

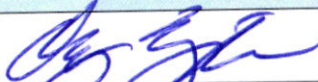
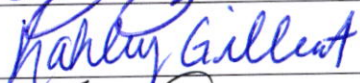



CDBG-DR 13 CHANGE ORDER OR WORK ORDER AMENDMENT



Project Information					
Project Name	Little River Drainage Improvements				
Work Order Number (CDBG-DR 01)	I-15-W-URG	Project Address	South End of Little River Park		
Date	10/10/2018	Requested By	Downey Contracting, LLC		
Date Requested	9/21/2018	Total Budget	\$10,623,192.22	Cost of Change	\$768,573.20

Change Order Type - Description				
Circle Type:	Field	Change	Work Order Amendment	
Budget Line Items Affected: (List All)				
Added Item:				
Structural Concrete for the Outlet Structure – Unit Price \$996/CY, Quantity Increased by 361.70				
Recon Block Channel Wall (No Aesthetics) – Unit Price \$51.75/SFF, Quantity Increased by 7,424				
Recon Block with Weathered Edge and Staining – Unit Price \$3.25/SFF, Quantity Increased by 7,424				
Change Description	<p>In the original engineered plans the footing keys, wall batter, and apron turn down were not included in the quantity amount for the structural concrete for the outlet structure. Regarding the increase to the wall, The engineer could calculate the height and length of the wall. The actual design and structure of the wall is dependent on the manufacturer. The engineer agreed in the increased quantity for the wall.</p>			

Field Change Order			
Field Change Order Authorization ONLY Vendor Signature		Date	
Field Change Order Authorization ONLY Project Manager Signature		Date	
Change Order			
Change Order Authorization ONLY Vendor Signature		Date	10/10/2018
Change Order Authorization ONLY Project Manager Signature		Date	10/10/2018
Change Order Authorization ONLY Project Supervisor Signature		Date	10/10/2018
Contract Amendment			
Work Order Amendment Authorization ONLY Vendor Signature		Date	
Work Order Amendment Authorization ONLY Project Manager Signature		Date	
Work Order Amendment Authorization ONLY Project Supervisor Signature		Date	
Contract Amendment Authorization ONLY CDBG Manager		Date	

History of Changes Occurring

Item Description	Unit	Estimated Quantity	Unit Price	Estimated Cost	CHANGE ORDER	CHANGE ORDER	CHANGE ORDER	TOTAL QUANTITY TO DATE
					(C*D)	01	02	
					Quantity Changed by	Quantity Changed by	Quantity Changed by	
SWPPP DOCUMENTATION AND MANAGEMENT	LS	1.00	4,000.00	4,000.00				1.00
EARTHWORK	CY	174862.16	12.47	2,180,531.14				174,862.16
GRANULAR BACKFILL (#57 CRUSHED STONE CLEAN WASHED)	CY	5204.00	47.00	244,588.00				5,204.00
PRECAST ARCH CULVERT W/ AESTHETICS	EA	1.00	549,000.00	549,000.00				1.00
6" #57 CRUSHED STONE LEVELING PAD (WALL)	CY	646.11	57.00	36,828.27				646.11
8" COMPACTED SUBGRADE (WALL)	SY	4045.00	13.00	52,585.00				4,045.00
AGGREGATE BASE (TYPE A)	CY	422.00	72.00	30,384.00				422.00
PORTLAND CEMENT CONCRETE PAVEMENT (9" DOWEL JOINTED)	SY	1900.64	52.00	98,833.34				1,900.64
CONC. CURB (6" BARRIER-INTEGRAL)	LF	1124.42	8.00	8,995.36				1,124.42
BRICK PAVERS (SP)	SF	298.00	27.00	8,046.00				298.00
24" CONCRETE END TREATMENT (CLASS A CONC.)	EA	1.00	1,500.00	1,500.00				1.00
(SP) 8" CORRUGATED POLYPROPYLENE PIPE	LF	25.26	42.00	1,060.92				25.26
(SP) 16" CORRUGATED POLYPROPYLENE PIPE	LF	18.60	62.00	1,153.20				18.60
(SP) 18" CORRUGATED POLYPROPYLENE PIPE	LF	5.40	100.00	540.00				5.40
(SP) 21" CORRUGATED POLYPROPYLENE PIPE	LF	8.00	100.00	800.00				8.00
(SP) 24" CORRUGATED POLYPROPYLENE PIPE	LF	42.00	125.00	5,250.00				42.00
(SP) 36" CORRUGATED POLYPROPYLENE PIPE	LF	26.80	240.00	6,432.00				26.80
(SP) 48" CORRUGATED POLYPROPYLENE PIPE	LF	15.60	350.00	5,460.00				15.60
6' X 3' C76 CL III RCB, COMPLETE IN PLACE	LF	80.80	220.00	17,776.00				80.80
36" C76 CL III RCP, COMPLETE IN PLACE	LF	57.20	140.00	8,008.00				57.20
STORM SEWER MANHOLE (5' DIA.)	EA	11.00	3,300.00	36,300.00				11.00
STORM SEWER MANHOLE (6' DIA.)	EA	3.00	4,000.00	12,000.00				3.00
STORM SEWER MANHOLE ADDED DEPTH (5' DIA.)	VF	21.34	160.00	3,414.40				21.34
STORM SEWER MANHOLE ADDED DEPTH (6' DIA.)		3.63	270.00	980.10				3.63
INLET SMD (TYPE 2B)	EA	2.00	3,700.00	7,400.00				2.00
ADJUST MANHOLE TO GRADE	EA	7.00	2,000.00	14,000.00				7.00
4" PERFORATED SUBDRAIN PIPE	LF	6723.00	5.00	33,615.00				6,723.00
INLET CI DES. 2 (D)	EA	5.00	8,850.00	44,250.00				5.00
ST-95 STORM OUTLET STRUCTURE (COMPLETE)	EA	1.00	2,000.00	2,000.00				1.00
TRAFFIC STRIPE (PLASTIC) (WHITE) (4" WIDE)	LF	356.22	6.00	2,137.32				356.22
TRAFFIC STRIPE (PLASTIC) (WHITE) (24" WIDE)	LF	80.00	20.00	1,600.00				80.00

TRAFFIC STRIPE (PLASTIC) (WHITE) (SYMBOLS)	EA	2.00	500.00	1,000.00				2.00
PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	LF	223.00	2.00	446.00				223.00
PAVEMENT MARKING REMOVAL (SYMBOLS)	EA	1.00	250.00	250.00				1.00
CONSTRUCTION STAKING, LEVEL II	LSUM	1.00	59,800.00	59,800.00				1.00
FIELD OFFICE	EA	1.00	5,000.00	5,000.00				1.00
MOBILIZATION	EA	1.00	230,000.00	230,000.00				1.00
CLEARING AND RESTORING	LSUM	1.00	240,000.00	240,000.00				1.00
REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LSUM	1.00	24,000.00	24,000.00				1.00
REMOVE EXIST. HEADWALL & WINGWALL	EA	4.00	5,000.00	20,000.00				4.00
REMOVAL OF 17TH STREET BRIDGE	LS	1.00	38,000.00	38,000.00				1.00
REMOVE SIDEWALK	SY	3167.00	6.50	20,585.50				3,167.00
REMOVE CURB & GUTTER	LF	1124.00	5.50	6,182.00				1,124.00
CONCRETE PAVEMENT REMOVAL	SY	1900.64	8.00	15,205.13				1,900.64
REMOVE DRIVEWAY	SY	48.20	45.00	2,168.85				48.20
SIDEWALK	SY	314.00	67.00	21,038.00				314.00
6" P.C. CONC. DRIVEWAY (HES)	SY	48.20	98.00	4,723.27				48.20
4' BLACK VINYL COATED CHAIN LINK FENCE	LF	6067.48	18.75	113,765.25				6,067.48
WHEELCHAIR RAMP (TYPE B)	SY	47.14	140.00	6,598.98				47.14
WHEELCHAIR RAMP (TYPE D)	SY	136.29	140.00	19,080.91				136.29
TACTILE MARKERS/TRUNCATED DOMES	SF	120.00	16.00	1,920.00				120.00
SOLID SLAB SODDING (U-3 BERMUDA)	SY	120286.96	1.80	216,516.53				120,286.96
TEMPORARY SILT FENCE	LF	15100.41	1.40	21,140.57				15,100.41
FILTER FABRIC	SY	1935.00	2.75	5,321.25				1,935.00
10' WIDE CONCRETE TRAIL (4" THICK)	SY	14044.00	30.00	421,320.00				14,044.00
TURF REINFORCEMENT MATS (TRMS)	SY	11832.69	17.00	201,155.73				11,832.69
TURF REINFORCEMENT MATS (ARMS)	SY	333.33	25.00	8,333.33				333.33
BOLLARD POST (REMOVABLE RECEIVER W/ LID)	EA	4.00	1,000.00	4,000.00				4.00
36" FLAP GATE	EA	2.00	6,300.00	12,600.00				2.00
RECON BLOCK CHANNEL WALL (NO AESTHETICS)	SFF	54237.00	51.75	2,806,764.75		7,424.00		61,661.00

Sanitary Sewer	TRENCH EXCAVATION AND BACKFILL (0' TO 10')	CY	82.00	38.00	3,116.00			82.00
	12" SDR-35 POLY WRAPPED	LF	93.00	80.00	7,440.00			93.00
	24" STEEL CASING	LF	80.00	300.00	24,000.00			80.00

	Added Items								
	Construction Fencing	LSUM	0.00	5,375.27	0.00	1.00			1.00
	Total Budget				9,849,243.75				
	Change Order 6-13-18								
	Construction Fencing	LSUM	1.00	5,375.27	5,375.27				
					Total Change Order #1	5,375.27			
	Change Order 9-21-18								
	STRUCTURAL CONCRETE (Outlet Structure)	CY	361.70	996.00	360,253.20				
	RECON BLOCK CHANNEL WALL (NO AESTHETICS)	SFF	7,424.00	51.75	384,192.00				
	RECON BLOCK W/ WEATHERED EDGE & STAINING	SFF	7,424.00	3.25	24,128.00				
					Total Change Order #2	768,573.20			
					New Total Project Cost	10,623,192.22			

Pay Item # (Column A)	Item Description (Column B)	Unit (C)	Estimated Quantity (D)	Unit Price (E)	(D*E)	(G-D)	(G*E)	(I-F)	
					Estimated Cost (F)	Quantity Used (G)	Difference in Quantity (H)	Cost for Project (I)	Difference in Cost (J)
	SWPPP DOCUMENTATION AND MANAGEMENT	LS	1.00	4,000.00	4,000.00	1.00	0.00	4,000.00	0.00
	EARTHWORK	CY	174,862.16	12.47	2,180,531.14	174,862.16	0.00	2,180,531.14	0.00
	GRANULAR BACKFILL (#57 CRUSHED STONE CLEAN WASHED)	CY	5,204.00	47.00	244,588.00	5,204.00	0.00	244,588.00	0.00
	PRECAST ARCH CULVERT W/ AESTHETICS	EA	1.00	549,000.00	549,000.00	1.00	0.00	549,000.00	0.00
	6" #57 CRUSHED STONE LEVELING PAD (WALL)	CY	646.11	57.00	36,828.27	646.11	0.00	36,828.27	0.00
	8" COMPACTED SUBGRADE (WALL)	SY	4,045.00	13.00	52,585.00	4,045.00	0.00	52,585.00	0.00
	AGGREGATE BASE (TYPE A)	CY	422.00	72.00	30,384.00	422.00	0.00	30,384.00	0.00
	PORTLAND CEMENT CONCRETE PAVEMENT (9" DOWEL JOINTED)	SY	1,900.64	52.00	98,833.34	1,900.64	0.00	98,833.34	0.00
	CONC. CURB (6" BARRIER-INTEGRAL)	LF	1,124.42	8.00	8,995.36	1,124.42	0.00	8,995.36	0.00
	BRICK PAVERS (SP)	SF	298.00	27.00	8,046.00	298.00	0.00	8,046.00	0.00
	24" CONCRETE END TREATMENT (CLASS A CONC.)	EA	1.00	1,500.00	1,500.00	1.00	0.00	1,500.00	0.00
	(SP) 8" CORRUGATED POLYPROPYLENE PIPE	LF	25.26	42.00	1,060.92	25.26	0.00	1,060.92	0.00
	(SP) 16" CORRUGATED POLYPROPYLENE PIPE	LF	18.60	62.00	1,153.20	18.60	0.00	1,153.20	0.00
	(SP) 18" CORRUGATED POLYPROPYLENE PIPE	LF	5.40	100.00	540.00	5.40	0.00	540.00	0.00
	(SP) 21" CORRUGATED POLYPROPYLENE PIPE	LF	8.00	100.00	800.00	8.00	0.00	800.00	0.00
	(SP) 24" CORRUGATED POLYPROPYLENE PIPE	LF	42.00	125.00	5,250.00	42.00	0.00	5,250.00	0.00
	(SP) 36" CORRUGATED POLYPROPYLENE PIPE	LF	26.80	240.00	6,432.00	26.80	0.00	6,432.00	0.00
	(SP) 48" CORRUGATED POLYPROPYLENE PIPE	LF	15.60	350.00	5,460.00	15.60	0.00	5,460.00	0.00
	6' X 3' C76 CL III RCB, COMPLETE IN PLACE	LF	80.80	220.00	17,776.00	80.80	0.00	17,776.00	0.00
	36" C76 CL III RCP, COMPLETE IN PLACE	LF	57.20	140.00	8,008.00	57.20	0.00	8,008.00	0.00
	STORM SEWER MANHOLE (5' DIA.)	EA	11.00	3,300.00	36,300.00	11.00	0.00	36,300.00	0.00
	STORM SEWER MANHOLE (6' DIA.)	EA	3.00	4,000.00	12,000.00	3.00	0.00	12,000.00	0.00
	STORM SEWER MANHOLE ADDED DEPTH (5' DIA.)	VF	21.34	160.00	3,414.40	21.34	0.00	3,414.40	0.00
	STORM SEWER MANHOLE ADDED DEPTH (6' DIA.)		3.63	270.00	980.10	3.63	0.00	980.10	0.00
	INLET SMD (TYPE 2B)	EA	2.00	3,700.00	7,400.00	2.00	0.00	7,400.00	0.00
	ADJUST MANHOLE TO GRADE	EA	7.00	2,000.00	14,000.00	7.00	0.00	14,000.00	0.00
	4" PERFORATED SUBDRAIN PIPE	LF	6,723.00	5.00	33,615.00	6,723.00	0.00	33,615.00	0.00
	INLET CI DES. 2 (D)	EA	5.00	8,850.00	44,250.00	5.00	0.00	44,250.00	0.00
	ST-95 STORM OUTLET STRUCTURE (COMPLETE)	EA	1.00	2,000.00	2,000.00	1.00	0.00	2,000.00	0.00
	TRAFFIC STRIPE (PLASTIC) (WHITE) (4" WIDE)	LF	356.22	6.00	2,137.32	356.22	0.00	2,137.32	0.00
	TRAFFIC STRIPE (PLASTIC) (WHITE) (24" WIDE)	LF	80.00	20.00	1,600.00	80.00	0.00	1,600.00	0.00
	TRAFFIC STRIPE (PLASTIC) (WHITE) (SYMBOLS)	EA	2.00	500.00	1,000.00	2.00	0.00	1,000.00	0.00
	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	LF	223.00	2.00	446.00	223.00	0.00	446.00	0.00
	PAVEMENT MARKING REMOVAL (SYMBOLS)	EA	1.00	250.00	250.00	1.00	0.00	250.00	0.00
	CONSTRUCTION STAKING, LEVEL II	LSUM	1.00	59,800.00	59,800.00	1.00	0.00	59,800.00	0.00
	FIELD OFFICE	EA	1.00	5,000.00	5,000.00	1.00	0.00	5,000.00	0.00
	MOBILIZATION	EA	1.00	230,000.00	230,000.00	1.00	0.00	230,000.00	0.00
	CLEARING AND RESTORING	LSUM	1.00	240,000.00	240,000.00	1.00	0.00	240,000.00	0.00
	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LSUM	1.00	24,000.00	24,000.00	1.00	0.00	24,000.00	0.00
	REMOVE EXIST. HEADWALL & WINGWALL	EA	4.00	5,000.00	20,000.00	4.00	0.00	20,000.00	0.00
	REMOVAL OF 17TH STREET BRIDGE	LS	1.00	38,000.00	38,000.00	1.00	0.00	38,000.00	0.00
	REMOVE SIDEWALK	SY	3,167.00	6.50	20,585.50	3,167.00	0.00	20,585.50	0.00

REMOVE CURB & GUTTER	LF	1,124.00	5.50	6,182.00	1,124.00	0.00	6,182.00	0.00
CONCRETE PAVEMENT REMOVAL	SY	1,900.64	8.00	15,205.13	1,900.64	0.00	15,205.13	0.00
REMOVE DRIVEWAY	SY	48.20	45.00	2,168.85	48.20	0.00	2,168.85	0.00
SIDEWALK	SY	314.00	67.00	21,038.00	314.00	0.00	21,038.00	0.00
6" P.C. CONC. DRIVEWAY (HES)	SY	48.20	98.00	4,723.27	48.20	0.00	4,723.27	0.00
4' BLACK VINYL COATED CHAIN LINK FENCE	LF	6,067.48	18.75	113,765.25	6,067.48	0.00	113,765.25	0.00
WHEELCHAIR RAMP (TYPE B)	SY	47.14	140.00	6,598.98	47.14	0.00	6,598.98	0.00
WHEELCHAIR RAMP (TYPE D)	SY	136.29	140.00	19,080.91	136.29	0.00	19,080.91	0.00
TACTILE MARKERS/TRUNCATED DOMES	SF	120.00	16.00	1,920.00	120.00	0.00	1,920.00	0.00
SOLID SLAB SODDING (U-3 BERMUDA)	SY	120,286.96	1.80	216,516.53	120,286.96	0.00	216,516.53	0.00
TEMPORARY SILT FENCE	LF	15,100.41	1.40	21,140.57	15,100.41	0.00	21,140.57	0.00
FILTER FABRIC	SY	1,935.00	2.75	5,321.25	1,935.00	0.00	5,321.25	0.00
10' WIDE CONCRETE TRAIL (4" THICK)	SY	14,044.00	30.00	421,320.00	14,044.00	0.00	421,320.00	0.00
TURF REINFORCEMENT MATS (TRMS)	SY	11,832.69	17.00	201,155.73	11,832.69	0.00	201,155.73	0.00
TURF REINFORCEMENT MATS (ARMS)	SY	333.33	25.00	8,333.33	333.33	0.00	8,333.33	0.00
BOLLARD POST (REMOVABLE RECEIVER W/ LID)	EA	4.00	1,000.00	4,000.00	4.00	0.00	4,000.00	0.00
36" FLAP GATE	EA	2.00	6,300.00	12,600.00	2.00	0.00	12,600.00	0.00
RECON BLOCK CHANNEL WALL (NO AESTHETICS)	SFF	54,237.00	51.75	2,806,764.75	61,661.00	7,424.00	3,190,956.75	384,192.00

Sanitary Sewer	TRENCH EXCAVATION AND BACKFILL (0' TO 10')	CY	82.00	38.00	3,116.00	82.00	0.00	3,116.00	0.00
	12" SDR-35 POLY WRAPPED	LF	93.00	80.00	7,440.00	93.00	0.00	7,440.00	0.00
	24" STEEL CASING	LF	80.00	300.00	24,000.00	80.00	0.00	24,000.00	0.00

Waterline	TRENCH EXCAVATION AND BACKFILL (0' TO 10')	CY	677.00	10.00	6,770.00	677.00	0.00	6,770.00	0.00
	ROCK BACKFILL	CY	622.00	46.00	28,612.00	622.00	0.00	28,612.00	0.00
	8" PVC PIPE C-900	LF	918.00	24.00	22,032.00	918.00	0.00	22,032.00	0.00
	8" SOLID SLEEVE (RJ)	EA	3.00	200.00	600.00	3.00	0.00	600.00	0.00
	8" x 8" x 6" TEE	EA	1.00	280.00	280.00	1.00	0.00	280.00	0.00
	8" x 8" x 8" TEE	EA	4.00	320.00	1,280.00	4.00	0.00	1,280.00	0.00
	8" 11.25° BEND (RJ)	EA	9.00	190.00	1,710.00	9.00	0.00	1,710.00	0.00
	8" 22.5° BEND (RJ)	EA	5.00	190.00	950.00	5.00	0.00	950.00	0.00
	8" 45° BEND (RJ)	EA	10.00	190.00	1,900.00	10.00	0.00	1,900.00	0.00
	8" GATE VALVE (RJ) AND VALVE BOX	EA	5.00	1,250.00	6,250.00	5.00	0.00	6,250.00	0.00
	FIRE HYDRANT	EA	2.00	3,000.00	6,000.00	2.00	0.00	6,000.00	0.00
	CLEARING AND RESTORING	LSUM	1.00	27,000.00	27,000.00	1.00	0.00	27,000.00	0.00

Bridge A	DRILLED SHAFTS (18" DIAMETER)	LF	196.00	75.00	14,700.00	196.00	0.00	14,700.00	0.00
	STRUCTURAL CONCRETE	CY	11.10	1,600.00	17,760.00	11.10	0.00	17,760.00	0.00
	REINFORCING STEEL	LB	850.00	2.00	1,700.00	850.00	0.00	1,700.00	0.00
	INSTALLATION OF BRIDGE ITEMS	EA	1.00	28,000.00	28,000.00	1.00	0.00	28,000.00	0.00

Bridge B	DRILLED SHAFTS (18" DIAMETER)	LF	156.00	75.00	11,700.00	156.00	0.00	11,700.00	0.00
	STRUCTURAL CONCRETE	CY	6.90	1,600.00	11,040.00	6.90	0.00	11,040.00	0.00
	REINFORCING STEEL	LB	740.00	2.00	1,480.00	740.00	0.00	1,480.00	0.00
	INSTALLATION OF BRIDGE ITEMS	EA	1.00	28,000.00	28,000.00	1.00	0.00	28,000.00	0.00

Cost Reasonableness Certification

Project Name	Little River Drainage Improvements	
Work Order Number	I-15-W-URG	Date 10/10/2018

Line Item	Contract Amount	Industry Standard	Vendor
Drainage Improvements	\$ 8,330,576.10	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Sanitary Sewer	\$ 34,556.00	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Water Line	\$ 103,384.00	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Bridge A	\$ 62,160.00	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Bridge B	\$ 52,220.00	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Outlet Structure	\$ 1,646,496.10	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Add Alternate #1-Trail East of Channel	\$ 81,869.50	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Add Alternate #2-Trail Inside Pond Area	\$ 106,157.00	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Add Alternate #3-Recon Block Channel Wall w/aesthetics	\$ 200,398.25	Conceptual Engineer's Estimate Little River Park Drainage Improvements	Meshek & Associates
Construction Fencing	\$ 5,375.27	City of Moore Review	City of Moore
Total	\$ 10,623,192.22		

Certification: The Project Supervisor (PS) of the City of Moore, Oklahoma certifies that the Cost Reasonableness summary provided above for the stated project is accurate, complete, and in conformance with Office of Management and Budget requirements on the date certified.

Stan Drake, Project Supervisor

Signature

10/10/2018
 Date



We recalculated the concrete quantities and did get more than what was listed on the plans for the outlet structure and retaining walls. Our numbers differed from yours, though, as shown below.

Little River Park Drainage Improvements Outlet Structure

Quantities

BLACK - DOWNEY CO.

RED - ENGINEERING

FOUNDATIONS – 848 CY 726 CY

Includes

- a. Retaining wall foundations
 - i) Panel 1 - (2) 20' x 10'-9" x 2' Retaining Wall Footings with footing key
 - ii) Panel 2 - (2) 25' x 17' x 3' Retaining Wall Footings with footing key
 - iii) Panel 3, 4, 5 - (2) 62'-6" x 21' x 4' Retaining Wall Footings with footing key
 - iv) Panel 6 - (2) 20' x 15'-3" x 2' Retaining Wall Footings with footing key
- b. Outlet Structure foundations
 - i) Outlet Structure Footing (1) 90' x 8'-6" x 1'-7" with footing key

VERTICAL WORK – 382 CY 400 CY

Includes

- a. Battered retaining walls, all sloped.
 - i) Panel 1 – (2) 20 LF x 15" thick walls, reinforced.
 - ii) Panel 2 – (2) 25 LF x 15" thick walls, reinforced.
 - iii) Panel 3 – (2) 24.75 LF x 15" thick walls, reinforced.
 - iv) Panel 4 – (2) 11.5 LF x 15" thick walls, reinforced.
 - vi) Panel 6 – (2) 20 LF x 15" thick walls, reinforced. ← Panel 5?
- b. Outlet structure panels.
 - i) (2) 20 LF x 18" thick walls, reinforced.
 - ii) (2) 25 LF x 18" thick walls with openings, reinforced.

PAVING – 291 CY 277 CY... but this is based on horizontal without adjustment for slopes.

Includes

- a. Concrete Apron – 10,890 SF of 8" thick concrete, reinforced
- b. Slab Turndown – 1'-6" deep turndown at north and south end of apron, reinforced.
1'-4"

TOTAL – 1521 CY 1403 CY

POSSIBLE REASONS FOR INCORRECT ORIGINAL QUANTITY

- Footing keys not included
- Wall batter not included (only used top of wall thickness)
- Apron turndown not included

Request for Information Form



To: Abe Barbour/ Ben Fletcher

RFI #	005
Date	7/17/2018
Date Needed by	7/23/2018
Project Name	Little River Park Drainage Improvements
Project #	I-15-W-LMA

RFI Description

- 1) We have assumed a Class B finish for all exposed vertical surfaces. Is this acceptable?
- 2) What the proper spacing for the #8 wet-set bars for the handrail? The drawings show 6' OC max.
- 3) Does the apron receive a float or broom finish?
- 4) Was the intention to place the outlet structure walls directly on the footing? The drawings show it sitting on top of the apron slab. See Sheet 51 Sections A-A, B-B, & C-C.

Attachments: N/A

Submitted By: Zachary McManaman

Response to RFI

1. The intent is for the exposed surfaces to be aesthetically pleasing, due to the location of the structures within a park setting. Class B surface finish, according to ACI guidelines, is acceptable.
2. The #8 bars for attaching the handrail to the retaining wall will be revised. A revised plan sheet showing the new details will be provided.
3. The apron should receive a broom finish.
4. The base of the outlet structure wall is the same elevation as the surface of the apron slab. As noted in the sections on Sheet 51, the footing for the outlet structure is 2'-3" thick. Essentially, the apron slab gets thicker at the outlet structure to become the footing in that area.

Response By: David Neuhauser

Date: 7.18.2018

Request for Information Form



To: Abe Barbour/ Ben Fletcher

RFI #	006
Date	7/23/2018
Date Needed by	7/27/2018
Project Name	Little River Park Drainage Improvements
Project #	I-15-W-LMA

RFI Description

1. Since the apron is part of the footing at the outlet structure walls (Sections A-A, B-B, C-C Sheet 51), please provide the rebar connection detail at this location. As it is shown now, there appears to be no rebar that connects these two elements.
2. There are no details or bars provided connecting outlet structure footings with retaining wall footings. Please advise on how to proceed.
3. The Construction Joint Details on Sheet 54 do not show reinforcing or dowels passing through the joint. Please confirm if this is correct.
4. We propose to eliminate the batter in the retaining wall panels 2, 3, 4 and 5 by extending the concrete straight up from each panel's widest point to the full height of the batter. See sketches below for clarification. This would instead create a brick ledge in lieu of the batter. This additional concrete would be provided at no additional charge to the owner. The purpose of this proposal is to accelerate the forming, pouring and stripping process for these walls.

Attachments: Attached in Email

Submitted By: Zachary McManaman

Response to RFI

1. The apron reinforcing steel does not need to extend through the full extents of the outlet structure footing reinforcing steel. The contractor can lap the apron reinforcing steel a minimum of 24" with the reinforcing steel shown for the outlet structure footing in the details listed above.
2. No additional reinforcing steel is required to connect retaining wall and outlet structure footings. The footings overlap at the ends of the outlet structure. Reinforcing steel for both should be maintained through the overlapping sections.
3. That is correct, there are no dowels or reinforcing steel across the construction joints.
4. This is acceptable at no additional cost.

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Response By:	David Neuhauser	Date:	7.24.2018
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Kahley Gilbert

From: Ben Fletcher <BFletcher@meshekengr.com>
Sent: Friday, September 21, 2018 11:00 AM
To: Kahley Gilbert
Cc: David Neuhauser
Subject: FW: Quantity Over Run Little River Park Drainage Improvements
Attachments: Little River Park Drainage Improvements Outlet Structure Quantities.pdf

Kahley,

See David Neuhauser's response to the structural concrete overrun below and attached.

Ben Fletcher, PE, LSI

Project Manager | [Meshek & Associates, LLC](#)
1437 S Boulder Ave Ste 1550 | Tulsa, OK 74119
(918) 392-5620 x205 | (918) 693-5504
Micah 7:9-10

From: David Neuhauser <dneuhauser@cpyi.com>
Sent: Wednesday, August 1, 2018 2:41 PM
To: Ben Fletcher <BFletcher@meshekengr.com>
Cc: MEAS1500380.01 <MEAS1500380.01@cpyi.com>
Subject: RE: Quantity Over Run Little River Park Drainage Improvements

Ben,

Two of us recalculated the concrete quantities and did get a number that was higher than the quantity listed in the plans for the outlet structure and the retaining walls. It was less than the contractor's value, though.

See attached.

David M. Neuhauser, P.E.
CP&Y, Inc.

From: Ben Fletcher [<mailto:BFletcher@meshekengr.com>]
Sent: Monday, July 30, 2018 12:12 PM
To: David Neuhauser <dneuhauser@cpyi.com>
Subject: Fwd: Quantity Over Run Little River Park Drainage Improvements

David,

See attached and below. I'm on the road today, but will be in tomorrow if you would like to discuss.

Ben

Sent from my U.S.Cellular© Smartphone

----- Original message -----

From: Kahley Gilbert <KGilbert@cityofmoore.com>

Date: 7/30/18 12:08 PM (GMT-06:00)

To: Ben Fletcher <BFletcher@meshekengr.com>

Subject: FW: Quantity Over Run Little River Park Drainage Improvements

Ben,

Can you review this overrun? Thanks!

Kahley

From: zmcanaman@downeycontracting.com [<mailto:zmcanaman@downeycontracting.com>]

Sent: Monday, July 30, 2018 11:14 AM

To: Kahley Gilbert <KGilbert@cityofmoore.com>

Cc: 'Day Zimbelman' <dzimbelman@downeycontracting.com>; 'Greg Trent' <gtrent@downeycontracting.com>

Subject: Quantity Over Run Little River Park Drainage Improvements

Kahley,

There will be a significant quantity over run on the structural concrete item for the outlet structure. The listed quantity is 1041.30 CY but the actual quantity will be 1521 CY

Please see attached breakdown of our quantity. If you have any questions or need any more information please don't hesitate to ask.

Thanks,

Zachary McManaman

Zachary McManaman

Assistant Project Manager | Downey Contracting |
Construction Science | University of Oklahoma |
(405)415-5864

Kahley Gilbert

From: Day Zimbelman <dzimbelman@downeycontracting.com>
Sent: Wednesday, October 10, 2018 2:28 PM
To: Kahley Gilbert
Cc: zmcmanaman@downeycontracting.com; Clifford Miller
Subject: Re: Recon Wall Quantity Over Run

Kahley: As of September 30th we had billed for a total of 1,286 cy of concrete for the structural concrete for the outlet structure. That quantity included the retaining wall footings and both retaining walls as these items were completed as of that date. We still have left to complete the middle outlet structure wall and the apron concrete. We believe our math is correct, and by adding these items to what is already complete, we will be closer to the 1,521 cy. We do however value our relationship with the City of Moore and Meshek Associates so we are willing to compromise to resolve this issue. We will agree to the 1,403 cy for this line item. We would like to get this change order approved as we have already billed for a portion of the extra concrete work on our September pay application.

On Wed, Oct 10, 2018 at 12:08 PM, Kahley Gilbert <KGilbert@cityofmoore.com> wrote:

Zach,

I have discussed the difference with Ben. He is firm on the increase of 1403 CY. We cannot pay for anything the engineer does not approve. Can you or someone from your team contact Ben Fletcher and see if you guys can work out the issue?

Ben can be reached at 918-392-5620.

Thanks!!

Kahley

From: zmcmanaman@downeycontracting.com [mailto:zmcmanaman@downeycontracting.com]
Sent: Monday, September 24, 2018 10:22 AM
To: Kahley Gilbert <KGilbert@cityofmoore.com>
Cc: 'Day Zimbelman' <dzimbelman@downeycontracting.com>
Subject: RE: Recon Wall Quantity Over Run

Kahley,

The difference between our quantities falls in the footings. Based on our concrete tickets we are approximately 120 CY over engineers revised quantity putting it very close to our quantity. This quantity difference is most likely due to our account of the nature of the work and the earth formed footings. We propose a split compromise quantity of 1462 CY. Is this acceptable?

In regards to the slab turndown section B-B on sheet 52 of the drawings shows a 1'-0" wide turndown with 0'-6" of it being 1'-4" high and the other 0'-6" being 1'-6" high. I assume this is where the miscommunication occurred. It has not been built yet but will be built in accordance with the drawings.

Thanks,
Zachary McManaman

Zachary McManaman

Assistant Project Manager | Downey Contracting |
Construction Science | University of Oklahoma |
(405)415-5864

From: Kahley Gilbert <KGilbert@cityofmoore.com>
Sent: Friday, September 21, 2018 2:20 PM
To: Zachary McManaman <zmcmanaman@downeycontracting.com>
Subject: RE: Recon Wall Quantity Over Run

Zachary,

I was running everything by our engineer so we can document everything as cost reasonable and he seems to feel that the quantity is too high? Can you take a look at their response? The difference between you guys in the engineer is a cost of \$117,528 so it quite a bit of a difference.

Was the slab turndown built at 1'-6" instead of 1'-4"?

Thank you!

From: Zachary McManaman [<mailto:zmcmanaman@downeycontracting.com>]
Sent: Friday, September 21, 2018 10:13 AM
To: Kahley Gilbert <KGilbert@cityofmoore.com>
Subject: Re: Recon Wall Quantity Over Run

Kahley,

The SF of the approved final engineered drawings was more than the preliminary drawings that were used to bid.

Thanks,
Zachary McManaman

Zachary McManaman

Assistant Project Manager | Downey Contracting |
Construction Science | University of Oklahoma |
(405)415-5864

From: Kahley Gilbert <KGilbert@cityofmoore.com>
Date: Friday, September 21, 2018 at 9:56 AM
To: Zachary McManaman <zmcmaman@downeycontracting.com>
Subject: RE: Recon Wall Quantity Over Run

And what was the reason for the additional SF for the wall?

From: Zachary McManaman [<mailto:zmcmaman@downeycontracting.com>]
Sent: Friday, September 21, 2018 9:46 AM
To: Kahley Gilbert <KGilbert@cityofmoore.com>
Subject: Re: Recon Wall Quantity Over Run

Kahley,

The new estimated total quantity is 1521 CY. That may not be perfect but it should get us very close.

Thanks,
Zachary McManaman

Zachary McManaman

Assistant Project Manager | Downey Contracting |
Construction Science | University of Oklahoma |
(405)415-5864

From: Kahley Gilbert <KGilbert@cityofmoore.com>
Date: Friday, September 21, 2018 at 9:34 AM
To: Zachary McManaman <zmcmaman@downeycontracting.com>
Subject: RE: Recon Wall Quantity Over Run

For the outlet structure is it an additional 1521 CY or is the new total 1521 CY?

From: Zachary McManaman [<mailto:zmcmaman@downeycontracting.com>]
Sent: Friday, September 21, 2018 8:25 AM
To: Kahley Gilbert <KGilbert@cityofmoore.com>
Subject: FW: Recon Wall Quantity Over Run

Kahley,

See email below about the recon wall quantities. Discard the second half of the message. That was later voided.

Thanks,
Zachary McManaman

Zachary McManaman

Assistant Project Manager | Downey Contracting |
Construction Science | University of Oklahoma |
(405)415-5864

From: "zmcmanaman@downeycontracting.com" <zmcmanaman@downeycontracting.com>

Date: Thursday, August 9, 2018 at 4:32 PM

To: 'Kahley Gilbert' <kgilbert@cityofmoore.com>

Cc: 'Day Zimbelman' <dzimbelman@downeycontracting.com>, 'Greg Trent' <gtrent@downeycontracting.com>

Subject: Recon Wall Quantity Over Run

Kahley,

There will be an overrun of an estimated 7,424 SF on the recon wall per the approved engineered drawings to an updated quantity of 61,661 SF. This will affect base bid item RECON BLOCK CHANNEL WALL (NO AESTHETICS) and Alternate item RECON BLOCK W/ WEATHERED EDGE & STAINING. I have attached the engineers approved drawings for justification.

Also the structural engineer requested a different design of the handrail mounting that results in a \$2325 increase in item 4 FT PEDESTRIAN RAILING to increase the safety factor of the handrail along the outlet structures edge. See attached RFI for justification.

Thanks,

Zachary McManaman

Zachary McManaman

Assistant Project Manager | Downey Contracting |
Construction Science | University of Oklahoma |
(405)415-5864