



PUBLIC WORKS ADVISORY COMMISSION

AGENDA

CITY OF LANGLEY

Wednesday September 9, 2020 at 3pm

112 Second Street
P.O. Box 366
Langley, WA 98260
(360) 221-4246

Join Zoom Meeting

<https://us02web.zoom.us/j/84170434301?pwd=K1laUHd1dnVRQmgzbnE5UmR5NHRTQT09>

Meeting ID: 841 7043 4301

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One tap mobile

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Call to Order:

Approve Agenda: Add/ Delete/Change Items

Approve Meeting Minutes: Regular Meeting 8/12/2020

Old Business:

1. Randi- LIP-Noble Creek storm upsize is not in Comprehensive Storm Plan.

New Business/ Discussion:

1. LIP-Basis of Design report

Citizen Comments

Announcements

Adjourn

Current Projects:

~~1st Street Sidewalk-Complete~~

Langley Infrastructure Project, LIP-Phase 1- Existing Site Condition & Feasibility analysis

Water Comprehensive Plan – response to DOH

~~Consumer Confidence Report (Annual-Required by EPA)-Complete~~

Upcoming Projects 2020:

~~Saratoga Road (Debruyne to City Limits): Full Depth Recycle- Postponed due to funding~~

LIP-Phase 2- Design Development and Construction Documents

Sandy Point Owners Association Contract Renewal-November 2020

2020 PWAC GOALS:

Sewer Rates align with Water

Establish Criteria & Update Sewer and Water Participation



MEMORANDUM

Date: SEPTEMBER 02, 2020
To: Public Works Advisory Commission
From: Langley City Staff
Re: Davido Consulting Group LIP Basis of Design

This memo provides a summary of Davido Consulting Group's Basis of Design Report - *Langley Utility Improvements_Feasibility BOD Draft_20200901* and provides staff recommendation for moving into PHASE 2-Design and Bid Documents of the Langley Infrastructure Project.

Phase 1 of The Langley Infrastructure Project (LIP) began in March 2020. The goal for Phase 1 is to investigate existing site conditions and conduct sub-project feasibility analysis. Davido Consulting Group utilized specialized subconsultants to assess environmental critical areas, geotechnical, archaeology, arborist and topographic survey within the project area. The information gathered through those disciplines were used to produce a Basis of Design Report and project base mapping. The Basis of Design report identifies challenges that may require a change in construction approach, elements likely to be more expensive than original estimates, identify longer lead-time due to permitting, and discuss environmental concerns.

Four individual LIP projects are ready to move through 30% benchmark design with minor considerations. Those projects are the 4th street sewer (LIP-7), 3rd street sewer LIP-8), 6th street water main (LIP-9) and Island View water main (LIP-11). The remaining projects have several hurdles, that need to be considered and/or addressed to get to 30% design benchmark and beyond.

ALTERNATE CONSTRUCTION METHODS

Tree health and preservation was voiced by the public through out Phase 1 as a high concern. Staff received 23 individual email inquiries regarding the arborist report. Many areas of potential impact were discussed and are apparent in the base mapping found in the Basis of Design Appendix B.

- Trenchless methods of construction are being considered in 6 LIP projects for the purpose of tree protection.
 - o Open trenching with air spading allows the ability to physically see which roots are preserved or damaged.
 - o In general, trenchless methods are safer and less destructive, although underground damage may still occur and remain unknown.
 - o For pipe bursting or CIPP lining methods specifically, a temporary parallel system may be needed during construction to minimize customer water service outage.

Trenchless technologies in this capacity have the potential to increase costs by two to three times that of conventional means.

- Trenchless techniques used for sewer is a repair method, rather than complete replacement. CIPP (cured in place pipe) has a 50-year life expectancy vs. replacement cost of 100-year life expectancy. More information is needed to determine if this method can be used in combination with open-cut spot repairs.

- Phase 2 will require the addition of a trenchless design consultant. The arborist and environmentalist will also be brought back in for consultation to identify appropriate techniques and coordinate strategy for each area. This future analysis will clearly delineate the additional costs of tree protection.

PERMITTING

- It has been identified that Army Corp of Engineering Permits will be required to move forward with construction. **This may cause significant schedule delays.** It is not expected to have a huge budget implication associated with it.
- SEPA determination will be needed to cover most of the proposed work.
- In Phase 2 the impacts to creeks (Brookhaven and Noble) will be determined and associated permitting identified (could trigger WDFW, 404, HPA).
- Stormwater Management Manual for Western Washington (SWMMWW) Minimum Requirements 1-9, Treatment (MR6) and Flow control (MR7) may be triggered in some areas. There may be cost implications in providing these upgrades.
- Coordination with Island County will be required to determine what permits will be needed for Water and Storm improvements on Edgecliff east of Furman.
- For regulations and permitting requirements related to bald eagle nests, coordination is needed with WDFW, DNR, DOE, and NHP.

OVERVIEW - PROJECT HURDLES

<p>Island View</p> <p style="text-align: center;">Water main only</p>	<ul style="list-style-type: none"> - Project ready to move forward - Chip seal is in poor condition. Full pavement and base course removal recommended – ADD COST- no funding source currently available.
<p>Al Anderson (6th to Suzanne Court)</p> <p style="text-align: center;">Sewer repair/replace only</p>	<ul style="list-style-type: none"> - High groundwater table – Dewatering groundwater can have significant cost implications. <ul style="list-style-type: none"> o Research combined methods replacement/CIPP method to be investigated o Specialty contractor-trenchless - Bald eagle nesting-schedule implications - If sewer replacement is chosen full road width pavement grind and overlay
<p>6th Street (Park-Cascade)</p> <p style="text-align: center;">Watermain replacement Sewer main-2 sections Storm Improvements Pathway (Southside)</p>	<ul style="list-style-type: none"> - Water line should be shifted to one lane or the other for future safety of crews. - Anticipated pathway design meandering on the southside to avoid conflicts -utility poles, hydrants, utility boxes, trees - Blue heron rookery seasonal, WDFW recommends all construction activity be limited during nesting (February-September) - <i>ROW status unknown From Creekside Terrace East to Cascade. Construction dependent on resolution.</i> - Wetlands <ul style="list-style-type: none"> o Direct impacts to wetlands B, C, D, and creek-associated due to pathway, Army Corp Permit and mitigation anticipated. - Potential creek impacts to be determined in Phase 2. - Specialty Contractor for potential sewer trenchless work. - E40-E38 discovered an upper and lower sewer line and MH E39 may have been abandoned. - CODE Deviation- Restoring existing width doesn't follow LMC Code requirements of 42' including parking. <ul style="list-style-type: none"> o Original CIP estimated pavement grind/overlay southern ½ only. NOTE: LIP-9 included 12' grind/overlay. o Trench patching with full road width grind/overlay proposed. - Park to Al Anderson – eagle's nest limitations - Pathway ADA standards- potential ADD COST

	<ul style="list-style-type: none"> - Retaining wall will likely be required - <i>Original CIP proposed only south half storm improvements. ADD COST for matching catch basins and minor storm laterals with curbs.</i>
<p>4th Street (Anthes to Cascade)</p> <p style="text-align: center;">Water Sewer 1-section</p>	<ul style="list-style-type: none"> - Sewer-ready to move forward - Utility separation conflicts - North ½ Road is on private property from Brookhaven access east to Cascade. <i>Right of way or easement acquisition required. Construction of water main dependent on resolution.</i> - Tree risk- Potential conflicts identified <ul style="list-style-type: none"> o Specialty Contractor, alternate construction method ADD COST
<p>Edgecliff (Camano- Furman) Decker (Sandy Point- Edgecliff) Furman (Sandy Point – Edgecliff)</p> <p style="text-align: center;">Water Sewer Extension Stormwater Extension</p>	<ul style="list-style-type: none"> - Creek associated wetland buffer impacts anticipated, goal to avoid direct impacts <ul style="list-style-type: none"> o Level of impact to be confirmed in Phase 2 o If direct, Army Corp permitting likely to drive schedule - Bald Eagle Nest <ul style="list-style-type: none"> o Possible schedule issues (January-August) - Tree Risks <ul style="list-style-type: none"> o Specialty contractor, alternate construction method ADD COST o Roots limit alternate utility placement options. - Parallel system may be needed to minimize service disruption. - EDGECLIFF <ul style="list-style-type: none"> o Pavement width 22' (LMC – deviation) Utility disturbance restoration. o <i>Raise Roadway to get sewer cover over Noble Creek (creek impacts not anticipated)</i> - Decker – Pavement width to 20' from 17'/18', utility disturbance restoration. - Furman – Pavement width to 16', utility disturbance restoration. <ul style="list-style-type: none"> o <i>Utility cul de sac spur not included in the original CIP.</i>
<p>Edgecliff (Furman- Wilkinson)</p> <p style="text-align: center;">Water Stormwater</p>	<ul style="list-style-type: none"> - Tree risk- Potential conflicts identified <ul style="list-style-type: none"> o Specialty Contractor, alternate construction method ADD COST - Current watermain alignment unknown. - Wilkinson tie-in location needs to be investigated. - Island County Coordination <ul style="list-style-type: none"> o Stormwater outfall & Waterline (possible) - Wetland buffer impacts anticipated, goal to avoid direct impacts <ul style="list-style-type: none"> o Level of impact to be confirmed in Phase 2 o If direct, Army Corp permitting likely to drive schedule - Pavement width from 16'/19' to 22' <ul style="list-style-type: none"> o <i>Original CIP included grind and overlay for ½ width of street for LIP-5. Full road width restoration proposed – ADD COST.</i> o <i>Original CIP (LIP-5) included extruded curb on only one side of road. ADD COST for curbs on both sides.</i> o Trench patch only specified for waterline in LIP-13 (water utility fund). - Critical areas noted along bluff- Geotech and Arborist oversight necessary. Property owner coordination needed for access and final surface restoration.

STAFF RECOMMENDATION: Split Phase 2 into subsections: 2a- deliverables to include updated cost estimates and 30% benchmark prior to moving into 2b-full design and bid documents.