City of Breezy Point

2025 Capital Improvement Plan

Issued: June, 2025

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Certification

Civil Engineering

I hereby certify that this engineering report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

David S. Reese VP, PE

Lic. No. 23432

5/27/2025 Date

Nick Peterson EIT

5/27/2025 Date

Disclaimer: The dollar values in this capital improvement plan are estimates. These values are a budgeting tool only.

Statement of Purpose

On July 2nd, 2024 the City of Breezy Point City Council authorized Widseth to complete a Capital Improvement Plan. The scope of this plan is as follows:

- Inventory of City streets, with pavement condition rating for paved roads, and associated map
- Recommended budgeting numbers for paved roads based on condition assessment, recommended improvements, and timing
- Gravel and minimum maintenance road map and gravel road inventory
- Gravel road incorporation into 10-year CIP
- Streetlight inventory, mapping, and recommended streetlight location
- Sidewalk and trail assessment, mapping, recommendation for repair and expansion
- Street sign inventory of City-owned street signs and replacement plan
- Street sign GIS implementation
- Sanitary sewer inventory and recommended replacement
- 10-year sanitary sewer cost estimate, televising recommendations and draft example quote package
- Storm sewer inventory using as built information and review with city staff
- Storm sewer map, 5 and 10-year recommended replacement

This scope was achieved through on-site inspection, review with City staff, GIS, and utilizing record drawings.

Paved Roads

Widseth conducted a field review for each paved City street noting pavement condition, roadway width, presence of City utilities, and drainage. The raw data was compiled into a spreadsheet to be utilized for the Capital Improvement Plan. The roads were rated on a scale of one (1) to five (5). The description for each rating is below.

Road Rating 1

Road Rating of 1 indicates a more recently constructed or improved road with minimal to no cracking. Some roads have been recently chip sealed. These roads should not need any capital improvements aside from routine maintenance for 10 or more years. We recommend the City conducts yearly pavement review and notes for any road degradation that could shorten the roads expected life.

Road Rating 2

Road Rating of 2 indicates a road that shows some signs of wear. Typically, these roads show some longitudinal cracking, only few to none of which are deflective. We would recommend these roads be overlayed with 1.5" of bituminous pavement in the next 1 to 10 years. Overlaying the existing pavement will typically extend the life of the roadway by 10 to 15 years. When overlaying a road, it is common for reflective cracking to show through the new pavement in the same location that cracks exist in the pavement today. Some roads have localized areas of deflection that may require full pavement removal and base correction. We recommend the City budgets for maintenance of roads after improvement and conduct routine crack sealing. Chip sealing is also recommended within 3 years of improvement, typically letting the new pavement go through a freeze and thaw cycle before chip sealing. Chip sealing and crack sealing costs are considered maintenance items and are not included in this capital improvements plan. The City could coordinate with Crow Wing County to attempt to align chip sealing schedules in an effort to reduce cost and award a quality contractor.

Road Rating 3

Road Rating of 3 indicates a road with existing concrete curb and gutter, or roads that may not benefit from an overlay due to existing drainage and grading conditions. These roads show some longitudinal cracking, few to none of which are deflective. The recommended improvement type would be a mill and inlay, leaving the existing curb and gutter in place if present. This improvement type would consist of milling an inch of existing pavement and replacing it with 1 ½ inches of new pavement. This improvement should extend the life of the pavement by 10 to 15 years. We recommend coring the existing pavement for any roads being considered for milling to verify the existing pavement thickness is adequate. When inlaying a road, it is common for reflective cracking to show through the new pavement in the same location that cracks exist in the pavement today. We recommend the City budgets for maintenance of roads after improvement, typically letting the new pavement go through a freeze and thaw cycle before chip sealing. Chip sealing and crack sealing costs are considered maintenance items and are not included in this capital improvements plan. The City could coordinate with Crow Wing County to attempt to align chip sealing schedules in an effort to reduce cost and award a quality contractor.

Road Rating 4

Road Rating of 4 indicates a road with a substantial amount of deflective cracking and pavement that is deteriorating. Common degradation features include spalling, alligator cracking, localized deflection and loss of crown. Some roads have localized areas of deflection that may require additional base correction. We recommend full depth reclamation as the next improvement for roads in this category. Full depth reclamation involves pulverizing the existing pavement and base, mixing the two to become the base for the new pavement. This improvement type should see a life of 20 to 25 years. Regular maintenance could ensure the pavement reaches over 20 years until another capital improvement may be recommended. We recommend the City budgets for maintenance of roads after improvement and conduct routine crack sealing. Chip sealing is also recommended within 3 years of improvement, typically letting the new pavement go through a freeze and thaw cycle before chip sealing. Chip sealing and crack sealing costs are considered maintenance items and are not included in this capital improvements plan. We recommend televising the sanitary sewer system on these roads prior to construction. With the pavement being removed for the improvement, this would be the best time to address any issues that may be found in televising. The cost to televise is not included in the capital road cost. The City could coordinate with Crow Wing County to attempt to align chip sealing schedules in an effort to reduce cost and award a quality contractor.

Road Rating 5

Road Rating of 5 indicates a road in need of reconstruction. These roads have areas where water is able to penetrate through the pavement and into the base. Water draining through the pavement washes fine particles out of the base and leaves it with less structural integrity. Some of the features indicating this road rating include deep spalling, widespread alligator cracking, potholing, and areas with clear deflection. Other situations where a road could be rated a 5 would include roads in need of profile correction to correct drainage issues, or realignment. The recommended improvement for a Road Rating 5 would be full reconstruction. This would include removing the pavement and the base, grading the subbase and potential profile correction, installing new base and paving. The expected life of a full reconstruct is 20 to 25 years with proper maintenance. We recommend the City budgets for maintenance of roads after improvement and conduct routine crack sealing. Chip sealing is also recommended within 3 years of improvement, typically letting the new pavement go through a freeze and thaw cycle before chip sealing. Chip sealing and crack sealing costs are considered maintenance items and are not included in this capital improvements plan. We recommend televising the sanitary sewer system on these roads prior to construction. With the pavement being removed for the improvement, this would be the best time to address any issues that may be found in televising. The cost to televise is not included in the capital road cost. The City could coordinate with Crow Wing County to attempt to align chip sealing schedules in an effort to reduce cost and award a quality contractor.

Individual Paved Roads

The City has expressed interest in extending the sanitary sewer system down County Road 11 and down Terminal Road and Red Oak Lane. The costs in this capital improvement plan to improve those roads are for the road only and do not account for the potential sewer extension. If the roads were to be improved with the addition of the sanitary sewer extension, the price per square yard and total project cost would increase.

The City has expressed interest in creating a trail on Dove Street from Ranchette Drive to County Road 4. Dove Street has a higher amount of pedestrians and golf carts than many of the surrounding roads. A trail would create a safer travel route for the increased pedestrian and golf cart traffic. The cost to include an extended shoulder trail is shown in the Sidewalks and Trails CIP. The cost to improve Dove Street and construct the trail are split out in the summary, and the total is calculated in the 2033 section of the CIP Summary.

Paved Roads Summary

The majority of the paved roads in Breezy Point are in need of improvement. There is a variety of pavement conditions, but the majority of surface area falls under road rating 2 (overlay) and 4 (full depth reclamation).

There are 113 paved roads in the City for a total of 42.9 miles. There are 28 paved culdesacs ranging from 40 to 100 feet in diameter. The City contains 208 intersections, including fully paved intersections, gravel intersections, and intersections of City and County roads. Many of the existing paved roads in the City do not meet the minimum width for local roads of 22 feet. The City has expressed to us that the public typically does not want to extend road width or right of way width and prefers to keep the natural look of many neighborhoods. The costs associated with the road improvements does not include extending the road width to the minimum width of 22 feet. If the City were to want to extend the road width, the construction cost would be significantly higher than what we have estimated for most scenarios.

Improving roads before they deteriorate further and fall into the next road rating category would be the most cost effective way to keep up with capital improvements for the City, as improvement costs increase with road rating. This may not be feasible given the City's current budget for road improvements. We recommend the City monitor the pavement condition of paved roads in the spring of every year to determine which roads may need to take priority. See the attached capital improvement spreadsheet for recommended dates of improvement based on the existing City budget of \$300,000 for road capital improvements. We recommend the City increase their yearly budget for road capital improvements by at least 2-4% each year to accommodate for inflating construction and material prices.

The chart on the following page quantifies the total amount of paved roads in each road rating category. An estimated cost per square mile is assigned to the improvement type to give an estimated cost to improve the roads in 2024 construction dollars. The estimated total cost to improve all of the paved roads in the City with a road rating of 2 through 5 today is roughly \$16,500,000 including engineering services. We recommend completing routine maintenance for the next 10-15 years on roads with a rating of 1, and the cost to improve those roads is not included in the previously stated dollar amount.

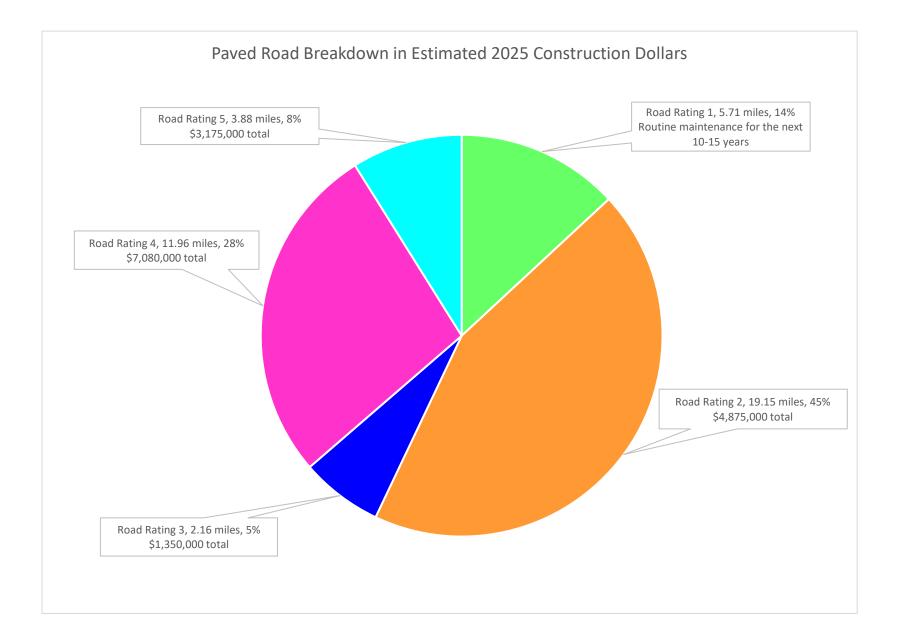
The following table depicts the estimated dollar amount per year that it would cost the City to improve all roads in the next 10, 15 and 20 years respectively.

Paved Roads								
Improvement Cost Per Year for all Roads Rated 2-5								
Timeline	Cost Per Year							
10 - Year	\$1,650,000							
15 - Year	\$1,100,000							
20 - Year	\$825,000							

With the Citys current road budget, it would take over 50 years to improve all of the roads in the City. During the 50 year period, the roads that were improved first could be degraded to the point where a more costly improvement would be required. The most cost effective way to maintain your roads is to improve them before they degrade to the point of requiring reconstruction.

Included on page 14 is the Paved Roads Capital Improvements Plan indicating suggested road improvements by year with an estimated price. Below is the bases for price estimating. Unit prices in the capital improvements chart may vary due to accounted for inflating construction prices, presence of City utilities in the road corridor, or other variables.

Improvement Type	Rating	2025 Cost/SY
Future 1.5" Overlay	1	Future Cost
1.5" Overlay	2	\$19.00
1.5" Mill & Inlay	3	\$27.00
Full Depth Reclamation	4	\$46.00
Full Reconstruct	5	\$65.00

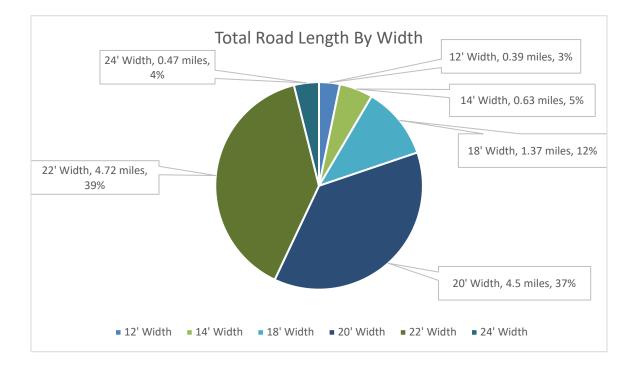


Gravel Roads

The City of Breezy Point has 51 gravel roads in the City limits totaling approximately 12.1 miles. Their widths range from 12 to 24 feet wide. The City currently has a \$69,000 budget for supplemental aggregate, dust coat, and salt/sand. We understand this has been covering the maintenance required on gravel roads for most years. We recommend the City maintain this budget and increase as necessary to cover material costs. The maintenance cost based on existing budget is included in the CIP. The City's current aggregate budget covers about 15% of existing gravel roads with 1" of supplemental Class 5 aggregate. The City should consider areas where gravel roads service areas where there is potential for future growth or potential for petition for pavement. Many of the existing gravel roads do not meet the 22 foot minimum road with for paved roads. A minimum of a 24 foot wide gravel base would be required to pave a 22 foot wide road. If the City were to improve a road to a paved road, there would be additional cost to widen the road from its existing width feet to the minimum 22 foot standard.

Through discussions with City staff, it has been identified that Channel Road should be further investigated before the road is being considered for improvement. It is believed that the road has corduroy, or log planks under the existing gravel surface. This would need to be addressed and should be considered if the City were to pave Channel Road in the future.

The City's current policy for improving gravel roads to paved is based on petition. Due to this, and review with City staff, we have not included any costs for improving gravel roads to paved in the 10-year CIP.



Minimum Maintenance Roads

The City of Breezy Point contains 38 minimum maintenance roads of approximately 38,372 linear feet (7.27 miles) of minimum maintenance roads. Most of which are passable by vehicle, and it is our understanding that the City will do tree clearing and other maintenance as needed to keep them that way. There are no recommended capital improvements for minimum maintenance roads at this time.

Street Lights

The City currently maintains four (4) street lights, their locations can be seen in the Street Lights CIP Map. There is also three (3) County maintained street lights in the city limits. We understand that it is not feasible, and may not be desirable to have street lighting at every intersection in the City. We have identified five (5) additional locations for street lights in areas of assumed higher traffic. While there may be more locations where street lights would improve safety and visibility of intersections, these locations were selected for the purpose of this CIP. The cost to install the lights is estimated and incorporated into the capital costs for paved roads, on the year the road is proposed to be improved. One item of consideration that is unknown at this point is availability of electrical service to the proposed pole locations. If the proposed pole location does not have available electrical service nearby, the cost would be much greater to bring power to the site. The installed cost per pole without utility installation or relocation is estimated at about \$25,000. We would recommend the City draft a policy for street light installation, this would be an important time to have a policy as the City takes on a capital improvement plan. Items to consider when drafting a street light policy include average daily traffic and crash data.

Street Signs

We utilized GIS to store sign data and location. Sign age, condition, location, type, and photos were stored in GIS. The recommended method for sign replacement is the age method. Replacing signs once they reach 15 years of age should ensure that the majority of the signs in the City would pass a reflectivity test. This method is adopted by many communities similar to Breezy Point. The cost to replace signs on a 15 year basis is incorporated into the CIP.

There are 883 City owned signs in the City limits of Breezy Point. 256 of those signs are 15 years of age or older, 195 signs are 15 years of age or newer, and 426 signs did not have an age identifying sticker associated with the sign. Included in this plan is a map indicating sign location by recommended year of replacement. City staff has indicated that they typically replace signs without contracting work to do so. The cost associated with the City carrying out the replacement is shown in the CIP summary.

Sanitary Sewer

Much of the City's sanitary sewer collection system was installed in 1978, and all the gravity sewer is PVC or ductile iron sewer pipe. With the expected life of PVC sewer pipe of around 50 to 100 years, there is no recommended replacement for the existing collection system. The ductile iron gravity pipe in the system exists as inlet piping to lift stations in small quantities. The expected life for ductile iron pipe is 50 to 100 years.

The City has taken up sanitary sewer extension projects when developments arise or there is significant City or Public interest. City staff has expressed interest in providing sanitary sewer to the City's remaining commercial lots. A long-range sanitary sewer layout is attached.

The collection system is composed primarily of 8-inch PVC pipe. It is estimated that the City's current average flow rate is approximately 130-150 gallons per minute. This is roughly one quarter to one third of the maximum carrying capacity of 8-inch PVC pipe. The collection system can handle additional capacity at this time. Wastewater treatment is not covered in this CIP, and the additional capacity of the collection system is not an indicator of the capacity of the treatment system.

The Streets Committee and City staff have indicated that the policy for televising will remain mostly the same. The City currently televises known issue areas and will continue to do so as necessary. It was recommended by Widseth to televise any full depth reclamation or full reconstruct project prior to construction. Committee consensus was to televise full reconstruct projects prior to construction. We have attached an example quotation package for televising in this capital improvements plan.

The table below summarizes the pipe type and lengths in the City collection system or inside of the City limits. A full inventory can be found in the tables section. A lift station maintenance plan can also be found in the tables section.

Ріре Туре	Length
Gravity	(ft)
8" PVC	75,040
8" HDPE	1,317
8" DIP	127
10" PVC	6,627
15" PVC	2,769
18" PVC	1,567
Forcemain	
4" PVC	4,645
4" DIP	3,142
6" DIP	1,874
8" DIP	3,061
10" DIP	4,557
Unknown or Private	9,608
Total	114,334

Storm Sewer

The City's existing storm sewer system was installed in 2007 and exists on Airport Road and Breezy Point Drive. The stormwater is drained into the County's storm system on CR-11 for Airport Road and into a series of infiltration basins on Breezy Point Drive. The storm sewer collection system appears to be in good working order and there are no obvious issues with the system. Storm sewer should be evaluated when road is upgraded or improved and treatment requirements should be revisited at that time as well.

Sidewalks and Trails

An inventory was taken of the existing City owned sidewalks and trails. There exists approximately 1.1 miles of bituminous trail of varying widths, 110 linear feet of concrete walk and 2.3 miles of gravel or natural trail that is maintained by the City. The concrete walk on the north side of Breezy Point Drive North is owned and maintained by the City. We have included an estimated amount of concrete walk into the Capital Improvement Plan for installing recommended pedestrian ramps at the intersections along Breezy Point Drive North coinciding with construction of the associated roads. The pedestrian ramps at these intersections do not comply with ADA or PROWAG standards.

CITY OF BREEZY POINT 2025 CAPITAL IMPROVEMENT PLAN

PAVED ROADS						2025	2026	2027	2028	2029	2030	
Paved Road Improvements Including Engineering						\$292,800	\$263,600	\$295,700	\$202,100	\$608,600	\$295,600	
Road Name	Year of Last Impv.	Road Rating	Improvement Type	SY	\$/SY							
Airport Road	2007	3	1.5" Mill & Inlay	11,481	\$29.26							
Apache Circle	2007	2	1.5" Overlay	2,226	\$19.00							
Autumn Lane	2005	2	1.5" Overlay	1,876	\$19.00							
Aztec Circle	2017	1	Future 1.5" Overlay	1,578	\$19.00							
Bay View Place	2002	2	1.5" Overlay	867	\$21.31							
Belgian Drive	2007	2	1.5" Overlay	7,439	\$19.00							
Beverly Drive	2004	2	1.5" Overlay	3,014	\$19.00							
Bittersweet Circle	1999	4	Full Depth Reclaimation	2,036	\$46.00							
Blackhawk Circle	2008	1	Future 1.5" Overlay	2,479	\$19.00							
Bluebird Lane	1978	5	Full Reconstruct	2,396	\$69.17							
Breezy Point Boulevard	1999	2	1.5" Overlay	4,530	\$22.13			\$100,217				
Breezy Point Drive (North)	2014	2	1.5" Overlay	6,612	\$20.66							
Breezy Point Drive (South)	2007	3	1.5" Mill & Inlay	10,960	\$40.52							
Buschmann Road	1996	5	Full Reconstruct	29,392	\$65.00							
Camp Lora Place	1978	4	Full Depth Reclaimation	814	\$55.83							
Canary Lane	2004	4	Full Depth Reclaimation	2,162	\$51.53			\$111,417				
Channel Heights	Unknown	2	1.5" Overlay	2,778	\$24.90							
Cherokee Trail	2007	2	1.5" Overlay	6,648	\$19.00							
Chickasaw Circle	2005	4	Full Depth Reclaimation	5,591	\$46.00							
Choctaw Circle	2008	1	Future 1.5" Overlay	3,334	\$19.00							
Circle Drive	1978	5	Full Reconstruct	1,982	\$71.05							
Creek Circle	2014	1	Future 1.5" Overlay	2,497	\$19.80							
Cross Street	1978	5	Full Reconstruct	716	\$70.59							
Crow Circle	2008	2	1.5" Overlay	992	\$19.00							
Dakota Drive	2008	2	1.5" Overlay	1,531	\$19.00							
Dellwood Drive	1994	5	Full Reconstruct	2,786	\$65.00							
Douglas Drive	1998	2	1.5" Overlay	829	\$21.41							
Dove Street (CR-4 to Ranchette)	1994	4	Full Depth Reclaimation	15,970	\$62.30							
Dove Street (Ranchette to West End)	2000	2	1.5" Overlay	5,889	\$19.00							
Eagle Lane	1998	2	1.5" Overlay	7,969	\$21.15	\$168,519						
East Street	2004	2	1.5" Overlay	5,234	\$19.00							
Edewater Farms Drive	2007	2	1.5" Overlay	4,200	\$20.43							
Edgewater Circle	2007	4	Full Depth Reclaimation	670	\$46.00							
Falling Leaf Circle	Unknown	2	1.5" Overlay	2,477	\$19.00							
Fifth Ave	2004	2	1.5" Overlay	3,000	\$19.00							
Four Seasons Place	2005	2	1.5" Overlay	3,756	\$19.00							
Fox Loop	2001	4	Full Depth Reclaimation	1,878	\$48.13							
Gopher Lane	2001	2	1.5" Overlay	2,151	\$20.39							
Graf Road	2000	1	Future 1.5" Overlay	1,402	\$19.00							
Green Scene Drive	2005	2	1.5" Overlay	10,656	\$19.00							
Harvest Court	2005	2	1.5" Overlay	1,016	\$19.00							
Harvest Road	2005	4	Full Depth Reclaimation	6,131	\$46.00							
Hillside Pass	2005	2	1.5" Overlay	2,191	\$19.00							
Humming Bear Lane	2002	4	Full Depth Reclaimation	5,668	\$46.00							
Huron Circle	2003	2	1.5" Overlay	1,672	\$19.00							
Lakeshore Drive	2004	4	Full Depth Reclaimation	8,258	\$48.42							
Mohican Circle	2002	2	1.5" Overlay	4,056	\$19.00							
Navaho Trail	2017	1	Future 1.5" Overlay	8,934	\$19.00							
Nickel Road	2003	2	1.5" Overlay	10,247	\$19.00							
Nickel Woods Circle	2002	4	Full Depth Reclaimation	4,209	\$46.00							
North Birchwood Drive	2000	4	Full Depth Reclaimation	2,918	\$55.73						\$162,610	
North Drive	2003	4	Full Depth Reclaimation	2,491	\$53.35						\$132,891	
North Drive Boat Access	2016	3	1.5" Mill & Inlay	1,386	\$27.00							
North Lakeview Drive	2004	3	1.5" Mill & Inlay	14,700	\$41.40					\$608,526		
North Pinewood Drive	2000	4	Full Depth Reclaimation	2,900	\$58.78							
North Spruce Drive	2000	4	Full Depth Reclaimation	3,118	\$59.25							
Northwoods Circle	1999	4	Full Depth Reclaimation	589	\$46.00							
Northwoods Circle Northwoods Lane	1999 1999	4 4	Full Depth Reclaimation Full Depth Reclaimation	589 11,836	\$46.00 \$46.00							

2031	2032	2033	2034
\$355,300	\$297,400	\$994,900	\$444,100
			\$444,087
			<i>ç</i> : : :,;;;;;;
	\$69,178		
		\$994,844	
\$170,458 \$184,743			

PAVED ROADS						2025	2026	2027	2028	2029	2030	
Paved Road Improvements Including Engineering						\$292,800	\$263,600	\$295,700	\$202,100	\$608,600	\$295,600	\$
Road Name	Year of Last Impv.	Road Rating	Improvement Type	SY	\$/SY							
Oriole Circle	2002	2	1.5" Overlay	3,842	\$21.86			\$84,000				
Osceola Circle	2002	2	1.5" Overlay	2,856	\$24.43							
Ossawinnamakee Road	2020	1	Future 1.5" Overlay	10,645	\$19.00							
Ottawa Trail	2008	1	Future 1.5" Overlay	6,429	\$19.00							
Ouray Drive	2005	2	1.5" Overlay	773	\$19.00							
Owl Circle	2011	2	1.5" Overlay	850	\$20.68	\$17,571						
Papago Circle	2019	1	Future 1.5" Overlay	2,994	\$20.34							
Pawnee Circle	2017	1	Future 1.5" Overlay	2,797	\$19.00							
Pelican Woods Way	2000	4	Full Depth Reclaimation	2,124	\$46.00							
Percheron Drive	2007	1	Future 1.5" Overlay	6,732	\$19.00							
Pima Circle	2017	1	Future 1.5" Overlay	2,184	\$19.00							
Piney Way	1978	5	Full Reconstruct	2,766	\$70.78							
Poplar Drive	2007	3	1.5" Mill & Inlay	1,451	\$29.76							
Pueblo Circle	2005	4	Full Depth Reclaimation	3,419	\$46.00							
Racoon Lane (Portion)	2005	4	Full Depth Reclaimation	1,053	\$46.00							
Ranchette Drive (Bushmann to Cherokee Trl)	1996	5	Full Reconstruct	8,035	\$65.00							
Ranchette Drive (CR-11 to Cherokee Trl)	2006	1	Future 1.5" Overlay	7,089	\$19.00							
Ranchette Drive (CR-11 to South End of N-S portion)	2003	2	1.5" Overlay	23,525	\$19.00							
Red Oak Lane	1978	4	Full Depth Reclaimation	3,980	\$50.78				\$202,086			
Red Pine Drive	2005	2	1.5" Overlay	1,698	\$21.29	\$36,139						
Rice Creek Drive	2000	4	Full Depth Reclaimation	1,552	\$46.00							
Robin Lane	1998	2	1.5" Overlay	3,826	\$24.42							
Robinhood Lane	2005	2	1.5" Overlay	5,762	\$19.00							
Rolling Oaks Trail	2004	2	1.5" Overlay	2,674	\$19.00							
Russ Court	2004	4	Full Depth Reclaimation	1,477	\$46.00							
Sand Beach Drive	2010	4	Full Depth Reclaimation	1,940	\$50.12							
Scenic Overlook	2005	2	1.5" Overlay	9,162	\$19.00							
Shoreview Lane	2007	2	1.5" Overlay	7,562	\$20.59							
Sioux Drive	2008	2	1.5" Overlay	3,960	\$19.00							
Ski Chalet Drive	2003	2	1.5" Overlay	22,653	\$21.21							
Snowman Circle	2015	2	1.5" Overlay	1,648	\$19.00							
Sparrow Drive	2005	2	1.5" Overlay	3,356	\$21.00	\$70,474						
Suffolk Circle	2020	1	Future 1.5" Overlay	3,065	\$20.63							
Suffolk Drive (North)	2020	1	Future 1.5" Overlay	3,433	\$20.17							
Suffolk Drive (South)	2008	2	1.5" Overlay	5,778	\$19.00							
Summer Drive	2005	4	Full Depth Reclaimation	11,695	\$46.00							
Sunset Strip	2020	1	Future 1.5" Overlay	1,410	\$19.00							
Terminal Road (Forest Pl to CR 11)	1978	4	Full Depth Reclaimation	3,822	\$48.33		\$184,723					
Terminal Road (Forest Pl to Ski Chalet)	2005	2	1.5" Overlay	3,951	\$19.96		\$78,872					
Thrane Drive (East Portion)	2015	2	1.5" Overlay	403	\$26.44							
Thrane Drive (West Portion)	1996	4	Full Depth Reclaimation	6,191	\$46.00							
Timberlane Point	1994	4	Full Depth Reclaimation	12,756	\$46.00							
Weavers Point Road	2003	2	1.5" Overlay	9,663	\$19.83							
West Street	1994	4	Full Depth Reclaimation	6,680	\$46.00							
White Overlook Drive	2005	2	1.5" Overlay	5,562	\$19.00							
Whitebirch Drive	2014	1	Future 1.5" Overlay	7,422	\$19.67							
Wildwood Court	2004	2	1.5" Overlay	889	\$19.00							
Wildwood Lane	1987	4	Full Depth Reclaimation	13,351	\$46.00							
Winter Trail (Logging Lane to Shady Trail)	2016	2	1.5" Overlay	2,147	\$19.00							
Winter Trail (Ranchette To Logging Lane)	2005	2	1.5" Overlay	4,718	\$19.00							
Wolf Lane	1998	2	1.5" Overlay	2,111	\$19.95							
Wren Drive	2004	2	1.5" Overlay	2,647	\$24.53							
Yuma Circle	2007	2	1.5" Overlay	1,881	\$19.00							
Zuni Circle	2017	1	Future 1.5" Overlay	1,699	\$19.00							

2031	2032	2033	2034
\$355,300	\$297,400	\$994,900	\$444,100
	¢60 771		
	\$69,771		
	\$93,434		
	¢64.025		
	\$64,925		

CITY OF BREEZY POINT 2025 CAPITAL IMPROVEMENT PLAN

FOR MAINTENANCE AND BUDGETING PURPOSES, NOT INCLUDED IN CAPITAL IMPROVEMENTS SUMMARY

		-	FOR MAINTENANC	E AND BUDGETING	g purposes, not	INCLUDED IN CA	APITAL IMPROVE	MENTS SUMMARY	<u>/</u>			
GRAVEL ROADS			2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Gravel Road Mantenance Cost			\$69,000	\$70,400	\$71,900	\$73,400	\$74,900	\$76,400	\$78,000	\$79,600	\$81,200	\$82,900
Road Name	Width (ft)	SY										
1st Avenue	24	3,499										
2nd Avenue	24	3,501										
3rd Avenue	24	3,541										
4th Avenue	18	2,686										
Alpine Drive	20	3,436										
Arapaho Circle	20	2,129										
Ash Avenue	14	3,424										
Aspen Lane	18	1,342										
Birch Lane	18	1,842										
Blackbird Lane	18	1,346										
Blue Ridge Road	22	9,137										
Catskill Drive	20	289										
Cedar Street	20	5,911										
Center Drive	20	4,162										
Channel Road	20	7,402										
Darner Lane	12	1,844										
Deer Path Lane	12	912										
Delaware Trail	24	3,467										
Dewdrop Circle	22	1,442										
First Circle	18	823										
First Street Circle	20	1,991										
Flower Trail	20	3,778										
Forest Place	22	2,542										
Forest Place Circle	18	835										
Golden Butternut Lane Golf Woods Circle	20	3,707 1,019	\$69,000	ć70.400	\$71,900	\$73,400	\$74,900	\$76,400	\$78,000	¢70,600	\$81,200	\$82,900
Golf Woods Lane	18	1,600	203,000	\$70,400	\$71,900	\$75,400	\$74,900	\$76,400	\$78,000	\$79,600	\$81,200	\$82,900
Liza Dell Drive	18 20	1,800										
	20	3,315										
Logging Lane Maya Circle	18	1,491										
Northwoods Way	18	339										
O'Donnell Road	14	5,868										
Orchid Lane	20	1,444										
Peony Lane	20	1,676										
Pine Circle	20	1,411										
Rabbit Drive	20	3,163										
Raccoon Lane	22	11,438										
Rainier Drive	22	8,546										
Shady Trail	22	11,039										
Shasta Drive	20	2,216										
Snowflake Circle	20	1,179										
South Bay Lane	14	1,384										
Southview Drive	20	3,051										
Spring Loop	22	3,865	1									
St Moriz Boulevard	22	1,391	1									
Sun Valley Drive	20	2,482	1									
Sunny Lane	20	4,542	1									
Traders Pass	20	1,200	1									
Verna Dell Place	20	1,369	1									
Violet Lane	20	4,616	1									
White Overlook Drive	22	8,705	1									
				1	1		1					1

Road Name	Length
	(FT)
Alpine Circle	180
Alpine Lane	531
Appalacian Drive	2,385
Appalacian Lane	669
Bear Drive	1,616
Beaver Drive	1,389
Birchwood Drive	600
Catskill Circle	239
Catskill Drive	2,776
Cedar Drive	390
Delaware Circle	526
Delaware Trail	4,094
Hillside Drive	434
Lynx Drive	1,586
Meadow Drive	350
Otter Lane	447
Peak Circle	152
Pinewood Drive	1,070
Shasta Drive	884
Snoqualmie Circle	269
Snoqualmie Lane	1,487
Spruce Drive	2,455
Squirrel Lane	1,171
St Moritz Boulevard	1,449
Summit Ridge Drive	2,264
Sun Valley Lane	741
Sun Valley Pass	600
Golden Butternut Lane	313
Hickory Lane	765
Golden Butternut Circle	866
Peony Lane	1,040
Rose Circle	140
East Street	1,149
Liza Dell Drive	861
Rene Dell Place	607
Dell Marie Place	710
Oak Lane	380
Pinewoods Lane	787
TOTAL	38,372

Minumum Maintenance Roads

						WWC	.5		
Ma	nhole		Length	Sewer Type	Pipe	Grade	Installed	Road	Project
	r –	NAMA/TE	-		Tipe	Grade	mstaneu		
Campground L.S.	to	WWTF	9268	Forcemain				Thrane Dr.	
MH 1	to	L.S. 2	294	Gravity	8" PVC	0.4	1978	Thrane Dr.	
MH 2	to	MH 1	433	Gravity	8" PVC	0.4	1978	Piney Way	
MH 2A	to	MH 2	271	Gravity	8" PVC	1	1978	Piney Way	
MH 3	to	MH 2	301	Gravity	8" PVC	0.4	1978	Piney Way	
				,					
MH 4	to	MH 3	81	Gravity	8" PVC	0.4	1978	Piney Way	
MH 5	to	MH 4	170	Gravity	8" PVC	0.4	1978	Piney Way	
MH 6	to	MH 5	132	Gravity	8" PVC	0.4	1978	Piney Way	
MH 7	to	MH 6	177	Gravity	8" PVC	0.4	1978	Piney Way	
MH 8		L.S. 2	41	Gravity	8" DIP	0.4	1978		
	to			,		_		Piney Way	
MH 9	to	MH 8	304	Gravity	8" PVC	0.4	1978	CR 4	
MH 10	to	MH 9	277	Gravity	8" PVC	0.4	1978	CR 4	
MH EWC-1	to	MH 10	257	Gravity	8" PVC	0.4	1978	CR 4	
MH EWC-2	to	MH EWC-1	417	Gravity	8" PVC	0.4	1978	CR 4	
MH EWC-3	to	MH EWC-2	230	Gravity	8" PVC	0.4	1978	CR 4	
-									
L.S. 2	to	L.S. 1	1253	Forcemain	4" DIP	N/A	1978	CR 4	
L.S. 1	to	WWTF	4557	Forcemain	10" DIP	N/A	1978	Plant Rd.	
MH 11	to	L.S. 1	217	Gravity	8" PVC	0.12	1978	CR 4	
MH 12	to	MH 11	237	Gravity	8" PVC	0.12	1978	CR 4	
MH 13		MH 12	400		8" PVC	0.12	1978	CR 4	
	to			Gravity					
MH 14	to	MH 13	383	Gravity	8" PVC	0.12	1978	CR 4	
MH 15	to	MH 14	330	Gravity	8" PVC	0.12	1978	CR 4	
MH 16	to	MH 15	305	Gravity	8" PVC	1.8	1978	CR 4	
MH 17	to	MH 16	160	Gravity	8" PVC	2	1978	CR 4	
				,	8" PVC				
MH 18	to	MH 17	333	Gravity		3.4	1978	CR 4	
MH 19	to	MH 18	60	Gravity	8" PVC	0.4	1978	CR 4	
MH 20	to	MH 19	362	Gravity	8" PVC	0.2	1978	CR 4	
MH 21	to	MH 20	173	Gravity	8" PVC	0.2	1978	Eagle Ln.	
MH 22	to	MH 21	397	Gravity	8" PVC	0.2	1978	Canary Ln.	
				,	8" PVC			,	
MH 23	to	MH 22	381	Gravity		0.2	1978	Canary Ln.	
MH 24	to	MH 23	228	Gravity	8" PVC	0.2	1978	Canary Ln.	
MH 25	to	MH 24	370	Gravity	8" PVC	0.2	1978	CR 4	
MH 26	to	MH 25	165	Gravity	8" PVC	0.4	1978	Dove St.	
MH D-1	to	MH 26	400	Gravity	8" PVC	0.4	1976	Dove St.	Weinke Ext
				,					
MH D-2	to	MH D-1	345	Gravity	8" PVC	0.4	1995	Dove St.	Dove Ext
MH D-3	to	MH D-2	400	Gravity	8" PVC	4.23	1995	Dove St.	Dove Ext
MH D-4	to	MH D-3	400	Gravity	8" PVC	5.58	1995	Dove St.	Dove Ext
MH 0-1	to	MH D-2	440	Gravity	8" PVC	0.4	1997	Oriole Cir.	Oriole Ext
MH 0-2	to	MH 0-1	264	Gravity	8" PVC	0.4	2002	Oriole Cir.	Oriole Ext
MH O-3	to	MH 0-2	230	Gravity	8" PVC	0.4	2002	Oriole Cir.	Oriole Ext
MH 0-4	to	MH O-3	237	Gravity	8" PVC	0.4	2002	Oriole Cir.	Oriole Ext
MH 0-5	to	MH O-4	304	Gravity	8" PVC	0.75	2002	Oriole Cir.	Oriole Ext
MH 27	to	MH 26	349	Gravity	8" PVC	0.4	1978	Wren Dr.	
MH 28	to	MH 27	287	Gravity	8" PVC	0.4	1978	Wren Dr.	
						-			
MH 29	to	MH 28	277	Gravity	8" PVC	0.4	1978	Wren Dr.	
MH 30	to	MH 29	269	Gravity	10" PVC	0.67	1997	Wren Dr.	Robin Ext
MH 30-A	to	MH 30	403	Gravity	10" PVC	0.4	1997	Robin Ln.	Robin Ext
MH 30-B	to	MH 30-A	399	Gravity	10" PVC	0.4	1997	Robin Ln.	Robin Ext
MH 30-C	to	МН 30-В	401	Gravity	10" PVC	4.4	1997	Robin Ln.	Robin Ext
MH 30-D	to	MH 30-C	308	Gravity	10" PVC	3.45	1997	Robin to Antlers	Robin Ext
MH 30-E	to	MH 30-D	398	Gravity	10" PVC	0.4	1997	Robin to Antlers	Robin Ext
MH 30-F	to	MH 30-E	401	Gravity	10" PVC	0.4	1997	Robin to Antlers	Robin Ext
MH 30-G	to	MH 30-F	221	Gravity	8" PVC	0.4	1997	Robin to Antlers	Antler Ext
MH 30-H	to	MH 30-G	331	Gravity	8" PVC	0.4	1996	Robin to Antlers	Antler Ext
				,					
MH 30-I	to	MH 30-H	274	Gravity	8" PVC	0.4	1996	Robin to Antlers	Antler Ext
MH 30-J	to	MH 30-I	294	Gravity	8" PVC	0.4	1998	Robin to Antlers	WB Estates
МН 30-К	to	MH 30-J	248	Gravity	8" PVC	0.4	1998	Robin to Antlers	WB Estates
MH OC-2	to	MH OC-1	218	Gravity	8" PVC	0.4	2002	Osceola Cir.	
MH OC-3	to	MH OC-1	301	Gravity	8" PVC	3.3	2002	Osceola Cir.	
-									
MH OC-1	to	MH 30-A	368	Gravity	8" PVC	3	2002	Osceola Cir.	
MH 71	to	L.S. 4	72	Gravity	8" PVC	0.4	1978	Osceola Cir.	
L.S. 4	to	MH 71	3061	Forcemain	8" DIP	N/A	1978	Breezy Point Dr.	
MH 72	to	MH 71	306	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 73	to	MH 72	202	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 73-A	to	MH 73	85	Gravity	8" PVC	3.5	1985	Breezy Point Dr.	High Village
MH 73-8		MH 73-A	111		8" PVC	1.8	1985	Breezy Point Dr.	High Village
	to			Gravity					
MH 73-C	to	MH 73-B	224	Gravity	8" PVC	0.4	1985	Breezy Point Dr.	High Village
MH 73-D	to	MH 73-C	298	Gravity	8" PVC	0.4	1985	Breezy Point Dr.	High Village
MH 74	to	MH 73	295	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 75	to	MH 74	306	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 76	to	MH 75	253	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 77	to	MH 76	123	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 119	to	MH 103	285	Gravity	8" PVC	3.2	1978	N Birchwood Dr.	
MH 120	to	MH 119	426	Gravity	8" PVC	0.56	1978	N Birchwood Dr.	
				Gravity	8" PVC	0.4	1978	N Birchwood Dr.	
MH 121	to	MH 120	<u>1</u> 11		5 1 10	0.4	1970		
MH 121	to	MH 120	441			1	1	N Birchwood Dr.	
L.S. 10	to	MH 121	300	Forcemain	o	-			
L.S. 10 MH 117		MH 121 MH 102		Forcemain Gravity	8" PVC	4	1978	N Pinewood Dr.	
L.S. 10	to	MH 121	300	Forcemain	8" PVC 8" PVC	4 3.08	1978 1978		
L.S. 10 MH 117 MH 118	to to	MH 121 MH 102 MH 117	300 248 257	Forcemain Gravity	8" PVC		1978	N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133	to to to to	MH 121 MH 102 MH 117 MH 131	300 248 257 345	Forcemain Gravity Gravity Gravity	8" PVC 8" PVC	3.08 2.12	1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132	to to to to to	MH 121 MH 102 MH 117 MH 131 MH 131	300 248 257 345 200	Forcemain Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC	3.08	1978	N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1	to to to to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132	300 248 257 345 200 147	Forcemain Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC	3.08 2.12	1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132	to to to to to	MH 121 MH 102 MH 117 MH 131 MH 131	300 248 257 345 200	Forcemain Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	3.08 2.12	1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1	to to to to to to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132	300 248 257 345 200 147	Forcemain Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC	3.08 2.12	1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-3	to to to to to to to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2	300 248 257 345 200 147 273 242	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	3.08 2.12	1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-2 MH CH-3 MH CH-4	to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2 MH CH-3	300 248 257 345 200 147 273 242 261	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	3.08 2.12	1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-2 MH CH-3 MH CH-4 MH CH-5	to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-4	300 248 257 345 200 147 273 242 261 181	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	3.08 2.12 0.4	1978 1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-2 MH CH-3 MH CH-4	to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-3 MH CH-4 MH 129	300 248 257 345 200 147 273 242 261	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	3.08 2.12	1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-3 MH CH-4 MH CH-5	to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-4	300 248 257 345 200 147 273 242 261 181	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	3.08 2.12 0.4	1978 1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-3 MH CH-5 MH 131 MH 130	to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-4 MH 129 MH 129	300 248 257 345 200 147 273 242 261 181 315 201	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	3.08 2.12 0.4 	1978 1978 1978 	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Spruce Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-2 MH CH-3 MH CH-4 MH CH-5 MH 131 MH 130 MH 129	to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-4 MH 129 MH 129 MH 127	300 248 257 345 200 147 273 242 261 181 315 201 75	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	3.08 2.12 0.4 	1978 1978 1978 	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Spruce Dr. N Spruce Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-2 MH CH-3 MH CH-3 MH CH-4 MH CH-5 MH 131 MH 130 MH 129 MH 128	to to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-3 MH CH-4 MH 129 MH 127 MH 127	300 248 257 345 200 147 273 242 261 181 315 201 75 202	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	3.08 2.12 0.4 	1978 1978 1978 1978 1978 1978 1978 1978	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Spruce Dr. N Spruce Dr. N Spruce Dr. N Spruce Dr.	
L.S. 10 MH 117 MH 118 MH 133 MH 132 MH CH-1 MH CH-2 MH CH-2 MH CH-3 MH CH-4 MH CH-5 MH 131 MH 130 MH 129	to	MH 121 MH 102 MH 117 MH 131 MH 131 MH 132 MH CH-1 MH CH-2 MH CH-3 MH CH-4 MH 129 MH 129 MH 127	300 248 257 345 200 147 273 242 261 181 315 201 75	Forcemain Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	3.08 2.12 0.4 	1978 1978 1978 	N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Pinewood Dr. N Spruce Dr. N Spruce Dr.	

						WWC			
ſ	Manhole		Length	Sewer Type	Pipe	Grade	Installed	Road	Project
MH 125	to	MH 124	307	Gravity	8" PVC	0.28	1978	N Lakeview Dr.	
MH 124	to	MH 123	331	Gravity	8" PVC	0.28	1978	N Lakeview Dr.	
MH 123	to	MH 122	253	Gravity	8" PVC	2.6	1978	N Lakeview Dr.	
MH 122	to	MH 99	232	Gravity	8" PVC	0.28	1978	N Lakeview Dr.	
MH 150	to	MH 149	355	Gravity	8" PVC	1.72	1978	N Lakeview Dr.	
MH 149	to	MH 148	137	Gravity	8" PVC	7.6	1978	N Lakeview Dr.	
MH 148	to	MH 147	312	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 147	to	MH 146	230	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 146	to	MH 145	141	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 145	to	MH 144	351	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 144	to	MH 143	79	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 153	to	MH 143	162	Gravity	8" PVC	0.4	1978	Camp Lora Pl.	
MH 152	to	MH 151	138	Gravity	8" PVC	0.4	1978	Camp Lora Pl.	
MH 153	to	MH 151	33	Gravity	8" PVC	0.4	1978	Camp Lora Pl.	
MH 154	to	MH 153	145	Gravity	8" PVC	0.4	1978	Camp Lora Pl.	
MH 143	to	MH 134	141	Gravity	8" PVC	0.8	1978	N Lakeview Dr.	
MH 134	to	L.S. 5	15	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
L.S. 5	to	MH 126	1874	Forcemain	6" DIP	N/A	1978	N Lakeview Dr.	
MH 135	to	MH 134	224	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 136	to	MH 135	135	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 137	to	MH 136	433	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 137-A	to	MH 137	226	Gravity	8" PVC			N Lakeview Dr.	
MH 138	to	MH 137-A	133	Gravity	8" PVC			N Lakeview Dr.	
MH 139	to	MH 138	322	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 140	to	MH 139	274	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 141	to	MH 140	372	Gravity	8" PVC	0.4	1978	N Lakeview Dr.	
MH 142	to	MH 141	344	Gravity	8" PVC	0.8	1978	N Lakeview Dr.	
MH 31	to	MH 15	246	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH 32	to	MH 31	309	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH 33	to	MH 32	350	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH 34	to	MH 33	345	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH 35	to	MH 34	296	Gravity	8" PVC	2.52	1978	Lake Shore Dr.	
MH 36	to	MH 35	247	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH 37	to	MH 36	285	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH 38	to	MH 37	168	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH 39	to	MH 38	270	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH 40	to	MH 39	263	Gravity	8" PVC	1.8	1978	Lake Shore Dr.	
MH 41	to	MH 40	292	Gravity	8" PVC	0.68	1978	Lake Shore Dr.	
MH 42	to	MH 41	306	Gravity	8" PVC	0.28	1978	Lake Shore Dr.	
MH E-1	to	MH 21	295	Gravity	8" PVC	0.8	1998	-	Eagle Lane
MH E-2	to	MH E-1	232	Gravity	8" PVC	1.69	1998	-	Eagle Lane
MH E-3	to	MH E-2	390	Gravity	8" PVC	1.69	1998		Eagle Lane
MH E-4	to	MH E-3	400	Gravity	8" PVC	9.03	1998		Eagle Lane
MH E-5	to	MH E-2	185	Gravity	8" PVC	0.4	1998		Owl
HM RP-1	to	MH E-3	57	Gravity	8" PVC	0.4	2005		Red Pine
MH RP-2	to	MH RP-1	245	Gravity	8" PVC	0.4	2005		Red Pine
MH RP-3	to	MH RP-2	301	Gravity	8" PVC	0.4	2005		Red Pine
MH RP-4	to	MH RP-3	195	Gravity	8" PVC	0.4	2005		Red Pine
RISER W	to	MH RP-4	120	Gravity	8" PVC	0.4	2005		Red Pine
RISER E	to	MH RP-4	40	Gravity	8" PVC	0.4	2005		Red Pine
MH SP-1	to	MH E-3	54	Gravity	8" PVC 8" PVC	0.4	2005		Sparrow
MH SP-2	to	MH SP-1	345	Gravity	8 PVC 8" PVC	0.4	2005	Sparrow Dr.	Sparrow
MH SP-3	to	MH SP-4	365	Gravity	8 PVC		2005	Sparrow Dr.	Sparrow
MH SP-4	to	L.S. 8	40	Gravity	4" PVC	NI/A	2005	Sparrow Dr.	Sparrow Concernent
L.S. 8	to	MH SP-2	486	Forcemain		N/A	2005	Sparrow Dr.	Sparrow
MH SP-5	to	MH SP-4	295	Gravity	8" PVC		2005	Sparrow Dr.	Sparrow
MH ES-3	to	MH SP-5	289	Gravity	8" PVC		2005	Sparrow Dr.	Sparrow
MH ES-1	to	MH ES-2	152	Gravity	8" PVC	0.8	2005	Eagle Ln.	Sparrow Sparrow
MH ES-2	to	MH ES-3	329	Gravity	8" PVC	10	2005	Eagle Ln.	Sparrow Sparrow
MH ES-4 MH ES-5	to	MH ES-3	257	Gravity	8" PVC 8" PVC	0.4	2005	Eagle Ln.	Sparrow Sparrow
MH ES-5 MH ES-6	to	MH ES-4	362 400	Gravity	8" PVC 8" PVC	0.4	2005	Eagle Ln.	Sparrow Fagle Lane
MH ES-6 MH ES-7	to to	MH ES-5 MH ES-6	226	Gravity Gravity	8" PVC 8" PVC	2.08 6.78	2005 2005	-	Eagle Lane Eagle Lane
MH 114	to	MH 113	354	Gravity	8 PVC 8" PVC	1.24	1978	Eagle Ln. Bluebird Ln.	
MH 114 MH 113	to	MH 113 MH 112	354 140	Gravity	8 PVC 8" PVC	0.4	1978	Bluebird Ln.	
MH 113 MH 112	to	MH 112 MH 111	140	Gravity	8" PVC 8" PVC	0.4	1978	Bluebird Ln.	
MH 112 MH 111	to	MH 111 MH 110	460	Gravity	8 PVC 8" PVC	7	1978	Bluebird Ln.	
MH 111 MH 110	10	-				1 1	1210		
MH 110 MH 109	to	MH 109	257		X PVI	0.4	1072		
107	to	MH 109 MH 104	257 347	Gravity	8" PVC 8" PVC	0.4	1978 1978	CR 4	
MH 105	to	MH 104	347	Gravity	8" PVC	0.4	1978	CR 4 CR 4	
MH 105 MH 107	to to	MH 104 MH 104	347 35	Gravity Gravity	8" PVC 8" PVC	0.4	1978 1978	CR 4 CR 4 CR 4	
MH 107	to to to	MH 104 MH 104 MH 105	347 35 440	Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC	0.4 1 4	1978 1978 1978	CR 4 CR 4 CR 4 CR 11	
MH 107 MH 108-A	to to to to	MH 104 MH 104 MH 105 MH 107	347 35 440 162	Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC	0.4 1 4 1.2	1978 1978 1978 1978 1978	CR 4 CR 4 CR 4 CR 11 Airport Road	Airport
MH 107 MH 108-A MH 108-B	to to to to to	MH 104 MH 104 MH 105 MH 107 MH 108-A	347 35 440 162 375	Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.4 1 4 1.2 0.4	1978 1978 1978 1978 2007	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road	Airport
MH 107 MH 108-A MH 108-B MH 108-C	to to to to to to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B	347 35 440 162 375 400	Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.4	1978 1978 1978 1978 2007 2007	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Airport Road	Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-D	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C	347 35 440 162 375 400 400	Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.4 0.4	1978 1978 1978 2007 2007 2007	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Airport Road Airport Road	Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-D MH 108-E	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-D	347 35 440 162 375 400 400 400 400	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.4 0.4 0.4 0.4	1978 1978 1978 2007 2007 2007 2007	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Airport Road Airport Road Airport Road	Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-D MH 108-E MH 108-F	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-D MH 108-E	347 35 440 162 375 400 400 400 400 400	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	1978 1978 1978 2007 2007 2007 2007 2007 2007	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road	Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-D MH 108-E MH 108-F MH 108-G	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-D MH 108-E MH 108-F	347 35 440 162 375 400 400 400 400 400 400	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road	Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-F MH 108-H	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-G	347 35 440 162 375 400 400 400 400 400 300	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road	Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-F MH 108-H MH 108-I	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-J	347 35 440 162 375 400 400 400 400 400 300 300	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road	Airport Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-D MH 108-E MH 108-F MH 108-F MH 108-H MH 108-H MH 108-I MH 108-K	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-C MH 108-F MH 108-G MH 108-J MH 108-J	347 35 440 162 375 400 400 400 400 300 300 251	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4 5 5.7	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road Airport Road	Airport Airport Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-F MH 108-H MH 108-H MH 108-L MH 108-L	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-J MH 108-J MH 108-K	347 35 440 162 375 400 400 400 400 300 251 300	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4 5 5.7 6.2	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road	Airport Airport Airport Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-F MH 108-F MH 108-H MH 108-H MH 108-L MH 108-L MH 108-J	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-J MH 108-J MH 108-J MH 108-S L.S. 9	347 35 440 162 375 400 400 400 400 300 300 251 300 35	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.8	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road	Airport Airport Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-F MH 108-H MH 108-H MH 108-L MH 108-L MH 108-J L.S. 9	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-F MH 108-J MH 108-J MH 108-K L.S. 9 MH 108-H	347 35 440 162 375 400 400 400 400 300 300 300 351 300 35 400	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Forcemain	8" PVC 8" PVC 4" PVC	0.4 1 4 1.2 0.4 0.8 N/A	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road	Airport Airport Airport Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-F MH 108-H MH 108-I MH 108-L MH 108-L MH 108-J L.S. 9 MH W-1	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-C MH 108-C MH 108-J MH 108-J MH 108-J MH 108-J MH 108-K L.S. 9 MH 108-H L.S. 6	347 35 440 162 375 400 400 400 400 300 300 300 300 351 400 18	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.8 N/A 1	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road	Airport Airport Airport Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-G MH 108-H MH 108-I MH 108-L MH 108-L MH 108-J L.S. 9 MH W-1 L.S. 6	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-B MH 108-C MH 108-C MH 108-C MH 108-C MH 108-F MH 108-G MH 108-J MH 108-J MH 108-K L.S. 9 MH 108-H L.S. 6 MH 30-J	347 35 440 162 375 400 400 400 400 400 300 300 251 300 35 400 18 1705	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Forcemain Gravity	8" PVC 8" PVC 4" PVC 4" PVC 4" PVC	0.4 1 4 1.2 0.4 0.8 N/A 1 N/A	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road	Airport Airport Airport Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-G MH 108-H MH 108-H MH 108-L MH 108-L MH 108-L MH 108-L S. 9 MH W-1 L.S. 6 MH W-2	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-F MH 108-J MH 108-J MH 108-K L.S. 9 MH 108-H L.S. 6 MH 30-J MH W-1	347 35 440 162 375 400 400 400 400 400 300 300 251 300 35 400 18 1705 17	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Forcemain Gravity	8" PVC 8" PVC 4" PVC 8" PVC 4" PVC 8" PVC 8" PVC	0.4 1 4 1.2 0.4 1 N/A 1	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Whitebirch Estates	Airport Airport Airport Airport Airport Airport Airport Airport Airport Airport WB Estates
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-F MH 108-G MH 108-H MH 108-H MH 108-L MH 108-L MH 108-L MH 108-J L.S. 9 MH W-1 L.S. 6 MH W-2 MH W-3	to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-F MH 108-J MH 108-J MH 108-K L.S. 9 MH 108-H L.S. 6 MH 30-J MH W-1 MH W-2	347 35 440 162 375 400 400 400 400 400 300 300 251 300 35 400 18 1705	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Forcemain Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.8 N/A 1 N/A	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Whitebirch Estates	Airport Airport Airport Airport Airport Airport Airport Airport Airport Airport
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-F MH 108-F MH 108-H MH 108-H MH 108-L MH 108-L MH 108-L MH 108-J L.S. 9 MH W-1 L.S. 6 MH W-2 MH W-3 MH W-4	to to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-F MH 108-J MH 108-J MH 108-K L.S. 9 MH 108-H L.S. 6 MH 30-J MH W-1	347 35 440 162 375 400 400 400 400 300 300 35 400 151 300 35 400 17 153 270	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Forcemain Gravity	8" PVC 8" PVC 4" PVC 8" PVC	0.4 1 4 1.2 0.4 0.5	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Mirport Road Airport Road Mirport Road Mitebirch Estates	Airport Airport Airport Airport Airport Airport Airport Airport Airport Airport WB Estates
MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-E MH 108-F MH 108-F MH 108-G MH 108-H MH 108-H MH 108-L MH 108-L MH 108-L MH 108-J L.S. 9 MH W-1 L.S. 6 MH W-2 MH W-3	to to	MH 104 MH 104 MH 105 MH 107 MH 108-A MH 108-B MH 108-C MH 108-C MH 108-C MH 108-C MH 108-C MH 108-F MH 108-F MH 108-F MH 108-J MH 108-J MH 108-K L.S. 9 MH 108-H L.S. 6 MH 30-J MH W-1 MH W-2	347 35 440 162 375 400 400 400 400 300 300 35 400 151 300 35 400 1705 17 153	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Forcemain Gravity Forcemain Gravity	8" PVC 8" PVC	0.4 1 4 1.2 0.4 0.8 N/A 1 1	1978 1978 1978 2007 2007 2007 2007 2007 2007 2007 20	CR 4 CR 4 CR 4 CR 11 Airport Road Airport Road Whitebirch Estates Whitebirch Estates Whitebirch Estates	Airport Airport Airport Airport Airport Airport Airport Airport Airport Airport WB Estates WB Estates

Mai	nhole		Length	Sewer Type	Pipe	Grade	Installed	Road	Project
MH W-5A	to	MH W-5	211	Gravity	8" PVC	0.4	2002		WB Estates
MH W-6	to	MH W-5	316	Gravity	8" PVC	5	2002		WB Estates
MH W-6A	-	MH W-6	231	Gravity	8" PVC	0.4	2002		WB Estates
	to			,					
MH W-7	to	MH W-6	250	Gravity	8" PVC	5	2002		WB Estates
MH S-1	to	MH S-2	100	Gravity	8" PVC	0.5	2003	CR 11	School
MH S-2A	to	MH S-2	100	Gravity	8" PVC	0.5	2003	CR 12	School
MH S-2	to	MH S-3	401	Gravity	8" PVC	0.5	2003	CR 13	School
MH EF-1	to	MH S-3	176	Gravity	8" PVC	0.4	2004		Edgewater Farm
	-			,					-
MH EF-2	to	MH EF-1	402	Gravity	8" PVC	0.4	2004		Edgewater Farm
MH EF-3	to	MH EF-2	332	Gravity	8" PVC	0.4	2004	Edgewater Farm Dr.	Edgewater Farm
MH EF-4	to	MH EF-3	203	Gravity	8" PVC	0.4	2004	Edgewater Farm Dr.	Edgewater Farm
MH EF-5	to	MH EF-4	303	Gravity	8" PVC	0.4	2004	Edgewater Farm Dr.	Edgewater Farm
MH EF-6	to	MH EF-5	209	Gravity	8" PVC	0.4	2004	-	Edgewater Farm
MH S-3	to	MH S-4	295	Gravity	8" PVC	0.5	2003	-	School
				,					
MH S-4	to	MH S-5	334	Gravity	8" PVC	0.5	2003		School
MH S-5	to	MH S-6	363	Gravity	8" PVC	0.5	2003	CR 11	School
MH S-6	to	MH S-7	354	Gravity	8" PVC	0.5	2003	CR 11	School
MH S-7	to	MH S-8	352	Gravity	8" PVC	1.5	2003	CR 11	School
MH S-8	to	MH S-9	252	Gravity	8" PVC	1.8	2003		School
MH S-9	to	MH S-10	303	Gravity	8" PVC	1.8	2003		School
				,					
MH S-10	to	MH S-11	330	Gravity	8" PVC	1.8	2003		School
MH S-11	to	MH S-12	397	Gravity	8" PVC	1.8	2003	CR 11	School
MH S-12	to	MH S-13	403	Gravity	8" PVC	2.75	2003	CR 11	School
MH S-13	to	MH S-14	176	Gravity	8" PVC	3	2003		School
	-	MH S-15	154		8" PVC		2003		School
MH S-14	to			Gravity		3		CR 11	
MH S-16	to	MH S-15	163	Gravity	8" PVC	1.5	2003	CR 11	School
MH S-17	to	MH S-16	182	Gravity	8" PVC	1.5	2003	CR 11	School
MH S-18	to	MH S-17	350	Gravity	8" PVC	2	2003	CR 11	School
MH S-15	to	L.S. 7	60	Gravity	8" PVC	0.5	2003	CR 11	School
L.S. 7	to	MH S-22	2054	Forcemain	4" PVC	N/A	2003	CR 11	School
	-								
MH A-6	to	MH S-18	207	Gravity	8" PVC	1.8	2003	CR 11	School
MH S-19	to	MH A-6	146	Gravity	8" PVC	1.8	2003	CR 11	School
MH S-20	to	MH S-19	290	Gravity	8" PVC	1.5	2003	CR 11	School
MH S-21	to	MH S-20	298	Gravity	8" PVC	1.5	2003		School
MH S-22	to	MH S-23	251	Gravity	8" PVC	0.5	2003		School
		MH S-23	200		8" PVC	-	2003		School
MH S-23	to			Gravity		1			
MH S-24	to	MH S-25	251	Gravity	8" PVC	1	2003	CR 11	School
MH S-25	to	MH S-26	252	Gravity	8" PVC	1	2003	CR 11	School
MH S-26	to	MH S-27	165	Gravity	8" PVC	1	2003	CR 11	School
MH S-27	to	MH S-28	298	Gravity	8" PVC	1	2003		School
MH S-28		MH S-29	176	Gravity	8" PVC	1.5	2003		School
	to			,					
MH S-29	to	MH S-30	249	Gravity	8" PVC	2	2003		School
MH S-30	to	MH S-31	325	Gravity	8" PVC	2	2003	CR 11	School
MH S-31	to	MH S-32	286	Gravity	8" PVC	1	2003	CR 11	School
MH S-32	to	MH W-1	101	Gravity	8" PVC	1	2003		School
MH 90-B	to	MH 90-A	190	Gravity	8" PVC	0.4	2003		Waldenheim
	-			,					
MH 90-A	to	MH 90	56	Gravity	8" PVC	0.4	2003		Waldenheim
MH 90	to	MH 89	102	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 89	to	MH 88	190	Gravity	8" PVC	4.5	1978	Breezy Point Dr.	
MH 88	to	MH 87	200	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 87		MH 86	220		8" PVC	0.28	1978		
	to			Gravity				Breezy Point Dr.	
MH 91	to	MH 86	101	Gravity	8" PVC	9.68	1978	Breezy Point Dr.	
MH 92	to	MH 91	119	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 93	to	MH 92	180	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 94	to	MH 93	328	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 95	to	MH 94	199	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 98	to	MH 95	164	Gravity	8" PVC	1.8	1978	Breezy Point Dr.	
-	-								
MH 96	to	MH 95	347	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 97	to	MH 96	163	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 93-A	to	MH 93	209	Gravity	8" PVC			Breezy Point Blvd.	
MH 93-B	to	MH 93-A	338	Gravity	8" PVC			Breezy Point Blvd.	
MH 93-C	to	MH 93-B	223	Gravity	8" PVC	+		Breezy Fornt Bivu.	
	to								
IIVIH 93-D		IVIH 93-A	213					Breezy Point Blvd.	
MH 93-D MH 93-F		МН 93-А МН 93-D	213	Gravity	8" PVC			Breezy Point Blvd. Breezy Point Blvd.	
МН 93-Е	to	MH 93-D	151	Gravity Gravity	8" PVC 8" PVC			Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd.	
MH 93-E MH 93-F	to to	MH 93-D MH 93-D	151 187	Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC			Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd.	
MH 93-E MH 93-F MH 93-G	to	MH 93-D MH 93-D MH 93-F	151 187 262	Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC			Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd.	
MH 93-E MH 93-F	to to	MH 93-D MH 93-D	151 187	Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC			Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd.	
MH 93-E MH 93-F MH 93-G	to to to	MH 93-D MH 93-D MH 93-F	151 187 262	Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.28	1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd.	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86	to to to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85	151 187 262 180 335	Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC			Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85	to to to to to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83	151 187 262 180 335 440	Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 10" PVC	0.28	1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83	to to to to to to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 85 MH 83 MH 82	151 187 262 180 335 440 178	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 10" PVC 10" PVC 10" PVC	0.28 0.28	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82	to to to to to to to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 81	151 187 262 180 335 440 178 178	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 10" PVC 10" PVC 10" PVC	0.28 0.28 0.28	1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83	to to to to to to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 85 MH 83 MH 82	151 187 262 180 335 440 178	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 10" PVC 10" PVC 10" PVC	0.28 0.28	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82	to to to to to to to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 81	151 187 262 180 335 440 178 178	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 10" PVC 10" PVC 10" PVC	0.28 0.28 0.28	1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 85 MH 83 MH 82 MH 81	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 81 MH 80	151 187 262 180 335 440 178 178 263	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28	1978 1978 1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78	151 187 262 180 335 440 178 178 263 283 304	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28	1978 1978 1978 1978 1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 78	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 78 MH 70	151 187 262 180 335 440 178 178 263 283 304 275	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28	1978 1978 1978 1978 1978 1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln.	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82 MH 81 MH 81 MH 80 MH 79 MH 78 MH 104	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78 MH 70 MH 103	151 187 262 180 335 440 178 178 263 283 304 275 321	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28	1978 1978 1978 1978 1978 1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 78 MH 104 MH 103	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78 MH 70 MH 70 MH 103 MH 102	151 187 262 180 335 440 178 178 263 283 304 275 321 272	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28	1978 1978 1978 1978 1978 1978 1978 1978 1978 1978 1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82 MH 81 MH 81 MH 80 MH 79 MH 78 MH 104	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78 MH 70 MH 103	151 187 262 180 335 440 178 178 263 283 304 275 321	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28	1978 1978 1978 1978 1978 1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 78 MH 104 MH 103	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78 MH 70 MH 70 MH 103 MH 102	151 187 262 180 335 440 178 178 263 283 304 275 321 272	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28	1978 1978 1978 1978 1978 1978 1978 1978 1978 1978 1978 1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 103 MH 102 MH 101	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 82 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78 MH 70 MH 103 MH 102 MH 101 MH 100	151 187 262 180 335 440 178 263 283 304 275 321 272 113 238	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.88 0.32	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-F MH 93-G MH 93-H MH 85 MH 85 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 103 MH 102 MH 101 MH 101 MH 100	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 78 MH 70 MH 78 MH 70 MH 103 MH 102 MH 101 MH 100 MH 99	151 187 262 180 335 440 178 178 263 283 304 275 321 272 113 238 363	Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Clubhouse Ln. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 103 MH 102 MH 101 MH 100 MH 99-A	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78 MH 79 MH 78 MH 70 MH 103 MH 102 MH 101 MH 100 MH 100 MH 99 MH MH 99	151 187 262 180 335 440 178 178 263 283 304 275 321 272 113 238 363 350	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.4 0.88 0.32 0.28 7	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Clubhouse Ln. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-F MH 93-G MH 93-H MH 85 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 103 MH 102 MH 101 MH 100 MH 99-A MH 99	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 82 MH 80 MH 79 MH 78 MH 79 MH 78 MH 70 MH 103 MH 102 MH 101 MH 100 MH 99 MH MH 99 MH 70	151 187 262 180 335 440 178 178 263 283 304 275 321 272 113 238 363 350 210	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.88 0.32 0.28 7 2.4	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 103 MH 102 MH 101 MH 100 MH 99-A	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78 MH 79 MH 78 MH 70 MH 103 MH 102 MH 101 MH 100 MH 100 MH 99 MH MH 99	151 187 262 180 335 440 178 178 263 283 304 275 321 272 113 238 363 350	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.4 0.88 0.32 0.28 7	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-F MH 93-H MH 86 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 103 MH 102 MH 101 MH 100 MH 99-A MH 99	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 82 MH 80 MH 79 MH 78 MH 79 MH 78 MH 70 MH 103 MH 102 MH 101 MH 100 MH 99 MH MH 99 MH 70	151 187 262 180 335 440 178 178 263 283 304 275 321 272 113 238 363 350 210	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.88 0.32 0.28 7 2.4	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr. Breezy Point Dr.	Deacon's Lodge
MH 93-E MH 93-F MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 103 MH 102 MH 101 MH 100 MH 99-A MH 99 MH 70 N-13	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 85 MH 82 MH 82 MH 82 MH 80 MH 79 MH 78 MH 70 MH 103 MH 103 MH 102 MH 101 MH 100 MH 99 MH 70 MH 70 MH 70 MH 71 MH 71 MH 142	151 187 262 180 335 440 178 263 283 304 275 321 272 113 238 363 350 210 275 236	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 8" PVC 8" PVC 8" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.88 0.32 0.28 7 2.4 0.28 6.3	1978 1978	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Breezy Point Dr. Breezy Point Dr.	
MH 93-E MH 93-F MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 103 MH 102 MH 101 MH 102 MH 101 MH 100 MH 99-A MH 99 MH 70 N-13 N-14	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 85 MH 82 MH 82 MH 82 MH 80 MH 79 MH 78 MH 70 MH 103 MH 102 MH 103 MH 102 MH 101 MH 100 MH 99 MH MH 99 MH 70 MH 71 MH 71 MH 142 N-13	151 187 262 180 335 440 178 263 283 304 275 321 272 113 238 363 350 210 275 236 239	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.88 0.32 0.28 7 2.4 0.28 6.3 1.5	1978 1998 1998 1998	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Clubhouse Ln. Breezy Point Dr. Breezy Point Dr. N Lakeview Dr. N Lakeview Dr.	Deacon's
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MH 93-E MH 93-F MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 82 MH 81 MH 82 MH 81 MH 80 MH 79 MH 79 MH 79 MH 70 MH 101 MH 102 MH 101 MH 100 MH 99-A MH 99 MH 70 N-13 N-14 N-15 N-16	to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 82 MH 70 MH 79 MH 78 MH 70 MH 103 MH 102 MH 102 MH 101 MH 100 MH 99 MH MH 99 MH MH 99 MH 70 MH 71 MH 142 N-13 N-14 N-15	151 187 262 180 335 440 178 178 263 283 304 275 321 272 113 238 363 350 210 275 236 239 125 177	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.88 0.32 0.28 7 2.4 0.28 6.3 1.5 0.44 0.55	1978 1998 1998 1998 1998 1998 1998 1998 1998	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Clubhouse Ln. Breezy Point Dr. Breezy Point Dr. N Lakeview Dr. N Lakeview Dr. N Lakeview Dr.	Deacon's Deacon's Deacon's
MH 93-E MH 93-F MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 85 MH 83 MH 82 MH 81 MH 80 MH 79 MH 79 MH 78 MH 104 MH 104 MH 102 MH 102 MH 101 MH 100 MH 99-A MH 99 MH 70 N-13 N-14 N-15	to to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 85 MH 82 MH 82 MH 81 MH 80 MH 79 MH 78 MH 70 MH 103 MH 102 MH 103 MH 102 MH 101 MH 100 MH 99 MH MH 99 MH MH 99 MH 70 MH 71 MH 71 MH 74 N-13 N-14	151 187 262 180 335 440 178 178 263 283 304 275 321 272 113 238 363 350 210 275 236 239 125	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.88 0.32 0.28 7 2.4 0.28 6.3 1.5 0.44	1978 1998 1998 1998 1998 1998 1998	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Clubhouse Ln. Clubhouse Ln. Breezy Point Dr. Breezy Point Dr. N Lakeview Dr. N Lakeview Dr.	Deacon's Deacon's
MH 93-E MH 93-F MH 93-F MH 93-G MH 93-H MH 86 MH 85 MH 82 MH 81 MH 82 MH 81 MH 80 MH 79 MH 79 MH 79 MH 70 MH 101 MH 102 MH 101 MH 100 MH 99-A MH 99 MH 70 N-13 N-14 N-15 N-16	to to	MH 93-D MH 93-D MH 93-F MH 93-G MH 85 MH 83 MH 82 MH 82 MH 82 MH 70 MH 79 MH 78 MH 70 MH 103 MH 102 MH 102 MH 101 MH 100 MH 99 MH MH 99 MH MH 99 MH 70 MH 71 MH 142 N-13 N-14 N-15	151 187 262 180 335 440 178 178 263 283 304 275 321 272 113 238 363 350 210 275 236 239 125 177	Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC 10" PVC 8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.4 0.4 0.88 0.32 0.28 7 2.4 0.28 6.3 1.5 0.44 0.55	1978 1998 1998 1998 1998 1998 1998 1998 1998	Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Breezy Point Blvd. Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Channel Heights Clubhouse Ln. Clubhouse Ln. Breezy Point Dr. Breezy Point Dr. N Lakeview Dr. N Lakeview Dr. N Lakeview Dr. N Lakeview Dr.	Deacon's Deacon's Deacon's
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	Manhole	I	Length	Sewer Type	Pipe	Grade	Installed	Road	Project
N-2		N-1	367	Gravity	8" PVC	2.85	1998	Wolf Ln.	Deacon's
N-3	to	N-2	351	Gravity	8" PVC 8" PVC	1	1998	Wolf Ln.	Deacon's
N-4 N-5	to	N-3 N-4	160 400	Gravity	8 PVC 8" PVC	0.4	1998 1998	Weavers Pt. Rd.	Deacon's Deacon's
N-5 N-6	to to	N-4 N-5	269	Gravity Gravity	8" PVC 8" PVC	0.5	1998	Arnold Palmer Dr. Arnold Palmer Dr.	Deacon's
N-7	to	N-6	203	Gravity	8" PVC	0.4	1998	Arnold Palmer Dr.	Deacon's
N-8	to	N-7	203	Gravity	8" PVC	0.4	1998	Arnold Palmer Dr.	Deacon's
N-9	to	N-8	219	Gravity	8" PVC	0.4	1998	Arnold Palmer Dr.	Deacon's
N-10	to	N-4	311	Gravity	8" PVC	1	1998	Weavers Pt. Rd.	Deacon's
N-11	to	N-10	311	Gravity	8" PVC	0.4	1998	Weavers Pt. Rd.	Deacon's
N-12	to	N-11	225	Gravity	8" PVC	1.4	1998	Weavers Pt. Rd.	Deacon's
GP-1	to	N-1	179	Gravity	8" PVC	3	2001	Gopher Ln.	Gopher Fox
GP-2	to	GP-1	187	Gravity	8" PVC	4	2001	Gopher Ln.	Gopher Fox
GP-3	to	GP-2	300	Gravity	8" PVC	1	2001	Gopher Ln.	Gopher Fox
GP-4	to	GP-3	300	Gravity	8" PVC	0.4	2001	Gopher Ln.	Gopher Fox
GP-5	to	GP-4	335	Gravity	8" PVC	0.4	2001	Weavers Pt. Rd.	Gopher Fox
GP-6	to	GP-5	249	Gravity	8" PVC	0.4	2001	Fox Loop	Gopher Fox
MH 47	to	MH 46	184	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 48	to	MH 47	189	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 61	to	MH 60	132	Gravity	8" PVC	0.4	1978	Sand Beach Dr.	
MH 60	to	MH 46	87	Gravity	8" PVC	0.4	1978	Sand Beach Dr.	
MH 46	to	MH 45	300	Gravity	8" PVC	0.4	1978	Shoreview Ln.	
MH 45	to	MH 44	289	Gravity	8" PVC	0.4	1978	Shoreview Ln.	
MH 44	to	MH 43	140	Gravity	8" PVC	1	1978	Shoreview Ln.	
MH 43	to	L.S. 3	46	Gravity	8" DIP	0.4	1978	Shoreview Ln.	
L.S. 3	to	MH 42	1889	Forcemain	4" DIP	N/A	1978	Breezy Point Dr.	
MH 62	to	L.S. 3	40	Gravity	8" DIP 8" PVC	6	1978	Sand Beach Dr.	
MH 63	to	MH 62	200	Gravity	8" PVC 8" PVC	0.4	1978	Sand Beach Dr.	
MH 64 MH 65	to	MH 43 MH 64	380 232	Gravity Gravity	8" PVC 8" PVC	0.4	1978 1978	Shoreview Ln. Shoreview Ln.	
MH 65 MH 66	to to	MH 64 MH 65	232	Gravity Gravity	8" PVC 8" PVC	0.4	1978	Shoreview Ln.	
MH 66 MH 67	to	MH 65 MH 66	167	Gravity	8 PVC 8" PVC	0.4	1978	Shoreview Ln.	
MH 67 MH 68	to	MH 66 MH 67	301	Gravity	8 PVC 8" PVC	0.4	1978	Shoreview Ln.	
MH 69A	to	MH 68	416	Gravity	8" PVC	0.4	1978	Shoreview Ln.	
MH 49		MH 46	155	Gravity	8" PVC	1.12	1978	Breezy Point Dr.	
MH 50	to	MH 49	366	Gravity	8" PVC	0.72	1978	Breezy Point Dr.	
MH 51	to	MH 50	136	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 52	to	MH 51	156	Gravity	8" PVC	0.4	1978	Breezy Point Dr.	
MH 53	to	MH 51	271	Gravity	8" PVC	0.8	1978	Cross St.	
MH 54	to	MH 53	155	Gravity	8" PVC	6	1978	Circle Dr.	
MH 56	to	MH 53	70	Gravity	8" PVC	5	1978	Circle Dr.	
MH 57	to	MH 56	345	Gravity	8" PVC	0.4	1978	Circle Dr.	
MH 58	to	MH 57	187	Gravity	8" PVC	0.4	1978	Circle Dr.	
MH 59	to	MH 58	320	Gravity	8" PVC	0.4	1978	Circle Dr.	
MH 55	to	MH 53	90	Gravity	8" PVC	6.6	1978	Circle Dr.	
MH 55-A	to	MH 55	361	Gravity	8" PVC	0.4	1978	Circle Dr.	2014 Whitebirch Seven
MH CC-1	to	MH W-1	25	Gravity	8" HDPE	1.0	2014	Creek Cir.	2014 Whitebirch Seven
MH CC-2	to	MH CC-1	415	Gravity	8" HDPE	1.0	2014	Creek Cir.	2014 Whitebirch Seven
MH CC-3	to	MH CC-2	287	Gravity	8" HDPE	1.0	2014	Creek Cir.	2014 Whitebirch Seven
MH CC-4	to	MH CC-3	324	Gravity	8" HDPE	1.0	2014	Creek Cir.	2014 Whitebirch Seven
MH CC-5	to	MH CC-4	400	Gravity	8" PVC	5.7	2014	Creek Cir.	2014 Whitebirch Seven
MH WB-1	to	MH CC-5	425 199	Gravity	8" PVC 8" PVC	5.4	2014	Whitebirch Dr.	2014 Whitebirch Seven
MH WB-2	to	MH WB-1		Gravity	8 PVC 8" PVC	1.2	2014	Whitebirch Dr.	2014 Whitebirch Seven 2014 Whitebirch Seven
MH WB-3 MH WB-4	to to	MH WB-1 MH WB-3	287 268	Gravity Gravity	8 PVC 8" PVC	0.4	2014 2014	Whitebirch Dr. Whitebirch Dr.	2014 Whitebirch Seven
MH P-1G	to	MH CC-4	18	Gravity	8" PVC	0.4	2014	Papago Cir.	2018 Road and Sanitary Sewer Improvements
MH P-1F	to	MH P-1G	81	Gravity	8" PVC	0.4	2014	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-1E	to	MH P-1F	275	Gravity	8" PVC	0.4	2016	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-1D	to	MH P-1E	69	Gravity	8" PVC	0.4	2010	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-3	to	MH P-1D	310	Gravity	8" PVC	0.4	2018	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-1	to	MH P-2	236	Gravity	8" PVC	0.4	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-2	to	MH P-3	49	Gravity	8" PVC	5.0	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-4	to	MH P-3	255	Gravity	8" PVC	5.0	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-5	to	MH P-4	216	Gravity	8" PVC	4.9	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-6	to	MH P-5	389	Gravity	8" PVC	2.9	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-7	to	MH P-6	219	Gravity	8" PVC	1.4	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-7C	to	MH P-7	319	Gravity	8" PVC	1.8	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-7B	to	MH P-7	240	Gravity	8" PVC	0.4	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-7A	to	MH P-7B	301	Gravity	8" PVC	0.4	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-2A	to	MH P-2	351	Gravity	8" PVC	1.2	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH P-2B	to	MH P-2A	96	Gravity	8" PVC	0.4	2019	Papago Cir.	2019 Road and Sanitary Sewer Improvements
MH SF-1	to	MH P-2B	266	Gravity	8" HDPE	3.7	2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements
MH SF-2		MH SF-1	198	Gravity	8" PVC	0.4	2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements
MH SF-3	to	MH SF-1	174	Gravity	8" PVC	5.3	2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements
MH SF-4	to	MH SF-3	399	Gravity	8" PVC	0.4	2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements
MH SF-5	to	MH SF-4	284	Gravity	8" PVC	0.4	2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements
MH SF-6 MH SE-7	to	MH SF-5 MH SE-6	166	Gravity	8" PVC 8" PVC	0.4	2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements
MH SF-7	to	MH SF-6 MH SE-7	299	Gravity	8" PVC 8" PVC	0.4	2019 2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements
MH SF-7A	to	MH SF-7 MH SF-7A	36 254	Gravity Gravity	8" PVC 8" PVC	4.8	2019	Suffolk Dr. Suffolk Dr.	2019 Road and Sanitary Sewer Improvements 2019 Road and Sanitary Sewer Improvements
			_	Gravity	8 PVC 8" PVC	0.4	2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements 2019 Road and Sanitary Sewer Improvements
MH SF-7B MH SF-7C	to		120	Gravity			2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements 2019 Road and Sanitary Sewer Improvements
MH SF-7C	to	MH SF-7B MH SF-7	139 303	-	Q" D\//	, ,			
MH SF-7C MH SF-8	to to	MH SF-7	303	Gravity	8" PVC 8" PVC	2.7	-		, ,
MH SF-7C MH SF-8 MH SF-9	to to to	MH SF-7 MH SF-8	303 171	Gravity Gravity	8" PVC	0.4	2019	Suffolk Dr.	2019 Road and Sanitary Sewer Improvements
MH SF-7C MH SF-8 MH SF-9 MH A-1	to to to to	MH SF-7 MH SF-8 MH A-2	303 171 335	Gravity Gravity Gravity	8" PVC 8" PVC	0.4 3.5	2019 2018	Suffolk Dr. Ranchette Dr.	2019 Road and Sanitary Sewer Improvements North Star Center Medical Office Building
MH SF-7C MH SF-8 MH SF-9 MH A-1 MH A-2	to to to to to	MH SF-7 MH SF-8 MH A-2 MH A-3	303 171 335 111	Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC	0.4 3.5 1.6	2019 2018 2018	Suffolk Dr. Ranchette Dr. Agate Way	2019 Road and Sanitary Sewer Improvements North Star Center Medical Office Building North Star Center Medical Office Building
MH SF-7C MH SF-8 MH SF-9 MH A-1 MH A-2 MH A-3	to to to to	MH SF-7 MH SF-8 MH A-2 MH A-3 MH A-4	303 171 335	Gravity Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC 8" PVC 8" PVC	0.4 3.5	2019 2018	Suffolk Dr. Ranchette Dr. Agate Way Agate Way	2019 Road and Sanitary Sewer Improvements North Star Center Medical Office Building North Star Center Medical Office Building North Star Center Medical Office Building North Star Center Medical Office Building
MH SF-7C MH SF-8 MH SF-9 MH A-1 MH A-2	to to to to to to to to to	MH SF-7 MH SF-8 MH A-2 MH A-3	303 171 335 111 301	Gravity Gravity Gravity Gravity	8" PVC 8" PVC 8" PVC	0.4 3.5 1.6 2.7	2019 2018 2018 2018	Suffolk Dr. Ranchette Dr. Agate Way	2019 Road and Sanitary Sewer Improvements North Star Center Medical Office Building North Star Center Medical Office Building

STORM SEWER SYSTEM RAW DATA												
		STRUCTURE	INFORMATION									
STRUCTURE NO.	PIPE TYPE	PIPE DIAMETER (in.)	PIPE LENGTH (ft.)	DRAINS TO STRUCTURE	NOTES:							
AIRPORT ROAD												
CB-1	RCP	12	30	CB-2								
CB-2	RCP	12	121	COUNTY STORM	Televise							
CB-3	RCP	12	30	CB-4								
CB-4	RCP	15	27	OUTLET								
CB-5	RCP	12	30	CB-6								
CB-6	RCP	15	281	CB-8								
CB-7	RCP	12	30	CB-8								
CB-8	RCP	15	400	CB-10								
CB-9	RCP	12	30	CB-10								
CB-10	RCP	18	414	CB-11								
CB-11	RCP	18	422	CB-12								
CB-12	RCP	21	30	CB-13								
CB-13	RCP	21	73	OUTLET								
POPLAR DRIVE												
CB-14	RCP	12	25	CB-15								
CB-15	RCP	12	303	MH-1								
BREEZY POINT I	DRIVE SOUTH											
MH-1	RCP	12	108	CB-16								
CB-17	RCP	12	25	CB-16								
CB-16	RCP	15	128	MH-2								
MH-2	RCP	15	175	CB-18								
CB-19	RCP	12	25	CB-18								
CB-18	RCP	18	161	MH-3								
MH-3	RCP	18	158	MH-4								
MH-4	RCP	18	194	MH-5								
MH-5	RCP	18	217	CB-20								
CB-20	RCP	21	25	CB-21								
CB-21	RCP	21	24	OUTLET								
CB-22	RCP	12	25	CB-23								
CB-23	RCP	12	30	OUTLET								
CB-24	RCP	12	25	CB-25								
CB-25	RCP	12	20	OUTLET								

	SUMMARY
PIPE DIAMETER (in.)	PIPE LENGTH (ft.)
12	857
15	1011
18	1566
21	152
TOTAL	3586

CITY OF BREEZY POINT 2025 CAPITAL IMPROVEMENT PLAN

	DN 10-YEAR BUDGET	Original						2025		2026		2027		2028	1 2	2029	203	0		2031	2	2032	2	033		2034
Lift Station ID	Location	Construction / Purchase Date	Pump #1 Install / Rebuild	Pump #2 Install / Rebuild	Pump HP	Control Panel Install / Refit	Cost Code	Cost	Cost Code	Cost	Cost Code	Cost	Cost Code	Cost	Cost Code	Cost	Cost Code	Cost								
LS 1	CR-4 & Thrane Dr	1976	2023	2023	36	2017					Panel	\$33,000											Pumps	\$65,000		
LS 2	CR-4 & Piney Way	1977	1977	1977	2.5	2018	Pumps	\$16,000																		
LS 3	Shoreview Lane & Sand Beach Drive	1976	2007	2007	5	2015					Pumps	\$20,000													Panel	\$20,000
LS 4	Breezy Point Drive North	1976	2022	2022	15	2018																				
LS 5	North Lakeview Drive & Squirrel Drive	1976	2021	2021	10	2018																				
LS 6	CR-11 (near Appalacian Dr)	2002	2002	2002	15	2019	Pumps	\$20,000																		
LS 7	CR-11 (West of Clinic)	2003	2022	2022	15	2016																			Panel	\$20,000
LS 8	Sparrow Drive	2005	2005	2005	5	2005			Pumps	\$18,000									Pumps	\$22,000						
LS 9	Airport Road	2008	2008	2008	5	Unknown							Pumps	\$22,000	Panel	\$18,000										
LS 10	City Hall*	1996	1996	0	1	1996																				
	Lift Station General Maintenance							\$50,000		\$50,000		\$50,000		\$50,000		\$50,000	\$	60,000		\$60,000		\$60,000		\$60,000		\$60,000
	·		•	· · ·		ANNUAL COST:	\$	86,000	\$6	58,000	\$1)3,000	\$7	2,000	\$6	58,000	\$60,0	000	\$8	2,000	\$6	0,000	\$12	5,000	\$1	.00,000

* Note: City Hall lift station is no longer in use after City Hall Remodel.

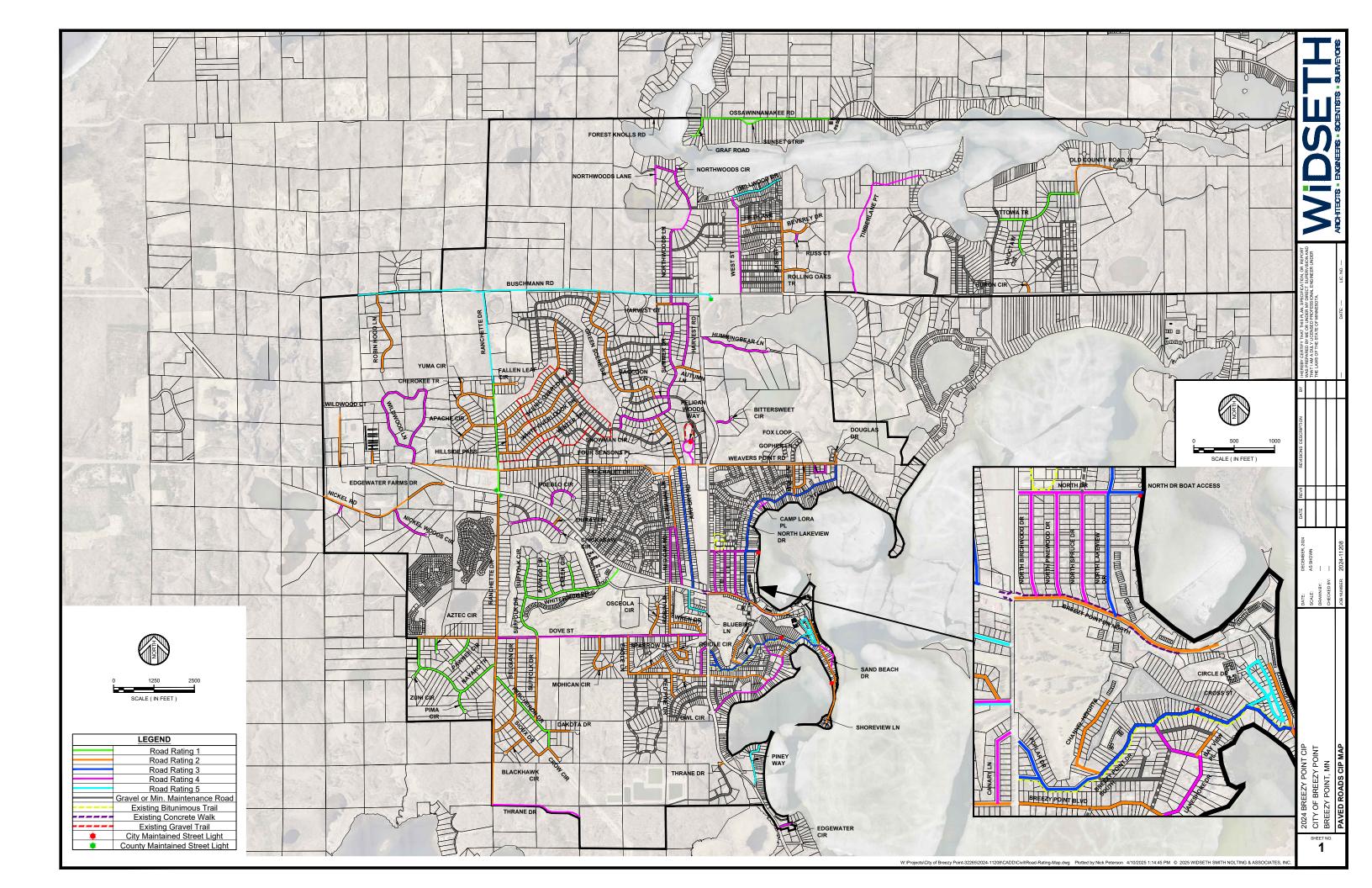
CITY OF BREEZY POINT 2025 CAPITAL IMPROVEMENT PLAN

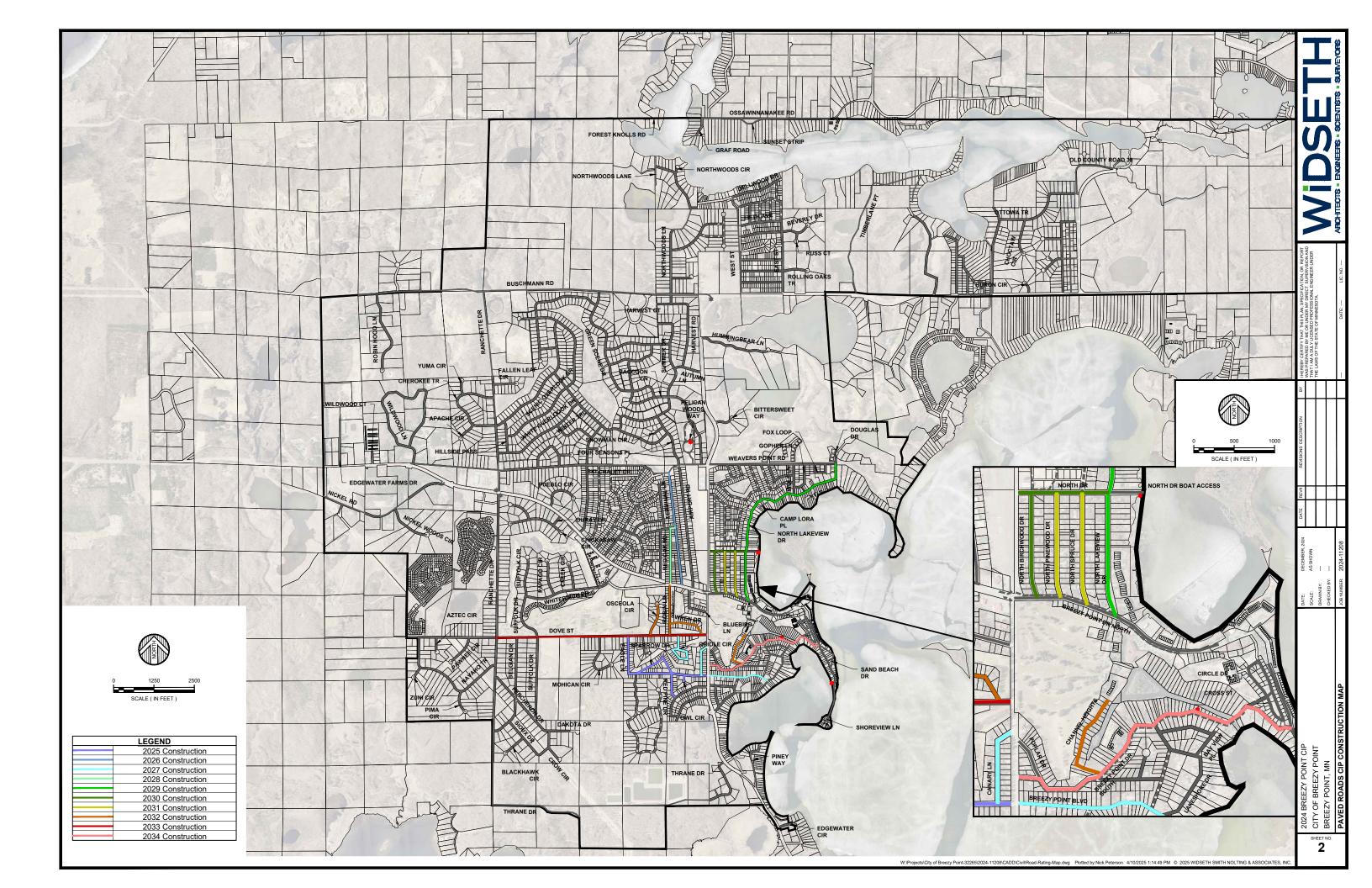
SIDEWALKS AND TRAILS								2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Sidewalk and Trail Capital Improvement Cost								\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40,788.98	\$0.00	\$555,106.18	\$80,518.96
Existing Sidewalk/Trail Location	Туре	Width (ft)	From	То	SY	Cost/SY	Improvement Type										
Breezy Point Drive South	Paved	6	County Road 11	Cross Street	2,265	\$31.07	Remove and Replace										\$70,368.64
Breezy Point Drive South	Paved	4	Cross Street	Shoreview Lane	327	\$31.07	Remove and Replace										\$10,150.32
Cemetary Trail	Gravel	10	Pelican Woods Way	Pelican Woods Way	1,311	\$0.00	No Action	\$0.00									
Winter Trail	Gravel	8	Ranchette Drive	Logging Lane	9,535	\$0.00	No Action	\$0.00									
City Hall Trail	Paved	8.5	N/A	N/A	1,393	\$29.28	Remove and Replace							\$40,788.98			
Breezy Point Drive North	Concrete	4	County Road 11	Breezy Point Resort	49	\$394.00	Pedestrian Ramps										
Proposed Sidewalk/Trail Location																	
Dove Street	Paved	8	Ranchette Drive	County Road 11	5,778	\$96.08	New Trail									\$555,106.18	

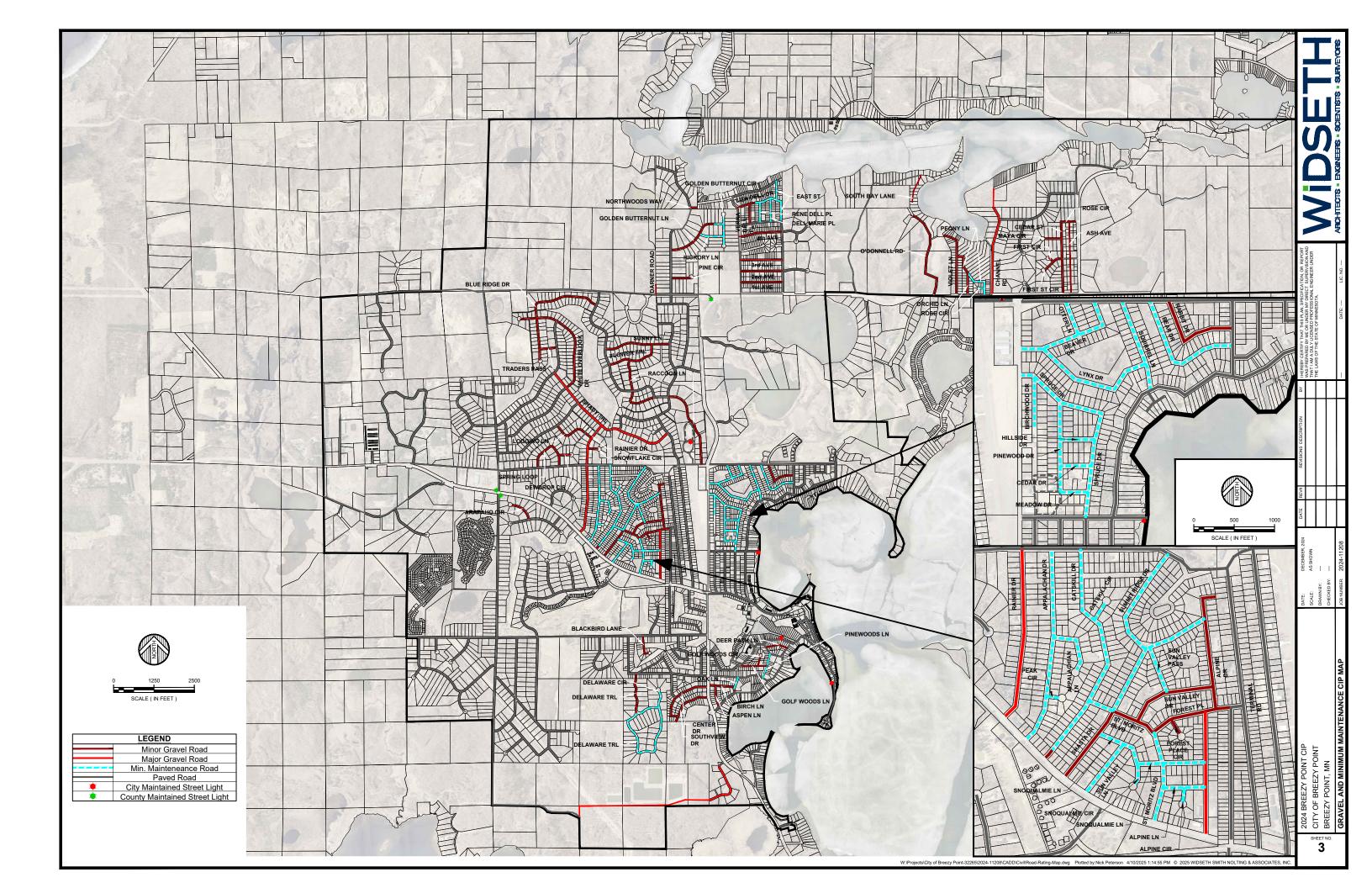
CITY OF BREEZY POINT 2025 CAPITAL IMPROVEMENT PLAN SUMMARY

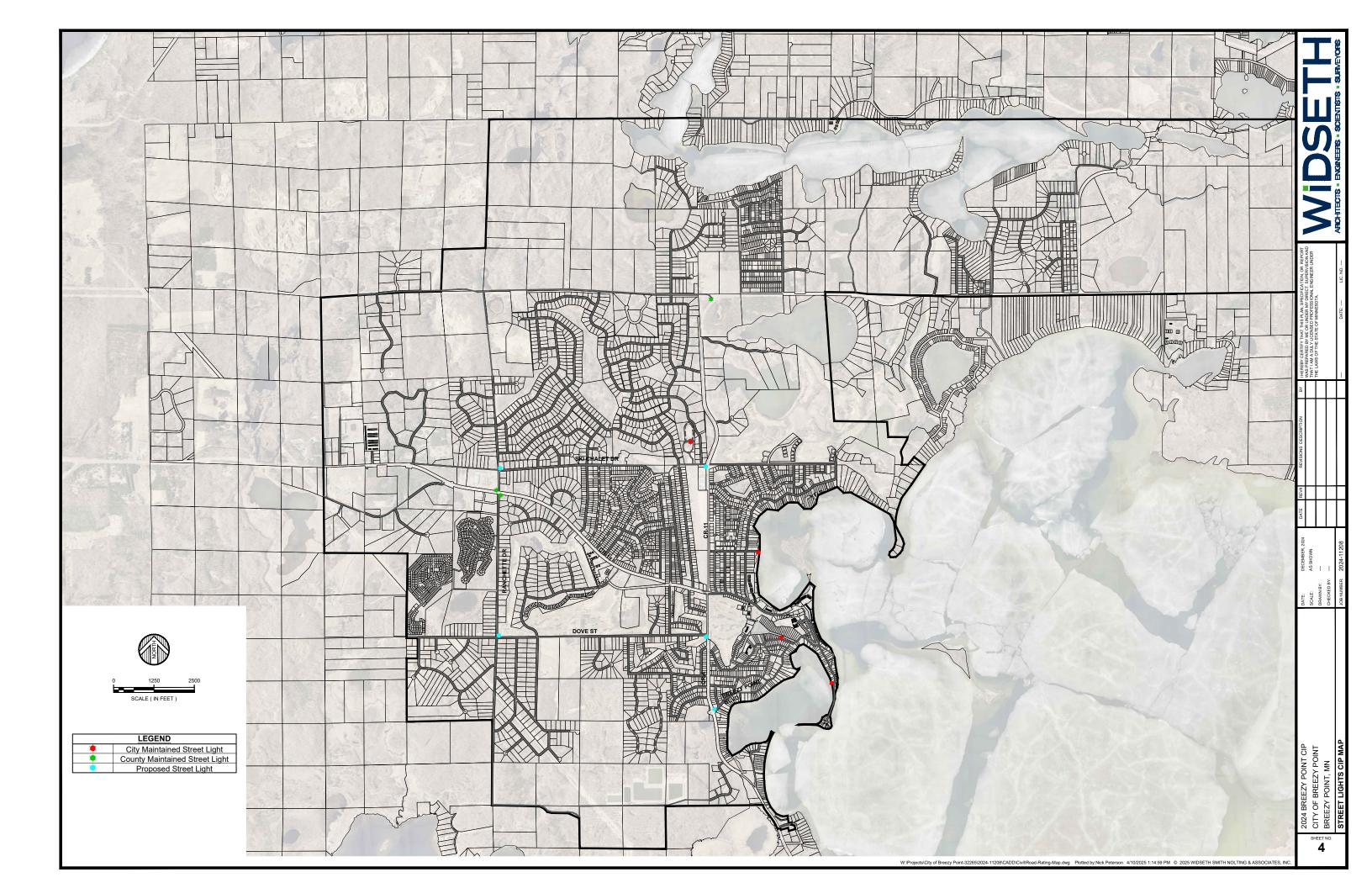
				TOTAL CAPITAL COSTS													
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034							
	\$383,800	\$336,600	\$403,700	\$279,100	\$681,600	\$358,600	\$481,100	\$360,400	\$1,678,100	\$627,700							
Paved Roads	\$292,800	\$263,600	\$295,700	\$202,100	\$608,600	\$295,600	\$355,300	\$297,400	\$994,900	\$444,100							
Gravel Roads*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0							
Sidewalks/Trails	\$0	\$0	\$0	\$0	\$0	\$0	\$40,789	\$0	\$555,106	\$80,519							
Street Signs	\$5,000	\$5 <i>,</i> 000	\$5,000	\$5,000	\$5,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000							
Sanitary Sewer System	\$86,000	\$68,000	\$103,000	\$72,000	\$68,000	\$60,000	\$82,000	\$60,000	\$125,000	\$100,000							
Storm Sewer System	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0							

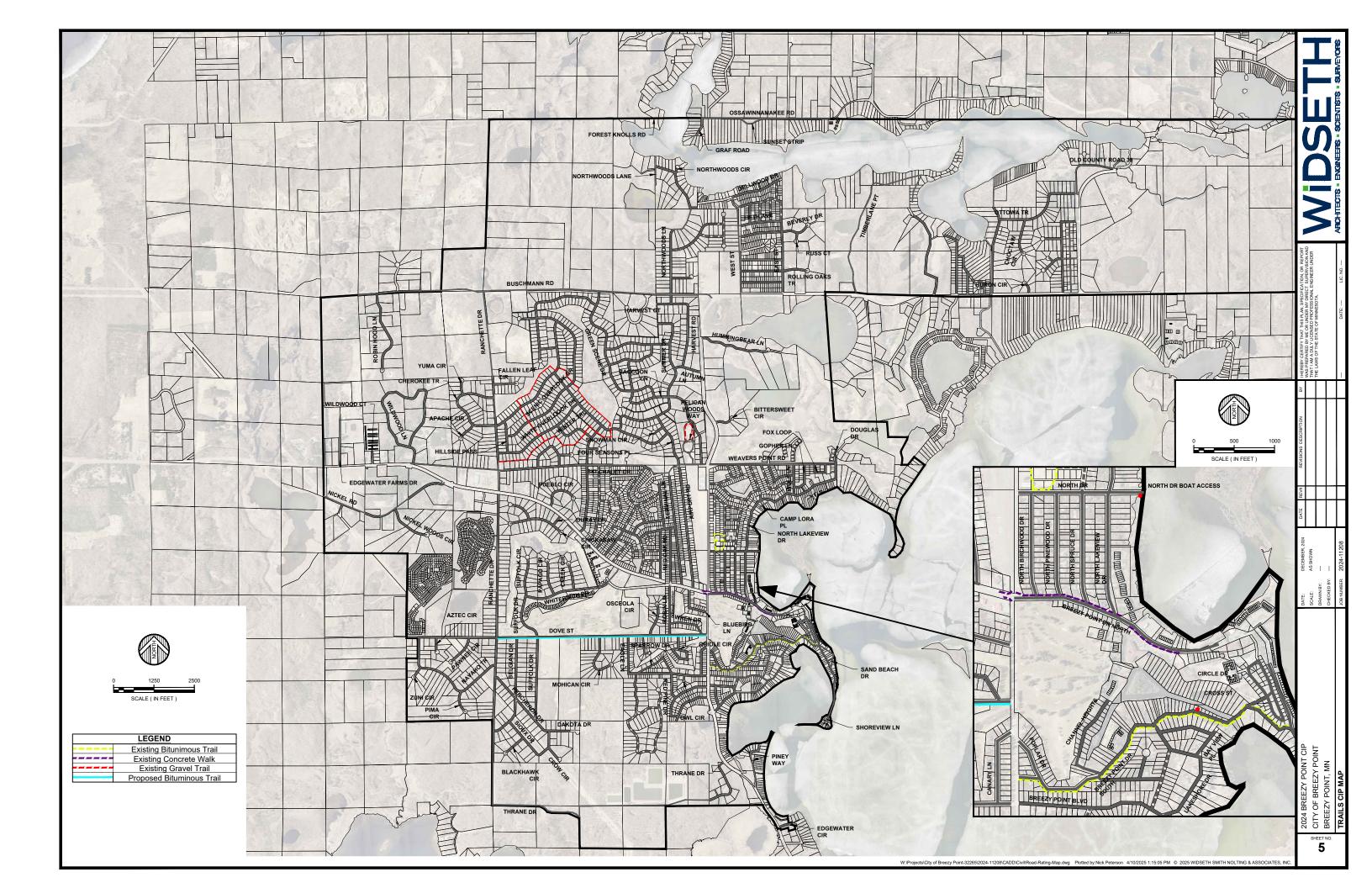
* Note: Through discussion with City staff and the current policy for improving gravel roads, no capital costs are included. The gravel roads spreadsheet shows estimated budget numbers for maintenance of gravel roads given the City's current gravel road budget and City staffs ability to maintain all gravel roads under this budget.

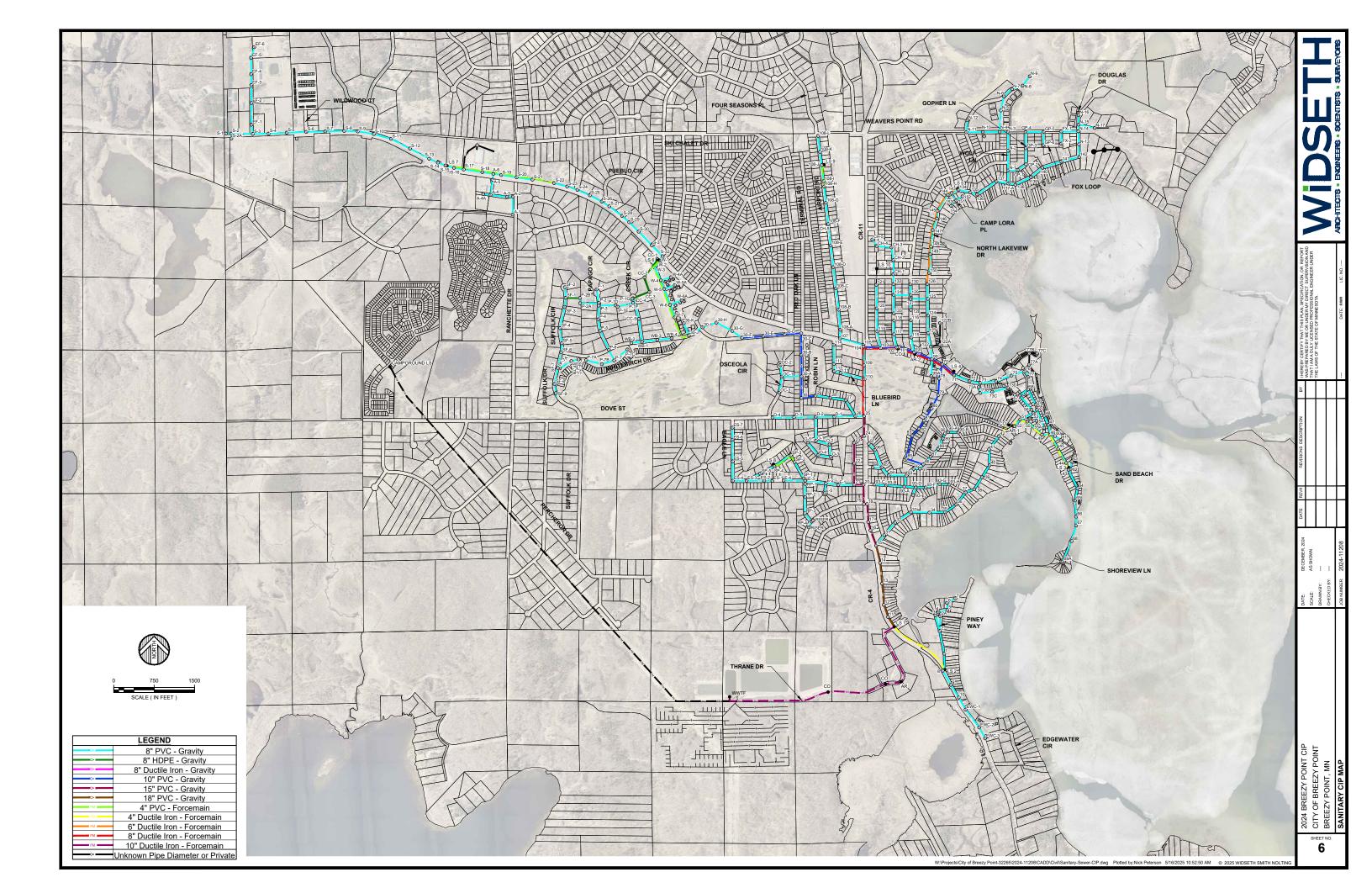


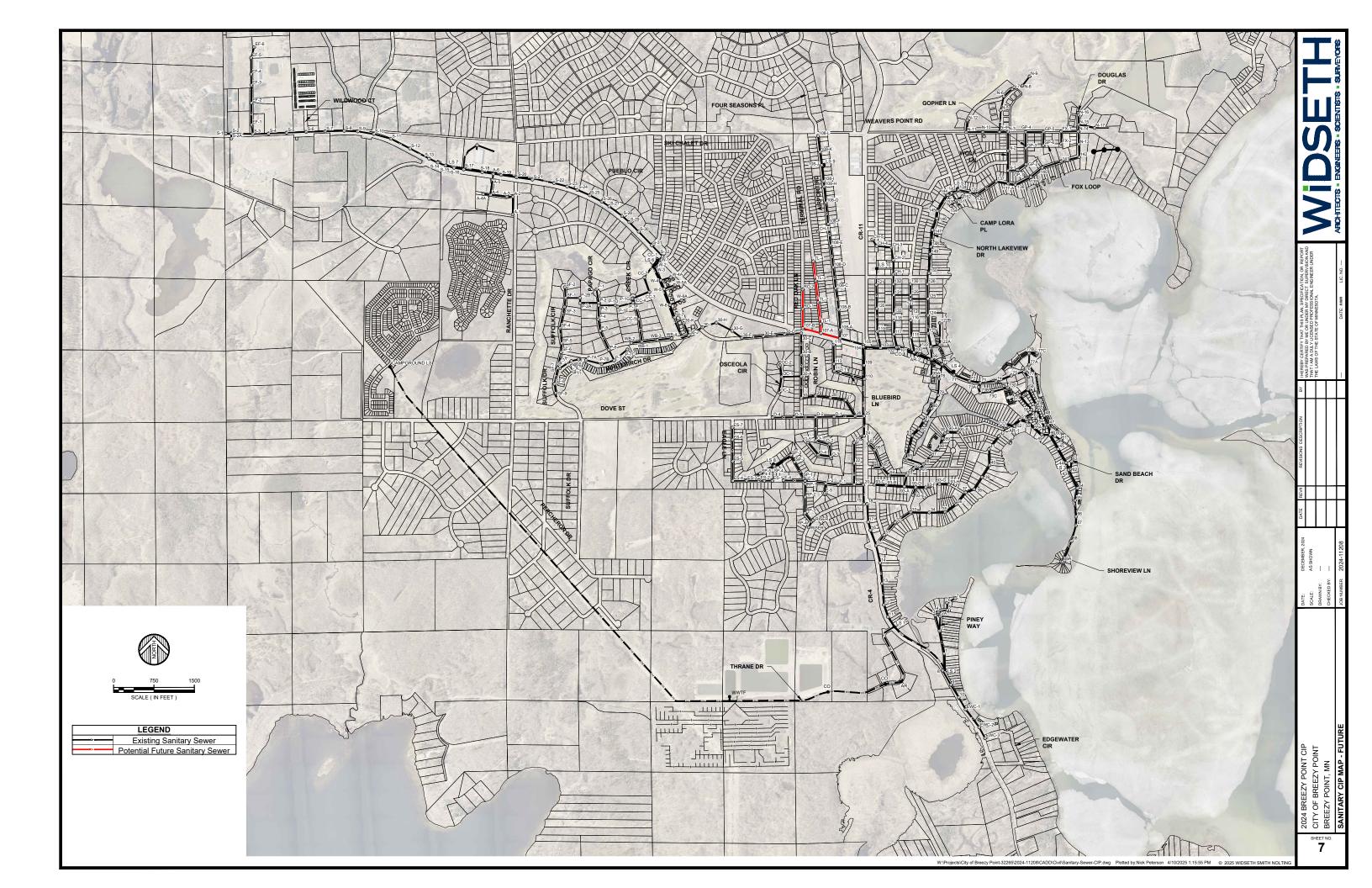


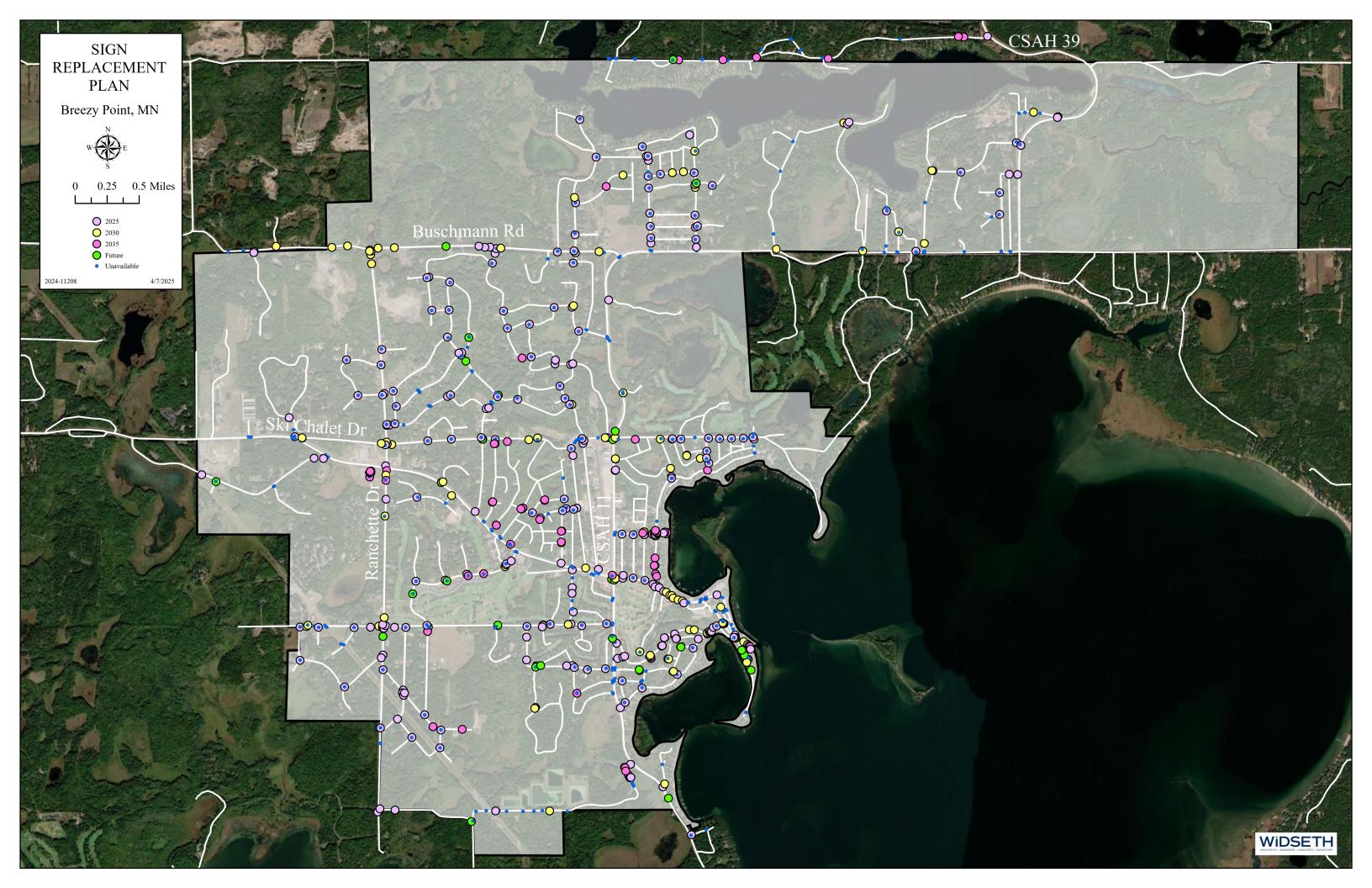












Attachment 1



Brainerd/Baxter

7804 Industrial Park Road PO Box 2720 Baxter MN 56425-2720

> 218.829.5117 Baxter@Widseth.com Widseth.com

SPECIFICATIONS AND CONTRACT DOCUMENTS QUOTATION PROPOSAL

FOR

PROJECT TITLE

CITY OF

BREEZY POINT, MINNESOTA

ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

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CERTIFICATION

PROJECT NAME

Prepared for City of Breezy Point, Minnesota

Ву

Widseth Smith Nolting 7804 Industrial Park Road - P.O. Box 2720 - Baxter, MN 56425

I hereby certify that this specification was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Name	
Professional	Engineer

Reg. No.

Date

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TABLE OF CONTENTS CONTRACT DOCUMENTS AND SPECIFICATIONS QUOTATION PROPOSAL

Project Name SEWER CLEANING AND TELEVISING

<u>PAGE</u>

TITLE PAGE	1
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QUOTATION FORM	5
AGREEMENT	9

TECHNICAL SPECIFICATIONS – SEWER PIPE CLEANING AND INSPECTION

APPENDICES:

APPENDIX A	PROJECT AREA EXHIBIT
APPENDIX B	SITE EXHIBITS

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QUOTATION FORM

PROJECT IDENTIFICATION:	Project Name
MUNICIPAL PROJECT NUMBER:	Project Number
THIS QUOTE IS SUBMITTED TO:	Name City Administrator City of Breezy Point c/o Nick Peterson – Widseth nick.peterson@widseth.com

- 1. The undersigned QUOTER proposes and agrees, if this Quote is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Quote Price and within the Quote Times indicated in this Quote and in accordance with the other terms and conditions of the Contract Documents.
- 2. QUOTER accepts all of the terms and conditions of the Advertisement or Invitation to Quote and Instructions to Quoters, including without limitation those dealing with the disposition of Quote security. This Quote will remain subject to acceptance for 30 days after the day of Quote opening. QUOTER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Quoting Requirements within 15 days after the date of OWNER's Notice of Award.
- 3. In submitting this Quote, QUOTER represents, as more fully set forth in the Agreement, that:
 - (a) QUOTER has examined and carefully studied the Quoting Documents and the following Addenda receipt of all which is hereby acknowledged: (List Addenda by Addendum Number and Date)

Addendum No.	Date
Addendum No.	Date

- (b) QUOTER has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work;
- (c) QUOTER is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- (d) QUOTER is aware of the general nature of Work to be performed by OWNER and others at the site that relates to Work for which this QUOTE is submitted as indicated in the Contract Documents.
- (f) QUOTER has correlated the information known to QUOTER, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests,

studies and data with the Contract Documents

- (g) QUOTER has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that QUOTER has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to QUOTER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this QUOTE is submitted.
- (h) This QUOTE is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation: QUOTER has not directly or indirectly induced or solicited any other QUOTER to submit a false or sham QUOTE: QUOTER has not solicited or induced any person, firm or corporation to refrain from QUOTING; and QUOTER has not sought by collusion to obtain for itself any advantage over any other QUOTER or over OWNER.
- (i) Any other representation required by Laws and Regulations.
- 4. QUOTER will complete the Work in accordance with the Contract Documents for the following price(s):

NO.	ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	AMOUN
1	MOBILIZATION	LUMP SUM	1		
2	CLEAN PIPE SEWER - 6" SANITARY	LIN FT	96		
3	CLEAN PIPE SEWER - 8" SANITARY	LIN FT	1985		
4	CLEAN PIPE SEWER - 10" SANITARY	LIN FT	1585		
5	CLEAN PIPE SEWER - 12" SANITARY	LIN FT	91		
6	CLEAN PIPE SEWER - 12" STORM	LIN FT	417		
7	CLEAN PIPE SEWER - 15" STORM	LIN FT	526		
8	CLEAN PIPE SEWER - 18" STORM	LIN FT	623		
9	CLEAN PIPE SEWER - 21" STORM	LIN FT	272		
10	CLEAN PIPE SEWER - 24" STORM	LIN FT	304		
11	CLEAN PIPE SEWER - 36" STORM	LIN FT	174		
12	INSPECT PIPE SEWER - 6" SANITARY	LIN FT	96		
13	INSPECT PIPE SEWER - 8" SANITARY	LIN FT	1985		
14	INSPECT PIPE SEWER - 10" SANITARY	LIN FT	1585		
15	INSPECT PIPE SEWER - 12" SANITARY	LIN FT	91		
16	INSPECT PIPE SEWER - 12" STORM	LIN FT	417		
17	INSPECT PIPE SEWER - 15" STORM	LIN FT	526		
18	INSPECT PIPE SEWER - 18" STORM	LIN FT	623		
19	INSPECT PIPE SEWER - 21" STORM	LIN FT	272		
20	INSPECT PIPE SEWER - 24" STORM	LIN FT	304		
21	INSPECT PIPE SEWER - 36" STORM	LIN FT	174		

EXAMPLE UNIT PRICE BID

Total of all unit prices _____Dollars

QUOTER acknowledges that estimated quantities are not guaranteed and are solely for the purpose of comparison of QUOTES, and final payment for all Unit Price items will be based on actual quantities, determined as provided in the Contract Documents.

If QUOTER is:

<u>An Individual</u>	
Ву	(SEAL)
(Individuals Name) doing business as	
business address:	
Phone No.:	
A Corporation	
Ву	(SEAL)
(Corporation Name)	
(State of incorporation)	
By	
(SEAL)Name of person authorized to sign	
(Corporate Seal) Attest	
Business address:	
Phone No.:	

5. Date of Qualification to do business is

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AGREEMENT

The parties, for valuable consideration hereinafter stated, this _____ of _____ 2025, by and between the <u>City of Breezy Point</u>, hereinafter called the "City" and _____, hereinafter called the "Contractor" agree as follows:

1. The Contractor hereby covenants and agrees to perform and execute all of the provisions of the Specifications, this Contract, Plans and all its attachments which in total comprise the *Project Name* hereinafter referred to as the "Project".

2. The Contractor agrees that the work contemplated in the Project shall be fully and satisfactorily completed by *Date*.

3. The City, upon accepting all work done by Contractor, shall pay Contractor in accordance with the unit prices as indicated in the Contractor's Quote, attached hereto as an exhibit, the total of which is \$_____.

4. Contractor shall indemnify and hold harmless the City from loss, liability, cost or expense (including reasonable attorney's fees) for bodily injury, death and property damage, but only to the extent same are caused by the negligence, misconduct or other fault of Contractor, its agents or employees, which arise out of work performed under this Project. The foregoing provision shall only benefit the City if the City notifies Contractor in writing of such claim within thirty days of same being reported to the City or its representative. Contractor shall not be liable for delay, loss or damage caused by warfare, riots, strikes, boycotts, criminal acts, acts or omissions of others, fire, water damage, natural calamity or causes beyond Contractor's control.

5. Contractor agrees to maintain in effect during the entire Project insurance for Workers' Compensation with statutory limits, and personal injury and property damage with \$1,000,000 combined single limit liability per occurrence. The City shall be named as an additional insured on said policy. Contractor shall furnish to the City a Certificate of Insurance evidencing such coverage and specifying that thirty days prior notice of cancellation shall be sent to the City.

6. Contractor is an independent contractor, and all persons employed to furnish services hereunder are employees of Contractor and not of the City.

7. This Agreement shall inure to, and bind the successors, assigns, agents and representatives of the parties.

8. This agreement contains the entire Agreement between the parties. All prior negotiations between the parties are merged in this Agreement, and there are no understandings or agreements other than those incorporated herein. This Agreement may not be modified, except by written instrument signed by both parties. In the event of conflict between any of the foregoing provisions of this Agreement and the attached specifications, the former shall be controlling.

9. This Agreement shall consist of the following attachments:

- This Agreement Contractor's Quote
- a) b) c) d) Certificate of Insurance Technical Specifications
- d) Exhibits

CITY OF BREEZY POINT	CONTRACTOR
Ву	Ву
lťs	lťs
ATTEST	

By			

It's Clerk

TECHNICAL SPECIFICATION

SEWER PIPE CLEANING AND INSPECTION

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PART 1 - GENERAL

1.1 SCOPE OF SERVICES AND WORK PHASING

- A. The purpose of this bid is to obtain competitive unit prices for all labor, material, and equipment necessary to clean and inspect via closed-circuit television (CCTV) existing sanitary and combined sewers ranging in size from 6- to 30-inch diameter. The work includes hydraulic root cutting and cleaning, grinding protruding break-in service connections, remote televising and recording of the sewer. All project locations will be within the Owner service area.
- B. The work to be completed on each section of sewer will be performed in phases as defined in the following:
 - 1. Phase 1 Sewer Pipe Cleaning
 - 2. Phase 2 Post Cleaning Inspection. Final televising of the sewer segment to evaluate the condition of the sewer segment after all cleaning has been performed in Phase 1. Phase 2 will be required to be performed and will be reimbursed at the bid unit price.
 - a. The recorded video must show the entire circumference of the sewer. Any flow control to remove standing water and debris shall be incidental to the contract. It is not the intent of this specification to require bypass pumping to control heavy flow; however, the Contractor must, at a minimum, make reasonable effort to control the flow by using flushing equipment to temporarily retain flow or to remove standing water. The Contractor must also consider weather conditions to obtain the best video image of the sewer. This may require the Contractor to delay any video work after major rain events until the system can return to lower dry weather flow. The Contractor shall submit PACP data to include the electronic video reports, logs, etc. for the Owner's review.
 - b. The segments of sewer to be cleaned and televised through this contract will be located primarily within the paved areas of the public right-of-way; however, there may be some sewer segments that are located within public easements on private property. The successful bidder, with assistance of the Owner as required, will be responsible to coordinate and gain access to any and all sewer segments and will be responsible for any restoration in accordance with Part III Section 5. This will include written authorization between Contractor and landowner.
- C. The Contractor shall furnish all labor, components, materials, tools, and appurtenances necessary for the performance and completion of the contract.
- D. Award of the contract will be determined through an evaluation of bids and made in light of the best interest of the Owner.

- E. The Contractor will be held fully liable for any damages incurred that are caused by his or her negligence.
- F. Patents, Trade Secrets, and Copyrights: The Contractor shall pay all license fees and royalties and assume all costs incidental to the use in the performance of the work or the incorporation in the work of any invention, design, process, product or device which is the subject of patent rights, trade secrets protection rights, or copyrights held by others. The Contractor shall indemnify and hold harmless the Owner and Engineer and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorney's fees and court and arbitration costs) arising out of any infringement of patent rights, trade secret protection rights, or copyrights incidental to the use in the performance of the work or resulting from the incorporation in the work of any invention, design, process, product or device not specified in the contract documents, and shall defend all such claims in connection with any alleged infringement of such rights.

1.2 OWNER

This contract will be administered by the Owner or Owners Representative. Questions pertaining to this contract, before and after award, should be directed to Nick Peterson, Widseth Project Engineer at 218-316-3681 and <u>nick.peterson@widseth.com</u>.

- 1.3 TIME OF PERFORMANCE, SCHEDULING AND LIQUIDATED DAMAGES
 - A. Owner will issue to the Contractor a written "Notice to Proceed" including a date for commencement of work. The Contractor shall begin work on the date stated in the written "Notice To Proceed" (but no later than 10 calendar days after receipt) with an adequate force and sufficient resources to demonstrate due diligence in the performance of the contract.
 - B. It is understood that the bidder may have other contracts with the Owner during the period of this contract. By bidding this work, the bidder is agreeing to provide an adequate number of crews in order to perform the work concurrently with due diligence and as specified in his approved schedule.

1.4 COMPLIANCE AND ACCEPTANCE

- A. Compliance with this contract shall be complete when all conditions set forth in these specifications have been met. The following defines each work item, the level of effort, and quality of work that will be necessary to meet the intent of this specification:
- B. Sewer Cleaning
 - 1. Removal of Obstructions(OB) and Deposits Settled (DS). This also includes Deposits Attached Grease (DAGS) if able to remove with rotating nozzle or other mechanical means. Compliance with this section requires substantial effort towards cleaning.
 - 2. The Contractor shall clean the sewer and associated manholes, including drop connections and benches, to remove all Obstructions (OB) and Deposits Settled (DS), so that the sewer is ready for televising. This will require up to three passes of a hydraulic flusher to remove all loose debris and collect it for removal in the

downstream manhole. All debris must be removed from the sewer, including any debris that may have been washed up into any service connections, drop connections or the bench wall of the manholes. This includes all grease, rocks, debris, sticks, etc. that will reduce the hydraulic capacity of the sewer and limit future maintenance access of remote equipment. If additional cleaning is required, an additional three passes with high velocity hydro-cleaning equipment will be paid at the unit bid price. A mechanical/hydraulic Spinner Nozzle may be used where necessary at no additional cost; however, the Contractor shall be responsible for any damage to the sewer or any service connections. This item does not include cutting/grinding protruding break-in connections or cutting and removal of roots, Deposits Attached Encrustation (DAE) or DAGS that require cutting to remove. If this work is required, a separate price will be negotiated with the Contractor

- 3. The Contractor shall maintain detailed documentation of cleaning efforts. Such documentation shall be made available to the Owner at any time.
- 4. The Contractor shall immediately notify the Owner if he believes that this level of cleaning will cause a sewer collapse due to the existing deterioration of the host pipe. The Owner's determination whether to continue or stop work is final.
- C. Final Survey Television Inspection
 - 1. CCTV inspections will be conducted entirely in digital format.
 - 2. All CCTV work shall conform to the most current NASSCO PACP standards. The documentation of the work shall consist of NASSCO PACP CCTV Reports, Unmodified NASSCO PACP database, logs, electronic reports, etc. noting defects and observations encountered during the inspection.

1.5 REFERENCED DOCUMENTS

- A. All work must also conform to the latest edition of the following specifications:
 - 1. NASSCO PACP Standards.
 - 2. Other standards as appropriate.
- B. Liability and Assumptions

In order to minimize and appropriately allocate costs and risks, it is in the best interest of all contracted parties (Owner and Contractor) and prospective parties (i.e. Bidders) to understand thoroughly the risks associated with any particular project. For that reason, we will define herein, what is standard practice in the procurement and completion of sewer cleaning and inspection so that everyone involved can effectively assess their obligations, risks, and duties.

C. Assumptions

It is reasonable and customary to assume the following, unless otherwise detailed in writing:

- i. The Owner has provided the Parties (Contractor and/or Bidders), in writing, with all of the information that the Owners possess that would allow the Parties to accurately and fully assess the entire scope of the project.
- ii. The Owner possesses or has contracted the services of a person or entity who possesses the knowledge, expertise and experience to fully understand the scope of the service for which they are attempting to contract with the Parties.
- iii. The Parties are knowledgeable, capable and legally authorized to contract for the services in question.
- iv. The infrastructure for which the services are requested are in suitable condition to allow for the activities which are usual and customary for the services requested without undue risk to the Parties equipment or personnel, unless otherwise described by the Owner in writing.
- D. Liabilities

Should it be found during initial investigation and/or during the course of performance that conditions are different than those which are typical and customary and outside of the assumptions listed above, the Contractor may negotiate a reasonable change in terms. The Owner reserves the right to re-bid such work if it results in a substantial increase in cost by more than 5% of the total project

- E. Notification
 - 1. If observed defects are believed to be such that further cleaning operations may compromise the structural integrity and/or cause the pipe to become unusable, the Contractor must provide written communication to the Owner's designee of the observed condition(s) and reason to believe that continued cleaning operations may cause substantial damage. The Owner will then direct the Contractor as to what services, precautions, etc., the Owner will require of the Contractor. If the contract documents do not address this potential, then the Owner and Contractor will negotiate in good faith, the conditions under which the work is to continue or cease to continue.
 - 2. This exception may only be used to prevent asset damage and shall not be used to eliminate difficult or adverse cleaning areas that were previously documented in these documents or by prior written communication with the Owner.

1.6 SUBMITTALS

A. All submittals are due as scheduled. Work will not proceed until all submittals are received and approved. The project manager reserves the right to adjust the due dates of the submittals based on Contractor performance. The Contractor shall label each submittal indicating what is represented, name of Contractor, and project number. All

submittals identified as being in error shall be re-performed and corrected at the Contractor's expense.

- B. Pollution and Liability Insurance
 - 1. The Contractor shall provide proof of insurance as outlined in the Agreement.
- C. Submittals required of the Successful Bidder seven (7) days prior start of work.
 - 1. Name of the project supervisor and resumes.
 - 2. Documentation of NASSCO PACP certification for all CCTV operators, database and software.
 - 3. Site Safety Plan. A complete generic site safety plan must be submitted one week prior to the pre-construction meeting. Work will not begin until an approved site safety plan is in place.
 - 4. Sample inspection CCTV data and video or data from other approved inspection method.
 - 5. An initial comprehensive schedule of work.
 - 6. Proof that Contractor is an approved/bonded Contractor with the Owner.
- D. Weekly Submittals
 - 1. Detailed updates to the work schedule will be provided to the project manager no later than 1:00 p.m. on the Friday preceding the next week's cleaning and televising work.

PART 2 - SPECIAL PROVISIONS

- 2.1 OWNER RIGHTS
 - A. The Owner reserves the right to stop the work when, in the project manager's judgment, the Contractor's work or activities are threatening the health and safety of the public or endangering the environment or endangering the waters of the state. Work shall not proceed until a satisfactory resolution has been achieved, as determined in the sole and unfettered opinion of the Owner.
 - B. The Contractor or Subcontractor shall not perform any work which is not specifically identified in the work schedule unless approved by the Owner. Notification of such work must be received no later than 12:00 pm on the day before the work is to be performed.

2.2 EMERGENCY RESPONSE

The Contractor shall provide a telephone numbers to the Owner. These numbers are intended for the project manager's use in contacting the evening/weekend/holiday emergency work crew for emergencies resulting from the Contractor's actions or lack thereof during this project. This crew shall be responsible for contacting the Owner within one-half hour after the first verbal or electronic notification. If the Contractor's crew has not responded to the site of the emergency within one hour of the first summons, verbal or electronic, the Owner will make all necessary repairs and bill the Contractor for all work performed. Costs related to the emergency response will be incidental to the contract and not measured for payment.

2.3 WORKING HOURS

- A. The Contractor must complete all work such that no property owner is without sewer service, unless otherwise directed by the Owner. Local noise ordinances or agencies having control over roadway closures may control starting or stopping operations. Prior to starting operations, the Contractor shall advise the Owner of the restrictions imposed by the local agencies.
- B. No work will be allowed on weekends or holidays except at the discretion of the Owner.

2.4 DECREASE/INCREASE IN SERVICE AND STOP WORK DUE TO INCLEMENT WEATHER

The Owner, at its option, may increase or decrease any or all service requirements provided for under this contract. The Owner further reserves the right to suspend or stop the performance of any or all of the work of this contract due to inclement weather conditions.

2.5 CLOSE-OUT PROCEDURES

- A. Punch List: This list will detail all items requiring correction, repair, or improvements in order to be accepted. The Contractor will address these items within 7 calendar days or as specified by the Owner. Failure to complete punch list items will result in a stop work notice and delay of payment until completed to the satisfaction of the Owner.
- B. Reports and Submittals: Final reports, post-tapes and other submittals previously described will be finalized and submitted.
- C. Review of the status of pay estimates.

2.6 PRE-QUALIFICATIONS

A. The successful low bidder must have an onsite field supervisor with a minimum five (5) years of experience specializing in the cleaning and televising of sewers. A foreman for each crew performing cleaning and television inspection with a minimum of five years of experience specializing in that type of work may be substituted for the onsite field supervisor requirement. The Contractor shall provide the names, titles, phone numbers and addresses of a minimum of two references that can be used to verify this experience. The references must be contract managers or persons of authority over cleaning and televising work performed by the Contractor.

- 1. The Contractor shall also provide 5 similar projects with cleaning and inspection equipment as proposed for this project.
- 2. The Contractor must have foreman or supervisors meeting all pre-qualifications for the duration of the contract.
- B. PACP Requirements
 - 1. Current NASSCO PACP certification of all CCTV operators, working on this project, will be required for all CCTV work.
 - 2. Database shall be an unmodified NASSCO-PACP (Current Version) Certified Access Database.
 - 3. CCTV Software shall be NASSCO-PACP (Current Version) certified.
 - 4. CCTV inspections (Video and Data Collected) will be conducted entirely in electronic format

PART 3 - GENERAL PROVISIONS

- 3.1 MAINTENANCE OF TRAFFIC
 - A. The Contractor shall be responsible for maintaining "local" traffic at all times and for notifying the proper authorities regarding the closing of the roads. The Contractor will be responsible for obtaining all permits required for maintenance of traffic.
 - B. The Contractor shall not begin work until standard barricades and warning signs are in an acceptable position and the markers and signs conform to the Minnesota Manual of Uniform Traffic Control Devices (MN MUTCD) and all applicable state and local requirements. The Contractor assumes all responsibilities and liabilities regarding strict adherence to applicable sections for the maintenance of traffic and public safety. All traffic control devices must be in place prior to starting work. Contractor shall use appropriate temporary traffic control devices and layouts as outlined in the Minnesota Temporary Traffic Control Field Manual 2018.
 - C. The cost of all traffic control devices shall not be paid separately but shall be included in the other prices/items in the contract.
 - D. The portion of the pavement not affected by the work shall be kept clear of all material and equipment.
 - E. The Contractor shall hold harmless the Owner and all its representation from all suits, actions, of claims of any character brought on account of any injuries or damages sustained by any person or persons or property in the performance of this contract.

- F. If at any time traffic has to be blocked (emergencies only), the Contractor shall notify the nearest fire, police departments and service departments.
- G. The cost of maintenance of traffic shall be incidental to the contract and not measured for payment.

3.2 EXISTING UTILITIES

- A. The Contractor must take the necessary precautions for the protection of any utility encountered on the project or the restoration of any utility damaged during the work.
- B. If an excavation is required, the Contractor shall notify, at least 48 hours before breaking ground, all public or private service corporations having wire, poles, pipes, conduit, manholes, or other structures that may be affected by this operation, including all structures which are affected and not shown on these plans. Owners of underground utilities, which are members of the state's one call service, can be notified by calling the one call service. Non-member underground utility owners must be called directly.
- C. All maintenance, repair, and replacement of existing utilities shall be in accordance with the rules and regulations of the various utility companies having jurisdiction.
- D. All existing storm sewers, driveway drains, surface drainpipes and other property, removed or damaged during construction shall be repaired and reconnected by the Contractor as directed by the Owner at no additional cost to the District.

3.3 REQUEST FOR SUPPLEMENTARY INFORMATION

- A. It shall be the responsibility of the Contractor to make timely requests of the Owner for supplemental information, which should be furnished by Owner under the terms of this contract, and as required in the planning and execution of the work. Such requests may be submitted from time to time as the need approaches, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved to avoid delay.
- B. Each request shall be in writing and list the various items and the latest day by which each will be required by the Contractor. The first list shall be submitted within two (2) weeks after contract award and shall be as complete as possible at that time. The Contractor shall, if required, furnish promptly any assistance and information the Owner may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for all delays arising from failure to comply with this section.

3.4 USE OF PREMISES

A. The Contractor shall not trespass upon or in any way disturb private property without first obtaining written permission from the Owner to do so. A copy of such written permission shall be furnished to the Owner prior to accessing the site.

- B. It shall be the Contractor's responsibility to work equipment around poles, trees, or other obstructions and to do so at his own expense.
- C. If the Contractor finds it necessary to obtain additional working area, it shall be the Contractor's responsibility for its acquisition.
- D. The Contractor shall, at no additional expense, restore such property to the full satisfaction of the Owner and shall obtain from the Owner a written release stating that restoration has been satisfactorily made. A copy of the completed written release shall be furnished to the Owner prior to payment.
- E. All items within the street right-of-way or sewer easement shall be removed, or removed and replaced, or restored as directed by the Owner.
- F. The Contractor shall ensure all employees have a badge or visible identification during any time that they on the project site or within private property. This identification must be worn so that it is readily recognized and readable to the public.

3.5 PROTECTION OF TREES

A. The Contractor shall avoid any unnecessary damage to trees. Branches which overhang the project limits, and which interfere with the operation of equipment shall be tied back to avoid damage, if possible. Where injury to branches is unavoidable, the branches shall be sawed off neatly at the trunk or main branch, and the cut area shall be painted with approved tree paint immediately. The Contractor, at no additional expense, shall remove any trees damaged beyond saving, and make restitution to the Owner (public or private).

3.6 FENCING

A. Any fences, including hedge and shrubs that need to be removed to facilitate the work shall be replaced in kind or with repairs satisfactory to the Owner, at the Contractor's expense. Replacement of fences, hedges, and shrubs shall be considered incidental to the contract and not measured for payment.

3.7 RESTORATION

- A. All roadway berms and drainage ditches disturbed by the work shall be restored, reshaped, and graded to drain.
- B. Pavement restoration, if necessary, shall conform to the Owner's regulations, or the Owner's specifications depending upon who has jurisdiction for the street. Trench backfill and compaction shall be in conformance with the local street restoration jurisdiction.
- C. The remediation of sunken trenches caused by activities conducted in this contract shall be the Contractor's responsibility. Sunken areas shall be backfilled and

compacted to meet adjoining grades; the surface shall be re-seeded or resurfaced with asphalt or concrete matching the existing surfacing.

- D. The Contractor shall restore unpaved areas by seeding and mulching. No direct payment will be made for seeding and mulching.
- E. Driveways shall be restored in accordance with the Owner's regulations, or the Owner's specifications depending upon who has jurisdiction for the driveway.
- F. All disturbed areas shall be restored as nearly as possible to their original condition.
- G. All restoration shall be completed in strict accordance with the appropriate items of the specifications as directed by the Owner.
- H. The cost of all restoration of streets, drives, walks; sod, etc. shall be incidental to the contract and not measured for payment.
- I. The restoration of sod areas and driveways shall be kept current with the project work. Failure to keep restoration of these items completed reasonably close shall result in a stop work notice and delay of payment until such restoration is completed to the satisfaction of the Owner.

3.8 CLEANUP

A. The Contractor shall keep the work area in an uncluttered condition by the frequent removal of debris. The Contractor shall remove all debris and unused material and leave the area in a condition similar to the condition of the area before any work was performed.

3.9 PROPERTY DAMAGE

- A. The Contractor will be required to make repairs and/or clean the property immediately if there is any damage to private or public property caused by activities related to this contract.
- B. The Contractor shall immediately investigate any and all reports of sewage backing up into fixtures served by the sewer segment that is being cleaned or televised.

3.10 ACCESS TO MUNICIPAL WATER SUPPLIES

A. Contractor must contact Owner prior to bidding to determine water access requirements and any associated costs. Any costs associated with water access are incidental to the project.

PART 4 - EXECUTION

4.1 GENERAL

A. The Contractor shall furnish and maintain, in good condition, all cleaning and televising equipment necessary for proper execution of the work.

- B. Maintaining Flow: It will be the responsibility of the Contractor, throughout the tenure of this contract, to provide and maintain sufficient flow at all times to pass any flash of storm flow of drainage ditches and prevent any backwater flooding due to obstruction caused by cleaning or CCTV equipment.
- C. Retrieval of Materials and Equipment: It shall be the Contractor's responsibility to remove materials and equipment that has been lodged in the sewer from cleaning, television inspection, or point repair excavations.
- D. Work Schedule. This schedule shall outline the sequence in which the Contractor proposes to conduct his operations and shall be approved by the Owner before work is started. The Contractor shall use a time-scaled logic diagram format. The level of detail of activities shall provide clear, concise communication of the plan of work. At a minimum, activities showing initial mobilization, start-up, cleaning and televising, and any resultant point repairs shall be included.
- E. Original and updated schedules must be provided to the Owner in writing on appropriately sized single sheets. A color print will be required in order to distinguish different types of activities from one another. The software used for producing the schedules must have the capability to tailor the form and format of schedules, and accompanying reports, to the Owner's requirements.
- F. The Owner may require additional updates to the schedule as changes occur. These additional updates will be submitted to the project manager within 24 hours of the request. Changes to the schedule are subject to approval of the Owner.

4.2 SEWER CLEANING

- A. The Contractor shall provide equipment that is specifically designed and constructed for sewer cleaning. Solids and debris resulting from the cleaning operation shall be collected and removed from the downstream manhole and disposed of at a site selected by the Contractor and approved by appropriate jurisdictional personnel. Under no circumstances shall sewage solids be dumped onto the surface, street, or into ditches, inlets, or storm drains.
- B. The Contractor shall use the manufacturer's recommended size tools for the various size pipes. Equipment recommended by the manufacturer to protect the manhole and pipe, such as pull-in slant jack rollers and roller and yoke assembly, roller manhole jacks, etc. shall be utilized.
- C. The Contractor shall dispose of all sanitary debris and material at a location provided by the City. The Contractor shall not be reimbursed for disposal costs.
- D. The Contractor is required to submit documentation of the work that is performed, and the type of debris removed, as well as landfill permits and disposal documentation.
- E. The Contractor shall have a CCTV camera in the sewer, during all cleaning operations to include: Lateral Cut and Deposit Cut. The camera shall be used for the Contractor's

verification that the cleaning equipment is not damaging the public sewer. No submittal is required for this item and the cost for monitoring the cleaning equipment operation shall be included in the associated unit cost for the cleaning item. This in no way waives the Contractor's responsibility for damaging the sewer but is intended to bring the resulting damage to the Contractor's attention so that the operation can be stopped in a timely manner.

4.3 TELEVISION INSPECTION AND COMPUTERIZED EQUIPMENT

- A. The Contractor shall use a color pan, tilt and zoom, camera or a digital side scanning camera (panoramic) specifically designed and constructed for sewer inspection. Each sewer to be televised shall be suitably isolated to eliminate or control flow during video inspection or panoramic inspection to allow for the entire circumference of the pipe to be viewed. Lighting for the camera or panoramic scanning camera shall provide a clear picture of the entire periphery of the existing sewer. The pan, tilt, zoom camera shall pause, pan, and visually inspect all service connections, pipe ends, and maintenance or structural defects. If utilizing a panoramic view inspection system, pausing and panning is not necessary during the inspection and can be used by the Owner if the image clearly depicts the inside of the lateral for post processing of the scans. Images of both manholes of each segment shall also be provided on each CCTV report to document their condition from the casting to the invert.
- B. Provide monitoring and video recording of the televised sewer inspection, locating each sewer service connection entering the sewer.
- C. If a blockage cannot be removed and hampers the televising of the sewer in one direction, then the Contractor shall attempt to complete the segment by televising from the other manhole to complete the segment. This reversal must immediately follow the initial direction on the same report. The Contractor must immediately report the obstruction to the Owner.
- D. Perform all CCTV inspections in accordance with NASSCO's Pipeline Assessment Certification Program (PACP). CCTV inspections will be conducted entirely in digital format. The entire pan, tilt, and zoom inspection survey shall be recorded in MPEG-1 format written in a digital format (ex. DVD, Hard Drive) and submitted with digital links to the survey. All panoramic side scanning inspection survey shall be recorded in an acceptable panoramic format and submitted with digital links to the survey.
- E. All cleaning and television inspection reports shall be with-in +/- two (2) feet of the measured linear footage between manholes along the existing sewer centerline from the start of pipe to end of pipe.
- F. Work not following these specifications may be rejected for payment and the Contractor may be required to re do the work.
- G. CCTV Reports, logs, electronic reports, and worksheets must include the following information and conform to the applicable guidelines:
 - 1 CCTV Reports, NASSCO PACP Certified Database and electronic worksheets must accompany all inspection work.

- 2 Cleaning Reports: All cleaning work must be documented, as specified by the Owner.
- 3 All Owner and NASSCO PACP required header information must be fully and accurately entered on all CCTV reports. See Header Field Checklist for mandatory and required Header Fields.

PART 5 - PAYMENT FOR WORK

5.1 MEASUREMENT AND PAYMENT

- A. Cleaning of sewers will be measured for payment by the linear foot of the various diameters of sewer actually cleaned and verified through television inspection. In cases where the sewer is entirely inspected manhole-to-manhole, payments will be based on the measured linear footage between manholes along the existing sewer centerline from the center of the manhole at the bid unit price.
- B. All invoicing will be by sewer segment and payment and will not be made until all work; including punch list items (rework and additional work) are completed for each sewer segment. Any invoice for sewer segments that are not complete will not be accepted by the Owner.
- C. The following items of work will not be measured for payment, but the cost thereof will be considered as incidental to the contract:
 - 1 Data entry, computerized equipment, software, and hardware to submit the required electronic submittals, including the DVDs, records, and logs.
 - 2 Completion of all electronic forms.
 - 3 Removal and disposal of debris.
 - 4 Photographic equipment and supplies used to show sewer pipe and manhole defects.
 - 5 Bypass pumping and flow control where required by the Contractor to perform his or her work.
 - 6 Providing temporary and final paving at any proposed excavations.
 - 7 Providing temporary and final restoration of grass areas.
 - 8 Emergency after hours response.
 - 9 Re-televising and re-cleaning following a point repair completed by the Contractor.
 - 10 Demobilization and mobilization because of suspension of work.
 - 11 Updates to the schedule as required by the Owner.
 - 12 Right of entry access to private property.

13 Water costs.

- D. In order for the Owner to properly and accurately track costs of the contract, the Contractor shall submit the final invoice on each project within 30 days after the completion of the project.
- E. Performance and Payment Bond: The bond securing the performance of the contract shall be effective for the full maximum period of the contract including the optional renewal period(s) specified. The bond amount indicated shall be deemed adequate surety for the initial and optional renewal periods. The cost of performance surety shall be treated as an overhead expense and shall be included in the bid amounts. The Owner shall not pay the cost of surety as a direct bill item.

END OF SECTION

HEADER FIELD CHECKLIST

Header Field	Mandatory	Required for this Project
Surveyed By	Х	
	Х	
Owner		Х
Customer		
Drainage Area		
Sheet Number	Х	
P/O Number		
Pipe Segment Ref.		Х
Date	Х	
Time		Х
Street	Х	
City	Х	
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