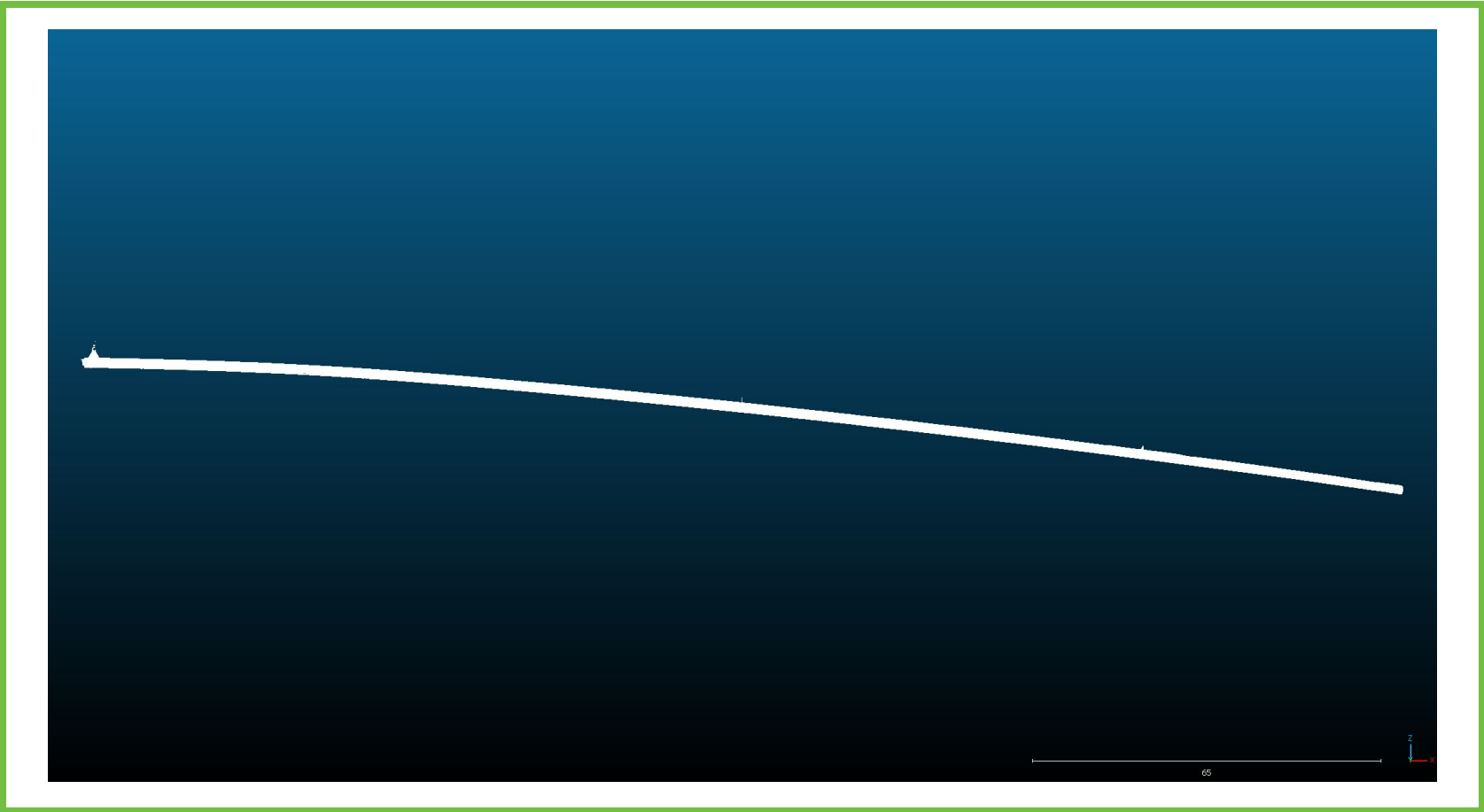




| | |
|--------------------|---------------------|
| Inspection | Marion County, Ohio |
| US Manhole | 2 |
| DS Manhole | HB |
| Inspected | October 10, 2024 |
| Platform | Aerial Drone |
| Sensor | 3D Lidar |
| Report Date | October 29, 2024 |

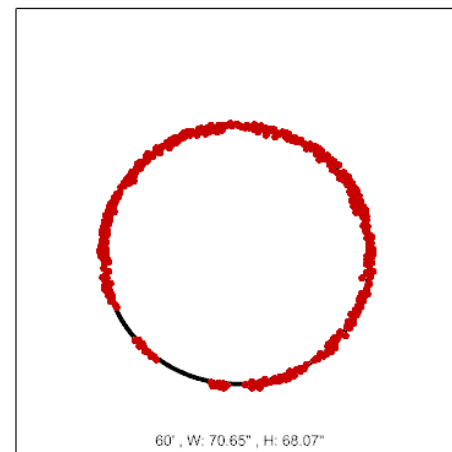
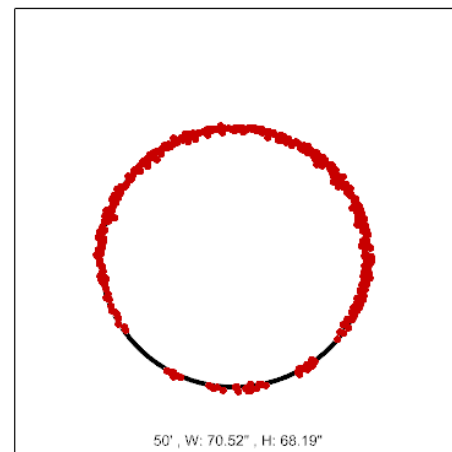
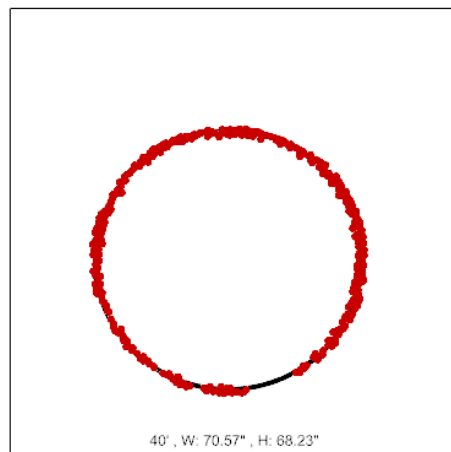
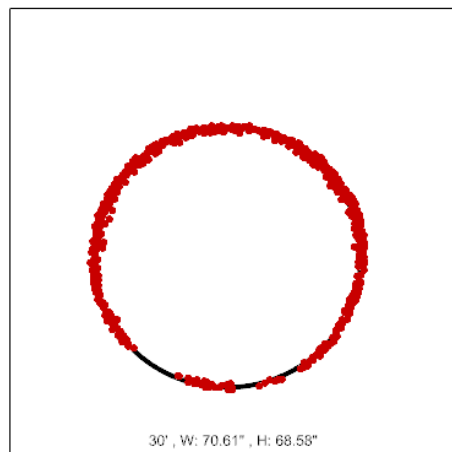
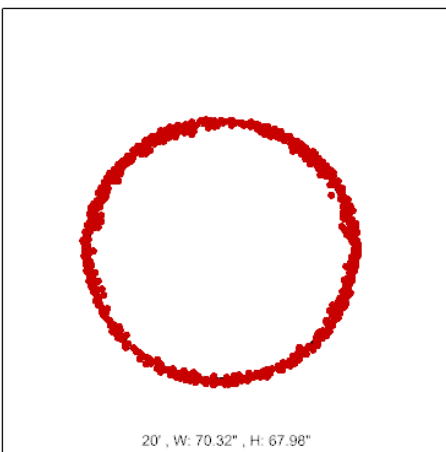
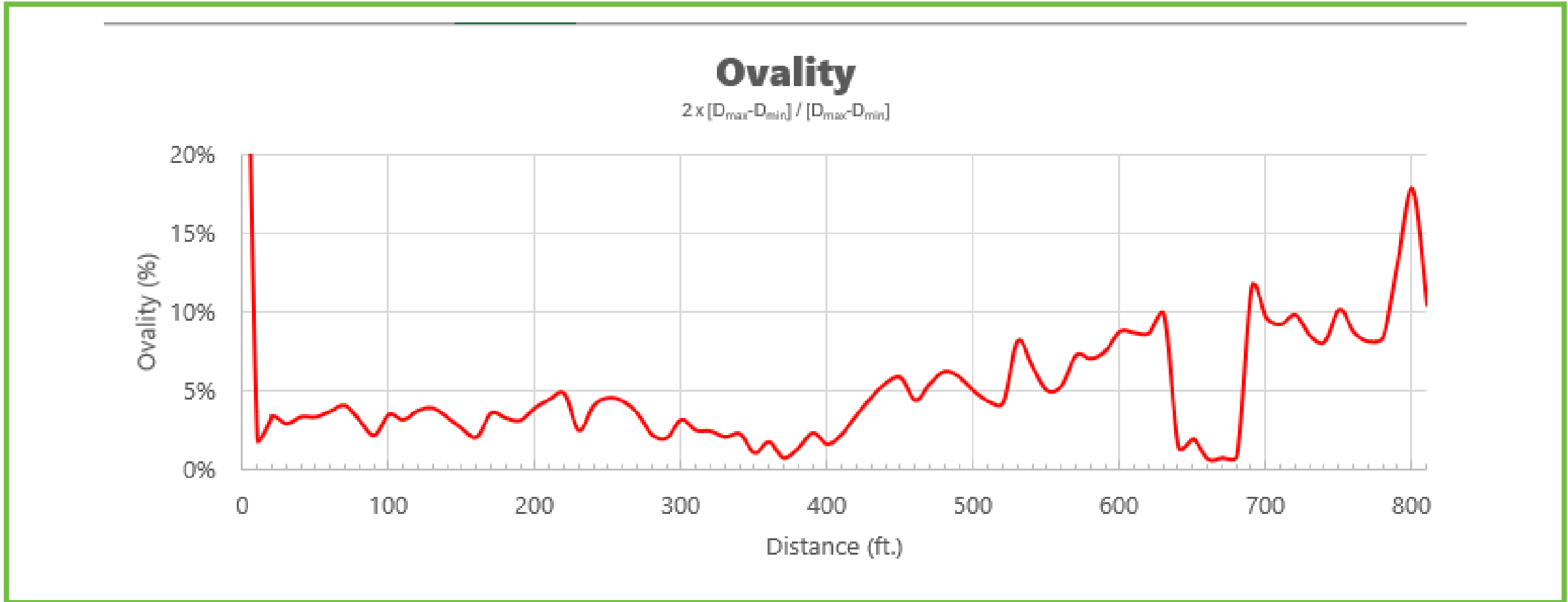


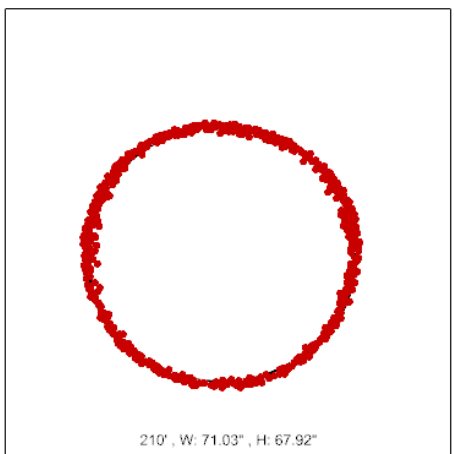
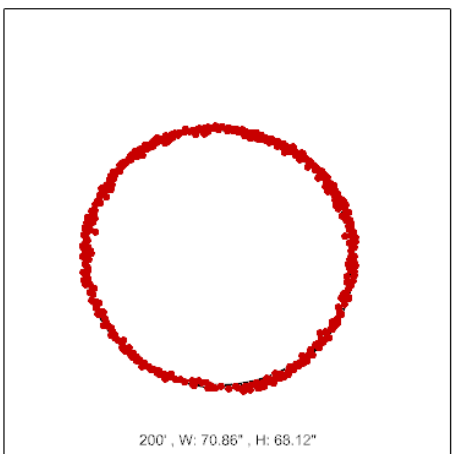
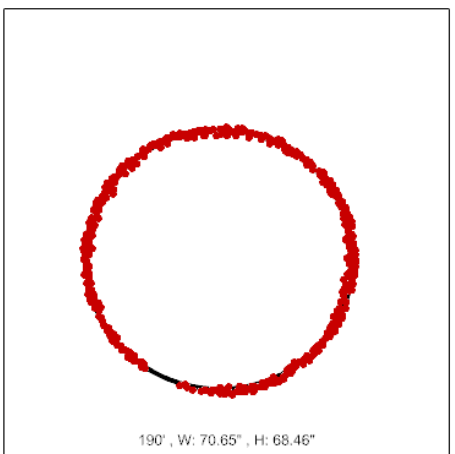
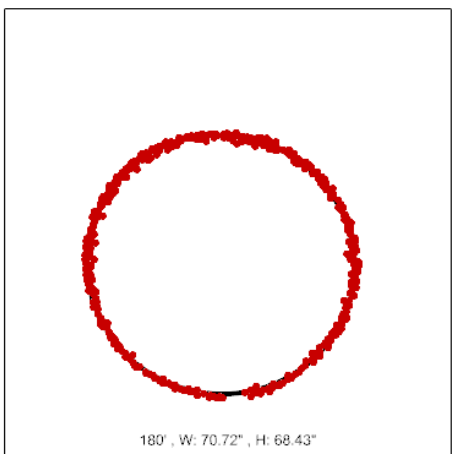
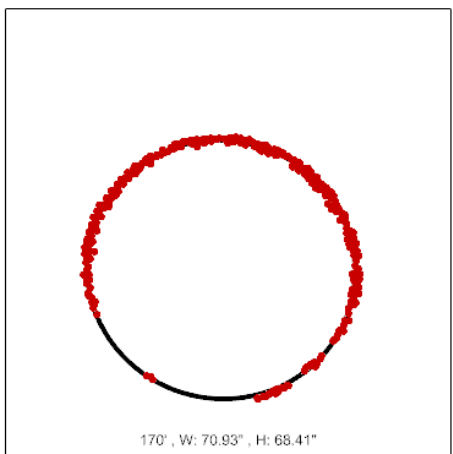
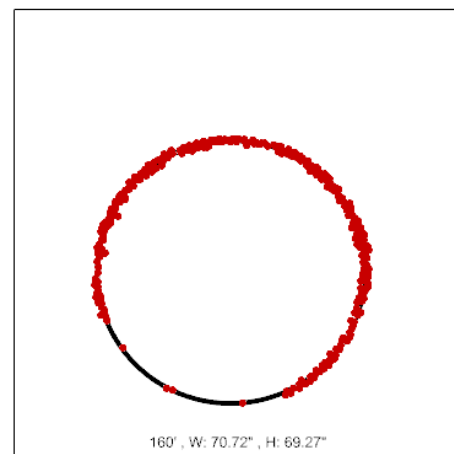
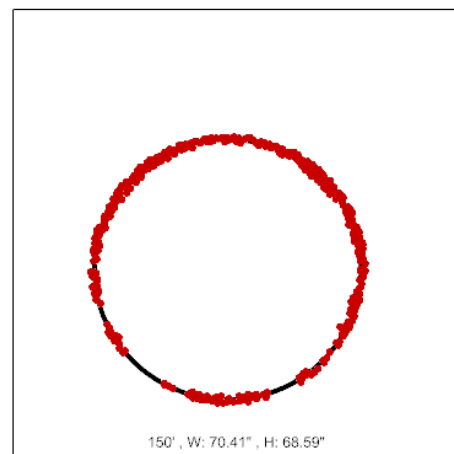
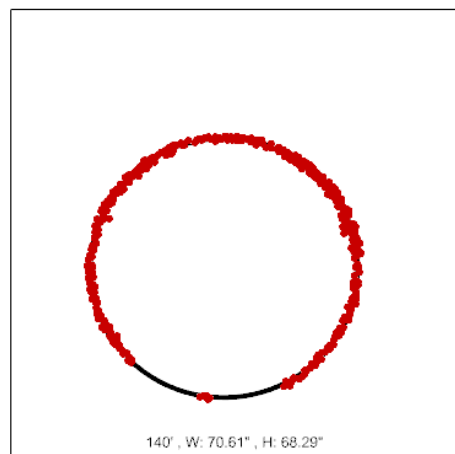
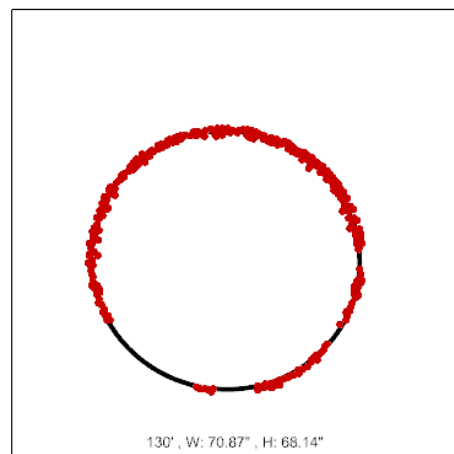
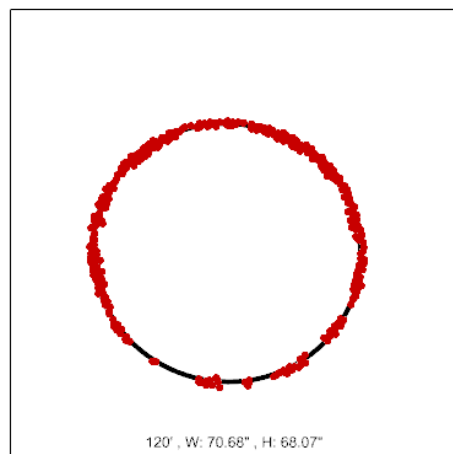
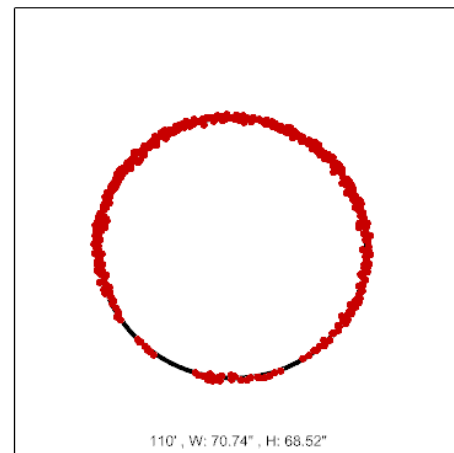
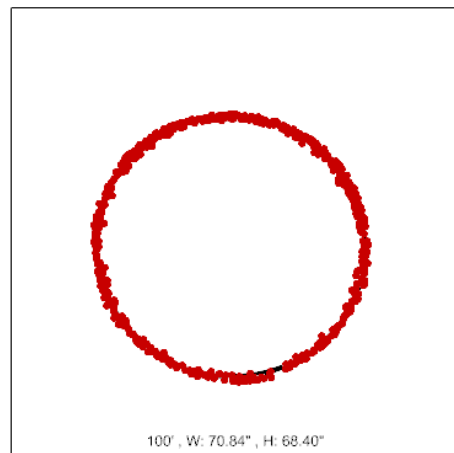
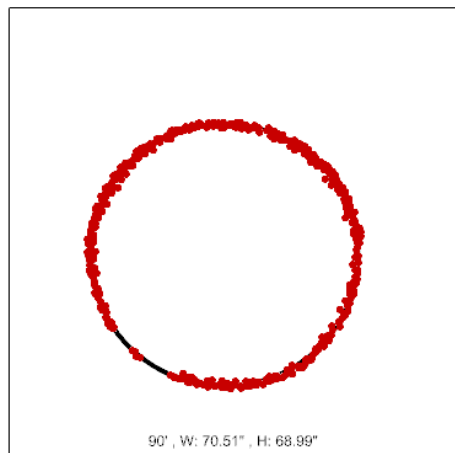
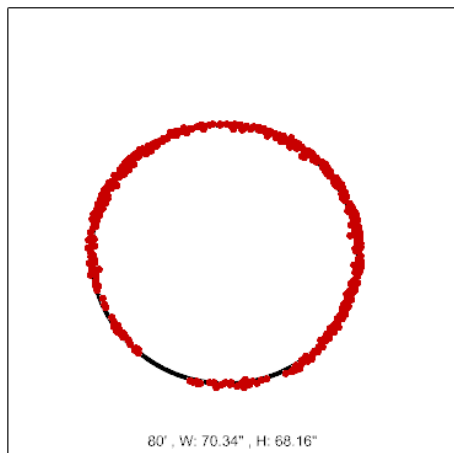
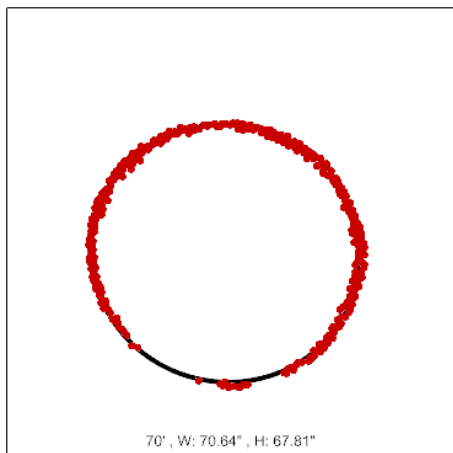


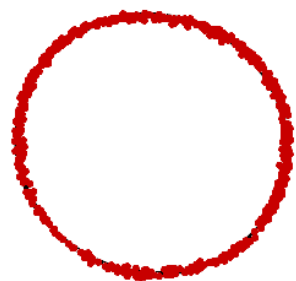
Void @ 778.7 ft (distance from origin)

53.9"

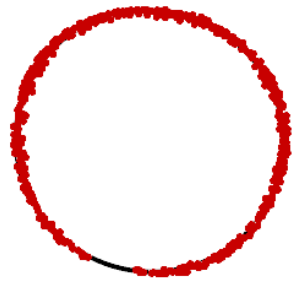
4.72"
5.96"



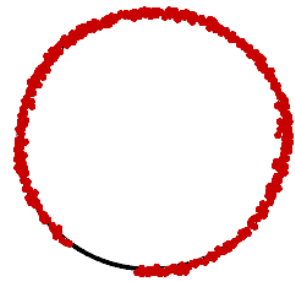




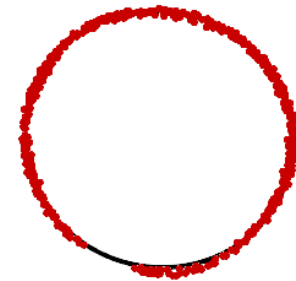
220' , W: 71.74" , H: 68.36"



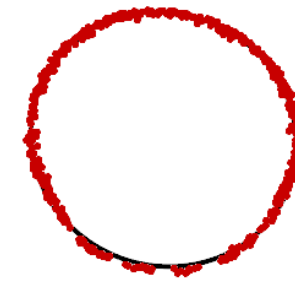
230' , W: 70.94" , H: 69.19"



240' , W: 70.88" , H: 68.04"



250' , W: 70.89" , H: 67.72"



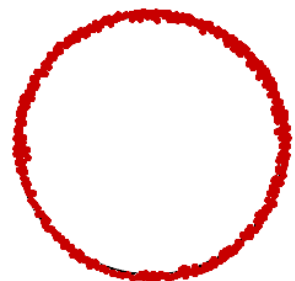
260' , W: 70.32" , H: 67.31"



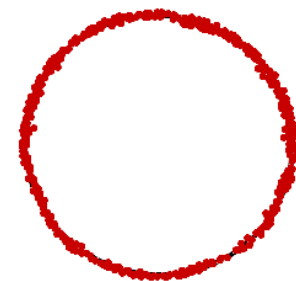
270' , W: 70.13" , H: 67.66"



280' , W: 70.04" , H: 68.49"



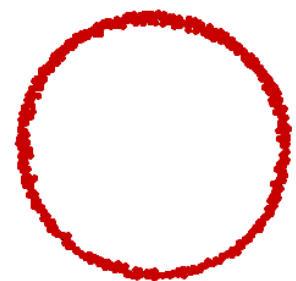
290' , W: 70.12" , H: 68.71"



300' , W: 70.34" , H: 68.13"



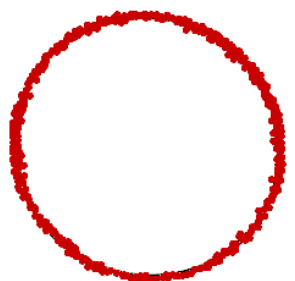
310' , W: 70.15" , H: 68.40"



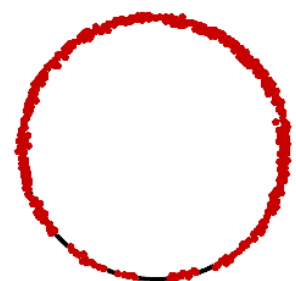
320' , W: 69.91" , H: 68.20"



330' , W: 70.19" , H: 68.74"



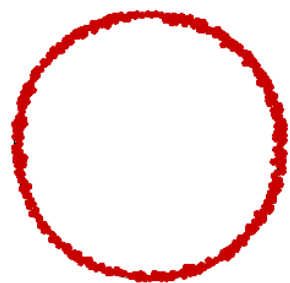
340' , W: 70.50" , H: 68.90"



350' , W: 70.03" , H: 69.27"



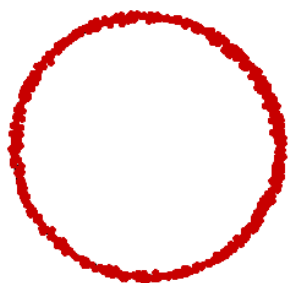
360' , W: 69.92" , H: 68.69"



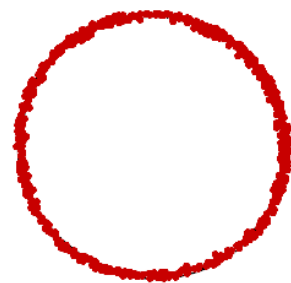
370' , W: 70.04" , H: 69.52"



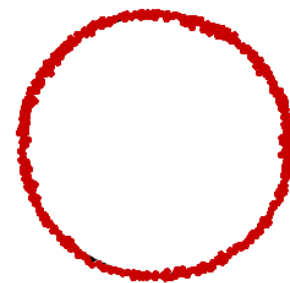
380' , W: 70.25" , H: 69.28"



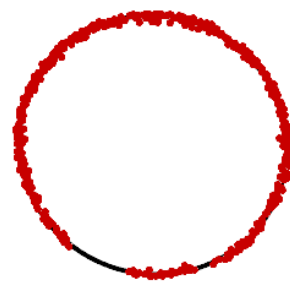
390' , W: 70.31" , H: 68.68"



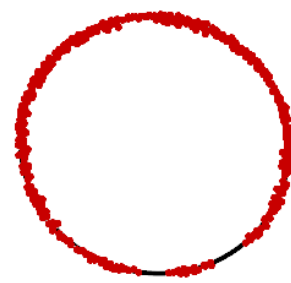
400' , W: 70.39" , H: 69.25"



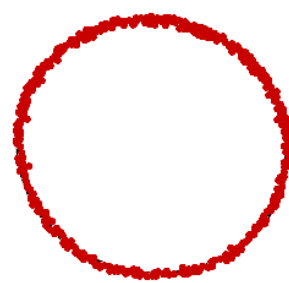
410' , W: 70.62" , H: 69.01"



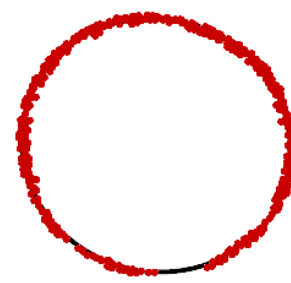
420' , W: 70.83" , H: 68.39"



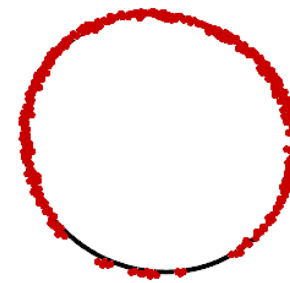
430' , W: 71.01" , H: 67.80"



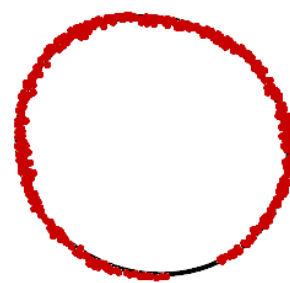
440' , W: 71.24" , H: 67.41"



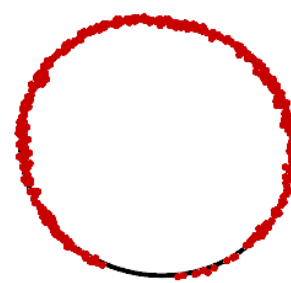
450' , W: 71.10" , H: 67.05"



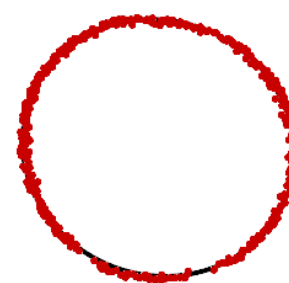
460' , W: 71.30" , H: 68.22"



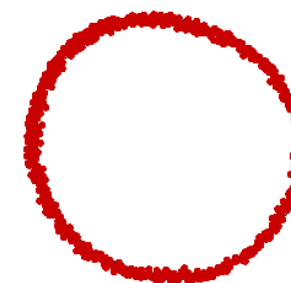
470' , W: 71.58" , H: 67.76"



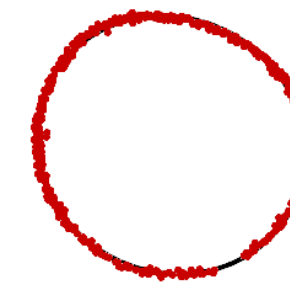
480' , W: 71.76" , H: 67.41"



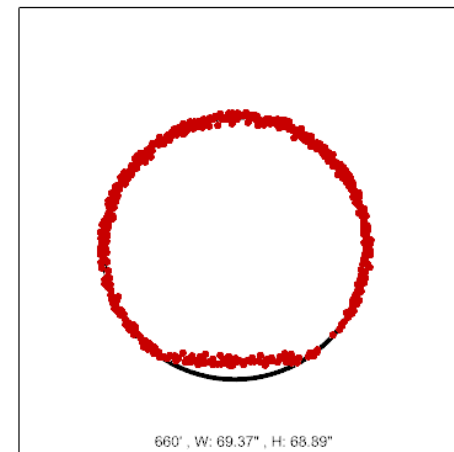
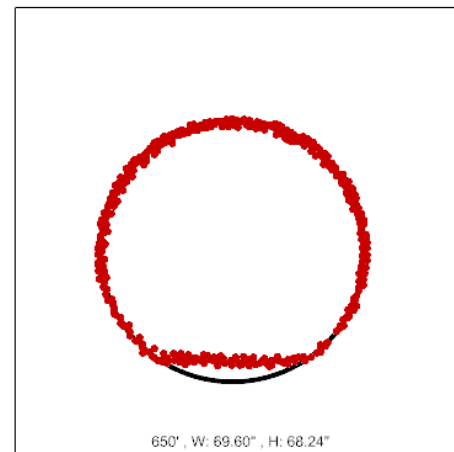
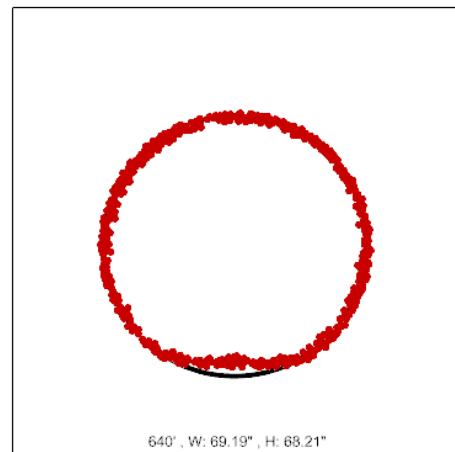
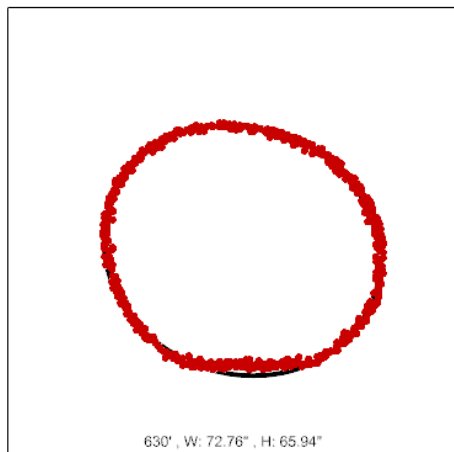
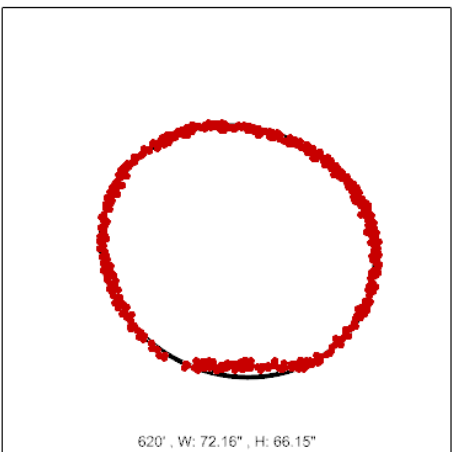
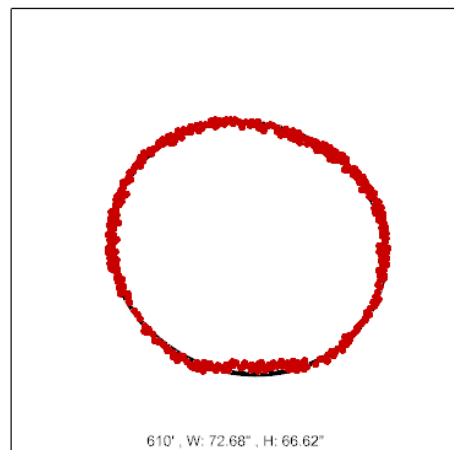
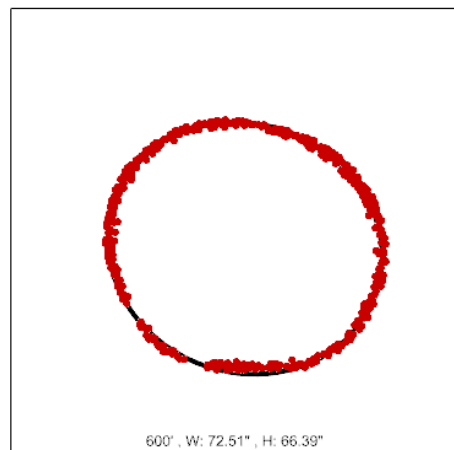
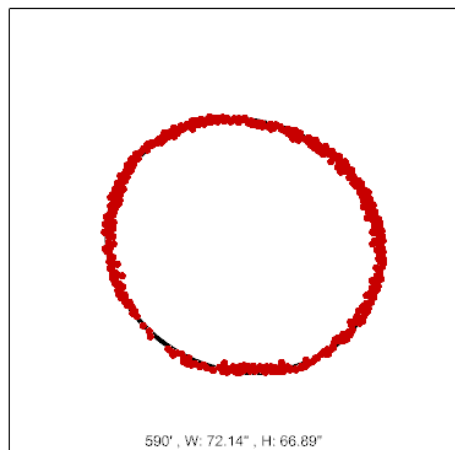
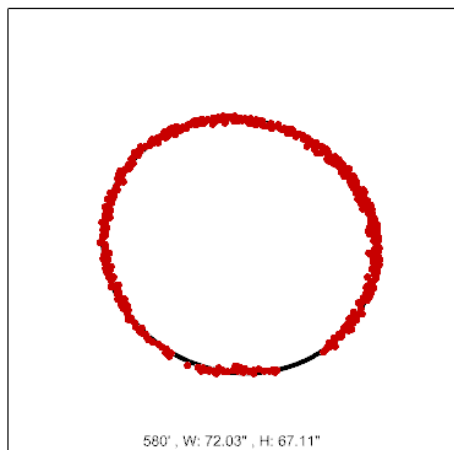
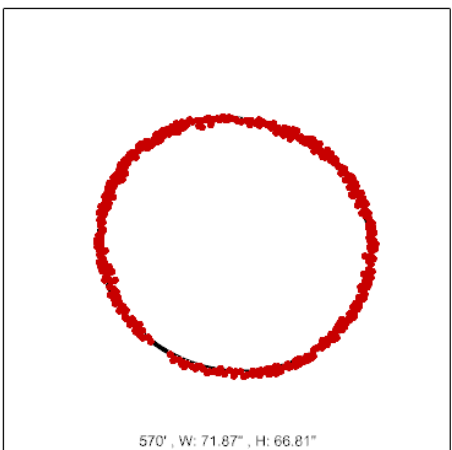
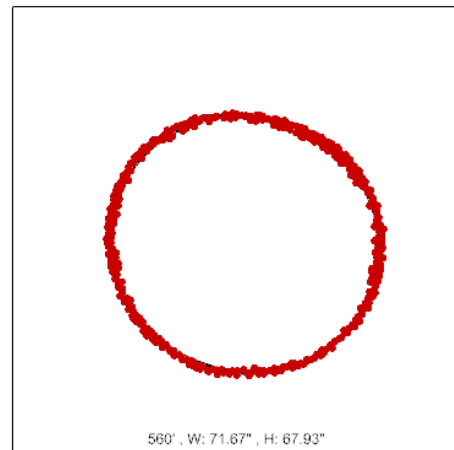
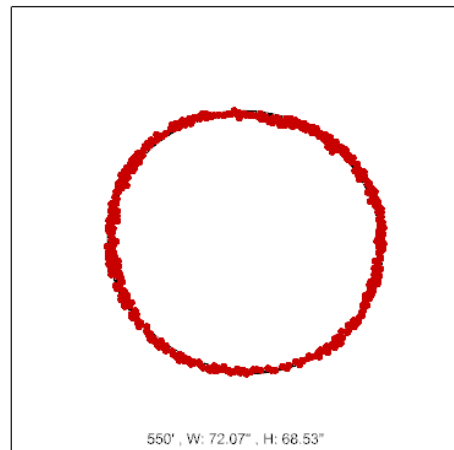
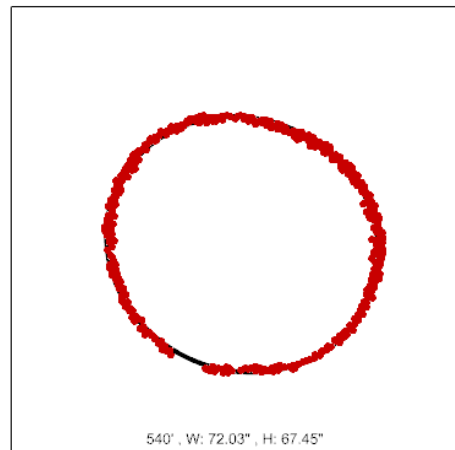
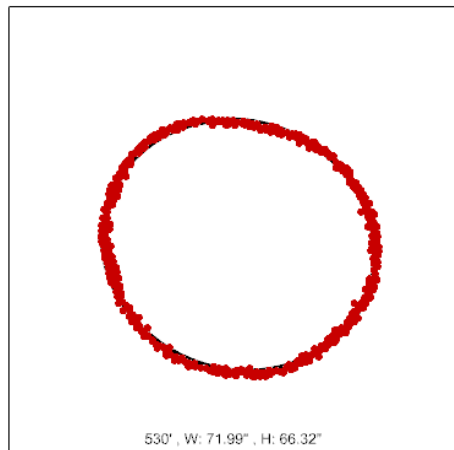
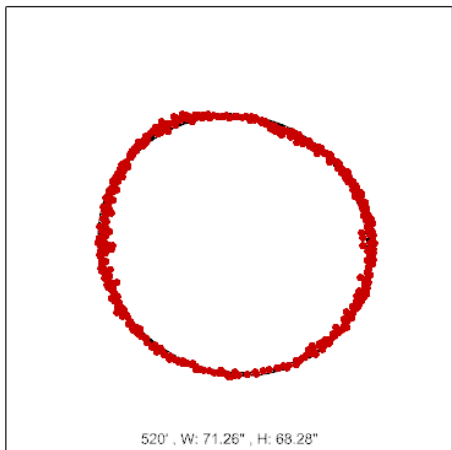
490' , W: 71.72" , H: 67.60"



500' , W: 71.06" , H: 67.59"

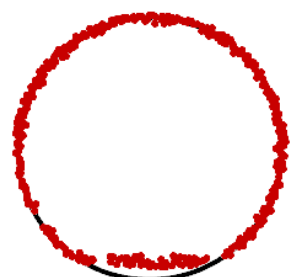


510' , W: 70.96" , H: 67.93"

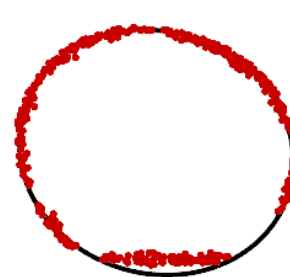




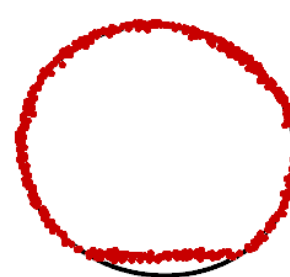
670' , W: 69.58" , H: 69.05"



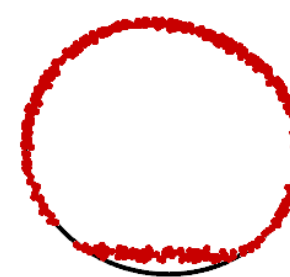
680' , W: 69.55" , H: 68.93"



690' , W: 72.38" , H: 64.46"



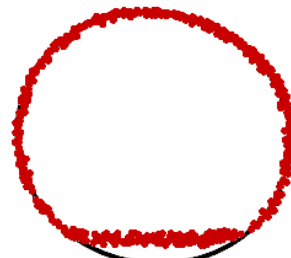
700' , W: 72.42" , H: 65.75"



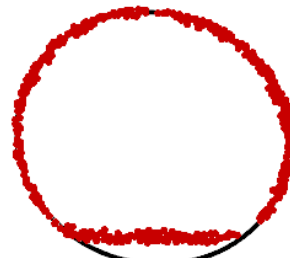
710' , W: 72.19" , H: 65.80"



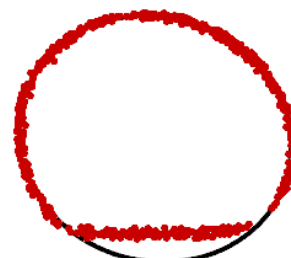
720' , W: 72.48" , H: 65.68"



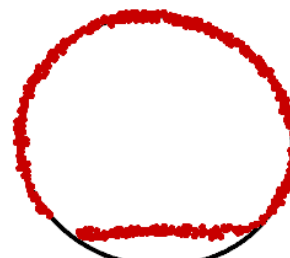
730' , W: 72.12" , H: 66.23"



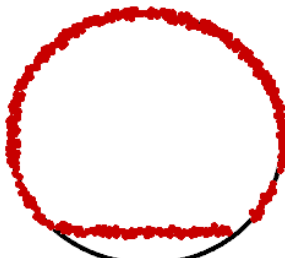
740' , W: 72.01" , H: 66.38"



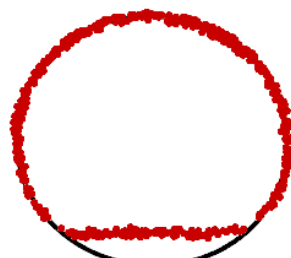
750' , W: 71.88" , H: 64.90"



760' , W: 72.02" , H: 65.99"



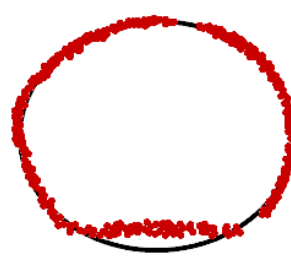
770' , W: 71.89" , H: 66.26"



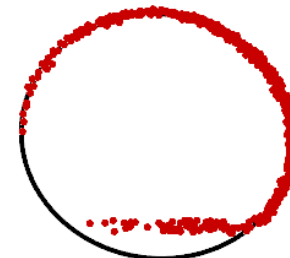
780' , W: 71.77" , H: 65.94"



790' , W: 70.65" , H: 61.82"



800' , W: 72.42" , H: 60.56"



810' , W: 71.86" , H: 64.70"

INSPECTION HEADER

DATE: 10/10/2024
PIPE SEG REF. MH 2 - HB
UP MH: MH 2
DOWN MH: HB

SUMMARY

| | | | |
|---|--|-------------------------------------|---|
| Inspection Date 10/10/2024 12:00 AM | Pipe Segment Reference MH 2 - HB | Surveyed By SHAWN DUNNELL | Certificate Number U-915-70001437 |
| Project 2420053PW | Street HOLLAND RD | Upstream MH MH 2 | Downstream MH HB |
| Direction Downstream | Pre-Cleaning No Pre-Cleaning | Total Length (ft) | Length Surveyed (ft) 786.9 |

ASSET

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

PROJECT

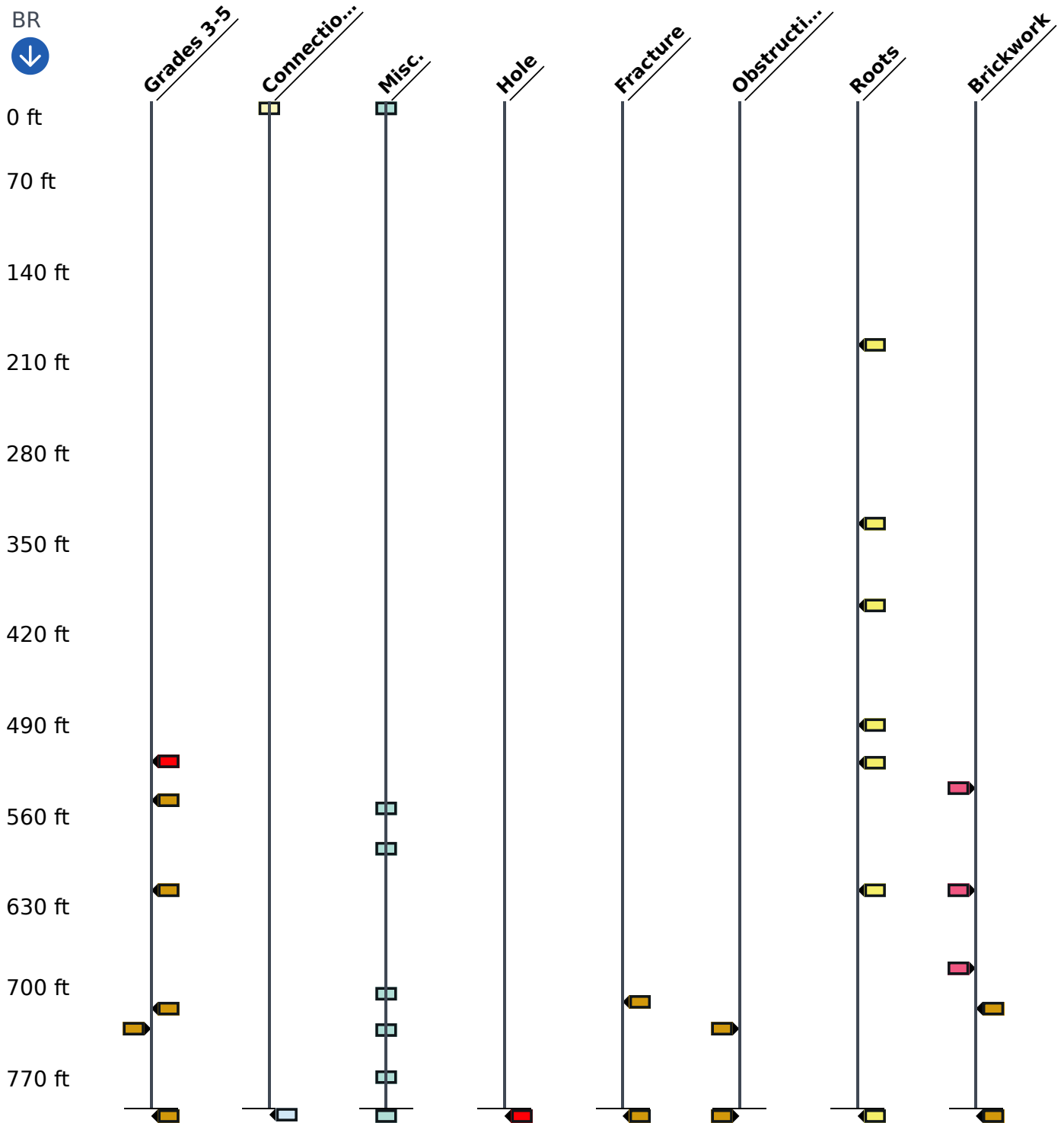
| | |
|--------------------------------|-----------------------------------|
| Owner CITY OF MARION | Customer CT CONSULTANTS |
|--------------------------------|-----------------------------------|

INSPECTION

| | | | |
|------------------------------------|-----------------------|--------------------------------|----------------------------------|
| Inspection Time 12:00 AM | City MARION | Inspection Status CI | In Feet (Imperial) Yes |
|------------------------------------|-----------------------|--------------------------------|----------------------------------|

DATE: 10/10/2024
PIPE SEG REF: MH 2 - HB
UP MH: MH 2
DOWN MH: HB











SMART DIAGRAM



DATE: 10/10/2024
PIPE SEG REF. MH 2 - HB
UP MH: MH 2
DOWN MH: HB

OBSERVATIONS

| Dist | Time | Description | Code | Clock | Dim. 1 | Dim. 2 | % | Remarks | Cont. | Grade |
|-------|------|-------------------------------------|------|-------|--------|--------|---|-------------------|-------|-------|
| 0 | 0:11 | Manhole | AM | - | - | - | - | MH 2 | - | - |
| 0 | 0:11 | Miscellaneous Water Level | MW | - | - | - | 5 | - | - | - |
| 0 | 0:11 | Miscellaneous General Observatio... | MG | - | - | - | - | 1499.8 FT OF FSET | - | - |
| 182.7 | 2:17 | Roots Fine Barrel | RFB | | - | - | - | VARYING POSITION | S01 | 2 |
| 321.7 | 3:53 | Roots Fine Barrel | RFB | | - | - | - | VARYING POSITION | F01 | 2 |
| 385 | 4:46 | Roots Fine Barrel | RFB | | - | - | - | VARYING POSITION | S02 | 2 |
| 478 | 6:28 | Miscellaneous Material Change | MM | - | - | - | - | BRICK TO LINED | - | - |
| 478 | 6:28 | Roots Fine Barrel | RFB | | - | - | - | VARYING POSITION | F02 | 2 |
| 506.1 | 7:08 | Hole Void Visible | HVV | | - | - | - | MISSING BRICK | - | 5 |
| 506.1 | 7:09 | Miscellaneous Material Change | MM | - | - | - | - | LINED TO BRICK | - | - |
| 506.5 | 7:13 | Roots Fine Barrel | RFB | | - | - | - | VARYING POSITION | S03 | 2 |
| 526.8 | 7:30 | Missing Mortar Small | MM | | - | - | - | - | S04 | 2 |
| 536.3 | 7:39 | Fracture Longitudinal | FL | | - | - | - | - | S05 | 3 |
| 605.2 | 8:43 | Fracture Longitudinal | FL | | - | - | - | - | F05 | 3 |
| 605.2 | 8:43 | Miscellaneous Material Change | MM | - | - | - | - | BRICK TO RCP | - | - |

| Dist | Time | Description | Code | Clock | Dim. 1 | Dim. 2 | % | Remarks | Cont. | Grade |
|-------|-------|-------------------------------------|------|---|--------|--------|----|------------------|-------|-------|
| 605.2 | 8:43 | Missing Mortar Small | MBM |  | - | - | - | - | F04 | 2 |
| 605.2 | 8:43 | Roots Fine Barrel | RFB |  | - | - | - | VARYING POSITION | F03 | 2 |
| 629.4 | 9:14 | Miscellaneous General Observatio... | MOG | - | - | - | - | MH 1 | - | - |
| 661.3 | 9:54 | Miscellaneous Material Change | MM | - | - | - | - | RCP TO BRICK | - | - |
| 666.5 | 10:01 | Missing Mortar Small | MBM |  | - | - | - | - | S06 | 2 |
| 688.2 | 10:14 | Miscellaneous Water Level | MLW | - | - | - | 20 | - | - | - |
| 697.6 | 10:20 | Missing Mortar Medium | MM |  | - | - | - | - | S07 | 3 |
| 713 | 10:31 | Obstruction Rocks | OBR |  | - | - | 15 | - | S08 | 3 |
| 780.4 | 11:32 | Missing Mortar Medium | MM |  | - | - | - | - | F07 | 3 |
| 780.4 | 11:32 | Missing Mortar Small | MBM |  | - | - | - | - | F06 | 2 |
| 780.4 | 11:32 | Obstruction Rocks | OBR |  | - | - | 15 | - | F08 | 3 |
| 780.4 | 11:32 | Roots Fine Barrel | RFB |  | - | - | - | - | - | 2 |
| 785.4 | 11:42 | Tap Factory Activity | TFA |  | 24 | - | - | - | - | - |
| 786.9 | 11:47 | Manhole | AMH | - | - | - | - | HB | - | - |

OBSERVATION SNAPSHOTS

DATE: 10/10/2024
PIPE SEG REF. MH 2 - HB
UP MH: MH 2
DOWN MH: HB

AMH
0 ft

MWL
0 ft

MGO
0 ft

RFB (2)
182.7 ft 7 - 5:00

RFB (2)
321.7 ft 7 - 5:00

RFB (2)
385 ft 7 - 5:00

MMC
478 ft

RFB (2)
478 ft 7 - 5:00

HVV (5)
506.1 ft 12:00

MMC
506.1 ft

RFB (2)
506.5 ft 7 - 5:00


MMS (2)
526.8 ft 5 - 7:00

FL (3)
536.3 ft 12:00


FL (3)
605.2 ft 12:00

MMC
605.2 ft


MMS (2)
605.2 ft 5 - 7:00




RFB (2)
 605.2 ft 7 - 5:00



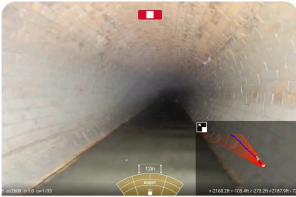
MGO
 629.4 ft



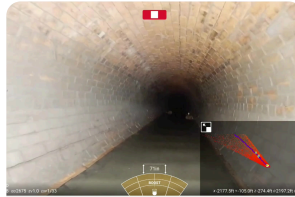
MMC
 661.3 ft




MMS (2)
 666.5 ft 4 - 8:00




MWL
 688.2 ft




MMM (3)
 697.6 ft 10 - 2:00




OBR (3)
 713 ft 5 - 7:00




MMM (3)
 780.4 ft 10 - 2:00




MMS (2)
 780.4 ft 4 - 8:00



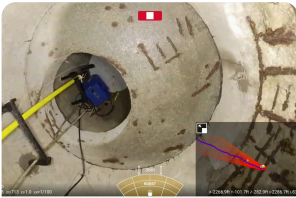
OBR (3)
 780.4 ft 5 - 7:00



RFB (2)
 780.4 ft 7 - 5:00



TFA
 785.4 ft 8:00



AMH
 786.9 ft

DATE: 10/10/2024
PIPE SEG REF. MH 2 - HB
UP MH: MH 2
DOWN MH: HB

RATINGS

| | | | |
|--------------------------|----------------|-------------------|----------------|
| PIPE RATING INDEX | Overall | Structural | O&M |
| | 2.3 | 2.5 | 2.2 |

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

| | | | |
|--------------------|----------------|-------------------|----------------|
| PIPE RATING | Overall | Structural | O&M |
| | 351 | 176 | 175 |

Sum of all graded conditions.

| | | | | |
|---------------------|----------------|-------------------|----------------|------------------------------|
| QUICK RATING | Overall | Structural | O&M | Likelihood of Failure |
| | 5 1 3 G | 5 1 3 E | 3 A 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 |
| | # | 0 | 11 | 6 | 0 | 1 |

Count of each condition grade in the inspection.