

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE W00B0007	PAGE OF PAGES 1 1
2. AMENDMENT/MODIFICATION NO. 0003	3. EFFECTIVE DATE 12 MAY 2000	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY CODE		7. ADMINISTERED BY (If other than Item 6) CODE		
LOS ANGELES DISTRICT, CORPS OF ENGINEERS P.O. BOX 532711 LOS ANGELES, CALIFORNIA 90053-2325				
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)			(<input checked="" type="checkbox"/>)	9A. AMENDMENT OF SOLICITATION NO. DACW09-00-B-0007
			(<input checked="" type="checkbox"/>)	9B. DATED (SEE ITEM 11) 23 MAY 2000 (BID OPENING)
				10A. MODIFICATION OF CONTRACTS/ORDER NO.
				10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

() A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

**BURLINGTON NORTHERN SANTA FE RAILROAD BRIDGE RECONSTRUCTION, RIO HONDO AT RIVER STATION
268+33.33, LOS ANGELES COUNTY, CALIFORNIA**

1. Replace BID SCHEDULE
2. Replace Section 00850, Wage Rates
3. Add new Section 002240, Ground Modification
4. Replace entire Section 02250
5. Replace Pages 9, 10, and 11 of Section 01200 with new pages 9, 10, 10A, and 11
6. Replace pages 1, 2, and 6 of Section 01250 with new pages 1, 2, 6, and 6A
7. Replace page 12 of Section 02458 with new 12 and 12A
8. Replace page 9 of Section 03307 with new page 9
9. Add new Submittal Register page for Section 02240
10. Replace Project Table of Contents

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)	

THE FOLLOWING DRAWINGS ARE AMENDED (District File Numbers) 374/1138, 374/1140, 374/1142, 374/1150 thru 374/1154, 374/1156 thru 374/1197 all Rev. "A"

THE FOLLOWING DRAWINGS WERE ADDED (District File Numbers) 374/1149A, 374/1149B all Rev. "A"

THE FOLLOWING AS-BUILT DRAWINGS WERE ADDED:
AB01 Thru AB21

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DIVISION 01 - GENERAL REQUIREMENTS

01090 SOURCES FOR REFERENCE PUBLICATIONS
01200 GENERAL REQUIREMENTS
01250 MEASUREMENT AND PAYMENT
01330 SUBMITTAL PROCEDURES
01430 ENVIRONMENTAL PROTECTION
01451 CONTRACTOR QUALITY CONTROL

DIVISION 02 - SITE WORK

02100 DIVERSION AND CONTROL OF WATER
02150 CLEAR SITE AND REMOVE OBSTRUCTIONS
02200 EXCAVATION
02220 DEMOLITION
02222 EXCAVATION, TRENCHING, AND BACKFILLING FOR UTILITIES SYSTEMS
02240 GROUND MODIFICATION
02250 FILLS, SUBGRADE PREPARATION AND DRAINAGE SYSTEMS
02458 PRESTRESSED CONCRETE PILING FOR CIVIL WORKS
02600 STONE PROTECTION
02630 STORM-DRAINAGE SYSTEM
02650 GROUTING STONE PROTECTION
02722 AGGREGATE BASE COURSE
02745 ASPHALTIC CONCRETE PAVING
02811 IRRIGATION SYSTEMS
02831 FENCE, CHAIN-LINK
02935 HYDROSEEDING
02950 TREES, SHRUBS, GROUNDCOVERS, AND VINES

DIVISION 03 - CONCRETE

03307 CONCRETE FOR MINOR STRUCTURES

DIVISION 05 - METALS

05120 STRUCTURAL STEEL
05200 ELASTOMERIC BEARING PADS
05500 MISCELLANEOUS METAL

DIVISION 07 - THERMAL & MOISTURE PROTECTION

07150 WATERPROOFING AND DAMPPROOFING

-- End of Project Table of Contents --

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NAME OF OFFEROR OR CONTRACTOR

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	DIVERSION AND CONTROL OF WATER	1.00	Lump Sum	\$_____	\$_____
0002	CLEAR SITE AND REMOVE OBSTRUCTIONS	1.00	Lump Sum	\$_____	\$_____
0003	RELOCATION HALF PIPE	1.00	Lump Sum	\$_____	\$_____
0004	EXCAVATION	225.00	Cubic Yard	\$_____	\$_____
0005	COMPACTED FILL	9,065.00	Cubic Yard	\$_____	\$_____
0006	DEMOLITION	1.00	Lump Sum	\$_____	\$_____
0007	DRAINAGE PAN	1.00	Lump Sum	\$_____	\$_____
0008	CONCRETE INLET STRUCTURE	1.00	Lump Sum	\$_____	\$_____
0009	24" RCP, COLLAR, END SECTION	1.00	Lump Sum	\$_____	\$_____
0010	UNDERPASS EXTENSION WITH WINGWALLS	1.00	Lump Sum	\$_____	\$_____
0011	RETAINING WALL NO. 1	1.00	Lump Sum	\$_____	\$_____
0012	RETAINING WALL NO. 2	1.00	Lump Sum	\$_____	\$_____

CONTINUATION SHEETREFERENCE NO. OF DOCUMENT BEING CONTINUED
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NAME OF OFFEROR OR CONTRACTOR

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013	CONCRETE PARAPET WALL	1.00	Lump Sum	\$ _____	\$ _____
0014	CONCRETE CHANNEL INVERT	1.00	Lump Sum	\$ _____	\$ _____
0015	GROUTED STONE	1.00	Lump Sum	\$ _____	\$ _____
0016	WEST ABUTMENT	1.00	Lump Sum	\$ _____	\$ _____
0017	EAST ABUTMENT	1.00	Lump Sum	\$ _____	\$ _____
0018	EAST ABUTMENT WINGWALL	1.00	Lump Sum	\$ _____	\$ _____
0019	CONCRETE UNDERPASS RAMP	1.00	Lump Sum	\$ _____	\$ _____
0020	PIER	1.00	Lump Sum	\$ _____	\$ _____
0021	STRUTURAL STEEL	686.00	Net Ton (2,000 LB)	\$ _____	\$ _____
0022	ELASTOMERIC BEARING PADS	12.00	Each	\$ _____	\$ _____
0023	FURNISH AND DRIVE PILING (128 PILES)	4,444.00	Linear Foot	\$ _____	\$ _____
0024	PILE DRIVING TEST	1.00	Lump Sum	\$ _____	\$ _____

CONTINUATION SHEETREFERENCE NO. OF DOCUMENT BEING CONTINUED
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NAME OF OFFEROR OR CONTRACTOR

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0025	DYNAMIC TEST	1.00	Lump Sum	\$ _____	\$ _____
0026	ASPHALT CONCRETE PAVEMENT	95.00	Net Ton (2,000 LB)	\$ _____	\$ _____
0027	ASPHALT CURB	315.00	Linear Foot	\$ _____	\$ _____
0028	AGGREGATE BASE COURSE FOR ROAD	155.00	Net Ton (2,000 LB)	\$ _____	\$ _____
0029	AGGREGATE BASE COURSE FOR SUBBALLAST	2,630.00	Net Ton (2,000 LB)	\$ _____	\$ _____
0030	FENCING, 5FT CHAIN LINK	1,650.00	Linear Foot	\$ _____	\$ _____
0031	GATES, 5 FT CHAIN LINK	1.00	Each	\$ _____	\$ _____
0032	IRRIGATION AND LANDSCAPING	1.00	Lump Sum	\$ _____	\$ _____
0033	BICYCLE TRAIL CLOSURE AND DETOUR	1.00	Lump Sum	\$ _____	\$ _____
0034	AS-BUILT DRAWINGS	1.00	Lump Sum	\$ _____	\$ _____
0035	MANHOLE	1.00	Lump Sum	\$ _____	\$ _____
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT

BRS Document Viewer
 General Decision Number CA000033

General Decision Number CA000033
 Superseded General Decision No. CA990033
 State: California Construction Type:
 BUILDING
 DREDGING
 HEAVY
 HIGHWAY
 County(ies):
 LOS ANGELES BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS
 Modification Number Publication Date
 0 02/11/2000
 1 04/14/2000
 2 04/28/2000

COUNTY(ies):
 LOS ANGELES ASBE0005B 01/01/2000

	Rates	Fringes
INSULATOR/ASBESTOS WORKER Includes the application of all insulating materials, protective coverings, coatings, and finishings to all types of mechanical systems	30.46	7.65

ASBE0208B 06/01/1996

	Rates	Fringes
ASBESTOS REMOVAL WORKER/ HAZARDOUS MATERIAL HANDLER Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not	19.70	4.81

BOIL0092F 10/01/1999

	Rates	Fringes
BOILERMAKER	29.06	9.81
TUBE WELDER	30.56	9.81

BRCA0004L 05/01/1997

	Rates	Fringes
BRICKLAYERS		
BRICKLAYERS	25.75	6.35
MARBLE SETTERS	25.75	6.35

BRCA0018H 06/01/1996

	Rates	Fringes
TILE SETTER	22.84	3.95

BRCA0018K 10/01/1999

	Rates	Fringes
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TERRAZZO WORKER	25.78	5.05
TERRAZZO FINISHER	18.83	5.05

 CARP0002A 07/01/1999

	Rates	Fringes
CARPENTERS:		
Carpenter, cabinet installer, insulation installer, floor worker and acoustical installer	25.75	6.33
Shingler	25.88	6.33
Roof loader of shingles	18.12	6.33
Saw filer	25.83	6.33
Table power saw operator	25.85	6.33
Pneumatic nailer or power stapler	26.00	6.33
Fence builder	22.70	5.33
Millwright	26.25	6.33
Pile driver; Derrick barge; Bridge or dock carpenter; Cable splicer; Heavy framer;		
Rockslinger	25.88	6.33
Head rockslinger	25.98	6.33
Rock barge or scow	25.78	6.33
Scaffold builder	20.00	6.33

FOOTNOTE:

Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre-drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

 CARP0002B 07/01/1999

	Rates	Fringes
DIVERS:		
Diver, wet	454.08 per day	6.33
Diver, stand-by	227.04 per day	6.33
Diver tender	219.04 per day	6.33

 CARP0002Q 07/01/1999

	Rates	Fringes
DRYWALL INSTALLERS:		
Work on wood-framed apartment buildings under 4 stories	19.00	6.33
All other work	25.75	6.33
DRYWALL STOCKER/SCRAPPER	10.00	5.32

 CARP0003H 07/01/1999

	Rates	Fringes
MODULAR FURNITURE INSTALLER	13.08	3.98
LOW WALL MODULAR TECHNICIAN	17.80	3.98
FULL WALL TECHNICIAN	21.88	3.98

 ELEC0011A 02/01/1999

	Rates	Fringes
ELECTRICIANS:		
Tunnel Work:		
Electrician	30.31	3% + 9.94

Cable splicer; welder; instrumentation person; and fiber optic cable splicer	30.91	3% + 9.94
All other electrical work including work on the building and the grounding/bonding system for intelligent transportation systems and intelligent vehicle highway systems, including distribution panels, racks, switching systems, general lighting, convenience outlets for transformers of voltage, and device supply voltage:		
Electrician	27.55	3% + 9.94
Cable splicer; welder; instrumentation person; and fiber optic cable splicer	28.15	3% + 9.94
All other electrical work on intelligent transportation systems and CCTV highway systems:		
Transportation Systems		
Electrician	27.55	3% + 9.94
Cable splicer; welder; and fiber optic cable splicer	28.15	3% + 9.94
Technician	20.66	3% + 9.94

SCOPE OF WORK:

TRANSPORTATION SYSTEMS:

ELECTRICIAN:

Installation of street lights and traffic signals, including electrical circuitry, programmable controllers, pedestal-mounted electrical meter enclosures and laying of pre-assembled multi-conductor cable in ducts, layout of electrical systems and communication installation, including proper position of trench depths and radius at duct banks, location for man holes, pull boxes, street lights and traffic signals.

Installation of underground ducts for electrical, telephone, cable television and communication systems. Pulling, termination and splicing of traffic signal and street lighting conductors and electrical systems including interconnect, detector loop, fiber optic cable and video/cable.

TECHNICIAN:

Distribution of material at job site, manual excavation and backfill, installation of system conduits and raceways for electrical, telephone, cable television and communication systems. Pulling, terminating and splicing of traffic signal and street lighting conductors and electrical systems including interconnect, detector loop, fiber optic cable and video/data.

ELEC0011B 02/15/1999

	Rates	Fringes
LINE CONSTRUCTION:		
Line technician	27.55	3% + 9.94
Cable splicer	28.15	3% + 9.94
Ground person	16.53	3% + 9.94

 ELEC0011H 12/01/1998

	Rates	Fringes
COMMUNICATIONS AND SYSTEMS WORK: (does not include any work on intelligent transportation systems or CCTV highway systems):		
COMMUNICATIONS & SYSTEMS:		
Installer	19.43	3% + 3.70
Technician	21.18	3% + 3.70
Sound technician	22.18	3% + 3.70

SCOPE OF WORK:

Installation, testing, service and maintenance of systems utilizing the transmission and/or transference of voice, sound, vision and digital for commercial, educational, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call systems, radio page, school intercom and sound, burglar alarms, fire alarm (see last paragraph below) and low voltage master clock systems in commercial buildings.

Communication Systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding all other data systems or multiple systems which include control function or power supply; excluding installation of raceway systems, conduit systems, line voltage work, and energy management systems.

 ELEC0011J 09/01/1998

	Rates	Fringes
ALARM TECHNICIAN	17.60	3%

PAID HOLIDAYS:

New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving, the last regularly scheduled working day before Christmas, Christmas Day, and two floating holidays by mutual agreement between the employer and the worker.

SCOPE OF WORK:

Fire alarm, hold-up alarm, burglar alarm and surveillance systems. Does not cover the installation of conduit systems and/or the installation of line voltage to these aforesaid systems. Installation of an incidental run or runs of conduit for mechanical protection shall not be considered a conduit system.

 ELEC1245C 06/01/1999

	Rates	Fringes
OUTSIDE UTILITY TRANSMISSION WORK:		
Line worker; Cable splicer	30.39	4.5% + 6.78
Powder worker	28.87	4.5% + 6.54
Ground person	19.75	4.5% + 6.50
Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons		

and below), and overhead and underground distribution line equipment)

25.83 4.5% + 6.50

Line worker, welding 31.91 4.5% + 7.02

SCOPE OF WORK:

All outside work on electrical transmission lines, switchyards and substations, and outside work in electrical utility distribution systems owned, maintained and operated by electrical utility companies, municipalities, or governmental agencies.

ELEV0018A 09/15/1999

	Rates	Fringes
ELEVATOR MECHANIC	31.915	6.985

FOOTNOTE:

Vacation Pay: 8% with 5 or more years of service, 6% for 6 months to 5 years service. Paid Holidays: New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Friday after, and Christmas Day.

ENGI0012C 07/01/1999

	Rates	Fringes
POWER EQUIPMENT OPERATORS:		
GROUP 1	25.80	10.35
GROUP 2	26.58	10.35
GROUP 3	26.87	10.35
GROUP 4	27.51	10.35
GROUP 5	28.61	10.35
GROUP 6	27.73	10.35
GROUP 7	27.84	10.35
GROUP 8	28.94	10.35
GROUP 9	27.96	10.35
GROUP 10	29.06	10.35
GROUP 11	28.13	10.35
GROUP 12	28.23	10.35
GROUP 13	28.26	10.35
GROUP 14	28.34	10.35
GROUP 15	28.46	10.35
GROUP 16	28.63	10.35
GROUP 17	28.73	10.35
GROUP 18	28.84	10.35
GROUP 19	28.96	10.35
GROUP 20	29.13	10.35
GROUP 21	29.23	10.35
GROUP 22	29.34	10.35
GROUP 23	29.46	10.35
GROUP 24	29.63	10.35
CRANES, PILEDIVING & HOISTING EQUIPMENT:		
GROUP 1	26.30	10.35
GROUP 2	27.08	10.35
GROUP 3	27.37	10.35
GROUP 4	27.51	10.35
GROUP 5	27.73	10.35
GROUP 6	27.84	10.35
GROUP 7	27.96	10.35
GROUP 8	28.13	10.35
GROUP 9	28.30	10.35
GROUP 10	29.30	10.35

GROUP 11	30.30	10.35
GROUP 12	31.30	10.35
GROUP 13	32.30	10.35
TUNNEL WORK:		
GROUP 1	27.58	10.35
GROUP 2	27.87	10.35
GROUP 3	28.01	10.35
GROUP 4	28.23	10.35
GROUP 5	28.34	10.35
GROUP 6	28.46	10.35
GROUP 7	28.76	10.35

FOOTNOTES:

Workers required to suit up and work in a hazardous material environment: \$1.00 per hour additional.

Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Barge, brake, compressor operator, Ditch Witch, with seat or similar type equipment, elevator operator - inside, engineer oiler, generator operator, generator, pump or compressor plant operator, pump operator, signal, switch

GROUP 2: Asphalt-rubber plant operator (nurse tank operator), concrete mixer operator - skip type, conveyor operator, fire person, hydrostatic pump operator, oiler crusher (asphalt or concrete plant), skiploader (wheel type up to 3/4 yd. without attachment), tar pot fire person, temporary heating plant operator, trenching machine oiler

GROUP 3: Asphalt-rubber blend operator, equipment greaser (rack), Ford Ferguson (with dragtype attachments), helicopter radio (ground), stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fire person, backhoe operator (mini-max or similar type), boring machine operator, box or mixer (asphalt or concrete), chip spreading machine operator, concrete cleaning decontamination machine operator, concrete pump operator (small portable), drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum), equipment greaser (grease truck), guard rail post driver operator, highline cableway signal, hydra-hammer-aero stomper, power concrete curing machine operator, power concrete saw operator, power-driven jumbo form setter operator, power sweeper operator, roller operator (compacting), screed operator (asphalt or concrete), trenching machine operator (up to 6 ft.)

GROUP 5: Equipment greaser (grease truck/multi-shift)

GROUP 6: Asphalt plant engineer, batch plant operator, bit sharpener, concrete joint machine operator (canal and similar type), concrete planer operator, deck engine operator, derrick (oilfield type), drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum), drilling machine operator (including water wells incidental to building, heavy or highway construction), hydrographic seeder machine operator (straw, pump or seed), Jackson track maintainer, or similar type, Kalamazoo switch tamper, or similar type, machine tool operator, Maginnis internal full slab vibrator, mechanical berm, curb or gutter (concrete or asphalt), mechanical finisher operator (concrete,

Clary-Johnson-Bidwell or similar), pavement breaker operator (truck mounted), road oil mixing machine operator, roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck), self-propelled tar pipelining machine operator, skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.), slip form pump operator (power driven hydraulic lifting device for concrete forms), tractor operator - bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types), tugger hoist operator (1 drum), ultra high pressure waterjet cutting tool system operator, vacuum blasting machine operator

GROUP 7: Asphalt or concrete spreading operator (tamping or finishing), asphalt paving machine operator (Barber Greene or similar type), asphalt-rubber distribution operator, backhoe operator (up to and including 3/4 yd.), small Ford, Case or similar, cast-in-place pipe laying machine operator, combination mixer and compressor operator (gunite work), compactor operator (self-propelled), concrete mixer operator (paving), crushing plant operator, drill doctor, drilling machine operator, bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum), elevating grader operator, grade checker, gradall operator, grouting machine operator, heavy-duty repair person, heavy equipment robotics operator, Kalamazoo balliste regulator or similar type, Kolman belt loader and similar type, Le Tourneau blob compactor or similar type, loader operator (Athey, Euclid, Sierra and similar types), pneumatic concrete placing machine operator (Hackley-Presswell or similar type), pumpcrete gun operator, rotary drill operator (excluding caisson type), rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck), rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck), rubber-tired scraper operator (self-loading paddle wheel type - John Deere, 1040 and similar single unit), self-propelled curb and gutter machine operator, skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.), soil remediation plant operator, surface heaters and planer operator, tractor compressor drill combination operator, tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar - bulldozer, tamper, scraper and push tractor single engine), tractor operator (boom attachments), traveling pipe wrapping, cleaning and bending machine operator, trenching machine operator (over 6 ft. depth capacity, manufacturer's rating), ultra high pressure waterjet cutting tool system mechanic

GROUP 8: Heavy-duty repair person (multi-shift)

GROUP 9: Drilling machine operator, bucket or auger types (Calweld 200 B bucket or similar types - Watson 3000 or 5000 auger or similar types - Texoma 900 auger or similar types - drilling depth of 105' maximum), dual drum mixer, dynamic compactor LDC350 (or similar types), heavy-duty repair-welder combination, monorail locomotive operator (diesel, gas or electric), motor patrol - blade operator (single engine), multiple engine tractor operator (Euclid and similar type -

except Quad 9 cat.), rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck), rubber-tired earth-moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), tower crane repair person, tractor loader operator (crawler and wheel type over 6-1/2 yds.), Woods mixer operator (and similar Pugmill equipment)

GROUP 10: Heavy-duty repair-welder combination (multi-shift)

GROUP 11: Auto grader operator, automatic slip form operator, drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum), hoe ram or similar with compressor, mass excavator operator, mechanical finishing machine operator, mobile form traveler operator, motor patrol operator (multi-engine), pipe mobile machine operator, rubber-tired earth-moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck), rubber-tired self-loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 12: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 13: Canal liner operator, canal trimmer operator, remote-control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional), wheel excavator operator

GROUP 14: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck), rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine - up to and including 25 yds. struck)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck), rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck), tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 17: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 18: Rotex concrete belt operator (or similar types), rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck), rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding

compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 19: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck), rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck), rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck), rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 24: Concrete pump operator - truck mounted, rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist operator; Polar gantry crane operator; Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity);

Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds. mrc)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy-duty repair/welder combination

GROUP 7: Tunnel mole boring machine operator

 ENGI0012D 08/01/1999

	Rates	Fringes
POWER EQUIPMENT OPERATORS:		
DREDGING:		
Lever person	31.85	10.35
Dozer operator	28.38	10.35

Welder; Deckmate	28.27	10.35
Winch operator (stern winch on dredge)	27.72	10.35
Fire person - oiler; Leveehand; Deckhand; Barge person	27.18	10.35
Barge mate	27.79	10.35

 IRON0002D 07/01/1999

	Rates	Fringes
IRONWORKERS:		
Fence erector	23.29	13.83
Ornamental, reinforcing and structural	24.18	13.83

FOOTNOTE:

Work at Edwards Air Force Base: \$3.00 per hour additional.

 LABO0001B 07/01/1999

	Rates	Fringes
BRICK TENDER	18.43	9.44

 LABO0002H 07/01/1999

	Rates	Fringes
LABORERS:		
GROUP 1	18.18	9.49
GROUP 2	18.58	9.49
GROUP 3	18.78	9.49
GROUP 4	19.83	9.49
GROUP 5	20.03	9.49
TUNNEL LABORERS:		
GROUP 1	21.09	9.49
GROUP 2	21.21	9.49
GROUP 3	21.37	9.49
GROUP 4	21.65	9.49
GUNITE LABORERS:		
GROUP 1	20.89	11.43
GROUP 2	19.94	11.43
GROUP 3	16.40	11.43

HOUSEMOVERS (ONLY WHERE HOUSEMOVING IS INCIDENTAL TO A CONSTRUCTION CONTRACT):

Housemover	15.50	8.38
Yard maintenance person	15.25	8.38

FOOTNOTE:

GUNITE PREMIUM PAY:

Workers working from a Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable classification rates.

Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis.

Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0" above base level and which work must be performed in whole or in part more than 75'-0" above base level, that work performed above the 75'-0" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Slurry seal crew (mixer operator, applicator operator, squeegee person, shuttle person, top person), filling of cracks by any method on any surface; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asbestos abatement; Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer (lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellower

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete

saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt-rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast; Welding in connection with laborers' work
 GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power;
 Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Bull gang mucker, track person; Changehouse person; Concrete crew, including rodder and spreader; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person
 GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.); Vibrator person, jack hammer, pneumatic tools (except driller)
 GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher
 GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Nozzle person and rod person
 GROUP 2: Gun person
 GROUP 3: Rebound person

LABO0300A	08/04/1999		
		Rates	Fringes
PLASTERER TENDER		20.45	9.15

LABO0882B	09/01/1998		
		Rates	Fringes
ASBESTOS REMOVAL LABORER		10.37	3.76
SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and			

toxic waste, encapsulation, enclosure and disposal of asbestos-containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO1184A 07/01/1999

	Rates	Fringes
LABORERS - STRIPING:		
GROUP 1	18.61	7.90
GROUP 2	19.01	7.90
GROUP 3	20.58	7.90
GROUP 4	21.58	7.90

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

PAIN0036A 07/01/1999

	Rates	Fringes
PAINTER (includes lead abatement):		
Work on service stations and car washes; Small new commercial work (defined as construction up to and including 3 stories in height, such as small shopping centers, small stores, small office buildings and small food establishments); Small new industrial work (defined as light metal buildings, small warehouses, small storage facilities and tilt-up buildings); Repaint		

work (defined as repaint of any structure with the exception of work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities);

Tenant improvement work (defined as tenant improvement work not included in conjunction with the construction of the building, and all repainting of tenant improvement projects

	20.15	5.91
All other work	23.42	5.91

PAIN0036F 10/01/1999

	Rates	Fringes
EXCLUDING ANTELOPE VALLEY NORTH OF THE FOLLOWING BOUNDARY: KERN COUNTY LINE TO HWY. #5, SOUTH OF HWY. #5 TO HWY. N2, EAST ON N2 TO PALMDALE BLVD., TO HWY. #14, SOUTH TO HWY. #18, EAST TO HWY. #395:		
DRYWALL FINISHER	24.33	6.88
REMAINDER OF COUNTY:		
DRYWALL FINISHER	21.25	6.88

PAIN0636B 06/01/1999

	Rates	Fringes
GLAZIER	26.10	7.23

FOOTNOTES:

Work in a condor, from the third (3rd) floor and up: \$1.25 per hour additional.

Work on the outside of the building from a swing stage or any suspended contrivance, from the ground up: \$1.25 per hour additional.

* PAIN1247B 01/01/2000

	Rates	Fringes
SOFT FLOOR LAYER	24.95	6.20

PLAS0200D 08/06/1997

	Rates	Fringes
PLASTERER	24.13	4.04

PLAS0500B 07/01/1999

	Rates	Fringes
CEMENT MASONS:		
Work on projects where the total permit value of the general and all subcontracts is \$12 million or less:		
Cement Mason; curb and gutter machine; Clary and similar type of screed		

operator (cement only); grinding machine (all types); Jackson vibratory, Texas screed and similar type screed operator; scoring machine operator	18.85	8.83
Cement mason (magnesite, magnesite - terrazzo and mastic composition, epoxy, urethanes and exotic coatings, Dex-O-Tex)	18.97	8.83
Cement mason, floating and troweling machine operator	19.10	8.83
All other work:		
Cement mason; curb and gutter machine operator; Clary and similar type of screed operator (cement only); grinding machine (all types); Jackson vibratory, Texas screed and similar type screed operator; scoring machine operator	20.81	10.83
Cement mason (magnesite, magnesite - terrazzo and mastic composition, epoxy, urethanes and exotic coatings, Dex-O-Tex)	20.93	10.83
Cement Mason - floating and troweling machine operator	21.06	10.83

FOOTNOTE:

Work on a swinging stage, bosun chair, or suspended scaffold, whether swinging or rigid, above or below ground: \$0.25 per hour additional.

PLUM0016A 07/01/1999		
	Rates	Fringes
PLUMBER & PIPEFITTER	25.53	11.63
SEWER AND STORM DRAIN WORK	17.29	10.73

PLUM0250B 03/01/2000		
	Rates	Fringes
REFRIGERATION & AIR CONDITIONING	30.50	8.835

PLUM0345A 07/01/1999		
	Rates	Fringes
LANDSCAPE & IRRIGATION FITTER	24.23	6.80

ROOF0036B 02/01/1999		
	Rates	Fringes
ROOFERS: Roofer	23.27	5.40
Preparer (duties limited to the following: Roof removal of any type of roofing or roofing material; or spudding, or sweeping; and/or clean-up; and/or preload in, or in preparing the roof for		

application of roofing, damp and/or
waterproofing materials 16.24 1.00

FOOTNOTE:

Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal tar pitch, the entire roofing crew shall receive \$1.75 per hour "pitch premium" pay.

SFCA0669M 01/01/2000

Rates Fringes
DOES NOT INCLUDE THE CITY OF POMONA, CATALINA ISLAND, AND THAT PART OF LOS ANGELES COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

SPRINKLER FITTER (FIRE):

Work on one or two family dwellings; all multiple family dwelling units which are permitted to have a single exterior up to and including 4 stories; townhouses with units stacked vertically up to and including 4 stories; and group residential care facilities and protective care homes (sheltered housing), not to include nursing homes or ambulatory care facilities
All other residential work

20.51 1.69
27.35 6.45

SFCA0709E 09/01/1998

Rates Fringes
THE CITY OF POMOMA, CATALINA ISLAND, AND THAT PART OF LOS ANGELES COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

SPRINKLER FITTER (FIRE) 28.48 9.85

SHEE0102A 01/01/1999

Rates Fringes
SOUTH OF IMPERIAL HWY. TO THE CITY OF LONG BEACH AND THE CITIES OF POMONA AND CLAREMONT:

COMMERCIAL SHEET METAL WORKER:

Work on all commercial HVAC for creature comfort and computers clean rooms, architectural metals, metal roofing and lagging over insulation

27.51 9.00

SHEE0102C 08/01/1999

Rates Fringes
INDUSTRIAL SPECIALTIES SHEET METAL WORKER:

Work on all air pollution control systems, noise abatement panels, blow pipe, air-veyor systems, dust collecting, baghouses,

heating, air conditioning, and ventilating (other than creature comfort) and all other industrial work, including metal insulated ceilings

	25.21	12.82
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 SHEE0108B 08/01/1999

	Rates	Fringes
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SOUTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES, CALIFORNIA; EXCLUDING LOS ANGELES COUNTY SOUTH OF IMPERIAL HWY. TO THE CITY LIMITS OF LONG BEACH, EXCLUDING THE CITIES OF LONG BEACH, CLAREMONT AND POMONA, AND THE ISLAND OF CATALINA:

COMMERCIAL SHEET METAL WORKER:

Work on commercial buildings over one year old, limited to not exceed five thousand (5,000) square feet, or less, without relation to the number of stories involved. Does not include modification, upgrading, energy management, or conservation improvements of central heating and air conditioning equipment

	17.15	2.50
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All other work

	28.59	9.32
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 SHEE0108E 10/01/1998

	Rates	Fringes
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NORTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES, CALIFORNIA:

COMMERCIAL SHEET METAL WORKER:

Light commercial work (10,000 sq. ft. or less)

	16.43	2.25
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All other work

	22.90	8.62
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 TEAM0011G 07/01/1999

	Rates	Fringes
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TRUCK DRIVERS:

Edwards Air Force Base:

GROUP 1	22.19	11.89
GROUP 2	22.34	11.89
GROUP 3	22.47	11.89
GROUP 4	22.66	11.89
GROUP 5	22.60	11.89
GROUP 6	22.72	11.89
GROUP 7	22.97	11.89
GROUP 8	23.22	11.89
GROUP 9	23.42	11.89
GROUP 10	23.72	11.89
GROUP 11	24.22	11.89

Remainder of County:

GROUP 1	20.19	11.89
GROUP 2	20.34	11.89
GROUP 3	20.47	11.89
GROUP 4	20.66	11.89
GROUP 5	20.60	11.89
GROUP 6	20.72	11.89

GROUP 7	20.97	11.89
GROUP 8	21.22	11.89
GROUP 9	21.42	11.89
GROUP 10	21.72	11.89
GROUP 11	22.22	11.89

TRUCK DRIVER CLASSIFICATIONS

- GROUP 1: Truck driver
- GROUP 2: Driver of vehicle or combination of vehicles - 2 axles; Traffic control pilot car excluding moving heavy equipment permit load; Truck-mounted broom
- GROUP 3: Driver of vehicle or combination of vehicles - 3 axles; Boot person; Cement mason distribution truck; Fuel truck driver; Water truck - 2 axle; Dump truck, less than 16 yds. water level; Erosion control driver
- GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete truck, less than 6-1/2 yds. water level
- GROUP 5: Water truck, 3 or more axles; Truck greaser and tire person (\$0.50 additional for tire person); Pipeline and utility working truck driver, including winch truck and plastic fusion, limited to pipeline and utility work; Slurry truck driver
- GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck, 6-1/2 yds. water level and over; Vehicle or combination of vehicles - 4 or more axle; Oil spreader truck; Dump truck, 16 yds. to 25 yds. water level
- GROUP 7: A Frame, Swedish crane or similar; Forklift driver; Ross carrier driver
- GROUP 8: Dump truck, 25 yds. or more water level; Truck repair person; Water pull - single engine; Welder
- GROUP 9: Truck repair person/welder; Low bed driver, 9 axles or over
- GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment
- GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - \$1.25 additional when operating winch or similar special attachments

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
 - * an existing published wage determination
 - * a survey underlying a wage determination
 - * a Wage and Hour Division letter setting forth a position on a wage determination matter
 - * a conformance (additional classification and rate)

ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

3.6.6.2 Existing Roadways

The Contractor will not be permitted to cross existing paved roadways and residential roadways with construction equipment except at approved marked crossings. The Contractor shall maintain the crossings in accordance with applicable state, county, and city regulations.

3.6.6.3 Working Hours

The Contractor shall restrict all construction activities, including warming equipment, to the following schedule:

Monday through Friday	7 a.m. to 7:00 p.m.
Saturday	9 a.m. to 6:00 p.m.

Access to the job site will be allowed 30 minutes prior to starting time unless otherwise approved by the Contracting Officer. No work will be permitted on Sundays or Federal Holidays.

3.6.6.4 BNSF work restrictions

BNSF will not allow on-site construction work within the BNSF Right-of-way during the time from October 1 through December 31, except that minimal work may be permitted with approval by BNSF NOC in Fort Worth, telephone number (817) 234-2334.

3.6.6.5 Restrictions for work within the channel

During the period 15 October to 15 April (flood season), no channel construction will be allowed within the channel and the channel construction must be restored to be able to sustain flows that approach the tops of the levees without sacrificing the integrity of the flood control channel.

During the dry season of 15 April to 15 November, the Contractor shall provide a contiguous width of 50 feet for flow conveyance.

The Contractor shall provide steel plates to protect joints in the invert from heavy wheel loads. Plates shall be at least 1-inch thick and placed to cover the joint with the edge not less than 4 feet from the joint.

The Contractor will not be permitted to operate (heavy) wheeled equipment directly on the side slope. In the event that heavy equipment is required to operate on the side slope, the Contractor shall provide adequate cushioning or ramps to spread the concentrated wheel loads.

3.6.6.6 Notification and Coordination of work with BNSF

The Contractor must notify BNSF's Roadmaster at least 30 days in advance of performing work. The Contractor shall coordinate with BNSF to determine all work that BNSF will perform as required for this project, including but not limited to relocations, connections, and new track construction, and include the BNSF work in the Contractor's construction schedule. The

Contractor shall maintain the structural integrity of all BNSF tracks and facilities during the entire construction period in accordance with BNSF's operational requirements.

The Contractor shall not interfere with the safe and efficient operation of BNSF's tracks and facilities. Should the Contractor interfere with any portion of BNSF rail road operations without prior approval or knowledge of such activity from BNSF, the Contractor will be held liable for any damages BNSF incurs and held liable for any resulting work stoppages or delays.

3.6.6.7 BNSF Personal Protective Equipment (PPE)

The Contractor, including all subcontractors and suppliers, must wear current BNSF Personal Protective Equipment (PPE) meeting applicable OSHA and ANSI specifications, consisting of 1) safety glasses, permanently affixed side shields, no yellow lenses; 2) hard hats with high visibility orange cover; 3) safety shoes with hardened toe; 4) high visibility reflective orange vests. Protective welding masks, gloves, and other hearing protection, fall protection and respirators will be worn as required by state and federal regulations.

The Contractor will be required to obtain the services of a BNSF trackman during ground modification work and a BNSF flagman during all operations on or near the tracks.

3.6.7 Bicycle Trail

3.6.7.1 Bicycle Trail Availability

The bicycle trail shall not be closed. The bicycle trail may have to be temporarily rerouted during Bridge and Invert construction activities. Signage with the limits, date and time of closure shall be posted along the trail in both directions two (2) weeks prior to the actual temporary rerouting of the trail. Signage shall contain the period and extent of the temporary rerouting. The Contractor shall notify Ryan Romo, Los Angeles County Department of Public Works at (626) 458-3941 at least one (1) month prior to bicycle trail temporary rerouting and immediately after the signs have been placed. The bike path must be adequately barricaded at each end of the bike path temporary reroute closure limits. Additional signage warning of construction area, and location maps provided by L.A. County Department of Public Works Planning Division, shall be posted at the intermediate access gates and at each end of the temporary reroute closure.

3.7 PUBLIC SAFETY

Attention is directed to the CONTRACT CLAUSE: PERMITS AND RESPONSIBILITIES. The Contractor shall furnish, install, maintain and remove temporary fencing, barricades, and/or guards, as required, to provide protection in the interest of public safety and in conformance with applicable Federal, State, and local laws and ordinances and in accordance with BNSF safety standards. As a minimum, this will include an 8-foot chain-link fence which completely encloses each and every part of the project which the Contractor worked in or is working on. The plan of this temporary fencing shall be furnished to the Contracting Officer for

approval and the fence erected prior to commencement of any work. Whenever the Contractor's operations create a condition hazardous to the public, he shall furnish at his own expense and without cost to the Government, such flagmen and guards as are necessary to give adequate warning to the public of any dangerous conditions to be encountered and he shall furnish, erect, or maintain such fences, barricades, lights, signs and other devices as are necessary to prevent accidents and avoid damage or injury to the public. Flagmen and guards, while on duty and assigned to give warning and safety devices, shall conform to applicable city, county, state, and BNSF requirements. Should the Contractor appear to be neglectful or negligent in furnishing adequate warning and protection measures, the Contracting Officer may direct attention to the existence of a hazard and the necessary warning and protective measures shall be furnished and installed by the

Contractor without additional cost to the Government. Should the Contracting Officer point out the inadequacy of warning and protective measures, such action of the Contracting Officer shall not relieve the Contractor from any responsibility for public safety or abrogate his obligation to furnish and pay for those devices. The installation of any general illumination shall not relieve the Contractor of his responsibility for furnishing and maintaining any protective facility.

3.7.1 OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) STANDARDS, OTHER SAFETY REQUIREMENTS

The OCCUPATIONAL SAFETY and HEALTH ACT (OSHA) STANDARDS for CONSTRUCTION (Title 29, Code of Federal Regulations Part 1926 as revised from time to time) and the Corps of Engineers General Safety and Health Requirements Manual, EM 385-1-1, and BNSF Personal Protective Equipment meeting applicable OSHA and ANSI Specifications are all applicable to this contract. The most stringent requirement of the above mentioned standards will be applicable.

3.7.2 Accident Reporting

In accordance with EM 385-1-1, the Contractor shall submit a written summary of worker's compensation claims which have been filed by workers in connection with work on the project. The summary shall be submitted at the time when the work is approximately 50 percent complete and at project completion. The summary shall include all subcontractors. The Contractor's and subcontractor's compensation insurance carrier shall certify that the summaries are "correct and true".

3.8 PERMITS

3.8.1 General

Reference is made to the clause of the contract entitled "Permits and Responsibilities," which obligates the Contractor to obtain all required licenses and permits, including, but not necessarily limited to the following specified hereinbelow.

3.8.2 Burlington Northern Santa Fe Railroad

Before entering upon the premises of the BNSF Railroad for or in connection with performance of the contract work, the Contractor will be required by the railroad to enter into an agreement. Such agreement will probably include provisions requiring the Contractor to (a) indemnify the railroad for any claims which result from performance of the contract work on or use of railroad premises by the Contractor; pay for services of any inspectors, **trackmen**, flagmen, or watchmen furnished by the railroad during performance of the contract work on or use of the premises of the railroad by the Contractor; and conform with any other conditions relative to use and occupancy, and the performance of work on railroad premises. The Contractor shall submit to the Contracting Officer a true copy of any agreements entered into. No separate or additional payment will be made by the Government to the Contractor for costs incurred by the Contractor as result of compliance with these provisions. An example of a BNSF agreement

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Payment for Concrete Underpass Ramp will be made at the applicable contract price, which payment shall constitute full compensation for subgrade preparation including excavation and compacted fill, forming, reinforcing steel, concrete placement, finishing, curing the concrete underpass ramp, complete.

1.1.16 Pier

Payment for Pier will be made at the applicable contract price, which payment shall constitute full compensation for furnishing all labor, material, tools, equipment and incidentals for structural excavation, backfill, forming, concrete placement (including Portland cement), reinforcing steel, drill and bonding dowels, finishing, curing the pier, including pile cap, complete.

1.1.17 Pile Driving Test

Payment for Pile Driving Test will be made at the applicable contract price, which payment shall constitute full compensation for demonstrating the applicable tests and furnishing test reports.

1.1.18 Dynamic Test

Payment for Dynamic Test will be made at the applicable contract price, which payment shall constitute full compensation for demonstrating the applicable tests and furnishing test reports.

1.1.19 Irrigation and Landscaping

Payment for Irrigation and Landscaping operations will be made at the applicable contract price which payment shall constitute full compensation for installation of irrigation lines, plantings and seedings, grading, tillage, soil amending, fertilizing, mulching, jute, watering, and maintaining the irrigation and landscaping areas until accepted by the Contracting Officer.

1.1.20 Bicycle Trail Closure and Detour

Payment for Bicycle Trail Closure will be made at the applicable contract price, which payment shall constitute full compensation for providing the closure and detours, including temporary barricades, fences, and restoration of the closure and detour areas upon completion of the work.

1.1.21 As-Built Drawings

Payment for As-Built Drawings will be made at the applicable contract price, which payment shall constitute full compensation for providing the project as-built drawings.

1.1.22 Manhole

Payment for Manhole will be made at the applicable contract price, which payment shall constitute full compensation for constructing the manhole,

complete.

1.1.23 Bridge Foundation - Ground Modification

Payment for Bridge Foundation - Ground Modification will be made at the applicable contract price, which payment shall constitute full compensation for design, materials, equipment (including mobilization, demobilization, and setups) labor, and layout for modification of the ground beneath the west abutment, pier 1, pier 2, and the east abutment; surveying, including instruments and monuments, monitoring movement of nearby structures, and data reporting of movements; cone penetrometer testing, including rig, operator, and data reporting for pre- and post- ground modification; and all associated costs for modification of the ground at the bridge foundation.

1.1.24 Bridge Approaches - Ground Modification

Payment for Bridge Approaches - Ground Modification will be made at the applicable contract price, which payment shall constitute full compensation for design, materials, equipment (including mobilization, demobilization, and setups) labor, and layout for modification of the ground beneath the west approach and the east approach; surveying, including instruments and monuments, monitoring movement of nearby structures, and data reporting of movements; cone penetrometer testing, including rig, operator, and data reporting for pre- and post- ground modification; and all associated costs for modification of the ground at the bridge approaches.

1.2 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described

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SECTION 02240

GROUND MODIFICATION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3441 (1998) Standard Test Method for Deep, Quasi-Static, Cone and Friction-Cone Penetration Tests of Soil

1.2 DEFINITIONS

1.2.1 Ground Modification

As used in this section, the term ground modification is the in-place, controlled manufacturing of ground materials to form part of a geotechnical construction system.

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION: SUBMITTAL PROCEDURES:

SD-01 Data

Survey Data; FIO.

The Contractor shall submit pre- and post- ground modification surveys. The surveys shall include area of the channel affected by the work, and the existing abutments, piers, and nearby structures. Surveys of the piers and abutments shall use the monuments mounted at those locations by the Corps of Engineers. When ground modification is occurring, the Contractor shall submit the data daily to the Contracting Officer.

Cone Penetration Test Data; FIO.

The Contractor shall submit plots of sleeve friction, tip resistance, and friction ratio versus depth and test locations to the Contracting Officer within 48 hours of completion of each cone penetration test. The electronic data used to generate those plots shall also be presented at

that time.

SD-08 Statements

Experience with Similar Projects; FIO.

A list of at least five, previously completed projects of similar scope and purpose shall be submitted to the Contracting Officer by the Contractor with the bid documents. The list shall include a description of the project, relative size, and contact person with phone number. The documentation of experience shall be submitted to the Contracting Officer two weeks prior to commencing work.

Verification and Monitoring Plan; GA.

The verification and monitoring plan shall detail the Contractor's proposal for assuring that the desired results as described in paragraphs GROUND MODIFICATION, SETTLEMENT AND HEAVE, and TESTING AND INSPECTION are achieved. The plan shall include figures identifying the locations and schedule of Cone Penetration Tests, procedures for avoiding damage to the existing timber piles, method for verifying the ground improvement under the existing pile caps; procedure for assuring that ground movement is within specified limits, including locations and structures to be monitored, and instruments and monuments to be used. The plan shall be submitted to the Contracting Officer two weeks prior to commencing work.

Ground Modification Plan; GA.

Detailed plans and schedules shall be submitted for approval showing details and data on equipment, plant layout, materials, designs, procedures, daily records and control criteria proposed for ground modification. The submittal shall contain drawings, sketches, diagrams, and descriptions as necessary. The Plan shall detail the spacing, location, depth and (estimated) quantities. Locations shall be dimensionally referenced to the structural foundation shown on the contract drawings. The plans shall show the location of existing underground utilities (including channel subdrain system) and other structures to be protected in place. The plan shall also identify locations and quantities of existing features that will be demolished and reconstructed as a part of ground modification. The plan shall be submitted to the Contracting Officer two weeks prior to commencing work. No ground modification work shall be permitted until the submitted plan and schedule have been approved in writing by the Contracting Officer.

SD-13 Certificates

Materials; FIO.

Certified copies of all test reports for materials demonstrating compliance with the requirements stated in the approved plan shall be submitted 7 days in advance of ground modification operations.

1.4 MATERIALS DELIVERY, STORAGE AND HANDLING

Transportation and storage of materials shall be in accordance with the approved plan. Sufficient materials shall be stored at or near the work site to insure ground modification operations will not be delayed due to a shortage of materials.

1.5 SCHEDULING

It shall be the Contractor's responsibility to schedule his work to avoid delays of any other work elements due to conflicts with the ground modification operations.

1.6 REQUIRED EXPERIENCE

The ground improvement program shall be performed by a contractor with at least five continuous years of documented experience in the proposed method. The contractor's project manager for ground modification shall have at least five years of continuous experience in the proposed method, with at least the last two years in the full-time employ of the ground modification contractor. The contractor's superintendent and equipment operators for ground modification shall have at least five years of experience in foundation improvement.

PART 2 PRODUCTS

2.1 EQUIPMENT

All equipment used shall be of a type, capacity and mechanical condition suitable for doing the work in an efficient and timely manner, as determined by the Contracting Officer. Equipment shall be kept in good operating condition at all times. The power, equipment and layout thereof shall meet all applicable construction and safety requirements of local, State, and Federal regulations and codes.

2.2 MATERIALS

The materials to be furnished by the Contractor shall conform to the specifications listed in the approved plan.

PART 3 EXECUTION

3.1 INSPECTION

The Contractor and Contracting Officer shall perform a walk-through inspection of the site and existing structures before and after ground modifications are made, noting and documenting existing and post-ground modification conditions as necessary.

3.2 GROUND MODIFICATION

Ground modification shall be performed prior to placing piles. Ground modification shall be performed in accordance with the approved ground modification plan to achieve the acceptance criteria in the in-situ soil between the injection points. The ground shall be modified so that the average cone tip penetration resistance measured using the cone penetration

test increases by 20 percent between the pre- and post-modification tests or exceeds 150 tons/square foot as measured during the post-modification tests. Averages shall be calculated based upon four-foot thick intervals beginning at the highest elevation to be improved within a given element and shall exclude intervals where the average pre-modification cone tip penetration resistance is equal to or exceeds 150 tons/square foot. A minimum of five tests shall be conducted at each of elements 1, 3, 5, 7, and 8. Specific locations will be agreed upon between the Contractor and the Contracting Officer. Piles shall not be placed until the Contracting Officer has approved the ground modification.

3.3 SETTLEMENT AND HEAVE

Differential settlement or heave shall not exceed 0.5 inches and total settlement or heave shall not exceed 2 inches at any structure due to ground modification. The Contractor shall monitor nearby structures as follows:

1. Monitoring shall be carried out on a continuing basis whenever ground modification is occurring.
2. Any structure (including Rio Hondo channel subdrain system) damaged as a result of the ground modification effort shall be replaced in kind at the Contractor's expense.

3.4 TESTING AND INSPECTION

The effectiveness of the proposed ground modification scheme shall be verified by an independent testing agency. The Contractor shall retain the independent testing agency to conduct the pre- and post- modification tests. The same agency shall conduct both pre- and post- modification tests. The cone penetration tests shall be performed in accordance with ASTM D 3441

Should the Contractor propose a test section within the footprint of the designated area to be improved, locations will be agreed upon between the Contractor and Contracting Officer. The area of the test section shall consist of a minimum of 500 square feet. The test sections shall be performed in accordance with the Ground Modification Plan. If the pre-production test sections indicate that the required ground improvement has not been achieved, the Contractor shall revise the Ground Modification Plan and re-test.

3.5 RECORDS

The Contractor shall provide a written daily record of ground modification operations to the Contracting Officer within 48 hours as detailed in the approved plan.

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SECTION 02250

FILLS, SUBGRADE PREPARATION AND DRAINAGE SYSTEMS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 131	(1996) Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C 136	(1996a) Sieve Analysis of Fine and Coarse Aggregates
ASTM D 75	(1987; R 1992) Sampling Aggregates
ASTM D 422	(1963; R 1998) Particle-Size Analysis of Soils
ASTM D 1556	(1990; R 1996) Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 1557	(1998) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. ft. (2,700 kN-m/cu.m.)))
ASTM D 2216	(1998) Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D 2487	(1998) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 4318	(1998) Liquid Limit, Plastic Limit, and Plasticity Index of Soils

1.2 COMPACTION EQUIPMENT

1.2.1 General

Compaction shall be accomplished by tamping roller, rubber tired roller, sheep's foot roller, vibratory compactor or mechanical tampers. All equipment, tools, and machines shall be maintained in satisfactory working

condition at all times. Compaction equipment shall be suitable for consistently producing uniform soil densities.

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-09 Reports

Field Density Tests; FIO. Testing of Compacted Fill Materials; FIO.

Copies of all laboratory tests within 24 hours of the completion of the tests.

Fill Material Source Gradations; GA.

1.4 GENERAL REQUIREMENTS FOR COMPACTED FILLS AND COMPACTED BACKFILLS

1.4.1 Control

Moisture-density relations shall be established by the Contractor. The soil used for each maximum density test shall be classified in accordance with ASTM D 2487 and shall include a particle size analysis in accordance with ASTM D 422 (analysis of particle size distribution for particles passing the No. 200 sieve shall not be required). At least one five point maximum density test shall be made for every 5 field density tests at each job site. Field density tests shall be performed by the Contractor at the frequency established in paragraph: Field Control, and in such locations to insure that the specified density is being obtained. Moisture-density relations and field densities shall be reported on approved forms. One copy of density data less dry weight determinations shall be provided on the day each test is taken. The completed test reports shall be provided with the Contractor Quality Control Report on the work day following the test.

Monthly soils reports, including maximum density test data, gradations, compaction and air void curves, and field in-place density tests with accompanying field moisture contents, supported by raw data, shall be submitted in a spreadsheet format on a computer disk to the Contracting officer.

1.4.1.1 Laboratory Control

Moisture-density relations shall be established by the Contractor. One moisture-density relation shall be made for each classification, blend or change in classification of soil materials encountered. Approval of moisture-density relations shall be obtained prior to the compacting of any material in the work. The moisture-density relations shall be determined in a laboratory in accordance with ASTM D 1557.

- a. A separate batch of materials will be used for each compaction

test specimen. No materials will be re-used.

b. The desired amount of mixing water will be added for each compaction test specimen, mixed well, and the mixture will be placed in a container with an airtight cover and allowed to cure for 24 hours. A shorter curing time may be allowed where tests show that shortening the curing time will not affect the results.

1.4.1.2 Field Control

Field in-place density shall be determined in accordance with ASTM D 1556, except that in each test, the weight of the disturbed sample representing the full depth of layer shall be not less than 10 pounds for fine grain material and 12 pounds for coarse grain material using a scale for weighing of sufficient capacity and sensitive to .01 pounds. Field in-place moisture content shall be in accordance with ASTM D 2216.

a. Field in-place density shall be correlated to the appropriate five point maximum density test by way of classification of material in accordance with ASTM D 2487, including a particle size analysis in accordance with ASTM D 422 (analysis of particle size distribution for particles passing the No. 200 sieve shall not be required).

b. Gradation Testing. One particle size analysis test from material obtained from field in-place density, shall be performed per 2000 cubic yards of material placed. The particle size analysis shall be in accordance with ASTM D 422. Analysis of particle size distribution for particles passing the No. 200 sieve shall not be required. Atterberg tests, in accordance with ASTM D 4318, shall accompany the particle size analysis. The materials tested shall be classified in accordance with ASTM D 2487.

1.4.1.3 In-Place Densities

One test per 500 cubic yards, for the first 10,000 cubic yards of material and one test for each 2,000 yards thereafter, or fraction thereof, of each lift of fill or backfill areas compacted by other than hand-operated machines. At least one test shall be made in each 2-foot layer of compacted fill or backfill processed as a unit and not less than one test shall be made in each area.

One test per 300 cubic yards, or fraction thereof, of each lift of fill or backfill areas compacted by hand-operated machines. For walls, at least one density test shall be made for each 2-foot height of fill placement per 100 lineal feet of wall, or fraction thereof.

1.4.1.4 Moisture-Density Curves for Cohesionless and Cohesive Material

Cohesionless materials include gravels, gravel-sand mixtures, sands, and gravelly sands. Cohesive materials include clayey and silty gravels, gravel-silt mixtures, clayey and silty sands, sand-clay mixtures, clays, silts, and very fine sands. When results of compaction tests for moisture-density relations are recorded on graphs, cohesionless soils will show straight lines or reverse-shaped moisture-density curves, and cohesive

soils will show normal moisture-density curves.

1.4.2 Settling of Fills or Backfills with Water

Settling of fills or backfills with water will not be permitted.

1.4.3 Fill and Backfill Material

Fill and backfill material shall be obtained from approved sources selected by the Contractor. The Contractor shall provide to the Contracting Officer gradation test results of representative materials obtained from the potential source(s) for authorization to use. Materials shall be free from organic matter, trash, debris, and stones larger than 3/4 of the compacted layer thickness. Compacted fill and backfill shall consist of materials classified in ASTM D 2487 as GW, GP, GM, GC, SW and SC.

1.4.4 Placement

Fill and backfill material shall not be placed against concrete which has not been in place at least 14 days or until the concrete has attained a strength of 2,500 p.s.i. when tested in accordance with the SECTION 03307 CONCRETE FOR MINOR STRUCTURES. Heavy equipment shall not be operated over buried structures until at least 2 feet of fill material has been placed and compacted over them in conformance with the requirements of the subparagraphs of the paragraph 3.2 STRUCTURAL BACKFILL in this section. Compacted fill and backfill shall be placed with suitable equipment in horizontal layers which before compaction, shall not exceed 8 inches in depth for rubber-tired or vibratory rollers, 6 inches in depth for tamping rollers, and 4 inches in depth when mechanical tampers are used. The Contractor may vary the layer thickness within these limits for most efficient operations. Material containing stones shall be placed in a manner to prevent the stones from striking the concrete structures and to prevent the formation of voids. Cut slopes or existing slopes shall be benched or stepped prior to placing fill to insure proper bonding between fill and existing slope. The benching and stepping shall extend a minimum of one (1) foot horizontally into the slope and a minimum of 8 inches vertically or equal to the uncompacted layer thickness. **Where subballast is to be placed over an existing slope, the slope shall be benched horizontally into the edge of the subballast and vertically to a minimum depth of 3 feet.**

1.4.5 Moisture Content

Material shall have a uniform moisture content while being placed and compacted. Water shall be added at the source, if required, or by sprinkling each layer of material during placement. Uniform distribution of moisture shall be obtained by disking, harrowing, or otherwise manipulating the soil during and after time water is added. Material containing an excess of moisture shall be manipulated with suitable implements to facilitate maximum aeration and shall be permitted to dry to the proper consistency before being compacted. Fill shall have a maximum moisture content of not more than 3 percent above optimum and a minimum moisture content of not less than 3 percent below optimum.

1.4.6 Compaction

No layer of fill shall be compacted before the practicable uniform moisture content has been obtained. Scarified areas shall be compacted as specified for the fill placed thereon. Rollers will not be permitted to operate within two feet of channel or structure walls or over buried structures until the compacted fill over the top of the structures has reached a depth of 2 feet. Compaction equipment shall be so operated that structures are not damaged nor overstressed during compaction operations. Mechanical tampers shall be used for compacting the fill material within two feet of structures where rolling equipment is impracticable for use in compaction.

1.4.7 Use of Excavated Materials

Excavated suitable material shall be utilized to the full extent possible to meet project requirements. Suitable materials shall be free of organics, silt, clay, broken concrete, and other objectionable material. Suitable materials may consist of sand, gravelly sand, silty sand, sandy silt, clayey sand, and sandy clay. However, selective excavation, stockpiling, and moisture conditioning will be required to produce material that meets specific requirements of the specification. No excavated materials shall be used for the railroad embankment fill above elevation 150.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 **Subballast**, Sand Filter, and Gravel Drain Materials

Subballast, sand filter, and gravel drain materials shall be durable, hard, tough, and free from adherent coatings. The material shall not contain corrosive agents, organic matter or soft, friable, thin or elongated particles in quantities considered deleterious by the Contracting Officer.

2.1.1.1 Sand Filter Material

Sand filter material shall consist of natural sand, manufactured sand, or a combination of natural and manufactured sands, and shall be reasonably well graded within the following limits:

Sieve Size	Percent by Weight Passing
1 in.	100
3/8 in.	75 - 100
No. 20	15 - 37
No. 70	0 - 5

2.1.1.2 **Subballast and** Gravel Drain Material

Subballast and gravel drain materials shall consist of gravel, crushed stone, or processed crushed concrete, and shall show a loss in weight of not more than 50 percent when tested in accordance with ASTM C 131, and shall be reasonably well graded within the following limits:

Sieve Size	Percent by Weight Passing
2 in.	100
1-1/2 in.	95 - 100
3/4 in.	35 - 70
3/8 in.	10 - 30
No. 4	0 - 5

2.1.1.3 Points

Points on the individual grading curves obtained from representative samples of the subballast, sand filter, and gravel drain materials shall lie between the boundary limits as defined by smooth curves drawn through the tabulated grading limits plotted on a mechanical-analysis diagram and also shall exhibit no abrupt changes in slope denoting skip grading, scalping of certain sizes, or other irregularities which would be detrimental to the proper functioning of the sand filter, gravel drain, and subballast material.

2.1.1.4 Sampling and Testing

Sampling and testing of the subballast, sand filter, and gravel drain materials shall be performed by the Contractor to determine compliance of the installed materials with specified requirements in conformance with ASTM C 131, ASTM C 136, and ASTM D 75. Sampling and testing shall be performed at regular intervals with at least one test being made for each 25 cubic yards of material for sand filter and gravel drain, and at least one test for each 500 cubic yards of subballast material.

2.1.2 Deleted

PART 3 EXECUTION

3.1 COMPACTED FILL

3.1.1 Preparation for Placing

Before placing material for compacted fill, the surface shall be cleared of all existing obstructions and debris. Unsuitable material not meeting the requirements for fill material shall be removed where directed.

3.1.1.1 Compaction

Each layer of the materials shall be compacted to not less than 95 percent of maximum density, per ASTM D 1557.

3.1.2 Limitations on Equipment Behind Concrete Walls and Bridge Abutments

The gross weight of any piece of equipment, or the combined weight of any combinations of equipment coupled together, used to place, moisten and/or compact fill behind and within 4 feet of concrete walls and bridge abutments shall not exceed 35,000 pounds, including dynamic forces produced by vibratory equipment. Equipment used to compact the fill behind the

concrete walls shall be of such size as to be capable of operating in the area between the cut slope and the concrete wall.

3.2 STRUCTURAL BACKFILL

3.2.1 Backfill About Structures

3.2.1.1 Location

Backfill shall consist of all fill against and/or around structures.

3.2.1.2 Material

Backfill material shall be obtained from the required excavation as approved by the Contracting Officer. In general, the best material available will be designated as backfill and fill about structures. Backfill may consist of sand, gravelly sand, silty sands, sandy silts, clayey sands, and sandy clays. Organic material, silt, clay, broken concrete and other objectionable material shall not be used.

3.2.1.3 Placing

Backfill material shall not be placed against concrete which has not been in place at least 14 days or until the concrete has attained a strength of 2,500 p.s.i when tested in accordance with SECTION 03307 CONCRETE FOR MINOR STRUCTURES. Backfill shall be placed in 4-inch layers. Hand-operated equipment shall be used within 2 feet of the structure.

3.2.1.4 Compaction

Except as specified hereinbefore, compaction shall not be less than 95 percent, per ASTM D 1557.

3.3 SUB-BALLAST SECTION

3.3.1 Placement

Sub-ballast material shall be placed with suitable equipment in horizontal layers which before compaction, shall not exceed 6 inches. Tolerance for finished grade shall be 0 to plus 1/2-inch.

3.3.2 Compaction

Each layer of the sub-ballast materials shall be compacted to not less than 95 percent of ASTM D 1557.

3.3.3 Vehicular Traffic

Vehicular traffic on the sub-ballast surface shall be kept to a minimum. The Contractor shall be responsible for maintaining a firm, true, and smooth surface compacted to the required density.

3.4 DRAINAGE SYSTEMS

3.4.1 Location

Drainage systems consist of the weephole drainage system behind retaining walls and the subdrainage system beneath the channel invert.

3.4.2 Protection of Existing Subdrainage System

Following excavation below the channel invert, all filter and drain material to remain in place shall be protected by plastic sheeting to insure that contamination to, or loss of, these materials does not occur. Contamination by clogging of the voids in the materials includes infiltration by muddy water, dust, etc. The perforated pipe shall be protected in place.

3.4.3 Installation

3.4.3.1 Behind Retaining Walls

a. Gravel Drain and Sand Filter Materials shall be moistened and evenly spread until a uniform density is achieved. Limitations on equipment as specified in Paragraph 3.1.2 shall be followed.

3.4.3.2 Beneath Channel Invert

a. Sand Filter Material shall be placed, moistened, and spread in a uniform layer to the lines and grades indicated. Placing and spreading equipment shall be operated in such manner as to not disturb the underlying material. Water shall be added and the material manipulated with spreading equipment until a uniform density is achieved. After installation of the filter material, equipment shall not be operated over the blanket except for placement of gravel drain material. Any filter material contaminated with muddy water or dust or rutted by equipment shall be removed and replaced with fresh filter material.

b. Gravel Drain Material shall be placed over the sand filter material, moistened and spread to a uniform grade to the elevations indicated. Following spreading, the surface of the gravel drain material shall be compacted with one pass of a vibratory roller or tamper. Gravel drain material contaminated with muddy water or dust or rutted by equipment shall be removed and replaced with fresh gravel drain material.

c. Just prior to placing steel reinforcement for the invert, the gravel drain material shall be moistened and shall be kept in a moist state during the entire period steel is being placed. Prior to placing concrete, the material shall be moistened again in conformance with the requirements of the SECTION 03307 CONCRETE FOR MINOR STRUCTURES. The required amounts of water to be applied during moistening operations shall be as directed and shall be applied with approved equipment.

3.5 SUBGRADE PREPARATION

3.5.1 Subgrade for the New Abutments and Pier-footings

Ground modification shall be performed in accordance with Section 02240 GROUND MODIFICATION. After ground modification and excavation to rough grade, the entire subgrade for the new areas of abutments and pier-footings shall be proofrolled by 4 passes of the compaction equipment and trimmed to a uniform grade and smoothed with a steel-wheeled roller to make the subgrade ready to receive concrete. Subgrade excavation must be free of standing water before concrete is placed. If the subgrade is disturbed by the Contractor's operations or is overexcavated, or is soft or yielding, the subgrade shall be restored to grade and compacted to a density of 95 percent of maximum density, per ASTM D 1557. The finished surface of the subgrade shall not be more than 1/2 inch from the indicated grade at any point when tested with a 10-foot straightedge. Dry subgrade will be required for placement of footing concrete and the existing improvements to remain in place. Compaction under pier footings and abutments may require hand machine or other compaction method to attain 95 percent of maximum density.

3.5.2 Sub-ballast Subgrade

The sub-ballast subgrade shall be trimmed to the lines and grades shown on the drawings. The surface shall be smooth and uniformly compacted, containing no ruts, potholes, loose soil, or any imperfection which may retain surface water. No sub-ballast material shall be placed on any part of the sub-ballast subgrade until such areas have been inspected and approved by the Contracting Officer.

-- End of Section --

3.1.4 Cap Blocks

The cap block (hammer cushion) used between the driving cap and the hammer ram may be of solid hardwood block with grain parallel to the pile axis and enclosed in a close-fitting steel housing or may consist of aluminum and approved industrial type plastic laminate disks stacked alternately in a steel housing. Steel plates shall be used at the top and the bottom of the cap block. The cap block shall be replaced if it has been damaged, highly compressed, charred, or burned or has become spongy or deteriorated in any manner. If a wood cap block is used, it shall not be replaced during the final driving of any pile. Under no circumstances will the use of small wood blocks, wood chips, rope, or other material permitting excessive loss of hammer energy be permitted.

3.1.5 Pile Extractors

Impact hammers are required for pulling piles.

3.1.6 Preboring Equipment

The auger of the preboring equipment shall be sufficiently rigid to drill the pilot hole within the tolerances for pile driving specified in paragraph INSTALLATION, subparagraph PILE PLACEMENT AND TOLERANCES. Auger diameter shall not exceed two-thirds the diameter of the pile.

3.2 INSTALLATION

3.2.1 Lengths of Permanent Piles

The lengths of piles required are indicated on the drawings.

3.2.2 Pile Placement and Tolerances

Ground improvements shall be accomplished in accordance with Section 02240 GROUND MODIFICATION prior to placing piles. A pile placement plan and tolerances shall be developed to show the installation sequence and the methods proposed for controlling the location and alignment of piles and submitted for approval. Piles shall be placed accurately in the correct location and alignments, both laterally and longitudinally, and to the vertical lines indicated. The Contractor shall establish a permanent baseline during pile driving operations to provide for inspection of pile placement by the Contracting Officer. The baseline shall be established prior to driving permanent piles and shall be maintained during the installation of the permanent piles. Prior to driving and with the pile head seated in the hammer, the Contractor shall check each pile for correct alignment. A vertical deviation from the correct cutoff elevations shown on the drawing of not more than 2 inches will be permitted. A final variation in alignment of not more than 1/8 inch per foot of pile above finished ground, except that the maximum deviation of the top of the pile from the plan location shall be 2 inches in the direction of the structure centerline and 4 inches in the direction along the centerline of the bent. A final variation in rotation of the pile about its center line of not more than 7.5 degrees will be permitted. The correct relative position of

all piles shall be maintained by the use of templates or by other approved means. Piles not located properly or

ASTM C 309, Type 1-D.

2.1.12 Epoxy Resin

All epoxy resin materials shall be of two component materials conforming to the requirement of ASTM C 881, Class C. The materials for bonding freshly mixed Portland cement concrete or mortar or freshly mixed epoxy resin concrete to hardened concrete shall be Type II materials, Grade 2. The epoxy resin materials use as patching materials for complete filling of spalls, wide cracks, and other voids; embedding dowels and anchor bolts with concrete shall be **Type IV** materials, Grade 3.

PART 3 EXECUTION

3.1 PREPARATION

3.1.1 General

Construction joints shall be prepared to expose coarse aggregate, and the surface shall be clean, damp, and free of laitance. Ramps and walkways, as necessary, shall be constructed to allow safe and expeditious access for concrete and workmen. Snow, ice, standing or flowing water, loose particles, debris, and foreign matter shall have been removed. Earth foundations shall be satisfactorily compacted. Spare vibrators shall be available. The entire preparation shall be accepted by the Government prior to placing.

3.1.2 Embedded Items

Reinforcement shall be secured in place; joints, anchors, and other embedded items shall have been positioned. Internal ties shall be arranged so that when the forms are removed all metal will be not less than 2 inches from concrete surfaces permanently exposed to view or exposed to water on the finished structures. Embedded items shall be free of oil and other foreign matters such as loose coatings or rust, paint, and scale. The embedding of wood in concrete will be permitted only when specifically authorized or directed. All equipment needed to place, consolidate, protect, and cure the concrete shall be at the placement site and in good operating condition.

3.1.3 Formwork Installation

Forms shall be properly aligned, adequately supported, and mortar-tight. The form surfaces shall be smooth and free from irregularities, dents, sags, or holes when used for permanently exposed faces. All exposed joints and edges shall be chamfered, unless otherwise indicated.

3.1.4 Production of Concrete

3.1.4.1 Ready-Mixed Concrete

Ready-mixed concrete shall conform to ASTM C 94 except as otherwise specified.