

ATTACHMENT 33



SAN DIEGO UNIFIED PORT DISTRICT
3165 Pacific Highway
San Diego, California

SPECIFICATION NO. 87-37

for

**EELGRASS TRANSPLANTING AT CHULA VISTA WILDLIFE RESERVE
CHULA VISTA, CALIFORNIA**

John E. B. Wilbur

JOHN E. B. WILBUR
Chief Engineer

Proposals will be received at San Diego, California, until 2:00 p.m. on October 22, 1987, at the office of the Purchasing Department, Second Floor, of the San Diego Unified Port District, 3165 Pacific Highway, San Diego, California. (Mailing address: P. O. Box 488, San Diego, CA 92112).

All questions to be directed to San Diego Unified Port District, 3165 Pacific Highway; Telephone (619) 291-3900, Ext. 249.

NOTE: The entire specification must be returned with all required forms properly filled out. Do NOT detach bid proposal from contract documents. Forms to be filled out prior to submission of bid are listed below:

CONTRACTOR'S CHECKLIST:

- 1. Proposal, Ref. starting Page 1A-1
- 2. Note addenda, Ref. Page 1A-4
- 3. Information regarding Subcontractors, Ref. Page 1A-6
- 4. Statement of Experience, Technical Abilities and References, Ref. Pg. 1A-7
- 5. Statement of Equipment, Ref. Page 1A-8
- 6. Statement of Financial Responsibility, Ref. Page 1A-9
- 7. Certificate of Worker's Compensation, Ref. Page 1A-10
- 8. Affirmative Action Program:
 - a. Signature indicating compliance with Federal & State Law, Ref. Pg. 1A-11
 - b. Signature indicating compliance with Affirmative Action Program, Ref. Page 1A-12
- 9. Bid Bond, Ref. Page 1B-3, Section 1B-06

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SECTION 1D--SPECIAL CONDITIONS

1D-01 DESCRIPTION AND LOCATION OF WORK

The work includes transplanting eelgrass (*Zostera marina*) from existing beds located in San Diego Bay to an area adjacent to the existing Chula Vista Wildlife Reserve and monitoring the transplanted eelgrass for a two year period as shown on the drawings and as specified in these specifications.

1D-02 CONTRACTOR QUALIFICATIONS AND REQUIREMENTS

Within the six year period prior to the bid opening date of this specification, Contractor shall have completed at least one successful eelgrass (*Zostera marina*) transplant project of a size equal to or greater than the specified project. In addition, Contractor shall have in his employ a qualified marine biologist who will supervise and be responsible for all portions of the Contract work. Said qualified marine biologist shall possess, as a minimum, a four-year accredited college or university degree in Biology with an emphasis in aquatic systems, and shall have personal experience in the transplantation of eelgrass. Detailed documentation supporting the above qualifications and requirements shall be submitted on
Page 1A-7 of the Bid Proposal.

1D-03 CONTRACT TIME LIMITS AND LIQUIDATED DAMAGES

The District intends to award the contract on November 3, 1987, and to issue the "Notice to Proceed" effective November 16, 1987, subject to the provisions of Sections 1B-09 and 1C-04 herein.

All work under Bid Schedule A shall be completed within 45 calendar days of the effective date of the "Notice to Proceed," including Saturdays, Sundays and holidays. Contractor further agrees to pay, as liquidated damages, the sum of \$200 per day for each consecutive calendar day thereafter as provided in Section 1C-52 of the General Conditions.

The Contractor shall commence work under Bid Schedule B upon completion and acceptance of the work under Bid Schedule A. The Contractor further agrees to pay, as liquidated damages, the sum of \$100 per day for each consecutive calendar day thereafter that the Contractor fails to complete transplant monitoring in accordance with the scheduling requirements of Section 2B.3 of the Special Provisions.

In determining the number of days this Contract, or portions thereof, remains incomplete, the completion date shall be the date of recommendation of acceptance of work and materials by Engineer.

1D-04

DRAWINGS

The following drawing accompanies these specifications and is made a part thereof:

Dwg. No. 1545 (1 Sheet) EELGRASS TRANSPLANTING AT
CHULA VISTA WILDLIFE RESERVE

Given dimensions shall be followed in preference to scaled dimensions in all cases. It is the intention of the drawing to convey the impression that all parts of the work to be done shall be complete in every detail, regardless of an omission thereon to name or show fully any element or part. The Contractor shall report any error, omission or inconsistency in the drawings and/or specifications before commencing work.

1D-05

REFERENCES TO STANDARDS, CODES AND RULES

Where references are made in these specifications to other publications, such publications shall be the latest issue available on the bid date of this specification, except that the Standard Specifications for Public Works Construction (SSPWC) shall be the latest issue adopted by the City of San Diego, complete with the City of San Diego Standard Special Provisions adopted at the same time. All specified portions of referenced publications shall be a part of these specifications as though quoted in their entirety herein, except that all measurement and payment clauses included in any references are superseded by the provisions of these specifications. Any reference to a controlling authority in any referenced portion shall be considered to mean the Engineer of the District.

1D-06

EXAMINATION OF SITE OF WORK

Prospective bidders may make an appointment to visit the site of the work by telephone (Area Code 619/291-3900, Ext. 249). Ask for the Project Engineer, Mr. Joseph Weber.

1D-07

DEFINITIONS OF TERMS

After award of Contract, the term "Engineer" shall mean the Construction Administrator of the District.

1D-08

PERMITS

Contractor shall apply for and obtain a State of California Department of Fish and Game Scientific Collection Permit for each person who will be collecting eelgrass. Contractor shall contact Mr. Richard Nitsos (213/590-5174) and Mr. John Duffy (619/237-7311) of the California Department of Fish and Game to obtain application requirements.

1D-09

SUPERVISION

Delete the last sentence of the first paragraph of Section 1C-16 pertaining to a nonworking supervisor. This does not diminish the necessity of compliance with the first sentence of said paragraph.

1D-10

WORK OUTSIDE REGULAR HOURS

All Contractor work outside regular hours or on Saturdays, Sundays or holidays (except emergency work) shall be scheduled in advance with the Engineer. Contractor shall allow ample time to enable Engineer to make satisfactory arrangements for inspection of work in progress.

1D-11

SANITARY FACILITIES FOR CONTRACTOR PERSONNEL

Contractor shall provide portable sanitary facilities for his personnel.

1D-12

CONTRACTOR ACCESS TO PROJECT SITE

Contractor may access the project site from the launch ramp at the Chula Vista Harbor or from the Chula Vista Wildlife Reserve as shown on the drawings. The launch ramp at the Chula Vista Harbor is open to the public and accessible at all times. However, the Chula Vista Wildlife Reserve is not open to the public and is kept secured. To access the Reserve, the Contractor shall enter the adjacent SDG&E facility and obtain a key from the SDG&E guard to unlock the gate at the Reserve entrance. The key shall be returned to the guard whenever the Contractor leaves the Reserve. Contractor shall keep gate locked except when entering or exiting the Reserve.

1D-13

CONTRACTOR EQUIPMENT STORAGE

A location for Contractor equipment storage will be designated at the preconstruction conference.

SPECIAL PROVISIONS

DIVISION 2 - SITE WORK

SECTION 2A--EELGRASS TRANSPLANTING

2A.1 GENERAL

- .1.1 Scope of Work. The work includes transplanting eelgrass (*Zostera marina*) from existing beds located in South San Diego Bay to an area adjacent to the existing Chula Vista Wildlife Reserve as shown on the drawings and as specified in these Special Provisions.
- .1.2 Submittals. Contractor shall submit the following for Engineer's approval. Transplanting eelgrass shall not commence until all submittals have been approved by the Engineer.
- a. Recommended location of eelgrass transplant site within the eelgrass transplant area limits shown, and recommended location of eelgrass control bed within the existing beds shown. Include with supporting data and analyses in a letter report. Submit twelve (12) copies of letter report to Engineer.
 - b. Detailed procedures for collecting donor eelgrass, preparing eelgrass planting units for transplanting, and transplanting prepared planting units.
 - c. Anchoring system for prepared bare root planting units.
 - d. Supporting data from at least one similar successful eelgrass transplanting project completed by the Contractor utilizing similar procedures described in paragraphs "b" and "c" above.
 - e. A copy of the California Department of Fish and Game Scientific Collection Permit for this project.

2A.2 PRODUCTS

- .2.1 Eelgrass to be transplanted shall be healthy turions of *Zostera marina* collected from existing beds shown. Each turion shall have a complete root and rhizome mass. During collection, preparation and transplantation, turions shall not exhibit disease, injury, nor other detrimental qualities affecting the probability of transplant survival.

- .2.2 Bare Root Planting Units. Each planting unit shall consist of eight (8) to twelve (12) eelgrass turions securely bundled together with a collar in a manner non-injurious to the turions. Each planting unit shall be complete with an anchoring system suitable for securing the planting unit into the bay bottom substrate until establishment of the root and rhizome mass. Anchor shall extend a minimum of six (6) inches below the substrate surface.
- .2.3 Free Plug Planting Units. Each planting unit shall consist of a six-inch diameter by six-inch long plug of substrate cored from the existing eelgrass beds shown and containing at least six (6) eelgrass turions.

2A.3 EXECUTION

- .3.1 Initial Eelgrass Site Determinations
 - .3.1.1 Eelgrass Transplant Site Determination. Contractor shall, as a minimum, determine and analyze the existing substrate, turbidity, and tidal conditions within the eelgrass transplant area limits to determine the most suitable location for the eelgrass transplant site within those limits.
 - .3.1.2 Eelgrass Control Bed Determination. Contractor shall determine the location of an eelgrass control bed exhibiting physical characteristics of size, elevation, substrate conditions, and turbidity similar to those at the recommended eelgrass transplant site. Said control bed shall be located within the existing eelgrass beds shown.
 - .3.1.3 Letter Report shall be submitted for Engineer's approval in accordance with Paragraph 2A.1.2.a herein.
- .3.2 Transplanting Eelgrass
 - .3.2.1 Collecting Donor Eelgrass. Eelgrass shall be collected from the existing beds shown using shovels or coring equipment to excavate to a depth of at least six (6) inches below the existing substrate surface but in no case less than is required to obtain the complete root and rhizome mass of each turion.
 - .3.2.2 Preparing Bare Root Planting Units. After collecting eelgrass, all sediment shall be carefully washed from the root and rhizome masses. Turions shall then be processed into planting units and transported to the eelgrass transplant site. During preparation and transportation, all plant material shall be kept aerated and wet to maintain the plant material in a healthy condition.

- .3.2.3 Preparing Free Plug Planting Units. After collecting eelgrass plugs, each plug shall be temporarily placed in a container for transporting to the eelgrass transplant site. During preparation and transportation, all plant material shall be kept aerated and wet to maintain the plant material in a healthy condition.
- .3.2.4 Transplanting Prepared Planting Units. Planting units shall be transplanted in the locations and to the depths shown.
- .3.2.5 Transplant Inspection. Contractor shall notify the following agencies in writing at least fourteen (14) calendar days prior to completion of eelgrass transplanting:
- a. California Department of Fish and Game:
Mr. Richard Nitsos (213/590-5174)
Mr. John Duffy (619/237-7311)
 - b. National Marine Fisheries:
Mr. Robert Hoffman (213/514-6663).
 - c. U. S. Fish and Wildlife Service:
Ms. Nancy Kaufman (714/643-4270).
 - d. Army Corps of Engineers:
Mr. Richard Harlacher (213/894-4930)

Said agencies will have the opportunity to inspect the eelgrass transplant site and eelgrass control bed immediately following the completion of all eelgrass transplanting and to provide recommendations to the District concerning the acceptability of the work. All transplanted eelgrass not in compliance with the Contract documents shall be removed and replaced by the Contractor at no additional cost to the District.

2A.4 MEASUREMENT AND PAYMENT

- .4.1 Initial Eelgrass Site Determinations will be paid for at the Contract lump sum amount for Initial Eelgrass Site Determinations which amount shall include full compensation for furnishing all labor, materials, equipment, tools and incidentals and for doing all the work of Initial Eelgrass Site Determinations, as shown on the drawings and as specified in these Special Provisions.

SPECIAL PROVISIONS

DIVISION 2 - SITE WORK

SECTION 2B--TRANSPLANT MONITORING

2B.1 GENERAL

- .1.1 Scope of Work. The work includes monitoring and maintaining the eelgrass transplant site for a two-year period from the date of District acceptance of all work under Bid Schedule A, as shown on the drawings and as specified in these Special Provisions.
- .1.2 Letter Reports. Contractor shall submit twelve (12) copies of each required letter report.

2B.2 PRODUCTS

- .2.1 Eelgrass shall be in accordance with Paragraph 2A.2.1 herein.
- .2.2 Planting Units shall be in accordance with Paragraph 2A.2.2 herein.

2B.3 EXECUTION

- .3.1 Initial Monitoring. Within ten calendar days following the date of District acceptance of all work under Bid Schedule A, the Contractor shall complete the following:
 - a. Measure and document the areal coverage of eelgrass and eelgrass shoot density for both the eelgrass transplant site and the eelgrass control bed.
 - b. Submit said data to Engineer in a letter report.
- .3.2 Three Month Monitoring. Between 90 and 100 calendar days following the date of District acceptance of all work under Bid Schedule A, the Contractor shall complete the following:
 - a. Measure and document the areal coverage of eelgrass and eelgrass shoot density for both the eelgrass transplant site and the eelgrass control bed.
 - b. Compare the three month monitoring data with the initial monitoring data and determine the success of the transplant site relative to the control bed.
 - c. Submit said data, comparisons, and determinations to Engineer in a letter report.
 - d. If monitoring indicates that the transplanted eelgrass density is decreasing relative to the control bed, Contractor shall transplant additional bare root planting units to achieve the original transplant density. Said planting units shall be collected, prepared, and transplanted in accordance with Section 2A.3.2 herein.

- .3.3 Twelve Month Monitoring. Between 365 and 375 calendars days following District acceptance of all work under Bid Schedule A, the Contractor shall complete the following:
- a. Measure and document the areal coverage of eelgrass and eelgrass shoot density for both the eelgrass transplant site and the eelgrass control bed.
 - b. Compare the twelve month monitoring data with the initial monitoring data and determine the success of the transplant site relative to the control bed.
 - c. Submit said data, comparisons, and determinations to Engineer in a letter report.
 - d. If monitoring indicates that the transplanted eelgrass density is decreasing relative to the control bed, and if the Engineer so directs the Contractor, Contractor shall transplant additional bare root planting units to achieve the original transplant density. Said planting units shall be collected, prepared, and transplanted in accordance with Section 2A.3.2 herein.

- .3.4 Twenty-Four Month Monitoring. Between 730 and 740 calendar days following District acceptance of all work under Bid Schedule A, the Contractor shall complete the following:
- a. Measure and document the areal coverage of eelgrass and eelgrass shoot density for both the eelgrass transplant site and the eelgrass control bed.
 - b. Compare the twenty-four month monitoring data with the initial monitoring data and determine the success of the transplant site relative to the control bed.
 - c. Submit said data, comparisons, and determinations to Engineer in a letter report.

2B.4 MEASUREMENT AND PAYMENT

- .4.1 Initial Monitoring will be paid for at the Contract lump sum amount for Initial Monitoring, which amount shall include full compensation for furnishing all labor, materials, equipment, tools and incidentals and for doing all the work of Initial Monitoring, complete in place, and as shown on the drawings and as specified in these Special Provisions.

- .4.2 Three Month Monitoring will be paid for at the Contract lump sum amount for Three Month Monitoring, which amount shall include full compensation for furnishing all labor, materials, equipment, tools and incidentals and for doing all the work of Three Month Monitoring, complete in place, excluding transplanting additional bare root planting units, and as shown on the drawings and as specified in these Special Provisions.
- .4.3 Twelve Month Monitoring will be paid for at the Contract lump sum amount for Twelve Month Monitoring, which amount shall include full compensation for furnishing all labor, materials, equipment, tools and incidentals and for doing all the work of Twelve Month Monitoring, complete in place, excluding transplanting additional bare root planting units, and as shown on the drawings and as specified in these Special Provisions.
- .4.4 Twenty-Four Month Monitoring will be paid for at the Contract lump sum amount for Twenty-Four Month Monitoring, which amount shall include full compensation for furnishing all labor, materials, equipment, tools and incidentals and for doing all the work of Twenty-Four Month Monitoring, complete in place, and as shown on the drawings and as specified in these Special Provisions.
- .4.5 Transplanting Additional Bare Root Planting Units will be measured by the number of additional planting units actually transplanted at three month monitoring and twelve month monitoring as determined by the Engineer from field measurement.

The Contract unit price for Transplanting Additional Bare Root Planting Units shall include full compensation for furnishing all labor, materials, equipment, tools and incidentals and for doing all the work of Transplanting Additional Bare Root Planting Units, complete in place, including collecting donor eelgrass and preparing planting units, as shown on the drawings and as specified in these Special Provisions.

**** END OF SECTION ****

.4.2

Transplanting Eelgrass will be measured by the number of planting units of each type actually transplanted as determined by the Engineer from field measurement.

The Contract unit price for Transplanting Eelgrass shall include full compensation for furnishing all labor, materials, equipment, tools and incidentals and for doing all the work of Transplanting Eelgrass, complete in place, including collecting donor eelgrass and preparing planting units, as shown on the drawings and as specified in these Special Provisions.

**** END OF SECTION ****