

1. The specifications and drawings for Invitation No. DACW64-02-B-0025, Dredging and Marsh Creation, Channel to Liberty at Smith Point in Chambers County, Texas, Trinity River and Tributaries, Texas, advertised 31 May 2002 and for which bids are scheduled to be opened on 11 July 2002 are amended as follows:

BID OPENING DATE IS HEREBY RESCHEDULED FOR 2:00 PM LOCAL TIME, ROOM 175, JADWIN BUILDING, 18 JULY 2002.

In reference to questions from Contractors provided at a Pre-Bid Conference on 25 June 2002; 10:00 A.M., at the Galveston District Office, the following clarifications are provided:

Q.1 The first question dealt with time extensions for bad weather. Section 01100, page 01100-5, paragraph 14, TIME EXTENSIONS FOR UNUSALLY SEVERE WEATHER (31 OCT 1989) (ER415-1-15)

“ This is a time extension for bad weather. So your question is why a time extension for bad weather in the spec?”

A.1 Development and application of Monthly Anticipated Adverse Weather Delay Days are governed by Engineer Regulation 415-1-15. In analysis of the specified work, those features which may be impacted and possibility of delay by temperature, precipitation, wind, etc. were estimated to add an additional 43 calendar days to the total projected performance period. As such, inclusion of the Special Contract requirement, TIME EXTENSIONS FOR UNUSALLY SEVERE WEATHER was added to Section 01100. No amending of the plans and specifications is required with regards to this question.

Q.2 The second question concerned how the contractor controlled obnoxious and gasses. Section 01355, page 01355-6, paragraph 3.11.1.6.

“ Obnoxious odors and gases stink? ---- what you’re saying is that we’re - - got to do something with that obnoxious odor. What do you do with it? You can’t do nothing but smell it. Spec No. 01355-6 Paragraph 3.11.1.6.”

A.2 Section 01355, paragraph 3.5.3 and paragraph 3.11.1.6 are included in this contract to make the contractor aware that he may be requested to control the smells at the discharge. In some cases, such as at the HSC, deodorizing chemicals are added at the spillway structure to control the odor. In the case at Smith Point the contractor may have to control his discharge, move his pipe, or cease dredging until the smell decreases. Since this is in a remote open area away from the population, this requirement may not be pertinent. No amending of the plans and specifications is required with regards to this question.

Q.3 The third question dealt with testing labs and waiting 45 days for tests Section 01451, page 01451-7, paragraph 3.7.2 Laboratory Validation Procedures.

“ Next question from ----- is Section 01451-7, paragraph 307 and his question is: Why wait for tests in 45 days?”

A.3 Section 01451, paragraph 3.7.2 relates to validation of testing laboratories and not to testing of materials, etc. If a validated laboratory is proposed, the time frame is not necessary but should a non-validated laboratory be proposed the MTC validation will require 45 days. Also see Question and Answer No. 4. See change in this Amendment No. 003.

Q.4 Question No. 4 asked if the Corps of Engineers has a list of approved labs. Section 01451, page 01451-7, paragraph 3.7.2.

“ Does the Corps of a list of approved labs that they require?”

A.4 The Galveston District does not have a list of approved labs. The Galveston District will approve use of any lab certified by Geosynthetic Institute (GSI), North America Geosynthetics Society (NAGS), Industrial Fabrics International (IFAI) or the International Geotextile Society (IGS). The GSI accreditation list can be obtained on the intranet at Drexel.edu/gri or by calling 610-522-8440. No amending of the plans and specifications is required with regards to this question.

Q.5 Question five concerned Textile Pins, Section 02378, page 02378-2, paragraph 1.3.2.1 Textile Pins.

“ Let me repeat that. Section 02378-2, paragraph 1.3.2.1. The question is: Clarification what use are pins for? I'll repeat it again: Clarification what use are pins - -and that's spelled P-I-N-S - - for?”

A.5 The pins referred to in this specification section are any that are proposed for use in temporary securing of geotextile filter fabric, prior to placement of rock thereon. Pins are considered satisfactory if their use in unlikely to cause significant damage to the fabric which would impact the filtration performance, as determined by the Government. The contractor can use other means besides the pins to hold the fabric down as long as the method meets the above criteria and is approved by the Contracting Officer.

No amending of the plans and specifications is required with regards to this question.

Q.6 Question No. 6 again refers to the pins and their use.

“ Are there required pins or are there other means to temporarily hold the - -

A.6 See Question No. 5.

Q.7 Question No. 7 refers tubes and their size. Section 02379, page 02379-8, paragraph 2.3.2.2 Long Tubes.

“ Next questions, it goes to Section 02379-9.

Again, that Section is 02379-9, paragraph 2.3.2.2.

Question is: Contractor responsible for tube size?

Question is why?”

A.7 It is the general policy of the Government designer, that in cases where the foundation conditions, or other conditions of which the Contractor cannot be expected to be able to exert control over, the Government designer shall make decisions regarding construction dimensions required to obtain required level of stability and performance. These will be based on results of design analyses, which the designer should be considered to be in a better position to use. Alternatively, where foundation conditions and other site considerations are believed to be relatively stable, and are thereby less of a factor influencing the successful accomplishment of the required construction, than the combination of the selection of the product to be used, in conjunction with the specific construction procedures and equipment to be selected by the Contractor, it is the general policy of the Government designer that a so-called "performance" type specification is more appropriate, and likely to result in getting the intended results, at a reasonable cost.

For this contract, one of the two reaches for which the Contractor is required to select the tube size, is the "weir" reach, for which a +/- tolerance is required. The designer intent is that the Contractor utilizes their knowledge and experience in tube installation, along with insights and recommendations from their tube manufacturer and supplier, to achieve the required elevations. It is believed that the successful achievement of this performance criteria, as well as others (i.e. preventing loss of material at tube joints during dredging) can be best accomplished through Construction Contractor innovation, rather than through direction by the designer. No amending of the plans and specifications is required with regards to this question.

Q.8 Question No. 8 again refers to the long tubes and why the contractor has to design them, Section 02379, page 02379-8, paragraph 2.3.2.2.
"Really, the question is why would we expect the contractor to be responsible when it's a design issue? Correct. He just asked my very question. Why would you ask the contractor to be responsible for this. I just was curious."

A.8 See Question No. 7.

Q.9 Question Number 9 deals with the contractor providing laboratory to test tubes. Section 02379, page 02379-9, paragraph 2.4.2 Contractor
" Section 02379-10, paragraph 2.4.2 and his question is: Contractor to supply geotextile tests lab? I'll repeat that. Sections 02379-10, paragraph 2.4.2. His question is: Contractor to supply geotextile tests lab? What I really want to know is what that even meant. I assume that's what ----- was asking. You know, we don't normally establish any kind of lab services to test geotextile. So I didn't even know what that meant. I still don't."

A.9 The specification require "the Contractor shall employ the services of a fully qualified, approved Geotextile Laboratory to perform the required testing". The intent of this specification is to accomplish Contractor Quality Control (CQC) by spot-checking required fabric performance using an independent (non-manufacture) testing laboratory. Details to accomplish this CQC are included in the specifications. No amending of the plans and specifications is required with regards to this question.

Q.10 Question No. 10 concern payment for material dredged from Section 2a and 2b and how the contractor is to get credit for material dredged. Section 02482, page 02482-5, paragraph 3.2.

“ Section 02482-5. Again, Section 024582-5, paragraph 3.2. Mr. -----, your question is: Payment between 2a and 2b? Let me explain it to you ----- . There is no tolerances when you get to the minus 7 like on 2a. Like 2b, where do you start 2b? Where’s the differential in those two sections? Okay. Section 2a says go down to minus 7. That’s supposed to be the end of the good shell. All right. When you do that and you dig down and you’re probably going to get to, say minus 7.5, who gets to pay for this half a foot that’s not going to be in this Section 2b?”

A.10 There is no differential between Section 2a and 2b. Any and all over dredging of Section 2a will be paid as having been dredged as part of 2b. Paragraph 3.2 at the bottom of the table is the statement “Section 2a has a required depth of (-) 7 feet MLT with no allowable over depth.” This means no differential or allowable over depth between Section 2a and Section 2b. At paragraph 3.3(1) is the statement Section 2a, Station 271+00 to Section 288+00 shall be dredged to the required depth (-) 7 feet MLT and shall be completed and accepted prior to commencing to dredge Section 2b...” This too means that there is no differential or allowable over depth between 2a and 2b. Payment for Section 2a will be measured from the surface to the required depth of (-) 7 feet MLT and will be paid at the unit price for Dredging Section 2a. All materials removed below the required depth of (-) 7 feet MLT between Station 271+00 and Station 288+00 will be measured from (-)7 feet MLT and will be paid at the unit price for Dredging Sections 1, 2B, and 3 thru 6.

No amending of the plans and specifications is required with regards to this question.

Q.11 Question No. 11 again refers back to the Contractor design the tubes. Section 02379, page 02379-8, paragraph 2.3.2.2 Long Tubes.

“Drawing Page 6 of 10, in Reaches 3 and 4, why is the contractor being asked to decide the size of geotubes?”

A.11 See Question No. 7.

Q.12 Question No. 12 concerns borrow ditches and if it is necessary to keep the maintained. Section 02379, page 02379-13, paragraph 3.7.1 (Amendment No. 2).

“ On the borrow ditches, it’s a separate pay item. It’s going to be used to fill the geotextile tubes. Is it going to have to be redug or maintained during the dredging process or the spoil process? In other words, if it’s dredged just the one time, the material is moved, is it going to have to be moved again after the dredge pumps inside the tube area? Are they going to have to redredged?”

A.12 The ditches do not need to be re-dredged or maintained.

No amending of the plans and specifications is required with regards to this question.

Q.13 Question No. 13 concerns the contractors' request for additional surveys at BUS No. 4.

" On the drawings Sheet 5 of 10, beneficial use of site for new oyster reef. Is it possible for us to be provided with any elevations, any existing elevations of that area? On the drawing Page 5 of 10 for the benefit of use Site No. 4, you don't supply us with any existing ground elevations and I'm asking is it possible for you to either put verbage in the specs about that or to have a survey?"

A.13 Additional surveys were obtained in June 2002. Spot elevations of the area will be made apart of this Amendment No. 0003.

Q.14 Question No. 14 dealt with sheet 5 of 10 and what the "dots" represent.

" Are you familiar with this drawing? All right. All those little dots out here, what are they? Are you saying that these little dots is where there's 8 foot of water?"

A.14 Yes, we are familiar with the drawing. The "dots" represent concentrations of hard bottom found by probing. No, the dots do not represent 8 foot of water depth per Mean Low Tide datum. This amendment will include a survey referencing elevations in these oyster shell-containing areas designated by dots to Mean Low Tide as a datum.

Q.15 Question No. 15 concerns active harvested oyster reefs, sheet 3 of 10 and 6 of 10, BUS No.2.

"Does anyone with the Fish and Wildlife or the Corps know if there's an active harvested oyster reef beyond the north limits of this tube area. And if so, is the contractor indemnified in any way from silting that oyster reef up?"

A.15 There is a small oyster reef which is located near the tubes to the N and E of BU 2. This is not a lease, but is probably harvested occasionally by area oystermen. The project design protects this reef from silt deposition during the dredging of the channel. The geotubes will be in place prior to channel dredging and will contain the suspended particulate matter. The contractor is responsible to use good judgment in avoiding oyster reefs in the area.

No amending of the plans and specifications is required with regards to this question.

Q.16 Question No. 16 again referred to the oyster beds, sheet 3 of 10 and 6 of 10, BUS No2.

"I lived in South Louisiana, so if that oyster reef is active, the day you found out is the day you start pumping. What happens if you do get a complaint or get litigated because you contaminated that precious little ---"

A.16 The design of the project should avoid impacts to the oyster reefs in the area. The reef located North East of BUS No. 2 is not a State lease and has been avoided by project design.

No amending of the plans and specifications is required with regards to this question.

Q.17 Question No.17 deals with water access for barges to the work site, sheet 5 of 10, BUS No. 1.

“Is there going to be a problem accessing this from the bay side going across these reefs with boats and barges and rock and accessing the geotubes?”

A.17 Yes. Section 02381-1, paragraph 1.2 states “Access to the construction site can be obtained by way of the Houston Ship Channel or Double Bayou.” Nautical charts published by the National Oceanic and Atmospheric Administration show in Mean Lower Low Water (MLLW) datum varying depths throughout Galveston Bay adjacent to the mentioned waterways. The Contractor is responsible for finding the route satisfactory to his needs. The selected route must be adequate so not to impact upon active oyster reefs. The Contractor should not anticipate not finding a direct route to any of the four BUS sites.

No amending of the plans and specifications is required with regards to this question.

Q.18 Question Number 18 refers to gaining access to the work sites by digging channels.

“If that is the case and you do find an access corridor for us, will we be permitted to dig for the rock barges and everyone else to come in? Or do we have to place our bid off of light-loading bids and shallow draft equipment.”

A.18 The Contractor will not be permitted to dig an access channel for rock barges. Should the Contractor purpose to dig an access channel to any of the four beneficial use sites the Contractor will be required to coordinate and comply with all laws and regulations for digging such channel, placement of removed material, etc. No additional time will be added to the construction schedule set forth in Section 01100-1, paragraph 1 for this effort. One purpose of Beneficial Use Sites Nos. 1 and 2 is to prevent turbidity from encroaching on the oyster reefs as we dredge the channel and place the dredged material within these areas. In the event a channel is dug the channel becomes available for public use by anyone. The Contractor is responsible for planning its method including equipment necessary for accomplishing the work, and shall consider all costs and distribute such costs as appropriate its bid.

No amending of the plans and specifications is required with regards to this question.

Q.19 Question No.19 refers again to gaining access to the work sites by digging channels.

“ You saying there’s a minus 7 elevation. I’m looking at least 3 or 400 foot of a minus 4 elevation in that rock to be placed out into the oyster lease; is that correct?”

A.19 Drawing Sheet 5 of 10 shows depths of (-)7 feet near the southwest corner of the island in Beneficial Use Site No. 1. A centerline profile of the new rock breakwater was obtained June 2002 and a plot of that survey is attached to this amendment on an 8-1/2 by 11-inch sheet. The centerline of the breakwater and the southerly edge of the W. F. Childress oyster lease are 100 feet apart. The breakwater when complete is anticipated to be better than 50 feet from the oyster lease thus no rock, geotextile fabric or other construction material or equipment should touch, enter or fall into the lease area during or after construction.

Q.20 Question 20 refers again to gaining access to the work sites by digging channels.

“ You’re saying 7-foot of water from what elevation? You mean, low tide? You mean you’d add the tide to this 7 feet? What you’re saying does not match these prints. Period.”

A.20 Elevations are consistently referenced to Mean Low Tide as clearly indicated by the plans and specifications. See sheet 1 of 10, General Notes, Note 1. This Amendment No. 0003 will revise sheet 10 of 10

Q.21 Question Number 21 concerns the possibility of additional surveys being provided on access.

“ I am wondering if the Government can supply that additional survey information where that comes back over to the channel?”

A.21 There will be no additional surveys information provided on access to BUS work areas.

No amending of the plans and specifications is required with regards to this question.

Q.22 Question No. 22 deals with the next amendment and when will it be provided to the contractors.

“ I’m just wondering generally if we can have a little discussion on the time frame from the amendment whether it will influence the bid dates. I know a lot of people have vacation schedule about this time of year.”

A. 22 The next Amendment No. 0003 will be sent out as soon as all questions are answered satisfactorily. The Amendment may hold to the Bid Opening Date or may reschedule the date. No matter which the Amendment will be provided to the contractors at least 10 days before Bid Opening. The Bid Opening Date may have to be rescheduled.

No amending of the plans and specifications is required with regards to this question.

Q.23 Question NO. 23 concerns what will be address in the next Amendment No. 0003.

“ The way we’re leaving here today is what do we have. The contractor has two things to design, the two sizes for these two sections and their method of getting a 9-foot rock barge into 4 feet of water, that’s going to be the contractor responsibility. Are those the two things you’re not going to address in the amendment?”

A.23 Amendment No. 0003 will answer all questions that were presented by the Contractors at the Pre-Bid Conference and any other questions that come to the attention of the Contracting Officer.

No amending of the plans and specifications is required with regards to this question.

Q.24 Question No. 24 deals with two main concerns: designing the tubes and access to the work sites.

“And then we’ve got contractors - - the Government just said they don’t have any idea how to get this rock in. That’s what I just heard, so is it my understanding that we design how we get rock from minus 7 to minus 4, and comply with the cross section design that’s in the specs?”

A.24 Yes. Best information available shows elevations of (-)7 feet MLT or deeper approach the construction area; however, the depth along the construction alignments (see centerline profiles attached to this amendment for both the rock breakwater in Beneficial Use Site No. 1 and the geotextile tube containment structure and the earth/shell levee with geotextile tube in Beneficial Use Site No. 2) vary from minus to positive.

No amending of the plans and specifications is required with regards to this question.

In reference to questions from Contractors provided after the Pre-Bid Conference on 25 June 2002; 10:00 A.M., at the Galveston District Office, the following clarification is provided:

Q.1 Reference Drawing No. 10 of 10, Stone Breakwater Cross Sections. The cross sections for stations 247+00 and 250+00 indicate the base of the new breakwater will be at natural ground at approximately elevation +8 ft. with the crown at approximately elevation +13 ft. According to the typical stone breakwater section on Drawing No. 7 of 7 the crown of the new breakwater is to be built at elevation +3.0 ft. Please clarify.

A.1 Drawing 10 of 10 is being revised by this Amendment No. 0003.

Q.2 Is the contractor allowed to dig flotation to the rock work area?

A.2 No. See Question Number 18 from the Pre-Bid Conference Q&As.

Q.3 Where are depths North and West (mostly requested) of the oyster lease? Where can the contractor obtain the information? (He said that they looked at navigation charts and they were not much help.)

A.3 See Questions 13 thru 16 from the Pre-Bid Conference Qs & As. The Contractor needs to make a site visit and make his own judgment of the conditions.

(a) Specifications

(1) BIDDING SCHEDULE, Pages 00010-1 Through 00010-3. - The enclosed Bidding Schedule, Pages 00010-1 through 00010-3 supercedes that issued with this Invitation.

(2) Page 00800-7.,. At the end of this Section, add the following new Paragraph 10.

**“10 PAYMENT FOR MATERIALS DELIVERED OFF-SITE (MAR 1995)
(EFARS 52.232-5000).**

(a) Pursuant to FAR CLAUSE 52.232-5 PAYMENTS UNDER FIXED PRICE CONSTRUCTION CONTRACTS, materials delivered to the Contractor at locations other than the site of the work may be taken into consideration in making payments if included in payment estimates and if all the conditions of the General Provisions are fulfilled. Payment for items delivered to locations other than the work site will be limited to: (1) Materials required by the TECHNICALS SPECIFICATIONS; or (2) Materials that have been fabricated to the point where they are identifiable to an item of work required under this contract.

(b) Such payment will be made only after receipt of paid or receipted invoices or invoices with cancelled check showing title to the items by the Prime Contractor and including the value of material and labor incorporated into the item. In addition to petroleum products, payment for materials delivered off-site is limited to the following items: Blanket stone and riprap.”

(2) Page 01451-7, Subparagraph 3.7.2. - In the fourth line, delete the sentence starting with “The Validation process. . . .” and substitute the following therefor: “The MTC validation process requires 45 days to complete for laboratories not currently validated and who are found to have insignificant deficiencies.”

(3) Page 02379-6, Subparagraph 2.2.1 (Issued with Amendment No. 0001). - In the sixth line, change “non-woven” to “woven.”

(4) Page 02379-8, TABLE 3 (Issued with Amendment No. 0001). - In the Title of TABLE 3, change “NON-WOVEN” to “WOVEN.”

(5) Page 02379-9, Subparagraph 2.3.2.1 (Issued with Amendment No. 0001). - In the first line, change “non-woven” to “woven.” Also, in the fourth line, after the work “seam,” delete “, which includes both woven and non-woven material,”.

(6) Page 02482-7, Subparagraph 3.4.2.1 (Issued with Amendment 0001). - In the eleventh line after the word “shown,” add the following sentence “The material shall be discharged using a spreader, spoon or other equipment or discharge technique that reduces erosion and wash-loss of mounded materials.”

(7) Page02482-8, Subparagraph 3.4.2.3 (Issued with Amendment 0001). - In the eight line after the word “shown,” add the following sentence “The material shall be discharged using a spreader, spoon or other equipment or discharge technique that reduces erosion and wash-loss of mounded materials.”

(8) Page 02486-4. - At the end of this Section, add the enclosed new PARAGRAPH 3.8, DIVING OPERATIONS.

(b) Drawings.

(1) SKETCHES 1 Through 4. - The enclosed new Sketches 1 through 4, showing the centerline profile of BUS No. 1 shall be attached to and become part of this Invitation.

(2) SKETCHES 5 Through 12, - The enclosed new Sketches 5 through 12, showing the centerline profile of BUS No. 2 shall be attached to and become part of this Invitation.

(3) SKETCH 13, - The enclosed new Sketch 13, showing soundings of BUS No. 4 shall be attached to and become part of this Invitation.

(4) Sheet 10 of 10.- The enclosed new Sheet 10 of 10 supercedes that issued with this Invitation.

2. This amendment shall be attached to and become a part of this Invitation.

4 Encls:

1. Bid Sched, Pgs 1 thru 3
2. Para 3.8, Diving Operations
3. Sketches 1-12 7 13
4. Sht 10 of 10

**TRINITY RIVER AND TRIBUTARIES,
TEXAS, CHANNEL TO LIBERTY AT SMITH
POINT IN CHAMBERS COUNTY, TEXAS,
DREDGING AND MARSH CREATION**

**BIDDING SCHEDULE
(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<u>SCHEDULE NO. 1</u>					
0001	Geotextile, BUS 1	17,430	S.Y.	\$ _____	\$ _____
0002	Geotextile Tubes (Reach 1A)	1,200	L.F.	\$ _____	\$ _____
0003	Geotextile Tubes (Reach 1)	700	L.F.	\$ _____	\$ _____
0004	Geotextile Tubes (Reach 2)	4,000	L.F.	\$ _____	\$ _____
0005	Geotextile Tubes (Reach 3)	800	L.F.	\$ _____	\$ _____
0006	Geotextile Tubes (Reach 4)	1,855	L.F.	\$ _____	\$ _____
0007	Ditches	3,672	L.F.	\$ _____	\$ _____
0008	Earth Covered Dikes	1,800	L.F.	\$ _____	\$ _____
0009	Surveys, BUS 2	1	L.S.	\$ _____	\$ _____
0010	Blanket Stone (1/2"-6")	4,160	TON	\$ _____	\$ _____
0011	Riprap (25-420 lbs)	25,565	TON	\$ _____	\$ _____

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(To Accompany Amendment No. 0003 to Invitation No. DACW64-02-B-0025)

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**BIDDING SCHEDULE (Cont'd)
(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<u>SCHEDULE NO. 1 (Cont'd)</u>					
0012	Mobilization and Demobilization	1	L.S.	\$ _____	\$ _____
0013	Dredging (Section 2a)	53,800	C.Y.	\$ _____	\$ _____
0014	Dredging (Sections 1, 2b,3 thru 6)	749,900	C.Y.	\$ _____	\$ _____
0015	Pipelines	1	L.S.	\$ _____	\$ _____
0016	Removal and Disposal of One (1) Sunken Vessel and Debris Within 50 Feet of the Vessel	1	L.S.	\$ _____	\$ _____
TOTAL SCHEDULE NO. 1					\$ _____

BIDDING SCHEDULE (Cont'd)
(TO BE ATTACHED TO STANDARD FORM 1442)

1. ARITHMETIC DISCREPANCIES (JAN 1997)(EFARS 52.214-5000).

(a) For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:

- (1) Obviously misplaced decimal points will be corrected;
- (2) Discrepancy between unit price and extended price, the unit price will govern;
- (3) Apparent errors in extension of unit prices will be corrected;
- (4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the Government will proceed on the assumption that the bidder intends his bid to be evaluated on the basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

2. MODIFICATIONS (CESWG). If a modification to a bid based on unit prices is submitted, which provides for a lump sum adjustment to the total estimated cost, the application of the lump sum adjustment of each unit price in the bid schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rata basis to every unit price in the bid schedule.

3.8 DIVING OPERATIONS.

3.8.1 References. Diving operations shall be performed and conducted in accordance with the requirements of the edition of the following documents in effect at the time of execution of the Notice to Proceed. Where a difference in standards exists, the most stringent shall generally apply.

- (1). EM 385-1-1, U.S. Army Corps of Engineers' Safety and Health Requirements Manual.
- (2) U.S. Navy Diving Manual, Volumes I and/or II (NAVSEA, 0994-LP-001-9010 and NAVSEA 0994-LP-001-9020), as appropriate.
- (3) 29 CFR 1910, Subpart T, OSHA.
- (4) 49 CFR 197 Coast Guard, DOT.
- (5) Consensus Standards for Commercial Diving Operations, (most current edition), Association of Diving Contractors, Inc.

3.8.2 Documents shall be prepared in accordance with EM 385-1-1, Section 30. The following provides clarification and presents implementation and enforcement policy for all Galveston District Contract Diving Operations. The term "Contractor" includes sub-contractors at any tier, and all forms of contracting arrangements, including, but not limited to construction contracts, service contracts, purchase orders, delivery orders under an Indefinite Delivery contract, etc.

3.8.3 General Requirements. The Contractor shall have and execute a Diving Safe Practices Manual.

3.8.3.1 Submittal. The Diving Safe Practices Manual shall be furnished by the Contractor as a single submittal except as noted below. All items shall be reviewed and accepted, in writing, by the District Diving Coordinator (DDC), or in its absence, the Alternate DDC, prior to commencement of any diving operations. These items shall be a completely separate document from the Accident Prevention Plan required for any other work under the contract.

3.8.3.2 Diving Safe Practices Manual. The manual shall include, as a minimum, information outlined in EM 385-1-1, paragraph 30.A.11.a. It shall be submitted to the DDC for review at least fifteen (15) days prior to commencement of diving operations and accepted by the DDC prior to commencement of any diving operations. If the Contractor has an accepted current Diving Safe Practices Manual on file with the DDC, it shall be identified by date and appropriate supplemental information provided as necessary to update status of dive team members, equipment certifications, breathing air

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o recertification. See paragraphs 30.A.06, 30.A.08, and 30.A.12 regarding physicals, First Aid, CPR, oxygen administration, and physicals, and paragraph 30.E regarding equipment and breathing air requirements. This information shall be available to all dive team members and Government representatives at the dive location.

3.8.4 Job Specific Requirements. The following documents shall be prepared for each dive operation. They shall be submitted for review, and approved in writing, by the DDC or alternate DDC prior to commencement of any diving operations.

3.8.4.1 Dive Operations Plan. The Dive Operations Plan shall be prepared in accordance with ER 385-1-1, paragraph 30.A.13 and contain information specific to the diving operations to be performed under this contract. Requirements and certifications outlined in the Diving Safe Practices Manual that contain expiration dates shall be updated and submitted as part of this plan. It shall include the following items, as necessary, to update the appropriate dated items:

- (1) A medical certificate from a licensed physician shall be provided certifying that a physical examination of the diver has been conducted by that physician within 365 calendar days immediately prior to the date of any dive performed under this contract (sec. 30.A12.a, EM 385-1-1). The certificate shall indicate that the diver is physically qualified to perform diving work, and shall detail any limitations the individual may have. The certificate must have a legible physician's signature.
- (2) A current resume for each diver, describing diving training and experience for that individual.
- (3) Proof of current certification for CPR, first-aid training, and oxygen administration for each member of the dive team.
- (4) Air quality certificates or other documents, demonstrating that the breathing air source, including emergency air supply, for the divers has been tested on a 6-month basis, and complies with the standards specified in EM 385-1-1, paragraph 30.E.05.b.
- (5) Certification or documentation that any high pressure breathing air cylinders to be used by the divers have been visually inspected at 12-month intervals and hydrostatically tested at 5-year intervals as specified in EM 385-1-1, paragraph 30.B.03.f.(3).
- (6) Certificate of air hose pressure test to 1.5 times the working pressure. Hoses shall be tested at least annually and meet specifications listed in SAE 100-R3.

- (7) Pneumofathometer certificate of calibration.
- (8) Each Dive Operations Plan must include the statement: "If for any reason the dive plan is altered in mission, depth, personnel, or equipment, the USACE Command Diving Coordinator (UDC) at the district level shall be contacted and shall review any revision prior to actual operations."
- (9) A copy of the accepted plan shall be available at the diving location while diving is conducted.

3.8.4.2 Activity Hazards Analysis. The Activity Hazards Analysis shall be prepared for each diving operation and specific activities associated with the work to be performed. It shall identify and mitigate site specific hazards to dive team members. Refer to EM 385-1-1, paragraphs 01.A.09 thru 01.A.11. It must also address other work of any kind being performed that could interface with or affect the diving operations. This includes activities such as crane lifts, and the methods or procedures for communications between the work, crane operators, etc., and the divers. Applicable lock out, tag out, or safe clearance procedures for any machinery and procedures for dealing with differential water pressures due to unequal water elevations that could affect the divers must also be included with the Analysis.

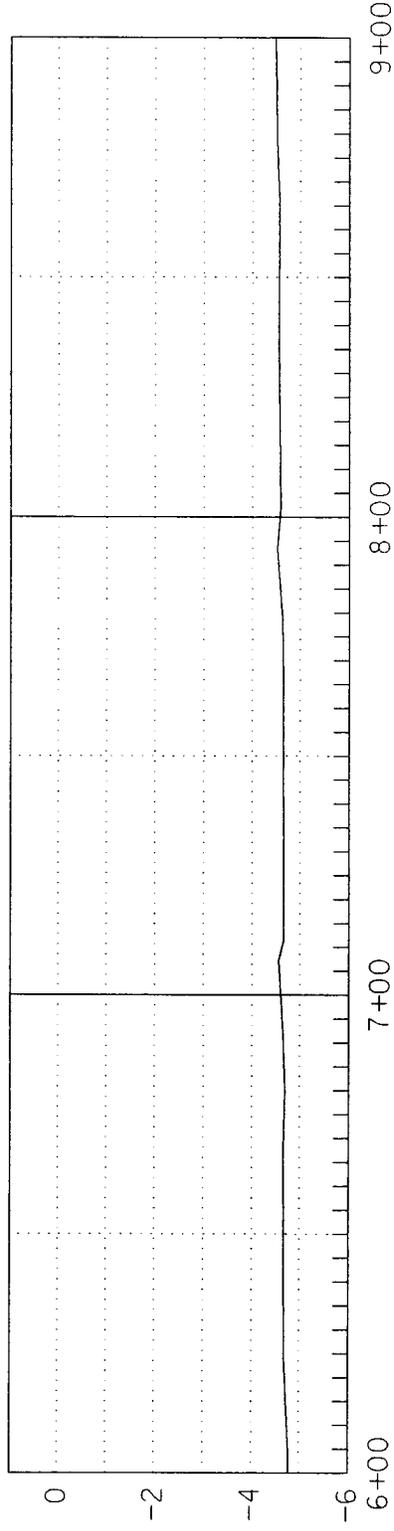
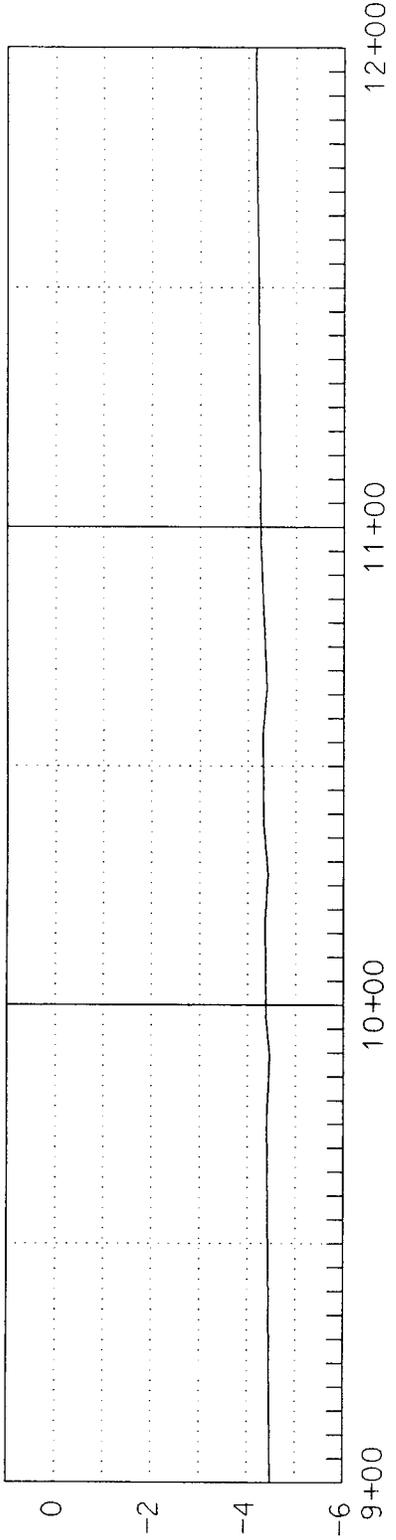
3.8.4.3 Site Emergency Management Plan. This document shall include, as a minimum, items specifically listed in EM 385-1-1, paragraph 30.A.13.a. (8) and submitted as part of the Dive Operations Plan. This plan shall be specific to the location of the actual diving operations.

3.8.4.4 Other Requirements. In addition to the requirements for submitting a Dive Operations Plan, Activity Hazards Analysis, and Site Emergency Management Plan, the following actions shall be accomplished:

- (1) A pre-dive conference, at the scene of the diving activities, shall be conducted with all dive team members as identified in EM 385-1-1, paragraph 30.A.14. At the conclusion of the pre-dive conference, all dive team members shall sign and date a copy of the plan. This document with original signatures shall be submitted to the DDC at the conclusion of the contract work.
- (2) Daily briefings shall be accomplished as summarized in EM 385-1-1, paragraph 30.A.15. A Checklist shall be utilized. It shall be signed and dated by all team members. These daily checklists with original signatures shall be submitted to the DDC at the conclusion of the contract work.

- (3) Daily dive logs for each diver and dive shall be maintained. The logs shall contain information summarized in EM 385-1-1, paragraph 30.A.17. Copies of the logs shall be submitted to the DDC after completion of the diving operations.

BENEFICIAL USE SITE NO. 1



NOTES:

1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
2. VERTICAL DATUM : COE MEAN LOW TIDE
3. VERTICAL SCALE : 1" = 10'
4. HORIZONTAL SCALE : 1" = 40'

Sketch # 2
This Accompanies
Amendment # **CW03**

INVITATION NO.
D4C064-C
02-8-0025

TRINITY RIVER AND TRIBUTARIES, TEXAS
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO.1
Centerline Profiles
6+00 THROUGH 12+00

Drawing No.:

File No. TRN 201-07

Drawn by: C.M.	Date: MAY 2002
Checked by: X	Scale: AS SHOWN
Submitted by: X	Approved/Recommended:
M.C. MCCLERNAN, P.E.	DAVID B. CARROLL, P.E.
Chief, Engineering Branch	Chief, Engineering Branch
Approved by: HARRY G. KOME BN, P.E.	Chief, Engineering and Construction Division
SURVCON INC. 5977 WOODWAY, HOUSTON, TEXAS 77057 (713) 780-4823	

REV.	DATE	DESCRIPTION
1	24 MAY 02	ADDED PROBE LOCATIONS

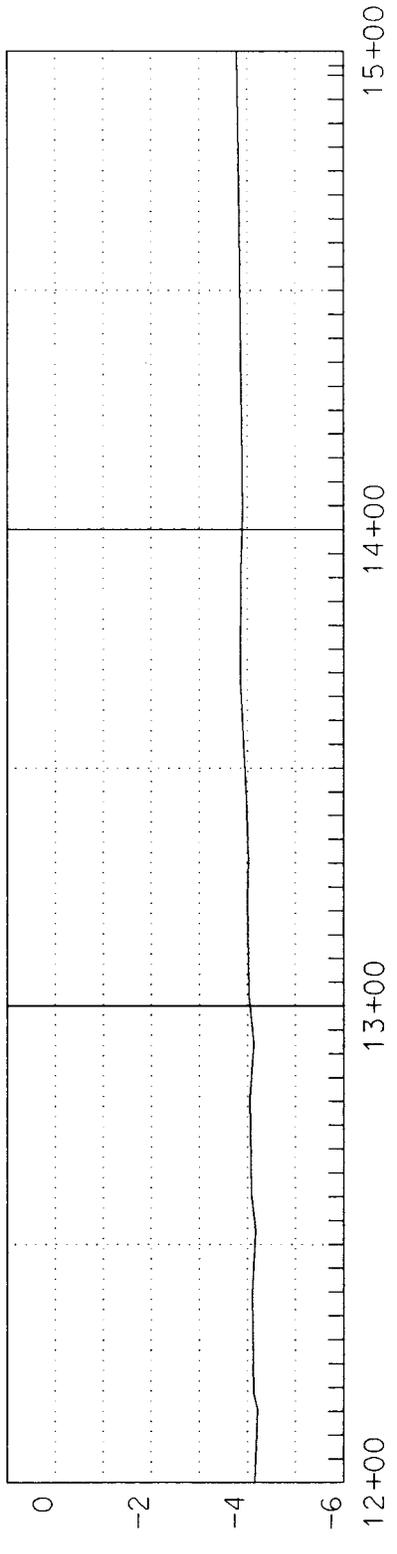
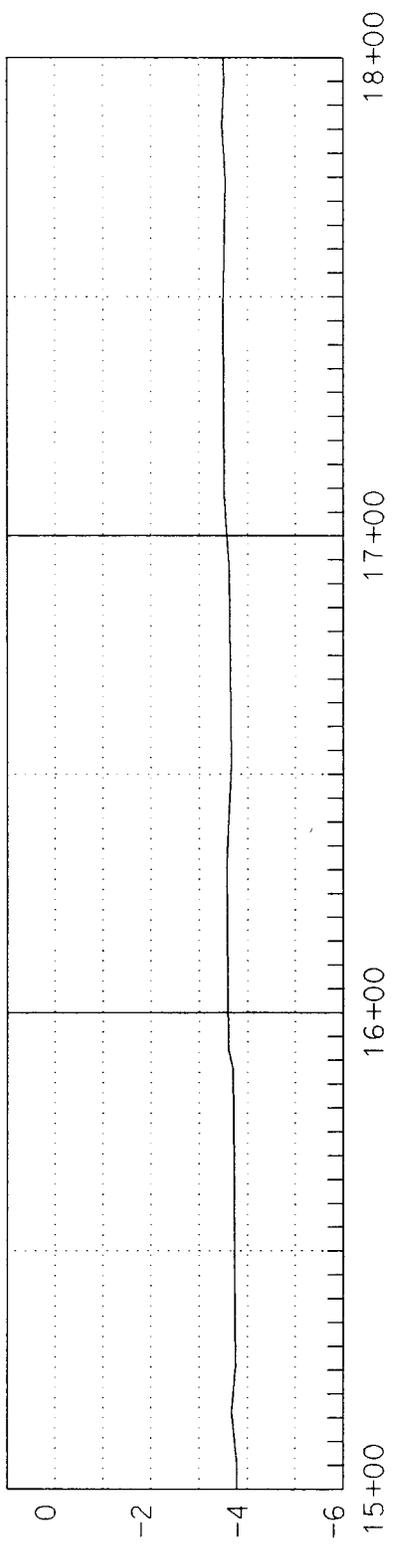


US Army Corps of Engineers
Galveston District



US Army Corps of Engineers
Galveston District

BENEFICIAL USE SITE NO. 1



- NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

Sketch # 3
This Accompanies
Amendment #2003

INVITATION NO.
DACW64-02-8-0025

Drawing No.:

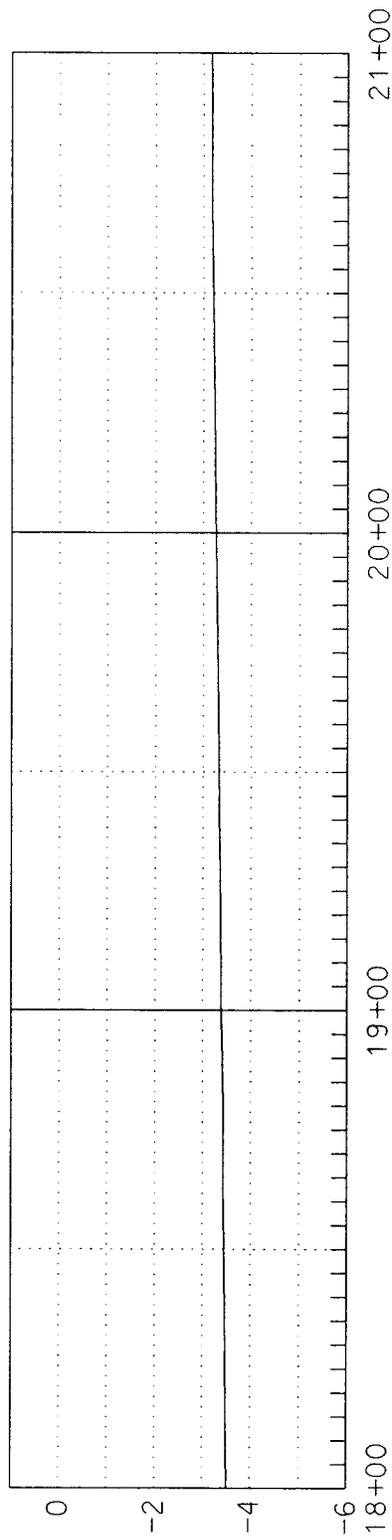
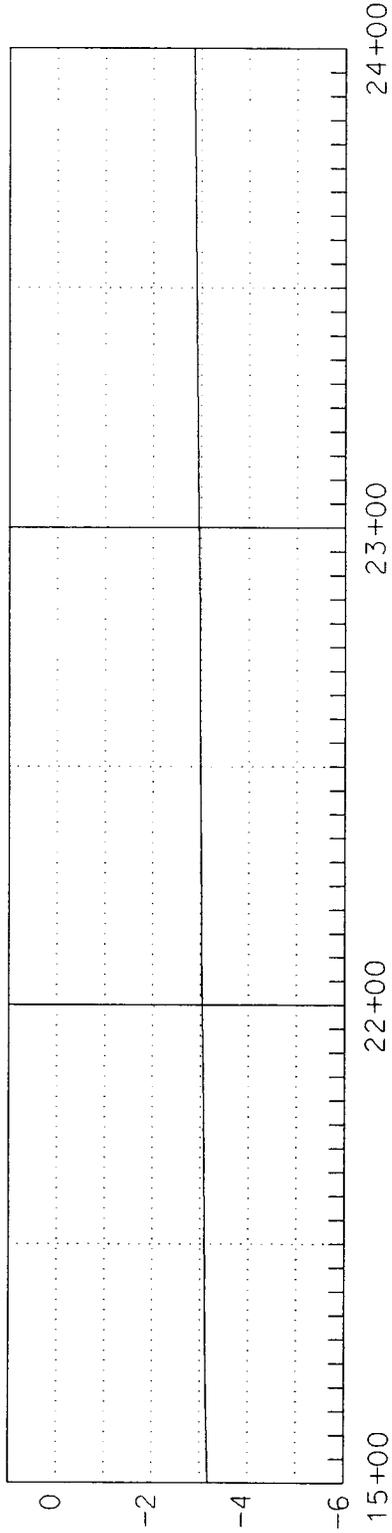
TRINITY RIVER AND TRIBUARIES, TEXAS
DREDGING AND MARSH CREATION
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO.1
Centerline Profiles
12+00 THROUGH 18+00

U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS
SURVCON INC.
5151 WOODBRIDGE, HOUSTON, TEXAS 77057
(281) 760-423

U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS
Checked by: X
Designed by: X
Scale: AS SHOWN
Approved/Recommended: M. C. GILMAN, P.E.
Chief, Engineering Branch
Approved by: HARRY G. KOEHLER, P.E.
Chief, Engineering and Construction Division

REV.	DATE	BY	DESCRIPTION
24	MAT'N		ADDED PROBE LOCATIONS

BENEFICIAL USE SITE NO. 1



- NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

Sketch # 4
This Accompanies
Amendment # 2003

INVITATION NO.
DACW64-
02-B-0025

Drawing No.:

TRINITY RIVER AND TRIBUTARIES, TEXAS
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO.1
Centerline Profiles
18+00 THROUGH 24+00

U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS

Drawn by: C.A.L. Date: MAY 2002
Checked by: X
Scale: AS SHOWN

Approved/Recommended by: M. C. BUCKNER, P.E.
Lead Engineer
DAVID B. CAMPBELL, P.E.
Dist. Engineering Division

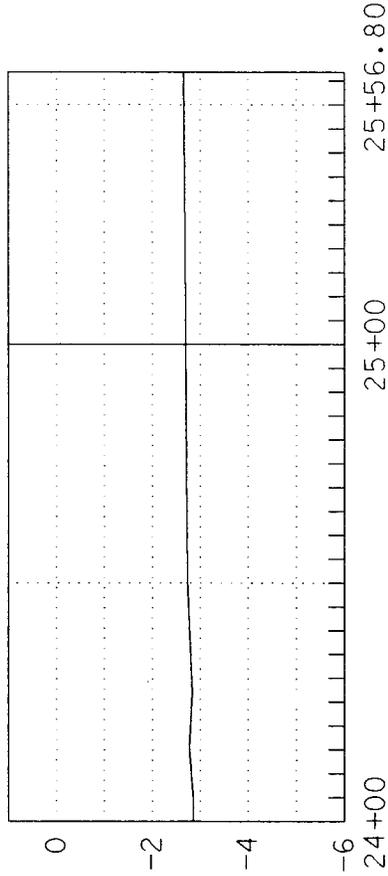
Approved by: HARRY G. KOHLER, P.E.
Chief, Engineering and Construction Division

5751 MOORE AVENUE, SUITE 3700, TEXAS 77581
SURVCON INC.
PROFESSIONAL SURVEYORS

Rev.	Date	Description
1	24 MAY 02	ADDED PROBE LOCATIONS

U.S. Army Corps of Engineers
Galveston District

BENEFICIAL USE SITE NO. 1



- NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

Sketch # 5
This Accompanies
Amendment **2003**

Drawing No:

INVITATION NO.
DACW64-
02-B-0025

File No. TRN 201-07

TRINITY RIVER AND TRIBUTARIES, TEXAS
DREDGING AND MARSH CREATION
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO. 1
Centerline Profiles
24+00 THROUGH 25+25.80

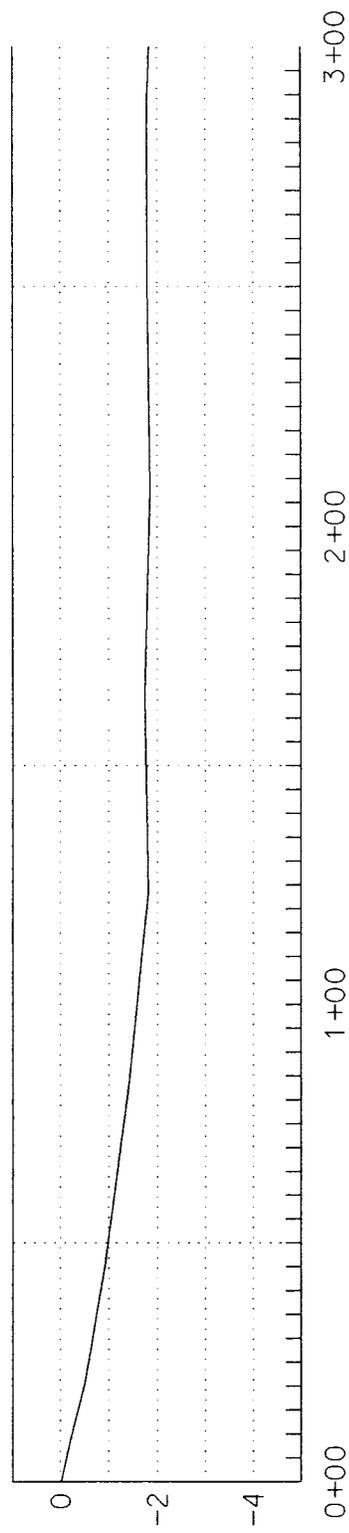
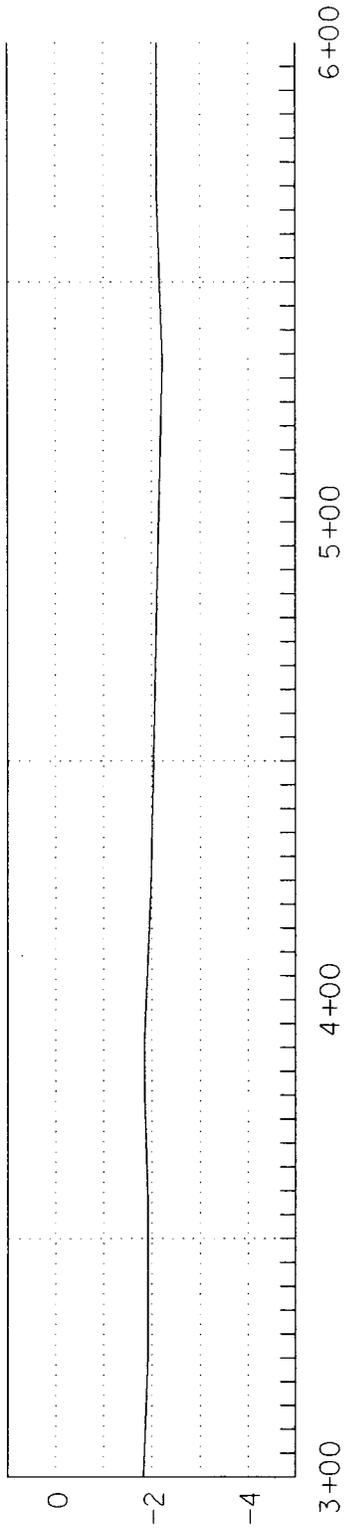
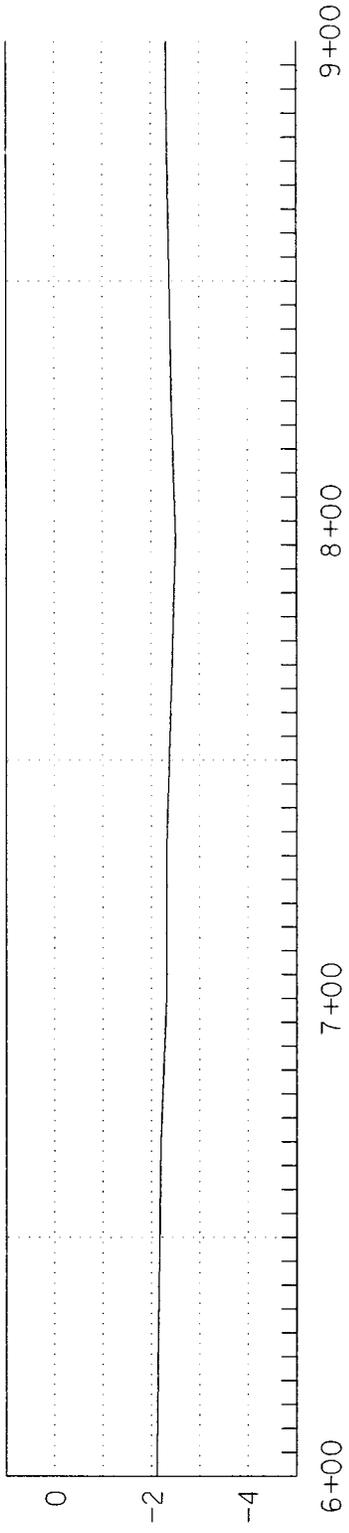
U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS
SURVCON INC.
PROFESSIONAL SURVEYORS
5137 MOOREAVENUE, HOUSTON, TEXAS 77057

Drawn by: C.A.F. Date: MAR 2002
Designed by: X
Checked by: X
Submitted by: X
Approved/Recommended: M. C. McCLENNAN, P.E.
Approved/Recommended: DAVID S. CARROLL, P.E.
Chief, Engineering Branch
HARRY D. KOHLER, P.E.
Chief, Engineering and Construction Division

Rev.	AM. #	ADDED PROBE LOCATIONS	Description	Date	By
				24 MAY 02	P.N.

US Army Corps of Engineers Galveston District

BENEFICIAL USE SITE NO. 2



Sketch # 6
 This accompanies
 Amendment # **0003**

- NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

INVITATION NO.
 DACW64-
 02-B-0025

Drawing No.:

TRINITY RIVER AND TRIBUTARIES, TEXAS
 DREDGING AND MARSH CREATION
 CHANNEL TO LIBERTY AT SMITH POINT
 BUS NO.2
 CENTERLINE FROM
 0+00 THROUGH 9+00

U.S. ARMY ENGINEER DISTRICT, GALVESTON
 CORPS OF ENGINEERS
 GALVESTON, TEXAS

Drawn By: CARL
 Date: MAY 2002
 Checked By: X
 Scale: AS SHOWN
 Submitted By: M. C. MCKELM, P.E.
 Date: ENGINEERING DESIGN
 Approved By: HARRY G. KOHLER, P.E.
 Title: ENGINEERING AND CONSTRUCTION DIVISION

Rev.	AM. BY	DATE	DESCRIPTION
1	ADDED PROBE LOCATIONS	24 MAY 02	



BENEFICIAL USE SITE NO. 2

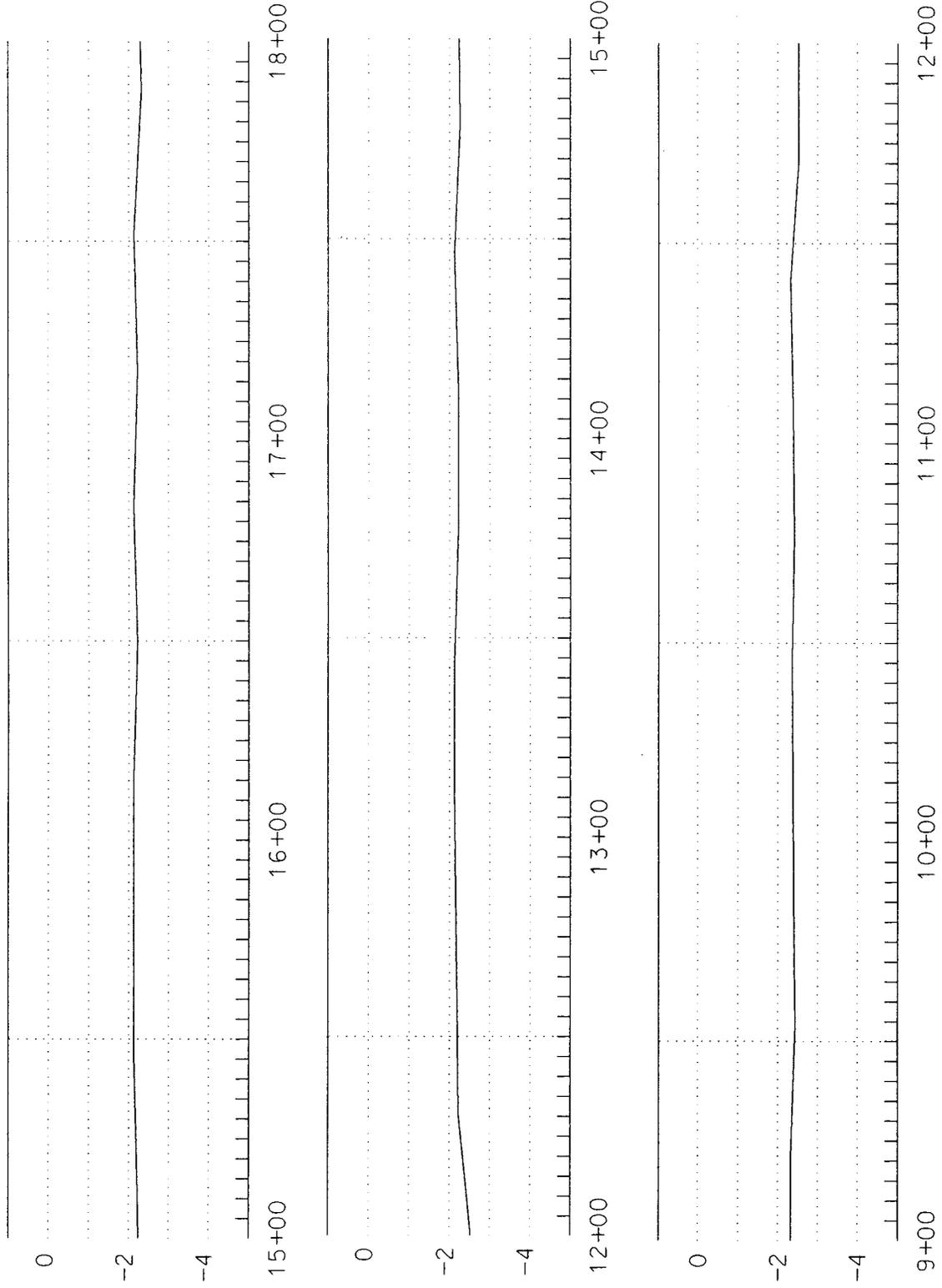


Rev.	AM. #1	DATE	BY	Description
		24 MAY 2002		ADDED PROBE LOCATIONS

Rev.	DATE	BY	DESCRIPTION
	MAY 2002		SCALE AS SHOWN
			DESIGNED BY X
			CHECKED BY X
			SUBMITTED BY
			M. C. MCLENNAN, P.E.
			DESIGNED BY
			HARRY C. KOEHLER, P.E.

U.S. ARMY ENGINEER DISTRICT, GALVESTON
 CORPS OF ENGINEERS
 GALVESTON, TEXAS

Drawing No.:
 TRINITY RIVER AND TRIBUTARIES, TEXAS
 DREDGING AND MARSH CREATION
 CHANNEL TO LIBERTY AT SMITH POINT
 BUS NO. 2
 Centerline Profiles
 9+00 THROUGH 18+00



NOTES:
 1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

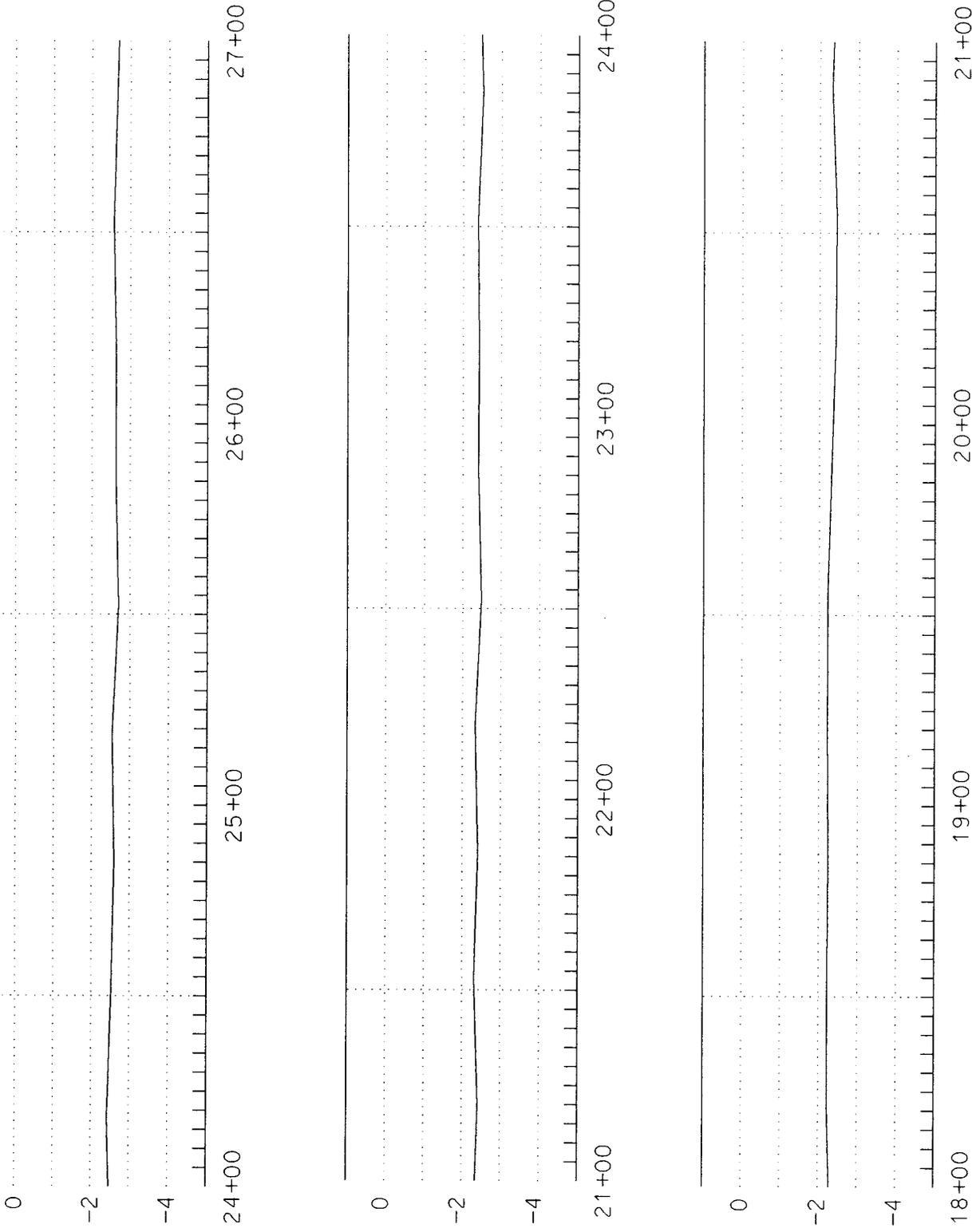
Sketch # 7
 This accompanies
 Amendment # **003**

INVITATION NO.
 DACW64-
 02-B-0025

BENEFICIAL USE SITE NO. 2



US Army Corps of Engineers
Galveston District



Sketch # 8
This accompanies
Amendment # *0003*

- NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

Rev.	AM. #	ADDED PROBE LOCATIONS	Description
	24	MAY	J.N.

Drawn By: X	DATE: MAR 2002	Rev.
Checked By: K	Score: AS SHOWN	
Submitted By: M.C. MOCLEMAN, P.E.	Approved/Recommended: DAVID B. CAMPBELL, P.E.	
Lead Engineer:	Chief Engineering Branch:	
Approved By: HARRY G. KOEHLER, P.E.	Overl. Engineering and Construction Division:	

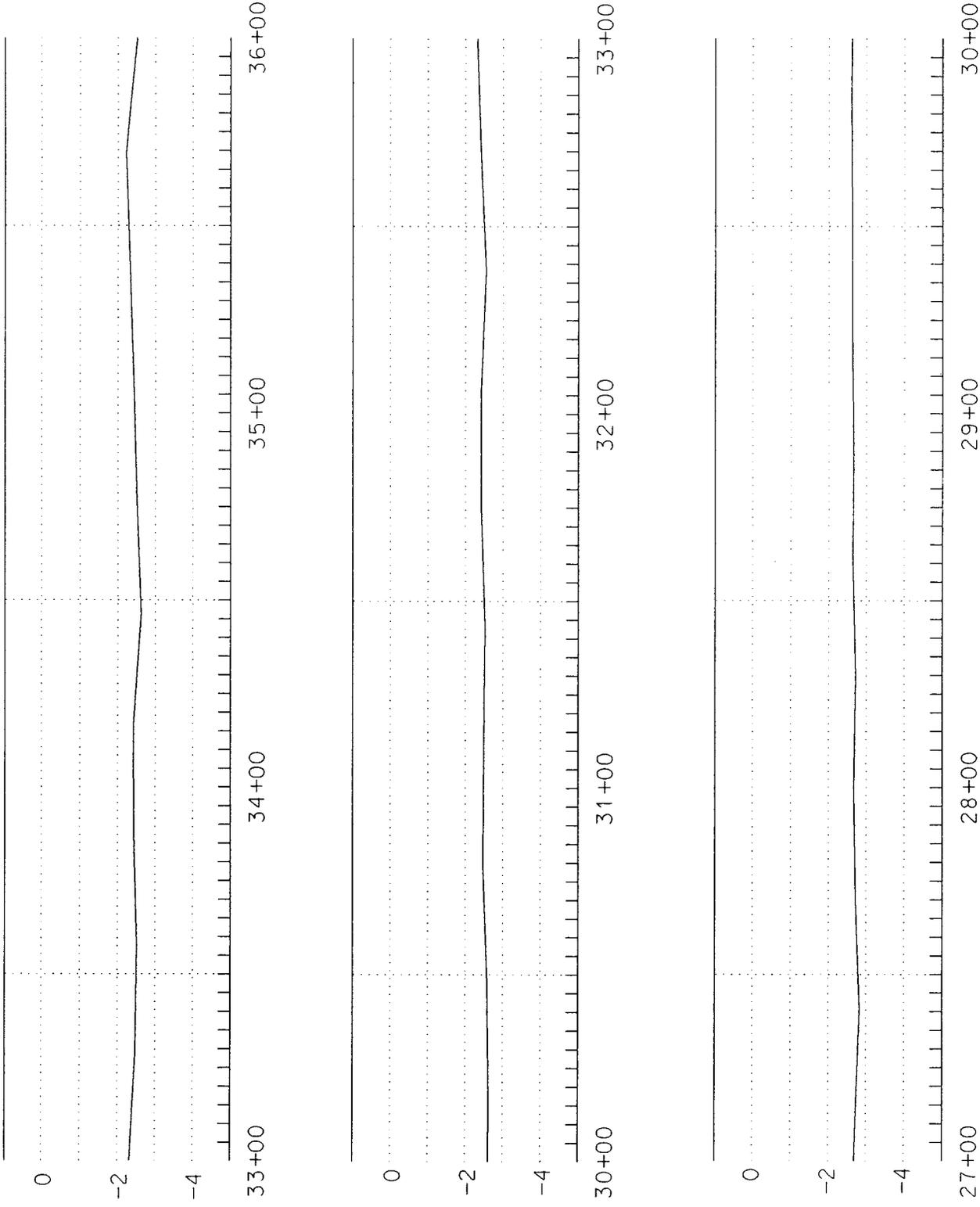
U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
CALVESTON, TEXAS
SURVCON INC.
3757 WOODWAY, HOUSTON, TEXAS 77057
5121-780-4023

TRINITY RIVER AND TRIBUTARIES, TEXAS
DRAINAGE AND MARSH CREATION
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO. 2
Centerline Profiles
18+00 THROUGH 27+00

INVITATION NO.
DACW64-
02-B-0025

File No. TRN 2001-07

BENEFICIAL USE SITE NO. 2



- NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

Sketch # 9
This accompanies
Amendment # 2003

INVITATION NO.
02-046605
02-B-0025

Drawing No.:

TRINITY RIVER AND TRIBUTARIES, TEXAS
DREDGING AND MARSH CREATION
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO. 2
Centerline Profiles
27+00 THROUGH 36+00

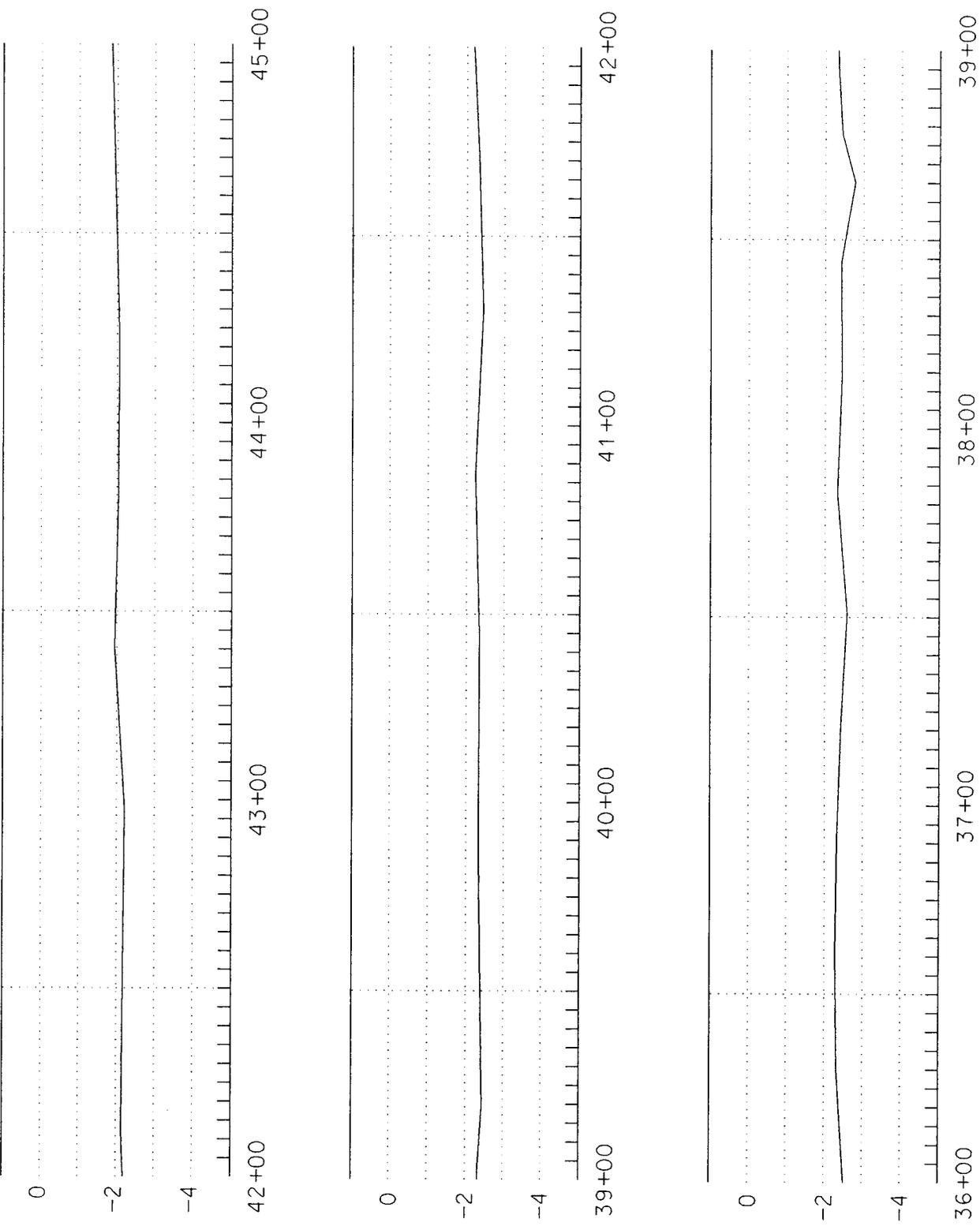
U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS
SURVCON, INC.
PROFESSIONAL SURVEYORS
1937 WOODWAY, HOUSTON, TEXAS 77057

Drawn By:	CAR.
Date:	MAY 2002
Checked By:	X
Submitted By:	X
Approved/Recommended:	
Scale:	AS SHOWN
Drawn:	
Checked:	
Submitted:	
Approved:	
By:	
For:	
Project:	

Rev.	AM. #1	ADDED	PROBE	LOCATIONS	Description	Date	By
	24	MAY	P.N.				



BENEFICIAL USE SITE NO. 2



NOTES:
 1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

Drawing No. 10
 Sketch # 10
 This accompanies
 Amendment # **0003**

INVITATION NO.
 DACW64-
 02-B-0025

Rev.	DATE	DESCRIPTION
1	24 MAY 02	ADDED PROBE LOCATIONS

U.S. ARMY ENGINEER DISTRICT, CALVESTON
 CORPS OF ENGINEERS
 CALVESTON, TEXAS
 5757 MOOREA, HOUSTON, TEXAS 77051
 SURVCON INC.
 PROFESSIONAL SURVEYORS
 (713) 780-8223

Drawn by: C.A.L. DATA
 Date: MAY 2002
 Scale: AS SHOWN
 Checked by: X
 Approved by: X
 Approved by: M.C. MCELHANN, P.E.
 Chief, Engineering Branch
 Approved by: HARRY G. KOEHLER, P.E.
 Chief, Engineering and Construction Division

TRINITY RIVER AND TRIBUTARIES, TEXAS
 DREDGING AND MARSH CREATION
 CHANNEL TO LIBERTY AT SMITH POINT
 BUS NO. 2
 Centerline Profiles
 36+00 THROUGH 45+00

BENEFICIAL USE SITE NO. 2



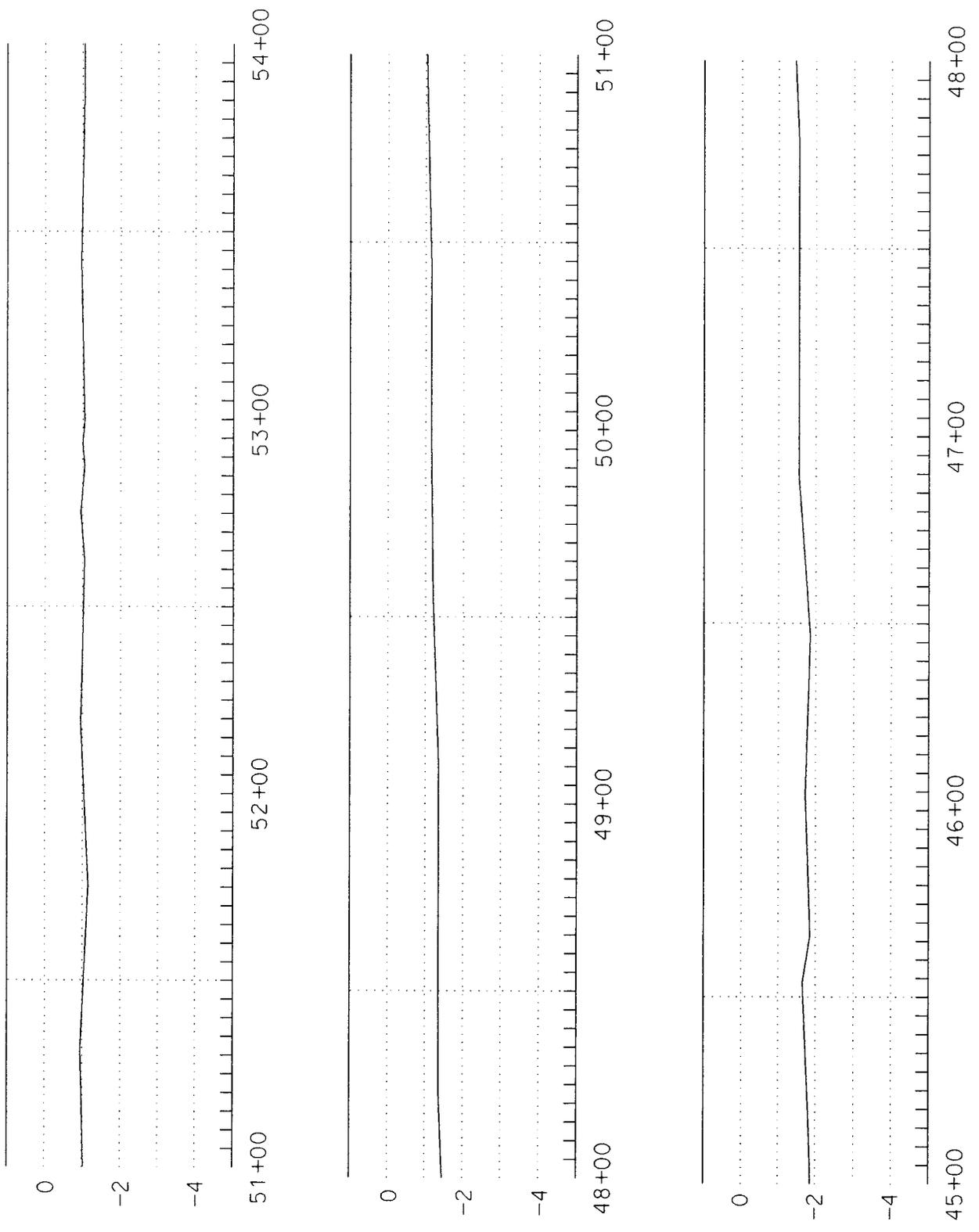
Rev.	Date	Description
24	MAY 2002	ADDED PROBE LOCATIONS

Rev.	Date	Drawn by	Checked by	Scale	Submitted by	Submitted Date	Approved by	Approved Date

TRINITY RIVER AND TRIBUTARIES, TEXAS
 DREDGING AND MARSH CREATION
 CHANNEL TO LIBERTY AT SMITH POINT
 BUS NO. 2
 Centerline Profiles
 45+00 THROUGH 54+00

Drawing No.:

FILE NO. TRN 204-07

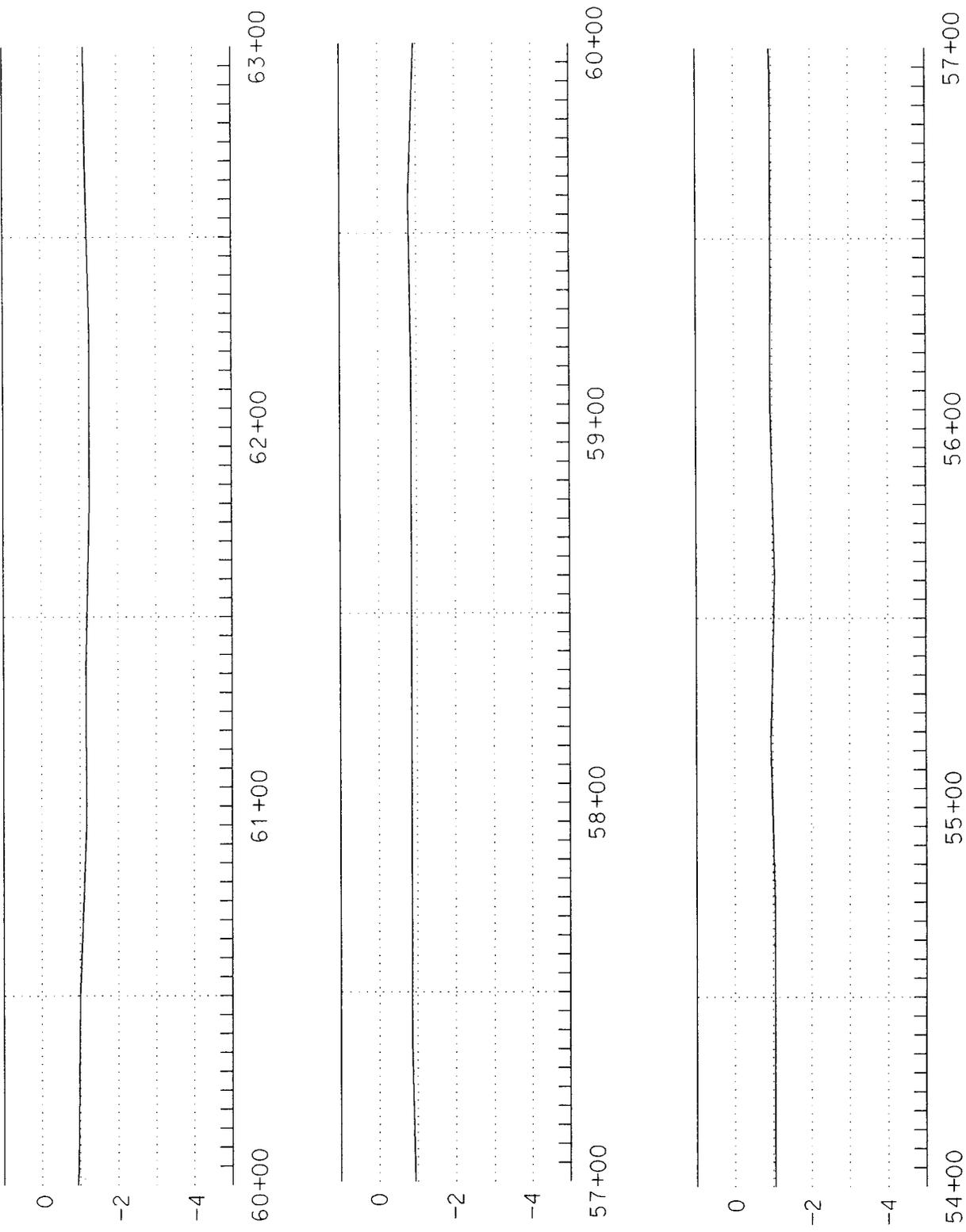


NOTES:
 1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

Sketch # II
 This accompanies
 Amendment # **0003**

INVITATION NO. DACNG4-02-B-0025

BENEFICIAL USE SITE NO. 2



- NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
 2. VERTICAL DATUM : COE MEAN LOW TIDE
 3. VERTICAL SCALE : 1" = 10'
 4. HORIZONTAL SCALE : 1" = 40'

Sketch # 12
This accompanies
Amendment # **002**

INVITATION NO.
DACM64-
02-B-0025

Drawing No.:

TRINITY RIVER AND TRIBUTARIES, TEXAS
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO.2
Centerline Profiles
54+00 THROUGH 63+00

U.S. ARMY ENGINEER DISTRICT, CALVESTON CORPS OF ENGINEERS CALVESTON, TEXAS	U.S. ARMY ENGINEER DISTRICT, CALVESTON CORPS OF ENGINEERS CALVESTON, TEXAS
Drawn by: C.A.B. Date: MAY 2002	Checked by: X
Approved by: X	Scale: AS SHOWN
Submitted by: M. C. MCKELMAN, P.E.	Approved/Recommended:
Lead Engineer: DAVID B. CARROLL, P.E.	Checked by: X
Chief, Engineering and Construction Division: HARRY S. KOEHLER, P.E.	Drawn by: X

AM. #	DATE	DESCRIPTION
24	MAY 12	ADDED PROBE LOCATIONS

BENEFICIAL USE SITE NO. 2

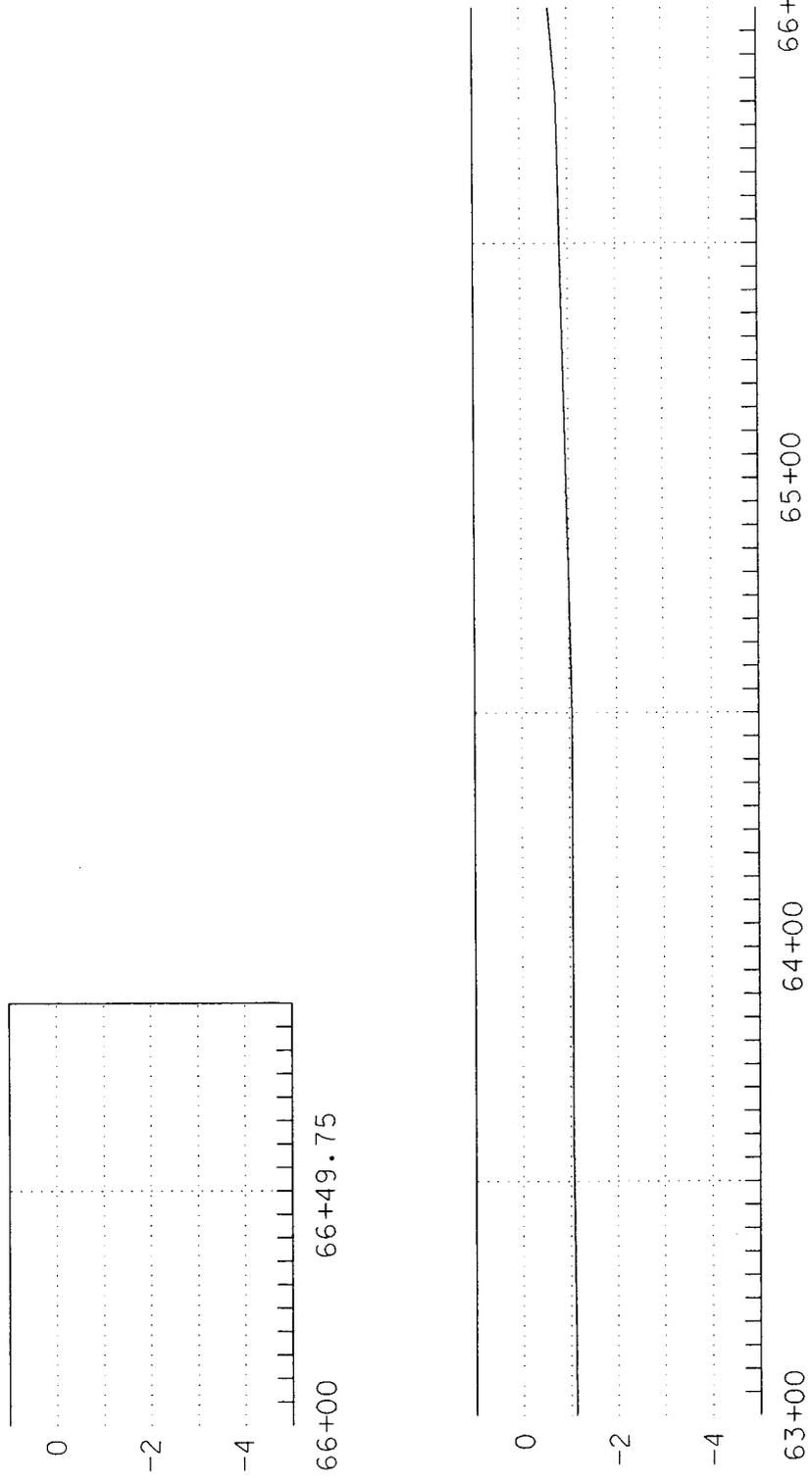


Rev.	AM. #	ADDED PROBE LOCATIONS	Description
	2	MAY	P.J.N.

DESIGNED BY E. J. ...	DATE MAY 2002
CHECKED BY X	SCALE AS SHOWN
SUBMITTED BY M.C. MCGINNIS, P.E.	APPROVED/RECOMMENDED BY DAVID B. CAMPBELL, P.E.
APPROVED BY HARRY G. KOHLER, P.E.	CHIEF, ENGINEERING BRIGADIER
SURVCON INC. 5157 WOODWAY, HOUSTON, TEXAS 77057 (713) 760-883	
U.S. ARMY ENGINEER DISTRICT, GALVESTON CORPS OF ENGINEERS GALVESTON, TEXAS	

TRINITY RIVER AND TRIBUTARIES, TEXAS
DREDGING AND MARSH CREATION
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO. 2
Centerline Profiles
63+00 THROUGH 66+49.75

Drawing No.:
INVITATION NO.
DACW64-
02-B-0025

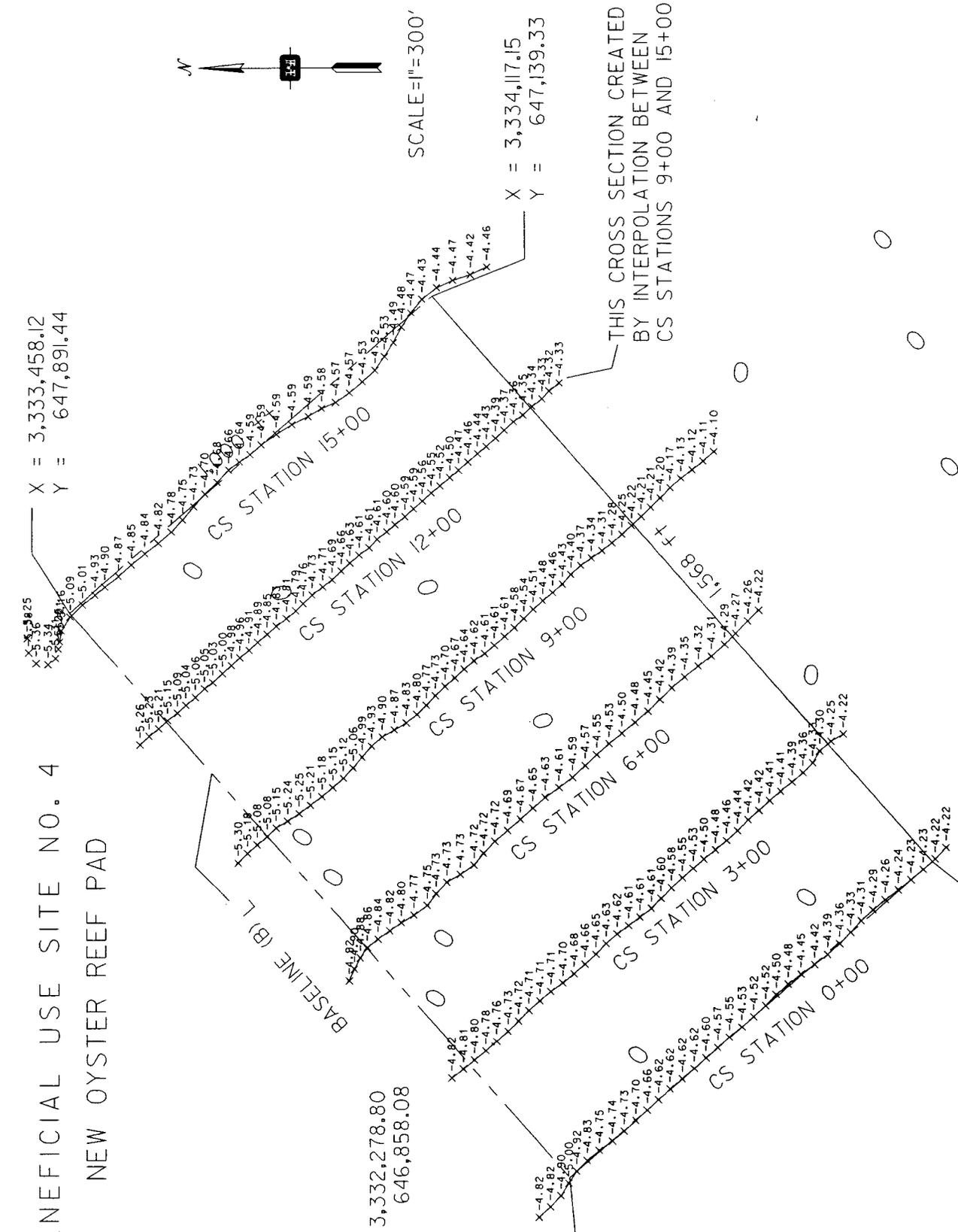


- Sketch # 13
This accompanies
Amendment # 0003
- NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
2. VERTICAL DATUM : COE MEAN LOW TIDE
3. VERTICAL SCALE : 1" = 10'
4. HORIZONTAL SCALE : 1" = 40'

BENEFICIAL USE SITE NO. 4
NEW OYSTER REEF PAD

X = 3,332,278.80
Y = 646,858.08

X = 3,332,937.83
Y = 646,105.97



SCALE=1"=300'

X = 3,334,117.15
Y = 647,139.33

THIS CROSS SECTION CREATED
BY INTERPOLATION BETWEEN
CS STATIONS 9+00 AND 15+00



TRINITY RIVER AND TRIBUTARIES, TEXAS
CHANNEL TO LIBERTY AT SMITH POINT
BUS NO.4 OYSTER REEF AREA
PLAN

Drawing No. 0003

INVITATION NO. 02-B-5025

File No. TRN 20-07

REV.	DATE	DESCRIPTION
1	24 MAR 78	ADDED PROBE LOCATIONS

REV.	DATE	BY	DESCRIPTION
1	MAY 2002	SCHEM AS SHOWN	
2		DESIGNED BY	
3		CHECKED BY	
4		APPROVED FOR CONSTRUCTION	
5		DATE	
6		BY	
7		DESCRIPTION	

U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS
SURVCON INC.
PROFESSIONAL SURVEYORS
1951 WOODLAND HEIGHTS, TEXAS 77603
FORWARD BY: HARRY G. KOEHL, P.E.
DATE: 02/28/02
CHECKED BY: J. G. COLEMAN, P.E.
APPROVED FOR CONSTRUCTION: [Signature]SCALE AS SHOWN

NOTES:
1. HORIZONTAL DATUM : NAD27, TX STATE PLANE COORD. SYSTEM, SC ZONE
2. VERTICAL DATUM : COE MEAN LOW TIDE