INFORMATIONAL PROPOSAL (For information only, not to be used for bidding)

NEBRASKA DEPARTMENT OF ROADS
LETTING DATE : May 22, 2003

METRIC

CALL ORDER: N13 CONTRACT ID: 2860X

CONTROL NO./SEQ. NO.: 21860 /000 PROJECT NO.: TMT-77(37)

TENTATIVE START DATE: 06/23/03 CONTRACT TIME: 225 WORKING DAYS

LOCATION: 108TH ST - PAPILLION WEST

IN COUNTY: SARPY

BIDDER

GROUP 1 GRADING
GROUP 3 CONCRETE PAVEMENT
GROUP 4 CULVERTS
GROUP 6 BRIDGE AT STA. 6+70.834
GROUP 7 GUARDRAIL
GROUP 10 GENERAL ITEMS

SEE SPECIAL PROVISIONS FOR GROUP TIES

NOTES

THE TOTAL AMOUNT OF WORK WHICH WILL BE ACCEPTED IN THIS LETTING IS LIMITED TO $_____.

THE NUMBER OF _____ CONTRACTS WHICH WILL BE ACCEPTED IN THIS LETTING IS LIMITED TO ____.

NOTICE TO ALL BIDDERS

To report bid rigging activities, call: 1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free “hotline” Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report such activities.

The “hotline” is part of the DOT’s continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

LETTING QUESTIONS

Prior to the letting, any questions pertaining to the Special Provisions or the plans for this project should be directed to Construction Division personnel at (402) 479-4568 or (402) 479-4529.

STATE OF NEBRASKA
DEPARTMENT OF ROADS

Required Provisions Supplemental to the

Standard Specifications for Highway Construction

I. Application

These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

The contractor shall insert in each of his subcontracts all of the stipulations contained in the Special Provisions and these Required Provisions.

A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

II. Equal Opportunity

1. **Selection of Labor**

   During the performance of this contract, the contractor shall not discriminate against labor from any other state.

2. **Nebraska Fair Employment Practices Act**

   The contractor shall not discriminate against any employee or applicant for employment, to be employed in the performance of this contract with respect to his hire, tenure, terms, conditions, or privileges of employment, because of his race, color, religion, sex or national origin. The contractor agrees to post in a conspicuous place or places a notice to be provided by the State Highway Department which sets forth excerpts of the Act.

3. **Nebraska Equal Pay Act**

   The contractor shall not discriminate on the basis of sex by paying wages to employees of one sex at a lesser rate than the rate paid to employees of the opposite sex for comparable work on jobs which have comparable requirements. An abstract of the Act is included on the notice which is provided by the State Highway Department.

April 4, 1995

III. Employment of Labor

1. **General**

No person under the age of sixteen (16) years, and no one whose age or physical condition is such as to make his employment dangerous to his health or safety, or to the health and safety of others shall be employed on any project. This paragraph shall not be construed to deny the employment of older people or physically handicapped persons, otherwise employable, where such persons may be safely assigned to work which they can ably perform.

No person currently serving sentence to a penal or correction institution shall be employed on any project.

Except as specifically provided under this section, workers who are qualified by training or experience to be assigned to projects of this character shall not be discriminated against on any grounds whatsoever.

2. **Payrolls**

Payrolls and basic records relating thereto will be maintained during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working on the site of the work.

The contractor's and subcontractor's payroll records shall be available for inspection by authorized representatives of the State Highway Department and authorized representatives of Federal Agencies.

The wages of labor shall be paid in legal tender of the United States, except that this condition will be considered satisfied if payment is made by a negotiable check, on a solvent bank, which may be cashed readily by the employee in the local community for the full amount, without discount or collection charges of any kind. Where checks are used for payment the contractor shall make all necessary arrangements for them to be cashed and shall give information regarding such arrangements.

No fee of any kind shall be asked or accepted by the contractor or any of his agents from any person as a condition of employment on the project.

No laborers shall be charged for any tools used in performing their respective duties except for reasonably avoidable loss or damage thereto.

Every employee on the work covered by this contract shall be permitted to lodge, board and trade where and with whom he elects and neither the contractor nor his agents, nor his employees shall directly or indirectly require as a condition of employment that an employee shall lodge, board or trade at a particular place or with a particular person.

No charge shall be made for any transportation furnished by the contractor or his agents to any person employed on the work.

No individual shall be employed as a laborer on this contract except on a wage basis, but this shall not be construed to prohibit the rental of teams, trucks or other equipment from individuals. No such rental agreement, or any charges for feed, gasoline, supplies, or repairs on account of such agreement, shall cause any deduction from the wages accruing to any employee except as authorized by the regulations hereinbefore cited.

IV. Safety and Accident Prevention

In the performance of this contract, the contractor shall comply with all applicable Federal, State and local laws governing safety, health and sanitation. The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions, on his own responsibility or as the contracting officer may determine, reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

V. Subletting or Assigning the Contract

The contractor shall perform with his own organization contract work amounting to not less than 30 percent of the total contract amount except that any items designated in the contract as "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the total contract amount before computing the amount of work required to be performed by the contractor with his own organization.

Any items that have been selected as "Specialty Items" for the contract are listed as such in the Special Provisions found elsewhere in the contract.

No portion of the contract shall be sublet, assigned, or otherwise disposed of except with the written consent of the contracting officer or his authorized representative. Requests for permission to sublet assign or otherwise dispose of any portion of the contract shall be in writing and accompanied by a showing that the organization which will perform the work is particularly experienced and equipped for such work. The contractor shall give assurance that the minimum wage for labor as stated in his proposal shall apply to labor performed on all work sublet, assigned or otherwise disposed of in any way. Consent to sublet, assign or otherwise dispose of any portion of the contract shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract.

SPECIAL PROVISIONS
FOR
STATE
PROJECT NO. TMT-77(37)

GENERAL CONDITIONS

Sealed bids for the week contemplated in this proposal form will be received by the Department of Roads of the State of Nebraska, for Sarpy County, Nebraska, at the office of the Nebraska Department of Roads in Room 104 of the Central Office Building at 1500 Highway 2 at Lincoln, Nebraska on May 22, 2003.

Bids submitted by mail should be addressed to the Nebraska Department of Roads, c/o Contract Lettings Section, P.O. Box 94759, Lincoln, NE 68509-4759.

The 1997 Metric Edition of the Standard Specifications for Highway Construction, including all amendments and additions thereto effective at the date of the contract, are made a part of these Special Provisions, through reference.

The Supplemental Specifications to the 1997 Metric Edition of the Standard Specifications for Highway Construction dated July 12, 2001, including all amendments and additions thereto effective at the date of the contract, are made part of these Special Provisions, through reference.

The Required Provisions dated April 4, 1995, are attached to and are a part of this proposal form.

The attention of bidders is directed to the Required Provisions covering subletting or assigning the contract.

The proposal contains a statement that the contractor is complying with, and will continue to comply with, fair labor standards in the pursuit of his business and in the execution of the work contemplated in this proposal.

Fair labor standards shall be construed to mean such a scale of wages and conditions of employment as are paid and maintained by at least fifty per cent of the contractors in the same business or field of endeavor as the contractor filing this proposal.

GROUPS 1, 3, 4, 6, 7, AND 10 ARE TIED TOGETHER AND BIDDING PROPOSAL FORMS FOR THIS WORK WILL BE ISSUED AND A CONTRACT AWARDED TO A CONTRACTOR WHO IS QUALIFIED FOR CONCRETE PAVEMENT OR BRIDGES.

WORK TO BE DONE BY UTILITIES

According to the best information available at this time it may be necessary for the following utilities to perform work within the limits of the project concurrently with the highway construction work.

Utility Company	Date Authorized/ Notified To Move	Actual/ Anticipated Starting Date	Estimated Number of Working Days	Actual/ Anticipated Completion Date
AT & T	Will have no involvement on this project.			
Williams Pipeline	Will have no involvement on this project.			
Northern Natural Gas	Will have no involvement on this project.			
Sprint	Will have no involvement on this project.			
MCI WorldCom	Will have no involvement on this project.			
OPPD	Will move utilities concurrent with construction.			
Qwest Communications	Will move utilities concurrent with construction.			
Cox Communications	Will move utilities concurrent with construction.			
Aquila	Will move their utilities prior to construction.			

All work to be done concurrent with construction.

STATUS OF RIGHT OF WAY

The right of way for this project has been acquired and physical possession is held by Sarpy County and ready for the contractor's use, except tracts listed below.

Status of unacquired and uncleared right of way tracts is estimated as follows:

TRACT NO.	CONTRACT DATE	HEARING DATE	NUMBER OF IMPROVEMENTS REMAINING	SCHEDULED VACATING DATE	IMPROVEMENT CLEARANCE DATE
7	Still negotiating	May go condemnation			

All necessary arrangements have been made for the right of way clearance to be undertaken and completed concurrently with the highway construction.

All necessary rights of way, including control of access rights when pertinent, have been acquired including legal and physical possession except for the above.

It is anticipated that all right of way will be acquired and physical possession held by Sarpy County prior to the tentative starting date shown elsewhere in this proposal.

The contractor will not be allowed to perform work on any tract listed above until legal and physical possession has been acquired by Sarpy County. If necessary, the contractor will be granted an extension of time if a delay is caused because of the above tract(s) not being acquired.

SUBCONTRACTOR BIDDERS LIST INFORMATION
(S1-43-0801)

All bidders must complete and submit with the bidding proposal, the "Subcontractor Bidders List" form provided by the NDR Contracts office.

Bidders must identify all firms who bid or quote subcontracts on all projects. If no bids or subcontractor quotations are received, the "Subcontractor Bidders List" must be submitted with the bidding documents and the bidder must indicate on the face of the "Subcontractor Bidders List" that no bids or subcontractor quotations were received.

CONTROL OF WORK
(S1-43-0901)

Subsection 105.08 in the 1997 Standard Specifications is void and replaced by the following:

105.08 - Authority and Duty of the Inspector

Department inspectors are authorized to inspect all work performed and all materials furnished. Such inspection may extend to the preparation, fabrication, or manufacture of the materials. The inspector has the authority to reject work or materials until any issues can be decided, including the right to suspend work. The inspector is not authorized to alter or waive the provisions of the contract or act as a supervisor for the Contractor.

105.13 – Tentative Acceptance of Portions of the Project

Paragraph 3.a. of Subsection 105.13 is amended by deleting the word "normal".

LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC
(S1-43-1001)

107.14 – Opening of Sections of the Project to Traffic

Subsection 107.14 Paragraphs 2.b.(1) and (2) are void and replaced by the following:

2.b. (1) Whenever the Department permits the public use of a highway undergoing construction, repair, or maintenance in lieu of a detour route, the Contractor shall not be held responsible for damages to those portions of the project upon which the Department permitted public use, when such damages are the result of no proximate act or failure to act on the part of the Contractor.

(2) If the traveling public should cause damage to the roadway, the Contractor shall assist the State in identifying the responsible party and the Contractor shall as a minimum if present at the time of the damage record pertinent information regarding the accident. (Who caused the damage; when the damage occurred; and how the damage occurred.)

107.15 – Contractor's Responsibility for Work

Subsection 107.15 is amended by adding Paragraph 1.b.(3) as follows:

(3) The Contractor shall not be held responsible for damage caused by the traveling public on those portions of the project where the Department has permitted public use of the road in lieu of using a detour route and the damage as not the result of any proximate act or failure to act on the part of the Contractor.

MEASUREMENT AND PAYMENT
(S1-43-0901)

109.08 – Acceptance, Final Payment, and Termination of Contractor's Responsibility

Subsection 109.08 Paragraph c. amended by deleting the word "normal".

Subsection 109.08 Paragraph d. is void and replaced by the following:

d. If the traveling public should cause damage to the roadway the Contractor shall assist the State in identifying the responsible party and the Contractor shall as a minimum if present at the time of the damage record pertinent information regarding the accident. (Who caused the damage; when the damage occurred; and how the damage occurred.)

AWARD AND EXECUTION OF CONTRACT

The first sentence of Subsection 103.03 in the Standard Specifications is void and superseded by the following:

The bidder to whom the contract is awarded shall furnish within 5 days after the award, a contract bond, in a sum equal to the full amount of the contract.

The first sentence of Subsection 103.04 is void and superseded by the following:

The contract shall be signed by the successful bidder and returned, together with a satisfactory bond, within 5 days from the date of award.

Paragraph 1.a. of Subsection 103.05 is void and superseded by the following:

a. Fails to file an acceptable performance bond within 5 days from the date of award.

PLANS AND WORKING DRAWINGS
(S1-41-0801)

The last sentence in Paragraph 5. of Subsection 105.02 in the Standard Specifications is void and superseded by the following:

The Contractor shall furnish the Engineer as many copies of working drawings as are required in each Division specifying submission of working drawing, or seven copies (8 copies if the submission is a precast structure or element), if the quantity is not specified.

Paragraph 6.c. of Subsection 105.02 is void and superseded by the following:

c. (1) The project number, structure number, control number and project location as it appears on the plans, shall be shown on each sheet of all shop drawings.

PROSECUTION AND PROGRESS
(S1-21-0801)

Paragraph 3 of Subsection 108.02 in the Standard Specifications is amended to provide that the working day count on this project will be suspended from December 1 through March 31. The contractor will be permitted to work on this project during this time period without charging of working days against the contract time allowance. In the event that the project is not completed during this period, the working day count will resume on April 1, in accordance with the Standard Specifications.

SPECIAL PROSECUTION AND PROGRESS
(Migratory Birds)

Cliff swallows may inhabit the area and may appear in mid-March and inhabit the area through the summer. To avoid the problem of cliff swallows nesting on the structures contained in this project, the Contractor can either net the exposed surfaces or remove early nesting material by high-pressure spraying, twice a week, through the nesting season. Once work is completed on an exposed surface, that area no longer needs to be netted or sprayed. The work of netting or spraying the structures will not be measured for payment, but shall be considered subsidiary to other items of work for which direct payment is made.

SPECIAL PROSECUTION AND PROGRESS
(Phasing)

The plans depict phasing sequences that are to be used in the construction of this project. Any deviations from these sequences shall require the written approval of the Engineer.

The following requirements shall also apply:

1. In 2003, the Contractor shall complete the placement of the embankment from Sta. 3+15 to Sta. 8+30 as quickly as possible in order to facilitate settlement requirements, described elsewhere in this proposal and in the bridge plans, and to allow for bridge construction over the winter.

2. The portion of the project from Sta. 0+44.84 to Sta. 3+15 shall be completed and open to traffic by no later than October 4, 2003. When constructing this portion of the project, two-lane two-way traffic, as depicted in the phasing plans, will be maintained at all times to Watanabe Parkway.

3. The portion of the project from Sta. 7+85± to Sta. 14+56.65 shall be completed and open to traffic by no later than November 1, 2003. This portion of the project shall be constructed under closed road conditions, with the exception of the phased portion from Sta. 13+25± to Sta. 14+56.65, as depicted in the phasing plans. Two-lane two-way traffic to Rotella's bakery shall be maintained at all times. The Contractor shall pay special attention to settlement rates between Sta. 7+85± and Sta. 8+30 with regard to paving.

4. Construction of the portion of the project from Sta. 3+15 to Sta. 7+85± shall be accomplished under closed road conditions in 2004.

5. Access to Tract 16, Tract 15 and the tract located to the east and south of Tract 15 shall be maintained at all times.

SPECIAL PROSECUTION AND PROGRESS
(Settlement)

Fill-related settlement can be expected approximately between Sta. 3+15 and 8+30. Estimated fill-related settlements on the order of 42 mm to 63 mm for every meter of fill can be anticipated south of Station 4+50. North of Station 4+50, estimated fill-related settlements of 21 mm to 42 mm per meter of fill can be expected. Estimated fill-related settlements should be

near completion within 2 to 4 months following fill placement. Paving shall be delayed up to 120 days following the placement of fill material or until at least 90 percent of the anticipated settlement has taken place as indicated by geotechnical monitoring instruments.

THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY

WORK TO BE PERFORMED BY THE RAILROAD COMPANY

The Burlington Northern and Santa Fe Railway Company will perform, or cause to be performed, such temporary and permanent alterations of telegraph, telephone, signal wires and signals, tracks or other facilities on its right of way as are required. According to the best information available at this time it may be necessary for the Railroad Company to perform work within the limits of the project concurrently with the highway construction work. The company agrees to furnish to the State a drawing showing the location of the existing facilities and their relocation.

The Railroad Company shall provide an inspector or inspectors for any direct labor work undertaken by the Railroad Company on or in connection with the project.

RAILROAD SAFETY TRAINING (S1-22A-0801)

The railroad company requires that anyone working within the railroad right-of-way attend a “Rail Safety Training” class. The Contractor, or their representative, will not be allowed on railroad right-of-way until they have successfully completed the mandatory safety training. The railroad will present a certification card to everyone who completes their safety training, and construction crews will be required to have their safety training certification cards in their possession at all times when they are working on railroad right-of-way.

The contractor will be responsible for all costs associated with attending this training class.

FLAGGING PROTECTION

When, for any reason, the Manager Public Projects or other duly authorized representative of the Burlington Northern and Santa Fe Railway Company shall deem it necessary to employ flagmen for the protection of train operations, such flagmen shall be furnished by the Railroad Company and all costs for such flagmen shall be borne by the contractor.

Prospective bidders shall familiarize themselves fully with the Railroad Company's requirements for flagging protection before bidding on the work.

REIMBURSEMENT TO RAILROAD COMPANY FOR FLAGGING COSTS (S1-24-0801)

At all times while performing such work, flagmen shall be deemed to be employees of the Railroad Company.

The contractor shall reimburse the Railroad Company directly for this flagging protection and shall make a showing that the Railroad Company has been reimbursed for all necessary flagging required by his operations before final payment for the work contemplated in the contract is made by the State.

Direct payment for flagging protection as required in these special provisions will not be made but it shall be considered that this work is subsidiary to any or all of the items for which the contract provides that direct payment shall be made.

FLAGGING CONDITIONS (S1-25-0801)

Flagging and other protective services and devices will be provided by the Company to protect its facilities, property and movements of its trains or engine.

In general, the Company will furnish such flagging or other protective services and devices:

(a) For any excavation below elevation of track subgrade, if, in the opinion of the Company's representative, track or other railroad facilities may be subject to settlement or movement.

(b) During any clearing, grubbing, grading or blasting in proximity to the railroad, which, in the opinion of the Company's representative, may endanger or interfere with the railroad's facilities or operations.

(c) When any of the Contractor's operations are carried on or within the Railroad Company's right of way and in the opinion of the Company's representative could endanger Company's facilities or create a hazard to the Company's operations.

PROTECTION OF UTILITIES
(S1-26-0801)

Before the contractor begins his operations on the railroad right-of-way he shall confer with the official representatives of the State and the Railroad Company with regard to any underground or overhead utilities which may be on or in close proximity to the site of the work. The contractor shall take such measures as the State or Railroad Company may direct in protecting those utilities properly throughout the period his construction operations are in progress. The party or parties owning or operating overhead or underground utilities shall perform the actual work of moving, repairing, reconditioning or revising those utilities, except as otherwise provided in the contract. Whenever and wherever such operations are undertaken by owners of utilities, the contractor shall cooperate to the extent that ample protection of their work will be provided so that the entire work that is contemplated in the contract may be expedited to the best interests of all concerned, as judged by the engineer for the State.

The contractor shall be responsible for any and all damages to utilities that are permitted to remain in place, or to reconstructed utilities in the vicinity, which may be due either directly or indirectly to his operations, and shall repair promptly any such damaged property to the satisfaction of the engineer and the owner of the property, or shall make payment to such owners for repairs as may become necessary on account of damages that are due to his operations.

Direct payment for this work will not be made but it shall be considered that the protection of the utilities is subsidiary to any or all of the items for which the contract provides that direct payment shall be made.

RAILROAD SPECIAL PROVISIONS

Before the contractor begins his operations on railroad right of way, he will contact the railroad at least 10 days in advance by telephone at 1-800-533-2891 (a 24-hour number) to determine if fiber optic cable is buried anywhere on the railroad property to be used by the contractor.

The railroad will advise the contractor if fiber optic cable exists at the location(s) being occupied and will dispatch a representative to locate, mark and protect each cable in the vicinity of the work to be performed by the contractor.

The railroad will need the Railroad Mile Post involved which is 27.48 on this project.

The contractor, for his own protection, should obtain and record the "Trouble Log Number" from the railroad for verification of the call made.

WRITTEN NOTICE TO RAILROAD COMPANY

The contractor shall give written notice to the Manager Public Projects or to his authorized representative, at least ten days in advance of the date on which he expects to begin any work under or adjacent to any of the tracks of the Railroad Company or he expects to begin any construction work on the right of way of the Railroad Company. The contractor shall also give written notice to the Manager Public Projects no later than ten days after completion of all work on the railroad company's right of way.

PROTECTION OF PROPERTY
(S1-29-0801)

The contractor shall use the utmost care to guard against accidents or cause the least possible interference with the operation of trains of the Railroad Company and the telephone, telegraph or signal lines of the Railroad Company or of any tenant of the Railroad Company's right-of-way. The contractor shall use the utmost care in guarding against injury to underground and overhead public utilities and services at or near the site of the work.

All work to be done under this contract shall be handled by the contractor so as to interfere as little as is reasonably possible with the use of tracks, wires, signals and property of the Railroad Company or its tenants, and the underground or overhead services of public and private utilities, and the contractor shall be responsible for any damages which may be sustained by the Railroad Company, its tenants, employees, passengers or freight in its care, or by the owners of any public or private overhead or underground services caused by such interferences which could have been avoided by the proper handling of said work. The contractor shall discontinue immediately, upon request of the engineer, any practices or actions which, in the opinion of the engineer, are unsafe or cause damage to underground or overhead services of public or private utilities, or which might result in delays to trains, engines or cars, or damage to tracks, roadbed, telephone, telegraph or signal wires.

The contractor shall take all precautions for the purposes of protecting the embankment of all railroad tracks as may be determined necessary by the authorized representative of the Railroad Company. The contractor agrees to affix the seal of a registered professional engineer licensed to practice in the State of Nebraska on all plans and calculations pertaining to details for sheeting or otherwise protecting excavations next to or adjacent to railroad tracks if necessary and noted on the State's plans. The contractor also shall take all precautions for the protection of underground and overhead services either public or private, as may be determined by the engineer.

PROTECTION OF PROPERTY

The contractor shall not place or permit to be placed, or remain, piles of material or other temporary obstructions closer than 12 feet (3.7 meters) to the nearest rail of any track or closer than 23 feet (7 meters) above the top of any rail except that the construction forms and scaffolding may be placed no closer than 12 feet (3.7 meters) from the centerline of any such track.

Any changes necessary in the clearance set forth above shall be made only by special arrangements with the Manager Public Projects of the Company or his authorized representative.

The contractor agrees to affix the seal of a registered professional engineer licensed to practice in the State of Nebraska on all plans and calculations pertaining to details for sheeting or otherwise protecting excavations next to or adjacent to railroad tracks if necessary and noted on the State's plans.

RAILROAD CROSSINGS
(S1-31-1201)

The Contractor shall use only public roadways or special crossings that are specifically shown on the plans to cross railroad tracks. If the Contractor should desire a temporary crossing for construction purposes at a location other than an existing public crossing, provisions for such crossing shall be negotiated with the railroad by the Contractor, and all costs for such crossing shall be borne by the Contractor.

Prospective bidders should familiarize themselves with railroad temporary crossing and insurance requirements before bidding on the work.

INSPECTION
(S1-32-0801)

Subsection 105.09 in the Standard Specifications is amended to provide also that the work shall be subject to the inspection of the properly authorized representatives of the railroad and that such inspection shall in no sense make the railroad a party to this contract and will in no way interfere with the rights of either party hereunder.

INSURANCE
(S1-33-1201)

The State shall require its Contractor or any of his subcontractors to carry regular Contractor's Public Liability and Property Damage Insurance as specified in Federal-Aid Policy Guide 23 CFR 646A providing for a limit of not less than Two Million Dollars ($2,000,000) for all damages arising out of bodily injuries to or death of one person, and subject to that limit for each person, a total limit of not less than Four Million Dollars ($4,000,000) for all damages arising out of bodily injuries to or death of two or more persons in any one accident and providing for a limit of not less than Two Million Dollars ($2,000,000) for all damages to or destruction of property in any one accident and subject to that limit a total (or aggregate) limit of not less than Four Million Dollars ($4,000,000) for all damages to or destruction of property during the policy period. A certified copy of the policy providing said Contractor's Public Liability and Property Damage Insurance executed by a corporation qualified to write the same in the State in which the work is to be performed, in form and substance satisfactory to the Railroad, shall be delivered to and approved by the Railroad prior to the entry upon or use of the Railroad's property by the Contractor.

In addition to any other forms of insurance or bonds required under the terms of the contract and the specifications, the Contractor shall furnish to the Railroad a Railroad Protective Policy in the form provided by Federal-Aid Policy Guide 23 CFR 646A. The combined single limit of said policy shall not be less than Two Million Dollars ($2,000,000) for all damages arising out of bodily injuries to or death of any person or persons and for all damages arising out of loss or destruction of or injury or damage to property in any one occurrence during the policy period; and subject to that limit, a total (or aggregate) limit of not less than Six Million Dollars ($6,000,000) for all damages arising out of bodily injuries to or death of any person or persons and for all damages arising out of or loss or destruction of or injury or damage to property during the policy period. Said insurance policy executed by a corporation qualified to write the same in the State in which the work is to be performed shall be in form and substance satisfactory to the

Railroad and shall be delivered to and approved by the Railroad prior to the entry upon or use of its property by the Contractor.

The above mentioned insurance shall be written in accordance with the Federal-Aid Policy Guide 23 CFR 646A issued by the Federal Highway Administration, which is hereby, through reference, made a part of these provisions.

The State shall require its Contractor or any of its subcontractors to carry a Business Automobile Insurance Policy or equivalent policy with minimum limits of one million dollars ($1,000,000) for bodily injury and property damage per occurrence on all vehicles which the Contractor or subcontractors, their agents or employees may use at any time in connection with the performance of the work on this project. A certified copy of the policy providing said Business Automobile Insurance executed by a corporation qualified to write the same in the state in which the work is to be performed, in form and substance satisfactory to the companies, shall be delivered to and approved by the companies prior to the entry upon or use of the companies property by the Contractor.

The insurance as hereinbefore specified shall be carried by the Contractor and the Railroad covering all work performed on this project within the limits of the rights-of-way of the Railroad. Said insurance shall be carried until all work required under the terms of the contract is satisfactorily completed, as evidenced by formal acceptance by the State.

The State's Contractor shall cause triplicate originals of the policy or policies covering the Railroad Protective Liability Insurance specified above to be delivered to the State for delivery to the Railroad. The Contractor shall not enter upon or perform any work upon the property or the rights-of-way of the Railroad until the specified originals of the policy or policies have been delivered to and approved by the Railroad. The Contractor shall deliver one original policy of the above described Contractor's Property Damage Liability Insurance and one copy of the Business Automobile Insurance Policy to the State prior to the beginning of any work on the Railroad's right-of-way.

In addition to the above, the Contractor shall indemnify and hold the railroad(s) harmless against and from all cost, liability, and expense whatsoever (including the railroad attorney's fees and court costs and expenses) actually incurred arising out of or in any way contributed to by any negligent act or omission of the Contractor and its employees, for any damage to or destruction of any telecommunications system by the Contractor and its employees on the railroad's property.

RIGHT OF WAY
(S1-34-0801)

The right of way and property which the public has, or will have, by ownership or easement, for the permanent construction and the prosecution of the construction operations, is indicated in the plans or will be defined upon request. Any additional ground, or working or storage space that the contractor may require for his operations, shall be provided by the contractor at his own expense.

RESTORATION OF RAILROAD COMPANY'S PROPERTY
(S1-35-0801)

In the event the contractor shall in any manner move or disturb other property of the Railroad Company, in connection with the use of the said property, then, and in that event, the contractor shall, as soon as possible and at its sole expense, restore such property to the same condition as it was in before such property was moved or disturbed, and the contractor shall indemnify and save harmless the Railroad Company against and from any and all liability, loss, damages, claims, demands, costs and expenses of whatsoever nature, including court costs and attorneys' fees, which may result from injury to or death of persons whomsoever, or damage to or loss or destruction of property whatsoever, when such injury, death, damage, loss or destruction grows out of or arises from the taking down of any fence, or the moving or disturbance of any other property, of the Railroad Company.

FINAL CLEANING UP
(S1-36-0801)

Subsection 104.08 in the Standard Specifications is amended to provide also that upon the completion of the work contemplated in this contract, the contractor shall remove all machinery, equipment, surplus materials, falsework, rubbish, ditches, and temporary building, furnished or erected by him from within the limits of the right of way of the Railroad Company and shall leave the said right of way in a neat condition satisfactory to the Chief Engineer of the Railroad Company, or his authorized representative.

PERCENTAGE OF COST OF WORK WITHIN RAILROAD RIGHT-OF-WAY

The following information is furnished to aid in the determination of a proper premium for the Railroad Protective Liability Insurance required elsewhere in these special provisions.

RAILROAD PROTECTIVE POLICY DATA SHEET

Railroad: The Burlington Northern and Santa Fe Railway Co.

Railroad Contact: Robert Carter

Title: Manager Public Projects

Address: 201 North 7th, Lincoln, Nebraska 68501

Telephone Number: (402) 458-7515

Project Number: TMT-77(37)

Project Location: Papillion West

Type of Project: New viaduct construction

No. of trains/day: Total: 12

Freight or Coal: 10 Speed: 55 mph Passenger 2 Speed 55 mph

No. of Tracks: Mainline 1 Branchline 0

Project Over RR: No _____ Yes X Project Under Railroad: No X Yes _____

Railroad Shoo-fly Required: No X Yes _____

Project Parallel to RR: No X Yes _____ If Yes, Number of Miles _____

Crossings on State Highway or City Street System: No _____ Yes X

If Yes, Number of Crossings 1 – to be removed; see below

Pavement or Overlay up to Crossing on County or City Road:

No X Yes _____ If Yes, Number of Crossings _____

Work to be done by Railroad Remove at-grade crossing; signals and gates at DOT No. 073043U

It shall be the contractor's responsibility to contact the railroad for additional information needed to purchase the Railroad Protective Policy.

The percentage of work within railroad right of way that is within 50 feet (15.25 meters) of any railroad track shall be covered by railroad protective insurance. The railroad's ownership of right of way that extends beyond 50 feet (15.25 meters) from the closest track shall be covered under regular Contractor's Public liability and Property Damage Insurance in the amounts specified in this contract.

Group	Approximate Percent of Work Within 50 feet (15.25 meters) of Nearest Track	Approximate Percent of Work on RR/ROW Not Within 50 feet (15.25 meters) of Nearest Track	Description of Work
All	11 %	8 %	

CONSTRUCTION DETAILS

FUEL COST ADJUSTMENT PAYMENT (S2-1-0801)

Section 205 in the Standard Specifications and Supplemental Specifications is amended to include the following:

Payment will be made to the contractor for monthly fluctuations in the cost of diesel fuel used in performing the items of work, "Excavation", "Excavation, Borrow", "Excavation, Established Quantity", and/or “Earthwork Measured in Embankment” when the fuel cost fluctuates by more than 10% from the base price defined below. Payments may be positive, negative, or nonexistent depending on the circumstances. Payments or deductions will only be calculated on that portion of the fuel cost fluctuation that exceeds the 10% specified above.

Payments or deductions for the fuel cost adjustment will be included in the contractor’s progress estimates; and the payment or deduction authorized for each estimate will be based upon the algebraic difference between the quantities for “Excavation”, “Excavation, Borrow”, “Excavation, Established Quantity”, and/or “Earthwork Measured in Embankment” on the current estimate and the quantities shown on the previous estimate.

The fuel cost adjustment for the current estimate will be computed according to the following formula:

FCA=QFD where

FCA = Fuel cost adjustment, in dollars;

Q = The algebraic difference between the quantities (in cubic yards or cubic meters) for "Excavation", "Excavation, Borrow", "Excavation, Established Quantity", and/or “Earthwork Measured in Embankment” on the current estimate and the quantities shown on the previous estimate;

F = English
The fuel use factor for diesel fuel, in gallons per cubic yard. For the items of work “Excavation”, “Excavation, Borrow”, and “Excavation, Established Quantity”, “F” shall be equal to .15. For the item of work “Earthwork Measured in Embankment”, “F” shall be equal to .20.

Metric
The fuel use factor for diesel fuel, in liters per cubic meter. For the items of work “Excavation”, “Excavation, Borrow”, and “Excavation, Established Quantity”, “F” shall be equal to .74. For the item of work “Earthwork Measured in Embankment”, “F” shall be equal to 1.00.

D = Allowable price differential.

The allowable price differential, “D”, for the current estimate will be computed according to the following formula:

When the current price, P, is greater than the base price, P(b).

D = P – 1.10P(b), but not less than zero.

When the current price, P, is less than the base price, P(b).

D = P – .90P(b), but not greater than zero.

In either case, P(b) shall be the base diesel price, in dollars per gallon (liter), defined as the average of the minimum and maximum prices for No. 2 Diesel Fuel (Oklahoma) published in the first issue of “*Platt’s Oilgram Price Report*” for the month in which bids for the work were received.

In either case, P, shall be the current diesel price, in dollars per gallon (liter), defined as the average of the minimum and maximum prices for No. 2 Diesel Fuel (Oklahoma) published in the first issue of “*Platt’s Oilgram Price Report*” for the month in which the progress estimate is generated.

BORROW MATERIAL

There will be approximately 153,000 cubic meters of embankment material available near the northeast corner of 108th and Giles Road. This material shall be used by the

Contractor as embankment for this project. The Contractor shall contact Frank Kulig of KVI at (402) 496-2600, Ext. 107 regarding the location, access, method of removal and price for this embankment material. Any additional embankment required for the project after this material has been used will be furnished by the Contractor from another source.

GEOTECHNICAL INSTRUMENTATION

This work shall consist of designing, monitoring, furnishing materials and installing new geotechnical monitoring instruments, protective casing and related equipment as specified in these special provisions.

This work shall be completed by a qualified contractor experienced in the installation of geotechnical instrumentation and licenses as a water well contractor in the State of Nebraska. The work shall be directed by a Professional Engineer registered in the State of Nebraska and retained by the contractor. The work shall be completed by installation crews experienced in the installation of the specified or similar instruments. Prior to installation, the contractor shall submit to the Engineer and the Department of Roads, for approval, documentation of the experience for the contractor's company and the installation crew.

The design and monitoring of the instrumentation shall be completed under the direction of a Professional Engineer registered in the State of Nebraska. The contractor shall submit to the Engineer for review: 5 sets of shop drawings and design calculations, explanatory notes, specifications and proposed materials for the monitoring instruments as well as a report detailing the monitoring process. The shop drawings and design calculations shall be signed, sealed and dated by a Professional Engineer registered in Nebraska.

All installed instruments and equipment shall be protected and maintained by the contractor. The contractor shall provide instrumentation casing pipe and related equipment in such a manner that construction of the embankment is not delayed.

All geotechnical instruments must be installed and accepted by the engineer and the Department of Roads before embankment construction exceeds a height of 1 meter above existing grade.

The installation of all instruments and equipment shall be completed by the contractor in accordance with the manufacturer's recommendations and as directed by the engineer. Installation and abandonment of the instruments shall be made by a water well contractor licensed in the State of Nebraska and in accordance with the regulations governing water well construction, pump installation, and water well abandonment standards (Title 178, Chapter 12).

Prior to instrument installation, the contractor shall establish the plan position and elevation of each instrument by survey. The top elevation of each instrument shall be surveyed following completion of the instrument installation. The survey data shall be recorded and transmitted to the Department of Roads and the engineer.

The contractor shall have prepared a boring log to document the soil conditions at the instrument locations. The log shall be prepared by a geologist or geotechnical engineer under the supervision of a registered professional.

The contractor shall make an installation record for each instrument documenting the as-built geometry of the instruments. These records shall be presented in clear and legible form to

the engineer and the Department of Roads before embankment construction can extend above the grade present at the time of instrument installation.

The contractor shall prepare a report documenting the findings gathered during instrumentation monitoring. The report shall be prepared under the supervision of a registered professional. This report shall be presented to the engineer and the Department of Roads for review. Paving operations will be delayed until it can be documented that at least 90 percent of the anticipated settlement has taken place.

All instruments constructed under this contract shall be abandoned at project completion or at a time directed by the engineer. Abandonment includes damaged instruments, which cannot be returned to service. Abandonment procedures shall include removal of protective casings at least one half meter below the ground surface, filling the open portions of all casings with cement/bentonite grout and installing a permanent water-tight cover on the top of the casings.

Field instrumentation shall be monitored concurrently with this project to evaluate embankment stability during construction. If the instrumentation data shows impending failure, the contractor may be required to reduce the embankment height or delay additional fill placement as directed by the engineer. The contractor shall immediately comply with such directions. Excavation to remove embankment height will be completed without delay, as directed by the engineer. Any costs associated with removing fill material will be compensated on a force account basis. No costs associated with delays in fill placement due to stability conditions will be allowed.

The contractor shall place and hand-tamp fill to a minimum one meter height and a minimum one meter diameter around all instruments after risers have been added and before successive lifts of fill are placed.

Measurement shall be at the contract unit lump sum price as set forth in the proposal form, “Monitoring Instrumentation.”

The price shall be full compensation for design, furnishing all instrumentation, casing, equipment, materials, tools, installation, monitoring, protection, and abandonment of the instruments and all incidentals necessary to complete the instrumentation work.

REMOVE TRACK

This work shall consist of removing a specified length of the existing railroad tracks, ties, and ballast at the location shown on the plans. The length of removal can be varied for an even rail length.

The rails and ties shall be removed and become the property of the contractor. The existing ballast and subballast may be used as fill material on the construction site or at the contractor’s option, it may be salvaged and removed from the project. Removed materials shall be disposed of at a location other than Public or Railroad right of way.

This work shall be measured along the centerline of the tracks removed and shall be paid for at the price per meter for the item “Remove Track.” This price shall be considered full compensation for all work required to remove and dispose of the tracks, ties, ballast, and for all equipment, labor, tools, and incidentals necessary to complete the work.

SUBGRADE PREPARATION
(S3-1-0801)

Paragraph 2.a. of Subsection 302.03 in the Standard Specifications is amended to include that trimming on narrow, irregular or roadway grading of 1/2 mile (0.8 km) or less may be accomplished using conventional methods.

PREFORMED PAVEMENT MARKING TAPE, TYPE 4 IN GROOVED PAVEMENT
(S4-6-0801)

Paragraph 6. a. of Subsection 424.03 in the Supplemental Specifications is void and superseded by the following:

a. The permanent preformed pavement marking, Type 4 dashed lines on this project, shall be applied to the pavement in Contractor installed grooves.

TEMPORARY TRAFFIC CONTROL DEVICES
(S4-9-1201)

Paragraphs 2.a. of Subsection 422.05 in the Standard Specifications is void and superseded by the following:

2.a. If signs are not returned or are returned damaged, and the damage is beyond reasonable “wear and tear” and the damage was caused by the Contractor, then the Contractor shall be charged the value of the missing or damaged items. These charges shall be deducted from monies due the Contractor upon final payment.

TYPE B HIGH INTENSITY WARNING LIGHTS
(S4-9-1002)

All references in the plans to Type B High Intensity Warning Lights shall be considered void. The plans will not be revised to reflect this change.

CONTRACTOR FURNISHED SIGNS
(S4-11-0303)

"Contractor Furnished Sign Day" shall consist of approved retroreflective fluorescent orange or white signs mounted on NCHRP-350 approved traffic control devices, i.e. Type III Barricades or Plastic Drums. The Contractor furnished sign, mounted on a traffic control device, shall together be NCHRP-350 Test Level 3 approved. The signs shall be of the size and shape required by the plans. The color and design of the signs shall be as required by the MUTCD and the NDR Traffic Engineering Division. Sign legends and symbols shall be of professional quality workmanship and in uniformity with the Standard Highway Signs design guide. Contractor furnished Signs shall meet the requirements of the American Traffic Safety Services Association (ATSSA), "Quality Standard for Work Zone Traffic Control Devices", hand printing or poor workmanship shall not be allowed.

Rigid sign substrates that have been approved to NCHRP 350 (TL-3) mounted on a traffic control device may be used.

Retroreflective orange fluorescent sheeting used for Contractor Furnished Signs shall be 3M diamond grade, Avery Dennison 6500 sheeting or other approved equal material.

Subsection 422.03 is amended by adding Paragraph 1.h.

Contractor Furnished Signs shall be installed as shown in the plans, or as directed by the Engineer. Contactor Furnished Signs shall be installed as prescribed in the MUTCD.

Paragraph 1.a. of Subsection 422.04 is void and superseded by the following:

1.a. Sign days of permanent, temporary and Contractor furnished signs installed in accordance with the plans, or as directed by the Engineer, will be measured and paid for by the each.

Paragraph 1. of Subsection 422.05 is amended to include the following:

Pay Item	Pay Unit
Contractor Furnished Sign Day	Each (ea)

LOCAL MATERIAL SOURCES
(S5-1-0801)

Information regarding possible sources of local materials is available at the Materials and Research Division of the Department of Roads, Lincoln, Nebraska.

ASPHALTIC CONCRETE
(S5-5-0801)

Paragraph 5. of Subsection 503.02 in the Standard Specifications is void.

COLD MILLING CLASS 4

Existing asphaltic concrete surfacing material is approximately 180 mm in depth.

Paragraph 9.a. of the Standard Specifications are void and superseded by the following:

The Contractor shall coordinate the milling operation with Sarpy County, which will haul and stockpile the millings at a site off of the project. The Contractor shall contact Tom Lynam, Sarpy County Surveyor, and give a minimum of 48 hours notice prior to beginning milling operations.

TEMPORARY SURFACING

This work shall consist of the construction and removal of the temporary surfacing on this project in accordance with plans and these Special Provisions.

The Temporary Surfacing depth shall be as shown in the plans. This provision is applicable to all Temporary Surfacing depths shown in the plans.

Prepare the underlying subgrade, prior to placing the temporary surfacing, in accordance with the requirements of Section 302 in the 1997 Metric Edition of the Standard Specifications.

At the Contractor's option, the surfacing may be constructed using Class "47B-25" Concrete, Class "AX-25" Concrete or Asphaltic Concrete Type SP4. These materials may be used interchangeably during the course of the work except that surfacing at any individual location must be completed with the same material with which the work was begun.

Asphaltic Concrete used for surfacing shall meet all specifications and sampled and tested as shown in the Supplemental Specifications. The incentive, disincentive pay tables do not apply, however, any asphaltic concrete not meeting the specifications will be subject to removal..

Subsection 302.04 is amended to provide that the work of subgrade preparation, as well as all water applied as directed by the Engineer, will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____.”

Subsection 304.04 is amended to provide that the work of shoulder construction, as well as all water applied as directed by the Engineer, will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____.”

Subsection 503.05 is amended to provide that Asphaltic Concrete and P.G. Binder used in the asphaltic concrete will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____.”

Subsection 504.04 is amended to provide that the application of a tack coat, including furnishing emulsified asphalt, will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____.”

Paragraph 10. of Subsection 603.03 is amended to provide that concrete used in the surfacing, reach a minimum strength of 25 MPa before opening to traffic.

Subsection 603.04 is amended to provide that concrete pavement will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____.”

When the need for the temporary surfacing is no longer required, the Contractor shall remove the temporary surfacing and it shall become the property of the Contractor and removed from the project. All the work necessary to accomplish this requirement is considered subsidiary to the item “Temporary Surfacing _____”.

Measure temporary surfacing by the square meter of completed and accepted work.

The work and materials required for temporary surfacing will be paid for at the contract unit price per square meter for the item “Temporary Surfacing _____.” Payment will be full compensation for the work prescribed in these Special Provisions and the Standard Specifications.

ADJUST VALVE BOX TO GRADE
(S6-7-0801)

This work shall consist of adjusting valve boxes, (RW) roadway boxes and (c.c.) corporation cocks boxes to finish grade as shown on the plans or as directed by the engineer.

All work shall conform to the Specifications, Codes and regulations of the Utility owner.

The adjustment required may be on either water or gas lines.

Existing boxes shall be used for adjustment if not damaged. If damaged, a new box or any part of it shall be installed. Adjustment shall be made by turning the screw part in or out, or by adding or removing extension pieces. After the adjustment has been made the box shall have a straight vertical continuous barrel.

Adjusting valve boxes to grade will be measured as a single unit and payment will be made at the contract unit price per each for the item "Adjust Valve Box to Grade". This price shall be full compensation for all labor, equipment, new parts (if needed), tools and incidentals necessary to complete the work.

TINING
(S6-19-0203)

Paragraph 5.d. of Subsection 603.03 of the Standard Specifications is void and superseded by the following:

Description

When required by the plans or Special Provisions, the Contractor shall tine texture the concrete pavement surface using the following methods:

Construction Methods

1. The surface of the concrete pavement shall be dragged with wet burlap, carpet, or canvas belt before tining.

2. Mainline Tining-Longitudinal

   a. Mainline paving shall be tined with a metal device 23 feet (7 meters) in length with a single row of tines.

   b. The tines shall be of such dimensions as to produce grooves parallel to the centerline of the road approximately 1/8 inch (3 mm) wide and 1/8 inch (3 mm) deep spaced at 3/4 inch (19 mm) on center. A 2 inch (50 mm) to 3 inch (75 mm) wide strip of pavement surface shall be protected from surface grooving for the length of and centered along the longitudinal joint.

   c. The tining device shall be mechanically operated and shall cover the full pavement width in a single pass at a uniform speed and depth centered on the longitudinal joint. Longitudinal tining shall be accomplished by equipment with horizontal and vertical string line controls to ensure straight grooves.

   d. Hand tining will be allowed on irregular areas or areas inaccessible to the tining machine as shown in the 6 inch (155 mm) to 16 inch (405 mm) Concrete Pavement Plan. A tine rake shall be used for hand tining. The use of a corrugated bull float or other device that creates a smooth finish between the grooves will not be permitted.

3. When authorized, pavement texture damaged by rain and pavements not textured to the specified requirements shall be textured only after the concrete has attained its designed strength. The texturing shall be done with diamond grinding equipment specifically designed to grind and texture concrete pavements. The cutting head shall be at least 36 inches (915 mm) wide and capable of producing the depth and spacing indicated in 2.b.

TIE BARS FOR CONCRETE PAVEMENT
(S6-19-0203)

Paragraph 4.k. of Subsection 603.03 in the Standard Specifications is amended to include the following:

TIE BAR SPACING FOR LONGITUDINAL JOINTS * #5 X 30" (760 mm) Grade 40 Bars					
Slab Thickness	**2-Lane Roadway**		**Roadways w/3 or More Lanes**		**30' (9.1 meter) Top System**
	Shoulder Joint Bar Spacing	**Centerline Joint Bar Spacing**	**Shoulder Joint Bar Spacing**	**Lane Joint Bar Spacing**	**Centerline Joint Bar Spacing**
10" (250 mm) or Less	33" (840 mm)	33" (840 mm)	33" (840 mm)	24 ¾" (630 mm)	33" (840 mm)
Greater than 10" (250 mm)	33" (840 mm)	24 ¾" (630 mm)	33" (840 mm)	16 ½" ** (420 mm) **	24 ¾" (630 mm)

* Tie bar spacing may vary ±1" (±25 mm) from the nominal spacing shown. The number of tie bars per 16'-6" (5 meter) panel shall remain constant.

** Depth of tie bar placement for doweled pavement shall be (T/2) less 1 ½" (38 mm).

TIE BAR SPACING FOR LONGITUDINAL JOINTS * #5 X 30" (760 mm) Grade 60 Bars					
Slab Thickness	**2-Lane Roadway**		**Roadways w/3 or More Lanes**		**30' (9.1 meter) Top System**
	Shoulder Joint Bar Spacing	**Centerline Joint Bar Spacing**	**Shoulder Joint Bar Spacing**	**Lane Joint Bar Spacing**	**Centerline Joint Bar Spacing**
10" (250 mm) or Less	49 ½" (1260 mm)	49 ½" (1260 mm)	49 ½" (1260 mm)	33" (840 mm)	49 ½" (1260 mm)
Greater than 10" (250 mm)	49 ½" (1260 mm)	33" (840 mm)	49 ½" (1260 mm)	24 ¾" (630 mm)	33" (840 mm)

* Tie bar spacing may vary ± 1" (± 25 mm) from the nominal spacing shown. The number of tie bars per 16'-6" (5 meter) panel shall remain constant.

No tie bar shall be installed closer than ½ the tie bar spacing to a transverse joint.

Paragraph 4.k.(3)(ii) of Subsection 603.03 in the Standard Specifications and Supplemental Specifications is void and superseded by the following:

(ii) To minimize tie bar breakage, before placing the adjacent lane the tie bars shall be bent to a position that is at least 45 degrees to the longitudinal joint. The free end of the bar shall not be within six inches (150 mm) horizontally of the location of the transverse joint to avoid corner cracking when the joint is sawed. The free end of the bar shall also be positioned so that it does not interfere with the movement of any dowel bar in the transverse joint. Bars that are broken by bending or that are loose in their socket must be replaced or secured.

STAY-IN-PLACE BRIDGE FORMS
(S7-4-0203)

Steel stay-in-place forms will be allowed for concrete floor slabs on steel or precast concrete “I” girders. Stay-in-place forms shall be used for interior areas only, where the forms are supported on both sides by girders. Stay-in-place forms must be adjustable to maintain proper slab thickness and shall be designed so no measurable settlement of forms occurs when the concrete deck is poured. Stay-in-place form support systems must be designed so as to maintain a minimum ½ inch (12 mm) clearance between the form support and the bridge deck reinforcing steel. Removable forms must be used outside of the exterior girders.

The form corrugations shall be filled with polystyrene strips to prevent excess slab dead load.

The Contractor must submit four copies of the stay-in-place form design plans and computations to the Engineer prior to construction. These plans and computations are for information only. The Contractor is responsible for the performance of the stay-in-place forms.

Steel stay-in-place form material shall conform to the requirements of ASTM A 653/A 653M Coating Designation G615/Z500.

The stay-in-place forms will not be measured and paid for directly but shall be considered subsidiary to the item Class 47BD-_____ Concrete for Bridges.

PRECAST/PRESTRESSED CONCRETE STRUCTURAL UNITS (S7-5-0302)

Table 705.03 in Section 705 in the Standard Specifications is void and superseded by the following:

Table 705.03

Required Concrete Sampling and Testing		
Test	**Contractor Test Samples***	**Department Correlation Test Samples**
Yield ASTM C138 Air meter measuring bowl.	One per day	One per 10 Contractor tests (for each mix)
Air content ASTM C 231 (0.8% variation allowed)	One per load	One every 5 production days. (for each mix)
Concrete Temperature ASTM C 1064	One per load	One every 5 production days. (for each mix)
Concrete Compressive Strength		
28-day strength ASTM C 31 Section 9.3 Cure	Two cylinders – each from a different load; and one from the last load	One set of two cylinders every 5 production days. (for each mix)
56-day strength (Used only if 28-day strength is less than specified.) ASTM C 31 Section 9.3 Cure	Two cylinders – each from a different load and from same load as 28-day break.	N/A

* At least 6 cylinders shall be made each production day and at least 2 cylinders are required from each load.

* Cylinders shall be 4 inches (100 mm) by 8 inches (200 mm).

* Contractor test samples and Department correlation test samples shall be taken independently.

CONCRETE BRIDGE FLOORS (S7-8-1102)

Paragraph 2.b. of Subsection 706.03 in the Standard Specifications is void and superseded by the following:

b. Bridge floor concrete shall not be placed when the ambient air or concrete temperature is above 90°F (32°C).

Table 706.01 in Subsection 706.03 is void and superseded by the following:

Table 706.01

Temperature and Wind Velocity Limitations	
Air Temperature in the Shade	**Maximum Wind Velocity**
90°F (32°C)	10 mph (16 kph)
77°F (25°C)	16 mph (25 kph)
68°F (20°C)	22 mph (35 kph)
59°F (15°C)	28 mph (45 kph)
50°F (10°C)	40 mph (65 kph)

PEDESTRIAN RAILING (CHAIN LINK TYPE)

Paragraph 1. of Subsection 716.05 in the 1997 Metric Edition of the Standard Specifications is amended to include the following:

Pay Item	Pay Item
___ m Pedestrian Railing (Chain Link Type)	Meter (m)

SEEDING

Subsection 803.02 in the 1997 Metric Edition of the Standard Specifications is amended to include the following:

Type "B"	Minimum Purity (%)	Broadcast or Hydraulic Seeder Application Rate in kg of Pure Live Seed/ha	Approved Mech. Drill Application Rate in kg of Pure Live Seed/ha
Perennial ryegrass – Linn	85	-	9
K-31 Fescue	85	-	22
Western wheatgrass – Flintlock	85	-	12
Sideoats grama – Butte	75	-	5
Buffalograss – Sharps 2, Cody	80	-	5.5
Blue grama – NE, KS, CO	35	-	2.25
Birdsfoot Trefoil-Empire – 5 x inoculation	90	-	4.5
Oats	90	-	16

Type B may also be seeded with a Brillion type seeder.

All seed shall be origin Nebraska, adjoining states, or as specified. A contractor proposing to use a substitute variety, or origin shall submit for the engineer's consideration a seed tag representing the seed which shows the variety, origin and analysis of the seed.

Rates of application of commercial inorganic fertilizer shall be:

	Rate of Application Per ha (Minimum)
Available Nitrogen (N_2) ----------	35 or 40 kg
Available Phosphoric Acid (P_2O_5) ----------	102 or 107 kg

Rate of application of granular sulphur coated urea fertilizer shall be:

Nitrogen (total available) ----------	67 kg

The contractor may, at his option, apply granular urea formaldehyde in lieu of the sulphur coated urea fertilizer at the following rate:

Nitrogen (total available) ----------	67 kg

EROSION CONTROL

Subsection 807.02 in the 1997 Metric Edition of the Standard Specifications is amended to include the following:

For All Erosion Control and All Erosion Checks	Minimum Purity (%)	Application rate in kg of Pure Live Seed/1000 m²
Canada Wildrye – NE, IA	85	0.25
Virginia Wildrye – Omaha	85	0.55
Western Wheatgrass – Flintlock	85	1.5
Eastern Gamagrass – Pete	90	0.25
Switchgrass – Pathfinder	90	0.25
Indiangrass – Oto, NE-54	75	0.35
Ill. Bundleflower – Inoculated	90	0.06
Partridge Pea – Platte	90	0.15
Blue Flax	90	0.35
Blackeyed Susan	90	0.06
Rudbeckia Lacinata – Golden Glow	90	0.7
Oats	90	3.6

All seeds shall be origin Nebraska, adjoining states, or as specified. A contractor proposing to use a substitute variety or origin shall submit for the engineers consideration a seed tag representing the seed, which shows the variety, origin and analysis of the seed.

Rate of application of inorganic fertilizer shall be:

	Rate of Application Per 1000 m² (Min.)
Available Nitrogen (N_2) ----------	4 or 5 kg
Available Phosphoric Acid (P_2O_5) ----------	12 or 13 kg

Rate of application of granular sulphur coated urea fertilizer or urea-formaldehyde fertilizer shall be:

	Rate of Application Per 1000 m² (Min.)
Nitrogen (Total Available) ----------	10 kg

EROSION CONTROL, TYPE A & AA (S8-15-0801)

This work shall consist of placing a soil retention blanket, filter fabric, seed, fertilizer, and soil fill at the locations shown in the plans. The installation shall be as shown in the plans and as directed by the engineer.

Paragraph 1. of Subsection 807.02 in the Standard Specifications is void and superseded by the following:

The soil retention blanket for Erosion Control "A & AA" shall be as shown on the approved products list for Erosion Control A & AA.

The filter fabric shall be from the approved products list for Erosion Control Type A, Type AA, or Erosion check or approved equal. Place the erosion control material with the filter fabric attached over the prepared area. Pin the area. Seed and fertilize and then soil fill. The soil fill shall be fine enough to fill the voids and cover all of the seed. If the filter fabric is not attached to the erosion control material, the installation is as follows: prepare the area, lay out the filter fabric, pin the filter fabric, lay out the erosion control material and pin, seed and fertilize and soil fill.

Paragraph 2. of Subsection 807.02 of the Standard Specifications is void and superseded by the following:

The pins for the filter fabric shall be made of No. 11 gauge (3 mm diameter) steel wire. The pins shall be "U" pins with a one-inch (25 mm) throat and at least six inches (150 mm) long.

The pins for the "A & AA" mat shall be a minimum of 8 or 9 gauge (4 mm diameter) wire, u-shaped pins with 8"-10" (200 mm to 250 mm) legs and a 1" or 2" (25 mm or 50 mm) throat. The 11 gauge (3 mm diameter) 6 inch (150 mm) “U” pins may be used in lieu of the 8 or 9 gauge (4 mm diameter) pins if the 11 gauge (3 mm diameter) pins are machine placed and one-third more pins are used.

EROSION CONTROL, TYPE "AAA"
(S8-16-0801)

This work shall consist of placing a soil retention blanket, filter fabric, seed, fertilizer, and soil fill at the locations shown in the plans. The installation shall be as shown in the plans and as directed by the engineer.

Paragraph 1. of Subsection 807.02 in the Standard Specifications is void and superseded by the following:

The soil retention blanket for Erosion Control "AAA" shall be as shown on the approved products list for Erosion Control AAA.

The filter fabric shall be from the approved products list for Erosion Control Type A, Type AA, or Erosion check or approved equal. After the area around the culvert is shaped and graded, the filter fabric shall be placed and pinned. The filter fabric shall be placed under the pipe and the full length of the installation as shown in the plans. Place the Erosion Control "AAA" mat over the pipe to allow for a three foot (1 meter) ± piece of material on top of the pipe. Cut out the hole for the pipe, leaving an area uncut that will be tucked under the culvert and in front of the culvert. Pin the mat as shown and trench in and compact the downstream end. Seed and fertilize the area and soil fill, raking the soil in well. Reseed and rerake the area.

Paragraph 2. of Subsection 807.02 of the Standard Specifications is void and superseded by the following:

The pins for the filter fabric shall be made of No. 11 gauge (3 mm diameter) steel wire. The pins shall be "U" pins with a one-inch (25 mm) throat and at least six inches (150 mm) long.

The pins for the "AAA" mat shall be a minimum of 8 or 9 gauge (4 mm diameter) wire, u shaped pins with 8"-10" (200 mm to 250 mm) legs and a 1" or 2" (25 mm or 50 mm) throat.

FABRIC SILT FENCE
(HIGH POROSITY AND LOW POROSITY)

Paragraph 4 of Subsection 809.03 in the 1997 Metric Edition of the Standard Specifications is amended to include the following:

At the completion of the project, the silt fence shall be left in good working condition.

Subsection 809.05 is amended to include the item “Rental of Backhoe Fully Operated,” measured and paid for by the hour (h).

47B CONCRETE PAVEMENTS AND
47BD CONCRETE FOR BRIDGES
(S10-4-0403)

General

Section 1002 in the 1997 Standard Specifications and Supplemental Specifications is amended to include the following:

For the purpose of this Special Provision, Type IPN shall mean Type IP cement made with 15 to 25 percent natural pozzolan and Type IPF shall mean Type IP cement made with 15 to 25 percent Class F fly ash. All cements must conform to the requirements of Section 1004 in the 1997 Standard Specifications and Supplemental Specifications.

47BD Concrete for Bridges and Barriers

The 47BD concrete used in bridge decks, approach slabs, bridge rails, and barriers shall be proportioned using one of the alternates shown in Table I.

TABLE I (ENGLISH)
CLASS 47BD CONCRETE PROPORTIONS

Alt.	Cement Type	Pounds of Cement per Cu.Yd.	Pounds of Class F Fly Ash	Air Content Percent Min.	Air Content Percent Max.	Pounds of Total Agg. per Cu.Yd. Min.	Pounds of Total Agg. per Cu.Yd. Max.	Ratio of Total Agg. Percent	Type of Coarse Agg.****
1	I or II	590	130 Min.	5.0	7.5	2530	2950	30±3	Limestone
2	IPN	658	0*	5.0	7.5	2530	2950	30±3	Limestone
3	IPF	658	0**	5.0	7.5	2530	2950	30±3	Limestone
4	I or II	658***	0***	5.0	7.5	2530	2950	30±3	Limestone

TABLE I (METRIC)
CLASS 47BD CONCRETE PROPORTIONS

Alt.	Cement Type	Kg of Cement per Cu. Meter	Kg of Class F Fly Ash	Air Content Percent Min.	Air Content Percent Max.	Kg of Total Agg. per Cu.Meter Min.	Kg of Total Agg. per Cu.Meter Max.	Ratio of Total Agg. Percent	Type of Coarse Agg.****
1	I or II	350	77 Min.	5.0	7.5	1500	1750	30±3	Limestone
2	IPN	390	0*	5.0	7.5	1500	1750	30±3	Limestone
3	IPF	390	0**	5.0	7.5	1500	1750	30±3	Limestone
4	I or II	390***	0***	5.0	7.5	1500	1750	30±3	Limestone

* Class C or F fly ash may be substituted in the mix design provided the total pozzolan content does not exceed 25 percent. The mix may be modified by substituting an amount of fly ash equal to the weight of cement removed.

** No additional fly ash substitution is allowed.

*** Total alkali content shall not exceed 3 lbs./yd.^{3} (1.8 Kg/m^3)

**** Alternate Aggregate from an approved source may be substituted for limestone.

Water reducing and set retarding admixtures shall be used in accordance with the manufacturer's recommendations of dosage rates.

47B Concrete Pavements

The 47B concrete used in concrete pavements shall be proportioned using one of the alternates shown in Table II.

TABLE II (ENGLISH)
CLASS 47B CONCRETE PAVEMENT PROPORTIONS

Alt.	Cement Type	Pounds of Cement per Cu.Yd.	Pounds of Class F Fly Ash	Air Content Percent Min.	Air Content Percent Max.	Pounds of Total Agg. per Cu.Yd. Min.	Pounds of Total Agg. per Cu.Yd. Max.	Ratio of Total Agg. Percent	Type of Coarse Agg.****
1	I or II	510	110 Min.	5.0	7.5	2876	3130	30±3	Limestone
2	IPN	564*	0*	5.0	7.5	2876	3130	30±3	Limestone
3	IPF	564**	0**	5.0	7.5	2876	3130	30±3	Limestone
4	I or II	564***	0***	5.0	7.5	2876	3130	30±3	Limestone

TABLE II (METRIC)
CLASS 47B CONCRETE PAVEMENT PROPORTIONS

Alt.	Cement Type	Kg of Cement per Cu. Meter	Kg of Class F Fly Ash	Air Content Percent Min.	Air Content Percent Max.	Kg of Total Agg. per Cu.Meter Min.	Kg of Total Agg. per Cu.Meter Max.	Ratio of Total Agg. Percent	Type of Coarse Agg.****
1	I or II	303	65 Min.	5.0	7.5	1706	1857	30±3	Limestone
2	IPN	335*	0*	5.0	7.5	1706	1857	30±3	Limestone
3	IPF	335**	0**	5.0	7.5	1706	1857	30±3	Limestone
4	I or II	335***	0***	5.0	7.5	1706	1857	30±3	Limestone

* Class C or F fly ash may be substituted in the mix design provided the total pozzolan content does not exceed 25 percent. The mix may be modified by substituting an amount of fly ash equal to the weight of cement removed.

** No additional fly ash substitution is allowed.

*** Total alkali content shall not exceed 3 lbs./yd.^{3} (1.8 Kg/m^3)

**** Alternate Aggregate from an approved source may be substituted for limestone.

Water reducing admixtures shall be used in accordance with the manufacturer's recommendations of dosage rates.

FLY ASH
(S10-5-0801)

Subsection 1008.01 in the Standard Specifications is void and superseded by the following:

Fly ash shall be Class C or F meeting the requirements of ASTM C 618.

STRUCTURAL STEEL
(S10-5-0801)

Section 1045 of the Standard Specifications is amended to include the following:

1045.03 -- Steel Plate Substitution

The Contractor may use either English or Metric steel plates in accordance with Table 1045.01.

Table 1045.01

English-Metric Steel Plate Substitution Table

Metric (millimeters)	English (inches)	Metric (millimeters)	English (inches)
9	3/8	32	1 1/4
10	3/8	35	1 3/8
11	7/16	38	1 1/2
12	½	40	1 5/8
14	9/16	45	1 3/4
16	11/16	50	2
18	¾	55	2 1/4
20	13/16	60	2 3/8
22	7/8	70	2 3/4
25	1	80	3 1/4
28	1 1/8	90	3 1/2
30	1 ¼		

REPAIR OF DAMAGED METALLIC COATINGS
(S10-5-0801)

Paragraph 2. of Subsection 1061.01 in the Standard Specifications is void and superseded by the following:

2. The material used for repair shall provide a minimum coating thickness of at least 50 µm with one application.

DOWEL BARS
(S10-5-0801)

Subsection 1022.02 in the Standard Specifications is amended to include the following:

In addition to these certificates, two 1.8 meter samples of the coated bar (for tension testing and bend testing) of each size bar and each heat number shall be sent to the NDR Materials and Research Laboratory, Lincoln, Nebraska. These bars will be properly identified with tags showing the size and heat number.

CORRUGATED METAL PIPE
(S10-5-0801)

Table 1035.01 in Section 1035 of the Supplemental Specifications is amended by deleting the title “Steel and Aluminum Culvert Thickness”.

METAL FLARED-END SECTIONS
(S10-5-0801)

Table 1036.01 in Section 1036 of the Supplemental Specifications is amended by deleting the title “Steel and Aluminum Flared-End Thickness”.

REINFORCED CONCRETE PIPE, MANHOLE RISERS, AND FLARED-END SECTIONS
(S10-5-0801)

Paragraph 3.a. of Subsection 1037.02 in the Supplemental Specifications is void and superseded by the following:

3.a. Round reinforced concrete pipe shall conform to the requirements of AASHTO M 170-95 with the exception of the minimum circumferential reinforcing (in2/ft. (mm 2/m) of pipe wall) for 15, 21, and 24 inch (380, 460, 600 mm) Class III pipe, as shown below:

Paragraph 3.b. of Subsection 1037.02 is void and superseded by the following:

b. AASHTO M 170-95 Specifications are modified as follows:

Paragraph 4. of Subsection 1037.02 is void and superseded by the following:

4. Reinforced concrete arch pipe shall conform to the requirements of AASHTO M 206-95.

Paragraph 5. of Subsection 1037.02 is void and superseded by the following:

5. Reinforced concrete elliptical pipe shall conform to the requirements of AASHTO M 207-95.

Paragraph 7. of Subsection 1037.02 is void and superseded by the following:

7. Concrete flared-end sections shall be of the design shown in the plans and in conformance with the applicable requirements of AASHTO M 170-95, Class II pipe, AASHTO M 206-95, Class A-II pipe, or AASHTO M 207-95, Class HE-II pipe for the diameter of pipe which it is to be installed.

HIGH TENSILE BOLTS, NUTS, AND WASHERS (S10-5-1001)

Subsection 1058.02 in the Supplemental Specifications is void.

Paragraph 4.b.(5) in the Standard Specifications is void and superseded by the following:

(5) The bolt, nut, and washer assembly shall be assembled in a Skidmore-Wilhelm calibrator or an acceptable equivalent device. For bolts that are too short to be assembled in the calibrator, see Subsection 1058.03, Paragraph 4.b.(9).

ELASTOMERIC BEARINGS AND LAMINATED BEARING PADS (S10-5-0202)

Paragraph 2. of Subsection 1068.02 in the Standard Specifications is void and superseded by the following:

2. Certification shall be furnished in accordance with NDR's *Materials Sampling Guide*.

Paragraph 3. of Subsection 1068.02 is void.

STEEL BARS FOR CONCRETE REINFORCEMENT (S10-5-1201)

Section 1020 in the Standard Specifications is void and superseded by the following:

1020.01 - Description

Steel tie bars for longitudinal joint reinforcement in concrete pavements shall be epoxy coated and deformed Grade 40 or 60 billet steel as shown in the plans, specifications or Special Provisions.

1020.02 - Material Characteristics

1. Billet-steel bars shall conform to the requirements of ASTM A 615/A 615M.
2. Epoxy coatings shall conform to the requirements in Section 1021 of the Standard Specifications and Supplemental Specifications.

1020.03 - Acceptance Requirements

Acceptance shall be based on sampling, testing, and certification requirements in accordance with the NDR *Materials Sampling Guide*.

EPOXY COATED REINFORCING STEEL (S10-5-0403)

Table 1021.01 in Section 1021 of the Standard Specifications is void and superseded by the following:

Table 1021.01

Bend Test Requirements

English		Metric	
Bar No.	**Mandrel Diameter (inches)**	**Bar**	**Mandrel Diameter (millimeters)**
3	3	10	75
4	4	13	100
5	5	16	125
6	6	19	150
7	7	22	175
8	8	25	200
9	9	29	230
10	10	32	250
11	11	36	280
14	17	43	430
18	23	57	580

PERFORMANCE GRADED BINDER

Section 503 in the Standard Specifications and Supplemental Specifications is amended to include Performance Graded Binders.

I. Description:

The performance graded binder to be used on this project shall be PG Binder 64-22, supplied by a Certified Supplier.

Certified Supplier

A supplier must be certified by the Nebraska Department of Roads to be allowed to supply Performance Graded Binder in Nebraska. A certified supplier must be a participant in one or more of the following PG Binder groups.

1. AASHTO Materials Reference Laboratory (AMRL)
2. Western Cooperative Testing Group
3. Combined States Binder Group

The supplier must maintain and follow the requirements of the group or groups in which they participate in to maintain certification by the Nebraska Department of Roads. In addition, active participation is required to maintain certification by the Department. Active participation will include submitting of round robin samples results, along with meeting other requirements of the group or groups. Failure to do so will result in loss of certification by the Department.

A certified supplier may be asked to supply to the Department, past round robin results, laboratory inspection reports, reasons for and investigative reports on out lying results, quality control testing, and/or technician training and proficiency testing reports.

Supplier Certification

A supplier may request certification by contacting the Nebraska Department of Roads, Materials and Research Division, Flexible Pavement Engineer at (402) 479-4675. A temporary certification may be issued for a period of up to one year. Split sample testing will be required prior to receiving a temporary certification. Split sample testing will be done on all grades of binder that the supplier intends to supply during the temporary certification. The supplier will have up to one year to become certified by participating in and following the requirements of one or more of the approved binder groups.

A supplier may become certified through active participation in other binder certification/round robin groups that are approved by the Department. The Department may request from the supplier prior to approval, past or current round robin results, quality control testing, laboratory inspection reports, and/or technician training and proficiency testing reports.

II. Binder Sampling and Testing:

1. Lots. Each 3750 tons (3400 Mg) of HMA produced will be a binder lot.

2. A binder lot will include only one PG Binder grade or a blend as allowed in paragraph 6.e.

3. A Binder lot will only include one supplier of the PG Binder or a blend as allowed in paragraph 6.e.

4. Blending of different binder grades and binders from different suppliers will be allowed with restrictions as noted in paragraph 6.e. The Engineer must be notified of the intent to blend prior to actual blending.

5. All binders shall be sampled at the rate of one sample per lot with a minimum of three samples per project.

   a. The sample shall consist of two one-quart (liter) cans and shall be taken by the Contractor's Certified Sampling Technician, with assistance from or under supervision of NDR personnel. The sample shall be taken at the plant from the line between the storage tank and the mixer or from the tank supplying material to the line, at a location at which material sampled is representative of the material in the line to the mixer. One can will be tested for compliance with MP1 specifications and the other can portion will be saved for dispute resolution, if needed. The sampling process shall follow procedures of the NDR Materials Sampling Guide and NDR T 40.

   b. Testing. When the tested PG Binder is in compliance, the binder lot will be accepted and both cans of the sample can be discarded. If the tested PG Binder does not comply, then the price of the PG Binder lot represented by the sample shall be adjusted according to Table 1. Overall project average testing requirements and price adjustments will also apply, as stated in Table 2.

6. Material Requirements:

   a. Performance graded binder, as specified in the contract items shall be in accordance with AASHTO Designation MP1 and meet all minimum and maximum requirements.

   b. Substitution of a PG Binder, which exceeds the upper and lower grade designations from the specified, requires advance notification of the Engineer, and be documented by a no cost change order. The bill of lading or delivery ticket shall state the binder grade and specific gravity.

   c. Material Certification - A Material Certification shall be submitted prior to construction stating, the type of modifier being used, and the recommended mixing and compaction temperatures for the Hot Mix Asphalt.

   d. The Contractor shall receive from the supplier, instructions on the proper storage and handling of each grade and shipment of PG Binder.

   e. Blending of PG Binders at the hot mix plant site will be allowed only when transitioning to an asphalt mixture requiring a different grade of binder and with the following restrictions:

      (1) The resultant blend will meet MP-1 specifications when tested as ±3° of the specified PG binder. The sample of the blended material will 1) be considered as a lot sample, 2) will be taken during initial production following the blending of the binders, and 3) deductions when not meeting MP-1, will apply. On the blended sample's identification form will be a note explaining the blending conditions and a statement that the sample is a blend of materials. The next lot sample, following the sample representing the blend,

will be tested as the specified binder grade for the asphalt mixture being produced and shall meet MP-1 specifications.

(2) Modified Binders - When a type of modification is used and stated in the Material Certification as required in paragraph 6.c., it will not be allowed to be blended with a binder containing a different type of modification. Blending of the same type of modifiers will be allowed.

TABLE 1

SINGLE SAMPLE TOLERANCE AND PRICE REDUCTION TABLE		
	Price Reduction[1] Pay Factor of 0.75	**Determined by Engineer[2] Pay Factor of 0.50 or Removal**
Tests on Original Binder Dynamic Shear, G*/Sin δ, kPa	0.86-0.92	< 0.86
Tests on Rolling Thin Film Oven Residue Dynamic Shear, G*/Sin δ, kPa	1.76-1.97	< 1.76
Tests Pressure Aging Vessel Residue Dynamic Shear, G*Sin δ, kPa	5601-6200	> 6200
Creep Stiffness S, Mpa	325-348	> 348
m-value	0.270-0.284	< 0.270

NOTE: If more than one test fails to meet requirements, the largest individual price reduction (pay factor of 0.75 or 0.50) will be used to calculate price reduction for the asphalt binder.

[1]Price Reduction will be based on contract unit price of asphalt binder.

[2]The Engineer will determine if the non-compliant material will be removed. If the non-compliant material is accepted, a price reduction of 50% will be applied. The price reduction shall be based on the contract unit price of asphalt binder.

The pay factor will be applied to the quantity of material that the sample represents.

Overall Project Average - Price Reduction Based on Complete MP-1 Testing

Out of specification material will be determined by the specifications outlined in AASHTO MP-1, excluding Direct Tension.

The Nebraska Department of Roads, Materials and Research, Bituminous Laboratory will do complete testing, per MP-1 specifications, on a minimum of three samples or 20% of the total samples from the project, whichever is the greatest. The Department will randomly select one sample for complete MP-1 testing out of every five samples received. When any test result shows sample not meeting MP-1 specifications, the previous and following sample received will

be tested for complete MP-1 compliance. Testing will continue in this manner until tested samples meet all of MP-1 specifications.

Original Dynamic Shear Rheometer testing will be completed on all samples. When a sample being tested for only Original Dynamic Shear Rheometer compliance falls out of MP-1 specification, it will then be tested for complete MP-1 specification compliance. Adjacent samples will be tested when results, other than the Original Dynamic Shear Rheometer result, do not meet specification. This additional complete testing for MP-1 compliance is in addition to the minimum number of samples that will be tested for complete MP-1 compliance.

At the completion of testing, all complete MP-1 test results will be averaged. For averages that do not meet MP-1 specifications, the largest reduction shown in Table 2 will be applied to all the Performance Graded Binder used on the project.

Table 2

OVERALL PROJECT AVERAGE - PRICE REDUCTION TABLE		
	Range of Average	**Pay Factor Applied**
Tests on Original Binder Dynamic Shear, G*/Sin δ, kPa Min. 1.00 kPa	< 1.00 - 0.98 < 0.98 - 0.96 < 0.96 - 0.94 < 0.94	0.98 0.95 0.92 0.85
Tests on Rolling Thin Film Oven Residue Dynamic Shear, G*/Sin δ, kPa Min. 2.20 kPa	< 2.20 - 2.156 < 2.156 - 2.09 < 2.-09 - 2.024 < 2.024	0.98 0.95 0.92 0.85
Tests Pressure Aging Vessel Residue Dynamic Shear, G*Sin δ, kPa Max. 5000 kPa	< 5000 - 5100 < 5100 - 5250 < 5250 - 5400 < 5400	0.98 0.95 0.92 0.85
m-Value Min. 0.300	< 0.300 - 0.298 < 0.298 - 0.293 < 0.293 - 0.290 < 0.290	0.98 0.95 0.92 0.85
Creep Stiffness S, MPa Max. 300 MPa	< 300 - 306 < 306 - 315 < 315 - 324 < 324	0.98 0.95 0.92 0.85

Single Sample Reduction and Overall Project Average Reduction

A sample representing a lot, not meeting MP-1 Specification, will have a reduction for the material that the sample represents. Only the largest reduction from Table 1, will apply when more than one result of a single sample does not meet MP-1 specifications. Only the largest overall project average reduction from Table 2, will apply when more than one test average falls out of MP-1 specifications. Pay Factors based on both Table 1 and Table 2 test results are separate from each other and both will be applied.

Investigation of Verification Lot Samples That Do Not Meet Specifications

When the lot sample shows test results out of specification limits, the process of resolving the sample failure will include the following actions as appropriate:

1. The Bituminous Lab may conduct retesting of the remaining portion of the original can sample as determined necessary to confirm or disaffirm the original test result(s).

2. The Flexible Pavement Engineer will notify the Contractor who will arrange to investigate all aspects of the testing, loading, handling and delivery of the material in question. The Contractor shall report findings to the Central Laboratory, Flexible Pavement Engineer.

3. The Department will collect and compile all information and prepare a report. A copy of the report will be distributed to the District and the Contractor.

4. The Bituminous Laboratory will issue the standard report of tests for all samples tested, to include any resulting pay factor deductions. A copy of the report of tests will be distributed to the District, Construction Division, and Contractor.

Dispute Resolution

After testing and investigations have been completed on the one can of the sample and there is still a dispute, the Department will select an independent laboratory for referee testing to take place on the second can of the sample. If the independent lab's tests indicate failing results and pay deductions equal to or great than the Department's, the Contractor will reimburse the Department for the cost of testing. If the independent lab's tests indicate that the material meets specification or is at a pay deduction less than the Department's, the Department will assume the cost of testing. When the independent lab's tests indicate a pay deduction, the lesser of the Department's and the independent lab's deductions will be applied.

Basis of Measurement

PG Binder shall be measured in accordance with Subsection 503.05 in the Standard Specifications and Supplemental Specifications.

Basis of Payment:

Subsection 503.06 in the Standard Specifications and Supplemental Specifications is amended to provide that PG Binder, accepted by the Engineer for use in asphaltic concrete, will be paid for at the contract unit price per ton (Megagram) for the item "Performance Graded Binder _____", less any deductions as prescribed in the tolerance and price reduction tables.

SUPERPAVE ASPHALTIC CONCRETE

Asphaltic Concrete Type SP4 shall use the 12.5 gradation band.

Paragraph 2.b. of Subsection 503.06 of the Supplemental Specifications is amended to include Asphaltic Concrete Type SP6.

Section 1028 is amended to include Asphaltic Concrete Type SP6.

Paragraph 2. a. of Subsection 1028.01 is void and superseded by the following:

Before production of asphaltic concrete, the Contractor shall submit, in writing, a tentative job mix formula on the NDOR Mix Design Submittal Form for approval to the NDR Flexible Pavement Engineer at the Lincoln, Nebraska Central Laboratory.

Paragraph 2. b. of Subsection 1028.01 is void and superseded by the following:

The job mix formula shall identify the virgin mineral aggregates, RAP, if used, and mineral filler, if needed, with the value of the percent passing each specified sieve for the individual and blended materials.

Paragraph 2. c. (1) of Subsection 1028.01 is void and superseded by the following:

The Contractor shall submit six – 95 mm and two – 75 mm gyratory pucks compacted to 7% ± 1% air voids for testing and 3 proportioned 22 lb. (10,000-gram) samples of the blended mineral aggregates to be used in the mixture to the NDR Materials and Research Central Laboratory at least 15 NDR working days before production of asphaltic concrete. These samples will be used to validate the Contractor's Superpave mix design test results and mix properties.

Paragraph 2. c. (3) of Subsection 1028.01 is amended to include the following:

(ix) Dust to Binder Ratio

Paragraph 2. c. (3) (i) of Subsection 1028.01 is void and superseded by the following:

The bulk specific gravity of the blended aggregate. Whenever RAP is used it shall be processed through an ignition oven and then combined proportionally with the virgin aggregate. The bulk specific gravity shall be determined for the blend from an unwashed sample of the - #4 and a washed sample of + #4 material in accordance with AASHTO T 84 and AASHTO T 85 respectively.

Table 1028.01 is amended to include the following:

Table 1028.01

Asphaltic Concrete Type	Percent, Maximum RAP
SP6	15

Paragraph 4, f, (2), (i) of Subsection 1028.01 is void and superseded by the following:

The quality control technicians shall report directly to the Program Administrator and shall perform all sampling and quality control tests as required by the contract.

Paragraph 4. h. (3) of Subsection 1028.01 is void and superseded by the following:

All QC test results shall be documented on NDR Forms by the Contractor with a copy provided to the Engineer within 1 week after the tests are complete. Daily review by the Engineer will be allowed if requested.

Paragraph 4. i. (3) (ii) of Subsection 1028.01 is amended to include the following:

(VII) Dust to Binder Ratio

Paragraph 4. i. (3) (iii) of Subsection 1028.01 is amended to include the following:

(IV) Tearing
(V) Irregular surface due to mix tenderness

Paragraph 2.e. of Subsection 1028.02 is void and superseded by the following:

e. Crushed rock (Limestone) and Dolomite shall conform to the requirements of Subsection 1033.02 of the Standard Specifications, Paragraph 4.a. (4), (5) and (6). Sampling size and frequency shall adhere to the current NDR Materials Sampling Guide. (Some aggregate can be adversely affected by ignition ovens resulting in erroneous reading for asphalt content and gradation unless corrected for.)

Paragraph 2.h. of Subsection 1028.02 of the Supplemental Specifications is void and superseded by the following:

The coarse aggregate angularity value of the blended aggregate material shall meet or exceed the minimum values for the appropriate asphaltic concrete type as shown in Table 1028.02.

Table 1028.02 is void and superseded by the following:

Table 1028.02
Coarse Aggregate Angularity
(ASTM D 5821)

Asphaltic Concrete Type	Course Aggregate Angularity
SPS	35
SP0	55
SP1	55
SP2	65
SP3	75
SP4	85/80*
SP5	95/90*
SP6	95/90*

* Denotes two faced crushed requirements

Paragraph 2.h.(1) of Subsection 1028.02 is void.

Paragraph 2.i. of Subsection 1028.02 is void and superseded by the following:

The fine aggregate angularity value of the blended aggregate material shall meet or exceed the minimum values for the appropriate asphaltic concrete type *as* shown in Table 1028.03.

Note: The specific gravity for calculation of the Fine Aggregate Angularity (FAA) shall be based on material passing the No. 8 (2.36 mm) sieve and retained on the No. 100 (150 µm) sieve.

Table 1028.03 is void and superseded by the following:

Table 1028.03
Fine Aggregate Angularity
(AASHTO T304 Method A)

Asphaltic Concrete Type	Fine Aggregate Angularity
SPS	--
SP0	--
SP1	40.0
SP2	43.0
SP3	43.0
SP4	45.0
SP5	45.0
SP6	45.0

Paragraph 2.i.(1) of Subsection 1028.02 is void.

Table 1028.04 is amended to include the following:

Table 1028.04
Flat And Elongated Particles
(ASTM D 4791)

Asphaltic Concrete Type	Percent, Maximum
SP6	10

Table 1028.05 is amended to include the following:

Table 1028.05
Clay Content
(AASHTO T 176)

Asphaltic Concrete Type	Sand Equivalent, Minimum
SP6	50

Paragraph 2.l (1). of Subsection 1028.02 is void and superseded by the following:

It is recommended that the selected blended aggregate gradation does not pass through the restricted zones as specified in the following control points for nominal size. The plot of the blended aggregate gradation of Superpave mix designs with FAA values of less than 43.0 will not enter the limits of the restricted zone. The plot of the blended aggregate gradation of Superpave mix designs with FAA values of 43.0 to less than 45.0 passing through the restricted zone must intersect both the upper and lower limits of the restricted zone between 1) any two

consecutive sieves used to define the restricted zone limits, or 2) two vertical lines plotted between the #8 and #50 sieve a distance apart no greater than 1/3 the horizontal distance between the #8 (2.36-mm) and #50 (300-μm) sieves. Superpave mix designs with FAA values of 45.0 or greater will not be restricted from passing through the restricted zone.

The note following table 1028.08 is void and superseded by the following:

* Dust to binder ratio is the ratio of the percentage by weight of aggregate finer than the No. 200 (75 μm) sieve to the asphalt content expressed as a percent by weight of total mix. The dust to binder ratio shall be between 0.60 and 1.20. This shall be verified during mix design approval.

Table 1028.09 is amended to include the following:

* see note following Table 1028.08

Paragraph 3. b. (3). of Subsection 1028.02 is void and superseded by the following:

Rice equipment specified in AASHTO T 209, procedure 9.5.1, Weighing in Water. The thermometer being used to measure water temperature will be as specified in T 209.

Paragraph 3. b. (11). of Subsection 1028.02 is void and superseded by the following:

Personal Computer capable of running NDR software and Color Printer.

Paragraph 1. a. of Subsection 1028.03 is void and superseded by the following:

The job mix formula shall be determined from a mix design for each mixture. A volumetric mixture design in accordance with AASHTO PP 28 as modified within this special provision, will be required. However, the mixture for the Superpave specimens and maximum specific gravity mixture shall be short-term aged for two hours.

Paragraph 1. c. of Subsection 1028.03 is void and superseded by the following:

The Contractor shall inform the Engineer when changes in the types or sources of aggregates or PG Binders are made. These changes may require a new job mix formula, mix design and moisture susceptibility test. The new proposed job mix formula shall be in accordance with the requirements as stated above and submitted 5 working days prior to use for verification.

Paragraph 1. d. of Subsection 1028.03 is void and superseded by the following:

Each Superpave mixture shall be tested for moisture susceptibility in accordance with AASHTO T 283. The loose mixture shall be short-term aged for two hours in accordance with AASHTO PP 2. The 6-inch (152-mm) specimens shall be compacted in accordance with AASHTO T 312 to seven percent air voids at 95-mm in height and evaluated to determine if the minimum Tensile Strength Ratio (TSR) of 80 percent has been met. If the mixture has not met the minimum TSR value, an anti-stripping additive shall be added at a dosage rate, such that the mix will meet the minimum TSR of 80 percent. All data shall be submitted with the mix design verification request. For mixtures containing an anti-stripping additive; during production of Lot #1, the Contractor shall provide to the NDR Central laboratory properly prepared gyratory samples for AASHTO T 283 testing. A TSR test result of less than 80 percent will require mixture modification(s) and a sample from subsequent lots will be tested until a TSR value of at least 80 percent is achieved. Moisture susceptibility testing is not required for Asphaltic Concrete Type SPS.

Paragraph 1. d. (1) of Subsection 1028.03 is void and superseded by the following:

When tests indicate the need for an anti-striping additive the Contractor shall be compensated for the cost of the anti-strip additive needed at the invoice price of the additive. If the Contractor elects to use a liquid anti-strip additive it shall be added to the PG Binder by the PG Binder Supplier.

Table 1028.11 is amended to include the following:

Table 1028.11
Gyratory Compaction Effort
(Average Design High Air Temperature = < 39 degrees C)

Asphaltic Concrete Type	Nini	Ndes	Nmax
SP6	9	126	204

Table 1028.12 is void and superseded by the following:

Table 1028.12

Mix Criteria	SPS,SP0,SP1	SP2	SP3,SP4,SP5,SP6
Voids In Mineral Aggregate	See Table 13		
Voids Filled with Asphalt	See Table 14		
%Gmm at Nini	91.5*	90.5	89.0
%Gmm at Nmax	98.0*	98.0	98.0

* No specification requirement for SPS, only %Gmm at Ndes = 95 to 98.5

Table 1028.14 is amended to include the following:

Table 1028.14
Voids Filled With Asphalt
Criteria at Ndes

Asphaltic Concrete Type	Design VFA, Percent
SP6	65 – 75

Paragraph 3. c. of Subsection 1028.03 is void and superseded by the following:

c. The adjustment values in Table 1028.15 will be the tolerances allowed for adjustments from the NDR verified mix design "Combined Gradation" target values which resulted from production or mix design adjustments, but cannot deviate from Superpave gradation criteria, or violate restricted zone criteria specified in paragraph 2. l. (1) of Subsection 1028.02. Mix adjustments for individual aggregates, including RAP, greater than 25% of the original verified mix design proportion may require the Contractor to submit a new mix design, as determined by the Engineer

Paragraph 4.c.(4) of Subsection 1028.03 is void and superseded by the following:

At the project start-up and when a substantial aggregate proportion or other major mix change has been made, at least 1 sample shall be taken between the first 110 tons (100 Mg) and 300 tons (270 Mg) of production. This sample, when other than at start-up, will be in lieu of the next scheduled random sample location.

Paragraph 4.c. (5) of Subsection 1028.03 is amended to include the following:

When both ignition oven and cold feed cold feed samples are being tested the taking of the samples shall be timed such that each sample represents, as close as possible, the same aggregate being fed into the plant.

Paragraph 4. c. (6) of Subsection 1028.03 is void and superseded by the following:

For projects using RAP material the FAA and CAA shall be established as follows:

A RAP sample will be processed though an ignition oven and then combined with the proportioned amount of virgin aggregate defined by the mix design and then proceeding with FAA and CAA testing.

Paragraph 4. f. (1) (i) of Subsection 1028.03 is void and superseded by the following:

Bulk Specific Gravity (Gmb) shall be determined for each specimen in accordance with AASHTO T 166- Bulk Specific Gravity of Compacted Bituminous Mixtures Using Saturated Surface Dry Specimens.

Paragraph 4.f. (1) (iv) of Subsection 1028.03 in the Supplemental Specifications is void and superseded by the following:

At the Contractor's request, upon evidence that the 3 Bulk Specific Gravity specimens are exhibiting consistency in their results, The Materials and Research Central Laboratory or Branch Manager may reduce the number of specimens to 2.

Paragraph 4. f. (3) (i) of Subsection 1028.03 is void and superseded by the following:

The Blended Aggregate Bulk Specific Gravity (Gsb) shall be determined from a combined aggregate blend, including any RAP following ignition burn-off, on the + #4 and - #4 material.

Paragraph 4. f. (5) of Subsection 1028.03 is void and superseded by the following:

5. (i) The percent of PG Binder shall be determined for each QC test. The percent of PG Binder will be computed by ignition oven results.

5. (ii) The gradations shall be determined for each QC test using AASHTO T 30.

Paragraph 4.g.(1) of Subsection 1028.03 is void and superseded by the following:

All test results and calculations shall be recorded and documented on data sheets using the latest version of NDOR provided “Superpave” software. A copy containing complete project documentation will be provided to the Materials and Research Division at the completion of the project.

Paragraph 4. h. (3) of Subsection 1028.03 is amended to include the following:

(x) Dust to Binder ratio to the nearest 0.01

The table of paragraph 4. i. (3) (i) of Subsection 1028.03 is void and superseded by the following:

Test	Tolerance
Asphalt Content by Ignition Oven	0.5%
Gyratory Density	0.020
Maximum Specific Gravity	0.015
Bulk Dry Specific Gravity (Gsb)	0.020
FAA	0.5%
CAA	10.0%
Field Core Density	0.020

Paragraph 5.b. of Subsection 1028.03 is void and superseded by the following:

Two consecutive test results (single test) outside the Specification limits or a (50% or reject) shall be cause to cease operations.

Paragraph 5.e. of Subsection 1028.03 is void and superseded by the following:

Failure to cease operations after two consecutive test results fall outside the Specification limits shall subject all subsequent material to be rejected.

Paragraph 7.b. of Subsection 1028.03 is amended to include SP6.

Paragraph 9. a. of Subsection 1028.03 is void and superseded by the following:

Density tests will be performed by the Contractor under direct observation of NDR personnel. The Contractor will establish the method of testing in the preconstruction conference and shall be tested in accordance with the AASHTO T 166 or NDR T 587. The Contractor will insure that the proper adjustment bias and/or correction factors are used and accessible to NDR personnel along with all other inputs when NDR T 587 is selected. All correlation factors and test results shall be generated and reported on the NDOR Density spreadsheet. All disputed values determined using NDR T 587 shall be resolved using AASHTO T 166.

The **"Note"** in paragraph 9.b. of Subsection 1028.03 is void and superseded by the following:

Note: The individual QC test value of the Maximum Mix Specific Gravity (Rice) will be used to calculate the density of each corresponding core.

Paragraph 9. h. 3 (i) of Subsection 1028.03 is void and superseded by the following:

If requested by the Contractor, check tests for all density tests in the original set, taken no later than the working day following placement will be allowed in lots with a density pay factor of less than 1.00**.** Locations for checks tests will be determined by a new random sampling schedule provided by the Engineer. The average density obtained by the check tests shall be used to establish the density pay factor for the lot.

Subsection 1028.03 is amended to include Paragraph 10 as follows:

10. PG Binder Sampling

    a. At least one sample (2-1 quart cans) (2-1 liter cans) of PG Binder will be sampled by the Contractor's QC Technician for every Lot (3750 tons) (3400 Mg) of asphalt concrete mixture produced.

    b. Samples will be taken in accordance with NDR Standard Method T 40.

    c. The QC Technician will include on the Sample Identification form all information required by the contract.

PROPOSAL GUARANTY
(S1-38-0801)

As an evidence of good faith in submitting a proposal for this work or for any portion thereof as provided in the proposal form, the bidder must file with his proposal a bid bond, which must be executed on the Department of Roads' Bid Bond form, in the amount of 5 percent of the amount bid for any group of items or collection of groups for which the bid is submitted. Any alterations, conditions or limitations added to the Department of Roads' Bid Bond form will be unacceptable and cause the bid not to be opened and read.

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