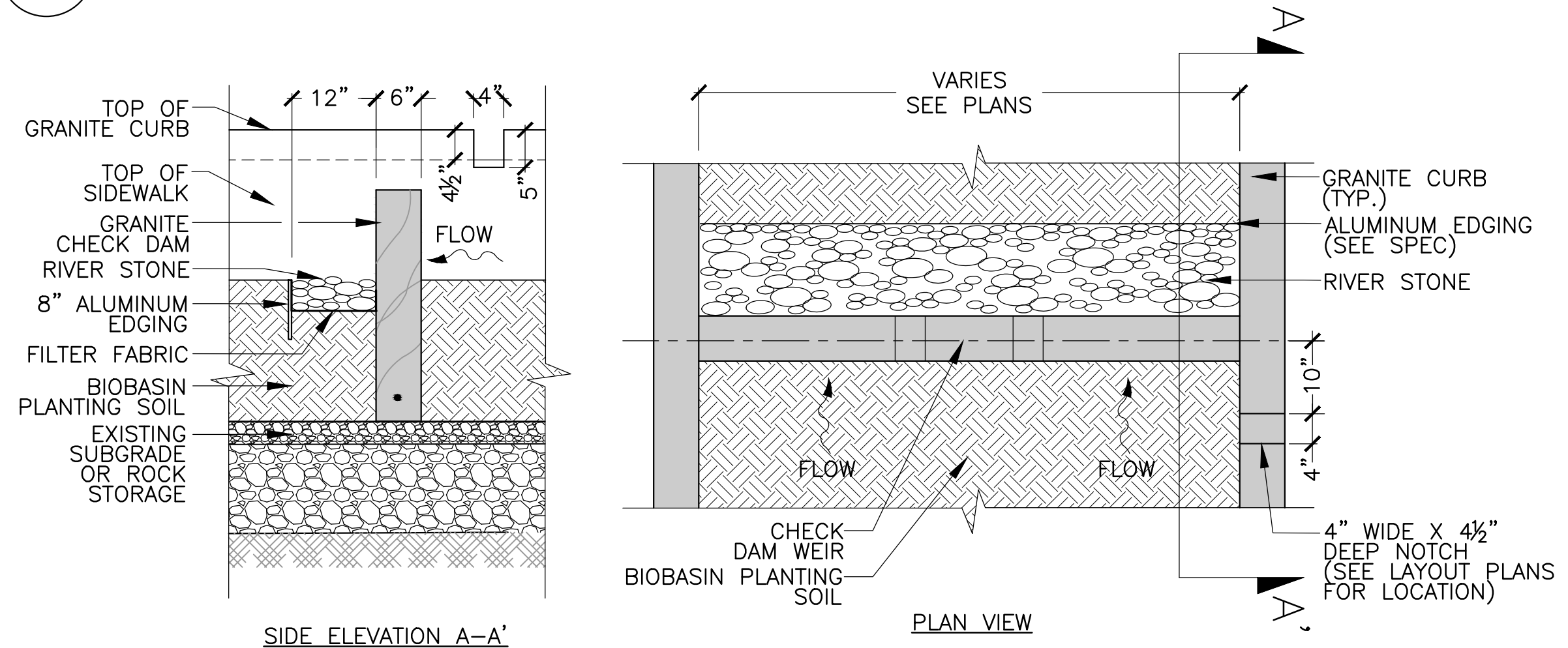
Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - BIOBASIN (TYPE II) DETAILS

Sheet	<b>CG-27</b>
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**4 BIOBASIN TYPE II - OUTLET**  
SCALE: NTS

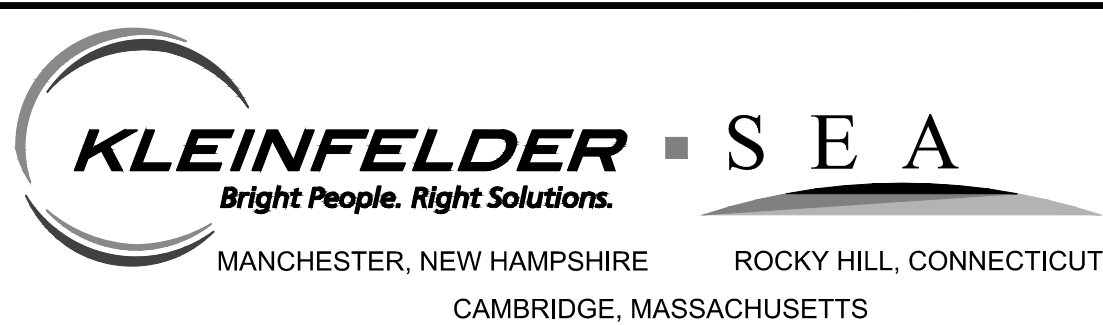


**3 BIOBASIN TYPE II - CHECK DAM**  
SCALE: NTS

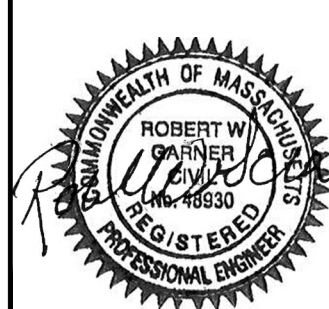
**2 BIOBASIN TYPE II - INLET (SIDE)**  
SCALE: NTS

**1 BIOBASIN TYPE II - INLET**  
SCALE: NTS

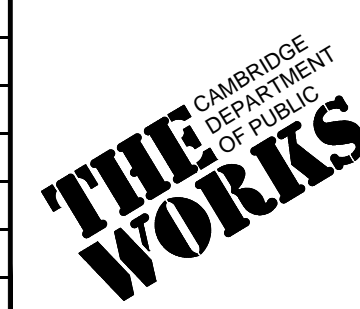
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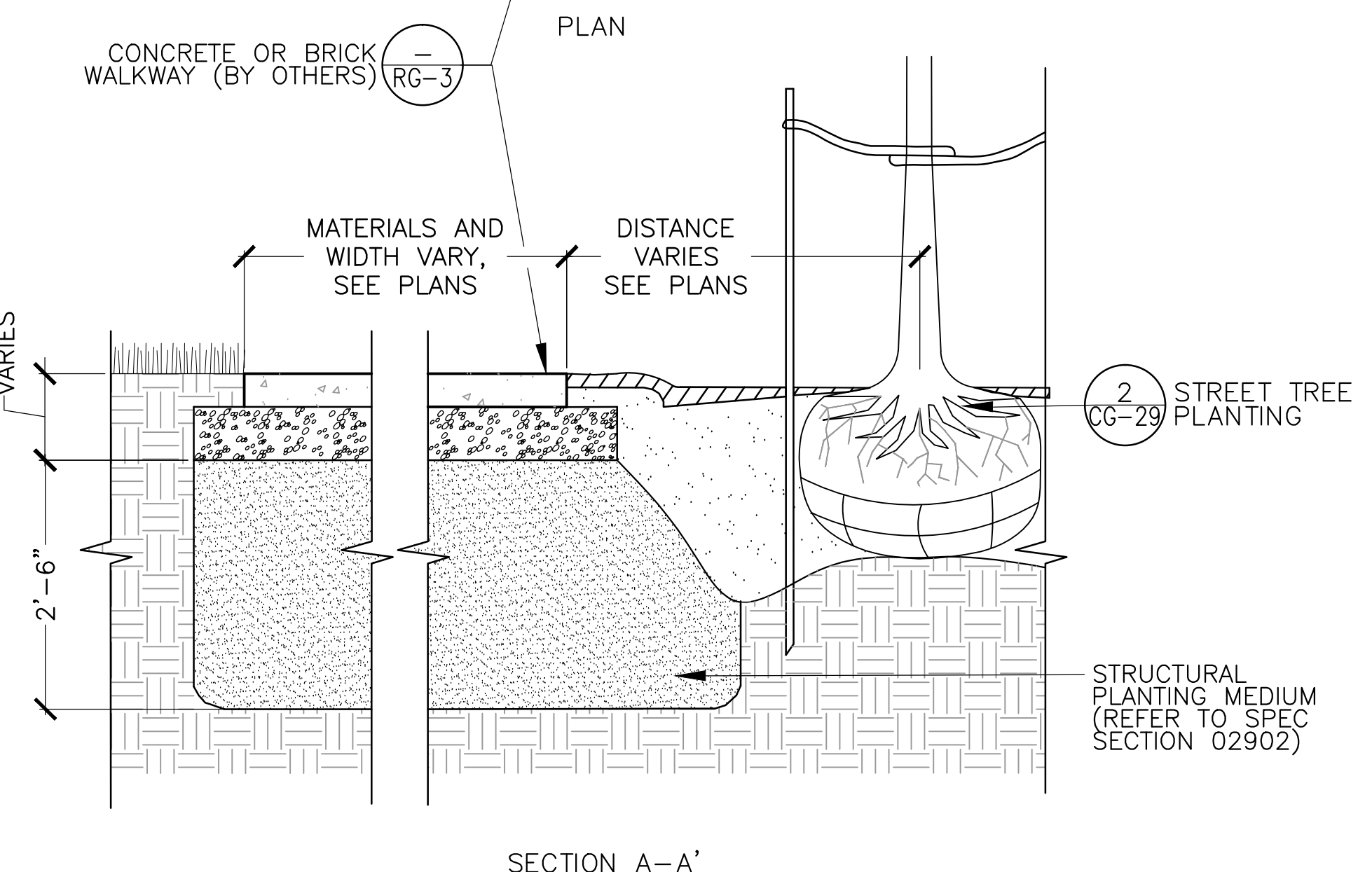
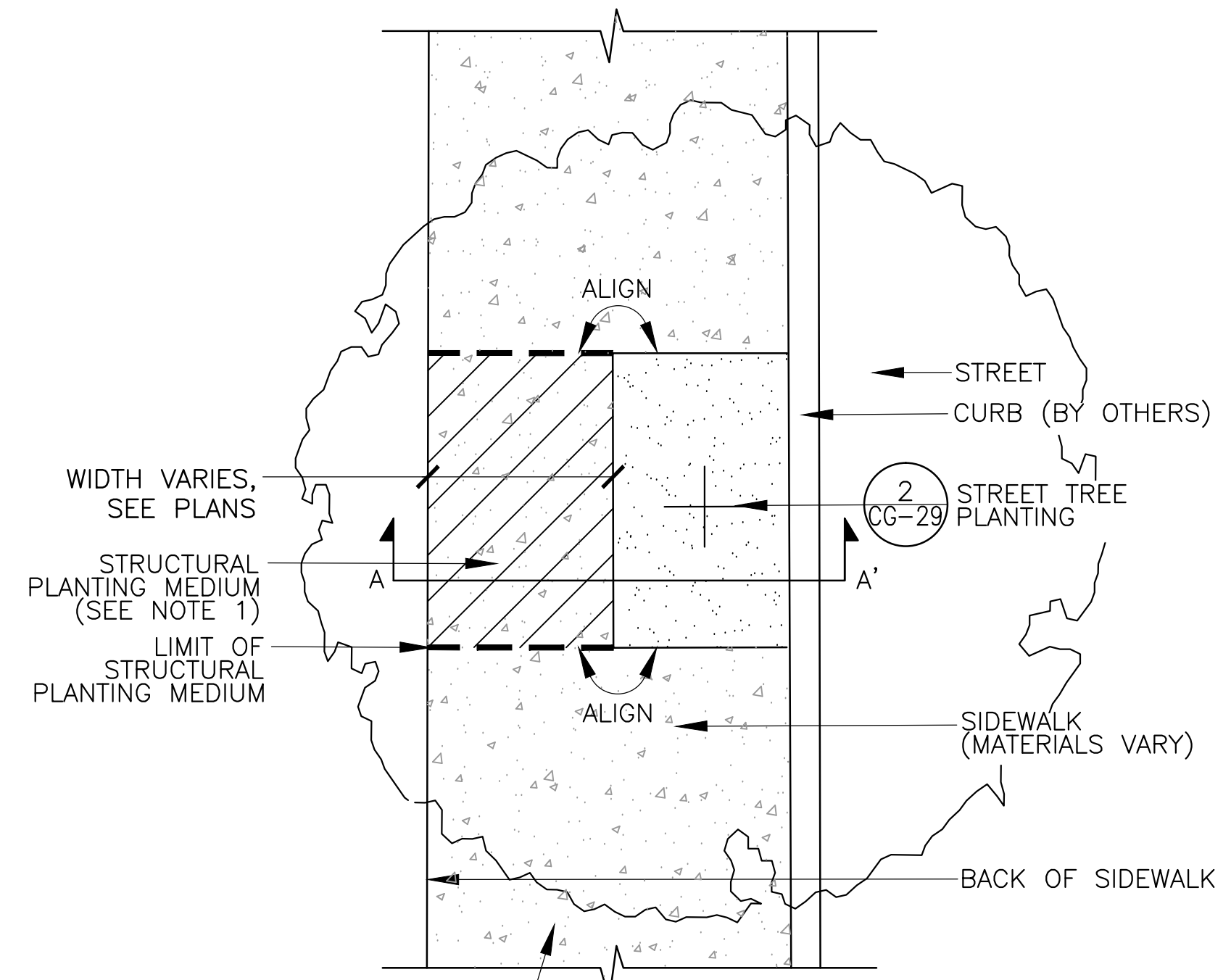
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Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A	File No.	
Drawing	LOW IMPACT DEVELOPMENT - BIOBASIN (TYPE II) DETAILS		

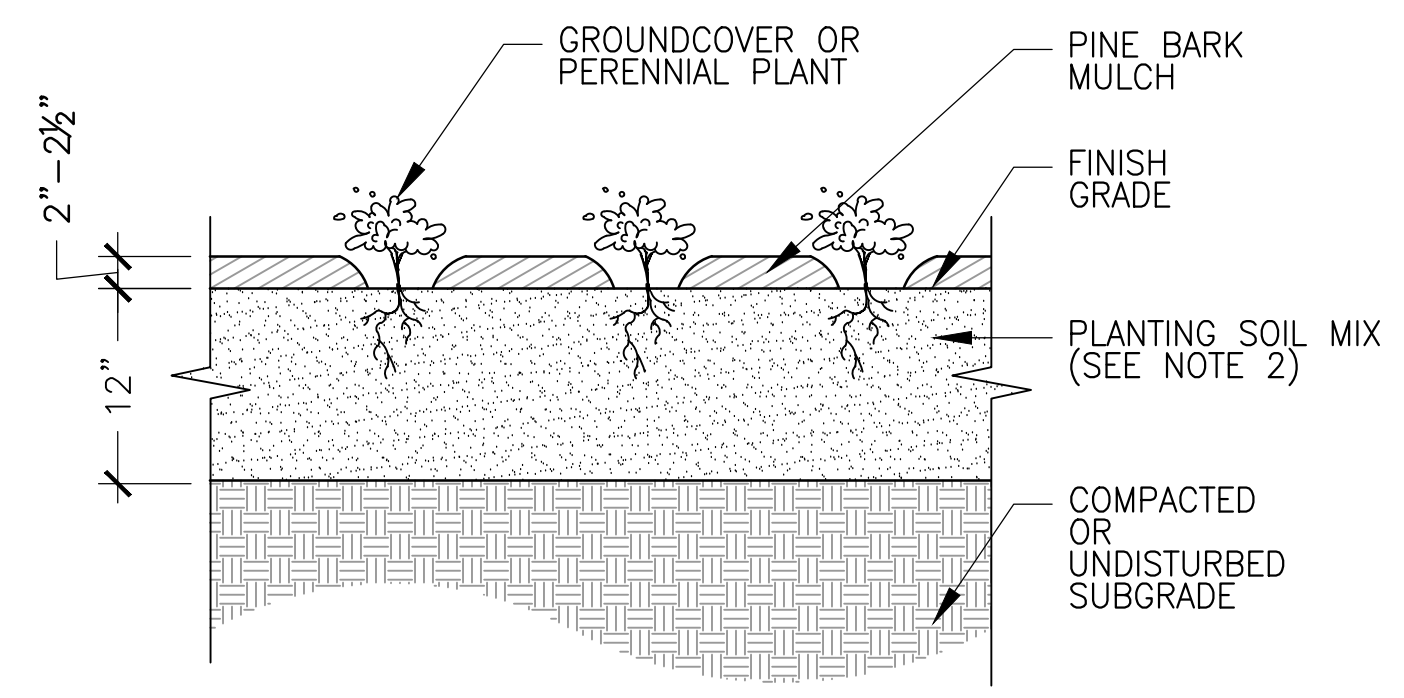
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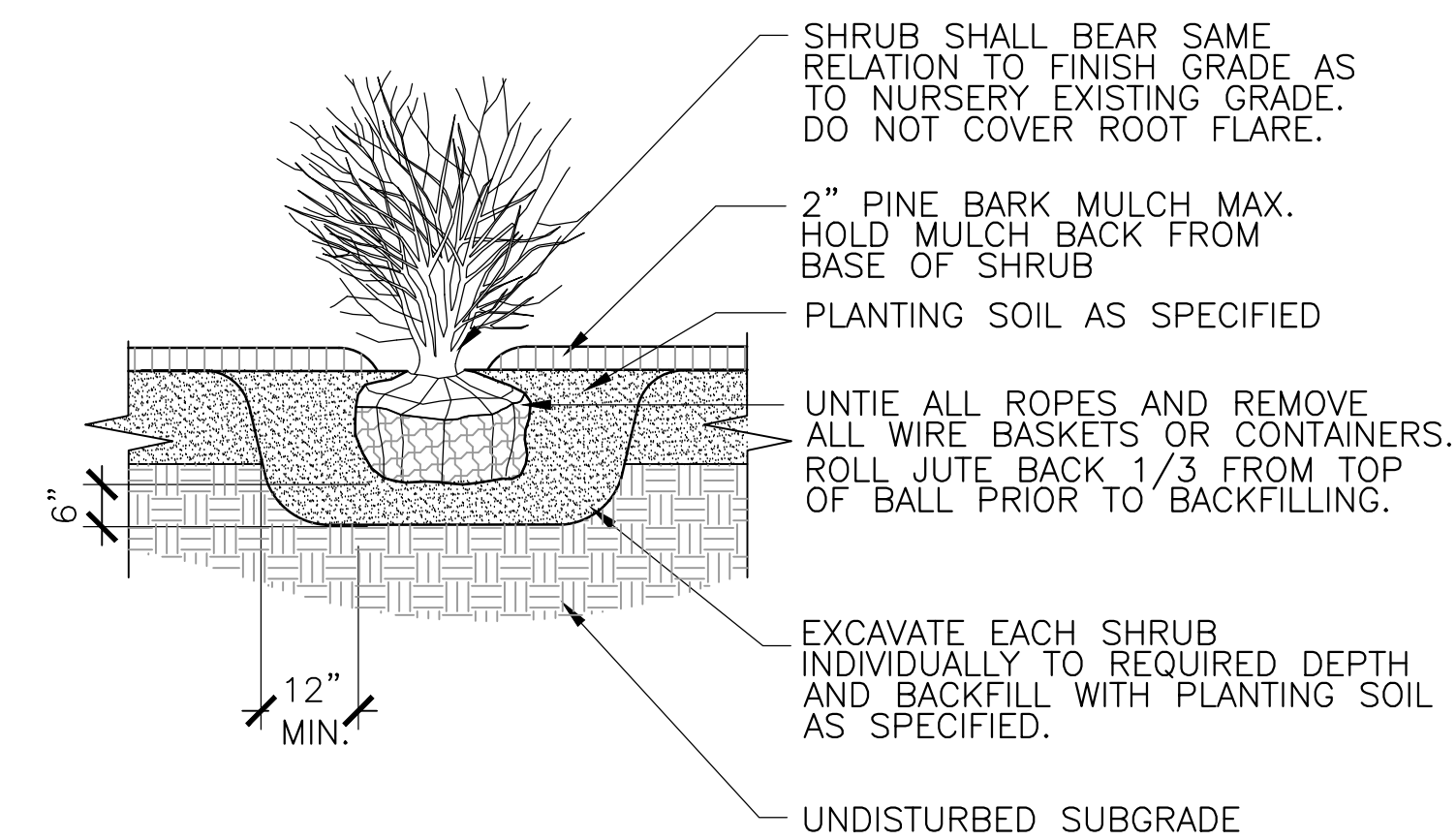
NOTES:  
1. CONTRACTOR SHALL PROVIDE 3.7CY (100 CF) OF STRUCTURAL PLANTING MEDIUM PER EACH STREET TREE PLANTING (TYPES 1 & 2)

**6 STRUCTURAL PLANTING MEDIUM AT STREET TREE PLANTING**  
SCALE: NTS

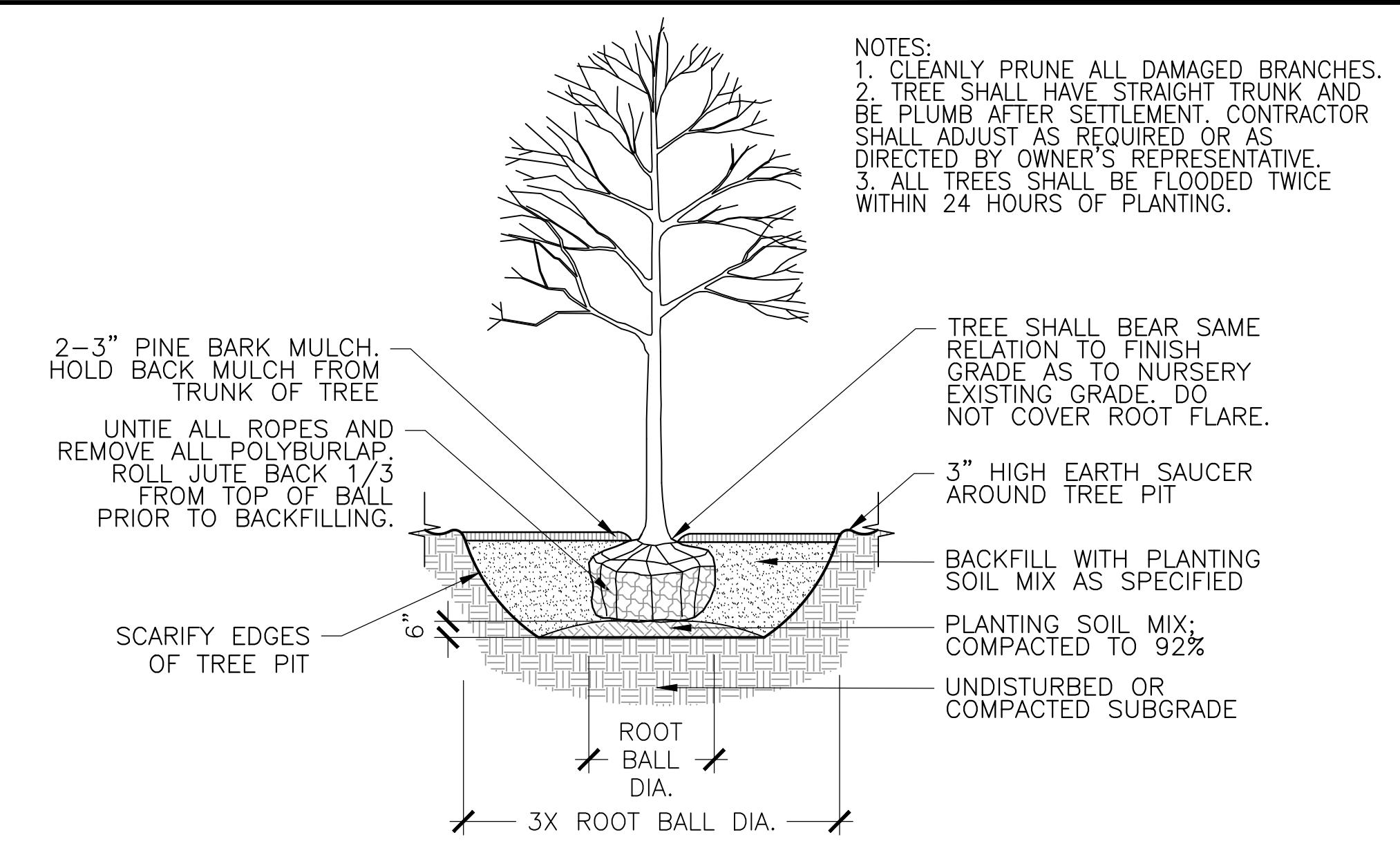


NOTE:  
1. REFER TO PLANT SCHEDULE FOR SIZE AND SPACING.  
2. PLANTING SOIL SHALL BE BIOBASIN PLANTING SOIL WITHIN LIMITS OF TYPE 1 BASIN (SEE PLAN SHEETS FOR LIMITS). TYPE 2 BASIN SHALL RECEIVE BIOBASIN PLANTING SOIL ONLY.

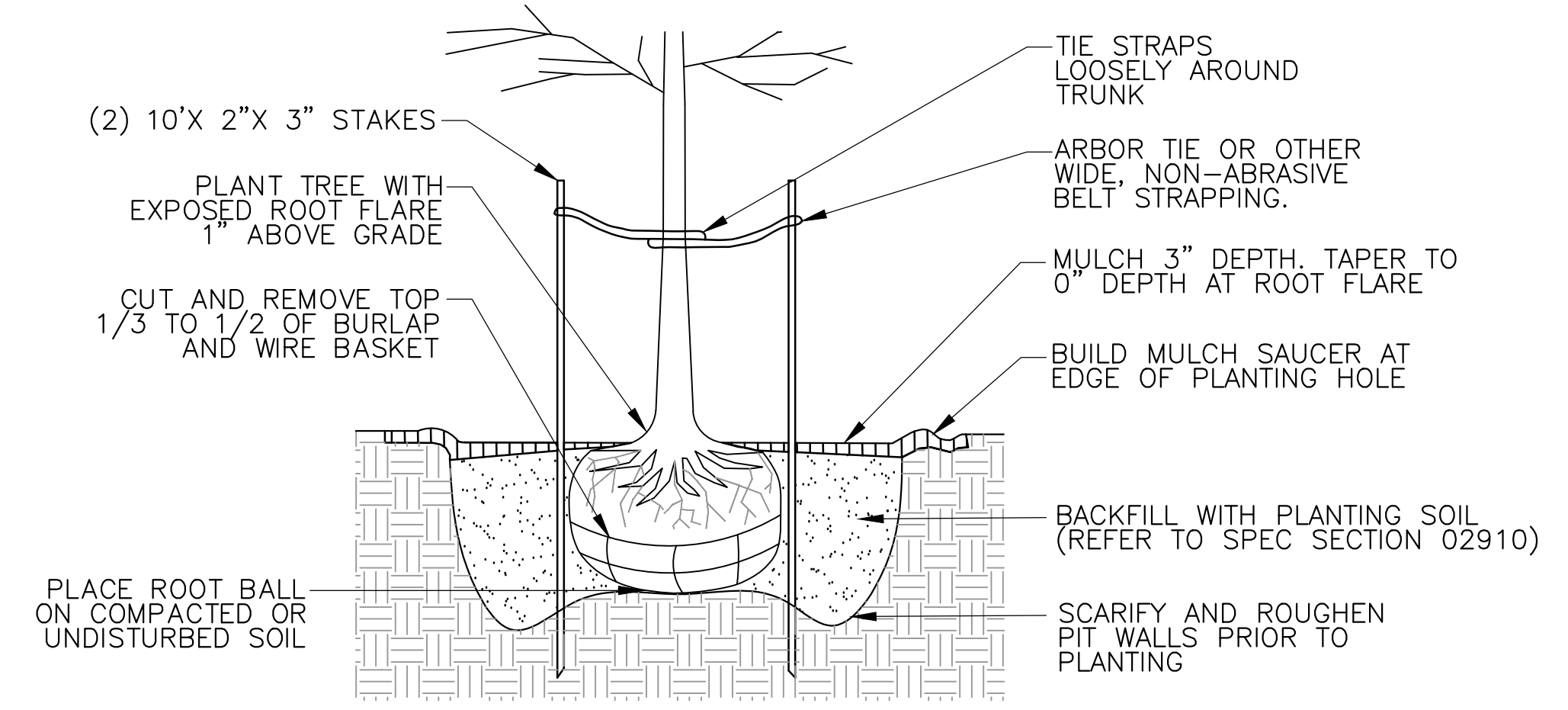
**5 PERENNIAL / GROUNDCOVER PLANTING**  
NOT TO SCALE



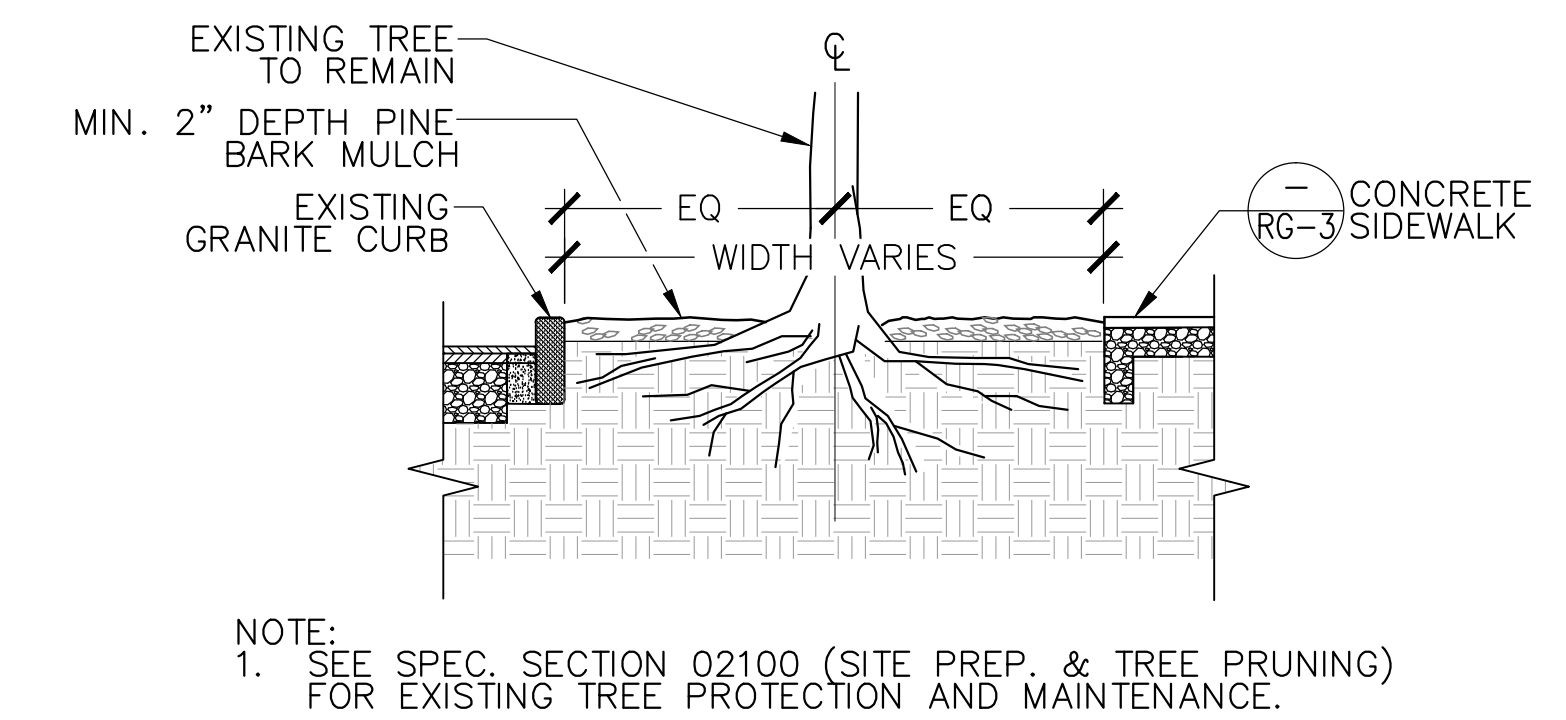
**4 SHRUB PLANTING**  
SCALE: NTS



**3 DECIDUOUS / EVERGREEN TREE PLANTING**  
SCALE: NTS



**2 STREET TREE PLANTING**  
SCALE: NTS



**1 EXISTING STREET TREE TREATMENT**  
SCALE: NTS

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Client	CITY OF CAMBRIDGE, MASSACHUSETTS	Sheet	CG-29
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A	File No.	
Drawing	LOW IMPACT DEVELOPMENT - PLANTING DETAILS		

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**STREET TREES (TYPE I)**

QTY. TOTAL	STREET TREES	SUBTOTALS						PLANTING AREA A	PLANTING AREA B	PLANTING AREA C	PLANTING AREA D	PLANTING AREA E	SYM.	SCIENTIFIC NAME	COMMON NAME	MINIMUM SIZE	MIN. ROOT BALL DIA.	COMMENTS
		BIO-BASIN 1	BIO-BASIN 2	BIO-BASIN 3	BIO-BASIN 4	BIO-BASIN 5	BIO-BASIN 6											
8	8												AR1	Acer rubrum	Red Maple	3" cal.	32"	B&B
11	11												AR2	Acer rubrum 'Armstrong'	Armstrong Red Maple	3" cal.	32"	B&B
6	6												GB	Ginkgo biloba	Ginkgo	3" cal.	32"	B&B, Fruitless
3	3												GD	Gymnocladus dioicus	Kentucky Coffeetree	3" cal.	32"	B&B
9	9												LS	Liquidambar styraciflua	Sweetgum	3" cal.	32"	B&B, Fruitless
10	10												LT	Liriodendron tulipifera	Tuliptree	3" cal.	32"	B&B
2	2												PA	Platanus x acerifolia	London Planetree	3" cal.	32"	B&B
9	9												QR	Quercus rubra	Red Oak	3" cal.	32"	B&B
7	7												TT	Tilia tomentosa	Silver Linden	3" cal.	32"	B&B
3	3												UA	Ulmus americana 'Princeton'	Princeton American Elm	3" cal.	32"	B&B, Disease resistant variety
68	TOTAL																	

**STREET TREES (TYPE II)**

QTY. TOTAL	STREET TREES	SUBTOTALS						PLANTING AREA A	PLANTING AREA B	PLANTING AREA C	PLANTING AREA D	PLANTING AREA E	SYM.	SCIENTIFIC NAME	COMMON NAME	MINIMUM SIZE	MIN. ROOT BALL DIA.	COMMENTS
		BIO-BASIN 1	BIO-BASIN 2	BIO-BASIN 3	BIO-BASIN 4	BIO-BASIN 5	BIO-BASIN 6											
11	11												AC	Acer campestre	Hedge Maple	3" cal.	32"	B&B
26	26												AG	Amelanchier grandifolia	Apple Serviceberry	10' Ht.	32"	B&B, Single stem
20	20												CC	Cercis canadensis	Eastern Redbud	3" cal.	24"	B&B
2	2												PK	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	3" cal.	32"	B&B
3	3												PS	Prunus serrulata 'Snowgoose'	Snowgoose Cherry	3" cal.	32"	B&B
7	7												PX	Prunus x incam 'Okame'	Okame Cherry	3" cal.	24"	B&B
1	1												PY	Prunus x yedoensis 'Akebono'	Akebono Cherry	3" cal.	24"	B&B
9	9												SR	Syringa reticulata	Japanese Tree Lilac	3" cal.	24"	B&B
79	TOTAL																	

**EVERGREEN SCREENING**

QTY. TOTAL	STREET TREES	SUBTOTALS						PLANTING AREA A	PLANTING AREA B	PLANTING AREA C	PLANTING AREA D	PLANTING AREA E	SYM.	SCIENTIFIC NAME	COMMON NAME	MINIMUM SIZE	MIN. ROOT BALL DIA.	COMMENTS	
		BIO-BASIN 1	BIO-BASIN 2	BIO-BASIN 3	BIO-BASIN 4	BIO-BASIN 5	BIO-BASIN 6												
72		6		8				48	5					IG	Ilex glabra 'Compacta'	Compact Inkberry	3' ht.	24"	#7 cont.
21								12	9					JV	Juniperus virginiana	Eastern Red Cedar	8' ht.	28"	B&B
5												5		KL	Kalmia latifolia	Mountainlaurel	3' ht.	24"	B&B
10									10					TO	Thuja occidentalis 'Nigra'	Nigra Eastern Arborvitae	6' ht.	20"	B&B
108	TOTAL																		

**DECIDUOUS TREES**

QTY. TOTAL	STREET TREES	SUBTOTALS						PLANTING AREA A	PLANTING AREA B	PLANTING AREA C	PLANTING AREA D	PLANTING AREA E	SYM.	SCIENTIFIC NAME	COMMON NAME	MINIMUM SIZE	MIN. ROOT BALL DIA.	COMMENTS	
		BIO-BASIN 1	BIO-BASIN 2	BIO-BASIN 3	BIO-BASIN 4	BIO-BASIN 5	BIO-BASIN 6												
9		1						6						BP	Betula populifolia	Gray Birch	12' clump	52"	3-5 Stems
1		1												HC	Halesia carolina	Carolina Silverbell	3" cal.	32"	B&B
10	TOTAL																		

**DECIDUOUS SHRUBS**

QTY. TOTAL	STREET TREES	SUBTOTALS						PLANTING AREA A	PLANTING AREA B	PLANTING AREA C	PLANTING AREA D	PLANTING AREA E	SYM.	SCIENTIFIC NAME	COMMON NAME	MINIMUM SIZE	CONTAINER CLASS	COMMENTS	
		BIO-BASIN 1	BIO-BASIN 2	BIO-BASIN 3	BIO-BASIN 4	BIO-BASIN 5	BIO-BASIN 6												
16		5	3	8										CAH	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	2-3' ht.	#7	
7		3	3	1										CD	Cornus sericea	Redosier Dogwood	3-4' ht.	#5	5 Canes Minimum
11		6	5											FG	Fothergilla gardenii	Dwarf Fothergilla	2-3' ht.	#5	
20		3	3	14										IVR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	3-4' ht.	#7	
3		1	1	1										IVJ	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry	2-3' ht.	#5	
101		7	8					17		69				IL	Itea virginica 'Little Henry'	Little Henry Sweetspire	2-3' ht.	#3	
45								23	22					RA	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	2-3' ht.	#3	
61								2	25			34		XS	Xanthorhiza simplicissima	Yellowroot	18" ht.	#2	
264	TOTAL																		

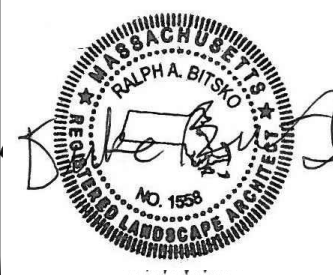
**GRASSES, PERENNIALS, AND FERNS**

QTY. TOTAL	STREET TREES	SUBTOTALS						PLANTING AREA A	PLANTING AREA B	PLANTING AREA C	PLANTING AREA D	PLANTING AREA E	SYM.	SCIENTIFIC NAME	COMMON NAME	MINIMUM SIZE	CONTAINER CLASS	COMMENTS	
		BIO-BASIN 1	BIO-BASIN 2	BIO-BASIN 3	BIO-BASIN 4	BIO-BASIN 5	BIO-BASIN 6												
92				30	23	21	20							AT	Asclepias tuberosa	Butterfly Milkweed	Quart	12" O.C.	
50										50				CK	Calamagrostis x acutifolia 'Karl Foerster'	Karl Foerster Feather Reed Grass	#2	15" O.C.	
														CS	Carex scoparia	Broomsedge	Quart	12" O.C.	
														CV	Carex vulpinoidea	Fox Sedge	Quart	12" O.C.	
84					14	33	27							CL	Chasmanthium latifolia	Northern Sea Oat	Quart	12" O.C.	
11		5	6											DP	Dennstaedtia punctilobula	Hay-scented Fern	#1	15" O.C.	
226		28	20	40	41	28	27			29				EP	Eupatorium purpureum 'Magnus'	Joe Pye Weed	#1	12" O.C.	
125											125			GO	Galium odoratum	Sweet Woodruff	Quart	12" O.C.	
13				13										HF	Hemerocallis fulva 'Stella D'Oro'	Stella D'Oro Daylily	#1	15" O.C.	
115		17	17	17				24			40			HH	Hosta 'Hadspen Blue'	Hadspen Blue Hosta	#1	18" O.C.	
160		15	20		40	40	38							JC	Juncus canadensis	Canada Rush	Quart	12" O.C.	
150		50	40	60										JE	Juncus effusus	Soft Rush	Quart	12" O.C.	
														JT	Juncus tenuis	Path Rush	Quart	12" O.C.	
197		16		39				55	38	43				NW	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	#1	15" O.C.	
168		24	17	45	8	11	20			44				PH	Panicum virgatum 'Heavy Metal'	Heavy Metal Switchgrass	#2	15" O.C.	
246		26	22	82	16	21	25	38						PS	Panicum virgatum 'Shenandoah'	Shenandoah Switchgrass	#2	15" O.C.	
85		14	15	27						29				RF	Rudbeckia fulgida 'Goldstrum'	Goldstrum Black-eyed Susan	#1	15" O.C.	
1,722	TOTAL																		

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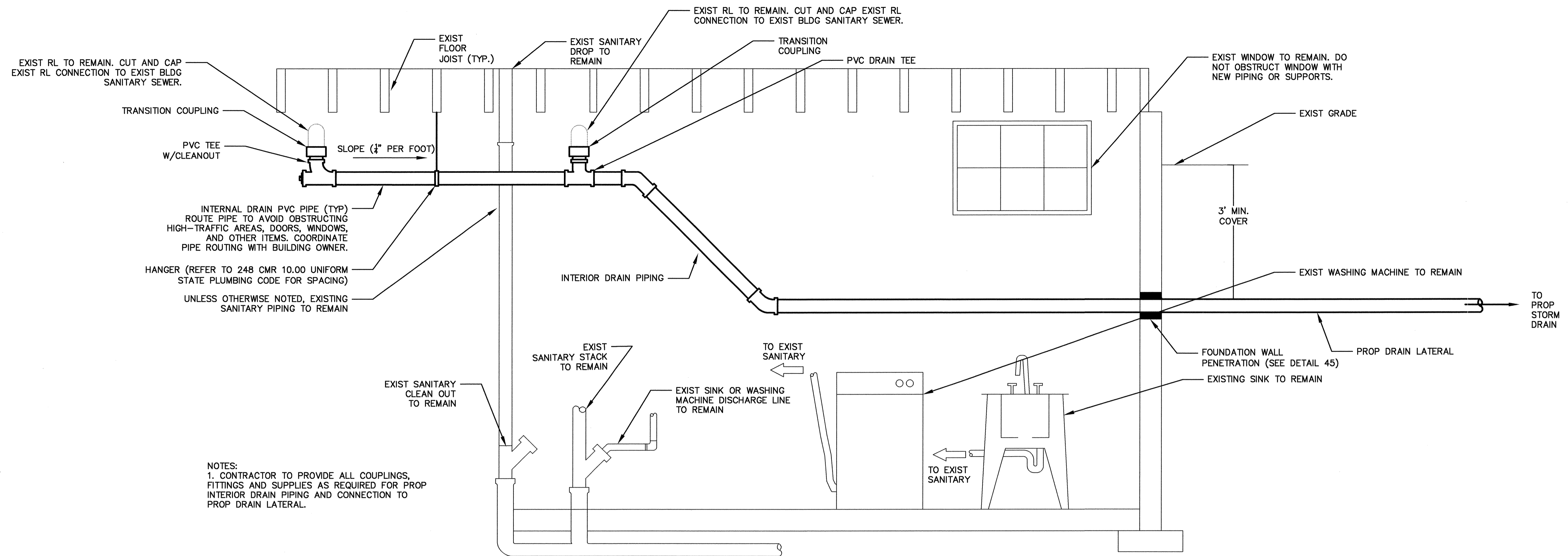
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Client	CITY OF CAMBRIDGE, MASSACHUSETTS
Project	HURON A SEWER SEPARATION PROJECT CONTRACT NO. 8A
Drawing	LOW IMPACT DEVELOPMENT - PLANTING SCHEDULE

Sheet	CG-30
File No.	

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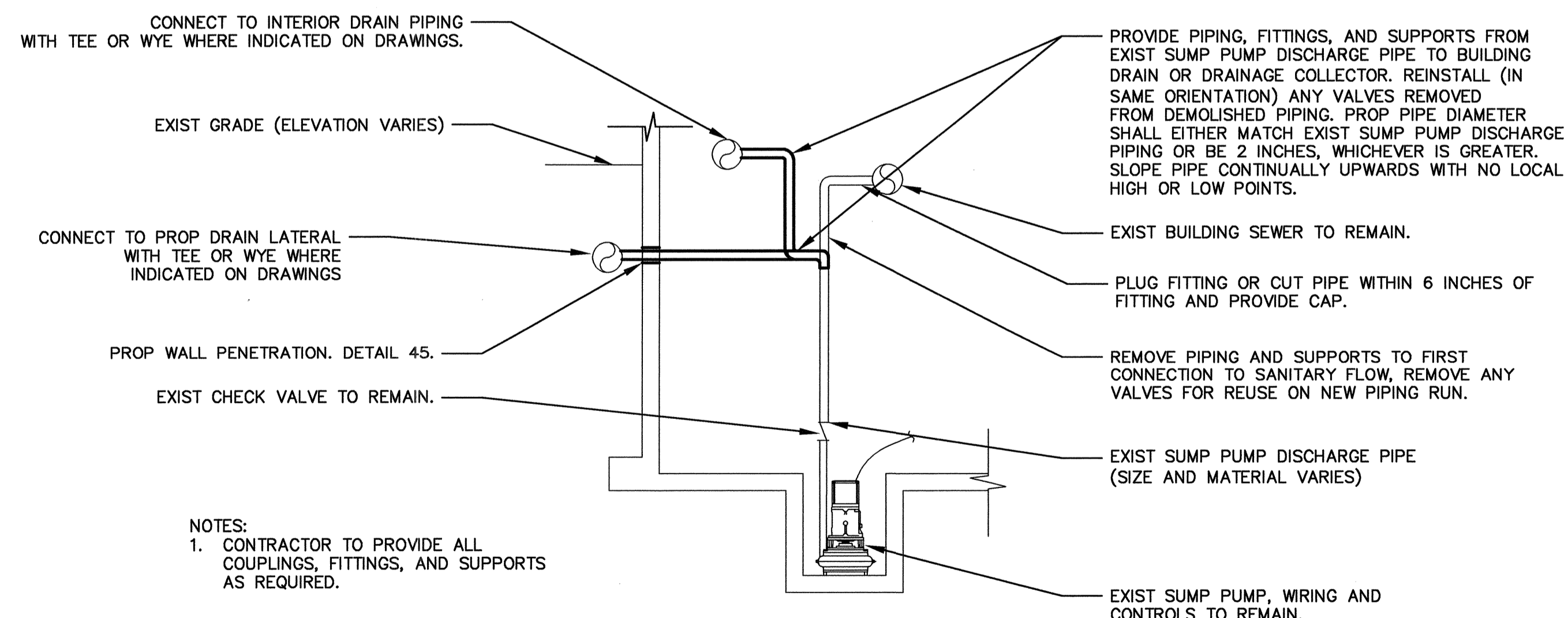


NOTES:  
 1. CONTRACTOR TO PROVIDE ALL COUPLINGS, FITTINGS AND SUPPLIES AS REQUIRED FOR PROP INTERIOR DRAIN PIPING AND CONNECTION TO PROP DRAIN LATERAL.

TYPICAL INTERIOR DRAIN CONFIGURATION

43

NTS

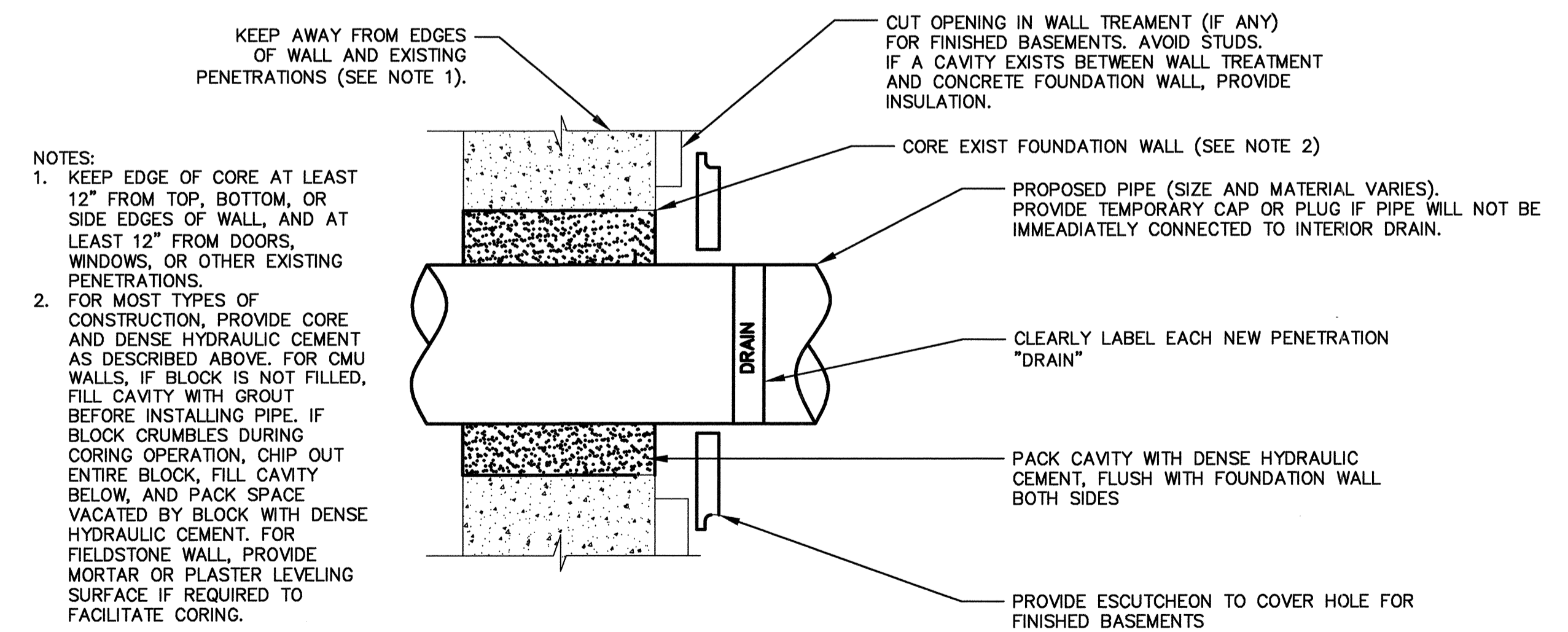


NOTES:  
 1. CONTRACTOR TO PROVIDE ALL COUPLINGS, FITTINGS, AND SUPPORTS AS REQUIRED.

SUMP PUMP RECONNECTION

44

NTS



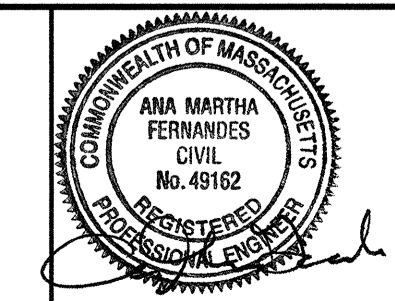
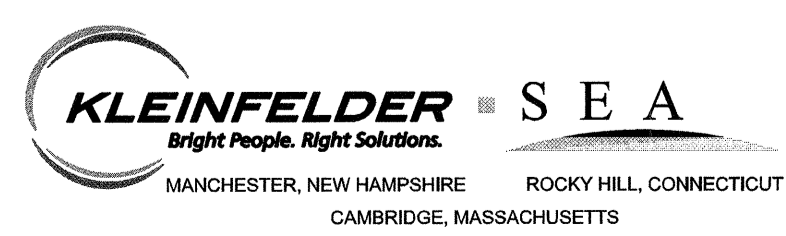
NOTES:  
 1. KEEP EDGE OF CORE AT LEAST 12" FROM TOP, BOTTOM, OR SIDE EDGES OF WALL, AND AT LEAST 12" FROM DOORS, WINDOWS, OR OTHER EXISTING PENETRATIONS.  
 2. FOR MOST TYPES OF CONSTRUCTION, PROVIDE CORE AND DENSE HYDRAULIC CEMENT AS DESCRIBED ABOVE. FOR CMU WALLS, IF BLOCK IS NOT FILLED, FILL CAVITY WITH GROUT BEFORE INSTALLING PIPE. IF BLOCK CRUMBLES DURING CORING OPERATION, CHIP OUT ENTIRE BLOCK, FILL CAVITY BELOW, AND PACK SPACE VACATED BY BLOCK WITH DENSE HYDRAULIC CEMENT. FOR FIELDSTONE WALL, PROVIDE MORTAR OR PLASTER LEVELING SURFACE IF REQUIRED TO FACILITATE CORING.

FOUNDATION WALL PENETRATION

45

NTS

CONFORMED SET



Scale	NOT TO SCALE		
Date	SEPTEMBER 2012		
Job No.	1010691		
Designed by	AMF		
Drawn by	ZSH		
Checked by	BFR	No.	Description
Approved by	MMC		Date
REVISIONS			



CITY OF CAMBRIDGE, MASSACHUSETTS  
 HURON A SEWER SEPARATION PROJECT  
 CONTRACT NO. 8A  
 CIVIL GENERAL  
 INTERIOR INFLOW REMOVAL DETAILS

Sheet No. CG-31  
 File No.