

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

NEBRASKA DEPARTMENT OF ROADS
LETTING DATE : May 22, 2003

CALL ORDER: F08 CONTRACT ID: 6216

CONTROL NO./SEQ. NO.: 61216 /000 PROJECT NO.: STPN-TMT-6555(1)

TENTATIVE START DATE: 06/23/03 CONTRACT TIME: 255 WORKING DAYS

LOCATION: LEXINGTON VIADUCT

IN COUNTY: DAWSON

BIDDER

GROUP 1 GRADING
GROUP 1A MSE WALLS
GROUP 3 CONCRETE PAVEMENT
GROUP 4 CULVERTS
GROUP 4A WATER MAIN & SANITARY SEWER
GROUP 6 BRIDGE AT STA. 15+37.1
GROUP 6A BRIDGE AT STA. 20+61.5
GROUP 6B BRIDGE AT STA. 6+62.92
GROUP 6C BRIDGE AT STA. 6+62.92
GROUP 8B ELECTRICAL
GROUP 10 GENERAL ITEMS

THIS PROPOSAL CONTAINS A DBE GOAL OF 10.0 %.

SEE SPECIAL PROVISIONS FOR GROUP TIES

NOTES

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

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

	Page
I. General	1
II. Nondiscrimination	1
III. Nonsegregated Facilities	3
IV. Payment of Predetermined Minimum Wage	3
V. Statements and Payrolls	6
VI. Record of Materials, Supplies, and Labor	6
VII. Subletting or Assigning the Contract	7
VIII. Safety: Accident Prevention	7
IX. False Statements Concerning Highway Projects	7
X. Implementation of Clean Air Act and Federal Water Pollution Control Act	8
XI. Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion	8
XII. Certification Regarding Use of Contract Funds for Lobbying	9

ATTACHMENTS

- A. Employment Preference for Appalachian Contracts
(included in Appalachian contracts only)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piece-work, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

- a. discriminate against labor from any other State, possession, or territory of the United States (except for employment

preference for Appalachian contracts, when applicable, as specified in Attachment A), or

- b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve

such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246 (Rev. 3-94)

tive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more

than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for

the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages:
In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form

desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of

Form FHWA-1273 (Rev. 3-94)

the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be 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.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 *et seq.*, as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 *et seq.*, as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant know-

ingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE
ACTION TO ENSURE EQUAL EMPLOYMENT
OPPORTUNITY
(EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE

Economic Area	Goal %	Economic Area	Goal %
103 Sioux City, IA:		Non-SMSA Counties	5.3
SMSA Counties:		IA Adams, IA Audubon, IA Cass,	
7720 Sioux City, IA-NE	1.9	IA Fremont, IA Harrison, IA Mills,	
IA Woodbury, NE Dakota		IA Montgomery, IA Page, IA Shelby,	
Non-SMSA Counties	1.2	IA Taylor, NE Burt, NE Cass, NE Colfax,	
IA Cherokee, IA Crawford, IA Ida,		NE Dodge, NE Platte, NE Saunders,	
IA Monona, IA O'Brien, IA Plymouth,		NE Washington	
IA Sioux, NE Antelope, NE Cedar,		144 Grand Island, NE:	
NE Cuming, NE Dixon, NE Knox,		Non-SMSA Counties	1.4
NE Madison, NE Pierce, NE Stanton,		NE Adams, NE Arthur, NE Blaine,	
NE Thurston, NE Wayne, SD BonHomme,		NE Boone, NE Boyd, NE Brown,	
SD Clay, SD Union, SD Yankton		NE Buffalo, NE Chase, NE Cherry,	
142 Lincoln, NE:		NE Clay, NE Custer, NE Dawson,	
SMSA Counties:		NE Dundy, NE Franklin, NE Frontier,	
4360 Lincoln, NE	2.8	NE Furnas, NE Garfield, NE Gosper,	
NE Lancaster		NE Grant, NE Greeley, NE Hall, NE	
Non-SMSA Counties	1.9	Hamilton, NE Harlan, NE Hayes,	
NE Butler, NE Fillmore, NE Gage,		NE Hitchcock, NE Holt, NE Hooker,	
NE Jefferson, NE Johnson, NE Nemaha,		NE Howard, NE Kearney, NE Keith,	
NE Otoe, NE Pawnee, NE Polk, NE		NE Keya Paha, NE Lincoln, NE Logan,	
Richardson, NE Saline, NE Seward,		NE Loup, NE McPherson, NE Merrick,	
NE Thayer, NE York		NE Nance, NE Nuckolls, NE Perkins,	
143 Omaha, NE:		NE Phelps, NE Red Willow, NE Rock,	
SMSA Counties:		NE Sherman, NE Thomas, NE Valley,	
5920 Omaha, NE-IA	7.6	NE Webster, NE Wheeler	
IA Pottawattamie, NE Douglas,		145 Scottsbluff, NE:	
NE Sarpy		Non-SMSA Counties	5.3
		NE Banner, NE Box Butte, NE Chey-	
		enne, NE Dawes, NE Deuel, NE	
		Garden, NE Kimball, NE Morrill,	
		NE Scotts Bluff, NE Sheridan, NE	
		Sioux, WY Goshen	

GOALS AND TIMETABLES FOR FEMALE PARTICIPATION IN EACH TRADE

Timetables	Goals (Percent)
From April 1, 1980 until further notice	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is by county.

November 3, 1980

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246)**

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice, which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the **Federal Register** in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its action. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
 - g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
 The contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
 13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the

work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

Supplemental Reporting Requirements

- A. The contractor will keep such records as are necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor will be designed to indicate the number of minority and non-minority group members and women employed in each work classification on the project.
- B. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State Highway agency and the Federal Highway Administration.
- C. The Contractor and each covered subcontractor will submit to the State Highway agency, for the month of July, for the duration of the project, a report (Form PR-1391) "Federal-aid Highway Construction Contractors Annual EEO Report), indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. If on-the-job training is being required by "Standard Federal Equal Employment Opportunity Specifications" the contractor will be required to furnish (Form FHWA 1409) "Federal-aid Highway Construction Contractor's Semi-Annual Training Report".

Equal Employment Opportunity Policy

The contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program:

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training.

GENERAL DECISION **NE020002** 03/01/02 NE2
General Decision Number **NE020002**

Superseded General Decision No. NE010002

State: Nebraska

Construction Type:

HEAVY
HIGHWAY

County(ies):

ADAMS	FURNAS	NANCE
ANTELOPE	GAGE	NEMAHA
ARTHUR	GARDEN	NUCKOLLS
BANNER	GARFIELD	OTOE
BLAINE	GOSPER	PAWNEE
BOONE	GRANT	PERKINS
BOX BUTTE	GREELEY	PHELPS
BOYD	HALL	PIERCE
BROWN	HAMILTON	PLATTE
BUFFALO	HARLAN	POLK
BURT	HAYES	RED WILLOW
BUTLER	HITCHCOCK	RICHARDSON
CEDAR	HOLT	ROCK
CHASE	HOOVER	SALINE
CHERRY	HOWARD	SAUNDERS
CHEYENNE	JEFFERSON	SCOTTS BLUFF
CLAY	JOHNSON	SEWARD
COLFAX	KEARNEY	SHERIDAN
CUMING	KEITH	SHERMAN
CUSTER	KEYA PAHA	SIOUX
DAKOTA	KIMBALL	STANTON
DAWES	KNOX	THAYER
DAWSON	LANCASTER	THOMAS
DEUEL	LINCOLN	THURSTON
DIXON	LOGAN	VALLEY
DODGE	LOUP	WAYNE
DUNDY	MADISON	WEBSTER
FILLMORE	MCPHERSON	WHEELER
FRANKLIN	MERRICK	YORK
FRONTIER	MORRILL	

HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects, and railroad construction; bascule, suspension & spandrel arch bridges; bridges designed for commercial navigation; bridges involving marine construction; other major bridges)

SAUNDERS COUNTY (WEST OF HWY. #109 EXTENDED NORTH AND SOUTH TO THE COUNTY LINE)

Modification Number	Publication Date
0	03/01/2002

COUNTY(ies):

ADAMS	FURNAS	NANCE
ANTELOPE	GAGE	NEMAHA

ARTHUR	GARDEN	NUCKOLLS
BANNER	GARFIELD	OTOE
BLAINE	GOSPER	PAWNEE
BOONE	GRANT	PERKINS
BOX BUTTE	GREELEY	PHELPS
BOYD	HALL	PIERCE
BROWN	HAMILTON	PLATTE
BUFFALO	HARLAN	POLK
BURT	HAYES	RED WILLOW
BUTLER	HITCHCOCK	RICHARDSON
CEDAR	HOLT	ROCK
CHASE	HOOKER	SALINE
CHERRY	HOWARD	SAUNDERS
CHEYENNE	JEFFERSON	SCOTTS BLUFF
CLAY	JOHNSON	SEWARD
COLFAX	KEARNEY	SHERIDAN
CUMING	KEITH	SHERMAN
CUSTER	KEYA PAHA	SIOUX
DAKOTA	KIMBALL	STANTON
DAWES	KNOX	THAYER
DAWSON	LANCASTER	THOMAS
DEUEL	LINCOLN	THURSTON
DIXON	LOGAN	VALLEY
DODGE	LOUP	WAYNE
DUNDY	MADISON	WEBSTER
FILLMORE	MCPHERSON	WHEELER
FRANKLIN	MERRICK	YORK
FRONTIER	MORRILL	

SUNE2002E 06/16/1999

	Rates	Fringes
CARPENTER	13.30	
CEMENT FINISHER	12.50	
ELECTRICIAN	11.90	
FLAGGER	7.60	
FORM SETTER	10.80	
LABORER	8.30	
MANHOLE BUILDER	10.20	
MECHANIC	12.95	
PAINTER	8.35	
PILE DRIVER LEADPERSON	8.35	
POWER EQUIPMENT OPERATORS:		
Asphalt distributor	9.65	
Asphalt paving machine	12.35	
Asphalt paving machine (screed)	10.45	
Asphalt roller, self-propelled	11.20	
Backhoe excavator (track type)	12.55	
Concrete finishing machine or slip		
form paver	12.80	
Concrete saw operator	11.20	
Concrete cure machine	9.20	
Concrete texture machine	9.20	
Bulldozer or push tractors:		
Less than 115 drawbar h.p.	11.60	
115 drawbar h.p. and over	12.80	
Material stockpiler	10.20	
Motor grader (finisher)	13.15	
Motor grader (rough)	10.90	

Power broom operator	9.15
Roller or compactor, earthwork, self-propelled	10.05
Scraper	12.40
Traveling plant stabilization	11.60
Water tankers:	
Under 6000 gallons	9.65
6000 gallons and over	11.20
All purpose spreader	9.50
Clamshell, dragline, crane, pile driver/shovel	13.60
Dredge pump	9.50
Front end loaders:	
4 cu. yds. or less	11.40
Over 4 cu. yds.	12.10
Hydrohammer	9.60
Loader/backhoe (rubber-tired)	9.85
Power grader machine (trimmer & profiler)	12.80
Skid steer loader	9.50
Tractor (farm type)	9.50
Trenching machine	9.85
Stationary plant (base or stabili- zation)	11.75
Stationary plant (asphalt or concrete)	12.75
Crusher (including those with integral screening plant)	11.75
TRUCK DRIVERS:	
Single axle	8.40
Tandem axle	9.65
Semi-trailer or lowboy	10.85
Transit mix	9.65
WELDER	12.25

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations

indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.
END OF GENERAL DECISION

**SPECIAL PROVISIONS
FOR
FEDERAL AID
PROJECT NO. STPN-TMT-6555(1)**

GENERAL CONDITIONS

Sealed bids for the work contemplated in this proposal form will be received by the Department of Roads of the State of Nebraska, for the City of Lexington, 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, until 1:30 P.M.

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 English 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 English 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 Contract Provisions, Form FHWA 1273, (Rev. 4-93), and the Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity and Standard Federal Equal Employment Opportunity Construction Contract Specifications dated November 3, 1980, are attached to and are a part of this proposal form. The Standard Labor Classifications and Descriptions for Highway Construction dated September 1, 1996, are made a part of these special provisions, through reference.

The General Wage Decision issued under the Davis-Bacon and Related Acts is attached to and is a part of this proposal form.

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

GROUPS 1, 1A, 3, 4, 4A, 6, 6A, 6B OR 6C, 8B 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 BRIDGES.

GROUP 6B IS AN ALTERNATE FOR GROUP 6C. BIDDERS ARE TO SUBMIT THEIR LOWEST BID ONLY.

**DISADVANTAGED BUSINESS ENTERPRISES
(S1-8-0801)**

A. Policy

The Contractor agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 26 shall have a "level playing field" and equal opportunity to participate in the performance of contracts financed in whole or in part with Federal funds under this contract. Consequently, the disadvantaged business requirements of 49 CFR Part 26 are hereby made a part of and incorporated by this reference into this contract.

B. Disadvantaged Business Enterprises Obligation

The Contractor agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 26 have a "level playing field" and equal opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this agreement. In this regard, the Contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that disadvantaged business enterprises have a "level playing field" and equal opportunity to compete for and perform contracts. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of FHWA assisted contracts.

Failure of the Contractor to carry out the requirements set forth above shall constitute breach of contract and, after the notification of the FHWA, may result in termination of the agreement or contract by the State or such remedy as the State deems appropriate.

**USE OF DISADVANTAGED BUSINESS ENTERPRISES
(S1-9-0801)**

I. INTRODUCTION: The specific requirements of the use of Disadvantaged Business Enterprises, hereinafter referred to as DBEs, are set forth in these Required Contract Provisions and are imposed pursuant to 49 CFR Part 26.

A. Definitions:

1. Whenever "NDR" is used within these special provisions it shall refer to the Nebraska Department of Roads.
2. For the purpose of these special provisions, the following definitions will apply:
 - a. Disadvantaged Business Enterprise (DBE) means a for profit small business concern, as defined pursuant to Section 3 of the Small Business Act and Small Business Administration regulations implementing it, which is independently owned and controlled by one or more socially and economically disadvantaged individuals.
 - b. Owned and controlled means a business:

- (1) Which is at least 51 percent (51%) owned by one or more socially and economically disadvantaged individuals or women, or, in the case of a public owned business, such individuals must own at least 51 percent (51%) of each class of voting stock and 51 percent of the aggregate of all stock outstanding.
 - (2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged owners.
- c. Socially and economically disadvantaged individual means a person who is a citizen (or lawful permanent resident) of the United States, and who is:
- (1) "African American," which includes persons having origins in any of the Black racial groups of Africa;
 - (2) "Hispanic American," which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - (3) "Native American," which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - (4) "Asian-Pacific American," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
 - (5) "Subcontinent Asian American," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
 - (6) A Woman;
 - (7) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

II. DBE CONTRACT GOALS:

- A. DBE goals are set by the NDR for specific contracts. The specific DBE contract goals are stated on the Required DBE Participation Form included in the proposal. The Contractor must meet or exceed the goal or demonstrate good faith efforts to meet the goal. Requirements for submission of DBE good faith effort information are contained in Section IV of these special provisions.

- B. A current list of certified DBE Contractors will be posted on the NDR website (www.dor.state.ne.us). Only the DBE firms whose names appear on the list will be considered in meeting the contract goal for this project. The DBE firms will be considered only for the items of work listed under the heading, "Nature of Business". DBE firms may request to have additional items of work added to their "Nature of Business"; however, no items of work will be added after 5:00 p.m., ten (10) calendar days preceding the letting.
- C. Contractors shall, as a minimum, seek DBE subcontractors in the same geographic area in which they seek subcontractors generally for a given solicitation. If the contractor cannot meet the DBE goals using DBEs from the normal area, the contractor will expand its search to a reasonably greater geographic area.
- D. Contractors are required to make good faith efforts to replace a DBE subcontractor that is unable to perform with another DBE. In order to ensure compliance with this requirement, any substitution of DBE subcontractors after execution of the contract must be approved by the NDR.
- E. Contractors are also encouraged to use the services of banks owned and controlled by minorities and women; however, this will not be counted toward the contract DBE goal.

III. MEETING DBE CONTRACT GOAL CRITERIA: The award of the contract will be made upon satisfaction of the requirements of these special provisions. The apparent low bidder must either meet or exceed the DBE goals for the contract or satisfy the NDR that good faith efforts were made to meet the goals.

- A. REQUIRED DBE PARTICIPATION INFORMATION: All bidders are required to submit to the NDR the "Required DBE Participation Form" with their bid proposal on the form provided in this proposal.
- B. THE REQUIRED DBE PARTICIPATION FORM SHALL INCLUDE:
 - 1. The names and addresses of the DBE subcontractors that will actually participate in meeting the contract goal.
 - 2. A complete description (by item number or group, etc.) of the work each named DBE subcontractor will perform.
 - 3. The dollar amount of participation by each named DBE subcontractor.
 - 4. Written and signed documentation from the bidder of commitment to use a DBE subcontractor whose participation it submits to meet a contract goal.
 - 5. The apparent low bidder must submit written and signed confirmation from each DBE that it is participating in the contract as provided in the prime contractor's commitment, BY 5:00 P.M. ON THE FIRST WEDNESDAY FOLLOWING THE LETTING. IF THE WEDNESDAY FALLS ON A STATE HOLIDAY, THE TIME WILL BE EXTENDED UNTIL 10:00 A.M. ON THE NEXT OFFICIAL WORKING DAY OF THE NEBRASKA DEPARTMENT OF ROADS.
 - 6. If the contract goal is not met, evidence of good faith efforts.

- C. THE PROPOSAL WILL NOT BE READ IF THE "REQUIRED DBE PARTICIPATION FORM" IS NOT INCLUDED.

IF NO DBE PARTICIPATION IS INTENDED, THE FORM MUST INDICATE THAT GOOD FAITH EFFORT DOCUMENTATION WILL BE SUBMITTED. A BLANK FORM THAT IS SIGNED WILL BE INTERPRETED AS MEANING NO DBE PARTICIPATION IS INTENDED AND WILL BE READ.

LISTING OPTIONS AND/OR ALTERNATES FOR DBE SUBCONTRACTORS AND/OR ITEMS OR GROUPS OF WORK TO BE PERFORMED IS NOT ALLOWED, AND WILL CAUSE THIS BID TO BE DECLARED NON-RESPONSIVE.

REQUIRED DBE INFORMATION SHALL NOT BE SUBJECT TO REVISION AFTER BIDS ARE OPENED.

- D. The information submitted on the DBE Participation Form will be verified by the NDR. Errors in addition will be treated in accordance with current NDR specifications and procedures.
- E. If the use of non-certified firms or the use of DBE firms not certified for the type of work indicated results in under achievement of the goal, the bid will be declared non-responsive.
- F. If, at any time prior to execution of the contract, previously undetected errors result in under-achievement of the goal, the low bidder, along with the other bidders on the project, will be given 5 days from receipt of notification by the NDR to submit good faith information as outlined in Section IV of these specifications.
- G. REQUIRED BIDDERS LIST INFORMATION: All bidders must provide to the NDR the identity of all firms who bid or quote subcontracts on DOT-assisted projects, including both DBEs and non-DBEs. This information must be provided with the bid proposal on a form provided to the contractors by the NDR Contracts Office.

IV. GOOD FAITH DETERMINATION: It is the low bidder's responsibility to meet the DBE contract goals or to provide sufficient information to enable the NDR to determine that, prior to bidding, the low bidder actually made good faith efforts to meet such goals.

- A. The NDR will, in the "Apparent Low Bidder" listing (available 24 hours after bid opening) identify all projects which contain a DBE goal. The listing will indicate the apparent low bidder's status in attaining the goal, i.e. "Contractor Meets DBE Goal," or "Contractor Requires Good Faith Determination."
- B. If the low bidder's "Required DBE Participation Form" submitted with the bid indicates the DBE contract goal will be met, and the NDR concurs, the contract will proceed toward award and the low bidder need not submit any further DBE information prior to award.
- C. Good Faith Information Submittal: If the contract DBE goals have not been met, the "Apparent Low Bidders" listing will reflect that the apparent low bidder is required to submit good faith effort information. Complete and accurate documented information to support a good faith efforts determination MUST BE SUBMITTED BY 5:00 P.M. ON THE FIRST WEDNESDAY FOLLOWING THE LETTING. IF THE WEDNESDAY FALLS ON

A STATE HOLIDAY, THE TIME WILL BE EXTENDED UNTIL 10:00 A.M. ON THE NEXT OFFICIAL WORKING DAY OF THE NEBRASKA DEPARTMENT OF ROADS.

- D. Any other bidder on the contract who requires a good faith effort submittal must also follow the time frames set forth in "C" above if they wish to be considered for award of the contract. Any bidder who does not meet the submittal deadlines, WILL BE NOT BE ELIGIBLE FOR AWARD OF THE CONTRACT. (The only exception is a case where the apparent low bidder who met the goal initially is declared ineligible for the award for reasons other than DBE goal attainment.) If this results in a new apparent low bidder who did not initially meet the goal, ALL other bidders on the contract indicating good faith effort will be notified, and given 5 days after receipt, to submit complete information to support their good faith efforts. Bidders are cautioned by the NDR to retain documentation of their good faith efforts until an award is made, or all bids are rejected.
- E. The NDR will review all information submitted to determine whether the apparent low bidder actually made good faith efforts to meet the contract goal. The decision as to whether the good faith efforts are acceptable will be made jointly by a committee comprised of the NDR' Highway Civil Rights Coordinator, the Contracts Letting Manager, and the Legal Counsel.

A NDR determination that the low bidder's information failed to show acceptable good faith efforts shall be cause for declaring the low bid non-responsive. In making a determination, information submitted by other bidders will be considered. If the low bid is declared non-responsive, the above procedure will be applied to the next lowest bid, and other higher bids if necessary, until a bid is found that meets the goal, or establishes that good faith efforts were made to meet it. NDR reserves the right to reject all bids and readvertise the contract if none of the bids result in a satisfactory level of DBE participation at a reasonable price.

- F. Establishing Good Faith Efforts: To demonstrate good faith efforts to meet the DBE contract goals, documentation shall be maintained and submitted to the NDR as set forth above. Such documentation may include any or all of the following: (This list is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.)
1. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all Certified DBE firms that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE firms to respond to the solicitation. The bidder must determine with certainty if the DBE firms are interested, by taking steps to follow up initial solicitations.
 2. Selecting portions of the work to be performed by DBE firms in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform work items with its own workforce.
 3. Providing interested DBE firms with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

4. (1) Negotiating in good faith with interested DBE firms. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers, and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation should include the names, addresses, and telephone numbers of DBE firms that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE firms to perform the work.

(2) A bidder using good business judgement would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE firms, is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBE firms if the price difference is excessive or unreasonable.
 5. Not rejecting DBE firms as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection, or non-solicitation of bids in the contractor's efforts to meet the project DBE goal.
 6. Making efforts to assist interested DBE firms in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
 7. Making efforts to assist interested DBE firms in obtaining necessary equipment, supplies, materials, or related assistance or services.
 8. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- G. If the NDR's preliminary finding is that the bidder did not demonstrate a satisfactory effort to meet the contract goal, the bidder may appeal the decision by submitting a written request for reconsideration within three (3) days of the decision. The bidder may then present information either in a written narrative supporting its good faith effort submittal, or may appear in person. Any new information not included in the original submittal will not be used in the final determination. The appeal will be heard by a Hearing Officer appointed by the NDR' Director. The Hearing Officer will be an individual who is knowledgeable about the DBE Program and its good faith efforts provision, but who had no part in the initial decision.

The Hearing Officer will hear the appeal within five (5) days of receipt of the written request, and will issue a written decision within three (3) days after the appeal. The reconsideration process is administratively final and has no further appeal.

V. COMMERCIALLY USEFUL FUNCTION:

- A. A contractor may count toward its DBE goals only expenditures to DBE firms that perform a commercially useful function in the work of a contract. A DBE firm is considered to perform a commercially useful function when it is responsible for the execution of a distinct element of the work of a contract, and carrying out its responsibilities by actually performing, managing, and supervising the work involved. The DBE firm must also be responsible for materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, installing (where applicable), and paying for the material.

Guidelines:

1. As a general rule, it is expected that workers on a DBE subcontract shall be regular employees of the DBE subcontractor, and shall be listed on the subcontractor's payroll. A regular employee is a person who would normally be working for the DBE firm on any other subcontract with any other prime contractor, and whose immediate past employment has not been with the prime contractor on the present project, or with the renter-lessor of equipment being used on the present project.
2. On DBE subcontracts, the DBE must perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the DBE will not be considered to be performing a commercially useful function. (If a DBE subcontracts part of its work to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.)

Operators of leased specialized equipment are included under this provision. In any case, all employees shall be listed on the DBE firm's payroll and paid by that firm.
3. In addition, a DBE subcontractor shall be required to designate a project superintendent/foreman who is a regular employee of the subcontractor, and who shall be active in the day-to-day management of the project.
4. DBE subcontractors who purchase supplies and materials from the prime contractor, which are to be incorporated into the project WILL NOT count toward the established DBE contract goals.
5. TWO PARTY CHECKS: The NDR does not prohibit the practice of a DBE firm and a prime contractor using two party checks, so long as the prime contractor acts solely as a guarantor, and the funds do not come from the prime contractor. Two party checks cannot be used unless formal written requests to do so from the DBE firm and the prime contractor are delivered to the NDR Disadvantaged Business Enterprise Office and the NDR DBE Office gives its written approval to do so. The NDR will closely monitor the use of two party checks to avoid abuse of this practice.

VI. PROHIBITED PRACTICES:

- A. An area of special concern is exclusive arrangements between the prime contractor and DBE subcontractors. The DBE subcontractors must be willing to contract with more than one prime contractor.
- B. Any subcontracting arrangement which artificially inflates DBE participation is not acceptable. Of utmost concern are the interjection of DBE middlemen or passive conduits and arrangements in which a DBE subcontractor is acting essentially as a broker.

VII. ADMINISTRATION OF THE DBE PROGRAM:

- A. The Nebraska Department of Roads intends to achieve its annual overall DBE participation goal with a "narrowly tailored" DBE Program that meets the "strict scrutiny" requirements as defined by case law. The NDR will adhere to all of the rules and regulations of the DOT's DBE Program Regulations as contained in CFR 49 part 26.

It is the intention of the NDR that DBE subcontractors be independent companies, and function in the same capacity as majority contractors. It is not the intention of the NDR to be involved with "in name only" DBE subcontractors who are not providing a commercially useful function to the highway industry. The following will be used in administering the DBE Program.

Situation #1:

Prime Contractor "A" subcontracts to a DBE subcontractor, who performs the work with its own workforce (the employees work on a full-time basis for the DBE firm, or were hired from a union hall, employment service, or other hiring sources by the DBE firm, and are supervised by a full-time employee of the DBE), and uses its own equipment, or equipment rented or leased from an equipment dealer. Prime Contractor "A" is not involved in the DBE firm's operation, other than coordinating when the work is to be performed, and/or other normal industry practices of contracts between a prime contractor and a subcontractor.

THIS IS THE IDEAL SITUATION, IS TOTALLY ACCEPTABLE, AND IS WITHIN THE INTENT OF THE DBE PROGRAM.

Situation #2:

Prime Contractor "A" subcontracts to a DBE firm, that performs the work with its own workforce, (the employees work on a full-time basis for the DBE firm, or were hired from a union hall, employment service, or other sources by the DBE firm for the project, and are supervised by a full-time employee of the DBE). The DBE firm uses equipment owned by a majority contractor, (either Prime Contractor "A", or some other majority contractor), on a long-term rent or lease arrangement at rates consistent with normal industry standards, and not leased on an "as equipment is needed" basis. This situation would be no different than the DBE firm leasing or renting equipment from a commercial equipment supplier. Many majority contractors lease equipment, and the action is standard industry practice. THIS IS TOTALLY ACCEPTABLE, AND IS WITHIN THE INTENT OF THE DBE PROGRAM.

Situation #3:

A DBE firm is a subcontractor to Prime Contractor "A", on a NDR' project. When it is time for the subcontract work to be performed, the work is actually performed using Prime Contractor "A's" equipment, work force, and supervisory personnel. The DBE firm then makes a certified payroll using the names of Prime Contractor "A's" employees. Basically, the subcontract work was performed by Prime Contractor "A". While the NDR cannot tell the DBE subcontractor who to hire, or where to obtain equipment, we find this to be a very close association with the prime contractor, and the DBE's owner is not considered to be in control of the DBE firm, or the project in question. This situation described is not considered to be a commercially useful function, and may be subject to any of the administrative actions as cited in Section VIII, C. below.

Note: If a DBE subcontractor is performing work on a project with his own equipment, workforce and supervisory personnel, and an equipment failure or unusual circumstance occurs, and the prime contractor rents or loans equipment and/or employees on a short-term basis to the DBE, the NDR could find this acceptable as long as this only occurs occasionally and is kept to an absolute minimum.

Situation #4:

A DBE firm is a subcontractor to Prime Contractor "A" on a NDR project. When it is time for the subcontract work to be performed, the work is actually done using the workforce, equipment, and supervisory personnel of a majority contractor, Contractor "B". The DBE firm makes a certified payroll showing Contractor "B's" employees. While the NDR cannot tell the DBE subcontractor who to hire, or where to obtain equipment, this condition is not considered to be within the intent of the DBE Program. In reality, majority Contractor "B" is the one that performed the work. The NDR does not consider this to be a commercially useful function, as Prime Contractor "A" is actually subcontracting to majority Contractor "B", in an unapproved status, rather than the DBE firm. This situation described is not considered to be a commercially useful function, and may be subject to any of the administrative actions as cited in Section VIII, C. below.

Situation #5:

Prime Contractor "A" is buying supplies from a DBE supplier or contractor to fulfill the DBE goal. This is only acceptable if the DBE firm is a true supplier. The mere fact that the DBE firm purchases the material from another supplier, then adds some cost and sells the material to a prime contractor, does not constitute the DBE as being a supplier. A supplier must have an inventory and be generally recognized as a material supplier. This situation described may be subject to any of the administrative actions as cited in Section VIII, C. below.

Situation #6:

A DBE firm is a subcontractor to Prime Contractor "A". When it is time for the subcontract work to be performed, the DBE firm brings in its workforce to do the work, and uses equipment already at the site that belongs to Prime Contractor "A". The DBE subcontractor says it is leasing the equipment from Prime Contractor "A". The NDR will closely review this arrangement. This situation resembles a "specific equipment lease" where the equipment is made available on a convenience basis to the DBE firm. The test is whether or not the DBE firm can use the equipment at the DBE's convenience, and not be tied to the availability of the equipment by Prime Contractor "A". If the equipment lease arrangement indicates the DBE firm has total control of the equipment, but in fact Prime Contractor "A" controls the equipment, the NDR would question the relationship to determine whether or not a commercially useful function had been provided. This situation described may be subject to any of the administrative actions cited in Section VIII, C. below.

The above situations are very broad and general. While it is known that many different situations may arise, these are basic guidelines used to administer the DBE Program.

The NDR is more than willing to discuss particular situations with either DBE firms or prime contractors prior to a letting in the hope of developing DBE firms.

VIII. INVESTIGATORY POWERS, ADMINISTRATIVE PROCEDURES FOR ENFORCEMENT AND PENALTIES

A. INVESTIGATORY POWERS:

1. The NDR specifically reserves the right and power to investigate, monitor and/or review all actions taken, statements made, documents submitted, by any contractor, subcontractor or DBE firm under the terms of these provisions.

B. ADMINISTRATIVE PROCEDURES FOR ENFORCEMENT:

Whenever the NDR believes a contractor, subcontractor or DBE firm may not be operating in compliance with the terms of these provisions, the NDR will conduct an investigation. If the NDR finds any person or entity not in compliance with these provisions, the NDR will notify such person or entity in writing as to the specific instances or matters found to be in non-compliance. At the option of the NDR, the person or entity shall then be allowed a reasonable time to correct any deficiencies noted, and to come into compliance. In the event that the person or entity cannot, thereafter, come into compliance, or fails or refuses to do so, then the NDR may impose one or more of the penalties hereafter provided for. It is specifically provided by the NDR that any person or entity will be found to be out of compliance with these provisions if an investigation reveals any violation or act of such serious or compelling nature that the violation or act indicates a serious lack of business integrity or honesty.

C. PENALTIES:

1. In the event the NDR finds any contractor, subcontractor, or DBE firm, to be out of compliance with these provisions, the NDR may impose one or more of the following sanctions:

- a. Termination of the contract.
- b. The DBE firm may be decertified and/or suspended from participating in the NDR' DBE Program.
- c. The prime contractor may not be able to count the work performed toward his project DBE goal, and if possible to do so, may need to subcontract other work on the project to DBE subcontractors to achieve the goal.
- d. The contract items involved may be considered for a monetary reduction equal to the amount of work not done by the DBE subcontractor.
- e. The prime contractor may be suspended and/or debarred.
- f. If at any time during the life of the contract, it is determined that the contractor is out of compliance with these provisions, the NDR may withhold payment of progress payments.
- g. If at the completion of the project, the contractor is determined to be out of compliance, the NDR may sustain damages, the exact extent of which would be difficult or impossible to ascertain and, therefore, in order to liquidate such damages, the monetary difference between the amount stated by the contractor and the amount actually paid to the DBEs will be deducted from the contractor's payment as liquidated damages. These damages would be in addition to any liquidated damages assessed in accordance with Subsection 108.08 of the Standard Specifications.
- h. Referral to the Attorney General for possible prosecution for fraud.
- i. Other action as appropriate, within the discretion of the NDR.

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOAL
(S1-9-0801)**

ALL BIDDERS SHALL SUBMIT WRITTEN ASSURANCE THAT THE MINIMUM GOAL FOR DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION WILL BE MET. THE REQUIRED DBE PARTICIPATION FORM INCLUDED IN THIS PROPOSAL SHALL BE USED. The bidder shall submit the name and address of the DBE(s), a complete description of the participation by the DBE(s), and the dollar value of the participation. If the bidder cannot meet the minimum goal for DBE participation, as specified herein, the bidder shall submit complete documentation of its efforts, following the time limits set forth in IV. A., "Good Faith Information Submittal". These efforts shall include but not be limited to those stated previously in IV. E., "Establishing Good Faith Efforts".

Bidders that fail to meet DBE goals or fail to demonstrate sufficient good faith efforts shall be declared non-responsive and ineligible for award of the contract.

Bidders shall assume the responsibility of determining if they are the apparent low bidders by contacting the Nebraska Department of Roads, Contract Lettings Section in Lincoln,

Nebraska. Such information is made public 24 hours after the announced time for opening bids. This information is available from the NDR' Internet web site (<http://www.dor.state.ne.us/>).

The contract shall be awarded to the lowest responsive responsible bidder.

The standard NDR' procedure concerning subcontractors and suppliers shall apply.

The DBE firms identified at the time of bid opening are the firms to whom subcontracts will be issued. The work subcontracted to be done, and the amount to be paid for the work, shall be as identified at the time of bid opening.

If the prime contractor desires to alter this list after execution of the contract, it must demonstrate to the NDR that the listed DBE firm(s) is unable to perform, and provide the necessary written justification for approval. Justification must also include written documentation from the affected DBE firm(s) stating their position on the prime contractor's request. There must be a solid basis for any change.

Any substitution of the named DBE firms must be approved by the Department of Roads Disadvantaged Business Enterprise Office. Substitution of DBE's will only be allowed when the DBE firm(s) is not able to perform because of default or over-extension on other jobs or other similar justification. A prime contractor's ability to negotiate a more advantageous contract with another subcontractor is not considered as a valid basis for change.

PRIOR TO FINAL PAYMENT THE FOLLOWING FORMS MUST BE COMPLETED AND SUBMITTED TO THE NDR DISADVANTAGED BUSINESS ENTERPRISE OFFICE.

- A. DR Form 441, DBE I. This form shall be filled out by the prime contractor, indicating the DBE firms used, actual work performed, and actual amount of money paid to the DBE Firms.
- B. DR Form 442, DBE II. This form shall be filled out by the DBE subcontractor, indicating the name of the DBE firm, actual work performed, and actual amount of money received from the prime contractor.
- C. The above referenced forms are available from the NDR' Disadvantaged Business Enterprise Office, upon request. The forms are also available electronically from the NDR' Internet web site (<http://www.dor.state.ne.us/>).

The Code of Federal Regulations, Title 49, Part 26 and the Nebraska Department of Roads' Disadvantaged Business Enterprise (DBE) Program, are hereby made a part of and incorporated by this reference into this proposal. Copies of these documents are available, upon request, from the Nebraska Department of Roads, Disadvantaged Business Enterprise Office, P.O. Box 94759, Lincoln, Nebraska 68509-4759.

SUBLETTING OR ASSIGNING OF CONTRACT (S1-9-0801)

Prior to beginning work, a copy of all executed subcontracts, written agreements and/or lease agreements used to meet DBE goals shall be submitted to the construction engineer for forwarding to the minority business office. These copies must contain prices.

PROMPT PAYMENT CLAUSE:

The prime contractor shall include a "Prompt Payment Clause" as a part of every subcontract (including second tier subcontracts) for work and material. The "Prompt Payment Clause" will require payment to all subcontractors for all labor and material, for work completed, within twenty (20) calendar days of receipt of progress payments from the NDR for said work. The "Prompt Payment Clause" will also stipulate the return of retainage within thirty (30) calendar days after the subcontractor achieves the specified work as verified by payment from the NDR.

The failure by the prime contractor to carry out the requirements of the "Prompt Payment Clause" and/or timely return of retainage, without just cause, is a material breach of this contract, which may result in the NDR withholding the amount of payment from the prime contractor that should have been paid to the subcontractor, termination of this contract, or other such remedy as the NDR deems appropriate.

NOTE: The prime contractor may withhold payment only for just cause, and must notify the NDR in writing of its intent to withhold payment prior to actually withholding payment. The prime contractor shall not withhold, delay or postpone payment without first receiving written approval from the NDR.

**DBE GOAL CREDIT
(S1-9-0801)**

It is the intent of the NDR to assure eligible DBE firms have a "level playing field" and equal opportunity to participate in federal-aid contracts, and maintain the integrity of the DBE program. DBE participation is counted toward goals as follows:

When a DBE firm participates in a contract, only the value of the work actually performed by the DBE firm counts toward the goal.

1. The entire amount of that portion of a construction contract that is performed by the DBE firm's own forces is counted toward the goal. This includes the cost of supplies and materials obtained by the DBE firm for the work of the contract, including supplies purchased or equipment leased by the DBE, but not supplies or equipment the DBE purchases or leases from the prime contractor or its affiliate.

Example: A DBE firm furnishing and erecting steel or concrete superstructure members, furnishing and driving piling for bridge structures, furnishing and placing prestressed concrete deck panels, and furnishing and placing panels for retained earth walls will be considered a commercially useful function for attaining contract goals for disadvantaged business enterprise (DBE) participation unless the supplies or materials are purchased from the prime contractor or its affiliate.

When a DBE subcontractor is responsible for substantially constructing a complete structure the total value of the subcontract may be credited to the DBE goal.

Paragraph 8.a. (5) of Subsection 109.07 in the 1997 English Edition of the Standard Specifications is void and superseded by the following:

When applicable a DR Form 441, "Identification of DBE Goal Achievement".

B. Manufacturers, Suppliers, and Haulers:

DBE Manufacturers may be given 100% credit towards the DBE goal for products they produce for the contract.

DBE Suppliers may be given 60% credit towards the DBE goal for products they furnish for the contract.

DBE Haulers may be given 100% credit towards a DBE goal for the delivery fees charged.

A DBE firm certified as both a supplier and hauler may be given 60% credit for supplying a given product and 100% credit for hauling that same product.

See the DBE Goal Credit Table for a guide to DBE credit.

DESCRIPTIONS (S1-9-0801)

Manufacturer - To be certified as a manufacturer, a DBE firm must operate or maintain a factory or establishment that produces, on the premises, the materials, supplies, articles or equipment required under the contract and of the general character described by the specifications.

Supplier - A DBE supplier, or regular dealer, is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications, and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a supplier or regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

A DBE firm may be a supplier or regular dealer in such bulk products as petroleum products, steel, cement, gravel, stone, or asphalt without owning a place of business if the DBE firm both owns and operates distribution equipment for the products. Any supplementing of a DBE supplier's or regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

Hauler - The DBE firm must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract. There cannot be a contrived arrangement for the purpose of meeting DBE goals.

The DBE firm must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

The DBE firm receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.

The DBE firm may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE firm that leases trucks from another DBE firm receives credit for the total value of the transportation services the lessee DBE firm provides on the contract.

The DBE firm may also lease trucks from a non-DBE firm, including an owner-operator. The DBE firm that leases the trucks from a non-DBE firm is entitled to credit only for the fee or commission it receives as a result of the lease agreement. The DBE firm does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE firm.

For the purposes of the above paragraphs, a lease must indicate that the DBE firm has exclusive use of, and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE firm, so long as the lease gives the DBE firm absolute priority for the use of the leased truck. Leased trucks must display the name and identification number of the DBE firm.

If a DBE firm performs in the manner outlined above, it will be performing a commercially useful function.

Pass-throughs and/or brokering will not be tolerated. A pass-through/brokering situation is one in which a DBE firm contracts to haul materials for a project, then hires another hauler to actually perform on the contract.

CERTIFICATION (S1-9-0801)

Certain DBE's may be certified in multiple classifications as manufacturers, suppliers, and haulers. The certification will be limited by the products being manufactured, supplied, or hauled.

For example, a manufacturer of certain steel products or aggregates, may also be a supplier of products they store or deliver, but do not manufacture.

A supplier of bulk products, such as aggregates or fuel, may also be certified as a hauler.

DBE GOAL CREDIT TABLE

DBE Manufacturer & DBE Hauler	100% Credit for Materials & 100% Credit for Hauling
DBE Manufacturer & Non-DBE Hauler	100% Credit for Materials & No Credit for Hauling
Non-DBE Manufacturer & DBE Hauler	No Credit for Materials & 100% Credit for Hauling
DBE Supplier & DBE Hauler	60% Credit for Materials & 100% Credit for Hauling
DBE Supplier & Non-DBE Hauler	60% Credit for Materials & No Credit for Hauling
Non-DBE Manufacturer & DBE Hauler	No Credit for Materials & 100% Credit for Hauling

TRAINING SPECIAL PROVISIONS

This Training Special Provision supplements subparagraph 7e of the Contract Provision entitled "Standard Federal Equal Opportunity Construction Contract Specification (Executive Order 11246)" and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under this contract will be as follows:

<u>No. of Trainees</u>
<u>3</u>

Trainees may be utilized in any group of work included in the contract. Payment will be made under the bid item "Training".

In the event the contractor subcontracts a portion of the contract work, they shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to Department of Roads' Highway Civil Rights Office (EEO Section) for approval, the names of trainees to be trained in each classification and the training program to be used. The contractor also must submit the names and classifications of the trainees to the Project Manager. Furthermore, the contractor shall specify the starting time for each trainee. The contractor will be credited for each approved trainee employed by them on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter. The EEO Section may be contacted at (402) 479-4514 for answers to questions or assistance.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority and women trainees (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that have been taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeymen status or in which they have been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Department of Roads and the Federal Highway Administration. The Department of Roads and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the Department of Roads prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., if the selected training program includes these classifications and the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the F.H.W.A. Division Office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where they do one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin their training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in this work classification or until they have completed their training program. It is not required that all trainees be on board for the entire length of the contract. Contractors will have fulfilled their responsibilities under this Training Special Provision if they have provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program they will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor will provide for the maintenance of records and furnish periodic reports documenting their performance under this Training Special Provision.

Payment will not be made to the contractor under the item of "Training" for hours of training which were provided prior to the Engineer's approval of the contractor's selected training program by the Department of Roads.

Payment will be made for the item "Training" in accordance with the foregoing provisions. The number of hours included for payment shall be the actual hours of training which was satisfactorily completed.

Payment will be made on estimates based on a summary of the training provided by the contractor and subcontractors, prepared and submitted by the contractor to the engineer. The summary must list each trainee by name, sex, social security number, race, or national origin, work classification, wage rate paid, hours trained during month covered by summary, and total hours of training under this contract. The payroll records which are submitted to the engineer must contain sufficient information (except trainee's race or national origin) for verification of the information shown on the summary.

The established unit price for the item "Training" shall be full compensation for all costs incurred, which includes but is not limited to providing the necessary supervision, labor, equipment, tools and material. Any additional costs due to payment of wages in excess of the minimum rates specified and for the payment of any fringe benefits shall not be paid for directly but shall be considered subsidiary to the items for which direct payment is made.

AMENDMENT TO CONSTRUCTION TRAINING REPORT REQUIREMENTS

The last sentence under Paragraph C. on Page 5 of the Standard Federal Equal Employment Opportunity Construction Contract Specifications dated November 3, 1980 is void. FHWA Form 1409 "Federal-aid Highway Construction Contractor's Semi-Annual Training Report" is not required.

CERTIFICATION FOR FEDERAL-AID CONTRACTS (S1-11-0801)

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

STATUS OF UTILITIES

The following information is current as of April 14, 2003.

Utility facilities, aerial and/or underground may exist within this project. The contractor should request a utility status update at the project preconstruction conference, and/or prior to starting work.

Any utility adjustments or interruption of service for the convenience of the Contractor shall be the sole responsibility of the Contractor.

To arrange for utilities to locate and flag their underground facilities, contact The Diggers Hotline of Nebraska at 1-800-331-5666.

The following utilities have facilities within the project area, and have been provided project plans.

City of Lexington Electrical Utility: Existing facilities are in the project area. Rehabilitation will be executed prior to or concurrent with project construction.

Quest: Existing facilities are in the project area. Rehabilitation will be executed prior to or concurrent with project construction.

Charter Communications: Existing facilities are in the project area. Rehabilitation will be executed prior to or concurrent with project construction.

Kinder-Morgan: Existing facilities are in the project area. Rehabilitation will be executed prior to or concurrent with project construction.

City of Lexington Water and Sewer: Existing facilities are in the project area. Relocations will be made as part of the project construction.

All utility rehabilitation will be accomplished prior to or concurrent with construction.

STATUS OF RIGHT-OF-WAY (S1-16-0801)

According to the best information available, all necessary right-of-way has been 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 (Phasing)

It is the intent of this contract that Adams Street shall be completed (Phases 1, 1A, 1B, 2 and 3) and open to traffic on or about November 6, 2004, with Phase 4 construction following.

The Contractor shall phase the construction according to the phasing sequences depicted in the plans and according to these requirements:

1. Two-lane two-way traffic will be maintained on Highway N-21 throughout the construction of this project on either (1) Adams Street north of Highway US-30 or (2) on the newly constructed Ontario Street, 8th Street and Adams Street north of 8th Street. Traffic will be maintained on Adams Street from 8th to 9th Streets during all construction phases.

2. When constructing Phases 1A and 1B, the Contractor will be required to provide temporary connections between the existing Adams Street drainage system south of 8th Street and the newly constructed drainage systems between 8th and 9th Streets. These temporary connections shall be considered subsidiary to other items of work.

3. Ontario Street and 8th Street may be closed to all but local traffic during Phase 1 construction.

4. Traffic on Highway US-30 will be maintained throughout construction with two-lane two-way traffic as a minimum. Reconstruction of the transition to the divided section and reconstruction of islands at Ontario Street shall be completed and Highway N-21 traffic shifted to Ontario and 8th Streets prior to beginning the reconstruction of islands at Adams/Johnson Streets.

5. The Contractor shall place the permanent pavement marking on Highway US-30, Ontario Street, 8th Street and Adams Street, 8th to 9th Streets, prior to shifting Highway N-21 traffic onto these facilities.

6. Adams Street, from the south end of the project to 8th Street may be closed to all but local traffic with the following exceptions:

- a. Work may begin on Adams Street south of Highway US-30 at the Contractor's discretion.
- b. Work on Adams Street, from Highway US-30 to 8th Street, shall not commence until Highway N-21 traffic has been shifted to Ontario and 8th Streets.

7. Elm Street, Ivan Street, 6th Street and 7th Street may be closed to all but local traffic.

8. Madison Street shall remain open to traffic throughout the construction of Phases 1, 1A, 1B, 2 and 3. All work shall be completed on these phases and Adams Street shall be open to traffic prior to commencing work on Phase 4, unless otherwise approved by the Engineer.

SPECIAL PROSECUTION AND PROGRESS (Highway US-30 Closure for Bridge Work)

The Contractor may close Highway US-30 during daylight hours only to set girders in Span No. 5 and close the roadway in part for placing forms and, if necessary, stripping forms for the deck. Closure of Highway US-30 shall be coordinated with the District 6 office of the NDOR at North Platte, (308) 535-8031.

UNION PACIFIC RAILROAD COMPANY

WORK TO BE PERFORMED BY THE RAILROAD COMPANY

The Union Pacific Railroad 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 Industry & Public Projects, Mr. Jack Dobrinska or other duly authorized representative of the Union Pacific Railroad 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 1-800-336-9193 (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 224.73 (viaduct), 224.48 (pedestrian overpass) 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 Industry & Public Projects, Mr. Jack Dobrinska 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 Industry & Public Projects, Mr. Jack Dobrinska 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 Industry & Public Projects, Mr. Jack Dobrinska 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: Union Pacific Railroad Company

Railroad Contact: Jack Dobrinska

Title: Manager Industry & Public Projects

Address: 1416 Dodge St., Room 940

Telephone Number: (402) 271-2029

Project Number: STPN-TMT-6555(1)

Project Location: Lexington Viaduct

Type of Project: New viaduct and pedestrian overpass structure

No. of trains/day: Total: 122

Freight or Coal: 122 Speed: 70 mph Passenger 0 Speed _____ mph

No. of Tracks: Mainline 3 Branchline 4 (pass/leads)

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 2 816895D (viaduct)
816896K (pedestrian overpass)

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 Cross-over track to be removed by UPRR (on Adams Street/
viaduct structure)

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.

<u>Group</u>	<u>Approximate Percent of Work Within 50 feet (15.25 meters) of Nearest Track</u>	<u>Approximate Percent of Work on RR/ROW Not Within 50 feet (15.25 meters) of Nearest Track</u>	<u>Description of Work</u>
<u>6A</u>	<u>34 %</u>	<u>28 %</u>	<u>Bridge</u>
<u>6B/6C</u>	<u>95 %</u>	<u>5 %</u>	<u>Pedestrian Bridge</u>
Pedestrian Bridge			

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:

$$FCA = QFD \text{ where}$$

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).

$$D = P - 1.10P(b), \text{ but not less than zero.}$$

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

$$D = P - .90P(b), \text{ but not greater than zero.}$$

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.

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.

FOUNDATION COURSE

The Contractor may approach the State after the award of the contract with a proposal to use other Contractor furnished foundation courses in lieu of the proposed type and/or quantities shown in the plans. Any changes made as result of this proposal shall be handled by change order.

AGGREGATE FOUNDATION COURSE-D

Amend Section 307 of the Standard Specifications to include Aggregate Foundation Course-D. This specification applies to all depths of Aggregate Foundation Course-D shown on the plans.

1. Material Requirements
 - a. Foundation Course-D shall consist of mineral aggregate.
 - b. Aggregate shall conform to the quality requirements of Subsection 1033.02, Paragraphs 1., 2., and 9.
 - c. At least 14 days before beginning foundation course production, the Contractor shall submit a proposed mix design along with a 90 pound sample of each aggregate to the NDR Materials and Research laboratory for approval. The mix design will:
 1. Result in an aggregate mix that meets the gradation requirements of Table 1.
 2. Propose single defined values for the percentage passing each sieve on the gradations of Table 1.
 3. Include the average aggregate(s) gradations used to calculate the mix design.
 4. Create a fine aggregate angularity value of 43.0 or greater according to AASHTO T 304 Method A.
 - d. The NDR Materials and Research laboratory will determine the specific moisture-density values for the proposed foundation course design.

Table 1

Aggregate Foundation Course-D Gradation Requirements		
Sieve Size	Target Value (Percent Passing)	Tolerance
½ in	100	0
3/8 in.	100	-4
No. 4	93	±4
No. 10	60	±4
No. 30	28	±3
No. 40	20	±3
No. 200	3	±3

2. Construction Methods

- a. The Contractor shall place, compact and profile the foundation course as shown in the plans.
- b. The foundation course shall be spread in a uniform layer and compacted to at least 100 percent of the maximum density as determined by NDR T 99.
- c. After compaction the foundation course shall be trimmed such that the thickness will not vary from the plan thickness by more than ½ inch.

3. Method of Measurement

Aggregate Foundation Course-D shall be measured as prescribed in Paragraph 3 of Subsection 307.04.

4. Basis of Payment

Aggregate Foundation Course-D measured as provided herein shall be paid for at the contract unit price per square yard for the item, "Aggregate Foundation Course-D _____". This price shall be full compensation for all material, equipment, labor, tools and incidentals necessary to complete the work.

SELECT GRANULAR BACKFILL

Although not shown on the plans, it may be advantageous for the Contractor to place either bituminous millings or crushed concrete foundation course on top of the granular backfill for ease of Contractor work and added stability for the Dowel Bar Baskets.

If the Contractor chooses to use either the bituminous millings or crushed concrete, all work, materials and incidentals necessary to complete this work shall be considered subsidiary to the item "Select Granular Backfill."

ROADWAY LIGHTING

Paragraph 2. of Subsection 415.02 in the Standard Specifications is void and superseded by the following:

2. Lamps provided shall be as shown in the plans.

Paragraph 7 of Subsection 1073.02 in the Standard Specifications and Supplemental Specifications is amended to include the following:

1. Conventional Roadway Luminaires

A. Housing

Luminaire housing shall be "cobra-head" style, of pressure die-cast aluminum, Large Housing Series. The casting shall be sound, complete, with smooth edges and free of flash. The lower portion of the housing shall be hinged for easy access.

The optical compartment shall be effectively sealed and filtered using a dacron polyester filter. The seal/filter combination shall be provided between the reflector and lens and between the socket assembly and reflector. The seal/filter combination shall be under compression when the assembly is in operating position. Seal/filter combination shall be of heat resisting material selected to last the functional life of the unit, but shall be easily replaceable should they become damaged. The optical compartment door shall be secured in position with a positive latch mechanism. The hinge arrangement shall be designed to prevent accidental disengagement when it is in the open position.

Finish shall be a gray Polyester Powder Coat or an electrodeposited epoxidized acrylic paint coat capable of successfully withstanding 1,000 hours of salt spray test per ASTM B 117.

Attachment hardware used to secure components to the aluminum housing shall be organically coated. Stainless steel or galvanized hardware is not allowed.

Housing must be legibly and durably marked with the lamp size, using ANSI NEMA lamp identification label.

B. Slipfitter

The slipfitter shall accept 1 1/4 inch to 2 inch (32 mm to 50 mm) pipe.

C. Reflector

The reflector shall be hydroformed aluminum with an approved aluminum oxide or silica coating bonded to the inside and outside surfaces.

D. Socket

The socket shall be a mogul base porcelain.

E. Lens

The lens shall be made of clear tempered flat glass, heat resistant and free from imperfections.

F. Terminal Block

A terminal block will be required.

G. Ballast

The ballast shall be of the magnetic regulator type for the high pressure sodium lamp size as indicated in the plans.

Ballast shall be dual volt 120/240 or multi tap, ballast to be factory wired to 240 volt.

The ballast and starting aid shall not incur significant life reduction should the lamp continue in open or shorted circuit condition for a six-month period.

Regulation and Operation:

At nominal line voltage and nominal lamp voltage, the ballast design center will not vary more than 5% from rated lamp wattage. Lamp wattage variation shall not exceed 10% for a $\pm 10\%$ line voltage variation.

The ballast/lamp combination must provide reliable starting to -40 degrees F (-40 degrees C).

Ballast starting current must not exceed normal operating current.

Power factor must be rated above 90% through all operational modes.

H. Photometric and Performance Requirement

The luminaire shall have "cutoff" control characteristics as follows: Candela per 1000 lumens shall not exceed 100 (10%) at a vertical angle of 80 degrees above nadir, and 25 (2.5%) at an angle of 90 degrees above nadir horizontal.

The luminaries, with lamp size and lumens as specified in the plans and installed in accordance with the following parameters, shall provide an average maintained horizontal illumination level of 1.2 FC with an average to minimum uniformity ratio not exceeding 3.5:1. The maximum to minimum uniformity ratio shall not exceed 7.0:1. Any adjustments to the luminaire's optical system needed to provide a light distribution meeting the preceding requirements shall be made at the factory prior to shipment.

Parameters used; roadway width 32 feet, pole spacing 150 feet, mounting height 40 feet, pole setback varies, mastarm length varies, maintenance factor .81, pole layout staggered.

I. Substitutions and Variations

No substitutions or variations of the above will be allowed.

J. Approval Requirements

In addition to the requirements for approval of the roadway lighting luminaires outlined in Subsection 1073.02, the contractor may be asked to supply IES formatted photometrics on a 1.44 MB computer disk for each type of luminaire he/she proposes to furnish for the project. The disk must be IBM compatible.

The contractor shall be prepared, upon request, to furnish a working sample of any luminaire proposed for this project (sample will be returned to the contractor or counted as part of the contract quantity).

The right is reserved to reject any and all proposals. The State of Nebraska will decide all questions which may arise as to the quality or acceptability of the luminaire submitted for approval under this specification.

Manufacturers allowed to submit luminaires for approval are as follows:

Crouse Hinds
General Electric
Hubbell
American Electric

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. Contractor 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)

RELOCATE EXISTING LIGHTING UNIT

The existing lighting units carry a 400 watt luminaire on a 12' mastarm mounted 45' above the roadway. The poles are mounted on a concrete foundation using an anchor base.

The contractor shall relocate the existing lighting units as indicated on the plans. Lighting units to be relocated shall be carefully dismantled, stored and protected from damage until installed at the new location. The primary engineer may designate specific areas for temporary storage of the salvaged material. It will be the contractor's responsibility to protect all material from damage during removal and storage.

The contractor shall remove the concrete pole foundation, including reinforced steel and anchor bolts, to a minimum of 2' below finished grade; backfill the excavation with clean soil and compact the soil to the density requirements of the project. The contractor may, at his option, remove the foundation as an entire unit. Abandon existing unused conduit and cable in place.

The salvaged components shall be installed on a concrete or power foundation at the new location indicated on the plans and connected electrically as shown. The contractor shall provide a new 400 watt HPS lamp. Foundation dimensions shall be as detailed in the plans.

Method of Measurement and Basis of Payment

Lighting units, relocated as indicated in the plans, shall be measured for payment as individual units. Each relocated lighting unit, in place, and accepted by the engineer, shall be paid for at the contract unit price, per each, for the item "Relocate Street Lighting Unit." This price shall be full compensation for the removal, salvage, storage, transportation, excavation, backfilling, preparation and installation of salvaged material on a new foundation, disposal of surplus materials; for the termination and abandonment of existing underground feeders and for all materials, labor, equipment, tools and incidentals necessary to complete the work.

1 ½-INCH CONDUIT IN CURB

Subsection 405.05 in the Standard Specifications is amended to include the following:

Pay Item	Pay Unit
____ Conduit in Curb	Linear Foot (LF)

**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.

**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 $\pm 1"$ (± 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 $\pm 1"$ (± 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.

DOWELED CONCRETE PAVEMENT (S6-20-0203)

Section 603 in the Supplemental Specifications and the Standard Specifications is amended to include Doweled Concrete Pavement.

Transverse Joints for doweled concrete pavement shall be constructed perpendicular to the roadway on 16'-6" (5 meter) centers.

The dowel bars shall meet the requirements of Section 1022.

The dowel bars shall be placed within a tolerance of 1/4 inch (6 mm) in both the horizontal and vertical planes. The Contractor shall check with a suitable template approved by the Engineer, the placement of each assembly and the position of the bars within the assembly. If the assembly is found to be placed outside any one of the tolerances, the placement shall be corrected.

Dowels for transverse joints furnished in approved assemblies shall be suitable for the joint layout shown in the plans. The assemblies shall be dipped in MC-70, RC-70, RC-250, CRS-1, CRS-2, CSS-1H, HFMS-2h, or HFMS-2s prior to delivery to the work site.

For areas with pavement widening, the Department requires that dowel baskets be placed in all contraction joints which are 6 feet (1.8 m) or wider.

When basket assemblies are used, the baskets shall be placed at all transverse joints where doweled concrete is required, and shall be securely pinned to the grade to prevent any movement during the paving operation. Pins shall be placed at a maximum distance of three feet (1 meter) apart and shall be a minimum of 12 inches (300 mm) in length. All lateral support braces, which would restrict movement of the dowel bars, shall be cut after the baskets are secured and prior to placing the concrete.

Assemblies that are damaged prior to placement shall not be used. Assemblies damaged after placement shall be replaced prior to paving.

If normal vibration is found inadequate to thoroughly consolidate the plastic concrete within and around the dowel basket assemblies, additional hand vibration or other procedures may be required by the Engineer.

Precautions shall be taken to assure that the sawed contraction joint is located directly over the center of the dowel bars.

CRACKS IN CONCRETE PAVEMENT (S6-20-0901)

Transverse cracks which form in the concrete pavement panels between load transfer joints shall be secured with a minimum of 1 1/2 inch x 18 inch (38 mm x 450 mm) epoxy coated deformed reinforcing bars as shown in the plans. The reinforcing bars shall conform to the requirements of Sections 1020 and 1021. The dowel bars shall be secured using a resin adhesive listed on NDOR approved products list. No payment will be made for this work.

WATERMAIN, VALVES, HYDRANTS AND APPURTENANCES

3.00 SCOPE - This specification is intended to define and/or establish the required quality standards of the materials furnished and the workmanship performed in connection with the herein specified items of piping, fittings, valves and hydrants with all the required accessories and/or appurtenances.

3.10 GENERAL - The Contractor shall remove paving, as may be required, excavate the trenches and pits to the required dimensions; excavate the bell holes; construct and maintain all bridges for traffic control; sheet, brace and support the adjoining ground or structures where necessary; handle all drainage or groundwater; provide barricades, guards and warning lights; lay and test the pipe, castings, fittings, valves, hydrants and accessories; backfill and consolidate the trenches and pits; restore the roadway surface unless otherwise stipulated; supply required or remove surplus excavated material; and clean the site of the work. The latest revisions of the standard specifications referred to herein prevailing at the time of the bid opening shall prevail.

Although such work is not specifically shown or specified, all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure, complete and compatible installation shall be furnished and installed as part of this work. The drawings show sizes and general arrangements of all pipes and appurtenances. Responsibility for handling and/or cutting exact lengths of the various sizes of pipe for proper make-up rests with the Contractor.

The work shall comply with the current requirements of the American Water Works Association (AWWA) at the time of the Bid opening. Water distribution system installation must comply with State of Nebraska Department of Health and Human Services Standards.

3.20 MATERIALS

3.21 WATERMAIN MATERIAL

3.21a DUCTILE IRON PIPE - All mechanical joint, push-on, or restrained ductile iron pipe (D.I.P.) shall be a pressure Class 350 meeting AWWA Standard Specifications C-150 and C-151. All ductile iron pipes shall have a standard thickness cement lining conforming to the requirements of AWWA Standard Specification C-104. Provide an exterior coating of bituminous material approximately one mil thick except for exposed pipe scheduled to be painted.

All joints shall be either push-on type with single vulcanized rubber gaskets or mechanical (gland type), unless otherwise specified, meeting AWWA Standard Specification C-111. Vulcanized rubber gaskets shall be visually free of defects and areas of foreign materials. When indicated, flanged joints shall be cement lined and shall conform to AWWA Standard Specification C-115. Gaskets shall be 1/8 inch thick.

Polyethylene Encasement for gray and ductile cast iron piping shall be furnished and installed according to AWWA C105, Methods A or B. Repair all rips, punctures or other damage to the polyethylene with adhesive tape or short length of polyethylene tube cut open wrapped around the pipe and secured in place. All fittings and valves shall also be covered and wrapped in accordance with manufacturer's instructions.

3.22 FITTINGS – All 12 inch fittings and valves shall be restrained. Fittings shall be mechanical joint conforming to AWWA Standard Specification C-153, C-104 and C-111. Fittings shall be formed from ductile iron and rated for 350 psi working pressure. Caps, plugs and miscellaneous fitting shall be provided conforming to AWWA Standard Specification C-110. Bolts and nuts shall be carbon an alloy steel conforming to ASTM A194.

Provide polyethylene encasement on all watermain fittings and valves in full compliance with AWWA C-105.

3.23 FIRE HYDRANTS - Hydrants furnished shall conform to the requirements of the AWWA Standard Specification C-502. Hydrants shall open to the left (counter-clockwise) unless otherwise specified. Hydrants shall be designed to operate under 150 psi (10.5 kg/sq. cm) working pressure and tested at 300 psi (21.0 kg/sq. cm).

All water passages shall be of such form and size as to permit the full flow of water without undue loss by friction. Hydrants must have a positive drain, which will allow the water to escape readily from the standpipe when the hydrant valve is closed, but said drain opening must be closed as soon as the hydrant valve is partially opened. The valve stem and valve shall be removed without the necessity of exposure of the hydrant by excavation. Hydrants shall be suitable for the depth of the trench. Bury Depth of fire hydrants shall be 5 1/2 feet unless otherwise specified. All hydrants shall have a 5 1/4 inch (13.3 cm) valve opening, two 2 1/2 inch (6.3 cm) hose nozzles and one 4 1/2 inch (11.4 cm) steamer nozzle with the National Standard hose coupling thread, 6 inch (15.2 cm) mechanical joint inlet, and shall be Mueller Cat. No. A423 or approved equal. The size of the hydrant shall be determined by the size of the valve opening only. Therefore, if bids are asked on a 5 inch (12.7 cm) hydrant, only hydrants with a 5 inch (12.7 cm) or greater valve opening will be considered.

3.24 VALVES - Valves shall be furnished as follows:

- (1) Valves 12 in. diameter and smaller to be gate valves.
- (2) Valves 14 in. diameter and larger to be butterfly valves.
- (3) End connections as shown or drawings which are compatible with connection joint.
- (4) Shop drawing indicating valve pressure, flange rating valve body material valve trim, operator, internal lining material, dimensions, class, flow coefficients, etc.
- (5) Handwheels for all exposed piping, valves with arrow and "OPEN" work casting impression.

Valves shall be installed according to manufacturer's directions. Valves shall be supported in such a way to minimize bending of the end connections. Operating wrench shall be able to free operating valve.

3.24a GATE VALVES - Valves shall be resilient seat valves and shall comply with the requirements of the AWWA Standard Specification C-509.

Valves shall have hub ends to fit the pipe for which they are to be used. An adjustable valve box of sufficient length for the depth of trench shall be furnished complete. All gate valves shall have a clear waterway of the full diameter of the valve and shall be opened by turning to the left. The operating nut shall have cast thereon an arrow indicating the direction of the opening. Each valve shall be designed for a maximum working pressure of 200 psi (14 kg/sq. cm). Prior to shipment from the factory, each valve shall be tested by hydraulic pressure equal to twice the working pressure. Unless otherwise specified, valves shall be resilient seat non-rising stem. Valves shall have "O" Ring packing and a 2 inch (5.1 cm) operating nut. Valve disc and entire

inside of valve body shall be coated with two part thermosetting epoxy coating, complying to AWWA C550.

3.24b BUTTERFLY VALVES - Valves shall comply to AWWA Standard Specification C-504, Rubber Sealed Butterfly Valves. Direct burial valves shall be minimum Class 150B with body construction conforming to ASTM A126 Class B or ASTM A536, Grade 65-45-12 ductile iron. Stainless Steel Shafts of 18-8 Type 304 or 316.

Unless specifically scheduled or noted, furnish valve discs for potable water and similar applications. Use ASTM A48, Class 40 Cast Iron; ASTM A526, Grade 65-45-12 ductile iron; ASTM A436, Type 1 alloy cast iron or bronze in accordance with AWWA C504.

Design valve seats to be fully compatible with valve body in accordance with valve class in accordance with AWWA C504. Unless specifically scheduled or noted otherwise, furnish valve seats for potable water applications. Use synthetic rubber seat material in compliance with AWWA C504. For valves 30 in. and larger, furnish mating metal seat surface constructed of stainless steel ASTM A276, 18-8 material.

Provide valve bearings and shaft seals in full compliance to AWWA C504. Buried Valve Operators to have a square operating nut.

Furnish types of protective coatings in accordance with AWWA C504 for intended applications of service.

3.24c VALVE BOXES - Valve boxes shall be constructed of cast iron or metal with a 3/16 inch (0.05 cm) minimum thickness at any point. The cover shall have cast thereon the word "water". Two piece, Buffalo Type valve boxes shall be equivalent to Mueller screw type H-10360. Valve boxes shall be screw type size 666-S or approved equal.

3.25 TAPPING TEES, CROSSES AND VALVES - Tapping tees and/or crosses equal to Smith-Blair 622, Mueller H-615 or Clow F-5205, F-5217 shall be furnished and installed as required by the drawings. Valves shall be equal to Clow F-6114. Valve boxes shall be as previously specified.

3.26 COUPLINGS - Compression Sleeve Coupling. Furnish and install flexible compression-sleeve type coupling. Incorporate units conforming to following criteria.

- (1) Use compression sleeve couplings equal to Ford Style FC 1-ESH.
- (2) Provide sleeves constructed of carbon steel having a minimum yield of 30,000 psi. Insure ends are smooth inside tapered for uniform gasket seating.
- (3) Provide followers made of malleable iron ASTM A47 Grade 35018 or 32510 or Ductile Iron ASTM A536.
- (4) Provide gaskets of special compounded natural or GRS rubber with no reclaimed materials and with good resistance ratings for service intended.
- (5) Install stainless steel nuts and bolts.
- (6) Finish cast parts with epoxy coating finish coating.

Install coupling to allow space of not less than 1/4 inch but not more than 1 inch.

3.27 WATER SERVICES

3.27a POLYETHYLENE PLASTIC TUBING - Polyethylene plastic tubing shall conform to the applicable requirement of ASTM D2229, PE 3408, Class 200, SDR of 9 or lower with OD's of copper tubing. Stainless steel inserts shall be used with all fittings and P.E. tubing.

3.27b CORPORATION STOPS - Corporation stops shall comply with AWWA Standard Specification C-800. Corporation stops shall have AWWA taper or Mueller thread on the inlet end, with copper service couplings for connections to the service lines. The corporation stops shall be Mueller H-15008 and eighth bends shall be Mueller H-15010 110 compression connection, or approved equal. All connections to the main shall be electrically insulated by means of approved insulating fitting if specified. Teflon tape shall be used on corporation stop threads when installed.

3.27c TAPPING SADDLES - Tapping saddles shall be brass single or double strap saddles with threads compatible with corporation stops. Saddles will be Clow 3408, or approved equal with maximum working pressure rating of 250 psi. Saddles shall be used on P.V.C. pipe.

3.27d CURB STOPS AND BOXES - Service stops shall comply with AWWA Standard Specification C-800. The stops shall be equal to Mueller Oriseal 110 conductive compression connection B-25209 or H-15209 or approved equal.

Service boxes shall be of cast iron with arch pattern base; extension service boxes of the required length and having either screw or slide type adjustment, shall be installed at all service box locations. The boxes shall have housing of sufficient size to completely cover the service stop and shall be complete with identifying covers.

The box shall be equal to Mueller H-10316 for service sizes to 1" and H-10336 for services larger than 1" up to 2" or approved equal. The box shall rest on a cast iron foot piece, brick or other solid support and contain stationary rods.

3.30 CONSTRUCTION METHODS - Pipeline shall be constructed in a trench which allows 6 foot (1.83 m) minimum cover or as indicated on the drawings, between the top of the pipe and finished grade. At ditch crossings there shall be 5 foot (1.53 m) of cover at the flow line of the ditch. The size of pipe to be installed shall be indicated on the drawings.

Pipe, fittings, valves and accessories shall be handled in such a manner to insure installation of materials in a sound and undamaged condition, and will conform in all respects to specified requirements. Particular care shall be taken not to injure the pipe coating and lining of C.I. and D.I. pipe.

Equipment, tools and methods used in unloading, reloading, hauling and laying pipe and fittings shall be such that no damage is done thereto or to lining therein. Hooks used for insertion in ends of pipe shall have broad, well padded contact surfaces and shall be of such design and length that they will provide uniform support for a distance back from the end of the pipe of not less than one-third of the internal pipe diameter.

Cement lining in pipe or fittings which is broken or loosened in unloading or subsequent handling shall be sufficient cause for rejection of the pipe or fittings containing such damaged and loosened lining. Although defective linings may be repaired by and at the expense of the Contractor who may employ the pipe manufacturer to make such repairs, all repairs shall be made under the direct supervision of a representative of the pipe manufacturer.

All pipe or coating which is damaged shall be removed from the site at the Contractor's expense.

3.31 EXCAVATION, TRENCHING, BEDDING AND BACKFILLING - Excavation, trenching, bedding and backfilling shall conform to Section 702 of the Standard Specifications.

WATERMAIN EXCAVATION – Fuel spill/remediation sites are known to exist from Station 19+00 to 25+00. The Nebraska Department of Environmental Quality (NDEQ) indicates the guidelines for petroleum contaminated soils published October 1993 should be followed to determine if soils will be removed from the site or if the soils may be used as part of the project.

Since the results appear to indicate the possible contaminant is diesel, the guidance document indicates the preliminary action level for the soil will be 50 relative response units (rru). Soils in these areas will be screened in the field with a photoionization detector by the Engineers. Soils exhibiting readings of 50 rru or higher will be removed from the excavation and hauled to the Lexington Area Landfill. The charge to dispose of the soil at the landfill will be approximately \$18 per ton at the gate. All requirements of the NDEQ as described in the October 1993 guidance document shall be followed. Attachment B from the NDEQ described document is attached. The Contractor shall complete this form and a signature will be obtained from a landfill representative prior to or at the time of disposal.

Soils that exhibit readings of 49 rru or lower may be used as backfill, or may be used in the same manner as other soils stockpiled, stored, used, or compacted at the site. The Contractor shall maintain records regarding the screening of soils including date, time, number of tests, the results, the brand and model of the photoionization detector, and the name of the individual taking the readings. The Contractor shall document the quantity of soil removed from the site and disposed at the landfill. These records will be submitted to the Engineer within five (5) working days of completion of excavation.

Measurement and Payment:

Removal of the contaminated soil will be measured and paid for by the cubic yard for the item "Removal of Unsuitable Material."

Disposal of contaminated soil will be charged by the Ton disposed at the Lexington Area Landfill. Loads will be weighed at the landfill and one set of scale tickets will be provided to the Engineer. Payment for the removal of unsuitable material shall include cost of disposal, hauling contaminated solid to landfill and providing and hauling soil for back fill to the pier or piers.

WAS006

12/1998

Attachment B - Petroleum Contaminated Soils Protocol

Return to: Nebraska Department of Environmental
Quality
Integrated Waste Management Section
P.O. Box 98922
Lincoln, NE 68509-8922
Telephone: (402) 471-4210, **Fax:** (402) 471-2909

**ATTACHMENT B**

Nebraska Department of Environmental Quality
Integrated Waste Management Section

**PETROLEUM CONTAMINATED SOIL DISPOSAL AND TREATMENT
FORM**

Facility Name:	Spill or Facility ID #:
Owner/Operator Name:	Location of Release:
Mailing Address:	County Where Release Occurred:
City, State, Zip:	Contractor Name:
Phone:	Contractor Phone:
Contractor Fax:	
Name and Telephone Number of Person Completing Attachment B If Other Than Owner, Operator, or Consultant:	
Name:	Phone:

If this portion of the form is not completed and sufficient information has not been provided to the Department, the request may be denied.

Product(s) stored in tank(s) or product released: _____

Date tank(s) were removed or date of the release: _____

Type of analysis: (circle one) Field screening Laboratory

Will the soil be used as backfill in a tank excavation? (circle one) Yes No

If the soil is to be landfilled or land applied, complete the appropriate section on the back of this form. If another alternative will be proposed, Attachment C must be completed and submitted to the Department.

Soil Sample			Soil Sample			Tank No.		Tank No.	
Sample	Test Results	Depth	Test Results	Depth	Test Results	Depth	Test Results	Depth	Test Results

For additional information on lines or tanks, see the last page

FIELD INSTRUMENT INFORMATION:	
Type:	Lamp Type:
Manufacturer:	Span Setting:
Calibration Standard:	Detection Limit:

LABORATORY ANALYSIS INFORMATION: INCLUDE A COPY OF THE LAB SHEET.

LANDFILL INFORMATION: Complete this section only if the contaminated soil will be disposed in a landfill.				
Landfill Name		Location:		
Amount of Soil:				
Signature of Landfill Personnel:		Title:	Date:	
Is landfill approved to accept special waste: (circle one)	Yes	No	Partial Approval	

LAND APPLICATION: Complete this section only if the contaminated soil will be land applied. All one-time land application sites shall meet the characteristics described in Chapter 12, 007 of the soil protocol.	
1	Size of area where soil will be spread
2	Legal Description: County:
3	Distance (in feet) to nearest inhabited residence, business or facilities/lands frequented by the public
4	Distance to nearest manmade or natural structure which may collect vapors
5	Distance to nearest drinking well (domestic, municipal, etc.)
6	Distance to nearest surface water (pond, lake, stream, etc)
7	Is the site located in a wetlands? (circle one) YES or NO
8	Distance between the ground surface and the water table
9	Major soil type(s) between surface and groundwater
10	Slope of area
11	Amount of soil

BY SIGNING, I CERTIFY THAT I HAVE READ THE PETROLEUM CONTAMINATED SOILS PROTOCOL FOR THE LEAKING UNDERGROUND STORAGE TANK PROGRAM AND ATTEST THAT ALL THE REQUIREMENTS WILL BE MET AND THAT ALL THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF MY KNOWLEDGE.

Signature (owner/operator):	
Or	Date
Signature (authorized person):	
	Date

ADDITIONAL TANK, LINE, SPILL, OR OTHER RELEASE INFORMATION

Sample	Soil Sample		Soil Sample		Tank No.		Tank No.	
	Test Results	Depth	Test Results	Depth	Test Results	Depth	Test Results	Depth

3.32 WATERMAIN INSTALLATION

3.32a LOWERING OF WATERMAIN MATERIAL INTO TRENCH - Proper implements, tools and facilities satisfactory to the Engineer shall be provided and used by the Contractor for the safe and convenient performance of the work. All pipe, fittings, valves and hydrants shall be carefully lowered into the trench piece- by-piece by means of a derrick, ropes or other suitable tools or equipment, in such a manner as to prevent damage to watermain materials and protective coatings and linings. Under no circumstances shall watermain materials be dropped or dumped into the trench.

If damage occurs to any pipe, fittings, valves, hydrants or watermain accessories in handling, the damage shall be immediately brought to the attention of the Engineer. The Engineer shall prescribe corrective repairs or rejection of damaged items.

3.32b INSPECTION BEFORE INSTALLATION - All pipe and fittings shall be carefully examined for cracks and other defects while suspended above the trench immediately before installation into final position. Spigot ends shall be examined as this area is most vulnerable to damage from handling. Defective pipe or fittings shall be laid aside for inspection by the Engineer, who will prescribe corrective repairs or rejection.

3.32c CLEANING OF PIPE AND FITTINGS - All lumps, blisters and excess coating shall be removed from the bell and spigot end of each pipe, and the outside of the spigot and the inside of the bell shall be wire brushed and wiped clean, dry, and free from oil and grease before the pipe is laid. Dirt and any other foreign material must be removed from barrel of pipe before laying.

3.32d PLACEMENT OF PIPE - Every precaution shall be taken to prevent foreign material from entering the pipe while it is being placed in the line. The Engineer shall require a heavy, tightly woven canvas bag of suitable size to be placed over each end of the pipe section if placement is hampered by the entrance of soil into the pipe barrel. Canvas bags shall be removed at the time of connection to adjacent pipe. During laying operations, no debris, tools, clothing or other materials shall be placed in the pipe.

Pipe lines or runs intended to be straight shall be so laid. Deflections from a straight line or grade, made necessary by vertical curves or horizontal curves or offsets, shall not exceed the amount of deflection recommended by the pipe manufacturer. If an obstruction is encountered, the watermain shall be lowered with fitting, if the grade change is in excess of 2 vertical feet. Such work shall be paid for at the unit price of fitting. A grade change of less than 2 vertical feet shall be corrected by installing pipes at uniform grades with high and low areas located at fire hydrant locations.

If the specified or required alignment requires deflections in excess of those stipulated above, the Contractor shall provide either special bends as approved by the Engineer, or pipes in shorter lengths; in such length and number, that the angular deflections at any joint, as represented by the specified maximum deflections, are not exceeded.

As each length of pipe is placed in the trench, the spigot end shall be centered in the bell and the pipe forced into place with a slow steady pressure without jerky or jolting movements and brought to correct line and grade. The pipe shall be secured into place with approved backfill material tamped under it except at the bells. Precautions shall be taken to prevent dirt from entering the joint space. No wooden blocking shall be left at any point under the pipeline.

At times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means approved by the Engineer.

3.32e CUTTING OF PIPE - The cutting of pipe for fittings and closure pieces shall be done in a neat and workmanlike manner without damage to the pipe or cement lining to leave a smooth end at right angles to the horizontal axis of the pipe. The cutting method used shall be approved by the Engineer prior to any cuts.

3.32f BELL ENDS TO FACE DIRECTION OF LAYING - Pipe shall be laid with the bell ends facing in the direction of laying, unless directed otherwise by the Engineer. Where pipe is laid on a grade of 10% or greater, the laying shall start at the bottom and shall proceed upward with the bell ends of the pipe upgrade.

3.32g UNSUITABLE CONDITIONS FOR LAYING PIPE - No pipe shall be laid when, in the opinion of the Engineer, trench conditions are unsuitable. Under no circumstances shall the pipe be laid in water. The Contractor shall furnish all necessary equipment, labor and materials for pumping or otherwise removing any water that may enter or accumulate in the trenches or other excavations and keep them free from water until work is constructed and set for sufficient time so water will not damage work in any way.

3.32h BRIDGING OF PIPE - Concrete bridging may be required by the Engineer under certain conditions. The Engineer shall determine the size and location of concrete bridging to avoid settlement of pipe being installed or settlement of existing underground utility pipes. This condition shall also apply to other underground utilities being installed over existing watermains. In certain instances, the Engineer may require the complete encasement of watermains by concrete. The size and location of these encasements shall be determined by the Engineer.

3.32i INSULATION BETWEEN DIFFERENT METALLIC PIPE MATERIALS - Wherever it is necessary to join cast iron pipe with pipe or fittings of dissimilar metal, a method of insulating against the passage of electric current shall be provided and shall be approved by the Engineer.

3.34 GENERAL REQUIREMENTS OF PIPE JOINTING - The requirements already set forth shall apply in addition to installation of joints in accordance with the pipe manufacturer recommendations approved by the Engineer.

3.34a. MECHANICAL JOINTS - The general requirements already set forth shall apply except that, where the terms "bell" and "spigot" are used, they shall be considered to refer to the bell and spigot ends of the lengths of mechanical joint pipe. The last eight inches (20.3 cm) outside of the spigot and inside of the bell of mechanical joint pipe shall be thoroughly cleaned to remove oil, grit, excess coating and other foreign matter from the joint. The cast iron gland shall then be slipped on the spigot end of the pipe with the lip extension of the gland toward the socket, or bell end. The rubber gasket shall be placed on the spigot end with the thick edge toward the gland. Broken glands shall be replaced by the Contractor at his expense.

The entire section of the pipe shall be pushed forward to seat the spigot end in the bell. The gasket shall then be pressed into place within the bell; care shall be taken to locate the gasket evenly around the entire joint. The cast iron gland shall be moved along the pipe into position for bolting, all of the bolts inserted and the nuts screwed up tightly with the fingers. All nuts shall be tightened with a suitable wrench. Nuts spaced 180 degrees apart shall be tightened alternately in order to produce an equal pressure on all parts of the gland.

3.34b PUSH-ON JOINTS - The general requirements already set forth shall apply except that, where the terms "bell" and "spigot" are there used, they shall be considered to refer to the bell and spigot of the lengths of push-on joint pipe.

There is only one nominal dimension of the spigot outside diameter and the bell inside diameter for each size of push-on joint pipe. Similar dimensions of the caulked-joint bell-and-spigot pipe may vary with the class of pipe for each size in existing lines. Therefore, care should be taken that the outside diameter of the existing line is the same as the outside diameter of the push-on joint pipe being installed, otherwise a special adapter to join the two lines may be necessary.

The inside of the bell and the outside of the spigot end shall be thoroughly cleaned to remove oil, grit, excess coating and other foreign matter. The circular rubber gasket shall be flexed inward and inserted in the gasket recess of the bell. Since different types of pipe take different types of rubber gaskets, it shall be the responsibility of the Contractor to see that the proper type gaskets are installed.

Sufficient lubricant shall be furnished with each order to provide a thin coat on each spigot end. The lubricant shall be non-toxic, shall impart no taste or odor to the conveyed liquid, and shall have no deleterious effect on the rubber pipe or gasket. The lubricant shall be of such consistency that it can be easily applied to the pipe in hot or cold weather and shall adhere to either wet or dry pipe.

The spigot end of the pipe shall be entered into the bell with care used to keep the joint from contacting the ground. The joint shall then be completed by forcing the plain end to the bottom of the bell with a forked tool or jack-type tool or other device approved by the Engineer. Pipe that is not furnished with a depth mark shall be marked before assembly to assure that the spigot end is inserted to the full depth of the joint. Field-cut pipe lengths shall be filed or ground to resemble the spigot end of such pipe as manufactured. Complete assembly instructions are available from the pipe manufacturer. If pipe is pushed home with backhoe bucket, a wooden shield must be placed between the backhoe bucket and the end of the pipe.

3.34c FLANGED JOINTS - Care shall be taken in bolting flanged joints that there is no restraint on the opposite end of the pipe or fittings which would prevent uniform gasket compression or which would cause unnecessary stress in the flange or connection thereof with the pipe or fitting, which shall be free to move in any direction while tightening the flange bolts. No bell and spigot joints shall be permanently placed until all flanged joints affected thereby have been tightened without strain caused by joint restraint in the piping assembly. Bolts shall be tightened gradually and at a uniform rate, in such a manner that uniform gasket compression is obtained over the entire area of the joint. Use hot-dipped zinc galvanized Grade B steel bolts, ASTM A307.

Special care shall be taken, when attaching suction and discharge piping to pumping equipment, that no stresses are transmitted to and imposed on the pump suction and discharge flanges from and by such connected piping through the flange bolts. All such piping shall be so installed and permanently supported that accurate matching of bolt piping and uniform contact over the entire areas of abutting pump and connecting piping flanges is obtained prior to the installation of any bolts in such flanges. In addition, the pump connection piping shall be free to move in a direction parallel to its longitudinal center-line which and while the bolts in the pump connection flanges are tightened.

The pumps shall in each case be leveled, lined, and ledged in place in a position which will fit the connecting piping, but shall not be grouted prior to the initial fitting and alignment in the pipe in order that the pumps may be shifted on their foundation if necessary to properly install the

connecting piping. The pumps shall, however, be grouted prior to final bolting of the connecting piping in accordance with the provisions of the preceding paragraph.

To provide maximum flexibility and easement of alignment correction by taking advantage of the slack between flange bolts and bolt holes for slight angular rotation of connecting flanges, the pump connecting piping should be assembled, with gaskets in place, with only a portion of the flange bolts (not less than 4 per joint) installed, and with bell and spigot joints temporarily placed but not permanently. After final alignment and bolting, the pump connections should be tested for applied piping stresses by loosening the flange bolts which, if the piping is properly installed, should result in no movement of the piping relative to the pump or opening of the pump connection joints.

3.34d RESTRAINED JOINTS - Where specified or indicated upon drawings, install restrained joints of following types:

- (1) Pipe 24 inches and smaller. Use restrained joints made by use of ductile iron retainer glands equal to Clow No. F-1058.
- (2) Pipe 30 inches or larger use restrained joints equal to American Pipe Lok Ring Joint.

Restrained joint piping shall be ductile cast iron. Design joints for working pressure of 250 psi. Insure that samples of restrained push-on joints have successfully been tested to 500 psi by manufacturer without leakage or joint separation in accordance with AWWA C101.

3.35 CONNECTIONS WITH EXISTING PIPE LINES - It shall be the Contractor's responsibility to verify the existence and location of all watermains along the route of this work. The omission from or the inclusion of locations on the drawings is not to be considered as the non-existence of or a definite location of existing utilities. The Contractor shall take the necessary precautions to protect the existing watermains from damage due to this operation, and any damage to or abuse of the water mains encountered shall be repaired by the Contractor at his expense.

Relocation of watermain in conflict with construction operations will be the responsibility of the Contractor in accordance with the details as shown on the drawings. The Contractor shall coordinate all such conflicts with the Owner and the Engineer to insure restoration of line as soon as possible. The Contractor shall furnish, install and remove all necessary valves, fittings, caps, etc. to keep the new and existing watermain in service. The Contractor shall notify the Owner 24 hours prior to disturbance of any service. Watermains not in direct conflict with the sewer pipe cross-section shall be protected by the Contractor until his construction operations are a sufficient distance from such conflict to insure no damage thereto. Watermains not in direct conflict with construction damaged by the Contractor shall be repaired and restored at the Contractors expense.

Where connections are made between new work and existing piping, such connections shall be made in a thorough and workmanlike manner, using suitable and proper fittings to suit the conditions encountered. Each connection with an existing water pipe shall be made at a time and under conditions which will least interfere with water service to customers affected thereby and as authorized by the Owner. Suitable facilities shall be provided for proper dewatering, drainage, and disposal of all water removed from the dewatered lines and excavations, without damage to adjacent property.

3.35a. CONNECTION - A connection to an existing water main that is not under pressure will be made with fitting and compression sleeve couplings. The Contractor shall be responsible for controlling and disposing of the water in the trench, removal of plugs, fittings, thrust blocks, anchors, cutting of existing mains, installation coupling and/or sleeves, etc.

3.35b PRESSURE CONNECTION - A pressure connection shall include all necessary tapping tees, gate valves, and fittings needed to connect to the existing water mains. Pressure connections are to an existing water main that is under pressure. The Contractor shall be responsible for controlling and disposing of the water in the trench. A thrust block will be required.

3.36 RELATION OF WATERMAINS TO SEWERS - Sewers shall be separated from watermains according to "Recommended Standards for Water Works", by the Committee of the Great Lakes-Upper Mississippi River Board of State Public Health and Environmental Manager, 1997 Revised Edition.

3.36a PARALLEL INSTALLATION - Watermains shall be laid at least 10 feet (3.05 m) horizontally from any existing or proposed sewer. The distance shall be measured edge to edge.

3.36b CROSSINGS - Watermains crossing sewers shall be laid to provide a minimum vertical distance of 18 inches (45.7 cm) between the outside of the watermain and the outside of the sewer. This shall be the case where the watermain is either above or below the sewer. At crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible.

3.37 SETTING OF VALVES AND FITTINGS - Valves and fittings installed in trenches shall be located where indicated by the drawings and as directed by the Engineer. Valves, fittings, plugs and caps shall be set and joined to pipe in the manner specified above for cleaning, laying and joining pipe. Fittings will be blocked using only cast-in-place concrete blocks. No wood blocking shall be allowed. All valves installed on P.V.C. pipe shall be installed in accordance with the Standard Blocking Detail.

The valve box shall not transmit shock or stress to the valve and shall be centered and plumb over the wrench nut of the valve, with the box cover flush with the surface of the finished pavement or such other level as may be directed.

3.38 SETTING OF FIRE HYDRANTS - Fire hydrants shall be installed in accordance with the Standard Fire Hydrant Setting Detail. Hydrants are to be set at such an elevation that the connecting pipe and the distributing mains will have the same depth of cover. All hydrants shall stand plumb and shall have their steamer nozzle facing the curb. Around the base of the hydrant 7 cubic feet (0.198 cu. m.) of crushed rock shall be placed so that the hydrant will completely drain when closed. Backfill around the hydrant shall be firmly tamped to the surface of the ground and to a distance of 5 feet (1.52 m) in front of the hydrant. Before placing any hydrant, care shall be taken to see that all foreign material is removed from within the body or barrel. The stuffing boxes shall be tightened and the hydrant or valve opened and closed to see that all parts are in first-class working condition. Hydrants shall be painted two coats of approved paint, color as selected by the Owner, to the ground line and black below ground line.

3.39 INSTALLATION OF BRACING, SUPPORTING AND ANCHORING - Blocking, bracing, anchoring, or other acceptable means for the prevention of movement, shall be installed. All blocking, bracing, supporting and anchoring shall be in accordance with the

Standard Blocking Detail and the Fire Hydrant Detail with the use of concrete of not less than 3,000 psi (211 kg/sq. cm) compressive strength at twenty-eight days.

3.39a ANCHORAGE FOR FIRE HYDRANTS - The bowl of each hydrant shall be well braced against the undisturbed natural earth at the end of the trench with poured concrete anchor behind and a precast block beneath the bowl. The fire hydrant valve shall be tied to the fire hydrant tee with anchor pipe or with two (2) 3/4 inch (1.91 cm) or larger all-thread rods as shown on the Fire Hydrant Detail. If a valve is not included the Contractor shall tie the fire hydrant as directed by the Engineer.

Whenever a fire hydrant is the means of terminating a water main (such as in a cul-de-sac); then tie rods and concrete reverse anchors will be required for both the fire hydrant valve (which in this case is also a line valve on the main) and the fire hydrant lateral of branch feeder pipe connected directly to the fire hydrant. Additional concrete anchors shall be as directed by the Engineer.

3.39b ANCHORAGE FOR PLUGS, CAPS, TEES, TAPS AND BENDS - Plugs, caps, tees and bends shall be provided with a reaction backing in accordance with the Standard Blocking Detail. Reverse concrete anchor and tie backs are acceptable. Blocking shall be placed between solid ground and the fitting to be anchored; the area of bearing on the pipe and on the ground, in each instance, shall be shown or directed by the Engineer. No wood shall be used as a permanent blocking. Temporary wood blocking may be used as directed by the Engineer.

Blocking will be required regardless of whether a tapping tee or tapping saddle is used. Such blocking will in all cases be sized and placed in a manner that will adequately transfer thrust reaction to solid undisturbed ground or the equivalent thereof.

3.39c FORMING FOR CONCRETE THRUST BLOCKS AND ANCHORS - All forming for concrete thrust blocks and anchors will be done by bulkheading around the shape of thrust block or anchor with burlap or reinforced paper sacks which have been filled with sand or earth, or other Engineer approved forming method. Filled sacks used to form concrete blocks will be left in place in the trench and backfill will be placed around and over them in the usual manner. Any bolt head or fittings must be left accessible when pouring concrete about them. If the fitting is to be covered completely upon direction of the Engineer, then the joint must be wrapped with suitable polyethylene.

Minimum curing time for concrete anchors regardless of additives shall be thirty-six (36) hours for anchors containing 2 cubic yards (1.53 cu. m) or less, forty-eight hours for anchors containing more than 2 cubic yards (1.53 cu. m) but less than 6 cubic yards (4.59 cu. m) and seventy-two (72) hours for anchors containing more than 6 cubic yards (4.59 cu. m) but less than 12 cubic yards (9.17 cu. m). Anchors containing more than 12 cubic yards (9.17 cu. m) will be cured as directed by the Engineer. Curing time for anchors having flanged rods or other accessories embedded in them for the purpose of tying pipe and/or fittings directly to the anchor will require approximately 25% additional curing time.

3.40 SERVICE CONNECTIONS

3.41 WATER SERVICES - Water services shall include the lines to, and connections with, the building service at a point approximately at the edge of the right-of-way where such building service exists. Where an existing service to a building does not exist, the Contractor shall terminate the service at approximately the right-of-way at a point designated by the Engineer. All new water services which are not immediately connected shall be plugged with a watertight stopper furnished by the pipe manufacturer. A board of not less than 1 inch x 2 inch

(2.54 x 5.08 cm) in cross-section shall be installed in the backfill vertically above the plugged opening. The top of which shall extend from service line to within 6 inches (15.24 cm) of the finished grade.

Where watermains are located in paved street having curbs, the boxes shall be located directly back of the curbs. Where no curbing exists, service boxes shall be installed in accessible locations, beyond the limits of streets, walks, and driveways. All service stops and gate valves shall be provided with extension service boxes of the lengths required by the depths of service line stops or valves.

Installation shall be in accordance with the Standard Service Connection Detail. Materials for and construction of water service relocation shall be in accordance with the previously specified appurtenances and all material shall be new and furnished by the Contractor. Water services shall remain in service and shall be protected by the Contractor, and shall not be considered as a pay item. All new services unless otherwise shown or specified shall be 3/4 inch in diameter. Service lines shall be laid perpendicular to the line of the main. No service shall be installed between the fire hydrant and the fire hydrant control valve.

The connection to the main for 2 inch (5.1 cm) service lines and smaller in diameter shall consist of a corporation stop and a service stop below the frost line. Where more than one gooseneck connection to the main is required for an individual service, such connection shall be made with standard quality branch connections in conformance with recognized standard practice. The total clear area of the branches shall be at least equal to the clear area of the service which they are to apply.

All new services, relocation and/or restoration of existing water services encountered along the route of the Contractor's work shall be the responsibility of the Contractor at his expense. Existing services are not to be connected to new watermains until disinfection tests have been approved by the Engineer.

The Contractor shall keep an accurate record of the location of all plugged services. On completion of said job the Contractor shall provide a copy of the list to the Engineer.

3.42 SANITARY SEWER SERVICES - The Contractor shall restore and/or relocate all existing sanitary sewer services encountered during his pipe laying operations which are in direct conflict with his operations. Materials for and construction of said services shall be in accordance with General Specifications and be accomplished in a workmanlike manner. The size and material of service to be restored shall be compatible with the service so encountered, and no reduction in size shall be allowed unless so directed by the Engineer. Where marginal clearances are encountered to restore the service to the existing lateral or main, encasement or cradling shall be performed as directed by the Engineer. The Contractor shall furnish all material to complete this item and all materials shall be new. Sanitary sewer services above or below the line of the pipe cross-section shall remain in service and shall be protected by the Contractor, and shall not be considered as a pay item. Damage to any such services not in conflict with construction shall be restored by the Contractor at his expense.

3.50 QUALITY CONTROL TESTING

3.51 DISINFECTION - After favorable performance of pressure test, thoroughly flush the entire potable water piping system with a velocity of not less than 2.5 feet per second. Drain flushed water to location approved by the Owner. Each unit of completed system shall be disinfected with chlorine before acceptance for domestic operation. All disinfection performed shall be accomplished under the supervision of the Engineer. No separate payment will be

made for this item, and all cost in connection therewith shall be included in the contract unit price for the items or structures to which the work pertains.

3.51a METHOD - Disinfection shall be accomplished as described below by the AWWA Standard Specification C-651. The amount of chlorine applied shall be such as to provide a dosage of not less than fifty (50) mg/L. The chlorinating material shall be introduced to the waterlines and distribution system in an approved manner. If possible to do so, the lines shall be thoroughly flushed before introduction of the chlorinating materials. After a contact period of not less than 24 hours, the heavily chlorinated water shall be flushed from the system with clean water until the residual chlorine content is not greater than two-tenths (0.2) mg/L. All valves in the lines being disinfected shall be opened and closed several times during the contact period. All chlorinated compounds shall conform to AWWA Standard Specifications B-300, B-301 and B-302.

3.51b TESTING - After final flushing and before watermain is placed into service, two sets of consecutive water samples, free of chlorine, taken at least 24 hours apart, shall be submitted to the State Department of Health and Human Services Laboratory for the detection of coliform and non-coliform bacteria. The results shall be submitted to the Engineer. If the laboratory analysis shows the water is unsafe to use, (presence of any coliform bacteria) disinfection and analysis shall be repeated until a zero coliform and non-coliform count is obtained.

The Contractor shall collect and test for chlorine concentration prior to flushing and upon termination of flushing. The number of samples required shall be as indicated in AWWA C651 which is as follows:

"Standard Condition After final flushing and before the new water main is connected to the distribution system, two consecutive sets of acceptable samples, taken at least 24 hours apart, shall be collected from the new main. At least one set of samples shall be collected from every 1200 ft (366 m) of the new water main, plus one set from the end of the line and at least one set from each branch. All samples shall be tested for bacteriological quality in accordance with *Standard Methods for the examination of Water and Wastewater*, and shall show the absence of coliform organisms. A standard heterotrophic plate count may be required at the option of the owner (or owner's representative).

Special Conditions If trench water has entered the new main during construction or, if in the opinion of the owner (or owner's representative), quantities of dirt or debris have entered the new main, bacteriological samples shall be taken at intervals of approximately 200 ft (61 m) and shall be identified by location. Samples shall be taken of water that has stood in the new main for at least 16 h after final flushing has been completed."

3.52 PRESSURE AND LEAKAGE TESTS - The pipeline shall be subjected to pressure and leakage tests as specified herein and as directed by the Engineer.

The required pressure and leakage tests shall be made after all pipe laying and backfilling work has been completed. All concrete reaction blocks and bracing or restraining facilities shall be in place at least 7 days before the initial filling of the line, except where tension joints are used at bends.

No direct payment will be made for pressure and leakage tests. All costs in connection with such tests shall be included in the unit prices named in the BID form for pipeline construction.

The pressure and leakage tests shall be applied to the entire line, service connections and appurtenances. The Contractor shall be solely responsible for any and all damages to the pipelines, and to public and private property, which results from defective materials or workmanship.

The section of the line to be tested shall slowly be filled with water and all air expelled from the pipe. Care shall be taken that all air valves are installed and open in the section being filled, and that the rate of filling does not exceed the venting capacity of the air valves.

3.52a TEST EQUIPMENT AND FACILITIES - The Contractor shall perform the necessary work to fill the pipeline with test water, as specified. The Contractor shall furnish all pumping equipment, water meter, pressure gauge, and all equipment, materials, and facilities required for the tests.

Test pressures shall be applied by means of a force pump of such design and capacity that the required pressure can be applied and maintained without interruption for the duration of each test.

The water meter and pressure gauge shall be accurately calibrated and shall be subject to the approval of the Engineer.

3.52b PRESSURE TEST - The low point in the pipeline for each test section shall be subjected to a test pressure of 150 psi (10.56 kg/ sq. cm). Test pressure shall not exceed the rated pressure of the valves, pipe or appurtenances when the pressure boundary of the test section includes closed, resilient-seated gate valves or butterfly valves.

After the section of the line to be tested has been filled with water, the specified test pressure shall be applied and maintained for a period of not less than 2 hours and for whatever longer period as may be necessary for the Engineer to complete the inspection of the line under test or for the Contractor to locate any and all defective joints and pipeline materials. If repairs are needed, such repair shall be made, the line refilled, and the test pressure applied as before; this operation shall be repeated until the line and all parts thereof withstand the test pressure in a satisfactory manner.

3.52c LEAKAGE TESTS - After the specified pressure test has been completed, the line being tested shall be subjected to a leakage test under a hydrostatic pressure of 150 psi (10.56 kg/sq. cm). The pressure shall be maintained constant (within a maximum variation, plus or minus, of 5 psi) during the entire time that line leakage measurements are being made, so that the allowable leakage rate may be determined accurately from the leakage rate formula.

Leakage shall not be started until a constant test pressure has been established. Compression of air trapped in un-vented pipes or fittings will give false leakage readings under changing pressure conditions. After the test pressure has been established and stabilized, the line leakage shall be measured by means of a water meter installed on the line side of the force pump.

Line leakage is defined as the total amount of water introduced into the line as measured by the meter during the leakage test. The pipeline, or tested section thereof, will not be accepted if and while it has a leakage rate in excess of that rate determined by the following formula for the specified type of pipe:

Ductile Iron Pipe

$$L = \frac{SD (P)^{1/2}}{133,200}$$

PVC Pipe

$$L = \frac{ND (P)^{1/2}}{7,400} \text{ in which:}$$

L = Maximum permissible leakage rate, in gallons per hour

S = Length of pipe tested, in feet

D = Nominal internal diameter of the pipe, in inches

P = Average test pressure, in pounds per square inch (gauge)

N = Number of joints in the length of pipeline tested

Where the leakage test shows a leakage rate in excess of the permissible maximum, the Contractor shall make all necessary surveys in connection with the location and repair of leaking joints to the extent required to reduce the total leakage to an acceptable amount.

All joints in piping and closed valves shall be watertight and free from visible leaks during the prescribed tests. Each and every leak which may be discovered at any time prior to the expiration of one year from and after the date of final acceptance of the work by the Owner shall be located and repaired by and at the expense of the Contractor, regardless of any amount that the total line leakage rate during the specified leakage test may be below the specified maximum rate.

3.60 MEASUREMENT AND PAYMENT - All measurements for unit cost items will be based on completed work performed in strict accordance with the drawings and specifications. Payment will be made for bid items only. BID item amounts shall subsidize for subsidiary items such as excavation, trenching, backfilling, anchorage structures, pipe jointing and all other materials, equipment and labor necessary to complete the work. All excessive fill or required fill shall be disposed of or supplied by the Contractor.

3.61 WATERMAINS - The length of watermains to be paid for will be measured along the centerline of the various sizes of pipe furnished and installed, from center of fitting to center of fitting. No deduction will be made for the space occupied by valves or fittings. Payment for watermains will be made at the unit price bid per linear foot of the various sizes, complete in place.

Polyethylene Encasement shall be included in the unit BID price for watermain.

3.62 PIPELINE SPECIALS - Where specific units of construction are included in the BID form for gate valves and boxes, fittings, fire hydrants, valve manholes and other pipeline specials, payment will be made at the unit price bid, based on the number of such pipeline specials, complete in place.

3.63 FIRE HYDRANTS - Payment for hydrants shall be at the bid unit price and shall include the tie rod assembly between the gate valve and fitting on the main, backing blocks and crushed rock. If gate valves and boxes are installed at the hydrant locations, they shall be paid for separately as set forth in the BID. The pipe run from the main to the hydrant will be measured and paid for under the respective bid item for watermain in place.

3.64 CONNECTIONS - Direct payment for connections include all labor and materials, including coupling to hook-up the existing watermain to the new watermain. Fittings will not be paid for separately, but shall be considered subsidiary to the water main pipe. Items not specifically indicated in the BID will be considered subsidiary to the items for which direct payment is made.

GATE VALVE AND BOX – Gate valves and boxes will be measured and paid for on an each basis for the various sizes indicated in the plans.

STEEL CASING – The Steel Casing shown in the plans will be measured and paid for by the linear foot.

3.80 SUBMITTALS

3.81 CERTIFICATION BY MANUFACTURER - The Contractor shall furnish a statement from the manufacturer that the inspection and all the specified tests have been made and the results thereof comply with the requirements of the applicable standards herein specified for all materials furnished.

3.82 QUALITY CONTROL TESTING - The Contractor shall submit but not be limited to the following:

- A. Chlorine Concentration Testing
- B. Bacteriological Quality Testing
- C. Pressure and Leak Testing

3.83 SHOP DRAWINGS - The Contractor shall submit sufficient data and information to allow an evaluation of "or equal materials". If required, samples with detailed technical data shall be furnished. Shop drawings for, but not limited to, watermain, fire hydrants, valves and boxes, meters, meter pits, service lines, curb stops, curb boxes, corporation stops, couplings, shall be submitted.

SANITARY SEWERS

4.00 SCOPE - The work covered by this section of the specification consists of furnishing all plant, labor, equipment, appliances, and materials, and of performing all operations in connection with the construction of the sewers including appurtenant structures complete in accordance with this section of the specifications and the applicable drawings.

4.10 GENERAL - The Contractor shall remove paving, as may be required, excavate the trenches and pits to the required dimensions; excavate the bell holes; construct and maintain all bridges for traffic control; sheet, brace and support the adjoining ground or structures where necessary; handle all drainage or groundwater; provide barricades guards and warning lights; lay and test the pipe, castings, fittings, valves, hydrants and accessories; backfill and consolidate the trenches and pits; restore the roadway surface unless otherwise stipulated; supply required or remove surplus excavated material; and clean the site of the work. The latest revisions of the standard specifications referred to herein prevailing at the time of the bid opening shall prevail.

Although such work is not specifically shown or specified, all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure, complete and

compatible installation shall be furnished and installed as part of this work. The drawings show sizes and general arrangements of all pipes and appurtenances. Responsibility for handling and/or cutting exact lengths of the various sizes of pipe for proper make-up rests with the Contractor.

4.20 MATERIALS

4.21 GRAVITY SEWERS - The Contractor shall furnish the Owner with certified records of the tests required herein made by the manufacturer or by a reliable commercial laboratory.

4.21a DUCTILE IRON PIPE - Ductile iron pipe shall conform to the requirements of American Water Works Association (AWWA) Standard Specification C-150 and C-151. Unless otherwise specified, pipe shall be Class 52. All ductile iron pipe shall have a lining equal to Sewer Coat as manufactured by Lafarge Calcium Aluminates. Thickness of the lining shall be a minimum of 0.125 inch for pipe diameters 6 inches to 12 inches and 0.1875 inch for sizes larger than 12 inches. A seal coat shall be applied to the lining.

The pipe shall be tested in accordance with AWWA Standard Specification C-151. Before lining, the inside of the socket, including a portion of the gasket cavity and a portion of the pipe barrel, shall be coated with a minimum of 8 mils of epoxy. Cracks and/or crazing shall not be acceptable. Loose areas of cement lining are not allowable.

The outside bituminous coating shall conform to bituminous paint AWWA C151.

Joints for ductile iron pipe shall conform to the requirements of AWWA Standard Specification C-111, Rubber Gasket Joints for Cast-Iron and Ductile Iron Pressure Pipe and Fittings.

Fittings shall be ductile iron at least Class 54 thickness and in accordance with the requirements of either AWWA C153 or AWWA C110. Fittings shall be Sewer Coat lined and coated with bituminous paint. Bolts and nuts shall be carbon and alloy steel conforming to ASTM A-194.

4.21b POLYVINYL CHLORIDE (PVC) SEWER PIPE - PVC sewer pipe shall conform to the requirements of ASTM Standard Specification Type PSM Polyvinyl Chloride (PVC), Designation D-3034 with a minimum dimension ratio of 35 except for 4" (10.2 cm) PVC which shall have a minimum dimension ratio of 33.5. Pipe shall be furnished in standard 12.5 feet (3.81 m) lengths.

PVC sewer pipe shall be single rubber gasket joint. The joint shall relieve expansion and contractions, and shall be capable of withstanding 25 psi (1.76 kg/sq cm) internal pressure.

4.22 JOINTING MATERIAL - Except for the aforementioned type of joints, no other types of jointing systems will be permitted. In case of encountering an existing joints system, the following procedures may be used to provide the connection.

4.22a HOT POURED BITUMINOUS JOINT MATERIALS - Joint material shall be a commercial hot pour jointing material equal to Atlas Mineral Products Company JC-60.

Before each joint is made, all moisture, if any shall be removed from both bell and spigot by wiping them with a rag saturated in kerosene. The joint shall then be firmly caulked to a depth of not more than 1 1/2 inches (3.8 cm) or less than 1 inch (2.5 cm) with one or more strands of closely twisted oakum so laid that the laps occur in the top third of the circumference. The jointing compound shall be heated in a regular heating kettle, equipped with an appropriate thermometer to the proper pouring temperature recommended by the manufacturer, and shall

be thoroughly stirred at intervals not exceeding 15 minutes. The pouring runner shall be placed in position around the pipe and the hot compound shall be poured continuously until the joint is completely filled at one pour. Any void in the top of the joint caused by the contraction of the compound shall be filled while the joint is warm. The pouring runner shall not be removed until the compound has cooled sufficiently to be set. The Engineer may require that any jointing compound be rejected for further use if it has been subjected, in his opinion, to overheating. The practice of pouring one joint between two lengths of pipe in a vertical position outside the trench will be approved provided adequate care is taken to preserve the true alignment of the pipe while pouring the joint and while lowering the pipe into the ditch.

4.22b PLASTIC BITUMINOUS JOINT MATERIAL - The material shall be a homogeneous plastic bituminous paste such as "Kalktile", "Tufflex", "Plastico" or other equal material which is applied without heating. The base for all plastic bituminous joint compound shall be asphalt. The other component shall be asbestos and/or other minerals. The joint to be made shall be caulked with a tarred oakum gasket or proper thickness or loosely twisted tarred oakum in one piece long enough to reach entirely around the pipe and lap a minimum of six inches. The bituminous compound paste then shall be forced into the joint by use of proper tools so to fill completely the annular space and form a level surface from the outside rim of the bell to the surface of the spigot and pipe. The method of making the joint shall be in accordance with the recommendations of the joint-compound manufacturer subject to approval of the Engineer.

4.30 CONSTRUCTION METHODS

4.31 EXCAVATION, TRENCHING AND BACKFILLING - Sanitary sewers shall conform to the requirements of Section 702 of the Standard Specifications.

4.32 PIPE INSTALLATION - Pipe shall be installed in compliance with the manufacturer's recommendations and approval of the Engineer. Pipe installation shall be in Class C bedding unless otherwise specified. Pipe laying shall proceed upgrade so that the spigot ends point in the direction flow. All pipes shall be laid with ends abutting and true to line and grade. The pipe shall be matched so that when laid, they will form a sewer with a smooth, uniform invert. Sockets shall be carefully cleaned before pipes are lowered into trenches. All joints shall be watertight, root resistant, durable, and any leaks or defects discovered shall be immediately repaired. Any pipe which has been disturbed after being laid shall be taken up, the joints cleaned and the pipe properly relaid.

4.33 PLUGGING OF PIPE DURING INSTALLATION - Each time pipe laying work is stopped, the sewer shall be closed with a suitable plug to exclude water, foreign material and other objects. If any water, mud or foreign material should enter the new sewer, or any existing sewer connected thereto, the Contractor shall remove same at his expense and he shall be liable for any damage that may result thereby. Mud, water, etc.; to be removed, shall be pumped out of the sewer and shall not be flushed down into another sewer line or municipal utility.

4.34 DEWATERING IN PIPE INSTALLATION - The Contractor shall furnish all necessary equipment, labor and materials for pumping or otherwise removing any water that may enter or accumulate in the trenches or other excavations and keep them free from water until work is constructed and set for sufficient time so water will not damage the work in any way. Water shall not be allowed to flow through any sewer until joints are sufficiently set and the trench backfill is made to a point where pipe settlement will not occur. Also water shall not be allowed to flow through any sewer where the flooding of basements or other damage is possible.

4.40 SEWER APPURTENANCES - All sewer appurtenances shall be of the same type of material as the sewer pipe used and specified. All appurtenances shall conform to the drawings.

4.41 MANHOLES - Manholes shall be installed at the location shown on the drawings or as located and directed by the Engineer. Standard manholes shall be constructed in accordance with "Standard Manhole Detail", while drop manholes when required shall be constructed in accordance with the "Standard Drop Manhole Detail". All manholes shall be constructed with covers, ladder steps, etc. Manholes above foundations, unless otherwise required by the drawings, shall be constructed of precast concrete sections or if approved by the Engineer monolithic concrete manholes. Precast concrete rings shall be in accordance with ASTM Standard Specification, Designation C-478. Precast concrete sections shall be jointed tightly using mastic joint sealing compound or other methods approved by the Engineer.

Manhole inverts shall be carefully constructed to maintain the proper velocities through the manhole, and in no case shall the invert sections through the manhole be greater than the outgoing pipe. The shape of the invert shall conform to the lower half of the pipe it connects. Pipes joining the main sewer shall be connected with as large a radius of curve as practicable.

The main sewer shall be carried through manholes by split pipe whenever practicable. The sewer should be laid continuously through the manhole locations with a pipe joint just outside the manhole whenever grade and alignment permit and the manhole built later. The foundation shall be laid and carried up approximately to the center of the pipe. From the center of the pipe to the walls of the manhole the floor shall have a minimum slope of 1 inch per foot (8.33 cm/m). After the manhole is built, the upper half of the pipe shall be cut out. Cement mortar, if required shall be used to provide a smooth clean surface.

Where it is not practicable to use split pipe through manholes because of breaks in grade or elevation of incoming sewers, the sewer invert shall be made of concrete deposited between forms. The shape of the invert shall exactly conform to the lower half of the pipe it connects. Inverts shall be plastered with cement mortar if required to provide a smooth clean surface.

4.42 CLEANOUTS - Cleanouts shall be constructed at the location shown on the drawings in accordance with the "Standard Sewer Cleanout Detail".

4.43 WYE BRANCHES AND TEES - Wye branches and tees shall be installed at the location designated by the drawings. Where not immediately connected to service sewers the fittings shall be closed with a stopper lightly cemented or sealed in place. A board not less than 1 inch x 2 inches (2.54 x 5.08 cm) in cross sections shall be installed in the backfill vertically above the wye or tee branch opening so that its top extends to within not more than 6 inches (15.2 cm) from the finishing grade. The Contractor shall record accurately the location of all sealed fittings with double ties and the record shall be submitted to the Engineer.

4.44 SERVICE CONNECTIONS - Service connections shall be located as shown on the drawings. Connections shall be constructed in accordance with the "Standard Service Connection Detail". Slope of the service mains shall be 1/4 inch per foot unless directed by the Engineer.

4.45 ANCHORAGE FOR PLUGS, CAPS, WYES, TEES AND BENDS - Plugs, caps, wyes and bends for pressure sewers shall be provided with a reaction backing in accordance with the Standard Blocking Detail. Reverse concrete anchor and tie backs are acceptable. Blocking shall be placed between solid ground and the fitting to be anchored; the area of bearing on the pipe and on the ground, in each instance, shall be shown or directed by the

Engineer. No wood shall be used as a permanent blocking. Temporary wood blocking may be used as directed by the Engineer.

All forming for concrete thrust blocks and anchors will be done by bulkheading around the shape of thrust block or anchor with burlap or reinforced paper sacks which have been filled with sand or earth, or other Engineer approved forming method. Filled sacks used to form concrete blocks will be left in place in the trench and backfill will be placed around and over them in the usual manner. Any bolt head or fitting must be left accessible when pouring concrete around them.

4.46 RELATION OF WATERMAINS TO SEWERS - Sewers shall be separated from watermains according to "Recommended Standards for Sewage Works", by the Committee of the Great Lakes-Upper Mississippi River Board of State Sanitary Engineer, (10 State Standard). Horizontal separation shall be 10 feet (3.05 m). Vertical separation where a sewer crosses a watermain shall not be less than 18 inches (45.7 cm), clear.

4.47 ADAPTOR COUPLINGS - All connections to existing sewer, new sewers, stubouts, dissimilar types of new and old pipes shall be by means of a properly sized neoprene adaptor. The adaptor shall be encased in concrete.

4.50 FIELD QUALITY CONTROL - All work performed under this specification shall be inspected, tested and approved. Tests shall be made in the presence of the Engineer. The Contractor shall provide all necessary equipment and shall perform all work required in connection with the tests at the expense of the Contractor.

4.51 TESTING GRAVITY SEWERS

4.51a LIGHT TEST - A light test shall be performed on all lines as follows. A light held in a pipe at one manhole shall be visible from the next manhole as a full circle of light. Sewer line sections not meeting the above test shall be relaid and the test repeated.

4.51b INFILTRATION AND AIR TEST - All lines shall be tested for tightness by one of the following methods. If the ground water table is at least two feet above the top of the pipe, the infiltration test shall be used. Otherwise, the air test shall be used. In all cases if leakage is above the specified amount, the sewer line or manhole shall be repaired and retested at the expense of the Contractor.

4.51c INFILTRATION TEST - The allowable leakage shall not exceed 100 gallons per inch diameter per mile of pipe (185 liters per centimeter diameter per kilometer of pipe) per 24 hours.

4.51d AIR TEST - This test will be performed according to ASTM C-828, stated procedures and under the supervision of the Engineer for gasket type joint pipe. If leakage is above the specified amount, the sewer shall be repaired, replaced and retested at the expense of the Contractor.

Equipment used shall meet the following minimum requirements: a) Pneumatic plugs shall have a sealing length equal to or greater than the diameter of the pipe to be tested. b) Pneumatic plugs shall resist internal testing pressure without requiring external bracing or blocking. c) All air used shall pass through a single control unit. d) These individual hoses shall be used for the following connections: (1) From control unit to pneumatic plugs for inflation (2) From control unit to scaled line for introducing low pressure air (3) From sealed line to control unit for continually monitoring the air pressure inside the pipe being tested.

Procedures: All pneumatic plugs shall be seal tested before being used in the actual test installation. One length of pipe shall be laid on the ground and sealed at both ends with the pneumatic plugs to be checked. Air shall be pressurized to 25 psig. The sealed pipe shall be pressurized to 5 psig. The plugs shall hold against this pressure without movement of the plugs out of the pipe.

After a manhole to manhole reach of the pipe has been backfilled and cleaned and the pneumatic plugs are checked by the above procedures, the plugs shall be placed in the line and inflated to 25 psig. Low pressure air shall be introduced into this sealed line until the internal air pressure reaches 4 psig greater than the average back pressure of any ground water that may be over the pipe.

At least two minutes shall be allowed for the air pressure to stabilize.

After the stabilization period (3.5 psig minimum pressure in the pipe), the air hose from the control unit to the air supply shall be disconnected. The portion of the line being tested shall be termed "acceptable" if the time required in minutes for the pressure to decrease from 3.5 psig to 2.5 psig (greater than average back pressure of any ground water that may be over the pipe) shall not be less than the time shown for the given diameters in the following table:

<u>Pipe Diameter in Inches</u>	<u>Time (Minutes)/100 (Feet)</u>
4	0.3
6	0.7
8	1.2
10	1.5
12	1.8
15	2.1
18	2.4
21	3.0
24	3.6
27	4.2
30	4.8
36	6.0
42	7.3

In areas where groundwater is known to exist, the Contractor shall determine the water elevation prior to running the test.

The height of water over the invert of the pipe shall be divided by 2.3 to establish the pounds of pressure that will be added to all readings. (For example, if the height of the water is 11 1/2 foot, then the added pressure will be 5 psig. This increases the 3.5 psig to 8.5 psig, and the 2.5 psig to 7.5 psig. The allowable drop of one pound and the timing will remain the same.)

If the pressure drops more than 1.0 psi during the test time, line is presumed to have failed. The Contractor shall, at his own expense, determine the source of leakage. He shall then repair or replace all defective materials and/or workmanship. Air testing shall then be performed on the repaired line to meet the above specifications.

4.51e DEFLECTION TEST - After all backfill is in place, PVC Pipe and ABS Composite Pipe shall be measured for vertical deflection by passing a "Go/No Go" gauge sized at a minus 5% average diameter through the pipe. The test shall be repeated 6 months after the backfill has been placed, a maximum deflection of 5% of the internal pipe diameter will be allowed. All pipe exceeding the allowable deflection shall be replaced by the Contractor at his expense.

4.51f TELEVISION INSPECTION - If required in the detailed specifications or if the pipe tests outlined in the previous sections fail, mobile closed circuit television inspection shall be required to determine if any defects such as open joints, breaks, cracks, intrusions, depositions, settling or other misalignment have occurred in the sewer line during the course of construction and prior to final acceptance. Inspection of the line and appurtenances by closed circuit television shall be displayed continuously on a television monitor. Permanent photographs of the television image shall be made to record all defects in the work and their accurate location. Defects in the sewer line or appurtenances shall be repaired or replaced by the Contractor, as directed by the Engineer, at no additional cost to the Owner. One copy of the television inspection report and photographs shall be provided to the Owner by the Contractor.

The quality of the television inspection shall be such as to enable the television inspection operator to photograph the monitor whenever defects are detected and such defects and photographable. If, in the opinion of the Engineer, the quality of the image of the monitor is such that defects in the line are not detectable, inspection operations shall cease, repairs or adjustments made to the equipment, then inspection by television shall commence.

If required by the detailed specifications, the unit price named in the BID for Television Inspection shall be full compensation for continuous television monitoring and permanent photographs of the television image in all defective areas. If required, due to failing test, the cost of television inspection shall be borne by the Contractor.

4.52 MANHOLE PERFORMANCE TESTING - Manholes shall be constructed water tight and infiltration free. If in the opinion of the Engineer the water table is at a maximum level, visual inspection for leaks may be performed. When in the Engineer's opinion, the groundwater table is too low to permit visual detection of leaks, hydrostatically test 20% of all project manholes.

All manholes shall be hydrostatically tested for potential infiltration by performing exfiltration tests or by vacuum testing. The manhole shall also remain free from visible infiltration during the two-year period of guarantee. If any infiltration is observed during that period, the Contractor shall be required to make any necessary repairs.

4.52a. EXFILTRATION TESTS - Exfiltration testing, when used, shall be performed on all manholes and pipe junction structures, except where groundwater conditions do not permit proper test head levels to be achieved, as specified below. The test procedures shall be as follows:

1. Insert pneumatic plugs in all lines entering and leaving the manhole. Extend air lines to the top of the manhole, and make sure all personnel are out of the manhole. Carefully pressurize each plug to twenty-five (25) psig to seal each line.
2. Fill the manhole to a level of at least five (5) feet above the groundwater surrounding the manhole, or to an eight (8) foot depth, whichever is higher. Allow the water to stand until maximum absorption has been reached, then refill the manhole if necessary to its original depth. If the required test head would be higher than the bottom of the frame for the manhole cover, either the exfiltration test head shall be decreased or the test waived, at the discretion of the Engineer.
3. After the manhole has been refilled, the manhole exfiltration test shall begin and shall last for a period of at least four (4) hours. The manhole shall be considered

"acceptable" if the equivalent rate of exfiltration (leakage) does not exceed 0.0016 gallons per hour per vertical foot of test head per inch diameter of the manhole. For convenience, the following leakage rate (for the cylindrical portion of the manhole only; for other structure shapes, adjust the maximum leakage rate and head drop on the basis of equivalent diameter for the same perimeter):

Manhole Diameter	Manhole Volume per V.F.	Maximum Leakage Rate Gal/V.F. Head Drop per hour	Maximum 4-Hr Hd
<u>(inches)</u>	<u>(gal.)</u>	<u>per hour</u>	<u>(in)*</u>
48	94	0.08	0.3
60	147	0.10	0.25
72	211	0.12	0.20

* At 8 ft. head

4.52b VACUUM TESTING - Vacuum testing of manholes, when used, shall be performed on all manholes and pipe junction structures to conform to the requirements of ASTM C-1244 for Vacuum Test. Test procedures shall be as follows:

1. Each manhole shall be tested after assembly and prior to backfilling.
2. All lift holes shall be plugged with an approved non-shrink grout.
3. All pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole.
4. The test head shall be placed at the inside of the top of the cone section and the seal inflated in accordance with the manufacturer's recommendation.
5. A vacuum of 10 inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to 9 inches of mercury. The manhole shall pass if the time is greater than the time listed in the following table for the depth and diameter of the manhole being tested.

6. If the manhole fails the initial test, necessary repairs shall be made with a non-shrink grout while the vacuum is still being drawn. Retesting shall proceed until a satisfactory test is obtained.

Minimum Test Times for Various Manhole Diameters

<u>Depth</u>	<u>Diameter (in)</u>		
	<u>48</u>	<u>60</u>	<u>72</u>
	Time In Seconds		
8	20	26	33
10	25	33	41
12	30	39	49
14	35	46	57
16	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	78	97
26	64	85	105

* * * **OPTION** * * *

4.53 MANHOLE STEP TESTING - Manhole step test of manholes shall be performed. Test procedures shall be as follows:

1. Test all steps for a horizontal pullout load of 400 pounds with the load applied over a width of 3 1/2 inches and centered on the rung.
2. Apply the load at a uniform rate until the required test load is reached.
3. Provide suitable hydraulic jacks and gauges to perform the test.
4. Steps will be considered acceptable if they remain solidly embedded after application of the test load and if no cracking or fracture of the step nor spalling of the concrete, masonry, or mortar is evident.
5. Replace, or reset and retest, steps failing to withstand required load.

4.60 METHOD OF MEASUREMENT AND PAYMENT - All measurements for unit cost items will be based on completed work performed in strict accordance to the drawings and specifications. Payment will be made for BID items only. BID item amounts shall subsidize for subsidiary items such as excavation, trenching, backfilling, anchorage structures, pipe jointing and all other materials, equipment and labor necessary to complete the work. All excessive backfill or required backfill material shall be disposed of or supplied by the Contractor.

4.60a SEWER PIPE - Sewer pipe will be measured on the surface of the ground along the centerline of the sewer. Measurement on sewer line will be continuous through manholes, fittings, etc. but not continuous through special water and sewer crossing. A 20 L.F. deduct shall be made for these crossings. Payment will be made at unit price as set forth in the BID for the measured number of lineal feet of complete sanitary sewer in place. Costs for jointing all pipe shall be included in the BID for the applicable type of pipe. No additional payment will be made for underground pipes or other utility structures encountered.

4.60b STANDARD MANHOLES - Standard manholes shall be paid at the unit price per each. The price includes all covers, frames, ladder steps, etc. necessary for a complete manhole.

4.60c DROP MANHOLES - Drop manholes shall be measured and paid at the unit price per each.

4.60d WYE BRANCHES AND TEES - Wye branches and tees will be counted and paid for at the unit price as set forth in the BID. The price for each unit shall be considered as the price for the spur only. The cost of straight run of pipe from the wye fitting shall be measured and paid for as set forth in the BID of sanitary sewer in place.

4.60e CLEANOUTS - Cleanouts will be paid for at the unit price as set forth in the BID constructed complete in place.

4.60f SERVICE CONNECTIONS - New service connections will be measured from the wye branch to top of riser and shall be paid for per lineal foot of pipe in place under unit price as set forth in the BID.

4.60g SERVICE RECONNECTIONS -

4.60h SPECIAL FOUNDATIONS - Where a specially prepared foundation for support of the sewer pipe is constructed on direction of the Engineer, an adjustment will be made unless item is included in the BID.

4.60i CONNECTIONS TO EXISTING MANHOLE - Connections to existing manholes will not be measured but shall be paid at the lump sum price as set forth in the BID.

4.60j SERVICE RECONNECTIONS FOR WATER AND SEWER - All new services, relocation and/or restoration of existing services encountered along the route of the Contractor's work shall be the responsibility of the Contractor. No direct payment for existing service reconnections or relocations will be made. All incidental work shall be considered subsidiary to the total BID.

4.60k WATER AND SEWER CROSSING - Water and sewer crossing will be counted and paid for at the unit price as set forth in the BID. The price for each shall include all material and labor necessary. It shall include all bends, neoprene coupling, concrete, pressure pipe, etc. The nominal length of the crossing shall be 20 feet.

4.60l ADAPTOR COUPLINGS - Unless adaptor couplings are specified in the BID, no separate payment will be made for adaptor couplings, as it will be included in the BID for pipe installation.

4.60M PLUG SEWER PIPE – Existing sewer lines shall be plugged as shown in the plans. Payment will be made on an each basis for each pipe plugged.

1 1/2 INCH ELECTRICAL CONDUIT (S7-1-0801)

Description

This work will consist of furnishing and installing a complete electrical conduit system and anchor bolt assembly as shown in the plans. The anchor bolt assembly will include nuts, washers, anchor bolts, and miscellaneous hardware. The electrical conduit system will include all conduit, junction boxes, expansion fittings, drains, liquid-tight flexible conduit, couplings, and all other miscellaneous conduit hardware. This work will also include all equipment, tools, labor, excavation, backfill, materials, and incidentals necessary to complete the work.

Material Requirements

Junction boxes for use in bridge conduit systems shall be 10" x 6" x 6" (250 mm x 150 mm x 150 mm) in dimension and of NEMA type 4 watertight and dust-tight construction. Boxes shall be of machineable quality gray iron castings, outside flanged with recessed cover and designed especially for flush mounting in masonry. Cover and box shall have a hot-dip galvanized finish. Cover shall be gasketed and secured to the box with hex head stainless steel screws. Conduit entrance into the box shall be through slip holes. Fasten conduit to box using sealing type locknuts. Provide O-Z Gedney box YR 100606, Spring City box ER 100606, Crouse Hinds box WGB 100606 or approved equal.

All electrical conduit and fittings shall be PVC and bear the U.L. Label. Fittings used with liquid-tight flexible conduit must be approved for the application.

The complete anchor bolt assembly as shown in the plans will be galvanized in accordance with ASTM A153. Anchor bolts must be threaded 4 inches (100 mm) on both ends and conform to the requirements of AASHTO M314, Grade 55. Each anchor bolt shall be furnished complete with four heavy hex nuts meeting the requirements of AASHTO M291, Grade A; and two hardened steel flat washers conforming to AASHTO M293. The contractor shall furnish a certification stating that the anchor bolt material was manufactured and tested in accordance with the applicable specification. The certification shall include a report of the tensile test results and chemical analysis. The report shall also include the name of the steel producer, AASHTO or ASTM designation number, grade, heat number, size and authorized signature.

Construction Methods

The conduit installation must be performed by or under the direct supervision of a competent Journeyman Electrician or Lineman and conform to the requirements of the National Electric code and the NDR Standard Specifications. Electrical conduit bends, elbows and offsets must be accurately formed.

Conduit drains with a 1 inch (25 mm) projection from the concrete face, must be provided at each junction box and at low spots in the electrical conduit.

Expansion fittings shall be installed with conduit positioned with respect to ambient temperature and shall bear the U.L. label.

Method of Measurement

The electrical conduit system will be measured for payment by the number of feet (meters) shown in the plans within the limits defined for the system.

Basis of Payment

The electrical conduit system, in place and accepted by the engineer, will be paid for at the contract unit price per foot (meter) for the item, "1 1/2 inch CONDUIT in BRIDGE" ("38 mm CONDUIT in BRIDGE").

Payment is full compensation for all work prescribed in this provision.

**MECHANICALLY STABILIZED EARTH (MSE)
WALLS WITH CONCRETE FACING PANELS**

Table 714.04 in the 1997 English Edition of the Standard Specifications is void and superseded by the following:

Table 714.04		
Property	Requirement	Test Method
Resistivity	Minimum 3000 ohm-cm, at 100% saturation	AASHTO T 288
ph	Acceptable Range 5-10	AASHTO T 289
Chlorides	Maximum 100 ppm	AASHTO T 291
Sulfates	Maximum 200 ppm	AASHTO T 290

Paragraph 5.d. of Subsection 714.02 in the 1997 English Edition of the Standard Specifications is void and superseded by the following:

A copy of all test results performed by the Contractor, which includes: AASHTO T 27, AASHTO T 90, AASHTO T 99, AASHTO T 104, AASHTO T 236, AASHTO T 288, AASHTO T 289, AASHTO T 290, and AASHTO T 291, shall also be furnished to the Engineer.

Paragraph 3. of Subsection 714.04 in the Standard Specifications is amended to provide that the Random Backfill shown in the plans will be measured for payment, and is included in the item "Select Granular Backfill for MSE Walls".

STAY-IN-PLACE BRIDGE FORMS

Steel stay-in-place forms will be allowed for concrete floor slabs on the pedestrian bridge. Stay-in-place forms shall be used for interior areas only, where the forms are supported on both sides by the truss. 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.

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-3000 Concrete for Ramps.

**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
<p>* At least 6 cylinders shall be made each production day and at least 2 cylinders are required from each load.</p> <p>* Cylinders shall be 4 inches (100 mm) by 8 inches (200 mm).</p> <p>* Contractor test samples and Department correlation test samples shall be taken independently.</p>		

**DIRECT TENSION INDICATORS
(S7-6-0902)**

Paragraph 10.h. of Subsection 708.03 in the Nebraska Standard Specifications is void and superseded by the following:

h. Direct Tension Indicators (DTIs):

- (1) High strength fasteners shall be installed using Direct Tension Indicators (DTIs).
- (2) Self-indicating (Squirter) type DTIs that meet the requirements of ASTM F959/F959M shall be used.
- (3) DTIs shall be installed in accordance with Division II, Article 11.5.6.4.7 of the AASHTO Standard Specifications, 16th edition.
- (4) The Contractor shall provide to the Engineer a detailed inspection instructions prepared by the manufacturer for approval.
- (5) At the start of work, representative samples shall be submitted to the NDOR Materials and Research Division for testing in the tension calibration device to demonstrate that the DTIs supplied are within the compression load ranges in Table 3 of ASTM F959/F959M.
- (6) Installation and tightening of individual bolts with Squirter DTIs shall be in accordance with manufacturer instructions.
- (7) The Direct Tension Indicators shall be stored in an environment that preserves the surface condition supplied by the manufacturer.
- (8) Reuse of Direct Tension Indicators is not allowed.

**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)

STEEL STRUCTURES (S7-9-0203)

Paragraph 20.a. (1) of Section 708.03 of the Standard Specifications for Highway Construction is void and superseded by the following:

- a. (1) The Contractor shall give the Engineer 30 days advance notice of shop work and provide a copy of the anticipated production schedule. The Engineer shall be notified three working days (Saturdays, Sundays and Holidays are excluded) before actual fabrication start time so inspection can be scheduled.

CLEANING WEATHERING STEEL

Subsection 709.03, Paragraph 4. in the Standard Specifications, 1997 English Edition, is amended to include the following:

- d. During storage, uneven weathering of the steel shall be minimized by positioning the material to allow open exposure and free drainage. Blocking will be required to avoid contact of the exposed steel surfaces with the ground.

PRECOMPRESSED POLYURETHANE FOAM (PPF) JOINT

Paragraph 2 of Subsection 734.04 in the Supplemental Specifications is void and superseded by the following:

2. Pay limits for expansion joints shall be the horizontal distance from end to end along the centerline of the joint assembly at the locations shown in the plans.

PEDESTRIAN BRIDGE

Column Footing Excavation

Method of Measurement

- a. Excavation for individual column footings is not a field measured quantity. The pay item is a Lump Sum for the item "Column Footing _____ Excavation."
- b. The excavation shall be that necessary to establish a level area to drive piles and pour concrete footings. The material removed shall be replaced as backfill around the footings to the specified lines and grades shown on the plans.
- c. If necessary to remove unsuitable material or unforeseen obstacles at the direction of the Engineer, the work will be paid for as "extra work."

Basis of Payment

- a. No direct payment will be made for furnishing, placing, and removing temporary shoring or sheeting. If used, this work shall be considered subsidiary to other bid items for which direct payment is made.
- b. Removal of obstacles or obstruction that are unforeseen shall be paid for as "extra work," except as noted in Subsection 104.06.
- c. Direct payment will not be made for backfilling and compacting, water used for compaction, or dewatering.

Pedestrian Bridge

Description

The Pedestrian Bridge shall be designed and pre-manufactured to meet the requirements of AASHTO standard specifications as well as the AASHTO guide specifications for pedestrian bridges. The bridge shall be a welded steel (weathering), thru-truss type bridge with a concrete deck slab. The truss shall be a through truss or "Gateway" configuration consisting of tubular shape main members. Safety rails and/or handrails may consist of angle or pipe or other suitable shapes. The trusses shall be designed and manufactured with as few field splices as possible. The bridge shall be built to match the plan profile grade after all permanent dead load has been applied. Structure depth is of significant importance in order to maintain vertical clearance above the various railroad tracks. Attention should be given to the various details throughout the plans for proper connection to precast concrete pier walls and pipe drain appurtenances at the ends of the bridge. The bridge shall be covered on the sides and top with vinyl coated chain link fence.

Submittals

Drawings – Complete schematic shop drawings shall be submitted to the engineer for review of compliance with the specifications and project plans.

Calculations – Structural calculations for the bridge superstructure shall be submitted to the engineer for review per AASHTO specifications. The calculations shall include all design

information necessary to determine the structural adequacy of the bridge. All calculations shall be signed and sealed by a Professional Engineer who is licensed in the State of Nebraska.

Method of Measurement:

- a. The pedestrian bridge shall be measured and paid for as a Lump Sum item.
- b. The pedestrian bridge is a premanufactured project. Acceptable manufacturers are as follows:

Continental Bridge
8301 State Hwy. 29 North
Alexandria, MN 56308
(800) 328-2047

Stead Fast Bridges
119 40th St. N.E.
Fort Payne, AL 35967
(800) 749-7515

Big R Manufacturing
P.O. Box 1290
Greeley, CO 80632-1290
(800) 234-0734

Excel Bridge Manufacturing Co.
12001 Shoemaker Ave.
Santa Fe Springs, CA 90670
(801) 548-0054

Suppliers other than those listed above may be used provided the engineer or the State evaluates the proposed supplier and approves the supplier at least 5 days prior to the bid.

Basis of Payment

- a. Payment is full compensation for design and manufacture of the above described pedestrian bridge, including all shipping and erection costs.
- b. No additional payment will be made for any temporary bracing or formwork used to construct the bridge or concrete deck slab.

Type A Light Fixtures on Bridge and Ramp

Method of Measurement

- a. Section 412 is amended to include Type A Light Fixtures. The light fixtures will be measured on an each basis for the item "Type A Light Fixtures."

Basis of Payment

- a. Payment is considered full compensation for all work prescribed in SECTION 412.

Type B Light Poles

Method of Measurement

- a. Per SECTION 408 of the Standard Specifications, Type B light poles shall be measured per each.

Basis of Payment

- a. Payment is considered full compensation for all work prescribed in SECTION 408.

- b. Coordination with the ramp supplier will be necessary to provide means of anchorage to either precast concrete frame or prefabrication steel frame. No additional payment will be made for anchorage of the light poles to the structure.

Precast/Prestressed Concrete Ramp Structures

Description

The precast concrete ramp structures are detailed as Plan A. The ramp structures must be designed to resist both gravity and lateral design forces. The concrete ramp structure shall be designed to meet the requirements of AASHTO Standard Specifications as well as the AASHTO guide specifications for pedestrian bridges. Fabrication details must comply as close as possible to those shown in the plans. Alternate details may be submitted for review by the engineer, however, the plan details shall be the basis for the construction bid.

All connections shall be of the embedded type as provided in the PCI "Connections for Precast and Prestressed Concrete" Manual 123-88, latest edition. The precast concrete manufacturer shall be familiar with the type of connections required and be able to submit photos of recently completed jobs of similar construction. All connections to foundation and between members shall be designed by the precast manufacturer.

SECTION 705 of the 1997 Standard Specifications and current Supplemental Specifications shall apply.

Submittals

Drawings – Complete schematic shop drawings shall be submitted to the engineer for review of compliance with the specifications and project plans.

Calculations – Structural calculations for the ramps shall be submitted to the engineer for review with AASHTO specifications. The calculations shall include all design information necessary to determine the structural adequacy of the ramp. All calculations shall be signed and sealed by a Professional Engineer who is licensed in the State of Nebraska.

Method of Measurement

- a. The precast/prestressed concrete ramp structures shall be measured and paid for as a Lump Sum item.
- b. The precast concrete members are a pre-manufactured product. Acceptable manufacturers are as follows:

CSR Wilson
802 Allied Road
LaPlatte, NE 68123
(402) 293-0733

Concrete Industries, Inc.
6300 Cornhusker Highway
Lincoln, NE 68507
(402) 434-1800

Suppliers other than those listed above may be used provided the engineer or the State evaluates the proposed supplier and approves the supplier at least 5 days prior to bid.

- a. Payment is considered full compensation for all work prescribed in SECTION 705, including the cost of prestressing and precasting.

Structural Steel Ramp Structures

Description

The structural steel ramp structures are detailed as Plan B. The ramp structures must be designed to resist both gravity and lateral design forces. The steel ramp structures shall be designed and constructed to meet the requirements of AASHTO Standard Specifications as well as the AASHTO guide specifications for pedestrian bridges. Preliminary member sizes provided are suggested sizes only. Actual member sizes shall be based on design. Consideration shall be given to the aesthetic appearance of the bridge in the selection of frame members. Fabrication details must comply as close as possible to those shown in the plans. Alternate details may be submitted for review by the engineer, however, the plan details shall be the basis for the construction bid.

SECTION 708 of the 1997 Standard Specifications and current Supplemental Specifications shall apply.

Submittals

Drawings – Complete schematic shop drawings shall be submitted to the engineer for review of compliance with the specifications and project plans.

Calculations – Structural calculations for the ramps shall be submitted to the engineer for review with AASHTO specifications. The calculations shall include all design information necessary to determine the structural adequacy of the ramp. All calculations shall be signed and sealed by a Professional Engineer who is licensed in the State of Nebraska.

Method of Measurement

a. The structural steel ramp structures shall be measured and paid for as a Lump Sum for the item “Prefabricated Steel Ramp Structure.”

Basis of Payment

a. Payment is considered full compensation for all work prescribed in SECTION 708.

PEDESTRIAN RAILING

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

Pay Item	Pay Unit
_____ Pedestrian _____	Linear Foot (LF)

SEEDING

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

Type "B "	Minimum Purity (%)	Hydraulic Seeder Application Rate in lb. of Pure Live Seed/Acre	Approved Mech. Drill Application Rate in lb. of Pure Live Seed/Acre
Perennial Ryegrass-Linn	85		10
K-31 Fescue	85		15
Sheeps Fescue	85		10
Western Wheatgrass-Flintlock-Barton	85		10
Buffalograss-Sharps II, Cody	80		6
Blue Grama-NE, KS, CO	35		2
Blue Flax	90		3

Type "B" may also be seeded with a brillion or 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 Acre (Minimum)
Available Nitrogen (N ₂) -----	32 or 36 lb.
Available Phosphoric Acid (P ₂ O ₅) -----	92 or 92 lb.

Rate of application of granular urea-formaldehyde fertilizer shall be:

Nitrogen (total available) -----	60 lb.
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Paragraph 1. of Subsection 803.02 is void and superseded by the following:

Mulch for seeding shall be Hydromulch. Hydromulch shall be applied at a minimum of 2,000 pounds per acre of wood fiber mulch and if a paper hydromulch is used, it shall be applied at a minimum rate of 2,400 pounds per acre. The seed shall be applied separately from the mulch and fertilizer. The mulch and fertilizer may be applied in the same operation. A non-toxic organic tackifier shall be used with the hydromulch at the manufacturer's recommendations. The item "Hydromulch" shall be measured and paid for by the ton.

GRATE INLET, TYPE “_____”

This work consists of furnishing all materials and constructing grate inlet in accordance with the drawings and Section 916 of the specifications. “Grate Inlet, Type _____” will be measured and payment will be made for each area inlet including excavating concrete reinforcing steel, cast iron frame and grate. For Type “C” and “D” inlets, forming around new or existing sanitary sewer pipe and connecting new sewer pipe as indicated on the details shall be considered incidental to this item.

CURB INLET, TYPE “E”

Section 916 of the Standard Specification is amended to provide measurement of curb inlets Type E by each. Payment will be compensation for excavation, concrete reinforcing steel and cast iron required to build the curb inlet complete in place.

**47B CONCRETE PAVEMENTS AND
47BD CONCRETE FOR BRIDGES
(S10-4A-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		Pounds of Total Agg. per Cu.Yd.		Ratio of Total Agg. Percent	Type of Coarse Agg.***
				Min.	Max.	Min.	Max.		
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

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		Kg of Total Agg. per Cu.Meter		Ratio of Total Agg. Percent	Type of Coarse Agg.***
				Min.	Max.	Min.	Max.		
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

* 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.

*** 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		Pounds of Total Agg. per Cu.Yd.		Ratio of Total Agg. Percent	Type of Coarse Agg.***
				Min.	Max.	Min.	Max.		
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

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		Kg of Total Agg. per Cu.Meter		Ratio of Total Agg. Percent	Type of Coarse Agg.***
				Min.	Max.	Min.	Max.		
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

* 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.

*** 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	1/2	40	1 5/8
14	9/16	45	1 3/4
16	11/16	50	2
18	3/4	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 1/4		

**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. (mm²/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

ELASTOMERIC BEARINGS

Subsection 1068.01 in the Standard Specifications, 1997 English Edition, is amended to include the following:

Prior to fabrication, the Contractor shall submit shop drawings to the Engineer for review.

The bearings shall be suitably packaged to prevent damage during shipment and storage.

**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.

* * * * *

F08INFMAY03

1 ½-INCH CONDUIT IN CURB	63
1 1/2 INCH ELECTRICAL CONDUIT	96
47B CONCRETE PAVEMENTS AND 47BD CONCRETE FOR BRIDGES.....	107
AGGREGATE FOUNDATION COURSE-D.....	57
AMENDMENT TO CONSTRUCTION TRAINING REPORT REQUIREMENTS.....	41
AWARD AND EXECUTION OF CONTRACT	45
CERTIFICATION	37
CERTIFICATION FOR FEDERAL-AID CONTRACTS.....	41
CLEANING WEATHERING STEEL.....	101
CONCRETE BRIDGE FLOORS.....	100
CONSTRUCTION DETAILS	55
CONTRACTOR FURNISHED SIGNS.....	62
CONTROL OF WORK.....	43
CORRUGATED METAL PIPE	111
CRACKS IN CONCRETE PAVEMENT	66
CURB INLET, TYPE “E”	107
DBE GOAL CREDIT	35
DESCRIPTIONS.....	36
DIRECT TENSION INDICATORS.....	100
DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOAL.....	33
DISADVANTAGED BUSINESS ENTERPRISES.....	23
DOWEL BARS.....	111
DOWELED CONCRETE PAVEMENT	66
ELASTOMERIC BEARINGS.....	113
ELASTOMERIC BEARINGS AND LAMINATED BEARING PADS.....	112
FINAL CLEANING UP.....	53
FLAGGING CONDITIONS.....	48
FLAGGING PROTECTION.....	47
FLY ASH.....	109
FOUNDATION COURSE	57
FUEL COST ADJUSTMENT PAYMENT	55
GENERAL CONDITIONS.....	22
GRATE INLET, TYPE “ _____ ”	107
HIGH TENSILE BOLTS, NUTS, AND WASHERS.....	112
INSPECTION.....	51
INSURANCE.....	51
LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC	44
LOCAL MATERIAL SOURCES.....	63
MEASUREMENT AND PAYMENT.....	44

MECHANICALLY STABILIZED EARTH (MSE) WALLS WITH CONCRETE FACING PANELS	97
METAL FLARED-END SECTIONS	111
PEDESTRIAN BRIDGE	102
PEDESTRIAN RAILING	105
PERCENTAGE OF COST OF WORK WITHIN RAILROAD RIGHT-OF-WAY	54
PLANS AND WORKING DRAWINGS	45
PRECAST/PRESTRESSED CONCRETE STRUCTURAL UNITS	99
PRECOMPRESSED POLYURETHANE FOAM (PPF) JOINT	101
PROPOSAL GUARANTY	114
PROSECUTION AND PROGRESS	45
PROTECTION OF PROPERTY	49, 50
PROTECTION OF UTILITIES	48
RAILROAD CROSSINGS	50
RAILROAD SAFETY TRAINING	47
RAILROAD SPECIAL PROVISIONS	49
REIMBURSEMENT TO RAILROAD COMPANY FOR FLAGGING COSTS	47
REINFORCED CONCRETE PIPE, MANHOLE RISERS, AND FLARED-END SECTIONS	111
RELOCATE EXISTING LIGHTING UNIT	62
REPAIR OF DAMAGED METALLIC COATINGS	110
RESTORATION OF RAILROAD COMPANY'S PROPERTY	52
RIGHT OF WAY	52
ROADWAY LIGHTING	59
SEEDING	106
SELECT GRANULAR BACKFILL	58
SPECIAL PROSECUTION AND PROGRESS	
(Highway US-30 Closure for Bridge Work)	46
(Phasing)	45
STATUS OF RIGHT-OF-WAY	43
STATUS OF UTILITIES	42
STAY-IN-PLACE BRIDGE FORMS	98
STEEL BARS FOR CONCRETE REINFORCEMENT	112
STEEL STRUCTURES	101
STRUCTURAL STEEL	110
SUBCONTRACTOR BIDDERS LIST INFORMATION	43
SUBGRADE PREPARATION	57
SUBLETTING OR ASSIGNING OF CONTRACT	34
TEMPORARY TRAFFIC CONTROL DEVICES	61
TIE BARS FOR CONCRETE PAVEMENT	65
TINING	63
TRAINING SPECIAL PROVISIONS	39
TYPE B HIGH INTENSITY WARNING LIGHTS	61
USE OF DISADVANTAGED BUSINESS ENTERPRISES	23
WATERMAIN, VALVES, HYDRANTS AND APPURTENANCES	67
WORK TO BE PERFORMED BY THE RAILROAD COMPANY	47
WRITTEN NOTICE TO RAILROAD COMPANY	49