Teel, Steve (ECY)

From: Alex Smith [AlexS@portolympia.com]
Sent: Thursday, August 25, 2011 11:19 AM
To: Teel, Steve (ECY)
Cc: Troy Bussey; Eric Egge
Subject: Additional Documents re Gravel Filling

Hi Steve --

Just wanted to let you know it took us a little longer than we anticipated to track down the additional documents you requested regarding the 1982 gravel filling event. we are hoping to have the documents from archives later today and will get you copies as soon as we are able.

Thanks, and let us know if you have any questions.

Alexandra K. Smith
Sr. Environmental Program Mgr./Environmental Legal Counsel
Port of Olympia
915 Washington St. NE
Olympia, WA 98501
(360) 528-8020
alexs@portolympia.com

Teel, Steve (ECY)

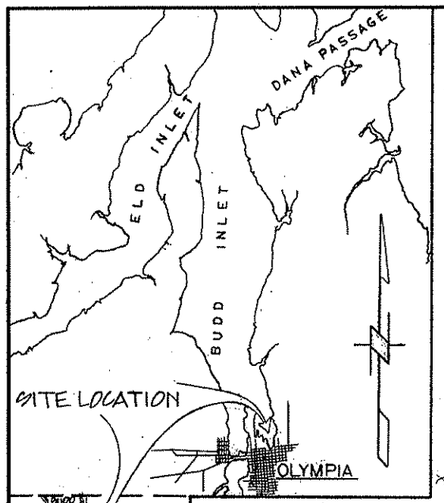
From: Alex Smith [AlexS@portolympia.com]
Sent: Thursday, August 25, 2011 4:56 PM
To: Teel, Steve (ECY)
Cc: Troy Bussey
Subject: Documents

Hi Steve --

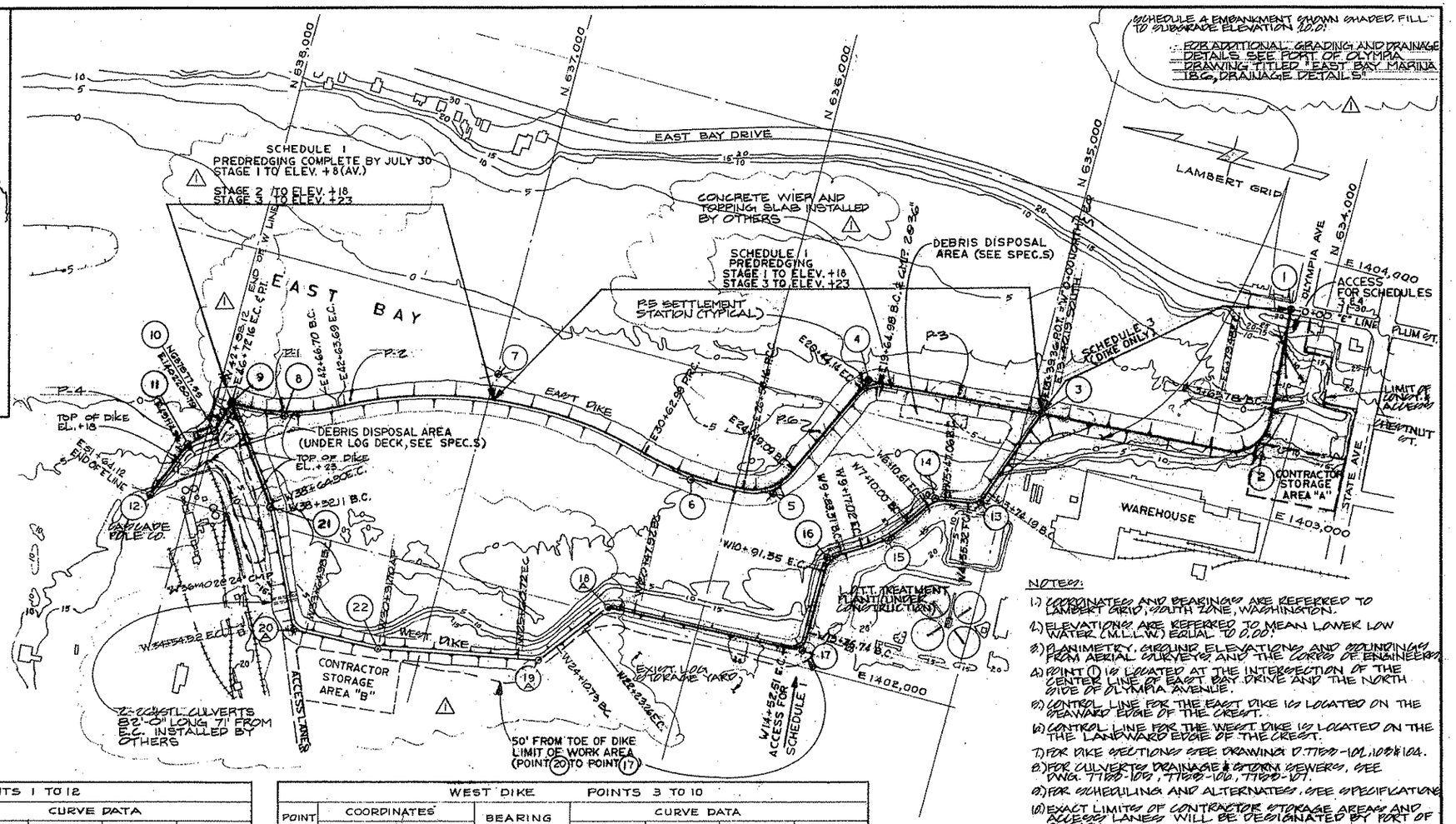
I have the documents in hand and, since they are fairly large, can drop them off for you tomorrow (Friday). Is there a time tomorrow you will be around and I can bring them by Ecology?

Thanks.

Alexandra K. Smith
Sr. Environmental Program Mgr./Environmental Legal Counsel
Port of Olympia
915 Washington St. NE
Olympia, WA 98501
(360) 528-8020
alexs@portolympia.com



VICINITY MAP
(NO SCALE)



NOTES:

1. COORDINATES AND BEARINGS ARE REFERRED TO LAMBERT GRID, SOUTH ZONE, WASHINGTON.
2. ELEVATIONS ARE REFERRED TO MEAN LOWER LOW WATER (M.L.L.W.) EQUAL TO 0.00'.
3. PLANIMETRY, GROUND ELEVATIONS AND SOUNDINGS FROM AERIAL SURVEYS AND THE CORPS OF ENGINEERS.
4. POINT (1) IS LOCATED AT THE INTERSECTION OF THE CENTER LINE OF EAST BAY DRIVE AND THE NORTH SIDE OF OLYMPIA AVENUE.
5. CONTROL LINE FOR THE EAST DIKE IS LOCATED ON THE SEAWARD EDGE OF THE CREST.
6. CONTROL LINE FOR THE WEST DIKE IS LOCATED ON THE THE LANDWARD EDGE OF THE CREST.
7. FOR DIKE SECTIONS SEE DRAWING D-7753-101, 103 & 104.
8. FOR CULVERTS DRAINAGE & STORM SEWERS, SEE DWG. 7753-105, 7753-106, 7753-107.
9. FOR SCHEDULING AND ALTERNATES, SEE SPECIFICATIONS.
10. EXACT LIMITS OF CONTRACTOR STORAGE AREAS AND ACCESS LANES WILL BE DESIGNATED BY PORT OF OLYMPIA.
11. THIS CONTRACT MUST NOT DISTURB L.O.T.T. TREATMENT PLANT SLUDGE RESERVOIR IMMEDIATELY ADJACENT TO SOUTHERLY TOE OF DIKE FROM POINT 17 TO POINT 13.

EAST DIKE - POINTS 1 TO 12

POINT P.I.	COORDINATES NORTH	COORDINATES EAST	BEARING	CURVE DATA Δ	R	L	T
1	634133.21	1403798.74		—	—	560.82	—
2	634092.71	1403233.36	S 85° 54' 10" W	89°52'12"	200.00'	313.71'	199.55'
3	634950.63	1403169.95	N 4° 15' 58" W	—	—	—	—
4	635618.15	1403120.61	N 4° 15' 38" W	60°28'36"	75.00'	79.16'	43.72'
5	635859.00	1402611.00	N 64° 42' 14" W	59°18'52"	201.95'	209.07'	114.99'
6	636177.00	1402581.00	N 5° 23' 22" W	19°43'35"	1175.85'	404.83'	204.44'
7	636983.00	1402787.00	N 14° 20' 13" E	41°05'08"	1674.43'	1200.70'	627.47'
8	637731.00	1402810.00	N 26° 44' 55" W	28°57'43"	802.13'	405.46'	207.16'
9	637938.00	1402818.00	N 2° 12' 48" E	76°08'02"			
10	637977.55	1402280.78	N 73° 55' 14" W	37° 46' 34"			
11	638056.30	1402221.81	N 36° 08' 40" W	32° 10' 10'			
12	638150.00	1401990.00	N 68° 25' 02" W	—	—	—	—

WEST DIKE POINTS 3 TO 10

POINT P.I.	COORDINATES NORTH	COORDINATES EAST	BEARING	CURVE DATA Δ	R	L	T
3	634950.63	1403169.95		—	—	—	—
13	635091.24	1402775.00	N 70° 24' 12" W	61°56'37"	75.00'	81.13'	45.04'
14	635260.00	1402750.00	N 8° 25' 35" W	48°38'59"	75.00'	63.55'	33.82'
15	635390.00	1402550.00	N 56° 58' 34" W	26°00'44"	456.00'	207.02'	105.39'
16	635590.00	1402430.00	N 30° 57' 50" W	59°02'10"	100.00'	103.04'	56.62'
17	635590.00	1402055.00	N 90° 00' 00" W	88°26'39"	75.00'	115.77'	72.99'
18A	636351.00	1402054.31	N 1° 33' 21" W	50°13' 54"	200.00'	175.34'	93.75'
19A	636574.53	1401781.49	N 51° 47' 15" W	42° 58' 13"	200.00'	149.99'	78.72'
22	637177.04	1401658.03	N 8° 49' 02" W	5° 50' 38"			
20A	637501.27	1401642.12	N 2° 58' 24" W	68°24'26"	75.00'	89.54'	50.98'
21	637690.00	1402055.00	N 65° 26' 02" E	9°46'28"	75.00'	12.79'	6.41'
9	637938.00	1402418.00	N 55° 39' 33" E				

APPROVED FOR CONSTRUCTION

APPROVED FOR PORT OF OLYMPIA

NO.	DATE	REVISION	BY	CHK'D
D	11 MAR. 1981	ADDED VICINITY MAP & GENERAL REVISION	JPM	
C	10 MAR. 1981	REVISED ALIGNMENTS FROM ADDED NOTES & SHADING ⑨ TO ⑪		
B	25 FEB 1981	ADDED STATIONING		
A	7 OCT 1980	FOR CORPS OF ENGINEERS REVIEW		
1	2 FEB 1982	"AS BUILT" REVISIONS		
0	11 MAY 1981	APPROVED FOR CONSTRUCTION		

DWG. No. | REFERENCE | No. | DWG. No. | REFERENCE | No.

JOHN GRESSETT — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

SWAN WOOSTER ENGINEERING INC.
CONSULTING ENGINEERS PORTLAND OREGON

PORT OF OLYMPIA COMMISSION
OLYMPIA, WASHINGTON

EAST BAY MARINA
PHASE I CONSTRUCTION
DIKE PLAN

SCALE	1" = 200	DAY	MO.	YR.	DRAWING NUMBER
DESIGNED	JG				D-7753-101
DRAWN	B.B.	2	OCT	80	
CHECKED	JG	6	8	81	
APPROVED	[illegible]	6	15	81	

REV. 1

E-101 T-31

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SPECIFICATIONS

FOR EAST BAY MARINA, PHASE ONE

CONSTRUCTION OF RETENTION DIKES

FOR THE

PORT OF OLYMPIA

April 1981

Contract No. 186

SPECIFICATIONS
FOR EAST BAY MARINA, PHASE ONE
CONSTRUCTION OF RETENTION DIKES

TABLE OF CONTENTS

(Bidders, Note: This document is to be kept intact. The successful bidder will be furnished the required copies of this proposal or any part hereof.)

ISSUED BY
PORT OF OLYMPIA COMMISSION
915 NORTH WASHINGTON STREET
OLYMPIA, WASHINGTON

(Mailing address: P. O. Box 827, Olympia, Washington 98507)

Phone - 206/754-1650

April 1981

Questions relating to these documents should be directed to the following:

R. O. Malin, Port Engineer, Port of Olympia - 206/754-1659

John Gressitt, Swan Wooster Engineering, Inc. - 503/238-7050

Contract No. 186

INVITATION TO BID

EAST BAY MARINA, PHASE ONE
PORT OF OLYMPIA
OLYMPIA, WASHINGTON
CONTRACT #186

Sealed proposals for the construction of retention dikes, storm drainage and land-filling for East Bay Marina, Phase One, addressed to the Port of Olympia Commission will be received at the office of the Port of Olympia until 2 p.m., PDT, on Monday, May 18, 1981, and then will be publicly opened and read.

The major work items contemplated are as follows:

1. Mobilization, clearing and site preparation.
2. Clamshell dredging, side cast method, of unsuitable material from dike alignment, approximate quantity 120,000 c.y.
3. Construction of retention dikes with imported material, approximate quantity 750,000 tons.
4. Storm drain outfall extensions.
5. Miscellaneous landfilling behind dikes with imported material, approximate quantity 180,000 tons.

This work is located in East Bay, Budd Inlet, within the City of Olympia, Thurston County, Washington.

Each bid must be accompanied by a cashier's check, money order, certified check, or bid bond in an amount equal to 5% of the total amount bid, made payable to the Port of Olympia.

Plans, specifications, instructions and proposal forms may be obtained at the office of the Port of Olympia, 915 North Washington Street (P. O. Box 827), Olympia, Washington 98507. A $50 deposit is required for each set of documents. This deposit will be returned upon return of bid documents within 10 days of the bid closing date.

The Port of Olympia reserves the right to reject any or all proposals or to waive informalities in the bidding. The Port of Olympia further reserves the right to accept that proposal or combination of proposals which is to the best interest of the Port of Olympia.

Dated at Olympia, Washington, April 17, 1981.

Port of Olympia Commission
J. D. Wright, Secretary

INSTRUCTIONS TO BIDDERS

1. PROPOSAL

Sealed bids for this improvement or furnishing these supplies will be received by the Port of Olympia in its offices until such time as is stated in the attached "Notice to Bidders."

Plans, specifications, instructions and proposal forms may be obtained at the office of the Port of Olympia, 915 North Washington Street (P. O. Box 827), Olympia, Washington 98507.

Bids must be made upon the blank form provided therefor by the Port. They must not be detached from the advertisement, specifications, and form of contract; but the entire package must be unbroken and in good order and enclosed with the bid proposal deposit in a sealed envelope indicating the project for which the proposal is made in accordance with the title on these specifications and the time and date of the advertised bid opening. The advertisement and specifications will form a part of the contract.

Proposals shall be signed by an officer or duly authorized representative of the Bidder.

Prices in Bidder's proposal must be written and expressed in figures and, in the case of any discrepancy, written prices will be considered as governing.

If a Bidder wishes to withdraw his proposal, he may do so before the time fixed for the opening, without prejudice to himself by communicating his purpose in writing to the Port.

At the time and place above named, the bids will be publicly opened and read aloud. Bids received after the time set for opening cannot be considered. The Port of Olympia reserves the right to reject any or all proposals or to waive informalities in the bidding.

No Bidder may withdraw his bid after the hour set for the opening thereof or before award of contract unless such award is delayed for a period of 30 days.

2. PROPOSAL GUARANTY

Each bid must be accompanied by a proposal guaranty in the form of a certified check, cashier's check, cash, or proposal bond in an amount equal to at least 5% of the total amount bid, as prescribed in Section 2-1.14 of the Standard Specifications.

As soon as the bid prices have been compared, the Port will return the guaranty deposits accompanying such of the proposals as in its judgment would not be considered in making the award. All other proposal guarantees will be held until the contract has been executed, after which they will be returned to the respective Bidders whose proposals they accompany.

3. BASIS OF AWARD

The award will be made by the Port of Olympia in conformity with Section 3-1.01 of the Standard Specifications.

4. SPECIFICATIONS

Each Bidder shall be responsible for familiarizing himself with the "Standard Specifications for Municipal Public Works Construction," prepared by Washington State Chapter of American Public Works Association (APWA), and revisions and supplements thereto, as adopted by the Port of Olympia, which are the Standard Specifications for this contract and by reference are hereby made a part of these documents as if rewritten herein in their entirety, as well as the Special Provisions hereinafter attached. In case of conflict the "Special Provisions" shall govern.

5. LOCAL CONDITIONS

Bidders are notified that they must carefully examine the plans; special, supplemental and standard specifications; and annexed forms of Proposal, Contract and Bond, and familiarize themselves with all state, city and other laws pertaining to this improvement. They must also examine and judge for themselves as to the location and character of the proposed work, the amounts and quality of the materials required, the work to be done, and other features encountered. If there is any doubt or obscurity as to the meaning of any part of the plans and specifications, it shall be brought to the attention of the Engineer in order that the necessary explanations or corrections may be made before submitting the bid.

Bidders shall make their own investigations of soil conditions and make their own tests which they may consider necessary in order to determine foundation conditions or the character of material to be excavated, prior to bidding.

6. ESTIMATE OF QUANTITIES

The estimated quantities of work to be done are listed on the Proposal form. These quantities are approximate only and are given only as a basis of calculation for comparison of bids and award of contract. The Port reserves the right to increase or diminish the amount of any class of work or materials as prescribed in Section 4-1.03 of the Standard Specifications.

7. STATE SALES TAX

The payment of state sales tax, where applicable, will be made by the Port of Olympia to the Contractor in compliance with Section 7-1.09 of the Standard Specifications, and as further defined by current Tax Commission rules.

8. PAYMENTS

Progress estimates of the work done will be made by the Engineer, as prescribed in Section 9-1.05 of the Standard Specifications, on or about the end of each calendar month. Estimates will be acted upon by the Port Commission on or about the third Wednesday of the month and warrants will be issued by the Port for the estimate, less 10%, which shall be retained by the Port as provided in the Standard Specifications.

9. MINIMUM WAGE RATE

Unless a minimum wage rate is specified in the Special Provisions, the hourly minimum rate of wage shall be the prevailing rate of wage as defined in Section 7-1.07 of the Standard Specifications.

10. BOND AND INSURANCE

The successful Bidder shall furnish, at the time of execution of the contract, a corporate surety bond as prescribed in Section 3-1.07 of the Standard Specifications. Also, the Contractor shall obtain and maintain all insurance for the amounts and times prescribed in Section 3-1.07 of the Standard Specifications.

11. CONTRACT

The Bidder to whom the award is made will be required to enter into a written contract with the Port of Olympia with good and approved security in an amount equal to the full contract price within 10 days after being notified of the acceptance of his proposal. If he fails to enter into a contract and furnish the required bond within the time specified, his bid proposal deposit, cash, check, or the amount thereof, shall be forfeited to the Port, or the Port shall recover the amount of his surety bid bond. The contract, or contracts, must conform to the blank form attached hereto. Prospective Bidders are advised to acquaint themselves fully with the provisions of these contracts before submitting their bids.

Unless otherwise stated in the Special Provisions, the successful Bidder shall start construction on the project within 10 days from the date of notification of award of contract.

12. PERMITS AND LICENSES

The Contractor shall procure all necessary permits and licenses as prescribed in Section 7-1.10 of the Standard Specifications.

Corps of Engineers permits will be furnished by the Port.

CONTRACT

THIS AGREEMENT, made and entered into in duplicate, this _____ day of _____, 19____, by and between the Port of Olympia, hereinafter called the Owner, and _____

_____,

hereinafter called the Contractor,

WITNESSETH:

That in consideration of the terms and conditions contained herein and attached and made a part of this agreement, the parties hereto covenant and agree as follows:

I. The Contractor shall do all work and furnish all tools, materials, and equipment for _____

_____

as specified in Contract No. _____ in accordance with and as described in the attached plans and specifications and the Standard Specifications for Municipal Public Works Construction, which are by this reference incorporated herein and made a part hereof, and shall perform any alterations in or additions to the work provided under this contract and every part thereof.

Work shall start within the time specified and be completed in _____ (calendar, working) days.

If said work is not completed within the time specified, the Contractor agrees to pay the Owner the sum of _____ Dollars for each and every day said work remains uncompleted after the expiration of the specified time as liquidated damages.

The Contractor shall provide and bear the expense of all equipment, work and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work provided for in this contract and every part thereof, except such as are mentioned in the specifications to be furnished by the Port of Olympia.

II. The Port of Olympia hereby promises and agrees with the Contractor to employ, and does employ the Contractor to provide the materials and to do and cause to be done the above described work and to complete and finish the same according to the attached plans and specifications and the terms and conditions herein contained and hereby contracts to pay for the same according to the attached specifications and the schedule of unit or itemized prices hereto attached, at the time and in the manner and upon the conditions provided for in this contract.

III. The Contractor for himself, and for his heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the covenants herein contained upon the part of the Contractor.

IV. It is further provided that no liability shall attach to the Port of Olympia by reason of entering into this contract, except as expressly provided herein.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed the day and year first hereinabove written.

_____ PORT OF OLYMPIA

Contractor

By _____ By _____

(Name and Title) Manager

PERFORMANCE BOND TO PORT OF OLYMPIA

NOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, _____

_____

as principal, and _____, a corporation organized and existing under the laws of the State of Washington, as a surety corporation, and qualified under the laws of Washington to become surety upon bonds of contractors with municipal corporations, as surety, are jointly and severally held and firmly bound to the Port of Olympia in the penal sum of $_____ for the payment of which sum on demand we bind ourselves and our successors, heirs, administrators or personal representatives, as the case may be.

This obligation is entered into in pursuance of the statutes of the State of Washington, and the resolutions of the Port of Olympia.

Dated at _____, Washington, this _____ day of _____, 19____.

Nevertheless, the conditions of the above obligation are such that:

WHEREAS, the Port of Olympia has let or is about to let to the said principal, a certain contract, the said contract being numbered _____ and providing for _____

_____

_____

(which contract is referred to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said Principal has accepted, or is about to accept, the said contract, and undertake to perform e work therein provided for in the manner and within the time set forth;

NOW THEREFORE, if the said principal, shall faithfully perform all of the provisions of said contract in the manner and within the time therein set forth, or within such extensions of time as may be granted under said contract, and shall pay all laborers, mechanics, sub-contractors and material men, and all persons who shall supply said principal or sub-contractors with provisions and supplies for the carrying on of said work, and shall hold said Port of Olympia harmless from any loss or damage occasioned to any person or property by reason of any carelessness or negligence on the part of said principal, or any sub-contractor in the performance of said work, and shall indemnify and hold the Port of Olympia harmless from any damage or expense by reason of failure of performance as specified in said contract or from defects appearing or developing in the material or workmanship provided or performed under said contract within a period of one year after its acceptance thereof by the Port of Olympia then and in that event this obligation shall be void; but otherwise it shall be and remain in full force and effect.

Countersigned by:

_____ _____

(Agency or firm name) (Principal)

_____ _____

(Address) (Surety)

By _____ _____

(Attorney-in-Fact)

PROPOSAL FORMS

QUANTITIES AND PRICES

SCHEDULE 1

Item

1. Mobilization, Clearing and Site Preparation — Lump Sum $_____

2. Dredging — Lump Sum $_____

Prices for machines used in extra work (not included in total).

Dredge	Rating	Cost per Hour
_____	_____ c.y.	$_____
_____	_____ c.y.	$_____

3. Imported Borrow

Alternate 1 - Basic

a.	East Dike, PI #3 to PI #12	500,000 T	@$_____	=	$_____
b.	West Dike, PI #3 to PI #20	50,000 T	@$_____	=	$_____
c.	West Dike, PI #20 to PI #9	45,000 T	@$_____	=	$_____
d.	Zone "A" material	124,000 T	@$_____	=	$_____

Alternate 2 - Homogenous Dike

Imported Borrow

a.	East Dike, PI #3 to PI #12	595,000 T	@$_____	=	$_____
b.	West Dike, PI #3 to PI #20	59,000 T	@$_____	=	$_____
c.	West Dike, PI #20 to PI #9	65,000 T	@$_____	=	$_____

4. Side Borrow (West Dike) — 30,000c.y @$_____ = $_____

5. Quarry Rock for Dike Closure — 7,500 T @$_____ = $_____

6. Riprap — 4,000 T @$_____ = $_____

7.

a.	Gaging Stations	6	@$_____	=	$_____
b.	Indicator Piles	11	@$_____	=	$_____

8. Culverts

a.	36"diameter	200 L.F.	@$_____	=	$_____
b.	24"diameter	140 L.F.	@$_____	=	$_____
c.	Gates for 36" culvert	2	@$_____	=	$_____
d.	Flap gates for 24" culvert	2	@$_____	=	$_____

9. Furnish and Install Drainage System — Lump Sum $_____

10. Foundation Material (for Drainage System) — 120 T @$_____ = $_____

. Embankment (for Drainage System) — 22,500 T @$_____ = $_____

TOTAL SCHEDULE 1 $_____

NOTE TO CONTRACTOR: Under Item 3, add total of either Alternate 1 or Alternate 2 into the total for Schedule 1. Do Not Add Both

SCHEDULE 2

Item

1. Mobilization, Clearing and Site Prep. — Lump Sum $_____

2. Furnish and Install Drainage System — Lump Sum $_____

3. Foundation Material — 15 T @ $_____ = $_____

4 .Embankment — 23,500 T @ $_____ = $_____

TOTAL SCHEDULE 2 $_____

SCHEDULE 3

Item

1. Mobilization, Clearing and Site Preparation — Lump Sum $_____

2. Dredging — None unless ordered by the Engineer

Prices for machines used in Extra Work

Dredge	Rating	Cost per Hour
_____	_____ cy	$_____

2. Add new Schedule 1-A. In the event that only Schedule 1 is ~~awarded, the~~ following construction will be added to the Schedule 1 scope of work:

An additional 10,000 tons of homogeneous dike material (III.B.4 on page 8) would be placed along the west shore line of East Bay between P.I. No. 2 and P.I. No. 3 to form a haul road connecting State Avenue to P.I. No. 3. Details are shown on the attached drawings Nos. D7753-105-A & B.

Wood debris shall be placed in the disposal area and concrete rubble, etc., shall be pushed at least 4' below grade in the haul road fill area.

Page P-2 of proposal forms shall be deleted and replaced with page P-2 Rev. 5/13.

3. Imported Borrow

Alternate 1 - Basic

a. East Dike, PI #1 to PI #3	80,000 T	@$_____	=	$_____
b. Zone "A" material	25,000 T	@$_____	=	$_____

Alternate 2 - Homogenous Dike

a. Imported Borrow	105,000T	@$_____	=	$_____

TOTAL SCHEDULE 3 $_____

NOTE TO CONTRACTOR: Under Item 3, add total of either Alternate 1 or Alternate 2 into the total for Schedule 4. Do Not Add Both

SCHEDULE 4

Item

1. Mobilization, Clearing and Site Prep.			Lump Sum	$_____
2. Imported Borrow				
Embankment behind Dike	180,000 T	@$_____	=	$_____

TOTAL SCHEDULE 4 $_____

CONTRACT - If the undersigned be notified of the acceptance of this proposal within 30 days from the time set for opening of bids, he agrees:

(a) To execute a contract for the above work within 10 calendar days after being notified of such acceptance for the above stated sum, in the form found in the specifications.

(b) To give bond in like amount, as required by the specifications.

(c) To begin work after being notified of such acceptance, completing the contract within the time specified.

As a surety of the undersigned's intent to enter into a contract as above set forth, this proposal is accompanied by a cashier's check, certified check, money order, or bid bond in favor of the Port of Olympia in an amount not less than 5% of the total bid.

COMPLETION - The undersigned agrees to complete the work as delineated in paragraph IIB of Special Provisions.

SCALE OF WAGES - The undersigned further agrees that the wage paid on this work shall not be less than those generally prevailing for similar work in this area.

ADDENDA - Receipt of addenda numbered through _____ is hereby acknowledged.

CONTRACTOR _____

Address _____

By _____
Signature Title Phone

THIS PROPOSAL IS NOT TO BE REMOVED HEREFROM. THE WHOLE SPECIFICATION IS PART OF THE PROPOSAL.

SPECIAL CONDITIONS

I. Location of Work

In East Bay of Budd Inlet, in the city of Olympia, Washington, and on owner's property adjacent.

II. Schedule and Time for Completion

A. Schedules of Work

Schedule Nr.1: All dredging, culverts, and dike construction northerly of PI 3. This includes the entirety of West Dike and the East Dike from Station 13 + 39.36 to Station 51 + 64.12. Also: All storm drainage on west side of East Bay and northerly of Grid Line N634750.

Schedule Nr.2: Storm drainage West side, south of Grid Line N634750, including Chestnut Street Storm Drain extension.

Schedule Nr.3: All dike south of PI 3.

Schedule Nr.4: All fill South of PI 3, between Schedule Nr. 3 dike and shore.

Award of contract may be for Schedule Nr. 1 only, or Schedules 1 and 2, or Schedules 1 and 2 and 3, or for Schedules 1 and 2 and 3 and 4, at the option of the Owner. No combination other than those listed here will be awarded.

B. Time of Completion

Schedule		Item	Complete By
1.	a.	Predredging - East Dike	30 July 1981
	b.	East Dike, PI 3 to PI 9, up to Elevation +18.	11 December 1981
	c.	East Dike, PI 9 to PI 12, complete	11 DEcember 1981
	d.	East Dike, to Elevation +23	8 February 1982
	e.	West Dike, PI 3 to PI 20 up to Elevation +23	11 December 1981
	f.	West Dike, PI 20 to PI 9 up to Elevation +18	11 December 1981
	g.	West Dike, PI 20 to PI 9 complete to Elevation +23	8 February 1982
	h.	Storm Drainage, Complete	30 November 1981
2.		Schedule 2 Complete	8 February 1982

3. Schedule 3:
Start for Schedule 3: Schedule 3 work may not be advanced to impair existing drainage patterns prior to completion of Schedule 2 work. 30 May 1982

4. Schedule 4:
Embankment 31 December 1982

C. Contractors Schedule

Provide Engineer with detailed schedule of work showing units of equipment and methods of placement, within 1 week after date of Notice to Proceed.

III. LIQUIDATED DAMAGES are defined in the Standard Specifications of the Washington State Chapter of the American Public Works Association. The amount to be assessed for non-completion of the several parts of the project are as follows:

A. For work to be completed by 11 December 1981 (Schedule 1, parts b, c, e, and f) the sum of $1000 per day delay in completion of all or any portion of this work.

B. For work to be completed by 8 February 1982 (Schedule 1, parts d, and g) the sum of $1000 per day delay in completion of all or any portion of this work.

C. For work to be completed by 8 February 1982 (Schedule 2) the sum of $100 per day delay in completion.

D. For Schedule 3 the sum of $100 per day delay in completion.

E. For Schedule 4 the sum of $50 per day delay in completion.

IV. Acceptance of Site

In accordance with provisions of the specifications, the Contractor shall have examined the site and familiarized himself with all attendant conditions. He shall accept the site in its existing conditon at the time of award of contract.

V. Insurance

Contractor shall be required to furnish, prior to start of construction, evidence satisfactory to the Port Commission that insurance in the kinds and minimum amounts specified in Section 3-1.07 of the Standard Specifications, titled "Contractor's Insurance" has been secured.

VI. Use and Occupancy

It shall be the obligation of the Contractor to assure that adjoining Port of Olympia properties including plant and operations of Cascade Pole Co. will be protected against interference by work hereunder with their normal business operations and it shall further be the obligation of the Contractor to cooperate fully with such other Contractors or Port of Olympia personnel who may be doing work on the premises concurrently with this contract.

The Port of Olympia reserves the right to occupy or use the whole or any part of the premises or installations included under this contract and such use or occupancy by the Port of Olympia or its assignees shall not constitute completion or acceptance of the work as a whole or any part thereof.

VII. Wage Rates

A. In accordance with the requirements of Chapter 133, Laws of Extraordinary Session 1965, the Contractor and all sub-contractors shall be required to file a sworn Statement of Intent with the Port and with the Department of Labor and Industries of the State of Washington as to the prevailing wage rate, including fringe benefits, for each job classification to be utilized.

B. Each voucher claim submitted by the Contractor for payment on a project estimate shall state that prevailing wages have been paid in accordance with the prefiled Statement of Intent on file with the Department of Labor and Industries as approved by the industrial statistician.

C. At the conclusion of the project the Contractor and his sub-contractors shall submit Affidavits of Wages Paid to the Department of Labor and Industries for certification by the Director.

Final payment on the contract to be withheld until such certification has been received.

D. The prevailing rate of wages to be paid to all workmen, laborers, or mechanics employed in the performance of any part of this contract shall be in accordance with the rules and regulations of the Department of Labor and Industries. The rules and regulations of the Department of Labor and Industries and the schedule of prevailing wage rates for the locality or localities where this contract will be performed as determined by the industrial statistician of the Department of Labor and Industries are by reference made a part of this contract as though fully set forth herein.

Inasmuch as the Contractor will be held responsible for paying the prevailing wage, it is imperative that all contractors familiarize themselves with the current wage rates before submitting bids based on these specifications.

VIII. Permits

This work is to be performed in accord with permits issued by the U.S. Army Corps of Engineers, the State of Washington. All necessary permits are being acquired by the Owner and will be in hand prior to Notice to Proceed.

The Contractor will be required to obey all conditions of these permits. Basic requirements of these are included in letters from the Washington Department of Fisheries and the Washington Department of Ecology. Copies of these letters are attached to these Specifications as Appendix "A".

Particular attention is invited to the power of one or more governmental agencies to curtail or suspend work on the project because of a presence of fish or other reasons. Should this occur and the work be delayed beyond the control of the Contractor, it will be regarded as a changed conditon with respect to time of completion and liquidated damages.

IX. Standard Specifications

The Standard Specifications referred to in the following technical specifications are the "Standard Specifications for Municipal Public Works Construction", 1977 edition, as prepared by the Washington State Chapter, American Public Works Association. Unless otherwise amended, all construction terminology, methods and materials will comply with the provisions of these specifications.

X. Public Streets and Roads

Conduct hauling operations so as to avoid spillage or waste on public streets and roads. Promptly clean up any such spillage or waste that does occur.

XI. Surveying and Control

The Engineer will establish a Base Line and a Bench Mark within the project limits. The Contractor will protect these from any disturbance and will set all other necessary points and grades for performance of the work. The Engineer may review the Contractor's surveying procedures and the results of their use as he feels necessary.

I. Mobilization, Clearing and Site Preparation

A. Scope

Establish field office, move supervisory personnel to job and move major equipment to job.

Clear driftwood, loose debris, bark, and trash from construction site. Pull or break at the bottom of excavation any old piling. Remove old timber and piling found in the way of the project.

B. Construction Site

The area shown on the drawings whereon embankment will be placed, with or without predredging, and any other areas whereon construction operations are required.

C. Preservation

Schedule all work and conduct all operations to avoid damage to buildings, docks, piling, log decks, poles, fences, paving, culverts, and other existing improvements which are within or adjacent to the construction site and not particularly scheduled for removal or modification by the plans or these specifications. This particularly refers to Cascade Pole Co. log deck and plant.

D. Disposal

All material required by this chapter to be removed will become property of the Contractor and disposed away from the Construction Site on lands for which the Contractor holds all disposal permits.

E. Measurement and Payment

Full compensation for mobilization of all equipment required by this project will be included in the lump sum bid item "Mobilization, Clearing, and Site Preparation".

Furnish breakdown of mobilization lump sum assigned to major items of plant and equipment to be assigned to the project. Delivery to the site and rigging for work will constitute mobilization of any particular item. Payment will be made once only for any single item, regardless of how many times it may be moved to and from the site.

Clearing and site preparation required by this chapter will not be measured and full compensation for this will be included in payment for the several items of work.

II. Clamshell Dredging

A. Scope

Remove unsuitable material from dike alignment between the limits and to the lines shown on the plans, or as directed by the Engineer.

Marine Excavation as directed by the Engineer.

Some excavation of existing rubble and broken concrete is anticipated. Sunken logs, old piles and other similar debris should be expected.

B. Equipment and Methods

1. Dike Excavation. Use of a floating derrick with a 4 to 6 c.y. bucket is anticipated, although some variation in size is possible. Dispose material excavated by side casting as far into the future retention pond area as possible. Use of a suction dredge for this work is prohibited.

2. Excavation of unsuitable material (rubble and broken concrete). Excavate as directed by the Engineer. If permitted by the Engineer the material may be deposited in the area of the dikes; otherwise dispose as in paragraph 1 above.

3. Sunken logs, pile stubs and similar debris will be disposed to the areas designated on the drawing. Arrange material to avoid damage to Cascade Pole Co. installation.

C. Scheduling

Under terms of the State and Federal permits governing this project, dredging is permitted ONLY between 15 June 1981 and 30 July 1981.

D. Measurement and Payment

Completion of all work required by this chapter to the limits shown on the plans will be included in the Lump Sum bid for "Dredging".

Take sounding in the presence of the Engineer, along the layout line, prior to start of work to verify elevations given on the plans. Variation of one foot or less either up or down will not be grounds for

changes of Lump Sum price. Excavation to limits shown on the plans will be required; up to two feet of overdepth will be allowed, but no extra excavation cost will be paid. Overdepth in excess of two feet must be backfilled by the Contractor with imported borrow at his expense.

Should additional dredging beyond those limits be ordered by the Engineer, it will be paid for at the rates per hour bid for the several items of equipment, which rates include full compensation for use of the machine and all necessary labor, fuel and operating supplies, including tug power to move from site to site.

Rental will be paid for all hours worked at the site as directed by the Engineer. Time spent in moving or re-rigging will be paid if ordered by the Engineer for the good of the project. Down time, time spent moving or rerigging for the benefit of the Contractor and other non-productive time will not be compensated. Productive and non-productive time will be measured by the hour.

III. Dikes and Area Embankment

A. Scope

Construct dikes and other embankment to the lines and between the limits shown on the plans including the several zones of different materials, according to scheduling and other requirements of these specifications and the governing permits.

B. Materials

1. Submit each proposed source to the Engineer for approval prior to use.
2. Imported borrow.
   Clean, free-draining, granular material, natural or crushed. Smelter slag is prohibited. Maximum particle size should not exceed 18", at least 40% must be retained on a #4 sieve, and not more than 7% may pass a #200 sieve. Broken concrete, brickbats and similar construction debris are subject to Engineers approval as to material and placement.

Material in sections shown on the plans as "Zone A" must meet this further specification as to size:

U.S. Sieve	Minimum Cumulative Retention
3"	5%
1 1/2"	15%
3/4"	35%
3/8"	60%
#4	75%
#100	95%

3. Local borrow may be used to construct part or all of the West Dike from approximately Station 14 to Station 34, subject to approval of the Engineer. Excavate from borrow pit along side of dike. Pockets of bark, wood, chips, other organic matter will be avoided or wasted alongside and not used in dike construction.

4. Alternate construction. Instead of the typical sections shown with core material covered with surface layers of Zone A materials, the contractor may elect to construct the dike homogeneously with material derived from glacial outwash deposits, clean, free draining and granular, natural or crushed, with gradation meeting these limits:

U.S. Sieve	Minimum Cumulative Retention
3"	5%
1 1/2"	10%
3/4"	30%
3/8"	55%
#4	65%
#100	95%

Smelter slag is prohibited. Broken concrete, brickbats and similar construction debris are subject to Engineer's approval as to material and placement.

Scheduling and sequence of construction will not be varied by choice of this alternate. Use of quarry rock for dike closure and riprap where specified will not be varied by choice of this alternate.

C. Equipment

1. Construction of imported borrow dikes may be by clamshell or dragline, by end dumping, by scraper, or bull dozer or other similar methods.

2. Construction of dikes from side borrow may be by clamshell, dragline, bull dozer, or similar methods.

D. Scheduling

1. Stage construction of east dike: Construction stages 1, 2, and 3 are shown on the plans. From Point 7 to Point 9, Stage 2 is further subdivided into 2A and 2B. From Point 3 to Point 7, Stages 1 and 2 may be combined.

   During and after completion of these stages, settlement will be monitored by the Engineer. Embankment for the succeeding stages will not be placed until permitted by the Engineer. Anticipate delays between succeeding stages as follows:

From 1 to 2A	75 days
From 2A to 2B	60 days
From 2B to 3	20 days

   Where Stage 3 follows directly after Stage 1 without a Stage 2:

From 1 to 3	3 months

2. Required sequence of construction.

   a. Start stage 1 dike construction at P.I. 9.

   b. Do not start building from P.I. 9 toward P.I. 12 until stage 1 of east dike is complete from P.I. 9 to or beyond P.I. 8.

   c. Between P.I. 9 and P.I. 20, construction should proceed from each end with closure being made in the middle third and at low tide, and after completion from P.I. 9 to P.I. 12. Use of special methods and materials is not anticipated at this dike closure

3. Stage 1 construction from Pl 9 to Pl 7 must be complete by 30 July in order to make Stage 2 schedule. Maintain this sill at Elevation +9 by adding embankment material as necessary.

4. In all dike sections where Zone A material is required carry this material up simultaneously with placement of common Imported Borrow.

E. Dike Closure - Stage 2

1. Schedule dike closure in two lifts as shown on the plans, each during an ebb tide running from a high low tide to a low high tide and the adjacent slack tide period, or during flood tide running from a high low tide to a low high tide and adjacent slack tides. First week in November and first week in December are most typical periods for this.

Before making actual closure, fill entire dike section from each end up to Elevation +18 with Zone B or better material until water velocity through the remaining gap becomes excessive.

2. Make dike closure with quarry rock, well graded from 6" minimum to 24" maximum size. Soundness and durability tests of the material will not be made.

3. Mobilize sufficient material and equipment to make each closure within a six hour period.

4. Immediately after closure, complete the dike with embankment material up to the sections shown on the drawings.

5. Plans and scheduling must be submitted to the Engineer in detail for approval for the method chosen by the Contractor well in advance of the work.

F. Area Embankment (Schedule 4)

Material must be equal to or better than Imported Borrow per paragraph III B.2. above.

Place embankment by end dumping or other approved methods and spread with bulldozer. Make all fill from the completed dike toward shore and from the completed storm outfall pipe out equally on each side to avoid mud wave problems.

G. Measurement and Payment

1. Full compensation for all labor, materials and equipment necessary to complete all work required by this chapter will be included in the amounts paid for these items.

2. Imported borrow, of the several classes, will be measured by the ton inside the side slope lines shown on the cross sections. If imported by truck, furnish scale tickets showing both empty and loaded weight for each truck. If imported by barge, tonnage will be calculated from barge displacement measurements which will be made in the presence of the Engineer before and after unloading. Material placed by the Contractor outside the design cross section to facilitate equipment operation will be at his expense.

3. Side borrow will be measured in embankment by the cubic yard from cross sections taken before and after construction. The Contractor will make these cross sections in the presence of the Engineer and will furnish copies of cross section notes and all calculations to the Engineer for review and approval.

4. Rock fill for dike closure will be measured by the ton as described for imported borrow in paragraph G.2 above.

IV. Culverts (for Pond Drainage)

A. Scope

Furnish and install corrugated metal culverts of the sizes and at the locations that are shown on the plans. Furnish and install flap gates in accordance with the plans.

Note that storm drainage is NOT part of this chapter.

B. Materials

1. Culvert: Corrugated steel pipe, galvanized, with 2 2/3" x 1/2" corrugations, 14 gage, conforming to ASTM Specification A-444.

2. Connecting Bands: Designed to match the culvert furnished and of adequate size and strength to preserve pipe alignment and prevent pipe separation, and not less than 24" long.

3. Flap Gates: Armco model 20-C or approved equal, complete with all fittings necessary for a finishd installation.

4. Gates: Install end closures of metal or wood adequate to produce a tight seal to end of pipe and retain head as required by the location.

C. Execution

1. Install culverts at locations shown on the drawings. These locations are approximate and may be adjusted by the Engineer to suit the exigencies of the project.

2. Provide minimum of one foot of bedding beneath each culvert. Bedding material must equal or exceed the specification for Imported Borrow in Chapter III Section B-1.

3. Backfill to one foot over the pipe with same material as used for bedding. Compact in lifts of not more than 12" by hand tamping unless other methods are approved by the Engineer.

   Additional fill and backfill may be placed and compacted by mechanical methods subject to the Engineer's approval.

4. Install 36" culverts with gates per paragraph B-4 above at one end. Secure these gates to make and maintain a tight seal until removal is ordered by the Engineer. Method of removal must not damage culvert or dike.

5. Install 24" culverts with flap gates per paragraph B-3 above.

D. Measurement and Payment

1. Full compensation for all materials, equipment and labor necessary to complete all work required by this chapter (except furnishing of imported borrow) will be included in the amounts paid for these items. Note that removal of gates from culverts when ordered by the Engineer is part of this chapter.

2. Culverts: pipe actually installed will be paid for by the lineal foot, end to end, in final position.

3. Flap gates will be paid for per unit installed.

4. Gates: will be paid for per unit ordered and installed. The item will be considered complete only after removal has been effected.

V. Riprap

A. Scope

Furnish and install quarry rock riprap to the lines and dimensions shown on the drawings.

B. Materials

Quarry rock, sound, durable, hard, free of seams and laminations, and well graded from 200 lbs. to 20 lbs., with not over 10% sand and fines.

C. Construction

Place material carefully to avoid segregation of sizes, and leaving a neat and orderly appearance.

D. Measurement and Payment

Full compensation for all work required by this chapter will be included in the price paid for the bid item "Riprap".

Riprap will be measured by the ton. If delivered by truck, furnish scale weight tickets for each load showing both tare and loaded weights. If delivered by barge, measurement will be by barge displacement measured before and after discharge and in the presence of the Engineer.

VI. Gaging Stations and Indicator Piles

A. Scope

Furnish and install timber pile gaging stations and indicator piles as shown on the plans, and as directed by the Engineer. Installation of gaging equipment is NOT a part of this item, but will be done by others. Permit necessary access to the site by installation crews and carefully protect installed equipment against damage.

B. Materials

Piling may be treated or untreated. Sound used piles may be furnished, subject to the approval of the Engineer. Minimum top diameter 6" and taper to be 1" in 10'. Lengths as required by the plans.

Timber to be Hem-Fir, #1 Structural Joist and Plank graded per WCLIB rules #6.

C. Construction

Install piling in location and to top elevation according to the plans or as directed by the Engineer. Provide working platform 2' x3' on each pile, facing toward the dike. Place and maintain gangplank to shore.

D. Measurement and Payment

Full compensation for all work required by this chapter will be included in the price paid for the bid item "Gaging Stations" and "Indicator Piles".

Gaging Stations will be measured by the unit ordered and installed.

Indicator Piles will be measured by the unit ordered and installed.

VII. Furnish and Install Drainage Systems

A. Scope

This item covers the furnishing and installation of all pipe, manholes and/or other appurtenant structures, excavation, backfill, surface removal and replacement, connection to existing systems, plugging abandoned pipes and all other labor, equipment, or materials required to provide for a functional system complete in place.

Note that at each of three locations an outfall pipe is shown on the plans as a dashed line and marked "Phase II". Complete first all other work, including construction of designated embankment and temporary outfall. During and after embankment construction, settlement will be monitored by the Engineer. Anticipate 2 months delay at any given cross section before start of Phase II work. The completion dates in the contract include allowance for this settlement delay. Any increase in this delay that may be ordered by the Engineer will be regarded as a changed condition with regard to Time of Completion.

Placing and removing the temporary outfall and installation of an backfill over the Phase II pipe are all included in scope of this item.

B. Materials

Pipe used for this project will be galvanized corrugated metal with protective Treatment 3. The thickness (gage) shall be as shown on the plans. All bands and fittings will have the same protective coating as the pipe. Damage to the protective treatment shall be repaired with a coating compatible with the original.

C. Construction

Dewatering will be the sole responsibility of the Contractor and will be incidental to this lump sum bid item.

All surfacing and visible objects within the trench area will be the responsibility of the Contractor. Asphalt surfacing will be replaced with three inches (3") of Class B Asphalt, two inches (2") of crushed surfacing, top course, and twelve inches (12") of bank run gravel ballast.

Obstructions not visible from the surface such as logs, broken concrete, etc., will be dealt with in the following manner.

1. Those obstructions which lie entirely within the trench area (which is defined as being a width of 1.5 times the inside diameter of the pipe plus 18 inches, and from the ground surface to a point one (1) foot below the pipe invert) and which can be removed with a chain saw and the other equipment on the project site, will be removed and disposed of as an incidental part of this contract.

2. Obstructions which project into the trench area and which cannot be tunneled under, cut off at the trench wall or bottom, or which require excavation outside the trench area, or equipment not normally associated with sewer construction, will be removed at a negotiated price.

   The Contractor and Engineer will determine the type and extent of the additional work and equipment required and the method of payment to be used before additional work commences.

Through the area adjacent to the sludge lagoon, the Contractor will have the option of stock-piling the excavated material along the bay side of the dike and backfilling from this stock-pile, wasting the excavated material along the bay side of the dike and backfilling with imported material or transporting the excavated material around the lagoon for backfill. The remaining up-land trench excavation will be Class A.

The Contractor will conduct his trenching operation within the existing dike so that the trench walls do not collapse and allow either the sludge or the liquid to escape. The trench must be kept backfilled as close to the pipe laying operation as possible.

Sheeting, shoring or other trench bracing or boxes required to protect either workmen or existing improvements will be the sole responsibility of the Contractor.

Manholes of the type shown will be installed where shown on the plan. No channels will be required. Manhole steps (not ladders) will be required full depth. Knock-outs capable of accepting an 18-inch pipe will be cast into both sides of manholes 1N, 3N, 4N, and 5N.

Construction of outfalls in two stages is shown on the plans to permit settlement of the preloading embankment. Anticipate 3 months delay between embankment construction and Phase II of the outfall.

Flat slab manhole tops with 24-inch diameter openings will be provided. The top of the slab will be set at or near the existing ground surface. The top of the manhole rim will be set at, or not more than, six inches (6") above existing grade.

Compaction around the pipes will conform to Section 61-3.03D2 of the Standard Specifications. Mechanical compaction above this zone will be accomplished to a density such that settlement will not exceed two inches (2").

Line and grade will be provided by the Engineer.

D. Measurement and Payment

Furnish and Install Drainage System will be measured as a lump sum. The lump sum paid for this item will be full compensation for all materials, equipment and labor required by this chapter in the respective schedules.

VIII. Foundation Material

A. Scope

Foundation material will be required only in those areas where the Engineer determines the native material to be inadequate for pipe support or where the trench was over-excavated to remove an obstacle. Where the Engineer determines the native material to be inadequate, the Contractor shall excavate to one foot (1') below the pipe and backfill with foundation material. The additional material excavated will be incidental to this item.

B. Materials

Foundation materials will conform to the requirements of Section 61-3.03C5.

C. Measurement and Payment

Foundation material will be paid for by the ton. Provide tickets for each load delivered showing both tare and loaded weight.

The unit contract price per ton will be full compensation for excavating and wasting the native material and furnishing and placing the foundation material.

IX. Embankment

A. Scope

Construct preloading embankments as shown on the plans

B. Materials

Conform to Section III B-1 of these specifications.

Riprap used to protect the embankments at the points shown on the "Storm Drainage" drawings shall be light, loose riprap as defined in Section 9-13.1 (2) "Standard Specifications for Road and Bridge Construction", 1977 Edition; Washington State Department of Highways, except the maximum size will be 500 pounds.

C. Construction

The material is to be placed by dumping and spreading successive vehicle loads in a uniformly distributed layer of thickness not greater than necessary to support the vehicle while placing subsequent layers, after which the remainder of the embankment shall be constructed in layers and compacted.

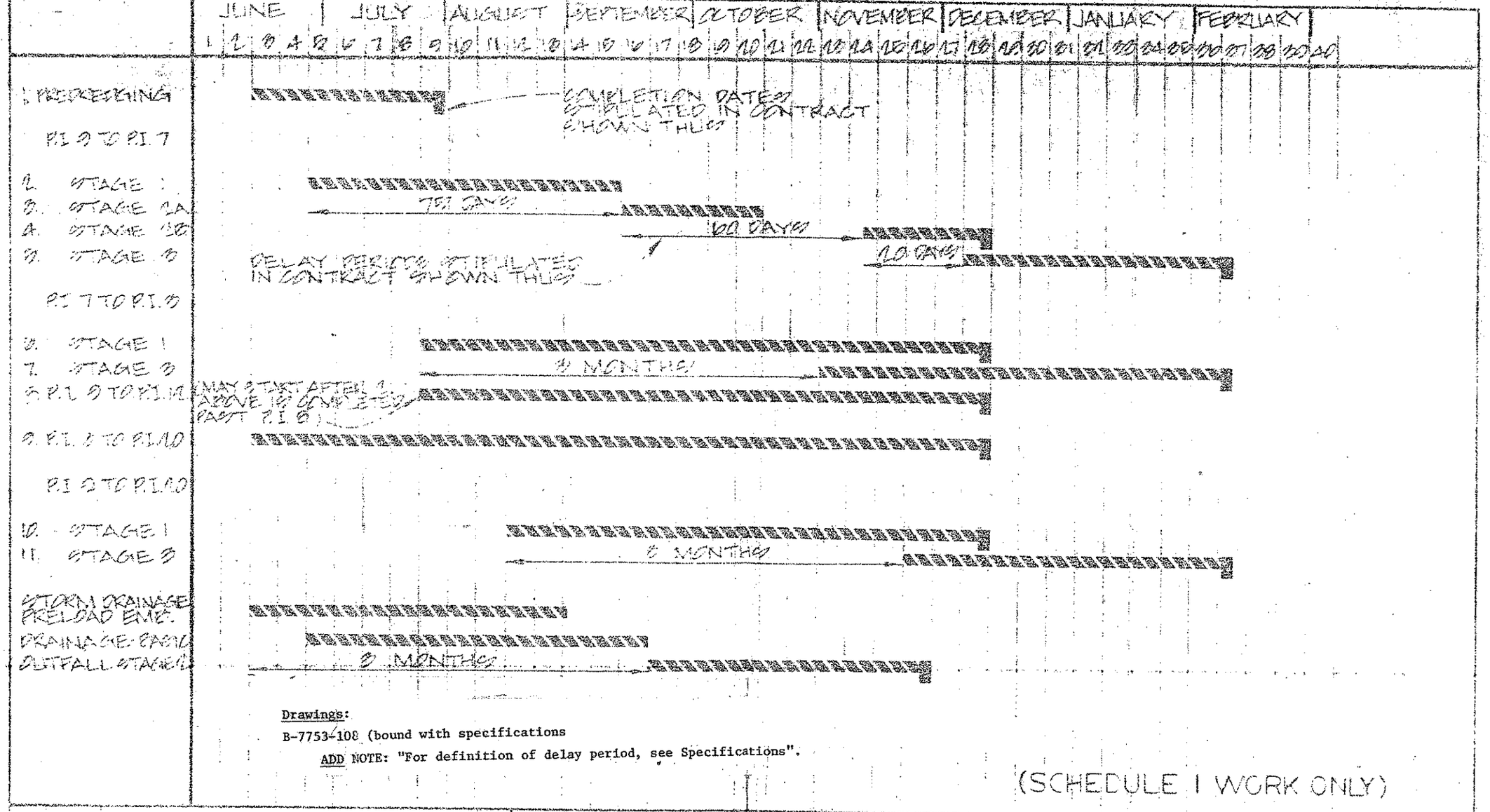
Riprap will be considered as incidental to embankment construction.

D. Measurement and Payment

Embankment will be measured by the ton. Provide scales at the borrow site and furnish tickets for each load delivered showing both tare and loaded weights.

The excavation and channel work including the temporary channel required at the 84-inch outfall will be incidental to this pay item.

The unit contract price per ton will be full compensation for furnishing, loading, hauling, placing, spreading, compacting and excavation required to construct the embankments complete in place and the lines and grades shown on the drawings and including the riprap.



Drawings:

B-7753-108 (bound with specifications

ADD NOTE: "For definition of delay period, see Specifications".

(SCHEDULE I WORK ONLY)

PORT OF OLYMPIA

EAST BAY MARINA

CONSTRUCTION SCHEDULE

SWAN WOOSTER ENGINEERING INC.

CONSULTING ENGINEERS PORTLAND OREGON

SCALE DRAWING NO. JOB NUMBER

DESIGNED

DRAWN

CHECKED

APPROVED

B-7753-108

REV. DATE REVISION BY CHK

APPENDIX "A"

STATE OF
WASHINGTON

Dixy Lee Ray
Governor

DEPARTMENT OF FISHERIES
115 General Administration Building, Olympia, Washington 98504

and

DEPARTMENT OF GAME
600 North Capitol Way, GJ-11 Olympia, Washington 98504

November 19, 1980

Mr. Dick Malin
Port of Olympia
P.O. Box 827
Olympia, Washington 98507

Colonel Leon Moraski
Seattle District, Corps of Engineers
P.O. Box C-3755
Seattle, Washington 98124

Attention Mr. Alan Coburn

Gentlemen:

East Bay Marina Budd Inlet
Various Sections, Township 18 North,
Range 2 West, W.M., in Thurston County
PN-NPSEN-PL-NC 79-1 and
PN-071-0YB-1-006165 WRIA C-13

We are pleased to receive a copy of the August 29, 1980 letter from the Environmental Protection Agency (EPA) to Colonel Moraski giving conditional approval to the project. The significant provision was the inclusion of a "properly designed and maintained aeration system which will maintain Class B water quality standards within the marina". Therefore, we are now modifying our December 1, 1975 letter of approval for the project as follows:

1. Delete general Provision (1) as it is no longer applicable because of the assurance that Class B water quality standards for dissolved oxygen will be maintained within the marina.

2. General Provision (2) requiring on-site mechanical flushing devices during construction is deleted since specific timing provisions are included below for the protection of fish runs.

3. General Provision (4) requiring mechanical flushing devices after construction is changed to read: Applicable State Class B water quality standards should be maintained within the marina basin at all times to preclude fish kills. We believe this will require installation of the properly designed and maintained aeration system referenced in the letter from EPA.

The December 1, 1975 approval also indicated that we would have additional specific condition requirements once studies and plans were completed. These specific provisions are as follows:

a. Time Limitation: Work activities may begin on June 15, 1981 and shall be completed by March 15, 1982 unless the juvenile chinook in Percival Cove have to be released prematurely. Commencement of dredging for the berm may begin on June 15, 1981 provided the results of a fish monitoring program indicate the absence of juvenile salmonids within the area and shall be completed by July 30, 1981. Hydraulic dredging of the entrance channel and the marina basin may begin as early as September 15, 1981 if it is determined that the dissolved oxygen levels of lower Budd Inlet meet Department of Ecology Water Quality Criteria for Class B waters (Interstate) and indications are that they will remain above that level. It should be noted that operations may be suspended if large numbers of herring and smelt enter and reside in Olympia Harbor as they have the last two years. During 1979 they were reported throughout Budd Inlet from January to mid-March but may have been present earlier. Dredging operations may be suspended until such time as the herring and smelt have vacated the area. The project sponsors should conduct a monitoring program approved by the Department of Fisheries to determine the presence or absence of baitfish. Because of the possibility of herring and smelt residing in Budd Inlet for a period of time and the chance of an early release of juvenile chinook from Percival Cove, we strongly recommend condensing the dredging and filling into as short a time period as possible. A time extension for any work beyond March 15, 1982 will be reviewed on a case-by-case basis.

b. A dissolved oxygen monitoring program should be conducted during any on-going dredging operations between June 15 and November 1. The following is the recommendation for dissolved oxygen:

Allowable dredging	5.0 mg/l DO or over
Cease dredging	under 5.0 mg/l DO

c. If at any time there should be fish in distress, a fish kill, or water quality problems as a result of this project, the operations shall be stopped immediately.

d. Dredging operations shall be conducted at all times in such a manner as to cause little or no disturbance or siltation to the adjacent waters.

e. A hydraulic dredge may be used to dredge the entrance channel and the marina basin. The hydraulic dredge is to be operated with the intake on or below the surface of the material being removed during all periods of the operation. Reverse purging of the hydraulic dredge intake line shall be held to an absolute minimum. Should purging become necessary, the intake end is not to be raised more than three feet (3') above the bed material.

f. A floating clamshell may be used for dredging the trench for the berm. Each pass of the clamshell bucket shall be complete, and the dredge spoils may be sidecast into the disposal area along the berm alignment.

g. The berm should be constructed in such a manner as to avoid the entrapment of fish. In addition, appropriate steps shall be taken prior to closing the diked area off from the remainder of East Bay to insure that there are no fish stranded within the diked area.

h. The waterward slope of the east berm should be sloped no steeper than 1 foot vertical to each 1.5 feet horizontal.

i. Forms for the concrete boat ramp shall be poured at low tide when the area is dewatered, and shall be allowed a minimum curing time of two (2) hours prior to coming in contact with state waters. Forms for the boat ramp shall be constructed in such a way to prevent leaching of wet concrete into state waters. Immediately after pouring the concrete, plastic or polyethylene sheeting shall be placed over any exposed concrete not lined with the wooden forms. The forms and sheeting shall remain secured for a minimum of seven (7) days.

j. No deleterious materials shall be allowed to enter state waters as a result of this project.

k. Any debris resulting from this construction project shall be removed from the water and disposed of or placed in such a manner to prevent its being washed back into the water by high water or wave action.

l. Water quality is not to be degraded to the detriment of fish life as a result of this project. Compliance with the quality limits set forth in the Washington State Water Quality Regulations shall be maintained throughout the life of the project.

m. These provisions should be closely followed by the contractor(s) and the equipment operator(s) and should be on the job site at all times.

SEPA: Final EIS 1975.

This letter does not obviate the requirement to obtain approval from all other state, federal or local agencies for the activity authorized herein.

The Department of Fisheries and the Department of Game reserve the right to make further restrictions if deemed necessary for the protection of fish life. This letter is written in the interest of fishery protection only, and these departments cannot be held liable for any property damage which might occur as a result of this project.

We appreciate your cooperation in our collective efforts to protect, perpetuate and manage the fishery resources of the State of Washington. If you have any questions or need additional information, please contact Curtis Dahlgren at (206) 753-2908.

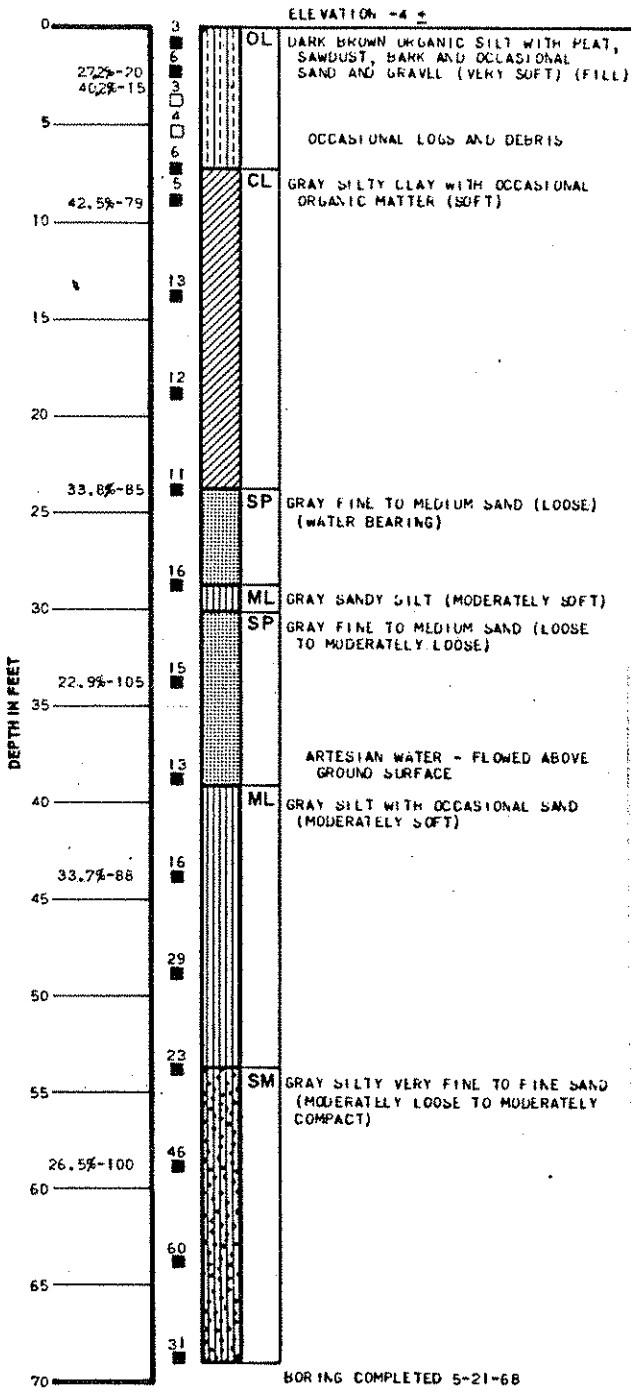
Sincerely,

Gordon Sandison, Director
DEPARTMENT OF FISHERIES

Jack Wayland, Interim Director
DEPARTMENT OF GAME

APPENDIX "B"

BORING 25



KEY:

MOISTURE - CONTENT
32.9%-89
DRY DENSITY IN PCF

12 BLOWS REQUIRED TO DRIVE SAMPLER ONE FOOT WEIGHT= 140LBS., STROKE= 30 INCHES, (* - BLOW COUNT NOT REPRESENTATIVE)

■ INDICATES DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED.

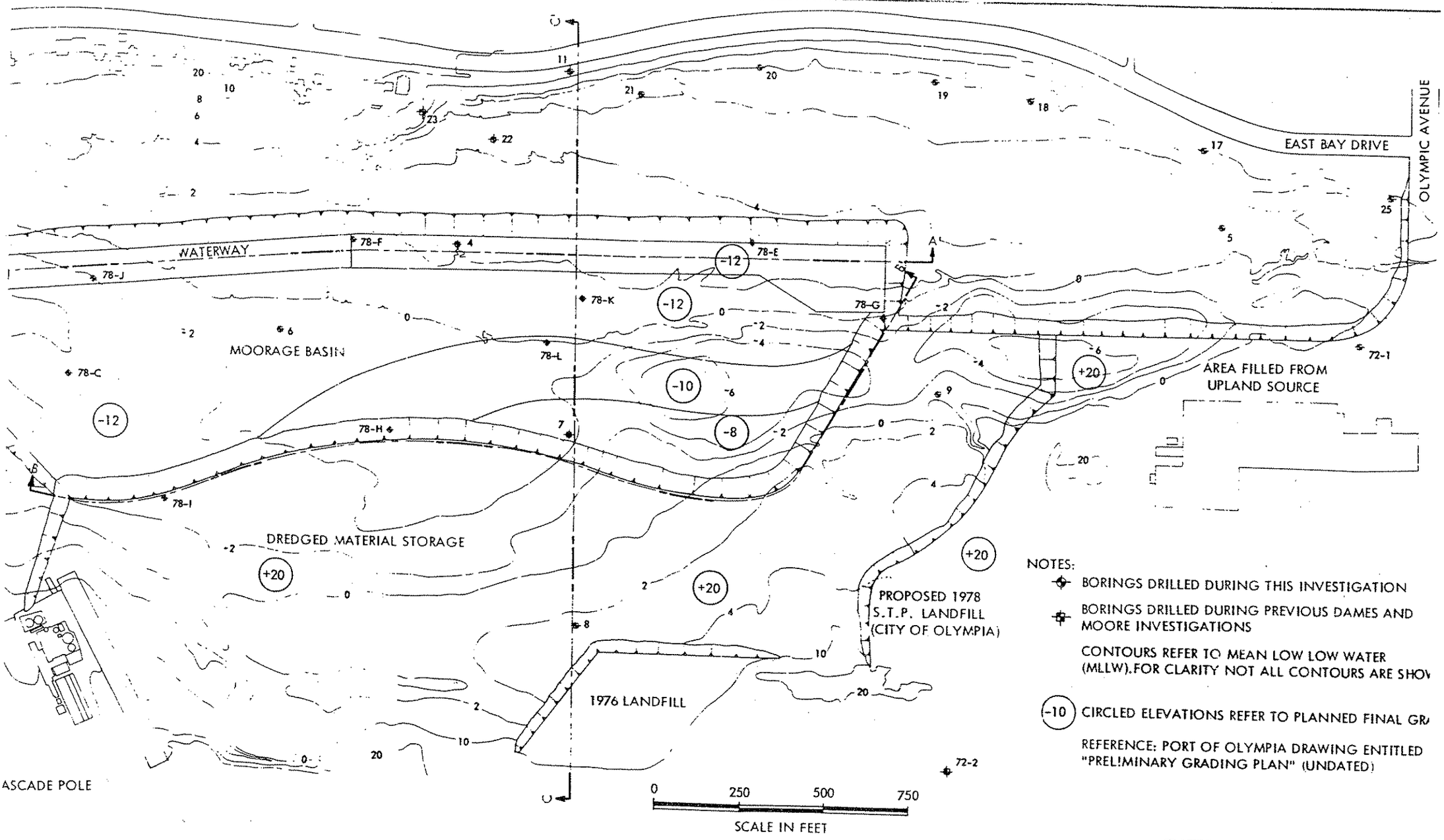
⊠ INDICATES DEPTH AT WHICH DISTURBED SAMPLE WAS EXTRACTED.

□ INDICATES DEPTH OF SAMPLING ATTEMPT WITH NO RECOVERY.

NOTES:

1. THE DISCUSSION IN THE TEXT OF THIS REPORT IS NECESSARY FOR A PROPER UNDERSTANDING OF THE NATURE OF THE SUBSURFACE MATERIALS.
2. SOIL CONDITIONS ARE DESCRIBED ONLY AT BORING LOCATIONS. SOME VARIABILITY IN ACTUAL CONDITIONS FROM THOSE SHOWN SHOULD BE ANTICIPATED.
3. THE ELEVATIONS OF INTERFACES BETWEEN DIFFERENT SOIL MATERIALS ARE APPROXIMATE, THE TRANSITIONS BETWEEN MATERIALS MAY BE GRADUAL.
4. INTERPRETATION AND EXTRAPOLATION SHOULD BE DONE BY A GEOTECHNICAL ENGINEER.

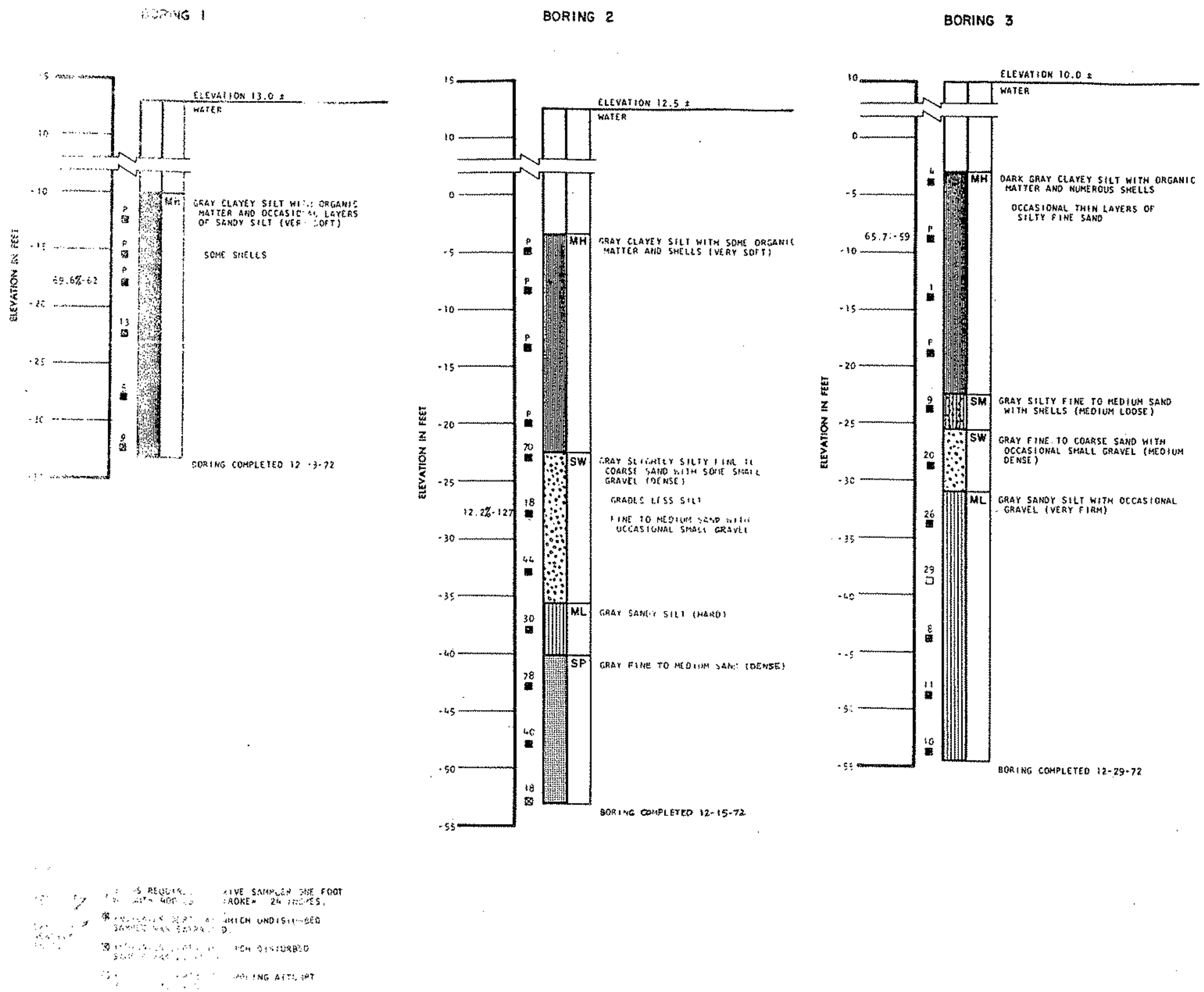
LOG OF BORING

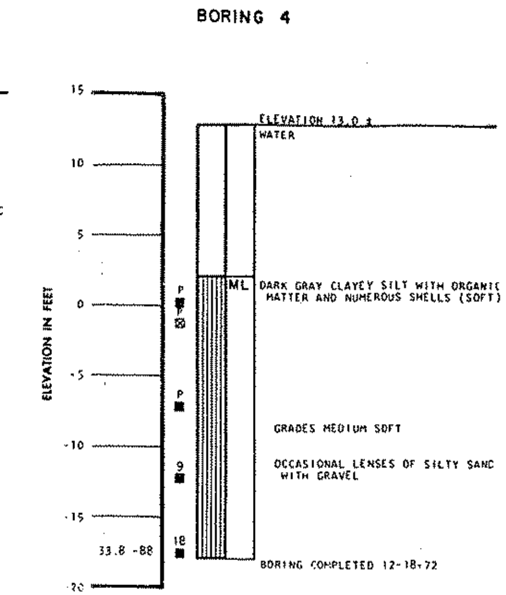


SITE PLAN

Appendix B

DAMES &





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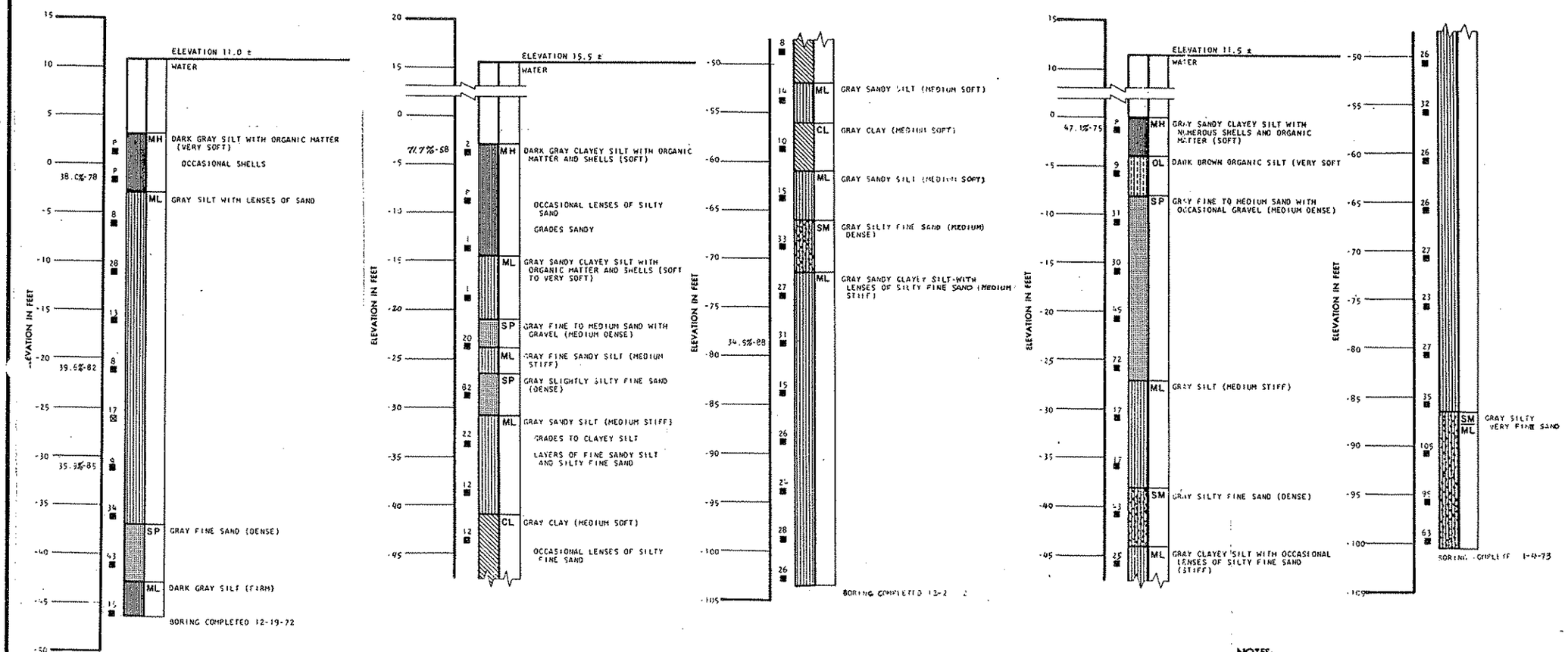
3. THE ELEVATIONS OF INTERFACES BETWEEN DIFFERENT SOIL MATERIALS ARE APPROXIMATE. THE TRANSITIONS BETWEEN MATERIALS MAY BE GRADUAL.

4. INTERPRETATION AND EXTRAPOLATION SHOULD BE DONE BY A GEOTECHNICAL ENGINEER.

LOG OF BORINGS

DAMES & MOORE



KEY

MOIST. RE. CONTENT / DRY DENSITY IN PCF

- BLOWS REQUIRED TO DRIVE SAMPLER ONE FOOT WEIGHT= 400 LBS., STROKE= 24 INCHES.
- INDICATES DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED.
- INDICATES DEPTH AT WHICH DISTURBED SAMPLE WAS EXTRACTED.
- INDICATES DEPTH OF SAMPLING ATTEMPT WITH NO RECOVERY.

LOG OF BORINGS

NOTES:

1. THE DISCUSSION IN THE TEXT OF THIS REPORT IS NECESSARY FOR A PROPER UNDERSTANDING OF THE NATURE OF THE SUBSURFACE MATERIALS.
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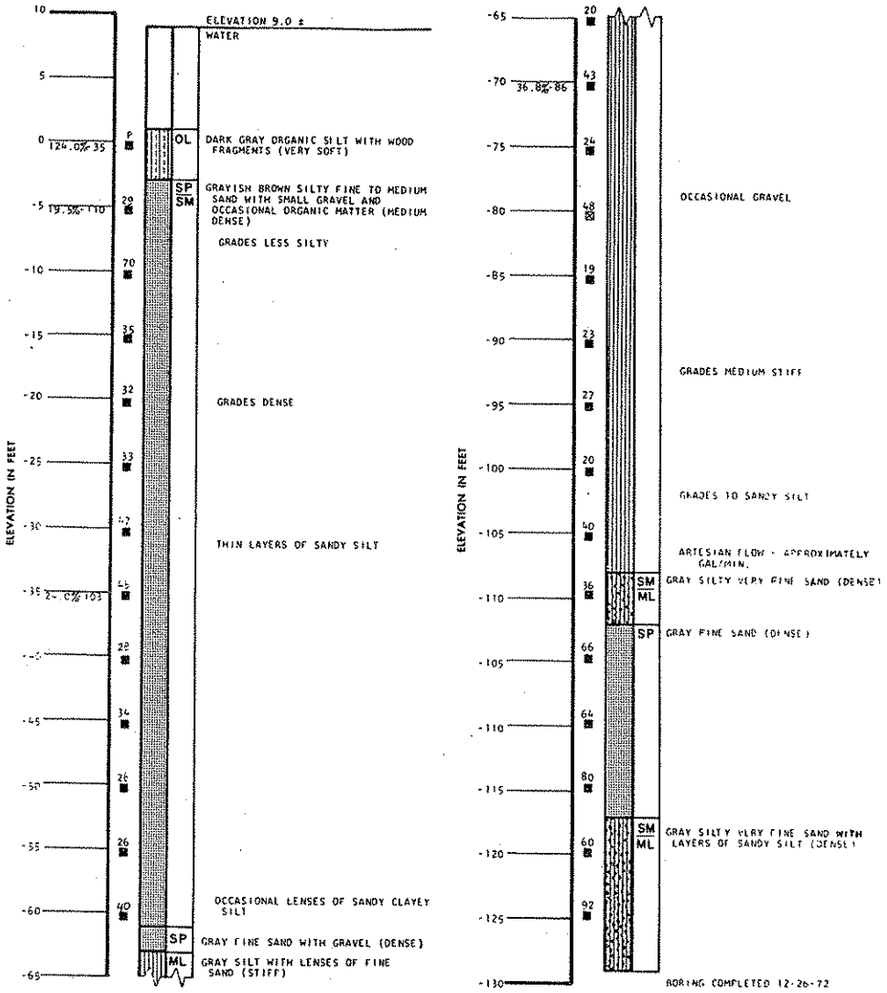
4. INTERPRETATION AND EXTRAPOLATION SHOULD BE DONE BY A GEOTECHNICAL ENGINEER.

DAMES & MOORE

BORING 8



KEY:

MOISTURE CONTENT / DRY DENSITY IN PCF

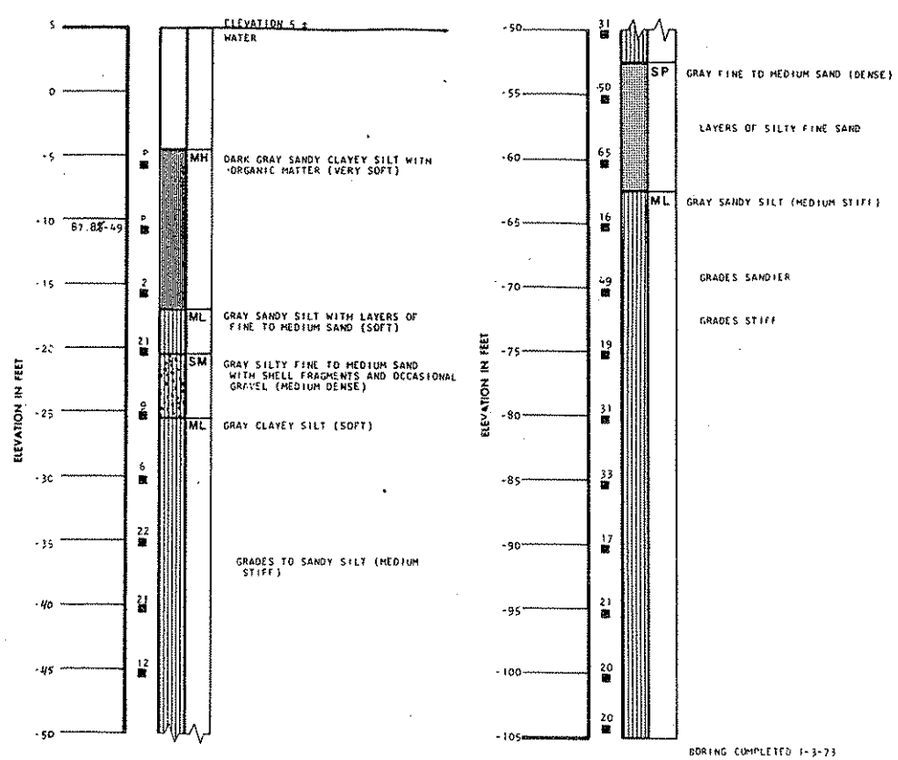
P BLOWS REQUIRED TO DRIVE SAMPLER ONE FOOT WEIGHT= 400 LBS., STROKE= 24 INCHES.

■ INDICATES DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED.

▨ INDICATES DEPTH AT WHICH DISTURBED SAMPLE WAS EXTRACTED.

□ INDICATES DEPTH OF SAMPLING ATTEMPT WITH NO RECOVERY.

BORING 9



LOG OF BORINGS

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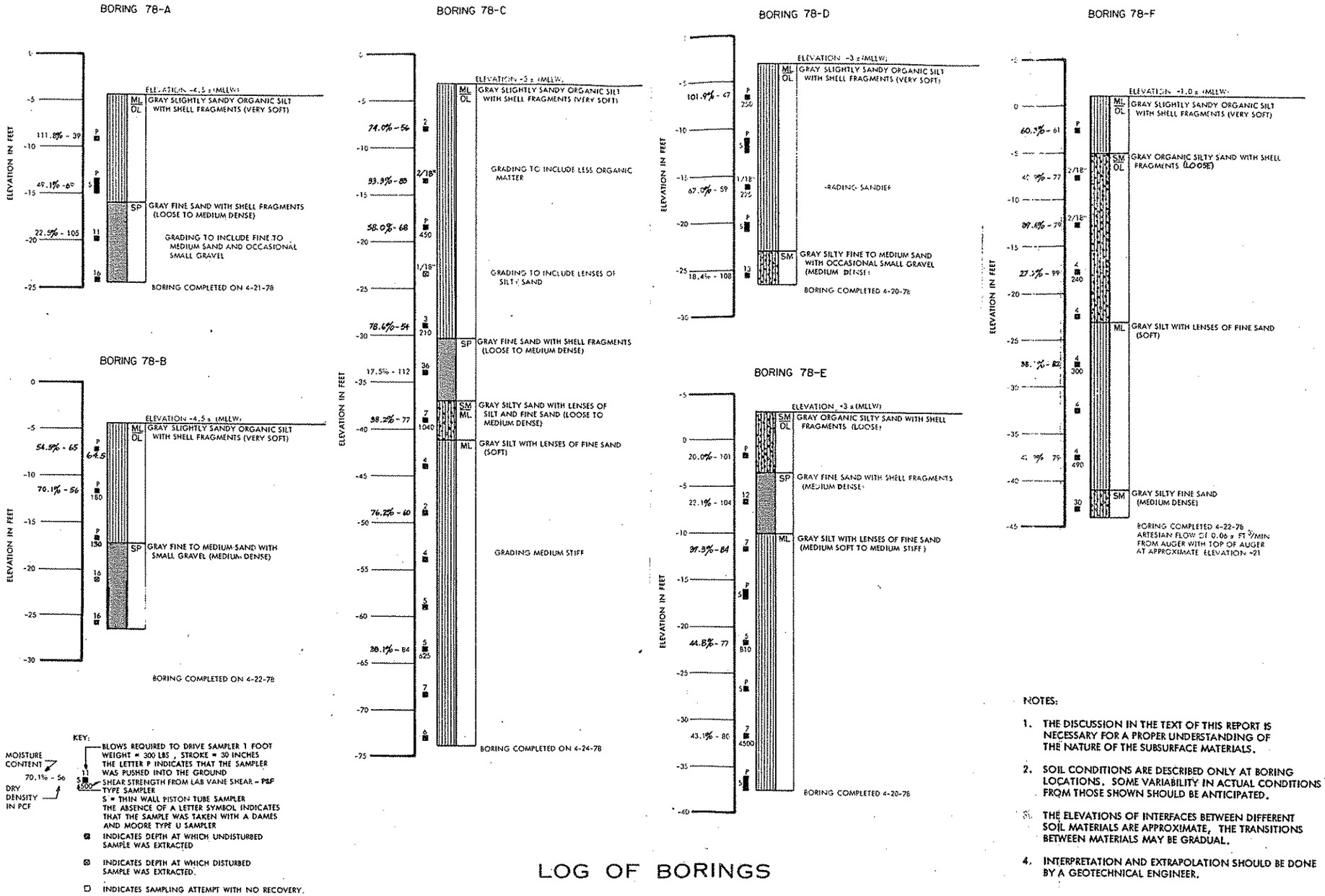

LOG OF BORINGS

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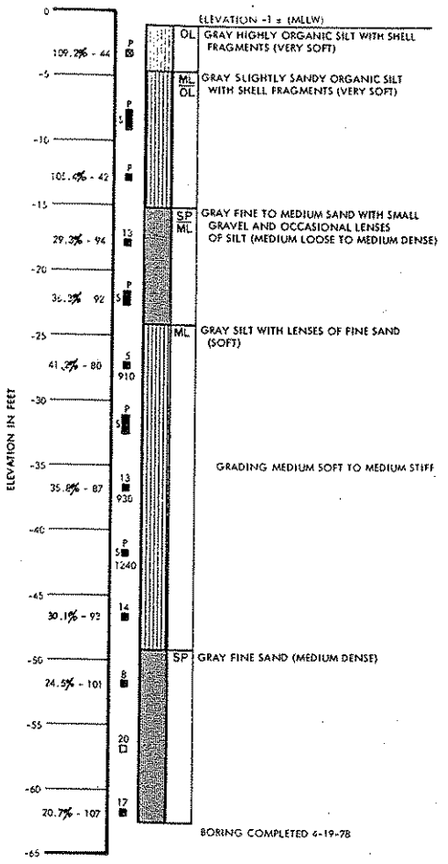
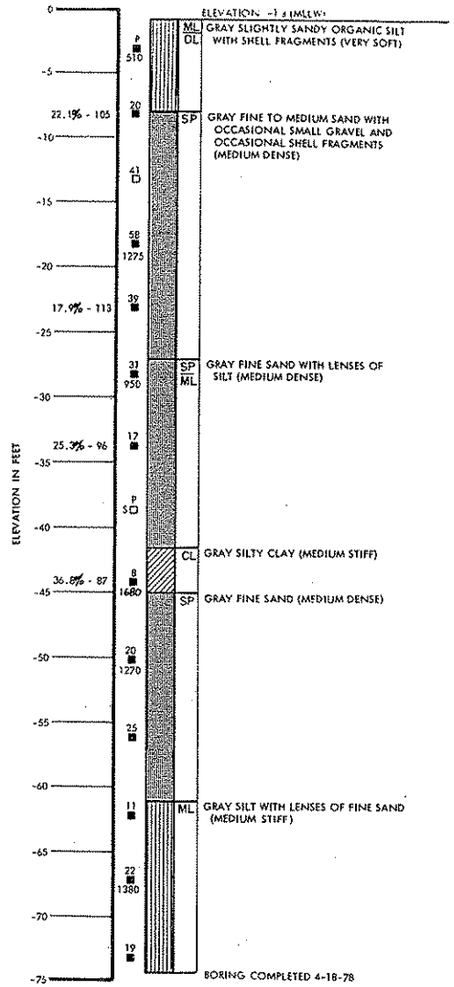
DAMES & MOORE

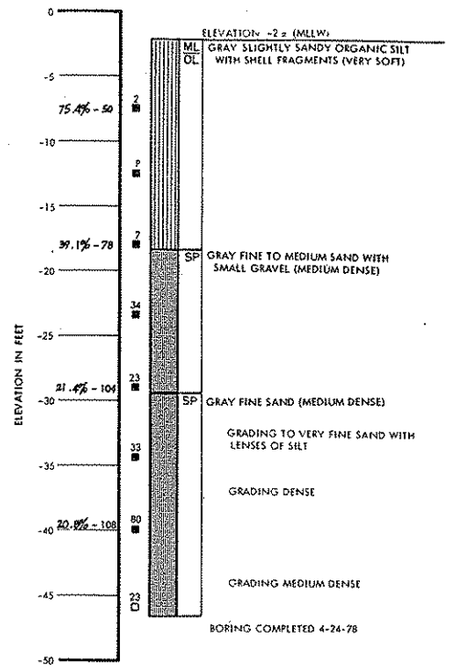
BORING 78-G



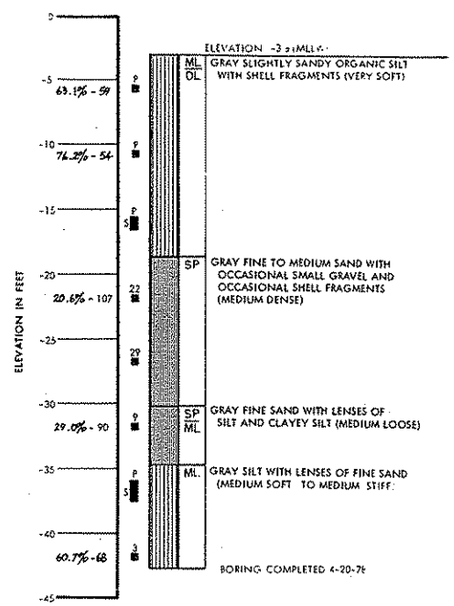
BORING 78-H



BORING 78-I



BORING 78-J



KEY:

MOISTURE CONTENT → 70.1% - 56
DRY DENSITY IN PCF →

11 — BLOWS REQUIRED TO DRIVE SAMPLER 1 FOOT WEIGHT = 300 LBS , STROKE = 30 INCHES
THE LETTER P INDICATES THAT THE SAMPLER WAS PUSHED INTO THE GROUND

S 1500 — SHEAR STRENGTH FROM LAB VANE SHEAR – PSF
TYPE SAMPLER
S = THIN WALL PISTON TUBE SAMPLER
THE ABSENCE OF A LETTER SYMBOL INDICATES THAT THE SAMPLE WAS TAKEN WITH A DAMES AND MOORE TYPE U SAMPLER

■ INDICATES DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED

⊠ INDICATES DEPTH AT WHICH DISTURBED SAMPLE WAS EXTRACTED.

□ INDICATES SAMPLING ATTEMPT WITH NO RECOVERY.

LOG OF BORINGS

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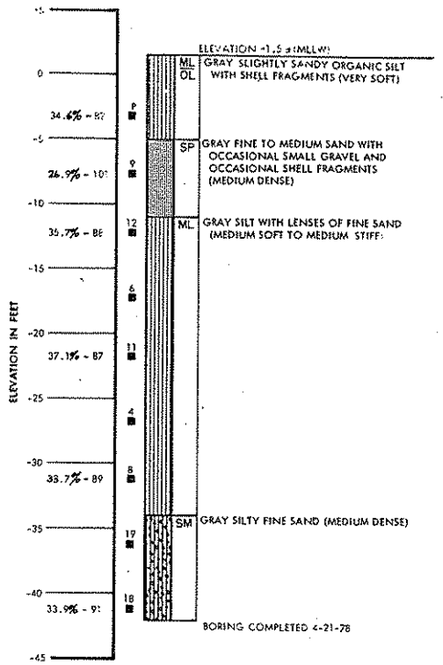
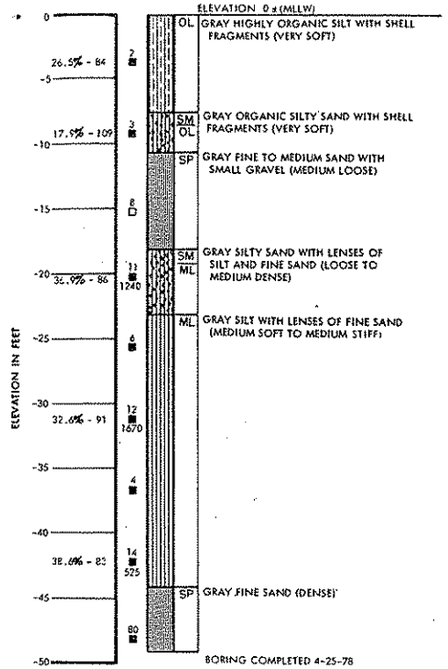
BORING 78-K



BORING 78-L



KEY:

MOISTURE CONTENT 70.1% - 56

DRY DENSITY IN PCF

11 — BLOWS REQUIRED TO DRIVE SAMPLER 1 FOOT WEIGHT = 300 LBS , STROKE = 30 INCHES THE LETTER P INDICATES THAT THE SAMPLER WAS PUSHED INTO THE GROUND

S 2600 — SHEAR STRENGTH FROM LAB VANE SHEAR – PSF

TYPE SAMPLER
S = THIN WALL PISTON TUBE SAMPLER
THE ABSENCE OF A LETTER SYMBOL INDICATES THAT THE SAMPLE WAS TAKEN WITH A DAMES AND MOORE TYPE U SAMPLER

▣ INDICATES DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED

● INDICATES DEPTH AT WHICH DISTURBED SAMPLE WAS EXTRACTED.

□ INDICATES SAMPLING ATTEMPT WITH NO RECOVERY.

LOG OF BORINGS

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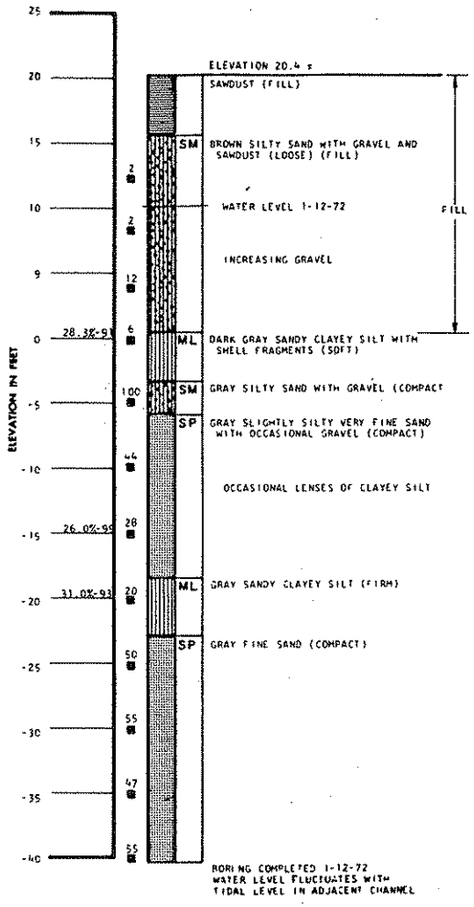
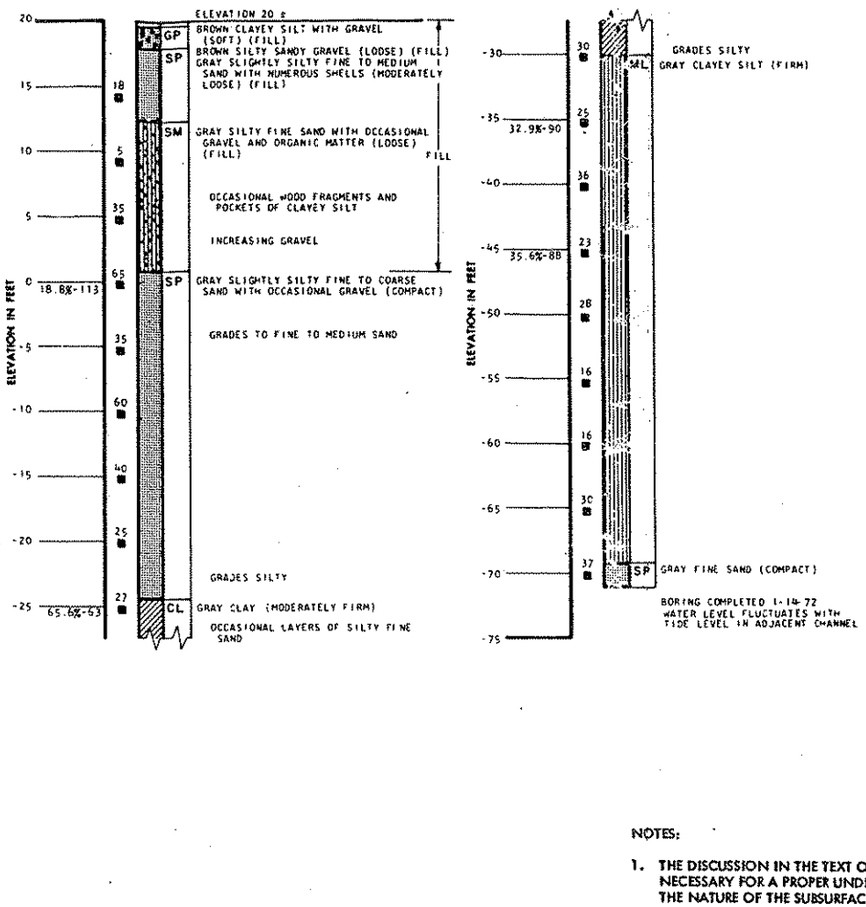
BORING 72-1



BORING 72-2



KEY:

MOISTURE CONTENT / DRY DENSITY IN PCF
31.0%-93

20 BLOWS REQUIRED TO DRIVE SAMPLER ONE FOOT WITH WEIGHT = 350 LBS., STROKE = 30 INCHES.

■ INDICATES DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED.

LOG OF BORINGS

NOTES:

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4. INTERPRETATION AND EXTRAPOLATION SHOULD BE DONE BY A GEOTECHNICAL ENGINEER.

DATUM

M.L.L.W.= 0.00'

+17.69'= CITY OF OLYMPIA

BUDD INLET-EAST BAY

PT=3 E 1402432

E 1403000

PILING & FLOAT

LAYOUT LINE SCHEDULE-3 DIKE SCHD.-3

N 634500

N 634250

SCHEDULE-4 EMBANKMENT TYP.

TOP OF FILL 18.0

LAYOUT LINE

ABAND. PIER

TOP OF EX. BANK (SHORELINE) EL. 17±

THIS AREA

EX HYDT.

0+36 INSTALL C.B.-1 TYPE-1

CONNECT FRENCH DRAIN & PLUG OUTFALL

SEE SHEET-3

R=715.72'

SCHEDULE-1

2:1

2:1

SCHEDULE-1

0- PIPE

SECTION A-A

E 1403250

PT=2

ALL INSTALLATION AND MATERIALS TO PORT OF OLYMPIA, CITY OF OLYMPIA AND A.P.W.A. STD. SPECS.

ALL CMP IS ALUMINUM WITH SIZES AND GAGES AS BELOW:

8" & 10"	16 GAGE
18"	14 GAGE
24" & 30"	12 GAGE
36" & 84"	10 GAGE

4+87.9 INSTALL MH-3N TYPE III-54

E 1402750

N 635250

3+18.21 INSTALL MH-2N TYPE III-72 OVER EX. 42" PIPE

EXISTING TO BE REMOVED

TOP OF EX. BANK EL. 9.0±

N 14°55'32"W

EX C.B.

EASEMENT LINE

EX. MH-1S

EX. 42" CONC. STD

N 66°39'05"E

4+50.0 BK= 2+42.6 AH INSTALL MH-1N TYPE III-72

N 37°20'17"W

A.C. PAVMT

PORTABLE UNITS

ABANDON EX. 8" CMP

SCHEDULE-1 SCHEDULE-2

SCHEDULE-1 151.4 LF 8" CMP @.005

EX. C.B RIM 17.22 FL 15.19 PLUG OUTFALL

EX MH RIM 17.33 FL 8" 14.43 FL EX.42" 11.23

NOTE: PORTABLE UNITS TO BE MOVED BY OTHERS

0+00 N 1°S=2+08 INSTALL MH-1S TYPE III-54 OVER EX. 24" PIPE SEE SHEET-3

EX. 24" CONC.

0+54 S. INSTALL 10" TEE W. CONNECT FRENCH DRAIN & PLUG OUTFALL

EX 10" CONC. ABANDON

EX 10" CONC. ABANDON

EX. WATER

EX 12" CONC. ABANDON

S 04°05'50"E

1+27 INSTALL MH-2S TYPE I-48 OVER EX. 6" PIPE PLUG OUTFALL

E 1403000

SEE SHEET-2

EX. C.B. REMOVE CONC. PIPE INSTALL 12" CMP TEE & CONN. TO 30" CMP

OXYGENATION BASIN BLDG.

L.O.T.T. S.T.P. SITE

N 634750

0 25 50 100

SCHEDULE-1

SCHEDULE-2

MH-3N

APPROX. EX. GROUND

MH-2N

MH-1N

SAME

169.7 LF 30" CMP @.0014

75.6 LF 36" CMP @.0019

FL 10.59 IN & OUT

FL 10.35 IN & OUT

FL 10.21 IN & OUT

FL 10.21 IN & OUT

4+87.9

EX. 42" CONC.

3+18.21

2+42.6

4+50.0 BK= 2+42.6 AH

427 LF 36" CMP .016

FL 3.38

APPROX. EX. GROUND

0+23

TOP OF FILL EL. 18.0

BEG F.F.

AREA TO BE FILLED

M.H.H.W. 14.4'

M.L.L.W. 0.0'

RIP RAP

EX 24" CONC.

0+00 N 1°S= 2+08

C.B.-1

MH-1S

MH-2S

APPROX. EX. GROUND

0+30

127 LF 18" CMP

FL 17.11

FL 12.47

FL 10.56 S

FL 11.23 N

AS BUILT DRAWING
HOWARD GODAT & ASSOCIATES
DATE DEC. 1981

REVISED 14 APRIL '81

SWAN WOOSTER ENGINEERING INC.
CONSULTING ENGINEERS PORTLAND ORE.

PORT OF OLYMPIA
EAST BAY MARINA

STORM DRAINAGE

HOWARD GODAT & ASSOCIATES
CONSULTING ENGINEERS OLYMPIA, WASHINGTON 98502

DESIGNED BY DLC
DRAWN BY CH
CHECKED BY HG

SCALE Horiz 1"=50' Vert 1"=5'
DATE FEB. '81

1/3

12.75 D7753-105

DENNIS L. COUGHLIN 11828 Registered Professional Engineer

PLAN: SURVEYED, PLOTTED, NOTE BOOK, ALIGNMENT CHECKED, No., BY, DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, No., BY, DATE, STRUCTURE NOTATIONS CHECKED

K&E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

48 7024 MADE IN U.S.A.

E-105 T-37

DATUM

M.L.L.W. =0.00'
+ 17.69'=CITY OF OLYMPIA

N 635750

E 1402750

℄ STA
Δ = 33°23'33"
R = 530.00
T = 158.97
L = 308.89
D = 10.81053

9+58.2
INSTALL
MH-5N
TYPE III-54

8+74.6
INSTALL
MH-4N
TYPE III-54

8+19
INSTALL
12" TEE

PT 7+33.04

PC 4+24.15

BUDD INLET-EAST BAY

N53°55'38"W

N31°47'12"W

SHORELINE ± TOP OF DIKE EL 20'±

60' R/W

TOP OF DIKE LANDSIDE

30'

30'

N14°55'32"W

SEE SHEET-1

N 635250

ABANDON
EX. 24" CONC.
OUTFALL

S87°28'13"W

SLUDGE
LAGOON

FUTURE C.B.
APPROX. LOC.

N 635500

E 1402500

4+87.9
INSTALL
MH-3N
TYPE III-54

EASEMENT LINE

OXYGENATION
BASIN

EX. 24" CONC.

11+66.5
CONNECT TO
EX MH
PLUG
OUTFALL

E 1402250

L.O.T.T. S.T.P.
SITE

'D' AVE.

N. FRANKLIN

ST.

SCHEDULE-1

0 25 50 100

TYPICAL FILL CROSS SECTION

EL. 18.0/20.0

10'

1:2

2:1

EX. MH

MH-5N

MH-4N

MH-3N

EX. GROUND

M.H.H.W. 14.4'

M.L.L.W. 0.0'

208.3 LF 30" CMP @ .0014

83.6 LF 30" CMP @ .0014

386.7 LF 30" CMP @ .0014

SEE SHEET-1

EX. FL 11.54

FL 11.25 IN & OUT

FL 11.13 IN & OUT

FL 10.59 IN & OUT

11+66.5

9+58.2

8+74.6

4+87.9

SCHEDULE-1

20 15 10 5 0

11 10 9 8 7 6 5 4

AS BUILT DRAWING
HOWARD GODAT & ASSOCIATES
DATE DEC. 1981

REVISED 14 APRIL '81

SWAN WOOSTER ENGINEERING INC.
CONSULTING ENGINEERS PORTLAND ORE.

PORT OF OLYMPIA
EAST BAY MARINA

STORM DRAINAGE

HOWARD GODAT & ASSOCIATES
CONSULTING ENGINEERS OLYMPIA, WASHINGTON 98502

DESIGNED BY DLC
DRAWN BY CH
CHECKED BY HG

SCALE Horiz 1" = 50'
Vert 1" = 5'
DATE FEB. 81

2/3

DENNIS L. GOCHMAN 11029 REGISTERED PROFESSIONAL ENGINEER 2-18-81

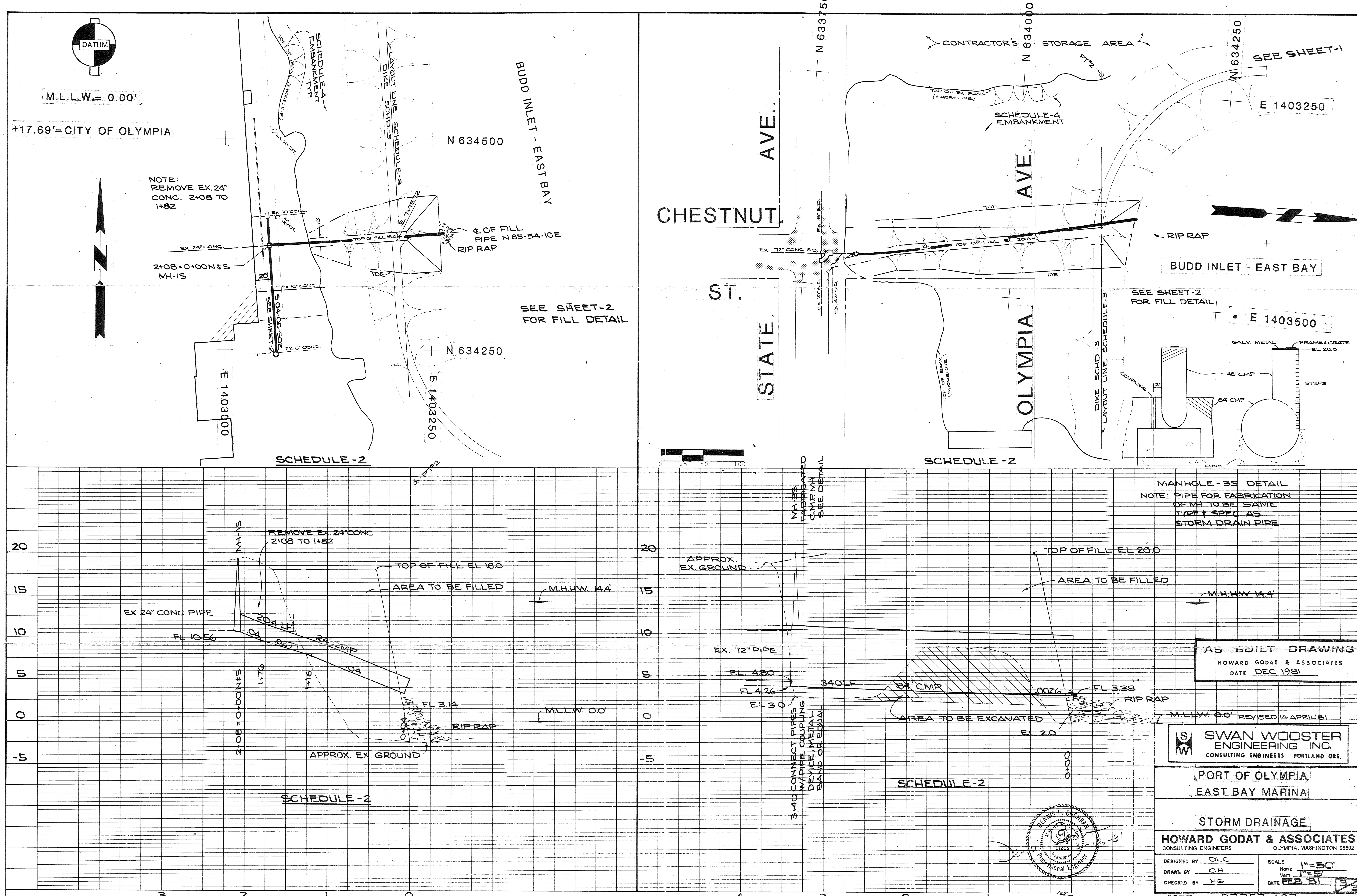
1275 D7753-106

PLAN
SURVEYED
PLOTTED
NOTE BOOK
No.
ALIGNMENT CHECKED
R/W OR EASEMENTS CHECKED
DATE
BY

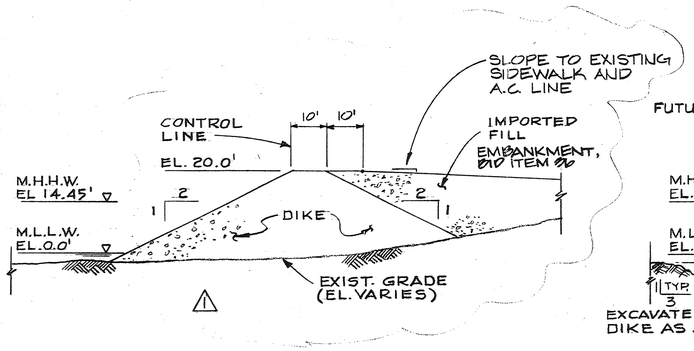
PROFILE
SURVEYED
PLOTTED
NOTE BOOK
No.
GRADES CHECKED
R/W OR EASEMENTS CHECKED
STRUCTURE NOTATIONS CHECKED
DATE
BY

K&E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
48 7024 MADE IN U.S.A.

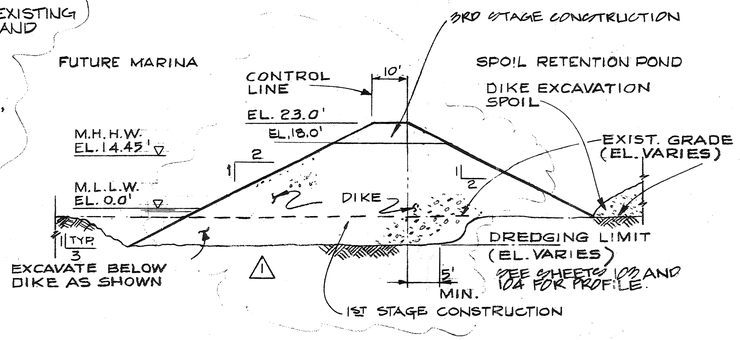
F-106



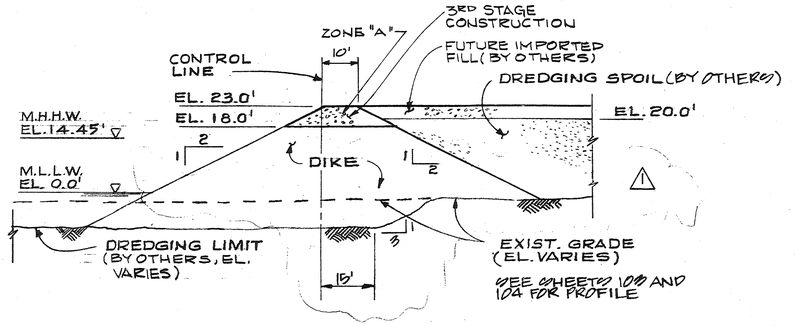
DATUM
M.L.L.W.= 0.00'
+17.69'=CITY OF OLYMPIA
NOTE: REMOVE EX.24" CONC. 2+08 TO 1+82
SCHEDULE-4 EMBANKMENT TYP.
LAYOUT LINE SCHEDULE-3
DIKE SCHD.-3
BUDD INLET - EAST BAY
N 634500
N 634250
E 1403000
E 1403250
℄ OF FILL PIPE N 85-54-10E
RIP RAP
TOP OF FILL 16.0
EX 24" CONC.
2+08=0+00N&S MH-1S
EX 10" CONC.
EX 6" CONC.
TOE
S 04-05-50E
SEE SHEET-2
SEE SHEET-2 FOR FILL DETAIL
SCHEDULE-2
N 633750
N 634000
N 634250
CONTRACTOR'S STORAGE AREA
TOP OF EX. BANK (SHORELINE)
SCHEDULE-4 EMBANKMENT
SEE SHEET-1
E 1403250
CHESTNUT
AVE.
ST.
STATE
AVE.
OLYMPIA
EX. 72" CONC. S.D.
TOP OF FILL EL. 20.0
RIP RAP
BUDD INLET - EAST BAY
SEE SHEET-2 FOR FILL DETAIL
E 1403500
DIKE SCHD.-3
LAYOUT LINE SCHEDULE-3
GALV. METAL
FRAME & GRATE EL 20.0
COUPLING
48" CMP
84" CMP
STEPS
CONC.
0 25 50 100
MANHOLE-3S DETAIL
NOTE: PIPE FOR FABRICATION OF MH TO BE SAME TYPE & SPEC. AS STORM DRAIN PIPE
MH-1S
REMOVE EX. 24" CONC 2+08 TO 1+82
TOP OF FILL EL 16.0
AREA TO BE FILLED
M.H.H.W. 14.4'
EX 24" CONC PIPE
FL 10.56
204 LF
24" CMP
FL 3.14
RIP RAP
M.L.L.W. 0.0'
APPROX. EX. GROUND
2+08=0+00N&S
SCHEDULE-2
MH-3S FABRICATED CMP MH SEE DETAIL
APPROX. EX. GROUND
TOP OF FILL EL 20.0
AREA TO BE FILLED
M.H.H.W. 14.4'
EX. 72" PIPE
EL. 4.80
FL 4.26
EL 3.0
340 LF
84" CMP
.0026
FL 3.38
RIP RAP
AREA TO BE EXCAVATED
EL 2.0
M.L.L.W. 0.0'
REVISED 14 APRIL '81
3+40 CONNECT PIPES W/PIPE COUPLING DEVICE, METAL BAND OR EQUAL
SCHEDULE-2
AS BUILT DRAWING
HOWARD GODAT & ASSOCIATES
DATE DEC 1981
SWAN WOOSTER ENGINEERING INC.
CONSULTING ENGINEERS PORTLAND ORE.
PORT OF OLYMPIA
EAST BAY MARINA
STORM DRAINAGE
HOWARD GODAT & ASSOCIATES
CONSULTING ENGINEERS
OLYMPIA, WASHINGTON 98502
DESIGNED BY DLC
DRAWN BY CH
CHECKED BY HG
SCALE Horiz 1"=50' Vert 1"=5'
DATE FEB '81
3/3
DENNIS L. COCHRAN
Professional Engineer
D7753-107
PLAN
PROFILE
NOTE BOOK
K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.
48 7024 MADE IN U.S.A.
E-107



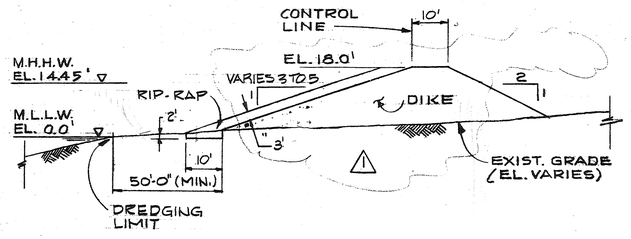
TYPICAL SECTION OF EAST DIKE
BETWEEN POINT ① & POINT ③
SCHEDULE 3



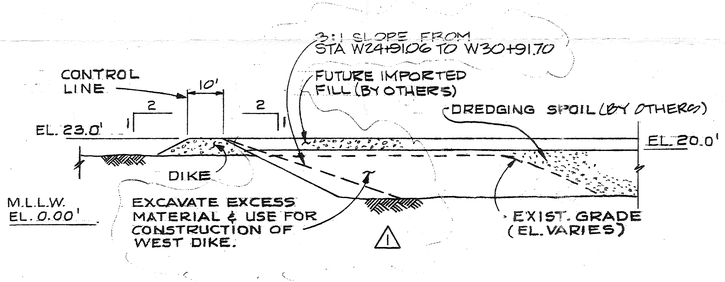
TYPICAL SECTION OF EAST DIKE
BETWEEN POINT ③ & POINT ⑦



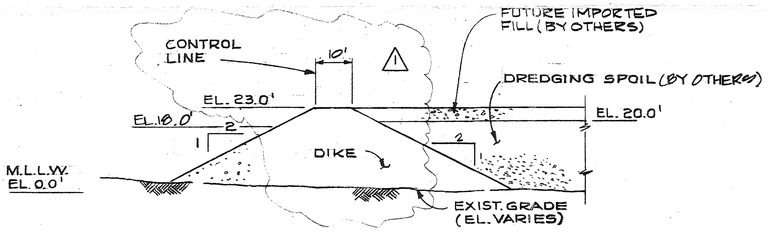
TYPICAL SECTION OF DIKE
ALTERNATE HOMOGENOUS CONSTRUCTION
SEE SPECIFICATIONS, SECTION III B.4. SECTION SHOWN HAS ONLY 1ST AND 3RD STAGES; CONSTRUCTION OF STAGES 2A & 2B WOULD BE SIMILAR.



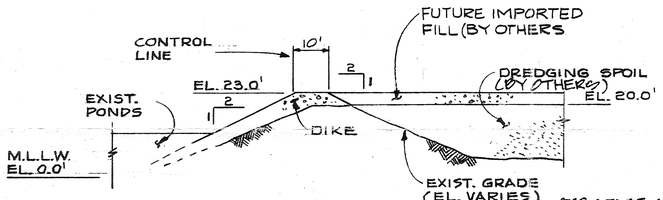
TYPICAL SECTION OF EAST DIKE
BETWEEN POINT ⑨ & POINT ⑫
LIMITS OF RIP-RAP: STA. 47+62 TO STA. 51+64



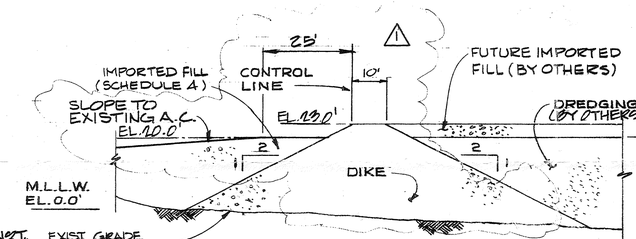
TYPICAL SECTION OF WEST DIKE
BETWEEN POINT ⑰ & POINT ⑳



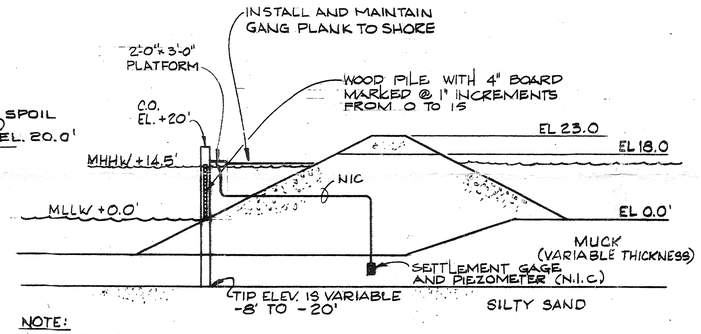
TYPICAL SECTION OF WEST DIKE
BETWEEN POINT ⑳ & POINT ⑨



TYPICAL SECTION OF WEST DIKE
BETWEEN POINTS ⑬ & POINTS ⑰

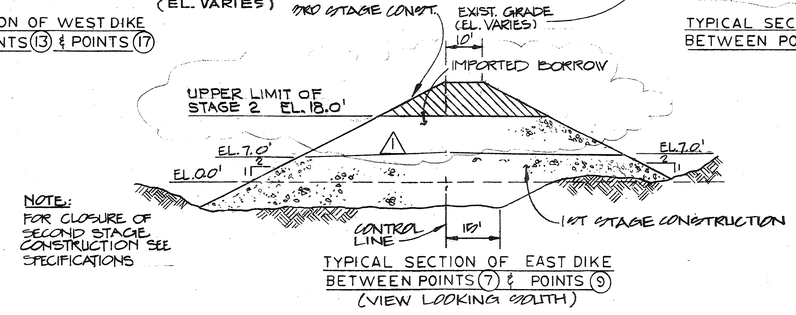


TYPICAL SECTION OF WEST DIKE
BETWEEN POINTS ③ & POINTS ⑬



NOTE:
LOCATIONS OF SETTLEMENT MARKERS, PIEZOMETERS, & WOODEN PILING TO BE DETERMINED IN THE FIELD DURING INSTALLATION.
REQUIRED: 6 MONITORING STATIONS, AT 11 OTHER LOCATIONS, INSTALL PILE ONLY

TYPICAL MONITORING STATION
(SEE PLAN FOR LOCATIONS)



NOTE:
FOR CLOSURE OF SECOND STAGE CONSTRUCTION SEE SPECIFICATIONS

TYPICAL SECTION OF EAST DIKE
BETWEEN POINTS ⑦ & POINTS ⑨
(VIEW LOOKING SOUTH)

NOTES:
1.) FOR GENERAL NOTES SEE DRAWING D7753-101
2.) ITEMS MARKED N.I.C. ARE NOT IN THIS CONTRACT
3.) CARRY ZONE A MATERIAL UP SIMULTANEOUSLY WITH CORE CONSTRUCTION.

APPROVED FOR CONSTRUCTION

DWG. No.	REFERENCE	No.

DWG. No.	REFERENCE	No.

REV.	DATE	REVISION	BY	CH'D.
1	2 FEB 1982	AS BUILT REVISIONS	HJK	
0	17 MAY 1981	APPROVED FOR CONSTRUCTION	JWA	
E	17 APR 1981	GENERAL REVISION	JWA	
D	18 MAR 1981	GENERAL REVISION	KCS	
C	25 FEB 1981	ADDED MONITORING STA. DET. & MISC. NOTES	SO	
B	7 NOV 1980	FOR CORPS OF ENGINEERS PERMIT	JSA	
A	7 OCT 1980	FOR CORPS OF ENGINEERS REVIEW	SB	

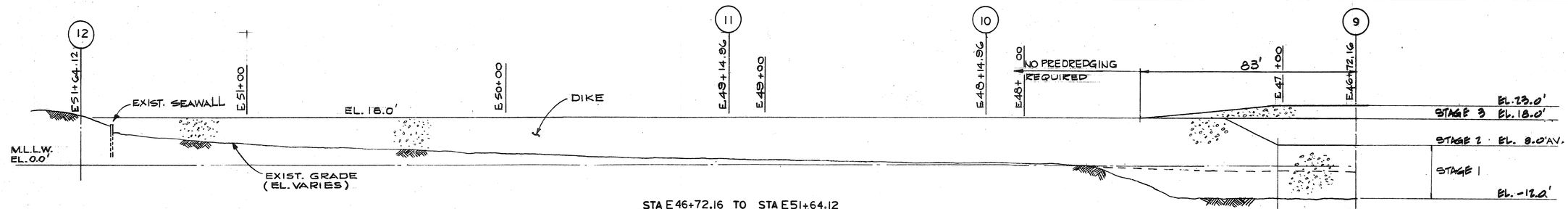
JOHN GRESITT — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

SWAN WOOSTER ENGINEERING INC.
CONSULTING ENGINEERS PORTLAND OREGON

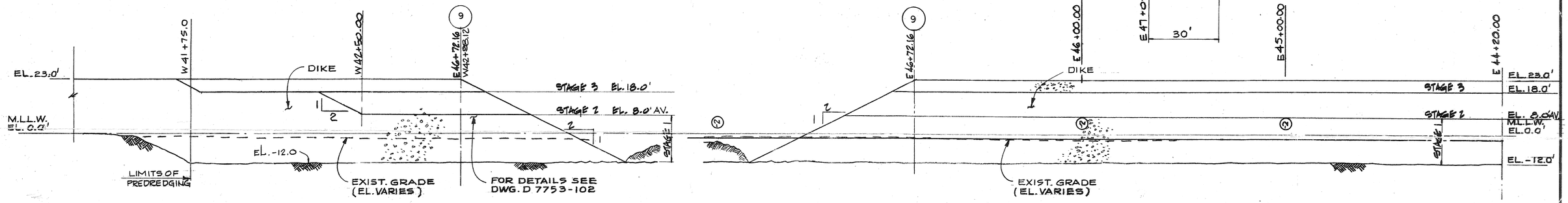
PORT OF OLYMPIA COMMISSION
OLYMPIA, WASHINGTON

EAST BAY MARINA
PHASE I CONSTRUCTION
DIKE SECTIONS SH.1

		DAT	NO.	YR.	DRAWING NUMBER	REV.
SCALE	1"= 20'					
DESIGNED	KS					
DRAWN	B.B.		CT	80	D-7753-102	
CHECKED	KS	6		81		
APPROVED	[illegible]	27		81		

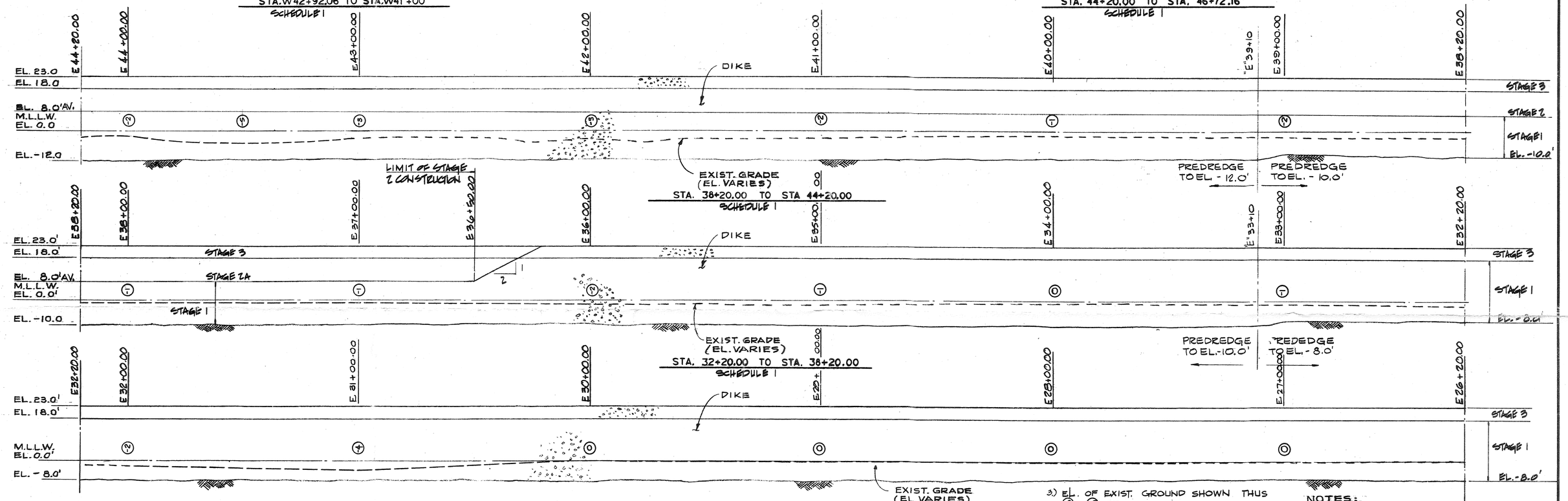


STA E 46+72.16 TO STA E 51+64.12
SCHEDULE 1



STA. W42+92.06 TO STA. W41+00
SCHEDULE 1

STA. 44+20.00 TO STA. 46+72.16
SCHEDULE 1



STA. 26+20.00 TO STA. 32+20.00
SCHEDULE 1

LONGITUDINAL SECTIONS OF EAST DIKE

3) EL. OF EXIST. GROUND SHOWN THUS ②, ③, ETC.

APPROVED FOR CONSTRUCTION

NOTES:
1.) FOR GENERAL NOTES SEE DWG. D7753-101.
2) FOR CONTINUATION SEE DWG. D7753-104.

DWG. No.	REFERENCE	No.

DWG. No.	REFERENCE	No.

REV.	DATE	REVISION	BY	CH'D.
1	2 FEB 1982	"AS BUILT" REVISIONS ~ REMOVED STAGE 2B FROM SECTIONS	HJK	
0	11 MAY 1981	APPROVED FOR CONSTRUCTION		

REV.	DATE	REVISION	BY	CH'D.
D	13 AUG 1981	ADD STAGES 1, 2A, 2B & 3	TK	
C	19 MAR 1981	ADDED ELEVATIONS AND REVISED STATIONING ⑨ TO ⑫	KS	
B	25 FEB 1981	ADDED STATIONING	DB	
A	7 OCT. 1980	FOR CORPS OF ENGINEERS REVIEW	BB	

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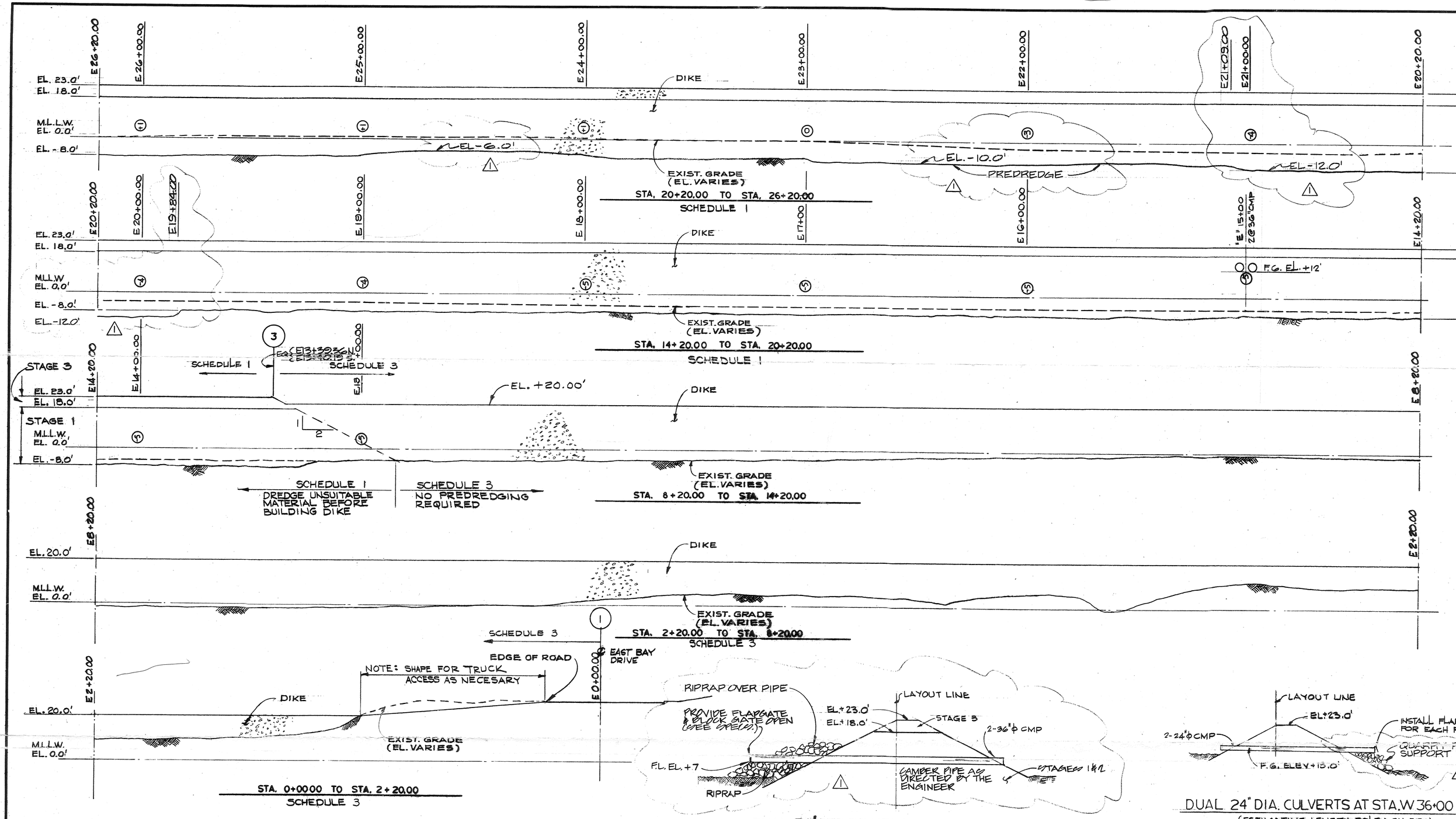
CONSULTING ENGINEERS PORTLAND OREGON

PORT OF OLYMPIA COMMISSION
OLYMPIA, WASHINGTON

EAST BAY MARINA
PHASE I CONSTRUCTION
DIKE SECTIONS SH. 2

		DAY	MO.	YR.
SCALE	1" = 20'			
DESIGNED	JG			
DRAWN	B.B.	5	OCT	80
CHECKED	JG	6	3	81
APPROVED				

DRAWING NUMBER: D-7753-103 REV. 1



DUAL 36" DIA CULVERTS AT STA. 15+00
(ESTIMATING LENGTH 100' EACH PIPE)

DUAL 24" DIA. CULVERTS AT STA. W 36+00
(ESTIMATING LENGTH 70' EACH PIPE)

LONGITUDINAL SECTIONS OF EAST DIKE

NOTES.
1.) FOR GENERAL NOTES SEE DWG D7753-101
2.) FOR CONTINUATION SEE DWG D7753-10
3.) EL. OF EXIST. GROUND SHOWN THUS ②, ⑤, ETC.

APPROVED FOR CONSTRUCTION

DWG. No.	REFERENCE	No.

DWG. No.	REFERENCE	No.

REV.	DATE	REVISION	BY	CH'D.
I	2 FEB 1982	"AS BUILT" REVISIONS	HJK	JEF
O	11 MAY 1981	APPROVED FOR CONSTRUCTION	JPG	JEF
F	20 APR 1981	REV'D DUAL 36" DIA. CULVERTS AT STA. 15+00	JPG	JEF
E	17 APR 1981	GENERAL REVISION	JAK	JEF

REV.	DATE	REVISION	BY	CH'D.
D	18 MAR 1981	ADDED ELEVATIONS AND RELOCATED CULVERTS.	KGS	JEF
C	25 FEB 1981	ADDED STATIONING	DJB	JEF
B	7 NOV 1980	FOR CORPS OF ENGINEERS PERMIT	JSF	
A	7 OCT 1980	FOR CORPS OF ENGINEERS REVIEW	BB	

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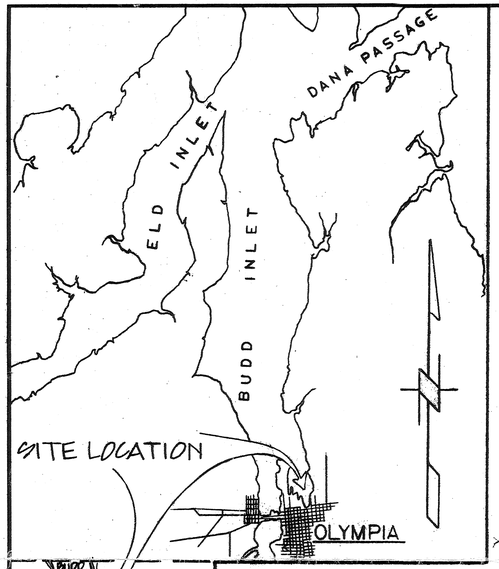
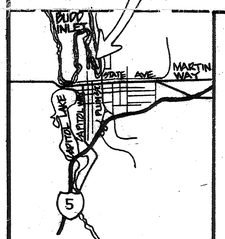
PORT OF OLYMPIA COMMISSION
OLYMPIA, WASHINGTON

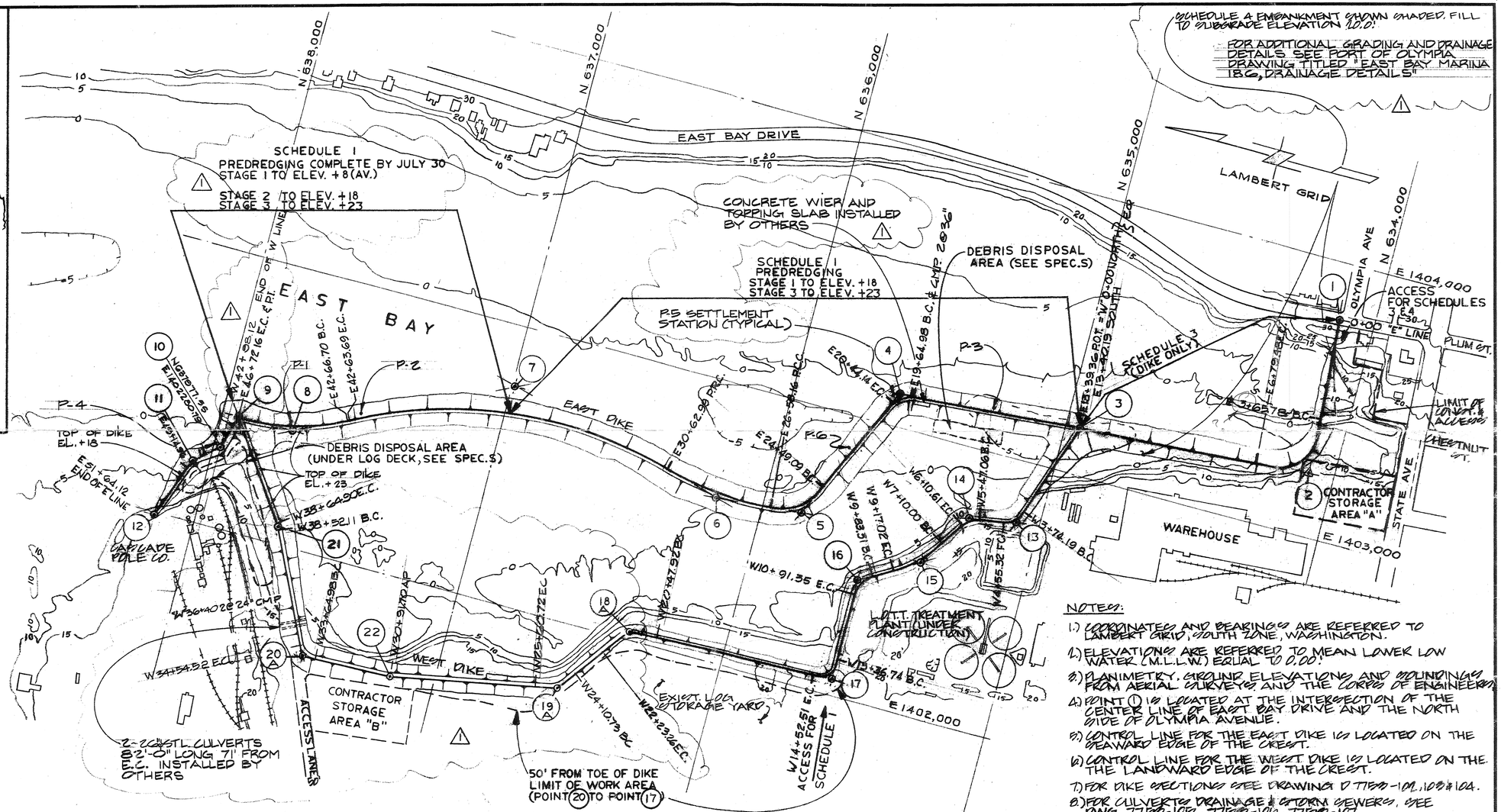
EAST BAY MARINA
PHASE I CONSTRUCTION
DIKE SECTIONS SH. 3

		DAY	MO.	YR.	DRAWING NUMBER
SCALE	1" = 20'				
DESIGNED	JAK				
DRAWN	B.B.	6	OCT	80	D-7753-104
CHECKED	KGS	6	3	81	
APPROVED	JEF	6	3	81	





VICINITY MAP
(NO SCALE)



NOTES:

1. COORDINATES AND BEARINGS ARE REFERRED TO LAMBERT GRID, SOUTH ZONE, WASHINGTON.
2. ELEVATIONS ARE REFERRED TO MEAN LOWER LOW WATER (M.L.L.W.) EQUAL TO 0.00'.
3. PLANIMETRY, GROUND ELEVATIONS AND SOUNDINGS FROM AERIAL SURVEYS AND THE CORPS OF ENGINEERS.
4. POINT (1) IS LOCATED AT THE INTERSECTION OF THE CENTER LINE OF EAST BAY DRIVE AND THE NORTH SIDE OF OLYMPIA AVENUE.
5. CONTROL LINE FOR THE EAST DIKE IS LOCATED ON THE SEAWARD EDGE OF THE CREST.
6. CONTROL LINE FOR THE WEST DIKE IS LOCATED ON THE LANDWARD EDGE OF THE CREST.
7. FOR DIKE SECTIONS SEE DRAWING D 77550-101, 102 & 104.
8. FOR CULVERTS, DRAINAGE & STORM SEWERS, SEE DWG. 77550-100, 77550-106, 77550-107.
9. FOR SCHEDULING AND ALTERNATES, SEE SPECIFICATIONS.
10. EXACT LIMITS OF CONTRACTOR STORAGE AREAS AND ACCESS LANES WILL BE DESIGNATED BY PORT OF OLYMPIA.
11. THIS CONTRACT MUST NOT DISTURB L.O.T.T. TREATMENT PLANT SLUDGE RESERVOIR IMMEDIATELY ADJACENT TO SOUTHERLY TOE OF DIKE FROM POINT 17 TO POINT 13.

EAST DIKE - POINTS 1 TO 12

POINT P.I.	COORDINATES NORTH	COORDINATES EAST	BEARING	CURVE DATA Δ	R	L	T
1	634132.21	1403798.74		—	—	566.82	—
2	634092.71	1403233.36	S 85° 54' 10" W	89°52'12"	200.00'	313.71'	199.55'
3	634950.63	1403169.95	N 4° 13' 38" W	—	—	—	—
4	635618.15	1403120.61	N 4° 13' 38" W	60°28'36"	75.00'	79.16'	43.72'
5	635859.00	1402611.00	N 64° 42' 14" W	59°18'52"	201.95'	209.07'	114.99'
6	636177.00	1402581.00	N 5° 23' 22" W	19°43'35"	1175.85'	404.83'	204.44'
7	636983.00	1402787.00	N 14° 20' 13" E	41°05'08"	1674.43'	1200.70'	627.47'
8	637731.00	1402410.00	N 26° 44' 55" W	28°57'43"	802.13'	405.46'	207.16'
9	637938.00	1402418.00	N 2° 12' 48" E	76°08'02"			
10	637977.55	1402280.79	N 73° 55' 14" W	37°46'34"			
11	638058.30	1402221.81	N 36° 08' 40" W	32°10'16"			
12	638150.00	1401990.00	N 68° 25' 02" W	—	—	—	—

WEST DIKE POINTS 3 TO 10

POINT P.I.	COORDINATES NORTH	COORDINATES EAST	BEARING	CURVE DATA Δ	R	L	T
3	634950.63	1403169.95		—	—	—	—
13	635091.24	1402775.00	N 70° 24' 12" W	61°58'37"	75.00'	81.13'	45.04'
14	635260.00	1402750.00	N 8° 25' 35" W	48°32'59"	75.00'	63.55'	33.82'
15	635390.00	1402550.00	N 56° 58' 34" W	26°00'44"	456.00'	207.02'	105.33'
16	635590.00	1402430.00	N 30° 57' 50" W	59°02'10"	100.00'	103.04'	56.62'
17	635590.00	1402055.00	N 90° 00' 00" W	88°26'39"	75.00'	115.77'	72.99'
18A	636351.00	1402034.31	N 1° 33' 21" W	50°13'54"	200.00'	175.34'	93.75'
19A	636574.53	1401781.49	N 51° 47' 15" W	42° 58' 13"	200.00'	149.99'	78.72'
22	637177.04	1401658.03	N 8° 49' 02" W	5° 50' 38"			
20A	637501.27	1401642.12	N 2° 58' 24" W	68°24'26"	75.00'	89.54'	50.98'
21	637690.00	1402055.00	N 65° 26' 02" E	9°46'28"	75.00'	12.79'	6.41'
9	637938.00	1402418.00	N 55° 39' 33" E				

APPROVED FOR CONSTRUCTION

APPROVED FOR PORT OF OLYMPIA

DWG. No.	REFERENCE	No.	DWG. No.	REFERENCE	No.

REV.	DATE	REVISION	BY	CH'D.
1	2 FEB 1982	"AS BUILT" REVISIONS	HJK	JG
0	11 MAY 1981	APPROVED FOR CONSTRUCTION	JPG	JG
D	17 APR. 1981	ADDED VICINITY MAP & GENERAL REVISION	JPG	JG
C	10 MAR. 1981	REVISED ALIGNMENTS FROM ADDED NOTES & SHADING ⑨ TO ⑪	KJS	JG
B	25 FEB 1981	ADDED STATIONING	DJD	JG
A	7 OCT 1980	FOR CORPS OF ENGINEERS REVIEW	JPG	JG

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PORT OF OLYMPIA COMMISSION
OLYMPIA, WASHINGTON

EAST BAY MARINA
PHASE I CONSTRUCTION
DIKE PLAN

SCALE	1" = 20'
DESIGNED	JPG
DRAWN	B.B.
CHECKED	JPG
APPROVED	JPG

DRAWING NUMBER D-7755