



2020 06 26

Momentum Realty

216 20353 64th Ave, Langley, BC V2Y 1N5

**Subject: Langley Mixed Commercial Industrial Site Feasibility Study, Langley B.C.**

Dear Mr. Macys:

WSP Canada Inc. (WSP) welcomes the opportunity to provide Momentum Realty with a feasibility study for the offsite civil engineering services on the above noted parcels located north of 86 Avenue in Langley B.C. At WSP we are passionate about making cities better places for people to live. We are excited to have the ability to help shape the future of growth in our communities. We are passionate about what we do and we have skills and the expertise to deliver.

## 1. PROJECT SCOPE

The Feasibility Study includes an estimate of the required offsite civil engineering services for mixed use commercial in the Willoughby Neighbourhood in Langley B.C.. The site is approximately 4.82 acres (1.95 Ha.). The Township of Langley has a planned servicing concept for this area and employs a collection of Development Cost Charges (DCC's) and that the developer front-end the construction costs of new servicing infrastructure.

## 2. ROADWAYS

The planned development for the Willoughby neighbourhood requires a collector road through these two parcels. It is anticipated that this will be a requirement for development of the parcels.

## 3. STORM

The Willoughby Stormwater Management Plan was used to determine servicing requirements for the parcel. The site generally drains from east to west and is bisected by Latimer Creek. The storm system within the SMP drains to Latimer Creek and ultimately through to Surrey and Mud Bay. All new developments are required to follow the Master Drainage Plan which consists of a series of interconnected community based drainage ponds that must be constructed within the catchment. The detention pond within this area has been constructed as per the MDP and will service the site. The onsite design should include water detention/infiltration systems to treat the water with controlled discharge to the offsite detention pond on 86 Avenue. See Figure A for reference.

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## 4. SANITARY

The Willoughby Neighbourhood is broken up into smaller sub catchments, the parcels are located in the Carvolth area. The site is readily serviceable by a 250mm sanitary main along 86 Avenue which then connects to a pump station along 196 Street. Site sewer can run by gravity south to this 250 main. See figure B for Reference.

## 5. WATERMAIN

The Carvolth area is serviced by the metro Vancouver transmission main. The existing watermain system is partially developed within the site area with a 250mm watermain on 86 Avenue. The planned upgrades for the water network includes a 250mm watermain within the proposed roadway that is planned to run through the two parcels. It is anticipated that to service the site, the 250mm watermain extension would require construction along with the roadway. See figure C for reference.

## 6. SUMMARY

In general, offsite servicing is readily available with the construction of the proposed roadway intersection extending 198A Street north. Gravity sanitary and storm mainlines should be installed from 86 Ave north within this proposed roadway. A 250mm watermain is also required within the roadway. The collector road extends offsite to 86 Avenue approximately 35m.

Roadway Construction (surface and typical boulevard grading with street trees):	\$75,000
Sanitary Tie in from 86 Ave to property line:	\$20,500
Storm Tie in from 86 Ave to property line:	\$52,000
Watermain tie in from 86 Avenue to property line:	\$30,000
<b>Total Estimated Offsite Cost:</b>	<b>\$177,500</b>

- Assumes no signalization required at new intersection
- Shallow utilities services not included in estimate
- Offsite grading and stripping not included



Thank you for the opportunity to submit this study. Feel free to contact the undersigned, or we would be pleased to meet with you at your convenience, if you have any questions regarding this proposal. We look forward to hearing from you.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'LK'.

Lori-Lynn Gregoire, Eng. L.  
Senior Project Manager

WSP ref.: 201-06543-00

Figure 40. Existing Servicing Plan: Drainage.



FIGURE A

Figure 38. Existing Servicing Plan: Sanitary.

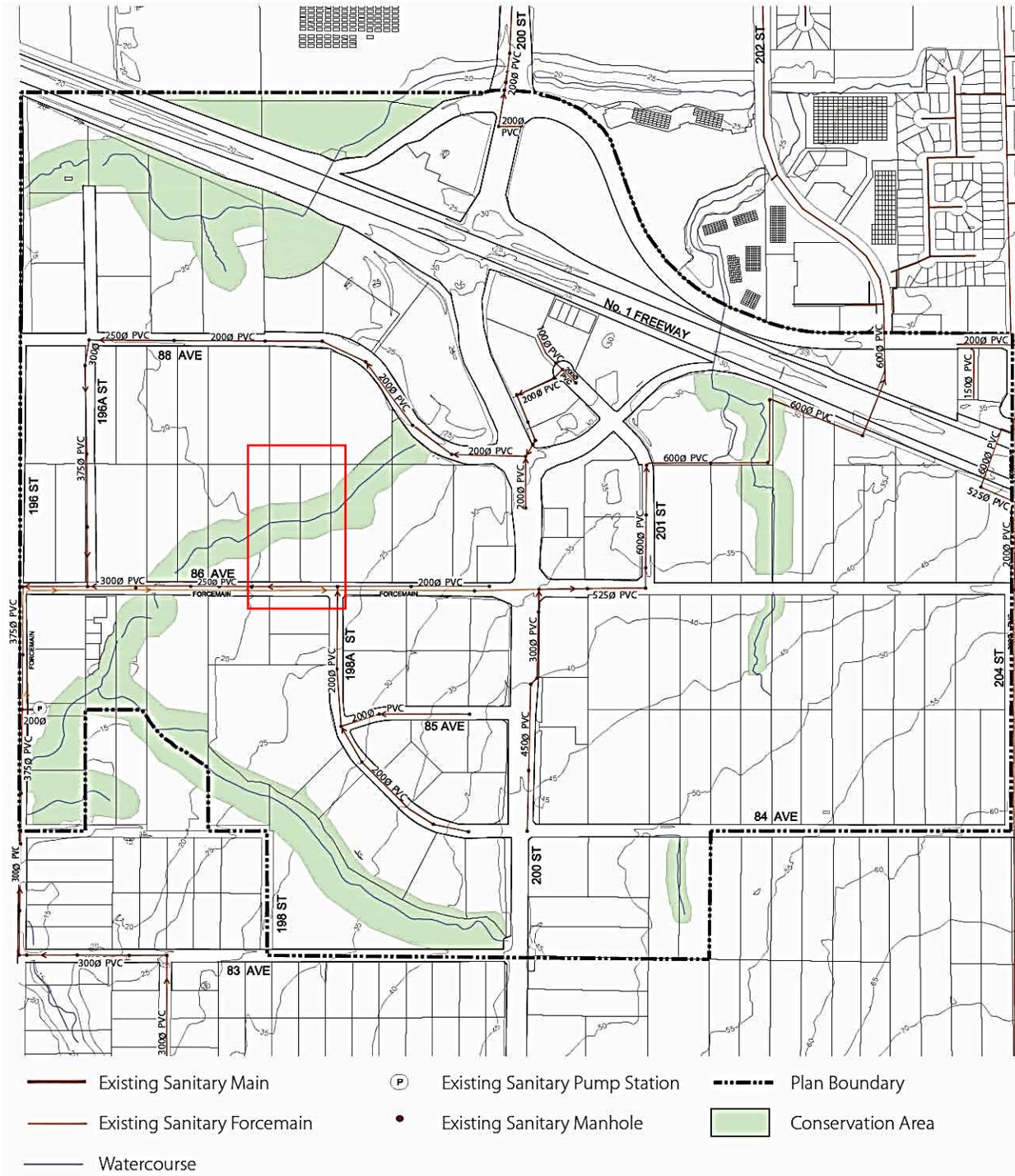


FIGURE B

Figure 36. Existing Servicing Plan: Water.

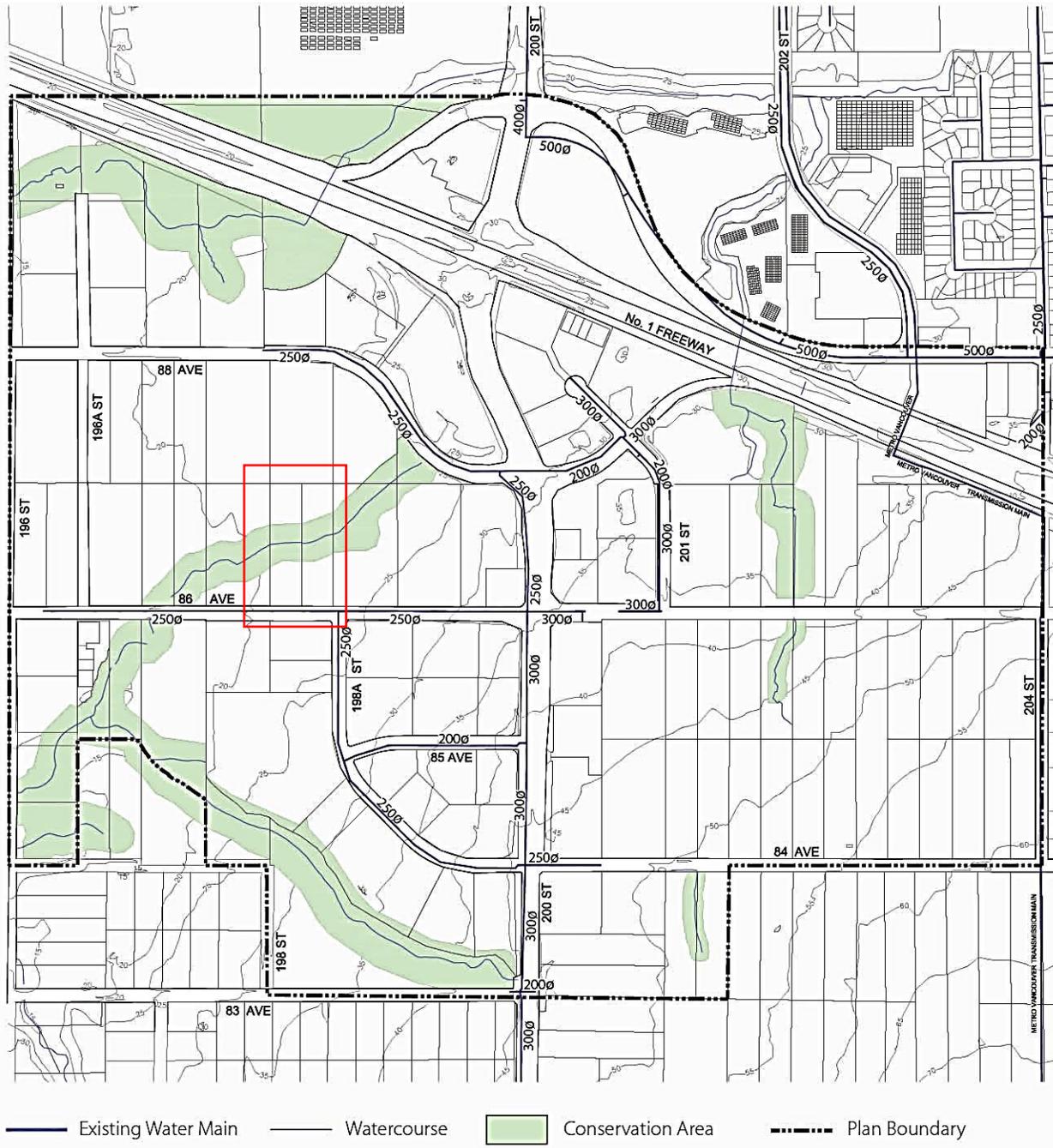


FIGURE C