

### Office of Budget & Management Policy

115 S. Andrews Avenue, Room 404 Fort Lauderdale, FL 33301 (305) 357-6345 • FAX (305) 357-7360

December 4, 1995

Mr. Steve Romig, FPL Regional Manager 7200 N.W. 4th St Plantation, FL 33317



Dear Mr. Romig:

Attached are the additional items that were requested during our informal PSC hearing held on November 30th. These items are:

- The grid numbers associated with finding E-4-N.
- The grid map associated with finding E-4-F. The retrieval of this map alerted us o to an additional revision. We had intended to change this finding from 11 lights to I light based on the information from the map.
- List of county road projects.
- A copy of additional background material found by Broward County in support of 0 E-4-AC.
- 0 A copy of a road project contract.

I hope this information is helpful. Please do not hesitate to call if you have any questions.

Sincerely.

John Canada, Director

JC:CH/clo

Attachments

Bev Demello, Florida Public Service Commission CC:

DOCUMENT NUMBER-DATE

BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS — An Equal Opportunity Employer and Ho Suzanne N. Gunzburger John P. Hart Lari Nance Parish Sylvia Potter We're Building A Future For Your Family. And Your Business.

## WARD COUNTY- STREET LIGHTS- SORTED BY MAJOR-MINOR FPL GRIDS

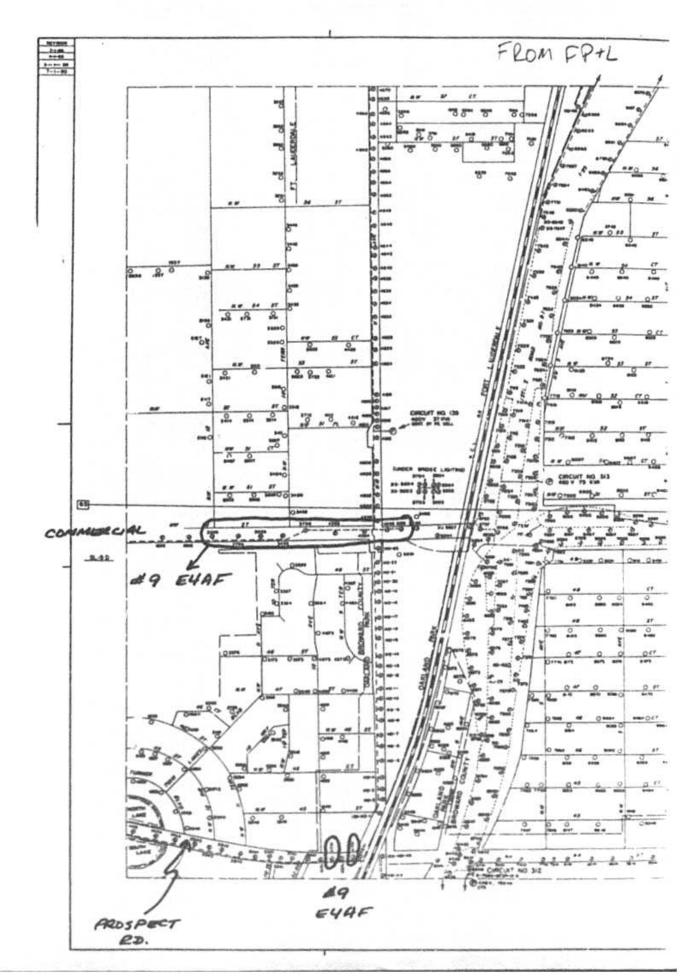
AMERICAN UTILITY BILL AUDITORS, INC.

ms page	grid number	item numbe	r city
82	8-7085-4937-0-0	E-4-N/	TAMARAC
82 .	8-7085-5237-0-6	E-4-N	TAMARAC
89	8-7085-5385-0-9	E-4-NA	TAMARAC
83 .	8-7085-5437-0-7	E-4-N	TAMARAC
83	8-7085-5737-0-3	E-4-N/	TAMARAC
83	8-7085-5937-0-4	E-4-N	TAMARAC
83	8-7085-6137-0-5	E-4-N	TAMARAC
88	8-7085-6185-0-2	E-4-NA	TAMARAC
83	8-7085-6437-0-1	E-4-N-	TAMARAC
83	8-7085-6737-0-8	4-N-	TAMARAC
83	8-7085-6937-0-9	E-4-N-	TAMARAC
88	8-7085-6985-0-6	E-4-NE	TAMARAC
(83	8-7085-7137-0-0	E-4-N	TAMARAC
107	8-7085-7139-0-4	E-4-NT	TAMARAC
107	8-7085-7141-0-2	E-4-NA	TAMARAC
107	8-7085-7338-0-8	E-4-NB	TAMARAC
107	8-7085-7341-0-3	E-4-NO	TAMARAC
83	8-7085-7437-0-6	E-4-N-	TAMARAC
107	8-7085-7538-0-9	E-4-NA	TAMARAC
(83)	8-7085-7637-0-7	E-4-N-	TAMARAC
107	8-7085-7641-0-0	E-4-NB	TAMARAC
107	8-7085-7738-0-0	E-4-NA	TAMARAC
(83)	8-7085-7837-0-8	E-4-N	TAMARAC
107	8-7085-7938-0-1	E-4-NA	TAMARAC
107	8-7085-7941-0-6	E-4-NA	TAMARAC
83	8-7085-8137-0-4	E-4-N	TAMARAC
83	8-7085-8337-0-5	E-4-N >	TAMARAC
83	8-7085-8737-0-7	E-4-N	TAMARAC
83	8-7085-9037-0-3	E-4-N	TAMARAC
83	8-7085-9237-0-4	E-4-N	TAMARAC
83	8-7085-9437-0-5	E-4-N	TAMARAC
83	8-7085-9637-0-6	E-4-N -	TAMARAC
(D)	8-7085-9837-0-7	E-4-N-	TAMARAC
109	8-7085-9940-0-8	E-4-NA	TAMARAC
109	8-7085-9944-0-7	E-4-NA	TAMARAC
109	8-7085-9949-0-3	E-4-NA	TAMARAC
83	8-7185-0137-0-6	E-4-N -	TAMARAC
109	8-7185-0245-0-3	E-4-NA	TAMARAC
(83)	8-7185-0337-0-7	E-4-N	TAMARAC
(83)	8-7185-0537-0-8	E-4-N -	TAMARAC
(83)	8-7185-0737-0-9	E-4-N-	TAMARAC
109	8-7185-0739-0-3	E-4-NA	TAMARAC
109	8-7185-0745-0-1	E-4-NA	TAMARAC
109	8-7185-0748-0-1	E-4-NP	TAMARAC

## WARD COUNTY- STREET LIGHTS- SORTED BY MAJOR-MINOR FPL GRIDS

MERICAN UTILITY BILL AUDITORS, INC.

rfms page	grid number	item numb	er city	
83 109 109 109 109 109 109 109 109 108	8-7185-2439-0-6 8-7185-2444-0-6	E4NA E4NA E44NA E4ANA E4	TAMARAC	
83	8-7185-2637-0-2	E-4-N *	TAMARAC	64



## RECEIVED

July 28, 1983

AUG 2 1993

Mr. Jim Hinds Director of Public Works 5790 Margate Boulevard Margate, Florida 33063 BROWARD COUNTY

IRAFFIC ENGINEERING DIVISION

Royal Bla = Copp

RE: ROADWAY AND SIGNAL IMPROVEMENT ROYAL PALM BOULEVARD AND STATE ROAD 7 CT&A PROJECT NO. 83-0137

:RAVEN THOMPSON

Dear Mr. Hinds:

On July 26, 1983 you were present at a field inspection of the above referenced project. At that time it was agreed that the City of Margate would remove two street light poles. One of the poles is located west of Stat Road 7 in the median of Royal Palm Boulevard which is to be removed to provide two left turn lanes. Also, there is landscaping in this median which you may wish to remove. The other pole to be removed is located in the median of State Road 7 south of Royal Palm Boulevard.

The County will furnish and install, with a separate electrical service point, new high pressure sodium luminaires on the new signal poles. The cost of the electrical service and the maintenance of the luminaires will be the responsibility of the City of Margate.

Beacuse of an accelerated construction schedule, these poles should be removed as soon as possible. Thank you for your cooperation and if you have any questions, please call.

Sincerely,

CRAVEN, THOMPSON & ASSOCIATES, INC.

GEORGE W. ROBERTSON

george W. Roberton

Traffic Engineer

sw/101N

cc: Herb Culbreath Lee Billingsley John Gerren

& ASSOCIATES INC.

Engineers Architects Surveyors Planners

> 5901 N.W. 31st Avenue Fort Lauderdale, Fla. 33309 (305) 971-7770 West Palm Beach/ Punta Gorda/Naples Orlando/Cocoa

(305) 971-7770

(813) 639-8826

Please Respond To:

5901 N.W. 31st Ave.

310 Nesbit St.

Senior Traffic Engineer

D Craven Thompson & Associates, Inc.

O Craven Thompson & Associates, Inc. 3674 Okeechobse Blvd. (305) 684-1650 West Palm Beach, Florida 33409

Craven Thompson & Associates, Inc., West

Fort Lauderdale, Florida 33309

Punta Gorda, Florida 33950

## LETTER OF TRANSMITTAL



	Date:	July 15, 1983	356 Na	iven Thompson & Associates, Inc., S.W. IO N. Tamlami Trail (813) 261-3537 ples, Florida 33940
0	r. Ken Gil		62: Su	aven Thompson & Associates, Inc., N.E. 20 S. Orange Blossom Trail ite 152 (305) 659-2641
F	lorida Pow	er & Light Co.	Or	tando, Florida 32509
В	OX 8248			
F	t. Lauderd	lale, FL 33310	-	
a. (	Copans Road	1		
	33-0137		_	4.4
ob " —	Mr. Roy Cha	neman	(0)	(関係を11分子)
ttn:	n . noj on		ut	
SENTLE		following items:		orm, 18 7753
· are se	ending you un			U. E. DIVISICI!
NO.	UNIT		DESCRIPTION	GINEERING DEPT.
2	copies	Signal Pole Tabulation She		
hese a	re transmitte	d as checked below:	VIA:	
	pproval	☐ Sign & return	☐ Hand deliver	Certified No.
The state of the state of the state of	our use	No For review & comment	☐ Pick up	
	quested		☐ Regular mail	
				vious conversations
Remarks	We have	assumed a service point loc	ation based on pre	tous converse
Please	confirm	this location or identify a r	new service point.	AS YOU KNOW, TOTAL
s sci	neduled to	open within 3 months. A qui	ck response will t	be greatly appreciated.
Copies t	o:		100	a Linter
Received	d by:		_ Signed: Alan L.	Tinter ()

FINAL	1976	BONO	PROJECT	COST	BREAKDOWN
	****	****	******		*********

AUGUST 1988

\*\*\*\*\*\*\*\*\* DATE FINAL ROW SPENT TESTING BUTHER DE BY START FIN PAYMENT CONSTRUCT RY LANES MILES LN/MIS TOT SPENT FLA D D T WMS-HAT-ST HADDDINES 6/77 11/79 16.148.127 UNIU DR / SR \$6,148,127 WILTON MANOR WHS-HAT-ST \$687,088 HARDPIVES 4/77 1/78 \$687,088 3200-- WE 26 ST DIXIE / US 1 1 0 5 0 \$38,203 1312,336 POST-BCKLY 14,752,572 STATE PAU 3/78 4/80 15,103,111 \$83,290 \$242,134 GEE-JENSON \$350 \$3,897,998 \$5,572,224 STATE PAU 9178 7182 CORAL SPIRIVERSIDE 2 0 12.0 \$32,575 TH-HOUSE WHS-HAT-ST \$252,926 \$3,063,236 \$2,777,735 TRIPLE 0 1/80 1/82 1.8 . 7.2 320028 PETERS \$195,000 3/23/81 FLA D D T FLA D D T \$3,050,943 TRIPLE R 12/78 9/80 2013 3200-- PETERS \$3,245,943 1.3 13,504 \$181,645 KUNDE-DRUR \$2,705,277 HARDRIVES 2/79 4/80 2 0 12,890,526 DAUSE CRIFFIN / SR 84 \$325.577 CRUN-THPSN \$120,617 \$163,920 \$6.494,458 STATE PAU 1/79 1/81 920044 CONNERCL TURNPIKE / 1-95 3 8 22.8 17,104,592 \$213,847 WMS-HAT-ST \$204,223 \$3,770,731 \$3,352,661 BERGERON 11/79 10/81 MW 61 AU / TURNPIKE A 1.4 -----\$474,785 \$619,823 \$1.275.559 \$37,911,352 \$35,541,185 SUR OF EARLIER 1976 BOND PROJECTS (9) : 20.2 106.1 21 11 31 1001 941 15.842 14,475 \$12,022 \$357,317 1334,978 PER LAME HT FER LANE HIL DED LANE HT PED LANE HI PER LANE HILE \$4,521 \$675,927 \$4,100,29) WEEKLEY---- 3/85 -- 5/86--- 6/11/86--- \$371,934 WETTH-SCHN 2 0 12 0 15, 152, 673 \$7,909 \$102,578 \$4,939,410 \$240,602 MID-SOUTH \$4,013,459 CAPELETT! 12/81 9/83 9123183 2010 320077 HALLANDL 1.4 69,304,158 1311,504 12,526,475 \$307,647 CRUM-THPSK \$35,469 8131183 \$7,552,222 \$4,291,187 STATE PAV 7/61 8/83 2811 | 320003 STIRLING 50 7 / 1-95 2.9 17.4 CRUM-THPSN 8/14/85 5/84 7/85 2011-0 320083 STIRLING SQ 7 / TURNPIKE 0.4 2.4 \$314,068 \$314.068 DUSSELL \$495,419 \$1,954,100 \$302,799 CRUN-THPSN 128,333 7/83 2/85 2/13/85 2012 320093 WW/SW 27 DAVIE / SUMBISE 10.5 \$5,532,370 \$2,551,719 BERGEDON 1914,022 110,096,112 671,651 \$1,502,932 SUM OF LATER 1974 BOND PROJECTS (5) : 59 7 \$27,855,491 \$15,270,724 41 361 01 51 1001 551 \$199,134 \$1,413 850,818 \$29.645 \$549,418 \$301,198 PER IN MI DER LANE MI PER LANE MI PER LANE MI PER LANE HT PER LANE HILE \$71,651 \$1,533,845 \$10,570,897 12,778,541 29.0 156.8 \$65,766,843 \$50,811,909

141

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21

DER LN MI DER LANE MI DER LANE MI

19.782

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PER LANE MI PER LANE MILE

	A060ST 1993			197	8 8089	PROJEC	15 (05	T BREALDOWN									
	ERG 8 8067 8	ROAD	FROR			BILES		S TOT SPENT	COMSTRUCT	81		F1#15#	PATRENT	Ħ	81	*078E8	HOW SPENT
0	4181 348688			BM B1 AVE			10.8	\$5,475,815				1/83	8/26/83		NID-SOUTH	\$126,839	1967,953
5	41018 340008				6	1.3		\$196,144					12/24/85	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		*******	
	4192 349918		POWERLINE.		6	1.4		\$7,083,262			1000	12/94		\$1.516.335	CRAVER-THEF	\$13,400	\$730,408
0	4143 344826	BCHAB		/POWERLINE	4	2.6		\$1,673,878					3/1/82		CRAVER-TREP	\$77,571	
3	4104 349034	RCHAS	SR 7 / WW		6	1.1		\$9,332,001					3/16/83	50 STATE   13 S	EURDE-BOVE		\$1,077,544
	4185 348842	BCRAS	SW 81 AVE		6	2.1		\$2,598,332	125000000		3.0		10/12/83		CRAVEN-THEP	\$68,076	\$162.997
τ	4106 340059	BCR88		SW 81 AVE	6	1.6		\$85,374				1/82	50.5		CRAVER-TRRP	\$11.485	\$125
t	£79-59 350561	BCBAB		1/80 78 AVE	6	1.4	2.4	\$2,034,771				1/82			CRAVER-THEP	\$6,550	
2	E85-86 352641	PROSPECT	ARBREWS /		6	1.1	7.7	\$3,820,043			0.00						\$1,121,615
t			POWERLINE		i	0.5	2.0	17,278,878					7/22/82	1329.866	UMS-MAT-ST	\$33,935	\$731,716
t				/POWERLINE		1.5		17,373,885					7/22/82		URS-MAT-ST	1210,207	500000000
	4189 348883		PINE ISLNO		6	2.4		\$4,828,898				1000000	3/1/92		WES-HAT-ST	\$452,108	\$72,066
t	4118E 340091			1-95	6	1.4		\$12,300,232				1/85	12/85		#10-500TH		\$6,781,475
t	4118W 3488S1		0.000	58 7	4	2.1	100	\$8,106 112			12/11/2016	5/87	6/87		FLA DOT		\$4,298,864
t	4111 340109		RABIRE DR		3	1.8	27	\$2,426,076				100 m	19/13/82	1771.893	W1802-61W	\$17,817	1487.954
C	4112 348117	ALA	SE 2 ST /		3	1.0	3.1	\$6,521,641				1111	6/91		MID-SOUTH	\$10,202	\$335,834
τ	4113 340125	CYPRESS	CONNESCIAL		5	1.5	7.5	\$3,332,122				STEEL SOCIAL			CRAVEN-THEP	\$35,729	*******
1	4114 348133	BW 12 AVE			5	1.0	5.0	\$46,117		STS & HWYS	****		*******		REYSTONE	15,342	
	4115 340141				6		17.0	\$4,973,592		어려면 다이얼마라다	4/82	5/84	5/8/84		CRAVES-TERP	138,342	1970,700
t	4116 348158				6		15.6	\$5,592,963					11/7/83		CRAVES-THEF	162,846	\$178.382
1	41175 340166				6/4	1.1	5.4	\$4,318,580			2000000	100000000000000000000000000000000000000	8/85		EUNDE-08V2	176,497	15,635
C	4117# 340869					2.2		14,485,855					8/87		COMDE-DEVS	\$285,456	\$440.000
C	4118 340174						10.2	\$3,688,488			100		1/27/83	\$5000 POS.TH	PRC HARRIS	\$74,467	\$710,379
C			SAMPLE /				12.6	\$3,983,121				9/82	9/22/82		CORSOER-TWO	\$46,589	\$248,944
Č	4128 348198			ONIVERSITY	5		12.5	16,994,722				6/87	8/87		POST-BCELY	\$61.437	\$1,843,870
C	4121 340208	SW 188 AV	CRIFFIN /	STIBLING	1	1.8	5.4	\$5,023,446	245844712			3/89	1/51	950 R.C. (1.00kg)	BERRY-CALVE	\$6,717	1508,316
ι	4122 348216					1.0	1.1	\$4,982,929				10/91	3/93		BERRY/8200RE	1,200	\$275
t	1173 344224					0.5	2.0	162,421			100	7/91	- a		BELTRIC-BOTT		\$59,241
t	4174 348737				6	1.1	6.6	15,578,371				1/83	4/19/83		POST-BEELT		\$1,613,525
	4125E 340240	\$718118	58 7 /	TURBPILE	6	1.1	7.4	\$5,344,827							BEISW-HOCH		\$2.961.386
t	4125W 349249		and the same of the same		6		13.2	17,197,068	101000			6/98	7/91		BEISH-HOCK		***************************************
2		AMBREUS	BEN BINER		4	8.2	1.1	\$1,502,453		HARDRIVES			3/12/81		ENNOT-DOAD	\$15,300	\$15,995
t	4127 248265	3282156	BIS BIVES	398188	6	8.3	1.8	\$327,714		TRIPLE R	-7.31	2/83	2/3/83		PRC HARRIS	\$6,535	1600
C	E88-82 358785	3218802	BIO RIVER	390106	6	H/A	1/4	\$1,656,385	\$1,689,865			2/83	2/3/83	********		\$6,448	
C	4128 348273	ATA	PORPARO /	LADO B SEA	3	1.5	4.5	197,619	(SEE 4117)		11.0				#18-S681#	\$10,747	186,942
2	4179 348281	SW 10 ST				2.0	1.1	11,165 414	\$3,35,,961				3/31/03	1174.660	RETTH-SCRE	1164,955	1344,838
t	4130 340799				- 1	1.1	4.4	\$1,800,521			3/81	1000	9/3/82		\${{\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	134,558	\$94,157
C	4131 348387								\$1,145,038						KETTH-SCHR	\$91,611	\$74,417
1	4132 340315					2.0			\$2,429,412			400	1/12			\$19,858	\$597.370
	4133 346323		SW 17 ST /		6		13.8		\$3,471,144				1/18/83		10105-01VI	157.727	12,366
	4134 348331				2		1.1	1264,683					4/1/89		18-80025	13.275	1188
	41345 358718				2	1/4		198,788					4/2/80		IM-HOUSE	17.425	100000
t	4136 349711				2	1.1	1.2	\$183,887		MEERLEY			1/9/86		CRAVER-TERM		
								***********									
						57.4	784.1	\$153,976,067				1000		14,874,784		\$7,610,143	
								1881			PE/COR		141		l.	21	
								\$558,310 PER 1407/8715	1391,595 PTP 14W17#11T				(08 1/7)	\$56,004		\$9,642 FFB 14MF /MT :	\$101,918 PER 1487/81

HAY 1992 # ENGINEERING RESOLUTIONS \*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* DATE FINAL " OLD FAMIS OR

FROJ 0	MEW LGFS BOC	TA ROAD	FROM / TO	LANES	MILES		TOT SPENT	CONSTRUCT	BY			PAYMENT	PE	81	OTHER EXP	BON SEEN
C 5002																
	250173	COPANS ROAD	TURNPIKE / POWERLINE	4	1.6	6.4	\$3,875,979	13,345,323	TRIPLE R	9/82	6/85	6/5/85	1244.314	PRC HARRIS	\$196,342	\$70,000
C 5003	350967		ROYAL PALM / WILES	4	1.9	7.6	\$1,327,800	\$1,311,800		0.000	4/86			CEE-JENSON	\$16,000	,
C 5005	351104	DAVIE ROAD	CRIFFIN / STIRLING	5	1.4	7.0	\$2,882,812	12,877,412	TRIPLE R	3/87	7/88			IN-HOUSE	\$5,400	- 22
C 5008	315 127 7307	NW/NE 48 ST	POWERLINE / OLD DIXIE	5	1.9	9.5	\$5,579,969	14,992,118		3/89	10/90	2192	\$587,851	CRUN-THINPSH		
C 3009	350835	GRIFFIN ROAD	1-73 INTERCHANCE	4	1.5	6.0	1333,346	1295,025	WEEKLEY	8/85	2/84		16300000000			438,321
C 5011	352617	HOLLYWO SLVD	FLAMINGO / UNIVERSITY	4	4.7	18.8	\$2,904,212	12,886,112	COMMUNITY	7/85	3/87	8/89		OMID-SOUTH	\$20,100	
C 5014	350876	NW 19 STREET	SR 7 / POWERLINE	3	3.0	15.0	\$6,339,606	46,333,084			10/97			IN-HOUSE	1940	15,562
C 3015	351320	CORAL RIBGE D	R BRIDGE OVER C-14	6	MIA	W/A	\$787,348		STATE PAV	7/88	4/89	(1000)		IN-HOUSE		,
C 5014	351072		COMMERCIAL / HCHAB	4	1.0	4.0	\$1,364,705	\$1,364,705			8/88	2/89		TAMARAC	50	
C 3017			NW 29 ST / C-13	6	0.8	4.8	12,600,061		HARDRIVES			10/86	\$174.000	KUNDE-SPRCHR		
C 5018	The state of the same of	DAK PE BLUD	UNIVERSITY / MW 120 W	Y 4	3.2	19.2	15,536,207	14,885,109			7/90		집중하다 귀리 라라고	KEITH-SCHHAD	(International	12211-44
U 5019	315 127 7349		TAFT / PEMBROIE	4	2.25	-	13,094,888	13,074,888		Sec. 25.5	11/91	5.505.57		BERRY/PENB P		
C 5029	850959		HILLSBORD / PALM BEAC	H 4	0.5	2.0	\$817,493		WEEKLEY/MUK			8/87		KETTH-SCHHAR		
C 3021	352609		ATLANTIC / NW 62 ST	4	2.1	12.6	13,844,503	13,482,944				7/15/85	\$354.119	CRUM-THAPSH	\$71	69,875
C 2055	352641	PROSPECT RO	AMOREUS / OLD DIXIE	4	0.8	4.8	\$2,533,817	12,533,817		- The state	12/86		********	_ /n /n	***	**,0/2
U 5023			SCL RR / CYPRESS 20	4/6	0.9	4.4	12,189,113	11,945,949			9/91	10101	1242.144	KETTH-SCHWAR	il.	
C 5024		ROCK TSLAND	HENAS / ROYAL PALM	4	3.0	12.0	\$6,176,193	15,546,963		0.000	4/91			WILLIAMS-NTF		
C 3025	350975		RIVERSIDE/ROCK ISLAND		1.2	4.8	12,332,804	12,332,804			5/87		10271544	CRUN-THEPSH		
5026	350124	SAMPLE ROAD	TURNPIKE / 1-93		2.2	13.2	81,957,697	11,642,483				4/7/87		IN-HOUSE	1230,214	185,000
5835			I-95 / US 1	5/4	1.5	8.0	63,577,611	12,871,415				5/21/91	\$705,994	7737011370	1504,514	+03,444
5037	352674		COMMERCIAL / SOUTHGATE		2.3	13.8	\$5,511,687	15,263,607		19/87		3721171		KUNDE-SPRCHR		
C : 038	315 127 7314		BOCK ISLAND/UNIVERSIT		1.9	7.6	\$2,945,532	12,655,337				11/20/90		CREW-THINPSN		139,398
C 5039	351213	LYONS ROAD	SAUGRASS / HILLSBORD		1.5	9.0	14,154,946	64,154,946		7.5	7.5	10/10/89	********	CHEN-THIN 3H		*87,870
E 3843	351254	SHERIDAN ST	FLANINGO/1-75(ORATHAC		HIA	MIA	\$320,443	1316,743				3/23/89				13,700
C 3047	351304		SW 125 AVE / HIATUS RI		1.4	5.6	11,094,551	11.094,331			4/88			TH-HOUSE		*0,700
U 5051	7777	PINE ISLAND	SD 84 / SUMDISE	1	3.2	19.2	17,928,484	16,930,304	Note that the same of the same		1/93	9168	\$997,980			
U 5052			NE 62 ST/RACETRACK RD		1.75	7.0	14,284,735	13,604,701		1/91			1480,034			
C 5834			IMPROVENENTS (4)	WIA	N/A	N/A	1598,483		CONMUNITA		9198		\$94,473			
5057	315 127 7323		SR 84 / BROWARD	4	1.1	4.4	12,513,102	12,513,102		1/98				WINNING/CULF		
J 5070		STIRLING RD	UNIVERSITY / PALM AVE	. 5520	1.8	7.2	12,818,772	12,818,772		9/91			***	#1WHIMP100CF		
5071	315 127 7369		DEALIGNMENT & SE & ST		0.2	0.6	1320,375		OCEAN BAY				**	IN-HOUSE		
U 5072			UNIVERSITY/PINE ISLAM	A	0.8	4.8	12,608,838	12,600,858			11/92			TH-HOUSE		
0 5473	315 127 7324		HILLSBORD / PALM BEACH	100	1.0	4.0		12,710,232								
	315 127 7367	The same of the sa	SUMPLISE I SUMPLY OF E		1.5	9.0	\$2,710,252 \$3,137,325	13,137,325		6/92						
C E79-20		GRIFFIN BOAD	. 이번 이 아이에 가장 되었다면 없이 어머니? 그래 그래 그래?	· ·	H/A							10/2/04	***	******	** ***	
MATERIAL STREET	H-1001171		[1] 12 [		100	M/A	1429,773		POWELL BROS	Service Services	2000		\$50,460		\$5,075	
C E79-20			BRIDGE P SPANISH RIVER		0.1	9.2	1386,915		COASTAL BIV					IN-HOUSE	\$6,199	
C E79-42		POWERLINE RO		•	M/A	N/A	\$337,972		CHAMPACKE			#154184		CRUM-THIMPSH		1
C E79-47		HABIDAILTE BO	[[하다 [[하다] 보기 [[하다]		0.6	2.4	\$100,020		HARDRIVES	5/81				PORPANO	120	
C E79-58			MARGATE / MW 109 TERR		2.4	14.4	13,537,267	13,501,384		4/82				CRUH-THIMPSN	137,895	
C E81-09	364760		BUIDGE & C-13 (325933		NIA	W/A	1433,581		VOLUNTEER			4/19/83		IN-HOUSE	14, 19	
C E85-16	350918	2M 100 VAE	GRANGE DR / TREE TOPS	5	0.8	1.6	\$291,308	\$288,819		4/83	4/84	4154184		3200H-HI	12,493	

# REVISED IN-HOUSE

279.9 \$106,546,467 \$99,170,654 1001 931 \$362,459 1374,307 PER LAME NI PER LAME BILE

\$4,031,510 \$335,500 \$809,803 61 11 \$21,549 \$1,913 \$2,890 PER LM MI PER LM MI PER LAME HI

U134 \$1 1461 14114UE 14234

Vage 1 79 BAS RESOS ANEERING RESOLUTIONS 1979-80 Date Date Approved COMPLETE #172,869 GRIFFIN BOOK 11/14/78 LANDSCAPING: BROWARD BOULEVARD from S.R.7 to I-95 7/19-3/80 ASPHALTING: a)STIRLING ROAD 1415 feet West and 12/5/78 ~ one mile East of Hiatus Road TESTING #21,163 HOLLYWOOD. QUARRIES b) HIATUS ROAD 4950 feet South of #214 Stirling Road (N SHEREIDAN :-79-3 SIDEWALK CONSTRUCTION: NORTHWEST 31 AVENUE, East #32.611 4/81 side between Northwest Fifth and Sixth Streets HARDRINES BROWARD BLVD. 3/18/79 10/3/78 PEMBROKE ROAD from Douglas Road to E-79-4 RESURFACING: #16,695 OURNERS Palm Avenue 1/9/79 4/20/79. ROAD CONSTRUCTION: Southwest 50 Street, South-3-79-8 west 51 Street, Southwest 51 Court, Southwest 52 #74,06A CREATED # MOST GREATER REMANDED MOLKWOOD QUARTES TESTINE Court - from Southwest 27 Avenue East to South-4/60 west 25 Terrace (a/k/a Southwest 26 Avenue) for a total of 2,000 1.f. 3/20/79 Intersection of Southwest 64 Terrace -79-6 RESURFACING: and Hollywood Boulevard ASPHALT SURFACE: Johnson Street from Flamingo
Road to Hiatus Road 12" surface for 4-lanes Communication of Flamingo
(two 24' roadways) -79-7 ASPHALT SURFACE: Johnson Street from Flamingo \$18,742.00 10/1/29 3-27-79 Pembroke Road from U.S.441 to -79-8 LANDSCAPING: University Drive Pembroke Road from Flamingo Road, west -79-9 PAVING: approximately 1.25 miles (bituminous 12000 \* MOST TESTING HOLYWOOD GUNGELES #60 "175 concrete) -79-10 ROAD CONSTRUCTION: Northwest 62 Street from I-95 to Powerline Road (add 3 lanes and resurface 2) 11/13/79-Sample Road O tfall at Cap Knight 4/3/79 -79-11 CONSTRUCTION: Bayou, Lighthouse Point #95,560 447 -79-12 SIDEWALK CONSTRUCTION: Pembroke Road, south side under Florida Turnpike - 400 feet of 5-foot wide asphalt sidewalk and 200 feet of 6-foot high 9/79 310-FENCE chain link fence. 813-WEERE 5/16/79 30/8P University Drive at 79-13 PEDESTRIAN CROSSING: Tamarac Elementary School
YOHALEN \*18,003 SOMMENSTERN \*1425 FENCE FREE CONSTRUCTION: Sample Road from Power Prine Road ATLANTICATION BUSINESS DEDRAL \$5,769 5/16/7: to I-95 5/16/79 3-79-15 ROAD CONSTRUCTION: Southgate Blvd. from Dogwood Canal to S.R.7 #45 sport ROAD CONSTRUCTION: Northeast 15 and 16 Avenues 18/5 5/16/79 BERGERON E-79-16 from Sunrise Blvd. to Northeast 26 Street
WHEST. #4950 TREVEATION #20,407 FEMINS #3
E-79-17-ENGINEERING DESIGN: Atlantic Blvd. from University TEST \$9375 \$2,578,609 5/16/79 9/80 MID-50114 Drive to Pine Island Road #73,867 5/16/19 E-79-18 ENGINEERING DESIGN STUDY: Sample Road from S.R.7 2/83 410-50871 \$49,700 to Powerline Road 5/16/19 E-79-19 COPANS ROAD BRIDGE DESIGN: Over the Florida Turnpike E-79-20 FOUR BRIDGE DESIGNS: 1. Terra Mar over Spanish River (Pompano Beach) 5/16/17 2. Griffin Road over C-10 Canal 3. Ravenswood Road over Dania Cutoff Canal 4. Northeast Fourth Avenue over South Fork of Middle River 5/16/19 E-79-21 CONSTRUCTION: Bike path on University Drive from Hollywood Boulevard to Miramar Parkway \$800 - B.C. AVIATION DIV. RIW USE

### INEERING RESOLUTIONS 1979-80 .

City of Lauderhill:

to Sterling Road

-79-22

er Page

-79-34

-79-13

-79-35

96,102 -79-36

JWEEKLEY 3579

-79-37

-79-38V

-79-40)

Approved

to Northeast 62 Street DI DOWATO - 4550 - DESIGN

STREET LIGHTING: Davie Road Extension from

:-79-23 LANDSCAPING: Sunrise Blvd. from S.R.7 to I-95

:-79-24 LANDSCAPING: Powerline Road from Sunrise Blvd.

3-79-25 ROAD CONSTRUCTION: Pine Island Road from S.R.84

E-79-27 LANDSCAPING: State Road 84 from S.W. 136 Avenue

N.W. 21 Street from N.W.49 Ave. to S.R.7

N.W. 26 Street from N.W.47 Ave. to S.R.7

Construction of an additional lane between Southwest 90 Ave. and Southwest 100 Ave. -

N.W. 19 Street from N.W.47 Ave. to S.R.7 N.W. 49 Avenue from N.W.12 St. to N.City limit N.W. 55 Avenue from N.W.15 St. to N.W.19 Street

\$760 - TEST "

CONSTRUCTION: Northwest 62 Street between 7-10-79
Powerline Road and Northwest 31 Avenue RINKER 5240

\*\*3896 ACRC. SERICES TEST \$1/268 SMITH ARRIVAL \$158

CONSTRUCTION: Sample Road between U.S. 441 (SR 7)
and Powerline Road HOLLYWOOD QUARRIES \$105,383

\*\*TESTING \$1,324 CONSTRUCTION \$1,324 CONSTRUCTION \$1,446 STING \$1,44

to Griffin Road SPENT & 4,008

TEST - \$800 CATEWAY - \$143,867

ROAD CONSTRUCTION: Pembroke Road from Palm Ave to

to Commercial Boulevard

CONSTRUCTION: Davie Road Ext. from Stirling Rd.

Commercial Boulevard

:-79-26 LANDSCAPING: Miscellaneous projects \$200,000

to U.S. 27

3-79-28 RESURFACING: The following streets within the

E-79-29 ROAD CONSTRUCTION: Stirling Road Improvements

-79-30 RESURFACE: Southwest 100 Ave. from Griffin Road

-79-31 MISCELLANEOUS ROAD CONSTRUCTION PROJECTS 476453

-79-33 Northeast 26 Street Completion of 1976 GAS TAX-

ANDREWS AVE. BRIDGE: Incentive Program for

CONSTRUCTION of the Oakland Park Blvd. Bridge

E.D.A. Project: City of Wilton Manors

(Was S.& H. Reso changed to Eng. Reso)

-79-39 CONSTRUCTION: Prospect Road from N. W. 31 Ave

-79-41 CONSTRUCTION: Northeast 6 Ave from Wilton Dr. to

Andrews Ave. Bridge Project

at Andrews Avenue Extension

over the C.-42 Canal

University Drive

( See Reso Folder) SAMESE LIES to WHES

-79-32 MASTER PLAN DESIGN STUDY: Pine Island Road

Cooper City High School area.

PROJECT TITLE

Sheridan Street to Stirling Road

to Broward Boulevard

Date

Date

5/16/19 }

1/81-1/82

LIFESTYLE

\$163.00S

#24,000-GHUGETTE HI,500 FLA

CMY OF

7/79 831,951

HOLLYWOOD

6/81

CRAVEN -THOMPSON:

10/79

\$256,988

Dains

#B1,206. HOLLY

\$4,369 - FORTO

\$153,096-TOTAL

4/83 \$370,611

WOODWARD

12/80

\$116,167

LAUDERHILL

REHMBURSED TOTALLY

COMPLETE

5/16/19

Arenand 5/10/19

5/16/19

5/16/79

5/16/79

5/16/79

5/16/79

5/16/79

5/16/79

5/16/79

11/7/78

7-10-79

184 PLANTER \$184 SMITH MERIN \$15 5/16/79

9-11-79

9-11-79

9-11-79

9-11-79

AVAISAURCH

TESTING

\$411

TESTING

4/24/79

vot

# 5/16/19

9-11-79

79-62 CONSTRUCTION: Southwest 136 Avenue at New

High School

MINEE	RING RESOLUTIONS 1979-80		Page 4
:SO #	PROJECT TITLE	Date Approved	Date COMPLETED
-79-63	CONSTRUCTION: Northwest 50 Street at New School	9-11-79	#63,422 ROZZO
-79-64	CONSTRUCTION: Sheridan Street from Palm Avenue to Flamingo Road BEREY - P.E. + 3270	9-11-79 7/80-481	TRIPLE 12 1 #661,569
-79-69	CONSTRUCTION: Sheridan Street from Flamingo Road to Hancock Road # 1,490 - 305,000CTH	9-11-79	1 66,362
-79-66	CONSTRUCTION: Southwest 10 Street - Grade Separation at Seaboard Coast Line RR SEE 1978 BOND 4125	9-11-79	
-79-67	CONSTRUCTION: Lyons Road - Resurface North of Hillsboro Blvd to Palm Bch County	9-11-79	
-79-68	LANDSCAPING: Andrews Avenue - Bridge at New River GEE 1978 BOND PROJECT	9-11-79 #4126	
-79-69	CONSTRUCTION: Rock Island Road from Cardina Road to Wiles Road	9-11-79	
280−1	RECONSTRUCTION AND SIGNALIZATION: Oakland Park Boulevard and Northwest 55 Avenue Intersection #167625	10/14/80	# 167,087 # 375-TESTING
:-80-2	CONSTRUCTION: Sunrise Blvd. Bridge over Middle River #6,448-FA TESTING 1,750,435 TRIPLE R	10/14/80 #1,756,876	# 4127
3-80-3	CONSTRUCTION: Military Trail from Sample Road to Northwest 48 Street	12/23/80	SEE 1978 BOND # 4130
	*		
		351 132	

Date Date Approved PROJECT TITLE COMPLETE RESO # NTERSECTION EXPANSION: Oakland Park Blvd. and 6/23/81 State Road 7 State Road 7 HARDRIVES \$1,870.504 INTERSECTION EXPANSION: Oakland Park Blvd. and 160000 \$179,000 -81-26 Powerline Road 2-81-3 CONSTRUCTION: Pine Island Road Add two lanes from Broward Blvd. to Sunrise Blvd. 3-81-4 INTERSECTION EXPANSION: Pembroke Road and State Road 7 CONSTRUCTION: Hillsboro Blvd. 3-81-5 SEE #4118 Add two lanes from Powerline Road to Goolsby Road 3-81-6 CONSTRUCTION: Hollywood Boulevard

3-81-10 CONSTRUCTION: Northwest 19 Street

:-81-11 BRIDGE MAINTENANCE:

\$300 to -LAWYERS

:-81-14 [LANDSCAPING: U.S. 1

-82-16 TREE TOPS PARK

:-81-13 LANDSCAPING: University Drive

34638 CONSTRUCTION: School Walks
34638 P.J. 160 7557
-81-9 CONSTRUCTION: Nob Hill Road over C-13 Canal

Six-laning from Powerline Road to State Road 7

to Pine Island Road AND

Southwest 136 Avenue from Sunrise Blvd. to Northwest Ninth Street

-81-12 IMPROVEMENTS: Sunrise Blvd. from S.W. 136 Avenue

From Hollywood Blvd. to County Line Road

From Sample Road to Southeast 15 Street

Northeast Sixth Avenue from Commercial Blvd. to Northeast 62 Street

ROWEN-THOMPSON # \$ 2,495

:-81-15 DRAINAGE IMPROVEMENTS AND RESURFACING:

Plo 609 Add two lanes from University Drive to Palm Ave. 15,000 KeS 1,995,509 - COMMUNITY ASPHACE CONSTRUCTION: Hillsboro Boulevard Add two lanes from State Road 7 to Powerline Road

+960.€

4/83 + 4/84

433,581

### **PROJECTS**

PROJECT _NO	PROJECT	LIMITS
5001	Commercial Blvd./U.S. 1	Intersection
5002	Copans Road Bridge	@ Turnpike
5003	Coral Springs Drive	Royal Palm to Wiles
5004	Cypress Creek Road	Intersection @ Powerline Road
5005	Davie Road	Griffin to Stirling
5006	Davie Rd. Ext./University Drive	Intersection
5007	Douglas Road	N.W. 23 St. to Taft Street
5008	N.E. 48 St (NW 48 St.)	Dixie Hwy. to Powerline
5009	Griffin Road	@ I-75
5010	Hiatus Road	C-14 Canal to Sunrise Blvd.
5011	Hollywood Boulevard	Flamingo Rd. to University Dr.
5012	Johnson St./University Dr.	Intersection
5013	Lyons Road	Sample Rd. to Sawgrass Expwy.
5014	N.W. 19th Street	Powerline Rd. to State Rd. 7
5015	Nob Hill Road	@ C-14 Canal
5016	Nob Hill Road	44th Street to McNab Road
5017	Oakland Pk. Blvd./SR 7	Intersection
5018	Oakland Park Boulevard	University Dr. to N.W. 120
5019	Palm Avenue	Taft Street to Pembroke Road
5020	Powerline Road	Hillsboro Blvd. to P.B. County Line

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5021	Powerline Road	N.W. 62 St. to Atlantic Blvd.
5022	Prospect Road	Andrews Avenue to Dixie Highway
5023	Race Track Road	S.C.L. RR to Cypress Road
5024	Rock Island Road	Royal Palm Blvd. to McNab Rd.
5025	Royal Palm Boulevard	Riverside Dr. to E. Rock Island
5026	Sample Road	Powerline Road to I-95
5027	N.W. 7th - 9th Avenue	Connector
5028	N.W. 64th Avenue	@ Sheridan Street
5029	N.W. 62nd Street	Andrews Avenue to N.W. 31 Ave.
5030	N.E. 62nd Street	U.S. #1 to N.E. 9th Avenue
5031	Stirling Road/U.S. 1	Intersection
5032	Sunrise Boulevard	West Hiatus to Flamingo Rd.
5033	Sunset Strip/Sunrise Blvd.	Intersection
5034	N.W. 10th/15th Street	Connector - Pompano
5035	S.E./S.W. 10th Street	U.S. 1 to I-95
5036	U.S. 1/Broward Boulevard	Intersection
5037	University Drive	Commercial to Southgate Blvd.
5038	Wiles Road	Rock Island to University Dr.
5039	Lyons Road	Sawgrass to Hillsboro Canal
5040	Military Trail	Hillsboro Blvd. to Hillsboro Canal
5041	S.W. 24th Street	Pine Isl. Rd. to Pine Isl. Ridge
5042	Miramar Parkway	I-75 to Flamingo Road

5043	Sheridan Street	I-75 to Flamingo Road
5044	Bass Creek Road	I-75 Commitment
5045	I-595/Nob Hill Rd. Bridge	Over North New River Canal
5046	Griffin Rd./University Drive	Intersection
5047	Broward Blvd. (Culverts)	S.W. 125 Avenue to Hiatus Road
5048	N. W. 6th Street	N.W. 27 Avenue to N.W. 31 Ave.
5049	N.W. 12th Avenue	Commercial Blvd. to N.W. 62 St.
5050	Hammondville Road	N.W. 10 Ave. to Powerline Road
5051	Pine Island Rd.	Sunrise Blvd. to State Road 84
5052	North Andrews Avenue	McNab Road to Atlantic Blvd.
5053	N.W. 56th Avenue	Oakland Park Blvd. to Sunrise
5054	Intersection Improvement Program	
5055	N.W. 1st Street, Dania	F.E.C. RR to Byron Road
5056	Miramar PkwyLandscape, Irr. & Light.	Flamingo Road to Palm Avenue
5057	Nob Hill Road	State 84 to Broward Blvd.
5058	North Andrews Avenue	Atlantic Blvd. to NW 62 St. Limits
5059	Pembroke Road	Lighting
5060	Water Plant #2A	
5061	Pavement Management System	
5062	Sheridan St. Beautification	Palm Ave. to Flamingo Road
5063	Pine Island Road	Orange Drive to Nova Drive

Page	4

Page 4		
5064	Nob Hill Road	So. Sunrise Cty. Lmt. to Sunset Stp.
5065	School Crossing Easements	(Traffic Engineering Project)
5066	Prospect Rd. @ N.W. 10 Avenue	
5067	Griffin Road	SW 142 Ave. to SW 172 Avenue
5068	Hillsboro Boulevard	West of State Road 7
5069	Royal Palm Boulevard	Riverside Dr. to Coral Ridge Drive
5070	Stirling Road	University Dr. to Palm Avenue
5071	S.E, 5th Avenue	Realignment
5072	Broward Boulevard	University to Palm Avenue
5073	Military Trail	N. of Hillsboro to County Line
5074	Southwest 100th Avenue	SR 84 to Griffin Road
5075	Northwest 6th Street	N.W. 27 Ave. to N.W. 31 Avenue
5076	McNab Road	U.S. 1 to Dixie Highway
5077	Rock Island Road	Commercial to Oakland Pk. Blvd.
5078	Pine Island Road	Sunrise to Oakland Park Blvd.
5079	Copans Road	I-95 to U.S. 1
5080	Pine Island Road	Griffin Rd. to Stirling Rd.
5081	Broward Boulevard	Pine Island to Nob Hill Road
5082	Rock Island Sewerline	
5083	Weston Airport Acquisition	
5084	Orange Drive	SR 7 to Florida Turnpike
5085	Stirling Road	Hiatus Road and Palm Avenue

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Page 5		
5086	Deerfield Sidewalk	S.W. 10 St. to Powerline Road
5087	Environmentally Sensitive Lands	
5088	Tri-Rail Sta. @ Tigertail Road	
5089	Regional Water Supply - BCOES Project #31140	Wellfield Site Acquisitions
5090	Race Track Road to Arvida	Powerline Rd. to CSX Transp.
5091	Corridor Location Study	Andrews Ave., from Atlantic Boulevard to Copans Road
5092	Northwest 25th Terrace	W. Broward Boulevard - N.W. 4th Street (Bond Project)
5093	Andrews Avenue	Prospect Road - I-95 Overpass
5094	Riverside Drive	University Drive - N.W. 90th
5095	Jail Access Road	Bond Project
5096	3rd Avenue - North & South of Hillsboro Boulevard	
	Hillsboro @ 12th Avenue	
	3rd Avenue - South of Sample Road & N.W. 5th Terrace - South of Sample Road	
5097	N.W. 1st Avenue	@ Broward Boulevard
5098	Everglades Buffer Strip	
5099	Curb Return	SW corner Andrews/NW 2nd Street
5100	Culvert Crossing Design	
5101	N.W. 41st Street	West from Pine Island Rd.
5102	Broward Boulevard	Right-turn Lane @ SW 1st Avenue

5103	N.W. 31 Ave. (aka Martin Luther King, Jr. Blvd.) Resurfacing & French Drain	Davie Blvd Broward Blvd.
5104	Nob Hill Road	R/T Lane @ Oakland Park Blvd.
5105	Sheridan Street	SW 184 Ave SW 196 Ave.
5106	West Sidewalk-NW 31st Avenue	Broward Blvd, to Sistrunk Blvd.
5107	Northwest 44th Street	Rock Isl. RdInverrary Blvd. W.
5108	Canal Bank Grading	@ Berg Property
5109	Bus Bay & Bus Stop Crosswalks	Oakland Park Boulevard
5110	Riverside Drive	Wiles Road to Sample Road
5111	Copans Road	Powerline Road to Lyons Rd.
5112	College Avenue	Nova Dr. to SW 39th Street
5113	Coral Ridge Drive	Royal Palm Blvd. to Wiles Rd.
5114	Culvert Extension	@ Pine Isl. Rd. & 44th Street
5115	Drainage Improvement	Bryan Road/Tigertail Blvd.
5116	Douglas Road	Sheridan St. to Pembroke Road
5117	McNab Road	University Dr. to Pine Isl. Rd.
5118	N.W. 34th Avenue Intersection Improvement	Sunrise Boulevard
5119	Dixie Highway Traffic Study	Griffin Rd. to Sheridan St.
5120	Flagler Drive Traffic Study	Andrews to N.W. 13th Street
5121	Pine Island Road	Oakland Pk. Blvd. to Commercial
5122	Hollywood Boulevard	Fla. Trnpk, to University Drive

5123	Hiatus Road	State Road 84 to Griffin Road
5124	Railroad Crossings (FEC & CSX)	Construction/Maintenance
5125	North Andrews Avenue	15th Street to 18th Street
5126	Bus Shelters	General
5127	Culvert Crossing - Hiatus Rd. @ Canal 3L-3W	Joint Funding Proj. with O.P.W.C.D.
5128	N.W. 27 AveRoad Repair	500 Ft. No. of Broward Blvd. to S.W. 5th Street
5129	Temporary Bus Terminal @ West Regional Court House	Pine Isl. Rd. & Broward Blvd.
5130	Sidewalk, Drainage & Landscaping	NE 33 St., Pompano (Cresthaven)
5131	Hiatus Road	Griffin Road to Stirling Road
5132	North Andrews Gardens	NE 3 Ave., NE 57 Crt., NE 58 St.
5133	Lyons Road/Wynmoor Way	*ntersection Improvement
5134	Johnson Street/North 46 Avenue	Intersection Improvement
5135	Davie Road/SW 39th Street	Intersection Improvement
5136	SE 14 Ave./Hallandale Beach Blvd.	Intersection Improvement
5137	North Andrews Gardens	Northeast 57 Court
5138	North Andrews Gardens	Northeast 3rd Avenue
5139	Wiles Road/NW 112 Avenue	Intersection Improvement
5140	NW 21/23 Avenue	Sunrise to N of NW 19 Street

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### Revised 10/19/95

5141	Davie Road	University to Stirling
5142	Douglas Road	Pembroke Rd. to County Line
5143	Hiatus Road	595 to Broward Boulevard
5144	Pine Island Road	Sheridan St. to Stirling Rd.
5145	Wiles Road	Lyons Rd. to Powerline Rd.
5146	A.D.A. Ramp Construction	
5147	Reese Road	Realignment
5148	Pembroke Rd/SW 129th Avenue	Intersection Improvement
5149	Northwest 49 Avenue	NW 26 St. to Oakland Pk. Blvd.
5150	Broward Estates	Neighborhood Improvement
5151	St. George	Neighborhood Improvement
5152	Rock Island	Neighborhood Improvement
5153	Wiles Road	SR 7 to Lyons Road
5154	Hiatus Road	Commercial Blvd. to McNab Rd.
5155	SW 106 Ave/Stirling Rd.	Intersection Improvement
5156	SW 172 Avenue	Sheridan St to Griffin Rd.
5157	Broward Blvd. Landscaping/Lighting	NW 7 Avc. to SR 7
5158	N-7 Canal/Orange Drive	Culvert Crossing
5159	Mills Center Swale Parking	NW 30 Avc. So. of Sunrise
5160	University Drive	Pedestrian Overpass
5161	Taft St/N. 26th Avenue	Intersection Improvement

NON-FEDERALLY FUNDED

(OVER 1 M)

# CONTRACT DOCUMENTS FORMS & SPECIFICATIONS

FOR THE CONSTRUCTION OF CONTRACT NO. B-5-83-16-OF

# GRIFFIN ROAD

FROM S.C.L. RAILROAD TO U.S. 1
AND WATERLINE IMPROVEMENTS FOR BROWARD COUNTY

GCF #69B-1 Rev. 4/1/81

### NON-FEDERALLY FUNDED

### TABLE OF CONTENTS

Division	Description	Page
	CONTRACT DOCUMENTS	
NB	Notice for Bids Addenda as Required	NB-1 - 2
IB	Instructions to Bidders	IB-1 - 29
FS	Florida Statute 725.06	FS-1
P	Proposal	P-1 - 3
SP	Schedule of Prices Bid	SP-1 - SP- 33
Q	Questionnaire	Q-1 - 3
С	Contract and Contract Bid Prices	C-1 - C4a
PB	Performance & Payment Bond	PB-1 - 3
FR	Final Receipt	FR-1
GS	General Specifications	GS-1 - 20

## Technical Provisions

Technical	Provisions	Roadway	TPR-1	-	TPR-	37
Technical	Provisions	Waterline	D S- G1		DS.	4.
Technical	Provisions	Signalization	TP -1	-	TP -	5

## NOTICE FOR BIDS

installation of materials, suppli to Broward County for the constru Railroad to U.S. 1 in Broward Cty. wil County Commissioners until 10:30 at which time proposals will be p Floor Broward County Purchasing D lst. Avenue, Fort Lauderdale, Flo	es and equipment sold and delivered ction of Griffin Road & Water Main from SC l be received by the Broard of a.m. on June 14, 1983 ublicly opened and read in the oth division Conference Room, 236 S. F.
of the Broward County Purchasing	pen to public inspection at the office Division and may be obtained, for a check at the following locations:
2901-A N.W. 62nd Street	
Fort Lauderdale, Florida 33309	
the bid. A Performance Bond and (100%) of contract amount must be The right is reserved by the Boar technicalities or irregularities	(45) of bid amount must be submitted with a Payment Bond at one hundred percent submitted by the successful bidder.  d of County Commissioners to waive in bids at its discretion or to reject ithdraw his bid within forty-five (45) ning thereof.
Dated at Fort Lauderdale, Florida	this 24 day of May ,1983
~	BOARD OF COUNTY COMMISSIONERS BROWARD COUNTY, FLORIDA
PUBLICATION DATES:	
5-24-83	Sol Berger, Acting Director Purchasing Division
5-31-83	ratenasting bittiston
6-7-84	

NB-1

DATE	May	25,	1983	
BID	-		16-0F	

### PURCHASING DIVISION BOARD OF COUNTY COMMISSIONERS BROWARD COUNTY, FLORIDA

### ADDENDUM NO. 1

Roadway and Waterline to U.S. 1 in Broward Co		TOT OT OT	TIM KOUG	110111 5 0	L No TTT See
BID. NO. B-5-83-16-0F					
BID. OPENING June 14,	1983				
TO ALL PROSPECTIVE BIDDE	RS			E	
Plan Sheet No. W-1 and No. SP-32. Change the 2025 Linear Feet.					
	-	NAME	OF BIDDER		3
			ET ADDRESS		
DATE		CITI			
PHONE		***			
		111	LE OF SIGN	ER	

UPON SUBMISSION.

### INDEX (Continued)

### INSTRUCTIONS TO BIDDERS

Paragraph No.	Paragraph Title	Page No.
18	Proof of Carriage of Insurance	IB-8
19	Performance and Payment Bonds	IB-8
20	Qualification of Surety	IB- 9
21	Contractor's Experience Record	IB- 10
22	Utilities	IB- 10
23	Basis of Payment	IB- 10
24	Project Siga	IB-11
25	Taxes	IB-11
26	Minority Business Enterprise Affirmative Action Program	IB-11
	MBE Identification Affidavit	IB-15
	Instructions for MBE Affidavit	IB-21
	Joint Venture Eligibility Application	IB-23
	Schedule of MBE Participation	IB-27
	Letter of Intent to Perform as a Subcontractor	r IB-28
	MBE Unavailability Certification	IB-29

### INSTRUCTIONS TO BIDDERS

- 1. CONTRACT DOCUMENTS: The "Notice for Bids," the "Instructions to Bidders," the "Proposal," the "Contract," the "Performance and Payment Bond," the "General Specifications," the "Technical Provisions," the "Plans," the "Notice to Proceed," and the "Addenda" are the contract documents that will form the contract. Bidders must examine each of the contract documents, visit the location of the work, and inform themselves of the conditions and make their own estimates of the facilities and difficulties attending the execution of the work.
- GENERAL: The following instructions are given for the purpose of guiding bidders in properly preparing their bids or proposals. These directions have equal force and weight with the Specifications and strict compliance is required with all the provisions herein contained.
- 3. SCOPE OF WORK: The work included in this project consists of furnishing all labor, materials, equipment, services and incidentals necessary to construct: Griffin Road from S.C.L. Railroad to U.S. 1 & waterline improvements complete, in place and ready for service in accordance with the Specifications and Drawings.
- LOCATION OF WORK: Griffin Road from S.C.L. Railroad to U.S. 1 in Broward County.

~4 EB

- 5. PERSONAL INVESTIGATION: Bidders shall satisfy themselves by personal investigation, and by such other means as they may think necessary or desirable, as to the conditions affecting the proposed work and the cost thereof. No information derived from maps, drawings, specifications, or from the <a href="Engineer">Engineer</a> or his assistants shall relieve the CONTRACTOR from any risk or from fulfilling all terms of the Contract.
- 6. INTERPRETATIONS, INCONSISTENCIES AND ADDENDA: No interpretation of the meaning of the Drawings, Specifications or other Contract Documents will be made orally to any bidder. Prospective bidders must request such interpretation in writing from the <u>Engineer</u>.
- 7. SUBMITTING BIDS: If bids are submitted in advance of the time for opening as set forth in "Notice for Bids", then they must be received at the office of the Purchasing Division of Broward County, Governors' Club Annex, 8th Floor, 236 S. E. Ist Avenue, Fort Lauderdale, Florida 33301, before 10:30 a.m. on the bid opening date, enclosed in a sealed envelope, plainly marked on the outside:

BID FOR: Griffin Road from S.C.L. Railroad to U.S. 1 and waterline improvements for Broward County.

Bidder may bring bids for submission at the County Purchasing Division, in which case the person submitting the bid must be present at exactly 10:30 a.m. at the Purchasing Division of Broward County, Governors' Club Annex, 8th Floor, 236 S. E. 1st Avenue, Fort Lauderdale, Florida 33301, and submit the bid sealed and marked per above, before 10:30 AM on the bid opening date.

- 8. PRINTED FORM OF PROPOSALS: All proposals must be made upon the blank form of proposal attached hereto and should give the price in figures for the item and the aggregate amount for the work and must be signed and acknowledged by the bidder in accordance with the directions in the proposal.
- 9. ACCEPTANCE OR REJECTION OF PROPOSALS: The COUNTY reserves the right to reject any or all proposals. Any proposal having erasures or corrections in the price sheet may be rejected. Any proposal accompanied by an insufficient or irregular bid guaranty may be rejected. The award will be made or all bids rejected within forty-five (45) calendar days after bid opening date.
- BID GUARANTY: All proposals shall be accompanied by a bid bond executed by a surety company meeting the qualifications for surety companies as specified in Paragraph IB-20, or by a certified check,

cashier's check, treasurer's check or bank draft of any national or state bank, in the amount of five percent (5%) of the total bid price, payable to the Board of County Commissioners and conditioned upon the successful bidder entering into contract with surety as specified within ten (10) days after award of contract; guaranty of the successful bidder shall be forfeited to the Board of County Commissioners not as a penalty, but as liquidated damages for the cost and expense incurred should said bidder fail to enter into contract, with satisfactory surety as specified, or fail to comply with any other requirements of the specifications or of his proposal. Bid guaranty of the unsuccessful bidders will be returned upon award of Contract.

- 11. TIME FOR EXECUTING CONTRACT AND DAMAGES FOR FAILURE TO EXECUTE: Any bidder whose proposal shall be accepted will be required to appear in person at the office of the Board of County Commissioners, or in the case of a firm or corporation a duly authorized representative shall so appear to execute the Contract within fifteen (I5) days after notice that the Contract has been awarded to such firm or corporation. Failure to execute the contract within the specified time will result in forfeiture of bid guaranty.
- 12. DETERMINATION OF LOW BIDDER: Except where the COUNTY exercises the right reserved herein to reject any or all proposals and subject to the restrictions of paragraph II above, the Contract will be awarded by the COUNTY to the bidder who has submitted the lowest responsible bid. The County may also consider, in the purchase of material and in letting contracts for public construction, factors such as residence of the contractor and the principal business location of the contractor, whenever such material can be purchased or the services of materialmen, contractors, builders, architects and laborers, can be employed, at no greater expense than that which would obtain if such purchase were made, or contract let, or such employment given, to a person not residing or in business locally, consistent with Chapter 9, of the Broward County Code of Ordinances and the laws of the State of Florida. The County shall further defer to any other applicable Federal, State or local statute, rule or regulation which may affect the award of a contract for public construction in Broward County, Florida.
- 13. TIME FOR BEGINNING AND COMPLETING THE WORK: The COUNTY shall instruct the CONTRACTOR to commence the work by written instruction hereinafter called the "Notice to Proceed." The CONTRACTOR shall commence the work within fifteen (15) calendar days after the date specified in the "Notice to Proceed", and he shall complete the work within five hundred and fifty (550) calendar days as specified. Failure to complete the work within the allotted time shall cause the CONTRACTOR to pay liquidated damages as set forth in the "Contract."
- 14. PRICE: The price is to include the furnishing of all materials, equipment, tools, including applicable taxes, and all other facilities, and the

performance of all labor and services necessary or proper for the completion of the work except as may be otherwise expressly provided in the Contract Documents.

- 15. POSTPONEMENT OF DATE FOR PRESENTING AND OPENING PROPOSALS: The COUNTY reserves the right to postpone the date for presentation and opening of proposals and will give ample notice of any such postponement to each prospective bidder.
- 16. INDEMNIFICATION: The CONTRACTOR shall indemnify and save harmless the COUNTY, its agents and employees from or on account of any injuries or damages, received or sustained by any person or persons during or on account of any operations connected with the construction of this Project; or by or in consequence of any negligence (excluding negligence of COUNTY, its agents or employees) in connection with the same; or by use of any improper materials or by or on account of any act or omission of the said CONTRACTOR or sub-contractor, agents, servants or employees. CONTRACTOR further agrees to indemnify and save harmless the COUNTY, its agents or employees, against any claims or liability arising from or based upon the violation of any federal, state, county or city laws, by-laws, ordinances or regulations by the CONTRACTOR, his agents, servants or employees.

The indemnification provided above will obligate the CONTRACTOR to defend at its own expense or to provide for such defense, at the COUNTY'S option, of any and all claims of liability and all suits and actions of every name and description that may be brought against the COUNTY which may result from the operations and activities under this Contract whether the construction operations be performed by the CONTRACTOR, sub-contractor or by anyone directly or indirectly employed by either. The execution of this Contract by the CONTRACTOR shall obligate the CONTRACTOR to comply with the foregoing indemnity provision; however, the collateral obligation of insuring this indemnity must be complied with as set forth below. The bid items for payment of the Performance Bond premium and consideration for Indemnification to the COUNTY and Engineer are included in the bid form and must be completed by the bidder in order to comply with the attached copy of Chapter 725.06, Florida Statutes.

17. INSURANCE REQUIREMENTS:\* Without limiting any of the other obligations or liabilities of CONTRACTOR, CONTRACTOR shall provide, pay for, and maintain in force until all of its work to be performed under this Contract has been completed and accepted by COUNTY (or for such

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duration as is otherwise specified hereinafter), the insurance coverages set forth in this Section 17.

- 17.1 Workers' Compensation insurance to apply for all employees in compliance with the "Workers' Compensation Law" of the State of Florida and all applicable Federal laws. In addition, the policy(s) must include:
  - 17.1.1 Employers' Liability with a limit of one million dollars (\$ 1,000,000.00 ) each accident.
  - 17.1.2 Notice of Cancellation and/or Restriction The policy(s) must be endorsed to provide Broward County with (30) days notice of cancellation and/or restriction.
  - 17.1.3 If any operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshorement & Harbor Workers Act and Jones Act.
- 17.2 Comprehensive General Liability with minimum limits of one million dollars (\$ 1,000,000,00) per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability policy, without restrictive endoresements, as filed by the Insurance Services Office and must include:
  - 17.2.1 Premises and/or Operations.
  - 17.2.2 Independent Contractors.
  - 17.2.3 Products and/or Completed Operations CONTRACTOR shall maintain in force until at least three (3) years after completion of all work required under the Contract, coverage for Products and Completed Operations, including Broad Form\_Property Damage.
  - 17.2.4 Explosion, Collapse and Underground Coverages.
  - 17.2.5 Broad Form Property Damage.
  - 17.2.6 Broad Form Contractual Coverage applicable to this specific Contract, including any hold harmless and/or indemnification agreement.
  - 17.2.7 Personal Injury Coverage with Employee and Contractual Exclusions removed with minimum limits of coverage equal

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to those required for Bodily Injury Liability and Property Damage Liability.

- 17.2.8 COUNTY is to be included as an "Additional Insured" with respect to liability arising out of operations performed for COUNTY by or on behalf of CONTRACTOR or acts or omissions of COUNTY in connection with general supervision of such operation.
- 17.2.9 Notice of Cancellation and/or Restriction The policy(s) must be endorsed to provide Broward County with thiry (30) days notice of cancellation and/or restriction.
- 17.3 Business Automobile Liability with minimum limits of one million dollars (\$1,000,000.00) per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability policy, without restrictive endorsements, as filed by the Insurance Services Office and must include:
  - 17.3.1 Owned Vehicles.
  - 17.3.2 Hired and Non-Owned Vehicles.
  - 17.3.3 Employers' Non-Ownership.
  - 17.3.4 Notice of Cancellation and/or Restriction The policy(s) must be endorsed to provide Broward County with thirty (30) days notice of cancellation and/or restriction.
- 17.4 The CONTRACTOR shall provide to the COUNTY Certificates of Insurance in triplicate evidencing the insurance coverage specified in 17.1, 17.2 and 17.3 above. The required Certificates of Insurance shall not only name the types of policies provided, but also shall refer specifically to this Contract and section and the above paragraphs in accordance with which insurance is being furnished, and shall state that such insurance is as required by such paragraphs of this Contract. If the initial insurance expires prior to the completion of the work, renewal Certificates of Insurance shall be furnished thirty (30) days prior to the date of their expiration.
- 17.5 Builder's Risk insurance for the construction of and/or addition to above ground buildings or structures is not required.

of the completed value, covering Broward County as a named in sured, with a deductible of not more than Five Thousand Dollars (\$5,000,00) each claim.

- Waiver of Occupancy Clause or Warranty Policy must be specifically endorsed to eliminate any "Occupancy Clause" or similar warranty or representation that the building(s), addition(s) or structure(s) in the course of construction shall not be accupied without specific endorsement of the policy. The Policy must be endorsed to provide that the Builder's Risk coverage will continue to apply until final acceptance of the building(s), addition(s) or structure(s) by the COUNTY.
- 17.5.2 Notice of Cancellation and/or Restriction The policy(s) must be endorsed to provide Broward County with days notice of cancellation and/or restriction.
- 17.5.3 Flood Insurance When the buildings or structures are located within an identified special flood hazard area, flood insurance must be afforded for the lesser of the total insurable value of such buildings or structures or, the maximum amount of flood insurance coverage available under the National Flood Program.

### ALTERNATE 17.5

- 7.5 Installation Floater for the installation of machinery and/or equipment into an existing structure is/is not required. The coverage shall be "All Risk" coverage including installation and transit for one hundred percent (100%) of the "installed replacement cost value," covering Broward County as a named insured, with a deductible of not more than Five Thousand Dollars (\$5,000.00) each claim.
  - 17.5.1 Cessation of Insurance Coverage is not to cease and is to remain in force (subject to cancellation notice) until final acceptance by Broward County. REOUIRED
  - 17.5.2 Flood Insurance When the machinery or equipment are located within an identified special flood hazard area, flood insurance must be afforded for the lesser of the total insurable value of such buildings or structures, or, the maximum amount of flood insurance coverage available under the National Flood Program.

18. PROOF OF CARRIAGE OF INSURANCE: The CONTRACTOR shall furnish to the COUNTY duplicate policies of insurance described above, together with such certificates of insurance or endorsements required by the provisions set forth in Paragraph 17.

### 19. PERFORMANCE AND PAYMENT BONDS (SURETY):

- a. At time of execution of the Contract, the successful Bidder shall furnish a Performance Bond and a Payment Bond as specified in the Notice for Bids, of the form and containing all of the provisions of the Performance and Payment Bond attached hereto.
- Ь. The CONTRACTOR is required at all times to have a valid Performance Bond and Payment Bond in force covering the work being performed. Each Bond must be in the amount of one hundred percent (100%) of the Contract amount, guaranteeing to COUNTY the completion and performance of the work covered in such Contract as well as full payment of all suppliers, materialmen, laborers or subcontractors employed in the prosecution of the construction project. The performance and payment bonds shall be executed by a surety company of recognized standing authorized to do business in the State of Florida and having a resident agent in the same county as the project. The Surety Company shall hold certificate of authority as acceptable surety on Federal Bonds, in accordance with U.S. Department of the Treasury Circular 570, Current Revision or meet the criteria established as to acceptable surety companies by the Board of Commissioners of State Institutions, March 18, 1958. Such Bond shall be in a form and with a surety acceptable to the COUNTY and shall comply with the requirements of Florida Statutes Section 255.05, providing for the protection of all persons supplying labor or materials used for the prosecution of the work.
- c. The CONTRACTOR agrees to keep such Bonds, or a replacement thereof, in force at all times during the course of construction included under this project. In addition to the foregoing requirements, such Bonds shall contain provisions, whether by attaching endorsements or supplemental agreements, guaranteeing to the COUNTY the completion of the construction project. CONTRACTOR may comply with the requirements of this provision by causing said Bond or Bonds to specifically name Broward County as one of the parties to whom the protection afforded by said Bond is extended or as an alternative, may furnish the COUNTY with a separate Performance and Payment Bond meeting the same criteria provided above.

- d. Such Bonds shall continue in effect for one (I) year after completion and acceptance of the work with liability equal to one hundred percent (100%) of the contract price, or an additional bond shall be conditioned that the CONTRACTOR will, upon notification by the COUNTY, correct any defective or faulty work or materials which appear within one (I) year after completion of the Contract.
- 20. QUALIFICATION OF SURETY: A Bid Bond, a Performance Bond and a Payment Bond, must be executed by a surety company of recognized standing, authorized to do business in the State of Florida and having a resident agent in Broward County. The Surety Company shall hold a current certificate of authority as acceptable surety on Federal Bonds, in accordance with U.S. Department of Treasury Circular 570, Current Revision, or meet the criteria established as to acceptable surety companies by the Board of Commissioners of State Institutions, March 18, 1958, as follows:
  - A. The Surety Company must be admitted to do business in the State of Florida.
  - B. The Surety Company shall have been in business and have a record of successful continuous operations for at least five (5) years.
  - C. The Surety Company shall have at least the following minimum ratings:

CONTRACT A	HOU	INT		(a) REQUIRED FINANCIAL RATING		(b) REQUIRED MINIMUM SURPLUS
0 1	20-71	500,000		BBB+		3,750,000
		750,000		AA		5,000,000
750,000 t	to	1,000,000		AA+		7,000,000
1,000,000 1			4-	AAA	4.0	10,000,000
1,250,000 1	to	1,500,000		AAA+		12,500,000
1,500,000 1	to	2,000,000		AAAA		15,000,000
2,000,000 1	to	2,500,000		AAAA+		20,000,000
2,500,000	or	more		AAAAA		25,000,000

- (a) Best's Financial Rating
- (b) Surplus Policyholders surplus is the sum paid in capital and surplus funds in stock companies and surplus funds as regards mutual companies.

- 2. Best's Policyholder's Rating of "A" (which signifies "excellent" based on good underwriting, economic management, adequate reserves for undisclosed liabilities, net resources for unusual stock and sound investment) or an equivalent rating from the insurance commissioner if not rated by Best's.
- D. The Surety Company shall not expose itself to any loss on any one risk in an amount exceeding ten percent (10%) of its surplus to policyholders, provided:
  - Any risk or portion of any risk which shall have reinsured (in which case these minimum requirements contained herein also apply to the reinsuring carrier) in an assuming insurer authorized or approved by the Insurance Commissioner to do such business in this State shall be deducted in determining the limitation of risk prescribed in this section.
  - In the case of a surety insurance company, there shall be deducted in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any security deposited, pledged or held subject to the consent of the surety and for the protection of the surety.
- 21. CONTRACTOR'S EXPERIENCE RECORD: The COUNTY shall have the right to investigate the financial condition, experience record, and equipment of each prospective bidder and determine to its satisfaction the competency of each to undertake the project.
- 22. UTILITIES: Existing utilities have been shown on the plans insofar as information is reasonably available; however, it will be the CONTRACTOR'S responsibility to preserve all existing utilities whether shown on the plans or not. If utility conflicts are encountered by the CONTRACTOR during construction, he shall give sufficient notice to their owners so that they may make the necessary adjustments. Damage to any utilities, which, in the opinion of the COUNTY is caused by carelessness on the part of the CONTRACTOR, shall be repaired at the CONTRACTOR'S expense.
- 23. BASIS OF PAYMENT: Payment shall be made at the Contract Unit Prices or Lump Sum Prices. These prices shall be full compensation for all cost associated with completion of all the work in full conformity with the requirements as stated or shown, or both, by the Plans and Specifications. The cost of any item(s) of work which is not covered by a definite Contract Unit Price or Lump Sum Price shall be included in the Contract Unit Price or Lump Sum Price to which the Item(s) is most applicable.

- C. An apparently low bid of a bidder, who is otherwise responsive and responsible, will not be rejected on a proposal requiring MBE involve-volvement because either or both of the MBE goals cannot be met, if the bidder justifies that he/she has made all reasonable efforts to that end. Such reasonable effort may include, but is not limited to:
  - Attendance at any scheduled pre-bid meeting concerning MBE participation.
  - (2) Advertisement in general circulation media, trade association publications, and minority-focus media.
  - (3) Timely notification of minority business or contractor groups and associations of solicitation for specific sub-bids.
  - (4) Written solicitations to MBE of interest and written invitations to Bid to MBE for specific sub-bids.
  - (5) Efforts to select portions of the work proposed to be performed by MBE in order to increase the likelihood of achieving the stated goal.
  - (6) Efforts made to assist MBE contacted that needed assistance in obtaining bonding or insurance required by the bidder or the COUNTY.
  - (7) A report submitted by the bidder to the Purchasing Division not later than seven calendar days after bid opening, consisting of:
    - (a) A detailed statement of the efforts made to negotiate with MBE including at a minimum the names, addresses, and telephone numbers of MBE who were invited to bid or otherwise contacted; a description of the information provided to MBE regarding the plans and specifications for portions of the work to be performed; and a detailed statement of the reasons why additional agreements with MBE, if needed to meet the stated goal, were not reached.
    - (b) A detailed statement of the efforts made to select portions of the work proposed to be performed by MBE in order to increase the likelihood of achieving the stated goal.
    - (c) As to each MBE which bid on a subcontract but which the bidder considers to be not qualified, a detailed statement of the reasons for the bidder's conclusion.
    - (d) As to each MBE invited to bid, but which the bidder considers to be unavailable because of a lack of bid response or the submission of a bid which was not the low responsible bid, an Unavailability Certificate is signed by the bidder.

-/ 80

- D. The degree of goal attainment by minority-majority joint ventures and minority contractors should be calculated as follows:
  - (1) A joint venture, consisting of minority and majority business enterprises functioning as a prime contractor, will be credited with minority participation on the basis of percentage of profit to accrue to the MBE. (For example, if a minority-majority joint venture proposed to perform 50% of a project quoted at \$500,000 and 50% of the profits are to accrue to the minority partner in the joint venture, minority participation will be credited as 25% of the work or \$125,000.)
  - (2) MBE contractors will be credited with minority participation for that portion of the contract which they perform and that portion subcontracted to minority firms. (For example, if an MBE contractor proposed to perform 50% of a project quoted at \$500,000 and subcontracts 25% to a majority firm and 25% to a minority firm, minority participation will be credited at 75% or \$375,000.)
  - (3) The CONTRACTOR may count toward its MBE goals all expenditures for materials and supplies obtained from MBE suppliers and manufacturers, provided that the MBE assume the actual and contractual responsibility for the provision of the materials and supplies.
  - (4) The dollar amount of participation of a firm owned by minority women may be applied to either the female goal or the "other minority" goal, but not to both.
- E. On-site reviews to monitor the CONTRACTOR'S progress in achieving contractual MBE obligations will be carried out.
- F. Nothing herein shall be construed to require or warrant the award of a bid to a prime contractor when it is not the lowest responsible bid, when two or more bidders either meet the MBE goal or fully justify that all reasonable efforts have been made to that end without success.
- G. Nothing herein shall be construed to require a prime contractor to award a subcontract bid to an MBE if it is not the lowest responsible bid.
- H. Nothing herein shall be construed to indicate that a higher level of MBE involvement above the stated goal in an Invitation to Bid or proposal will give the bidder the right of award over other bidders who have met the MBE goal or fully justified that they had made all reasonable effort to do so. However, when all elements of a bid

e of	Firm
emp	ted below are the names of any owners (as listed in No. 7 above) or management officials (as listed in No. 8 above) who are or have been loyees of another firm that has an ownership interest in, or a prest business relationship with, the firm named herein.
_	
тои	E: Conditions stated in No. 11 above are not applicable.
The	gross receipts for the firm for each of the last two years are:
	r ending; \$;
	ending; \$;
	e of bonding company, if any
	ding limit
	ce of letters of credit, if any
(a)	The firm (is/is not) authorized to do business in the State of Florida.
(b)	The firm (is/is not) authorized to do business in Broward County, Florida.
(c)	Attached is a listing or copies of all business licenses.
This prev MBE	firm, or another firm with one or more of the same officers, has lously (received/been denied) certification or participation as an
The the denia	circumstances are described in an attachment hereto which includes name of the certifying authority and the date of the certification or al.
тои	E: Conditions stated in No. 15 above are not applicable.
	MBE Identification Affidavit Page 3 of 6

Name	of	Firm	
------	----	------	--

16. This firm (has/has not) been determined by the Small Business Administration to be owned and controlled by socially and economically disadvantaged individuals under Section 8 (a) of the Small Business Act, as amended.

MBE identification Affidavit Page 4 of 6

Name of Firm
AFFIDAVIT
The undersigned swears that the foregoing statements are true and correct and include all material information necessary to identify and explain the
operations of
operations of(Name of Firm)
as well as the ownership thereof. Further, the undersigned agrees to provide through the prime contractor or, if no prime, directly to the County Government current, complete, and accurate information regarding actual work performed on any project, the payment therefor, and any proposed changes, if any, of the foregoing arrangements and to permit the audit and examination of books, records, and files of the named firm. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal and State laws concerning false statements.  If any significant change occurs in the information submitted above, notification of the change will be forwarded.
Signature
Title
*
Name of Firm
Date
Corporate Seal Imprint Below.

18-19

MBE Identification Affidavit Page 5 of 6

Name of Firm	
STATE OF	
COUNTY OF	
On this day of	, 19, before
me appeared	
(Nam	e of Signer)
affidavit, and did state that he or	The second secon
. (Nam	e of Firm)
to execute the affidavit and did so	as his or her free act and deed.
In Witness Thereof, I hereunto	o set my hand and official seal.
(Notary Public)	(SEAL)
	4
My Commission Expires	

MBE Identification Affidavit Page 6 of 6

# INSTRUCTIONS FOR COMPLETING MINORITY BUSINESS ENTERPRISE IDENTIFICATION AFFIDAVIT

#### Part No.

- Self-explanatory.
- Self-explanatory.
- Self-explanatory.
- Strike through inapplicable lines.
- List on lines provided those commodities or categories of goods and/ or services that the firm would be interested in quoting/bidding to Broward County.
- Self-explanatory.
- 7. Self-explanatory. However, columns (e) and (f) are to be filled out only if firm is less than 100 percent minority owned. If firm is less than 100 percent minority owned, submit attachment to AFFI-DAVIT (identified as Part No. 7) listing the contributions of money, equipment, real estate, or expertise of each of the owners.
- Self-explanatory.
- Self-explanatory.
- 10. If there are no outstanding options or agreements as stated, check box provided on line headed "NOTE:."
- 11. If conditions stated are not applicable, check box on line headed "NOTE:." "Present business relationship" includes shared space, equipment, financing, or employees as well as both firms having some of the same owners.
- Self-explanatory.
- Self-explanatory.
- 14. Under (a) and (b), strike through inapplicable words "is" or "is not."
- 15. If conditions stated are not applicable, check box on line headed "NOTE:." Otherwise, delete inapplicable words "received" or "been denied."

16. Strike through inapplicable words "has" or "has not."

# JOINT VENTURE ELIGIBILITY APPLICATION (This form need not be filled in if all joint venture firms are minority owned.) 1. Name of joint venture Address of joint venture 3. Phone number of joint venture Identify the firms which comprise the joint venture. (The MBE partner 4. must complete MBE Identification Affidavit.) Describe the role of the MBE firm in the joint venture a. Describe very briefly the experience and business qualifications of b. non-MBE joint venturer Nature of the joint venture's business 5.

Joint Venture Eligibility Application Page 1 of 4

~~/ ABN

Attach a copy of the joint venture agreement.

Nam	ne of .	Joint Venture
7.	What	is the claimed percentage of MBE ownership?
8.	Own the	ership of joint venture. (This need not be filled in if described in joint venture agreement provided by question 6.)
	а.	Profit and loss sharing
	b.	
77	c.	Other applicable ownership interests
9.	sex,	trol of and participation in this contract. Identify by name, race, and firm those individuals (and their titles) who are responsible for o-day management and policy decision making, including, but not ed to, those with prime responsibility for:
	a.	Financial decisions
	2.0	
	b.	Management decisions such as:  (1) Estimating
		(2) Marketing and sales

Joint Venture Eligibility Application Page 2 of 4

Name of .	Joint Venture	
	(3) Hiring and firing of ma	nagement personnel
	(4) Purchasing of major ite	ms or supplies
9. c.	Supervision of field operation	ns
NOTE:	venture's work on the cont any significant change in venture must inform Browan	on and before the completion of the joint ract covered by this regulation, there is the information submitted, the joint of County Government, either directly or if the joint venture is a subcontractor.
AFFIDAV	IT	
and incl	ide all material information	foregoing statements are true and correct necessary to identify and explain the
terms an	d operation of(N	ame of Joint Venture)
and the ther, the Governmenture the joint books, relevant County sentation	intended participation by each and undersigned covenant and ent current, complete, and as work and the payment there venture arrangements and to ecords, and files of the joint to the joint venture, by authorizing the prounds for terminal will be grounds for terminal	agree to provide to the Broward County courate information regarding actual joint for and any proposed changes in any of permit the audit and examination of the venture, or those of each joint venturer thorized representatives of the Broward funding agency. Any material misrepresting any contract which may be awarded ral or State laws concerning false state-
(Na	me of Firm)	(Name of Firm)
(Sig	gnature)	(Signature)
(Na	me)	(Name)
(Ti	tie)	(Title)
(Da	te)	(Date)
	*	Joint Venture Eligibility Application

Name of Joint Vent	ture			
STATE OF				
COUNTY OF	(4)			
On this	day of	,	19	_, before me appeare
to me personally affidavit, and did	state that he or	ng duly sworr she was prope		execute the foregoin horized by
to execute the affi	(Name of Fidavit and did so		free ac	t and deed.
In Witness Ti	ereof, I hereunto	set my hand	and of	ficial seal.
			(	SEAL)
(Notary Publi	ic)			
My Commission exp	oires			
STATE OF				
COUNTY OF				
On this	day of		19	, before me appeare
to me personally k affidavit, and did	(Name of S Grown, who, being state that he or	duly sworn,	did ex	ecute the foregoing horized by
to execute the affi	(Name of i		free ac	ct and deed.
In Witness Ti	hereof, I hereunt	set my hand	and of	ficial seal.
34			(	(SEAL)
(Notary Publ	ic)			
My Commission exp	pires			

Joint Venture Eligibility Application Page 4 of 4

## Letter of Intent to Perform as a Subcontractor

	Contract No.
TO:	
(Name of Prime or Ger	neral Builder)
The undersigned inte contract as (check one):	ends to perform work in connection with the above
an individ	ual a corporation
a partners	ship a corporation a joint venture
	1.0
of the Purchasing Division	of the undersigned is confirmed (a) on the records , Board of County Commissioners, Broward County; ority Contractor Identification Affidavit.
The undersigned is p	repared to perform the following described work in
connection with the above	contract,
	Contract, (Specify in detail particular work
items or parts thereof	
rems or parts thereof	to be performed.)
at the following price:	
You have projected th	ne following commencement date for such work, and ng completion of such work as follows:
	Projected Projected
Items	Commencement Date Completion Date
to nonminority contractors will enter into a formal ac	ue of the subcontract will be sublet and/or awarded and/or nonminority suppliers. The undersigned greement for the above work with you conditioned contract with the Board of County Commissioners.
(Date)	(Name of Minority Contractor)
Form #103-25/A0514	Ву
GCF#69B-35	1B-28

Rev. 4/1/81

## MBE UNAVAILABILITY CERTIFICATION

		(Title)
of		, certify that on
(Prime o	r General Bidder)	
(Date)	I invited the follo	wing minority contractor to bid
work items to be perfor	med on Contract No	
Minority Contractor	Work Items Sought	Form of Eid Sought (i.e., Unit Price, Materials and Labor, Labor Only, Etc.)
Said minority contractor a bid which was not th	r (did not bid in respons e low responsible bid).	se to the invitation) (submitted (Line out inapplicable words.)
	Signature: _	
	Date: _	

IB-29

Form #103-24/A0514

Florida Statute 725.06

Chapter 72-52

#### CONSTRUCTION CONTRACTS; LIMITATION ON INDEMNIFICATION

Any portion of any agreement or contract for, or in connection with, any construction, alteration, repair, or demolition of a building, structure, appurtenance, or appliance, including moving and excavating connected with it, or any guarantee of, or in connection with, any of them, between an owner of real property and an architect, engineer, general contractor, subcontractor, or materialman, or between any combination thereof, wherein any party referred to herein obtains indemnification from liability for damages to persons or property caused in whole or in part by any act, omission, or default of that party arising from the contract or its performance shall be void and unenforceable unless:

- (1) The contract contains a monetary limitation on the extent of the indemnification and shall be a part of the project specifications or bid documents, if any, or
- (2) The person indemnified by the contract gives a specific consideration to the indemnitor for the indemnification that shall be provided for in his contract and section of the project specifications or bid documents, if any.

HISTORY: s.l. ch. 72-52 NOTE: Former s. 768.085.

#### PROPOSAL

The Board of County Commissioners Broward County Courthouse Fort Lauderdale, Florida

Submitted:		
	Date	

-----

#### Gentlemen:

The undersigned, as bidder, hereby declares that the only person interested in this bid as principal are named herein and that no person other than herein mentioned has any interest in this bid or in the contract to be entered into; that this bid is made without connection with any other person, company or parties making a bid; and that it is in all respects fair and in good faith without collusion or fraud.

The bidder further declares that he has examined the site of the work and informed himself fully of all conditions pertaining to the place where the work is to be done; that he has examined the plans for the work and other contract documents relative thereto and has read all of the addenda furnished before the opening of the hids, as acknowledge below; and that he has satisfied himself about the work to be performed.

The bidder agrees, if this bid is accepted, to contract with Broward County, a political subdivision of the State of Florida, in the form of the Contract attached, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation, and labor necessary to construct and complete the work covered by this bid and other contract documents for the project entitled:

The bidder also agrees to furnish the prescribed Performance and Payment Bonds for not less than the total bid price, and to furnish the required evidence of the specified insurance and to respond to the attached questionnaire.

The undersigned further agrees that if he fails to execute the said contract and furnish the said bond within fifteen (I5) days after being notified of the award of the contract to him, the guarantee accompanying his bid and the money payable thereon shall be paid into the funds of Broward County, Florida.

In the event of a discrepancy between the "price bid in figures" and the "price bid in words," the "price bid in words" shall govern.

It is understood that the total bid price stated by the undersigned in the Schedule of Prices Bid and will control in awarding the contract as provided in the Instructions to Bidders. It is further understood that the quantities stated in the Schedule of Prices Bid for the various items are estimates only and may be increased or decreased as provided in the Contract.

-										-	
										-	
								 		-	
	is a Bid										
ashier's	Check (	), or	Certifi	ed C	heck	( ) No.		 			or
lashier's		), or	Certifi	ed C	heck	( ) No.	_	for	the	Bank	or

The bidder agrees to accept as full compensation for each item the unit prices named therefore in Schedule of Prices Bid.

The Bidder shall acknowledge this Proposal by signing and completing the spaces provided below.

	(If an individual, partners)	ip, or non-in	corporated orga	nization)
WITNESS	ES:	Signa	ture of Bidder	
		Ву		
		Addre	ess of Bidder	
	d addresses of members of th			
(15	a corporation)			
WITNESS	ES:	Signa	ture of Bidder_	
		Ву	Name	
~			Name	
			Title	
	В	siness Addre	ss	
Inco	rporated under the laws of	he State of:		
The full bid, as p	names and residences of per principals, are as follows:	sons or firms	interested in th	ne foregoing
		-		
		-		
		-		

#### ROADWAY BID ITEMS

#### \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-42 Rev.4/1/81

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

# ROADWAY BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
102-1	Maint. of Traffic	- 1	LS	\$	\$
	\$(Written)				
102-3	Commercial Mat'l. for Driveway Maint.	137	CY	\$	s
	(Written)				
102-4	Calcium Chlcride for Dust Control	37	TN	\$	\$
	\$ (Written)				
104-5	Sandbagging	29	CY	\$	\$
	\$(Written)				137
104-6	Slope Drains	400	LF	\$	\$
	\$ (Written)				
104-11	Floating Silt Barrier	260	LF	\$	\$
	(Written)		.*		
110-1	Clearing and Grubbing	1	LS	\$	\$
	\$(Written)				
120-1	Regular Excavation	19,484	CY	\$	\$
	\$				

## BROWARD COUNTY BOND PROJECT NO. 04110-E

#### SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMCUNT
120-2	Borrow Excavation	79,589	CY	\$	\$
	(Written)		:58		
120-3	Lateral Ditch Excavation	7,527	CY	\$	\$
	\$ (Written)				
120-4	Subsoil Excavation	14,587	CY	\$	\$
	(written)				
120-8	Final Dressing	17,280	SY	\$	\$
	(Written)				
125-77-2	Sheeting (Both Sides)	640	LF	\$	\$
	(Written)				
285-701	Limerock Base (4")(Shoulder Pav't.)	618	SY	\$	\$
	(Written)				
285-709	Limerock Base (12")	73,961	SY	\$	\$
	\$ (Written)				
300-1-1	Bit. Mat'l. (Prime Coat)	7,458	GA	\$	\$
	(Written)				
300-1-3	Bit. Mat'l. (Tack Coat)	3,592	GA	\$	\$
	(Written)				

GCF #69B-42 REV. 4/1/81

### BROWARD COUNTY BOND PROJECT NO. 04110-E

#### SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

ITEM	DESCRIPTION .	QUANTITY	UNIT	UNIT PRICE	AMOUNT
300-1-16	Bit. Mat'l. (Plant Mix) (Asph Cem 30)	120,956	GA	\$	\$
	\$(Written)				
331-72-10	Type S Asph. Conc.(1") (Shoulder Pav't.)	582	SY	\$	\$
	\$ (Written)	40			
331-72-12	Type S Asph. Conc.(1 1/4")	73,789	SY	\$	\$
	(Written)				
331-72-12M	Type S Asph. Conc. (3/4") Modified	74,080	SY	\$	\$
	\$ (Written)				
331 - 73	Type S Asph. Conc. (Modified)	500	TN	\$	\$
	(Written)				
339-1	Misc. Asph. Pavement	188	TN	\$	\$
	(Written)				
360-1	Conc. Apprh. Slabs ~	2	· EA	\$	\$
	(Written)				
100-1-15	Class I Concrete (Misc.)	170	CY	\$	\$
	(Written)				
400-4-2	Class IV Concrete (Endwalls)	32	CY	\$	\$
	(Written)				
GCF #698- 4	20 0 20				

GCF #698- 42 REV. 4/1/81

### BROWARD COUNTY BOND PROJECT NO. 04110-E

#### SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

ITEM	DESCRIPTION	UANTITY	UNIT .	UNIT PRICE	AMOUNT
400-5-5	Concrete Handrail (Sidewalk Barrier)	1,045	LF	\$	\$
	(Written)				)
415-1-1	Reinforcing Steel (Roadway)	17,793	LB	\$	\$
	(Written)				
425-1-351	Inlets (Curb) (Type P-5) (<10')	26	EA	\$	\$
	\$ (Written)				
425-1-361	Inlets (Curb) (Type P-6)(<10')	20	EA	\$	\$
	(Written)				
425-1-561	<pre>Inlets (DT BOT)(Type F) (&lt;10')</pre>	18	EA	\$	\$
	\$ (Written)				
425-1-571	<pre>Inlets (DT BOT)(Type G) (&lt;10')</pre>	20	EA	\$	\$
	\$(Written)				
425-2-41	Manholes (P-7T)(<10')	1	EA	\$	\$
	\$ (Written)				
425-2-51	Manholes (P-7NT)(<10')	4	EA	\$	\$
	\$ (Written)			- ~	

SP-5

GCF #698-42

REV. 4/1/81

### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
425-2-71	Manholes (J7T)(<10')	1	EA	\$	\$
	\$ (Written)				
425-2-72	Manholes (J-7T)(>10')	1	EA	\$	\$
	(Written)				¥
\$25-2-82	Manholes (J-7NT)(>10')	. 1	EA	\$	\$
	\$ (Written)				
425-2-100	Pollution Retardant Structures	2	EA	\$	\$
	(Written)				
425-3-43	Junction Boxes (P-7T) Partial	2	EA	s	\$
	\$(Written)				
430-1-122	Conc. Pipe Culv. (15"SS)	1,825	LF	\$	\$
	\$ (Written)				100
430-1-123	ConcPipe Culv. (18"SS)	780	LF	\$	\$
	(Written)				
430-1-124	Conc. Pipe Culv. (24"SS)	769	LF	\$	\$
+	(Written)				

## BROWARD COUNTY BOND PROJECT NO. 04110-E

### SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

1TEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
430-1-125	Conc. Pipe Culv.(30"SS)	466	LF	\$	\$
	(Written)				
430-1-126	Conc. Pipe Culv. (36"SS)	182	LF	\$	\$
	(Written)				*
430-1-128	Conc. Pipe Culv. (48"SS)	198	LF	\$	\$
	(Written)				
430-1-136	Conc. Pipe Culv. (102"SS)	834	LF	\$	\$
	(Written)			-	
430-18-402	Side Drain Pipe Culv.(15")	192	LF	\$	\$
	(Written)				
443-70-6	French Drians (36")(Conc.)	3,653	LF	\$	\$
	(Written)	*			
520-1-10	Conc. Curb & Gutter (Type F)	26,114	LF .	\$	\$
	(Written)				
520-2-4	Conc. Curb (Type D)	95	LF	\$	\$
	(Written)				
520-5-85	Conc. Traf. Sep. (Type IV)(2'Wide)	1,892	LF	\$	\$
	(Written)			/25	
GCF #698-42 REV. 4/1/81	SP-7				

### BROWARD COUNTY BOND PROJECT NO. 04110-E

#### SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
522-1	Conc. Sidewalk (4"thick)	3,040	SY	\$	\$
	(Written)				
522-2	Conc. Sidewalk (6"thick)	233	SY	\$	\$
	(Written)				
524-1-2	Conc. Ditch Pav't.(4")	37	SY	\$	\$
	\$ (Written)				
528-70	Reinforced Earth Wall	9,006	SF	\$	\$
	(Written)				
530-1-1	Rip Rap (Sand Cement) (Roadway)	163	CY	\$	\$
	(Written)			-	
530-70-1	Conc. Block Noise Wall	3,069	LF	\$	\$
	\$ (Written)				
536-1-1	Guardrail (Roadway)	238	LF	\$	\$
	\$ (Written)				
536-2	Guardrail (Shop-Bent Panels)	638	LF	. \$	\$
	\$ (Written)				
536-6	End Anchorage Assem. Type II	5	EA	\$	\$
	\$ (Written)			~/A0	
GCF #698-	Ch o				

REV. 4/1/81

## BROWARD COUNTY BOND PROJECT NO. 04110-E

#### SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
536-73-1	Rem. of Exist. Guardrail (Double-Face)	688	LF	\$	\$
47	(Written)				
536-78	End Anchorage Assem. Type I	V 2	EA	\$	\$
÷	(Written)				
538-71	Reset Guardrail	4,700	LF	\$	\$
	(Written)			,	
538-71-1	Reset Guardrail (Double-Fac	e) 488	LF	\$	\$
	(Written)				
544-75	Vehicular Impact Attenuator	. 2	EA	\$	\$
	(Written)				- 25
550-2-6	Fencing Type B (4'Height)	100	LF	\$	\$
	(Written)	777			
550-2-11 (Federal Spec F 162 5-1)	Fencing, Type E (Modified) (Plastic)(8' High) (w/barbed wire attachment)	1,140	LF	\$	\$
	(Written)				
550-3-2	Corner Post Assem. Type B Fence	1	EA	\$	\$
	(Written)				
550-3-21 (Federal Spec F 162-5-1)	Corner Post Assem. Type E Fence (8' High)	2	EA	\$	\$
	(Written)				
GCF #698- 44 REV. 4/1/81	2 SP-9			WARD	

### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
550-4-2	Pull and End Post Assem. Type B Fence	3	EA	\$	
	(Written)	181			
550-4-21 (Federal Sp F162 5-1)	Pull and End Post Assem. ec Type E Fence (8'High)	14	EA	\$	\$
	(Written)				
550-74	Reset Existing Fence (Type B)	725	LF	\$	\$
	\$ (Written)				
570-1	Seeding	15,552	SY	\$	\$
	\$ (Written)				ĕ
570-3	Grass Seed (Perm. Type, Argen Bahia)	321	LB	\$	\$
	(Written)	•			
570-5	Fertilizer .	2	-TN	\$	\$
	(Written)				
570-9	Water for Grass	107	MG	\$	\$
	(Written)				
570-10	Grass Seed (Quick Growing Type)	96	LB	\$	\$
	(Written)				
				~~/#	

### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS ROADWAY BID ITEMS

ITEM	DESCRIPTION	YTITHAUD	UNIT	UNIT PRICE	AMOUNT	
575-1-1	Sodding (Bahia)	1,728	SY	\$	\$	
	(Written)					
1616-150- 116	Galv. Steel Pipe (F&I) (Threaded Joint) (6")	390	LF	\$	\$	
	(Written)	<u> </u>				

		ROADWAY BID ITEMS 1616-150-116	\$
(Writ	tten)		

#### SIGNING AND PAVEMENT MARKING BID ITEMS

### \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-42 Rev.4/1/81

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SIGNING AND PAVEMENT MARKING BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
700-1-1	Roadside Sign R1-2	5	AS	\$	\$
	(Written)				
700-1-2	Roadside Sign W10-1	2	AS	\$	\$
	(Written)				
700-1-3	Roadside Sign R1-1	11	AS	\$	\$
	\$(Written)				
700-1-4	Roadside Sign (Rt. Marker Single)	14	AS	\$	\$
	(Written)				
700-1-5	Roadside Sign (Rt. Marker Double)	2	AS	\$	\$
	(Written)				
700-1-11	Roadside Sign (3-4 sq. ft.)	2 .	AS	\$	\$
	(Written)				
700-1-12	Roadside Sign (4-5 sq. ft.)	6	AS	\$	\$
	(Written)				
700-1-14	Roadside Sign (6-6.25 sq.ft.	) 7	AS	\$	\$
	(Written)				
700-1-15	Roadside Sign (6.25-9 sq.ft.	) 9	AS	\$	\$
GCF # 698-42	(Written)			-5/28	
REV. 4/1/81	SP-13				

## BROWARD COUNTY BOND PROJECT 04110-E

# SIGNING AND PAVEMENT MARKING BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
700-1-16	Roadside Sign (9-12 sq.ft.)	1	AS	\$	\$
	\$(Written)		-		
700-1-17	Roadside Sign (12-16 sq.ft.)	4	AS	\$	\$
	\$(Written)				
700-1-30	Roadside Sign (32-40 sq.f:.)	1	AS	\$	2
	(Written)				
700-5-35	Lighted Overhead Canti- lever Sign(GS-2,GS-5)	2	AS	\$	\$
	(Written)			***************************************	
700-5-36	Lighted Overhead Canti- lever Sign (GS-6)	1	AS	\$	\$
	(Written)				
700-70	Lighted Overhead Sign Bridge Mounted	2	AS	\$	\$
700-84-1	(Written)	1.7			
700-84-1	Sign Panel Installation	17	EA	\$	2
	(Written)				
700-89-2	Electrically Powered Sign	2	EA	\$	\$
	\$(Written)				
706-1-12	Reflective Pavement Marker	2001	EA	\$	\$
	(Written)				
GCF # 69B-42 REV. 4/1/81	SP-14				

### BROWARD COUNTY BOND PROJECT NO. 04110-E

### SCHEDULE OF PRICE BIDS SIGNING AND PAVEMENT MARKING BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
710-4-41	Solid Traffic Stripe (4")	2533	LF	\$	\$
	(Written)				2
710-4-181	Solid Traffic Stripe (18")	1005	LF	\$	\$
	(Written)				
710-4-241	Solid Traffic Stripe (24")	79	LF	\$	\$
	(Written)				
710-7	Pavement Messages, Painted (RxR)	3	EA	\$	\$
	(Written)				
710-11	Remove Existing Markings (Paint)	390	SF	\$	\$
	\$ (Written)				
711-1	Skip Traffic Stripe, Ther- moplastic (White) Inlaid	4.42	GM	\$	\$
	\$				
711-2	Skip Traffic Stripe, Ther- moplastic (Yellow) Inlaid	190	LF ·	\$	\$
	(Written)				
711-3	Pavement Messages, Thermo- plastic	25	EA	\$	\$
* (on to	\$(Written)			· '~#	
# 698-42 4/1/81	SP-15				

### BROWARD COUNTY PROJECT NO. 04110-E

# SIGNING AND PAVEMENT MARKING BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
711-4	Directional Arrows, Thermoplastic	105	EA	\$	\$
	(Written)				
711-5	Guide Lines, Ther- moplastic (4" Dotted)	652	LF	\$	\$
	(Written)				
711-6-41	Solid Traffic Stripe, Ther- moplastic (4")	55372	LF	\$	\$
	(Written)				
711-6-81	Solid Traffic Stripe, Ther- moplastic (8")	3600	LF	\$	\$
	\$(Written)				54
711-6-121	Solid Traffic Stripe, Ther- moplastic (12")	1325	LF	\$	\$
	\$(Written)				
711-6-181	Solid Traffic Stripe, Thermoplastic (18")	1327	LF	\$	\$
	\$(Written)				
711-6-241	Solid Traffic Stripe, Ther- moplastic (24")	1157	LF	\$	\$
	\$(Written)				
711-72	Remove Existing Markings (Thermoplastic)	166	SF	\$	\$
	\$(Written)			- 44/20	

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS SIGNING AND PAVEMENT MARKING BID ITEMS

TOTAL FOR ALL SIGNING AND PAVEMENT BID ITEMS 700-1-1 thru 711-72	MARKING \$	
(Written)		

#### SIGNALIZATION BID ITEMS

#### \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-42 Rev.4/1/81

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS SIGNALIZATION BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
620-1-1	Grounding Electrode	770	LF	\$	\$
	(Written)				
630-1-11	Conduit (above ground 2")	37	LF	\$	\$
	(Written)				
630-1-12	Conduit (underground 2")			\$	\$
	\$(Written)				
630-1-13	Conduit (under pavement 2")			\$	\$
	\$(Written)				
630-1-14	Conduit (underground 2"-jack	) 232	LF	\$	\$
	\$(Written)				
632-7-1	Cable (Signal)	7	PI	\$	\$
	\$(Written)				
632-8-112	Cable (Interconnect)	7229	. LF	\$	\$
	\$(Written)				
634-4-111	Span Wire Assembly(perpendic	ular)	PI	\$	\$
	(Written)				
634-4-112	Span Wire Assembly (diagonal	) 3	PI	\$	\$
	(Written)			39	
CCE # 60P	42				

GCF # 698-42 REV. 4/1/81

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS SIGNALIZATION BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
634-4-113	Span Wire Assembly (box)	1	PI	\$	\$
	\$(Written)				
634-4-114	Span Wire Assembly (other)	2	PI	\$	\$
	(Written)				
635-1-11	Pull and Junction Boxes (standard)	64	EA	\$	\$
	(Written)				
635-1-13	Pull and Junction Boxes (mou	nted) 1	EA	\$	\$
	\$(Written)				
639-1-13	Electrical Power Service	5	AS	\$	\$
	(Written)				
639-2-1	Electrical Service Wire	547	LF	\$	\$
	\$(Written)				
641-14-38	Concrete Strain Poles (Type V)	10	· EA	\$	\$
	(Written)				
641-15-42	Concrete Strain Poles (Type VI)	∈1	EA	\$	\$
	\$(Written)				
641-16-44	Concrete Strain Poles (Type VII)	4	EA	\$	\$
000 4 500	\$(Written)				
GCF # 69B-4 REV. 4/1/81					

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS SIGNALIZATION BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
641-16-48	Concrete Strain Poles (Type VII)	4	EA	\$	\$
	(Written)				
650-1-111	Traffic Signal, 12" STD (1-Section, 1-Way)	1	AS	\$	\$
	(Written)	-	-	2	
650-1-131	Traffic Signal, 12" STD (3-Section, 1-Way)	27	AS	\$	\$
	(Written)				
650-1-132	Traffic Signal, 12" STD (3-Section, 2-Way)	7	AS	\$	\$
	(Written)				
650-1-133	Traffic Signal, 12" STD (3-Section, 3-Way)	1	AS	-\$	\$
	(Written)				
650-9-151	Traffic Signal, 12" STD (5-Section Cluster)	6	AS	\$	\$
	(Written)				
653-111	Pedestrian Signals (one-way) (12" Incandescent)	4	AS	\$	
	\$(Written)				
653-112	Pedestrian Signals (two-way) (12" Incandescent)	1	AS	\$	\$
	\$ (Written)			~/#	
GCF # 69B- REV. 4/1/8	42				

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS SIGNALIZATION BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
659-101	Signal Head Auxiliaries (Back Plates, 3-Section)	27	EA	\$	\$
	(Written)	-			
659-106	Signal Head Auxiliaries (Tunnel Visor)	59	EA	\$	\$
	(Written)	7.3			
659-107	Signal Head Auxiliaries (Aluminum Pedestal)	2	EA		\$
	(Written)				
660-1-103	Inductive Loop Detector	Type III 29	EA	\$	\$
	(Written)				
660-1-104	Inductive Loop Detector	Type IV 9	EA	\$	\$
	(Written)	*			
660-2-102	Loop Assembly Type B	2	AS	\$	\$
	(Written)				
660-2-106	Loop Assembly Type F	71	AS	\$	\$
	\$				
665-11	Pedestrian Detector	6	EA	\$	\$
	(Written)				
	(milecen)				

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS SIGNALIZATION BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
670-112-033	Actuated Solid State Controller Assembly (2-4 Pha	ase) ]	AS	\$	\$
	\$				
670-112-133	Actuated Solid State (2-4 Processing Controller Assembly W/coor unit)	rd. 1	AS	\$	\$
	(Written)				
670-113-033	Actuated Solid State (4 Phas Controller Assembly to 8)	se exp.	AS	\$	\$
	(Written)				
670-114-033	Actuated Solid State (8 Phas Controller Assembly	e) 1	AS	\$	\$
	\$(Written)				
679-1-133	Coordination Unit	5	EA	\$	\$
	\$(Written)				
684-101	System Communications (Multi-Pair Cable)	7229	LF	\$	\$
	(Written)				
685-105	System Auxiliaries (Master Clock Unit)	1	EA	\$	\$
	(Written)	72			
685-120	System Auxiliaries (Telementry Transceiver)	5	EA	\$	\$
GCF # 69B-42	(Written)				
REV. 4/1/81	SP-23				

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS SIGNALIZATION BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
685-123	System Auxiliaries (3/Phase thru 8-Phase Full Acutated Adapter)	5	EA	\$	\$
	\$(Written)				
690-10	Remove Traffic Signal Head Assembly		EA	\$	\$
	(Written)				
690-30	Remove Poles	1	EA	\$	\$
	(Written)				
690-50	Remove Controller Assembly	1	EA	\$	<u> </u>
	\$				
690-80	Remove Span Wire Assembly				\$
	(Written)				
690-90	Remove Cabling and Conduit	1	PI	\$	\$
	(Written)				
690-100	Remove Miscellaneous Signal Equipment	1	PI	\$	\$
	(Written)				
	TOTAL FOR ALL SIGNALIZATION E 620-1-1 thru 690-100	BID ITEMS		\$	
GCF # 69B-	\$				

REV. 4/1/81

# ROADWAY LIGHTING BID ITEMS

#### \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-42 Rev.4/1/81

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

#### SCHEDULE OF PRICE BIDS ROADWAY LIGHTING BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	THUOMA
715-73	Install New Conductor, Conduit & Pull Boxes	1	LS	\$	\$
	\$(Written)				
715-84-350	Double Arm Lighting Pole Complete (Concrete)	1	EA	\$	\$
	(Written)	,			
715-86-350	Lighting Pole Complete (Concrete)	30	EA	\$	\$
	(Written)				
715-95	Load Center	1	EA	\$	\$
	\$(Written)				371 390
715-96	Underdeck Luminaire (Pier Cap Mounted)	4	EA	\$	\$
	(Written)	)			

TOTAL FOR ALL ROADWAY LIGHTING BID ITEMS 715-73 through 715-96	\$
(Written)	

#### BRIDGE BID ITEMS

# \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-42 Rev.4/1/81

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS BRIDGE BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
400-2-4	Class II Concrete (Superstructure)	960	CY	\$	s
	(Written)				
400-2-5	Class IV Concrete (Substructure)	285	CY	\$	\$
	(Written)				
400-4-8	Class IV Concrete (Bulkhead)	9	СУ	\$	\$
	\$(Written)				
400-5-5	Concrete Handrail (Sidewalk)	673	LF	\$	\$
	\$(Written)				
400-6	Precast Anchor Beams	12	EA	\$	\$
	(Written)				
415-1-4	Reinforcing Steel (Superstructure)	268,617	LB	\$	\$
*	(Written)		•		
415-1-5	Reinforcing Steel (Substructure)	31,173	LB.	\$	\$
	(Written)				ė.
415-1-8	Reinforcing Steel (Bulkhead)	811	LB	\$	\$
2	\$				
	(Written)				

ITEM .	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
450-1-2	Prestressed Beams (Type III)	4,984	LF	\$	\$
	(Written)				
455 <b>-3 -2</b>	Prestressed Concrete Piling Furnished (18"sq.)	1,850	LF	\$	\$
	(Written)				
455 -3 -3	Prestressed Concrete Piling Furnished (20"sq.)	5,395	LF	\$	\$
	(Written)				*
455 -4 -2	Prestressed Concrete Piling Driven (18"sq.)	1,850	LF	\$	\$
	(Written)				
455-4-3	Prestressed Concrete Piling Driven (20"sq.)	5,395	LF	\$	\$
	(Written)				
455 -9 -12	Unloaded Test Piles (Prestressed Concrete) (18" sq.)	112	LF	\$	\$
	(Written)				
455 -9 -13	Unloaded Test Piles Prestressed Concrete) (20"sq.)	279	LF	\$	\$
	\$(Written)				
455 -15	Preformed Pile Holes	23	EA	\$	\$
24	(Written)				
455_14_2	Concrete Sheet Piling (8" x 30")	380	LF	\$	\$
	(Written)				

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
455-17-2	Pile Splices (18"sq.)	1	EA	\$	\$
	(Written)				
455-17-3	Pile Splices (20"sq.)	1	EA	\$	\$
	(Written)				
460-91-2	Expansion Joint Seal (Compression Elastomeric)	674	LF	\$	\$
	(Written)				
524-2-2	Concrete Slope Pavement (4" thick)	680	SY	\$	\$
	\$(Written)				

OR ALL BRIDG 00-2-4 THRU	\$	_
\$ ten)		-

#### BID ITEMS FOR NEW 16" WATER MAIN

# \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-42 Rev. 4/1/81

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SCHEDULE OF PRICE BIDS BID ITEMS FOR NEW 16" WATER MAIN

ITEM	DESCRIPTION QUANTITY UNIT UNIT PRICE	AMOUNT
1	Water Main Bridge Crossing 1 LS \$	\$
2	(Written)  16" Ductile Iron Pipe Class 50  1548  1548  Add. LF \$	
	\$ (Written)	
3	\$ (Written)	\$
4	Jack and Bore 30" Casing 1 LS \$  (Written)	\$

TOTAL FOR BID NO. 1 through	W 16" WATER	MAIN \$_	
(Written)	 		

#### BROWARD COUNTY BOND PROJECT NO. 0411G-E

TOTAL FOR ALL ROADWAY BID ITEMS	\$
\$ (Written)	
TOTAL FOR ALL SIGNING AND PAVEMENT MARKING ITEMS	\$
(Written)	
TOTAL FOR ALL SIGNALIZATION BID ITEMS	\$
(Written)	-
TOTAL FOR ALL ROADWAY LIGHTING BID ITEMS	\$
(Written)	-
TOTAL FOR ALL BRIDGE BID ITEMS	\$
(Written)	
TOTAL FOR ALL NEW 16" WATER MAIN BID ITEMS	\$
(Written)	
For the Performance Bond premium and consideration for i Owner and Engineer under Article 16 of the "Instructions Article 6 of the "General Specifications" heretofore the	to Bidder" and
TOTAL	\$
(Written)	
GRAND TOTAL FOR ALL ITEMS	\$
(Written)	

GCF# 698-42 REV. 4/1/81

# QUESTIONNAIRE

formation for all co-venturers.)  , TOTAL CONTRACTED % OF CONTRACT DATE OF COMPLETION	How many yea Contractor?	rs has	your org	anization bee	n in business	as a Gener
Name three individuals or corporations for which you have performe work and to which you refer:  List the following information concerning all contracts on hand as of the date of submission of this proposal. (In case of co-venture, list the information for all co-venturers.)  TOTAL CONTRACTED % OF COMPLETION	What is the las	t projec	ct of this	nature that yo	ou have complet	ted?
List the following information concerning all contracts on hand as of the date of submission of this proposal. (In case of co-venture, list the information for all co-venturers.)  , TOTAL CONTRACTED % OF CONTRACTED % OF CONTRACT DATE OF COMPLETION		failed	to complet	te work awar	ded to you: if	so where an
date of submission of this proposal. (In case of co-venture, list the information for all co-venturers.)  TOTAL CONTRACTED % OF COMPLETION						
	Name three in work and to wh	dividua nich yo	ils or cor u refer:	porations for	which you ha	ve performe
	List the following date of submission for a	ing info	u refer:	oncerning all osal. (In cas	contracts on ha	and as of the in

vill y	ou sul	blet	any	part	of	this	work	? 1	f so,	give	deta	ils:	
Vhat	equipr	ment	do y	ou o	own	that	is a	vaila	ble f	or th	e wor	rk?	
Vhat	equipr	nent	will	you	pur						wor		
/hat	equipr	nent	will	you	ren	t for	the	pro	posec	wor	k?		

11. State the true, exact, correct and complete name of the partnership, corporation or trade name under which you do business and the address of the place of business. (If a corporation state the name of the President and Secretary. If a partnership, state the names of all partners. If a trade name, state the names of the individuals who do business under

	Correct Name of Bidder
(a)	The business is a (Sole Proprietorship) (Partnership) (Corporation)
(b)	The address of principal place of business is
(c)	The names of the corporate officers, or partners, or individuals doing business under a trade name, is as follows:
(c)	The names of the corporate officers, or partners, or individuals doing business under a trade name, is as follows:
(c)	ing business under a trade name, is as follows:
(c)	ing business under a trade name, is as follows:

# CONTRACT

THIS CONTRACT, made and entered into this day of	
19, by and between Broward County, a political subdivision of	
State of Florida, hereinafter referred to as COUNTY, and	
hereinafter referred to as the CONTRACTOR.	
WITNESSETH, that the CONTRACTOR and the COUNTY, for the cons	ider
ations hereinafter named, agrees as follows:	
ARTICLE I - Scope of the Work:	
The CONTRACTOR hereby agrees to furnish all of the materials and all of equipment and labor necessary, and to perform all of the work shown on drawings and described in the Specifications for the project entitled:	the
Griffin Road in Broward County from S.C.L. Railroad to U.S. 1. and waterline improvements for Broward County.	
All in accordance with the requirements and provisions of the following doments which are hereby made a part of this Contract:	cu-
(a) "Plans" prepared for same by MID SOUTH ENGINEERING COMPANY numbered sheets through inclusive, dated the day of, ind revised through	
(b) "Specifications" issued byMID SOUTH ENGINEERING COMPANY dated, 19	
(c) "Addenda" as prepared by, 19	
ARTICLE II - Time of Completion	
(a) The work to be performed under this Contract shall be commenced wit fifteen (15) calendar days after the date specified in the "Notice Proceed."	hin to

- (b) The work shall be completed within five hundred fifty (550) calendar days from the date specified in the Notice to Proceed, with an extension of time for completion equal to any time lost due ω causes which could not have been forseen or which were beyond the control of the CONTRACTOR and which were not the result of his fault or negligence. Extension of "Time for Completion" shall also be allowed for any delays in the progress of the work caused by an act or neglect of the COUNTY or of its Employees or by other CONTRACTORS employed by the COUNTY, or delay due to an act of Government, or by any delay in the furnishing of plans and necessary information by the Engineer or by any other cause which in the opinion of the COUNTY entitles the CONTRACTOR to an extension of time. Strikes and other labor disputes shall be cause for an extension of time for completion.
- (c) The CONTRACTOR shall notify the <u>Engineer</u> within two (2) days of any occurrence which in the CONTRACTOR'S opinion entitles him to an extension of time for completion. Such notice shall be in writing and shall be submitted in ample time to permit full investigation and evaluation of the CONTRACTOR'S claim. The <u>Engineer</u> shall acknowledge receipt of the CONTRACTOR'S notice within two (2) days of its receipt.
- (d) Upon failure of the CONTRACTOR to complete said Contract within the calendar days (plus allowable extensions) after the specified date in the "Notice to Proceed," the CONTRACTOR shall pay the COUNTY the sum Dollars (\$ 300.00 ) for each three hundred calendar day beyond said calendar days (plus allowable extensions) that is required by the CONTRACTOR to complete the Contract, not as a penalty or forfeiture, but as liquidated damages to the COUNTY because of such default by the CONTRACTOR, which damages are hereby fixed and agreed upon between the parties recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by the COUNTY in consequence of such default and both parties desiring to obviate any question of dispute concerning the amount of said damages and the cost and effect of such failure of the CONTRACTOR to complete said Contract within the calendar days allowed (plus allowable extensions, if any).

# ARTICLE III - The Contract Sum:

(a) The COUNTY shall pay to the CONTRACTOR for the performance of the contract amounts determined for the total number of each of the following units of work completed at the unit price stated in the schedule of prices bid. The number of units contained in this schedule is approximate only, and the final payment shall be made for the actual number of units that are incorporated in or made necessary by the work covered by the Contracts. (b) Extra work not included in Article I but authorized after the date of the Contract that cannot be classified as coming under any of the Contract units may be done at mutually agreed upon unit prices, or on a lump sum basis.

#### ARTICLE IV - Progress Payments:

The CONTRACTOR may requisition payments for work completed during the project at intervals of not less than three (3) weeks. The CONTRACTOR'S requisition shall show a complete breakdown of the project components, the quantities completed and the amount due together with such supporting evidence as may be required by the Engineer Each requisition shall be submitted in triplicate to the Engineer for approval. Ten percent (10%) of all monies earned by the CONTRACTOR shall be retained by the COUNTY until the project is totally completed as specified, and accepted.

#### ARTICLE V - Acceptance and Final Payment

- (a) Upon receipt of written notice that the work is ready for final inspection and acceptance, the Engineer will promptly make such inspection, and when he finds the work acceptable under the Contract and the Contract fully performed, he will promptly issue a final certificate, over his own signature, stating that work required by the Contract has been completed, and is accepted by him under the terms and conditions thereof, and the entire balance found to be due the CONTRACTOR, including the retained percentage, shall be paid to the CONTRACTOR by the COUNTY.
- (b) Before issuance of final certificate, the CONTRACTOR shall submit evidence satisfactory to the Engineer that all payrolls, material bills, and other indebtedness connected with the work, have been paid, except that in case of disputed indebtedness or liens, the CONTRACTOR may submit in lieu of evidence of payment a surety bond satisfactory to the guaranteeing payment of all such disputed amounts when adjudicated.
- (c) The CONTRACTOR shall guarantee the complete project against poor workmanship and/or faulty materials for a period of twelve (12) months after final payment and shall immediately correct any defects which may appear during this period upon notification by the COUNTY or the <u>Engineer</u>.
- (d) The making and acceptance of the final payment shall constitute a waiver of all claims by the COUNTY other than those arising from unsettled liens, from faulty work appearing within twelve (12) months after final payment, or from requirements of the specifications. It shall also constitute a waiver of all claims by the CONTRACTOR, except those previously made and still unsettled.

Costificate of Wisurance

acord

THIS CERTIFICATE IS INSUED AS IT MATTER OF AFORMATION ONLY AND CONTERN NO EXPITS MICH THE CERTIFICATE HOLDER THIS CERTIFICATE DOES NOT AMEND EXTEND ON ALTER THE COVERAGE ARRONG. BY THE POLICIES EISTED BELOW.

NAME AND ADDRESS OF AGENCY

NAME AND ADDRESS OF INSURED

Corporate Insurance Services & Mgt., Inc. 1843 State Road 434, Suite 211 Longwood, Florida 32750 COMPANIES AFFORDING COVERAGES

COMPANY AInsurance Company of North America

Company Benal Insurance Company

CASSOCIATION Self-Insurers Fund

COMPANY D

COMPANY E

Triple R. Paving, Inc. and J. S. & G. Asphalt, Inc. etal 3328 SW 46th Avenue Ft. Lauderdale, Florida 33314

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement from a contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforced by the policies described herein is a conditions of such policies.

	ectusions and conditions of such polic	n	2554.3	Limits of Liability in Thousands (200
	4. 1. No. 4 (4AM) 7	17 A - 1 No (5944 97	EXPRESSION DATE	
A	GENERAL LIABILITY	GLP 40 26 71 8	3-1-84	MCC + MINH 1
	X			1 300 300
A	X X	CAL 48 54 32	3-1-84	250 500
	X X			100
22222	EXCESS LABILITY			N + 25
В	X	XS 00 4005	3-1-84	10,000 10,00
	WORKERS COMPENSATION			The same of the sa
С	and EMPLOYERS' LIABILITY	890-0026	2-1-84	100
A A	Property Equipment Floater	PRO FO 03 95 18 CF IO 0377 119	3-1-84 3-1-84	All risk subject to policy exclusions

N TO THATEINS EUCATIONS VEHICLES

PROJECT: GRIFFIN ROAD FROM S.C.L. RAILROAD TO U.S. 1
AND WATERLINE IMPROVEMENTS FOR BROWARD COUNTY
CONTRACT NO. B-5-83-16-OF

APPROVE

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will exceeded any of the above described policies be cancelled before the expiration date thereof, the issuing company will exceed any of the above described policies be cancelled before the expiration date thereof, the issuing company will exceed any of the above described policies be cancelled before the expiration date thereof, the issuing company will exceed any of the above described policies be cancelled before the expiration date thereof, the issuing company will exceed any of the above described policies be cancelled before the expiration date thereof, the issuing company will exceed any of the above described policies be cancelled before the expiration date thereof, the issuing company will exceed a supplied the expiration date thereof.

(ADDITIONAL INSURED)
BROWARD COUNTY,
BOARD OF COUNTY COMMISSIONERS
236 S.E. 1st Avenue
Fort Lauderdale, f1

July 15, 1983

ACURD 25 (1.79)

ENGINEER so certifies, th  ENGINEER , and without of the balance due for that por cepted. Such payment shall b	tantially completed, full completion thereof no fault of the CONTRACTOR, and the e COUNTY shall, upon certificate of the terminating the Contract, make payment tion of the work fully completed and ac- e made under the terms and conditions that it shall not constitute a waiver of
ARTICLE VI -	Contract Documents:
tothe construction of Griffin Road	ence, the following documents pertaining from S.C.L. Railroad to U.S.1 in Broward Cty.
and waterline improvements for Br all those documents listed in the Tr limited to:	ABLE OF CONTENTS, including but not
Notice for Bids, Instructions to of Prices Bid, Performance and cifications, Technical Provision	Payment Bond, General Spe
IN WITNESS WHEREOF the parties he and year first above written.	BOARD OF COUNTY COMMISSIONERS, Broward County, Florida
WITNESS:	ByChairman
	ATTEST:
Approved as to Insurance	As Clerk of the Broward County, Florida, Board of County Commissioners.
Requirements and Insurance Documentation	Approved as to form: General Counsel for Broward County By
Director, Insurance and Tangible Property Division	Assistant General Counsel
WITNESS:	
	Contractor
COUNTY REQUIRES SIX FULLY-EXECUTED CO ARCHIVES AND MINUTES DIVISION, PURCHAS PROPERTY DIVISION, USING DIVISION, CONTRACTOR.	SING DIVISION, INSURANCE AND TANGIBLE

C-4

# ARTICLE VI - Contract Documents:

This Confract incorporates by reference, the following documents pertaining to the construction of Griffin Rd. from S.C.L. Railroad to U.S. 1 in Broward Cty.

and waterline improvements for Broward County
all those documents listed in the TABLE OF CONTENTS, including but not
limited to:

Notice for Bids, Instructions to Bidders, Proposal, Schedule of Prices Bid, Performance and Payment Bond, General Specifications, Technical Provisions, Drawings and Addenda.

IN WITNESS WHEREOF the parties hereto have executed this Contract the day and year first above written.

WITNESS:

Approved as to Insurance Requirements and Insurance Documentation

WITNESS:

WITNESS:

Approved as to Insurance Requirements and Insurance Documentation

WITNESS:

WITNESS:

Approved as to Insurance Requirements and Insurance R

CORPORATION SEAL

BOARD OF COUNTY COMMISSIONERS,

COUNTY REQUIRES SIX FULLY-EXECUTED CONTRACTS, FOR DISTRIBUTION AS FOLLOWS: ARCHIVES AND MINUTES DIVISION, PURCHASING DIVISION, INSURANCE AND TANGIBLE PROPERTY DIVISION, USING DIVISION, ACCOUNTING DIVISION, AND CONTRACTOR.

#### ROADWAY BID ITEMS

# \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-51 Rev.4/1/81

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS

1TEM	DESCRIPTION QUANTITY UNIT UNIT PRICE AMOUNT	
102-1	Maint. of Traffic 1 LS \$101,040.00 \$ 101,040.00	9
	(Written) and no cents	
102-3	Commercial Met'l. for Driveway Maint. 137 CY \$ 0.01 \$ 1.37	
	No dollars and one cent (Written)	
102-4	Calcium Chloride for Dust Control 37 TN \$ 0.01 \$ 0.37	
	(Written)	
104-5	Sandbagging 29 CY \$ 0.01 \$ 0.29	
	(Written)	
104-6	Slope Drains 400 LF \$ 0.01 \$ 4.00	
	No dollars and one cent (Written)	
104-11	Floating Silt Barrier 260 LF \$ 10.00 \$ 2,600.00	
	Ten dollars and no cents (Written)	
110-1	Clearing and Grubbing 1 LS \$76,000.00 \$ 76,000.00	
	Seventy-six thousand dollars and no cents (Written)	
120-1	Regular Excavation 19,484 CY \$ 1.50 \$ 29,226.0)	
	(Written)	

# BROWARD COUNTY BOND PROJECT NO. 04110-E

#### CONTRACT BID PRICES ROADWAY BID ITEMS

	UNIT	UNIT PRICE	AMOUNT
79,589	CY	\$_3.26_	\$ 259,460,1
twenty-six ce	ents		
on 7,527	CY	\$_1.55	\$ 11,666.8
fty-five cents			
14,587	CY	\$ 1.00	\$_14.587.0
cents	-		
17,280	SY	\$_0.50	\$ 8,640.0
fty cents			
640	LF	\$ 0.01	\$6.4
e cent			•
618	SY	\$ 3.75	\$ 2,317.5
seventy-five	cents		
73,961	SY	\$_4.00	\$295,844.0
no cents			
t) 7,458	GA	\$ 1.50	\$ 11,187.0
fty cents			
3,592	GA	\$ 0.75	\$ 2,694.0
venty-five cen	ts	78	-
		venty-five cents	venty-five cents

REV. 4/1/81

# Ghillish KUND LAST

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS.

1TEM	DESCRIPTION .	QUANTITY	TINU	UNIT PRICE	AMOUNT
300-1-16	Bit. Mat'l. (Plant Mix) (Asph Cem 30)	120,956	GA	\$ 0.60	\$ 72,573.6
	No dollars and sixty-ce (Written)	ents			
331-72-10	Type S Asph. Conc.(1") (Shoulder Pav't.)	582	SY	\$	\$_1,164.0
	\$ Two dollars and no cen (Written)	its .	TIEST TEV		
331 - 72 - 12	Type S Asph. Conc.( 1 1/4")	73,789	SY	\$1.13	\$ 83,381.5
	(Written)	n cents			
331-72-12M	Type S Asph. Conc. (3/4") Modified	74,080	SY	\$0.75	\$ 55,560.0
	No dollars and seventy (Written)	-five cents			
331-73	Type S Asph. Conc. (Modified)	500	TN	\$ 30.00	\$ 15,000.0
	\$ Thirty dollars and no co	ents			
339-1	Misc. Asph. Pavement	188	TN	\$ 50.00	\$ 9,400.0
E	\$ Fifty dollars and no ce (Written)	nts			
360-1 .	Conc. Apprh. Slabs	2	EA	\$ 13,550.00	\$ 27,100.0
15	\$ Thirteen Thousand Five (Written)	Hundred Fif	ty dol	lars and no	cents
400-1-15	Class I Concrete (Misc.)	170	CY	\$ 275.00	\$ 46,750.0
	Two Hundred Seventy-fiv	e dollars a	and no	cents	
400-4-2	Class IV Concrete (Endwalls	) 32	CY	\$ 1000.00	\$ 32,000.0
	(Written)	nd no cents			

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT '	UNIT PRICE	AMOUNT
400-5-5	Concrete Handrail (Sidewalk Barrier)	1,045	LF	\$ 75.00	\$ 78,375.0
	<pre>\$ Seventy-five dolla (Written)</pre>	rs and no ce	nts		3
415-1-1	Reinforcing Steel (Roadw	ay) 17,793	LB	\$0.35	\$ 6,227.5
	<pre>\$ No dollars and thi (Written)</pre>	rty-five cen	ts	•	
425-1-351	Inlets (Curb) (Type P-5) (<10')	26	EA	\$_1200.00	\$_31,200.0
	<pre>\$ Twelve Hundred doll (Written)</pre>	ars and no c	ents		
425-1-361	<pre>Inlets (Curb) (Type P-6)(&lt;10')</pre>	20	EA	\$_1250.00	\$_25,000.0
	\$ Twelve Hundred fift (Written)	y dollars ar	nd no ce	nts	
425-1-561	Inlets (DT BOT)(Type F) (<10')	18	EA	\$ 1050.00	\$ 18,900.
	\$ One Thousand Fifty (Written)	dollars and	no cen	ts	
425-1-571	Inlets (DT BOT)(Type G) (<10')	20	EA	\$_2000.00	\$ 40,000.
	\$ Two Thousand doll (Written)	ars and no d	ents		
425-2-41	Manholes (P-7T)(<10')	1	EA	\$ 750.00	\$750.
	<pre>\$ Seven hundred fifty (Written)</pre>	dollars and	no cen	ts	
425-2-51	Manholes (P-7NT)(<10')	4	EA	\$_750.00	\$ 3,000.
	Seven Hundred fifty (Written)	dollars and	no cen	its	
	(written)			- 1420	

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS

ITEM	DESCRIPTION QUANTITY UNIT UNIT PRICE AMOUNT	
425-2-71	Manholes (J7T)(<10') : 1 EA \$ 1,500.00 \$ 1,500.00	
	Fifteen hundred dollars and no cents (Written)	
425-2-72	Manholes (J-7T)(>10') 1 EA \$ 1,900.00 \$ 1,900.00	
	\$ Nineteen hundred dollars and no cents (Written)	
525-2-82	Manholes (J-7NT)(>10') 1 EA \$ 5,500.00 \$ 5,500.00	
	\$ Fifty-five hundred dollars and no cents (Written)	
425-2-100	Pollution Retardant Structures 2 EA \$ 5,500.00 \$11,000.00	
	\$ Fifty-five hundred dollars and no cents (Written)	
425-3-43	Junction Boxes (P-7T) Partial: 2 EA \$ 200.00 \$ 400.00	
	Two Hundred dollars and no cents (Written)	
430-1-122	Conc. Pipe Culv. (15"SS) 1,825 LF \$ 16.00 \$ 29,200.00	
	\$ Sixteen dollars and no cents (Written)	
430-1-123	ConcPipe Culv. (18"SS) 780 LF \$ 17.00 \$ 13,260.00	
	\$ Seventeen dollars and no cents (Written)	
430-1-124	Conc. Pipe Culv. (24"SS) 769 LF \$ 24.00 \$ 18,456.00	
	\$ Twenty-four dollars and no cents	
	(Written)	

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS

1TEM_	DESCRIPTION	UANTITY	UNIT	UNIT PR	ICE AMOUNT
430-1-125	Conc. Pipe Culv.(30"SS)	466	LF	\$31	.00 \$ 14,446.0
	\$ Thirty-one dollars and r	qo cents			
430-1-126	Conc. Pipe Culv. (36"SS)	182	LF	\$40	.00 \$ 7,280.0
	\$ Forty dollars and no cer	nts	(*)		*
	(Written)				
430-1-128	Conc. Pipe Culv. (48"S:)	198	LF	\$62	.00 \$ 12,276.00
	Sixty-two dollars and no (Written)	cents			
430-1-136	Conc. Pipe Culv. (102"SS)	834	LF	\$ 335	.00 \$ 279,390.0
	\$ Three HUndred Thirty-five (Written)	dollars	and r	o cents	
430-18-402	Side Drain Pipe Culv.(15")	192	LF	\$ 16	.00 \$ 3,072.0
	\$ Sixteen dollars and no o	cents			
	(Written)				
443-70-6	French Drians (36")(Conc.) 3	,653	LF	\$ 78	.00 \$284.934.0
	Seventy-eight dollars ar (Written)	nd no cen	ts		
520-1-10	Conc. Curb & Gutter, (Type F) 26	,114	LF	\$4	.86 \$126,914.0
19	\$ Four dollars and eighty-	six cent	s		
	(Written)				
520-2-4	Conc. Curb (Type D)	95	LF	\$4	.86 \$ 461.7
	<pre>\$ Four dollars and eighty (Written)</pre>	-six cen	ts		
520-5-85	Conc. Traf. Sep. (Type IV)(2'Wide)	,892	LF	\$9	.50 \$ 17,974.0
	Nine dollars and fifty	cents			
	(Written)				
GCF #69B-	0 11				

REV. 4/1/81

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS

ITEM	DESCRIPTION QUANTITY UNIT UNIT PRICE AMOUNT
522-1	Conc. Sidewalk (4"thick) 3,040 SY \$ 9.90 \$ 30,096.0
	Nine dollars and ninety cents (Written)
522-2	Conc. Sidewalk (6"thick) 233 SY \$ 12.00 \$ 2,796.0
	Twelve dollars and no cents (Written)
524-1-2	Conc. Ditch Pav't.(4") 37 SY \$ 17.00 \$ 629.0
	\$ Seventeen dollars and no cents (Written)
528-70	Reinforced Earth Wall 9.006 SF \$ 17.00 \$ 153,102.
	\$ Seventeen dollars and no cents (Written)
530-1-1	Rip Rap (Sand Cement) (Roadway) 163 CY \$ 135.00 \$ 22,005.
	<pre>\$ One Hundred Thirty-five dollars and no cents (Written)</pre>
530-70-1	Conc. Block Noise Wall 3,069 LF \$ 37.00 \$113,553.
	S Thirty-seven dollars and no cents (Written)
536-1-1	Guardrail (Roadway) . 238 LF \$ 9.50 \$ 2,261.
	Nine dollars and fifty cents (Written)
536-2	Guardrail (Shop-Bent Panels) 638 LF \$ 9.75 \$ 6,220.
	Nine dollars and seventy-five cents (Written)
536-6	End Anchorage Assem.  Type II 5 EA \$ 275.00 \$ 1,375.
	Two HUndred seventy-five dollars and no cents
CCC #600 -	(Written)

# GRIIIIN ROAD EAST

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS

1TEM	DESCRIPTION QUANTITY	UNIT	UNIT PRICE	AMOUNT
536-73-1	Rem. of Exist. Guardrail (Double-Face) 688	LF	\$1.80	\$_1,238.40
	\$ One dollar and eighty cents (Written)			
536-78	End Anchorage Assem. Type IV 2 . Four Hundred forty-five dollars a	EA nd no	\$_445.00 cents	\$ 890.00
.*)	(Written)			*
538-71	Reset Guardrail 4,700	LF	\$ 5.95	\$ 27,965.00
29	Five dollars and ninety-five cent (Written)	s		
538-71-1	Reset Guardrail (Double-Face) 488	LF	\$6.80	\$ 3,318.40
	Six dollars and eighty cents (Written)		10.00	
544-75	Vehicular Impact Attenuator 2	EA	\$18000.00	\$ 36,000.00
	\$ Eighteen thousand dollars and no (Written)	cents		e.
550-2-6	Fencing Type B (4'Height) 100	LF	\$ 5.60	\$560.00
	\$ Five dollars and sixty cents. (Written)			
550-2-11 (Federal Spec F 162 5-1)	Fencing, Type B (Modified) (Plastic)(8' High) 1,140 (w/barhed wire attachment) \$ Nine dollars and no cents (Written)	LF	\$ 9.00	\$ 10,260.00
550-3-2	Corner Post Assem. Type B Fence 1	EA	\$ 45.00	\$ 45.00
	S Forty-five dollars and no cents (Written)			-
550-3-21 (Federal Spec F 162 5-1)	Corner Post Assem. Type E Fence (8' High) 2	EA	\$ 58.00	\$116.00
*	<pre>\$ Fifty-eight dollars and no cents (Written)</pre>			m į

GCF #698- 51

# BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS

1TEM	DESCRIPTION	QUANTITY	UNIT	UNI	T PRICE	AM	TNUO
550-4-2	Pull and End Post Assem. Type B Fence	3	EA	\$_	35.00	_	105.00
	\$ Thirty-five dollars (Written)	and no cent	s				1.0
550-4-21 (Federal Spec F 162 5-1)	Pull and End Post Assem. Type B Fence (8'High)	14	EA	\$_	49.00	\$_	686.00
F 102 5-1)	\$ Forty-nine do'. Tars (Written)	and no cent	s				
550-74	Reset Existing Fence (Type B)	725	LF	\$	5.74	\$_	4.161.50
	\$ Five dollars and se (Written)	venty-four	cents				
570-1	Seeding	15,552	SY	\$_	0.06	\$	933.12
570-3	<pre>\$ no dollars and six c (Written) ; Grass Seed (Perm. Type,</pre>	ents			0		
370-3	Argen Bahia)	321	LB	\$_	0.98	\$	314.58
	\$ no dollars and ninet (Written)	y-eight cen	its				
570-5	Fertilizer '	2	TN"	\$_	190.00	\$_	380.00
	\$ One Hundred ninety d (Written)	ollars and	no cen	ts			
570-9	Water for Grass	107	MG	\$_	14.00	\$_	1,498.00
	Fourteen dollars and (Written)	no cents					
570-10	Grass Seed (Quick Growing Type)	96	LF	\$_	0.60	\$_	57.60
	s no dollars and sixty	cents					
	(Written)				- ·~A	D.	

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

# CONTRACT BID PRICES ROADWAY BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
575-1-1	Sodding (Bahia)	₹1,728	· SY	\$_1.18	\$ 2,039.04
. 0	<pre>\$ One dollar and eight (Written)</pre>	een cents			
1616-150- 116	Galv. Steel Pipe (F&I) (Threaded Joint) (6")	390	LF	\$ 15.00	\$ 5,850.00
	\$ Fifteen dollars and (Written)	no cents			

TOTAL FOR ALL ROADWAY BID ITEMS 102-1 through 1616-150-116 \$ 2,618,075.52

Two Million six hundred eighteen thousand seventy-five (Written) dollars and fifty-two cents

#### SIGNING AND PAVEMENT MARKING BID ITEMS

#### \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B- 51 Rev.4/1/81

### BROWARD COUNTY BOND PROJECT NO. 04110-E

# SIGNING AND PAVEMENT MARKING BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
700-1-1	Roadside Sign R1-2	., 5	AS	\$76.50	\$ 382.50
	<pre>\$ Seventy-six dollars an (Written)</pre>	d fifty c	ents		
700 1 0			4	4.	
700-1-2	Roadside Sign W10-1	2	AS	\$83.75	\$ 167.50
	\$ Eighty-three dollars a (Written)	nd sevent	y-five o	cents	
700-1-3	Roadside Sign R1-	11	AS	\$91.00	\$ 1001.00
	\$ Ninety-one dollars and	no cents			
	(Written)				
700-1-4	Roadside Sign (Rt. Marker Single)	14	AS	\$82.00	\$ 1148.00
	\$ Eighty-two dollars and (Written)	no cents			
700-1-5	Roadside Sign (Rt. Marker Double)	2	AS	\$_140.00	\$ 280.00
	\$ One hundred forty doll. (Written)	ars and no	cents		
700-1-11	Roadside Sign (3-4 sq.ft.)	2	AS	\$ 65.50	\$ 131.00
	\$ Sixty-five dollars and (Written)	fifty cer	nts		
700-1-12	Roadside Sign (4-5 sq.ft.)	6	AS	\$ 68.75	\$ 412.50
	\$ Sixty-eight dollars and (Written)	seventy-	five ce	nts	
700-1-14	Roadside Sign (6-6.25 sq.ft.)	7	AS	\$ 73.75	\$ 516.25
	\$ Seventy-three dollars a (Written)	and sevent	y-five	cents	
700-1-15	Roadside Sign (6.25-9 sq.ft.)	9	AS	\$ 85.75	\$ 771.75
	<pre>\$ Eighty-five dollars and (Written)</pre>	seventy-	five ce	nts	•

### BROWARD COUNTY BOND PROJECT 04110-E

# SIGNING AND PAVEMENT MARKING BID ITEMS

ITEM	DESCRIPTION QUANTITY UNIT UNIT PRICE AMOUNT						
700-1-16	Roadside Sign (9-12 sq. ft.) 1 AS \$ 108.75 \$ 108.7						
	\$ One Hundred eight dollars and seventy-five cents (Written)						
700-1-17	Roadside Sign (12-16 sq. ft.) 4 AS \$ 125.50 \$ 502.0						
	\$ One hundred twenty-five dollars and fifty cents (Written)						
700-1-30	Roadside Sign (32-40 sq.ft.) 1 AS 3 724.75 \$ 724.75						
	Seven Hundred twenty-four dollars and seventy-five cents (Written)						
700-5-35	lighted Overhead Canti- lever Sign (GS-2,GS-5) 2 AS \$ 14430.00 \$ 28860.00						
	\$ Fourteen thousand four hundred thirty dollars and no cents (Written)						
700-5-36	Lighted Overhead Canti- lever Sign (GS-6) 1 AS \$ 15605.00 \$ 15605.00						
	§ Fifteen Thousand Six Hundred five dollars and no cents (Written)						
700-70	Lighted Overhead Sign 2 AS \$ 6850.00 \$ 13700.00 Bridge Mounted						
	\$ Six thousand eight hundred fifty dollars andno cents (Written)						
700-84-1	Sign Panel Installation 17 EA \$ 155.75 \$ 2647.75						
	\$ One hundred fifty-five dollars and seventy-five cents (Written)						
700-89-2	Electrically Powered Sign 2 EA \$ 650.00 \$ 1300.00						
	Six Hundred fifty dollars and no cents (Written)						
706-1-12	Reflective Pavement Marker 2001 EA \$ 2.85 \$ 5702.85						
	Two dollars and eight-five cents (Written)						
698-51 4/1/81	C-18						

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

## SIGNING AND PAVEMENT MARKING BID ITEMS

*	ITEM	DESCRIPTION QUANTITY UNIT UNIT PRICE AM	OUNT
	710-4-41	Solid Traffic Stripe (4") .2533 LF \$ 0.02 \$	50.66
		no dollars and two cents (Written)	
	710-4-181	Solid Traffic Stripe	201.00
		no dollars and twenty cents (Written)	
٠.	710-4-241	Solid Traffic Stripe (24") 79 LF \$ 0.25 \$	19.75
	*	no dollars and twenty-five cents (Written)	
	710-7	Pavement Messages, Painted (RxR) 3 EA \$ 10.00 \$	30.00
		\$ Ten Dollars and no cents (Written)	
	710-11	Remove Existing Markings (Paint) 390 SF \$ 0.50 \$	195.00
,	84	<pre>\$ no dollars and fifty cents (Written)</pre>	
	711-1	Skip Traffic Stripe, Ther- moplastic (White) Inlaid 4.42 GM \$ 1500.00 \$	6630.00
	:: ::	Fifteen hundred dollars and no cents (Written)	
	711-2	Skip Traffic Stripe, Ther- moplastic (Yellow) Inlaid 190 LF \$ 2.00 \$	380.00
		Yritten)	
	711-3	Pavement Messages, Thermo- plastic 25 EA \$ 80.00 \$	2000.00
		\$ Eighty dollars and no cents (Written)	
	698-51	C-19	

### BROWARD COUNTY PROJECT NO. 04110-E

# SIGNING AND PAVEMENT MARKING BID ITEMS

100	ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TAUONA
	711-4	Directional Arrows, Thermoplastic	105	EA	\$ 26,00	\$ 2,730.00
		Ywenty-six dollar (Written)	s and no c			
	711-5	Guide Lines, Ther- moplastic (4" Dotted)	652	LF	\$ 0.40	\$ 260.80
		<pre>\$ no dollars and forty co (Written)</pre>	ents		•	
	711-6-41	Solid Traffic Stripe, Ther- moplastic (4")	55372	LF	\$ 0.19	\$ 10,520.68
		<pre>\$ no dollars and nineteen (Written)</pre>	cents			
	711-6-81	Solid Traffic Stripe, Ther- moplastic (8")	3600	LF	\$_0.75	\$ 2,700.00
		(Written)	five cents			
	711-6-121	Solid Traffic Stripe, Ther- moplastic (12")	1325	LF	\$ 1.00	\$ 1,325.00
		(Written)				
	711-6-181	Solid Traffic Stripe, Thermoplastic (18")	1327	LF	\$_1.41	\$ 1,871.0
		<pre>\$ One dollar and forty-or (Written)</pre>	ne cents			
	711-6-241	Solid Traffic Stripe, Ther- moplastic (24")	1157	LF	\$ 2.00	\$ 2,314.00
		Two dollars and no cent (Written)	ts		į.	
	711-72	Remove Existing Markings (Thermoplastic)	166	SF	\$ 0.50	\$83.00
		\$ No dollars and fifty co	ents		- 4/8	
GCF	698-51	C-20				

BROWARD COUNTY BOND PROJECT NO. 04110-E

CONTRACT BID PRICES
SIGNING AND PAVEMENT MARKING BID ITEMS

TOTAL FOR ALL SIGNING AND PAVEMENT MARKING BID ITEMS 700-1-1 thru 711-12

\$ 105,272.56

\$ One hundred five thousand two hundred seventy-two dollars (Written) and fifty-six cents

#### SIGNALIZATION BID ITEMS

### \*NOTICE TO ALL BIDDERS

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GCF#69B-51 Rev.4/1/81

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

ITEM	DESCRIPTION QUANTITY UN	TIV	UNI	T PRICE	AMO	TAUC
620-1-1		F	\$_	1.00	\$_	770.
	(Written)	_				
630-1-11	Conduit (above ground 2") 37	LF	\$_	5.00	\$_	185.
	\$ Five dollars and no cents (Written)					
630-1-12	Conduit (underground 2") 9538 LF	F.	\$	1.00	\$	9538.
	(Written)					
630-1-13	Conduit (under pavement 2") 8037 LF	F	\$	2.00	\$_	16074.
	Two dollars and no cents (Written)			<del>.</del>		
630-1-14	Conduit (underground 2"-jack) 232 LF	F	\$	7.00	\$	1624.
	Seven dollars and no cents (Written)					
632-7-1	Cable (Signal) 7 PI	ī	\$ 80	00.00	\$_	5600.
	S Eight hundred dollars and no cents (Written)					
632-8-112	Cable (Interconnect) 7229 LF	F	\$	1.00	\$	7229.
	(Written)					
634-4-111	Span Wire Assembly (perpendicular)1 PI		\$40	00.00	\$	400.
	Four hundred dollars and no cents (Written)					
634-4-112	Span Wire Assembly (diagonal) 3 PI	t	\$60	0.00	\$_	1800.
	Six hundred dollars and no cen	nts				
GCF # 698-5 REV. 4/1/81						

### BROWARD COUNTY BOND PROJECT NO. 04110-E

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
634-4-113	Span Wire Assembly (box)	1	PI	\$ 700.00	\$ 700.00
	Seven HUndred dollars	and no cen	ts		
	(Written)				
634-4-114	Span Wire Assembly (other)	2	PI	\$ 900.00	\$1800.00
	Nine hundred dollars a	ind no cent	s		
	(Written)				0400 00
635-1-11	Pull and Junction Boxes	64	EA	\$ 150.00	\$9600.00
	(standard)  \$ One hundred fifty dol	lars and n	o cent	6	
	(Written)				
635-1-13	Pull and Junction Boxes (mou	inted) 1	EA	\$ 700.00	\$_700.00
	\$ Seven Hundred dollars	and no cer	its		
	(Written)				
639-1-13	Electrical Power Service	5	AS	\$ 125.00	\$ 625.00
	one hundred twenty-fit	ve dollars	and no	cents	
	(Written)				
639-2-1	Electrical Service Wire	547	LF	\$	\$ 574.00
	one dollar and no ce	nts			
	(Written)	-			
641-14-38	Concrete Strain Poles (Type V)	10	EA	\$_850.00	\$ 8500.00
	Eight Hundred fifty	dollars and	d no ce	ents	
	(Written)				
641-15-42	Concrete Strain Poles (Type VI)	1	EA	\$ 950.00	\$ 950.00
	S Nine hundred fifty do	llars and	no cent	s	
	(Written)			41	
641-16-44	Concrete Strain Poles (Type VII)	4	EA	\$ 1050.00	\$ 4200.00
	one Thousand Fifty d	ollars and	no cer	nts	
GCF # 69B-	51 (Written)				
REV. 4/1/8					
	C-24	1.00			

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
641-16-48	Concrete Strain Poles (Type VII)	. 4	EA	\$_1150.00	\$ 4600.0
	\$ One Thousand One Hundr (Written)	ed Fifty do	llars	and no cents	3
650-1-111	Traffic Signal, 12" STD (1-Section, 1-Way)	1	AS	\$ 220.00	\$ 220.0
	\$ Two Hundred twenty dol (Written)	llars and r	o cent	s	*
650-1-131	Traffic Signal, 12" STD (3-Section, 1-Way)	27	AS	\$ 350.00	\$ 9450.0
	\$ Three hundred fifty do (Written)	llars and r	o cent	s	
650-1-132	Traffic Signal, 12" STD (3-Section, 2-Way)	7	AS	\$ 590.00	\$_4130.(
	<pre>\$ Five hundred ninety d (Written)</pre>	ollars and	no cer	its	
650-1-133	Traffic Signal, 12" STD (3-Section, 3-Way)	1	AS	\$ 420.00	\$420.0
	Four Hundred twenty d	ollars and	no cen	ts	
650-9-151	Traffic Signal, 12" STD (5-Section Cluster)	6	AS	\$ 540.00	\$ 3240.0
	S Five hundred forty do (Written)	llars and n	o cent	s	
653-111	Pedestrian Signals (one-way) (12" Incandescent)	4	AS	\$ 190.00	\$760.0
	\$ One hundred ninety do: (Written)	llars and n	o cent	s	
653-112	Pedestrian Signals (two-way) (12" Incandescent)	1	AS	\$ 375.00	\$375.0
GCF # 698-51 REV, 4/1/81	(Written) C-25		rs and	no cents	

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT		
659-101	Signal Head Auxiliaries (Back Plates, 3-Section)	27	EA	\$50.00	\$_1350.0		
	S Fifty dollars and no co	ents			.*		
659-106	Signal Head Auxiliaries (Tunnel Visor)	59	EA	\$1.00	\$ 59.00		
	5 One dollar and no cen	ts					
	(Written)						
659-107	Signal Head Auxiliaries (Aluminum Pedestal)	·. 2	EA	\$ 200.00	\$_400.00		
	Two hundred dollaRs	and no cen	ts				
	(Written)						
660-1-103	Inductive Loop Detector Type	111 29	EA	\$_120.00	\$ 3480.00		
1 ×	\$ One hundred twenty dol:	lars and n	o cents				
	(Written)	36.5					
660-1-104	Inductive Loop Detector Type	IV 9	EA	\$ 140.00	\$1260.00		
	one hundred forty dollars and no cents						
	(Written)						
660-2-102	Loop Assembly Type B	2	AS	\$ 300.00	\$ 600.00		
	three hundred dollars and no cents						
	(Written)	and no cen	· ·				
	(Wirecelly)						
660-2-106	Loop Assembly Type F	71	AS	\$ 150.00	\$10650.0		
	\$ One hundred fifty dollar	ars and no	cents				
665-11	Pedestrian Detector	6	EA	\$ 50.00	\$ 300.0		
	. Fifty dollars and no cents						
	(Written)	TES T					

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

## CONTRACT BID PRICES SIGNALIZATION BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
670-112-033	Actuated Solid State Controller Assembly (2-4 Pha	s.e) 1	AS	\$_5,550.00	\$ 5,550.0
	\$ Fifty-five hundred fift (Written)	ty dollars	and no	cents	
670-112-133	Actuated Solid State (2-4 Phase Controller Assembly w/coord unit)	. 1	AS	\$ 5,750.00	\$ 5,750.0
	Fifty-seven hundred fit (Written)	tty dollar	s and n	o cents`	
670-113-033	Actuated Solid State (4 Phas Controller Assembly to 8)	e exp.	AS	\$ 6,440.00	\$12,880.0
	Six thousand four hund: (Written)	red forty	dollars	and no cent	5
670-114-033	Actuated Solid State (8 Phas Controller Assembly	e) 1	AS	\$ 6,450.00	\$ 6,450.
	Six thousand four hund (Written)	red fifty	dollars	and no cent	s
679-1-133	Coordination Unit	5	EA	\$ 160.00	\$800.0
	\$ One hundred sixty doll: (Written)	ars and no	cents		
684-101	System Communications (Multi-Pair Cable)	7229	LF	\$1.00	\$ 7,229.
	(Written)	5			
685-105	System Auxiliaries (Master Clock Unit)	1	EA	\$190.00	\$190.(
	(Written)	llars and	no cent	s	
685-120	System Auxiliaries (Telementry Transceiver)	5	EA	\$ 1100.00	\$ 5,500.
GCF # 698-51 REV. 4/1/81	\$ Eleven hundred dollar (Written)	s and no	cents		

C-27

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

#### CONTRACT BID PRICES SIGNALIZATION BID ITEMS

ITEM	DESCRIPTION	UANTITY	UNIT	UNIT PRICE	AMOUNT
685-123	System Auxiliaries (3/Phase thru 8-Phase Full Acutated Adapter)	5	EA	\$ 1100.00	\$ 5500.00
	\$ Eleven Hundred dollars ar (Written)	nd no cer	nts		
690-10	Remove Traffic Signal Head Assembly	5	EA	\$_10.00	\$50.00
	Ten dollars and no cents (Written)		100		
690-30	Remove Poles	1	EA	\$ 100.00	\$ 100.00
	\$ One hundred dollars and r (Written)	no cents			
690-50	Remove Controller Assembly	1	EA	\$ 100.00	\$ 100.00
	\$ One hundred dollars and r	no cents			
690-80	Remove Span Wire Assembly	1	EA	\$ 50.00	\$ 50.00
	\$ Fifty dollars and no cer (Written)	nts			
690-90	Remove Cabling and Conduit	1.	PI	\$ 50.00	\$ 50.00
	\$ Fifty dollars and no cent	s			
690-100	Remove Miscellaneous Signal Equipment	1	PI	\$_25.00	\$ 25.00
	<pre>\$ Twenty-five dollars and r</pre> <pre>(Written)</pre>	o cents			

TOTAL FOR ALL SIGNALIZATION BID ITEMS 620-1-1 thru 690-100

\$162,360.00

·---

GCF # 69B-51 \$ One Hundred sixty-two thousand three hundred sixty dollars (Written) and no cents REV. 4/1/81

#### ROADWAY LIGHTING BID ITEMS

#### \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-51 Rev.4/1/81

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

### CONTRACT BID PRICES ROADWAY LIGHTING BID ITEMS

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT		
715-73	Install New Conductor, Conduit & Pull Boxes	₹ 1	LS ·	\$ 24,286.0	0 \$ 24,286.00		
	S Twenty-four thousand (Written) no cents	two hundre	d eigh	ty-six doll	ars and		
715-84-350	Double Arm Lighting Pole Complete (Concrete)	1	EA	\$ 1,500.0	0 \$ 1,500.00		
	(Written)	dred dolla	rs and	no cents			
715-86-350	Lighting Pole Complete (Concrete)	30	EA	1,200.0	0 \$ 36,000.00		
	\$ One thousand two hundred dollars and no cents (Written)						
715-95	Load Center	1	EA	\$ 900.0	900.00		
	Nine hundred dollars and no cents (Written)						
715-96	Underdeck Luminaire (Pier Cap Mounted)	4	EA	\$ 300.0	00 \$ 1,200.00		
	\$ Three hundred dollars (Written)	and no ce	nts				

TOTAL FOR ALL ROADWAY LIGHTING BID ITEMS 715-73 through 715-96

63,886.00

Sixty-three thousand eight hundred eighty-six dollars and (Written) no cents

#### BRIDGE BID ITEMS

#### \*NOTICE TO ALL BIDDERS

.:

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

## CONTRACT BID PRICES BRIDGE BID ITEMS

/ ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
400-2-4	Class II Concrete (Superstructure)	960	CY	\$ 195.00	\$187,200.
	(Written)	y-fiữe dollar	s and i	no cents	Ŷ
400 -2 -5	Class IV Concrete (Substructure)	285	CY	\$ 176.00	\$ 50,160.
	(Written)	nty-six dolla	ars and	no cents	
400-4-8	Class IV Concrete (Bulkhead)	9	CY	\$ 695.00	\$ 6,255.
	Six hundred ninet (Written)	ty-five dolla	ars and	no cents	
400 -5 -5	Concrete Handrail (Sidewalk)	673	LF	\$ 43.50	\$ 29,275.
	\$ Forty-three dollar (Written)	ars and fifty	cents		
400 -6	Precast Anchor Beams		EA	\$ 75.00	\$900.
, .	Seventy-five doll (Written)	llars and no	cents	-	
415-1-4	Reinforcing Steel (Superstructure)	268,617	LB	\$ 0.36	\$ 96,702.
	No dollars and the (Written)	nirty-six cen	its		
415 -1 -5	Reinforcing Steel (Substructure)	31,173	LF	\$0.36_	\$_11,222.
	\$ No dollars and the (Written)	nirty-six cen	ts	= -	*
415-1-8	Reinforcing Steel (Bulkhead)	811	LB	\$ 0.45	\$364.
	No dollars and fo	orty-five cen	ts		

ITEM	DESCRIPTION - QUANTITY UNIT UNIT PRICE	AMOUNT
450-1-2	Prestressed Beams (Type III) 4,984 LF \$ 49.00	\$ 244,216.00
	(Written)	•
455-3-2	Prestressed Concrete Piling Furnished (18"sq.) 1,850 LF \$ 15.25	\$ 29,212.50
	Fifteen dollars and twenty-five cents (Written)	-
455-3-3	Prestressed Concrete Piling Furnished (20"sq.) 5,395 LF \$ 21.50	\$115,992.50
	Twenty-one dollars and fifty cents (Written)	-
455-4-2	Prestressed Concrete Piling Driven (18"sq.) 1,850 LF \$ 2.00	\$ 3,700.00
	\$ Two dollars and no cents (Written)	_
455-4-3	Prestressed Concrete Piling Driven (20"sq.) 5,395 LF \$ 3.00	\$ 16,185.00
	S Three dollars and no cents (Written)	_
455-9-12	Unloaded Test Piles · (Prestressed Concrete) (18" sq.)  112 LF \$ 37.00	\$ 4,144.00
	Thirty-seven dollars and no cents	
	(Written)	
455 -9 -13	Unloaded Test Piles Prestressed Concrete) (20"sq.) 279 LF \$ 44.00	\$ 12,276.00
	\$ Forty-four dollars and no cents (Written)	-
455-15	Preformed Pile Holes 23 EA \$ 165.00	\$ 3,795.00
	S One hundred sixty-five dollars and no cents (Written)	-
455-14-2	Concrete Sheet Piling (8" x 30") 380 LF \$ 32.00	\$ 12,160.00
	S Thirty-two dollars and no cents (Written)	-
	The state of the s	×40

ITEM	DESCRIPTION	QUANTITY	UNIT .	UNIT PRICE	AMOUNT
455-17-2	Pile Splices (18"sq.)	1	EA	\$ 250.00	\$ 250.00
	\$ Two hunred fifty do (Written)	ollars and	no cent	:s	
455-17-3	Pile Splices (20"sq.)	1	EA	\$ 500.00	\$ 500.00
	\$ Five hundred dollar (Written)	s and no c	ents		
460-91-2	Expansion Joint Seal (Compression Elastomeric)	674	LF	\$ 33.50	\$22,579.00
	\$ Thirty-three dollar (Written)	s and fift	y cents		
524-2-2	Concrete Slope Pavement (4" thick)	680	SY	\$	\$_14,280.0
	<pre>\$ Twenty-one dollars (Written)</pre>	and no ce	nts		

TOTAL FOR ALL BRIDGE BID ITEMS ITEMS 400-2-4 THRU 524-2-2

\$ 860,369.85

\$ Eight hundred sixty thousand three hundred sixty-nine doll (Written) and eighty-five cents

#### BID ITEMS FOR NEW 16" WATER MAIN

#### \*NOTICE TO ALL BIDDERS

Bidder agrees that any unit price listed is to be multiplied by the approximate quantity requirements in order to arrive at the TOTAL.

In the event of patent multiplication or addition errors, the bidder recognizes that these are clerical errors and may be corrected by the County.

GCF#69B-51 Rev.4/1/81

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

### CONTRACT BID PRICES BID ITEMS FOR NEW 16" WATER MAIN

ITEM	DESCRIPTION . QUANTITY UNIT UNIT PRICE AMOUNT
1	Water Main Bridge Crossing 1 LS \$ 25,000.00 \$ 25,000.00
-	\$ Twenty-five thousand dollars and no cents (Written)
2	16" Ductile Iron Pipe Class 50 2025 LF \$ 30.00 \$ 60,750.
	\$ Thirty dollars and no cents (Written)
3	16" Gate Valve and Riser 4 EA \$ 4,200.00 \$ 16,800.
	\$ Forty-two hundred dolllars and no cents (Written)
4	Jack and Bore 30" Casing 1 LS \$ 19,000.00 \$ 19,000.
	\$ Nineteen thousand dollars and no cents (Written)

TOTAL FOR BID ITEMS FOR NEW 16" WATER MAIN NO. 1 through 4

\$ 121,550.00

\$ One hundred twenty-one thousand five hundred fifty dollars (Written) and no cents

#### BROWARD COUNTY BOND PROJECT NO. 04110-E

TOTAL FOR ALL ROADWAY BID ITEMS	\$	2,618,075.52
You million six hundred eighteen thousand sev (Written) and fifty-two cents	enty	-five dollars
TOTAL FOR ALL SIGNING AND PAVEMENT MARKING ITEMS	\$	105,272:56
One hundred five thousand two hundred seventy (Written) and fifty-six cents	-two	dollars
TOTAL FOR ALL SIGNALIZATION BID ITEMS	\$_	162,360.00
\$ One hundred sixty-two thousand three hundred (Written) and no cents	sixt	y dollars
TOTAL FOR ALL ROADWAY LIGHTING BID ITEMS	\$	63,886.00
Sixty-three thousand eight hundred eighty-six (Written) no cents  TOTAL FOR ALL BRIDGE BID ITEMS	_dol_	860,369.85
S Eight hundred sixty thousand three hundred s (Written) and eighty-five cents	ixty	-nine dollars
TOTAL FOR ALL NEW 16" WATER MAIN BID ITEMS	\$	121,550.00
One hunred twenty-one thousand five hundred (Written) and no cents	fif	ty dollars
For the Performance Bond premium and consideration for Owner and Engineer under Article 16 of the "Instructions Article 6 of the "General Specifications" heretofore the	to	Bidder" and
TOTAL	\$	30,000.00
\$ Thirty thousand dollars and no cents (Written)	-	
GRAND TOTAL FOR ALL ITEMS	\$ 3	,961,513.93
Three Million Nine HUndred Sixty-one thousand (Written) dollars and ninety-three cents	fiv	e hundred thirteen

CF# 69B- 51 EV. 4/1/81

#### UNITED PACIFIC INSURANCE COMPANY

PUBLIC WORK STATE OF FLORIDA

S	STATE	OF FLORIDA		II
PI CE AND	PAYMENT BOND		BOND NO	.U 37 02 74
/	KNOW ALL MEN	BY THESE PRESENT	rs.	
Tha. we,	TRIPLE R PAVING.			
as Principal and THE BOARD OF (	UNITED PACIFIC INSU	RANCE COMPANY , as	s Surety are b	ound to
herein called Ow FIVE HUNDRED THIRT	ner, in the sum o	f THREE MILLION TY THREE CENTS	NINE HUNDRED ST (\$3,961,513.	93)Dollars
for the payment	of which we bind	ourselves, our p	ersonal repre	sentatives,
	ssigns, jointly a			
	al has entered in	to a contract da	ted	19
with Owner for_	idge construction of (	Griffin Rd. & Water	Main from SCL F	R to US 1 in
Which contract i	s by reference man	de a part bereef	and is Brown	rd County
referred is the	Contract.	ne a part nereor	, and is here	inarcer
	THIS BOND is tha	t if Principal:		
. performs the	contract at the t			ibed in the
materials, and subcontractor	s payments to all d supplies, used o s in the prosecut: rescribed by sect:	directly or indi	rectly by Pri	ncipal or in the
hereunder aga:	tion for labor, ma inst the Principal ices have been give	or the Surety	unless both o	instituted f the
pal and who supplies sh terials, or	, except a laborer or has not received hall, within 45 days a supplies for the with a notice that had	l payment for hi mys after beginn prosecution of	s labor, mate ing to furnish the work, fur	rials or h labor, ma-
90 days aft of material written not	who is not in pringer that the performance of its or supplies, desire of the perfor supplies and of	the labor or at liver to the Primance of the lab	r supplies sha fter complete incipal and to por or deliver	all, within delivery
in the bond	hall be institute after one (1) ye on of delivery of	ar from the peri	ormance of th	e Surety e labor
<ul> <li>pays owner all tains because</li> <li>performs the a contract appli otherwise it r</li> <li>The provisions</li> </ul>	loss, damages, cof default by Privarantee of all workensins in full for and limitations ed in this bond b	osts and attorned ncipal under the ork and materials, and materials, rce.	cys fees that contract and s'urnished u then this bon	nder the d is void;
IGNED, SEALED an	d DATED this	9 day of Ju	ly	1983 .
	67	IRIPLE R PAVIN	rincipal)	1 17

By Rop T Danks

UNITED PACIFIC INSURANCE COMPANY

(Surety)

By Nagana A Macaille

Virginis D. Sullivan

Attorney In Fact and Licensed Florida Agent

Witness: Pamala B. Hancon

### UNITED PACIFIC INSURANCE COMPAI

HOME OFFICE, TACOMA, WASHINGTON

#### POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS. That the UNITED PACIFIC INSURANCE COMPANY, a corporation duty organized under the laws of the State of Washington, does hereby make, constitute and appoint J. Mark Whitehead, Sherron S. Schmidt, April L. Lively, Charles R. Baylis, Jr., Virginia D. Sullivan, Frank B. Ferguson and Emil B. Askew, individually, of Maitland, Florida

its true and lawful Attorney-in-Fact, to make, execute, seel and deliver for and on its behalf, and as its act and deed undertakings of Suretyship,	any	and	all	bonds	and
under caxings of burecysmip!					

and to bind the UNITED PACIFIC INSURANCE COMPANY thereby as fully and to the same extent as if such bonds and undertakings and other writings obligatory in the nature thereof were signed by an Executive Officer of the UNITED PACIFIC INSURANCE COMPANY and seeled and attested by one other of such officers, and hereby retifies and confirms all that its said Attorney(s)-in-Fact may do in pursuance hereof.

This Power of Attorney is granted under and by authority of Article VII of the By-Laws of UNITED PACIFIC INSURANCE COMPANY which became effective September 7, 1978, which provisions are now in full force and effect, reading as follows:

#### ARTICLE VII - EXECUTION OF BONDS AND UNDERTAKINGS

- 1. The Board of Directors, the President, the Chairman of the Board, any Senior Vice President, any Vice President or Assistant Vice President or other officer designated by the Board of Directors shall have power and authority to (a) appoint Attorneys-in-Fact and to authorize them to execute on behalf of the Company, bonds and undertakings, recognizances, contracts of indensity and other writings obligatory in the insture thereof, and (b) to remove any such Attorney-in-Fect at any time and revoke the power and authority given to him.
- 2. Attorneys-in-Fact shall have power and authority, subject to the terms and limitations of the power of attorney issued to them, to execute and deliver on behalf of the Company, bunds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof. The corporate seal is not necessary for the validity of any bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof
- 3. Attorneys-in-Fact shall have power and authority to execute affidevits required to be attached to bonds, recognizances, contracts of indemnety or other conditional or obligatory undertakings and they shall also have power and authority to certify the financial statement of the Company and to copies of the By-Laws of the Company or any article or section thereof,

This power of attorney is signed and sealed by facsimile under and by authority of the following Resolution adopted by the Board of Directors of UNITED PACIFIC INSURANCE COMPANY at a meeting held on the 5th day of June, 1979, at which a quorum was present, and said Resolution has not been amended or repealed:

"Resolved, that the signatures of such directors and officers and the seal of the Company may be affixed to any such power of attorney or any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile. signatures or facsimile seel shall be valid and binding upon the Company and any such power to executed and certified by facsimile signatures and facsimile seel shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

ed by its Vice President, and its corporate IN WITNESS WHEREOF, the UNITED PACIFIC INSURANCE COMPANY has caused these presents to be sign 8th day of March seal to be hereto affixed, this

OF SHADO

STATE OF COUNTY OF Pennsylvania Philadelphia

On this

March

, 1983, personally appeared

Raymond MacNeil

to me known to be the Vice-President of the UNITED PACIFIC INSURANCE COMPANY, and acknowledged that he executed and attested the foregoing instrument and affixed the seel of said corporation thereto, and that Article VII, Section 1, 2, and 3 of the By-Lews of said Company, and the Resolution, set forth therein, are still in full force.

My Commission Expires:

May 7 . 19 84

Notary Public in and for State of

Pennsylvania

Philadelphia Residing at

, Assistant Secretary of the UNITED PACIFIC INSURANCE COMPANY, do hereby certify that the P. D. Crossetta above and foregoing is a true and correct copy of a Power of Atlantacy executed by said UNITED PACIFIC INSURANCE COMPANY, which is still in full

IN WITNESS WHEREOF, I have hereunto set my hand at

al of said Company this

983

Assistant Secretal

# DEPARTMENT OF INSURANCE AND TREASURER TALLAHASSEE, FLORIDA

330

STATE LICENSE OR PERMIT

THIS IS TO CERTIFY THAT:

VIRGINIA DAWN SULLIVAN 781 WYMORE ROAD P O BOX 967 MAITLAND FLORIDA 32751

IS DULY LICENSED IN THE CAPACITY SHOWN BY TYPE AND CLASS HEREON TO REPRESENT

UNITED PACIFIC INSURANCE COMPANY 4 PENN CENTER PLAZA PHILADELPHIA PENNSYLVANIA 19103

PROPERTY. CASUALTY. SURETY AND MISCELLANEOUS LINES

- ,											
20	82	02	20	07	0262406227-27	7153763	02000	09500	04	30	n3
€ DA	TE.	1404	CL ASS	COUNTY	LICENSE OR PERMIT NUMBER	APPLICATION	TAXES & PEES	COMPANY	Ex	PIRATIO	N.

Bill Junter
INSURANCE COMMISSIONER
TREASURER AND STATE
FIRE MARSHAL

#### PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT TRIDE R PAYING ING , a Florida corporation,
as Principal, hereinafter called CONTRACTOR; and UNITED PACIFIC
FNSU/ANE (OMPANY , a corporation of the State of,
as surety, hereinafter called SURETY, are held and firmly bound unto the
Board of County Commissioners of Broward, County, Florida, as Obligee, hereinafter called COUNTY in the amount of #396/5/3.93
Dollars (\$1658.93) for the payment whereof CONTRACTOR and SURETY
bind themselves, their heirs, executors, administrators, successors and
assigns, jointly and severally, firmly by these presents.
WHEREAS, CONTRACTOR has by written agreement dated the
day of, 19, entered into a Contract with COUNTY for
roadway and bridge construction of Griffin Rd. & Water Main from SCL RR to US I in Brow.
in accordance with drawings prepared by MID SOUTH ENGINEERING COMPANY
and specifications prepared by . MID SOUTH ENGINEERING COMPANY
which contract is by reference made a part hereof, and is hereafter referred
to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if CONTRACTOR shall promptly and faithfully perform said Contract and shall promptly make payments to all persons supplying CONTRACTOR labor, materials and supplies, used directly or indirectly by the said CONTRACTOR, or subcontractors, in the prosecution of the work provided for in said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect. This bond shall cover the twelve-month guarantee period as required by Article V of the Contract.

Whenever CONTRACTOR shall be, and declared by COUNTY to be in default under the Contract, the COUNTY having performed COUNTY'S obligations thereunder, the SURETY may promptly remedy the default, or shall promptly:

- (1) Complete the Contract in accordance with its terms and conditions, or
- (2) Obtain a bid or bids for submission to COUNTY for completing the Contract in accordance with its terms and conditions, and upon determination by COUNTY and SURETY of the lowest responsible bidder, arrange for a contract between such bidder and COUNTY and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the SURETY may be liable hereunder, the amount set forth in the first paragraph hereof. term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by COUNTY to CONTRACTOR under the Contract and any amendments thereto, less the amount properly paid by COUNTY to CONTRACTOR.

Any suit under this bond must be instituted in accordance with the Notice and Time Limitations provisions prescribed in Section 155.05(2), Florida Statutes.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the OWNER named herein and those

and mens, executors, admir	ided for by Section 255.05, Florida Statutes, listrators successors or assigns.
Signed and sealed this/	day of July, A.D., 1982.
	CONTRACTOR: TRIPLE RPAVING TIX
	BY: An T Knutes
Muna Trust	INSURANCE COMPANY: UNITED PACIFIC COMP
Danela B. Hanson	Byr Dirama & Sullivan

VIRGINIA D. SULLIVAN

#### RIDER FOR PERFORMANCE & PAYMENT BOND PUBLIC WORK - STATE OF FLORIDA

		*				
A	GREENENI made this	1 0	lay of_	July	, 1983	_ ,
	TRIPLE R PAVING, I				N. C.	
(hereina)	fter called the "PRINCIPAL") UNITED PACIFIC INS		PANY			
(hereina)	fter called the "SURETY") and					
	BOARD OF COUNTY C	COMMISSIONE	RS OF BI	toward cou	NTY, FLORIDA	
	fter called the "OWNER") .					
WHE parties h hereto at	REAS, on	day of ance and Pa in by refer	yment B	ond, a cop	19 y whereof is	, the
WHEN and Payme	REAS, said parties have agree ent Bond to conform with Flo	d to add ce rida Statur	rtain to	erms to sa 05;	id Performar	noe
	THEREFORE, it is agreed that nanged so as to provide that:		Perform	ance and P	ayment Bond	is
hereunder	suit or action for labor, mat against the Principal or the have been given by any claima	e Surety un				
	"A claimant, except a labore Principal and who has not re materials or supplies shall furnish labor, materials or the work, furnish the Prince look to the bond for protect	eceived pay , with 45 d supplies for ipal with a	ment for ays after or the	r his labo er beginni prosecutio	r, ng to n of	
	A claimant who is not in proposed in the control of	s labor, manance of the pplies, del e of the per	terial of e labor iver to rformano	or supplie or after the Princ se of the	s, shall complete iple and labor or	
	No action shall be institute on the bond after one (1) ye or completion of delivery of	ear from the	e perfor	mance of		
contained effect an	s the express agreement that in the said Performance and d without any change or modif , as above provided.	Payment Bor	nd shall	remain i	n full force	and
		BY	R PAVI	Hawle.	(Prici	pal)
		UNITED	PACIFIC	INSURANC	E COMPANYTE	y)
f monagen and the		BY	ram	inx	Sucreo	an

Owner

Agent & Attorney-in-fact Virginia D. Sullivan

#### UNITED PACIFIC INSURANCE COMPANY

HOME OFFICE, TACOMA, WASHINGTON

#### POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, That the UNITED PACIFIC INSURANCE COMPANY, a corporation duly organized under the laws of the State of Washington, does hereby make, constitute and appoint J. Mark Whitehead, Sherron S. Schmidt, April L. Lively, Charles R. Baylis, Jr., Virginia D. Sullivan, Frank B. Ferguson and Emil B. Askew, individually, of Maitland, Florida

its true and lawful Attorney-in-Fact, to make, execute, seel and deliver for and on its behalf, and as its act and deed	any	and	all	bonds	and
undertakings of Suretyship,					

and to bind the UNITED PACIFIC INSURANCE COMPANY thereby as fully and to the same extent as if such bonds and undertakings and other writings obligatory in the nature thereof were signed by an Executive Officer of the UNITED PACIFIC INSURANCE COMPANY and sealed and attested by one other of such officers, and hereby ratifies and confirms all that its said Attorney(s)-in-Fact may do in pursuance hereof.

This Power of Attorney is granted under and by authority of Article VII of the By-Laws of UNITED PACIFIC INSURANCE COMPANY which became effective September 7, 1978, which provisions are now in full force and effect, reading as follows:

#### ARTICLE VII - EXECUTION OF BONDS AND UNDERTAKINGS

- 1. The Board of Directors, the President, the Chairman of the Board, any Senior Vice President, any Vice President or Assistant Vice President or other officer designated by the Board of Directors shall have power and suchority to (a) appoint Attorneys-in-Fact and to authorize them to execute on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, and (b) to remove any such Attorney-in-Pect at any time and revoke the power and authority given to him.
- 2. Attorneys-in-Fact shall have power and authority, subject to the terms and limitations of the power of attorney issued to them, to execute and deliver on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof. The corporate seel is not necessary for the velidity of any bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof.
- 3. Attorneys-in-Fact shall have power and authority to execute affidavits required to be attached to bonds, recognizances, contracts of indemnity or other conditional or obligatory undertakings and they shall also have power and authority to certify the financial statement of the Company and to copies of the By-Laws of the Company or any article ur section thereof,

This power of attorney is signed and seeled by facsimile under and by authority of the following Resolution adopted by the Board of Directors of UNITED PACIFIC INSURANCE COMPANY at a meeting held on the 5th day of June, 1979, at which a quorum was present, and said Resolution has not been amended or repealed:

"Resolved, that the signatures of such directors and officers and the seal of the Company may be affixed to any such power of attorney or any certificate relating thereto by fecsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seel shell be valid and binding upon the Company and any such power to executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

IN WITNESS WHEREOF, the UNITED PACIFIC INSURANCE COMPANY has caused these presents to be signed by its Vice President, and its corporate seal to be hereto affixed, this 8th day of March 1983.

STATE OF COUNTY OF Pennsylvania

Philadelphia

On this

March

. 1983 , personally appeared

Raymond MacNeil

to me known to be the Vice-President of the UNITED PACIFIC INSURANCE COMPANY, and acknowledged that he executed and attested the foregoing instrument and affixed the seel of said corporation thereto, and that Article VII, Section 1, 2, and 3 of the By-Laws of said Company, and the Resolution, set forth therein, are still in full force.

My Commission Expires:

May 7 .19 84

Notary Public in and for State of

Pennsylvania

Philadelphia Residing at

Assistant Secretary of the UNITED PACIFIC INSURANCE COMPANY, do hereby certify that the P. D. Crossetta may executed by mid UNITED PACIFIC INSURANCE COMPANY, which is still in full above and foregoing is a true and correct copy of a Power of Assen force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand an

Assistant Secrets

CERTIFICATE AS TO	CORPORATE PRINCIPAL
1, PATRICIA FUCCILE	
am the Secretary of the Corporation of formance and Payment Bond; that who signed the Bond on	ROGER T. HAWKES
Behalf of the Principal, was then	PRESIDENT
of said	Corporation; that I know his signature;
and his signature thereto is genuine; sealed and attested for and in behalf governing body.	and that said Bond was duly signed, of said Corporation by authority of its fund (Seal) as Secretary of PANING THE
	(Name of Corporation)
	(SEAL)
STATE OF FLORIDA ) COUNTY OF BROWARD )	
Before me, a Notary Public duly commi	ssioned, qualified and acting personally
appeared.	VIRGINIA D.SULLIVAN
to me well known, who being by me fir	st duly sworn upon oath says that he is
(1.1.10)	se daily sworn apon oath says that he is
the attorney-in-fact for the UNITED FA	CIFK INSULANCE COMPANY and that
he has been authorized by UNICED FAC	IFIC INSULANCE COMPANY to execute the
	nd on behalf of the CONTRACTOR named
therein in favor of the COUNTY.	
Subscribed and Sworn to before me thi	Telling Ocan teus
	Notary Public, State of Florida Notary Public, State of Florida at large Notary Public, Florida, State at Large
	My Commission Christine Series May 31, 1934 Bonded by Londed Linu Jeder Inscrease Agency

### FINAL RECEIPT

Received this day of, A.D.,
19, of
as full and final payment of the cost of all improvements provided for in the sum of Dollars and
cents, (\$) in cash, being the full amount accruing to
the undersigned by virtue of said Contract, said cash covering and including full payment for all extra work and material furnished by the undersigned in
the construction of said improvements, and all incidentals thereto, and the
undersigned hereby releases the said
from all claims whatsoever growing out of the said contract.
These presents are to certify that all persons doing work upon or furnishing materials or supplies for the said improvements under the foregoing contract have been paid in full.
The undersigned further certifies that all taxes imposed by Chapter 212, Florida Statutes (Sales and Use Tax Act), as amended, have been paid and discharged.
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### INDEX

### GENERAL SPECIFICATIONS

Paragraph No.	Paragraph Title	Page No.
1	Definitions	GS-1
2	Plans & Specifications	GS-3
3	Intention	GS-3
4	Order of Completion	GS-3
5	Materials, Appliances, Employees	GS-3
6	Royalties and Patents	GS-4
7	Datum	GS-4
8	Weather	GS-4
9	Permits and Licenses	GS-4
10	Legal Restrictions & Traffic Provisions	GS-4
11	Engineer or Architect	GS-4
12	Payment of Tests by County	GS-5
13	Inspection of Work	GS-5
14	Superintendence	GS-6
15	Changes in Quantities of Work	GS-6.
16	Claims for Extra Cost	GS-7
17	Deductions for Uncorrected Work	GS-8
18	Correction of Work Before Final Payment	GS-9
19	The County's Right to Terminate Contract	GS-9
20	Contractor's Right to Stop Work or Terminate Contract	GS-10

#### INDEX (Continued)

Paragraph No.	Paragraph Title	Page No.
21	Removal of Equipment	GS-10
22	Use of Completed Portions	GS-10
23	Payments Withheld Prior to Final Acceptance of Work	GS-10
24	Damages and Accidents	GS-11
25	Surety Bond	GS-11
26	Damages	GS-11
27	Liens	GS-12
28	Assignment	GS-12
29	Rights of Various Interests	GS-12
30	Separate Contracts	GS-12
31	Subcontracts	GS-13
32	Explosives	GS-13
33	"Or Equal" Clause	GS-13
34	Plans and Working Drawings	GS-13
35	Lands for Work	GS-14
36	Cleaning Up	GS-14
37	Contractor to Check Drawings and Data	GS-14
38	Contractor's Responsibility	GS-15
39	Time of Starting Work	GS-15
40	Schedule of Work	GS-15
41	Liquidated Damages	GS-1'5

### INDEX (Continued)

Paragraph No.	Paragraph Title	Page No.
42	Responsibility for Materials	GS-16
43	Final Bill of Materials	GS-16
44	List of Materials, Fixtures & Equipment	GS-16
45	Defective Work	GS-17
46	Shop Drawings	GS-18
47	Supplementary Drawings	GS-19
48	Field Layout of Work & As-Built Drawings	GS-19
49	No Interest	GS-20

#### GENERAL SPECIFICATIONS

- DEFINITIONS: Whenever the following terms or pronouns in place of them appear in the contract documents, the intent and meaning shall be interpreted as follows:
  - (a) <u>COUNTY</u>: Broward County, Florida, the public body, agency or instrumentality which is a party hereto and for which this Contract is to be performed.
  - (b) Board: The Board of County Commissioners of Broward County, Florida, its successors and assigns, the legal representative of Broward County, Florida.
  - (c) Engineer: Engineer of said Broward County, Florida.
  - (d) Inspector: An authorized representative of the "Engineer" assigned to make all necessary inspection of the materials furnished by the CONTRACTOR and of the work performed by the CONTRACTOR.
  - (e) <u>Bidder</u>: Any individual, firm, or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.
  - (f) CONTRACTOR: The party of the second part to the Contract. The person, firm, or corporation, with whom a contract has been made directly or through accredited representatives, that may have entered into a Contract with Broward County, Florida, and who is primarily liable for the acceptable performance of the work for which he has contracted and also for the payment of all legal debts pertaining to the work.
  - (g) Sub-contractor: A person, firm or corporation having a direct contract with the CONTRACTOR and it includes one who furnishes material worked to a special design according to the Plans or Specifications of this work, but does not include one who merely furnishes material not so worked.
  - (h) Surety: The corporate bond compnay or individual which is bound by contract bond with and for the CONTRACTOR who is primarily liable, and which engages to be responsible for his acceptable performance of the work for which contract has been made and for his payment of all debts pertaining thereto.

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- (i) Plans: The official approved Plans, or exact reproductions thereof, which show the location, character, dimensions, and details of the work to be done and which are to be considered as a part of the Contract supplementary to this Agreement.
- (j) Specifications: The directions, provisions, and requirements contained herein or attached hereto, together with all written agreements made or to be made, setting out or relating to the method and manner of performing the work or to the quantities and qualities of materials and labor to be furnished under the Contract.
- (k) Contract: This Contract incorporates by reference the following documents pertaining to the construction of Griffin Road & Water Main from S.C.L. Railroad to U.S.1 in Broward County.

  all those documents listed in the TABLES OF CONTENTS, including but not limited to: the "Notice for Bids", the "Instructions for Bidders", the "Proposal", the "Contract", the "Performance and Payment Bond", the "General Specifications", the "Technical Provisions", the "Plans", the "Notice to Proceed", and the "Addenda".
- (1) Contract Bond: Also known as the "CONTRACTOR'S Performance and Payment Bond" or "Performance Bond". A Cash Bond, furnished by the CONTRACTOR, or a Surety Bond Furnished by the CONTRACTOR and his Surety as a guaranty of good faith that he will execute the work in accordance with the terms of the Contract.
- (m) Bid Bond: A Cash Bond furnished by the CONTRACTOR or a Surety Bond furnished by the CONTRACTOR and his Surety with the bid as a guaranty of the Bidder's good faith, ability and readiness to execute the Contract and the Contract Bond.
- (n) Special Provisions: Specific clauses including Specifications and Supplemental Agreements, if there be any, setting forth conditions peculiar to the project under consideration.
- (o) Cash Bond: A certified check or cash amount furnished by the CON-TRACTOR in lieu of a Surety Bond for either a Bid Bond or a Contract Bond, or a Maintenance Bond covering the same required amounts and providing the same guaranty as contained in the respective Surety Bond. A certified check or cash amount shall be furnished simultaneously with the respective, completed approved form of Cash Bond provided to the CONTRACTOR previously by the COUNTY as part of the Contract Documents.
- (p) Maintenance Bond: A Cash Bond or approved form of security furnished by the CONTRACTOR or by the CONTRACTOR and his Surety as a guaranty of good faith and he will perform any maintenance or repairs in accordance with the terms of the CONTRACT.

- (q) Material: Materials incorporated in the project, or used or consumed in the performance of the work.
- PLANS AND SPECIFICATIONS: The specifications referred to herein shall include General Specifications and Special Provisions written by the COUNTY and attached hereto.

The Plans and Specifications, along with all other documents that make up and constitute the Contract, shall be followed in strict accordance as to work material, and dimensions except when the Engineer may authorize, in writing, an exception.

Dimensions given in figures are to hold preference over scaled measurements from the drawings; however, all discrepancies shall be decided upon by the <a href="Engineer">Engineer</a> and the CONTRACTOR shall not proceed when in doubt as to any dimension or measurement.

The CONTRACTOR shall be furnished four (4) copies, free of charge, of the Plans and Specifications; two (2) of which shall be preserved and always kept accessible to the Engineer and CONTRACTOR'S authorized representatives. Additional copies of the Plans and Specifications may be obtained from the COUNTY at the cost of reproduction.

- 3. INTENTION: It is intended that these Contract Documents and the accompanying Plans which make up and constitute the Contract shall cover the complete construction of the project. The CONTRACTOR shall make personal examination and inquiry to satisfy himself as to the local conditions and as to the meaning, requirements and reservations of the Specifications and Plans before bidding; for after the letting, no deviation will be allowed from the Engineer interpretation of the Flans, Specifications and Contract. In case errors or omissions are discovered, they are to be corrected or supplied by the CONTRACTOR without extra cost to the COUNTY according to the apparent intention of the designing Engineer. Work or materials strictly extra are hereinafter provided for.
- 4. ORDER OF COMPLETION: The CONTRACTOR shall submit prior to start of work, schedules which show the order in which the CONTRACTOR proposes to carry on the work with dates at which the CONTRACTOR will start the several parts of the work and estimated dates of completion of the several parts. The <u>Engineer</u> may order the schedule to be supplemented or amended as necessary to afford proper continuity of the work.
- MATERIALS, APPLIANCES, EMPLOYEES: Unless otherwise stipulated, the CONTRACTOR shall provide the pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work.

Unless otherwise specified, all materials shall be new, and state of ship and materials shall be of good quality. The CONTRACTOR shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The CONTRACTOR shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

- 6. ROYALTIES AND PATENTS: All fees, royalties, and claims for any invention, or pretended invention, or patent of any article, material, arrangement, appliance, or method that may be used upon or in any manner be connected with the construction of this work or appurtenances, are hereby included in the prices stipulated in this Contract for said work; the CONTRACTOR hereby expressly binds himself or itself to indemnify and save harmless the said COUNTY and the Engineer from all such claims and fees, and from any and all suits and actions of every name and description, that may be brought against said COUNTY and the Engineer on account of any such claims, fees, royalties, or costs for any such invention or patent, and from any and all suits and actions that may be brought against said COUNTY and the Engineer for the infringement of any and all patents or patent rights claimed by any person, firm, or corporation.
- 7. DATUM: All elevations are referred to as mean sea level.
- 8. WEATHER: Each time, in the opinion of the County Inspector, inclement weather prevents the CONTRACTOR from proceeding with the work for more than one half day, the COUNTY may add one calendar day to the number of days allowed for completion.
- 9. "PERMITS AND LICENSES. All permits and licenses necessary for the prosecution of the work undertaken by the CONTRACTOR pursuant to this contract shall be secured and paid for by the CONTRACTOR. It is the CONTRACTOR'S responsibility to have and maintain appropriate certificate(s) of competency, valid for the work to be performed and valid for the jurisdiction in which the work is to be performed, when and as the requirements for such certificate(s) is a precondition of the applicable agency for the issuance of a permit and/or license."
- 10. LEGAL RESTRICTIONS AND TRAFFIC PROVISIONS: The CONTRACTOR shall conform to all applicable laws, regulations, or ordinances with regard to labor employed, hours of work and his general operations. The CONTRACTOR shall so conduct his operations that he shall not close any thoroughfare not interfere in any way with traffic on railway, highways, or on water, without the written consent of the proper authorities.
- 11. ENGINEER OR ARCHITECT: The supervision of the execution of this Contract is vested wholly in the Engineer, and the orders of the Board of County Commissioners of Broward County, Florida are to be given through him. The instructions of the Engineer are to be strictly and promptly followed in every case. The CONTRACTOR may designate a foreman or other representative to receive such instructions in his ab-

he will be held responsible for the execution of any instructions it may be necessary to give in his absence. The Engineer is to have free access to the materials and the work at all times for measuring, inspecting or directing the same, and the CONTRACTOR is to afford him all necessary facilities and assistance for so doing.

To prevent all disputes and litigations, it is agreed by the parties hereto that the Engineer shall decide all questions, difficulties and disputes of whatever nature which may arise relative to the interpretation of the Plans, construction, prosecution and fulfillment of this Contract and as to the character, quality, amount and value of any work done and materials furnished under or by reason of the Contract, and his estimates and decisions upon all claims, questions, and disputes shall be final and conclusive upon the parties thereto.

Inspectors shall have no authority to permit deviations from, or to relax any of the provisions of these Specifications without the written permission or instruction of the Engineer, nor to delay the Contract by failure to inspect the materials and work with reasonable promptness.

The payment of any compensation, whatever may be its character or form or the giving of any gratuity, or the granting of any valuable favor by the CONTRACTOR to any Inspector, directly or indirectly, is strictly prohibited, and any such act on the part of the CONTRACTOR will constitute a violation of this Contract.

The Engineer will appoint such inspectors as are necessary to pass upon the amount, quality, and character of the materials to be supplied or to supervise the execution of the work contemplated under this Contract. The duties and functions of such officials are purely supervisory and their decisions are to be binding only in the absence of the Engineer. When in the judgment of the inspectors, the work or materials are not in accordance with the Specifications, they shall have the power to stop the work which shall not be resumed until the Engineer has rendered his decision upon the matter in dispute.

- 12. PAYMENT OF TESTS BY COUNTY: Except when otherwise specified in the Technical Provisions, the expense of all tests requested by the Engineer will be borne by the COUNTY. For Road Projects, Procedure for making tests required by the Engineer will be in conformance with the Florida State Road Department Specifications for the particular material involved.
- 13. INSPECTION OF WORK: The Engineer and his representative shall at all times have access to the work whenever it is in preparation or progress, and the CONTRACTOR shall provide proper facilities for such access and for inspection.

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If the specifications, the Engineer instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the CONTRACTOR shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by another authority than the Engineer of the date fixed for such inspection. Inspection by the Engineer shall be promptly made, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Engineer and if so ordered, the work must be uncovered by the CONTRACTOR. If such work is found to be in accordance with the Contract Documents, the COUNTY shall pay the cost of re-examination and replacement. If such work is not in accordance with the Contract Documents, the CONTRACTOR shall pay such cost.

14. SUPERINTENDENCE: The CONTRACTOR shall keep on his work during its progress a competent superintendent and any necessary assistants, all satisfactory to the Engineer. The superintendent shall not be changed except with the consent of the Engineer unless the superintendent proves to be unsatisfactory to the CONTRACTOR and ceases to be in his employ. The superintendent shall represent the CONTRACTOR in his absence and all direction given to him shall be as binding as if given to the CONTRACTOR. Important directions will be confirmed in writing to the CONTRACTOR. Other directions will be so confirmed on written request in each case. The CONTRACTOR shall give efficient supervision to the work, using his best skill and attention.

If the CONTRACTOR, in the course of the work, finds any discrepancy between the drawings and the physical conditions of the locality, or any errors or omissions in the drawings, it shall be his duty to immediately inform the Engineer, in writing, and the Engineer will promptly verify the same. Any work done after such discovery, until authorized, will be done at the CONTRACTOR'S risk.

15. CHANGES IN QUANTITIES OR WORK: The Engineer reserves and shall have the right to make such changes, from time to time, in the drawings, the character or quantity of the work as may be considered necessary or desirable to complete fully and acceptably the proposed construction in a satisfactory manner.

The CONTRACTOR shall not start work on any alteration requiring an increase in price or extension of time until a Change Order setting forth the adjustments is executed by the COUNTY or County Administrator and CONTRACTOR.

In case a satisfactory adjustment cannot be reached for any item requiring a Change Order, the COUNTY reserves the right to terminate the Contract as it applies to the items in question and make such arrangements as may be deemed necessary to complete the work.

The Engineer reserves and shall have the right to make such changes, from time to time, in the plans, the character, or quantity of the work as may be considered necessary or desirable to complete fully and acceptably the proposed construction in a satisfactory manner, provided such alterations do not increase the total cost of the project or the time of performance.

Should it become necessary for the best interest of the COUNTY to make changes increasing the total cost of the project, the same shall be covered by supplemental agreement (a written proposal and agreement executed by the CONTRACTOR and by the COUNTY with a consent of the CONTRACTOR'S surety covering work not included in the plans and proposals, which is necessary to the proper completion of the project).

The CONTRACTOR shall not start work on any alteration requiring a supplemental agreement until the agreement setting forth the adjusted prices shall be executed by the COUNTY and CONTRACTOR.

Should any of the changes, not requiring supplemental agreements be made as provided herein, the CONTRACTOR shall perform the work as altered, increased, or decreased at the Contract unit price or prices.

In case a satisfactory adjustment in price cannot be reached for any item requiring a supplemental agreement, the COUNTY reserves the right to terminate the Contract as it applies to the items in question and make such arrangements as may be deemed necessary to complete the work. If the COUNTY chooses to have another contractor or to perform the extra work itself, the CONTRACTOR agrees to cooperate fully with the additional contractor or with the COUNTY forces in the performance of their work.

The procedure for processing change orders will follow the procedures as outlined in the memorandum of March 14, 1975, from John D. Ayres, Jr., Assistant General Counsel to Robert Kauth, County Administrator. A copy of the memorandum is enclosed as sheets GS-7-A to GS-7-D.

16. CLAIMS FOR EXTRA COST: If the CONTRACTOR claims that any instructions by drawings or otherwise issued after the date of the Contract involved extra cost under this Contract, he shall give the Engineer written notice thereof within five (5) days, after the receipt of such instruction, and in any event before proceeding to execute the work,

Boar \_ 1 COMMISSIONERS Broward County

FORT LAUDERDALE, FLORIDA

COMMISSIONESS

J. W. "HIL" STEVENS

E E BOS" MIXILIW View Chairm

GIRALD F. T'OMPSON County Commissions

JACK L MOSS

County Communic ANNE ZOLE County Con

Broward County Courthouse Room 248, 201 S. E. 6th Street Fort Lauderdaie, Florida 2330

In reply refer to Our File: 1789

Office of General Coursel

March 14, 1975

MEMORANDUM

TO:

Robert Kauth, County Administrator

FROM:

John D. Ayres. Jr., Assistant General Counse,

RE:

-Change Order Procedures

Pursuant to the directive of the County Commission and in answer to your memorandum of February 14th, please be advised of the following recommendations as to procedures for the handling of Change Orders involved in construction projects undertaken by Broward County. It is intended that the recommendations which follow shall apply to all contracts for construction irrespective of the department involved.

1. Classification of the Change Order based upon the circumstances surrounding same or the net effect of the contemplated change.

In order to distinguish between those Change Orders to which the recommended procedures should apply. I have defined below several classifications based upon the circumstances involved. They are as follows:

- a) Those Change Orders providing for an extension of time for the performance of a construction contract beyond the date originally provided in the contract when at the time of the request for an extension, the contract is already beyond the completion date and liquidated damages have already accrued to the County.
- b) Those Change Orders providing for an extension of time for the performance of a construction contract beyond the date originally provided in the contract, when, at the time of the request for an extension, the contract has not run beyond the original

GCF#69B-66A Rev. 4/1/81

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completion date, but the contractor anticipates that there will be a delay, which will place the time of completion beyond the original completion date with the result that of liquidated damages would normally accrue.

- c) Change Orders which are initiated by the Engineer or Architect requiring an increase in the quantities, a change in the specifications or an increase in the scope of the project which change will necessarily increase the time required for completion beyond the date established in the original contract.
- d) Change Orders which extend the time for completion beyond the date established in the original contract due to some decision by the County to temporarily suspend or postpone further work on the project.
- c) Change Orders which are initiated by the Consulting Architect or Engineer changing the specifications with respect to some material or equipment to be installed when it is found that the newly specified equipment or material is unavailable or that there will be a delay or has been a delay in securing same.

# 2. Suggested Procedures for each of the above referenced classes of Change Orders.

I have made no attempt to try to cover all the possible situations or circumstances that might arise, but have attempted to define the five (5) classes above in order to distinguish those which are likely to involve the necessity for an interpretation of the contract documents and the surrounding factual situation from a legal point of view as opposed to a purely architectural or engineering point of view. Accordingly, it is my recommendation that all consulting architects or engineers and all personnel in either Finance or Purchasing, be instructed to process these items as follows:

a) For purposes of this memorandum, it is assumed that changes or modifications of a construction contract which fall in Category 1 (a) or 1 (b), are predicated upon the contractors inability to comply with the completion dates provided in the contract for reasons beyond the contractor's control. Whether the asserted causes of delay are "beyond the contractor's control." may not only involve a question of fact, but also a question of law. Even though it may be factually true that the delay is beyond the

contractor's control, it may nevertheless be true also that the contractor should not as a matter of law be excused from performance, i.e. from paying liquidated damages. Accordingly, I recommend the following procedure for handling items falling in Category 1 (a) or 1 (b):

- (1) The contractor desiring to obtain the extension of time and waiver of liquidated damages shall be instructed to direct a written request for an extension to the County Administrator with a copy to the Consultant (Engineer or Architect). The request shall set forth fully the basis upon which contractor relies for justification of the extension, specifically identifying the source or cause for any delay.
- (2) Consultant shall make a complete investigation of the circumstances and facts cited by the contractor is justification for the extension and shall forward a written recommendation to the administrator concerning same. Such recommendations shall set forth in detail any effect that such extension will have on the progress of the work, completion date, accrued liquidated damages or damages that might accrue absent the extension, and any other pertinent matter.
- (3) The administrator should likewise secure a recommendation from the Division or Department head in whose jurisdiction the matter happens to lie. It is assumed, of course, that such Division or Department head will have made an independent investigation into the circumstances and will have arrived at conclusions and recommendations independent of the recommendation of the consultant as opposed to merely an unquestioning acceptance of the consultant's recommendation.
- (4) Administrator shall upon receipt of foregoing secure the opinion of the General Counsel as to the legal effect of granting or denying the requested extension, and is to the legal justification for an extension and water of liquidated damages.

-420

- (5) Administrator shall then make such recommendations to the County Commission as Administrator shall deem necessary or appropriate.
- b) For purposes of this memorandum, it is assumed that any increase in time or contract price or expenses falling under categories 1 (c) 1 (d) and 1 (e) are likewise matters beyond the control of the contractor, but are the result of some action by the County as the owner of the project and are therefore instigated by the County. In these situations, it is obvious that the change or modification being sought should be at the expense of the County, and should not penalize the contractor or in any way affect the question of liquidated damages.

  Accordingly, the procedure recommended for changes and modifications in 1 (c) 1 (d) and 1 (e) are as follows:
  - (1) The consultant shall prepare the Change Order, obtain contract proposals from the contractor and submit same to the Division or Department head wherein the responsibility for the project may lie. These Change Orders should be restricted to the issuance of instructions to the contractor directing changes, additions or reductions in the work or in the materials to be used in the prosecution of the work.
  - (2) Such Change Orders shall contain complete details, explaining the change being made, the reason for the change, the effect of the change with respect to schedules, cost increase or decrease, any additional engineering fees or expenses as well as the total financial effect on the County by way of increase or decrease in cost, or in time of completion.
  - (3) The Division or Department head should forward such Change Order, together with their recommendation, through whatever channels are selected by the Administrator in order to place the Administrator in a position to make a recommendation to the County Commission.

Unless there is some specific legal question raised, there appears to be no necessity for Administrator to secure any review by the General Counsel. Naturally, if the Administrator feels that some legal issue exist, he should secure legal advice. In such event, it is suggested that the specific legal questions raised be stated in the request for a legal opinion.

except in emergency endangering life or property, and the procedure shall then be as provided for changes in the work. No such claim shall be valid unless so made.

17. DEDUCTIONS FOR UNCORRECTED WORK: If the Engineer deems it expedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made therefor.

18. CORRECTION OF WORK BEFORE FINAL PAYMENT: The CONTRACTOR shall promptly remove from the premises all materials condemned by the Engineer as failing to meet Contract requirements, whether incorporated in the work or not. The CONTRACTOR shall promptly replace materials condemned in accordance with the Contract and without expense to the COUNTY and shall bear expense of making good all work of other CONTRACTORS destroyed or damaged by such removal or replacement.

If the CONTRACTOR does not remove such condemned work and materials within ten (I0) days after written notice, the COUNTY may remove them and may store the material at the expense of the CONTRACTOR. If the CONTRACTOR does not pay the expense of such removal within ten (10) days time thereafter, the COUNTY may, upon ten (I0) days written notice, sell such materials at auction or at private sale and shall pay to the CONTRACTOR the net proceeds thereof, after deducting all the costs and expenses that should have been borne by the CONTRACTOR.

19. THE COUNTY'S RIGHT TO TERMINATE CONTRACT: If the CONTRACTOR fails to begin the work under Contract within the time specified, or fails to perform the work with sufficient workmen and equipment or with sufficient materials to insure the prompt completion of said work, or shall perform the work unsuitably, or cause it to be rejected as defective and unsuitable, or shall discontinue the prosecution of the work or if the CONTRACTOR shall become insolvent or be declared bankrupt, or commit any act of bankruptcy or insolvency, or allow any final judgment to stand against him unsatisfied for a period of forty-eight (48) hours, or shall make an assignment for the benefit of creditors, or from any other cause whatsoever shall not carry on the work in an acceptable manner, the Engineer may give notice in writing to the CONTRACTOR and his Surety, of such delay, neglect or default, specifying the same, and if the CONTRACTOR, within a period of ten (10) days after such notice, shall not proceed in accordance therewith, then the party of the first part shall upon written certificate from the Engineer of the fact of such delay, neglect or default and the CONTRACTOR'S failure to comply with such notice, have full power and authority, without violating the Contract, to take the prosecution of the work out of the hands of said CONTRACTOR, to appropriate or use any or all materials and equipment on the ground as may be suitable and acceptable and may enter into an agreement for the completion of said Contract according to the terms and provisions thereof, or use such other methods as in his opinion shall be required for the completion of said Contract in an acceptable manner. All costs and charges incurred by the COUNTY, together with the costs of completing the work under Contract, shall be deducted from any monies due or which may become due said CONTRACTOR. In case the expense so incurred by the COUNTY shall be less than the sum which would have been payable under the Contract, if it had been completed by said CON-TRACTOR, then the said CONTRACTOR shall be entitled to receive the difference, and in case such expense shall exceed the sum which would

have been payable under the Contract, then the CONTRACTOR and the Surety shall be liable and shall pay to the COUNTY the amount of said excess.

If a Cash Bond was furnished in lieu of a Surety Bond, the CONTRACTOR shall be solely liable and all reference herein to joint liability between the CONTRACTOR and the Surety shall be deleted and all expenses incurred by the COUNTY under the conditions stipulated in this Article shall be recovered from the CONTRACTOR by enforcing the provisions of the Cash Bond.

- 20. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT: If the work should be stopped under an order of any court, or other public authority for a period of three (3) months, through no act or fault of the CONTRACTOR or of anyone employed by him, or if the Engineer should fail to issue any estimate for payment within twenty (20) days after it is due, or if the COUNTY fails to pay the CONTRACTOR within twenty (20) days of its maturity and presentation, any sum certified by the Engineer or awarded by arbitration, then the CONTRACTOR may, upon seven (7) days written notice to the COUNTY and the Engineer stop work or terminate this Contract and recover from the COUNTY payment for all work executed and any loss sustained upon any plant or materials and reasonable profit and damages.
- 21. REMOVAL OF EQUIPMENT: In case of termination of this Contract before completion from any cause whatever, the CONTRACTOR, if notified to do so by the COUNTY, shall promptly remove any part or all of his equipment and supplies from the property of the COUNTY failing which the COUNTY shall have the right to remove such equipment and supplies at the expense of the CONTRACTOR.
- 22. USE OF COMPLETED PORTIONS: The COUNTY shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the time for completing the entire work, or such portions which may not have expired, but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents. If such prior use increases the cost of or delays the work, the CONTRACTOR shall be entitled to such extra compensation, or extension of time or both, as the Engineer may determine.
- 23. PAYMENTS WITHHELD PRIOR TO FINAL ACCEPTANCE OF WORK: The COUNTY may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to such extent as may be necessary to protect itself from loss on account of:
  - (a) Defective work not remedied.

- (b) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the CONTRACTOR.
- (c) Failure of the CONTRACTOR to make payments properly to subcontractors or for material or labor.
- (d) Damage to another contractor.

When the above grounds are removed or the CONTRACTOR provides a Surety Bond satisfactory to the COUNTY which will protect the COUNTY in the amount withheld, payment shall be made for amounts withheld because of them.

- 24. DAMAGES AND ACCIDENTS: The CONTRACTOR shall store materials and shall be responsible for and shall maintain partly or wholly finished work during the continuance of the Contract and until the final acceptance of the structure. If any materials or part of the work be lost, damaged, or destroyed by any cause or means whatsoever, the CONTRACTOR shall satisfactorily repair and replace the same at his own cost. The CONTRACTOR shall maintain suitable and sufficient guards and barriers, and at night, suitable and sufficient lights for the prevention of accidents.
- 25. SURETY BOND: The CONTRACTOR agrees to execute and deliver simultaneously herewith a Contract Bond prepared on the applicable bond form attached hereto. The Contract Bond may be in the form of a Surety Bond written through a local surety bond agency, satisfactory to the County Commissioners, or may be in the form of a Cash Bond in the amount of One Hundred Percent (100%) of the Contract price, conditioned upon the faithful performance of the work in strict accordance with this Contract and with the Plans and Specifications and the completion of the same free from all liens and within the time limit stipulated in the Contract and that the CONTRACTOR shall promptly pay all persons supplying him with labor and materials in the prosecution of the work herein specified; the said Bond shall be so worded as to make the Contract a part thereof and shall contain a clause providing the right of suit or action thereon in favor of each and every person, natural or artificial, severally for whose benefit said Bond shall be executed as disclosed by the text of said Bond and Contract to the same extent as if he or they were the obligee or obligees therein specifically mentioned, and all such persons shall be held or deemed to be obligees thereof.
- 26. DAMAGES: If either party to this Contract should suffer injury or damage in any manner because of any wrongful act or neglect of the other party or of anyone employed by him, then he shall be reimbursed by the other party for such damage.

Notice of pending claim for any such reimbursement shall be made in writing to the party liable within a reasonable time of the first observance

of such damage, and the claim shall be filed previous to the time of final payment, and the claim, when presented, shall be adjusted by agreement or by a court of competent jurisdiction.

- 27. LIENS: Neither the final payment nor any part of the retained percentage shall become due until the CONTRACTOR, if required, shall deliver to the COUNTY a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof, and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all the labor and materials for which a lien could be filed; but the CONTRACTOR may, if any sub-contractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Engineer, to indemnify the COUNTY against any lien. If any lien remains unsatisfied after all payments are made, the CONTRACTOR shall refund to the COUNTY all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.
- 28. ASSIGNMENT: Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the CONTRACTOR assign any monies due or to become due to him hereunder, without the previous written consent of the Engineer.
- 29. RIGHTS OF VARIOUS INTERESTS: Whenever work being done by the COUNTY'S forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Engineer to secure the completion of the various portions of the work in general harmony.
- 30. SEPARATE CONTRACTS: The COUNTY reserves the right to let other Contracts in connection with this work. The CONTRACTOR shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate this work with theirs.

If any part of the CONTRACTOR'S work depends for proper execution or results upon the work of any other contractor, the CONTRACTOR shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in other contractor's work after the execution of his work.

To insure the proper execution of his subsequent work, the CONTRACTOR shall measure the work already in place and shall at once report to the Engineer any discrepancy between the executed work and the drawings.

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31. SUBCONTRACTS: The CONTRACTOR shall, as soon as practicable after the signing of the Contract, notify the Engineerin writing of the names of sub-contractors proposed for the work.

The CONTRACTOR will be fully responsible for all acts and omissions of his subcontractors and of persons directly or indirectly employed by them and of persons for whose acts any of them may be liable to the same extent that he is responsible for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any contractual relationship between any sub-contractor and the COUNTY or any obligation on the part of the COUNTY to pay or to see to the payment of any monies due any sub-contractor, except as may otherwise be required by law. The COUNTY or the Engineermay furnish to any sub-contractor, to the extent practicable, evidence of amounts paid to the CONTRACTOR on account of specific work done in accordance with the schedule of values.

The CONTRACTOR agrees to bind specifically every sub-contractor to the applicable terms and conditions of the Contract Documents for the benefit of the COUNTY.

- 32. EXPLOSIVES: When the use of explosives is necessary in the prosecution of the work, the CONTRACTOR shall be charged with the utmost care in handling and usage of such explosives to the protection of life and property. When directed by the Engineer, the number and size of charges shall be reduced. All explosives shall be stored in a safe manner and storage places shall be clearly marked "Dangerous Explosives" and placed in care of competent watchmen. When such use of explosives becomes necessary, the CONTRACTOR shall furnish to the Engineer competent proof of coverage adequately providing public liability and property damage insurance, as a rider attached to his regular policies unless otherwise included.
- "OR EQUAL" CLAUSE: Whenever a material, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturers' or vendors' names, trade names, catalog numbers, or otherwise, it is intended merely to establish a standard; and, any material, article, or equipment of other manufacturers and vendors which will perform or serve the requirements of the general design will be considered equally acceptable provided the material, article or equipment so proposed, is, in the opinion of the Engineer equal in substance, quality and function. It shall not be purchased or installed by the CONTRACTOR without the Engineer prior written approval.
- 34. PLANS AND WORKING DRAWINGS: Certain plans supplied by the COUNTY accompany and supplement these Contract Documents. The COUNTY through its <u>Engineer</u> shall have the right to modify the details

of these plans, to supplement these plans with additional plans or with additional information as the work proceeds, all of which shall be considered as plans accompanying these Specifications herein generally referred to as the "Plans". In case of disagreement between the Plans and Specifications, the Specifications shall govern.

The CONTRACTOR shall prepare whatever detailed working drawings are necessary to enable him to fabricate erect and construct all parts of the work in conformity with the Plans and Specifications. Working drawings shall be submitted to the Engineer in quintuplicate; two sets will be returned to the CONTRACTOR approved or showing the changes or corrections required, if changes or corrections are required, five copies shall be resubmitted until they are approved. The CONTRACTOR shall report any errors found in the drawings to the Engineer who will make or approve necessary corrections. The COUNTY shall not be responsible for errors of CONTRACTOR'S drawings, even though approved, or for minor errors or minor discrepancies of the Engineer drawings. Payment for working drawings, revisions thereof and for copies furnished, shall be included in the amounts bid for material or work. The CONTRACTOR shall furnish as many sets o' paper blueprint copies of working drawings as the COUNTY and the Engineer may need for the work. The CON-TRACTOR should allow a minimum of fourteen (14) calendar days for the COUNTY'S approval of shop drawings.

35. LANDS FOR WORK: The COUNTY shall provide as indicated on the drawings and not later than the date when needed by the CONTRACTOR the lands upon which are designated on the drawing for the use of the CONTRACTOR. Any delay in the furnishing of these lands by the COUNTY shall be deemed proper cause for an equitable adjustment in both Contract Price and time of completion.

The CONTRACTOR shall provide at his own expense and without liability to the COUNTY any additional land and access thereto that may be required for temporary construction facilities, or for storage of materials.

- 36. CLEANING UP: Upon completion of the work specified herein and before acceptance and final payment shall be made, the CONTRACTOR shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish and temporary structures. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily.
- 37. CONTRACTOR TO CHECK DRAWINGS AND DATA: The CONTRACTOR shall verify all dimensions, quantities and details shown on the Drawings, supplementary drawings, schedules, or other data received from the Engineerand shall notify him of all errors, omissions, conflicts and dis-

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crepancies found therein. Failure to discover or correct errors, conflicts, or discrepancies shall not relieve the CONTRACTOR of full responsibility for unsatisfactory work, faulty construction, or improper operation resulting therefrom nor from rectifying such condition at his own expense. He will not be allowed to take advantage of any error or omissions, as full instructions will be furnished by the Engineer , should any error or omission be discovered. All schedules are given for the convenience of the Engineer and CONTRACTOR and are not guaranteed to be complete.

- 38. CONTRACTOR'S RESPONSIBILITY: The CONTRACTOR shall accept full responsibility for the work against all loss or damage sustained during the progress of the work, and promptly repair any damage done from any cause whatsoever.
- 39. TIME OF STARTING WORK: The work embraced in this Contract shall be actively begun within <u>fifteen</u> (15) calendar days after delivery of a Notice to Proceed.
- 40. SCHEDULE OF WORK: Fourteen (I4) calendar days after the execution of the Contract, the CONTRACTOR shall submit, for approval, a schedule of work consisting of diagrams and written description, describing how he intends to progress with the construction within the Contract limits. If this schedule is not submitted within the prescribed time, the CONTRACTOR shall not be permitted to start any construction until said schedule is submitted and approved and no extension of time shall be granted as a result of the CONTRACTOR'S failure to timely submit the schedule of work.

## 41. LIQUIDATED DAMAGES:

a. Upon failure of the CONTRACTOR to complete the said contract within the time allowed for completion after Notice to Proceed, the CONTRACTOR shall pay the COUNTY the sum or sums set forth in Article II(d) of the Contract for each calendar day beyond the date of completion that is required by the CONTRACTOR to complete the said Contract, not as a penalty or forfeiture, but as liquidated damages to the COUNTY because of such default by the CONTRACTOR, which damages are hereby fixed and agreed upon between the parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by the COUNTY in consequence of such default and both parties desiring to obviate any question of dispute concerning the amount of said damages and the cost and effect of such failure of the CONTRACTOR to complete said Contract within the completion period set forth in the Proposal.

- b. Regardless of whether or not a single contract is involved, the above stated liquidated damages shall apply separately to each portion of the project for which a time of completion is given.
- c. The COUNTY is authorized to deduct the designated sums per day from the monies which may be due or become due said CON-TRACTOR for the work under this Contract, or as much thereof as the COUNTY may, at its own option, deem just and reasonable.
- 42. <u>RESPONSIBILITY FOR MATERIALS</u>: The CONTRACTOR shall be responsible for all materials, equipment and supplies sold and delivered to the COUNTY until final inspection of the work and acceptance thereof by the COUNTY. In the event any such materials, equipment and supplies are lost, stolen, damaged or destroyed prior to final inspection and acceptance, CONTRACTOR shall replace same without cost to the COUNTY.
- 43. FINAL BILL OF MATERIALS: The CONTRACTOR shall be required to submit a final bill of materials with unit costs for each bid item requiring materials only. This shall be an itemized list of all materials with a unit cost for each material and the total shall agree with unit costs established for each Contract item.

## 44. LIST OF MATERIALS, FIXTURES AND EQUIPMENT:

- a. Within thirty (30) days after award of Contract and before any materials, fixtures or equipment are purchased, the CONTRACTOR shall submit for approval by the Engineer a complete list of these materials, fixtures and equipment shown in the Special Conditions (if any), together with the names and addresses of the manufacturers and their catalog number and trade names. The CONTRAC-TOR shall furnish other detailed information when so directed under the various items. No consideration will be given to partial lists submitted from time to time except that approval of long delivery items of equipment may be requested individually. Approval of items will be based upon manufacturers' published ratings. Any such items listed which are not in accordance with the Specification requirements may be rejected, and the COUNTY shall then have the right to select fixtures and equipment therefor. The CONTRACTOR shall furnish a statement giving a complete description of all points wherein the equipment he proposes to furnish does not take to the Specifications. Failure to furnish such statement will be interpreted to mean that the equipment meets all requirements of the Specifications.
- b. If the CONTRACTOR fails to submit for approval within the specified time a list of materials, fixtures, and equipment in accordance with the preceding paragraph, the Engineer may select a complete

line of such items. Selections made by the Engineer shall be final and binding and the items shall be Contract price at time of completion.

#### 45. DEFECTIVE WORK:

- a. If at any time, before final acceptance of the work or materials, defects herein shall be found, the CONTRACTOR shall promptly correct such defects, remove and dispose of all defective or unsatisfactory work or materials, and supply other in accordance with the Contract. Previous construction of such work will not relieve the CONTRACTOR of the responsibility for good work or materials, although the defects may have been overlooked by the Engineer, or may have been the result of damage from any cause.
- Should the CONTRACTOR fail or refuse to remove and renew any defective work performed or to make any necessary repairs in an acceptable manner, and in accordance with the requirements of the Contract within the time indicated in writing, the COUNTY shall have the authority to cause the unacceptable or defective work to be removed or renewed, or such repairs as may be necessary to be made at the CONTRACTOR'S expense. Any expense incurred bythe COUNTY in making these removals, renewals or repairs, which the CONTRACTOR has failed or refused to make, shall be paid for out of any monies due or which may become due the CONTRACTOR, or may be charged against the Contract Bond. Continued failure or refusal on the part of the CONTRACTOR to make any or all necessary repairs, promptly, fully, and in an acceptable manner, shall be sufficient cause for the COUNTY to declare the Contract forfeited, in which case the COUNTY at its option may instruct the Engineer to purchase materials, tools, and equipment and employ labor or may contract with any other individual, firm or corporation, or may proceed with its own forces to perform the work.
- c. All costs and expenses incurred thereby shall be charged against the defaulting CONTRACTOR and the amount thereof deducted from any monies due, or which may become due him, or shall be charged against the Contract Bond. Any special work performed, as described herein, shall not relieve the CONTRACTOR in any way from his responsibility for the work performed by him.
- d. At the request of the Engineer, the CONTRACTOR shall, at any time before final acceptance of the work, remove or uncover such portions of the finished work as may be directed. After examination, CONTRACTOR shall restore said portions of the work to the standard required by the Contract Documents. Should the work thus exposed or examined prove acceptable, the uncovering or removing, and the replacing of the covering or making good of the

parts removed, shall be paid for by Change Order, but should the work so exposed or examined prove unacceptable, the uncovering or removing, and the replacing of the covering or making good of the parts removed, shall be at the CONTRACTOR'S expense.

e. Failure to reject any defective work or material shall not in any way prevent later rejection when such defect be discovered, or obligate the COUNTY to final acceptance.

#### 46. SHOP DRAWINGS:

- a. General The CONTRACTOR shall submit Shop Drawings for all equipment, apparatus, machinery, fixtures, piping wiring, fabricated structures and manufactured articles. The purpose of the Shop Drawings is to show the suitability, efficiency technique of manufacture, installation requirements, and details of the item and evidence of its compliance or non-compliance with the Drawings and Specifications.
- b. As soon as possible after receipt of a Notice to Proceed, the CONTRACTOR shall submit to the Engineera complete list of preliminary data on items for which Shop Drawings are to be submitted. Approval of this list by the Engineer shall in no way expressed or implied relieve the CONTRACTOR from submitting complete Shop Drawings and providing materials, equipment, etc., fully in accordance with the Specifications. This procedure is required in order to expedite final approval of Shop Drawings.
- c. After the approval of the list of items required in paragraph b, next above, the CONTRACTOR shall promptly request Shop Drawings from the various manufacturers, fabricators, and suppliers.
- d. The CONTRACTOR shall thoroughly review and check the Shop Drawings and each and every copy shall show his approval thereon.
- e. If the Shop Drawings show or indicate departures from the Contract requirements, the CONTRACTOR shall make specific mention thereof in his letter of transmittal. Failure to point out such departures shall not relieve the CONTRACTOR from his responsibility to comply with the Drawings and Specifications.
- f. Approval of the Shop Drawings shall constitute approval of the subject matter thereof only, and not of any structure, material, equipment, or apparatus shown or indicated. The approval of the Shop Drawings will be general and shall not relieve the CON-TRACTOR of responsibility for the accuracy of such Drawings, nor for the proper fitting and construction of the work, nor for the

furnishing of materials or work required by the Contract and not indicated on the Drawings. No work called for by Shop Drawings shall be done until the said Drawings have been approved by the Engineer Approval shall not relieve the CONTRACTOR from responsibility for errors or omissions of any sort on the Shop Drawings.

- g. No approval will be given to partial submittals of Shop Drawings for items which interconnect and/or are inter-dependent. It is the CONTRACTOR'S responsibility to assemble the Shop Drawings for all such interconnecting and/or interdependent items, check them himself and then make one submittal to the Engineer along with his comments as to compliance, non-compliance, or features requiring special attention.
- h. If catalog sheets or prints of manufacturers' standard drawings are submitted as Shop Drawings, any additional information or changes on such drawings shall be typewritten or lettered in ink.
- The CONTRACTOR shall submit a sufficient number of copies of each Shop Drawing to enable the <u>Engineer</u> to retain five (5) copies. Resubmissions of Shop Drawings shall be made in the same quantity until final approval is obtained.
- j. The CONTRACTOR shall keep one set of Shop Drawings marked with the <u>Engineer</u> approval at the job site at all times.

## 47. SUPPLEMENTARY DRAWINGS:

- a. When, in the opinion of the Engineer, it becomes necessary to explain more fully the work to be done, or to illustrate the work further, or to show any changes which may be required, Drawings, known as supplementary drawings, with specifications pertaining thereto, will be prepared by the Engineer.
- b. The supplementary drawings shall be binding upon the CONTRAC-TOR with the same force as the Drawings. Where such supplementary drawings require either less or more than the estimated quantities of work, credit to the COUNTY or compensations therefor to the CONTRACTOR shall be subject to the terms of the agreement.
- 48. FIELD LAYOUT OF THE WORK AND AS-BUILT DRAWINGS: The entire responsibility for establishing and maintaining line and grade in the field lies with the CONTRACTOR. The CONTRACTOR shall maintain an accurate and precise record of the location and elevation of all pipe lines, conduits, structures, manholes, handholes, fittings and the like and shall deliver these records in good order to the Engineer as the work is completed. These records shall serve as a basis for "as-built"

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drawings. The cost of all such field layout and recording work shall be included in the prices bid for the appropriate items.

49. NO INTEREST: Any monies not paid by the COUNTY when claimed to be due the CONTRACTOR under this Contract shall not be subject to interest, if the said payment is not, in the opinion of the COUNTY arbitrarily withheld. TECHNICAL PROVISIONS

ROADWAY CONSTRUCTION

GRIFFIN ROAD

#### TECHNICAL PROVISIONS

#### GENERAL

#### STANDARD SPECIFICATIONS

The 1977 Edition of the Florida Department of Transportation's Standard Specifications for Road and Bridge Construction and its supplements with changes pertaining thereto, and the Florida Department of Transportation Standard Indices, dated January 1931, and all Addenda thereto, are all hereby made a part of this Contract and shall govern performance of the project, except as amended by the Contract Documents herein specified.

#### 2. BASE LINES AND BENCH MARKS

Base lines and bench marks only will be established by the Engineer. The CONTRACTOR shall lay out and make all detail surveys needed for construction of the project, including the establishment of all working points, lines and elevations.

#### 3. PROTECTION AND RESTORATION OF SURVEY MONUMENTS

The CONTRACTOR shall carefully protect from disturbance all survey monuments, stakes and bench marks, whether or not established by him, and he shall not remove or destroy any surveying point until it has been properly witnessed or otherwise disposed of by the Engineer. All major survey monuments such as section corners, quarter section corners, property corners or block control points shall be replaced at the CONTRACTOR'S expense with markers of a size and type approved by the Engineer. The replacement shall be under the supervision of a Florida registered land surveyor where directed by the Engineer.

#### 4. UTILITIES

The CONTRACTOR shall notify each utility company two weeks prior to the start of construction to arrange for positive underground location, relocation or support of its utility where that utility may be in conflict with or endangered by the proposed construction. All costs of permanent utility relocation shall be the responsibility of the utility company involved. The CONTRACTOR shall schedule his work in such a manner that he is not delayed by the utility companies relocating or supporting their utilities. No compensation shall be made for such loss of time. All underground information is shown on the plans to the extent known and is as complete and accurate as can be determined from existing records. It shall be the CONTRACTOR'S responsibility to verify the known locations. He shall fully understand that certain structures may not be located precisely as shown, or may be omitted entirely.

The position of certain structures and utilities directly affects the proposed construction. Therefore, in order to insure that

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the proposed work can actually be positioned as planned, the CONTRACTOR shall make any excavation necessary for location of structures and utilities prior to construction of that particular portion of the project.

The CONTRACTOR shall make all necessary arrangements with the utility companies concerned for maintenance of their lines during the construction period. In the event that a complete relocation of utilities is required, but has not been accomplished prior to the effective date of the "Notice to Proceed", the CONTRACTOR nevertheless, shall commence work under this Contract, and shall schedule his work to avoid interference with the Utility relocation work. The COUNTY will not be liable for any delay or added expense which the CONTRACTOR experiences due to the activities of utility companies, nor shall the COUNTY be held responsible for any damages to any utilities due to any actions by the CONTRACTORS.

## NOTE: ADJUSTMENTS TO EXISTING VALVES, METERS, CATCH BASINS AND MANHOLE

IT SHALL BE THE CONTRACTOR'S responsibility to coordinate and make all adjustments to existing water meters, valves, catch basisn and manholes encountered during construction, in order to meet all final grades, unless otherwise instructed by the Engineer or the respective utility owner. Ommission of such structures from the contract plans does not relieve the Contractor from making such adjustments as may be deemed necessary. The Contractor shall take this provision into account when personally investigating the site prior to bidding. Payment for such adjustment shall be included in the unit prices for various contract items.

## 5. EQUIPMENT

All equipment necessary and required for the proper construction of all facilities shall be on the construction site, in first-class working condition, and shall have been approved by the Engineer before construction is permitted to start.

## 6. STORAGE SITES

The CONTRACTOR shall furnish, at his expense, properly zoned areas suitable for field offices, material storage and equipment service and storage.

The CONTRACTOR shall maintain these areas in a clean, orderly condition so as not to cause a nuisance in the area.

#### 7. BASIS OF PAYMENT

Payment shall be made at the Contract Unit Prices or Lump Sum Prices as outlined hereafter. These prices shall be full compensation for all costs associated with completion of all the work in full conformity with the requirements as stated or shown, or both, by the Plans and Specifications. The cost of any item of work which is not covered by a definite Contract Unit Price or Lump Sum Price shall be included in the Contract Unit Price or Lump Sum Price to which the item is most applicable.

#### 8. FIELD OFFICE

The CONTRACTOR shall provide, at his expense, one (1) Field Office for the exclusive use of the Engineer, of not less than one hundred and sixty (160) square feet of area and ceiling height of not less than eight (8) feet. The office shall have a tight board floor and lockable door with two (2) keys furnished to the Engineer and at least two (2) operable windows of a minimum total area of twelve (12) square feet. The office shall be equipped with electric lighting and at least two (2) dual 110 volt receptacles.

Furnishings to be supplied by the CONTRACTOR shall include: two (2) tables, having a surface area of three by five (3x5) feet, with one (1) bench per table; and a wooden locker of a size suitable for storing field testing and surveying equipment. A telephone with a loud ringing outside bell shall also be provided for the convenience of the Engineer. The office equipment and telephone shall not be used by the CONTRACTOR.

A trailer having equal facilities and floor space may be used in lieu of the above described Field Office, if so desired.

No separate payment shall be made for the Field Office, but shall be included by the CONTRACTOR in prices bid for the various items of work.

#### 9. SITE INVESTIGATION

The CONTRACTOR, by virtue of signing the Contract, acknowledges that he and all his subcontractors have satisfied themselves as to the nature and location of the work, the general and local conditions including, but not restricted to: those bearing upon transportation; disposal, handling and storage of materials; access roads to the site; the conformation and conditions of the work area; and the character of equipment and facilities needed preliminary to and during the performance of the work. Failure on the part of the CONTRACTOR to completely or properly evaluate any factors of costs prior to bidding shall not form a basis for additional compensation if he is awarded the Contract.

## 10. RESTORATION OF PROPERTY

Property (Public or Private) - If damaged during construction or removed for the convenience of the work, shall be repaired or replaced at the expense of the CONTRACTOR, in a manner acceptable to the Engineer, prior to the final acceptance of the work. Such facilities shall include, but are not limited to: signalization equipment and miscellaneous hardware removed from construction site, driveways, walkways, walls, fences, footing, underground utilities and traffic and street signs.

#### 11. PAYMENT ADJUSTMENT - BITUMINOUS MATERIALS

Price adjustments will be made for all bituminous material incorporated into asphalt pavement (whether paid for under a separate bid item or included in the cost of the pavement). The adjusted unit price shall be calculated for the month during which the material is incorporated into the project. This means that the quantity of bituminous material incorporated into the project each month may have a different unit price adjustment.

To insure that the adjustments are accurately documented, the CONTRACTOR must record and summarize the quantitites (liquid asphalt) according to the calendar month they are actually incorporated into the project.

- (A) The Daily Asphalt Plant Record Form 781-89 should be summarized and batched on a calendar month basis, with a new form started on the first of the next month.
- (B) The pre-printed tickets that are used to convert weight to gallons should also be accumulated on the last day of the month with anew series beginning on the first of the next worth.

The CONTRACTOR will be required to accumulate and summarize only the quantities of bitumen. All unit price adjustments and computations will be made by the ENGINEER and applied to semi-final and final estimates only. The bid unit price will still be used to calculate the monthly and/or progress estimates.

The bid unit price for bituminous material will be adjusted to reflect changes, both increase and decrease, in the Asphalt Index price of bituminous material from that in effect during the month in which bids were received for this Contract. The CONTRACTOR will not be given the option to reject this cost adjustment of bituminous materials. This adjustment will be made in accordance with the following criteria:

- a) Price adjustments will apply only to the price of bituminous material F. O. B. manufacturer's asphalt terminal and will not reflect variations in the cost of transportation from the terminal to the job site.
- b) Price adjustments will be made for all bituminous material incorporated into asphalt pavement whether paid for under a separate bid item or under other items which include the cost of bituminous material.
- c) Price adjustments will not be made until the semi-final ro final payment is made on the Contract. The bid unit price for bituminous materials will be used in preparing monthly progress payments.
- d) No price adjustment reflecting any further increases in the cost of bituminous material will be made for any month after expiration of the allowable Contract time, including any extensions that may be granted.
- e) The adjusted unit price shall be calculated for the month during which the material was incorporated into the project in accordance with the following formula:

Pa = Adjusted unit price for bituminous material. (To be calculated separately for each month during which bituminous material is used and will reflect an increased or decreased price)

Pb = Bid unit price for bituminous material

Id = Asphalt Price Index during the month in which the material is incorporated into the project

Ib = Asphalt Price Index during the month in which bids
were received for this Contract.

- f) The Florida Department of Transportation will determine the Asphalt Price Index for each month. The Index shall be determined by averaging quotations in effect on the first day of the month at all terminals which could reasonably be expected to furnish bituminous material to projects in the State of Florida.
- g) A price adjustment will be made only when the current Asphalt Price Index varies by 5% or more from the Index that was acceptable when bids were received or 5% or more from when the last previous adjustment was made.
- h) If the adjusted unit price for any bituminous material items exceeds the bid unit price for that item in excess of 50% of the Asphalt Price Index for the month during which bids were received, the COUNTY and/or ENGINEER reserves the right to reduce the quantity of that item or delete from the Contract work in which this material is to be used.
- i) In cases where a reduced rate of payment for bituminous material is to be applied due to material failing to meet the specified viscosity requirements, the reduction factor shall be applied to the applicable adjusted unit price in lieu of the original Contract unit price.

The asphalt Price Index will be available from the Department's Contracts office after the 15th of each month.

#### PRE-WORK CONFERENCE

After the award of Contract and prior to issuance of the "Notice to Proceed", a Pre-Work Conference will be held between the CONTRACTOR, the Engineer, other interested agencies, representatives of Utility Companies and others affected by the work. The time and place of this Conference will be set by the Engineer. The CONTRACTOR shall bring with him to the Conference a copy of his proposed methods and manner of executing the work, including sequences of operation and time schedule. If found satisfactory, the Engineer will approve the work schedule, and after execution of the agreement, a Notice to Proceed shall be furnished the CONTRACTOR, and the work shall be performed in accordance with such schedule or approved amendments thereto.

-44

#### 13. LABORATORY TEST

Except as otherwise provided, sampling and testing of all material, and the laboratory methods and testing equipment required under these specifications shall be in accordance with the latest standards or tentatives of the American Society for Testing Materials (ASTM) or the latest standards or methods of the American Association of State Highway Transportation Officials (AASHTO).

The testing samples and materials shall be made at the expense of the COUNTY, except where indicated otherwise. The CONTRACTOR shall furnish the required samples without charge. The CONTRACTOR shall give sufficient notification of the placing of orders for materials to permit testing.

All material tests will be made by an independent testing laboratory to be selected by the Engineer. Where tests indicate that the materials and/or construction quality are in accordance with specified requirements, the COUNTY shall bear the testing cost. When test reveal that conditions or materials do not comply with the specifications, the cost of such tests shall be assessed against the CONTRACTOR.

#### 14. AS-BUILT PLANS

The CONTRACTOR shall obtain one set of full size reproducible Contract Drawings from the Consultant. The reproducible drawings shall be changed to reflect the "As-Built" items of work as the work progresses. The following are representative items of work that should be shown as verified (by check mark) or changed or added.

#### A. Roadway Plans

- 1. Drainage structure types, locations and elevations.
- 2. Sewer type, size and elevations.
- 3. Utility type, size and elevation in conflict structures.
- All manholes, valves and hydrants within right-of-way.
- Roadway cross section elevation right-of-way to right-of-way at high points (crests) and low points (sags).
- 6. Elevation at ends of returns and high points in curb and gutter.
- 7. Weir elevations at pollution control structures.
- 8. Spot (critical) elevations at plateaued intersections.
- 9. Final cross sections when necessary for earthwork payment.

#### B. Structure Plans

- Cross section elevations at approach slabs, ends of structure and mid-point of each span.
- 2. Elevation of low member at critical point location.
- 3. Cross section elevations at each Bent.

#### C. Street Lighting Plans

- 1. Light pole locations on tabulation sheet.
- 2. Distribution Centers and Service Point locations where appropriate.
- 3. Light pole location changes in plan by arrow and/or note.

#### D. Traffic Signalization Plans

Equipment changes, support locations, controller location and service point.

#### E. Pavement Marking and Signing

1. Sign locations where shown or tabulated.

#### F. Completion

- Upon completion of the work the Contractor shall furnish the Engineer the reproducible Contract Drawings.
- The cost for maintaining record changes, and preparation of the "As-Built Plans" shall be included in the prices bid for the appropriate items.

#### SOIL BORINGS

Soil borings indicated on the plans are not warranted as representing all underground conditions on the site; the CONTRACTOR, by his independent investigations, shall satisfy himself as to all underground conditions which may affect different aspects of the project.

No additional payment will be made to the CONTRACTOR due to differences in soil borings as shown and underground conditions encountered during the work.

#### CLEARING AND GRUBBING

The CONTRACTOR shall use care in his clearing and grubbing operation in landscaping areas so as to do as little damage as possible to existing plants, grass, sprinkler systems, drives, etc. The CONTRACTOR shall advise residents in the area one week in advance of his clearing operation, instructing them as to the location and extent of his proposed clearing and grubbing, so that the residents will have the opportunity to remove or protect items in the path of construction if they so desire. Failure of property owners to protect items in the path of construction does not relieve the CONTRACTOR of the responsibility for the repair, replacement, and restoration as is hereinafter specified.

The CONTRACTOR shall be made aware of certain priorities within the "Clearing and Grubbing" operation. Said priorities are required due to the relocation of certain utilities within the work area. These priorities will be set by the ENGINEER at the pre-work conference. The CONTRACTOR shall perform said work within thirty (30) calendar days after receiving his notice to proceed from the ENGINEER.

All materials removed by the CONTRACTOR as a result of the clearing and grubbing operation shall, unless otherwise specified herein or shown on the Plans or directed by the ENGINEER, be removed from the right-of-way and disposed of by the CONTRACTOR at the CONTRACTOR'S expense and in a manner subject to the approval of the ENGINEER.

#### 17. CONTINGENCY ITEMS

Attention is brought to the fact that some bid items may be increased, decreased or eliminated as directed by the ENGINEER depending upon field conditions, right-of-way acquisitions and maintenance agreements.

18. CONTRACTOR'S COMPENSATION FOR ADDITIONS AND/OR REVISIONS TO CONTRACT AFTER COMMENCEMENT OF WORK

The CONTRACTOR will be furnished with revised sheets for any dasign changes during construction. The CONTRACTOR will be paid at the Contract unit price bid for the actual quantities constructed.

19. ENGINEER'S COMPENSATION FOR SERVICES BEYOND APPROVED PROJECT COMPLETION DATE:

The CONTRACTOR shall be responsible for reimbursing the COUNTY for all costs incurred by the Engineer in administering the construction of the project beyond the completion date specified in the agreement or beyond an approved extension of time granted to the CONTRACTOR. Such costs shall be deducted from the monies due the CONTRACTOR for performance of work under this Contract.

Compensation for the Engineer's services will be computed on the basis of "payroll costs" plus direct non-salary expenses for all personnel engaged in performance of the project, including but not limited to, principals, engineers, architects, surveymen, designers, draftsmen and clerks; plus

overhead costs for personnel engaged in performance of the PROJECT which include sick leave, vacation, unemployment, excise and payroll taxes; contributions for social security, employment compensation insurance, retirement benefits, and medical and insurance benefits, the sum total of which shall be multiplied by the factor of 2.35.

"Payroll cost" shall mean the hourly rate of personnel, by category as specified on an Exhibit "A" attachment to the agreement for services between the COUNTY and the Engineer.

"PERMITS AND LICENSES. All permits and licenses necessary for the prosecution of the work undertaken by the CONTRACTOR pursuant to this contract shall be secured and paid for by the CONTRACTOR. It is the CONTRACTOR'S responsibility to have and maintain appropriate certificate(s) of competency, valid for the work to be performed and valid for the jurisdiction in which the work is to be performed, when and as the requirements for such certificate(s) is a precondition of the applicable agency for the issuance of a permit and/or license."

#### 20. MAINTENANCE OF TRAFFIC A. GENERAL

- 1. The CONTRACTOR shall be responsible for the proper maintenance control and detour of traffic in the area of construction, during the course of construction. All traffic control and maintenance procedures shall be in accordance with the requirements of Section 102 of the Standard Specifications, the Drawings and these Specifications. It shall be the CONTRACTOR'S responsibility, as Bidder, prior to submitting his Bid, to determine the amount of work required so that his Proposal reflects all costs to be incurred including clearing and grubbing, necessary fill, suitable rockbase and type S-1 asphalt for detour. No claims for additional payment will be considered for costs incurred in the proper maintenance, control, detour and protection of traffic and no extensions in Contract time will be granted due this maintenance of traffic item.
- 2. Traffic shall be maintained at all times where practical and as more particularly specified hereinafter. No traffic shall be detoured without prior knowledge—and approval—of the respective traffic control agency having jurisdiction. The CONTRACTOR shall notify such agencies 48 hours in advance of such time he proposes to detour traffic.
- 3. The CONTRACTOR shall keep all law enforcement, fire protection and ambulance agencies informed, in advance, of his construction schedules, and shall notify all such agencies, 48 hours in advance in the event of detour of any roadway.
- 4. All traffic control signs and devices, barricades, flashers, flambeaus and similar devices shall be furnished and maintained by the CONTRACTOR.

- 5. The CONTRACTOR shall provide the services of uniformed, off duty police officers to supervise traffic control and maintain safety along the routes of the work or at any other area where his operation causes traffic congestion, such that, police supervision is required to protect the public safety and the work.
- 6. Excavated or other material stored adjacent to or partially upon a roadway pavement shall be adequately marked for traffic and pedestrian safety at all times. Necessary access to adjacent property shall be provided at all times.
- 7. In the event the CONTRACTOR must detour or close off residential street traffic, he shall submit a plan (or field sketch) for approval depicting a method of providing one way operation or runaround detour route to the respective traffic agency having jurisdiction a minimum of five days prior to any street closing.

## 21. B. MATHTENANCE OF TRAFFIC PLAN

- 1. The CONTRACTOR shall present his Maintenance of Traffic Plan at the Preconstruction Conference. The Maintenance of Traffic Plan shall be in written form and include a minimum of four full size sets of plan sheets which indicate the type and location of all signs, lights, barricades, striping and barriers to be used for the safe passage of pedestrians and vehicular traffic through the project and for the protection of the workmen. The plan will indicate conditions and setups for each phase of the Contractor's activities.
- The project plans include a specific Maintenance of Traffic Plan, alternate proposals will be considered when they are found to be equal to or better than the plan specified.
- 3. In no case may the CONTRACTOR begin work until the Maintenance of Traffic Plan has been approved in writing by the Engineer. Modifications to the Maintenance of Traffic Plan that become necessary shall also be approved in writing. Except in an emergency, no changes to the approved plan will be allowed until approval to change such plan has been received.
- 4. The cost of all work included in the Maintenance of Traffic Plan shall be included in the pay item for Maintenance of Traffic. except where additional requirements that are clearly beyond those provided in the contract are apparent; then these will be paid as extra work.
- 5. The CONTRACTOR shall be responsible for performing daily inspections, including weekends and holidays, with some inspections at nighttime, of the installations on the project and replace all equipment and devices not conforming with the approved standards during that inspection. The project personnel will be advised of the schedule of these inspections and be given the opportunity to join in the inspection as is deemed necessary.

## 22. MAINTENANCE OF TRAFFIC

#### PHASE 1

The maintenance of traffic will be closely coordinated with the construction phasing. Construction equipment traffic will be confined to Perimeter Road. The Contractor must maintain at least one lane of traffic on Perimeter Road at all times during working hours and two lanes at night. All the proper warning devices and flagmen will be required. The Contractor must schedule his work so the existing guardrail along the drainage ditch can be maintained as long as possible, and the open work area must be protected with barricades.

No equipment will be allowed on Northwest 10th Street. Residential and airport employee traffic will be maintained on Northwest 10th Street from the Dania Cut-Off Canal (Station 191 + 00) to U.S. 1. The employee parking lot entrance will me maintained. During this phase of traffic maintenance, the construction of the outfall open ditch, the 102" pipe and drainage structures will be completed. The French Drain System and two most northerly westbound lanes can be constructed through the first layer of asphalt. Two sections of Perimeter Road will be constructed, one being the section from Station 191 + 00+ to the employee parking entrance. The other from Station 234 + 00+ to tie into the existing roadway to north of Station 241 + 00+.

#### DETOUR OF TRAFFIC FOR OUTFALL CONSTRUCTION-PHASE I

Two paved crossovers will be required in the median area between N.W. 10th Street and Perimeter Road. One being located at Station 228 + 60+ to Station 229 + 60+, allowing for two 12' lanes of traffic, one in each direction. The other being placed between Station 131 + 00+ and Station 132 + 00+. The entire median will be paved in order to shift traffic to Perimeter Road and back, while the outfall is being placed across N.W. 10th Street, then shifting traffic back to N.W. 10th Street while the outfall is being placed across Perimeter Road. All the proper warning devices, stop signs and striping will be required The only time construction equipment will be allowed on N.W. 10 St. is during the construction of the outfall and the Griffin Rd. tie-in to N.W. 10 St. and at these locations only.

The north side of road (westbound roadway) and the old Griffin Road tie-in with bridge and reinforced earth wall can be completed under Phase I.

## PHASE II.

Traffic is to shifted to the completed portion of westbound lanes and Perimeter Road, while maintaining residential traffic on Northwest 10th. The remaining portion of Griffin Road is to be constructed.

## 443-2.2 BALLAST ROCK:

All ballast rock shall be locally procured and shall be obtained from fresh water sources. It shall be washed and free of deleterious matter. It shall not have more than 40 percent loss of section as specified by M 63 of AASHTO Specifications governing the Los Angeles Abrasion Test. It shall not show more than a ten percent loss in ten cycles as specified by M 63 of AASHTO Specifications governing the soundness test. The Ballast Rock shall meet the gradation requirements as specified The County reserves the right to have sample tests made of the material at selected intervals by an approved laboratory at its expense.

## 443-2.3 PEA ROCK:

The pea rock gradation shall be such that all of the material will pass the one-inch sieve, and not more than five percent will pass the 1/4 inch sieve. Crushed limerock meeting this gradation will be permitted.

## 443-2.4 SELECT FILL:

The select fill shall consist of well-graded limerock or limerock and sand fill. Sand, or fill having a high proportion of sand, will not be accepted as select fill. All select fill shall be approved by the Engineer prior to placing.

## 443-2.5 FILTER CLOTH:

Filter cloth shall meet the requirements for Plastic Filter Fabric in Section 985 of the 1982 Supplement of Florida Department of Transportation Specifications.

## 443-3 EXCAVATING TRENCH.

The trench shall be excavated carefully to such depths as required to permit the ballast rock and the pipe to be placed in accordance with the details shown on the plans.

## 443-4 LAYING PIPE.

All pipe shall be carefully laid in conformity with the lines and grades specified in the plans and in accordance with these Specifications.

## 443-5 PLACING BALLAST ROCK AND BACKFILLING.

After the pipe has been laid and the laying approved, the ballast rock shall be placed, carefully so as not to disturb the pipe, around and over the pipe to a depth shown on the plans. A six-inch layer of pea rock shall then be placed over the ballast rock. Filter cloth shall then be placed on the pea rock as shown on the plans, and the portion of the trench above the pea rock filled with select fill material which shall be placed in layers not to exceed six-inch compacted thickness in conformance to the lines and grades as shown on the plans.

#### 443-6 METHOD OF MEASUREMENT.

The quantity of French Drains to be paid for under this Section shall be the length in linear feet measured in place, completed and accepted.

#### 443-7 BASIS OF PAYMENT.

The quantity determined as provided above shall be paid for at the Contract Unit Price per linear foot for French Drains. Such price and payment shall be full compensation for all the work specified in this Section and shall include excavation, disposal of surplus material, backfilling and tamping, pea rock, ballast rock, select fill, filter cloth and pipe.

#### 331-1-5 TYPE S-1 ASPHALTIC CONCRETE

The top inch rock gradation shall be as follows: -

SIEVE	SPECIFICATION
3/8	95.7 +/- 5%
1 4	47.4 +/- 5%
# 10	28.4 +/- 5%
# 40	19.1 +/- 4%
# 80	7.4 +/- 3%
#200	2.0 + 2%

## 285 709 LIMEROCK BASE 12"

The 12" Limerock Base will be placed in 4" layers with the option of using 6" layers only if a grid roller is used on each 6" layer.

## 102" DRAINAGE OUTFALL

The 102" drainage outfall and open ditch from N.W. 10th Street to Dania Cutoff Canal will be one of the first construction operations and completion will be required by December 1, 1983. This will include the roadway that is to be constructed over the outfall line. The Contractor will furnish and install a fence along the east side of the 35 foot drainage easement for protection during construction.

### NOISE BARRIER WALL

The consttuction of the noise barrier wall will not be started until written authorization is given by Broward County Engineering Division.

### LEASE HOLD WATER LINE

The 2" water main crossings at Station 207 + 00+ and Station 224 + 00+ must be maintained throughout construction.

### JET FUEL LINE

The Jet Fuel Line to the airport is to be protected and maintained in service until the new line is installed.

#### GUARDRAIL

All existing guardrail is to be salvaged and reused. Excess rail is to become the property of Broward County Aviation Division and is to be stockpiled in areas designated by the Division.

## FENCE

The old Navy fence is to become the property of the Contractor. All the 4 foot tight-weaved glare-screen type fence is to be straged and become the property of Broward County Aviation Division and is to be stockpiled in areas designated by the Division.

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## PREFORMED PLASTIC PAVEMENT MARKINGS

#### 1. GENERAL

The preformed markings described shall consist of white or yellow pigmented plastic films with reflective glass spheres uniformly distributed throughout their entire cross-sectional area and be capable of being affixed to asphalt or portland cement concrete pavements by either a pressure sensitive precoated adhesive or a liquid contact cement. The markings shall be provided complete in a form that will facilitate rapid application and protect the markings in shipment and storage. The contractor, when bidding, shall identify proper solvents and/or adhesives to be applied at the time of application, all equipment necessary for proper application, and recommendations for application that will assure an effective performance life. The marking film shall mold itself to pavement contours, breaks, faults, and the like, by action of traffic at normal pavement temperatures. The marking film shall have resealing characteristics such that it will fuse with itself and with previously applied marking materials of the same composition under normal conditions of use.

Preformed legends and symbols shall conform to the applicable shapes and sizes as outlined in the "Manual on Uniform Traffic Control Devices for Streets and Highways", dated 1971 or as modified.

#### 2. CLASSIFICATION

The marking film shall be of two types.

Type I - 60 mil retroreflective pliant polymer film. Type II - 60 mil premix pliant polymer film.

## 3. GENERAL REQUIREMENTS

A. Type I - 50 mil retroreflective plianc polymer film.

1.0 Composition: The retroreflective pliant polymer pavement marking film shall consist of a mixture of high quality polymeric materials, pigments, 1.5 index glass beads uniformly distributed throughout its cross-sectional area and with a reflective layer of beads bonded to the top surface. The film shall be composed of the following materials:

Material	Minimum Percent By Weight
Resins & Plasticizers	20
Pigments	30
Graded Glass Beads	33

This film thall be capable of being fabricated into pavement markings of specified thickness and dimensions and of being adhered to asphaltic and/or portland cement concrete by means of a pressure sensitive precoated abdesive, or a liquid contact cement which is applied at the time of installation.

2.0 Conformability and Patchability: The retroreflective pliant polymer pavement marking film shall be capable of conforming to pavement conturs, breaks, faults, etc., through the action of traffic at normal pavement temperatures. The film shall have resealing characteristics such that it is capable of fusing with itself under normal conditions of use.

The film shall show patchability when tested as follows:

- a. Cut two.1"x 3" pieces of the pliant polymer and mark the reflective side of one of the pieces with a pencil to delineate a 1" x 1" area at the end of the piece.
- b. Wet the surface of the area delineated with a cloth soaked in contact cement or a mixture of MEK and toluene for one minute; keep the surface wet. At the end of one minute, scrape the beads and binder off the sample and wipe the residual binder from the area. Let the sample dry for at least one minute.
- c. Remove the liner from the back of the second piece of film. With a small paint brush, apply an even coat of manufacturer's recommended contact cement to approximately 1-%" of the back of the second piece of film and to the cleaned area on the first piece. Allow the contact cement to dry until it is just tacky but will not transfer to the finger when touched firmly. Then press the 2 coated surfaces together firmly to form an overlap patch 1" x 1". The sample (while held together) should now form one piece 4 inches long by 1 inch wide with the 1" x 1" overlap patch in the center.
- d. Place the patched sample on a hard surface under 1,000 grams per square inch (the area of the overlap splice) maintained at 140 for four hours.
- e. Remove the sample from the heat and allow to cool to 70° (room temperature).
- Pull the ends of the sample in opposite directions to place a shear strain on the patched area. The two pieces shall not separate without tearing.
- 3.0 Tensile Strength: The film shall have a minimum tensile strength of 40 pounds per square inch of cross-section when teated-arcording to ASTM D638-76. A sample 6" x 1" x 0.06" shall be tested at a temperature between 70°F and 80°F using a jaw speed of 12 inches per minute.

- 4.0 Elongation: The film shall have a minimum elongation of 75% at break when tested according to ASTM D638-76 using a jaw speed of 12 inches per minute.
- 5.0 Plastic Pull Test: A test specimen made the same size as in paragraph 3.0 shall support a dead weight of four pounds for not less than five minutes at a temperature between 70 F and 80 F.
- 6.0 Pigmentation: The pigments shall be selected and blended to provide a marking film which is white or yellow conforming to standard highway colors through the expected life of the film.
- 7.0 Glass Beads: The glass beads shall be colorless and have a minimum index of refraction of 1.50 when tested using the liquid oil immersion method. The size and quality of the beads will be such that performance requirements for the retroreflective pliant polymer film shall be met.

Bead adhesion shall be such that beads are not easily removed when film surface is scratched firmly with thumbnail.

The film shall have glass bead retention qualities such that when a 2" x 6" sample is bent over a %" diameter mandrel, with the 2" dimension perpendicular to the mandrel axis, microscopic examination of the area on the mandrel shall show no more than 10% of the beads with entrapment by the binder of less than 40%.

- 8.0 Skid Resistance: The surface of the retroreflective pliant polymer film shall provide a minimum skid resistance value of 35 BPN when tested according to ASTM E303-74.
- 9.0 Reflective Intensity: The white and yellow film shall have the following initial reflective values at 0.2° and 0.5° observation angles measured in accordance with the photometric testing procedures of Federal Test Method Standard 370.

Reflective values shall be expressed as candlepower per foot candle per five square feet (candelas per lux per five square meters) measured on a 5 sq. ft. panel ( 2½ ft. by 2 ft.) at an 86 entrance angle.

	White	Yellow
Observation angle	0.2° 0.5°	0.2° 0.5°
Entrance angle, 860	0.20 0.15	0.15 0.10

10.0 Reflectivity Retention: To have a good, effective performance life the glass beads mus be strongly bonded and not be easily removed by traffic wear. The following tests shall be employed to measure reflectivity retention.

# a. Comparative Roadway Performance Test (Preferred)

Transverse samples from more than one manufacturer shall be applied, spanning one lane of traffic, to a traveled area which represents approxmiately the average of traffic and roadway conditions. Ratings shall be made at regular intervals (every 2-4 weeks) during a night viewing using a flashlight held about three inches below eyes, two feet above the ground and at least 50 feet to one side of the samples. Rating shall be made on a 0-10 scale. The effective performance life shall end when the traveled area of the sample is judged to not have adequate reflective retention.

### b. Taber Abraser Simulation Test

Using a taber abraser with an H-18 wheel and a 125 gram load, the sample shall be inspected at 200 cycles, under a microscope, to observe the extend and type of bead failure.

No more than 15% of the beads shall be lost due to popout and the predominant mode of failure shall be "wear down" of the beads.

### c. Qualitative Tests

Bead bond strengths shall be judged under a microscope with a magnification of at least 5%. The beads shall be difficult to remove, and when removed, beads shall show a portion of the polymeric bead bond retained with the beads rather than clean removal from the sockets.

11.0 Thickness: The retroreflective pliant polymer film, without adhesive, shall be supplied in a standard thickness of 0.06".

12.0 Effective Performance Life: The film, when applied according to the recommendations of the manufacturer, shall provide a neat, durable marking that will not flow or distort due to temperature if the pavement surface remains stable. Although reflectivity is reduced by wear, the pliant polymer shall provide a cushioned, resilient substrate that reduces bead crushing and loss. The film shall be weather resistant and, through normal traffic wear, shall show no appreciable fading, lifting or shrinkage throughout the useful life of the marking, and shall show no significant tearing, roll back, or other signs of poor adhesion.

## B. Type II - 60 Mil Premix Pliant Polymer Film

1.0 Composition: The premix pliant polymer pavement marking film shall consist of a mixture of high quality polymeric
materials, pigments, and 1.5 index beads uniformly distributed throughout its cross-Sectional area.

The film shall be composed of the following materials.

311011	t composed of		Minimum Percent
Materi	al		By Weight
Resins	& Plasticiz	ers	20
Pigmer	nts		30
Gradeo	Glass Beads		31

This film shall be capable of being fabricated into pavement markings of specified thickness and dimensions and of being adhered to asphaltic and/or portland cement concrete by means of a liquid contact cement which is applied at the time of installation.

- 2.0 Conformability and Patchability: The premix pliant polymer pavement marking film shall be capable of conforming to pavement contours, breaks, faults, etc. through the action of traffic at normal pavement temperatures. The film shall have resealing characteristics such that it is capable of fusing with itself under normal conditions of use. The film shall show patchability when tested as follows:
- a. Cut two 1" x 3" pieces of the pliant polymer. Remove the liner from the topside of one piece and mark this side with a pencil to delineate a 1" x 1" area at the end of the piece.
- b. With a small paint brush, apply an even coat of manufacturer's recommended contact cement to the marked area of the first sample and to approximately 1-%" of exposed side of the second sample. Allow the contact cement to dry until it is just tacky but will not transfer to the finger when touched firmly. Then press the 2 coated surfaces together firmly to form a 1" x 1" overlap patch in the center.
- c. Place the patched sample on a hard surface under 1,000 grams per sq. in. (the area of the overlap splice) maintained at 140°F for four hours.
- d. Remove the sample from the heat and allow to cool to 70° (room temperature).
- e. Pull the ends of the sample in opposite directions to place a shear strain on the patched area. The two pieces shall not separate without tearing.

3.0 Class Beads: The glass beads shall be colorless and have a minimum index of refraction of 1.50 when tested using the liquid oil immersion method. The size and quality of the beads will be such that performance requirements for the premix polymer film shall be met.

NOTE: Premix pliant polymer film shall also conform with the requirements in paragraphs A3.0, A4.0, A5.0, A6.0, A11.0, and A12.0.

4.0 Effective Performance Life: The premix pliant polymer film, when applied according to the recommendations of the manufacturer, shall provide a neat, durable marking that will not flow or distort due to temperature if the pavement surface remains stable. The film shall provide a cushioned resilient substrate that reduces bead crushing and loss. The film shall be weather resistant and with normal traffic wear, shall show no appreciable fading, lifting or shrinkage throughout the useful life of the marking, and shall show no significant tearing, roll back, or other signs of poor adhesion.

### 5 APPLICATION

Contractor shall furnish a mechanical applicator for the application of 4" wide Type. I pressure sensitive adhesive coated film. Mechanical applicator to be provided on location at a time designated and for the duration of the application period.

#### SUPPLEMENTAL TECHNICAL PROVISIONS

TITLE: INLAY APPLICATION PROCEDURES ON NEW ASPHALT PAVENENT FOR PREFORMED PLASTIC PAVEMENT MARKINGS.

- PURPOSE: To define conditions and procedures for immediate application of durable preformed pavement markings to newly constructed or resurfaced asphalt concrete pavements.
- 2. GENERAL: The markings involved shall be traffic lane lines, stop bars, crosswalk markings, legends and symbols in quantities, sizes and configurations as detailed in the Plans. Prefabricated symbols and legends shall be supplied with an easily removed protective liner covering the adhesive. Material in roll form for use as longitudinal and transverse lines shall be supplied without protective liner unless specified otherwise by the Engineer.

#### 3. CLASSIFICATION:

There are two categories of application procedures, both of which may be required on a single project.

- Category A Mechanical Application (generally restricted to longitudinal markings such as lane lines, edge lines and barrier lines).
- Category B Manual Application (generally utilized for transverse lines, symbols and legends, but suitable for all inlaid markings): utilize either manual roller applicator or manual placement.

#### APPLICATION PROCEDURES:

## 4.1 Category A - Mechanical Application

4.1 Applicator - Contractor shall furnish a mechanical applicator to be provided on location at a
time prescribed and for the duration of the installation period. Contractor shall provide
technical assistance to instruct crews in the
proper operation and maintenance of the mechanical applicator.

Applicator shall be capable of applying standard longitudinal striping configurations, skip and solid lines - up to a maximum line width of seven inches at speeds compatible with the paving operation.

Applicator towing vehicle and crew shall be supplied by contractor.

- 4.1.2 Ambient Conditions 50°F, minimum
- 4.1.3 Surface Concition Pavement shall be clean and dry. All contaminants such as dirt and loose asphalt particles shall be removed prior to marking application. Liquid primers shall not be used unless specified by manufacturer.
- 4.1.4 Pavement Temperature 160°F, maximum.
- 4.1.5 Construction Joint Wherever possible, markings shall be placed adjacent to rather than on the construction joint.

# 4.1.6 Instructions -

- a. Allow pavement to cool to approximately 150°F.
- b. Start application only after sufficient pavement compaction (when the Engineer has judged pavement acceptable to carry vehicular traffic) and alignment spotting.
- c. If possible, maintain at least 1200 feet distance between paving and marking operation to facilitate alignment.
- d. Embed applied marking into pavement surface with compaction roller. Use minimum water on roller; do not use vibrator. Roller must not turn on marking.

- e. Initial rolling of marking shall be in same direction as applicator travel to minimize buckling in front of roller.
  - NOTE: Inlay depth is dependent on pressure and temperature. Several passes of roller may therefore be required to achieve desired degree of embedment, since pavement cooling rate will vary widely depending on ambient conditions, delivered mix temperature, mat thickness, and time in place. If marking buckles or distorts severely in front of roller, mat temperature or roller speed may be too high.

## 4.2 Category B - Manual Application

4.2.1 General Conditions - Conditions specified in 4.1.2 through 4.1.5 shall be followed.

## 4.2.2 Instructions -

- a. Allow pavement to cool to approximately 150°F.
- After initial compaction, mark position of marking on pavement with chalk or crayon.
- c. With symbols and legends, remove and discard the protective adhesive liner from the marking and apply it by hand to the pavement. With multiple piece markings use only butt splices do not overlap material.

Material in rolls for line type markings does not have a protective liner. Use manual roller applicator or unroll material and apply by hand to pavement. Where splice is necessary, use only butt splices - do not overlap material.

CAUTION: When unrolling film, gloves should be worn to prevent film edges and core from injuring hands.

d. Tamp applied marking with brush tamper or roll tamper device to assure initial adhesive contact. Embed marking into pavement surface with compaction roller. Use minimum water on roller; do not use vibrator. Roller must not turn on marking.

NOTE: Inlay depth is dependent on pressure and temperature. Several passes of the roller may therefore be required to achieve desired degree of embedment, since pavement cooling rate will vary widely depending on ambient conditions, delivered mix temperature, mat thickness and time in place. If marking buckles or distorts severely in front of roller, mat temperature or roller speed may be too high.

## REINFORCED EARTH WALL

The design shall conform to the requirements herein and shall be in accordance with the design criteria in the A.A.S.H.T.O. Standary Specification for Highway Bridge and all appropriate amendments. The Design shall be prepared by a professional Engineer who has been pre-qualified for this type of design.

#### SECTION 52H

#### REINFORCED EARTH WALLS

528-1 Description.

This work shall consist of reinforced earth walls constructed in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the plans or established by the Engineer.

528-2 Materials.

528-2.1 General: The Contractor shall make his own arrangements to purchase the face punels, reinforcing and tie strips, fasteners, joint filler, and all necessary attachments.

528-2.2 Concrete Face Panels: Cement shall conform to the requirements of AASHTO M-B5. Concrete shall have a minimum compressive strength at 28 days of 4000 psi (27.58MPa). Air entraining, retarding or accelerating agents or any additive containing chloride shall not be used without approval of the Engineer.

Tie strips, connecting pins, and PVC pin form and lifting and handling devices shall be set in place to the dimension and tolerances shown on the plans prior to casting.

- (1) Testing and Inspection: Acceptability of the precast units will be determined on the basis of compression tests and visual inspection. The precast units shall be considered acceptable regardless of curing age when compression test results indicate strength will conform to 28-day specifications. The Contractor or his supplier shall furnish facilities and perform all necessary sampling and testing in an expeditious and satisfactory manner. Panels shall be considered acceptable for placement in the wall when 7-day strength exceeds 65 percent of 28-day requirement.
- (2) Casting: The panels shall be cast on a flat area, the front face of the form at the bottom, the back face at the upper part. Tie strip guides shall be set on the rear face. The concrete in each unit shall be placed without interruption and shall be consolidated by the use of an approved vibrator, supplemented by such hand-tamping as may be necessary to force the concrete into the corners of the forms and prevent the formation of stone pocket or cleavage planes. Clear form oil of the same manufacture shall be used throughout the casting operation.

1440

- (3) Curing: The units shall be cured for a sufficient length of time so that the concrete will develop the specified compressive strength. Any panel pour which does not reach specified strength within 28 days shall be rejected.
- (4) Removal of Forms: The forms shall remain in place until they can be removed without damage to the unit.
- (5) Concrete Finish and Tolerances: Concrete surface for the front face shall have the finish approved by the Engineer and for the rear face an unformed surface finish. Rear face of the panel shall be roughly screeded to eliminate open pockets of aggregate and surface distortions in excess of 1/4-inch (6.35 mm).
- (6) Tolerances: All units shall be manufactured within the following tolerances:
  - All dimensions within 3/16-inch (4.76 mm).

Angular distortion with regard to the height of the panel shall not exceed 0.2-inch (5.08 mm) in 5 feet (1.52 m).

Surface defects on formed surfaces measured on a length of 5-inches (127 mm) not more than 0.1-inch (2.54 mm).

- (7) Compressive Strength: Compression tests to determine the minimum strength requirements shall be made on cylinders. A minimum of three cylinders will be made from each day's production and cured in the same manner as the precast units. Testing methods shall be in accordance with AASHTO Specifications T 22 and T 24.
- (8) Rejection: Units shall be subject to rejection because of failure to meet any of the requirements specified above. In addition any or all of the following defects shall be sufficient cause for rejection:
  - a. Defects that indicate imperfect moulding.
  - b. Defects indicating honeycombed or open texture concrete.
- (9) Marking: The date of manufacture shall be clearly scribed on the rear face of each panel.
- (10) Handling, Storage and Shipping: All units shall be handled, stored, and shipped in such manner as to eliminate the danger of chipping, cracks, fractures and excessive bending stresses. Panels in storage shall be supported on firm blocking located immediately adjacent to tie strips to avoid bending the tie strips.
- (11) Concrete Footing: Concrete shall conform to Class II as defined in Section 345.

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- 528-2.3 Steel Face Panels: Steel face panels shall be fabricated of cold rolled galvanized steel and conform to the plans and the minimum requirements of ASTM A 446 Grade C or other approved material: Galvanization shall conform to the minimum requirements of ASTM A 123.
- 528-2.4 Reinforcing and Tie Strips: Tie strips shall be shop-fabricated of hot rolled steel conforming to the minimum requirements of ASTM A 570 Grade C or equivalent. Galvanization shall conform to the minimum requirements of ASTM A 123 or equivalent. Reinforcing strips shall be hot rolled from bars to the required shape and dimensions. Their physical and mechanical properties shall conform to ASTM A 36 or equivalent. Galvanization shall conform to ASTM A 123. They shall be cut to lengths and tolerances shown on the plans. Holes for bolts shall be punched in the locations shown.
- All reinforcing and tie strips shall be carefully inspected to insure they are true to size and free from defects that may impair their strength or durability.
- 528-2.5 Fasteners: Bolts and nuts shall be hexagonal cap screw S.A.E., Grade 5, nominal size 1/2 inch (12.70 mm) by 1 1/4-inch (31.75 mm) with a 3/4-inch (19.05 mm) thread length, hot dip galivanized.
  - 528-2.6 Joint Filler: (For use with concrete face panels).
- (1) Filler for vertical joints between panels shall be flexible open cell polyether foam strips, Grade UU-34, 2-inch x 2-inch as manufactured by North Carolina Foam Industries or equal.
- (2) Filler for horizontal joints between panels shall be resin-bonded cork filler conforming to ASTM D 1752 (Type II) or equal as approved by the Engineer.
- 528-2.7 Joint Covers: (For use with steel face panels.) Joint covers shall be fabricated of cold rolled galvanized steel and conform to the plans and the minimum requirements of ASTM A 446 Grade C. Galvanization shall conform to the minimum requirements of ASTM A 525, Class G 210.
- 528-2.8 Select Granular Backfill Material: All backfill material used in the structure volume shall be free from organic or otherwise deleterious materials and shall conform to the following gradation limits.

Sieve Size

Percent Passing

10 inches (254.0 mm) 4 inches(101.6 mm) No. 200(75 m)

100 100-75 0-15

"-i/ AD

Material not conforming to these specifications shall not be used without the written consent of the Engineer.

The Contractor, or the supplier as his agent, shall furnish the Engineer a Certificate of Compliance certifying the above materials comply with the applicable contract specifications. A copy of all test results performed by the Contractor or his supplier necessary to assure contract compliance shall also be furnished to the Engineer.

Acceptance will be based on the Certificate of Compliance, accompanying test reports, and visual inspection by the Engineer.

528-3 Construction Requirements.

528-3.1 Wall Excavation: Unclassified excavation shall be in accordance with the requirements of Section 120 Florida Department of Transportation Standard Specifications and in reasonably close conformity to the limits and construction stages shown on the plans.

528-4 Foundation Preparation.

The foundation for the structure shall be graded level for a width equal to or exceeding the length of reinforcing strips or as shown on the plans. Prior to wall construction, the foundation shall be compacted with a smooth wheel vibratory roller as provided under Section 120 of Florida Department of Transportation Standard Specifications

When concrete face panels are specified, at each panel foundation level, an unreinforced concrete leveling footing shall be provided as shown on the plans. The footing shall be cured a minimum of 12 hours before placement of wall panels.

523-5 Wall Erection.

Precast concrete panels shall be placed vertically with the aid of a light crane. For erection, panels are handled by means of a lifting device set into the upper edge of the panels. Panels should be placed in successive horizontal lifts in the sequence shown on the plans as backfill placement proceeds. As fill material is placed behind panel, the panels shall be maintained in vertical position by means of temporary wooden wedges placed in the joint at the junction of the two adjacent panels on the external side of the wall. External bracing may also be required for the initial lift. Vertical tolerances (plumbness) and horizontal alignment tolerance shall not exceed 3/4-inch (19.05 mm) when measured along a 10-foot (3.05 m) straight edge. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed 1/2-inch (12.70 mm) per 10-feet (3.05 m) of wall height.

528-6 Backfill Placement.

Backfill placement shall closely follow the erection of each

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lift of panels. At each reinforcing strip level, backfill shall be roughly leveled before placing and bolting strips. Reinforcing strips shall be placed normal to the face of the wall as shown on the plans. The maximum lift thickness shall not exceed 10 inches (254.0 mm) (loose) and shall closely follow panel erection. The Contractor shall decrease this lift thickness, if necessary, to obtain the specified density. Backfill shall be compacted in accordance with 120-9.2 Fla. D.O.T. standard specifications. Backfill compaction shall be accomplished without disturbance or distortion of reinforcing strips and panels.

528-7 Method of Measurement.

The quantity to be paid for under this Section shall be the area in square feet of reinforced earth wall (Precast panels) measured in place, completed and accepted in accordance with 9-1.3 Florida Department of Transportation standard specifications.

528-8 Basis of Payment.

The quantity, determined as provided above, shall be paid for at the contract unit price per square foot for Reinforced Earth Wall. Such price and payment shall be full compensation for furnishing and installing the precast panels including concrete leveling pad, tie and reinforcing strips and all incidental items and work specified except for furnishing and placing granular material which will be included in the cost of borrow material.

Payment shall be made under:

Item No. 528-70 - Reinforced Earth Wall - per square foot.

1 10 100

#### SPECIFICATION 1

ITEM F-162, CHAIN-LINK FENCE, CLASS E AND PLASTIC FABRIC FENCE, CLASS E - MODIFIED

### SCOPE OF WORK

This item covers the requirements for furnishing materials and constructing new chain-link and plastic fabric fences and gates in accordance with the details included herein and as shown on the plans.

## MATERIALS

## FABRIC

Plastic fabric. The plastic fabric shall be composed of 100% high density polyethylene resin equal to SCLAIR (registered TM) as produced by duPont of Canada, Ltd. The resin shall have built in stabilizers to reduce deterioration from ultraviolet rays. The color shall be black or another dark color. The mesh size shall be 2 inch maximum.

NOTE: This specification does not allow the use of a vinyl clad wire core fence.

- 2. BARBED WIRE All wires shall be spaced as shown on the plans
  - (a) Barbed Wire (Zinc-coated). Zinc-coated barbed wire shall be 2-strand twisted No. 12½ ASW gauge galvanized steel wire with 4-point barbs of No. 14 ASW gauge galvanized steel wire. All wire shall conform to Fed. Spec. RR-F-221. The barbs shall be spaced approximately 4 inches apart.
  - (b) Barbed Wire (Aluminum coated). Aluminum-coated steel barbed; wire shall be 2-strand twisted No. 12½ ASW gauge. The 4-point barbs of No. 14 ASW gauge aluminum-coated steel wire shall be spaced approximately 5 inches apart. The steel wire shall have a tensile strength of between 60,000 and 80,000 pounds per square inch, and the aluminum coating shall have a minimum weight of .30 ounce per square foot of wire surface on the No. 12½ ASW gauge line wire and .25 ounce per square foot of wire surface on the No. 14 ASW gauge barbs.

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3. FENCE POSTS, POST TOPS AND EXTENSIONS, RAILS, BRACES, STRETCHER BARS, AND CLIPS. These items, when specified, shall conform to the requirements of Fed. Spec. RR-F-191. When these items are furnished for use in conjunction with zinc-coated steel fabric, or aluminum-coated steel fabric, they shall be of zinc-coated steel. When these items are furnished for use in conjunction with aluminum alloy fabric, they shall be of aluminum alloy conforming to the requirements of AASHTO M 181.

The pipe for the fence posts, braces and gates shall conform to the dimensions and weight as indicated below:

	Outside Dimension (inches)	Weight (Galv. Pipe) (Pounds Per Foot)
A.	1.315	1.68
В.	1.66	2.27
С.	1.90	2.72
D.	2.375	3.65
F.	2.875	5.79
F.	4.00	9.11
G.	6.625	18.97

- 4. WIRE TIES AND TENSION WIRE. Wire fabric ties, wire, ties, and tension wire furnished for use in conjunction with a given type of fabric shall be of the same material identified with the fabric type. Zinc-coated steel wire, aluminum-coated steel wire, and aluminum alloy wire shall conform to requirements of AASHTO M 181.
- 5. MISCELLANEOUS FITTINGS AND HARDWARE. Miscellaneous fittings and hardware shall be of design standard with the manufacturer. Miscellaneous fittings and hardware furnished for use with other than aluminum alloy fabric shall be zinc-coated steel, wrought iron, or malleable iron and shall be equal to the materials specified in Fed. Spec. RR-F-191. When furnished for use in conjunction with aluminum alloy fabric, miscellaneous fittings and hardware shall conform to the requirements of AASHTO M 181.
- WELDING. Structural members of gates which are in contact shall be fully welded by a method that will procure a continuous weld on all sides and faces of joints at exposed edges. Surplus welding material shall be removed.
- 7. CONCRETE. Concrete for footings shall be 2,500 psi.

## CONSTRUCTION METHODS

1. GENERAL. The fence shall be constructed in accordance with the details on the plans and as specified herein using new materials, and all work shall be performed in a workmanlike manner satisfactory to the engineer. When directed, the contractor shall span the opening below the fence with barbed wire fastened to stakes of the required length at locations

of small natural or drainage ditches where it is not practical to conform the fences to the general contour of the ground surface, as required. The new fence shall be permanently tied to the terminals of existing fences whenever required by the engineer. The finished fence shall be plumb, taut, true to line and ground contour, and complete in every detail. When directed, the contractor shall be required to stake down the fence at several points between posts.

2. CLEARING FENCE LINE. The site of the fence shall be sufficiently cleared of obstructions, and surface irregularities shall be graded so that the fence will conform to the general contour of the ground. The fence line shall be cleared to minimum width of 2 feet on each side of the centerline of the fence. This clearing shall consist of the removal of all stumps, brush, rocks, trees, or other obstructions which will interfere with proper construction of the same fence. Stumps within the cleared area of the fence line shall be grubbed or excavated. The bottom of the fence shall be placed a uniform distance above the ground, as specified on the plans. When shown on the plans or as directed by the engineer, the existing fences which coincide with, or are in a position to interfere with, the new fence location shall be removed by the contractor as a part of the construction work, unless such removal is listed as a separate item in the bid schedule. All toles remaining after post and stump removal shall be refilled with suitable soil, gravel, or other material acceptable to the engineer and shall be compacted properly with tampers.

The work shall include the handling and disposal of all material cleared, excavated, or removed, regardless of the type, character, composition, or condition of such material encountered.

3. INSTALLING POSTS. All posts shall be spaced not more than 10 feet apart as shown on the plans. Terminal (end, corner, pull, and brace) and gate posts shall be set 42 inches in concrete bases as shown on the plans. All line posts shall be set 36 inches in concrete bases as shown on the plans. The top of the concrete bases shall be slightly above the ground, trowel finished, and sloped to drain away from the posts. Holes of full depth and size for the concrete bases for posts shall be dug to the size and depth as shown on the plans. Blasting of rock or other obstructions shall be done if necessary. All post settings shall be done carefully so that all posts shall be vertical and in true alignment and rigidly secured in position.

On terminal (end, corner, pull, and brace) and gate posts, the post tops and brace rail clamps around the posts shall be placed before setting the posts in concrete bases. In setting the gate posts, great care must be taken to make sure that gate posts are set the exact distance apart as shown on the plans. For example, posts for a 6-foot gate must be set so as to leave an opening exactly 6 feet wide. A line drawn across from the top of one gate post to the other must be level, regardless of the grade at the ground line.

If the ground is not level, the upgrade gate post shall be set first to get the proper height for the downgrade gate post. The concrete bases for end, corner, pull, brace, and gate posts shall be placed first and allowed to cure 14 days. The concrete bases for line posts shall be allowed to cure for 7 days. Stretcher bar bands and truss bands as specified on the plans shall be spread and slipped on end, corner, pull, brace, and gate posts as the next operation. Post tops are then inserted on all other posts. No extra compensation shall be made for rock excavation. Rock excavation shall not be grounds for extension of time.

- 4. INSTALLING TOP RAILS. To start the installation, a length of top rail shall be run through the first couple of post tops; a rail clamp shall be assembled on the end, corner, or gate post, as the case may be. The end of the rail already placed shall be butted into the clamp and fastened. The top rail shall be installed along the run of the fence and the various sections joined with sleeve couplings. At not more than every 100 feet an expansion coupling shall be placed to take care of expansion and contraction of the rail. The rail shall be clamped in the end, corner, or gate post at the end of the run of the installation of top rail.
- INSTALLING BRACES. All horizontal braces shall be attached together with truss rods at all terminal (end, corner, and pull) and gate posts to the brace posts as shown on the plans.
- 6. INSTALLING CHAIN-LINK FABRIC. The chain-link fabric shall be unrolled on the outside of the fence line with the bottom edge of the fabric against the posts. The various rolls shall be spliced by bringing the ends close together and weaving in a picket in such a way that it will engage both of the roll ends and catch with each twist each separate mesh of the end pickets of both rolls of fabric. The fabric shall be raised and tied loosely to the top rail with a temporary tie wire at intervals of about 20 feet. The fabric shall be installed by a method approved by the engineer. One method used is given below:
  - (a) At end, corner, or gate posts, the stretcher bar shall be slipped through the end picket of the fabric and the stretcher bar bands at the same time. Then the bolts in the stretcher bar bands shall be tightened. Additional rolls of fabric shall be spliced and placed as the erection progresses along the fence.
  - (b) In long sections, the fence shall be stretched at intervals of about 100 feet. After the stretching is complete, the fabric shall be tied to the top rails with No. 6 gauge galvanized wire clips securely clinched at the back of the rail. The fastenings shall be spaced not more than 24 inches on centers for the top rail.
  - (c) The fabric shall be attached to the line posts with No. 6 gauge galvanized wire clips securely clinched to the back of the line posts. The fastenings shall be spaced not more than 14 inches on centers for line posts. The topmost clip shall be placed on the line post as near the top of the fabric as possible and the lowest clip as near the bottom of the fabric as possible.

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(d) At terminal (end, corner, and pull) and gate posts the fabric shall be fastened with stretcher bars and bands. The fastenings shall be spaced not more than 14 inches on centers for terminal (end, corner, and pull) and gate posts. The topmost band shall be placed on these posts as near the top of the fabric as possible and the lowest band as near the bottom of the fabric as possible.

Standard chain-link fence stretching equipment shall be provided for stretching the fabric before tying it to the rails and posts. The stretching and tying operations shall be repeated about every 100 feet until the run of fence is completed. Equipment of one type for performing the stretching operation may be composed of four pieces of lumber (2' x 4's or larger) cut into a slightly shorter length than the width of the fabric. The pieces shall be bored for six bolts of about 1/2 or 5/8 inch diameter and shall be assembled as shown on the plans. One pair shall be used for stretching the fabric and both pairs shall be used for making a closure of a run of the fence.

Before making a closure, the other end of the run shall be fastened to the end, corner, or gate post as described previously. The operation of making a closure of a run shall be as follows. The stretching equipment as described above shall be clamped on the ends of the fabric parallel to each other and about 5 feet apart when the tension is first applied. The stretching shall continue until the slack has been removed from both sections of the fabric. If the ends overlap, the fabric shall be cut to match. The ends shall be joined by the insertion of a picket similar to the method of connecting two rolls of fabric.

7. INSTALLING PLASTIC FABRIC. The plastic fabric shall be installed in accordance with the manufacturer's instructions, or in accordance with a process determined mutually between the Contractor and the Engineer. The fabric is manufactured in four foot wide by 100 foot long rolls. The fence shall be comprised of two 4' widths spliced together longitudinally with a 2½ inch overlap as shown on the drawings. The lap shall be tied together with 9 gauge hog rings at the 6" alternate centers as shown on the drawings.

End laps shall be made in the same manner as the longitudinal laps except that hog rings shall be 2½ inch centers as shown on the drawings.

Except for the laps described above the fence should be installed similar to a chain-link by using the same procedures, when practical, using stretcher bars, wire clips, tension wire along the bottom of the fabric, etc.

NOTE: It is not likely that the plastic fabric will need to be stretched in the same manner as a metal chain-link would since the plastic mesh is a one piece fence.

The Contractor must exercise caution in the installation of this fence since a hard pull with a sharp metal edge could cut through the fabric.

Standard chain-link fence stretching equipment shall be provided for stretching the fabric before tying it to the rails and posts. The stretching and tying operations shall be repeated about every 100 feet until the run of fence is completed.

EXISTING FENCE CONNECTIONS. Wherever the new fence joins an existing fence, either at a corner or at the intersection of straight fence lines, a corner post with a brace post shall be set at the junction and braced the same as herein described for corner posts or as shown on the plans.

If the connection is made at other than the corner of the new fence, the last span of the old fence shall contain a brace span.

### GROUNDING OF METAL GATES:

(1) Each gate post shall be grounded with #6 A.W.G. BSDC conductor to a separate driven 8 'oot long 3/4" diameter copper clad ground rod driven so top is a minimum of 1 foot below finished gradc. Conductor shall be attached to gate post and ground rod with "U" bolt type ground clamps.

## GROUNDING OF METAL FENCES:

- (1) For fences with wood or metallic posts set in concrete, the grounding shall be accomplished by using a 3/4" minimum diameter galvanized iron pipe driven into the ground a minimum of 3 feet. The iron pipe shall be so located and driven that it shall be against the fence in its final position. The length of the pipe shall be such that when it is driven into the ground the specified depth, the top of the pipe shall be at the same height as the fence. The pipe shall be tightly fastened with No. 11 galvanized iron wire to each strand of a barbed wire fence and at the top, center, and bottom points of a woven wire or of a chain-link fence.
- (2) One grounding pipe is required for each 500 linear feet of fence, or fraction thereof. Sections of fence, regardless of length, isolated by gates, gaps at splices, or plastic connectors, shall be grounded independently.

For fence with intruder guards, or which are consturcted of woven wire and barbed wire with vertical stay wires, the pipe height shall be at least to the top of the woven section or chain-link faoric.

No grounding is required for fences with driven metal posts when the fence wire is in metallic contact with the post.

CLEANING UP. The contractor shall remove from the vicinity of the completed work all tools, buildings, equipment, etc., used during construction.

## METHOD OF MEASUREMENT

### ITEM F-162-5.1

A. Chain-link fence, Class E, and plastic fabric fence, class E (Modified), shall be measured in place from outside of end posts and corner posts and shall be the length of fence actually constructed, except the space occupied by gates and gate posts.

## BASIS OF PAYMENT

 ITEM F-162-5.1. Payment will be made at the contract unit price per linear foot for chain link and plastic fabric fence installed and accepted. This price shall be full compensation for furnishing all materials (fabric, posts, rails, ties, bracing, etc.), for storage, preparation, erection and installation, and for all labor, equipment, tools and incidentals necessary to complete the item.

Payment for driveway gates shall be at the contract unit price for each gate installed and accepted which will be full compensation for furnishing all materials, and for all preparation, erection, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete the item.

Payment will be made under:

ITEM F-162-5.1 Chain-link fence, Class E, per linear fence fabric fence, Class E (Modified)

# TESTING AND MATERIAL REQUIREMENTS

Test and Short Title

Materials and Short Title

None

AASHTO M 181--Fence Fabric

1/RR-F-191 --Fence Fabric

1/RR-F-221 --Wire

NOTE: Others as required by referenced specifications

1/Federal Specifications

TECHNICAL PROVISIONS

WATER LINE CONSTRUCTION

GRIFFIN ROAD

#### GENERAL SPECIFICATIONS

#### G-1 LINE AND GRADE

The Owner has provided vertical control for layout of the work in the form of bench marks located adjacent to the work. From these bench marks, and from horizontal controls provided by the Contractor, the Contractor shall develop and make all detail surveys needed for construction and shall establish all working points, lines and elevations.

A representative of the Contractor shall constantly monitor all working points to see that true line and grade is maintained and shall, upon notification by the Engineer, immediately check any working point suspected of being erroneous. Should the Contractor fail or refuse to make a requested check, the Engineer may do so and deduct the cost thereof from monies due the Contractor.

The Contractor shall construct the project to the lines and dimensions shown on the Plans. Where deviation from the Plans is necessitated for any reason whatsoever, the Engineer shall be notified of said deviation and shall approve same in writing prior to the work being done.

#### G-2 PROTECTION AND RESTORATION OF SURVEY MONUMENTS

The Contractor shall be responsible for protecting and restoring all land and property corners, such as section corners, 1/4 section corners, property corners or block control points, and for maintaining all horizontal and vertical control points. All surveying work shall be the responsibility of the Contractor and shall be performed under the supervision of a Florida Registered Land Surveyor. Survey points that will be destroyed during construction shall be properly referenced and replaced at the Contractor's expense with permanent monuments approved by the Engineer.

### G-0 UTILITY LOCATION

The Contractor shall notify each utility company two weeks prior to the start of construction to arrange for positive underground location, relocation or support of its utility, where that utility may be in conflict with or endangered by the proposed construction. All charges by utility companies for temporary support of its utilities shall be paid for by the Contractor. All costs of permanent utility relocations to avoid conflict shall be the responsibility of the Contractor and the utility company involved.

The Contractor shall schedule his work in such a manner that he is not delayed by the utility companies relocating or supporting their utilities. No compensation shall be made for such loss of time.

All underground information is shown on the Plans to the extent known and is as complete and accurate as can be determined from existing records. It shall be the Contractor's responsibility to verify the known locations. He shall fully understand that certain structures may not be located precisely as shown, or may be omitted entirely.

The position of certain structures and utilities directly affects the proposed construction. Therefore, in order to insure that the proposed work can actually be positioned as planned, the Contractor shall make any excavation necessary for location of structures and utilities prior to construction of that particular portion of the project.

All overhead, surface or underground structures and utilities encountered in trenching, whether shown on the Plans or not shown on the Plans, are to be carefully protected from injury or displacement. All damage to such structures is to be completely repaired within a reasonable time; needless delay will not be tolerated. The City reserves the right to remedy such damage by ordering outside parties to make such repairs at the expense of the Contractor.

All such repairs made by the Contractor are to be made to the satisfaction of the utility owner; all damaged water or gas pipes must be replaced or prevented from leaking. All repairs are to be inspected by the utility owner prior to backfilling.

## G-4 EQUIPMENT

All construction equipment necessary and required for the proper construction of this project shall be on the construction site, in first-class working condition, and shall have been approved by the Engineer before construction is permitted to start. The Contractor shall provide such tamping tools and equipment as are necessary for the proper compaction of the backfill.

#### G-5 STORAGE SITES

The Contractor shall furnish a suitable area for field offices, material storage and equipment service and storage. The Contractor shall maintain these areas in a clean, orderly condition so as not to cause a nuisance in the area.

### G-6 LABORATORY TESTS

Except as otherwise provided, sampling and testing of all materials, and the laboratory methods an testing equipment required under these specifications shall be in accordance with the latest standards or tentatives of the American Society for Testing Materials or the latest standards or methods of the American Association of State Highway and Transportation Officials (AASHTO).

The testing of samples and materials shall be made at the expense of the Owner, except where indicated otherwise. The Contractor shall furnish the required samples without charge. The Contractor shall give sufficient notification of the placing of orders for materials to permit testing.

All material tests will be made by an independent testing laboratory to be selected by the Owner. Where tests indicate that materials and/or construction quality are in accordance with specified requirements, the Owner shall bear the testing cost. When tests reveal that conditions or materials do not comply with the specifications, the cost of such tests shall be assessed against the Contractor.

### G-7 RIGHT-OF-WAYS AND/OR EASEMENTS IN GRASS OR SHRUBBERY

Right-of-ways and/or easements in grass and shrubbery plots shall be restored to the condition existing prior to making the excavation. All shrubbery, ornamental trees and other plantings shall be fully protected. If it is found necessary to remove any grass, shrubbery, or plants to accomplish the work, they shall be satisfactorily replaced before the work will be accepted or paid for.

#### G-8 WATER

All water used in conjunction with the construction, testing, and sterilization of the project shall be furnished by the Contractor or purchased from the City at the current unit charge for water should City water be required, the Contractor shall have a hydrant meter installed for all construction water.

### G-9 SHOP DRAWING SUBMITTALS

Prior to any fabrication or installation, the Contractor shall furnish to the Engineer, for review and approval, five (5) sets of shop drawings for all structures, mechanical items, piping, and reinforcing steel placement.

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#### WATER MAINS

#### I. SCOPE

The work to be performed under this item shall include furnishing and installing of water mains and appurtenances as herein described and as shown on the Plans. The Contractor shall perform all excavation, backfilling and related work required for the construction of these mains, in accordance with the provisions of this Specification. Where not otherwise set forth, all work shall be in accordance with A.W.W.A. Specification C600-82 and Broward County Department of Utilities Minimum Construction Specifications (January, 1982).

#### II. MATERIALS

#### A. Pipe

1. Ductile Iron Pipe (DIP) - Ductile iron pipe shall conform to ANSI Specifications A21.50-1981 and A21.51-1976 (AWWA C150-81 and AWWA C151-76), and shall be thickness Class 50 unless otherwise indicated on the Plans. Pipe shall be designed for a working pressure of 150 p.s.i. and shall be furnished in standard 18 or 20 foot lengths except as noted on the Plans.

Ductile iron pipe for water mains shall have an internal lining of cement mortar and be seal coated in accordance with AWWA Standard Specification C104-80 (ASA-A21.4-1980).

### B. Fittings

 Cast Iron Fittings - Fittings for ductile iron pipe shall be cast iron Class 150 minimum in accordance with AWWA Specification Cl10-77.

All fittings shall be cement lined and seal coated as specified above for ductile iron pipe and shall have restrained joints unless otherwise specified or indicated on the Plans.

#### C. Joints

1. Push-On Joints - Ductile iron pipe shall be furnished with push-on joints, such as American Cast Iron "Fastite" joints, Clow Corporation "Bell-Tite" joints or U.S. Pipe and Foundry "Tyton" joints conforming to AWWA Cll1-80 Specification unless otherwise specified or noted on the Plans.

All gaskets shall be manufactured of an elastomeric material. The gasket shall provide a positive, tight seal under all combinations of joint and gasket tolerances. Installation and lubrication of gaskets shall be as directed by the manufacturer.

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Restrained Joints - Restrained joints shall be used when fittings are required for changes in elevation or vertical alignment as shown on the Plans or as required in the field by the Engineer. The length of restrained joint pipe and fittings shall be as shown on the detail sheet. All restrained joints shall be designed for the conditions and operating pressures specified elsewhere in these Specifications and shall be approved by the Engineer. The installation of all restrained joints shall be in accordance with the manufacturer's specifications.

Restrained joints for iron pipe shall be equipped with ductile iron retainer rings on both the bell and the spigot ends of the pipe. Iron fittings shall have the retainer rings cast as an integral part of the fitting. All iron pipe and fittings shall be joined together with corrosion resistant, low alloy, high strength steel bolts and nuts. The restrained joints shall be U.S. Pipe & Foundry "Lok-Tyte" joints, American Cast Iron "Lok-Fast" joints or approved equal.

The Contractor shall include the cost of joint restraint in his bid price for duct le iron pipe. No compensation wall be made for restraints. Gaskets for restrained joint pipe shall be as specified above.

#### III. INSTALLATION

## A. Installation of Ductile Iron Pipe, Valves and Accessories

- Clearing and Grubbing The Contractor shall perform all clearing and grubbing necessary for the proper installation of all piping, conduit, structures and appurtenances on the pumping station site as shown on the Plans. Plantings, shrubbery, trees, utility poles or structures subject to damage resulting from the excavation shall be transplanted, relocated, braced, shored or otherwise protected and preserved unless otherwise directed by the Engineer.
- 2. Excavations Excavation in which the pipes and appurtenances are to be constructed shall be excavated in open cut, except where otherwise shown on the Plans, in such manner and to such depths and widths as will give suitable room for bracing, supporting, pumping, draining and for removing from the excavation any material which the Engineer may decide is inadequate.

The materials of excavation shall include all materials encountered, such as clay, sand, rock, marl, muck, gravel, boulders, heterogeneous fill materials, old timbers, or any combination of these.

Any unforeseen obstacles such as buried trees or timbers, abandoned utilities, metal objects, concrete masses, or any debris encountered shall be removed. All "materials of excavation" and "unforeseen obstacles" will be considered as incidental to construction and no additional compensation will be allowed.

All roots, stumps, logs, limbs, boulders or any material which is not suitable for backfill material shall be removed from the site promptly when excavated and disposed of by the Contractor at his expense.

Care shall be taken during the excavation operation not to disturb the soil below the grade line of the bottom of the pipe or footings.

Machine excavation shall be stopped 4-inches above final invert grade of all pipes and conduits and the last of the excavation shall be accomplished manually.

The undisturbed trench bottom shall be shaped to receive the lower quadrant (90 degrees) of the pipe barrel. Bell holes shall be hand excavated so that there are no bearing surfaces on the bells. The pipe barrel shall be uniformly supported along its entire length on undisturbed soil.

3. Sheeting and Bracing - The Contractor shall be responsible for properly supporting the sides of all trenches and excavations with timbers or other supports wherever necessary or required to properly safeguard the trenches, adjacent properties and structures.

Timber sheeting and bracing shall be left in place if so ordered by the Engineer and/or where shown on the Flanz to avoid undermining or otherwise endangering the work or adjacent structures.

All sheeting left in place shall be cut off or driven at least 18-inches below finished grade, unless otherwise ordered.

Great care shall be exercised in the selection of sheeting and bracing of adequate design, type, size and strength. The adequacy of the timber used for all supporting and bracing purposes shall be the responsibility of the Contractor, who shall use only men of seasoned experience and judgement for this type of work. The sizes and lengths of the timber used shall conform closely to the needs of the work and oversizing should be avoided as well as undersizing.

In placing and driving the sheeting, proper workmanship and equipment shall be used to achieve a true alignment and close contact of the sheeting boards.

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Timber sheeting shall be straight and sound, free from shakes, cracks, large or loose knots and other defects impairing its strength and durability. It shall be squared to the required dimension, throughout its entire length.

If required for the proper execution of the work where running sand, quicksand or other semifluid material difficult to handle is encountered, the timber sheeting shall be tongue and groove.

Steel sheeting may be used in lieu of timber sheeting if approved by the Engineer.

- 4. Placing of Excavated Material All excavated materials shall be placed where directed by the Engineer in such a manner as not to endanger the work and so that free access will be maintained at all times to all parts of the excavation. Such material shall be neatly piled so as to interfere as little as possible with the work.
- 5. Dewatering The Contractor shall furnish sufficient pumping or other dewatering equipment and shall provide at his own expense satisfactory drainage whenever needed in excavations during the progress of the work and its completion for inspection. Unless otherwise permitted by the Engineer, the water table shall be lowered by the use of a well point system. Open pumping may be permitted only upon approval by the Engineer of the method of pumping and drainage to be used. If open pumping is approved, the water must be conveyed entirely through approved coarse material placed below the bottom of the "excavation". The depth of this coarse material shall be determined by the Contractor and approved by the Engineer.

Materials and workmanship used for the well point system shall be in keeping with approved standard practice. The well point system shall function so as to enable the work to progress without interference from running or standing water at the bottom of the excavation. The Engineer shall make the final decision as to the acceptability of the well point system or any part thereof.

Where necessary, pea gravel or graded sand shall be used in conjunction with the well points as they are installed to insure continuous pumping in the dewatering of fine material.

The cost of all dewatering including sheeting, pumping, tremie concrete and all other costs, shall be included in the contract amount and no additional amount will be paid for such labor, materials and equipment.

All water pumped or bailed from trenches or other excavations shall be conveyed in a proper manner to a suitable point of discharge by the Contractor at his own expense.

The Contractor shall provide for the disposal of water removed from excavations in a manner that will not cause injury to public health, private or public property, any portion of the work completed or in progress, the surface of the streets, or cause any impediment to the reasonable use of the site by other contractors. Where permission is granted to discharge into storm sewers, suitable structures shall be provided so as to prevent sand, rock and debris from entering the storm sewer. In any event, the Contractor shall thoroughly clean any storm sewer so used after said use has been terminated.

- 6. Disposal of Surplus Material All surplus materials and debris shall be removed by the Contractor from the construction site and disposed of at his expense in a manner subject to the approval of the Engineer. The Borward County Aviation Division reserves the right to require the Contractor to deposit suitable surplus material at certain locations within the airport property. The cost of transporting and placing the material in these designated locations shall be included in the various contract unit prices bid.
- 7. Foundation Trench Type "A" shall be "Standard" for this project and may be used in lieu of the "Typical" trench on the Plans or as directed by the Engineer. Trench Type "A" shall consist of a layer of washed and graded limerock placed and properly compacted to the minimum dimensions shown on the Plans. A trench shall then be manually shaped to receive the pipe barrel so as to uniformly support the barrel for its entire length. Bell holes shall be hand excavated so that there are no bearing surfaces on the bells.

This foundation shall, under no circumstances, be used as a drain for ground water. The Contractor shall take all necessary precautions to maintain the foundation in a compacted state and to prevent washing, erosion or loosening of this bed. A sieve analysis of the rock foundation shall conform to the following limits:

Passing 3/4" - 100% Passing 3/8" - 20-55% Passing #4 - 0-10% Passing #8. - 0-5%

The cost of Standard Foundation shall be included in the various prices bid under water main installation.

8. Buried Pipe Fittings, Valves and Accessories - Trenches shall be cut and pipe layed as shown on drawings. Pipe shall not have less than 36-inches of cover, unless otherwise indicated.

The interior of the pipes shall be thoroughly cleaned of all foreign matter before being gently lowered or placed into the trench and shall be kept clean during laying operations by means of plugs or other approved methods. No trench water shall be allowed to enter the pipe or fitting. During suspension of work for any reason at any time, a suitable stopper shall be placed in the end of the pipe last laid to prevent mud or other foreign material from entering the pipe. Lines shall be laid straight and depth of cover shall be maintained uniform with respect to finish grade, whether grading is completed or proposed at time of pipe installation. Where a grade or slope is shown on the drawings, batterboards with string line paralleling design grade shall be used by the Contractor to assure conformance to required grade. No abrupt changes in direction or grade will be allowed. Any pipe found defective shall be immediately removed and replaced with sound pipe.

 Backfilling - Filling or backfilling shall not be begun until concrete or pipe to be covered has been inspected and approved.

Fill or backfill in pipe trenches shall be placed in 6-inch lifts and shall be compacted to a minimum of 100 percent of maximum density at optimum moisture as determined by AASHTO T 99. Backfill material around pipe shall contain no stone or rocks larger than two-inches (2").

Field density of the backfill material in place shall be determined by AASHTO Method T147-54.

The Engineer shall specify at what locations tests will be made in the backfill to determine the adequacy of the compaction operation. The Owner will pay for all tests authorized by the Engineer which indicate conformance with these Specifications. All tests which fail to show conformance with these Specifications shall be billed directly to the Contractor by the testing laboratory.

- 10. Sterilization Sterilization of the pipe line and appurtenances shall be accomplished after completion of construction and immediately before the system is placed in operation. In general, the sterilization shall be completed in the following manner. All work under this section to be done by the Contractor, in the presence of the County Forces.
  - a. Sterilization Agent The sterilizing agent shall be liquid chlorine or sodium hypochlorite. Dry hypochlorite equal to HTH may also be used as the sterilizing agent.

- b. Sterilization Methods The piping and appurtenances shall be sterilized by introducing the sterilizing agent into the water which is being pumped into the system in such a manner that the entire system involved will be filled with water containing a minimum chlorine concentration of 50 P.P.M. at any point. The water shall be allowed to remain in the system for a minimum contact period of twenty-four (24) hours before the system is flushed out.
- c. Sterilization procedures to conform to AWWA Specifications C601.
- 11. Piping Hydrostatic Test All pipe, fittings, etc., shall be tested under a constant pressure of 125 pounds per square inch and shall not exceed the leakage requirements as per AWWA Specifications or latest revisions of C600. Duration of test shall be not less than two hours where joints are left uncovered and not less than six hours where joints are covered.

Before application of test pressure, all air shall be expelled from the pipe. If permanent air vents are not located at all high points, the Contractor shall install corporation locks for fittings and valves at such points so the air can be expelled as the pipe system is slowly filled with water. After expulsion of air, the corporation cocks or other blow-off devices shall be closed and the test pressure applied.

The hydrostatic pressure tests shall be performed as hereinabove specified and no installation, or section thereof, will be acceptable until the leakage is less than the number of gallons per hour as determined by the formula:

$$L = SD - \sqrt{P}$$
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in which:

L = allowable leakage, in gallons per hour.

3 = length of pipe tested, in feet.

D = nominal diameter of pipe being tested, in inches.

P = average test pressure during test, in psi gauge.

When testing against closed metal-seated valves, an additional leakage of 0.0078 gal/hour/in. of nominal valve size shall be allowed for each valve.

All visible leaks at exposed joints and all leaks evident at the surface where joints are covered shall be reworked and leakage minimized, regardless of total leakage as shown by test.

Lines which fail to meet tests shall be repaired and retested as necessary until test requirements are met. Defective materials, pipes, valves and accessories shall be removed and replaced.

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Where practicable, lines shall be tested in lengths between valves or plugs or as directed by the Engineer. The line shall be filled with water and all air removed and pressure of 125 psi maintained in the pipe for the duration of the test period by means of a force pump. The Contractor shall submit three detailed drawings and statements for approval on the method he will use to test and measure these lines.

The trench shall be backfilled before any hydrostatic pressure tests shall be considered final. The Contractor shall provide all temporary plugs, caps and blocking necessary to perform the testing. The Contractor shall provide any taps and cocks necessary for bleeding air from the lines, at no expense to the Owner.

All water used in testing and flushing shall be furnished by the Contractor at no expense to the Owner. The source of this water supply shall be approved by the Engineer.

The Contractor shall furnish all tools, pumps, gauges, meters, valves, and incidentals to conduct hydrostatic pressure tests of all the mains. All cost of testing the mains shall be at the Contractor's expense.

#### IV. MEASUREMENT AND PAYMENT

The footage of pipe to be paid for shall be the number of linear feet of each type, size and class of pipe installed in place, completed and approved. The footage shall be the horizontal distance measured along the surface of the trench between the limits shown on the Plans, and shall not include any lump sum items. All fittings shall be included in the footage as typical sections of the pipeline being measured. The unit prices bid shall include the costs of excavation, backfill and related work required for the water main and appurtenances.

All fitting prices shall include the cost of providing and installing restrained joints as described elsewhere in these Specifications.

Payment for the selling and delivering and the installing of water mains and appurtenances at the various lump sum or unit prices shall be made at the same time and for the same quantity. No payment shall be made for any material incidental to the installation of water mains prior to the approval by the Engineer. Approval of the Engineer for partial payments to the Contractor does not constitute approval for the work.

#### **GATE VALVES**

#### I. SCOPE

The work to be performed under this item shall include furnishing and installing all gate valves for the water mains as specified by the ENGINEER and/or as indicated on the Plans.

#### II. MATERIAL

#### A. Gate Valves

Gate valves 4-inches in diameter and larger shall be iron body non-rising stem, bronze mounted, gate valves, conforming to the requirements of the AWWA Standard C500. Valves above grade shall be provided with hand wheels, while valves below grade shall be provided with 2-inch square operating nuts. All valves 16-inches and larger shall have by-pass valve and bevel geared actuators with gear ratios in conformance with Section 3.17.2 of AWWA C500-80 specification. Valves shall be of the double disc type and shall turn to the left (counterclockwise) to open.

The seat and disc rings shall have smooth, perfectly machined surfaces and shall be watertight when in contact. All valves shall be provided with 0-ring seals. The design and machining of valves shall be such as to permit replacing the 0-ring seals in the valves while in service without undue leakage. Ends shall be as indicated on the Plans.

#### B. Valve Boxes

Cast iron valve boxes shall be provided for all valves installed underground. The valve boxes shall be adjustable to fit the depth of earth cover over the valve and shall be designed so as to prevent the transmission of surface losds directly to the valve or piping. Valve boxes shall have an interior diameter of not less than 5-inches. The valve boxes shall be provided with covers marked "WATER". The covers shall be so constructed as to prevent tipping or rattling. Boxes shall be equal to Clow Corporation No. F 2450, U.S. Foundry & Manufacturing Company No. 50, or approved equal. Extension sections shall be cast iron only.

#### III. MEASUREMENT AND PAYMENT

The number of gate valves to be paid for shall be counted for each gate valve in place, complete and approved. Gate valves, valve boxes and appurtenances shall be considered as one unit, and the term "gate valve" shall be considered to include all materials, labor and equipment required for the complete installation.

Payment shall be at the unit price bid for gate valves. Said payment shall be considered full compensation for the cost of providing and installing gate valves, including excavation, backfilling and restoration.

#### JACK AND BORE BENEATH RAILROAD

## I. SCOPE

The work to be performed under this item shall include furnishing and installing the carrier, casing and appurtenances as herein described and as shown on the Plans. The CONTRACTOR shall perform all excavation, jacking and boring, backfilling and related work required for the construction of the casing, in accordance with the provisions of this specification. Where not otherwise set forth, all work shall be in accordance with the American Railway Engineering Association specifications, Part 5.2 and the Florida Department of Transportation standard specifications (1982) Section 430-6.

### II. MATERIALS

## A. Casing Pipe

Mainlines shall be encased in a large pipe or confuit called the casing pipe. Casing pipes shall be installed by jacking and their joints shall be of leakproof construction capable of withstanding E72 railway loading. Casing pipe shall be ASTM A-36 (36,000 psi yield strength) steel casing pipe of the sizes and lengths shown on the Plans. Steel casing pipes shall have a minimum inside diameter of 30-inches and minimum wall thickness of 1/2-inch. Steel casings shall be joined together by continuous, butt welds. The casing pipe shall have a minimum bituminastic coating of 2 mill thickness.

All casings shall meet the requirements of the A.R.E.A. Specifiations unless otherwise specified by the Department of Transportation, the Florida East Coast Railway Co., or the Seaboard Coastline Railroad.

### B. Carrier Pipe

The carrier pipe shall be ductile iron conforming to the previous specifications for water mains. The pipe shall be thickness Class 50 with restrained mechanical joints.

The carrier pipe shall be cement lined and seal coated as previously specified for water mains.

#### III. EXECUTION OF WORK

The execution of the work on railroad right-of-way shall be subject to the inspection and direction of the Chief Engineer of the railroad company and the Engineer. Work on the state highway right-of-way shall be subject to the inspection and direction of the District Maintenance Engineer and the Engineer.

The Contractor shall submit to the Railroad Company and the Engineer, for approval, detailed plans and descriptions of methods of construction. Said plans indicating extent of excavation, details of sheeting and bracing, dewatering methods, location and construction of jacking pits, etc. Such approval shall be obtained before installation is begun.

The Contractor's attention is directed especially to the need for completing the proper installation of these crossings as quickly as possible after work on the jacking has begun. The jacking of the casing pipes shall be done as a continuous operation. Work shall proceed on a 24-hours basis, including weekends and holidays, if necessary.

The direction of jacking shall be carefully aligned prior to the beginning of the operation. The Contractor shall erect guide rails in the bottom of the jacking pit to insure such alignment. Guide rails shall be supported by a 6" concrete base slab. The number and capacity of the jacks used shall be suitable to perform this work.

Tunneling operations shall be conducted as approved by the Engineer. If voids are caused by the tunneling operations, they shall be filled by pressure grouting or other approved methods which will provide proper support.

The Contractor shall hydrostatically test the carrier pipe at 150 psi static head for a period of 24 hours prior to filling the void between the carrier and casing pipes with sand. No leakage will be allowed and if the test should indicate leakage, the carrier pipe shall be removed from the casing pipe and reinstalled until this requirement has been met.

Upon approval from the Engineer, the Contractor shall seal the ends of the casing pipe with 4-inch brick and mortar bulkheads and proceed to fill the void between the carrier and casing pipes with sand or pea gravel blown into place under pressure. A 4-inch steel vent pipe shall be installed at the location shown on the Plans.

## IV. SPECIFIC REQUIREMENTS

The Contractor shall furnish to the Railroad Company at the Contractor's expense, insurance satisfactory to this agency, as well as a Certificate of Insurance, indicating the existence of adequate Workmen's Compensation and Employee's Liability Insurance.

#### V. MEASUREMENT AND PAYMENT

The lump sum price bid for this item shall be compensation in full for all labor and materials, including the carrier pipe, necessary for, or incidental to, the proper construction of crossings at the locations shown on the Plans, specified or ordered. It shall further include the cost of furnishing special insurance required by the Railroad Company, the cost of all inspection and/or work done by the Railroad Company and all fees charged by the Railroad Company to the Owner or the Contractor.

#### BRIDGE CROSSING

### SCOPE

The work to be performed under this item shall include furnishing and installation of water main and appurtenances as herein described and as shown within the limits of the bridge crossing on the Plans. The Contractor shall perform all casting, cutting, fitting, pipe placement, and related work required for the construction of the water main located within the limits of the bridge crossing, in accordance with the provisions of this specification and as shown on the Plans. The Contractor must make note that coordination with the bridge construction contractor is necessitated to insure proper placement of the saddle steel reinforcement.

### II. MATERIALS

## A. Pipe

Dutile Iron Pipe (D.I.P.) - Ductile iron pipe within the limits
of the Bridge Crossing shall conform in all respects with that
as specified in the "WATER MAIN" specification, except the pipe
thickness shall be Class 54.

## B. Fittings

 Cast Iron Fittings - Fittings within the limits of the Bridge Crossing shall conform in all respects with that specified under "WATER MAINS."

#### C. Joints

- Restrained Joints All joints within the limits of the Bridge Crossing shall be restrained and shall conform in all respects with that as specified under "WATER MAINS."
- D. Air Release Valve A short body pressure water value with 2-inch screw inlet, Crispin No. CV-36R-2S, or approved equal, shall be used in conjunction with a 2-inch diameter, 125 p.s.i. brass gate valve, 16 by 2-inch tapping saddle, and 2-inch galvanized steel pipe and fittings.
- E. Pipe Saddle The pipe saddle shall be constructed to the dimensions and at the locations as shown on the Plans. The concrete shall have a 28 day compressive strength of 3,000 p.s.i. Reinforcing steel shall be new billet stock of intermediste grade, deformed in accordance with ASTM Serial A-15, latest edition. Hold down straps shall be mild steel deformed to the shape and length by the steel supplier. Straps and hardware shall have double dipped zinc coatings by the hot-dip galvanized process in conformance with ASTM A-385 specifications.

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#### III. INSTALLATION

 Aboveground Pipe and Accessories - Aboveground and exposed pipe, valves and accessories shall be installed as shown or indicated on the Plans.

Piping within and adjacent to structures shall be cut accurately to measurements established at the job site and shall be worked into place without springing or forcing, properly clearing all equipment access areas and openings.

Open ends of pipelines shall be properly capped or plugged during installation to keep dirt and other foreign material out of the system. Pipe supports and hangers shall be provided where indicated or as required to insure adequate support of the piping.

Pipe supports and hangers shall conform to Federal Specifications QQ-H-171, or shall be as specifically shown or indicated on the Plans.

All aboveground piping and straps shall be coated with a minimum 4-mill coating of bituministic paint, Koppers 300 or equal.

#### IV MEASUREMENT AND PAYMENT

The lump sum bid for this item shall be compensation in full for all labor and materials, necessary for or incidental to, the proper construction of the Bridge Crossing as shown on the Plans and specified herein.

TECHNICAL PROVISIONS

SIGNALIZATION

## TECHNICAL PROVISIONS

## GENERAL

- 1. STANDARD SPECIFICATION: The 1982 Edition of the Florida
  Department of Transportation's Standard Specifications for
  Road and Bridge Construction and its supplements with
  changes pertaining thereto, all are hereby made a part of
  this Contract and shall govern performance of the project,
  except as amended by the Contract Documents herein specified.
- SURVEYS: The CONTRACTOR shall lay out and make all detail surveys needed for construction of the project, including the establishment of all working points, lines and elevations.
- 3. PROTECTION AND RESTORATION OF SURVEY MONUMENTS: The CONTRACTOR shall carefully protect from disturbance all survey monuments, stakes and bench marks, whether or not established by him, and he shall not remove or destroy any surveying point until it has been properly witnessed or otherwise disposed of by the Engineer. All major survey monuments such as section corners, 1/4 section corners, property corners or block control points shall be replaced at the CONTRACTOR's expense with markers of a size and type approved by the Engineer. The replacement shall be under the supervision of a Florida registered land surveyor where directed by the Engineer.
- The CONTRACTOR shall notify each utility UTILITIES: company two weeks prior to the start of construction to arrange for positive underground location, relocation or support of its utility where that utility may be in conflict with or endangered by the proposed construction. All costs of permanent utility relocation to avoid conflict shall be the responsibility of the utility company involved. The CONTRACTOR shall schedule his work in such a manner that he is not delayed by the utility companies relocating or supporting their utilities. No compensation shall be made for such loss of time. All underground information is shown on the Plans to the extent known and is as complete and accurate as can be determined from existing records. It shall be the CONTRACTOR's responsibility to verify the known locations. He shall fully understand that certain structures may not be located precisely as shown, or may be omitted entirely.

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The position of certain structures and utilities directly affects the proposed construction. Therefore, in order to insure that the proposed work can actually be positioned as planned, the CONTRACTOR shall make any excavation necessary for location of structures and utilities prior to construction of that particular portion of the project.

The CONTRACTOR shall make all necessary arrangements with the utility companies concerned for maintenance of their lines during the construction period. In the event that a complete relocation of utilities is required, but has not been accomplished prior to the effective date of the "Notice to Proceed", the CONTRACTOR never theless shall commence work under this Contract, and shall schedule his work to avoid interference with the utility relocation work. The COUNTY will not be liable for any delay or added expense the CONTRACTOR experiences due to the activities of utility companies, nor shall the COUNTY be held responsible for any damages to any utilities due to any actions by the CONTRACTOR.

Note - Arrangements for Protection or Adjustment:

At points where the CONTRACTOR'S operations are adjacent to utility facilities, or other property, damage to which might result in expense, loss, disruption of service or other undue inconvenience to the public or to the owners, work shall not be commenced until all arrangements necessary for the protection thereof have been made. The CONTRACTOR shall be solely and directly responsible to the owners and operators of such properties for any damage, injury, expense, loss, inconvenience or delay, caused by the CONTRACTOR's operations.

- 5. EQUIPMENT: All equipment necessary and required for the proper construction of all facilities shall be on the construction site, in first-class working condition, and shall have been approved by the Engineer before construction is permitted to start.
- STORAGE SITES: The CONTRACTOR shall furnish, at his expense, properly zoned areas suitable for material storage and equipment service and storage.

The CONTRACTOR shall maintain these areas in a clean, orderly condition so as not to cause a nuisance in the area.

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- 7. BASIS OF PAYMENT: Payment shall be made at the Contract Unit Prices or Lump Sum Prices as outlined hereafter. These prices shall be full compensation for all costs associated with completion of all the work in full conformity with the requirements as stated or shown, or both, by the Plans and Specifications. The cost of any item of work which is not covered by a definite Contract Unit Price or Lump Sum Price shall be included in the Contract Price or Lump Sum Price to which the item is most applicable.
- 8. SITE INVESTIGATION: The CONTRACTOR, by virtue of signing the Contract, acknowledges that he and all his subcontractors have satisfied themselves as to the nature and location of the work, the general and local conditions including, but not restricted to: those bearing upon transportation; disposal, handling and storage of materials; access roads to the site; the conformation and conditions of the work area; and the character of equipment and facilities needed preliminary to and during the performance of the work. Failure on the part of the CONTRACTOR to completely or properly evaluate any factors of costs prior to bidding shall not form a basis for additional compensation if he is awarded the Contract.
- 9. RESTORATION OF PROPERTY: Property public or private if damaged during construction or removed for the convenience of the work, shall be repaired or replaced at the expense of the CONTRACTOR, in a manner acceptable to the Engineer, prior to the final acceptance of the work. Such facilities shall include, but are not limited to: signalization equipment and miscellaneous hardware removed from construction site, driveways, walkways, walls, fences, footings, underground utilities and traffic and street signs.
- 10. PRE-WORK CONFERENCE: After the award of Contract and prior to the issuance of the "Notice of Proceed", a Prework Conference will be held between the Contractor, the Engineer, other interested Agencies, representatives of Utility Companies and others affected by the work. The time and place of this conference will be set by the Engineer. The CONTRACTOR shall bring with him to the conference a copy of his proposed work schedule for the approval by the Engineer of the proposed methods and manner of executing the work including sequences of operation and time schedule. If found

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satisfactory, the Engineer will approve the work schedule, and after execution of the agreement, a Notice to Proceed shall be furnished the CONTRACTOR, and the work shall be performed in accordance with such schedule or approved amendments thereto.

11. CONTRACTOR'S COMPENSATION FOR ADDITIONS AND/OR REVISIONS
TO CONTRACT AFTER COMMENCEMENT OF WORK:
The CONTRACTOR will be furnished with revised sheets
for any design changes during construction. The CONTRACTOR
will be paid at the Contract unit price bid for the actual
quantities constructed.

Changes may be added at the direction of the Broward County Traffic Engineer.

12. ENGINEER'S COMPENSATION FOR SERVICES BEYOND APPROVED
PROJECT COMPLETION DATE: The CONTRACTOR shall be responsible for reimbursing the COUNTY for all costs incurred by the Engineer in administering the construction of the project beyond the completion date specified in the agreement or beyond an approved extension of time granted to the CONTRACTOR. Such costs shall be deducted from the monies due the CONTRACTOR for performance of work under this Contract.

Compensation for the Engineer's services will be computed on the basis of "payroll costs" plus direct non-salary expenses for all personnel engaged in performance of the project, including but not limited to, principals, engineers, architects, surveymen, designers, draftsmen and clerks; plus overhead costs for personnel engaged in performance of the PROJECT which include sick leave, vacation, unemployment, excise and payroll taxes; contributions for social security, employment compensation insurance, retirement benefits, and medical and insurance benefits, the sum total of which shall be multiplied by a factor of 2.45.

"Payroll cost" shall mean the hourly rate of personnel, by category, as specified on an Exhibit "A" attachment to the agreement for services between the COUNTY and the Engineer.

13. AS-BUILT PLANS: Upon completion of the work the CONTRACTOR shall furnish to the Engineer one set of "As-Built Plans" of the project reflecting any and all changes incorporated into the work during progress of the Contract. The cost for maintaining record changes, and preparation of the "As-Built Plans" shall be included in the prices bid for the appropriate items.

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## SIGNALIZATION

## A. SPECIFICATIONS

All work on traffic signalization performed within Broward County shall conform to the applicable amended technical specifications of the Florida Department of Transportation listed and included hereinafter, the National Electric Code, South Florida Building Code, the Drawings and the following requirements.

Broward County is the maintaining agency and will have the complete and absolute control of the final acceptance of this work.

### FDOT STANDARD SPECIFICATIONS

Section	<u>Title</u>
603	General Requirements for Equipment and Materials
608	Guaranties
610	Grounding
611	Acceptable Procedures
A630	Conduit (Equipment & Materials)
B630	Conduit (Installation)
C630	Conduit (Measurement & Payment)
A634	Structural Support Wire (Material Specifications)
B634	Structural Support Wire and Span Wire Assemblies (Installation Specifications)
C634	Structural Support Wire and Span Wire Assemblies (Measurement & Payment)
A635	Pull & Junction Boxes (Equipment & Materials)
B635	Pull & Junction Boxes (Installation Requirements)
C635	Pull & Junction Boxes (Measurement & Payment)
A650	Vehicular Traffic Signal Assemblies (Equipment & Materials)
B650	Vehicular Traffic Signals (Installation Requirement)
C650	Vehicular Traffic Signals (Measurement & Payment)
A653	Pedestrian Signal Assemblies (Equipment & Materials)
B653	Pedestrian Signal Assemblies (Installation)
C653	Pedestrian Signal Assemblies (Measurement & Payment)
A660	Vehicle Detectors (Loop Type) (Equipment & Materials)
A665	Pedestrian Detector (Equipment & Materials)
B665	Pedestrian Detector (Installation)
C665	Pedestrian Detector (Measurement & Payment)
A671	Traffic Controllers two through eight phase micropro- cessor Timing (Equipment and Materials)
A676	Cabinets
A678	Controller Accessories (Equipment & Materials)
В690	Removal of Existing Traffic Signal Equipment (Construction Requirement)
C690	Removal of Existing Traffic Signal Equipment (Measurement & Payment)

TP-5