

# Branch — Roads Design and Construction

## Introduction

The Roads Design and Construction branch provides engineering and project management services to maintain the fundamental roadway system within the City of Edmonton. The department is accountable for delivering the appropriate quality and scope of capital projects on time and on budget. The department leverages significant technical and management expertise to implement industry best practices and lead project excellence.



The branch coordinates and administers the roadway related improvements for the City of Edmonton. Public involvement and ongoing project communications with stakeholders on behalf of the Transportation Services Department are coordinated by the Branch as construction activities proceed. Typical roadway projects include:

- Freeway interchanges
- Bridge rehabilitation and reconstruction
- Neighbourhood renewal
- Active transportation facility construction
- Street lighting and alley projects
- Major roadway corridor rehabilitation and reconstruction
- Streetscape projects



Branch activities for these projects include:

- Design services ranging from preliminary designs to detailed “for construction” drawings that contractors use to build the necessary infrastructure.
- Project management services consisting of leading the project from cost estimates to construction.
- On-location resident engineering and inspection services for project control and comparing costs with budgeted amounts in order to track contractor performance.
- Review of delivery method for a given project; from traditional design, bid, build to alternative procurement and delivery methods to achieve the maximum value for the City of Edmonton.
- Contract administration involving preparation of contract documents, public tendering, quality monitoring and warranty tracking / resolution.



# Branch — Roads Design and Construction

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## Opportunities and Challenges

Roads Design and Construction are good stewards of public dollars for the citizens of Edmonton by consistently delivering on-time, on-budget, on-scope projects within a rapidly fluctuating construction market due to large scale expansion in the Northern Alberta economy. The department maintains top performance for a wide variety of technical and management staff.

### Neighbourhood Renewal

The Neighbourhood Renewal Program outlines a cost effective, long-term plan to address the needs of Edmonton's neighbourhood roads. The program involves the renewal and rebuilding of roads, sidewalks and streetlights in existing neighbourhoods and collector roadways. This program has many benefits for the citizens of Edmonton:

- By combining reconstruction, overlay, and preventative maintenance, citizens will benefit from faster construction at a lower cost than a reconstruction only program.
- Replacement of sidewalks where cracking, grass protruding, and trip hazards exist.
- Replacement of uneven curb and gutters.
- Repaving roadways to remove potholes, cracks and broken up asphalt.
- Replacement of rusting and tilted light stands.
- Construction of curb ramps and other intersection improvements.
- Addressing missing links in sidewalks and bike system as per the Active Transportation Policy.
- The option for decorative streetlights.

The program is carried out with an innovative approach that combines programs and expertise across the City with groups such as Transportation Operations, Drainage Services and The Office of Great Neighbourhoods.

### Implementation of Environmentally Sustainable Roadway Features

Implementation of roadway features, such as bioswales, will reduce the impacts of roadway construction. Bioswales are landscape elements that are designed to remove silt and pollution from surface runoff water and have the ability to reduce the impact of roadways on the environment.

### Implementation of Active Transportation Facilities

*The Way We Move* describes the desired future Edmonton as a walkable, cycle-friendly city that supports healthy, active lifestyles, in a barrier free, age-friendly environment. Roads Design and Construction implements active modes facilities and looks for ways to coordinate these projects with other roadway projects to achieve the best value for tax dollars.

### Impact of Capital Projects

Implementation of new technologies and innovative approaches to construction sometimes require an initial capital component. The City will have to continue to seek new sources of funding beyond 2012 for these programs. The reduced funding for the arterial renewal program in the capital budget will have an impact on the operating budget. In the future, additional funding will be required as the reduction in rehabilitation will lead to increased requirements for filling potholes and patch paving. The lack of funding for active modes transportation facilities will also result in lost opportunity for coordination of these projects.

## Service and Budget Review

There were no measures identified as a part of the service and budget review.

# Branch — Roads Design and Construction

## Approved 2012 Budget – Branch Summary (\$000)

|  | 2010<br>Actual  | 2011<br>Budget  | \$<br>Change<br>'11-'12 | 2012<br>Budget  | %<br>Change<br>'11-'12 |
|--|-----------------|-----------------|-------------------------|-----------------|------------------------|
| <b>Revenue &amp; Transfers</b>           |                 |                 |                         |                 |                        |
| User Fees, Fines, Permits, etc.          | \$ -            | \$ -            | \$ -                    | \$ -            | -                      |
| Grants                                   | -               | -               | -                       | -               | -                      |
| Transfer from Reserves                   | -               | -               | -                       | -               | -                      |
| <b>Total Revenue &amp; Transfers</b>     | <u>-</u>        | <u>-</u>        | <u>-</u>                | <u>-</u>        | <u>-</u>               |
| <b>Expenditure &amp; Transfers</b>       |                 |                 |                         |                 |                        |
| Personnel                                | 8,385           | 11,177          | 221                     | 11,398          | 2.0                    |
| Materials, Goods & Supplies              | 225             | 412             | 7                       | 419             | 1.7                    |
| External Services                        | 189             | 136             | 3                       | 139             | 2.2                    |
| Fleet Services                           | 18              | 12              | 1                       | 13              | 8.3                    |
| Intra-municipal Services                 | 1,339           | 1,937           | (523)                   | 1,414           | (27.0)                 |
| Utilities & Other Charges                | 484             | 1,520           | (18)                    | 1,502           | (1.2)                  |
| Transfer to Reserves                     | -               | -               | -                       | -               | -                      |
| Subtotal                                 | 10,640          | 15,194          | (309)                   | 14,885          | (2.0)                  |
| Intra-municipal Recoveries               | (9,039)         | (13,602)        | 127                     | (13,475)        | (0.9)                  |
| <b>Total Expenditure &amp; Transfers</b> | <u>1,601</u>    | <u>1,592</u>    | <u>(182)</u>            | <u>1,410</u>    | <u>(11.4)</u>          |
| <b>Net Operating Requirement</b>         | <b>\$ 1,601</b> | <b>\$ 1,592</b> | <b>\$ (182)</b>         | <b>\$ 1,410</b> | <b>(11.4)</b>          |
| <b>Full-time Equivalents</b>             | 79.0            | 105.0           | -                       | 105.0           |                        |

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## Budget Changes for 2012 (\$000)

### Expenditures & Transfers - Changes

#### **Personnel \$221**

Movement within the salary ranges, changes in benefits and the last year of a 3-year 1% LAPP contribution increase account for \$221.

#### **Material, Goods & Supplies \$7**

The increase is attributed to inflation.

#### **External Services \$3**

The increase is attributed to inflation.

#### **Fleet Services \$1**

The increase is attributed to inflation.

#### **Intra-municipal Services (\$523)**

Charges for space rent, Project Management Office, building maintenance, custodial, Corporate Services and Finance decreased by \$97 to align budget with the service provider charges. \$432 for a one-time renovation charge was removed from the 2012 budget. There was a \$6 increase attributed to inflation.

#### **Utilities & Other Charges (\$18)**

An increase of \$16K is attributed to inflation. Corporate strategy reductions have led to a \$34 decrease in telephones and cellular phones.

#### **Intra-municipal recoveries \$127**

Intra-municipal recoveries have correspondingly decreased \$255 to the lower expenses for 2012. This is slightly offset by inflation, which accounts for a \$128 increase.

### Full-time Equivalents - Changes

There are no FTE changes for the 2012 proposed budget.