

**DEPARTMENT OF TRANSPORTATION**  
DIVISION OF ENGINEERING SERVICES  
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*Flex your power!  
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June 12, 2009

04-Ala-880-43.8/45.4  
04-165424  
ACIM-ACBRIM-880-1(059)E

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN ALAMEDA COUNTY IN OAKLAND FROM 0.9 KM SOUTH OF HIGH STREET TO 0.2 KM SOUTH OF FRUITVALE AVENUE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Tuesday, June 23, 2009.

This addendum is being issued to revise the Project Plans, the Notice to Bidders and Special Provisions, the Bid book, and the Federal Minimum Wages with Modification Number 29 dated 6-5-09, and provide a copy of the additional Information Handout.

Project Plan Sheets 48, 139, 140, 145, 149, 265, 477, 488, 493 and 501 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 5-1.06, "COMPENSATION ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS," is revised as attached.

In the Special Provisions, Section 5-1.09, "PROJECT INFORMATION," the third paragraph, Item B is revised as follows:

- "B. Addendum to Foundation Recommendations:  
Route 880 On-Ramp OC (Replace) (Br. No. 33-0681S)  
High Street Separation & OH (Br. No. 33-0732 L/R)"

In the Special Provisions, Section 5-1.09, "PROJECT INFORMATION," the third paragraph, Item L is added as follows:

- "L. EBMUD (East Bay Municipal Utility District) - Water Requirements"

In the Special Provisions, Section 5-1.15, "NONHIGHWAY FACILITIES (INCLUDING UTILITIES)," is revised as attached.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the following paragraph is added after the first paragraph:

"Attention is directed to the temporary construction easements (TCEs) shown on the plans at the property located at 4000 Alameda Avenue, and Union Pacific Railroad Company property located on the west side of Oakport Street, near Lesser Street. These TCEs have been obtained by the Department for a limited period of 20 months after contract approval date. The Contractor must complete the work in the proximity of these properties within 20 months after the contract approval date."

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In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL," subsection "GENERAL," the second paragraph is deleted.

In the Special Provisions, Section 10-1.26, "MAINTAINING TRAFFIC," Lane Closure Charts No. 1 and No. 5 are revised as attached.

In the Special Provisions, Section 10-1.38, "EXISTING HIGHWAY FACILITIES," subsection "REMOVE 1600 mm INTERCEPTOR (EBMUD)," is added as attached.

In the Special Provisions, Section 10-1.38, "EXISTING HIGHWAY FACILITIES," subsection "BRIDGE REMOVAL," the second paragraph is revised as follows:

"Bridge removal shall consist of removing the existing bridges at the locations as shown on the plans to be removed for the following structures:

LOCATION A  
ROUTE 880 ON RAMP OC  
(Bridge No. 33-0146S)

LOCATION D  
S880-N77 CONNECTOR OC  
(Bridge No. 33-0145F)

Bridge removal shall consist of removing the existing bridges including extracting the existing piles at the locations as shown on the plans to be removed for the following structures:

LOCATION B  
HIGH STREET SEPARATION & OH  
(Bridge No. 33-0040R)

LOCATION C  
HIGH STREET SEPARATION & OH  
(Bridge No. 33-0040L)

Full compensation for extracting the existing piles shall be considered as included in the contract lump sum price paid for bridge removal and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.40, "PHOTO SURVEY OF EXISTING FACILITIES," is revised as attached.

In the Special Provisions, Section 10-1.44, "EARTHWORK," is revised as attached.

In the Special Provisions, Section 10-1.64, "PILING," subsection "LOAD TEST PILES," the following paragraph is added before the first paragraph:

"The load test pile locations shall be as shown on plans or as directed by Engineer."

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In the Special Provisions, Section 10-1.64, "PILING," subsection "CAST-IN-DRILLED-HOLE CONCRETE PILES," subsection "Construction," the twelfth paragraph is revised as follows:

"If the Contractor constructs the optional construction joint shown on the plans at Bents for Bridge No. 33-0732 L/R for cast-in-drilled-hole concrete piling, permanent steel casings shall be furnished and placed tight in the hole to an elevation at least 300 mm below the bottom of the column cage reinforcement or construction joint, whichever is lower. The top of the permanent steel casing shall not extend above the top of the pile shaft. The provisions in Section 49-1.08, "Pile Driving Acceptance Criteria," of the Standard Specifications do not apply to permanent steel casings. Permanent casings shall be watertight and of sufficient strength to withstand the loads from installation procedures, lateral concrete pressures, and earth pressures."

In the Bid book, in the "Bid Item List," Items 87, 89 and 96 are revised, Items 255, 256, 257 and 258 are added and Item 254 is deleted as attached.

To Bid book holders:

Replace pages 7 and 15 of the "Bid Item List" in the Bid book with the attached revised pages 7 and 15, and added page 15A of the Bid Item List. The revised Bid Item List is to be used in the bid.

Attached is a copy of the added Information Handout cd.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by GSO overnight mail to Bid book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the Contractors' use on the Web site:

**[http://www.dot.ca.gov/hq/esc/oe/weekly\\_ads/addenda.php](http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addenda.php)**

If you are not a Bid book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief  
Office of Plans, Specifications & Estimates  
Division of Engineering Services - Office Engineer

Attachments

**5-1.06 COMPENSATION ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS**

The provisions of this section shall apply only to the following contract items:

ITEM CODE	ITEM
390131	HOT MIX ASPHALT (use with QC/QA)
390134	HOT MIX ASPHALT (OPEN GRADED)
397005	TACK COAT

The compensation payable for asphalt binder used in hot mix asphalt and tack coat will be increased or decreased in conformance with the provisions of this section for asphalt binder price fluctuations exceeding 5 percent (Iu/Ib is greater than 1.05 or less than 0.95) which occur during performance of the work.

The quantity of asphalt binder used in tack coat will be determined by multiplying the item quantity for asphaltic tack coat included in a monthly estimate by the minimum percent residue specified in Section 94, "Asphaltic Emulsions," of the Standard Specifications. The asphaltic emulsion minimum percent residue will be based on the type of emulsion used by the Contractor.

At the Contractor's option, the Contractor may provide actual daily test results for asphalt binder residue for the tack coat used. Test results provided by the Contractor shall be from an independent testing laboratory that participates in the AASHTO Proficiency Sample Program. The Contractor shall take samples of asphaltic emulsion from the distributor truck at mid-load from a sampling tap or thief. Two separate 2-liter samples shall be taken in the presence of the Engineer. The Contractor shall provide one sample to the Contractor's independent testing laboratory within 24 hours of sampling. The second sample shall be given to the Engineer. The test results from the Contractor's independent testing laboratory shall be delivered to the Engineer within 10 days from sample date.

The adjustment in compensation will be determined in conformance with the following formulae when the item of hot mix asphalt or tack coat or both are included in a monthly estimate:

- A. Total monthly adjustment = AQ
- B. For an increase in paving asphalt price index exceeding 5 percent:

$$A = 0.90 (Iu/Ib - 1.05) Ib$$

- C. For a decrease in paving asphalt price index exceeding 5 percent:

$$A = 0.90 (Iu/Ib - 0.95) Ib$$

- D. Where:

A = Adjustment in dollars per tonne of asphalt binder used to produce hot mix asphalt and asphaltic emulsion residue used as tack coat rounded to the nearest \$0.01.

Iu = The California Statewide Paving Asphalt Price Index which is in effect on the first business day of the month within the pay period in which the quantity subject to adjustment was included in the estimate.

Ib = The California Statewide Paving Asphalt Price Index for the month in which the bid opening for the project occurred.

Q = Quantity in tonnes of asphalt binder that was used in producing the quantity of hot mix asphalt shown under "This Estimate" on the monthly estimate using the amount of asphalt binder determined by the Engineer plus the quantity in tonnes of asphalt binder that would have been used as residue in the tack coat shown under "This Estimate" on the monthly estimate.

The adjustment in compensation will also be subject to the following:

- A. The compensation adjustments provided herein will be shown separately on payment estimates. The Contractor shall be liable to the State for decreased compensation adjustments and the Department may deduct the amount thereof from moneys due or that may become due the Contractor.
- B. Compensation adjustments made under this section will be taken into account in making adjustments in conformance with the provisions in Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications.

- C. In the event of an overrun of contract time, adjustment in compensation for asphalt binder included in estimates during the overrun period will be determined using the California Statewide Paving Asphalt Price Index in effect on the first business day of the month within the pay period in which the overrun began.

The California Statewide Paving Asphalt Price Index is determined each month on the first business day of the month by the Department using the median of posted prices in effect as posted by Chevron, ExxonMobil, and Union 76 for the Buena Vista, Huntington Beach, and Midway Sunset fields.

In the event that the companies discontinue posting their prices for a field, the Department will determine an index from the remaining posted prices. The Department reserves the right to include in the index determination the posted prices of additional fields.

The California Statewide Paving Asphalt Price Index is available on the Division of Engineering Services website at:

[http://www.dot.ca.gov/hq/esc/oe/asphalt\\_index/astable.html](http://www.dot.ca.gov/hq/esc/oe/asphalt_index/astable.html)

**5-1.15 NONHIGHWAY FACILITIES (INCLUDING UTILITIES)**

The utility owner will relocate a utility shown in the following table before the corresponding date shown:

**Utility Relocation and Date of the Relocation**

Utility	Location	Date
600-mm Gas main (PG&E)	Between Rt., Sta "N" 502+60 and Rt., Sta "N" 504+75 Between Rt., Sta "HS" 11+35 and Lt. Sta "SER" 10+30	12-21-06 (Completed)
100-mm Gas line(PG&E)	Between Lt., Sta "SER" 12+40 and Lt., Sta "SER" 14+60	7-31-09
80-mm Gas (PG&E)	Between Lt., Sta "SOR" 12+50 and Lt., Sta "S" 505+25	7-31-09
12kV Electrical lines (PG&E)	Between Rt., Sta "N" 503+30 and Lt Sta "SER" 14+85	7-31-09
12kV Electrical lines (Overhead) (PG&E)	Between Lt., Sta "O" 11+85 and Lt., Sta "O" 14+50 (Overhead) Between Rt., Sta "N" 503+40 and Rt., Sta "HS" 10+50 (Overhead) Between Lt., Sta "SER" 10+85 and Rt., Sta "SER" 13+65 (Overhead)	7-31-09
1600 mm Interceptor (Sewer) (EBMUD)	Between Rt., Sta "O" 11+07 and Lt., Sta "O" 14+18	1-15-09 (Completed)
1200 mm Interceptor (Sewer) (EBMUD)	Between Lt., Sta "SER" 10+88 and Lt., Sta "SER" 14+45	6-16-09
300 mm Water (EBMUD)	Between Rt., Sta "O" 11 + 80 and Lt., Sta "O" 14 + 80 Between Lt., Sta. "SER" 10 + 88 and Lt., Sta_ "O" 14 + 45	8-15-09
Telephone lines (AT&T)	Between Lt., Sta "O" 11+85 and Lt., Sta "O" 14+50 (Overhead) Between Lt., Sta "O" 14+50 and Lt., Sta "HS" 10+85 Between Rt., Sta "N" 503+40 and Rt., Sta "HS" 10+50 (Overhead) Between Lt., Sta "SER" 10+85 and Rt., Sta "SER" 13+65 (Overhead)	7-31-09
Fiber Optics (XO Communication)	Between Lt., Sta "SOR" 09+62 and Lt., Sta "SER" 10+20 Between Lt., Sta "SER" 11+25 and Lt.. Sta "SER" 14+78	7-31-09

During the progress of the work under this Contract, the utility owner will relocate a utility shown in the following table within the corresponding number of days shown. Notify the Engineer before you work within the approximate location of a utility shown. The days start on the notification date.

**Utility Relocation and Department-Arranged Time for the Relocation**

Utility	Location	Days
One Power Pole (PG&E)	High Street (Rt, Sta "HS" 10+90)	10
Appurtenances and Transfer Water Services (EBMUD)	Oakport Street (Lt, Sta "O" 12+70)	5

Notify the Engineer, and EBMUD at (510) 287-0882, at least 5 working days after the removal of the Type Z-2 material contains aerially deposited lead has been completed, regarding the schedule of the work for the installation of appurtenances and transfer water services (EBMUD).

In the event that the utility facilities mentioned above are not removed or relocated, by the date specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being removed or relocated by the date specified, the State will compensate the Contractor for the delays to the extent provided in Section 8-1.09, "Right of Way Delays," of the Standard Specifications, and not otherwise, except as provided in Section 5-1.18B, "Nonhighway Facilities (Including Utilities)," of the Standard Specifications.

The existing 600-mm gas main (PG&E), 300-mm gas main (PG&E), 100-mm gas line (PG&E) and 80-mm gas line (PG&E) in service as shown on the plans, will remain in service for the duration of the contract. The Contractor must notify the Engineer, and PG&E at (925) 674-6348, at least 10 working days before excavation and piling work is begun. The Contractor must not perform any excavation within 2 meters close to or crossing these underground facilities without a representative from PG&E present at the site.

**Protective Concrete Slab over 600-mm Gas Main (PG&E)**

Existing 600mm underground gas main (PG&E) to remain in service at the following locations shall remain in service. The Contractor must install the protective concrete slab over the existing 600mm underground gas main, at the following two locations: NB-880 off-Ramp to Coliseum Way, and SB-880 off-Ramp to High Street, in conformance with the details shown on the plans, the provisions in Section 5-1.18, "Property And Facility Preservation," of the Standard Specifications and these special provisions. The Contractor must not perform any excavation within 2 meters close to or crossing these underground facilities without a representative from PG&E present at the site.

The maximum wheel load of the construction equipment must not exceed the following maximum allowable load per wheel, when the work is performed within 2 meters closer to or crossing the existing 600-mm gas main (PG&E) at the specified locations:

Utility	Location	Depth of Cover (Meter)	Maximum Construction Load per Wheel (Kilogram) without protective concrete slab
600-mm Gas Main (PG&E)	NB-880 off-Ramp to Coliseum Way (Rt., Sta "C1L" 7+30)	0.15	4,110
		0.30	4,612
		0.61	7,425
		0.91	12,254
		1.22	17,345
	SB-880 off-Ramp to High Street (Rt., Sta "SER" 10+28 to Lt., Sta "SER" 10+42)	0.15	4,942
		0.30	6,395
		0.61	12,887
		0.91	25,345
	High Street (Rt., Sta "HS" 11+37 to Rt., Sta "HS" 11+45)	1.22	38,990
		0.15	4,942
		0.30	6,395
		0.61	12,887
		0.91	25,345
			1.22

The existing 9W 12 kV electrical line (PG&E), 6W 12 kV electrical line (PG&E) in service as shown on the plans, will remain in service for the duration of the contract. The Contractor must notify the Engineer, and PG&E at (925) 674-6348, at least 10 working days before excavation and piling work is begun. The Contractor must not perform any excavation within 2 meters close to or crossing these underground facilities without a representative from PG&E present at the site.

The existing telephone lines (AT&T) in service as shown on the plans, will remain in service for the duration of the contract. The Contractor must notify the Engineer, and AT&T at (925) 901-8529 or (510) 727-6085, at least 10 working days before excavation and piling work is begun. The Contractor must not perform any excavation within 2 meters close to or crossing these underground facilities without a representative from AT&T present at the site.

The existing fiber optic communication lines (XO Communications) in service as shown on the plans, will remain in service for the duration of the contract. The Contractor must notify the Engineer, and XO Communications at (510) 580-6363, at least 10 working days before excavation and piling work is begun. The Contractor must not perform any excavation within 2 meters close to or crossing these underground facilities without a representative from XO Communications present at the site.

The existing sanitary sewer (City of Oakland) in service, as shown on the plans, will remain in service for the duration of the contract. The Contractor must notify the Engineer, and the City of Oakland at (510) 238-7272, at least 10 working days before excavation and piling work is begun. The Contractor must not perform any excavation within 2 meters close to or crossing these underground facilities without a representative from City of Oakland present at the site.

Full compensation for protecting these above existing underground facilities: gas mains and lines (PG&E), electrical lines (PG&E), telephone lines (AT&T), fiber optic communication lines (XO Communication), and sanitary sewers (City of Oakland) shall be considered as included in the contract prices paid for various items of work and no separate payment will be made therefor.

Full compensation for installation of the protective concrete slab with concrete Class 3 over the existing 600-mm gas mains shall be considered as included in the contract prices paid for various items of work and no separate payment will be made therefor.

### Existing Water Main EBMUD

The Contractor must not perform excavation and or compaction within 2.5 meters close to or crossing the facilities of the EBMUD utility facilities without the representative from EBMUD.

The existing water mains (EBMUD) in service, as shown on the plans, must be protected and remain in service for the duration of the contract unless it is designated to be abandoned or to be removed. The Contractor must notify the Engineer, and EBMUD at (510) 578-3895, at least 10 working days before excavation and piling work is begun. The Contractor must not perform any excavation within 2.5 meters close to or crossing the facilities without a representative from EBMUD present at the site.

The Contractor must notify the Engineer and EBMUD Pipeline Construction at (510-287-0882) 4 working days prior to compaction work to make arrangements for inspection.

### Protect 300 mm Water Main (EBMUD)

Existing 300mm water main (EBMUD) along Oakport Street, between (Left) Station "O" 11+00 and 14+80 shall remain in service at all times. The Contractor must protect the existing 300mm water in conformance with the provisions in Section 5-1.18, "Property And Facility Preservation," of the Standard Specifications and these special provisions. The Contractor must not perform any excavation and, or compaction work within 2.5 meters close to or crossing these underground facilities without an authorized representative from EBMUD present at the site.

The maximum wheel load of the construction equipment must not exceed the following maximum allowable load per wheel, when the work is performed within 2.5 meters closer to or crossing the existing 300-mm water at the specified locations:

Utility	Location	Depth of Cover (Meter)	Maximum Construction Load per Wheel (Kilogram) without protective concrete slab
300-mm Water Main (EBMUD)	Oakport Street (Lt., Sta "O" 11+00 to 14+80)	0.15	4,110
		0.30	4,612
		0.61	7,425
		0.91	12,254
		1.22	17,345

Between (Left) Station "O" 11+00 and 11+80, the portion of existing 300mm water main, which has no controlled density fill (CDF) around the pipe a must be physically located at every 15 meters by use of non-mechanical means with an authorized representative from EBMUD present at the site, before the excavation work is begun.

Between (Left) Station "O" 11+80 and 14+80, the 300mm water main has been relocated and installed with the controlled density fill (CDF) around the pipe. The Contractor must protect the existing 300mm water main including the CDF around the pipe, during construction from damage. Damage to the water pipe and its surrounding CDF by the Contractor's operations, it must be repaired at the Contractor's expenses to comply the EBMUD requirement, which is available as information handout as specified in "Project Information," of these special provisions.

When non-detectable 75-mm blue tape with black imprinted "CAUTION – BURIED LINE BELOW" or "CAUTION – WATER LINE BURIED BELOW," which have been installed at the approximate depth not less than 300-mm above and along the centerline of the pipe, is damaged or removed by the Contractor's operation, it must be reinstalled by the Contractor during the backfilling. If the blue tape is not continuous, the tape ends must be overlapped by 600-mm. EBMUD will provide the blue caution tape upon the Contractor's request.

### Existing Interceptor (Sewer) (EBMUD)

The existing interceptor (sewer) (EBMUD) in service, as shown on the plans, must be protected and remain in service for the duration of the contract unless it is designated to be abandoned or to be removed. The Contractor shall notify the Engineer, and EBMUD at (510) 578-3895, at least 10 working days before excavation and piling work is begun. The Contractor must not perform any excavation within 2.5 meters close to or crossing the facility without a representative from EBMUD present at the site.

Full compensation for protecting interceptor (sewer) (EBMUD), and water mains(EBMUD) shall be considered as included in the contract prices paid for various items of work and no separate payment will be made therefor.

**Chart No. 1  
Freeway/Expressway Lane Requirements**

County: Alameda	Route/Direction: 880 Southbound	KP: 43.6/45.5	PM:
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Closure Limits: At High Street Overcrossing

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	1	1	1	1	2																3	3	3	2	2
Fridays	1	1	1	1	2																	3	3	2	2
Saturdays	2	1	1	1	1	1	2	2	3												3	3	3	3	2
Sundays	2	1	1	1	1	1	1	2	2	3												3	3	3	2

**Legend:**

- 1 Provide at least one through freeway lane open in direction of travel
  
- 2 Provide at least two adjacent through freeway lanes open in direction of travel
  
- 3 Provide at least three adjacent through freeway lanes open in direction of travel

**REMARKS:**

1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions

**Chart No. 5  
Freeway/Expressway Lane Requirements**

County: Alameda      Route/Direction: 880 Northbound      KP: 43.6/45.5      PM:

Closure Limits: At High Street Overcrossing

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Mondays through Thursdays	1	1	1	1	2																						
Fridays	1	1	1	1	2																			3	3	2	2
Saturdays	1	1	1	1	1	1	2	3																			
Sundays	1	1	1	1	1	1	1	2	2	3																	

**Legend:**

- 1 Provide at least one through freeway lane open in direction of travel
- 2 Provide at least two adjacent through freeway lanes open in direction of travel
- 3 Provide at least three adjacent through freeway lanes open in direction of travel

**REMARKS:**

1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions

**REMOVE 1600mm INTERCEPTOR (EBMUD)**

Existing abandoned 1600mm interceptor (EBMUD), where shown on the plans to be removed, shall be removed and disposed of.

Removed materials shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

The relative compaction of backfill shall be not less than 95 percent.

**PAYMENT**

The contract price paid per meter for remove 1600mm interceptor (EBMUD) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and disposing of the interceptor, structure excavation and backfill, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### **10-1.40 PHOTO SURVEY OF EXISTING FACILITIES**

The work shall consist of performing two photo surveys, pre-construction and post-construction of the existing property located at 4417 Oakport Street, which might be damaged by the operations of the Contractor, during construction.

Attention is directed to "Vibration Monitoring," of these special provisions, regarding the provisions to complete the preconstruction survey for the said property, before performing vibration monitoring work of the property.

The Contractor shall perform the pre-construction photo survey 7 days prior to performing pile driving in the vicinity of these existing facilities. Photo surveys shall be conducted in conformance with the requirements in these special provisions. The scope of the examination will include cracks in structures, settlement, leakage, and the like. Crack monitoring shall be performed on all existing cracks with initial crack-gauge installation as part of the photo survey project, as directed by the Engineer. Such monitoring shall include recording gauge readings once or twice a week as determined by the Engineer. A report detailing such readings shall be provided to the Engineer.

Pre-construction photo survey of the existing facilities within the specified limits shall be completed prior to start of pile driving operations, and a post-construction photo survey shall be completed after pile driving operations has been completed.

The Contractor shall submit to the Engineer for approval a complete description of the work to be completed for each surveyed location. The work to be completed shall consist of records of observations, video tapes, and photographs.

The photograph prints shall be 12.7 cm x 17.8 cm. All negatives shall be provided. All photos shall be identified by date, location, orientation, and labeled with a detailed description. All photos shall be submitted in a 3-ring binder and shall include protective photo sleeves, building layout (including layout of each floor as necessary), and a summary sheet indexing all photos.

The Contractor shall provide the Engineer with 6 copies of approved photo survey records.

The above records, video tapes and photographs are intended for use as indisputable evident in ascertaining the extent damage which may occur as a result of the Contractor's operations and are for the protection of the listed property owners, the Contractor, and the State, and will be means of determining whether and to what extend damage, resulting from the Contractor's operations occurred during the contract work.

#### **PAYMENT**

The contract lump sum price paid for photo survey of existing facilities, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in conducting photo surveys as specified in these special provisions, and as directed by the Engineer, complete in place, including crack monitoring, and furnishing 6 sets of the approved photo survey records, as specified in these special provisions, and as directed by the Engineer.

Additional photo surveys of existing facilities other than those facilities listed under this special provisions will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications.

#### 10-1.44 EARTHWORK

Earthwork shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications and these special provisions.

Attention is directed to "Archaeological Study Area," of these special provisions.

Structure excavation and structure backfill associated with Sign "D" pedestal will be measured and paid for as structure excavation (retaining wall) and structure backfill (retaining wall).

Attention is directed to "Material Containing Aerially Deposited Lead," of these special provisions.

Structure excavation (Type Z-2) (Aerially Deposited Lead) as designated in the plans shall comply with the provisions in "Material Containing Aerially Deposited Lead," of these special provisions.

The grading plane of embankments beneath structure approach slabs and beneath the thickened portion of sleeper slabs shall not project above the grade established by the Engineer.

Surplus excavated material not designated as hazardous waste due to aerially deposited lead shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Where a portion of the existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to a minimum depth of 50 mm before removing the surfacing. Full compensation for cutting the existing surfacing shall be considered as included in the contract price paid per cubic meter for roadway excavation and no additional compensation will be allowed therefor.

The portion of imported borrow placed within 1.5 m of the finished grade shall have a Resistance (R-Value) of not less than 15.

Reinforcement or metal attached to reinforced concrete rubble placed in embankments shall not protrude above the grading plane. Prior to placement within 0.6-m below the grading plane of embankments, reinforcement or metal shall be trimmed to no greater than 20 mm from the face of reinforced concrete rubble. Full compensation for trimming reinforcement or metal shall be considered as included in the contract prices paid per cubic meter for the types of excavation shown in the Engineer's estimate, or the contract prices paid for furnishing and placing imported borrow or embankment material, as the case may be, and no additional compensation will be allowed therefor.

Imported borrow shall be mineral material including rock, sand, gravel, or earth. The Contractor shall not use man-made refuse in imported borrow including:

- A. Portland cement concrete
- B. Asphalt concrete
- C. Hot mix asphalt
- D. Material planed from roadway surfaces
- E. Residue from grooving or grinding operations
- F. Metal
- G. Rubber
- H. Mixed debris
- I. Rubble

Settlement periods are required for the bridge approach embankments at the bridges listed in the following table.

At the bridge listed in the following table, driving the foundation piles at the location shall not be done until the expiration of the settlement period for the embankment at the adjacent abutment of the same structure or an adjacent structure.

Surcharge embankments shall be constructed at or above the grading plane where listed in the following table:

Bridge Name or Number	Abutment Number	Bent Number	Surcharge Height (meters)	Settlement Period (days)
High Street Separation and OH, Bridge No. 33-0732L/R	1	--	Varies	45

\* At this location, the surcharge embankment shall be constructed by extending the grading plane (GP) in the "Elevation" view of the "Bridge Embankment Surcharge" detail of Standard Plan A62B horizontally to the centerline of abutment.

Settlement periods are required for the roadway embankments at the earth retaining structures listed in the following table. Settlement periods do not start until the full embankment height as shown on the plans has been placed.

Surcharge embankments shall be constructed at or above the grading plane where listed in the following table.

Locations	Surcharge Height (meters)	Settlement Period (days)
Retaining Walls #1, #4, and Mainline portion Lt/Rt, Sta "SOR" 11+10 +/- to Sta. 12+56+/-	Varies	45

Sheet piles shall be driven to support the surcharge embankment where listed in the following table. The Contractor shall submit sheet-pile design for Engineer's approval prior to the construction of surcharge embankment.

Location	Sheet Pile Limit
Retaining Wall #4	Lt., Sta "SOR" 11+10 +/- to Sta. 11+70+/-

The duration of the required settlement period at each location will be determined by the Engineer. The estimated duration of the settlement periods are listed in the tables of settlement data. The Engineer may order an increase or decrease in any settlement period. An ordered increase or decrease in any settlement period will result in an increase or decrease in the number of contract working days if the settlement period involved is considered to be the current controlling operation in conformance with the provisions in Section 8-1.06, "Time of Completion," of the Standard Specifications. Adjustments of contract time due to increases or decreases in settlement periods will be made by contract change order.

Full compensation for the placement and removal of the surcharge and the sheet piles, and the placement of backfill to finish grade shall be considered as included in the contract prices paid for the various items of work involved, and no additional compensation will be allowed therefor.

**STRUCTURAL BACKFILL (TYPE E)**

Unsuitable material below the bottom of footings of the retaining walls Nos. 1 and 4, and at the locations and to the limits shown on the plans, shall be removed and replaced with structure backfill (Type E) or Class 3 aggregate base material in conformance with the placing and compacting requirements for structure backfill. The relative compaction shall be not less than 95 percent as shown on the plans. Materials for Structural Backfill (Type E) shall conform to the provisions in Section 19-3.06, "Structure Backfill," of the Standard Specifications. Removal of the material will be measured and paid for by the cubic meter as roadway excavation and furnishing, placing, and compacting the replacement material will be measured and paid for by the cubic meter as structure backfill (Type E).

**GEOCOMPOSITE DRAINAGE SYSTEM**

The Geocomposite Drain where shown on the plans shall conform to the details shown on the plans and the following:

- A. Attention is directed to "Engineering Fabrics" under "Materials" of these special provisions.
- B. Geocomposite drain shall consist of a manufactured core not less than 6.35 mm thick nor more than 50 mm thick with one or both sides covered with a layer of filter fabric that will provide a drainage void. The drain shall produce a flow rate, through the drainage void, of at least 25 liters per minute per meter of width at a hydraulic gradient of 1.0 and a minimum externally applied pressure of 168 kPa.
- C. A Certificate of Compliance conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications shall be furnished for the geocomposite drain certifying that the drain produces the required flow rate and complies with these special provisions. The Certificate of Compliance shall be accompanied by a flow capability graph for the geocomposite drain showing flow rates for externally applied pressures and hydraulic gradients. The flow capability graph shall be stamped with the verification of an independent testing laboratory.
- D. Filter fabric for the geocomposite drain shall conform to the provisions for fabric for underdrains in Section 88, "Engineering Fabrics," of the Standard Specifications.
- E. The manufactured core shall be either a preformed grid of embossed plastic, a mat of random shapes of plastic fibers, a drainage net consisting of a uniform pattern of polymeric strands forming 2 sets of continuous flow channels, or a system of plastic pillars and interconnections forming a semirigid mat.
- F. The core material and filter fabric shall be capable of maintaining the drainage void for the entire height of geocomposite drain. Filter fabric shall be integrally bonded to the side of the core material with the drainage void. Core material manufactured from impermeable plastic sheeting having nonconnecting corrugations shall be placed with the corrugations approximately perpendicular to the drainage collection system.

- G. The geocomposite drain shall be installed with the drainage void and the filter fabric facing the embankment. The fabric facing the embankment side shall overlap a minimum of 75 mm at all joints and wrap around the exterior edges a minimum of 75 mm beyond the exterior edge. If additional fabric is needed to provide overlap at joints and wrap-around at edges, the added fabric shall overlap the fabric on the geocomposite drain at least 150 mm and be attached thereto.
- H. Should the fabric on the geocomposite drain be torn or punctured, the damaged section shall be replaced completely or repaired by placing a piece of fabric that is large enough to cover the damaged area and provide a minimum 150-mm overlap.
- I. Plastic pipe shall conform to the provisions for edge drain pipe and edge drain outlets in Section 68-3, "Edge Drains," of the Standard Specifications.
- J. Treated permeable base to be placed around the slotted plastic pipe at the bottom of the geocomposite drain shall be cement treated permeable base conforming to the provisions for cement treated permeable base in Section 29, "Treated Permeable Bases," of the Standard Specifications and these special provisions.
- K. The treated permeable base shall be enclosed with a high density polyethylene sheet or PVC geomembrane, not less than 250  $\mu$ m thick, which is bonded with a suitable adhesive to the concrete and geocomposite drain. Surfaces to receive the polyethylene sheet shall be cleaned before applying the adhesive. The treated permeable base shall be compacted with a vibrating shoe type compactor.

#### **PAYMENT**

Full compensation for Geocomposite Drainage System used in soil nail wall shall be considered as included in the contract price paid per cubic meter for shotcrete and no separate payment will be allowed therefor.

If structure excavation or structure backfill for bridges is not otherwise designated by type and payment for the structure excavation or structure backfill has not otherwise been provided for in the Standard Specifications or these special provisions, the structure excavation or structure backfill will be measured and paid for as structure excavation (bridge) or structure backfill (bridge), respectively.

**BID ITEM LIST**  
**04-165424**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	014760	VIBRATION MONITORING	LS	LUMP SUM	LUMP SUM	
82	014761	PHOTO SURVEY OF EXISTING FACILITIES (VIBRATION MONITORING)	LS	LUMP SUM	LUMP SUM	
83	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
84	170101	DEVELOP WATER SUPPLY	LS	LUMP SUM	LUMP SUM	
85	190101	ROADWAY EXCAVATION	M3	29 300		
86	014762	SETTLEMENT INSTRUMENTATION (SURVEY HUBS)	LS	LUMP SUM	LUMP SUM	
87	190105	ROADWAY EXCAVATION (TYPE Z-2) (AERIALY DEPOSITED LEAD)	M3	12 700		
88	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
89	190139	ROADWAY EXCAVATION (UNSUITABLE MATERIAL)	M3	4140		
90 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	5128		
91 (F)	192026	STRUCTURE EXCAVATION (PUMPING PLANT)	M3	940		
92 (F)	192027	STRUCTURE BACKFILL (PUMPING PLANT)	M3	390		
93 (F)	192037	STRUCTURE EXCAVATION (RETAINING WALL)	M3	3394		
94 (F)	192053	STRUCTURE EXCAVATION (TYPE Z-2) (AERIALY DEPOSITED LEAD)	M3	528		
95 (F)	192055	STRUCTURE EXCAVATION (SOIL NAIL WALL)	M3	154		
96 (F)	014763	STRUCTURAL BACKFILL (TYPE E)	M3	5600		
97 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	1167		
98 (F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	M3	1915		
99 (F)	193028	STRUCTURE BACKFILL (SOIL NAIL WALL)	M3	12		
100 (F)	193031	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	M3	136		

**BID ITEM LIST  
04-165424**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
241	860090	MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION	LS	LUMP SUM	LUMP SUM	
242	860251	SIGNAL AND LIGHTING (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
243	860252	SIGNAL AND LIGHTING (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
244	860253	SIGNAL AND LIGHTING (LOCATION 3)	LS	LUMP SUM	LUMP SUM	
245	860254	SIGNAL AND LIGHTING (LOCATION 4)	LS	LUMP SUM	LUMP SUM	
246	860298	SIGNAL AND LIGHTING (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
247	860402	LIGHTING (CITY STREET)	LS	LUMP SUM	LUMP SUM	
248	860415	LIGHTING (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
249	014793	LIGHTING (CITY STREET) (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
250	860460	LIGHTING AND SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
251	014794	TRAFFIC OPERATIONS SYSTEM (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
252	014795	TRAFFIC OPERATIONS SYSTEM (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
253	014796	TRAFFIC OPERATIONS SYSTEM (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
254	BLANK					
255	017019	REMOVE 1600 MM INTERCEPTOR (EBMUD)	M	4		
256	157554	BRIDGE REMOVAL, LOCATION D	LS	LUMP SUM	LUMP SUM	
257	017020	SEWER VIDEO SURVEY	LS	LUMP SUM	LUMP SUM	
258	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

**BID ITEM LIST  
04-165424**

**TOTAL BID FOR ITEMS:** \_\_\_\_\_

**TOTAL BID FOR TIME=** \_\_\_\_\_ **X \$17,600.00**

**WORKING DAYS BID COST PER DAY**

**(Not to exceed 1,100 Days)**

**TOTAL BID FOR BID COMPARISON (COST PLUS TIME):** \_\_\_\_\_