

Clause No. 6 in Report No. 6 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on November 21, 2013.

6

CONSULTANT SELECTION FOR THE REHABILITATION OF SANITARY SEWER LATERALS FOR THE PRIVATE PROPERTY INFLOW AND INFILTRATION PROJECT 73640 – EI12010

Committee of the Whole recommends adoption of the following recommendations contained in the report dated September 30, 2013 from the Commissioner of Environmental Services:

1. RECOMMENDATIONS

It is recommended that:

1. Cole Engineering Group Ltd. be engaged to undertake a condition assessment, detailed design, contract administration and site inspection services related to the Rehabilitation of Sanitary Sewer Laterals for the Private Property Inflow and Infiltration project as outlined in this report, at a fee of \$1,059,095.75 excluding taxes.
2. The Commissioner of Environmental Services be authorized to adjust the contract administration and site inspection fees using the competitive unit price of \$10,100.00 per week, excluding taxes, and not exceeding the Capital Spending Authority.

2. PURPOSE

This report seeks Council authorization to retain engineering services for a condition assessment, detailed design, contract administration and site inspection services related to the Rehabilitation of Sanitary Sewer Laterals for the Private Property Inflow and Infiltration project.

The Region's Purchasing Bylaw requires Council authorization to award Request for Proposals over \$500,000 or when the recommended proponent is not the lowest cost. In this case, the recommended proponent has submitted the lowest cost; however, their bid is greater than \$500,000.

3. BACKGROUND

Local remediation pilot projects on public infrastructure successfully provided inflow and infiltration reduction

As part of York Region's comprehensive Inflow and Infiltration Reduction Strategy, this project will focus on private property inflow and infiltration sources. Potential sources of inflow and infiltration from private property will be identified and rehabilitated, restoring sewer capacity and extending the life of the sanitary sewer system.

Sanitary sewer evaluation work, completed in 2010, identified the need for inflow and infiltration remediation projects. Eight inflow and infiltration public side remediation projects were completed in late 2012 at a cost of approximately \$6 million. Remediation included relining of approximately 12 km of mainline sewers, 162 point and surface repairs and rehabilitation of 375 maintenance holes in the Towns of Aurora, Newmarket, Richmond Hill, Whitchurch-Stouffville, East Gwillimbury and Georgina. Modelling analysis results from four of the eight projects in the Towns of Aurora, Newmarket and Richmond Hill showed a total reduction of 1514 cubic metres per day in a 25 year storm event. The remaining four project areas are currently under review.

Industry Best-In-Class review estimates that more than 60 percent of inflow and infiltration originates from private property

To date, Regional and local municipal inflow and infiltration remediation projects have focused on identifying and reducing flows that originate from public infrastructure within the right-of-way. However, inflow and infiltration flows from private sources are common throughout all municipalities within the Region.

Based on similar systems across North America and findings from our Industry Best-In-Class review, it is estimated that more than 60 percent of all inflow and infiltration originates from private property sources. All agencies contacted during development of the Strategy revealed that reducing flows from private property is necessary for successfully reducing inflow and infiltration. Examples of private property inflow and infiltration sources include broken sewer laterals, cross-connected down spouts, cross-connected sump pumps and uncapped cleanouts. This project will focus on sewer lateral repairs.

The intent of this Regionally funded program is to assist with developing a suite of wastewater system evaluation and remediation tools and techniques that will be used once the audit and flow monitoring program is implemented. As deficiencies in the system are found, the Region and local municipalities will have the knowledge and capability to respond. These tools and techniques will be refined over time so that system management can be successfully implemented in all municipalities.

This project will involve inspection of sanitary sewer laterals from the street mainline sewer up to the house foundation using closed captioned television (CCTV). Any damaged or faulty laterals will be recommended for repair and relining.

Approximately 3000 properties will be investigated and the work will occur in the same catchment areas as the previous 2012 public side projects to provide a comparison of private versus public inflow and infiltration reduction benefits. Rehabilitation will be based on the status of the lateral and the home owner's acceptance to participate in the project. Catchments selected are located in seven local municipalities, as follows:

- Town of Aurora (see *Attachment 1*)
- Town of Georgina (see *Attachment 2*)
- Town of East Gwillimbury (see *Attachment 3*)
- Town of Richmond Hill (see *Attachment 4*)
- Town of Newmarket (see *Attachment 5*)
- Town of Whitchurch-Stouffville (see *Attachment 6*)
- City of Vaughan (see *Attachment 7*)

A separate pilot project to reduce inflow and infiltration through remediation of downspouts and sump pumps will be conducted in the Township of King and the City of Markham.

York Region and the local municipalities have a joint responsibility to implement the Inflow and Infiltration Reduction Strategy. This project is dependent on continued participation and collaboration with local municipalities in developing and delivering the Strategy for public and private infrastructure. Reducing inflow and infiltration on private property is one part of the Strategy which is required to achieve overall system reductions. Additionally, local municipalities are required to implement new design and commissioning standards, report growth and development data to maintain accuracy of the All-Pipes sewer model, and update municipal bylaws.

Pre-qualification process completed to retain consultant for engineering services

In 2013, in accordance with the Region's Purchasing Bylaw, a consultant pre-selection process (RFPQ P-13-103) was used to pre-qualify consultants with experience in rehabilitation of sanitary sewer laterals. Eight firms were pre-qualified to provide engineering services for the Private Property Inflow and Infiltration project:

- AECOM Canada Ltd.
- BluePlan Engineering Consultants Limited
- Cole Engineering Group Ltd.
- Conestoga-Rovers & Associates
- Robinson Consultants Inc.

- Stantec Consulting Inc.
- URS Canada Inc.
- XCG Consultants Ltd.

Based on the information provided in the formal response to RFPQ P-13-103, the above eight firms were invited to submit a proposal in response to Request for Proposal P-13-48 for Consulting Services for Rehabilitation of Sanitary Sewer Laterals for the Private Property Inflow and Infiltration project.

4. ANALYSIS AND OPTIONS

Request for Proposal P-13-48 issued to eight pre-qualified engineering firms

In accordance with the Region's Purchasing Bylaw, Request for Proposal P-13-48 for the Rehabilitation of Sanitary Sewer Laterals for Private Property Inflow and Infiltration project was issued to eight pre-qualified engineering firms in September 2013.

Request for Proposal P-13-48 detailed the scope of work required, which included the following services:

- Project management, planning and control
- Condition assessment
- Detailed design and tendering
- Procurement of approvals
- Construction contract administration and site inspection services
- Quality assurance and quality control

Pre-qualified consultants were invited to submit proposals for the assignment through a Request for Proposal that was advertised electronically on *Biddingo.com* and on through the Region's Bids and Tenders notification system. The following seven pre-qualified consulting firms submitted proposals for this assignment:

- AECOM Canada Ltd. (AECOM)
- Cole Engineering Group Ltd. (Cole)
- Conestoga-Rovers & Associates (CRA)
- Robinson Consultants Inc. (RCI)
- Stantec Consulting Inc. (Stantec)
- URS Canada Inc. (URS)
- XCG Consultants Ltd. (XCG)

BluePlan Engineering Consultants Limited opted not to submit a proposal.

Proposals evaluated using two-envelope system

Proposals were evaluated using the two-envelope system with technical and financial information submitted in two separate envelopes. The overall proposal score was evaluated based on a weighting of 80 points for the technical proposal and 20 points for the financial proposal. Technical proposals were evaluated prior to any knowledge of financial information.

The Region’s proposal evaluation team reviewed seven technical proposals based on the following criteria as listed in Request for Proposal P-13-48:

- Corporate experience with inflow and infiltration projects
- Project manager experience with inflow and infiltration projects
- Key and technical staff/sub-consultant experience with inflow and infiltration
- Project understanding
- Project approach methodology
- Project schedule, work plan and deliverables
- Project management approach
- Value added/innovative concepts related to reducing inflow and infiltration
- Implementation of quality assurance and control process
- Approach to health and safety

Technical components of the proposal must achieve a minimum technical score of 60 percent (48 points out of the potential 80 points) to have the financial portion of the proposal considered. If a proponent does not achieve this minimum technical score, their financial proposal is returned unopened. Technical and financial results are summarized in Table 3.

Table 3
 Consultant Proposal Evaluation Summary

Consulting Engineering Firm	Technical Score (out of 80)	Total Fee (\$) (excluding taxes)	Financial Score (out of 20)	Total Score (out of 100)	Dollar Cost Per Technical Point
Cole	58.50	1,059,095.75	20.0	78.50	18,104.20
CRA	63.15	1,201,553.61	17.63	80.78	19,026.98
RCI	62.70	1,769,888.00	11.97	74.67	N/A
AECOM	61.60	1,699,845.38	12.46	74.06	N/A
URS	52.95	1,205,404.67	17.57	70.52	N/A
XCG	52.95	1,231,811.00	17.20	70.15	N/A
Stantec	59.05	2,814,317.00	7.53	66.58	N/A

Evaluation of proposals revealed Cole Engineering Group Ltd. achieved the lowest cost per technical point

Although Cole did not achieve the highest overall score, they were within five points of the highest overall score achieved by CRA. As required by the Purchasing Bylaw, where two or more bidders are within five points of the highest overall score, a “dollar cost per technical point methodology” calculation was completed. Results of this calculation, as shown in Table 1, determined that the proposal submitted by Cole represents the best overall value to the Region. The proposal submitted by Cole demonstrated a clear understanding of project requirements and critical timelines imposed by regulatory agencies and provided an experienced team committed to working with Regional staff.

Supplies and Services Branch reviewed the evaluation summary and issued their report confirming that Cole be recommended as the successful overall proponent to undertake the condition assessment, design, contract administration and site inspection services for the Rehabilitation of Sanitary Sewer Laterals for the Private Property Inflow and Infiltration project.

Link to Key Council-approved Plans

The Inflow and Infiltration Reduction Strategy has direct links to the Regional 2011 to 2015 Strategic Plan. More specifically, the Strategic Priority Area focussing on financial management stipulates a key objective is to investigate private property subsidy and grant programs for lateral rehabilitation, downspout and foundation drain removal, review alternatives, establish funding impacts and potential funding sources. A key indicator of success for this objective is the decrease of inflow and infiltration in Regional and local systems.

5. FINANCIAL IMPLICATIONS

The fee for this proposed work is \$1,059,095.75 excluding taxes. Adequate Capital Spending Authority is included in the approved 2013 Inflow and Infiltration Reduction Budget to award this assignment.

The total private side remediation program budget is estimated at \$10 million. The lateral repair project will not exceed \$7 million, but costs will be adjusted based on the results of the condition assessment and private property owner participation in this program.

Fees for this proposed work include contract administration and site inspection services for an estimated duration of 140 days (28 weeks). The proposal includes competitive unit prices for contract administration and site inspection services. In this case, the unit price is \$10,100.00 per week, which staff deem acceptable for this type of project.

Should the actual duration of construction increase, as determined by the detailed design and specified in the tender documents, it is recommended that the Commissioner of Environmental Services be authorized to adjust the fee accordingly by the amount of \$10,100.00 per week excluding taxes, and not exceeding Capital Spending Authority.

6. LOCAL MUNICIPAL IMPACT

Local municipalities will play a lead role in consulting with residents and facilitating work on private property. To ensure smooth project implementation, local municipal staff will be involved in evaluating feasibility of rehabilitation technologies and in the selection of recommended solutions as part of the stakeholder consultation process. Stakeholder engagement will continue throughout the design and construction phases. The schedule for completing this work will be developed in coordination with local municipal staff and homeowners.

A risk management strategy and a detailed communication strategy will be developed for the project with key mitigation measures to be implemented at all locations to minimize impacts to residents and businesses in general vicinity of the work.

York Region and the nine local municipalities are actively involved in the Inflow and Infiltration Reduction Strategy program and experience gained in these pilot projects will be shared across all municipalities.

7. CONCLUSION

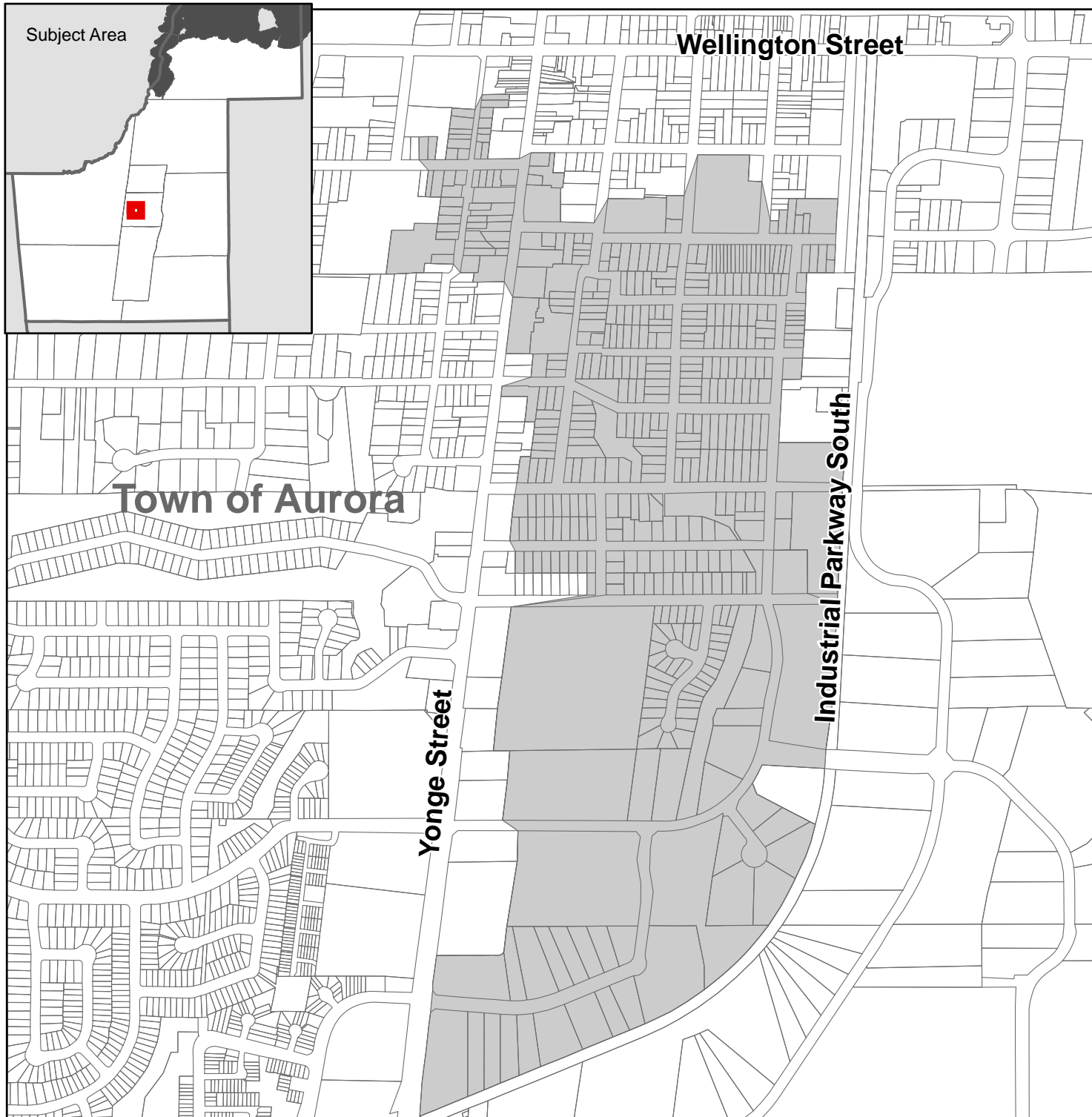
Seven proposals were received and evaluated for this project in accordance with the Region's Purchasing Bylaw. The Proposal from Cole Engineering Group Ltd. represents the best value for money to the Region.

It is recommended that Cole be engaged to undertake the condition assessment, design, contract administration and site inspection services for the Rehabilitation of Sanitary Sewer Laterals for the Private Property Inflow and Infiltration project at a cost of \$1,059,095.75 excluding taxes.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at extension 5070.

The Senior Management Group has reviewed this report.

(The seven attachments referred to in this clause are attached to this report.)

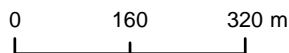


Catchment Area AU01

Consultant Selection for the Rehabilitation of Sanitary Sewer
 Laterals for the Private Property Inflow and Infiltration
 Project - 73640 - E112010
 Report of the Commissioner of Environmental Services,
 November 14, 2013

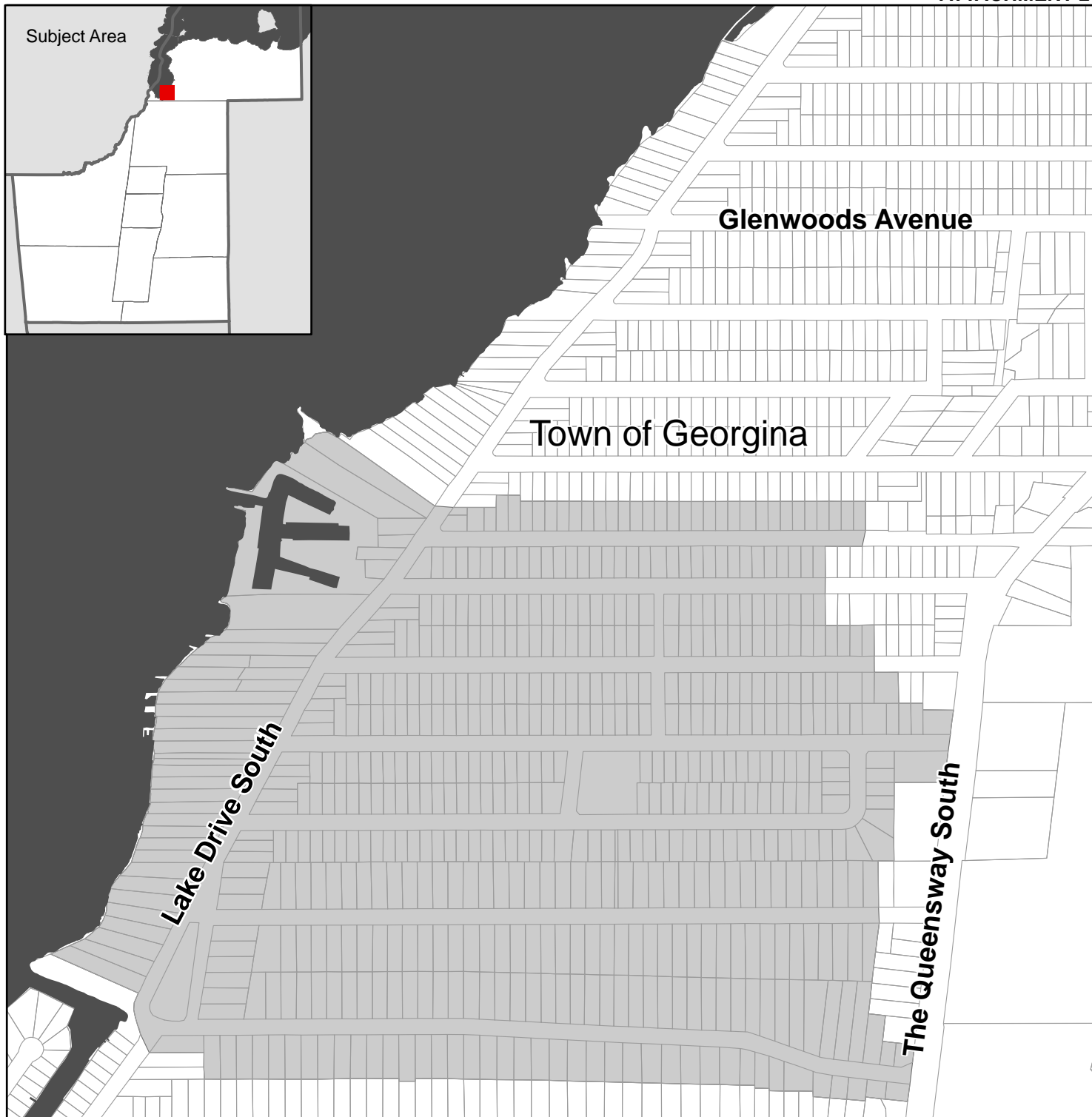


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Legend

 Catchment Area

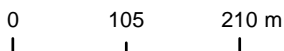


Catchment Area KE04

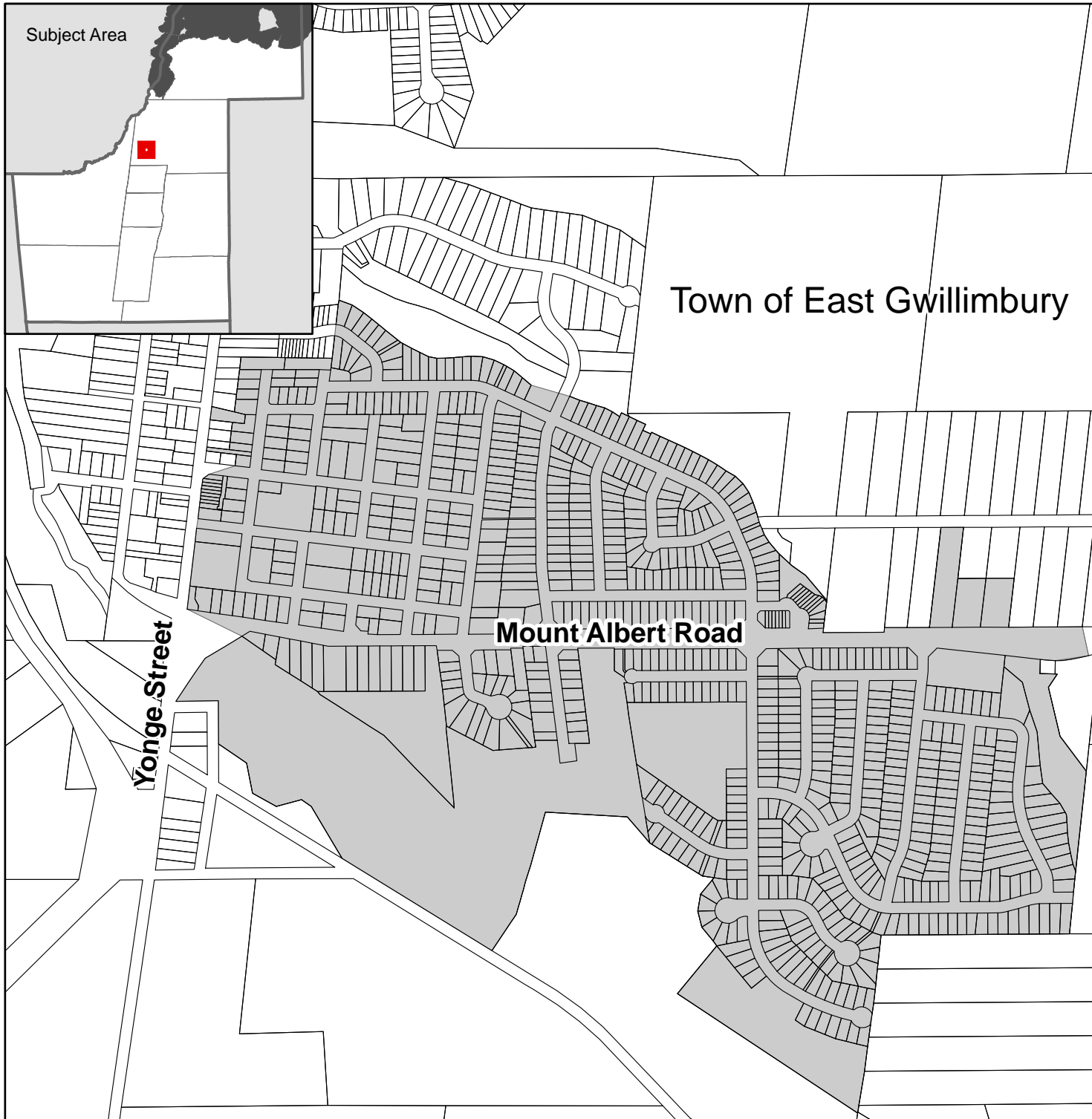
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 Catchment Area



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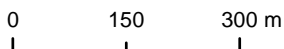


Catchment Area HL01

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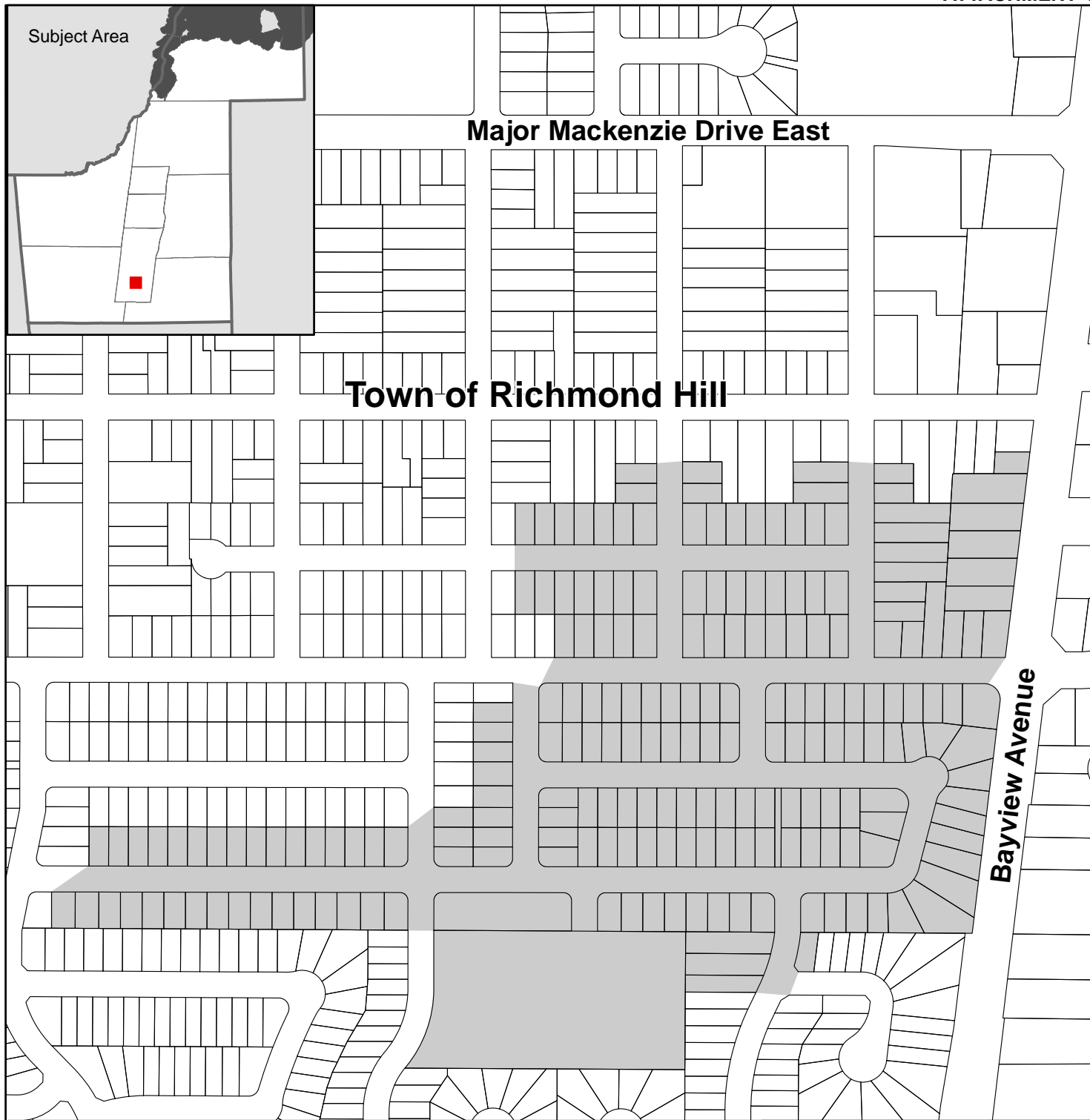


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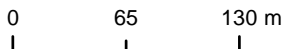


Catchment Area RH10

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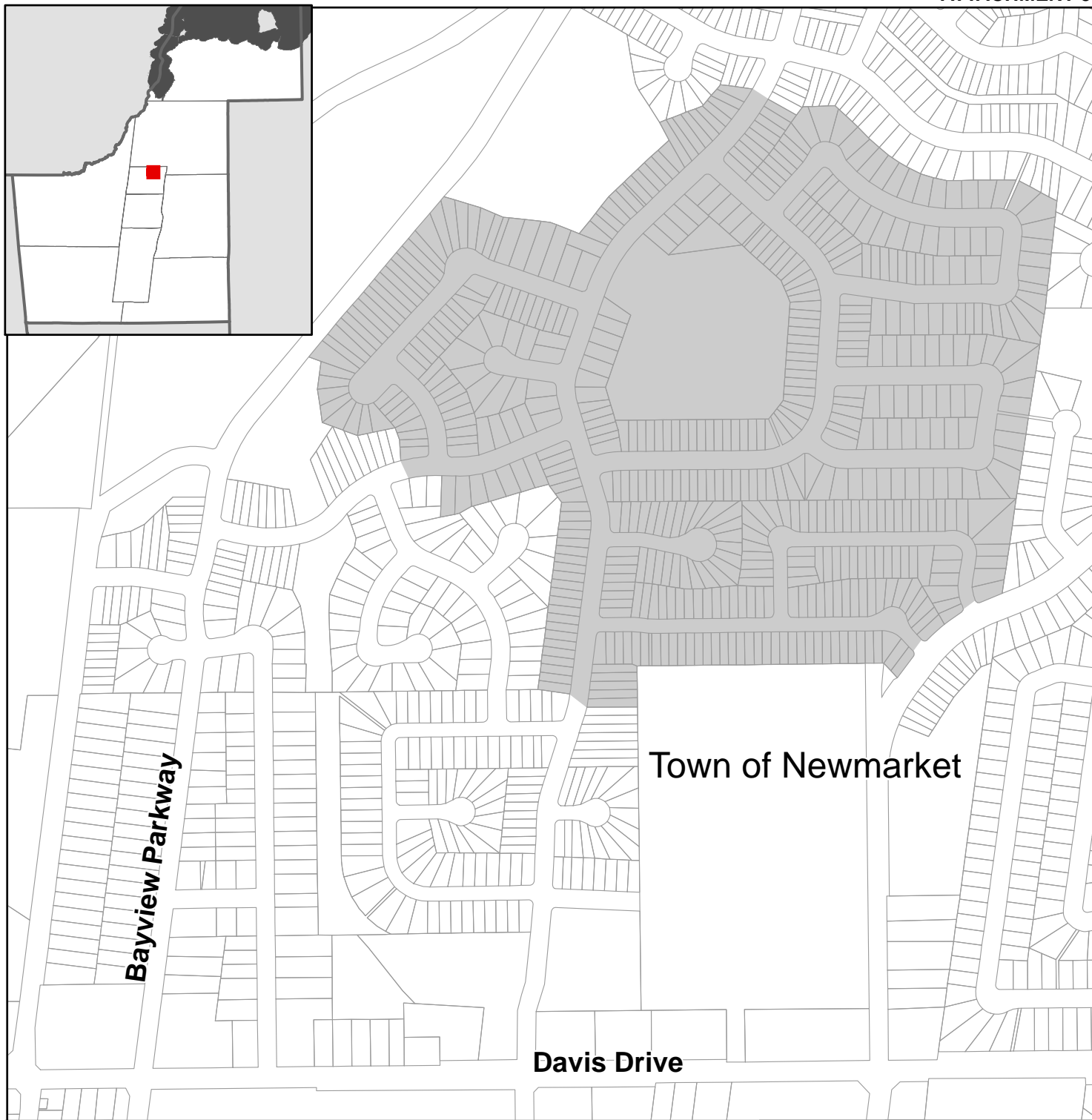


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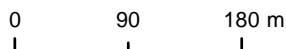


Catchment Area NE06

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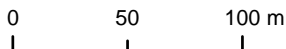


Catchment Area ST02


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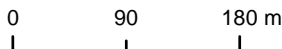


Catchment Area KL02


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