

CHAPTER 9. CONSTRUCTION CONTROL AND INSPECTION

9.01 Basis for Control of the Work

- A. Work performed in the construction or improvement of County roads, whether by or for a private developer, by County forces, or by County contractor, shall be done in accordance with these Standards and approved plans and specifications (Section 1.07). It is emphasized that no work may be started until such plans are approved. Any revision to such plans shall be approved by the Engineer before being implemented.
- B. The Engineer will have authority to enforce the Standards as well as other referenced or pertinent specifications. He will appoint project engineers, assistants, and inspectors as necessary to inspect the work and they will exercise such authority as the Engineer may delegate.
- C. Provisions of Section 1-05 of the WSDOT/APWA Standard Specifications shall apply, with the term "Engineer" therein construed to be the County Road Engineer as defined in Section 1.10.

9.02 Subdivision, Commercial and Right-Of-Way Land Use Inspection

On all road and drainage facility construction, proposed or in progress, which relates to subdivision, commercial and right-of-way development, control and inspection will be done by the Land Use Inspection Section, (LUIS), acting for the County Road Engineer. Unless otherwise instructed by the Engineer, construction events which require monitoring or inspection by LUIS are identified as follows, with prior notification to LUIS (telephone 296-6645 (north) and 296-6646 (south)) :

- A. Preconstruction Conference: Three working days prior notice. Conference must precede the beginning of construction and include contractor, designing engineer, utilities, and other parties affected. Plan approvals and permits must be in hand prior to the conference.
- B. Clearing and Temporary Erosion/Sedimentation Control: One working day notice prior to initial site work involving drainage and installation of temporary water retention/detention and siltation control. Such work to be in accordance with Section 7.06 and the approved plans.
- C. Utility and Storm-Drainage Installation: One working day notice prior to trenching and placing of storm sewers and underground utilities such as sanitary, water, gas, power, telephone, and TV lines. See Section 8.03F Notification and Inspection for additional information.
- D. Utility and Storm Drainage Backfill and Compaction: One working day notice before backfill and compaction of storm sewers and underground utilities.
- E. Subgrade Completion. One working day notice at stage that underground utilities and roadway grading are complete, to include placement of gravel base if required. Inspection to include compaction tests and certifications described in Sections 8.03 and 9.04.

- F. Curb and Sidewalk Forming: One working day notice to verify proper forming and preparation prior to pouring concrete.
- G. Curb and Sidewalk Placement: One working day notice to check placement of concrete.
- H. Crushed Surfacing Placement: One working day notice to check placement and compaction of crushed surfacing base course and top course.
- I. Paving: Three working days notice in advance of paving with asphalt or **portland** cement concrete.
- J. Structural: Three working days notice prior to each of critical stages such as placing foundation piling or footings, placement and assembly of major components, and completion of structure and approaches. Tests and certification requirements will be as directed by the Engineer.
- K. Final Construction Inspection: 15 working **days** prior to overall check of road or drainage project site, to include completion of paving and associated appurtenances and improvements, cleaning of drainage system, and all necessary clean-up. Prior to approval of construction work, acceptance for maintenance and **release** of construction performance bonds, the **developer/contractor** shall pay any required fees, submit any required maintenance and defect **financial** guarantees, provide a certificate of monumentation and submit one photo mylar or ink-on-mylar set and sets of blue line final, corrected plans (as-built) reflecting all minor and design plan changes of the road and drainage systems. The Reviewing Agency shall specify the number of blue line sets as warranted by the type of improvement. Mylars and blue line drawings **shall** not have shading or adhesive addition in any areas. **If** original plans were completed on a CADD system, the **developer/contractor** shall submit, in addition to mylars, a copy of the CADD drawing files in **DOS/AUTOCAD** format.
- L. Final Maintenance Inspection: 30 days prior to the end of the maintenance period. Prior to release of the maintenance guarantee, there shall be successful completion of the maintenance period as described in Section 1.09, repair of any failed facilities and the payment of any outstanding fees.

9.03 Penalties for Failure to Notify for Land Use Inspection

Timely notification by the developer as noted above is essential for the County to verify through inspection that the work meets the standard. Failure to notify in time may oblige the County to arrange appropriate sampling and testing after-the-fact, with certification, either by a professional engineer or the King County Materials Engineer. Costs of such testing and certification shall be borne by the developer. At the time that such action is directed by the Engineer, **the** Engineer may prohibit or limit further work on the development until all directed tests have been completed and corrections made to the satisfaction of the Engineer. **If** necessary, the County may take further action as set forth in King County Code Title 23, Enforcement.

9.04 Embankment Construction Control in Developments

The provisions of Section 2-03 of the WSDOT/APWA Standard Specifications apply in all respects to development construction unless otherwise instructed by the Engineer. The following elements are mentioned for clarification and emphasis:

- A. Embankment and Cut Section Compaction: Compaction of the top two feet of **fill subgrade** and top six inches of cut **subgrade** shall meet a minimum 95 percent of maximum density in accordance with **WSDOT/APWA Standard Specifications Section 2-03.3(14)C - Method B**. **Subgrade fill** below the top two feet shall be compacted to 90 percent of maximum density.
- B. Testing for Density
 - 1. Prior to placing any surfacing material on the roadway, **it** will be the responsibility of the **developer/contractor** to provide density test reports reviewed and approved by a professional engineer. Optimum moisture content and maximum density shall be determined by methods cited in Section **2-03.3(14)D** of **WSDOT/APWA Standard Specifications** or by other test procedures approved by the County Road Engineer. In **fill** sections, a minimum of one test shall be taken for every 1,000 cubic yards or fraction thereof and on each **lift** of embankment. In cut sections, the interval shall be every 100 feet of roadway. For work to be accepted tests must show consistent uniform density as required by tests referenced above.
 - 2. In cases where tests do not meet the minimum standard, corrective action shall be taken such as adding water, aerating, **replacing material** or applying more compactive effort as directed by the developer's engineer. Retests shall show passing densities prior to placing the next **lift of subgrade fill**.
 - 3. Fortrenching in existing roads, see Section 8.03.
- C. Finishing **Subgrade**

After the **subgrade** preparation has been completed, **it** shall be thoroughly checked by the **developer/contractor** using a level, string line, crown board, or other means to determine that the **subgrade** conforms to the typical section or special plan conditions prior to placing any surfacing material.

9.05 Traffic Control in Development Construction

- A. Interim Traffic Control: The **developer/contractor** shall be responsible for interim traffic control during construction on or along traveled County roads. When road or drainage work is to be performed on County roads that are open to traffic, the **developer/contractor** will be required to submit a traffic control plan for approval by the Reviewing Agency prior to beginning the work. Traffic control shall follow the guidelines of Section 1-07.23 of the **WSDOT/APWA Standard Specifications**. **All** barricades, signs and flagging shall conform to the requirements of the **MUTCD**

Manual. For more specific requirements for barricades, see Section 5.07 and Drawing No. 5-003. Signs must be legible and visible and should be removed at the end of each work day if not applicable after construction hours.

- B. Temporary Road Closures and Detours: When temporary road closures cannot be avoided the **developer/contractor** shall post "To Be Closed" signs a minimum of five days prior to the closing. The types and locations of the signs shall be shown on a detour plan. A detour plan must be prepared and submitted to the Department of **Public Works, Traffic** and Planning Section at least 10 working days in advance, and approved prior to closing any County road. In addition, the **developer/contractor** must notify, in writing, local fire, school, law enforcement authorities, Metro transit, and any other affected persons as directed by the Engineer at least five days prior to closing.
- C. Haul Routes: If the construction of a proposed development is determined by the Reviewing Agency to require special routing of large trucks or heavy construction equipment to prevent impacts to surrounding roads, residences or businesses, the **developer/contractor** shall be required to develop and use an approved haul route.

When required, the haul route plan must be prepared and submitted to the Reviewing Agency and approved prior to beginning or continuing construction. The haul route plan shall address routing, hours of operation, **signage** and flagging, and daily maintenance.

If the **developer/contractor's** traffic fails to use the designated haul route, the Reviewing Agency may prohibit or limit further work on the development until such time as the requirements of the haul route are complied with.

- D. Haul Road Agreement: When identified as a need by the SEPA review process or by the Engineer, a haul road agreement shall be obtained by the franchised utility, developer or property owner establishing restoration procedures to be performed upon completion of the haul operation.

9.06 County Forces and County Contract Road Inspection

Road construction performed by County forces or by contract for the County will be inspected under the supervision of the Engineer.

9.07 Call Before You Dig

Builders are responsible for timely notification of utilities in advance of any construction in right-of-way or utility easements. The utility One-Call Center phone number 1-800-424-5555 should be prominently displayed on the work site.

DRAWINGS

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