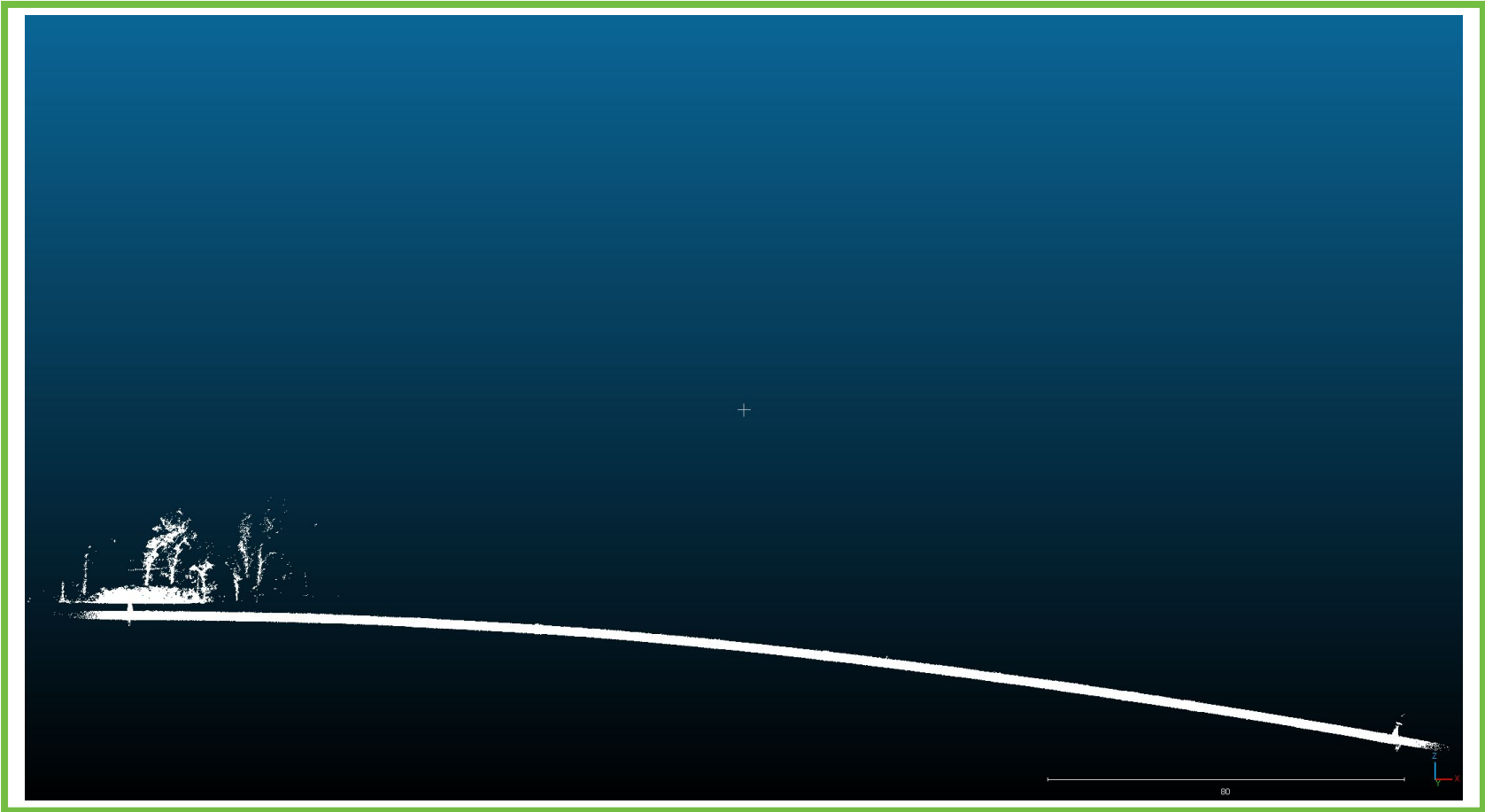
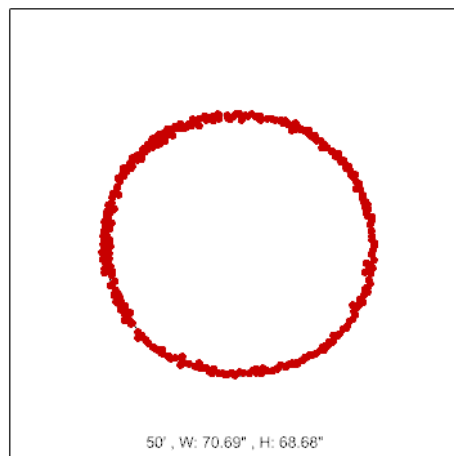
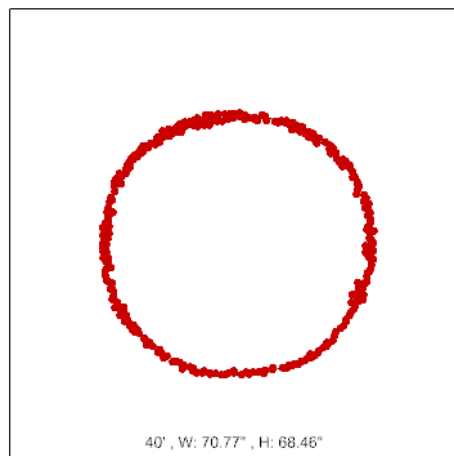
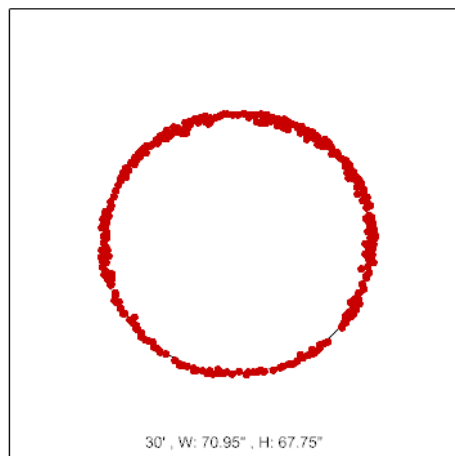
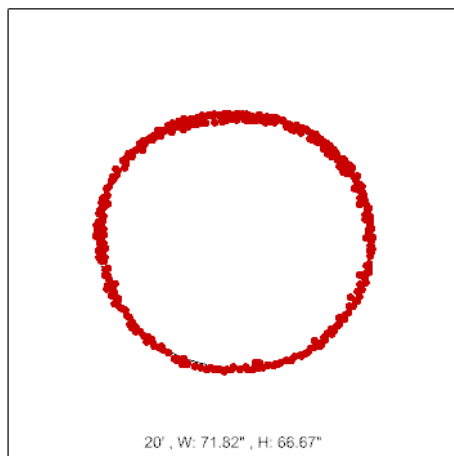
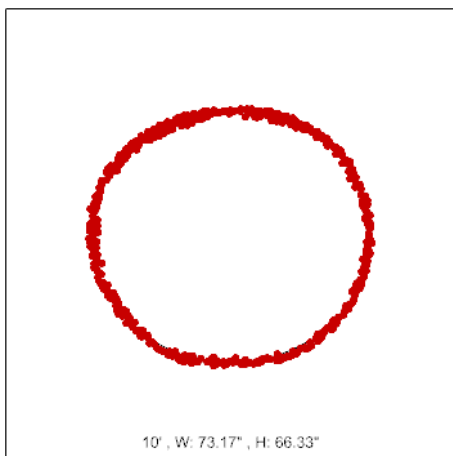
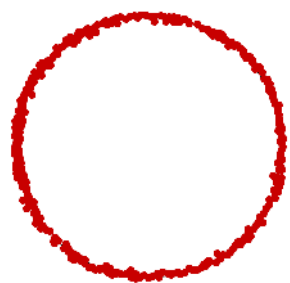




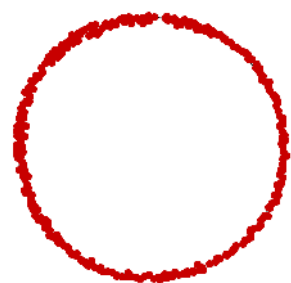
Inspection	Marion County, Ohio
US Manhole	6
DS Manhole	5
Inspected	October 4, 2024
Platform	Aerial Drone
Sensor	3D Lidar
Report Date	October 29, 2024



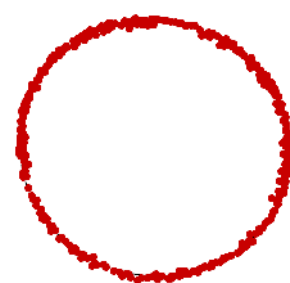




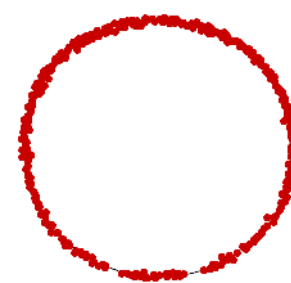
60° , W: 70.37" , H: 68.84"



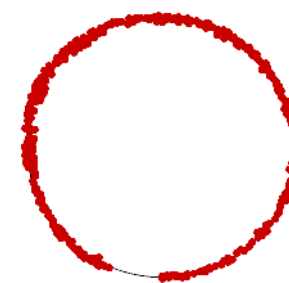
70° , W: 70.23" , H: 68.47"



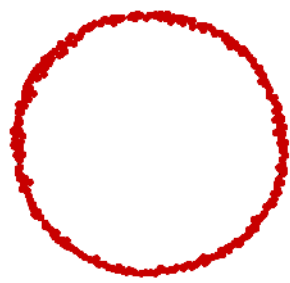
80° , W: 70.82" , H: 67.32"



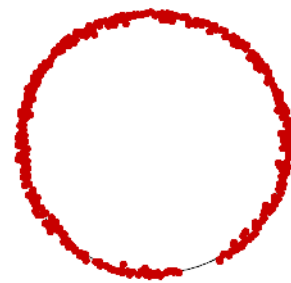
90° , W: 71.19" , H: 67.83"



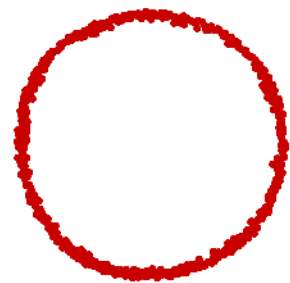
100° , W: 70.53" , H: 68.50"



110° , W: 70.51" , H: 68.16"



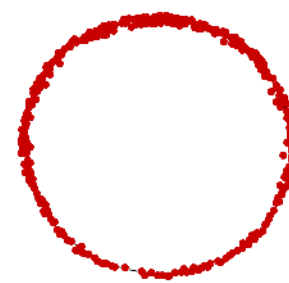
120° , W: 70.45" , H: 68.46"



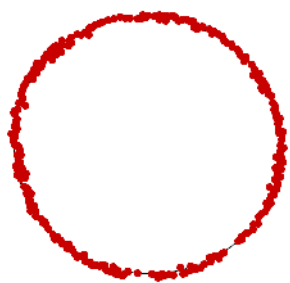
130° , W: 69.73" , H: 68.63"



140° , W: 70.19" , H: 67.19"



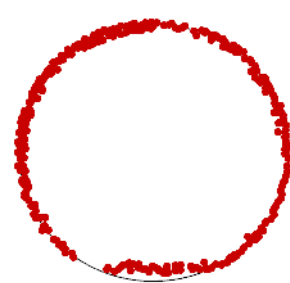
150° , W: 70.71" , H: 67.38"



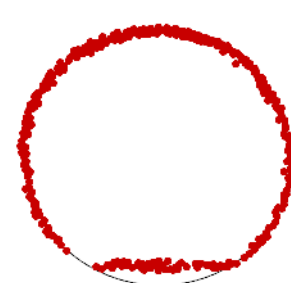
160° , W: 70.45" , H: 67.79"



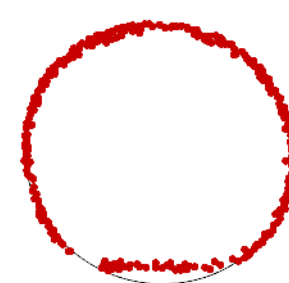
170° , W: 70.70" , H: 67.30"



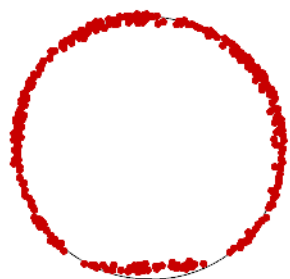
180° , W: 70.73" , H: 67.84"



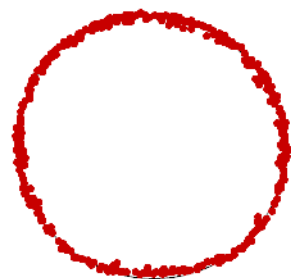
190° , W: 70.58" , H: 67.31"



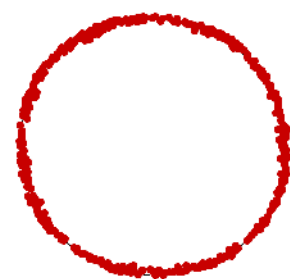
200° , W: 70.72" , H: 68.12"



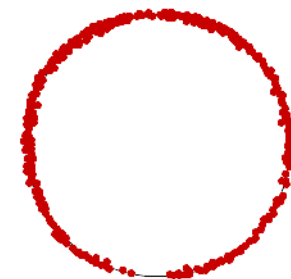
210' , W: 70.28" , H: 69.44"



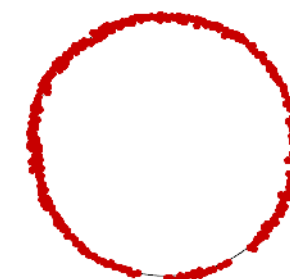
220' , W: 70.48" , H: 69.39"



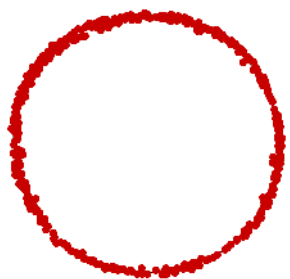
230' , W: 70.31" , H: 67.94"



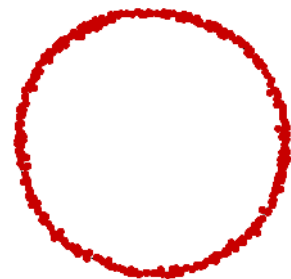
240' , W: 69.75" , H: 69.39"



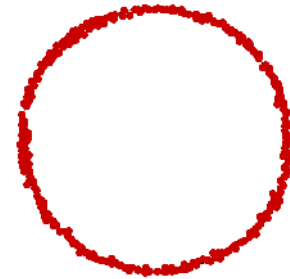
250' , W: 69.61" , H: 68.58"



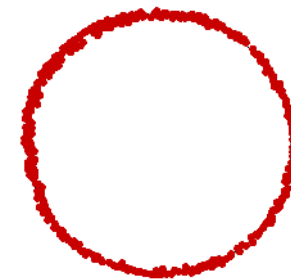
260' , W: 70.22" , H: 68.08"



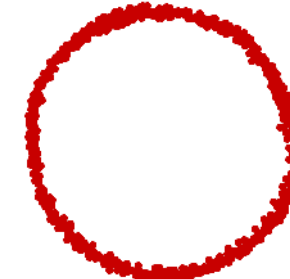
270' , W: 70.67" , H: 68.75"



280' , W: 70.42" , H: 69.32"



290' , W: 70.25" , H: 68.72"



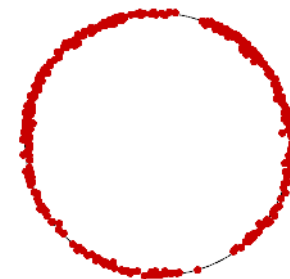
300' , W: 69.67" , H: 68.95"



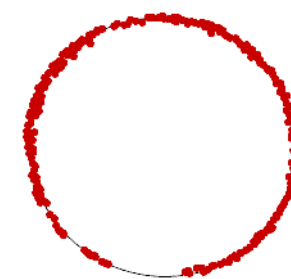
310' , W: 71.03" , H: 68.44"



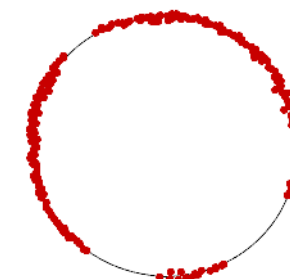
320' , W: 70.58" , H: 68.19"



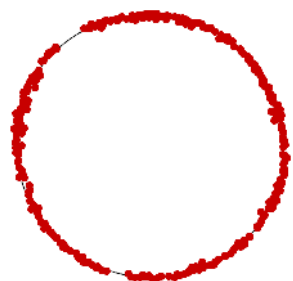
330' , W: 70.18" , H: 69.17"



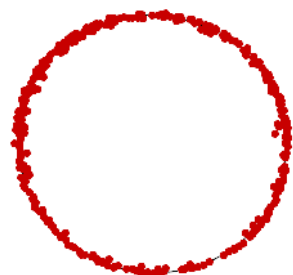
340' , W: 70.32" , H: 68.22"



350' , W: 70.22" , H: 68.56"



360° , W: 70.39° , H: 69.17°



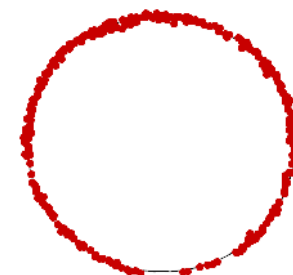
370° , W: 70.58° , H: 67.85°



380° , W: 70.59° , H: 67.93°



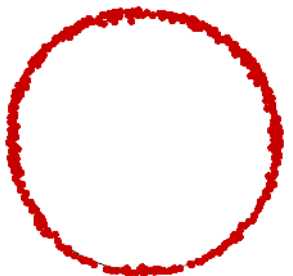
390° , W: 70.53° , H: 67.57°



400° , W: 70.50° , H: 67.25°



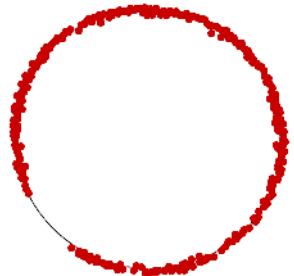
410° , W: 70.81° , H: 67.37°



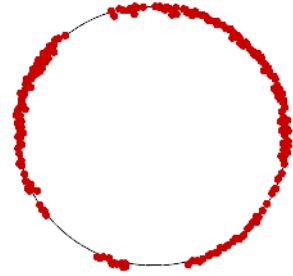
420° , W: 70.31° , H: 68.45°



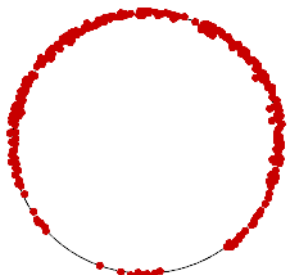
430° , W: 70.52° , H: 68.24°



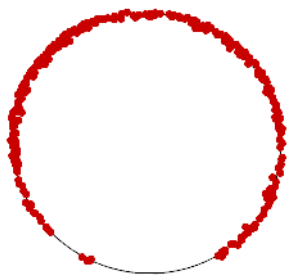
440° , W: 70.62° , H: 68.47°



450° , W: 70.81° , H: 68.38°



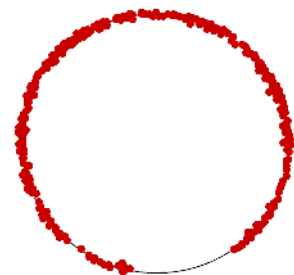
460° , W: 70.56° , H: 68.74°



470° , W: 70.80° , H: 68.69°



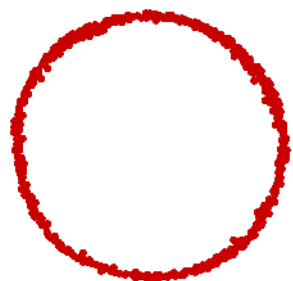
480° , W: 70.47° , H: 67.95°



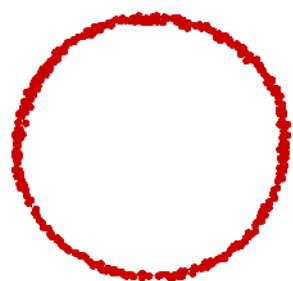
490° , W: 70.42° , H: 68.25°



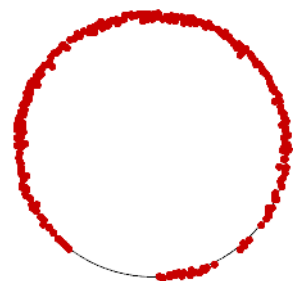
500° , W: 70.76° , H: 68.22°



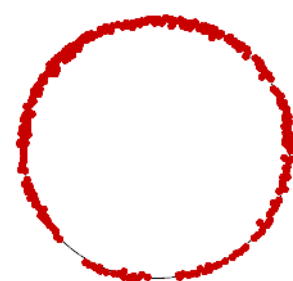
510' , W: 70.42" , H: 69.00"



520' , W: 70.84" , H: 67.99"



530' , W: 71.04" , H: 69.04"



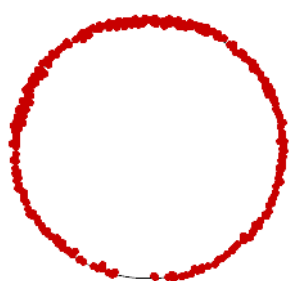
540' , W: 70.48" , H: 68.25"



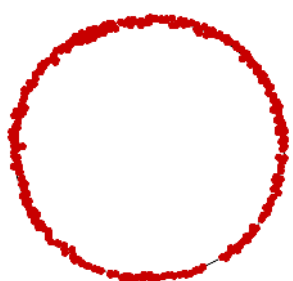
550' , W: 70.79" , H: 68.45"



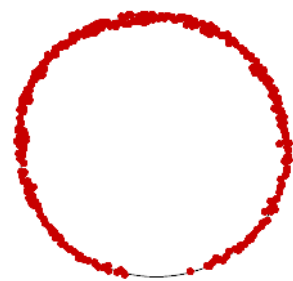
560' , W: 70.49" , H: 68.38"



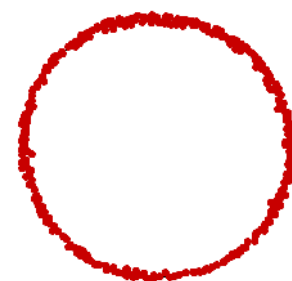
570' , W: 70.77" , H: 68.23"



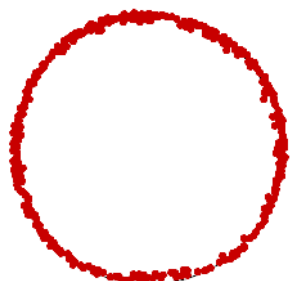
580' , W: 71.22" , H: 67.96"



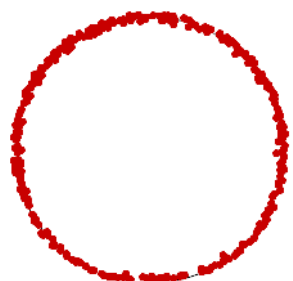
590' , W: 70.71" , H: 68.60"



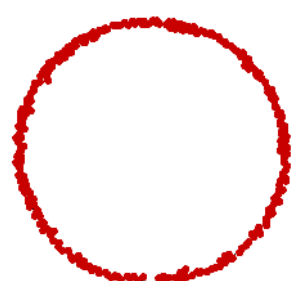
600' , W: 70.46" , H: 68.28"



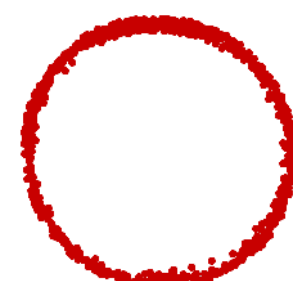
610' , W: 70.34" , H: 70.68"



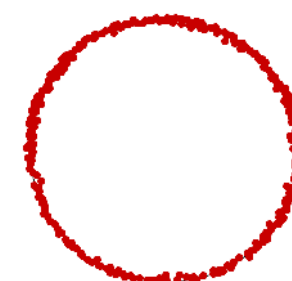
620' , W: 70.62" , H: 70.06"



630' , W: 70.35" , H: 68.38"



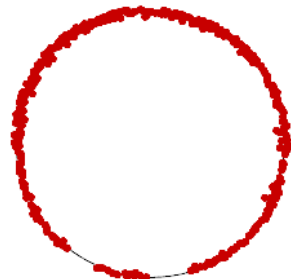
640' , W: 69.54" , H: 68.30"



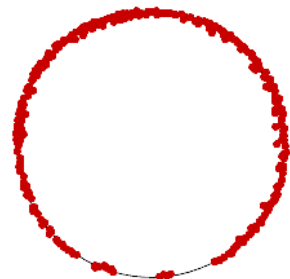
650' , W: 70.59" , H: 69.18"



660' , W: 70.60" , H: 68.72"



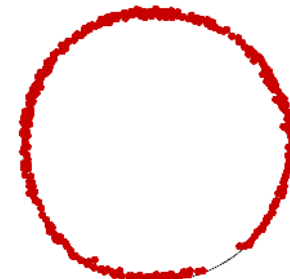
670' , W: 70.50" , H: 69.71"



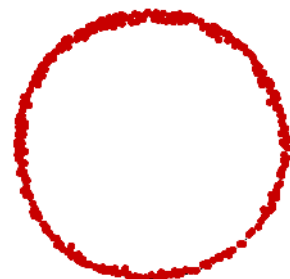
680' , W: 70.39" , H: 69.48"



690' , W: 69.87" , H: 69.23"



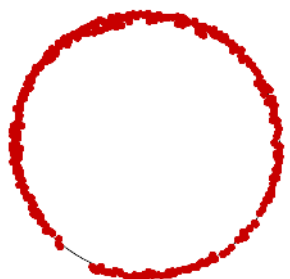
700' , W: 69.86" , H: 70.62"



710' , W: 70.36" , H: 69.72"



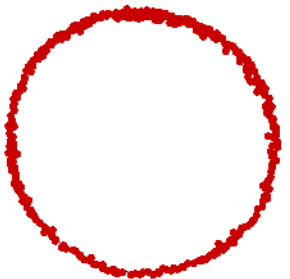
720' , W: 70.12" , H: 69.17"



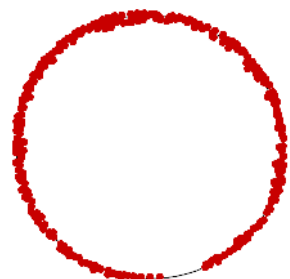
730' , W: 70.06" , H: 68.41"



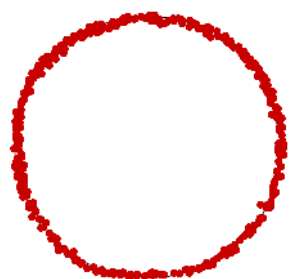
740' , W: 70.30" , H: 69.91"



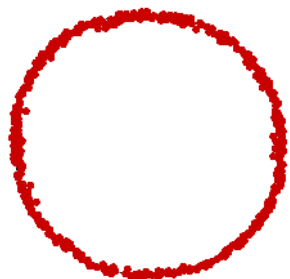
750' , W: 70.05" , H: 68.64"



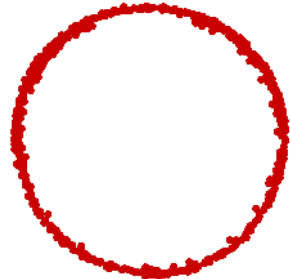
760' , W: 70.16" , H: 69.22"



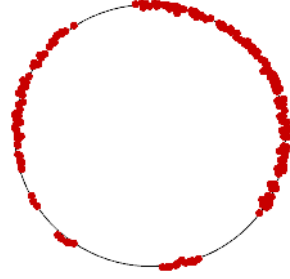
770' , W: 70.26" , H: 68.71"



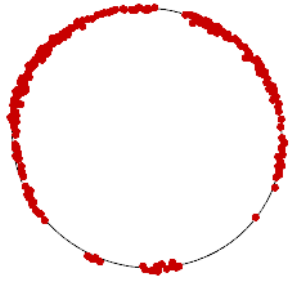
780' , W: 70.81" , H: 69.00"



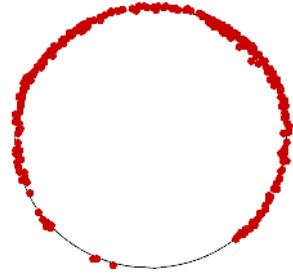
790' , W: 70.24" , H: 69.73"



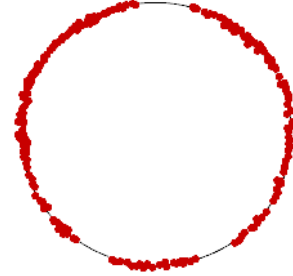
800' , W: 71.38" , H: 68.84"



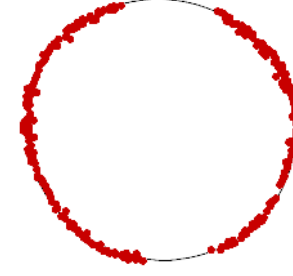
810' , W: 71.00" , H: 68.38"



820' , W: 71.33" , H: 68.34"



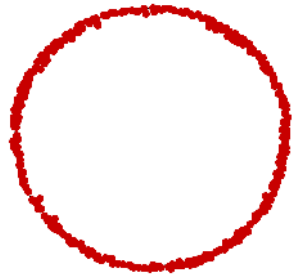
830' , W: 71.36" , H: 69.02"



840' , W: 70.88" , H: 68.58"



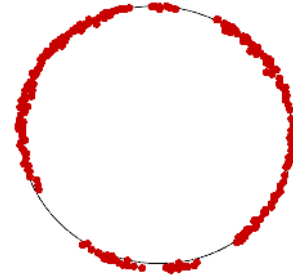
850' , W: 71.00" , H: 68.54"



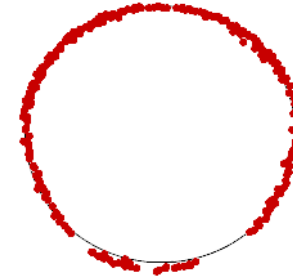
860' , W: 71.38" , H: 67.67"



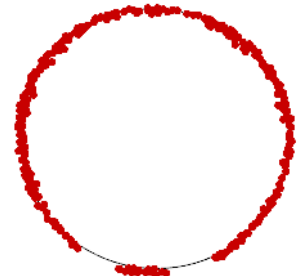
870' , W: 71.76" , H: 67.88"



890' , W: 71.72" , H: 67.70"



890' , W: 71.25" , H: 67.50"



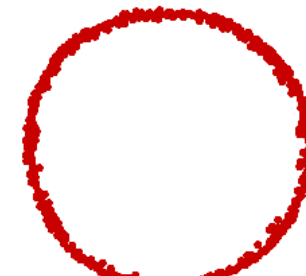
900' , W: 70.78" , H: 68.33"



910' , W: 70.81" , H: 68.90"



920' , W: 70.98" , H: 69.82"



930' , W: 70.55" , H: 68.69"

DATE: 10/4/2024
PIPE SEG REF. MH 6 - MH 5
UP MH: MH 6
DOWN MH: MH 5

INSPECTION HEADER

SUMMARY

Inspection Date 10/4/2024 12:00 AM	Pipe Segment Reference MH 6 - MH 5	Surveyed By SHAWN DUNNELL	Certificate Number U-915-70001437
Project 2420053PW	Street HOLLAND RD	Upstream MH MH 6	Downstream MH MH 5
Direction Upstream	Pre-Cleaning No Pre-Cleaning	Total Length (ft)	Length Surveyed (ft) 930

ASSET

Height (mm) 72	Shape Circular	Material BR	Pipe Use Combined Pipe
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PROJECT

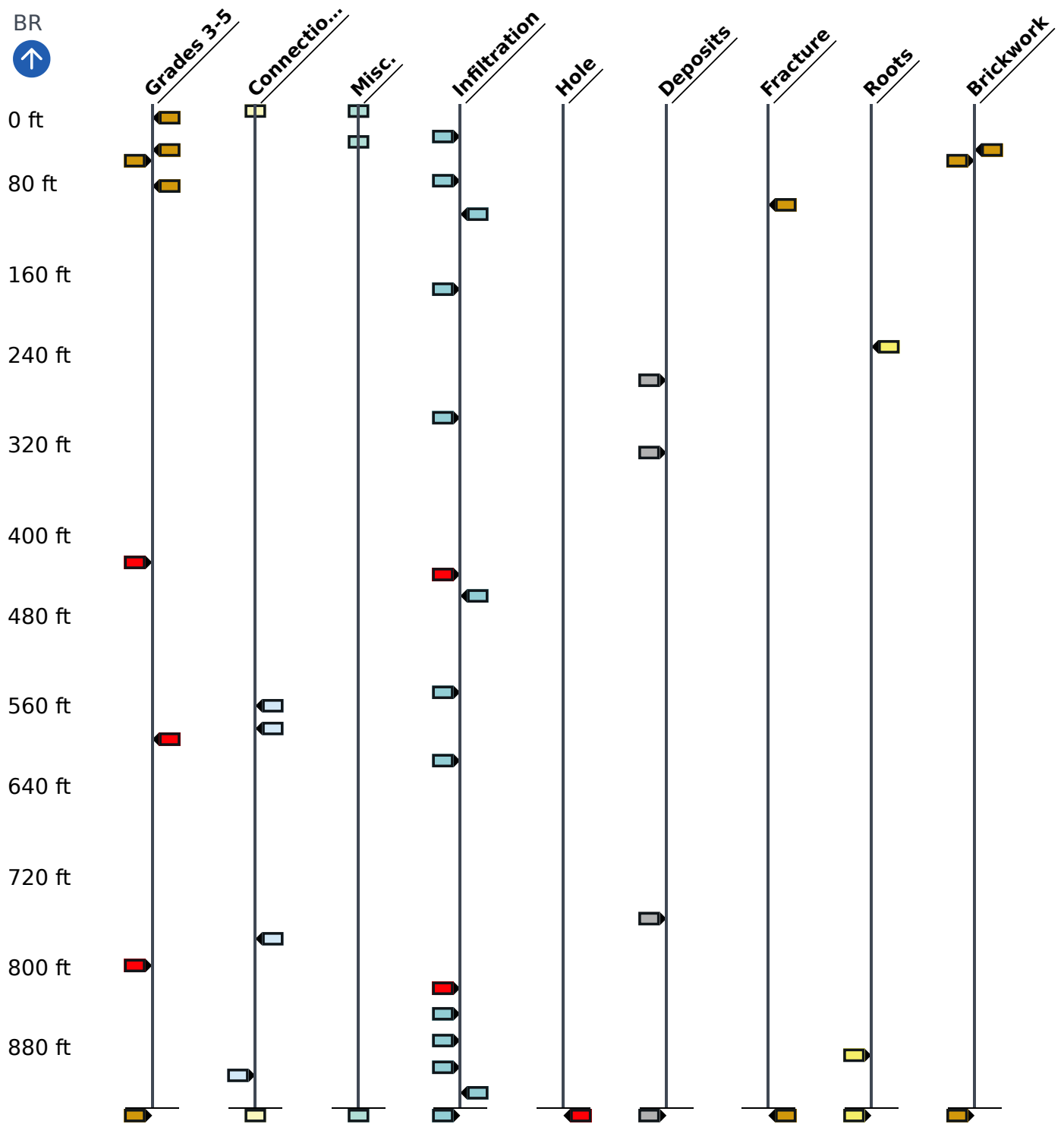
Owner CITY OF MARION	Customer CT CONSULTANTS
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INSPECTION

Inspection Time 12:00 AM	City MARION	Inspection Status CI	In Feet (Imperial) Yes
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DATE: 10/4/2024
 PIPE SEG REF. MH 6 - MH 5
 UP MH: MH 6
 DOWN MH: MH 5
















SMART DIAGRAM



DATE: 10/4/2024
PIPE SEG REF. MH 6 - MH 5
UP MH: MH 6
DOWN MH: MH 5

OBSERVATIONS

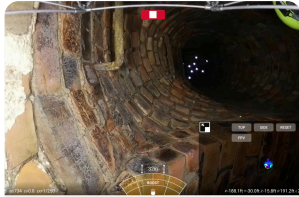
Dist	Time	Description	Code	Clock	Dim. 1	Dim. 2	%	Remarks	Cont.	Grade
0	0:00	Manhole	AM	-	-	-	-	MH 5	-	-
0	0:21	Miscellaneous Water Level	MLW	-	-	-	5	-	-	-
0	0:32	Miscellaneous General Observatio...	MOG	-	-	-	-	191.3 FT OFFSET	-	-
6.4	1:08	Fracture Longitudinal	FL		-	-	-	-	S01	3
22.7	1:40	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2
27.9	1:50	Miscellaneous General Observatio...	MOG	-	-	-	-	DAE LESS THAN 5% CONTINUOUS	-	-
35	2:14	Missing Mortar Medium	MM		-	-	-	-	-	3
45.8	2:41	Missing Mortar Medium	MM		-	-	-	-	S02	3
61.8	3:03	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2
67.7	3:15	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2
68.7	3:23	Fracture Longitudinal	FL		-	-	-	-	F01	3
91.4	3:59	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2
96.7	4:07	Roots Fine Joint	RFJ		-	-	-	-	-	1
158.8	5:15	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2

Dist	Time	Description	Code	Clock	Dim. 1	Dim. 2	%	Remarks	Cont.	Grade
241.6	6:49	Deposits Attached Encrustation	DAE		-	-	5	-	S03	(2)
272.4	7:37	Infiltration Weeper Barrel	IWB		-	-	-	-	-	(2)
305.5	8:20	Deposits Attached Encrustation	DAE		-	-	5	-	F03	(2)
386.9	9:52	Roots Fine Barrel	RFB		-	-	-	VARYING POSITION	S04	(2)
411.3	10:24	Infiltration Runner	IR		-	-	-	-	-	(4)
411.3	10:26	Roots Fine Barrel	RFB		-	-	-	VARYING POSITION	F04	(2)
430.6	10:52	Infiltration Weeper Barrel	IWB		-	-	-	-	-	(2)
516.6	12:20	Infiltration Weeper Barrel	IWB		-	-	-	-	-	(2)
550.1	12:56	Tap Break-in/Hammer	TB		6	-	-	-	-	-
572	13:21	Hole Void Visible	HVV		-	-	-	AROUND CONNECTION	-	(5)
572	13:21	Tap Break-in Activity	TBA		4	-	-	-	-	-
576.4	13:38	Infiltration Weeper Barrel	IWB		-	-	-	-	-	(2)
723	15:41	Deposits Attached Encrustation	DAE		-	-	5	VARYING POSITION	S05	(2)
766.9	16:20	Tap Break-in/Hammer	TB		6	-	-	-	-	-
778.6	16:34	Infiltration Runner	IR		-	-	-	-	-	(4)

Dist	Time	Description	Code	Clock	Dim. 1	Dim. 2	%	Remarks	Cont.	Grade
801.5	16:55	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2
825.3	17:27	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2
849.8	18:05	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2
872.2	18:36	Infiltration Weeper Barrel	IWB		-	-	-	-	-	2
874.8	18:41	Infiltration Weeper Barrel	IWB		-	-	-	VARYING POSITION	S06	2
892	19:27	Infiltration Weeper Barrel	IWB		-	-	-	VARYING POSITION	F06	2
893.3	19:22	Tap Break-in/Hammer	TB		8	-	-	-	-	-
899.9	19:37	Deposits Attached Encrustation	DAE		-	-	5	VARYING POSITION	F05	2
899.9	19:40	Miscellaneous General Observati...	MOG	-	-	-	-	LOSS OF LIDAR; WILL RE-DO LIDAR FO...	-	-
915	20:13	Missing Mortar Medium	MMM		-	-	-	-	F02	3
930	20:32	Manhole	AM	-	-	-	-	MH 6	-	-

OBSERVATION SNAPSHOTS

DATE: 10/4/2024
PIPE SEG REF. MH 6 - MH 5
UP MH: MH 6
DOWN MH: MH 5



AMH

0 ft



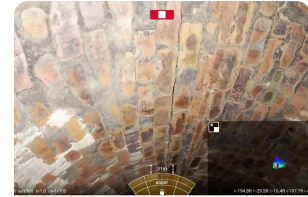
MWL

0 ft



MGO

0 ft

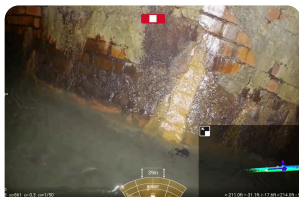


FL

3

6.4 ft

12:00

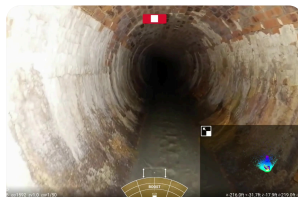


IWB

2

22.7 ft

4:00



MGO

27.9 ft

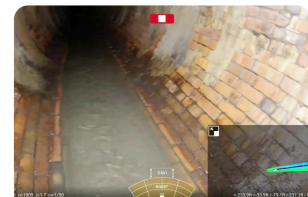


MMM

3

35 ft

9 - 11:00



MMM

3

45.8 ft

5 - 7:00



IWB

2

61.8 ft

4:00

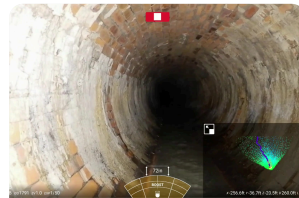


IWB

2

67.7 ft

4 - 5:00

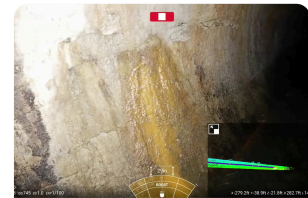


FL

3

68.7 ft

12:00

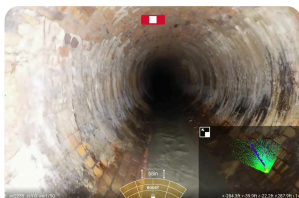


IWB

2

91.4 ft

7 - 8:00

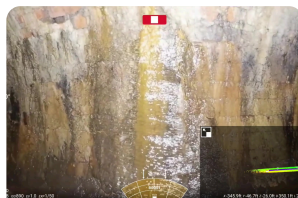


RFJ

1

96.7 ft

7 - 5:00

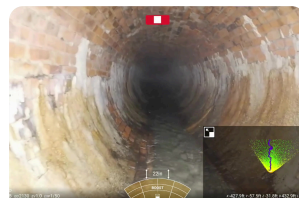


IWB

2

158.8 ft

4 - 5:00

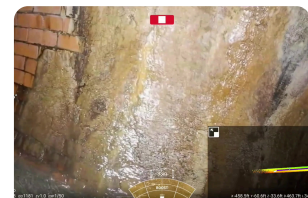


DAE

2

241.6 ft

2 - 10:00




IWB


2

272.4 ft


4 - 5:00




DAE (2)
 305.5 ft 2 - 10:00




RFB (2)
 386.9 ft 2 - 10:00




IR (4)
 411.3 ft 4:00




RFB (2)
 411.3 ft 2 - 10:00




IWB (2)
 430.6 ft 7:00




IWB (2)
 516.6 ft 4 - 5:00



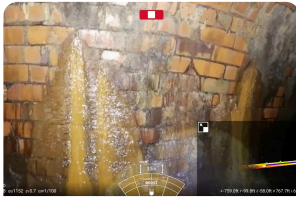
TB
 550.1 ft 11:00




HVV (5)
 572 ft 7:00




TBA
 572 ft 7:00



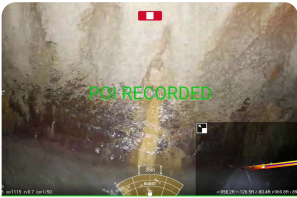
IWB (2)
 576.4 ft 4 - 5:00




DAE (2)
 723 ft 4 - 8:00




TB
 766.9 ft 10:00



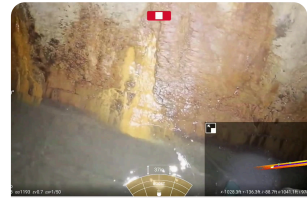
IR (4)
 778.6 ft 4:00



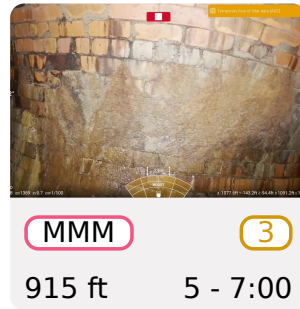
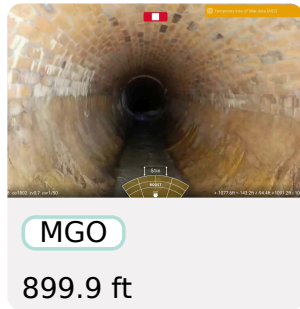
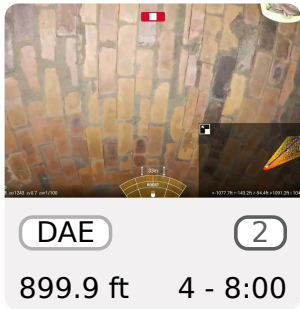
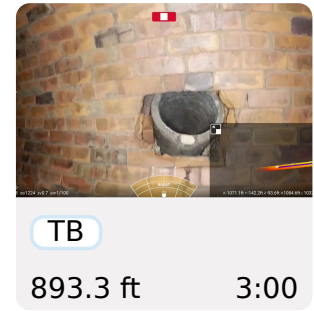
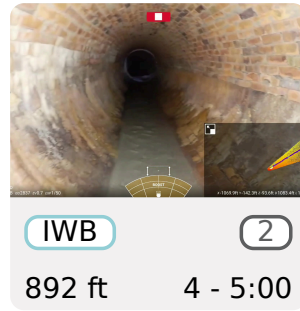
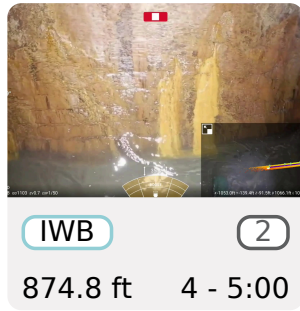
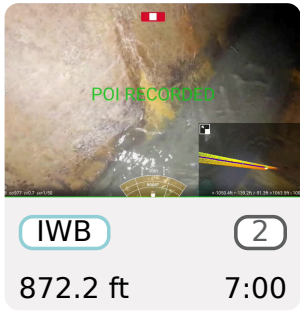
IWB (2)
 801.5 ft 4:00



IWB (2)
 825.3 ft 4:00



IWB (2)
 849.8 ft 5:00



DATE: 10/4/2024
PIPE SEG REF: MH 6 - MH 5
UP MH: MH 6
DOWN MH: MH 5

RATINGS

PIPE RATING INDEX	Overall	Structural	O&M
	2.7	3	2

Sum of all graded conditions divided by the total number of conditions. 0-5 scale.

PIPE RATING	Overall	Structural	O&M
	713	566	147

Sum of all graded conditions.

QUICK RATING	Overall	Structural	O&M	Likelihood of Failure
	5 1 4 2	5 1 3 Z	4 2 2 L	

First digit is highest graded condition. Second digit is count of those conditions (A = 10-14, B = 15-19, etc.). Third digit is second-highest graded condition. Fourth digit is count of those conditions. LoF is Quick Rating divided by 10 (scale from 0-6).

FREQUENCY OF CONDITION GRADES	Grade	1	2	3	4	5
	#	1	21	5	2	1

Count of each condition grade in the inspection.