OPUS STEWART WEIR

Lamont County

Industrial Heartland South Basin District Levy Report

Schedule "A" to Bylaw 739.14 Utility Potable Water
Bylaw 740.14 Transportation

Amended April 2014

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Table of Contents

Introduction

1.1 General

Lamont County has identified the Lamont Industrial Heartland South Basin District area as being a prime location for Medium Industrial development and is currently seeing growth into the area. This area is identified in the Alberta's Industrial Heartland Area Structure Plan.

It is expected that growth and development of these industrial lands will generally create some impact on the municipal infrastructure systems. Lamont County acknowledges that development requires an extension of municipal services such as water and roadways. As growth and development occur within the Lamont Industrial Heartland South Basin District, Lamont County will require the municipal infrastructure systems to be expanded to satisfactorily accommodate such growth. The planning horizon for the identified municipal improvements is a 20 year growth horizon.

Lamont County anticipates that development will be responsible for its own municipal infrastructure as well as for its proportionate share of the off-site infrastructure from which it will benefit. This is achieved through the assessment of Development Levies against the individual developers.

In September of 2013 Opus Stewart Weir completed a Transportation Master Plan and in January of 2014 Opus Stewart Weir Ltd. completed a Utility Master Plan outlining the servicing requirements for the continued development of the Lamont Industrial Heartland South Basin District area. This report is prepared for Lamont County identifying the projects that would be considered to be paid by a Levy and establishing the Levy rate for Lamont Industrial Heartland South Basin District area. The proposed levy rates are for the expressed capital infrastructure costs attributed the anticipated new development growth.

1.2 Legislative Authority & Process

Municipalities are authorized to implement and collect offsite levies through the Municipal Government Act (MGA), Division 6, Sections 647-649.

Lamont County implements its authority by establishing a bylaw which provides detailed offsite levy objectives and calculations. The bylaw is then applied to specific developments through a Development Agreement.

Lamont County will require all developers to enter into a Development Agreement. Within the Development Agreement the County will indicate the various service fees, securities or agreements that are required to support the approval of the development and the required offsite levy payments. The County will require these payments to be made at the time of entering into the agreement and prior to the issuance of the subdivision or development approvals.

Further or different offsite levies, duly enacted by Bylaw, on any portion of the Development Lands in respect of which the County has not collected the offsite levies imposed under Bylaws supported by this Report or any previous offsite levy bylaw authorized by statute are not precluded by the County.

Lamont County has a limited water distribution system in place that currently services three existing developments. One of the existing water customers does not have a permanent service connection as the current service is provided from the adjoining development property's private water service line.

With the exception of the two existing developments there is currently no municipal water distribution infrastructure in place. All identified lands outside these developments would be benefiting lands for the water distribution lines proposed within the Utility Master Plan and this Report. The existing industrial developments will see benefit from the planned construction as the proposed water line looping will ensure quality of potable water standards are maintained. The planned for water distribution network will be a closed system that will not see benefits outside of the identified benefiting lands.

For the transportation improvements identified within the Transportation Master Plan and this Report acknowledges that existing development and any future development will benefit from the improvements to the existing roads. The existing municipal grid roads where original constructed and primarily serviced local agricultural activities and a small number of existing industrial developments. The planned capital expenses are to see the identified grid roads improved from the standard agricultural grid road to an industrial strength haul road benefitting existing developments and future new developments.

1.3 Limits

The limits of the Lamont Industrial Heartland South Basin District levy application are as illustrated in Figure 1.2.

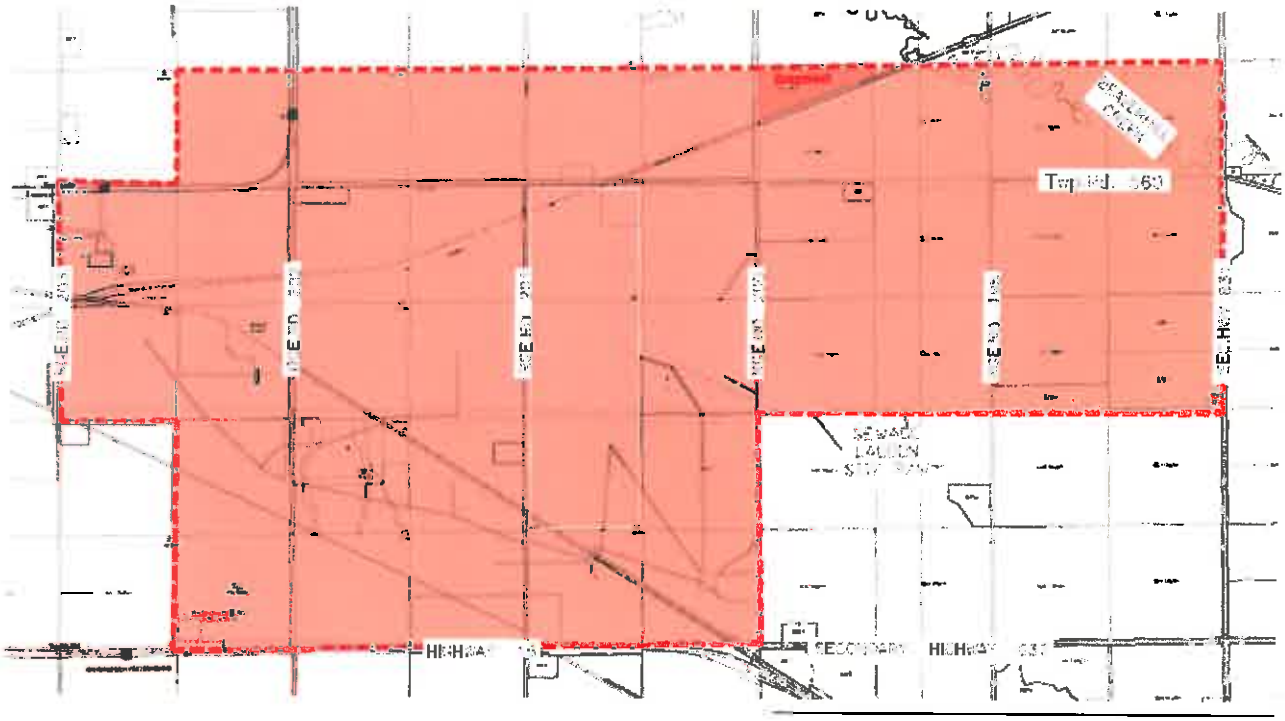

Figure 1.2

1.4 Development Levies

Development levies are defined as the capital cost assessed by Lamont County against subdivision or developing lands for their proportionate share of the costs for municipal infrastructure improvements as constructed by Lamont County or by a developer that benefit the Lamont Industrial Heartland South Basin District area.

The projects associated with the Levy Report are derived from the Transportation Master Plan and the Utility Master Plan documents enacted by Lamont Council. The specific projects identified have had a construction cost estimate prepared by responsible Engineering staff at Opus Stewart Weir. These cost estimates will be reviewed on an annual basis or earlier frequency as requested by Lamont County Council. Adjustments to the Levy rates will be issued at the conclusion of these reviews through an amending bylaw process.

1.4.1 Off-site Levies

Under authority of the Municipal Government Act, Lamont County is permitted to impose Off-site Levies against subdivisions or developments to cover the costs of any or all of the following:

a) New or expanded facilities for the storage, transmission, treatment or supplying of water;

b) New or expanded roads required for or impacted by a subdivision or development;

c) Lands required for or in connection with any facilities described in (a) to (b) above.

1.5 Establishment of Criteria

1.5.1 Off-site Levy Criteria

Lamont County has established the following general assumptions as criteria for the development of levy calculations for the Lamont Industrial Heartland South Basin District.

a) Lamont County will be responsible for the provision of the identified infrastructure systems and facilities which they deem to be a benefit to the County at large and/or a single development property.

b) The Development Levies are generally based on constructing municipal improvements consistent with the requirements identified in the Transportation Master Plan and Utility Master Plan prepared for Lamont County by Opus Stewart Weir.

c) The Offsite Levy rates are expressed on a per hectare basis.

d) Gross Hectare is defined as the total area of a parcel(s) of land irrespective of their potential for development or land use.

e) Gross Developable Area is the same as Gross Hectare. The Offsite levy rates contained in this document are based on Gross Hectare for the subdivision/development being applied for.

f) All costs are estimated in 2014 dollars. These cost estimates should be reviewed annually to reflect current year construction costs.

g) No inflation factor has been applied to future projects to predict their construction cost in future years.

h) Should conditional grants be secured by the County towards a specific project, the project cost will be reduced by the amount of the grant.

Assumptions and/or calculation criteria specific to each offsite levy are further highlighted in more detail within each respective section of this report.

Clarification of intent, when it is stated that the County will continue to assume the responsibility for certain infrastructure systems and facilities which serve more than a single development area although the County accepts this responsibility, each development agreement can define whether the County or the developer designs and constructs these major facilities. If the development agreement establishes that the developer will undertake this work, then the development agreement will also establish the formula and schedule for an endeavour to assist clause for the recovery from other benefiting developments.

1.5.2 Municipal Reserve (MR) Criteria

For any industrial subdivision occurrence within the Lamont Industrial Heartland South Basin District, Municipal Reserve (MR) lands will not be required. In lieu of MR dedication the Developers will be required to pay to the County a sum equal to the fair market value of the MR land dedication as allowed for through the Municipal Government Act.

2 Water Utility

2.1 General

Lamont County's water supply is treated water purchased through the Capital Region Vegreville Corridor Water Services Commission. The treated water is then distributed by the County to its customers through its waterworks system consisting of water storage reservoirs and pumping facilities, and distribution mains.

2.2 Water System Expansion and Financing

Lamont County's position regarding its waterworks system expansion will be that subdivision developments will be responsible, at their entire cost, for the construction of all new distribution mains servicing the proposed subdivision development. Single site developments will be responsible for their own internal distribution service. Primary mains, treated water storage reservoirs and pumping facilities benefit the entire water distribution system and thus, the County has assumed responsibility for their construction. The costs of such facilities are then assessed proportionately against lands through an Off-site Water Levy.

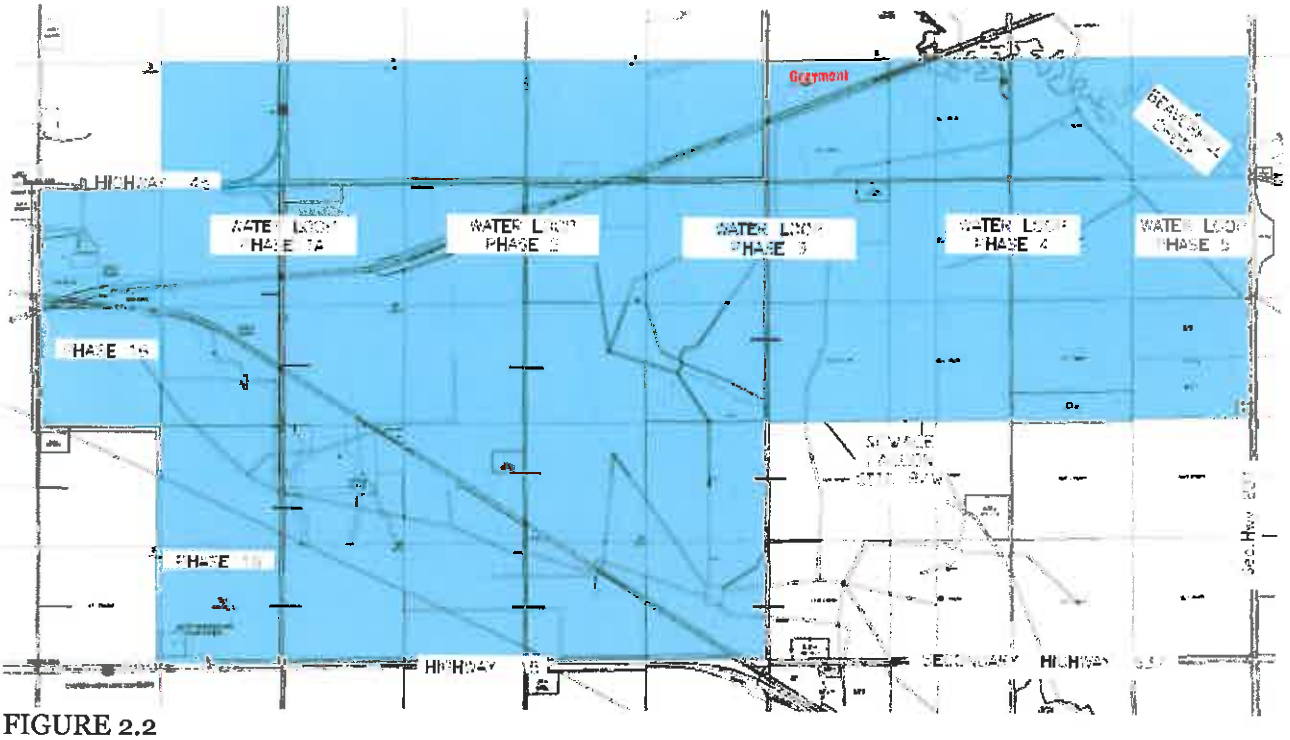

FIGURE 2.2

Within the identified benefiting lands there are three existing water customers. One of these customers receives their water service via a temporary servicing connection provided through the lands of the neighbouring property; the proposed water distribution network is required for providing a permanent water service connection to this one existing development. The proposed water distribution improvements other than stated above are solely due to new development anticipated to occur within the planning horizon for the stated benefiting lands. The existing uses of the identified lands is primarily agriculture that do not connect to any water infrastructure. These lands have been districted as industrial and are anticipated to see future industrial developments to occur within the planning horizon.

Capital improvements to the water supply system operated by the Capital Region Vegreville Corridor Water Services Commission are not included in the County's Water Off-site Levy.

2.3 Water System Levy Development

Basic assumptions were made in the preparation of this report:

a) Water supply would continue to be provided by the Capital Region Vegreville Corridor Water Services Commission who shall continue to be responsible for all capital improvements/expansions to the supply systems; such costs are therefore not included in the calculation of the County's Off-site Water Levy.

b) The County will be responsible for the construction of all primary distribution mains, treated water storage reservoirs and pumping facilities inclusive any land requisitions to complete the installation of the required improvement.

c) Conditional grants, such as those secured from the Provincial or Federal Government programs, will be applied to the specific projects, thereby reducing the overall project cost used in calculating the Water Off-site Water Levy Rate.

d) Unconditional grants, even if applied against waterworks system improvements, will not be considered when calculating the Water Off-site Levy Rate as these funds could have been utilized on other municipal improvements.

Schedule B-1 outlines a cost estimate for the County's portion of each Utility Water project in 2014 dollars, as well as the Utility Water Off-site Levy rate.

3 Road Network System

3.1 General

The principle function of the County grid roads is to provide for the efficient movement of people, goods and services between the primary traffic generating developments to/from residential and supply/service areas of the community. Typically, County grid roads are designed as relatively free-flowing facilities, intersected by other arterial or major collector type roadways. Approach entrances to individual properties will be by County approval and in accordance with the Lamont County General Municipal Servicing Standards. No direct access will be approved for lots contained within an industrial subdivision. Where appropriate the County may require access to be via a service road.

County grid roadways are generally considered to be a greater benefit to the County at large than directly to individual developers. This does not, however, negate developers' responsibility to contribute their proportionate share towards the cost of the identified improvements to the County grid roads, since development is generating the need for these roadway improvements.

3.2 Road Network Levy Development

In conducting this study, it was necessary to make certain assumptions:

a) Arterial roadways included in the Roadway Off-site Levy calculations are those highlighted in Figure 3.2.

b) Arterial roadways will typically be constructed to an ultimate 2-lane, undivided, paved rural structure and are the standards upon which the cost estimates are based.

c) A blanket assessment levy for roads is recommended against all development irrespective of land use.

d) Right-of-ways to facilitate construction of arterial roadways will be acquired through the subdivision development process.

e) Additional right-of-way requirements will be by negotiated purchase.

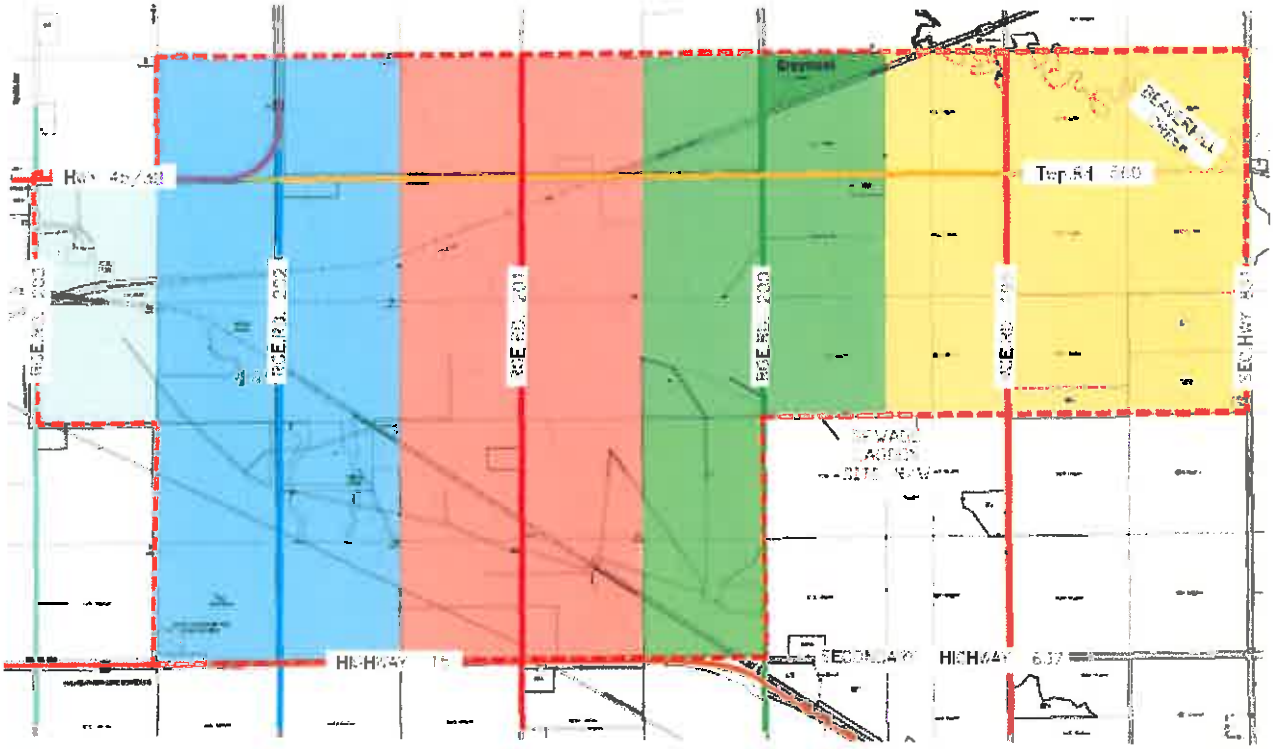

FIGURE 3.2

Schedule B-2 outlines a cost estimate for the County's portion of each arterial roadway in 2014 dollars, as well as the Roadway Off-site Levy rate.

4 Recommendations

Based on the findings of this study, it is recommended that:

a) The levy rate is calculated on the gross hectares of the development area.

b) The Lamont County continues to assume responsibility for the construction of the municipal infrastructure systems which they deem to be of benefit to the County at large.

c) The County maintains its current thinking that development will be responsible for its proportionate share of the cost of municipal infrastructure systems expansion through the assessment of Development Levies against all benefiting lands.

d) Reviewing the Development Levies on a regular annual basis to ensure that the rates are consistent with the overall County funding requirements.

e) The Levy be established as follows:

Total affect area:	2525 hectares
Total water construction costs:	$21,282,453
Total transportation costs:	$49,451,000

Waterworks Levy $8,429.00 / ha

Transportation Levy $19,585.00/ ha

The total Levy be set at $28,014.00/ ha

SCHEDULE B-1

OPUS STEWART WEIR

Project# ED60371 63

Industrial Utility Master Plan

Preliminary Construction Cost Estimate - Phase 1

Lamont County

Prepared by: Opus Stewart Weir

06-Feb-14

Mobilization and De-Mobilization

No	Item	Description	Approx. Qty	Unit	Unit Price	Extension
1	Mobilization and De-Mobilization	Transport all required materials and equipment to and from the site; supply and erect signs and markings to delineate the site; traffic control and diversions; supply and erect site offices; all other initial site works; removal, clearing and restoration upon completion	1	LS	$ 100,000.00	$ 100,000.00
					Subtotal (Mobilization and De-Mobilization)=	**$ 100,000.00**

Water Main

No	Item	Description	Approx. Qty	Unit	Unit Price	Extension
2	200mm dia AWWA PVC C900 Water main	Supply and install 200mm dia. PVC water main in Class 'B' bedding including all trenching, dewatering, thrust blocking, backfilling and compaction to subgrade elevation, and surface restoration. 3m minimum depth of bury.	9656	m	$ 341.25	$ 3,295,110.00
3	100mm dia. AWWA C509 Gate Valve	Supply and install 100mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	5	each	$ 2,625.00	$ 13,125.00
4	200mm dia. AWWA C509 Gate Valve	Supply and install 200mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	2	each	$ 3,150.00	$ 6,300.00
5	200×100×200×100dia. Cross	Supply and install 200×100×200×100 dia. Cross PVC AWWA C900 cross in Class 'B' bedding including all trenching, backfilling and thrust blocking.	1	each	$ 1,680.00	$ 1,680.00
6	200×200×100 dia. Tee	Supply and install 200×200×100 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	3	each	$ 945.00	$ 2,835.00
7	200×200×200 dia. Tee	Supply and install 200×200×200 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	1	each	$ 1,050.00	$ 1,050.00
8	200 dia. Plug	Supply and install200 dia. PVC AWWA C900 plug	2	each	$ 525.00	$ 1,050.00
9	Flush Point	Supply and install Flush Point	1	each	$ 3,675.00	$ 3,675.00
10	Flushing		1	ls	$ 10,500.00	$ 10,500.00
11	Pressure and disinfection testing		1	ls	$ 10,500.00	$ 10,500.00
12	Utilities Crossing		3	each	$ 6,300.00	$ 18,900.00
13	Land acquisition		9.656	hectare	$ 49,420.00	$ 477,199.52
14	Tie into existing Water main	Tie new water main into existing 200 mm dia. watermains, including excavation, locates of existing utilities, supply & installation of necessary fittings at tie-in location such as coupling(s), thrust blocking, bedding, reinstatement of any bedding of any utilities that have been exposed and backfill and compaction and surface restoration.	1	each	$ 12,000.00	$ 12,000.00
					Subtotal (Water) =	**$ 3,853,924.52**

Construction Cost Estimate Summary

Item	Total
Mobilization and De-Mobilization=	**$ 100,000**
Subtotal Water=	**$ 3,853,925**

Sub-Total = $ 3,953,925

Contingency (20%) = $ 791,000

Engineering Fee (12%) = $ 475,000

Total Estimated Construction Cost = $ 4,744,925

OPUS STEWART WEIR

Project# ED60371 68

Industrial Utility Master Plan

Lamont County

Preliminary Construction Cost Estimate - Phase 2

Prepared by Opus Stewart Weir

06-Feb-14

Mobilization and De-Mobilization

No	Item	Description	Approx. Qty	Unit	Unit Price	Extension
1	Mobilization and De-Mobilization	Transport all required materials and equipment to and from the site; supply and erect signs and markings to delineate the site; traffic control and diversions; supply and erect site offices; all other initial site works; removal, clearing and restoration upon completion	1	LS	$ 100,000.00	$ 100,000.00

Subtotal (Mobilization and De-Mobilization)= $ 100,000.00

Water Main

No	Item	Description	Approx. Qty	Unit	Unit Price	Extension
2	200mm dia AWWA PVC C900 Water main	Supply and install 200mm dia. PVC water main in Class 'B' bedding including all trenching, dewatering, thrust blocking, backfilling and compaction to subgrade elevation, and surface restoration. 3m minimum depth of bury.	6510	m	$ 341.25	$ 2,221,537.50
3	100mm dia. AWWA C509 Gate Valve	Supply and install 100mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	12	each	$ 2,625.00	$ 31,500.00
4	200mm dia. AWWA C509 Gate Valve	Supply and install 200mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	11	each	$ 3,150.00	$ 34,650.00
5	200×100×200×100dia. Cross	Supply and install 200×100×200×100 dia. Cross PVC AWWA C900 cross in Class 'B' bedding including all trenching, backfilling and thrust blocking.	4	each	$ 1,680.00	$ 6,720.00
6	200×200×100 dia. Tee	Supply and install 200×200×100 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	4	each	$ 945.00	$ 3,780.00
7	200×200×200 dia. Tee	Supply and install 200×200×200 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	2	each	$ 1,050.00	$ 2,100.00
8	200 dia. Plug	Supply and install200 dia. PVC AWWA C900 plug	2	each	$ 525.00	$ 1,050.00
9	Flushing		1	ls	$ 10,500.00	$ 10,500.00
10	Pressure and disinfection testing		1	ls	$ 10,500.00	$ 10,500.00
11	Utilities Crossing		5	each	$ 6,300.00	$ 31,500.00
12	Land acquisition		6.51	hectare	$ 49,420.00	$ 321,724.20
13	Tie into existing Water main	Tie new water main into existing 200 mm dia. watermains, including excavation, locates of existing utilities, supply & installation of necessary fittings at tie-in location such as coupling(s), thrust blocking, bedding, reinstatement of any bedding of any utilities that have been exposed and backfill and compaction and surface restoration.	2	each	$ 12,000.00	$ 24,000.00

Subtotal (Water) = $ 2,699,561.70

Construction Cost Estimate Summary

Item	Total
Mobilization and De-Mobilization=	**$ 100,000**
Subtotal Water=	**$ 2,699,562**

Sub-Total = $ 2,799,562

Contingency (20%) = $ 560,000

Engineering Fee (12%) = $ 336,000

Total Estimated Construction Cost = $ 3,359,562

OPUS STEWART WEIR

Project# ED60371.03

Industrial Utility Master Plan

Preliminary Construction Cost Estimate - Phase 3

Lamont County

Prepared by: Opus Stewart Weir

06-Feb-14

Mobilization and De-Mobilization

No.	Item	Description	Approx Qty	Unit	Unit Price	Extension
1	Mobilization and De-Mobilization	Transport all required materials and equipment to and from the site; supply and erect signs and markings to delineate the site; traffic control and diversions; supply and erect site offices; all other initial site works; removal, clearing and restoration upon completion	1	LS	$ 100,000.00	$ 100,000.00
					Subtotal (Mobilization and De-Mobilization)=	$ 100,000.00

Water Main

No	Item	Description	Approx Qty	Unit	Unit Price	Extension
2	200mm dia AWWA PVC C900 Water main	Supply and install 200mm dia. PVC water main in Class 'B' bedding including all trenching, dewatering, thrust blocking, backfilling and compaction to subgrade elevation, and surface restoration. 3m minimum depth of bury.	6500	m	$ 341.25	$ 2,218,125.00
3	100mm dia. AWWA C509 Gate Valve	Supply and install 100mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	12	each	$ 2,625.00	$ 31,500.00
4	200mm dia. AWWA C509 Gate Valve	Supply and install 200mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	12	each	$ 3,150.00	$ 37,800.00
5	200×100×200×100dia. Cross	Supply and install 200×100×200×100 dia. Cross PVC AWWA C900 cross in Class 'B' bedding including all trenching, backfilling and thrust blocking.	4	each	$ 1,680.00	$ 6,720.00
6	200×200×100 dia. Tee	Supply and install 200×200×100 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	4	each	$ 945.00	$ 3,780.00
7	200×200×200 dia. Tee	Supply and install 200×200×200 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	3	each	$ 1,050.00	$ 3,150.00
8	200 dia. Plug	Supply and install200 dia. PVC AWWA C900 plug	3	each	$ 525.00	$ 1,575.00
10	Flushing		1	ls	$ 10,500.00	$ 10,500.00
11	Pressure and disinfection testing		1	ls	$ 10,500.00	$ 10,500.00
12	Utilities Crossing		6	each	$ 6,300.00	$ 37,800.00
13	Land acquisition		6.5	hectare	$ 49,420.00	$ 321,230.00
14	Tie into existing Water main	Tie new water main into existing 200 mm dia. watermains, including excavation, locates of existing utilities, supply & installation of necessary fittings at tie-in location such as coupling(s), thrust blocking, bedding, reinstatement of any bedding of any utilities that have been exposed and backfill and compaction and surface restoration.	2	each	$ 12,000.00	$ 24,000.00
					Subtotal (Water) =	$ 2,706,680.00

Construction Cost Estimate Summary

Item	Total
Mobilization and De-Mobilization=	$ 100,000
Subtotal Water=	$ 2,706,680

Sub-Total =	$ 2,806,680
Contingency (20%) =	$ 562,000
Engineering Fee (12%) =	$ 337,000
Total Estimated Construction Cost =	**$ 3,368,680**

OPUS STEWART WEIR

Project# ED6037168

Industrial Utility Master Plan

Lamont County

Preliminary Construction Cost Estimate - Phase 4

Prepared by Opus Stewart Weir

07-Feb-14

Mobilization and De-Mobilization

No	Item	Description	Approx Qty	Unit	Unit Price	Extension
1	Mobilization and De-Mobilization	Transport all required materials and equipment to and from the site; supply and erect signs and markings to delineate the site; traffic control and diversions; supply and erect site offices; all other initial site works; removal, clearing and restoration upon completion	1	LS	$ 100,000.00	$ 100,000.00
					Subtotal (Mobilization and De-Mobilization)=	$ 100,000.00

Water Main

No	Item	Description	Approx Qty	Unit	Unit Price	Extension
2	200mm dia AWWA PVC C900 Water main	Supply and install 200mm dia. PVC water main in Class 'B' bedding including all trenching, dewatering, thrust blocking, backfilling and compaction to subgrade elevation, and surface restoration. 3m minimum depth of bury.	6500	m	$ 341.25	$ 2,218,125.00
3	100mm dia. AWWA C509 Gate Valve	Supply and install 100mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	6	each	$ 2,625.00	$ 15,750.00
4	200mm dia. AWWA C509 Gate Valve	Supply and install 200mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	9	each	$ 3,150.00	$ 28,350.00
5	200×200×100 dia. Tee	Supply and install 200×200×100 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	6	each	$ 945.00	$ 5,670.00
6	200×200×200 dia. Tee	Supply and install 200×200×200 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	1	each	$ 1,050.00	$ 1,050.00
7	200 dia. Plug	Supply and install200 dia. PVC AWWA C900 plug	3	each	$ 525.00	$ 1,575.00
8	200 dia. 90 degree bend	Supply and install 150 dia. PVC AWWA C900 45 degree bend. Includes thrust block.	1	each	$ 630.00	$ 630.00
9	Water storage tank	Supply and install 1500 m^3 concrete water storage tank.		m^3	$ 262.50	$ -
10	Flushing		1	ls	$ 10,500.00	$ 10,500.00
11	Pressure and disinfection testing		1	ls	$ 10,500.00	$ 10,500.00
12	Utilities Crossing		3	each	$ 6,300.00	$ 18,900.00
13	Land acquisition		6.5	hectare	$ 49,420.00	$ 321,230.00
14	Tie into existing Water main	Tie new water main into existing 200 mm dia. watermains, including excavation, locates of existing utilities, supply & installation of necessary fittings at tie-in location such as coupling(s), thrust blocking, bedding, reinstatement of any bedding of any utilities that have been exposed and backfill and compaction and surface restoration.	2	each	$ 12,000.00	$ 24,000.00
					Subtotal (Water) =	$ 2,656,280.00

Construction Cost Estimate Summary

Item	Total
Mobilization and De-Mobilization=	$ 100,000
Subtotal Water=	$ 2,656,280

Sub-Total =	$ 2,756,280
Contingency (20%) =	$ 552,000
Engineering Fee (12%) =	$ 331,000
Total Estimated Construction Cost =	**$ 3,308,280**

OPUS STEWART WEIR

Project# ED60371.08

Industrial Utility Master Plan

Lamont County

Preliminary Construction Cost Estimate - Phase 5

Prepared by: Opus Stewart Weir

07-Feb-14

Mobilization and De-Mobilization

No	Item	Description	Approx. Qty	Unit	Unit Price	Extension
1	Mobilization and De-Mobilization	Transport all required materials and equipment to and from the site; supply and erect signs and markings to delineate the site; traffic control and diversions; supply and erect site offices; all other initial site works; removal, clearing and restoration upon completion	1	LS	$ 100,000.00	$ 100,000.00
					Subtotal (Mobilization and De-Mobilization)=	**$ 100,000.00**

Water Main

No	Item	Description	Approx. Qty	Unit	Unit Price	Extension
2	200mm dia AWWA PVC C900 Water main	Supply and install 200mm dia. PVC water main in Class 'B' bedding including all trenching, dewatering, thrust blocking, backfilling and compaction to subgrade elevation, and surface restoration. 3m minimum depth of bury.	13300	m	$ 341.25	$ 4,538,625.00
3	200mm dia. AWWA C509 Gate Valve	Supply and install 200mm dia Gate Valve, including all necessary fittings, trenching, Class 'B' bedding, backfilling, thrust blocking, casing, operating rod and cathodic protection.	16	each	$ 3,150.00	$ 50,400.00
4	200×200×100 dia. Tee	Supply and install 200×200×100 dia. Tee in Class 'B' bedding including all trenching, backfilling and thrust blocking.	1	each	$ 945.00	$ 945.00
5	200 dia. Plug	Supply and install200 dia. PVC AWWA C900 plug	3	each	$ 525.00	$ 1,575.00
6	Flush point	Supply and install Flush Point	1	each	$ 3,675.00	$ 3,675.00
7	Flushing		1	ls	$ 10,500.00	$ 10,500.00
8	Pressure and disinfection testing		1	ls	$ 10,500.00	$ 10,500.00
9	Utilities Crossing		5	each	$ 6,300.00	$ 31,500.00
10	Land acquisition		13.3	hectare	$ 49,420.00	$ 657,286.00
11	Tie into existing Water main	Tie new water main into existing 200 mm dia. watermains, including excavation, locates of existing utilities, supply & installation of necessary fittings at tie-in location such as coupling(s), thrust blocking, bedding, reinstatement of any bedding of any utilities that have been exposed and backfill and compaction and surface restoration.	1	each	$ 12,000.00	$ 12,000.00
					Subtotal (Water) =	**$ 5,317,006.00**

Construction Cost Estimate Summary

Item	Total
Mobilization and De-Mobilization=	**$ 100,000**
Subtotal Water=	**$ 5,317,006**
Sub-Total =	**$ 5,417,006**
Contingency (20%) =	**$ 1,084,000**
Engineering Fee (12%) =	**$ 651,000**
Total Estimated Construction Cost =	**$ 6,501,006**

SCHEDULE B-2

OPUS STEWART WEIR

CONSTRUCTION COST ESTIMATE

Lamont County Roads - Range Road 195

Date: January 31, 2014

File No. ED60 37168

Lamont County

Grading/Base/Pave of RR 195 from Hwy. 15 to N. of Twp. Rd. 560

Length: 4.05 km

	ITEM	UNIT	ESTIMATE QUANTITY	UNIT PRICE	TOTAL
1	Mobilization (10%)	Lump Sum	1	$527,907.50	$527,907.50
2	Supply of Aggregate	t	50,575	$5.00	$252,875.00
3	Common Excavation	m3	82,000	$9.00	$738,000.00
4	Borrow Excavation	m3	39,000	$21.00	$819,000.00
5	Culvert Supply and Install	m	70	$250.00	$17,500.00
6	Bridge File 00232 - Replace w/Standard Bridge	Lump Sum	1	$600,000.00	$600,000.00
7	Surfacing Gravel	t	4,000	$32.00	$128,000.00
8	Subgrade Preparation	m2	54,675	$2.00	$109,350.00
9	Granular Base Course	t	36,045	$30.00	$1,081,350.00
10	Asphalt Concrete Pavement	t	10,530	$100.00	$1,053,000.00
11	Miscellaneous items (signage, fencing, etc.)	Lump Sum	1	$480,000.00	$480,000.00
	Contract:			**Total**	**$5,806,982.50**
	Subtotal (rounded)				**$5,807,000.00**
	Contingency (10%)				**$580,700.00**
	Engineering				**$615,700.00**
	Utilities				**$110,000.00**
	CPR Crossing				**$0.00**
	Land Costs				**$400,000.00**
	Total Estimated Cost:				**$7,514,000.00**

Remarks

- Land costs estimated based on 20 m x length of road @ $20,000/acre. Per acre costs based on Lamont County Estimate
- CPR Crossing costs assume track crossing replacement only, (ie. nic. traffic controls)
- Borrow and aggregate costs assume Contractor-supplied
- Construction is assumed to be staged (grading stage 1; base/pave stage 2) and as such surfacing gravel has been included

OPUS STEWART WEIR

CONSTRUCTION COST ESTIMATE

Lamont County Roads - Range Road 200

Date: January 31, 2014

File No. ED60 37168

Lamont County

Grading/Base/Pave of RR 200 from Hwy. 15 to N. of Twp. Rd. 560

Length: 4.05 km

	ITEM	UNIT	ESTIMATE QUANTITY	UNIT PRICE	TOTAL
1	Mobilization (10%)	Lump Sum	1	$492,807.50	$492,807.50
2	Supply of Aggregate	t	50,575	$5.00	$252,875.00
3	Common Excavation	m3	81,000	$9.00	$729,000.00
4	Borrow Excavation	m3	39,000	$21.00	$819,000.00
5	Culvert Supply and Install	m	150	$250.00	$37,500.00
6	Bridge File 00232 - Replace w/SPCSP Culvert	Lump Sum	1	$270,000.00	$270,000.00
7	Surfacing Gravel	t	4,000	$32.00	$128,000.00
8	Subgrade Preparation	m2	54,675	$2.00	$109,350.00
9	Granular Base Course	t	36,045	$30.00	$1,081,350.00
10	Asphalt Concrete Pavement	t	10,530	$100.00	$1,053,000.00
11	Miscellaneous items (signage, fencing, etc.)	Lump Sum	1	$448,000.00	$448,000.00
	Contract:			**Total**	**$5,420,882.50**
	Subtotal (rounded)				**$5,421,000.00**
	Contingency (10%)				**$542,100.00**
	Engineering				**$565,100.00**
	Utilities				**$60,000.00**
	CPR Crossing				**$70,000.00**
	Land Costs				**$400,000.00**
	Total Estimated Cost:				**$7,059,000.00**

Remarks

- Land costs estimated based on 20 m x length of road @ $20,000/acre. Per acre costs based on Lamont County Estimate
- CPR Crossing costs assume track crossing replacement only, (ie. nic. traffic controls)
- Borrow and aggregate costs assume Contractor-supplied
- Construction is assumed to be staged (grading stage 1; base/pave stage 2) and as such surfacing gravel has been included

OPUS STEWART WEIR

CONSTRUCTION COST ESTIMATE

Lamont County Roads Range Road 201

Date: January 31, 2014

File No. ED60 37168

Lamont County

Grading/Base/Pave of RR 201 from Hwy. 15 to N. of Twp. Rd. 560 Length: 4.05 km

	ITEM	UNIT	ESTIMATE QUANTITY	UNIT PRICE	TOTAL
1	Mobilization (10%)	Lump Sum	1	$462,407.50	$462,407.50
2	Supply of Aggregate	t	50,575	$5.00	$252,875.00
3	Common Excavation	m3	82,000	$9.00	$738,000.00
4	Borrow Excavation	m3	39,000	$21.00	$819,000.00
5	Culvert Supply and Install	m	90	$250.00	$22,500.00
6	Surfacing Gravel	t	4,000	$32.00	$128,000.00
7	Subgrade Preparation	m2	54,675	$2.00	$109,350.00
8	Granular Base Course	t	36,045	$30.00	$1,081,350.00
9	Asphalt Concrete Pavement	t	10,530	$100.00	$1,053,000.00
10	Miscellaneous items (signage, fencing, etc.)	Lump Sum	1	$420,000.00	$420,000.00
	Contract:			**Total**	**$5,086,482.50**
	Subtotal (rounded)				**$5,087,000.00**
	Contingency (10%)				**$508,700.00**
	Engineering				**$508,700.00**
	Utilities				**$60,000.00**
	CPR Crossing				**$70,000.00**
	Land Costs				**$400,000.00**
	Total Estimated Cost:				**$6,635,000.00**

Remarks

- Land costs estimated based on 20 m x length of road @ $20,000/acre. Per acre costs based on Lamont County Estimate
- CPR Crossing costs assume track crossing replacement only, (ie. nic. traffic controls)
- Borrow and aggregate costs assume Contractor-supplied
- Construction is assumed to be staged (grading stage 1; base/pave stage 2) and as such surfacing gravel has been included

OPUS STEWART WEIR

CONSTRUCTION COST ESTIMATE

Lamont County Roads - Township Road 560

Date: January 31, 2014 File No. ED60 37168

Lamont County

Grading/Base/Pave of Twp. Rd. 560 from RR 202 to Hwy. 831

Length: 6.4 km

	ITEM	UNIT	ESTIMATE QUANTITY	UNIT PRICE	TOTAL
1	Mobilization (10%)	Lump Sum	1	$769,710.00	$769,710.00
2	Supply of Aggregate	t	79,600	$5.00	$398,000.00
3	Common Excavation	m3	127,000	$9.00	$1,143,000.00
4	Borrow Excavation	m3	61,000	$21.00	$1,281,000.00
5	Culvert Supply and Install	m	150	$250.00	$37,500.00
6	Bridge Files 00222 and 00666	Lump Sum	2	$200,000.00	$400,000.00
7	Surfacing Gravel	t	6,000	$32.00	$192,000.00
8	Subgrade Preparation	m2	86,400	$2.00	$172,800.00
9	Granular Base Course	t	56,960	$30.00	$1,708,800.00
10	Asphalt Concrete Pavement	t	16,640	$100.00	$1,664,000.00
11	Miscellaneous items (signage, fencing, etc.)	Lump Sum	1	$700,000.00	$700,000.00
	Contract:			**Total**	**$8,466,810.00**
	Subtotal (rounded)				**$8,467,000.00**
	Contingency (10%)				**$846,700.00**
	Engineering				**$846,700.00**
	Utilities				**$190,000.00**
	CPR Crossing				**$80,000.00**
	Land Costs				**$630,000.00**
	Total Estimated Cost:				**$11,061,000.00**

Remarks

- Land costs estimated based on 20 m x length of road @ $20,000/acre. Per acre costs based on Lamont County Estimate
- CPR Crossing costs assume track crossing replacement only, (ie. nic. traffic controls)
- Borrow and aggregate costs assume Contractor-supplied
- Construction is assumed to be staged (grading stage 1; base/pave stage 2) and as such surfacing gravel has been included

OPUS STEWART WEIR

CONSTRUCTION COST ESTIMATE

Lamont County Roads Range Road 202 (GEN estimate)

Date: January 31, 2014

File No. ED60 37168

Lamont County

Grading/Base/Pave of RR 202 from Hwy. 15 to Twp. Rd. 560

Length: 3.25 km

	ITEM	UNIT	ESTIMATE QUANTITY	UNIT PRICE	TOTAL
1	Mobilization (10%)	Lump Sum	1	$836,091.50	$836,091.50
2	Supply of Aggregate	t	43,551	$5.00	$217,755.00
3	Grading - Costs based on 2010 Resource Road Grant Funding estimate provided by Lamont County, with escalation to 2014 dollar values using 2.5% compounded annually. Includes Grading, INT treatments, RR crossing improvements	Lump Sum	1	$5,270,660.00	$5,270,660.00
4	Subgrade Preparation	m2	50,375	$2.00	$100,750.00
5	Granular Base Course	t	33,475	$30.00	$1,004,250.00
6	Asphalt Concrete Pavement	t	10,075	$100.00	$1,007,500.00
7	Miscellaneous items (signage, fencing, etc.)	Lump Sum	1	$760,000.00	$760,000.00
	Contract:			**Total**	**$9,197,006.50**
	Subtotal (rounded)				**$9,198,000.00**
	Contingency (10%)				**$919,800.00**
	Engineering				**$919,800.00**
	Utilities				**$160,000.00**
	CPR Crossing (included in item 3 above)				**$0.00**
	Land Costs				**$160,000.00**
	Total Estimated Cost:				**$11,358,000.00**

Remarks

- Land costs estimated based on 20 m x length of road @ $20,000/acre. Per acre costs based on Lamont County Estimate
- CPR Crossing costs assume track crossing replacement only, (ie. nic. traffic controls)
- Borrow and aggregate costs assume Contractor-supplied
- Construction is assumed to be staged (grading stage 1; base/pave stage 2) and as such surfacing gravel has been included

OPUS STEWART WEIR

CONSTRUCTION COST ESTIMATE

Lamont County Roads Range Road 203

Date: January 31, 2014

File No. ED60 37168

Lamont County

Grading/Base/Pave of RR 203 from Hwy. 15 to Hwy. 45

Length: 3.25 km

	ITEM	UNIT	ESTIMATE QUANTITY	UNIT PRICE	TOTAL
1	Mobilization (10%)	Lump Sum	1	$369,937.50	$369,937.50
2	Supply of Aggregate	t	40,375	$5.00	$201,875.00
3	Common Excavation	m3	66,000	$9.00	$594,000.00
4	Borrow Excavation	m3	31,000	$21.00	$651,000.00
5	Culvert Supply and Install	m	80	$250.00	$20,000.00
6	Surfacing Gravel	t	3,000	$32.00	$96,000.00
7	Subgrade Preparation	m2	43,875	$2.00	$87,750.00
8	Granular Base Course	t	28,925	$30.00	$867,750.00
9	Asphalt Concrete Pavement	t	8,450	$100.00	$845,000.00
10	Miscellaneous items (signage, fencing, etc.)	Lump Sum	1	$336,000.00	$336,000.00
	Contract:			**Total**	**$4,069,312.50**
	Subtotal (rounded)				**$4,070,000.00**
	Contingency (10%)				**$407,000.00**
	Engineering				**$407,000.00**
	Utilities				**$170,000.00**
	CPR Crossing				**$450,000.00**
	Land Costs				**$320,000.00**
	Total Estimated Cost:				**$5,824,000.00**

Remarks

- Land costs estimated based on 20 m x length of road @ $20,000/acre. Per acre costs based on Lamont County Estimate
- CPR Crossing costs assume track crossing replacement only, (ie. nic. traffic controls)
- Borrow and aggregate costs assume Contractor-supplied
- Construction is assumed to be staged (grading stage 1; base/pave stage 2) and as such surfacing gravel has been included

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