RESOLUTION NO. 855

A RESOLUTION AUTHORIZING THE MAYOR TO ENTER INTO A CONSTRUCTION MANAGEMENT CONTRACT WITH OTAK FOR THE PARKWAY PHASE OF L.I.D. NO. 5.

WHEREAS, the Wilsonville City Council has adopted Resolution No. 847, approving the bid process, accepting the low qualified bid and awarding the construction contract to the low qualified bidder for the Parkway Avenue Project: and

WHEREAS, the city has issued written notice to proceed and desires to move forward with the project in a timely manner; and

WHEREAS, the City desires that the construction process of the Parkway Avenue Project be managed in the most efficient manner possible.

NOW, THEREFORE, IT IS HEREBY RESOLVED by the City Council of the City of Wilsonville that:

- 1. The City shall authorize the Mayor to enter into a construction management contract with OTAK, Inc. as described in attached Exhibit "A".
- 2. The City shall authorize the expenditure of funds for the construction management contract from:

ACCOUNT NO.

AMOUNT

500-1-7490000

\$97,870

ADOPTED by the City Council of the City of Wilsonville at a regular meeting thereof the 15th day of July, 1991 and filed with the Wilsonville City Recorder this same day.

GERALD A. KRUMMEL, Mayor

Theold & Krum

ATTEST:

VERA A. ROJAS, CMC, City Recorder

SUMMARY of Votes:

Mayor Krummel AYE

Councilor Chandler AYE

Councilor Carter

AYE

Councilor Van Eck

ABSENT

Councilor Lehan

AYE



EXHIBIT "A"

30000 SW Town Center Loop E • PO Box 220 Wilsonville, OR 97070 (503) 682-1011

COMMUNITY DEVELOPMENT DEPARTMENT MEMORANDUM

DATE:

JULY 9, 1991

TO:

HONORABLE MAYOR AND CITY COUNCILORS

FROM:

STEVE STARNER

COMMUNITY DEVELOPMENT DIRECTOR

RE:

PARKWAY AVENUE PROJECT

In March, 1990, the engineering firm of OTAK, Inc. was selected to perform the design engineering, including construction drawings and specifications, for the Parkway Avenue Project. The selection of OTAK, Inc. as the consulting engineer of record for this project was based on the following process:

- 1. Select several engineers from a list of engineers recommended by clients or engineering societies.
- 2. Interview several engineers and determine which of them is best qualified for the particular engagement under consideration.
- 3. Negotiate with the selected engineer for services required and the amount of the fee to be paid for the consulting work.
- 4. Prepare and execute an agreement for engineering services with the firm.

The agreement with OTAK, Inc. for design services on the Parkway Avenue Project has cost \$55,429.50 and the scope of work has been completed as signified by the awarding of a construction contract.

As originally planned, the city's engineering technicians under the direction of the City Engineer would provide surveying, staking, inspection, utility coordination and general project administration throughout the construction phase of the project. However, in the absence of a qualified City Engineer, other arrangements must be made to insure that all construction components are coordinated and occur as efficiently as possible. Most importantly, a registered engineer, representing the city (the project owner) must be available to interpret plans and specifications during the construction sequence in order to obtain the best possible construction at minimal cost, conflict, work stoppage, work replacement and legal action.

The last day of regular employment for the City Engineer is scheduled for July 23, 1991. The options available for addressing the city's construction management concerns throughout the Parkway Avenue Project include the following:

Memo to: Honorable Mayor & City Councilors

Re: Parkway Avenue Project

July 9, 1991 - Page 2

Option 1. Designate OTAK, Inc. to act as the City Engineer of record throughout the construction phase of the Parkway Avenue Project. As the original project design engineer, the best possible field interpretations of bid plans and specifications will be available to the city, thereby decreasing the likelihood of conflicts and change orders. The cost of this option, plus approximately 90 days of on-site inspection service would be approximately \$97,870 (\$65,470 construction management; \$32,400 site inspection).

- Option 2. Initiate a selection process for a new consulting engineer to provide construction management services specific to the Parkway Avenue project.. While this process may result in lowering the overall cost of engineering services, the disadvantage is in being able to respond to the engineering issues in a timely manner for a project that is already underway. (The contractor was given notice to proceed on July 3; a preconstruction conference has been scheduled for July 12.)
- Option 3. Initiate a selection process for an interim City Engineer to be funded from the appropriate Community Development Department personnel line item. The scope of activity facing the city's Engineering Section within the next six months includes the following:
 - * General Administration (plat checks, plan checks, construction inspection and development review)
 - * Survey for reservoir site, Canyon Creek North alignment, Park Road alignment
 - * Boeckman Road waterline design and construction
 - * Mentor/Nike well facility design and construction
 - * 3 MG reservoir preliminary design

* Parkway Avenue Construction.

Given the volume of tasks presently at hand, the ability to devote attention to the construction of Parkway may be superseded by the time required of other engineering activities. To a certain extent, the ability to minimize construction cost, work stoppage and substandard construction quality is proportional to the quantity of dedicated construction management provided for a given project.

Recommendation: Option 1, as presented.

ss:md

Attach:

pc: IOC - CD



July 2, 1991

Mr. Richard Drinkwater, P.E. City of Wilsonville P.O. Box 220 Wilsonville, OR 97070



Re:

Parkway Avenue Street Design

Project No. 2930.0

Dear Mr. Dick:

Attached is our proposal for Construction Management on the subject project. We are assuming that full time inspection will be provided by the City. An inspector can be provided by OTAK, on an as needed basis, for \$35.00 - \$45.00 per hour.

We have contacted Carlson Testing to provide material testing and have included an allowance for their work. We hope this proposal meets your requirements for the construction management task. Please review and contact us to discuss our proposal in further detail.

Also attached is a summary of the engineer's estimate and contractor bids. Construction's total was off by \$ 0.50, but all other bid totals were correct.

Sincerely,

Richard D. Yant Richard D. Yano, P.E.

Project Engineer

RDY/ljw

Enclosure \.007

PARKWAY AVENUE CITY OF WILSONVILLE TASK DETAILS AND RESOURCE ESTIMATE CONSTRUCTION MANAGEMENT JULY 1, 1991

Task 6 Post Design Services

6.02 Construction Management (16 week duration with no weekend work assumed.)

		oor Hours &	Avg. Hourly	Rates			
Sub-Task Descriptions	Principal/ P.M. (\$90)	Pr. Eng./ Survey (\$60)	Survey Techn. (\$40)	Survey Crew (\$80)	Cler./ Admin. (\$35)	Total Hours	Total Sub-task Cost
a. Daily engineer site visits	0	320	0	0	0	320	\$19,200.00
b. Weekly meetings w/ City Staff & contractor incl. preparation & docum	32 1.	64	0	0	0	96	\$6,720.00
c. Processing progress payments (4 total)	4	40	0	0	8	52	\$3,040.00
d. Processing contract change orders (10 maximum)	8	60	0	0	10	78	\$4,670.00
e. Coordination of testing program	0	64	0	0	0	64	\$3,840.00
f. Administration (Corres., mtg. notes, document., etc	16	16	0	0	96	128	\$5,760.00
g. Construction surveying (Office and field work)	0	24	68	146	0	238	\$15,840.00
h. Surveying for private utilities	0	0	8	16	0	24	\$1,600.00
i. Survey restaking allowance (30%)		<u></u>					\$4,800.00
TOTAL LABOR HOURS AND COSTS	60	588	76	162	114	1000	\$65,470.00

Note: Inspection provided as needed for \$35.00 - \$45.00 per hour.

Above costs do not include outside structural or geotech, engineering services, except for typical material testing.

EXPENSES:

-Printing, 100 sheets @ \$1.25/sheet	\$125.00
-Copies, 1000 copies @ \$0.10/copy	\$100.00
-Photos, 768 photos @ \$ 0.35/photo (film & development)	\$269.00
-Mileage, 1200 miles @ \$0.22/mile	\$264.00
TOTAL EXPENSES =	\$758.00

MATERIALS TESTING ALLOWANCE (Carlson Testing)

\$6,600.00

TOTAL CONSTRUCTION MANAGEMENT COSTS

\$72,828.00

2930 const.wk1

JUNE 28, 19	991				1	ENGINEER'S	SESTIMATE
001(220)	· · ·			QUANTITY		UNIT	TOTAL COST
ITEM	DESCRIPTION	UNIT	(NET)	(ALLOW)	(GROSS)	COST	(GROSS)
201.4.01	MOBILIZATION	LS	1	0	1	\$51,359.20	\$51,359.20
202.4.02	TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC	LS	1	0	. 1	\$38,519.40	\$38,519.40
203.4.02	CLEARING AND GRUBBING	LS	1	0	1	\$7,500.00	\$7,500.00
203B.3.00	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	0	1	\$5,000.00	\$5,000.00
204	EARTHWORK '						
_204.4.01A	UNCLASSIFIED EXCAVATION	CU YD	5,530	470	6,000	\$10.00	\$60,000.00
04.4.02	OVEREXCAVATION	CU YD	1,500	0	1,500	\$20.00	\$30,000.00
204.4.03A	EMBANKMENT	CU YD	2,390	210	2,600	\$5.00	\$13,000.00
206	SUBGRADE						
206.4.06	SUBGRADE STABILIZATION FABRIC	SQ YD	2,200	0	2,200	\$2.00	\$4,400.00
207	AGGREGATE BASES						
207.4.01A	AGGREGATE BASE COURSE (2" OF 3/4"-0)	SQ YD	11,100	900	12,000	\$1.50	\$18,000.00
207.4.01B	AGGREGATE BASE COURSE (4" OF 1-1/2"-0)	SQ YD	11,100	900	12,000	\$2.50	\$30,000.00
211	ASPHALT CONCRETE PAVEMENT				ļ		
211.4.02	ASPHALT CONCRETE PAVE. (3" CLASS "C")	SQ YD	330	20	350	\$10.00	\$3,500.00
212	PORTLAND CEMENT CONCRETE PAVEMENT]		
212.4.01A	P.C.C. "NORMAL" PAVEMENT (8" THICKNESS)	SQ YD	8,120	280	8,400	\$22.00	\$184,800.00
	(WITH RUBBER ASPHALT JOINT FILLER)						
212.4.01B	P.C.C. "HIGH EARLY" PAVEMENT (8" THICKNESS)	SQ YD	2,030	70	2,100	\$25.00	\$52,500.00
	(WITH RUBBER ASPHALT JOINT FILLER)						
213	CURBS AND GUTTERS						
13.4.01	CURB AND GUTTER	LIN FT	4,640	60	4,700	\$8.50	\$39,950.00
213.4.02	CONCRETE VALLEY GUTTER	LIN FT	30	0	30	\$20.00	\$600.00
214	DRIVEWAYS			_			
214.4.01A	COMMERCIAL DRIVEWAY	SQ YD	147	3	150	\$20.00	\$3,000.00
215	SIDEWALK				!		
215.4.01C	SIDEWALK	SQ YD	2,580	120	2,700	\$18.00	\$48,600.00
216	ADJUSTMENT OF INCIDENTAL STRUCTURES TO GRADE			_			
216.4.01A	ADJUST WATER VALVE	EA	11	1	12	\$100.00	\$1,200.00
216.4.01B	ADJUST MANHOLE CASTING	EÁ	10	2	12	\$450.00	\$5,400.00
216.4.01C	ADJUST INLET	EA	2	1	3	\$350.00	\$1,050.00
216.4.01D	ADJUST WATER SERVICE, METER AND BOX	EA	1	1	2	\$500.00	\$1,000.00
216.4.01E	ADJUST LOOP DETECTORS	EA	2	1	3	\$1,000.00	\$3,000.00
219	SIGNING AND PAVEMENT MARKINGS & MARKERS						l

JUNE 28, 19	991				1	ENGINEER'	S ESTIMATE
 ,,,				QUANTITY		UNIT	TOTAL COST
ITEM	DESCRIPTION	UNIT	(NET)	(ALLOW)	(GROSS)	COST	(GROSS)
219,2.00A	THERMOPLASTIC PAVEMENT ARROWS	EA	11	1	12	\$100.00	\$1,200.00
219.2.00B	THERMOPLASTIC PAVEMENT "ONLY" STRIPING	EA	2	1	3	\$150.00	\$450.00
219.2.00C	PAVEMENT STRIPING	LIN FT	4,800	200	5,000	\$1.50	\$7,500.00
219.2.00D	PAVEMENT MARKERS MONO-DIRECTIONAL (CRYSTAL	T EA	22	2	24	\$5.00	\$120.00
219.2.00E	PAVEMENT MARKERS BI-DIRECTIONAL (YELLOW TYPE	EA	121	9	130	\$4.00	\$520.00
_220	SAFETY STRUCTURES				1		
20.4.00A	GUARD RAIL (TYPE 2A)	LIN FT	225	25	250	\$12.00	\$3,000.00
220,4.00B	CONCRETE BARRIER WITH HAND RAIL	LIN FT	200	25	225	\$18.00	\$4,050.00
221	LANDSCAPING						
221.4.00	SEEDING AND MULCHING	SQ FT	17,165	835	18,000	\$0.12	\$2,160.00
224	TEMPORARY EROSION CONTROL						
224.4.00A	STRAW BALE SEDIMENT BARRIER IN SWALE	EA	5	0	5	\$10.00	\$50.00
224,4,00B	STRAW BALE SEDIMENT BARRIER	LIN FT	130	70	200	\$3.50	\$700.00
224.4.00C	TEMPORARY SEDIMENT FENCE	LIN FT	300	0	300	\$5.00	\$1,500.00
224.4.00D	INLET PROTECTION	EA	10	0	10	\$100.00	\$1,000.00
227	SAWCUTTING						
227.3.00	SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.)	LIN FT	460	340	800	\$1.20	\$960.00
301	TRENCH EXCAVATION, BEDDING AND BACKFILL						
301.4.11	EXTRA DEPTH BEDDING	CU YD	100	0	100	\$17.00	\$1,700.00
304	SERVICE LINE SEWERS						
304.4.01	8" SEWER PIPE	LIN FT	100	0	100	\$25.00	\$2,500.00
05	STORM SEWER PIPE AND FITTINGS						
305.4.01A	6 INCH PVC DRAIN PIPE	LIN FT	51	9	60	\$15.00	\$900.00
305.4.01B	12 INCH C14 CLASS 3 CONCRETE SEWER PIPE	LIN FT	1,531	69	1,600	\$25.00	\$40,000.00
305.4.01C	12 INCH C76 CLASS V CONCRETE SEWER PIPE	LIN FT	77	8	85	\$30.00	\$2,550.00
305.4.09	CLEANOUT	EA	1	1	2	\$200.00	\$400.00
306	MANHOLES						
306.4.00A	STANDARD MANHOLE	EA	5	1	6	\$1,500.00	\$9,000.00
307	CATCH BASINS AND INLETS						
307.4.00A	GUTTER INLET TYPE 2-1/2 A	EA	10	1	11	\$650.00	\$7,150.00
307.4.00B	GUTTER INLET TYPE 4 A	EA	1	1	2	\$750.00	\$1,500.00
307.4.00C	CONCRETE INLET TYPE G1	EA	1	1	2	\$650.00	\$1,300.00
307.4.00D	STANDARD INLET MANHOLE	EA	1	1	2	\$1,000.00	\$2,000.00
308	WORK ON EXISTING SEWERS AND STRUCTURES						

JUNE 28, 19	991					ENGINEER'S	S ESTIMATE
				QUANTITY		UNIT	TOTAL COST
ITEM	DESCRIPTION	UNIT	(NET)	(ALLOW)	(GROSS)	COST	(GROSS)
308.4.01	MANHOLES OVER EXISTING SEWERS	EA	1	1	2	\$1,200.00	\$2,400.00
308.4.02	MANHOLE CONNECTIONS	EA	1	1	2	\$500.00	\$1,000.00
308.4.07	CATCH BASIN CONNECTIONS	EA	1	1	2	\$400.00	\$800.00
402	WATER PIPE AND FITTINGS				ļ		
402.4.01A	12 INCH CLASS 50 DUCTILE IRON WATERLINE	LIN FT	390	60	450	\$40.00	\$18,000.00
402.4.01B	6" WATER (CLASS 52) SERVICE W/ GATE VALVE & PLUG	EA	4	1	5	\$1,000.00	\$5,000.00
04	FIRE HYDRANTS				ł		
404.4.00	RELOCATE/ADJUST FIRE HYDRANT & EXTEND WATERLI	EA	6	1	7]	\$1,200.00	\$8,400.00
513	SLOPE PROTECTION				1		-
513.4.00	PAVED CULVERT END SLOPES W/ RIPRAP	SQ FT	120	20	140	\$12.00	\$1,680.00
	TOTAL PROJECT COST						\$731,868.60

JUNE 28, 1991					BERNING CONST.		
	•			QUANTITY		UNIT	TOTAL COST
ITEM	DESCRIPTION	UNIT	(NET)	(ALLOW)	(GROSS)	COST	(GROSS)
201.4.01	MOBILIZATION	LS	1	Ô	1	\$43,200.00	\$43,200.00
202.4.02	TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC	LS	1	0	1	\$6,000.00	\$6,000.00
203.4.02	CLEARING AND GRUBBING	LS	1	0	1	\$14,000.00	\$14,000.00
203B.3.00	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	0	1	\$5,000.00	\$5,000.00
204	EARTHWORK '					•	
2 04.4.01A	UNCLASSIFIED EXCAVATION	CU YD	5,530	470	6,000	\$2.25	\$13,500.00
04.4.02	OVEREXCAVATION	CU YD	1,500	0	1,500	\$6.50	\$9,750.00
204.4.03A	EMBANKMENT	CU YD	2,390	210	2,600	\$2.00	\$5,200.00
206	SUBGRADE						
206.4.06	SUBGRADE STABILIZATION FABRIC	SQ YD	2,200	0	2,200	\$1.25	\$2,750.00
207	AGGREGATE BASES				}		
207.4.01A	AGGREGATE BASE COURSE (2" OF 3/4"-0)	SQ YD	11,100	900	12,000	\$1.70	\$20,400.00
207.4.01B	AGGREGATE BASE COURSE (4" OF 1-1/2"-0)	SQ YD	11,100	900	12,000	\$2.00	\$24,000.00
211	ASPHALT CONCRETE PAVEMENT						
211.4.02	ASPHALT CONCRETE PAVE. (3" CLASS "C")	SQ YD	330	20	350	\$6.00	\$2,100.00
212	PORTLAND CEMENT CONCRETE PAVEMENT						
212.4.01A	P.C.C. "NORMAL" PAVEMENT (8" THICKNESS)	SQ YD	8,120	280	8,400	\$16.60	\$139,440.00
	(WITH RUBBER ASPHALT JOINT FILLER)						
212.4.01B	P.C.C. "HIGH EARLY" PAVEMENT (8" THICKNESS)	SQ YD	2,030	70	2,100	\$25.00	\$52,500.00
	(WITH RUBBER ASPHALT JOINT FILLER)				Ī	· 	1
1 3	CURBS AND GUTTERS						
13.4.01	CURB AND GUTTER	LIN FT	4,640	60	4,700	\$6.20	\$29,140.00
213.4.02	CONCRETE VALLEY GUTTER	LIN FT	30	0	30	\$27.00	\$810.00
214	DRIVEWAYS						
214.4.01A	COMMERCIAL DRIVEWAY	SQ YD	147	3	150	\$17.50	\$2,625.00
215	SIDEWALK						
215.4.01C	SIDEWALK	SQ YD	2,580	120	2,700	\$12.00	\$32,400.00
216	ADJUSTMENT OF INCIDENTAL STRUCTURES TO GRADE						
216.4.01A	ADJUST WATER VALVE	EA	11	1	12	\$75.00	\$900.00
216.4.01B	ADJUST MANHOLE CASTING	EA	10	2	12	\$125.00	\$1,500.00
216.4.01C	ADJUST INLET	EA	2	1	3	\$250.00	\$750.00
216.4.01D	ADJUST WATER SERVICE, METER AND BOX	EA	1	1	2	\$100.00	\$200.00
216.4.01E	ADJUST LOOP DETECTORS	EA	2	1	3	\$2,500.00	\$7,500.00
219	SIGNING AND PAVEMENT MARKINGS & MARKERS						

ITEM	JUNE 28, 19	991					BERNING	CONST.
219.2.00A THERMOPLASTIC PAVEMENT ARROWS EA 11 1 1 12 \$110.00 \$1,320.00 219.2.00B THERMOPLASTIC PAVEMENT "ONLY" STRIPING EA 2 1 3 \$240.00 \$720.00 219.2.00D PAVEMENT STRIPING OD 5,000 \$0.40 \$2,000.00 219.2.00D PAVEMENT STRIPING OD 5,000 \$0.40 \$2,000.00 219.2.00D PAVEMENT MARKERS MONO-DIRECTIONAL (CRYSTAL T EA 22 2 2 24 \$3.50 \$44.00 219.2.00E PAVEMENT MARKERS BI-DIRECTIONAL (YELLOW TYPE EA 121 9 130 \$3.75 \$487.50 \$47.50 \$					QUANTITY		UNIT	TOTAL COST
219.2.00B THERMOPLASTIC PAVEMENT "ONLY" STRIPING EA 2 1 3 \$240.00 \$7720.00 219.2.00C PAVEMENT STRIPING LIN FT 4,800 200 5,000 \$0.40 \$2,000.00 219.2.00D PAVEMENT MARKERS MONO-DIRECTIONAL (CRYSTAL T EA 22 2 2 24 \$3.50 \$84.00 219.2.00E PAVEMENT MARKERS BI-DIRECTIONAL (YELLOW TYPE EA 121 9 130 \$3.75 \$487.50 \$84.00 219.2.00E PAVEMENT MARKERS BI-DIRECTIONAL (YELLOW TYPE EA 121 9 130 \$3.75 \$487.50 \$84.00 CONCRETE BARRIER WITH HAND RAIL LIN FT 225 25 25 250 \$35.00 \$8,750.00 20.4.00B GUARD RAIL (TYPE 2A) LIN FT 200 25 225 \$65.00 \$14,625.00 LIN FT 200 25 225 \$65.00 \$14,600.00 LIN FT 200 25 225 \$65.00 \$14,600.00 LIN FT 200 25 25 25 \$65.00 \$14,600.00 LIN FT 200 25 25 25 \$65.00 \$14,600.00 LIN FT 200 25 25 25 \$65.00 \$14,600.00 LIN FT 200 25 24.4.00C STRAW BALE SEDIMENT BARRIER IN SWALE EA 5 0 5 \$25.00 \$125.00 \$125.00 LIN FT 130 70 200 \$3.00 \$600.00 224.4.00B STRAW BALE SEDIMENT BARRIER LIN FT 130 70 200 \$3.00 \$600.00 224.4.00D INLET PROTECTION EA 10 0 10 \$550.00 \$500.00 224.4.00D INLET PROTECTION EA 10 0 10 \$550.00 \$500.00 227.3.00 SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) LIN FT 460 340 800 \$2.00 \$1,600.00 301 TRENCH EXCAVATION, BEDDING AND BACKFILL LIN FT 100 0 100 \$10.00 \$10.00 \$1,000.00 \$1	ITEM	DESCRIPTION	UNIT	(NET)	(ALLOW)	(GROSS)	COST	(GROSS)
219.2.00C PAVEMENT STRIPING 219.2.00D PAVEMENT MARKERS MONO-DIRECTIONAL (CRYSTALT EA 22 2 24 3.5.0 \$84.00 219.2.00D PAVEMENT MARKERS BI-DIRECTIONAL (YELLOW TYPE EA 121 9 130 \$3.75 \$467.50 20.4.00A GUARD RAIL (TYPE 2A) LIN FT 225 25 25 \$55.00 \$14.625.00 220.4.00B CONCRETE BARRIER WITH HAND RAIL LIN FT 200 25 225 \$65.00 \$14.625.00 221 LANDSCAPING 221.4.00 SEEDING AND MULCHING SQ FT 17,165 835 18,000 \$0.10 \$1,800.00 224.4.00B STRAW BALE SEDIMENT BARRIER IN SWALE EA 5 0 5 \$25.00 \$125.00 224.4.00B STRAW BALE SEDIMENT BARRIER LIN FT 300 0 300 \$2.00 \$600.00 224.4.00C TEMPORARY SEDIMENT FENCE LIN FT 300 0 300 \$2.00 \$600.00 224.4.00C TEMPORARY SEDIMENT FENCE LIN FT 300 0 10 \$50.00 \$500.00 224.4.00D INLET PROTECTION EA 10 10 \$50.00 \$500.00 224.4.00D TRENCH SCRAVATION, BEDDING AND BACKFILL 227.3.00 SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) LIN FT 460 340 860 \$2.00 \$1,600.00 301 TRENCH EXCAVATION, BEDDING AND BACKFILL 237.4.01 BY SEWERS 247.4.01 BY SEWERS 247.4.01 BY SEWERS 250.4.01 BY SEWERS 267.4.01 BY SEWERS 268.4.01 BY SEWER PIPE LIN FT 100 0 100 \$10.00 \$1,000.00 301 TRENCH EXCAVATION, BEDDING CU YD 100 0 100 \$21.50 \$2,150.00 305.4.019 BY SEWER PIPE LIN FT 1,551 69 1,600.00 \$22.25 \$35,600.00 305.4.010 BY SEWER PIPE LIN FT 1,551 69 1,600.00 \$22.25 \$35,600.00 305.4.010 CLANOUT EA 1 1 2 \$500.00 \$3,060.00 305.4.010 STANDARD MANHOLE EA 1 1 2 \$500.00 \$9,000.00 307.4.00B GUTTER INLET TYPE 2-112 A EA 1 1 1 2 \$500.00 \$9,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$9,400.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$500.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$500.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2	219.2.00A	THERMOPLASTIC PAVEMENT ARROWS	EA	11	1	12	\$110.00	\$1,320.00
219.2.00D PAVEMENT MARKERS MONO-DIRECTIONAL (CRYSTAL T EA 22 2 2 24 \$3.50 \$84.00 219.2.00E PAVEMENT MARKERS BI-DIRECTIONAL (YELLOW TYPE EA 121 9 130 \$3.75 \$467.60 \$20.4.00A GUARD RAIL (TYPE 2A) LIN FT 225 25 25 250 \$35.00 \$8,750.00 20.4.00A GUARD RAIL (TYPE 2A) LIN FT 200 25 225 \$65.00 \$14,625.00 221 LANDSCAPING 221.0.0D SEEDING AND MULCHING SQ FT 17,165 835 18,000 \$0.10 \$1,800.00 224 TEMPORARY EROSION CONTROL \$24.4.00A SEEDING AND MULCHING SQ FT 17,165 835 18,000 \$0.10 \$1,800.00 224.4.00B STRAW BALE SEDIMENT BARRIER IN SWALE EA 5 0 5 \$25.00 \$125.00 224.4.00B STRAW BALE SEDIMENT BARRIER IN SWALE LIN FT 130 70 200 \$3.00 \$600.00 224.4.00D INLET PROTECTION EA 10 0 10 \$50.00 \$500.00 227 SAWCUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) LIN FT 460 340 800 \$2.00 \$1,600.00 227 SAWCUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) LIN FT 460 340 800 \$2.00 \$1,600.00 301 TENENCH EXCAVATION, BEDDING AND BACKFILL SETVICE LIN SEWER SERVICE LIN SEWERS \$10.40 PICTURE STORM SEWER PIPE AND FITTINGS \$10.40 PICTURE STORM SEWER PIPE AND FITTINGS \$10.40 PICTURE STORM SEWER PIPE AND FITTINGS \$10.40 PICTURE SEWER PIPE LIN FT 1,531 69 1,600 \$22.25 \$35,600.00 305.4.01B \$12.INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.01B \$12.INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.01B \$12.INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$35.00 \$30.00 305.4.01B \$12.INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$35.00.00 \$30.4.00 \$30.4.00 STANDARD MANHOLE EA 1 1 1 2 \$1,000.00 \$9,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$9,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$9,400.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00B G	219.2.00B	THERMOPLASTIC PAVEMENT "ONLY" STRIPING	EA	2	1	3	\$240.00	\$720.00
219.2.00E PAVEMENT MARKERS BI-DIRECTIONAL (YELLOW TYPE EA 121 9 130 \$3.75 \$487.50 \$0.4.00A \$CO.4.00A \$CO.4	219.2.00C			4,800	200	5,000	\$0.40	\$2,000.00
220 SAFETY STRUCTURES 20.4.00B QUARD RAIL (TYPE 2A) LIN FT 225 25 25 250 \$35.00 \$8,750.00 221 LANDSCAPING 221 LANDSCAPING 221.4.00 SEEDING AND MULCHING TEMPORARY EROSION CONTROL 224.4.00A STRAW BALE SEDIMENT BARRIER IN SWALE 224.4.00B STRAW BALE SEDIMENT BARRIER IN SWALE 224.4.00C TEMPORARY SEDIMENT FENCE LIN FT 300 224.4.00C TEMPORARY SEDIMENT FENCE LIN FT 300 227.3.00 SAW CUTTING TRENCH EXCAVATION, BEDDING AND BACKFILL 301.4.11 EXTRA DEPTH BEDDING 305.4.010 SEPWICE LINE SEWERS 404.4.01 B* SEWER PIPE LIN FT 100 305.4.016 STORM SEWER PIPE AND FITTINGS 305.4.016 305.4.016 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE LIN FT 1,531 69 1,600 \$22.05 \$35.00 \$30,00 \$20.00 \$30,00 \$20.00 \$30,00 \$20.00 \$40.0	219.2.00D			22	2	24	\$3.50	\$84.00
1.0.4.00A GUARD RAIL (TYPE 2A)	219.2.00E	PAVEMENT MARKERS BI-DIRECTIONAL (YELLOW TYPE	EA	121	9	130	\$3.75	\$487.50
220.4.00B CONCRETE BARRIER WITH HAND RAIL LIN FT 200 25 225 \$65.00 \$14,625.00	220					}		
221	20.4.00A	GUARD RAIL (TYPE 2A)	LIN FT	225	25	250	\$35.00	\$8,750.00
221.4.00 SEEDING AND MULCHING 224 TEMPORARY EROSION CONTROL 224.4.00A STRAW BALE SEDIMENT BARRIER IN SWALE 224.4.00B STRAW BALE SEDIMENT BARRIER 224.4.00C TEMPORARY SEDIMENT FENCE 224.4.00D INLET PROTECTION 227 SAWCUTTING 227 SAWCUTTING 227.3.00 SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) 230.1.4.11 EXTRA DEPTH BEDDING 301.4.11 EXTRA DEPTH BEDDING 302.4.4.01 B "SEWER PIPE 303.4.01 B "SEWER PIPE 305.4.01A SEWER PIPE AND FITTINGS 305.4.01A SINCH CYCLOR DAIN PIPE 305.4.01B 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE 306.4.01C 12 INCH C76 CLASS V CONCRETE SEWER PIPE 307.4.00A GUTTER INLET TYPE 2-1/2 A 307.4.00D STANDARD INLET TYPE 4 A 307.4.00C CONCRETE INLET TYPE 4 A 307.4.00C STANDARD INLET TYPE 61 307.4.00D STANDARD INLET MANHOLE 40 SEDICE MERCANDUT 41 1 1 2 \$10,00.00 40 \$2,000.00 40 \$2	220.4.00B	CONCRETE BARRIER WITH HAND RAIL	LIN FT	200	25	225	\$65.00	\$14,625.00
224.4.00A STRAW BALE SEDIMENT BARRIER IN SWALE EA 5 0 5 \$25.00 \$125.00 224.4.00B STRAW BALE SEDIMENT BARRIER LIN FT 130 70 200 \$3.00 \$600.00 224.4.00C TEMPORARY SEDIMENT FENCE LIN FT 300 0 300 \$2.00 \$600.00 224.4.00C ITEMPORARY SEDIMENT FENCE LIN FT 300 0 300 \$2.00 \$600.00 224.4.00D INLET PROTECTION EA 10 0 10 \$50.00 \$500.00 227 SAWCUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) LIN FT 460 340 800 \$2.00 \$1,600.00 301 TRENCH EXCAVATION, BEDDING AND BACKFILL 301.4.11 EXTRA DEPTH BEDDING CU YD 100 0 100 \$10.00 \$1,000.00 304 SERVICE LINE SEWERS 304.010 8" SEWICE LINE SEWERS 10.00 \$100 \$1.	221	LANDSCAPING				1		
224.4.00A STRAW BALE SEDIMENT BARRIER IN SWALE EA 5 0 5 \$25.00 \$125.00 224.4.00B STRAW BALE SEDIMENT BARRIER LIN FT 130 70 200 \$3.00 \$600.00 224.4.00C TEMPORARY SEDIMENT FENCE LIN FT 300 0 300 \$2.00 \$600.00 224.4.00D INLET PROTECTION EA 10 0 10 \$50.00 \$500.00 224.4.00D INLET PROTECTION EA 10 0 10 \$50.00 \$500.00 227 SAWCUTTING 227.3.00 SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) LIN FT 460 340 800 \$2.00 \$1,600.00 301 TRENCH EXCAVATION, BEDDING AND BACKFILL 301.4.11 EXTRA DEPTH BEDDING SEWERS 04.4.01 B SEWER PIPE LIN ESEWERS 05. STORM SEWER PIPE AND FITTINGS 305.4.014 6 INCH PVC DRAIN PIPE LIN FT 51 9 60 \$13.00 \$780.00 305.4.01B 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE LIN FT 1,531 69 1,600 \$22.25 \$35,600.00 305.4.01C 12 INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.09 CLEANOUT EA 1 1 2 \$500.00 \$1,000.00 306 MANHOLES 306.4.00A STANDARD MANHOLE EA 5 1 6 \$1,500.00 \$9,000.00 307.4.00B GUTTER INLET TYPE 2-1/2 A EA 1 1 2 \$500.00 \$9,000.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$500.00 \$1,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD INLET MANHOLE EA 1 1 1 2 \$500.00 \$1,000.00 307.4.00C STANDARD I	221.4.00	SEEDING AND MULCHING	SQ FT	17,165	835	18,000	\$0.10	\$1,800.00
224.4.00B STRAW BALE SEDIMENT BARRIER LIN FT 130 70 200 \$3.00 \$600.00 224.4.00C TEMPORARY SEDIMENT FENCE LIN FT 300 0 300 \$2.00 \$600.00 224.4.00D INLET PROTECTION EA 10 0 10 \$50.00 \$500.00 224.4.00D INLET PROTECTION EA 10 0 10 \$50.00 \$500.00 227 SAWCUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) LIN FT 460 340 800 \$2.00 \$1,600.00 301 TRENCH EXCAVATION, BEDDING AND BACKFILL 301.4.11 EXTRA DEPTH BEDDING CU YD 100 0 100 \$10.00 \$1,000.00 304 SERVICE LINE SEWERS SERVICE LINE SEWERS STORM SEWER PIPE LIN FT 100 0 100 \$21.50 \$2,150.00 \$1,000.00 305.4.01A 6 INCH PVC DRAIN PIPE LIN FT 51 9 60 \$13.00 \$780.00 305.4.01B 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE LIN FT 1,531 69 1,600 \$22.25 \$35,600.00 305.4.01C 12 INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.09 CLEANOUT EA 1 1 2 \$500.00 \$1,000.00 \$100 \$20.00 \$1,000.00 \$100 \$20.00 \$1,000.00 \$100 \$20.00 \$1,000.00 \$100 \$20.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$1,000.00 \$2,000.00	224	TEMPORARY EROSION CONTROL						
224.4.00C TEMPORARY SEDIMENT FENCE	224.4.00A	STRAW BALE SEDIMENT BARRIER IN SWALE	EA	5	0	5	\$25.00	\$125.00
224.4.00D INLET PROTECTION	224.4.00B	STRAW BALE SEDIMENT BARRIER	LIN FT		70	200	•	\$600.00
227 SAWCUTTING 227.3.00 SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) 27.3.00 SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) 301 TRENCH EXCAVATION, BEDDING AND BACKFILL 301.4.11 EXTRA DEPTH BEDDING 304 SERVICE LINE SEWERS 305.4.01 8" SEWER PIPE 305.4.01 6 INCH PVC DRAIN PIPE 305.4.01 6 INCH PVC DRAIN PIPE 305.4.01 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE 306.4.01 12 INCH C76 CLASS V CONCRETE SEWER PIPE 307.4.00 STANDARD MANHOLE 308.4.00 STANDARD MANHOLE 309.4.00 STANDARD MANHOLE 309.4.00 STANDARD MANHOLE 309.4.00 STANDARD INLETS 307.4.000 GUTTER INLET TYPE 4 A 307.4.000 STANDARD INLET MANHOLE 309.4.000 STANDARD INLET MANHOLE 309.4.000 STANDARD INLET TYPE 4 A 309.4.000 STANDARD INLET MANHOLE	224.4.00C	TEMPORARY SEDIMENT FENCE	LIN FT	300	Ó	300	\$2.00	\$600.00
227.3.00 SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.) LIN FT 460 340 800 \$2.00 \$1,600.00 301 TRENCH EXCAVATION, BEDDING AND BACKFILL 301.4.11 EXTRA DEPTH BEDDING CU YD 100 0 100 \$10.00 \$1,000.00 304 SERVICE LINE SEWERS 204.4.01 8" SEWER PIPE LIN FT 100 0 100 \$21.50 \$2,150.00 \$5	224.4.00D	INLET PROTECTION	EA	10	0	10	\$50.00	\$500.00
301 TRENCH EXCAVATION, BEDDING AND BACKFILL 301.4.11 EXTRA DEPTH BEDDING CU YD 100 0 100 \$10.00 \$1,000.00 304 SERVICE LINE SEWERS 304.4.01 8" SEWER PIPE LIN FT 100 0 100 \$21.50 \$2,150.00 305 STORM SEWER PIPE AND FITTINGS 305.4.01A 6 INCH PVC DRAIN PIPE LIN FT 51 9 60 \$13.00 \$780.00 305.4.01B 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE LIN FT 1,531 69 1,600 \$22.25 \$35,600.00 305.4.01C 12 INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.09 CLEANOUT EA 1 1 2 \$500.00 \$1,000.00 306 MANHOLES 306.4.00A STANDARD MANHOLE EA 5 1 6 \$1,500.00 \$9,000.00 307 CATCH BASINS AND INLETS 307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 11 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$500.00 \$2,400.00	227	SAWCUTTING						
301.4.11 EXTRA DEPTH BEDDING 304 SERVICE LINE SEWERS 04.4.01 8" SEWER PIPE	227.3.00	SAW CUTTING (FOR A.C. & P.C.C. REM. & REPLACE.)	LIN FT	460	340	800	\$2.00	\$1,600.00
304 SERVICE LINE SEWERS 04.4.01 8" SEWER PIPE	301							į
## SEWER PIPE LIN FT 100 0 100 \$21.50 \$2,150.00 ## SEWER PIPE AND FITTINGS 305.4.01A 6 INCH PVC DRAIN PIPE LIN FT 51 9 60 \$13.00 \$780.00 305.4.01B 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE LIN FT 1,531 69 1,600 \$22.25 \$35,600.00 305.4.01C 12 INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.09 CLEANOUT EA 1 1 2 \$500.00 \$1,000.00 306 MANHOLES			CU YD	100	0	100	\$10.00	\$1,000.00
STORM SEWER PIPE AND FITTINGS 305.4.01A 6 INCH PVC DRAIN PIPE LIN FT 51 9 60 \$13.00 \$780.00 305.4.01B 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE LIN FT 1,531 69 1,600 \$22.25 \$35,600.00 305.4.01C 12 INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.09 CLEANOUT EA 1 1 2 \$500.00 \$1,000.00 306 MANHOLES 306.4.00A STANDARD MANHOLE EA 5 1 6 \$1,500.00 \$9,000.00 307 CATCH BASINS AND INLETS 307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 11 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00 \$1,000.00								}
305.4.01A 6 INCH PVC DRAIN PIPE LIN FT 51 9 60 \$13.00 \$780.00			LIN FT	100	0	100	\$21.50	\$2,150.00
305.4.01B 12 INCH C14 CLASS 3 CONCRETE SEWER PIPE LIN FT 1,531 69 1,600 \$22.25 \$35,600.00 305.4.01C 12 INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.09 CLEANOUT EA 1 1 2 \$500.00 \$1,000.00 306 MANHOLES EA 5 1 6 \$1,500.00 \$9,000.00 307 CATCH BASINS AND INLETS 307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 1 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00 \$1,000.00 \$1	05							
305.4.01C 12 INCH C76 CLASS V CONCRETE SEWER PIPE LIN FT 77 8 85 \$36.00 \$3,060.00 305.4.09 CLEANOUT EA 1 1 2 \$500.00 \$1,000.00 306 MANHOLES EA 5 1 6 \$1,500.00 \$9,000.00 307 CATCH BASINS AND INLETS EA 10 1 11 \$860.00 \$9,460.00 307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 11 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00						ŧ	\$13.00	· · · · · · · · · · · · · · · · · · ·
305.4.09 CLEANOUT EA 1 1 2 \$500.00 \$1,000.00 306 MANHOLES 306.4.00A STANDARD MANHOLE EA 5 1 6 \$1,500.00 \$9,000.00 307 CATCH BASINS AND INLETS 307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 11 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00	305.4.01B	12 INCH C14 CLASS 3 CONCRETE SEWER PIPE	LIN FT	1,531	69	, ,	\$22.25	\$35,600.00
306 MANHOLES 306.4.00A STANDARD MANHOLE EA 5 1 6 \$1,500.00 \$9,000.00 307 CATCH BASINS AND INLETS 307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 11 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00	305.4.01C	12 INCH C76 CLASS V CONCRETE SEWER PIPE	LIN FT	77	-8	85	\$36.00	\$3,060.00
306.4.00A STANDARD MANHOLE EA 5 1 6 \$1,500.00 \$9,000.00 307 CATCH BASINS AND INLETS 307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 11 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00	305.4.09	CLEANOUT	EA	1	1	2	\$500.00	\$1,000.00
307 CATCH BASINS AND INLETS 307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 11 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00	306	MANHOLES						Ì
307.4.00A GUTTER INLET TYPE 2-1/2 A EA 10 1 11 \$860.00 \$9,460.00 307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00	306.4.00A	STANDARD MANHOLE	EA	5	1	6	\$1,500.00	\$9,000.00
307.4.00B GUTTER INLET TYPE 4 A EA 1 1 2 \$1,000.00 \$2,000.00 307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00	307	CATCH BASINS AND INLETS						
307.4.00C CONCRETE INLET TYPE G1 EA 1 1 2 \$500.00 \$1,000.00 307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00	307.4.00A	GUTTER INLET TYPE 2-1/2 A	EA	10	1	11	\$860.00	\$9,460.00
307.4.00D STANDARD INLET MANHOLE EA 1 1 2 \$1,200.00 \$2,400.00	307.4.00B	GUTTER INLET TYPE 4 A	EA	1	1	2	\$1,000.00	\$2,000.00
	307.4.00C	CONCRETE INLET TYPE G1	EA	1	1	2	\$500.00	\$1,000.00
308 WORK ON EXISTING SEWERS AND STRUCTURES	307.4.00D	STANDARD INLET MANHOLE	EA	1	1	2	\$1,200.00	\$2,400.00
	308	WORK ON EXISTING SEWERS AND STRUCTURES						

JUNE 28, 1991						BERNING	CONST.
				QUANTITY		UNIT	TOTAL COST
ITEM	DESCRIPTION	UNIT	(NET)	(ALLOW)	(GROSS)	COST	(GROSS)
308.4.01	MANHOLES OVER EXISTING SEWERS	EA	1	1	2	\$1,700.00	\$3,400.00
308.4.02	MANHOLE CONNECTIONS	EA	1	1	2	\$1,000.00	\$2,000.00
308.4.07	CATCH BASIN CONNECTIONS	EA	1	1	2	\$100.00	\$200.00
402	WATER PIPE AND FITTINGS						
402.4.01A	12 INCH CLASS 50 DUCTILE IRON WATERLINE	LIN FT	390	60	450	\$11.00	\$4,950.00
402.4.01B	6" WATER (CLASS 52) SERVICE W/ GATE VALVE & PLUG	EA	4	1	5	\$1,000.00	\$5,000.00
04	FIRE HYDRANTS						
404.4.00	RELOCATE/ADJUST FIRE HYDRANT & EXTEND WATERLI	EA	6	1	7	\$600.00	\$4,200.00
513	SLOPE PROTECTION						
513.4.00	PAVED CULVERT END SLOPES W/ RIPRAP	SQ FT	120	20	140	\$7.00	\$980.00
	TOTAL PROJECT COST				•	11.12	\$535,056,50