

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES
				1 of 4
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
3	18-Mar-2003			
6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE	
US Army Corps of Engineers, Kansas City District 760 Federal Building, 601 East 12th Street Kansas City, Missouri 64106-2896				

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(x) 9a. AMENDMENT OF SOLICITATION NO.
	X DACW41-03-R-0063
	9B. DATED (SEE ITEM 11) 3/1/2003
	10A. MODIFICATION OF CONTRACT/ORDER NO.
	10B. DATED (SEE ITEM 13)
CODE FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above number solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
(a) By completing Items 8 and 15, and returning ___ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegraph which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(x) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B. THE ABOVE NUMBER CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF:
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Prospect Bridge and Brush Creek Re-Channelization
Kansas City, Missouri

The Solicitation is amended in accordance with the attached pages.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA
15C. DATE SIGNED	16C. DATE SIGNED
(Signature of person authorized to sign)	BY (Signature of Contracting Officer)

1. SOLICITATION NO. DACA41-03-R-0063 is amended as follows:

a. AMENDMENT 0001: ~~Narrative Change~~: In paragraph 2.a. the references to "Sheets G5.15, G5.17, G5.19, and G5.21" are changed to "C5.15, C5.17, C5.19 and C5.21".

b. SPECIFICATIONS:

~~Revised Pages~~: The following pages are deleted and replaced with revised pages of the same numbers. Copies of the revised pages are attached.

1 of 167 (SF 1442)
d1ndx (Division 1 Index)

~~Revised Sections~~: The following sections are deleted and replaced with revised sections of the same numbers. Copies of the revised sections are attached.

Table of Contents	
Pages 3 thru 29 of 167 (Proposal Schedule)	
01100	General
01330	Submittal Procedures
01500	Temporary Construction Facilities
02001	Construction, General
02225	Channel Overlay Stone
02270	Erosion Control
02820	Turf Reinforcement Mat
03400	Paved Slope Protection

~~Deleted Sections~~: The following sections are deleted in their entirety.

01270	Measurement and Payment
02200	Asphalt Pavement

~~New Sections~~: The following sections are new sections, which are added:

02200	Pavement
02770A	Concrete Sidewalks and Curbs and Gutters

~~Narrative Changes~~:

~~General~~: The terms sidewalks and walkways are used interchangeably.

c. DRAWINGS:

(1) ~~Revised Drawings~~: The following drawings are deleted and replaced with revised drawings of the same number, dated 17 March 2003. A copy of each revised drawing accompanies this amendment.

G2.4	G3.5	SC1.1	SC2.4	SC2.10
G2.6	G3.15	SC1.2	SC2.5	SC3.1
C5.2	G3.20	SC2.1	SC2.7	S7.8
C5.3	SC0.1	SC2.2	SC2.8	S7.12
C5.5	SC0.2	SC2.3	SC2.9	

(2) ~~New Drawings~~: The following drawings, dated 17 March 2003, are new drawings which are added. A copy of the new drawings accompany this amendment.

Sheet No.	Title
T1.6	Disposal Area "A"
T1.7	Disposal Area "B"
SC1.10	Wall Detail, Right Bank Near Sta. 25+75

(3) ~~Narrative Changes~~:

~~Drawing Sheet T1.2~~: The title of Sheet No. G4.18 is changed from "Concrete Slope Paving" to "Paved Slope Protection".

~~Drawing sheet T1.4~~:

1. The indication of "Disposal Area 2" is deleted in its entirety.

~~Drawings G3.2, G3.3, G3.4, G3.5 and G3.6~~: The following note is added:

"The Invert Channel Protection Downstream of Baseline Station 12+75 for the Base Bid consists of Quarry Run Rock without a Concrete Accessway. The Invert Channel Protection Downstream of Baseline Station 12+75 for Bid Item (Option) 0049 consists of the Channel Overlay Stone Detail shown on the drawings, with the 12-inch thick Concrete Accessway, as shown on the drawings.

~~Drawing Sheet No. G3.5~~:

PLAN:

1. At the top of the drawing, the indication of a "match line" and the note "Match Line Sheet No. C2.6" are deleted.
2. The indication of "Figure 2 / Project Limit 2" is deleted.

~~Drawing Sheet No. G4.6~~: NOTES: The following note is added:

3. Repair Spalled Limestone with Dental Concrete, as needed."

~~Drawing Sheet No. G4.18~~: The title of Sheet No. G4.18 is changed from "Concrete Slope Paving" to "Paved Slope Protection".

~~Drawing Sheet Nos. C5.1 thru C5.9~~: The following General Note is added:

"Note: Concrete Sidewalks and Ramp Pavement shall conform to APWA Standard Specification and Design Criteria, Section 2300 – "Incidental Construction" and Section 2301 - "Standard Sidewalks and Driveways".

~~Drawing Sheet No. C5.10~~:

PROFILE B: The indication of a 20-foot landing is added between Sta. 1+80 and 2+00.

PROFILE C: The indication of a 20-foot landing is added between Sta. 2+10 and 2+30.

~~Drawing Sheet No. C5.11:~~

PROFILE E: The indication of a 20-foot landing is added between Sta. 1+20 and 1+40

PROFILE F: The indication of a 20-foot landing is added between Sta. 7+00 and Sta. 7+20.

~~Drawing Sheet No. C5.12:~~

PROFILE G: The indication of a 20-foot landing is added between Sta. 3+00 and Sta. 3+20.

PROFILE H: The indication of a 20-foot landing is added between Sta. 2+60 and 2+80.

PROFILE J: The indication of a 20-foot landing is added between Sta. 0+80 and Sta. 1+00.

~~Drawing Sheet No. C6.1:~~

1. SECTION A and SECTION B: All indications of "Concrete Block Walls" are changed to "Channel Walls".
2. LEGEND: In the explanation for Symbol F1, the reference to "Drawing C6.6" is changed to "Drawing C6.4".

~~Drawing Sheet No. C8.3:~~ The following notes are added:

3. The Contractor shall field locate Storm Line F below the Disposal Area.
4. The Contractor shall submit his design of the Manhole Extension and his design of the Pipe Cover Protection, for review and approval. Fill material shall not be placed above Storm Lines F and G, in the Disposal Area, before the Contracting Officer approves the designs.

~~Drawing Sheet Nos. SC1.3 thru SC1.5:~~ NOTES: In Note 5, the reference to "Sheet G4.15" is changed to "Sheet G4.14".

2. For convenience, on the revised pages, essential changes have been emphasized by underlining changed text. However, all portions of the revised specification pages shall apply whether or not changes have been indicated.
3. Offerors are required to acknowledge receipt of this amendment on the Proposal Form, in the space provided, or by separate letter or telegram prior to receipt of offers. Failure to acknowledge all amendments may cause rejection of the offer.
4. Proposals will be received until 2:00 p.m. local time at place of receipt of offers, 28 March 2003, in Room 760 Federal Building, 601 E. 12th Street, Kansas City, Missouri 64106-2896.

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. DACW41-03-R-0063	2. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 01-Mar-2003	PAGE OF PAGES 1 OF 167
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IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W58XUW-2347-3613	6. PROJECT NO.
7. ISSUED BY USAED, KANSAS CITY 760 FEDERAL BUILDING 601 E 12TH STREET KANSAS CITY MO 64106 TEL: (816) 983-3845 FAX: (816) 426-5169	CODE W58XUW	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE See Item 7 TEL: FAX:
9. FOR INFORMATION CALL:	A. NAME GREGORY C GULLEDGE	B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i> (816)983-3808

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*

Prospect Bridge and Brush Creek Re-Channelization
Kansas City, Missouri

The work to be performed consists of the demolition and replacement of the Prospect Avenue Bridge, including traffic signing, and approximately 2500 feet of re-channelization of Brush Creek. The work also includes the construction of dams, walkways and landscaping. Permanent pools of water will have provisions for recirculation and drainage for maintenance at the dams. Walkways will be lighted and incorporate landscaping and landings around the dams and on pedestrian ramps leading from Prospect to the channel, which will be compliant with the American Disabilities Act (ADA).

THIS IS AN UNRESTRICTED PROCUREMENT. NAICS CODE 234120

11. The Contractor shall begin performance within 10 calendar days and complete it within 570 calendar days after receiving award, notice to proceed. This performance period is mandatory, negotiable. *(See _____.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12B. CALENDAR DAYS 10
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 5 copies to perform the work required are due at the place specified in Item 8 by 02:00 PM *(hour)* local time 27 Mar 2003 *(date)*. If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee is, is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 120 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

DEPARTMENT OF THE ARMY
 Kansas City District, Corps of Engineers
 757 Federal Building
 Kansas City, Missouri 64106

SPECIFICATIONS FOR CONSTRUCTION OF
 PROSPECT BRIDGE REPLACEMENT
 AND BRUSH CREEK CHANNEL MODIFICATIONS
 KANSAS CITY, MISSOURI

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BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF THE CONTRACT

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00600	Representations and Certifications
00700	Contract Clauses
00800	Special Clauses
00810	Wage Rates

DIVISION 1 - GENERAL REQUIREMENTS

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01090	Sources for Referenced Publications
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01270A	deleted
01312	Resident Management System
01320A	Project Schedule
01330	Submittal Procedures
01354	Environmental protection For Civil Works
01356A	Storm Water Pollution Prevention Measures
01451	Contractor Quality Control
01500	Temporary Construction Facilities
01550	Hydrology
01780	Closeout Submittals

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02011	Site Investigation
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02200	Paving
KCMO2200	Supplement No. 1 to APWA 02200 - Paving
02201	Earthwork
02225	Channel Overlay Stone
02246	Geosynthetic Wall Reinforcement
02270	Erosion Control
02276	Modular Block Wall
02300	Seeding and Mulching
02440	Traffic Signs
02466A	Drilled Foundation Caissons (Piers)
02500	Sanitary Sewers
02518	Detectable Concrete Paver Blocks
02600	Storm Sewers
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02924	Tree Preservation
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03101	Concrete Formwork
03150	Expansion Joints and Waterstops
03151	Temporary Works
03210	Reinforcement Steel
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03400	Paved Slope Protection

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(NOT USED)

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05018	Elastomeric Bearing Devices
05100	Steel Structures
05300	Intake Drainage System
05500	Miscellaneous Metals
05540	Steel H-Piles

DIVISION 6 - WOOD AND PLASTICS

(NOT USED)

DIVISION 7 - THERMAL & MOISTURE PROTECTION

07900	Joint Sealants
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(NOT USED)

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(NOT USED)

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DIVISIONS 2 THRU 16 - TECHNICAL REQUIREMENTS

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11310 Re-circulation Pump

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(NOT USED)

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15600 Re-circulation System

DIVISION 16 - ELECTRICAL

16000 Traffic Intersection Signal Work
16001 Traffic Signals
16070A Seismic Protection for Electrical Equipment
16375 Electrical Distribution System, Underground

Section 00010 - Solicitation Contract Form

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Demolition, General FFP "Demolition General", but not limited to channel paving to be broken, removed and placed in areas noted on the drawings or in the specifications; channel paving to be broken and remain in place; asphalt pavement; all pipe to be grouted full in place, and all pipe shown to be removed. PURCHASE REQUEST NUMBER: W58XUW-2347-3613	1	Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	KCPL FFP KCPL", Reimbursement of work done by KCPL. Adjustment will be made to the contract to match the amount billed by KCPL.	1	Allowance		\$50,000

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	Sanitary Sewer FFP	1	Lump Sum		
Sanitary Sewers" and 0004, "Storm Sewers" includes all earthwork, trenching, pipe, Manholes (includes the construction of manholes, including modifications to existing manholes, excavations, bracing of excavations, materials used for manhole construction, backfilling and manhole lids), Drop Inlets (includes construction of drop inlets, including modifications to existing drop inlets, excavations, bracing of excavations, materials used for drop inlet construction and backfilling), Curb Inlets (includes construction of curb inlets, including modifications to existing curb inlets, excavations, bracing of excavations, materials used for curb inlet construction and backfilling), Field Inlets (includes construction of field inlets, including modifications to existing field inlets, excavations, bracing of excavations, materials used for field inlet construction and backfilling), manhole lining, connections, temporary service and any other incidental work.					

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	Storm Sewer FFP	1	Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005	Clearing and Grubbing FFP Clearing and Grubbing" is for the clearing and grubbing work required and defined in SECTION: CLEARING, GRUBBING AND DEMOLITION.	1	Lump Sum		
					NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006	Rock Excavation FFP " Rock Excavation", includes all work required to excavate all rock units below the top of hard rock. Hard rock is defined as limestone.	28,560	Cubic Yard		
					NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007	Common Excavation FFP " Common Excavation", includes excavation of all clay, silts, sand, gravel, pebbles, cobbles, boulders and shale.	226,930	Cubic Yard		
					NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008	Random Fill FFP " Random Fill", includes all placement of clay, silts, sands, gravel, pebbles, cobbles and top soil.	58,700	Cubic Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0009	Impervious Fill FFP " Impervious Fill", includes all placement of clays (CH and CL).	2,690	Cubic Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0010	Pervious Fill FFP " Pervious Fill", includes all delivery and placement of siliceous and natural sand to be used as backfill for channel walls.	12,000	Cubic Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0011	Coarse Filter FFP "Coarse Filter", includes all delivery and placement of crushed limestone (ASTM C-33, size 7) to be used as backfill for channel walls.	815	Cubic Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0012	Quarry-Run Rock FFP " Quarry-Run Rock", includes all delivery and placement of tough, durable particles well graded between the maximum and minimum sizes. The upper limit of size for this material shall not exceed the layer thickness required. Not more than 15 percent shall pass the 2-inch sieve.	14,000	Ton		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013	Paved Slope Protection FFP "Paved Slope Protection", includes concrete and rock slope protection, placed into the concrete matrix, at the spacing indicated on the drawings.	10,200	Square Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0014	Modular Block Walls FFP " Modular Block Walls", includes un-reinforced concrete footings, geogrid strips, granular backfill, and related excavation.	10,980	Square Foot		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0015	6-inch Concrete Sidewalk FFP " 6-Inch Concrete Sidewalk", includes concrete with wire mesh, surface subgrade preparation, crushed rock, concrete curb and detectable paver blocks where required.	4,500	Square Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0016	8-inch Concrete Ramp Accessway FFP "8-inch Concrete Ramp Accessway", includes concrete with wire mesh, surface subgrade preparation and crushed rock.	1,200	Square Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0017	18-inch Concrete Channel Pavement FFP "18-inch Concrete Channel Pavement", includes anchors, reinforcing steel, and drains as shown on the drawings.	800	Square Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0018	12-inch Concrete Channel Pavement FFP " Concrete Channel Pavement", concrete with reinforcing steel.	1,330	Square Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0019	6-inch Concrete Channel Pavement FFP "6-inch Concrete Channel Pavement", includes reinforced concrete and anchors	3,200	Square Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0020	Seeding and Mulching FFP Seeding and Mulching", includes seed and mulch		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0021	Swope Parkway Trail FFP "Swope Park Trail", includes modular block wall with footings, crushed rock, subgrade preparation, 6-inch sidewalk, curbing and outlook concrete; reinforcing steel, expansion joints materials, handrails, handrail footings, signage and bike gap bollards. 8-inch concrete paving (8") is covered in the options.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0022	Drop Structure FFP "Drop Structure", includes select material; 4-inch drainpipe; 1-inch sponge rubber; coarse filter; reinforced drop structure concrete and 4-inch perforated pipe.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0023	Dam No.1 FFP "Dam No. 1", includes structural dam reinforced concrete and gravity wall concrete.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0024	Dam No. 2 FFP "Dam No. 2", includes structural dam reinforced concrete and gravity wall concrete.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0025	Dam No. 3 FFP "Dam No. 3", includes 1, structural dam reinforced concrete and rock anchors. Channel walls that are monolithic with dam structures are also included in this bid item.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0026	Dam No. 4 FFP "Dam No. 4", includes structural dam reinforced concrete and select material		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0027	Dam No. 5 FFP Dam No. 5", includes structural dam reinforced concrete and select material.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0028	Dam No. 6 FFP Dam No. 6", includes structural dam reinforced concrete and select material		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0029	Anchored Walls FFP "Anchored Walls", includes reinforced concrete, wall anchors and drains.	620	Square Yard		
NET AMT					

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0030	Gravity Walls FFP "Gravity Walls", includes gravity wall concrete outside of the definition of the dam in other bid items.	90	Square Yard		
NET AMT					

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0031	L- Walls FFP "L-Walls", includes channel support walls outside of the definition of the dam in other bid items.	2,130	Cubic Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0032	T-Wall FFP "T-Walls", includes channel support walls outside of the definition of the dam in other bid items.	90	Cubic Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0033		6	Each		

Dam Intake Drainage Structure
FFP

"Dam Intake Drainage Structures", includes the cost excavate the soils or shore and brace soils, place concrete with all steel and backfill control structure. The reinforced concrete pipe will be associated with each structure is considered incidental. Trash racks, grating, manhole covers, gate and gate assembles, that are associated with the Dam Intake Drainage Structures are included in this bid item.

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0034			Lump Sum		

Pumpwell
FFP

"Pumpwell", includes all work required to construct the Pumpwell and to furnish and install the Pump. The grating and manhole cover associated with the Pumpwell are included in this bid item.

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0035	New Prospect Bridge FFP "New Prospect Bridge" includes all costs to maintain all traffic controls, miscellaneous excavations, place foundations supports, drilled foundation caissons (piers), H-piles, construct steel support, abutments, construct all bridge decking materials, aesthetic facing requirements, graffiti protection, all miscellaneous metals, permanent concrete traffic barriers, bridge railings, and geotextile fabric and bridge approach slabs indicated on the drawings.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0036	Monolith Walls FFP "Monolith Walls", includes all work required to construct reinforced concrete Monoliths A, B, C D and E.	110	Cubic Yard		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0037	Electrical Work FFP "Electrical Work", includes 16 bridge lights, 4 light fixtures mounted to the bridge sub-structure for walkway illumination, panel board HA, conduit crossing at Station 8+00 +/-, pullboxes PB1 and PB2, all associated work to connect with the KCPL switchgear and transformer, all associated power and control wiring of recirculating pump, water probes and associated wiring, and fountain conduit rough-in as shown on the drawings. It also includes, "Traffic Intersection Signal Work", all traffic signs and signals not covered in the New Prospect Bridge bid item.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0038	Prospect Ave-Pavement Curbs & Gutters, Walks & Islands, and Pavement Markings FFP "Prospect Ave - Pavement, Curbs & Gutters, Walks & Islands, and Pavement Markings", includes asphalt intermediate course, surface course, subgrade preparation, base course, prime coat, and tack coat. The work also includes earthwork, concrete curbs and gutters, concrete sidewalks, ramps, and traffic islands, new pavement markings, and temporary signage and flagmen, as required.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0039	Ramp Bollards with Chains FFP " Ramp Bollards with Chains", include Bollards and equipment associated with access to the channel; and all excavations and backfill required to install the system.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0040	Detour Signage FFP "Detour Signage", includes obtaining permits from Mo. Department of Transportation and the City of Kansas City, Missouri, placing and maintaining detour signs, barriers, barricades, and signal lighting.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0041	Re-circulation System FFP "Re-circulation System", includes excavation, bedding, backfill, pipe, thrust blocks, valves, valve housings, reducers, and grate as indicated for the recirculation system and excavation, bedding, and backfill for fountain piping.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0042	Water Line FFP "Water Line" includes water line pipe, thrust blocks, valves, concrete, trenching, bedding, connections, and the disinfecting and testing of the new water line.	1	Allowance		\$10,000

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0044 OPTION	Swope Parkway Concrete Pavement FFP "Swope Parkway Concrete Pavement", includes forms, reinforcing, 400 cubic yards of 8-inch concrete pavement with joints, finishing & curing.		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0045	Sidewalk Lights		Lump Sum		
OPTION	FFP "Sidewalk Lights", includes, but is not limited to light poles, conduit, wiring, lighting cabinet, as indicated on the drawings.				
					NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046	Plantings				
OPTION	FFP "Plantings", includes providing the list of planting shown in the specifications and planting at locations to be determined by the Kansas City, Missouri, Parks and Recreation Department.				
					NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AA		12	Each		
OPTION	Red Sunset Maple (2 1/2-in. cal.) FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AB		7	Each		
OPTION	Heritage River Birch (2 1/2-in. cal.) FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AC		6	Each		
OPTION	Cercis Canadensis Redbud (1 1/2-in. cal.) FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AD OPTION	Flowering Dogwood (1 1/2-in. cal) FFP	8	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AE OPTION	Autumn Purple Ash (2 1/2-in. cal) FFP	15	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AF OPTION	American Holly (2-in. cal) FFP	4	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AG OPTION	Sargent Crabapple (1 1/2-in. cal) FFP	12	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AH OPTION	Black Gum (2-in. cal) FFP	3	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AJ OPTION	White Pine (8-feet in height) FFP	31	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AK OPTION	London Planetree (2 1/2-in. cal) FFP	10	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AL OPTION	Swamp White Oak (2 1/2-in cal) FFP	5	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AM OPTION	Red Oak (2 1/2-in. cal) FFP	6	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AN OPTION	Bald Cypress (2 1/2-in. cal) FFP	7	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AP OPTION	Chanticleer Pear (2 1/2-in. cal) FFP	12	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0046AQ OPTION	Watering all Trees FFP		Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0047		120,000	Square Foot		
OPTION	Turf Reinforcement Mat FFP "Turf Reinforcement Mat", includes all work required to provide furnish and install the Turf Reinforcement Mat, as indicated in the specifications				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0048		4,000	Square Yard		
OPTION	Paved Slope Protection FFP "Paved Slope Protection", includes all work required to furnish and install the additional rock and concrete slope protection, as indicated in the specifications.				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0049			Lump Sum		
OPTION	Invert Channel Protection FFP "Invert Channel Protection", (Sta. 12+70 to 30+80), includes all work required to provide 12,000 tons of tabular blocks of sound durable limestone.				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0050		2,275	Square Yard		
OPTION	18-inch Concrete Channel Pavement FFP "18-inch Concrete Channel Pavement", includes all work required to provide 18-inch concrete channel pavement, in the Reach between the Prospect Bridge and Dam No. 3. The work includes anchors, reinforcing steel and drains, as shown on the drawings.				

NET AMT

FOB: Destination

INSPECTION AND ACCEPTANCE

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	N/A

DIVISION 1 - GENERAL REQUIREMENTS

<u>Section No.</u>	<u>Title</u>
01090	Sources for Referenced Publications
01100	General
01270A	<u>deleted</u>
01312	Resident Management System
01320a	Project Schedule
01330	Submittal Procedures
01354	Environmental protection For Civil Works
01356A	Storm Water Pollution Prevention Measures
01451	Contractor Quality Control
01500	Temporary Construction Facilities
01550	Hydrology
01780	Closeout Submittals

SECTION 01100

GENERAL

PART 1 GENERAL

1.1 INQUIRIES

Pursuant to SECTION 00100 paragraph titled "**Explanation to Prospective Bidders**", any inquiries regarding this Invitation, before bids are opened, should be addressed to the District Engineer, Kansas City District, Corps of Engineers, 700 Federal Building, Kansas City, Missouri 64106, ATTN: **Mr. Kent Myers**. Inquiries for which oral explanation or advice on the plans and specifications will suffice may be referred to **Mr. Myers** by calling Area Code 816-983-3399. Telephone calls concerning the mailing of plans and specifications should be made to Contracting Division at Area Code 816-983-3975. Collect telephone calls will not be accepted. (KCDO APR 84)

1.2 SUPERINTENDENCE OF SUBCONTRACTORS

(a) The Contractor shall be required to furnish the following:

(1) If more than 50% and less than 70% of the value of the contract work is subcontracted, one superintendent shall be provided at the site and on the Contractor's payroll to be responsible for coordinating, directing, inspecting and expediting the subcontract work.

(2) If 70% or more of the value of the work is subcontracted, the Contractor shall be required to furnish two such superintendents to be responsible for coordinating, directing, inspecting and expediting the subcontract work.

(b) If the Contracting Officer, at any time after 50% of the subcontracted work has been completed, finds that satisfactory progress is being made, he may waive all or part of the above requirement for additional superintendence subject to the right of the Contracting Officer to reinstate such requirement if at any time during the progress of the remaining work he finds that satisfactory progress is not being made.

1.3 IDENTIFICATION OF EMPLOYEES

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display identification as may be approved and directed by the Contracting Office. All prescribed identification shall immediately be delivered to the Contracting Officer, for cancellation upon the release of any employee. When required by the Contracting Officer the Contractor shall obtain and submit fingerprints of all persons employed or to be employed on the project.

1.4 APPLICATION OF WAGE RATES

The inclusion of the Davis-Bacon Act General Wage Decision or the Service

Contract Act Wage Determination in the solicitation is a statutory requirement. It is not a representation by the U.S. Army Corps of Engineers that any specific work task can be performed by any specific trade. Which work tasks can be performed by what trades depends on and is determined by the prevailing area practice for the local area where the contract is being performed. It is the sole responsibility of the **bidder** to determine and comply with the prevailing area practice. Inquiries regarding a prevailing area practice should be directed to the Corps of Engineers, Contractor Industrial Relations Specialist (telephone number 816-983-3723) or to the Department of Labor Regional Wage and Hour Division.

Application of wage rates and fringe benefits: For the application of wage rates and fringe benefits contained in the Decisions of the Secretary of Labor, attached to and a part of this contract, Highway rates apply to the construction, alteration or repair of roads, streets, highways, runways, taxiways, alleys, trails, paths, parking areas, and other similar projects. All other construction is considered Heavy Construction.

1.5 PAYMENTS TO SUBCONTRACTORS

The Contractor's attention is directed to CONTRACT CLAUSE titled "Payment Under Fixed-Price Construction Contracts." In addition to the requirements set forth in the referenced paragraph, the Government will reimburse the Contractor, upon request, for amount of premiums paid by the subcontractors for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor furnishes evidence of full payment to the surety.

1.6 PAYMENTS TO CONTRACTOR (KCD MAY 90 - FORMERLY FAR 52.2/9101(a))

The following is an example of a Contractor's release of claims clauses required to comply with the provisions of paragraph (h) of the CONTRACT CLAUSE titled "Payments Under Fixed-Price Construction Contracts":

RELEASE OF CLAIMS

The undersigned Contractor under contract dated _____, 2000, between the United States of America and said Contractor for the _____ located at _____, in accordance with paragraph (h) of the CONTRACT CLAUSE titled "Payments Under Fixed-Price Construction Contracts" of said contract, hereby releases the United States, its officers, agents, and employees from any and all claims arising under or by virtue of said contract or any modification or change thereof except with respect to those claims, if any, listed below:

(Here itemize claims and amounts due.)

1.7 PARTNERING

The Government intends to encourage the foundation of a cohesive partnership with the Contractor and its subcontractor. This partnership will be structured to draw on the strengths of each organization to identify and achieve mutual goals with the intent to complete the Contract

within budget, on schedule and in accordance with plans and specifications. This partnership will be bilateral in makeup, and participation will be totally voluntary. Any cost associated with implementing this partnership will be agreed to by the Contractor and the Government, and will be shared equally with no change in Contract price. To implement this partnership initiative, it is anticipated that thirty (30) days after Notice to Proceed, a team building workshop will be conducted. Follow-up workshops will be held periodically throughout the duration of the Contract as agreed to by the Contractor and the Government.

1.8 PROSPECTIVE CONTRACTOR RESPONSIBILITY

Each bidder shall furnish, within 3 calendar days after receipt of request therefor, data which will show the bidder's ability to perform the work or services required by this Invitation for Bids. Such data shall include as a minimum: Bank certification of financial capability, or a financial statement not over 60 days old, which will be treated as confidential (if over 60 days old, a certificate shall be attached thereto stating that the financial condition is substantially the same or, if not the same, the changes that have taken place); names of commercial and financial reporting agencies from whom credit reports may be obtained; trade creditors; name and address of bonding company; business and construction experience; past record of performance of Government contracts; and construction plant and equipment available for this job, with resume of work in progress or other data that will assure that the bidder is in a position to perform the work within the time specified.

In addition, if the bid exceeds \$1,000,000, the bidder shall furnish upon request, a certified statement listing:

(a) Each contract awarded to him within the preceding three-month period exceeding \$1,000,000 in value with brief description of the contract.

(b) Each contract awarded to him within the preceding three-year period not already physically completed and exceeding \$5,000,000 in value with brief description of the contract.

(c) If the prospective Contractor is a joint venture, each joint venture member will be required to submit the above defined certification. There shall also be furnished any other available information which will serve to substantiate the bidder's qualifications as a responsible prospective Contractor. (KCD APR 84)

1.9 PERFORMANCE OF WORK BY CONTRACTOR

Bidder's attention is directed to SPECIAL CLAUSE titled "Performance of Work by Contractor." The successful bidder will be required to furnish the Contracting Officer, a description of the work which he will perform with his own organization (e.g., earthwork, paving, etc.), the percentage of the total work this represents, and the estimated cost thereof. Such description of work to be performed by the Contractor's own organization shall be furnished to the Contracting Officer within 10 days after award of the contract.

1.10 LABORATORY AND TESTING FACILITIES

The Contractor shall use a Corps of Engineer's certified laboratory for all testing. A list of COE certified laboratories is available at <http://www.wes.army.mil/SL/MTL/NatStatesTbl.htm>. (KCD)

1.11 LIMITS OF RIGHT-OF-WAY

Limits of right-of-way within private property shall be established as soon as practicable and at least 30 days prior to commencing work in the immediate vicinity, to allow time for relocation of fences by owners of property adjacent to the location of the work.

1.12 UNAVAILABILITY OF RIGHT-OF-WAY

The tracts listed below and shown on the map cutouts at the end of this section are not presently available to the Contractor but will be available on **30 March 2003**. The Contractor shall schedule his work to not require access to these areas prior to this date, unless otherwise notified by the Contracting Officer.

PERMANENT CONSTRUCTION EASEMENT:

A PERMANENT RIGHT OF WAY EASEMENT BEING DESCRIBED AS: ALL OF LOT 309, PROSPECT HILL, A SUBDIVISION IN KANSAS CITY, JACKSON COUNTY, MISSOURI, CONTAINING 10,131.81 SQUARE FEET, MORE OR LESS.

TEMPOARY CONSTRUCTION EASEMENTS:

A TEMPORARY CONSTRUCTION EASEMENT FOR A PORTION OF LOT 308, PROSPECT HILL, A SUBDIVISION IN KANSAS CITY, JACKSON COUNTY, MISSOURI, AND BEING MORE PARTICULARLLY DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTH EAST CORNER OF LOT 308; THENCE S00°00'00"E, A DISTANCE OF 75.06'; THENCE N89°17'46"W, A DISTANCE OF 26.77', TO THE SOUTHWESTERLY LINE OF LOT 308; THENCE ALONG THE SOUTHWESTERLY LINE N62°08'25"W, A DISTANCE OF 105.48' TO THE NORTHWEST CORNER OF LOT308; THENCE ALONG THE NORTH LINE OF LOT 308 S89°17'46"E, A DISTANCE OF 174.28' TO THE POINT OF BEGINNING.

A TEMPORARY CONSTRUCTION EASEMENT FOR A PORTION OF LOT 273, PROSPECT HILL, A SUBDIVISION IN KANSAS CITY, JACKSON COUNTY, MISSOURI, AND BEING MORE PARTICULARLLY DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTH EAST CORNER OF LOT 273; THENCE N62°08'25"W ALONG THE NORTHERLY LINE OF LOT 273, A DISTANCE OF 1.70'; THENCE N89°17'46"W, A DISTANCE OF 55.30', TO THE WESTERLY LINE OF LOT 273; THENCE N27°51'35"E ALONG THE WESTERLY LINE, A DISTANCE OF 26.92' TO THE NORTHWEST CORNER OF LOT273; THENCE S62°08'25"E ALONG THE NORTHERLY LINE OF LOT 273, A DISTANCE OF 48.30' TO THE POINT OF BEGINNING, CONTAINING 650.12 SQUARE FEET, MORE OR LESS.

A TEMPORARY CONSTRUCTION EASEMENT FOR A PORTION OF LOT 274 AND LOT, PROSPECT HILL, A SUBDIVISION IN KANSAS CITY, JACKSON COUNTY, MISSOURI, AND BEING MORE PARTICULARLLY DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTH EAST CORNER OF LOT 274; THENCE S27°51'35"W ALONG THE EASTERLY LINE OF LOT 274, A DISTANCE OF 26.92'; THENCE N89°17'46"W, A DISTANCE OF 70.98' TO THE WESTERLY LINE OF THE EAST 12' OF LOT 275; THENCE ALONG THE WESTERLY LINE OF

SAID EAST 12' N27°51'35"E, A DISTANCE OF 61.45' TO THE SOUTHERLY LINE OF LOT 308; THENCE S62°08'25"E ALONG SAID SOUTHERLY LINE, A DISTANCE OF 62' TO THE POINT OF BEGINNING CONTAINING 3,584.30 SQUARE FEET.

1.13 UNAVAILABILITY OF UTILITIES

The responsibility shall be upon the Contractor to provide and maintain at his own expense, adequate utilities for his use for construction and domestic consumption, and to install and maintain necessary connections and lines for same, but only at such locations and in such manner as may be approved by the Contracting Officer. Before final acceptance, temporary connections and lines installed by the Contractor shall be removed in a manner satisfactory to the Contracting Officer.

1.14 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

(a) This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSE titled "Default: (Fixed Price Construction)." In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

(1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

(b) The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY

WORK DAYS BASED ON (5) DAY WORK WEEK

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(8)	(4)	(4)	(5)	(5)	(5)	(4)	(4)	(4)	(4)	(3)	(5)

(c) Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the

last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph b, above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the CONTRACT CLAUSE titled "Default (Fixed Price Construction)." (ER 415-1-15)

1.15 REQUIRED INSURANCE SCHEDULE

In accordance with CONTRACT CLAUSE titled "Insurance - Work On A Government Installation," the Contractor shall procure and maintain during the entire period of his performance under this contract the following minimum insurance.

Type	Amount
Workmen's Compensation State Statute	coverage complying with applicable
Employers' Liability	minimum amount of \$100,000.00
General Liability on Comprehensive Form of Policy which includes, but is not limited to, insurance for all work required herein	minimum limits of \$500,000 per occurrence for bodily injury
Comprehensive Automobile Liability	minimum limits of \$200,000 per person and \$500,000 per occurrence for bodily injury, and \$20,000 per occurrence for property damage

(End of clause)

1.16 INTERRUPTIONS TO UTILITY SERVICES

A schedule showing the approximate times of interruptions of utility services and roads shall be submitted approximately 30 days in advance of interrupting services to make connections. Where it is necessary to interrupt services to make connections and the period of interruption will last more than 2 hours, the connections shall be performed on Saturday or Sunday, unless otherwise approved by the Contracting Officer. Final arrangements shall be made with the Contracting Officer at least 72 hours in advance of the scheduled times of interruptions.

1.17 COORDINATION BETWEEN CONTRACTORS

(See CONTRACT CLAUSE titled "Other Contracts.") Construction work on another contract is underway concurrently with this Contract. The obligations of the Contractor under this Contract will include jointly planning and scheduling the work, on a cooperative basis, with the other Contractor involved in order to minimize delays and interferences. Alterations to systems installed under the other contract, including

connections to sewer, waterlines, and bituminous pavement shown as existing, may not be in place.

1.18 COOPERATION BETWEEN THE CONTRACTOR AND UTILITY COMPANIES

Relocation of utilities by the utility companies listed in 02001 will be necessary concurrently with the work under this contract. All coordinating shall be through, or with the knowledge of, the Contracting Officer's Representative. (KCD)

Coordination: The Contractor shall coordinate and schedule the work in cooperation with each utility company, to minimize delays and interferences. After receipt of notice to proceed, the Contractor shall notify each utility company and make the necessary arrangements for the utility relocation. The Contractor shall also notify each utility company 30 days in advance of commencing construction work within the vicinity of the utility line.

1.19 SALVAGE MATERIALS AND EQUIPMENT (JAN 1965)

The Contractor shall maintain adequate property control records for all materials or equipment specified to be salvaged. These records may be in accordance with the Contractor's system or property control, if approved by the property administrator. The Contractor shall be responsible for the adequate storage and protection of all salvaged materials and equipment and shall replace, at no cost to the Government, all salvage materials and equipment which are broken or damaged during salvage operations as the result of his negligence, or while in his care.

1.20 DATE OF SAFETY AND HEALTH REQUIREMENTS MANUAL (EM 385-1-1)

(a) The date of the U.S. Army Corps of Engineers Safety and Health Requirements Manual in effect on the date of this solicitation is 3 September 1996. See Section 00700, Contract Clause titled "Accident Prevention."

(b) Section 06.I of EM 385-1-1 is deleted. Job hazard analysis for confined space entry procedures is still required, as per 01.A.09 of EM 385-1-1. OSHA Standards 29 CFR 1910.146 or 29 CFR 1926 shall apply.

(c) Before initiation of work at the job site, an accident prevention plan, written by the prime contractor for the specific work and hazards of the contract and implementing in detail the pertinent requirements of EM 385-1-1, will be reviewed and found acceptable by designated Government personnel.

1.21 COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)

The Contractor shall comply with OSHA standards as well as the most current edition of the Corps of Engineers General Safety Requirements Manual (EM 385-1-1). The OSHA standards are subject to change and such changes may affect the Contractor in his performance under the contract. It is the

Contractor's responsibility to know such changes and effective dates of changes.

1.22 CONSTRUCTION EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE

Whenever a modification or equitable adjustment of contract price is required, the Contractor's cost proposal for equipment ownership and operating expenses shall be as set forth in SPECIAL CLAUSE titled "Equipment Ownership and Operating Expense Schedule." A copy of EP 1110-1-8 "Construction Equipment Ownership and Operating Expense Schedule" dated August 1995 can be ordered from the Government Printing Office (GPO) by calling Telephone No. 202-512-1800.

1.23 SHOP DRAWINGS

The Contractor's attention is directed to clause "Specifications and Drawings for Construction" of the Contract Clauses.

1.24 SUBMITTALS

(a) Submittal Procedures. See Division One SECTION: SUBMITTAL PROCEDURES.

(b) Shop Drawings shall be submitted in ample time to secure approval prior to the time the items covered thereby are to be delivered to the site. ENG Form 4025 and 4026 shall be used for the transmittal of shop drawings. Unless otherwise specified, shop drawings shall be submitted not less than 30 days before commencement of fabrication of fabricated items and not less than 15 days before delivery of standard stock manufactured items. Where materials are stock with the manufacturer, catalog data, including specifications and full descriptive matter, may be submitted as shop drawings. When catalog includes nonapplicable data, the applicable data shall be clearly designated and identified by item number, item name, and name of manufacturer. Shop drawings submitted (including initial and final submittals) shall be reproductions on high quality paper with clear and legible print. Drawings shall generally be bordered a minimum of one inch and trimmed to neat lines and unless otherwise specified, the minimum scale shall be 3/8-inch to the foot. Shop drawings quality will be subject to approval. Each shop drawing, including catalog data, shall be identified with a title block including the name of Contractor, contract number, name and location of project, and name of item of work or structure to which the shop drawing applies. Material fabricated or delivered to the site before approved shop drawings have been returned to the Contractor will be subject to rejection. NO CONSTRUCTION OR INSTALLATION SHALL BE DONE FOR ANY ITEM REQUIRING SHOP DRAWINGS, UNTIL ALL SHOP DRAWINGS FOR THAT ITEM HAVE BEEN APPROVED.

(c) As-Built Shop Drawings: Upon completion of the work under this contract, the Contractor shall furnish five complete sets of prints or one complete set of reproducibles of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the equipment is completed and accepted. The quality of the reproducibles and prints is subject to approval.

(d) As-Built Drawings: The Contractor shall maintain three separate sets

of red-lined, full scale, as-built construction drawings marked up to fully indicate as-built conditions. These drawings shall be maintained in a current condition at all times until completion of the work, and shall be available for review by Government personnel at all times. All variations from the contract drawings, for whatever reason, including those occasioned by modifications, optional materials, and the required coordination between trades, shall be indicated. These variations shall be shown in the same general detail utilized in the contract drawings. In addition, the Contractor shall indicate on the As-Built Drawings, the brand-name, description, location, and quantity of any and all materials used which contain asbestos. The Contractor shall also be responsible for updating the Government-furnished CADD files to reflect the current as-built conditions throughout the duration of the project. The updated CADD design files shall be maintained in the Intergraph Microstation format consistent with the graphic standards established in the CADD contract drawings provided by the Government. The Contractor will be provided a copy of the Tri-Service CADD standards to facilitate his efforts in the maintenance of design files. The updated CADD files shall be reviewed by the Government on a monthly basis during the progress payment evaluation. The Contractor shall be prepared to demonstrate the status of the updated CADD files in his on-site office. The as-built utility drawings shall show locations and elevations of all underground new utilities and existing utilities encountered, including dimensions from permanent structures and/or survey locations. The submittal requirements for as-built utility drawings shall be shown as separate activities on the Contractor-prepared network analysis. Upon completion of the work, the marked-up drawings and the updated CADD files shall be furnished to the Contracting Officer on CD. In multiphased construction where portions of a system are to be turned over to the user prior to completion of the project, the marked-up drawings for that portion shall be furnished to the Contracting Officer at that time. (MRD ltr 30 Oct 70 and KCD 8 Apr 91)

(e) CADD Files: The Government will provide to the Contractor, within 30 calendar days after Notice of Award, copies of the CADD computer files of the contract drawings for the production of as-built drawings. These files will be in Intergraph Microstation format. The Government provides no warranty, expressed or implied, of the CADD computer files. The Contractor shall assume all responsibility to verify the CADD drawing files. The Contractor will not utilize the CADD drawing computer files to resolve dimensional or other discrepancies. The Government will not guarantee the measurable accuracy of the CADD drawing computer files.

(f) Purchase Orders: Each purchase order issued by the Contractor or his subcontractors for materials and equipment to be incorporated into the project, shall be maintained on file at the Contractor's field office for inspection and review by Government representatives. Each purchase order shall (1) be clearly identified with applicable DA contract number, (2) carry an identifying number, (3) be in sufficient detail to identify the material being purchased, (4) indicate a definite delivery date, and (5) display the DMS priority rating. At the option of the Contractor, the copies of the purchase orders may or may not indicate the price of the articles purchased. (MRD Ltr 22 Oct 74)

1.25 SPECIAL REFERENCES

(a) Shop Drawings. Bidder's attention is directed to SPECIAL CLAUSE titled "Shop Drawings." The basic requirements for Shop Drawings are set forth in the CONTRACT CLAUSES and SPECIAL CLAUSES.

(b) Approved Equal. Bidder's attention is directed to SPECIAL CLAUSE titled "Approved Equal."

(c) Payment to Subcontractors. Bidder's attention is directed to SPECIAL CLAUSE titled "Payments to Subcontractors."

1.26 DIFFERENCES IN DRAWINGS

In addition to the provisions of CONTRACT CLAUSE paragraph "Specifications and Drawings for Construction," the structural drawings shall govern in cases where they differ from the architectural drawings.

1.27 LAYOUT OF WORK (1965 APR OCE)

(a) The Contractor shall furnish, at his own expense, such stakes, templates, platforms, equipment, tools and material, and all labor as may be required in laying out the work. It shall be the responsibility of the Contractor to Layout the Work based on the survey data provided on the drawings, maintain and preserve all stakes and other marks until authorized to remove them, and if such marks are destroyed, by the Contractor or through his negligence prior to their authorized removal they may be replaced by the Contractor, at no additional cost to the Government. The Contracting Officer may require that work be suspended at any time when location and limit marks established by the Contractor are not reasonably adequate to permit checking of the work.

(b) Records of Contractor-performed survey activities shall be kept in complete, accurate, and legible field notes. The format shall conform to established standards for such records. Prior to any surveys, the Contractor shall submit the field note format for approval.

(c) The layout of work shall be under the direction of a competent survey party chief who has the following minimum qualifications: (1) high school graduate; (2) 7 years survey experience; (3) 4 years experience on construction related survey activities, and (4) 1 year experience as survey party chief.

1.28 PLANTS AVAILABLE

Each bidder shall, upon request of the Contracting Officer, furnish a list of the plants available to the bidder and proposed for use on the work.

1.29 QUANTITY SURVEYS USING DRAWING FINISH LINES

Where the TECHNICAL PROVISIONS provide for using the finish lines on drawings as the final lines for quantity measurement purposes, the Contractor shall, in addition to the requirements set forth in SPECIAL

CLAUSE paragraph titled "Quantity Surveys", make final surveys at least at all locations (stations) where the Contractor performed original surveys. (KCD 23 Jan 76)

1.30 DAMAGE TO WORK (1966 MAR OCE)

(a) The responsibility for damage to any part of the work to be performed under this contract shall be as set forth in the CONTRACT CLAUSE titled "Permits and Responsibilities." However, if the cofferdam(s) is constructed in accordance with plans and progress schedules approved by the Contracting Officer, but is overtopped by flood and such flood causes damage to the cofferdam or if any part of the permanent work is damaged by flood or earthquake, which damage is not due to the failure of the Contractor to take reasonable precaution or to exercise sound engineering and construction practices in the conduct of the work, the Contractor will make the repairs ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, there are no contract unit or lump sum prices applicable to any part of such damaged work, an equitable adjustment pursuant to Contract Clause entitled, Changes, of the contract, will be made as full compensation therefor.

(b) The Contractor may, subject to approval of the Contracting Officer, flood or breach the cofferdam during a rise prior to, and in anticipation of, natural flooding due to overtopping. Such flooding or breach will be considered the same as though the cofferdam, if constructed in accordance with plans and progress schedules approved by the Contracting Officer, has been overtopped, in which event an equitable adjustment will be made for damage to the cofferdam and/or any part of the permanent work, as provided in (a) above.

1.31 AGGREGATE SOURCES (1965 MAY OCE)

(a) Concrete aggregates may be furnished from any source indicated in SECTION 03311 or from any source designated by the Contractor and approved by the Contracting Officer, subject to the conditions hereinafter stated.

(b) After the award of the contract, the Contractor shall designate in writing only one source or combination of sources from which he proposes to furnish aggregates. The Contractor shall designate only a single source or single combination of sources for aggregates. If a source for coarse or fine aggregate so designated by the Contractor is not approved for use by the Contracting Officer, the Contractor may not submit for approval other sources but shall furnish the coarse or fine aggregate, as the case may be, from an approved source listed above at no additional cost to the Government.

(d) Listing of a concrete aggregate source is not to be construed as approval of all material from the source. The right is reserved to reject materials from certain localized areas, zones, strata, or channels when such materials are unsuitable for concrete aggregate as determined by the

Contracting Officer. Materials produced from an approved source shall meet all the requirements of Section: 03311 - Portland Cement Concrete Structures of the Technical Provisions of these specifications.

1.32 EXISTING ROADS

Where roads under construction follow or tie into existing roads open to traffic, the roads constructed under such conditions shall be open and passable to traffic at all times during construction. Roadbeds shall be maintained to eliminate hazards to traffic, insure a reasonably smooth riding surface, and to provide positive drainage by constant maintenance of sufficient crowns and ditches as construction progresses. During rainy or inclement periods, the roads shall be kept passable by applying adequate surfacing material to the roadbed or by providing a full time attendant to offer assistance to motorists. Upon failure to comply with foregoing requirements, the Contracting Officer reserves the right to direct non-Government sources to correct deficiencies with costs deducted from payment due to the Contractor. The Contractor shall take necessary precautions to keep adjacent city streets clean of mud and dirt.

1.33 APPROVED EQUAL

The drawings and the TECHNICAL PROVISIONS of these specifications may, in some instances, refer to certain items of equipment, material, or article by trade name. References of this type shall not be construed as limiting competition, but shall be regarded as establishing a standard of quality. In this respect, the Contractor's attention is directed to CONTRACT CLAUSE titled "Material and Workmanship."

1.34 SCHEDULE OF WORK

The Contractor's attention is directed to CONTRACT CLAUSE titled "Schedule for Construction Contracts," wherein if, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer.

1.35 PROTECTION OF UTILITY LINES

It shall be the Contractor's responsibility to protect all existing utility lines from damage during excavation for utilities systems. Any damage resulting to existing utility systems shall be repaired by the Contractor, to the satisfaction of the contracting officer, at no additional cost to the Government.

1.36 MODIFICATIONS PRIOR TO DATE SET FOR OPENING BIDS

The right is reserved, as the interest of the Government may require, to revise or amend the specifications or drawings or both prior to the date set for opening bids. Such revisions and amendments, if any, will be announced by an amendment or amendments to this Invitation for Bids. If

the revisions and amendments are of a nature which requires material changes in quantities or prices bid or both, the date set for opening bids may be postponed by such number of days as in the opinion of the issuing officer will enable bidders to revise their bids. In such cases, the amendment will include an announcement of the new date for opening bids. (KCD APR 84)

1.37 FUNDS AVAILABILITY STATEMENTS

Funds are not presently available for this procurement. No contract award will be made until appropriated funds are made available from which payment for contract purposes can be made.

1.38 EXPEDITING NOTICE TO PROCEED

Notwithstanding the requirements of Block 12 on page 00010-1 of SECTION 00010 and SECTION 00100 paragraph titled "Late Submissions, Modifications, and Withdrawals of Bids," in order to expedite award of contract and issuance of NOTICE TO PROCEED, it is requested that an officer of the company or corporation determined to be the successful bidder shall appear in the office of the Contracting Officer, Kansas City District, Corps of Engineers, 757 Federal Building, 601 East 12th Street, Kansas City, Missouri, for signing contract documents. Therefore, upon written acceptance of this bid, mailed or otherwise furnished within 60 calendar days after the date of opening of bids, it is requested that the successful bidder shall within 48 hours after receipt of notification appear in the office of the Contracting Officer and execute Notice to Proceed documents, and give performance and payment bonds on Government Standard forms 25 and 25A with good and sufficient surety. It is also requested that the successful bidder furnish insurance certificates required in SPECIAL CLAUSE titled "Required Insurance Schedule" at this time.

1.39 UNEXPECTED HAZARDOUS SUBSTANCES

In the event that suspected hazardous substances are revealed during construction activities, all such construction activities in the immediate area shall be immediately suspended. Hazardous substances for purposes of this specification only, shall be defined as CERCLA hazardous substances, infectious or radioactive wastes, asbestos or oil. The Contractor shall leave the materials undisturbed and shall immediately report the find to the Contracting Officer's Representative (COR) so that proper authorities can be notified. The Contractor shall not resume construction activities in the vicinity of the suspected hazardous substances until written clearance is received from the COR. Identification and removal of any such materials will be conducted in accordance with all Federal, state and local environmental laws and regulations according to the CONTRACT CLAUSE titled "Differing Site Conditions."

1.40 UNEXPECTED DISCOVERY OF ASBESTOS ON CONSTRUCTION (RENOVATION AND DEMOLITION)

The buildings and areas to be renovated or demolished have been surveyed for the presence of asbestos-containing materials. This survey is not a

warranty that asbestos-containing materials are either not present or limited to the amounts found in the survey. Should suspected asbestos-containing material be encountered, the Contractor shall promptly, and before the conditions or the substance encountered is disturbed, give a written notice to the Contracting Officer of the suspected asbestos-containing material conditions encountered. As directed by the Contracting Officer, the Contractor shall remove and dispose of any and all asbestos-containing material as necessary to accomplish the required work which shall be performed in accordance with all pertinent local, state, and federal laws. An equitable adjustment will be made to the Contractor in accordance with the CONTRACT CLAUSE entitled "Changes", for the additional work directed by the Contracting Officer.

1.41 ASBESTOS-CONTAINING MATERIALS

Bidders are advised that non-friable asbestos-containing materials have been identified on the Downstream Channel Bin Walls, as indicated on the drawings. The Contractor shall exercise care so the non-friable asbestos-containing materials will not become friable during the performance of the work. If the Contractor decides to remove the bin walls or a portion of the bin walls, to facilitate bridge and channel construction, he shall submit an Asbestos Abatement Plan for approval and all work shall be performed in accordance with all state and federal regulations, including disposal.

SD-01 Data

Asbestos Abatement Plan; G, RE

1.42 SURVEY MARKERS

Reference is made to CONTRACT CLAUSE titled "Permits and Responsibilities", Chapter 60 of the Missouri Revised Statutes 1969, and rules titled "Maintenance of the Original US Public Land Survey Corners" adopted by the Division of Geology and Land Survey, Missouri Department of Natural Resources. The Contractor shall be responsible for removing and relocating survey markers. Relocation shall be performed by a professional registered Land Surveyor.

1.43 DEMOLITION

Disposal of demolition waste shall be in accordance with all applicable Federal, State and local regulations, including "Chapter 260, RSMO" of the "Missouri Department of Natural Resources."

1.44 EXCAVATION NOTIFICATION

Prior to any excavation on either public or private properties, Missouri law requires that you notify all owners and operators of underground facilities in your dig site. Missouri One Call System (MOCS) can help you

comply with the law; "Chapter 319, RSMO" of the "Missouri Department of Natural Resources," by calling this one toll-free number 1-800-344-7483.

1.45 MISSOURI SALES AND USE TAX

In accordance with FAR Clause 52.229, notice is given that the contract price excludes the Missouri sales tax and compensating (use) tax on all sales of tangible personal property and materials purchased by the Contractor or subcontractors for the construction of projects, including repairing or remodeling facilities, for the United States. In accordance with Section 144.062, RSMo., the Contracting Officer will issue and furnish to the Contractor an exemption certificate (example copy appears at the end of this section) for this project with the Notice to Proceed. The Contractor and the subcontractors will use the exemption certificate for this project in the purchase of supplies, materials and furnishings for incorporation in the project. The Contractor and the subcontractors shall furnish a copy of such certificate to all suppliers/materialmen from whom such purchases are made, and the suppliers shall execute invoices covering the same bearing the number of such certificate. (KCD OC)

1.46 BRIDGE CLOSURE

The Contractor shall close the Prospect Street bridge and place all necessary Detour Signs within two (2) weeks after receiving the Notice to Proceed. At this time the Contractor shall submit his Traffic Control Plan to the Contracting Officer for approval. Final approval of the Traffic Control Plan will be subject to review comments, and may require alterations to the the plan.

SD-07 Schedules

Traffic Control Plan; G, RE

1.47 MILESTONE DATES

The Contractor shall not place any material in the existing channel until Brush Creek's flow has been diverted thru the new bridge span.

The KCMO Waterline must be relocated and in service before 1 June 2003.

KCPL Conduit must be relocated and in service before 1 June 2003.

Prospect Bridge shall be available for use by Emergency Vehicles no later than 31 December 2003.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

* * * * *

EXAMPLE

STATE OF MISSOURI

PROJECT EXEMPTION CERTIFICATE FOR EXEMPT ENTITY CONSTRUCTION

UNITED STATES OF AMERICA

NAME OF EXEMPT ENTITY _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

TAX IDENTIFICATION NUMBER (None required)

PROJECT IDENTIFICATION NUMBER _____

PLEASE PROVIDE THE PROJECT LOCATION AND A BRIEF DESCRIPTION BELOW:

CONTRACT DATE _____

CERTIFICATE EXPIRATION DATE _____

Contractors are required to provide a copy of this project exemption certificate to their vendors.

This project exemption certificate does not allow contractors to purchase machinery, equipment, or tools used in fulfilling this contract, tax exempt.

Suppliers accepting this project exemption certificate are required to render to the contractor invoices bearing the name of the exempt entity and the project identification number.

An exempt entity that fails to revise the expiration date on this certificate as necessary to complete any work required by the contract will be liable for any sales tax determined due as a result of an audit of the contractor.

The Contractor shall provide this project exemption to all subcontractors purchasing construction materials for this project.

SIGNATURE OF AUTHORIZED AGENT

EXHIBIT A

-- End of Section --

SECTION 01330

SUBMITTAL PROCEDURES
09/97

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION

Submittals required are identified by SD numbers as follows:

SD-01 Data

SD-04 Drawings

SD-06 Instructions

SD-07 Schedules

SD-08 Statements

SD-09 Reports

SD-13 Certificates

SD-14 Samples

SD-18 Records

SD-19 Operation and Maintenance Manuals

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor shall maintain the submittal register in accordance with Section 01312 RESIDENT MANAGEMENT SYSTEM (RMS).

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms are included in the RMS-QC software that the Contractor is required to use for this contract. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

3.5.1 Procedures

The Contractor shall submit for approval five (5) copies of all submittals. The mailing address for these submittals shall be obtained at the preconstruction conference. Items not to be submitted in quintuplicate, such as samples and test cylinders, shall be submitted accompanied by five (5) copies of ENG Form 4025. Items to be sent to the Engineering and Construction Division (EC) shall be sent to EC-DS or EC-GL, addressed as follows:

US Army Engineer District, Kansas City
Federal Building, 601 East 12th Street, EC-DS
Kansas City, Missouri 64106-2896

3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and

annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. 4 copies of the submittal will be retained by the Contracting Officer and 2 copies of the submittal will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or
attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

-- End of Section --

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES
02/97

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

1.1.1 Site Plan

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be fenced and used by the Contractor, the number of trailers to be used, avenues of ingress/egress to the fenced area and details of the fence installation. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The Contractor shall also indicate if the use of a supplemental or other staging area is desired.

1.2 AVAILABILITY AND USE OF UTILITY SERVICES

1.2.1 Payment for Utility Services

The Government will make all reasonably required utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

1.2.2 Meters and Temporary Connections

The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, shall provide and maintain necessary temporary connections, distribution lines, and meters required to measure the amount of each utility used for the purpose of determining charges. The Contractor shall notify the Contracting Officer, in writing, 5 working days before final electrical connection is desired so that a utilities contract can be established. The Contractor shall provide a meter and make the final hot connection.

1.2.3 Advance Deposit

An advance deposit for utilities consisting of an estimated month's usage or a minimum of \$50.00 will be required. The last monthly bills for the fiscal year will normally be offset by the deposit and adjustments will be billed or returned as appropriate. Services to be rendered for the next fiscal year, beginning 1 October, will require a new deposit. Notification of the due date for this deposit will be mailed to the Contractor prior to

the end of the current fiscal year.

1.2.4 Final Meter Reading

Before completion of the work and final acceptance of the work by the Government, the Contractor shall notify the Contracting Officer, in writing, 5 working days before termination is desired. The Government will take a final meter reading, disconnect service, and remove the meters. The Contractor shall then remove all the temporary distribution lines, meter bases, and associated paraphernalia. The Contractor shall pay all outstanding utility bills before final acceptance of the work by the Government.

1.2.5 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer. Government toilet facilities will not be available to Contractor's personnel.

1.2.6 Telephone

The Contractor shall make arrangements and pay all costs for telephone facilities desired.

1.3 BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN

1.3.1 Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

1.3.2 Project and Safety Signs

The requirements for the signs, their content, and location shall be as shown on the drawings. The signs shall be erected within 15 days after receipt of the notice to proceed. The data required by the safety sign shall be corrected daily, with light colored metallic or non-metallic numerals. Upon completion of the project, the signs shall be removed from the site.

1.4 PROTECTION AND MAINTENANCE OF TRAFFIC

During construction the Contractor shall provide access and temporary

relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.4.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

1.4.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

1.5 CONTRACTOR'S TEMPORARY FACILITIES

1.5.1 Administrative Field Offices

The Contractor shall provide and maintain administrative field office facilities within the construction area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

1.5.2 Storage Area

The Contractor shall construct a temporary 6 foot high chain link fence with triple barbed wire around trailers and materials. The fence shall

include plastic strip inserts, colored green, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site.

Trailers, equipment, or materials shall not be open to public view with the exception of those items which are in support of ongoing work on any given day. Materials shall not be stockpiled outside the fence in preparation for the next day's work. Mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment, shall be parked within the fenced area at the end of each work day.

1.5.3 Supplemental Storage Area

Upon Contractor's request, the Contracting Officer will designate another or supplemental area for the Contractor's use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site. Fencing of materials or equipment will not be required at this site; however, the Contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored in this area. Utilities will not be provided to this area by the Government.

1.5.4 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the military property.

1.5.5 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

1.5.6 New Building

In the event a new building is constructed for the temporary project field office, it shall be a minimum 12 feet in width, 16 feet in length and have a minimum of 7 feet headroom. It shall be equipped with approved electrical wiring, at least one double convenience outlet and the required switches and fuses to provide 110-120 volt power. It shall be provided with a work table with stool, desk with chair, two additional chairs, and one legal size file cabinet that can be locked. The building shall be

waterproof, shall be supplied with heater, shall have a minimum of two doors, electric lights, a telephone, a battery operated smoke detector alarm, a sufficient number of adjustable windows for adequate light and ventilation, and a supply of approved drinking water. Approved sanitary facilities shall be furnished. The windows and doors shall be screened and the doors provided with dead bolt type locking devices or a padlock and heavy duty hasp bolted to the door. Door hinge pins shall be non-removable. The windows shall be arranged to open and to be securely fastened from the inside. Glass panels in windows shall be protected by bars or heavy mesh screens to prevent easy access to the building through these panels. In warm weather, air conditioning capable of maintaining the office at 50 percent relative humidity and a room temperature 20 degrees F below the outside temperature when the outside temperature is 95 degrees F, shall be furnished. Any new building erected for a temporary field office shall be maintained by the Contractor during the life of the contract and upon completion and acceptance of the work shall become the property of the Contractor and shall be removed from the site. All charges for telephone service for the temporary field office shall be borne by the Contractor, including long distance charges up to a maximum of \$75.00 per month.

1.5.7 Security Provisions

Adequate outside security lighting shall be provided at the Contractor's and the Government's temporary facilities. The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the temporary project field offices. The Contractor shall provide the Government's Temporary Facilities with a monitored / reporting alarm system, security patrols, and locksets, at no additional expense to the Government.

1.6 GOVERNMENT FIELD OFFICE

The Contractor shall furnish a temporary office facility a minimum of 1000 square feet of floor space that will accommodate and support the equipment and requirements below. It shall be located where directed and shall be reserved for Government and/or City personnel only. The temporary government office facility, including the parking area shall have an 8-foot security fence with triple barbed wire, and outdoor security lighting. Parking shall include six (6) off-street parking spaces adjacent to the temporary office. Cooled bottled drinking water facilities, adequate diffused, fluorescent lighting, local commercial telephone service, air conditioning, heating equipment, and a toilet room with water closet and lavatory with sewage facilities shall be furnished and maintained by the Contractor. All windows shall have operable windows and blinds. The office facility shall be divided to include a minimum of four (4) private office areas, one (1) private conference room, one (1) communication/electrical closet, and a common area that will accommodate one (1) additional workstation, copy machine, fax machine, and common storage and file space. Private offices and conference room shall include entry doors. Conference room shall be sized and equipped to provide a conference table and chairs to accommodate ten (10) people. Each office, conference room and workstation shall have electrical outlets, a dedicated phone line and computer connection. Offices and workstations shall include a desk, chair,

ten linear feet of shelving located where directed, and one legal size filing cabinet with four drawers. Four additional 4-drawer file cabinets shall also be included in the common area. A plan table will be provided behind each desk as a work surface for full size drawings. The common area will include a telephone/data connections and power to support the required fax, printer and copy machine. Other equipment that shall be provided includes the following:

- Four (4), 3ft x 4ft white marker boards to be installed where directed;
- Five (5) coat hooks to be installed where directed;
- Four (4) plan racks;
- One full size drafting table;
- Five (5) separate telephone lines, four (4) for voice and one for fax;
- One (1) T-1 data circuit;
- Four telephone instruments each capable of using the three voice telephone lines;
- Three (3) Dell OptiPlex GX240, Pentium 4, 1.7 GHz, 256K Cache, with PCI riser personal computers or equal with the following minimum capabilities:
 - 4-PCI slots;
 - 512MB, Non ECC, PC133 SDRAM;
 - Tower case;
 - 3.5 inch, 1.44MG floppy drive;
 - 40GB, EIDE, 7200 RPM, ATA/100 hard drive;
 - 48X internal EIDE CD-ROM;
 - DVD-CDRW combo drive with decoder for Windows 2000;
 - On-board enhance IDE/IO adapter 2F/4H, 2-Hi Speed Serial/1 BI-dir EPP Par. Port;
 - 32MB, ATI, Rage Ultra 128, Video Card;
 - Integrated Sound Blaster Compatible AC97 Sound Card;
 - Harman/Kardon 19.5 speakers or equal;
 - 104 enhanced keyboard;
 - MS Windows 2000 Professional on CD-ROM and installed on CPU's;
 - MS Office Pro 2000 on CD-ROM and installed on CPU's;
 - 3-button PS/2 mouse and mouse pad;
 - 10/100, Network Interface Card (NIC)
 - 19" .26mm 1289x1024 flat screen computer monitor;
 - On-site warranty for the duration of the contract;
 - FCC Certified, Novell certified, Windows NT certified, Year 2000 compliant;
- One (1) Dell OptiPlex GX240, Pentium 4 personal computer for use as a 'server' with the following capability:
 - 4-PCI slots;
 - 512MB, Non ECC, PC133 SDRAM;
 - Tower case;
 - 3.5 inch, 1.44MG floppy drive;
 - 40GB, EIDE, 7200 RPM, ATA/100 hard drive;
 - 48X internal EIDE CD-ROM;
 - On-board enhance IDE/IO adapter 2F/4H, 2-Hi Speed Serial/1 BI-dir EPP Par. Port;
 - 32MB, ATI, Rage Ultra 128, Video Card;
 - 104 enhanced keyboard;
 - 3-button PS/2 mouse and mouse pad;
 - 10/100, Network Interface Card (NIC)
 - 17" .26mm 1289x1024 computer monitor;
 - On-site warranty for the duration of the contract;

- FCC Certified, , Windows NT certified, Year 2000 compliant;
- MS Windows 2000 Server on on CD-ROM and installed on CPU;
- Internal tape drive with Windows 2000 compatible backup software.
- APC Battery Backup device with PowerChute software for server that will provide 15 minutes of backup power in the event of a power failure;
- Cisco 1710 router and any other ancillary equipment necessary for connection of the T-1 line to the network;
- Cisco 2950 12-port switch sufficient for print sharing and file sharing;
- An established LAN within the Government facility to have a minimum of six drops at locations designated by the Government;
- One laser printer with NIC, HP laser jet 8000N or equivalent capable of making 11 inch x 17 inch documents;
- One copy of the NAS scheduling software that the Contractor intends to use to manage the project;
- One plain paper FAX machine;
- One copier with the following capabilities: Document feeder, collating, magnification & reduction, duplex copies, sorting, stapling, 11inch x 17inch copies;
- Monitored (reporting) security alarm system;
- Four (4) handheld cellular telephones, Motorola Model I700+ or equal with service for the duration of the project. Service shall be digital cellular iDEN technology with integrated digital push to talk 2-way radio coverage within Missouri and Kansas.
- One (1) Digital camera, Sony model DSC-P5, 3.34 megapixel with 32Mb Memory Stick, Model MSA-32A and two (2) Sony Memory stick Floppy Disk Adapters, Model MSAC-FD2MA.

Maintenance service contract for the computers, printer, router, hub, fax machine and copier shall be provided for the duration of the contract. Toner for the printer and copier shall be provided for the duration of the project. Building entrance doors shall be equipped with a substantial lock with five (5) keys. Janitorial service shall be provided that includes trash removal, sweeping twice weekly, mopping and dusting weekly, window washing monthly, toilet tissue, hand towels, liquid hand soap. The contractor will not be liable for Government long-distance telephone calls. The Contractor shall provide janitorial service, heating, air conditioning, T-1 data communication service, local telephone service, electricity, water, sewerage, office equipment maintenance and monitored security system at no additional cost to the Government for the duration of the project. The facility will be set up and completely operational with all items listed above functional within thirty days after the Notice to Proceed. The entire facility including all furniture, office equipment, camera, computers, printers, copier and communications equipment will remain the property of the Contractor and shall be removed from the site after completion of the work.

1.7 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available

for use by Government personnel.

1.8 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the work site. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site. For additional requirements of the TEMPORARY FENCING refer to SECTION 02001 - CONSTRUCTION, GENERAL.

1.9 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above or at the supplemental storage area. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

1.10 RESTORATION OF STORAGE AREA

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

-- End of Section --

SECTION 02001

CONSTRUCTION, GENERAL

PART 1 - GENERAL

1. SCOPE: This section outlines general construction requirements. Detailed requirements are specified in subsequent sections.

PARTS 2 & 3 - PRODUCTS AND EXECUTION

2. PLAN OF OPERATIONS: The work shall be performed in accordance with a Plan of Operations submitted by the Contractor for review, SD07-GA-RE. See also paragraph: Construction Sequencing, hereinafter. The work shall assure that nonflood period normal channel flows are not impeded at all times unless approved by the Contracting Officer. The Plan shall cover the detailed features of the work and shall be submitted within 60 days after Notice to Proceed. The Contractor shall plan his operations to prevent damage to, or interference with, existing power and underground utility lines, bridges, and roads which cross, parallel, or pass longitudinally along the construction right-of-way. The Plan shall include, but not be limited to: water control; access; haul routes; noise and dust control; disposal plan; temporary stockpiles; traffic control, concrete placement, scheduling of work on sanitary sewers and water main, and overall sequencing. As work progresses, the Plan shall be modified in writing as necessary to meet field conditions. The Plan and any changes thereto will be reviewed by the Contracting Officer for adherence to the contract. The Contracting Officer may suspend work for Contractor's failure to furnish a Plan of Operations within the specified time.

2.1 An Interim Plan shall be submitted within ten (10) days from Notice to Proceed, SD07-GA-RE. This plan shall describe work to be conducted during the first 60 days. The Plan of Operations shall supersede the Interim Plan if submitted prior to the 60th day.

2.2 Working Hours: All work shall be performed between the hours of 6:30 a.m. and 8:00 p.m. There shall be no work performed on Sundays. These restrictions may be relaxed, for performing operations incidental to the required work, such as concrete sawing, when submitted for approval at least 48 hours in advance of the proposed work.

3. CONSTRUCTION WORK AREA LIMITS: The construction work area shall be the composite area defined by the project limits and any temporary easement boundaries.

3.1 General: The Contractor will be assigned project work area limits as shown on the drawings. The project limits shown shall be observed unless otherwise approved by the City of Kansas City, Missouri (the City), through the Contracting Officer. The Contractor will not have sole access to the assigned work areas, and the use of the area shall be coordinated with the Government for the performance of the required work within these areas. Additional work

area required for the performance of this contract shall be subject to the following conditions.

3.2 Staging Area: The Contractor will be provided an area adjacent to the channel work for storing equipment, materials and supplies used for the construction of channel improvements. The location of the staging area is shown in the drawings, sheets T1.4 & T1.5

3.2.1 Legal Description: The following is a legal description of the property available for storing equipment and supplies.

3.3 Disposal Areas: Disposal areas are available to the Contractor subject to the limitations stated in SECTION: CLEARING, GRUBBING AND DEMOLITION and T1.4.

3.4 Area Not Controlled By Government: Should the Contractor make arrangements for utilization of any privately owned areas, he shall obtain a three-party written agreement between the Contractor, the property owner and the City. The Contractor shall relieve the Government of any claims for damages in writing, prior to operating off-site.

4. CONSTRUCTION SEQUENCING:

4.1 General: The Contractor shall limit the area under construction to the reach of the channel approved by the Contracting Officer to minimize disruption of the overall project limits. Construction of utilities may be in advance of channel excavation and is not restricted by any predetermined limits. Clearing, grubbing, excavation, and demolition shall not proceed more than 500 feet ahead of the finished channel unless approved by the Contracting officer. Finished channel shall include all required channel modifications, excluding seeding and mulching. The Contractor may continue to use the channel bottom for access and shall remain responsible for its condition during the entire contract. Stockpiling of excavated materials and construction materials shall be minimized and shall be contained within the construction right-of-way, provided adequate safety of the excavated slopes is maintained in all construction areas. Kansas City Power and Light (KCPL), Southwestern Bell, Time Warner Cable (TWC), Kansas City Missouri Water Services, Kansas City Water & Sewer Department and other appropriate agencies shall be contacted for coordination and relocation of utility lines adjacent to the channel, Prospect Bridge and other appurtenant structures.

4.2 City streets and roads and parking areas within and outside the project limits shall be kept free of dirt, mud, rock, or other materials spilled or dropped form equipment. Dust shall be controlled by sprinkling, washing, sweeping, or other methods as approved by the Contracting officer. In using the roads, the Contractor shall conform to any regulations or weight restrictions required by the City of Kansas City, Missouri, Missouri Department of Transportation, and the weight restrictions in the Special Clauses.

4.3 Cooperation Between Contractors: Construction work on other contracts will be under way concurrently with this contract. The obligations of the Contractor under this contract will include jointly planning and scheduling the

work, on a cooperative basis, with the other Contractors involved in order to minimize delays and interferences. Contracts to perform the work described hereinafter will be underway concurrently with this contract.

<u>Contracting Agency</u>	<u>Description of Work</u>	<u>Estimated Completion Date or Completion Time</u>
Kansas City Power And Light	Relocation of Electrical Lines	Co-ordinate with bridge demolition
Water Services Department	Waterline Relocation	Co-ordinate with bridge demolition
Southwestern Bell	Relocation of Telephone cables	Co-ordinate with bridge demolition
Time Warner Cable	Relocation of Telephone cables	Co-ordinate with bridge demolition

4.4 SEQUENCE OF CONSTRUCTION: The plan of operations shall be submitted to detail the proposed sequence of construction. The Contractor shall take into consideration the following limitation while developing the plan of operation.

4.4.1 Bridge Construction: The existing Prospect Bridge shall not be closed to through traffic until all detour routes are established and approved by the Kansas City Traffic Control and an alternate bus route has been submitted, approved and established by the KCATA. Bridge demolition must not interrupt Southwestern Bell Telephone service. Contractor shall obtain a permit from MoDOT for placing detour signs on the MoDOT right of way. Contractor shall notify the news media of the detour 2 weeks before closure. The new bridge shall not be opened until all roadwork, intersection work, KCATA bus route modifications and sidewalk/pedestrian crossing work is completed and approved by KCATA, the Contracting Officer, and the Kansas City Traffic Control. The pedestrian traffic and parking lot traffic from the Paraclete retirement Manor shall be maintained at all times. The access way shall be kept safe, and free of dirt, debris, and construction materials at all times.

4.4.2 Paraclete Retirement Manor: Access to the entrance shall be maintained at all time to allow for fire and police protection. Prospect Avenue shall not be closed to traffic during construction in the vicinity of the manor. At least one lane of Prospect shall remain open at all times. Two lanes shall be accessible during emergency Fire or Police protection. A flagman and/or appropriate traffic signs and devices shall be provided during construction operations.

4.4.3 Swope Parkway Trail: The channel fill and access shall be completed before any work on Swope Parkway Trail. The fill shall be allowed to settle

for 30 days before any work on the pavements for Swope Parkway Trail construction.

4.4.4 Clearing of the North Slope Baseline Station 17+00 to Station 20+00: The trees and brush growing on the north slopes of the existing Swope Parkway embankment shall not be disturbed above elevation 775 feet until the channel fill for the reach has been cleared, and fill has been established to elevation 775 feet.

4.4.5 Utilities: All utility work shall be completed in accordance with requirements on the drawings as needed to stage the construction of the bridge and channel structures.

4.4.6 Dam Construction: Dam construction shall proceed to allow for adequate drainage of the channel flows without causing excessive erosion or damages to the required structures under normal channel flows. In the event of anticipated flooding of the channel due to extreme wet weather, the contractor shall take action to protect partially completed structures. This action shall be identified in the plan of operation as a Flood Contingency Plan.

4.4.7 Intersection Work: The Cleaver II, Prospect Avenue intersection traffic signals and intersection and parking connections shall be completed and accepted by the Contracting Officer and Kansas City Traffic Control before Prospect Avenue is closed or before the Prospect Avenue is reopened.

4.4.8 Bridge utility relocations: The existing Prospect Bridge shall not be demolished before utilities attached to the bridge are properly removed and relocated. Note the outage periods for KCPL and the water line.

4.4.9 KCPL, SWB, and TWB work: Contractor shall provide utility conduits for KCPL, SWB, and TWB relocations. KCPL, SWB, and TWB will provide the adjacent manholes, poles, and such. Coordination with these three utilities are required so they may run their cables and make connections as soon as possible.

5. PERMITS:

5.1 Highway Permits: The Contractor shall obtain the necessary construction permits Kansas City Traffic Control (Jere Meredith, 816-513-2665), and Missouri Department of Transportation (Vernon Koch, 816-622-0417 or Norman Beeman, 816-622-0413) for work near the Bruce Watkins and Cleaver II roadways.

5.2 Other permits: The Contractor shall obtain all other necessary permits for work along Brush Creek **including but not limited to the NPDES (section 404) permit.**

5.3 Kansas City Area Transportation Authority Coordination: KCATA shall be contacted 30 days before changes to an existing bus route caused by work on Prospect Bridge. The point of contact is Mr. Bob Kohler, 816-346-0233 or Jesse Ward, 816-346-0246.

6. TEMPORARY FENCING: The Contractor shall provide fencing around any areas under construction to minimize public access. Fencing shall be as continuous as possible excluding the channel bottom.

6.1 Fence shall have a minimum height of 4 feet.

6.2 Fence fabric shall consist of high density polyethylene or copolymer. The fabric shall be orange in color, U.V. Stabilized, and have a yield strength of not less than 500 pounds per foot.

6.3 Fence fabric shall be mounted on posts driven not less than 18 inches into the ground and spaced at not more than 15-feet horizontally.

6.4 Where fences must be maintained across the construction easement, gates shall be installed, and kept locked unless in use.

6.5 Chain link fencing for storage and work areas may be temporarily installed at contractor expense.

7. UTILITIES:

7.1 General: Water, telephone, power, storm drainage and sewer lines exist within the construction limits. The approximate location of each is shown on the plans and is the best information available at this time. Those lines that occur within the excavation limits shall be altered by the Contractor as required. The Contractor shall notify the appropriate utility companies within 7 days following contract award of construction work over, under, or adjacent to utility services. The Contractor shall organize and conduct a meeting for the purpose of coordinating and scheduling utilities work for the project. The meeting shall be conducted within two (2) weeks of submitting the Contractor's Interim Plan of Operation. The following persons (as applicable) shall be contacted for the meeting, and as necessary when construction work coincides with utilities.

C. Mike Rukgaber
KCMO-Traffic
816-513-2670

Billy L. Courtney
Manager-Engineering Design
SBC Southwestern Bell Tele Co.
5400 Foxridge - Room 500
Mission Ks. 66202
913-676-0378

Ray Wilson
MoGas Energy - Engineering
223 Gillis
KC Mo. 64120
816-472-3464

Time Warner Cable
Attn : Artie Pippin - Construction Dept.
6550 Winchester Ave.
KC Mo. 64133
816-358-5360--5613

Paul Divine
KCPL
8619 Prospect Ave.
K.C. Mo. 64132
816-276-5583

Call for approval before placing concrete around 6 inch conduits.
George King (KCPL)816-898-2214

Call for approval before placing concrete around 6 inch conduits.
Gary Spandle (KCPL) 816-810-5829

Jennifer King
Paraclete Manor
4725 Prospect Avenue
K.C. Mo. 64130
816-861-3829

Dig-Rite
1-800-dig-rite

Norman G. Beeman & Vernon Koch
Missouri Department of Transportation
816-622-0413 816-622-0417
600 Northeast Colbern Road
Lees Summit, Mo.64086

Dennis McMan
Manager Parks & Recreation, City of Kansas City, Mo.
816-513-7625

Michael Herron
Parks & Recreation Department
City of Kansas City, Missouri
6601 Swope Parkway
Kansas City, Missouri 64106
(816) 523-5613

Andy Shively
K.C.MO Water Services

816-513-2204

C. Ted Turney
Engineering Services Division
Water & Pollution Control Depts.
City of Kansas City, Missouri
414 East 12th Street
Kansas City, Missouri 64106
(816) 274-1755

Jim
Real Estate Department
Kansas City Power & Light Company
Post Office Box 679
Kansas City, Missouri 64141
(816) 245-3732

Joseph F. Reichert
Chief of Planning & Scheduling
Public Works Department
City of Kansas City, Missouri
414 East 12th Street
Kansas City, Missouri 64106
(816) 274-2069

7.2 Storm Sewer Alterations: All storm sewer and combined sewer outfalls that are affected by channel excavation shall be modified as indicated, and shall be kept open and free-flowing at all times. The Contractor shall verify the exact location of each utility prior to excavation.

7.3 Operation of Existing Facilities: Existing utilities or sewers which lie adjacent to and/or to which new sanitary sewers connect shall be kept in continuous operation throughout the construction period. No interruption will be permitted which adversely affects the degree of service provided. Provided permission is obtained from owner in advance, portions of the existing facilities may be taken out of service for short periods corresponding with periods of minimum service demands.

Contractor shall provide temporary facilities and make temporary modifications as necessary to keep the existing facilities in operation during the construction period. Under no circumstances shall sewage be discharged to any channel or creek.

7.4 Gas Line Relocations: **None.**

7.5 Work Along and Across KCPL Easement: The Contractor shall notify KCPL prior to construction in the area of all pole structures and power lines. Notification shall be given to allow sufficient time for a KCPL representative to be present at the jobsite during the period of construction.

Further stipulations are as follows:

a. The cost incurred to maintain a KCPL inspector on the site, when deemed necessary, and the cost of construction incurred by KCPL for the protection of any power line, such as temporarily relocating anchors, stabilizing structures or otherwise protecting a power line, and the repair of any damages to a power line resulting from work under this contract shall be borne by the Contractor.

b. Equipment working underneath KCPL transmission lines shall follow safety rules of clearances as specified in the National Electrical Safety Code and as prescribed by OSHA, in addition to safety requirements herein.

c. There shall be no stockpiling of dirt or other materials underneath KCPL transmission lines that would jeopardize normal clearances which are prescribed by the National Electrical Safety Code.

d. There shall be no open ditches or excavations closer than 10 feet from KCPL distribution or transmission poles.

7.6 Temporary Drainage Provisions: Contractor shall provide for the drainage of storm water and such water as may be applied or discharged on the site in performance of the work. Drainage facilities shall be adequate to prevent damage to the work, the site, and adjacent property.

Existing drainage channels and conduits shall be cleaned, enlarged, or supplemented as necessary to carry all increased runoff attributable to Contractor's operations. Dikes shall be constructed as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect owner's facilities and the work, and to direct water to drainage channels or conduits. Ponding shall be provided as necessary to prevent downstream flooding.

7.7 Pollution Control: Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes shall be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris, or other substance shall be permitted to enter sanitary sewers, and reasonable measures shall be taken to prevent such materials from entering any drain or watercourse.

7.8 Water Lines Relocated by the Contractor:

<u>STATION</u>	<u>SIZE</u>	<u>REMARKS</u>
8+66	16-inch	Ductile Iron

8. STOCKPILES: Stockpiles of materials to be used in construction may be stored within the area designated for Contractor use on the drawings. Stockpiles shall be kept in a neat and well drained condition, giving due

consideration to drainage at all times. The ground surface at stockpile locations shall be cleared, grubbed, and sealed by rubber-tired equipment. Stockpiles of materials shall be protected from contamination which may destroy the quality and fitness of the stockpiled material. If the Contractor fails to protect the stockpiles, and any material becomes unsatisfactory, such material shall be removed and replaced with satisfactory material from approved sources at no additional cost to the Government. Locations shall be coordinated with the Contracting Officer and the City of Kansas City Missouri. Areas disturbed by construction operations shall be left graded and seeded.

9. HAUL ROADS:

9.1 General: All haul roads and ramps shall be constructed at no cost to the Government. Upon completion of work, all haul roads and ramps shall be removed, and the area restored to its original condition. The Contractor shall provide all necessary lights, flagmen, signs, barricades and markings at access locations. Dust control shall be such that no dust leaves the site, and adequate to ensure safe operations at all times. Total haul weights shall be restricted to the limits stated in SPECIAL CLAUSES paragraph: Restrictions on Hauling Vehicles. If the Contractor elects to use the channel bottom as a haul route, he shall take adequate precautions to protect the finished channel bottom and underlying rock. Any damage to the finished channel bottom shall be repaired at no expense to the Government. Plans for repairs shall be submitted for approval to the Contracting Officer.

9.2 Standards For Haul Roads: The minimum width of maintained traveled surface constructed by the Contractor shall be in accordance with the following formulas and shall provide a 2-ft. minimum shoulder width on each side of the traveled surface. The maximum allowable grade shall be in accordance with EM 385-1-1, Section 30.D. ROADS. Haul road design including grades and widths shall be submitted with the plan of operation.

(a) One-way roads:

For Vehicles up to 12 Feet in Width (W)

Minimum width (in feet) = $W + 8$

For Vehicles 12 Feet and Over in Width (W)

Minimum width (in feet) = $W + 12$

(b) Two-way roads:

Minimum width (W) (in feet) = $2W + 18$

W is the maximum width in feet of the widest construction vehicle normally using the road. Fractional widths of roads shall be rounded to the next larger foot.

10. HAULING PERMITS: All necessary permits for hauling shall be the Contractor's responsibility.

10.1 Use of Boulevards: The following person shall be contacted regarding the use of roadways under Kansas City Parks, Recreations, and Boulevards jurisdiction.

Mr. Mike Herron
Parks and Recreation Department
City of Kansas City, Missouri
6601 Swope Parkway
Kansas City, Missouri 64106
(816) 523-5613

The Contractor shall obtain a special permit from Director of Parks, Recreation and Boulevards which will authorize the applicant to operate or move a vehicle or combination of vehicles of length or weight exceeding the maximum specified in the Code, SD18-FIO-RE. Such a permit will be issued subject to the following conditions:

10.1.1 The special permit shall prohibit operation before 6 a.m. and after 6 p.m. and shall be limited to 108 feet maximum total vehicular length, including combination of vehicles, and 80,000 pounds total weight.

10.1.2 The Contractor shall protect all streets, sidewalks and Boulevard systems, and shall make all arrangements and necessary repairs at his own expense. Any sidewalks or roadways affected by the construction shall be appropriately signed in accordance with the latest edition of the Manual on Uniform Traffic Control Devices, and its most current revisions. A Street Closure Permit will be required and shall be obtained from the Kansas City, Missouri Public Work Department - Street and Traffic Division prior to start of work.

10.1.3 The Contractor shall protect at his discretion all trees and shrubs within the route, by fencing, staking or other physical means to prevent damages to the plants. Should damage occur to any of the existing trees and shrubs the Contractor will be required to physically protect the remaining trees and shrubs as directed and it shall be the discretion of the Director of Parks, Recreation, and Boulevards to seek compensation for damages incurred, or replacement of the damaged stock with that of equal or better quality.

10.1.4 The Contractor shall remove any dirt, earth, rock, sand, shale, debris, rubbish, or other materials deposited, spilled, or dropped on any street in the performance of the work contemplated, and shall restore such street to its former condition to the satisfaction of the Director of Parks, Recreation, and Boulevards immediately after the incident.

10.1.5 Use of Other City Streets: The following person shall be contacted regarding the use of roadways under Kansas City Public Works jurisdiction.

Mr. Albert Gandara
Public Works Department

City Hall
Kansas City, Missouri 64106
(816) 274-2481

11. GRAFFITI: The Contractor shall take the necessary steps to minimize vandalism, and shall remove graffiti from retaining walls and other surfaces prior to final acceptance of the project. Incremental acceptance of permanent work shall not relieve the Contractor from this responsibility prior to acceptance of the total work.

12. ACCEPTANCE OF THE PUMPBACK AND DRAINAGE SYSTEMS: The systems shall be fully operational before acceptance. Approval and acceptance of the systems shall be based on the performance of the system during operation. All coordination involved to conduct performance tests at each location are the responsibility of the Contractor.

13. PAYMENT

Payment shall be in accordance with the bidding schedule.

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A. GENERAL:

1. Scope: This section covers stone protection, complete.
2. General: Operation shall be conducted in a manner to produce a stone that will conform to the specified requirements hereinafter, and shall include selective quarrying, handling, processing, blending, and loading as required. A complete description of the methods used in the operation for production of materials shall be submitted, SD01-GA-EC.
3. Plan of Operations: A detailed plan of operations shall be submitted and approval obtained, prior to beginning production or placement of the stone protection, SD01-GA-EC. The plans of operations shall include selective quarrying, handling, processing, blending, loading, transporting, testing and placing on the site. As work progresses, the plan of operations shall be modified as required to meet the following specifications.
4. Quarry Operations: If the method used fails to produce the required materials, changes in the production methods shall be made until the required product is obtained. Blasting and handling of the rock shall be controlled to minimize the development of small fractures. Techniques such as the use of low density powders, sloped blast holes, removal of the previously blasted materials developed between each shot, and minimizing the height from which rock is dropped during loading and processing will be required to produce the specified materials.
5. The General Layout: The work is shown on the drawings.

B. MATERIALS:

1. General: Stone for Type-X and quarry-run material shall be sound, durable limestone, free from cracks, seams, shale partings, and overburden spoils and shall be supplied from a source and geological unit listed hereinafter.
2. Type-X: Type-X stone shall be tabular blocks of sound durable limestone with relatively uniform thickness. Variation in the thickness of individual stones shall be less than 0.25'. Type-X stone shall meet the dimensions specified in this section and possess a minimum Specific Gravity of 2.5 and a maximum LA abrasion loss of 40. Type-X stones shall be sized within the following limits: The dimensions of individual stones shall be measured along 3 mutually perpendicular directions. The thickness (smallest dimension) shall be between a minimum of 9-inches and a

maximum of 18-inches. The length (longest dimension) shall be at least 3 times the stone thickness. The width (intermediate dimension) shall be at least 2 times the stone thickness. At least 75% of the Type-X stone placed must be within 2-inches of the same nominal thickness.

3. Quarry-run rock shall be composed of tough, durable particles. Quarry-run rock shall be well graded between the maximum and minimum sizes specified with intervening sizes well represented. The upper limit of size for this material shall not exceed the layer thickness required. Not more than 15 percent shall pass the 2-inch sieve. Elongation: Stone for quarry-run shall be approximately of equal dimension in cross section and relatively free from flat and elongated pieces. The quantity of stone having an elongation ratio greater than 3 shall not exceed 5 percent by weight

4. Deleterious substances: These include soft friable particles, objectionable materials, shale and other foreign matter, and shall not exceed 5 percent by weight.

C. SOURCES AND APPROVAL OF MATERIALS: Quarry-run materials shall be produced from sources listed in this section. The source proposed for use shall be designated not less than 10 days before starting stone protection operations.

Approved Rock Sources for quarry-run material:

Damon Pursell Liberty, MO 816-792-1031 816-926-0300	Rock Ridge Quarry NW ¼ Sec.23, & NW ¼ Sec. 26 T48N, R33W Jackson County, MO	Winterset ledge and lower 17' Bethany Falls ledge
APAC Sugar Creek, MO 816-380-5170 816-257-2222	Limpus Quarries Sec. 24, T50N, R32W Jackson County, MO	lower 16' of Bethany Falls and lower 17' Winterset ledges
Hunt Midwest Mining Kansas City, MO 816-455-3876	Randolph Quarry SW1/4 Sec.2, T50N, R32W Clay County, MO	upper 13.6' Winterset and lower 16' Bethany Falls ledges
Hunt Midwest Mining Kansas City, MO 816-455-3876	West Lawrence Quarry SW1/4 Sec.1, T13S, R18E Douglas Co, KS	Leavenworth and Toronto ledges

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N.R. Hamm Perry, KS 785-598-5111	North Lawrence Quarry E1/2 Sec35, T11S, T19E Jefferson Co, KS	Leavenworth and Toronto ledges
Missouri Rock, Inc Independence, MO 816-781-6459	Orrick Quarry NW ¼ Sec.14, T51N, R29W Ray County, MO	lower 8' Bethany Falls and lower 8' Winterset ledges
Ideker, Inc St. Joseph, MO 816-364-3970	Amazonia Quarry NW ¼ Sec.19 & SW ¼ Sec. 18 T59N, R35W Andrew County, MO	upper 5.7' Kereford ledge

(a) Materials may be furnished from any of the above listed sources or at the option of the Contractor may be furnished from any other source designated by the Contractor and approved by the Contracting Officer, subject to the conditions hereinafter stated.

(b) Listing of a materials source is not to be construed as approval of all material from the source. The right is reserved to reject materials from certain localized areas, zones, strata, or channels when such materials are unsuitable as determined by the Contracting Officer. Materials produced from an approved source shall meet all the requirements of these specifications.

(c) After the award of the contract, the Contractor shall designate in writing only one source or combination of sources from which he proposes to furnish each material. If the Contractor proposes to furnish material from a source or from sources not listed above, he may designate only a single source or single combination of sources for the material. Stone protection materials shall be sampled and tested as specified hereinafter and as required by the Technical Provisions. If a source of material so designated by the Contractor is not approved for use by the Contracting Officer, the Contractor may not submit for approval other sources but shall furnish the material from an approved source listed above at no additional cost to the Government. The source proposed for use shall be designated within 10 calendar days of the date of receipt of Notice to Proceed. Service records and samples for acceptance testing shall be provided as required hereinafter.

(d) The geological rock unit of other sources submitted for stone protection shall have, as a

minimum, a suitable 5 year service record on similar sized stone protection material exposed to shoreline conditions in a similar climatic region. The Contracting Officer will determine what is suitable for an adequate service record. Service record documentation shall include date used, where used, identification of ledges used, names of previous users, gradation produced, quantities produced since last tested, and result of most recent tests identified hereinafter. In addition to an acceptable 5 year service record, as determined by the Contracting Officer, the Contracting Officer has the option to have representative samples taken and tested.

(e) Approximately one sample per 1-1/2 feet of face and from each bed 8 inches or greater in the entire vertical face of the ledge to be quarried shall be taken by the Contractor in the presence of a Government representative. The samples shall be approximately 8- to 14-inch cubes and shall be marked in order, starting with number one at the top of the quarry face. Samples shall be delivered to a commercial laboratory certified to perform the required tests by the Corps of Engineers, Waterways Experiment Station, Concrete and Materials Division, Structures Laboratory, Vicksburg, Mississippi, 30 days in advance of the time the materials will be needed in the work. These samples will be subjected to the freezing and thawing test under Corps of Engineers specification CRD-C-144 and to the specific gravity and absorption tests under Corps of Engineers specification CRD-C-107. Since the performance of these samples in the test will be affected by the presence of moisture, the extent of "drying out" and the amount of incipient fractures in the rock due to blasting shock, every effort shall be made to obtain samples from a quarry face that are truly representative of actual job production. At least 60 percent of the quarry face as represented by individual samples shall show individual losses of less than 25 percent, and the average loss of all samples shall be less than 25 percent.

Type-X Stone may be available from the following sources:

Damon Pursell
Liberty, MO
816-792-1032
816-926-0300

Rock Ridge Quarry
NW ¼ Sec.23, & NW ¼ Sec. 26
T48N, R33W
Jackson County, MO

Winterset ledge and lower
17' Bethany Falls ledge

N.R. Hamm
Perry, KS
785-598-5111

North Lawrence Quarry
E1/2 Sec.35, T11S, T19E
Jefferson Co, KS

Leavenworth and Toronto ledges

Prospect Bridge Replacement and
Brush Creek Channel Modifications

APAC- Kansas City Division
Tim Elliott
913-238-1916
913-814-6700

Argentine or Farley ledge

Hunt Midwest Mining
Kevin Altec
913-583-3311
816-935-2654

Sunflower Quarry

Spring Hill ledge

Martin-Marietta Aggregates
Peculiar, MO
816-779-5522

Peculiar Quarry

Block Limestone

The list of potential Type-X stone suppliers is not exclusive. It is preferable but is not a requirement to select Type-X stone from a ledge approved for quarry-run material. The Contractor may select a source from the Approved Quarry-run source list, from the list of potential Type-X suppliers or may propose an alternate source for Type-X stone in a written submission to the Contracting Officer. The Contracting Officer shall make final determination of the acceptability of Type-X stone from any source.

D. PLACEMENT: Quarry-run rock: Quarry-run rock shall be placed to the full layer thickness measured normal to the excavated channel floor in one operation and in such manner as to minimize segregation and avoid displacing the underlying material. Quarry-run rock shall be placed in a manner that will produce a well-keyed and stable mass of rock. Distribution shall be obtained by selective loading at the source of material and controlled dumping at the site, or by other approved methods. Stone shall be placed by means of truck, gradall, skip box, clam, rock bucket, or orange peel, without rehandling and by such means as to avoid segregation. No other method of placing quarry-run rock shall be used without written approval of the Contracting Officer and the approval will be contingent upon the Contractor's continued ability to provide an acceptable finished layer.

Type-X: Type-X stone shall be placed over the quarry-run rock within the area shown on the drawings. Each Type-X stone shall be placed against adjacent stones as shown on the details. Each stone shall be lowered to essentially the final position. Lifting lugs are permissible but if used,

the lifting lug shall be cut-off flush with the stone after placement. Individual stones may require manual prying for final stone positioning. The Contractor shall minimize disturbance of the underlying quarry-run rock during placement of Type-X stone by implementation of appropriate construction sequencing, equipment selection, and placement methods. If, in the opinion of the Contracting Officer, the placement of Type-X stone results in unacceptable disturbance of the quarry-run rock layer, the Contractor shall adjust the Type-X stone placement method so as to reduce the disturbance of the quarry-run rock layer to an acceptable level. If the quarry-run rock layer is, in the opinion of the Contracting Officer, unacceptably disturbed by the operations of Contractor, the Contracting Officer may direct the Contractor to correct unacceptably disturbed quarry-run rock by removing any Type-X stones overlying the affected area and redistributing the quarry-run rock into the proper layer thickness and gradation or adding additional quarry-run rock as necessary, and then replacing the Type-X stone at no additional expense to the government. The entire area designated for Type-X shall be covered trying to obtain as much rock-to-rock contact as is possible. No stones shall be left standing on edge. Stones in their final position shall be oriented such that the flatter portion will be parallel to the channel grade. The Type-X stone shall be placed in a manner to avoid leaving lateral gaps greater than 6 inches. The Contracting Officer may direct the Contractor to place smaller stones in excessively large gaps between irregular stones as necessary. Tracked or any other equipment that may damage the rock is prohibited from being operated on the Type-X stone either in the stockpile, during placement, or after it has been placed. The final surface of the placed Type-X stone layer shall be within 3-inches of the profile of the baseline shown on the drawings.

E. **QUALITY CONTROL:** Tests shall be performed on the stone protection materials to determine if the materials meet the gradation, elongation, and deleterious substances requirements specified herein. The Contractor shall furnish all labor, equipment, and tools for sampling and testing stone materials. Elongation tests will be run on the quarry-run material only. In determining the elongation ratio, the thickness is defined as the shortest dimension measured perpendicular to the line established as the length and within the middle one-half (two quarters) segment of that line. If the materials fail to meet the gradation, elongation, or deleterious substances requirements, the Contractor shall remove all in-place materials which are representative of the failing test and shall replace those material with acceptable materials at no additional expense to the government. The Contractor shall then adjust the plan of operations and the method used in processing, loading, and handling of materials and shall notify the Contracting Officer any time production methods are changed. Materials from tests shall be placed in the work if the materials meet the specification requirements. The Contracting Officer will select random loads for truckload gradation tests of the quarry-run rock. Tests will be performed in accordance with the following requirements.

1) Number of tests required: The following number of tests will be performed. Only those tests that meet all of the specification requirements will be considered as part of the minimum number of tests required.

<u>Type of test</u>	<u>Material</u>	<u>Minimum No. of Tests required</u>	<u>Minimum Size of test</u>
Truckload	Quarry-run	4	10 tons
In-Place	Type X	5	25' x 25'

a) Type-X in-place test shall consist of demarcation of the test area at locations selected by the Contracting Officer and measuring the dimensions of thickness, width, and length on each Type-X stone completely within the test area. If the materials fail to meet the dimension specifications, or deleterious substances requirements, the Contractor shall remove all in-place materials which are representative of the failing test and shall replace those materials with acceptable materials at no additional expense to the government. The Contractor shall then adjust the plan of operations and the method used in processing, loading, handling, and placing of materials and shall notify the Contracting Officer any time production methods are changed.

b) The material from two initial quarry-run gradation tests that meet specifications requirements shall be placed in a well-marked area, one at the quarry and one at the project site to serve as visual models of acceptable material.

2) Additional tests: Elongation and deleterious substance tests will be made on each gradation sample of quarry-run material tested and deleterious substances tests will be made in conjunction with each Type-X in-place test. Whenever there is reason to believe that materials do not meet specified requirements, additional tests will be performed as required.

F. MAINTENANCE: The Contractor shall maintain the stone protection until the project is completed and any material displaced by any cause, except as provided in the paragraph: DAMAGE TO WORK of the Special Clauses, shall be repaired to the lines and grades shown on the drawings as directed.

G. SCALES AND WEIGHHOUSE shall be as in SECTION: CRUSHED STONE BASE COURSE.

H. MEASURE AND PAYMENT: Quarry-run rock and Type-X stone shall be weighed, and

waybills and/or delivery tickets, signed by a public or bonded weighmaster, shall be submitted during the progress of the work. In lieu of weighing on scales previously described, weighing may be done on public or other scales, which have been approved by the Contracting Officer and certified by the State where the scales are located. Waybills shall be submitted only for the materials actually used in the work.

I. COMPUTATION OF QUANTITIES: Quantities of quarry-run rock and Type-X stone will be computed in tons (2,000 pounds). The computations will be based on the waybills and delivery tickets submitted and the accumulative total of the respective items will be rounded off to the nearest 0.1 ton.

J. BIDDING SCHEDULE ITEMS applicable to work covered by this section are as follows:

<u>Item</u>	<u>Unit</u>
<u>"Invert Channel Protection"</u>	<u>lump sum</u>
"Quarry-run Rock"	ton
* * * * *	

EROSION CONTROL

A. General: The Contractor shall provide erosion control for all areas disturbed during construction. The City has prepared a set of guidelines and procedures for controlling erosion entitled “Erosion and Sediment Control Specification” official document number 940108 adopted March 18, 1994. This document is available for purchase at the permit counter on the 18th Floor of City Hall, for \$6.00 per copy. The Contractor is to assume that the work is to be done under the City’s General Permit. The Contractor does not need to make separate application with the Missouri Department of Natural Resources.

B. Erosion Control Plan: The Contractor shall prepare an erosion control plan which shall be presented to the Contracting Officer, SD07-GA-RE. This plan shall, as a minimum, indicate the location and types of erosion control measures to be utilized throughout the project.

The prime Contractor is responsible and obligated for adding additional erosion control measures as needed if unforeseen erosion problems arise or if submitted plan does not function as intended. The requirements of the plan shall be the prime Contractor’s responsibility until the plan is properly completed, modified or voided.

The prime Contractor who is awarded the contract has the responsibility of adding additional erosion control measures as needed if unforeseen erosion problems arise or if the submitted plan does not function as intended. The requirements of the plan shall be the prime Contractor’s responsibility until the plan is properly completed, modified or voided.

C. Direct payment for work covered by this section will not be made.

Graded Berms are to be considered subsidiary to other items in the Proposal, and they are only to be placed at the threat of forecasted or anticipated precipitation.

D. See pages 00270-2 through 00270-4 of the project manual for details of the “Straw Bale Fence”, “Silt Fence”, and “Berm”.

SECTION 02770A

CONCRETE SIDEWALKS AND CURBS AND GUTTERS
03/98

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
(AASHTO)

AASHTO M 182 (1991) Burlap Cloth Made from Jute or Kenaf

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 185 (1997) Steel Welded Wire Fabric, Plain,
for Concrete Reinforcement

ASTM A 615/A 615M (1996a) Deformed and Plain Billet-Steel
Bars for Concrete Reinforcement

ASTM A 616/A 616M (1996a) Rail-Steel Deformed and Plain Bars
for Concrete Reinforcement

ASTM A 617/A 617M (1996a) Axle-Steel Deformed and Plain Bars
for Concrete Reinforcement

ASTM C 31/C 31M (1996) Making and Curing Concrete Test
Specimens in the Field

ASTM C 143 (1990a) Slump of Hydraulic Cement Concrete

ASTM C 171 (1997) Sheet Materials for Curing Concrete

ASTM C 172 (1997) Sampling Freshly Mixed Concrete

ASTM C 173 (1996) Air Content of Freshly Mixed
Concrete by the Volumetric Method

ASTM C 231 (1997) Air Content of Freshly Mixed
Concrete by the Pressure Method

ASTM C 309 (1997) Liquid Membrane-Forming Compounds
for Curing Concrete

ASTM C 920 (1995) Elastomeric Joint Sealants

ASTM D 1751 (1983; R 1991) Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)

ASTM D 1752 (1984; R 1996) Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction

ASTM D 3405 (1996) Joint Sealants, Hot-Applied, for Concrete and Asphalt Pavements

1.2 MEASUREMENT FOR PAYMENT

1.2.1 Sidewalks

The quantities of sidewalks to be paid for will be the number of square yards of each depth of sidewalk constructed as indicated.

1.2.2 Curbs and Gutters

The quantities of curbs and gutters to be paid for will be the number of linear feet of each cross section constructed as indicated, measured along the face of the curb at the gutter line.

1.3 BASIS FOR PAYMENT

1.3.1 Sidewalks

Payment of the quantities of sidewalks measured as specified will be at the contract unit price per square yard of the thickness specified.

1.3.2 Curbs and Gutters

Payment of the quantities of curbs and gutters measured as specified will be at the contract unit price per linear foot of each cross section.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Concrete; [____], [____]

Copies of certified delivery tickets for all concrete used in the construction.

SD-06 Test Reports

Field Quality Control; [____], [____]

Copies of all test reports within 24 hours of completion of the test.

1.5 WEATHER LIMITATIONS

1.5.1 Placing During Cold Weather

Concrete placement shall not take place when the air temperature reaches 40 degrees F and is falling, or is already below that point. Placement may begin when the air temperature reaches 35 degrees F and is rising, or is already above 40 degrees F. Provisions shall be made to protect the concrete from freezing during the specified curing period. If necessary to place concrete when the temperature of the air, aggregates, or water is below 35 degrees F, placement and protection shall be approved in writing.

Approval will be contingent upon full conformance with the following provisions. The underlying material shall be prepared and protected so that it is entirely free of frost when the concrete is deposited. [Mixing water and aggregates] [Mixing water] [Aggregates] shall be heated as necessary to result in the temperature of the in-place concrete being between 50 and 85 degrees F. Methods and equipment for heating shall be approved. The aggregates shall be free of ice, snow, and frozen lumps before entering the mixer. Covering and other means shall be provided for maintaining the concrete at a temperature of at least 50 degrees F for not less than 72 hours after placing, and at a temperature above freezing for the remainder of the curing period.

1.5.2 Placing During Warm Weather

The temperature of the concrete as placed shall not exceed 85 degrees F except where an approved retarder is used. The mixing water and/or aggregates shall be cooled, if necessary, to maintain a satisfactory placing temperature. The placing temperature shall not exceed 95 degrees F at any time.

1.6 PLANT, EQUIPMENT, MACHINES, AND TOOLS

1.6.1 General Requirements

Plant, equipment, machines, and tools used in the work shall be subject to approval and shall be maintained in a satisfactory working condition at all times. The equipment shall have the capability of producing the required product, meeting grade controls, thickness control and smoothness requirements as specified. Use of the equipment shall be discontinued if it produces unsatisfactory results. The Contracting Officer shall have access at all times to the plant and equipment to ensure proper operation and compliance with specifications.

1.6.2 Slip Form Equipment

Slip form paver or curb forming machine, will be approved based on trial use on the job and shall be self-propelled, automatically controlled,

crawler mounted, and capable of spreading, consolidating, and shaping the plastic concrete to the desired cross section in 1 pass.

PART 2 PRODUCTS

2.1 CONCRETE

Concrete shall conform to the applicable requirements of [Section 03300 CAST-IN-PLACE STRUCTURAL CONCRETE] [Section 02753 CONCRETE PAVEMENT FOR AIRFIELDS AND OTHER HEAVY-DUTY PAVEMENTS] [Section 02754 CONCRETE PAVEMENTS FOR SMALL PROJECT] except as otherwise specified. Concrete shall have a minimum compressive strength of 3500 psi at 28 days. Maximum size of aggregate shall be 1-1/2 inches.

2.1.1 Air Content

Mixtures shall have air content by volume of concrete of 5 to 7 percent, based on measurements made immediately after discharge from the mixer.

2.1.2 Slump

The concrete slump shall be 2 inches plus or minus 1 inch where determined in accordance with ASTM C 143.

2.1.3 Reinforcement Steel

Reinforcement bars shall conform to ASTM A 615/A 615M, ASTM A 616/A 616M, or ASTM A 617/A 617M. Wire mesh reinforcement shall conform to ASTM A 185.

2.2 CONCRETE CURING MATERIALS

2.2.1 Impervious Sheet Materials

Impervious sheet materials shall conform to ASTM C 171, type optional, except that polyethylene film, if used, shall be white opaque.

2.2.2 Burlap

Burlap shall conform to AASHTO M 182.

2.2.3 White Pigmented Membrane-Forming Curing Compound

White pigmented membrane-forming curing compound shall conform to ASTM C 309, Type 2.

2.3 CONCRETE PROTECTION MATERIALS

Concrete protection materials shall be a linseed oil mixture of equal parts, by volume, of linseed oil and either mineral spirits, naphtha, or turpentine. At the option of the contractor, commercially prepared linseed oil mixtures, formulated specifically for application to concrete to provide protection against the action of deicing chemicals may be used, except that emulsified mixtures are not acceptable.

2.4 JOINT FILLER STRIPS

2.4.1 Contraction Joint Filler for Curb and Gutter

Contraction joint filler for curb and gutter shall consist of hard-pressed fiberboard.

2.4.2 Expansion Joint Filler, Premolded

Expansion joint filler, premolded, shall conform to ASTM D 1751 or ASTM D 1752, 3/8 inch thick, unless otherwise indicated.

2.5 JOINT SEALANTS

2.5.1 Joint Sealant, Cold-Applied

Joint sealant, cold-applied shall conform to ASTM C 920.

2.5.2 Joint Sealant, Hot-Poured

Joint sealant, hot-poured shall conform to ASTM D 3405.

2.6 FORM WORK

Form work shall be designed and constructed to ensure that the finished concrete will conform accurately to the indicated dimensions, lines, and elevations, and within the tolerances specified. Forms shall be of wood or steel, straight, of sufficient strength to resist springing during depositing and consolidating concrete. Wood forms shall be surfaced plank, 2 inches nominal thickness, straight and free from warp, twist, loose knots, splits or other defects. Wood forms shall have a nominal length of 10 feet. Radius bends may be formed with 3/4 inch boards, laminated to the required thickness. Steel forms shall be channel-formed sections with a flat top surface and with welded braces at each end and at not less than two intermediate points. Ends of steel forms shall be interlocking and self-aligning. Steel forms shall include flexible forms for radius forming, corner forms, form spreaders, and fillers. Steel forms shall have a nominal length of 10 feet with a minimum of 3 welded stake pockets per form. Stake pins shall be solid steel rods with chamfered heads and pointed tips designed for use with steel forms.

2.6.1 Sidewalk Forms

Sidewalk forms shall be of a height equal to the full depth of the finished sidewalk.

2.6.2 Curb and Gutter Forms

Curb and gutter outside forms shall have a height equal to the full depth of the curb or gutter. The inside form of curb shall have batter as indicated and shall be securely fastened to and supported by the outside form. Rigid forms shall be provided for curb returns, except that benders or thin plank forms may be used for curb or curb returns with a radius of 10 feet or more, where grade changes occur in the return, or where the

central angle is such that a rigid form with a central angle of 90 degrees cannot be used. Back forms for curb returns may be made of 1-1/2 inch benders, for the full height of the curb, cleated together. In lieu of inside forms for curbs, a curb "mule" may be used for forming and finishing this surface, provided the results are approved.

PART 3 EXECUTION

3.1 SUBGRADE PREPARATION

The subgrade shall be constructed to the specified grade and cross section prior to concrete placement. Subgrade shall be placed and compacted [as directed] [in conformance with Section [_____]].

3.1.1 Sidewalk Subgrade

The subgrade shall be tested for grade and cross section with a template extending the full width of the sidewalk and supported between side forms.

3.1.2 Curb and Gutter Subgrade

The subgrade shall be tested for grade and cross section by means of a template extending the full width of the curb and gutter. The subgrade shall be of materials equal in bearing quality to the subgrade under the adjacent pavement.

3.1.3 Maintenance of Subgrade

The subgrade shall be maintained in a smooth, compacted condition in conformity with the required section and established grade until the concrete is placed. The subgrade shall be in a moist condition when concrete is placed. The subgrade shall be prepared and protected to produce a subgrade free from frost when the concrete is deposited.

3.2 FORM SETTING

Forms shall be set to the indicated alignment, grade and dimensions. Forms shall be held rigidly in place by a minimum of 3 stakes per form placed at intervals not to exceed 4 feet. Corners, deep sections, and radius bends shall have additional stakes and braces, as required. Clamps, spreaders, and braces shall be used where required to ensure rigidity in the forms. Forms shall be removed without injuring the concrete. Bars or heavy tools shall not be used against the concrete in removing the forms. Any concrete found defective after form removal shall be promptly and satisfactorily repaired. Forms shall be cleaned and coated with form oil each time before concrete is placed. Wood forms may, instead, be thoroughly wetted with water before concrete is placed, except that with probable freezing temperatures, oiling is mandatory.

3.2.1 Sidewalks

Forms for sidewalks shall be set with the upper edge true to line and grade with an allowable tolerance of 1/8 inch in any 10 foot long section. After forms are set, grade and alignment shall be checked with a 10 foot

straightedge. Forms shall have a transverse slope [as indicated] [of 1/4 inch per foot] with the low side adjacent to the roadway. Side forms shall not be removed for 12 hours after finishing has been completed.

3.2.2 Curbs and Gutters

The forms of the front of the curb shall be removed not less than 2 hours nor more than 6 hours after the concrete has been placed. Forms back of curb shall remain in place until the face and top of the curb have been finished, as specified for concrete finishing. Gutter forms shall not be removed while the concrete is sufficiently plastic to slump in any direction.

3.3 SIDEWALK CONCRETE PLACEMENT AND FINISHING

3.3.1 Formed Sidewalks

Concrete shall be placed in the forms in one layer. When consolidated and finished, the sidewalks shall be of the thickness indicated. After concrete has been placed in the forms, a strike-off guided by side forms shall be used to bring the surface to proper section to be compacted. The concrete shall be consolidated with an approved vibrator, and the surface shall be finished to grade with a strike off.

3.3.2 Concrete Finishing

After straightedging, when most of the water sheen has disappeared, and just before the concrete hardens, the surface shall be finished with a wood float or darby to a smooth and uniformly fine granular or sandy texture free of waves, irregularities, or tool marks. A scored surface shall be produced by brooming with a fiber-bristle brush in a direction transverse to that of the traffic, followed by edging.

3.3.3 Edge and Joint Finishing

All slab edges, including those at formed joints, shall be finished with an edger having a radius of 1/8 inch. Transverse joint shall be edged before brooming, and the brooming shall eliminate the flat surface left by the surface face of the edger. Corners and edges which have crumbled and areas which lack sufficient mortar for proper finishing shall be cleaned and filled solidly with a properly proportioned mortar mixture and then finished.

3.3.4 Surface and Thickness Tolerances

Finished surfaces shall not vary more than 5/16 inch from the testing edge of a 10-foot straightedge. Permissible deficiency in section thickness will be up to 1/4 inch.

3.4 CURB AND GUTTER CONCRETE PLACEMENT AND FINISHING

3.4.1 Formed Curb and Gutter

Concrete shall be placed to the section required in a single lift.

Consolidation shall be achieved by using approved mechanical vibrators. Curve shaped gutters shall be finished with a standard curb "mule".

3.4.2 Curb and Gutter Finishing

Approved slipformed curb and gutter machines may be used in lieu of hand placement.

3.4.3 Concrete Finishing

Exposed surfaces shall be floated and finished with a smooth wood float until true to grade and section and uniform in texture. Floated surfaces shall then be brushed with a fine-hair brush with longitudinal strokes. The edges of the gutter and top of the curb shall be rounded with an edging tool to a radius of 1/2 inch. Immediately after removing the front curb form, the face of the curb shall be rubbed with a wood or concrete rubbing block and water until blemishes, form marks, and tool marks have been removed. The front curb surface, while still wet, shall be brushed in the same manner as the gutter and curb top. The top surface of gutter and entrance shall be finished to grade with a wood float.

3.4.4 Joint Finishing

Curb edges at formed joints shall be finished as indicated.

3.4.5 Surface and Thickness Tolerances

Finished surfaces shall not vary more than 1/4 inch from the testing edge of a 10-foot straightedge. Permissible deficiency in section thickness will be up to 1/4 inch.

3.5 SIDEWALK JOINTS

Sidewalk joints shall be constructed to divide the surface into rectangular areas. Transverse contraction joints shall be spaced at a distance equal to the sidewalk width or 5 feet on centers, whichever is less, and shall be continuous across the slab. Longitudinal contraction joints shall be constructed along the centerline of all sidewalks 10 feet or more in width. Transverse expansion joints shall be installed at sidewalk returns and opposite expansion joints in adjoining curbs. Where the sidewalk is not in contact with the curb, transverse expansion joints shall be installed as indicated. Expansion joints shall be formed about structures and features which project through or into the sidewalk pavement, using joint filler of the type, thickness, and width indicated.

3.5.1 Sidewalk Contraction Joints

The contraction joints shall be formed in the fresh concrete by cutting a groove in the top portion of the slab to a depth of at least one-fourth of the sidewalk slab thickness, using a jointer to cut the groove, or by sawing a groove in the hardened concrete with a power-driven saw, unless otherwise approved. Sawed joints shall be constructed by sawing a groove in the concrete with a 1/8 inch blade to the depth indicated. An ample supply of saw blades shall be available on the job before concrete

placement is started, and at least one standby sawing unit in good working order shall be available at the jobsite at all times during the sawing operations.

3.5.2 Sidewalk Expansion Joints

Expansion joints shall be formed with [3/8] [1/2] [_____] inch joint filler strips. Joint filler shall be placed with top edge 1/4 inch below the surface and shall be held in place with steel pins or other devices to prevent warping of the filler during floating and finishing. Immediately after finishing operations are completed, joint edges shall be rounded with an edging tool having a radius of 1/8 inch, and concrete over the joint filler shall be removed. At the end of the curing period, expansion joints shall be cleaned and filled with joint sealant. [Joints shall be sealed as specified in Section 02760 FIELD MOLDED SEALANTS FOR SEALING JOINTS IN RIGID PAVEMENTS.] [The joint opening shall be thoroughly cleaned before the sealing material is placed. Sealing material shall not be spilled on exposed surfaces of the concrete. Concrete at the joint shall be surface dry and atmospheric and concrete temperatures shall be above 50 degrees F at the time of application of joint sealing material. Excess material on exposed surfaces of the concrete shall be removed immediately and concrete surfaces cleaned.]

3.5.3 Reinforcement Steel Placement

Reinforcement steel shall be accurately and securely fastened in place with suitable supports and ties before the concrete is placed.

3.6 CURB AND GUTTER JOINTS

Curb and gutter joints shall be constructed at right angles to the line of curb and gutter.

3.6.1 Contraction Joints

Contraction joints shall be constructed directly opposite contraction joints in abutting portland cement concrete pavements and spaced so that monolithic sections between curb returns will not be less than 5 feet nor greater than 15 feet in length. Contraction joints shall be constructed by means of 1/8 inch thick separators and of a section conforming to the cross section of the curb and gutter. Separators shall be removed as soon as practicable after concrete has set sufficiently to preserve the width and shape of the joint and prior to finishing.

3.6.2 Expansion Joints

Expansion joints shall be formed by means of preformed expansion joint filler material cut and shaped to the cross section of curb and gutter. Expansion joints shall be provided in curb and gutter directly opposite expansion joints of abutting portland cement concrete pavement, and shall be of the same type and thickness as joints in the pavement. Where curb and gutter do not abut portland cement concrete pavement, expansion joints at least [3/8] [1/2] [_____] inch in width shall be provided at intervals not exceeding [_____] feet. Expansion joints shall be provided in

nonreinforced concrete gutter at locations indicated. Expansion joints shall be sealed immediately following curing of the concrete or as soon thereafter as weather conditions permit. [Joints shall be sealed as specified in Section 02760 FIELD MOLDED SEALANTS FOR SEALING JOINTS IN RIGID PAVEMENTS.] [Expansion joints and the top 1 inch depth of curb and gutter contraction-joints shall be sealed with joint sealant. The joint opening shall be thoroughly cleaned before the sealing material is placed. Sealing material shall not be spilled on exposed surfaces of the concrete. Concrete at the joint shall be surface dry and atmospheric and concrete temperatures shall be above 50 degrees F at the time of application of joint sealing material. Excess material on exposed surfaces of the concrete shall be removed immediately and concrete surfaces cleaned.]

3.7 CURING AND PROTECTION

3.7.1 General Requirements

Concrete shall be protected against loss of moisture and rapid temperature changes for at least 7 days from the beginning of the curing operation. Unhardened concrete shall be protected from rain and flowing water. All equipment needed for adequate curing and protection of the concrete shall be on hand and ready for use before actual concrete placement begins. Protection shall be provided as necessary to prevent cracking of the pavement due to temperature changes during the curing period.

3.7.1.1 Mat Method

The entire exposed surface shall be covered with 2 or more layers of burlap. Mats shall overlap each other at least 6 inches. The mat shall be thoroughly wetted with water prior to placing on concrete surface and shall be kept continuously in a saturated condition and in intimate contact with concrete for not less than 7 days.

3.7.1.2 Impervious Sheeting Method

The entire exposed surface shall be wetted with a fine spray of water and then covered with impervious sheeting material. Sheets shall be laid directly on the concrete surface with the light-colored side up and overlapped 12 inches when a continuous sheet is not used. The curing medium shall not be less than 18-inches wider than the concrete surface to be cured, and shall be securely weighted down by heavy wood planks, or a bank of moist earth placed along edges and laps in the sheets. Sheets shall be satisfactorily repaired or replaced if torn or otherwise damaged during curing. The curing medium shall remain on the concrete surface to be cured for not less than 7 days.

3.7.1.3 Membrane Curing Method

A uniform coating of white-pigmented membrane-curing compound shall be applied to the entire exposed surface of the concrete as soon after finishing as the free water has disappeared from the finished surface. Formed surfaces shall be coated immediately after the forms are removed and in no case longer than 1 hour after the removal of forms. Concrete shall not be allowed to dry before the application of the membrane. If any

drying has occurred, the surface of the concrete shall be moistened with a fine spray of water and the curing compound applied as soon as the free water disappears. Curing compound shall be applied in two coats by hand-operated pressure sprayers at a coverage of approximately 200 square feet per gallon for the total of both coats. The second coat shall be applied in a direction approximately at right angles to the direction of application of the first coat. The compound shall form a uniform, continuous, coherent film that will not check, crack, or peel and shall be free from pinholes or other imperfections. If pinholes, abrasion, or other discontinuities exist, an additional coat shall be applied to the affected areas within 30 minutes. Concrete surfaces that are subjected to heavy rainfall within 3 hours after the curing compound has been applied shall be resprayed by the method and at the coverage specified above. Areas where the curing compound is damaged by subsequent construction operations within the curing period shall be resprayed. Necessary precautions shall be taken to insure that the concrete is properly cured at sawed joints, and that no curing compound enters the joints. The top of the joint opening and the joint groove at exposed edges shall be tightly sealed before the concrete in the region of the joint is resprayed with curing compound. The method used for sealing the joint groove shall prevent loss of moisture from the joint during the entire specified curing period. Approved standby facilities for curing concrete pavement shall be provided at a location accessible to the jobsite for use in the event of mechanical failure of the spraying equipment or other conditions that might prevent correct application of the membrane-curing compound at the proper time. Concrete surfaces to which membrane-curing compounds have been applied shall be adequately protected during the entire curing period from pedestrian and vehicular traffic, except as required for joint-sawing operations and surface tests, and from any other possible damage to the continuity of the membrane.

3.7.2 Backfilling

After curing, debris shall be removed and the area adjoining the concrete shall be backfilled, graded, and compacted to conform to the surrounding area in accordance with lines and grades indicated.

3.7.3 Protection

Completed concrete shall be protected from damage until accepted. The Contractor shall repair damaged concrete and clean concrete discolored during construction. Concrete that is damaged shall be removed and reconstructed for the entire length between regularly scheduled joints. Refinishing the damaged portion will not be acceptable. Removed damaged portions shall be disposed of as directed.

3.7.4 Protective Coating

Protective coating of linseed oil mixture shall be applied to the exposed-to-view concrete surface.

3.7.4.1 Application

Curing and backfilling operation shall be completed prior to applying two

coats of protective coating. Concrete shall be surface dry and clean before each application. Coverage shall be by spray application at not more than 50 square yards per gallon for first application and not more than 70 square yards per gallon for second application, except that the number of applications and coverage for each application for commercially prepared mixture shall be in accordance with the manufacturer's instructions. Coated surfaces shall be protected from vehicular and pedestrian traffic until dry.

3.7.4.2 Precautions

Protective coating shall not be heated by direct application of flame or electrical heaters and shall be protected from exposure to open flame, sparks, and fire adjacent to open containers or applicators. Material shall not be applied at ambient or material temperatures lower than 50 degrees F.

3.8 FIELD QUALITY CONTROL

3.8.1 General Requirements

The Contractor shall perform the inspection and tests described and meet the specified requirements for inspection details and frequency of testing.

Based upon the results of these inspections and tests, the Contractor shall take the action and submit reports as required below, and any additional tests to insure that the requirements of these specifications are met.

3.8.2 Concrete Testing

3.8.2.1 Strength Testing

The Contractor shall provide molded concrete specimens for strength tests. Samples of concrete placed each day shall be taken not less than once a day nor less than once for every 250 cubic yards of concrete. The samples for strength tests shall be taken in accordance with ASTM C 172. Cylinders for acceptance shall be molded in conformance with ASTM C 31/C 31M by an approved testing laboratory. Each strength test result shall be the average of 2 test cylinders from the same concrete sample tested at 28 days, unless otherwise specified or approved. Concrete specified on the basis of compressive strength will be considered satisfactory if the averages of all sets of three consecutive strength test results equal or exceed the specified strength, and no individual strength test result falls below the specified strength by more than 500 psi.

3.8.2.2 Air Content

Air content shall be determined in accordance with ASTM C 173 or ASTM C 231.

ASTM C 231 shall be used with concretes and mortars made with relatively dense natural aggregates. Two tests for air content shall be made on randomly selected batches of each class of concrete placed during each shift. Additional tests shall be made when excessive variation in concrete workability is reported by the placing foreman or the Government inspector.

If results are out of tolerance, the placing foreman shall be notified and

he shall take appropriate action to have the air content corrected at the plant. Additional tests for air content will be performed on each truckload of material until such time as the air content is within the tolerance specified.

3.8.2.3 Slump Test

Two slump tests shall be made on randomly selected batches of each class of concrete for every 250 cubic yards, or fraction thereof, of concrete placed during each shift. Additional tests shall be performed when excessive variation in the workability of the concrete is noted or when excessive crumbling or slumping is noted along the edges of slip-formed concrete.

3.8.3 Thickness Evaluation

The anticipated thickness of the concrete shall be determined prior to placement by passing a template through the formed section or by measuring the depth of opening of the extrusion template of the curb forming machine.

If a slip form paver is used for sidewalk placement, the subgrade shall be true to grade prior to concrete placement and the thickness will be determined by measuring each edge of the completed slab.

3.8.4 Surface Evaluation

The finished surface of each category of the completed work shall be uniform in color and free of blemishes and form or tool marks.

3.9 SURFACE DEFICIENCIES AND CORRECTIONS

3.9.1 Thickness Deficiency

When measurements indicate that the completed concrete section is deficient in thickness by more than 1/4 inch the deficient section will be removed, between regularly scheduled joints, and replaced.

3.9.2 High Areas

In areas not meeting surface smoothness and plan grade requirements, high areas shall be reduced either by rubbing the freshly finished concrete with carborundum brick and water when the concrete is less than 36 hours old or by grinding the hardened concrete with an approved surface grinding machine after the concrete is 36 hours old or more. The area corrected by grinding the surface of the hardened concrete shall not exceed 5 percent of the area of any integral slab, and the depth of grinding shall not exceed 1/4 inch.

Pavement areas requiring grade or surface smoothness corrections in excess of the limits specified above shall be removed and replaced.

3.9.3 Appearance

Exposed surfaces of the finished work will be inspected by the Government and any deficiencies in appearance will be identified. Areas which exhibit excessive cracking, discoloration, form marks, or tool marks or which are otherwise inconsistent with the overall appearances of the work shall be

removed and replaced.

-- End of Section --

A. GENERAL:

1. References: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM)

ASTM D 792-00	Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
ASTM D 1388-96	Standard Test Methods for Stiffness of Fabrics
ASTM D 1777-96	Standard Test Methods for Thickness of Textile Materials
ASTM D 4355-99	Standard Test Method for Deterioration of Geotextiles for Exposure to Ultraviolet Light and Water
ASTM D 5035-95	Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)
ASTM D 5199-01	Standard Test Method for Measuring Nominal Thickness of Geotextiles and Geomembranes
TRM report	The Texas Department of Transportation Texas Transportation Institute Hydraulics and Erosion Control Laboratory www.dot.state.tx.us

2. Submittals: The following shall be submitted:

A. Product Information Sheet(s) containing product description, dimensions, statement of intended or designed use of product, and product photographs, SD01-FIO-RE. The Contractor shall provide documentation from the manufacturer that each lot of turf reinforcement mat meets or exceeds the required specifications.

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B. The Contractor shall submit samples of each type of fastener to be used with the turf reinforcement mat, SD14-FIO-RE.

3. Delivery, Storage, and Handling:

a. Delivery and Storage: Materials delivered to site shall be inspected for damage, unloaded, and stored with a minimum of handling. Materials shall not be stored directly on the ground. The Contractor shall have a copy of the manufacturer's instructions available at the construction site at all times and shall follow these instructions unless directed otherwise by the Contracting Officer.

b. Handling: Materials shall be handled in a manner that ensures delivery to the location of installation in sound, undamaged condition.

B. MATERIALS:

1. Turf Reinforcement Mat: The Contractor shall provide turf reinforcement mat which meets the following requirements:

Shear value shall be 8 psf with an initial value of 2 psf.

The composite turf reinforcement mat shall be a machine-produced permanent three-dimensional netting structure.

The matrix shall be stitch bonded between a heavy duty UV stabilized bottom net with 0.50 x 0.50 inch openings, a heavy duty UV stabilized, dramatically corrugated (crimped) intermediate netting with 0.50 x 0.50 inch openings (+/- 25%), and a super heavy duty UV stabilized top net with 0.50 x 0.50 inch openings (+/- 25%). The netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 1.50 inch (+/- 25%) centers with UV stabilized polypropylene thread to form a permanent three-dimensional structure.

Installation staple patterns shall be clearly marked on the turf reinforcement mattings with environmentally safe paint.

The composite turf reinforcement mat shall be the North American Green C350 Three Phase, Synthetic Industries Landlok TRM 435, North American Green P350, Synthetic Industries Landlok TRM 450, Pyramat, or approved equal. Equal considerations shall include physical and sediment loss and final vegetative density. The permanent

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composite turf reinforcement mat shall have the following additional minimum physical properties:

Material Content

Nettings 8 OZ/SY
 Thread UV Stabilized Polypropylene

Physical Specifications (per roll)

Width 6.50 ft minimum

2. Staples/Fasteners: The Contractor shall provide staples, fasteners, pins, etc. per the manufacturer's recommendation.

C: INSTALLATION:

1. Turf Reinforcement Mat:

a. The Contractor shall install turf reinforcement mat as shown on the drawings. Turf reinforcement mat shall be installed in a directional manner as recommended by the manufacturer.

b. The Contractor shall assume a 20% scrap factor (overlap and burial loss) for turf reinforcement mat. Material will be trenched at the top of each bank, as shown on the Drawings, and shall be installed to match the final graded contour of the soil surface. The Contractor shall account for all scrap and trench-secured quantities in his/her quotation. Such quantities are considered incidental and non-payable for the project.

c. The Contractor shall fill turf reinforcement mat with on-site topsoil even with the top of the turf reinforcement mat. Seeding shall be performed as specified in Section: SEEDING.

2. Staples/Fasteners: Staples, fasteners, pins, and others shall be installed as per the recommendations of the manufacturer.

3. Field Quality Control: Notification: The Contractor shall notify the Contracting Officer 24 hours prior to installation of any portion of the work to allow the Contracting Officer sufficient time to inspect the work and shall obtain approval of all material prior to commencing construction. Any portion of the work installed without inspection may be removed to uncover sufficient portions of the work to allow inspection.

D. PAYMENT AND COVERAGE:

1. Turf Reinforcement Mat: Payment will be by the square foot and shall include the Turf Reinforcement Mat.

2. Blanket Fasteners and Staples: No additional payment shall be made for blanket fasteners, staples, or other connecting hardware. It shall be considered incidental to other contract bid items.

The following coverage in Table 1 shall be in the base bid :

Location (Baseline Station)	Location
Left Bank, 0+20 to 1+40	Shown as Paved Slope Protection on G3.1
Left Bank, 1+20 to 2+10	Shown as Paved Slope Protection on G3.1
Left Bank, 10+00 to 11+20	Shown as Paved Slope Protection on G3.2
Right Bank, 0+20 to 1+40	Shown as Paved Slope Protection on G3.1
Right Bank, 3+90 to 5+20	Shown as Paved Slope Protection on G3.1
Right Bank, 5+10 to 8+35	Shown as Paved Slope Protection on G3.1, and G3.2
Right Bank, 9+90 to 11+50	Shown as Paved Slope Protection on G3.2

Turf Reinforcement Mat shall be placed along the final grade slopes in the area designated above by Station and shown by pattern on the referenced drawings. The Paved slope protection will only be placed if the option is awarded.

The following coverage in Table 2 shall be in the base bid :

Location (Baseline Station)	Elevation (M.S.L.) or Top of Bank (T.O.B.)
Left Bank, 13+10 to 14+20	770
Left Bank, 14+20 to 22+00	T.O.B.
Left Bank, 23+60 to 27+80	T.O.B.
Left Bank, 29+80 to 30+60	T.O.B.
Right Bank, 13+00 to 14+00	768 (at 13+00) to 765 (at 14+00)
Right Bank, 14+00 to 16+00	765
Right Bank, 19+50 to 21+80	762 (at 19+50) to 750 (at 22+00)
Right Bank, 23+50 to 27+80	T.O.B.
Right Bank, 29+80 to 30+40	T.O.B.

Turf Reinforcement Mat shall be placed along the final grade slopes to the elevations or to the top of bank shown in Table 2 in the areas not receiving Paved Slope Protection.

03400 PAVED SLOPE PROTECTION

A. Related Work Specified Elsewhere:

1. Section: 03311 Portland Cement Concrete

B. Scope: The section covers placing flagstones in the indicated concrete slope protection.

C. Flagstone treatment shall meet all the requirements of the above referenced sections except as modified hereinafter.

D. References: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

American Society for Testing and Materials (ASTM):

Designation: C 568-89 Standard Specification for Limestone Building Stone

E. Submittals: Include, but not limited to, the following:

1. Samples: Three sets of samples not less than 4" x 4" in size. Include in each set the full range of exposed color and texture to be expected in the completed work.

2. Shop Drawings: Drawings showing range of sizes, dimensions, sections and profiles of stonework units, the arrangement and provisions for jointing, reinforcement and other necessary details.

F. Material: Limestone material shall comply with requirements of ASTM C568, Category III (high density). The material shall be produced from a limestone quarry with consistent color range and texture. Material shall be buff and grey blend, color range similar to Heritage Blend, supplied by Sturgis Materials, Kansas City, Kansas.

Stones shall have a minimum face size of 4 ft x 4 ft with a minimum thickness of 2" and a maximum thickness of 4".

G. Construction Requirements:

1. The flagstone shall be placed and positioned after the concrete slab has been placed and struck off and before any set has taken place. Stones shall be placed in random pattern and pressed into the concrete a minimum of 1/2 the stone thickness. Stones shall not be buried in concrete.

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2. In order to permit access for placement of the stones, the adjacent sections of the concrete slab shall not be placed at the same time.
3. Care shall be taken not to dislodge stones that have been set. If stones become dislodged and cannot be reset due to initial set of the concrete, the stones shall be reset with mortar.
4. After all stones have been placed, excess concrete or mortar shall be cleaned from the exposed surfaces to the satisfaction of the Contracting Officer.

H. Payment and Coverage: Payment for this work including flagstone concrete and reinforcement shall be made at the unit contract price bid per square yard as listed in the itemized proposal.

The following coverage shall be in Table 2:

Basic Contract Paved Slope Protection	Optional Contract Paved Slope Protection
Left Side, -0+60 to 0+20, Drop Structure	Left Side, 0+20 to 1+40
Left Side, 2+20 to 3+60, Dam 1	Left Side, 1+20 to <u>2+20</u>
Left Side, 5+30 to 7+60, Dam 2	Left Side, <u>9+80</u> to 11+20
Left Side, 8+30 to 10+00, Bridge	Left Side, 13+00 to 14+10
Left Side, 11+20 to 11+80, Dam 3	Left Side, 14+10 to 17+00
Left Side, 12+70 to 13+00, Dam 3	Left Side, 18+20 to 19+00
Left Side, <u>17+00</u> to 19+00, Dam 4	Left Side end, 30+60 to 30+90
Left Side, 22+00 to 25+00, Dam 5	Right Side, 0+20 to 1+40
Left Side, 27+50 to 30+00, Dam 6	Right Side, 3+90 to 5+20
Right Side, -0+60 to 0+20, Drop structure	Right Side, <u>5+20</u> to 8+35
Right Side, 1+40 to 3+90, Dam 1	Right Side, 9+90 to 11+50
Right Side, 8+30 to 9+90, Bridge	<u>Text Deleted</u>
Right Side, 11+50 to 12+80 Dam 3	
Right Side, 16+00 to 19+50, Dam 4	<u>Left Side, 7+10 to 8+40</u>
Right Side, 21+80 to 23+50, Dam 5	
Right Side, <u>28+80</u> to <u>31+20</u> , Dam 6	