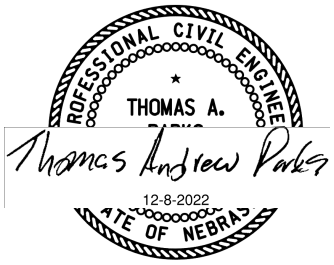
CITY OF LA VISTA, NEBRASKA
PLANS & SPECIFICATIONS
FOR
2023 STREET REHABILITATION & RESURFACING

STREET NO.	ONE & SIX	STREET	FROM	TO
1	M376(407)	TERRY DRIVE	81ST STREET	PARK VIEW BLVD
2	M376(407)	LILLIAN AVENUE	PARK VIEW BLVD	JAMES AVENUE
3	M376(407)	78TH STREET	PARK VIEW BLVD	HARRISON STREET

INDEX



DECEMBER 8th, 2022

NOTICE TO CONTRACTORS

City of La Vista, Nebraska

2023 LA VISTA STREET REHABILITATION & RESURFACING

Sealed proposals will be received by Pamela Buethe,Clerk of said City, at the City of La Vista, City Hall, 8116 Parkview Boulevard, La Vista, NE 68128, until 10:00 AM on the 6th day of January 2023, for the furnishing of all labor, materials, use of Contractor's equipment, plant and all else necessary to construct properly all of the improvements for project: 2023 LA VISTA STREET REHABILITATION & RESURFACING. PROJECT NO. M376(407). Project includes Curb Ramp Construction, Concrete Pavement Rehabilitation, Asphalt Milling and Resurfacing, and Permanent Pavement Markings along three selected street segments in La Vista, Nebraska as shown below:

STREET NO.	ONE & SIX	STREET	FROM	TO
1	M376(407)	TERRY DRIVE	81ST STREET	PARK VIEW BLVD
2	M376(407)	LILLIAN AVENUE	PARK VIEW BLVD	JAMES AVENUE
3	M376(407)	78TH STREET	PARK VIEW BLVD	HARRISON STREET

At such hour, or as soon as practicable thereafter, the City of La Vista will proceed to publicly open in the presence of all bidders and consider the bids received for the furnishing of such labor, materials, and equipment necessary for the proper construction of such improvements.

The extent of the work consists of the construction or other effectuation of the items listed below and other related preparatory and subsidiary work from issuance of the Notice to Proceed:

ITEM	ITEM DESCRITPION	UNITS	QUANTITY
0001	CURB INLET PROTECTION	EA	12.000
0002	CLEARING AND GRUBBING PER INTERSECTION CORNER	EA	41.000
0003	TRIM TREE ROOT	HOUR	6.000
0004	REMOVE AND RESET EXISTING RETAINING WALL	SF	30.000
0005	REMOVE AND RELOCATE FENCE	LF	12.000
0006	PERFORM 2" COLD--PLANING-ASPHALT	SY	28435.000
0007	PERFORM 2" COLD PLANING-CONCRETE	SY	400.000
0008	REMOVE SIDEWALK	SF	30.000
0009	EXCAVATION HAUL-OFF	CY	15.000
0010	EMBANKMENT - BORROW	CY	15.000
0011	CONSTRUCT 4" AGGREGATE SUBBASE COURSE	SY	75.000
0012	CONSTRUCT ASPHALT SURFACE COURSE, TYPE SPR FINE (PG64-34)	TON	2608.759
0013	CONSTRUCT ASPHALT PAVEMENT REPAIR, TYPE SPR FINE (PG64-34)	TON	45.000
0014	CONSTRUCT 8-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	2528.000
0015	CONSTRUCT 9-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	1502.000
0016	CONSTRUCT 11-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	300.000
0017	ADJUST UTILITY VALVE TO GRADE	EA	14.000
0018	ADJUST UTILITY MANHOLE TO GRADE	EA	34.000
0019	CONSTRUCT SIDEWALK CURB WALL	SF	100.000
0020	CONSTRUCT 6-INCH IMPRINTED PCC SURFACING	SF	295.000
0021	CONSTRUCT PCC CURB RAMP	SF	1739.000

0022	CONSTRUCT DETECTABLE WARNING PANEL	SF	376.000
0023	CONSTRUCT SEGMENTAL RETAINING WALL	SF	200.000
0024	CONSTRUCT REINFORCED PCC RETAINING WALL	CY	6.000
0025	INSTALL SODDING	SY	30.000
0026	INSTALL ROLLED EROSION CONTROL, TYPE II WITH SEEDING - TYPE B	SY	50.000
0027	INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 5" WHITE	LF	147.500
0028	INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 12" WHITE	LF	56.000
0029	INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 24" WHITE	LF	168.000
0030	INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 5" YELLOW	LF	240.000
0031	FURNISH FLASHING ARROW PANEL	DAY	8.000
0032	PROVIDE TEMPORARY TRAFFIC CONTROL - PER INTERSECTION CORNER	EA	41.000
0033	REPAIR CURB AND GUTTER	LF	1180.000
0034	REPAIR DRIVEWAY	SY	64.000
0035	REMOVE AND REPLACE PRECAST INLET TOP	EA	9.000
0036	REMOVE AND INSTALL NEW SPRINKLER SYSTEM HEAD	EA	5.000
0037	MOBILIZATION/DEMOBILIZATION	LS	1.000
0038	TOWING	EA	5.000
0039	RECONSTRUCT INLET	EA	6.000
0040	PROVIDE TEMPORARY TRAFFIC CONTROL- PER SEGMENT	EA	3.000
0041	RENTAL OF LOADER, FULLY OPERATED	HR	15.000
0042	RENTAL OF SKID LOADER, FULLY OPERATED	HR	15.000
0043	RENTAL OF DUMP TRUCK, FULLY OPERATED	HR	15.000
0044	REPAIR 4" CONCRETE SIDEWALK	SF	2816.000
0045	REPAIR 6" CONCRETE SIDEWALK	SF	21.333
0046	CONSTRUCT CONCRETE BASE REPAIR (TYPE L65)	SY	1620.795
0047	ONE-DAY CONCRETE COMPRESSIVE STRENGTH PAYMENT	SY	500.000
0048	EPOXY COATED TIE BARS	EACH	4500.000
0049	CAST IRON	LB	2939.000

All work called for in the drawings and specifications shall be furnished in strict accordance with the drawings and specifications prepared by the City of La Vista, and now on file with the City Clerk**.**

Each bid shall be accompanied in a SEPARATE SEALED ENVELOPE by a certified check or bid bond in an amount of not less than five percent of the amount bid and such certified check or bid bond shall be payable to the Treasurer of the City of La Vista, Nebraska as security that the bidder to whom the contract may be awarded will enter into a contract to build the improvement in accordance with this Notice to Contractors and will give a contract and maintenance bond in the amount of 100% of the contract price. No bidder may withdraw his proposal for a period of sixty (60) days after the date set for the opening of bids.

The City of La Vista, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office the Secretary, Part 21, Nondiscrimination in Federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contact entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin, sex, age and disability/handicap in consideration for an award.

Drawings, Specifications and Contract Documents may be examined online at www.standardshare.com. Search for the project name in the Plan Room found at www.standardshare.com. Downloadable PDF files and hardcopy prints may be procured from StandardSHARE or the offices of Standard Digital Imaging: 4424 South 108th Street, Omaha, NE 68137, 402-592-1292. All costs associated with obtaining documents are the responsibility of the bidder and are non-refundable. Project documents may also be examined at the office of the City Clerk of the City of La Vista, 8116 Park View Blvd., La Vista, NE 68128. In order to ensure bidders are aware of all issued documents pertaining to this opportunity – bids will be accepted only from those identified on the planholders list kept at the offices of Standard Digital Imaging/StandardSHARE.

The City reserves the right to waive informalities and to reject all or any bids.

CITY OF LA VISTA, NEBRASKA

Pamela Buethe, Clerk

INFORMATION FOR BIDDERS

BID LETTING:

Bids will be received by the owner named in the Notice to Contractors at the location given therein until the date and time stated in said Notice, and then will be publicly opened and read aloud.

BIDDER'S ACKNOWLEDGEMENT:

The bidder acknowledges by the submission of his bid that he has examined all Contract Documents and the site of the proposed work and has satisfied himself as to the feasibility of the proposed project. After bids have been submitted, the bidder shall not assert that there was a misunderstanding concerning the quantities of work or the nature of the work to be done. No verbal agreement or conversation with any officer, agent, or employee of the owner, or with the owner himself, or with any other person shall affect or modify the scope of the work in any way.

Written requests for interpretation or clarification of any portion of the contract documents shall be answered by the engineer with Addenda, if such requests are received more than 48 hours prior to the scheduled bid opening time.

BIDS:

Each bid must be submitted in a sealed envelope addressed to the aforementioned owner. The envelope must be marked "Bid" and carry the title of the project. The name and address of the bidder shall also be marked on the envelope.

Each bid must be accompanied in a SEPARATE SEALED ENVELOPE by bid security in the amount defined in the Notice to Contractors. Said security may be a certified check or bond as required by the Notice to Contractors. The former may be used in any event. The envelope bearing this security shall be marked as previously described, except that the word "Bid" shall be replaced by "Bid Security".

WITHDRAWING PROPOSALS:

A bidder may withdraw his proposal at any time prior to the scheduled bid opening. Proposals may be withdrawn only by the bidder or his authorized agent; neither the engineer nor the owner, nor any employee of either of them shall be permitted to act for a bidder in the withdrawal of a proposal. Any proposal received after the scheduled bid opening time shall be returned unopened. No bidder may withdraw his proposal within 30 days after bids are opened. The scheduled bid opening time shall be according to the local time in effect on the date of bid opening whether Standard Time or Daylight Time.

IRREGULAR PROPOSALS:

The proposal must be submitted on the form furnished by the Engineer. It must be filled out with ink or typewritten, without erasure, interlineation or changes. Any irregular proposal may be rejected; however, the owner reserves the right to waive irregularities, or to reject any or all bids. Proposals may be considered irregular for reasons including, but not limited to the following:

1. If the proposal form furnished is not used, or is altered.
2. If there are unauthorized additions, deletions, or substitutions in the proposal.
3. If the bidder adds any provisions reserving the right to accept or reject award of the contract, or to modify the date to commence or finish work.
4. If the bidder fails to complete the proposal or any particulars where information is requested so his proposal may be properly evaluated.

PROPOSAL EVALUATION:

After the proposals have been opened, they will be compared on the basis of a correct summation of the products of the quantities shown on the bid schedule by the unit bid prices. In the event of a discrepancy between unit bid prices and extensions, the unit bid price shall govern, or the proposal may be rejected. Any or all proposals may be rejected if there is reason to believe that collusion exists among bidders.

BIDDER QUALIFICATION:

The Owner may make such investigations as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish the Owner such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigations of such bidder fails to satisfy the Owner that the bidder is properly qualified to carry out the obligations of the agreement and to complete the work defined herein.

RETURN OF BID SECURITY:

After the proposals have been examined, the bid security of all but the low three bidders will be returned. The security of the remaining two unsuccessful bidders will be returned when the agreement has been executed. The security of the successful bidder will be returned when the required bonds and insurance certificates have been submitted and approved.

CONTRACTOR'S RESPONSE:

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance bond, payment bond, and insurance certificates within ten calendar days from the date when Notice of Award is delivered to the bidder. A performance bond and payment bond, each in the amount of 100 percent of the contract price, with a corporate surety approved by the Owner, will be required for the faithful performance of the contract, including satisfactory performance of the constructed improvements for the period of guarantee. Attorneys-in-fact who sign bid bonds or payment bonds and performance bonds must file with each bond a certified and effective dated copy of their power of attorney. Bonds shall be drawn in accordance with the forms bound herein, or approved equal. In addition, bond requirements of any governmental body exercising jurisdiction over the project shall be complied with. In case of failure of the bidder to execute the agreement, the Owner may at his option consider the bidder in default, in which case the bid bond accompanying the proposal shall become the property of the Owner.

OWNER'S RESPONSE:

After receipt of any acceptable performance bond, payment bond, insurance certificates, and agreement signed by the party to whom the agreement was awarded, the Owner shall sign the agreement and return to such party an executed duplicate of the agreement.

NOTICE TO PROCEED:

The Notice to Proceed shall be issued after the execution of the Agreement by the Owner; this Notice will define the date when work is to begin.

PROPOSAL

2023 La Vista Street Rehabilitation and Resurfacing

STREET NO.	ONE & SIX	STREET	FROM	TO
1	M376(407)	TERRY DRIVE	81ST STREET	PARK VIEW BLVD
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City of La Vista, Nebraska

TO: Pamela Buethe, City Clerk

I have received bidding documents dated December 8th, 2022 for the above-referenced project. I have also received Addenda No.'s _____ through _____ and have included their provisions in my bid. I have examined the bidding documents and submit the following bid:

In submitting this bid, I agree:

A. To hold my bid open for sixty (60) days after the receipt of bids.

B. To enter into and execute an "Owner-Contractor Agreement", based upon this bid, if this bid is accepted by the Owner.

C. To perform all work required by the Contract Documents.

D. To complete all work by August 5th, 2023.

I agree to perform the above in consideration of the amounts hereinafter scheduled:

ITEM	ITEM DESCRITPION	UNITS	QUANTITY	UNIT PRICE	AMOUNT
0001	CURB INLET PROTECTION	EA	12.000	$_____,	$_____
0002	CLEARING AND GRUBBING PER INTERSECTION CORNER	EA	41.000	$_____,	$_____
0003	TRIM TREE ROOT	HOUR	6.000	$_____,	$_____
0004	REMOVE AND RESET EXISTING RETAINING WALL	SF	30.000	$_____,	$_____
0005	REMOVE AND RELOCATE FENCE	LF	12.000	$_____,	$_____
0006	PERFORM 2" COLD--PLANING-ASPHALT	SY	28435.000	$_____,	$_____
0007	PERFORM 2" COLD PLANING-CONCRETE	SY	400.000	$_____,	$_____
0008	REMOVE SIDEWALK	SF	30.000	$_____,	$_____
0009	EXCAVATION HAUL-OFF	CY	15.000	$_____,	$_____
0010	EMBANKMENT - BORROW	CY	15.000	$_____,	$_____
0011	CONSTRUCT 4" AGGREGATE SUBBASE COURSE	SY	75.000	$_____,	$_____
0012	CONSTRUCT ASPHALT SURFACE COURSE, TYPE SPR FINE (PG64-34)	TON	2608.759	$_____,	$_____
0013	CONSTRUCT ASPHALT PAVEMENT REPAIR, TYPE SPR FINE (PG64-34)	TON	45.000	$_____,	$_____
0014	CONSTRUCT 8-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	2528.000	$_____,	$_____
0015	CONSTRUCT 9-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	1502.000	$_____,	$_____

0016	CONSTRUCT 11-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	300.000	$_____,	$_____
0017	ADJUST UTILITY VALVE TO GRADE	EA	14.000	$_____,	$_____
0018	ADJUST UTILITY MANHOLE TO GRADE	EA	34.000	$_____,	$_____
0019	CONSTRUCT SIDEWALK CURB WALL	SF	100.000	$_____,	$_____
0020	CONSTRUCT 6-INCH IMPRINTED PCC SURFACING	SF	295.000	$_____,	$_____
0021	CONSTRUCT PCC CURB RAMP	SF	1739.000	$_____,	$_____
0022	CONSTRUCT DETECTABLE WARNING PANEL	SF	376.000	$_____,	$_____
0023	CONSTRUCT SEGMENTAL RETAINING WALL	SF	200.000	$_____,	$_____
0024	CONSTRUCT REINFORCED PCC RETAINING WALL	CY	6.000	$_____,	$_____
0025	INSTALL SODDING	SY	30.000	$_____,	$_____
0026	INSTALL ROLLED EROSION CONTROL, TYPE II WITH SEEDING - TYPE B	SY	50.000	$_____,	$_____
0027	INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 5" WHITE	LF	147.500	$_____,	$_____
0028	INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 12" WHITE	LF	56.000	$_____,	$_____
0029	INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 24" WHITE	LF	168.000	$_____,	$_____
0030	INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 5" YELLOW	LF	240.000	$_____,	$_____
0031	FURNISH FLASHING ARROW PANEL	DAY	8.000	$_____,	$_____
0032	PROVIDE TEMPORARY TRAFFIC CONTROL - PER INTERSECTION CORNER	EA	41.000	$_____,	$_____
0033	REPAIR CURB AND GUTTER	LF	1180.000	$_____,	$_____
0034	REPAIR DRIVEWAY	SY	64.000	$_____,	$_____
0035	REMOVE AND REPLACE PRECAST INLET TOP	EA	9.000	$_____,	$_____
0036	REMOVE AND INSTALL NEW SPRINKLER SYSTEM HEAD	EA	5.000	$_____,	$_____
0037	MOBILIZATION/DEMOBILIZATION	LS	1.000	$_____,	$_____
0038	TOWING	EA	5.000	$_____,	$_____
0039	RECONSTRUCT INLET	EA	6.000	$_____,	$_____
0040	PROVIDE TEMPORARY TRAFFIC CONTROL- PER SEGMENT	EA	3.000	$_____,	$_____
0041	RENTAL OF LOADER, FULLY OPERATED	HR	15.000	$_____,	$_____
0042	RENTAL OF SKID LOADER, FULLY OPERATED	HR	15.000	$_____,	$_____
0043	RENTAL OF DUMP TRUCK, FULLY OPERATED	HR	15.000	$_____,	$_____
0044	REPAIR 4" CONCRETE SIDEWALK	SF	2816.000	$_____,	$_____
0045	REPAIR 6" CONCRETE SIDEWALK	SF	21.333	$_____,	$_____
0046	CONSTRUCT CONCRETE BASE REPAIR (TYPE L65)	SY	1620.795	$_____,	$_____
0047	ONE-DAY CONCRETE COMPRESSIVE STRENGTH PAYMENT	SY	500.000	$_____,	$_____
0048	EPOXY COATED TIE BARS	EACH	4500.000	$_____,	$_____
0049	CAST IRON	LB	2939.000	$_____,	$_____

TOTAL BID **$_____**

The undersigned agrees, upon receipt of written notice of award of the contract within sixty (60) days after opening of bids, that they will execute the Contract on the standard form issued by the City Engineer in accordance with their Bid Proposal.

In submitting this Bid, the undersigned further agrees:

E. To furnish all material, labor, tools, expendable equipment, and all utility and transportation services necessary to perform and complete, in a workmanlike manner, all of the Work required in accord with the Bidding Documents.

F. To hold his Bid open for sixty (60) days after the receipt of Bids and to accept the provisions of the Instructions to Bidders regarding disposition of Bid Security.

G. To enter into and execute a Contract if awarded on the basis of this Bid, to furnish a Performance Bond and a Labor and Material Payment Bond (including a two (2) year maintenance guarantee) in accordance with the General Conditions and General Requirements of this Contract, and to deliver executed Owner-Contractor Agreements and Bonds to the Owner within five (5) working days after notification of award.

Further, the undersigned agrees to pay to the Owner the sum of $1000.00 for each calendar day that the work in this contract is not substantially complete after August 5th 2023.

As evidence of good faith, we herewith submit, in a SEPARATE SEALED ENVELOPE, a certified check or bid bond in the amount of five percent of the amount bid which shall become the property of the City of La Vista, Nebraska, in the event the undersigned fails to enter into a contract with said City or to furnish bond or bonds to validate said contract within five days after acceptance of this Proposal.

Receipt of Addenda No. _____ through _____ is hereby acknowledged.

Dated this _____ day of _____, 2023.

Respectfully submitted,

_____
COMPANY

_____
SIGNATURE

_____
NAME (TYPED OR PRINTED) TITLE

_____
ADDRESS

_____
TELEPHONE NO. FACSIMILE NO.

_____
E-MAIL ADDRESS

C O N T R A C T

THIS AGREEMENT made and entered into in quadruplicate, this _____ day of _____, 2023, by and between the CITY OF LA VISTA, NEBRASKA, hereinafter referred to as "Owner" and _____TBD_____, hereinafter referred to as "Contractor".

WITNESSETH:

Whereas, the Contractor did on January 6, 2023, submit to the Owner the lowest proposal for all items on the plans and specifications prepared by the Owner entitled "Plans and Specifications for 2023 STREET REHABILITATION AND RESURFACING" and for all work incidental or necessary thereto.

This contract, including the Notice inviting contractors to bid, the instructions to bidders, the proposal form, all applicable laws governing the Owner's authority to contract, and the general detailed plans and specifications, contains the entire agreement between the Owner and Contractor, and there are no other written or oral promises, agreements, or warrants which may affect it, except as previously noted herein. This Contract cannot be amended except by written agreement of both parties. Notice to the parties shall be given in writing to the agents for each party named below:

Owner:	City of La Vista 8116 Park View Boulevard La Vista, Nebraska 68128 Attn: Pat Dowse	Contractor:	___TBD_____ _____ _____ Attn: _____

In consideration of the following mutual agreements and covenants to be kept by each party, Contractor agrees to furnish all material, labor, tools, expendable equipment, permits required and all utility and transportation services necessary to perform and complete, in a workmanlike manner, all of the Work required in accordance with the Plans and Specifications for the prices:

ITEM	ITEM DESCRITPION	UNITS	QUANTITY	UNIT PRICE	AMOUNT
0001	CURB INLET PROTECTION	EA	12.000	$_____,	$_____
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Contractor shall also furnish all bonds required and pay all permit fees, and any other charges levied or required by any governmental authority exercising control over this project.

Once each month, the Owner will pay the Contractor 90% of the value of the work completed as of the end of the preceding month, as certified by the Owner's Engineer. The balance will be paid by the Owner upon completion of the work and approval of the Owner's Engineer and acceptance by the Owner.

The Contractor shall furnish a Performance Bond and Labor and Material Payment Bond (including a two (2) year Maintenance Guarantee), each in the amount of 100% of the contract sum, written by a surety licensed to do business in Nebraska. The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of this power of attorney indicating the monetary limit of such power. Contractor must also furnish a Certificate of Insurance for Worker's Compensation and Public Liability Insurance and Auto Insurance in the manner and with minimum limits as set forth in the General conditions of the Specifications.

The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin, sex, age, and disability/handicap in employment practices and the selection and retention of subcontractors, including procurements of materials and leases of equipment.

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us

2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by the Neb. Rev. Stat. 4-108

Contract is let subject to the following conditions:

Contractor agrees to commence work within 10 days after receiving written notification from the Owner to proceed, and to complete all work by August 5th 2023. As time is of the essence, for each calendar day that any work shall remain uncompleted after the above specified completion date, the Contractor shall pay to the Owner the sum of $1000.00 per day, not as a penalty, but as predetermined and agreed liquidated damages.

EXECUTED the day and year first above written.

CITY OF LA VISTA, NEBRASKA	CONTRACTOR TO BE DETERMINED
_____	_____
MAYOR	BY TITLE
_____	_____
CLERK	ATTEST

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned_____
_____as Principal, and_____
firmly bound unto _____
as Owner in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20__.

The Condition of the above obligation is such that whereas the Principal has submitted to _____ a certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing for the construction of _____.

NOW THEREFORE,

(a) If said Bid shall be rejected, or in the alternate,

(b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____
Principal

_____
Surety

By:_____

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____
(NAME OF CONTRACTOR)

_____
(ADDRESS OF CONTRACTOR)

a _____, hereinafter called Principal, and
(CORPORATION, PARTNERSHIP, OR INDIVIDUAL)

_____
(NAME OF SURETY)

_____
(ADDRESS OF SURETY)

hereinafter called Surety, are held and firmly bound unto _____, hereinafter called Owner, in the penal sum of _____ Dollars ($_____), in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner dated the _____ day of _____, 20____, for the construction of _____. NOW THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing material for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment, and tools consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor performed in such work whether by subcontractors or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder, or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work of to the specifications.

PROVIDED FURTHER, that the Owner is a political subdivision of the State of Nebraska and this Bond is intended to comply with the provisions of Section 52-118 through 52-118.02 inclusive of the Revised Statutes of Nebraska, and to the extent it may be inconsistent with the requirements of such statutory provisions, it shall be deemed amended to as to comply therewith.

PROVIDED FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied. IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20___.

ATTEST:

_____
(PRINCIPAL) SECRETARY
(SEAL)

_____
(WITNESS AS TO PRINCIPAL)
ADDRESS

BY: _____

ADDRESS: _____

_____
_____
SURETY

ATTEST:

_____
(SURETY) SECRETARY
(SEAL)

BY: _____
ATTORNEY-IN-FACT

ADDRESS: _____

(WITNESS AS TO SURETY)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____
(Name of Contractor)

_____
(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership, or Individual)

and _____
(Name of Surety)

_____
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto _____, hereinafter called Owner, in the penal sum of _____ Dollars ($_____), in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas the Principal entered into a certain contract with the Owner, dated the _____ day of _____, 20___, for the construction of _____. NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety and during the _____ guaranty period, and if he shall indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all this obligation shall be void; otherwise to remain in full force and effect. PROVIDED FURTHER that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications. PROVIDED FURTHER that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied. IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20__.

_____
PRINCIPAL

ATTEST:

_____ BY: _____
(PRINCIPAL) SECRETARY
(SEAL) ADDRESS: _____

_____
(WITNESS AS TO PRINCIPAL)

_____
ADDRESS

ATTEST:

_____ BY: _____
(SURETY) SECRETARY ATTORNEY-IN-FACT
(SEAL) ADDRESS: _____

_____
(WITNESS AS TO SURETY)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

GENERAL CONDITIONS

1. DEFINITIONS

1.1 Wherever used in the Contract Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

1.1.1 ADDENDA - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents, Drawings and Specifications by additions, deletions, clarifications or corrections.

1.1.2 BID - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the work to be performed.

1.1.3 BIDDER - Any person, firm or corporation submitting a Bid for the work.

1.1.4 BONDS - Bid, Performance, Payment and Maintenance Bonds and other instruments of security, furnished by the Contractor and his surety in accordance with the Contract Documents.

1.1.5 CHANGE ORDER - A written order to the Contractor authorizing an addition, deletion, or revision in the work within the general scope of the Contract Documents, or authorizing an adjustment in the contract price or contract time.

1.1.6 CONTRACT DOCUMENTS - The contract, including Advertising for Bids, Information for Bidders, Bid, Bid Bond, Agreement, Payment Bond, Performance Bond, Notice of Award, Notice to Proceed, Change Order, Drawings, Specifications and Addenda.

1.1.7 CONTRACT PRICE - The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.1.8 CONTRACT TIME - The number of working days stated in the Contract Documents for the completion of the work.

1.1.9 CONTRACTOR - The person, firm or corporation with whom the Owner has executed the Agreement.

1.1.10 DRAWINGS - The part of the Contract Documents which show the characteristics and scope of the work to be performed and which have been prepared or approved by the Engineer.

1.1.11 ENGINEER - The person, firm or corporation named as such in the Contract Documents.

1.1.12 FIELD ORDER - A written order affecting a change in the work not involving an adjustment in the contract price or an extension of the

contract time, issued by the Engineer to the Contractor during construction.

1.1.13 NOTICE OF AWARD - The written notice to the Bidder that the Engineer has recommended acceptance of the Bid to the Owner.

1.1.14 NOTICE TO PROCEED - Written communication issued by the Owner to the Contractor authorizing him to proceed with the work and establishing the date of commencement of the work.

1.1.15 OWNER - A public or quasi-public body or authority, corporation, association, partnership or individual for whom the work is to be performed.

1.1.16 PROJECT - The undertaking to be performed as provided in the Contract Documents.

1.1.17 RESIDENT PROJECT REPRESENTATIVE - The authorized representative of the Owner who is assigned to the project site or any part thereof.

1.1.18 SHOP DRAWINGS - All drawings, diagrams, illustrations, brochures, schedules, and other data which are prepared by the Contractor, a Subcontractor, manufacturer, supplier or distributor, which illustrate how specific portions of the work shall be fabricated or installed.

1.1.19 SPECIAL PROVISIONS - That part of the Contract Documents that modify and supersede the Standard Specifications for a particular project.

1.1.20 SPECIFICATIONS - A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.1.21 SUBCONTRACTOR - An individual, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the work at the site.

1.1.22 SUBSTANTIAL COMPLETION - That date as certified by the Engineer when the construction of the project or a specified part thereof is sufficiently completed, in accordance with the Contract Documents, so that the project or specified part can be utilized for the purposes for which it is intended.

1.1.23 SUPPLEMENTAL GENERAL CONDITIONS - Modifications to General Conditions required by a Federal Agency for participation in the project and approved by the agency in writing prior to inclusion in the Contract Documents.

1.1.24 SUPPLIERS - Any person, supplier or organization who supplies materials or equipment for the work, including that fabricated to a special design, but who does not perform labor at the site.

1.1.25 WORK - All labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the project.

1.1.26 WRITTEN NOTICE - Any notice to any part of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the work.

2. ADDITIONAL INSTRUCTIONS AND DETAILED DRAWINGS

2.1 The Contractor may be furnished additional instructions and detailed drawings by the Engineer, as necessary to carry out the work required by the Contract Documents.

2.2 The additional drawings and instructions thus supplied will become a part of the Contract Documents. The Contractor shall carry out the work in accordance with the additional detailed drawings and instructions.

3. SCHEDULES, REPORTS AND RECORDS

3.1 The Contractor shall submit to the Owner such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data as the Owner may request concerning work performed or to be performed.

3.2 When requested by the Owner and prior to the first partial payment estimate, the Contractor shall submit schedules showing the order in which he proposes to carry on the work, including dates at which he will start the various parts of the work, estimated dated of completion of each part, and, as applicable:

3.2.1 the dates at which special detailed drawings will be required; and

3.2.2 respective dates for submission of shop drawings, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

3.2.3 a schedule of payments that he anticipates he will earn during the course of the work.

4. DRAWINGS AND SPECIFICATIONS

4.1 The intent of the drawings and specifications is that the Contractor shall furnish all labor, materials, tools, equipment, water, light, power, superintendence, barricades, signs, temporary construction and transportation necessary for the proper execution of the work in accordance with the Contract Documents and all incidental work necessary to complete the project in an acceptable manner, ready for use, occupancy or operation by the Owner.

4.2 In case of conflict between the drawings and specifications, the specifications shall govern. Figure dimensions on drawings shall govern over scale dimensions, and detailed drawings shall govern over general drawings. In case of a conflict in the documents as to quantity or quality of work or material, the greater quantity or better quality of work or materials shall be furnished by the Contractor.

4.3 Any discrepancies found between the drawings and specifications and site conditions or any inconsistencies or ambiguities in the drawings or specifications shall be immediately reported to the Engineer, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the Contractor's risk.

4.4 The Engineer shall provide the Contractor with four sets of plans and specifications. Additional sets will be provided only at the Contractor's expense. Said plans and specifications are the property of the Engineer and are provided for use on this project only.

4.5 The data given in the specifications and shown on the plans and drawings is believed to be accurate, but the accuracy is not guaranteed. The Contractor must take all levels, locations, measurements, and verify all dimensions on the site prior to construction and adapt this work into the exact construction. Scale measurements taken from prints are not to be used for more than reference.

5. SHOP DRAWINGS

5.1 The Contractor shall provide shop drawings as may be necessary for the prosecution of the work as required by the Contract Documents. The Engineer shall promptly review all shop drawings. The Engineer's approval of any shop drawing shall not release the Contractor from responsibility for deviations from the Contract Documents. The approval of any shop drawing which substantially deviates from the requirement of the Contract Documents shall be evidenced by a Change Order.

5.2 When submitted for the Engineer's review, shop drawings shall bear the Contractor's certification that he has reviewed, checked and approved the shop drawings and that they are in conformance with the requirements of the Contract Documents.

5.3 Portions of the work requiring a shop drawing or sample submission shall not begin until the shop drawing or submission has been approved by the Engineer. A copy of each approved shop drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.

6. MATERIALS, SERVICES AND FACILITIES

6.1 It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, traffic barricades and signs, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete and deliver the work within the specified time.

6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the work. Stored materials and equipment to be incorporated in the work shall be located so as to facilitate prompt inspection.

6.3 Manufactured articles, materials and equipment shall be applied installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the Contractor and approved by the Engineer. Names and addresses of suppliers must be furnished to the Engineer on request.

6.5 Materials, supplies or equipment to be incorporated into the work shall not be purchased by the Contractor or the Subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

6.6 Contractor warrants that the normal warranties or manufacturers shall fully apply to all materials and equipment and shall inure to and be fully enforceable by the Owner, which manufacturer's warranty shall be cumulative to, and not in lieu of, any separate warranty or guarantee of the Contractor.

7. INSPECTION AND TESTING

7.1 All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with generally accepted standards.

7.2 The Contractor shall provide at his expense the necessary testing and inspection services required by the Contract Documents, unless otherwise provided.

7.3 The Owner shall provide all other inspection and testing services not required by the Contract Documents.

7.4 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any work to specifically be inspected, tested, or approved by someone other than the Contractor, the Contractor will give the Engineer timely notice of readiness. The Contractor will then furnish the Engineer the required certificates of inspection, testing or approval.

7.5 Neither observations by the Engineer nor inspections, tests or approvals by persons other than the Contractor shall relieve the Contractor from his obligations to perform the work in accordance with the requirements of the Contract Documents.

7.6 The Engineer and his representatives will at all times have access to the work. In addition, authorized representatives and agents of any participating governmental agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices for materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the work and also for any inspection or testing thereof.

7.7 If any work is covered contrary to the written request of the Engineer, it must, if requested by the Engineer, be uncovered for his observation and replaced at the Contractor's expense.

7.8 If any work has been covered which the Engineer has not specifically requested to observe prior to its being covered, or if the Engineer considers it necessary or advisable that covered work be inspected or tested by others, the Contractor, at the Engineer's request, will uncover, expose or otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such work is defective, the Contractor will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such work is not found to be defective, the Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order shall be issued.

8. SUBSTITUTIONS

8.1 Whenever a material, article or piece of equipment is identified on the drawings or specifications by reference to brand name or catalogue number, it shall be understood that this referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the Contract Documents by reference to brand name or catalogue number, and if, in the opinion of the Engineer, such material, article, or piece of equipment is of equal substance and function to that specified, the Engineer may approve its substitution and use by the Contractor. Any cost differential shall be deductible from the Contract Price and the Contract Documents shall be appropriately modified by Change Order.

The Contractor warrants that if substitutions are approved, no major changes in the function or general design of the project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price of Contract Time.

9. PATENTS

9.1 The Contractor shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Engineer.

10. SURVEYS, PERMITS AND REGULATIONS

10.1 The Owner's Engineer shall provide all needed land surveys and establish all base lines for locating the principal component parts of the work, together with a suitable number of reference stakes adjacent to the work for the purpose of determining the location and elevation of such things as sewer lines, manholes, inlets, water lines, pavement, and the like. It shall be the responsibility of the Contractor to use such reference stakes to determine any working points, lines, and elevations such as he may desire to use in the construction of the work.

10.2 Surveys, stakes, reference points and bench marks provided by the Owner will be provided one time only. Any resurveying or restaking required will be done by the Owner's Engineer at the expense of the Contractor. All expenses resulting from willful or careless destruction of such stakes, reference points or bench marks shall be borne by the Contractor.

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the work shall be secured and paid for by the Contractor. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the Contract Documents are at variance therewith, he shall promptly notify the Engineer in writing, and any necessary changes shall be adjusted as provided in Section 13, Changes In The Work.

11. PROTECTION OF WORK, PROPERTY, AND PERSONS

11.1 The Contractor will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the work and other persons who may be affected thereby, all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. He shall maintain sufficient access to fire hydrants. He shall not obstruct natural drainageways.

11.2 The underground utilities shown on the plans are shown as an aid to the Contractor. They are believed to be accurate, but are not guaranteed to be such or that these are the only utilities in the construction area. The Contractor shall personally check and verify utility information on the plans and he must satisfy himself as to the existence and location of all utilities and structures.

The Contractor shall exercise care to protect from injury all water pipes, sanitary sewer pipes, gas mains, telephone cables, electric cables, service pipes, and other utilities or fixtures which may be encountered during the progress of the work. All utilities and other service facilities or fixtures, if damaged, shall be repaired by the Contractor without additional compensation. In no case shall interruption of water or gas service be allowed to exist outside of working hours.

Should any sewer connection be encountered that is in direct conflict with any proposed item of construction, those connections shall either be raised, lowered, moved or connected as the Engineer may direct. Appropriate compensation shall be provided by a Change Order.

Should other utilities such as water mains, gas mains or services, steam lines, electric wires or conduits, telephone wires or conduits be encountered that are in direct conflict with a proposed item in construction and must be moved, the cost of moving same shall be at the expense of the Owner or the utility involved.

The Contractor shall cooperate with the utilities and schedule his work in such a manner as to protect the existing utility facilities until such time as the facilities are abandoned or replacement facilities are completed.

The Contractor shall give notice in writing at least 48 hours before breaking ground, to all persons, superintendents, inspectors, or those otherwise in charge of property, streets, water pipes, gas pipes, sewer pipes, telephone cables, electric cables, railroads or otherwise, who may be affected by the Contractor's operation, in order that they may remove any obstruction for which

they are responsible and have a representative on the site to see that their property is properly protected.

11.3 The Contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction over the project. He will erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. The Contractor will remedy all damage, injury and loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them is liable, except damage or loss attributable to the fault of the Contract Documents or to the acts or omissions of the Owner or the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault of negligence of the Contractor.

11.4 In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Engineer or Owner, shall act to prevent threatened damage, injury or loss. He will give the Engineer prompt written notice of any significant changes in the work or deviations from the Contract Documents caused thereby, and a Change Order shall thereupon be issued covering the changes and deviations involved.

12. SUPERVISION BY CONTRACTOR

12.1 The Contractor will supervise and direct the work. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor will employ and maintain on the work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.

12.2 Incompetent, disorderly, intemperate or incorrigible employees will be dismissed by the Contractor or his representative when requested by the Engineer, and such persons shall not again be permitted to return to the work without the written consent of the Engineer.

12.3 The Contractor agrees to indemnify and hold the Owner harmless from any and all loss or damages arising out of jurisdictional labor disputes or other labor troubles of any kind that may occur during the construction or performance of this contract.

12.4 The Contractor must keep all streets, alleys and sidewalks as free from material and debris as the character of the work will permit, and upon completion of any part of the work must, within a reasonable time, remove all surplus material and debris and leave the area in acceptable condition.

Failure to comply with this provision after due and proper notice has been given by the Owner will be sufficient grounds for the Owner to proceed to clean up such material and debris, and make such repairs, charging same to the Contractor, who hereby agrees to the provisions as above set forth.

13. CHANGES IN THE WORK

13.1 The Owner may at any time, as the need arises, order changes within the scope of the work without validating the Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the work, an equitable adjustment shall be authorized by Change Order.

13.2 The Engineer may at any time, by issuing a Field Order, make changes in the details of the work. The Contractor shall proceed with the performance of any changes in the work so ordered by the Engineer unless the Contractor believes that such Field Order entitles him to a change in contract price or time, or both, in which event he shall give the Engineer written notice thereof within fifteen (15) days after the receipt of the ordered change, and the Contractor shall not execute such changes pending the receipt of an executed Change Order or further instruction from the Owner.

13.3 The Contractor may reasonably expect a variation in the estimated quantities, such that the total payment for the completed work may range from 80 to 120 percent of the total amount based on the estimated quantities. The Contractor will be allowed no claims for anticipated profits, for loss of profits, or any damage of any sort because of a difference between the estimate of any item and the amount of the item actually required. The Owner reserves the right to eliminate items from the Proposal as may be required to bring the cost of the work within the limits of available funds.

14. CHANGES IN CONTRACT PRICE

14.1 The Contract Price may be changed only by a Change Order. The value of any work covered by a Change Order or of any claim for increase or decrease in the Contract Price shall be determined by one or more of the following methods in the order of precedence listed below:

(a) Unit prices previously approved.

(b) An agreed lump sum.

(c) The actual cost for labor, direct overhead, materials, supplies, equipment and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon, but not to exceed fifteen (15) percent of the actual cost of the work to cover the cost of general overhead and profit.

15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the time for completion of the work are essential conditions of the Contract Documents and the work embraced shall be commenced on a date specified in the Notice to Proceed.

15.2 The Contractor will proceed with the work at such rate of progress to insure full completion within the Contract Time. It is expressly understood and agreed, by and between the Contractor and the Owner, that the Contract Time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

15.3 If the Contractor shall fail to complete the work within the Contract Time, or extension of time granted by the Owner, then the Contractor will pay to the Owner the amount for liquidated damages as specified in the Contract Documents for each calendar day that the Contractor shall be in default after the time stipulated in the Contract Documents.

15.4 The Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following, the Contractor has promptly given written notice of such delay to the Owner or Engineer:

15.4.1 To any preference, priority or allocation order duly issued by the Owner.

15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, acts of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and;

15.4.3 To any delays of Subcontractors occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

16. CORRECTION OF WORK

16.1 The Contractor shall promptly remove from the premises all work rejected by the Engineer for failure to comply with the Contract Documents, whether incorporated in the construction or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract Documents and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

16.2 All removal and replacement work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected work within ten

(10) days after receipt of Written Notice, the Owner may remove such work and store the materials at the expense of the Contractor.

17. SUBSURFACE CONDITIONS

17.1 The Contractor shall promptly, and before such conditions are disturbed, except in the event of any emergency, notify the Owner by Written Notice of:

17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or

17.1.2 Unknown physical conditions at the site, of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.

17.2 The Owner shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for performance of the work, an equitable adjustment shall be made and the Contract Documents shall be modified by a Change Order. Any claim of the Contractor for adjustment hereunder shall not be allowed unless he has given the required written notice; provided that the Owner may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

18. SUSPENSION OF WORK, TERMINATION AND DELAY

18.1 The Engineer may, by issuing a written order, suspend construction if the weather if unfavorable for pursuit of the work. In this case, a second order shall be issued for resumption of work at an appropriate time. No working days shall be counted during such suspension. No increase in the contract price shall be allowed because of such suspension. This provision, or the non-exercise thereof by Owner or Engineer, shall not relieve Contractor from the primary obligation to make certain construction work is not performed during weather that is unfavorable for the pursuit of the work.

18.2 The Owner may, at any time and without cause, suspend the work or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the Contractor, by written notice to the Contractor and the Engineer, which notice shall fix the date on which work shall be resumed. The Contractor will resume that work on the date so fixed. The Contractor will be allowed an extension of Contract Time in respect to any such suspension.

18.3 If the Contractor is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the Contractor or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to Subcontractors or for labor, materials, or equipment of if he

disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the work, or if he disregards the authority of the Engineer, or if he otherwise violates any provision of the Contract Documents, then the Owner may, without prejudice to any other right or remedy and after giving the Contractor and his surety a minimum of ten (10) days from delivery of a written notice, terminate the services of the Contractor and take possession of the project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, and finish the work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price exceeds the direct and indirect costs of completing the project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor will pay the difference to the Owner. Such costs incurred by the Owner will be determined by the Engineer and incorporated in a Change Order.

18.4 Where the Contractor's services have been so terminated by the Owner, said termination shall not affect any right of the Owner against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies by the Owner due the Contractor will not release the Contractor from compliance with the Contract Documents.

18.5 After ten (10) days from delivery of a written notice to the Contractor and the Engineer, the Owner may, without cause and without prejudice to any other right or remedy, elect to abandon the project and terminate the Contract. In such case, the Contractor shall be paid for all work executed and any expense sustained plus reasonable profit.

18.6 If, through an act or fault of the Contractor, the work is suspended for a period of more than ninety (90) days by the Owner or under an order of court or other public authority, or the Engineer fails to act on any request for payment within thirty (30) days after it is submitted, or the Owner fails to act on approved payment requests submitted by the Engineer or awarded by the arbitrators within thirty (30) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a written notice to the Owner and the Engineer, and Owner's/Engineer's failure to act within said ten (10) day period, terminate the Contract and recover from the Owner payment for all work executed and all expenses sustained. In addition and in lieu of terminating the Contract, if the Engineer has failed to act on a request for payment or if the Owner has failed to make any payment as aforesaid, the Contractor may, upon ten (10) days notice to the Owner and the Engineer and Owner's/Engineer's failure to act within said ten (10) day period, stop the work until he has been paid all amounts then due, in which event and upon resumption of the work, a Change Order shall be issued extending the Contract Time, and, if appropriate under the circumstances, an adjustment in the Contract Price to the extent of actual damage proximately caused to Contractor.

18.7 If the performance of the work is suspended, delayed or interrupted as a result of a failure of the Owner or Engineer to act within the time specified in the

Contract Documents, or if no time is specified, within a reasonable time, an extension of the Contract Time shall be made to adjust for the delay caused to the Contractor as a result of such failure of the Owner or Engineer.

19. PAYMENTS TO CONTRACTOR

19.1 At least ten days before each progress payment falls due (but not more often than once a month), the Contractor will submit to the Engineer a partial payment estimate filled out and signed by the Contractor covering the work performed during the period covered by the partial payment estimate and supported by such data as the Engineer may reasonably require. No payment shall be made on account of materials until actually incorporated in the work. The Engineer will, within ten days after receipt of each partial payment estimate, either indicate in writing his approval of payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the Owner, or return the partial payment estimate to the Contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the contractor may make the necessary corrections and resubmit the partial payment estimate. The Owner will, upon presentation to him of an approved partial payment estimate, promptly issue an appropriate instrument of payment to the Contractor in the appropriate sum. The Owner shall retain fifteen (15%) percent of the amount of each payment until final completion and acceptance of all work covered by the Contract Documents. On completion and acceptance of a part of the work on which the price is stated separately in the Contract Documents, payment may be made in full, including retained percentages, less authorized deductions.

19.2 The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably stored either at or near the site.

19.3 All work covered by partial payment made shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Owner to require the fulfillment of all terms of the Contract Documents.

19.4 Upon completion and acceptance of the work, the Engineer shall issue a certificate that the work has been accepted by him under the conditions of the Contract Documents. The entire balance found to be due the Contractor, including the retained percentages, but except such sums as may be lawfully retained by the Owner, shall be paid to the Contractor promptly upon completion and acceptance of the work.

19.5 The Contractor will indemnify and save the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the work. The Contractor shall, at the Owner's request,

furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the Contractor fails to do so the Owner may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, his Surety, or any third party. In paying any unpaid bills of the Contractor, any payment so made by the Owner shall be considered as a payment made under the Contract Documents by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payments made in good faith.

19.6 If the Owner fails to make prompt payment after approval by the Engineer, in addition to other remedies available to the Contractor, there shall be added to each such payment interest at the rate of nine percent (9%) per annum commencing on the first day after said payment is due and continuing until the payment is received by the Contractor.

20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

20.1 The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor other than claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this work and for every act and neglect of the Owner and others relating to or arising out of this work. Any payment, however, final or otherwise, shall not release the Contractor or his sureties from any obligations under the Contract Documents or the Performance Bond and Payment Bonds.

21. INSURANCE

21.1 The Contractor shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's execution of the work, whether such execution be by himself or by any Subcontractor or by anyone directly or indirectly employed any of them, or by anyone for whose acts any of them be liable:

21.1.1 Claims under workmen's compensation, disability benefit and other similar employee benefit acts;

21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;

21.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;

21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an

offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person; and

21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

21.1.6 Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

21.2 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the work. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled unless at least thirty (30) days prior written notice has been given to the Owner.

21.3 The Contractor shall procure and maintain, at his own expense, during the Contract Time, liability insurance as hereinafter specified:

21.3.1 Contractor's General Public Liability and Property Damage Insurance including vehicle coverage issued to the Contractor and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the Contract Documents, whether such operations be by himself or by any Subcontractor under him, or anyone directly or indirectly employed by the Contractor or by a Subcontractor under him. Insurance shall be written with a limit of liability not less than $1,000,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than $2,000,000 for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than $500,000 for any such damage sustained by two or more persons in any one accident.

21.3.2 The Contractor shall acquire and maintain, if applicable, fire and extended coverage insurance upon the project to the full insurable value thereof for the benefit of the Owner, the Contractor, and Subcontractors as their interest may appear. This provision shall in no way release the Contractor or Contractor's Surety from obligations under the Contract Documents to fully complete the project.

21.4 The Contractor shall procure and maintain, at his own expense, during the Contract Time, in accordance with the provisions of the laws of the State in which the work is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the project and in case any work is sublet, the Contractor shall require such Subcontractor similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees

unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under Workmen's Compensation statute, the Contractor shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The Owner will not carry Builder's Risk or other property insurance on the Work. Contractor shall bear the risk of loss of the Work until final acceptance by Owner upon completion, and Contractor shall insure its own interests in the Work accordingly.

21.6 Approval of the insurance by the Owner shall not in any way relieve or decrease the liability of the Contractor hereunder, and it is expressly understood that neither the Owner nor the Engineer in any way represent that the above specified insurance or limits of liability are sufficient or adequate to protect the Contractor's interests or liabilities.

21.7 It is a condition of the Contract that the policy or policies waive any and all governmental immunity as a defense in any action brought against the insured or any other party to the Contract.

21.8 Contractor shall not commence work on the site until two certified copies of all insurance policies, attesting that the required coverage is in force, have been received and accepted by the Owner:

22. CONTRACT SECURITY

22.1 The Contractor shall within ten (10) days after the receipt of the Notice of Award furnish the Owner with a Performance Bond and a Payment Bond in penal sums equal to the amount of the Contract Price and in form satisfactory to the Owner, conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract Documents, and upon the prompt payment by the Contractor to all persons supplying labor and materials in the prosecution of the work provided by the Contract Documents. Such bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the state in which the work is to be performed. The expense of these bonds shall be borne by the Contractor. If at any time a surety on any such bond is declared a bankrupt or loses its right to do business in the state in which the work is to be performed, the Contractor shall within ten (10) days after notice from the Owner to do so, substitute any acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums on such bond shall be paid by the Contractor. No further payments shall be deemed due nor shall be made under the Contract Documents until the new surety or sureties shall have furnished an acceptable bond to the Owner.

23. ASSIGNMENTS

23.1 Neither the Contractor nor the Owner shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of his right, title or interest therein, or of any amounts that may come due thereunder, or his obligations thereunder without written consent of the other party.

24. INDEMNIFICATION

24.1 The Contractor will indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom; and is caused, directly or indirectly, in whole or in part by an negligent or willful act or omission of the Contractor, and Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

24.2 If, through acts of negligence on the part of the Contractor, any other Contractor or Subcontractor shall suffer loss or damage to his work, the Contractor agrees to settle with such other Contractor or Subcontractor by agreement or arbitration, if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor asserts any claim against the Owner on account of any damage alleged to have so sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against such claims and for any costs in connection with such claims.

24.3 In any and all claims against the Owner or the Engineer, or any of their agents or employees, by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefits acts.

24.4 The obligation of the Contractor under this paragraph shall not extend to the liability of the Engineer, his agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications.

25. SEPARATE CONTRACTS

25.1 The Owner reserves the right to perform additional work or let other contracts in connection with this project. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs. If the proper execution or results of any part of the contractor's work depends upon the work of any other contractor, the contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results.

25.2 If the performance of additional work by other contractors or the Owner is not noted in the Contract Documents prior to the execution of the Contract, written notice thereof shall be given to the Contractor prior to starting any such additional work. If the Contractor believes that the performance of such additional work by the Owner or others involves him an additional expense or entitles him to an extension of the Contract Time, he may make a claim therefore as provided in Sections 14 and 15.

26. SUBCONTRACTING

26.1 The Contractor may utilize the services of specialty Subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty Subcontractors.

26.2 The Contractor shall not award work to Subcontractors in excess of fifty (50%) percent of the Contract Price, without prior written approval of the Owner.

26.3 The Contractor shall be fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

26.4 The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind Subcontractors to the Contractor by terms of the Contract Documents insofar as applicable to the Work of Subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.

26.5 Nothing contained in this Contract shall create any contractual relation between any Subcontractor and the Owner. Names and addresses of Subcontractors shall be furnished to the Engineer on request.

27. ENGINEER'S AUTHORITY

27.1 The Engineer shall act as the Owner's representative during the construction period. He shall decide questions which may arise as to quality and acceptability of materials furnished and work performed. He shall interpret the intent of the Contract Documents in a fair and unbiased manner. The Engineer will make visits to the site and determine if the work is proceeding in accordance with the Contract Documents.

27.1.1 Inspectors may be stationed on the work to report to the Engineer as to the progress of the work, the manner in which it is being performed, and also to report whenever it appears that materials furnished and work performed by the Contractor fail to fulfill the requirements of the contract. The inspector may direct the attention of the Contractor to such failure or infringement, but such inspection shall not relieve the Contractor from any obligation to furnish acceptable materials or to provide completed construction that is satisfactorily in accordance with the contract.

27.1.2 In case of any dispute arising between the inspector and Contractor as to materials, furnished, the manner of performance or order of work, the inspector shall have the authority to reject materials or suspend the work until the matter can be referred to and decided by the Engineer. Inspectors are not authorized to revoke, alter, enlarge, relax or release any requirements of these specifications, nor to issue instructions contrary to the plans and specifications. Inspectors shall in no case, act as foreman or perform other duties for the Contractor.

27.2 The Contractor will be held strictly to the intent of the Contract Documents in regard to the quality of materials, workmanship and execution of the work. Inspection may be made at the factory or fabrication plant of the source of material supply.

27.3 The Engineer will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety, except that he may direct the order in which the various phases of the project are to be constructed.

27.4 The Engineer shall promptly make decisions relative to interpretation of the Contract Documents.

28. LAND AND RIGHTS-OF-WAY

28.1 Prior to issuance of Notice to Proceed, the Owner shall obtain all land and rights-of-way necessary for carrying out and for the completion of the work to be performed pursuant to the Contract Documents, unless otherwise mutually agreed.

28.2 The Owner shall provide to the Contractor information which delineate and describes the lands owned and rights-of-way acquired.

28.3 The Contractor shall provide, at his own expense and without liability to the Owner, any additional land and access thereto that the Contractor may desire for temporary construction facilities or for storage of materials.

29. GUARANTY

29.1 The Contractor shall guarantee all materials and equipment furnished and work performed for a period of two (2) years from the date of the Owner's acceptance. The Contractor warrants and guarantees for a period of two (2) years from the date of acceptance of the system that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system or other separately constructed improvements resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

29.2 At the expiration of the guarantee period, the Contractor and his surety shall be released from further obligation under the guarantee portion of this contract, provided the Engineer certifies to the Owner that the work performed under this contract is in good and proper condition at the time. It shall be the duty of the Contractor to notify the Owner in writing within thirty (30) days prior to the expiration date of the guarantee period to make the final inspection of the work. Unless the Contractor shall furnish such notice, the obligation to maintain the work shall continue in force until such notice shall have been furnished; however, such final inspection will not be made between December 1st and March 31st, unless otherwise specified or approved by the Engineer.

30. ARBITRATION

30.1 Notwithstanding any other provisions in these General Conditions to the contrary, no claim, dispute or other matter coming into question shall be subject to arbitration, unless the Owner, after the claim or dispute shall have arisen, shall have agreed to submit the matter to arbitration and shall have agreed as to the manner in which the specific claim or dispute shall be arbitrated. Nothing is this agreement shall be construed as requiring either party to submit to arbitration as a condition of seeking direct recourse from the courts.

30.2 The Contractor will carry on the work and maintain the progress scheduled during any arbitration proceedings that may be agreed to, unless otherwise mutually agreed in writing.

31. TAXES

31.1 Nebraska Sales Tax. The Owner is exempt from Nebraska sales and use taxes. The Contractor shall be designated as a purchasing agent for the Owner per Nebraska Department of Revenue Form 17.

31.2 Other Local Taxes. Contractor shall pay any tax other than sales or use tax required by the law of the place where the work is performed.

32. ACCESS BY GOVERNMENTAL AND GRANTING AUTHORITIES

32.1 Contractor shall provide the Owner, Engineer, the Engineer's representatives or the representatives or agents of federal, state, county, district or municipal governmental agencies proper facilities for access to, observation of, inspection of, or testing of the work. In addition, and when required, authorized representatives and agents of any participating federal or state agency shall be permitted to inspect all work, materials, payrolls, records, material invoices, and other relevant data and records.

33. RECORD RETENTION

33.1 The Contractor shall retain records for three years after final payment is made under the contract. If an audit, litigation, or other action involving the records is started before the end of the three-year period, the records must be retained until all issues arising out of the action are resolved, or until the end of the three-year period, whichever is later.

34. CONTRIBUTION UNDER NEBRASKA EMPLOYMENT SECURITY LAW

34.1 The Contractor and any Subcontractor under him or it shall make payment to the Unemployment Compensation Fund of the State of Nebraska of all contributions and interest due under the provisions of Sections 48-657(2), Revised Statutes of Nebraska, 1984 Reissue, or as amended, on wages paid to individuals employed in the performance of the contract of which these general conditions are a part; and before final payment shall be made of the final 3% of this contract, the Contractor shall secure the file with the Owner, and cause any Subcontractor under him to secure and file with the Owner, a written clearance from the State Commissioner of Labor of Nebraska, as required by Section 48-658(4), certifying that all payments then due of contributions or interest which may have arisen under this contract have been made by the Contractor or his Subcontractor to the Unemployment Compensation Fund.

2023 PAVEMENT REHABILITATION AND RESURFACING

PROJECT M-376(407)

CITY OF LA VISTA, NEBRASKA

SPECIAL PROVISIONS

PROJECT SCOPE AND SCHEDULE

This work shall consist of, but is not limited to the following operations: Construction of ADA Compliant Curb Ramps, Miscellaneous Curb and Gutter Repairs, Concrete Pavement Rehabilitation and subgrade repairs as determined, Surface Milling, Concrete Pavement Base Repairs, Asphalt Pavement Construction, Installation of Permanent Pavement Markings, and all incidental work to complete the work shown in the contract documents such as erosion control, temporary traffic control and staking as required. All work shall be completed in accordance with the *2020 City of Omaha Standard Specifications for Public Works Construction, including any amendments or supplemental specifications*, the 2020 Standard Plates, the Manual of Uniform Traffic Control Devices (MUTCD) and all other requirements or amendments contained within the Contract Documents.

It is anticipated the contractor will request a notice to proceed to begin construction as early as April 3rd, 2023, and no later than June 5th, 2023. Regardless of the date construction actually begins, all work shall be completed on or by August 5th, 2023.

The Contractor/Subcontractor shall conduct his/her operations in strict accordance with all OSHA and manufacturer's safety requirements, and all local state and federal regulations. Particular attention is needed to those safety requirements involving entering confined spaces. It shall be the Contractors/Subcontractors responsibility to be familiar with, and to ensure his/her employees are training in and follow, the said OSHA and manufacturers' safety requirements and all local, state, and federal regulation pertaining to all aspects of the work.

The contractor and subcontractors are responsible for implementing temporary erosion and dust control provisions. It is their responsibility to assure that the erosion, sediment, and dust control measures meet the requirements of the contract.

All references that allow the use of SG65 or any other concrete mix containing only sand gravel aggregates shall be deleted unless otherwise approved in writing by the Engineer prior to use.

CONTRACT DOCUMENT CONTROL

1. All work, material, guarantees and bonds shall conform with:

(a) All applicable Federal and State laws and all applicable ordinances and City of Omaha regulations.

(b) The plans and all notations shown and specified on the plans.

(c) The Supplemental Technical Specifications and Special Provisions contained herein.

(d) The *City of Omaha 2020 Standard Specifications for Public Works Construction and City of Omaha 2020 Standard Plates*.

(e) The *City of Omaha Standard Specifications for Public Works Construction, 2020 Edition.*

2. In case of conflict between or among:

(a) The notations shown and specified on the plans.

(b) The Supplemental Technical Specifications and Special Provisions contained herein

(c) The *City of Omaha 2020 Standard Specifications for Public Works Construction and City of Omaha 2020 Standard Plates.*

then the conditions shall control and prevail in accordance with the sequence above enumerated in this paragraph.

Copies of the *CITY OF OMAHA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, **2020 Edition*** are available from the General Services Division of the Public Works Department (6th Floor), Omaha/Douglas Civic Center, 1819 Farnam Street, Omaha, Nebraska 68183.

The Specifications can be downloaded from:
https://publicworks.cityofomaha.org/contractors-consultants2/contractors/standard-plates-curb-ramps-and-specifications

1. GENERAL CONDITIONS FOR CONSTRUCTION

A. Preconstruction & Progress Meetings

Within five (5) business days before the **preconstruction conference,** Contractor shall submit to Engineer for review a Progress Schedule (Gantt Chart) showing one, clear, critical path from expected Notice-to-Proceed Date to project completion with all operations noted above shown with corresponding starting and ending dates for each operation, and total duration of days required to complete all phases of the work.

The Contractor is advised that prior to beginning any construction, a Preconstruction Conference shall be held with City of La Vista representatives, pertinent utility company representatives, and the Contractor's representatives (including the superintendent/foreperson who will be responsible for work on the project site), to discuss and supply the construction progress schedule. This schedule shall be subject to the approval of the City and shall be adhered to during the project.

The Contractor shall provide all required submittals, including intended mix designs, material suppliers and providers, subcontractors, and with the submission of this preliminary schedule.

B. Testing and Inspection

The cost of all inspections, tests, and approvals meeting the specification requirements and not designated as the Contractor's responsibility, will be borne by the City. Costs of all tests not meeting the specification requirements will be paid for by the City but shall be deducted from payments due to the Contractor. Furthermore, the City will hire (a) consultant(s) to perform inspection, testing and observations services as necessary for the satisfactory construction of the project. The contractor may become responsible for a portion or all of the costs of inspection and testing if the contractor is found to be part or fully responsible for delays in completing the work.

C. Contract Time and Daily Working Hours– Calendar Days

Calendar days are all days appearing on the calendar and shall include Saturdays, Sundays, all legal holidays, and any days on which work is restricted or not allowed. Work will not be allowed on any Sundays, legal holidays and Saturdays immediately following or preceding any such holiday occurring on a Friday or Monday. Unless unavoidable or otherwise approved by the Engineer, work should be completed between the hours of 7AM and 7PM on the working days allowed as noted above. Calendar Days will be Charged from the issue of the Notice To Proceed Date to Completion of all work required on the contract including any joint sealing of curb ramps or pavement, any final items noted during a final inspection, such as seeding/sodding and repair of damage caused by the contractor.

D. Quantity Overrun and Underruns

The quantities identified and agreed to in the proposal pages are an estimate of the work needed to complete the project as identified in the plans and contract documents. The Contractor shall expect a variation ranging from eighty percent (80%) to one hundred and twenty percent (120%) of the Grand Total bid based on the estimated quantities. The Contractor shall make every reasonable effort to construct the proposed work to the details and dimensions indicated in the Contract Documents unless otherwise directed by the Engineer. The City reserves the right to add, reduce or eliminate items of work from the proposal as necessary to bring the total cost of the work within the limits of available funds. The Contractor will be allowed no claims for anticipated profits, loss of profits, or for damage of any sort because of a difference between the estimated quantity of work and the actual work performed.

2. UTILITY COORDINATION

Contractor is responsible for notifying all Utility companies, pipeline owners, or other parties affected by the work. Contractor shall contact the State of Nebraska "One- Call" system for assistance in locating all Utilities, pipelines, and other installations in the Project. Contractor shall be responsible for coordinating the Work with all Utility owners to remove and rearrange underground or overhead utilities to avoid service interruption or duplicate work by the Utility owner. Contractor shall use work procedures that protect Utilities or appurtenances that remain in place during construction.

The Contractor acknowledges that the existence, installation, replacement, or relocation of Utilities, before or during the Project, is inherent in the type of work provided for in the Contract Documents, and may delay, conflict with, damage, or otherwise affect the Project and the Contractor’s Work. Upon submitting its Bid, Contractor agrees that its Contract Price includes consideration of any such effect on the Project and its Work caused by Utilities, whether identified or unidentified, whether foreseeable or unforeseeable, whether existing at the time of Bid or installed, replaced, or relocated during the Project, and whether or not the owner of the Utilities acts or acted negligently with respect to the same.

Contractor agrees that Owner will not be provide any additional compensation due to delays, inconvenience, or damages sustained by interference from said Utilities or appurtenances or the operation of relocating or replacing said Utilities.

Contractor shall notify the appropriate Utility of any service interruption resulting from breakage, within the construction limits or otherwise, by Contractor's operations, and cooperate during service restoration. Contractor is responsible for correcting and/or paying for repairs for damage to Utilities resulting from Contractor's operations. Contractor shall restore damaged facilities to the preexisting condition.

3. DELAYS IN CONTRACTOR'S PROGRESS

If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times. Contractor's entitlement to an adjustment of the

Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work and the Work is a component of the projects critical path schedule.

The Engineer may, at his/her sole discretion, adjust calendar days for additional work not covered in the scope of work for this project, or for any work stoppage, or extenuating circumstances, excluding weather, which may occur, and are not the fault of the contractor.

No extension of time beyond the specified Contract Time shall be granted to the Contractor for and cause, condition, or event including, but not limited to the following:

- Additions to the Contract for necessary repair items discovered during construction.
- Material shortages, unless national emergency restricts the availability of materials.
- Limited access to areas due to utility work or other limiting factors.

Contractor must submit any Change Proposal seeking an adjustment in Contract Times within thirty (30) days of the commencement of the delaying, disrupting, or interfering event.

4. USE OF SITE AND OTHER AREAS

The Contractor shall limit all operations to the following area defined as:

- Public Right of Way
- Within five (5) feet of the back of curb or two (2) feet of the grading limits when outside the pavement, and
- Within twenty-five (25) feet of the limits of construction when on or inside the pavement.
- No equipment, materials, debris, etc... shall be stored outside of this defined area at any time without prior written permission from the Engineer.
- Before starting any work, the contractor shall install erosion control or run-off containment measures included in the contract or approved by the Engineer to control erosion, sediment, and any other water pollutants from jobsite activities and around all stockpile locations used for more than 4 hours or in place during any rain event. Such controls shall be consistent with any local or federal regulations or requirements. Work shall be halted until such controls are installed to the satisfaction of the City of La Vista. All stockpiles shall be tarped or protected from runoff overnight. Providing and maintaining these controls shall be considered

subsidiary to items for which the Contract provides direct payment.

- Dust and Debris Control: The contractor shall take such measures as necessary to control dust in those areas where dust from work areas in or near the project, used by the Contractor in constructing the work, would cause a nuisance or hazard to others. Such measures shall be subject to approval of the Engineer. The cost of such dust control shall not be paid for directly but shall be considered subsidiary to the cost of items for which direct payment is made.

- The Contractor shall supply a designated self-contained concrete washout area. The concrete washout area shall not be placed directly near an inlet or waterway to avoid contamination and runoff in the event of a spill. Debris piles, stockpiles, or removal areas are not acceptable concrete washout areas.

- The Contractor shall clean up construction debris resulting from the performance of the various operations (i.e. Curb Ramp Construction, Removals, Surface planing, paving, concrete pavement repair, utility adjustments, etc.) immediately following completion of the construction activity. Furthermore, the contractor is responsible for immediately resetting any traffic control/barricades that may have been moved to perform the various operations. If the contractor fails to maintain, clean and maintain traffic control at each location during the various construction operations the contractor shall be required to cease all construction activities until all locations are cleaned and protected, as determined by the Engineer.

- Final cleanup shall be accomplished within 48 hours following completion of the work of that operation, including any debris outside of the project site or tracked along public roadways used as haul routes. If excess construction debris or materials are present on the roadway facility resulting in unsafe driving conditions (i.e. mud, dust, nails etc.) as determined by the Engineer, the Contractor shall clean the area using a vacuum truck or other acceptable cleaning operations within 8 hours of notification by the Engineer or construction operations shall be halted.

5. SPECIAL PROSECUTION AND PROGRESS

A. General Sequencing- All Project Operations

I. The Contractor shall manage and maintain the prime and subcontractors' schedules to meet the requirements stated in the contract documents and adhere to the approved schedule as closely as possible. An updated version of the project schedule may be required to be submitted for the project records. It shall be submitted to the Engineer for approval within 3 Business Days from the time of notification.

II. Any milled surfaces, pavement repairs, asphalt pavement or curb ramps, and any other completed work for the project that is damaged due to the prime or subcontractors' subsequent operations will be evaluated for its impact to the short and long-term quality impacts. **Operations should be scheduled, or accommodations and/or arrangements should be made, to maintain the quality of completed work and protect from damages caused by the contractor's or supplier's operations**. Removal and replacement of unacceptable, damaged work products may be required, and be at no additional cost beyond original payment, to the city or their representatives. Any subsequent project expenses required for construction inspection and observation, materials testing, and other costs borne by the city for the replacement work to occur may in-turn be assessed to the contractor(s) found responsible for the damage(s).

B. <u>Phasing and Maintenance of Traffic (MOT)- Curb Ramp Construction</u>

i. The Contractor shall notify the Engineer prior to commencing removal or grading operations if the lines and / or grades of the proposed curb ramps, maneuvering / landing pad, or transition walk interfere with or pose risk of damage to adjacent retaining walls, trees, structures, or other similar objects, or will require grading slopes steeper than 4H:1V to tie-in with the existing ground within three (3) feet of the limits of the proposed construction.

ii. It shall be the Contractor's responsibility to manage the Curb Ramp work in order for the following criteria to be met: Removal operations may be restricted from advancing if a corner's concrete work, sprinkler construction, backfill/grading, sodding/seeding, retaining wall or fence construction is not completed within fourteen (14) calendar days following curb ramp concrete placement.

iii. The Contractor shall limit operations such that only one side of a maximum of four (4) intersections (8 corners, maximum) are under construction at any given time. The Engineer reserves the right, but is not obligated, to increase the number of intersections under construction if additional crews are utilized. The Engineer may modify any relaxations or exceptions as needed throughout the project.

iv. The locations, configuration (Single Ramp, Double Ramp) and quantities for curb ramp construction identified in the Contract are preliminary. The City reserves the right to add, reduce or change the locations of curb ramps to be constructed as necessary to address pedestrian needs or to address compliance requirements.

C. <u>Phasing and Maintenance of Traffic (MOT)- Concrete Pavement and Base Repair</u>

i. <u>General Requirements</u>

- Access for residents along this project shall be planned for and maintained as best as

possible. The contractor shall not remove more concrete pavement for replacement than can be poured back in the same day. Exceptions to this must be pre-approved by the Engineer. Although it is not to be planned for at bidding, if it is determined to be in the interests of the public by the City of La Vista, Full Width closures for all or portions of the segment may be approved to complete the work.

- In situations where it is required to block access to a property adjacent to the project for concrete pavement repair segments, the contractor shall knock on residents and/or businesses door prior to removing pavement in front of a driveway to make sure they have an opportunity to remove any vehicles. Whenever possible, the contractor shall obtain and provide to the Engineer, a signed, written statement of verification from the impacted driveway's owner or tenant that they will have access impeded. This document shall indicate an agreement has been made for contractor to restrict driveway access on a temporary basis for progress to be made on the project. All efforts should be made to minimize disruptions to the extent possible.

- When possible, intersections and driveways or other pavement having impacts to access of residents shall be done one half (1/2) at a time to maintain access to the traveling public. The Engineer may, but is not obligated to, allow driveways or intersections to be closed. Contractor must request any closure a minimum of ten (10) working days prior to the removal operation and present a traffic control plan to accommodate the closure.

- In certain situations, or under certain circumstances, the City or Engineer may determine it is warranted to place millings or other suitable materials for temporary access to be restored to a given property. In this case the material and effort associated may be compensated via equipment rental items, or as otherwise agreed to by the city or its representative.

- All removals (spoils) piles, debris, materials, and other materials temporarily stockpiled on pavement or in staging areas shall be hauled off at or before the end of each concrete pavement repair contractor workday.

- The Contractor shall not impede the adjacent lane during removal operations whenever possible and plan to perform concrete pouring operations from within the work zone. The Engineer may, but is not obligated to, allow the temporary impediment of the adjacent open lane of traffic for concrete pouring operations. The contractor must request an impediment to traffic a minimum of two (2) working days prior to the concrete pouring operation. If a temporary impediment is allowed, for concrete pouring operations, the impediment of the adjacent open lane shall not exceed ten (10) minutes between groups of cars being allowed to pass. Contractor shall utilize a certified flagger to stop and control traffic.

- "No Parking Construction Zone" signs shall be furnished by the City to the Pavement Repair Contractor(s) at no cost. The posting and removal of these signs shall be the responsibility of the Contractor to install prior to beginning work on any PCCP Repair area of the contract. Signs shall be posted at approximately two (2) feet behind the curb and at spacing not more than three hundred (300) feet between signs. The Contractor shall maintain signs and verify that signs are in place a minimum of twenty-four (24) hours prior to the start of work. Failure to maintain the signs may result in delays to the work.

- The Contractor shall expect delays to progress resulting from vehicles located within the proposed work area. Signs shall be posted a minimum of twenty-four (24) hours and a maximum of seventy-two (72) hours prior to commencing work on each individual street segment and in accordance with the traffic restrictions specified in the Contract Documents. Signs shall have the dates and times listed that parking will be restricted, and the contractor shall update the dates listed if the schedule changes. The Contractor shall remove signs within 24 hours following completion of the work. Posting, maintenance, and removal of these signs shall not be measured for payment but shall be considered subsidiary to the items for which the Contract provides direct payment.
- When signs have been placed as required, and cars continue to impeded progress, towing is permitted. Requirements of this item are listed elsewhere in the contract documents.

ii. <u>Terry Drive, Sta. 200+86 – 209+36</u>

This 6" existing depth, three-panel concrete pavement segment is adjacent to La Vista West elementary school. The repair areas shown on the plans is subject to change based on field observations The Engineer will mark removals for pavement replacement a minimum of one week prior to beginning work. Work in this area is anticipated to take no more than 24 Calendar Days to complete and be shown on the submitted schedule to start no later than July 5th 2023, at the bid quantity agreed to in the proposal. In case of delays or changes to the schedule, please note this segment's full completion, including pavement markings, joint sealing and other incidental items must be completed while school is out for the typical summer break (on or before August 4, 2023).

No construction operation whether shall be performed on Terry Drive from South 81st Street, to South 78th Street, while *La Vista West Elementary's* active school is in session, without written permission from the Engineer. School Calendar is available online at: www.plcschools.org The Contractor may request an exemption to this requirement, but it must be submitted 14 calendar days prior to the work's planned start date, and restrictions may apply. Additional time will not be granted due to delays or production loss because of

scheduling conflicts with this requirement.

iii. S. 78th Street, Sta. 125+00 – 125+82

This 9" existing depth, three-panel concrete pavement segment is just South of the Harrison Street Intersection. The repair areas shown on the plans is subject to change based on field observations. The Engineer will mark removals for pavement replacement a minimum of one week prior to beginning work. Work in this is anticipated to take no more than 7 Calendar Days to complete and be shown on the submitted schedule to start no later than July 24th 2023, at the bid quantity agreed to in the proposal.

iv. Lillian Avenue, Sta. 323+10 – 328+54

This is a 7" existing depth, two-panel concrete pavement segment just East of Park View Blvd. The repair areas shown on the plans is subject to change based on field observations. The Engineer will mark removals for pavement replacement a minimum of one week prior to beginning work. Work in this area is anticipated to take no more than 14 Calendar Days to complete and be shown on the submitted schedule to start no later than July 17th 2023, at the bid quantity agreed to in the proposal.

D. Phasing and Traffic (MOT) for Resurfacing - (Mill/Base Repair /Asphalt Paving)

i. For all segments, it is assumed that Surface Milling operations will be completed during daytime/daylight hours, under traffic with Flaggers utilized as needed. Furthermore, it is assumed that paving will occur under full closure, also during daytime/daylight hours. Deviations to this shall be requested and pre-approved by the Engineer at least 72 Hours in advance.

ii. The Contractor shall not begin utility and/or inlet adjustments on a paved segment until seven (7) calendar days have elapsed, unless otherwise approved by the Engineer. The Contractor performing the utility adjustment operation, if also intended to complete work elsewhere on the project, may be required to modify their schedule, or complete other operations and/or segments in order to maximize public mobility and access, or prioritize the completion of other project work.

iii. The duration in which milled surfaces are left exposed is dependent upon many factors. The engineer, at their sole discretion, may restrict/stop milling operations from advancing, or direct paving to occur on the project at the earliest opportunity. Furthermore, other project operations may be restricted/halted, or payment withheld, and the contractor directed to expedite the completion of paving or other operations prior to continuing progress elsewhere.

iv. Utility Locates for Base Repairs identified during milling should be called in on the day found or the next calendar day. Upon being marked, the contractor performing this work

should begin the repairs within the following two working-days.

6. TEMPORARY TRAFFIC CONTROL, SIGNAGE AND SAFETY

A. The Contractor shall assume all responsibility for lane restrictions, street closings and maintaining of detours around the work in accordance with the requirements contained in the Contract Documents. All required barricading shall be on-site and erected prior to the start of work, maintained, and reset during the various construction operations and at the end of each day.

B. All concrete work such as utility adjustments, base repair, pavement repair and other excavations, excluding curb and gutter, sidewalk, and driveway construction, shall be completed the same day they are started; at no time shall such excavations remain opened during hours of darkness unless authorized by the Engineer. When the Engineer authorizes that such excavation may remain open during the hours of darkness, it shall be barricaded and protected in accordance with the City of Omaha, Barricading Standards, Specifications, Methods and Materials Manual and the Manual on Uniform Traffic Control Devices (MUTCD).

C. All workers within the construction areas shall wear an ANSI Class II vest or an equivalent high visibility garment unless existing laws, codes, statues, or ordinances mandate more stringent safety garments be worn. In the event of discrepancy, notify the Engineer for resolution.

D. All vehicles entering, exiting, or located within the construction areas, excluding dump trucks, concrete trucks, or semi-tractor trailer, shall use a vehicle warning beacon or equivalent warning light apparatus unless existing laws, codes, statues, or ordinances mandate more stringent safety lights be in use. In the event of discrepancy, notify the Engineer for resolution.

E. For any operation(s) that create a 'One Lane Road' for a two-lane segment, the Contractor shall provide two (2) certified flaggers with 'Stop/Slow' paddles to direct traffic. Flaggers shall be familiar with proper flagging methods and procedures and shall be at their assigned flagging station with the required traffic control equipment before the work shall be permitted to start. When requested by the Engineer, the Flagger on site shall provide their Flagger Certification Card. Equipment used to direct traffic during hours of darkness shall be properly reflectorized and/or lighted as required. Applicable flagging equipment shall conform to the requirements specified in the Manual of Uniform Traffic Control Devices for Street and Highways, published by the U. S. Government Printing Office. All removal or paving work shall cease, with days being counted, until all guidelines set forth above are completed to the satisfaction of the Engineer.

F. When requested by the Engineer, the Contractor shall remove any loose particles or construction debris deposited by the Contractor at locations outside the project site or tracked along public roadways used as haul routes in a manner acceptable to the Engineer.

G. The Contractor shall assign an ATSSA certified Traffic Control Supervisor (TCS) for all on site traffic control operations conducted under this contract. The Traffic Control supervisor(s)

shall be an employee of the Contractor or of a Subcontractor providing traffic control services.

H. All Contractor staff members or staff members of a Subcontractor providing traffic control services actively involved in setting up and maintaining temporary traffic control, under the supervision of the Traffic Control Supervisor, shall be ATSSA certified as a Traffic Control Technician (TCT).

I. ATSSA Traffic Control Supervisor and ATSSA Traffic Control Technician certifications shall be submitted within 5 business days of receiving a task order.

J. The Contractor shall provide a listing of barricades proposed for use for each location or project area contained within the Contract Documents a minimum of seven (7) calendar days before commencing work in any area of the project. At a minimum the listing shall identify the following:

- Types, quantities, and signage (Road Work Ahead, Bump, Elevated Manholes, etc.),
- Proof of qualifications for all flaggers
- Responsibilities for locating, erecting, maintaining, and removing barricades (long and short- term) including work restrictions if barricades are not present or properly maintained

The Engineer shall review and provide approval or comments on the listing of barricades proposed for use for each location or project area within five (5) calendar days of receiving such items. The Contractor shall not commence or continue operations in a specific area without an approved barricade listing or barricading plan.

K. The Contractor must request any changes to the Traffic Restrictions identified in the contract. All requests shall be submitted to the Engineer at the weekly meetings or at least 5 days prior to milling and/or paving operations on the street segment identified. If changes occur in the field without the approval from the City, the Contractor will be assessed a lane rental penalty of $400/hour for each hour the unauthorized traffic control is in place and being utilized by the Contractor.

L. The Contractor shall have traffic channelized at all times during construction activities. Traffic control, shall be in accordance with the City of Omaha, Barricading Standards, Specifications, Methods and Materials and the Manual on Uniform Traffic Control Devices (MUTCD) or as directed by the Engineer. Barricades shall be on the job and in place before any work shall be permitted to start. The Contractor shall cease all operations until proper barricading is in-place.

M. The Contractor shall continually monitor, move, reset, and replace the various traffic control devices to ensure the orderly movement of traffic through or around the work site at all times. During street closures and construction operations, all entrances to the work site shall be barricaded with a minimum of one (1) Type III barricade for each lane of street width so as to impede traffic from entering the work site. The Contractor shall also provide one (1) or more flaggers to regulate the ingress and egress of the material haul trucks to and from the work site, as deemed necessary by the Engineer. If traffic controls prove to be inadequate to provide a safe working environment, the construction operation

will be suspended until proper barricading measures are taken to ensure traffic and work site safety.

N. The Contractor shall provide, erect, and maintain a Type "C" sequencing arrow panel to supplement his existing traffic controls on various project sites as indicated in the Contract Documents or as directed by the Engineer. Arrow panels shall conform to the requirements as specified in the City of Omaha, Barricading Standards, Specifications, Methods and Materials and the Manual on Uniform Traffic Control Devices (MUTCD).

O. The Contractor shall remove all equipment, debris, stockpiles, and barricades from the travelled way of a roadway segment and have the roadway opened to traffic within twelve (12) hours of being notified by the Engineer between the hours of 6:00 am and 6:00 pm. The Contractor shall be assessed $800 per lane per segment penalty each day a lane or segment is not opened to traffic following notification from the Engineer.

P. "No Parking Construction Zone" signs shall be furnished by the City to the Contractor at no cost. The signs will be specific to the milling, base repair, and paving operations and the posting and removal of the signs for each operation shall be the responsibility of the contractor. Signs shall be posted at approximately two (2) feet behind the curb and at spacing not more than three hundred (300) feet between signs. Signs shall be posted a minimum of twenty-four (24) hours and a maximum of forty-eight (48) hours prior to commencing work for each operation (milling, base repair, and paving) on each individual street segment. Signs shall be posted in accordance with the traffic restrictions specified in the Contract Documents. Signs shall have the dates and times listed that parking will be restricted and that the road will be closed if applicable. The contractor shall update the dates listed on the signs if the schedule changes. The Contractor shall maintain signs and verify that signs are in place twenty-four (24) hours prior to the start of work. Failure to maintain the signs may result in delays to the work. The Contractor shall expect delays from vehicles located within the proposed work area. The Contractor shall remove signs within 24 hours following completion of the work for each operation (milling, base repair, and paving). The Contractor may post signs in advance of the Notice to Proceed without incurring calendar day charges. Posting, maintenance, and removal of these signs shall not be measured for payment but shall be considered subsidiary to the items for which the Contract provides direct payment.

Q. Agency identification signs shall be constructed and erected in accordance with the requirements of the City of Omaha, Barricading Standards, Specifications, Methods and Materials. The construction, erection, maintenance and removal of these signs by the Contractor shall not be measured for payment but shall be considered subsidiary to the items for which the Contract provides that direct payment will be made.

R. The Contractor shall be responsible for providing sufficient lighting, as directed by the Engineer, to ensure that all work is performed in a well-lighted environment. Cost of all

auxiliary lighting shall not be measured and paid for directly but shall be considered subsidiary to the items for which the Contract provides that direct payment will be made.

S. It is the Contractor's responsibility to notify (in writing) the traffic control subcontractor and Engineer a minimum of 24 hours in advance of the project location being complete. Complete shall be defined as all milling, resurfacing, striping, utility adjustments and clean up. The contractor shall be responsible to have all equipment, materials, no parking signs, erosion/sediment control, forms, debris, stockpiles, and traffic control devices, with the exception of temporary stop signs, removed from the project site by 7:00 p.m. two (2) calendar days after the notification date. If the contractor does not provide notification and/or does not remove all the items listed above, the contractor shall be assessed two-hundred fifty dollars ($250) per day until the Engineer determines all items have been removed and the project area is determined to be acceptable. Placing any of the items listed above in a parking lot or on a side street does not represent removal from the project site and is unacceptable.

T. The Contractor shall restore driveway connections within seven (7) calendar days of eliminating driveway access. If permanent connections are not installed within this period, the Contractor shall provide and maintain temporary driveway access at no additional costs to the City. Temporary driveway access shall consist of millings or crushed aggregate with a minimum width of ten (10) feet and extending from the edge of the pavement to the edge of the existing driveway.

7. COORDINATION WITH WASTE COLLECTION SERVICES

A. The Contractor is responsible to coordinate with the cities waste collection service provider during construction. The Contractor shall plan and schedule to complete work as to allow the waste collection service provider access to pick up trash and recycling according to their regular schedule. If this is not possible, the Contractor shall make arrangements and/or transport waste and recycling receptacles to an accessible location for the provider to collect. After collection, the Contractor shall return receptacles to the location they were taken from. The Contractor will be responsible to collect and dispose of any loose material that is not collected by the provider.

B. Contact information for the waste collection service provide will be provided to the Contractor prior to the start of construction for the purpose of coordinating work.

8. SALVAGED MATERIALS (5-Mile Delivery Radius)

The City reserves the right to retain ownership of all surplus materials, i.e., brick, surface millings, cast iron covers, grates, frames and other like materials. The Contractor shall deliver retained surplus materials to a designated City owned facility within a 5-mile radius as indicated in the Contract Documents or as directed by the Engineer. On construction areas beyond the 5-mile radius, the surplus material shall be delivered to a nearby-designated location or be loaded by the Contractor into trucks furnished by the City. The Contractor

shall coordinate hauling operations with the designated City owned facility hours of operations. No millings will be accepted outside of the facilities hours of operations. When the City declines its right to retain the materials, such materials shall be disposed of in accordance with the provisions of this Subsection.

9. PUBLIC INFORMATION REQUIREMENTS

A. Prime Contractor Representative - Meeting Preparation and Attendance

The Prime Contractor shall designate at least one (1) representative to attend a project specific "Public Information Meeting" on behalf of the project team. The public meeting is anticipated to be held in La Vista, in the first two weeks of March, sometime in the evening hours (4PM – 9PM) with citizens and the general public in attendance. This representative shall be familiar with this project's scope, requirements, their assigned subcontractors' schedules and work, and be able to speak to the means, methods and general progression of the work to complete the project. The designated representative may be required to field questions during a "Question and Answer" session following a brief presentation conducted by the City and other selected project representatives, provide details to the group and/or individuals in attendance.

B. Public Notice Requirements (Leaflet Distribution)

Notification in the form of leaflets to be distributed to properties throughout the project area and including the segments and corners under construction. The leaflet is comprised of paper letters and containers such as an envelope or plastic sleeve and is generated and furnished by the City or it's representative. The contractor shall obtain the materials (letters and sleeves), assemble each leaflet, and distribute them on door handles throughout the project segments as determined by the Engineer via a map or other description. The Contractor shall be responsible for distributing these leaflets to all business, residents abutting the project segments, and any of those residences and business that must utilize the construction zone as their only means of ingress and egress to their property. At a minimum, leaflets shall be delivered prior to beginning each construction operation including Curb Ramps Construction and Curb/Gutter repair, Surface Milling, and Concrete Pavement Rehabilitation. Asphalt Paving, the Utility Adjustment operation and possibly additional, secondary distributions may be required depending on the Critical Path Progress Schedule provided and approved by The Engineer. Leaflets are to be distributed as directed at least seven (7) days, but no more than ten (10) days before any work begins, unless otherwise approved by the Engineer. The Contractor may distribute leaflets in advance of the Notice to Proceed without incurring calendar or working day charges. If work does not begin more than two (2) weeks from dates identified in the provided leaflets, new leaflets with the revised start date shall be delivered a minimum of forty-eight (48) hours prior to continuing work along the affected street segments. The obtainment, assembly, and distribution of these leaflets by the Contractor shall be considered subsidiary to the items for which the

Contract provides direct payment.

In addition, the resources and time required by the Prime and/or Subcontractors to provide information and satisfy the above requirement for the public meeting representative will not be paid directly but is considered subsidiary to other items for which direct payment is made.

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The following Special Provision are generally arranged to follow the schedule of Line Items. If a contract item has no corresponding Provision listed beneath it, it is addressed elsewhere in the contractor and/or the *CITY OF OMAHA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2020 Edition* describes the specifications.

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10. CURB INLET PROTECTION (101.003)

Section 101.03 paragraph "F" is amended to include the following:

It shall be the contractor's responsibility to maintain, repair or replace curb inlet protection that is damaged or not properly functioning. No additional compensation will be provided for maintenance, repair, or replacement beyond the initial installation of the curb inlet protection.

The Engineer shall measure protection of curb inlets for payment by each curb inlet the contractor prepares and protects by bridging over the existing curb inlet walls. This price shall be full compensation for furnishing, preparing, and installing all materials necessary to protect the existing curb inlet walls and for all materials, forms, equipment, tools, labor and all incidentals necessary to complete the work.

11. CLEARING AND GRUBBING PER INTERSECTION CORNER (102.001)

Subsection 102.01 – General – A. Description is amended to include the following:

1. Clearing and grubbing per intersection corner

This work shall consist of clearing, grading and disposing of all material necessary for each corner or mid-block location as defined by the contract documents or as directed by the Engineer, to the extent necessary for the construction of ADA curb ramps in accordance with the details, specifications, and standard plates contained in the contract documents.

This work shall consist of removing and disposing of the existing sidewalk, curb ramp, walls, stumps, dead trees, logs, down timber, brush, other herbaceous vegetation, rubbish or trash, and unwanted materials from within the limits of construction. Do not remove live trees, hedge, shrubs, or grass beyond the limits of construction, except as indicated in the contract documents or as directed by the Engineer.

It is the Contractor's responsibility to review each location and determine what will be required for the clearing and grubbing to construct the curb ramp and match the existing ground

conditions subject to the requirements contained within the contract documents.

Subsection 102.05 – Measurement and Payment is void and superseded by the following:

The Engineer shall measure Clearing and Grubbing per Intersection Corner by each corner of the intersection and/or each mid-block location properly cleared to construct the proposed improvement.

Clearing and Grubbing per Intersection Corner shall be measured only once for each corner or mid-block location a curb ramp is constructed during the course of the project regardless of the number of times an area is removed.

12. TRIM TREE ROOT (102.300)

Subsection 102.03– (C) Object Preservation – include the following:

The City of La Vista will not have an arborist available to review and supervise tree and root trimming operations. Contractor shall secure a certified licensed arborist to review and supervise tree and root trimming operations.

Contractor shall take all necessary precautions to protect all landscaping, trees, bushes, fence, and walls etc. to remain in place during the various stages of construction.

13. REMOVE AND RESET EXISTING RETAINING WALL (103.170)

This work shall consist of the removal, storage as per the property owner, excavation, and preparation of the subgrade, reconstruction of the existing retaining wall, backfill, grading, and seeding/sodding of the disturbed areas. It shall include all modifications to the railroad ties, timbers, stones, modular blocks, etc., necessary to meet the lines, grade and slope of the new curb ramp, sidewalk, or existing ground conditions. The Engineer shall determine if the existing materials are reusable. If new materials are needed, a change order for the cost of the new materials shall be implemented.

The Engineer shall measure for payment the number of "Square Feet" of retaining wall that is reconstructed and accepted.

Payment shall be made under the item "Remove & Reset Existing Retaining Wall". The contract price shall be full compensation for the removal, storage as per the property owner, excavation and preparation of the subgrade, modifications to wall materials, reconstruction of the retaining wall, backfill, clean-up, and for furnishing all equipment, tools, traffic control devices, labor and all incidentals necessary to complete the work.

14. REMOVE AND RELOCATE FENCE (103.410)

Subsection 103.03 – (J) Remove and Reinstall Fence – Delete paragraph 1 and include the following:

This work shall consist of the removal, storage as per the property owner, and replacement of all various types of fence material. It shall include any modifications to the fence structure, such as additional posts or fence material to conform to the lines and grade of the new curb ramp or sidewalk location, grading, and seeding/sodding of the disturbed areas.

Subsection 103.05 – Measurement and Payment – Delete paragraph 20 and include the following:

The Engineer shall measure for payment the number of "Linear Feet" of fence reinstalled.

Payment shall be made under the item "Remove and Reinstall Fence". The contract price shall be full compensation for the removal, storage as per property owner, and reinstallation of the existing fence regardless of the type of material, any necessary modifications, adjustments, and new material needed to conform to the new curb ramp and sidewalk location, and for furnishing all equipment, tools, traffic control devices, labor and all incidentals necessary to complete the work.

15. <u>PERFORM 2" COLD PLANING – (ASPHALT or CONCRETE) (105.003 or 105.013)</u>

i. Subsection 105.03 – (C) Cold Planning – is amended to also include the following:

• Prior to the cold planing operations, the Contractor shall be responsible for:
Identifying and marking all manholes, in the pavement, where the manhole ring is integral, unable to be adjusted, with the manhole or junction box.

Contractor shall clearly mark initially and maintain the marking(s) for the top of all manholes that are determined to be integral.

Contractor shall be responsible for placing and rolling the new asphalt surface, so the top of the surface matches all manhole rings that are integral with a manhole or junction box lid.

Failure to match the top of the integral manholes shall result in the Contractor removing and replacing, to the limits determined by the Engineer, the asphalt to properly match the manhole ring.

• Prior to beginning and resurfacing operations, the Contractor is responsible for bringing attention to and reviewing with the Engineer: The cold planing/milling depth, asphalt paving depth and cross slope, phasing issues, drainage issues, and other significant issues observed or suspected for each street segment identified as part of this contract. The intent is to avoid re-work and extra costs, and to determine if any special variations or adjustments to the contract documents' specifications are to be incorporated to address drainage, cross-slope, driveways, intersections, thin or weak pavement issues or other infrastructure problems.

16. <u>REMOVE SIDEWALK (105.140)</u>

Subsection 105.01 - (A) General - Description - include the following:

This work shall consist of the full depth saw cut and full depth removal of existing sidewalks, not associated with curb ramp construction or sidewalk repair, all necessary excavation, grading, and disposal of the materials off site to the limits identified by the Engineer.

Subsection 105.05 - Measurement and Payment- include the following:

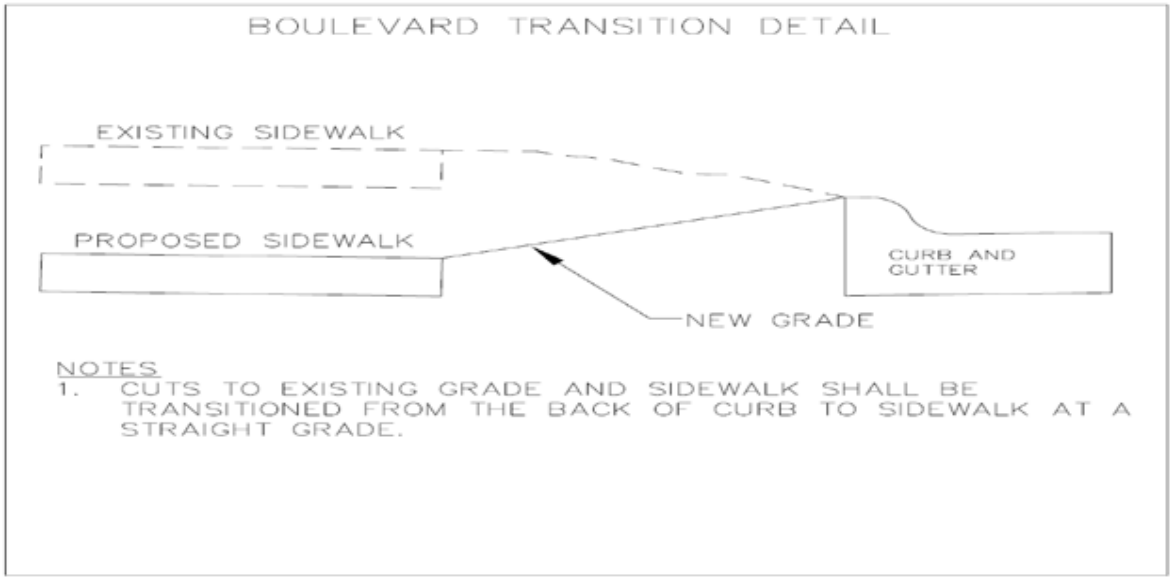
This price shall be full compensation for saw cutting of existing sidewalk, removal of the existing sidewalk, all necessary excavation, grading, and disposal of the materials off site, seeding/sodding of the disturbed areas; and for all materials, forms, equipment, tools, labor and

all incidentals necessary to complete the work.

17. <u>EARTHWORK ITEMS (EXCAVATION HAUL-OFF / EMBANKMENT-BORROW) (201.100 & 201.300)</u>

Subsection 201.05 – Measurement and Payment – Delete paragraph 2, 3, 4, 5 and 6 and replace with the following:

Excavation or embankment necessary to properly construct the proposed improvements and to properly match the existing property elevations shall be subsidiary to items for which the contract provides direct payment. Excavation and embankment shall include an area up to three (3) feet from construction limits. Anything more than three (3) feet shall be measured and paid under bid item "Earthwork (Embankment)" or "Earthwork (Excavation)".



18. <u>CONSTRUCT 4" AGGREGATE SUBBASE COURSE (301.004)</u>

When determined necessary by the Engineer or their designated representative(s), the Construction of a 4" Deep, Aggregate Subbase Course may be required to be performed following observations made during pavement removals. When this work is performed, this item will be measured for payment by finding the actual area where a new 4" Aggregate Subbase course has been placed beneath new pavement.

Subsection 300.01 – (A) - General – Description is amended to include the following:

The information, submittal, material and construction requirements shall apply to all subsections within Section 300 unless otherwise specified. This section includes aggregate base, subbase, and surface courses. Only processed limestone shall be used for aggregate base course.

Geotextiles or fabrics are to chosen by the owner or their representatives to be furnished and installed, the installation will be

19. Section 400 and Section 401 are deleted and replaced with the following:

SECTION 400 – FLEXIBLE PAVEMENTS

400 Flexible Pavements

400.01 General

A. Description

The information, submittal requirements, material requirements, and construction requirements shall apply to all subsections within Section 400 unless otherwise specified. This section includes surface preparation, asphalt concrete pavement (ACP), asphalt pavement repair, and crack repair.

B. Submittal Requirements

The Contractor shall submit, in accordance with the General Conditions, the following submittals. Unless otherwise stated in the Contract Documents, all submittals shall be provided a minimum of seven (7) calendar days prior to the start of work:

1. Flexible pavement mix design.
2. Flexible pavement quality control program.
3. Flexible pavement component materials, certifications, test properties, source properties, and a Material Safety Data Sheet (MSDS) if applicable.
4. Emulsified or Cutback Tack material certifications, test properties, and a Material Safety Data Sheet (MSDS).
5. Asphalt release agent material certifications and a Material Safety Data Sheet (MSDS).
6. Pavement fabric reinforcement including manufacturer's application recommendations, product specifications and properties.
7. Crack sealing compound material certifications and manufacturer's application recommendations.

400.02 Material Requirements

A. Coarse Aggregate Source Properties

Coarse aggregate shall conform to all material property requirements in accordance with ASTM D692, Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures; and shall conform to the requirements for Table 3, Class 4S in accordance with ASTM C33, Specification for Concrete Aggregates, excluding any crushed particle or gradation requirements. Crush and grade coarse aggregate as needed to meet the required material properties.

B. Fine Aggregate Source Properties

Fine aggregate shall conform to all material property requirements in accordance with ASTM C33, Specification for Concrete Aggregates; and ASTM D1073, Standard Specification for Fine Aggregate for Bituminous Paving Mixtures, excluding any crushed

particle or gradation requirements. Crush and grade fine aggregate as needed to meet the required material properties.

C. Mineral Fillers

Mineral fillers added separate of coarse and fine aggregates shall be in accordance with ASTM D242, Standard Specification for Mineral Filler for Bituminous Paving Mixtures.

400.03 Construction Requirements

A. Production Facilities

The Engineer may inspect any production facility that intends to provide asphalt or other flexible pavement or component materials. The Engineer may reject any material produced from the facility if deficiencies deemed detrimental to the material quality are identified. The Contractor shall provide plant scale calibration documentation upon request.

B. Equipment

All equipment, tools, and machinery used in the work shall be maintained in accordance with the manufacturer's recommendations. The Engineer reserves the right to reject the use of any equipment, tools, or machinery which is not working properly or functioning as it is intended.

C. Barricades

Post flag persons, barricades, and warning signs in accordance with the City of Omaha Barricading Standards, Specifications, Methods, and Materials Manual, the Manual on Uniform Traffic Control Devices (MUTCD), and Section 900. All barricades, warning signs, and flag persons shall be in place before any work shall be permitted to start. All traffic control devices shall be continuously monitored, moved, reset, and/or replaced to provide the orderly movement of traffic through or around the work site. All installation, removal, or any modifications of traffic control shall be performed by the Contractor.

401 Asphaltic Concrete Pavement

401.01 General

A. Description

This work includes the construction of one or more courses of hot-mixed, hot laid, Asphaltic Concrete Pavement (ACP) on a prepared subgrade, sub-base, base, or existing surface to the lines, grades, and typical cross sections indicated in the Contract Documents or as directed by the Engineer.

B. Submittal Requirements

Refer to Section 400.01 B for submittal requirements.

401.02 Material Requirements

A. General

Refer to Section 400.02 for general material requirements, in addition to the following requirements.

B. Asphalt Mixes and Performance Graded Binders

Table 401.01 shall be used as a guide to determine the appropriate mix or mixes to be used for constructing asphalt pavements or overlays. In the event of a discrepancy with the bid items stated for a proposed ACP, the bid item type specified shall govern.

Table 401.01
Asphalt Material Properties

Type	Lift Thickness	Application
SPR	>1.5"	Overlays or Surface Course for Collector Streets, Local Roads, and Parking Lots or Driveways with Commercial Truck Traffic
SPR Fine or SLX	<1.0"	Leveling/Wedge Course and Thin Lift Overlays or Surface Course for Collector Streets, Local Roads, and Parking Lots or Driveways with Commercial Truck Traffic
SPH Fine	<1.5"	Overlay or Surface Course for Arterials Streets, Central Business District Streets, Truck Routes, and Parking Lots or Driveways with Commercial Truck Traffic
SPH	>1.5"	Overlay or Surface Course for Arterials Streets, Central Business District Streets, Truck Routes, and Parking Lots or Driveways with Commercial Truck Traffic

Unless otherwise indicated in the Contract Documents, asphalt pavement mix designs and standards shall be in accordance with Tables 401.02 and 401.03. Asphaltic Concrete mix designs shall be developed in accordance with AASHTO T312, Standard Method of Test for Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor. The mixture for the Superpave specimens and maximum specific gravity mixture shall be aged for two (2) hours at compaction temperature in accordance with AASHTO R30, Standard Practice for Mixture Conditioning of Hot Mix Asphalt (HMA).

Table 401.02
Combined Asphalt Pavement Material Properties

Mix Type/Designation		SPR	SPR (Fine)	SLX[1]	SPH Fine	SPH
Asphalt Material Properties	Coarse Aggregate Crushed Particle[2]	83% min.			Min. 95/90%[3]	
	Uncompacted Void Content of Fine Aggregate[4]	43.0% min.			45.0% min.	
	Flat/Elongated Pieces (5:1 Ratio)	10% max.				
	Sand Equivalent	45 min.				
	Sodium Sulfate Loss @ 5 cycles[5]	12% max.				
	Clay Lumps, Shale, and Soft/Friable Particles	3.5% max.				
	Dust (% -#200 material) to Produced Binder Ratio	0.7 - 1.7				
	Film Thickness, microns[6]	9.0				
	RAP, % By Total Wt. Of Mix	25 max.				
	Tensile Strength Ratio, %	80.0 min.				
	Mix Design Air Voids, %	Target 3.0			Target 4.0	

	Compaction Gyrations Ninitial	7			8	
	Compaction Gyrations Ndesign	65		50	95	
	Compaction Gyrations Nmaximum	100			150	
	Production Binder Content (% of Total Mix)[7]	5.0 min.	5.3 min.	5.3 min.	5.3 min.	5.1 min.
	Production Air Voids, %	2.0 – 4.0			3.0 – 5.0	
	In-Place Compaction (% of Gmm)	92.5 min.				

1. Type SLX shall contain a minimum of 20% Crushed Rock Chips with a minimum of 45% retained on the #4 sieve and a maximum of 5% passing the #200 sieve
2. Coarse aggregate angularity shall be determined by ASTM D5821, Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate
3. "95/90" denotes that 95% of the coarse aggregate has one or more fractured faces and 90% has two or more fractured faces
4. Fine aggregate angularity shall be determined by AASHTO T304, Standard Method of Test for Uncompacted Void Content of Fine Aggregate
5. Requirement applies to the individual aggregates as well as the combined aggregates and RAP (if applicable)
6. Film Thickness shall be determined by Minnesota DOT procedure 1854.0 Adjusted Asphalt Film Thickness.
7. A maximum of twenty (20) percent of the total binder shall be derived from the RAP as determined by dividing the calculated binder contribution from the RAP by the total production binder content as determined by Contractor QC and Verification Testing.

Table 401.03
Asphalt Pavement Material Properties

Mix Type		SPR		SPR Fine		SLX		SPH Fine		SPH	
% Passing		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Sieve Designation	3/4"	98.0	100.0	100.0		100.0		100.0		100.0	
	1/2"			98.0	100.0	98.0	100.0	98.0	100.0	90.0	100.0
	3/8"	81.0	89.0	81.0	96.0	93.0	100.0		96.0		90.0
	#4					70.0	87.0				
	#8	46.0	56.0	46.0	56.0	45.0	65.0	28.0	58.0	28.0	58.0
	#16					25.0	41.0				
	#30					15.0	31.0				
	#50	12.0	21.0	12.0	21.0	10.0	21.0				
	#200	4.0	9.0	4.0	9.0	4.0	10.0	2.0	10.0	2.0	10.0

Coarse aggregate is the total material retained on the #4 sieve. Fine aggregate is the total material passing the #4 sieve and retained on the #200 sieve.

The bulk specific gravity (Gsb) shall be two and five-hundred eighty-five thousandths (2.585) for all mixes, and shall be used for data purposes and information only. The binder content shall be determined by ignition oven results. A correction factor of three-tenths (0.3) percent shall be added to the ignition oven results for mixes containing

hydrated lime, and an adjustment factor of one-tenth (0.1) percent will be added to the ignition oven results for mixes containing warm mix additive (WMA).

The specific gravity for calculation of the Fine Aggregate Angularity (FAA) shall be determined on a washed combined aggregate sample of the material passing the #8 sieve and retained on the #100 sieve. The Contractor will determine the specific gravity to be used in the calculation of FAA mixture design value(s) and, if verified by the Engineer, this same value can be used throughout production. The verification value verified by the Engineer will be on a combined aggregate sample supplied by the Contractor that is representative of the material proposed or being used during production. The specific gravity to be used throughout production to calculate FAA values will be the Contractor's verified value and shall be noted on the Mix Design. Changes in aggregate percentages during production may require determination of a revised specific gravity for FAA.

Chat or coal sand shall not be allowed in any mix.

Mixes containing less than eighty (80) percent limestone by weight of virgin material shall contain a minimum of one and twenty-five hundredths (1.25) percent hydrated lime. Each mix type shall be tested for moisture sensitivity in accordance with AASHTO T283, Standard Method of Test for Resistance of Compacted Asphalt Mixtures to Moisture-Induced Damage. Six (6) inch test specimens shall be compacted in accordance with AASHTO T312, Standard Method of Test for Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor, to six and one-half (6.5) to seven and one-half (7.5) percent air voids at ninety-five (95) millimeters in height and evaluated to determine the Tensile Strength Ratio (TSR). The Contractor shall add hydrated lime or an anti-stripping agent as needed to satisfy TSR requirements.

The Contractor shall provide the data points, target production settings, and confirm the submitted mix design addresses all mix requirements and complies with the acceptance criteria. The mix design shall be provided in writing a minimum of fourteen (14) calendar days prior to the start of milling operations for resurfacing projects or prior to the start of site grading. The submitted mix design shall provide sources, source quality properties, individual gradation and binder content (if applicable) for all aggregate and RAP materials used. When requested, component materials shall be provided to allow for the Engineer to perform a mix design verification.

In RAP mixtures, the maximum allowable percent of RAP shall be twenty-five (25) percent. The total amount of recycled binder provided from the RAP shall not exceed twenty (20) percent of the total binder content determined as a percentage of total mix. The binder content of the RAP shall be determined by using the same procedures as is used for determining total binder content of the as-produced mix. No correction factor shall be applied.

The Contractor shall inform the Engineer when changes in mixture properties or materials used occur for any reason. Changes may include, but are not limited to, types or sources of aggregates or changes in grades, sources, properties or modification procedures (if modified) of PG Binders. The Engineer may require a new job mix formula, mix design and moisture sensitivity test. The new proposed job mix formula shall be in accordance with the requirements as stated above.

Mix adjustments for individual aggregates, including RAP, greater than twenty-five (25) percent of the original verified mix design proportion or greater than five (5) percent change in the original verified mix design percentage, whichever is greater, may require the Contractor to submit a new mix design, as determined by the Engineer. The Contractor shall be responsible for requesting new mix design targets as they approach these tolerances, and failure to do so may result in a suspension of operations until a new mix design is reviewed by the Engineer.

C. Bituminous Tack Coat

Bituminous tack coat material shall conform to the requirements of CSS-1 or CSS-1h in accordance with ASTM D2397, Standard Specification for Cationic Emulsified Asphalt. The maximum water dilution shall be fifty (50) percent.

D. Asphalt Release Agent

Asphalt release agent shall consist of a detergent solution or other non-petroleum, non-solvent solution.

E. Asphalt Mixes and Performance Graded Binders

The binder type to be used for construction asphalt pavements and overlays shall be either PG64-34 or 58V-34 unless otherwise indicated in the Contract Documents. A warm mix additive shall be included in all asphalt binders unless otherwise waived in writing by the Engineer. The Contractor shall follow the manufacturer's recommended dosing for the warm mix additive.

The supplier of performance graded (PG) binders shall be certified by the Nebraska Department of Transportation (NDOT). Performance graded binders shall be in accordance with AASHTO M320, Standard Specification for Performance-Graded Asphalt Binder, excluding direct tension. Blending of performance graded binders shall not be allowed.

If the ambient air temperature is anticipated to be at or below fifty-five (55) degrees Fahrenheit during production or placement of the asphalt, the Contractor shall utilize a warm mix additive.

F. Anti-Stripping Agents

Anti-stripping agents shall be on the Nebraska Department of Transportation (NDOT) Approved Product List (APL). Follow the manufacturer’s recommendations for incorporating the anti-stripping agent into the mix.

G. Recycled Asphalt Pavement (RAP)

RAP material shall consist entirely of ACP materials. Remove all concrete, brick, soil, or other contaminants. The Contractor is responsible for investigating and maintaining the quality and verifying the quantity of the RAP material. The RAP must be pre-processed by fractionating, screening, and/or crushing prior to use to a size such that the combined hot mix meets the required gradation and the RAP maintains a consistent gradation and asphalt binder content. All processed material shall be less than two (2) inches in diameter before the Contractor introduces such material into the mixing chamber. Screen RAP material using a screen with a nominal two (2) inch diameter

opening immediately before introducing such material into the mixing chamber. Do not place any equipment on stockpiles of processed material.

All RAP incorporated into the project shall come from a documented RAP Source (controlled stock pile location). A controlled stock pile location shall be a designated pile made up of asphalt roadway millings and/or a stock pile of controlled crushed asphalt material. Prior to production, the Contractor shall submit representative sampling test results showing gradation, AC content, and component aggregate classification or source for all proposed RAP sources for review by the Engineer. The Contractor shall notify the Engineer prior to changing RAP sources and test results shall be submitted in writing.

RAP materials shall conform to the requirements of Table 401.04.

Table 401.04
RAP Properties

Property	Requirement
Ignition Binder Content	Mix Design Value ±0.5%
Fine Aggregate Angularity	42 min.
Coarse Agg. Angularity, 1 Face	80% min.
Coarse Agg. Angularity, 2 or more Faces	75% min.
Percent Passing 3/4" Sieve	90% min.
Percent Passing #200 Sieve	8% max.

The Engineer reserves the right to reject a RAP source or stockpile.

H. Recycling Agents

Recycling agents shall be in accordance with ASTM D4552, Standard Practice for Classifying Hot- Mix Recycling Agents.

I. Crack Sealant

Crack sealant shall be a hot applied bitumastic liquid material intended for use on asphaltic concrete pavement, and shall be in accordance with ASTM D6690, Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.

J. ACP Quality Control Program and Testing

The Contractor shall develop and submit a Quality Control (QC) Program to the Engineer a minimum of one (1) week prior to the start of milling operations. The submittal shall include:

- QC organization chart.
- QC testing plan for plant production.
- QC plan for materials delivery, materials storage, and production scheduling.
- Documentation of QC activities.
- Documentation of any corrective action when QC or acceptance criteria are not met.
- Any additional elements deemed necessary.

The QC program shall detail the methods and procedures that will be taken to verify the work meets the requirements of the Contract Documents. Procedures shall be defined to perform corrective action when any mix properties are out of specification should plant and production problems occur, or should laydown problems occur, including: rutting, segregation, surface voids, tearing, contamination, irregular surfaces, and surface irregularities. The QC program shall be updated and submitted to the Engineer at least annually. A copy of the QC program shall be kept on file in the QC lab.

The Contractor shall perform quality control testing in accordance with NDOT standard sampling and test procedures at the frequencies identified herein. Quality control testing shall be performed by an NDOT certified or nationally accredited testing laboratory and by personnel certified by NDOT in relevant asphalt quality testing procedures. The Contractor may add any tests deemed necessary to control production. Unless otherwise indicated in the Contract Documents, testing requirements, frequencies, tolerances, and reporting procedures shall be as stated herein. All instances of providing test results, certifications, or materials shall be understood to mean requiring these items be submitted to the Engineer.

The Contractor shall calibrate and correlate the testing equipment according to the procedures described for the individual tests and conduct tests in conformance with specified testing procedures. All QC test results shall be reported by the Contractor using the latest version of the City's Asphalt Pay Factor Excel workbook or as directed by the Engineer, and within forty-eight (48) hours after the tests are complete or by the start of production on the second business day following the sampling event. Test results not provided as required may result in Owner withholding all or part of the progress payments and suspension of all milling and paving operations, unless otherwise directed by the Engineer.

At the completion of the asphalt production, the Contractor shall submit to the Engineer a final copy of the Superpave test results on electronic recording media (CD, e-mail, flash drive, etc.).

The Contractor shall sample and provide quality control testing for performance grade binders, volumetric properties, combined aggregate consensus properties, gradation, thickness, and compaction testing. A representative split of all quality control samples shall be provided to the Engineer for quality assurance testing upon request. The split sample shall be sufficiently sized to perform all associated testing.

A cold feed sample shall be taken and tested for gradation, FAA, and CAA when requested by the Engineer. When cold feed samples are being taken, the acquisition shall be timed such that the material in the sample represents the same material in the sample taken behind the paver. The Contractor shall submit a split of the sample with the hot mix sample. Samples shall be taken under the observation of the Engineer and split in accordance with AASHTO T248, Standard Method of Test for Reducing Samples of Aggregate to Testing Size. For projects using RAP material, the FAA shall be established as follows: a RAP sample will be processed through an ignition oven and then combined with the proportioned amount of virgin aggregate defined by the mix design and then proceeding with FAA and CAA testing.

For projects with multiple contract defined segments or locations and/or using multiple mixes on the same segment or location, each segment or location and mix type shall be treated separately when multiple segments or locations or mixes are paved on the same day. A minimum of one (1) hot mix sample shall be obtained from each segment or location for each half-day of production on that segment or location per mix type, also referred to herein as a sample area.

A half-day of production for the purposes of defining the sample area shall consist of the area within a segment or location where construction occurs for up to six (6) consecutive hours. A day's production is considered the asphalt constructed during a continuous, defined daytime or nighttime paving timeslot. Continuous paving operations beginning in an evening and extending past midnight into early morning hours shall be considered a day's production. Temporary stops for production interruptions, equipment breakdown, weather, or other unforeseen conditions may be included in the half-day determination as decided by the Engineer.

If production exceeds six (6) consecutive hours, then a second sample shall be obtained, tested, and the results used in combination with the first daily sample as identified herein. If an unforeseen condition halts paving operations for the daytime or overnight period prior to a sample being obtained, the Engineer shall determine whether or not to include the untested sample area and material in the preceding or upcoming sample area for determining acceptance and payment.

The Contractor shall provide RAP quality control test results for every day of asphalt material produced for each certified RAP source being used unless otherwise directed by the Engineer. Samples shall be randomly obtained from the stockpile or obtained from the material conveyance belt during production of asphalt, or as directed by the Engineer. The Contractor shall obtain two (2) separate samples of at least twenty (20) pounds at the same time and provide one (1) to the Engineer to be used for Quality Assurance verification testing at the Engineer's discretion.

The Contractor or supplier shall provide producer-certified quality control binder test results for every calendar week of asphalt material produced for the project. The Contractor shall randomly sample asphalt binder from the production supply line during production of the asphalt material. The Engineer shall be notified to allow for observation of the sampling at the plant. Three (3) separate containers for each sample shall be taken and two (2) shall be provided to the Engineer. One (1) container will be for quality assurance testing by a qualified laboratory, one (1) container will be for quality control testing by the Contractor, and the final container shall be retained by the Engineer for re-testing in case of conflicting results. The Engineer shall identify one (1) asphalt binder sample for every ten-thousand (10,000) tons of ACP placed, maximum of three (3) for each project, to be tested by the Contractor for quality control purposes to demonstrate the binder meets or exceeds the requirements. Testing shall be performed by a qualified laboratory acceptable to the Engineer. Results of the quality control test shall be provided electronically to the Engineer within fourteen (14) days of sampling. If there is a conflict between the results provided and the Engineer's Quality Assurance testing, the retained sample shall be sent to an independent third party, agreeable to both parties, for further testing. If non-compliant results are identified, the Engineer may require testing of all production binder samples to determine the extent of the non-compliance.

Although guidelines are established and certain minimum requirements are specified herein and elsewhere in the Contract Documents, the Contractor shall assume full responsibility for constructing a pavement that meets the Contract Documents requirements.

The Contractor shall notify the Engineer whenever a test result approaches the acceptance limits.

All QC testing, including binder testing, is subsidiary to items for which the Contract provides direct payment.

K. ACP Quality Assurance Testing

The Engineer will select and test at the Engineer's discretion up to twenty-five (25) percent of the split samples to verify the results of the Contractor QC testing. Any samples outside of the tolerance requirements in Tables 401.05 and 401.06 shall result in an Independent Assurance (IA) review of testing and may result in the rejection of the material.

On any given sample, if the results of verification testing and its companion QC testing are within the tolerance shown below, the verification for the Contractor QC for those sample areas of paving is complete and the Contractor test results will be used to determine the pay factors. If the verification test results and the companion QC test results are outside the tolerance, the results from the verification test will be used to determine the pay factor for that day's paving. When directed by the Engineer, any of the remaining samples within segment or location may be tested and the verification sample test results may be applied to the respective day's production to determine the pay factors to be used.

When verification tests are within testing tolerance, but results show a consistent pattern of deviation from the QC results, or there is a consistent pattern of non-correlation between the QC and verification tests, the Engineer may cease production and initiate a comprehensive IA review to determine corrective action needed prior to resuming production.

Table 401.05
Asphaltic Concrete Testing Verification Testing Tolerances

Test	Tolerance
Asphalt Content by Ignition Oven	0.5%
Gyratory Density	0.020
Maximum Specific Gravity	0.015
Bulk Dry Specific Gravity (Gsb)	0.020
FAA	0.7%
CAA	10%
Field Core Density	0.020
Air Voids	1.0%
Asphalt Film Thickness	0.4

Table 401.06
Blended Aggregate Gradation Verification Testing Tolerances

Sieve Size	Tolerance
3/4 inch (19 mm), 1/2 inch (12.5 mm), 3/8 inch (9.5 mm), No. 4 (12.5 mm), No. 8 (2.36 mm)	6%
No. 16 (1.18 mm), No. 30 (600 µm), No. 50 (300 µm)	5%
No. 200 (75 µm)	3%

L. Independent Assurance (IA) Review of Testing

The Contractor shall provide the Engineer access to their laboratory to conduct an Independent Assurance (IA) review of technician testing procedures and apparatus. Deficiencies discovered in testing procedures will be reported by the Engineer and corrected by the Contractor.

During an IA review, the Engineer and the Contractor will split a sample for the purpose of IA testing. The samples selected will be tested by the Engineer. Any IA test results found to be outside of defined testing tolerances will be reported. The Contractor shall verify the testing apparatus and make corrections if the apparatus is out of tolerance.

It is the Contractor's responsibility to obtain a large enough sample size for any referee testing (a sample size of six thousand (6,000) grams, to be retained by the Engineer after splitting, is recommended for FAA testing).

401.03 Construction Requirements

A. General

Refer to Section 400.03 for general construction requirements, in addition to the following requirements. The Contractor shall not begin any milling operations, pavement repairs, or construction of asphalt pavements or production of materials until the QC program has been reviewed by the Engineer.

No milling, surface preparation, base repairs, or other activities requiring a traffic restriction or closure shall commence until the Engineer has reviewed the mix design.

The Contractor shall submit for review and approval a paving plan for each project area or segment identifying the paver models and associated width limitations of all paver screeds proposed for use and the locations of all "hot, warm, or cold" paving joints. No "hot, warm, or cold" paving joints shall be located within 6" of a proposed stripe or pavement marking nor within the anticipated wheel path zone for the designated through lanes. The anticipated wheel path zone is defined as a 10' area centered within the designated 12' through lane. Additionally, the paving plan shall identify the anticipated progression of milling and paving for each segment or area. The paving plan shall be provided a minimum of 1 week prior to the pre-construction meeting for the first planned project area or segment and milling operations will not be allowed to begin in a project area or segment until the paving plan is approved in writing.

B. Equipment

1. Milling Machines

Milling machines shall have automatic controls for establishing profile grades on each side of the machine using the existing pavement and/or a taut reference line. Milling machines shall be equipped to provide a vertical milled surface to within eight (8) inches from the back of the curb. Milling machines shall have the ability to reference the existing pavement using a self-contained system that incorporates twenty-five (25) feet of existing pavement and compensates for humps or depressions three (3) feet or less in length. Milling machines shall be able to remove the milled material from the surface using a loading elevator.

The Contractor shall utilize a ski attachment, or similar device, to control the profile of the milled surface in all areas greater than fifty (50) feet from roadway intersections on all arterial or collector streets as classified by the Federal Function Classification. The use of a wheel, matching shoe, or other device to solely control the depth or profile of the milled surface shall not be permitted. The ski attachment shall be a minimum of ten (10) feet in length.

2. Asphalt Mixing Plant

The asphalt mixing plant shall produce uniform asphalt mix in accordance with the Contract Documents. For batch plants, the minimum dry mixing period shall be five (5) seconds and the minimum wet mixing period shall be twenty-five (25) seconds. All mixing plants shall have automatic controls for proportioning, timing, and discharge.

The plant shall heat and dry the aggregates to the appropriate mixing temperature before introducing the PG binder. Regulate the heat applied to the aggregates to avoid damage or contamination. Continuously supply heated PG binder to the aggregate materials during mixing. Mixing shall continue until the PG binder has uniformly coated at least ninety-five(95) percent of the aggregate materials when tested in accordance with ASTM D2489, Standard Test Method for Degree of Particle Coating of Bituminous-Aggregate Mixtures.

Store ACP mix to avoid segregation or excessive heat loss. ACP mix that has segregated or experienced excessive heat loss shall be deemed unacceptable. Storage tanks shall be equipped with a circulating system designed to provide proper and continuous circulation of the asphalt materials during the operating period. Polymer modified asphalt binder storage tanks shall be equipped with an agitator to maintain uniform dispersion of the additive and shall be operated at all times.

3. Hauling Equipment

Transport the ACP mixture in vehicles with tight, clean, and smooth metal beds. The Contractor may lightly coat the bed with an asphalt release agent. Do not coat the bed with petroleum oils, solvents, or other material. Cover all loads during adverse weather conditions or when atmospheric temperatures are below sixty-five (65) degrees Fahrenheit. Insulate the sides of the truck beds between October 15th and March 15th.

4. Asphalt Paving Machines

Asphalt paving machines shall be self-propelled with a heated and vibrating screed capable of uniformly spreading and finishing the ACP mixture to the specified section width and thickness. The screed shall strike off the asphalt surface without tearing, shoving, or gouging the ACP mixture. The screed shall have an electronic control to automatically regulate slope and grade adjustments. The self-contained reference system shall detect and compensate for a variation of the one-eighth (⅛) inch along the reference line and a variation of one-eighth (⅛) inch in slope within a twelve (12) foot wide lane. The screed and extensions shall be adjustable to the specified crown and mat thickness. The screed unit and any extensions shall have vibrators or tamper bars and heaters throughout the entire length. Controls for the temperature of the screed shall be adjustable to prevent overheating or damage to the ACP mixture.

A ski attachment, or similar device, shall be utilized to control the profile of the finished surface in all areas greater than fifty (50) feet from roadway intersections on all roadways classified as arterials or collectors by the Federal Function Classification. The use of a wheel, matching shoe, or other devices to solely control the depth of profile of the finished surface is not permitted. The ski shall be a minimum of twenty (20) feet long. A ski shall be used during paving operations if a ski was not used during cold planning operations. The Engineer may require a ski attachment at any time during the paving operation.

A material transfer vehicle (MTV) may be used to deliver the ACP mixture to the asphalt paver. The MTV shall deliver material to the paver without causing segregation.

5. Compaction Equipment

Compaction equipment shall consist of a minimum of three (3) steel drum, vibratory rollers per paving operation of which at least two (2) having dual drums with a minimum drum width of sixty (60) inches and enough weight to accomplish initial compaction of the ACP to the required density without causing undue displacement, cracking, or shoving. All rollers shall be capable of reversing without shoving or tearing the asphalt mixture. Vibratory rollers shall have separate energy and propulsion controls.

The Contractor shall establish the rolling patterns for the combination(s) of rollers provided to properly construct the ACP lift while the mixture is in a workable condition. Combination steel drum-rubber tire rollers shall not be used for initial compaction. There shall always be a minimum of two (2) rollers performing compaction operations. Paving operations shall immediately cease if a required dual steel drum roller is not available regardless of the quantity of mix on-site or already produced.

Areas inaccessible to the required compaction equipment shall be compacted using equipment capable of providing the required density and finished surface. A vibratory plate or hand plate compactor shall not be used.

C. Pavement Repair

The method of pavement repair shall be in accordance with the Contract Documents or as directed by the Engineer.

1. Asphalt Concrete for Pavement Repair

Full depth saw cut to the removal limits identified by the Engineer. Remove and dispose of unstable or deteriorated base course, bituminous surfacing, armor coat, bituminous patching material, concrete, brick, cobblestone, or other pavement in accordance with Section 100.

Perform subgrade preparation and any removal and replacement of unsuitable material in accordance with Section 200. Replace or reconstruct the removed materials with one (1) or more courses of hot-mixed and hot-laid ACP.

Asphalt Concrete for Pavement Repair shall be Type SPH or SPR. The repair area shall be of a minimum width to allow for compaction with a mechanical roller. Vibratory plates shall not be used. Each lift of ACP material shall not exceed four (4) inches of compacted material. Each lift shall be allowed to cool a minimum of two (2) hours before applying the tack coat and construction of subsequent lifts or before the final ACP surface is constructed. The minimum depth of pavement repair shall be nine (9) inches or equivalent to the thickness of the existing pavement plus two (2) inches, whichever is greater.

2. Concrete Base Repair

Full depth saw cut to the removal limits identified by the Engineer. Remove and dispose of the pavement in accordance with Section 100. Perform subgrade preparation and any removal and replacement of unsuitable material in accordance with Section 200. Replace the removed materials with type L85 concrete in accordance with Section 500. The minimum depth of pavement repair shall be nine (9) inches or equivalent to the thickness of the existing pavement plus two (2) inches, whichever is greater.

D. Surface Preparation

The method of surface preparation shall be in accordance with the Contract Documents or as directed by the Engineer.

1. Asphalt Overlay

Prior to asphalt paving operations, the Contractor shall be responsible for reviewing the street segment, with the Engineer, to determine specific requirements to address drainage of the street and intersections, cross-slope of the roadway and any other specific requirements to improve the street corridor.

Failure of the contractor to review the street segment with the Engineer, determine specific needs, as described above, and apply what was agreed upon may result in the Contractor having to make modifications to the pavement, at the contractor's expense, to correct the problem.

The Contractor shall be responsible for installing a physical barrier to protect all inlets, manholes, flumes, drainage ways, or other similar structures from material

entering the drainage system or structure. Such protective measures shall be removed, and the area cleaned up at the end of each day. Any material entering the system or structure during construction operations shall be cleaned up immediately and the protection restored. Failure to provide proper protection and clean up may be subject to fines and/or withholding of progress payments.

The Contractor shall develop an accurate dimensioned map identifying the location of all manholes, utility appurtenances, or other structures within the area to be paved.

Cold planing or milling shall be in accordance with the Contract Documents and Section 100. When resurfacing existing pavement and unless otherwise indicated in the Contract Documents, mill a nominal depth of one and three-fourths (1¾) inches in all areas when a wedge course or ACP leveling course is not being applied, and a nominal depth of two and one-fourth (2¼) inches when a wedge course or ACP leveling course is being applied. Unless otherwise indicated in the Contract Documents, all milled material shall be the responsibility of the Contractor to transport and dispose of in accordance with Section 100.

Before applying a tack coat, remove all dirt and loose or foreign materials from the milled surface. Apply a bituminous tack coat to all pavement surfaces and all vertical edges that will contact the ACP. It shall be the Contractor's responsibility to clean and repair any damaged areas of over spray on the face of curbs, driveways, or other appurtenances at no additional cost to the City.

Apply a tack coat using a bituminous pressure distributor. A hand sprayer shall be used as necessary or as directed by the Engineer to provide consistent coverage of the tack coat. The application rate shall be from one-tenth to two-tenths (0.1 - 0.2) residual gallons per square yard for milled or existing surfaces. The application rate shall be from five-hundredths (0.05) to one-tenth (0.1) residual gallons per square yard for freshly laid asphaltic concrete. The roadway segment shall have a minimum coverage of ninety (90) percent on the milled surface and adjacent vertical face after the tack has cured. Segments which do not have the minimum coverage shall have an additional tack coat applied and paving operations shall not proceed until all tack has cured. Tack coat shall be applied a minimum of one (1) hour prior to ACP construction for the tacked area. Do not apply the tack coat during periods of precipitation.

Perform tack coat application in a manner that minimizes pickup or tracking of the tack coat materials. Limit the application of tack coat to no more than three (3) blocks ahead of the paving operations unless otherwise directed by the Engineer.

The tack coat shall be applied to the underlying milled or previously paved surface for each asphaltic concrete lift unless the underlying material is asphaltic concrete constructed on the same day and it has not been subjected to traffic other than asphaltic concrete construction equipment.

2. FULL DEPTH ASPHALT PAVEMENT

Perform subgrade preparation and any removal and replacement of unsuitable material in accordance with the Contract Documents and Section 200.

E. Weather Limitations

Before placement of the ACP, the surface shall be clean and dry. Placement of ACP during cold temperatures shall be restricted in accordance with Table 401.07. The minimum placement temperature of ACP shall be at or above the PG binder manufacturer's recommended compaction temperature.

Table 401.07
Temperature Limitations

Compacted Mat Thickness	Minimum Atmospheric Temperature, °F	Minimum Base Temperature, °F
3" or greater	40	35
1" - 3"	40	40
< 1"	50	45

F. Wedge Course or ACP Leveling Course

Thoroughly clean the existing surface and apply the tack coat and construct one (1) course of hot-mixed and hot-laid ACP having a nominal thickness of one (1) inch or less in the cleaned areas. Wedge courses or leveling courses shall be used to eliminate irregularities in the contour of existing roadways or correct minor deviations in transverse slope.

Wedge Course or ACP Leveling Course mix designs and standards shall be in accordance with Table 401.02.

Leveling of any surface irregularities in conjunction with resurfacing work shall not be considered pavement repair and shall be considered as ACP Surface Course unless otherwise specified in the Contract Documents.

A wedge course or ACP leveling course of less than one (1) inch is not subject to a percentage compaction requirement but shall be compacted by uniformly rolling with asphalt compaction equipment.

G. Asphalt Placement

Schedule plant production, equipment, and delivery of material to the construction area in such a manner as to provide for a continuous operation. The Engineer must approve all haul routes over freshly placed material. Provide adequate artificial lighting during night placements.

Tandem or echelon paving shall be mandatory on all roadways classified as Arterials and Collectors or above by Federal Function Classification when adjacent lanes are available and traffic conditions allow or as directed by the Engineer. The Engineer shall provide a listing of roadway classifications upon request.

Surface and intermediate courses are defined as those lifts within the upper four (4) inches of the finished pavement surface.

The asphalt paver(s) shall spread and finish the ACP mixture in a uniform layer to the specified grade, width, and thickness. Operate the paver(s) at a speed that avoids pulling or tearing of the ACP mat and avoid stop-and-go operations. Unless otherwise directed

by the Engineer, construct the entire width of the preceding layer before any of the consecutive layers are constructed. Do not place the upper layer until the lower layer in the adjacent lane is completed. For mixes containing RAP material, the mat shall not exhibit any visual defects or cold spots from RAP conglomeration.

Match manholes, utilities, inlets, intersections, driveways, or other exposed surfaces whenever possible. The finished surface shall provide positive drainage, a smooth transition between adjoining surfaces, and a smooth ride. When multiple pavers are used, space the pavers and deliver the ACP mixture in a manner to provide a continuous hot joint along the common matching joint.

Placement of the ACP shall begin along the centerline of a crowned section or on the high side of areas with a uniform slope, unless otherwise directed by the Engineer. The minimum lift thickness for a non-leveling course shall be greater than or equal to three (3) times the nominal maximum aggregate size. Unless otherwise indicated in the Contract Documents, the minimum thickness for asphalt overlays shall be two (2) inches.

For asphalt overlays constructed atop concrete pavement, the longitudinal joint shall be located directly over the underlying concrete longitudinal joint or at the nominal lane width, or as directed by the Engineer. In the event of tapering or converging lanes, placement of the through lane shall be maintained at the designed lane width. No partial width longitudinal ACP joints will be allowed in the through lane(s).

Longitudinal joints shall be located such that traffic pavement markings (lane lines) can be installed within six (6) inches of the designed lane width without requiring installation atop the constructed longitudinal joint.

Pave intersections, driveways, or other non-mainline items upon encountering such items during mainline paving. Taper driveway ends greater than or equal to one (1) inch above the finished ACP surface with an ACP wedge constructed at a 1V:2H slope. Construction of the ACP wedge is subsidiary to items for which the Contract provides direct payment. All requirements of mainline paving apply to non-mainline ACP construction. Use the same rolling patterns as the mainline paving. Paving intersections, driveways, or other non-mainline items thirty (30) minutes or more ahead of the mainline paving will not be permitted unless otherwise directed by the Engineer.

For multiple lift full depth ACP, offset joints of underlying lifts a minimum of one (1) foot for longitudinal joints. Transverse joints shall be offset a minimum of ten (10) feet between transverse joints of successive courses.

Manually place material in small patch areas and areas inaccessible to mechanical spreading and finishing equipment.

H. Compacting and Finishing

Begin rolling operations before the temperature of the ACP mixture is below the required compaction temperature for the PG binder, as specified in the ACP mix design and the supplier's recommendations. Pace the ACP paving operation to maintain compaction operations and achieve the required compaction within the recommended temperature ranges.

Operate the rollers at a slow and uniform pace. The rollers shall use scrapers or pads, and water or an asphalt release agent, to prevent adhesion of the mixture to the roller. Do not use excessive amounts of water and/or release agent.

Immediately repair any displaced or defective ACP by removing and replacing it with fresh, hot ACP mixture to the required thickness. Skin patching is unacceptable as a repair technique. Rolling operations shall continue until the Contractor achieves the required compaction, the surface is uniform in texture, and the pavement is true to grade and cross section.

Compact the ACP to the percentage of maximum theoretical density (MTD) specified. The MTD shall be determined in accordance with ASTM D2041, Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures. Measure joint compaction by randomly sampling the constructed pavement located on and within three (3) inches of a construction joint.

The Contractor is responsible for monitoring compaction throughout the rolling process using a nuclear densitometer or other real-time density measuring device demonstrated to be accurate as determined by the Engineer. Establish a rolling pattern that fulfills the compaction requirements defined in Table 400.02. Perform testing in accordance with ASTM D2950, Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Method, or as directed by the Engineer. The Engineer will not use the results of monitoring testing as a consideration of acceptance or rejection of the ACP constructed.

Unacceptable materials or construction shall be subject to removal and replacement or corrected to the satisfaction of the City of Omaha Public Works Department Construction Engineer prior to final acceptance of the work.

I. Crack and Joint Maintenance

Unless otherwise indicated in the Contract Documents, the Contractor shall be responsible for maintenance of all joints and any cracks developing in the ACP prior to project acceptance. All other maintenance activities shall be performed in accordance with Section 401.03 C.

Upon completion of ACP paving and manhole, inlet, or utility appurtenance adjustments, band seal the following:

- Longitudinal joints along the gutter line or abutting adjacent curb.
- Longitudinal or transverse joints abutting existing pavement.
- Longitudinal construction “cold” joints between paving lanes.
- Transverse construction headers or tie-ins.
- Random cracks readily visible from a height of four (4) feet.
- Perimeter of all manhole, inlet, and utility tie-ins and/or adjustments.
    - Contractor shall be required to remove and reseal around manholes and valves when over sealing restricts access to manholes and valves.

Crack and joint maintenance operations shall not commence until after thirty (30) days of completing a resurfacing segment and shall be completed within thirty (30) days of completing all manhole, inlet and utility adjustments on the project. If crack and joint

maintenance operations begin prior to the completion of utility adjustments, additional joint maintenance will be required within thirty (30) days of completing all adjustments. Application restrictions shall be in accordance with the sealant manufacturer's recommendations. Sealant shall not be placed during inclement weather or when snow or surface water is present on the pavement.

401.04 Acceptance

The Engineer shall observe the work to check for compliance with the Contract Documents. Unless otherwise indicated in the Contract Documents, acceptance requirements shall be in accordance with the asphalt material properties listed in Table 401.02. Perform corrective action or removal and replacement activities at no additional cost to the City. Backfill shall be constructed to the minimum compaction requirements identified in the Contract Documents. The Engineer shall verify the compaction of the backfill in accordance with the City of Omaha Materials and Testing Manual for Public Works Construction. Concrete base shall be constructed to the minimum compressive strength requirements identified in the Contract Documents. The Engineer shall verify the compressive strength of the concrete in accordance with the City of Omaha Materials and Testing Manual for Public Works Construction.

The Engineer shall review the asphalt material test data for compliance with the required material properties, and the completed asphalt construction shall be inspected for unsealed cracks, shoving, rutting, raveling, or other surface distresses and/or defects. Corrective measures shall be performed to correct substandard test properties, observed pavement distresses, or other defects.

A. Smoothness

The maximum allowable deviation from the specified elevation is minus zero (-0), plus one-half (+½) inch, provided the deviation does not alter the designed drainage pattern. The finished surface shall be smooth and free of bumps or depressions greater than one-fourth (¼) inch when tested with a ten (10) foot straight edge. Repair non-conforming areas by removing enough material to allow for the construction of a lift of ACP three (3) times the nominal maximum aggregate size. Remove high spots by grinding using a diamond tipped grinding wheel or other similar equipment. Perform all repairs at no additional expense to the City.

B. Production

Acceptance shall be evaluated considering each sample area individually, as defined in Section 401.02 J.

Production tolerances, compared to asphalt pavement material property requirements listed in Table 401.02, shall be in accordance with Table 401.08. All other material properties without an identified tolerance shall have no tolerance from the requirements listed in Table 401.02. The Contractor shall notify the Engineer whenever a test result approaches the production tolerance.

Table 401.08
Production Tolerances*

Test	Allowable Deviation from Specification
Dust to Asphalt Ratio	None
Air Voids	None
Coarse Aggregate Angularity	5% below Min.
Fine Aggregate Angularity	0.5% below Min. for cold feed or 1.0% below Min. for ignition oven
Minimum Binder Content	0.0% below Min.
Asphalt Film Thickness	0.5 microns below Min.

* These tolerances are applied to the mix design specification values, not the submitted mix design targets.

The Contractor shall perform density tests under direct observation of the Engineer. The Contractor shall establish the density testing method in accordance with AASHTO T166, Standard Method of Test for Bulk Specific Gravity (Gmb) of Compacted Hot Mix Asphalt (HMA) Using Saturated Surface-Dry Specimens; or NDOT Standard Method T587, Standard Test Methods for Density of Bituminous Concrete in Place by Nuclear Methods. When performing density tests in accordance with AASHTO T166, the Engineer will observe the Contractor obtaining, transporting, and testing the test cores. The Engineer shall take immediate possession of the test cores upon completion of the Contractor's testing. When performing density tests in accordance with NDOT Standard Method T587, the Contractor shall use adjustment bias and/or correction factors and provide to the Engineer upon request. All correlation factors and test results shall be generated and provided to the Engineer. Any disputed test results determined using NDOT T587 will be resolved using AASHTO T166.

When performing density tests in accordance with NDOT T587, the first three (3) density locations of the project shall be cored in accordance with AASHTO T166 to calibrate the asphalt density gauge. Prior to obtaining cores, the Contractor shall calibrate the density gauge at each core location using the following steps:

1. Calibration

A correction factor shall be established for the initial three (3) cores by calculating the difference between the average density measurement of the asphalt density gauge and the roadway core density. This correction factor shall be entered in the asphalt density gauge and used for measuring subsequent densities. The correction factor shall be verified with another core for every fifteen (15) density gauge readings that are to be recorded.

2. Density Reading Procedure

Place the asphalt density gauge on the asphalt mat over the area to be tested. Record the density gauge reading and repeat this process for a total of five (5) readings, as detailed in Figure 401.01. An average of the five (5) readings will be used as the density reading for each location. For densities taken less than six (6) inches from the edge of the lift, density readings shall be taken as shown in Figure 401.02. The

distance between density reading locations in each direction shall be no greater than twelve (12) inches.

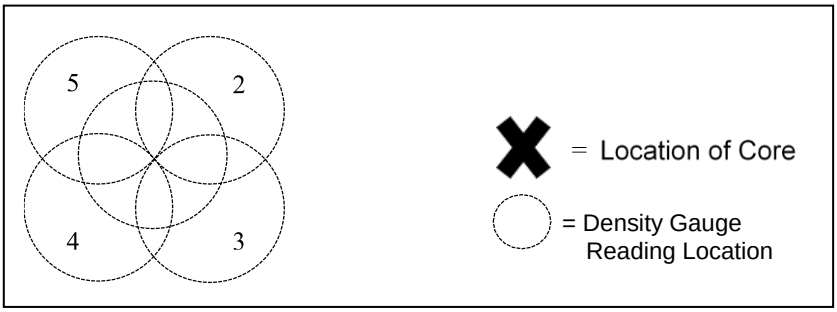


Figure 401.01: Asphalt density gauge reading pattern

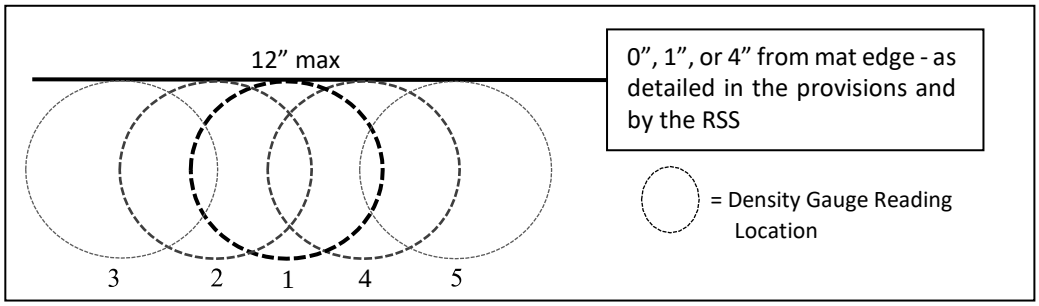


Figure 401.02: Asphalt density gauge reading pattern less than 6" from mat edge

If any density test measured by the asphalt density gauge is below ninety (90) percent, a density core shall be obtained at that location and used for density testing for that sample. Density tests below ninety (90) percent shall not be used to calculate a correction factor.

The location of density tests shall be identified by a Random Sampling Schedule. When the random location is determined to be zero (0) or the lane width (i.e., twelve (12) feet on a twelve (12) foot lane), any density core shall be obtained with the outer edge of the core barrel no more than four (4) inches away (laterally) from the edge of the top of the mat for an unconfined edge, or no more than four (4) inches away (laterally) from the edge of the top of the hot mat (joint) for a confined edge. If using an asphalt density gauge at a location determined to be zero (0) or the lane width, the density test shall be obtained no more than four (4) inches away (laterally) from the edge of the mat to the edge of the density gauge base. If the initial density test at these edge-of-lane locations is less than ninety-two and one-half (92.5) percent, the density test shall be adjusted up by two and one-half (2.5) percent, and the resultant value shall used in determining the density pay factor. No initial density test of ninety-two and one-half (92.5) percent or greater shall be adjusted.

One (1) core for testing of joint density will be taken randomly from each calendar day's production, as determined by the Engineer. The location of the joint density tests shall be identified by a Random Sampling Schedule. The joint density core shall be obtained no more than one (1) inch away (laterally) from the edge of the top of the mat.

The percent compaction of a density sample shall be determined by comparing the specific gravity of the density sample to the Maximum Specific Gravity (Rice) of the production sample representing the location from which the density sample was obtained.

The Contractor shall perform density testing the next working day following placement of the mixture. Three (3) density samples shall be obtained for each day's production at locations determined by the Engineer with at least one (1) sample taken from each sample area when multiple sample areas are defined for a day's production. Core samples shall be a minimum three (3) inches in diameter. The average density of samples for each mix type per contract defined location shall be used to compute the pay factor for density for that day's production in each area and mix type. Density testing will not be required when the nominal layer thickness is one (1) inch or less for an individual sample area.

401.05 Measurement and Payment

The Engineer may assess pay deductions for failure to meet the acceptance requirements in accordance with Tables 401.09, 401.10, 401.11, and 401.12.

Pay factors shall be applied separately to each day's production. Reductions in payment shall be calculated on a lump sum basis based on the unit price, tonnage and quality pay factors for each mix type per location per day's production. The daily quality pay factor will be the average the individual pay factors associated with the following quality testing results obtained by Contractor QC or Verification testing:

- Air Voids (AV)
- Film Thickness (FT)
- Fine Aggregate Angularity of burn-off/extracted aggregate (FAA)
- Coarse Aggregate Angularity of burn-off/extracted aggregate – two (2) faces (CAA)
- Total Binder Content (Pb)
- Total Binder Derived for RAP (RPb)
- Mat Density (MD)
- Joint Density (JD)

Daily Quality Pay Factor = (AV + FT + FAA + CAA + Pb + RPb + MD + JD)/8

This factor will be calculated using accepted quality control or verification test results for the sample area and, when multiplied by the unit price, will provide for an adjusted payment for each day's production for each mix type for a given contract defined segment or area of Asphaltic Concrete paid for and accepted on the project. No Pay Factor will be used for project patching. Wedge course lifts are not considered patching and shall be measured and paid with pay factors applied as identified herein. The maximum Pay Factor for an individual day's production shall be 100%. Excess values do not extend to other production days.

The Contractor shall cease production if three (3) or more individual pay factors used to calculate the daily pay factor are below eighty (80) percent. The Contractor shall cease production if the same individual pay factor used to calculate the daily pay factor is below eighty (80) percent for three (3) or more consecutive Contractor QC or verification samples.

The Contractor shall submit an action plan outlining changes to production or process to correct the cause of the deficiency to the Engineer for approval prior to resuming production.

If the average of the daily quality pay factors for a segment or location is less than seventy-five (75) percent, the Engineer reserves the right to reject some or all of the asphaltic concrete constructed within the segment or location and require it to be removed and replaced at no additional costs to the City.

Determination of pay factors shall consider the average of the individual test results for each day's production and the variability between multiple samples obtained during a day's production. The pay factor used to calculate the daily quality pay factor for an individual test parameter shall be the lower of the pay factor identified in Tables 401.09, 401.10, 401.11, and 401.12 for the respective mix type.

Table 401.09
Acceptance Schedule – Mix Type SPH

	Average of Daily Tests Pay Factor*			Allowable Variability Between Daily Tests Pay Factor*		
Property	**100%**	**80%**	**60%**	**100%**	**80%**	**60%**
Air Voids	3.0 to 5.0	2.0 to 2.9 or 5.1 to 6.0	<2.0 or >6.0	1.5 max.	1.6 to 2.0	>2.0
Film Thickness	8.5 min.	8.00 to 8.49	<8.00	1.00 max.	1.01 to 1.20	>1.20
Mat Density	92.4 min.	91.4 to 92.3	<91.4	3.0 max.	3.1 to 4.0	>4.0
Joint Density	91.0 min.	90.0 to 90.9	<90.0	4.0 max.	4.1 to 6.0	>6.0
Fine Agg Angularity	44.0 min.	43.50 to 43.99	<43.50	1.0 max.	1.1 to 1.5	>1.5
Coarse Agg Angularity	85.0 min.	80.0 to 84.9	<80.0	10 max.	10.1 to 15.0	>15.0
% Binder	5.10 min.	4.80 to 5.09	<4.80	0.60 max.	0.61 to 1.00	>1.00
% Binder from RAP	20.00 max.	20.01 to 21.00	>21.00	2.00 max.	2.01 to 3.00	>3.00

* Applied per mix type per contract defined segment or area per day's production

Table 401.10
Acceptance Schedule – Mix Type SPH Fine

	Average of Daily Tests Pay Factor*			Allowable Variability Between Daily Tests Pay Factor*		
Property	**100%**	**80%**	**60%**	**100%**	**80%**	**60%**
Air Voids	3.0 to 5.0	2.0 to 2.9 or 5.1 to 6.0	<2.0 or >6.0	1.5 max.	1.6 to 2.0	>2.0
Film Thickness	8.5 min.	8.00 to 8.49	<8.00	1.00 max.	1.01 to 1.20	>1.20
Mat Density	92.4 min.	91.4 to 92.3	<91.4	3.0 max.	3.1 to 4.0	>4.0
Joint Density	91.0 min.	90.0 to 90.9	<90.0	4.0 max.	4.1 to 6.0	>6.0
Fine Agg Angularity	44.0 min.	43.50 to 43.99	<43.50	1.0 max.	1.1 to 1.5	>1.5
Coarse Agg Angularity	85.0 min.	80.0 to 84.9	<80.0	10 max.	10.1 to 15.0	>15.0
% Binder	5.30 min.	5.00 to 5.29	<5.00	0.60 max.	0.61 to 1.00	>1.00
% Binder from RAP	20.00 max.	20.01 to 21.00	>21.00	2.00 max.	2.01 to 3.00	>3.00

* Applied per mix type per contract defined segment or area per day's production

Table 401.11
Acceptance Schedule – Mix Type SPR

Property	Average of Daily Tests Pay Factor*			Allowable Variability Between Daily Tests Pay Factor*		
	100%	80%	60%	100%	80%	60%
Air Voids	2.0 to 4.0	1.0 to 1.9 or 4.1 to 5.0	<1.0 or >5.0	1.5 max.	1.6 to 2.0	>2.0
Film Thickness	8.5 min.	8.00 to 8.49	<8.00	1.00 max.	1.01 to 1.20	>1.20
Mat Density	92.4 min.	91.4 to 92.3	<91.4	3.0 max.	3.1 to 4.0	>4.0
Joint Density	91.0 min.	90.0 to 90.9	<90.0	4.0 max.	4.1 to 6.0	>6.0
Fine Agg Angularity	42.0 min.	41.50 to 41.99	<41.50	1.0 max.	1.1 to 1.5	>1.5
Coarse Agg Angularity	78.00 min.	77.99 to 73.00	<73.00	10 max.	10.1 to 15.0	>15.0
% Binder	5.00 min.	4.70 to 4.99	<4.70	0.60 max.	0.61 to 1.00	>1.00
% Binder from RAP	20.00 max.	20.01 to 21.00	>21.00	2.00 max.	2.01 to 3.00	>3.00

* Applied per mix type per contract defined segment or area per day's production

Table 401.12
Acceptance Schedule – Mix Type SPR Fine / SLX

Property	Average of Daily Tests Pay Factor*			Allowable Variability Between Daily Tests Pay Factor*		
	100%	80%	60%	100%	80%	60%
Air Voids	2.0 to 4.0	1.0 to 1.9 or 4.1 to 5.0	<1.0 or >5.0	1.5 max.	1.6 to 2.0	>2.0
Film Thickness	8.5 min.	8.00 to 8.49	<8.00	1.00 max.	1.01 to 1.20	>1.20
Mat Density	92.4 min.	91.4 to 92.3	<91.4	3.0 max.	3.1 to 4.0	>4.0
Joint Density	91.0 min.	90.0 to 90.9	<90.0	4.0 max.	4.1 to 6.0	>6.0
Fine Agg Angularity	42.0 min.	41.50 to 41.99	<41.50	1.0 max.	1.1 to 1.5	>1.5
Coarse Agg Angularity	78.00 min.	77.99 to 73.00	<73.00	10 max.	10.1 to 15.0	>15.0
% Binder	5.30 min.	5.00 to 5.29	<5.00	0.60 max.	0.61 to 1.00	>1.00
% Binder from RAP	20.00 max.	20.01 to 21.00	>21.00	2.00 max.	2.01 to 3.00	>3.00

* Applied per mix type per contract defined segment or area per day's production

In the event the Contractor disputes the pay factors for densities only, the Contractor shall be responsible to notify the Engineer and request additional testing of the densities within one (1) working day following receipt of test results for each day's production. Only days with density pay factors less than one-hundred (100) percent are eligible for additional testing. Additional testing shall be at the cost of the Contractor. No re-rolling will be allowed in the area. Locations for additional tests will be as directed by the Engineer as identified by a Random Sampling Schedule. Density tests obtained by additional testing shall be included with original density tests to determine the density pay factors for the disputed day's production. The Engineer may discard, re-sample, and/or replace any density test(s) determined not to be representative of the materials placed (e.g., damaged core).

Unless otherwise indicated in the Contract Documents, performance graded binder is subsidiary to items for which the Contract provides direct payment.

Unless otherwise indicated in the Contract Documents, warm mix additive is subsidiary to items for which the Contract provides direct payment.

Unless otherwise indicated in the Contract Documents, no incentive shall be provided for use of Reclaimed Asphalt Pavement (RAP), regardless of the amount utilized.

The Engineer shall measure asphalt surface courses for payment by the tons of the binder and type of asphalt surface course constructed, compacted, and accepted.

The Engineer shall measure asphalt base courses for payment by the tons of the binder and type of asphalt base course constructed, compacted, and accepted.

The Engineer shall measure asphalt wedge courses for payment by the tons of the binder and type of asphalt wedge course constructed, compacted, and accepted.

The Engineer shall measure asphalt driveways for payment by the tons of the binder and type of asphalt driveway constructed, compacted, and accepted.

The Engineer shall measure asphaltic concrete for pavement repairs for payment by the tons of the binder and type of asphaltic concrete for pavement repair constructed, compacted, and accepted. Subgrade preparation and unsuitable material replacement shall be considered incidental to asphaltic concrete for pavement repair.

Payment shall be made under the following unless otherwise indicated in the Contract Documents. The Contract Price shall be full compensation for developing the ACP mix design and QC program, anti-stripping agents/measures/techniques, surface preparation, crack and joint sealing, tack coat application, placing ACP wedge for transitions, compaction monitoring during placement operations, flag persons, barricades, warning signs, joint maintenance, and for furnishing all labor, materials, equipment, tools, and all incidentals necessary to complete the work.

Description	**Unit**
Construct Asphalt Surface Course, Type ___(PG -)	Ton
Construct Asphalt Base Course, Type ___(PG -)	Ton
Construct Asphalt Wedge Course, Type ___(PG -)	Ton
Construct Asphalt Driveway, Type ___(PG -)	Ton
Construct Asphaltic Concrete for Pavement Repair, Type ___(PG -)	Ton

20. CONSTRUCT 8-INCH, 9-INCH, & 11-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR (9000.007, 9000.008, 9000.009)

i. Subsection 1002.01 – (A) Description is amended to include the following:

This work shall consist of the full depth saw cut, removal, excavation and preparation of the subgrade, forming, concrete placement, joint sealing, grading, seeding/sodding and disposal of the materials off site, in accordance with the details, specifications, and standard plates contained in the contract documents.

ii. Subsection 1000.03 – (F) Pavement Repair is void and superseded by the following:

Concrete pavement repair shall be constructed in accordance with Standard Plate 1000-03 with the following exception:

- All pavement repairs shall be marked to meet a half-panel or greater area when compared to the adjacent pavement.
- Unless otherwise determined by the Engineer, all concrete repairs for bidding purposes shall be assumed to utilize the existing pavement's depth + two (2) inches as the method rather than epoxy coated reinforcing steel bars. The depth shown for the Bid-Item is the anticipated concrete pavement placement depth. (i.e. The existing depth based on cores obtained, plus 2 inches depth added already). Refer to typical cross sections for actual anticipated depths.
- All concrete placements greater than 15 LF in continuous length shall use a vibratory screed or self-propelled paver to accomplish initial strike-off and consolidation.
- All concrete pavement repairs shall have Tie bars installed in accordance with Standard Plate 1000-03.
- The Contractor shall use one (1) ten (10) foot straightedge during concrete placement.
- Newly placed pavement's thickness shall be equal to or greater than the existing pavement depth plus (+) 2", unless otherwise specified by the Engineer.

Pavement repairs shall be full-depth pavement + 2" in depth for all repairs unless otherwise indicated in the Contract Documents or allowed by the Engineer. All joints shall be sawed and sealed after completion of paving, including construction joints. Joints shall match the existing joint pattern of surrounding pavement and be in accordance with Standard Plate 500-50.

New control joints shall be constructed in surrounding existing pavement when removal and replacement of only a portion of a particular panel is required by the Engineer.

Existing panels adjacent to the removal area shall have control joints sawed to prevent mirror cracking of the new maintenance area joint through the existing panel(s). This new control joint shall be constructed as to form a continuous control joint from curb to curb.

Subsection 1002.05 – Measurement and Payment is amended to include the following:

The Engineer shall measure Construct __Inch Concrete Pavement Repair – Type L65 for payment by the square yards of concrete pavement repaired, joint sealed, and accepted. This shall be full compensation for full depth saw cut, removal, excavation, preparation of the subgrade, forming, placement of the concrete, joint sealing and disposal of the materials off site; and for furnishing all labor, materials, forms, expansion joint material, reinforcement, equipment, tools, and all incidentals necessary to complete the work.

21. ADJUST UTILITY VALVE & MANHOLE TO GRADE (501.400, 501.450), CAST IRON (9000.005)

i. Subsection 1000.03 – (D) Adjusting Manholes and Utility Valves is void and superseded by the following:

This work shall consist of pavement removal, excavating around the manhole or valve, and adjusting an existing manhole, twenty-two (22) inches or greater in diameter, and utility valves in accordance with the details, specifications, and standard plates contained in the contract documents, at the locations indicated in the contract documents or as directed by the Engineer.

Adjustment of existing manholes is a modification that includes, but is not limited to, installation or removal of brick or riser section(s) less than or equal to two (2) feet of vertical height.

Manholes adjustments shall be accomplished using Pro-Ring by Cretex

Specialty Products or an approved equal, and/or composite shims with a concrete thickened edge conforming to Standard Plate 1000-01. Contractor is not allowed to use wood shims, rock, or brick to adjust the manhole.

Prior to removal operations, the Contractor shall expose and remove the lid to verify that all manholes are not integral with the lid or ceiling of a manhole vault. If the manhole is integral, the Contractor shall notify the Engineer.

Prior to removal operations, the Contractor shall verify the existing condition of the manhole or utility. If the manhole casting, ring and cover, brick and/or concrete riser section(s) are found to be unstable or deteriorated, the Contractor shall stop work and notify the Engineer. Contractor shall be responsible for replacing any damaged, unstable, or deteriorated manhole casting, ring and cover, brick and/or concrete riser section(s) at their cost. Contractor will not be able to swap or replace damaged castings with the City of LaVista.

Contractor shall provide a cast iron ring and cover meeting the requirements of standard plate 700-90 (Standard Cast Iron Manhole Ring) with the exception the cover shall be a solid blank cover. City of Omaha emblem covers will not be accepted.

Cast Iron Elements determined to be replaced, as determined by the Engineer, will be paid at 326 LBS for a set that includes one (1) 22" Manhole Ring and one (1) Manhole Cover, or 48 LBs for a typical replacement Cast Iron, Utility Valve Bell and Cover (aka "Tophat"). If Cast Iron to be replaced is differing from the specified items, then shop drawings or other official weigh will be paid as stated on a Supplier Provided Material Certificate(s).

For private manholes and utility valves, the Contractor shall arrange for the proper casting to be replaced with the utility company separate of this Contract. The contractor may be required in most cases to obtain the owner-furnished Cast Iron items at no additional costs.

The contractor shall also notify and schedule any necessary adjustment or relocation with the utility owner when the contractor is unable to make the adjustment. Any damage sustained to the utility or its vault shall be repaired or replaced as per the owner of the utility at no cost to the City and shall be the responsibility of the Contractor.

Prior to removal operations, the Contractor shall verify the existing condition of the manhole

or utility. If the manhole casting, ring and cover, brick and/or concrete riser section(s) are found to be unstable or deteriorated, the Contractor shall stop work and notify the Engineer.

The Contractor shall take every precaution to preserve the existing manhole conditions and to protect existing manholes form falling debris and other construction materials. The Contractor shall be responsible for any debris falling into the manhole and use a manhole debris catcher, *USABlueBook Manhole Debris Catcher Stock Number 66097 or* approved equivalent, during all removal and adjustment activities. The intent of the debris catcher or equivalent is to capture or prevent all debris, concrete, or grout that falls into the manhole during removal and adjustment activities. The Contractor shall also have a scoop or clam-style debris removal tool acceptable to the Engineer on site prior to beginning any adjustment work. The debris removal tool shall be approved by the Engineer and must allow the Contractor to remove any debris not collected by the debris catcher and without entering the manhole. No work will be allowed if an approved debris catcher and debris removal tool are not present on the job site. Any materials not captured and removed by these measures shall be immediately reported to the City Sewer Maintenance Division to arrange for removal of any debris or construction materials before manhole adjustment operations continue.

Prior to the Contractor moving onto another segment, all manholes shall be inspected by Contractor and Engineer to ensure they are free from debris or blockage resulting from adjustment activities.

ii. Subsection 1002.05 – Measurement and Payment is amended to include the following:

The Engineer shall measure Adjust Manhole to Grade for payment by each manhole that is adjusted in accordance with the following:

For Pavement Repair: Manhole/utility valve adjustment requires the replacement of one or more of the following due to damage not caused by contractor's removal operations:

- Concrete riser
- New frame and cover
- New valve cover
- Properly excavated around the manhole to the dimensions identified in standard plate 1000-01.
- Contractor is using a debris catcher or approve equal product.
- Manhole is adjusted using Pro-Ring by Cretex Specialty Products or an approved equal, and/or composite shims.
- Contractor and Engineer have inspected the manhole together

22. <u>CONSTRUCT SIDEWALK CURB WALL (503.100)</u>

i. Subsection 503.03 – (C) Sidewalk Curb wall is void and superseded by the following:

This work shall consist of the necessary forming, placement of concrete, finishing and

backfilling needed to construct an integral, vertical face concrete curb wall along the back line of the sidewalk to meet the grades, slopes, and elevations of the existing ground conditions in accordance with the details, specifications, and standard plates contained in the contract documents.

The sidewalk curb wall shall be tapered a minimum of three (3) feet at each end to match the grades and elevations of the existing ground conditions. The face of the wall shall be nearly vertical and neat in appearance. The top edges shall be edged on the front and back. The maximum height of the sidewalk curb wall shall be no greater than nine (9) inches. The Engineer shall determine if the curb wall is to be constructed and identify the limits of the curb wall construction.

Sidewalk curb walls greater than nine (9) inches shall be constructed as reinforced sidewalk curb walls in accordance with Standard Plate 600-06.

23. CONSTRUCT 6-INCH IMPRINTED PCC SURFACING (503.202)

i. Subsection 503.03 – (B) Imprinted Surfacing is amended to include the following:

This work shall consist of the necessary full depth saw cut, removal, excavation, preparation of the subgrade, forming, placement and stamping of the concrete, disposal of the materials off site and joint sealing to construct the 6" imprinted surface in accordance with the details, specifications, and Standard Plates contained in the contract documents.

The imprinted surface shall match the thickness of the pavement at the outer edges and taper to a minimum thickness of six (6) inches. Stake in place pre-molded expansion joint material around all existing structures, poles, along the back of curb or any other objects identified by the Engineer with no gaps between the expansion joint material and the structure, pole, back of curb or object. The pre-molded expansion joint material shall extend, at a minimum, to the proposed depth of the PCC and be placed one-quarter (1/4) inch to one-half (1/2) inch below the finished concrete edge. For rounded structures, use flexible material to follow the surface of the structure without a gap.

Hot applied joint sealing operations shall begin no more than three (3) days after the imprinted surface is constructed. Clean all joints of any residual concrete, dirt or debris immediately before sealing operations. Apply joint sealing compound to all joints, where pre-molded expansion joint material is placed. Cut and remove any pre- molded expansion joint material that is above or less than one-quarter (1/4) inch below the finished concrete edge. Install backer rod prior to applying the joint sealing material if pre-molded expansion joint material is greater than one-half (1/2) inch below the finished concrete edge or contains gaps where the expansion material is not tight with the existing structures, poles, along the back of curb or any other objects.

b. Subsection 503.05 – Measurement and Payment is amended to include the following:

The Engineer shall measure 6" Imprinted PCC Surface for payment by the square feet of imprinted surface constructed, sealed, backfilled, and accepted.

This shall be full compensation for full depth saw cut, removal, excavation, preparation of the subgrade, forming, placement and stamping of the concrete, disposal of the materials off site and joint sealing; and for furnishing all labor, materials, forms, expansion joint material, reinforcement, equipment, tools, and all incidentals necessary to complete the work.

24. CONSTRUCT PCC CURB RAMP (504.000)

i. Subsection 504.01 – (A) – General Description – is amended to include the following:

This work shall consist of the necessary full depth saw cut, removal, excavation and preparation of the subgrade, placement of forms, placement of concrete, installation of detectable warning panel, joint sealing, grading, seeding/sodding and disposal of the materials off site to the limits identified by the Engineer, in accordance with the details, specifications, and standard plates contained in the contract documents.

Construction of the curb ramp shall be in accordance with the details, specifications, and Standard Plates contained in the contract documents. Stake in place pre-molded expansion joint material around all existing structures, poles, along the back of curb or any other objects identified by the Engineer with no gaps between the expansion joint material and the structure, pole, back of curb or object. The pre-molded expansion joint material shall extend, at a minimum, to the proposed depth of the PCC and be placed one-quarter (1/4) inch to one-half (1/2) inch below the finished concrete edge. For rounded structures, use flexible material to follow the surface of the structure without a gap.

Hot applied joint sealing operations shall begin no more than three (3) days after the curb ramp is constructed. Clean all joints of any residual concrete, dirt or debris immediately before sealing operations. Apply joint sealing compound to all joints, where pre-molded expansion joint material is placed. Cut and remove any pre- molded expansion joint material that is above or less than one-quarter (1/4) inch below the finished concrete edge. Install backer rod prior to applying the joint sealing material if pre-molded expansion joint material is greater than one-half (1/2) inch below the finished concrete edge or contains gaps where the expansion material is not tight with the existing structures, poles, along the back of curb or any other objects.

D. Subsection 504.05 – Measurement and Payment – is amended to include the following:

The Engineer shall measure Construct PCC Curb Ramp for payment by the number of square feet of curb ramp constructed, sealed, backfilled, and accepted. This shall be full compensation for the saw cutting, removal, disposal of the materials off site, excavation and preparation of the subgrade, forming, and placing of concrete, joint sealing, grading, and seeding/sodding of the disturbed areas; and for furnishing all labor, materials, forms, expansion joint material, reinforcement, equipment, tools, and all incidentals necessary to complete the work.

Payment for constructing the sidewalk landing area, sidewalk, 6” imprinted

surface and detectable warning panel shall be as separate line items unless otherwise indicated in the contract documents.

25. CONSTRUCT DETECTABLE WARNING PANEL (504.100)

i. Subsection 504.02 – (B) Pre-cast Detectable Warning Panels – Void paragraph 2 and 4 and amend with the following:

The following products are approved for use within the City of LaVista:

- Iron Dome by ADA Solutions, Inc.
- Detectable Warning Plate 4984 by Deeter Foundry, Inc.
- Duralast Detectable Warning Plate by East Jordan Iron Works
- TufTile Cast Iron Tiles by TufTile, Inc.

26. CONSTRUCT SEGMENTAL RETAINING WALL (605.000)

i. Subsection 605.01 - (A) General is void and superseded by the following:

This work shall consist of all design, grading, placing of aggregate, installation of blocks, reinforcing grid (as needed), cap blocks, backfilling, and seeding and sodding necessary to construct a segmental retaining wall along the backside of the sidewalk to meet the grades, slopes, and elevations of the existing ground conditions, in accordance with the details, specifications, and standard plates contained in the contract documents.

The Engineer will determine if the segmental wall is to be constructed as well as the limits of the wall. All segmental walls shall step as needed to match the grades and elevations of the existing conditions.

ii. Subsection 605.02 - (A) General is amended to include the following:

Segmental retaining wall units shall be beveled-faced units having a nominal height of either six (6) or eight (8) inches. All courses of block shall be constructed using the same block height. Per the Contractor's bid price, they shall supply three (3) different block colors consisting of grey, tan, or brown. Block type and color shall be determined in the field by the Engineer. The Engineer reserves the right to select different types or colors for different locations. The ends of the segmental wall shall transition and tie back into the existing ground blending in with the existing ground elevations, no ends of the wall shall be exposed, without approval of the Engineer.

Install by bonding the cap blocks, per the manufacturer's recommendations, along the top course at all wall locations using cap blocks that are half the height of the segmental retaining wall units. Accomplish step-downs or other transitions using multiple cap blocks arranged as directed by the Engineer. Use straight-faced cap blocks colored to match the wall block.

iii. Subsection 605.03 - (E) SRW Construction is amended to include the following:

Construct the segmental wall along a horizontal alignment maintaining not more than six (6") inches of separation between the base of the wall and the adjacent sidewalk unless otherwise directed by the Engineer.

iv. Subsection 605.03 - (G) Cap Block Placement is amended to include the following:

Cap blocks shall be oriented in alternating fashion so that not more than ¼" gap exists between adjacent edges and the overhang is consistent and not greater than one (1") inch.

v. Subsection 605.03 – Construction Requirements is amended to include the following:

i. Concrete In-fill

When directed by the Engineer, all gaps between the segmental retaining wall and existing or proposed sidewalk shall be in-filled with portland cement concrete type L65. The minimum thickness of the concrete shall be equal to the thickness of the adjacent concrete and the surface shall be sloped to provide positive drainage away from the face of the wall. The concrete shall be finished with a rounded edge at the joint with the sidewalk and shall about the fill in all voids around the face of the retaining wall. Edging along the retaining wall is not required.

vi. Subsection 605.05 – Measurement and Payment is amended to include the following:

Concrete in-fill shall be considered subsidiary to items for which the contract provides direct payment.

27. CONSTRUCT REINFORCED PCC RETAINING WALL (607.000)

This work shall consist of the necessary forming, placement of concrete, reinforcement bars, and finishing needed to construct a vertical face concrete curb wall along the backside of the sidewalk to meet the grades, slopes, and elevations of the existing ground conditions. The Engineer shall determine if the curb wall is to be constructed and identify the limits of the curb wall construction. All curb walls shall taper at each end to match the grades and elevations of the existing conditions. All work shall be done in accordance with the current City of Omaha Standard Plate 600-06.

The Engineer shall measure for payment the number of "Cubic Yards" of curb wall that is constructed and accepted.

Payment shall be made under the item "Construct Reinforced PCC Retaining Wall". The contract price shall be full compensation for the forming, placement of concrete, finishing, curing, clean up, and for furnishing all equipment, tools, traffic control devices, labor and all incidentals necessary to complete the work.

28. INSTALL SODDING (802.700)

Subsection 802.01 – (A) General Description – include the following:

Contractor shall place sod when restoring disturbed areas from March 15th to June 1st, and September 1st to December 1st, unless the Engineer determines seeding is more appropriate based on existing/surrounding conditions.

From June 2nd to August 31st the contractor shall fine grade and place Type I Erosion Control Blanket over the disturbed areas until it is conducive for sodding operations.

The Engineer reserves the right to adjust the dates identified above due to weather conditions. Sodding operations shall start within 2 weeks of the specified dates or when the Engineer deems the weather conditions are acceptable. At the discretion of the Engineer, the requirement for completion of sodding prior to determination of substantial completion may be waived if seasonal restrictions prevent sodding.

Adjustment of the specified dates does not waive the contractor's responsibility to meet the requirements of section 802 of the standard specification.

Subsection 802.03 – (F) Sod Bed Preparation –include the following:

Grading of disturbed areas shall match the existing topography and have slopes no greater than 4H:1V. Any raised or settlement areas of sod greater than 0.5" above or below the adjacent areas or improvements shall be backfilled to re-establish the desired grade and re-sodded at the direction of the Engineer.

Subsection 802.04 – Acceptance Requirements – include the following:

Sod installed shall be in the same or better condition as the surrounding undisturbed areas abutting the sod as determined by the Engineer.

Subsection 802.05 – Measurement and Payment – include the following:

All sodding within three (3) feet of the proposed concrete improvements shall be subsidiary to items for which the Contract provides direct payment. Any sodding necessary due to unauthorized disturbance of ground greater than three (3) feet beyond the proposed concrete improvements shall be subsidiary to items for which the Contract provides direct payment.

The Engineer shall measure all sodding in authorized areas more than three (3) feet beyond the proposed concrete construction for payment as a single unit defined by the square yards of ground prepared, sod supplied, installed, maintained, and accepted.

Any sod used to replace existing driveway locations at the direction of the Engineer shall be measured and paid for as a single unit defined by the square yards of ground prepared, sod supplied, installed, maintained, and accepted. Any necessary earthwork required to establish proper grade lines shall be measured and paid for under the contract item "Embankment". Any removals associated with replacing driveway locations with sod shall be paid for under the contract item "Remove Driveway".

29. INSTALL ROLLED EROSION CONTROL, TYPE II WITH SEEDING - TYPE B (803.202)

i. Subsection 803.05 – Measurement and Payment is amended to include the following:

The Engineer shall measure in-place rolled erosion controls with seeding for payment by the square yards of the type of rolled erosion control and type of seed furnished, installed, and accepted.

This price shall be full compensation for furnishing, preparing the grade, and installing all materials including seed, rolled erosion control mat, and anchors and for all materials, forms, equipment, tools, labor and all incidentals necessary to complete the work.

30. PROVIDE FLAGGER (906.500)

The item above ("Provide Flagger") IS NOT INCLUDED as a Bid-Item for the project. The use of Flaggers as required by the contract documents or directed by the Engineer (or their designated representative) shall be considered subsidiary to item(s) for which direct payment is being made for the various operations in which it may be required for completing work. Those being employed as Flaggers must meet the training and certification requirements as stated elsewhere in the contract documents. The Engineer has final decision and reserves the right to require Flagger(s) as necessary in the interests of public mobility, safety, and project operations.

31. REPAIR CURB AND GUTTER (1002.100)

ii. Subsection 1002.01 – (A) Description is amended to include the following:

This work shall consist of the full depth saw cut, removal, excavation and preparation of the subgrade, replacement of integral curb or combination curb and gutter, grading, seeding/sodding, and disposal of the materials off site to the limits identified by the Engineer.

The Engineer shall identify the curb and gutter removal limits and curb ramp locations. Where a curb ramp is constructed within the existing curb, combination curb and gutter and/or sidewalk, the existing curb or combination curb and gutter shall be removed to the nearest joint beyond the curb transitions or to the extent that no remaining section of curb or curb and gutter is less than 5' long.

The vertical height of the curb constructed may vary due to matching existing curb heights and/or the curb ramp elevations. It is the contractor's responsibility to confirm the vertical height of curb of each corner with the engineer prior to construction.

Note: Thickness of curb & gutter shall be two inches (2") greater than the adjacent Pavement.

iii. Subsection 1002.03 – (A) General is amended to include the following:

If vehicle detector loop wires are present in the existing pavement, conduit from connecting the existing pull box to the integral curb or combination curb and gutter shall be install in accordance with Standard Plate 900-70 Inductive Loop Detectors modified to require the conduit to extend through the new concrete to the surface where it shall be plugged as specified. All necessary materials shall be subsidiary to the item providing direct payment.

iv. Subsection 1002.03 – (C) Curb and Gutter – Delete the first sentence and add the following in its place:

The quantity of curb repairs to be paid for shall include any pavement repair required within three (3) feet from the back of the original curb line, measured as specified in this Subsection. If the combined total width is greater than 3 feet, the combination curb and gutter and pavement repair shall be classified as "Construct __Inch Concrete Pavement" and measured separately for payment in accordance with the Contract Documents.

v. Subsection 1002.05 – Measurement and Payment – include the following:

This price shall be full compensation for saw cutting of integral curb, removal of the existing curb, disposal of the materials off site, preparation of the subgrade, concrete placement, and finishing, backfill, grading, sodding/seeding of the disturbed areas; and for all materials, forms, equipment, tools, labor and all incidentals necessary to complete the work

32. <u>REMOVE AND REPLACE PRECAST INLET TOP (1004.400)</u>

i. Subsection 1004.03 – (F) Precast Curb Inlet Tops is amended to include the following:

This work shall consist of the removal and replacement of all various sizes of pre-cast or cast in place concrete inlets tops as shown in the plans. New inlet tops shall be constructed in accordance with City of Omaha 2020 Standard Plate 700-30. Cover any decking gaps behind the pre-cast inlet tops using a reinforced concrete cover complying with Standard Plate 700-21 page 3 of 5. Critical dimensions shall reasonably match the existing inlet top and allow full access to the inlet box and any rungs or other below grade improvements. The Contractor may use pre-cast or cast-in-place tops at their discretion provided all specified tolerances are met to the satisfaction of the Engineer.

ii. Subsection 1004.05 – Measurement and Payment – include the following:

All inlet tops shall be paid at the contract price regardless of size or dimension. All reinforced concrete covers are subsidiary to items for which the contract provides direct payment. The Contract Price shall be full compensation for removals, supplying pre-cast materials, forming, furnishing, and placing reinforcing steel; for excavation, backfill, castings and other component materials; for the disposal of surplus excavated materials; for cleaning, relocating and installation; and for all forms, equipment, tools, and incidentals necessary to complete the work.

If any inlet wall heights or other element require modifications to fit the new inlet tops at Station 125+15 LT, 125+45 LT, or 125+45 RT, the Engineer should be notified prior to proceeding with any additional work. Repair of any inlet walls damaged during removal operations or placing of new inlet top shall not be eligible for payment.

33. <u>REMOVE AND INSTALL NEW SPRINKLER SYSTEM HEAD (1102.000)</u>

Subsection 1102.01 – (A) General – Description – include the following:

This work shall consist of the relocation, reconnection, and/or replacement of existing sprinkler heads, lines, and any other necessary repairs and materials needed to restore the sprinkler system.

Subsection 1102.03 – (A) Construction Requirements – General – include the following to paragraph 1:

The Contractor is responsible for the preservation of the sprinkler head, connections, and lines for sprinkler system components encountered.

Subsection 1102.05 – Measurement and Payment – include the following:

The Engineer shall measure Remove and Install New Sprinkler System Head for payment by each sprinkler head after the first four (4) sprinkler heads have been, relocated, reconnected, replaced and accepted per each ramp. The first four (4) sprinkler heads shall be subsidiary to items for which the Contract provides direct payment. Lowering of existing lines due to changes in grade or repairing damage to existing sprinkler systems is subsidiary to items for which the Contract provides direct payment.

Payment shall be made for each additional sprinkler heads beyond the initial four (4) existing sprinkler heads per ramp under the item "Remove and Install New Sprinkler System Head". Payment under this contract item includes salvaging existing materials, supplying and installing additional tubing, clamps, fittings, heads and other necessary components to restore system coverage to preconstruction conditions.

34. MOBILIZATION/DEMOBILIZATION (1109.000)

This item shall consist of all preparatory work and operations associated with the necessary movement of personnel, equipment, supplies and incidentals to the project site and for all the work and operations which must be performed or costs that are necessarily incurred prior to commencing the work. The Contractor shall include all expected costs for movement of their and any subcontractors' equipment and material necessary to prosecute the work to completion, including any demobilization. Additional payments will not be made for interruptions in the prosecution of the project or if the Contractor fails to adequately assess the actual costs of mobilization. This item also includes any incidental surveying or construction staking required to complete the work of the contract.

Method of Measurement and Basis of Payment

1. No measurement for mobilization is required.

2. Fifty percent (50%) payment of the contract unit price per Lump Sum for the item "Mobilization" will be paid with the initial pay estimate. The balance of the item for mobilization will be paid when twenty percent (20%) of the value of the work has been completed. The bid amount for mobilization cannot exceed eight percent (8%) of the total bid amount (including mobilization).

35. TOWING (1110.050)

Subsection 1110.05 – (H) Measurement and Payment – Void and replace with the following:

The Engineer shall measure towing for payment by each vehicle that is towed.

If a vehicle is moved after dispatch of but prior to arrival of the towing equipment, the contractor shall be paid the contract price for 1 EA for the time expended by the towing company.

Towing completed without the authorization of the Engineer shall not be measured for payment.

Payment shall be made under the following unless otherwise indicated in the Contract Documents. The Contract Price shall be full compensation for coordination, mobilization, demobilization, towing vehicles, winch fees, mechanical work, dolly fees, fuel maintenance, and for furnishing all labor, materials, equipment, tools, and all incidentals necessary to complete the work.

Unit	Item Description
EACH	Towing

36. RECONSTRUCT INLET (8000.016)

This work shall consist of, but is not limited to, the removal and replacement of the existing curb inlets as shown in the plans. Reconstruction is required of all cast-in-place elements including the floor, walls, and throat for a single curb inlet. This work includes all necessary excavation, installation of one section of the same size/type of connecting pipe, construction of a new curb inlet as shown in Section 700 SEWER/SUBSURFACE CONSTRUCTION of the City of Omaha Standard Plates, and the necessary grading to match the new surrounding area as determined by the Engineer.

Prior to commencing construction, the Contractor shall identify, locate, tie-off, and map all inlets within the construction limits. The Contractor shall provide an accurate, dimensioned map that identifies the locations of any inlets within the area to be reconstructed or paved.

Note: The removal, furnishing and setting in place as required a new precast inlet top following Inlet Reconstruction is paid separately through item “Remove and Replace Precast Inlet Top”. e Engineer shall measure for payment the number of "Reconstruct Inlet" for each inlet that is removed, reconstructed, and accepted per these provisions.

Payment shall be made under the item "Reconstruct Inlet". The contract price shall be full compensation for all removals, necessary excavation, installation of one section of the same size/type of connecting pipe, construction of the new inlet, all necessary grading, and disposal of the existing inlet materials off site, clean-up, and for furnishing all equipment, tools, traffic control devices, labor and all incidentals necessary to complete the work.

37. REPAIR 4" & 6” CONCRETE SIDEWALK (9000.001 & 9000.002)

i. Subsection 1002.01 – (A) General Description is amended to include the following:
This work shall consist of the full depth saw cut, removal, excavation and preparation of the subgrade, forming, constructing a 4” or 6” sidewalk, joint sealing, grading, seeding/sodding and disposal of the materials off site to the limits identified by the Engineer, in accordance with the details, specifications, and standard plates contained in the contract documents.

ii. Subsection 1002.03 – (E) Driveways, Sidewalks, Median Surfacing, Mow Strips, and Recreational Trails is amended to include the following:

Construction of the 4” or 6” Sidewalk Repair shall be in accordance with the details, specifications, and Standard Plates contained in the contract documents. Stake in place pre-molded expansion joint material around all existing structures, poles, along the back of curb or any other objects identified by the Engineer with no gaps between the expansion joint material

and the structure, pole, back of curb or object. The pre-molded expansion joint material shall extend, at a minimum, to the proposed depth of the PCC and be placed one-quarter (1/4) inch to one-half (1/2) inch below the finished concrete edge. For rounded structures, use flexible material to follow the surface of the structure without a gap.

Hot applied joint sealing operations shall begin no more than three (3) days after the curb ramp is constructed. Clean all joints of any residual concrete, dirt or debris immediately before sealing operations. Apply joint sealing compound to all joints, where pre-molded expansion joint material is placed. Cut and remove any pre-molded expansion joint material that is above or less than one-quarter (1/4) inch below the finished concrete edge. Install backer rod prior to applying the joint sealing material if pre-molded expansion joint material is greater than one-half (1/2) inch below the finished concrete edge or contains gaps where the expansion material is not tight with the existing structures, poles, along the back of curb or any other objects.

iii. Subsection 1002.05 – Measurement and Payment – include the following:

The Engineer shall measure 6" sidewalk repair for payment by the square feet of existing sidewalk removed, replaced with 6" concrete sidewalk and accepted.

The Engineer shall measure 6" sidewalk repair for payment by the square feet of 6" sidewalk constructed for the curb ramp landing and sidewalk transitions associated with the construction of the PCC Curb Ramps.

This price shall be full compensation for full depth saw cut, removal, excavation and preparation of the subgrade, forming, constructing a 6" sidewalk, joint sealing, grading, seeding/sodding and disposal of the materials off site; and for all materials, forms, equipment, tools, labor and all incidentals necessary to complete the work.

38. <u>CONSTRUCT CONCRETE BASE REPAIR (TYPE L65) (9000.003)</u>

Full depth saw cut to the removal limits identified by the Engineer. Remove and dispose of the pavement in accordance with Section 100. Perform subgrade preparation and any removal and replacement of unsuitable material in accordance with Section 200. Replace the removed materials with type L65 concrete in accordance with Section 500. The minimum depth of pavement repair shall be eight (8) inches or equivalent to the thickness of the existing pavement plus two (2) inches, whichever is greater

39. <u>CONSTRUCT CONCRETE BASE REPAIR (TYPE L85) (9000.004)</u>

Full depth saw cut to the removal limits identified by the Engineer. Remove and dispose of the pavement in accordance with Section 100. Perform subgrade preparation and any removal and replacement of unsuitable material in accordance with Section 200. Replace the removed materials with type L85 concrete in accordance with Section 500. The minimum depth of pavement repair shall be eight (8) inches or equivalent to the thickness of the existing pavement plus two (2) inches, whichever is greater.

40. <u>EPOXY COATED TIE BARS (9000.005)</u>

a. Subsection 500.03 – (E) Reinforcing Steel Tie Bars is amended to include the following:

This work shall consist of the drilling the concrete, cleaning out the drill holes and installing the epoxy coated tie bars with an approved epoxy product in accordance with Standard Plate 1000-03.

b. Subsection 1002.05 – Measurement and Payment is amended to include the following:

The Engineer will determine if Epoxy Coated Tie Bars are a suitable method. When determined to be suited, the Engineer shall measure install epoxy tie bars for payment by each epoxy coated bar installed and accepted.

41. <u>1-DAY CONCRETE COMPRESSIVE STRENGTH PAYMENT (9000.010)</u>

L85 may be elected to be used by the contractor, or may be directed to be used by the Engineer in lieu of L65 mix, for certain situations during this project. This item will compensate the portion of costs required for the materials, labor and other expenses exceeding the costs of the corresponding L65 Pay Item(s) being placed. This item is only paid when the 1-Day Compressive Strength requirement(s) for a given Concrete Pay Item is/are met.

L85 Concrete, as specified per Section 500 of City of Omaha Standard Specifications, or an accepted substitute, may be utilized on a case-by-case basis when directed or agreed to by the Engineer. The L85 mix specified and accepted may also be elected to be used at the contractor's option or benefit, if it requested by the Contractor and pre-approved by the engineer; in this case, no additional payment will be made for the use of L85 concrete unless agreed to otherwise by the Engineer. Mix Designs for the L85 or High-Early compressive strength equal substitute, must still be submitted and approved for use.

Upon completion of the placement and when initial cure begins, the appropriate L65 Concrete item will be input for payment; prior to determining the 1-Day or 28- Day Compressive strength being determined. Upon obtaining the results of the compressive strength, the concrete will either MEET SPECIFICATIONS OR NOT MEET SPECIFICATIONS. The design 1-Day compressive strength that is required for the concrete element(s) placed will be number used to compare the obtained strength to for the MEET or NOT MEET determination.

If the representative specimen 1-Day Compressive requirements for the given element placed is less than the required Strength for the element placed, no further payment is warranted regardless of the price paid to the Supplier. Despite the additional possible costs, the L85 product as it did not deliver the intended benefit of the product being paid by the owner.

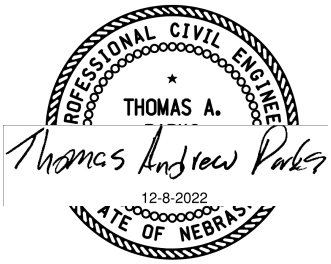
If the 24-Hour (1-Day) compressive strength requirement(s) is met or exceeded, the item "High-Early Concrete Strength Payment" will be paid in the same quantity that was previously measured and paid for of the L65 contract item for the element(s) placed using that mix.

The use of the Maturity Method to determine 1-Day strength is an acceptable method to be used in determining the compressive strength, however, the method that is chosen to be used to obtain compressive strength of a concrete placement is determined by the contract documents, or when the option is present the designated party providing concrete strength testing services.

When results are obtained and payment for meeting or exceeding the item's 1-Day Compressive Strength is warranted, this item will be paid in the same quantity or totals as the L65 Concrete item(s) that was initially paid at placement. This Item's Unit of Measurement is by the Square Yard. It will be paid for any Approved L85 Concrete Mix that is directed to be placed or agreed to paid by the Engineer, and the concrete placed meets the specified 1-Day Compressive Strength requirements.

Items this provision applies to:

- CONSTRUCT 8 INCH CONCRETE PAVEMENT REPAIR, (TYPE L65)
- CONSTRUCT 9 INCH CONCRETE PAVEMENT REPAIR, (TYPE L65)
- CONSTRUCT 11 INCH CONCRETE PAVEMENT REPAIR, (TYPE L65)
- CONSTRUCT CONCRETE BASE REPAIR (TYPE L65)



QUANTITIES BY SEGMENT

LA VISTA 2023 STREET REHABILITATION AND RESURFACING

ITEM DESCRITPION	UNIT	TERRY DRIVE	LILLIAN AVENUE	78TH STREET	TOTAL QTY
CURB INLET PROTECTION	EA	4.000	2.000	6.000	12.000
CLEARING AND GRUBBING PER INTERSECTION CORNER	EA	24.000	10.000	7.000	41.000
TRIM TREE ROOT	HOUR	2.000	2.000	2.000	6.000
REMOVE AND RESET EXISTING RETAINING WALL	SF	10.000	10.000	10.000	30.000
REMOVE AND RELOCATE FENCE	LF	4.000	4.000	4.000	12.000
PERFORM 2" COLD--PLANING-ASPHALT	SY	11544.000	6771.000	10120.000	28,435.000
PERFORM 2" COLD PLANING-CONCRETE	SY	103.000	235.000	62.000	400.000
REMOVE SIDEWALK	SF	10.000	10.000	10.000	30.000
EXCAVATION HAUL-OFF	CY	5.000	5.000	5.000	15.000
EMBANKMENT - BORROW	CY	5.000	5.000	5.000	15.000
CONSTRUCT 4" AGGREGATE SUBBASE COURSE	SY	25.000	25.000	25.000	75.000
CONSTRUCT ASPHALT SURFACE COURSE, TYPE SPR FINE (PG64-34)	TON	780.810	732.760	1095.190	2,608.759
CONSTRUCT ASPHALTIC CONCRETE FOR PAVEMENT REPAIR, TYPE SPR (PG64-34)	TON	15.000	15.000	15.000	45.000
CONSTRUCT 8-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	2528.000	0.000	0.000	2,528.000
CONSTRUCT 9-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	0.000	1502.000	0.000	1,502.000
CONSTRUCT 11-INCH CONCRETE PAVEMENT (TYPE L65) REPAIR	SY	0.000	0.000	300.000	300.000
ADJUST UTILITY VALVE TO GRADE	EA	7.000	4.000	3.000	14.000
ADJUST UTILITY MANHOLE TO GRADE	EA	14.000	8.000	12.000	34.000
CONSTRUCT SIDEWALK CURB WALL	SF	35.000	35.000	30.000	100.000
CONSTRUCT 6-INCH IMPRINTED PCC SURFACING	SF	180.000	50.000	65.000	295.000
CONSTRUCT PCC CURB RAMP	SF	1036.000	370.000	333.000	1,739.000
CONSTRUCT DETECTABLE WARNING PANEL	SF	224.000	80.000	72.000	376.000
CONSTRUCT SEGMENTAL RETAINING WALL	SF	70.000	70.000	60.000	200.000
CONSTRUCT REINFORCED PCC RETAINING WALL	CY	2.000	2.000	2.000	6.000
INSTALL SODDING	SY	10.000	10.000	10.000	30.000
INSTALL ROLLED EROSION CONTROL, TYPE II WITH SEEDING - TYPE B	SY	20.000	20.000	10.000	50.000
INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 5" WHITE	LF	65.000	0.000	82.500	147.500
INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 12" WHITE	LF	16.000	0.000	40.000	56.000
INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 24" WHITE	LF	56.000	0.000	112.000	168.000
INSTALL PERMANENT PREFORMED TAPE MARKING - TYPE 3, 5" YELLOW	LF	0.000	0.000	240.000	240.000
FURNISH FLASHING ARROW PANEL	DAY	0.000	0.000	8.000	8.000
PROVIDE TEMPORARY TRAFFIC CONTROL - PER INTERSECTION CORNER	EA	24.000	10.000	7.000	41.000
REPAIR CURB AND GUTTER	LF	620.000	300.000	260.000	1,180.000
REPAIR DRIVEWAY	SY	24.000	24.000	16.000	64.000
REMOVE AND REPLACE PRECAST INLET TOP	EA	2.000	0.000	7.000	9.000
REMOVE AND INSTALL NEW SPRINKLER SYSTEM HEAD	EA	2.000	2.000	1.000	5.000
MOBILIZATION/DEMOBILIZATION	LS	0.350	0.350	0.300	1.000
TOWING	EA	2.000	2.000	1.000	5.000
RECONSTRUCT INLET	EA	2.000	0.000	4.000	6.000
PROVIDE TEMPORARY TRAFFIC CONTROL- PER SEGMENT	EA	1.000	1.000	1.000	3.000
RENTAL OF LOADER, FULLY OPERATED	HR	5.000	5.000	5.000	15.000
RENTAL OF SKID LOADER, FULLY OPERATED	HR	5.000	5.000	5.000	15.000
RENTAL OF DUMP TRUCK, FULLY OPERATED	HR	5.000	5.000	5.000	15.000
REPAIR 4" CONCRETE SIDEWALK	SF	1664.000	640.000	512.000	2,816.000
REPAIR 6" CONCRETE SIDEWALK	SF	0.000	0.000	21.333	21.333
CONSTRUCT CONCRETE BASE REPAIR (TYPE L65)	SY	658.008	385.947	576.840	1,620.795
ONE-DAY CONCRETE COMPRESSIVE STRENGTH PAYMENT	EA	300.000	150.000	50.000	500.000
EPOXY COATED TIE BARS	EACH	1500.000	1500.000	1500.000	4,500.000
CAST IRON	LB	1225.000	700.000	1014.000	2,939.000