

Land Development Consultant & Contractor Liaison Meeting Minutes

Presenters: Tommy Buchman, P. Eng, Acting Development Services Manager
Doug Mossey, P. Eng, Inspection Services Manager

1. Administrative Notes

- a. Land Development in Surrey (2017 Statistics)
 - i. Approximately \$80 million of Land Development related utility and road works was constructed.
 - ii. 145 Servicing Agreements were executed.
 - iii. 1,100 Single Family homes were constructed.
 - iv. 1,100 Townhouse units were constructed.
 - v. 410 Apartment units were constructed.
- b. Staffing Update
 - i. Steven Chan and Alborz Yazdanshenas were hired in the Development Services Section as Project Supervisors.
 - ii. Angela Tojcic was hired in the Inspection Services Section as an Inspector.
 - iii. Jen Chahal was hired as the Acting Senior Operations Clerk.
- c. Digital drawing and document submission update
 - i. Submission of digitally sealed engineering drawings and documents will replace 'hard-copy' submissions in 2019 (roll-out date TBD). An Engineering Bulletin will be issued prior to roll out.
- d. Revisions to Servicing Agreement (SA)
 - i. The City has consulted with select engineering consultants on revisions to the SA. We will be seeking comments from the Development Advisory Committee. A revised SA template is expected to be issued in 2019.
 - ii. One proposed change is to require the Developer to retain the Engineer of Record (EOR) for the full scope of construction services including tendering, contract administration, and progress draws.
- e. Design Criteria Manual and Supplementary Specifications
 - i. City Centre Supplementary Drawings were issued in August 2018, and now form part of the City's Supplementary Standard Drawings.
 - ii. The next update to the Design Criteria Manual (DCM) and Supplementary Master Municipal Construction Documents is targeted for 2019.
- f. Development Services typical design review timelines
 - i. Project Scoping – 2 weeks review with the City.
 - ii. Project Detailing – 4 weeks review with the City for the first submission, and +/- 2 weeks for each subsequent submission if it does not require a re-

referral to internal departments. If a re-referral is required, the review will be 3-4 weeks.

- iii. Note that these timelines are based on complete design submittals for a typical project. Complex projects or inadequate/incomplete design submissions typically extend the review period.

- g. CGVD28 GVRD Survey Benchmark Update

- i. The new benchmark was planned to come into effect on Sept 1, 2018, but that has been suspended until further notice.
- ii. An update will be provided through an Engineering Bulletin once more information is available.

2. Design Submissions

- a. General Notes

- i. Follow the City Drawing Standards and do not make changes to the City Drawing Notes.
- ii. Only upload design drawings via the MFT. Do not upload other documents or reports, as they should be sent by email to the Project Supervisor.
- iii. Ensure that the drawings submissions are complete. Street lighting or Traffic Signal drawings are sometimes missing from the first project detailing submission. Incomplete submissions will delay the review period.
- iv. Ensure that project specific notes do not contradict or conflict with the City's standards, specifications, or guidelines.
- v. Watermains should generally be specified at 1m cover, unless there are conflicts to be avoided.
- vi. Avoid placing manholes in the wheel path.

- b. Reliance on As-Constructed Drawings / COSMOS

- i. The City does not guarantee the accuracy of information shown on as-constructed drawings or COSMOS. The Engineer must make appropriate verification to ensure the accuracy of critical information provided.
- ii. Stream classifications shown in COSMOS cannot be deemed correct without field verified by a QEP.

- c. Design Coordination with Sub-consultants (Geotechnical, Traffic Signals, Structural, etc.)

- i. Non-civil design components should be incorporated into the civil design drawings as applicable.
- ii. Structural details can be on a separate sheet but must be sealed and included in the final drawing package.
- iii. Streetlight features design must be dimensioned and at an appropriate scale on the drawings to verify there are no conflicts (i.e. site furniture should be dimensioned and to scale to ensure that they are not in conflict with pathways or letdowns)

- d. Minimum Sanitary Mainline Size Change (update occurred in the 2016 DCM)

- i. 2004 DCM – minimum sewer 200mm for residential lands.
- ii. 2016 DCM – minimum sewer 250mm for residential zones with less than 90 people per hectare.

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- iii. An existing 200mm main may be retained (i.e. no upsizing to 250mm), if the performance criteria in the DCM can be achieved under the full population build-out scenario. It is up to the Engineer to present the analysis via a sealed letter for city review.

3. Latecomers and DCW

- a. Notify the city prior to construction if projected DCW Reimbursements and Latecomer Agreements tender prices exceed the estimated cost.
- b. Ensure fairness between Front-Ending and Benefitting Properties by dimensioning the pre-development lot boundaries.
- c. Park Lots are eligible to pay for latecomers (i.e. they are not 'Exempt') when the lot has development potential. Park lots are Exempt (i.e. not eligible for latecomers) when the lands cannot be developed (i.e. riparian areas, detention ponds, etc.) or when the land is dedicated park conveyed by the developer.

4. Site Grading and MBE's

- a. Changes in grades must not create any adverse effects to drainage of neighbouring sites.
- b. The maximum grade change is site specific (i.e. lots with a depression could potentially be filled more than a flat site)
- c. Minimize the use and height of retaining walls where practical. Walls taller than 1.2m require a Building Permit.
- d. Avoid retaining walls to support City roads/lanes (alternatively, slope the embankment at 3H:1V).

5. Tree Protection

- a. Tree Protection Zone (TPZ) requirements, where the TPZ radius is measured from the trunk at a distance of six times the trunk diameter.
 - i. The installation of structures, infrastructure, footings, or swales within the tree protection zone will not be supported.
 - ii. Intrusion into the 1.5x additional protection area may be approved, provided there is Arborist sign off on the proposed work and Arborist supervision during the work.
- b. Protection of shared and neighboring trees
 - i. Permission from neighbouring properties is required for any work that needs to be completed within the TPZ for an off-site tree.
 - ii. Provide the authorization early in the application process if the proposed design specifies the removal of an off-site tree.
 - iii. Off-site permission must be received before the City will approve a tree protection/removal plan.
- c. Potential strategies to protect/retain trees
 - i. Relocate proposed services (i.e. located services under driveways) away from trees
 - ii. Directional drilling
 - iii. Off-set tree protection
 - iv. Meandering Sidewalks
 - v. Adjust grading plans

6. Erosion and Sediment Control (ESC) Considerations

a. ESC Designs

- i. ESC Designs must appropriately factor in the site soil conditions when designing for a sediment control facility, and especially when sizing sediment control ponds.
- ii. The Best Practice is to use the formula $SA = SF \cdot Q / V_s$. When silt is present V_s should be 0.02. If clay is present, then flocculent treatment is required.
- iii. ESC Designs must accurately factor in the site drainage when specifying measures. For example, when roads are constructed it is typical that swales are constructed running parallel to the road. This is often missed in the ESC plan which typically jump to the ultimate works.
- iv. Phases for multi-family ESC Plans should include Clearing/grubbing, Utility/Road Installation, and Building Construction/Landscaping. Do not reference a Maintenance phase.
- v. ESC Plans must be designed around the Q_5 storm event.
- vi. The runoff coefficient for design should be a minimum 0.6 (Exposed soils)
- vii. When the site is an excavation the runoff coefficient should be closer to 1.0 and the designer should account for groundwater flows entering the excavation.
- viii. When specifying Flocculent treatment systems, the designer must use the modified rationale method to calculate the sump to treatment rate.
- ix. Choose appropriate Runoff Coefficient to reflect ground conditions.
- x. Don't call for silt fencing in areas that will damage shallow tree roots.

b. ESC Works in riparian/environmental areas

- i. For Rolled Erosion Control Blanket in a riparian area, ensure the product does not have any monofilament netting (use biodegradable products). The only product to be used must have a natural fibre netting (Ex. BioNet blankets). If monofilament netting is found during the closure inspection the product will have to be removed and replaced.
- ii. When adding ESC Best Management Practices in environmental areas, consider using products that can be left in place such as compost berms, blown compost blankets, hydraulic mulches, etc.
- iii. At grade control measures should be considered rather than products that need to be keyed in such as silt fence. This is to reduce root damage to existing vegetation and creating additional soil disturbance.
- iv. When designing around TPZ barriers, the use of silt fence and swales should be placed beyond the drip line of the tree rather than the tree barrier to reduce impact to the tree roots.
- v. Do not place silt fence within the high-water level (HWL) of watercourses or across the channel.
- vi. Do not use silt fence as a check dam.

c. Sequencing of works and constructability

- i. Many ESC plans conflict with the constructability of the site. When designing and specifying ESC measures, the plan designer should be factoring in how the site is to be constructed. For example, the use of straw in active working areas is not practicable, especially around the building envelope. Consider using washed river sand (not Sechelt sand) or gravel for active working surfaces.

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- ii. Sediment control BMP's must be installed as a priority when starting site works, especially in the wet months. Flocculent Treatment system should be on-site and operational before site grubbing occurs.

7. Traffic Obstruction Engineering Bulletin

- a. See attached.

8. Changes to Pre-Construction Meeting Process

- a. Inspection Services staff is scheduling pre-con meetings at the project site with stakeholders
- b. The City inspector will bring a draft copy of the minutes, the Interim Release Form and the permits for signing
- c. Finalized minutes with input from the stakeholders will be distributed to all after the meeting.

9. Timely Permit Renewals

- a. Reminder to contractors that permits expire when their insurance expires
- b. The expectation is that contractors will renew at least one month in advance
- c. Please populate your calendars with the expiry date as a reminder
- d. Automatic notifications are being sent one month in advance of expiration date
- e. Renewals prior to expiration are not charged a fee.

10. Video Submissions

- a. Hard copy submissions will not be accepted
- b. Digitally upload videos with certified report to the City of Surrey MFT site using the link provided by the City Inspector.

11. Inspection Report Submissions

- a. Send to EngIS@surrey.ca
- b. All inspected works must have an accompanying report
- c. Inspection Report submissions must be up-to-date to facilitate Interim Releases.

12. Temporary Water Service Connections

- a. Hydrant use permits are no longer issued at the City of Surrey. Fill stations are available throughout Surrey at user pay rates (<https://www.surrey.ca/city-services/17768.aspx>)
- b. Temporary Water Service Connections may be utilized through re-use of an existing service connection, installation of a temporary service connection, or advancement of the ultimate service connection, subject to City approval.
- c. Go to the Client Services counter on the second floor to apply for a temporary service and accompanying plumbing permit
- d. It takes 2-6 weeks from time of application for installation by City forces
- e. Potential \$10,000 fine for illegal water use.
- f. To expedite the process, the civil design engineer can include a temporary water connection on the Servicing Agreement design drawings.

13. MR Style Valve Boxes

- a. Water valves must utilize MR Style valve boxes
- b. Concrete or MR Style boxes are required for inspection chambers in hardscapes
- c. Concrete boxes are required for daigles in hardscapes.

14. Water Tie-In & Connection Summary Sheet

- a. Ensure these estimates reflect the reality of the project, especially regarding challenging installations
- b. Follow up with the Development Services Project Supervisor for estimates related to non-standard or complex connections and tie-ins
- c. This is not a desktop exercise, as challenges are best identified in the field.

15. Water Tie-In Request Forms

- a. Confirm that the vertical and horizontal alignments are within the identified specifications on the form
- b. Confirm that the area between the terminus of the main and the tie-in location has been excavated and that there are no conflicts impeding the tie-in by Water Operations.

16. Engineering Support for Building Permit (BP) Issuance & Occupancy

- a. BP Issuance:
 - i. Single Family Requirements: base asphalt, sidewalks, Hydro/Tel/Cable ducts, streetlights, water, video submissions, air tests and rough lot grading acceptance
 - ii. Commercial Requirements: BP issuance is supported by Engineering when a pre-construction meeting has been held with Inspection Services
- b. BP Occupancy:
 - i. Single Family Requirements: as above, unless there are problems in the City rights-of-way (i.e. misaligned driveways, garbage, construction issues, safety concerns, etc.)
 - ii. Commercial Requirements: as above, unless there are problems in the rights-of-way (i.e. missing infrastructure, garbage, construction issues, safety concerns, etc.)
- c. Please be pro-active and timely when preparing to request support of BP Occupancy and follow up with the City Inspector accordingly.

17. Certified Submissions

- a. Certification of testing packages is often overlooked
 - i. Include a cover letter and highlight any identified issues
- b. Submissions requiring certification:
 - i. Pre-con request
 - ii. Letter of appointment
 - iii. Interim releases
 - iv. Holdback reductions
 - v. Certificate of completion
 - vi. Certificate of acceptance
 - vii. Reimbursement requests
 1. DCW
 2. DCC
 3. Cash-in-lieu
 4. Double bonding
 - viii. Sustainable drainage system certification
 - ix. Storm detention certification
 - x. Geotechnical report
 - xi. Environmental report
 - xii. Tangible capital asset report

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- xiii. Certification of testing packages
 - xiv. Final construction inspection letter
 - xv. Final maintenance inspection letter
 - xvi. Retaining wall certification (1.2 m and above)
 - xvii. Video certification
 - xviii. Lot grade certification
 - xix. On-site pipe works certification (easements, lawn basins, etc.).
- c. Digital submissions are preferred.

18. Package Submissions

- a. Three types of submissions are expected in complete package form:
 - i. Support for BP Issuance or Occupancy
 - ii. Certificate of Completion
 - iii. Certificate of Acceptance
- b. Submit each of these in one complete package, not within an assortment of correspondence
- c. Incomplete packages will be rejected with the expectation that a complete package will be re-submitted.

19. Point of Contact

- a. Reminder to consultants that their City Inspector is their first point of contact after the pre-construction meeting has been held
- b. If input is required from the Development Services Project Supervisor, the City Inspector will follow up in this regard
- c. See attached area map with contact information.

20. Pavement Calculations

- a. Consultants are to ensure that they are using current City of Surrey rates for holdbacks, asphalt cash-in-lieu and pavement cut fees
- b. We will reinstate the bulletin associated with the annual change to the pavement cut fees.

21. BC Hydro LPT's, PMT's, kiosks, etc.

- a. The City of Surrey does not accept meandering sidewalks, except in extenuating circumstances
- b. Contact your City Inspector if meandering of sidewalks is specified on BC Hydro drawings.

22. Design Changes During Construction

- a. Assumptions made during the development of the design are not always reflected in the field conditions during construction, which often necessitates field changes.

23. Question Period

Question #1: Can the requirements for the Final Construction Inspection, Certificate of Completion, Final Maintenance Inspection and Certificate of Acceptance be made available on the City of Surrey website for reference?

- **Answer:** Yes. Inspection Services will add a summary document to our website before the end of April 2019.

Question #2: Do subcontractors require separate permits?

- Answer: No. All works and services identified within the Servicing Agreement are to be constructed under the permits issued to the Prime Contractor. Sub-contractors must ensure the prime contractor's permit is still valid.

Question#3: MFT site vs. email correspondence?

- Answer: Inspection Services uses the MFT site for upload of large files only, like video submissions. Development Services uses the MFT site for design drawing uploads only. Please continue to use standard email correspondence for regular business with City staff.

Question #4: How are conflicts between Land Development and Capital projects resolved?

- Answer: City staff work hard to identify potential conflicts between Land Development and Capital projects long before they go to construction, however the City is not in control of developer's schedules. If potential conflicts are identified in the field by consultants or contractors, please contact the City Inspector for coordination and/or mitigation.

Question #5: How are conflicts between BC Hydro and City infrastructure resolved during construction?

- Answer: The Engineer of Record is responsible to ensure that there are no conflicts, as they are responsible to review and coordinate the third-party utility designs. If conflicts arise in the field, please contact the Engineer and City Inspector to coordinate changes.

Question #6: Does Inspection Services expect inspection report submissions even when the contractor has demobilized at the site?

- Answer: Please provide an inspection report indicating that there will be no activity for a set amount of time. Inspection reports will then not be expected for that period.

Question #7: Do daigles on water service connections require a concrete pull box when located in a hardscape?

Answer: Yes. Please refer to MMCD drawing number S9 for materials and installation details.

Engineering Department – Transportation Division

Issue Date: **June 7, 2018**

Reference No. **5210-30 (Bulletin)** Pg. 1 of 3

AUTHORITY: GENERAL MANAGER, ENGINEERING

ATTENTION: ALL BUSINESSES, OPERATORS, AGENCIES, CONTRACTORS AND TRAFFIC CONTROL PROVIDERS OPERATING IN THE CITY ROAD ALLOWANCE

SUBJECT: COMPLIANCE WITH CITY BY-LAW REGARDING TRAFFIC OBSTRUCTION ACTIVITIES INCLUDING REQUIRED DOCUMENTATION AND PERMITTED WORKTIMES

BACKGROUND

With the large amount of new development and infrastructure being built in Surrey, construction and servicing activity is high, and the demand for the use of the public highway has increased significantly in recent years. With increasing traffic volumes, the effects of temporary obstructions have become more impactful, affecting many citizens, transit operators, businesses and the emergency services.

The City has a responsibility to maintain the safe and efficient movement of all modes of traffic and within this context, the City is obligated to ensure that these traffic obstructions are properly controlled, coordinated and are undertaken safely.

This bulletin provides important information on the responsibilities and requirements of anyone operating within City road allowance.

DOCUMENTATION:

Anyone involved in any sort of traffic obstruction activity including the permit holder's staff, traffic control providers and subcontractors must have copies of the following documents (paper or digital) while the obstruction activity is underway and must be cognizant of the terms, conditions and requirements contained within.

- Issued Traffic Obstruction Permit
- Authorization to Proceed (Road Booking) when applicable
- Applicable Traffic Management Plans

CITY OF SURREY HIGHWAY & TRAFFIC BY-LAW, 1997, No. 13007(AS AMENDED) – SECTION 86 .1

It is the responsibility of anyone involved in any sort of traffic obstruction activity to be cognizant with the provisions and requirements of the applicable sections of the City of Surrey Highway and Traffic By-law. For the purposes of this Bulletin attention is drawn to:

Permitted Working Hours

The hours stated in the Traffic Obstruction Permit(s) must be adhered to. The permitted times are specified based on a review of traffic volumes and the nature of the obstruction activity being performed. No obstructions, including setup and takedown of traffic control devices, should occur before or after the permitted times specified in the permit(s).

Revocation of Permits, Fines and Penalties

Any person engaged in obstructing traffic in the absence of the required documentation or in a manner different to the provisions contained within the permit, will be considered to be operating contrary to the By-law and will be liable to the prescribed fines and/or revocation or suspension of their permit. All stakeholders engaged in the traffic obstruction activity, including the permit holder, their designated traffic manager, traffic control companies and all subcontractors, have a responsibility to:

- Confirm that the necessary documentation has been acquired;
- That all staff are familiar with the provisions contained within the traffic obstruction permit; and
- Confirm that their on-site staff understand that they will be liable to a fine/penalty should a permit not be in place or they are operating in a manner different to the provisions contained within the permit.

Repeated and Severe Violations

The following categories may result in immediate suspension of activities, revocation of permits or individual companies being prohibited from working within the City.

- a. Repeated incidents of traffic obstructions without the necessary documentation;
- b. Repeated incidents of traffic obstructions in non-compliance of the terms, conditions and requirements of the permit including work hours;
- c. Activities and practices deemed unsafe to the road users including pedestrians and cyclists; or
- d. Repeated violations of approved traffic management plans.

Future Bulletins on traffic obstruction activities will be issued as and when required.



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