Appendix I
Inline Camera Sewer Inspections

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Appendix I
Inline Camera Sewer Inspection
Summary Sheet

Camera Survey	Company
December 2019 and January 2020	Rettew
June 2021	Rettew

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SUBSURFACE UTILITY ENGINEERING PROJECT COMPLETION REPORT

RETTEW

TO: Ron Arcuri, Geosyntec

FROM: Bill Steinhart, RETTEW Field Services, Inc.

CC: John B. Stipe III, RETTEW Associates, Inc.

DATE: 1/24/2020, **Revised 1/31/2020**

CLIENT: Geosyntec	PROJECT LOCATION:
PROJECT NO: 089962007, Addendum 3	Football Field Complex
PROJECT NAME: Football Field Complex, Elmira, NY	777 S. Main Street
TECHNICIANS: Chris Lash, Keith Frost	Elmira, NY

UTILITIES LOCATED:	**EQUIPMENT:**
• **Electrical Lines**	☒ EM Locator (RD8000)
• **Gas Lines**	☒ Ground Penetrating Radar (GPR)
• **Water Lines**	☒ TW-6 (metal detector)
• **Sewer Lines**	☒ C.A.T. Passive Locator
• **Storm Lines**	☐ Acoustic Leak Detector
• **Unknown Lines**	☐ Magnetometer
	☒ CCTV Inspection Camera
	☐ Traceable Rodder

SCOPE OF WORK

Between December 19 and 29, 2019, RETTEW completed a multi-phase task for Geosyntec at the Elmira High School site which included:

- A subsurface utility survey to mark-out utilities near Test Pit locations 2, 3, 7, 8, and 9 prior to excavation of test pits. The test pit utility clearance was a follow-up survey to remark utilities located during the April 2019 site wide utility survey (RETTEW project number 089962007).
- Excavation/Open Pipe/Repair Pipe/Restore Excavation of Test Pits 2, 3, 7, 8, and 9.
- Limited tree/brush clearing to facilitate test pit access.
- Perform a video inspection of approximately 444 feet of client designated storm sewer pipes (see **Figure 1**) utilizing robotic CCTV technology.

METHODOLOGIES

RETTEW performed the subsurface utility survey utilizing industry standard equipment including: GPR, an EM locator, a TW-6 metal detector, and a passive locator. At the beginning of the survey, the areas around each test pit were inspected for utilities with visible surface features (i.e. manhole covers, valves, utility poles, etc.). These utilities were traced with the EM locator. The test pit locations were then searched for unknown utilities with the GPR, TW-6 and the passive locator.

RETTEW performed the storm sewer CCTV inspection by utilizing an Envirosight Rovver Robotic Inspection camera. Video footage was collected, and features of note were catalogued for output to a WinCan report for each manhole to manhole segment.

RESULTS/CONCLUSIONS

The test pit locations are depicted in **Figure 1** along with the utilities mapped during the April 2019 field work. As mentioned above, the area around each proposed test pit was scanned for utilities utilizing a

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GPR, an EM locator, a TW-6 metal detector, and a passive locator. Utilities found near the test pit locations were remarked (from previous April 2019 survey).

RESULTS/CONCLUSIONS (Cont'd)

ATTACHMENTS: The line segments of the storm sewer inspected with the Rovver Robotic CCTV system are also depicted in **Figure 1**). The WinCan inspection reports for each storm sewer pipe segment are included in **Attachment A**.

RETTEW strives to provide quality and accurate locating services to all of its clients, but due to the nature of underground facilities, RETTEW will not be held liable for any damaged facilities. All clients are advised that they are required to follow their state's One-Call-Law before beginning excavation. The marks placed during this investigation are temporary markings for utility mapping purposes. The marks are not intended, nor should they be used, for construction; legal and/or recommended construction tolerance zones associated with the identified utilities were not marked by RETTEW. Prior to construction activities, RETTEW should be contacted for re-marking of the utilities and construction tolerance zones.

RETTEW will not guarantee the longevity of utility markings, due to activities on site that may destroy, or otherwise alter, the markings that were placed on the ground by RETTEW. If the marks have been altered or destroyed, the client is advised to contact RETTEW for re-markings. Any electronically determined depths provided to the client are estimates only, and due to equipment limitations, cannot be guaranteed. The client acknowledges that due to the limitations of the equipment used, safe exposure and measurements are the only methods which can precisely determine location and depth of structures marked.

PREPARED BY:	RECEIVED BY:
William E. Steinhart III, PG – Senior Geophysicist _____	_____ (Name and Title)

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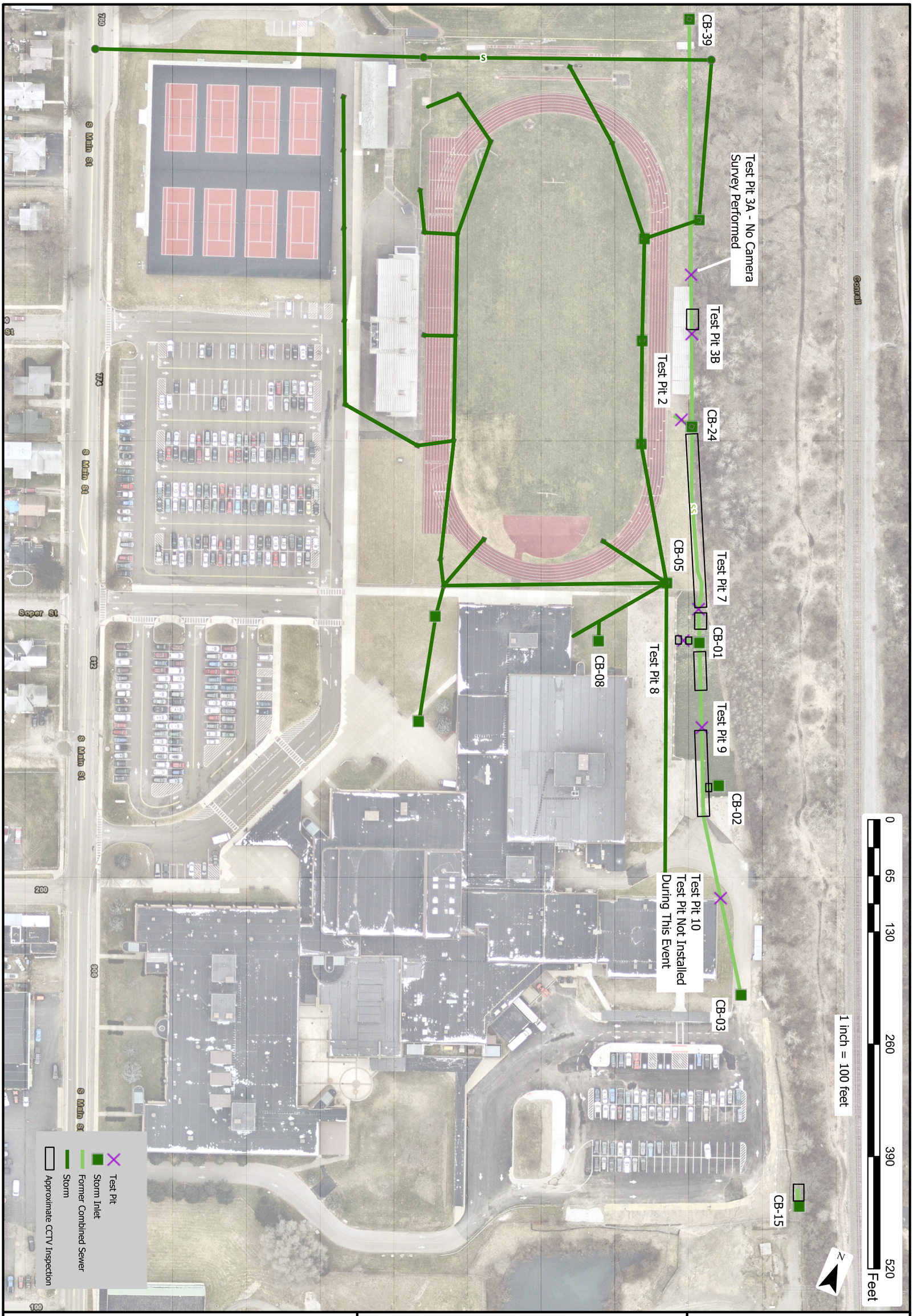

Figure 1: CCTV Inspection Locations

Football Field Complex
777 S. Main Street
Elmira, NY

TOWN OF SOUTHPORT

CHEMUNG COUNTY, NY

RETTEW

RETTEW Associates, Inc.
3020 Columbia Avenue, Lancaster, PA 17603
Phone (717) 394-3721 Fax (717 395-1063

SURVEY DATE:	12/23/2019
PROJECT No:	089962007
REVIEWED BY:	JBS
DRAWN BY:	WES
DATE:	01/31/2020
FIGURE No:	1 OF 1

RETTEW

ATTACHMENT A-
WINCAN STORM PIPE INSPECTION REPORTS

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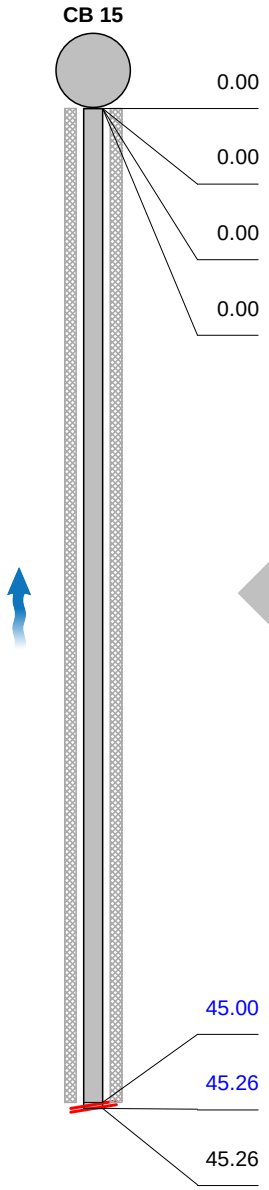
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/23/2019			**Christopher Lash**	**70306028**	**CB-15 to North**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**45.3 '**	**45.3 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**north**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**CB 15**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**36 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Clay Tile (not vitrified clay**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:342	Distance		Code	Observation	Counter	Photo	Grade
	0.00		MWL	Water Level, 0% of the vertical dimension	00:00:00	CB-15 to Unkonwn_ 5d9536ee-	
	0.00		AMH	Manhole / CB-15	00:00:00	CB-15 to Unkonwn_ 3cf30b0b-	
	0.00		MGO	General Observation / Pipe to the west from CB15 main line in the large vault like manhole	00:00:59	CB-15 to Unkonwn_ 8b18f192-	
	0.00	S01	DSF	Deposits Settled Fine, 20% of cross sectional area from 4 o'clock to 8 o'clock, Start / Mud	00:08:28		
	45.00	F01	DSF	Deposits Settled Fine, 20% of cross sectional area from 4 o'clock to 8 o'clock, Finish / Mud	00:08:28		M3
	45.26		OBZ	Obstacles Other, 20% of cross sectional area from 4 o'clock to 8 o'clock / mud	00:21:54		M3
	45.26		MSA	Survey Abandoned / obz	00:21:56		

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	3A00	0.0	30.0	30.0	0.0	3.0	3.0

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Section Pictures - 12/23/2019 - CB-15 to Unkonwn

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/23/2019**	**CB-15 to North**	**1**

CB-15 to Unkonwn_5d9536ee-0086-4a96-8d9d-b047ccc76eb3_20191223_092042_185.jpg, 00:00:00, 0.00ft
Water Level, 0% of the vertical dimension

CB-15 to Unkonwn_3cf30b0b-8d8b-452e-a24c-83e6d7f293b5_20191223_092006_603.jpg, 00:00:00, 0.00ft
Manhole / CB-15

CB-15 to Unkonwn_8b18f192-5f82-4cb8-abec-494fe7f9c17e_20200116_202616_483.jpg, 00:00:59, 0.00ft
General Observation / Pipe to the west from CB15 main line in the large vault like manhole

CB-15 to Unkonwn_66e81865-30aa-450d-9b37-f8c4fd69e433_20200116_202753_009.jpg, 00:00:59, 0.00ft
General Observation / Pipe to the west from CB15 main line in the large vault like manhole

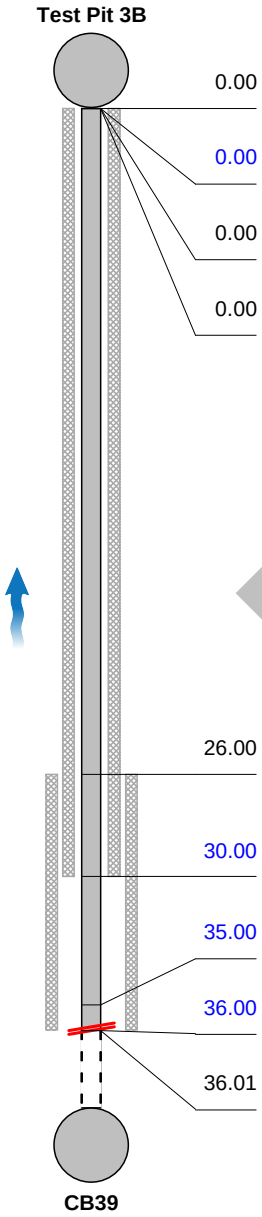
WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/23/2019			**Christopher Lash**	**70306028**	**Test Pit 3B to CB39**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**39.0 '**	**36.0 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB39**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**Test Pit 3B**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:295	Distance		Code	Observation	Counter	Photo	Grade
	0.00		AOC	Special Chamber		100 ft N CB24_4ae 89dc0-c8e	
	0.00		DNF	Deposits Ingress Fine, 20% of cross sectional area from 4 o'clock to 8 o'clock	00:00:00	100 ft N CB24_fd7 bd9d1-089	M3
	0.00		MWL	Water Level, 0% of the vertical dimension	00:00:00	100 ft N CB24_210 13073-395	
	0.00	S01	RTB	Roots Tap Barrell from 4 o'clock to 8 o'clock, 10% of cross sectional area, within 8 inch, Start / Restricted Robot Movement	00:00:08	Test Pit 3 to CB24_e04	
	26.00	S02	DNGV	Deposits Ingress Gravel, 40% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Start	00:15:10	Test Pit 3 to CB24_429	
	30.00	F01	RTB	Roots Tap Barrell from 4 o'clock to 8 o'clock, 10% of cross sectional area, within 8 inch, Finish / Restricted Robot Movement	00:00:08	Test Pit 3 to CB24_438	M3
	35.00		DNGV	Deposits Ingress Gravel, 100% of cross sectional area from 12 o'clock to 12 o'clock, within 8 inch	00:15:21	Test Pit 3 to CB24_193	M5
	36.00	F02	DNGV	Deposits Ingress Gravel, 40% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Finish	00:15:21		M5
	36.01		MSA	Survey Abandoned / DNGV	00:15:21		

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QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5337	0.0	36.0	36.0	0.0	3.6	3.6

Section Pictures - 12/23/2019 - Test Pit 3B to CB39

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/23/2019**	**Test Pit 3B to CB39**	**2**

100 ft N
CB24_4ae89dc0-c8e6-4947-9cb7-28c155c0de88_20191223_125451_040.jpg, , 0.00ft
Special Chamber

100 ft N
CB24_fd7bd9d1-089b-447f-b169-1101e55f2961_20191223_125549_819.jpg, 00:00:00, 0.00ft
Deposits Ingress Fine, 20% of cross sectional area from 4 o'clock to 8 o'clock

100 ft N
CB24_21013073-395e-4a9f-9653-138f15685da1_20191223_125521_654.jpg, 00:00:00, 0.00ft
Water Level, 0% of the vertical dimension

Test Pit 3 to
CB24_e0451d6a-9a20-41c9-807d-15aefa77ebb6_20200116_203414_514.jpg, 00:00:08, 0.00ft
Roots Tap Barrell from 4 o'clock to 8 o'clock, 10% of cross sectional area, within 8 inch, Start / Restricted Robot Movement

Section Pictures - 12/23/2019 - Test Pit 3B to CB39

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/23/2019**	**Test Pit 3B to CB39**	**2**

Test Pit 3 to CB24_429c2098-c040-43cc-9dd2-596e8ab088cc_20200116_203628_049.jpg, 00:15:10, 26.00ft
Deposits Ingress Gravel, 40% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Start

Test Pit 3 to CB24_4385de2d-c372-4285-972d-a1a498ae8a72_20200116_203933_753.jpg, 00:00:08, 30.00ft
Roots Tap Barrell from 4 o'clock to 8 o'clock, 10% of cross sectional area, within 8 inch, Finish / Restricted Robot Movement

Test Pit 3 to CB24_193ac897-ba82-42a1-8636-2d8ac1faccbb_20200116_203846_891.jpg, 00:15:21, 35.00ft
Deposits Ingress Gravel, 100% of cross sectional area from 12 o'clock to 12 o'clock, within 8 inch

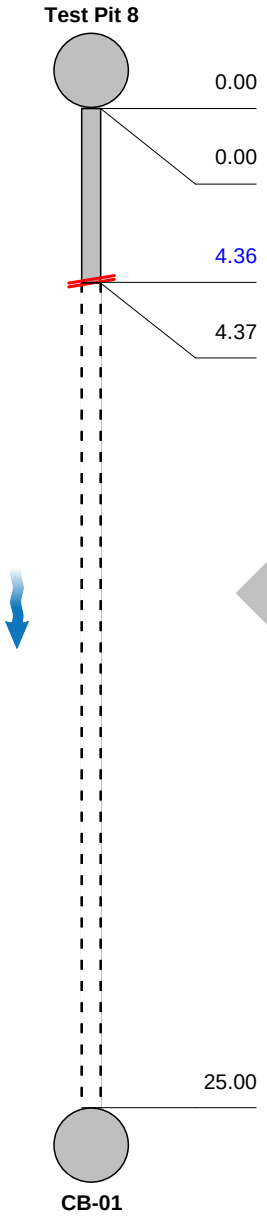
WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/23/2019			**Christopher Lash**	**70306028**	**Test Pit 8 to CB-01**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**25.0 '**	**4.4 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**Test Pit 8**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**CB-01**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**12 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:189	Distance	Code	Observation	Counter	Photo	Grade
	0.00	MWL	Water Level, 20% of the vertical dimension	00:00:00	Test Pit 8 to Catch B 8_fe27b7a	
	0.00	AOC	Special Chamber	00:00:00	Test Pit 8 to Catch B 8_97436dc	
	4.36	DSC	Deposits Settled Compacted, 100% of cross sectional area from 12 o'clock to 12 o'clock	00:05:12	Test Pit 8 to CB-01_7d	M5
	4.37	MSA	Survey Abandoned / DPS	00:05:12		
	25.00		End of pipe			

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QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5100	0.0	5.0	5.0	0.0	5.0	5.0

Section Pictures - 12/23/2019 - Test Pit 8 to CB-01

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/23/2019**	**Test Pit 8 to CB-01**	**4**

Test Pit 8 to Catch B
8_fe27b7a9-ccba-4e3f-817b-9bb497179d35_20191223_174829_312.jpg, 00:00:00, 0.00ft
Water Level, 20% of the vertical dimension

Test Pit 8 to Catch B
8_97436dce-b60c-4207-9c86-0629217439ef_20191223_174821_468.jpg, 00:00:00, 0.00ft
Special Chamber

Test Pit 8 to CB-01_7d301137-cea9-4fa1-915d-9399ddef5823_20200116_204617_618.jpg, 00:05:12, 4.36ft
Deposits Settled Compacted, 100% of cross sectional area from 12 o'clock to 12 o'clock

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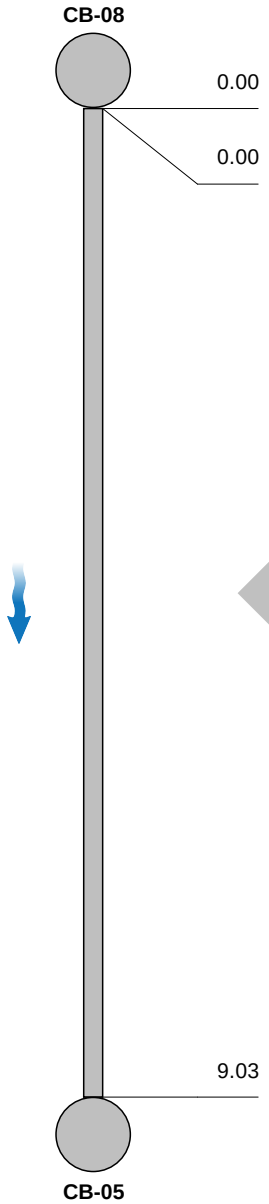
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/27/2019			**Christopher Lash**	**70306028**	**CB-08 to CB-05**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**9.0 '**	**9.0 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB-08**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**CB-05**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**12 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Concrete Pipe (non-reinforced)**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:69	Distance	Code	Observation	Counter	Photo	Grade
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:00	CB8 to North_97e addb5-a8e	
	0.00	ACB	Catch Basin / cb 8 start	00:00:00	CB8 to North_739 25a0c-fac7	
	9.03	ATC	Tee Connection at 12 o'clock, 12"inch vertical	00:07:22	CB-08 to CB-05_79 18116b-a8	

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QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0.0	0.0	0.0	0.0	0.0	0.0

Section Pictures - 12/27/2019 - CB-08 to CB-05

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**CB-08 to CB-05**	**6**

CB8 to North_97eaddb5-a8ee-4576-afc3-a85df4c91e90_20191227_094618_343.jpg, 00:00:00, 0.00ft
Water Level, 0% of the vertical dimension

CB8 to North_73925a0c-fac7-4bcd-82be-e19d1bf6d005_20191227_094538_327.jpg, 00:00:00, 0.00ft
Catch Basin / cb 8 start

CB-08 to CB-05_7918116b-a89f-4947-a85a-91bfc2f12073_20200116_205255_403.jpg, 00:07:22, 9.03ft
Tee Connection at 12 o'clock, 12"inch vertical

CB-08 to CB-05_82122a3b-94c4-4f3d-9f4d-24c45f0c4c50_20200116_205336_185.jpg, 00:07:22, 9.03ft
Tee Connection at 12 o'clock, 12"inch vertical

WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/27/2019			**Christopher Lash**	**70306028**	**CB-02 to West**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**14.2 '**	**14.2 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB02**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**west**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**12 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Concrete Pipe (non-reinforced)**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

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1:108	Distance	Code	Observation	Counter	Photo	Grade
CB02						
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:00	cb02 to west_9c39 916d-6ed8	
	0.00	ACB	Catch Basin / cb 02 start	00:09:14		
	14.20	ATC	Tee Connection at 3 o'clock, 36"inch vertical	00:02:31	cb02 to west_8bac b4ef-3d2a-	
west						

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0.0	0.0	0.0	0.0	0.0	0.0

Section Pictures - 12/27/2019 - CB-02 to West

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**CB-02 to West**	**7**

cb02 to west_9c39916d-6ed8-40d5-9995-6fac183440fa_20191227_112643_378.jpg, 00:00:00, 0.00ft
Water Level, 0% of the vertical dimension

cb02 to west_8bacb4ef-3d2a-4fad-97fb-8a5a6a0566c6_20200116_205609_951.jpg, 00:02:31, 14.20ft
Tee Connection at 3 o'clock, 36"inch vertical

WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/27/2019			**Christopher Lash**	**70306028**	**Tee W of CB-02 to CB-01**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**35.3 '**	**35.3 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB-01**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**Tee Connection West of CB-02**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**36 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Concrete Pipe (non-reinforced)**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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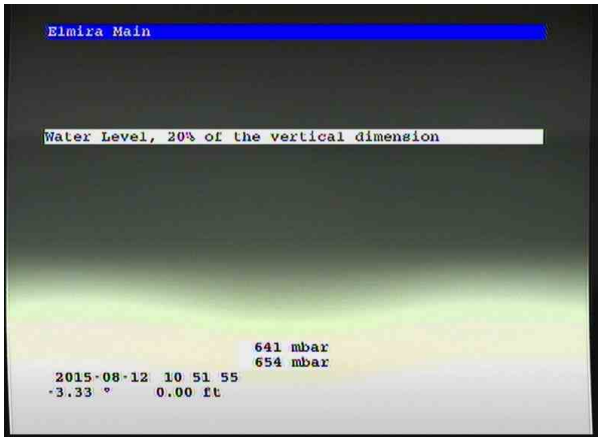
1:267	Distance	Code	Observation	Counter	Photo	Grade
Tee Connection West of CB-02						
	0.00	MWL	Water Level, 5% of the vertical dimension	00:00:00	west cb2 to cb1_f7ce3	
	0.00	AOC	Special Chamber / wcb2	00:02:40		
	35.28	OBR	Obstacles Rocks, 100% of cross sectional area from 12 o'clock to 12 o'clock	00:04:44	west cb2 to cb1_fb858	M5
	35.30	MSA	Survey Abandoned / obr	00:06:30		

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5100	0.0	5.0	5.0	0.0	5.0	5.0

Section Pictures - 12/27/2019 - Tee W of CB-02 to CB-01

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**Tee W of CB-02 to CB-01**	**8**



west cb2 to cb1_f7ce337f-f154-43fd-a087-a22b2d15d98a_20191227_134906_867.jpg, 00:00:00, 0.00ft
Water Level, 5% of the vertical dimension

west cb2 to cb1_fb858116-5823-40e8-acb8-ec4b7ca6f54a_20191227_135422_327.jpg, 00:04:44, 35.28ft
Obstacles Rocks, 100% of cross sectional area from 12 o'clock to 12 o'clock

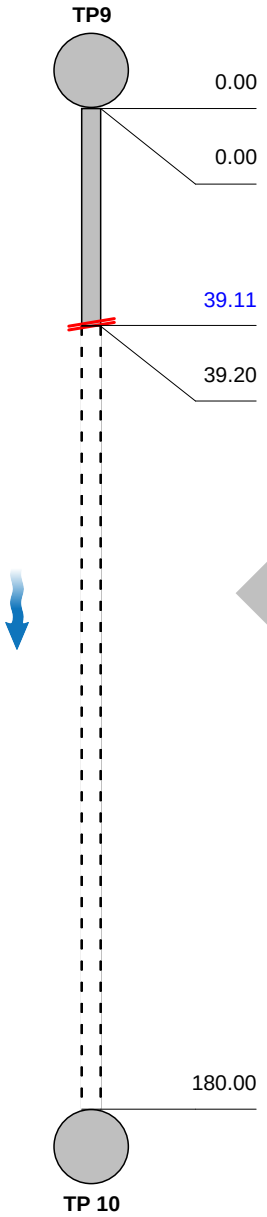
WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/27/2019			**Christopher Lash**	**70306028**	**TP-9 to TP-10**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**180.0 '**	**39.2 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**TP9**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP 10**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**36 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Concrete Pipe (non-reinforced)**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:1359	Distance	Code	Observation	Counter	Photo	Grade
	0.00	AOC	Special Chamber / TP 9 Start	00:00:00	tp-9 to tp 10_cf9edab0-2398-4	
	0.00	MWL	Water Level, 25% of the vertical dimension	00:18:41	tp-9 to tp 10_5c10c68d-30a1-4	
	39.11	OBP	Obstacles External Pipe or Cable, 20% of cross sectional area at 12 o'clock	00:18:41	tp-9 to tp 10_dc7e1b52-471d-4	M3
	39.20	MSA	Survey Abandoned / OBP	00:01:30		
	180.00		End of pipe			

DRAFT

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	3100	0.0	3.0	3.0	0.0	3.0	3.0

Section Pictures - 12/27/2019 - TP-9 to TP-10

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**TP-9 to TP-10**	**9**

tp-9 to tp
10_cf9edab0-2398-4055-a935-c0f083a3e737_20191227_142226_619.jpg, 00:00:00, 0.00ft
Special Chamber / TP 9 Start

tp-9 to tp
10_5c10c68d-30a1-43ad-b99c-d2807a1d5dfd_20191227_142244_690.jpg, 00:18:41, 0.00ft
Water Level, 25% of the vertical dimension

tp-9 to tp
10_dc7e1b52-471d-4d07-ae9e-686ce495abdf_20191227_142541_658.jpg, 00:18:41, 39.11ft
Obstacles External Pipe or Cable, 20% of cross sectional area at 12 o'clock

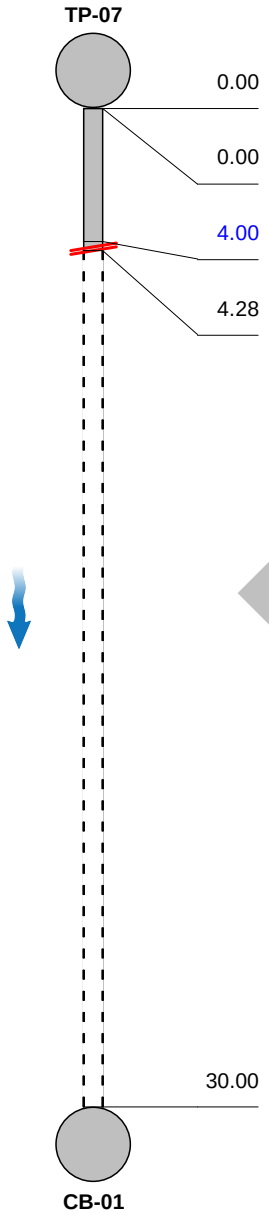
WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/27/2019			**Christopher Lash**	**70306028**	**TP-07 to CB-01**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**30.0 '**	**4.3 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**TP-07**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**CB-01**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:227	Distance	Code	Observation	Counter	Photo	Grade
	0.00	MWL	Water Level, 5% of the vertical dimension	00:00:00	tp7 cb1_56d957b5-ba58-	
	0.00	AOC	Special Chamber / tp7 start	00:03:39	tp7 cb1_3b4f66bb-bb3a-	
	4.00	DSGV	Deposits Settled Gravel, 80% of cross sectional area from 4 o'clock to 12 o'clock, within 8 inch	00:02:19	tp7 cb1_0b6ffbc7-a5dd-	M5
	4.28	MSA	Survey Abandoned / DSGV	00:00:00		
	30.00		End of pipe			

DRAFT

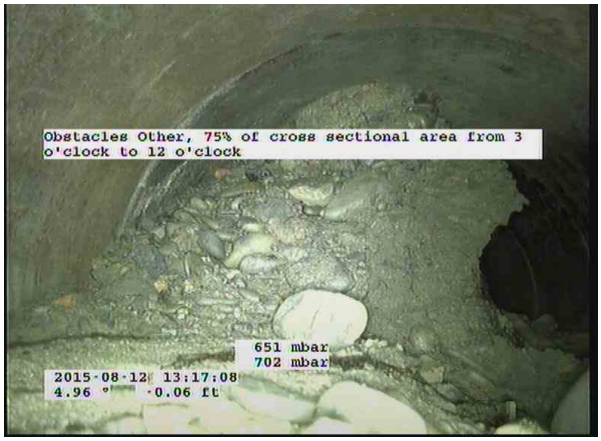
QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5100	0.0	5.0	5.0	0.0	5.0	5.0

Section Pictures - 12/27/2019 - TP-07 to CB-01

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**TP-07 to CB-01**	**10**

tp7
cb1_56d957b5-ba58-48d2-b845-136309cccee3_20191227_161128_719.jpg, 00:00:00, 0.00ft
Water Level, 5% of the vertical dimension

tp7
cb1_3b4f66bb-bb3a-4d0d-bd4b-1f04a4bb593b_20191227_161101_483.jpg, 00:03:39, 0.00ft
Special Chamber / tp7 start



tp7
cb1_0b6ffbc7-a5dd-4884-b536-bdfcb22f2ae9_20191227_161419_952.jpg, 00:02:19, 4.00ft
Deposits Settled Gravel, 80% of cross sectional area from 4 o'clock to 12 o'clock, within 8 inch

WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/27/2019			**Christopher Lash**	**70306028**	**TP-07 to CB-24**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**198.3 '**	**198.3 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB24**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP7**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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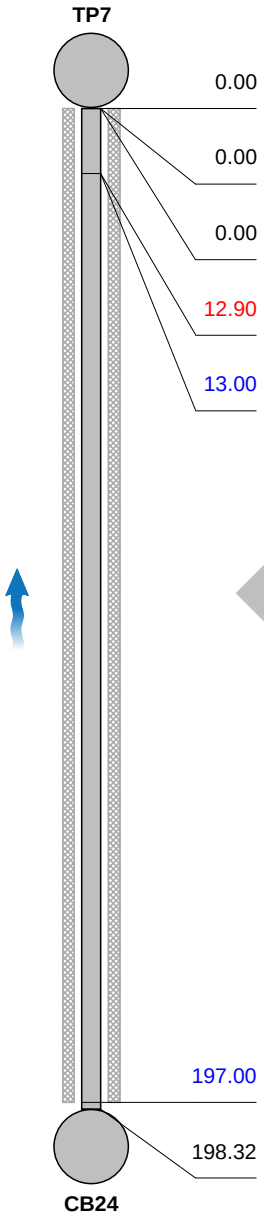

1:1497	Distance		Code	Observation	Counter	Photo	Grade
	0.00		AOC	Special Chamber	00:00:00		
	0.00		MWL	Water Level, 0% of the vertical dimension	00:00:02	tp7 to cb24_a07c943c-e1e1	
	0.00	S01	DSGV	Deposits Settled Gravel, 15% of cross sectional area from 4 o'clock to 8 o'clock, Start	00:00:39	TP-07 to CB-24_272ee1b9-07	
	12.90		BSV	Broken Soil Visible from 12 o'clock to 6 o'clock, within 8 inch	00:03:05	tp7 to cb24_6fc84e18-5cff-	S5
	13.00		DNGV	Deposits Ingress Gravel, 65% of cross sectional area from 1 o'clock to 7 o'clock, within 8 inch	00:02:50	TP-07 to CB-24_6736e719-2d	M5
	197.00	F01	DSGV	Deposits Settled Gravel, 15% of cross sectional area from 4 o'clock to 8 o'clock, Finish	00:00:39		M3
	198.32		AMH	Manhole / CB24 End	00:09:27	TP-07 to CB-24_c6aafb36-5c	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
5100	513F	5.0	122.0	127.0	5.0	3.0	3.1

Section Pictures - 12/27/2019 - TP-07 to CB-24

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**TP-07 to CB-24**	**11**

tp7 to cb24_a07c943c-e1e1-4788-af60-040d92f24c70_20191227_161620_470.jpg, 00:00:02, 0.00ft
Water Level, 0% of the vertical dimension

TP-07 to CB-24_272ee1b9-0713-4031-a3c3-a601bffe9576_20200116_211526_222.jpg, 00:00:39, 0.00ft
Deposits Settled Gravel, 15% of cross sectional area from 4 o'clock to 8 o'clock, Start

tp7 to cb24_6fc84e18-5cff-42e2-a8e7-d1007cb0572a_20191227_162307_412.jpg, 00:03:05, 12.90ft
Broken Soil Visible from 12 o'clock to 6 o'clock, within 8 inch

TP-07 to CB-24_6736e719-2d5b-4ac1-88c1-db9eb574c72d_20200116_211026_467.jpg, 00:02:50, 13.00ft
Deposits Ingress Gravel, 65% of cross sectional area from 1 o'clock to 7 o'clock, within 8 inch

Section Pictures - 12/27/2019 - TP-07 to CB-24

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**TP-07 to CB-24**	**11**

TP-07 to CB-24_c6aafb36-5c98-4da9-9872-3f6ba9546c9b_20200116_211328_968.jpg, 00:09:27, 198.32ft
Manhole / CB24 End

WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/27/2019			**Christopher Lash**	**70306028**	**CB-01 to TP-07**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**37.5 '**	**37.5 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**TP-07**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**CB-01**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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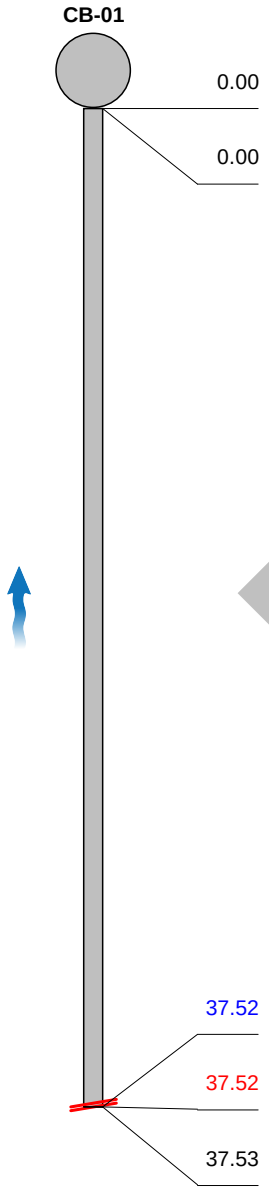


1:284	Distance	Code	Observation	Counter	Photo	Grade
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:00	CB1 to North_754 a49ee-e30	
	0.00	ACB	Catch Basin / CB1 Start	00:10:55	CB1 to North_345 adc86-a8b	
	37.52	DNGV	Deposits Ingress Gravel, 85% of cross sectional area from 11 o'clock to 7 o'clock, within 8 inch	00:01:25	CB1 to North_34b 2221a-9bc	M5
	37.52	HSV	Hole Soil Visible at 12 o'clock, within 8 inch, 3inch defective	00:01:22	CB1 to North_f745 a7d9-1f96-	S5
	37.53	MSA	Survey Abandoned / DNGV	00:01:33		

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
5100	5100	5.0	5.0	10.0	5.0	5.0	5.0

Section Pictures - 12/27/2019 - CB-01 to TP-07

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**CB-01 to TP-07**	**12**

CB1 to
North_754a49ee-e302-4f03-8986-7e39a3b71a7d_20191227_170751_718.jpg, 00:00:00, 0.00ft
Water Level, 0% of the vertical dimension

CB1 to
North_345adc86-a8bd-4351-ae98-2526a00ef8ff_20191227_170727_418.jpg, 00:10:55, 0.00ft
Catch Basin / CB1 Start

CB1 to
North_34b2221a-9bc8-45a6-be9f-adab65d65e17_20191227_171006_857.jpg, 00:01:25, 37.52ft
Deposits Ingress Gravel, 85% of cross sectional area from 11 o'clock to 7 o'clock, within 8 inch

CB1 to
North_f745a7d9-1f96-485b-b468-2b0fa75d1210_20191227_171005_621.jpg, 00:01:22, 37.52ft
Hole Soil Visible at 12 o'clock, within 8 inch, 3inch defective

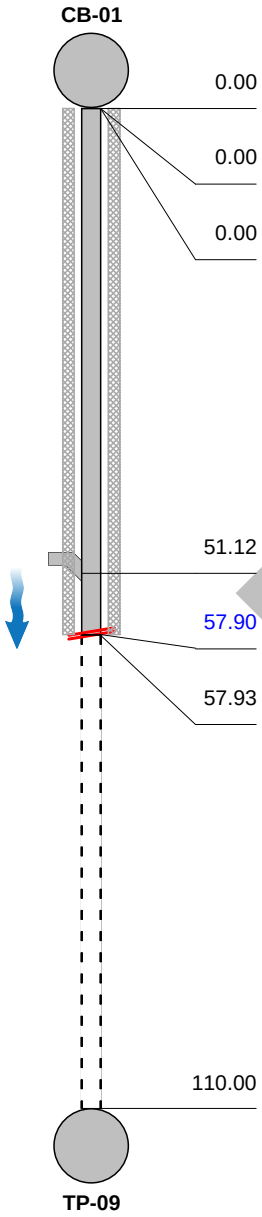
WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
12/27/2019			**Christopher Lash**	**70306028**	**CB-01 to TP-09**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**110.0 '**	**57.9 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB-01**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP-09**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:831	Distance		Code	Observation	Counter	Photo	Grade
	0.00		MWL	Water Level, 0% of the vertical dimension	00:00:00	cb1 to tp9_9712d94e-9adf-4	
	0.00	S01	DSF	Deposits Settled Fine, 15% of cross sectional area from 4 o'clock to 8 o'clock, within 8 inch, Start / MUD	00:00:36	CB-01 to TP-09_e1a0b801-41b	
	0.00		ACB	Catch Basin / CB-01 Start	00:01:37	cb1 to tp9_647c9d1f-2173-4	
	51.12		TB	Tap Break-In at 3 o'clock, 8inch dim	00:02:56	cb1 to tp9_0b14f4d2-d1c7-	
	57.90	F01	DSF	Deposits Settled Fine, 15% of cross sectional area from 4 o'clock to 8 o'clock, within 8 inch, Finish / MUD	00:00:36		M3
	57.93		MSA	Survey Abandoned / DSF	00:07:53	cb1 to tp9_11954 76c-1920-	
	110.00			End of pipe			

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	3A00	0.0	36.0	36.0	0.0	3.0	3.0

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Section Pictures - 12/27/2019 - CB-01 to TP-09

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**CB-01 to TP-09**	**13**

cb1 to
tp9_9712d94e-9adf-486d-9be5-b40a8b7d2ddf_20191227_171723_142.jpg, 00:00:00, 0.00ft
Water Level, 0% of the vertical dimension

cb1 to
tp9_1c9dcd35-9d4f-4961-a27c-5daca9d986c6_20191227_171729_631.jpg, 00:00:00, 0.00ft
Water Level, 0% of the vertical dimension

CB-01 to
TP-09_e1a0b801-41b1-4691-b8b6-3c378fd5efef_20200116_212138_866.jpg, 00:00:36, 0.00ft
Deposits Settled Fine, 15% of cross sectional area from 4 o'clock to 8 o'clock, within 8 inch, Start / MUD

cb1 to
tp9_647c9d1f-2173-492c-83b0-9b538801edf7_20191227_171701_818.jpg, 00:01:37, 0.00ft
Catch Basin / CB-01 Start

Section Pictures - 12/27/2019 - CB-01 to TP-09

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**12/27/2019**	**CB-01 to TP-09**	**13**

cb1 to
tp9_0b14f4d2-d1c7-4454-a854-ed68ed522aaa_20191227_172057_095.jpg, 00:02:56, 51.12ft
Tap Break-In at 3 o'clock, 8inch dim

cb1 to
tp9_1195476c-1920-4552-8019-c3f8c9076436_20191227_172641_971.jpg, 00:07:53, 57.93ft
Survey Abandoned / DSF

cb1 to
tp9_c13cbdee-9df2-43af-9046-c2f05aa83cf0_20191227_172649_644.jpg, 00:07:53, 57.93ft
Survey Abandoned / DSF

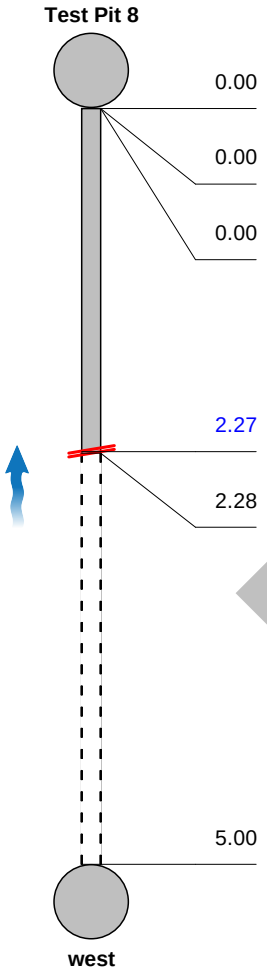
WinCan

Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
1/30/2020			**Christopher Lash**	**70306028**	**Test Pit 8 to the West**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**5.0 '**	**2.3 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**west**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**Test Pit 8**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**12 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



Distance	Code	Observation	Counter	Photo	Grade
0.00	AOC	Special Chamber	00:00:00		
0.00	MWL	Water Level, 50% of the vertical dimension	00:00:48	Test Pit 8 to the West_426	
0.00	MCU	Camera Underwater	00:00:48	Test Pit 8 to the West_7d7	M4
2.27	OBZ	Obstacles Other, 50% of cross sectional area from 3 o'clock to 9 o'clock / Mud	00:01:04	Test Pit 8 to the West_8c2	M5
2.28	MSA	Survey Abandoned / OBZ	00:01:04		
5.00		End of pipe			

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QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5141	0.0	9.0	9.0	0.0	4.5	4.5

Section Pictures - 1/30/2020 - Test Pit 8 to the West

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**1/30/2020**	**Test Pit 8 to the West**	**14**

Test Pit 8 to the West_426ba309-086e-4cd1-b89a-700ba22faee4_20200130_191909_602.jpg, 00:00:48, 0.00ft
Water Level, 50% of the vertical dimension

Test Pit 8 to the West_7d70c36b-4150-487f-8128-9fa1bbfb39f8_20200130_191925_954.jpg, 00:00:48, 0.00ft
Camera Underwater

Test Pit 8 to the West_8c26fefb-8314-4832-b1af-1d2df3c1615e_20200130_192036_857.jpg, 00:01:04, 2.27ft
Obstacles Other, 50% of cross sectional area from 3 o'clock to 9 o'clock / Mud

SUBSURFACE UTILITY ENGINEERING PROJECT SUMMART REPORT

RETTEW

TO: Aron Krasnopoler, PhD, PE, Geosyntec Consultants

FROM: Christopher Lash, RETTEW Field Services, Inc.

CC: John B. Stipe, III, RETTEW Associates, Inc.

DATE: April 29, 2021

CLIENT: Geosyntec Consultants	PROJECT LOCATION:
PROJECT NO: 089962026	Elmira High School
PROJECT NAME: Elmira High School, Elmira, NY	777 S. Main Street
TECHNICIANS: Christopher Lash	Elmira, NY

UTILITIES LOCATED AND INSPECTED:	EQUIPMENT:
• **Sewer Lines** • **Storm Lines**	☒ EM Locator (RD8000) ☐ Ground Penetrating Radar (GPR) ☐ TW-6 (metal detector) ☐ C.A.T. Passive Locator ☐ Acoustic Leak Detector ☐ Magnetometer ☒ CCTV Inspection Camera ☐ Traceable Rodder

SCOPE OF WORK

Between April 7 and April 16, 2021 RETTEW completed a CCTV video inspection of storm and sanitary sewer facilities for Geosyntec Consultants at the Elmira High School in Elmira, NY. The objectives included:

- CCTV video inspection and location of client designated portions of storm and sanitary sewers that totaled approximately 632 lineal feet (LF) (refer to **Figure 1**).
- Identify any locate any lateral connections to the sewer mains.

METHODOLOGIES

RETTEW performed the storm/sanitary sewer CCTV video inspection by utilizing an Envirosight RovverX Robotic Inspection camera. Video footage was collected, and features of note were catalogued for output to a WinCan report for each pipe segment inspected. In addition, the location and extent of each CCTV pipe inspection was marked on the ground with flagging or marking paint and surveyed with GNSS technology.

RESULTS/CONCLUSIONS

Manholes on-site were utilized to gain access to the sewer facilities and the conditions within the pipe were unfavorable due to the soil and root content. Several Test Pits (TP) were excavated by others to inspect as much as the pipe as possible. The test pit locations are depicted in **Figure 1** along with the storm/sanitary sewer facilities that were located and inspected for this survey.

Enclosures: Site photos are included in **Attachment A**. The pipe inspection reports for each section are included in **Attachment B**. **Table 1** highlights key information for each pipe section inspected. **Figure 1** shows test pit locations and storm/sanitary sewer facilities.

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RETTEW strives to provide quality and accurate locating services to all of its clients, but due to the nature of underground facilities, RETTEW will not be held liable for any damaged facilities. All clients are advised that they are required to follow their state's One-Call-Law before beginning excavation. The marks placed during this investigation are temporary markings for utility mapping purposes. The marks are not intended, nor should they be used, for construction; legal and/or recommended construction tolerance zones associated with the identified utilities were not marked by RETTEW. Prior to construction activities, RETTEW should be contacted for re-marking of the utilities and construction tolerance zones.

RETTEW will not guarantee the longevity of utility markings, due to activities on site that may destroy, or otherwise alter, the markings that were placed on the ground by RETTEW. If the marks have been altered or destroyed, the client is advised to contact RETTEW for re-markings. Any electronically determined depths provided to the client are estimates only, and due to equipment limitations, cannot be guaranteed. The client acknowledges that due to the limitations of the equipment used, safe exposure and measurements are the only methods which can precisely determine location and depth of structures marked.

PREPARED BY:	RECEIVED BY:
Christopher Lash – Senior Geophysicist Christopher L Lash _____ (Name and Title)	_____ (Name and Title)

Z:\Shared\Projects\08996\089962026 - Geosyntec April 2021 CCTV Services\10 SUE\089962026_Geosyntec Football Field Complex_Report_2021-04-29.docx

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ENCLOSURES

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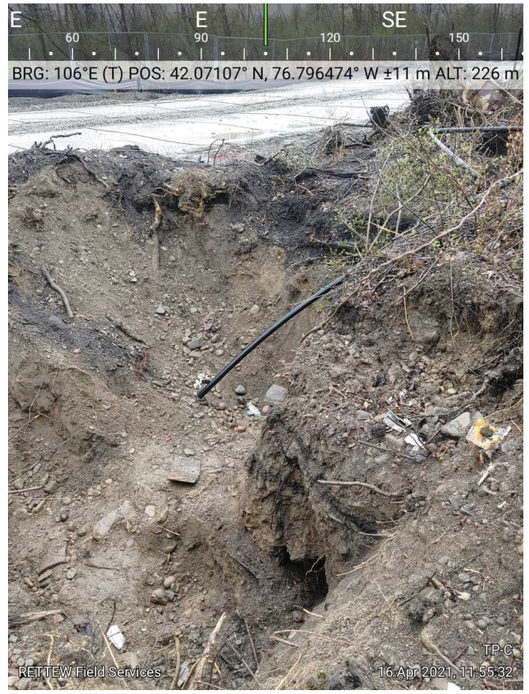
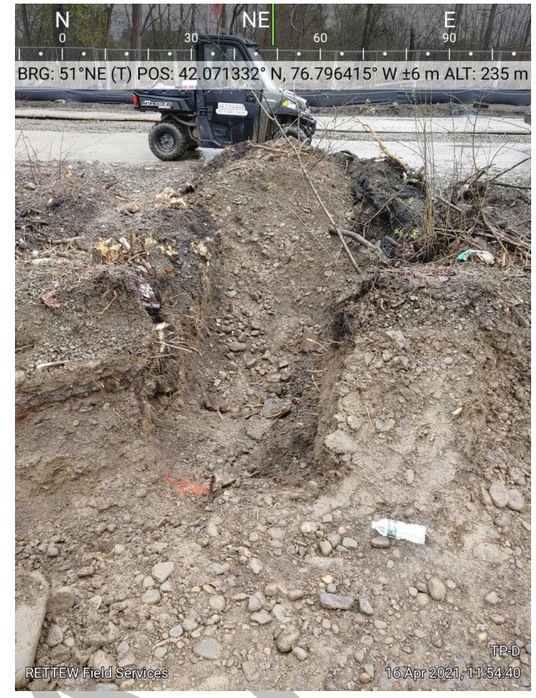
ATTACHMENT A
SITE PHOTOGRAPHS

Test Pit A (TP-A)



Test Pit C (TP-C)



Test Pit D (TP-D)

Test Pit D West Vault Structure

Test Pit E (TP-E)

Test Pit F (TP-F)

CB-28

CB-28

SURVEY DATE:	04/13/2020—04/19/2020
PROJECT No.:	08996026
REVIEWED BY:	JBS
DRAWN BY:	CLL
DATE:	4/29/2021
SCALE:	—
FIGURE No.:	1 OF 1

RETTEW SM
RETTEW Associates, Inc.
3020 Columbia Avenue, Lancaster, PA 17603
Phone (717) 394-3721 Fax (717) 394-1063

Attachment A: Site Photos
Elmira High School
777 S. Main Street
Elmira, NY

CHEMUNG COUNTY, NY
TOWN OF SOUTHPORT

RETTEW

ATTACHMENT B
PIPE INSPECTION REPORTS

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3020 Columbia Ave, Lancaster
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Section Profile

Project	
Elmira	**4/8/2021**

Nr.	Upstream MH	Downstream MH	Date	Street	Media Label	Material	Total Length	Length Surveyed
4	CB-28	West	4/12/2021	Main		Vitrified Clay Pipe	4.12	4.12

1 x Circular 8 = 4.12 Total Length (4.12 Length Surveyed)

Nr.	Upstream MH	Downstream MH	Date	Street	Media Label	Material	Total Length	Length Surveyed
3	North	CB-28	4/12/2021	Main		Vitrified Clay Pipe	30.00	30.00
5	CB-2	South	4/12/2021	Main		Vitrified Clay Pipe	7.02	7.02

2 x Circular 10 = 37.02 Total Length (37.02 Length Surveyed)

Nr.	Upstream MH	Downstream MH	Date	Street	Media Label	Material	Total Length	Length Surveyed
10	TP-C	South	4/15/2021	Main		Vitrified Clay Pipe	1.82	1.82
11	TP-D	TP-C	4/15/2021	Main		Vitrified Clay Pipe	21.55	21.55
14	West	TP-D2	4/16/2021	Main		Vitrified Clay Pipe	6.00	**5.51**
15	TP-C	TP-F	4/16/2021	Main		Vitrified Clay Pipe	22.00	22.00
16	TP-F	TP-B	4/16/2021	Main		Vitrified Clay Pipe	0.50	0.50

5 x Circular 18 = 51.87 Total Length (51.38 Length Surveyed)

Nr.	Upstream MH	Downstream MH	Date	Street	Media Label	Material	Total Length	Length Surveyed
1	North	CB-24	4/12/2021	Main		Vitrified Clay Pipe	4.35	4.35
2	CB-24	South	4/12/2021	Main		Vitrified Clay Pipe	0.30	0.30
6	CB-24	North	4/13/2021	Main		Vitrified Clay Pipe	36.50	**34.96**
7	TP-F	TP-B	4/13/2021	Main		Vitrified Clay Pipe	4.98	4.98

4 x Circular 24 = 46.13 Total Length (44.59 Length Surveyed)

Nr.	Upstream MH	Downstream MH	Date	Street	Media Label	Material	Total Length	Length Surveyed
8	West	CB-39	4/15/2021	Main		Clay Tile (not vitrified clay)	24.93	24.93
9	CB-39	MH-40	4/15/2021	Main		Clay Tile (not vitrified clay)	449.47	449.47
13	North	TP-E	4/16/2021	Main		Clay Tile (not vitrified clay)	30.00	**21.00**

3 x Circular 50 = 504.40 Total Length (495.40 Length Surveyed)

Total: 15 = 643.54 Total Length (632.51 Length Surveyed)

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Section Summary

Project	
Elmira	**4/8/2021**

Number of sections	15
Total length of sewer network	643.54 ft
Inspected length of sewer network	632.51 ft
Not inspected length of sewer network	11.03 ft
Total abandoned inspections	14
Number of section inspection photos	77
Number of section inspection videos	15
Number of section inspection scans	0
Number of section inclination measurements	3

Pipe Segment Reference	**CB-24 to North**	Upstream MH	**North**
City	**Elmira**	Downstream MH	**CB-24**
Street	**Main**	Shape	**Circular 24inch**
Total Length	**4.4**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 5% of the vertical dimension
2	0.00	AMH	Manhole / CB-24
3	0.30	RTB	Roots Tap Barrell at 6 o'clock, 15% of cross sectional area, Start
4	0.30	DNGV	Deposits Ingress Gravel, 40% of cross sectional area from 5 o'clock to 9 o'clock
5	0.30	OBZ	Obstacles Other, 40% of cross sectional area from 5 o'clock to 8 o'clock / DNGV
6	4.30	RTB	Roots Tap Barrell at 6 o'clock, 15% of cross sectional area, Finish
7	4.35	MSA	Survey Abandoned / OBZ

Pipe Segment Reference	**CB-24 TO South**	Upstream MH	**CB-24**
City	**Elmira**	Downstream MH	**South**
Street	**Main**	Shape	**Circular 24inch**
Total Length	**0.3**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 5% of the vertical dimension
2	0.00	AMH	Manhole / CB-24
3	0.30	DNGV	Deposits Ingress Gravel, 50% of cross sectional area from 3 o'clock to 9 o'clock
4	0.30	MSA	Survey Abandoned / DNGZ

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Section Summary

Project	
Elmira	**4/8/2021**

Pipe Segment Reference	**CB-28 TO North**	Upstream MH	**North**
City	**Elmira**	Downstream MH	**CB-28**
Street	**Main**	Shape	**Circular 10inch**
Total Length	**30.0**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 5% of the vertical dimension
2	0.00	AMH	Manhole / CB-28
3	8.75	RTJ	Roots Tap Joint at 3 o'clock, 5% of cross sectional area, within 8 inch
4	10.00	DNF	Deposits Ingress Fine, 25% of cross sectional area from 6 o'clock to 9 o'clock, Start
5	18.00	DNF	Deposits Ingress Fine, 25% of cross sectional area from 6 o'clock to 9 o'clock, Finish
6	30.00	DNF	Deposits Ingress Fine, 90% of cross sectional area from 12 o'clock to 12 o'clock
7	30.00	OBZ	Obstacles Other, 90% of cross sectional area from 12 o'clock to 12 o'clock / DNGZ
8	30.00	MSA	Survey Abandoned / OBZ

Pipe Segment Reference	**CB-28 to West**	Upstream MH	**CB-28**
City	**Elmira**	Downstream MH	**West**
Street	**Main**	Shape	**Circular 8inch**
Total Length	**4.1**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 10% of the vertical dimension
2	0.00	AMH	Manhole / CB-28
3	0.00	RTB	Roots Tap Barrell at 12 o'clock, 10% of cross sectional area
4	4.12	DNF	Deposits Ingress Fine, 100% of cross sectional area from 12 o'clock to 12 o'clock
5	4.12	RMB	Roots Medium Barrell from 12 o'clock to 12 o'clock, 20% lost
6	4.12	OBZ	Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / Roots and Soil
7	4.12	MSA	Survey Abandoned / OBZ

Pipe Segment Reference	**CB-2 to South**	Upstream MH	**CB-2**
City	**Elmira**	Downstream MH	**South**
Street	**Main**	Shape	**Circular 10inch**
Total Length	**7.0**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 5% of the vertical dimension
2	0.00	AMH	Manhole / CB-2
3	3.00	JOM	Joint Offset Medium
4	7.00	OBZ	Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / Soil and Roots
5	7.02	MSA	Survey Abandoned / OBZ

Pipe Segment Reference	**TP-A to North (CB-24)**	Upstream MH	**CB-24**
City	**Elmira**	Downstream MH	**North**
Street	**Main**	Shape	**Circular 24 inch**
Total Length	**36.5**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 5% of the vertical dimension
2	0.00	AOC	Special Chamber / TP-A
3	1.00	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Start

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Section Summary

Project	
Elmira	**4/8/2021**

	Distance	PACP Code	Observation
4	34.00	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Finish
5	34.96	MSA	Survey Abandoned / DSF

Pipe Segment Reference	**TP-B to TP-F**	Upstream MH	**TP-F**
City	**Elmira**	Downstream MH	**TP-B**
Street	**Main**	Shape	**Circular 24inch**
Total Length	**5.0**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 5% of the vertical dimension
2	0.00	AOC	Special Chamber / TP-B
3	0.00	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, Start
4	4.98	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, Finish
5	4.98	MSA	Survey Abandoned / DNSF

Pipe Segment Reference	**CB-39 to West**	Upstream MH	**West**
City	**Elmira**	Downstream MH	**CB-39**
Street	**Main**	Shape	**Circular 50inch**
Total Length	**24.9**	Material	**Clay Tile (not vitrified clay)**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 0% of the vertical dimension
2	0.00	AMH	Manhole / CB-39
3	0.00	MGO	General Observation / Cross Bore in Manhole Chamber
4	0.00	RMB	Roots Medium Barrell from 4 o'clock to 10 o'clock, 5% lost, Start
5	24.00	RMB	Roots Medium Barrell from 4 o'clock to 10 o'clock, 5% lost, Finish
6	24.93	AJB	Junction Box / Vault

Pipe Segment Reference	**CB-39 to MH-40 (South)**	Upstream MH	**CB-39**
City	**Elmira**	Downstream MH	**MH-40**
Street	**Main**	Shape	**Circular 50inch**
Total Length	**449.5**	Material	**Clay Tile (not vitrified clay)**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 0% of the vertical dimension
2	0.00	AMH	Manhole / CB-39
3	0.00	RMB	Roots Medium Barrell from 3 o'clock to 9 o'clock, 5% lost, Start
4	253.00	H	Hole at 10 o'clock
5	295.00	B	Broken at 12 o'clock
6	344.00	DSF	Deposits Settled Fine, 25% of cross sectional area from 4 o'clock to 8 o'clock, Start
7	364.00	MGO	General Observation / MH-40 (Buried)
8	449.00	RMB	Roots Medium Barrell from 3 o'clock to 9 o'clock, 5% lost, Finish
9	449.47	DSF	Deposits Settled Fine, 25% of cross sectional area from 4 o'clock to 8 o'clock, Finish
10	449.47	MSA	Survey Abandoned / DSF

Pipe Segment Reference	**TP-C to South**	Upstream MH	**TP-C**
City	**Elmira**	Downstream MH	**South**
Street	**Main**	Shape	**Circular 18 inch**
Total Length	**1.8**	Material	**Vitrified Clay Pipe**

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Section Summary

Project	
Elmira	**4/8/2021**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 0% of the vertical dimension
2	0.00	AOC	Special Chamber / TP-C
3	1.81	DNGV	Deposits Ingress Gravel, 80% of cross sectional area from 12 o'clock to 12 o'clock
4	1.82	MSA	Survey Abandoned / DNGV

Pipe Segment Reference	**TP-C to TP-D**	Upstream MH	**TP-D**
City	**Elmira**	Downstream MH	**TP-C**
Street	**Main**	Shape	**Circular 18inch**
Total Length	**21.6**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 0% of the vertical dimension
2	0.00	AOC	Special Chamber / TP-C
3	0.00	RTB	Roots Tap Barrell from 4 o'clock to 8 o'clock, 15% of cross sectional area, Start
4	21.00	RTB	Roots Tap Barrell from 4 o'clock to 8 o'clock, 15% of cross sectional area, Finish
5	21.50	OBZ	Obstacles Other, 15% of cross sectional area from 4 o'clock to 8 o'clock / RTB
6	21.55	MSA	Survey Abandoned / OBZ

Pipe Segment Reference	**TP-E to North**	Upstream MH	**North**
City	**Elmira**	Downstream MH	**TP-E**
Street	**Main**	Shape	**Circular 50inch**
Total Length	**30.0**	Material	**Clay Tile (not vitrified clay)**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 0% of the vertical dimension
2	0.00	AOC	Special Chamber / TP-E
3	21.00	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock / Grout, Bentonite Clay
4	21.00	MSA	Survey Abandoned / DSF

Pipe Segment Reference	**TP-D2 to West**	Upstream MH	**West**
City	**Elmira**	Downstream MH	**TP-D2**
Street	**Main**	Shape	**Circular 18inch**
Total Length	**6.0**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 0% of the vertical dimension
2	0.00	AOC	Special Chamber / TP-D2
3	5.50	OBZ	Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / RBB
4	5.50	RBB	Roots Ball Barrell from 12 o'clock to 12 o'clock, 100% lost
5	5.51	MSA	Survey Abandoned / RBB

Pipe Segment Reference	**TP-F to TP-C**	Upstream MH	**TP-C**
City	**Elmira**	Downstream MH	**TP-F**
Street	**Main**	Shape	**Circular 18inch**
Total Length	**22.0**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 0% of the vertical dimension
2	0.00	AOC	Special Chamber / TP-C

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Section Summary

Project	
Elmira	**4/8/2021**

	Distance	PACP Code	Observation
3	0.00	DSF	Deposits Settled Fine, 30% of cross sectional area from 3 o'clock to 9 o'clock, Start
4	5.00	RTJ	Roots Tap Joint at 9 o'clock, 25% of cross sectional area, within 8 inch
5	21.00	DSF	Deposits Settled Fine, 30% of cross sectional area from 3 o'clock to 9 o'clock, Finish
6	21.00	OBZ	Obstacles Other, 30% of cross sectional area from 4 o'clock to 8 o'clock / DSF
7	22.00	MSA	Survey Abandoned / DSF

Pipe Segment Reference	**TP-F to TP-B**	Upstream MH	**TP-F**
City	**Elmira**	Downstream MH	**TP-B**
Street	**Main**	Shape	**Circular 18inch**
Total Length	**0.5**	Material	**Vitrified Clay Pipe**

	Distance	PACP Code	Observation
1	0.00	MWL	Water Level, 0% of the vertical dimension
2	0.00	AOC	Special Chamber / TP-F
3	0.50	DSF	Deposits Settled Fine, 40% of cross sectional area from 4 o'clock to 8 o'clock
4	0.50	MSA	Survey Abandoned / DSF

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Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/12/2021			**Chris Lash**	**070306028**	**CB-24 to North**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**4.4 '**	**4.4 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**North**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**CB-24**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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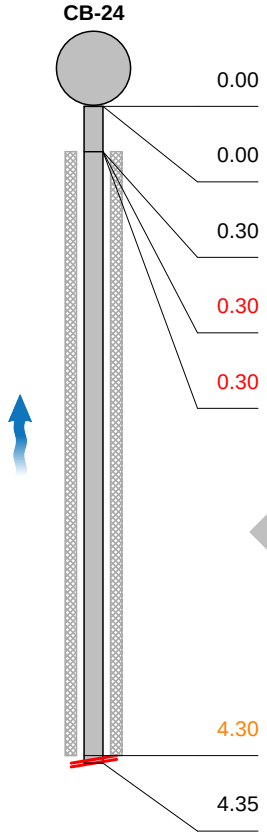

1:50	Distance		Code	Observation	Grade
	0.00		MWL	Water Level, 5% of the vertical dimension	
	0.00		AMH	Manhole / CB-24	
	0.30	S01	RTB	Roots Tap Barrell at 6 o'clock, 15% of cross sectional area, Start	
	0.30		DNGV	Deposits Ingress Gravel, 40% of cross sectional area from 5 o'clock to 9 o'clock	M5
	0.30		OBZ	Obstacles Other, 40% of cross sectional area from 5 o'clock to 8 o'clock / DNGV	M5
	4.30	F01	RTB	Roots Tap Barrell at 6 o'clock, 15% of cross sectional area, Finish	M3
	4.35		MSA	Survey Abandoned / OBZ	

0.00ft //

0.00ft // 00:00:00

0.30ft // 00:00:30.05

0.30ft // 00:00:30.05

4.30ft // 00:00:30.05

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5231	0.0	13.0	13.0	0.0	4.3	4.3

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Section Pictures - 4/12/2021 - CB-24 to North

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/12/2021**	**CB-24 to North**	**1**

1, , 0.00ft
Water Level, 5% of the vertical dimension

2, 00:00:00, 0.00ft
Manhole / CB-24

3, 00:00:30, 0.30ft
Roots Tap Barrell at 6 o'clock, 15% of cross sectional area, Start

4, 00:00:30, 0.30ft
Deposits Ingress Gravel, 40% of cross sectional area from 5 o'clock to 9 o'clock

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Section Pictures - 4/12/2021 - CB-24 to North

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/12/2021**	**CB-24 to North**	**1**

5, 00:00:30, 4.30ft
Roots Tap Barrell at 6 o'clock, 15% of cross sectional area, Finish

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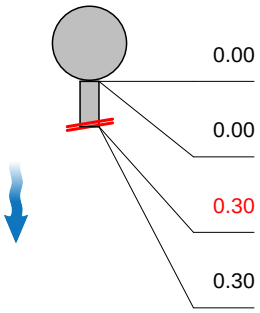
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/12/2021			**Chris Lash**	**070306028**	**CB-24 TO South**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**0.3 '**	**0.3 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB-24**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**South**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

1:50	Distance	Code	Observation	Grade
CB-24				
	0.00	MWL	Water Level, 5% of the vertical dimension	
	0.00	AMH	Manhole / CB-24	
	0.30	DNGV	Deposits Ingress Gravel, 50% of cross sectional area from 3 o'clock to 9 o'clock	M5
	0.30	MSA	Survey Abandoned / DNGZ	



0.00ft //

0.00ft // 00:00:00

0.30ft // 00:00:35.30

0.30ft // 00:00:38.05

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QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5100	0.0	5.0	5.0	0.0	5.0	5.0

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Section Pictures - 4/12/2021 - CB-24 TO South

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/12/2021**	**CB-24 TO South**	**2**

1, , 0.00ft
Water Level, 5% of the vertical dimension

2, 00:00:00, 0.00ft
Manhole / CB-24

3, 00:00:35, 0.30ft
Deposits Ingress Gravel, 50% of cross sectional area from 3 o'clock to 9 o'clock

4, 00:00:38, 0.30ft
Survey Abandoned / DNGZ

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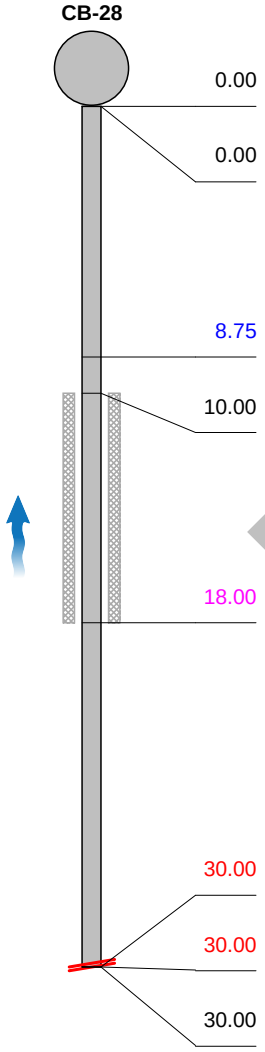
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/12/2021			**Chris Lash**	**070306028**	**CB-28 TO North**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**30.0 '**	**30.0 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**North**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**CB-28**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**10 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



Distance		Code	Observation	Grade
0.00		MWL	Water Level, 5% of the vertical dimension	
0.00		AMH	Manhole / CB-28	
8.75		RTJ	Roots Tap Joint at 3 o'clock, 5% of cross sectional area, within 8 inch	M2
10.00	S01	DNF	Deposits Ingress Fine, 25% of cross sectional area from 6 o'clock to 9 o'clock, Start	
18.00	F01	DNF	Deposits Ingress Fine, 25% of cross sectional area from 6 o'clock to 9 o'clock, Finish	M4
30.00		DNF	Deposits Ingress Fine, 90% of cross sectional area from 12 o'clock to 12 o'clock	M5
30.00		OBZ	Obstacles Other, 90% of cross sectional area from 12 o'clock to 12 o'clock / DNGZ	M5
30.00		MSA	Survey Abandoned / OBZ	

0.00ft //

8.75ft // 00:00:23.76

10.00ft // 00:00:47.00

18.00ft // 00:00:47.00

30.00ft // 00:01:08.24

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5242	0.0	20.0	20.0	0.0	4.0	4.0

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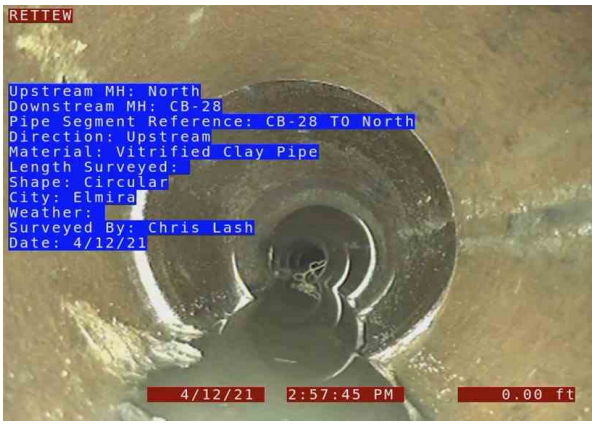
Section Pictures - 4/12/2021 - CB-28 TO North

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/12/2021**	**CB-28 TO North**	**3**



1, , 0.00ft
Water Level, 5% of the vertical dimension

2, 00:00:23, 8.75ft
Roots Tap Joint at 3 o'clock, 5% of cross sectional area, within 8 inch

3, 00:00:47, 10.00ft
Deposits Ingress Fine, 25% of cross sectional area from 6 o'clock to 9 o'clock, Start

4, 00:00:47, 18.00ft
Deposits Ingress Fine, 25% of cross sectional area from 6 o'clock to 9 o'clock, Finish

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Section Pictures - 4/12/2021 - CB-28 TO North

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/12/2021**	**CB-28 TO North**	**3**

5, 00:01:08, 30.00ft
Deposits Ingress Fine, 90% of cross sectional area from 12 o'clock to 12 o'clock

6, 00:01:08, 30.00ft
Survey Abandoned / OBZ

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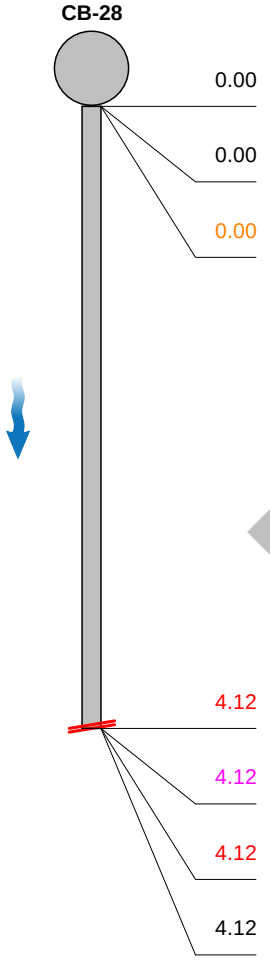
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/12/2021			**Chris Lash**	**070306028**	**CB-28 to West**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**4.1 '**	**4.1 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB-28**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**West**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**8 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



Distance	Code	Observation	Grade
0.00	MWL	Water Level, 10% of the vertical dimension	
0.00	AMH	Manhole / CB-28	
0.00	RTB	Roots Tap Barrell at 12 o'clock, 10% of cross sectional area	M3
4.12	DNF	Deposits Ingress Fine, 100% of cross sectional area from 12 o'clock to 12 o'clock	M5
4.12	RMB	Roots Medium Barrell from 12 o'clock to 12 o'clock, 20% lost	M4
4.12	OBZ	Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / Roots and Soil	M5
4.12	MSA	Survey Abandoned / OBZ	

0.00ft //

0.00ft // 00:00:00

0.00ft // 00:00:18.68

4.12ft // 00:03:32.91

4.12ft // 00:03:32.91

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5241	0.0	17.0	17.0	0.0	4.2	4.2

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Section Pictures - 4/12/2021 - CB-28 to West

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/12/2021**	**CB-28 to West**	**4**

1, , 0.00ft
Water Level, 10% of the vertical dimension

2, 00:00:00, 0.00ft
Manhole / CB-28

3, 00:00:18, 0.00ft
Roots Tap Barrell at 12 o'clock, 10% of cross sectional area

4, 00:03:32, 4.12ft
Deposits Ingress Fine, 100% of cross sectional area from 12 o'clock to 12 o'clock

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Section Pictures - 4/12/2021 - CB-28 to West

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/12/2021**	**CB-28 to West**	**4**

5, 00:03:32, 4.12ft
Roots Medium Barrell from 12 o'clock to 12 o'clock, 20% lost

6, 00:03:32, 4.12ft
Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / Roots and Soil

7, 00:03:32, 4.12ft
Survey Abandoned / OBZ

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Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/12/2021			**Chris Lash**	**070306028**	**CB-2 to South**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**7.0 '**	**7.0 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB-2**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**South**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**10 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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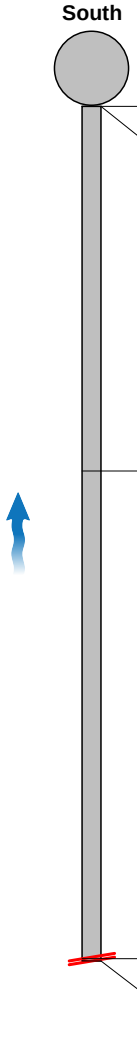

1:62	Distance	Code	Observation	Grade
	0.00	MWL	Water Level, 5% of the vertical dimension	
	0.00	AMH	Manhole / CB-2	
	3.00	JOM	Joint Offset Medium	S1
	7.00	OBZ	Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / Soil and Roots	M5
	7.02	MSA	Survey Abandoned / OBZ	

0.00ft //

3.00ft // 00:00:11.89

7.00ft // 00:00:34.42

7.02ft // 00:00:20.37

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
1100	5100	1.0	5.0	6.0	1.0	5.0	3.0

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Section Pictures - 4/12/2021 - CB-2 to South

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/12/2021**	**CB-2 to South**	**5**

1, , 0.00ft
Water Level, 5% of the vertical dimension

2, 00:00:11, 3.00ft
Joint Offset Medium

3, 00:00:34, 7.00ft
Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / Soil and Roots

4, 00:00:20, 7.02ft
Survey Abandoned / OBZ

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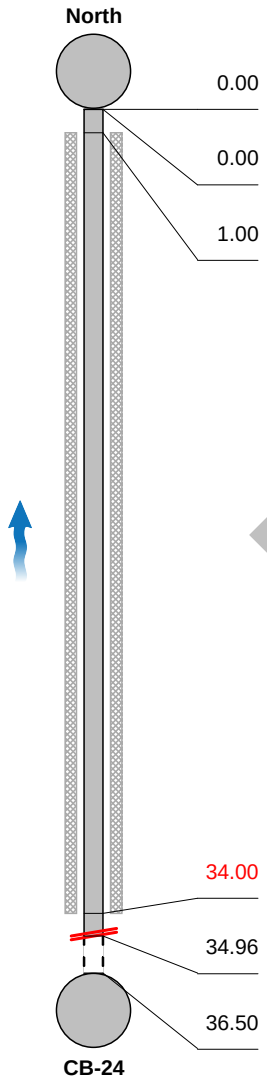
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/13/2021			**Chris Lash**	**070306028**	**TP-A to North (CB-24)**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**36.5 '**	**35.0 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**CB-24**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**North**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:319	Distance		Code	Observation	Grade
	0.00		MWL	Water Level, 5% of the vertical dimension	
	0.00		AOC	Special Chamber / TP-A	
	1.00	S01	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Start	
	34.00	F01	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Finish	M5
	34.96		MSA	Survey Abandoned / DSF	
	36.50			End of pipe	

0.00ft //

0.00ft // 00:00:00

1.00ft // 00:00:18.30

34.00ft // 00:00:18.30

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5700	0.0	35.0	35.0	0.0	5.0	5.0

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Section Pictures - 4/13/2021 - TP-A to North (CB-24)

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/13/2021**	**TP-A to North (CB-24)**	**6**

1, , 0.00ft
Water Level, 5% of the vertical dimension

2, 00:00:00, 0.00ft
Special Chamber / TP-A

3, 00:00:18, 1.00ft
Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Start

4, 00:00:18, 34.00ft
Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, within 8 inch, Finish

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Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/13/2021			**Chris Lash**	**070306028**	**TP-B to TP-F**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**5.0 '**	**5.0 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**TP-F**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP-B**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**24 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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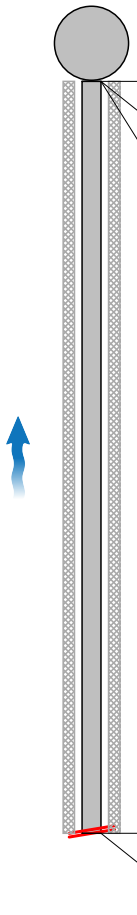

1:50	Distance		Code	Observation	Grade
	0.00		MWL	Water Level, 5% of the vertical dimension	
	0.00		AOC	Special Chamber / TP-B	
	0.00	S01	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, Start	
	4.98	F01	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, Finish	M5
	4.98		MSA	Survey Abandoned / DNSF	

0.00ft //

0.00ft // 00:00:00

0.00ft // 00:00:12.79

4.98ft // 00:12:58.06

4.98ft // 00:12:58.06

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5100	0.0	5.0	5.0	0.0	5.0	5.0

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Section Pictures - 4/13/2021 - TP-B to TP-F

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/13/2021**	**TP-B to TP-F**	**7**

1, , 0.00ft
Water Level, 5% of the vertical dimension

2, 00:00:00, 0.00ft
Special Chamber / TP-B

3, 00:00:12, 0.00ft
Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, Start

4, 00:12:58, 4.98ft
Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock, Finish

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Section Pictures - 4/13/2021 - TP-B to TP-F

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/13/2021**	**TP-B to TP-F**	**7**

5, 00:12:58, 4.98ft
Survey Abandoned / DNSF

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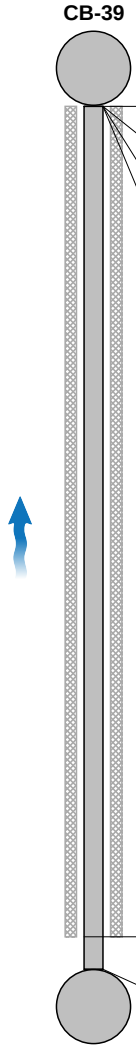
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/15/2021			**Chris Lash**	**070306028**	**CB-39 to West**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**24.9 '**	**24.9 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**West**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**CB-39**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**50 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Clay Tile (not vitrified clay)**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:218	Distance		Code	Observation	Grade
	0.00		MWL	Water Level, 0% of the vertical dimension	
	0.00		AMH	Manhole / CB-39	
	0.00		MGO	General Observation / Cross Bore in Manhole Chamber	
	0.00	S01	RMB	Roots Medium Barrell from 4 o'clock to 10 o'clock, 5% lost, Start	
	24.00	F01	RMB	Roots Medium Barrell from 4 o'clock to 10 o'clock, 5% lost, Finish	M4
	24.93		AJB	Junction Box / Vault	

0.00ft // 00:00:00

0.00ft // 00:00:00

0.00ft // 00:00:00.00

0.00ft // 00:01:31.80

24.00ft // 00:02:57.00

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	4500	0.0	20.0	20.0	0.0	4.0	4.0

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Section Pictures - 4/15/2021 - CB-39 to West

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/15/2021**	**CB-39 to West**	**8**

1, 00:00:00, 0.00ft
Water Level, 0% of the vertical dimension

2, 00:00:00, 0.00ft
Manhole / CB-39

3, 00:00:00, 0.00ft
General Observation / Cross Bore in Manhole Chamber

4, 00:01:31, 0.00ft
Roots Medium Barrell from 4 o'clock to 10 o'clock, 5% lost, Start

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Section Pictures - 4/15/2021 - CB-39 to West

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/15/2021**	**CB-39 to West**	**8**

5, 00:02:57, 24.00ft
Roots Medium Barrell from 4 o'clock to 10 o'clock, 5% lost, Finish

6, 00:01:35, 24.93ft
Junction Box / Vault

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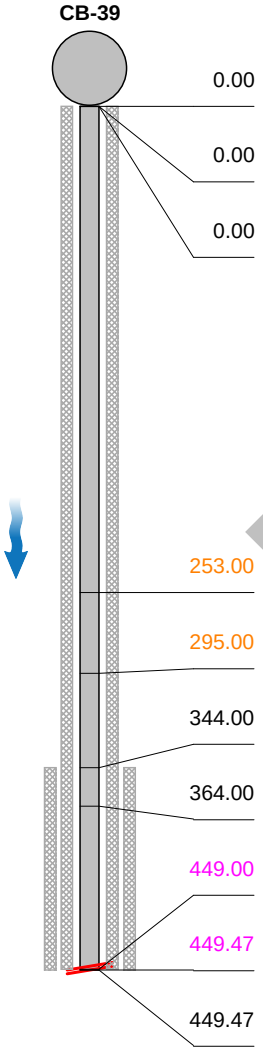
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/15/2021			**Chris Lash**	**070306028**	**CB-39 to MH-40 (South)**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**449.5 '**	**449.5 '**

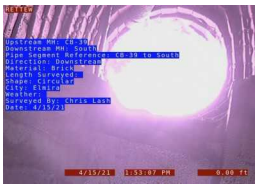
City:	**Elmira**	Drainage Area:		Upstream MH:	**CB-39**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**MH-40**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**50 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Clay Tile (not vitrified clay)**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:3926	Distance		Code	Observation	Grade
	0.00		MWL	Water Level, 0% of the vertical dimension	
	0.00		AMH	Manhole / CB-39	
	0.00	S01	RMB	Roots Medium Barrell from 3 o'clock to 9 o'clock, 5% lost, Start	
	253.00		H	Hole at 10 o'clock	S3
	295.00		B	Broken at 12 o'clock	S3
	344.00	S02	DSF	Deposits Settled Fine, 25% of cross sectional area from 4 o'clock to 8 o'clock, Start	
	364.00		MGO	General Observation / MH-40 (Buried)	
	449.00	F01	RMB	Roots Medium Barrell from 3 o'clock to 9 o'clock, 5% lost, Finish	M4
	449.47	F02	DSF	Deposits Settled Fine, 25% of cross sectional area from 4 o'clock to 8 o'clock, Finish	M4
	449.47		MSA	Survey Abandoned / DSF	

0.00ft //


0.00ft // 00:00:00

0.00ft // 00:00:13.09

253.00ft // 00:07:21.58

295.00ft // 00:08:02.36

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
3200	4T00	6.0	420.0	426.0	3.0	4.0	4.0

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Section Pictures - 4/15/2021 - CB-39 to MH-40 (South)

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/15/2021**	**CB-39 to MH-40 (South)**	**9**

1, , 0.00ft
Water Level, 0% of the vertical dimension

2, 00:00:00, 0.00ft
Manhole / CB-39

3, 00:00:13, 0.00ft
Roots Medium Barrell from 3 o'clock to 9 o'clock, 5% lost, Start

4, 00:07:21, 253.00ft
Hole at 10 o'clock

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Section Pictures - 4/15/2021 - CB-39 to MH-40 (South)

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/15/2021**	**CB-39 to MH-40 (South)**	**9**

5, 00:08:02, 295.00ft
Broken at 12 o'clock

6, 00:09:23, 344.00ft
Deposits Settled Fine, 25% of cross sectional area from 4 o'clock to 8 o'clock, Start

7, 00:00:13, 364.00ft
General Observation / MH-40 (Buried)

8, 00:01:06, 449.47ft
Survey Abandoned / DSF

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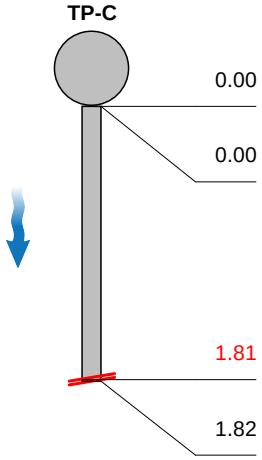
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/15/2021			**Chris Lash**	**070306028**	**TP-C to South**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**1.8 '**	**1.8 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**TP-C**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**South**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**18 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:50 Distance	Code	Observation	Grade
0.00	MWL	Water Level, 0% of the vertical dimension	
0.00	AOC	Special Chamber / TP-C	
1.81	DNGV	Deposits Ingress Gravel, 80% of cross sectional area from 12 o'clock to 12 o'clock	M5
1.82	MSA	Survey Abandoned / DNGV	

0.00ft //

0.00ft // 00:00:00

1.81ft // 00:00:26.87

1.82ft // 00:00:11.06

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QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5100	0.0	5.0	5.0	0.0	5.0	5.0

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Section Pictures - 4/15/2021 - TP-C to South

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/15/2021**	**TP-C to South**	**10**

1, , 0.00ft
Water Level, 0% of the vertical dimension

2, 00:00:00, 0.00ft
Special Chamber / TP-C

3, 00:00:26, 1.81ft
Deposits Ingress Gravel, 80% of cross sectional area from 12 o'clock to 12 o'clock

4, 00:00:11, 1.82ft
Survey Abandoned / DNGV

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Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/15/2021			**Chris Lash**	**070306028**	**TP-C to TP-D**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**21.6 '**	**21.6 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**TP-D**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP-C**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:	**Stormwater**	Total gallons used:	**0.0**
Pipe size:	**18 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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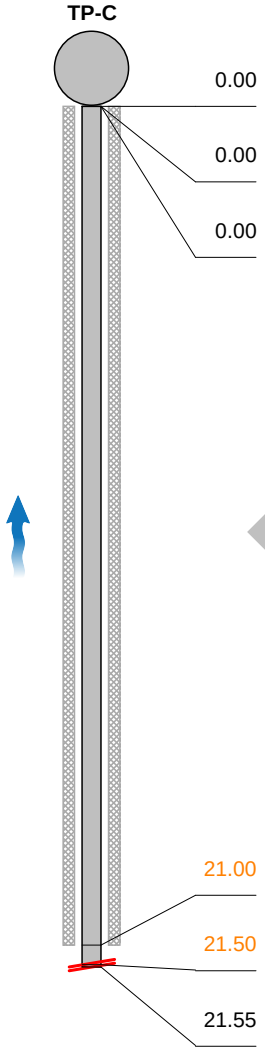

1:189	Distance		Code	Observation	Grade
	0.00		MWL	Water Level, 0% of the vertical dimension	
	0.00		AOC	Special Chamber / TP-C	
	0.00	S01	RTB	Roots Tap Barrell from 4 o'clock to 8 o'clock, 15% of cross sectional area, Start	
	21.00	F01	RTB	Roots Tap Barrell from 4 o'clock to 8 o'clock, 15% of cross sectional area, Finish	M3
	21.50		OBZ	Obstacles Other, 15% of cross sectional area from 4 o'clock to 8 o'clock / RTB	M3
	21.55		MSA	Survey Abandoned / OBZ	

0.00ft //

0.00ft // 00:00:00

0.00ft // 00:00:21.40

21.00ft // 00:01:44.41

21.50ft // 00:01:44.41

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	3500	0.0	15.0	15.0	0.0	3.0	3.0

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Section Pictures - 4/15/2021 - TP-C to TP-D

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/15/2021**	**TP-C to TP-D**	**11**

1, , 0.00ft
Water Level, 0% of the vertical dimension

2, 00:00:00, 0.00ft
Special Chamber / TP-C

3, 00:00:21, 0.00ft
Roots Tap Barrell from 4 o'clock to 8 o'clock, 15% of cross sectional area, Start

4, 00:01:44, 21.00ft
Roots Tap Barrell from 4 o'clock to 8 o'clock, 15% of cross sectional area, Finish

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Section Pictures - 4/15/2021 - TP-C to TP-D

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/15/2021**	**TP-C to TP-D**	**11**

5, 00:01:44, 21.50ft
Obstacles Other, 15% of cross sectional area from 4 o'clock to 8 o'clock / RTB

6, 00:01:44, 21.55ft
Survey Abandoned / OBZ

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Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/16/2021			**Chris Lash**	**070306028**	**TP-E to North**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**30.0 '**	**21.0 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**North**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP-E**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**50 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Clay Tile (not vitrified clay)**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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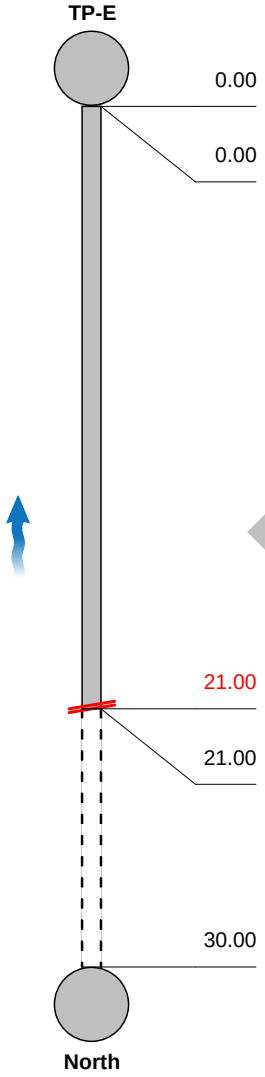

1:263	Distance	Code	Observation	Grade
	0.00	MWL	Water Level, 0% of the vertical dimension	
	0.00	AOC	Special Chamber / TP-E	
	21.00	DSF	Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock / Grout, Bentonite Clay	M5
	21.00	MSA	Survey Abandoned / DSF	
	30.00		End of pipe	

0.00ft //

0.00ft // 00:00:00

21.00ft // 00:00:55.96

21.00ft // 00:00:55.96

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5100	0.0	5.0	5.0	0.0	5.0	5.0

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Section Pictures - 4/16/2021 - TP-E to North

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/16/2021**	**TP-E to North**	**13**

1, , 0.00ft
Water Level, 0% of the vertical dimension

2, 00:00:00, 0.00ft
Special Chamber / TP-E

3, 00:00:55, 21.00ft
Deposits Settled Fine, 50% of cross sectional area from 3 o'clock to 9 o'clock / Grout, Bentonite Clay

4, 00:00:55, 21.00ft
Survey Abandoned / DSF

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Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/16/2021			**Chris Lash**	**070306028**	**TP-D2 to West**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Upstream		**6.0 '**	**5.5 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**West**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP-D2**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**18 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:

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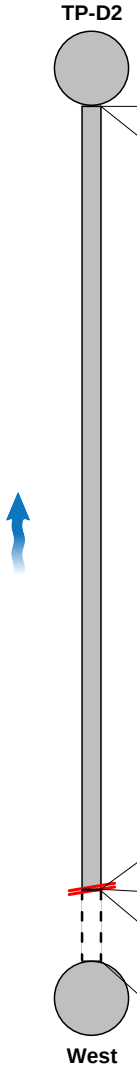

1:53	Distance	Code	Observation	Grade
	0.00	MWL	Water Level, 0% of the vertical dimension	
	0.00	AOC	Special Chamber / TP-D2	
	5.50	OBZ	Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / RBB	M5
	5.50	RBB	Roots Ball Barrell from 12 o'clock to 12 o'clock, 100% lost	M5
	5.51	MSA	Survey Abandoned / RBB	
	6.00		End of pipe	

0.00ft //

0.00ft // 00:00:00

5.50ft // 00:00:12.35

5.50ft // 00:00:30.46

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5200	0.0	10.0	10.0	0.0	5.0	5.0

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Section Pictures - 4/16/2021 - TP-D2 to West

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/16/2021**	**TP-D2 to West**	**14**

1, , 0.00ft
Water Level, 0% of the vertical dimension

2, 00:00:00, 0.00ft
Special Chamber / TP-D2

3, 00:00:12, 5.50ft
Obstacles Other, 100% of cross sectional area from 12 o'clock to 12 o'clock / RBB

4, 00:00:30, 5.50ft
Roots Ball Barrell from 12 o'clock to 12 o'clock, 100% lost

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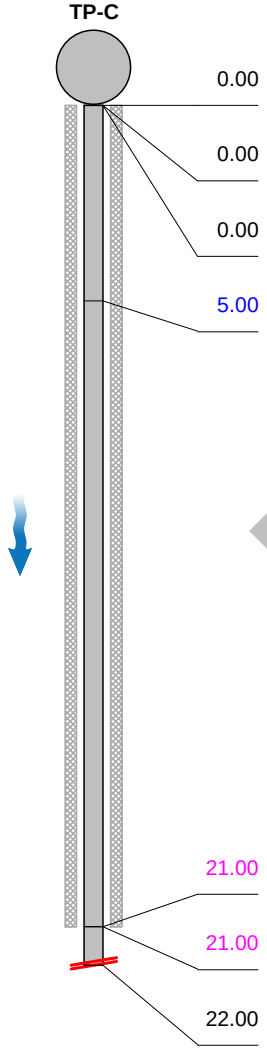
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/16/2021			**Chris Lash**	**070306028**	**TP-F to TP-C**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**22.0 '**	**22.0 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**TP-C**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP-F**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**18 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



Distance		Code	Observation	Grade
0.00		MWL	Water Level, 0% of the vertical dimension	
0.00		AOC	Special Chamber / TP-C	
0.00	S01	DSF	Deposits Settled Fine, 30% of cross sectional area from 3 o'clock to 9 o'clock, Start	
5.00		RTJ	Roots Tap Joint at 9 o'clock, 25% of cross sectional area, within 8 inch	M2
21.00	F01	DSF	Deposits Settled Fine, 30% of cross sectional area from 3 o'clock to 9 o'clock, Finish	M4
21.00		OBZ	Obstacles Other, 30% of cross sectional area from 4 o'clock to 8 o'clock / DSF	M4
22.00		MSA	Survey Abandoned / DSF	

0.00ft //

0.00ft // 00:00:22.52

5.00ft // 00:00:22.52

5.00ft // 00:00:22.52

21.00ft // 00:05:15.01

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	4521	0.0	22.0	22.0	0.0	3.7	3.7

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Section Pictures - 4/16/2021 - TP-F to TP-C

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/16/2021**	**TP-F to TP-C**	**15**

1, , 0.00ft
Water Level, 0% of the vertical dimension

2, 00:00:22, 0.00ft
Deposits Settled Fine, 30% of cross sectional area from 3 o'clock to 9 o'clock, Start

3, 00:00:22, 5.00ft
Roots Tap Joint at 9 o'clock, 25% of cross sectional area, within 8 inch

4, 00:00:22, 5.00ft
Roots Tap Joint at 9 o'clock, 25% of cross sectional area, within 8 inch

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Section Pictures - 4/16/2021 - TP-F to TP-C

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/16/2021**	**TP-F to TP-C**	**15**

5, 00:05:15, 21.00ft
Deposits Settled Fine, 30% of cross sectional area from 3 o'clock to 9 o'clock, Finish

6, 00:05:15, 21.00ft
Obstacles Other, 30% of cross sectional area from 4 o'clock to 8 o'clock / DSF

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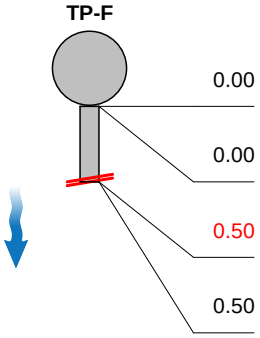
Inspection report

Date:	Work Order:	Weather:	Surveyed By:	Certificate Number:	Pipe Segment Ref.:
4/16/2021			**Chris Lash**	**070306028**	**TP-F to TP-B**
Year laid:	Pre-cleaning:	Direction:	Pipe Joint Length:	Total Length:	Length Surveyed:
		Downstream		**0.5 '**	**0.5 '**

City:	**Elmira**	Drainage Area:		Upstream MH:	**TP-F**
Street:	**Main**	Media Label:		Up Rim to Invert:	**0.0**
Location Code:		Flow Control:		Downstream MH:	**TP-B**
Location Details:		Sheet Number:		Down Rim to Invert:	**0.0**
Pipe shape:	**Circular**	Sewer Use:		Total gallons used:	**0.0**
Pipe size:	**18 "**	Sewer Category:	**SEC**	Joints passed:	**0**
Pipe material:	**Vitrified Clay Pipe**	Purpose:		Joints failed:	**0**
Lining Method:		Owner:			

Additional Info:



1:50	Distance	Code	Observation	Grade
	0.00	MWL	Water Level, 0% of the vertical dimension	
	0.00	AOC	Special Chamber / TP-F	
	0.50	DSF	Deposits Settled Fine, 40% of cross sectional area from 4 o'clock to 8 o'clock	M5
	0.50	MSA	Survey Abandoned / DSF	

0.00ft //

0.50ft // 00:00:31.60

0.50ft // 00:00:31.60

0.50ft // 00:00:31.60

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QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	5100	0.0	5.0	5.0	0.0	5.0	5.0

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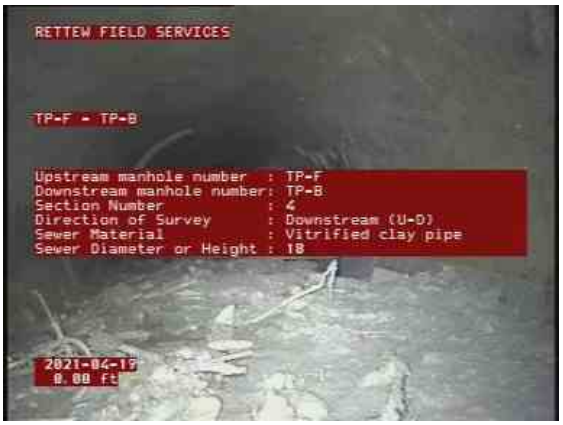
Section Pictures - 4/16/2021 - TP-F to TP-B

City	Street	Date	Pipe Segment Reference	Nr.
Elmira	**Main**	**4/16/2021**	**TP-F to TP-B**	**16**



1, , 0.00ft
Water Level, 0% of the vertical dimension

2, 00:00:31, 0.50ft
Deposits Settled Fine, 40% of cross sectional area from 4 o'clock to 8 o'clock

3, 00:00:31, 0.50ft
Survey Abandoned / DSF

4, 00:00:31, 0.50ft
Survey Abandoned / DSF

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TABLE 1

ELMIRA SEWER INSPECTION SUMMARY

Table 1
Elmira Sewer Inspection Summary

Section Name	Upstream Feature	Downstream Feature	Direction of Survey	Date	Pipe Diameter (in)	Total Length of Survey (LF)	Material	Pre-Cleaning (Y/N)	Laterals Observed
CB-2 to South	CB-2	South	South	4/12/2021	10	7	Vitrified Clay	Y	N
CB-24 to North	North	CB-24	North	4/12/2021	24	1	Vitrified Clay	Y	Y
CB-24 to South	CB-24	South	South	4/12/2021	24	0.3	Vitrified Clay	N	N
CB-28 to North	North	CB-28	North	4/12/2021	10	30	Vitrified Clay	Y	N
CB-28 to West	CB-28	West	West	4/12/2021	8	4.12	Vitrified Clay	Y	N
TP-A to TP-B	TP-B	TP-A	North	4/13/2021	24	34.96	Vitrified Clay	N	N
TP-B to TP-F	TP-F	TP-B	North	4/13/2021	24	4.98	Vitrified Clay	N	N
TP-C to South	TP-C	TP-F	South	4/15/2021	18	1.82	Vitrified Clay	N	N
TP-C to TP-D	TP-D	TP-C	North	4/15/2021	18	21.55	Vitrified Clay	N	N
CB-39 to West	West	CB-39	West	4/15/2021	50	24.93	Clay Tile	N	N
CB-39 to MH-40(South)	CB-39	MH-40	South	4/15/2021	50	364.96	Clay Tile	N	N
TP-E to North	North	TP-E	North	4/16/2021	50	30	Clay Tile	N	N
TP-D2 to West	West	TP-D2	West	4/16/2021	18	5.5	Vitrified Clay	N	N
TP-F to TP-C	TP-C	TP-F	North	4/16/2021	18	22	Vitrified Clay	N	N
TP-F to TP-B	TP-F	TP-B	South	4/16/2021	18	0.5	Vitrified Clay	N	N

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FIGURE 1

CCTV INSPECTION LOCATIONS

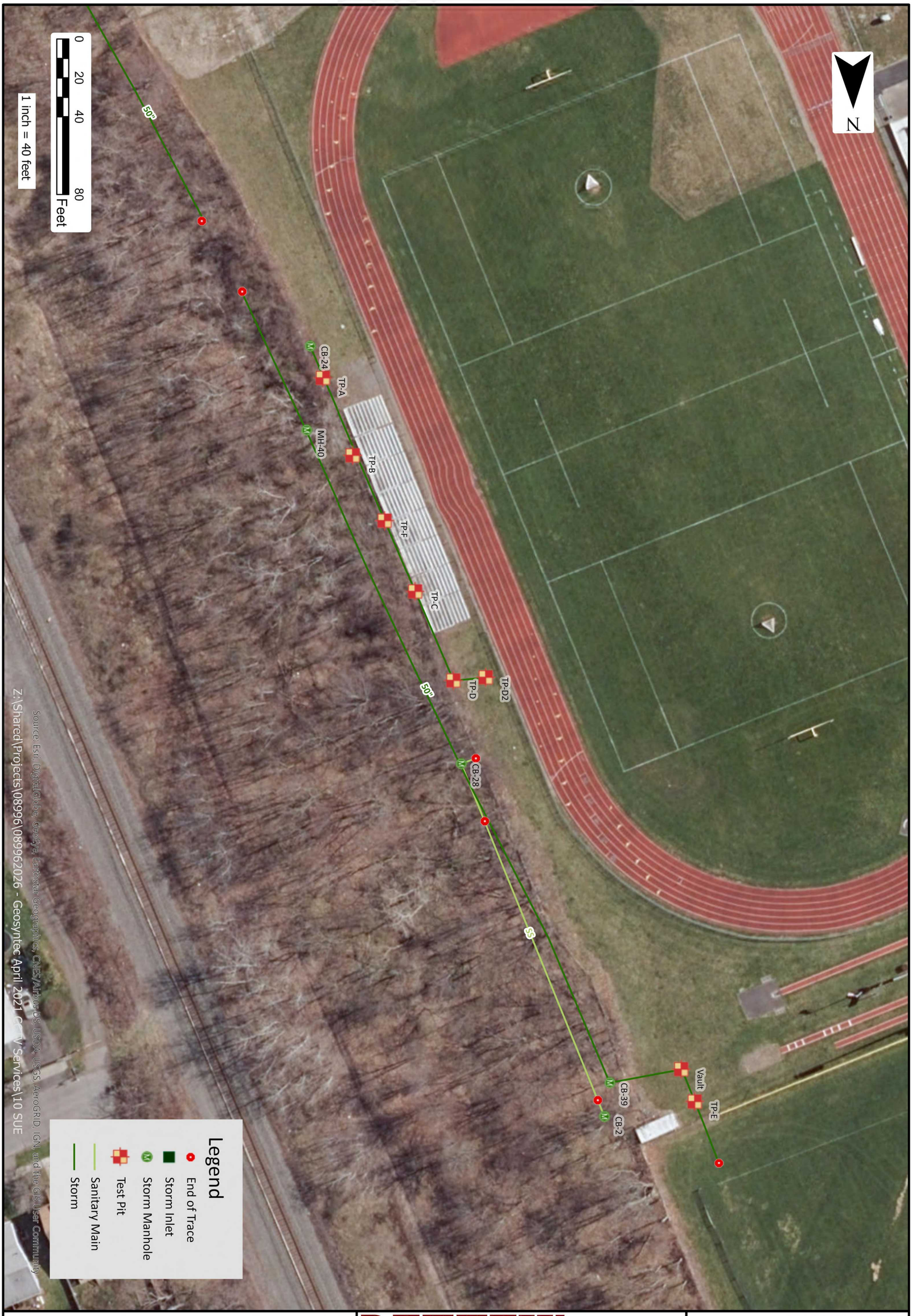

Figure 1: CCTV Inspection Locations

Football Field Complex
777 S. Main Street
Elmira, NY

MIDDLE RIVER

BALTIMORE COUNTY, MD

RETTEW SM

RETTEW Associates, Inc.
3020 Columbia Avenue, Lancaster, PA 17603
Phone (717) 394-3721 Fax (717 395-1063

SURVEY DATE:	04-16-2021
PROJECT No:	089962026
REVIEWED BY:	JBS
DRAWN BY:	CLL
REVISION DATE:	04/28/2021
FIGURE No:	1 of 1