



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

February 18, 2009

SUBJECT: FAU Route 8894
(Gerber Road)
Project M-5011(206)
Section 05-00073-01-PV (Edwardsville)
Madison County
Contract No 97364
Item 146 A
March 6, 2009 Letting

TO PROSPECTIVE BIDDERS:

To clarify information it is necessary to revise the following:

Proposal- Revised the Index and pages 1-29 of the Special Provisions. Revised pages 1-8 of the Schedule of Prices.

Plans- Revised Sheets 1-5, 7-10, 12-14, 16-18, 20, 22-24, 27-30, 33, 35-38, 40-41, 43-45, 48, 50-55, 66-67

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal. Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Since the proposal sheets are printed back to back, bidders are cautioned to exercise care when inserting revised and/or added special provisions into their proposals.

Please call 217-782-7806 if any of the above-described material is not included in this transmittal.

Very truly yours,

Charles J. Ingersoll
Engineer of Design and Environment

A handwritten signature in black ink, appearing to read 'Ted B. Walschleger' followed by 'P.E.' in a smaller font.

By: Ted B. Walschleger, P. E.
Engineer of Project Management

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
MADISON	119	08	05-00073-01-PV (EDWARDSVILLE)	M-5011/206/000	FAU 8894

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
XX000679	CUT & CAP EX WATER M	EACH	2.000 X				
XX001386	SAN SEW PVC 8	FOOT	301.000 X				
XX001464	SAN SEW PVC 6	FOOT	120.000 X				
XX002154	MAN TA 4 DIA T3V F&G	EACH	1.000 X				
XX003037	D I FITTINGS & ACCESS	POUND	1,045.000 X				
XX004065	LINE STOP 8	EACH	1.000 X				
XX004360	SAN SEWER BYPASS PUMP	L SUM	1.000 X				
XX004706	CONN TO EX W MAIN 6	EACH	1.000 X				
XX004971	LINE STOP 6	EACH	1.000 X				
XX005631	UTILITY STRUCTURE TBA	EACH	19.000 X				
XX006077	GATE VALVE AND BOX 6	EACH	1.000 X				
XX006653	FENCE (SPECIAL)	FOOT	688.000 X				
XX007805	R C PIPE TEE 78P 30R	EACH	1.000 X				
XX007806	PIPE ELBOW, 6"	EACH	3.000 X				
XX007807	SS WM REQ 6	FOOT	78.000 X				

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
XX007808	HYDRANT GATE VALV ACC	EACH	1.000 X				
XX007809	CORP STOP SER CON 3/4	EACH	5.000 X				
XX007810	UTILITY PIPE REMOVAL	FOOT	1,610.000 X				
XX007811	PVC FORCE MAIN 8	FOOT	647.000 X				
XX007812	SO SAN SEW MAN & LID	EACH	2.000 X				
XX007813	SAN SEW MAN & LID	EACH	1.000 X				
XX007814	FORCE MN BYPASS PUMP	L SUM	1.000 X				
XX007831	SAN SEW SERV L CON 6	EACH	3.000 X				
XX007832	DECOR ROCK STRIP 4	S.Y.	63.000 X				
XX197300	SLOTTED DRAIN	FOOT	22.000 X				
X0301877	CONN EX W MN P 8	EACH	2.000 X				
X0322033	STORM SEW WM REQ 12	FOOT	758.000 X				
X0322923	SEGMENT CONC BLK WALL	SQ FT	2,856.000 X				
X0324440	CONN TO EX W MAIN 8	EACH	1.000 X				
X5012610	CONC HDWL REM PART	EACH	4.000 X				

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X6020074	INLETS TA T3V F&G	EACH	7.000 X	=	=	=	=
X6020075	INLETS TB T3V F&G	EACH	2.000 X	=	=	=	=
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000 X	=	=	=	=
Z0022800	FENCE REMOVAL	FOOT	817.000 X	=	=	=	=
20100110	TREE REMOV 6-15	UNIT	85.000 X	=	=	=	=
20100210	TREE REMOV OVER 15	UNIT	206.000 X	=	=	=	=
20100500	TREE REMOV ACRES	ACRE	0.060 X	=	=	=	=
20101300	TREE PRUN 1-10	EACH	26.000 X	=	=	=	=
20101350	TREE PRUN OVER 10	EACH	30.000 X	=	=	=	=
20200100	EARTH EXCAVATION	CU YD	4,429.000 X	=	=	=	=
20300100	CHANNEL EXCAV	CU YD	106.000 X	=	=	=	=
20400800	FURNISHED EXCAV	CU YD	1,101.000 X	=	=	=	=
20800150	TRENCH BACKFILL	CU YD	1,978.000 X	=	=	=	=
25000200	SEEDING CL 2	ACRE	1.150 X	=	=	=	=
25000400	NITROGEN FERT NUTR	POUND	103.000 X	=	=	=	=

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
25000500	PHOSPHORUS FERT NUTR	POUND	103.000 X	=		=	
25000600	POTASSIUM FERT NUTR	POUND	103.000 X	=		=	
25000700	AGR GROUND LIMESTONE	TON	2.300 X	=		=	
25100115	MULCH METHOD 2	ACRE	1.150 X	=		=	
25100630	EROSION CONTR BLANKET	SQ YD	5,521.000 X	=		=	
28000250	TEMP EROS CONTR SEED	POUND	115.000 X	=		=	
28000400	PERIMETER EROS BAR	FOOT	3,131.000 X	=		=	
28000500	INLET & PIPE PROTECT	EACH	46.000 X	=		=	
28100105	STONE RIPRAP CL A3	SQ YD	7.000 X	=		=	
28200200	FILTER FABRIC	SQ YD	70.000 X	=		=	
30200350	PROCESS MOD SOIL 8	SQ YD	8,751.000 X	=		=	
30201500	LIME	TON	172.000 X	=		=	
31100100	SUB GRAN MAT A	TON	216.000 X	=		=	
31100300	SUB GRAN MAT A 4	SQ YD	8,751.000 X	=		=	
31100700	SUB GRAN MAT A 8	SQ YD	361.000 X	=		=	

* removed pay item 28100109

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
40201000	AGGREGATE-TEMP ACCESS	TON	237.000 X	=			
40600100	BIT MATLS PR CT	GALLON	728.000 X	=			
40600300	AGG PR CT	TON	15.000 X	=			
40600895	CONSTRUC TEST STRIP	EACH	1.000 X	=			
40600990	TEMPORARY RAMP	SQ YD	87.000 X	=			
40603315	HMA SC "C" N70	TON	42.000 X	=			
40701821	HMA PAVT FD 7	SQ YD	7,034.000 X	=			
42300200	PCC DRIVEWAY PAVT 6	SQ YD	1,670.000 X	=			
42400100	PC CONC SIDEWALK 4	SQ FT	10,608.000 X	=			
42400800	DETECTABLE WARNINGS	SQ FT	60.000 X	=			
44000100	PAVEMENT REM	SQ YD	5,327.000 X	=			
44000200	DRIVE PAVEMENT REM	SQ YD	507.000 X	=			
44000300	CURB REM	FOOT	16.000 X	=			
44000500	COMB CURB GUTTER REM	FOOT	113.000 X	=			
44000600	SIDEWALK REM	SQ FT	95.000 X	=			

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
50105220	PIPE CULVERT REMOV	FOOT	504.000 X				
54201333	P CUL 2 RCCP 78	FOOT	146.000 X				
54213660	PRC FLAR END SEC 15	EACH	1.000 X				
54213723	PRC FLAR END SEC 78	EACH	4.000 X				
550A0360	STORM SEW CL A 2 15	FOOT	83.000 X				
550A0430	STORM SEW CL A 2 30	FOOT	59.000 X				
550B0050	STORM SEW CL B 1 12	FOOT	84.000 X				
550B0320	STORM SEW CL B 2 8	FOOT	41.000 X				
550B0340	STORM SEW CL B 2 12	FOOT	947.000 X				
550B0360	STORM SEW CL B 2 15	FOOT	165.000 X				
55100500	STORM SEWER REM 12	FOOT	82.000 X				
56100600	WATER MAIN 6	FOOT	82.000 X				
56100700	WATER MAIN 8	FOOT	584.000 X				
56400400	FIRE HYDNPTS RELOCATED	EACH	3.000 X				
60219540	MAN TA 4 DIA T24F&G	EACH	5.000 X				

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60222240	MAN TA 5 DIA T24F&G	EACH	1.000 X				
60236200	INLETS TA T8G	EACH	2.000 X				
60237470	INLETS TA T24F&G	EACH	18.000 X				
60240301	INLETS TB T8G	EACH	1.000 X				
60240328	INLETS TB T24F&G	EACH	9.000 X				
60255500	MAN ADJUST	EACH	7.000 X				
60257900	MAN RECONST	EACH	1.000 X				
60500060	REMOV INLETS	EACH	3.000 X				
60605000	COMB CC&G TB6.24	FOOT	5,106.000 X				
61100605	MISC CONCRETE	CU YD	2.000 X				
63200310	GUARDRAIL REMOV	FOOT	54.000 X				
67100100	MOBILIZATION	L SUM	1.000 X				
70101700	TRAF CONT & PROT	L SUM	1.000 X				
70300100	SHORT-TERM PAVT MKING	FOOT	232.000 X				
70300220	TEMP PVT MK LINE 4	FOOT	5,655.000 X				

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
70300240	TEMP PVT MK LINE 6	FOOT	294.000 X	=			
70300260	TEMP PVT MK LINE 12	FOOT	122.000 X	=			
70301000	WORK ZONE PAVT MK REM	SQ FT	2,230.000 X	=			
72000100	SIGN PANEL T1	SQ FT	120.000 X	=			
72800100	TELES STL SIN SUPPORT	FOOT	299.000 X	=			
78000200	THPL PVT MK LINE 4	FOOT	5,655.000 X	=			
78000400	THPL PVT MK LINE 6	FOOT	294.000 X	=			
78000600	THPL PVT MK LINE 12	FOOT	122.000 X	=			

TOTAL \$

- NOTE:
1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
 2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.
 3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
 4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

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**SPECIAL PROVISIONS
CITY OF EDWARDSVILLE
GERBER ROAD: FROM EAST LAKE DRIVE TO FRANKLIN AVENUE
MADISON COUNTY**

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CITY OF EDWARDSVILLE

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2007, the latest edition of the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", the latest edition of the "Standard Specifications For Water & Sewer Main Construction In Illinois", the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the "Supplemental Specifications and Recurring Special Provisions," adopted January 1, 2009 indicated on the check sheet included herein which apply to and govern the construction of GERBER ROAD in the City of Edwardsville designated Section 05-00073-01-PV, and in case of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and shall govern.

DESCRIPTION OF WORK

This project consists of the reconstruction of 2,453.90 feet (0.465 miles) of Gerber Road (from East Lake Drive to Franklin Avenue). The improvements include construction layout, temporary erosion control, traffic control and protection, removals and adjustments, earthwork, storm sewers, inlets, manholes, pipe culverts, aggregate sub-base, concrete curb & gutter, hot-mix asphalt pavement, concrete driveway pavement, concrete sidewalk, segmental concrete block walls, fencing, pavement marking, signing and seeding.

SAFETY AND PROTECTION

- A. Contractor shall be responsible for initiating, maintaining and supervision all safety and precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. All employees on the Work and other persons and organizations who may be affected thereby;
 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or of the site; and
 3. Other property at the site adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadway, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons and property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of underground facilities and utility owners when prosecution of the Work may affect them and shall cooperate with them in the protection,

removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 2 or 3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts either of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by either of them or anyone for acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor). Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

- B. Contractor shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent, unless otherwise designated in writing by Contractor to Owner.
- C. In Emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, Contractor, without special instructions or authorization from Engineer or Owner, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give Engineer prompt, written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Engineer determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variations.

STATUS OF UTILITIES WITHIN THE PROJECT LIMITS

Overhead and underground facilities have been plotted from available surveys and records and, therefore, their locations, type and size must be considered approximate only. There also may be utilities for which the locations are unknown. Verification of locations, type and size of overhead and underground utilities, shown or not shown, will be the responsibility of the Contractor.

Existing underground utilities will not be relocated to accommodate the installation of the proposed water main, gravity sanitary sewer, sanitary force main, and appurtenances. The Contractor shall become familiar with the utilities shown and not shown on the plans. Horizontal and or vertical adjustments of the proposed water main, gravity sanitary sewer, sanitary force main, and appurtenances may be required. No claims for extra work, delays, or extensions of time will be granted for existing utilities in conflict with the proposed water main, gravity sanitary sewer, sanitary force main, and appurtenances.

The following utility companies have facilities within the project limits, which will require adjustments.

City of Edwardsville
 Gerber Road
 Madison County

Name & Address of Utility	Type	Location	Estimated Date Adjustment Completed
City of Edwardsville P.O. Box 407 Edwardsville, IL 62025-0407 Phone: (618) 692-7535	Both gravity and force main sanitary sewer.	Gravity sanitary sewer runs throughout the length of the project. Force main sanitary sewer runs from East Lake Drive and stops before Lee Drive.	During construction if necessary.
City of Edwardsville P.O. Box 407 Edwardsville, IL 62025-0407 Phone: (618) 692-7535	Water mains and service lines.	Mains are located throughout the length of the project.	Before or during construction.
AT&T 203 Goethe Street Floor 2 1/2, Collinsville, IL 62234 Phone: (618) 346-6426	Overhead and buried telephone cable.	Telephone lines are located throughout the length of the project.	Before or during construction.
Ameren IP 2600 N Center Street PO Box 378, MC Q-10 Maryville, IL 62062-0378 Phone: (618) 346-1236	Overhead electric lines, power poles, buried gas lines and buried electric lines.	Gas and electric lines are located throughout the length of the project.	Before or during construction.
Charter Communications Mapping & Design Department 941 Charter Commons Town & Country, MO 63017	Overhead and buried Cable TV lines.	Cable TV lines are located throughout the length of the project.	Before or during construction.
Toll Free J.U.L.I.E. Telephone Number (800) 892-0123			

Additional utility information may be obtained by calling the "Joint Utility Location Information for Excavators" phone number, (800) 892-0123.

The above information represents the best information available and is only included for the convenience of the bidder. The applicable provisions of Section 102 and Articles 105.07, 107.20, 107.31 and 108.02 of the Standard Specifications for Road and Bridge Construction shall apply.

If any utility adjustment or removal has not been completed by the date of the Contractor's Notice to Proceed, and the Contractor's operations are adversely affected by the delay, the Contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the Contractor's operations are affected.

TRAFFIC CONTROL AND PROTECTION

The provisions contained herein shall govern over any conflicting provisions of the standard specifications.

Traffic control shall be according to the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual of Uniform Traffic Control Devices for Streets and Highways, these Special Provisions and any special details and Highway Standards contained herein and in the plans.

Layout and maintenance of the traffic control devices shall be the responsibility of the Contractor. The appropriate traffic control devices shall be utilized for the various construction activities being performed by the Contractor. The Contractor is expected to modify the traffic control devices as the work activities proceed and as directed by the Engineer.

Attention is called to Sections 107, 701, and 703 of the Standard Specifications for Road and Bridge Construction, and as amended by the Supplemental Specifications, Recurring Special Provisions, the Special Provisions contained herein, and the following Highway Standards relating to traffic control:

701301	701311	701501	701701	701801
701901	BLR 17-3	BLR 18-4	BLR 21-7	BLR 22-5

Limitations of Construction

The Contractor shall coordinate the items of work in order to keep hazards and traffic inconveniences to a minimum, as specified below.

1. The Contractor shall provide, erect and maintain all the necessary barricades, cones, drums, flags and lights for the warning and protection of traffic, as required by Sections 107 and 701 through 703 of the Standard Specifications, and as modified.
2. The Contractor shall furnish and erect "Road Construction Ahead" signs (W20-1(0)-48) at both ends of the project and at all side roads within the limits of this project when working in the vicinity of the side road intersection.
3. All open excavations, drop offs and utility structure openings within the limits of construction shall be protected with lighted Type II barricades at all times.
4. Flagger traffic control signs used on this project shall be fluorescent orange in color.
5. The Contractor shall be responsible for implementing traffic control inside the road closures whenever the road is not completely closed to traffic. The proper standards shall be erected whenever there is to be public access. All orange warning signs shall be 48" x 48".

This project shall be constructed in stages to minimize disruption to traffic. When portions of the road are closed, Traffic Control and Protection devices shall be placed as indicated on the traffic control plan sheets, IDOT's Highway Standards or as directed by the Engineer. Barricades and warning signs shall be erected at each end of the section and all side road approaches.

Sequence of Construction

The Contractor will schedule his work according to the following requirements and in compliance with Section 701 of the Standard Specification on KEEPING ROADS OPEN TO TRAFFIC Article 701.17(e). Any deviations proposed by the Contractor to the following traffic control plan shall be submitted in writing and approved by the Engineer prior to the Contractor making traffic control revisions.

In general the staging of construction shall be as follows:

STAGE 1 CONSTRUCTION NOTES

1. Gerber Road shall be closed from Sta. 76+50.00 to Sta. 97+44.05 to thru traffic during this stage.
2. Access to all properties shall be maintained at all times. If a Resident's driveway is not accessible during construction, the Contractor shall provide an acceptable parking space as determined by the Engineer along Gerber Road in front of the Resident's property. The Contractor shall also provide an accessible route as determined by the Engineer from the on-street parking area to the Resident's house.
3. ~~The intersection of East Lake Drive and Gerber Road shall remain open to traffic at all times.~~
4. The Contractor shall coordinate utility adjustments and relocations with appropriate utility prior to construction.
- 5: Sta. 78+30.00 to Sta. 86+45.00
 - A. The Contractor shall install temporary erosion control.
 - B. The Contractor shall complete all removal and adjustment items.
 - C. The Contractor shall construct pipe culverts at Sta. 79+34.18 and at Sta. 79+54.33 including riprap.
 - D. The Contractor shall construct roadway embankment and prepare subgrade.
 - E. The Contractor shall construct storm sewer system, gravity sanitary sewer main, sanitary sewer force main and water main.
 - F. The Contractor shall construct segmental concrete block walls and corresponding fences.

- G. The Contractor shall construct modified soil, aggregate sub-base and ccc&g.
6. Sta. 86+45.00 to Sta. 97+44.05.
- A. The Contractor shall install temporary erosion control.
 - B. The Contractor shall construct storm sewer system.
 - C. The Contractor shall complete all removal and adjustment items for SB lane.
 - D. The Contractor shall construct roadway embankment and prepare subgrade for SB lane.
 - E. The Contractor shall construct modified soil, aggregate sub-base and ccc&g for SB lane.
 - F. The Contractor shall complete all removal and adjustment items for NB lane.
 - G. The Contractor shall construct roadway embankment and prepare subgrade for NB lane.
 - H. The Contractor shall construct modified soil, aggregate sub-base and ccc&g for NB lane.
7. The Contractor shall construct HMA Binder course for Stage 1.
8. The Contractor shall construct pcc driveway pavements and pcc sidewalk for Stage 1.
9. The Contractor shall complete final grading for Stage 1.
10. The Contractor shall install appropriate permanent signing, temporary pavement marking and complete permanent seeding for Stage 1.
11. Barricades and construction signs shall be positioned as shown in IDOT standard 701901 and as directed by the Engineer.
12. Type A low intensity lights shall be used on each barricade, drum and sign in advance and within the work area shown during hours of darkness. Drums shall have steady burn lights for hazards or obstacles greater than 100' in length.
13. All warning signs shall have minimum dimensions of 48" by 48" and have a black legend on an orange reflectorized background.
14. All work zone signs are required to meet, as a minimum, type B reflectivity requirements of Table 1091-2 in Article 1091.02 of the Standard Specifications.
15. Longitudinal dimensions may be adjusted to fit field conditions.

16. When fluorescent signs are used, orange flags are not required.
17. All signs shall be post mounted if closure time exceeds four days.
18. All improvements to Gerber Road during this stage shall be completed utilizing traffic control and protection Standards 701901, BLR-21 and BLR-22.
19. Actual number of barricades required may differ from the number shown.

STAGE 2 CONSTRUCTION NOTES

1. Gerber road shall be closed from Sta. 97+44.05 to Sta. 102+83.90 to thru traffic during this stage.
2. Access to all properties shall be maintained at all times. If a Resident's driveway is not accessible during construction, the Contractor shall provide an acceptable parking space as determined by the Engineer along Gerber road in front of the Resident's property. The Contractor shall also provide an accessible route as determined by the Engineer from the on-street parking area to the Resident's house.
3. The Contractor shall coordinate utility adjustments and relocations with appropriate utility prior to construction.
4. The Contractor shall install temporary erosion control.
5. The Contractor shall construct remaining portion of storm sewer system.
6. The Contractor shall complete all removal and adjustment items for SB lane.
7. The Contractor shall construct roadway embankment and prepare subgrade for SB lane.
8. The Contractor shall construct modified soil, aggregate sub-base, and ccc&g for SB lane.
9. The Contractor shall complete all removal and adjustment items for NB lane.
10. The Contractor shall construct roadway embankment and prepare subgrade for NB lane.
11. The Contractor shall construct modified soil, aggregate sub-base, and ccc&g for NB lane.
12. The Contractor shall construct HMA Binder course for Stage 2.
13. The Contractor shall construct HMA surface course for Stages 1 and 2.
14. The Contractor shall construct pcc driveway pavements and pcc sidewalk.

15. The Contractor shall complete final grading.
16. The Contractor shall install appropriate permanent signing, permanent pavement marking and complete permanent seeding.
17. Barricades and construction signs shall be positioned as shown in IDOT Standard 701901 and as directed by the Engineer.
18. Type A low intensity lights shall be used on each barricade, drum and sign in advance and within the work area shown during hours of darkness. Drums shall have steady burn lights for hazards or obstacles greater than 100' in length.
19. All warning signs shall have minimum dimensions of 48" by 48" and have a black legend on an orange reflectorized background.
20. All work zone signs are required to meet, as a minimum, type B reflectivity requirements of Table 1091-2 in Article 1091.02 of the standard specifications.
21. Longitudinal dimensions may be adjusted to fit field conditions.
22. When fluorescent signs are used, orange flags are not required.
23. All signs shall be post mounted if closure time exceeds four days.
24. All improvements to Gerber Road during this stage shall be completed utilizing traffic control and protection Standards 701901, BLR-21 and BLR-22.
25. Actual number of barricades required may differ from the number shown.

Application of Highway Standards for Traffic Control

The traffic control standards and sign locations included in the plans may require minor modification of the placement dimensions of the traffic control devices to take into account side streets, horizontal sight obstructions, etc. The Engineer shall approve any and all modifications. The traffic control standards shall be applied as directed or approved by the Engineer.

Basis of Payment

This price shall be payment in full for all labor, materials, transportation, signs, drums and barricades and incidental work necessary to furnish, install, maintain and remove all traffic control as shown in the plans and as required in these Special Provisions. Traffic Control and Protection for this project will be measured and paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION.

CLEARING

This item shall be performed according to Section 201 of the Standard Specifications, except as modified herein:

Clearing shall also consist of the removal and disposal of concrete block, railroad ties, landscaping timbers, landscaping blocks, concrete block retaining walls, railroad tie retaining walls, etc. These items shall be removed at the time that they interfere with construction. Only items that are within the grading limits, existing ROW, proposed ROW, existing temporary easements or proposed temporary easements shall be removed.

Full depth sawing, for the removal of the various clearing items involved, shall be made at locations shown on the plans or at locations as designated by the Engineer. Full depth sawing will not be measured for payment.

Prior to beginning any clearing work, the Contractor shall notify the property owners of the material that is to be cleared. The property owners shall be allowed to salvage any of the material to be cleared. The Contractor shall dispose of the entire surplus clearing material not claimed by the property owners.

This work will be not be measured for payment, as indicated in Article 201.10 of the Standard Specifications.

TREE REMOVAL

This work shall consist of tree removal operations within the proposed right-of-way, existing right-of-way, proposed temporary easement or proposed permanent easement limits as shown on the tree removal schedule and as shown on the plans, according to Section 201 of the Standard Specifications except as herein specified. The Contractor shall take whatever precautions necessary during all operations to protect public and private property from any harm or damage that might otherwise result from the removal operations. The Contractor shall take further precautions to assure that no debris from the removal operations will fall into the roads that are open to traffic or onto private property.

The Contractor is advised that all trees to be removed for the construction of this project shall be physically marked for that purpose by the Engineer prior to any tree removal operations. The Contractor shall then take whatever precautions necessary to remove only those trees marked.

Tree Removal will be measured for payment as specified in Article 201.10 of the Standard Specifications for the area and/or the individual trees marked for removal as shown in the plans. Payment shall be for all labor, materials and equipment to remove and dispose of trees at the contract unit price for TREE REMOVAL of the units diameter or acres specified as shown in the plans, measured as herein specified.

FURNISHED EXCAVATION

All earthwork embankment shall be completed according to the applicable portions of Section 205 of the Standard Specifications. The Contractor shall be required to place all available topsoil material obtained from the earth excavation operations approximately 4" in depth on as many areas disturbed and proposed for seeding as available topsoil material allows. The cost for topsoil placement will not be paid for separately but considered incidental to FURNISHED EXCAVATION.

TRENCH BACKFILL

This item shall be constructed according to Section 208 of the Standard Specifications, except as modified herein:

Article 208.02 "Materials" shall be changed to require the use of Coarse Aggregate as specified in Article 1004.05 of the Standard Specifications, and that the coarse aggregate gradation shall be CA11. Fine Aggregate will not be allowed.

Trench backfill material shall be compacted according to Method 1, as specified in Article 550.07 of the Standard Specifications.

This work will be paid for at the contract unit price per cubic yard for TRENCH BACKFILL, measured as specified in Article 208.03 of the Standard Specifications as modified herein and no additional compensation will be allowed.

PIPE CULVERT REMOVAL

This work shall consist of the complete removal and off-site disposal of the existing culverts (including headwalls) located throughout the project as shown on the plans, according to Section 501 of the Standard Specifications.

Prior to beginning any removal work, the Engineer will determine which culverts are suitable for future use. These culverts shall be salvaged according to Article 501.02 of the Standard Specifications. The Contractor shall dispose of all culverts not salvaged.

Payment shall be for all labor, materials and equipment required to remove and dispose of or salvage the existing culverts (regardless of the culvert type or size encountered) at the contract unit price per foot for PIPE CULVERT REMOVAL measured as herein specified. Headwall removal will not be paid for separately, but shall be included in the unit cost for PIPE CULVERT REMOVAL.

Trenches resulting from the removal of the pipe culverts and headwalls shall be backfilled according to the TRENCH BACKFILL special provision.

PIPE CULVERTS, TYPE 2, RCCP, 78"

This item shall be constructed according to Section 542 of the Standard Specifications, except as modified herein:

The pipe culverts shall be backfilled according to the TRENCH BACKFILL special provision. In the event the Contractor can not compact the TRENCH BACKFILL between the new pipe culverts and the existing reinforced concrete box culvert according to the TRENCH BACKFILL special provision, the Contractor may use Controlled Low-Strength Material in lieu of TRENCH BACKFILL in the area between the new pipe culverts and the existing reinforced concrete box culvert. Controlled Low-Strength Material shall be constructed according to Section 593 of the Standard Specifications. Controlled Low-Strength Material will be measured and paid for as TRENCH BACKFILL as specified in the TRENCH BACKFILL special provision.

REINFORCED CONCRETE PIPE TEE, 78" PIPE WITH 30" RISER

This work shall consist of providing and installing a reinforced concrete pipe tee, 78" with 30" riser as shown in the plans. All work shall be completed in accordance with the applicable portions of Section 542 of the Standard Specifications and the applicable portions of IDOT Standard 542606. This work shall be measured and paid for at the contract unit price per each for REINFORCED CONCRETE PIPE TEE, 78" PIPE WITH 30" RISER, which price shall include all labor, materials and equipment needed to install the pipe tee as shown in the plans.

UTILITY STRUCTURES TO BE ADJUSTED

All existing utility covers within the limits of the project, which require vertical adjustment necessary to match the proposed grade elevations, shall be adjusted as shown on the plans or as directed by the Engineer. This item includes the adjustment of valve boxes, curb boxes, auxiliary valves for fire hydrants (including necessary adjustment of the hydrant body), etc. to the new elevations required by the proposed improvements. All utility valves which require a lateral adjustment shall be performed by the respective utility company.

Any existing utilities which are damaged by the Contractor while performing this work shall be repaired at his/her own expense.

This work will be paid for at the contract unit price per each for **UTILITY STRUCTURES TO BE ADJUSTED**, which price shall include all necessary materials, labor and equipment necessary to complete the work.

CONCRETE COLLARS

Concrete collars may be required to join the proposed storm sewer or proposed structures with existing pipes or structures. Collars shall be made of class SI concrete. The concrete shall completely fill the void under the pipe; extend approximately one-foot above the crown of the pipe and at least one-foot beyond the joint between the existing and proposed items. Collars shall be

constructed to the satisfaction of the Engineer.

This work will not be measured and paid for separately, but shall be considered incidental to the cost of the proposed item being connected.

STORM SEWERS (WATER MAIN REQUIREMENTS)

This work shall consist of constructing a storm sewer to meet water main standards, as required by the IEPA requirements or when otherwise specified. The work shall be performed according to applicable parts of Section 550 of the Standard Specifications, applicable sections of the current edition of the IEPA Regulations (35 III. Adm. Code 653.119), the applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

This provision shall govern the installation of all storm sewers which do not meet IEPA criteria for separation distance between storm sewer and water mains. Separation criteria for storm sewers placed adjacent to water mains and water services are as follows:

1. Water mains and water service lines shall be located at least 10 feet horizontally from any existing or proposed drain, storm sewer, or sewer service connection.
2. Water mains and water service lines may be located closer than 10 feet to a sewer line when:
 - a. local conditions prevent a lateral separation of 10 feet,
 - b. the water main water service is 18 inches above the crown of the sewer, and
 - c. the water main or water service is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.
3. A water main or water service shall be separated from a sewer so that its invert is a minimum of 18 inches above the crown of the drain or sewer whenever water mains or services cross sewers, sanitary sewers, or sewer service connections. The vertical separation shall be maintained for that portion of the water main or water service located 10 feet horizontally of any sewer or drain crossed.

When it is impossible to meet 1, 2, or 3 above, the storm sewer shall be constructed of PVC pipe equivalent to water main standards of construction. Construction shall extend on each side of the crossing until the perpendicular distance from the water main or water service to the sewer or drain line is at least 10 feet.

Storm sewers constructed to meet water main standards shall be constructed of the following pipe material:

Plastic Pipe

Polyvinyl Chloride (PVC) and Chlorinated Polyvinyl Chloride (CPVC) shall conform to NSF Standard 14 and ASTM Standard B 1784 or AWWA Standard C 900 or C 905. Piping materials designated Class 1245B (PVC 1120), Class 1245C (PVC 1220) and Class 23447B (CPVC 4120) are acceptable in the following pressure ratings: schedule ratings shall be according to ASTM Standards B 1785 (PVC) and F441 (CPVC); standard dimension ratio pressure rated (SDR-PR) shall be according to ASTM Standards D2241 (PVC) and ASTM F442 (CPVC). Schedule 80 is required for all pipe sizes; pipe to be threaded shall be at least Schedule 120. SDR rating of 26 or less shall be required for PVC 1120, PVC 1220 and CPVC 4120. All pipe and fittings shall bear the National Sanitation Foundation (NSF) seal of approval. The piping shall be visibly marked with specific schedule number or SDR rating.

Jointing shall be pressure slip jointed, solvent welded, heat welded, flanged or threaded joint. Special precautions shall be taken to insure clean, dry contact surfaces when making solvent or heat welded joints. Adequate setting time shall be allowed for maximum strength.

Elastomeric seals (gaskets) used for push-on joints shall comply with ASTM Standard F477. Solvent cement shall be specific for the piping material and shall comply with the ASTM Standard D2564 (PVC) and F493 (CPVC) and be approved by NSF.

This work will be measured and paid for at the contract unit price per foot for STORM SEWER (WATER MAIN REQUIREMENTS) of the diameter specified.

INLETS AND MANHOLES WITH TYPE 3V FRAME AND GRATE

This work shall consist of furnishing all labor, equipment and materials required to construct Inlets or Manholes with Type 3V Frame and Grate at locations designated in the plans.

This work shall be done as specified in Section 602 of the Standard Specifications, except manholes or inlets shall be constructed with a Type 3V Frame and Grate as detailed on Standard 604011.

This work shall be paid for at the contract unit price per each for INLETS or MANHOLES, of the type and diameter specified and with TYPE 3V FRAME AND GRATE, which price shall include all frames, grates, lids, concrete, sand cushion, steps, slab top, and all excavation and backfilling.

FENCE (SPECIAL)

This item shall be constructed in accordance with Section 664 of the Standard Specifications, except as modified herein:

The fence shall be an Alumi-Guard 48" Concealed Fastener Ascot 2-Channel fence. The fence shall conform to the following requirements.

- A. Grade: Concealed Fastener
 - 1. Aluminum Channel Sections: 1-1/4 inch deep and 1-1/4 inch wide with top 0.062 inch and sidewalls 0.078 inch wall thickness. Decorative top corner and side cover with 0.070 inch wall thickness.
 - 2. Pickets 3/4 inch by 3/4 inch with a 0.050 inch wall thickness.

- B. Style: Ascot
 - 1. 2-channel
 - 2. Picket spacing: Standard 3.875 inches.
 - 3. Panel length: Nominal 93 inches.
 - 4. Panel height: 48 inches.
 - 5. Posts: 2 inch by 2 inch with 0.093 inch wall thickness.
 - 6. Post length shall be per manufacturer's specifications.

- C. Color: Black

- D. Finish: Polyester enamel, medium gloss, applied to over 2 mils thickness and complying with AAMA 2604.

In addition to the Article 664 of the Standard Specifications, the fence shall be installed in accordance with the specifications of the fence manufacturer, in accordance with the specifications of the segmental concrete block wall manufacturer and in accordance with the segmental concrete block wall shop drawings. The fence shall be installed by racking so it follows the ground line.

This work will be paid for at the contract unit price per foot for FENCE (SPECIAL).

FENCE REMOVAL

This work shall consist of removing all existing fencing, posts, supports and associated hardware at the locations shown in the plans or as directed by the Engineer. All materials included with the removal shall be disposed of off-site by the Contractor. All work shall be completed according to the applicable portions of Section 201 of the Standard Specifications. The Contractor shall coordinate the fence removal with the appropriate property owners prior to initiating the work. This work will be measured and paid for at the contract unit price per foot for FENCE REMOVAL, which shall include removal and off-site disposal of all existing fence shown for removal in the plans and the schedules.

CONCRETE HEADWALL REMOVAL PARTIAL

This work shall consist of the partial removal and off-site disposal of concrete headwalls on the end of the culvert as shown in the plans. This item of work shall be accomplished according to applicable provisions of Section 501 of the Standard Specifications. The quantity of partial headwalls to be paid for shall be counted and measured per each. No distinction will be made for size, type or condition of these items for payment.

All material, equipment and labor necessary to complete this work as specified above will be included in the unit price bid per each for CONCRETE HEADWALL REMOVAL PARTIAL.

SLOTTED VANE DRAIN

This work shall consist of furnishing all labor, equipment and materials required to construct SLOTTED VANE DRAIN at locations designated in the plans and as directed by the Engineer.

The SLOTTED VANE DRAIN shall be a Neenah R-3599-A, East Jordan Iron Works V-7950 or equivalent.

This work shall be done according to applicable portions of Section 550 and Section 602 of the Standard Specifications and according to the manufacturer's specifications.

This work shall be paid for at the contract unit price per foot for SLOTTED VANE DRAIN, complete in place.

PIPE ELBOW, 6"

This work shall consist of furnishing all labor, equipment and materials required to construct PIPE ELBOWS, 6" at locations designated in the plans and as directed by the Engineer.

This work shall be done as specified in Section 542 of the Standard Specifications, except the PIPE ELBOW, 6" material shall match that of the proposed connecting storm sewer.

This work shall be paid for at the contract unit price per each for PIPE ELBOW, 6" complete in place.

WATER MAIN, OF THE DIAMETER SPECIFIED

Under this item, contractor shall furnish and install water main of the appropriate diameter as shown on the plans and as specified here in. Water main pipe shall be PVC. The sections of the Standard Specification For Water & Sewer Main Construction In Illinois related to these items are as follows:

DIVISION II EXCAVATION AND CLEAN UP

Section 20 – Excavation and Backfill for Underground Conduits

Section 21 – Restoration of Surfaces

Section 22 – Finishing and Clean Up for Underground Conduits

DIVISION IV WATER DISTRIBUTION

Buried PVC Pipe shall be in accordance with ASTM D 2241, SDR 21.

Joints: Push-on type with rubber gaskets. PVC pipe shall have rubber gasketed joints, shall be Standard Dimension Ratio 21 (Pressure Class 200) and shall conform to ASTM D2241 (latest revision). PVC pipe shall have outside diameter equal to ductile iron pipe. Rubber gaskets shall meet ASTM Specification F477.

For all PVC pipe, additives and fillers, including but not limited to stabilizers, antioxidants, lubricants, colorants, etc. shall not exceed ten (10) parts by weight per one hundred (100) parts of the resin in the compound. Manufacturers will be required to certify that their pipe compound meets this requirement as well as cell classification.

All pipe shall be furnished with a painted ring or other acceptable marking suitable for determining whether or not the pipe has been properly inserted into the coupling. Each pipe shall be clearly marked with the nominal diameter, manufacturer's name, class pressure rating and identification code.

Insulated # 12 copper wires shall be buried within approximately six (6) inches above the pipe for the entire length of the water main for locating purposes. The ends of the wires shall be brought to the surface and secured within each valve box and or fire hydrant. Ends of wires which are to be buried shall be bonded together so as to form a continuous length of wire between valve boxes. All splices shall be Telegraph Tie with rubber tape seal.

This work shall be paid for at the contract unit price per lineal foot for WATER MAIN, for each of the diameters specified. Payment shall be full compensation for trench excavation, furnishing and installation of pipe, pipe bedding, tracer wire, pipe testing, flushing and disinfection and all other materials, equipment and labor necessary to complete the water main installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

PVC FORCE MAIN PIPE, 8"

Under this item, contractor shall furnish and install force main of the appropriate diameter as shown on the plans and as specified here in. The sections of the Standard Specification for Water & Sewer Main Construction in Illinois related to these items are as follows:

DIVISION II EXCAVATION AND CLEAN UP

Section 20 – Excavation and Backfill for Underground Conduits

Section 21 – Restoration of Surfaces

Section 22 – Finishing and Clean Up for Underground Conduits

Buried PVC Pipe shall be in accordance with ASTM D 2241, SDR 21.

Joints: Push-on type with rubber gaskets. PVC pipe shall have rubber gasketed joints, shall be Standard Dimension Ratio 21 (Pressure Class 200) and shall conform to ASTM D2241 (latest revision). PVC pipe shall have outside diameter equal to ductile iron pipe. Rubber gaskets shall meet ASTM Specification F477.

For all PVC pipe, additives and fillers, including but not limited to stabilizers, antioxidants, lubricants, colorants, etc. shall not exceed ten (10) parts by weight per one hundred (100) parts of the resin in the compound. Manufacturers will be required to certify that their pipe compound meets this requirement as well as cell classification.

All pipe shall be furnished with a painted ring or other acceptable marking suitable for determining whether or not the pipe has been properly inserted into the coupling. Each pipe shall be clearly marked with the nominal diameter, manufacturer's name, class pressure rating and identification code.

This work shall be paid for at the contract unit price per lineal foot for PVC FORCEMAIN PIPE, 8". Payment shall be full compensation for trench excavation, furnishing and installation of pipe, pipe bedding, pipe testing, and all other materials, equipment and labor necessary to complete the force main installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

SANITARY SEWERS, PVC, OF THE DIAMETER SPECIFIED

Under this item, contractor shall furnish and install gravity sewer of the appropriate diameter as shown on the plans and as specified here in. The sections of the Standard Specification For Water & Sewer Main Construction In Illinois related to these items are as follows:

DIVISION II EXCAVATION AND CLEAN UP

Section 20 – Excavation and Backfill for Underground Conduits

Section 21 – Restoration of Surfaces

Section 22 – Finishing and Clean Up for Underground Conduits

DIVISION III SANITARY SEWER AND STORM SEWERS

Buried PVC Pipe shall be in accordance with ASTM D 2241, SDR 26.

Joints: Push-on type with rubber gaskets. PVC pipe shall have rubber gasketed joints, shall be Standard Dimension Ratio 26(Pressure Class 160) and shall conform to ASTM D2241 (latest revision). PVC pipe shall have outside diameter equal to ductile iron pipe. Rubber gaskets shall meet ASTM Specification F477.

For all PVC pipe, additives and fillers, including but not limited to stabilizers, antioxidants, lubricants, colorants, etc. shall not exceed ten (10) parts by weight per one hundred (100) parts of the resin in the compound. Manufacturers will be required to certify that their pipe compound meets this requirement as well as cell classification.

All pipe shall be furnished with a painted ring or other acceptable marking suitable for determining whether or not the pipe has been properly inserted into the coupling. Each pipe shall be clearly marked with the nominal diameter, manufacturer's name, class pressure rating and identification code.

This work shall be paid for at the contract unit price per lineal foot for **SANITARY SEWERS, PVC, for each of the diameters specified.** Payment shall be full compensation for trench excavation, furnishing and installation of pipe, pipe bedding, pipe testing, and all other materials, equipment and labor necessary to complete the sanitary sewer installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the **TRENCH BACKFILL** special provision.

SANITARY SEWER SERVICE LATERAL CONNECTION, 6"

Under this item, contractor shall furnish and install PVC service lateral connections of the appropriate diameter as shown on the plans and as specified here in. The sections of the Standard Specification For Water & Sewer Main Construction In Illinois related to these items are as follows:

DIVISION II EXCAVATION AND CLEAN UP

Section 20 – Excavation and Backfill for Underground Conduits

Section 21 – Restoration of Surfaces

Section 22 – Finishing and Clean Up for Underground Conduits

DIVISION III SANITARY SEWER AND STORM SEWERS

Buried PVC service lateral connections shall be in accordance with ASTM D 2241, SDR 26.

For all PVC service lateral connections, additives and fillers, including but not limited to stabilizers, antioxidants, lubricants, colorants, etc. shall not exceed ten (10) parts by weight per one hundred (100) parts of the resin in the compound. Manufacturers will be required to certify that their pipe compound meets this requirement as well as cell classification.

This work shall be paid for at the contract unit price per each for **SANITARY SEWER SERVICE LATERAL CONNECTION, 6"**. Payment shall be full compensation for trench excavation, furnishing and installation of PVC service lateral connection and all fittings necessary to install the service lateral connection, pipe bedding, pipe testing, and all other materials, equipment and labor necessary to complete the service lateral connection installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the **TRENCH BACKFILL** special provision.

DUCTILE IRON FITTINGS AND ACCESSORIES, OF THE TYPE SPECIFIED

Under this item, contractor shall furnish and install ductile iron fittings of the appropriate diameter as shown on the plans and as specified here in.

Ductile Iron Fittings shall be in accordance with ANSI A21.53 (AWWA C153). All fittings shall be standard body, mechanical joint type with Mega Lugs, unless noted otherwise and shall be of class or pressure rating not less than that of connecting pipe.

Cement Lining shall be in accordance with ANSI A21.4 or AWWA C104 unless otherwise indicated, all ductile iron pipe and fittings shall be cement lined and coated within an asphalt seal coat.

Exterior of fittings shall be Tar coated in accordance with ANSI A21.51.

The weight used for payment purposes shall be only the weight listed in AWWA C153. No separate payment will be made for fasteners, gaskets, accessories or mega lugs. Costs associated with the fasteners, gaskets, accessories and mega lugs shall be incidental to the per pound unit price for DUCTILE IRON FITTINGS AND ACCESSORIES, of the type specified pay item.

Note that fire hydrant tees are to be included in the pay item for fire hydrants and not to be included in the DUCTILE IRON FITTINGS AND ACCESSORIES, of the type specified pay item.

This work shall be paid for at the contract unit price per pound for DUCTILE IRON FITTINGS, of the type specified. Payment shall be full compensation for trench excavation, furnishing and installation of fittings, nuts and bolts, mega lugs, thrust blocking, poly wrap, tracer wire, testing, flushing and disinfection and all other materials, equipment and labor necessary to complete the Ductile Iron Fittings installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

GATE VALVE AND BOX 6'

Under this item, contractor shall furnish and install gate valve with valve box of the appropriate diameter as shown on the plans and as specified here in.

Gate valves shall be suitable for buried use and shall be resilient-seated type with non-rising stem and mechanical joints. Valves shall open counterclockwise. Valves shall conform to AWWA C509 and shall be Kennedy/Clow, Mueller, American Flow or equal. Bronze seated gate valves meeting AWWA Specification C500 shall not be permitted.

Valve boxes shall be two-piece, cast iron, screw-type adjustable boxes with cover marked "WATER". Box shall have 5-1/4" inside diameter.

Note that fire hydrant gate valves are to be included in the pay item for fire hydrants and not to be included in the **GATE VALVE AND BOX** pay item.

This work shall be paid for at the contract unit price per each for **GATE VALVE AND BOX 6'**. Payment shall be full compensation for trench excavation, furnishing and installation of valves, nuts and bolts, tracer wire, testing, flushing and disinfection and all other materials, equipment and labor necessary to complete the **GATE VALVE AND BOX** installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

HYDRANT GATE VALVE AND ACCESSORIES

Under this item, contractor shall furnish and install fire hydrant tee, locking rings, 6" pipe from tee to hydrant, and 6" gate valve with valve box as shown on the plans and as specified here in.

This work shall be paid for at the contract unit price per each for HYDRANT GATE VALVE AND ACCESSORIES. Payment shall be full compensation for trench excavation, furnishing and installation of fire hydrant tee, locking rings, 6" pipe from tee to hydrant, 6" gate valve with valve box, nuts and bolts, tracer wire, testing, flushing and disinfection and all other materials, equipment and labor necessary to complete the HYDRANT GATE VALVE AND ACCESSORIES installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

FIRE HYDRANTS TO BE RELOCATED

Under this item, contractor shall furnish all labor and equipment necessary to remove the existing fire hydrant off the existing water main, relocate to a minimum of 5 feet behind back-of-curb, and reconnect it to the water main as shown on the plans and as specified here in.

This work shall be paid for at the contract unit price per each for **FIRE HYDRANTS TO BE RELOCATED**. Payment shall be full compensation for providing all labor and equipment necessary to remove the existing fire hydrant off the existing water main, relocating to a minimum of 5 feet behind back-of-curb, and reconnecting it to the water main, testing, flushing and disinfection and all other materials, equipment and labor necessary to complete the **FIRE HYDRANTS TO BE RELOCATED** as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

CORPORATION STOP AND HOUSE SERVICE CONNECTION, 3/4"

The Contractor shall furnish and install 3/4 inch water service line in accordance with the Drawings, Special Provisions and the following portion of the Standard Specification for Water & Sewer Main Construction in Illinois:

DIVISION IV WATER DISTRIBUTION

- Section 40 - Service Pipe, Stops, Fittings and Boxes (40-2.06)
- Section 41 - Water Service Piping (41-2.11)
 - Water Service Connection (41-2.12)

Service line shall consist of making a new tap to the proposed water main and placing 3/4" Type K copper service pipe to the service meter.

A service saddle shall be used for tapping the PVC water main. The service saddle shall be ductile iron with stainless steel strap. Service saddle shall be Mueller DR1S Series or equivalent Ford Meter Box Company or Smith Blair service saddle. The corporation stop shall be Mueller or approved equal per the City of Edwardsville requirements.

This work shall be paid for at the contract unit price per each for CORPORATION STOP AND HOUSE SERVICE CONNECTION, ¾". Payment shall be full compensation for trench excavation, furnishing and installing service saddle, tapping the water main, furnishing and installation of ¾" corporation stop, copper pipe, tracer wire, connection to existing meter pit, testing, flushing and disinfection and all other materials, equipment and labor necessary to complete the CORPORATION STOP AND HOUSE SERVICE CONNECTION, ¾" installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

CONNECTION TO EXISTING FORCE MAIN, 8"

Under this item, contractor shall connect the existing 8" force main to the proposed 8" force main as shown on the plans and as specified here in.

The work shall consist of cutting the existing 8" main and the installation of the 8" Solid Sleeve with all accessories, mega lugs, thrust blocking and to connect the existing 8" force main to the proposed 8" force main as shown on the plans and as specified here in.

This work shall be paid for at the contract unit price per each for CONNECTION TO EXISTING ~~Water mains (pressure)~~, 8". Payment shall be full compensation for trench excavation, cutting the existing 8" force main, 8" Solid Sleeve, mega lugs and thrust block, testing, and all other materials, equipment and labor necessary to complete the ~~Connection to existing water mains (pressure), 8"~~ installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

CONNECT TO EXISTING WATER MAIN, OF THE DIAMETER SPECIFIED

Under this item, Contractor shall connect the proposed water main to the existing water main of the appropriate diameter as shown on the plans and as specified here in.

The work shall consist of installing tapping tee, tapping valve with valve box of the appropriate diameter, with all accessories, mega lugs, thrust blocking, and tracer wire, and tap existing water main of the appropriate diameter as shown on the plans and as specified here in.

This work shall be paid for at the contract unit price per each for CONNECT TO EXISTING WATER MAIN for each of the diameters listed. Payment shall be full compensation for trench excavation, the installation tapping tee, tapping valve with valve box of the appropriate diameter, with all accessories, mega lugs, thrust blocking, and tracer wire, and tap existing water main of the appropriate diameter, testing, flushing and disinfection and all other materials, equipment and labor necessary to complete the CONNECT TO EXISTING WATER MAIN installation as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

LINE STOP, OF THE DIAMETER SPECIFIED

This item shall include all work, equipment and labor necessary to install line stop of the appropriate diameter after the proposed main has been installed, tested, and accepted and services have been changed over permanently to the new main.

The work shall consist of coordinating with the City for the required service interruption, shutting the main off using a line stop of the appropriate diameter, excavation to expose the main as shown on the plans and as specified here in.

This work shall be paid for at the contract unit price per each for LINE STOP for each of the diameters listed. Payment shall be full compensation for trench excavation, installing a line stop of the appropriate diameter, equipment and labor necessary to complete the LINE STOP as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

CUT AND CAP EXISTING WATER MAIN, OF THE DIAMETER SPECIFIED

This item shall include all work, equipment and labor necessary to cut and cap the existing water main for the appropriate diameter after the proposed main of the appropriate diameter has been installed, tested, and accepted and services have been changed over permanently to the new main.

The work shall consist of coordinating with the City for the required service interruption, shutting the main off, excavation to expose the main, cutting the existing main, and capping the existing main with thrust block to permanently block the line.

This work shall be paid for at the contract unit price per each for CUT AND CAP EXISTING WATER MAIN for each of the diameters listed. Payment shall be full compensation for trench excavation, cutting of the ends of the pipe, installing cap of the appropriate diameter, and pouring a thrust block and all other materials, equipment and labor necessary to complete the CUT AND CAP EXISTING WATER MAIN as shown on the plans and specified here in. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

UTILITY PIPE REMOVAL

This item shall include all work, equipment and labor necessary to remove existing utility pipes.

The work shall consist of coordinating with the City to make sure all utility pipes to be removed are no longer active.

This work shall be paid for at the contract unit price per lineal foot for UTILITY PIPE REMOVAL. Payment shall be full compensation for trench excavation, pipe removal and all other materials, equipment and labor necessary to complete the UTILITY PIPE REMOVAL. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

SANITARY SEWER MANHOLE AND LID

Under this item, contractor shall furnish and install Sanitary Sewer Manhole and Lid of the appropriate diameter as shown on the plans and as specified here in. The sections of the Standard Specification For Water & Sewer Main Construction In Illinois related to these items are as follows:

DIVISION II EXCAVATION AND CLEAN UP

Section 20 – Excavation and Backfill for Underground Conduits

Section 21 – Restoration of Surfaces

Section 22 – Finishing and Clean Up for Underground Conduits

DIVISION III SANITARY SEWERS AND STORM SEWERS

Section 32 – Manholes for Storm and Sanitary Sewers

Materials for Sanitary Sewer Manholes: Manhole Sections shall be Reinforced precast concrete in accordance with ASTM C478 with gaskets in accordance with ASTM C923.

Components for Sanitary Sewer Manholes

- A. Lid and Frame: ASTM A48, Class 35B cast iron construction, machined flat bearing surface, removable lid, closed lid design.
- B. Manhole Steps: 3/4 inch diameter formed integral with manhole sections.
- C. Base Pad: Cast-in-place or precast concrete.

Configuration for Sanitary Sewer Manholes

- A. Shaft Construction: Concentric with eccentric cone top section.
- B. Shape: Cylindrical.
- C. Clear Inside Dimensions: 4 feet.
- D. Design Depth: As indicated.
- E. Clear Lid Opening: 24 inches.
- F. Pipe Entry: Provide openings as indicated.
- G. Steps: 12 inches wide, 16 inches on center vertically, set into manhole wall.

Placing Manhole Sections

- A. Place base pad, trowel top surface level.
- B. Place manhole sections plumb and level, trim to correct elevations, anchor to base pad.
- C. Where manholes are to be connected to existing sewers or constructed over existing sewers, the Contractor shall submit a method of procedure to the Engineer detailing the method of construction and how the existing sewer lines shall be kept in service while manhole installation is conducted.

Inspection and testing for water-tightness or damage is required prior to placing into service. Vacuum testing, as specified for concrete sewer manholes, shall conform to the test procedures described in ASTM C 1244.

This work shall be paid for at the contract unit price per each for SANITARY SEWER MANHOLE AND LID. Payment shall be full compensation for trench excavation, furnishing and installation of the manhole, install sanitary sewer pipe through gaskets, form manhole invert, and all other materials, equipment and labor necessary to complete the SANITARY SEWER MANHOLE AND LID. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

SET OVER SANITARY SEWER MANHOLE AND LID

Under this item, contractor shall furnish and install Set Over Sanitary Sewer Manhole and Lid of the appropriate diameter as shown on the plans and as specified here in. The sections of the Standard Specification For Water & Sewer Main Construction In Illinois related to these items are as follows:

DIVISION II EXCAVATION AND CLEAN UP

Section 20 – Excavation and Backfill for Underground Conduits

Section 21 – Restoration of Surfaces

Section 22 – Finishing and Clean Up for Underground Conduits

DIVISION III SANITARY SEWERS AND STORM SEWERS

Section 32 – Manholes for Storm and Sanitary Sewers

Materials for Sanitary Sewer Manholes: Manhole Sections shall be Reinforced precast concrete in accordance with ASTM C478 with gaskets in accordance with ASTM C923.

Components for Sanitary Sewer Manholes

- A. Lid and Frame: ASTM A48, Class 30B cast iron construction, machined flat bearing surface, removable lid, closed lid design.
- B. Manhole Steps: 3/4 inch diameter formed integral with manhole sections.
- C. Base Pad: Cast-in-place or precast concrete.

Configuration for Sanitary Sewer Manholes

- A. Shaft Construction: Concentric with eccentric cone top section.
- B. Shape: Cylindrical.
- C. Clear Inside Dimensions: 4 feet.
- D. Design Depth: As indicated.
- E. Clear Lid Opening: 24 inches.
- F. Pipe Entry: Provide openings as indicated.
- G. Steps: 12 inches wide, 16 inches on center vertically, set into manhole wall.

Placing Manhole Sections

- A. Place base pad, trowel top surface level.
- B. Place manhole sections plumb and level, trim to correct elevations, anchor to base pad.
- C. Where manholes are to be connected to existing sewers or constructed over existing sewers, the Contractor shall submit a method of procedure to the Engineer detailing the method of construction and how the existing sewer lines shall be kept in service while manhole installation is conducted.

Inspection and testing for water-tightness or damage is required prior to placing into service. Vacuum testing, as specified for concrete sewer manholes, shall conform to the test procedures described in ASTM C 1244.

This work shall be paid for at the contract unit price per each for SET OVER SANITARY SEWER MANHOLE AND LID. Payment shall be full compensation for trench excavation, furnishing and installation of the manhole, install sanitary sewer pipe through gaskets, form manhole invert, and all other materials, equipment and labor necessary to complete the SET OVER SANITARY SEWER MANHOLE AND LID. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

BYPASS PUMPING, OF THE ITEM SPECIFIED

Under this item, contractor shall furnish and install equipment for temporary bypass pumping, of the item specified. Contractor will be required to bypass pump sanitary sewers for the gravity sewer reconstruction and the force main relocation.

The bypass pumping for the gravity sewer relocation will begin at the existing manhole at Sta. 87+92.63 and empty into the wet well at Sta. 78+48.00. The bypass pumping for the force main relocation will begin at Sta. 78+94.08 where the proposed force main begins and will end at Sta. 85+00.00 where the proposed force main ends.

The bypass pumping system shall meet the requirements of all codes and regulatory agencies having jurisdiction.

The Contractor is notified that maintaining the water flows to be bypassed is critical and must be maintained at all times. If the Contractor fails to maintain the temporary pumping systems, the Contractor shall be responsible for any fines levied on the Owner by the Illinois Environmental Protection Agency, or any other applicable agency or entity.

The Contractor shall have the option of using either electric submersible pumps or diesel engine driven pumps. If electric submersible pumps are used, the cost of electricity shall be paid by Contractor.

The Contractor shall furnish, install and operate all materials, labor, supervision, equipment, electrical power, fuel, pumps, pipe, hoses, fittings, controls, maintenance, etc. to implement a temporary pumping system for the purpose of diverting sanitary sewer from existing manhole to existing lift station wet well.

The design, installation and operation of the bypass pumping systems shall be the Contractor's responsibility. The Contractor shall employ the services of a subcontractor who can demonstrate to the Owner that he specializes in the design and operation of temporary bypass pumping systems.

It is required under this section that the Contractor provide all necessary means to safely convey the flows past and around the work area. It will not be permitted to stop or impede any other plant flows under any circumstances.

Bypass piping may be rigid or flexible as long as it is watertight. The bypass piping shall be located so as not to interfere with the proposed improvements/work to be conducted under this contract and so as not to interfere with plant operations.

The bypass pumping system for the force main relocation shall be located at the following locations meeting the following requirements.

<u>Type of Liquid to be Pumped</u>	<u>Flow Rate (gpm)</u>	<u>Pump From</u>	<u>Pump To</u>
1. Raw Sewage	940	Lift Station Valve Vault	End of Proposed Force Main

Use Existing lift station pumps and controls for bypass pumping for force main relocation work.

Install temporary 8" pipe to be used for bypass pumping for force main relocation work.

The bypass pumping system for the sanitary sewer relocation shall be located at the following locations meeting the following requirements.

<u>Type of Liquid to be Pumped</u>	<u>Flow Rate (gpm)</u>	<u>Pump From</u>	<u>Pump To</u>
1. Raw Sewage	200	Existing Gravity Sewer Manhole at Sta. 87+93	Existing Lift Station Wet Well

Electric Submersible Pumps

- a. The pumps and drives shall be rated for continuous duty and shall be capable of pumping the specified flow range without surging, cavitation, or vibration. The pump shall not overload the driver at any point on the pump operating curve. Rotative components shall be statically and dynamically balanced. The pump shall be suitable for use with raw unscreened sewage and trash. The pump shall be a self-contained unit, designed for temporary use.
- b. All pumps used shall be an electric submersible, fully automatic priming unit that does not require the use of foot-valves or vacuum pumps in the priming system. The pumps shall be electric-powered. Pumps used must be constructed to allow intermittent dry running to accommodate the cyclical nature of influent flows to the plant.

- c. The Contractor shall provide the necessary start/stop controls for each pump. Controls shall include an auto-start/stop float system, which includes high float to turn pump(s) on and low float to turn pump(s) off.
- d. Contractor shall provide the necessary start/stop controls for each bypass pumping system. Proper controls shall be provided to start the standby pump automatically in the event of a failure of the lead pump.

Diesel Engine Driven Pumps

- a. The pumps and drives shall be rated for continuous duty and shall be capable of pumping the specified flow range without surging, cavitation, or vibration. The pump shall not overload the driver at any point on the pump-operating curve. Rotative components shall be statically and dynamically balanced. The pump shall be suitable for use with backwash water. The pump shall be a self-contained unit, designed for temporary use.
- b. All pumps shall be fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in the priming system. The pumps shall be diesel powered. All pumps used must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows.
- c. Pumps shall be engine driven on trailers with centralized lifting bracket and integral fuel tank. Each pump shall be direct coupled to an electric start diesel engine. Provide an integral belt-driving compressor to operate the air ejector priming system.
- d. Pump shall be equipped with an air ejector priming system that consists of an air compressor that blows air through and continuously prime the pump.
- e. Pump shall have a ductile iron casing, suction cover, separation tank, and non-return valve, a high nickel steel open impeller, front and rear wear plate, shaft sleeve and shaft.
- f. Pump seals shall be constructed of silicon carbide, of the mechanical type, and shall be located in an oil bath. This will allow lubrication by the oil, not the wastewater and will allow pump operation at periods of low flow.
- g. Contractor shall provide the necessary start/stop controls for each pump. Proper controls shall be provided to start the standby pump automatically in the event of a failure of the lead pump is electric drive.

In order to prevent the accidental spillage of flows, all discharge system must be constructed of rigid or flexible pipe with positive locking, leak-proof connections. All pipe must be 150 psi rated minimum working pressure and full vacuum.

Temporary plugs shall be inflatable plugs constructed of specially treated industrial fabric and reinforced neoprene. Plugs shall be equipped with steel pull rings and aluminum end clamps. All plugs shall be firmly attached to a stationary object at ground level by a steel cable in order to prevent loss of plug in the pipeline.

Equipment specified in this Section shall be installed in strict accordance with the manufacturer's instructions and recommendations. Installation shall include furnishing oil, fuel, grease, lubricants, tools and spare parts that may be required to maintain the operation of the bypass pumping systems throughout the construction period, as recommended by the manufacturer.

The Contractor shall be solely responsible for maintaining the bypass pumping systems and appurtenances. At the end of the construction period, the Contractor shall remove the pumps, and discharge piping and appurtenances.

The Contractor shall insure that the bypass pumping systems are continuously and properly maintained and a responsible employee of the Contractor shall be assigned to the bypass pumping systems.

Upon acceptance of the new improvements, the Contractor shall remove all components of the bypass pumping systems. The Contractor shall perform all restoration work in conformance with the Contract Documents.

This work shall be paid for at the contract unit price per lump sum for BYPASS PUMPING, of the item specified. Payment shall be full compensation for trench excavation, furnishing and installation of the manhole, install sanitary sewer pipe through gaskets, and all other materials, equipment and labor necessary to complete the BYPASS PUMPING, of the item specified. Trenches resulting from this work shall be backfilled according to the TRENCH BACKFILL special provision.

DECORATIVE ROCK STRIP, 4"

Contractor shall install an 18" wide strip of decorative rock directly behind the SEGMENTAL CONCRETE BLOCK WALL as shown on the plans and specified here in. Decorative stones shall be smooth, round and multi-colored with a nominal diameter of 3/4". The Contractor shall submit samples for approval of the City before ordering the rock.

This work will be paid for at the contract unit price per square yard for DECORATIVE ROCK STRIP, 4", which price shall include all necessary materials, labor and equipment necessary to complete the work. FILTER FABRIC shall be installed beneath the DECORATIVE ROCK STRIP, 4" as specified in Section 282 of the Standard Specifications.

SEGMENTAL CONCRETE BLOCK WALL APPURTENANCES

No direct payment will be made for furnishing or placing unit drainage fill, reinforced soil, leveling pad, geogrid, drain tile, low permeable soil, or for structure excavation. The cost for these items shall be included in the price of SEGMENTAL CONCRETE BLOCK WALL.

City of Edwardsville
Gerber Road
Madison County

PERMITS

The Contractor shall comply with all conditions of the Permit granted by the Department of Army, St. Louis District, Corps of Engineers. A copy of this Permit is included in the contract documents.