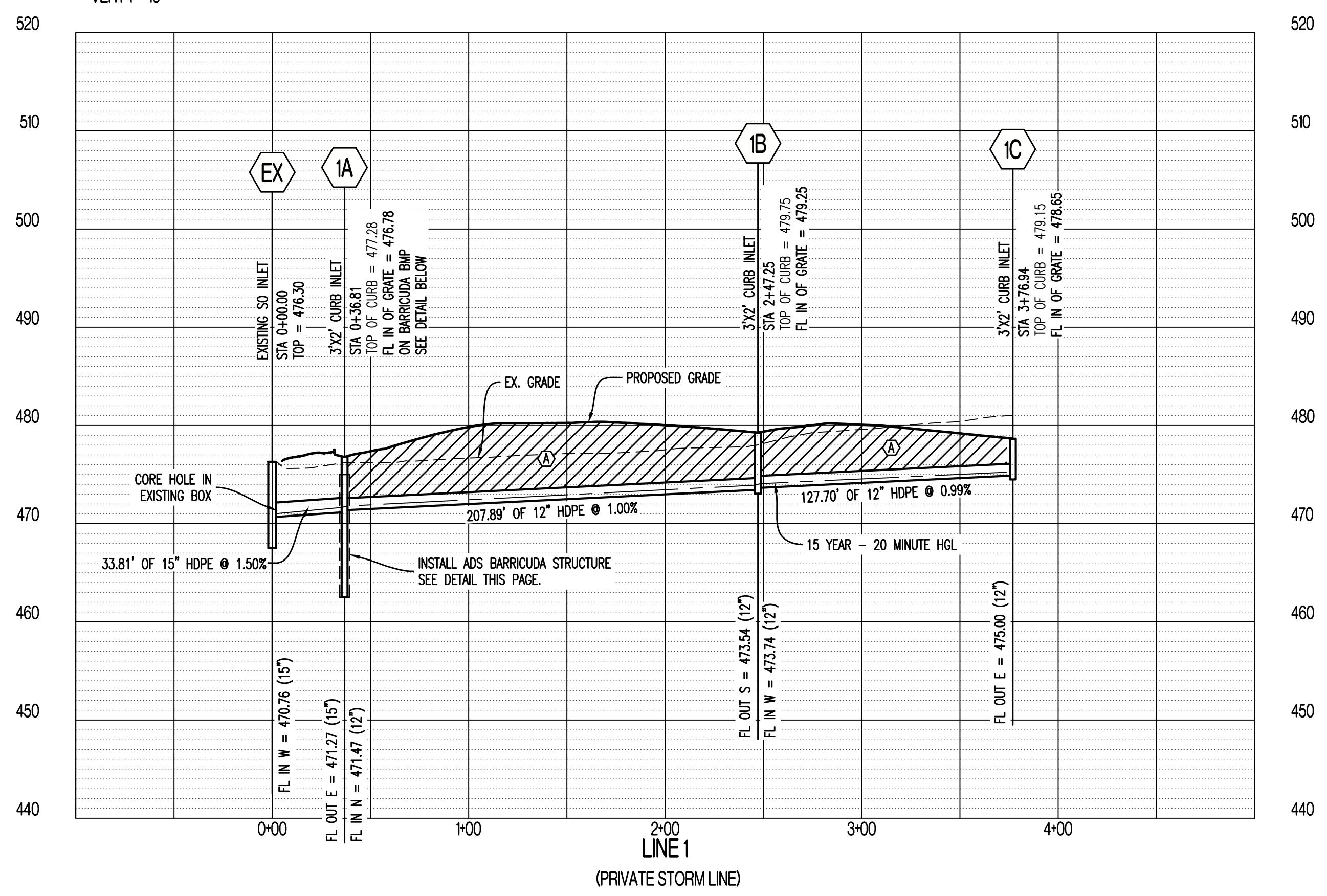


SCALE:
HORIZ 1" = 50'
VERT 1" = 10'

LEGEND OF LABELS:
Ⓐ COMPACTED GRANULAR EMBEDMENT



PROJECT INFORMATION	
ENGINEERED BY:	CRAIG DAHLGREN
PRODUCT:	314-296-1595
MANAGER:	CRAIG DAHLGREN@ADS-PIPE.COM
ADS SALES REP:	BRIAN SNELSON
PROJECT NO.:	BRIAN.SNELSON@ADS-PIPE.COM



LANDMARK COOL SPRINGS LLC

O'FALLON, MO

BAYSAYER BARRACUDA SPECIFICATIONS

MATERIALS AND DESIGN
CONCRETE STRUCTURES: DESIGNED FOR H-20 TRAFFIC LOADING AND APPLICABLE SOIL LOADS OR AS OTHERWISE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C857 AND ASTM C898.

48" HP MANHOLE STRUCTURES: MADE FROM AN IMPACT MODIFIED COPOLYMER POLYPROPYLENE MEETING THE MATERIAL REQUIREMENTS OF ASTM F2754. THE ECCENTRIC CONE REDUCER SHALL BE MANUFACTURED FROM POLYETHYLENE MEETING ASTM D3350 CELL CLASS 21330C. GASKETS SHALL BE MADE OF MATERIAL MEETING THE REQUIREMENTS OF ASTM F477.

SEPARATOR INTERNALS SHALL BE SUBSTANTIALLY CONSTRUCTED OF STAINLESS STEEL, POLYETHYLENE, OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER.

PERFORMANCE
THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.

THE STORMWATER TREATMENT UNIT INTERNALS SHALL CONSIST OF (1)SEPARATOR CONE ASSEMBLY, AND (1)SUMP ASSEMBLY WHICH INCLUDES(4) LEGS WITH "TEETH".

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.

OR -
THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH d_{50} 75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.

OR -
THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER CURRENT NJDEP/NACAT HDS PROTOCOL.

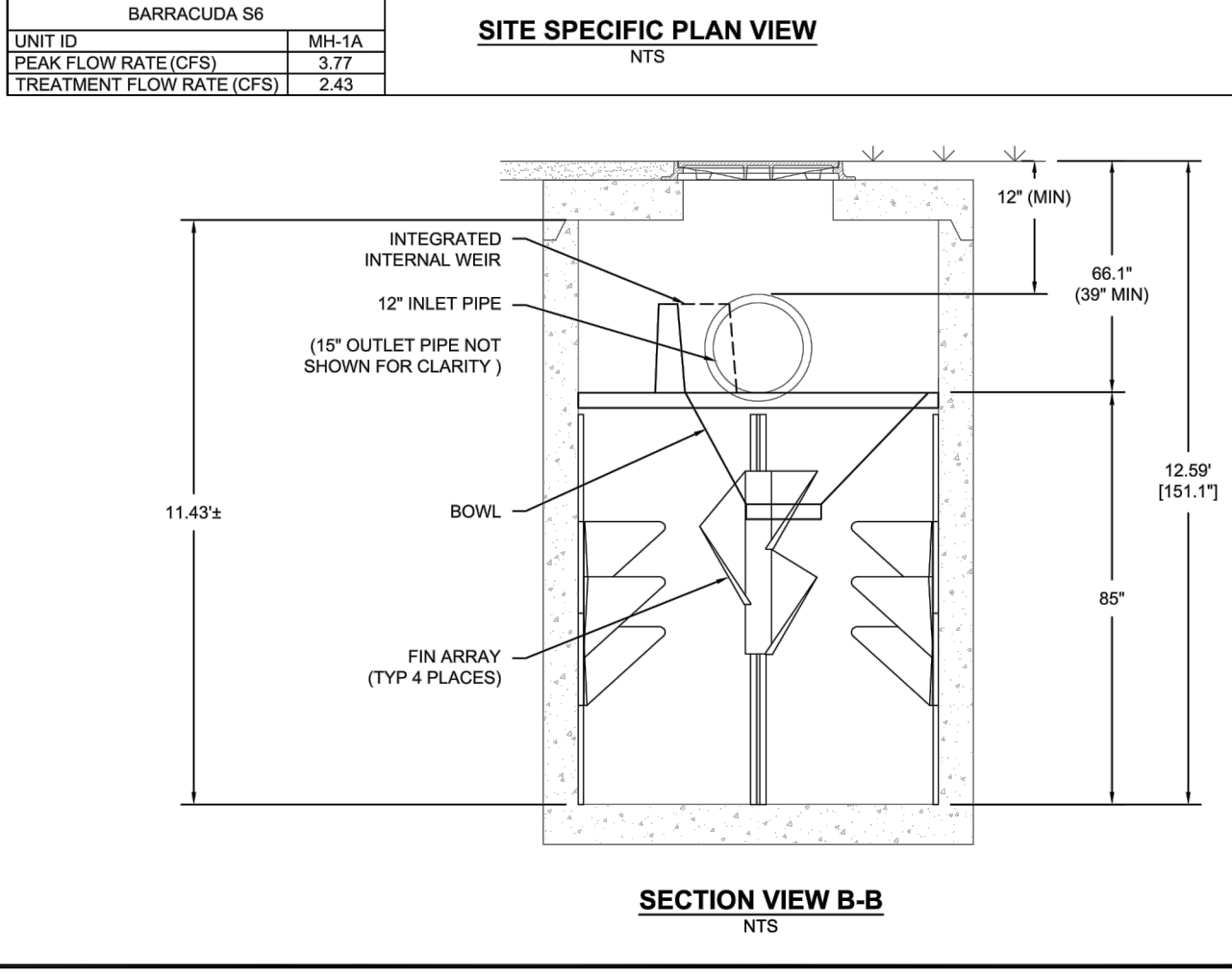
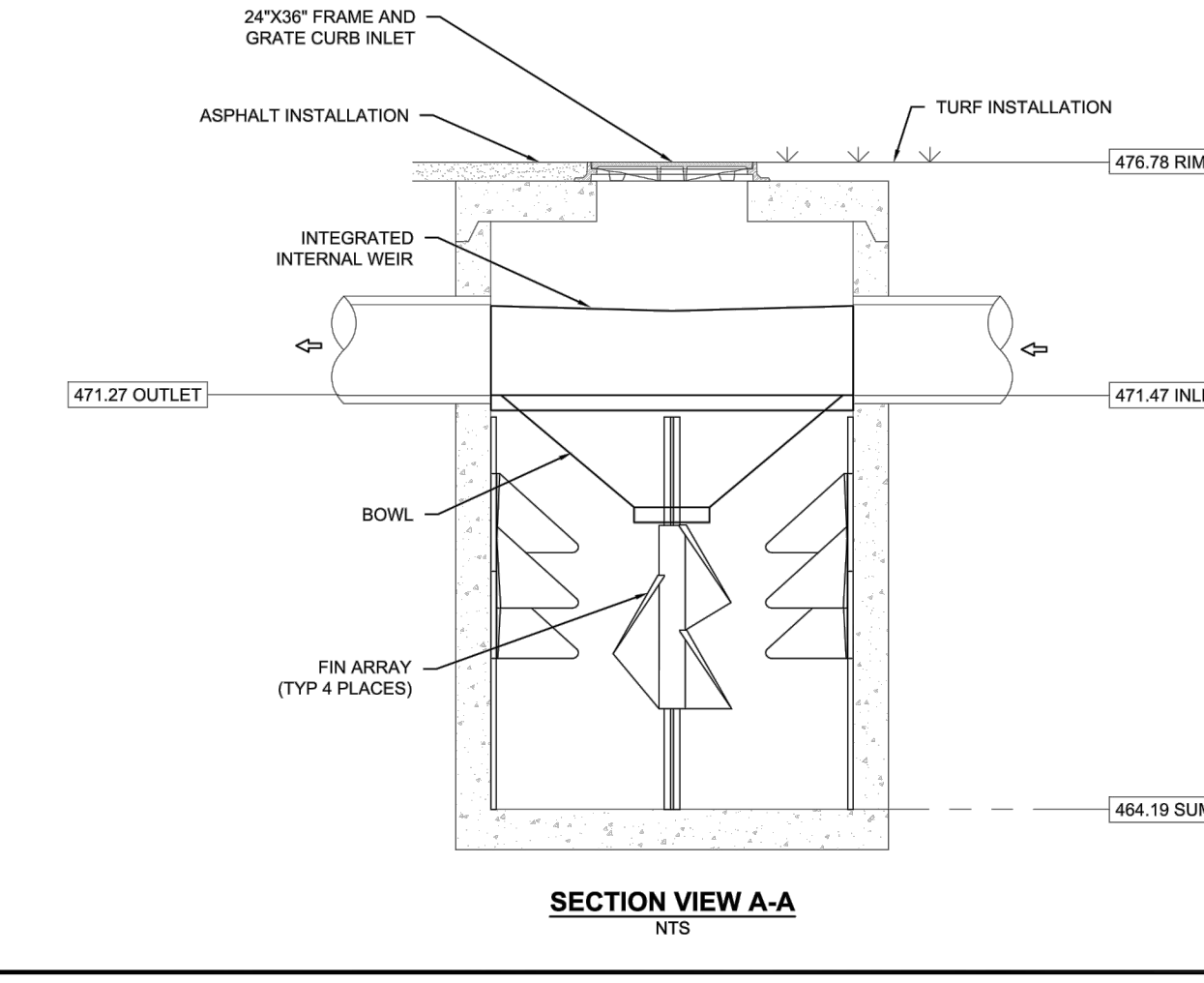
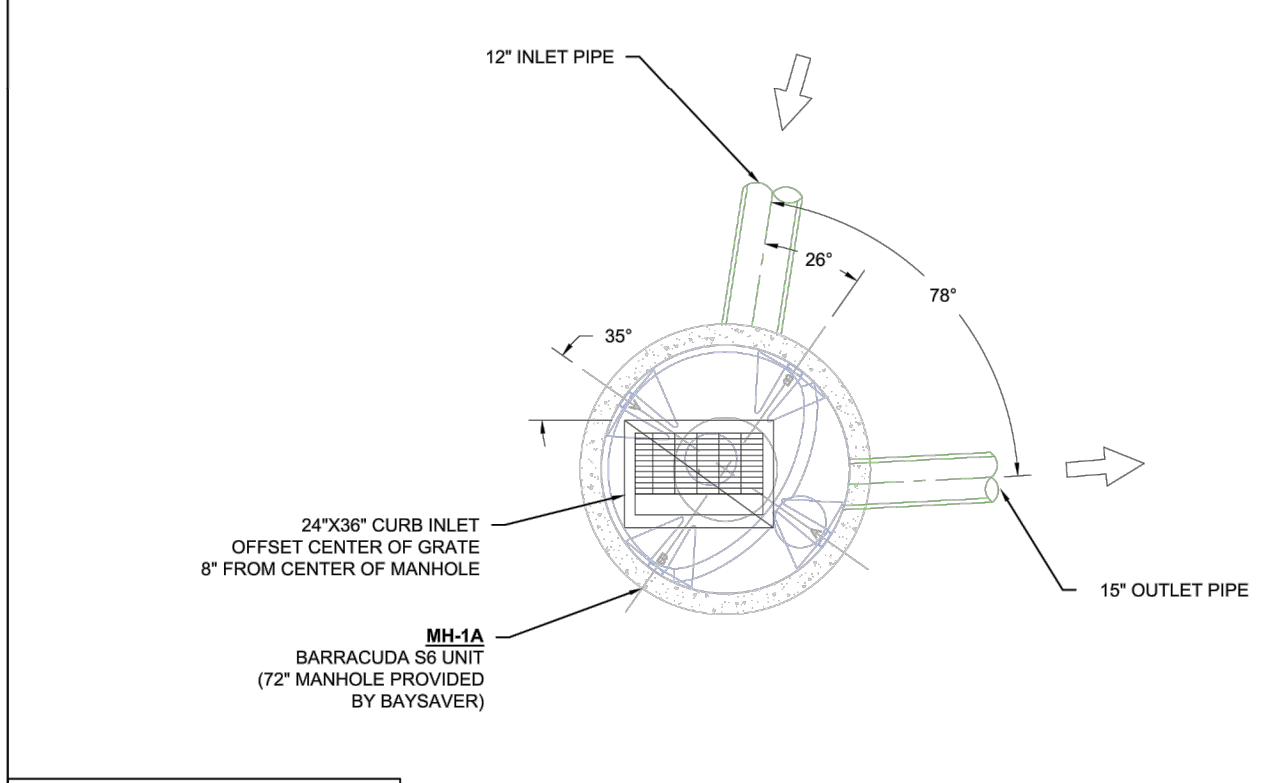
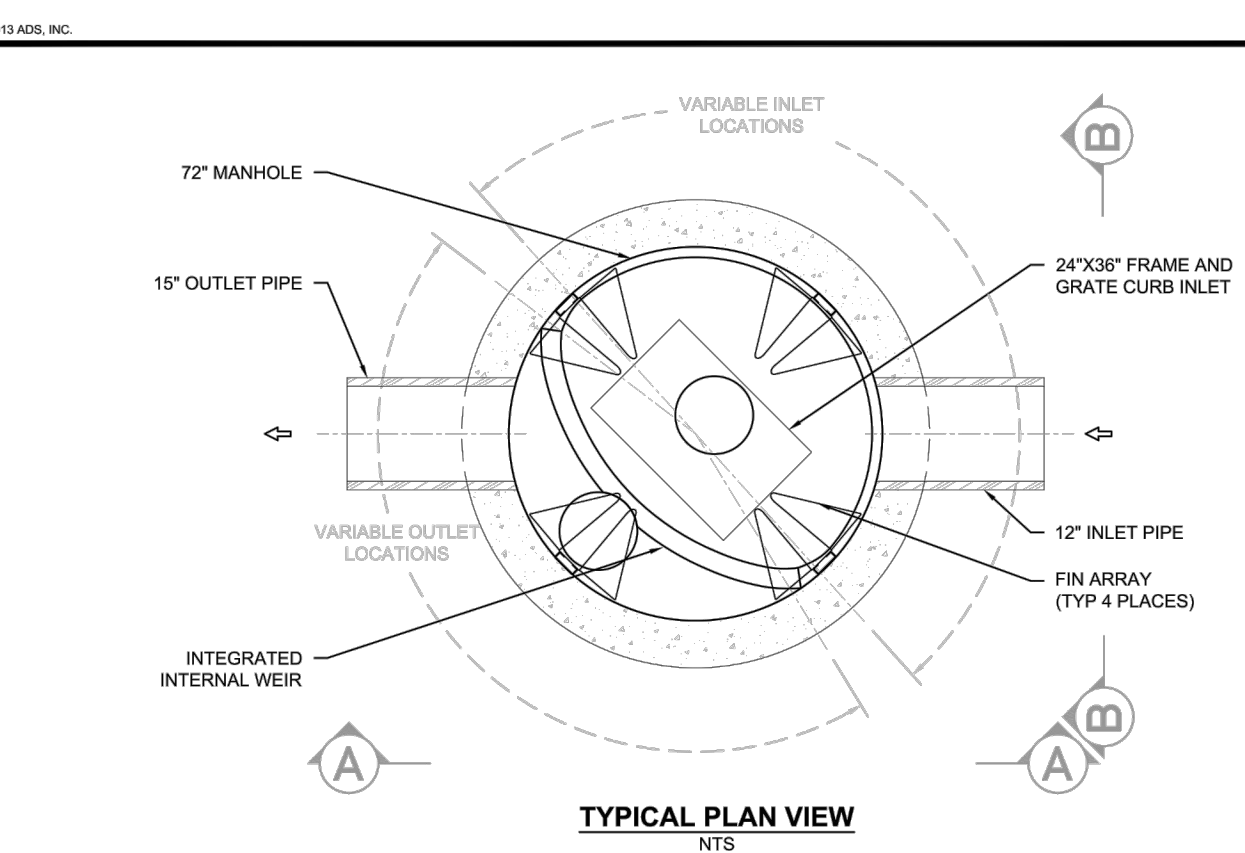
MANUFACTURER
EACH STORMWATER TREATMENT SYSTEM SHALL BE A BARRACUDA SYSTEM AS MANUFACTURED BY BAYSAYER, LLC, 1000 DEER HOLLOW DR., MOUNT AIRY, MO 63771. PHONE (314) 628-6470, FAX (314) 628-2747, TOLL FREE 1-800-229-7293 (1-800-BAYSAYER), EMAIL: INFO@BAYSAYER.COM

BARRACUDA MAINTENANCE
BARRACUDA SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EXCEEDS 20 INCHES. MINIMUM INSPECTION IS RECOMMENDED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF THE UNIT.

MAINTENANCE INSTRUCTIONS

- REMOVE THE MANHOLE COVER TO PROVIDE ACCESS TO THE POLLUTANT STORAGE. POLLUTANTS ARE STORED IN THE SUMP. BELOW THE BOWL ASSEMBLY VISIBLE FROM THE SURFACE. YOU'LL ACCESS THIS AREA THROUGH THE 10" DIAMETER ACCESS CYLINDER.
- USE A VACUUM TRUCK OR OTHER SIMILAR EQUIPMENT TO REMOVE ALL WATER, DEBRIS, OILS AND SEDIMENT.
- USE A HIGH PRESSURE HOSE TO CLEAN THE MANHOLE OF ALL THE REMAINING SEDIMENT AND DEBRIS. THEN, USE THE VACUUM TRUCK TO REMOVE THE WATER.
- FILL THE CLEANED MANHOLE WITH WATER UNTIL THE LEVEL REACHES THE INVERT OF THE OUTLET PIPE.
- REPLACE THE MANHOLE COVER.
- DISPOSE OF THE POLLUTED WATER, OILS, SEDIMENT AND TRASH AT AN APPROVED FACILITY.
 - LOCAL REGULATIONS PROHIBIT THE DISCHARGE OF SOLID MATERIAL INTO THE SANITARY SYSTEM. CHECK WITH THE LOCAL SEWER AUTHORITY FOR AUTHORITY TO DISCHARGE THE LIQUID.
 - SOME LOCALITIES TREAT THE POLLUTANTS AS LEACHATE. CHECK WITH LOCAL REGULATORS ABOUT DISPOSAL REQUIREMENTS.
 - ADDITIONAL LOCAL REGULATIONS MAY APPLY TO THE MAINTENANCE PROCEDURE.

BARRACUDA INSTALLATION NOTES
INSTALLATION OF THE STORMWATER TREATMENT UNIT(S) SHALL BE PERFORMED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH INSTRUCTIONS CAN BE OBTAINED BY CALLING ADVANCED DRAINAGE SYSTEMS AT (800) 821-6710 OR BY LOGGING ON TO WWW.ADS-PIPE.COM OR WWW.BAYSAYER.COM.



LANDMARK COOL SPRINGS LLC	
DATE:	1-15-21
PROJECT #:	BRIAN.SNELSON@ADS-PIPE.COM
DESIGNER:	BRIAN SNELSON
CHECKER:	CRAIG DAHLGREN
DATE:	1-15-21
PROJECT #:	BRIAN.SNELSON@ADS-PIPE.COM
DESIGNER:	BRIAN SNELSON
CHECKER:	CRAIG DAHLGREN

PIPE DIAM.	MIN. TRENCH WIDTH
12"	24"
15"	27"
18"	30"
21"	33"
24"	36"
27"	39"
30"	42"
33"	45"
36"	48"
39"	51"
42"	54"
45"	57"
48"	60"
51"	63"
54"	66"
57"	69"
60"	72"
63"	75"
66"	78"
69"	81"
72"	84"
75"	87"
78"	90"
81"	93"
84"	96"
87"	99"
90"	102"
93"	105"
96"	108"
99"	111"
102"	114"
105"	117"
108"	120"
111"	123"
114"	126"
117"	129"
120"	132"
123"	135"
126"	138"
129"	141"
132"	144"
135"	147"
138"	150"
141"	153"
144"	156"
147"	159"
150"	162"

PIPE DIAM.	CLASS I	CLASS II	CLASS III
4"	11	18	25
6"	18	25	32
8"	25	32	39
10"	32	39	46
12"	39	46	53
14"	46	53	60
16"	53	60	67
18"	60	67	74
20"	67	74	81
22"	74	81	88
24"	81	88	95
26"	88	95	102
28"	95	102	109
30"	102	109	116
32"	109	116	123
34"	116	123	130
36"	123	130	137
38"	130	137	144
40"	137	144	151
42"	144	151	158
44"	151	158	165
46"	158	165	172
48"	165	172	179
50"	172	179	186
52"	179	186	193
54"	186	193	200
56"	193	200	207
58"	200	207	214
60"	207	214	221
62"	214	221	228
64"	221	228	235
66"	228	235	242
68"	235	242	249
70"	242	249	256
72"	249	256	263
74"	256	263	270
76"	263	270	277
78"	270	277	284
80"	277	284	291
82"	284	291	298
84"	291	298	305
86"	298	305	312
88"	305	312	319
90"	312	319	326
92"	319	326	333
94"	326	333	340
96"	333	340	347
98"	340	347	354
100"	347	354	361
102"	354	361	368
104"	361	368	375
106"	368	375	382
108"	375	382	389
110"	382	389	396
112"	389	396	403
114"	396	403	410
116"	403	410	417
118"	410	417	424
120"	417	424	431
122"	424	431	438
124"	431	438	445
126"	438	445	452
128"	445	452	459
130"	452	459	466
132"	459	466	473
134"	466	473	480
136"	473	480	487
138"	480	487	494
140"	487	494	501
142"	494	501	508
144"	501	508	515
146"	508	515	522
148"	515	522	529
150"	522	529	536

HOPE PIPE BEDDING AND SPECIFICATIONS

RECOMMENDED MINIMUM TRENCH WIDTHS

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

MAXIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

PIPE DIMENSIONS

NOTES:

- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS". LATEST EDITION.
- MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
- FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL, AS SPECIFIED BY THE ENGINEER AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
- BEDDING: SUITABLE MATERIAL SHALL BE CLASS II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4" (100mm-600mm), 6" (150mm) FOR 30" (750mm-1500mm).
- INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS II OR III IN THE PIPE ZONE EXTENDING TO THE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
- MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

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ADVANCED DRAINAGE SYSTEMS, INC. HAS HEREBY REPRESENTED THIS DETAIL BASED ON INFORMATION PROVIDED TO IT. THIS DRAWING IS INTENDED TO BE USED AS A GUIDE ONLY. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT. ADS HAS NOT CONDUCTED ANY FIELD VERIFICATION OF THE DETAIL. THE DETAIL IS PROVIDED FOR GENERAL INFORMATION AND IS NOT SPECIFIC TO THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THIS DETAIL PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEET OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

PROJECT TITLE:
LANDMARK COOL SPRINGS LLC
SPRINGS LLC
1024 COOL SPRINGS RD
O'FALLON, MO 63366

Engineering Company's Information

PREPARED BY:
CROCKETT
ENGINEERING CONSULTANTS
1000 W. MISSOURI BLVD., SUITE 100
O'FALLON, MO 63366
(636) 442-0292
www.crockettingeering.com
Crockett Engineering Consultants, LLC
Member: Certificate of Authority
#00000001

ENGINEER SIGNATURE BLOCK

STATE OF MISSOURI
JESSE R. STEPHENS
NUMBER
PE-20000868
PROFESSIONAL ENGINEER

JESSE R. STEPHENS
MO LICENSE - 200000868
2-12-2021

Developer / Owner Information
LANDMARK COOL SPRINGS LLC
114 STONE RIDGE MEADOWS
O'FALLON, MO 63366

City of O'Fallon Cover Sheet

P+Z No. - 20-007735
Approval Date: 10-2-2020

Permit No.

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