WEST BANK AND VICINITY
NEW ORLEANS, LOUISIANA

HURRICANE PROTECTION PROJECT
WESTWEGO, LA. TO HARVEY, LA.

JEFFERSON PARISH, LA.

DRAWINGS IN THIS FOLIO
HAVE BEEN REDUCED ONE
HALF THE ORIGINAL SCALE

ENGINEERING ALTERNATIVE REPORT

WBV 14a.2

HARVEY CANAL WEST BANK LEVEES - PHASE 2

NEW ESTELLE PUMP STATION TO LAPALCO BLVD.

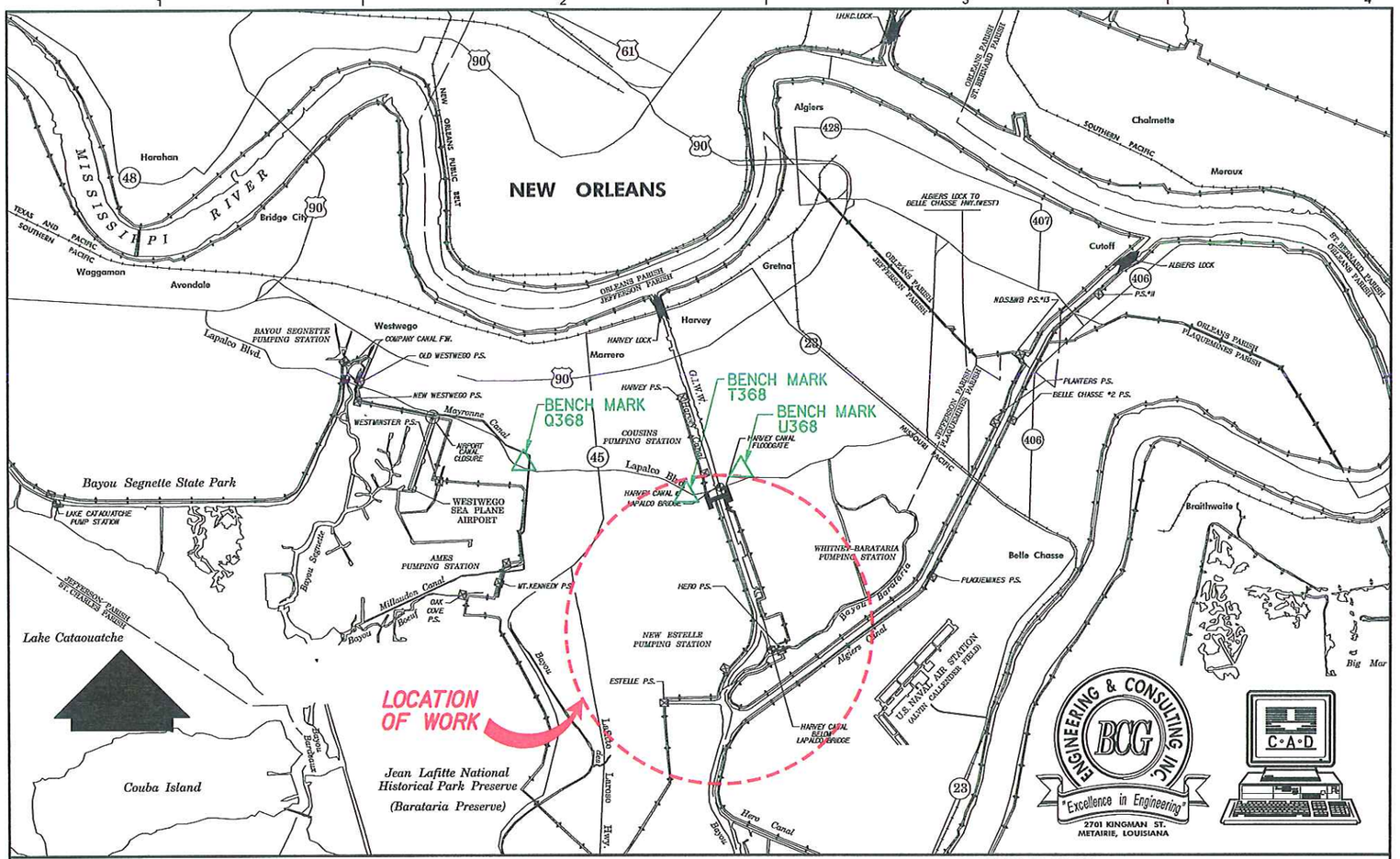
PREPARED FOR:

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

PREPARED BY:

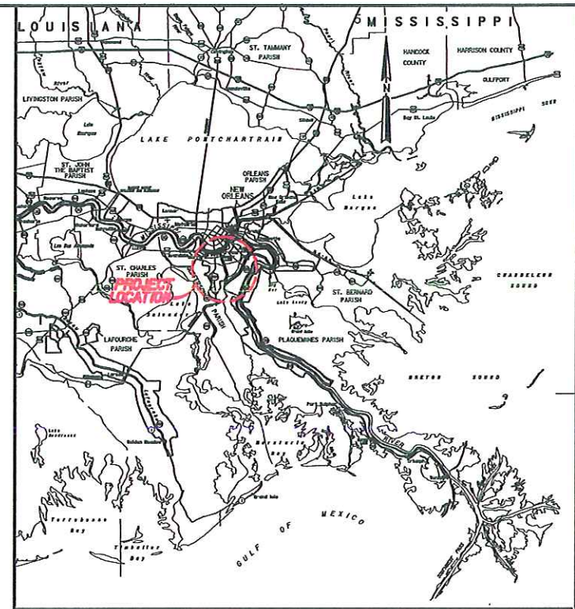
ENGINEERING & CONSULTING, INC.
BCG
"Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

May, 2008



LOCATION MAP

SCALE IN MILES 1 0 1 2



VICINITY MAP

SCALE IN MILES 10 0 10 20 30 40 50

INDEX TO DRAWINGS

DWG.	TITLE	DWG.	TITLE	DWG.	TITLE	DWG.	TITLE
1	LOCATION MAP AND VICINITY MAP - INDEX TO DRAWINGS	16	PLAN - ALTERNATIVE 2 - STA. 891+86.12 - STA. 914+31.18	31	PLAN - ALTERNATIVE 4 - STA. 914+31.18 - STA. 940+36.94	46	ALTERNATIVE 4 - TYPICAL SECTIONS
2	STUDY REACH WBV 14a.2	17	PLAN - ALTERNATIVE 2 - STA. 914+31.18 - STA. 940+36.94	32	PLAN - ALTERNATIVE 4 - STA. 940+36.94 - STA. 959+78.00	47	ALTERNATIVE 5 - TYPICAL SECTIONS
3	EXISTING RIGHTS OF WAY	18	PLAN - ALTERNATIVE 2 - STA. 940+36.94 - STA. 959+78.00	33	PLAN - ALTERNATIVE 4 - STA. 959+78.00 - STA. 979+14.97	48	TYPICAL T-WALL SECTION AND PILE LAYOUT
4	EXISTING RIGHTS OF WAY	19	PLAN - ALTERNATIVE 2 - STA. 959+78.00 - STA. 979+14.97	34	PLAN - ALTERNATIVE 4 - STA. 979+14.97 - STA. 998+06.42	49	SOIL COLUMN MIXING DETAILS
5	EXISTING RIGHTS OF WAY	20	PLAN - ALTERNATIVE 2 - STA. 979+14.97 - STA. 998+06.42	35	PLAN - ALTERNATIVE 4 - STA. 998+06.42 - STA. 1013+38.00	50	DOLPHIN PLAN, ELEVATION AND DETAILS
6	EXISTING PROFILE - STA. 872+00 TO STA. 945+00	21	PLAN - ALTERNATIVE 2 - STA. 998+06.42 - STA. 1013+38.00		**ALTERNATIVE 5-LEVEE (SOIL MIXING COLUMNS) (2057 EL.)**	51	PLAN-FLOODWALL AT TRANSMITION TOWER OPTION
7	EXISTING PROFILE - STA. 945+00 TO STA. 1010+00		**ALTERNATIVE 3-FLOODWALL (2057 ELEVATION)**	36	PLAN - ALTERNATIVE 5 - STA. 872+00.00 - STA. 891+86.12	52	PLAN-TRANSMITION TOWER RELOCATION OPTION
	ALTERNATIVE 1 LEVEE (UN-REINFORCED) (2057 EL.)	22	PLAN - ALTERNATIVE 3 - STA. 872+00.00 - STA. 891+86.12	37	PLAN - ALTERNATIVE 5 - STA. 891+86.12 - STA. 914+31.18		**SURVEY CROSS SECTIONS**
8	PLAN - ALTERNATIVE 1 - STA. 872+00.00 - STA. 891+86.12	23	PLAN - ALTERNATIVE 3 - STA. 891+86.12 - STA. 914+31.18	38	PLAN - ALTERNATIVE 5 - STA. 914+31.18 - STA. 940+36.94	1 OF 8	PLAN STA. 872+00 - STA. 914+00
9	PLAN - ALTERNATIVE 1 - STA. 891+86.12 - STA. 914+31.18	24	PLAN - ALTERNATIVE 3 - STA. 914+31.18 - STA. 940+36.94	39	PLAN - ALTERNATIVE 5 - STA. 940+36.94 - STA. 959+78.00	2 OF 8	PLAN STA. 920+00 - STA. 962+00
10	PLAN - ALTERNATIVE 1 - STA. 914+31.18 - STA. 940+36.94	25	PLAN - ALTERNATIVE 3 - STA. 940+36.94 - STA. 959+78.00	40	PLAN - ALTERNATIVE 5 - STA. 959+78.00 - STA. 979+14.97	3 OF 8	PLAN STA. 968+00 - STA. 1010+00
11	PLAN - ALTERNATIVE 1 - STA. 940+36.94 - STA. 959+78.00	26	PLAN - ALTERNATIVE 3 - STA. 959+78.00 - STA. 979+14.97	41	PLAN - ALTERNATIVE 5 - STA. 979+14.97 - STA. 998+06.42	4 OF 8	CROSS SECTION STA. 872+00 - STA. 890+00
12	PLAN - ALTERNATIVE 1 - STA. 959+78.00 - STA. 979+14.97	27	PLAN - ALTERNATIVE 3 - STA. 979+14.97 - STA. 998+06.42	42	PLAN - ALTERNATIVE 5 - STA. 998+06.42 - STA. 1013+38.00	5 OF 8	CROSS SECTION STA. 896+00 - STA. 920+00
13	PLAN - ALTERNATIVE 1 - STA. 979+14.97 - STA. 998+06.42	28	PLAN - ALTERNATIVE 3 - STA. 998+06.42 - STA. 1013+38.00		**TYPICAL SECTIONS AND DETAILS**	6 OF 8	CROSS SECTION STA. 926+00 - STA. 950+00
14	PLAN - ALTERNATIVE 1 - STA. 998+06.42 - STA. 1013+38.00		**ALTERNATIVE 4-LEVEE & CAPPED SHEETPILE (EL. 10.00)**	43	ALTERNATIVE 1 - TYPICAL SECTIONS	7 OF 8	CROSS SECTION STA. 956+00 - STA. 980+00
	ALTERNATIVE 2 LEVEE (GEOTEXTILE REINFORCED) (2057 EL.)	29	PLAN - ALTERNATIVE 4 - STA. 872+00.00 - STA. 891+86.12	44	ALTERNATIVE 2 - TYPICAL SECTIONS	8 OF 8	CROSS SECTION STA. 986+00 - STA. 1010+00
15	PLAN - ALTERNATIVE 2 - STA. 872+00.00 - STA. 891+86.12	30	PLAN - ALTERNATIVE 4 - STA. 891+86.12 - STA. 914+31.18	45	ALTERNATIVE 3 - TYPICAL SECTIONS		

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

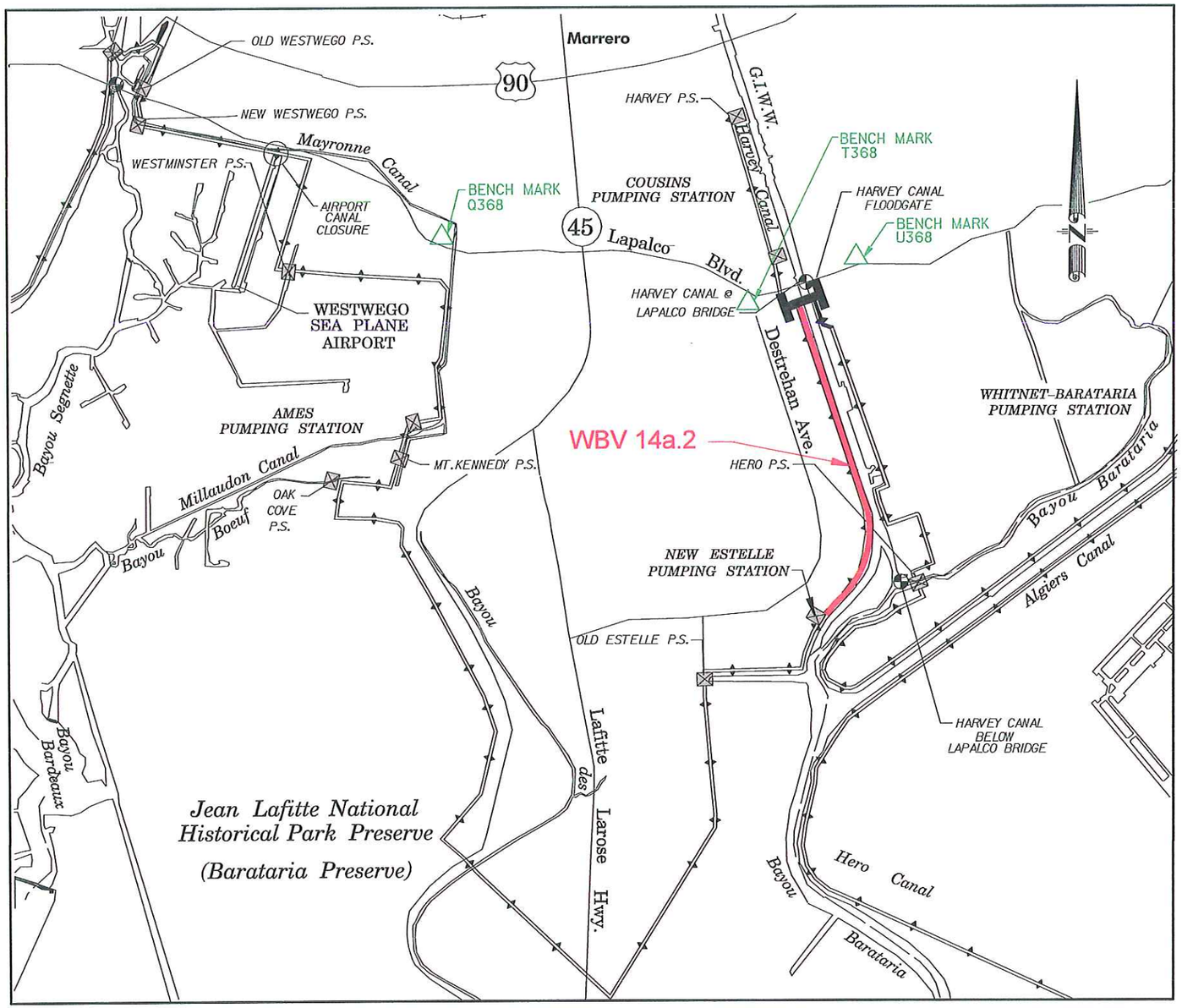
DESIGNED BY:	CCH	DATE:	4/08
DRAWN BY:	SWR	CHKD BY:	DTD
SUBMITTED BY:		SOLICITATION NO.:	
		CONTRACT NO.:	
FILE NAME:	LOC_VICINITYMAP5 WBV 14a2.DGN		FILE NUMBER:
SIZE:	22X34	PLOT SCALE:	100
		PLOT DATE:	5/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL FLOODGATE AND LOCK
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

LOCATION & VICINITY MAP
INDEX TO DRAWINGS

SHEET IDENTIFICATION NUMBER
1



LOCATION OF REACH WBV 14a.2

SCALE IN MILES

1 0 1 2

BENCH MARK DESCRIPTION

NAME	DESCRIPTION	ELEV.
Q368	1.7 KM (1.05 MI) WEST ALONG LAPALCO BOULEVARD FROM THE JUNCTION OF STATE HIGHWAY 45 (BARATARIA BOULEVARD) IN MARRERO, AT THE ENTRANCE TO THE MARRERO SEWER TREATMENT PLANT WHICH IS ON THE WEST SIDE OF OUTFALL CANAL, 21.48 METERS (70.5 FT) NORTH OF THE CENTERLINE OF LAPALCO BOULEVARD 6.94 METERS (22.8 FT) EAST OF THE CENTER OF THE DOUBLE SECURITY ENTRANCE GATE TO THE SEWER PLANT, 14.93 METERS (49.0 FT) WEST AND 0.45 METERS (1.5 FT) SOUTH OF THE SECURITY FENCE. NOTE, DRIVING RATE MET. ROD ANCHORED. THE MARK IS 0.42 METERS (1.4 FT.) S FROM A WITNESS POST. THE MARK IS 0.46 METERS (1.5 FT.)M BELOW LAPALCO BOULEVARD.	2.329 (N.A.V.D.88 2004.65)
T368	2.4 KM (1.05 MI) NORTHERLY ALONG STATE HIGHTWAY 45 (BARATARIA AU2130' BLVD.) FROM THE JUNCTION OF STATE HIGHWAY 3134 IN MARRERO, THENCE 2.5 KM (1.55 MI) EASTERLY ALONG LAPALCO BOULEVARD, IN TOP OF AND 0.6 M (2.0 FT) NORTH OF THE SOUTH END OF THE SOUTH CONCRETE CURB OF THE BOULEVARD BRIDGE SPANNING HARVEY CANAL, 5.0 M (16.4 FT) SOUTH OF THE CENTERLINE OF THE EASTBOUND LANES OF THE BOULEVARD, 1.2 M (3.9 FT) EAST OF THE WEST END OF THE CURB, AND 0.3 M (1.0 FT) ABOVE THE LEVEL OF THE BOULEVARD.	5.31 (N.A.V.D.88 2004.65)
U368	2.4 KM (1.05 MI) NORTHERLY ALONG STATE HIGHTWAY 45 (BARATARIA BOULEVARD) FROM THE JUNCTION OF STATE HIGHWAY 3134 IN MARRERO, THENCE 4 KM (2.10 MI) EASTERLY ALONG LAPALCO BOULEVARD, IN TOP OF AND 0.7 M (2.3 FT) NORTH OF THE SOUTH END OF THE EAST CONCRETE ABUTMENT OF THE BOULEVARD BRIDGE SPANNING MURPHY CANAL, 8.7 M (28.5 FT) SOUTH OF THE CENTERLINE OF THE EASTBOUND LANES OF THE BOULEVARD, 0.9 M (3.0 FT) WEST OF THE EAST EDGE OF THE ABUTMENT, AND 0.3 M (1.0 FT) ABOVE THE LEVEL OF THE BOULEVARD.	-0.24 (N.A.V.D.88 2004.65)

GENERAL NOTES:

1. AZIMUTHS SHOWN ARE MEASURED CLOCKWISE FROM THE NORTH.
2. ELEVATIONS ARE IN FEET AND REFER TO NORTH AMERICAN VERTICAL DATUM (N.A.V.D. 88 2004.65)
3. DIMENSIONS AND/OR ELEVATIONS MARKED THUS (N.T.S.) ARE NOT SHOWN TO SCALE.
4. LIMITS OF WORK FOR EACH ALTERNATIVE EXTENDS FROM NORTH SIDE OF NEW ESTELLE P.S. TO THE VICINITY OF LAPALCO BRIDGE.
5. PROJECT GRADE FOR ALTERNATIVES 1-3 & 5 ARE 2057 ELEVATION 14.0. FOR ALTERNATIVE 4 THE PROJECT GRADE IS 10.00 ELEVATION.
6. ALL REQUIRED R/W IS NEW PERPETUAL FLOOD PROTECTION SERVITUDE. ALL EXISTING LEVEE R/W IS EXISTING PERPETUAL FLOOD PROTECTION SERVITUDE. STAGING AREAS ARE NEW TEMPORARY MOBILIZATION EASEMENTS.

THIS PROJECT WAS DESIGNED BY THE FIRM OF BCG ENGINEERING AND CONSULTING, INC. FOR THE NEW ORLEANS DISTRICT OF THE U. S. ARMY CORPS OF ENGINEERS. THE INITIALS OR SIGNATURES AND REGISTRATION DESIGNATIONS OF USACE EMPLOYEES APPEARING ON THESE DOCUMENTS ARE WITHIN THE SCOPE OF THEIR EMPLOYMENT AS REQUIRED BY ER-1110-8752.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: CCH | DATE: 4/28
DRAWN BY: RHR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: | STUDY REACH 14a2.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 5/8

U. S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2 REPLACEMENT OF HURRICANE PROTECTION HARVEY CANAL WEST BANK LEVEES - PHASE 2 JEFFERSON PARISH, LOUISIANA

STUDY REACH WBV 14a.2

SHEET IDENTIFICATION NUMBER 2

EXISTING RIGHTS OF WAY

P.I. NO.	X	Y
21	3682036.070	487316.420
22	3682148.2230	487440.4093
23	3682239.2129	487557.9103
24	3682576.6507	487936.3733
25	3682742.7651	488113.7426
26	3682907.1802	488288.0276
27	3682924.1238	488314.3452
28	3683071.2989	488490.6177
29	3683148.7822	488584.7958
30	3683321.6432	488835.7555
31	3683481.8449	489096.6353
32	3683592.5649	489358.0755
33	3683715.4826	489716.3538
34	3683776.9646	490016.6288
35	3683808.1209	490293.7476
36	3683842.2397	490894.8864
37	3683824.0121	491173.9949
38	3683781.9456	491446.5743

NEW ESTELLE PUMP STATION
EXISTING ACCESS ROAD TO ESTELLE PUMP STATION
SUCTION CANAL
872+00 B/L
LIMIT OF R/W STA. 870+86.49 B/L
EXISTING LEVEE R/W
AZ. 42° 44' 54.9" C.O.E. BASELINE
C/L EXISTING LEVEE
STA. 885+86.21 B/L
AZ. 35° 11' 36.5"
AZ. 31° 49' 45.9"
STA. 894+86.09 B/L
AZ. 19° 34' 16.4"
STA. 900+81.33 B/L
AZ. 13° 26' 31.6"
AZ. 7° 3' 1.9"
STA. 903+81.34 B/L
STA. 906+81.23 B/L
AZ. 2° 50' 8"
EXISTING SHEET PILING
BEGIN SHEET PILING STA. 907+85.12 B/L
END SHEET PILING STA. 913+49.26 B/L
AZ. 351° 51' 45.6"
STA. 914+31.18 B/L
STA. 918+81.2 B/L
C.O.E. BASELINE
C/L EXISTING LEVEE
AZ. 342° 58' 38.6"
EXISTING LEVEE R/W
BEGIN SHEET PILING STA. 934+74.61 B/L
MATCH LINE STA. 936+50 B/L
EXISTING LEVEE R/W (DISTANCE VARIES WITH WATERS EDGE)
HERO CUTOFF
T 14 S R 24 E
KEITH WAY DR
PRIMWOOD DR
SWEET GUM DR
TOUCHWOOD DR
BARBWOOD DR
DESTREHAN AVE
ELMWOOD DR
HAVENWOOD DR
CLOVER
BURNTWOOD
AGATEWAY DR
WOODBRIAR DR
MORRISWOOD DR
JEFFERSON PARISH, LA.
HARVEY CANAL

EXISTING RIGHTS-OF-WAY

SCALE: 1" = 200'

200' 0 200' 400' 600' 800'

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/09
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: EXISTROW-LOGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 200 | PLOT DATE: 5-09

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-114b.2
HAVEN-HARVEY CANAL TO ESTELLE - PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

EXISTING RIGHTS OF WAY

SHEET IDENTIFICATION NUMBER
3

3,681,000 492,500 1 493,000 493,500 3,680,500 2 494,000 494,500 3 495,000 3,680,000 495,500 4 496,000 496,500 3,679,500 497,000 5 497,500

D 3,681,500

MORRISWOOD DR | DULANEY DR | LIRO LN | GLENOAK DR | INWOOD DR | MELISSA DR

492,500

3,682,000

C 3,682,500

DESTREHAN AVE

SIENNA DR

ASPIN DR

MAX DR

MAX DR 3,680,000

498,000

B 3,680,500

3,681,000

JEFFERSON PARISH, LA.

30' EXISTING CONSTRUCTION ACCESS ROAD

ENTERGY (504) 365-3625
P.O. BOX 61000
NEW ORLEANS, LA.

TO DESTREHAN AVE.

ENTERGY TRANSMISSION LINE CROSSING (DO NOT DISTURB)

T 14 S
R 24 E

END SHEET PILE STA 971+75.50 B/L

PROTECTED SIDE

3,683,000

MATCH LINE STA. 936+50 B/L

493,000 B

3,683,500

STA. 943+46.33 B/L (39)

EXISTING LEVEE R/W

AZ. 342°20'30" AZ. 342°20'16" C.O.E. BASELINE C/L EXISTING LEVEE

EXISTING SHEETPILE WALL

STA. 959+37.78 B/L

(40) (41)

AZ. 343°36'4"

STA. 979+14.97 B/L (42)

EXISTING LEVEE R/W

C.O.E. BASELINE C/L EXISTING LEVEE AZ. 343°15'56.0"

56 56

3,681,500

FLOOD SIDE

EXISTING LEVEE R/W
(DISTANCE VARIES WITH WATERS EDGE)

HARVEY CANAL

498,500

3,682,000

MATCH LINE STA. 990+00 B/L

STA. 958+69 B/L
TRANSMISSION LINE
62'-VERTICAL CLEARANCE

3,684,000

3,682,500

496,000 496,500

3,684,500

493,500 494,000 3,684,500 494,500 495,000 495,500 3,684,000 497,000 3,683,500 497,500 498,000 498,500 3,683,000

EXISTING RIGHTS-OF-WAY

SCALE: 1" = 200'

200' 0 200' 400' 600' 800'

EXISTING RIGHTS OF WAY

P.I. NO.	X	Y
39	3683036.7164	493809.7395
40	3682541.3324	495364.6974
41	3682532.3636	495361.0264
42	3681953.1857	497209.3079

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CDH	DATE:	408	
DWN BY: RWR	CKD BY: DTD	SOLICITATION NO:	
SUBMITTED BY:		CONTRACT NO.:	
FILE NAME: EXISTING ROW			FILE NUMBER:
SIZE: 22X34	PLOT SCALE: 200	PLOT DATE:	5-08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-148.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMPING STATION - LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

EXISTING RIGHTS OF WAY

SHEET IDENTIFICATION NUMBER
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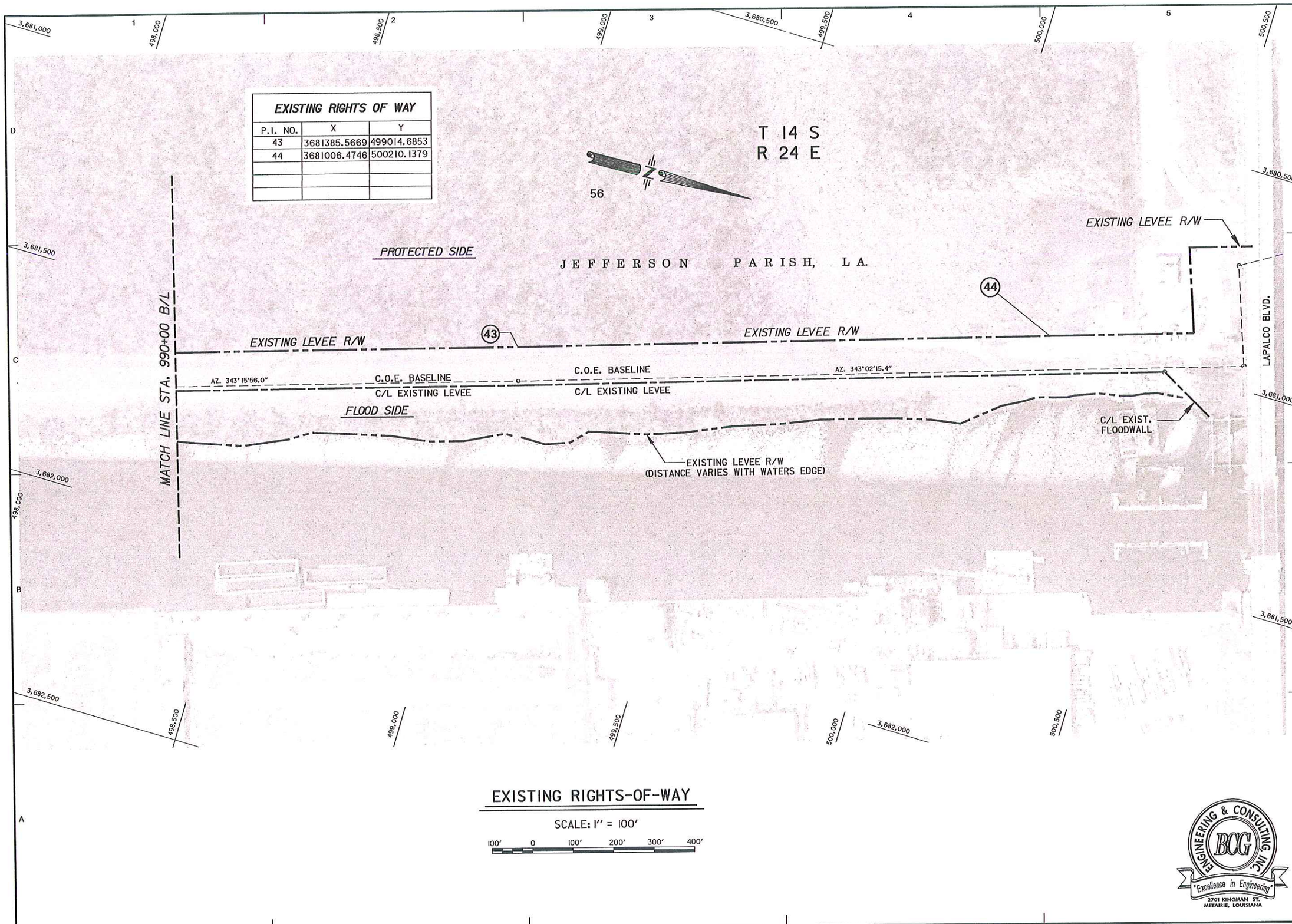

EXISTING RIGHTS OF WAY		
P.I. NO.	X	Y
43	3681385.5669	499014.6853
44	3681006.4746	500210.1379

EXISTING RIGHTS-OF-WAY

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

ENGINEERING & CONSULTING, INC.
BCG
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METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: EXROW-3.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 5-08

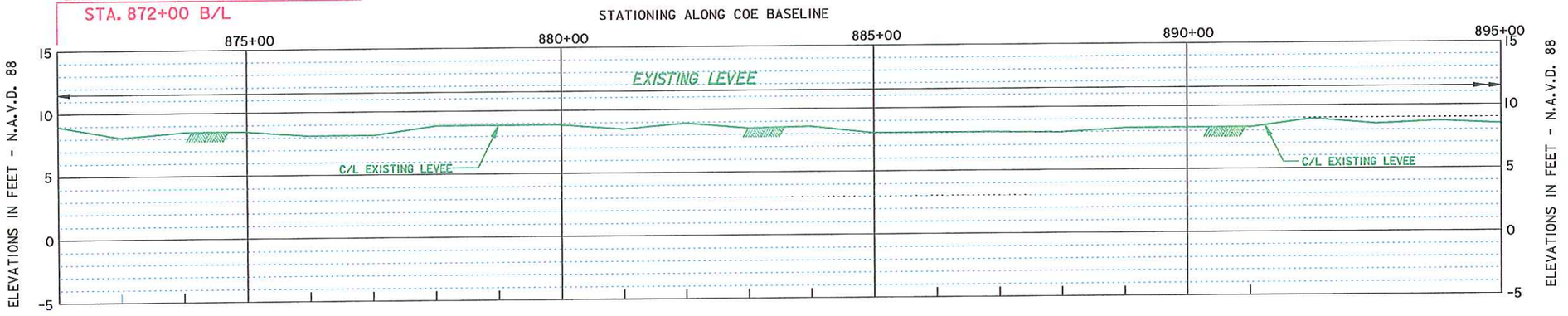
WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

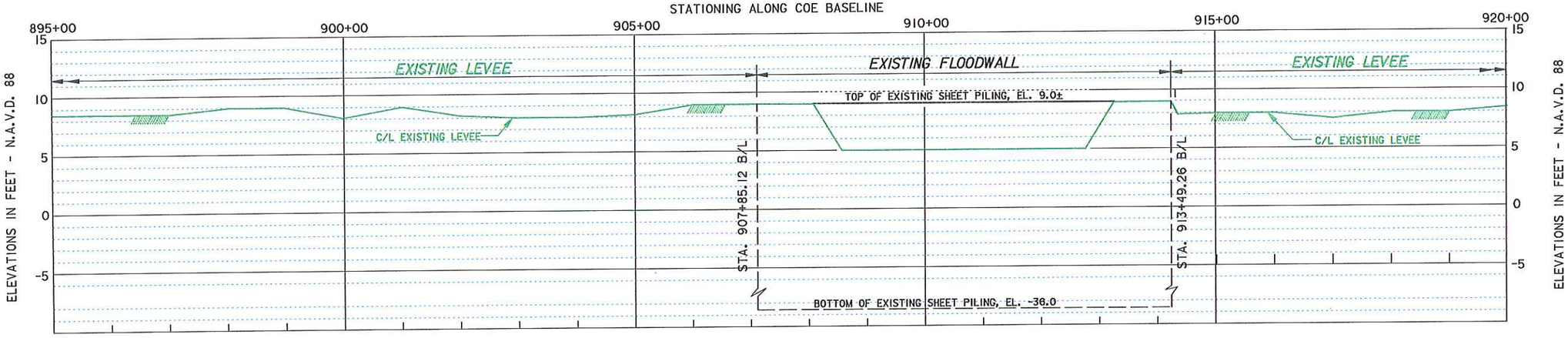
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

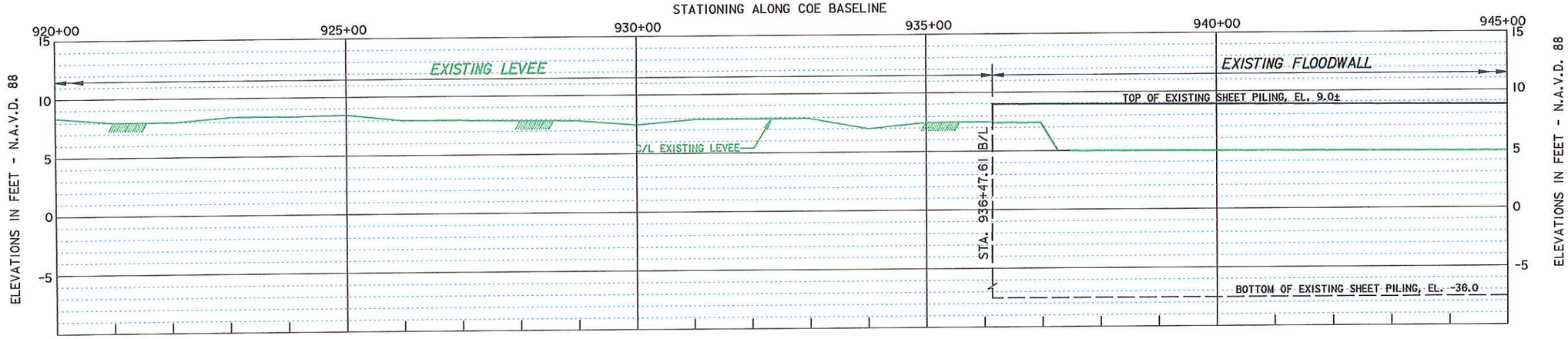
EXISTING RIGHTS OF WAY

SHEET IDENTIFICATION NUMBER
5

LIMIT OF PROPOSED ALTERNATIVES
STA. 872+00 B/L







PROFILE

SCALE: VERT. 1" = 5'
HOR. 1" = 100'

ENGINEERING & CONSULTING INC
BCG
"Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: CCH
DRAWN BY: RWR
CHKD BY: DTD
SUBMITTED BY:
FILE NAME: PROFILEDGN
SIZE: 22X34
PLOT SCALE: 100
DATE: 4/08
SOLICITATION NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 6/09

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES - PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

EXISTING PROFILE
STA. 872+00 - STA. 945+00

SHEET IDENTIFICATION NUMBER
6

STATIONING ALONG COE BASELINE

945+00 950+00 955+00 960+00 965+00 970+00

ELEVATIONS IN FEET - N.A.V.D. 88 (15, 10, 5, 0)

EXISTING FLOODWALL

TOP OF EXISTING SHEET PILING, EL. 9.0±

C/L EXISTING LEVEE

BOTTOM OF EXISTING SHEET PILING, EL. -36.0

STA. 971+75.50

STATIONING ALONG COE BASELINE

975+00 980+00 985+00 990+00 995+00 1000+00

ELEVATIONS IN FEET - N.A.V.D. 88 (15, 10, 5, 0)

C/L EXISTING LEVEE

C/L EXISTING LEVEE

STATIONING ALONG COE BASELINE

1000+00 1005+00 1010+00

ELEVATIONS IN FEET - N.A.V.D. 88 (15, 10, 5, 0)

C/L EXISTING LEVEE

LIMIT OF PROPOSED ALTERNATIVES
STA. 1013+38.00

STA. 1010+00 B/L
LIMIT OF SURVEY

PROFILE

SCALE: VERT. 1" = 5'
HOR. 1" = 100'

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

	DESCRIPTION	DATE	APPR.
MARK			
MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: CCH
DRAWN BY: RWR
SUBMITTED BY:
CHKD BY: DTD
FILE NAME: PROFILE001
SIZE: 22X34
PLOT SCALE: 100
DATE: 4/08
SOLICITATION NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 8/08

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES - PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

EXISTING PROFILE
STA. 945+00 - STA. 1010+00

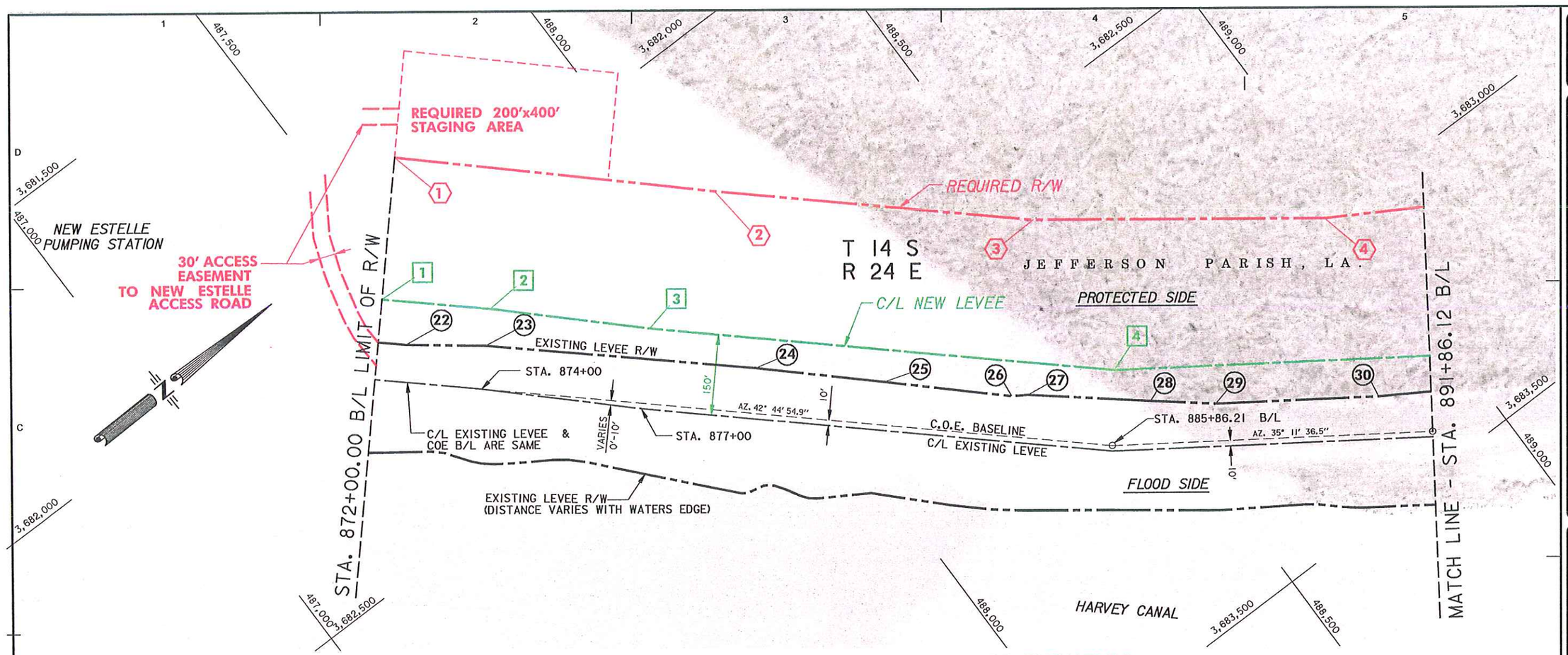
SHEET IDENTIFICATION NUMBER
7

ENGINEERING & CONSULTING INC. BCG "Excellence In Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

ALTERNATIVE NO. 1

LEVEE (UN-REINFORCED) (2057 ELEVATION)

WBV 14a.2: HARVEY CANAL WEST BANK LEVEES



RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
22	3682148.2230	487440.4093	1	3681857.0159	487633.4142	1	3682053.0589	487455.7701
23	3682239.2129	487557.9103	2	3682266.8800	488071.8550	2	3682189.4609	487605.9820
24	3682576.6507	487936.3733	3	3682669.2584	488516.9298	3	3682398.0677	487821.8127
25	3682742.7651	488113.7426	4	3682995.6603	488953.8548	4	3682984.4444	488470.4098
26	3682907.1802	488288.0276						
27	3682924.1238	488314.3452						
28	3683071.2989	488490.6177						
29	3683148.7822	488584.7958						
30	3683321.6432	488835.7555						

LEVEE (UN-REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 1

ALTERNATIVE 1 TABULATION OF RIGHTS-OF-WAY REQUIREMENTS	
BASELINE STATION	REQUIRED RIGHTS-OF-WAY
872+00.00 TO 891+86.12	14.86 ACRES
891+86.12 TO 914+31.18	16.89 ACRES
914+31.18 TO 940+36.94	19.25 ACRES
940+36.94 TO 959+78.00	14.19 ACRES
959+78.00 TO 979+14.97	14.44 ACRES
979+14.97 TO 998+06.42	14.09 ACRES
998+06.42 TO 1013+38.00	11.80 ACRES
TOTAL REQUIRED RIGHTS-OF-WAY =	105.52 ACRES
TOTAL REQUIRED STAGING AREA =	4.71 ACRES

REQUIRED RIGHTS-OF-WAY = 14.86 ACRES
STAGING AREA = 1.84 ACRES

LEGEND

- ○ = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 43 FOR TYPICAL SECTIONS.

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

ENGINEERING & CONSULTING BCG INC. "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

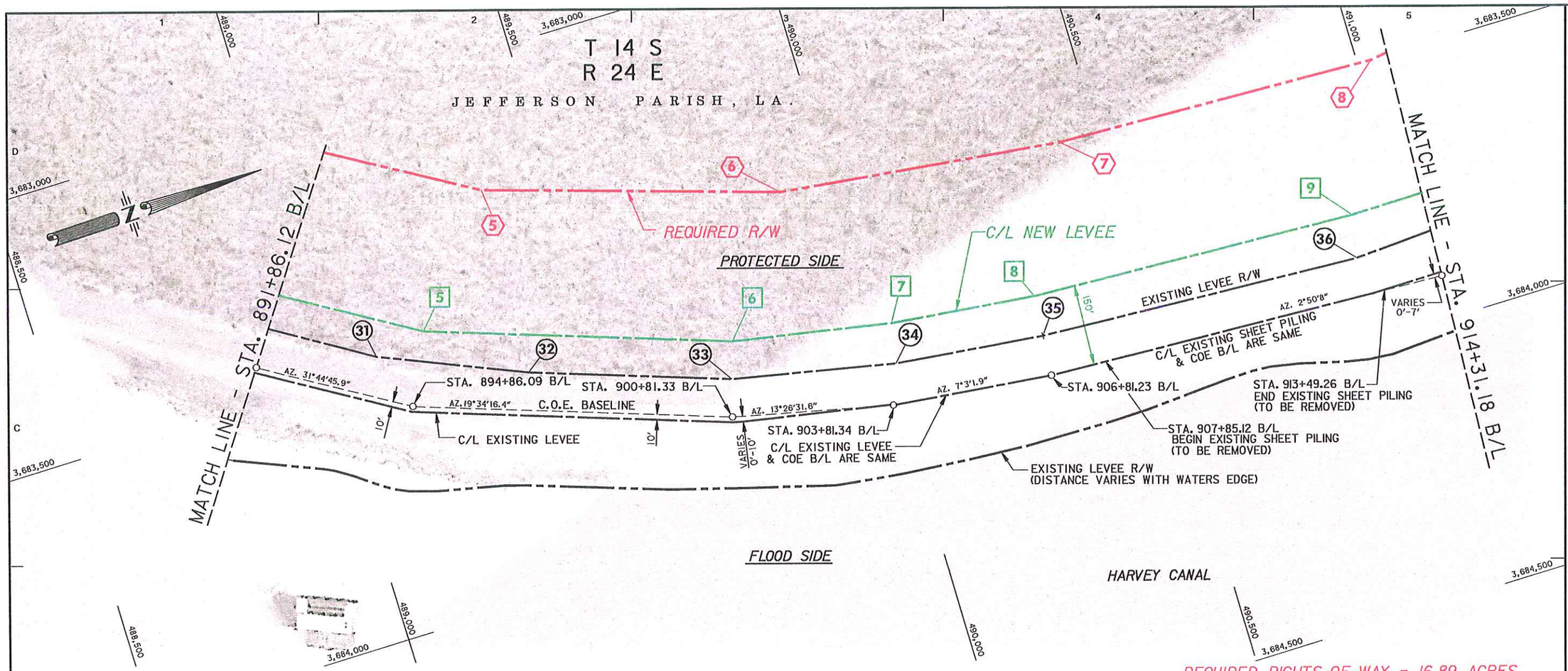
DESIGNED BY: CDH | DATE: 4/08
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT-1-L.DGN | PLOT DATE: 8/08
SIZE: 22X34 | PLOT SCALE: 100

VICKSBURG AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-148.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION - LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 1
STA. 872+00.00 - STA. 891+86.12

SHEET IDENTIFICATION NUMBER
8



LEVEE (UN-REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 1

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 16.89 ACRES

LEGEND

- = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 43 FOR TYPICAL SECTIONS.

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION			LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
31	3683481.8449	489096.6353	5	3683243.6453	489373.3761	5	3683462.1859	489193.7579
32	3683592.5649	489358.0755	6	368340.4285	489903.5576	6	3683648.7808	489737.6471
33	3683715.4826	489716.3538	7	3683474.2921	490426.8572	7	3683703.0274	490030.3315
34	3683776.9646	490016.6288	8	3683498.5996	491026.3888	8	3683733.3243	490299.8053
35	3683808.1209	490293.7476				9	3683763.4994	490909.0500
36	3683842.2397	490894.8864						

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

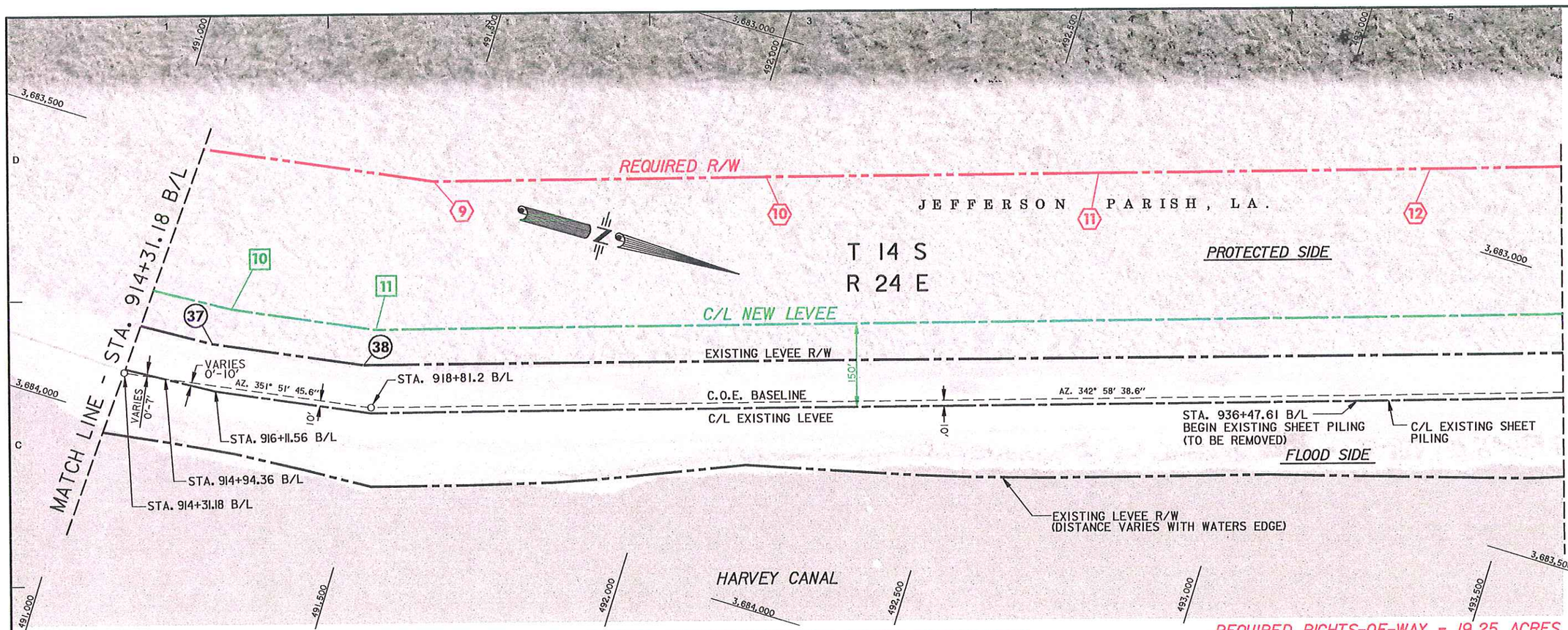
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08 | FILE NAME: ALT-1-2.DGN | FILE NUMBER:
DWN BY: RMR | CKD BY: DTD | SOLICITATION NO.: | CONTRACT NO.: | PLOT SCALE: 100 | PLOT DATE: 5/09
SUBMITTED BY: | SIZE: 22X34

VICINITY AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-146.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 1
STA. 891+86.12 - STA. 914+31.18

SHEET IDENTIFICATION NUMBER
9



LEVEE (UN-REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 1

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 19.25 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 43 FOR TYPICAL SECTIONS.

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(37)	3683824.0121	491173.9949	(9)	3683429.4223	491471.7575	10	3683754.7951	491189.3281
(38)	3683781.9456	491446.5743	(10)	3683247.4176	492043.4867	11	3683714.6735	491449.3053
			(11)	3683065.4129	492615.2159			
			(12)	3682883.4087	493186.9451			

ENGINEERING & CONSULTING BCG INC.
"Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

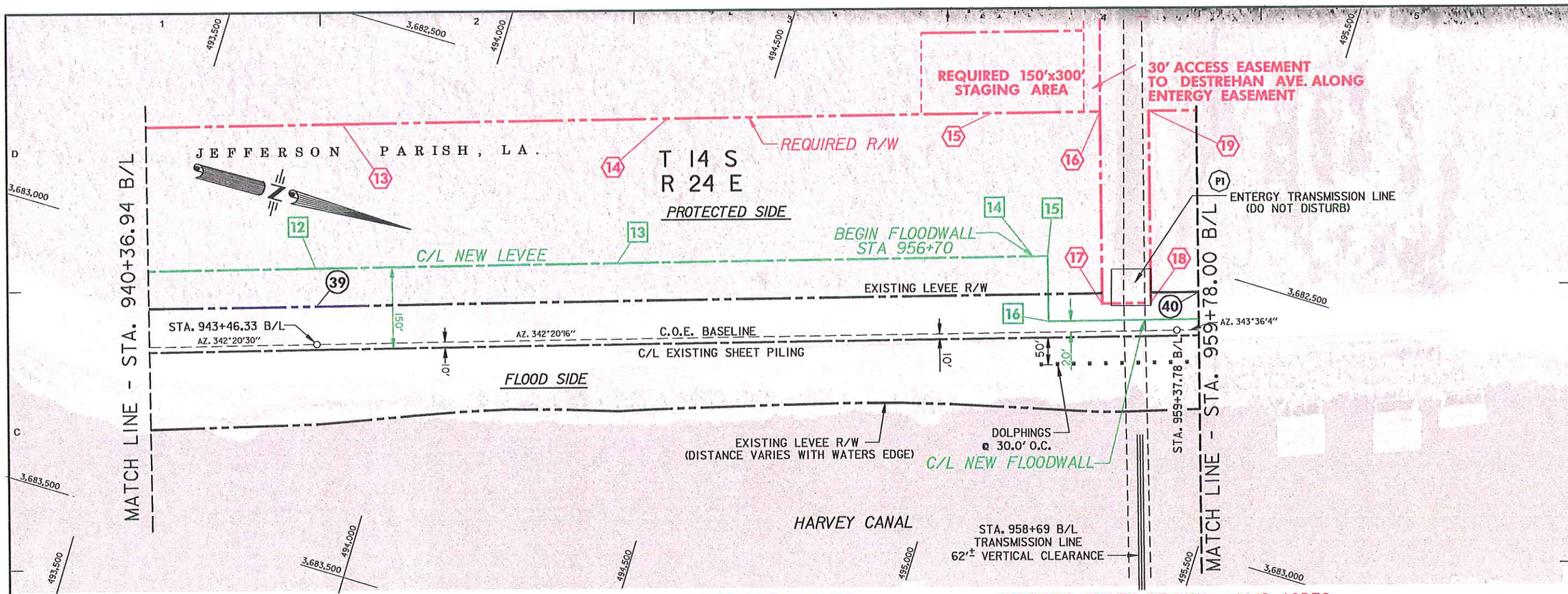
U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT-1-3.DNG | PLOT SCALE: 100 | PLOT DATE: 6/09
SIZE: 22X34

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 1
STA. 914+31.18 - STA. 940+36.94

SHEET IDENTIFICATION NUMBER
10



LEVEE (UN-REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 1

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 14.19 ACRES
STAGING AREA = 1.03 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE AND FLOODWALL
- = REQUIRED R/W

NOTES:
1. SEE SHEET 43 FOR TYPICAL SECTIONS.
2. SEE SHEET 51 FOR PLAN FLOODWALL AT TRANSMISSION TOWER.
3. DOLPHINS REQUIRED @ 30' O.C. IN FRONT OF FLOODWALL @ TRANSMISSION TOWER. SEE SHEET 50 FOR DOLPHIN DETAILS.
4. PROPOSED CONSTRUCTION OF ALTERNATIVES 1,2, & 5 CONFLICT WITH THE ENTERGY TRANSMISSION TOWER. FOR EACH OF THESE THREE ALTERNATIVES A "DO NOT DISTURB" OPTION (SHOWN ON THIS DRAWING) AND A "TOWER RELOCATION" OPTION (SEE SHEET 52) ARE PRESENTED.

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(39)	3683036.7164	493809.7395	(13)	3682701.4601	493758.4838	(12)	3682879.1784	493787.9787
(40)	3682541.3324	495364.6974	(14)	3682519.4168	494330.2007	(13)	3682801.1672	494318.7668
			(15)	3682337.3732	494901.9175	(14)	3682567.7646	495051.7885
			(16)	3682276.6920	495092.4898	(15)	3682559.5727	495077.5158
			(17)	3682613.6809	495199.7923	(16)	3682673.9162	495113.9241
			(18)	3682586.3744	495285.5499			
			(19)	3682249.3854	495178.2473			

SCHEDULE OF RELOCATION				
ITEM	BASELINE STATION	DESCRIPTION	OWNER	DISPOSITION
(P1)	958+69	TRANSMISSION LINE	ENTERGY	DO NOT DISTURB

ENGINEERING & CONSULTING BCG INC. "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

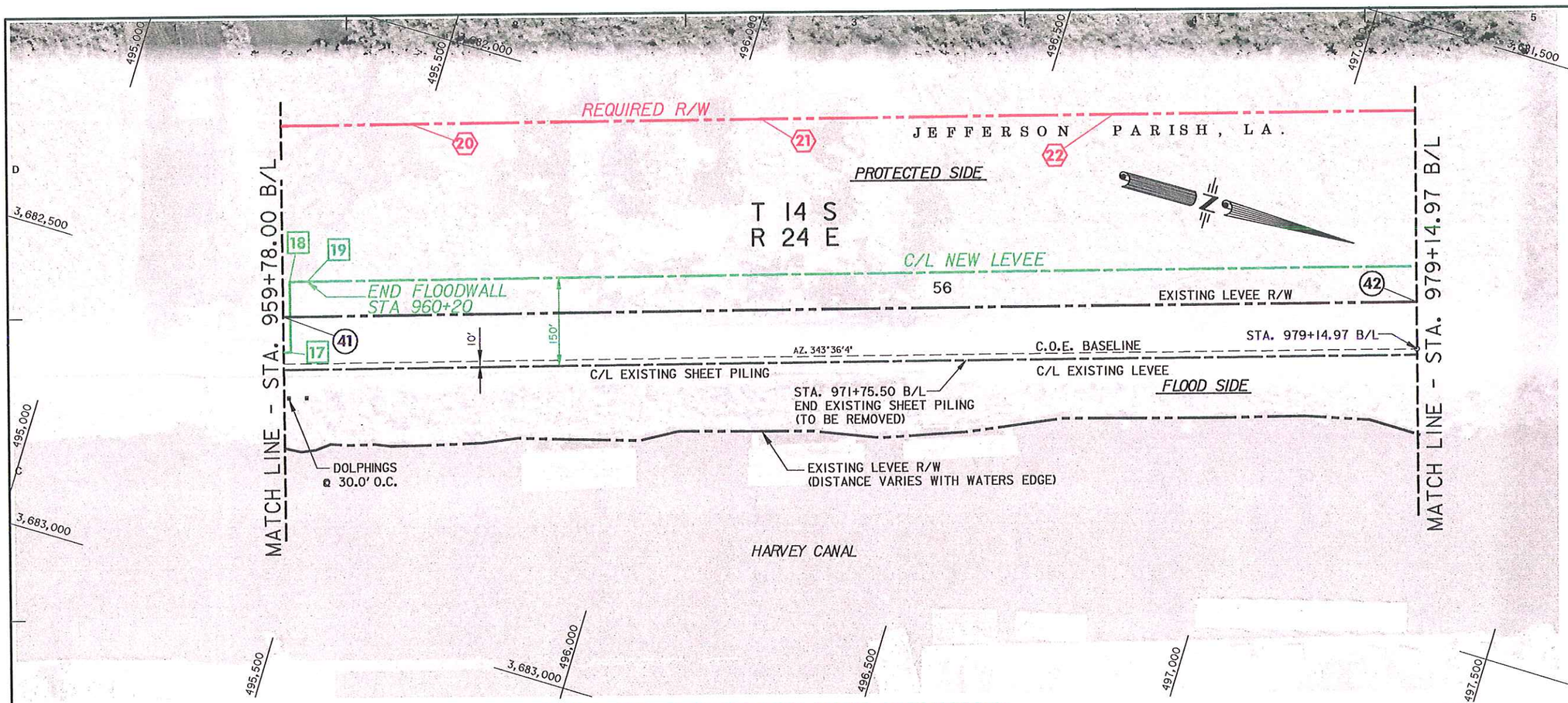
DESIGNED BY: CCH
DRAWN BY: RWR
CHKD BY: DTD
SUBMITTED BY:
FILE NAME: ALT-1-ADON
SIZE: 22X34
PLOT SCALE: 100
DATE:
SOLICITATION NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 5/03

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-148.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 1
STA. 940+36.94 - STA. 959+78.00

SHEET IDENTIFICATION NUMBER
11



LEVEE (UN-REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 1

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 14.44 ACRES

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(41)	3682532.3636	495361.0264	(20)	3682155.8319	495475.7579	[17]	3682586.0114	495390.4900
(42)	3681953.1857	497209.3079	(21)	3681976.4183	496048.3055	[18]	3682471.5019	495354.6073
			(22)	3681797.0046	496620.8531	[19]	3682462.5312	495383.2347

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE AND FLOODWALL
- = REQUIRED R/W

NOTES:
1. SEE SHEET 43 FOR TYPICAL SECTIONS.
2. SEE SHEET 51 FOR PLAN FLOODWALL AT TRANSMISSION TOWER.
3. DOLPHINS REQUIRED @ 30' O.C. IN FRONT OF FLOODWALL @ TRANSMISSION TOWER. SEE SHEET 50 FOR DOLPHIN DETAILS.
4. PROPOSED CONSTRUCTION OF ALTERNATIVES 1,2, & 5 CONFLICT WITH THE ENTERGY TRANSMISSION TOWER. FOR EACH OF THESE THREE ALTERNATIVES A "DO NOT DISTURB" OPTION (SHOWN ON THIS DRAWING) AND A "TOWER RELOCATION" OPTION (SEE SHEET 52) ARE PRESENTED.

ENGINEERING & CONSULTING INC BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

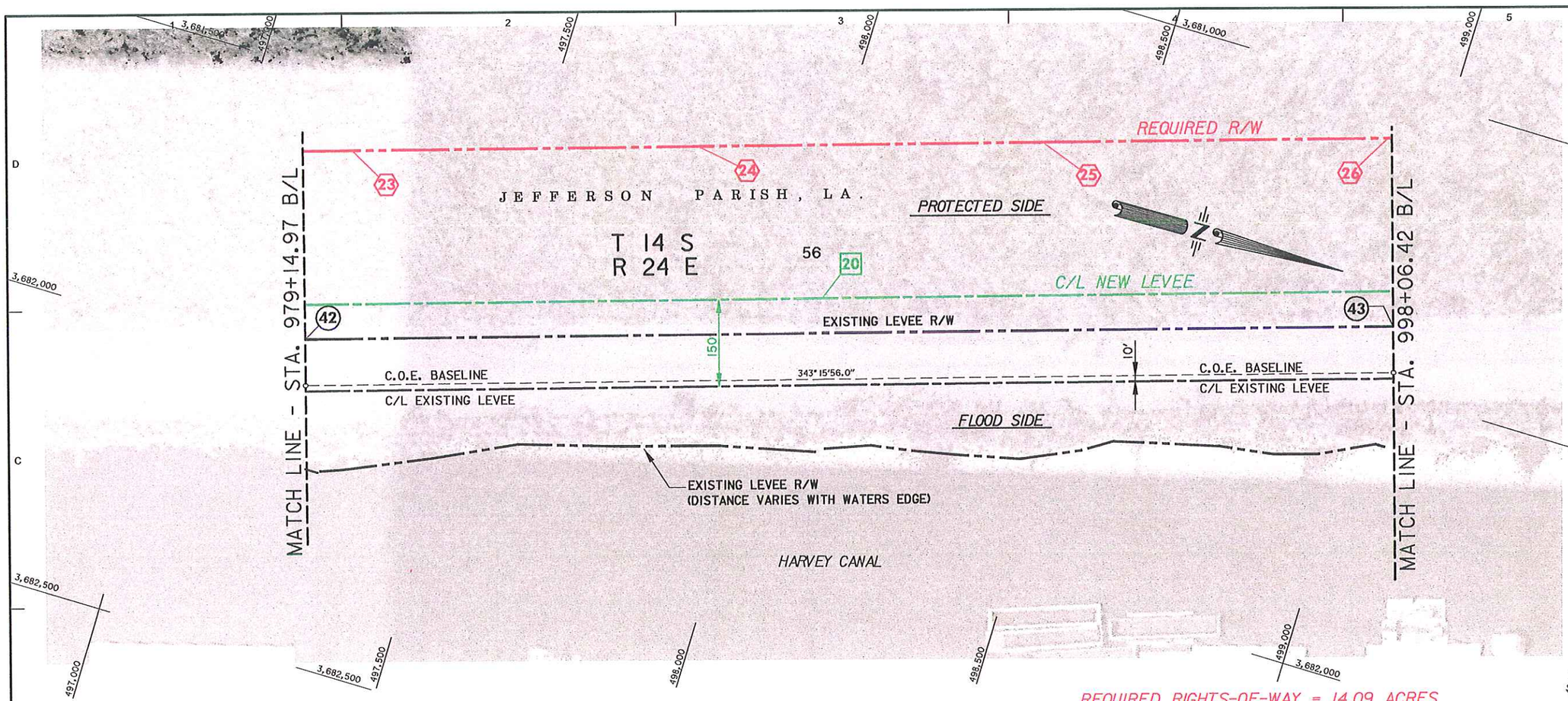
DESIGNED BY: CCH | DATE: 4/08
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT-1-SLDGN | PLOT SCALE: 100 | PLOT DATE: 6/08
SIZE: 22X34

WESTBANK AND VICINITY HURRICANE PROTECTION PROJECT
JEFFERSON PARISH, LOUISIANA

ENGINEERING ALTERNATIVE REPORT - WBV-148.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 1
STA. 959+78.00 - STA. 979+14.97

SHEET IDENTIFICATION NUMBER
12



REQUIRED RIGHTS-OF-WAY = 14.09 ACRES

LEVEE (UN-REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE I

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
42	3681953.1857	497209.3079	23	3681617.6081	497193.5016	20	3681627.2521	498050.4479
43	3681385.5669	499014.6853	24	3681438.5101	497766.1479			
			25	3681259.4120	498338.7943			
			26	3681080.3140	498911.4407			

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 43 FOR TYPICAL SECTIONS.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

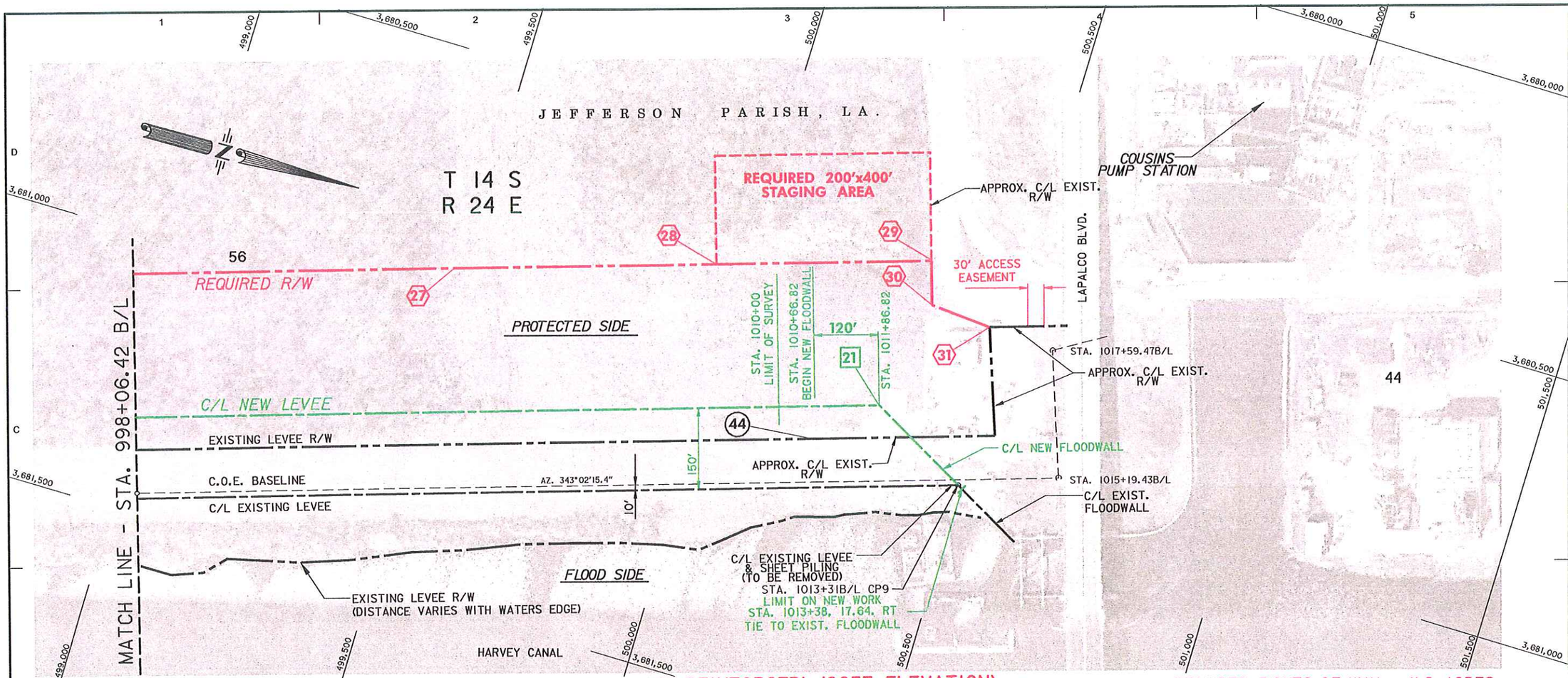
U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALT-1-8.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 5/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 1
STA. 979+14.97 - STA. 998+06.42

SHEET IDENTIFICATION NUMBER
13



REQUIRED RIGHTS-OF-WAY = 11.8 ACRES
STAGING AREA = 1.84 ACRES

LEVEE (UN-REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE I

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
44	3681006.4746	500210.1379	27	3680896.7781	499480.8893	21	3680944.2800	500280.3375
			28	3680749.3633	499945.7569			
			29	3680628.4525	500327.0449			
			30	3680705.9787	500351.6294			
			31	3680714.5101	500466.2922			

NOTES:
1. SEE SHEET 43 FOR TYPICAL SECTIONS.
2. NEW FLOODWALL TIE INTO EXISTING FLOODWALL HAS NOT BEEN SPECIFICALLY ANALYZED BY GEOTECHNICAL ENGINEER AS THIS AREA OF WORK IS BEYOND THE LIMITS OF THE SURVEY.
3. SEE SHEET 48 FOR TYPICAL T-WALL SECTION & PILE LAYOUT.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: DCH | DATE: 4/08
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT-1-1-2.DGN | PLOT SCALE: 100 | PLOT DATE: 8/08
SIZE: 22X34

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

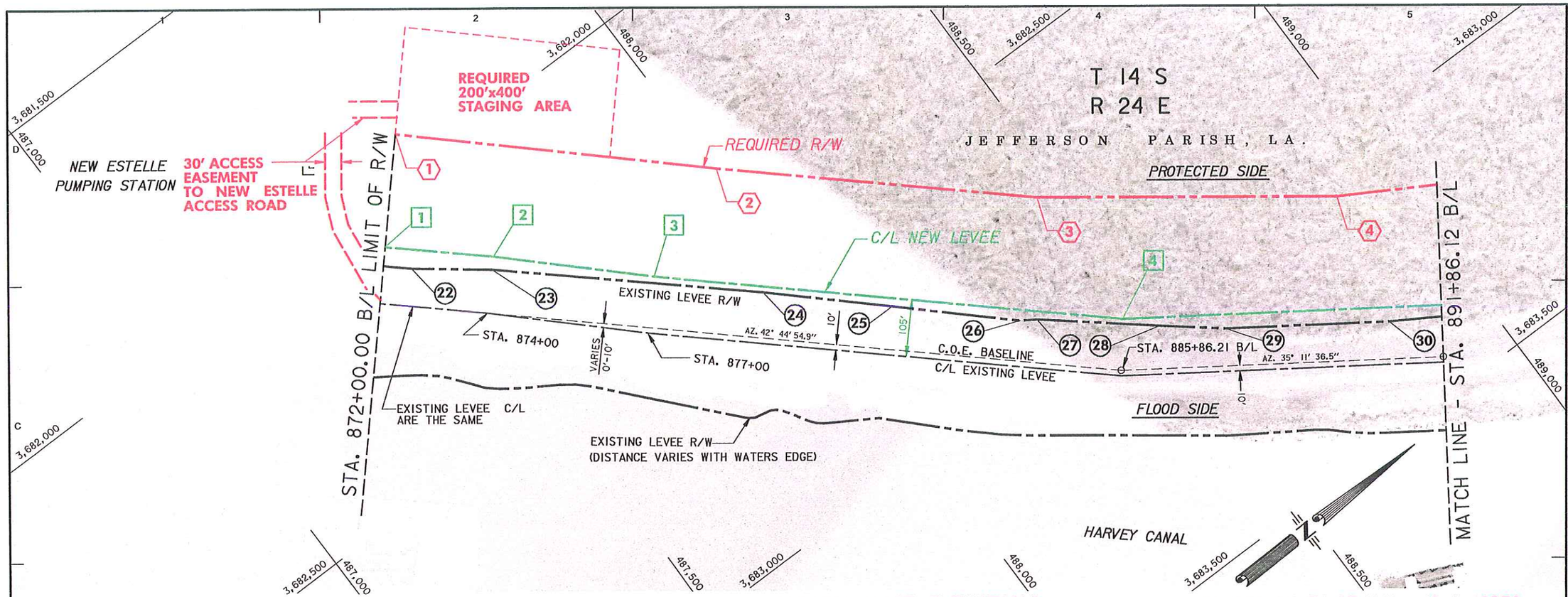
PLAN-ALTERNATIVE 1
STA. 998+06.42 - STA. 1013+38.00

SHEET IDENTIFICATION NUMBER
14

ALTERNATIVE NO. 2

LEVEE (GEOTEXTILE REINFORCED) (2057 EL.)

WBV 14a.2: HARVEY CANAL WEST BANK LEVEES



LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION)
PLAN - ALTERNATIVE 2

REQUIRED RIGHTS-OF-WAY = 10.41 ACRES
STAGING AREA = 1.84 ACRES

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
22	3682148.2230	487440.4093	1	3681931.1963	487566.3500	1	3682087.0395	487425.5917
23	3682239.2129	487557.9103	2	3682340.9927	488004.7185	2	3682222.3387	487575.2475
24	3682576.6507	487936.3733	3	3682743.3711	488449.7933	3	3682430.9454	487791.0781
25	3682742.7651	488113.7426	4	3683078.0400	488897.1662	4	3683019.8180	488442.4359
26	3682907.1802	488288.0276						
27	3682924.1238	488314.3452						
28	3683071.2989	488490.6177						
29	3683148.7822	488584.7958						
30	3683321.6432	488835.7555						

ALTERNATIVE 2
TABULATION OF RIGHTS-OF-WAY REQUIREMENTS

BASELINE STATION	REQUIRED RIGHTS-OF-WAY
872+00.00 TO 891+86.12	10.41 ACRES
891+86.12 TO 914+31.18	11.93 ACRES
914+31.18 TO 940+36.94	13.59 ACRES
940+36.94 TO 959+78.00	9.95 ACRES
959+78.00 TO 979+14.97	10.01 ACRES
979+14.97 TO 998+06.42	9.77 ACRES
998+06.42 TO 1013+38.00	8.24 ACRES
TOTAL REQUIRED RIGHTS-OF-WAY =	73.90 ACRES
TOTAL REQUIRED STAGING AREA =	4.71 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 44 FOR TYPICAL SECTIONS.

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

ENGINEERING & CONSULTING, INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

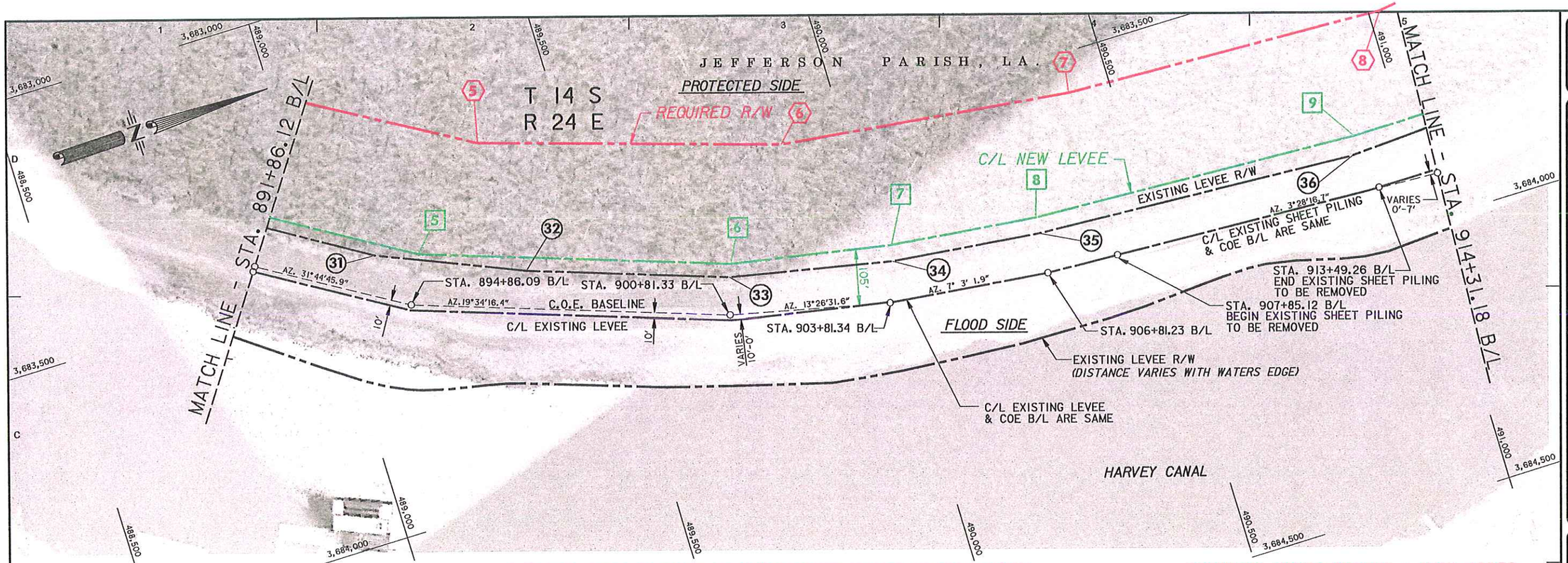
DESIGNED BY: CSH | DATE: 4/08
DWN BY: JAY | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT-2-1.DGN | PLOT SCALE: 100 | PLOT DATE: 5/08
SIZE: 22X34

VICINITY AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-146.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 2
STA. 872+00.00 - STA. 891+86.12

SHEET IDENTIFICATION NUMBER
15



LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 2

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 11.93 ACRES

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(31)	3683481.8449	489096.6353	(5)	3683338.2328	489340.9231	5	3683503.1912	489174.6154
(32)	3683592.5649	489358.0755	(6)	3683507.9409	489881.3916	6	3683692.4225	489726.1832
(33)	3683715.4826	489716.3538	(7)	3683575.1570	490441.8443	7	3683747.5664	490023.7089
(34)	3683776.9646	490016.6288	(8)	3683598.4772	491021.4420	8	3683778.1996	490296.1749
(35)	3683808.1209	490293.7476				9	3683808.5041	490908.0322
(36)	3683842.2397	490894.8864						

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 44 FOR TYPICAL SECTIONS.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

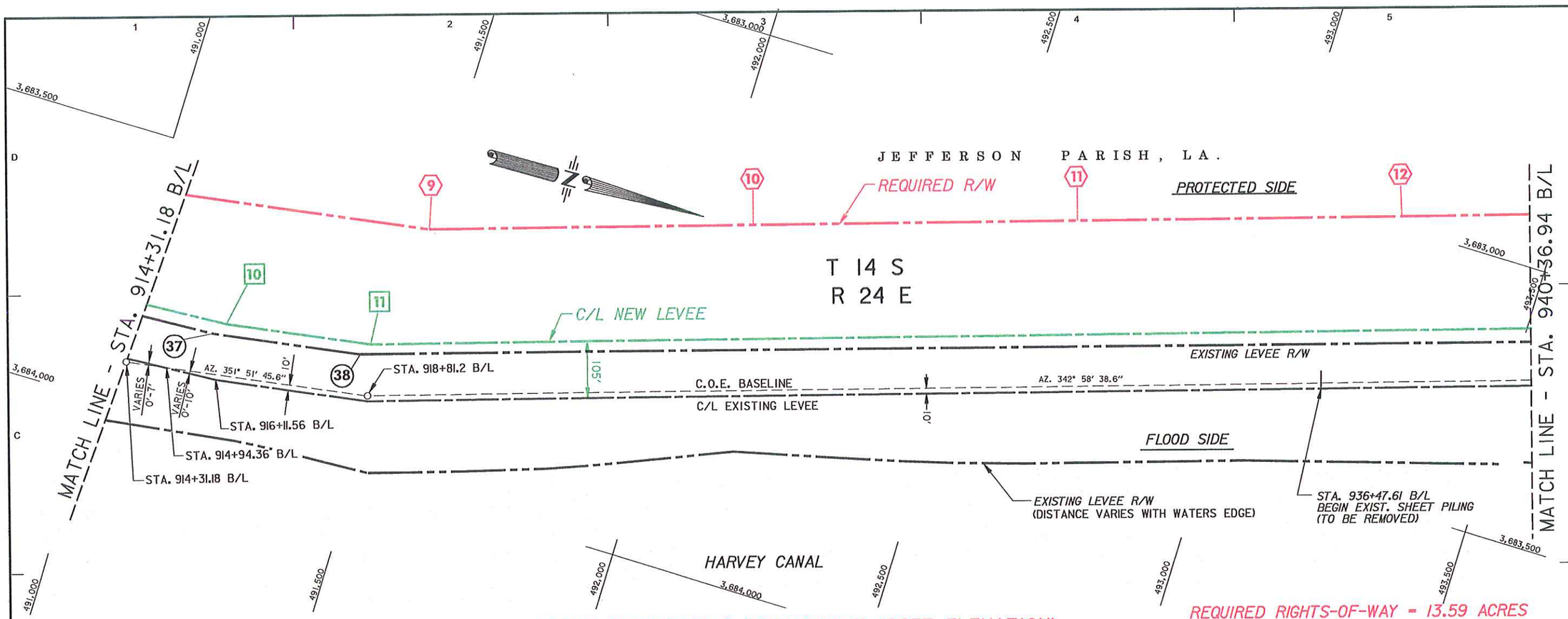
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: | 408
DWN BY: JAY | CHD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT2-2.DGN | PLOT SCALE: 100 | PLOT DATE: 0728
SIZE: 22X34

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-146.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION (19) AND PALO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 2
STA. 891+86.12 - STA. 914+31.18

SHEET IDENTIFICATION NUMBER
16



LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 2

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 13.59 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 44 FOR TYPICAL SECTIONS.

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
37	3683824.0121	491173.9949	9	3683524.7246	491502.0980	10	3683799.6184	491194.0199
38	3683781.9456	491446.5743	10	3683342.7064	492073.8190	11	3683758.6271	491459.6326
			11	3683160.7017	492645.5483			
			12	3682978.6970	493217.2775			

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

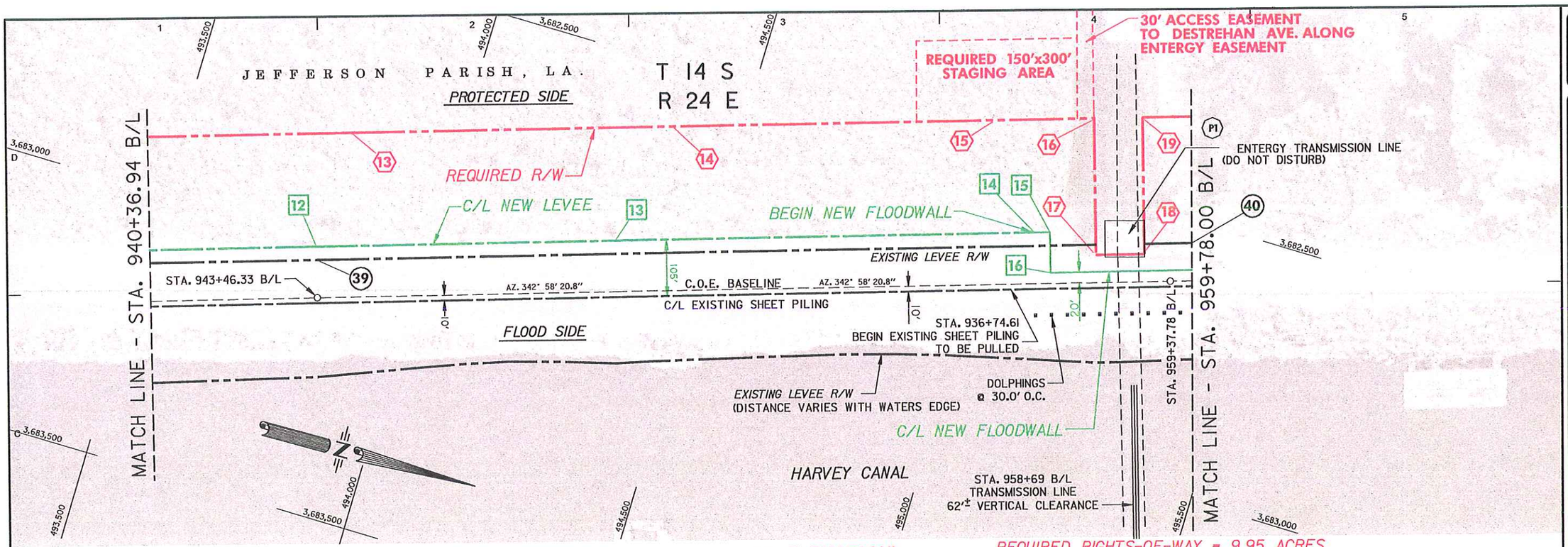
DESIGNED BY: CDH | DATE: 4/09
DWN BY: JAY | CKD BY: DTD | SOLICITATION NO.: | CONTRACT NO.: | FILE NUMBER:
SUBMITTED BY: | FILE NAME: ALT-2.DGN | PLOT SCALE: 100 | PLOT DATE: 0/08
SIZE: 22X34

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 2
STA. 914+31.18 - STA. 940+36.94

SHEET IDENTIFICATION NUMBER
17



LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION)
PLAN - ALTERNATIVE 2

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 9.95 ACRES
STAGING AREA = 1.03 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = C/L NEW FLOODWALL
- = REQUIRED R/W

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
39	3683036.7164	493809.7395	13	3682792.1921	493803.1279	12	3683013.0572	493801.6320
40	3682541.3324	495364.6974	14	3682610.1489	494374.8448	13	3682844.0461	494332.4195
			15	3682428.1074	494946.5623	14	3682606.8272	495077.4265
			16	3682371.9650	495122.8825	15	3682597.8678	495105.5643
			17	3682613.6678	495199.8446	16	3682669.4851	495128.3681
			18	3682586.3611	495285.6021			
			19	3682344.6584	495208.6400			

SCHEDULE OF RELOCATION				
ITEM	BASELINE STATION	DESCRIPTION	OWNER	DISPOSITION
P1	958+69	TRANSMISSION LINE	ENTERGY	DO NOT DISTURB

NOTES:
1. SEE SHEET 44 FOR TYPICAL SECTIONS.
2. SEE SHEET 51 FOR PLAN-FLOODWALL AT TRANSMISSION TOWER.
3. DOLPHINS REQUIRED @ 30.0' O.C. IN FRONT OF FLOODWALL @ TRANSMISSION TOWER, SEE SHEET 50 FOR DOLPHIN DETAILS.
4. PROPOSED CONSTRUCTION OF ALTERNATIVES 1,2, & 5 CONFLICT WITH THE ENTERGY TRANSMISSION TOWER. FOR EACH OF THESE THREE ALTERNATIVES A "DO NOT DISTURB" OPTION (SHOWN ON THIS DRAWING) AND A "TOWER RELOCATION" OPTION (SEE SHEET 52) ARE PRESENTED.

ENGINEERING & CONSULTING INC BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

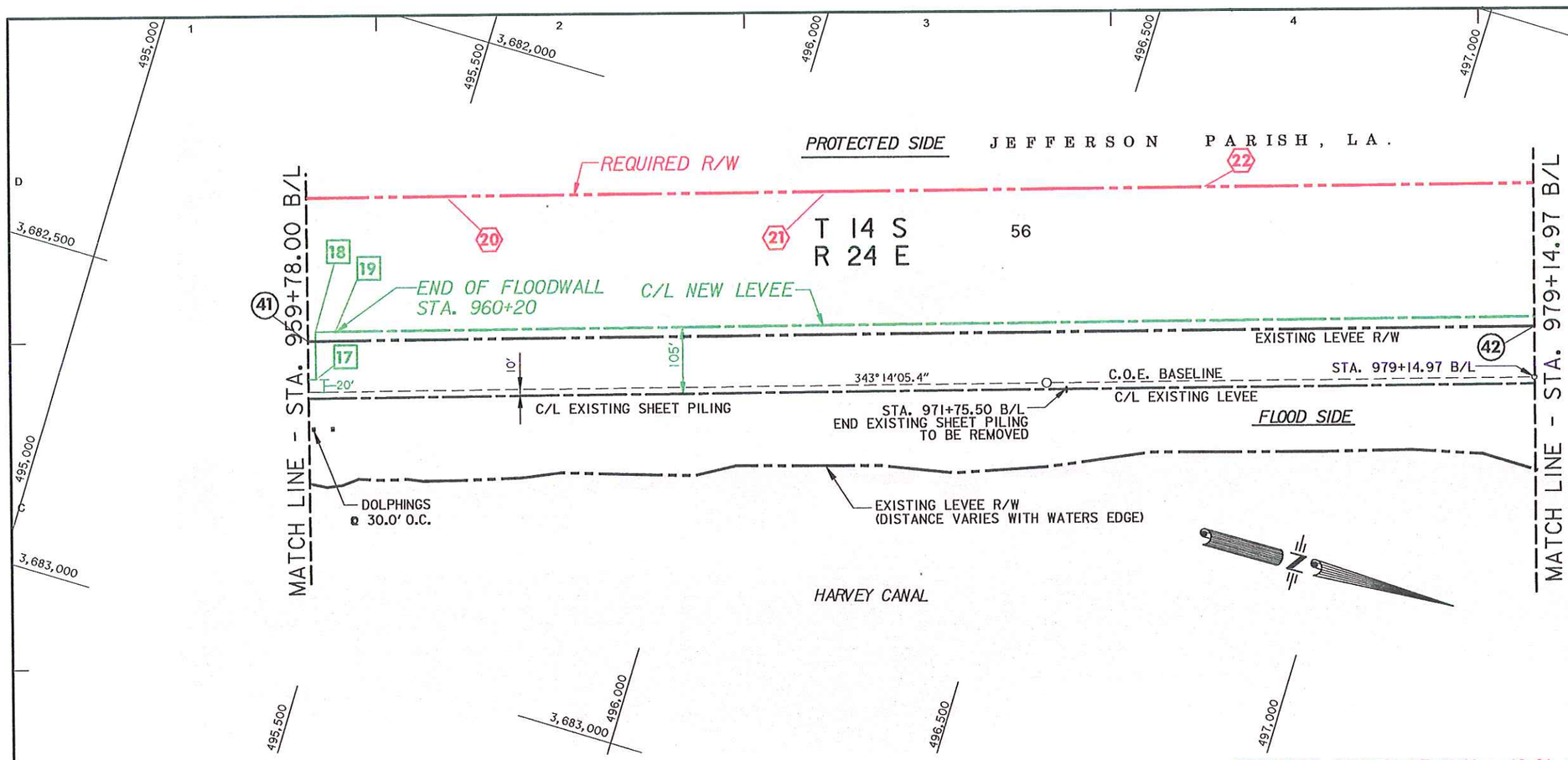
U. S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CDH DRAWN BY: JAY SUBMITTED BY: FILE NAME: ALT-2-DGN DATE: SOLICITATION NO.: CONTRACT NO.: FILE NUMBER: SIZE: 22X34 PLOT SCALE: 100 PLOT DATE: 5/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-144.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 2
STA. 940+36.94 - STA. 959+78.00

SHEET IDENTIFICATION NUMBER
18



LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 2

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 10.01 ACRES

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(41)	3682532.3636	495361.0264	⬡20	3682251.2898	495505.5539	17	3682585.8862	495390.8896
(42)	3681953.1857	497209.3079	⬡21	3682071.8762	496078.1015	18	3682514.3178	495368.4629
			⬡22	3681892.4625	496650.6491	19	3682505.3471	495397.0903

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = C/L NEW FLOODWALL
- = REQUIRED R/W

NOTES:
1. SEE SHEET 44 FOR TYPICAL SECTIONS
2. SEE SHEET 51 FOR PLAN-FLOODWALL AT TRANSMISSION TOWER
3. DOLPHINS REQUIRED @ 30.0' O.C. IN FRONT OF FLOODWALL @ TRANSMISSION TOWER, SEE SHEET 50 FOR DOLPHIN DETAILS

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

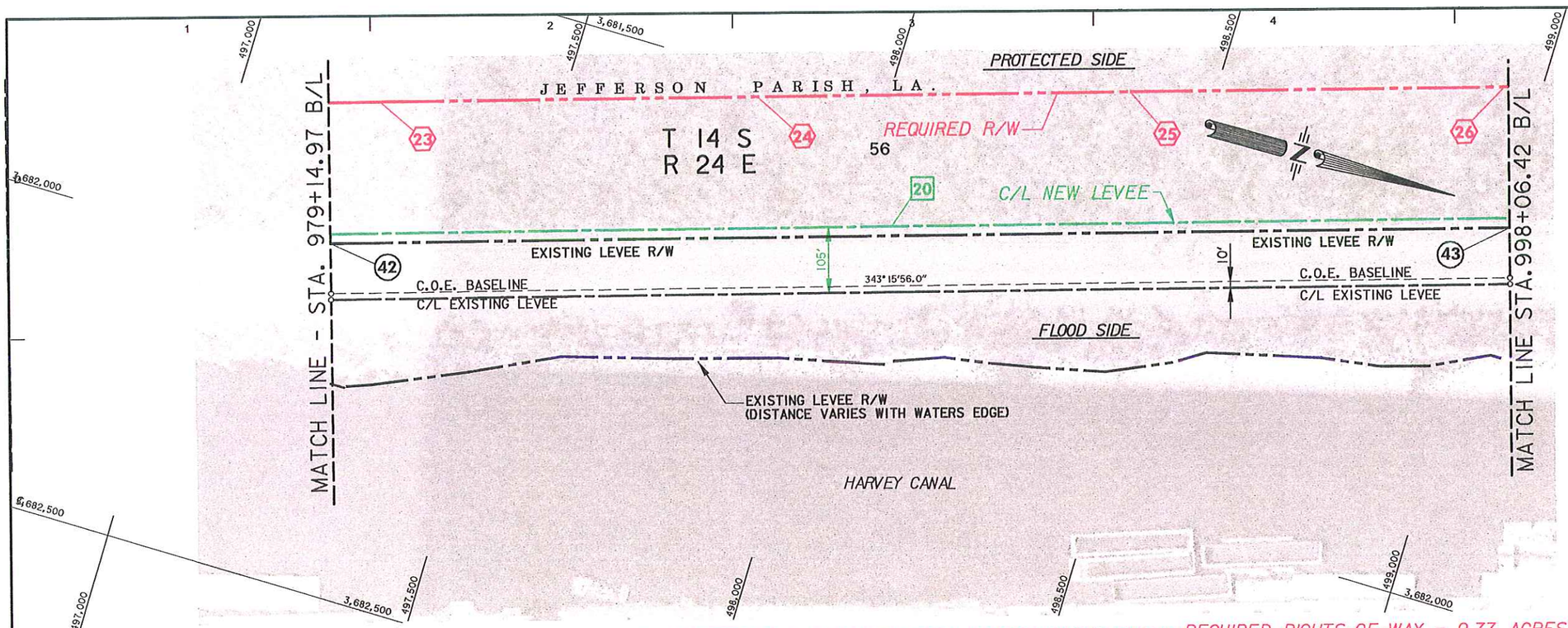
U. S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

DESIGNED BY: COH DATE: 4/08
DWN BY: JAY CHD BY: DTD SOLICITATION NO.:
SUBMITTED BY: CONTRACT NO.:
FILE NAME: ALT2-4.DGN FILE NUMBER:
SIZE: 22X34 PLOT SCALE: 100 PLOT DATE: 1/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 2
STA. 959+78.00 - STA. 979+14.97

SHEET IDENTIFICATION NUMBER
19



LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION) *REQUIRED RIGHTS-OF-WAY = 9.77 ACRES*

PLAN - ALTERNATIVE 2

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(42)	3681953.1857	497209.3079	(23)	3681713.1493	497223.3319	[20]	3681670.3108	498063.8314
(43)	3681385.5669	499014.6853	(24)	3681534.0513	497795.9783			
			(25)	3681354.9532	498368.6247			
			(26)	3681175.8552	498941.2711			

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 44 FOR TYPICAL SECTIONS

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U. S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

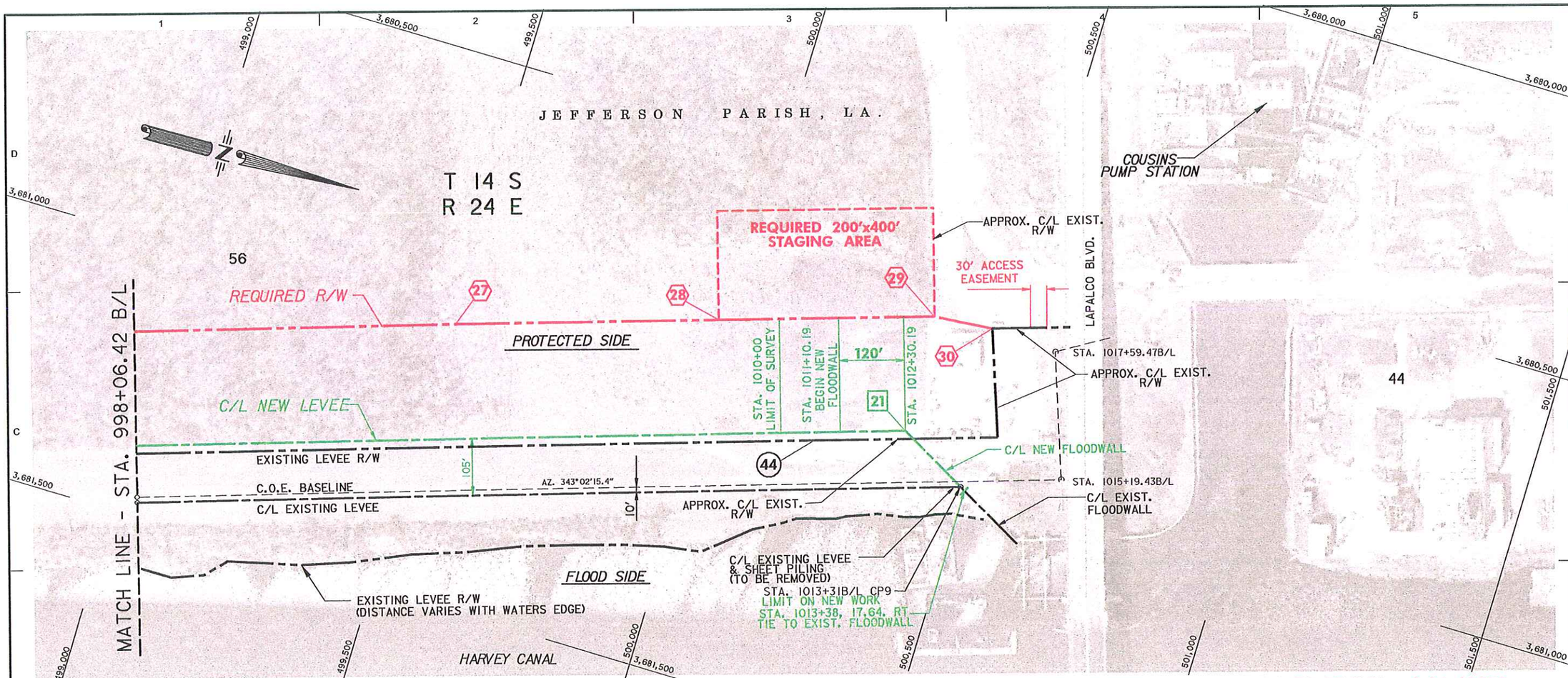
DESIGNED BY: CCH DATE: 4/08
DWN BY: JAY CHD BY: DTD SOLICITATION NO.:
SUBMITTED BY: CONTRACT NO.:
FILE NAME: ALT-A.DGN SIZE: 22X34 PLOT SCALE: 100 PLOT DATE: 9/08

WESTBANK AND VICINITY, HURRICANE PROTECTION PROJECT
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 2
STA. 979+14.97 - STA.998+06.42

SHEET IDENTIFICATION NUMBER
20



REQUIRED RIGHTS-OF-WAY = 8.24 ACRES
STAGING AREA = 1.84 ACRES

LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION)

PLAN - ALTERNATIVE 2

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
(44)	3681006.4746	500210.1379	(27)	3680992.1001	499511.1170	[21]	3680941.2588	500366.1703
			(28)	3680844.6853	499975.9846			
			(29)	3680723.7745	500357.2726			
			(30)	3680714.5101	500466.2922			

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE LEVEE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 44 FOR TYPICAL SECTIONS.
2. NEW FLOODWALL TIE INTO EXISTING FLOODWALL HAS NOT BEEN SPECIFICALLY ANALYZED BY GEOTECHNICAL ENGINEER AS THIS AREA OF WORK IS BEYOND THE LIMITS OF THE SURVEY.
3. SEE SHEET 48 FOR TYPICAL T-WALL SECTION & PILE LAYOUT.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CDH | DATE: 4/08
DWN BY: JAY | CKD BY: DTD | SOLICITATION NO.: | CONTRACT NO.:
SUBMITTED BY: | FILE NAME: ALT-2.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 8/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

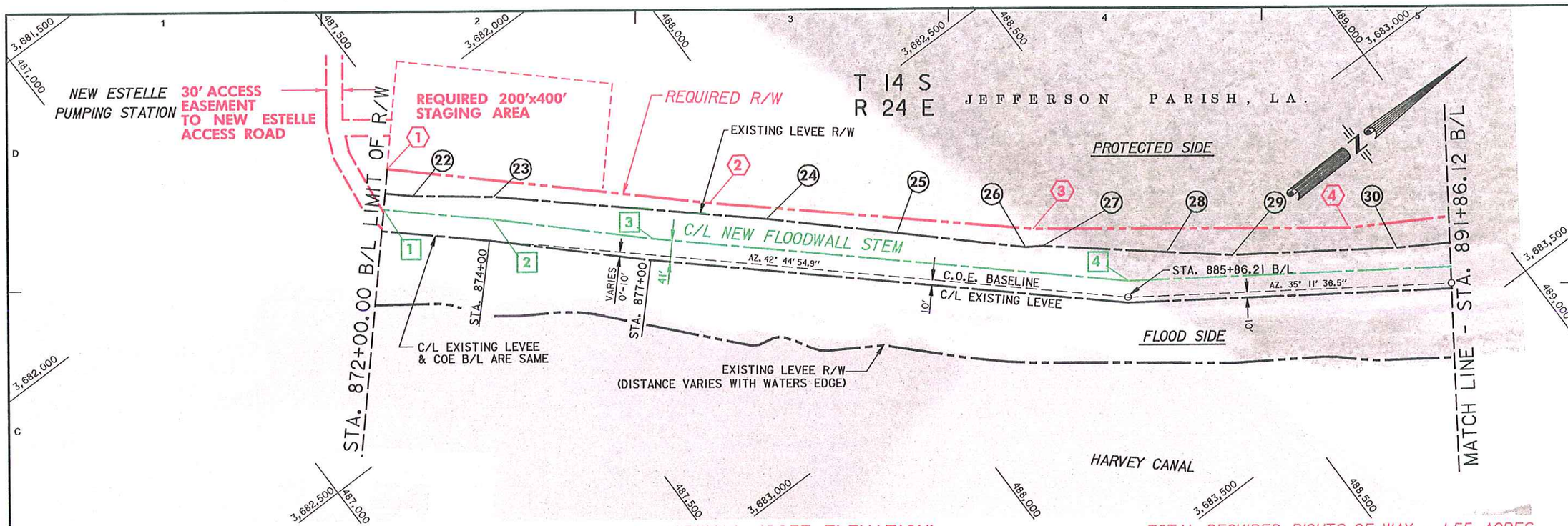
PLAN-ALTERNATIVE 2
STA. 998+06.42 - STA. 1013+38.00

SHEET IDENTIFICATION NUMBER
21

ALTERNATIVE NO. 3

FLOODWALL (2057 ELEVATION)

WBV 14a.2: HARVEY CANAL WEST BANK LEVEES



FLOODWALL (2057 ELEVATION)
PLAN - ALTERNATIVE 3

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

TOTAL REQUIRED RIGHTS-OF-WAY = 1.55 ACRES
STAGING AREA = 1.84 ACRES

RIGHTS OF WAY						C/L NEW FLOODWALL STEM		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
22	3682148.2230	487440.4093	1	3682079.6216	487432.2980	1	3682135.2560	487382.0007
23	3682239.2129	487557.9103	2	3682489.4180	487870.6665	2	3682269.8288	487530.8531
24	3682576.6507	487936.3733	3	3682888.0875	488319.0945	3	3682478.4355	487746.6837
25	3682742.7651	488113.7426	4	3683238.6732	488786.6132	4	3683070.9132	488402.0292
26	3682907.1802	488288.0276						
27	3682924.1238	488314.3452						
28	3683071.2989	488490.6177						
29	3683148.7822	488584.7958						
30	3683321.6432	488835.7555						

ALTERNATIVE 3
TABULATION OF RIGHTS-OF-WAY REQUIREMENTS

BASELINE STATION	REQUIRED RIGHTS-OF-WAY
872+00.00 TO 891+86.12	1.55 ACRES
891+86.12 TO 914+31.18	2.37 ACRES
914+31.18 TO 940+36.94	2.05 ACRES
940+36.94 TO 959+78.00	0.82 ACRES
959+78.00 TO 979+14.97	1.13 ACRES
979+14.97 TO 998+06.42	1.21 ACRES
998+06.42 TO 1013+38.00	1.23 ACRES
TOTAL REQUIRED RIGHTS-OF-WAY =	10.36 ACRES
TOTAL REQUIRED STAGING AREA =	4.71 ACRES

LEGEND

- o = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW FLOODWALL STEM
- = REQUIRED R/W

NOTES:
1. SEE SHEET 45 FOR TYPICAL SECTIONS.
2. SEE SHEET 48 FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.
3. DOLPHINS REQ'D @ 30' O.C. IN FRONT OF EXISTING SHEET PILING.
4. SEE SHEET 50 FOR DOLPHIN PLAN, ELEVATION & DETAILS.

ENGINEERING & CONSULTING, INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

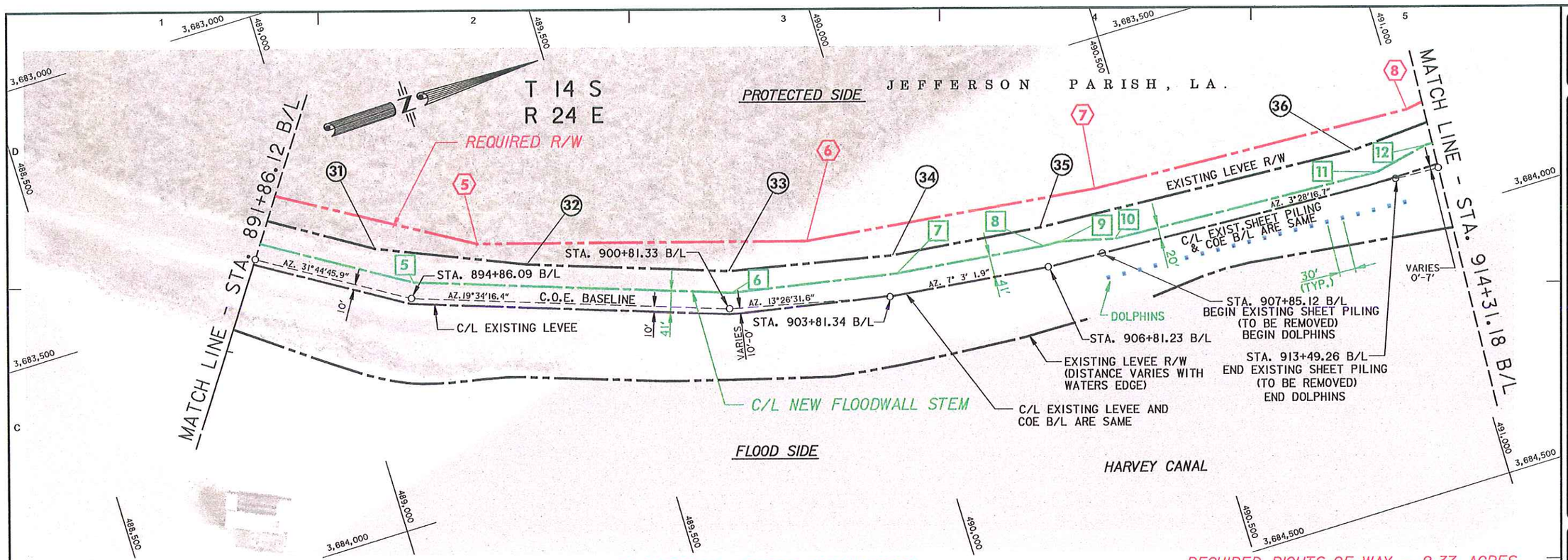
U. S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH DATE: 4/08
DWN BY: X CKD BY: DTD SOLICITATION NO.:
SUBMITTED BY: CONTRACT NO.:
FILE NAME: ALT3-1 FILE NUMBER:
SIZE: 22X34 PLOT SCALE: 100 PLOT DATE: 5/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 3
STA. 872+00.00 - STA. 891+86.12

SHEET IDENTIFICATION NUMBER
22



FLOODWALL (2057 ELEVATION)

PLAN - ALTERNATIVE 3

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 2.37 ACRES

RIGHTS OF WAY						C/L NEW FLOODWALL STEM		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
31	3683481.8449	489096.6353	5	3683529.0172	489280.7078	5	3683562.4240	489146.9651
32	3683592.5649	489358.0755	6	3683704.4849	489870.9918	6	3683755.4604	489709.6242
33	3683715.4826	489716.3538	7	3683768.9281	490412.2056	7	3683811.9004	490014.1429
34	3683776.9646	490016.6288	8	3683798.6089	491011.4710	8	3683843.0196	490290.9310
35	3683808.1209	490293.7476				9	3683844.6253	490323.3522
36	3683842.2397	490894.8864				10	3683869.5477	490422.2404
						11	3683894.4796	490925.6233
						12	3683872.9982	491026.8099

LEGEND

- = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW FLOODWALL STEM
- = REQUIRED R/W

NOTES:
1. SEE SHEET 45 FOR TYPICAL SECTIONS.
2. SEE SHEET 48 FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.
3. DOLPHINS REQ'D @ 30' O.C. IN FRONT OF EXISTING SHEET PILING.
4. SEE SHEET 50 FOR DOLPHIN PLAN, ELEVATION & DETAILS.

ENGINEERING & CONSULTING, INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

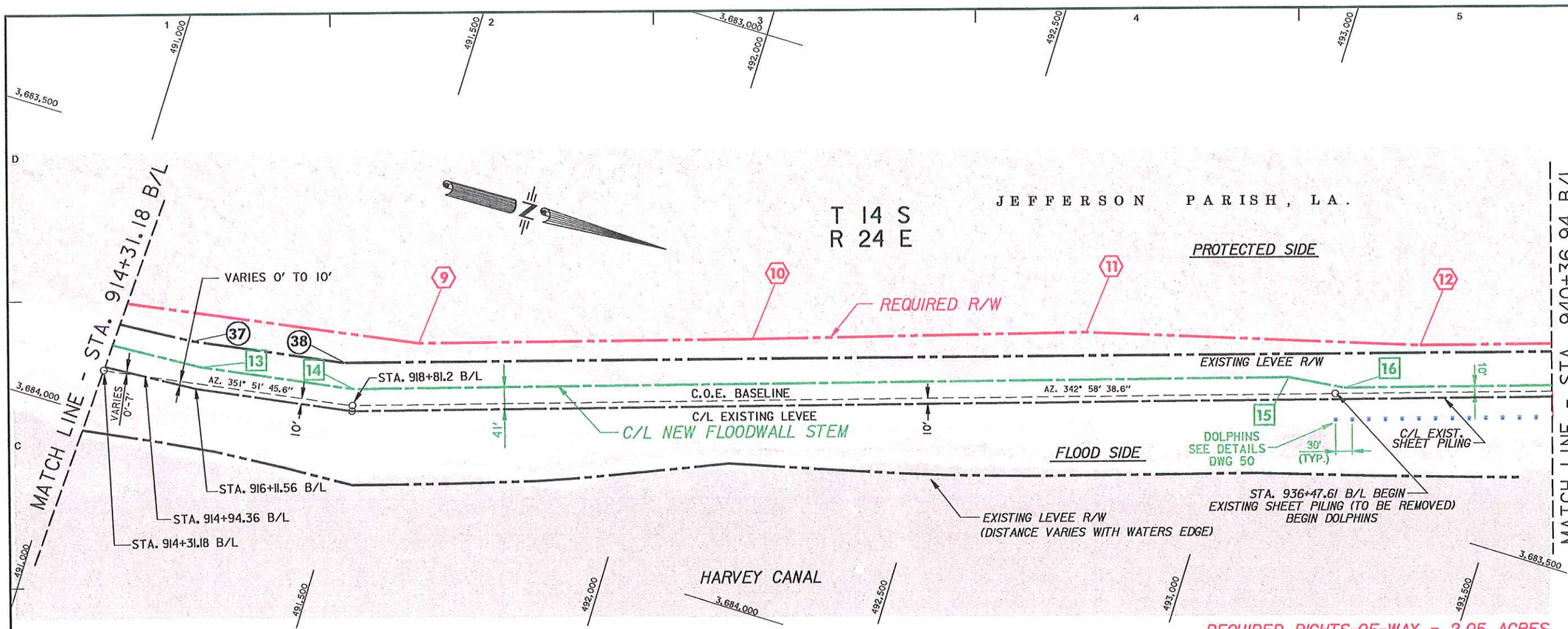
U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: | SOLICITATION NO.: | FILE NUMBER:
DWN BY: JMD | CHD BY: DTD | CONTRACT NO.: | PLOT DATE: 5/19
SUBMITTED BY: | FILE NAME: ALT-3-2 | PLOT SCALE: 100 | SIZE: 22X34

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 3
STA. 891+86.12 - STA. 914+31.18

SHEET IDENTIFICATION NUMBER
23



FLOODWALL (2057 ELEVATION)

PLAN - ALTERNATIVE 3

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- ○ = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW FLOODWALL
- = REQUIRED R/W

RIGHTS OF WAY						C/L NEW FLOODWALL STEM		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
37	3683824.0121	491173.9949	9	3683710.1107	491562.5369	13	3683864.3304	491200.7700
38	3683781.9456	491446.5743	10	3683528.1060	492134.2661	14	3683822.0829	491474.5291
			11	3683341.3369	492704.4786	15	3683312.2783	493075.9724
			12	3683187.9186	493285.3081	16	3683301.0015	493177.3287

NOTES:
1. SEE SHEET 45 FOR TYPICAL SECTIONS.
2. SEE SHEET 48 FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.
3. DOLPHINS REQ'D @ 30' O.C. IN FRONT OF EXISTING SHEET PILING.
4. SEE SHEET 50 FOR DOLPHIN PLAN, ELEVATION & DETAILS.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

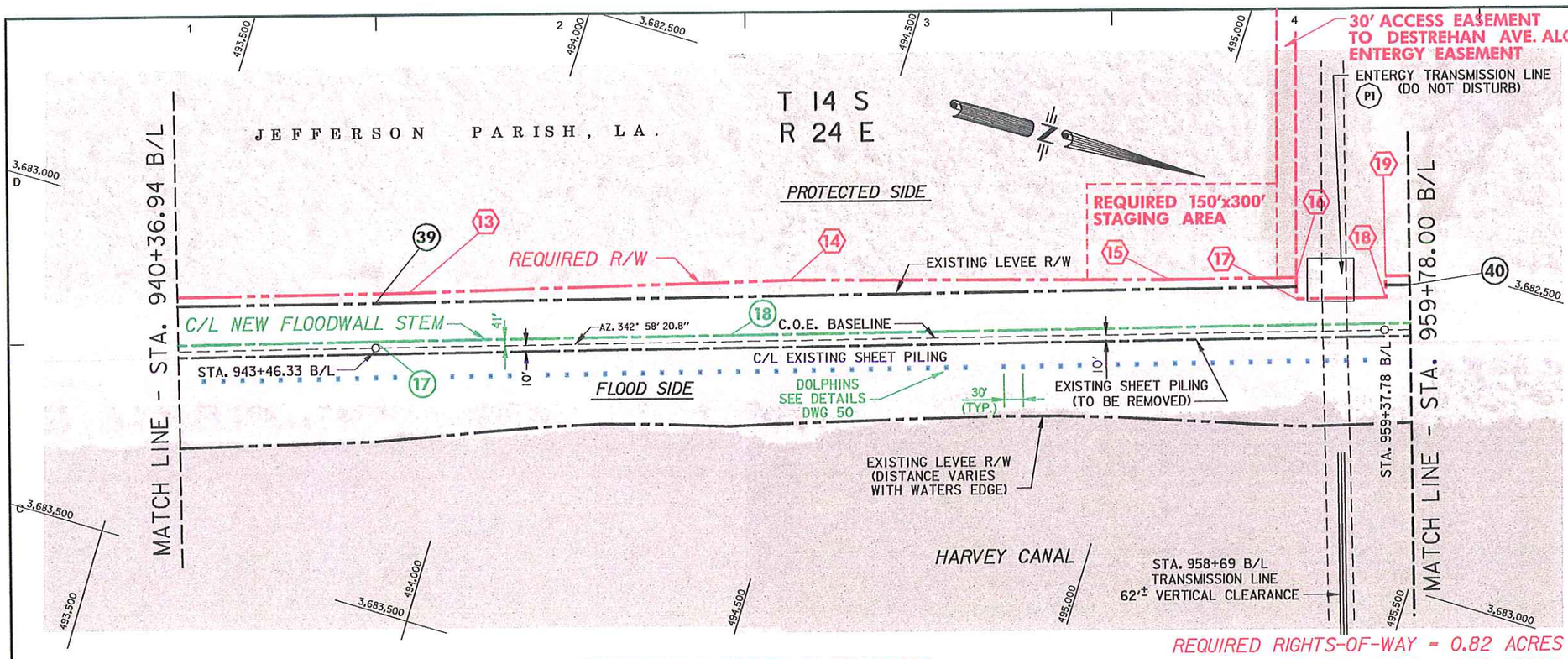
U. S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08 | DWN BY: JRO | CKD BY: DTD | SOLICITATION NO.: | SUBMITTED BY: | CONTRACT NO.: | FILE NAME: ALT 3-3.DGN | FILE NUMBER: | SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 5/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 3
STA. 914+31.18 - STA. 940+36.94

SHEET IDENTIFICATION NUMBER
24



REQUIRED RIGHTS-OF-WAY = 0.82 ACRES
STAGING AREA = 1.03 ACRES

FLOODWALL (2057 ELEVATION)

PLAN - ALTERNATIVE 3

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW FLOODWALL
- = REQUIRED R/W

NOTES:
1. SEE SHEET 45 FOR TYPICAL SECTIONS.
2. SEE SHEET 48 FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.
3. DOLPHINS REQ'D @ 30' O.C. IN FRONT OF EXISTING SHEET PILING.
4. SEE SHEET 50 FOR DOLPHIN PLAN, ELEVATION & DETAILS.
5. SEE SHEET 51 FOR PLAN FLOODWALL AT TRANSMISSION TOWER.

RIGHTS OF WAY

EXISTING			REQUIRED			C/L NEW FLOODWALL STEM		
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
39	3683036.7164	493809.7395	13	3683006.1986	493856.1310	17	3683094.0504	493827.4215
40	3682541.3324	495364.6974	14	3682814.6016	494424.8928	18	3682925.0393	494358.2090
			15	3682642.1053	494999.5924			
			16	3682581.5470	495189.7810			
			17	3682613.6678	495199.8446			
			18	3682571.1914	495333.2454			
			19	3682539.1181	495323.0329			

SCHEDULE OF RELOCATION

ITEM	BASELINE STATION	DESCRIPTION	OWNER	DISPOSITION
P1	958+69	TRANSMISSION LINE	ENTERGY	DO NOT DISTURB

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U. S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

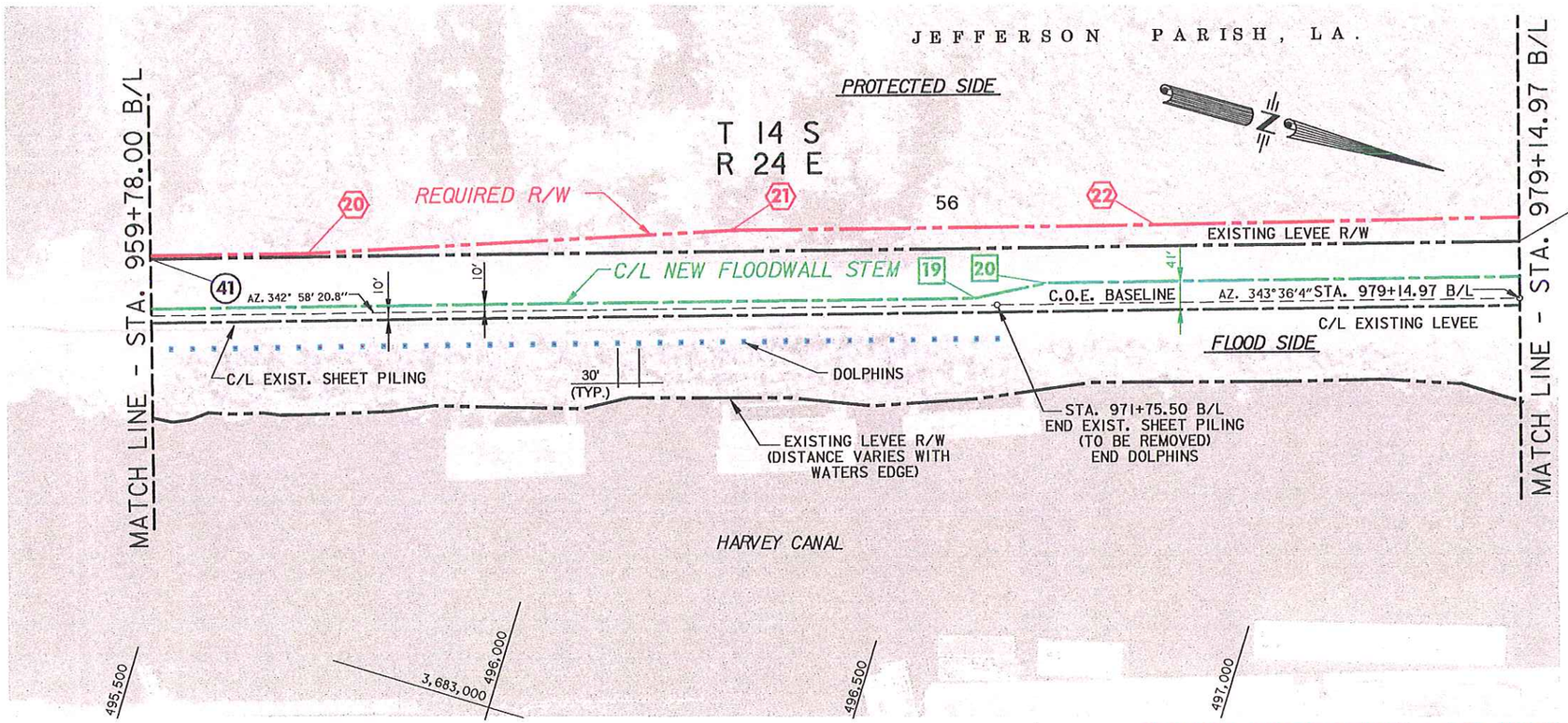
DESIGNED BY: CCH DATE: 4/00
DRAWN BY: JRO CKD BY: DTD SOLICITATION NO:
SUBMITTED BY: CONTRACT NO.:
FILE NAME: ALT 3-4.DGN FILE NUMBER:
SIZE: 22X34 PLOT SCALE: 100 PLOT DATE: 6/00

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-148.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 3
STA. 940+36.94 - STA. 959+78.00

SHEET IDENTIFICATION NUMBER
25



REQUIRED RIGHTS-OF-WAY = 1.13 ACRES

FLOODWALL (2057 ELEVATION)

PLAN - ALTERNATIVE 3

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

RIGHTS OF WAY						C/L NEW FLOODWALL STEM		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
41	3682532.3636	495361.0264	20	3682461.1906	495571.4452	19	3682250.2298	496495.4837
42	3681953.1857	497209.3079	21	3682257.9208	496136.5172	20	3682201.2393	496584.9384
			22	3682078.5072	496709.0648			

LEGEND

- ○ = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW FLOODWALL STEM
- = REQUIRED R/W

NOTES:
1. SEE SHEET 45 FOR TYPICAL SECTIONS.
2. SEE SHEET 48 FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.
3. DOLPHINS REQ'D @ 30' O.C. IN FRONT OF EXISTING SHEET PILING.
4. SEE SHEET 50 FOR DOLPHIN PLAN, ELEVATION & DETAILS.
5. SEE SHEET 51 FOR PLAN FLOODWALL AT TRANSMISSION TOWER.

ENGINEERING & CONSULTING BCG INC. "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

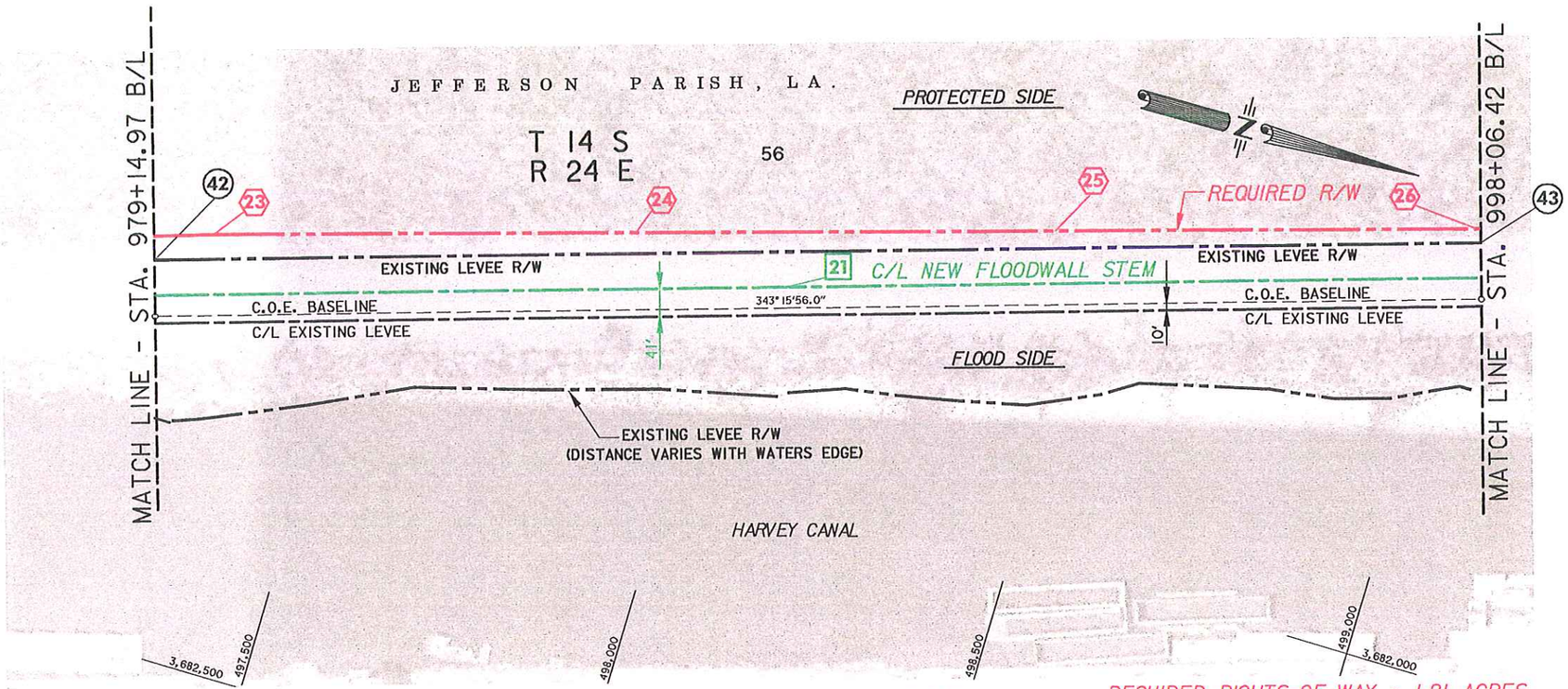
DESIGNED BY: CSH | DATE: 4/08
DWN BY: JHO | CKD BY: STD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT 3 & DGN | PLOT SCALE: 100 | PLOT DATE: 9/08
SDS: 22X34

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-149.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 3
STA. 959+78.00 - STA. 979+14.97

SHEET IDENTIFICATION NUMBER
26



FLOODWALL (2057 ELEVATION)

PLAN - ALTERNATIVE 3

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 1.21 ACRES

RIGHTS OF WAY						C/L NEW FLOODWALL STEM		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
42	3681953.1857	497209.3079	23	3681894.3872	497280.0656	21	3681732.2373	498083.2825
43	3681385.5669	499014.6853	24	3681720.0612	497854.2045			
			25	3681545.7352	498428.3434			
			26	3681371.4092	499002.4822			

LEGEND

- ○ = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW FLOODWALL STEM
- = REQUIRED R/W

NOTES:
1. SEE SHEET 45 FOR TYPICAL SECTIONS.
2. SEE SHEET 48 FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.

ENGINEERING & CONSULTING, INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH	DATE: 4/08		
DWN BY: JRD	CKD BY: DTD	SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.:	FILE NUMBER: 9/08
FILE NAME: ALT-3-ALDGN			PLOT DATE:
SIZE: 22X34	PLOT SCALE: 100		

WESTBANK AND VICINITY, HURRICANE PROTECTION PROJECT, JEFFERSON PARISH, LOUISIANA
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 3
STA. 979+14.97 - STA.998+06.42

SHEET IDENTIFICATION NUMBER
27

JEFFERSON PARISH, LA.

T 14 S
R 24 E

56

44

COUSINS PUMP STATION

LAPALCO BLVD.

REQUIRED 200'x400' STAGING AREA

PROTECTED SIDE

STA. 1010+00 LIMIT OF SURVEY

STA. 1011+72.83 BEGIN NEW FLOODWALL

STA. 1012+92.83

30' ACCESS EASEMENT

STA. 1017+59.47B/L

APPROX. C/L EXIST. R/W

APPROX. C/L EXIST. R/W

REQUIRED R/W

EXISTING LEVEE R/W

120'

C/L NEW FLOODWALL

STA. 1015+19.43B/L

C/L EXIST. FLOODWALL

C.O.E. BASELINE

C/L EXISTING LEVEE

AZ. 343°02'15.4"

10'

41'

C/L NEW FLOODWALL STEM

STA. 998+06.42 B/L - MATCH LINE

FLOOD SIDE

EXISTING LEVEE R/W
(DISTANCE VARIES WITH WATERS EDGE)

C/L EXISTING LEVEE & SHEET PILING (TO BE REMOVED)
STA. 1013+31B/L CP9
LIMIT ON NEW WORK
STA. 1013+38, 17.64' RT
TIE TO EXIST. FLOODWALL

HARVEY CANAL

3,680,000 | 499,000 | 499,500 | 500,000 | 500,500 | 501,000 | 501,500

3,681,000 | 3,680,500 | 3,681,500

FLOODWALL (2057 ELEVATION)
PLAN - ALTERNATIVE 3

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 1.23 ACRES

STAGING AREA = 1.84 ACRES

RIGHTS OF WAY						C/L NEW FLOODWALL STEM		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(44)	3681006.4746	500210.1379	(27)	3681187.5102	499573.0838	[22]	3680984.2551	500445.6175
			(28)	3681040.0954	500037.9514			
			(29)	3680919.1846	500419.2394			
			(30)	3680728.5406	500358.7840			
			(30)	3680714.5101	500466.2922			

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW FLOODWALL STEM
- = REQUIRED R/W

NOTES:
1. SEE SHEET 45 FOR TYPICAL SECTIONS.
2. SEE SHEET 48 FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.
3. DOLPHINS REQ'D @ 30' O.C. IN FRONT OF EXISTING SHEET PILING.
4. SEE SHEET 50 FOR DOLPHIN PLAN, ELEVATION & DETAILS.
5. NEW FLOODWALL TIE INTO EXISTING FLOODWALL HAS NOT BEEN SPECIFICALLY ANALIZED BY GEOTECHNICAL ENGINEER AS THIS AREA OF WORK IS BEYOND THE LIMITS OF THE SURVEY.
6. SEE SHEET 48 FOR TYPICAL T-WALL SECTION & PILE LAYOUT.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 3701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: JHD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT 3+1.DGN | PLOT DATE: 8/09
SIZE: 22X34 | PLOT SCALE: 100

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

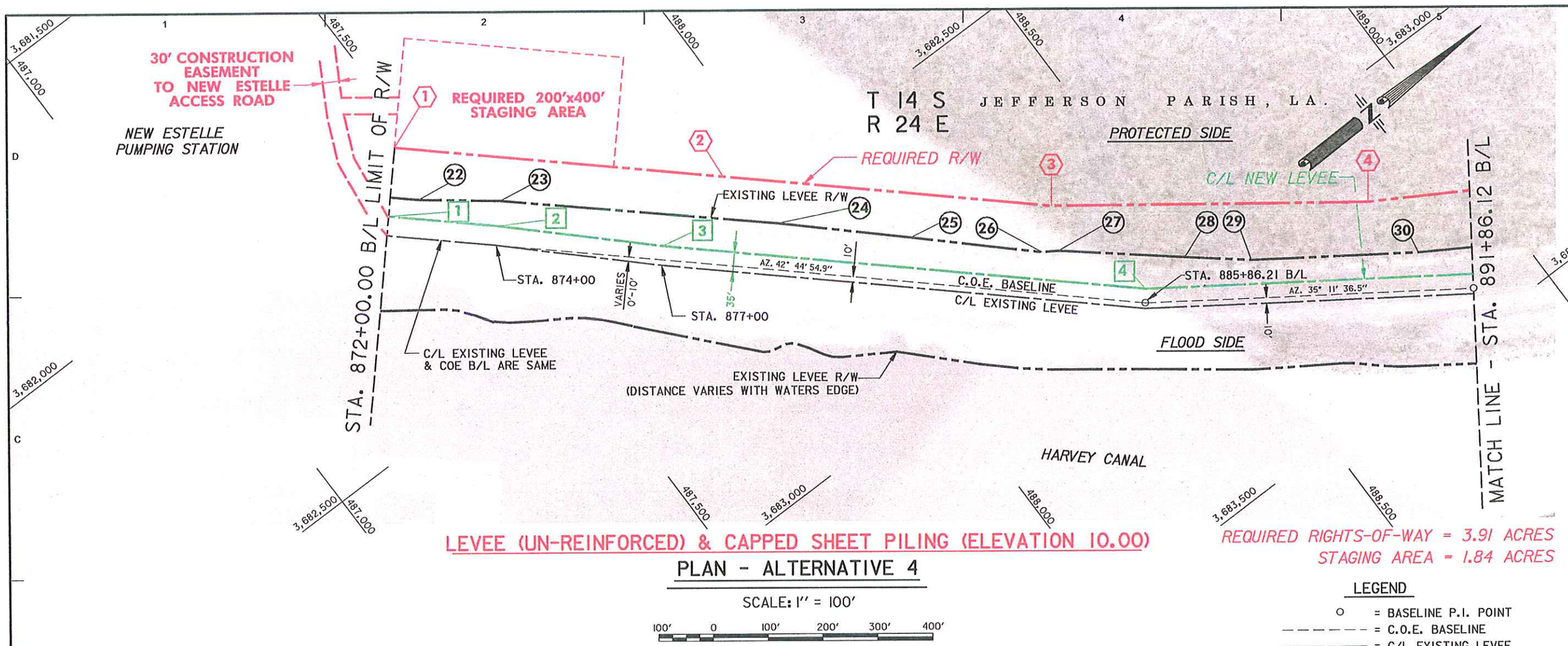
PLAN-ALTERNATIVE 3
STA. 998+06.42 - STA. 1013+38.00

SHEET IDENTIFICATION NUMBER
28

ALTERNATIVE NO. 4

LEVEE & CAPPED SHEET PILE (EL. 10.00)

WBV 14a.2: HARVEY CANAL WEST BANK LEVEES



LEVEE (UN-REINFORCED) & CAPPED SHEET PILING (ELEVATION 10.00)

PLAN - ALTERNATIVE 4

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 3.91 ACRES
STAGING AREA = 1.84 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 46 FOR TYPICAL SECTIONS.

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
22	3682148.2230	487440.4093	1	3682045.9558	487462.4764	1	3682138.6797	487378.6475
23	3682239.2129	487557.9103	2	3682448.3342	487907.5512	2	3682273.1966	487527.4381
24	3682576.6507	487936.3733	3	3682850.7127	488352.6260	3	3682481.8034	487743.2687
25	3682742.7651	488113.7426	4	3683193.0506	488817.7504	4	3683074.5583	488398.9209
26	3682907.1802	488288.0276						
27	3682924.1238	488314.3452						
28	3683071.2989	488490.6177						
29	3683148.7822	488584.7958						
30	3683321.6432	488835.7555						

ALTERNATIVE 4
TABULATION OF RIGHTS-OF-WAY REQUIREMENTS

BASELINE STATION	REQUIRED RIGHTS-OF-WAY
872+00.00 TO 891+86.12	3.91 ACRES
891+86.12 TO 914+31.18	4.79 ACRES
914+31.18 TO 940+36.94	4.92 ACRES
940+36.94 TO 959+78.00	2.65 ACRES
959+78.00 TO 979+14.97	3.18 ACRES
979+14.97 TO 998+06.42	4.11 ACRES
998+06.42 TO 1013+38.00	3.52 ACRES
TOTAL REQUIRED RIGHTS-OF-WAY =	27.08 ACRES
TOTAL REQUIRED STAGING AREA =	4.71 ACRES

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

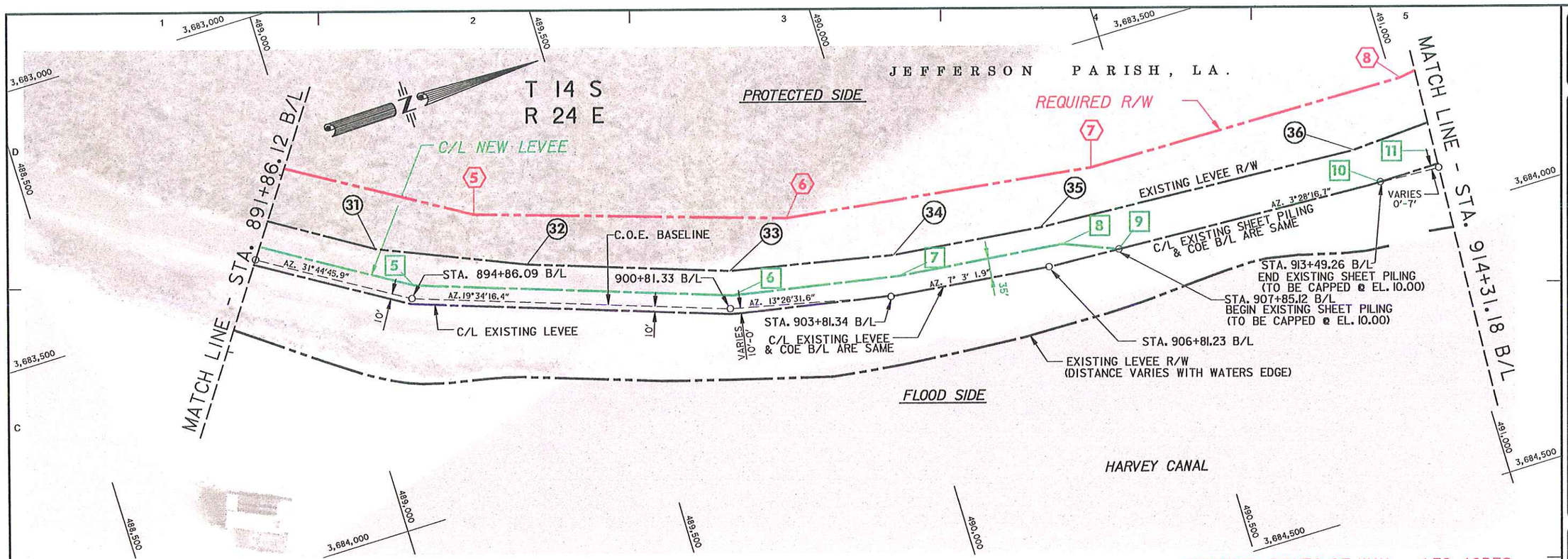
WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 4
STA. 872+00.00 - STA. 891+86.12

DESIGNED BY: CCH | DATE: | 408
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT-4.DGN | PLOT SCALE: 100 | PLOT DATE: 9/09
SIZE: 22X34

SHEET IDENTIFICATION NUMBER
29



LEVEE (UN-REINFORCED) & CAPPED SHEETPILE (ELEVATION 10.00)

REQUIRED RIGHTS-OF-WAY = 4.79 ACRES

PLAN - ALTERNATIVE 4

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(31)	3683481.8449	489096.6353	(5)	3683474.4743	489291.2125	5	3683566.9803	489144.8381
(32)	3683592.5649	489358.0755	(6)	3683652.7297	489846.3243	6	3683760.3095	489708.3505
(33)	3683715.4826	489716.3538	(7)	3683729.0605	490415.8686	7	3683816.8492	490013.4071
(34)	3683776.9646	490016.6288	(8)	3683738.7658	491016.1233	8	3683849.6192	490323.1048
(35)	3683808.1209	490293.7476				9	3683889.5401	490421.5928
(36)	3683842.2397	490894.8864				10	3683914.4551	490924.6340
						11	3683884.4448	491026.2429

LEGEND

- o = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 46 FOR TYPICAL SECTIONS.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

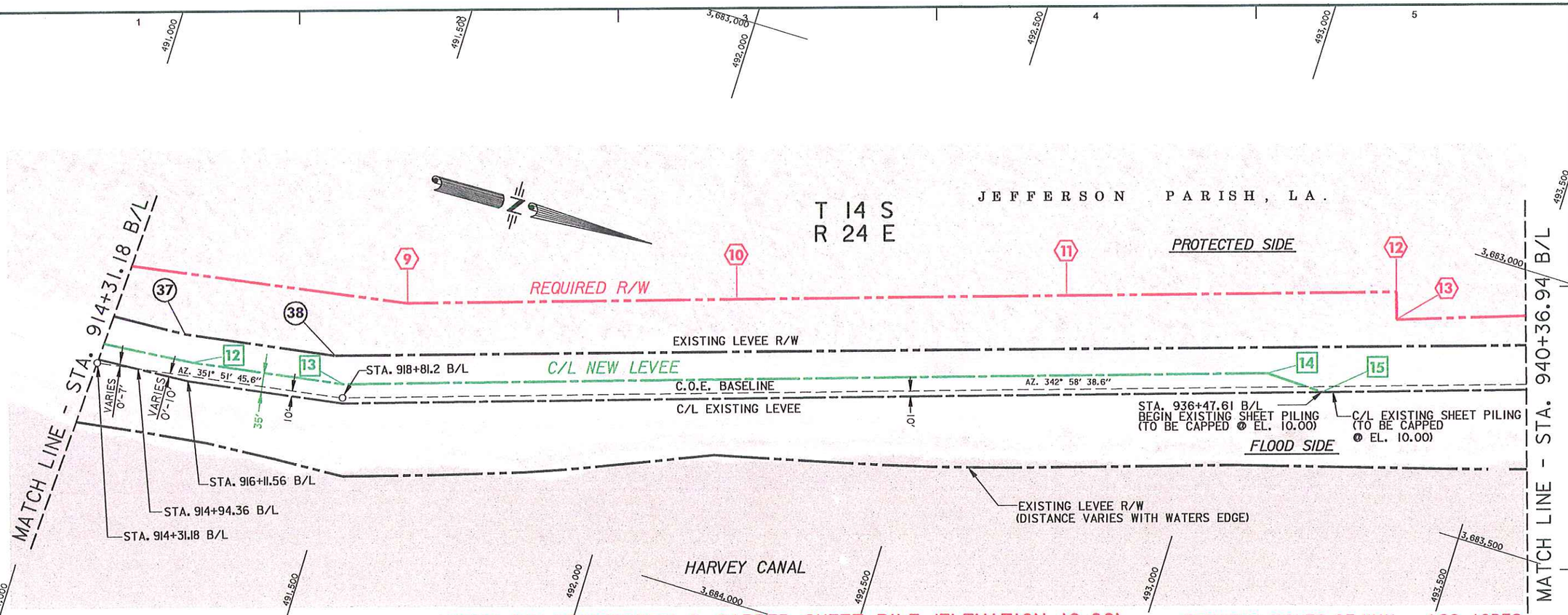
DESIGNED BY: CCH | DRN BY: RWR | CHD BY: STD | SUBMITTED BY: | FILE NAME: ALT-4.DGN | SIZE: 22X34 | PLOT SCALE: 100 | DATE: 4/08 | SOLICITATION NO.: | CONTRACT NO.: | FILE NUMBER: | PLOT DATE: 5/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 4
STA. 891+86.12 - STA. 914+31.18

SHEET IDENTIFICATION NUMBER
30



LEVEE (UN-REINFORCED) & CAPPED SHEET PILE (ELEVATION 10.00)

REQUIRED RIGHTS-OF-WAY = 4.92 ACRES

PLAN - ALTERNATIVE 4

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- ○ = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(37)	3683824.0121	491173.9949	(9)	3683652.9378	491544.3364	[12]	3683869.4292	491200.5202
(38)	3683781.9456	491446.5743	(10)	3683470.9331	492116.0656	[13]	3683826.9652	491475.6757
			(11)	3683288.9284	492687.7948	[14]	3683317.0426	493077.4894
			(12)	3683106.9237	493259.5241	[15]	3683320.0586	493183.3968
			(13)	3683154.5678	493274.6911			

NOTES:
1. SEE SHEET 46 FOR TYPICAL SECTIONS
2. PROPOSED CONSTRUCTION OF ALTERNATIVES 1,2, & 5 CONFLICT WITH THE ENTERGY TRANSMISSION TOWER. FOR EACH OF THESE THREE ALTERNATIVES A "DO NOT DISTURB" OPTION (SHOWN ON THIS DRAWING) AND A "TOWER RELOCATION" OPTION (SEE SHEET 52) ARE PRESENTED.

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

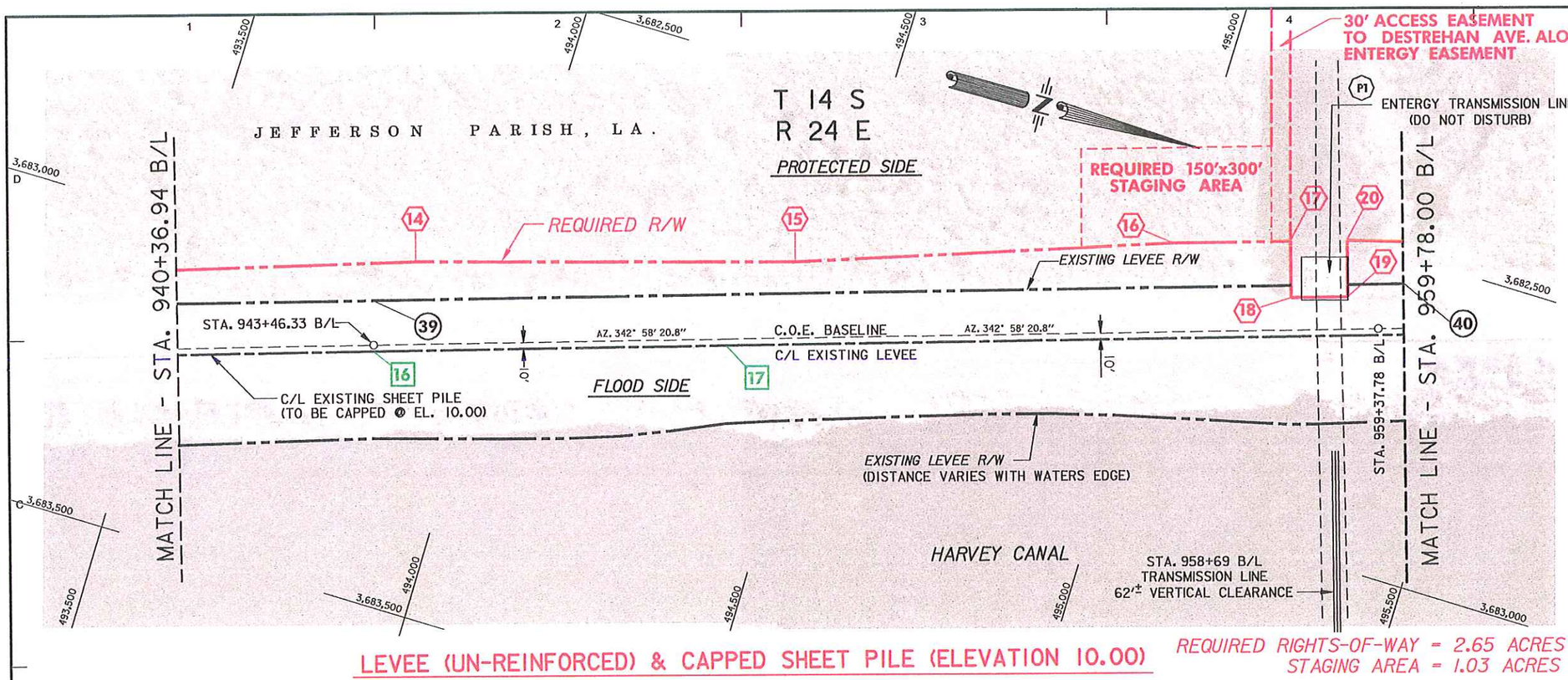
DESIGNED BY: CCH
DRAWN BY: RWR
CHKD BY: DTD
SUBMITTED BY:
FILE NAME: ALT-4.DGN
SIZE: 22X34
PLOT SCALE: 100
DATE: 4/08
SOLICITATION NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 6/08

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

WESTBANK AND VICINITY, WEST ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-148.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 4
STA. 914+31.18 - STA. 940+36.94

SHEET IDENTIFICATION NUMBER
31



LEVEE (UN-REINFORCED) & CAPPED SHEET PILE (ELEVATION 10.00)

REQUIRED RIGHTS-OF-WAY = 2.65 ACRES
STAGING AREA = 1.03 ACRES

PLAN - ALTERNATIVE 4

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTE:
1. SEE SHEET 46 FOR TYPICAL SECTIONS.

RIGHTS OF WAY						C/L EXISTING SHEET PILE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
39	3683036.7164	493809.7395	14	3682958.9427	493856.2242	16	3683113.1076	493833.4896
40	3682541.3324	495364.6974	15	3682786.4281	494430.9752	17	3682944.0965	494364.2772
			16	3682585.3294	494996.6246			
			17	3682529.1870	495172.9447			
			18	3682613.6677	495199.8447			
			19	3682586.4070	495285.4593			
			20	3682501.9262	495258.5597			

SCHEDULE OF RELOCATION				
ITEM	BASELINE STATION	DESCRIPTION	OWNER	DISPOSITION
P1	958+69	TRANSMISSION LINE	ENTERGY	DO NOT DISTURB

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

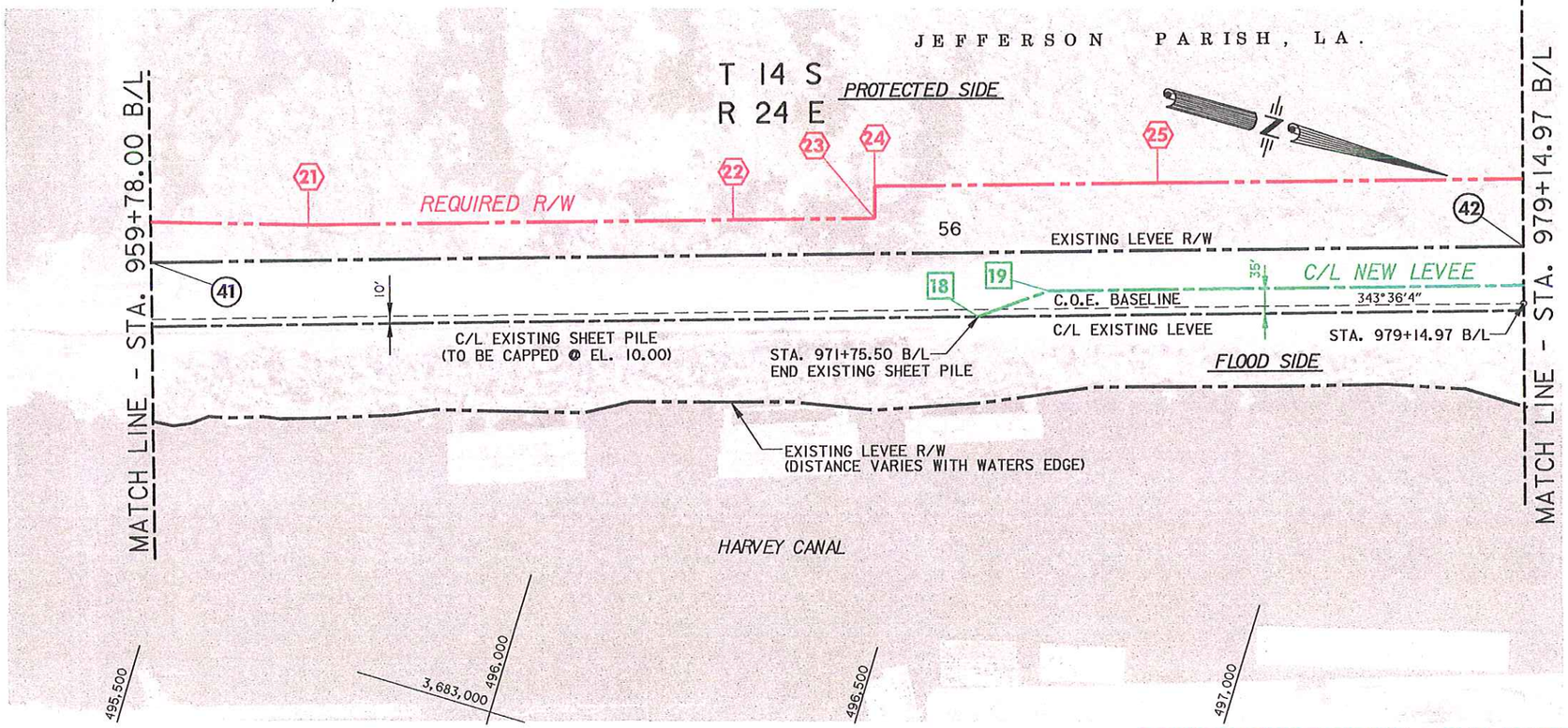
DESIGNED BY: CCH
DRAWN BY: RMR
SUBMITTED BY:
DRG BY: DTD
FILE NAME: ALT-44.DGN
SIZE: 22X34
DATE: 4/08
SOLICITATION NO.:
CONTRACT NO.:
PLOT SCALE: 100
FILE NUMBER:
PLOT DATE: 6/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 4
STA. 940+36.94 - STA. 959+78.00

SHEET IDENTIFICATION NUMBER
32



LEVEE (UN-REINFORCED) & CAPPED SHEET PILE (ELEVATION 10.00)

PLAN - ALTERNATIVE 4

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 3.18 ACRES

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
41	3682532.3636	495361.0264	21	3682428.874	495561.757	18	3682269.3180	496501.4537
42	3681953.1857	497209.3079	22	3682249.460	496134.305	19	3682206.0113	496586.4309
			23	3682189.656	496325.154			
			24	3682146.715	496311.698			
			25	3682027.105	496693.396			

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 46 FOR TYPICAL SECTIONS.

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

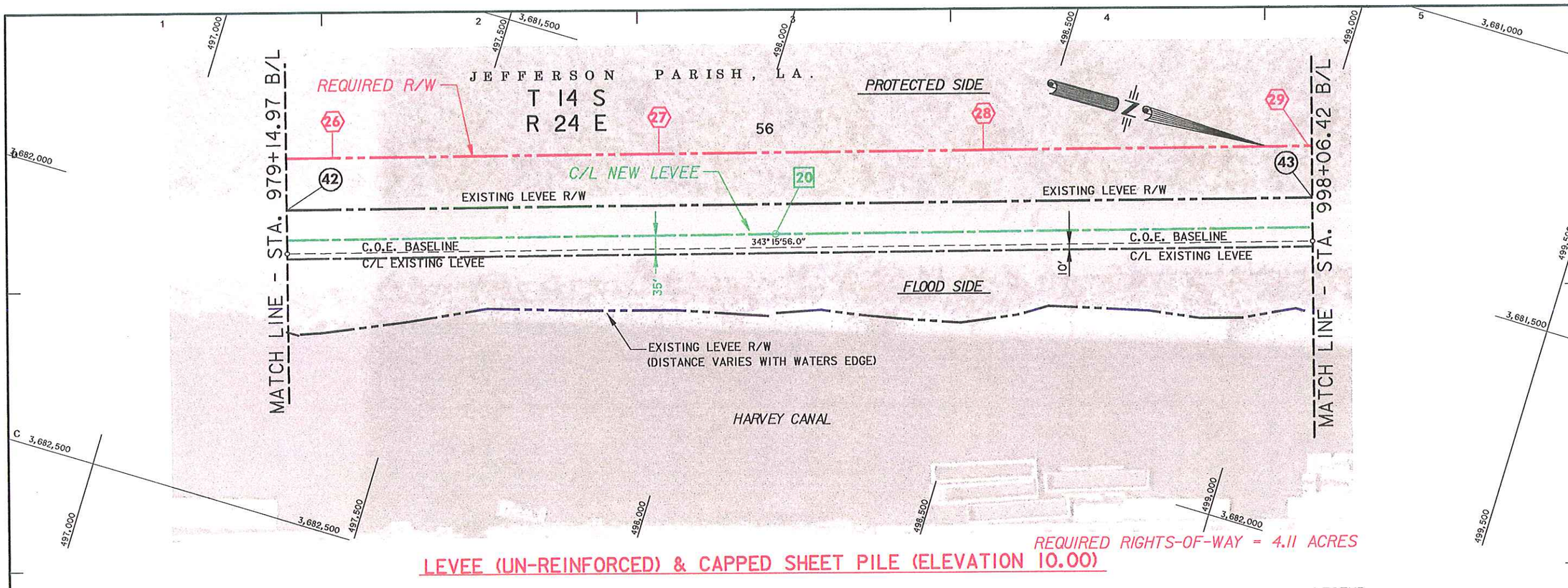
DESIGNED BY: CSH | DATE: 4/09
DWN BY: JWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALT-4.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 8/09

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 4
STA. 959+78.00 - STA. 979+14.97

ENGINEERING & CONSULTING BCG INC.
"Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

SHEET IDENTIFICATION NUMBER
33



REQUIRED RIGHTS-OF-WAY = 4.11 ACRES

LEVEE (UN-REINFORCED) & CAPPED SHEET PILE (ELEVATION 10.00)

PLAN - ALTERNATIVE 4

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- ○ = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 46 FOR TYPICAL SECTIONS.

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
42	3681953.1857	497209.3079	26	3681837.2320	497262.1068	20	3681737.1196	498084.7262
43	3681385.5669	499014.6853	27	3681658.1339	497834.7531			
			28	3681479.0459	498407.3995			
			29	3681299.9379	495980.0459			

ENGINEERING & CONSULTING INC.
BCG
"Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALT-4.8.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 5/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-AALTERNATIVE 4
STA. 979+14.97 - STA.998+06.42

SHEET IDENTIFICATION NUMBER
34

JEFFERSON PARISH, LA.

T 14 S
R 24 E

56

44

COUSINS PUMP STATION

LAPALCO BLVD.

REQUIRED 200'x400' STAGING AREA

STA. 1010+00 LIMIT OF SURVEY

STA. 1011+77.25 BEGIN NEW FLOODWALL

30' ACCESS EASEMENT

PROTECTED SIDE

APPROX. C/L EXIST. R/W

120'

STA. 1012+97.28

STA. 1017+59.47B/L

APPROX. C/L EXIST. R/W

REQUIRED R/W

EXISTING LEVEE R/W

C/L NEW LEVEE

C.O.E. BASELINE

C/L EXISTING LEVEE

AZ. 343°02'15.4"

35'

10'

C/L NEW FLOODWALL

STA. 1015+19.43B/L

C/L EXIST. FLOODWALL

C/L EXISTING LEVEE & SHEET PILING (TO BE REMOVED)

STA. 1013+31B/L CP9

LIMIT ON NEW WORK

STA. 1013+38, 17.64, RT

TIE TO EXIST. FLOODWALL

FLOOD SIDE

EXISTING LEVEE R/W
(DISTANCE VARIES WITH WATERS EDGE)

HARVEY CANAL

MATCH LINE - STA. 998+06.42 B/L

3,680,000 3,680,500 3,681,000 3,681,500

499,000 499,500 500,000 500,500 501,000 501,500

1 2 3 5

A B C D

LEVEE (UN-REINFORCED) & CAPPED SHEET PILE (ELEVATION 10.00)

PLAN - ALTERNATIVE 4

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 3.52 ACRES

STAGING AREA = 1.84 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
(44)	3681006.4746	500210.1379	(30)	3681125.5509	499553.4358	[21]	3680987.1991	500451.0573
			(31)	3680978.1361	500018.3034			
			(31)	3680857.2253	500399.5914			
			(31)	3680666.5813	500339.1360			
			(31)	3680714.5101	500466.2922			

NOTE:
1. SEE SHEET 46 FOR TYPICAL SECTIONS.
2. NEW FLOODWALL TIE INTO EXISTING FLOODWALL HAS NOT BEEN SPECIFICALLY ANALYZED BY GEOTECHNICAL ENGINEER AS THIS AREA OF WORK IS BEYOND THE LIMITS OF THE SURVEY.
3. SEE SHEET 48 FOR TYPICAL T-WALL SECTION & PILE LAYOUT.

ENGINEERING & CONSULTING BCG INC. "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: JWR | CKD BY: DTD
SUBMITTED BY: | SOLICITATION NO.: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT-4.DGN | PLOT SCALE: 100 | PLOT DATE: 8/08
SIZE: 22X34

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

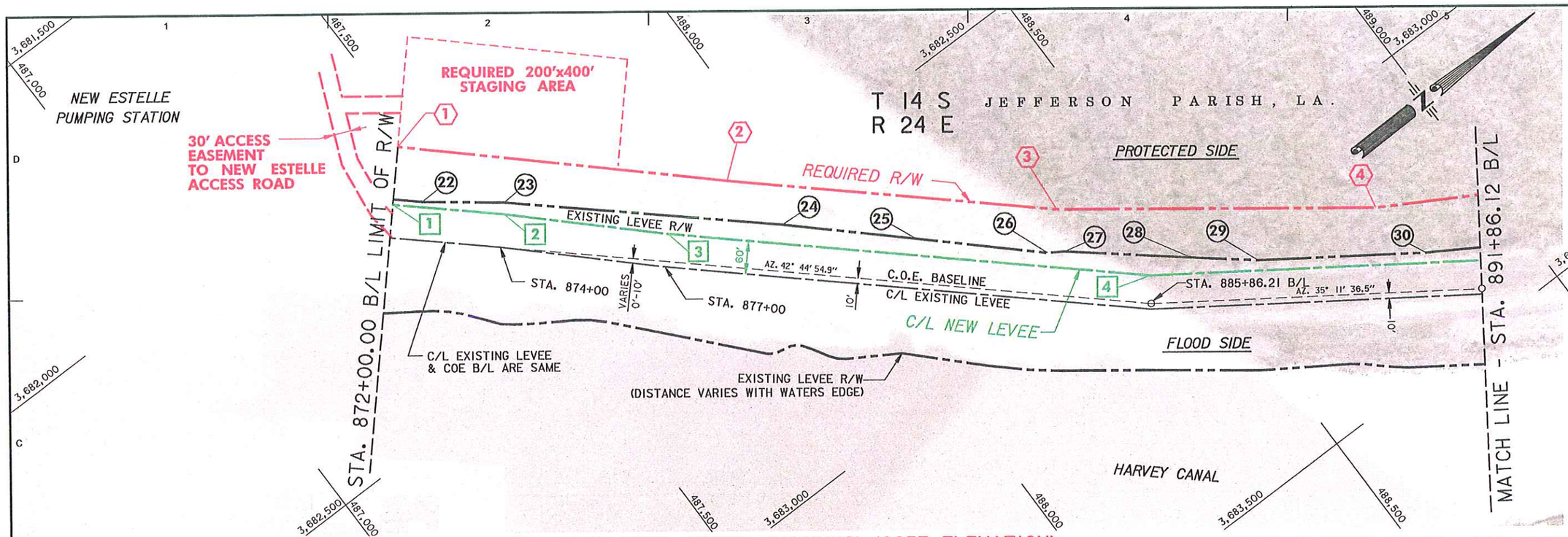
PLAN-ALTERNATIVE 4
STA. 998+06.42 - STA. 1013+38.00

SHEET IDENTIFICATION NUMBER
35

ALTERNATIVE NO. 5

LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

WBV 14a.2: HARVEY CANAL WEST BANK LEVEES



LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

PLAN - ALTERNATIVE 5

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 3.69 ACRES
STAGING AREA = 1.84 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 47 FOR TYPICAL SECTIONS.

RIGHTS OF WAY

EXISTING			REQUIRED			CL NEW LEVEE		
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
22	3682148.2230	487440.4093	1	3682042.5321	487465.8296	1	3682120.4202	487395.4133
23	3682239.2129	487557.9103	2	3682452.2613	487904.1239	2	3682255.7193	487545.0691
24	3682576.6507	487936.3733	3	3682854.6398	488349.1987	3	3682463.1528	487759.6020
25	3682742.7651	488113.7426	4	3683201.5712	488812.0779	4	3683053.1986	488412.2575
26	3682907.1802	488288.0276						
27	3682924.1238	488314.3452						
28	3683071.2989	488490.6177						
29	3683148.7822	488584.7958						
30	3683321.6432	488835.7555						

ALTERNATIVE 5
TABULATION OF RIGHTS-OF-WAY REQUIREMENTS

BASELINE STATION	REQUIRED RIGHTS-OF-WAY
872+00.00 TO 891+86.12	3.69 ACRES
891+86.12 TO 914+31.18	4.69 ACRES
914+31.18 TO 940+36.94	4.94 ACRES
940+36.94 TO 959+78.00	3.61 ACRES
959+78.00 TO 979+14.97	3.25 ACRES
979+14.97 TO 998+06.42	3.26 ACRES
998+06.42 TO 1013+38.00	3.24 ACRES
TOTAL REQUIRED RIGHTS-OF-WAY =	26.68 ACRES
TOTAL REQUIRED STAGING AREA =	4.71 ACRES

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

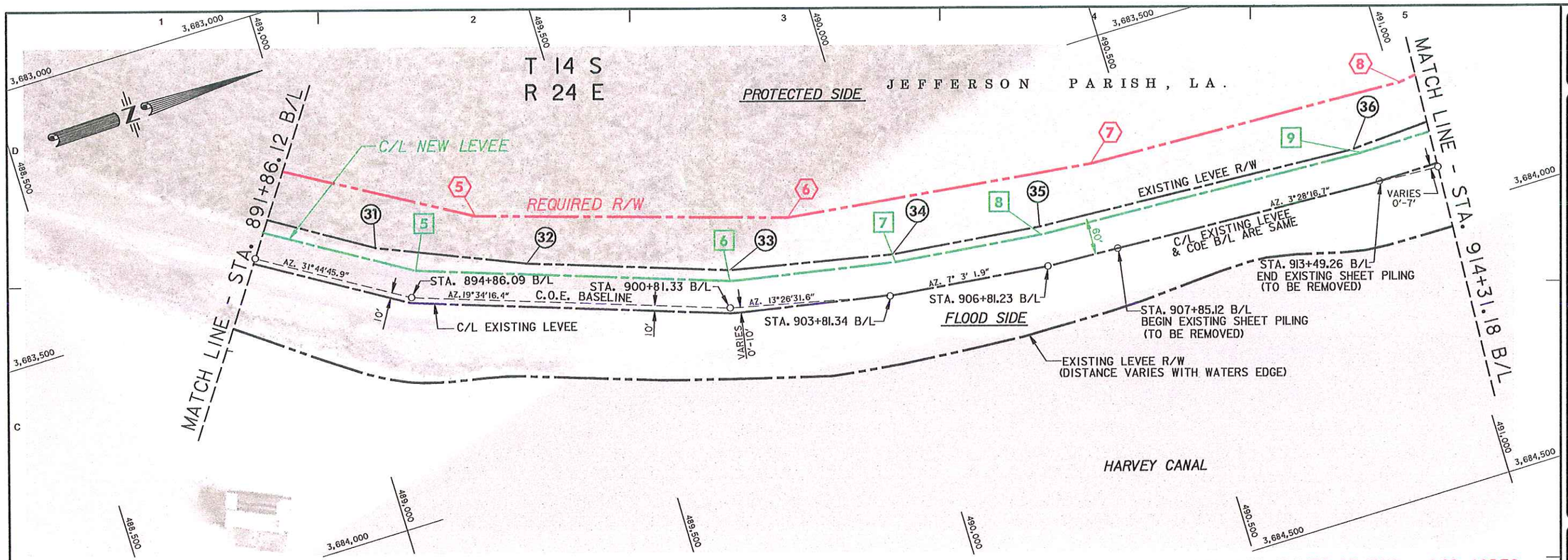
DESIGNED BY: CCH | DRAWN BY: RWR | SUBMITTED BY: | FILE NAME: ALT5-LDSN | SIZE: 22X34 | PLOT SCALE: 100 | DATE: 4/08 | SOLICITATION NO.: | CONTRACT NO.: | FILE NUMBER: | PLOT DATE: 6/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 5
STA. 872+00.00 - STA. 891+86.12

SHEET IDENTIFICATION NUMBER
36



REQUIRED RIGHTS-OF-WAY = 4.69 ACRES

LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

PLAN - ALTERNATIVE 5

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 47 FOR TYPICAL SECTIONS.

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
31	3683481.8449	489096.6353	5	3683480.2053	489292.5095	5	3683544.4983	489156.3467
32	3683592.5649	489358.0755	6	3683654.1961	489849.1749	6	3683734.7479	489710.8829
33	3683715.4826	489716.3538	7	3683724.2226	490419.2653	7	3683792.1053	490017.0863
34	3683776.9646	490016.6288	8	3683748.0516	491014.0331	8	3683823.0750	490292.5445
35	3683808.1209	490293.7476				9	3683853.5089	490907.0143
36	3683842.2397	490894.8864						

ENGINEERING & CONSULTING BCG INC. "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

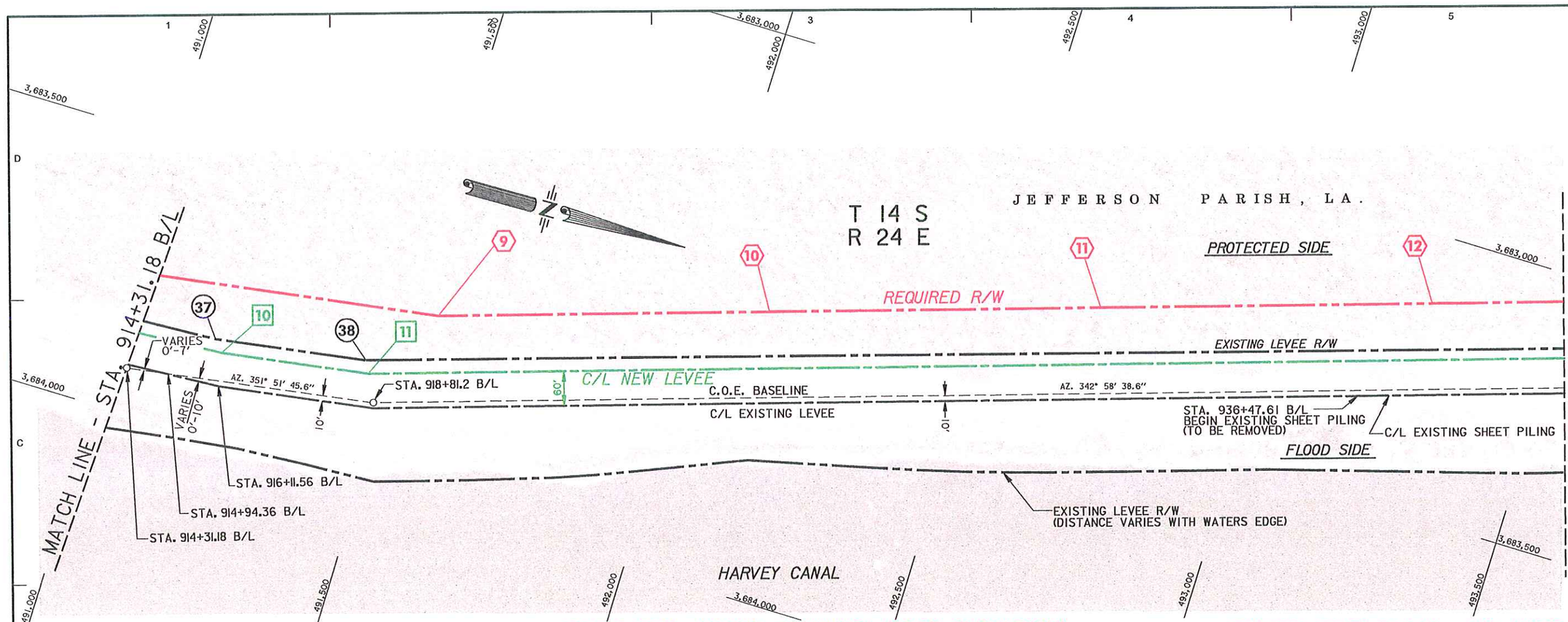
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH
DRAWN BY: RWR
CHKD BY: DTD
SUBMITTED BY:
FILE NAME: ALT-5-ZOOM
SIZE: 22X34
PLOT SCALE: 100
DATE:
SOLICITATION NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 9/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL/WEST BANK LEVEE-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 5
STA. 891+86.12 - STA. 914+31.18

SHEET IDENTIFICATION NUMBER
37



LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

PLAN - ALTERNATIVE 5

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 4.94 ACRES

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
(37)	3683824.0121	491173.9949	⟨9⟩	3683667.6428	491547.5928	[10]	3683844.7972	491191.7734
(38)	3683781.9456	491446.5743	⟨10⟩	3683485.6381	492119.3220	[11]	3683803.8059	491457.3858
			⟨11⟩	3683303.6334	492691.0512			
			⟨12⟩	3683121.6287	493262.7804			

LEGEND

- ○ = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 47 FOR TYPICAL SECTIONS.

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

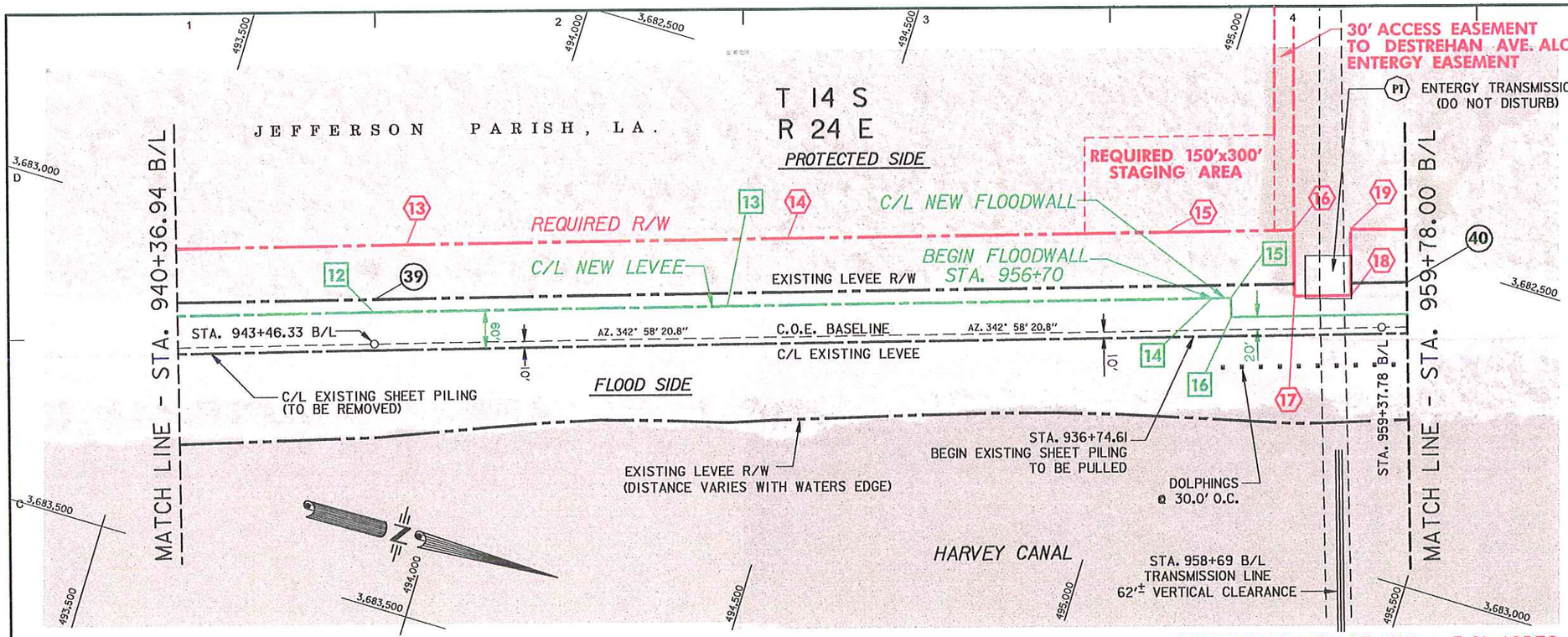
DESIGNED BY: CCH
DRAWN BY: RWR
CHKD BY: DTD
SUBMITTED BY:
FILE NAME: ALT-5.DGN
SIZE: 22X34
PLOT SCALE: 100
DATE: 4/08
SOLICITATION NO.:
CONTRACT NO.:
FILE NUMBER:
PLOT DATE: 8/08

VICKSBURG AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 5
STA. 914+31.18 - STA. 940+36.94

ENGINEERING & CONSULTING, INC. BCG "Excellence in Engineering"
3701 KINGMAN ST.
METAIRIE, LOUISIANA

SHEET IDENTIFICATION NUMBER
38



REQUIRED RIGHTS-OF-WAY = 3.61 ACRES
STAGING AREA = 1.03 ACRES

LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

PLAN - ALTERNATIVE 5

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
39	3683036.7164	493809.7395	13	3682939.6757	493834.3353	12	3683055.9359	493815.2853
40	3682541.3324	495364.6974	14	3682757.6321	494406.0522	13	3682886.9248	494346.0730
			15	3682575.5885	494977.7690	14	3682654.4324	495076.2361
			16	3682514.9073	495168.3413	15	3682645.3303	495104.8220
			17	3682613.6678	495199.8446	16	3682673.9162	495113.9241
			18	3682586.4791	495285.2316			
			19	3682487.6007	495254.0988			

SCHEDULE OF RELOCATION				
ITEM	BASELINE STATION	DESCRIPTION	OWNER	DISPOSITION
P1	958+69	TRANSMISSION LINE	ENTERGY	DO NOT DISTURB

NOTES:
1. SEE SHEET 47 FOR TYPICAL SECTIONS.
2. SEE SHEET 51 FOR PLAN-FLOODWALL AT TRANSMISSION TOWER.
3. DOLPHINS REQUIRED @ 30.0' O.C. IN FRONT OF FLOODWALL @ TRANSMISSION TOWER, SEE SHEET 50 FOR DOLPHIN DETAILS.
4. PROPOSED CONSTRUCTION OF ALTERNATIVES 1,2, & 5 CONFLICT WITH THE ENTERGY TRANSMISSION TOWER. FOR EACH OF THESE THREE ALTERNATIVES A "DO NOT DISTURB" OPTION (SHOWN ON THIS DRAWING) AND A "TOWER RELOCATION" OPTION (SEE SHEET 52) ARE PRESENTED.

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US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

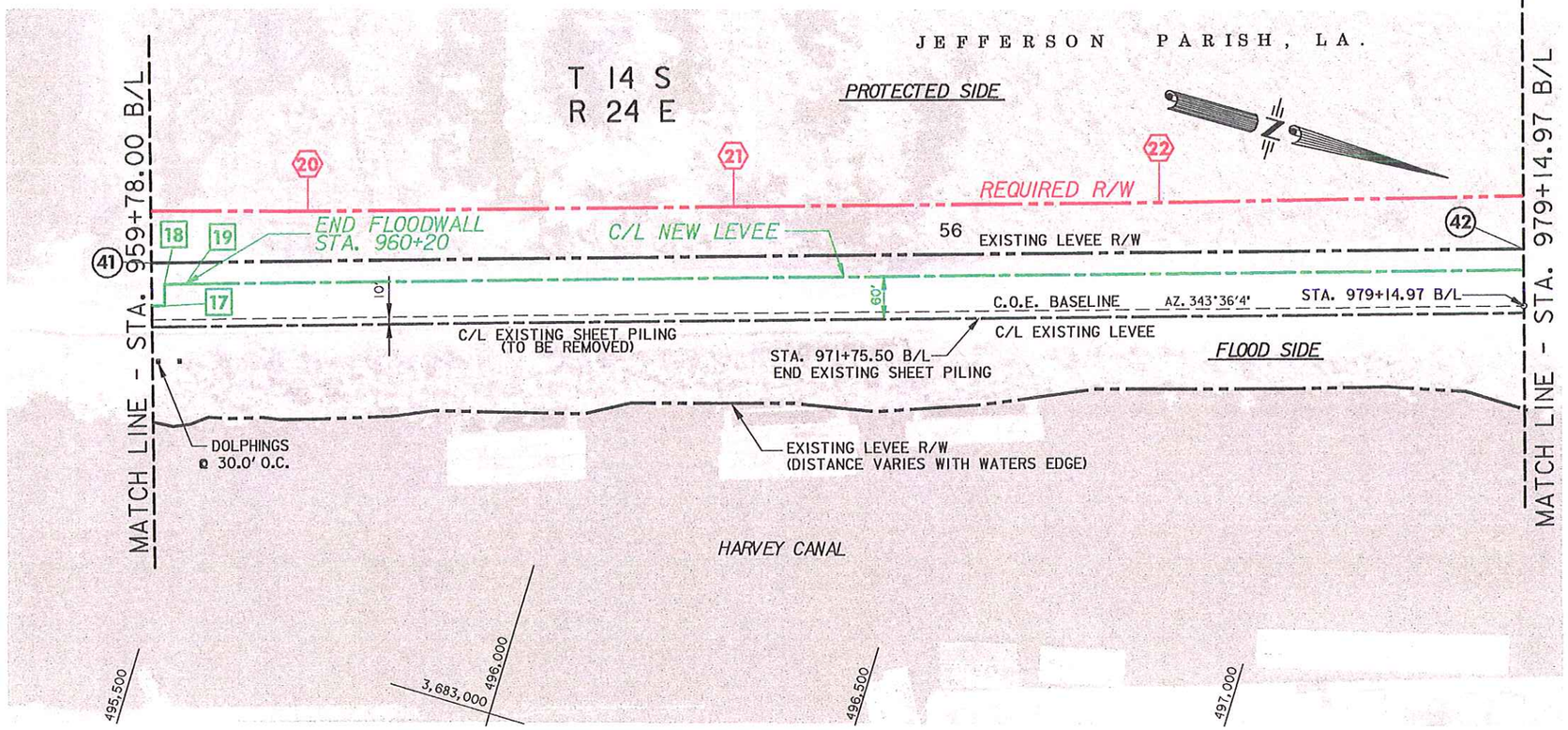
DESIGNED BY: CDH DATE: 408
DWN BY: RVR CKD BY: DTD SOLICITATION NO.:
SUBMITTED BY: CONTRACT NO.:
FILE NAME: ALT5-4.DGN FILE NUMBER:
SIZE: 22X34 PLOT SCALE: 100 PLOT DATE: 5/09

VICKSBURG AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-148.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 5
STA. 940+36.94 - STA. 959+78.00

SHEET IDENTIFICATION NUMBER
39



LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

PLAN - ALTERNATIVE 5

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 3.25 ACRES

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION		POINT	LOCATION		POINT	LOCATION	
	X	Y		X	Y		X	Y
41	3682532.3636	495361.0264	20	3682399.1970	495551.9054	17	3682584.2173	495396.2155
42	3681953.1857	497209.3079	21	3682219.7834	496124.4529	18	3682555.5899	495387.2448
			22	3682040.3697	496697.0005	19	3682546.6192	495415.8722

NOTES:
1. SEE SHEET 47 FOR TYPICAL SECTIONS.
2. DOLPHINS REQUIRED @ 30.0' O.C. IN FRONT OF FLOODWALL @ TRANSMISSION TOWER, SEE SHEET 50 FOR DOLPHIN DETAILS

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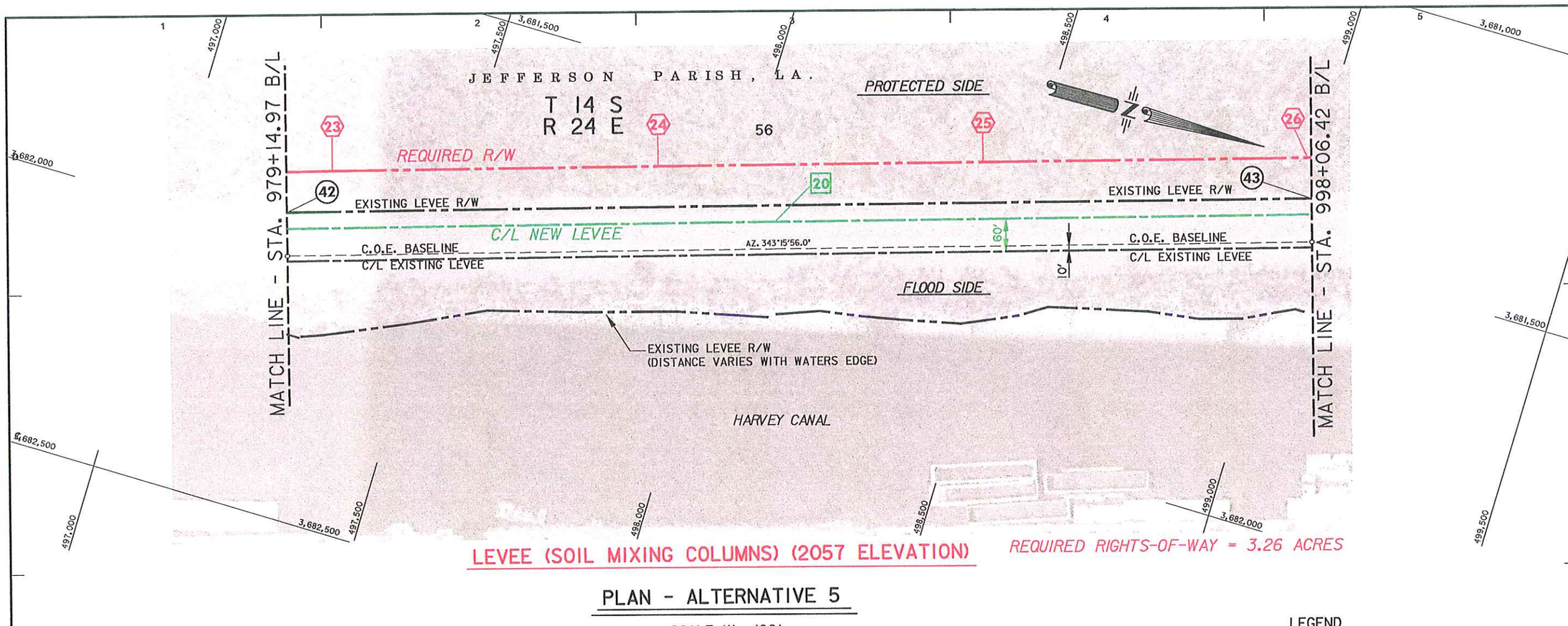
DESIGNED BY: CCH | DATE: 4/08
DWN BY: RWR | CHD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALT-5&DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 8/09

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-ALTERNATIVE 5
STA. 959+78.00 - STA. 979+14.97

SHEET IDENTIFICATION NUMBER
40



LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

REQUIRED RIGHTS-OF-WAY = 3.26 ACRES

PLAN - ALTERNATIVE 5

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

LEGEND

- ○ = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 47 FOR TYPICAL SECTIONS.

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
42	3681953.1857	497209.3079	23	3681856.3110	497268.1062	20	3681713.2493	498077.2930
43	3681385.5669	499014.6853	24	3681677.2129	497840.7526			
			25	3681498.1149	498413.3989			
			26	3681319.0169	498986.0453			

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US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALT-5-8.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 5/08

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA

PLAN-AALTERNATIVE 5
STA. 979+14.97 - STA.998+06.42

SHEET IDENTIFICATION NUMBER
41

JEFFERSON PARISH, LA.

T 14 S
R 24 E

56

44

COUSINS PUMP STATION

LAPALCO BLVD.

REQUIRED 200'x400' STAGING AREA

STA. 1010+00 LIMIT OF SURVEY

STA. 1011+53.24 BEGIN NEW FLOODWALL

STA. 1012+73.24

30' ACCESS EASEMENT

PROTECTED SIDE

REQUIRED R/W

EXISTING LEVEE R/W

C/L NEW LEVEE

C.O.E. BASELINE

C/L EXISTING LEVEE

AZ. 343°02'15.4"

60'

10'

120'

C/L NEW FLOODWALL

STA. 1017+59.47B/L

APPROX. C/L EXIST. R/W

STA. 1015+19.43B/L

C/L EXIST. FLOODWALL

APPROX. C/L EXIST. R/W

C/L EXISTING LEVEE & SHEET PILING (TO BE REMOVED)

STA. 1013+31B/L CP9

LIMIT ON NEW WORK STA. 1013+38, 17.64, RT TIE TO EXIST. FLOODWALL

FLOOD SIDE

EXISTING LEVEE R/W (DISTANCE VARIES WITH WATERS EDGE)

HARVEY CANAL

MATCH LINE - STA. 998+06.42 B/L

27 28 29 30 31 44 21

3,680,000 3,680,500 3,681,000 3,681,500

499,000 499,500 500,000 500,500 501,000 501,500

1 2 3 4 5

A B C D

LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

PLAN - ALTERNATIVE 5

SCALE: 1" = 100'

100' 0 100' 200' 300' 400'

REQUIRED RIGHTS-OF-WAY = 3.24 ACRES
STAGING AREA = 1.84 ACRES

RIGHTS OF WAY						C/L NEW LEVEE		
EXISTING			REQUIRED					
POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y	POINT	LOCATION X	LOCATION Y
44	3681006.4746	500210.1379	27	3681136.5646	499556.8954	21	3680970.6993	500420.5695
			28	3680988.0557	500021.4490			
			29	3680866.1888	500402.4339			
			30	3680666.5813	500339.1360			
			31	3680714.5101	500466.2922			

LEGEND

- O = BASELINE P.I. POINT
- = C.O.E. BASELINE
- = C/L EXISTING LEVEE
- = EXISTING LEVEE R/W
- = UTILITY
- = C/L NEW LEVEE
- = REQUIRED R/W

NOTES:
1. SEE SHEET 47 FOR TYPICAL SECTIONS.
2. NEW FLOODWALL TIE INTO EXISTING FLOODWALL HAS NOT BEEN SPECIFICALLY ANALYZED BY GEOTECHNICAL ENGINEER AS THIS AREA OF WORK IS BEYOND THE LIMITS OF THE SURVEY.
3. SEE SHEET 48 FOR TYPICAL T-WALL SECTION & PILE LAYOUT.

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US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS NEW ORLEANS DISTRICT MISSISSIPPI VALLEY DIVISION

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DWN BY: RWR | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: | FILE NUMBER:
FILE NAME: ALT-5-7.DGN
SIZE: 22X34 | PLOT SCALE: 100 | PLOT DATE: 9/08

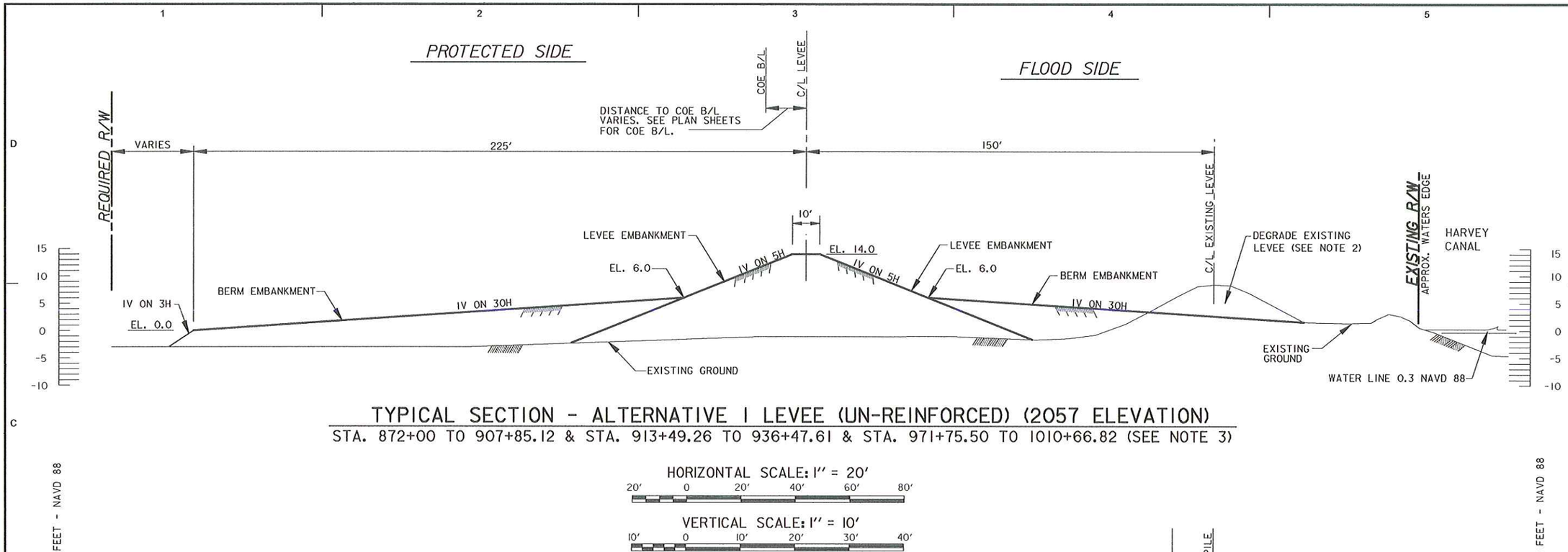
WATERMARK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMP STATION TO LAPALCO BLVD.

PLAN-ALTERNATIVE 5
STA. 998+06.42 - STA. 1013+38.00

SHEET IDENTIFICATION NUMBER
42

SECTIONS AND DETAILS

WBV 14a.2: HARVEY CANAL WEST BANK LEVEES



TYPICAL SECTION - ALTERNATIVE I LEVEE (UN-REINFORCED) (2057 ELEVATION)

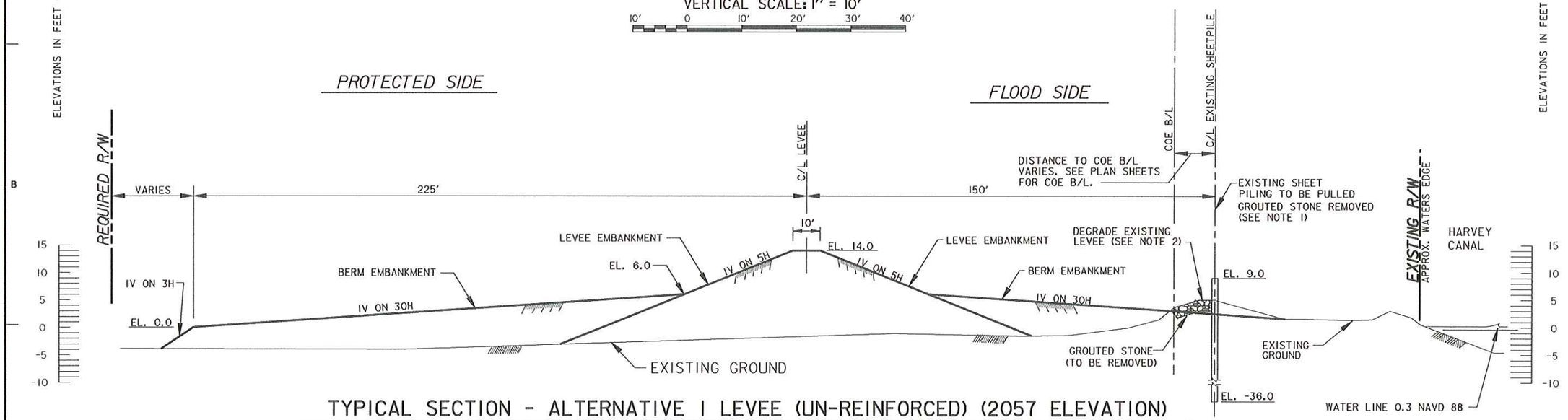
STA. 872+00 TO 907+85.12 & STA. 913+49.26 TO 936+47.61 & STA. 971+75.50 TO 1010+66.82 (SEE NOTE 3)

HORIZONTAL SCALE: 1" = 20'

20' 0 20' 40' 60' 80'

VERTICAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'



TYPICAL SECTION - ALTERNATIVE I LEVEE (UN-REINFORCED) (2057 ELEVATION)

STA. 907+85.12 TO 913+49.26 & STA. 936+47.61 TO 956+70 & STA. 960+20 TO 971+75.50 (SEE NOTE 2)

NOTES:

1. EXISTING PROTECTION TO REMAIN IN PLACE UNTIL EQUAL PROTECTION IS PROVIDED BY NEW CONSTRUCTION.
2. STA. 956+70 TO STA. 960+20 MAYBE FLOODWALL (SEE SHT. 51) OR LEVEE (SEE SHT. 52) DEPENDING ON WHICH TRANSMISSION TOWER CONFLICT RESOLUTION OPTION COE CHOOSES.
3. STA. 1010+66.82 TO STA. 1013+38 FLOODWALL REQUIRED (SEE SHT. 48) FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.

HORIZONTAL SCALE: 1" = 20'

20' 0 20' 40' 60' 80'

VERTICAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

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US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

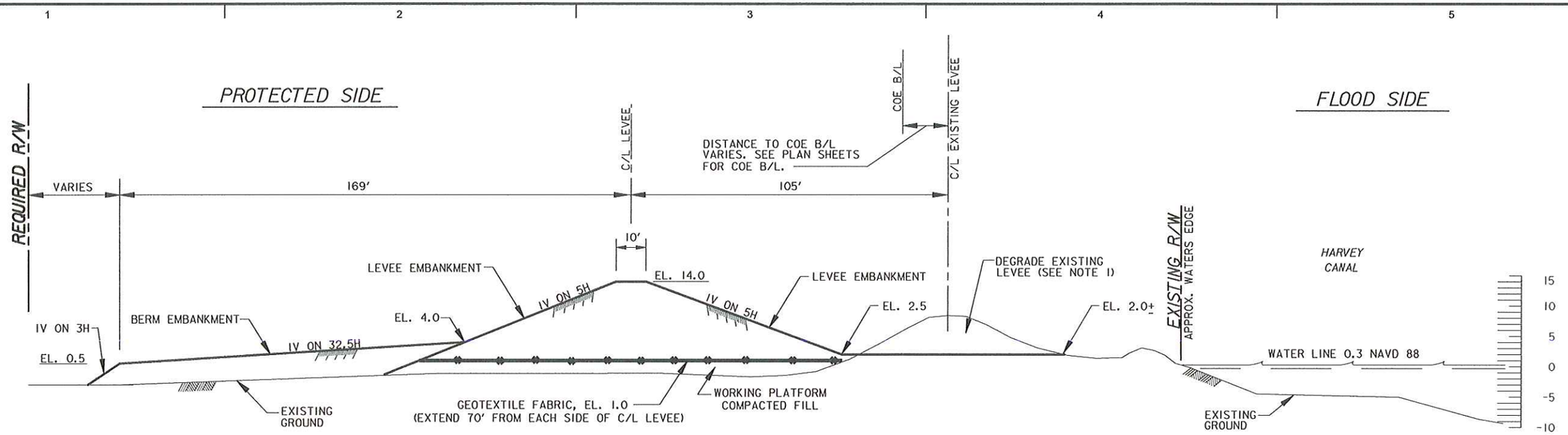
U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: CLD | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALT1_TYPICAL SECTIONS.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 40 | PLOT DATE: 4/09/2008

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

ALTERNATIVE 1 TYPICAL SECTIONS

SHEET IDENTIFICATION NUMBER
43



TYPICAL SECTION - ALTERNATIVE 2 LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION)

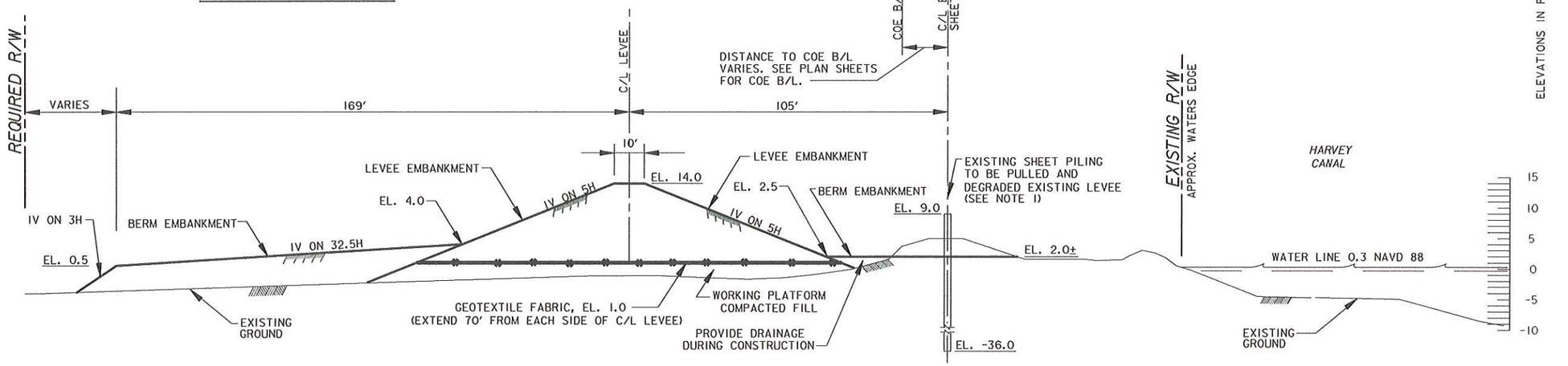
STA. 872+00 TO 907+85.12 & STA. 913+49.26 TO 936+47.61 & STA. 971+75.50 TO 1011+10.19 (SEE NOTE 3)

HORIZONTAL SCALE: 1" = 20'

20' 0 20' 40' 60' 80'

VERTICAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'



TYPICAL SECTION - ALTERNATIVE 2 LEVEE (GEOTEXTILE REINFORCED) (2057 ELEVATION)

STA. 907+85.12 TO 913+49.26 & STA. 936+47.61 TO 956+70 & STA. 960+20 TO 971+75.50 (SEE NOTE 2)

NOTES:

1. EXISTING PROTECTION TO REMAIN IN PLACE UNTIL EQUAL PROTECTION IS PROVIDED BY NEW CONSTRUCTION.
2. STA. 956+70 TO STA. 960+20 MAYBE FLOODWALL (SEE SHT. 51) OR LEVEE (SEE SHT. 52) DEPENDING ON WHICH TRANSMISSION TOWER CONFLICT RESOLUTION OPTION COE CHOOSES.
3. STA. 1011+10.19 TO STA. 1013+38 FLOODWALL REQUIRED (SEE SHT. 48) FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.

HORIZONTAL SCALE: 1" = 20'

20' 0 20' 40' 60' 80'

VERTICAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

ENGINEERING & CONSULTING INC. BCG "Excellence in Engineering" 2701 KINGMAN ST. METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
MARK	DESCRIPTION	DATE	APPR.

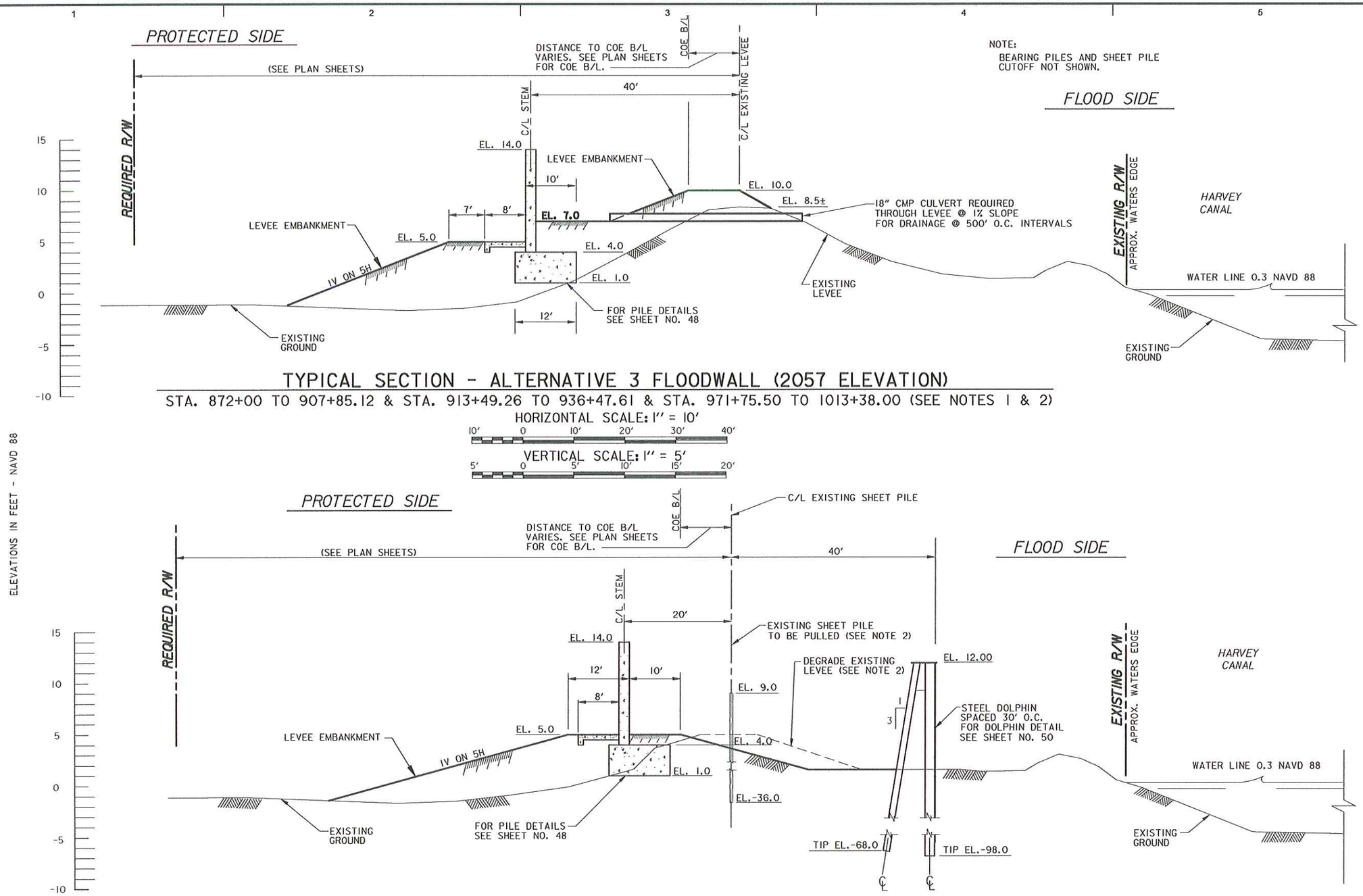
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CDH	DATE:	408	
DRAWN BY: CLD	CHKD BY: DTD	SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.:	
FILE NAME: ALT2_TYPICAL SECTIONS.DGN			FILE NUMBER:
SIZE: 22X34	PLOT SCALE: 40		PLOT DATE: 4/30/2008

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-44a.2
REPLACEMENT OF HURRICANE PROTECTION ON
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

ALTERNATIVE 2 TYPICAL SECTIONS

SHEET IDENTIFICATION NUMBER
44



TYPICAL SECTION - ALTERNATIVE 3 FLOODWALL (2057 ELEVATION)

STA. 872+00 TO 907+85.12 & STA. 913+49.26 TO 936+47.61 & STA. 971+75.50 TO 1013+38.00 (SEE NOTES 1 & 2)

HORIZONTAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

VERTICAL SCALE: 1" = 5'

5' 0 5' 10' 15' 20'

TYPICAL SECTION - ALTERNATIVE 3 FLOODWALL (2057 ELEVATION)

STA. 907+85.12 TO 913+49.26 & STA. 936+47.61 TO 971+75.50

HORIZONTAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

VERTICAL SCALE: 1" = 5'

5' 0 5' 10' 15' 20'

NOTES:

1. FOR TYPICAL T-WALL SECTION & PILING LAYOUT (SEE DWG. NO. 48).
2. EXISTING PROTECTION TO REMAIN IN PLACE UNTIL EQUAL PROTECTION IS PROVIDED BY NEW CONSTRUCTION.

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US ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

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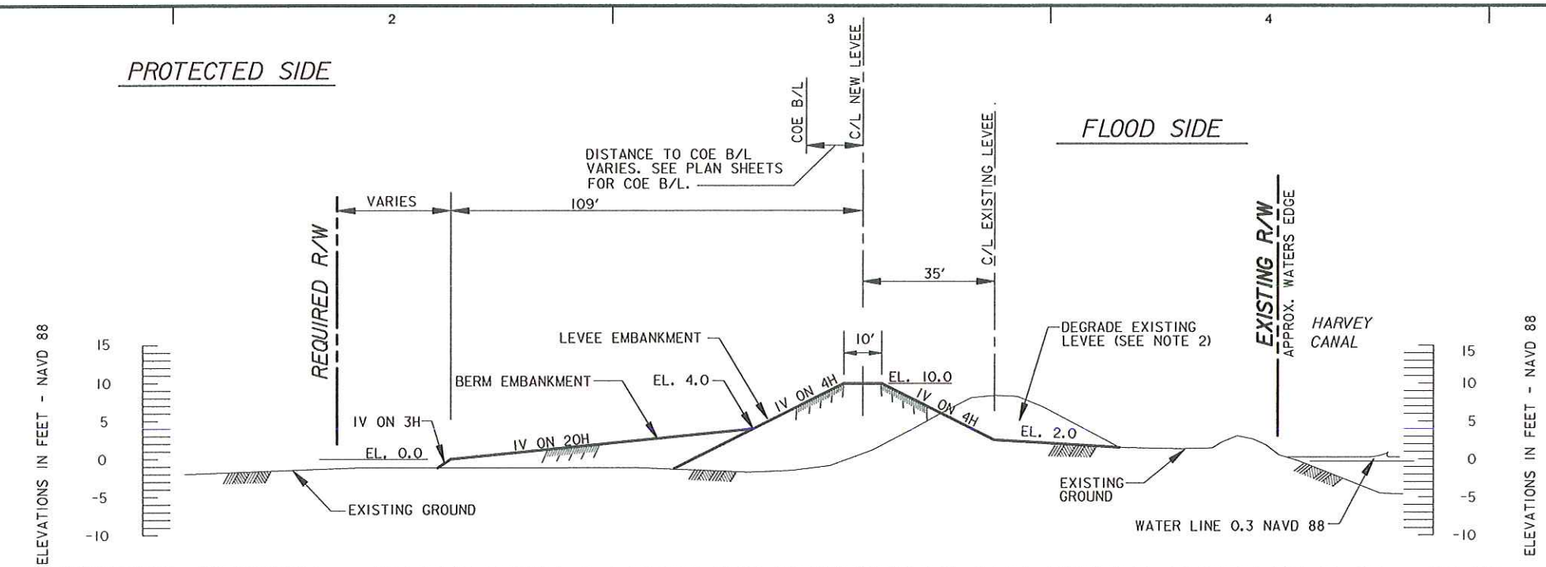
DWN BY: CLD | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALT3_TYPICAL SECTIONS.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 20 | PLOT DATE: 4/09/2008

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

ALTERNATIVE 3
TYPICAL SECTIONS

SHEET IDENTIFICATION NUMBER
45



TYPICAL SECTION - ALTERNATIVE 4 LEVEE (UN-REINFORCED) AND CAPPED SHEET PILE (EL. 10.0)

STA. 872+00 TO 907+85.12 & STA. 913+49.26 TO 936+47.61 & STA. 971+75.50 TO 1011+77.25 (SEE NOTE 3)

HORIZONTAL SCALE: 1" = 20'

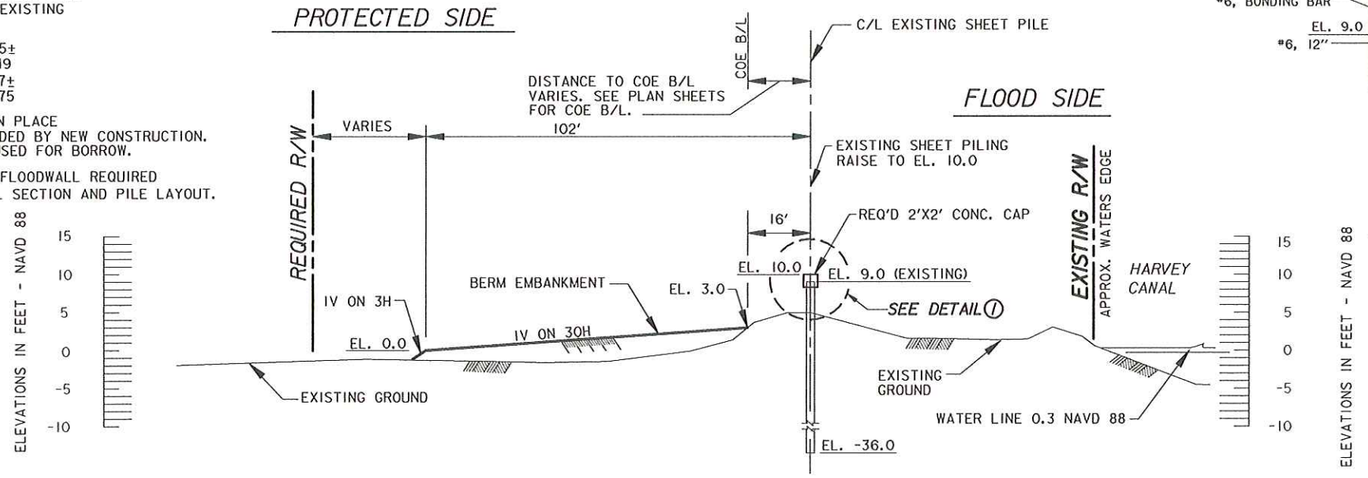
20' 0 20' 40' 60' 80'

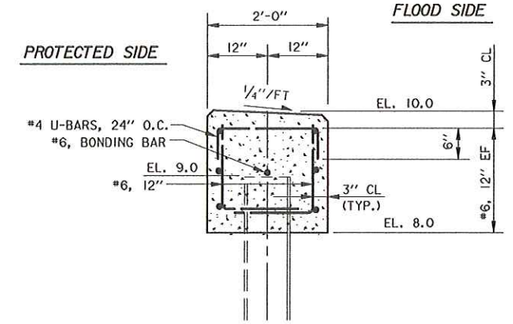
VERTICAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

NOTES:

1. NEW LEVEE TO OVERLAP EXISTING SHEET PILE BY 75' AND SLOPE @1V ON 3H TO EXISTING GROUND AT THESE 5 LOCATIONS:
   STA. 907+85 TO STA. 908+95±
   STA. 912+39± TO STA. 913+49
   STA. 936+47 TO STA. 937+57±
   STA. 970+65± TO STA. 971+75
2. EXISTING PROTECTION TO REMAIN IN PLACE UNTIL EQUAL PROTECTION IS PROVIDED BY NEW CONSTRUCTION. EXISTING LEVEE MATERIAL TO BE USED FOR BORROW.
3. STA. 1011+77.25 TO STA. 1013+38 FLOODWALL REQUIRED (SEE SHT. 48) FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.





DETAIL 1

TYPICAL SECTION - ALTERNATIVE 4 LEVEE (UN-REINFORCED) AND CAPPED SHEET PILE (EL. 10.0)

STA. 907+85.12 TO STA. 913+49.26 & STA. 936+47.61 TO STA. 971+75.50 (SEE NOTE 1)

HORIZONTAL SCALE: 1" = 20'

20' 0 20' 40' 60' 80'

VERTICAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/09
DWN BY: CLD | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALT4_TYPICAL SECTIONS.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 40 | PLOT DATE: 4/09/2008

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

ALTERNATIVE 4
TYPICAL SECTIONS

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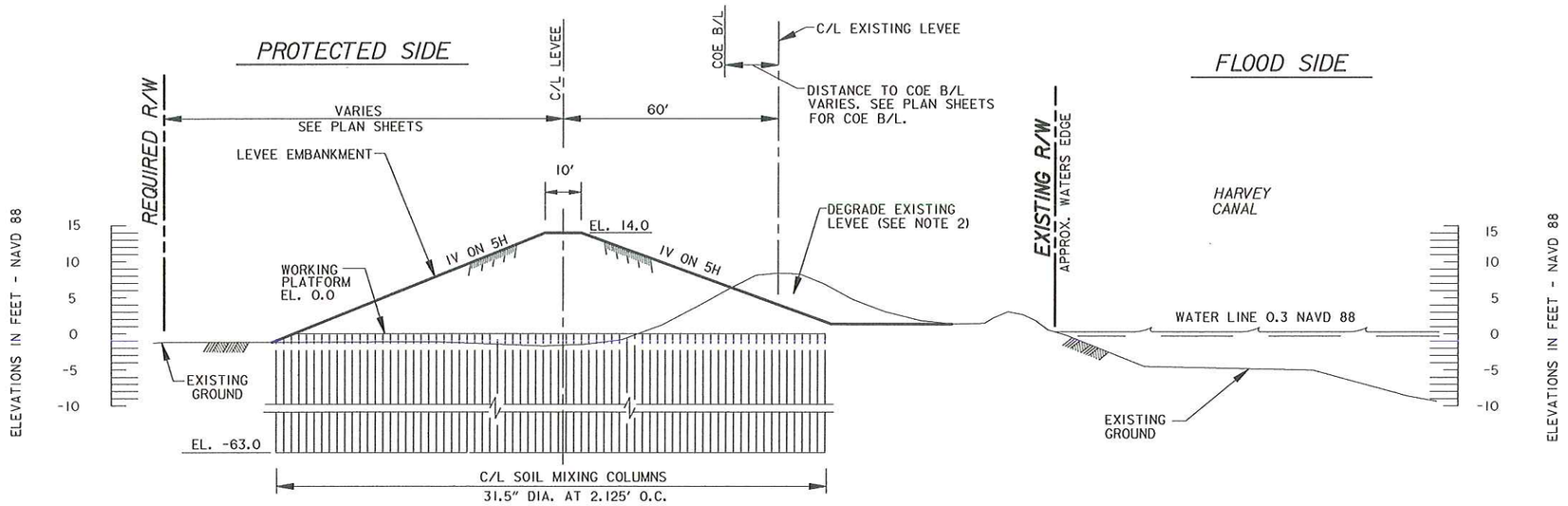
2701 KINGMAN ST.
METAIRIE, LOUISIANA

SHEET IDENTIFICATION NUMBER
46



TYPICAL SECTION - ALTERNATIVE 5 LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

STA. 872+00 TO 907+85.12 & STA. 913+49.26 TO 936+47.61 & STA. 971+75.50 TO 1011+53.24 (SEE NOTE 4)

HORIZONTAL SCALE: 1" = 20'

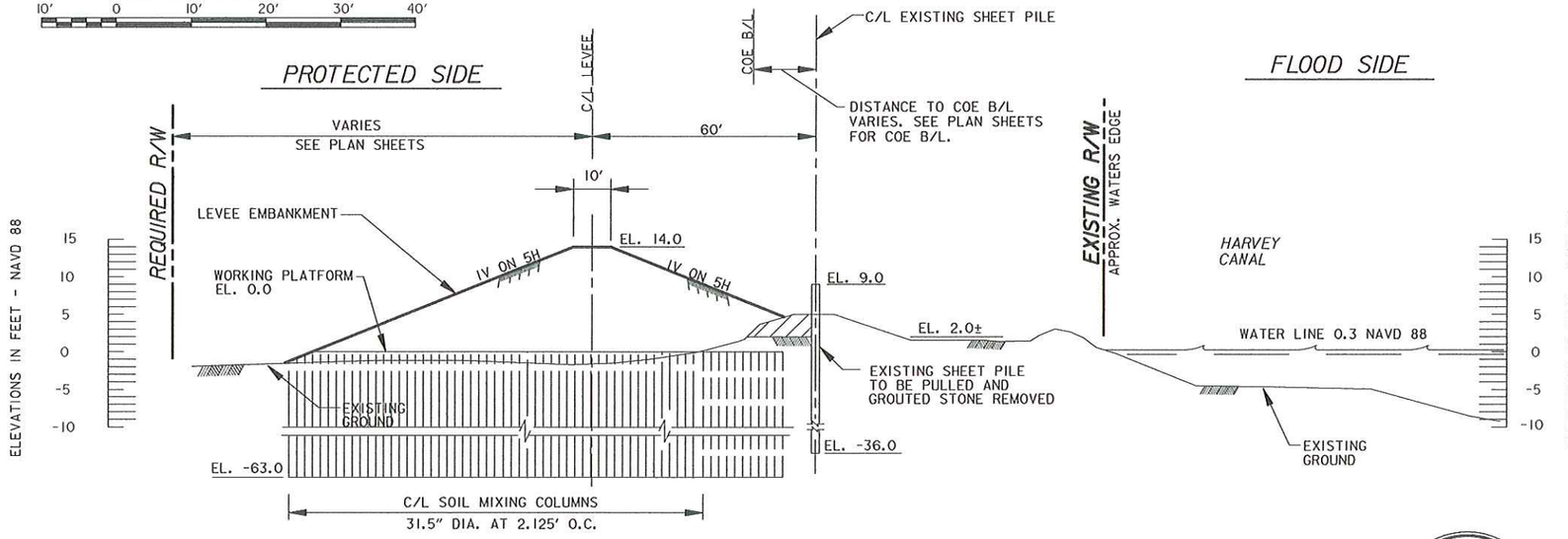
20' 0 20' 40' 60' 80'

VERTICAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

NOTES:

1. FOR SOIL MIXING COLUMN DETAILS (SEE DWG. NO. 49).
2. NO MORE THAN 500 LF OF EXISTING PROTECTION IS TO BE DEGRADED AT ANY TIME.
3. STA. 956+70 TO STA. 960+20 MAYBE FLOODWALL (SEE SHT. 51) OR LEVEE (SEE SHT. 52) DEPENDING ON WHICH TRANSMISSION TOWER CONFLICT RESOLUTION OPTION COE CHOOSES.
4. STA. 1011+53.24 TO STA. 1013+38 FLOODWALL REQUIRED (SEE SHT. 48) FOR TYPICAL T-WALL SECTION AND PILE LAYOUT.



TYPICAL SECTION - ALTERNATIVE 5 LEVEE (SOIL MIXING COLUMNS) (2057 ELEVATION)

STA. 907+85.12 TO 913+49.26 & STA. 936+47.61 TO 956+70 & STA. 960+20 TO 971+75.50 (SEE NOTE 3)

HORIZONTAL SCALE: 1" = 20'

20' 0 20' 40' 60' 80'

VERTICAL SCALE: 1" = 10'

10' 0 10' 20' 30' 40'

ENGINEERING & CONSULTING INC.
BCG
"Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

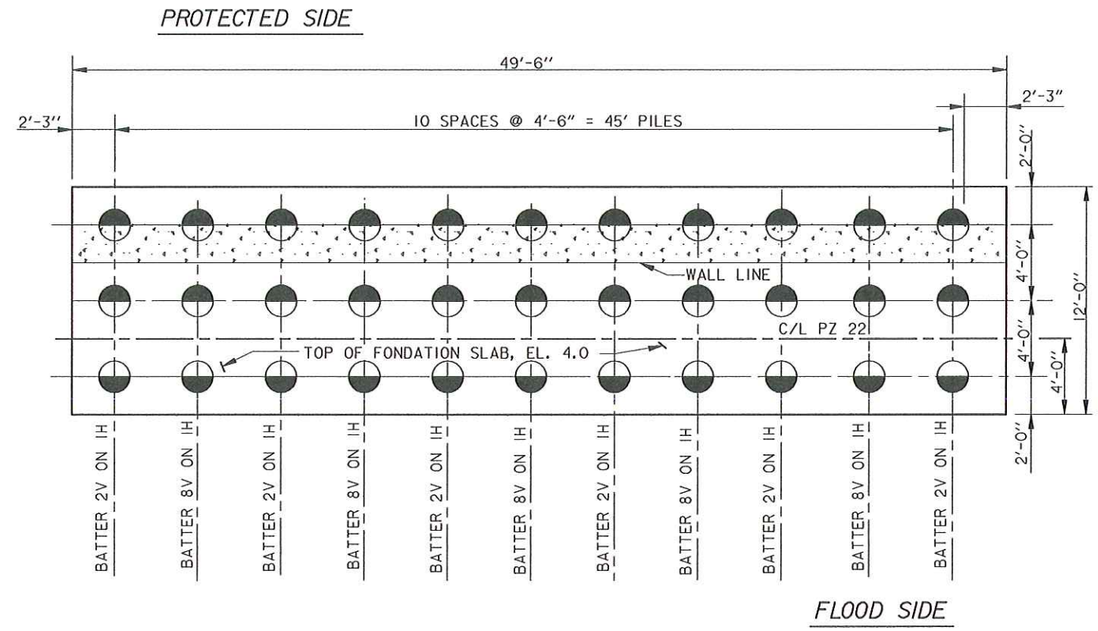
U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: CLD | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: ALTE_TYPICAL SECTIONS.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 40 | PLOT DATE: 4/09/2008

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

ALTERNATIVE 5
TYPICAL SECTIONS

SHEET IDENTIFICATION NUMBER
47



TYPICAL FOUNDATION PLAN

SCALE: 1/4" = 1'- 0"

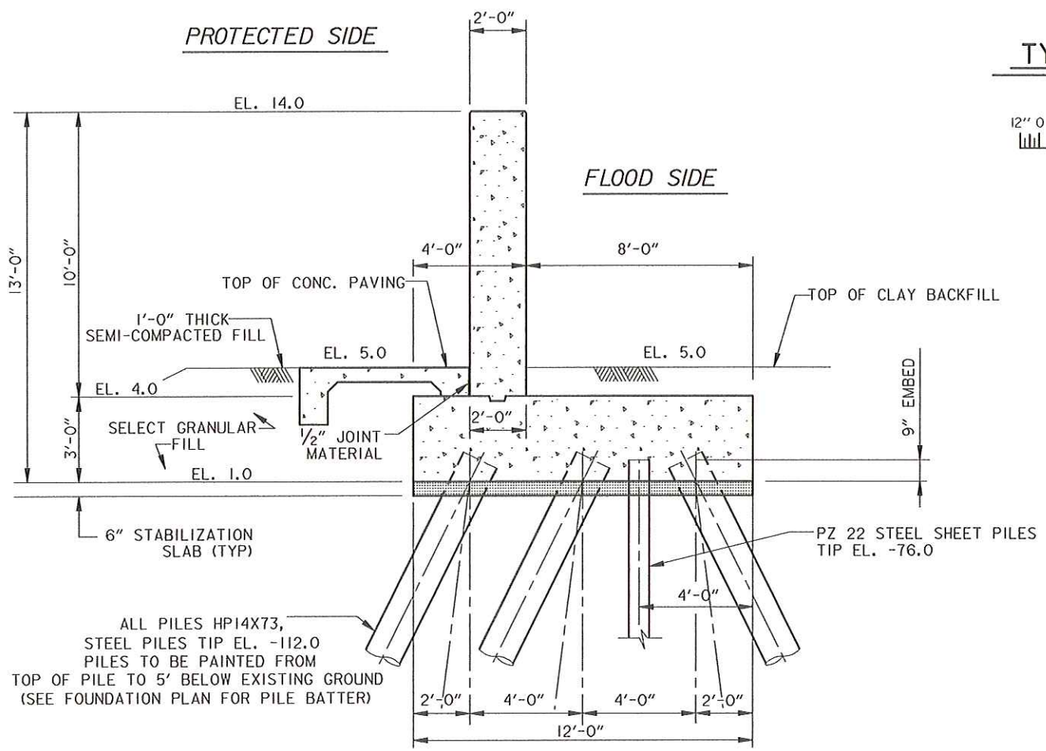
12" 0 5' 10' 15' 20'

NOTE:
ALL PILES HP14X73

PILE LEGEND

DIRECTION OF BATTER

BATTER PILE (TIP EL. -112.0)



TYPICAL T-WALL SECTION

SCALE: 3/8" = 1'- 0"

12" 0 2' 4' 6' 8' 10'

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METAIRIE, LOUISIANA

US ARMY CORPS
OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

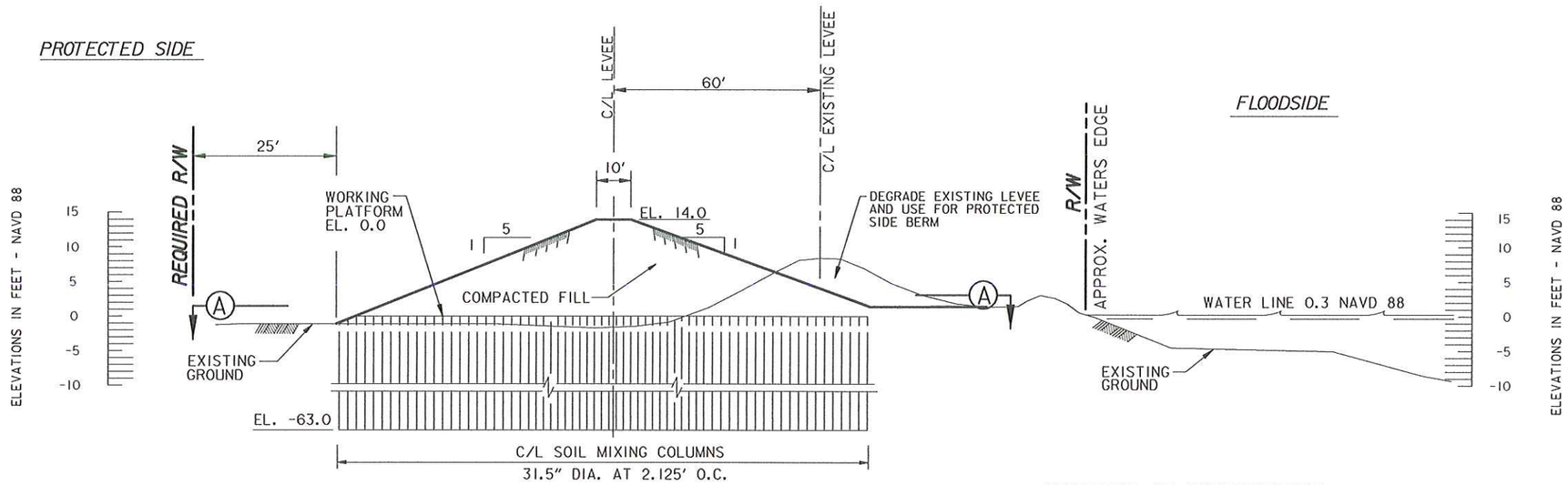
U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH
DATE: 4/08
DWN BY: CLD
CKD BY: DTD
SOLICITATION NO.:
SUBMITTED BY:
CONTRACT NO.:
FILE NAME: TYPICAL T-WALL SECTION AND PILE LAYOUT.DGN
FILE NUMBER:
SIZE: 22X34
PLOT SCALE: 5:4
PLOT DATE: 4/09/2008

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

TYPICAL T-WALL SECTION AND
PILE LAYOUT

SHEET
IDENTIFICATION
NUMBER
48

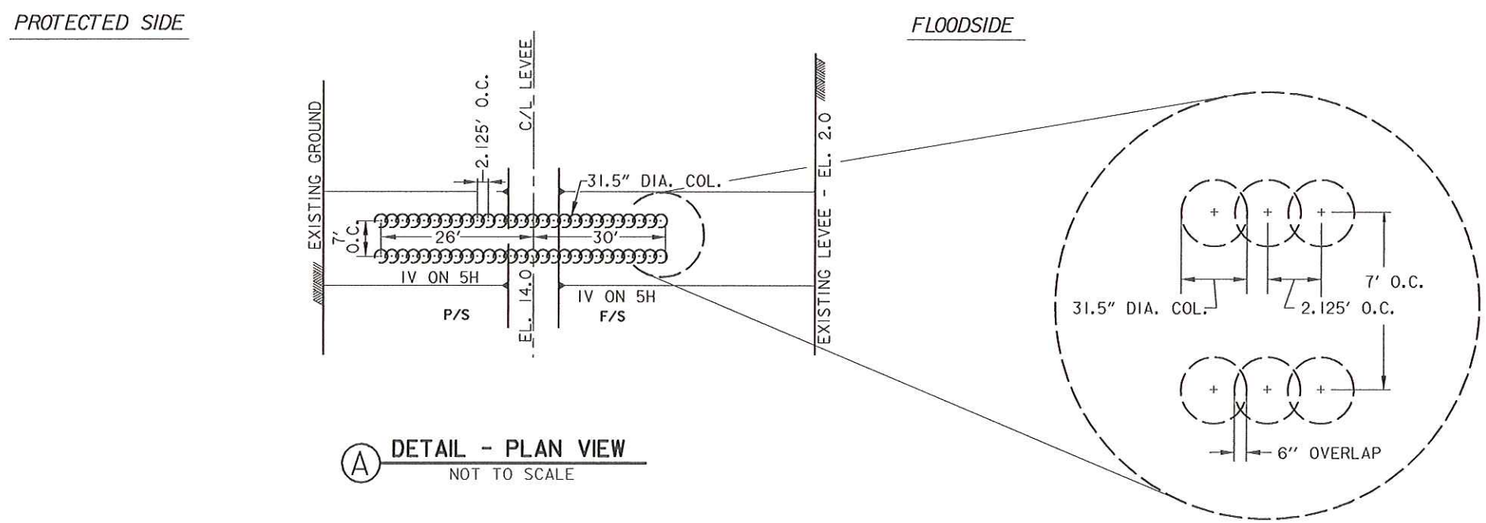


TYPICAL SECTION - SOIL MIXING COLUMNS

NOT TO SCALE

SEQUENCE OF CONSTRUCTION:

ITEM 1: CONTRACTOR CONSTRUCTS WORKING PLATFORM TO EL. 0.0 TO PROVIDE A LEVEL WORKING PLATFORM FOR THE DRILL RIG. DEGRADING NOT TO EXCEED 500 FEET IN LENGTH.
ITEM 2: CONTRACTOR INSTALLS COLUMNS TO THE ELEVATIONS SHOWN.
ITEM 3: CONTRACTOR INSTALLS GEOTEXTILE FABRIC.
ITEM 4: CONTRACTOR CONSTRUCTS THE LEVEE.
REMOVE / DEGRADE EXISTING LEVEE / FLOODWALL.



(A) DETAIL - PLAN VIEW

NOT TO SCALE

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CCH | DATE: 4/08
DWN BY: CLD | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: SOIL MIXING COLUMN DETAILS.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 24 | PLOT DATE: 4/09/2008

WESTBANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

SOIL MIXING COLUMN DETAILS

ENGINEERING & CONSULTING INC.
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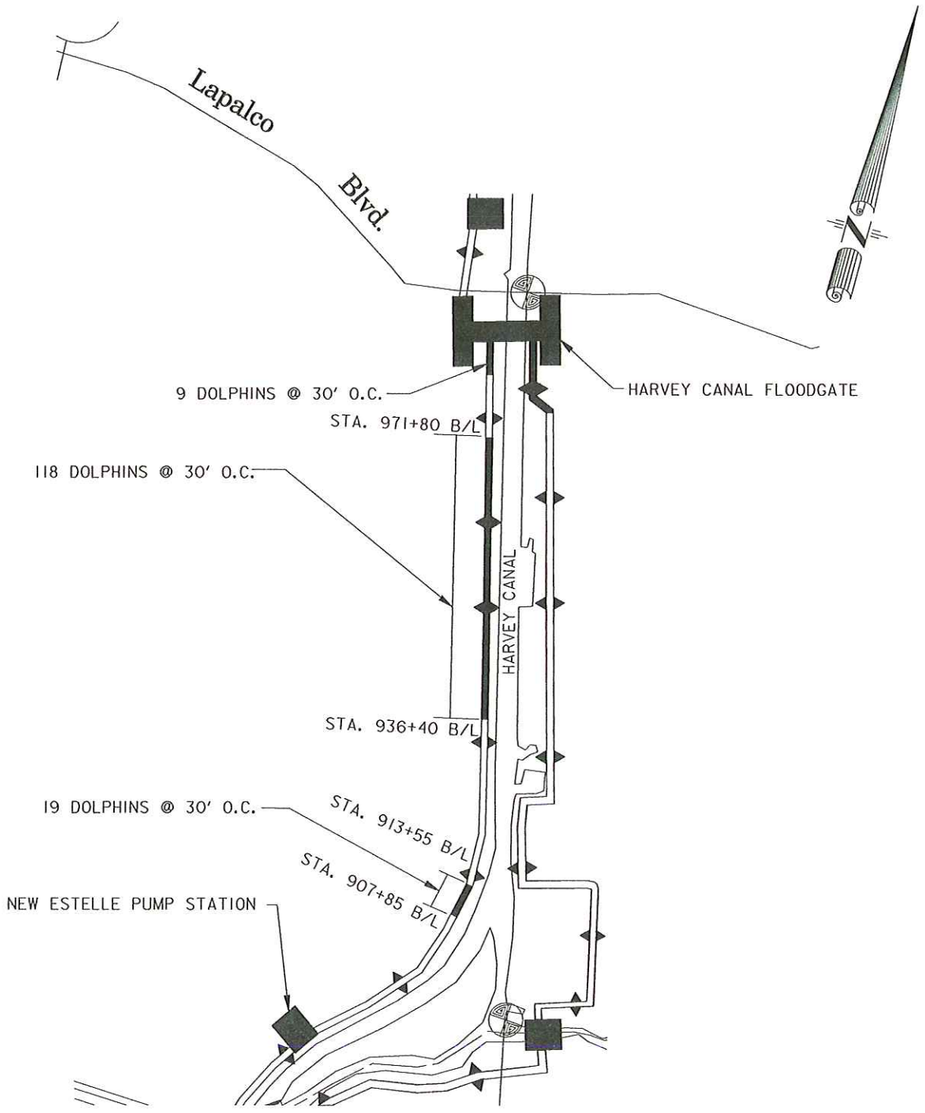
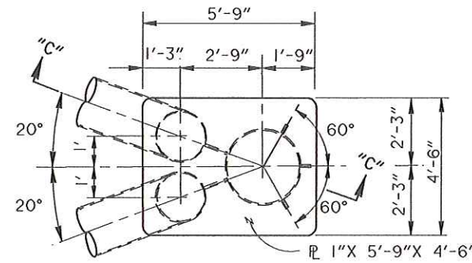
METAIRIE, LOUISIANA

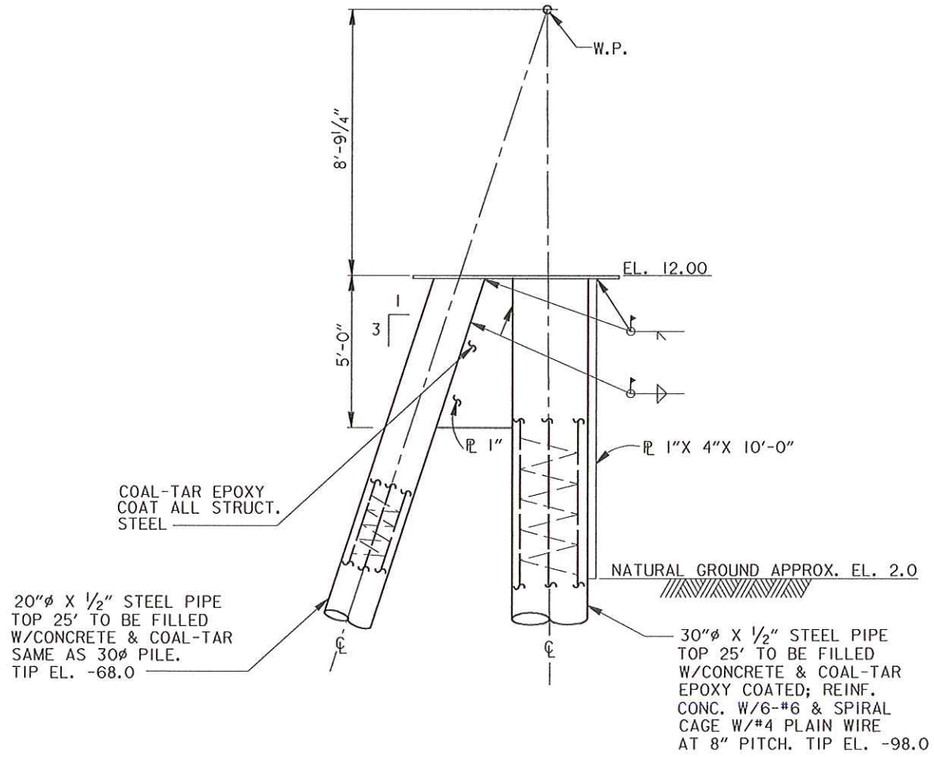
SHEET IDENTIFICATION NUMBER
49



PLAN
N.T.S.



PLAN
N.T.S.



DOLPHIN DETAILS
N.T.S.

ENGINEERING & CONSULTING, INC.
"Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

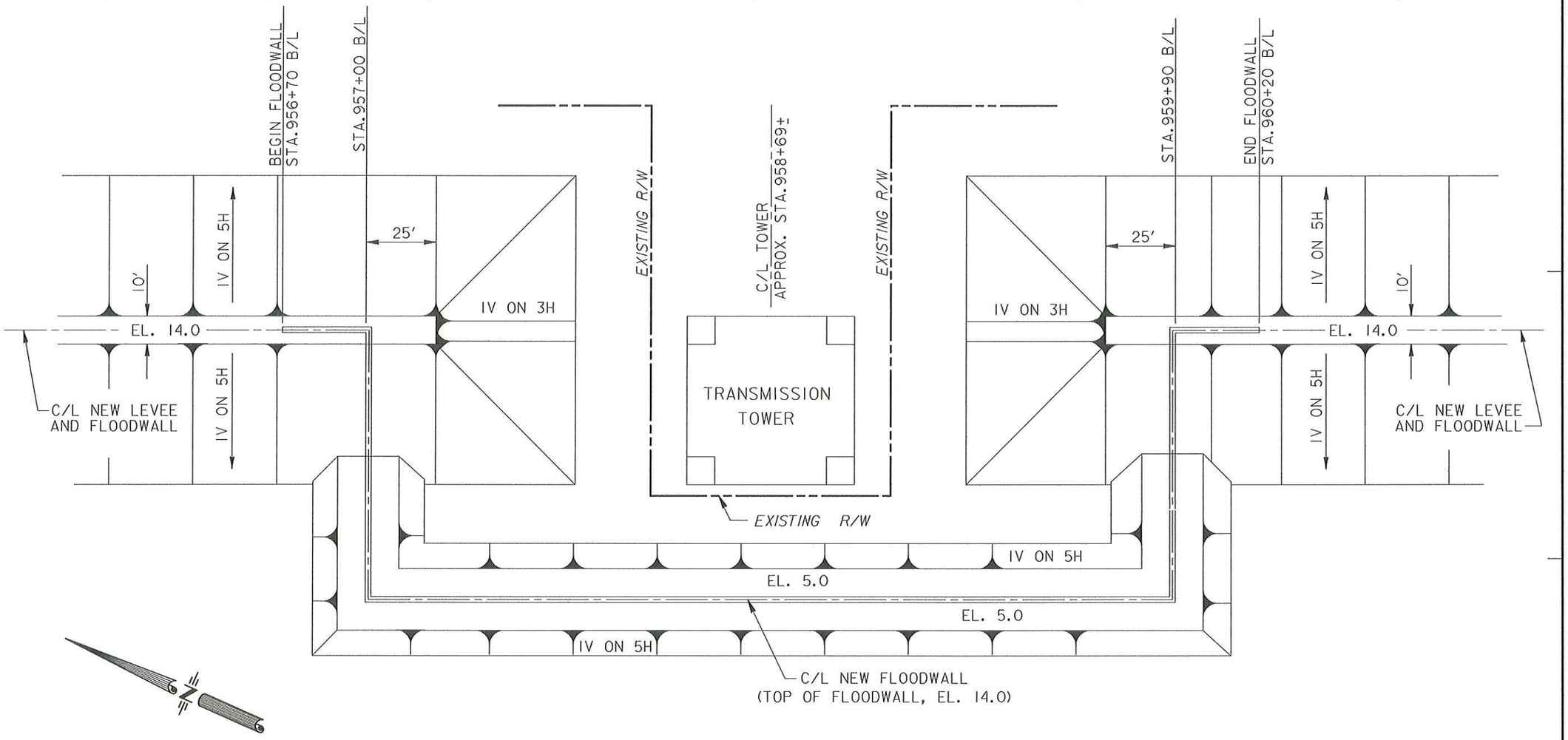
DESIGNED BY: CCH | DATE: 409
DWN BY: CLD | CKD BY: DTD | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: SOIL MIXING COLUMN.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 411 | PLOT DATE: 4/09/2009

MISSISSIPPI RIVER & TRIBUTARIES, JEFFERSON PARISH, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL FLOODGATE AND BARGE GATES - PHASE 2
JEFFERSON PARISH, LOUISIANA

DOLPHIN PLAN, ELEVATION AND DETAILS

SHEET IDENTIFICATION NUMBER
50



FLOODWALL PLAN AT TRANSMISSION TOWER OPTION

N.T.S.

NOTES:

1. FOR TYPICAL T-WALL SECTION AND DETAIL (SEE DWG. NOS. 45 AND 48).
2. FOR DOLPHIN PLAN, ELEVATION AND DETAIL (SEE DWG. NO. 50).
3. THIS DETAIL APPLICABLE TO ALTERNATIVES 1, 2 AND 5 ONLY.

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

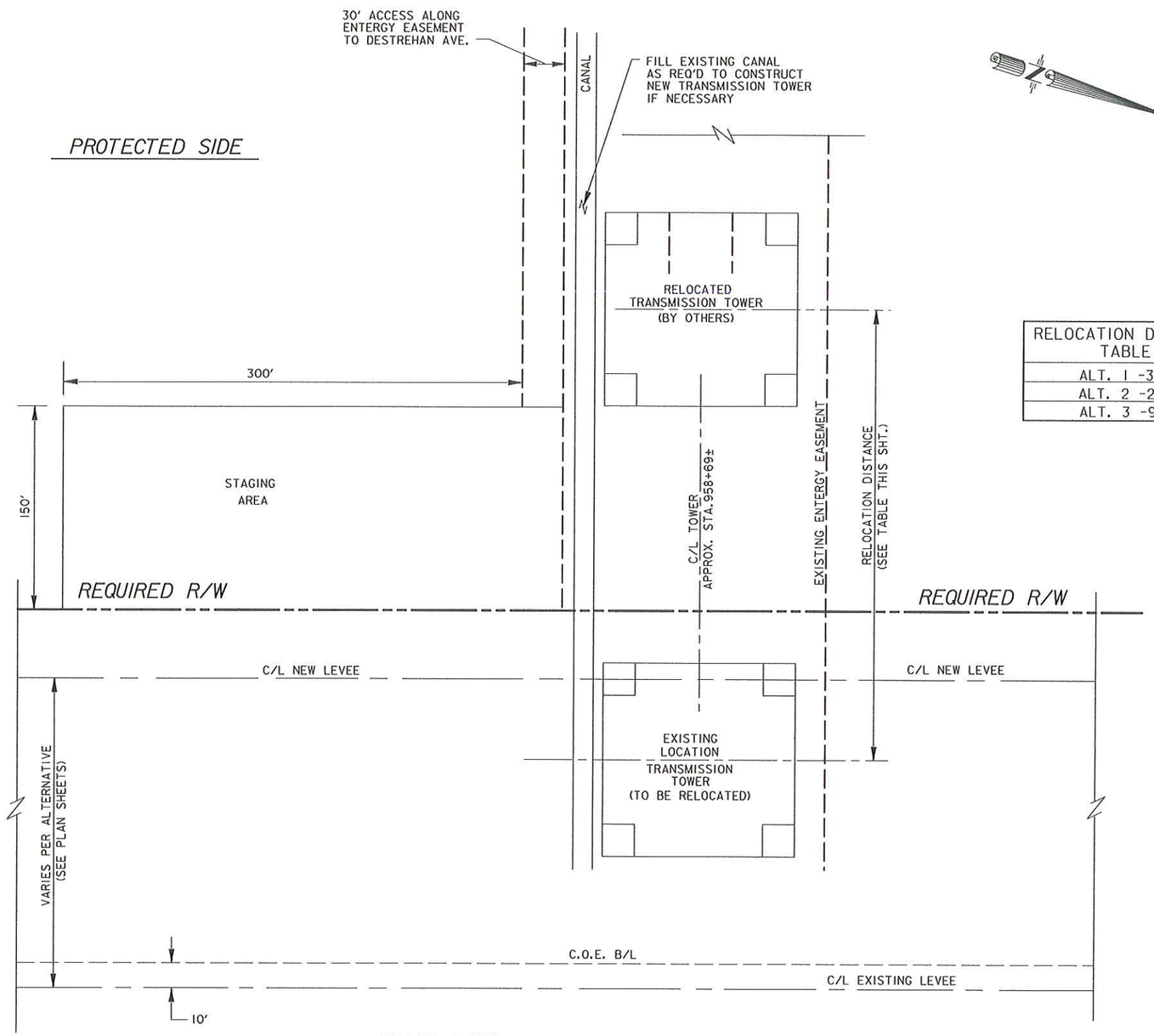
DESIGNED BY: CDH | DATE: 409
DWN BY: CLD | CKD BY: DTD
SUBMITTED BY: | SOLICITATION NO.:
CONTRACT NO.:
FILE NAME: PLAN AND FLOODWALL AT TRANSMISSION TOWER.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 40 | PLOT DATE: 4/26/2006

ENGINEERING ALTERNATIVE REPORT - WBV-14a.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2

PLAN FLOODWALL AT
TRANSMISSION TOWER OPTION

ENGINEERING & CONSULTING, INC. BCG "Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

SHEET IDENTIFICATION NUMBER
51



RELOCATION DISTANCE TABLE
ALT. 1 -354'
ALT. 2 -254'
ALT. 3 -94'

NOTE:
1. AREA OF RELOCATED TOWER HAS NOT BEEN SURVEYED

FLOOD SIDE PLAN-TRANSMISSION TOWER RELOCATION OPTION

N.T.S.

ENGINEERING & CONSULTING BCG INC
"Excellence in Engineering"
2701 KINGMAN ST.
METAIRIE, LOUISIANA

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
MISSISSIPPI VALLEY DIVISION

DESIGNED BY: CDH | DATE: 4/09
DWN BY: CLD | CKD BY: DTD | SUBSTITUTION NO.:
SUBMITTED BY: | CONTRACT NO.:
FILE NAME: PLAN AND FLOODWALL AT TRANSMISSION TOWER.DGN | FILE NUMBER:
SIZE: 22X34 | PLOT SCALE: 40 | PLOT DATE: 4/09/2009

WEST BANK AND VICINITY, NEW ORLEANS, LOUISIANA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT - WBV-144.2
REPLACEMENT OF HURRICANE PROTECTION
HARVEY CANAL WEST BANK LEVEES - PHASE 2
JEFFERSON PARISH, LOUISIANA

FLOOD SIDE PLAN -TRANSMISSION TOWER RELOCATION OPTION

SHEET IDENTIFICATION NUMBER
52

SURVEY CROSS SECTIONS

WBV 14a.2: HARVEY CANAL WEST BANK LEVEES

BAFS-SW-02H ELEV. =5.36'
X= 3,681,806.10' (83)
Y= 487,438.80'
Lat= 29°50'03.398"N
Lon= 90°04'07.104"W
X= 2,401,004.52' (27)
Y= 425,732.11'

DESTREHAN AVE.

SHEET 2 OF 8
SHEET 1 OF 8

NEW ESTELLE P.S.

872+00

878+00

884+00

890+00

896+00

902+00

908+00

914+00

BASE LINE
℄ LEVEE

Hero Cutoff

JOURDAN ROAD

BAYOU ROAD

LAMBERT GRID NORTH
NAD 1983 LA. S.Z.

P L A N 1
200' 0' 200'
SCALE IN FEET

SURVEY CONTROL PARAMETERS
HORIZONTAL DATUM: NAD 83 LA. SOUTH ZONE
VERTICAL DATUM: NAVD 88

US ARMY CORPS
OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY:
DWN BY:
CKD BY:
SUBMITTED BY:
FILE NAME:
SIZE:
PLOT SCALE:
DATE: 01/14/2008
SOLICITATION NO.:
CONTRACT NO.: W912P8-06-D-0032
FILE NUMBER:
PLOT DATE:

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C&C Technologies
SURVEY SERVICES

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT-W/V-14+2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.

JEFFERSON PARISH, LOUISIANA

STA. 872+00 - STA. 914+00

SHEET IDENTIFICATION NUMBER
1 OF 8

DESTREHAN AVE

LAMBERT GRID NORTH
NAD 1983 LA. S.Z.

SHEET 3 OF 8
PLAN 3

SHEET 2 OF 8
PLAN 2

SHEET 1 OF 8
PLAN 1

BASE LINE
C/L LEVEE

914+00
920+00
926+00
932+00
938+00
944+00
950+00
956+00
962+00

HARVEY CANAL NO 1

STATE HWY 3017

JPW 80 C ELEV. = 7.20'
X= 3,685,585.75' (83)
Y= 492,431.92'
Lat= 29°50'52.400"N
Lon= 90°03'23.560"W
X= 2,404,784.13' (27)
Y= 431,724.32'

PLAN 1
200' 0 200'
SCALE IN FEET

SURVEY CONTROL PARAMETERS
HORIZONTAL DATUM: NAD 83 LA. SOUTH ZONE
VERTICAL DATUM: NAVD 88

US ARMY CORPS
OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

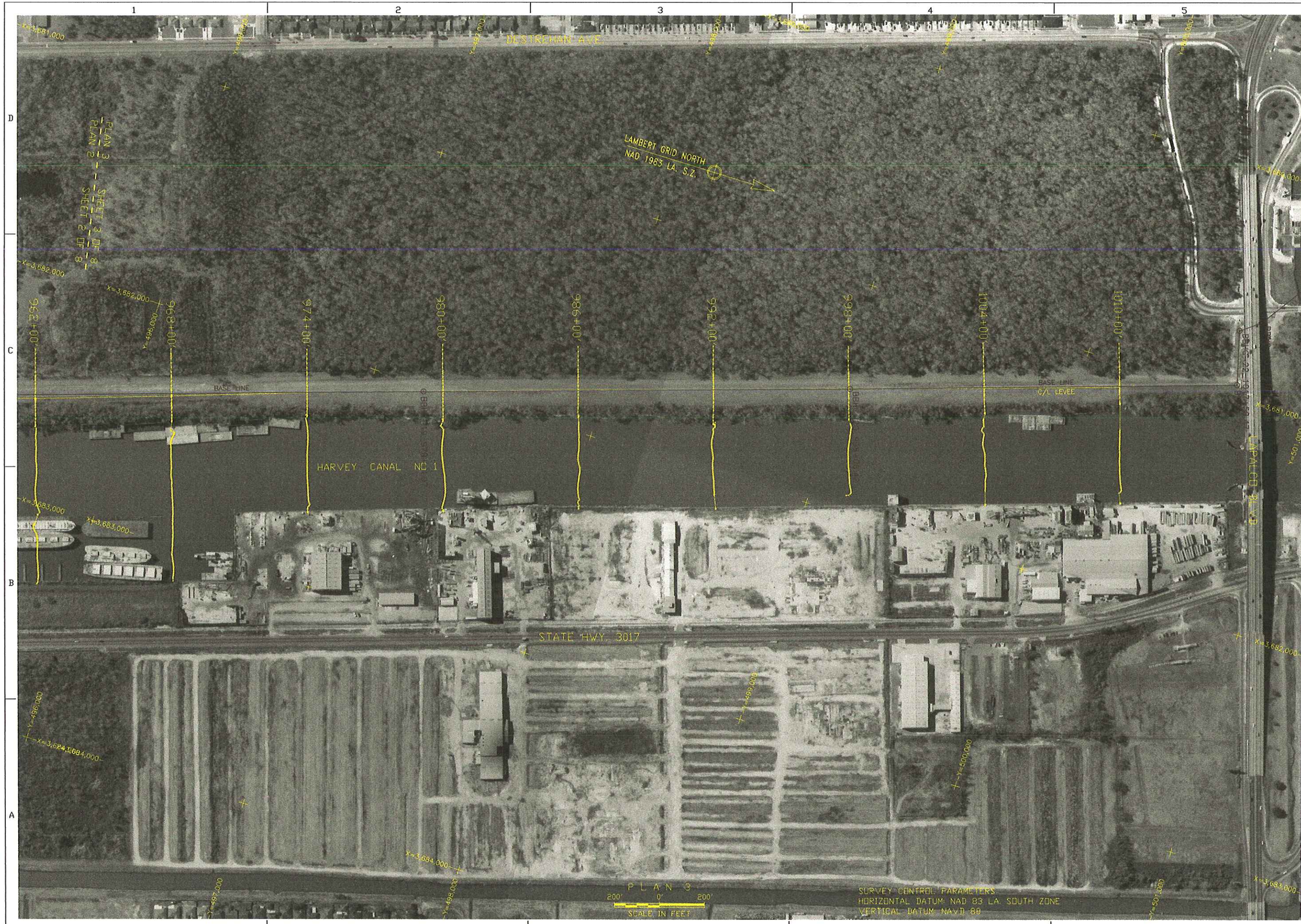
C+C Technologies
SURVEY SERVICES

DESIGNED BY:	DATE: 01/14/2008
DWN BY:	CKD BY:
SUBMITTED BY:	SOLICITATION NO.:
FILE NAME:	CONTRACT NO.: W912P8-06-D-0032
SIZE:	PLOT SCALE:
	PLOT DATE:
	FILE NUMBER

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT-WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA
STA. 920+00 - STA. 962+00

SHEET IDENTIFICATION NUMBER
2 OF 8



US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: | DATE: 01/14/2008
DWN BY: | CKD BY: | SOLICITATION NO.:
SUBMITTED BY: | CONTRACT NO.: W912P8-06-D-0032
FILE NAME: | FILE NUMBER:
SIZE: | PLOT SCALE: | PLOT DATE:

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C&C Technologies
SURVEY SERVICES

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT-WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.

JEFFERSON PARISH, LOUISIANA

STA. 968+00 - STA. 1010+00

SHEET IDENTIFICATION NUMBER

3 OF 8

1 2 3 4 5

D C B A

BAFS-SM-02H ELEV. -3.36'
X= 3,681,806.10' (83)
Y= 487,438.80'
Lat= 29°50'03.398"N
Lon= 90°04'07.104"W
X= 2,401,004.52' (27)
Y= 426,732.11'

DESTREHAN AVE

NEW ESTELLE P.S.

872+00

878+00

882+00

888+00

896+00

902+00

908+00

914+00

BASELINE

C/L LEVEE

Hero Cutoff

JUDUAN ROAD

BAYOU ROAD

LAMBERT GRID NORTH
NAD 1983 LA. S.Z.

PLAN 1

200' 0' 200'
SCALE IN FEET

SURVEY CONTROL PARAMETERS
HORIZONTAL DATUM: NAD 83 LA. SOUTH ZONE
VERTICAL DATUM: NAVD 88

US ARMY CORPS
OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY:		DATE: 01/14/2008	
DWN BY:	CKD BY:	SOLICITATION NO:	
SUBMITTED BY:		CONTRACT NO: W912PB-06-D-0032	
FILE NAME:			FILE NUMBER
SIZE:	PLOT SCALE:	PLOT DATE:	

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C&G Technologies
SURVEY SERVICES

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT-WBV-14a.2
HARVEY CANAL WEST BANK LEVEE-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA
STA. 872+00 - STA. 914+00

SHEET IDENTIFICATION NUMBER
1 OF 8

US ARMY CORPS
OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C+C Technologies
SURVEY SERVICES

DESIGNED BY:		DATE: 01/14/2008	
DWN BY:	CKD BY:	SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.: W912P8-06-D-0032	
FILE NAME:			FILE NUMBER
SIZE:	PLOT SCALE:	PLOT DATE:	

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT-W&V-14a.2
WEST BANK LEVEE - PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.

JEFFERSON PARISH, LOUISIANA

STA. 920+00 - STA. 962+00

SHEET IDENTIFICATION NUMBER

2 OF 8

US ARMY CORPS
OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C-C Technologies
SURVEY SERVICES

DESIGNED BY:		DATE: 01/14/2008	
DWN BY:	CKD BY:	SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.: W912P8-06-D-0032	FILE NUMBER
FILE NAME:		PLOT DATE:	
SIZE:	PLOT SCALE:		

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT-WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA
STA. 968+00 - STA. 1010+00

SHEET IDENTIFICATION NUMBER
3 OF 8

VERTICAL DATUM: NAVD 88
ALL X-SECTIONS

HORZ. 0' 40' SCALE IN FEET

VERT. 0' 20' SCALE IN FEET

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C&C Technologies
SURVEY SERVICES

DESIGNED BY:		DATE: 01/14/2008	
DWN BY:	CKD BY:	SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.: W912P9-06-D-0032	
FILE NAME:		FILE NUMBER:	
SIZE:	PLOT SCALE:	PLOT DATE:	

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT-V&V-14a.2
HARVEY CANAL NON-FEDERAL LEVEE
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.

JEFFERSON PARISH, LOUISIANA

CROSS SECTION STA. 872+00 - STA. 890+00

SHEET IDENTIFICATION NUMBER
4 OF 8

VERTICAL DATUM: NAVD 88
ALL X-SECTIONS

HORZ. 0' 40' SCALE IN FEET

VERT. 0' 20' SCALE IN FEET

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C&C Technologies
SURVEY SERVICES

DESIGNED BY:
DWN BY:
CKD BY:
SUBMITTED BY:
FILE NAME:
SIZE:
PLOT SCALE:
DATE: 01/14/2008
SOLICITATION NO.:
CONTRACT NO. W912P8-06-D-0032
FILE NUMBER:
PLOT DATE:

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT-VBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA
CROSS SECTION STA. 896+00 - STA. 920+00

SHEET IDENTIFICATION NUMBER
5 OF 8

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C+C Technologies
SURVEY SERVICES

DESIGNED BY:	DATE: 01/14/2008
DWN BY:	CKD BY:
SUBMITTED BY:	SOLICITATION NO.:
FILE NAME:	CONTRACT NO.: W912P8-06-D-0032
SIZE:	PLOT SCALE:
	PLOT DATE:

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT-W3V-146-2
HARVEY CANAL-WEST BANK LEVEE-STA 0+00
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA
CROSS SECTION STA. 926+00 - STA. 950+00

SHEET IDENTIFICATION NUMBER
6 OF 8

VERTICAL DATUM: NAVD 88
ALL X-SECTIONS

HORZ.	VERT.
0' 40'	0' 20'
SCALE IN FEET	SCALE IN FEET

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

DATE: 01/14/2008
DESIGNED BY:
DWN BY: CKD BY:
SUBMITTED BY:
FILE NAME:
SIZE: PLOT SCALE: PLOT DATE:
SOLICITATION NO.:
CONTRACT NO.
W912P8-06-D-0032
FILE NUMBER:

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C&C Technologies
SURVEY SERVICES

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT
ENGINEERING ALTERNATIVE REPORT-V-EW-44.2
HARVEY CANAL/WEST BANK LEVEE
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.
JEFFERSON PARISH, LOUISIANA
CROSS SECTION STA. 956+00 - STA. 980+00

SHEET IDENTIFICATION NUMBER
7 OF 8

US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.
MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

C&C Technologies
SURVEY SERVICES

DESIGNED BY:		DATE: 01/14/2008	
DWN BY:	CKD BY:	SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.: W912P8-06-D-0032	FILE NUMBER:
FILE NAME:			
SIZE:	PLOT SCALE:	PLOT DATE:	

WESTBANK AND VICINITY, NEW ORLEANS, LA
HURRICANE PROTECTION PROJECT

ENGINEERING ALTERNATIVE REPORT-WBV-14a.2
HARVEY CANAL WEST BANK LEVEES-PHASE 2
NEW ESTELLE PUMPING STATION TO LAPALCO BLVD.

JEFFERSON PARISH, LOUISIANA

CROSS SECTION STA. 986+00 - STA. 1010+00

SHEET IDENTIFICATION NUMBER
8 OF 8