

Proposed Specification Revisions November 2014

The CAS Bureau is proposing revisions to 9 Standard Specifications. These proposed revisions will be out for comment during the month of November, 2014.

1.	101.02	Acronyms and Abbreviations	Add DP
2.	107.13.1	Insurance on all Contracts	Auto Insurance
3.	108.03.2	CPM Payments	Add deduction Table
4.	208	Erosion Control	Cleanup
5.	301.03.5	Aggregate Surfacing Construction	Table to include all sizes
6.	409.03.3	Seal Coat Limitations	Time limit after crack sealant
7.	603.03.4	Backfill compaction	Add moisture density requirements
8.	603.03.5	Existing pavement maintenance	Use plant mix or CLSM
9.	701-18	Grade S Specifications	Modify DA

101.02 ACRONYMS AND ABBREVIATIONS

Whenever the following acronyms and terms are used in the contract, the intent and meaning is interpreted as follows:

D/A.....Dust to actual asphalt ratio

DP.....Dust to effective asphalt ratio

107.13.1 Insurance on All Contracts

- A. Commercial General Liability Insurance.** Obtain commercial general liability insurance with a general aggregate limit of \$2,000,000; an occurrence limit of \$1,000,000; and products and completed operations limit of \$1,000,000. The policy must name the State of Montana, its agents, employees, and officers as an additional named insured.
- B. Owners and Contractors Protective Liability Insurance.** Obtain an Owner's and Contractor's Protective (OCP) liability insurance policy for all work to be done, on behalf of the owner (State of Montana, the Department, and its agents, employees and officers) to be submitted with the contract when executed, with a general aggregate limit of not less than \$2,000,000 and an occurrence limit of not less than \$1,000,000.
- C. Vehicle Insurance.** Obtain commercial automobile liability insurance providing bodily injury and property damage liability coverage for all owned and non-owned vehicles assigned to or used in the performance of the work. The combined single limit must not be at least \$1,000,000 per person, \$3,000,000 per accident and \$500,000 for property damage. This coverage may be in any combination of primary, umbrella or excess liability coverage. Name the State of Montana, Department of Transportation, its employees and officers named as additional insureds or designated insureds in connection with the Contractor's performance of the contract. Ensure each sub-contractor purchases and maintains identical commercial automobile liability insurance.
- D. Insurance Policies.** Insurance policies must:
1. Provide coverage on an occurrence basis and not on a claims-made basis;
 2. Not contain exclusions for explosion, collapse, or underground damage hazards; and
 3. Provide that all insurance or self-insurance maintained by the State, its agents, employees, and officers is in excess of the required insurance and does not contribute with it.

Maintain commercial general liability insurance in full force from the effective date stipulated in the Notice to Proceed until Commission acceptance of the project, unless written approval is given by the CAS Engineer to cancel the policy. Maintain Owner's and Contractor's liability insurance in full force from the effective date stipulated in the Notice to Proceed until the Final Acceptance (form MDT-CON-105_17_2) is approved by the Department.

Obtain all policies from an insurer with a Best rating of A- or better on the date the policy is written.

The insurance requirements are a condition precedent to the contract. Failure to obtain and maintain all required insurance is considered a material breach of the contract.

Reinstate the policies listed above if a return to the project is required to complete additional work. Do not begin work until the policies are reinstated and submitted to the Construction Administration Services Bureau in Helena.

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The Project Manager may suspend work under Subsection 105.01(A) if the WN or project schedule does not accurately reflect the actual progress of the work; the suspension may continue until an accurate WN and project schedule is submitted.

Failure to submit either a CPM or ASC schedule or schedule update to the Project Manager within 2 calendar days of its due date will result in a monthly deduction in accordance with Table 108-1A.

TABLE 108-1A
PROJECT SCHEDULE DEDUCTIONS

<u>Original Contract Amount</u>		<u>Monthly Deduction</u>
<u>From More Than</u>	<u>To and Including</u>	
<u>\$ 0</u>	<u>\$ 1,000,000</u>	<u>\$ 300</u>
<u>\$ 1,000,000</u>	<u>\$ 3,000,000</u>	<u>\$ 700</u>
<u>\$ 3,000,000</u>	<u>=</u>	<u>\$ 1,000</u>

C. CPM Scheduling Basis of Payment

Payment for all costs associated with CPM scheduling is included in the lump sum contract unit price for CPM scheduling. Payment for all costs associated with other scheduling requirements is included in the payment for other items of work.

Failure to submit a revised CPM schedule as specified may also result in withholding 10% of each monthly progress estimate. Payment withheld for violation of the schedule requirements will be included in the next progress estimate following the Contractor's submission of the required schedule.

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Partial payments for CPM scheduling will be made based on the lump sum contract unit price as follows:

1. 50% when the initial schedule is finalized.
2. 75% when the overall project is 50% complete.
3. 100% when all updates have been submitted.

208.03.2 Water Pollution Control

Contractor failure to provide erosion, sediment, and water pollution controls may cause the Department to provide the work and deduct those costs from monies due or to become due the Contractor, or otherwise billed to the Contractor. The Department may also stop the work or withhold any payments due until acceptable corrective action is taken.

C. Inspections. Conduct inspections as specified in the permit. When no permit is required, conduct inspections to evaluate performance and maintenance needs of water pollution controls in accordance with the following schedule unless specified differently in permits or authorizations:

- At least once per month; and
- Within 24 hours of a storm event of 0.25 inches (6.5 mm) or greater.

Use the Department's most current SWPPP Inspection Report, when no permit is required. Use the Department's form or another form that conforms to permit requirements when a permit is required. Provide one copy of the signed inspection report to the Project Manager.

Failure to conduct inspections and submit inspection reports renders the BMPs unacceptable.

Immediately report potential noncompliance in accordance with applicable regulations, guidance, and permit conditions. The Contractor is wholly responsible for all violations including but not limited to those that result during the times when the required monitoring is not conducted, inspection report forms are not submitted, BMPs are ineffective, required maintenance or monitoring of BMPs is not performed.

BMPs will be inspected **during construction and** as part of the final inspection to ensure they are adequate, maintained, and functioning properly.

D. Erosion Control Plan. MPDES permits are issued by the DEQ for discharges within the state of Montana not including Indian Countries. NPDES permits are issued by the EPA for discharges inside the boundaries of Indian Countries. Some Tribal governments also have NPDES review authority and/or separate permitting authority. For projects requiring MPDES and/or NPDES General Storm Water Permit coverage, submit one NOI package and the associated fees for ground disturbance areas within the project limits to the appropriate permitting agency. Use Department furnished blank erosion control plans to complete the SWPPP as required by the General Permit. Provide a copy of the NOI package submitted and confirmation for receipt of a complete NOI package from the permitting agency to the Project Manager **prior to conducting any ground disturbance activities.**

Be responsible for erosion, sediment, and water pollution control for Contractor furnished material sources, staging areas, plant sites, or any other Contractor caused ground disturbance outside the project limits. Submit a separate NOI package and the associated fees to the permitting agency for ground disturbance areas outside the project limits. Contractor furnished material sources, staging areas, plant sites, or any other Contractor caused ground disturbance outside the project limits, are the Contractor's responsibility and must be submitted under a separate NOI package from the ground disturbance within the project limits. Although these areas are permitted separately, the areas of disturbance are considered cumulative with the project disturbance area when determining the requirement for permit coverage.

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Comply with the conditions of the permit. Revise and/or update the SWPPP to reflect current conditions, pollution prevention measures, and installed BMPs in accordance with permit requirements. Submit all changes to the Project Manager.

Do not transfer or terminate the General Storm Water Permit coverage until the BMPs are inspected and accepted and all records required under the permit, including inspection and monitoring reports, are furnished to the Project Manager. The Department may require that certain BMPs be removed and/or replaced by another type of BMP as a condition of permit transfer.

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When submitting the MPDES General Storm Water Permit transfer package/application to the Department, include a check for the permit transfer fee. Make the check for the amount of the fee payable to the DEQ.

208.03.3 Aquatic Resource Protection

A. General. Unless authorized with approved permits and authorizations, meet the following general provisions:

1. Do not operate mechanized equipment in any regulated aquatic resource, unless authorized in accordance with Subsection 208.03.3(B).
2. Isolate work zones from flowing and standing waters during construction, unless authorized in accordance with Subsection 208.03.3(B).
3. Do not spill or dump material from equipment into regulated aquatic resources.
4. Do not discharge wastewater from washout of concrete related equipment, concrete finishing, saw cutting, wet concrete, hydraulic demolition, etc. into any regulated aquatic resource.
5. Do not place fill or other materials in any regulated aquatic resource unless included in the contract, or authorized in accordance with Subsection 208.03.3(B).
6. Locate staging or storage areas at least 50 feet (15.2 m) horizontally from any aquatic resource, top of stream bank, or the highest anticipated water level during the construction period, whichever is furthest from the resource.
7. Store and handle petroleum products, chemicals, cement and other deleterious materials to prevent their entering regulated aquatic resources.
8. Provide sediment and erosion controls for topsoil stockpiles, staging areas, access roads, channel changes, and instream excavations.
9. Shape and contour streambeds and stream banks to their pre-disturbed condition to match adjacent undisturbed ground, unless included in the contract.
10. Clean, maintain, and operate equipment so that petroleum-based products do not leak or spill into any regulated aquatic resource.

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B. Temporary Facilities and Construction Activities. Obtain required permits and authorizations for the installation, maintenance, operation, and removal of temporary facilities such as work bridges, work pads, cofferdams, temporary detours, diversions, etc. Department obtained permits and authorizations do not typically include removal and disposal of existing structures, access to and from authorized locations, sequencing and construction methodology to construct authorized features, impacts to areas outside of the planned construction footprint, and other items potentially affecting an aquatic resource. Submit Temporary Facility and Construction Activity permit applications for COE 404 and SPA 124 Notifications in accordance with Subsection 107.11.2.

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Plan temporary construction facilities to:

1. Minimize disturbance to regulated aquatic resources;

2. Not restrict or impede fish passage in streams;
 3. Not restrict water flow anticipated during use; and
 4. Remove temporary facilities as soon as practicable once they are no longer needed.
- Complete application forms in accordance with the permitting agency requirements. Plans included as part of the application forms must at a minimum contain the following information:

1. Details depicting regulated aquatic resource features before installation of temporary construction facilities and after removal;
2. Location of facilities relative to permanent work and regulated aquatic resources;
3. Plan and elevation views of facilities showing regulated aquatic resources;
4. Anticipated high water elevation during use of the facilities;
5. Waterway openings and clearances;
6. Type of bridge bent, pier, and superstructure construction (wood, steel, concrete, etc.);
7. Quantity and type of material proposed for use;
8. Written description for installing, operating, maintaining, and removing facilities including proposed construction techniques, containment plans, equipment, stockpile and storage areas, temporary erosion and sediment control measures, site re-vegetation/restoration and weed control plans;
9. Estimated time the temporary facilities are to be in place; and
10. A plan for and written description of existing structure removal, if applicable, as described in Subsection 208.03.4(C).

Shape and contour areas disturbed by the installation or removal of temporary construction facilities to match adjacent undisturbed ground upon removal of the facilities.

Submit copies of the plans and application packages, their modifications, or their revisions to the Project Manager. The Department will review each submittal of the plans and application packages, their modifications, or their revisions, and either request revisions or submit to applicable resource and regulatory agencies within 21 calendar days. Resource and regulatory agency review time does not begin until the Department submits the application to the applicable agencies. Do not begin work on temporary construction facilities or modifications to approved plans until receiving written notification from the Project Manager that all of the required approvals from the regulatory and resource agencies have been obtained and distributed. The Department will distribute COE 404 and SPA124 approvals within 5 business days of receipt of all required approvals.

208.05 BASIS OF PAYMENT

No additional payment will be made for the fees or monitoring costs associated with the General Permit for storm water discharges associated with construction activity. Include these costs in the temporary erosion control bid item. Include fees associated with transferring the permit in the Lump Sum Temporary Erosion Control bid item.

Failure to provide erosion and sediment controls that preclude discharges to adjacent properties and/or aquatic resources. implement BMPs identified in the SWPPP, update the SWPPP as required by the Construction General Permit, or conduct BMP inspections and submit inspection reports renders the BMPs unacceptable. No payment will be made for BMPs installed and the total paid to date on progress estimates for BMPs will be deducted on the next

monthly progress estimate until SWPPP deficiencies are remedied and the inspection reports are completed and copies received by the Project Manager.

Payment for the completed and accepted quantities is made under the following:

<u>Pay Item</u>	<u>Pay Unit</u>
Temporary Erosion Control	Unit
Temporary Erosion Control - LS	Lump Sum

Payment at the contract unit price is full compensation for all resources necessary to complete the work in accordance with the contract.

301.03.5 Aggregate Surfacing Construction

TABLE 301-1

SURFACE SMOOTHNESS

Aggregate Size	Tolerance	Distance
1½-inch (40 mm) and larger	+0.08-foot (24 mm) to -0.05-foot (15 mm)	30 feet (9.2 m)
Less than 1½-inch (25 mm)	±0.04-foot (12 mm)	60 feet (18.4 m)

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409.03.3 Seal Coat Limitations

The following conditions govern seal coat work:

1. Perform seal coat operations between May 1st and August 31st.
2. Do not perform seal coat work during the 48-hour period immediately preceding a holiday or a holiday weekend except for pilot car operation in accordance with Subsection 618.03.11.
3. Perform seal coat work when both the ambient and pavement surface temperatures meet the bituminous material supplier's recommended temperatures.
4. Stop seal coat work at least ½ hour before sunset, to include equipment off of the roadway and placement of traffic control devices for non-construction activities.
5. Do not apply bituminous material to damp or wet roadway surfaces.
6. Do not apply bituminous material to plant mix pavement which has been placed, in accordance with the contract, within the previous 72 hours.
7. [Do not apply bituminous material within 72 hours of performing crack sealing.](#)

603.03.4 Backfilling

A. General. Use backfill material free of sticks, sod, frozen soil, or other deleterious matter.

Do not permit stones, rocks, chunks of broken concrete, or other material larger than 3 inches (75 mm) within the top 2 feet (610 mm) of the top of water and sanitary sewer lines and within 1-foot (305 mm) of the pipe top for all other installations.

Replace the top 2 feet (610 mm) of backfill for excavations in existing roadway sections "in-kind".

Place backfill material in maximum 6-inch (150 mm) layers loose thickness and compact. Firmly tamp the backfill under the pipe haunches. Extend the backfill material placed above the excavation limits or the ground line beyond each side of the pipe equal to twice the pipe diameter or 12 feet (3.7 m), whichever is less.

Compact backfill equally on each side of the pipe to at least 1-foot (305 mm) above the pipe top.

[Meet the moisture and density requirements of Subsection 203.03.3.](#)

603.03.5 Restoration and Maintenance of Existing Pavement

Restore the existing pavement excavated for pipe installation using material equal to or better than the in place pavement. Restoration includes replacing and compacting excavated aggregate base with materials equal to those in the existing roadway and placing either CLSM or new plant mix surfacing equal to the existing, but not less than 3 inches (75 mm) in thickness.

Place and compact the replacement plant mix surfacing to match the adjacent pavement providing a smooth riding surface, including the joints.

Maintain the restored areas in good condition until the new surfacing is placed.

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**TABLE 701-18
GRADE S SPECIFICATIONS**

¾-inch (19 mm), ½-inch (12.5 mm) and ⅜-inch (9.5 mm) Nominal Maximum Aggregate Size							
Property	Job Mix Target Limits			Job Mix Tolerance	Start-Up Job Mix Range ³		
	¾-inch (19 mm)	½-inch (12.5 mm)	⅜-inch (9.5 mm)		¾-inch (19 mm)	½-inch (12.5 mm)	⅜-inch (9.5 mm)
VMA	13.0 to 17.0	14.5 to 18.0	15.5 to 18.4	± 0.6	12.4 to 17.6	13.9 to 18.6	14.9 to 19.0
VFA	65 to 80			± 5.0	60 to 85		
VTM @ N _{des} ¹	3.4 to 4.0			± 1	2.4 to 5.0		
D/A ²	0.6 to 1.4			±0.2	0.4 to 1.6		
Commercial Plant Mix Requirements							
VMA	12.4 to 17.6	13.9 to 18.6	14.9 to 19.0	N/A	N/A		
VFA	60 to 85			N/A	N/A		
VTM ¹	2.4 to 5.0			N/A	N/A		
D/A	0.4 to 1.6			N/A	N/A		

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Notes:

1. Choose the design and production air voids target to be the lowest value, within the range in Table 701-16 inclusive of 3.4 and 4.0, such that all other criteria are met.
2. Percentages or quantities of hydrated lime will not be subtracted from the aggregate gradation.
3. Start-up job mix range only applies to production before initial target set. Tolerances do not apply to start up job mix range.