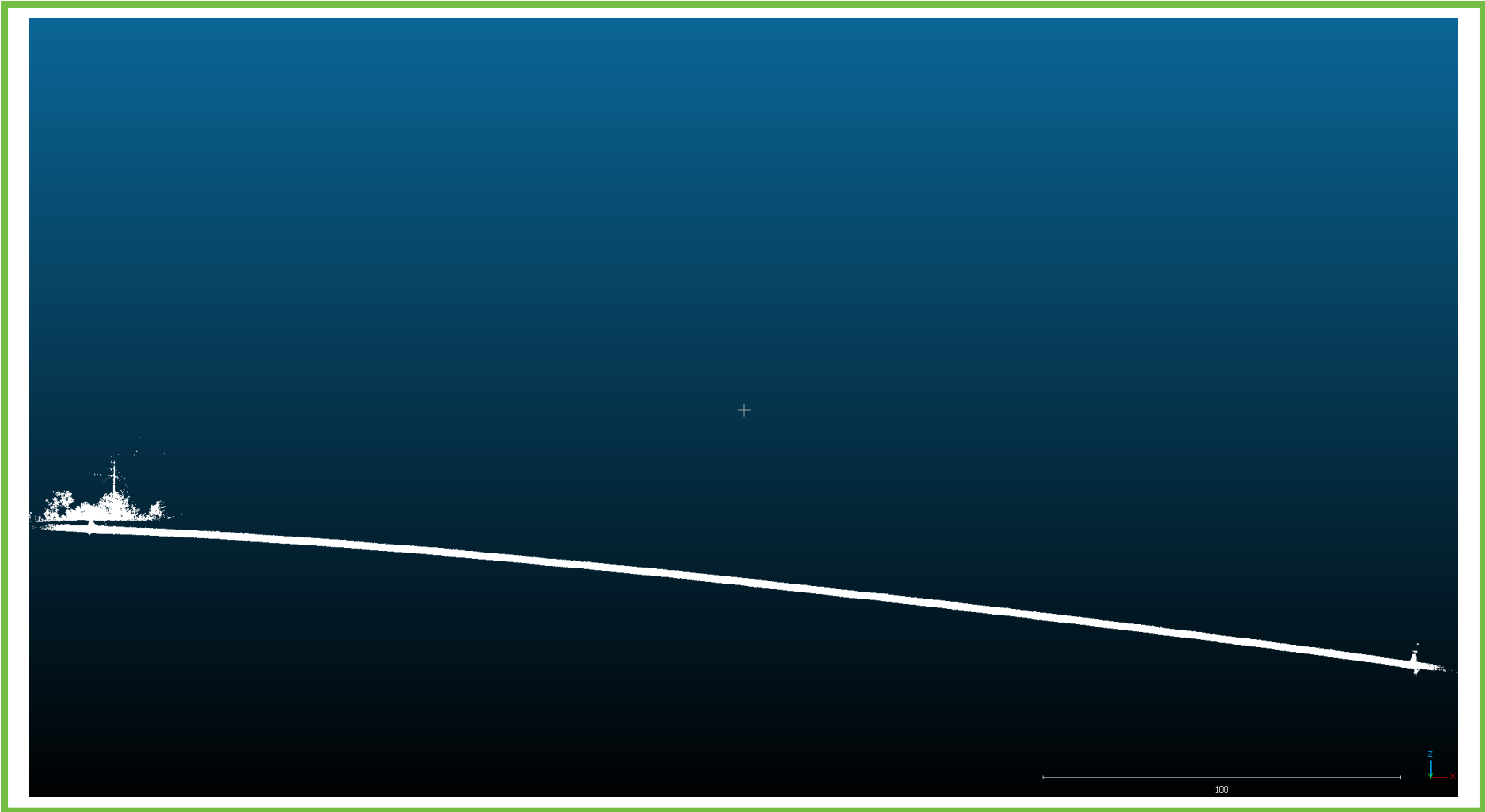
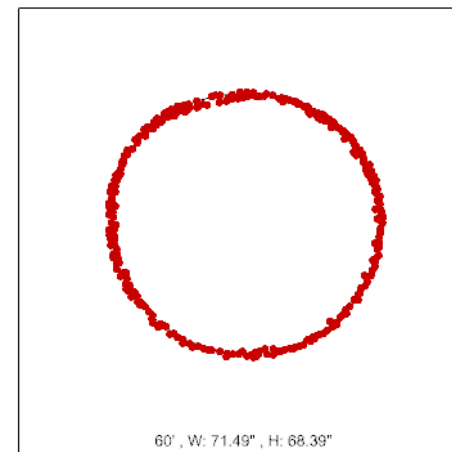
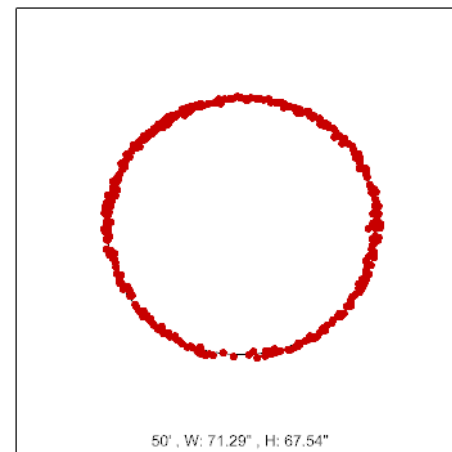
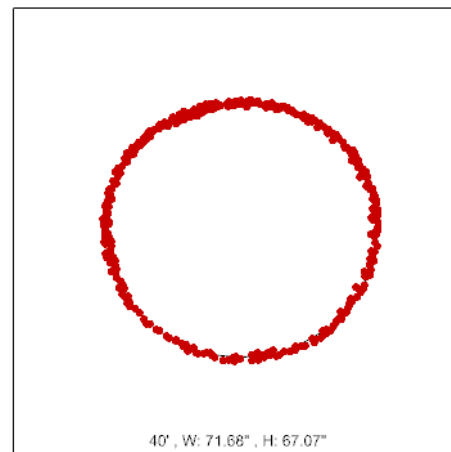
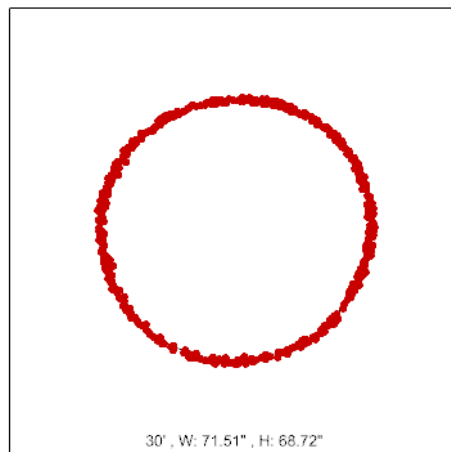
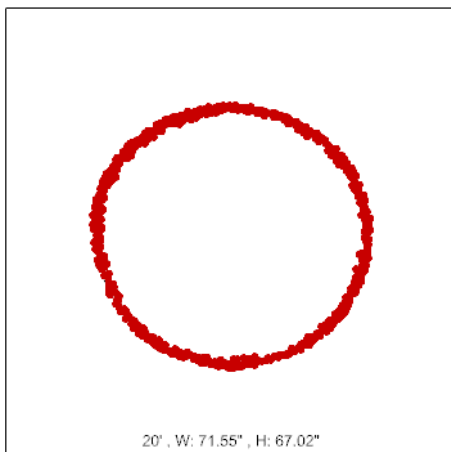
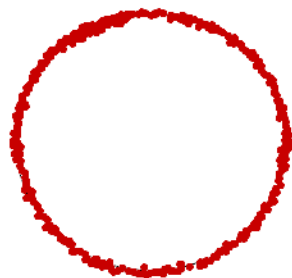




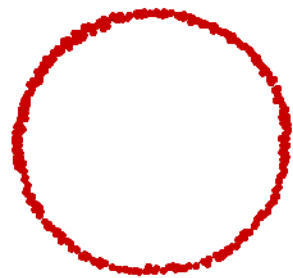
Inspection	Marion County, Ohio
US Manhole	4
DS Manhole	3
Inspected	October 3, 2024
Platform	Aerial Drone
Sensor	3D Lidar
Report Date	October 29, 2024



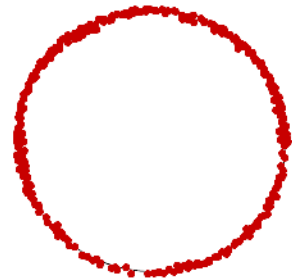




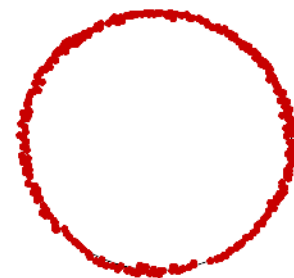
70' , W: 71.42" , H: 67.71"



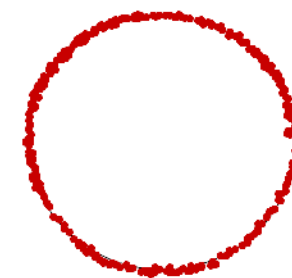
80' , W: 71.04" , H: 68.12"



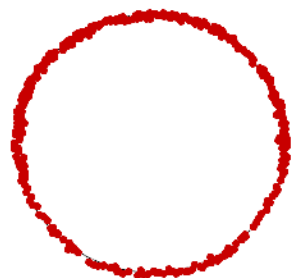
90' , W: 70.78" , H: 68.74"



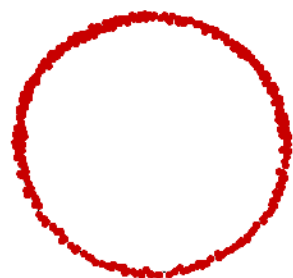
100' , W: 71.01" , H: 67.80"



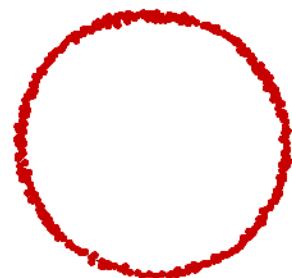
110' , W: 70.52" , H: 67.40"



120' , W: 70.94" , H: 68.23"



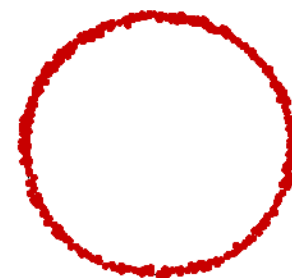
130' , W: 71.01" , H: 67.55"



140' , W: 70.64" , H: 68.56"



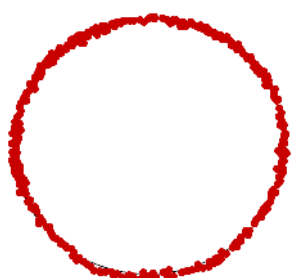
150' , W: 70.34" , H: 68.24"



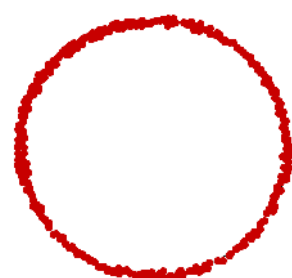
160' , W: 70.91" , H: 68.22"



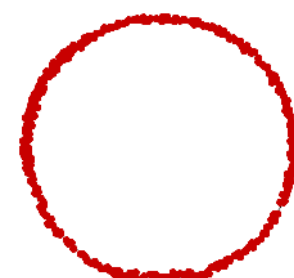
170' , W: 70.91" , H: 68.04"



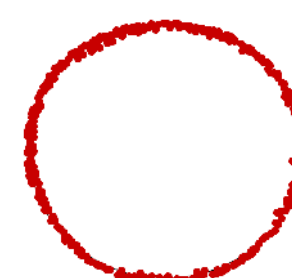
180' , W: 71.15" , H: 67.10"



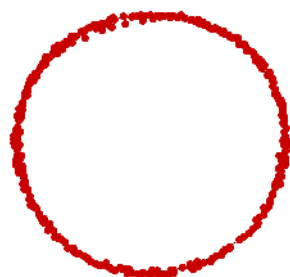
190' , W: 70.83" , H: 66.97"



200' , W: 70.64" , H: 68.63"



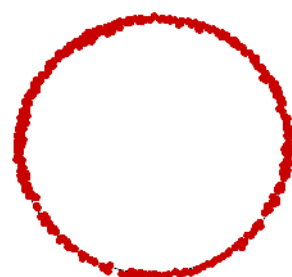
210' , W: 71.63" , H: 66.79"



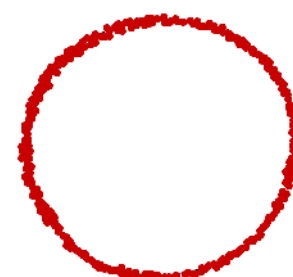
220' , W: 71.25" , H: 68.06"



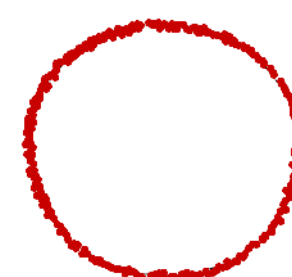
230' , W: 71.13" , H: 67.09"



240' , W: 71.15" , H: 67.14"



250' , W: 71.22" , H: 67.65"



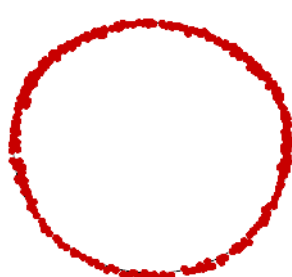
260' , W: 71.68" , H: 66.40"



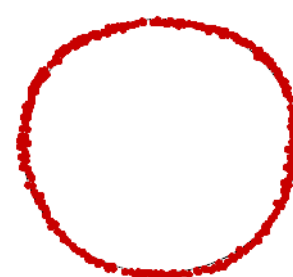
270' , W: 71.74" , H: 67.68"



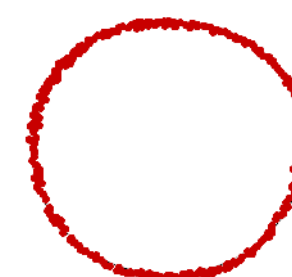
280' , W: 71.79" , H: 67.55"



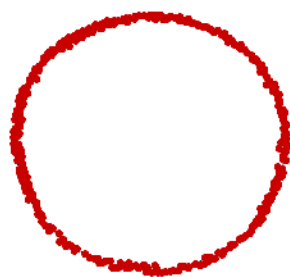
290' , W: 72.76" , H: 66.00"



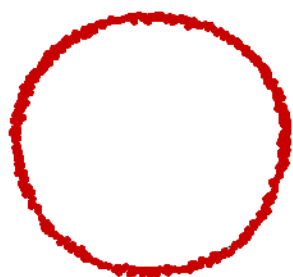
300' , W: 72.69" , H: 66.89"



310' , W: 72.16" , H: 66.99"



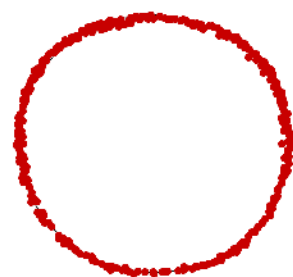
320' , W: 71.42" , H: 67.19"



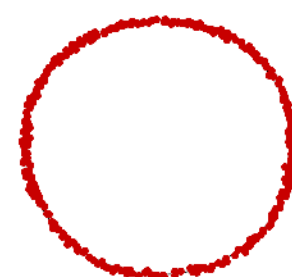
330' , W: 71.52" , H: 67.40"



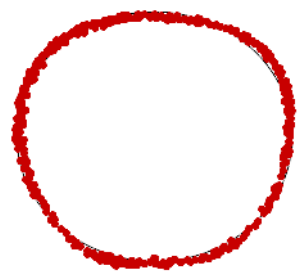
340' , W: 72.28" , H: 65.92"



350' , W: 71.86" , H: 67.93"



360' , W: 71.38" , H: 67.43"



370' , W: 72.77" , H: 65.78"



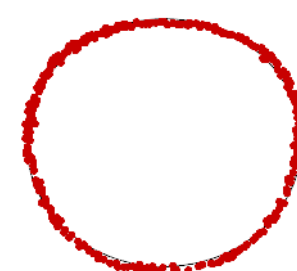
380' , W: 73.29" , H: 65.08"



390' , W: 72.22" , H: 65.91"



400' , W: 71.90" , H: 65.31"



410' , W: 72.55" , H: 65.28"



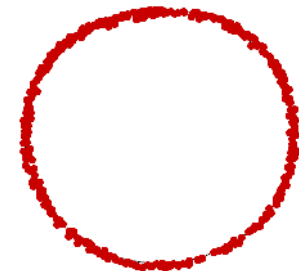
420' , W: 72.83" , H: 64.84"



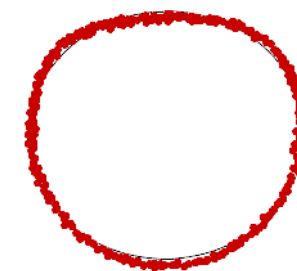
430' , W: 73.45" , H: 64.70"



440' , W: 72.63" , H: 65.80"



450' , W: 71.32" , H: 66.74"



460' , W: 72.73" , H: 65.13"



470' , W: 73.49" , H: 64.22"



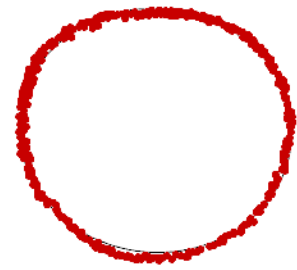
480' , W: 74.19" , H: 63.16"



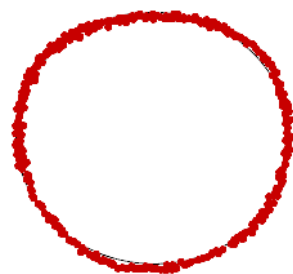
490' , W: 74.17" , H: 64.29"



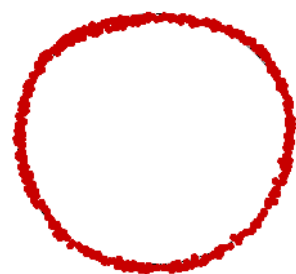
500' , W: 72.39" , H: 65.80"



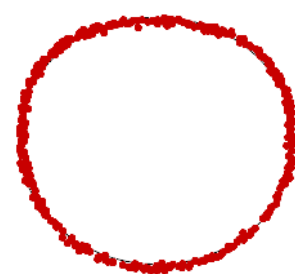
510' , W: 72.15" , H: 64.45"



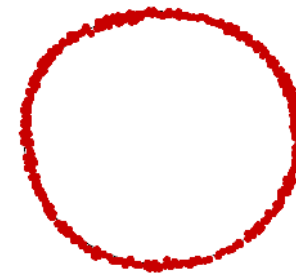
520' , W: 72.08" , H: 66.06"



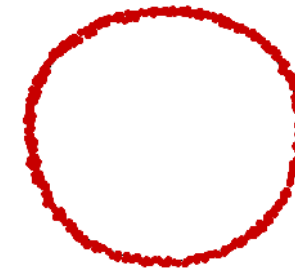
530' , W: 72.07" , H: 65.91"



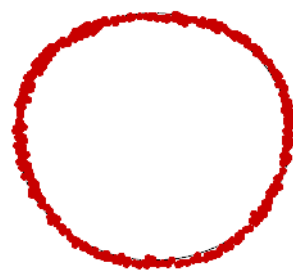
540' , W: 72.69" , H: 64.96"



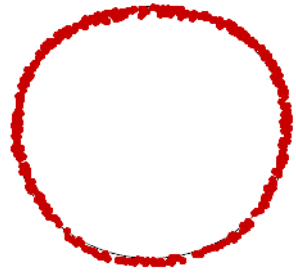
550' , W: 72.35" , H: 66.44"



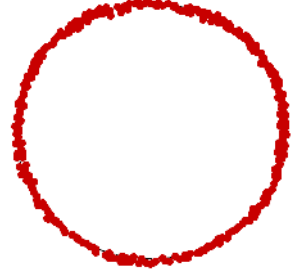
560' , W: 72.15" , H: 66.25"



570' , W: 72.10" , H: 65.14"



580' , W: 72.04" , H: 66.37"



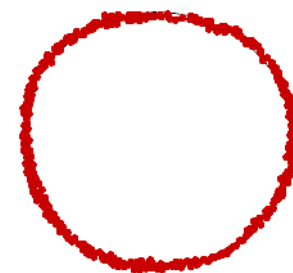
590' , W: 71.01" , H: 67.32"



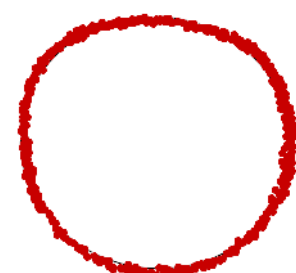
600' , W: 70.96" , H: 67.05"



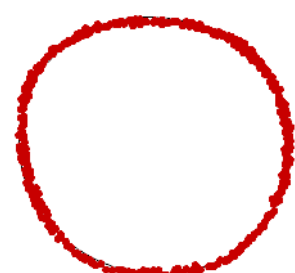
610' , W: 71.50" , H: 67.63"



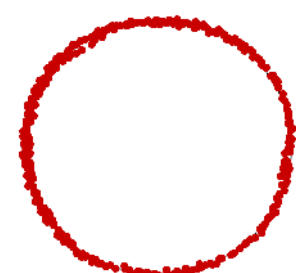
620' , W: 71.52" , H: 66.70"



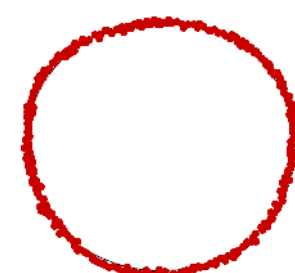
630' , W: 71.52" , H: 66.35"



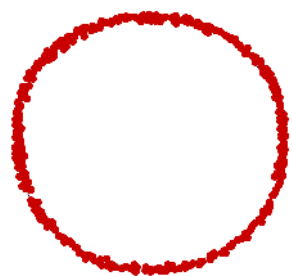
640' , W: 71.52" , H: 67.65"



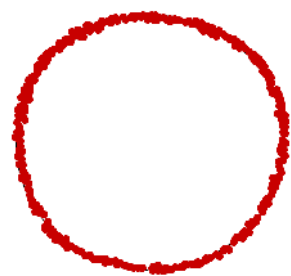
650' , W: 70.29" , H: 66.85"



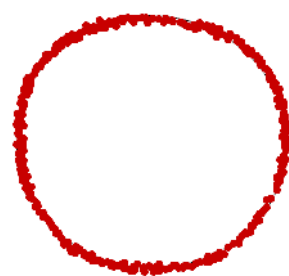
660' , W: 71.10" , H: 66.06"



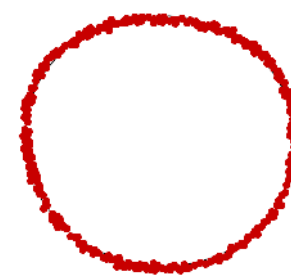
670' , W: 71.20" , H: 66.74"



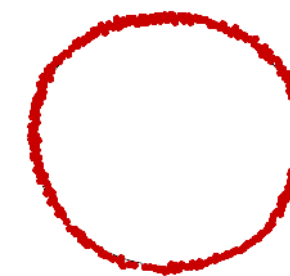
680' , W: 70.57" , H: 67.15"



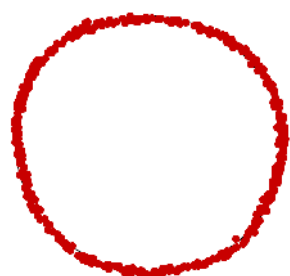
690' , W: 71.29" , H: 66.46"



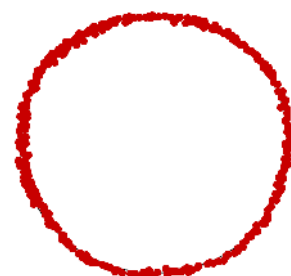
700' , W: 71.77" , H: 65.96"



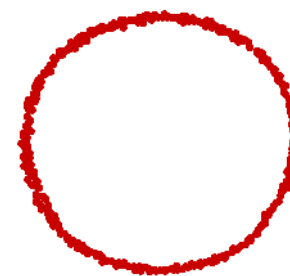
710' , W: 70.78" , H: 66.28"



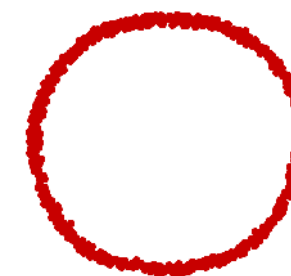
720' , W: 70.70" , H: 67.46"



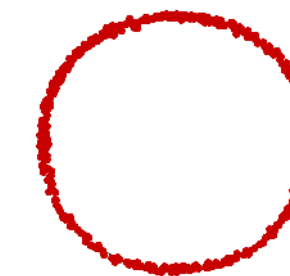
730' , W: 70.97" , H: 67.90"



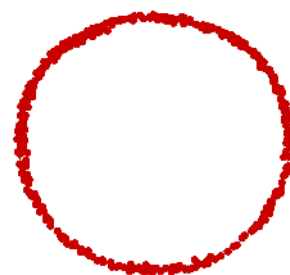
740' , W: 71.33" , H: 66.91"



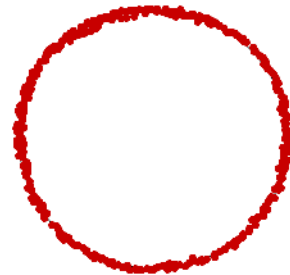
750' , W: 70.72" , H: 66.93"



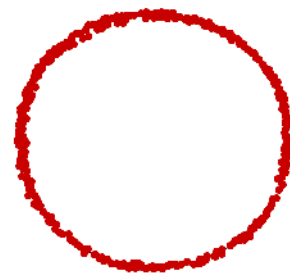
760' , W: 71.07" , H: 67.10"



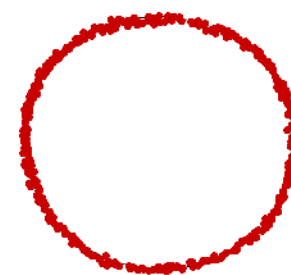
770' , W: 71.33" , H: 66.98"



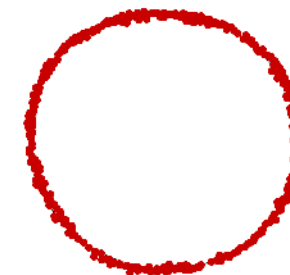
780' , W: 71.02" , H: 68.37"



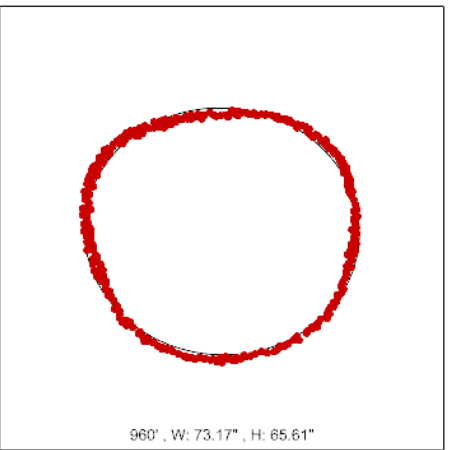
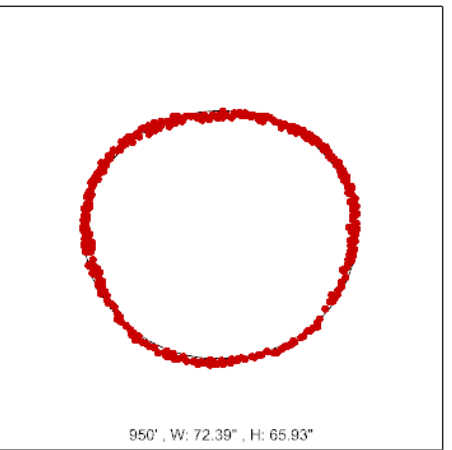
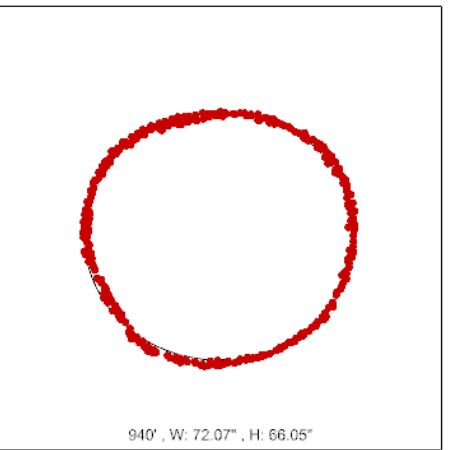
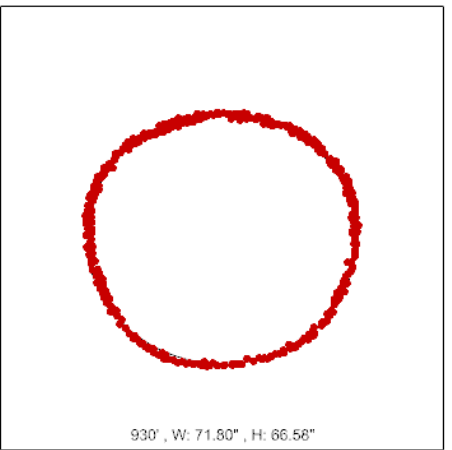
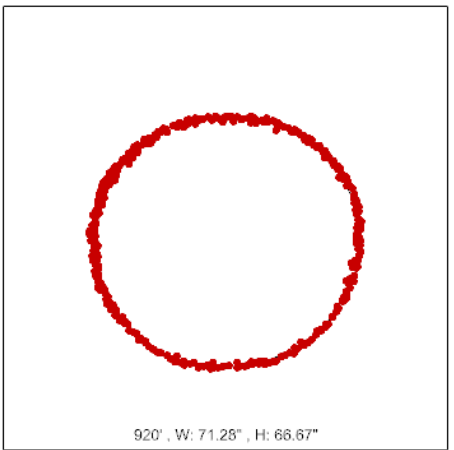
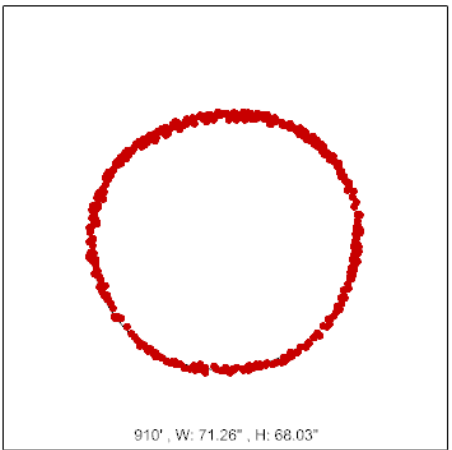
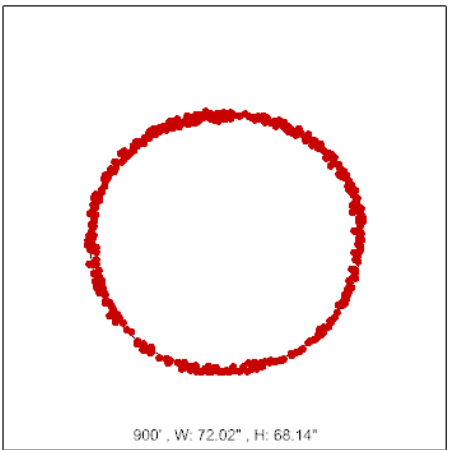
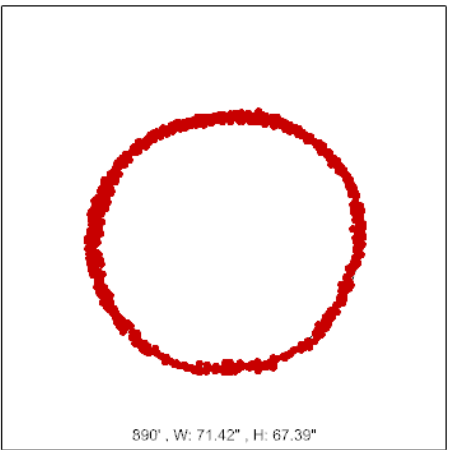
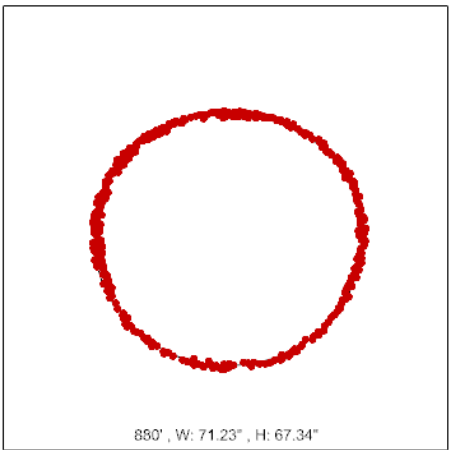
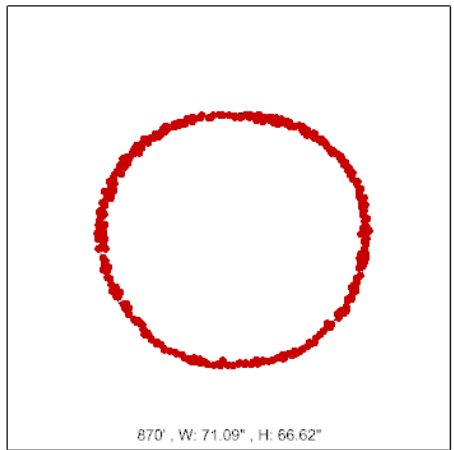
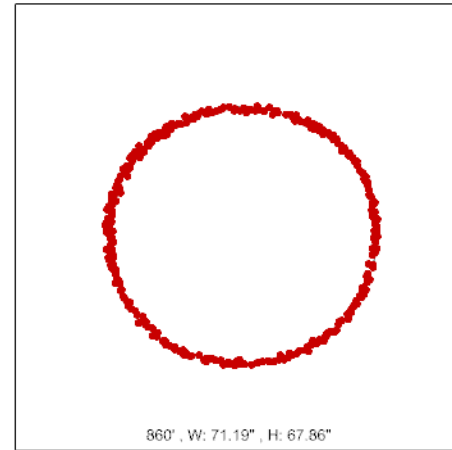
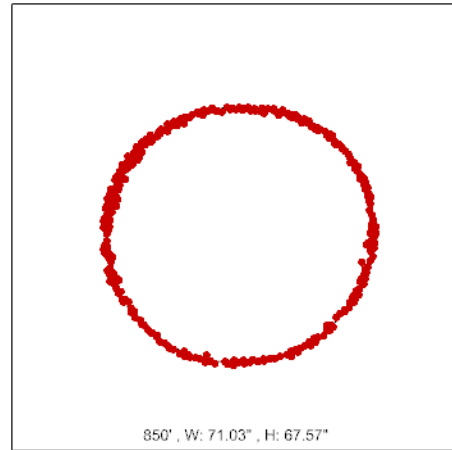
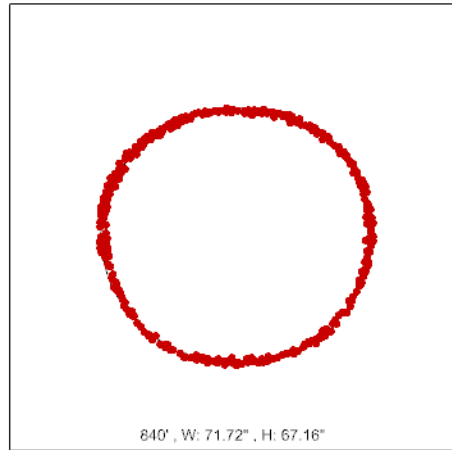
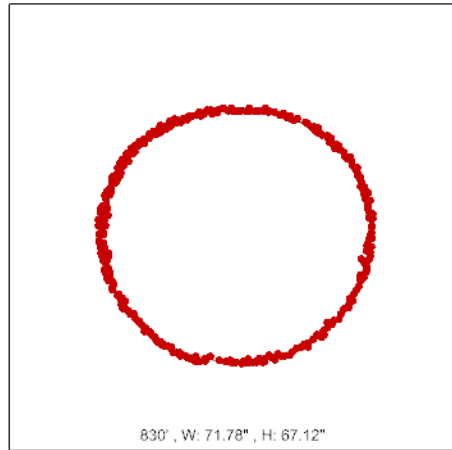
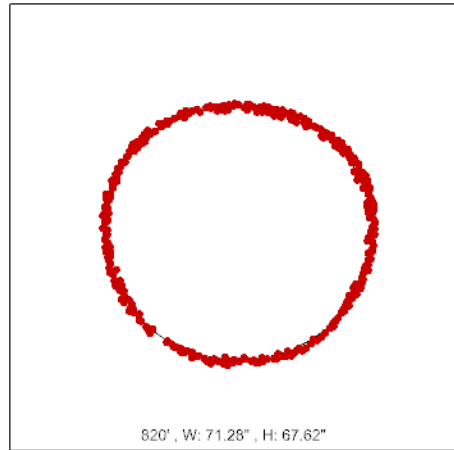
790' , W: 71.35" , H: 67.20"



800' , W: 71.60" , H: 66.62"

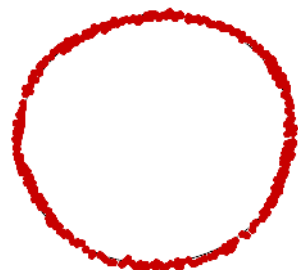


810' , W: 71.25" , H: 67.81"





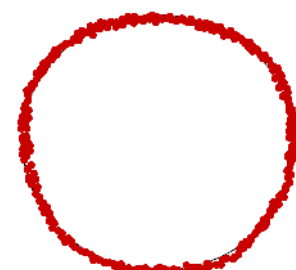
970' , W: 73.39" , H: 64.53"



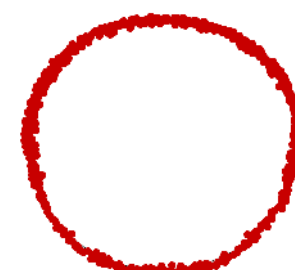
990' , W: 72.50" , H: 65.75"



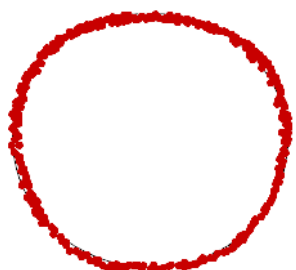
990' , W: 71.88" , H: 67.93"



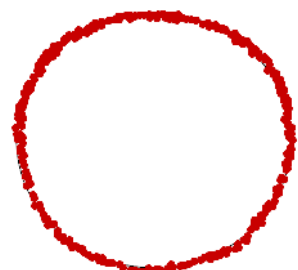
1000' , W: 72.14" , H: 67.26"



1010' , W: 71.20" , H: 66.57"



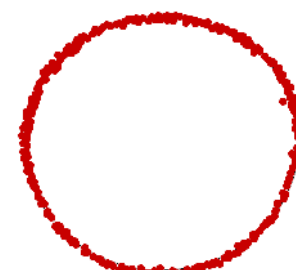
1020' , W: 72.42" , H: 66.51"



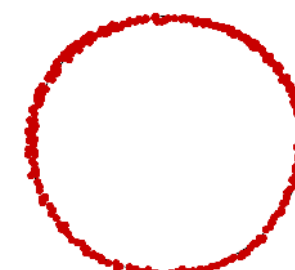
1030' , W: 72.26" , H: 67.04"



1040' , W: 71.57" , H: 67.91"



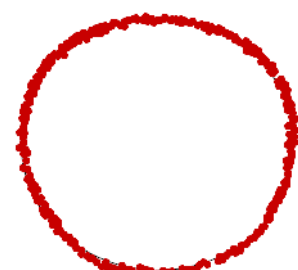
1050' , W: 72.02" , H: 66.88"



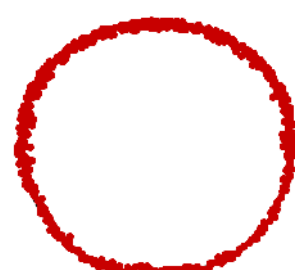
1060' , W: 71.60" , H: 67.39"



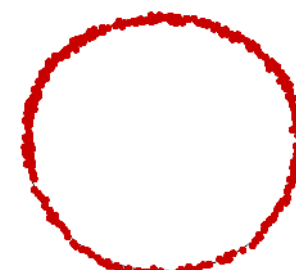
1070' , W: 71.10" , H: 67.45"



1080' , W: 72.05" , H: 66.73"



1090' , W: 71.57" , H: 66.37"



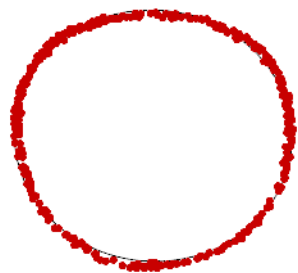
1100' , W: 72.20" , H: 67.24"



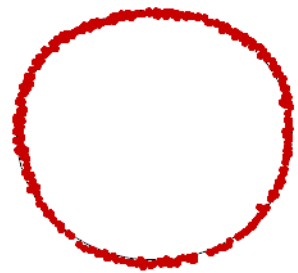
1110' , W: 72.31" , H: 66.22"



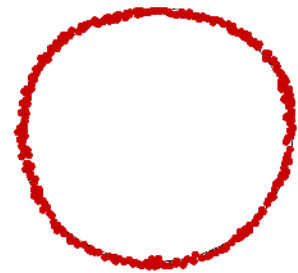
1120' , W: 72.97" , H: 66.32"



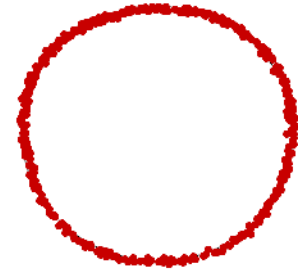
1130' , W: 73.48" , H: 66.31"



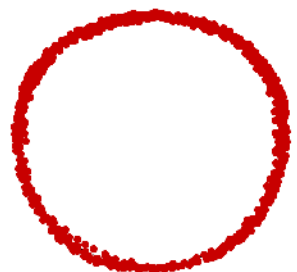
1140' , W: 72.85" , H: 66.01"



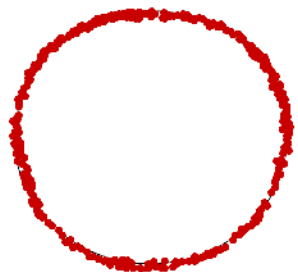
1150' , W: 72.09" , H: 66.80"



1160' , W: 71.98" , H: 67.18"



1170' , W: 70.96" , H: 66.54"



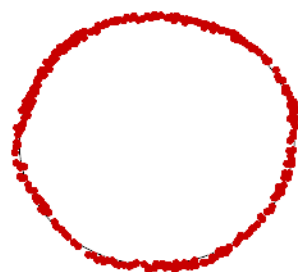
1180' , W: 72.08" , H: 66.78"



1190' , W: 72.27" , H: 66.82"



1200' , W: 71.95" , H: 66.23"



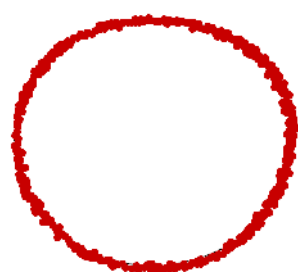
1210' , W: 72.86" , H: 65.92"



1220' , W: 73.40" , H: 64.82"



1230' , W: 74.69" , H: 64.74"



1240' , W: 73.26" , H: 65.35"

INSPECTION HEADER

DATE: 10/3/2024
PIPE SEG REF: MH 4 - MH 3
UP MH: MH 4
DOWN MH: MH 3

SUMMARY

Inspection Date 10/3/2024 12:00 AM	Pipe Segment Reference MH 4 - MH 3	Surveyed By SHAWN DUNNELL	Certificate Number U-915-70001437
Project 2420053PW	Street HOLLAND RD	Upstream MH MH 4	Downstream MH MH 3
Direction Downstream	Pre-Cleaning No Pre-Cleaning	Total Length (ft)	Length Surveyed (ft) 1211.9

ASSET

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

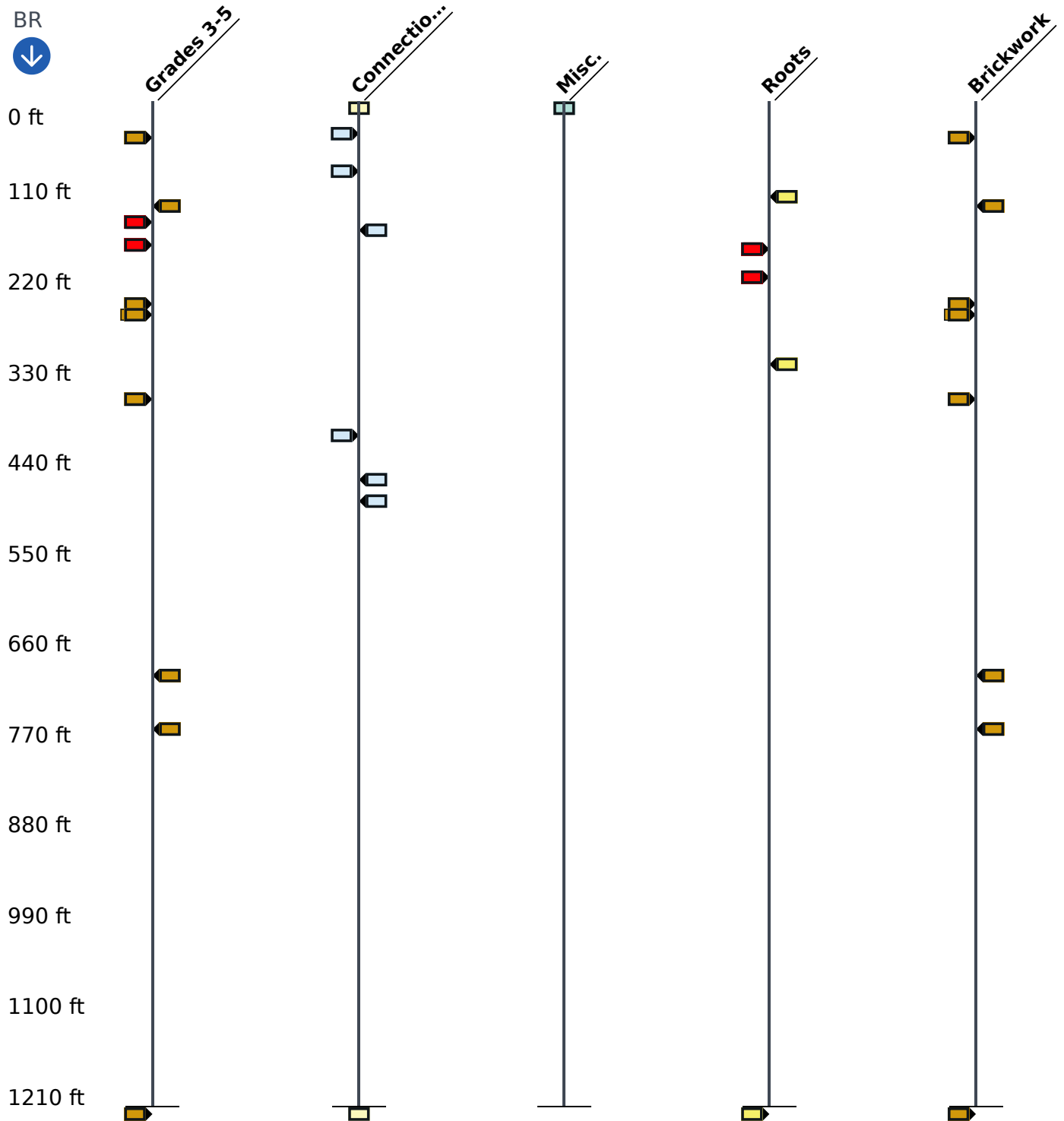
Owner CITY OF MARION	Customer CT CONSULTANTS
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INSPECTION

Inspection Time 12:00 AM	City MARION	Inspection Status CI	In Feet (Imperial) Yes
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DATE: 10/3/2024
 PIPE SEG REF. MH 4 - MH 3
 UP MH: MH 4
 DOWN MH: MH 3

SMART DIAGRAM















[View on Pioneer Web](#)

DATE: 10/3/2024
PIPE SEG REF. MH 4 - MH 3
UP MH: MH 4
DOWN MH: MH 3

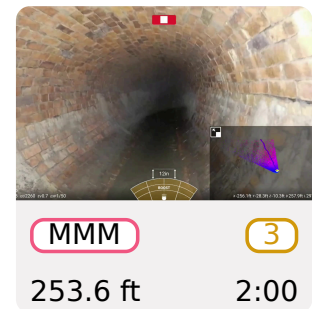
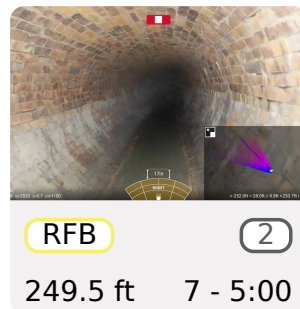
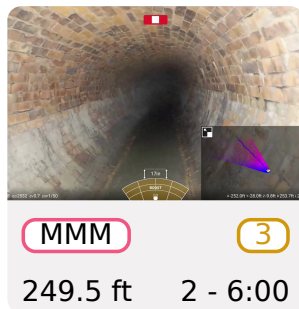
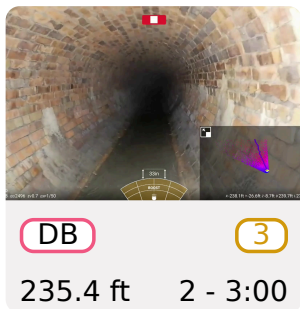
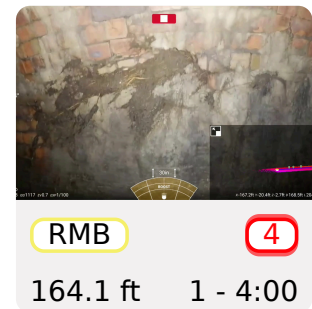
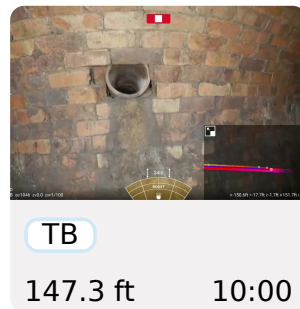
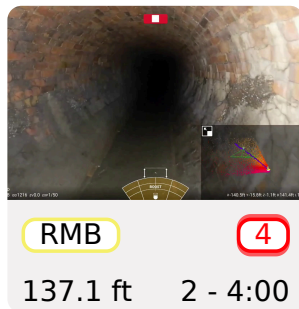
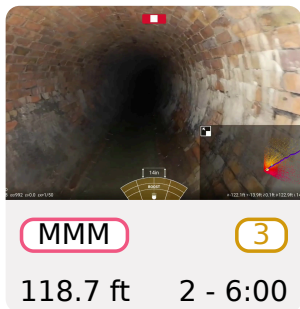
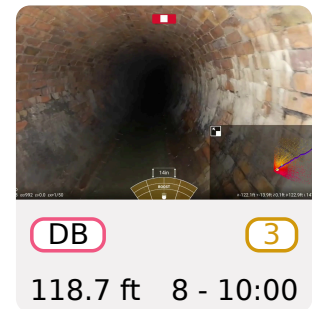
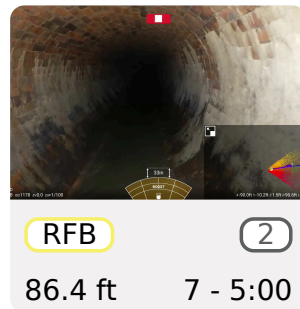
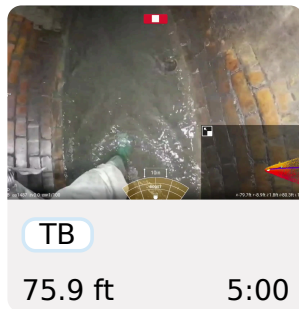
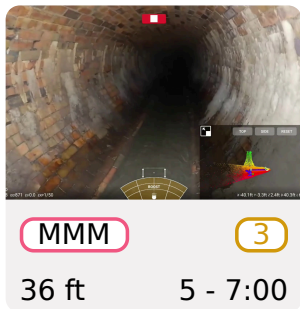
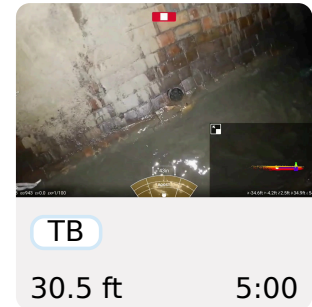
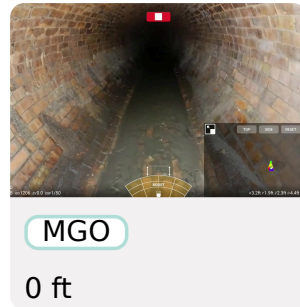
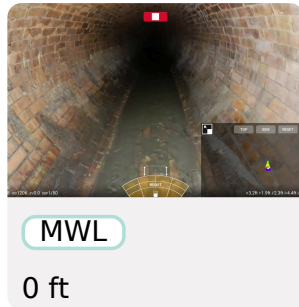
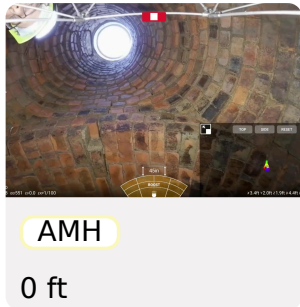
OBSERVATIONS

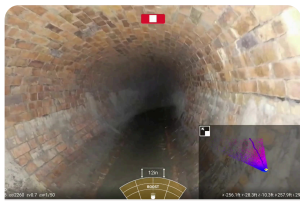
Dist	Time	Description	Code	Clock	Dim. 1	Dim. 2	%	Remarks	Cont.	Grade
0	0:07	Manhole	AMH	-	-	-	-	MH 4	-	-
0	0:09	Miscellaneous Water Level	MW	-	-	-	5	-	-	-
0	0:09	Miscellaneous General Observatio...	MOG	-	-	-	-	4.4 FT OFFSET	-	-
30.5	0:50	Tap Break-in/Hammer	TB		4	-	-	-	-	-
36	1:00	Missing Mortar Medium	MM		-	-	-	-	S01	3
75.9	1:32	Tap Break-in/Hammer	TB		4	-	-	-	-	-
86.4	1:45	Roots Fine Barrel	RFB		-	-	-	VARYING POSITION	S02	2
118.7	2:11	Displaced Brick	DB		-	-	-	MM	-	3
118.7	2:11	Missing Mortar Medium	MM		-	-	-	-	S03	3
137.1	2:31	Roots Medium Barrel	RMB		-	-	5	-	-	4
147.3	2:48	Tap Break-in/Hammer	TB		6	-	-	-	-	-
164.1	3:07	Roots Medium Barrel	RMB		-	-	5	-	-	4
235.4	4:01	Displaced Brick	DB		-	-	-	-	-	3
249.5	4:10	Missing Mortar Medium	MM		-	-	-	-	F03	3

Dist	Time	Description	Code	Clock	Dim. 1	Dim. 2	%	Remarks	Cont.	Grade
249.5	4:10	Roots Fine Barrel	RFB		-	-	-	VARYING POSITION	F02	2
253.6	4:13	Missing Mortar Medium	MMM		-	-	-	-	S04	3
253.6	4:13	Missing Mortar Medium	MMM		-	-	-	-	S05	3
350.7	5:19	Missing Mortar Medium	MMM		-	-	-	-	F04	3
350.7	5:19	Missing Mortar Medium	MMM		-	-	-	-	F05	3
393.8	5:48	Tap Break-in/Hammer	TB		6	-	-	-	-	-
447.2	6:34	Tap Break-in/Hammer	TB		6	-	-	-	-	-
473.1	7:03	Tap Break-in/Hammer	TB		6	-	-	-	-	-
682.8	9:15	Missing Mortar Medium	MMM		-	-	-	-	S06	3
747.6	9:56	Missing Mortar Medium	MMM		-	-	-	-	F06	3
978.6	12:02	Roots Fine Joint	RFJ		-	-	-	-	-	1
1211.9	14:21	Missing Mortar Medium	MMM		-	-	-	-	F01	3
1211.9	14:21	Manhole	AMH	-	-	-	-	MH 3	-	-


OBSERVATION SNAPSHOTS

DATE: 10/3/2024
PIPE SEG REF. MH 4 - MH 3
UP MH: MH 4
DOWN MH: MH 3







MMM (3)
 253.6 ft 9:00




MMM (3)
 350.7 ft 2:00




MMM (3)
 350.7 ft 9:00



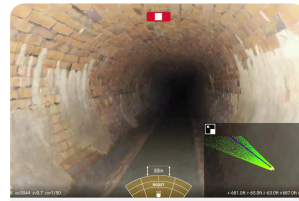
TB
 393.8 ft 2:00




TB
 447.2 ft 10:00




TB
 473.1 ft 10:00



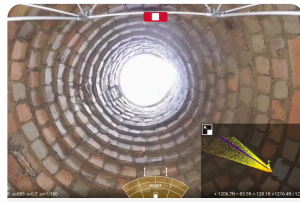
MMM (3)
 682.8 ft 8 - 3:00



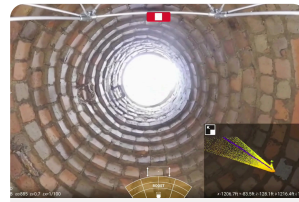
MMM (3)
 747.6 ft 8 - 3:00



RFJ (1)
 978.6 ft 3:00



MMM (3)
 1211.9 ft 5 - 7:00



AMH
 1211.9 ft

DATE: 10/3/2024
PIPE SEG REF: MH 4 - MH 3
UP MH: MH 4
DOWN MH: MH 3

RATINGS

PIPE RATING INDEX	Overall	Structural	O&M
	2.9	3	2.1

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

PIPE RATING	Overall	Structural	O&M
	1017	942	75

Sum of all graded conditions.

QUICK RATING	Overall	Structural	O&M	Likelihood of Failure 4.2	
	4 2	3 Z	3 Z 0 0		4 2 2 E

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	2	12	2	0

Count of each condition grade in the inspection.