

2.0 General Requirements During and Immediately After Construction

2.1 Public and Agency Notification

Prior to the start of construction, the Consulting Engineer shall arrange to notify all affected public agencies and emergency response agencies of the impending start date and completion date of the project. As well, the Consulting Engineer shall notify all abutting property Developers of the impending construction. The following information shall be included in the notification:

- brief description of project
- construction start date
- scheduled completion date
- temporary road closures
- contact people from the Contractor and Consulting Engineer, including their phone numbers

Refer to **Section 8: Agencies, Approvals, and Notifications** for partial list of required notifications.

2.2 Job Meetings

The Consulting Engineer shall chair and prepare minutes of construction site job meetings. Meetings are to be held at two-week intervals unless the Municipality agrees that a longer interval is acceptable. The Consulting Engineer's project manager or project engineer and the site inspector along with the contractor's project manager and job superintendent (or foreman) shall attend the job meetings. Minutes shall be distributed within one week of the meeting date.

2.3 Consultants Inspection and Quality Assurance Testing Services

The Consulting Engineer shall provide full-time on-site inspection services during the construction activity. The Inspector's skills shall be suitable for the inspection tasks to be undertaken. The Town of Essex reserves the right to request a change to the consultant's inspector if the Town of Essex believes the inspector is not qualified.

The Consulting Engineer's site inspector shall ensure that the work is constructed in accordance with the contract documents and shall keep adequate records of the work.

As a minimum, the following documents are to be prepared by the site inspector:

- Diary indicating daily progress of work, labour and equipment on site
- Measurement of relevant quantities

- Discussions with general public and agency representatives
- Log of any accidents
- Record drawing details (including grades, sizes, materials, inverts, etc. of all services)
- As-Built drawing details

The Consulting Engineer shall arrange for quality assurance testing by an independent testing firm. Tests shall include:

- Granular material sieve analysis
- Engineered fill
- Asphalt extraction and gradation analysis
- Compaction tests of native, granular, asphalt materials
- Concrete: compressive strength samples, air content, and slump tests
- Air tests for storm and sanitary sewers
- Storm and sanitary camera inspections including private drain connections
- Watermain pressure tests, leak tests, disinfection tests
- High potential tests of electrical distribution system
- Other tests called for in contract documents or as may be required by the Town of Essex

Two copies of all test certificates shall be neatly bound, indexed and provided to the Town of Essex at the time the as-built drawings are submitted.

The Consulting Engineer shall note that all underground works including watermains and sewers (but excluding hydro and other utilities) shall be tested and approved (including flushing and sewer inspection) before curb & gutter and asphalt are completed in the field.

2.4 Municipal Inspection

The Town of Essex will carry out its own independent inspection as deemed necessary. As a minimum, the Town of Essex will inspect the subgrade excavation, granular base prior to placing curbs, granular base prior to asphalt paving, and testing of watermains and sewers. The Consulting Engineer will give the Town of Essex 48 hours' notice prior to these inspections. Should sufficient notice not be given, and the Contractor proceeds with the work, the Town of Essex will not accept the services without further testing, which may include total or partial removal of pavement, curbs, etc. All this additional testing will be at the Contractor's expense. It is therefore imperative that the Contractor's schedule be made available to the Town of Essex at the job meetings, and the Town of Essex be promptly advised of any changes to this schedule.

The following mandatory meetings will be required during construction:

- Engineering Fill Placement
- Pre-Road Cut
- Pre-Curb Pour
- Pre-Pave
- Pre-Maintenance Period Inspection
- Final Inspection

2.5 Clean-up

The Developer and his Contractor shall maintain the construction site in a neat and tidy manner. Dust shall be controlled by wetting or establishing vegetative ground cover. Debris blown-off the site shall be cleaned up on a daily basis. All mud and dirt tracked off-site shall be cleaned frequently to the satisfaction of the Town of Essex Director of Infrastructure, or their delegate.

All vacant lots, owned by the developer, shall be maintained at the Developer's expense. Periodic maintenance will be required to remove debris, to eliminate standing water, and to cut weeds. All waste materials must be properly disposed to eliminate the risk of injury and to maintain a healthy environment to all surroundings.

The decision of the Town of Essex regarding clean up shall be considered final. Should the Developer and his Contractor not clean-up in a timely manner, the Town of Essex will arrange to have the work done by others, or its own forces, and will invoice the Developer for its costs. As a security for any works completed by the Town of Essex in this regard, the Developer shall deposit with the Town of Essex a sum of \$300 per lot to a maximum amount of \$5,000 prior to construction commencement.

2.6 Municipal Acceptance of Services and Assumption of Development

Once all of the required municipal services are completed, the Developer will be required to transfer ownership of the services to the Town of Essex. This is a two-step process as outlined below.

1. Once the services are installed and all deficiencies corrected, the Town of Essex representative will inspect the development and advise Council by report that the Town of Essex should "accept the services" and that the maintenance period should begin. The Town of Essex reserves the right to request a video inspection of the sewers in order to assist in its determination at the Developer's expense. The date of the Town of Essex letter accepting the services is the commencement date of the maintenance period. During the maintenance period, it will be the Developer's sole responsibility to

maintain all the services including but not limited to cleaning catch basins, maintaining the general condition of the vacant lots and road right-of-ways as established in the Subdivision Agreement, maintaining settlements and ploughing snow.

2. Within 30 days prior to the expiration of the maintenance period, the Consulting Engineer is to arrange for a field inspection with the Town of Essex, Contractor and Consulting Engineer. All sewers and services shall be flushed clean and video inspected. Catch basins shall be cleaned and all settlements repaired prior to the municipal inspection. Provided there are no outstanding deficiencies and all development agreement requirements have been satisfied, including payment of all accounts and the receipt of a statutory declaration that all accounts have been paid, the municipal representative will submit a report to Council requesting that Council 'assume the development'. The issuance of a Certificate of Assumption to the Developer results in the transfer of ownership of the services to the Town of Essex, after which the Developer is no longer obligated to maintain or repair the services.

From time to time, the Developer or the Town of Essex may request that not all services be installed prior to requesting "acceptance of services" by the Town of Essex. For example, surface asphalt and sidewalks are normally delayed to minimize damage to these services during house construction. Should some of the services be delayed, the acceptance and assumption of these services will be based on the completion of these particular services and the expiration of the maintenance period for these particular services. In this case, there will be more than one acceptance date of the services and more than one assumption date of that portion of the development. Financial securities will require time extensions to not less than 90 days beyond the anticipated date of Council's assumption of the development.

2.7 Maintenance Period

The maintenance period shall be one year from the date of the Town of Essex letter accepting the services.

The delaying of the surface course of asphalt and sidewalks will not prevent Council from accepting the remaining services. The maintenance security and liability insurance must remain in force for the duration of the maintenance period. The Director of Infrastructure Services will issue a letter to assume storm, sanitary, water, base asphalt, and sidewalk following council resolution.

The Developer is obligated to perform (or pay for) all maintenance and repairs to the services (should the Town of Essex undertake this work) during the maintenance period, including sewer flushing, weed control, snow removal and street cleaning of mud and debris.

Unless otherwise noted in the Development Agreement, the Developer is required to provide cash or an irrevocable Letter of Credit in an amount equal to 25% of the value of the development. Securities will be released at the end of the maintenance period.

See **Section 1.14** for Sureties information.

2.8 Lot Servicing Sheets/Registered Lot Creation Drawings

The Consulting Engineer shall provide copies of lot servicing sheets and registered lot creation drawings (i.e. M-Plans, R-Plans). Two copies of each (lot servicing and registered lot creation drawings), and one electronic copy of each shall be submitted to the Manager of Planning Services and the Infrastructure Department. The lot servicing sheets shall show design lot grades, sidewalk widths, design setbacks from property line, easements, noise attenuation walls, and the location, elevation, material, and size of lot services (storm, sanitary, water). Municipal addressing is provided by the Town's Building Department and should be included on each set. 100% of the performance holdback will be held until the lot servicing sheets are provided.

Home builders will be required to follow the lot servicing sheets for design elevations of lot grading, to the satisfaction of the Chief Building Official. See Section 3.1.11 for further details.

The form of the lot servicing sheets is included in **Appendix F**. Blank copies are available from the Town of Essex.

2.9 As-Built Drawings

As-Built drawings shall be prepared by the Consulting Engineer and must have all elevations and grades, shown in plan or profile, reference to a geodetic benchmark and indicate the 'as constructed' world coordinated location, size, and material of:

- Storm and sanitary manholes
- Catch basins
- Storm and sanitary sewer lines
- Stormwater Management Facilities
- Waterlines, including backflow prevention devices
- Water valves, Fire Hydrants
- Meter chambers, including detail of water meter and related plumbing
- Municipal connections

Wherever possible, underground utilities located relative to property lines shall also be located relative to surface features. The As-Built drawings shall be dated and noted "As-Built Drawings".

Two drawing sets in each CAD and PDF format shall be provided in electronic format (USB drive).

As-Built drawings must be submitted within 60 days from the date of Council's "acceptance of the services". Maintenance hold-back will not be returned until drawings have been submitted to the Town of Essex. 100% of the maintenance holdback will be held until As-built Drawings have been submitted.

2.10 Building Permit

In accordance with the requirements of the Ontario Building Code, construction cannot commence on any buildings until a building permit is issued. This is Provincial legislation administered by the Town of Essex. The Town of Essex does not have the authority to waive this Provincial legislative requirement. Building permits will not be issued until such time as Council has "accepted the services" as outlined in **Section 2.6 Municipal Acceptance of Services and Assumption of Development**.

If works are in a regulated area, a permit or clearance will be required from ERCA prior to a Building Permit being issued. Additional works may be required if the area falls under the *Drainage Act*.

In order to issue building permits, the Town of Essex Chief Building Official must have a complete set of documents and be assured that the buildings have full municipal services (including base asphalt, firefighting access, potable water, heat, power, streetlights and railway requirements satisfied for those lots impacted by the presence of the railway). Streetlights must be operational within 60 days of building permit issuance.

Developers are cautioned that the Chief Building Official will not be in a position to advise that building permits are available until:

- lot servicing sheets have been submitted in accordance with subsection 3.8
- registered lot creation plans have been submitted in accordance with subsection 3.8

If As-Built drawings have not been submitted within 60 days from the date which Council "accepted the services", the Chief Building Official will not continue to issue building permits.

2.10.1 Removal of Hold – Building Permit Issuance

The Chief Building Official may issue building permits in advance of the completion of all required works, at the discretion of the Town of Essex and in accordance with the site specific Subdivision Agreement. The developer must provide the Town of Essex with a phasing/dwelling style composition plan and it must be approved before the draft plan approval so it can be included as a condition of development agreement. Building permits will only be issued if the following conditions are met:

- the distribution of the homes are identified on a draft plan and approved at the time of pre-consultation;
- the subdivision agreement has been executed;
- the dwelling unit can be connected to water and sewer services;
- the base coat of asphalt has been installed, to the satisfaction of the Director of Infrastructure, in the road allowance in front of and abutting the lot for which the building permit is being sought;
- all works necessary to meet the railway requirements are installed for a dwelling that is within 300 metres of the rail right-of-way;
- a surveyor's certificate has been received by the Municipality pertaining to the lot for which the building permit is being sought;
- it is clearly noted on the building permit that occupancy of the dwelling unit will not be permitted until the Developer has completed all required works, except the top coat of asphalt and sidewalk, to the satisfaction of the Director of Infrastructure and that all Agreements to Purchase affecting the subject property will provide a notice regarding the restriction pertaining to occupancy. Such notice will be required on all Agreements to Purchase until such time as the required works, excluding the top coat of asphalt and sidewalk, are completed to the satisfaction of the Director of Infrastructure;
- all Agreements to Purchase affecting the subject property will provide a notice regarding the restriction pertaining to occupancy, and a copy of which will be filed with the Town of Essex. Such notice will be required on all Agreements to Purchase until such time as the required works, excluding the top coat of asphalt, are completed to the satisfaction of the and Infrastructure Services Division; and,
- a letter of authentication is received from the Developer confirming support for the building permit issuance.