

## 2011 Construction Reminders

The following is a summary of Single Audit Findings observed over the past few years. We hope these reminders will help you successfully complete your future construction project. Audits “findings” are situations where project requirements were not met. The findings are listed at random and all are equally significant. A majority of the findings were listed in the [Annual Single Audit Report](#) as questioned costs. Questioned costs are subject to review by committee, which may result in the loss of all, or a portion, of the federal funding for the item in question. Hyperlinks have been included to assist you in the review of these construction reminders.

### Bituminous

- Changing Asphalt Binder Grades must be approved and documented on a supplemental agreement.
- Review testing rates detailed in the [Schedule of Materials Control](#) Section II of which includes CAA & FAA crushing requirements, moisture content (see Mn/DOT Standard Specification 2360.2G.7k), asphalt sampling rates (see Mn/DOT Standard Specification 2360.2G.7l), core density & agency verification testing.
- Take ownership of the verification sample; **do not** have the contractor deliver them to the lab for you.
- Bituminous Ticket Information, see Mn/DOT Standard Specification 2360.2G.8 – include Mix Design Report number, the mixture designation and the asphalt binder grade.
- [Plant Diaries](#) are required according to the Contract Administration Manual.
- [Bituminous Application Record](#) – use tack form 21841 & adjust for water & temperature correction. See Mn/DOT Standard Specifications 3151, 2357.
- Paving Restrictions – Engineer’s written approval for mixture placed below 32 degrees F, see Mn/DOT Standard Specification 2360.3.D.2.c - Mixture Temperature.
- Closely conform to mix design proportions per Mn/DOT Standard Specification 2360.2G13 (5% at startup and 10% during production). Substitution of unauthorized aggregate sources is prohibited.
- Ensure that Bituminous Plant Certifications are completed prior to production.
- Obtain and review individual contractor Quality Control test reports. All QC test results must be collected and retained in the project file.
- **Complete, review, and sign Test Summary Sheets.** Ensure **retesting** is done for Quality Control-Verification test result differences falling outside of tolerance. Apply reduced payments for failing test (Mn/DOT Standard Specification 2360.2G14) results in a timely manner. Start a new test summary sheet for project carryovers and when the production activities leave, and then return to the jobsite at a later date.
- The same Consultant Test Laboratory can not perform the QC and QA testing on the same project. This practice is considered a conflict of interest.
- Agency verification samples must be taken from behind the paver. See Mn/DOT Standard Specification 2360.2G4b.
- Contractor weighing of cores for density not observed by agency: See Mn/DOT Standard Specification 2360.3D1i.

- Need to comply with the materials control requirements for stabilized full depth bituminous pavement reclamation. Review the project proposal special provisions.

### Bridge

- Certified Mill Test Reports must be obtained and kept for bridge structural steel.
- The project proposal special provisions require compliance with the Mn/DOT Office of Environmental Services “[Asbestos and Regulated Waste manual](#) for Structure Demolitions (bridges) or Relocation for Construction Projects” (the Regulated Waste Manual).

### Grading & Base

- Submit preliminary and final [Grading & Base Reports](#) to the Grading & Base Office in a timely manner. Preliminary report must be submitted prior to the start of construction.
- Grading and Base Schedule of Materials Control requires the contractor to submit the [Certification of Aggregate and Granular Material form](#) in a timely manner and supply the QC gradation results prior to placement and payment for aggregates. See [Mn/DOT Standard Specification 2211.3F1](#). If the form and the acceptable test results are not received prior to placement, notify the contractor in writing that they are in violation of [Mn/DOT Standard Specification 1512](#) Unacceptable and Unauthorized Work.
- Unauthorized work shall be removed by the contractor, at no expense to the Department, upon written order to do so.
- Withholding for Erodible Acres – [Mn/DOT Standard Specification 2105.5](#) requires retainage of \$3000 per acre, as a back sheet item, not a bid item for each acre that is exposed to probable erosion. 50% paid back when topsoil is placed, another 30% when the mulch is placed and the remaining 20% paid when the seeding is accepted.
- In the event that Erosion Control logs are not submitted by the contractor in a timely manner (35 days), the Engineer shall submit a written work order to the contractor to complete erosion control logs every 7 days and submit the logs to the Engineer every 2 weeks or a deduction of \$500/day for non-compliance will be assessed. See Mn/DOT Standard Specification 1717.2G. and [Tech Memo](#) 05-06-ENV-04.
- Allowable recycle percentages are defined in [Specification 3138](#). Submit recycled aggregate for bitumen content testing as soon as possible.
- Gradations for granular borrow and select granular borrow must include the % passing the 200 sieve of the % passing the 1” sieve.
- Review the process and documentation requirements of the [Random Sampling Method](#).
- **Review the Grading and Base [Schedule of Materials Control](#). Frequently missed tests include, QC & QA gradations, % Moistures (section 7, includes ordinary compaction), Percent Crushing (section 8a & b), Aggregate Quality (section 9), Relative Density and Moisture (sections 3 & 6). Document exceptions (missed tests, failures, etc.) on the [Materials Exception Summary](#).**

Environmental. *Failure to meet the requirements of the environmental (demolitions, abatement, paint removal, regulated wastes & etc) concerns can result in fines from the MPCA upon failure to do so.*

- NPDES Permit Compliance – Review the permit requirements and obtain inspection logs every 2 weeks or issue a work order to the contractor for the inspection logs.
- Be sure to complete the following form when Treated Wood is encountered and disposed of on a project: [Notification Form of Ownership Transfer of Creosoted Treated Materials](#).

- **Regulated material handling and disposal/reuse procedure for bridge and building demolition.**
  - **verify abatement contractor is licensed**
  - **submit [notification](#) to the proper agencies/authorities prior to demolition commencing**
  - **regulated waste material must be disposed in an authorized landfill**
  - **MPCA fines may apply upon failure to do so**
- [Removal of Paint on Steel Bridge Structures Manual](#).
- [Asbestos and Regulated Waste Manual](#).

## Concrete

- Review [Schedule of Materials Control](#) for the QC & QA testing requirements. Beware of the testing requirements for the 1<sup>st</sup> load of the day.
- Review & complete [weekly concrete forms](#) & forward to the Concrete Office (Mn/DOT Concrete Manual 5-694.701).
- Missed QA tests - % air, slump and strength cylinders. Air and slump tests not documented as being completed. Slump values outside of the allowable range (Mn/DOT Standard Specification 2461.4A4a). Water added to the concrete mixture without first notifying the Engineer (Mn/DOT Standard Specification 1501.1(a)). QC & QA testing performed by the consultant testing lab (schedule of materials IV). Certification of Compliance not obtained for dowel bars (Schedule of Materials Control VII.5C). Document exceptions (missed tests, failures etc) must be reported on the [Materials Exception Summary](#) .
- Concrete placed without a proper [Concrete Mix Design Report](#).
- Conduct coring for thickness on concrete paving.
- Assess payment reductions for materials not meeting air content specifications.
- Perform coarse aggregate testing on the No. 200 sieve **monthly**.
- Submit fine and coarse aggregate samples **monthly** for quality testing. See [Mn/DOT Standard Specifications 3126.3 & 3137.2D](#).
- Test cementitious materials and admixtures for concrete as per the schedule of materials control. See [Approved Product List](#).
- Direct contractors to perform Quality Control verification companion sample gradations and moisture testing for aggregates.

## Contract Administration

- Partial Payments shall be made at least once a month in accordance with [Mn/DOT Standard Specification 1906](#). **All incentives and disincentives must be reflected on the next partial/final pay estimate.**
- Final Payments shall be made in accordance with [Mn/DOT Standard Specification 1908](#).
- Payment for Mobilization shall be made in accordance with [Specification 2021](#).
- The responsibility and cost of the Quality Assurance (acceptance) testing is that of the Engineer and shall not be directed to the contractor.
- [Weekly Construction Diaries](#) must be completed and submitted in accordance with [Mn/DOT Standard Specification 1806](#).
- Contract Item Mobilization not paid as per [Mn/DOT Standard Specification 2021](#).
- Contract items which contain the unit of measure 'EACH' shall be paid as whole numbers (i.e. 0, 1, 2, etc.).

- For Material on Hand, an invoice must be provided for each material item and paid as materials on hand (back sheet item) and not paid as work placed into the project [Mn/DOT Standard Specification 1906 - Partial Payments](#).
- Always review the Project Proposal Special Provisions for modifications to the standard specifications and Schedule of Materials Control.
- Review the [Supplemental Agreement](#) requirements for fund encumbrances/unencumbrances due to increases/decreases in contract quantities. Supplemental Agreements not participating must be coded as not participating in federal funding.
- Foreign steel can be incorporated into a federal aid project but is not eligible for federal participation per 23 Code of Federal Regulations (CFR) 635.410 - Buy American requirements.
- [Certified](#) inspection technicians are required on all state aid and federal aid projects.
- [Materials Certification](#) on Local Federal Aid Projects.
- When Unacceptable Work is encountered on a project, do not withhold money on all project items. Funds should only be withheld for the unacceptable work item. Withhold money by doing a back sheet adjustment.
- Prior to commencement of any work on a new construction project, an Item Record Account (IRA), or Project Diary, shall be prepared which contains all Project line items.

### Labor Compliance

- [Monthly Field Compliance Review](#) of Labor Provisions – include subcontractors on [monthly checks](#).
- [Poster Boards](#) shall be located on site at all times until 100% completion of Project is achieved. It's a good idea to inspect the physical condition of the poster board materials along with their accuracy on a monthly basis (i.e. perform at the same time as the monthly field labor compliance checks).
- [Requests to Sublet](#) are required for all subcontractors and shall be submitted to the Project Engineer at least 10 days prior to start of work.
- [Trucking Information](#), All contractors involved in the processing or manufacturing of material, including the hauling of material under contracts that are funded in whole or in part with federal and/or state funds are subject to the contract labor provisions, unless the contractor is entitled to the exemption established in [Minnesota Statute 177.44, Subdivision 2](#).
- Wage classifications not listed on payrolls.
- [Payroll](#) form 21658 shall be submitted weekly by the contractor.
- [Prevailing Wage Compliance Guide for Local Contracting Agencies](#). Process for withholding contract funds, rejecting future bids and default and termination of a contract.

### **Independent Assurance**

Mn/DOT's [Schedule of Independent Assurance Sampling and Testing Protocol \(IAST\)](#) is used by Independent Assurance Personnel on **all Federal Aid Construction Projects**. The Independent Assurance Program provides a check on testing equipment and procedures for construction projects. *Arrangements must be made with the District Materials Engineer for scheduling independent assurance visits to comply with project requirements. Contact the District Materials Engineer on carry over projects to ensure that compliance has been obtained.*