

CITY OF COLD LAKE
BYLAW #281-DA-07 - Unofficial Consolidation

Please note: in a bylaw that is “Unofficially Consolidated”, the original approved bylaw is updated to include all of the approved amendments to that bylaw.

A BYLAW OF THE CITY OF COLD LAKE, IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ESTABLISHING AN OFF-SITE LEVY FOR LAND THAT IS TO BE SUBDIVIDED OR DEVELOPED WITHIN THE CITY OF COLD LAKE.

WHEREAS Section 648 of the Municipal Government Act permits a Council to impose a levy known as an Off-Site Levy in respect of land to be developed or subdivided within the municipal limits of the City of Cold Lake and authorize an Agreement to be entered into for payment of the levy;

AND WHEREAS on the 13th day of December 2005, the City has engaged in consultation with representatives of the development industry to address and define existing and future infrastructure requirements of the City with respect to circumstances of the Municipality and the benefits of development;

AND WHEREAS the Council received advice and a report, “*City of Cold Lake 2006 Development Levy Report*” from the Department of Public Works and Infrastructure Services in conjunction with UMA Engineering Ltd. for offsite infrastructure upgrades which set out a fair and equitable calculation of Off-Site levies in accordance with the purpose of the Municipal Government Act;

AND WHEREAS the Council of the City of Cold Lake has determined that a consistent levy for each infrastructure type is in the best interests of all of the beneficiaries of development;

AND WHEREAS Council has advertised its intention to consider the provision of this Bylaw pursuant to the provisions of Section 606 of the Municipal Government Act;

NOW THEREFORE the Council of the City of Cold Lake in the Province of Alberta, duly assembled, hereby enacts as follows:

1. There is hereby imposed a levy which shall be known as an Off-Site Levy in respect of all undeveloped land that is to be subdivided or developed within the municipal boundaries of the City of Cold Lake, where no previous off-site levies have been collected for the same services under any previous Bylaw.
2. The principles and criteria of the Off-Site Levy shall be in accordance with the attached Schedule “A”.
3. The entering into of an Agreement with respect to, amongst other things, the collection of an Off-Site Levy is hereby authorized.
4. That Schedule “A” attached hereto shall form part of this By-Law and may be amended by resolution of Council.
5. That Bylaw No. 251-DA-06 of the City of Cold Lake is hereby repealed.

ENACTMENT

That this By-Law shall take effect and come into force upon third and final reading.

FIRST READING passed in open Council duly assembled in the City of Cold Lake, in the Province of Alberta, this 13th day of March A.D. 2007, on motion by Councillor Jordan.

**CARRIED
UNANIMOUSLY**

SECOND READING passed in open Council duly assembled in the City of Cold Lake, in the Province of Alberta, this 10th day of April A.D. 2007, on motion by Councillor Copeland.

CARRIED

THIRD AND FINAL READING passed in open Council duly assembled in the City of Cold Lake, in the Province of Alberta, this 10th day of April A.D. 2007, on motion by Councillor Jordan.

CARRIED

CITY OF COLD LAKE

MAYOR

CHIEF ADMINISTRATIVE OFFICER

Unofficial Consolidation

SCHEDULE "A"

BYLAW 281-DA-07 OFF-SITE-LEVY

PART 1: BACKGROUND

AUTHORITY TO COLLECT OFFSITE LEVIES AND ISSUES CREDITS

Pursuant to Section 648 of the Municipal Government Act, City Council has the authority to create a bylaw for the purpose of collecting an Off-site Levy. The executed Development Agreement authorizes City Administration to collect the assessed Off-site Levies and provide the calculate compensation payments to developers.

DEFINITIONS

1. **"Bylaw"** means the off-site levy bylaw established by the City, to which this Schedule "A" is attached.
2. **"City"** means the City of Cold Lake.
3. **"Developable Land"** shall mean all land contained within the Development Region:
 - 3.1 upon which Development takes place after the date of passing of this Bylaw; or
 - 3.2 for which Subdivision approval is obtained after the date of passing of this Bylaw excluding all Developed Land.
4. **"Developed Land"** shall mean land that has been subject to Development- or a Subdivision prior to the date of passing of this Bylaw, and in respect of which off-site levies for the same services have been paid.
5. **"Development"** means "development" as defined in the *Municipal Government Act* RSA 2000, c. M-26, s. 616.
6. **"Development Agreement"** means "development agreement" as referred to in the *Municipal Government Act* RSA 2000, c. M-26, s. 650 and 655.
7. **"Development Region"** includes all land within the municipal limits of the City of Cold Lake.
8. **"Growth"** shall mean:
 - 8.1 the creation of new serviced, residential, commercial, industrial or institutional lots through subdivision; and
 - 8.2 the occurrence of development.
9. **"Subdivision"** means "subdivision" as defined in the *Municipal Government Act* RSA 2000, c. M-26, s. 616.
10. **"Off-site Levy"** means the off- site levy imposed pursuant to this Bylaw under the authority of the *Municipal Government Act* RSA 2000, c. M-26.
11. **"Off-site"** means any sanitary sewer, storm water sewer, water or roadway facilities sized greater than the predefined base size or capacity.
12. **"Oversize"** shall mean being larger than a base diameter for pipes and larger than the base sized road for roads. It is the capacity provided in a road, sewer, storm sewer, or water facility that is greater than what is required to directly service the current growth.

OFF-SITE BYLAW PURPOSE

- 1.1 This Bylaw creates an Off-site Levy to provide funds for the construction of off-site infrastructure required for Growth.

1. OFF-SITE BYLAW PRINCIPLES

- 1.1 The following principles provide guidance for the interpretation of this Bylaw and form the basis of the Bylaw provisions:
 - 1.1.1 Development in new growth areas through Off-site Levies will provide the capital that will fund the infrastructure required for Growth. Those who benefit from the infrastructure, which is defined by all Developable Land in the Development Region, should share proportionally, on a per hectare basis, in related costs.
 - 1.1.1.1 Provisions of Off-site infrastructure by developers of Developable Land will not create an advantage or penalty due to the time or location of development.
 - 1.1.1.2 Infrastructure will be provided to maintain sustainable, cost effective and orderly Growth.
 - 1.1.1.3 The calculation of the Off-site Levy should be an open and transparent process. The management of the Off-site Levy account should be an audited process, with reports available to the public and industry.

2. OFF-SITE LEVY OBJECTIVES

- 2.1 to recover the cost of infrastructure required for Growth:
 - 2.1.1 Using financing strategies that remain sustainable
 - 2.1.2 Facilitating development by reducing risk on early developers and ensuring future developers share the costs of the facilities from which they benefit.
 - 2.1.3 Promoting cost effective and orderly development.
- 2.2 To promote orderly development by:
 - 2.2.1 Providing off-site infrastructure, once the appropriate planning is in place, and when warranted in development.
 - 2.2.2 Providing infrastructure for contiguous development.
- 2.3 To create a transparent process by:
 - 2.3.1 Providing opportunity for industry input into *the* levy, its definition and administration.
 - 2.3.2 Conforming with the Municipal Government Act.
 - 2.3.3 Providing an annual report on levies.
- 2.4 To create a clear process for calculation of the rate, levies and credits by:
 - 2.4.1 Creating consistent and predictable levies and credits.
 - 2.4.2 Creating predictable and stable levies over time.
 - 2.4.3 Documenting a process for establishing the levy rate.

APPLICATION OF OFF-SITE LEVIES

1. Off-site Levy will be assessed on all Developable Land within the Development Region on a per hectare basis, excluding those portions of Developable Land that are designated pursuant to a Subdivision as:
 - 1.1 Environmental Reserve;
 - 1.2 Municipal Reserve; or
 - 1.3 Arterial Road Right of Way.

2. For the purposes of calculating the net area of Developable Land where a storm water management facility / dry pond is included in a parcel of land designated as Municipal Reserve, levies will be assessed based on the estimated area of the pond's surface during a 1 in 100-year storm event.
3. The Off-site Levy is a single indivisible levy. When one component of the Off-site Levy becomes due, all components are due. No component levy can be deferred or waived separately from the other components.
4. No legally defined parcel of land will be assessed levies on only a portion of its area.
5. Subject to the terms of this Bylaw, and any Development Agreement entered into by the City, the Off-site Levy imposed pursuant to this Bylaw shall be paid upon the issuance of a Development Permit in respect of any Developable Land, or before any subdivision plan is registered at the Land Titles Office pursuant to a Subdivision of any Developable Land, whichever date is the earliest.
6. Where the City deems it appropriate, it may direct that a Development Agreement be entered into with the Owner or Occupier of any Developable Land which is the subject of a Development or a Subdivision. Which agreement shall provide for the payment of the Off-site Levy imposed as specified pursuant to this Bylaw? Unless otherwise agreed to, a Development Agreement shall require that the Off-site Levy will become due upon execution of the Development Agreement and will, in any event, be paid prior to the issuance of a Notice to Proceed with construction and servicing within the lands that are to be subdivided or developed.
7. All funds collected pursuant to this Bylaw shall be accounted for in a special fund and expended only as permitted under the provisions of the Municipal Government Act.
8. Nothing in this Bylaw precludes the City from:
 - 8.1 imposing further or different levies, duly enacted by bylaw, on any portion of the Developable Lands in respect of which the City has not collected levies;
 - 8.2 deferring collection of the Off-site Levy for the stated objects of this Bylaw, on any portion of Developable Lands in respect of which the City has not collected levies, including requiring security for payment of such deferred levies;
 - 8.3 reducing or forgiving payment of the levies required pursuant to this Bylaw, or otherwise providing for credits for other Off-site or Oversize infrastructure constructed by a developer in calculating and/or collecting the levies that become payable pursuant to this Bylaw.

CALCULATION OF DEVELOPER OFF-SITE LEVIES

The Off-site Levy will be calculated as per the annual rates defined within Part 2 of this Schedule "A". The Off-site Levy assessment is a function of net developing area and the Off-site Levy rate as follows.

$$\text{Net Area} \times \text{Off-site Levy Rate} = \text{Assessed Off-site Levy}$$

CALCULATION OF OFF-SITE LEVY RATE

1. The Off-site Levy rate is to be determined by determining the following for each levy component:
 - 1.1 Total hectares of Developable Land within the municipal boundaries of the City of Cold Lake.
 - 1.2 A list of proposed utility projects as outlined in existing municipal servicing studies and analysis (2009 Water Distribution and Modelling Assessment, 2009 Wastewater System Modelling Assessment, 2006 Master Drainage Plan, and 2000 Cold Lake Traffic Study).
 - 1.3 Total estimated present day cost of infrastructure required to service the development region.

- 1.4 Estimated oversize required to service off-site areas.
- 1.5 Present per hectare cost of each levy component.

The levy rate calculation will be fully updated at least once every three (3) years. Representatives of the Development community are to be invited to participate in this revision of the Off-site Levy calculation. The Off-site Levy rate is to be calculated separately for each of the water, sanitary sewer, storm water and arterial roadway components.

CALCULATION DETAILS

- 1. The Off-site Levy is comprised of the following:
 - 1.1 Water reservoirs and pumping or booster stations
 - 1.2 Water distribution trunk lines
 - 1.3 Storm water trunk lines
 - 1.4 Storm water drainage parkways
 - 1.5 Storm water detention and retentions ponds
 - 1.6 Storm sewer laterals
 - 1.7 Storm water service connections
 - 1.8 Sanitary sewer trunk lines
 - 1.9 Sanitary sewer lift stations
 - 1.10 Sanitary sewer force mains
 - 1.11 Sanitary sewer laterals
 - 1.12 Service connections

DEFINED OFF-SITE LEVY RATES

2010 OFFSITE LEVY RATES

DESCRPITON	CURRENT OFF-SITE LEVY
Water Distribution	\$19,550.34
Sanitary Sewer	\$13,520.11
Storm Sewer	\$0
Roadway Network	\$43,172.07
Total	\$76,242.52

STORM WATER MANAGEMENT OFF-SITE LEVY SURCHARGE

- 1. In addition to the prescribed Off-site Levy a Storm Water Management Pond Off-site Levy of \$26,704 is applied to all developing areas where no storm water management pond is to be built as that facility or responsibility has been deferred to adjacent lands. This surcharge is an additionally levy that is to be applied to development for the years of 2010, 2011 and 2012.
- 2. These rates should not be imposed unless the responsibilities of constructing a storm water management facility are deferred to another landowner/developer or the City of Cold Lake. The charged and deferred rates as they relate to storm water management facilities are to be applied on a developable area basis relating to specific basins. In this

respect, funds collected for storm water offsite levies where the construction of the facility has been deferred to another landowner/developer can only be deferred and applied as a contribution within the same basin.

3. The Storm Water Management Pond Off-site Levy is calculated, charged and applied pursuant to the provisions of this Bylaw.

PART 2: CITY OF COLD LAKE 2010 DEVELOPMENT LEVY REVIEW

Technical analysis regarding the establishment of an Off-site Levy for the City of Cold Lake is found in the report "City of Cold Lake 2010 Development Levy Review" which is annexed hereto and forms part of this Schedule "A" to the bylaw.

Unofficial Consolidation

CITY OF COLD LAKE

2010 OFF-SITE BYLAW NO. 281-DA-10 SCHEDULE “A” LEVY REVIEW

FEBRUARY 2010

TABLE OF CONTENTS

EXECUTIVE SUMMARY 3

1.0 INTRODUCTION 4

2.0 HISTORY 4

3.0 DEVELOPABLE AREA..... 4

4.0 WATER DISTRIBUTION SYSTEM 7

5.0 SANITARY SEWER SYSTEM..... 9

6.0 STORM WATER MANAGEMENT SYSTEM..... 10

7.0 ROADWAY NETWORK. 12

8.0 DEVELOPMENT LEVY REVIEW 12

9.0 RECOMMENDATIONS..... 13

Unofficial Consolodation

Executive Summary

Provisions in the Municipal Government Act enables municipalities to establish development levies for the purpose of funding capital costs associated to new and/or expanded infrastructure improvements related to growth. Municipalities must ensure that revenues collected through the imposition of development levies, are only used for this purpose. Capital infrastructure projects relating to conditional improvements and/or capital replacement are neither applicable nor fundable utilizing off-site levies.

Off-site levies are typically established to assist in the funding of capital projects such as water distribution system, sanitary sewer systems, storm water management systems, and roadway network systems. Further examples of development levies utilized by other municipalities include water and wastewater treatment facilities, park development, municipal reserve development, and recreational facility develop. This report was limited to the City of Cold Lake's water distribution system, sanitary sewer system, storm water management system, and roadway network system.

The City of Cold Lake's infrastructure deficit relating to the enhancement, upgrade, and/or expansion of facilities for water, wastewater, storm sewers and roadways is estimated at \$106,218,207.75. Of the total deficit, \$27,174,232.75 is associated to the water distribution system, \$18,814,750.00 is associated to the sanitary sewer system, \$1,026,475.00 is associated to the stormwater sewer system and \$59,202,750.00 is associated to the roadway network system. It is recommended that the costs for infrastructure improvements associated to growth are not subsidized by municipal, provincial, and/or federal grants. Infrastructure grants should be utilized to maintain and/or sustain existing infrastructure.

The net developable land within the municipal boundaries of the City of Cold Lake is 1,373 hectares. In order to provide the necessary infrastructure to sustain development to full build out within the City's municipal boundary, it is recommended that the total deficit be captured through the remaining developable area. Based on the estimated total deficit of \$106,218,207.75, it is recommended that an off-site levy be imposed at a rate of \$76,242.52 per hectare on developing land in order to facilitate full cost recovery. It is also recommended that an additional charge of \$26,708.67 per hectare be applied to developing land not constructing a stormwater management facility.

1.0 Introduction

The City of Cold Lake is an active growing community with developments of institutional, commercial, and residential land uses. To support the sustainable management of growth, the City charges development levies to fund the enhancement, upgrade or expansion of facilities for water, wastewater, storm sewers and roadways.

Pursuant to Section 648 (2) of the Municipal Government Act:

An off-site levy may be used only to pay for all or part of the capital cost of any or all of the following:

- (a) New or expanded facilities for the storage, transmission, treatment of supplying of water;*
- (b) New or expanded facilities for the treatment, movement or disposal of sanitary sewage;*
- (c) New or expanded storm sewer drainage facilities;*
- (c.1) New or expanded roads required for or impacted by a subdivision or development;*
- (d) Land required for or in connection with any facilities described in clauses (a) to (c.1).*

The objective of this report is to identify and recover the cost of infrastructure projects necessitated by growth using financing strategies that are sustainable. This strategy will help facilitate development and the risk to developers by ensuring future developments share the costs of facilities that provide an overall benefit.

2.0 History

In 2007, Council directed administration to update the development levy process to provide for full cost recovery. The 2007 Development Levy Review proposed the following Off-site Levies:

TABLE 2: 2007 DEVELOPMENT LEVY REVIEW PROPOSED OFF-SITE LEVIES:

2007	\$78,066
2008	\$81,969
2009	\$86,067

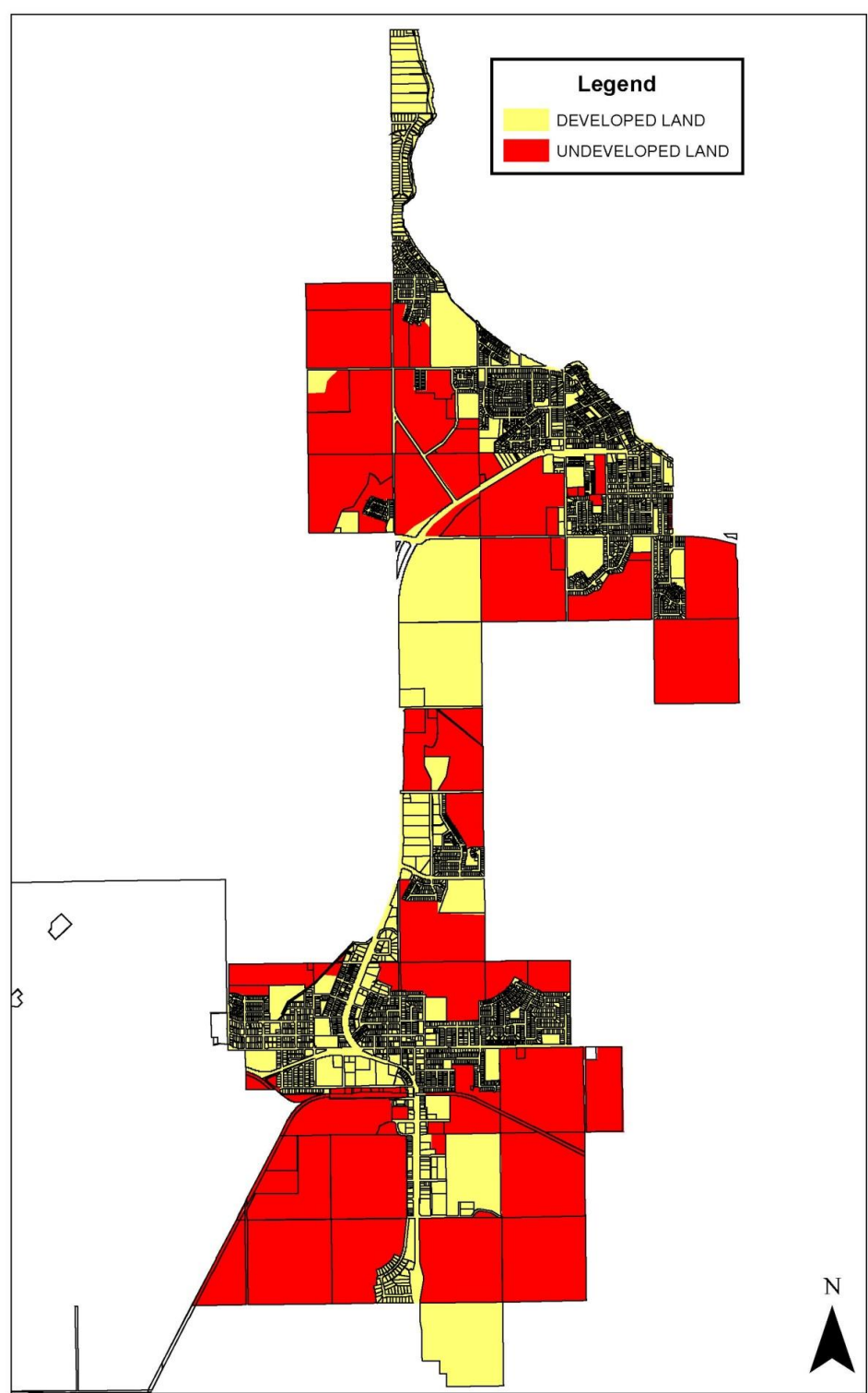
Offsite levy rates and their application are to be reviewed on an annual basis to monitor and evaluate the following:

- Offsite levies that were collected during the year;
- Offsite levies that were constructed during the year;
- Inflation cost on future infrastructure projects;
- Changes and/or updates to future infrastructure projects.

3.0 Developable Area

For this review the Department of Public Works and Infrastructure Services has encompassed the entire corporate boundaries of the City of Cold Lake excluding the properties owned by the Department of National Defence. The City of Cold Lake encompasses approximately 2445 Hectares (6043 Acres) of which 1072 hectares (2649 acres) are classified as developed land and 1373 hectares (3393 acres) are classified as undeveloped land. A diagram outlining developed and undeveloped land is shown in the following figure:

Figure 1.0: Developed and Undeveloped Areas within the City of Cold Lake



4.0 Water Distribution System

The City of Cold Lake’s water distribution system includes all facilities and water supply lines, reservoirs, pumping facilities or booster stations, trunk and distributions mains. The Water Distribution Modeling Assessment (AECOM 2009) was used to determine future infrastructure needs as they relate to water distribution.

This study outlines several necessary water distribution projects and improvements in order to sustain growth throughout the City of Cold Lake’s municipal boundaries. It should be noted that because of the overall community benefit, many of these projects are outside the normal scope of work for which a developer is expected to complete. Currently, the City of Cold Lake has no standard mechanism to compensate developers for offsite facilities installed by the developers on land for which they are developing if there is a greater community benefit that is to be realized.

The following example provides clarification regarding community benefit and developer accountability in infrastructure provision. The City of Cold Lake’s Municipal Engineering Servicing Standard identifies that the minimum size of a residential subdivision water distribution main shall be 200mm. However, the Municipal Servicing Study identifies that a water distribution main of 250mm is necessary in order to service offsite lands around those developing lands. The

developer should be compensated for the over sizing of the water distribution main as off-site infrastructure to future developments. It should be noted that each development area should be hydraulically modeled to confirm the infrastructure needs of the developing area.

Using this formula, the City of Cold Lake will credit costs associated to over sizing infrastructure back to the developer through the development agreement process. These costs will be applied to an offsite levy account which will then be applied on a per hectare basis of gross developable land.

Utilizing the AECOM Study, a detail of the backlog of projects and contributions to over sizing water distribution mains in order to sustain growth has been prepared. Figure 2.0 outlines the necessary improvements to the water distribution system.

The current backlog of projects and contributions to over sizing of water distributions mains is in the order of magnitude of \$27,174,232.75. This was calculated by applying a combination of future projects that will be funded entirely by the City of Cold Lake and future contributions to over sizing infrastructure to sustain growth. Contributions to the off-site levy reserve reduce the backlog by \$331,610.40 thereby reducing the total deficit to \$26,842,622.35. These costs will need to be captured over the remaining 1373 hectare of developable land within the municipal boundaries of the City of Cold Lake. It is recommended that the water distribution system off-site levy be established at a rate of \$19,550.34 per hectare. Table 3 outlines in more detail, the costs associated to the infrastructure deficit.

TABLE 3: CITY OF COLD LAKE WATER DISTRIBUTION SYSTEM DEFICIT

Description	Quantity (m)	Oversize (mm)	Unit Rate Cost (\$/mm/m)	Total Estimated Cost
Reservoir Pumphouse and Supplyline				\$ 4,500,000.00
Supplyline to Building #10 (Cold Lake South)				\$ 2,000,000.00
Booster Station (Cold Lake North)				\$ 500,000.00
Building # 5 Reservoir Improvements				\$ 1,386,582.75
Building # 10 Pumphouse Improvements				\$ 1,080,000.00
Upgrade for existing reservoir capacity				\$ 2,400,000.00
Water Pipelines in Cold Lake North (Developed Area Need Replacement)				
150mm with 200mm Water Supply Main	942	50	2.00	\$ 94,200.00
150mm with 300mm Water Supply Main	217	150	2.00	\$ 65,100.00
150mm with 400 Water Supply Main	590	250	2.00	\$ 295,000.00
200mm with 400mm Water Supply Main	497	200	2.00	\$ 198,800.00
Water Pipelines in Cold Lake North (Developed Area New)				
150mm Water Supply Main	283	150	2.00	\$ 84,900.00
200mm Water Supply Main	2079	200	2.00	\$ 831,600.00
300mm Water Supply Main	1112	300	2.00	\$ 667,200.00
Water Pipelines in Cold Lake South (Developed Area Need Replacement)				
150mm with 200mm Water Supply Main	726	50	2.00	\$ 72,600.00

150mm with 250mm Water Supply Main	626	100	2.00	\$ 125,200.00
150mm with 300 Water Supply Main	1089	150	2.00	\$ 326,700.00
200mm with 250mm Water Supply Main	546	50	2.00	\$ 54,600.00
Water Pipelines in Cold Lake South (Developed Area New)				
150mm Water Supply Main	288	150	2.00	\$ 86,400.00
200mm Water Supply Main	1611	200	2.00	\$ 644,400.00
250mm Water Supply Main	645	250	2.00	\$ 322,500.00
300mm Water Supply Main	820	300	2.00	\$ 492,000.00
400mm Water Supply Main	479	400	2.00	\$ 383,200.00
Water Pipelines in Cold Lake (Undeveloped Areas)				
250mm Water Supply Main	6500	50	1.45	\$ 471,250.00
300mm Water Supply Main	31000	150	1.45	\$ 6,742,500.00
400mm Water Supply Main	9500	200	1.45	\$ 2,755,000.00
Supply Main	8200	50	1.45	\$ 594,500.00
Total:				\$ 27,174,232.75

Note:

Pipe Cost=\$1.45 per mm meter	Total Estimated Off-Site Contributions:	\$27,174,232.75
Restoration Cost= \$ 0.55 per mm meter		
Total Cost: \$ 2.00 per mm meter	Contributions to-date:	\$331,610.40
	Total Deficit (Adjusted)	\$26,842,622.35
	Gross Developable Area (Hectares):	1373
	Water Distribution Off-Site Levy Surcharge:	\$19,550.34

5.0 Sanitary Sewer System

The sanitary sewer system includes all sewer trunks, sewer laterals, service connections, lift stations, and force mains. The Wastewater System Modelling Assessment (AECOM 2009) was used to determine future infrastructure needs as they relate to sanitary sewerage.

These studies outline several necessary sanitary sewer projects and improvements in order to sustain growth throughout the City of Cold Lake’s municipal boundaries. Similar to the water distribution system, it should be noted that because of the overall community benefit, many of these projects are outside the normal scope of work for which a developer is expected to complete. Currently, the City of Cold Lake has no standard mechanism to compensate developers for offsite facilities installed by the developers on land for which they are developing if there is a greater community benefit that is to be realized.

The following example provides clarification regarding community benefit and developer accountability in infrastructure provision. The City of Cold Lake’s Municipal Engineering Servicing Standard identifies that the minimum size of a residential subdivision sanitary sewer main shall be 200mm. However, the Municipal Servicing Study identifies that a sewer main of 250mm is necessary in order to service land outside the land owned by the developer and/or land is currently being developed. The developer should be compensated for the over sizing of the sanitary sewer main as off-site infrastructure to future developments. It should be noted that each development area should be hydraulically modeled to confirm the infrastructure needs of the development.

Using this formula, the City of Cold Lake will credit costs associated to over sizing infrastructure back to the developer through the development agreement process. These costs will be applied to an offsite levy account which will then be applied on a per hectare basis of gross developable land.

We have prepared a backlog of projects and contributions to over sizing sewer collection mains in order to sustain growth, utilizing the Wastewater System Modelling Assessment. Figure 3.1 outlines the necessary improvements to the sewer collection system in Cold Lake South and Figure 3.2 outlines the necessary improvements to the sewer collection system in Cold Lake North.

The current backlog of projects and contributions to over sizing of sanitary sewer system is in the order of magnitude of \$18,814,750.00. This was calculated by applying a combination of future projects that will be funded entirely by the City of Cold Lake and future contributions to over sizing infrastructure to sustain growth. Contributions to the off-site levy reserve reduce the backlog by \$251,641.84 thereby reducing the total deficit to \$18,563,108.16. These costs will need to be captured over the remaining 1373 hectare of developable land within the municipal boundaries of the City of Cold Lake. It is recommended that the sanitary sewer off-site levy be established at a rate of \$13,520.11 per hectare.

Table 4 outlines in more detail, the costs associated to the infrastructure deficit:

TABLE 4: CITY OF COLD LAKE SANITARY SEWER SYSTEM DEFICIT

Description	Quantity (m)	Oversize (mm)	Cost Unit Rate (\$/mm/m)	Total Estimated Cost
Proposed				
Replacement of 200mm forcemain from Building 1 to Hospital				\$ 1,200,000.00
Sanitary Forcemain to Lagoon Approximately 6 KM				\$ 6,000,000.00
Lift Station #1 and Forcemain				\$ 1,200,000.00
Lift Station #2 and Forcemain				\$ 1,400,000.00
Lift Station #3 and Forcemain				\$ 2,100,000.00
Lift Station #4 and Forcemain				\$ 2,300,000.00
Existing				
Lift Station #3 and Forcemain				\$ 1,200,000.00
Sanitary Distribution Main (Cold Lake South)				
250mm Sanitary Sewer Trunk	7,000	50	1.45	\$ 507,500.00
300mm Sanitary Sewer Trunk	2,500	100	1.45	\$ 362,500.00
375mm Sanitary Sewer Trunk	800	175	1.45	\$ 203,000.00
450mm Sanitary Sewer Trunk	3,000	250	1.45	\$ 1,087,500.00
450mm Tie into Forcemain through MD	800	250	1.45	\$ 290,000.00
Sanitary Distribution Main (Cold Lake North)				
200mm Sanitary Sewer Trunk	800	0	1.45	\$ -
250mm Sanitary Sewer Trunk	4,700	50	1.45	\$ 340,750.00
300mm Sanitary Sewer Trunk	2,900	100	1.45	\$ 420,500.00
375mm Sanitary Sewer Trunk	800	175	1.45	\$ 203,000.00
Total:				\$ 18,814,750.00

Total Estimated Off-Site Contributions:	\$ 18,814,750.00
Contributions to-date:	\$251,641.84
Total Deficit (Adjusted)	\$18,563,108.16
Gross Developable Area (Hectares):	1373
Sanitary Sewer System Off-Site Levy Surcharge:	\$13,520.11

6.0 Storm Water Management System

The storm water management system includes all sewer trunks, sewer laterals, service connections, storm water lift stations, drainage parkways, detention ponds and retention ponds. The 2006 Master Drainage Plan (AEcom) was used to determine future storm water management infrastructure needs.

These studies outline several necessary storm water management projects and improvements in order to sustain growth throughout the City of Cold Lake’s municipal boundaries. For the most part, the City of Cold Lake expects each development to build the necessary infrastructure to sustain improvement within its parcel. In a few instances the City of Cold Lake will be required to assist in off-site contributions. In these instances, the projects are outside the normal scope of work for which a developer is expected to complete. Again similar to the sanitary sewer system, and water distribution system, the City of Cold Lake has no standard mechanism to compensate developers for offsite facilities installed by the developers on land for which they are developing.

Using this concept, the City of Cold Lake will credit costs associated to over sizing infrastructure back to the developer through the development agreement process. These costs will be applied to an offsite levy account which will then be applied on a per hectare basis of gross developable land.

There is a backlog of projects and contributions to the storm water management system in order to sustain growth calculated utilizing the Master Drainage Plan. Figure 4.0 outlines the necessary improvements to the storm water management system.

The current backlog of projects and contributions to over sizing of sanitary sewer system in is the order of magnitude of \$1,026,475.00. This figure was calculated by applying a combination of future projects that will be funded entirely by the City of Cold Lake and future contributions to over sizing infrastructure to sustain growth. Contributions to the off-site levy reserve reduce the backlog by \$1,045,118.18 thereby reducing the total deficit to \$0. It is therefore recommended that no storm sewer off-site levy be established at this time.

Table 5 outlines in more detail, the costs associated to the infrastructure deficit:

TABLE 5: CITY OF COLD LAKE STORM WATER MANAGEMENT SYSTEM DEFICIT

Description	Quantity (m)	Oversize (mm)	Cost Unit Rate (\$/m)	Total Estimated Cost
450mm Storm Sewer Trunk	970	150	1.45	\$210,975.00
600mm Storm Sewer Trunk	1,300	300	1.45	\$565,500.00
1200X1800mm Stormwaterm Pipe	480		520.83	\$250,000.00
Total				\$1,026,475.00

	\$
Total Estimated Off-Site Contributions:	1,026,475.00
Contributions to-date:	\$1,045,118.18
Total Deficit (Adjusted)	-\$18,643.18
Gross Developable Area (Hectares):	1373
Storm Water Sewer System Off-Site Levy Surcharge:	-\$13.58

Furthermore, it should be noted that stormwater management facilities will be required throughout the municipal boundaries of the City of Cold Lake. These stormwater management facilities are required to generally maintain stormwater runoff of new development to predevelopment flow rates. The order of magnitude for cost to construct these facilities is \$36,671,000. Currently, the City of Cold Lake expects developers to construct these facilities, however this is not always the case. In some instances, it is more feasible to have one developer construct a stormwater management pond for multiple land owners. It is therefore recommended that the City of Cold Lake charge an additional development levy of \$26,704.01 per hectare where no stormwater management facilities are being constructed. These levies will fund or contribute to stormwater management facilities that will be constructed by the City of Cold Lake or other developers.

Further breakdown of the stormwater management facilities has been outlined in Table 6:

TABLE 6: STORMWATER MANAGEMENT FACILITIES

Description	Quantity (m)	Oversize (mm)	Cost Unit Rate (\$/mm/m)	Total Estimated Cost
Storm Water Management Facilities				\$36,671,000.00

Total Estimated Off-Site Contributions:	\$36,671,000.00
Contributions to-date:	\$6,400.07
Total Deficit (Adjusted)	\$36,664,599.93
Gross Developable Area (Hectares):	1373
Storm Water Sewer System Off-Site Levy Surcharge:	\$26,704.01

These rates should not be imposed unless the responsibilities of constructing a stormwater management facility are deferred to another landowner / developer or the City of Cold Lake. The charged and deferred rates as they relate to stormwater management facilities are to be applied on a developable area basis relating to specific basins. In this respect, funds collected for stormwater offsite levies where the construction of the facility has been deferred to another landowner / developer can only be deferred and applied as a contribution within the same basin.

7.0 Roadway Network

In accordance with the Municipal Government Act, off-site levies may be imposed on developing land to fund new and/or expanded roadways that are necessitated by development. For the purpose of this review, it is recommended that off-site levies be established for arterials and major collector roadways. The 2000 Traffic Study (UMA) was used to determine future arterial and collector roadway infrastructure needs.

These studies outline several future roadway network projects and improvements in order to sustain growth throughout the City of Cold Lake’s municipal boundaries. As local improvements necessary to directly serve a particular development, it should be noted that the City of Cold Lake expects residential local and collector roadways to be constructed by developers at the time of development.

Figure 5.0 outlines roadway improvements and/or upgrade necessitated by population growth. This figure was prepared utilizing the 2000 Traffic Study.

The current backlog of projects is in the order of magnitude of \$59,202,750.00. These costs will need to be captured over the remaining 1373 hectare of developable land within the municipal boundaries of the City of Cold Lake. Debits from the off-site levy reserve increase the backlog by \$72,502.41 thereby increasing the total deficit to \$59,275,252.41. These costs will need to be captured over the remaining 1373 hectare of developable land within the municipal boundaries of the City of Cold Lake. It is recommended that a roadway network off-site levy be established at a rate of \$43,172.07 per hectare.

Table 7 outlines in more detail, the costs associated to the infrastructure deficit:

TABLE 7: CITY OF COLD LAKE ROADWAY NETWORK DEFICIT

Road Classification	Quantity (m)	Cost Unit Rate (\$/m)	Total Estimated Cost
Collector	9,000	1,953.50	\$17,581,500.00
2 Lane Arterial	16,500	2,522.50	\$41,621,250.00
Total			\$59,202,750.00

Total Estimated Off-Site Contributions:	\$ 59,202,750.00
Contributions to-date:	-\$72,502.41
Total Deficit (Adjusted)	\$59,275,252.41
Gross Developable Area (Hectares):	1373
Road Network System Off-Site Levy Surcharge:	\$43,172.07

8.0 Development Levy Review

It is essential that off-site levies rates and supporting analysis are monitored and evaluated on an annual basis. As development progresses and contributions to off-site levies are being made, the City of Cold Lake will contribute to off-site projects and oversizing contributions. Table 8 demonstrates a method of which the status off-site levies may be monitored and tracked.

The “*Expenditures and Revenue to Date*” section of the table summarizes and/or will summarize the current off-site levy reserves, contributions to off-site infrastructure projects, and revenues generated from off-site development levies. The current status of the City of Cold Lake’s off-site levy reserves is \$1,562,268.08.

The “*Future Expenditures Estimate*” section of the table summarizes current estimated infrastructure deficit related to future off-site infrastructure projects and oversizing contributions. These projects and contributions are summarized Sections 4 thru 7 of this document. The total infrastructure deficit relating to off-site infrastructure projects and oversizing is \$142,889,207.75.

The “*Net Cost and Rate Calculation*” section of the table summarizes the proposed off-site levy rate utilizing the total deficit of each function and remaining developable area within the municipal boundaries of the City of Cold Lake. The proposed off-site levy rates are as follows:

- Water Distribution \$19,550.34
- Sanitary Sewer \$13520.11
- Storm Sewer \$0
- Roadway Network \$43,172.07
- **Total \$76,242.52**

TABLE 8: CITY OF COLD LAKE DEVELOPMENT LEVY SUMMARY

TABLE 8: CITY OF COLD LAKE DEVELOPMENT LEVY SUMMARY

Description	Water Distribution	Sanitary Sewer	Storm Sewer	Roadway Network	Total
EXPENDITURES AND REVENUES TO DATE					
Current Off-site Reserve Status (Dec 31/2008)	304,928.71	232,491.78	1,027,825.42	140,567.94	
Contributions to projects to date					
Current Year Expenditures				-300,000	
Current Year Revenue	26,681.69	19,150.06	17,292.76	86,929.65	
Net Balance for Projects to Date (2010/01/01)	331,610.40	251,641.84	1,045,118.18	-72,502.41	1,562,268.08
FUTURE EXPENDITURE ESTIMATE					
Projected Future Construction Costs	27,174,232.75	18,814,750.00	1,026,475.00	59,202,750.00	
Grant and/or Subsidy Applied					
Net Future Expenditures:	26,842,622.35	18,563,108.16	-18,643.18	59,275,252.41	
NET COSTS AND RATE CALCULATION					
Total Deficit					
Remaining Developapble Area (Ha)	1373	1373	1373	1373	
Proposed 2010 Rates (\$/Ha):	19550.34	13520.11	0.00	43172.07	76242.52

9.0 Recommendations

Again, it is recommended that off-site levies are calculated at full cost recovery. The following table outlines the recommended 2010 offsite levy rates based on the information provided and the estimated off-site levy rate for 2011 and 2012 based on a 5% inflation factor.

2010 OFFSITE LEVY RATES

DESCRPITON	CURRENT OFF-SITE LEVY
Water Distribution	\$19,550.34
Sanitary Sewer	\$13,520.11
Storm Sewer	\$0
Roadway Network	\$43,172.07
Total	\$76,242.52

2011 OFFSITE LEVY RATES

DESCRPITON	CURRENT OFF-SITE LEVY
Water Distribution	\$20,527.87
Sanitary Sewer	\$14,196.12
Storm Sewer	\$0
Roadway Network	\$45,330.67
Total	\$80,054.65

2012 OFFSITE LEVY RATES

DESCRPITON	CURRENT OFF-SITE LEVY
Water Distribution	\$21,554.26
Sanitary Sewer	\$14,905.92
Storm Sewer	\$0
Roadway Network	\$47,597.20
Total	\$84,057.38

Figure 2.0: Proposed Water Distribution System Projects

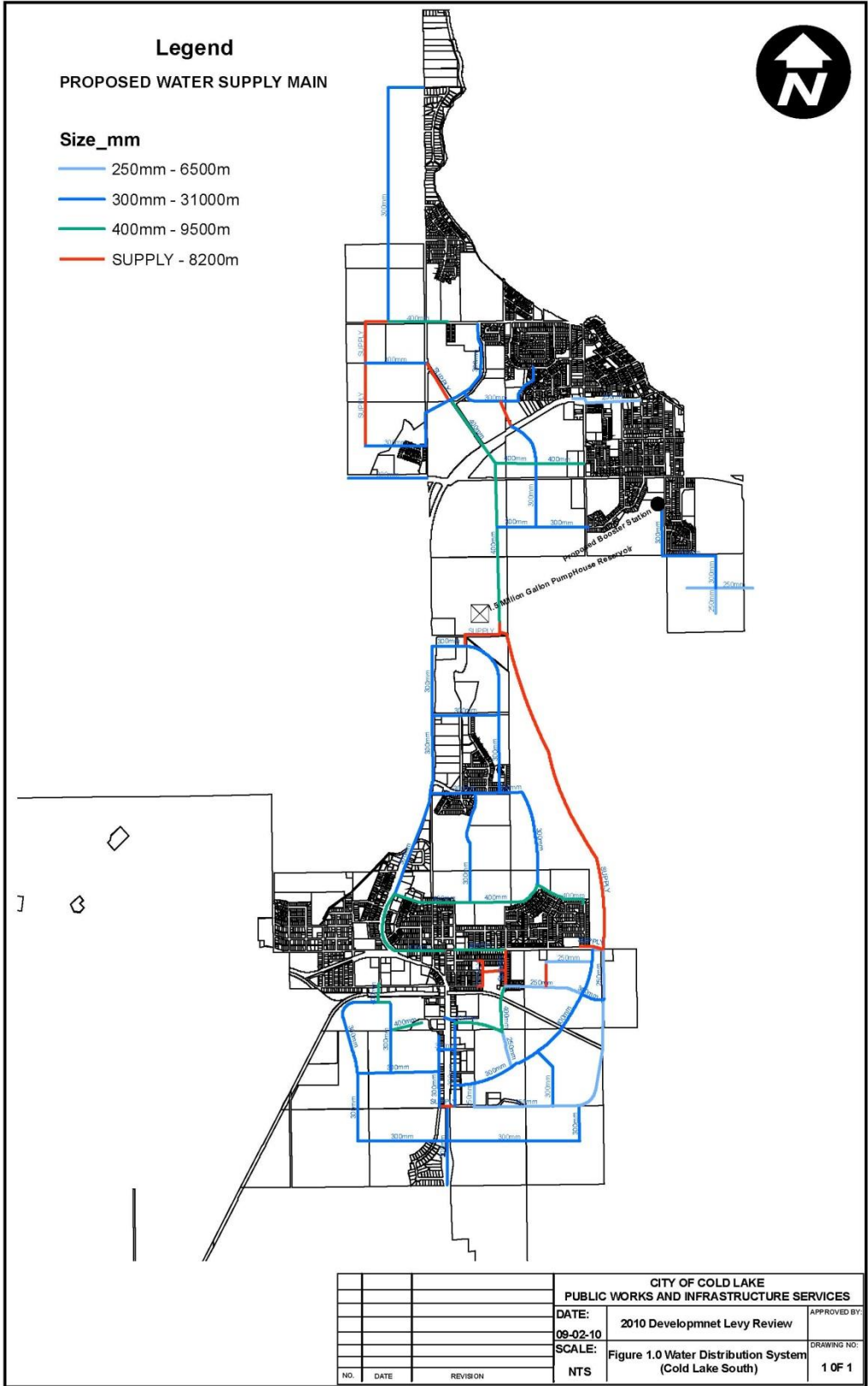


Figure 3.1: Proposed Sanitary Sewer System Projects (Cold Lake South)

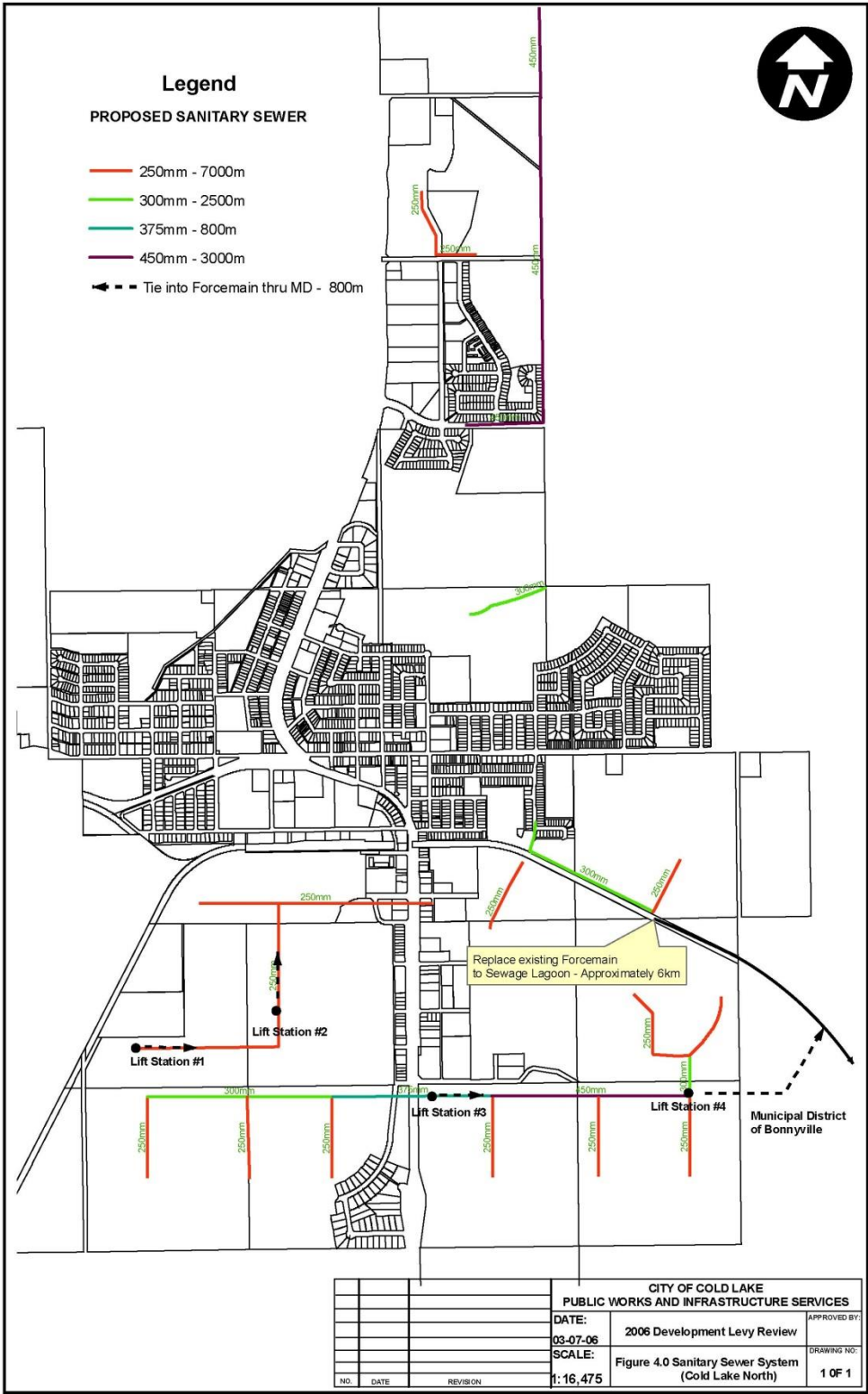


Figure 3.2: Proposed Sanitary Sewer System Projects (Cold Lake North)

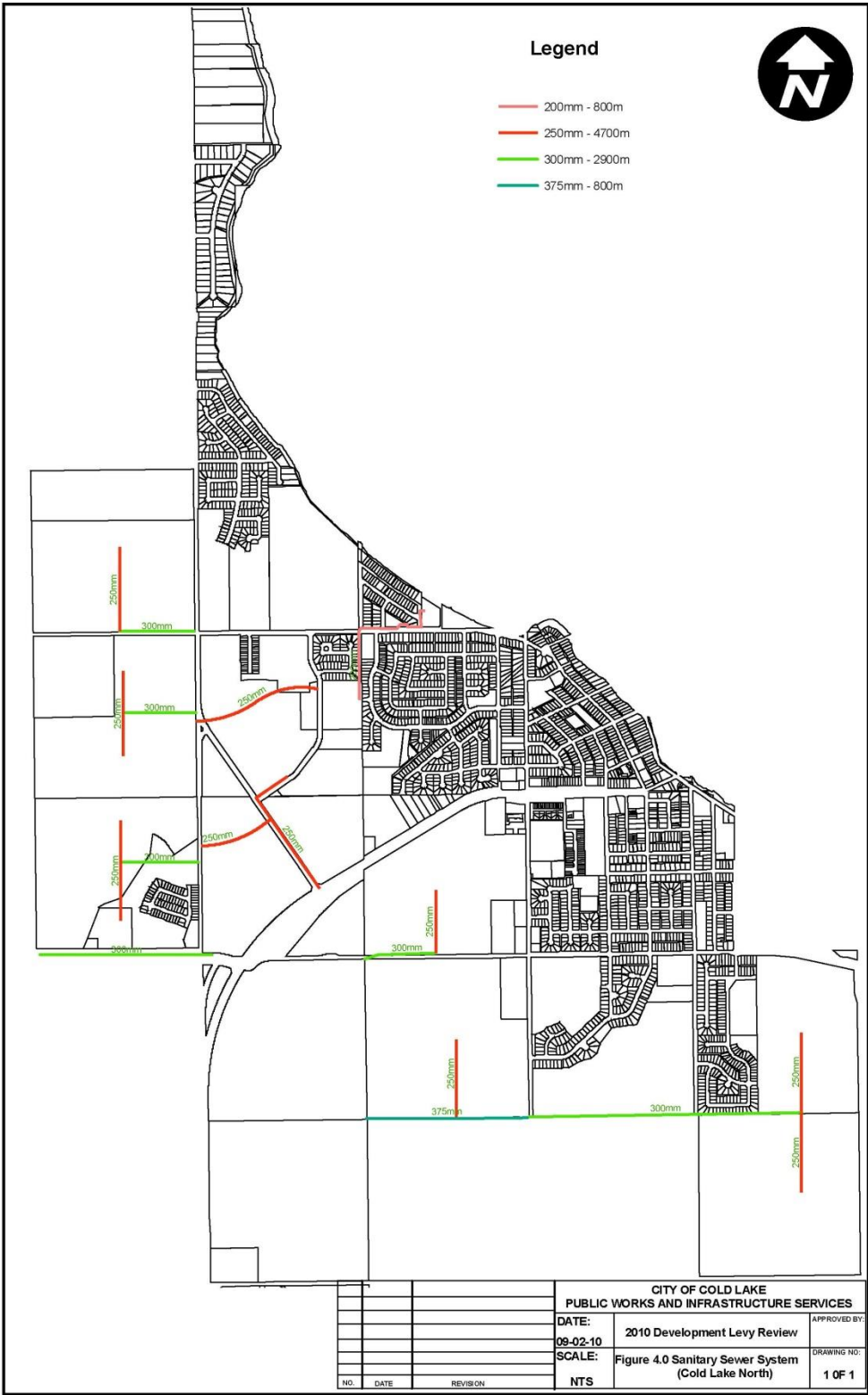
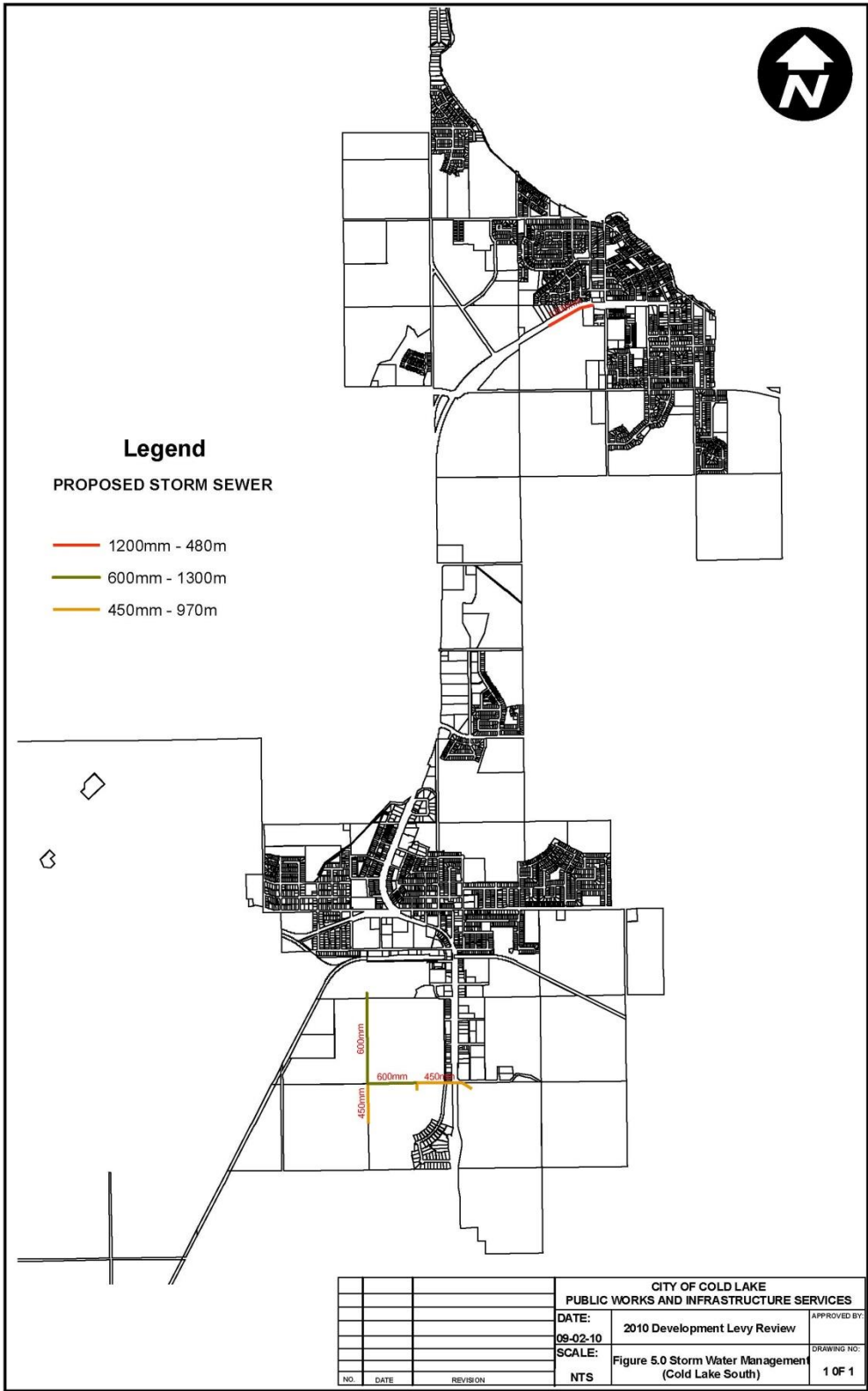


Figure 4.0: Proposed Stormwater Management System Projects



BYLAW #281-DA-07 Off-Site Levy

