Jim’s Crescent
Proposed Cowichan Bay Sewer Expansion
Public Meeting - February 28, 2019

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Agenda

1. CVRD & Cow Bay Sewer 101
2. Process & Timeline
3. Design Options
4. Financial Obligations
5. Summary & Questions

CVRD 101

Other Forms of Government

- Flexibility to Allocate Funds Between Systems

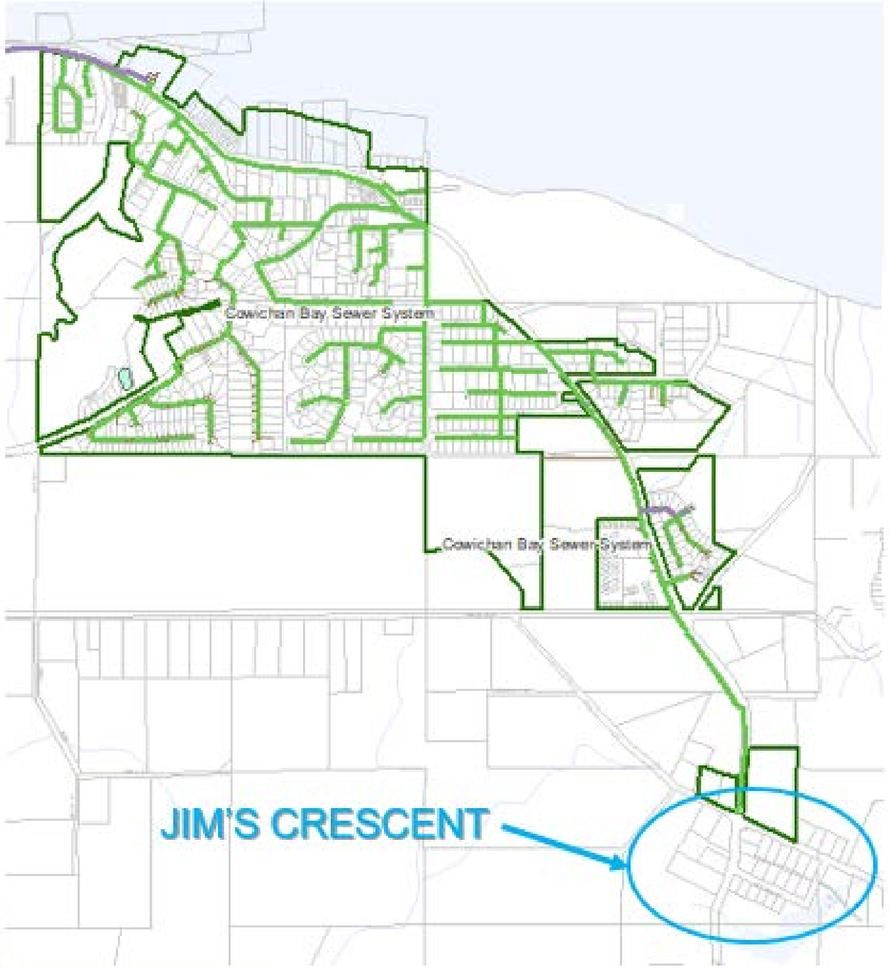
Regional Districts

- Limited Flexibility to Allocate Funds

Operation & Maintenance + Upgrades & Expansion + Reserve Funds = System Customers

CVRD

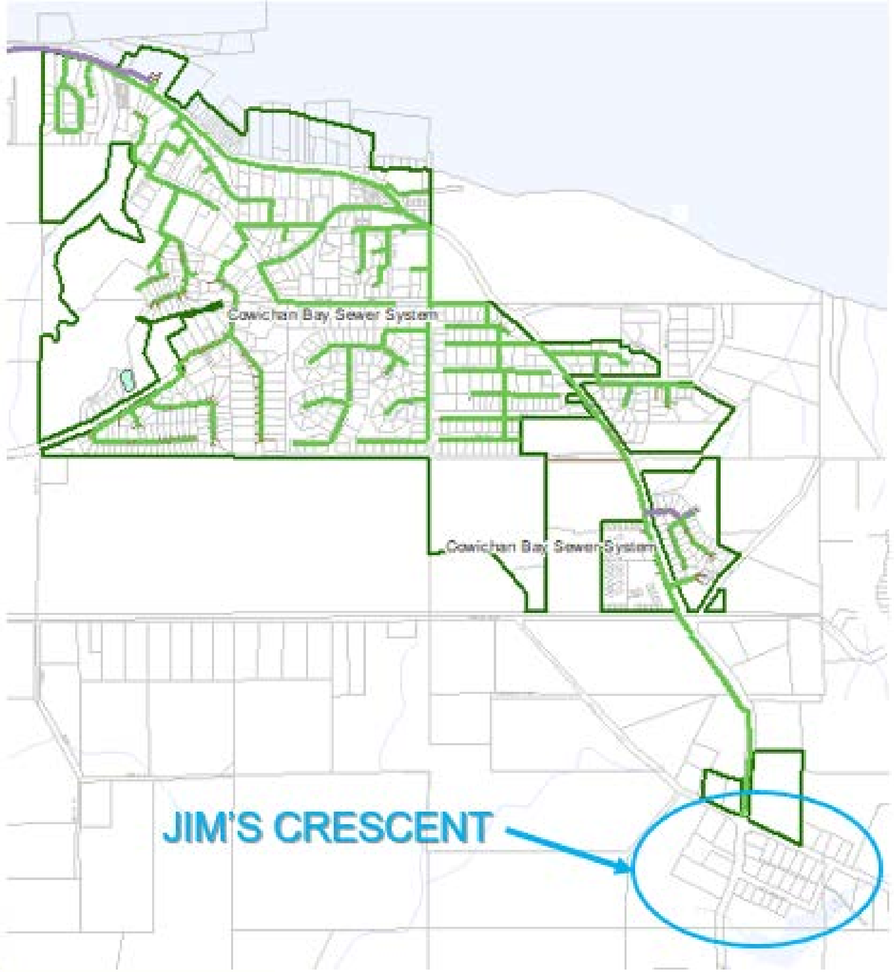
(CBS) Cowichan Bay Sewer System



- Constructed 1972
  Gravity, Pump Station, Pressure, JUB
- Annual Rates $550 (820 Users)
  Parcel Tax $290, User Fee $260
- 3rd Party Assessment
  Rated 5/10
  Recommended Annual Rates $959
  Available on CVRD Website

CVRD

System Obstacles & Limitations



- Capacity - (JUB) Joint Utility Board
  - Limited Sewer Units Allocated
  - Acquire Units?
- Maintenance & Upgrades Req'd
  - Age Deterioration
  - (I&I) Inflow & Infiltration
  - Pumping Capacity – Modeling Required

CVRD

Official Community Plan (OCP)

- **Aligned with OCP**
  - Identified as Potential Sewer Service
  - Subdivision East Also Included
- **Design**
  - Capacity For Future Development
- **Late Comers Agreement**
  - Potential Partial Expenses Recovery

CVRD

Process & Timeline

CVRD

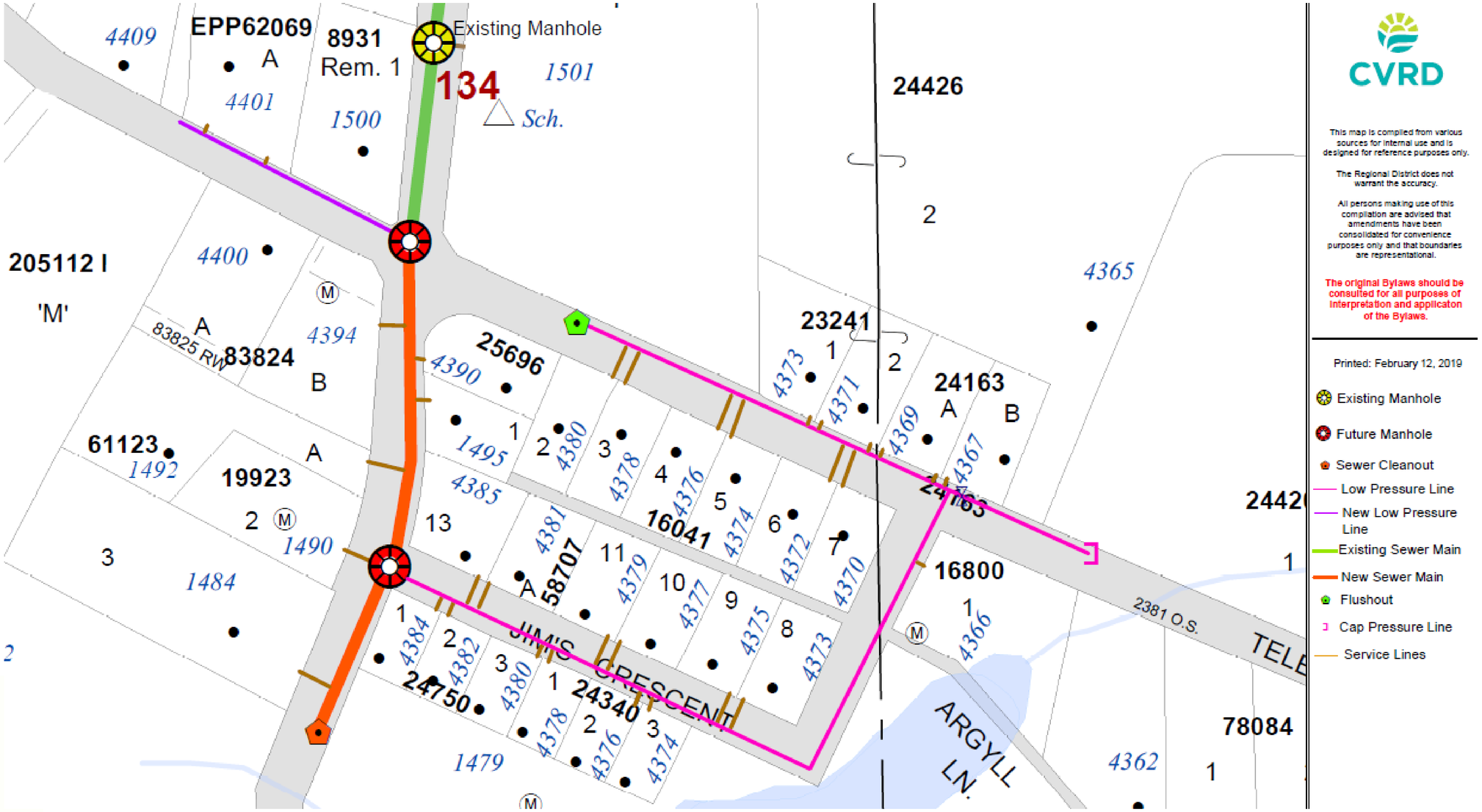
Design Options

1. Low Pressure System (STEP/Grinder Pump)

- Solids Separated/Ground On Property
  (Privately Owned Septic Tank/Grinder Pumps)
- Low Pressure Main
- Gravity Main
- Existing Cow Bay Sewer Infrastructure

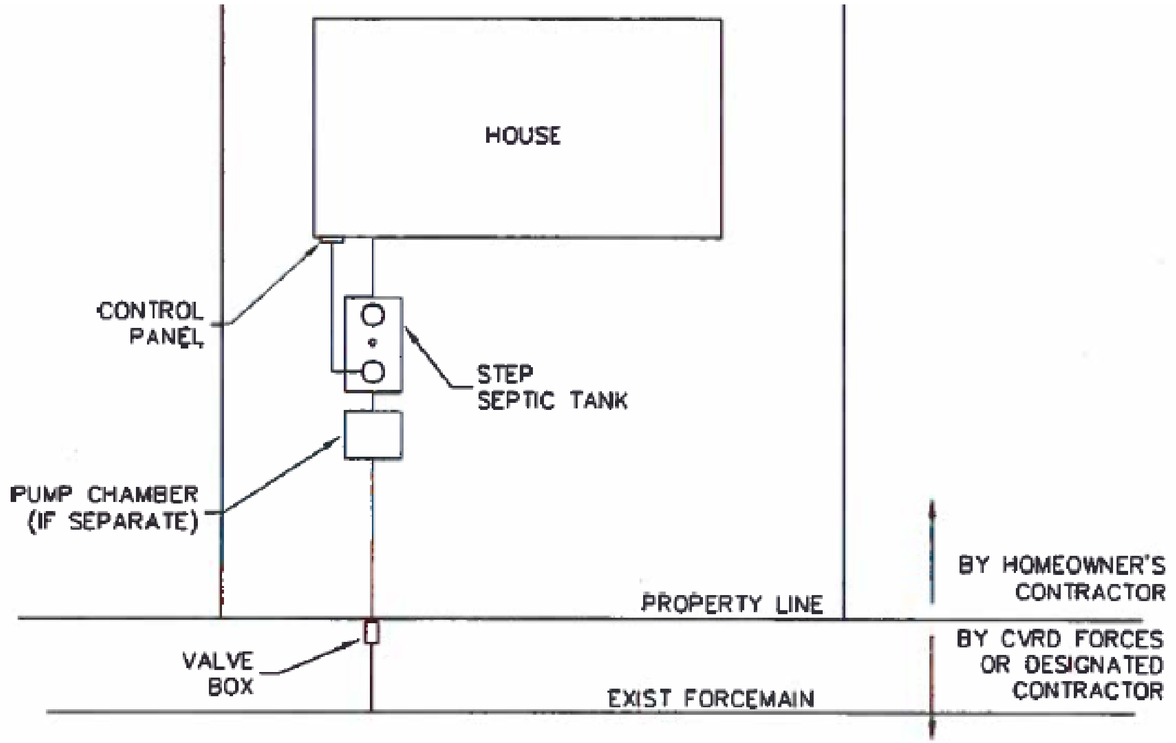
CVRD

1. Low Pressure System

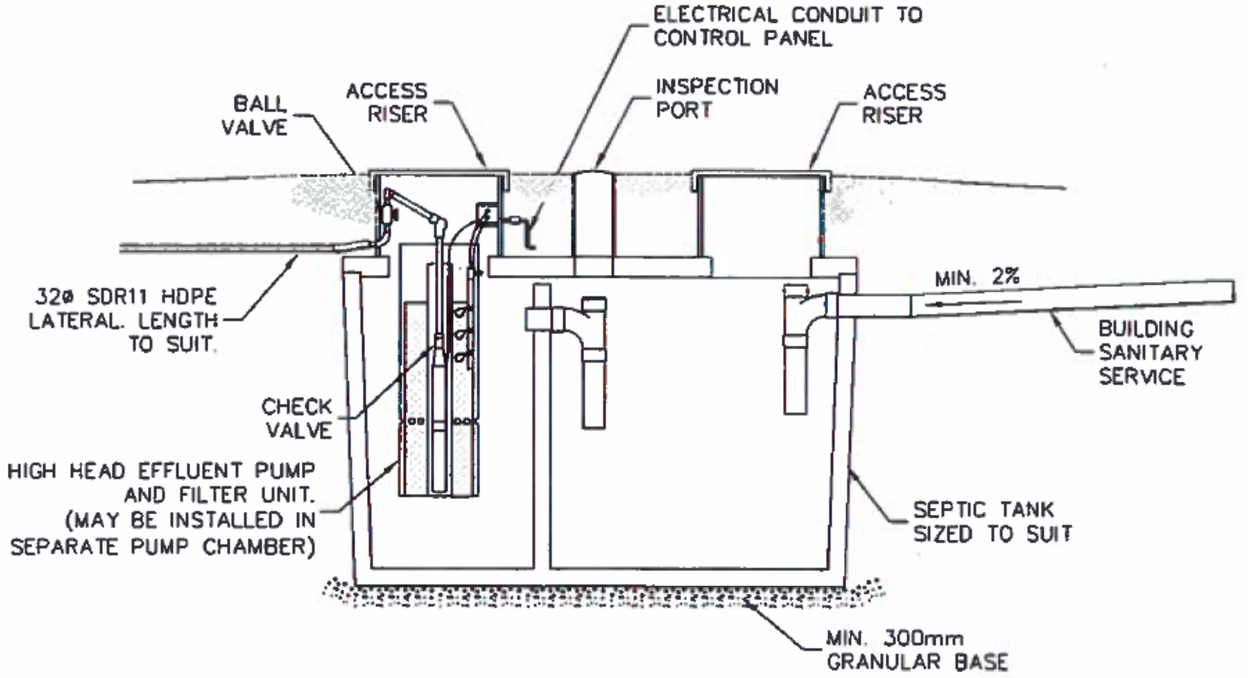


CVRD

STEP System



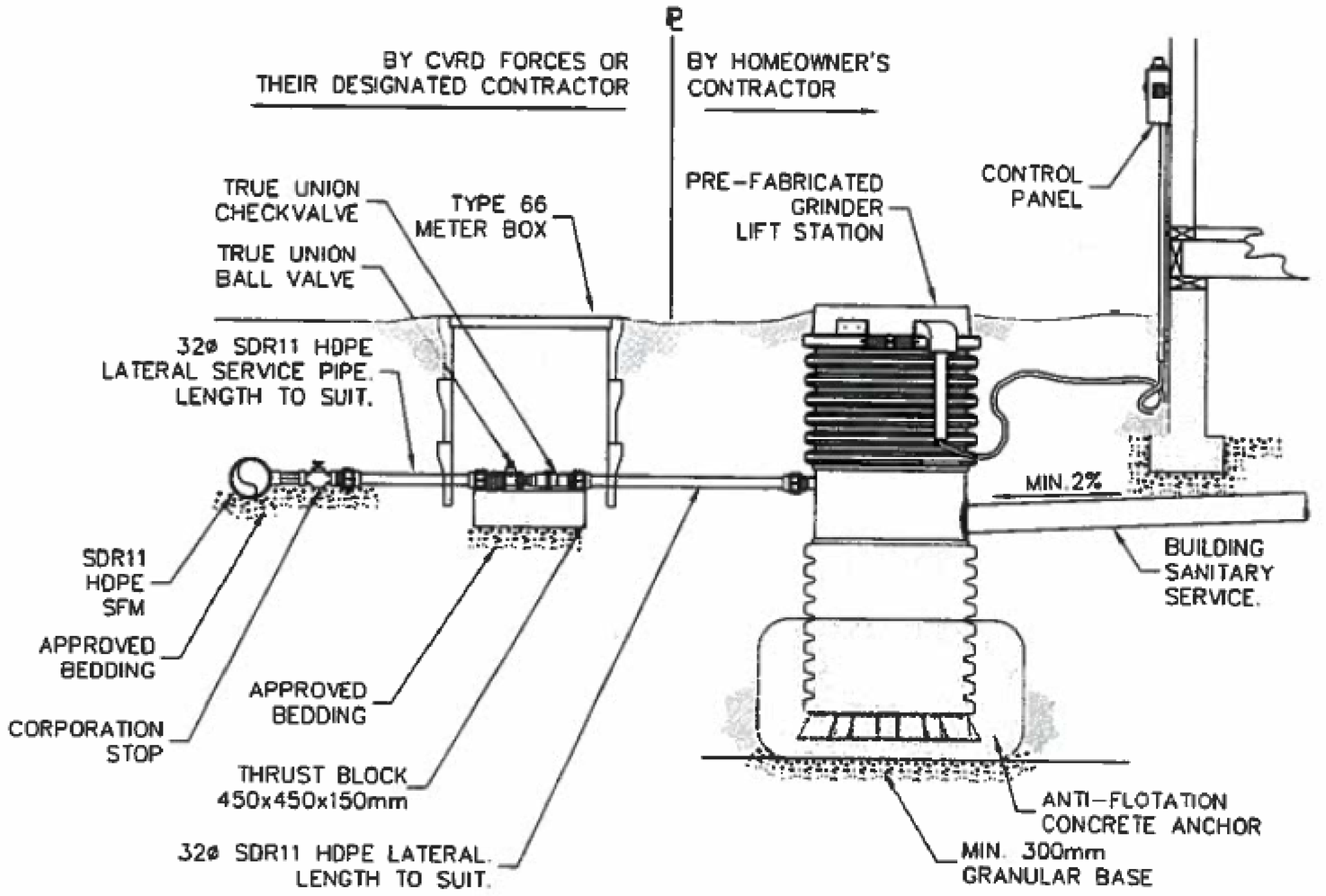
TYPICAL STEP SYSTEM LAYOUT
NTS



TYPICAL STEP SYSTEM INSTALLATION
NTS

CVRD

Grinder Pump



TYPICAL GRINDER PUMP INSTALLATION

NTS

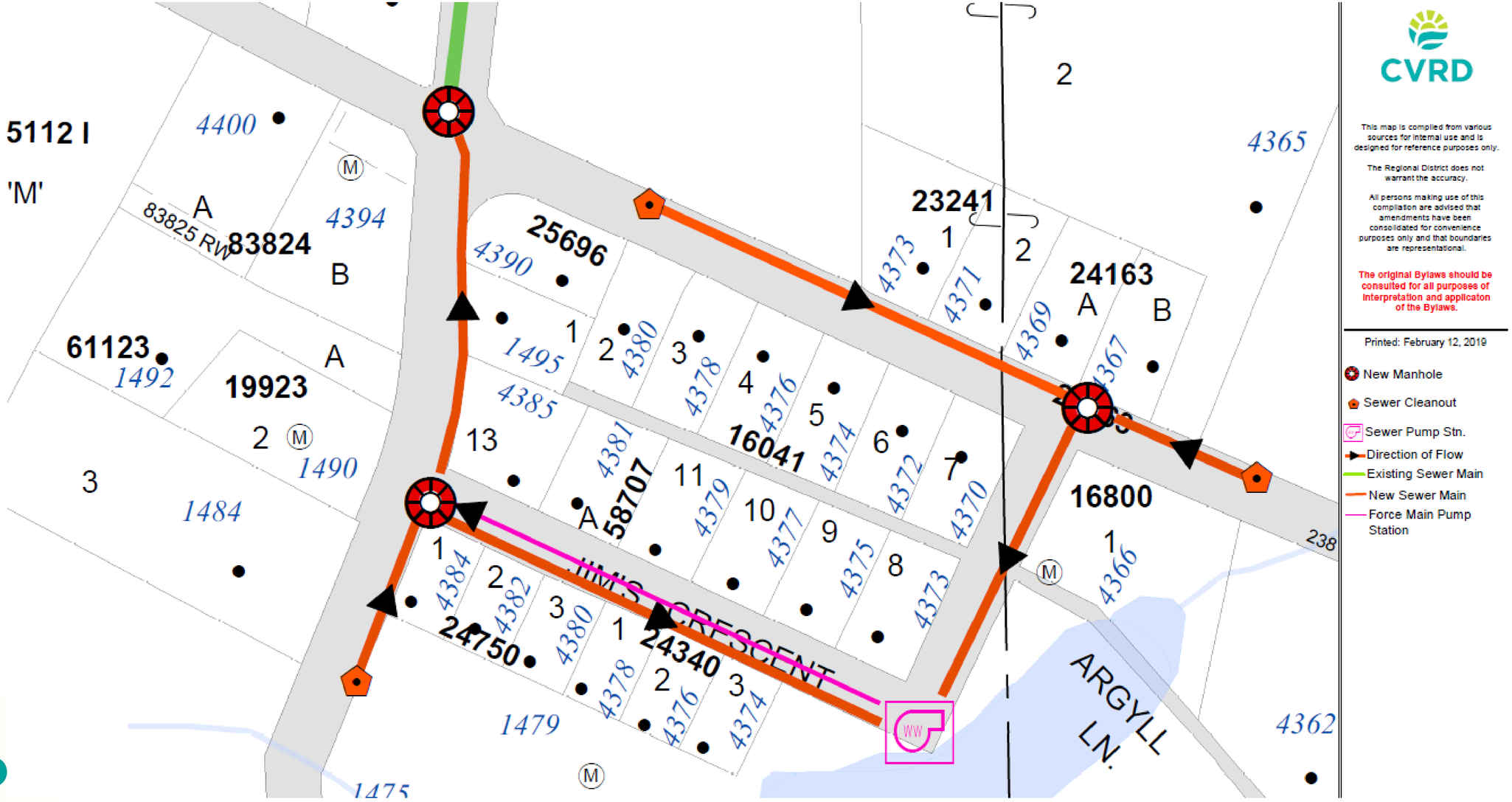
Design Options

2. Gravity System (Lift Station)

- Wastewater Collected by Gravity Main at Property
- Lift Station
- Force Main to Manhole
- Gravity Main
- Existing Cow Bay Sewer Infrastructure

CVRD

2. Gravity System



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Financials - Option 1

Option 1 - Low Pressure System w/ STEP & Ginder Pumps:

610	lin m (Low Pressure) @	**$**	**300**	**/m**	$ 183,000.00	
240	lin m (Gravity) @	**$**	**425**	**/m**	$ 102,000.00	
Sub-Total					**$ 285,000.00**	
Engineering Cost (Add 15%)						$ 42,750.00
Contingency (Add 20%)						$ 65,550.00
Sub-Total						**$ 393,300.00**
GST (Add 5%)						$ 19,665.00
Total Estimated Cost						**$ 412,965.00**

CVRD Responsibilities:	Customer Responsibilities:
Infrastructure on CVRD Property (excludes: service connection, tanks, & pumps)	Infrastructure on Private Property (includes: service connection, tanks, & pumps)

CVRD

Financials - Option 2

Option 2 - Gravity w/ Lift Station:

220	lin m (Low Pressure) @	**$ 300**	**/m**	$ 66,000.00	
850	lin m (Gravity) @	**$ 425**	**/m**	$ 361,250.00	
1	Lift Station @	**$200,000**		$ 200,000.00	
Sub-Total				**$ 627,250.00**	
Engineering Cost (Add 15%)					$ 94,087.50
Contingency (Add 20%)					$ 144,267.50
Sub-Total					**$ 865,605.00**
GST (Add 5%)					$ 43,280.25
Total Estimated Cost					**$ 908,885.25**

CVRD Responsibilities:	Customer Responsibilities:
Infrastructure on CVRD Property (excludes: service connection)	Infrastructure on Private Property (includes: service connection)

CVRD

How Do We Pay For It?

Create Debt Service Area

Secure Funding (MFABC)

Annual Payments (Property Tax)

How Much Will It Cost? (Option 1)

Assuming...

- 3.5% Interest Rate
- 20 Year Amortization

$1580(est.)/year/house

- CBS System Fees
  $550/year/house
- Borrowing Costs
  $1030/year/house

- Connection Fee
  $5600/house
- Privately Owned Components
  STEP: $15,000(est.)/house
  Grinder: $10,000(est.)/house
- JUB Unit Acquisition
  (Unknown)

CVRD

How Much Will It Cost? (Option 2)

Assuming...

3.5% Interest Rate

20 Year Amortization

$2815(est.)/year/house

CBS System Fees
$550/year/house

Borrowing Costs
$2265/year/house

Connection Fee
$5600/house

JUB Unit Acquisition
(Unknown)

CVRD

Summary

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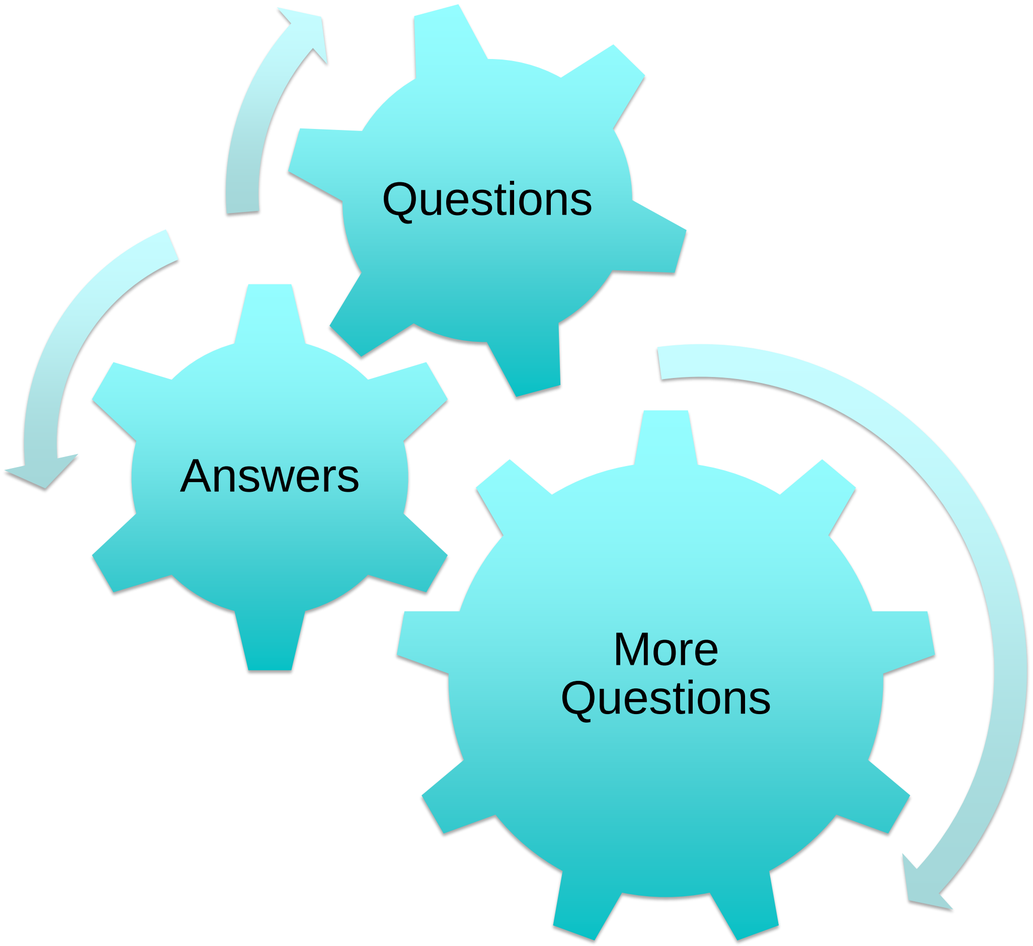
Questions



Test Vote

What is the combined age of the CVRD representatives?

- A = 141 years
- B = 153 years
- C = 134 years

Vote

Do you support the Jim’s Crescent sewer expansion, assuming a grant is available to fund a substantial proportion of the cost?

- A = Yes
- B = No

CVRD

Vote

Do you support the Jim’s Crescent sewer expansion, assuming a grant is not available?

- A = Yes
- B = No