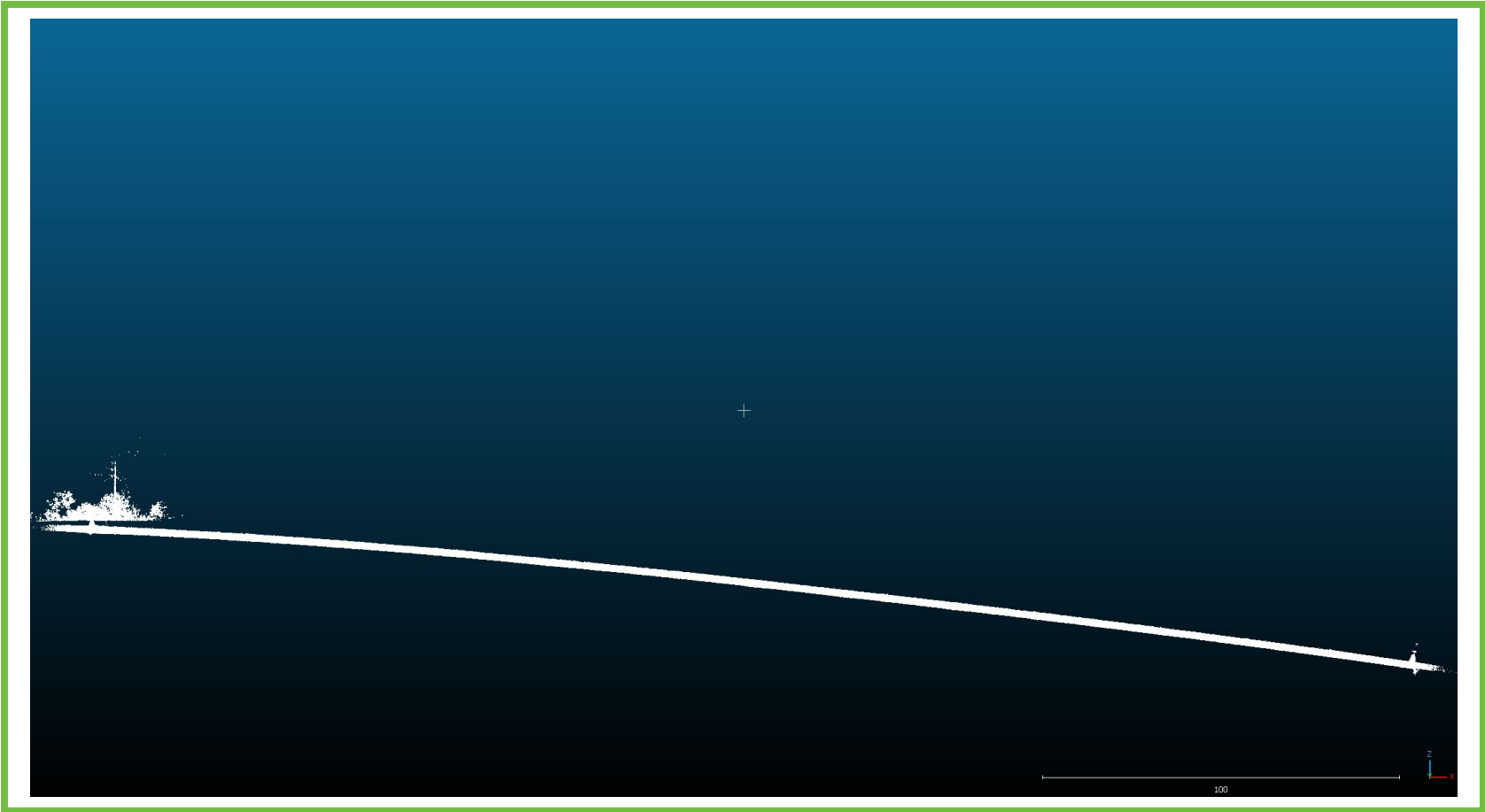
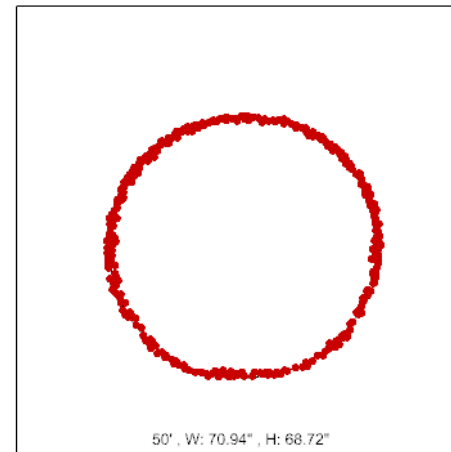
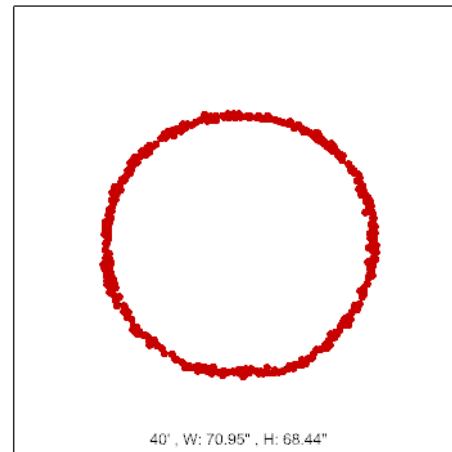
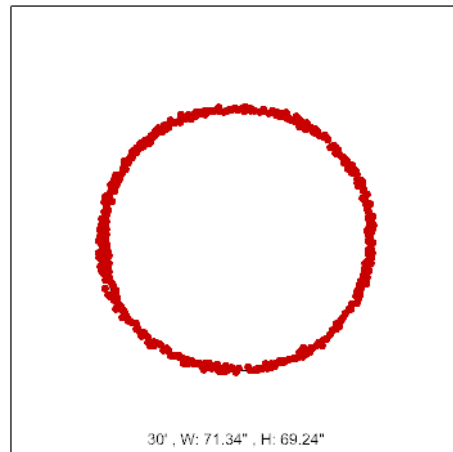
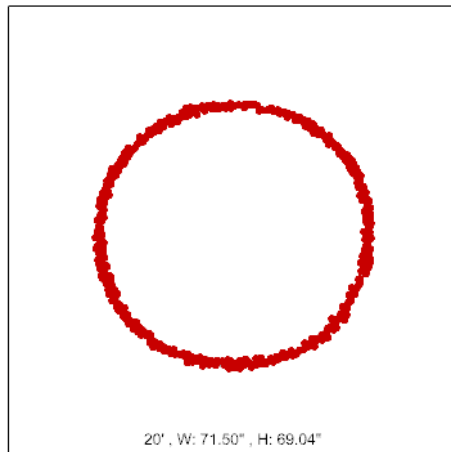
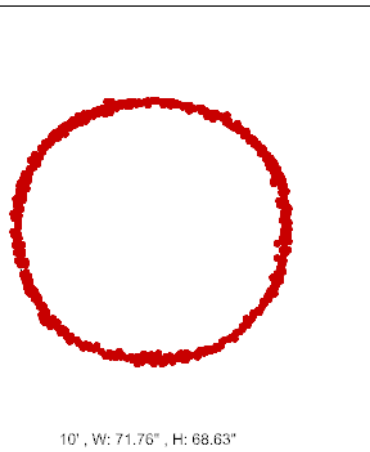
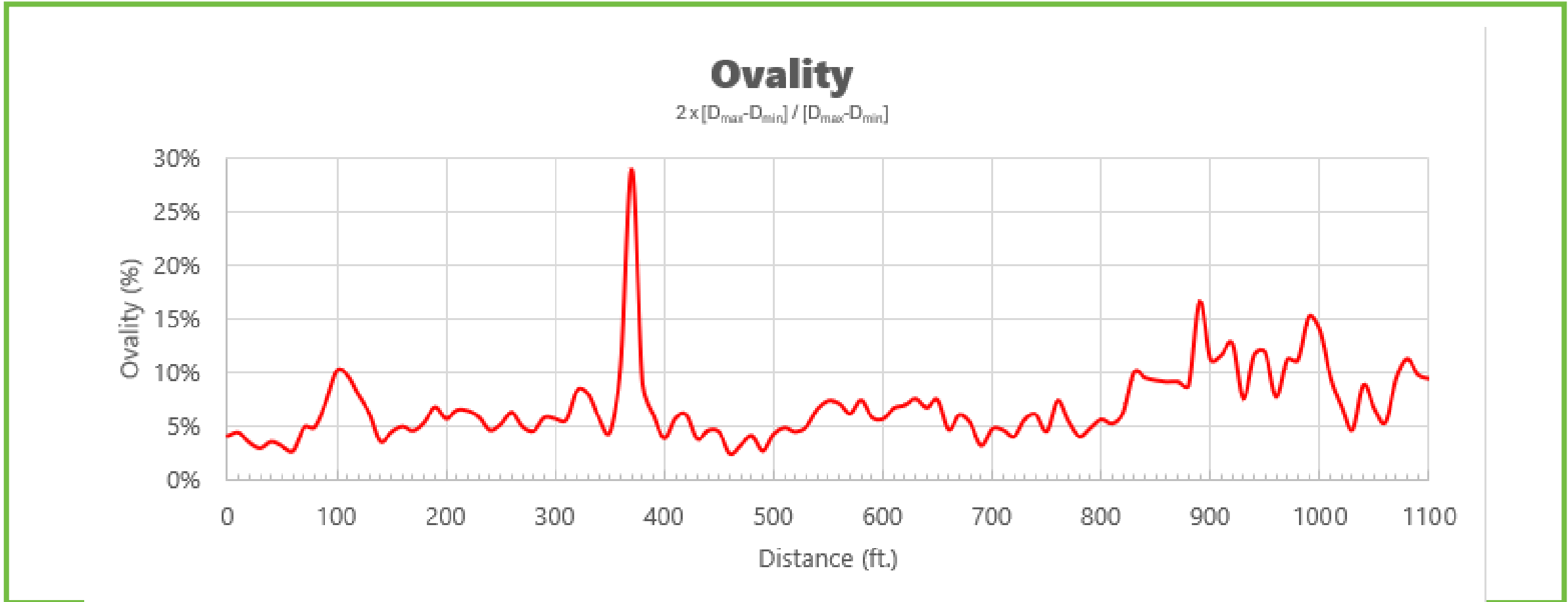
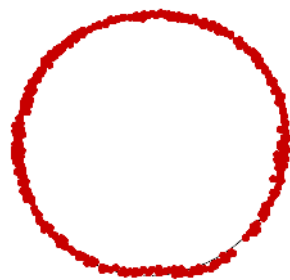




<b>Inspection</b>	Marion County, Ohio
<b>US Manhole</b>	4A
<b>DS Manhole</b>	4
<b>Inspected</b>	October 3, 2024
<b>Platform</b>	Aerial Drone
<b>Sensor</b>	3D Lidar
<b>Report Date</b>	October 29, 2024







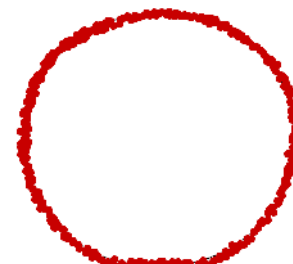
60° , W: 70.92" , H: 69.00"



70° , W: 71.36" , H: 67.93"



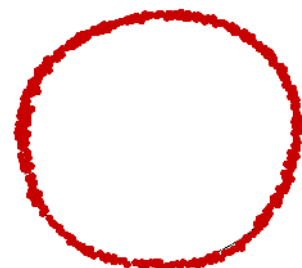
80° , W: 71.26" , H: 67.79"



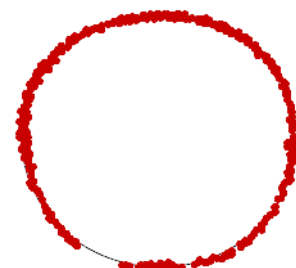
90° , W: 72.24" , H: 67.14"



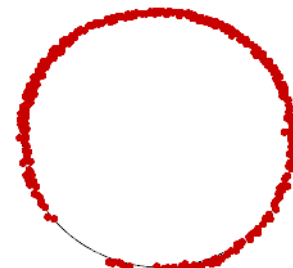
100° , W: 73.15" , H: 66.03"



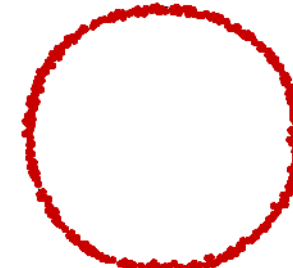
110° , W: 73.28" , H: 66.44"



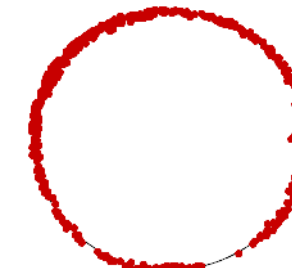
120° , W: 72.26" , H: 66.74"



130° , W: 71.87" , H: 67.55"



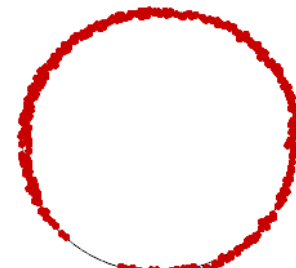
140° , W: 71.62" , H: 69.07"



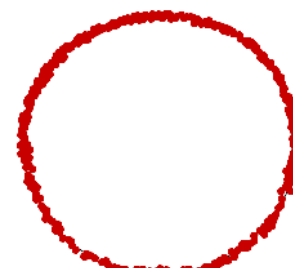
150° , W: 71.44" , H: 68.28"



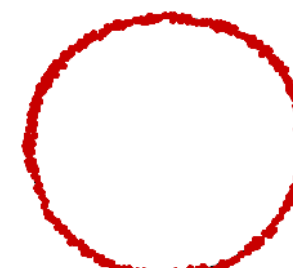
160° , W: 71.56" , H: 68.06"



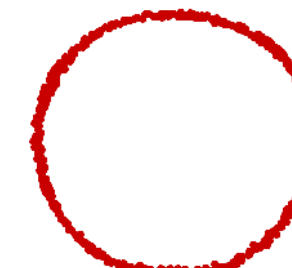
170° , W: 71.79" , H: 68.54"



180° , W: 71.88" , H: 68.09"



190° , W: 72.39" , H: 67.61"



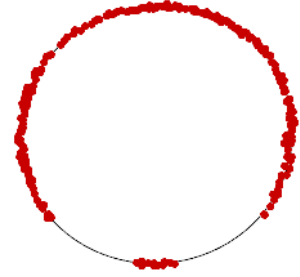
200° , W: 72.44" , H: 68.39"



210° , W: 72.42" , H: 67.83"



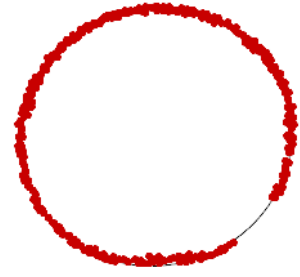
220° , W: 72.37" , H: 67.83"



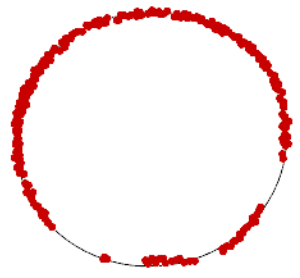
230° , W: 71.90" , H: 67.75"



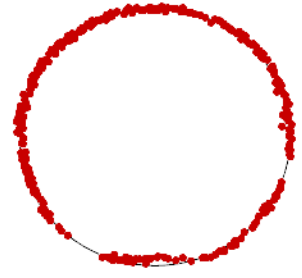
240° , W: 71.73" , H: 68.46"



250° , W: 71.43" , H: 67.79"



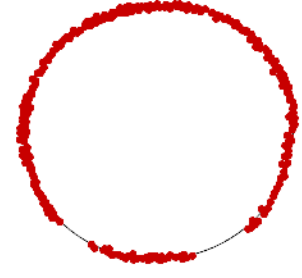
260° , W: 71.76" , H: 67.35"



270° , W: 71.65" , H: 68.15"



280° , W: 71.28" , H: 68.08"



290° , W: 71.49" , H: 67.41"



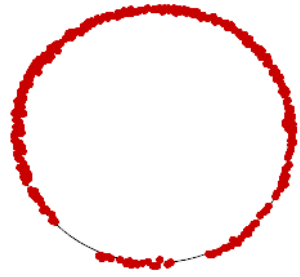
300° , W: 71.70" , H: 67.69"



310° , W: 70.82" , H: 66.93"



320° , W: 72.39" , H: 66.55"



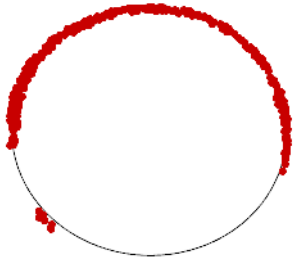
330° , W: 72.55" , H: 66.93"



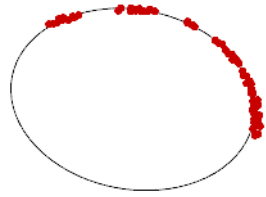
340° , W: 72.37" , H: 68.29"



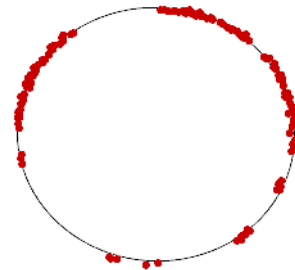
350° , W: 72.05" , H: 68.88"



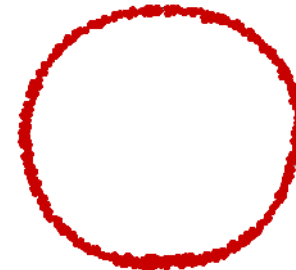
360' , W: 72.53" , H: 65.15"



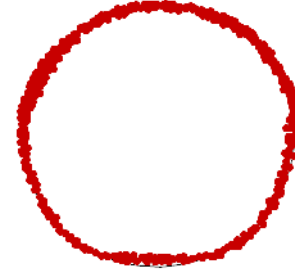
370' , W: 64.34" , H: 48.02"



380' , W: 73.21" , H: 66.86"



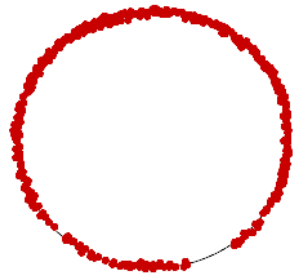
390' , W: 72.51" , H: 68.25"



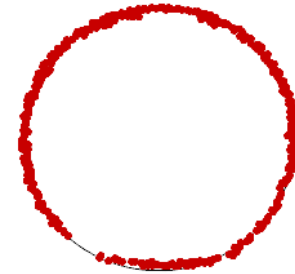
400' , W: 71.70" , H: 68.94"



410' , W: 71.91" , H: 67.85"



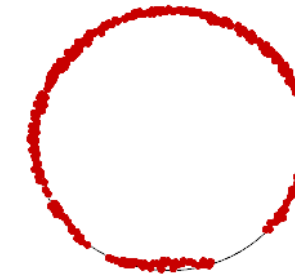
420' , W: 71.69" , H: 67.43"



430' , W: 71.38" , H: 68.69"



440' , W: 70.98" , H: 67.75"



450' , W: 71.22" , H: 68.08"



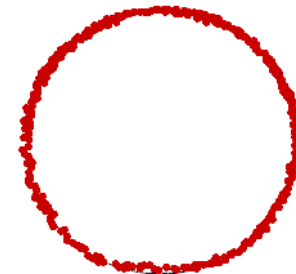
460' , W: 71.04" , H: 69.30"



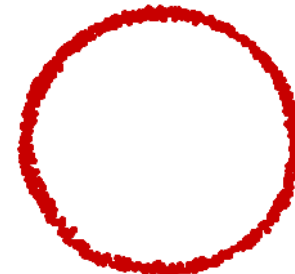
470' , W: 71.02" , H: 68.72"



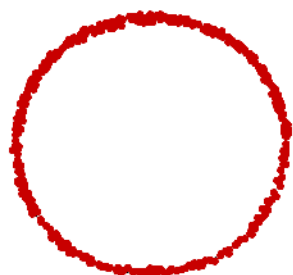
480' , W: 71.18" , H: 68.28"



490' , W: 71.22" , H: 69.30"



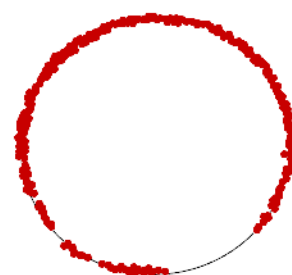
500' , W: 70.95" , H: 67.95"



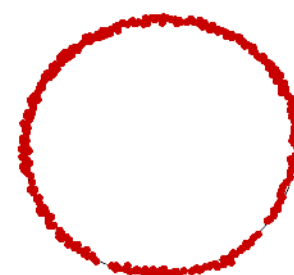
510' , W: 71.44" , H: 68.01"



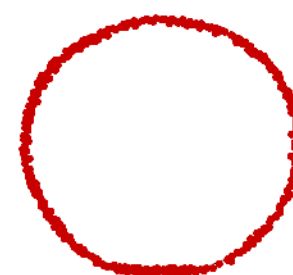
520' , W: 70.98" , H: 67.84"



530' , W: 71.33" , H: 67.84"



540' , W: 72.06" , H: 67.42"



550' , W: 72.32" , H: 67.16"



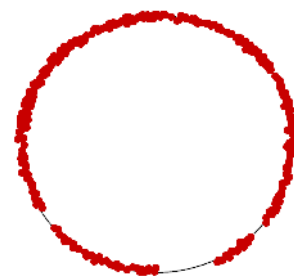
560' , W: 72.05" , H: 67.07"



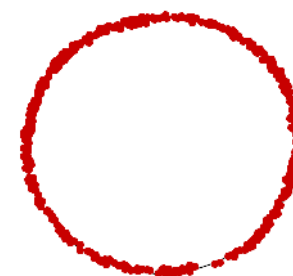
570' , W: 71.70" , H: 67.38"



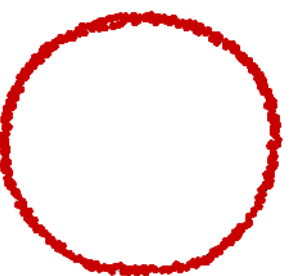
580' , W: 71.95" , H: 66.79"



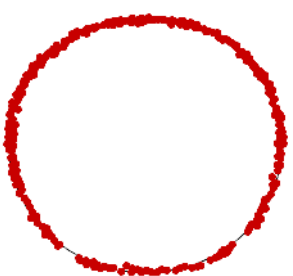
590' , W: 71.72" , H: 67.63"



600' , W: 71.64" , H: 67.65"



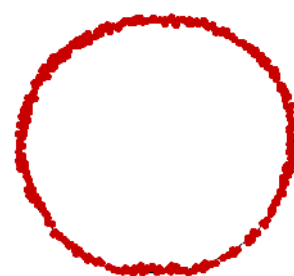
610' , W: 71.97" , H: 67.29"



620' , W: 72.05" , H: 67.17"



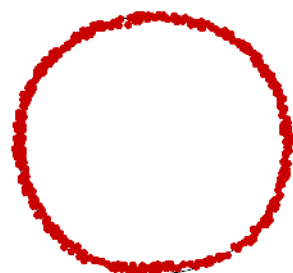
630' , W: 72.11" , H: 66.83"



640' , W: 71.91" , H: 67.20"



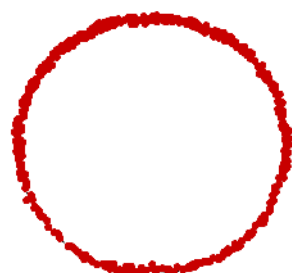
650' , W: 71.87" , H: 66.67"



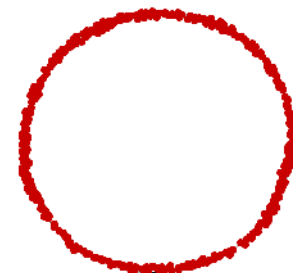
660' , W: 71.56" , H: 68.26"



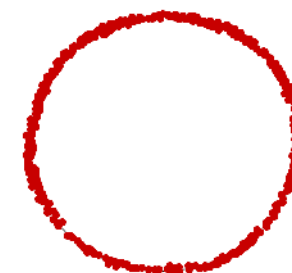
670' , W: 71.18" , H: 66.96"



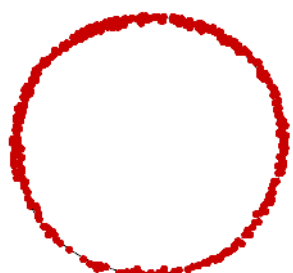
680' , W: 71.27" , H: 67.58"



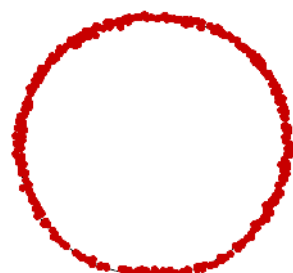
690' , W: 70.88" , H: 68.62"



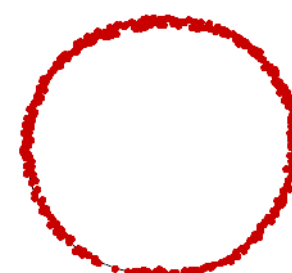
700' , W: 70.92" , H: 67.59"



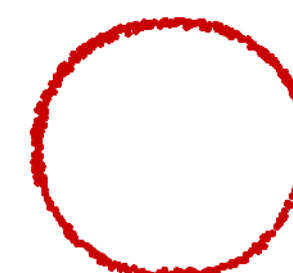
710' , W: 70.93" , H: 67.67"



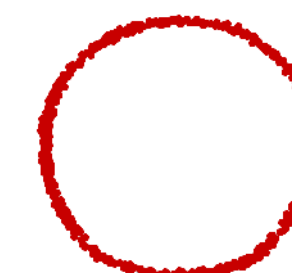
720' , W: 71.08" , H: 68.24"



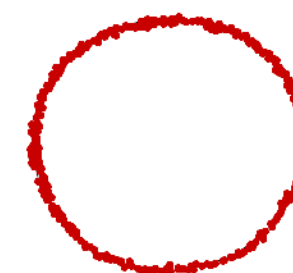
730' , W: 71.25" , H: 67.29"



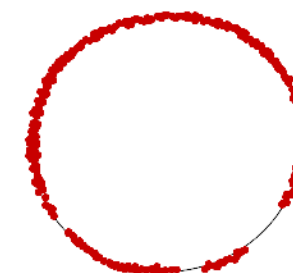
740' , W: 71.40" , H: 67.15"



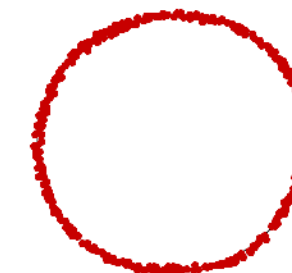
750' , W: 71.30" , H: 68.12"



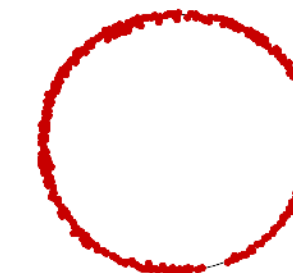
760' , W: 71.67" , H: 66.53"



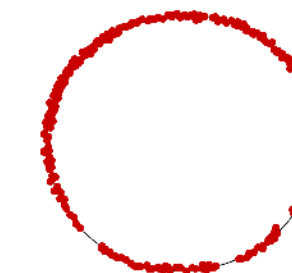
770' , W: 71.73" , H: 67.90"



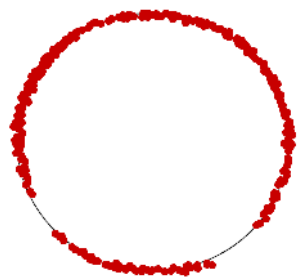
780' , W: 71.32" , H: 68.47"



790' , W: 71.37" , H: 67.96"



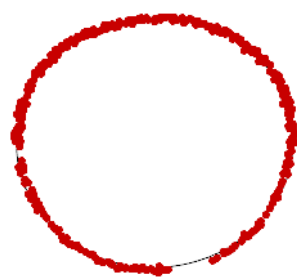
800' , W: 71.79" , H: 67.83"



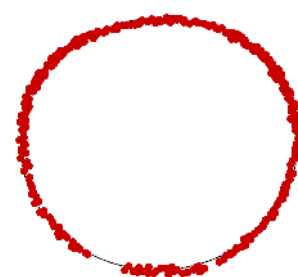
810' , W: 71.51" , H: 67.83"



820' , W: 71.92" , H: 67.53"



830' , W: 73.01" , H: 65.98"



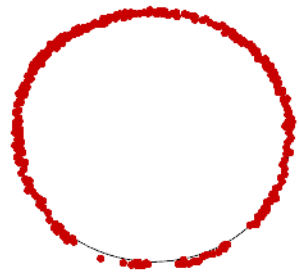
840' , W: 73.02" , H: 66.34"



850' , W: 72.72" , H: 66.24"



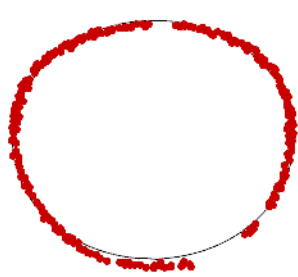
860' , W: 72.62" , H: 66.24"



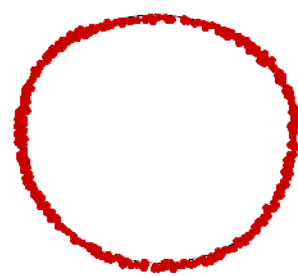
870' , W: 72.61" , H: 66.21"



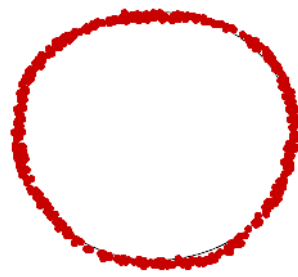
880' , W: 72.07" , H: 65.95"



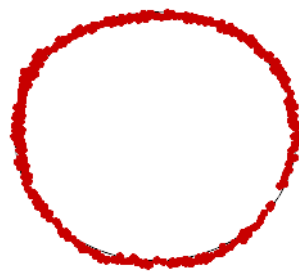
890' , W: 74.41" , H: 62.94"



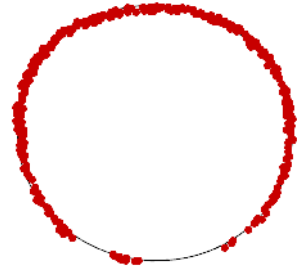
900' , W: 73.25" , H: 65.43"



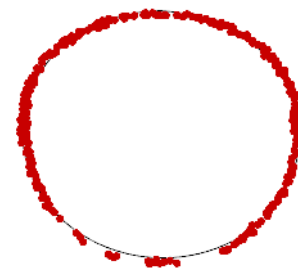
910' , W: 73.54" , H: 65.42"



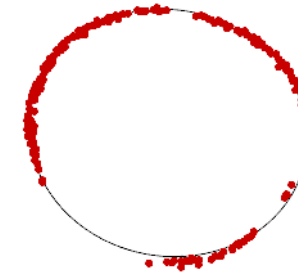
920' , W: 74.27" , H: 65.34"



930' , W: 72.57" , H: 67.23"

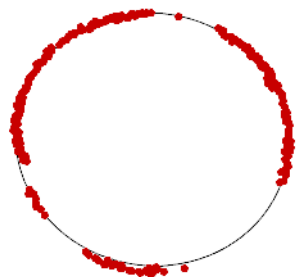


940' , W: 73.04" , H: 64.96"

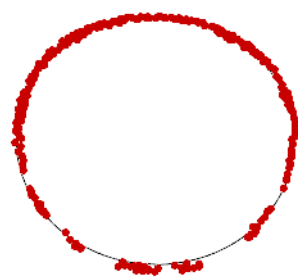


950' , W: 73.41" , H: 65.15"

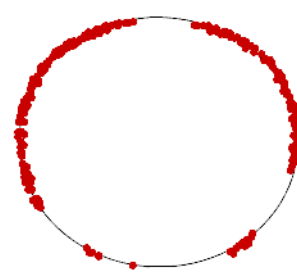




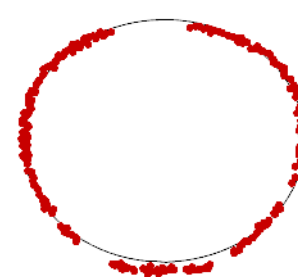
960' , W: 72.15" , H: 66.73"



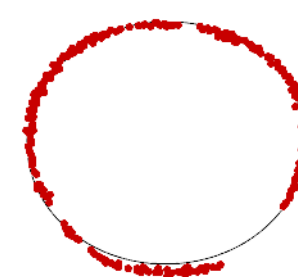
970' , W: 73.53" , H: 65.69"



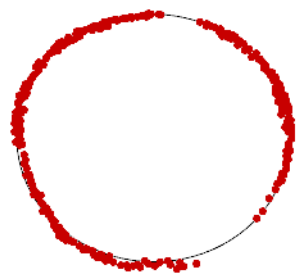
980' , W: 73.67" , H: 65.83"



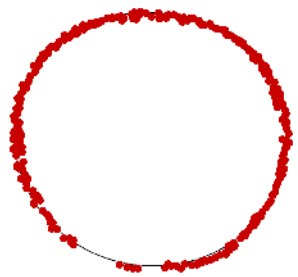
990' , W: 74.51" , H: 63.91"



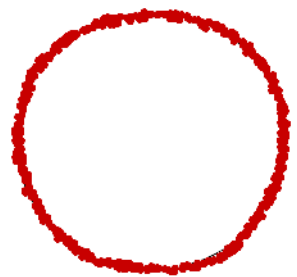
1000' , W: 73.64" , H: 63.98"



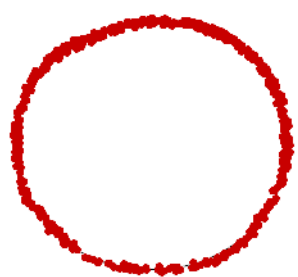
1010' , W: 71.94" , H: 65.34"



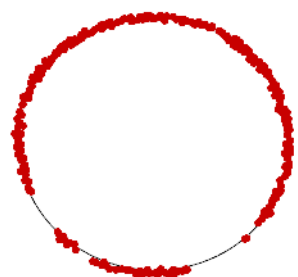
1020' , W: 71.72" , H: 66.95"



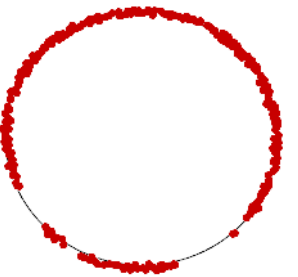
1030' , W: 71.10" , H: 67.83"



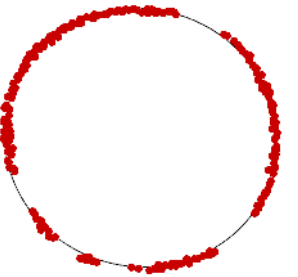
1040' , W: 72.00" , H: 65.85"



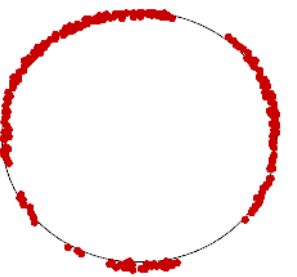
1050' , W: 71.56" , H: 66.92"



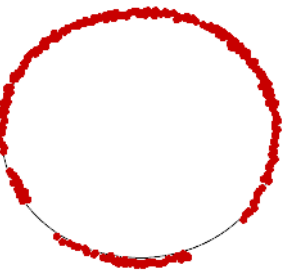
1050' , W: 71.56" , H: 66.92"



1060' , W: 71.82" , H: 68.05"



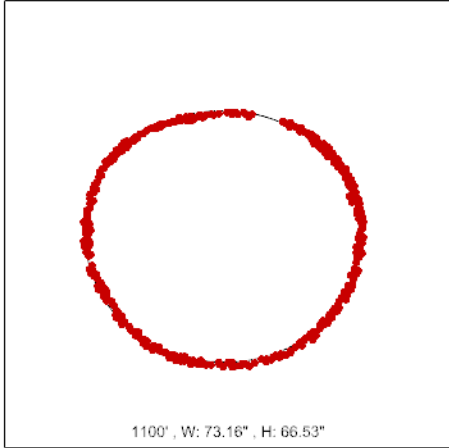
1070' , W: 72.57" , H: 65.99"



1080' , W: 72.68" , H: 64.88"



1090' , W: 72.34" , H: 65.54"



# INSPECTION HEADER

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

## SUMMARY

<b>Inspection Date</b> 10/3/2024 12:00 AM	<b>Pipe Segment Reference</b> MH 4A - MH 4	<b>Surveyed By</b> SHAWN DUNNELL	<b>Certificate Number</b> U-915-70001437
<b>Project</b> 2420053PW	<b>Street</b> HOLLAND RD	<b>Upstream MH</b> MH 4A	<b>Downstream MH</b> MH 4
<b>Direction</b> Upstream	<b>Pre-Cleaning</b> No Pre-Cleaning	<b>Total Length (ft)</b>	<b>Length Surveyed (ft)</b> 1103.3

## ASSET

<b>Height (mm)</b> 72	<b>Shape</b> Circular	<b>Material</b> BR	<b>Pipe Use</b> Combined Pipe
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## PROJECT

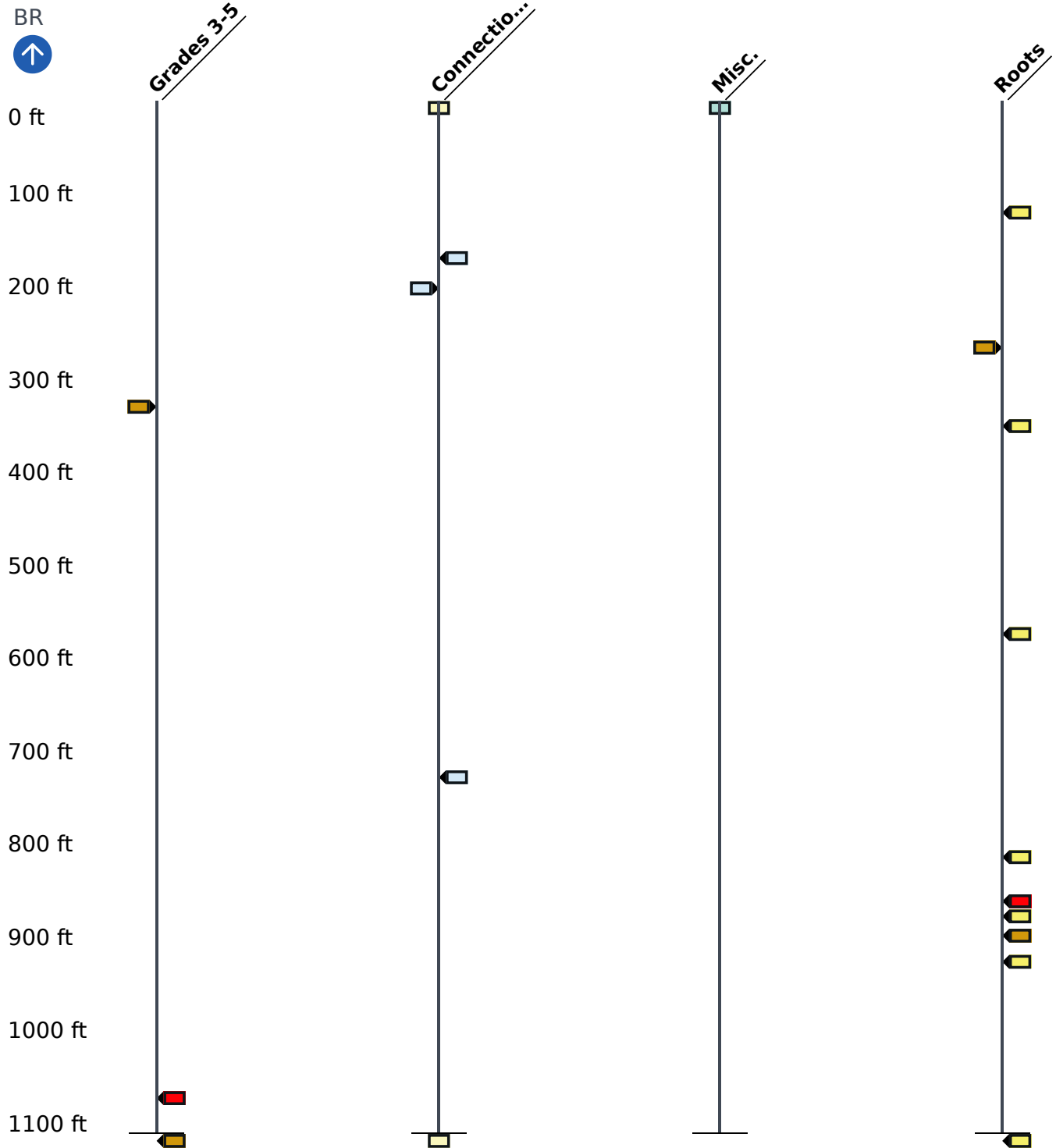
<b>Owner</b> CITY OF MARION	<b>Customer</b> CT CONSULTANTS
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## INSPECTION

<b>Inspection Time</b> 12:00 AM	<b>City</b> MARION	<b>Inspection Status</b> CI	<b>In Feet (Imperial)</b> Yes
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# SMART DIAGRAM





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



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

# OBSERVATIONS

Dist	Time	Description	Code	Clock	Dim. 1	Dim. 2	%	Remarks	Cont.	Grade
0	0:00	Manhole	AMH	-	-	-	-	MH 4	-	-
0	0:02	Miscellaneous Water Level	MW	-	-	-	5	-	-	-
5.6	0:15	Tap Break-in Intruding	TBI		6	1	-	-	-	2
107.4	1:44	Roots Fine Barrel	RFB		-	-	-	VARYING POSITION	S01	2
161	2:44	Tap Break-in Activity	TBA		6	-	-	-	-	-
193.2	3:19	Tap Break-in/Hammer	TB		6	-	-	-	-	-
194.3	3:24	Tap Break-in/Hammer	TB		6	-	-	-	-	-
245.1	4:17	Roots Tap Barrel	RTB		-	-	5	-	-	3
247.9	4:23	Roots Fine Barrel	RFB		-	-	-	VARYING POSITION	F01	2
326.5	5:18	Roots Fine Barrel	RFB		-	-	-	-	-	2
539.8	7:24	Roots Fine Barrel	RFB		-	-	-	varying position	S02	2
715.1	9:46	Tap Break-in/Hammer	TB		6	-	-	-	-	-
768.3	10:20	Roots Fine Barrel	RFB		-	-	-	varying position	F02	2
813.6	10:44	Roots Medium Barrel	RMB		-	-	5	-	-	4

Dist	Time	Description	Code	Clock	Dim. 1	Dim. 2	%	Remarks	Cont.	Grade
828.4	11:04	Roots Fine Barrel	RFB		-	-	-	VARYING POSITION	S03	2
848.2	11:18	Roots Tap Barrel	RTB		-	-	5	-	-	3
875.5	11:41	Roots Fine Barrel	RFB		-	-	-	VARYING POSITION	F03	2
1058.5	13:19	Roots Fine Barrel	RFB		-	-	-	-	-	2
1103.3	13:46	Manhole	AMH	-	-	-	-	MH 4A	-	-

# OBSERVATION SNAPSHOTS

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

**AMH**  
0 ft

**MWL**  
0 ft

**TBI** (2)  
5.6 ft 10:00

**RFB** (2)  
107.4 ft 7 - 5:00

**TBA**  
161 ft 7:00

**TB**  
193.2 ft 2:00

**TB**  
194.3 ft 10:00

**RTB** (3)  
245.1 ft 3:00

**RFB** (2)  
247.9 ft 7 - 5:00

**RFB** (2)  
326.5 ft 8 - 9:00

**RFB** (2)  
539.8 ft 7 - 5:00

**TB**  
715.1 ft 10:00

**RFB** (2)  
768.3 ft 7 - 5:00

**RMB** (4)  
813.6 ft 7 - 5:00

**RFB** (2)  
828.4 ft 7 - 5:00

**RTB** (3)  
848.2 ft 8 - 9:00



RFB (2)

875.5 ft 7 - 5:00



RFB (2)

1058.5 ft 12 - 3:00



AMH

1103.3 ft



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

# RATINGS

<b>PIPE RATING INDEX</b>	<b>Overall</b>	<b>Structural</b>	<b>O&amp;M</b>
	(2)		(2)

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

<b>PIPE RATING</b>	<b>Overall</b>	<b>Structural</b>	<b>O&amp;M</b>
	182	0	182

Sum of all graded conditions.

<b>QUICK RATING</b>	<b>Overall</b>	<b>Structural</b>	<b>O&amp;M</b>	<b>Likelihood of Failure</b>
	(41) (32)	(00) (00)	(41) (32)	

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).

<b>FREQUENCY OF CONDITION GRADES</b>	<b>Grade</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>#</b>	0	9	2	1	0

Count of each condition grade in the inspection.