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Definitions of the following terms should be reviewed in Specification 1103 before reviewing the following section:

CHANGE ORDER EXTRA WORK MINOR EXTRA WORK SUPPLEMENTAL AGREEMENT WORK ORDER WORK ORDER - MINOR EXTRA WORK

Conditions of the project may exist that will not necessarily be those anticipated when the plans and provisions were prepared. Certain omissions, errors or plan changes will need correction before the project is properly completed. This section of the manual is intended to furnish instructions on documents and procedures used to implement these changes. The documents are: Change Order, Work Order - Minor Extra Work ("Work Order - MEW") and Supplemental Agreement. See CONCHNG-20 for schematic view of these options.

Change Orders

The Engineer may issue a Change Order to document a contract change that is permitted by Special Provision, Plan or Specification. Change Orders are not mandatory but are recommended as tools for documentation. In the absence of a Change Order, all of the required documentation may be included on the applicable Item Record Account(s) or by separate record. In any case, all changes must have a clear and logical audit trail.

Only a Supplemental Agreement can revise the terms of a contract. See the Supplemental Agreement portion of this manual for further information.

The following are some (but not limited to) typical uses of Change Orders

- Revising the method of measurement as per Specification 1901 "Measurement of Quantities"
- Waiving liquidated damages after the project is in condition for safe and convenient use by the traveling public, or is otherwise available for next-stage construction without restriction
- Documenting unacceptable work or materials
- Documenting bonus payments to the Contractor for exceeding established pavement ride quality, quality standards, or early completion as provided in the Contract

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- Documenting changes in the original plan (P) quantity due to re-measurement or recomputation. This is especially advised when revising a (P) quantity that is part of a Municipal Agreement.
- Documenting substitution of materials
- Documenting substitutions of methods or equipment at the Contractors request
- Documenting changes resulting from adoption of new standards, new instructional memoranda, or recommendations from Central Office
- Documenting increased or decreased quantities
- Documenting minor grades changes, sub-grade excavation changes (such as adding, lengthening, or deepening), and structure excavation changes (such as enlarging or deepening)
- Documenting item overruns in accordance with Specification 1806.2
- Documenting time extensions for late contract approval for completion date contracts
- Documenting final pay Quantities for landscape items

If any of the above changes result in a modification of contract time, a Change Order is recommended to document such modifications.

Contract cost overruns resulting from Change Orders must be encumbered according to the instructions contained in the Fund Encumbrance portion of this manual.

Whenever a Change Order affects items in a group that is funded wholly or in part by a County or Municipality, the Engineer must inform the Office of Technical Support, Municipal Agreements Unit promptly so that they can update the Cooperative Agreement associated with the project.

<u>Sample Change Order language</u> is available on the Construction Tools Website.

Work Order-Minor Extra Work (Work Order-MEW)

A Work Order-MEW is a document used by the Engineer or Project Supervisor directing the Contractor to perform "minor extra work" in situations where there is no contract unit price for the work or work item. This form is available on the Internet at http://www.dot.state.mn.us/const/forms/2460-12-92.pdf or by calling the Supplemental Agreement Specialist at 651-366-4227. The Work Order-MEW is not an agreement and does not authorize payment. Specification 1403 "Extra Work" authorizes payment for

minor extra work necessary to complete the Contract as originally intended. The Special Provisions for each contract will state the maximum dollar allowed per work order occurrence. Work Orders - MEW may not be used for the sole purpose of adding working days to contract time or extend completion dates.

Payment for minor extra work may be made by negotiated unit price or by force account. Approval for negotiated unit prices from the Mn/DOT Engineering Cost Data and Estimation Unit (Mn/DOT Estimating) is mandatory on any Work Order where the total of the negotiated items exceed \$5,000.00.

All Work Orders that specify Force Account as the Basis of payment, regardless of cost, require approval of the equipment rental rates from the Mn/DOT Estimating Unit.

Each District's or Division's Construction ADE may choose to have approval of negotiated unit prices where the total of the negotiated items is less than \$5,000.00. If a district opts to use this method, the price justification for each negotiated item, where the total of the negotiated items is less than \$5,000.00, is the responsibility of that District or Division. The Mn/DOT Estimating Unit is willing to review and give approval on any negotiated Work Order item regardless of any of the above cost considerations.

Minor Extra Work shall not exceed \$50,000 per individual occurrence. The Construction ADE (State Aid ADE in the case of State Aid projects) must sign all Work Orders that have a value greater than \$25,000 per individual occurrence.

Each minor extra work occurrence may use any combination of methods of payment as may be provided by the Contract. However, each method of payment within the same Work Order-MEW will have a separate Item Record Account for each method used on every voucher pay group involved. An Item Record Account must be generated for every group affected by the Work Order-MEW.

Work Orders-MEW are numbered consecutively. They need not be written in formal language or typed. They must be legible, clearly state work to be accomplished, and include a total estimated cost. A detailed estimate of cost may be included on each Work Order-MEW. However, it is not mandatory. The total estimated cost must contain all items where the Engineer, Contractor, and when appropriate, the Mn/DOT Estimating Unit have agreed upon the unit price.

Contract cost overruns resulting from Work Orders- MEW must be encumbered in accordance with the Fund Encumbrance portion of this manual.

Whenever a Work Order-MEW affects items in a group that is funded wholly or in part by a County or Municipality, the Engineer must inform the Office of Technical Support, Municipal Agreements Unit promptly so that they can update the Cooperative Agreement associated with the project.

Sample Work Order language is available on the Construction Tools Website.

Supplemental Agreements

A Supplemental Agreement is a legal and binding document that modifies the original contract as executed and approved. Supplemental Agreements must be written and executed for contract modifications and for extra work that is not considered minor, or in the absence of allowable specification deviations, price schedules and adjustments, or modifications provided for in the Contract.

Sample SA Language is available at the Construction Tools Website.

The following are changes that must be made by Supplemental Agreement:

- 1. Performance of "Extra Work" as defined in Specification 1403:
- 2. Alterations in special provisions and specifications (including Contract Time);
- 3. Experimental work or procedures (approval required by the Research Implementation Coordinator in the Mn/DOT Office of Research Administration):
- 4. Revisions in the structural section above the sub-base;
- 5. Alterations in the scope of the contract or character of the work;
- 6. Major revisions in geometric design of the mainline roadway, ramps, frontage roads, or crossovers and additions, deletions or;
- 7. Additions, deletions or relocations of bridges or other structures that would affect the functional scope and intent of the approved design.

When new policies or changes in standards require modifications on active Contracts, the Office of Construction and Innovative Contracting (OCIC) may write draft boilerplate Agreements. The OCIC personnel will distribute these Agreements to the Resident Offices.

Whenever a Supplemental Agreement affects items in a group that is funded wholly or in part by a County or Municipality, the Engineer must inform the Office of Technical Support, Municipal Agreements Unit promptly so that they can update the Cooperative Agreement associated with the project.

A. Standard Procedure

The following is the Standard procedure in preparing Supplemental Agreements.

- 1. A project change, meeting one or more of the Supplemental Agreement criteria listed above, needs to be resolved. The Engineer and the Contractor discuss and consider possible solutions and initiate price negotiations.
- The Engineer analyzes the possible solutions and solicits recommendations from District or Central Office personnel as needed. The Engineer works with the Contractor and the Mn/DOT Estimating to determine justifiable unit prices.

- Depending on the complexity of the agreement, the Engineer meets with one or more of the following to choose the best solution to the problem: District Engineer, Assistant District Engineer, Resident Engineer or other delegated authorities.
- 4. The Engineer writes the Supplemental Agreement. A Supplemental Agreement is composed of four general areas. The first area ("Header") covers administrative information about the Contractor and the project. The second area ('Whereas") covers the background information for the Agreement. The third area ("Now, Therefore") clearly states the obligations for the Contractor and Mn/DOT to solve the problem. The fourth ("Estimate of Cost") reiterates the method of payment detailed in the "Now, Therefore" and establishes any change in contract value. The following is an outline of what should be addressed in the Agreement:

In the Header' portion:

Contractor Name/Address

State Project Number

State Contract Number

Federal Project Number (if applicable)

Project Location

Supplemental Agreement Number

In the "Whereas" portion:

General Project Description

Specific Problem/Change

Determined Solution

In the "Now, Therefore" portion:

Contractors Responsibility

Mn/DOT's Responsibility

Applicable Specification/Revision

Method of Payment

Method of Measurement

Contract Time Provisions

Appropriate Disclaimer Paragraph*

In the "Estimate of Cost" portion

Increased Contract, Negotiated and Force Account items

Decreased Contract Items

Negotiated Credits

Distribution of Funds

*While it is preferable to keep the disclaimer in the agreement, Contractors sometime elect to cross out this paragraph. The Office of Construction and Innovative Contracting

(OCIC) must review the validity of this change for each project. The Contractor may not cross out the disclaimer if the Agreement is a claim settlement, nor if the Agreement is being executed at the request of the Contractor.

The OCIC has a variety of boilerplate agreements available and personnel assigned to answer specific questions about Supplemental Agreements.

The most current Supplemental Agreement forms are available through the OCIC website at http://www.dot.state.mn.us/const/forms/SA.doc or by calling the Supplemental Agreement Technician at 651-366-4227. The OCIC encourages the use of the most recent form.

- The Engineer has the Assistant District Engineer or Resident Engineer review the Supplemental Agreement. A draft copy of all agreements that are not routine in nature should be sent to the OCIC Supplemental Agreement Technician for review.
 - Note: The draft copy may be sent using GroupWise, e-mail or fax. The GroupWise address is Karen Peters; the e-mail address is karen.peters@dot.state.mn.us. The fax number is 651-366-4251. GroupWise and e-mail are recommended because after review and modifications, the Agreement may be printed and ready for signing without the need to retype the Agreement. Drafts can be sent using Microsoft Word.
- 6. After making the final revisions, the Agreement is approved and signed by the Engineer and the Contractor. A transmittal letter that includes justification of the SA is added and sent to the Assistant District Engineer. All parties must sign the last page of the Agreement. However, all the pages of the Agreement may be signed if desired. The original Supplemental Agreement and copy of transmittal letter is sent to the Office of Construction and Innovative Contracting.

All Supplemental Agreements must include a transmittal letter that includes the supplemental agreement category and the justification of entitlement, impact, cost and time extension.

A valid transmittal letter is required prior to processing any standard agreement for payment. A sample Transmittal letter form is available on the web at: http://www.dot.state.mn.us/const/tools/documents/sajustificationltr.doc

Supplemental Agreement Category is the primary reason for the SA. See Explanation of Supplemental Agreement Reason Categories on CONCHNG-25 or at http://www.dot.state.mn.us/const/tools/documents/sareasondesc.pdf.

Entitlement addresses why the contractor is entitled to an adjustment (or DOT entitled to a credit). Is there a change? Who is responsible for the change?

Describe the change encountered. It is very important to cite the portion of the contract (spec, provisions) that supports the entitlement. If the decision is made to change the scope of a project with a Supplemental Agreement, district management needs to aware of it and approve it. A statement should be included specifically addressing the scope change with a concurrent statement signed by District Management and documented in the transmittal.

Change – The difference between the contract requirements at the time of bid and the actual requirements imposed during construction.

Types of Contract Changes

- Directed Changes
 - Initiated by the owner
 - Understood by the owner to be a change
 - Examples, including, but not limited to:
 - Alteration of the work (Mn/DOT 1402.1)
 - Suspensions of the work (Mn/DOT 1402.2B)
 - Extra work (Mn/DOT 1403 & 1904)
 - Eliminated work (Mn/DOT 1905)

Constructive Changes

- Results from owner's actions or inactions.
- Not easily recognized: often at the heart of a dispute
 - Examples, including, but not limited to:
 - Differing site conditions (Mn/DOT 1402.2A)
 - Significant changes in the character of the work (Mn/DOT 1402.2C)
 - Errors and Omissions (Mn/DOT 1504)
 - Joint Occupancy (R/W) (Mn/DOT 1718)

Impact to the project schedule needs to be addressed. Is the progress controlling operation impacted? If so, is the delay avoidable or unavoidable? How might the contractor's efficiency be impacted? Will the contractor accelerate? Describe how any time extensions will be determined.

Cost estimate of the agreement should be justified and approved by Mn/DOT Estimating. Include a breakdown of the basis of any negotiated price. For example, the negotiated unit price per cubic yard includes a material price, price to haul, price to place plus markup. Statements comparing the negotiated price to average bid prices or to original request from contractor may be added. For Force Account work, indicate the estimate for labor, equipment and materials separately.

Include any other information that may indicate why this SA is in the public interest. Some of these may not be part of the written agreement but may be important nonetheless such as commitments made by the Department, political considerations, potential claims, etc.

- 7. OCIC will review and approve the Supplemental Agreement before routing the agreement through the following required areas: Mn/DOT Budget Office and Contract Management, as delegated by the Department of Administration. The following are additional areas that review or approve the Supplemental Agreement as needed: Time Extension, Cost Data and Estimation, and Claims. See section 5-591.120 for further discussion of pre-approval of SAs for Federal Funded projects.
- 8. When Contract Management has approved the Supplemental Agreement and the funds have been encumbered, the Agreement is considered fully executed.

After the SA is fully executed:

OCIC enters the necessary Agreement information into a Contract Management System (CMS).

CMS transfers the data to a District file queue.

District personnel can then download the file to a computer disk and distribute the disk to the appropriate field personnel for uploading into FieldOps.

OCIC sends a scanned email copy to the District Office. The District Office is requested to forward a copy to the ADE and District Design. However, the computer queue with approved funding may precede the fully executed Agreement. It is advisable to periodically check the queue for Agreement information. The OCIC Automation Section should be contacted for further information on appropriate procedures.

9. Once the information is loaded into FieldOps the Engineer can then pay the contractor for extra work that has been performed and accepted or apply credit as indicated in the Supplemental Agreement.

B. Expedited Supplemental Agreements Part A and Part B

When a project change occurs that requires extra work to be performed immediately or prior to execution of a Supplemental Agreement using the "Standard" procedure, an expedited Supplemental Agreement consisting of a Part A and Part B agreement may be used.

Supplemental Agreement Part A and Part B should not be used for Claims, changing Contract Time or Contract Specification Provisions that involve no change in cost, nor when there is ample time to complete negotiations of all aspects of the Agreement in the "Standard" procedure. Any questions regarding the proper use of Supplemental Agreement Part A and Part B should be referred to the OCIC Supplemental Agreement Specialist at 651-366-4227.

All Supplemental Agreements must include a transmittal letter that includes the justification of entitlement, impact, cost and time extension. When using the two-part agreement process, the transmittal letter must accompany the Part B portion of the agreement. The Part B portion of two-part agreements shall be executed within forty five (45) days of the execution of the Part A portion.

Supplemental Agreement Part A

Note: Authorizing the work involved with a SA Part A before it is fully executed is in violation of MN Statute 16C.05.

The following is the procedure for preparing Supplemental Agreements Part A. (Part A)

- 1. A project change, meeting one or more of the Supplemental Agreement criteria listed above, needs to be resolved. The Engineer and the Contractor discuss and consider possible solutions and initial price negotiations.
- 2. The Engineer analyzes the possible solutions and solicits recommendations from District or Central Office personnel as needed. The Engineer works with the Contractor and the Mn/DOT Engineering Cost Data and Estimation Unit (Mn/DOT Estimating Unit) to determine justifiable unit prices, or Force Account
- Depending on the complexity of the agreement, the Engineer meets with one or more of the following to choose the best solution to the problem: District Engineer, Assistant District Engineer, Resident Engineer or other delegated authorities.
- 4. All negotiated costs must be reviewed and approved by the Mn/DOT Estimating Unit.

5. The Project Engineer/Supervisor writes the Part A. A Part A may be written in less formal manner than the "Standard" Supplemental Agreement and is composed of these general areas:

Header portion (same as standard format):

State Contract Number Contractor Name/Address State Project Number Federal Project Number (if applicable) Supplemental Agreement Number Location of Work

General Scope of Project: Provide in general terms, the description of project. This may be copied from the cover of the contract.

Problem: Provide a general overview of the situation encountered and why it is essential to be completed under the contract.

Resolution: Briefly provide an explanation of what Extra Work is to be performed and what will be expected of the contractor. This should include a directive: "The Contractor will..."

Is this work within the scope of the project? Answer yes or no.

If No, please explain the urgency that the work has to be done now. This is mandatory in order to assure Contract Management and Mn/Dept of Administration that the work should not be considered as a separate contract.

Estimate of Cost: List all known Force Account, Contract Bid, and Negotiated Items with their estimated quantities, unit costs and the item amounts. It is understood that in certain circumstances it will not be possible to have all the prices negotiated. These items will be included in Part B. If the payment is to be Force Account, the amount will be estimated, and final costs will be included in Part B. If the work is not being paid by unit items, there must be an indication if the amount is Force Account or a negotiated Lump Sum.

The Mn/DOT Estimating Unit must approve all negotiated prices. The Project Engineer/Supervisor acknowledges approval by initialing the line "These costs have been reviewed and approved by the Office of Technical Support's Pre-Letting & Estimating Unit".

The statements may be brief but must contain sufficient information for all parties to understand the situation. There are no "Whereas" or "Now, Therefore" statements.

6. The Project Engineer/Supervisor, Contractor, and ADE sign the Part A. Part A may be faxed or scanned and e-mailed simultaneously to the Contractor and the

ADE for signature. The SA part A is then returned to the Project Engineer by fax or scanned e-mail.

- 7. All copies of the Part A are faxed to OCIC for Agency, Dept. of Administration approval, and FHWA (when appropriate) and fund encumbrance. These approvals are attained simultaneously rather then sequentially as required for a "traditional" Supplemental Agreement.
- 8. When all signers have returned a signed copy of Part A to OCIC and the necessary funds encumbered, the Part A is fully executed. It is anticipated that Part A would be fully executed within days after receipt by OCIC. The Supplemental Agreement signers are committed to expediting Part A Agreements.
- 9. OCIC faxes a copy of the fully executed Part A to the Office Manager for Construction.

After the SA is fully executed, the Engineer may authorize the work.

- 10.OCIC transfers the computer file containing a descriptive line and the encumbrance amount to a District file queue. No pay lines are included in the download. Payment will be made in the field as a miscellaneous back sheet item.
- 11. District personnel can then download the file to a computer disk and distribute the disk to the appropriate field personnel for uploading into FieldOps.
- 12. Payments may be made upon acceptance of the extra work.
- 13. Payments made under Part A may not exceed the total amount encumbered for Part A.

Supplemental Agreement Part B (Part B)

Part B will be a "standard" Agreement that will include all negotiated prices and requirements. Part B shall be executed within forty five (45) days of the execution of Part A. The Estimate of Cost will include the amount encumbered in Part A in order to ensure that the final encumbrance will be increased or decreased accordingly.

When Part B is fully executed and downloaded, a descriptive line and the pay lines will be added to the voucher in the manner of a "standard" Supplemental Agreement. At this time, any payments made on the back sheet pay lines will be reduced to 0.00. Any increase of funds listed in Part B will be downloaded. If Part A overestimated the money needed for the Agreement, Part B download will decrease the encumbrance.

When the Project Final is sent to OCIC, Part A will be deleted entirely from the Final Voucher.

C. Work Performed Before Authorization

Contract modifications may only be authorized by fully executed Supplemental Agreements, or by issued Work Orders-Minor Extra Work. Under no circumstances may Project Engineers/Supervisors authorize Extra Work prior to the execution of a Supplemental Agreement or the issuance of a Work Order. A signed and dated statement by the Engineer and Contractor describing the work to be performed and the basis of payment as previously required in section Emergency Procedures dated April 1, 1996 pages CONCHNG-7 to CONCHNG-8 infers authorization and is contrary to Statutes. Any order by the Engineer/Supervisor to commence work or make payment for work prior to execution of a Supplemental Agreement or issuance of a Work Order is in violation of Minnesota Statute 16C.05.

In those circumstances where a Contractor elects to begin work prior to execution of a Supplemental Agreement or issuance of a Work Order, the Engineer/Supervisor must inform the contractor, verbally or in writing, that such work is unauthorized work in accordance with Standard Specification 1512 (Unacceptable and Unauthorized Work)

D. MS16A and MS16C Violations

It is against Minnesota Statutes to pay for work before a SA is fully executed. Furthermore, it is against Minnesota Statutes to obligate the State to a new Contract (Supplemental Agreement) before the SA is fully executed. This is a MS16A (obligation for work before necessary funds are encumbered) and/or a MS16C violation (obligation for a contract before the contract is fully executed).

If the Contractor elects to perform work covered by an SA before it is fully executed, the work will be considered unauthorized as defined in Mn/DOT Specification 1512. See above, Section C Unauthorized Work.

If a MS16A or MS16C violation occurs, the Engineer must complete a **16A.15-16C.05 Violation Form** and submit with the SA. The Deputy/Assistant Commissioner and Agency Accounting Director signatures are the responsibility of the Office of Construction. This form may be downloaded from the web: http://www.mmd.admin.state.mn.us/doc/16a16cmemo.doc

E. Payment Options

In Addition to item overruns of Contract Unit prices, Mn/DOT Specification 1904 provides for extra work to be paid by Negotiated Prices or Force Account.

Negotiated Prices

Pay items that are not contained in the Contract may be paid using negotiated unit prices as a basis for payment. When negotiated prices are used the Engineer must obtain approval from the Mn/DOT Estimating Unit prior to allowing the Contractor to begin work.

The following criteria are used to justify the negotiated prices:

- a) Using average bid prices as documented in the "Average Bid Price for Awarded Project in (year)" from the Mn/DOT Estimating Office.
- b) Comparing prices from similar work on the same or an adjacent project.
- c) Calculating a price by breaking the operation down into labor, equipment and material costs.

If a subcontractor or specialty contractor performs the work, the Prime Contractor may request a Prime Contractor's Allowance, an additional negotiated overhead cost that is added to the price. This "Prime Contractors Allowance" may not exceed 10% of the first \$50,000.00 and 2% of the remaining balance of the work performed by the subcontractor or specialty contractor.

The justification information for all negotiated prices must be included as a part of the transmittal letter for Supplemental Agreements. Assistance and final approval for the negotiated prices is obtained from the Mn/DOT Estimating Office.

If prices cannot be negotiated, the work must be performed in accordance with Mn/DOT Specification 1904 "Extra and Force Account Work".

Force Account Work

This section is intended to cover the administration of Force Account work. See "Force Account Records and Payments" (CONCHNG-15), and Mn/DOT Specification 1904 "Extra and Force Account Work" for additional information

Force Account refers to the method of accounting and paying for contract work done on the basis of time and materials expended by the contractors' forces. This method is required when prices cannot be negotiated for extra work performed under Supplemental Agreement or minor extra work authorized by Work Order - MEW.

Basis of Cost Determination:

Material: Materials ordered specifically for the Extra Work: Cost are allowed at the contractor's invoice cost which may include additional costs such as taxes and transportation, if any, plus 15% of that total.

Material the Contractor has on stock not specifically purchased for the work. Costs are allowed if the Contractor will furnish an affidavit certifying that the materials were taken from stock, that the quantity claimed was used, that the material cost is correct, and that transportation costs claimed represent the actual costs to the Contractor.

Labor: The Contractor will receive the actual rate of wage paid for every hour that the employees and foreman are actually engaged in the Force Account work plus the additional costs as provided in the specifications.

Foreman hours: In order to be included in this compensation, the Foreman must be in direct charge of the specific operation. If the foreman also supervises other work, the hours will be prorated according to the number of people supervised on each part of the work. The Engineer and the Contractor must agree on the hours worked and document them daily. Travel and subsistence pay are prorated based on the number of hours worked on the Force Account. The Specifications may also require the Contractor to submit a claim for reimbursement for workers compensation costs that exceed the set standard cost.

Equipment: For any machinery or special equipment authorized by the Engineer, other than small tools, the Contractor will receive the rental rates established in the Commissioner's Equipment Rental Schedule as last issued and currently in effect on the date the Force Account agreement is executed. See "Commissioners Equipment Rental Schedule" below. The Engineer is required to have on file a full description of the equipment being used for the force account work. This description should include measurements to verify compliance.

The hours for equipment should include the time actually worked on the Force Account performed by the Contractor, or a subcontractor. Travel time to and from the location of the Force Account work will be allowed at rental rates when the equipment is moved under its own power.

The Contractor will be paid the actual costs of miscellaneous fees incurred for the performance of Force Account Work (dump fees, permits, licenses, etc.)

The Contractor will receive payment plus an additional overhead compensation of 10 percent of the first \$50,000 plus 2 percent of the balance in excess of \$50,000. Only one overhead allowance is allowed to the Contractor.

Specialty Contract work will be paid at invoice price with an overhead allowance for the Prime Contractor as specified in the contract.

Commissioner's Equipment Rental Schedule

The Commissioner's Equipment Rental Schedule specifies using the "Rental Rate Blue Book" volumes 1, 2, 3 as published by Primedia Information, Inc., publishers of

Dataquest Machinery Information Division Guides, San Jose, California, to determine rental rates. In addition, the Commissioner' Equipment Rental Schedule lists established prices for most truck, tractors, trailer, flatbeds and water trucks. The Mn/DOT Estimating Unit is the authorized unit to use these references to determine the rental rates. Rental rates are established for equipment used to perform Force Account work when prices cannot be negotiated.

The schedule is issued as an Engineering Memorandum generally effective for one year or as specified. However, the memorandum may be superseded if conditions warrant. Specifications require the contractor to furnish the equipment at the rates established in the Commissioners Equipment Rental Schedule as last issued and currently in effect on the date the Force Account Agreement is executed. The Applicable rental rates should be determined and understood by both parties at the time the agreement is written.

The following information is necessary to insure the proper rental rate is determined for a piece of equipment:

- Name and model number of the equipment;
- 2. Horsepower and type of fuel;
- 3. Type of tread (wheel or track) or stationary;
- 4. Capacity in cubic yards, tons or pounds;
- Accessories:
- 6. Year of manufacture (or serial number)

Force Account Records and Payments

This section will explain two forms required documenting Force Account Work.

A. Daily Equipment-Labor Record

Mn/DOT's Daily Equipment-Labor Rental form 2137 (9-79) is completed each day labor, equipment, or material is used on the Force Account work. The Engineer and the contractor sign this form after reviewing and agreeing to the information on the daily form. The original form is placed in the project files and the Contractor is given a copy.

The following are instructions on completing the form:

- 1. Labor: Report the name and position of each individual working on the force account work. The pay rate is taken from the Contractors payrolls when rates are not specified in the Agreement. The overtime hours the employee actually works on the project work is recorded in the overtime column. The Engineer and Contractor should agree daily and record this agreement on the Daily Equipment Labor Rental Record.
- **2. Equipment:** A brief description of the equipment and the rental rate determined by the Mn/DOT Estimating Unit are entered. Only the hours the equipment was actually used for the force account work are entered for each piece of equipment. The additional

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a separate line.

transportation costs associated with hauling the equipment to the project are entered as

3. Materials: All materials used in force account work are recorded daily in the "remarks" section of the form. Invoices showing material and associated costs must be attached for documentation.

B. Summary of Daily Force Account

Mn/DOT's Summary of Daily Force Account form TP-21659 (_) is used to summarize all the labor, equipment and material costs recorded on the Daily Equipment-Labor Rental Records after the Force Account work has been completed. Some Contracts may still need the older versions TP-21659 (2-79) or TP-21659 (1-93) form to compute the correct overhead allowances.

The Engineer and the Contractor must sign the original and all copies. The Contractor is given a copy and the original form must be submitted to Central Office, Office of Construction and Innovative Contracting with the final records.

The following are instructions for completing form TP-21659 (_____)

1. Labor Section: A separate line is used to total the number of employees, hours, and pay amount for each class of labor with the same pay rate. The total of both regular and overtime hours are multiplied by the regular pay rate to determine the total dollars paid for each class of labor. The amount of overtime-premium pay for all employees is listed as one entry in the bottom portion labeled "Total Overtime". All the wages are then added to get a sub-total of the "taxable wages". When an employee's vacation time is taxed, that vacation time will be considered part of the employee's taxable wages. The specifications provided for an overhead compensation rate to apply to these "taxable wages". After applying the overhead rate, additional labor related costs such as health and welfare, pension funds, fringe benefits, travel, and subsistence are added to get a "Total of "Labor'.

Some older contracts may still require adding all the wages and labor related costs together before applying the overhead compensation percentage rate (use the older form TP-21659 (2-79) to compute these).

- **2. Materials Section:** The materials section is a summation of all the materials costs documented in the remarks portion of the Daily Equipment-Labor Rental Records form. An overhead percentage, as directed in the Specifications, is computed and added to all the material costs to get the "Total of Material".
- 3. Equipment Section: Show the number of hours each unit of equipment used on the Force Account, a description of the equipment (including horse power), the rental rate established by the "Commissioners Equipment Rental Schedule" and the total cost of each unit of equipment. The actual cost of transporting equipment other than under its own power is included as a separate item. No overhead compensation percentage is added to equipment rentals unless provided for in the agreement. A grand total of all units of equipment is ten added to get the Total of Equipment".
- **4. Specialty Contractor Section:** The specialty contract work will be paid for at invoice price with an overhead allowance a specified in the Contract to calculate "Total Specialty Contractor".

- Miscellaneous Compensation Section: Additional costs such as dump fees. permits, and licenses will be paid for at actual cost. All these additional costs are added to get "Total Misc. Comp".
- Computation of Contractor Section: When a subcontractor performs work on 6. the force account, the Contractor is paid an additional percentage of the total cost as specified in the Contract for administration and overhead expenses. These amounts are paid only on the work actually done by the subcontractor. All the totals of Labor, Material, Equipment, Specialty Contractor, Miscellaneous Compensation, and Contractor's Allowance are added and entered as "Grand Total". This becomes the full payment amount for the Force Account work.

Specification, special provision or supplemental agreement frequently alters the percentages and dollar amounts shown above. Therefore, they should be reviewed before making this computation.

C. Payment

Payment for work performed under Force Account is made each month in the partial estimates. Supporting records are not submitted with the partial estimates but are submitted with the final record.

Negotiated Contract

A negotiated contract is used in those rare cases where it is in the best interest of Mn/DOT to have additional work performed, but the contemplated work is not essential to completion of the contract. Negotiated contracts are covered in Minn. Stat. 161.32 subd. 2 and are used where the estimated cost of the construction or maintenance work does not exceed \$150,000. The Commissioner may enter into a contract for the work by direct negotiation with two or more quotations for the work. The Contract Administration Engineer for Construction and Innovative Contracting should be contacted for any questions or further instructions.

Claims

Specification 1517 "Claims for Compensation Adjustment" covers what the Contractor must do to seek additional compensation for work or materials not covered by the Contract or ordered as extra work. The Engineer should contact the Claims Engineer in the Office of Construction and Innovative Contracting for assistance on large or controversial claims as soon as possible. The Engineer may want to keep force account type records on the disputed work to verify the validity of the claims. See Federal-aid Projects section for additional claim procedures on Federal funded projects.

March 2, 2009

Third Party Resolution - Material Testing

Resolving disputes sometimes can be a time consuming process. It is necessary that the quality of products be determined as soon as possible to minimize the risk of producing out of specification material. A timetable for each project should be established for resolution of disputes based on criticality of the item in dispute and the degree of difference between the test results in question. Extremely large variations may be sufficient cause to cease further production until the cause for the discrepancy is found. Limited production may be necessary while corrective measures are pursued. Correction of problems and performance of the final product should be the primary objective of the resolution process. To avoid accusations of bias in resolving difference between parties, a third party will be used to resolve these differences. In the technical field of testing, this is done by identifying and resolving differences obtained using objective measurements rather than a negotiation process. The following are recommended alternatives to the resolution process:

 Use of Mn/DOT Maplewood Construction & Materials Engineer Laboratory (MMC&MEL)

The third party should not be involved with either the QC or the acceptance processes. The MMC&MEL should be viewed as an "unbiased" source although technically not totally independent of both parties. The MMC&MEL is charged with the development of the IA Program and thus may be in the best position to act as the third party arbitrator. Additionally, the Department has a legal responsibility to decide the acceptability of the material.

Independent Laboratory Requirements

If used, a decision must be made with regard to the acceptability of the independent laboratory to both Mn/DOT and the Contractor. It is suggested that a pre-approved list of independent laboratories be established before a project begins. Qualification standards should be established but as a minimum the laboratory will be AASHTO accredited and use testing specialists certified under Department procedures.

The MMC&MEL will assist in the selection of a specific third party laboratory to avoid a conflict of interest. In cases, where third-party investigations are used, the decision of the selected independent laboratory will have binding effect on the dispute in question.

Cost of Resolution

In principle, the determination of "who pays" for the additional testing will depend on the outcome of the final analysis. If the additional testing and investigation indicates that the Department's tests are correct, the Contractor will pay the cost

of the investigation. Likewise, if the additional testing and investigation indicates that the Department's tests were not correct the Department will pay the cost of the investigation.

In the case of the MMC&MEL, acting as the third party, the agency will establish a fixed cost for performing various tests based on historical cost records.

Split Samples

The use of stored split samples for both Contractor and Department tests should be used when the nature of the material being tested allows. The split sample can be discarded after final determination of payment is agreed upon. Where the use of split samples is not possible or impractical, the dispute resolution investigation will use the best information possible related to the final product quality.

Procedure for Dispute Resolution

In this case the appropriateness of the test method is not in question. However, a comparison of the test results of the Contractor and the Department differs to such a degree that requires consideration of material rejection or correction work, imposition of a disincentive, or denial of an incentive in accordance with schedules established for each particular material and property.

Step 1: Preliminary Project Investigation

The Department has established an ongoing procedure to compare the Contractor QC test results and the Department's test results. This procedure is based upon applying the AASHTO multi-laboratory precision allowances for each test.

When the project level statistical comparison indicates that the Contractor's and Department results are dissimilar, appropriate review of sampling procedure, testing procedures, testing equipment, and computations will be performed by project personnel responsible for Quality Assurance program. The intent of this investigation is to ensure that the proper procedures are followed, equipment is properly calibrated and functioning, and that computational errors are eliminated. If problems are found, corrective action should be taken.

Step 2: Third Party Investigation

When Contractor QC results and Department results are dissimilar and the preliminary project investigation does not identify the reason for the dissimilarity, the situation should be forwarded to the Department's designated third party for a more thorough investigation.

The third party should examine:

- a) Past similar/dissimilar comparisons for the disputed item to identify any particular trends;
- b) The results of the preliminary project level investigation; and
- c) The results of the IA Program

The third party should then have referee or "set aside" split samples, or new samples tested to compare with the Contractor and agency's test results.

The results obtained from the referee, split sample or new sample will be judged to determine whether the Contractor or Department's initial test results more accurately represent the particular material property. The third party will then recommend whether to require rejection, corrective work, a disincentive, or an incentive.

Step 3: Board of Dispute Resolution

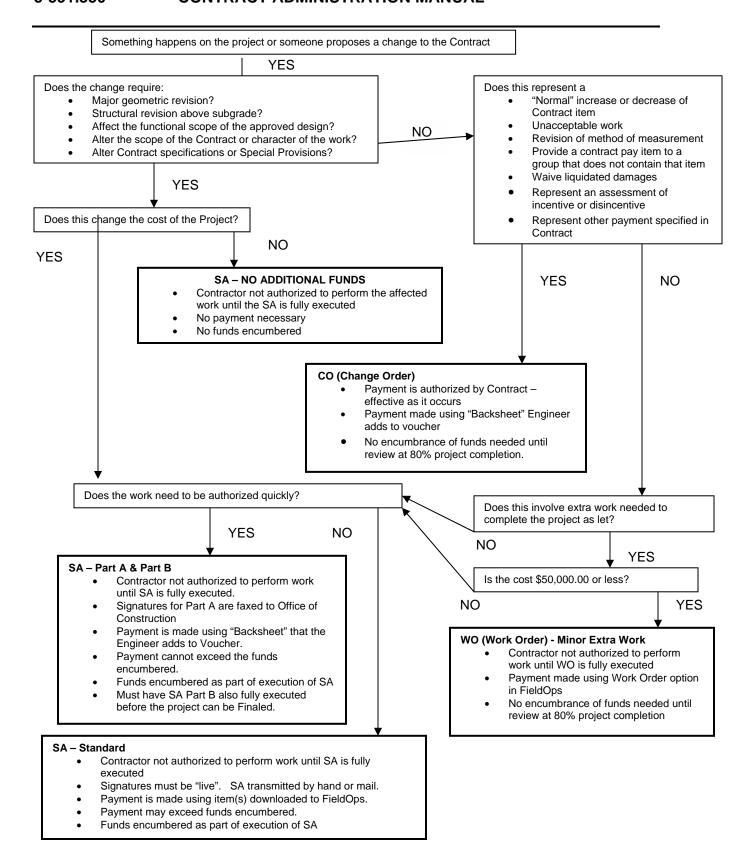
When preliminary project investigation (step 1) and third Party investigation (Step 2) do not resolve the dispute, the Contractor and/or the Department may request a decision by the Board of Dispute Resolution (BODR). Either party may submit a written request to the Director of the Office of Materials and Road Research for review by the BODR. The request must also briefly summarize the dispute. The Director will have the discretion to deny the request for review by the BODR if the request is determined to be without merit based on the findings of Steps 1 and 2.

If the Director approves the request for review by BODR, the Director will convene the group who will be responsible to resolve the disagreement. The BODR will consist of three individuals. The Department will select one member, the Contractor will select one member, and together the Department and Contractor will mutually agree on a third member.

The BODR will review all findings from Steps 1 and 2 to make a recommendation regarding acceptance of the material. The BODR may require Steps 1 and 2, or portions thereof, to be rerun before a final decision is made. Final resolution will be determined by a majority vote of the three individuals. Each individual is required to vote.

The Board of Dispute Resolution will make all attempts to expedite the decision making process, however, insufficient or inadequate information in Steps 1 or 3 may extend this process.

Both parties, regardless of the final decision, will share the cost incurred with establishing the BODR equally.



Supplemental Agreement Process Flowchart SA Part A

Step	Entity	Action	Method	
		Determines change to Contract is warranted, writes, signs,	by hand, or simultaneously by	
1	Project Engineer	sends	fax or scanned e-mail to	
			by hand, or by fax or scanned	
2	Contractor & ADE	Signs and returns	e-mall to	
		•	by hand, or by fax or scanned	
3	Project Engineer	sends	e-mall to	
	OCIC (refers to SA Specialist,			
4	Karen Peters	Enters SA Into CMS , checks language, sends	by hand to	
	Claims Engineer - Mike Leegard	Approves SA, signs as delegated authority for Commissioner		
5	(OCIC)	of Transportation, returns	by hand to	
		If the SA is for a FFO project and the SA is for >\$100,000, or it		
		the SA is for a project with any Federal funds and provides for		
		stopping the project before completion, changing the scope or	1	
		termini of the project, or for experimental work continue to step		
6	ocic	7. for all others, skip to step 8.	send by fax to (7)	
	FHWA (Kevin Kliethermes, Tim			
	Anderson, Phil Forst, Chris			
7	Cromwell, Bill Lohr, et al)	Signs indicating they received copy, returns	by fax to	
			by hand simultaneously to (9A.	
8	OCIC	Updates tracking in CMS, send	9B, 9C)	
9A	Finance (John Kellerman)	Encumbers estimated funds needed, returns	by hand to OCIC	
98	Estimating (Joe Tummers et al)	Review and approve costs, file copy, no further action		
		if the SA" is for a Design/Build Project, Review SA and send		
	Contract Management (Jim	to 10. If not D/B, Approve SA, sign as Delegated Authority for		
9C	Cownie)	Comm of Admin and send to 12.	by hand to	
		Approves SA, signs as delegated authority for Commissioner		
10	Department of Administration	of Administration, returns	by hand to	
11	Contract Management	Acknowledges Admin signature, sends	by hand to	
At this point the SA is fully executed. The approval date is the date of the latest signature				
		Updates tracking in CMS, downloads encumbrance & paylines		
		to CAARS/FieldOps, Scans SA, enters e-file to shared file,		
12	OCIC	sends flie	by E-mail to (13A, 13B)	
	Finance-Federal Billing (Lori			
	Peterson) & Office of Technical			
	Support-Design Standards			
13A	(Michael Elle)	File in their records. No further action.		
138	District Office Manager	Forwards e-file	by E-mail to	
	Project Engineer	Payment may now be made to Contractor		
148	ADE, & District Design	No further action.		

^{*} For Design Build contracts, a Change Order level 2 is the equivalent of a 8A and is treated as such.

DRAFT 8A: 8A's submitted without Engineer's, Contractor's and ADE's signatures for the purpose of approvinglediting wording. OCIC will review a Draft Form for: correct form version, correct Contract and Contractor information; the "Whereas" portion for: correct general description of the work, clear definition of the problem, logical sequence of events or facts, solution to problem, etc.; the "Now, Therefore" portion for: clear description of the Contractor's and Mn/DOT's responsibility, clear and logical method of measurement/payment, proper use of "will" and "shall", etc.; and the Estimate of cost for: specification number for item if possible, Group Distribution, logical name for item, etc.

Diraft SA are submitted by fax, mail, or e-mail. A response in the form of an edited SA draft or approval of the original draft should be made by the end of the next business day.

Supplemental Agreement Process Flowchart Standard SA and SA Part B

Step	Entity	Action	Method	
		Determines change to Contract is warranted, writes, signs,		
1	Project Engineer	sends	by hand or mail to	
2	Contractor	Signs and returns	by hand or mail to	
3	Project Engineer	Add justification letter, sends	by hand or interoffice mail to	
4	ADE	Signs and sends	by hand or interoffice mail to	
	OCIC (refers to SA Specialist,		,	
5	Karen Peters	Enters SA into CMS, checks language, sends	by hand to	
		and a remarkable for the second confidence of the second		
l	Estimating unit - Tech			
l	Support (Joe Tummers, Daryl			
6	Nelson, Estimating Engineer)	Checks & approves cost, returns	by hand to	
7	OCIC	Updates tracking in CMS, send	by hand to	
	Claims Engineer - Mike	Approves SA, signs as delegated authority for Commissioner		
8	Leegard (OCIC)	of Transportation, returns	by hand to	
		If the SA is for a FFO project and the SA is >\$100.000, or if the	-	
l		SA is for a project with any Federal funds and provides for		
l		stopping the project before completion, changing the scope or		
l		termini of the project, or for experimental work, the SA follows		
9	OCIC	steps 10,11,12. All other SAs skip to step 11.	send by interoffice mail to	
	FHWA (Kevin Kliethermes.	steps 10,11,12. All other SAS skip to step 11.	send by interonice main to	
l	Time Anderson, Phil Forst,			
l	Chris Cromwell, Bill Lohr, et	Signs, indicates Federal Participation on the routing slip &		
10	al)	returns	by interoffice mail to	
11	OCIC	Updates tracking in CMS, send	by hand to	
	0010	opulates tracking in OMS, serio	by halid to	
l	Finance (John Kellerman or			
12		Encumbers estimated funds needed, returns	by hand to OCIC	
12	John Tox - State Ald projects)	If the SA' is for a Design/Build Project, Review SA and send to	by halld to colo	
l	Contract Management (Jim	14. If not D/B, Approve SA, sign as Delegated Authority for		
13	Cownie)	Comm of Admin and send to 16.	by hand to	
		Approves SA, signs as delegated authority for Commissioner	ej mend to	
14	Department of Administration	of Administration, returns	by hand to	
15	Contract Management	Acknowledges Admin signature, send	by hand to	
At this point the SA is fully executed. The approval date is the date of the latest signature				
\vdash	At any point the or	Updates CMS, downloads encumbrance & paylines to	giluture	
l		CAARS/FieldOps, Scans SA, enters e-file to shared file, sends		
16	ocic	file	by E-mail to (17A, 17B)	
-10	Finance-Federal Billing (Lori	III III III III III III III III III II	oj =aii to (17A, 170)	
l	Peterson) & Office of			
l	Technical Support-Design			
17A	Standards (Michael Elle)	File in their records. No further action		
17B	District Office Manager	Forwards e-file to	by E-mail to	
17.0	Project Engineer	Payment may now be made to Contractor	by E-mail to	
18	ADE, & District Design	No further action.		
10	not, a district design	THE TATUTE WOULD.		

^{*} For Design Build contracts, a Change Order level 2 is the equivalent of a SA and is treated as such.

DRAFT SA: SA's submitted without Engineer's, Contractor's and ADE's signatures for the purpose of approving/editing wording. OCIC will review a Draft Form for: correct form version, correct Contract and Contractor information; the "Whereas" portion for: correct general description of the work, clear definition of the problem, logical sequence of events or facts, solution to problem, etc.; the "Now, Therefore" portion for: clear description of the Contractor's and Mn/DOT's responsibility, clear and logical method of measurement/payment, proper use of "will" and "shall", etc.; and the Estimate of cost for: specification number for item if possible, Group Distribution, logical name for item, etc.

Draft SA are submitted by fax, mail, or e-mail. A response in the form of an edited SA draft or approval of the original draft should be made by the end of the next business day.

Part B shall be executed within forty five (45) days of the execution of the Part A portion of the agreement.

Explanation of Supplemental Agreement Reason categories:

- 1402 Alteration of Work: Changes to the cross section of the roadbed above the sub-base, changes to the placement or number of bridge piers, changes to location or number of turn lanes. This category also includes other changes to the plans or Standard Plates.
- 1402 Differing Site Conditions: The work site is found to be different than what was represented by the contract changing how the Contractor performs his work. This may include changes in cross-sectional composition of work site, water table, landscape features, location of utilities, additions to or lack of features reported in the Contract.
- 1402 Local Government: Additions, elimination, changes to work, permits or inspections requested/required by Local Governments (Municipality, County, Tribe) or other Government entities (Corps of Engineers, DNR, etc).
- 1402 Scope Change: Addition to work not originally intended. Include a statement addressing the scope change with a concurrent statement by District Management.
- 1402 Specification Changes: Additions, changes or elimination of all or portions of Standard Specifications or Special Provisions.
- 1408 Value Engineering: Acceptance of a Contractor's Value Engineering proposal.
- 1504 Error/Omission: Items of work not accounted for in Bid Estimate or conflict between Contract and other contract documents.
- 1504 Quantity Error in Plan: Adjustment of plan quantity due to significant discrepancy between plan quantity and the as-built quantity with no change in the intended scope of work shown on the plans, as well as changes for a pay item that was not included in the plans, but for which work was called for in the plans with the intention of paying for such work as a separate pay item. Use when payment for fixed costs is not easily distributed using the method of paying for the work. Errors in this category are not a change to the intended design but include costs that, had the error not been made, would have been included in the awarded contract amount.
- 1507- Utility Coordination: Additions, changes or elimination of utility relocations. Also, changes to method of new utility placement, size or material. Utility Delays.
- 1508 Staking error: misinterpretation of plans or provisions. Additional compensation to the contractor due to errors in layout or construction within the responsibility of the department.
- 1517 Claim: Settlement of Claims submitted by Contractor, sub-contractors, or suppliers. This is a Primary Reason that should have a Secondary Reason.
- 1717 Air, Land, and Water Pollution: NPDES permits, regulated waste, contaminated soil and/or water.
- 1718 Right of Way: Additions, changes or elimination of Right of Way permits and acquisitions. Right of Way delays.

1806 - Contract Time/Contract Delay: Primary reason should be limited to delay to Contract Start date or acceleration of work ordered by the Owner. A secondary reason may include changes to Contract Start Date, Intermediate Completion Dates, and Final Completion Date, including delay or acceleration of work as a result of Contractor's actions or other reasons listed here.

1808 – Default and Termination of Contract: Mn/DOT cancels the Contract after giving due notice to the Contractor and its Sureties.

1809 – Emergency Cancellation of Contract: The owner terminates all or a portion of the work when deemed in the best public, State or national interest for reasons beyond the control of the Contractor.

1903 – Price Adjustment: Adjust Contract Bid Price because item has overrun or underrun by at least 25% (<75% or >125% of contract bid quantity). This is not to be used for 1402 – Differing Site Conditions, 1402 – Alteration of Work, 1402 – Local Government, 1402 - Scope Change, 1408- Value Engineering, 1504 – Error/Omission, 1504 – Quantity Error in Plan, 1808 – Cancel Contract, 1905 – Elimination of Work, or 1809 Emergency Cancellation of Contract.

1905 - Elimination of Work: Reduce all or portion of work item or type of work.

Other: Changes not included in any other category above. It is intended that this category be used rarely, if at all.