

BASIN CAPITAL IMPROVEMENT PLAN
HWY 25 Business Park Phase II
March 2023

Prepared for:

MetroConnects
120 Augusta Arbor Way, Greenville, SC 29605



Prepared by:



Weston & Sampson Engineers, Inc.
3453 Pelham Road, Suite 204, Greenville, SC 29615

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	i
LIST OF FIGURES.....	ii
LIST OF TABLES.....	iii
1.0 BASIN CAPITAL IMPROVEMENT PLAN	1-1
1A Description of Qualified Expansion Project	1-1
1B Overall Cost of Qualified Expansion Project	1-5
1C Capacity of Qualified Expansion Project	1-5
1D Description of Land Use Assumptions.....	1-5
1E Estimated Number of Equivalent Residential Units (ERUs)	1-8
1F Allocation of ERUs to Developable Parcels	1-8
2.0 CAPITAL CONTRIBUTION BASIN REPORT	2-1
2A Per-ERU Capital Contribution.....	2-1
2B Allocation of Qualified Expansion Project Cost	2-1
2C Statement for Allocation of Qualified Expansion Project Cost	2-2
2D Statement for Collection of Basin-Specific Capital Contribution.....	2-4

LIST OF FIGURES

Figure 1 General Location

Figure 2 Project Map

Figure 3 Drainage Basin

Figure 4 Parcel Identification

LIST OF TABLES

Table 1 Zoning Classifications

Table 2 Allocation of ERUs per Developable Parcel

Table 3 Basin-Specific Capital Contribution Calculation

Table 4 Basin-Specific Capital Contribution Summary

1.0 BASIN CAPITAL IMPROVEMENT PLAN

MetroConnects is a special purpose district within Greenville County who owns and operates sewer collection facilities for the purpose of transferring wastewater flow to trunk lines and treatment facilities. Within MetroConnects' service area is the HWY 25 corridor in southern Greenville County, and this area is experiencing significant population growth and development. A majority of this area is unincorporated, unzoned, and is not currently served by public sewer collection systems.

MetroConnects continues to support the community and this new development by extending public gravity sewer infrastructure to Developable Parcels within certain drainage basins. Recently, MetroConnects funded a Qualified Expansion Project in partnership with Renewable Water Resources (ReWa) to serve the Woodmont Development near the intersection of HWY 25 (Augusta Road) and Bessie Road. This public gravity sewer main will serve numerous parcels within the drainage basin, and these parcels will benefit from the project construction, as funded by MetroConnects. As such, each Developable Parcel will be assigned a Basin-Specific Capital Contribution to recoup MetroConnects' Basin-Specific Capital-Expansion Expenditures.

Weston & Sampson, on behalf of MetroConnects, has reviewed the HWY 25 Business Park Phase II gravity sewer basin and has allocated MetroConnects' associated Basin-Specific Capital-Expansion Expenditures to extend public gravity sewer infrastructure for all Developable Parcels within the drainage basin.

1A Description of Qualified Expansion Project

The drainage basin near the corner of HWY 25 (Augusta Road) and Bessie Road is largely unincorporated, unzoned, and not served by public sewer. Approximately 33 parcels are located within this natural drainage basin and would benefit from public sewer availability as they develop. A general location map can be found below in **Figure 1**.

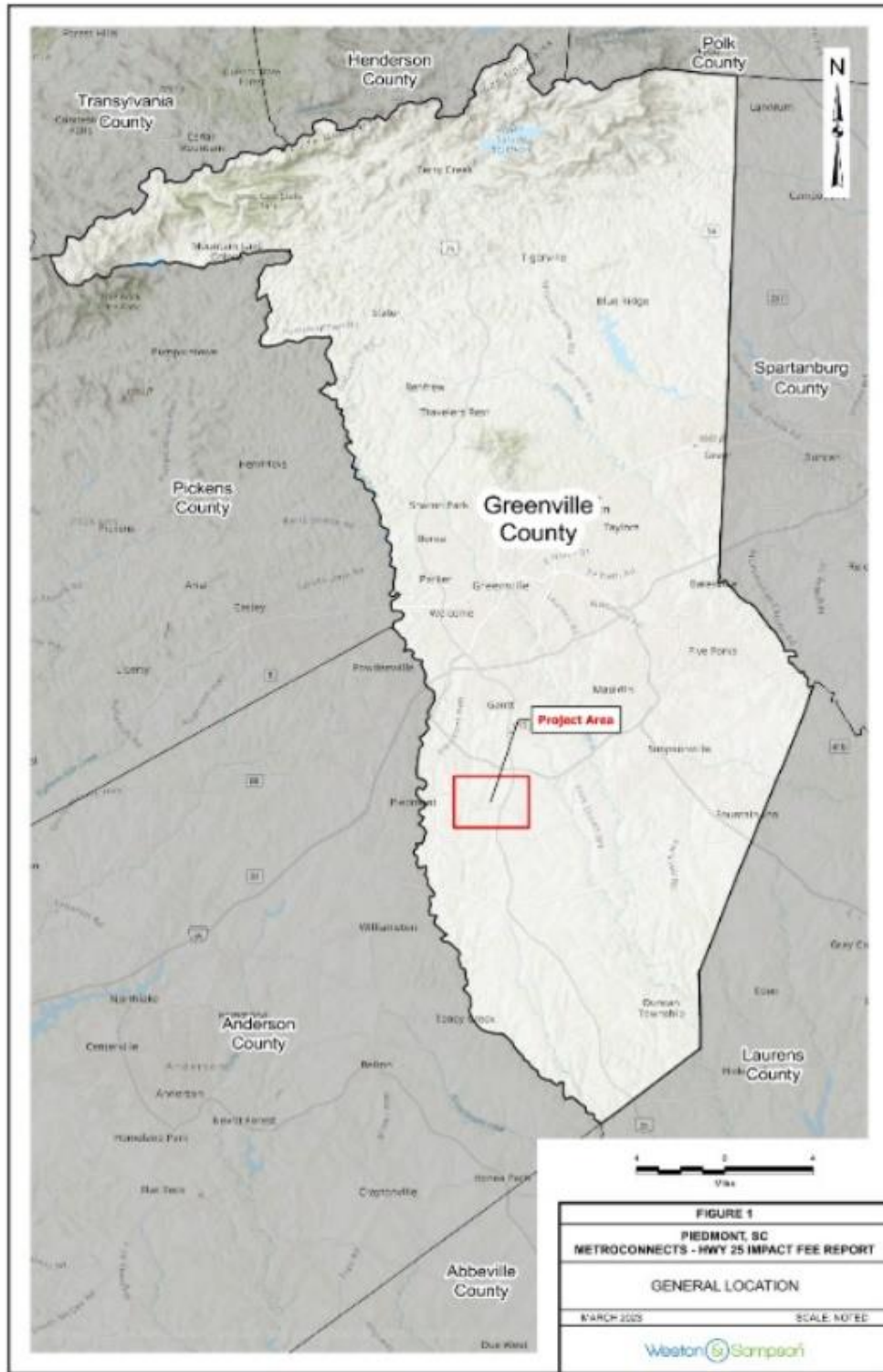


Figure 1 – General Location

Woodmont Development (TM#0602010102301) approached the local sewer agencies about providing a sewer solution for this undeveloped area, as sewer availability is attractive to developers because it decreases the minimum lot size and allows more dwellings to be built on the property. Additionally, sewer services are a benefit to the health and welfare of the public and the environment and are generally preferred to private septic systems.

With sewer availability, the Woodmont Development projects a build out flow of 83,700 gallons per day (GPD). Per SCDHEC R61-67, one single-family home accounts for 300 GPD in contributory loading, which is also equal to a single equivalent residential unit (ERU). Therefore, Woodmont Development accounts for 279 ERUs in its drainage basin and would need sewer access to provide safe and responsible waste collection for its residents.

In 2021, MetroConnects and ReWa entered into a cost-share agreement to fund and construct the HWY 25 Business Park Phase II gravity sewer project to serve this basin. The HWY 25 Business Park Phase II project consisted of four primary segments:

1. ReWa trunk sewer – 18" DIP and 18" PVC (Not included in Metro Connects' Basin-Specific Capital Contribution calculation)
2. MetroConnects collector sewer – 12" PVC
3. MetroConnects collector sewer – 8" PVC
4. MetroConnects collector sewer – 8" PVC

Each sewer segment was sized through prior basin planning efforts to capture the basin's estimated build out flow. Refer to **Figure 2** below for a detailed view of how these segments were routed within the basin. Construction is now complete, and the project is in its final testing and documentation stages, at which point the sewer infrastructure will be made available to developments in the basin.

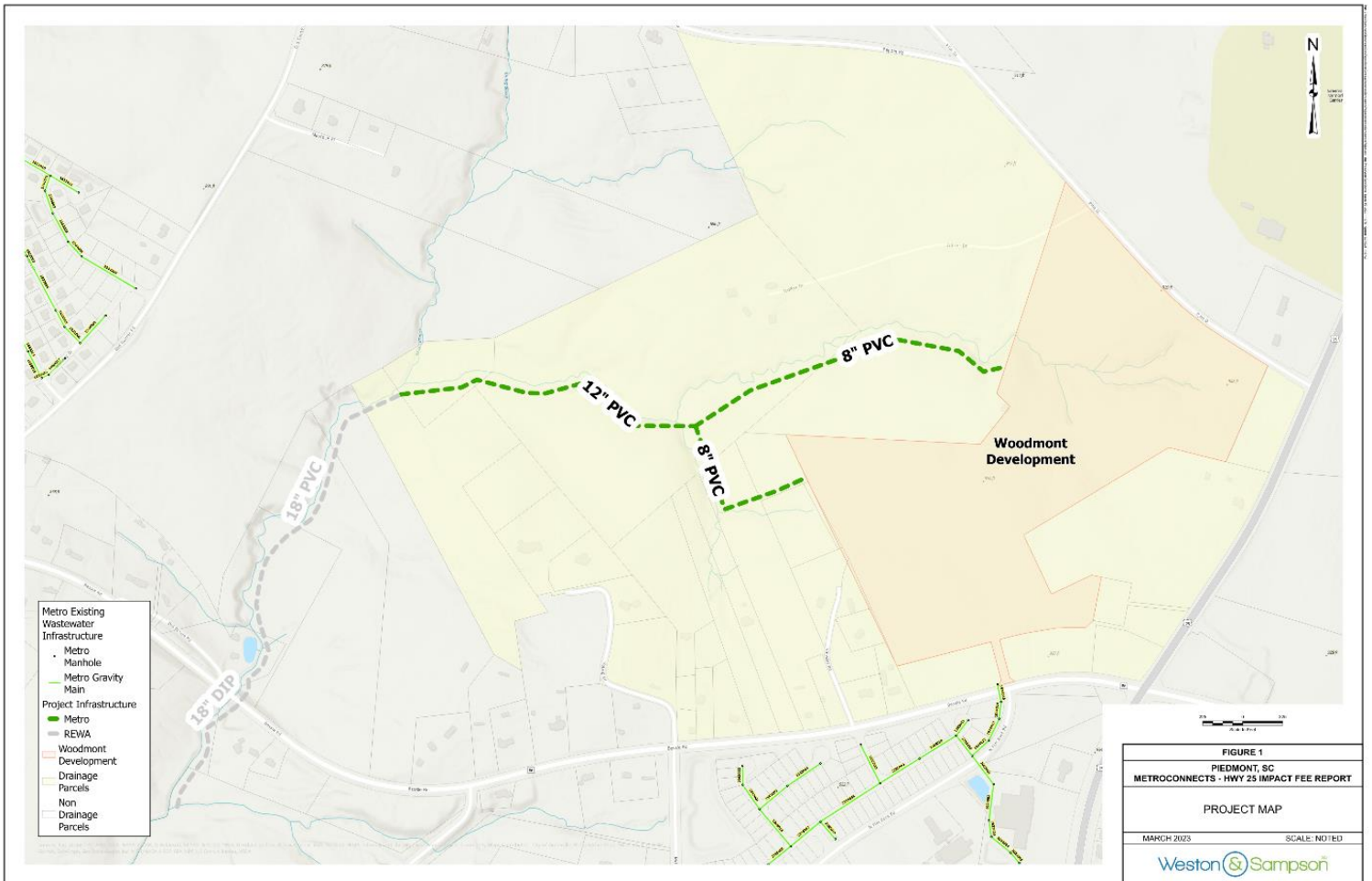


Figure 2 – Project Map

The HWY 25 Business Park Phase II project, as a Sewer Expansion project, is eligible for recoupment of costs as a Qualified Expansion Project due to meeting the following criteria:

1. The construction of the Sewer Expansion project is for the purpose of increasing the capacity thereof within a definable basin consisting of developable parcels that would connect to such Sewer Expansion by way of gravity connections, whether by directly connecting to such Sewer Expansion or through developer-constructed sewer infrastructure; and
2. The overall estimated cost of the Sewer Expansion project, including the cost of planning, design, engineering; the acquisition of rights of way; the construction of the project; and all other associated costs, is above \$1.5 million.

1B Overall Cost of Qualified Expansion Project

The total construction cost for the project, as publicly bid by the Contractor, was \$3,777,298.65. Based on the executed cost-share agreement between MetroConnects and ReWa, MetroConnects' Basin-Specific Capital-Expansion Expenditure was \$1,865,032.50, after returning the unused project contingency, for the MetroConnects 8- and 12-inch mains. Woodmont Development's prior Basin-Specific Capital Contribution of \$223,550.00 further reduces MetroConnects' cost to a total of \$1,641,482.50.

1C Capacity of Qualified Expansion Project

MetroConnects' HWY 25 Business Park Phase II gravity system provides an average daily flow (ADF) capacity of 578,078 GPD based on the following limiting factors:

- Diameter: 12"
- Slope: 1.25%
- Material: PVC; $n = 0.012$
- Depth of Flow: 60% (7.2")
- Peaking Factor: 3.25

Per SCDHEC R61-67, one single-family home accounts for 300 GPD in contributory loading, which is also equal to a single equivalent residential unit (ERU). Therefore, the capacity of the system is equivalent to 1,927 ERUs (ADF).

1D Description of Land Use Assumptions

Weston & Sampson reviewed existing contours to identify the drainage basin for the MetroConnects-owned sewer infrastructure. **Figure 3** illustrates this delineated basin and reflects feasibility of connection to the system.

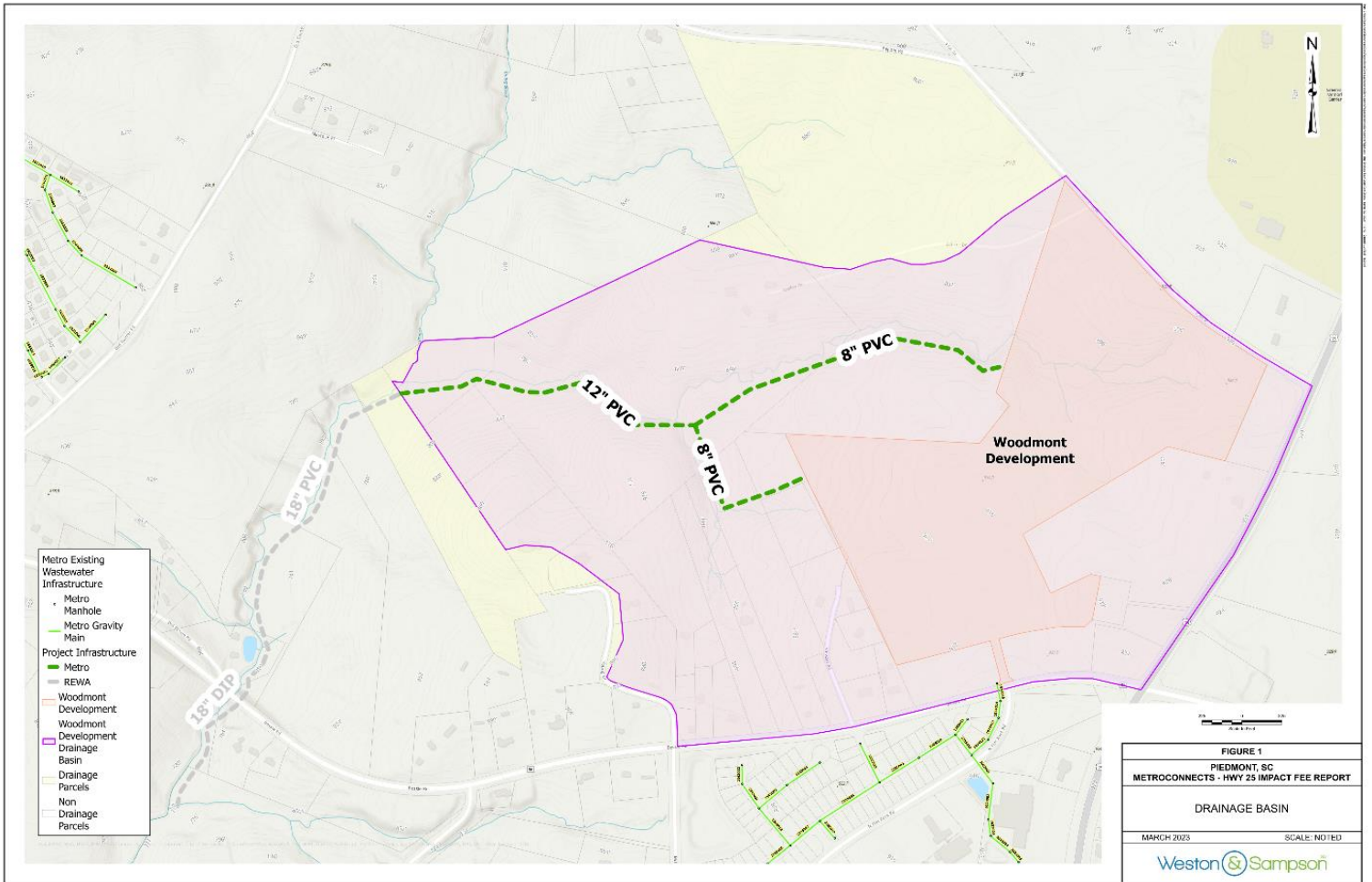


Figure 3 – Drainage Basin

Including the Woodmont Development (TM# 0602010102301), there are a total of 33 parcels that fall within the service area of the gravity sewer project.

Two properties are zoned as a Business Technology District (BTD), with the remaining 32 parcels are currently unzoned. This Basin Capital Improvement Plan will assume that the properties will be zoned for residential use as they develop. There are also limited floodplain classifications in this drainage basin, so most of the basin can be developed. The current zoning classifications are summarized in **Table 1** below.

Table 1 – Zoning Classifications			
TM# ID	Zoning	TM# ID	Zoning
0602010101500	unzoned	0602010103000	unzoned
0602010101700	BTD	0602010103100	unzoned
0602010102300	unzoned	0602010103101	unzoned
0602010102500	BTD	0602010103200	unzoned
0602010102501	unzoned	0602010103201	unzoned
0602010102503	unzoned	0602010103202	unzoned
0602010102800	unzoned	0602010103203	unzoned
0602010102801	unzoned	0602010103204	unzoned
0602010102802	unzoned	0602010103206	unzoned
0602010102803	unzoned	0602010105100	unzoned
0602010102804	unzoned	0602010105200	unzoned
0602010102805	unzoned	0602010105300	unzoned
0602010102806	unzoned	0602010105400	unzoned
0602010102807	unzoned	0602010105500	unzoned
0602010102808	unzoned	0602010105600	unzoned
0602010102900	unzoned	0602010105700	unzoned

1E Estimated Number of Equivalent Residential Units (ERUs)

To estimate the total number of units of development that are reasonably expected to utilize the Qualified Expansion Project, Weston & Sampson determined the following criteria to be appropriate:

- Assumption of 1,000 GPD/acre.
- Assumption that 75% of each acre is developable.
- Calculate total flow in ERUs, where 300 GPD = 1 ERU

Using this criterion, the basin was estimated to have approximately 392 ERUs (123,068 GPD) in addition to Woodmont Development's permitted 279 ERUs (83,700 GPD). The calculated parcel ERU was rounded down to the nearest whole number with a minimum of 1 ERU. A quick comparison shows that the installed infrastructure appears to have enough capacity to accommodate the basin's ADF flow:

- Total Basin ADF: 671 ERUs
 - Woodmont Development ADF: 279 ERUs
 - Remaining Basin ADF: 392 ERUs
- Qualified Expansion Project ADF Capacity: 1,927 ERUs
- Utilized Percentage of Available Capacity: 36%

1F Allocation of ERUs to Developable Parcels

Using the same criterion as above, each Developable Parcel was assigned a total flow based on developable acreage within the drainage basin. **Figure 4** below assigns each Developable Parcel an ID label, which can then be referenced to find total ERU flow projections in **Table 2**.

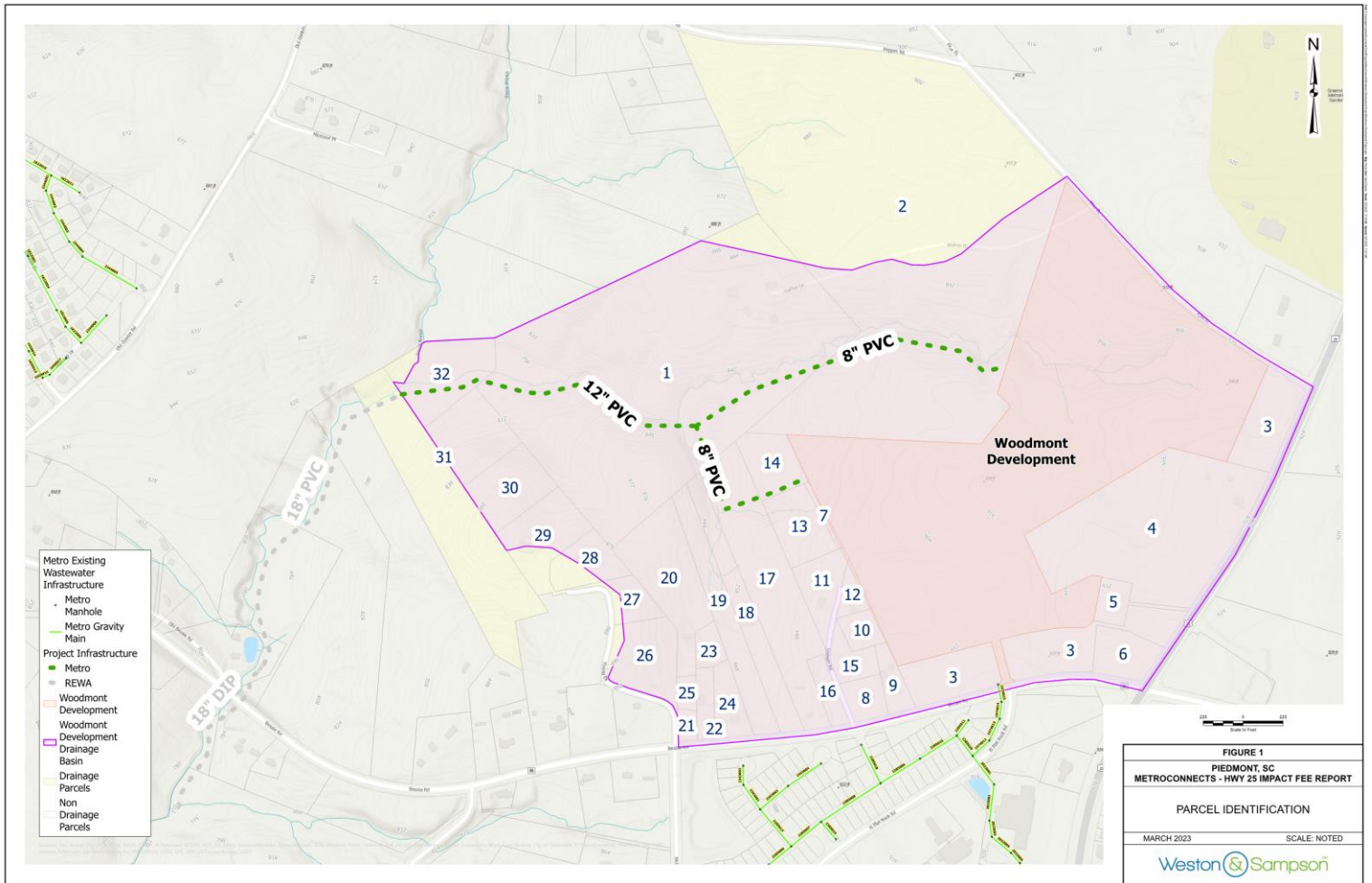


Figure 4 – Parcel Identification

Table 2 – Allocation of ERUs per Developable Parcel

ID	TM# ID	Total Acreage	Developable Acreage	GPD	*ERU
1	0602010101500	46.26	34.70	34,695	115
2	0602010101700	28.56	21.42	21,420	71
3	0602010102300	10.34	7.76	7,755	25
4	0602010102500	17.04	12.78	12,780	42
5	0602010102501	1.15	0.86	863	2
6	0602010102503	1.98	1.49	1,485	4
7	0602010102800	0.26	0.20	195	1
8	0602010102801	1.14	0.86	855	2
9	0602010102802	1.06	0.80	795	2
10	0602010102803	0.98	0.74	735	2
11	0602010102804	1.95	1.46	1,463	4
12	0602010102805	0.74	0.56	555	1
13	0602010102806	2.61	1.96	1,958	6
14	0602010102807	2.26	1.70	1,695	5
15	0602010102808	1.22	0.92	915	3
16	0602010102900	0.92	0.69	690	2
17	0602010103000	9.17	6.88	6,878	22
18	0602010103100	3.85	2.89	2,888	9
19	0602010103101	4.13	3.10	3,098	10
20	0602010103200	5.56	4.17	4,170	13
21	0602010103201	0.43	0.32	323	1
22	0602010103202	0.91	0.68	683	2
23	0602010103203	0.79	0.59	593	1
24	0602010103204	1.5	1.13	1,125	3
25	0602010103206	0.48	0.36	360	1

*The calculated parcel ERU was rounded down to the nearest whole number with a minimum of 1 ERU.

Table 2 – Allocation of ERUs per Developable Parcel

ID	TM# ID	Total Acreage	Developable Acreage	GPD	*ERU
26	0602010105100	3.18	2.39	2,385	7
27	0602010105200	1.1	0.83	825	2
28	0602010105300	1.31	0.98	983	3
29	0602010105400	2.57	1.93	1,928	6
30	0602010105500	3.15	2.36	2,363	7
31	0602010105600	3.64	2.73	2,730	9
32	0602010105700	3.85	2.89	2,888	9
TOTAL		164.09	123.07	123,068	392

*The calculated parcel ERU was rounded down to the nearest whole number with a minimum of 1 ERU.

2.0 CAPITAL CONTRIBUTION BASIN REPORT

In consideration of the Basin-Specific Capital-Expansion Expenditure to fund the Qualifying Expansion Project, MetroConnects is within their authority to assess a Basin-Specific Capital Contribution to each Developable Parcel within the associated drainage basin. This section outlines the approach to allocate a Basin-Specific Capital Contribution based on a prorated percentage of related construction costs.

2A Per-ERU Capital Contribution

MetroConnects' Basin-Specific Capital-Expansion Expenditure was \$1,865,032.50. Woodmont Development's prior contribution of \$223,550.00 reduces the total cost to \$1,641,482.50.

When allocating this cost of over a total of 392 ERUs for all remaining Developable Parcels, the total cost is \$4,187.46/ERU, for the purpose of this report, we will use \$4,187.00/ERU.

2B Allocation of Qualified Expansion Project Costs

Each parcel has been allocated a total Basin-Specific Capital Contribution by multiplying the Per-ERU Capital Contribution by the number of ERUs allocated to each Developable Parcel. A summary of these Basin-Specific Capital Contributions calculations can be found in **Table 3** below.

Table 3 – Basin-Specific Capital Contribution Calculation			
ID	ERU	Cost (\$)/ERU	Basin-Specific Capital Contribution (\$)
1	115	\$4,187	\$481,505
2	71	\$4,187	\$297,277
3	25	\$4,187	\$104,675
4	42	\$4,187	\$175,854
5	2	\$4,187	\$8,374
6	4	\$4,187	\$16,748
7	1	\$4,187	\$4,187
8	2	\$4,187	\$8,374
9	2	\$4,187	\$8,374
10	2	\$4,187	\$8,374
11	4	\$4,187	\$16,748
12	1	\$4,187	\$4,187
13	6	\$4,187	\$25,122

Table 3 – Basin-Specific Capital Contribution Calculation

ID	ERU	Cost (\$)/ERU	Basin-Specific Capital Contribution (\$)
14	5	\$4,187	\$20,935
15	3	\$4,187	\$12,561
16	2	\$4,187	\$8,374
17	22	\$4,187	\$92,114
18	9	\$4,187	\$37,683
19	10	\$4,187	\$41,870
20	13	\$4,187	\$54,431
21	1	\$4,187	\$4,187
22	2	\$4,187	\$8,374
23	1	\$4,187	\$4,187
24	3	\$4,187	\$12,561
25	1	\$4,187	\$4,187
26	7	\$4,187	\$29,309
27	2	\$4,187	\$8,374
28	3	\$4,187	\$12,561
29	6	\$4,187	\$25,122
30	7	\$4,187	\$29,309
31	9	\$4,187	\$37,683
32	9	\$4,187	\$37,683
TOTAL			\$1,641,304

2C Statement for Allocation of Qualified Expansion Project Cost

To summarize, the Allocation of Qualified Expansion Project Costs are based on the following total cost and flows, excluding Woodmont Development:

- Total Project Cost: \$1,641,482.50
- Total Basin Flow: 392 ERUs
- Cost per ERU: \$4,187/ERU

Basin Capital Improvement Plan: HWY 25 Business Park Phase II

The Basin-Specific Capital Contribution Summary can be found in **Table 4** below.

Table 4 – Basin-Specific Capital Contribution Summary		
ID	TM# ID	Basin-Specific Capital Contribution (\$)
1	0602010101500	\$481,505
2	0602010101700	\$297,277
3	0602010102300	\$104,675
4	0602010102500	\$175,854
5	0602010102501	\$8,374
6	0602010102503	\$16,748
7	0602010102800	\$4,187
8	0602010102801	\$8,374
9	0602010102802	\$8,374
10	0602010102803	\$8,374
11	0602010102804	\$16,748
12	0602010102805	\$4,187
13	0602010102806	\$25,122
14	0602010102807	\$20,935
15	0602010102808	\$12,561
16	0602010102900	\$8,374
17	0602010103000	\$92,114
18	0602010103100	\$37,683
19	0602010103101	\$41,870
20	0602010103200	\$54,431
21	0602010103201	\$4,187
22	0602010103202	\$8,374
23	0602010103203	\$4,187
24	0602010103204	\$12,561

Table 4 – Basin-Specific Capital Contribution Summary

ID	TM# ID	Basin-Specific Capital Contribution (\$)
25	0602010103206	\$4,187
26	0602010105100	\$29,309
27	0602010105200	\$8,374
28	0602010105300	\$12,561
29	0602010105400	\$25,122
30	0602010105500	\$29,309
31	0602010105600	\$37,683
32	0602010105700	\$37,683

2D Statement for Collection of Basin-Specific Capital Contribution

MetroConnects shall move forward with the collection of Basin-Specific Capital Contributions (BSCC) in any method as approved by the Commission, in accordance with the Policy for the Recoupment of Basin-Specific Capital-Expansion Expenditures. The BSCC shall be collected by MetroConnects prior to issuing the Plan Approval Letter or Connection Permit, whichever occurs first.