

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF APRIL 23, 2013

Item 1, Report No. 2, of the Priorities and Key Initiatives Committee, which was adopted without amendment by the Council of the City of Vaughan on April 23, 2013.

1 MEASURING SUSTAINABILITY PERFORMANCE OF NEW DEVELOPMENT IN BRAMPTON, RICHMOND HILL AND VAUGHAN LINKING HEALTHY AND SUSTAINABLE COMMUNITIES FILE 22.24.1

The Priorities and Key Initiatives Committee recommends:

- 1) That the recommendation contained in the following report of the Commissioner of Planning, dated March 18, 2013, be approved;**
- 2) That staff report back prior to the 2014 budget discussion with the cost and staffing implications of applying the sustainability metrics; and**
- 3) That the following presentations and Communications be received;**
 - 3.1 Dr. Karim Kurji, Medical Officer of Health for York Region Public Health, and Communication C1, presentation material titled “York Region Public Health Building Healthy Communities”, dated March 18, 2013;**
 - 3.2 Mr. Dan Leeming, Planning Partnership, and Communication C2, presentation material titled “Sustainability Guidelines and Metrics”; and**
 - 3.3 Ms. Gayle Bursey, Director, Peel Public Health, and Communication C3, presentation material titled “Creating Supporting Environments”, dated March 18, 2013.**

Recommendation

The Commissioner of Planning recommends that this report and presentation BE RECEIVED for information.

Contribution to Sustainability

The initiatives outlined in the presentation support priorities previously set by Council in Green Directions Vaughan, the City's Community Sustainability and Environmental Master Plan. Objective 2.3 speaks to creating a city with sustainable built form. Action Item 2.3.1 refers to developing criteria to measure the sustainability performance of development, specifically to develop “sustainable development evaluation criteria”. Integrating sustainability guidelines and metrics in the development review process for each development application is an important tool to achieve sustainable communities.

Economic Impact

The City has partnered with the City of Brampton and the Town of Richmond Hill in undertaking this study. The total cost to the City of Vaughan under the funding arrangement with municipal partners is \$22,500 of the total project cost of \$180,000. The funding was approved in the 2011 budget.

Communications Plan

The communications plan for the project, Measuring Sustainability Performance of New Development, includes consultation as part of the development of the sustainability guidelines and metrics as well as outreach for the purposes of knowledge transfer. Consultation has

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included two workshops held in Vaughan for staff of the three partner municipalities. Two forums have been held for the development community, one in Brampton and one in Vaughan.

Outreach as part of the knowledge transfer process will continue into the future once the project has been approved by the respective Councils. The partners will seek to present the results of the project at various venues, such as the annual symposium of the Ontario Professional Planners Institute, the annual conference of the Canadian Institute of Planners, the annual conference of the Federation of Canadian Municipalities, the Municipal Leaders Forum (an initiative of the Greater Toronto Chapter of the Canada Green Building Council), and where other opportunities arise.

Purpose

The focus of the presentation is on the broader linkages between public health and sustainable communities. The incorporation of sustainability guidelines and metrics into the development review process, to improve the sustainability performance of communities, is an important means of delivering the City's sustainability agenda. This presentation will also inform work being conducted by the Strategic and Corporate Services Commission and the Office of Environmental Sustainability towards developing performance indicators that can be applied in the City of Vaughan. Opportunities for application of these metrics may be related to staff reporting and monitoring progress on the Strategic Plan, the City's Official Plan and other City Master Plans.

This effort can also support the missions of other partner agencies, such as York Region's Community and Healthy Services department and Peel Region Public Health. This presentation will provide an illustration of the broad range of benefits that can result from this exercise.

Background - Analysis and Options

Status of the Project, Measuring Sustainability Performance of New Development

Previous reports were brought to the Environment Committee of Council in 2009 and 2010 to update Council on the process to establish the project. It evolved as a collaboration with municipal partners, the City of Brampton and Town of Richmond Hill, and environmental partners (TRCA and Clean Air Partnership). An MOU was signed by the municipal collaborators in January 2011 following confirmation of matching funds of \$85,000 from the Green Municipal Fund of the Federation of Canadian Municipalities.

Phase 1 of the project was led by the City of Brampton and began in 2011 with a focus on developing the sustainability guidelines. Phase 2 is being led by the City of Vaughan and has a focus on identifying and testing sustainability metrics within the framework of the guidelines developed in Phase 1. A future report to Council will present the Draft Comprehensive Report of the project, including sustainability guidelines and metrics which will be made available for public comment. Following the public comment period, a Final Comprehensive Report will be brought to Council, which will focus on implementing the findings of the project.

A sample of the sustainability metrics for the site plan and building scales is provided as Attachment 1. The tabulated metrics provides a standard approach to rank the sustainability performance of each development application.

Linking Public Health and Sustainable Communities

The prevalence of overweight and obesity in the population is on the rise globally. Between 1980 and 2010, obesity rates in Canada roughly doubled among both males and females in most age groups in the adult and youth categories (Shields *et al.* 2010). Approximately one in four Canadian adults is obese and almost one in three Canadian children, 31.5 percent, are now overweight or obese. Three-quarters of overweight kids will remain so in adulthood, with health effects ranging from diabetes to certain types of cancer, osteoarthritis and heart disease (Roberts *et al.* 2012).

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A variety of factors play a role in the rise of chronic diseases, such as individual behaviours, genetics and environmental factors. However, at the most fundamental level, overweight and obesity result from an imbalance between caloric intake and usage. In support of this perspective, health and nutrition experts cite increasingly sedentary lifestyles resulting from urban planning and technological changes in the way we live and work. Essentially, physical activity has been engineered out of our lives. The need to be physically active in our jobs and at school has increased with the promotion of sedentary leisure activities.

There is a growing body of evidence demonstrating a relationship between where we live and our health outcomes (Region of Peel 2005). Researchers have noted that the built environment has an impact on health outcomes and risk factors related to: air quality; water quality; extreme heat; climate change; physical inactivity; obesity; cardiovascular disease; diabetes; respiratory disease; and mental illness. Patterns of suburban development are encouraging physical inactivity, namely, low density neighbourhoods with poor street connectivity that encourage the use of the car and discourage active transportation. Suburban sprawl has been associated with social inequities and negative health impacts (Katzmarzyk and Janssen 2004), which result from:

- Increased driving times and emissions from transportation sources which contributes to poor air quality leading to heart and lung conditions, hospital admissions and death;
- Longer commute times and driving through heavy traffic that can lead to increased levels of stress, anxiety, and road rage which may have an immediate impact on work performance and can affect overall mental health and quality of life in the long run;
- Higher automobile use and lower levels of physical activity that can lead to obesity, diabetes and other chronic diseases;
- Less community involvement and social isolation, leading to mental illness due to automobile dependency; and
- Road design and traffic congestion that is associated with motorist and pedestrian injury rates.

In comparison, Canadians living in major urban centres are twice as likely to walk, bike or use public transit to get to work compared to those living in the suburbs.

In addition, building design and infrastructure are important components of the built environment that have an impact on health and support community sustainability. Green buildings and infrastructure increase a community's resiliency to climate change and positively influence human health, for example:

- Reduced urban heat island effects through increased canopy cover, and green roof technology;
- Reduced greenhouse gas emissions through energy and water efficient buildings, district energy systems and orienting buildings to maximize passive solar gain; and,
- Improved indoor air quality through use of low VOC materials.

Based on the strong relationship between public health, community design and the built environment, the fields of Public Health and Planning are working together to design better communities to improve health outcomes. Health-oriented development creates sustainable communities by recognizing the value of: the quality of our air, soil and water; opportunities for and attraction to exercise and recreation; access to healthy foods; social equity and cohesion; and safety and security. This collaboration is an important consideration in the implementation of sustainable community plans at the municipal scale.

York Region Public Health

York Region Public Health has provided input to a wide range of regional and municipal initiatives linking health outcomes to municipal planning objectives, including:

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- York Region Vision 2051;
- Policies related to Healthy Communities, Air Quality and Climate Change in the York Region Official Plan;
- York Region New Communities Guidelines;
- York Region Food Charter;
- York Region Pedestrian and Cycling Master Plan;
- Vaughan Active Together Master Plan;
- Vaughan Active and Safe Routes to School; and
- Maple Go Secondary Plan Area.

York Region Public Health has provided a review (below) linking the indicator areas of the draft sustainability performance metrics to public health programs:

- Energy conservation → air quality, climate change;
- Water conservation → safe water, climate change;
- Stormwater management → safe water, climate change;
- Walkability/Connectivity → physical activity, chronic disease and injury prevention, air quality, climate change,;
- Public/Active transit oriented development → physical activity, air quality, climate change, injury prevention;
- Community tree planting → air quality, climate change, physical activity;
- Local food production/distribution → nutrition, food safety and security, air quality, climate change, physical activity; and
- District energy synergies/connection → air quality, climate change.

Presentation to the Priorities and Key Initiatives Committee of Council

Dr. Kurji, Medical Officer of Health for York Region's Community and Healthy Services Department, will provide an introduction linking health outcomes to sustainable built form. Dr. Kurji will address:

- the health status of York Region residents, and trends within the Region and provincially;
- the links between the built environment and health (e.g. chronic disease and injury prevention, air quality, urban heat island, and climate change); and
- York Region contributions to the built environment.

Dan Leeming of The Planning Partnership will provide the main presentation, "Policy to Action: Sustainable Guidelines and Metrics". While the details of the sustainability guidelines and metrics are not presented at this time, Attachment 1 provides a sample of the sustainability performance metrics to be presented to Council in the near future as a Draft Comprehensive Report. The focus of the presentation is on the broader sustainability linkages between healthy and sustainable communities, and the sustainability metrics as an important planning tool to deliver the City's sustainability agenda.

Dr. Mowat, Medical Officer of Health, representing Peel Public Health and a national organization, the Urban Public Health Network, will focus concluding remarks on implementation issues. The experience of Peel Public Health emphasizes the critical role of leadership to ensure action and demonstrate tangible results, particularly in the complex field of human health where numerous variables affect health outcomes.

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References

Katzmarzyk, Peter T. and Ian Janssen. 2004. The Economic Costs Associated With Physical Inactivity and Obesity in Canada: An Update. Canadian Journal of Applied Physiology, Vol. 29, No. 1 (2004). p. 104.

Region of Peel, Public Health. State of the Region's Health 2005 – Focus on Overweight, Obesity and Related Health Consequences in Adults. 2005.

Roberts, K., Shields M, Groh M, et al. 2012. Overweight and obesity in children and adolescents: Results from the 2009 to 2011 Canadian Health Measures Survey. Health Reports. September 2012; 23.

Shields, M. et al. 2010. Fitness of Canadian Adults: Results from the 2007-2009 Canadian Health Measures Survey. Health Reports 21 (2010): pp. 1-15.

Relationship to Vaughan Vision 2020/Strategic Plan

This report is consistent with the priorities previously set by Council and the necessary resources have been allocated and approved.

Regional Implications

The project, Measuring Sustainability Performance of New Development, intended to implement Action Item 2.3.1 of Green Directions Vaughan, is consistent with numerous action items in the Region of York Sustainability Strategy 2007, particularly Section 2 regarding healthy communities and Section 4 regarding a sustainable natural environment. Support from York Region in coordinating information requirements and through new and updated data sharing agreements, training and support will assist staff to implement the findings of the study. The project is consistent with Section 5.2 (Sustainable Cities, Sustainable Communities) of the York Region Official Plan.

Conclusion

The intended result of the project is a user-friendly checklist of environmental performance standards, to integrate into the development review process, that are accepted by industry and consistent among the partner municipalities. This report to the Priorities and Key Initiatives Committee of Council highlights the number of departments at the regional and local municipal levels that are working towards similar sustainability goals. Applying sustainability metrics to the development review process for relevant types of development applications could be an important opportunity towards achieving multiple sustainability objectives identified in Green Directions Vaughan and policy documents adopted by other levels of government and agencies. Applying metrics may require additional staff resources, new information standards that would need to accompany development applications or City-initiated studies to ensure that information can be integrated into both City and Region GIS layers. Assistance and support from Commission staff in the offices of Information & Technology Management and Innovation & Continuous Improvement, along with support from building industry stakeholders, may be required to integrate the information into City processes and the City's Corporate GIS system.

Given the potential increase in growth, congestion and the negative impact on the environment and citizens' health, Vaughan is responding in a progressive, proactive manner by implementing these sustainability guidelines and taking steps to build information requirements to mitigate the challenges faced by many Ontario municipalities.

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Attachments

1. Measuring Sustainability Performance of New Development in Brampton, Richmond Hill and Vaughan - Draft Sustainability Metrics at the Site Plan and Building Scale.

Report prepared by:

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(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)