

# THE CORPORATION OF THE CITY OF COURTENAY

## NOTICE OF COMMITTEE OF THE WHOLE MEETING

**DATE:** Monday, January 28, 2012  
**PLACE:** City Hall Council Chambers  
**TIME:** 4:00 p.m.

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### AGENDA

#### 1.00 STAFF REPORTS/PRESENTATIONS

1. Infrastructure General Status and Strategic Improvements – Kevin Lagan, Director of Operational Services – Report and Presentation (60 minutes).
2. Revenue and Expense Patterns – Tillie Manthey, Director of Financial Services/Deputy CAO – Presentation (30 minutes).

#### 2.00 RESOLUTIONS OF COUNCIL

1. In Camera Meeting

That under the provisions of Section 90(1)(i) of the *Community Charter*, notice is hereby given that a Special In-Camera meeting closed to the public, will be held January 28, 2013 at the conclusion of the Committee of the Whole meeting.

#### 3.00 ADJOURNMENT

# THE CORPORATION OF THE CITY OF COURTENAY

## REPORT TO COUNCIL


**FROM:** Kevin Iagan, P. Eng.  
Director of Operational Services

**FILE #:** 5210-01  
**DATE:** January 23, 2013

**SUBJECT:** Infrastructure General Status and Strategic Improvements

### C.A.O. COMMENTS/RECOMMENDATIONS:

That the recommendations of the Director of Operational Services be accepted.



Sandy C. Gray

### RECOMMENDATION:

That Council receive the report from the Director of Operational Services on Infrastructure General Status and Strategic Improvements.

### PURPOSE:

To provide Council with an overview of the general status of the City's infrastructure and the strategic improvements required.

### BACKGROUND:

Within the Operational Services Department, the City of Courtenay has many core services that are provided to our taxpayers and developers. They include:

- Roads, parking lots, sidewalks and paths
- Traffic signals, street lighting, road signs and lines
- Parks, playgrounds, greenways, boulevards and trails
- Playing fields, street trees, boulevards and irrigation systems
- Water distribution, valves and fire hydrants
- Sanitary sewage collection and lift stations
- Storm water drainage and detention ponds
- Dykes and flood protection
- Equipment shop and City fleet management/maintenance
- Municipal cemetery
- Solid waste, recyclable and yard waste collection
- Engineering services including, design, construction administration, records and as-built drawings
- Planning and building referrals
- Subdivision reviews and approvals
- Capital infrastructure programs
- Environmental protection
- Emergency operations

Annually we provide Council with a budget that details capital and operational work in the form of one and five year plans. In order to achieve completion of the work plans we need human, material, financial, consultant and contractor resources to conceive, design, manage and maintain

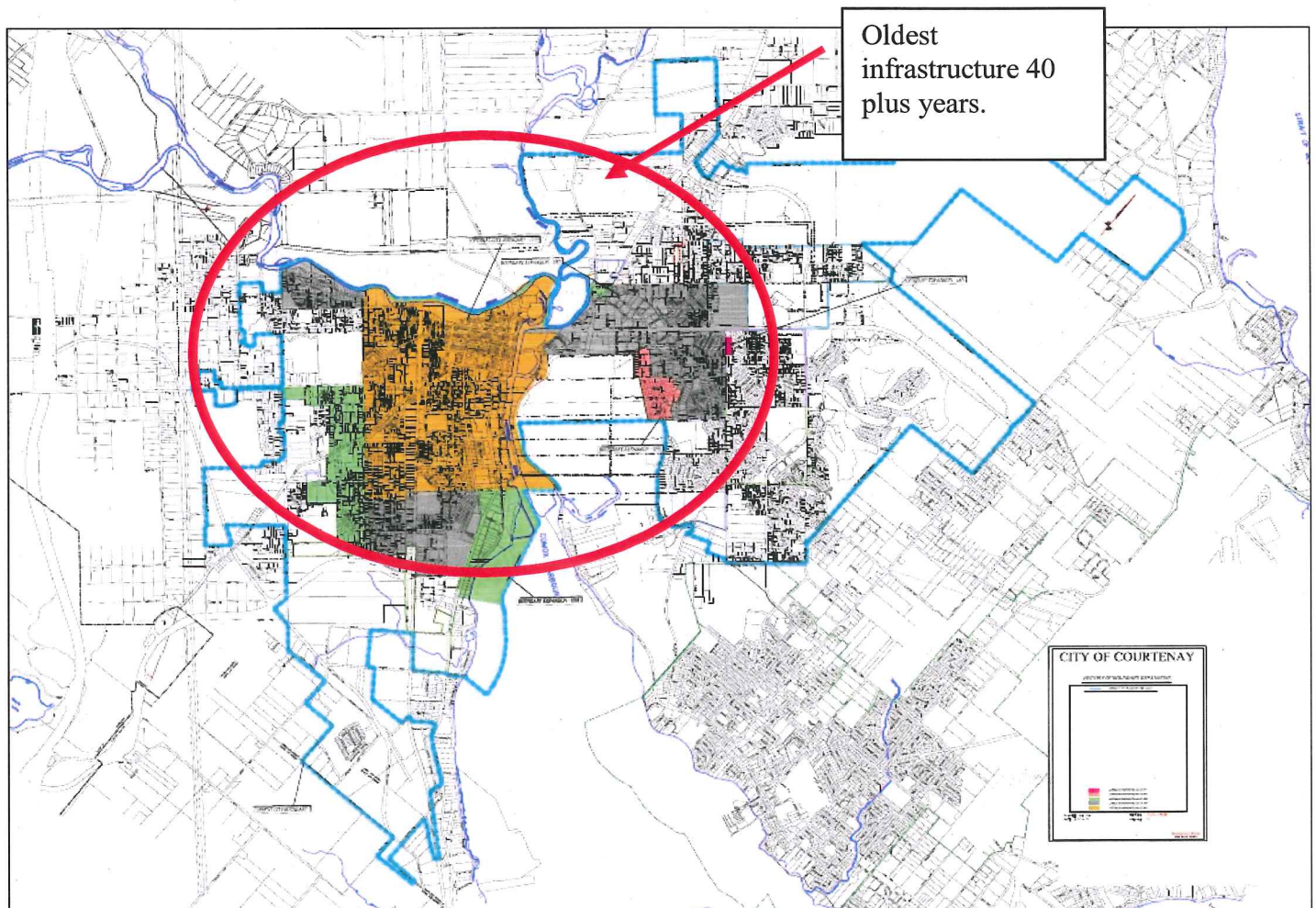
the contemplated work. As we progress as a municipality and expand our boundaries, these demands increase placing a greater burden on these resources.

The compliance requirements for safety and health, environment, insurance, legal, and engineering standards of accountability have also risen to a far greater level than in previous years. The affect of these demands is that the amount of infrastructure provided today for each Dollar expended is far less than in previous years and the cost of doing business is onerous. It is therefore critical that we provide appropriate and timely reports, programs and recommendations to Council to ensure that we maximize the resources that are available.

**DISCUSSION:**

Since its incorporation in 1915, the City of Courtenay has grown significantly over the years, stretching over the original borders to the present boundaries. Rather than undergoing urban renewal, infrastructure has been built out into new areas as development demand increased and the City expanded.

Below is a plan of the 1973 City boundary, when the population was approximately 7,500, it shows the area of the City in that year together with the outline of the present boundary. In reviewing this plan, it is easy to identify the areas of the City that were built prior to forty years ago and, thus, have ageing infrastructure. Since underground and surface infrastructure generally has a life span of forty years, this map shows the areas of the City that require attention. As an example the Old Orchard Area of the City has both underground utilities and roadways that are well past their design life and require renewal.

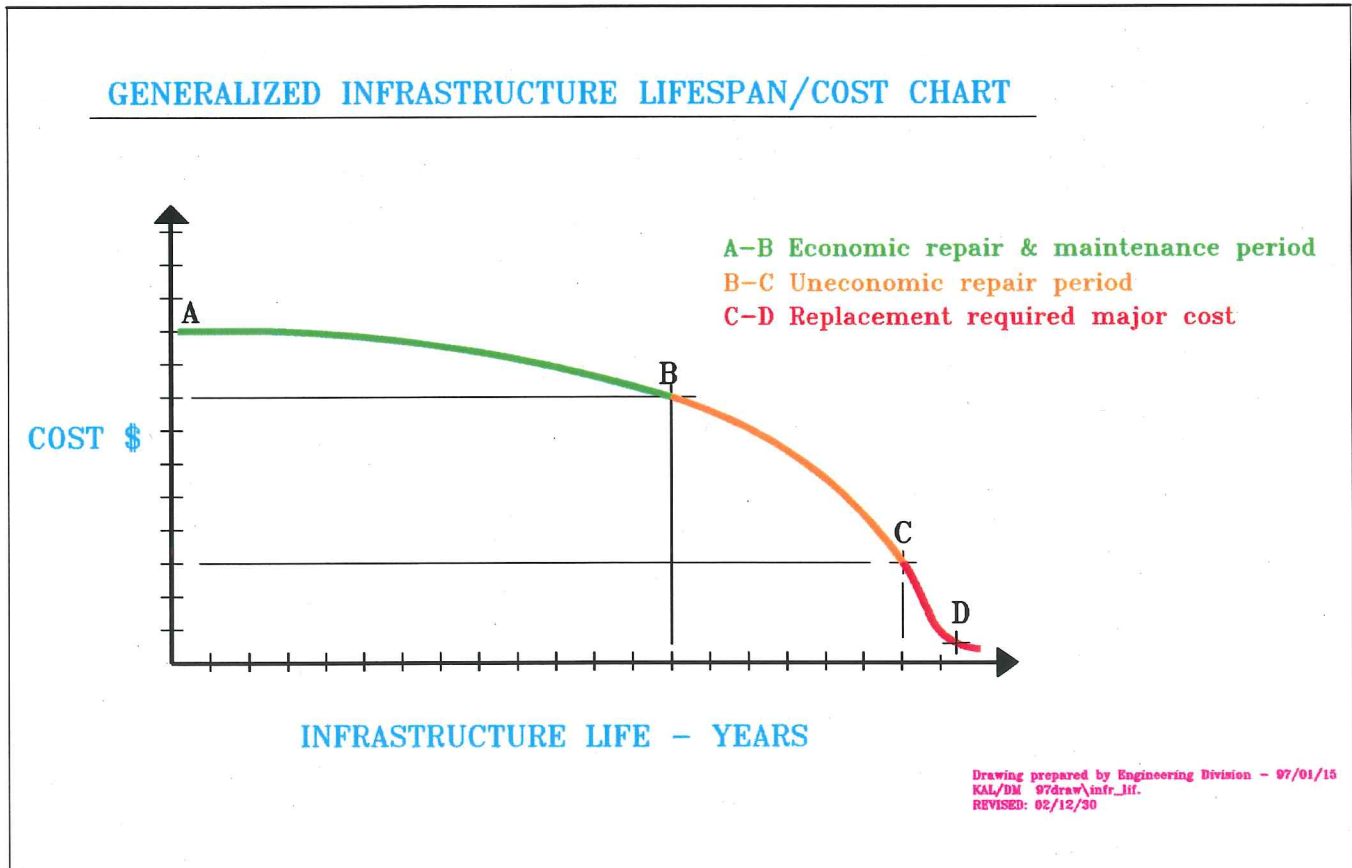




Since 2008, all municipalities have been required to report in a standard format, PSAB 3150, the condition of their infrastructure. In the 2011 report, the value of surface and underground infrastructure in the City was valued at \$150 million. This is a standard measurement of the value of infrastructure where new is 100% of the construction cost and at the end of the design life it is zero. Nevertheless it is important to ensure that the condition of both underground and surface infrastructure is maintained, replaced and repaired in a timely manner in order to both obtain the optimal service life from the asset and sustain its value. Overall the City is in reasonable condition. However, our underground infrastructure will require considerable investment in the near future particularly in areas belonging to the pre-1973 boundaries.

To understand the benefits of programmed repair and replacement programs, I have provided below a copy of the *Generalized Infrastructure Lifespan/Cost Chart* for reference. This illustrates in a simple format the economic repair and maintenance periods. Referring to the chart, we need to maintain infrastructure in the 'A' to 'B' zone, which is the most cost effective period and provides the greatest life span extension for the investment. As the infrastructure continues to fail in the 'B' to 'C' zone we have to expend a greater amount to restore the failing infrastructure and the life span extension is less valuable. Ultimately, if we wait until the 'C' to 'D' zone then the only option is complete replacement of the infrastructure as the asset has lost its value and can no longer be repaired or maintained. Considerable capital funds are required if we reach this stage.

I have listed in Appendix 'A' attached the presently identified Infrastructure Strategic Improvements and Programs for the City. From this high level list will come the detailed programs and lists of specific prioritised work. It is, therefore, critical when balancing the demands on the municipal budget that adequate funds are allocated to the core municipal infrastructure services.



On an annual basis, the department reviews the condition of the infrastructure and compiles lists of capital improvements, maintenance work, repairs and new equipment requirements. This is

then prioritized into technical work plans which involve the Strategic Plan, infrastructure studies, DCC bylaws and annual and five year budgets. The annual and five year draft budgets are then presented to Council for review and approval. In 2013, there are projects that Operational Services are working on that have rolled through the year end of 2012. These are projects where we have made commitments in the form of work orders, operational necessities or agreements that must be acted on; they include:

### **2013 Strategic Capital Project Priorities:**

- Comox Valley Hospital – Subdivision and site development
- Courtenay/Puntledge/Tsolum River Flood Plain study and adaptation work
- DCC Bylaw for South Courtenay
- Lerwick/Malahat traffic signal installation
- Beechwood Road to Christie Parkway watermain interconnection
- Waters Place design and contribution to intersection upgrade
- Fibre optic duct and cable extension from 5<sup>th</sup> Street Bridge to Lewis Centre
- Glacier Road sanitary sewer design
- Headquarters Road from Glacier Road to Vanier Drive school maintenance yard access sanitary sewer design
- 4697 Headquarters Road drainage diversion

### **2013 Operational Priorities**

- Cross connection control bylaw
- Policy and Procedure review/development for operational requirements
- Implementation of watermain flushing program
- Development of approved water meter list
- Development of water meter replacement program
- Continuation of separating the water and sewer operations functions
- Develop Dyke inspection program
- Complete 2013 capital paving program
- Complete business case for pothole repair program
- Complete phase 4 of Rails to Trails project
- Lewis centre landscape design and construction project
- Develop Sandwick Forest trails project
- Complete Cemetery capital project
- Develop Maintenance Management Plan for Operations Sections
- Develop Fleet Management Plan for Operations Sections
- Continue planning for Operations Yard expansion
- Research and develop a plan for asset inventory and assessment
- Continue to develop a plan for SCADA system

### **FINANCIAL IMPLICATIONS:**

Strategic Capital Projects are listed in the 2013 Capital Budget. Longer term projects and programs appear in the five year budget which will be prioritised based on the City Strategic Plan, infrastructure evolving conditions and financial constraints.

### **STRATEGIC PLAN REFERENCE:**

Value Statement 2 – A progressive, diverse and sustainable City

Goal 1: c) Complete and inventory and assessment of City roads, buildings and utilities, and report on works required.

Goal 2: a) Address development service delivery timelines and procedures.

c) Ensure all infrastructure planning studies are current.

d) Develop an integrated management model for all development, subdivisions and

building projects.

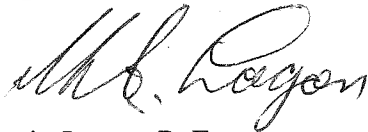
**OCP SUSTAINABILITY REFERENCE:**

Referenced in Sections 5 and 6 of the OCP for transportation and utilities respectively.

**REGIONAL GROWTH STRATEGY REFERENCE:**

Referenced in the RGS are Goal 4 Transportation and Goal 5 Utilities.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "K. Lagan". The signature is written in a cursive style with a large, looping initial "K".

Kevin Lagan, P. Eng.  
Director of Operational Services

## Appendix 'A'

### Infrastructure Strategic Improvement and Programs for the City:

#### Transportation, traffic, roads, sidewalks and pathways

- Third Courtenay river crossing
- Fifth Street Bridge recoating
- Tunner Drive extension
- Road/sidewalk upgrading on the Old Island Highway to Ryan Road
- Sidewalk and pathway routes and linkages to parks
- Bicycle corridor accommodation on existing roads
- Sixth Street bike/pedestrian bridge
- Waters Place design and contribution to intersection upgrade
- Cycling routes and connections
- Roundabout retrofitting of existing intersections
- Replacing curb, gutter and sidewalk
- Reconstructing roads
- Traffic management and traffic calming
- Transportation corridors i.e. north Courtenay connector
- Lerwick/Malahat traffic signal installation
- Completion of Lerwick Road four lane section and asphalt overlay
- Transportation and planning study

#### Water supply

- Water metering/conservation
- Watermain replacement program
- Trunk watermains for west Courtenay
- Beechwood Road to Christie Parkway watermain interconnection
- Regional water system
- Sandwich Waterworks District changeover
- Water distribution study update
- Watermain flushing program (to be developed)
- Hydrant and valve maintenance and exercising
- Cross Connection Control program (to be developed)

#### Sanitary sewers

- Headquarters Road and Vanier Drive trunk sewer
- New sewage lift station on Mission Road
- Greenwood/Dryden Trunk sewer system
- Glacier Road sanitary sewer design
- Mission Road sewage lift station
- Sanitary sewer replacement program (to be developed)
- Sewage lift station upgrading
- Sanitary sewer study update
- Regional sewer system
- CCTV program
- Inflow and infiltration program

#### Storm drainage

- Storm drainage replacement program (to be developed)
- Monitoring of storm detention pond performance (to be developed)
- Tidal surge impacts on flood plain drainage
- Open ditch cleaning
- Catch basin cleaning

- Storm drainage study update
- Courtenay/Puntledge/Tsolum River Flood Plain study and adaptation project
- Dyke Inspection program (presently under development)

#### Engineering

- CV Hospital project
- Global warming impacts – rising ocean levels
- GIS infrastructure development
- Digitisation of engineering records, as-built drawings and service cards
- Funding sources for capital projects
- Boundary extension areas servicing impacts and service provisions
- DCC bylaw for South Courtenay
- DCC Bylaw rewrite
- Fibre optic duct and cable extension from 5<sup>th</sup> Street Bridge to Lewis Centre
- Kitchen waste program
- Training of staff for emergency management in the EOC

#### Operations

- Operations yard expansion planning
- Staff development
- Fleet equipment maintenance, replacement planning and acquisition
- Training of staff for emergency management in the Command Post and DOC
- Constructing new parks
- Maintaining existing park facilities
- Playground refurbishing/replacement
- Cemetery maintenance and development
- Parks, trails and playground equipment inspection
- Development and maintenance of the rails to trails project
- Development and maintenance of the cemetery
- Street tree maintenance
- Walkway and bikeway development/restoration
- Trail construction and maintenance