

NavigateLA Map



Project Location

April 8, 2021



Safe, Clean Water Program
David M. Gonzalez Rec. Center Stormwater Capture Project
StormTunnel Alternative



Single Event Design Storm:
Annual Stormwater Capture:

85th P. 24-hr Storm, 65.6 cfs Peak Flow, 42.3 AF Volume
 447 AF/YR (10-YR Modeling Average)

Proposed System



David M. Gonzalez Rec. Center Stormwater Capture Project
StormTunnel Alternative

MM/DD/YY	REMARKS
1	...
2	...
3	...
4	...
5	...

INDEX OF DRAWINGS

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- A14 Stormwater Modeling Results - Daily and Annual Stormwater Capture

EARTHWORK

Description	Unit	Quantity
Excavation	CY	30,236
Hauling	CY	18,788
Backfill & Compaction	CY	13,471
Gravel Backfill	CY	1,731
Total	CY	64,227

SCOPE OF WORK

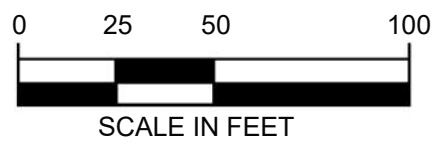
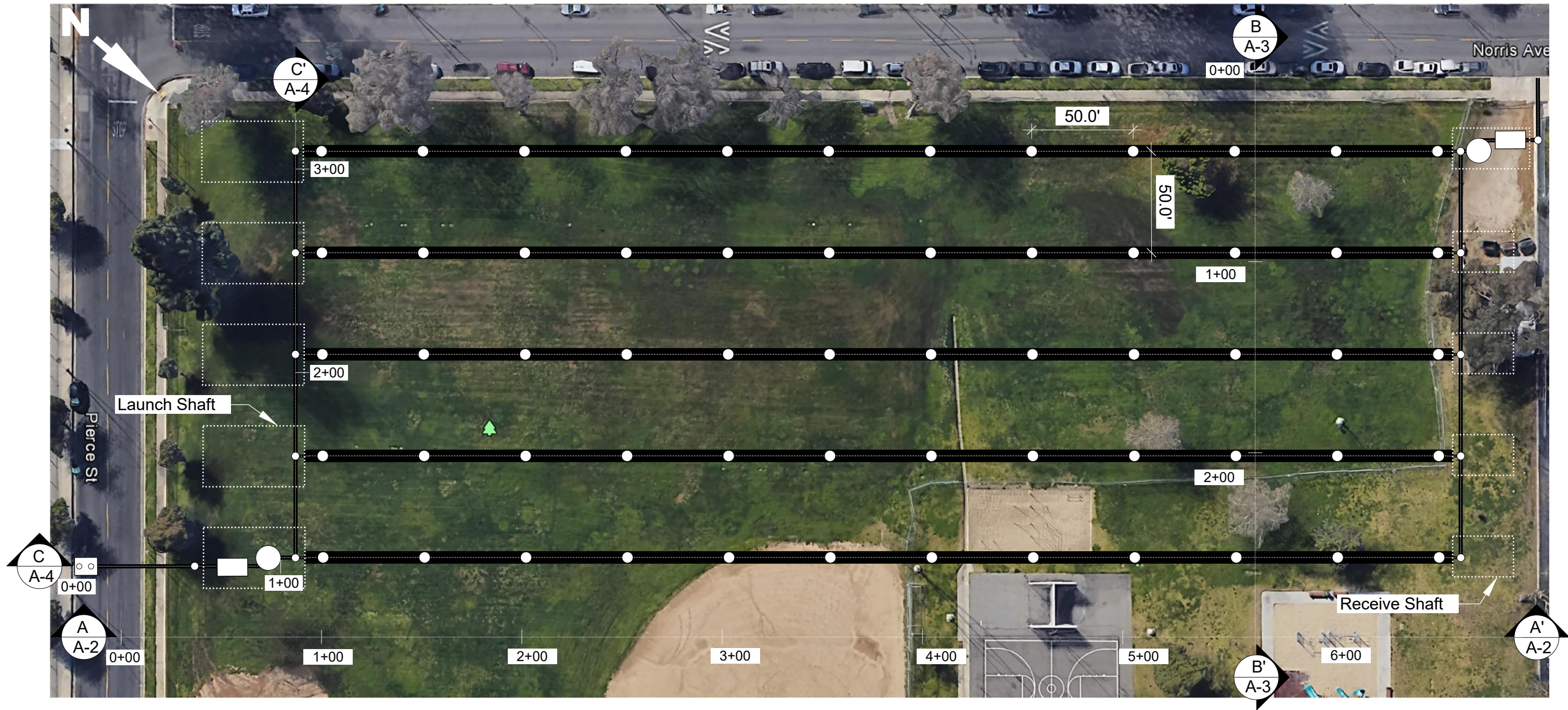
Item	Description	Unit	Quantity	Drawings
1	Tunnel - 12' ID with segmental concrete liners	LF	2,825	A1, A2, A3, A5, A6
2	Drywells - Embedded in tunnel @ 50-ft spacing with surface access	EA	60	A1, A5, A7
4	Diversion - 10' W x 10' L x 8' H with concrete box with weir and MH access	EA	2	A9, A10
7	Manholes - 6-ft diameter with coned access	EA	14	A1, A9
8	RCP Piping: 750 LF of 36" from Van Nuys Blvd, 165 LF of 30", 175 LF of 24", and 90 LF of 30"	LF	1,180	A1
9	Sediment Filter - 8'-W x 14' L Hydro International "Hydro Dry Screen"	EA	2	A11
10	Hydrodynamic Separator - 10' diam. Hydro International "Downstream Defender"	EA	2	A12
11	Park Improvements - As per SCW Program application	LS	1	N/A
12	Electrical Service, Controls, Instrumentation - As per SCW Program application	LS	1	N/A

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Plan

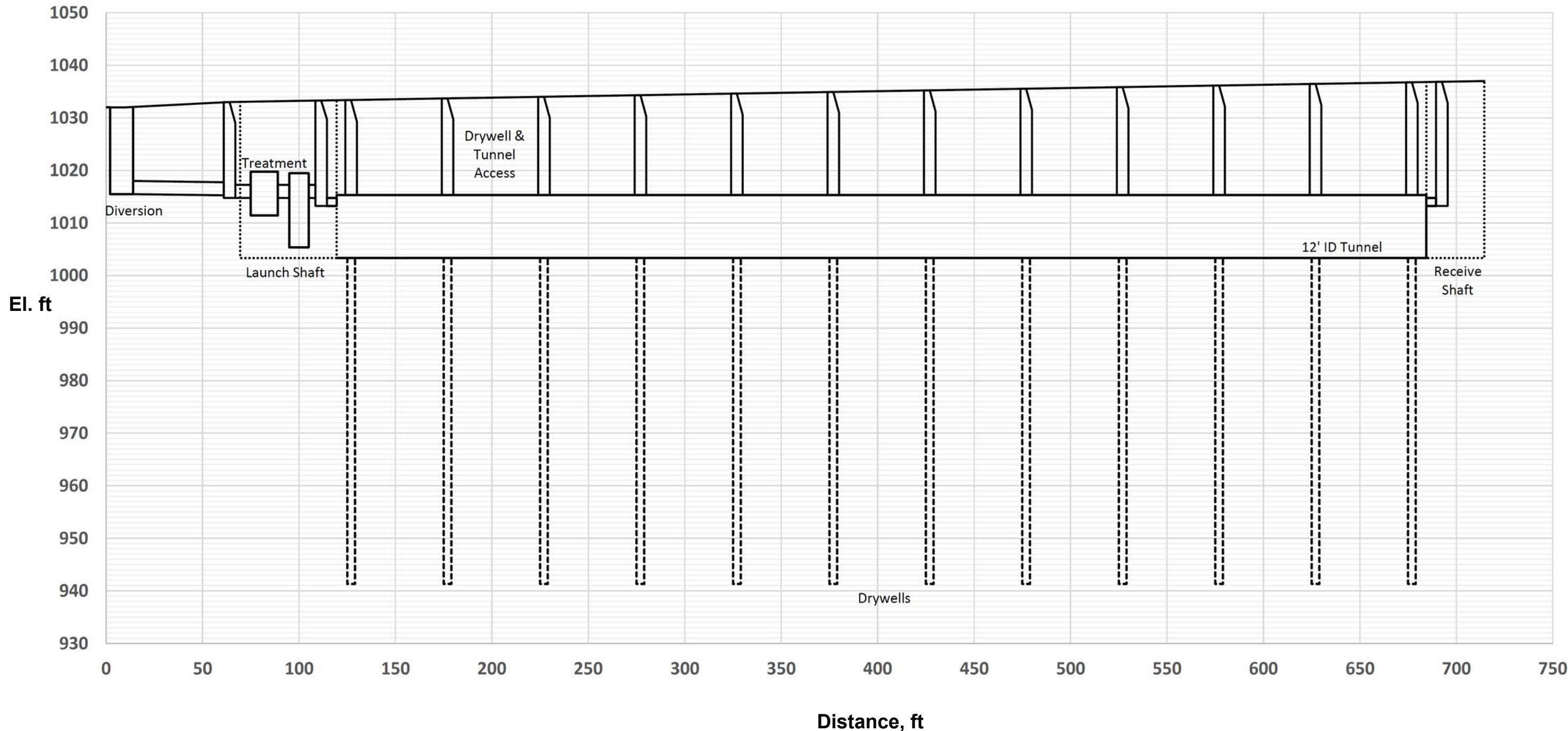


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StormTunnel Alternative

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01

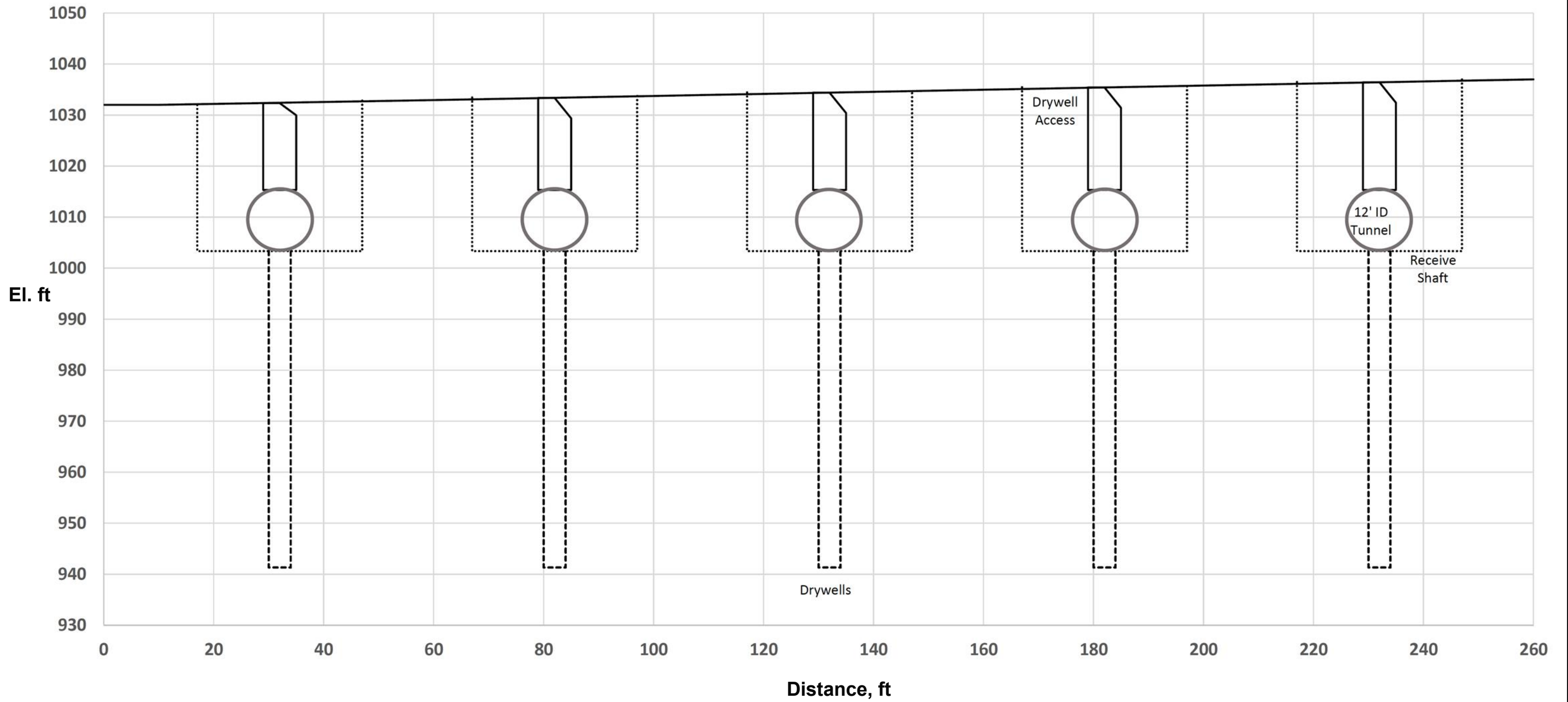
A



A-A'

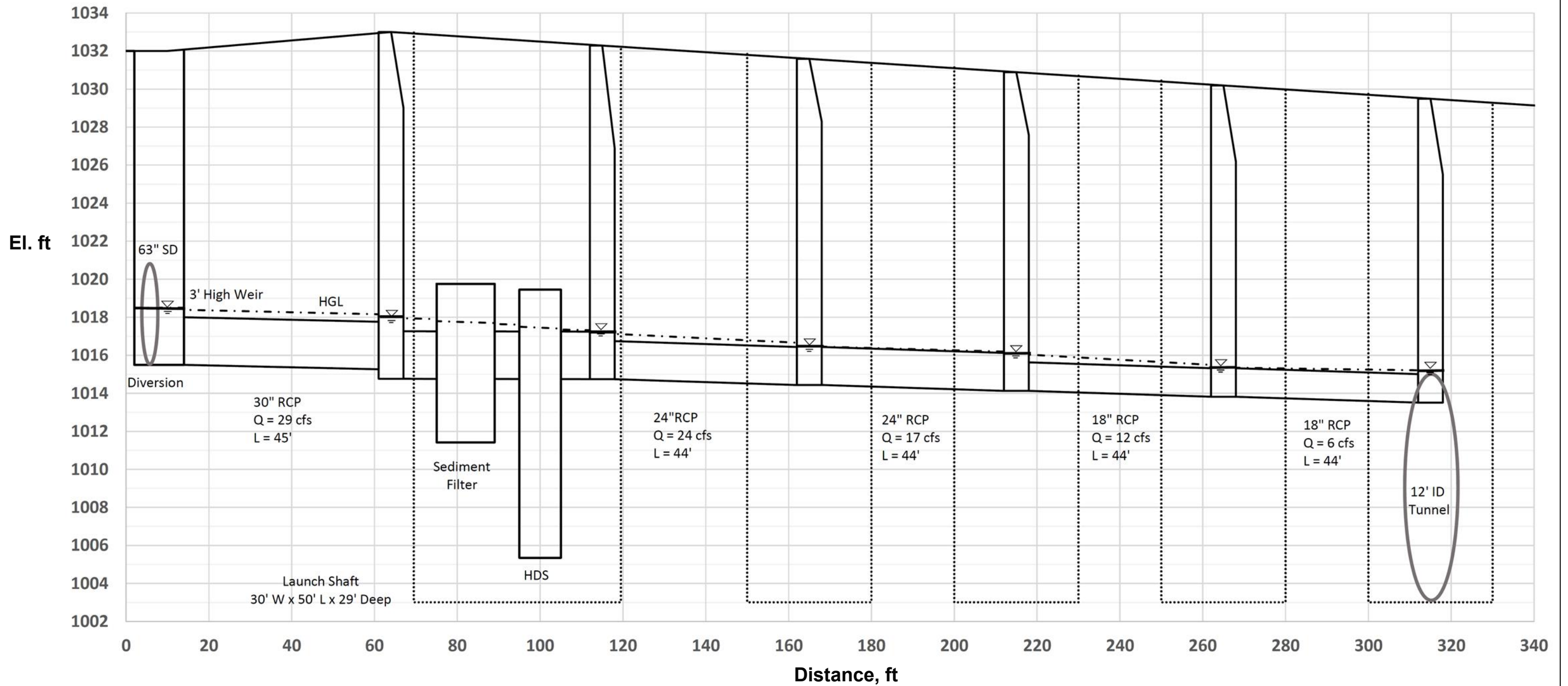
Profile	SEITec		REMARKS	02
	David M. Gonzalez Rec. Center Stormwater Capture Project StormTunnel Alternative			
	1	MM/DD/YY	...	
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	4	MM/DD/YY	...	
	5	MM/DD/YY	...	

A



B-B'

Section	SEITec			03
	David M. Gonzalez Rec. Center Stormwater Capture Project StormTunnel Alternative	MM/DD/YY	REMARKS	
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HGL


SEITec

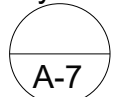
David M. Gonzalez Rec. Center Stormwater Capture Project
StormTunnel Alternative

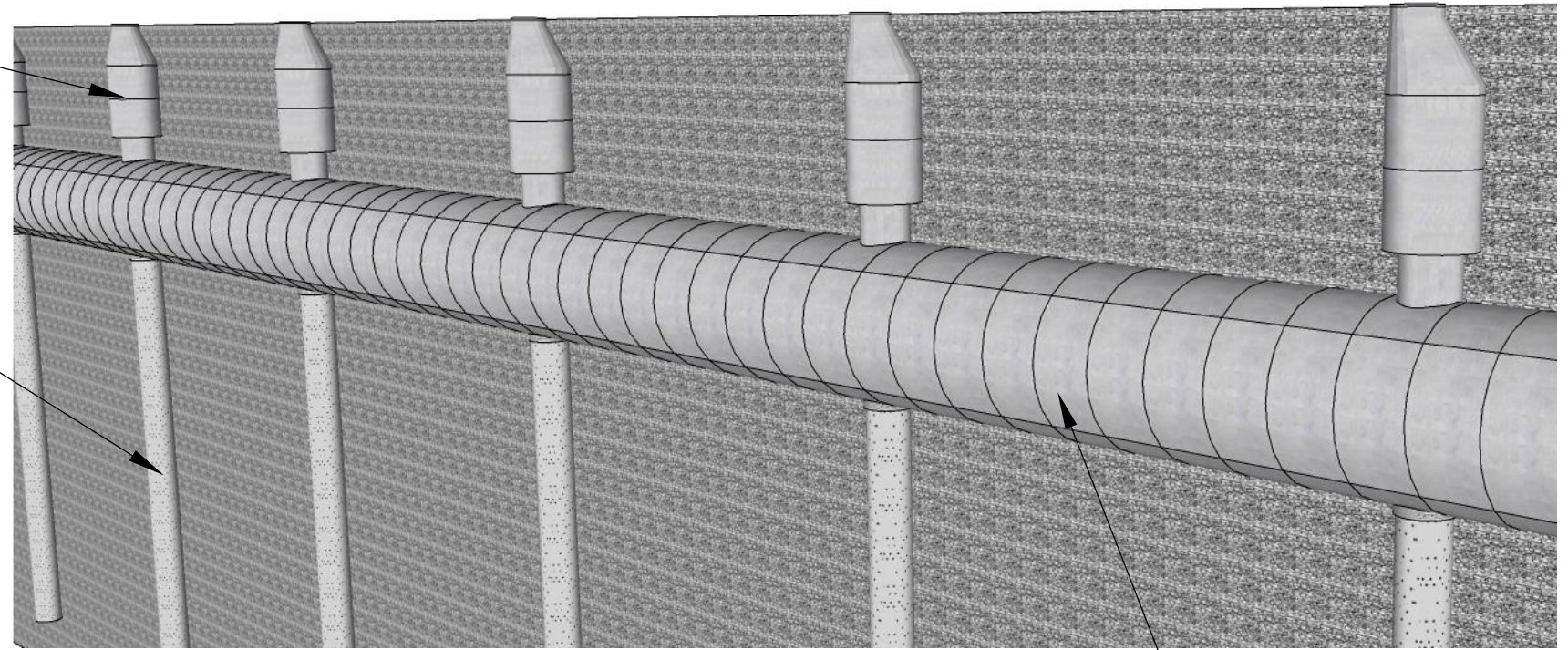
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04


A


60" ID Access


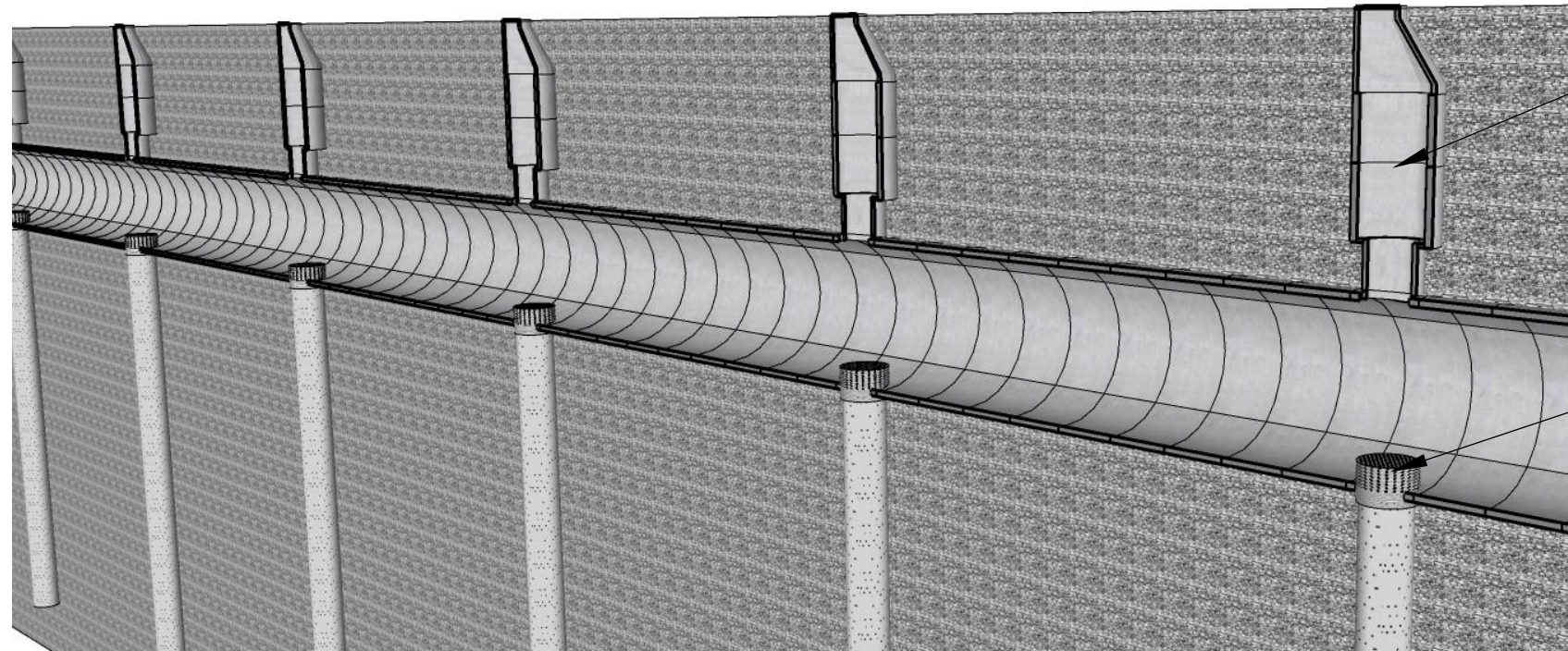
Dry Well




12' ID Tunnel


60" ID Access


Drywell Inlet




Perspective

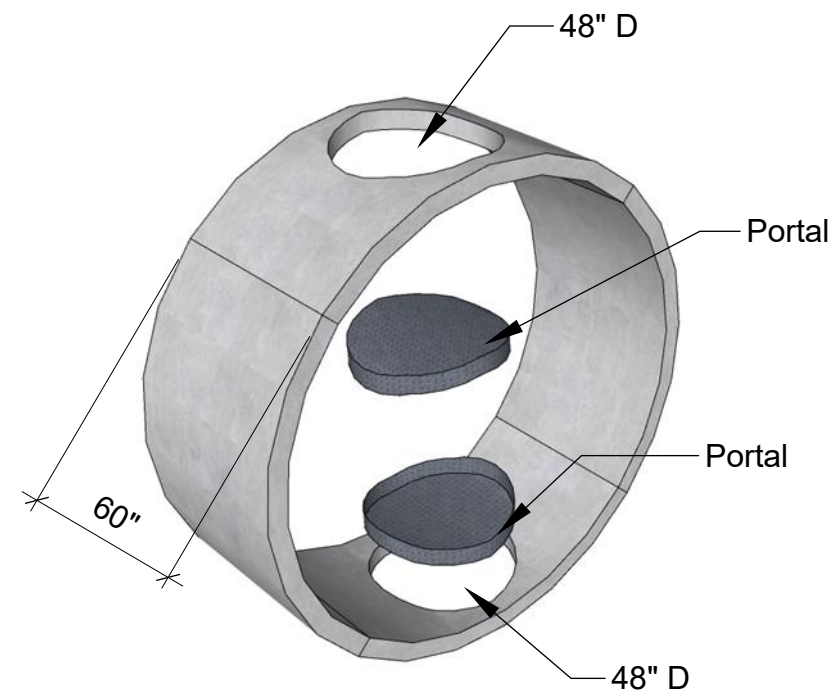
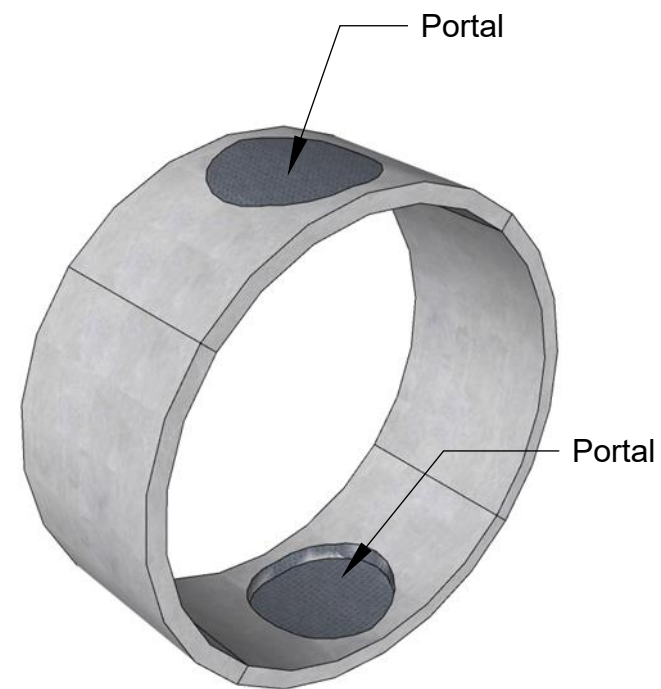
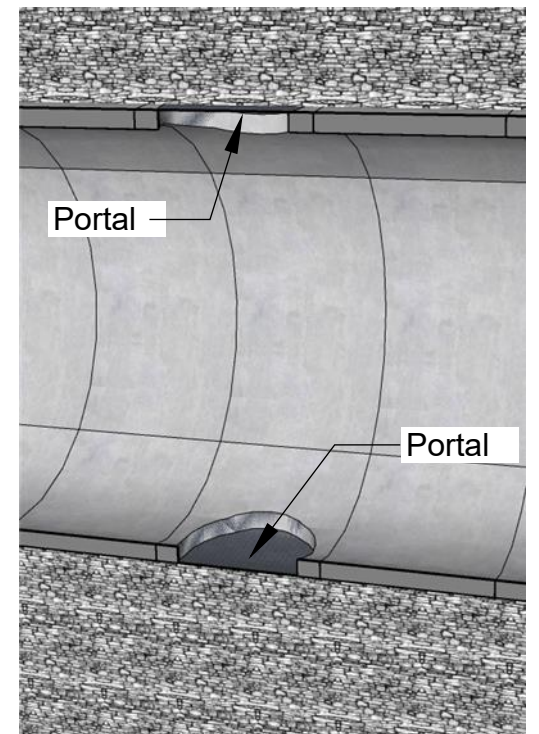
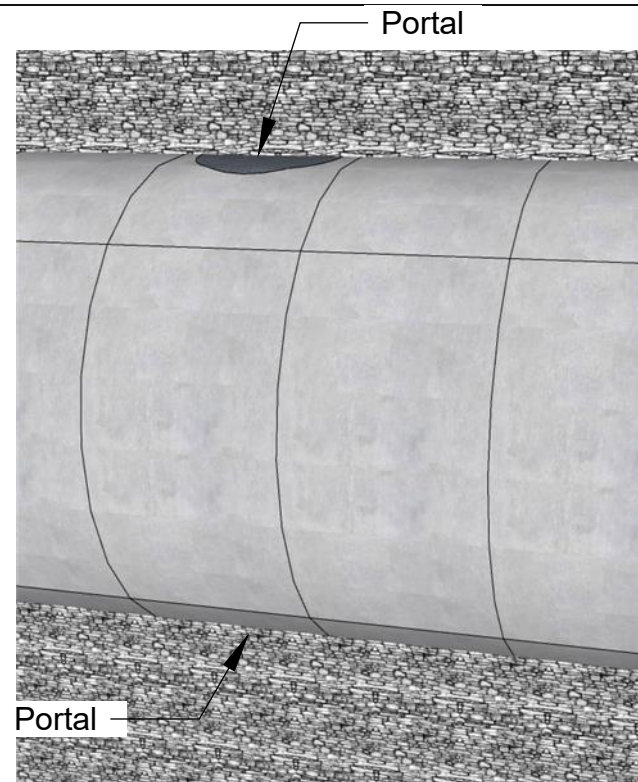
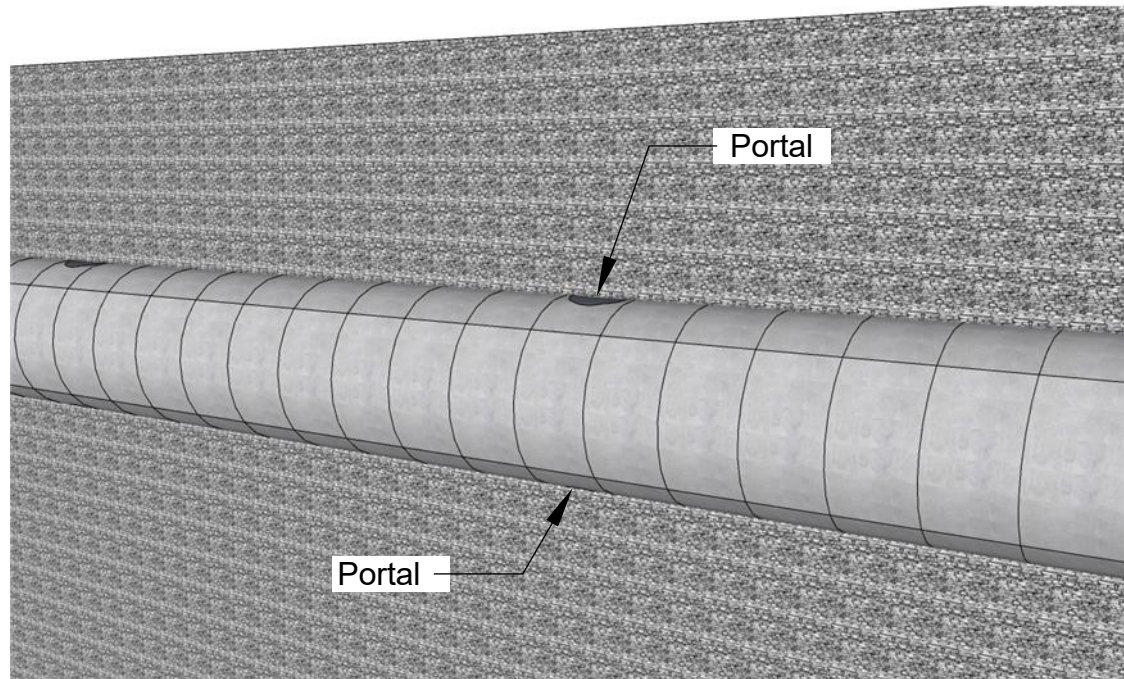


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05

A



Tunnel Details



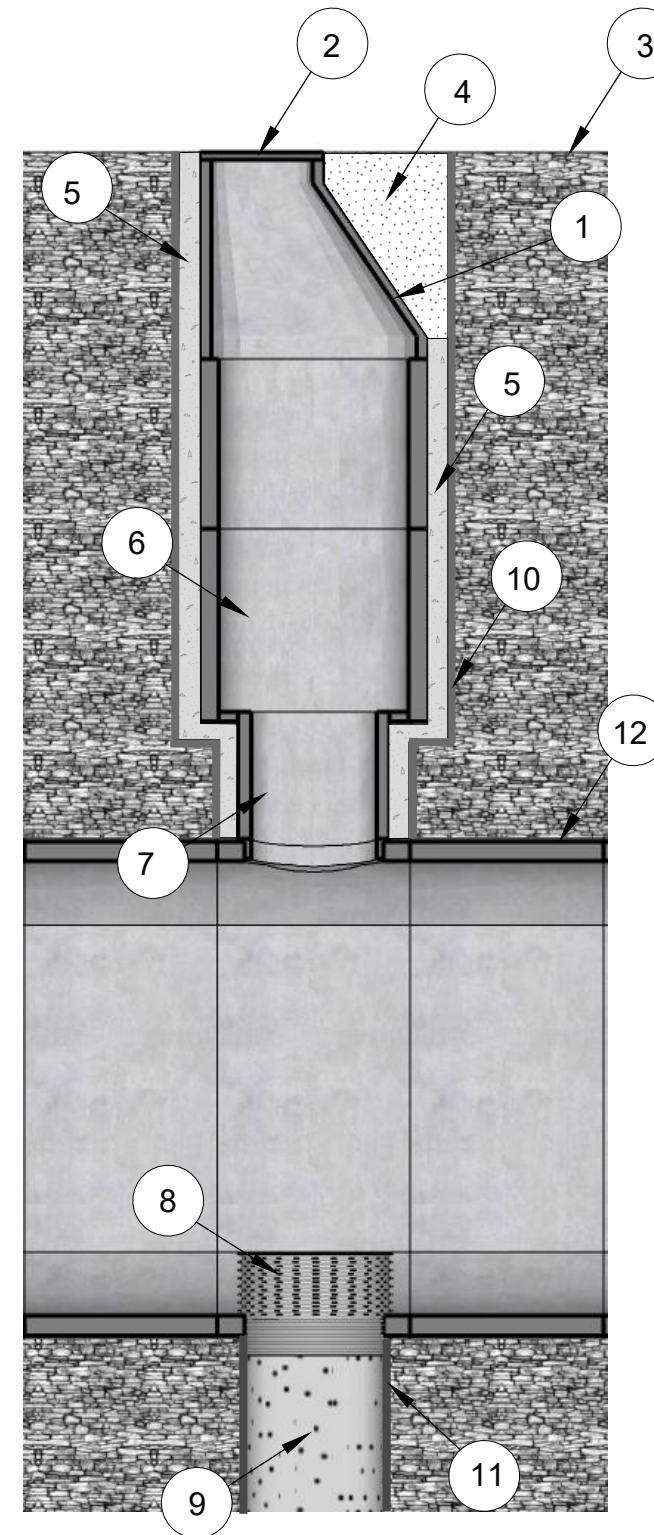
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StormTunnel Alternative

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ITEM NUMBERS

- 1. 60" ID Precast Manhole Cone
- 2. Bolted Ring & Cover
- 3. Final Grade
- 4. Compacted Backfill
- 5. Poured Concrete
- 6. 60" ID Precast Manhole Shaft
- 7. 48" OD Precast Pipe Connector to Tunnel
- 8. 48" OD Slotted Corrugated HDPE Pipe, Min. 18" Tall with Filter Fabric Cover
- 9. Crushed Rock 3/8" and 1-1/2" per Native Soil
- 10. 72" Diam. Drilled Shaft
- 11. 48" Diam. Drilled Shaft, 75' Deep
- 12. Tunnel Liner Segment, 5-ft W, 12-ft ID



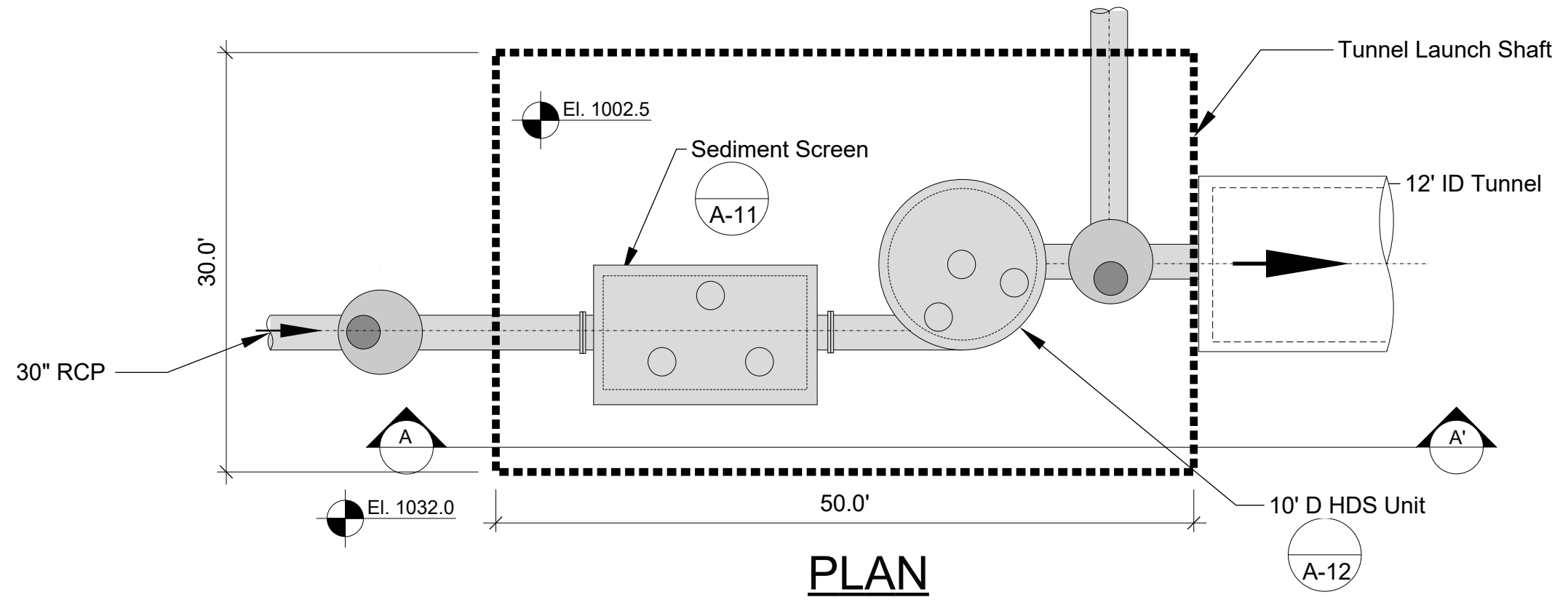
Detail - Drywells



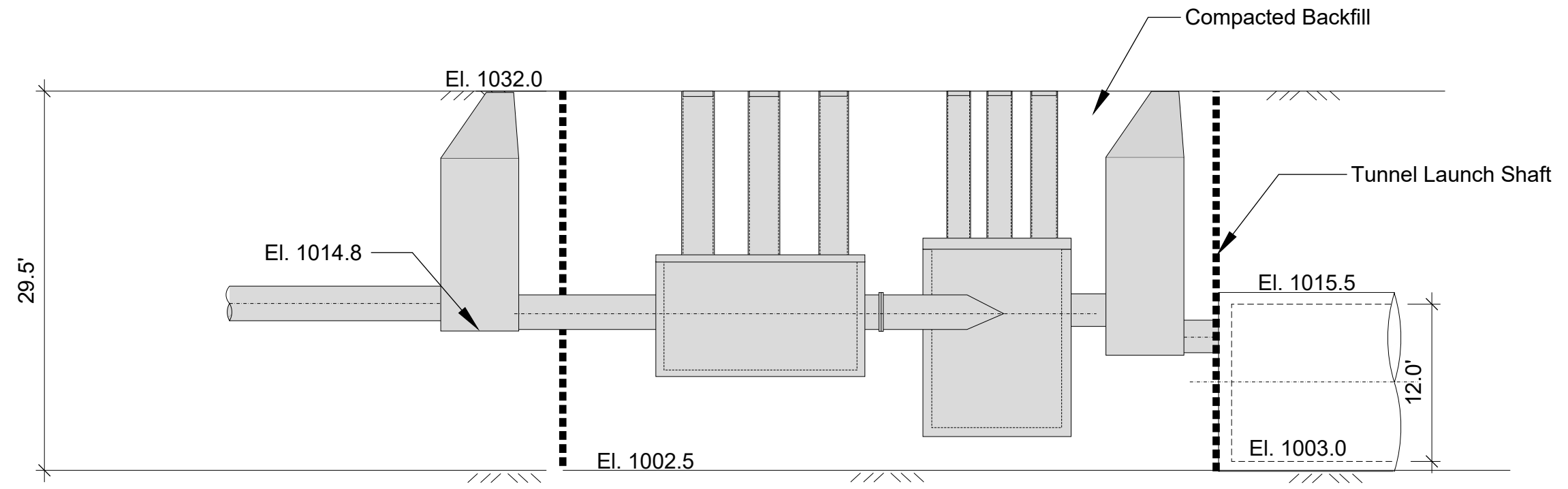
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07
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PLAN



A-A'

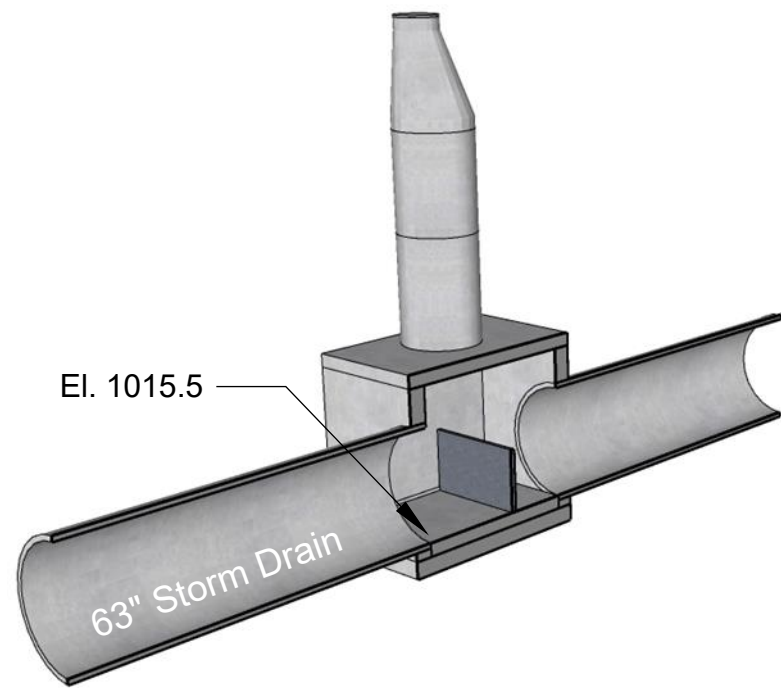
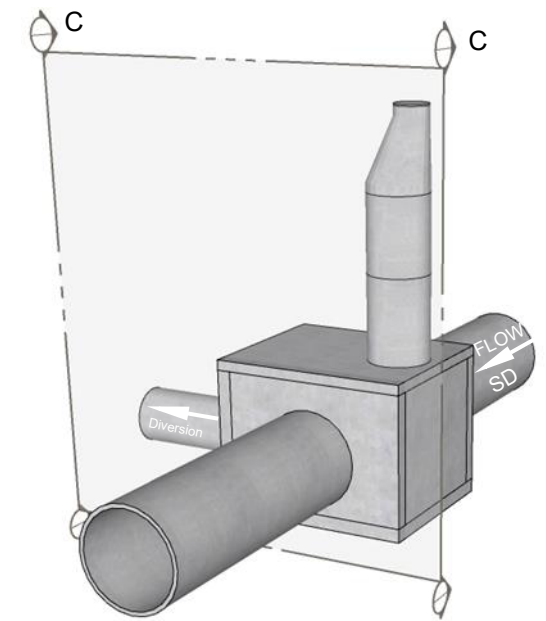
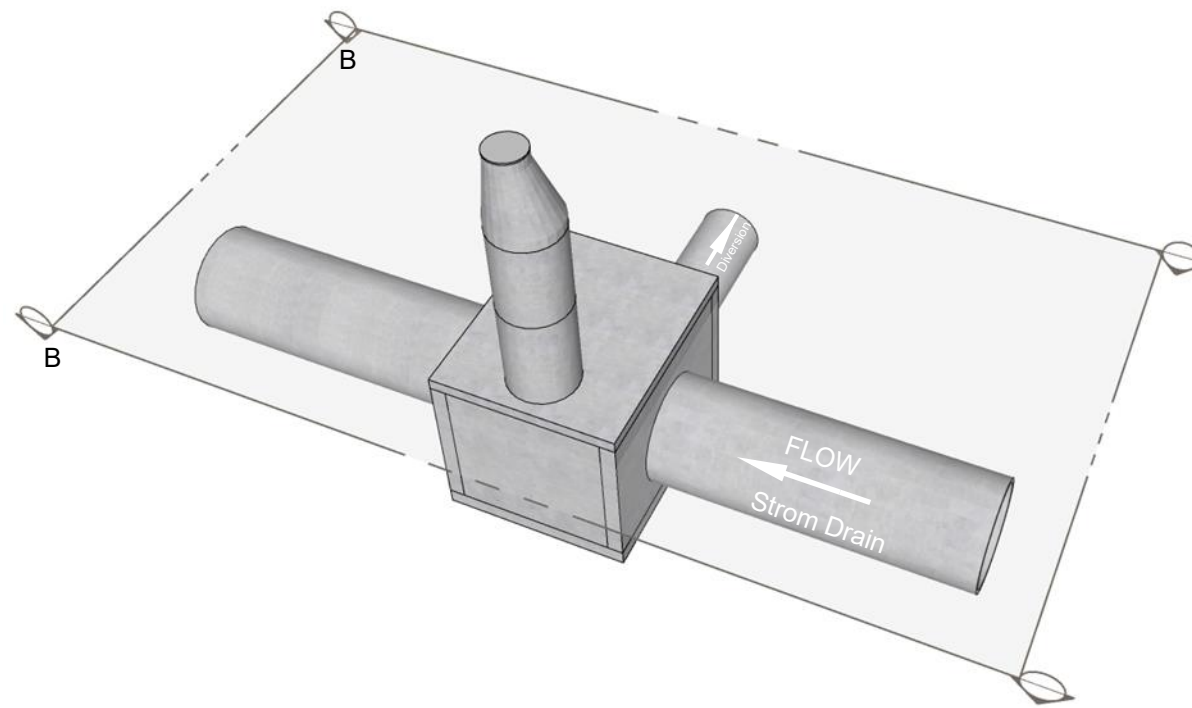
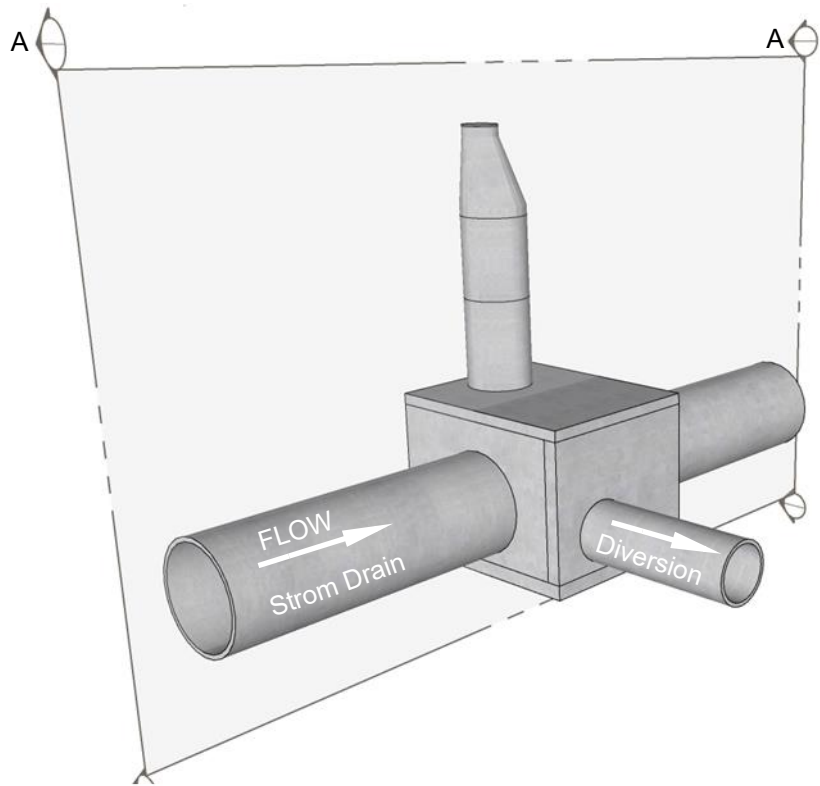
Treatment System



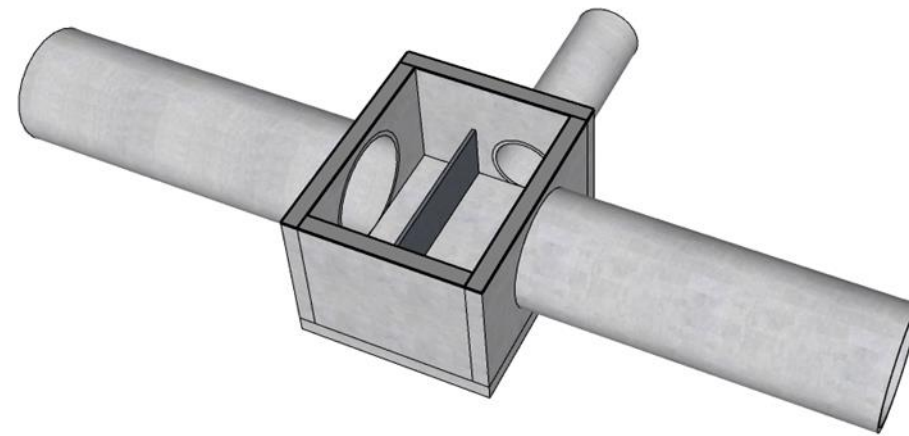
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StormTunnel Alternative

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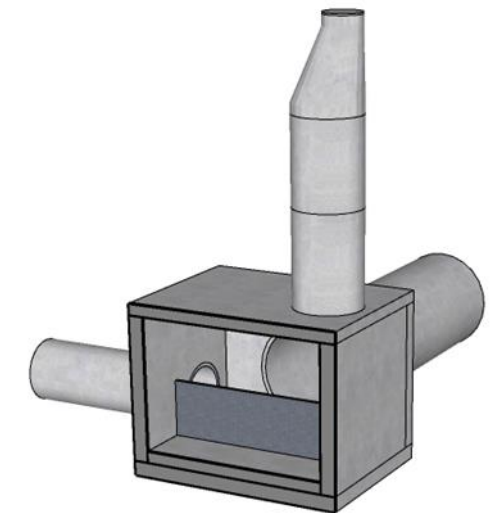
08
A



A-A



B-B



C-C

Diversion - Perspective

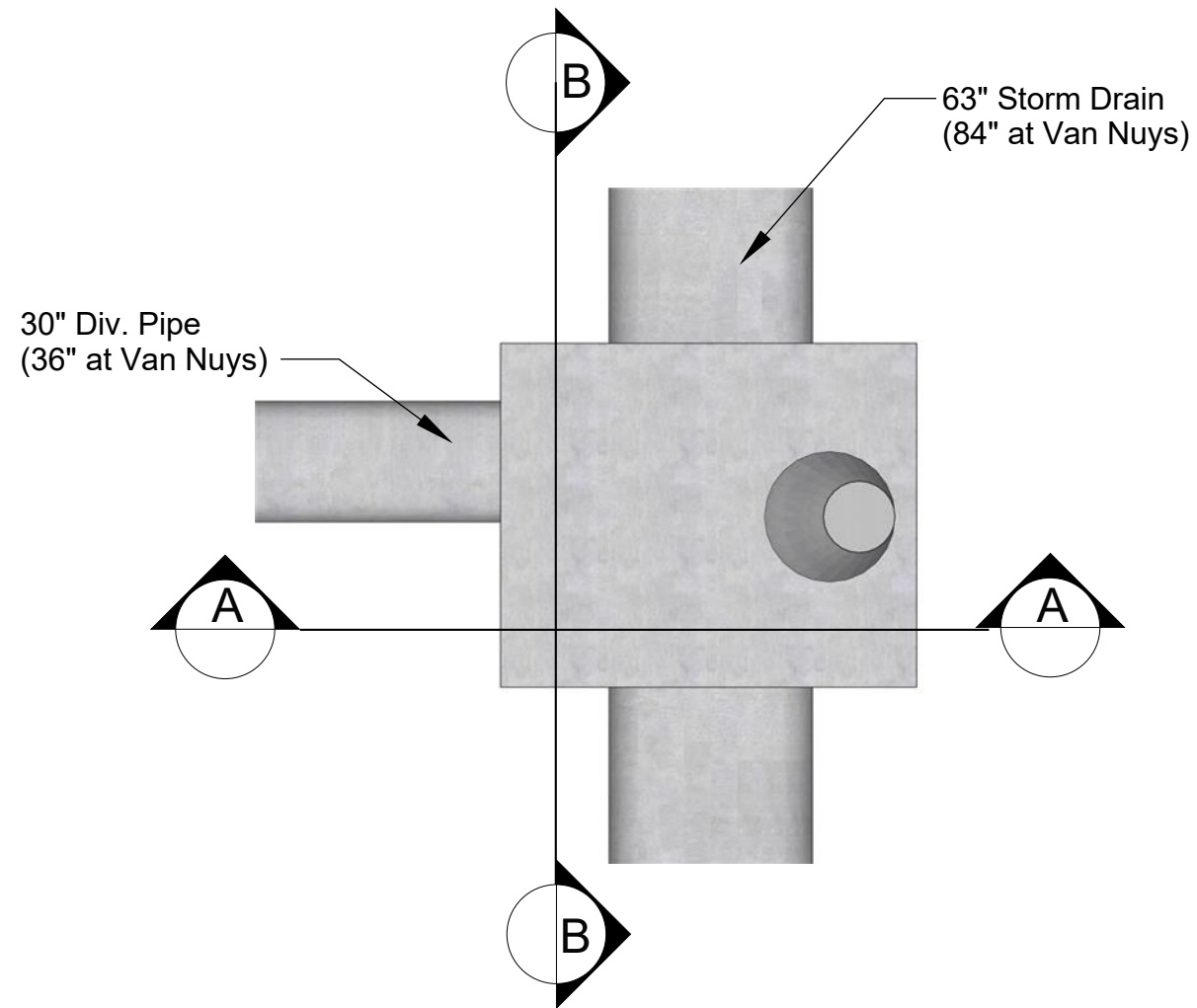
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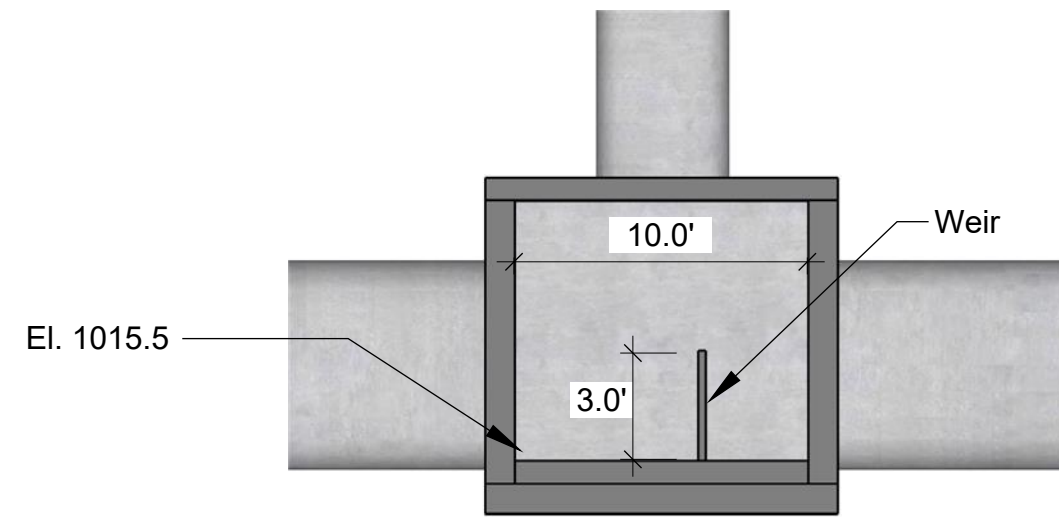
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09

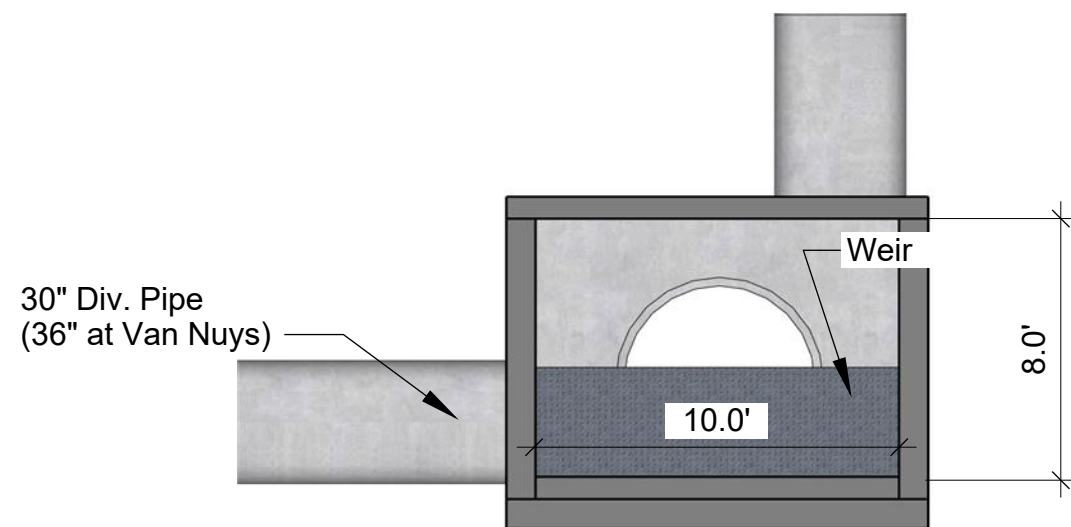
A



PLAN



B-B



A-A

Diversion - Plan and Sections

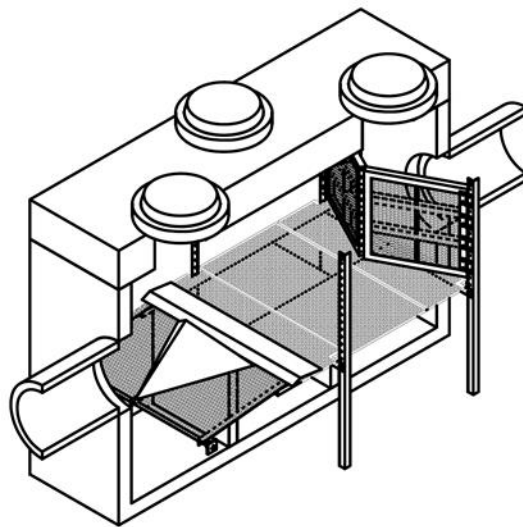
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MM/DD/YY	REMARKS
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A



MAXIMUM PIPE SIZE: 48 in

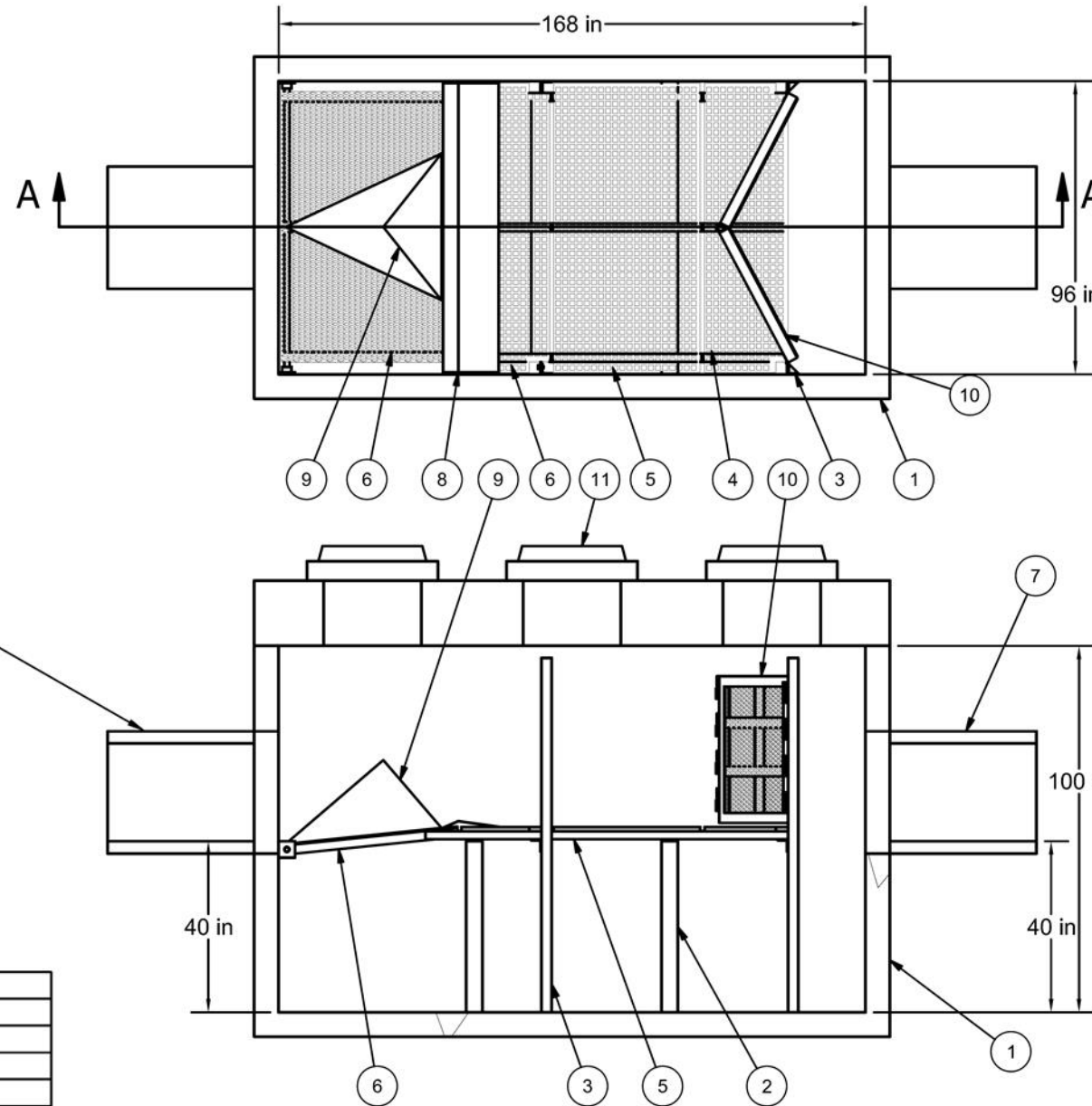
EQUIPMENT PERFORMANCE

Max. Treatment Flow Rate = 93 cfs
 Typical Treatment Flow Rate = 37 cfs
 Open orifice area of screen system = 78.4 sq.ft.
 Min. Screenings Storage capacity = 14.2 yd³
 Min. Sediment storage volume = 4.4 yd³

Parts List			
ITEM	QTY	SIZE	DESCRIPTION
1	1	8 ft x 14 ft	VAULT
2	2		BAFFLES
3	4		MOUNTING BRACKETS
4	3		HORZ. SCREEN PANELS
5	1		FRAME
6	1		INLET SCREEN PANEL
7	2	48 in	INLET/OUTLET PIPES (BY OTHERS)
8	1		TRANSITION CONNECTOR
9	1		FLOW SPREADER
10	2		VERT. SCREEN WEIR
11	3	30 in	FRAME AND COVER

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Notes

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING HYDRO DRYSCREEN SYSTEMS.
3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

REV	BY	DATE	DESCRIPTION
JF	1/15/15	FIRST ISSUE	

REVISION HISTORY

Date	Scale
1/15/15	NTS

Drawn	Checked	Approved
JF		

Title
 DRYSCREEN
 8' x 14' VAULT

GENERAL ARRANGEMENT



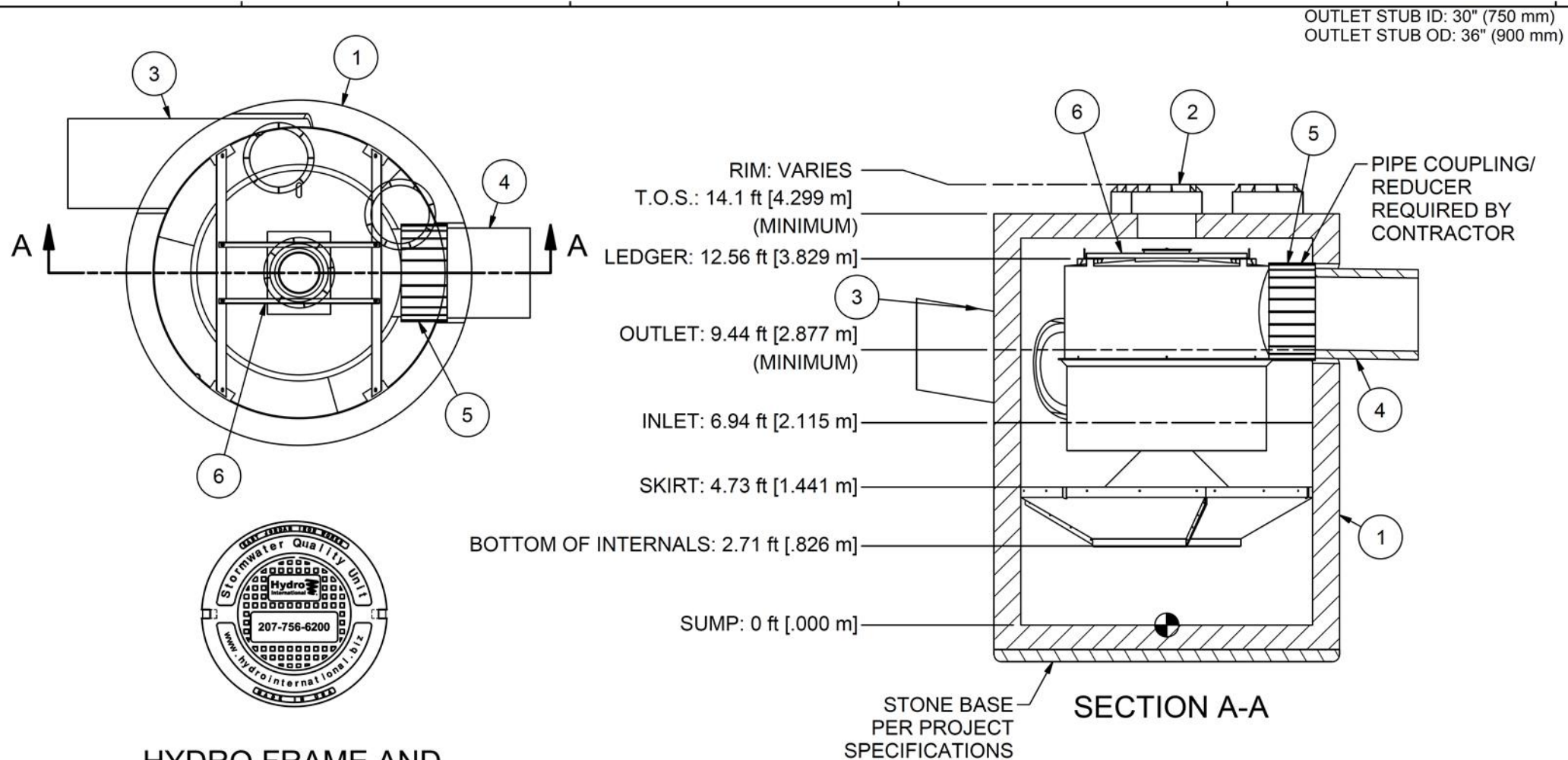
Stormwater Solutions
 94 Hutchins Drive
 Portland, Maine 04102
 Tel: (207) 756-6200
 Fax: (207) 756-6212
 stormwaterinquiry@hydro-int.com

CAD Ref: DS-8x14
 Project No. xx-xxxx
 Drawing No. DS-8x14 Rev.

Sediment Filter

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 StormTunnel Alternative

MM/DD/YY	REMARKS
1	...
2	...
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HYDRO FRAME AND COVER (INCLUDED)

GRADE RINGS BY OTHERS AS REQUIRED

EQUIPMENT PERFORMANCE

The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

1. The treatment system shall use an induced vortex to separate pollutants from stormwater runoff.
2. Peak Hydraulic Capacity: 25.0 cfs (708 l/s)
3. Sediment Storage Capacity: 8.70 cu. yd. (6.65 cu. m)
4. Continuous Oil Storage Capacity: 1050 gal. (3975 liters)
5. Sediment shall be stored in a zone that is isolated from the main flow path and protected from reentrainment by a benching skirt.
6. For more product information including regulatory acceptances, please visit <https://hydro-int.com/en/products/downstream-defender>

PARTS LIST				
ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	120	3000	PRECAST MANHOLE (BY HYDRO VIA PRECASTER)
2	3	24	600	FRAME AND COVER (QTY 3)
3	1	30 (MAX)	750 (MAX)	INLET PIPE (BY OTHERS)
4	1	30 (MAX)	750 (MAX)	OUTLET PIPE (BY OTHERS)
5	1			PIPE COUPLING (BY OTHERS)
6	1			INTERNAL COMPONENTS (PRE-INSTALLED)

ANY WARRANTY GIVEN BY HYDRO INTERNATIONAL WILL APPLY ONLY TO THOSE ITEMS SUPPLIED BY IT. ACCORDINGLY HYDRO INTERNATIONAL CANNOT ACCEPT ANY RESPONSIBILITY FOR ANY STRUCTURE, PLANT, OR EQUIPMENT, (OR THE PERFORMANCE THERE OF) DESIGNED, BUILT, MANUFACTURED, OR SUPPLIED BY ANY THIRD PARTY. HYDRO INTERNATIONAL HAVE A POLICY OF CONTINUOUS DEVELOPMENT AND RESERVE THE RIGHT TO AMEND THE SPECIFICATION. HYDRO INTERNATIONAL CANNOT ACCEPT LIABILITY FOR PERFORMANCE OF ITS EQUIPMENT, (OR ANY PART THEREOF), IF THE EQUIPMENT IS SUBJECT TO CONDITIONS OUTSIDE ANY DESIGN SPECIFICATION. HYDRO INTERNATIONAL OWNS THE COPYRIGHT OF THIS DRAWING, WHICH IS SUPPLIED IN CONFIDENCE. IT MUST NOT BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SUPPLIED AND MUST NOT BE REPRODUCED, IN WHOLE OR IN PART, WITHOUT PRIOR PERMISSION IN WRITING FROM HYDRO INTERNATIONAL.

PROJECTION

IF IN DOUBT ASK

COMMENTS:
1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING DOWNSTREAM DEFENDER MANHOLE.

DATE: 11/8/2019 SCALE: NTS
DRAWN BY: GW CHECKED BY: APPROVED BY:

Title
10ft-DIAMETER
DOWNSTREAM DEFENDER

Hydro International
hydro-int.com
HYDRO INTERNATIONAL

DO NOT SCALE DRAWING
STEEL FABRICATION TOLERANCES
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

LINEAR 000 - 012in = ±0.04in 012 - 024in = ±0.06in 024 - 048in = ±0.08in 048 - 120in = ±0.12in 120in >>> = ±0.20in	ANGULAR 000 - 120in = ±1° 120 - 240in = ±0.5° 240in >>> = ±0.25°
---	---

WEIGHT: N/A MATERIAL:
REFERENCE NUMBER:
DRAWING NO.:

SHEET SIZE: B SHEET: 1 OF 1 Rev: -

Hydrodynamic Separator

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StormTunnel Alternative

MM/DD/YY	REMARKS
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12
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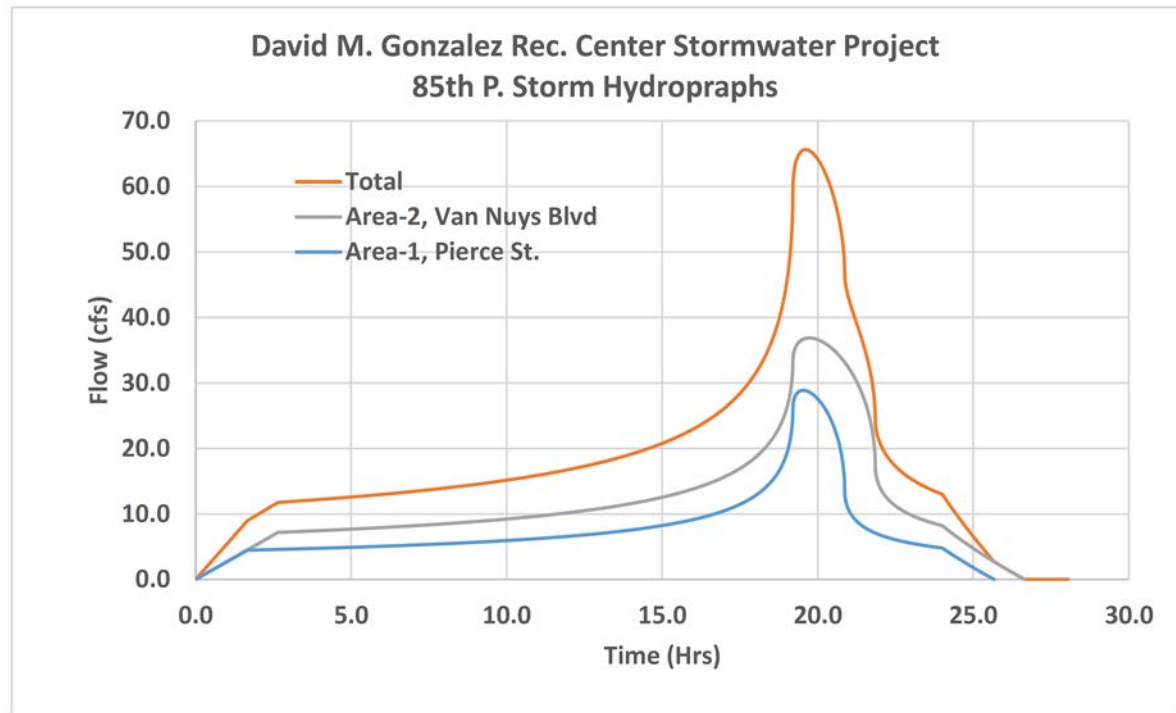


FIG 1

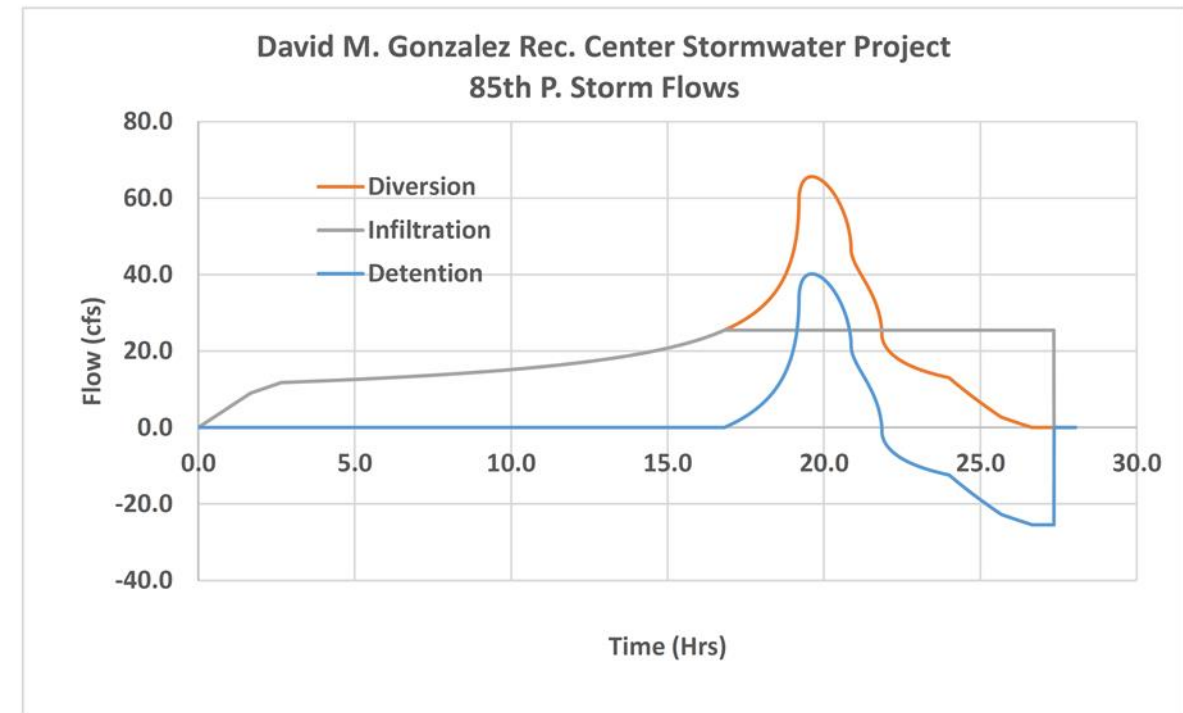


FIG 2

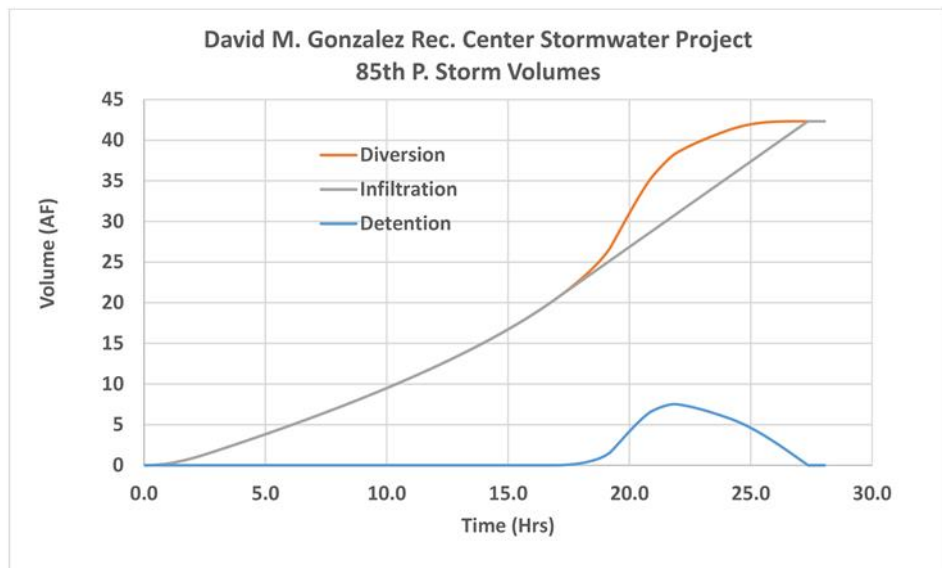


FIG 3

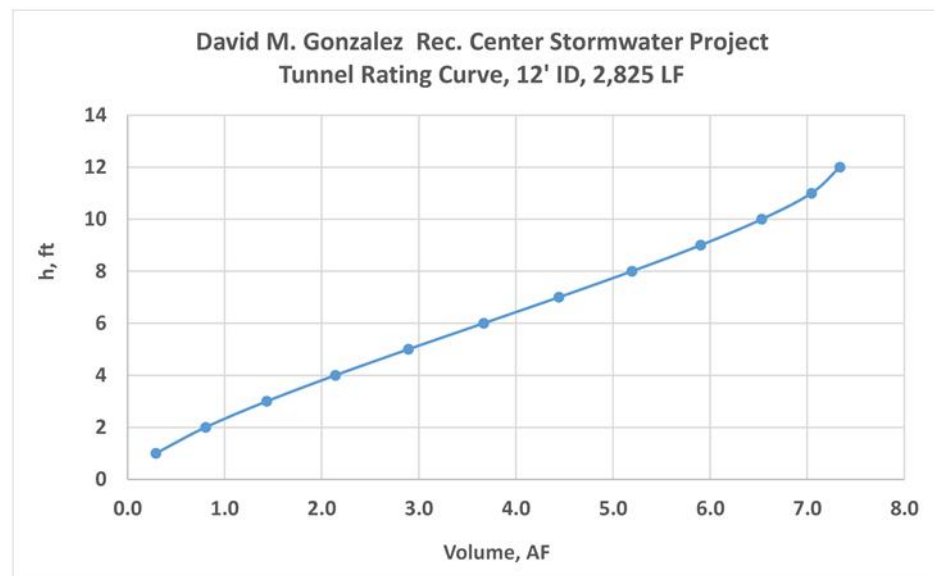


FIG 4

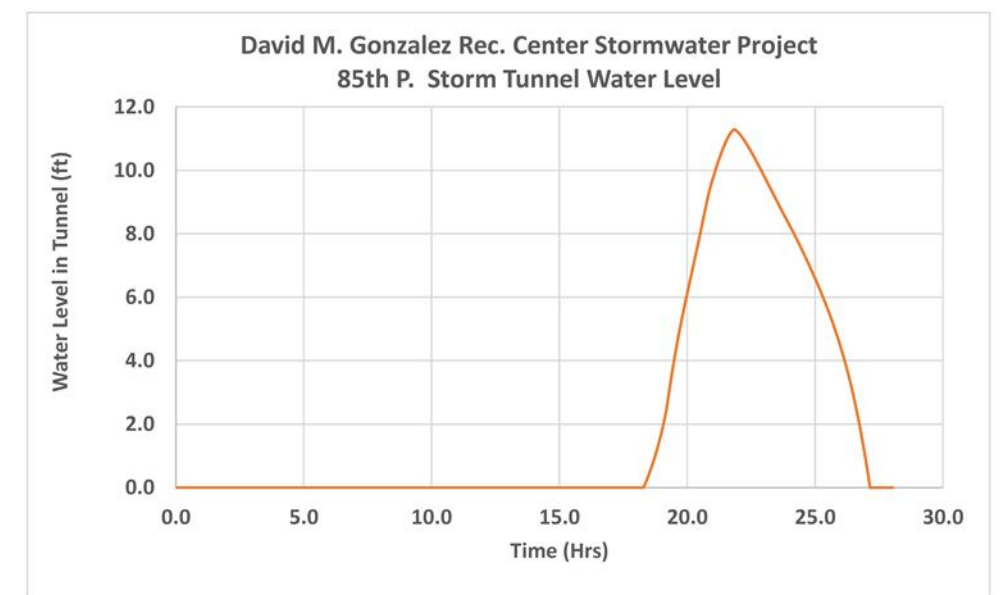


FIG 5

Modeling Results
85th P. 24-hr Storm



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StormTunnel Alternative

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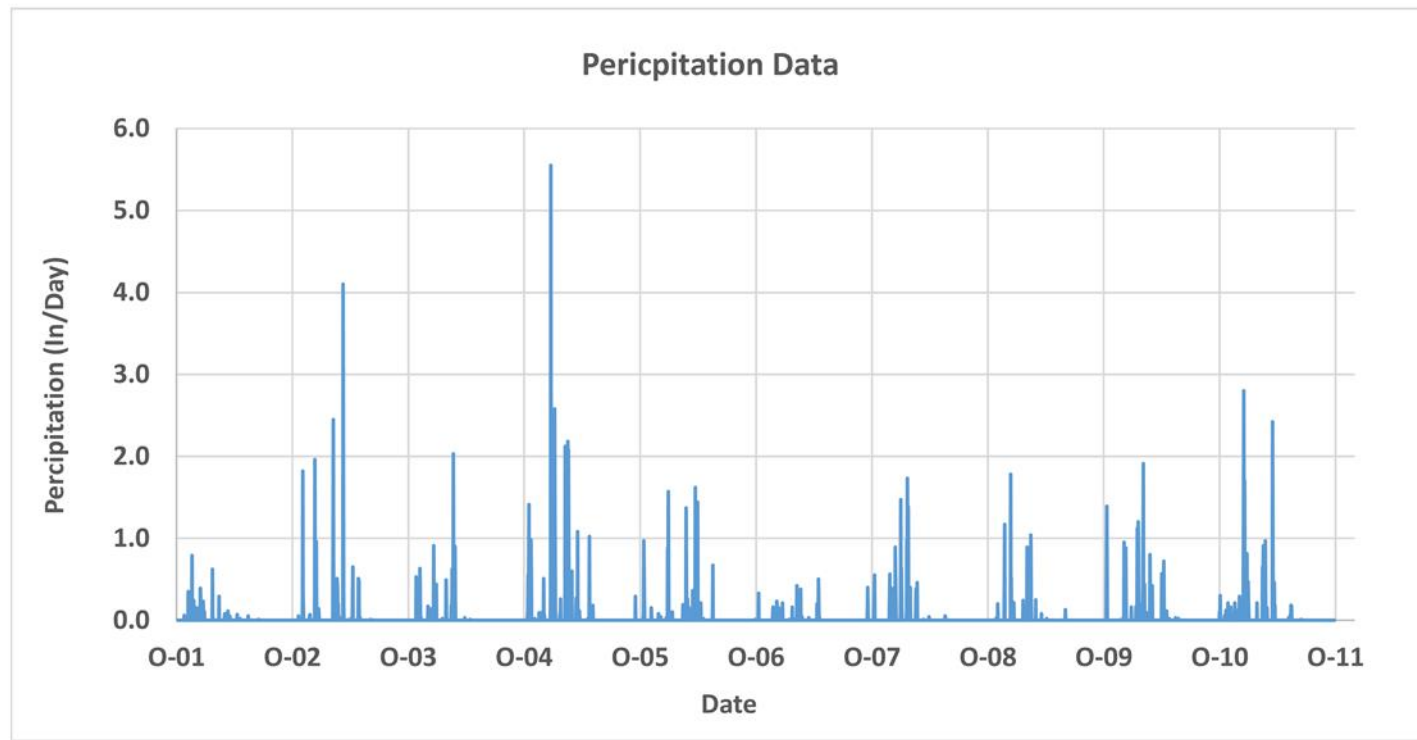


FIG 6

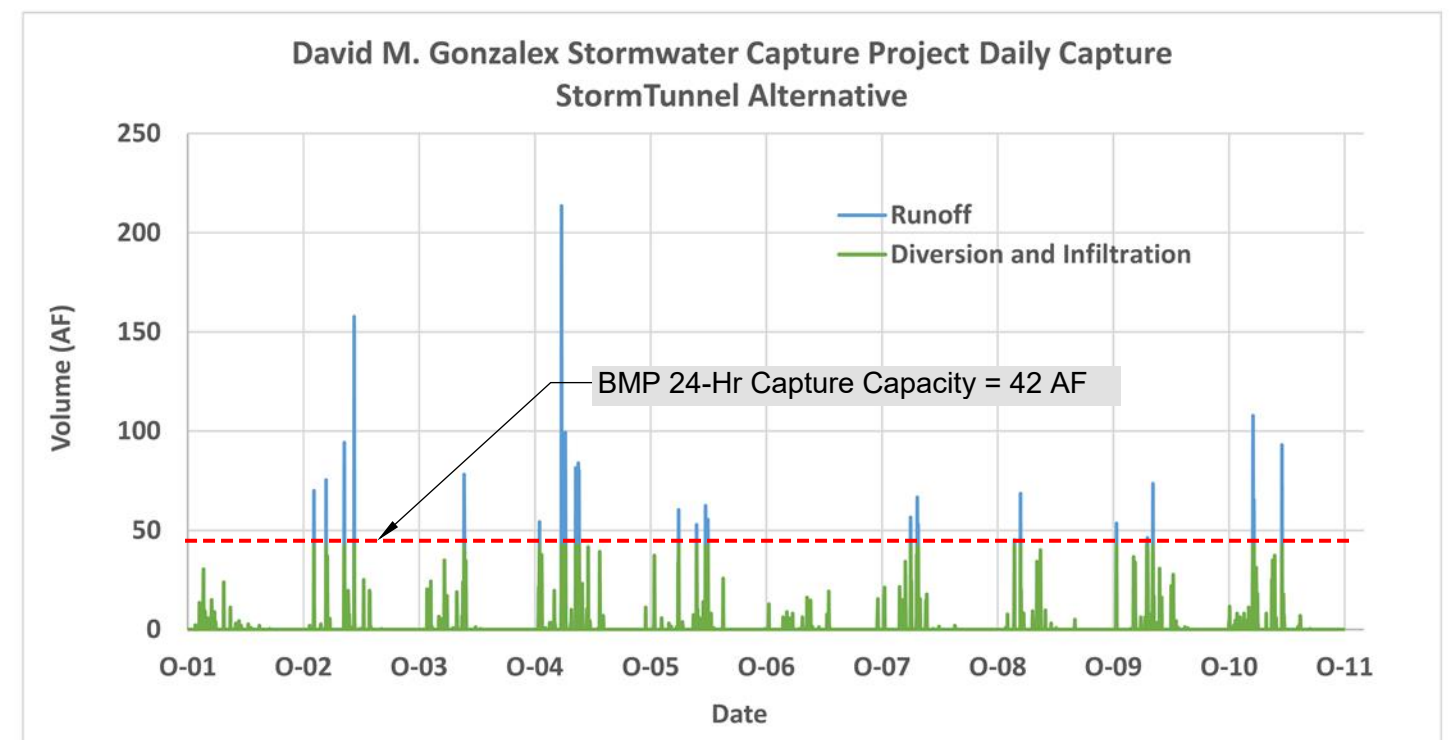


FIG 7

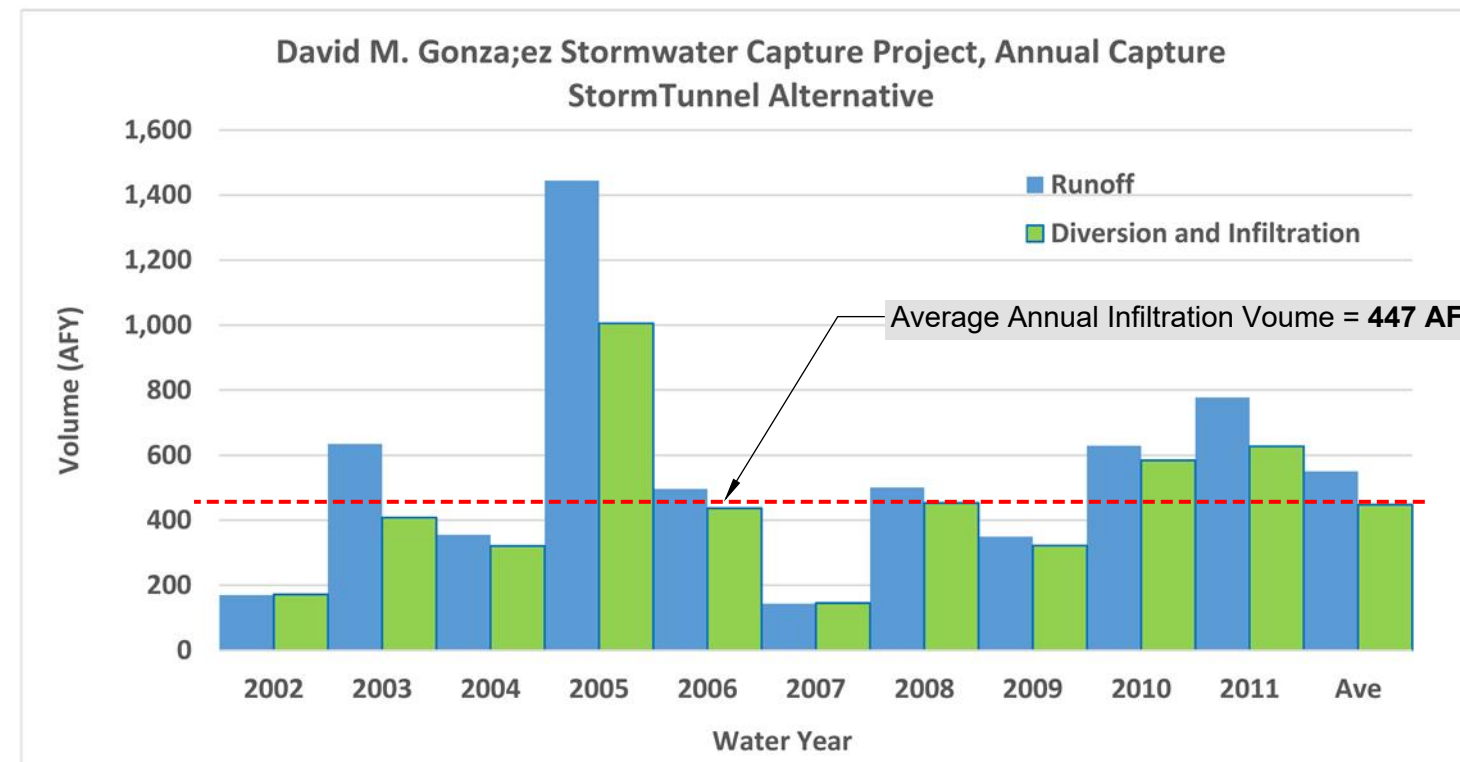


FIG 8

Modeling Results
10-yr Daily and Annual Capture



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