

Attachment F:

Cost Estimates for Access and Signalization  
at Columbia Avenue

(Staff and Ragan Smith estimates)

**QUANTITY AND COST ESTIMATES FOR ROADWAY IMPROVEMENTS TO  
ACCESS CITY PUBLIC WORKS FACILITY (84 LUMBER)**

DATE: 8/17/2011

**TDOT LINE ITEM FORMAT**

ITEM NO.	DESCRIPTION	UNIT NEEDED	QUANTITY	AVERAGE UNIT PRICE	TOTAL
<b>1) CROSS-ACCESS EASEMENT DOCUMENTATION</b>					
	PREPARE LEGAL DESCRIPTION, ETC. FOR CROSS ACCESS EASEMENT	LS	1	\$3,000.00	\$3,000.00
				TOTAL	\$3,000.00
<b>2) EASEMENT IMPROVEMENTS (ACCESS ROAD) - CONSTRUCTION DRAWINGS</b>					
	SURVEYING COST	LS	1	\$15,000.00	\$15,000.00
	ENGINEERING COST	LS	1	\$15,000.00	\$15,000.00
				TOTAL	\$30,000.00
<b>3A) EASEMENT IMPROVEMENTS (ACCESS ROAD) - PHASING PLAN (IMMEDIATE IMPROVEMENTS)</b>					
105-01	SURVEY - CONSTRUCTION STAKES, LINES AND GRADES	LS	1	\$8,000.00	\$8,000.00
202-03.01	REMOVAL OF ASPHALT PAVEMENT	SY	600	\$2.70	\$1,620.00
203-01	ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	100	\$13.77	\$1,377.00
203-05	UNDERCUTTING	CY	250	\$28.04	\$7,010.00
203-10	EMBANKMENT (COMPACTED IN PLACE)	LS	1	\$10,000.00	\$10,000.00
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	LF	750	\$3.91	\$2,932.50
303-01	MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D" <sup>3</sup>	TON	922.2827273	\$16.84	\$15,531.24
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	376.1823144	\$68.98	\$25,949.06
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	184.8200066	\$72.69	\$13,434.57
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	2.300947675	\$570.22	\$1,312.05
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	8.177214045	\$28.76	\$235.18
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	0.14159678	\$493.22	\$69.84
411-02.10	ASPHALT CEMENT MIX (PG70-22) (ACS) GRADING "D"	TON	130.0282348	\$85.52	\$11,120.01
607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	LF	70	\$117.00	\$8,190.00
611-07.01	CLASS "A" CONCRETE (PIPE END WALLS)	EACH	2	\$571.43	\$1,142.86
702-03	CONCRETE COMBINED CURB & GUTTER	CY	11.02348	\$153.86	\$1,696.07
707-01.11	6" CHAIN LINK FENCE	LF	80	\$12.00	\$720.00
707-01.13	GATE - 6" CHAIN LINK FENCE	EACH	1	\$5,000.00	\$5,000.00
707-08.01	BLACK WOODEN FENCE (TO MATCH EXISTING)	LF	550	\$8.00	\$4,400.00
712-01	TRAFFIC CONTROL	LS	1	\$1,000.00	\$1,000.00
713-16.20	SIGNS (STOP SIGN, UNIT PRICE BID INCLUDES SQUARE TUBE PERFORATED POST(P8))	EACH	4	\$500.00	\$2,000.00
716-02.01	PLASTIC PAVEMENT MARKING (4" LINE)	L.M.	0.17	\$5,739.96	\$975.79
716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	115	\$20.18	\$2,320.70
716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSSWALK)	L.F.	124	\$31.34	\$3,886.16
716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	4	\$209.56	\$838.24
717-01	MOBILIZATION	LS	1	\$8,000.00	\$8,000.00
730-14.02	SAW CUTTING	LF	140	\$3.07	\$429.80
801-01	SEEDING (WITH MULCH)	SY	980	\$4.33	\$4,243.40
801-03	WATER (SEEDING & SODDING)	MG	1	\$6.54	\$6.54
701-02.03	CONCRETE HANDICAP RAMP	SF	120	\$8.80	\$1,056.00
714-03.02	DIRECT BURIAL CONDUIT (3" PVC SCH 40)	LF	550	\$5.15	\$2,832.50
716-10.30	TRUNCATED DOME DETECTABLE WARNING MAP	SF	52	\$35.51	\$1,846.52
725-07.44	FIBER FUSION SPLICE	EACH	2	\$502.00	\$1,004.00
725-10.30	FIBER SPLICE ENCLOSURE (60-72 CT)	EACH	2	\$561.00	\$1,122.00
725-10.40	FIBER OPTIC RISER ASSEMBLY W/ WEATHER HEAD	EACH	1	\$243.00	\$243.00
725-10.46	FIBER OPTIC CABLE (60 CT)	LF	700	\$1.50	\$1,050.00
730-03.23	INSTALL PULL BOXES (FIBER OPTIC-TYPE A)	EACH	1	\$957.09	\$957.09
730-03.24	INSTALL PULL BOXES (FIBER OPTIC-TYPE B)	EACH	1	\$1,365.86	\$1,365.86
	ACCESS EASEMENT PARCEL 1	SF	13007	\$4.00	\$52,028.00
	ACCESS EASEMENT PARCEL 2	SF	38025	\$4.00	\$152,100.00
	15' FIBER OPTIC EASEMENT	SF	6808	\$1.50	\$10,212.00
				TOTAL	\$369,257.98
	PROJECT CONTINGENCY (10%)	LS	1		\$36,925.80
				TOTAL + CONTINGENCY	\$406,183.77
<b>3B) EASEMENT IMPROVEMENTS (ACCESS ROAD) - PHASING PLAN (FUTURE IMPROVEMENTS)</b>					
203-07	FURNISH AND SPREAD TOPSOIL	CY	470	\$25.00	\$11,750.00
411-02.10	ASPHALT CEMENT MIX (PG70-22) (ACS) GRADING "D"	TON	298.560552	\$85.52	\$25,535.46
415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	3755.18	\$2.09	\$7,848.33
702-01	CONCRETE CURB	CY	33.4235	\$265.06	\$8,859.23
716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSSWALK)	L.F.	52	\$31.34	\$1,629.68
801-01	SEEDING (WITH MULCH)	SY	705.3739	\$4.33	\$3,054.27
802-01.10	TREES	EACH	20	\$350.00	\$7,000.00
				TOTAL	\$65,676.97
	FUTURE PROJECT CONTINGENCY (10%)	LS	1		\$6,567.70
				TOTAL+CONTINGENCY	\$72,244.67
<b>4) EASEMENT IMPROVEMENTS (TRAFFIC SIGNAL) (FUTURE IMPROVEMENTS)</b>					
	TRAFFIC SIGNAL	LS	1	\$325,000.00	\$325,000.00
	TRAFFIC SIGNAL ENGINEERING COST	LS	1	\$15,000.00	\$15,000.00
				TOTAL	\$340,000.00
<b>5) EASEMENT MAINTENANCE AGREEMENT</b>					
	EASEMENT MAINTENANCE AGREEMENT	LS	1	\$2,500.00	\$2,500.00
				TOTAL	\$2,500.00

\*\* NOTE: ITEMS, QUANTITIES, AND PRICES SHOWN ARE PRELIMINARY ESTIMATES AND SUBJECT TO CHANGE; PRICES BASED ON DATE OF ESTIMATE

<b>TOTAL COST</b>	<b>\$853,928.44</b>
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**Franklin Maintenance Facility  
84 Lumber Site  
Access Improvements Estimate**

No.	Description of Work	Opinion of Probable Cost - Construction	Design Fee Estimate	Geotechnical Services Estimate
1	Roadway approach to Hwy 31	\$100,252	\$12,500	\$3,000
2	Traffic Signal at Hwy 31 Entrance	\$150,000	\$8,500	\$0
3	Future parking lot modification for access	\$97,680	\$8,250	\$4,000
4	Roadway into Maintenance facility	\$192,169	\$16,500	\$4,200
5	Fiber transmission easement (survey, exhibit, descriptions)	- na -	\$750	
6	Access Easement - 2 Parcels (survey, exhibit, descriptions)	- na -	\$1,450	
	<b>Total</b>	<b>\$540,101</b>	<b>\$47,950</b>	<b>\$11,200</b>

**Notes:**

Items NOT included in estimate:

- Landscaping, Identity Signage or other amenities
- Lighting
- Bidding Assistance or Construction Monitoring/CEI
- Staking of Easements
- Sidewalk
- No easement for ditches outside limits of construction
- Traffic Counts or Studies, Signal Timing or Coordination

Other notes:

Cost of Milling and re-striping on Hwy 31 in Traffic Signal Cost  
Survey to be provided by City as basis for preparation for Fiber Optic Easement Exhibit and Description



Project  
Date:

Franklin Water & Sewer Maintenance Drive (Plan No. 2)  
8/16/2011

	ROADWAY	ENTRANCE
CONSTRUCTION STAKING	\$ 3,500	\$ 2,000
CLEARING AND GRUBBING	\$ 3,600	\$ 2,500
REMOVAL OF OBSTRUCTIONS (INCLUDES PAVEMENT)	\$ 1,000	\$ 4,000
EARTHWORK (INCLUDES BORROW & PLACING TOPSOIL)	\$ 6,425	\$ 3,827
DITCHES	\$ 6,638	\$ -
DRAINAGE	\$ 27,806	\$ 14,294
STORMWATER QUALITY	\$ 4,000	\$ 2,000
PAVING	\$ 60,906	\$ 27,825
GUARDRAIL MODIFICATION	\$ -	\$ 3,500
TRAFFIC CONTROL (INCLUDES MAINTENANCE OF TRAFFIC)	\$ 2,500	\$ 8,400
SIGNING	\$ 900	\$ 300
STRIPING	\$ 1,270	\$ 1,230
SIGNALIZATION	\$ -	\$ -
FENCING	\$ 12,165	\$ -
EROSION CONTROL	\$ 5,500	\$ 1,500
MOBILIZATION	\$ 18,000	\$ 10,000
SEEDING & SODDING (INCLUDES FINAL DRESSING)	\$ 3,107	\$ 1,736
PAVEMENT CORING	\$ -	\$ -
DETENTION POND MODIFICATION	\$ -	\$ -
PEDESTRIAN CONTROL	\$ 1,500	\$ -
OTHER CONST. ITEMS (10%)	\$ 15,882	\$ 8,026
CONSTRUCTION COST	\$ 174,699	\$ 91,138
10% ENG. & CONT.	\$ 17,470	\$ 9,114
TOTAL CONSTRUCTION COST	\$ 192,169	\$ 100,252
10% PRELIMINARY ENGINEERING		
TOTAL COST	\$ 192,169	\$ 100,252