A0006577

(3)

BACK UP PAPERS
CONTRACT NO.—

94-C-0079

CONTRACT No. DACW 29-94-C-0079, LONDON AVE CANAL WALLS
CONTRACT # 03 — CONTRACTOR'S ORIGINAL FIELD NOTES
FOR THE NEW WALL - LINE LAYOUT
25 JAN 1995

CELMN-NO (1180-1-1q) DATE: 10/11/94

MEMORANDUM THRU NOAO, Ofc Engr, ATTN: Buck Burgess

FOR C/Const Div, ATTN: C/Const Svc Sec

SUBJECT: Transmittal of Computation Information,

Contract No. DACW29-94-C-0079

☒ Attached are original field notes on stations _____

☐ Attached are final field notes on stations _____

☐ Attached are original data for settlement plates for stations _____

☐ Attached are final data for settlement plates for Stations _____

☐ Attached is additional information necessary for calculating quantities on subject job.

☐ The attached data is the last data necessary for computing theoretical quantities. No more data is needed for theoreticals.

☐ The attached data is the last data necessary for computing fianl quantities. No more data is needed for finals.

☒ Additional Comments: Levels to establish T.B.M elevations by Gov't survey party

Atch

CHESTER ASHLEY
Area Engineer
New Orleans Area Office

CF:
Proj Engr (Wagman)

CONTRACT #94-C-0079

LONDON AVE. CANAL, MIRABEAU AVE. TO LEON C. SIMON BLVD, HURR. PROTECTION.

LEVELS TO ESTABLISH T.B.M. ELEVATIONS, BOOK #1 PAGES 12 THRU 18.

JOHN E. CHANCE & ASSOC.,
JOHN GREMILLION, PARTY CHIEF.

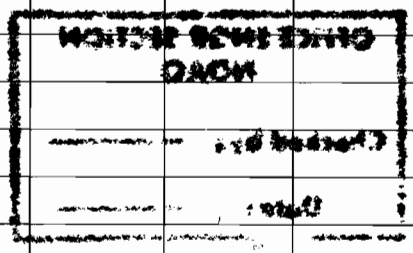
OFFICE ENGR SECTION
NOAO
Checked by: DJH
Date: 10-12-94

Job# 94-C0079

London Avenue Outfall Canal

Vertical Control

Sta.	+	H.I.	−	Elev.
~~T.B.M.~~ JECA#8				(11.89)
	2.54 ~~2.75~~	(14.43 ~~14.66~~)		
T.B.M. JECA#11			4.77 ~~4.97~~	(9.66 ~~9.65~~)
	4.94 ~~4.78~~	(14.60 ~~14.43~~)		
T.B.M. JECA#8			2.70 ~~2.59~~	(11.90 ~~11.84~~)
				11.89
				0.01



Next Page

J. Gremillion P.C.
B. Lemoine X
G. Whitney g

July 28, 1994

Level Line #13737 Clear & Cool Temp. 75°

Remarks:

TBM JECA#8 For Elevation and Description see this Book Page-8

TBM JECA#11 Chisled X @ Concrete Walkway on Bridge over London Canal @ North Side of Bridge

TBM JECA#8 For Elevation and Description

CONTRACT # 94-C-0079

LONDON AVE. CANAL, MIRABEAU AVE. TO LEON C. SIMON BLVD, HURR. PROTECTION.

Job# 94-C-0079
London Avenue Outfall Canal
Vertical Control Loop

Sta.	+	H.I.	−	Elev.
T.B.M. JECA#5				(8.38)
	3.21	(11 8.59)		
			5.56	
T.B.M. JECA#12				(6 4.03)
	5.53	(11 8.56)		
			3.18	
T.B.M. JECA#5				(8.38)
				8.38
				0.00

Coord. for PT-227
Northern 8462.30051070
Eastern 10166.54860649
Elev. 6.03

J. Gremillion P.C.
B. Lemoine ⊼
J.D. Lecoz ♈

August 3, 1994

Level Lietz #13737 Cloudy & Cold Temp. 70°

T.B.M. JECA #5 For Elevation AND Description see This Book Page-7

T.B.M. JECA #12 Top of 1/4" Ree-BAR FT # 227

T.B.M. JECA #5 For Elevation AND Description see this Book Page-7

Job# 94-C-0079

London Avenue Outfall Canal

Vertical Control

Sta.	+	H.I.	−	Elev.
T.B.M. JECA#4				(1.11)
	6.13	(7.24)		
T.B.M. JECA#3			1.52	(5.72)
	1.47	(7.19)		
T.B.M. JECA#4			6.08	(1.11)
				1.11
				0.00

	Coord.	PT #
Northern	7100.2258	
Eastern	9634.1463	
Elev. =	5.72	

J. Gremillion
B. Lemoine
T. D. Lecoq

August 4, 1994

Level Circ. #13937

T.B.M. JECA#4 For Elevation and Description see this Book Page-4

T.B.M. JECA#13 Top of 60 Penny Nail/Washer

T.B.M. JECA#4 See This Book & Page

Job# 94C0079
London Avenue Outfall CIWA/
Vertical Control

Sta.	+	H.I.	—	Elev.
T.B.M. JECA#6				(9.34)
	2.30	(11.64)		
T.B.M. JECA#14			4.28	(7.36)
	4.14	(11.50)		
T.B.M. JECA#6			2.16	(9.34)
				9.34
				0.00

Coordo. PT# 210
Northern = 8458.43969403
Eastern = 9966.79993491
Elevation = 7.37

Next Page

J. Gremillion P.C.
B. Lemoine X
L. Jones ø

August 8, 1994

Level Lietz #13737 Clear & Hot Temp. 89°

REMARKS.

T.B.M. JECA #6 For Elevation and Description see This Book Page- 7

T.B.M. JECA #14 Top of 60 Penny Nail and Washer @ Expansion Joint on Concrete Walk.

T.B.M. JECA #6 For Elevation and Description see This Book Page- 7

Job # 94C0079

London Avenue Outfall Canal

Vertical Control Loop

Sta.	+	H.I.	−	Elev.
T.B.M. JECA#10				-3.82
	2.12	(-1.70)		
T.B.M. JECA#15-A			4.32	(-6.02)
	4.12	(-1.90)		
T.B.M. JECA#10			1.92	(-3.82)
				-3.82

Coord. for PT # 239

Northern = 6800.174076.4

Eastern = 9433.118942.6

Elev. = -6.02

J. Gremillion P.C.
B. Lemoine T
L. Jones Ø

August 9, 1994

Level Line 13737 | Cloudy/Cool Temp. 80°

Remarks.

T.B.M. JECA #10 For Elevation and Description see this Book Pg - 10

T.B.M. JECA #15 Top of PK and Washer @ Concrete Side. N/K.

T.B.M. JECA #10 For Elevation and Description see this Book Page-10

Job# 94C0079

London Avenue Outfall Canal

Vertical Control Loop

Sta.	+	H.I.	−	Elev.
T.B.M. JECA#2				(-1.18)
	9.58	8.40		
T.B.M. JECA#16			4.02	(4.38)
	3.80	(8.18)		
T.B.M. JECA#2			9.36	(-1.18)
				-1.18
				0.00

Coord. for PT

Northern

Eastern

Elev. = 4.38

SAME CREW 8/9/94

Remarks:

T.B.M. JECA#2 For Elevation and Description This Book Page-3

T.B.M. JECA#16 Top of BRASS CAP @ Eastside of London CANAL @ LCE#16

T.B.M. JECA#2 For Elevation and Description This Book Page-3

Job # 94-C-0079

London Avenue Outfall Canal

Vertical Control Loop

Sta.	+	H.I.	−	Elev.
T.B.M. JECA#16				(4.38)
	2.90	(7.28)		
T.B.M. JECA#17			3.46	(3.82)
	3.23	(7.05)		
T.B.M. JECA#16			2.67	(4.38)
				4.38
				0.00

Coord. for PT # 283

Northern = 5359.12212399

Eastern = 9286.23545322

Elev. = 3.82

Next Page

J. Gremillion P.C.
B. Lemoine
L. Jones

August 10, 1994

Level Lietz #13737 Clear & Hot Temp. 90°

Remarks.

T.B.M. JECA#16 For Elevation and Description See This Book Page-17

T.B.M. JECA#17 Top of 60 penny Nail and Washer @ 11+00 Eastside E/L

T.B.M. JECA#16 For Elevation and Description See This Book Pg-17

CELMN-CD-NO (1180-1-1q) DATE: 16 November 1994
zdb

MEMORANDUM THRU NOAO, ATTN: Office Engineering Section

FOR C/Const Div, ATTN: C/Const Svc Sec

SUBJECT: Transmittal of Computation Information,
Contract No. DACW29-94-C-0079, London Ave., Contract #03

☐ Attached are original field notes on stations _____

☐ Attached are final field notes on stations _____

☐ Attached are original data for settlement plates for stations _____

☐ Attached are final data for settlement plates for stations _____

☒ Attached is additional information necessary for calculation quantities on subject job.

☐ The attached data is the last data necessary for computing theoretical quantities. No more data is needed for theoreticals.

☐ The attached data is the last data necessary for computing final quantities. No more data is needed for finals.

☒ Additional Comments: Attached are the Contractor's Original Field Notes for the T.B.M. Level Loops, that were run from PBM # P-153 to TBM's #01 and #02, and back to PBM #P-153. Notes were taken from Contr's Book #01, pages #01 thru #03.

Attch

John J. Morton 12/2/94
CHESTER ASHLEY
Area Engineer
New Orleans Area Office

CF: Project Engineer (Bryant)
Office Tech (Bruno/Urban)

OFFICE ENGR SECTION
NOAO

Checked by: [signature]

Date: 11-29-94

DACW29-94-C-0079

Lake Pontchartrain, Louisiana
and Vicinity Hurricane Protection
High Level Plan; Orleans Parish, LA.

London Avenue Outfall Canal,
Parallel Protection

Mirabeau Ave. to Robert E. Lee
West Bank
Mirabeau to Leon C. Simon
East Bank

T.B.M. Level Loop

Book #1
Pages #1 through #3

11-14-94
B+K Construction ~~Jerry Justice~~

[signature], QAR

1

[illegible] C-0079

T.B.M. [illegible]P (Lakeshore Drive to Leon C. Simon to Robert E. Lee)
for London Ave. Canal

Sta.	+	H.I.	−	Elev	B.M.
Lake Shore Drive Bridge at London Canal					11.270
	6.698	17.968			
T.P.#1			3.732	14.236	
	4.300	18.536			
T.P.#2			4.402	14.134	
	4.373	18.507			
T.P.#3			4.145	14.362	
	4.409	18.771			
T.P.#4			4.617	14.154	
	4.545	18.699			
TP#5			4.490	14.209	
	4.339	18.548			
T.P.#6			4.137	14.411	
	4.052	18.463			
T.P.#7			3.948	14.515	
	1.209	15.724			
T.P.#8			5.499	10.225	
	0.988	11.213			
T.P.#9			4.644	6.569	
Side Shot → Check TBM by "SLOAN"			4.998	6.215	Given = 6.225 Error = 0.010
~~T.P.#~~	3.370			6.569	T.P.#9
		9.939			

11-14-94

T ☒ - J. Justice
Ø - S. Thome

Pt. Cloudy, Warm + windy 1

← "P 153" given on Contract Drawings Page #1 of 73.

T.B.M. #1 Description – 'X' in Concrete sidewalk ± 16.5' East of East ℄ P.I. at station 126 + 88.58 (Elev. +6.215)

← Check T.B.M. #1 at Leon C. Simon and London Avenue Canal. Find 'X' in Conc. Sidewalk at Southeast side of Bridge.

TBM LOOP (Continued from Page 1)

Sta.	+	HI	−	Elev.	BM
		9.939			
Tie-in to TBM. by "SLOAN"			4.898	5.041	Given = 5.035' Error = 0.006'
	~	Break	Set up	~	
	5.335			5.041	
		10.376			
T.P. #9			3.803	6.573	
	4.549	11.122			
T.P. #8			0.894	10.228	
	6.444	16.672			
T.P. #7			2.152	14.520	
	3.758	18.278			
T.P. #6			3.865	14.413	
	4.168	18.581			
T.P. #5			4.367	14.214	
	4.554	18.768			
T.P. #4			4.612	14.156	
	4.501	18.657			
T.P. #3			4.297	14.360	
	4.290	18.65			
T.P. #2			4.518	14.132	
	4.431	18.563			
T.P. #1			4.332	14.231	

11-14-94 Same Party

← Tie-in to TBM #2 at Robert E. Lee and London Avenue Canal. Find 'X' in sidewalk at South east side of Bridge ± 36.5' East of Bridge abutment (East side). (Elev. +5.041)

3 DACW-29-94-C-0079

TBM Loop (Cont. from Page 2)

Sta.	+	HI	−	Elev.	BM
T.P.#1	3.303			14.231	
		17.534			
Tie-in to PBM. "P-153"			6.275	11.259	Given = 11.270 Error = 0.011'

11-14-94 Same Party

"P-153" from sheet #1 of 73
Contract Drawings for DACW29-94-C-0079

CELMN-CD-NO (1180-1-1q) DATE: 29 November 1994
zdb

MEMORANDUM THRU NOAO, ATTN: Office Engineering Section

FOR C/Const Div, ATTN: C/Const Svc Sec

SUBJECT: Transmittal of Computation Information,
Contract No. DACW29-94-C-0079, London Ave., Contract #03

☐ Attached are original field notes on stations _____

☐ Attached are final field notes on stations _____

☐ Attached are original data for settlement plates for stations _____

☐ Attached are final data for settlement plates for stations _____

[XXX] Attached is additional information necessary for calculation quantities on subject job.

☐ The attached data is the last data necessary for computing theoretical quantities. No more data is needed for theoreticals.

☐ The attached data is the last data necessary for computing final quantities. No more data is needed for finals.

[XXX] Additional Comments: Attached are the Contractor's Original Field Notes for TBM's #1-A, #2-A, #2-F, #2-G, #2-H, #3-A, #3-B, #3-C, #3-D and #4 for this project on East Levee. Notes were taken from Contr's Book #01, pages #06 thru #10.

Attch

John J. Mouton 12/5/94
CHESTER ASHLEY
for Area Engineer
New Orleans Area Office

DACW29-94-C-0079

Lake Pontchartrain and Vicinity
Hurricane Protection
High Level Plan
Orleans Parish, LA.

London Ave. Outfall Canal,
Parallel Protection
Mirabeau Ave. to Robert E. Lee Blvd. WEST BANK
Mirabeau Ave. to Lem C Simon Blvd., EAST BANK

BOOK # 1
Pages # 6 and # 7

T.B.M. Level Loop
Pump. Sta. #4 to Filmore Ave.
East Bank

11-16-94

B+K Construction Jerry Justice

OFFICE ENGR SECTION
NOAO
Checked by: OSH
Date: 16-11-94

6 DACW29-94-C-0079 (Pump. Sta. #4 to Filmore Ave)

Sta.	T.B.M. +	Level HI	Loop −	Elev	B.M.
	0.002				-0.635
		-0.633			
T.P. #1			5.438	-6.071	
	7.439	1.368			
T.P. #2			0.212	1.156	
	9.216	10.372			
T.P. #3			5.598	4.774	
	3.901	8.675			
Set New TBM #2-F			7.835	0.84	← #2-F
T.P. #4			3.639	5.036	
	3.872	8.908			
T.P. #5			4.266	4.642	
Set New T.B.M. #2-G			9.033	-0.125	← #2-G
	4.437			4.642	T.P. #5
		9.079			
T.P. #6			3.777	5.302	
	4.888	10.190			
Set New TBM #3-A			0.315	9.875	← #3-A
Check TBM * by OTHERS ?			0.793	9.397	← 60d Nail * in P. Pole
— BREAK SET UP —					
	0.689			9.875	← TBM #3-A
		10.564			
T.P. #6			5.262	5.302	
	3.718	9.020			

11-16-94 TØ - Justice Clear + 6
Ø - Thome Cool

← TBm # 2-E From Page # 4 (this book)

← Set New TBm # 2-F at ± Station 97+25 East ℄. (Elev +0.84) Top of Elect. Manhole Ring — Find yellow 'X' at West side of Manhole Ring approx 1.5' East of Safety Fence.

← Set New TBm # 2-G at ± Sta. 92+25 East ℄. (Elev. -0.125) Top of 3/4" Iron Pipe ± 6' East of Safety Fence.

← Set New TBm # 3-A at ± Sta. 85+25 East ℄. Yellow X' On Conc. Wall at Fillmore Ave. Bridge Abutment NORTH~~WEST~~ East CORNER OF BRIDGE OVER LONDIN AVE. CANAL

* Check TBm marked "# 6" by others at ± Sta. 85+20 East ℄ ; Nail in P. Pole approx. 20' East of East ℄. (Found Elev. 9.397)

17

T.Bm. Level Loop

(Continued from Page 16)

Sta.	+	HI	−	Elev.	Bm.
		9.020			
Set New T.Bm. #2-H			8.854	0.166	#2-H ←
T.P. #5			4.355	4.665	
	3.817	8.482			
T.P. #4			~~3.431~~ ~~5.034~~	5.051	
	2.916	7.967			
T.P. #3			3.187	4.780	
	5.562	10.342			
T.P. #2			9.188	1.154	
	0.359	1.513			
T.P. #1			7.585	−6.072	
	5.438	−0.634			
Check TBm by OTHERS? →			3.129	−3.763	Check TBM #10? Given = −0.635 Error = 0.004'
Tie-in to TBm #2-E → From Page #4 To Close Loop			0.005	−0.639	

11-16-94 Same Party

← Set New T.B.m. #2-H at ± Sta. 88+50 East ℄, (Elev. +0.166) Top of 3/4" Iron Pipe ± 6" East of Safety Fence.

← Check T.B.M. marked "#10" set by others. Found Nail in P. Pole at Sta. 102+65 ± East ℄ between Warrington Drive and Sidewalk on the West side of Street.

Closed Loop back to T.B.m. # 2-E, Error = 0.004'

DACW29-94-C-0079

Lake Pontchartrain and Vicinity
Hurricane Protection
High Level Plan
Orleans Parish, LA.

London Ave. Outfall Canal, Parallel Protection
Mirabeau Ave. to Robert E. Lee Blvd, West Bank
Mirabeau Ave. to Leon C. Simon Blvd, East Bank

Book # 1
Page # 8

T.B.M. Level Loop

11-17-94

B+K Construction - Jerry Justice

8

T.B.M. Level Loop (At Leon C. Simon Blvd.)

Sta.	+	H.I.	−	Elev.	B.M.
T.B.M. #1	5.710				6.215
		11.925			
Set New T.B.M. #1-A			0.855	11.070	← #1-A
~		Break set up		~	
T.B.M. #1-A	0.683			11.070	
		11.753			
Tie-in to T.B.M. #1			5.540	6.213	Given = 6.215 Error = 0.002'

TBM Level Loop (At Robert E. Lee Blvd.)

Sta.	+	H.I.	−	Elev.	B.M.
T.B.M. #2	5.722				5.041
		10.763			
Set New T.B.M. #2-A			1.442	9.321	← #2-A
~		Break set up		~	
	1.605			9.321	
		10.926			
Tie-in to T.B.M. #2			5.887	5.039	Given = 5.041 Error = 0.002'

11-17-94 π - J. Justice
Ø - S. THOME

← T.B.M. #1 from Book #1, Page #1
(at Leon C. Simon Blvd.)

← Set New T.B.M. #1-A (Elev. N.070) on top of Southeast anchor bolt at light pole on Southeast Corner of Leon C. Simon Bridge over London Ave Canal Approx. station 127+00, ± 8.5' West of East Baseline.

11-17-94 Same Party

← T.B.M #2 from Book #1, Page #2
(at Robert E. Lee Blvd.)

← Set New T.B.M. #2-A (Elev. 9.321) - Yellow Paint "X" on top of Concrete Wing Wall at Bridge Abutment, Southeast corner of Robert E. Lee Bridge over London Avenue Canal (approx. 9.0' South of Bridge Gutter Line (South Side)

DACW29-94-C-0079

Lake Pontchartrain, LA., and Vicinity

Hurricane Protection

High Level Plan

Orleans Parish, LA.

London Avenue Outfall Canal,

Parallel Protection

Mirabeau to Robert E. Lee, West Bank

Mirabeau to Leon C. Simon, East Bank

BOOK # 1

Pages # 9 & # 10

T.B.M. Level Loop

11-18-94

B+K Construction - Jerry Justice

9 DACW29-94-C-0079

T.B.M. Loop (Fillmore Ave. to Mirabeau Ave)

Sta.	+	HI	-	Elev.	B.M.
	0.572				9.875
		10.447			
T.P. #1			5.207	5.240	
	4.067	9.307			
Set New T.B.M. #3-B			9.202	+0.105	#3-B ←
T.P. #2			4.328	4.979	
	4.133	9.112			
T.P. #3			3.439	5.673	
	4.193	9.866			
Set New TBM #3-C			9.796	+0.070	#3-C ←
T.P. #4			4.590	5.276	
	3.757	9.033			
			1.660	7.373	#3-D ←
	5.433	12.806			
set New T.B.M. #4			0.852	11.954	#4 ←
	→	Break	Set Up	→	
TBM #3-D	1.868			7.373	#3-D ←
		9.241			
T.P. #4			3.962	5.279	
	5.061	10.340			
T.P. #3			4.663	5.677	
	3.885	9.562			
T.P. #2			4.578	4.984	

11-18-94 π Ø - J. Justice Cloudy 9+
Ø - S. Thome mid

← T.B.m. # 3-A from Page # 6 of Book # 1
(at Fillmore Ave. Bridge)

Set New T.B.m. # 3-B (Elev. +0.105)
at ± Station 80+40 East ℄. Top
of 3/4" Iron Pipe ± 6" East of Safety Fence.

Set New T.B.m. # 3-C (Elev. +0.070) at ± Sta.
75+20 East ℄. Top of 3/4" Iron Pipe
± 6" East of Safety Fence.

Set New T.B.m. # 3-D (Elev. 7.373) at
± Sta. 69+93 East ℄. Top of 3/4" Iron
Pipe in Levee Crown ± 4' East of Exist. Wall
(From Landside Edge) Found

← Set New T.B.m. # 4 (Elev. 11.954) at
± Sta. 69+85 East ℄. "X" in Concrete
Gaurdrail at N.E. corner of Mirabeau
Ave. Bridge over London Ave. Canal
(Found Marked with white Paint and No. 8)
± 3.5' West of Exist. Conc. Floodwall
(From Land side Edge of Wall)

10 T.B.M. Loop (Cont. from Page 9)

Sta.	+	H.I.	−	Elev.	B.M.
T.P. #2	4.781			4.984	
		9.765			
T.P. #1			4.521	5.244	
	5.840	11.084			
Tie-IN to TBM #3-A			1.207	9.877	Given = 9.875 Error = .002'

4-18-94 Same Party clear + mild

← T.P. #2 from Page #9

(From Page #6 of Book #1)

Tie-in to TBM #3-A to close Loop. Error = 0.002'

94-C-0079

DACW-~~29-94-B-0047~~

London Avenue Outfall
Canal

Vertical Control Loops

Book #1 Pages 1 to 11

Project # 94-B-0047

John E. Chance & Assoc. Inc.

J. Gremillion P.C.
J. D. Lecoq
G. Whitney

1

Job# 94-B-0047

London Avenue Outfall Canal

Level Peg

Sta.	+	H.I.	−	Elev.
~~T.B.M.~~ "A"				(10.00)
	3.972	(13.972)		
T.B.M. "B"			4.009	(9.963)
	4.860	(14.823)		
T.B.M. "A"			4.818	(10.005)
				10.000
				0.005

J.GRemillion P.C.
J.D. Lecoq Z
G.Whitney ϕ

June 28, 1994

Level Lietz #13737 Clear & Hot Temp. 90°

REMARKS:

T.B.M. "A"

T.B.M. "B"

T.B.M. "A"

Job# 94-B-0047

London Avenue Outfall Canal

Sta.	+	H.I.	−	Elev.
B.M. P-153				(11.270)
	4.48	(15.75)		
T.P.			12.19	3.56
	5.10	8.66		
T.P.			3.48	5.18
	5.93	11.11		
T.P.			5.28	5.83
	3.71	9.54		
T.P.			5.29	4.25
	4.03	8.28		
T.P.			4.96	3.32
	4.33	7.65		
T.P.			5.65	2.00
	10.27	12.27		
T.B.M. LCE-18			5.80	(6.47)
~~T.B.M. JECA#1~~	0.66	(7.13)		
T.B.M. JECA#1			8.86	(-1.73)

Next Page

SAME CREW 6/28/94

REMARKS:

B.M. P-153 See Solicitation #
DACW29-94-B-0047 Dwg 1 of 73
Elevation in N.G.V.D. Epoch 1964

Turning Point

T.B.M. LCE-18 Top of BRASS CAP @ Edge
of CONCRETE WALK @ STA. 126+88.15

T.B.M. JECA #1 G.I. spike set @ West side
of PIP @ EAST BANK of CANAL @ STA. 126+50 @
LONDON DRIVE

Job# 94-B-0047

Vertical Control Loop

Sta.	+	H.I.	−	Elev.
T.B.M. JECA#1				(-1.73)
	2.93	1.20		
T.P.			4.36	-3.16
	4.87	1.71		
T.B.M. JECA#2			2.89	(-1.18)
	12.07	(10.89)		
T.B.M. JECA#3			0.70	(10.19)
	0.53	10.72		
T.P.			4.98	5.74
	4.89	10.63		
T.B.M. 115+00			5.42	5.21
	4.87	10.08		
T.P.			5.21	4.87
	5.90	10.77		
T.P.			4.86	5.91
	3.76	(9.67)		
T.B.M. LCE#11			4.14	(5.53)

Next Page

Same Crew 6/28/94

Remarks:

T.B.M. JECA #1 Elevation carried from Pg-2

Turning Point

T.B.M. JECA #2 100 Penny Nail @ West Side of Powerpole @ Sta. 120+69 @ East Side of Canal

T.B.M. JECA #3 Chisled Square @ West end of Concrete Guard Rail @ N.W. Corner @ Expansion Joint @ Sta. 120+00

Turning Point

T.B.M. 115+00 @ E of I-WALL 1/4" Rec-Bar

" Turning Point

" "

T.B.M. LCE #11 Top of Brass Cap @ West Bank of London Canal @ Sta.

Job# 94-B-0047
Vertical Control Loop

Sta.	+	H.I.	−	Elev.	
T.B.M. LCE#11				(5.53)	⌣
					⌣
	0.93	(6.46)			
T.P.			9.55	-3.09	
	5.02	(1.93)			
T.B.M. JECA#4			0.82	(1.11)	
	0.79	1.90			
T.P.			4.99	-3.09	⌣
	9.48	6.39			
T.P.			0.87	5.52	
	4.08	9.60			
T.P.			3.70	5.90	
	4.84	10.74			
T.P.			5.87	4.87	
	5.17	10.04			
T.P.			4.83	5.21	⌣
	5.37	10.58			⌣
T.P.			4.84	5.74	
	4.93	10.67			
T.P.			0.48	10.19	
		Next	Page		

SAME CREW | 6/28/94

Remarks:

T.B.M. LCE#11 Elevation CARRIED
from Page-3

Turning Point

T.B.M. JECA#4 G.I. spike set @ East
Side of P/P# 13537 @ West Bank of
Canal @ Sta. 101+00

Turning Point

Elev. CARRIED to Pg-5

Job# 94-B-0047

London Avenue Outfall Canal

Sta.	+	H.I.	−	Elev.
T.P.				(10.19)
	0.65	10.84		
T.P.			12.02	-1.18
	2.84	1.66		
T.P.			4.82	-3.16
	4.32	1.16		
T.P.			2.89	-1.73
	8.82	7.09		
T.P.			0.62	6.47
	5.70	12.17		
T.P.			10.16	2.01
	5.61	7.62		
T.P.			4.30	3.32
	4.91	8.23		
T.P.			3.98	4.25
	5.24	9.49		
T.P.			3.66	5.83
	5.24	11.07		
T.P.			5.90	5.17
	3.45	8.62		
T.P.			5.07	3.55
	12.10	(15.65)		

Next Page

T. Gremillion P.C.
T.D. Lecoq T.
T. Whitney Y.
Level Lietz #13737

June 29, 1994
Cloudy & Hot Temp. 90°

Remarks:

Elevation carried from Pg-4

Turning Point

" "

" "

" "

" "

" "

" "

" "

" "

" "

H.I. carried to Page-6

Job# 94-B-0047

Vertical Control Loop

Sta.	+	H.I. (15.65)	−	Elev.
B.M. #153			4.39	(11.26)
				11.27
				-0.01

Vertical Control Loop for the Distance of 4.0 Miles

Next Page

SAME Crew 6/29/94

Remarks.

H.I. CARRIED from Pg-5

B.M. P-153 FOR Elevations

Description on this Book Page-2

Job# 94-B-0047

London Avenue Outfall Canal

Sta.	+	H.I.	−	Elev.
T.B.M. JECA#4				(1.11)
	8.71	(9.82)		
T.B.M. 100+00			3.97	(5.85)
	4.46	(10.31)		
T.P.			4.17	(6.14)
	5.00	11.14		
T.P.			4.84	6.30
	5.03	11.33		
T.B.M. JECA#5			2.95	(8.38)
~~T.B.M. JECA#6~~	4.99	(13.37)		
T.B.M. JECA#6			4.03	(9.34)
	4.15	(13.49)		
~~T.B.M. LCE#9~~			8.13	(5.36)
	2.98	(8.34)		
T.P.			2.16	(6.18)

Next Page

J. Gremillion P.C.
J. D. Lecoq E
G. Whitney ϕ

June 30, 1994

Level Lietz # 13737 Clear Hot Temp. 85°

REMARKS.

T.B.M. JECA #4 For Elevation and Description See this Book Page-4

T.B.M. 100+00 Top of 1/4" Rod-EAR @ Sta. 100+00 @ West Bank of Canal

Turning Point

" "

T.B.M. JECA #5 G.I. spike set @ East Side of P/P @ Sta. 85+00 @ West Bank of Canal near Concrete Sidewalk.

T.B.M. JECA #6 100 Penny Nail set @ West side of P/P @ Sta. 85+18 @ East Bank of Canal near edge of road

T.B.M. LCE #9 @ West Bank of Canal

Elevation carried to Page-8

Job # 94-B-0047
Vertical Control

Sta.	+	H.I.	−	Elev.	
T.P.				6.18	
	4.30	10.48			
T.P.			5.77	4.71	
	4.82	9.53			
T.P.			5.33	4.20	
	5.44	9.64			
T.B.M. JECA#7			5.34	4.30	
	10.11	14.41			
T.B.M. JECA#8			2.52	11.89	
	2.42	14.31			
T.P.			10.01	4.30	
	5.30	9.60			
T.P.			5.40	4.20	
	5.20	9.40			
T.P.			4.69	4.71	
	5.73	10.44			
T.P.			4.27	6.17	
	2.07	8.24			

Next Page

REMARKS:

ELEV. CARRIED from Page-7

Turning Point

" "

T.B.M. JECA#7 100' Penny Nail set @ East Side of P/P @ West Bank of CANAL @ Station 70+35

T.B.M. JECA#8 Chiseled Square @ East Side of CANAL @ South west Corner of Concrete Abutment of Gauge Rail @ Station 69+80

Turning Point

" "

" "

" "

H.I. CARRIED to Page-9

Job# 94-B-0047

Vertical Control Loop

Sta.	+	H.I. (8.24)	−	Elev.
T.P.			2.89	5.35
	8.05	13.40		
T.P.			4.07	9.33
	3.90	13.23		
T.P.			4.86	8.37
	2.88	11.25		
T.P.			4.96	6.29
	4.80	11.09		
T.P.			4.96	6.13
	4.14	10.27		
T.P.			4.43	5.84
	3.94	9.78		
~~T.B.M.~~ JECA#4			8.67	(1.11)
				1.11
				0.00

Vertical Control Loop for the Distance of 2.4 Miles

Next Page

SAME CREW 6/30/94

Remarks.

H.I. CARRIED FROM PAGE-8

TURNING POINT

T.B.M. JECA #4 FOR ELEVATION AND DESCRIPTION ~~SEE BOOK~~ SEE THIS BOOK PAGE-7

Job # 94-B-0047

VERTICAL CONTROL Loop

Sta.	+	H.I.	−	Elev.
T.B.M. JECA#6				(9.34)
	1.86	(11.20)		
T.P.			5.25	(5.95)
	3.34	9.29		
T.P.			4.27	5.02
	3.95	8.97		
T.P.			4.61	4.36
	4.98	9.34		
T.B.M. LCE#13			3.39	5.95
	5.62	11.57		
T.B.M. LCE#14			5.11	(6.46)
	2.78	(9.24)		
T.B.M. JECA#9			14.65	(-5.41)
	4.73	-0.68		
T.B.M. JECA#10			3.14	(-3.82)
	10.74	(6.92)		

Next Page

SAME CREW 6/30/94

Remarks:

T.B.M. JECA#6 FOR ELEVATION AND DESCRIPTION SEE THIS BOOK PAGE-7

TURNING POINT

" "

" "

T.B.M. LCE#13 TOP OF BRASS CAP @ EAST SIDE OF CANAL

T.B.M. LCE#14 TOP OF BRASS CAP @ EAST SIDE OF CANAL

T.B.M. JECA#9 TOP OF PK NAIL WITH WASHER @ ASPHALT ROAD ON WARRINGTON ST.

T.B.M. JECA#10 100' PENNY NAIL SET IN P/P @ 2.10' ABOVE GROUND @ WEST SIDE OF POLE @ STA. 108+62 @ EAST BANK OF CANAL

H.I. CARRIED TO PG-11

Job# 94-B-0047

Vertical Control Loop

Sta.	+	H.I.	−	Elev.	
		(6.92)			
T.B.M. JECA#15			2.43	(4.49)	✓
					✓
	2.34	(6.83)			
T.P.			10.65	-3.82	
	3.07	-0.75			
T.P.			4.67	-5.42	
	14.59	9.17			
T.P.			2.72	6.45	
	5.08	11.53			
T.P.			5.58	5.95	✓
	3.25	9.20			
T.P.			4.83	4.37	
	4.55	8.92			
T.P.			3.90	5.02	
	4.22	9.24			
T.P.			3.28	5.96	
	5.21	11.17			
T.B.M. JECA#6			1.82	(9.35)	✓
				9.34	✓
				0.01	

Vertical Control Loop for the Distr of

SAME CREW 6/30/94

Remarks.

H.I. CARRIED from PAGE-10

T.B.M. LCE#15 Top of BRASS CAP @ EAST side of CANAL

TURNING POINT

"

"

"

"

"

TURNING POINT

T.B.M. JECA#6 FOR ELEVATION AND DESCRIPTION see this BOOK PAGE-10

1.0 MILES

94-C-0079

DACW 29-94-B-0047

London Avenue Outfall
Canal

B/L & C/L Traverse

Book # 2
Pages 1 thru 23

Project # 94-B-0047

John E. Chance & Assoc. Inc.

J. Gremillion P.C.
J.D. Lecoq L
G. Whitney P

Job# 94-B-0047

London Avenue Outfall Canal

Traverse of B/L and C/L I-WALL

T@LCE#10 = 69+15.97

		D	R
B.S. LCE#8 69+40.25		00-00-~~00~~ 05	180-00-10
F.S. C/L 70+26.77		91-10-12	271-10-22
		91-10-07	91-10-12
	mean =	91-10-09.5	
	Dist. =	110.84'	

Dist. from LCE#10 to LCE#8 = 141.68'

T@C/L I-WALL 70+26.77 1/4" Ree-Bar

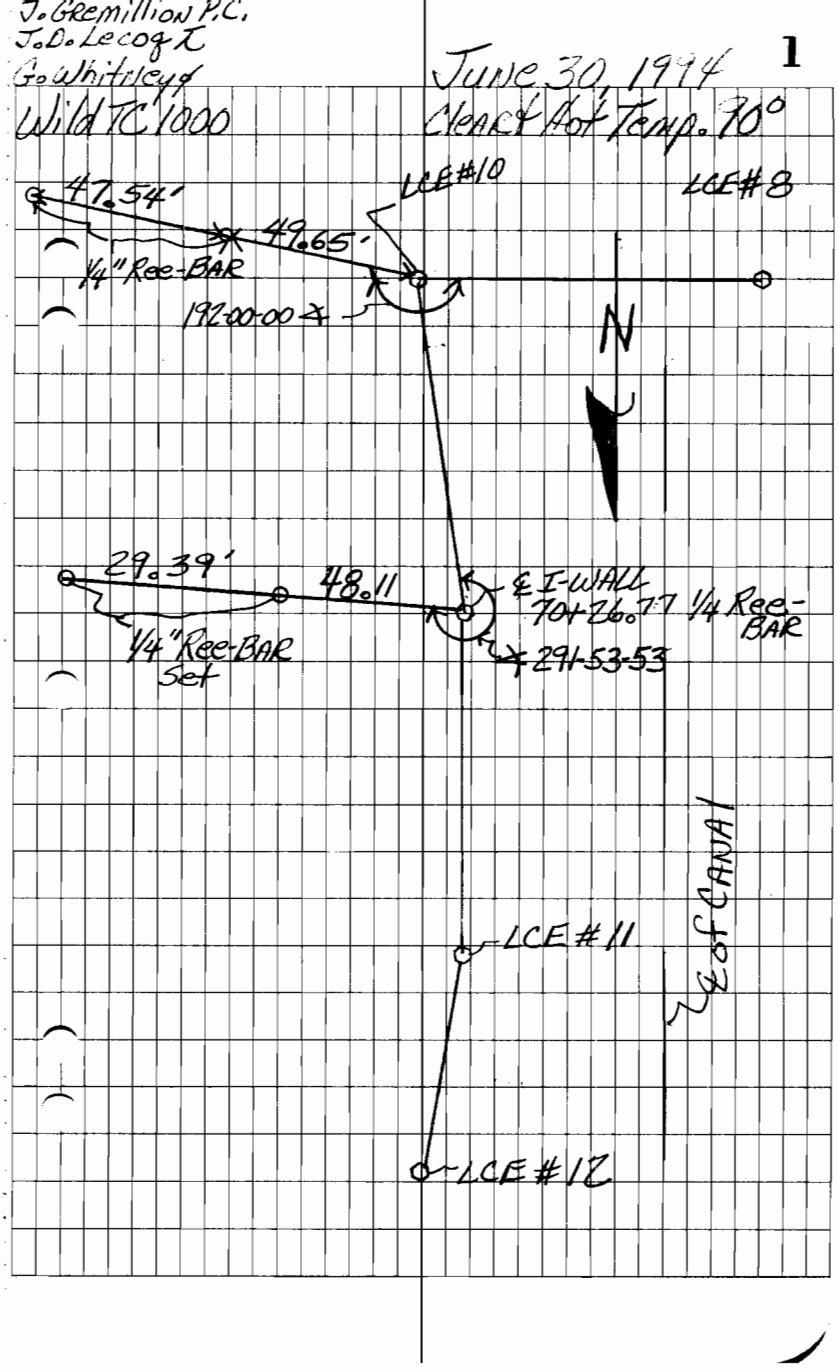
		D	R
B.S. LCE#10 69+15.97		00-00-05	180-00-10
F.S. ~~LCE#13~~			
LCE#11 84+02.42		181-25-06	01-25-13
		181-25-01	181-25-03
	mean =	181-25-02	
	Dist. =	1375.65	

Next Page

J. Gremillion P.C.
J.D. Lecoq Jr
G. Whitley

June 30, 1994
Clear & Hot Temp. 70°

Wild TC 1000



Job# 94-B-0047

TRAVERSE of B/L & C/L I-WALL

T@LCE#11 = 84+02.42 21

	D	R
B.S. C/L 10+26.77	00-00-05	180-00-10
F.S. C/L 84+20.31	167-03-14	347-03-25
	167-03-09	167-03-15
mean =	167-03-12	
Dist. =	18.32'	

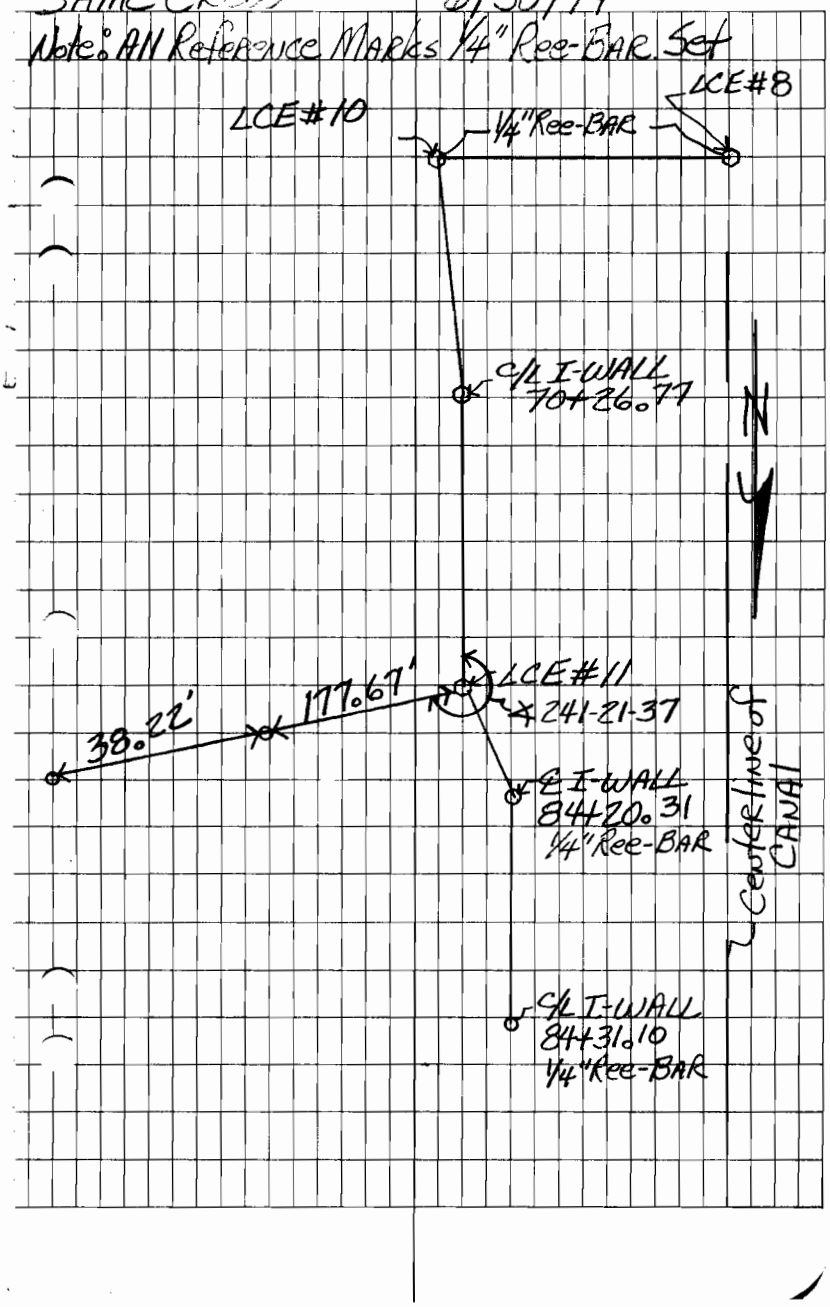
T@C/L I-WALL 84+20.31 22

	D	R
B.S. LCE#11 84+02.42	00-00-05	180-00-10
F.S. C/L I-WALL 84+31.10	192-49-11	12-49-14
	192-49-06	192-49-04
mean =	192-49-05	
Dist. =	10.77	

Next Page

SAME CREW 6/30/94

Note: All Reference Marks 1/4" Ree-BAR Set



Job # 94-B-0047

TRAVERSE of ℄ & ℄ I-WALL

T@ ℄ I-WALL 84+31.10

		D	R
B.S. ℄ 84+20.31		00-00-05	180-00-10
F.S. LCE#12 84+71.30		185-56-39	05-56-48
		185-56-34	185-56-38
	mean =	185-56-36	
	Dist. =	40.39	

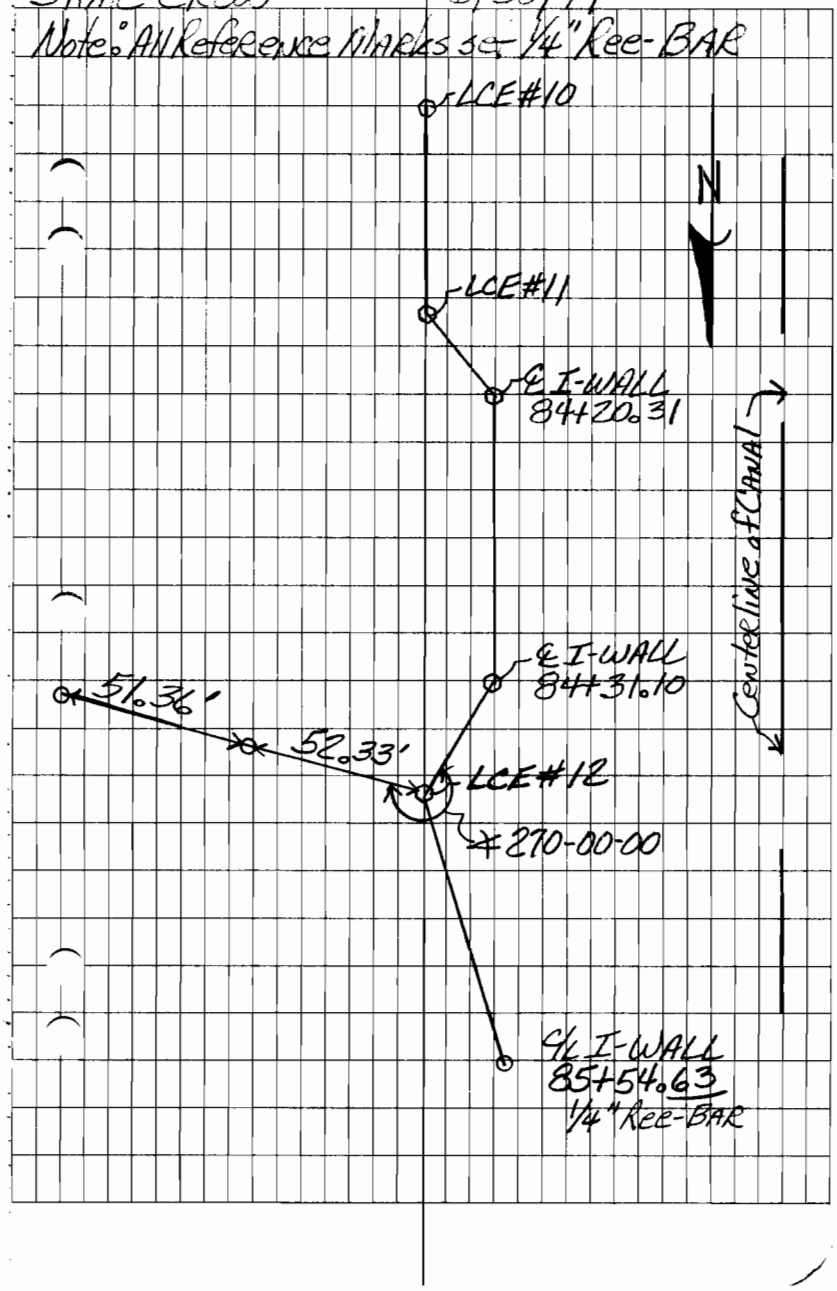
T@ LCE#12 = 84+71.30

		D	R
B.S. ℄ I-WALL 84+31.10		00-00-05	180-00-10
F.S. ℄ I-WALL 85+54.63		172-49-09	352-49-11
		~~174-23-30~~	~~354-23-36~~
		~~174-23-25~~	~~174-23-16~~
		172-49-04	172-49-01
	mean =	~~174-23-20.5~~	172-49-02.5
	Dist. =	~~83.24'~~	83.26'

Next Page

SAME CREW 6/30/94

Note: All Reference Marks are 1/4" Ree-BAR



Job 94-B-0047

TRAVERSE of B/L & C/L I-WALL

T@ C/L I-WALL 85+54.63

		D	R
B.S. LCE#12 84+71.30		00-00-05	180-00-10
		181-41-37	181-41-51
F.S. LCE-13 99+96.67		181-41-42	01-42-01
	mean ∠	181-41-44	
	Dist.	1442.09	

∠ T@ LCE#13 = 99+96.67 Sideshot ①

		D	R
B.S. ℄ I-WALL 85+54.63		00-00-05	180-00-10
℄ I-WALL 99+69.22 ②		18-31-32	198-31-28
		18-31-27	18-31-18
	mean ∠	18-31-22.5	
	Dist. =	28.89'	

Sideshot to ℄ I-WALL

Next Page

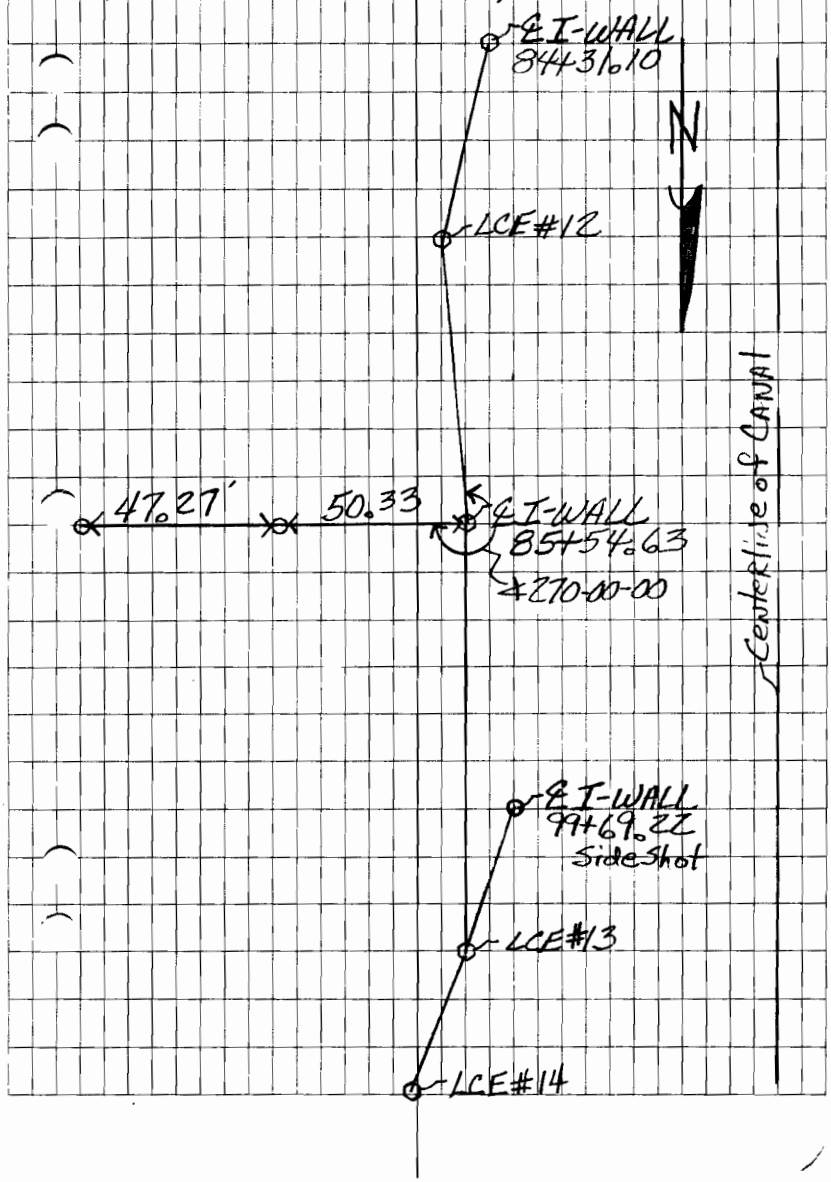
J. Gremillion & Co.
B. Lemoine &
G. Whitney of

July 5, 1994

Wild TC-1000

Clear & Hot Temp. 90°

Note: All Reference Marks set 1/4" Rec-Bar



Job# 94-B-0047

TRAVERSE of B/L AND ℄ of I-WALL

T@LCE#13=99+96.67

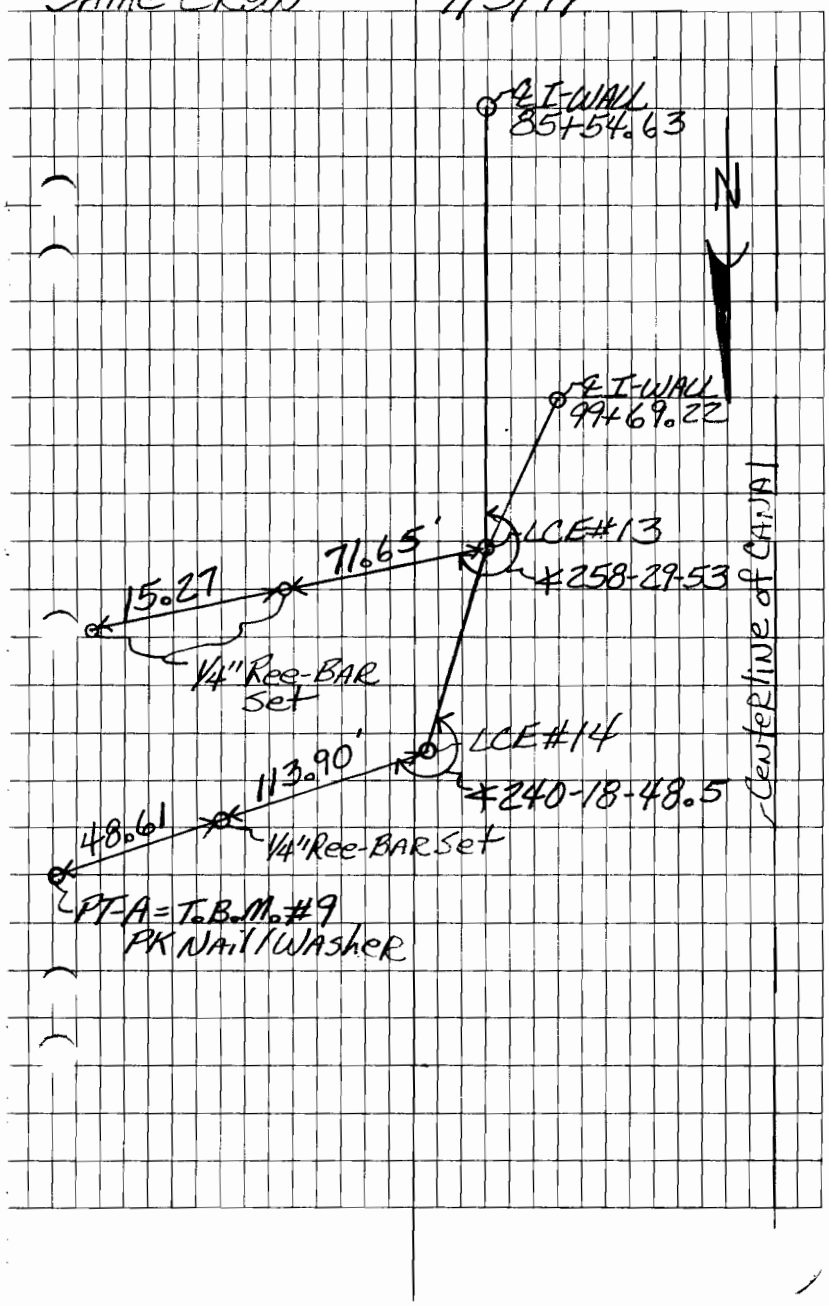
	D	R
B.S. ℄ I-WALL 85+54.63	00-00-05	180-00-10
	216-46-14	216-46-09
F.S. LCE#14 100+43.44	216-46-19	36-46-19
mean ∠	216-46-11.5	
Dist. =	46.77'	

T@LCF#14=100+43.44

	D	R
B.S. LCE#13 99+96.67	00-00-05	180-00-10
F.S. T.B.-111.9 PT-A =	~~240-18-48~~	
	240-18-48	60-19-04
	240-18-43	240-18-54
mean ∠	240-18-48.5	
Dist.	162.51	

Next Page

Same Crew 7/5/94



Job# 94-B-0047

TRAVERSE of B/L & C/L I-WALL

T@ PT-A

		D	R
B.S.			
LCE#14 100+43.44		00-00-05	180-00-10
		76-45-51	76-45-53
F.S.			
PT-B		76-45-56	256-46-03
	mean ∠	76-45-52	
	Dist. =	252.70'	

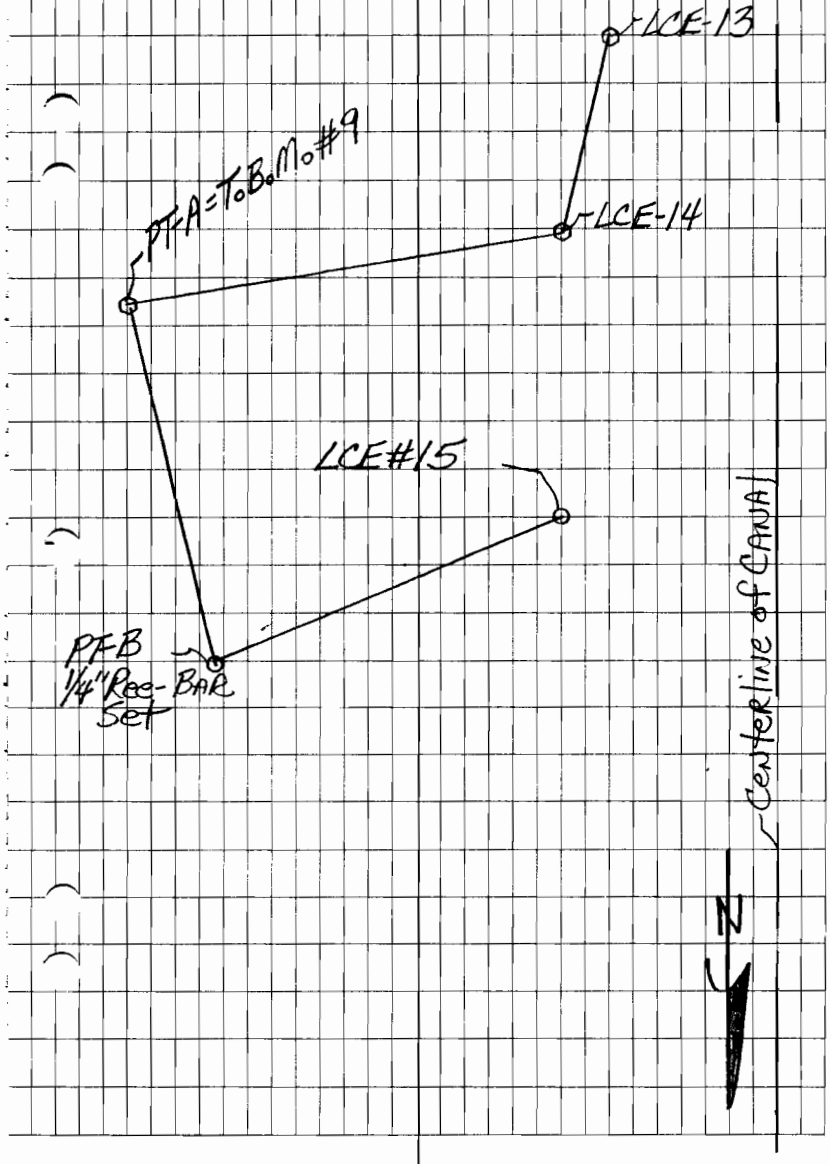
T@ PT-B

		D	R
B.S.			
PT-A		00-00-05	180-00-10
		86-26-43	86-26-43
F.S.			
LCE#15 102+48.69		86-26-48	266-26-53
	mean ∠	86-26-43	
	Dist. =	171.74'	

Next Page

SAME CREW 7/5/94

Note



Job# 94-B-0047

Traverse of B/L & C/L I-WALL

* Side Shot

T@LCE#15 = 102+48.69

B.S.	D	R
PT-B	00-00-05	180-00-10
	~~252-01-34~~	~~252-01-33~~
	~~252-02-04~~	~~72~~
F.S. C/L I-WALL 102+67.12 ③	~~252-01-39~~	72-01-43
	~~252-02-09~~	~~72-03-14~~
mean *	252-01-33.5	
Dist. =	21.58'	

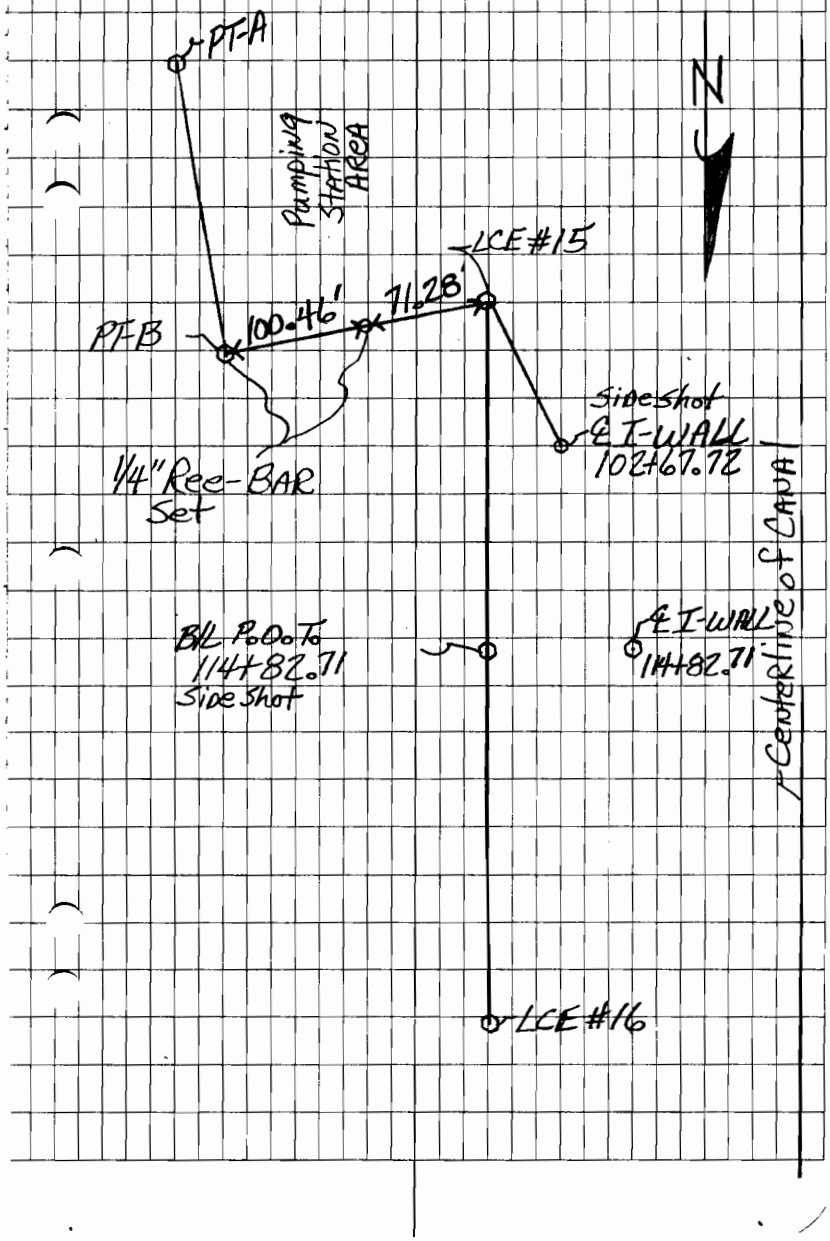
30

T@LCE#15 = 102+48.69

B.S.	D	R
PT-B	00-00-05	180-00-10
	279-29-48	279-29-53
F.S. LCE#16 119+16.35	279-29-53	99-30-03
mean *	279-29-50.5	
Dist.	1667.65'	

Next Page

SAME CREW 7/5/94



8

Job# 94-B-0047

Traverse of B/L & ℄ I-WALL

* Side Shot on B/L

T@LCE#15 = 102+48.69

		D	R
B.S. PT-B		00-00-05	180-00-10
F.S. B/L I-WALL 114+82.71 *		279-28-28	279-28-31
		279-28-33	99-28-41
	mean =	279-28-29.5	
	Dist. =	1234.02	

* Side Shot to ℄ I-WALL

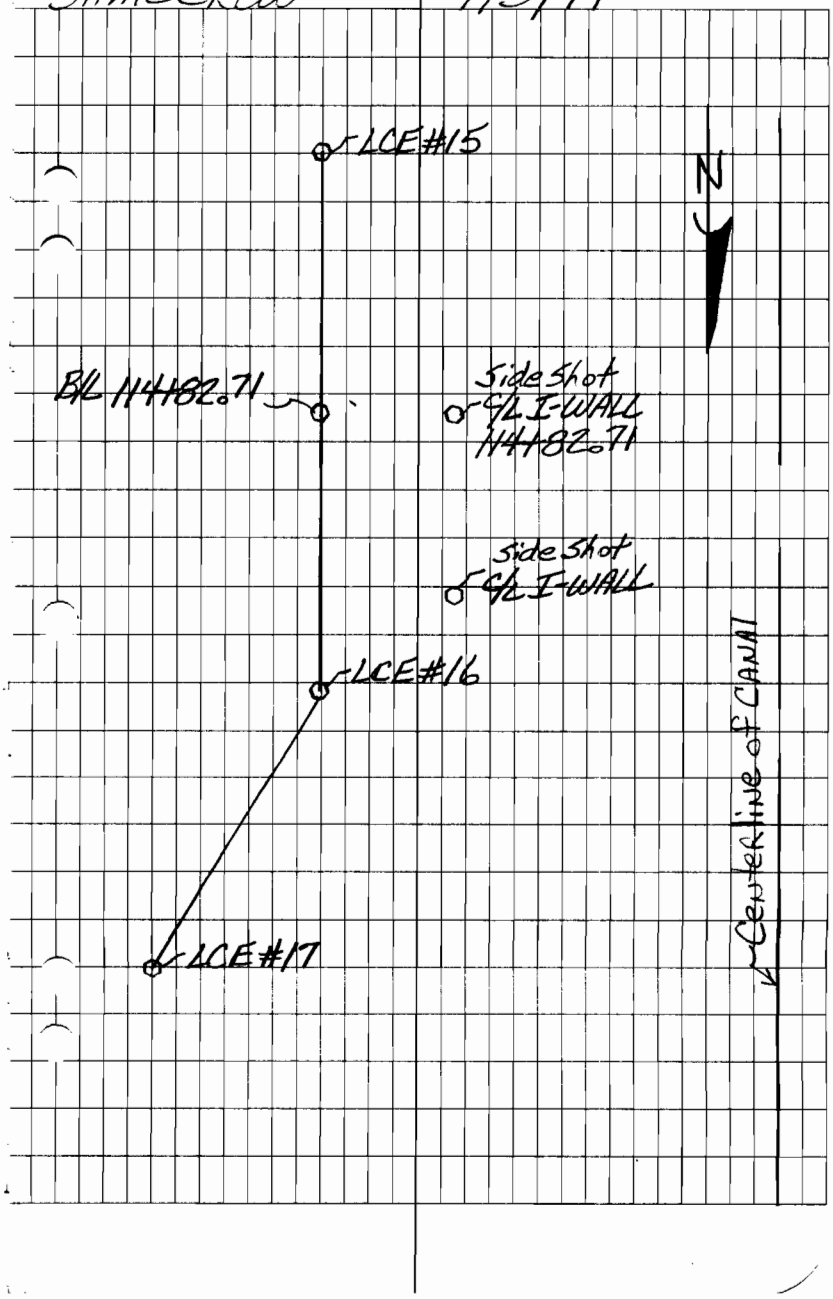
~~T@B/L I-WALL~~ /

T@B/L 114+82.71

		D	R
B.S. LCE#15 102+48.69		00-00-05	180-00-10
		89-58-27	89-58-35
F.S. ℄ I-WALL 114+82.71 5		89-58-32	269-58-45
	mean =	89-58-31	
	Dist. =	11.24'	

Next Page

SAME CREW 7/5/94



9

Job# 94-B-0047

TRAVERSE of ℄ℓ & ℄L I-WALL

A Sideshot to ℄L I-WALL

T@LCE-16 = 119+16.35

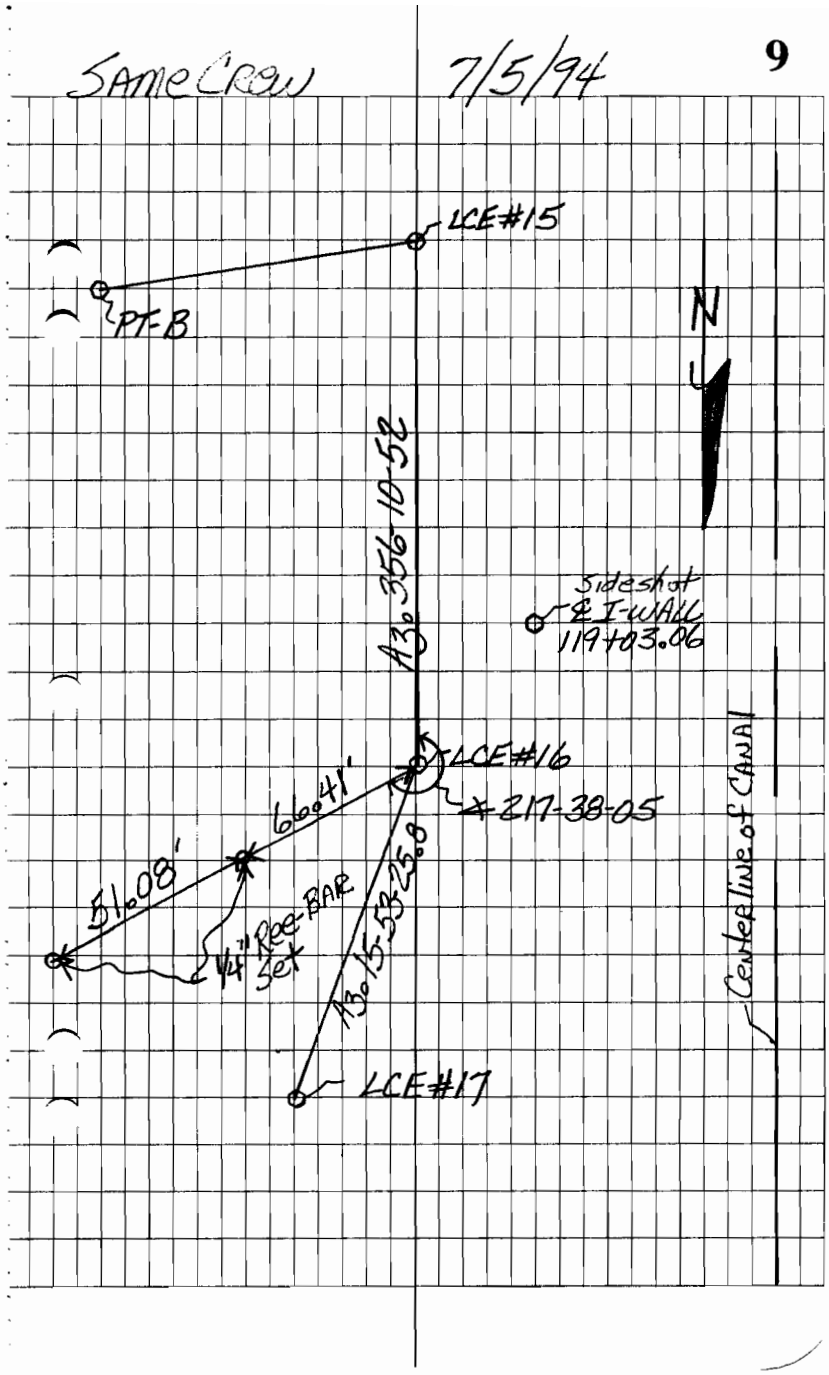
		D	R
B.S. LCE#15			
		00-00-05	180-00-10
		41-45-23	
		~~41-45-06~~	41-45-27
F.S. ℄I-WALL 119+03.06		~~41-45-28~~	
6		~~41-45-11~~	221-45-37
	mean ∡	41-45-25	
	Dist. =	17.67	

A T@LCE#16 = 119+16.35 2

		D	R
B.S. LCE#15 102+48.69		00-00-05	180-00-10
		199-41-23	199-41-08
F.S. LCE#17 120+18.82		199-~~41-28~~ 41-28	19-41-18
	mean ∡	199-41-15.5	
	Dist. =	102.44'	

Next Page

Same Crew 7/5/94



Job #94-B-0047

TRAVERSE of B/L AND ℄ I-WALL

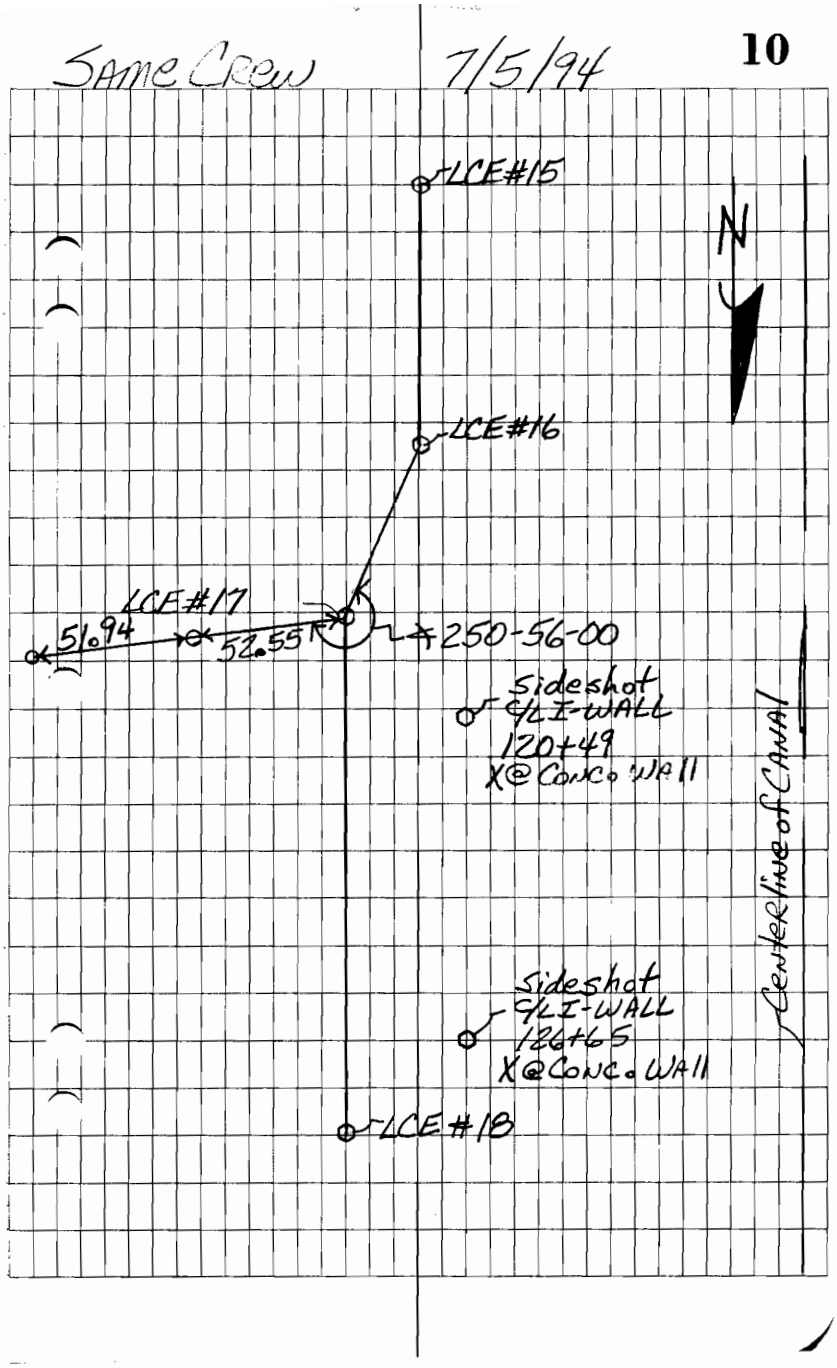
* Side Shot @ ℄ I-WALL

T@LCE-17 = 120+18.82

		D	R	
B.S. LCE#16 119+60.35		00-00-05	180-00-10	⌒
		149-26-34	149-26-44	
F.S. ℄ I-WALL 120+49		149-26-39	329-26-54	
7				
	mean ∠	149-26-39		
	Dist. =	30.68'		
*	Side Shot @ ℄ I-WALL			⌒
	T@LCE#17 = 120+18.82			
B.S. LCE#16 119+60.35		D	R	
		00-00-05	180-00-10	
		159-27-45	159-27-43	
F.S. ℄ I-WALL 126+65		159-27-50	339-27-53	⌒
(8)				⌒
	mean ∠	159-27-44		
	Dist. =	646.19		

Next Page

SAME CREW 7/5/94



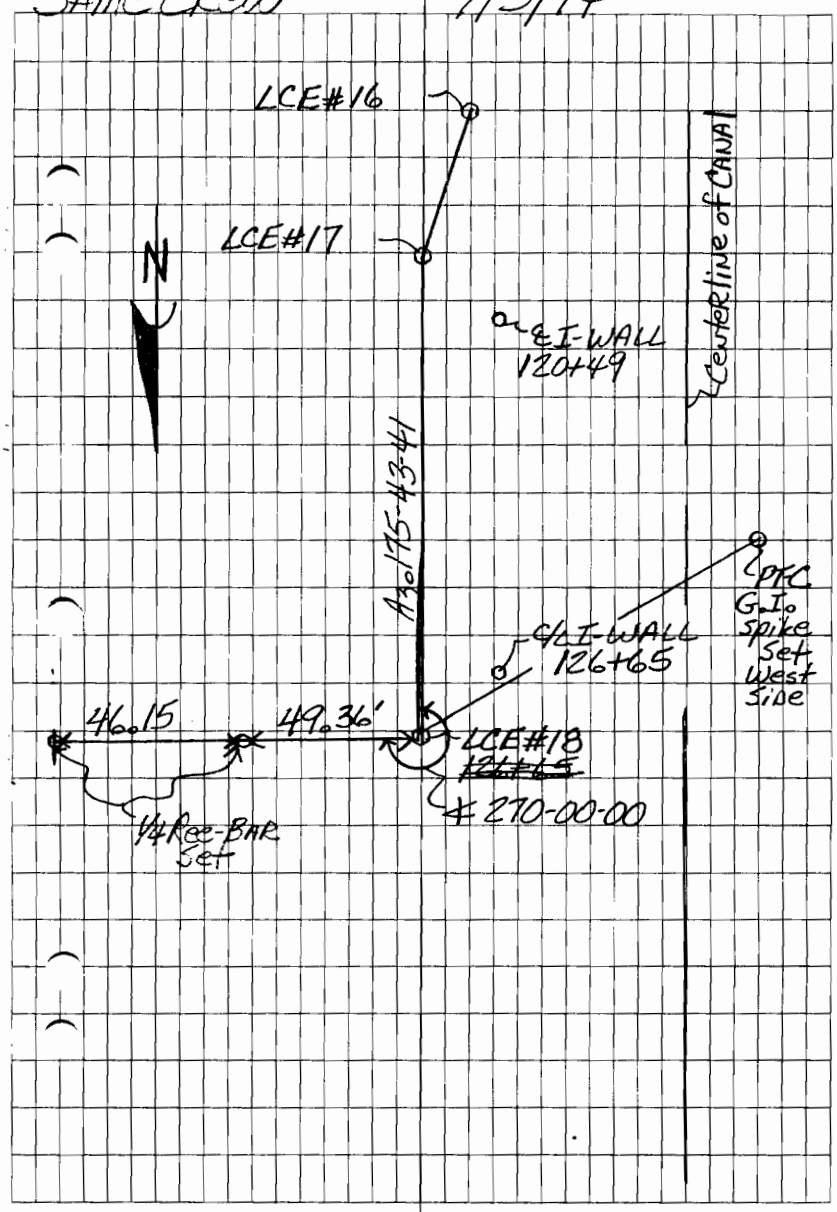
Job # 94-B-0047

TRAVERSE of B/L AND 96 I-WALL

T@LCE#17 = 120+18.82			3
B.S.	D	R	
LCE#16 119+60.35	00-00-05	180-00-10	
	159-51-27	159-51-39	
F.S. LCE#18 126+88.58	159-51-32	339-51-49	
MEAN ∠	159-51-33		
Dist. =	669.75'		
T@LCE#18 = 126+88.58			4
B.S.	D	R	
LCE-17 120+18.82	00-00-05	180-00-10	
	59-04-05	59-04-08	
F.S. PT-C	59-04-10	239-04-18	
MEAN ∠	59-04-06.5		
Dist. =	353.71'		

Next Page

SAME CREW 7/5/94



Job #94-B-0047

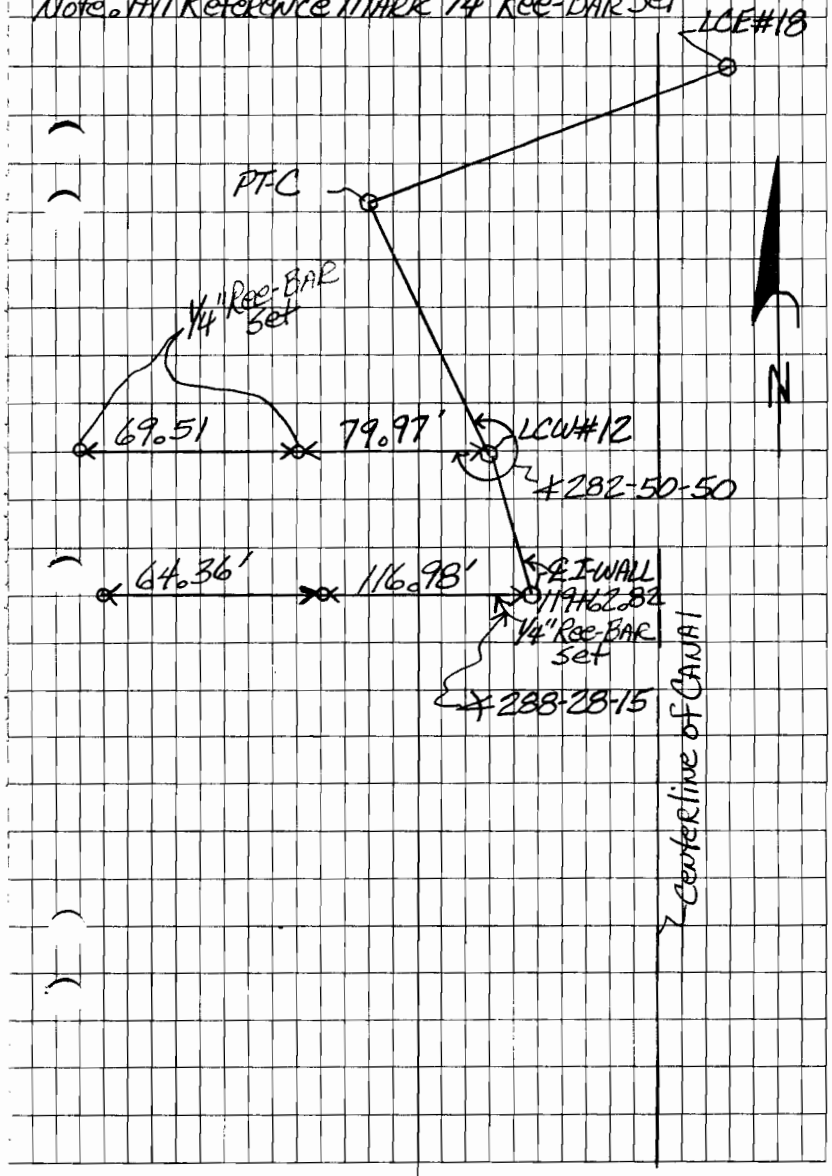
TRAVERSE of B/L AND C/L of I-WALL

T@PT-C				5
B.S.		D	R	
LCE#18 176+88.58		00-00-05	180-00-10	
		109-42-40	109-42-40	
F.S. LCW#12 119+78.50		109-42-45	289-42-50	
	mean ∠	109-42-40		
	Dist.	549.99'		
T@LCW-12				6
B.S. PT-C		D	R	
		00-00-05	180-00-10	
		177-15-32	177-15-31	
F.S. ℄ I-WALL 119+62.82		177-15-37	357-15-41	
	mean ∠	177-15-31.5		
	Dist. =	16.21'		

Next Page

Same Crew 7/5/94

Note: All Reference Mark 1/4" Ree-Bar Set



Job #94-B-0047

TRAVERSE of B/L AND C/L I-WALL

T@ 119+62.82 C/L I-WALL

		D	R	
B.S. LCW#12 119+78.50		00-00-05	180-00-10	7
		194-18-28	194-18-39	
F.S. C/L I-WALL N5+00		194-18-33	14-18-49	
	mean =	194-18-33.5		
	Dist. =	462.74		

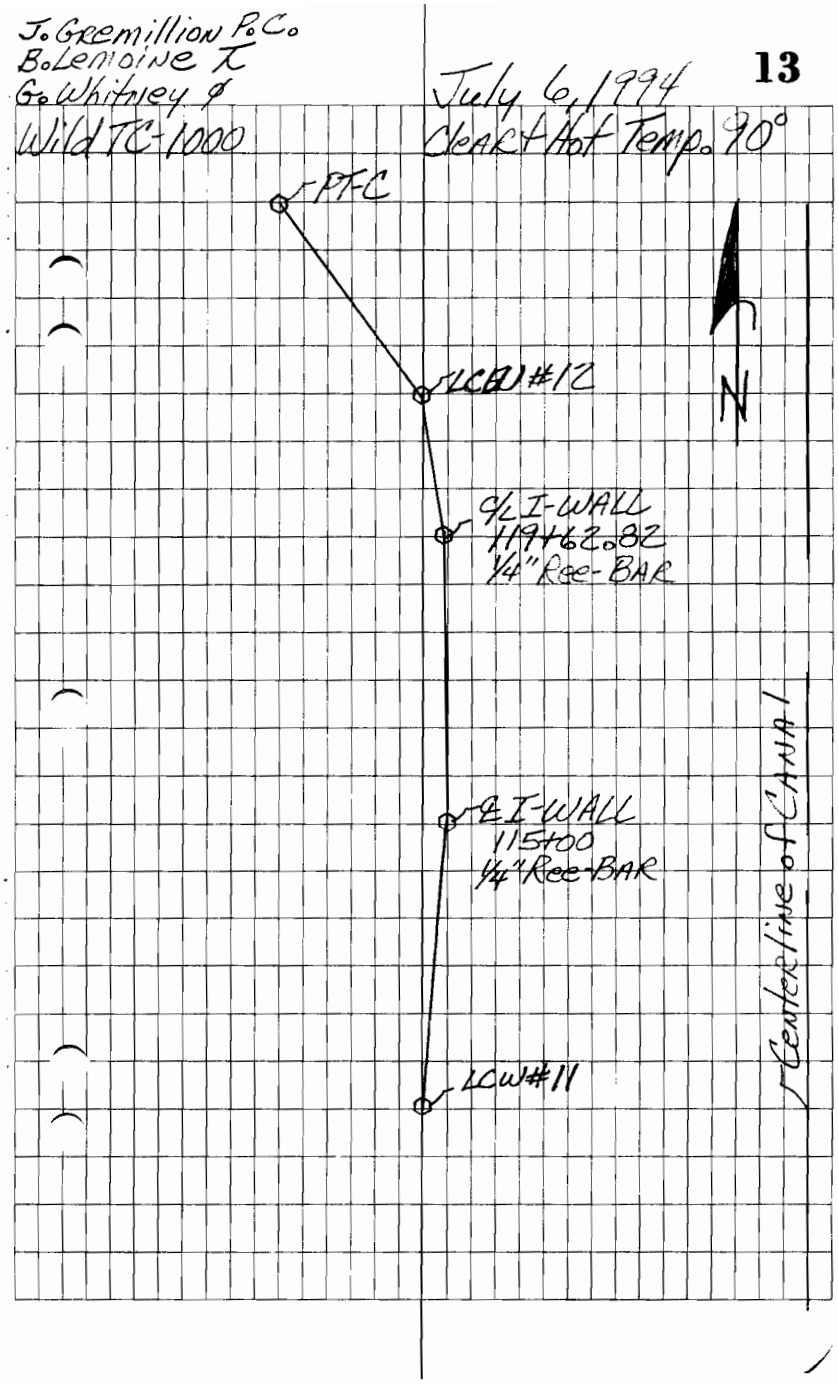
T@ C/L I-WALL N5+00

		D	R	
B.S. C/L I-WALL 119+62.82		00-00-05	180-00-10	8
		180-11-21	180-11-22	
F.S. LCW#11 102+23.11		180-11-26	00-11-32	
	mean =	180-11-21.5		
	Dist. =	1276.93		

Next Page

J. Gremillion P.C.
B. Lemoine T
G. Whitney R
Wild TC-1000

July 6, 1994
Clear & Hot Temp. 90°



Job# 94-B-0041

TRAVERSE of B/L AND C/L I-WALL

T@ LCW#11 = 102+23.41

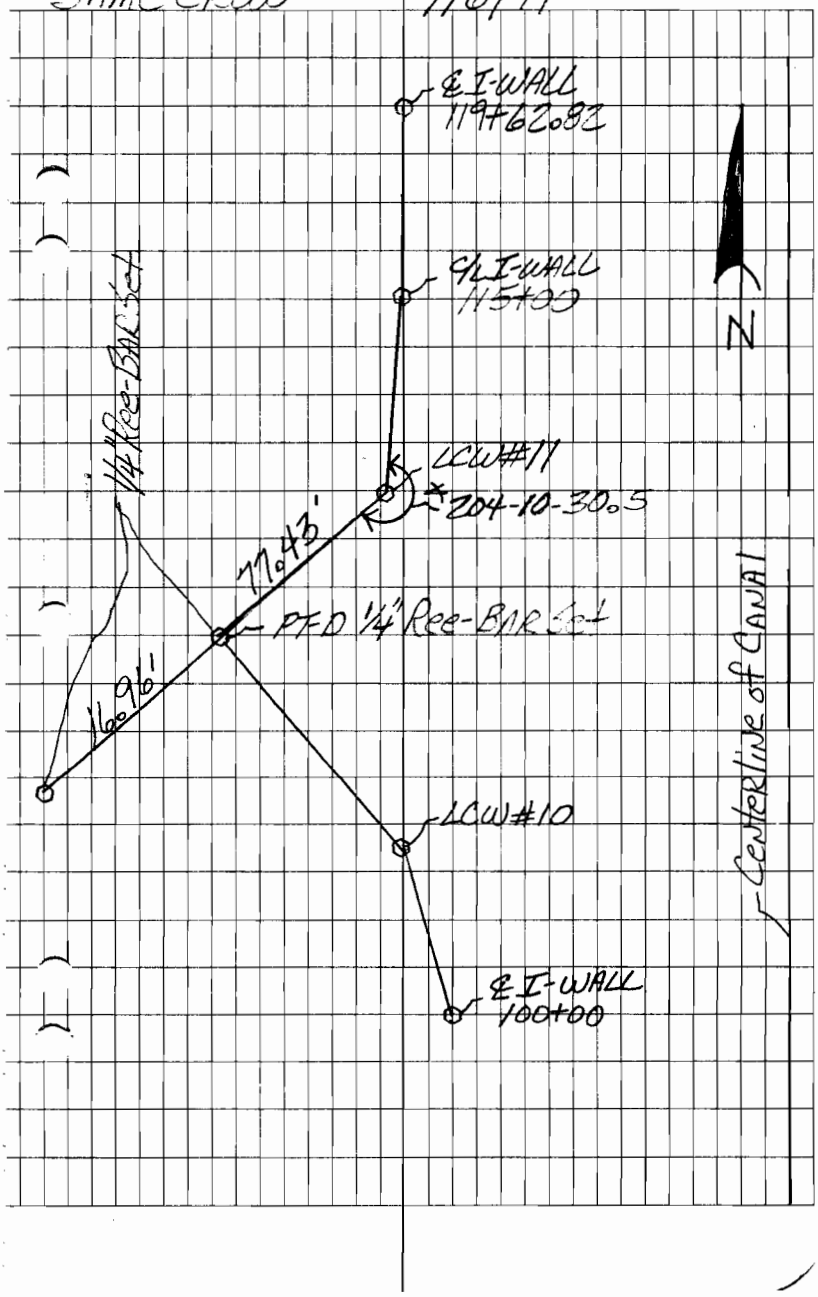
		D	R
B.S. C/L I-WALL 115+00		00-00-05	180-00-10
		204-10-24	204-10-37
F.S. PT-D		204-10-29	204-10-47
	MEAN ∠	204-10-30.5	
	Dist. =	77.43'	

T@ PT-D

		D	R
B.S. LCW#11 102+23.41		00-00-05	180-00-10
		116-11-28	116-11-35
F.S. LCW#12 101+12.99		116-11-33	296-11-45
	MEAN ∠	116-11-31.5	
	Dist. =	51.23'	

Next Page

SAME CREW 7/6/94



Job# 94-B-0047

TRAVERSE of B/L AND C/L I-WALL

T@LCW# 10 = 101+12.99

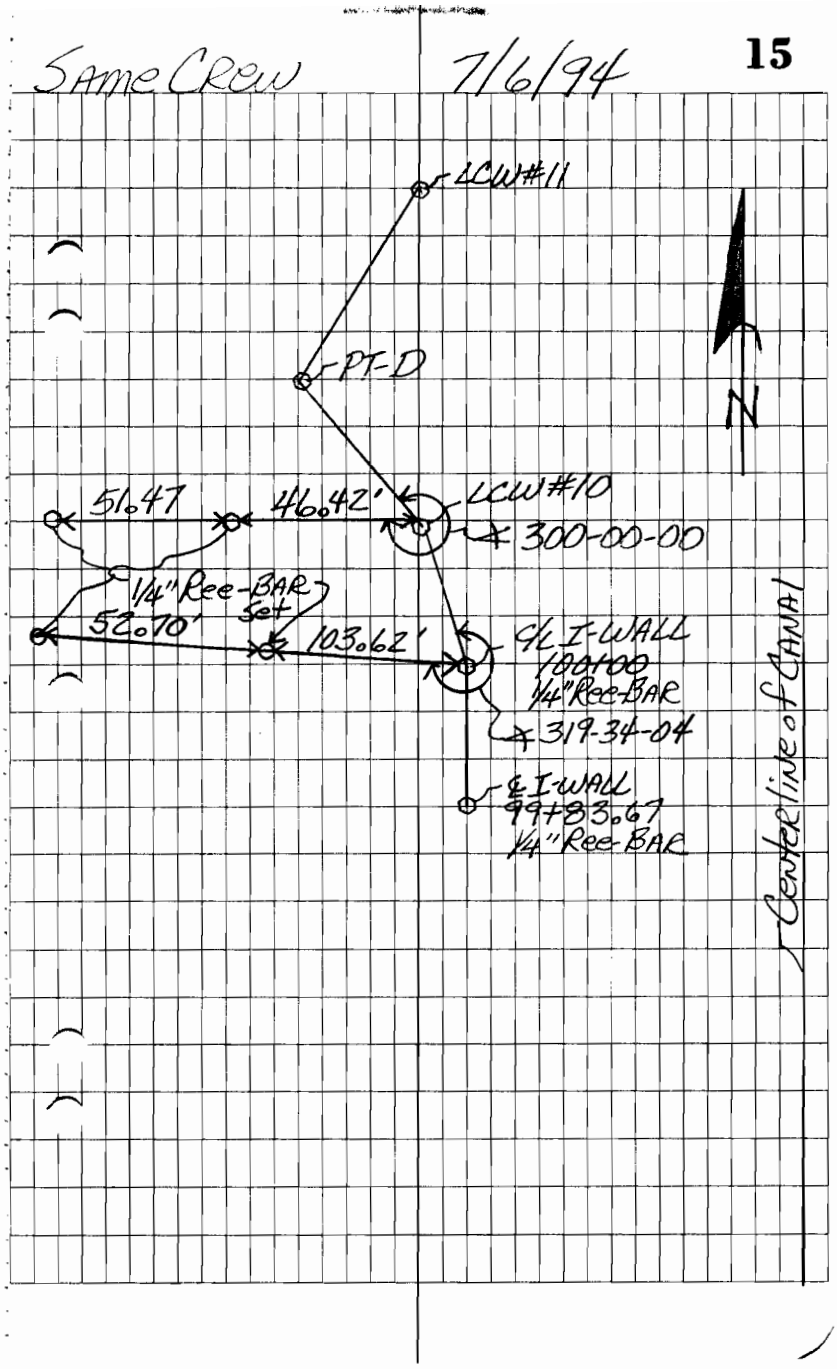
		D	R
B.S.			
PT-D		00-00-05	180-00-10
		217-12-09	217-12-06
F.S. C/L I-WALL 100+00		217-12-14	37-12-16
	MEAN =	217-12-07.5	
	Dist. =	113.03'	

T@C/L I-WALL 100+00

		D	R
B.S. LCW#10 101+12.99		00-00-05	180-00-10
		181-38-28	181-38-24
F.S. C/L I-WALL 99+83.67		181-38-33	01-38-34
	MEAN =	181-38-36	
	Dist. =	16.31	

Next Page

SAME CREW 7/6/94



Job # 94-B-0047

Traverse of ℄ and ℄ I-Wall

★ Side Shot to ℄ I-Wall

T@ ℄ I-Wall 99+83.67

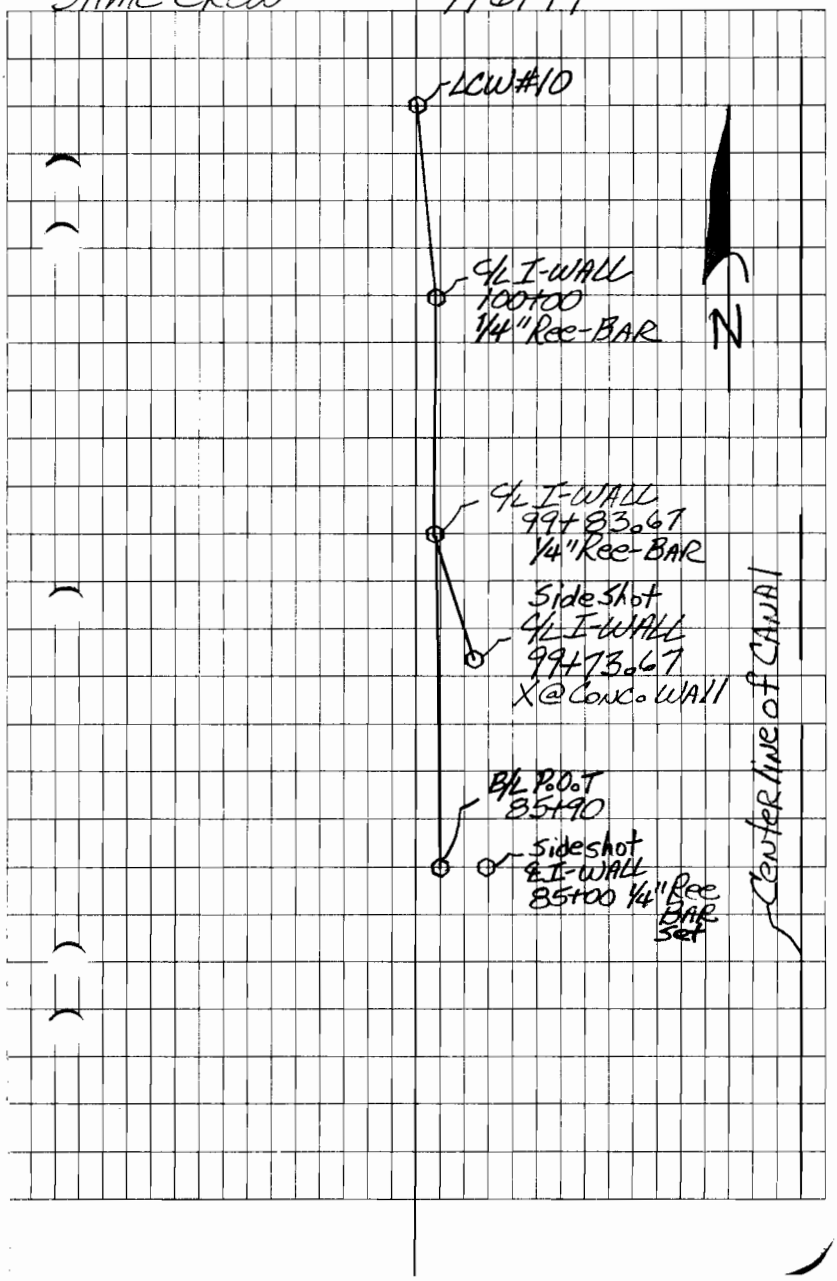
		D	R
B.S. ℄ I-Wall 100+00		00-00-05	180-00-10
		165-42-10 ~~165-41-47~~	165-42-24
F.S. ℄ I-Wall 99+73.67		165-42-15 ~~165-41-52~~	345-42-34 ~~345-42-11~~
⑧			
	mean ∠	165-42-17	
	Dist. =	10.34'	

T@ ℄ I-Wall 99+83.67 13

		D	R
B.S. ℄ I-Wall 100+00		00-00-05	180-00-10
		180-29-46	180-29-48
F.S. BL P.O.T 85+90		180-29-51	00-29-52
	mean ∠	180-29-44	
	Dist. =	1393.66	

Next Page

SAME CREW 7/6/94



17

Job # 94-B-0041

Traverse of B/L and ℄ I-WALL

& Sideshot to ℄ I-WALL

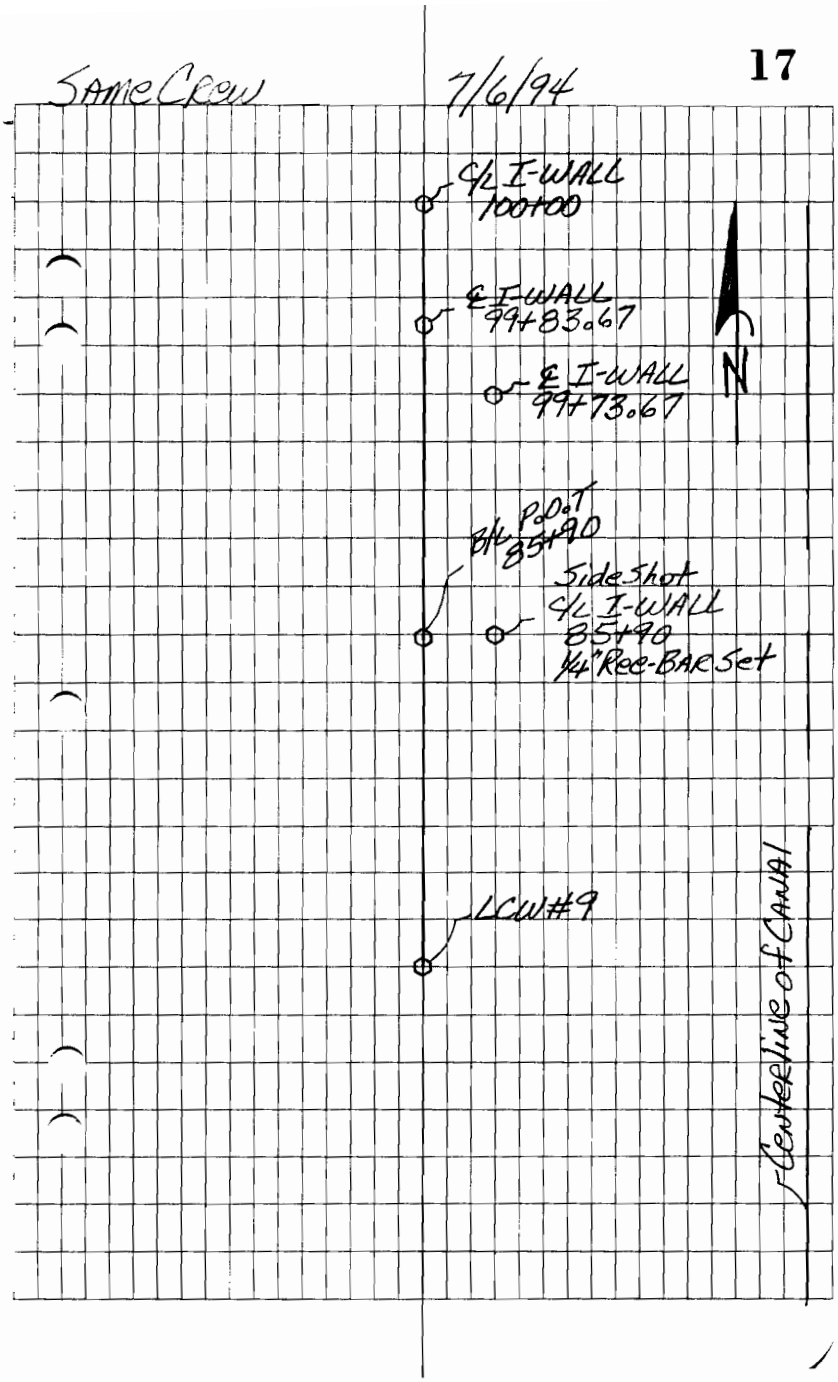
T@B/L P.O.T. 85+90

B.S. ℄ I-WALL 99+83.67		D	R
		00-00-05	180-00-10
		89-45-53	89-45-43
F.S. ℄ I-WALL 85+90 ⑨		89-45-58	269-45-53
	mean ∠	89-45-48	
	Dist. =	7.81'	

T@B/L POT 85+90

B.S. ℄ I-WALL 99+83.67		D	R
		00-00-05	180-00-10
		179-50-18	179-50-11
F.S. LCW#9 84+94.52		179-50-23	359-50-21
	mean ∠	179-50-14.5	
	Dist.	95.48'	

Next Page


SAME CREW
7/6/94
℄ I-WALL
100+00
℄ I-WALL
99+83.67
℄ I-WALL
99+73.67
N
P.O.T
85+90
Side Shot
℄ I-WALL
85+90
½" Rec-BAR Set
LCW#9
Centerline of CANAL

Job # 94-B-0047

TRAVERSE of ℄ AND ℄ I-WALL

Sideshot to ℄ I-WALL

T@ ΔCW#9 = 84+94.52

		D	R
B.S. ℄ I-WALL 84+90		00-00-05	180-00-10
		168-33-49	168-33-50
F.S. ℄ I-WALL 84+54.72		168-33-54	348-34-00
(10)			
	MEAN =	168-33-49.5	
	Dist. =	40.63	

Sideshot to ℄ I-WALL

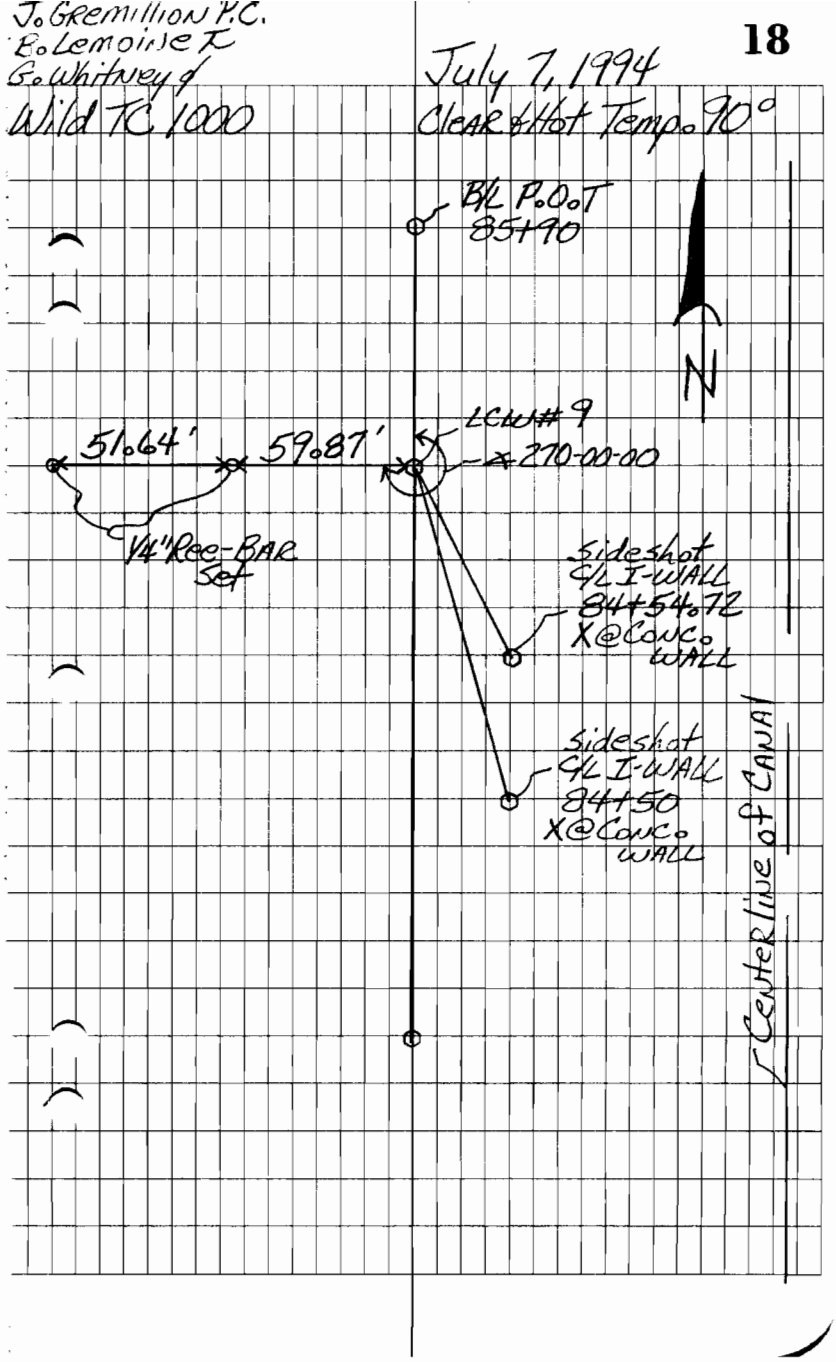
T@ ΔCW#9 = 84+94.52

		D	R
B.S. ℄ I-WALL 84+90		00-00-05	180-00-10
		169-41-46	169-41-47
F.S. ℄ I-WALL 84+50		169-41-51	349-41-57
(11)			
	MEAN =	169-41-46.5	
	Dist. =	45.24'	

Next Page

J. Gremillion P.C.
B. Lemoine F
G. Whitney J
Wild TC 1000

July 7, 1994
Clear & Hot Temp. 90°



Job# 94-B-0047

TRAVERSE of ℄ AND ℄ I-WALL

T@ LCW#9 = 84+94.52

		D	R	
B.S. BIL POT 85+90		00-00-05	180-00-10	15
		179-51-55	179-51-52	
F.S. BIL POT 74+92		179-52-00	359-52-02	
	MEAN ∠	179-51-53.5		
	Dist. =	1002.56'		

∠ Sideshot to ℄ I-WALL

T@ BIL POT 74+92

		D	R	
B.S. LCW#9 84+94.52		00-00-05	180-00-10	
		90-01-23	90-01-22	
F.S. ℄ I-WALL 74+92 (12)		90-01-28	270-01-32	
	MEAN ∠	90-01-22.5		
	Dist. =	10.68'		

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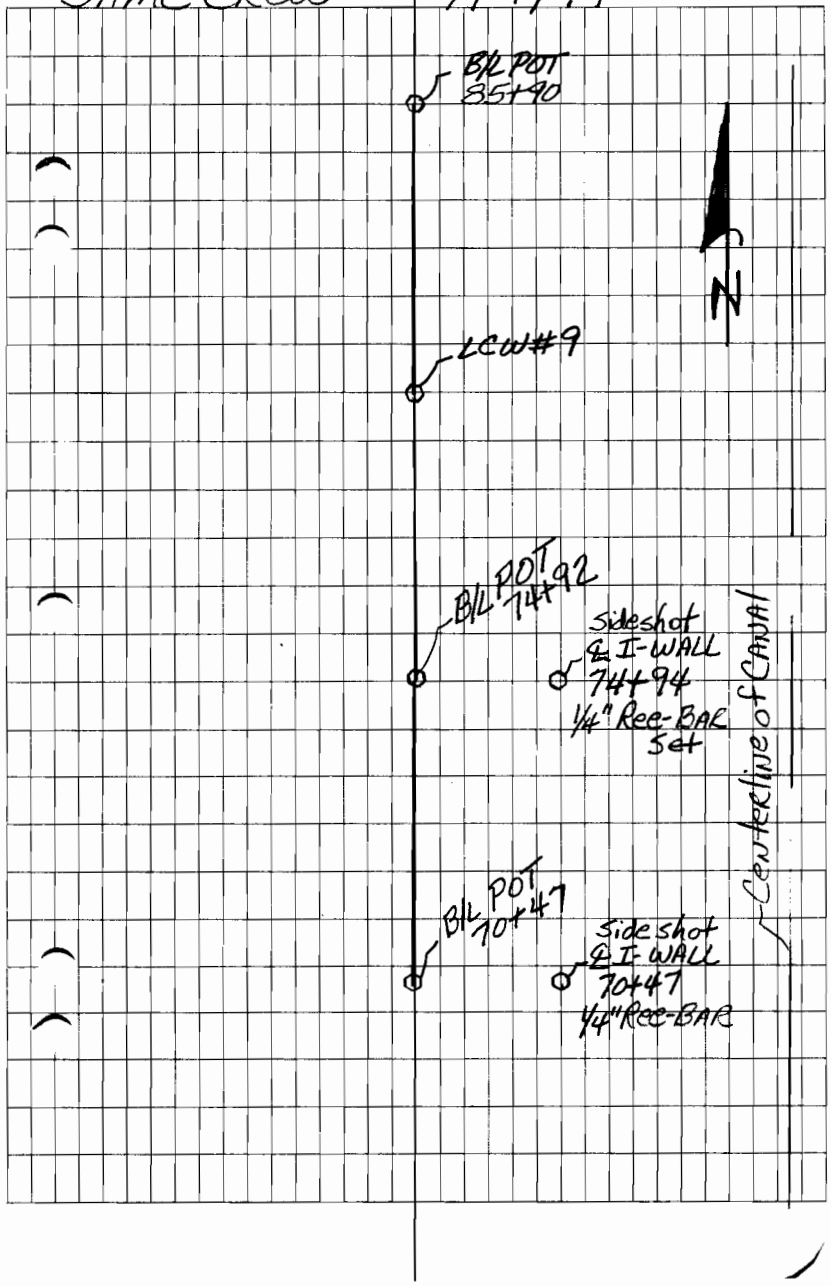
Same Crew 7/7/94



Job #94-B-0047

TRAVERSE of B/L AND ℄ I-WALL

T@ B/L P.O.T. 74+92 16

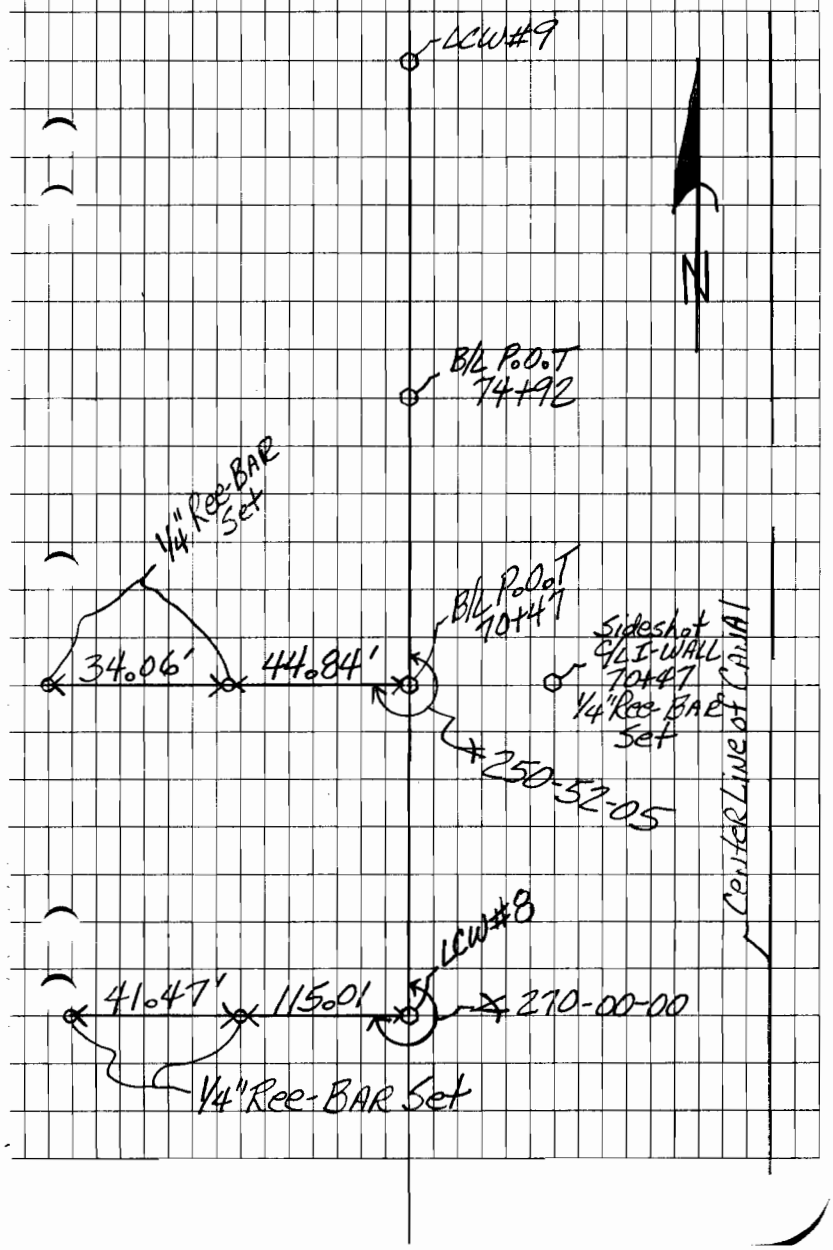
B.S. LCW#9 84+94.52		D 00-00-05	R 180-00-10
		179-59-55	179-59-54
F.S. B/L POT 70+47		180-00-00	00-00-04
	mean ∠	179-59-54.5	
	Dist. =	444.97'	
* Sideshot	℄ I-WALL		

T@ B/L P.O.T 70+47

B.S. B/L P.O.T 74+92		D 00-00-05	R 180-00-10
		89-54-08	89-53-59
F.S. ℄ I-WALL 70+47 (13)		89-54-13	269-54-09
	mean ∠	89-54-03.5	
	Dist. =	7.05'	

Next Page

SAME CREW 7/7/94



Job #94-B-0047

TRAVERSE of B/L AND C/L I-WALL

⊼@ B/L P.O.T 70+47 — 17

		D	R	
B.S.				✓
B/L P.O.T. 74+92		00-00-05	180-00-10	✓
		179-57-23	179-57-21	
F.S.				
LCW#8 69+40.25		179-57-28	359-57-31	
	mean ∡	179-57-22		
	Dist.=	106.62		

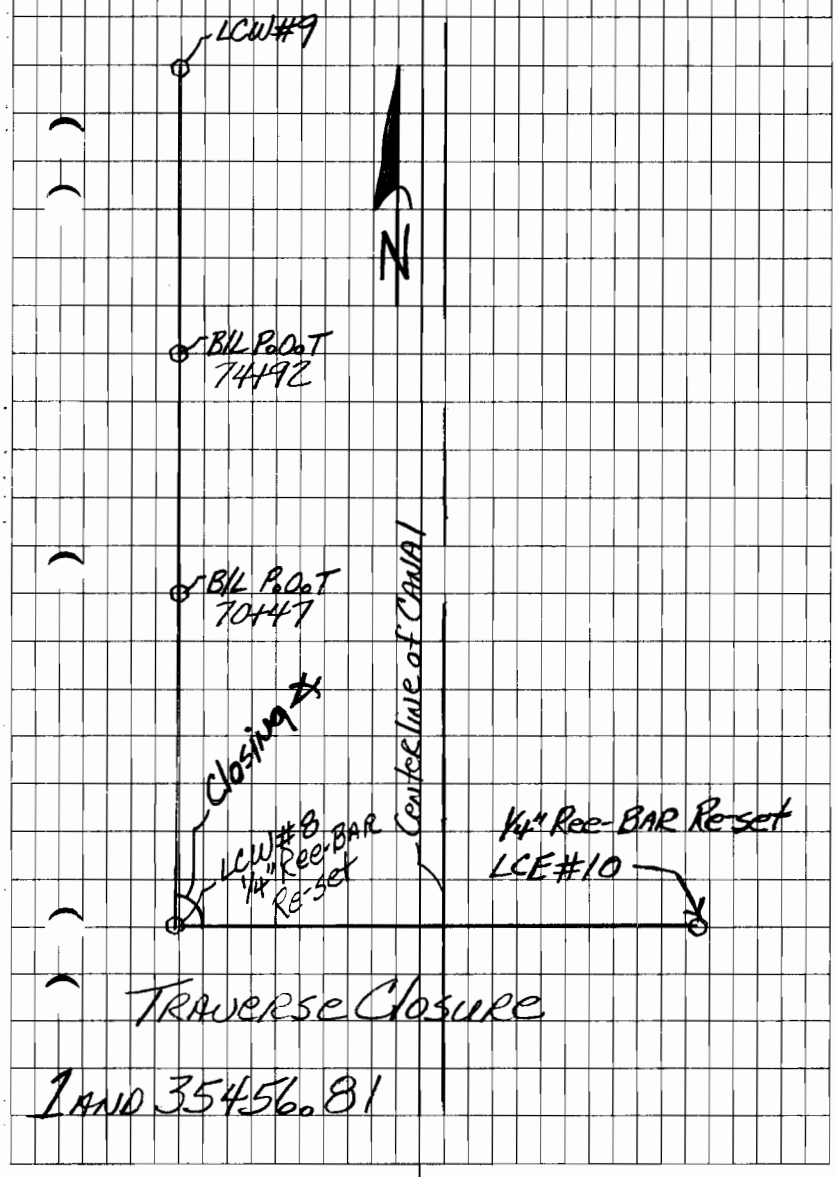
Closing ∡ 18 ✓

⊼@ LCW#8=69+40.25

		D	R	
B.S.				
B/L P.O.T 70+47		00-00-05	180-00-10	
		87-51-43	87-51-42	
F.S.				
LCF#10 69+15.97		87-51-48	267-51-52	✓
	mean ∡	87-51-42.5		✓
	Dist.=	141.67'		

Next Page

SAME CREW 7/7/94



TRAVERSE CLOSURE

1 AND 3545 6.81

Job #94-B-0047

~~Coordinates~~

Coordinates of EAST Baseline

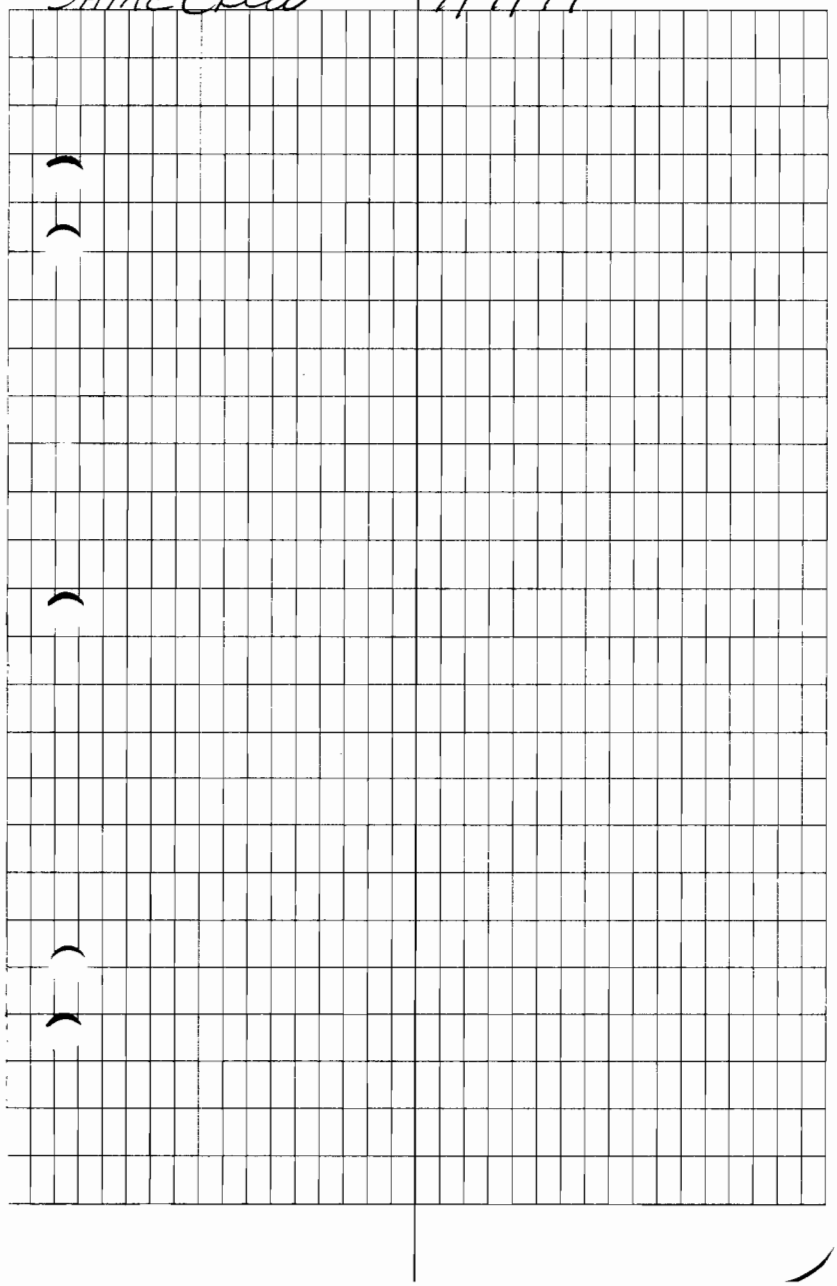
	Northern	Eastern
69+15.97	1,004,976.276	999,659.4568
84+02.42	1,003,493.494	999,763.9298
84+71.30	1,003,424.851	999,768.6757
99+96.67	1,001,902.697	999,866.8285
100+43.44	1,001,863.549	999,841.2374
102+48.69	1,001,663.901	999,888.9502
119+16.35	1,000,000.00	1,000,000
120+18.82	999,901.4639	999,971.9894
126+88.58	999,233.5748	1,000,021.881
127+65.81		

Coordinates of West Baseline

	Northern	Eastern
69+40.25	1,004,992.341	999,800.2130
84+94.52	1,003,442.629	999,917.5811
101+12.99	1,001,828.555	1,000,035.926
102+23.11	1,001,718.758	1,000,044.064
119+78.50	999,967.4892	1,000,163.991

Next Page

Same Crew 7/7/94



Job# 94-B-0047

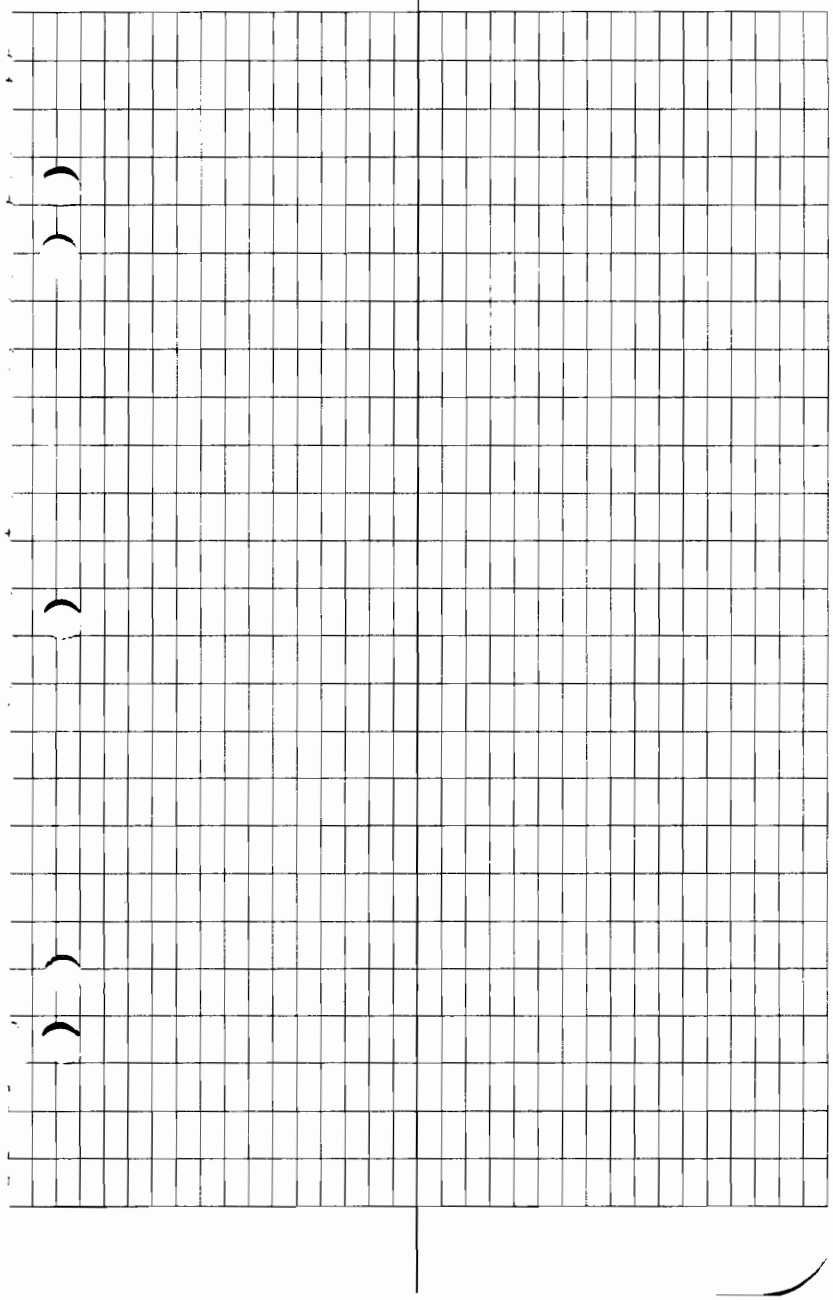
Coordinate of ℄ I-WALL East

	Northern	Eastern
70+26.77	1,004,865.918	999,669.7757
84+20.31	1,003,475.962	999,769.2466
84+31.10	1,003,465.219	999,770.0079
85+54.63	1,003,341.946	999,776.3556
99+69.22	1,001,874.782	999,859.3873
102+67.72	1,001,682.345	999,877.7461
114+82.71	1,002,894.411	999,795.3285
119+03.06	999,985.9965	999,988.7948
120+49.00	999,986.7860	999,954.6674
126+65.00	1,000,490.140	999,705.4906

Coordinates of ℄ I-WALL West

119+62.82	999,982.8853	1,000,158.919
70+47.00	1,004,886.575	999,815.3715
74+92.00	1,004,443.133	999,852.5805
84+50.00	1,003,398.829	999,928.9052
84+54.72	1,003,483.186	999,915.1458
85+90.00	1,003,347.986	999,932.3496
99+73.67	1,001,947.403	1,000,025.835
99+83.67	1,001,957.190	1,000,022.499
100+00.00	1,001,940.931	1,000,023.786
115+00.00	1,000,444.540	1,000,127.249

Next Page



CELMN-CD-NO (1180-1-1q) DATE: 16 November 1994
zdb

MEMORANDUM THRU NOAO, ATTN: Office Engineering Section

FOR C/Const Div, ATTN: C/Const Svc Sec

SUBJECT: Transmittal of Computation Information,
Contract No. DACW29-94-C-0079, London Ave., Contract #03

[ ] Attached are original field notes on stations _____

[ ] Attached are final field notes on stations _____

[ ] Attached are original data for settlement plates for stations _____

[ ] Attached are final data for settlement plates for stations _____

[XXX] Attached is additional information necessary for calculation quantities on subject job.

[ ] The attached data is the last data necessary for computing theoretical quantities. No more data is needed for theoreticals.

[ ] The attached data is the last data necessary for computing final quantities. No more data is needed for finals.

[XXX] Additional Comments: Attached are the Contractor's Original Field Notes for TBM's #2-B, #2-C, #2-D and #2-E for this project. Notes were taken from Contr's Book #01, pages #04 & #05.

Attch

John F. Morton 12/2/94
For CHESTER ASHLEY
Area Engineer
New Orleans Area Office

CF: Proj Engr
Ocf Tech (Btuno/Urban)

DACW29-94-C-0079

Lake Pontchartrain, LA. and Vicinity

HIGH LEVEL PLAN

London Avenue Outfall Canal,
Parallel Protection

Mirabeau Ave. To Robert E. Lee Blvd.,
WEST BANK
Mirabeau Ave. To Leon C. Simon Blvd.,
East Bank

Orleans Parish, LA.

Book #1
Pages #4 and #5

T.B.M. Level Loop
Robert E. Lee to Pump, Sta. #4

11-15-94

B+K Construction: Jerry Justice

4

DACW29-94-C-0079

T.B.M. Level Loop (Robert E. Lee to P.S. #4)

Sta.	+	HI	−	Elev.	BM
	3.278				5.041
		8.319			
T.P. #1			5.305	3.014	
	4.474	7.488			
Set New T.B.M. #2-B			8.905	-1.417	← #2-B
T.P. #2			4.838	2.650	
	4.977	7.627			
Set New T.B.M. #2-C			10.252	-2.625	← #2-C
T.P. #3			3.576	4.051	
	3.712	7.763			
T.P. #4			7.240	0.523	
	7.198	7.721			
Set New T.B.M. #2-D			11.400	-3.679	← #2-D
Set New T.B.M. #2-E					
		→	8.356	-0.635	← #2-E
	~	Break	set up	~	
TBM #2-E	8.724			-0.635	
		8.089			
T.P. #4			7.550	0.539	
	7.627	8.166			
T.P. #3			4.103	4.063	
	4.213	8.276			
T.P. #2			5.618	2.658	

2

T Ø - J. Justice
11-15-94 Ø - S. Thome Clear + mild

4

T.B.M. #2 at Robert E. Lee (See Page #2 this Book)

←Set New T.B.M. #2-B at ± Station 116+00 East ℄. (Elev. -1.417) Top of 3/4" Iron Pipe ±6" East of Safety Fence.

←Set New T.B.M. #2-C at ± Station 111+30 East ℄. (Elev. -2.625) Top of 3/4" Iron Pipe ±6" East of Safety Fence.

←Set New T.B.M. #2-D at ± Station 106+20 East ℄. (Elev. -3.679) Top of 3/4" Iron Pipe ±6" East of Safety Fence

←Set New T.B.M. #2-E at ± Station 102+95 East ℄. (Elev. -0.635) Top of Abandoned Corner Fence Post ±8" East of Safety Fence (at Pump Sta. #4 Fence Line).

5

T.B.M. Level Loop (Continued from Page #4)

Sta.	+	H.I	−	Elev.	B.M.
	5.568			2.658	T.P. #2
		8.226			
T.P. #1			5.201	3.025	
	5.469	8.494			
Tie-IN to T.B.M. #2			3.443	5.051	Given = 5.041 Error = 0.010'

6

11-15-94 Same Party

← From Page #4

Tie-in to T.B.M. #2 to close loop.
Given elev. = 5.041

OFFICE ENGR SECTION
NOAO
Checked by: KB
Date: 11-29-94

CELMN-CD-NO (1180-1-1q) DATE: 23 January 1995
zdb

MEMORANDUM THRU NOAO, ATTN: Office Engineering Section

FOR C/Const Div, ATTN: C/Const Svc Sec

SUBJECT: Transmittal of Computation Information,
Contract No. DACW29-94-C-0079, London Ave. Canal Floodwall, Contract #03

[XXX] Attached are original field notes on stations West B/L Sta's 69+40.25 to 119+78.50, and East B/L Sta's 69+15.97 to 127+65.81. Contractor's Original Field Notes for the Traversing and Referencing of the Baseline P.I.'s

[ ] Attached are final field notes on stations _____

[ ] Attached are original data for settlement plates for stations _____

[ ] Attached are final data for settlement plates for stations _____

[ ] Attached is additional information necessary for calculation quantities on subject job.

[ ] The attached data is the last data necessary for computing theoretical quantities. No more data is needed for theoreticals.

[ ] The attached data is the last data necessary for computing final quantities. No more data is needed for finals.

[XXX] Additional Comments: The above mentioned field notes were taken from Contractor's Book #02, Pages #01 thru #11.

Attch

for CHESTER ASHLEY
Area Engineer
New Orleans Area Office

JAN 27 1995

DACW29-94-C-0079

Lake Pontchartrain and Vicinity
Hurricane Protection
High Level Plan
Orleans Parish, LA.
London Ave. Outfall Canal
Parrallel Protection
Mirabeau Ave. to Robert E. Lee Blvd.
WEST BANK
Mirabeau Ave. to Leon C. Simon Blvd.
EAST BANK

Book # 2
Pages # 1 through # 11

East & West BL Traverses
and References

1-20-95

Jerry Justice
B & K Construction

OFFICE ENGR SECTION
NOAO
Checked by: OJH
Date: 1-24-95

1

DACW29-94-C-0079
London Avenue Outfall Canal

West ℄ Traverse

℄ at West ℄ Monument 102+23.11
B.S. West ℄ Monument 119+78.50
~~∠ = 179° 40' 30" (To the Right)~~
Horiz. Distance = 1755.44'
F.S. West ℄ Monument 101+12.99
∠ = 179° 40' 30" (To the Right)
Actual → Horiz. distance = 110.14'
* Note: Assumed Plan Azimuth between sta. 119+78.50 and 102+23.11 of 356° 04' 28".

℄ at West ℄ Monument 101+12.99
B.S. Monument at West ℄ 102+23.11
F.S. Monument at West ℄ 84+94.52
∠ = 180° 03' 10" (Right)
Actual → Horiz. Distance = 1618.50

℄ at West ℄ Monument 84+94.52
B.S. West ℄ Monument 101+12.99
F.S. Iron Rod found at S. Side of Mimbeau
∠ = 179° 52' 10" (Right)
Actual → Horiz. distance = 1554.22

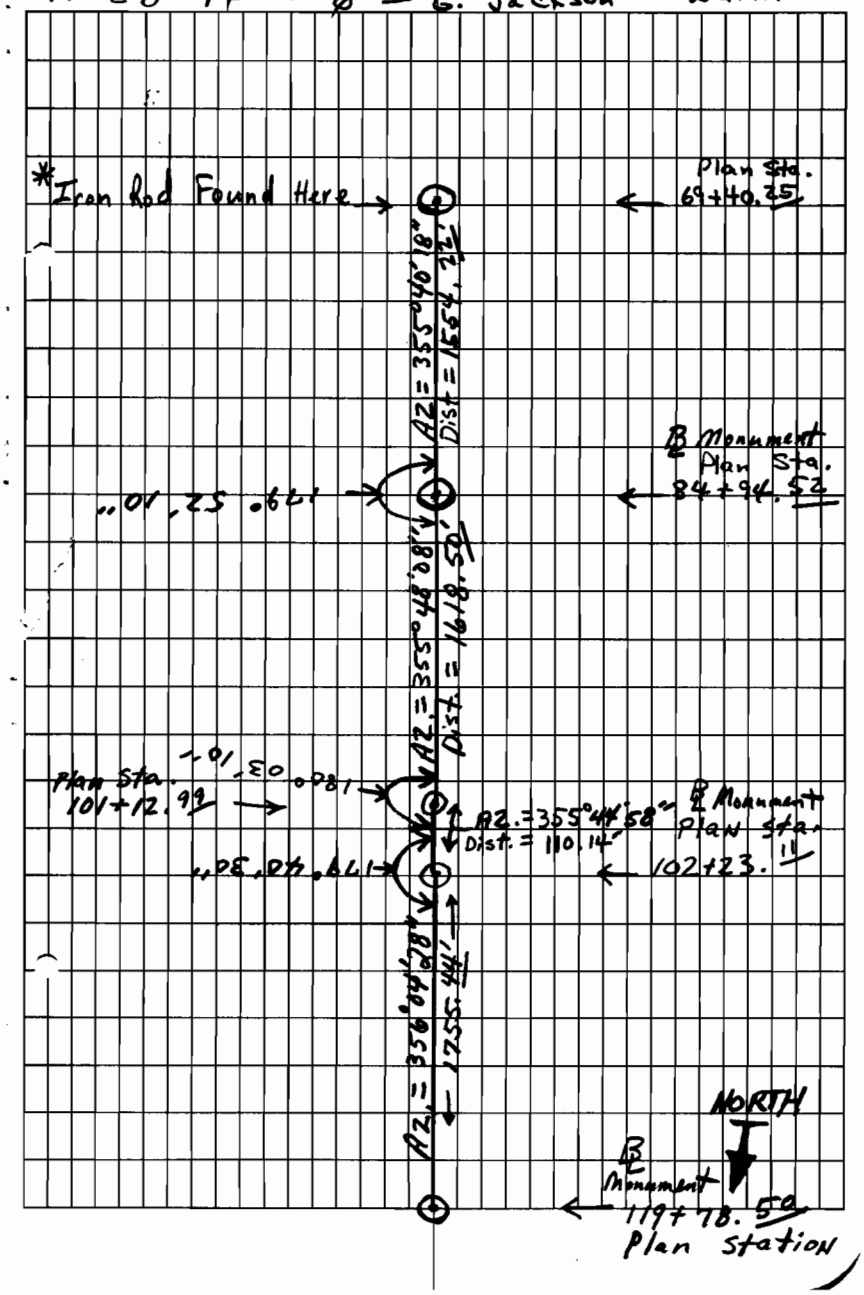
* No Monument found at sta. 69+40.25 on the west ℄ Canal, equipment may have destroyed it. (Boh Brothers Contract)

11-28-94

π ∅ — J. Justice
∅ — M. Comeaux
∅ — G. Jackson

Pt. Cloudy + Warm

1



12

DACW24-94-C-0019
London Ave. Outfall Canal

WEST ℄ Monument References

℄ at West ℄ Monument 119+78.50
B.S. West ℄ Monument 102+23.11
Turn ∡ 90° Right
Set Hub + Tack Points on this line
at 84.95' o/s ℄ and
162.00' o/s ℄ (To the west)
Set P.K. Nail in asphalt street
on same line at 181.50' o/s ℄

℄ at West ℄ Monument 102+23.11
B.S. West ℄ Monument 119+78.50
Turn ∡ 270° Right (or 90° Left)
Set Hub + Tack Points on this line
at 32.00' o/s ℄ and 17.00' o/s ℄
(To the west).
* Painted yellow target on 50"
Siphon Pipe for a foresight on
Azimuth of 356° 04' 28"

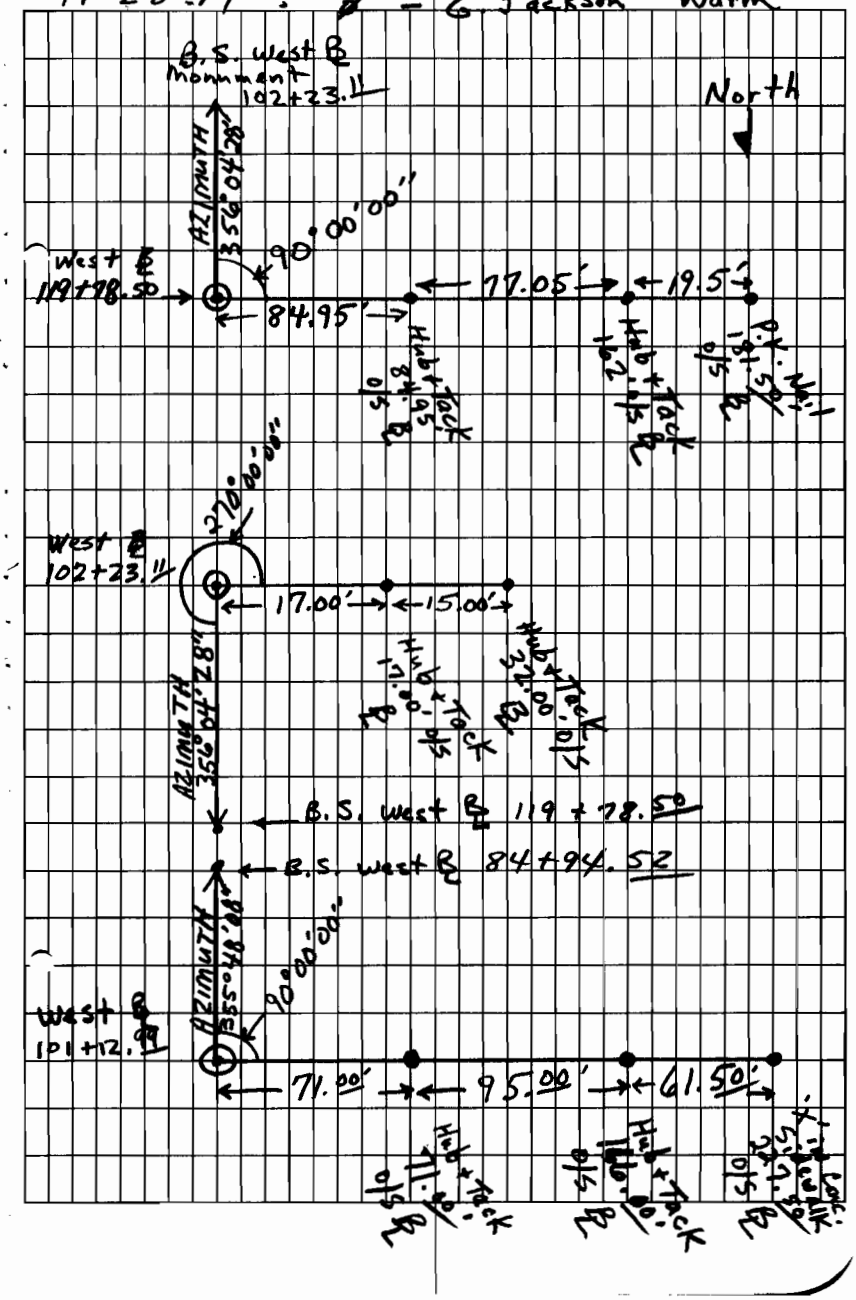
℄ at West ℄ Monument 101+12.99
B.S. West ℄ Monument 84+94.52
~~Set~~ Turned ∡ 90° Right
set Hub + Tack Points at ~~71~~00' o/s ℄
and 166.00' o/s ℄ To the west.
Scribed 'X' in Conc. Sidewalk (West side of Pratt Drive) at 227.50' o/s ℄ (west)

11-28-94

π - D. Justice
Ø - M. Comeaux
Ø - G. Jackson

Pt. Cloudy + Warm

2



3

DACW29-94-C-0079
London Avenue Outfall Canal
West ℄ Monument References

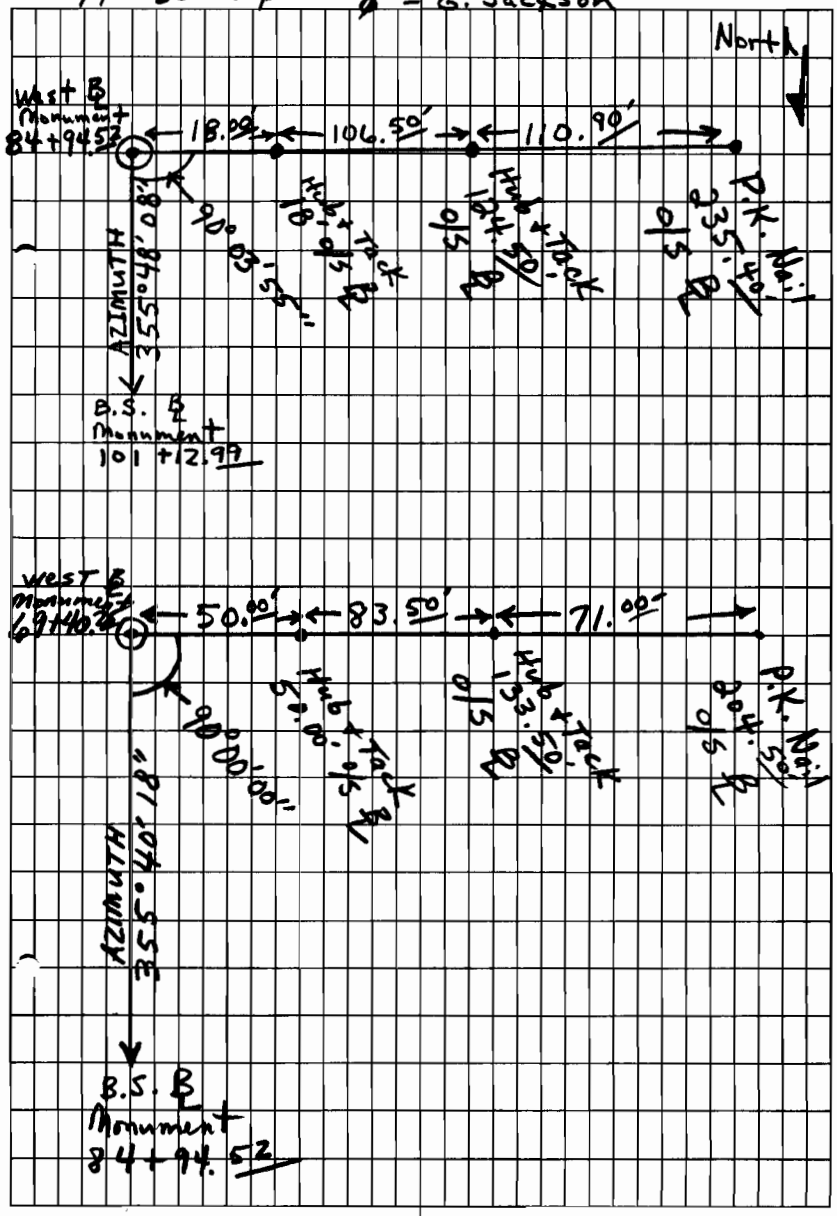
℄ at West ℄ Monument 84+94.52
B.S. West ℄ Monument 101+12.99
Turn Radial ∠ 90°03'55" Left
Set Hub & Tack Points at 18.00' o/s ℄
and 124.50' o/s ℄ to the West
Set P.K. Nail in asphalt street
at 235.40' o/s ℄ (All on same line)

℄ at West ℄ Station 69+40.25
(Set up over Iron Rod found here.)
Set hub & tack point beneath Instrument
at Sta. 69+40.25 West ℄
* Removed Iron Rod, as it was
found to be bent badly at the top
B.S. West ℄ Monument at 84+94.52
Marked yellow target on North face
of 12" C.I. Water Line at N. side
of Mirabeau Ave. (Az. = 355°40'18")
Painted Yellow 'X' on top of 12"
C.I. Water Line (Same Azimuth) ℄ Station 70+23.60
Turned ∠ 270° Right (90° Left)
Set hub & tack points at 50.00' o/s
and 133.50' o/s West of ℄
Set P.K. Nail in street at 204.50'
o/s ℄ (to the West)

11-30-94

TØ - J. Justice
Ø - S. Thome
Ø - G. Jackson

Clear + Cool 3



DHQW29-94-C-0019
London Ave. Outfall Canal
East ℄ Traverse + References

℄ set at East ℄ P.I. 69+15.97
Iron Rod found here - No Monument
F.S. ℄ Monument at East ℄ 84+02.42
Horiz. Distance = 1486.50'

References to East ℄ P.I. 69+15.97

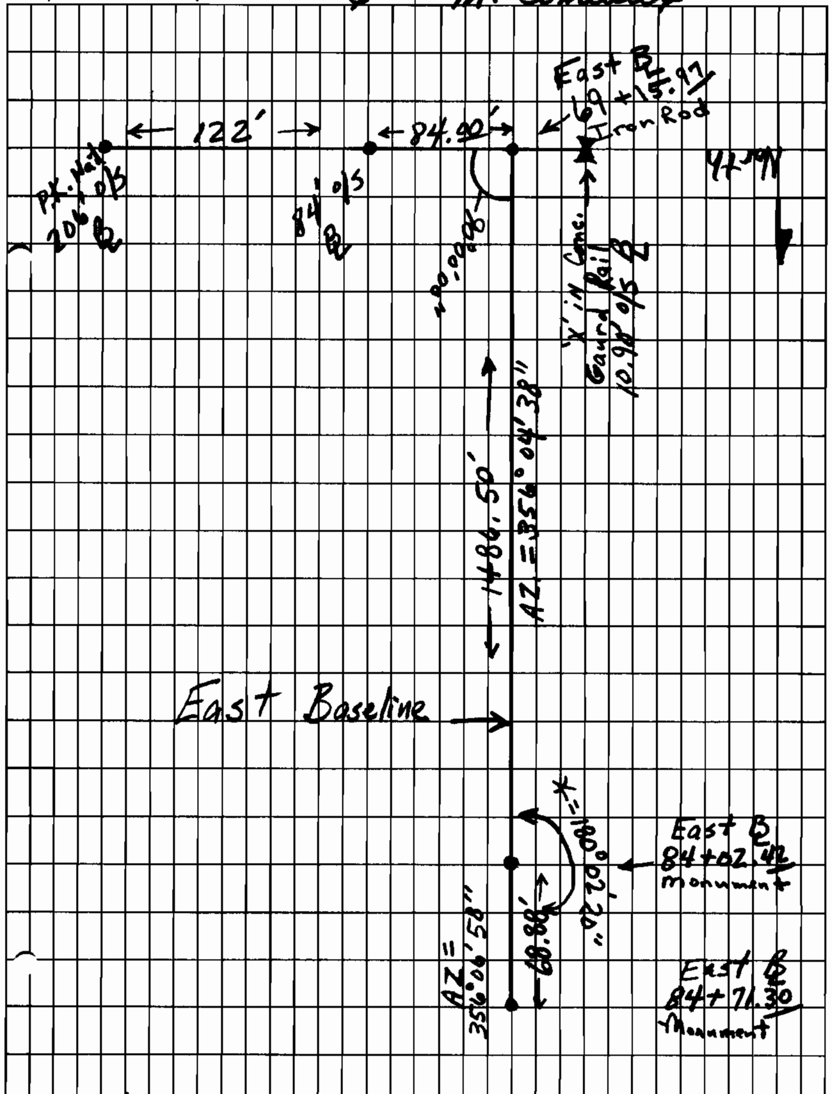
Marked a yellow 'X' on top of 12" C.I. Water Line on East ℄ Sta. 69+93.42 (Azimuth = 356°04'38")

Turned ∠ 90° Right
Set hub+tack Point at 84.00' o/s ℄ and P.K. Nail at 206.00' o/s ℄ (East).
Scribed an 'X' in Concrete Gaurd Rail on South side of Mirabeau Bridge at 10.90' o/s ℄ West

℄ set at East ℄ Monument 84+02.42
B.S. Iron Rod at East ℄ 69+15.97
(Assumed Azimuth 356°04'38")
F.S. East ℄ Monument station 84+71.30
∠ = 180° 02' 20" Right
Horiz. Distance = 68.88'

Clear + Cool
12-1-94

⊼ ☐ - J. Justice
ϕ - S. Thome
ϕ - M. Comeaux



* See Page #5 for References to ℄ Points at 84+02.42 + 84+71.30

DACW29-94-C-0079
London Ave. Outfall Canal
East ℄ Traverse + References

References to East ℄ Monument 84+02.42

T set on East ℄ Mon. 84+02.42
B.S. Iron Rod on East ℄ 69+15.97
Marked yellow Target on 48" S.F.M.
Aerial Crossing (South Face) on East ℄
Azimuth = 356°04' 30" → offset to
Monument at 84+02.42 = 48.78' (North)
Target Station = 84+51.20 East ℄ Extended

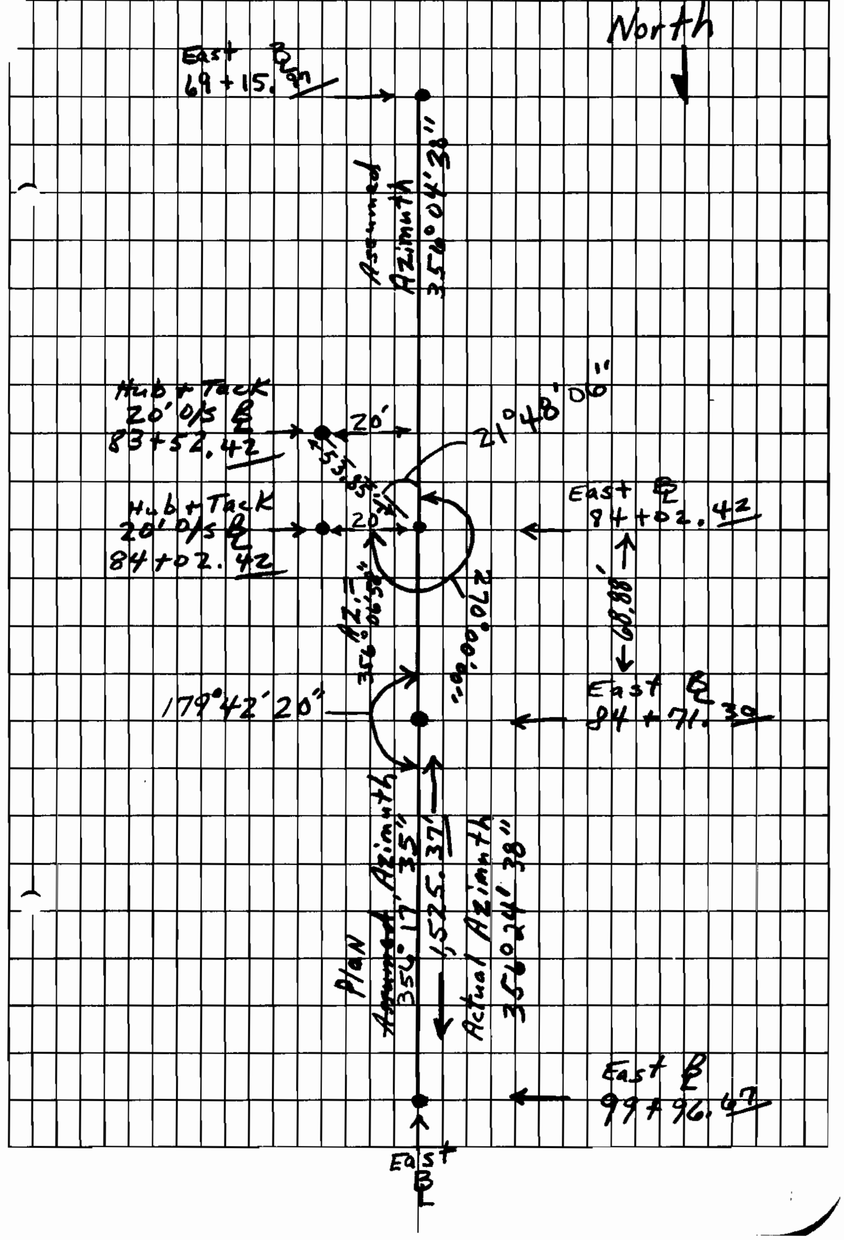
T at Same Station
Turn 270° Right (90° Left)
Set hub + tack Points as follows:
20' o/s ℄ (East) sta. 84+02.42
and 20' o/s ℄ (East) sta. 83+52.42

T set on East ℄ Mon. 84+71.30
B.S. East ℄ Mon. 99+96,67
Horiz. Distance = 1525.37'
F.S. East ℄ Monument 84+02.42
∠ = 179°42' 20" (Right)
Horizontal Distance = 68.88'

Clear + Cool

12-1-94.

π Ø - J. Justice
Ø - S. Thome
Ø - M. Comeaux



16

DHCW49-94-C-0079
London Ave. Canal Outfall
East ℄ Traverse and References

T set on East ℄ Mon. Sta. 84+71.30
B.S. East ℄ Mon. @ 99+96.67
Horiz. Distance = 1525.37'
Found 'X' in Conc. Sidewalk at
N. Side of Filmore Distance = 83.33'
'X' Station = 85+54.63
Alignment found to be ±0.06' off (West)
New 'X' painted on correct line (same station)

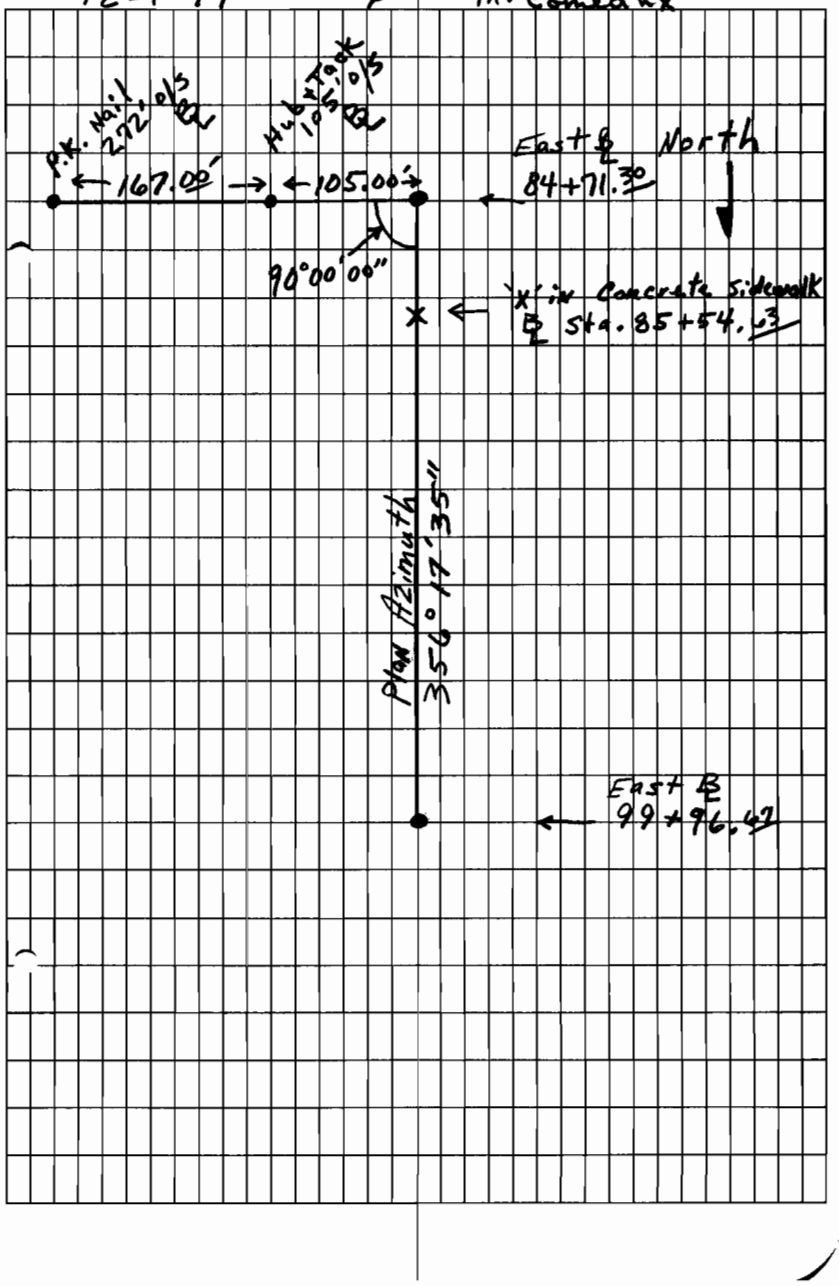
Marked yellow target on N. Face
of 48" S.F.M. Crossing (S. Side Filmore)
Plan Azimuth = 356° 17' 35"
o/s from ℄ Monument 84+71.30 to
℄ of Target = 15.42'
Target station = 84+55.88

T still at 84+71.30
Turned 90° ✗ Right
Set hub + tack Point at 105.00' o/s ℄
and P.K. Nail in street at 272.00'
o/s ℄ (to the East)

Clear + Cool

12-1-94

- J. Justice
- S. Thome
- M. Comeaux



DACW29-94-C-0079
London Ave. Outfall Canal

East ℄ Traverse and References

ℸ at East ℄ Monument 99+96.67
B.S. East ℄ Monument 84+71.30
Horiz. distance check = 1525.37'
Marked yellow Target on Existing
Concrete Floodwall (Plan Az. = 356°17'35")
Target station = 100+09.31
OR 12.64' o/s ℄ Mon. at 99+96.67

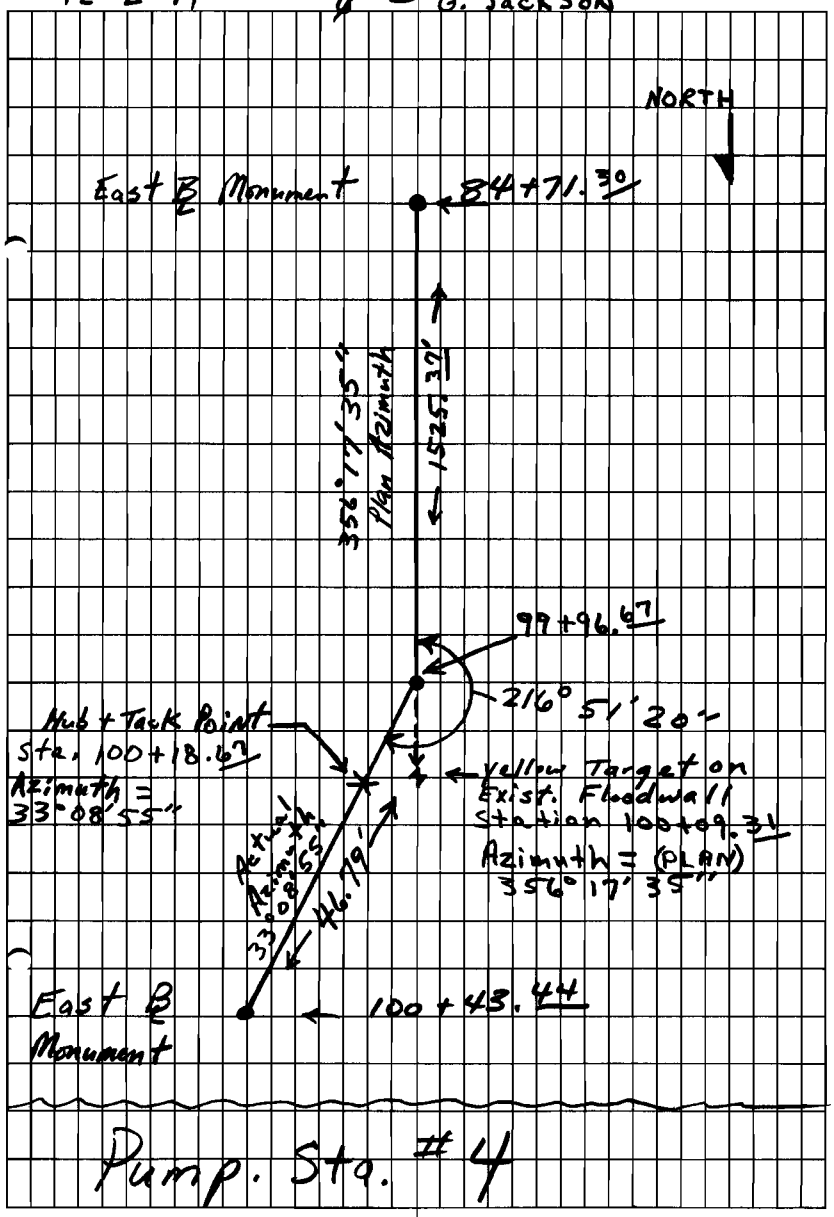
F.S. East ℄ Mon. at 100+43.44
∠ = 216° 51' 20" Right
Horiz. distance = 46.79'

Set hub & tack point at 22.00' o/s ℄
Monument at 99+96.67 (Hub & Tack Point
Station = 100+18.67) on Plan Azimuth
of 33° 10' 06"
Marked 'X' on Telephone Conduit
on Same Azimuth (No station)

℄ Monument at Sta. 100+43.44
Not Referenced - It is
Well outside of the work area.

Clear + Cool
12-2-94

X ☐ — J. Justice
Ø — S. Thome
Ø — G. Jackson



8

DACW29-94-C-0079
London Ave. Outfall Canal
East ℄ Traverse and References

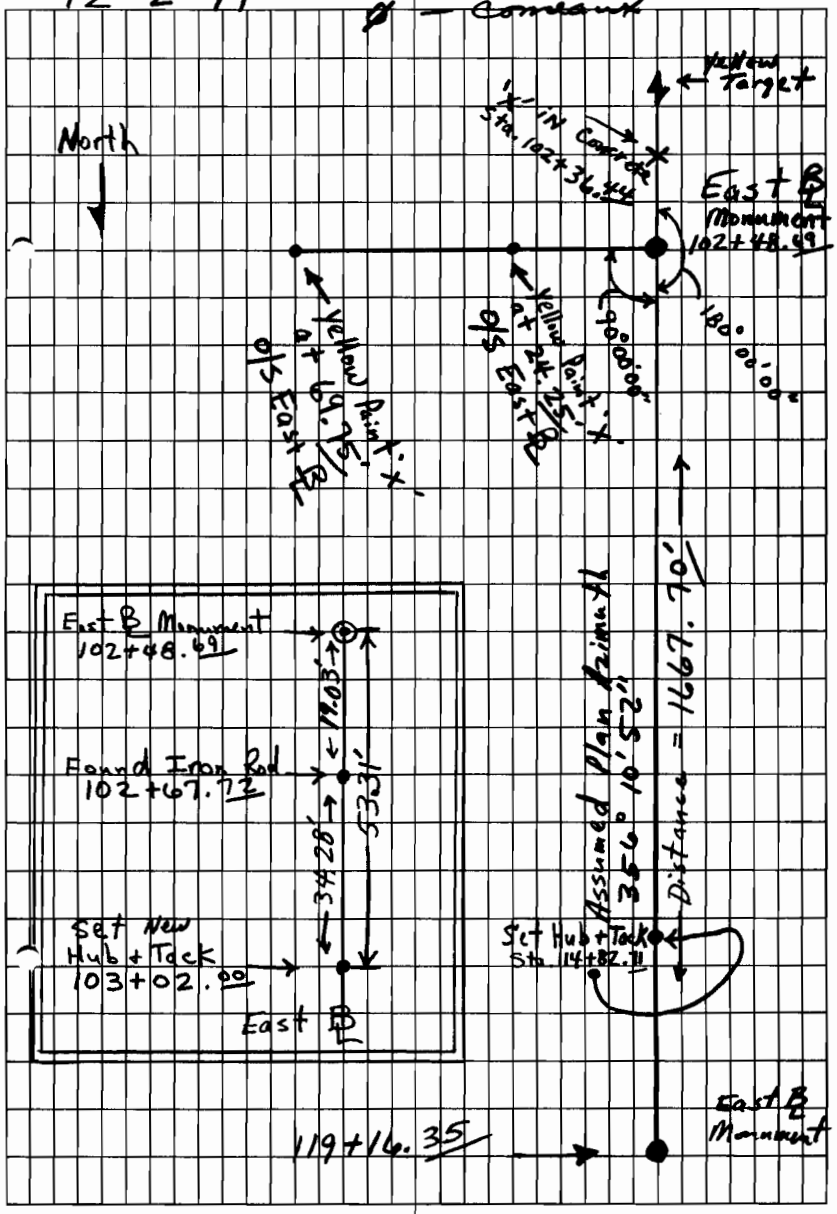
T at East ℄ Monument 102+48.69
F.S. East ℄ Monument 119+16.35
Horiz. Distance = 1667.70'
Flopped scope and marked yellow target on Electrical Panel on Plan Azimuth 356° 10' 52" (East ℄ Extended)
Scribed 'X' in Concrete Duct Bank on Same Azimuth at sta. 102+36.44
OR 12.25' o/s ℄ Monument (South)

T still at East ℄ 102+48.69
Turn ∠ 90° Right
Marked yellow 'X' on slope pavement at 24.25' o/s East ℄ (East)
Marked yellow 'X' on Concrete slab at 69.75' o/s East ℄ (East)

* Set Hub + Tack Points on East ℄ Azimuth 356° 10' 52" at sta. 103+02 and 114+82.71 for future I-Wall Layout.

Clear + Cool
12-2-94.

T Ø - Justice
Ø - Thome
Ø - Comeaux



9

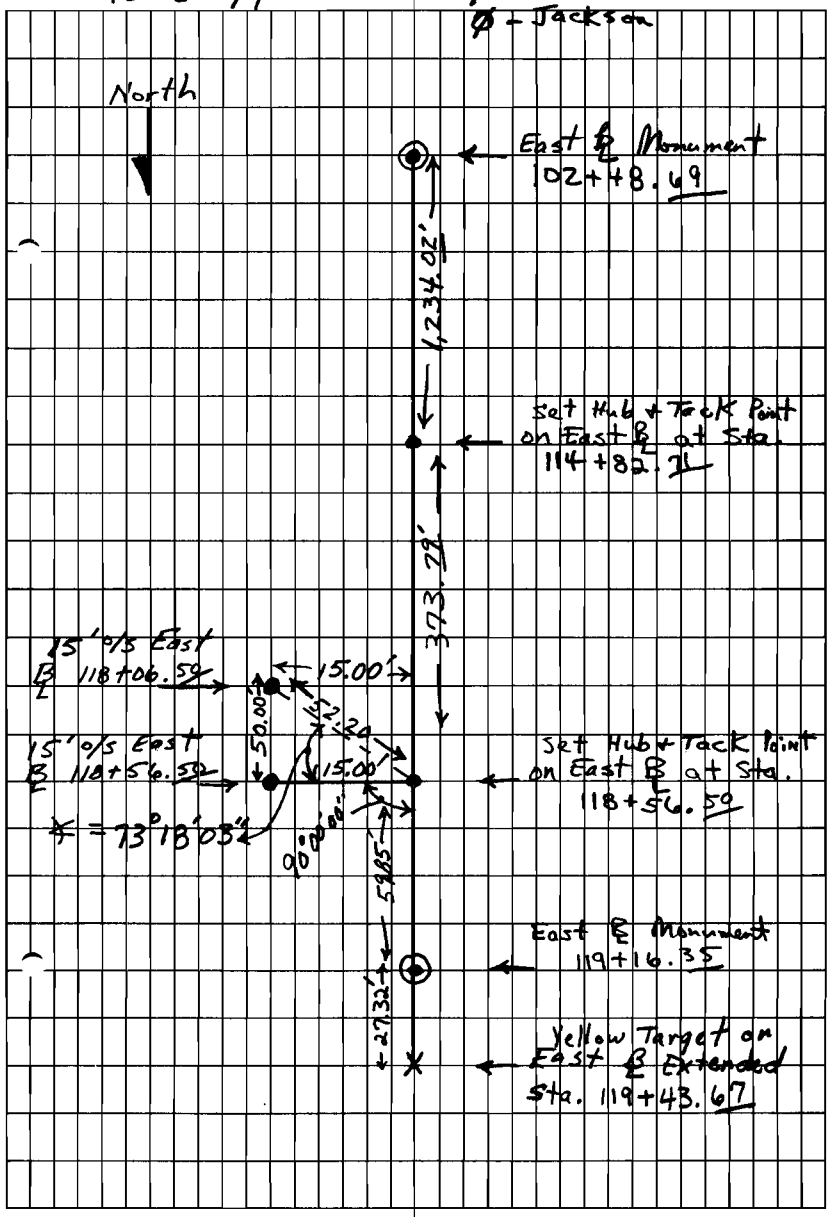
DACW29-94-C-0079
London Ave. Outfall Canal
East ℄ Traverse and References

℄ at East ℄ Monument 119+16.35
B.S. East ℄ Monument 102+48.69
Flopped scope and marked yellow paint target on East ℄ Extended (Azimuth 356°10'52") at Station 119+43.67 (27.32' o/s ℄ Monument).
Checked B.S. at 102+48.69;
Set Hub+Tack Point on East ℄ at sta. 118+56.50,
℄ at 118+56.50 Hub+Tack.
B.S. East ℄ Monument 119+16.35
Turn ∠ 90° Right.
Set Hub + Tack Point at 15.00' o/s East ℄ sta. 118+56.50
Turn ∠ 163°18'02" Right
Distance = 52.20'
Set Hub + Tack at 118+06.50, 15' o/s ℄ (To the East)

*Note: No room to offset ℄ Monument at 119+16.35 towards the Land side. The 15' o/s hubs will be used to re-establish this point if necessary.

Pt. Cloudy + Warm
12-6-94

π Ø - Justice
Ø - Thome
Ø - Jackson



DACW29-94-C-0079
London Ave. Outfall Canal :
East ℄ Traverse and References

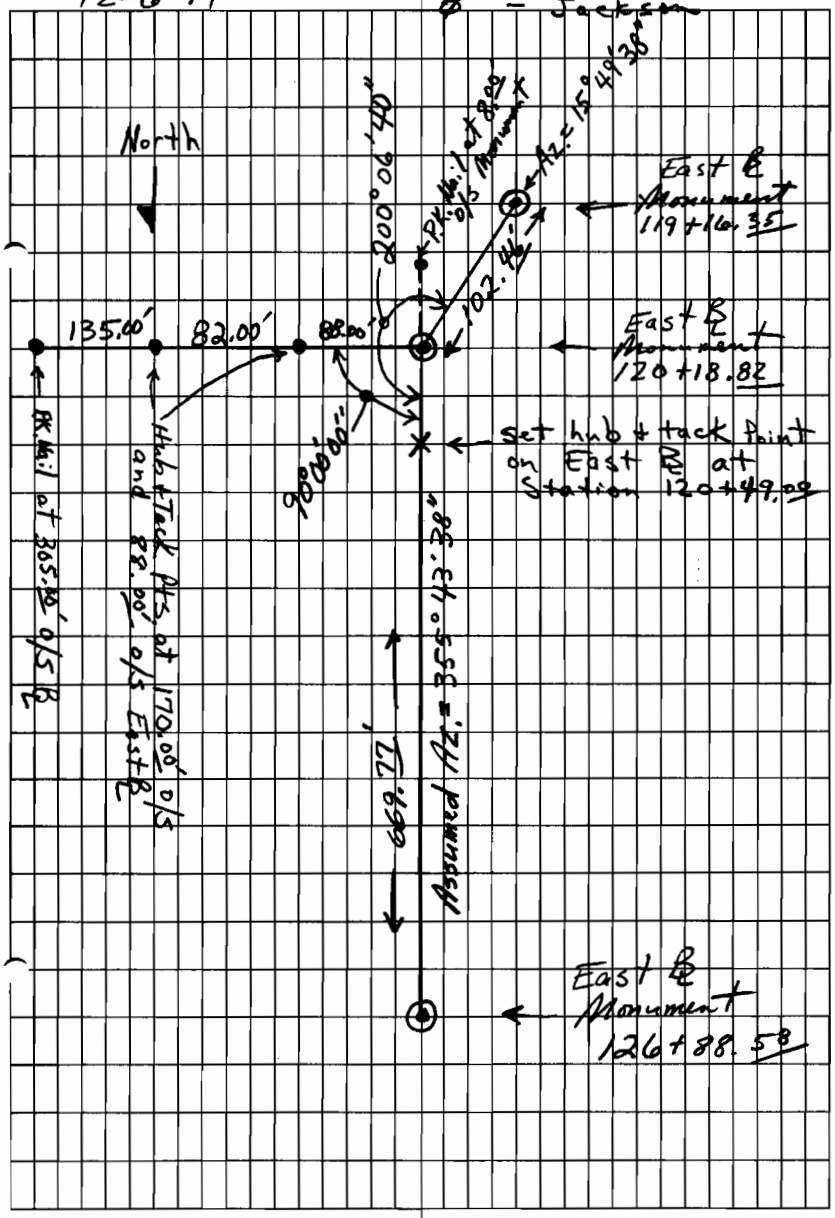
℄ set on East ℄ Monument 120+18.82
B.S. East ℄ Monument 126+88.58
Horiz. Distance = 669.77'
F.S. East ℄ Monument 119+16.35
Horiz. Distance = 102.46'
∠ = 200° 06' 40" (Right)

℄ Set on East ℄ Monument 120+18.82
B.S. Monument at 126+88.58
Flop Scope and set P.K. Nail
in Asphalt Street on East ℄ Extended
(Az. = 355°43'38") at 8.00' o/s South
of Monument (Sta. of PK Nail = 120+10.82)
Turn 90° Right and set Hub + Tack Points
at 88.00' o/s and 170.00' o/s ℄,
Then Set P.K. Nail in Asphalt Street at
305.00' o/s East ℄ (all on same line)

* Also set hub & tack point
on East ℄ Azimuth 355°43'38"
at station 120+49.00
for future I-Wall Layout.

Pt. cloudy + Warm
12-6-94

T Ø - Justice
Ø - Thone
Ø - Jackson



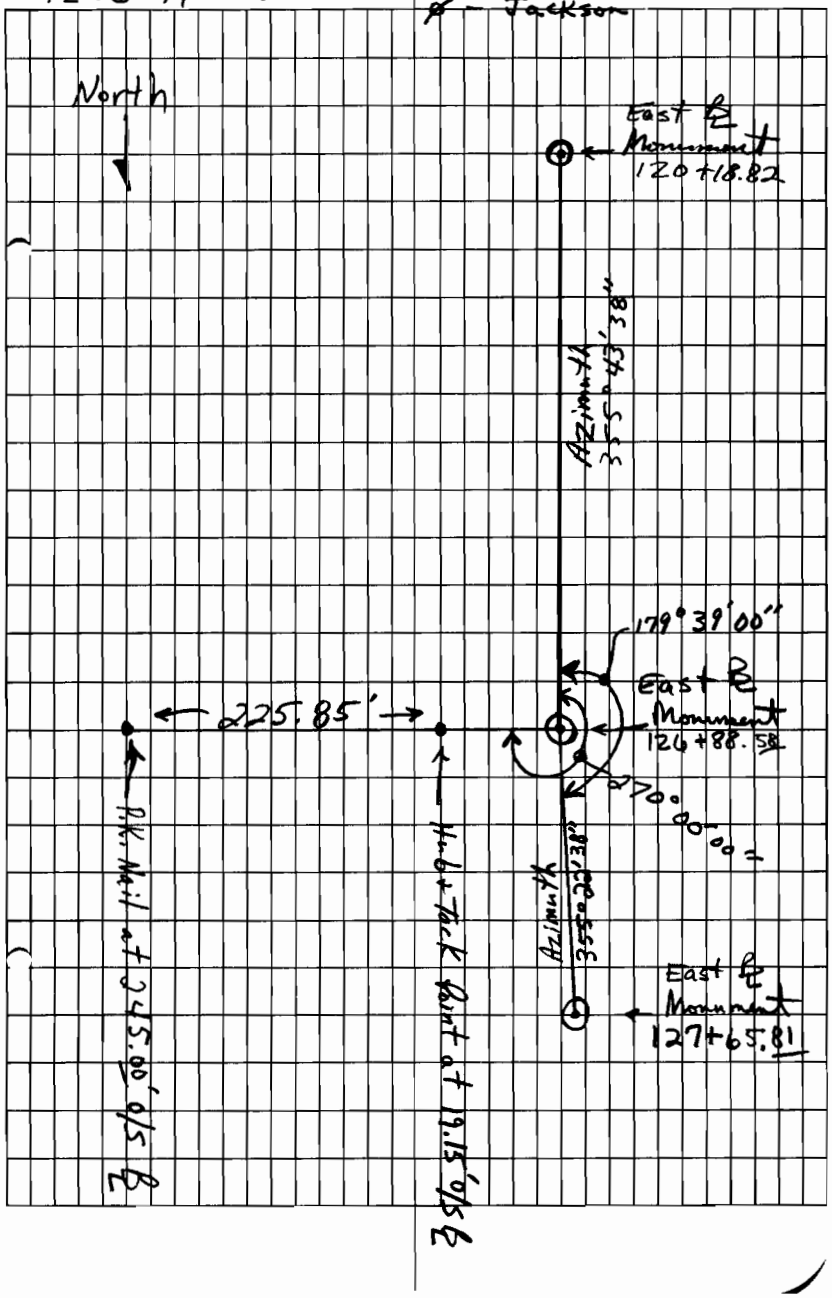
DACW29-94-C-0079
London Ave Outfall Canal
East ℄ Traverse and References

T set on East ℄ Monument 126+88.58
B.S. East ℄ Monument at 120+18.82
Flopped Scope and painted yellow target on Exist. Floodwall on North Side of Leon C. Simon Blvd (Azimuth = 355°43'38")
Turn ∠ 270° Right
Set hub + tack point at 19.15' o/s ℄ (East), and set P.K. Nail in Asphalt Street at 245.00' o/s ℄ (East)
Not shown on sketch → Set 8 penny nail at 8.50' o/s ℄ (to the West) in exist. wall exp. joint.

T still at 126+88.58 Monument
B.S. East ℄ Monument at 120+18.82
F.S. East ℄ Monument at 127+65.81
Horiz. Distance = 77.23'
∠ = 179° 39' 00" Right

Pt. Cloudy + Warm
12-6-94

TD – Justice
Ø – Thome
Ø – Jackson



CELMN-CD-NO (1180-1-1q) DATE: 23 January 1995
zdb

MEMORANDUM THRU NOAO, ATTN: Office Engineering Section

FOR C/Const Div, ATTN: C/Const Svc Sec

SUBJECT: Transmittal of Computation Information,
Contract No. DACW29-94-C-0079, London Ave. Canal Floodwall, Contract #03

[XXX] Attached are original field notes on stations East B/L Sta's 102+67.72 to 119+00.30. Contractor's Original Field Notes for the New Wall-Line Layout.

[ ] Attached are final field notes on stations

[ ] Attached are original data for settlement plates for stations

[ ] Attached are final data for settlement plates for stations

[ ] Attached is additional information necessary for calculation quantities on subject job.

[ ] The attached data is the last data necessary for computing theoretical quantities. No more data is needed for theoreticals.

[ ] The attached data is the last data necessary for computing final quantities. No more data is needed for finals.

[XXX] Additional Comments: The above mentioned field notes were taken from Contractor's Book #02, Pages #12 and #13.

Attch

J L Mooks
CHESTER ASHLEY
Area Engineer
New Orleans Area Office

JAN 27 1995

DACW29-94-C-0079

Lake Pontchartrain and Vicinity
Hurricane Protection
High Level Plan
Orleans Parish, LA.
London Ave. Outfall Canal
Parrallel Protection
Mirabeau Ave to Robert E. Lee Blvd.
WEST BANK
Mirabeau Ave. to Leon C. Simon Blvd.
East Bank

Book # 2
Pages # 12 and #13
℄ of I-Wall Layout
East Bank
Robert E. Lee to Pump. Sta. #4

1-20-95

Jerry Justice
B+K Construction Co.

OFFICE ENGR SECTION
NOAO
Checked by: GSH
Date: 1-26-95

DACW29-94-C-0079
London Avenue Outfall Canal
I-Wall Layout and References (East Bank)

π set at East ℄ Monument 119+16.35
B.S. Target on Exist. Floodwall at
119+43.67

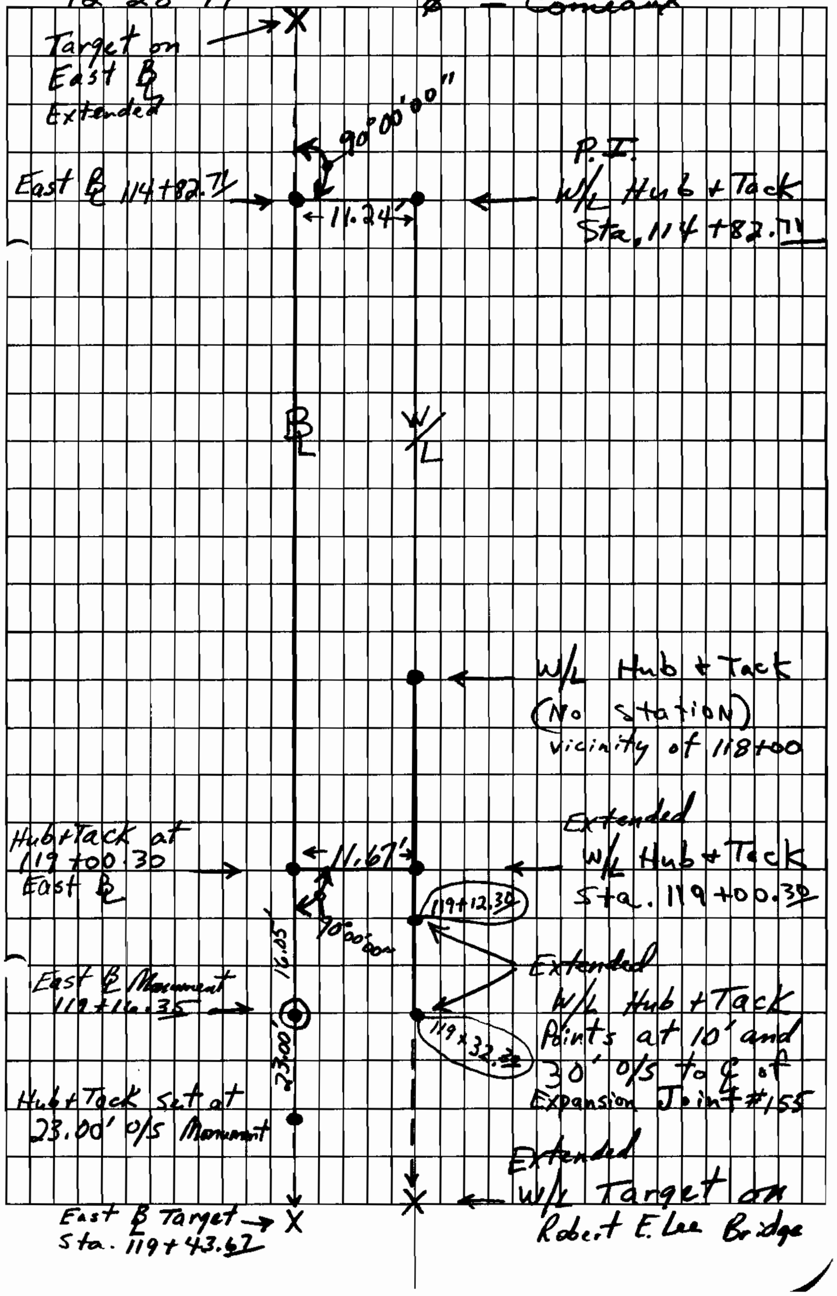
Station = 119+39.35 > Set 23.00' o/s hub + Tack
on this Azimuth (356° 10' 52")
Flopped scope and set hub+tack
at sta. 119+00.30 (16.05' south)
* This represents a 2.00' o/s south of
℄ Exp. Joint between I-Wall Monolith # 155
and the tie-in Collar; taken
from approved Casteel Sheet Pile
Layout drawings.

π set on East ℄ 119+00.30
B.S. Target at 119+43.67
Turn 90° Left and set hub+tack
on ℄ of New I-Wall (11.67' West)
Marked exist. Sheet pile at sta
119+00.30 (o/s to West face = 8.05')
π set on East ℄ 114+82.71
B.S. Target [illegible])
Turn 90° Right and set hub + tack on
℄ of new I-Wall (11.24' West)
Marked exist. Sheet pile at sta 114+82.71
(o/s to west face of Interlock = 6.70')

Pt. Cloudy + Mild

12-28-94

⊼ ⌀ - Justice
⌀ - Jackson
⌀ - Comeaux



13

DACW29-94-C-0079
London Avenue outfall Canal
I-Wall Layout and References

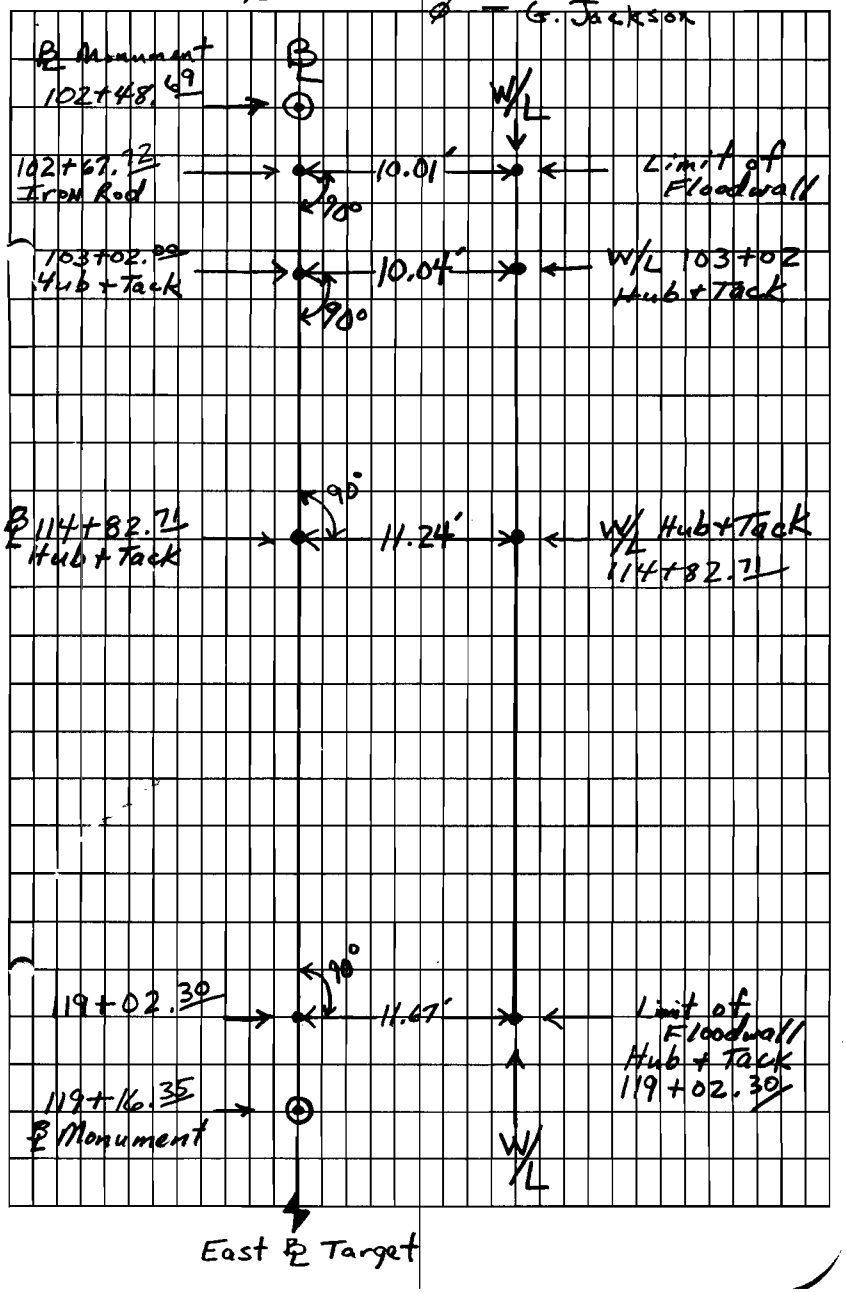
T at 102+67.72 East ℄
F.S. East ℄ Target at 119+43.67
Turn ∡ 90° Left
Set hub & tack at 10.01'
West of ℄

T at 103+02.00 East ℄
F.S. East ℄ Target 119+43.67
Turn ∡ 90° Left
Set hub & tack at 10.045'
West of ℄

T at W/L hub & tack at
sta. 114+82.71
F.S. W/L hub & tack at
sta. 102+67.72
Check alignment of hub & tack
at sta. 103+02
Error = 0.01'
Turn ∡ Right to hub & tack
at W/L sta. 119+02.30
∡ = 180° 00' 20"

Pt. Cloudy + Cool
1-10-95

T Ø - J. Justice
Ø - S. Thome
Ø - G. Jackson



CELMN-CD-NO (1180-1-1q) DATE: 12 June 1995
zdb

MEMORANDUM THRU NOAO, ATTN: Office Engineering Section

FOR C/Const Div, ATTN: C/Const Svc Sec

SUBJECT: Transmittal of Computation Information,
Contract No. DACW29-94-C-0079, London ave. Canal Floodwall, Contract #03

[XXX] Attached are original field notes on stations West B/L Sta's 100+00 to 115+00. Contractor's Original Field Notes for the New Wall-Line Layout and References. Notes taken from Contr's Book #02, Pages #17 thru #19.

[ ] Attached are final field notes on stations

[ ] Attached are original data for settlement plates for stations

[ ] Attached are final data for settlement plates for stations

[ ] Attached is additional information necessary for calculation quantities on subject job.

[ ] The attached data is the last data necessary for computing theoretical quantities. No more data is needed for theoreticals.

[ ] The attached data is the last data necessary for computing final quantities. No more data is needed for finals.

[XXX] Additional Comments: Also attached is a set of revised stationing for new I-Wall Monoliths, between WB/L Sta's 101+73.80 and 119+63.43.

6/22/95

Attch

CHESTER ASHLEY
Area Engineer
New Orleans Area Office

DACW-29-94-C-0079

Lake Pontchartrain LA., and Vicinity

HIGH LEVEL PLAN

London Avenue Outfall Canal

Parallel Protection

Mirabeau Ave. to Rober E. Lee Blvd.

WEST BANK

Mirabeau Ave to Leon C. Simon Blvd.

East Bank

Book # 2

Pages # 17, 18, + 19

I-Wall & Layout

WL 115+00 to 100+00

5-25-95

Jerry M. Justice

B+K Construction Co.

OFFICE ENGR SECTION

NOD

Checked by: JJH

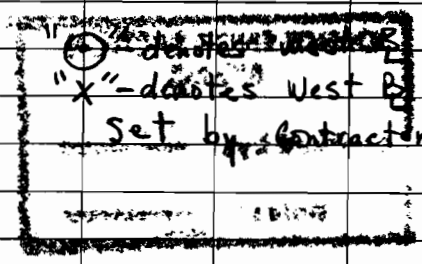
Date: 6-22-95

17 West Bank Sta. 115+00 → 100+00
℄ of I-Wall Layout

Assigned Coordinates to West ℄ as follows: Northing = Station Number as shown on contract drawings. Easting = assigned coordinate of 100.00 to West ℄ between Sta. 119+78.50 and sta. 102+23.11 (Azimuth = 356° 04' 28")

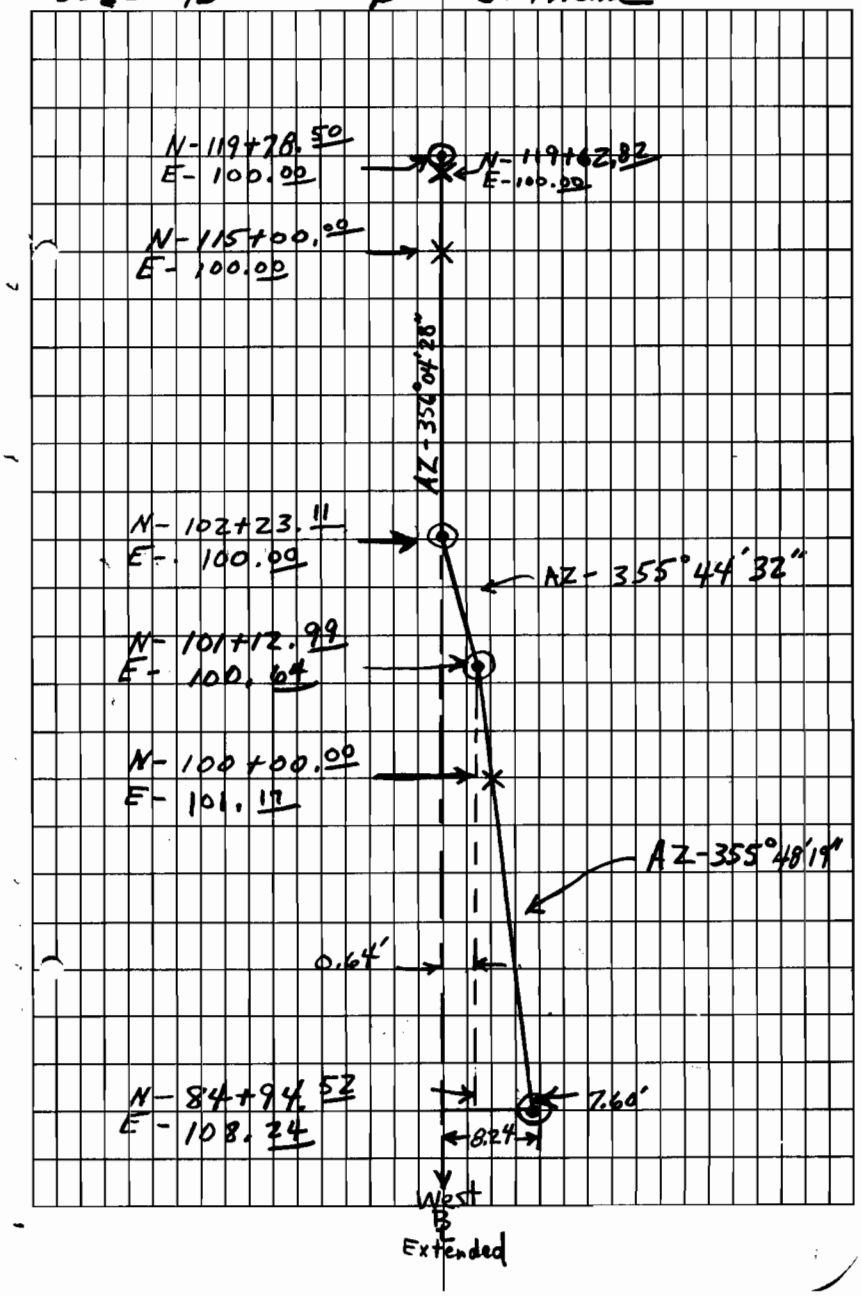
Calculated ℄ deflection and assigned East coordinates to West ℄ points needed for ℄ of I-Wall Layout (See opposite page) →

Note: Limit of I-wall was changed in the field from sta. 119+62.82 to sta. 119+63.43 (per sheet pile shop drawings and Monolith Progress chart)



5.25-95

T ⌀ - J. Justice
⌀ - S. Thome



18 West Bank Sta. 115+00 → 100+00

℄ of I-Wall Layout (Continued)

T at 119+78.50 West ℄
F.S. 102+23.11 West ℄
set hub + tack on west ℄
at sta. 115+00 (478.50' south)

T at ℄ 115+00 Hub + Tack
B.S. ℄ Monument 119+78.50
Turn * 90° Right, set hub + tack
on I-Wall ℄ (4.12' East)

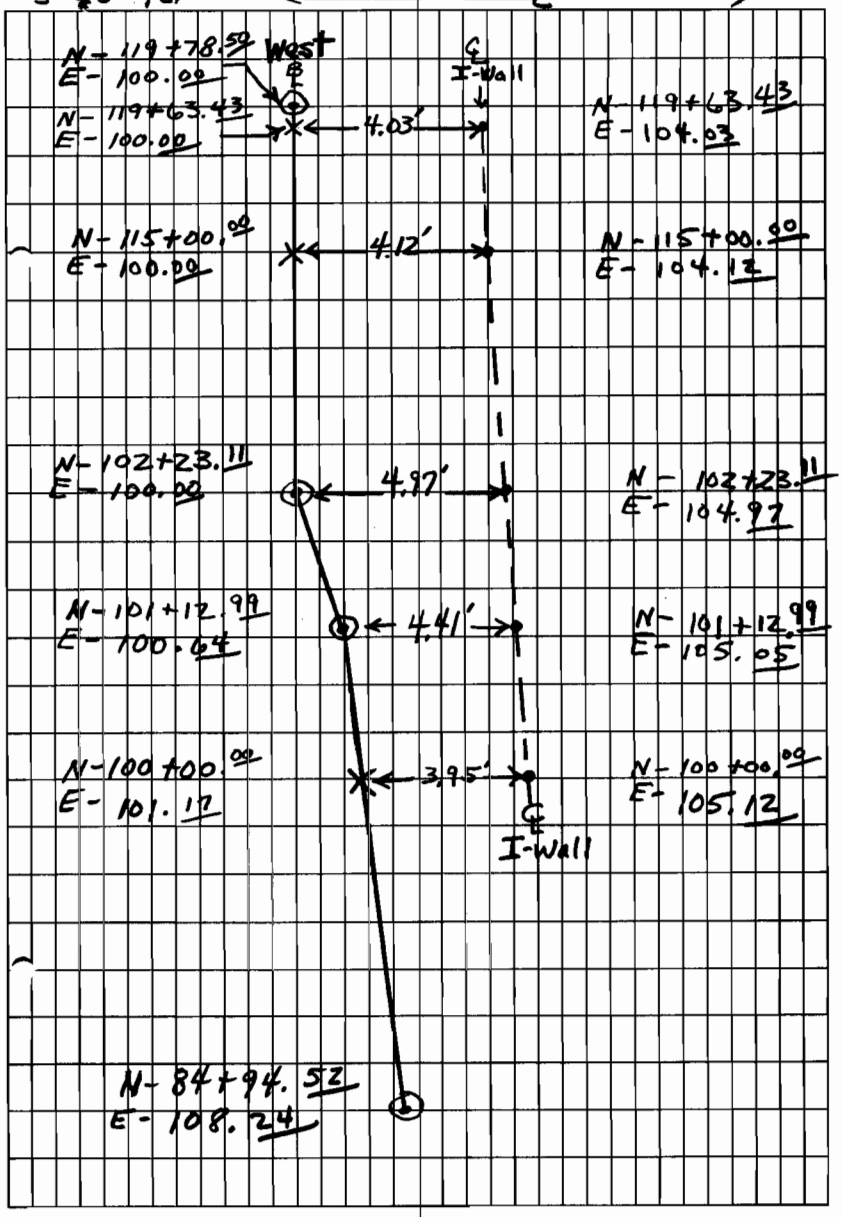
T at West ℄ Monument 102+23.11
B.S. ℄ Monument 119+78.50
Turn * 90° Right, set hub + tack
on I-Wall ℄ (4.97' East)

T at ℄ I-Wall 102+23.11
F.S. ℄ I-Wall 115+00
Set 16d Nails on ℄ I-Wall
at 100' intervals (102+00 → 115+00)

* Marked target on Siphon Pipes
on ℄ I-Wall for Foresight

5-25-95 (Same Party)

℄ I-Wall to ℄ offsets



West Bank 115+00 → 100+00

℄ I-Wall Layout (Continued)

℄ at ℄ I-Wall 102+23.11

F.S. ℄ I-Wall 115+00

Read ruler for offsets from ℄ to Edge of Existing Concrete Cap. (See Below)

West Baseline

Station No.	offset distance	description
102+00	1.81'	'X' on Pink Paint
103+00	1.99'	Patch on west
104+00	1.90'	face of exist.
105+00	2.00'	Concrete floodwall
106+00		"
107+00		"
108+00	1.94'	"
109+00	1.96'	"
110+00	2.00'	"
111+00	1.95'	"
112+00	2.03'	"
113+00	2.09'	"
114+00	2.07'	"
115+00	2.05'	"

Same Party
5-25-95

* These offset marks will be used to layout ℄ I-Wall for excavation, sheet pile work, and I-wall construction.

Monolith Progress Chart submitted and approved (by Sloan Engineering) will not work in the field. A copy of the revised Monolith Detail is attached to these Field Notes, and will serve as an as-built record for I-wall monoliths between west ℄ Sta. 119+63.43 and Sta. 101+73.80

J. Justice

continued ON Page #2 ↑

112+12.94					104+33.59
112+41.81		145	118		104+62.45
112+70.67		146	119		104+91.32
112+99.54		147	120		105+20.18
113+28.40		148	121		105+49.05
113+57.27		149	122		105+77.91
113+86.13		150	123		106+06.78
114+15.00		151	124		106+35.64
114+43.86		152	125		106+64.51
114+72.73		153	126		106+93.37
115+01.59		154	127		107+22.24
115+30.46		155	128		107+51.10
115+59.32		156	129		107+79.97
115+88.19		157	130		108+08.83
116+17.05		158	131		108+37.70
116+45.92		159	132		108+66.56
116+74.78		160	133		108+95.43
117+03.65		161	134		109+24.29
117+32.52		162	135		109+53.16
117+61.38		163	136		109+82.02
117+90.25		164	137		110+10.89
118+19.11		165	138		110+39.75
118+47.97		166	139		110+68.62
118+76.84		167	140		110+97.48
119+05.70		168	141		111+26.35
119+34.57		169	142		111+55.21
119+63.43		170	143		111+84.08
119+67.29	COLLAR	171	144		112+12.94

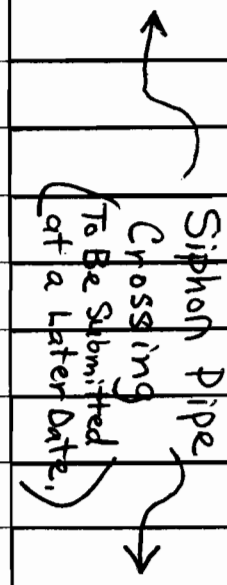
↓ Robert E. Lee Blvd. ↓

Robert E. Lee Blvd. ↓

[illegible] WEST BANK MONOLITH DETAIL

(Revised 5-22-95) [illegible]

WEST BANK MONOLITH DETAIL (Revised 5-22-95)



101 +73.80		108		
102 +02.67		109		
102 +31.53		110		
102 +60.40		111		
102 +89.26		112		
103 +18.13		113		
103 +46.99		114		
103 +75.86		115		
104 +04.72		116		
104 +33.59		117		

Robert E. Lee Blvd ↓

Page #2

CELMN-CD-NO (1180-1-1q) DATE: 25 May 1995
zdb

MEMORANDUM THRU NOAO, ATTN: Office Engineering Section

FOR C/Const Div, ATTN: C/Const Svc Sec

SUBJECT: Transmittal of Computation Information,
Contract No. DACW29-94-C-0079, London Ave. Canal Floodwall, Contract #03

[XXX] Attached are original field notes on stations West B/L Sta's 115+00 to 119+62.82. Contractor's Original Field Notes for the New Wall-Line Layout and References. Notes taken from Contr's Book #02, Pages #14 & #15.

[ ] Attached are final field notes on stations _____

[ ] Attached are original data for settlement plates for stations _____

[ ] Attached are final data for settlement plates for stations _____

[ ] Attached is additional information necessary for calculation quantities on subject job.

[ ] The attached data is the last data necessary for computing theoretical quantities. No more data is needed for theoreticals.

[ ] The attached data is the last data necessary for computing final quantities. No more data is needed for finals.

[XXX] Additional Comments: Also attached are Contr's Original Field Notes for TBM's #W-1 thru #W-6 for this project on the West Levee. Notes were taken from Contr's Book #01, Pages #11 & #12.

Attch

CHESTER ASHLEY 6/9/95
Area Engineer
New Orleans Area Office

DACW29-94-C-0079

Lake Pontchartrain & Vicinity
High Level Plan, London
Avenue outfall canal,
Parallel Protection
Mirabeau to Robert E. Lee Blvd.
WEST BANK
Mirabeau to Leon C. Simon Blvd.
East Bank

BOOK # 1
PAGES # 11 and # 12

T.B.M. Level Loop
(West Bank - Robert E. Lee Blvd.
to Prentiss Avenue)

5-17-95

Jerry Justice
B & K Construction

OFFICE ENGR SECTION
NOAO
Checked by: GJH
Date: 6-9-95

COE: [illegible]

11

DACW29-94-C-0079

T.B.M. Level Loop

West Bank - Robert E. Lee to Prentiss

Sta.	+	HI	−	Elev.	Bm
	2.981			9.321	"2-A"
		12.302			
New TBM "W-1"			3.122	9.180	"W-1"
T.P. #1			0.929	11.373	
	0.122	11.495			
T.P. #2			7.828	3.667	
	6.643	10.310			
New TBM "W-2"			11.258	−0.948	"W-2"
	9.291	8.343			
T.P. #3			4.368	3.975	
	5.060	9.035			
New TBM "W-3"			10.623	−1.588	"W-3"
T.P. #4			5.657	3.378	
	4.641	8.019			
New TBM "W-4"			9.738	−1.719	"W-4"
T.P. #5			4.203	3.816	
	6.365	10.181			
New T.B.M. "W-5"			10.081	+0.100	"W-5"
T.P. #6			4.898	~~5.283~~	
	4.461	9.744			
New T.B.M. "W-6"			7.752	1.992	"W-6"

Break Set Up

(Return Loop on Next Page)

5-12-95 TP - J. Justice Pt. Cloudy 85°
Ø - S. Thome

← T.Bm. "Z-A" from Page # 8 of this book.

← Set New TBm "W-1" on top of concrete step at exist. floodwall (west ℄ 119+75)

← Set New TBm "W-2" on top of ½" Iron Rod ± 1.5' on land side of Safety Fence at west ℄ 117+20 ±.

← Set New T.Bm "W-3" on top of ½" Iron Rod ± 1.5' on Land Side of Safety Fence at west ℄ 114+25 ±.

← Set New TBm "W-4" on top of 3/4" Iron Pipe at ± 1.5' on Land Side of Safety Fence at west ℄ 109+40 ±.

← Set New TBm "W-5" on top of 3/4" Iron Pipe ± 1.5' on Land Side of Safety Fence at west ℄ 106+40 ±.

← Set New T.Bm. "W-6" on top of ½" Iron Rod ± 1.5' on Land Side of Safety Fence at west ℄ 102+50 ±.

12 DACW29-94-C-0079 (Continued)

T.B.M. Level Loop

Sta.	+	HI	−	Elev.	BM
	7.492			1.992	"W-6"
		9.484			
T.P. #7			4.626	4.858	
	3.897	8.755			
T.P. #8			5.651	3.104	
	5.153	8.257			
T.P. #9			4.589	3.668	
	6.607	10.275			
T.P. #10			1.669	8.606	
	4.130	12,736			
Tie-in to T.B.M. #2-A			3.413	9.323	Given = 9.321 Error = 0.002'

5-17-95 Same Party

T.B.M. "W-6" from Page #11

← Tie-in to T.B.M. "2-A" from Page #8 of this book.

DACW29-94-C-0079
Lake Pontchartrain and Vicinity
High Level Plan, London Avenue
Outfall Canal, Parallel Protection
Mirabeau Ave. to Robert E. Lee Blvd.
West Bank
Mirabeau Ave. to Leon C. Simon Blvd.
East Bank

Book # 2
Pages # 14 and #15

West Bank; sta. 119+62.82 to 115+00
New I-Wall & Layout
and References

5-19-95

Jerry Justice
B+K Construction

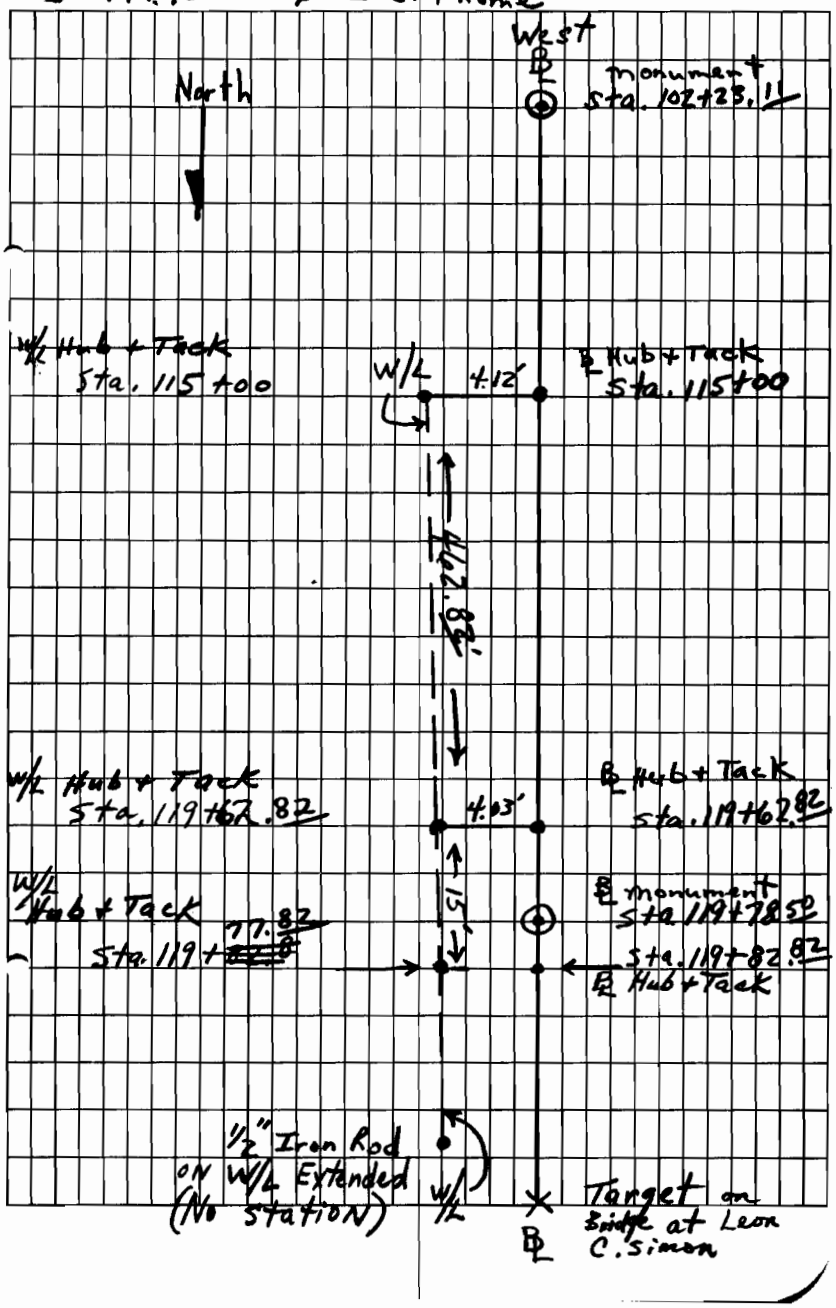
DACW24-94-C-0079

I-Wall Layout and References
West ℄ 119+62.82 to 115+00

℄ at West ℄ Monument 119+78.50
F.S. West ℄ Monument 102+23.11
Set hub + tack points at station
119+62.82 (15.68' South) and
station 115+00 (478.50' South).
set hub + tack at sta. 119+82.82
for 20' o/s Limit of I-Wall
(4.32' North)
Scribed target on bridge abutment
at L.C. Simon bridge for a backsight
(West ℄ Extended)

℄ set on W. ℄ Sta. 119+62.82
F.S. 102+23.11 W. ℄ Monument
Turn ∡ 90° Left and set
hub + tack point at 4.03'
towards the East (Canal Side)
→New ℄ of I-Wall←
℄ set on W. ℄ sta. 115+00
F.S. 102+23.11 W. ℄ Monument
Turn ∡ 90° Left and set
hub + tack point at 4.12'
towards the East (Canal Side)
→New ℄ of I-Wall←

5-19-95 π - J. Justice
Ø - S. Thome



DACW29-94-C-0079

I-Wall Layout and References

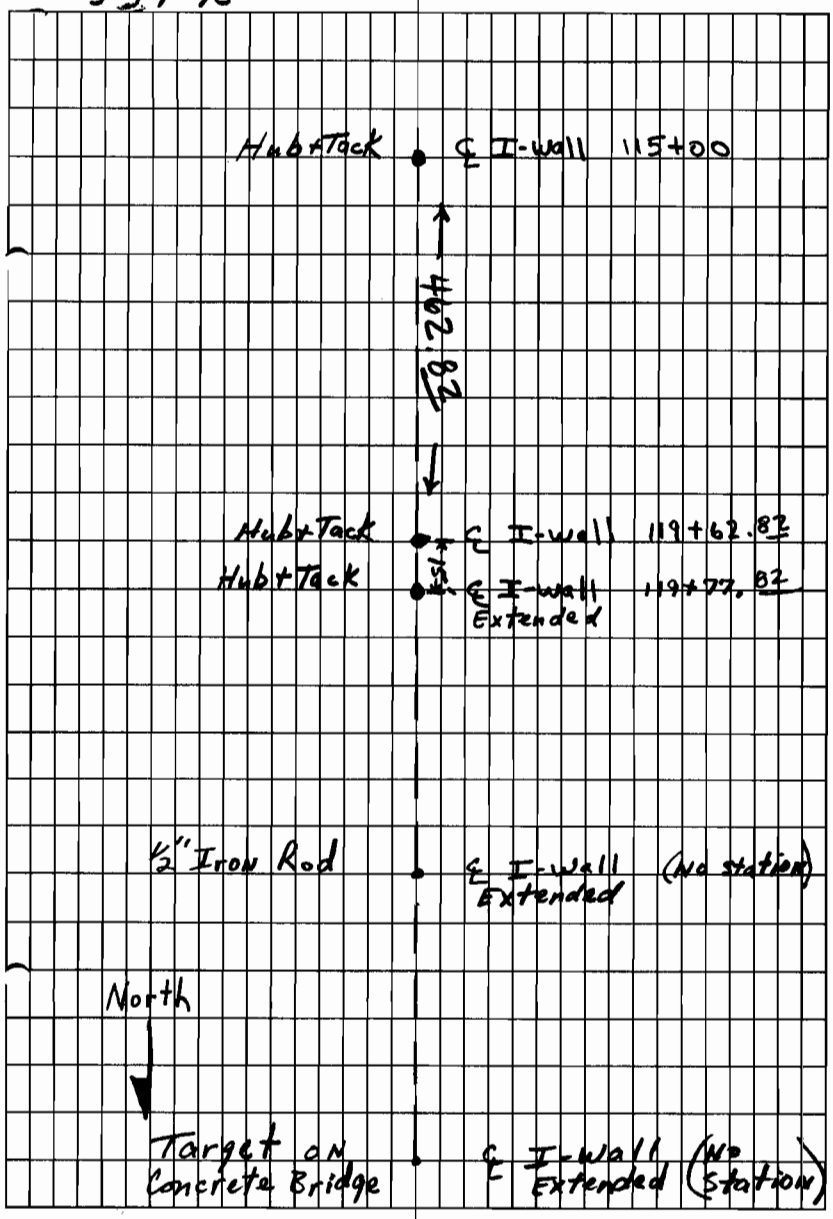
(Continued from Page 14)

T at New I-Wall ℄ sta. 119+62.82
F.S. New ℄ I-Wall sta. 115+00
Flop barrel and set hub+tack point on New ℄ I-Wall at sta. 119+77.82 (15.00' North)
Also set ½" rebar on ℄ of New I-Wall extended, approx. 290' North of the North gutter line on the bridge at Robert E. Lee Blvd. (No station Number)
Scribed target on bridge abutment at Leon C. Simon - New ℄ of I-Wall extended.

Flop barrel, check F.S. at 115+00, Mark offsets to ℄ I-Wall on existing concrete floodwall as follows:

West Baseline Station Number	I-Wall Centerline offset Distance
119+00	1.98' (from ℄ towards Canal)
118+00	1.99' "
117+00	2.05' "
116+00	2.02' "
115+00	2.04' "

5-19-95 Same Party



ROUTING SLIP (AR 340-15)	NEVER USE FOR APPROVALS DISAPPROVALS, CONCURRENCES OR SIMILAR ACTIONS		
*	1ST DISTRIBUTION	INITIALS	DATE
	CELMN-RM-FE (DUP ORIG,2 CYS)		
	CELMN-RM-FT (DUP ORIG,2 CYS)		
	CELMN-CD-C , ATTN: SUE VISO (3 CYS)		
	CELMN-CD-NO (6 CYS,W/DWG, W/PRICE NEG MEMO)		
	CELMN-CD-LA (4 CYS,W/DWG, W/PRICE NEG MEMO)		
*	2ND DISTRIBUTION		
	CELMN-ED-T		
	CELMN-ED-L		
	CELMN-ED-GS		
	CELMN OD		
✓	CELMN-CD-QS		
	LAO, JOHN CECCONI, IF MOD IS NOT SIGNED BY CONTRACTING OFFICER-LAO		
	CELMN-PP		
	PRES MRC, CELMV-ED (W/DWG) (96 X 3112)		
	PRES MRC, CEMRC-CO-C (W/DWG) (96 X 3112)		
	DIV ENGR, CELMV-ED (W/DWG) (ALL OTHER APPROPRIATIONS)		
	DIV ENGR, CELMV-CO-C (W/DWG) (ALL OTHER APPROPRIATIONS)		
	CELMN-CT-SB ATTN: KENNY ENCLADE FUND MODS 1989 & PRIOR		
	CELMN-CD-C (3 CYS, W/DWG, W/PRICE NEG MEMO)		
	DIV ENGR, CELMV-CT (W/PRICE NEG MEMO & GOVT EST IF OVER $25,000.00)		
	CELMN-PP-P (W/PRICE NEG MEMO)		
	CONTRACT ADMIN.,NEW ORLEANS AREA OFC ATTN: CINDY WHITTEN		

CHECK ACTION DESIRED							
X	INFOR.-MATION		SIGNA.-TURE		NOTE AND RETURN		
	CIR.-CULATE		NECES.-SARY ACTION		SEE ME		

FROM	TELEPHONE	DATE
CELMN-CT-R JOANN DAMARE'	X2880	
ORGANIZATION CELMN-CT-R		

DA FORM 1 NOV 84 1222

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
077	1 3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00009	05/02/95		CIN-03

6. ISSUED BY CODE ISSUE1

US ARMY ENGR DIST NEW ORLEANS
PO BOX 60267
NEW ORLEANS LA 70160-0267

Cynthia Whitten SC5(504) 862-1899

7. ADMINISTERED BY (If other than Item 6) CODE modcw

CELMN-CT-R MS. WHITTEN
PHONE: (504) 862-1899

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) Vendor ID: 00001344

B&K CONSTRUCTION

1905 HIGHWAY 59
MANDEVILLE LA 70448

CODE 0GTN3 FACILITY CODE

(X) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

X 10A. MODIFICATION OF CONTRACT/ORDER NO. DACW29-94-C-0079

10B. DATED (SEE ITEM 13) 07/11/94

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Mod Obligated Amount US $939.96

Funds in the amount of $939.96 are available. See Attached.

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(X) X — A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

CC I.83 Changes

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103 (b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return original ~~copies~~ to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The following change is made to the above numbered contract for Lake Pontchartrain, LA & Vicinity, HLP, London Avenue Outfall Canal, Parallel Protection, Mirabeau Avenue to Robert E. Lee Blvd., West Bank; Mirabeau Avenue to Leon C. Simon Blvd., East Bank Floodwall, Orleans Parish, LA, to make a waterproof connection between the siphon pipes and the I-Wall at the pumping station and the electrical cable tray penetrating the wall.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
H. B. Kenyon, President/B & K CONSTRUCTION CO., INC.	Chester Ashley, ACO 007
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED 5/22/95
16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 6/1/95

12. Accounting and Appropriation Data (Cont.)

96X3122 BEC2111000NOLML

14. Description of Amendment/Modification (Cont.)

CHANGES TO THE BIDDING SCHEDULE: The schedule of Contract Items, Descriptions, Estimated Quantities, Units, Unit Prices, and Estimated Amounts is modified as follows:

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount	Amount of Change
0022	Reinforced Concrete Floodwall	LUMP SUM	LS	-----	$1,488,259.96	(+)$939.96

CHANGES TO THE CONTRACT SPECIFICATIONS: Add the following paragraphs:

1. "C3C-6.3 Field Molded Sealants shall conform to Federal Specification TT-S-227e, Type II for vertical joints, Class A. Bond breaker material shall be polyethylene, coated paper, metal foil or similar type materials. The backup material shall be compressible, nonshrink, nonreactive with sealant, and nonabsorptive material type such as extruded butyl or polychloroprene foam rubber."

2. "C3C-7.1.1 Joints with Field Molded Sealant shall not be sealed when the sealant, air or concrete temperature is less than 40 degrees Fahrenheit. Joints shall be primed and filled with the joint sealant specified in C3C-6.3 in accordance with the manufacturer's recommendation except that existing protective paint coatings on Sewerage and Water Board pipes shall be cleaned but not removed."

CHANGES TO THE CONTRACT DRAWINGS: Delete drawing 41 of 73, File No. H-4-40295, dated February 1994, and substitute with drawing 41 of 73, File No. H-4-40295, bearing revision 1, dated February 3, 1995.

Delete drawing 43 of 73, File No. H-4-40295, dated February 1994, and substitute with drawing 43 of 73, File No. H-4-40295, bearing revision 1, dated March 27, 1995.

CHANGES TO THE CONTRACT PRICE: The contract price is increased by $939.96.

CHANGES TO THE CONTRACT TIME: The contract time is increased by one (1)

calendar day.

It is further understood and agreed that this adjustment constitutes compensation in full on behalf of the contractor, its subcontractors and suppliers for all costs and markups directly or indirectly attributable to the changes ordered for all delays, impacts, and extended overhead related thereto, and for performance of the change within the time frame stated.

CELMN-CD (1180-1-1q) DATE: 2 AUGUST 1994
E.F.W.
X-2912

MEMORANDUM FOR : CELMN-NO

SUBJECT: Transmittal of Computation Information.

Contract No. DACW29- 94-C-0079, LONDON AVE. OUTFALL CANAL

XX
_____ Attached are original field notes on stations;

STATIONS: 7000.00 - 8700.00 (EAST B/L)

_____ Attached are final field notes on stations;

_____ Attached are theoretical quantities for subject contract.

_____ Attached are original cross section rolls for stations;

_____ Attached are final cross section rolls for stations;

_____ Attached is a list of stations and quantities of material which is below the lower grade tolerance. These quantities contain deducts which are calculated from the theoretical line. We do not know if the contractor is to rework the deficient areas, thus we cannot calculate subsidence, etc. Please advise us by memorandum by _____ whether the present finals will be the finals of if more work is to be done and other finals will be taken.

If you notice any errors, discrepancies or problems during the time we have done the computations, please advise R. Anderson (x 2935), R. Gonzalez (x 2925) or A. Ramirez (x1718).

Atch (dupe)

BRUCE A. TERRELL
Chief, Quality Assurance Branch

CELMN-CD (1180-1-1q) DATE: 11 AUGUST 1994
E.F.W.
X-2912

MEMORANDUM FOR : CELMN-NO

SUBJECT: Transmittal of Computation Information.

Contract No. DACW29- 94-C-0079, LONDON AVE. OUTFALL CANAL

XX
_____ Attached are original field notes on stations;

STATIONS: 8800.00, 10248.69 - 12688.58 (EAST B/L)
ALL STATIONS FLIPPED

_____ Attached are final field notes on stations;

_____ Attached are theoretical quantities for subject contract.

_____ Attached are original cross section rolls for stations;

_____ Attached are final cross section rolls for stations;

_____ Attached is a list of stations and quantities of material which is below the lower grade tolerance. These quantities contain deducts which are calculated from the theoretical line. We do not know if the contractor is to rework the deficient areas, thus we cannot calculate subsidence, etc. Please advise us by memorandum by _____ whether the present finals will be the finals of if more work is to be done and other finals will be taken.

If you notice any errors, discrepancies or problems during the time we have done the computations, please advise R. Anderson (x 2935), R. Gonzalez (x 2925) or A. Ramirez (x1718).

Atch (dupe)

BRUCE A. TERRELL
Chief, Quality Assurance Branch

CELMN-CD (1180-1-1q) DATE: 9 AUGUST 1994
E.F.W.
X-2912

MEMORANDUM FOR : CELMN-NO

SUBJECT: Transmittal of Computation Information.

Contract No. DACW29- 94-C-0079, LONDON AVE. OUTFALL CANAL

XX
_____ Attached are original field notes on stations;

STATIONS; 10112.99 - 11978.50 (WEST B/L)
8900.00 - 9996.67 (EAST B/L) FLIPPED

_____ Attached are final field notes on stations;

_____ Attached are theoretical quantities for subject contract.

_____ Attached are original cross section rolls for stations;

_____ Attached are final cross section rolls for stations;

_____ Attached is a list of stations and quantities of material which is below the lower grade tolerance. These quantities contain deducts which are calculated from the theoretical line. We do not know if the contractor is to rework the deficient areas, thus we cannot calculate subsidence, etc. Please advise us by memorandum by _____ whether the present finals will be the finals of if more work is to be done and other finals will be taken.

If you notice any errors, discrepancies or problems during the time we have done the computations, please advise R. Anderson (x 2935), R. Gonzalez (x 2925) or A. Ramirez (x1718).

Atch (dupe)

BRUCE A. TERRELL
Chief, Quality Assurance Branch

CELMN-CD (1180-1-1q) DATE: 2 AUGUST 1994
E.F.W.
X-2912

MEMORANDUM FOR : CELMN-NO

SUBJECT: Transmittal of Computation Information.

Contract No. DACW29- 94-C-0079, LONDON AVE. OUTFALL CANAL

XX
_____ Attached are original field notes on stations;

STATIONS; 7047.00 - 10100.00 (WEST B/L)

_____ Attached are final field notes on stations;

_____ Attached are theoretical quantities for subject contract.

_____ Attached are original cross section rolls for stations;

_____ Attached are final cross section rolls for stations;

_____ Attached is a list of stations and quantities of material which is below the lower grade tolerance. These quantities contain deducts which are calculated from the theoretical line. We do not know if the contractor is to rework the deficient areas, thus we cannot calculate subsidence, etc. Please advise us by memorandum by _____ whether the present finals will be the finals of if more work is to be done and other finals will be taken.

If you notice any errors, discrepancies or problems during the time we have done the computations, please advise R. Anderson (x 2935), R. Gonzalez (x 2925) or A. Ramirez (x1718).

Atch (dupe)

BRUCE A. TERRELL
Chief, Quality Assurance Branch

DIST.	RED. ELEV.	
TO START & IDENTIFY JOB:		
0.	1000.00	D280794
0.	1000.00	O94C079A.LAA
0.	1000.00	J.GREMILLION
0.	1000.00	LONDON AVE. OUTFALL CANAL
0.	1000.00	LONDON CANAL EASTSIDE B/L
0.	1000.00	JECA#11
12728.	9.66	ELEV.=9.66
100.	1.57	
	70+00	
-17.	0.88	ES=WE
-14.	4.15	
-10.	4.62	BOTTOM WALL
-9.	11.04	TSP
-7.	7.01	BOTTOM WALL
0.	6.74	CL (B/L)
6.	5.84	
18.	3.62	
29.	1.57	
	70+26.77	
-17.	1.91	
-12.	4.74	
-10.	4.85	
-9.	6.09	TSP
-7.	7.10	
-7.	11.29	TSP
-6.	0.43	
-4.	0.62	
0.	5.14	CL (B/L)
6.	3.61	
16.	-0.33	ES
	71+00	
-16.	0.68	ES=WE
-13.	3.07	
-9.	4.02	
-8.	5.95	TOP WALL
-6.	6.76	BOTTOM WALL
-6.	11.26	TOP WALL
-5.	5.27	BOTTOM WALL
0.	5.09	CL (B/L)
3.	4.61	
10.	2.76	
18.	0.38	
22.	0.11	
	72+00	
-15.	0.94	
-12.	3.13	
-9.	3.86	
-8.	5.74	TOP WALL

```
    -6.    6.29 BOTTOM WALL
    -5.   11.27 TOP WALL
    -5.    5.10
     0.    4.87 CL (B/L)
     5.    4.21
    12.    1.77
    18.   -1.46
    22.   -2.04 ES

--------------------
   124.    5.21 NA
    34.   -2.25
--------------------

       73+00
   -15.    0.81 ES=WE
   -14.    2.69
    -9.    4.04 BOTTOM WALL
    -9.   11.20 TOP WALL
    -7.    5.71 BOTTOM WALL
     0.    5.40 CL (B/L)
     4.    4.86
    14.    1.27
    21.   -2.25

       74+00
   -14.    0.97
   -13.    3.85
    -8.    4.22 BOTTOM WALL
    -9.   11.24 TOP WALL
    -6.    5.72 BOTTOM WALL
     0.    5.57 CL (B/L)
     6.    4.42
    14.    1.06
    20.   -1.42 ES

--------------------
   192.    4.59 NA
    92.   -2.04
--------------------

       75+00
   -14.    0.89 ES=WE
   -14.    2.64
    -9.    4.19 BOTTOM WALL
    -9.   11.24 TOP WALL
    -7.    5.66 BOTTOM WALL
     0.    5.52 CL (B/L)
     4.    4.84
    12.    1.85
    21.   -2.04

       76+00
   -14.    1.69
   -12.    3.54
    -9.    3.89 BOTTOM WALL
    -8.   11.25 TOP WALL
    -7.    5.68 BOTTOM WALL
     0.    5.68 CL (B/L)
```

4.	5.16	
11.	2.59	
21.	-1.98	ES

77+00

-12.	1.10	ES=WE
-12.	2.77	
-9.	3.40	BOTTOM WALL
-9.	11.22	TOP WALL
-7.	5.56	BOTTOM WALL
0.	5.45	CL (B/L)
5.	4.71	
15.	0.69	
22.	-2.24	

78+00

-15.	0.79	
-12.	3.24	
-9.	3.66	BOTTOM WALL
-8.	11.21	TOP WALL
-6.	5.02	BOTTOM WALL
0.	4.80	CL (B/L)
6.	3.83	
13.	1.08	
21.	-2.27	ES

144.	4.99	NA
47.	-1.76	

79+00

-15.	1.07	ES=WE
-13.	2.94	
-10.	4.08	BOTTOM WALL
-8.	11.29	TOP WALL
-7.	5.94	BOTTOM WALL
0.	5.79	CL (B/L)
4.	5.40	
13.	1.61	
22.	-1.76	

80+00

-14.	1.18	
-13.	3.04	
-8.	3.82	BOTTOM WALL
-8.	11.20	TOP WALL
-6.	4.68	BOTTOM WALL
0.	4.96	CL (B/L)
4.	4.49	
11.	2.14	
21.	-2.27	ES

184.	4.79	NA
85.	-1.90	

81+00

-15.	1.20	ES=WE
-12.	2.86	
-9.	4.05	BOTTOM WALL
-8.	11.18	TOP WALL
-6.	5.19	BOTTOM WALL
0.	5.34	CL (B/L)
3.	4.92	
12.	1.82	
22.	-1.90	

82+00

-14.	0.94	
-12.	2.70	
-9.	4.30	BOTTOM WALL
-8.	11.34	TOP WALL
-6.	5.84	BOTTOM WALL
0.	5.77	CL (B/L)
4.	5.24	
12.	2.25	
21.	-2.10	ES

83+00

-13.	1.16	ES=WE
-12.	2.80	
-10.	4.06	BOTTOM WALL
-8.	11.39	TOP WALL
-6.	5.82	BOTTOM WALL
0.	5.28	CL (B/L)
4.	4.80	
15.	0.83	
22.	-2.85	

148.	-0.25	NA
54.	1.27	

84+00

-12.	1.27	
-11.	3.33	
-8.	3.81	BOTTOM WALL
-8.	11.32	TOP WALL
-6.	5.93	BOTTOM WALL
0.	5.57	CL (B/L)
5.	5.03	
12.	2.31	
18.	-1.18	
23.	-2.47	ES

84+20.31

-11.	1.23	ES=WE
-11.	3.01	
-8.	3.76	BOTTOM WALL
-8.	11.29	TOP WALL
-6.	5.67	BOTTOM WALL
0.	5.71	CL (B/L)
5.	5.21	
11.	2.94	
17.	-0.15	

```
     22.    -1.68

        84+31.10
    -12.     1.20
    -11.     3.32
     -9.     3.87 BOTTOM WALL
     -8.    11.29 TOP WALL
     -6.     5.73 BOTTOM WALL
     -4.     5.67
      0.     5.67 CL (B/L)
      5.     5.12
     11.     2.56
     17.    -0.51
     21.    -1.68 ES

--------------------
     95.     7.37 NA
     60.     4.31
--------------------

        84+71.30
     -9.     1.23 ES=WE
     -9.     3.03
     -8.     3.52 BOTTOM WALL
     -7.    11.27 TOP WALL
     -6.    11.19 TOP WALL
     -6.     5.88 BOTTOM WALL
      0.     5.61 CL (B/L)
     14.     5.66
     32.     4.31

        85+54.63
    -23.     0.98
    -18.     3.13 TOP ROCKS
     -9.     5.51 TOP ROCKS
     -8.     6.39 TSP
     -6.     6.94 TOP ROCKS
     -6.    11.29 TSP
     -5.     6.31 BOTTOM WALL
     -2.     6.01
     -0.     6.26 TOP CONCRETE
      0.     6.22 CL (B/L)
      3.     5.96 TOP CONCRETE
      7.     5.84
     15.     3.35
     21.     0.77
     29.    -1.15 ES

        86+00
    -25.     1.25 ES=WE
    -16.     4.33 TOP ROCKS
     -9.     4.44 TOP ROCKS
     -9.     6.12 TSP
     -6.     7.87 TOP ROCKS
     -6.    11.27 TSP
     -5.     6.60 BOTTOM WALL
      0.     6.25 CL (B/L)
      3.     5.79
     10.     2.91
```

```
   20.    -1.80

      87+00
  -24.     1.24
  -19.     3.53
   -8.     4.04 TOP ROCKS
   -8.     6.37 TSP
   -6.     7.34 TOP ROCKS
   -6.    11.22 TSP
   -4.     6.34
    0.     6.12 CL (B/L)
    3.     5.73
   11.     2.65
   15.     0.05
   17.    -2.16 EJ

TO TIE IN:
  187.     9.37 TBM#6.
    0.     9.37 E=9.34

 END OF RUN
```

```
           RED.
  DIST. / ELEV.
 ------  ------

 TO START & IDENTIFY JOB:
     0. 1000.00 D020894
     0. 1000.00 O94C079B.LAA
     0. 1000.00 J. GREMILLION
     0. 1000.00 LONDON AVE. OUTFALL CANAL
     0. 1000.00

        70+47
   -15.    1.77
    -8.    3.59
    -2.    4.89
     0.    5.00 CL (BL)
     6.    4.81 BOTTOM WALL
     8.   10.99 TOP WALL
     9.    3.41 BOTTOM WALL
    13.    3.82
    19.    1.80 ES=WE

        71+00
   -15.    0.96 ES
    -8.    2.68
     0.    4.21 CL (BL)
     7.    4.15 BOTTOM WALL
     8.   11.10 TOP WALL
     9.    2.93 BOTTOM WALL
    14.    2.94
    20.    1.75

--------------------
    12.    3.71 NA
    95.    0.94
--------------------

        72+00
   -15.    0.94
    -7.    2.94
    -2.    4.26
     0.    4.52 CL (BL)
     8.    4.52 BOTTOM WALL
    10.   11.25 TOP WALL
    10.    3.32 BOTTOM WALL
    15.    3.69
    21.    1.59 ES=WE

--------------------
   154.    4.59 NA
    55.    1.68
--------------------

        73+00
   -15.    0.99 ES
    -9.    2.47
    -3.    4.18
```

0.	4.44	CL (BL)
9.	4.44	BOTTOM WALL
11.	11.27	TOP WALL
11.	3.56	BOTTOM WALL
15.	3.58	
20.	1.68	

74+00

-16.	0.86	
-11.	2.27	
-3.	4.40	
0.	4.78	CL (BL)
2.	4.97	
9.	4.76	BOTTOM WALL
11.	11.25	TOP WALL
12.	2.95	BOTTOM WALL
18.	2.74	
19.	1.24	ES=WE

151.	3.70	NA
60.	1.70	

74+92.00

-17.	0.55	ES
-13.	1.70	
-8.	2.60	
0.	4.55	CL (BL)
1.	4.75	
10.	4.96	BOTTOM WALL
11.	11.27	TOP WALL
12.	3.20	BOTTOM WALL
16.	3.57	
23.	1.70	

75+00

-16.	-0.21	
-11.	1.73	
-4.	3.49	
0.	4.43	CL (BL)
3.	4.82	
10.	5.04	BOTTOM WALL
12.	11.27	TOP WALL
12.	3.07	BOTTOM WALL
18.	2.69	
24.	1.02	ES=WE

76+00

-17.	-1.49	ES
-8.	1.23	
0.	3.95	CL (BL)
3.	4.64	
10.	4.74	BOTTOM WALL
11.	11.24	TOP WALL
12.	3.31	BOTTOM WALL
17.	3.01	
22.	2.58	
24.	1.66	

```
--------------------
   148.     4.72 NA
    51.    -2.21
--------------------

       77+00
   -16.    -2.21
    -7.     1.16
     0.     3.80 CL (BL)
     2.     4.54
     6.     4.93
    10.     4.93 BOTTOM WALL
    12.    11.27 TOP WALL
    12.     3.18 BOTTOM WALL
    16.     3.39
    20.     2.76
    25.     1.66 ES=WE

       78+00
   -28.    -3.46 ES
   -23.    -3.01
   -17.    -0.75
    -7.     2.25
     0.     4.86 CL (BL)
     3.     5.08
     9.     5.59 BOTTOM WALL
    11.    11.27 TOP WALL
    11.     4.44 BOTTOM WALL
    15.     4.77
    21.     3.47
    25.     2.53
    26.     1.08

--------------------
   161.     4.83 NA
    58.    -0.39
--------------------

       79+00
   -17.    -0.39
    -8.     2.89
    -2.     5.22
     0.     5.61 CL (BL)
     9.     5.86 BOTTOM WALL
    10.    11.24 TOP WALL
    10.     4.12 BOTTOM WALL
    19.     3.35
    25.     2.82
    25.     1.55 ES=WE

       80+00
   -26.    -0.48 ES
   -16.     1.97
    -5.     4.91
     0.     5.56 CL (BL)
     4.     5.80
     8.     5.68 BOTTOM WALL
    10.    11.28 TOP WALL
```

```
     11.     2.65 BOTTOM WALL
     15.     2.31
     22.     2.54
     24.     1.07

        81+00
    -26.     0.25
    -25.     0.32
    -14.     3.91
     -5.     5.98
      0.     6.18 CL (BL)
      8.     6.17 BOTTOM WALL
     10.    11.26 TOP WALL
     11.     2.53 BOTTOM WALL
     17.     2.37
     21.     2.28
     23.     1.50 ES=WE

--------------------
   196.     5.39 NA
   102.     1.20
--------------------

        82+00
    -26.     0.21 ES
    -14.     2.69
     -5.     4.68
      0.     5.14 CL (BL)
      7.     5.21 BOTTOM WALL
      8.    11.20 TOP WALL
     10.     2.09 BOTTOM WALL
     15.     2.39
     21.     2.50
     24.     1.20

        83+00
    -25.     0.45
    -16.     3.25
    -11.     4.74
     -6.     5.45
      0.     5.61 CL (BL)
      7.     5.24 BOTTOM WALL
      9.    11.24 TOP WALL
     10.     2.72 BOTTOM WALL
     19.     2.44
     24.     2.21
     24.     1.61 ES=WE

--------------------
   141.     4.23 NA
    50.     1.11
--------------------

        84+00
    -24.     1.71 ES
    -13.     2.88
     -5.     4.36
      0.     4.70 CL (BL)
      7.     4.42 BOTTOM WALL
```

```
  9.    11.34 TOP WALL
 10.     2.50 BOTTOM WALL
 16.     2.53
 23.     2.19
 25.     1.11

     84+50.00
-24.     1.24
-17.     2.54
 -9.     4.06
  0.     4.76 CL (BL)
  7.     4.65 BOTTOM WALL
  8.    11.19 TOP WALL
  9.     3.01 BOTTOM WALL
 18.     2.66
 23.     2.55
 26.     1.13 ES=WE

     84+54.72
-23.     1.05 ES
-20.     1.75
-15.     2.93
 -7.     4.22
  0.     4.72 CL (BL)
  7.     4.84 BOTTOM WALL
  8.    11.24 TOP WALL
  8.     2.92 BOTTOM WALL
 16.     2.40
 24.     2.73
 26.     1.32

--------------------
105.     6.05 NA
 65.     3.27
--------------------

     84+94.52
-23.     3.27
-13.     5.07 TOP CONCRETE
 -9.     5.41 TOP CONCRETE
  0.     5.54 CL (BL)
  7.     5.72 BOTTOM WALL
  7.    11.27 TOP WALL
  9.    11.24 TOP WALL
  9.     3.28 BOTTOM WALL
 17.     2.40
 21.     2.39
 24.     1.87 ES=WE

     85+90.00
-40.    -1.86 EJ
-37.    -1.64
-31.     0.52
-24.     3.18
-19.     4.52
-13.     6.14
 -5.     6.59
 -4.     6.66 TOP CONCRETE
 -1.     6.62 TOP CONCRETE
```

```
    0.     6.52 CL (BL)
    7.     5.91 BOTTOM WALL
    8.    11.27 TOP WALL
    9.     2.63 BOTTOM WALL
   12.     2.51
   20.     2.12
   21.     1.71

TO TIE IN:
   99.     5.35 TBM#LCE9
    0.     5.35 E=5.36

 END OF RUN
```

RED. DIST.	/ ELEV.	
TO START & IDENTIFY JOB:		
0.	1000.00	D030894
0.	1000.00	O94C079C.LAA
0.	1000.00	J. GREMILLION
0.	1000.00	LONDON AVE. OUTFALL CANAL
0.	1000.00	LONDON CANAL WESTSIDE B/L
11820.	1000.00	TBM JECA#12
0.	6.03	ELEV.=6.03
49.	-0.20	
86+00		
-29.	-0.20	
-22.	3.17	
-11.	6.13	
0.	6.65	CL (BL)
7.	6.23	BOTTOM WALL
9.	11.29	TOP WALL
9.	2.48	BOTTOM WALL
14.	2.48	
21.	2.17	
22.	1.38	ES=WE
---	---	---
42.	6.38	NA
69.	1.59	
---	---	---
87+00		
-34.	-2.77	ES
-24.	0.63	
-15.	4.84	
-7.	6.56	
0.	6.76	CL (BL)
7.	6.24	BOTTOM WALL
8.	11.43	TOP WALL
9.	2.85	BOTTOM WALL
13.	2.56	
20.	2.20	
22.	1.59	
---	---	---
144.	6.79	NA
48.	-2.54	
---	---	---
88+00		
-32.	-2.54	
-23.	2.07	
-12.	6.47	
-7.	7.11	
0.	6.92	CL (BL)
6.	6.36	BOTTOM WALL
7.	11.42	TOP WALL

9.	3.18	BOTTOM WALL
16.	2.35	
23.	2.46	ES=WE

89+00

-26.	-1.02	ES
-14.	4.46	
-8.	5.75	
0.	6.24	CL (BL)
6.	6.07	BOTTOM WALL
8.	11.45	TOP WALL
8.	3.72	BOTTOM WALL
21.	2.46	
23.	2.05	

142.	5.29	NA
52.	-1.31	

90+00

-28.	-1.31	
-17.	2.62	
-10.	5.02	
-5.	5.54	
0.	5.98	CL (BL)
6.	5.91	BOTTOM WALL
8.	11.43	TOP WALL
7.	3.63	BOTTOM WALL
17.	2.79	
24.	2.44	ES=WE

91+00

-30.	-1.13	ES
-25.	-0.48	
-19.	1.82	
-10.	5.05	
0.	6.14	CL (BL)
5.	6.18	BOTTOM WALL
7.	11.41	TOP WALL
8.	3.18	BOTTOM WALL
13.	2.15	

77.	6.33	NA
40.	-2.20	

92+00

-32.	-2.20	
-21.	0.78	
-7.	5.41	
0.	6.12	CL (BL)
6.	6.25	BOTTOM WALL
8.	11.44	TOP WALL
8.	3.74	BOTTOM WALL
16.	2.25	
21.	1.88	ES=WE

```
--------------------
   144.     6.11 NA
    53.     1.16
--------------------

        93+00
   -25.    -0.55 ES
   -18.     1.95
   -11.     4.58
    -6.     5.83
     0.     5.87 CL (BL)
     6.     6.04 BOTTOM WALL
     8.    11.41 TOP WALL
     9.     3.77 BOTTOM WALL
    12.     3.40
    17.     2.29
    28.     1.16

        94+00
   -23.    -0.47
   -14.     2.90
    -9.     4.87
    -4.     5.72
     0.     6.05 CL (BL)
     6.     5.85 BOTTOM WALL
     7.    11.45 TOP WALL
     8.     3.83 BOTTOM WALL
    13.     2.87
    15.     2.19 ES=WE

--------------------
   172.     5.14 NA
    72.     1.96
--------------------

        95+00
   -29.    -2.54 ES
   -17.     1.39
    -8.     5.05
    -4.     6.19
     0.     6.59 CL (BL)
     6.     6.28 BOTTOM WALL
     7.    11.47 TOP WALL
     9.     3.27 BOTTOM WALL
    12.     2.46
    19.     1.96

        96+00
   -21.     0.27
   -12.     3.46
    -5.     5.21
     0.     5.56 CL (BL)
     5.     5.46 BOTTOM WALL
     7.    11.44 TOP WALL
     8.     4.22 BOTTOM WALL
    17.     2.32
    18.     2.24
    28.     2.54 ES=WE
```

```
--------------------
   105.     5.16 NA
    29.     2.40
--------------------

        97+00
   -21.     0.19 ES
   -12.     2.84
    -5.     5.07
     0.     5.45 CL (BL)
     5.     5.32 BOTTOM WALL
     7.    11.51 TOP WALL
     8.     4.12 BOTTOM WALL
    11.     3.90
    17.     2.43
    25.     2.40

--------------------
   151.     4.98 NA
    54.     0.81
--------------------

        98+00
   -19.     0.81
    -9.     3.89
    -4.     5.55
     0.     5.87 CL (BL)
     5.     6.04 BOTTOM WALL
     7.    11.50 TOP WALL
     8.     3.99 BOTTOM WALL
    14.     2.57
    17.     2.04 ES=WE

        99+00
   -18.     0.85 ES
   -12.     2.99
    -4.     5.16
     0.     5.48 CL (BL)
     5.     5.57 BOTTOM WALL
     7.    11.46 TOP WALL
     7.     4.30 BOTTOM WALL
    11.     4.05
    15.     2.69
    22.     2.25

--------------------
   116.     5.69 NA
    45.     0.40
--------------------

        99+73.67
   -17.     0.40
    -9.     3.70
    -4.     5.68
     0.     5.82 CL (BL)
     6.     5.89 BOTTOM WALL
     8.    11.50 TOP WALL
     8.     4.12 BOTTOM WALL
    14.     2.98
```

```
 22.     2.36 ES=WE

    99+83.67
-21.    -1.19 ES
-12.     2.37
 -4.     5.48
  0.     5.77 CL (BL)
  6.     5.85 BOTTOM WALL
  8.    11.50 TOP WALL
  8.     3.94 BOTTOM WALL
 13.     2.93
 17.     1.95

    100+00
-21.    -1.31
-12.     2.56
 -4.     5.39
  0.     5.77 CL (BL)
  6.     5.77 BOTTOM WALL
  8.    11.51 TOP WALL
  8.     3.91 BOTTOM WALL
 13.     3.38
 18.     2.24 ES=WE

    100+29.00
-21.    -1.06 ES
-13.     2.41
 -5.     5.17
  0.     5.68 CL (BL)
  6.     5.98 BOTTOM WALL
  8.    11.48 TOP WALL
  8.     4.59 BOTTOM WALL
 12.     3.78
 15.     1.74

    100+39
-22.    -1.04
-19.     0.62
-12.     3.39
 -5.     5.32
  0.     5.73 CL (BL)
  6.     5.85 BOTTOM WALL
  8.    11.44 TOP WALL
  8.     4.54 BOTTOM WALL
 11.     4.31 CONCRETE
 13.     3.44 CONCRETE
 17.     2.09 ES=WE

    101+00
-31.    -0.84 EJ
-23.    -0.03
-14.     2.21
 -6.     5.03
  0.     5.63 CL (BL)
  6.     5.89 BOTTOM WALL
  9.    11.36 TOP WALL
  8.     4.51 BOTTOM WALL
 10.     4.43 TOP CONCRETE
 14.     3.47 TOP CONCRETE
```

```
   16.     1.85

TO TIE IN:
   75.     1.08 TBM JECA#4
    0.     1.08 ELEV.=1.11

 END OF RUN
```

```
          RED.
 DIST. / ELEV.
 ------  ------

 TO START & IDENTIFY JOB:
     0. 1000.00 D040894
     0. 1000.00 O94C079D.LAA
     0. 1000.00 J. GREMILLION
     0. 1000.00 LONDON AVE. OUTFALL CANAL
     0. 1000.00 LONDON CANAL WESTSIDE B\L
     0. 1000.00 TBM JECA#13
 10572.    5.73 ELEV.=5.73
   104.   -1.71

       101+12.99
   -39.   -1.71
   -23.    0.73
   -11.    3.55
    -3.    5.63
     0.    5.88 CL (BL)
     6.    6.21 BOTTOM WALL
     8.   11.43 TOP WALL
     9.    4.49 BOTTOM WALL
    11.    4.46 TOP CONCRETE
    14.    3.16 TOP CONCRETE
    19.    1.37 ES=WE

--------------------
    58.    2.90 NA
    56.    1.69
--------------------

       102+00
   -35.   -2.22 ES
   -24.    0.22
   -14.    2.96
    -6.    5.41
     0.    5.72 CL (BL)
     6.    5.57 BOTTOM WALL
     8.   11.44 TOP WALL
     9.    4.51 BOTTOM WALL
    11.    4.53 TOP CONCRETE
    14.    3.48 TOP CONCRETE
    19.    1.69

       102+23.11
   -35.   -2.20
   -26.    0.12
   -19.    1.31
    -7.    5.19
     0.    5.85 CL (BL)
     6.    6.11 BOTTOM WALL
     8.   11.40 TOP WALL
     9.    4.45 BOTTOM WALL
    11.    4.42 TOP CONCRETE
    16.    3.02 TOP CONCRETE
    19.    1.59 ES=WE
```

```
      102+81.00
   -17.     0.90 ES
   -11.     3.05
    -5.     4.99
     0.     5.58 CL (BL)
     7.     5.70 BOTTOM WALL
     8.    11.38 TOP WALL
     9.     3.70 BOTTOM WALL
    11.     3.53
    15.     0.92

      103+00
   -18.     0.58
   -11.     2.96
    -5.     5.00
     0.     5.35 CL (BL)
     7.     5.09 BOTTOM WALL
     8.    11.35 TOP WALL
     9.     3.69 BOTTOM WALL
    12.     3.51
    13.     2.87
    16.     1.11 ES=WE

--------------------
   148.     5.47 NA
    50.     2.49
--------------------

      104+00
   -17.     0.75 ES
   -12.     2.21
    -5.     4.46
     0.     5.13 CL (BL)
     7.     4.84 BOTTOM WALL
     9.    11.49 TOP WALL
     9.     3.86 BOTTOM WALL
    15.     2.97
    19.     2.49

      105+00
   -23.    -1.26
   -13.     1.94
    -5.     5.32
     0.     5.85 CL (BL)
     7.     5.58 BOTTOM WALL
     8.    11.46 TOP WALL
     9.     4.03 BOTTOM WALL
    17.     2.42
    24.     1.85 ES=WE

--------------------
   146.     5.62 NA
    50.     2.16
--------------------

      106+00
   -37.    -3.17 ES
   -27.    -2.85
```

-14.	2.20	
-5.	5.62	
0.	5.92	CL (BL)
7.	5.52	BOTTOM WALL
9.	11.53	TOP WALL
9.	3.81	BOTTOM WALL
17.	2.55	
24.	2.16	

107+00

-26.	-2.26	
-15.	2.13	
-6.	5.45	
0.	5.94	CL (BL)
7.	5.81	BOTTOM WALL
8.	11.51	TOP WALL
9.	4.14	BOTTOM WALL
17.	2.53	
20.	1.86	ES=WE

163.	4.68	NA
67.	1.83	

108+00

-24.	-1.84	ES
-21.	-1.33	
-15.	0.92	
-5.	4.78	
0.	5.54	CL (BL)
6.	5.58	BOTTOM WALL
8.	11.50	TOP WALL
8.	4.13	BOTTOM WALL
12.	3.18	
26.	1.83	

109+00

-25.	-2.61	
-19.	-0.98	
-12.	1.67	
-5.	4.90	
0.	5.36	CL (BL)
6.	5.47	BOTTOM WALL
8.	11.45	TOP WALL
9.	3.86	BOTTOM WALL
16.	2.55	
23.	2.14	ES=WE

154.	4.56	NA
59.	1.89	

110+00

-26.	-2.85	ES
-15.	1.18	
-5.	4.90	
0.	5.47	CL (BL)

```
      6.     5.57 BOTTOM WALL
      8.    11.50 TOP WALL
      9.     3.66 BOTTOM WALL
     15.     2.23
     22.     1.89

        111+00
    -25.    -1.86
    -16.     0.18
    -12.     1.34
     -5.     4.28
      0.     4.98 CL (BL)
      6.     5.11 BOTTOM WALL
      8.    11.48 TOP WALL
      9.     3.55 BOTTOM WALL
     20.     2.26
     22.     2.41 ES=WE

--------------------
    153.     4.69 NA
     60.     2.54
--------------------

        112+00
    -27.    -2.05 ES
    -16.     0.76
     -5.     4.77
      0.     5.45 CL (BL)
      6.     5.67 BOTTOM WALL
      7.    11.44 TOP WALL
      7.     4.03 BOTTOM WALL
     14.     3.04
     27.     2.54

        113+00
    -27.    -2.93
    -15.     0.77
     -4.     5.00
      0.     5.56 CL (BL)
      6.     5.52 BOTTOM WALL
      8.    11.47 TOP WALL
      8.     3.27 BOTTOM WALL
     15.     2.30
     24.     2.58 ES=WE

--------------------
    176.     4.83 NA
     82.     2.56
--------------------

        114+00
    -26.    -2.91 ES
    -23.    -2.07
    -15.     0.89
     -5.     5.07
      0.     5.55 CL (BL)
      6.     5.61 BOTTOM WALL
      7.    11.43 TOP WALL
      7.     3.28 BOTTOM WALL
```

```
     13.     2.58
     23.     2.56

        115+00
    -26.    -2.44
    -15.     0.58
     -5.     4.75
      0.     5.25 CL (BL)
      6.     5.20 BOTTOM WALL
      8.    11.41 TOP WALL
      8.     3.09 BOTTOM WALL
     15.     2.46
     22.     2.44 ES=WE

--------------------
   176.     5.69 NA
    78.     2.11
--------------------

        116+00
   -25.    -2.72 ES
   -12.     1.07
    -3.     4.98
     0.     5.40 CL (BL)
     6.     5.58 BOTTOM WALL
     8.    11.42 TOP WALL
     8.     2.89 BOTTOM WALL
    13.     2.44
    19.     2.11

        117+00
   -28.    -2.46
   -21.    -1.22
   -14.     1.18
    -5.     5.59
     0.     6.04 CL (BL)
     6.     6.18 BOTTOM WALL
     8.    11.43 TOP WALL
     9.     3.98 BOTTOM WALL
    13.     2.77
    20.     2.11 ES=WE

--------------------
   145.     5.90 NA
    50.     2.16
--------------------

        118+00
   -28.    -2.66 ES
   -21.    -1.44
   -13.     1.63
    -4.     5.47
     0.     5.88 CL (BL)
     6.     6.29 BOTTOM WALL
     8.    11.35 TOP WALL
     9.     3.51 BOTTOM WALL
    17.     2.35
    24.     2.16
```

```
        119+00
    -23.    -0.97
    -13.     2.00
     -5.     5.39
      0.     5.92 CL (BL)
      6.     6.02 BOTTOM WALL
      8.    11.37 TOP WALL
      9.     2.94 BOTTOM WALL
     17.     2.11
     25.     2.32 ES=WE

--------------------
     77.     7.07 NA
     37.     2.68
--------------------

        119+62.82
    -28.     4.02 ES
    -17.     4.81
     -6.     7.05
      0.     7.12 CL (BL)
      6.     6.59 BOTTOM WALL
      8.    11.32 TOP WALL
      8.     3.83 BOTTOM WALL
     17.     2.79
     28.     2.68

        119+78.50
    -30.     5.66
    -19.     6.75 TOP CONCRETE
    -12.     7.22 TOP CONCRETE
     -5.     7.40 TOP CONCRETE
      0.     7.41 CL (BL)
      6.     7.20 BOTTOM WALL
      8.    11.31 TOP WALL
      8.     4.19 BOTTOM WALL
     18.     2.62
     30.     1.22 EJ


 TO TIE IN:
     32.    10.22 TBM JECA#3
      0.    10.21 E=10.19

  END OF RUN
```

RED. DIST.	/ ELEV.	
		TO START & IDENTIFY JOB:
0.	1000.00	D080894
0.	1000.00	O94C079E.LAA
0.	1000.00	J. GREMILLION
0.	1000.00	LONDON AVE. OUTFALL CANAL
0.	1000.00	LONDON CANAL EASTSIDE B\L
0.	1000.00	TBM JECA#14
11663.	7.36	ELEV.=7.36
491.	4.36	NA
116.	1.92	
	89+00	
-24.	1.92	
-19.	3.41	
-14.	4.68	
-10.	4.16	
-9.	5.86	TSP=ES
-9.	5.97	TOP ROCKS
-6.	7.21	TOP ROCKS
-5.	11.15	TSP=ES
-5.	5.74	
0.	5.50	CL (BL)
4.	4.89	
11.	1.78	
16.	-1.42	
19.	-2.07	ES
	90+00	
-24.	2.17	ES=WE
-21.	3.22	
-18.	4.11	
-10.	4.12	
-9.	6.01	TSP=ES
-9.	5.78	TOP ROCKS
-6.	6.76	TOP ROCKS
-6.	11.14	TSP=ES
-6.	5.41	
0.	4.98	CL (BL)
3.	4.49	
9.	2.26	
15.	-0.90	
18.	-1.83	
	91+00	
-25.	2.13	
-18.	3.99	
-9.	4.26	
-9.	6.03	TSP=ES
-9.	6.13	TOP ROCKS
-6.	6.51	TOP ROCKS
-5.	11.07	TSP=ES
-5.	4.80	
0.	4.50	CL (BL)

```
   4.     3.97
  11.     0.74
  18.    -1.72 ES

      92+00
 -24.     2.09 ES=WE
 -18.     4.04
 -10.     4.25
 -10.     5.92 TSP=ES
  -9.     6.21 TOP ROCKS
  -6.     6.35 TOP ROCKS
  -6.    11.06 TSP=ES
  -5.     4.80
   0.     4.53 CL (BL)
   3.     3.84
   9.     1.03
  18.    -2.45

--------------------
 246.     4.34 NA
 149.     2.09
--------------------

      93+00
 -23.     2.09
 -17.     3.60
 -10.     3.77
  -9.     5.87 TSP=ES
  -9.     5.76 TOP ROCKS
  -6.     6.15 TOP ROCKS
  -6.    11.04 TSP=ES
  -5.     4.69
   0.     4.53 CL (BL)
   4.     3.54
  11.     0.73
  18.    -2.04 ES

      94+00
 -28.     2.08 ES=WE
 -20.     4.01
 -11.     4.51
 -10.     6.04 TSP=ES
 -10.     6.07 TOP ROCKS
  -7.     6.29 TOP ROCKS
  -6.    10.99 TSP=ES
  -6.     5.07
   0.     4.73 CL (BL)
   3.     4.02
   9.     1.27
  17.    -1.70

      95+00
 -21.     2.19
 -13.     3.93
 -10.     4.28
 -10.     5.95 TSP=ES
  -9.     5.86 TOP ROCKS
  -7.     6.12 TOP ROCKS
  -8.    11.02 TSP=ES
```

```
 -6.     4.84
  0.     4.23 CL (BL)
  3.     3.59
  9.     1.12
 16.    -0.94 ES

     96+00
-18.     2.23 ES=WE
-11.     3.48
-10.     5.93 TSP=ES
-10.     6.18 TOP ROCKS
 -7.     6.71 TOP ROCKS
 -7.    11.08 TSP=ES
 -6.     4.64
 -4.     4.56
  0.     3.95 CL (BL)
  2.     3.32
  8.     1.38
 16.    -2.11

--------------------
 232.     3.96 NA
 132.     2.09
--------------------

     97+00
-15.     2.09
-13.     4.43
-10.     6.18 TSP=ES
-10.     6.31 TOP ROCKS
 -8.     6.09 TOP ROCKS
 -8.    11.08 TSP=ES
 -6.     4.84
 -3.     4.59
  0.     4.01 CL (BL)
  7.     1.42
 12.    -1.21
 16.    -2.30 ES

     98+00
-17.     2.23 ES=WE
-15.     3.51
-12.     3.69
-11.     5.80 TSP=ES
-11.     5.55 TOP ROCKS
 -8.     5.97 TOP ROCKS
 -8.    11.04 TSP=ES
 -7.     4.54
 -4.     4.45
  0.     3.74 CL (BL)
  7.     1.29
 15.    -2.19

     99+00
-24.     2.22
-22.     3.03 TOP ROCKS
-15.     3.43 TOP ROCKS
-12.     5.08 TOP ROCKS
-11.     5.59 TSP=ES
```

```
-11.     5.66 TOP ROCKS
 -8.     6.29 TOP ROCKS
 -7.    10.99 TSP=ES
 -7.     4.69
 -2.     4.52
  0.     4.20 CL (BL)
  7.     2.02
 16.    -2.33 ES

    99+69.22
-18.     2.16 ES=WE
-13.     5.55 TOP ROCKS
-12.     6.21 TSP=ES
-11.     5.74 TOP ROCKS
 -9.     4.46 TOP ROCKS
 -8.    10.96 TSP=ES
 -8.     4.97
 -4.     4.71
  0.     4.04 CL (BL)
  4.     2.21
 11.    -0.96
 14.    -1.64

    99+70.31
-18.     2.17
-14.     4.39 TOP ROCKS
-12.     6.37 TSP=ES
-11.     6.36 TOP ROCKS
 -8.     7.22 TOP ROCKS
 -8.    10.95 TSP=ES
 -7.     4.91
 -3.     4.67
  0.     4.14 CL (BL)
  7.     1.36
 15.    -1.47 ES

    99+74.76
-16.     2.19 ES=WE
-12.     3.90
-11.     6.43 TSP=ES
-10.     6.72 TOP ROCKS
 -8.     7.12 TOP ROCKS
 -7.    10.97 TSP=ES
 -7.     4.96
 -5.     5.02
  0.     4.41 CL (BL)
  7.     1.78
 15.    -1.49

    99+91.07
-15.     2.67
-12.     4.05
 -5.     5.02
 -6.     6.61 TSP=ES
 -6.     7.01 TOP ROCKS
 -3.     7.05 TOP ROCKS
 -3.    10.95 TSP=ES
 -3.     6.03
  0.     5.93 CL (BL)
```

```
    9.     5.13
   14.     3.88 ES

      99+96.67
  -14.     2.39 EJ
   -9.     4.66
   -7.     5.10 BOTTOM WALL
   -6.    11.44 TOP WALL
   -4.     6.39 BOTTOM WALL
    0.     6.47 CL (BL)
    4.     6.26
   10.     5.70
   14.     5.30

TO TIE IN:
   59.     4.51 NA
  268.    -5.98 NA
  129.    -5.99 NA
  166.     4.49 TBM#JECA15
    0.     4.49 ELEV.=4.49

 END OF RUN
```

```
          RED.
 DIST. / ELEV.
 ------  ------

 TO START & IDENTIFY JOB:
     0. 1000.00 D090894
     0. 1000.00 O94C079F.LAA
     0. 1000.00 J. GREMILLION
     0. 1000.00 LONDON AVE. OUTFALL CANAL
     0. 1000.00 LONDON CANAL EASTSIDE B\L
     0. 1000.00 TBM JECA#15A
 10235.   -6.02 ELEV.=-6.02
   138.   -0.24

       102+48.69
   -29.   -0.24
   -21.    0.13 TOP CONCRETE
   -15.    1.84
    -6.    3.47
     0.    4.67 CL (BL)
     5.    5.49 BOTTOM WALL
     5.   11.39 TOP WALL
     6.   11.39 TOP WALL
     6.    9.42 TOP WALL
     7.    9.40 TOP WALL
     8.    4.26 BOTTOM WALL
    10.    4.23 TOP CONCRETE
    15.    2.08 ES=WE

       102+67.72
   -41.   -4.06 ES
   -24.   -1.84
   -13.    0.70
    -3.    4.11
     0.    4.47 CL (BL)
     5.    5.22
     6.   12.30 TSP=ES
     6.    6.07 TSP=ES
     6.    3.95
     9.    3.71
     9.    2.19

--------------------
    70.    3.55 NA
    34.   -4.04
--------------------

       103+00
   -23.   -4.04
   -17.   -1.97
    -9.    1.80
    -2.    3.76
     0.    4.03 CL (BL)
     5.    4.18
     5.   12.50 TSP=ES
     6.    6.56 TSP=ES
     6.    4.65
```

```
    13.     3.78
    18.     2.03 ES=WE

--------------------
    94.     3.37 NA
    24.     2.17
--------------------

       104+00
   -26.    -4.43 ES
   -18.    -1.63
   -11.     1.23
    -3.     3.55
     0.     3.80 CL (BL)
     4.     3.82
     4.    12.55 TSP=ES
     6.     5.54 TSP=ES
     6.     4.52
    11.     5.03
    19.     2.17

--------------------
   114.     3.79 NA
    25.    -3.97
--------------------

       105+00
   -24.    -3.97
   -16.    -1.44
    -7.     2.10
    -2.     3.60
     0.     3.86 CL (BL)
     4.     3.86
     4.    12.49 TSP=ES
     5.     5.79 TSP=ES
     5.     4.44
    13.     5.14
    19.     3.26
    22.     2.00 ES=WE

--------------------
   109.     3.92 NA
    26.     2.14
--------------------

       106+00
   -24.    -4.37 ES
   -21.    -4.03
   -16.    -1.17
   -10.     1.52
    -3.     3.92
     0.     4.34 CL (BL)
     4.     4.43
     4.    12.50 TSP=ES
     6.     5.57 TSP=ES
     7.     4.78
    13.     5.52
    20.     2.14
```

```
--------------------
   112.     3.42 NA
    22.    -4.31
--------------------

       107+00
   -23.    -4.31
   -15.    -1.10
    -8.     2.23
     0.     4.47 CL (BL)
     5.     4.59
     5.    12.58 TSP=ES
     7.     3.60
     9.     4.99
    14.     4.58
    18.     3.62
    20.     2.52 ES=WE

--------------------
   111.     3.43 NA
    26.     2.39
--------------------

       108+00
   -23.    -4.55 ES
   -20.    -4.18
   -15.    -1.40
    -9.     1.31
    -2.     3.65
     0.     3.97 CL (BL)
     5.     4.18
     5.    12.52 TSP=ES
     6.     2.84
     8.     4.87 TOP ROCKS
    14.     5.14 TOP ROCKS
    19.     2.78
    20.     4.75 TOP CONCRETE
    21.     4.07 TOP CONCRETE
    22.     2.39

--------------------
   110.     2.62 NA
    24.    -4.83
--------------------

       109+00
   -28.    -4.83
   -20.    -4.06
   -10.     0.35
    -2.     2.95
     0.     3.30 CL (BL)
     6.     3.20
     6.    12.57 TSP=ES
     7.     2.37
     9.     5.01 TOP ROCKS
    15.     4.46 TOP ROCKS
    18.     2.39 ES=WE

--------------------
```

```
   113.     3.08 NA
    26.     2.27
--------------------

       110+00
   -26.    -4.62 ES
   -20.    -3.71
   -11.    -0.18
    -3.     3.32
     0.     3.77 CL (BL)
     4.     3.97
     4.    12.21 TSP=ES
     5.     2.11
     7.     3.39 TOP ROCKS
    14.     4.25 TOP ROCKS
    18.     2.27

--------------------
   113.     2.64 NA
    24.    -4.82
--------------------

       111+00
   -24.    -4.82
   -19.    -4.31
   -10.     0.04
    -2.     2.81
     0.     3.10 CL (BL)
     6.     2.92
     6.    12.47 TSP=ES
     7.     2.59
     9.     4.16 TOP ROCKS
    16.     4.08 TOP ROCKS
    18.     2.21 ES=WE

--------------------
   111.     3.48 NA
    23.     2.34
--------------------

       112+00
   -21.    -4.04 ES
   -18.    -3.51
   -11.    -0.47
    -3.     3.00
     0.     3.87 CL (BL)
     5.     4.52
     6.    12.19 TSP=ES
     7.     3.75
     7.     3.74
     7.     4.72 TSP=ES
     8.     4.15 TOP ROCKS
    15.     4.19 TOP ROCKS
    20.     2.34

--------------------
   109.     3.74 NA
    20.    -4.49
--------------------
```

113+00

-20.	-4.49	
-18.	-4.11	
-13.	-0.22	
-3.	3.64	
0.	4.04	CL (BL)
6.	4.05	
6.	12.14	TSP=ES
7.	3.87	
8.	4.01	
8.	4.28	TSP=ES
9.	4.17	TOP ROCKS
15.	4.14	
19.	2.47	ES=WE

114.	3.88	NA
25.	2.66	

114+00

-19.	-4.05	ES
-17.	-3.75	
-14.	-1.26	
-8.	1.40	
-3.	3.79	
0.	4.36	CL (BL)
6.	4.08	
7.	12.11	TSP=ES
7.	4.44	
8.	4.45	
8.	4.76	TSP=ES
8.	4.51	
14.	4.52	
20.	2.66	

113.	3.40	NA
33.	-3.31	

114+82.71

-18.	-3.31	
-9.	0.63	
-3.	3.24	
0.	3.83	CL (BL)
6.	4.16	
6.	11.96	TSP=ES
7.	4.10	
10.	3.99	
10.	4.17	TSP=ES
11.	4.12	
15.	4.69	
18.	2.41	ES=WE

115+00

-18.	-3.01	ES
-12.	-0.65	

```
    -4.    3.08
     0.    3.97 CL (BL)
     6.    3.88
     6.   12.03 TSP=ES
     7.    4.63
     8.    4.53
     9.    4.73 TSP=ES
     9.    4.48
    15.    4.60
    20.    2.47

--------------------
   110.    3.67 NA
    20.   -3.38
--------------------

       116+00
   -18.   -3.38
    -9.    0.75
    -3.    3.52
     0.    4.01 CL (BL)
     6.    3.96
     7.   11.97 TSP=ES
     7.    4.08
    10.    4.57
    16.    4.60
    21.    2.21 EJ

 TO TIE IN:
   112.    3.85 NA
   206.    4.39 TBM JECA#16
     0.    4.39 ELEV.=4.38

  END OF RUN
```

```
          RED.
 DIST. / ELEV.
 ------  ------

TO START & IDENTIFY JOB:
    0. 1000.00 D090894
    0. 1000.00 O94C079F.LAA
    0. 1000.00 J. GREMILLION
    0. 1000.00 LONDON AVE. OUTFALL CANAL
    0. 1000.00 LONDON CANAL EASTSIDE B\L
    0. 1000.00 TBM JECA#15A
10235.   -6.02 ELEV.=-6.02
  138.   -0.24

      102+48.69
  -15.    2.08 ES=WE
  -10.    4.23 TOP CONCRETE
   -8.    4.26 BOTTOM WALL
   -7.    9.40 TOP WALL
   -6.    9.42 TOP WALL
   -6.   11.39 TOP WALL
   -5.   11.39 TOP WALL
   -5.    5.49 BOTTOM WALL
    0.    4.67 CL (BL)
    6.    3.47
   15.    1.84
   21.    0.13 TOP CONCRETE
   29.   -0.24

      102+67.72
   -9.    2.19
   -9.    3.71
   -6.    3.95
   -6.    6.07 TSP=ES
   -6.   12.30 TSP=ES
   -5.    5.22
    0.    4.47 CL (BL)
    3.    4.11
   13.    0.70
   24.   -1.84
   41.   -4.06 ES

--------------------
   70.    3.55 NA
   34.   -4.04
--------------------

      103+00
  -18.    2.03 ES=WE
  -13.    3.78
   -6.    4.65
   -6.    6.56 TSP=ES
   -5.   12.50 TSP=ES
   -5.    4.18
    0.    4.03 CL (BL)
    2.    3.76
    9.    1.80
```

```
    17.    -1.97
    23.    -4.04

--------------------
    94.     3.37 NA
    24.     2.17
--------------------

        104+00
   -19.     2.17
   -11.     5.03
    -6.     4.52
    -6.     5.54 TSP=ES
    -4.    12.55 TSP=ES
    -4.     3.82
     0.     3.80 CL (BL)
     3.     3.55
    11.     1.23
    18.    -1.63
    26.    -4.43 ES

--------------------
   114.     3.79 NA
    25.    -3.97
--------------------

        105+00
   -22.     2.00 ES=WE
   -19.     3.26
   -13.     5.14
    -5.     4.44
    -5.     5.79 TSP=ES
    -4.    12.49 TSP=ES
    -4.     3.86
     0.     3.86 CL (BL)
     2.     3.60
     7.     2.10
    16.    -1.44
    24.    -3.97

--------------------
   109.     3.92 NA
    26.     2.14
--------------------

        106+00
   -20.     2.14
   -13.     5.52
    -7.     4.78
    -6.     5.57 TSP=ES
    -4.    12.50 TSP=ES
    -4.     4.43
     0.     4.34 CL (BL)
     3.     3.92
    10.     1.52
    16.    -1.17
    21.    -4.03
    24.    -4.37 ES
```

```
--------------------
   112.     3.42 NA
    22.    -4.31
--------------------

       107+00
   -20.     2.52 ES=WE
   -18.     3.62
   -14.     4.58
    -9.     4.99
    -7.     3.60
    -5.    12.58 TSP=ES
    -5.     4.59
     0.     4.47 CL (BL)
     8.     2.23
    15.    -1.10
    23.    -4.31

--------------------
   111.     3.43 NA
    26.     2.39
--------------------

       108+00
   -22.     2.39
   -21.     4.07 TOP CONCRETE
   -20.     4.75 TOP CONCRETE
   -19.     2.78
   -14.     5.14 TOP ROCKS
    -8.     4.87 TOP ROCKS
    -6.     2.84
    -5.    12.52 TSP=ES
    -5.     4.18
     0.     3.97 CL (BL)
     2.     3.65
     9.     1.31
    15.    -1.40
    20.    -4.18
    23.    -4.55 ES

--------------------
   110.     2.62 NA
    24.    -4.83
--------------------

       109+00
   -18.     2.39 ES=WE
   -15.     4.46 TOP ROCKS
    -9.     5.01 TOP ROCKS
    -7.     2.37
    -6.    12.57 TSP=ES
    -6.     3.20
     0.     3.30 CL (BL)
     2.     2.95
    10.     0.35
    20.    -4.06
    28.    -4.83

--------------------
```

```
   113.     3.08 NA
    26.     2.27
--------------------

       110+00
   -18.     2.27
   -14.     4.25 TOP ROCKS
    -7.     3.39 TOP ROCKS
    -5.     2.11
    -4.    12.21 TSP=ES
    -4.     3.97
     0.     3.77 CL (BL)
     3.     3.32
    11.    -0.18
    20.    -3.71
    26.    -4.62 ES

--------------------
   113.     2.64 NA
    24.    -4.82
--------------------

       111+00
   -18.     2.21 ES=WE
   -16.     4.08 TOP ROCKS
    -9.     4.16 TOP ROCKS
    -7.     2.59
    -6.    12.47 TSP=ES
    -6.     2.92
     0.     3.10 CL (BL)
     2.     2.81
    10.     0.04
    19.    -4.31
    24.    -4.82

--------------------
   111.     3.48 NA
    23.     2.34
--------------------

       112+00
   -20.     2.34
   -15.     4.19 TOP ROCKS
    -8.     4.15 TOP ROCKS
    -7.     4.72 TSP=ES
    -7.     3.74
    -7.     3.75
    -6.    12.19 TSP=ES
    -5.     4.52
     0.     3.87 CL (BL)
     3.     3.00
    11.    -0.47
    18.    -3.51
    21.    -4.04 ES

--------------------
   109.     3.74 NA
    20.    -4.49
--------------------
```

113+00

-19.	2.47	ES=WE
-15.	4.14	
-9.	4.17	TOP ROCKS
-8.	4.28	TSP=ES
-8.	4.01	
-7.	3.87	
-6.	12.14	TSP=ES
-6.	4.05	
0.	4.04	CL (BL)
3.	3.64	
13.	-0.22	
18.	-4.11	
20.	-4.49	

114.	3.88	NA
25.	2.66	

114+00

-20.	2.66	
-14.	4.52	
-8.	4.51	
-8.	4.76	TSP=ES
-8.	4.45	
-7.	4.44	
-7.	12.11	TSP=ES
-6.	4.08	
0.	4.36	CL (BL)
3.	3.79	
8.	1.40	
14.	-1.26	
17.	-3.75	
19.	-4.05	ES

113.	3.40	NA
33.	-3.31	

114+82.71

-18.	2.41	ES=WE
-15.	4.69	
-11.	4.12	
-10.	4.17	TSP=ES
-10.	3.99	
-7.	4.10	
-6.	11.96	TSP=ES
-6.	4.16	
0.	3.83	CL (BL)
3.	3.24	
9.	0.63	
18.	-3.31	

115+00

-20.	2.47	
-15.	4.60	

```
    -9.     4.48
    -9.     4.73 TSP=ES
    -8.     4.53
    -7.     4.63
    -6.    12.03 TSP=ES
    -6.     3.88
     0.     3.97 CL (BL)
     4.     3.08
    12.    -0.65
    18.    -3.01 ES

--------------------
   110.     3.67 NA
    20.    -3.38
--------------------

       116+00
   -21.     2.21 EJ
   -16.     4.60
   -10.     4.57
    -7.     4.08
    -7.    11.97 TSP=ES
    -6.     3.96
     0.     4.01 CL (BL)
     3.     3.52
     9.     0.75
    18.    -3.38

 TO TIE IN:
   112.     3.85 NA
   206.     4.39 TBM JECA#16
     0.     4.39 ELEV.=4.38

  END OF RUN
```

```
          RED.
 DIST. / ELEV.
 ------  ------

 TO START & IDENTIFY JOB:
     0. 1000.00 D100894
     0. 1000.00 O94C079G.LAA
     0. 1000.00 J. GREMILLION
     0. 1000.00 LONDON AVE. OUTFALL CANAL
     0. 1000.00 LONDON CANAL EASTSIDE B\L
     0. 1000.00 TBM JECA#17
  9363.    3.83 ELEV.=3.82
    21.   -4.21

       117+00
   -20.   -4.21
   -18.   -3.65
   -12.   -0.38
    -3.    3.59
     0.    4.07 CL (BL)
     6.    4.18
     6.   11.98 TSP=ES
     8.    4.57
    15.    4.83
    18.    3.98
    19.    1.95 ES=WE

--------------------
   116.    3.69 NA
    26.    2.21
--------------------

       118+00
   -19.   -4.44 ES
   -17.   -3.65
   -11.   -0.51
    -3.    3.26
     0.    4.15 CL (BL)
     6.    4.14
     7.   11.97 TSP=ES
     8.    4.11
     9.    4.26
     9.    4.80 TSP=ES
    10.    4.63
    17.    4.65
    19.    3.70
    21.    2.21

--------------------
   130.    4.93 NA
    30.   -3.25
--------------------

       119+00
   -16.   -3.25
    -7.    0.71
    -2.    3.49
```

```
      0.     3.95 CL (BL)
      4.     4.22
      7.     4.33
      7.    12.13 TSP=ES
      8.     4.18
     10.     4.61
     18.     4.41
     21.     3.75
     22.     2.18 ES=WE

        119+03.06
    -18.    -3.34 ES
    -10.    -0.65
     -4.     2.89
      0.     4.11 CL (BL)
      6.     4.31
      7.    12.10 TSP=ES
      8.     4.53
     17.     4.55
     20.     3.54
     21.     1.86

        119+16.35
    -21.    -3.60
    -14.    -1.13
     -8.     3.61
     -3.     4.63
      0.     4.75 CL (BL)
      7.     4.87
      7.    12.09 TSP=ES
      8.     4.64
     20.     4.58
     24.     2.14 ES=WE

--------------------
   125.     6.45 NA
    27.     2.18
--------------------

        120+18.82
    -30.     4.47 ES
    -15.     5.31
      0.     6.07 CL (BL)
      8.     6.25
     18.     6.37 BOTTOM WALL
     20.    11.24 TOP WALL
     20.     4.83 BOTTOM WALL
     22.     4.63
     25.     2.18

        120+49.00
    -43.    -2.52
    -28.    -1.42
    -14.     2.28
     -2.     5.95
      0.     6.36 CL (BL)
      6.     6.55 BOTTOM WALL
      8.    11.29 TOP WALL
      8.     6.32 BOTTOM WALL
```

```
 11.     6.10
 16.     4.89
 24.     2.01 ES=WE

    121+00
-43.    -3.69 ES
-27.    -1.72
-15.     1.83
 -3.     5.69
  0.     6.07 CL (BL)
  5.     6.31 BOTTOM WALL
  7.    11.26 TOP WALL
  7.     6.19 BOTTOM WALL
  9.     5.99
 15.     4.41
 21.     2.11

    122+00
-44.    -3.85
-30.    -2.55
-15.     1.55
 -3.     5.66
  0.     6.23 CL (BL)
  5.     6.50 BOTTOM WALL
  7.    11.27 TOP WALL
  8.     6.16 BOTTOM WALL
  9.     6.02
 17.     3.90
 24.     2.15 ES=WE

    123+00
-45.    -3.76 ES
-29.    -2.53
-16.     1.24
 -3.     5.46
  0.     5.90 CL (BL)
  4.     6.08 BOTTOM WALL
  6.    11.21 TOP WALL
  7.     5.89 BOTTOM WALL
  9.     5.75
 16.     4.21
 23.     2.18

    124+00
-46.    -3.75
-28.    -2.13
-14.     1.94
 -2.     5.66
  0.     5.95 CL (BL)
  4.     6.33 BOTTOM WALL
  7.    11.21 TOP WALL
  7.     5.40 BOTTOM WALL
 10.     5.60
 17.     3.83
 21.     2.01 ES=WE

    125+00
-45.    -3.77 ES
-27.    -2.38
```

```
   -14.     1.52
    -2.     5.75
     0.     5.96 CL (BL)
     4.     6.04 BOTTOM WALL
     7.    11.14 TOP WALL
     7.     6.15 BOTTOM WALL
     9.     6.19
    16.     4.47
    20.     2.15

--------------------
   198.     6.51 NA
   102.    -3.89
--------------------

       126+00
   -46.    -3.89
   -27.    -1.97
   -14.     1.95
    -3.     5.45
     0.     5.84 CL (BL)
     4.     5.99 BOTTOM WALL
     6.    11.19 TOP WALL
     7.     5.88 BOTTOM WALL
    11.     5.72
    16.     4.01
    20.     1.92 ES=WE

       126+65.00
   -40.    -3.69 ES
   -27.    -1.07
   -13.     2.41
     0.     5.82 CL (BL)
     4.     5.66 BOTTOM WALL
     6.    11.14 TOP WALL
     6.     5.35 BOTTOM WALL
     8.     5.08
    10.     3.52
    13.     1.86

       126+88.58
   -52.     3.04
   -34.     4.05
   -22.     5.81
   -15.     6.23 TOP CONCRETE
    -9.     6.50 TOP CONCRETE
    -3.     6.82 TOP CONCRETE
     0.     6.56 CL (BL)
     8.     7.00 BOTTOM WALL
     8.    10.56 TOP WALL
     9.    10.55 TOP WALL
     9.     6.64 BOTTOM WALL
    10.     6.61 BOTTOM WALL
    12.    11.21 EJ=TOP WALL

 TO TIE IN:
    52.     6.48 TBM LCE#18
     0.     6.48 ELEV.=6.47
```

END OF RUN

```
           RED.
  DIST. / ELEV.
 ------  ------

 TO START & IDENTIFY JOB:
     0. 1000.00 D100894
     0. 1000.00 O94C079G.LAA
     0. 1000.00 J. GREMILLION
     0. 1000.00 LONDON AVE. OUTFALL CANAL
     0. 1000.00 LONDON CANAL EASTSIDE B\L
     0. 1000.00 TBM JECA#17
  9363.    3.83 ELEV.=3.82
    21.   -4.21

        117+00
   -19.    1.95 ES=WE
   -18.    3.98
   -15.    4.83
    -8.    4.57
    -6.   11.98 TSP=ES
    -6.    4.18
     0.    4.07 CL (BL)
     3.    3.59
    12.   -0.38
    18.   -3.65
    20.   -4.21

--------------------
   116.    3.69 NA
    26.    2.21
--------------------

        118+00
   -21.    2.21
   -19.    3.70
   -17.    4.65
   -10.    4.63
    -9.    4.80 TSP=ES
    -9.    4.26
    -8.    4.11
    -7.   11.97 TSP=ES
    -6.    4.14
     0.    4.15 CL (BL)
     3.    3.26
    11.   -0.51
    17.   -3.65
    19.   -4.44 ES

--------------------
   130.    4.93 NA
    30.   -3.25
--------------------

        119+00
   -22.    2.18 ES=WE
   -21.    3.75
   -18.    4.41
```

```
   -10.     4.61
    -8.     4.18
    -7.    12.13 TSP=ES
    -7.     4.33
    -4.     4.22
     0.     3.95 CL (BL)
     2.     3.49
     7.     0.71
    16.    -3.25

       119+03.06
   -21.     1.86
   -20.     3.54
   -17.     4.55
    -8.     4.53
    -7.    12.10 TSP=ES
    -6.     4.31
     0.     4.11 CL (BL)
     4.     2.89
    10.    -0.65
    18.    -3.34 ES

       119+16.35
   -24.     2.14 ES=WE
   -20.     4.58
    -8.     4.64
    -7.    12.09 TSP=ES
    -7.     4.87
     0.     4.75 CL (BL)
     3.     4.63
     8.     3.61
    14.    -1.13
    21.    -3.60

--------------------
   125.     6.45 NA
    27.     2.18
--------------------

       120+18.82
   -25.     2.18
   -22.     4.63
   -20.     4.83 BOTTOM WALL
   -20.    11.24 TOP WALL
   -18.     6.37 BOTTOM WALL
    -8.     6.25
     0.     6.07 CL (BL)
    15.     5.31
    30.     4.47 ES

       120+49.00
   -24.     2.01 ES=WE
   -16.     4.89
   -11.     6.10
    -8.     6.32 BOTTOM WALL
    -8.    11.29 TOP WALL
    -6.     6.55 BOTTOM WALL
     0.     6.36 CL (BL)
     2.     5.95
```

```
 14.     2.28
 28.    -1.42
 43.    -2.52

    121+00
-21.     2.11
-15.     4.41
 -9.     5.99
 -7.     6.19 BOTTOM WALL
 -7.    11.26 TOP WALL
 -5.     6.31 BOTTOM WALL
  0.     6.07 CL (BL)
  3.     5.69
 15.     1.83
 27.    -1.72
 43.    -3.69 ES

    122+00
-24.     2.15 ES=WE
-17.     3.90
 -9.     6.02
 -8.     6.16 BOTTOM WALL
 -7.    11.27 TOP WALL
 -5.     6.50 BOTTOM WALL
  0.     6.23 CL (BL)
  3.     5.66
 15.     1.55
 30.    -2.55
 44.    -3.85

    123+00
-23.     2.18
-16.     4.21
 -9.     5.75
 -7.     5.89 BOTTOM WALL
 -6.    11.21 TOP WALL
 -4.     6.08 BOTTOM WALL
  0.     5.90 CL (BL)
  3.     5.46
 16.     1.24
 29.    -2.53
 45.    -3.76 ES

    124+00
-21.     2.01 ES=WE
-17.     3.83
-10.     5.60
 -7.     5.40 BOTTOM WALL
 -7.    11.21 TOP WALL
 -4.     6.33 BOTTOM WALL
  0.     5.95 CL (BL)
  2.     5.66
 14.     1.94
 28.    -2.13
 46.    -3.75

    125+00
-20.     2.15
-16.     4.47
```

-9.	6.19	
-7.	6.15	BOTTOM WALL
-7.	11.14	TOP WALL
-4.	6.04	BOTTOM WALL
0.	5.96	CL (BL)
2.	5.75	
14.	1.52	
27.	-2.38	
45.	-3.77	ES

198.	6.51	NA
102.	-3.89	

126+00

-20.	1.92	ES=WE
-16.	4.01	
-11.	5.72	
-7.	5.88	BOTTOM WALL
-6.	11.19	TOP WALL
-4.	5.99	BOTTOM WALL
0.	5.84	CL (BL)
3.	5.45	
14.	1.95	
27.	-1.97	
46.	-3.89	

126+65.00

-13.	1.86	
-10.	3.52	
-8.	5.08	
-6.	5.35	BOTTOM WALL
-6.	11.14	TOP WALL
-4.	5.66	BOTTOM WALL
0.	5.82	CL (BL)
13.	2.41	
27.	-1.07	
40.	-3.69	ES

126+88.58

-12.	11.21	EJ=TOP WALL
-10.	6.61	BOTTOM WALL
-9.	6.64	BOTTOM WALL
-9.	10.55	TOP WALL
-8.	10.56	TOP WALL
-8.	7.00	BOTTOM WALL
0.	6.56	CL (BL)
3.	6.82	TOP CONCRETE
9.	6.50	TOP CONCRETE
15.	6.23	TOP CONCRETE
22.	5.81	
34.	4.05	
52.	3.04	

TO TIE IN:

52.	6.48	TBM LCE#18
0.	6.48	ELEV.=6.47

END OF RUN

DIST.	RED. ELEV.	
		TO START & IDENTIFY JOB:
0.	1000.00	D100894
0.	1000.00	O94C079H.LAA
0.	1000.00	J. GREMILLION
0.	1000.00	LONDON AVE. OUTFALL CANAL
0.	1000.00	LONDON CANAL EASTSIDE B\L
0.	1000.00	TBM JECA#14
11663.	7.36	ELEV.=7.36
278.	-1.71	
	88+00	
-19.	-1.71	
-10.	2.96	
-3.	5.42	
0.	5.78	CL (BL)
5.	6.13	
5.	11.16	TSP=ES
6.	7.37	TOP ROCKS
8.	6.16	TOP ROCKS
9.	6.05	TSP=ES
10.	3.87	
12.	3.81	
20.	2.01	EJ
		TO TIE IN:

```
          RED.
 DIST. / ELEV.
------  ------

TO START & IDENTIFY JOB:
    0. 1000.00 D100894
    0. 1000.00 O94C079H.LAA
    0. 1000.00 J. GREMILLION
    0. 1000.00 LONDON AVE. OUTFALL CANAL
    0. 1000.00 LONDON CANAL EASTSIDE B\L
    0. 1000.00 TBM JECA#14
11663.    7.36 ELEV.=7.36
  278.   -1.71

      88+00
  -20.    2.01 EJ
  -12.    3.81
  -10.    3.87
   -9.    6.05 TSP=ES
   -8.    6.16 TOP ROCKS
   -6.    7.37 TOP ROCKS
   -5.   11.16 TSP=ES
   -5.    6.13
    0.    5.78 CL (BL)
    3.    5.42
   10.    2.96
   19.   -1.71

TO TIE IN:
  279.    9.34 TBM JECA#6
    0.    9.34 ELEV.=9.34

 END OF RUN
```