Prepared By:
City of Arlington
Department of Public Works
Engineering Division

67th Ave Phase III Reconstruction

Contract Provisions – Volume II

City Project #: P02.341
TIB Project #:9-P-817(004)-1
Federal Aid # STPUS-2699 (001)

Issued for Bid

November 20, 2012

TODD BYRON LIVINGSTON
STATE OF WASHINGTON
42504
REGISTERED
PROFESSIONAL ENGINEER
11/20/2012

Approved for Construction

James X Kelly, PE
Public Works Director

November 20, 2012
Date

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APPENDIX A

PREVAILING WAGES

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State of Washington
Department of Labor & Industries

Prevailing Wage Section - Telephone 360-902-5335
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 11/17/2012

County	Trade	Job Classification	Wage	Holiday	Overtime	Note
Snohomish	Asbestos Abatement Workers	Journey Level	$40.83	5D	1H	
Snohomish	Boilermakers	Journey Level	$60.24	5N	1C	
Snohomish	Brick Mason	Brick And Block Finisher	$42.21	5A	1M	
Snohomish	Brick Mason	Journey Level	$49.07	5A	1M	
Snohomish	Brick Mason	Pointer-Caulker-Cleaner	$49.07	5A	1M	
Snohomish	Building Service Employees	Janitor	$9.04		1	
Snohomish	Building Service Employees	Shampooer	$9.23		1	
Snohomish	Building Service Employees	Waxer	$9.23		1	
Snohomish	Building Service Employees	Window Cleaner	$13.48		1	
Snohomish	Cabinet Makers (In Shop)	Journey Level	$15.08		1	
Snohomish	Carpenters	Acoustical Worker	$49.57	5D	1M	
Snohomish	Carpenters	Bridge, Dock And Wharf Carpenters	$49.57	5D	1M	
Snohomish	Carpenters	Carpenter	$49.57	5D	1M	
Snohomish	Carpenters	Carpenters on Stationary Tools	$49.70	5D	1M	
Snohomish	Carpenters	Creosoted Material	$49.67	5D	1M	
Snohomish	Carpenters	Floor Finisher	$49.57	5D	1M	
Snohomish	Carpenters	Floor Layer	$49.57	5D	1M	
Snohomish	Carpenters	Scaffold Erector	$49.57	5D	1M	
Snohomish	Cement Masons	Journey Level	$50.13	7A	1M	
Snohomish	Divers & Tenders	Diver	$100.28	5D	1M	8A
Snohomish	Divers & Tenders	Diver On Standby	$56.68	5D	1M	
Snohomish	Divers & Tenders	Diver Tender	$52.23	5D	1M	
Snohomish	Divers & Tenders	Surface Rcv & Rov Operator	$52.23	5D	1M	
Snohomish	Divers & Tenders	Surface Rcv & Rov Operator Tender	$48.67	5A	1B	
Snohomish	Dredge Workers	Assistant Engineer	$49.57	5D	1T	8L
Snohomish	Dredge Workers	Assistant Mate(deckhand)	$49.06	5D	1T	8L

Snohomish	Dredge Workers	Engineer Welder	$49.62	5D	1T	8L
Snohomish	Dredge Workers	Leverman, Hydraulic	$51.19	5D	1T	8L
Snohomish	Dredge Workers	Maintenance	$49.06	5D	1T	8L
Snohomish	Dredge Workers	Mates And Boatmen	$49.57	5D	1T	8L
Snohomish	Dredge Workers	Oiler	$49.19	5D	1T	8L
Snohomish	Drywall Applicator	Journey Level	$49.74	5D	1H	
Snohomish	Drywall Tapers	Journey Level	$49.79	5P	1E	
Snohomish	Electrical Fixture Maintenance Workers	Journey Level	$13.76		1	
Snohomish	Electricians - Inside	Cable Splicer	$59.21	7H	1E	
Snohomish	Electricians - Inside	Construction Stock Person	$29.16	7H	1D	
Snohomish	Electricians - Inside	Journey Level	$55.19	7H	1E	
Snohomish	Electricians - Motor Shop	Craftsman	$15.37		1	
Snohomish	Electricians - Motor Shop	Journey Level	$14.69		1	
Snohomish	Electricians - Powerline Construction	Cable Splicer	$64.95	5A	4A	
Snohomish	Electricians - Powerline Construction	Certified Line Welder	$59.37	5A	4A	
Snohomish	Electricians - Powerline Construction	Groundperson	$42.16	5A	4A	
Snohomish	Electricians - Powerline Construction	Head Groundperson	$44.50	5A	4A	
Snohomish	Electricians - Powerline Construction	Heavy Line Equipment Operator	$59.37	5A	4A	
Snohomish	Electricians - Powerline Construction	Jackhammer Operator	$44.50	5A	4A	
Snohomish	Electricians - Powerline Construction	Journey Level Lineperson	$59.37	5A	4A	
Snohomish	Electricians - Powerline Construction	Line Equipment Operator	$49.95	5A	4A	
Snohomish	Electricians - Powerline Construction	Pole Sprayer	$59.37	5A	4A	
Snohomish	Electricians - Powerline Construction	Powderperson	$44.50	5A	4A	
Snohomish	Electronic Technicians	Journey Level	$30.10		1	
Snohomish	Elevator Constructors	Mechanic	$75.24	7D	4A	
Snohomish	Elevator Constructors	Mechanic In Charge	$82.00	7D	4A	
Snohomish	Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	$13.50		1	
Snohomish	Fence Erectors	Fence Erector	$14.00		1	
Snohomish	Flaggers	Journey Level	$34.61	7A	2Y	
Snohomish	Glaziers	Journey Level	$52.76	7L	1Y	
Snohomish	Heat & Frost Insulators And Asbestos Workers	Journeyman	$56.93	5J	1S	
Snohomish	Heating Equipment Mechanics	Journey Level	$68.52	7F	1E	
Snohomish	Hod Carriers & Mason Tenders	Journey Level	$42.11	7A	2Y	
Snohomish	Industrial Engine And Machine	Journey Level	$15.65		1	

	Mechanics					
Snohomish	Industrial Power Vacuum Cleaner	Journey Level	$9.24		1	
Snohomish	Inland Boatmen	Boat Operator	$52.32	5B	1K	
Snohomish	Inland Boatmen	Cook	$48.89	5B	1K	
Snohomish	Inland Boatmen	Deckhand	$48.96	5B	1K	
Snohomish	Inland Boatmen	Deckhand Engineer	$49.95	5B	1K	
Snohomish	Inland Boatmen	Launch Operator	$51.16	5B	1K	
Snohomish	Inland Boatmen	Mate	$51.16	5B	1K	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	$9.73		1	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	$11.48		1	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	$12.78		1	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	$9.04		1	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	$10.53		1	
Snohomish	Insulation Applicators	Journey Level	$49.57	5D	1M	
Snohomish	Ironworkers	Journeyman	$59.02	7N	1O	
Snohomish	Laborers	Air, Gas Or Electric Vibrating Screed	$40.83	7A	2Y	
Snohomish	Laborers	Airtrac Drill Operator	$42.11	7A	2Y	
Snohomish	Laborers	Ballast Regular Machine	$40.83	7A	2Y	
Snohomish	Laborers	Batch Weighman	$34.61	7A	2Y	
Snohomish	Laborers	Brick Pavers	$40.83	7A	2Y	
Snohomish	Laborers	Brush Cutter	$40.83	7A	2Y	
Snohomish	Laborers	Brush Hog Feeder	$40.83	7A	2Y	
Snohomish	Laborers	Burner	$40.83	7A	2Y	
Snohomish	Laborers	Caisson Worker	$42.11	7A	2Y	
Snohomish	Laborers	Carpenter Tender	$40.83	7A	2Y	
Snohomish	Laborers	Caulker	$40.83	7A	2Y	
Snohomish	Laborers	Cement Dumper-paving	$41.59	7A	2Y	
Snohomish	Laborers	Cement Finisher Tender	$40.83	7A	2Y	
Snohomish	Laborers	Change House Or Dry Shack	$40.83	7A	2Y	
Snohomish	Laborers	Chipping Gun (under 30 Lbs.)	$40.83	7A	2Y	
Snohomish	Laborers	Chipping Gun(30 Lbs. And Over)	$41.59	7A	2Y	
Snohomish	Laborers	Choker Setter	$40.83	7A	2Y	
Snohomish	Laborers	Chuck Tender	$40.83	7A	2Y	
Snohomish	Laborers	Clary Power Spreader	$41.59	7A	2Y	

Snohomish	Laborers	Clean-up Laborer	$40.83	7A	2Y	
Snohomish	Laborers	Concrete Dumper/chute Operator	$41.59	7A	2Y	
Snohomish	Laborers	Concrete Form Stripper	$40.83	7A	2Y	
Snohomish	Laborers	Concrete Placement Crew	$41.59	7A	2Y	
Snohomish	Laborers	Concrete Saw Operator/core Driller	$41.59	7A	2Y	
Snohomish	Laborers	Crusher Feeder	$34.61	7A	2Y	
Snohomish	Laborers	Curing Laborer	$40.83	7A	2Y	
Snohomish	Laborers	Demolition: Wrecking & Moving (incl. Charred Material)	$40.83	7A	2Y	
Snohomish	Laborers	Ditch Digger	$40.83	7A	2Y	
Snohomish	Laborers	Diver	$42.11	7A	2Y	
Snohomish	Laborers	Drill Operator (hydraulic,diamond)	$41.59	7A	2Y	
Snohomish	Laborers	Dry Stack Walls	$40.83	7A	2Y	
Snohomish	Laborers	Dump Person	$40.83	7A	2Y	
Snohomish	Laborers	Epoxy Technician	$40.83	7A	2Y	
Snohomish	Laborers	Erosion Control Worker	$40.83	7A	2Y	
Snohomish	Laborers	Faller & Bucker Chain Saw	$41.59	7A	2Y	
Snohomish	Laborers	Fine Graders	$40.83	7A	2Y	
Snohomish	Laborers	Firewatch	$34.61	7A	2Y	
Snohomish	Laborers	Form Setter	$40.83	7A	2Y	
Snohomish	Laborers	Gabian Basket Builders	$40.83	7A	2Y	
Snohomish	Laborers	General Laborer	$40.83	7A	2Y	
Snohomish	Laborers	Grade Checker & Transit Person	$42.11	7A	2Y	
Snohomish	Laborers	Grinders	$40.83	7A	2Y	
Snohomish	Laborers	Grout Machine Tender	$40.83	7A	2Y	
Snohomish	Laborers	Groutmen (pressure)including Post Tension Beams	$41.59	7A	2Y	
Snohomish	Laborers	Guardrail Erector	$40.83	7A	2Y	
Snohomish	Laborers	Hazardous Waste Worker (level A)	$42.11	7A	2Y	
Snohomish	Laborers	Hazardous Waste Worker (level B)	$41.59	7A	2Y	
Snohomish	Laborers	Hazardous Waste Worker (level C)	$40.83	7A	2Y	
Snohomish	Laborers	High Scaler	$42.11	7A	2Y	
Snohomish	Laborers	Jackhammer	$41.59	7A	2Y	
Snohomish	Laborers	Laserbeam Operator	$41.59	7A	2Y	
Snohomish	Laborers	Maintenance Person	$40.83	7A	2Y	
Snohomish	Laborers	Manhole Builder-mudman	$41.59	7A	2Y	
Snohomish	Laborers	Material Yard Person	$40.83	7A	2Y	
Snohomish	Laborers	Motorman-dinky Locomotive	$41.59	7A	2Y	

Snohomish	Laborers	Nozzleman (concrete Pump, Green Cutter When Using Combination Of High Pressure Air & Water On Concrete & Rock, Sandblast, Gunite, Shotcrete, Water Bla	$41.59	7A	2Y	
Snohomish	Laborers	Pavement Breaker	$41.59	7A	2Y	
Snohomish	Laborers	Pilot Car	$34.61	7A	2Y	
Snohomish	Laborers	Pipe Layer Lead	$42.11	7A	2Y	
Snohomish	Laborers	Pipe Layer/tailor	$41.59	7A	2Y	
Snohomish	Laborers	Pipe Pot Tender	$41.59	7A	2Y	
Snohomish	Laborers	Pipe Reliner	$41.59	7A	2Y	
Snohomish	Laborers	Pipe Wrapper	$41.59	7A	2Y	
Snohomish	Laborers	Pot Tender	$40.83	7A	2Y	
Snohomish	Laborers	Powderman	$42.11	7A	2Y	
Snohomish	Laborers	Powderman's Helper	$40.83	7A	2Y	
Snohomish	Laborers	Power Jacks	$41.59	7A	2Y	
Snohomish	Laborers	Railroad Spike Puller - Power	$41.59	7A	2Y	
Snohomish	Laborers	Raker - Asphalt	$42.11	7A	2Y	
Snohomish	Laborers	Re-timberman	$42.11	7A	2Y	
Snohomish	Laborers	Remote Equipment Operator	$41.59	7A	2Y	
Snohomish	Laborers	Rigger/signal Person	$41.59	7A	2Y	
Snohomish	Laborers	Rip Rap Person	$40.83	7A	2Y	
Snohomish	Laborers	Rivet Buster	$41.59	7A	2Y	
Snohomish	Laborers	Rodder	$41.59	7A	2Y	
Snohomish	Laborers	Scaffold Erector	$40.83	7A	2Y	
Snohomish	Laborers	Scale Person	$40.83	7A	2Y	
Snohomish	Laborers	Sloper (over 20")	$41.59	7A	2Y	
Snohomish	Laborers	Sloper Sprayer	$40.83	7A	2Y	
Snohomish	Laborers	Spreader (concrete)	$41.59	7A	2Y	
Snohomish	Laborers	Stake Hopper	$40.83	7A	2Y	
Snohomish	Laborers	Stock Piler	$40.83	7A	2Y	
Snohomish	Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	$41.59	7A	2Y	
Snohomish	Laborers	Tamper (multiple & Self-propelled)	$41.59	7A	2Y	
Snohomish	Laborers	Timber Person - Sewer (lagger, Shorer & Cribber)	$41.59	7A	2Y	
Snohomish	Laborers	Toolroom Person (at Jobsite)	$40.83	7A	2Y	
Snohomish	Laborers	Topper	$40.83	7A	2Y	
Snohomish	Laborers	Track Laborer	$40.83	7A	2Y	
Snohomish	Laborers	Track Liner (power)	$41.59	7A	2Y	
Snohomish	Laborers	Traffic Control Laborer	$37.01	7A	2Y	8R
Snohomish	Laborers	Traffic Control Supervisor	$37.01	7A	2Y	8R
Snohomish	Laborers	Truck Spotter	$40.83	7A	2Y	
Snohomish	Laborers	Tugger Operator	$41.59	7A	2Y	

Snohomish	Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	$55.89	7A	2Y	8Q
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	$60.92	7A	2Y	8Q
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	$64.60	7A	2Y	8Q
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	$70.30	7A	2Y	8Q
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	$72.42	7A	2Y	8Q
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	$77.52	7A	2Y	8Q
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	$79.42	7A	2Y	8Q
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	$81.42	7A	1H	8Q
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	$83.42	7A	1H	8Q
Snohomish	Laborers	Tunnel Work-Guage and Lock Tender	$42.21	7A	2Y	8Q
Snohomish	Laborers	Tunnel Work-Miner	$42.21	7A	2Y	8Q
Snohomish	Laborers	Vibrator	$41.59	7A	2Y	
Snohomish	Laborers	Vinyl Seamer	$40.83	7A	2Y	
Snohomish	Laborers	Watchman	$31.46	7A	2Y	
Snohomish	Laborers	Welder	$41.59	7A	2Y	
Snohomish	Laborers	Well Point Laborer	$41.59	7A	2Y	
Snohomish	Laborers	Window Washer/cleaner	$31.46	7A	2Y	
Snohomish	Laborers - Underground Sewer & Water	General Laborer & Topman	$40.83	7A	2Y	
Snohomish	Laborers - Underground Sewer & Water	Pipe Layer	$41.59	7A	2Y	
Snohomish	Landscape Construction	Irrigation Or Lawn Sprinkler Installers	$17.31		1	
Snohomish	Landscape Construction	Landscape Equipment Operators Or Truck Drivers	$20.06		1	
Snohomish	Landscape Construction	Landscaping Or Planting Laborers	$14.13		1	
Snohomish	Lathers	Journey Level	$49.74	5D	1H	
Snohomish	Marble Setters	Journey Level	$49.07	5A	1M	
Snohomish	Metal Fabrication (In Shop)	Fitter	$15.38		1	
Snohomish	Metal Fabrication (In Shop)	Laborer	$9.79		1	
Snohomish	Metal Fabrication (In Shop)	Machine Operator	$9.04		1	
Snohomish	Metal Fabrication (In Shop)	Painter	$9.98		1	
Snohomish	Metal Fabrication (In Shop)	Welder	$15.38		1	
Snohomish	Millwright	Journey Level	$50.67	5D	1M	
Snohomish	Modular Buildings	Journey Level	$9.04		1	
Snohomish	Painters	Journey Level	$37.51	6Z	2B	
Snohomish	Pile Driver	Journey Level	$49.82	5D	1M	

Snohomish	Plasterers	Journey Level	$48.23	7Q	1R	
Snohomish	Playground & Park Equipment Installers	Journey Level	$11.94		1	
Snohomish	Plumbers & Pipefitters	Journey Level	$61.57	5A	1G	
Snohomish	Power Equipment Operators	Asphalt Plant Operators	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Assistant Engineer	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Barrier Machine (zipper)	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Batch Plant Operator, Concrete	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Bobcat	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Brokk - Remote Demolition Equipment	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Brooms	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Bump Cutter	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Cableways	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Chipper	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Compressor	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Concrete Finish Machine -laser Screed	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure.	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Conveyors	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: 20 Tons Through 44 Tons With Attachments	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: 20 Tons Through 44 Tons With Attachments Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: 100 Tons Through 199 Tons, Or 150' Of Boom (including Jib With	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: 100 Tons Through 199 Tons, or 150' of boom (including jib with attachments); Overhead, bridge type, 100 tons and over; Tower crane up to 175' in height, base to boom.	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: 200 Tons To 300 Tons, Or 250' Of Boom (including Jib With Attachments)	$53.01	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom	$51.89	7A	3C	8P

		(including Jib With Attachments)				
Snohomish	Power Equipment Operators	Cranes: A-frame - 10 Tons And Under	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: Friction 100 Tons Through 199 Tons	$53.01	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: Friction Over 200 Tons	$53.57	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: Over 300 Tons Or 300' Of Boom (including Jib With Attachments)	$53.57	7A	3C	8P
Snohomish	Power Equipment Operators	Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Crusher	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Deck Engineer/deck Winches (power)	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Derricks, On Building Work	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Dozer Quad 9, HD 41, D10 and Over	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Dozers D-9 & Under	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Drilling Machine	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Elevator And Man-lift: Permanent And Shaft Type	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Forklift: 3000 Lbs And Over With Attachments	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Forklifts: Under 3000 Lbs. With Attachments	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Gradechecker/stakeman	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Guardrail Punch	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Guardrail Punch/Auger	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Horizontal/directional Drill Locator	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Horizontal/directional Drill Operator	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Hydralifts/boom Trucks Over 10 Tons	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Hydralifts/boom Trucks, 10	$48.62	7A	3C	8P

		Tons And Under				
Snohomish	Power Equipment Operators	Loader, Overhead 8 Yards. & Over	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Loaders, Overhead Under 6 Yards	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Loaders, Plant Feed	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Loaders: Elevating Type Belt	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Locomotives, All	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Material Transfer Device	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Mechanics, All (leadmen - $0.50 Per Hour Over Mechanic)	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators	Mixers: Asphalt Plant	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Motor Patrol Grader - Non-finishing	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Motor Patrol Graders, Finishing	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Outside Hoists (elevators And Manlifts), Air Tuggers,strato	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Overhead, Bridge Type: 100 Tons And Over	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators	Overhead, Bridge Type: 45 Tons Through 99 Tons	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Pavement Breaker	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Pile Driver (other Than Crane Mount)	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Plant Oiler - Asphalt, Crusher	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Posthole Digger, Mechanical	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Power Plant	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Pumps - Water	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Quad 9, Hd 41, D10 And Over	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Rigger And Bellman	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Rollagon	$51.89	7A	3C	8P

Snohomish	Power Equipment Operators	Roller, Other Than Plant Mix	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Roto-mill, Roto-grinder	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Saws - Concrete	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Scrapers - Concrete & Carry All	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Service Engineers - Equipment	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Shotcrete/gunite Equipment	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	$53.01	7A	3C	8P
Snohomish	Power Equipment Operators	Slipform Pavers	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Spreader, Topsider & Screedman	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Subgrader Trimmer	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Tower Bucket Elevators	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Tower Crane Over 175'in Height, Base To Boom	$53.01	7A	3C	8P
Snohomish	Power Equipment Operators	Tower Crane Up To 175' In Height Base To Boom	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators	Transporters, All Track Or Truck Type	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Trenching Machines	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Truck Crane Oiler/driver - 100 Tons And Over	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Truck Crane Oiler/driver Under 100 Tons	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators	Truck Mount Portable Conveyor	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators	Welder	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators	Wheel Tractors, Farmall Type	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators	Yo Yo Pay Dozer	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Asphalt Plant Operators	$51.89	7A	3C	8P

Snohomish	Power Equipment Operators-Underground Sewer & Water	Assistant Engineer	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Barrier Machine (zipper)	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Batch Plant Operator, Concrete	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Bobcat	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Brokk - Remote Demolition Equipment	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Brooms	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Bump Cutter	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cableways	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Chipper	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Compressor	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Concrete Finish Machine -laser Screed	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure.	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Conveyors	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: 20 Tons Through 44 Tons With Attachments	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: 20 Tons Through 44 Tons With Attachments Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: 100 Tons Through 199 Tons, Or 150' Of Boom (including Jib With	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: 200 Tons To 300 Tons, Or 250' Of Boom (including Jib With Attachments)	$53.01	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: A-frame - 10 Tons And Under	$48.62	7A	3C	8P

Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: Friction 100 Tons Through 199 Tons	$53.01	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: Friction Over 200 Tons	$53.57	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: Over 300 Tons Or 300' Of Boom (including Jib With Attachments)	$53.57	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Crusher	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Deck Engineer/deck Winches (power)	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Derricks, On Building Work	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Dozer Quad 9, HD 41, D10 and Over	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Dozers D-9 & Under	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Drilling Machine	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Elevator And Man-lift: Permanent And Shaft Type	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Forklift: 3000 Lbs And Over With Attachments	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Forklifts: Under 3000 Lbs. With Attachments	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Gradechecker/stakeman	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Guardrail Punch	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Guardrail Punch/Auger	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Horizontal/directional Drill Locator	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Horizontal/directional Drill Operator	$51.40	7A	3C	8P

Snohomish	Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom Trucks Over 10 Tons	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom Trucks, 10 Tons And Under	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Loader, Overhead 8 Yards. & Over	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Loaders, Overhead Under 6 Yards	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Loaders, Plant Feed	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Loaders: Elevating Type Belt	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Locomotives, All	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Material Transfer Device	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Mechanics, All (leadmen - $0.50 Per Hour Over Mechanic)	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Mixers: Asphalt Plant	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Motor Patrol Grader - Non-finishing	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Motor Patrol Graders, Finishing	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Outside Hoists (elevators And Manlifts), Air Tuggers,strato	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type: 100 Tons And Over	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Overhead, Bridge Type: 45 Tons Through 99 Tons	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Pavement Breaker	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Pile Driver (other Than Crane Mount)	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Posthole Digger, Mechanical	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-	Power Plant	$48.62	7A	3C	8P

	Underground Sewer & Water					
Snohomish	Power Equipment Operators-Underground Sewer & Water	Pumps - Water	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Rigger And Bellman	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Rollagon	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Roller, Other Than Plant Mix	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Roto-mill, Roto-grinder	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Saws - Concrete	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Scrapers - Concrete & Carry All	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Service Engineers - Equipment	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Shotcrete/gunite Equipment	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	$53.01	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Slipform Pavers	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Spreader, Topsider & Screedman	$51.89	7A	3C	8P

Snohomish	Power Equipment Operators-Underground Sewer & Water	Subgrader Trimmer	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Tower Bucket Elevators	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Tower Crane Over 175'in Height, Base To Boom	$53.01	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Tower Crane Up To 175' In Height Base To Boom	$52.44	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Transporters, All Track Or Truck Type	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Trenching Machines	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/driver - 100 Tons And Over	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/driver Under 100 Tons	$50.98	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Truck Mount Portable Conveyor	$51.40	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Welder	$51.89	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Wheel Tractors, Farmall Type	$48.62	7A	3C	8P
Snohomish	Power Equipment Operators-Underground Sewer & Water	Yo Yo Pay Dozer	$51.40	7A	3C	8P
Snohomish	Power Line Clearance Tree Trimmers	Journey Level In Charge	$42.91	5A	4A	
Snohomish	Power Line Clearance Tree Trimmers	Spray Person	$40.73	5A	4A	
Snohomish	Power Line Clearance Tree Trimmers	Tree Equipment Operator	$41.29	5A	4A	
Snohomish	Power Line Clearance Tree Trimmers	Tree Trimmer	$38.38	5A	4A	
Snohomish	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	$28.95	5A	4A	
Snohomish	Refrigeration & Air Conditioning Mechanics	Mechanic	$61.57	5A	1G	
Snohomish	Residential Brick Mason	Journey Level	$20.00		1	
Snohomish	Residential Carpenters	Journey Level	$38.60	5D	1M	
Snohomish	Residential Cement Masons	Journey Level	$14.00		1	
Snohomish	Residential Drywall Applicators	Journey Level	$38.08	5D	1M	
Snohomish	Residential Drywall Tapers	Journey Level	$49.79	5P	1E	
Snohomish	Residential Electricians	Journey Level	$30.62	7F	1D	
Snohomish	Residential Glaziers	Journey Level	$34.60	7L	1H	
Snohomish	Residential Insulation Applicators	Journey Level	$25.68		1	
Snohomish	Residential Laborers	Journey Level	$20.73		1	
Snohomish	Residential Marble Setters	Journey Level	$30.74		1	
Snohomish	Residential Painters	Journey Level	$17.46		1	

Snohomish	Residential Plumbers & Pipefitters	Journey Level	$28.99		1	
Snohomish	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	$38.78	5A	1G	
Snohomish	Residential Sheet Metal Workers	Journey Level (Field or Shop)	$41.30	7F	1R	
Snohomish	Residential Soft Floor Layers	Journey Level	$41.78	5A	3D	
Snohomish	Residential Sprinkler Fitters (Fire Protection)	Journey Level	$41.31	5C	2R	
Snohomish	Residential Stone Masons	Journey Level	$30.74		1	
Snohomish	Residential Terrazzo Workers	Journey Level	$9.04		1	
Snohomish	Residential Terrazzo/Tile Finishers	Journey Level	$21.60		1	
Snohomish	Residential Tile Setters	Journey Level	$25.17		1	
Snohomish	Roofers	Journey Level	$43.90	5A	1R	
Snohomish	Roofers	Using Irritable Bituminous Materials	$46.90	5A	1R	
Snohomish	Sheet Metal Workers	Journey Level (Field or Shop)	$68.52	7F	1E	
Snohomish	Shipbuilding & Ship Repair	Boilermaker	$35.83	7M	1H	
Snohomish	Shipbuilding & Ship Repair	Carpenter	$34.13	7R	2B	
Snohomish	Shipbuilding & Ship Repair	Electrician	$32.88	5T	3E	
Snohomish	Shipbuilding & Ship Repair	Heat & Frost Insulator	$56.93	5J	1S	
Snohomish	Shipbuilding & Ship Repair	Laborer	$24.59	5T	3E	
Snohomish	Shipbuilding & Ship Repair	Machinist	$32.88	5T	3E	
Snohomish	Shipbuilding & Ship Repair	Painter	$37.51	6Z	2B	
Snohomish	Shipbuilding & Ship Repair	Shipfitter	$32.88	5T	3E	
Snohomish	Shipbuilding & Ship Repair	Welder/Burner	$32.88	5T	3E	
Snohomish	Sign Makers & Installers (Electrical)	Sign Installer	$26.56		1	
Snohomish	Sign Makers & Installers (Electrical)	Sign Maker	$20.50		1	
Snohomish	Sign Makers & Installers (Non-Electrical)	Sign Installer	$22.56		1	
Snohomish	Sign Makers & Installers (Non-Electrical)	Sign Maker	$20.50		1	
Snohomish	Soft Floor Layers	Journey Level	$41.78	5A	3D	
Snohomish	Solar Controls For Windows	Journey Level	$9.04		1	
Snohomish	Sprinkler Fitters (Fire Protection)	Journey Level	$69.44	5C	1X	
Snohomish	Stage Rigging Mechanics (Non Structural)	Journey Level	$13.23		1	
Snohomish	Stone Masons	Journey Level	$49.07	5A	1M	
Snohomish	Street And Parking Lot Sweeper Workers	Journey Level	$15.00		1	
Snohomish	Surveyors	Assistant Construction Site Surveyor	$50.98	7A	3C	8P
Snohomish	Surveyors	Chainman	$50.46	7A	3C	8P

Snohomish	Surveyors	Construction Site Surveyor	$51.89	7A	3C	8P
Snohomish	Telecommunication Technicians	Journey Level	$22.38		1	
Snohomish	Telephone Line Construction - Outside	Cable Splicer	$35.09	5A	2B	
Snohomish	Telephone Line Construction - Outside	Hole Digger/Ground Person	$19.22	5A	2B	
Snohomish	Telephone Line Construction - Outside	Installer (Repairer)	$33.63	5A	2B	
Snohomish	Telephone Line Construction - Outside	Special Aparatus Installer I	$35.09	5A	2B	
Snohomish	Telephone Line Construction - Outside	Special Apparatus Installer II	$34.37	5A	2B	
Snohomish	Telephone Line Construction - Outside	Telephone Equipment Operator (Heavy)	$35.09	5A	2B	
Snohomish	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	$32.62	5A	2B	
Snohomish	Telephone Line Construction - Outside	Telephone Lineperson	$32.62	5A	2B	
Snohomish	Telephone Line Construction - Outside	Television Groundperson	$18.65	5A	2B	
Snohomish	Telephone Line Construction - Outside	Television Lineperson/Installer	$24.66	5A	2B	
Snohomish	Telephone Line Construction - Outside	Television System Technician	$29.42	5A	2B	
Snohomish	Telephone Line Construction - Outside	Television Technician	$26.43	5A	2B	
Snohomish	Telephone Line Construction - Outside	Tree Trimmer	$32.95	5A	2B	
Snohomish	Terrazzo Workers	Journey Level	$45.43	5A	1M	
Snohomish	Tile Setters	Journey Level	$45.43	5A	1M	
Snohomish	Tile, Marble & Terrazzo Finishers	Finisher	$37.76	5A	1B	
Snohomish	Traffic Control Stripers	Journey Level	$41.27	7A	1K	
Snohomish	Truck Drivers	Asphalt Mix Over 16 Yards (W. WA-Joint Council 28)	$47.91	5D	3A	8L
Snohomish	Truck Drivers	Asphalt Mix To 16 Yards (W. WA-Joint Council 28)	$47.07	5D	3A	8L
Snohomish	Truck Drivers	Dump Truck	$37.94		1	
Snohomish	Truck Drivers	Dump Truck And Trailer	$38.52		1	
Snohomish	Truck Drivers	Other Trucks	$38.52		1	
Snohomish	Truck Drivers	Transit Mixer	$38.00	6I	1B	
Snohomish	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	$17.05		1	
Snohomish	Well Drillers & Irrigation Pump Installers	Oiler	$13.93		1	
Snohomish	Well Drillers & Irrigation Pump Installers	Well Driller	$19.01		1	

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General Decision Number: WA120001 11/16/2012 WA1

Superseded General Decision Number: WA20100001

State: Washington

Construction Type: Highway

Counties: Washington Statewide.

HIGHWAY (Excludes D.O.E. Hanford Site in Benton and Franklin Counties)

Modification Number	Publication Date
0	01/06/2012
1	01/13/2012
2	02/10/2012
3	02/17/2012
4	03/23/2012
5	04/06/2012
6	04/13/2012
7	04/27/2012
8	05/04/2012
9	06/08/2012
10	06/15/2012
11	06/29/2012
12	07/06/2012
13	07/20/2012
14	08/03/2012
15	08/10/2012
16	09/07/2012
17	09/21/2012
18	10/05/2012
19	11/16/2012

CARP0001-008 09/01/2009

	Rates	Fringes
Carpenters:		
COLUMBIA RIVER AREA - ADAMS, BENTON, COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GRANT, OKANOGAN (EAST OF THE 120TH MERIDIAN) AND WALLA WALLA COUNTIES		
GROUP 1:	$ 27.73	10.56
GROUP 2:	$ 29.73	10.56
GROUP 3:	$ 28.00	10.56
GROUP 4:	$ 27.73	10.56
GROUP 5:	$ 63.50	10.56
GROUP 6:	$ 30.75	10.56
GROUP 7:	$ 31.75	10.56
GROUP 8:	$ 28.00	10.56
GROUP 9:	$ 33.75	10.56
SPOKANE AREA: ASOTIN, GARFIELD, LINCOLN, PEND		

OREILLE, SPOKANE, STEVENS
AND WHITMAN COUNTIES

GROUP 1:	$ 26.06	10.56
GROUP 2:	$ 28.06	10.56
GROUP 3:	$ 26.32	10.56
GROUP 4:	$ 26.06	10.56
GROUP 5:	$ 60.14	10.56
GROUP 6:	$ 29.07	10.56
GROUP 7	$ 30.07	10.56
GROUP 8	$ 27.32	10.56
GROUP 9	$ 33.07	10.56

CARPENTER & DIVER CLASSIFICATIONS:

GROUP 1: Carpenter

GROUP 2: Millwright, machine erector

GROUP 3: Piledriver - includes driving, pulling, cutting, placing collars, setting, welding, or creosote treated material, on all piling

GROUP 4: Bridge carpenters

GROUP 5: Diver Wet

GROUP 6: Diver Tender, Manifold Operator, ROV Operator

GROUP 7: Diver Standby, Bell/Vehicle or Submersible operator Not Under Pressure

GROUP 8: Assistant Tender, ROV Tender/Technician

GROUP 9: Manifold Operator-Mixed Gas

ZONE PAY:

ZONE 1	0-40 MILES	FREE
ZONE 2	41-65 MILES	$2.25/PER HOUR
ZONE 3	66-100 MILES	$3.25/PER HOUR
ZONE 4	OVER 100 MILES	$4.75/PER HOUR

DISPATCH POINTS:
CARPENTERS/MILLWRIGHTS: PASCO (515 N Neel Street) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS/PILEDRIVER: SPOKANE (127 E. AUGUSTA AVE.) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: WENATCHEE (27 N. CHELAN) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: COEUR D' ALENE (1839 N. GOVERNMENT WAY) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: MOSCOW (302 N. JACKSON) or Main Post Office of

established residence of employee (Whichever is closest to the worksite).

DEPTH PAY FOR DIVERS BELOW WATER SURFACE:
50-100 feet $2.00 per foot
101-150 feet $3.00 per foot
151-220 feet $4.00 per foot
221 feet and deeper $5.00 per foot

PREMIUM PAY FOR DIVING IN ENCLOSURES WITH NO VERTICAL ASCENT:
0-25 feet Free
26-300 feet $1.00 per Foot

SATURATION DIVING:
The standby rate applies until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. the diver rate shall be paid for all saturation hours.

WORK IN COMBINATION OF CLASSIFICATIONS:
Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

HAZMAT PROJECTS:

Anyone working on a HAZMAT job (task), where HAZMAT certification is required, shall be compensated at a premium, in addition to the classification working in as follows:

LEVEL D + $.25 per hour - This is the lowest level of protection. No respirator is used and skin protection is minimal.

LEVEL C + $.50 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B + $.75 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit".

LEVEL A +$1.00 per hour - This level utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line.

CARP0003-006 10/01/2011

SOUTHWEST WASHINGTON: CLARK, COWLITZ, KLICKITAT, LEWIS(Piledriver only), PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to Willapa Bay to the Pacific Ocean), SKAMANIA AND WAHKIAKUM COUNTIES and INCLUDES THE ENTIRE PENINSULA WEST OF WILLAPA BAY

SEE ZONE DESCRIPTION FOR CITIES BASE POINTS

ZONE 1:

	Rates	Fringes
Carpenters:		
CARPENTERS	$ 32.04	14.18
DIVERS TENDERS	$ 36.34	14.18
DIVERS	$ 77.08	14.18
DRYWALL	$ 27.56	14.18
MILLWRIGHTS	$ 32.19	14.18
PILEDRIVERS	$ 33.04	14.18

DEPTH PAY:
50 TO 100 FEET $1.00 PER FOOT OVER 50 FEET
101 TO 150 FEET $1.50 PER FOOT OVER 101 FEET
151 TO 200 FEET $2.00 PER FOOT OVER 151 FEET

Zone Differential (Add up Zone 1 rates):
Zone 2 - $0.85
Zone 3 - 1.25
Zone 4 - 1.70
Zone 5 - 2.00
Zone 6 - 3.00

BASEPOINTS: ASTORIA, LONGVIEW, PORTLAND, THE DALLES, AND VANCOUVER, (NOTE: All dispatches for Washington State Counties: Cowlitz, Wahkiakum and Pacific shall be from Longview Local #1707 and mileage shall be computed from that point.)

ZONE 1: Projects located within 30 miles of the respective city hall of the above mentioned cities
ZONE 2: Projects located more than 30 miles and less than 40 miles of the respective city of the above mentioned cities
ZONE 3: Projects located more than 40 miles and less than 50 miles of the respective city of the above mentioned cities
ZONE 4: Projects located more than 50 miles and less than 60 miles of the respective city of the above mentioned cities.
ZONE 5: Projects located more than 60 miles and less than 70 miles of the respective city of the above mentioned cities
ZONE 6: Projects located more than 70 miles of the respected city of the above mentioned cities

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CARP0770-003 06/01/2010

	Rates	Fringes
Carpenters:		
CENTRAL WASHINGTON: CHELAN, DOUGLAS (WEST OF THE 120TH MERIDIAN), KITTITAS, OKANOGAN (WEST OF THE 120TH MERIDIAN) AND YAKIMA COUNTIES		
CARPENTERS ON CREOSOTE MATERIAL	$ 35.49	12.60
CARPENTERS	$ 35.39	12.60
DIVERS TENDER	$ 39.15	12.60
DIVERS	$ 87.20	12.60
MILLWRIGHT AND MACHINE ERECTORS	$ 36.39	12.60

PILEDRIVER, DRIVING,
PULLING, CUTTING, PLACING
COLLARS, SETTING, WELDING
OR CRESOTE TREATED
MATERIAL, ALL PILING.....$ 35.59 12.60

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle	Olympia	Bellingham
Auburn	Bremerton	Anacortes
Renton	Shelton	Yakima
Aberdeen-Hoquiam	Tacoma	Wenatchee
Ellensburg	Everett	Port Angeles
Centralia	Mount Vernon	Sunnyside
Chelan	Pt. Townsend	

Zone Pay:

0 -25 radius miles	Free
26-35 radius miles	$1.00/hour
36-45 radius miles	$1.15/hour
46-55 radius miles	$1.35/hour
Over 55 radius miles	$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:

0 -25 radius miles	Free
26-45 radius miles	$ .70/hour
Over 45 radius miles	$1.50/hour

CARP0770-006 06/01/2010

	Rates	Fringes
Carpenters:		
WESTERN WASHINGTON: CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS (excludes piledrivers only), MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES		
BRIDGE CARPENTERS.....$ 35.39		13.08
CARPENTERS ON CREOSOTE		

MATERIAL	$ 35.49	13.08
CARPENTERS	$ 35.39	13.08
DIVERS TENDER	$ 39.15	13.08
DIVERS	$ 87.20	13.08
MILLWRIGHT AND MACHINE ERECTORS	$ 36.39	13.08
PILEDRIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED MATERIAL, ALL PILING	$ 35.59	13.08

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle	Olympia	Bellingham
Auburn	Bremerton	Anacortes
Renton	Shelton	Yakima
Aberdeen-Hoquiam	Tacoma	Wenatchee
Ellensburg	Everett	Port Angeles
Centralia	Mount Vernon	Sunnyside
Chelan	Pt. Townsend	

Zone Pay:

0 -25 radius miles	Free
26-35 radius miles	$1.00/hour
36-45 radius miles	$1.15/hour
46-55 radius miles	$1.35/hour
Over 55 radius miles	$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:

0 -25 radius miles	Free
26-45 radius miles	$ .70/hour
Over 45 radius miles	$1.50/hour

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* ELEC0046-001 07/02/2012

CALLAM, JEFFERSON, KING AND KITSAP COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 45.66	3%+15.71
ELECTRICIAN	$ 41.51	3%+15.71

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* ELEC0048-003 07/02/2012

CLARK, KLICKITAT AND SKAMANIA COUNTIES

	Rates	Fringes

CABLE SPLICER.....$ 40.75 18.41
ELECTRICIAN.....$ 37.05 18.41

HOURLY ZONE PAY:

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Portland, The Dalles, Hood River, Tillamook, Seaside and Astoria

Zone Pay:
Zone 1: 31-50 miles $1.50/hour
Zone 2: 51-70 miles $3.50/hour
Zone 3: 71-90 miles $5.50/hour
Zone 4: Beyond 90 miles $9.00/hour

*These are not miles driven. Zones are based on Delorrne Street Atlas USA 2006 plus.

ELEC0048-029 07/02/2012

COWLITZ AND WAHKIAKUM COUNTY

	Rates	Fringes
CABLE SPLICER	$ 40.75	15.36
ELECTRICIAN	$ 37.05	15.36

ELEC0073-001 07/01/2012

ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 31.70	15.39
ELECTRICIAN	$ 28.82	15.39

ELEC0076-002 09/01/2011

GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 37.54	21.62
ELECTRICIAN	$ 34.13	21.62

ELEC0112-005 06/01/2011

ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA WALLA, YAKIMA COUNTIES

	Rates	Fringes

CABLE SPLICER.....$ 37.70 35+14.63
ELECTRICIAN.....$ 35.90 3%+14.63

ELEC0191-003 07/01/2011

ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 42.91	15.39
ELECTRICIAN	$ 39.01	15.39

ELEC0191-004 07/01/2011

CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 39.28	15.24
ELECTRICIAN	$ 35.71	15.24

ENGI0302-003 06/01/2011

CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, KITTITAS, MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN), SAN JUNA, SKAGIT, SNOHOMISH, WHATCOM AND YAKIMA (WEST OF THE 120TH MERIDIAN) COUNTIES

PROJECTS: CATEGORY A PROJECTS (EXCLUDES CATEGORY B PROJECTS, AS SHOWN BELOW)

Zone 1 (0-25 radius miles):

	Rates	Fringes
Power equipment operators:		
Group 1A	$ 35.79	15.15
Group 1AA	$ 36.36	15.15
Group 1AAA	$ 36.92	15.15
Group 1	$ 35.24	15.15
Group 2	$ 34.75	15.15
Group 3	$ 34.33	15.15
Group 4	$ 31.97	15.15

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) - $1.00
Zone 3 (Over 45 radius miles) - $1.30

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AAA - Cranes-over 300 tons, or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom

(including jib with attachments); Tower crane over 175 ft in height, base to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons, under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead 6 yards to, but not including 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9, HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self propelled 45 yards and over; Slipform pavers; Transporters, all truck or track type

GROUP 2 - Barrier machine (zipper); Batch Plant Operaor-Concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-overhead, bridge type-20 tons through 44 tons; Chipper; Concrete Pump-truck mount with boom attachment; Crusher; Deck Engineer/Deck Winches (power); Drilling machine; Excavator, shovel, backhoe-3yards and under; Finishing Machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Horizontal/directional drill operator; Loaders-overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics-all; Mixers-asphalt plant; Motor patrol graders-finishing; Piledriver (other than crane mount); Roto-mill,roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self propelled, hard tail end dump, articulating off-road equipment-under 45 yards; Subgrade trimmer; Tractors, backhoes-over 75 hp; Transfer material service machine-shuttle buggy, blaw knox-roadtec; Truck crane oiler/driver-100 tons and over; Truck Mount portable conveyor; Yo Yo Pay dozer

GROUP 3 - Conveyors; Cranes-thru 19 tons with attachments; A-frame crane over 10 tons; Drill oilers-auger type, truck or crane mount; Dozers-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loader-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pumps-concrete; Roller, plant mix or multi-lift materials; Saws-concrete; Scrpers-concrete and carry-all; Service engineer-equipment; Trenching machines; Truck Crane Oiler/Driver under 100 tons; Tractors, backhoe 75 hp and under

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete finish mahine-laser screed; Cranes-A frame-10 tons and under; Elevator and Manlift-permanent or shaft type; Gradechecker, Stakehop; Forklifts under 3000 lbs. with attachments; Hydralifts/boom trucks, 10 tons and under; Oil

distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger, mechanical; Power plant; Pumps, water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

Category B Projects: 95% of the basic hourly reate for each group plus full fringe benefits applicable to category A projects shall apply to the following projects. A Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS:

Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be elgible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing

H-2 Class "C" Suit - Base wage rate plus $ .25 per hour.

H-3 Class "B" Suit - Base wage rate plus $ .50 per hour.

H-4 Class "A" Suit - Base wage rate plus $ .75 per hour.

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) - $ .70
Zone 3 (Over 45 radius miles) - $1.00

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AAA - Cranes-over 300 tons, or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom (including jib with attachments); Tower crane over 175 ft in height, base to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom

(including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons, under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead 6 yards to, but not including 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9, HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self propelled 45 yards and over; Slipform pavers; Transporters, all truck or track type

GROUP 2 - Barrier machine (zipper); Batch Plant Operaor-Concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-overhead, bridge type-20 tons through 44 tons; Chipper; Concrete Pump-truck mount with boom attachment; Crusher; Deck Engineer/Deck Winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing Machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Horizontal/directional drill operator; Loaders-overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics-all; Mixers-asphalt plant; Motor patrol graders-finishing; Piledriver (other than crane mount); Roto-mill,roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self propelled, hard tail end dump, articulating off-road equipment-under 45 yards; Subgrade trimmer; Tractors, backhoes-over 75 hp; Transfer material service machine-shuttle buggy, blaw knox-roadtec; Truck crane oiler/driver-100 tons and over; Truck Mount portable conveyor; Yo Yo Pay dozer

GROUP 3 - Conveyors; Cranes-thru 19 tons with attachments; A-frame crane over 10 tons; Drill oilers-auger type, truck or crane mount; Dozers-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loader-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pumps-concrete; Roller, plant mix or multi-lift materials; Saws-concrete; Scrpers-concrete and carry-all; Service engineer-equipment; Trenching machines; Truck Crane Oiler/Driver under 100 tons; Tractors, backhoe 75 hp and under

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete finish mahine-laser screed; Cranes-A frame-10 tons and under; Elevator and Manlift-permanent or shaft type; Gradechecker, Stakehop; Forklifts under 3000 lbs. with attachments; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger, mechanical; Power plant; Pumps, water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

CATEGORY B PROJECTS: 95% OF THE BASIC HOURLY RATE FOR EACH GROUP PLUS FULL FRINGE BENEFITS APPLICABLE TO CATEGORY A PROJECTS SHALL APPLY TO THE FOLLOWING PROJECTS. REDUCED RATES MAY BE PAID ON THE FOLLOWING:

1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.
2. Projects of less than $1 million where no building is involved. Surfacing and paving including, but utilities excluded.
3. Marine projects (docks, wharfs, ect.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designed hazardous perimeter shall be elgible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing.
H-2 Class "C" Suit - Base wage rate plus $.25 per hour.
H-3 Class "B" Suit - Base wage rate plus $.50 per hour.
H-4 Class "A" Suit - Base wage rate plus $.75 per hour.

ENGI0370-002 06/01/2011

ADAMS, ASOTIN, BENTON, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES

ZONE 1:

	Rates	Fringes
Power equipment operators:		
GROUP 1A	$ 24.41	12.05
GROUP 1	$ 24.76	12.05
GROUP 2	$ 25.08	12.05
GROUP 3	$ 25.69	12.05
GROUP 4	$ 25.85	12.05
GROUP 5	$ 26.01	12.05
GROUP 6	$ 26.29	12.05
GROUP 7	$ 26.56	12.05
GROUP 8	$ 27.66	12.05

ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - $2.00

Zone 1: Within 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1A: Boat Operator; Crush Feeder; Oiler; Steam Cleaner

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Drillers Helper (Assist driller in making drill rod connections, service drill engine and air compressor, repair drill rig and drill tools, drive drill support truck to and on the job site, remove drill cuttings from around bore hole and inspect drill rig while in operation); Fireman & Heater Tender; Hydro-seeder, Mulcher, Nozzleman; Oiler Driver, & Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade, including seal and chip coatings (farm type, Case, John Deere & similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Welding Machine; Crane Oiler-Driver (CLD required) & Cable Tender, Mucking Machine

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom; Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled; Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginau or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment(8 inch bit & over) (Robbins, reverse circulation & similar); Hoe Ram; Piledriving Engineers; Paving (dual drum); Railroad Track Liner Operaotr (self-propelled); Refrigeration Plant Engineer (1000 tons & over); Signalman (Whirleys, Highline Hammerheads or similar); Grade Checker

GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers)(Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver; Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Rollerman (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel(under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

GROUP 7: Backhoe (over 110,000 gw); Backhoes & Hoe Ram (3 yds & over); Blade (finish & bluetop) Automatic, CMI, ABC, Finish Athey & Huber & similar when used as automatic; Cableway Operators; Concrete Cleaning/Decontamination machine operator; Cranes (over 45 tons to but not including 85 tons), all attachments including clamshell and dragine; Derricks & Stiffleys (65 tons & over); Elevating Belt (Holland type); Heavy equipment robotics operator; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yds. & over); Whirleys & Hammerheads, ALL; H.D. Mechanic; H.D. Welder; Hydraulic Platform Trailers (Goldhofer, Shaurerly andSimilar); Ultra High Pressure Wateriet Cutting Tool System Operator (30,000 psi); Vacuum Blasting Machine Operator

GROUP 8: Cranes (85 tons and over, and all climbing, overhead,rail and tower), all attachments including clamshell, dragline; Loaders (overhead and front-end, 10 yards and over); Helicopter Pilot

BOOM PAY: (All Cranes, Including Tower)
180 ft to 250 ft $ .50 over scale
Over 250 ft $ .80 over scale

NOTE:
In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:
Anyone working on HAZMAT jobs, working with supplied air shall receive $1.00 an hour above classification.

ENGI0612-006 06/01/2011

LEWIS,PIERCE, PACIFIC (portion lying north of a parallel line extending west from the northern boundary of Wahkaikum County to the sea) AND THURSTON COUNTIES

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
Power equipment operators:		
GROUP 1A	$ 35.79	15.15
GROUP 1AA	$ 36.36	15.15
GROUP 1AAA	$ 36.92	15.15
GROUP 1	$ 35.24	15.15
GROUP 2	$ 34.75	15.15
GROUP 3	$ 34.33	15.15
GROUP 4	$ 31.97	15.15

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) = $ .70
Zone 3 (Over 45 radius miles) - $1.00

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height

base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than $1.5 million excluding mechanical, electrical, and utility portions of the contract.

2. Projects of less than $1 million where no building is involved. Surfacing and paving included, but utilities excluded.

3. Marine projects (docks, wharfs, etc.) less than $150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be elgible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.
H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing
H-2 Class "C" Suit - Base wage rate plus $ .25 per hour.
H-3 Class "B" Suit - Base wage rate plus $ .50 per hour.
H-4 Class "A" Suit - Base wage rate plus $ .75 per hour.

ENGI0701-002 01/01/2012

CLARK, COWLITZ, KLICKKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

POWER RQUIPMENT OPERATORS: ZONE 1

	Rates	Fringes
Power equipment operators: (See Footnote A)		
GROUP 1	$ 37.27	12.08
GROUP 1A	$ 39.13	12.08
GROUP 1B	$ 41.00	12.08
GROUP 2	$ 35.64	12.08
GROUP 3	$ 34.64	12.08
GROUP 4	$ 33.71	12.08
GROUP 5	$ 32.60	12.08
GROUP 6	$ 29.61	12.08

Zone Differential (add to Zone 1 rates):
Zone 2 - $3.00
Zone 3 - $6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located

in Yamhill County, Washington County and Columbia County and all jobs or porjects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens "Blast Zone" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: CONCRETE: Batch Plant and/or Wet Mix Operator, three units or more; CRANE: Helicopter Operator, when used in erecting work; Whirley Operator, 90 ton and over; LATTICE BOOM CRANE: Operator 200 tons through 299 tons, and/or over 200 feet boom; HYDRAULIC CRANE: Hydraulic Crane Operator 90 tons through 199 tons with luffing or tower attachments; FLOATING EQUIPMENT: Floating Crane, 150 ton but less than 250 ton

GROUP 1A: HYDRAULIC CRANE: Hydraulic Operator, 200 tons and over (with luffing or tower attachment); LATTICE BOOM CRANE: Operator, 200 tons through 299 tons, with over 200 feet boom; FLOATING EQUIPMENT: Floating Crane 250 ton and over

GROUP 1B: LATTICE BOOM CRANE: Operator, 300 tons through 399 tons with over 200 feet boom; Operator 400 tons and over; FLOATING EQUIPMENT: Floating Crane 350 ton and over

GROUP 2: ASPHALT: Asphalt Plant Operator (any type); Roto Mill, pavement profiler, operator, 6 foot lateral cut and over; BLADE: Auto Grader or "Trimmer" (Grade Checker required); Blade Operator, Robotic; BULLDOZERS: Bulldozer operator over 120,000 lbs and above; Bulldozer operator, twin engine; Bulldozer Operator,tandem, quadnine, D10, D11, and similar type; Bulldozere Robotic Equipment (any type; CONCRETE: Batch Plant and/or Wet Mix Operator, one and two

drum; Automatic Concrete Slip Form Paver Operator; Concrete Canal Line Operator; Concrete Profiler, Diamond Head; CRANE: Cableway Operator, 25 tons and over; HYDRAULIC CRANE: Hydraulic crane operator 90 tons through 199 tons (without luffing or tower attachment); TOWER/WHIRLEY OPERATOR: Tower Crane Operator; Whirley Operator, under 90 tons; LATTICE BOOM CRANE: 90 through 199 tons and/or 150 to 200 feet boom; CRUSHER: Crusher Plant Operator; FLOATING EQUIPMENT: Floating Clamshell, etc.operator, 3 cu. yds. and over; Floating Crane (derrick barge) Operator, 30 tons but less than 150 tons; LOADERS: Loader operator, 120,000 lbs. and above; REMOTE CONTROL: Remote controlled earth-moving equipment; RUBBER-TIRED SCRAPERS: Rubber-tired scraper operator, with tandem scrapers, multi-engine; SHOVEL, DRAGLINE, CLAMSHELL, SKOOPER OPERATOR: Shovel, Dragline, Clamshell, operator 5 cu. yds and over; TRENCHING MACHINE: Wheel Excavator, under 750 cu. yds. per hour (Grade Oiler required); Canal Trimmer (Grade Oiler required); Wheel Excavator, over 750 cu. yds. per hour; Band Wagon (in conjunction with wheel excavator); UNDERWATER EQUIPMENT: Underwater Equipment Operator, remote or otherwise; HYDRAULIC HOES-EXCAVATOR: Excavator over 130,000 lbs.; HYDRAULIC CRANE: Hydraulic crane operator, 50 tons through 89 tons (with luffing or tower attachment);

GROUP 3: BULLDOZERS: Bulldozer operator, over 70,000 lbs. up to and including 120,000 lbs.; HYDRAULIC CRANE: Hydraulic crane operator, 50 tons through 89 tons (without luffing or tower attachment); LATTICE BOOM CRANES: Lattice Boom Crane-50 through 89 tons (and less than 150 feet boom); FORKLIFT: Rock Hound Operator; HYDRAULIC HOES-EXCAVATOR: excavator over 80,000 lbs. through 130,000 lbs.; LOADERS: Loader operator 60,000 and less than 120,000; RUBBER-TIRED SCRAPERS: Scraper Operator, with tandem scrapers; Self-loading, paddle wheel, auger type, finish and/or 2 or more units; SHOVEL, DRAGLINE, CLAMSHELL,SKOOPER OPERATOR: Shovel, Dragline, Clamshell operators 3 cu. yds. but less than 5 cu yds.

GROUP 4: ASPHALT: Screed Operator; Asphalt Paver operator (screeman required); BLADE: Blade operator; Blade operator, finish; Blade operator, externally controlled by electronic, mechanical hydraulic means; Blade operator, multi-engine; BULLDOZERS: Bulldozer Operator over 20,000 lbs and more than 100 horse up to 70,000 lbs; Drill Cat Operator; Side-boom Operator; Cable-Plow Operator (any type); CLEARING: Log Skidders; Chippers; Incinerator; Stump Splitter (loader mounted or similar type); Stump Grinder (loader mounted or similar type; Tub Grinder; Land Clearing Machine (Track mounted forestry mowing & grinding machine); Hydro Axe (loader mounted or similar type); COMPACTORS SELF-PROPELLED: Compactor Operator, with blade; Compactor Operator, multi-engine; Compactor Operator, robotic; CONCRETE: Mixer Mobile Operator; Screed Operator; Concrete Cooling Machine Operator; Concrete Paving Road Mixer; Concrete Breaker; Reinforced Tank Banding Machine (K-17 or similar types); Laser Screed; CRANE: Chicago boom and similar types; Lift Slab Machine Operator; Boom type lifting device, 5 ton capacity or less; Hoist Operator, two (2) drum; Hoist Operator, three (3) or more drums; Derrick

Operator, under 100 ton; Hoist Operator, stiff leg, guy derrick or similar type, 50 ton and over; Cableway Operator up to twenty (25) ton; Bridge Crane Operator, Locomotive, Gantry, Overhead; Cherry Picker or similar type crane; Carry Deck Operator; Hydraulic Crane Operator, under 50 tons; LATTICE BOOM CRANE OPERATOR: Lattice Boom Crane Operator, under 50 tons; CRUSHER: Generator Operator; Diesel-Electric Engineer; Grizzley Operator; Drill Doctor; Boring Machine Operator; Driller-Percussion, Diamond, Core, Cable, Rotary and similar type; Cat Drill (John Henry); Directional Drill Operator over 20,000 lbs pullback; FLOATING EQUIPMENT: Diesel-electric Engineer; Jack Operator, elevating barges, Barge Operator, self-unloading; Piledriver Operator (not crane type) (Deckhand required); Floating Clamshelll, etc. Operator, under 3 cu. yds. (Fireman or Diesel-Electric Engineer required); Floating Crane (derrick barge) Operator, less than 30 tons; GENERATORS: Generator Operator; Diesel-electric Engineer; GUARDRAIL EQUIPMENT: Guardrail Punch Operator (all types); Guardrail Auger Operator (all types); Combination Guardrail machines, i.e., punch auger, etc.; HEATING PLANT: Surface Heater and Planer Operator; HYDRAULIC HOES EXCAVATOR: Robotic Hydraulic backhoe operator, track and wheel type up to and including 20,0000 lbs. with any or all attachments; Excavator Operator over 20,000 lbs through 80,000 lbs.; LOADERS: Belt Loaders, Kolman and Ko Cal types; Loaders Operator, front end and overhead, 25,000 lbs and less than 60,000 lbs; Elevating Grader Operator by Tractor operator, Sierra, Euclid or similar types; PILEDRIVERS: Hammer Operator; Piledriver Operator (not crane type); PIPELINE, SEWER WATER: Pipe Cleaning Machine Operator; Pipe Doping Machine Operator; Pipe Bending Machine Operator; Pipe Wrapping Machine Operator; Boring Machine Operator; Back Filling Machine Operator; REMOTE CONTROL: Concrete Cleaning Decontamination Machine Operator; Ultra High Pressure Water Jet Cutting Tool System Operator/Mechanic; Vacuum Blasting Machine Operator/mechanic; REPAIRMEN, HEAVY DUTY: Diesel Electric Engineer (Plant or Floating; Bolt Threading Machine operator; Drill Doctor (Bit Grinder); H.D. Mechanic; Machine Tool Operator; RUBBER-TIRED SCRAPERS: Rubber-tired Scraper Operator,single engine, single scraper; Self-loading, paddle wheel, auger type under 15 cu. yds.; Rubber-tired Scraper Operator, twin engine; Rubber-tired Scraper Operator, with push- ull attachments; Self Loading, paddle wheel, auger type 15 cu. yds. and over, single engine; Water pulls, water wagons; SHOVEL, DRAGLINE, CLAMSHELL, SKOOPER OPERATOR: Diesel Electric Engineer; Stationay Drag Scraper Operator; Shovel, Dragline, Clamshell, Operator under 3 cy yds.; Grade-all Operator; SURFACE (BASE) MATERIAL: Blade mounted spreaders, Ulrich and similar types; TRACTOR-RUBBERED TIRED: Tractor operator, rubber-tired, over 50 hp flywheel; Tractor operator, with boom attachment; Rubber-tired dozers and pushers (Michigan, Cat, Hough type); Skip Loader, Drag Box; TRENCHING MACHINE: Trenching Machine operator, digging capacity over 3 ft depth; Back filling machine operator; TUNNEL: Mucking machine operator

GROUP 5: ASPHALT: Extrusion Machine Operator; Roller Operator (any asphalt mix); Asphalt Burner and

Reconditioner Operator (any type); Roto-Mill, pavement profiler, ground man; BULLDOZERS: Bulldozer operator, 20,000 lbs. or less or 100 horse or less; COMPRESSORS: Compressor Operator (any power), over 1,250 cu. ft. total capacity; COMPACTORS: Compactor Operator, including vibratory; Wagner Pactor Operator or similar type (without blade); CONCRETE: Combination mixer and Compressor Operator, gunite work; Concrete Batch Plant Quality Control Operator; Beltcrete Operator; Pumpcrete Operator (any type); Pavement Grinder and/or Grooving Machine Operator (riding type); Cement Pump Operator, Fuller-Kenyon and similar; Concrete Pump Operator; Grouting Machine Operator; Concrete mixer operator, single drum, under (5) bag capacity; Cast in place pipe laying machine; maginnis Internal Full slab vibrator operator; Concrete finishing mahine operator, Clary, Johnson, Bidwell, Burgess Bridge deck or similar type; Curb Machine Operator, mechanical Berm, Curb and/or Curb and Gutter; Concrete Joint Machine Operator; Concrete Planer Operator; Tower Mobile Operator; Power Jumbo Operator setting slip forms in tunnels; Slip Form Pumps, power driven hydraulic lifting device for concrete forms; Concrete Paving Machine Operator; Concrete Finishing Machine Operator; Concrete Spreader Operator; CRANE: Helicopter Hoist Operator; Hoist Operator, single drum; Elevator Operator; A-frame Truck Operator, Double drum; Boom Truck Operator; HYDRAULIC CRANE OPERATOR: Hydraulic Boom Truck, Pittman; DRILLING: Churm Drill and Earth Boring Machine Operator; Vacuum Truck; Directional Drill Operator over 20,000 lbs pullback; FLOATING EQUIPMENT: Fireman; FORKLIFT: Fork Lift, over 10 ton and/or robotic; HYDRAULIC HOES EXCAVATORS: Hydraulic Backhoe Operator, wheel type (Ford, John Deere, Case type); Hydraulic Backhoe Operator track type up to and including 20,000 lbs.; LOADERS: Loaders, rubber- tired type, less than 25,000 lbs; Elevating Grader Operator, Tractor Towed requiring Operator or Grader; Elevating loader operator, Athey and similar types; OILERS: Service oiler (Greaser); PIPELINE-SEWER WATER: Hydra hammer or simialr types; Pavement Breaker Operator; PUMPS: Pump Operator, more than 5 (any size); Pot Rammer Operator; RAILROAD EQUIPMENT: Locomotive Operator, under 40 tons; Ballast Regulator Operator; Ballast Tamper Multi-Purpose Operator; Track Liner Operator; Tie Spacer Operator; Shuttle Car Operator; Locomotive Operator, 40 tons and over; MATERIAL HAULRS: Cat wagon DJBs Volvo similar types; Conveyored material hauler; SURFACING (BASE) MATERIAL: Rock Spreaders, self-propelled; Pulva-mixer or similar types; Chiip Spreading machine operator; Lime spreading operator, construction job siter; SWEEPERS: Sweeper operator (Wayne type) self-propelled construction job site; TRACTOR-RUBBER TIRED: Tractor operator, rubber-tired, 50 hp flywheel and under; Trenching machine operator, maximum digging capacity 3 ft depth; TUNNEL: Dinkey

GROUP 6: ASPHALT: Plant Oiler; Plant Fireman; Pugmill Operator (any type); Truck mounted asphalt spreader, with screed; COMPRESSORS: Compressor Operator (any power), under 1,250 cu. ft. total capacity; CONCRETE: Plant Oiler, Assistant Conveyor Operator; Conveyor Operator; Mixer Box Operator (C.T.B., dry batch, etc.); Cement Hog Operator;

Concrete Saw Operator; Concrete Curing Machine Operator (riding type); Wire Mat or Brooming Machine Operator; CRANE: Oiler; Fireman, all equipment; Truck Crane Oiler Driver; A-frame Truck Operator, single drum; Tugger or Coffin Type Hoist Operator; CRUSHER: Crusher Oiler; Crusher Feederman; CRUSHER: Crusher oiler; Crusher feederman; DRILLING: Drill Tender; Auger Oiler; FLOATING EQUIPMENT: Deckhand; Boatman; FORKLIFT: Self-propelled Scaffolding Operator, construction job site (exclduing working platform); Fork Lift or Lumber Stacker Operator, construction job site; Ross Carrier Operator, construction job site; Lull Hi-Lift Operator or Similar Type; GUARDRAIL EQUIPMENT: Oiler; Auger Oiler; Oiler, combination guardrail machines; Guardrail Punch Oiler; HEATING PLANT: Temporary Heating Plant Operator; LOADERS: Bobcat, skid steer (less than 1 cu yd.); Bucket Elevator Loader Operator, BarberGreene and similar types; OILERS: Oiler; Guardrail Punch Oiler; Truck Crane Oiler-Driver; Auger Oiler; Grade Oiler, required to check grade; Grade Checker; Rigger; PIPELINE-SEWER WATER: Tar Pot Fireman; Tar Pot Fireman (power agitated); PUMPS: Pump Operator (any power); Hydrostatic Pump Operator; RAILROAD EQUIPMENT: Brakeman; Oiler; Switchman; Motorman; Ballast Jack Tamper Operator; SHOVEL, DRAGLINE, CLAMSHELL, SKOOPER, ETC. OPERATOR: Oiler, Grade Oiler (required to check grade); Grade Checker; Fireman; SWEEPER: Broom operator, self propelled, construction job site; SURFACING (BASE) MATERIAL: Roller Operator, grading of base rock (not asphalt); Tamping Machine operartor, mechanical, self-propelled; Hydrographic Seeder Machine Operator; TRENCHING MACHINE: Oiler; Grade Oiler; TUNNEL: Conveyor operator; Air filtration equipment operator

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IRON0014-005 01/01/2012

ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND ORIELLE, SPOKANE, STEVENS, WALLA WALLA AND WHITMAN COUNTIES

	Rates	Fringes
IRONWORKER	$ 31.35	20.10

IRON0029-002 01/01/2012

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKAIKUM COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.87	20.10

IRON0086-002 07/01/2012

YAKIMA, KITTITAS AND CHELAN COUNTIES

	Rates	Fringes

IRONWORKER.....$ 31.35 20.10

IRON0086-004 01/01/2012

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES

	Rates	Fringes
IRONWORKER	$ 37.89	20.10

LABO0001-002 06/01/2009

ZONE 1:

	Rates	Fringes
Laborers:		
CALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (NORTH OF STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES		
GROUP 1	$ 21.77	9.07
GROUP 2	$ 24.86	9.07
GROUP 3	$ 30.96	9.07
GROUP 4	$ 31.70	9.07
GROUP 5	$ 32.21	9.07
CHELAN, DOUGLAS (WEST OF THE 120TH MERIDIAN), KITTITAS AND YAKIMA COUNTIES		
GROUP 1	$ 17.95	9.07
GROUP 2	$ 20.58	9.07
GROUP 3	$ 22.54	9.07
GROUP 4	$ 23.09	9.07
GROUP 5	$ 23.48	9.07

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A:

utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0238-004 06/01/2012

PASCO AREA: ADAMS, BENTON, COLUMBIA,DOUGLAS (East of 120th Meridian), FERRY, FRANKLIN, GRANT, OKANOGAN, WALLA WALLA

SPOKANE AREA: ASOTIN, GARFIELD, LINCOLN, PEND OREILLE, SPOKANE, STEVENS & WHITMAN COUNTIES

	Rates	Fringes
LABORER (PASCO)		
GROUP 1	$ 21.71	10.30
GROUP 2	$ 23.81	10.30
GROUP 3	$ 24.08	10.30
GROUP 4	$ 24.35	10.30
GROUP 5	$ 24.63	10.30
LABORER (SPOKANE)		
GROUP 1	$ 21.41	10.30
GROUP 2	$ 23.51	10.30
GROUP 3	$ 23.78	10.30
GROUP 4	$ 24.05	10.30
GROUP 5	$ 24.33	10.30

Zone Differential (Add to Zone 1 rate): $2.00

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.
Zone 2: 45 radius miles and over from the main post office.

LABORERS CLASSIFICATIONS

GROUP 1: Flagman; Landscape Laborer; Scaleman; Traffic Control Maintenance Laborer (to include erection and maintenance of barricades, signs and relief of flagperson); Window Washer/Cleaner (detail cleanup, such as, but not limited to cleaning floors, ceilings, walls, windows, etc. prior to final acceptance by the owner)

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Clean-up Laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezcrete or similar machine,6 inches and smaller); Confined Space Attendant; Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Firewatch; Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers); Hazardous Waste Worker, Level D (no respirator is used and skin protection is minimal); Miner, Class "A" (to include all bull gang, concrete crewman, dumpman and pumpcrete

crewman, including distributing pipe, assembly & dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man; All Other Work Classifications Not Specially Listed Shall Be Classified As General Laborer

GROUP 3: Aspahlt Raker; Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Firemen, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, Paving; Grade Checker using level; Hazardous Waste Worker, Level C (uses a chemical "splash suit" and air purifying respirator); Jackhammer Operator; Miner, Class "B" (to include brakeman, finisher, vibrator, form setter); Nozzleman (to include squeeze and flo-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker (under 90 lbs.); Pipelayer, corrugated metal culvert; Pipelayer, multi- plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electric, pneumatic; Railroad Equipment, power driven, except dual mobile power spiker or puller; Railroad Power Spiker or Puller, dual mobile; Rodder and Spreader; Tamper (to include operation of Barco, Essex and similar tampers); Trencher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Liner; Wheelbarrow (power driven)

GROUP 4: Air and Hydraulic Track Drill; Brush Machine (to include horizontal construction joint cleanup brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include laborers when laborers working on free standing concrete stacks for smoke or fume control above 40 feet high); Gunite (to include operation of machine and nozzle); Hazardous Waste Worker, Level B (uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Laser Beam Operator (to include grade checker and elevation control); Miner, Class C (to include miner, nozzleman for concrete, laser beam operator and rigger on tunnels); Monitor Operator (air track or similar mounting); Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1,200 lbs., jet blast machine power propelled, sandblast nozzle); Pavement Breaker (90 lbs. and over); Pipelayer (to include working topman, caulker, collarman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer); Pipewrapper; Plasterer Tender; Vibrators (all)

GROUP 5 - Drills with Dual Masts; Hazardous Waste Worker, Level A (utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line); Miner Class "D", (to include raise and shaft miner, laser beam operator on riases and shafts)

GROUP 6 - Powderman

LABO0238-006 06/01/2012

COUNTIES EAST OF THE 120TH MERIDIAN: ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA, WHITMAN

	Rates	Fringes
Hod Carrier	$ 23.78	10.30

LABO0335-001 06/01/2012

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES

	Rates	Fringes
Laborers:		
ZONE 1:		
GROUP 1	$ 28.24	9.70
GROUP 2	$ 28.84	9.70
GROUP 3	$ 29.28	9.70
GROUP 4	$ 29.66	9.70
GROUP 5	$ 25.74	9.70
GROUP 6	$ 23.32	9.70
GROUP 7	$ 20.12	9.70

Zone Differential (Add to Zone 1 rates):
Zone 2 $ 0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 2.75

BASE POINTS: GOLDENDALE, LONGVIEW, AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city all.
ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.
ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.
ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.
ZONE 5: More than 80 miles from the respective city hall.

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt Plant Laborers; Asphalt Spreaders; Batch Weighman; Broomers; Brush Burners and Cutters; Car and Truck Loaders; Carpenter Tender; Change-House Man or Dry Shack Man; Choker Setter; Clean-up Laborers; Curing, Concrete; Demolition, Wrecking and Moving Laborers; Dumpers, road oiling crew; Dumpmen (for grading crew); Elevator Feeders; Median Rail Reference Post, Guide Post, Right of Way Marker; Fine Graders; Fire Watch; Form Strippers (not swinging stages); General Laborers; Hazardous Waste Worker; Leverman or Aggregate Spreader (Flaherty and similar types); Loading Spotters; Material

Yard Man (including electrical); Pittsburgh Chipper Operator or Similar Types; Railroad Track Laborers; Ribbon Setters (including steel forms); Rip Rap Man (hand placed); Road Pump Tender; Sewer Labor; Signalman; Skipman; Slopers; Spraymen; Stake Chaser; Stockpiler; Tie Back Shoring; Timber Faller and Bucker (hand labor); Toolroom Man (at job site); Tunnel Bullgang (above ground); Weight-Man- Crusher (aggregate when used)

GROUP 2: Applicator (including pot power tender for same), applying protective material by hand or nozzle on utility lines or storage tanks on project; Brush Cutters (power saw); Burners; Choker Splicer; Clary Power Spreader and similar types; Clean- up Nozzleman-Green Cutter (concrete, rock, etc.); Concrete Power Buggyman; Concrete Laborer; Crusher Feeder; Demolition and Wrecking Charred Materials; Gunite Nozzleman Tender; Gunite or Sand Blasting Pot Tender; Handlers or Mixers of all Materials of an irritating nature (including cement and lime); Tool Operators (includes but not limited to: Dry Pack Machine; Jackhammer; Chipping Guns; Paving Breakers); Pipe Doping and Wrapping; Post Hole Digger, air, gas or electric; Vibrating Screed; Tampers; Sand Blasting (Wet); Stake-Setter; Tunnel-Muckers, Brakemen, Concrete Crew, Bullgang (underground)

GROUP 3: Asbestos Removal; Bit Grinder; Drill Doctor; Drill Operators, air tracks, cat drills, wagon drills, rubber-mounted drills, and other similar types including at crusher plants; Gunite Nozzleman; High Scalers, Strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping); Manhole Builder; Powdermen; Concrete Saw Operator; Pwdermen; Power Saw Operators (Bucking and Falling); Pumpcrete Nozzlemen; Sand Blasting (Dry); Sewer Timberman; Track Liners, Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks, Tugger Operator; Tunnel-Chuck Tenders, Nippers and Timbermen; Vibrator; Water Blaster

GROUP 4: Asphalt Raker; Concrete Saw Operator (walls); Concrete Nozzelman; Grade Checker; Pipelayer; Laser Beam (pipelaying)-applicable when employee assigned to move, set up, align; Laser Beam; Tunnel Miners; Motorman-Dinky Locomotive-Tunnel; Powderman-Tunnel; Shield Operator-Tunnel

GROUP 5: Traffic Flaggers

GROUP 6: Fence Builders

GROUP 7: Landscaping or Planting Laborers

LABO0335-019 06/01/2012

	Rates	Fringes
Hod Carrier	$ 30.30	9.70

PAIN0005-002 01/01/2012

STATEWIDE EXCEPT CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
STRIPERS	$ 27.96	12.77

PAIN0005-004 03/01/2009

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
PAINTER	$ 20.82	7.44

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* PAIN0005-006 07/01/2012

ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE); CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
Painters:		
Application of Cold Tar Products, Epoxies, Polyurethanes, Acids, Radiation Resistant Material, Water and Sandblasting	$ 25.99	9.99
Over 30'/Swing Stage Work	$ 22.20	7.98
Brush, Roller, Striping, Steam-cleaning and Spray	$ 20.99	9.99
Lead Abatement, Asbestos Abatement	$ 21.50	7.98

*$.70 shall be paid over and above the basic wage rates listed for work on swing stages and high work of over 30 feet.

PAIN0055-002 07/01/2012

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
Brush & Roller	$ 20.61	8.42
High work - All work 60 ft. or higher	$ 21.36	8.42
Spray and Sandblasting	$ 21.21	8.42

PAIN0055-007 07/01/2011

CLARK, COWLITZ, KLICKITAT, SKAMANIA and WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
HIGHWAY & PARKING LOT STRIPER	$ 33.19	9.05

PLAS0072-004 06/01/2012

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 25.43	11.97

Zone Differential (Add to Zone 1 rate): Zone 2 - $2.00

BASE POINTS: Spokane, Pasco, Lewiston; Wenatchee
Zone 1: 0 - 45 radius miles from the main post office
Zone 2: Over 45 radius miles from the main post office

PLAS0528-001 06/01/2012

CLALLAM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON, WAHKIAKUM AND WHATCOM COUNTIES

	Rates	Fringes
Cement Masons:		
CEMENT MASON	$ 35.88	14.25
COMPOSITION, TROWEL MACHINE, GRINDER, POWER TOOLS, GUNNITE NOZZLE	$ 36.38	14.25
TROWLING MACHINE OPERATOR ON COMPOSITION	$ 36.38	14.25

PLAS0555-002 06/01/2012

CLARK, KLICKITAT AND SKAMANIA COUNTIES

ZONE 1:

	Rates	Fringes
Cement Masons:		
CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD..	$ 30.58	17.76
CEMENT MASONS ON		

SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD	$ 30.58	17.76
CEMENT MASONS	$ 29.98	17.76
COMPOSITION WORKERS AND POWER MACHINERY OPERATORS	$ 31.18	17.76

Zone Differential (Add To Zone 1 Rates):
Zone 2 - $0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 3.00

BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND, SALEM, THE DALLES, VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall
ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.
ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.
ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.
ZONE 5: More than 80 miles from the respective city hall

TEAM0037-002 06/01/2012

CLARK, COWLITZ, KLICKITAT, PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE 1		
GROUP 1	$ 26.90	13.25
GROUP 2	$ 27.02	13.25
GROUP 3	$ 27.15	13.25
GROUP 4	$ 27.41	13.25
GROUP 5	$ 27.63	13.25
GROUP 6	$ 27.79	13.25
GROUP 7	$ 27.99	13.25

Zone Differential (Add to Zone 1 Rates):
Zone 2 - $0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 2.75

BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: A Frame or Hydra lifrt truck w/load bearing surface; Articulated Dump Truck; Battery Rebuilders; Bus or Manhaul Driver; Concrete Buggies (power operated); Concrete Pump Truck; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations there of: up to and including 10 cu. yds.; Lift Jitneys, Fork Lifts (all sizes in loading, unloading and transporting material on job site); Loader and/or Leverman on Concrete Dry Batch Plant (manually operated); Pilot Car; Pickup Truck; Solo Flat Bed and misc. Body Trucks, 0-10 tons; Truck Tender; Truck Mechanic Tender; Water Wagons (rated capacity) up to 3,000 gallons; Transit Mix and Wet or Dry Mix - 5 cu. yds. and under; Lubrication Man, Fuel Truck Driver, Tireman, Wash Rack, Steam Cleaner or combinations; Team Driver; Slurry Truck Driver or Leverman; Tireman

GROUP 2: Boom Truck/Hydra-lift or Retracting Crane; Challenger; Dumpsters or similar equipment all sizes; Dump Trucks/Articulated Dumps 6 cu to 10 cu.; Flaherty Spreader Driver or Leverman; Lowbed Equipment, Flat Bed Semi-trailer or doubles transporting equipment or wet or dry materials; Lumber Carrier, Driver-Straddle Carrier (used in loading, unloading and transporting of materials on job site); Oil Distributor Driver or Leverman; Transit mix and wet or dry mix trcuks: over 5 cu. yds. and including 7 cu. yds.; Vacuum Trucks; Water truck/Wagons (rated capacity) over 3,000 to 5,000 gallons

GROUP 3: Ammonia Nitrate Distributor Driver; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 10 cu. yds. and including 30 cu. yds. includes Articulated Dump Trucks; Self-Propelled Street Sweeper; Transit mix and wet or dry mix truck: over 7 cu yds. and including 11 cu yds.; Truck Mechanic-Welder-Body Repairman; Utility and Clean-up Truck; Water Wagons (rated capacity) over 5,000 to 10,000 gallons

GROUP 4: Asphalt Burner; Dump Trucks, side, end and bottom cumps, including Semi-Trucks and Trains or combinations thereof: over 30 cu. yds. and including 50 cu. yds. includes Articulated Dump Trucks; Fire Guard; Transit Mix and Wet or Dry Mix Trucks, over 11 cu. yds. and including 15 cu. yds.; Water Wagon (rated capacity) over 10,000 gallons to 15,000 gallons

GROUP 5: Composite Crewman; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 50 cu. yds. and including 60 cu. yds. includes Articulated Dump Trucks

GROUP 6: Bulk Cement Spreader w/o Auger; Dry Pre-Batch concrete Mix Trucks; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains of combinations

thereof: over 60 cu. yds. and including 80 cu. yds., and includes Articulated Dump Trucks; Skid Truck

GROUP 7: Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 80 cu. yds. and including 100 cu. yds., includes Articulated Dump Trucks; Industrial Lift Truck (mechanical tailgate)

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* TEAM0174-001 06/29/2012

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE A:		
GROUP 1:	$ 31.68	16.23
GROUP 2:	$ 30.84	16.23
GROUP 3:	$ 28.03	16.23
GROUP 4:	$ 23.06	16.23
GROUP 5:	$ 31.23	16.23

ZONE B (25-45 miles from center of listed cities*): Add $.70 per hour to Zone A rates.
ZONE C (over 45 miles from centr of listed cities*): Add $1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM	CENTRALIA	RAYMOND	OLYMPIA
EVERETT	SHELTON	ANACORTES	BELLEVUE
SEATTLE	PORT ANGELES	MT. VERNON	KENT
TACOMA	PORT TOWNSEND	ABERDEEN	BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - "A-frame or Hydralift" trucks and Boom trucks or similar equipment when "A" frame or "Hydralift" and Boom truck or similar equipment is used; Buggymobile; Bulk Cement Tanker; Dumpsters and similar equipment, Tournorockers, Tournowagon, Tournotrailer, Cat DW series, Terra Cobra, Le Tourneau, Westinghouse, Athye Wagon, Euclid Two and Four-Wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity: Over 30 yards $.15 per hour additional for each 10 yard increment; Explosive Truck (field mix) and similar equipment; Hyster Operators (handling bulk loose aggregates); Lowbed and Heavy Duty Trailer; Road Oil Distributor Driver; Spreader, Flaherty Transit mix used exclusively in heavy construction; Water Wagon and Tank Truck-3,000 gallons and over capacity

GROUP 2 - Bulllifts, or similar equipment used in loading or unloading trucks, transporting materials on job site; Dumpsters, and similar equipment, Tournorockers, Tournowagon, Turnotrailer, Cat. D.W. Series, Terra Cobra, Le Tourneau, Westinghouse, Athye wagon, Euclid two and four-wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Flatbed (Dual Rear Axle); Grease Truck, Fuel Truck, Greaser, Battery Service Man and/or Tire Service Man; Leverman and loader at bunkers and batch plants; Oil tank transport; Scissor truck; Slurry Truck; Sno-Go and similar equipment; Swampers; Straddler Carrier (Ross, Hyster) and similar equipment; Team Driver; Tractor (small, rubber-tired)(when used within Teamster jurisdiction); Vacuum truck; Water Wagon and Tank trucks-less than 3,000 gallons capacity; Winch Truck; Wrecker, Tow truck and similar equipment

GROUP 3 - Flatbed (single rear axle); Pickup Sweeper; Pickup Truck. (Adjust Group 3 upward by $2.00 per hour for onsite work only)

GROUP 4 - Escort or Pilot Car

GROUP 5 - Mechanic

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:
LEVEL C: +$.25 per hour - This level uses an air purifying respirator or additional protective clothing.
LEVEL B: +$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit."
LEVEL A: +$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

TEAM0760-002 06/01/2009

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
Truck drivers: (ANYONE WORKING ON HAZMAT JOBS SEE FOOTNOTE A BELOW)		
ZONE 1:		
GROUP 1	$ 20.02	10.86
GROUP 2	$ 22.29	10.86
GROUP 3	$ 22.79	10.86
GROUP 4	$ 23.12	10.86

GROUP 5	$ 23.23	10.86
GROUP 6	$ 23.40	10.86
GROUP 7	$ 23.93	10.86
GROUP 8	$ 24.26	10.86

Zone Differential (Add to Zone 1 rate: Zone 2 - $2.00)

BASE POINTS: Spokane, Moses Lake, Pasco, Lewiston
Zone 1: 0-45 radius miles from the main post office.
Zone 2: Outside 45 radius miles from the main post office

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraullic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver, Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yds.); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6 yards to and including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank truck (0-8,000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self- loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom and end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled, up to 14 ton); Vacuum Truck (super sucker, guzzler, etc.)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Mechanic (Field); Semi- end Dumps; Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DWs & similar with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater Water Tank Truck (8,001- 14,000 gallons); Lowboy(over 50 tons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable oeprated trailer); Transit Mixers & Trucks Hauling Concrete (over 20 yds.); Truck, side, end, bottom end dump (over 40 yds. to & including 100 yds.); Truck Mounted Crane (with load bearing surface either mounted or pulled (16 through 25 tons);

GROUP 8: Prime Movers and Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

Footnote A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in additon to the classification working in as follows:

LEVEL C-D: - $.50 PER HOUR (This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - $1.00 PER HOUR (Uses supplied air is conjunction with a chemical spash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

NOTE:
Trucks Pulling Equipment Trailers: shall receive $.15/hour over applicable truck rate

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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 (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that

classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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, DC 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, DC 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, DC 20210

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

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END OF GENERAL DECISION

APPENDIX B

GEOTECHNICAL REPORT

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Geotechnical Engineering Services

67th Avenue Phase III Improvement Project
Arlington, Washington

for
HDR Engineering, Inc.

November 4, 2010

GeoEngineers
Earth Science + Technology

Geotechnical Engineering Services

67th Avenue Phase III Improvement Project
Arlington, Washington

for
HDR Engineering, Inc.

November 4, 2010

GeoEngineers

8410 154th Avenue NE
Redmond, Washington 98052
425.861.6000

30 YEARS 2010

Geotechnical Engineering Services

67th Avenue Phase III Improvement Project
Arlington, Washington

File No. 5430-006-00

November 4, 2010

Prepared for:

HDR Engineering, Inc.
500 108th Avenue NE
Bellevue, Washington 98004-5549

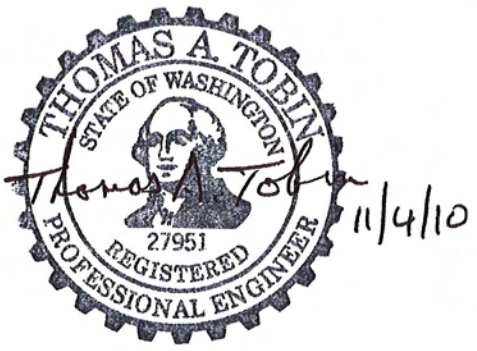
Attention: Eric Dawson

Prepared by:

GeoEngineers, Inc.
8410 154th Avenue NE
Redmond, Washington 98052
425.861.6000

Daniel P. Ciani, PE
Project Engineer

Thomas A. Tobin, PE
Principal



11/4/10

WLT:DPC:TAT:nlu

Five hard copies submitted

GeoEngineers

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LIST OF FIGURES

APPENDICES

INTRODUCTION

This report presents the preliminary results of our geotechnical engineering services for evaluation of the soil and groundwater conditions and provides recommendations for the design and construction of the proposed 67th Avenue Phase III roadway improvements to be located in Arlington, Washington. The site is shown relative to surrounding physical features on the Vicinity Map (Figure 1) and the Site Plans (Figures 2, 3, and 4).

This report was issued in draft form on September 21, 2010. This final report incorporates review comments from the City of Arlington's Natural Resources, Public Works Administration, and Engineering departments. This final report supersedes the prior draft report.

PROJECT DESCRIPTION

GeoEngineers understanding of the project is based on discussions with Eric Dawson with HDR Engineering, Inc. We understand that the City of Arlington proposes roadway improvements along 67th Avenue NE, starting at the intersection of 67th Avenue NE and 204th Street NE and continuing north for approximately 0.7 miles. The proposed roadway improvements include widening portions of the existing alignment to allow three lanes of traffic, the addition of sidewalks along the west side of the alignment, construction of retaining walls, construction of multiple infiltration facilities, and installation of a multi-modal pedestrian facility along the east side of the roadway corridor.

SCOPE OF SERVICES

The purpose of this study is to complete subsurface explorations at the project site and to provide geotechnical engineering conclusions and recommendations for the design and construction of the proposed improvements.

GeoEngineers' geotechnical engineering services were completed in general accordance with our services agreement executed on August 5, 2009. Our specific scope of services for this phase of the project includes the following tasks:

1. Review geologic maps and subsurface information in our files for the site vicinity.
2. Explore subsurface soil and groundwater conditions by completing nine geotechnical explorations, which including three monitoring well installations.
3. Complete laboratory testing on selected soil samples obtained from the explorations.
4. Classify the soils encountered in the explorations and evaluate pertinent engineering and physical characteristics.
5. Provide infiltration rates for design of stormwater facilities.
6. Address City of Arlington Sensitive Areas ordinance issues.
7. Assess seismic hazards at the site, including liquefaction and lateral spreading.

8. Provide deign recommendations for:
    - Site preparation and earthwork,
    - Pavement and pavement subgrade preparation,
    - Earth retention systems,
    - Sedimentation and erosion control,
    - Foundation support for pedestrian bridge and culverts, and
    - Dewatering requirements for fish passage culvert construction.
9. Prepare a draft report, which was issued on September 21, 2010, and this final report presenting our conclusions and recommendations along with supporting field and laboratory data.

FIELD EXPLORATIONS AND LABORATORY TESTING

Field Explorations

Subsurface soil and groundwater conditions at the site were evaluated by completing nine geotechnical borings (MW-1, B-2, B-3, MW-4, B-5, MW-6, and B-7 through B-9). Of these nine borings, three were installed with monitoring wells (MW-1, MW-4, and MW-6) along the project alignment. The borings were completed to depths ranging from 11½ to 26½ feet below the existing ground surface. The approximate locations of these borings are shown on the Site Plans, Figures 2, 3 and 4. Details of the field exploration program and logs of the explorations are presented in Appendix A.

Laboratory Testing

Soil samples were obtained during drilling and taken to our laboratory for further evaluation. Selected samples were tested for the determination of moisture content, fines content, particle size distribution and California Bearing Ratio (CBR). A description of the laboratory testing and the test results are presented in Appendix B.

SITE DESCRIPTION

Site Geology

The site is located along the eastern edge of the Stillaguamish River Valley. According to the Geologic Map of the Arlington West Quadrangle (Minard 1985), the project site is located on an outcropping of Recessional Outwash, specifically the Marysville Sand Member in the southern portion of the site and the Arlington Gravel Member in the northern portion of the site.

The recessional outwash was deposited by meltwater flowing south from the stagnating and receding Vashon Glacier. The Marysville Sand Member is characterized by well draining stratified outwash sand, with some gravel and areas of silt and clay. This deposit is up to 65 feet thick and is generally underlain by glacial till. The Arlington gravel member consists of well drained stratified sand and gravel deposits; oxidation and iron oxide cementation are common in this unit. The deposit may be up to 85 feet thick, and is also generally underlain by glacial till.

Surface Conditions

The site is bounded by 204th Street NE to the south, the 67th Avenue NE Right of Way (ROW) to the west, the Burlington Northern Santa Fe (BNSF) Railway Company ROW to the east, and extends north to North Olympic Avenue. The focus of this geotechnical report is the portion of the project from the intersection of 67th Avenue NE and 204th Street NE (Station 100+00) and extends approximately 0.7 miles north along 67th Avenue NE (Station 138+00). The project alignment is shown on the attached Site Plans, Figures 2, 3, and 4.

The property around the proposed project alignment is developed for commercial and residential use and is occupied by restaurants, residential buildings, and small retail stores. The BNSF railroad alignment and ROW border the eastern boundary of the roadway corridor. The BNSF railroad embankment is elevated above portions of the roadway. Portions of the grade transition slope downward towards 67th Avenue NE at moderate inclination and portions of the slope are truncated by a 3 to 4 feet high concrete cantilever retaining wall. Site grade along the southern portion of the project is generally at Elevation 133 feet and slopes downward to Elevation 109 feet at the northern limits of our geotechnical study area.

The vegetation along the street consists largely of landscape berms with small trees and shrubs. Several small creeks cut across the southern portion of project alignment. North of 211th Place NE there is a mapped wetland area northwest of the road corridor. This wetland area is separated from the roadway by a steep slope that parallels the west side of 67th Avenue NE.

Existing utilities within or near the project area include overhead power, business signs and communication lines and buried gas, fiber optic, storm sewer, sanitary sewer, and water.

City of Arlington Critical Areas

As part of our services for the project, we reviewed the City of Arlington's critical areas map folio for the site and surrounding area. Based on our review of the maps, we note the following:

- No seismic hazards are mapped at the site.
- Steep slope hazard areas mapped along the northern portion of the project alignment between 211th Place NE north to approximately the intersection of 67th Avenue NE and Lebanon Street. These areas are classified as a severe hazard.
- Two streams are mapped with a 150-foot stream buffer in the southern portion of the alignment; Prairie Creek crosses 67th Avenue NE at 204th Street NE and Portage Creek south of 211th Place NE.
- Wetland critical areas are mapped along the northwest portion of the alignment as well as in the southeast portion of the alignment, within the stream buffer zone. The wetland critical areas in the northwest portion are not within the limits of the project.

We also completed a geologic reconnaissance of the site to better define and confirm the critical areas identified during our map review. Our reconnaissance indicates that the critical areas are portrayed fairly accurately in the published maps. Along the southern portion of the alignment, we observed no evidence of soil exposure on the slopes, landslide scarps, hummocky features,

tension cracks, surface displacement, groundwater seeps or any other indication of slope instability on the native or fill slope areas.

SUBSURFACE EXPLORATIONS

Soil Conditions

We evaluated the subsurface conditions at the site by drilling nine borings (MW-1, B-2, B-3, MW-4, B-5, MW-6, and B-7 through B-9) to depths ranging from 11½ to 26½ feet below the ground surface (bgs) at the approximate locations shown on Figures 2, 3, and 4. Monitoring wells were installed in three of the borings, MW-1, MW-4, and MW-6. Figures A-2 through A-10 in Attachment A present a detailed description of our field exploration procedures and logs of the nine explorations.

The subsurface conditions encountered in the borings generally include 6 to 8 inches of grass/sod and root zone horizon underlain by 4½ to 9 feet of fill. Recessional outwash deposits were encountered below the fill and extended to the maximum depth explored in each boring.

The grass/sod layer consisted of silty sand with gravel, roots and other organic matter in the upper 6 to 8 inches. The fill soil generally consists of loose to medium dense silty sand with varying amounts of gravel and cobbles. The thickness of the fill layer ranges from 4½ to 9 feet and is likely associated with previous grading activities at the site. The recessional outwash consists of medium dense to very dense sand and gravel with varying amounts of silt and cobble content. Large cobbles and boulders were not encountered in the borings we completed; however, large cobbles and boulders are known to occur in recessional outwash soils.

Groundwater Conditions

Static groundwater was not observed in any of the borings at the time of exploration. We did encountered evidence of perched water in borings MW-6 and B-9 at 10 and 15 feet below ground surface, respectively. Groundwater observations represent conditions observed during drilling and may not represent the groundwater conditions throughout the year. Groundwater conditions are expected to fluctuate as a result of season, precipitation and other factors.

CONCLUSIONS AND RECOMMENDATIONS

General

We conclude that the proposed roadway improvement for the 67th Avenue Phase III project can be successfully completed from a geotechnical perspective provided the considerations presented in this report are incorporated in the project planning and design. A summary of the geotechnical considerations is provided below:

- Based on our observations of the site and the results of the soil explorations, it is our opinion that the proposed retaining walls and bridge foundations can be constructed on conventional shallow foundations. Foundation support may consist of conventional shallow footings supported on the native soil or structural fill placed over native soil. We recommend an

allowable soil bearing pressure of 4,000 pounds per square foot (psf) be used for footings supported by native medium dense soil or structural fill placed over native soil.

- We anticipate that the soils at the site can be excavated using conventional construction equipment. However, cobbles were encountered in our explorations, and the contractor should be prepared to deal with cobbles and boulders in the outwash soils. Ideally, earthwork should be undertaken during extended periods of dry weather when the soils will be less susceptible to disturbance and provide better support for construction equipment. Dry weather construction will help reduce earthwork costs.
- Effective erosion and sedimentation control must be implemented during construction so that potential impacts to the adjacent sensitive areas are reduced. The erosion potential of the on-site soils is moderate to high. The erosion and sedimentation control measures used for this project should be in accordance with applicable regulatory standards.
- The soils below the bottom of the planned infiltration facilities are medium dense to dense and contain a variable percentage of fines, which limits the infiltration capacity. Preliminary estimates of infiltration performance based on published correlations indicate design infiltration rates are in the range of 0.5 to 3 inches per hour.

The following sections of this report present our conclusions and recommendations for site development, foundation support and performance estimates for the associated site developments.

Site Preparation and Earthwork

General

We recommend that site preparation and earthwork be completed during the normally dry season of the year (generally July through September) if practical, as the workability of the soil becomes difficult and the erosion potential of the on-site soils is increased during extended periods of wet weather.

Earthwork Considerations

Grass/sod, fill, and outwash deposits were observed in the explorations. We anticipate that these soils can be excavated with conventional excavation equipment, such as trackhoes or dozers. Cobbles were encountered in our explorations and boulders are known to occur in glacial outwash deposits. Therefore, the contractor should be prepared to deal with cobbles and boulders in the fill and outwash.

Clearing and Grubbing

The work area should be cleared of all surface and subsurface deleterious matter, including debris, trees, shrubs and associated stumps and root wads, and should be stripped of the sod and organic soil. The woody debris should be removed from the project site for disposal. Based on our experience, we anticipate that stripping depths will generally be less than 8 inches. The stripped vegetative material and organic soil can be stockpiled and later reused in landscaping if desirable.

Removal and demolition of existing structures should include removal of below-grade elements. Existing voids or new depressions created during site preparation should be cleaned of loose soil or debris and backfilled with structural fill.

Sedimentation and Erosion Control

In our opinion, the erosion potential of the undisturbed on-site soils is moderate to high. Excavation work on the sloping portions of the roadway corridor will expose soils to potential erosion.

The amount and potential impacts of erosion are in part a function of the time of year construction occurs. Wet weather construction will increase the amount and extent of erosion. We expect that exposed soils will have moderate erosion potential during wet weather. It will therefore be necessary to put in place effective erosion controls during and after construction. These should include proper control of surface water runoff to prevent uncontrolled, concentrated surface water runoff over slope areas and minimizing the time of exposure in the areas stripped during construction through prompt re-vegetation.

Effective erosion and sedimentation control during construction may consist of interceptor swales and silt fences to prevent water from flowing off site. Because the runoff is likely to be silty, we recommend that the collected water be passed through a temporary desilting facility prior to discharging the water into the stormwater collection system. Completion of initial clearing and grading activities during the drier months and limiting the disturbance of the existing ground surface and vegetation where possible will also reduce the risks of erosion. Material stockpiles should be covered during wet weather to prevent erosion and soil loss. All areas disturbed during construction should be seeded and planted as soon as practical to reduce the potential for erosion. Erosion and sedimentation control measures should be installed and maintained in accordance with applicable regulatory standards.

Subgrade Preparation

We recommend that all subgrade soils be evaluated by a representative of GeoEngineers before placement of structural fill, wall foundation, and roadway/sidewalk construction to identify any soft or unsuitable subgrade soils. Any soft or unsuitable subgrade soils that are observed during this evaluation should be removed and replaced with compacted structural fill. Where subgrade soils have high fines content, construction during the wet season can result in significant disturbance. In areas where high fines content are observed in the subgrade soils, we recommend 2 to 4 inches of crushed rock be placed on the prepared foundation subgrade to protect it and avoid softening the silty subgrade soils during wet weather construction. Haul roads and laydown areas should also include crushed rock surfacing to protect them during wet weather construction.

Structural Fill

All fill, whether on-site or imported soil, that will support pavement areas or foundations, or in utility trenches should meet the criteria for structural fill presented below. The suitability of soil for use as structural fill depends on its gradation and moisture content.

MATERIALS

Structural fill material quality varies depending upon its use, as described below:

1. Structural fill placed to construct embankments, to backfill utility trenches, to support wall foundations and to provide subgrade for pavement should consist of common borrow as described in Section 9-03.14(3) of the 2010 Washington State Department of Transportation (WSDOT) Standard Specifications. If structural fill is placed during wet weather, it should consist of gravel borrow as described in Section 9-03.14(1) of the 2010 WSDOT Standard Specifications.
2. Structural fill placed adjacent to below-grade and retaining walls (drainage zone) should consist of gravel backfill for walls in conformance with Section 9-03.12(2) of the 2010 WSDOT Standard Specifications.
3. Structural fill placed as crushed surfacing base course below pavements should conform to Section 9-03.9(3) of the 2010 WSDOT Standard Specifications.

USE OF ON-SITE SOILS

Most of the near-surface soils observed in the explorations generally contain a high percentage of fines (silt/clay) and are moisture-sensitive. Portions of the on-site soils that meet the requirements for common borrow may be suitable for use as common borrow during dry weather, provided it can be properly moisture-conditioned prior to placement. These soils will likely be limited to the sand, sand with silt, and gravel encountered in the borings.

The on-site soils that meet the requirements for common borrow are expected to be suitable for structural fill in areas requiring compaction to at least 95 percent of the maximum dry density (MDD) estimated in general accordance with American Society for Testing and Materials (ASTM) D 1557, provided the work is completed during the normally dry season (June through September) and that the soil can be properly moisture-conditioned. It may be necessary to import sand and gravel with a low fines content to achieve adequate compaction for support of pavement areas for wet weather construction. Imported structural fill consisting of sand and gravel (WSDOT gravel borrow) should be planned if construction occurs during wet weather.

The use of on-site soils that meet the requirements for common borrow as structural fill during wet weather should be planned only for areas requiring compaction to 90 percent of the MDD or less, as long as the soils are properly protected from wet weather and not placed during periods of precipitation. The contractor should plan to cover and maintain all fill stockpiles with plastic sheeting if the soil will be used as structural fill. The reuse of on-site soils is highly dependent on the skill of the contractor and the schedule, and we will work with the design team and contractor to maximize the reuse of on-site soils during the wet and dry seasons.

STRUCTURAL FILL PLACEMENT

Structural fill should generally be placed in loose lifts not exceeding about 8 to 10 inches in thickness. Each lift should be conditioned to the proper moisture content and compacted to the specified density before placing subsequent lifts. If structure fill is placed adjacent to existing slopes, the existing slope should be benched prior to the fill placement and compaction to avoid an unstable interface zone. Structural fill placed in areas used to support footings or retaining walls should be compacted to at least 95 percent of MDD as determined by the ASTM D-1557 test method. Pavement area fill, including utility trench backfill, should be compacted to at least

90 percent of MDD, except for the upper 2 feet below finished subgrade surface, which should be compacted to at least 95 percent of MDD. Structural fill to support sidewalks should be placed after the subgrade is evaluated and be compacted to at least 90 percent of MDD.

We recommend that a representative from GeoEngineers, Inc. be present during structural fill placement to observe the work and perform in-place density tests to evaluate whether or not the specified compaction is being achieved.

Excavations

General

Trafficability on the site is not expected to be difficult during dry weather conditions. However, the fill soils will be susceptible to disturbance from construction equipment during wet weather conditions, and pumping and rutting of the exposed soils under equipment loads may occur. Ideally, earthwork should be undertaken during extended periods of dry weather, when the surficial soils will be less susceptible to disturbance and provide better support for construction equipment. Dry weather construction will help reduce earthwork costs and increase the potential for reusing the on-site soils as fill.

Temporary and Permanent Slopes

All temporary cut slopes must comply with the provisions of Title 296 Washington Administrative Code (WAC), Part N, "Excavation, Trenching and Shoring." The contractor performing the work has the primary responsibility for protection of workers and adjacent improvements.

Temporary cut slopes may be utilized around the site during construction. We recommend that temporary cut slopes be inclined no steeper than 1½:1 (horizontal to vertical). Flatter slopes may be necessary if seepage is present on the face of the cut slopes or if localized sloughing occurs.

Because the contractor has control of the construction operations, the contractor should be made responsible for the stability of cut slopes, as well as the safety of the excavations. Shoring and temporary slopes must conform to applicable local, state and federal safety regulations. The final configuration for temporary excavation slopes should be evaluated during construction, as it is a function of the soil and groundwater conditions encountered and the contractor's approach to excavation.

Permanent cut and fill slopes should be inclined no steeper than 2H:1V except along the creeks. Permanent creek banks should be inclined no steeper than 3H:1V. Permanent slopes should be planted or hydroseeded as soon as practicable after grading. We recommend that all fill be placed as structural fill, as described above.

Slope Stability Assessment

Based on our explorations and geotechnical evaluation, it is our opinion that there is low risk of slope instability within the project area. Our assessment assumes that the existing slopes associated with the creek channel will not be compromised by temporary over steeping and/or the removal of vegetation. In addition, we conclude that permanent slopes constructed in accordance

with the recommendations in the Earthwork section of this report will perform well from a slope stability standpoint.

Construction Dewatering

General

Static groundwater was not observed in any of the borings at the time of exploration. Therefore, shallow facilities such as utility trenches and traffic signal or luminaire foundations will likely not encounter groundwater.

Dewatering during construction of the new culverts and possibly the pedestrian bridge may be required, even if the creeks are diverted (piped) during construction. Conservatively, local groundwater levels during construction of the culverts should be assumed at the same elevation as the corresponding water levels in the nearby creek. Based on the soil conditions and our experience in the area, we expect that groundwater in excavations less than about 1 to 2 feet below the static groundwater level can be controlled by open pumping using sump pumps. For excavations deeper than 2 feet below the water table, or in artesian water conditions, dewatering using well points or deep wells might be necessary. We recommend that the contractor be required to submit a proposed dewatering system design and plan layout to the City of Arlington and the Engineer for review and comment prior to beginning construction.

The level of effort required for dewatering will depend to a great extent on the time of year during which construction is accomplished. Less seepage into the work areas should be expected if construction is accomplished in the late summer or early fall months, and correspondingly, more seepage should be expected during the wetter periods of the year. We recommend that construction be completed in the late summer or early fall months when the creek flows are typically at their lowest. In our opinion, this will result in significant cost savings for the dewatering.

A general discussion of the dewatering methods anticipated for the project is presented below.

Open Pumping

This dewatering method involves removing water that has seeped into the excavation by pumping from a sump that has been excavated at one end of the excavation or trench. Drainage ditches that are connected to the sump are typically excavated along the sidewalls at the base of the excavation or trench. The excavation for the sump and the drainage ditches should be backfilled with gravel or crushed rock to reduce the amount of erosion and associated sediment in the water pumped from the sump. In our experience, a slotted casing or perforated 55-gallon drum that is installed in the sump backfill provides a suitable housing for a submersible pump.

The amount of water removed from the excavation by open pumping should be minimized because of high turbidity levels. Temporary storage of dewatering effluent from the sumps in a settlement tank or basin may be required to meet discharge permit requirements and reduce sediment content prior to discharging the water to surface water courses.

Pumped Wells

Individually pumped wells may be considered for dewatering the construction areas. Pumped wells that have been properly installed and developed are capable of producing the high discharge rates that are necessary to dewater highly permeable sand deposits. Pumped wells are generally the most effective dewatering method in areas where dewatering to deeper than about 15 feet below the ground surface is necessary.

We recommend that all dewatering wells installed for this project be properly developed to remove fine sediment from the immediate vicinity of the well screens. Proper development is essential for producing efficient wells and greatly reduces the turbidity of the water discharged from the well. Filter packs consisting of graded sand, or sand and fine gravel should be installed around the well screens in areas where the aquifer contains a high percentage of fine sand and silt.

Well Points

Well points are effective for dewatering all types of soils, whether pumping small amounts of water from silt or large quantities of water from coarse sand and gravel. The volume of water generated by a well point system is typically less than the volume generated by a corresponding system of pumped wells because the well points are generally completed at a shallower depth. Because of the shallower completion depth, the volume of aquifer that contributes water to a well point system is less than for a comparable deep well system.

Well point systems are most suitable for dewatering shallow excavations where the water table must be lowered no more than about 15 feet below ground surface. Multiple well point stages are generally required beyond that depth because of the physical limitations of suction lift. Dewatering can be accomplished at depths greater than 15 feet where the excavation can be open cut to permit installation of the well point system below original grade. This technique increases the depth to which the water table can be lowered with well points.

Earthquake Engineering

Design Earthquake Parameters

The seismic design of the proposed improvements can be completed using the design criteria presented in the American Association of State Highway and Transportation Officials (AASHTO) seismic design information. The AASHTO Guide Specifications recommend a 7 percent probability of exceedance in 75 years (nominal 1,000-year earthquake) design event for development of a design spectrum. Based on these criteria, we recommend the parameters for site class, seismic zone, acceleration coefficient and spectral acceleration coefficients presented in the following table.

AASHTO SEISMIC PARAMETERS

AASHTO Seismic Parameter	Recommended Value
Site Class	D
Seismic Zone for $0.30 < S_{D1} \leq 0.50$	3
Effective Peak Ground Acceleration Coefficient $A_S = F_{pga}PGA = (1.17)(0.333)$	0.39
Design Spectral Acceleration Coefficient at 0.2 Second period $S_{DS} = F_aS_s = (1.20)(0.753)$	0.904
Design Spectral Acceleration Coefficient at 1.0 Second period $S_{D1} = F_vS_1 = (1.89)(0.255)$	0.482

Seismic Hazards

We evaluated the site conditions for seismic hazards including liquefaction, lateral spreading and seismically induced landsliding. Our evaluation indicates the site has low risk of liquefaction because of the relatively low groundwater and presence of medium dense to very dense outwash deposits below the site. Because there is a low risk of liquefaction, the site has a low risk of liquefaction-induced ground disturbance including lateral spreading. Our evaluation of seismically induced landsliding indicates that there is also a low risk for seismically induced landsliding.

Shallow Foundations

General

Based on soils observed in our explorations located near the proposed culverts and pedestrian bridge (MW-1, B-3, and B-9), we anticipate that medium dense or denser sand and gravel soils (recessional outwash) will be present below approximately 5 feet from existing grades. We recommend that the proposed bridge structure or culverts be supported on conventional spread footings bearing on the native sand and gravel soils observed in the borings at and below about 5 feet from existing grades, or on properly placed and compacted structural fill that extends down to the competent native soils.

Foundation Design Parameters

Footings may be designed using an allowable soil bearing value of 4 kips per square foot (ksf) on properly compacted structural fill or native medium dense or denser sand and gravel soils. The allowable soil bearing values apply to the total of dead and long-term live loads and may be increased by up to one-third for wind or seismic loads. Footings should be at least 2-feet-wide.

Where bridge footings are sited on or near sloping ground such as a creek bank, we recommend that the bridge footings be founded a minimum of 4 feet below the lowest adjacent grade. In level ground areas, the bridge footings should be founded a minimum of 2 feet below the lowest adjacent grade. Culvert footings should be founded a minimum of 2 feet below the level of the creek channel bottom.

Settlement

Provided all loose soil is removed and the subgrade is prepared as recommended under "Construction Considerations" below, we estimate the total settlement of shallow foundations will be on the order of ½ to 1 inch. The settlements will occur rapidly, essentially as loads are applied. Differential settlement between the bridge abutments is expected to be less than 1 inch.

Lateral Resistance

Lateral foundation loads may be resisted by passive resistance on the sides of footings and by friction on the base of the footings. For footings supported on native soils or on structural fill placed and compacted in accordance with our recommendations, the allowable frictional resistance may be computed using a coefficient of friction of 0.4 applied to vertical dead-load forces.

The allowable passive resistance of soils may be computed using an equivalent fluid density of 300 pounds per cubic foot (pcf) (triangular distribution) if these elements are poured directly against undisturbed native soils or surrounded by structural fill. No passive resistance should be allowed for soils located on the creek-side of the abutment.

The above coefficient of friction and passive equivalent fluid density values incorporate a factor of safety of about 1.5.

Construction Considerations

Subgrade disturbance may occur if footing excavations are completed during wet weather. A working mat of lean concrete or compacted crushed rock should be placed over the footing subgrade immediately following excavation to prevent softening and disturbance of the footing subgrade if construction occurs during wet weather.

If soft areas are present at the footing subgrade elevation, the soft areas should be removed and replaced with structural fill at the direction of the Geotechnical Engineer. In such instances, the zone of structural fill should extend laterally beyond the footing edges a horizontal distance at least equal to the thickness of the fill.

Given the relatively high allowable bearing pressures presented above, the condition of all footing excavations must be observed by the Geotechnical Engineer or their representative to evaluate if the work is completed in accordance with our recommendations and that the subsurface conditions are as anticipated.

Pile Foundation Support

In our opinion the proposed bridge may be supported on 3-inch or 4-inch diameter driven steel pipe piles. We recommend that the pipe piles be galvanized. The pipe pile spacing should be determined by the project structural engineer.

We recommend that the driven steel pipe piles be installed using pneumatic impact equipment capable of penetrating a sufficient depth to develop the design loads. Local contractors have developed pile driving criteria for various sizes of pneumatic impact equipment for the two sizes of

pipe piles. The following table presents practical refusal driving criteria for the two pile sizes and various hammer weights.

Hammer Size	3-inch	4-inch
850 lbs	10 sec/inch	16 sec/inch
1100 lbs	6 sec/inch	10 sec/inch

We recommend that 3-inch and 4-inch diameter piles installed as recommended be designed for allowable capacities of 6 and 10 tons, respectively. We estimate that foundation total settlements of less than ½ inch will develop for properly installed pipe piles

On the basis of the available data, we estimate that the pile embedment lengths will be on the order of 25 feet, or a minimum embedment depth of 10 feet into the bearing soil. Typically 3-inch and 4-inch diameter piles come in 20 foot sections. Accordingly, the contractor installing the pipe piles should be prepared to splice and extend the piles until the required refusal rate and capacity is achieved.

Traffic Signal and Luminaire Foundations

We understand that new traffic signals and luminaires are planned for the project. Pole foundation dimensions and loading have not been finalized; however, we anticipate that all project poles and foundations will comply with WSDOT preapproved signal pole and foundation designs. The following recommendations are based on the WSDOT GDM.

New signal poles may be designed using a soil unit weight of 125 pcf, a soil friction angle of 30 degrees, and an allowable lateral bearing pressure of 1,500 psf. Alternatively, these poles can be sized using a standard foundation in accordance with Exhibit 1330-13 of the WSDOT Design Manual M 22-01.06 (June 2009) and a lateral bearing pressure of 1,500 psf. It should be noted that the June 2009 Design Manual is now superseded; however, the current Design Manual dated December 2009 does not include the standard signal pole foundation depth chart. In our opinion, the June 2009 Design Manual is appropriate for the design of traffic signals and luminaire foundations for this project.

Retaining/Abutment Walls

General

We recommend that the proposed bridge abutments consist of concrete cantilever walls bearing on shallow foundations. If retaining walls are necessary to retain the approach fills along the sides of each abutment, we recommend that these walls consist of concrete cantilever walls. The following paragraphs present our recommendations for retaining walls.

If the retaining walls are restrained against rotation, we recommend that the walls be designed for an at-rest earth pressure taken as an equivalent fluid density of 55 pcf. Rigid walls are walls that deflect less than about 0.002H under the at-rest pressure loading, where H is the height of the retaining wall. Once the wall moves approximately 0.002H, the active pressure state is achieved. For retaining walls that are allowed to deflect about 0.002H under loading, we recommend that the walls be designed for the active earth pressure taken as an equivalent fluid density of 35 pcf for

well-draining gravel backfill for walls. If the ground within 5 feet of the retaining wall rises at an inclination of 2H:1V or steeper, the retaining wall should be designed using an equivalent fluid density of 60 pcf. For adjacent slopes flatter than 2H:1V, soil pressures can be interpolated between this range of values. Other conditions should be evaluated on a case-by-case basis.

Typically, retaining walls are designed for a surcharge pressure for traffic loading. For traffic loading, we recommend that retaining walls be designed for a uniform surcharge pressure determined by increasing the height of the wall by 2 feet. Other surcharge loads should be included as appropriate.

If seismic earth pressure are considered in design we recommend that a rectangular seismic earth pressure distribution equal to 7H in pounds per square foot (where H is the wall height) be added to the static lateral earth pressures presented above for the rigid wall or active earth pressure condition, whichever is appropriate.

Drainage

The above lateral earth pressures assume that the backfill behind the retaining walls is drained. Drainage consisting of either a perforated drain pipe installed near the base of the retaining walls or installation of weepholes near the base of the retaining wall should be incorporated in the design. If a drain pipe is used, the drains should consist of a perforated pipe a minimum of 4 inches in diameter enveloped within a minimum thickness of 6 inches of gravel backfill for drains, WSDOT Standard Specification 9-03.12(4). Clean-outs for the collector pipe should be installed as appropriate. Alternatively, the walls can be provided with weepholes designed in accordance with WSDOT Standard Plans.

Construction Considerations

Backfill placed within 5 feet of below grade walls should be compacted to densities of at least 90 percent of the maximum dry density (MDD) obtained in accordance with the ASTM D-1557 procedure to reduce the potential for development of excess pressure on the walls. If sidewalks or pavement will be placed adjacent to the wall, we recommend that the upper 2 feet of fill be compacted to 95 percent of the MDD. Measures should be taken to prevent the buildup of excess lateral soil pressures due to over-compaction of the backfill behind the wall; for example, by using hand-operated mechanical vibrators.

For walls designed to retain the approach fills, the walls should bear on the native soils or on properly placed structural fill that extends down to the competent native soils. Approach fill retaining walls should be embedded at least 2 feet below finished grade where the ground surface is inclined less than 2H:1V.

Stormwater Infiltration

Recommended Infiltration Values

Two methods were used to evaluate an appropriate design (long-term) infiltration rate for the soils encountered in the explorations. The two methods consist of correlations based on United States Department of Agriculture (USDA) soil textural classification and ASTM gradation testing, as

discussed in Section 3.3.6 of the Stormwater Management Manual for Western Washington (Ecology, 2005).

The following table presents a summary of the subsurface soil and groundwater conditions encountered in selected explorations and the estimated infiltration rate based on the USDA textural class and on ASTM laboratory gradation testing.

Test Pit	Sample Depth (feet)	Classification	USDA Textural Class	ASTM D_{10} (mm)	Approximate Groundwater Depth (ft) [1]	Estimate of Infiltration Rate (inches/hour)[1]	
						USDA	ASTM
MW-1	5	SP-SM	Sand	0.15	Not Encountered	2	3
MW-1	10	SP-SM	Sand	0.15	Not Encountered	2	3
B-2	10	GW-GM	Loamy Sand	0.075	Not Encountered	0.5	1.5
B-3	5	SP-SM	Loamy Sand/Sand	0.25	Not Encountered	2	5
B-3	21½	SM	Loamy Sand/Sand	0.05	Not Encountered	2	0.8
MW-4	5	SW-SM	Sand	0.075	Not Encountered	2	1.5
MW-4	7½	SP-SM	Loamy Sand/Sand	0.1	Not Encountered	2	2
B-5	5	SP-SM	Loamy Sand	0.075	Not Encountered	0.5	1.5
B-5	7½	SM	Silty Loam	<0.05	Not Encountered	-	-
MW-6	5	SM	Loamy Sand	0.05	Not Encountered	0.5	0.8
MW-6	15	SP-SM	Loamy Sand	0.075	Not Encountered	0.5	1.5
B-7	10	SM	Sandy Loam	0.05	Not Encountered	0.25	0.8
B-8	7½	SM	Loamy Sand	0.05	Not Encountered	0.5	0.8
B-9	5	GP-GM	Loamy Sand/Sand	0.2	Not Encountered	2	3.5
B-9	7½	GW-GM	Loamy Sand	0.15	Not Encountered	0.5	3

Notes:

[1]Infiltration rates shown for two different methodologies (Ecology, 2005).

The native soils encountered in areas where infiltration is being considered consist of medium dense to very dense sand and gravel with varying silt content. In areas the soils may contain a significant percentage of fines, which limits the infiltration capacity. Infiltration is generally not considered feasible/practical for soils with an infiltration capacity less than 0.25 inches per hour. Based on our analysis, it is our opinion that the on-site soils are generally suitable for moderate stormwater infiltration.

We evaluated three samples of the native soils to determine the Cation Exchange Capacity (CEC) of the soil. The Ecology Manual requires that for soils to be chemically suitable for treatment, the "treatment soils" must have a minimum CEC of 5 milliequivalents (meq) per 100 grams of material.

The sample from boring B-1 at a depth of 5 feet exceeded this threshold; however, the samples from borings B-3 at 5 feet and B-5 at 10 feet did not meet this criteria. Therefore, we recommend considering that the site soils do not meet this Ecology criteria for treatment soils.

Drainage Considerations

General

We recommend that all surfaces be sloped to drain away from the existing and proposed structures and improvements. Pavement surfaces and open space areas should be sloped such that the surface water is collected and routed to suitable discharge points.

We anticipate that shallow groundwater seepage may enter excavations depending on the time of year construction takes place, especially in the winter months. However, we expect that this seepage water can be handled by digging interceptor trenches in the excavations and pumping from sumps. If not intercepted and removed from the excavations, the seepage water will make it difficult to place and compact structural fill and may destabilize cut slopes.

Pavement Recommendations

The design of the pavement areas will depend significantly on whether the pavement is intended to be traditional hot mix asphalt (HMA) or porous pavement. Our recommendations for design of porous and traditional HMA pavement sections are presented in the following sections.

Porous Pavement Design

GENERAL

The design of porous pavements for stormwater management should consider storage capacity of the pervious pavement system and infiltration rate of the subgrade soils, as well as water quality treatment. Porous pavement may consist of porous concrete, porous HMA, porous pavers or some type of stabilized gravel surface. Our recommendations for design of porous pavement are presented in the following subsections.

INFILTRATION

The long-term infiltration rate is dependent on several factors, including site variability, degree of long-term maintenance, pretreatment for total suspended solids and depth to groundwater. For design of porous pavements, it is typically assumed that there will be low to moderate long-term maintenance and pretreatment. Refer to our “Stormwater Infiltration” section of this report for recommended infiltration rate values.

STORAGE CAPACITY

The total stormwater storage capacity of the porous pavement system includes the capacity of the porous pavement and the capacity of the crushed rock subbase and underlying on-site soils in the planned improvement areas. The storage capacity is directly dependant on the effective porosity (or percent voids that can be filled with stormwater) of the pavement, subbase, and on-site materials. The porosity of pervious pavement depends on the mix design. The effective porosity used for design should be adjusted to account for naturally occurring moisture.

We recommend that shoulder ballast be used for the crushed rock subbase below the porous pavement. The shoulder ballast should meet the criteria described in Section 9-03.9(2) of the

WSDOT Standard Specifications. Based on previous laboratory testing of crushed rock samples (1¼-inch and ⅝-inch clean crushed rock), we anticipate a total porosity of approximately 40 to 45 percent. For design, we recommend an effective porosity of 35 percent to account for natural moisture. The storage capacity for the crushed rock subbase should be calculated by multiplying the volume of subbase by the effective porosity. Typical subbase thicknesses range from 12 to 36 inches, depending on storage needs. A minimum of 12 inches of subbase should be used at this site to provide adequate support of traffic and to help "bridge" over the amended subgrade soils.

Additionally, landscaping areas adjacent to the pavement should be sloped to drain away from the path so that fines in runoff from the landscaping areas can be prevented from contaminating the pavement and crushed rock and reducing the storage capacity.

WATER QUALITY TREATMENT

Pavement areas are pollution-generating sources, and oils occur most prominently on busy streets and busy portions of parking lots. If porous paving is used, we recommend that the upper 2 feet of the underlying subgrade soils be mixed with compost at a rate of approximately 10 percent compost to 90 percent soil (per volume). Compost used for amending the subgrade soils below porous pavements must meet the Washington State compost regulations in Chapter 173-350 Washington Administrative Code (WAC). The 2 feet of mixed soil should be recompacted to a minimum of 90 percent of the MDD per ASTM D 1557.

It is our opinion that the amended subgrade soils will meet the Ecology requirements for "treatment soils" with a minimum CEC of 5 meq per 100 grams of material. We recommend that CEC testing of the amended subgrade soils be completed during construction to verify that the amended soil meets Ecology requirements. The organics in the topsoil attract and bind contaminants typically found in runoff from pavement areas, and studies have shown that when stormwater is infiltrated through soils with adequate CEC, the groundwater leaving the site typically has contaminant levels equivalent to undeveloped areas. Additionally, studies have shown that porous pavement breaks down some oil pollutants through the biochemical activity of microbiota that use the pavement as a substrate (Ferguson, 2005).

Conventional Pavement Design

DESIGN CONSIDERATIONS

We recommend that the subgrade soils in conventional pavement areas be prepared and evaluated as described below in the "Site Preparation and Earthwork" section of this report. Based on the results of our laboratory California Bearing Ratio test of a composite sample taken from the site a CBR value of about 23 can be used for pavement design.

For conventional hot mixed asphalt (HMA) pavement, based on City of Arlington Department of Public Works Standard Details for a typical roadway section, we recommend at least 3 inches of HMA CL ½", PG-64-22, over 4 inches HMA CL 1", PG 64-22, over 6 inches of crushed surfacing base course. The crushed surfacing base course should meet the requirements of Section 9-03.9(3) of the WSDOT Standard Specifications. The crushed rock base course should be compacted to at least 95 percent of the MDD prior to the placement of the asphalt concrete.

We recommend that the geotechnical engineer observe the proof-rolling of the compacted base course prior to paving.

In addition, GeoEngineers performed a preliminary evaluation of the recommended pavement section above based on assumed design input values using the AASHTO Guide. Below is a summary of the design values assumed:

- Average Daily Traffic (ADT) – 5,683 (single direction)
- Average Daily Trucks - 1,050 (single direction)
- Design life – 20 years
- Growth factor – 10 percent
- Truck factor – 1.0
- Overall standard deviation – 0.45
- Reliability level – 90 percent
- Original serviceability index – 4.5
- Terminal serviceability index – 2

Based on these assumptions the results of our evaluation showed that the pavement section recommended above should perform adequately.

LIMITATIONS

We have prepared this report for the exclusive use by HDR Engineering Inc, and their authorized agents for the geotechnical elements of the proposed 67th Avenue Phase III Improvement project to be located in Arlington, Washington.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of geotechnical engineering in this area at the time this report was prepared. No warranty or other conditions, expressed or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to the attachment titled Report Limitations and Guidelines for Use for additional information pertaining to use of this report.

REFERENCES

Ferguson, Bruce K., "Porous Pavements," 2005.

Minard, "Geologic Map of the Arlington West 75 Minute Quad, Snohomish County, Washington," 1985.

Washington State Department of Ecology, "Stormwater Management Manual for Western Washington." 2005.

Washington State Department of Transportation, "Standard Specifications for Road, Bridge and Municipal Construction," 2010.

FIGURES

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Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: ESRI Data & Maps, Street Maps 2005

Transverse Mercator, Zone 10 N North, North American Datum 1983
North arrow oriented to grid north

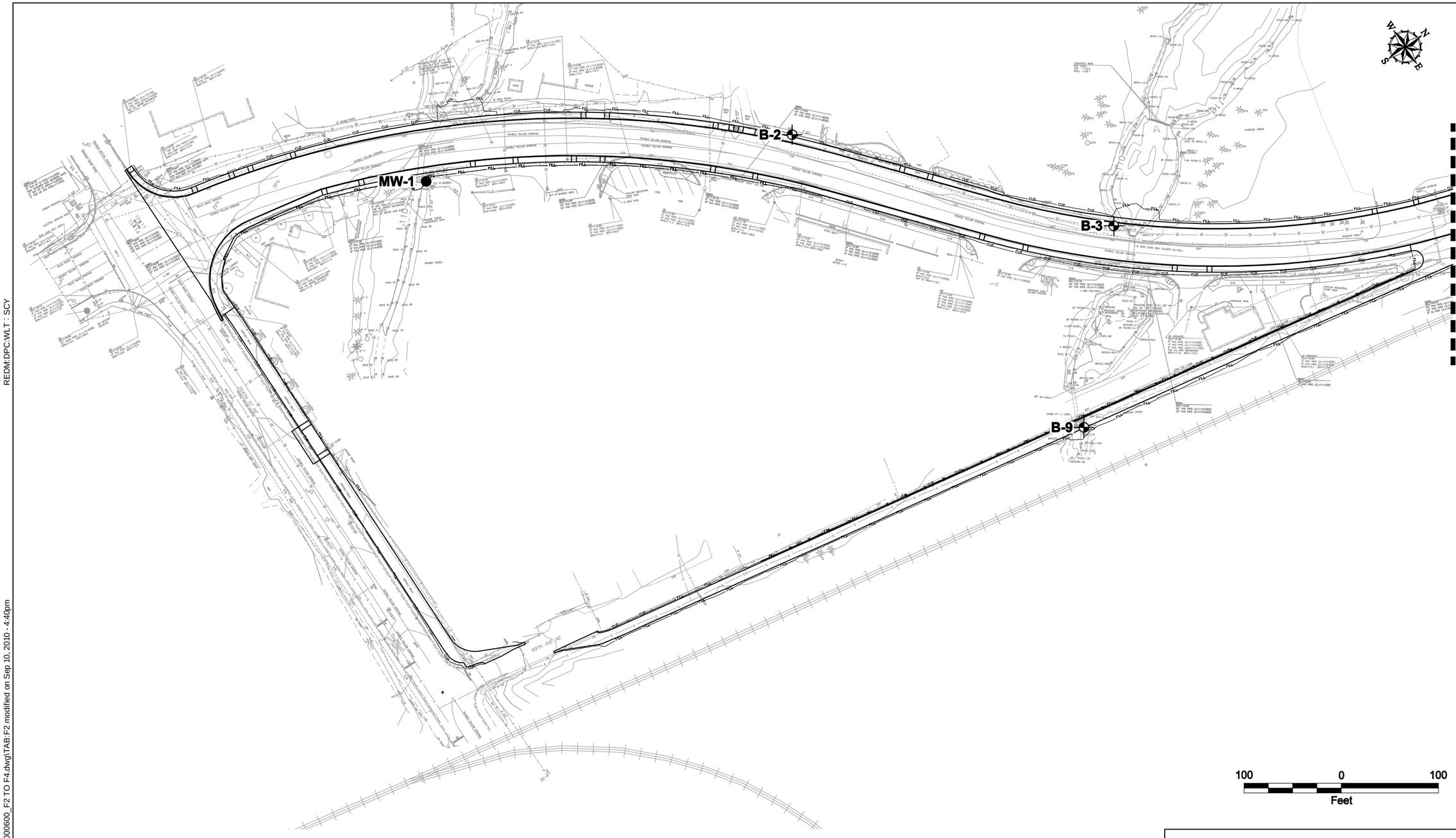
Vicinity Map

67th Avenue Phase III Improvement Project
Arlington, Washington

GeoEngineers

Figure 1

Office: Redmond Path: W:\Redmond\Projects\15430006\GIS\543000600_F1_VicinityMap.mxd Map Revised: September 09, 2010 EL



100 0 100
Feet

Legend

B-2 Proposed boring location

MW-1 Proposed monitoring well location

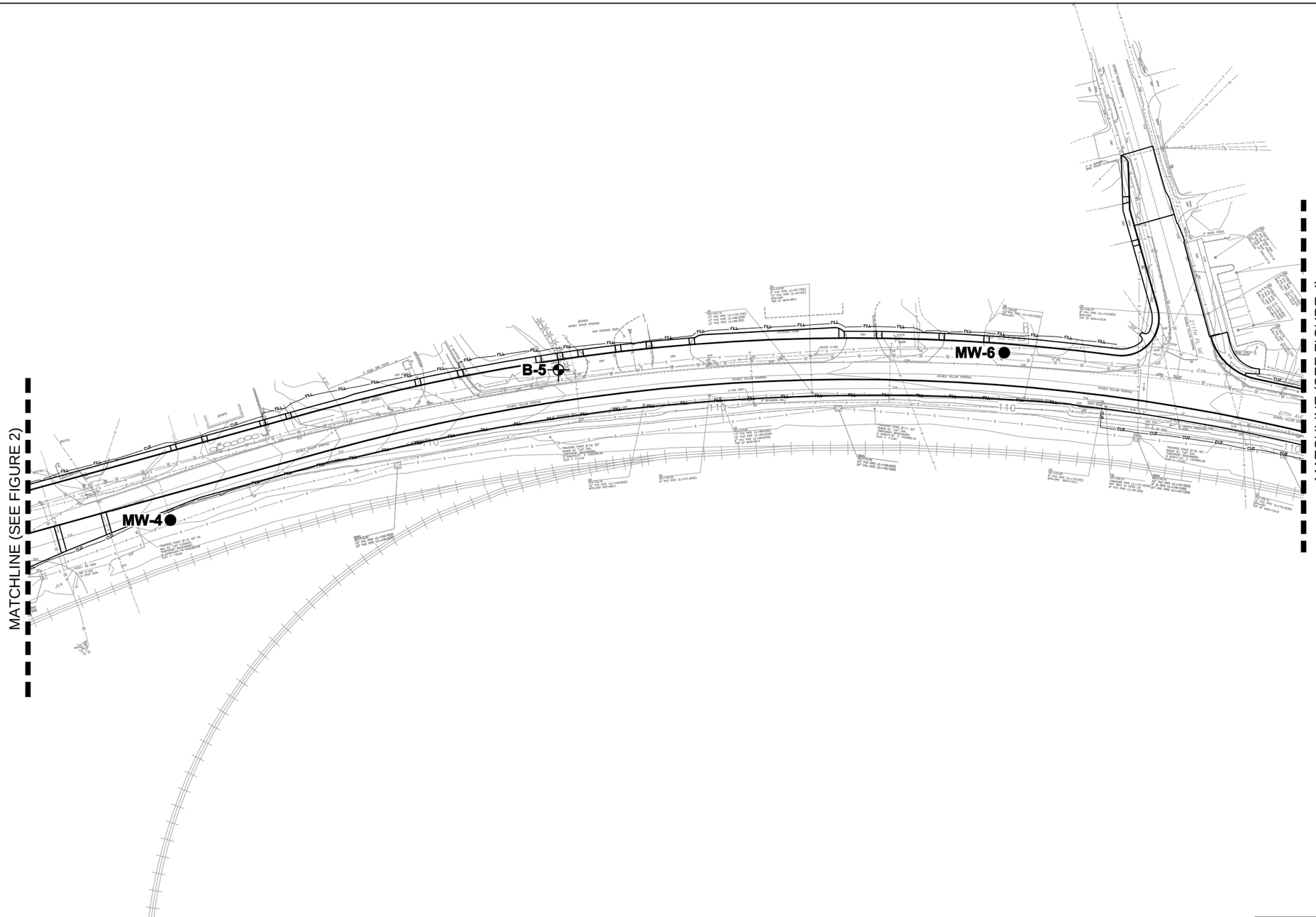
Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing provided by HDR Engineering, Inc. from CAD drawing "00V-BP01-01.dwg, 00V-BP02-01.dwg, and 00C-SP03-20.dwg," dated 7/23/10.

Site Plan	
67th Avenue Phase III Improvement Project Arlington, Washington	
GeoEngineers	Figure 2

REDM:DPC:WLT : SCY

d:\projects\5\5430006\00\CAD\5430006600_F2 TO F4.dwg\TAB:F2 modified on Sep 10, 2010 - 4:40pm



100 0 100
Feet

Legend

B-5 Proposed boring location

MW-4 Proposed monitoring well location

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

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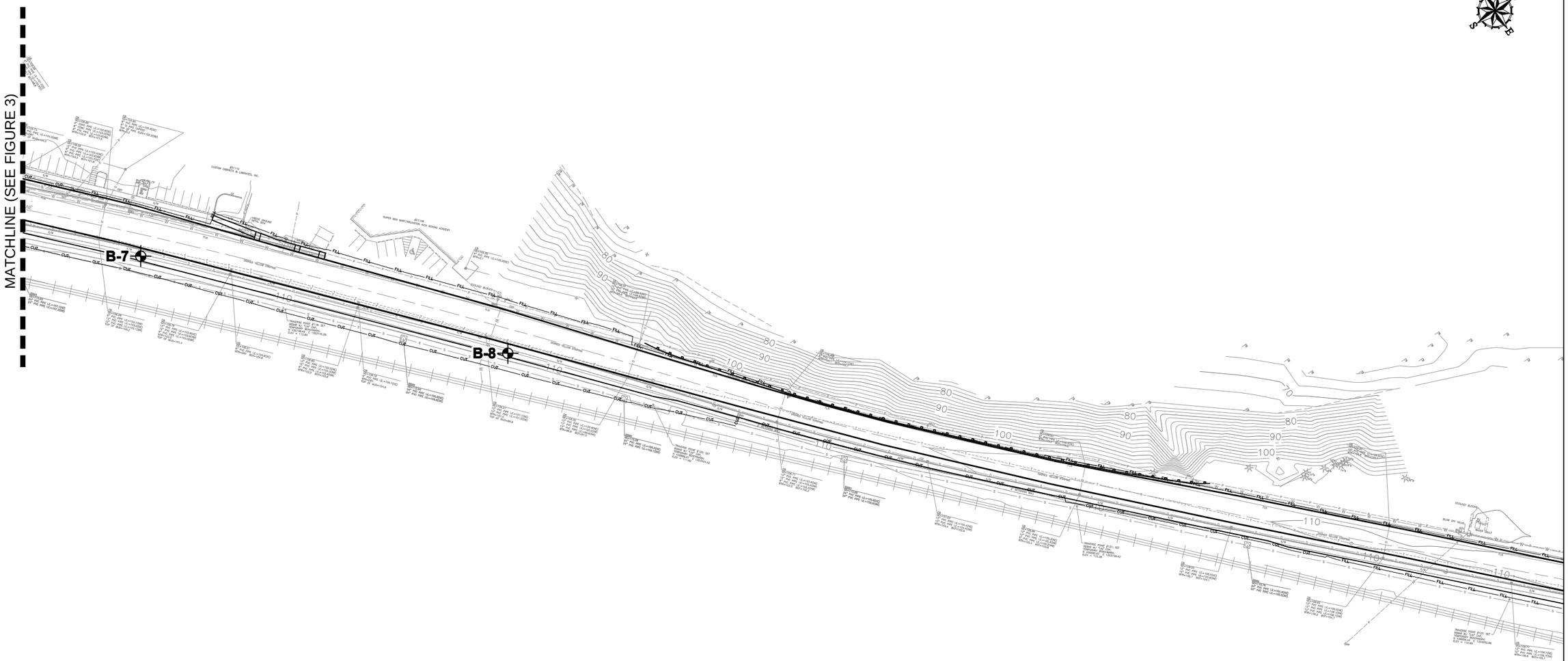
Site Plan

67th Avenue Phase III Improvement Project
Arlington, Washington

GeoEngineers

Figure 3



Legend

B-7 Proposed boring location

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

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Site Plan

67th Avenue Phase III Improvement Project
Arlington, Washington

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Figure 4

APPENDICES

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APPENDIX A
Field Explorations

APPENDIX A
FIELD EXPLORATIONS

We explored subsurface conditions at the site of the proposed 67th Avenue Phase III Improvement project by completing nine borings (MW-1, B-2, B-3, MW-4, B-5, MW-6, and B7 through B-9). The drilling was performed by Geologic Drill on August 25 and 26, 2010.

The locations of the explorations were estimated in the field by measuring distances from site features through taping/pacing in the field. The approximate exploration locations are shown on the Site Plans, Figures 2, 3, and 4. Boring elevations were estimated based on a CAD drawing provided by HDR Engineering, Inc. dated July 23, 2010.

Borings

Borings were completed using trailer-mounted, continuous-flight, hollow-stem auger drilling equipment. The borings were continuously monitored by a geotechnical engineer from our firm who examined and classified the soils encountered, obtained representative soil samples, observed groundwater conditions and prepared a detailed log of each exploration.

The soils encountered in the borings were generally sampled at 2½- or 5-foot vertical intervals with a 2-inch outside diameter split-barrel standard penetration test (SPT) sampler. The samples were obtained by driving the sampler 18 inches into the soil with a 140-pound hammer with a rope and cathead free-falling 30 inches. The number of blows required for each 6 inches of penetration was recorded. The blow count ("N-value") of the soil was calculated as the number of blows required for the final 12 inches of penetration. This resistance, or N-value, provides a measure of the relative density of granular soils and the relative consistency of cohesive soils. Where very dense soil conditions precluded driving the full 18 inches, the penetration resistance for the partial penetration was entered on the logs. The blow counts are shown on the boring logs at the respective sample depths.

Soils encountered in the borings were visually classified in general accordance with the classification system described in Figure A-1. A key to the boring log symbols is also presented in Figure A-1. The logs of the borings are presented in Figures A-2 through A-10. The boring logs are based on our interpretation of the field and laboratory data and indicate the various types of soils and groundwater conditions encountered. The logs also indicate the depths at which these soils or their characteristics change, although the change may actually be gradual. If the change occurred between samples, it was interpreted. The densities noted on the boring logs are based on the blow count data obtained in the borings and judgment based on the conditions encountered.

Observations of groundwater conditions were made during drilling. The groundwater conditions encountered during drilling are presented on the boring logs. Groundwater conditions observed during drilling represent a short-term condition and may or may not be representative of the long-term groundwater conditions at the site. Groundwater conditions observed during drilling should be considered approximate.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	CC	Cement Concrete
	AC	Asphalt Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Measured groundwater level in exploration, well, or piezometer

Groundwater observed at time of exploration

Perched water observed at time of exploration

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

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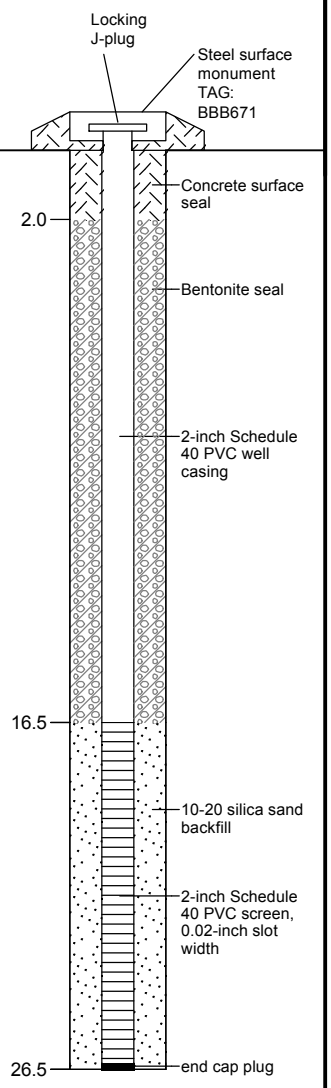
FIGURE A-1

Drilled Start 8/26/2010 End 8/26/2010	Total Depth (ft) 26.5	Logged By WBH Checked By DPC	Driller Geologic Drill	Drilling Method Hollow-stem Auger/SPT	
Hammer Data Rope and Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment Deep Rock XL		A 2 (in) well was installed on 8/26/2010 to a depth of 26.5 (ft).	
Surface Elevation (ft) 113.0 Vertical Datum NAVD88		Top of Casing Elevation (ft)		Groundwater Date Measured	Depth to Water (ft) / Elevation (ft)
Latitude Longitude		Horizontal Datum N/A			

Notes: Auger Data: 4¼ inches I.D.; 8 inches O.D.

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)
110	0							SOD	1-inch grass/sod		
								SM	Dark brown silty fine to coarse sand with gravel (loose, moist) (fill)		
		14	5		1						
	5	14	13		2			SP-SM	Brown fine to medium sand with silt and occasional gravel and cobbles (medium dense to dense, moist) (recessional outwash)	6	
105		11	25		3				SA; %F=6		
	10	16	18		4				SA; %F=5	9	
100											
	15	15	35		5						
95											
	20	15	37		6				Grades to brown fine to coarse sand		
90									Gravel noted at 24 feet		
	25	18	41		7			GP-GM	Light brown fine to medium gravel with silt and sand (dense, moist)		

WELL LOG



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW-1

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

Figure A-2
Sheet 1 of 1

Drilled Start 8/25/2010 End 8/25/2010	Total Depth (ft) 16.5	Logged By WBH Checked By DPC	Driller Geologic Drill	Drilling Method Hollow-stem Auger/SPT	
Surface Elevation (ft) 115.0 Vertical Datum NAVD88		Hammer Data Rope and Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment Deep Rock XL	
Latitude Longitude		System Datum N/A		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)	
Notes: Auger Data: 3¼ inches I.D.; 7 inches O.D.					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
	0						SOD	1-inch sod			
							SM	Light brown silty fine to medium sand with gravel and occasional cobbles (medium dense, moist) (fill)			
110	5	8	10	1							
		9	15	2				Gravel content increases			
		10	32	3			GW-GM	Brown gravel with sand, silt, and occasional cobbles (dense, moist)	4		SA; %F=6
105	10	11	17	4			SP-SM	Brown fine to coarse sand with silt, gravel and occasional cobbles (medium dense, moist) (recessional outwash)			
							SP-SM	Light brown fine to medium sand with silt and occasional gravel (medium dense, moist)			
100	15	15	20	5							

Note: See Figure A-1 for explanation of symbols.

Log of Boring B-2

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

Figure A-3
Sheet 1 of 1

Drilled	Start 8/25/2010	End 8/25/2010	Total Depth (ft)	24	Logged By / Checked By	WBH / DPC	Driller	Geologic Drill	Drilling Method	Hollow-stem Auger/SPT/Dames & Moore
Surface Elevation (ft) / Vertical Datum	114.0 NAVD88		Hammer Data	Rope and Cathead 140 (lbs) / 30 (in) Drop	Drilling Equipment	Deep Rock XL				
Latitude / Longitude			System Datum	N/A	Groundwater: Date Measured		Depth to Water (ft)		Elevation (ft)	

Notes: Auger Data: 3¼ inches I.D.; 7 inches O.D.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
	0						SOD	1-inch sod			
							SM	Light brown silty fine to medium sand with gravel (medium dense, moist) (fill)			
110		12	23	1							
	5	12	48	2			SP-SM	Brown fine to coarse sand with silt and gravel and occasional cobbles (dense, moist) (recessional outwash)	3		SA; %F=9 Rock in shoe
		7	42	3							
105											
	10	9	66	4			SP-SM	Brown fine to coarse sand with silt and gravel and occasional cobbles (dense to very dense, moist) (recessional outwash)			Bouncing on gravel
100											
	15	0	49	5							Bouncing on gravel
								Grades to less gravel			
95							SM	Brown silty fine to medium sand with gravel (medium dense, moist)			
	20	7	17	6					7		SA; %F=15 Bouncing on gravel; used Dames and Moore sampler at 20 feet
		18	30	7			SP-SM	Brown fine to medium sand with silt (dense, moist)			
90											

Note: See Figure A-1 for explanation of symbols.

Log of Boring B-3

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

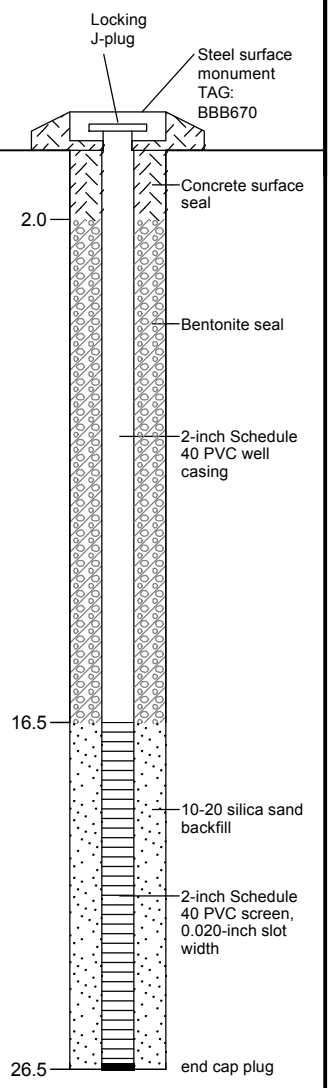
Figure A-4
Sheet 1 of 1

Drilled Start 8/25/2010 End 8/25/2010	Total Depth (ft) 26.5	Logged By WBH Checked By DPC	Driller Geologic Drill	Drilling Method Hollow-stem Auger/SPT/Dames & Moore	
Hammer Data Rope and Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment Deep Rock XL		A 2 (in) well was installed on 8/26/2010 to a depth of 26.5 (ft).	
Surface Elevation (ft) 116.0 Vertical Datum NAVD88		Top of Casing Elevation (ft)		Groundwater Date Measured	Depth to Water (ft) / Elevation (ft)
Latitude Longitude		Horizontal Datum N/A			

Notes: Auger Data: 4¼ inches I.D.; 8 inches O.D.

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)
115	0							SOD	1-inch sod		
		11	19		1			SM	Brown silty fine to medium sand with gravel and occasional cobbles (medium dense, moist) (fill)		
110	5	15	20		2			SW-SM	Brown fine to coarse sand with silt and gravel (medium dense, moist) (recessional outwash) SA; %F=9;	4	
		4	45		3			SP-SM	Light brown fine to medium sand with silt and gravel and occasional cobbles (medium dense to dense, moist) SA; %F=9; used Dames and Moore sampler at 8 feet	4	
		12	47		4						
105	10	15	48		5						
100	15	6	48		6				Last 6 inches bouncing on gravel		
95	20	9	51		7				Bouncing on gravel		
									Grades to occasional gravel		
90	25	18	22		8						

WELL LOG



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW-4

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

Figure A-5
Sheet 1 of 1

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/25/2010	8/25/2010	11.5	WBH	DPC	Geologic Drill	Hollow-stem Auger/SPT/Dames & Moore

Surface Elevation (ft) Vertical Datum	103.0 NAVD88	Hammer Data	Rope and Cathead 140 (lbs) / 30 (in) Drop
Drilling Equipment	Deep Rock XL		
Latitude Longitude		System Datum	N/A
Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)	

Notes: Auger Data: 3¼ inches I.D.; 7 inches O.D.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
	0						SOD	1-inch sod			
		0	8	1			SP-SM	Light brown silty fine to medium sand with gravel and occasional cobbles (loose to medium dense, moist) (fill)			
100									5		SA; %F=11
	5	11	21	2							
95		18	48	3			SM	Brown silty fine to medium sand with gravel and occasional cobbles (dense, moist) (recessional outwash)	5		Bouncing on gravel SA; %F=13
	10	4	50	4							
		9	40	5							Gravel in shoe Used Dames and Moore sampler at 11 feet

Note: See Figure A-1 for explanation of symbols.

Log of Boring B-5

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

Figure A-6

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/25/2010	8/25/2010	26.5	WBH	DPC	Geologic Drill	Hollow-stem Auger/SPT

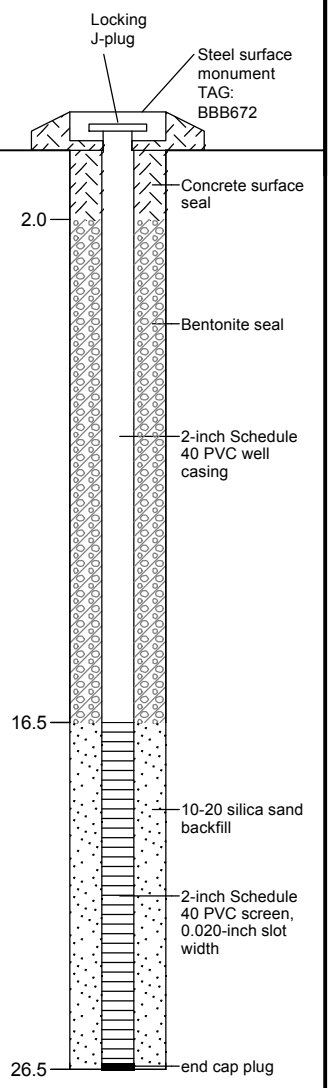
Hammer Data	Rope and Cathead 140 (lbs) / 30 (in) Drop	Drilling Equipment	Deep Rock XL
Surface Elevation (ft) Vertical Datum	104.0 NAVD88	Top of Casing Elevation (ft)	
Latitude Longitude		Horizontal Datum	N/A

A 2 (in) well was installed on 8/26/2010 to a depth of 26.5 (ft).

Groundwater		
Date Measured	Depth to Water (ft)	Elevation (ft)

Notes: Auger Data: 4¼ inches I.D.; 8 inches O.D.

Depth (feet)	Elevation (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)
0	104							SOD	1-inch sod		
								SM	Brown silty fine to medium sand with gravel and trace of organic matters (grass/roots) (loose, moist) (fill)		
		16	5		1						
5	99	16	13		2			SM	Gray brown silty fine to medium sand with gravel and occasional cobbles (medium dense to very dense, moist) (recessional outwash) SA; %F=10	8	
		14	19		3				Grades to gray		
10	94	15	16		4				Sample tip wet		
								SM	Brown fine to medium sand with gravel (very dense, moist) SA; %F=10	5	
15	89	16	50/6"		5						
								SP-SM	Gray fine to medium sand with silt and gravel and occasional gravel (medium dense to very dense, moist)		
20	84	7	50/5"		6				Rig shaking; hard to drill A boulder encountered; moved over several feet and completed boring to 25 feet on 8/26/10		
25	79	14	28		7						



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW-6

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

Figure A-7
Sheet 1 of 1

Drilled	Start 8/26/2010	End 8/26/2010	Total Depth (ft)	21.5	Logged By WBH / Checked By DPC	Driller Geologic Drill	Drilling Method Hollow-stem Auger/SPT
Surface Elevation (ft) 108.0 / Vertical Datum NAVD88			Hammer Data	Rope and Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment	Deep Rock XL
Latitude / Longitude			System Datum	N/A		Groundwater: Date Measured	Depth to Water (ft) / Elevation (ft)

Notes: Auger Data: 3¼ inches I.D.; 7 inches O.D.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
	0						SOD	1-inch sod			
							SM	Dark brown silty fine to medium sand with gravel and occasional cobbles (loose, moist) (fill)			
105		13	7	1							Trace organic matter
	5	15	34	2			SP-SM	Grayish tan fine to medium sand with silt and occasional gravel (loose to dense, moist) (recessional outwash)			
100		13	7	3				Grades to fine sand			
	10	18	11	4			SM	Grayish tan silty fine sand with occasional gravel (medium dense, moist)	19		SA; %F=36
95											
	15		54	5			SP-SM	Gray fine to coarse sand with silt and gravel and occasional cobbles (dense to very dense, moist)			
90											
	20	12	45	6							

Note: See Figure A-1 for explanation of symbols.

Log of Boring B-7

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

Figure A-8
Sheet 1 of 1

Drilled	Start 8/26/2010	End 8/26/2010	Total Depth (ft)	21.5	Logged By WBH / Checked By DPC	Driller Geologic Drill	Drilling Method Hollow-stem Auger/SPT
Surface Elevation (ft) 109.0 / Vertical Datum NAVD88			Hammer Data	Rope and Cathead 140 (lbs) / 30 (in) Drop	Drilling Equipment	Deep Rock XL	
Latitude / Longitude			System Datum	N/A	Groundwater: Date Measured	Depth to Water (ft)	Elevation (ft)

Notes: Auger Data: 3¼ inches I.D.; 7 inches O.D.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample: Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
	0						SOD	1-inch grass/sod			
							SM	Dark brown silty fine to medium sand with gravel and occasional cobbles (very loose, moist) (fill)			
105		7	3	1							Trace organic matter
	5	6	3	2				Grades to brown			
		13	15	3			SM	Brown silty fine to coarse sand with gravel and occasional cobbles (medium dense, moist) (recessional outwash)	11		SA; %F=13
100	10	13	40	4			SP-SM	Gray fine to coarse sand with silt, gravel, and occasional cobbles (medium dense to dense, moist)			
95	15	13	48	5							
90	20	12	28	6							

Note: See Figure A-1 for explanation of symbols.

Log of Boring B-8

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

Figure A-9
Sheet 1 of 1

Drilled	Start 8/25/2010	End 8/25/2010	Total Depth (ft)	16.5	Logged By WBH Checked By DPC	Driller Geologic Drill	Drilling Method	Hollow-stem Auger/SPT/Dames & Moore
Surface Elevation (ft) Vertical Datum	111.0 NAVD88		Hammer Data	Rope and Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment	Deep Rock XL	
Latitude Longitude			System Datum	N/A		Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)

Notes: Auger Data: 3¼ inches I.D.; 7 inches O.D.

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
110	0						SOD	1-inch grass/sod			
							SM	Brown silty fine to medium sand with gravel and occasional cobbles (very dense, moist)			
		13	50/5"	1							Trace organic matter (grass/roots)
105	5						GP-GM	Brown fine gravel with sand, silt, and occasional cobbles (very dense, moist) (recessional outwash)	3		SA; %F=6 Rig shaking Bouncing on gravel
		11	57	2							
		6	53	3			GW-GM	Brown fine to coarse gravel with sand, silt, and occasional cobbles (dense to very dense, moist)			Bouncing on gravel
		9	93	4							Rock in shoe; Used Dames and Moore sampler at 8 feet SA; %F=8
100	10	12	34	5					4		
95	15	18	46	6							Gravel in shoe Wet at the tip but no standing water

Note: See Figure A-1 for explanation of symbols.

Log of Boring B-9

GeoEngineers

Project: City of Arlington\67th Avenue Phase III
Project Location: Arlington, Washington
Project Number: 5430-006-00

Figure A-10
Sheet 1 of 1

APPENDIX B
Laboratory Testing

APPENDIX B
LABORATORY TESTING

General

Soil samples obtained from the explorations were transported to GeoEngineers' laboratory and examined to confirm or modify field classifications, as well as to evaluate index properties of the soil samples. Representative samples were selected for laboratory testing consisting of the determination of the sieve analyses and California Bearing Ratio. The tests were performed in general accordance with test methods of the American Society for Testing and Materials (ASTM) or other applicable procedures.

The sieve analyses test results are presented in Figures B-1 through B-4. The results of the moisture content and percent passing the U.S. No. 200 sieve determinations are presented at the respective sample depths on the exploration logs in Appendix A.

Sieve Analyses

Sieve analyses were performed on selected samples in general accordance with ASTM D 422 to determine the sample grain size distribution. The wet sieve analysis method was used to determine the percentage of soil greater than the U.S. No. 200 mesh sieve. The results of the sieve analyses were plotted and classified in general accordance with the Unified Soil Classification System (USCS).

CBR Testing

A California Bearing Ratio (CBR) test was performed on a composite soil sample in general accordance with ASTM D 1883. The composite sample consisted of soil taken from ½ to 2 feet below ground surface from explorations MW-1, B-2, B-5 and MW-6. The results of the CBR test are presented in the following table.

Exploration	Sample Depth (feet)	Soil Type	Dry Density (pcf)	Percent Maximum Dry Density	CBR
Composite	½ to 2	SM	124	93	18
			130	98	51
			135	100	83

Note:
pcf = pounds per cubic foot

5430-006-00 HBP : HBP : AMD 09-01-10 (Sieve.ppt)

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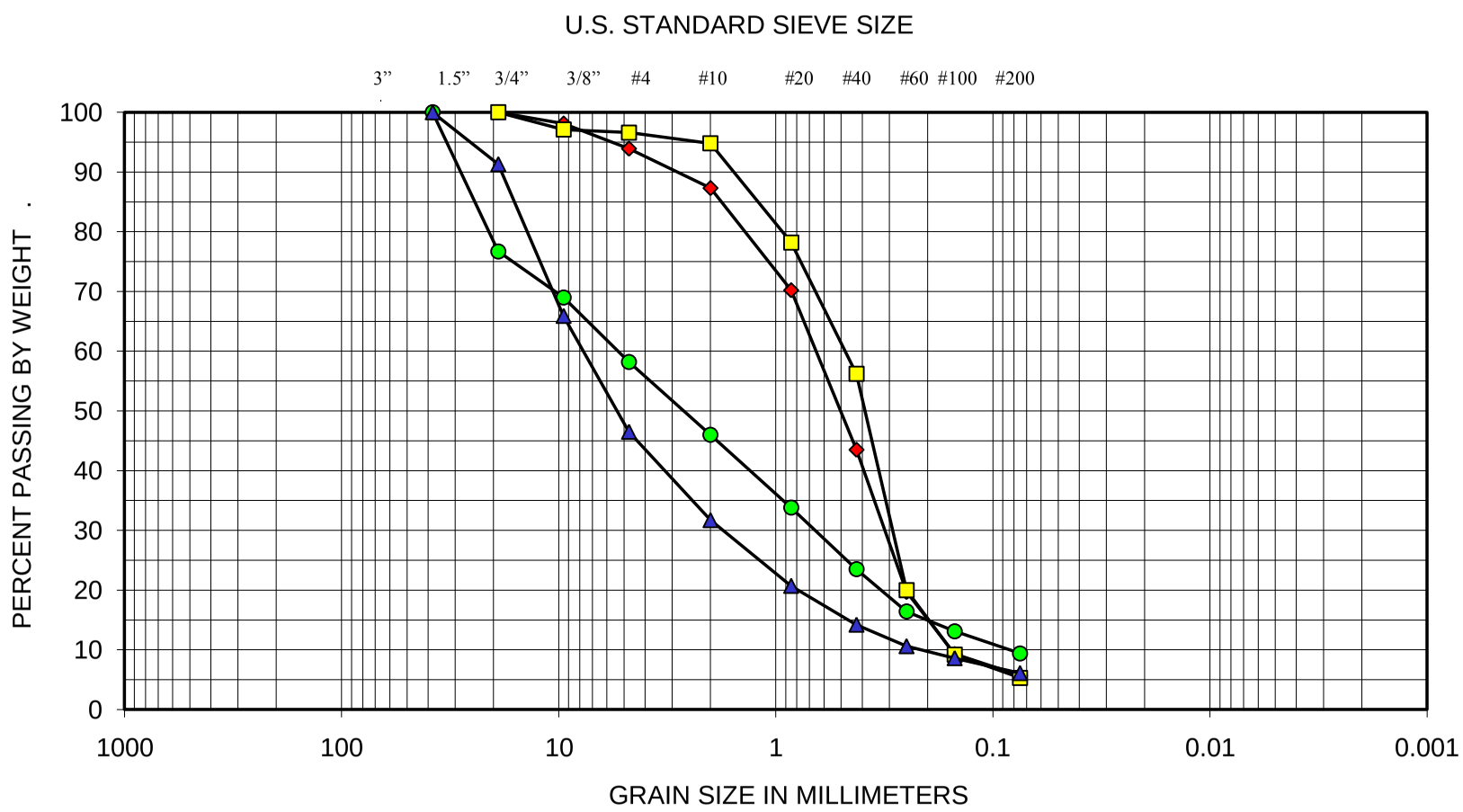
FIGURE B-1

SIEVE ANALYSIS RESULTS



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SYMBOL	EXPLORATION NUMBER	DEPTH (ft)	SOIL CLASSIFICATION
◆	MW-1	5	Brown fine to medium sand with silt and occasional gravel(SP-SM)
□	MW-1	10	Brown fine to medium sand with silt and occasional gravel (SP-SM)
○	B-2	10	Brown fine to coarse gravel with silt and sand (GW-GM)
△	B-3	5	Brown fine to medium sand with silt and gravel (SP-SM)

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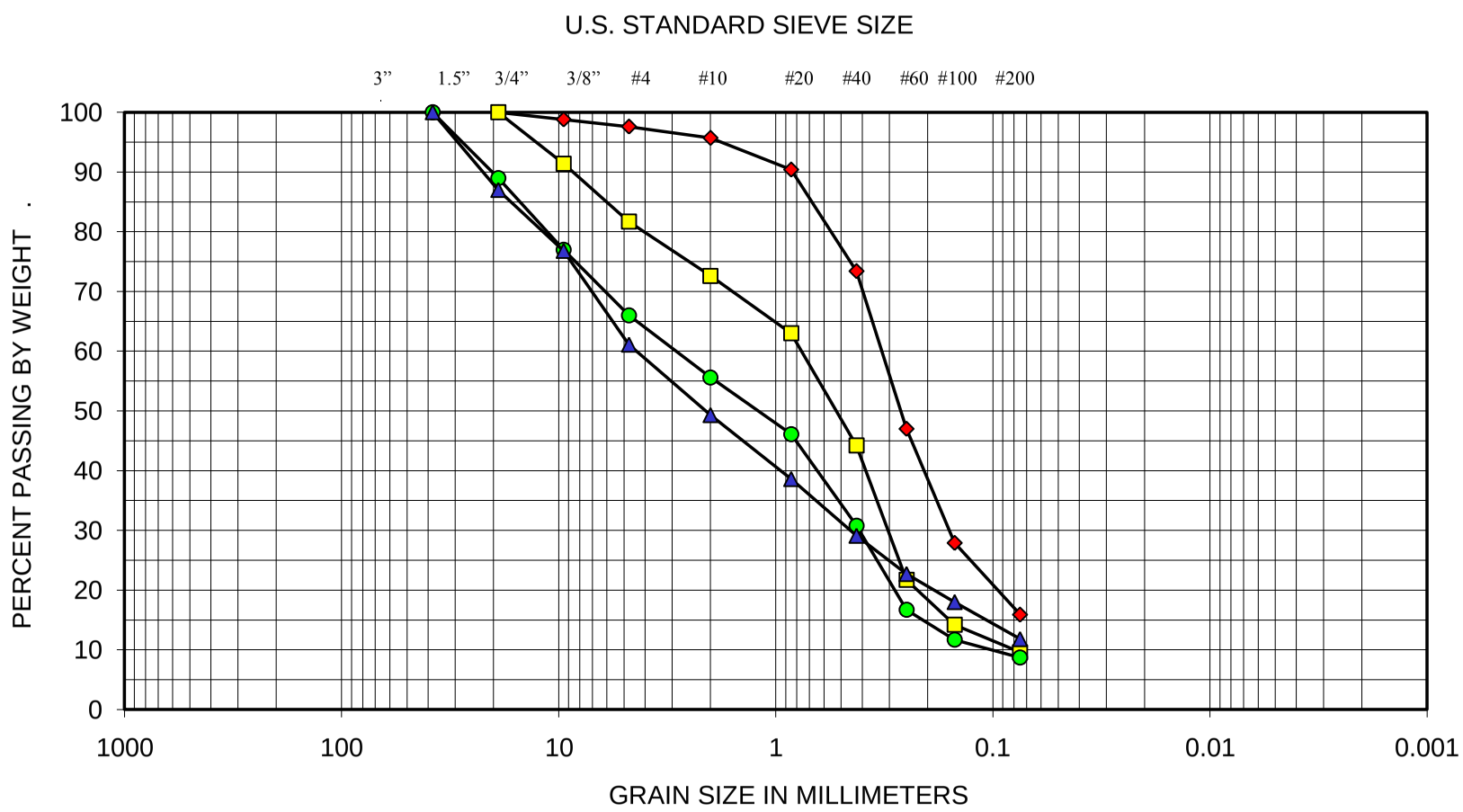
FIGURE B-2

SIEVE ANALYSIS RESULTS



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SYMBOL	EXPLORATION NUMBER	DEPTH (ft)	SOIL CLASSIFICATION
◆	B-3	21.5	Brown silty fine to medium sand with gravel(SM)
□	MW-4	5	Brown fine to coarse sand with silt and gravel (SW-SM)
○	MW-4	7.5	Light brown fine to medium sand with silt and gravel (SP-SM)
△	B-5	5	Light brown fine to medium sand with silt and gravel (SP-SM)

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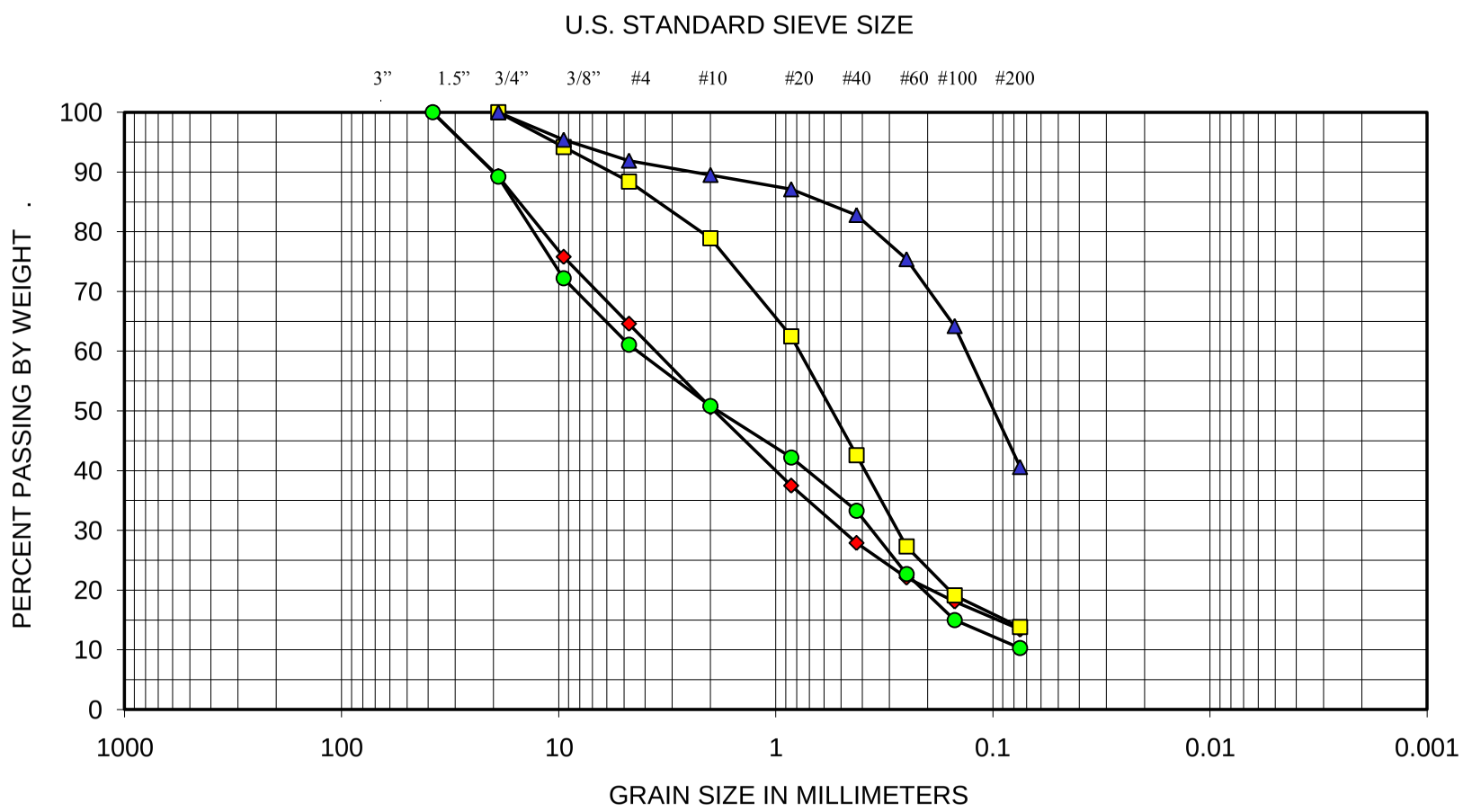
FIGURE B-3

SIEVE ANALYSIS RESULTS



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SYMBOL	EXPLORATION NUMBER	DEPTH (ft)	SOIL CLASSIFICATION
◆	B-5	7.5	Brown silty fine to medium sand with gravel (SM)
□	MW-6	5	Gray brown silty fine to medium sand with gravel(SM)
○	MW-6	15	Brown fine to medium sand with silt and gravel (SP-SM)
△	B-7	10	Grayish tan silty fine sand with occasional gravel(SM)

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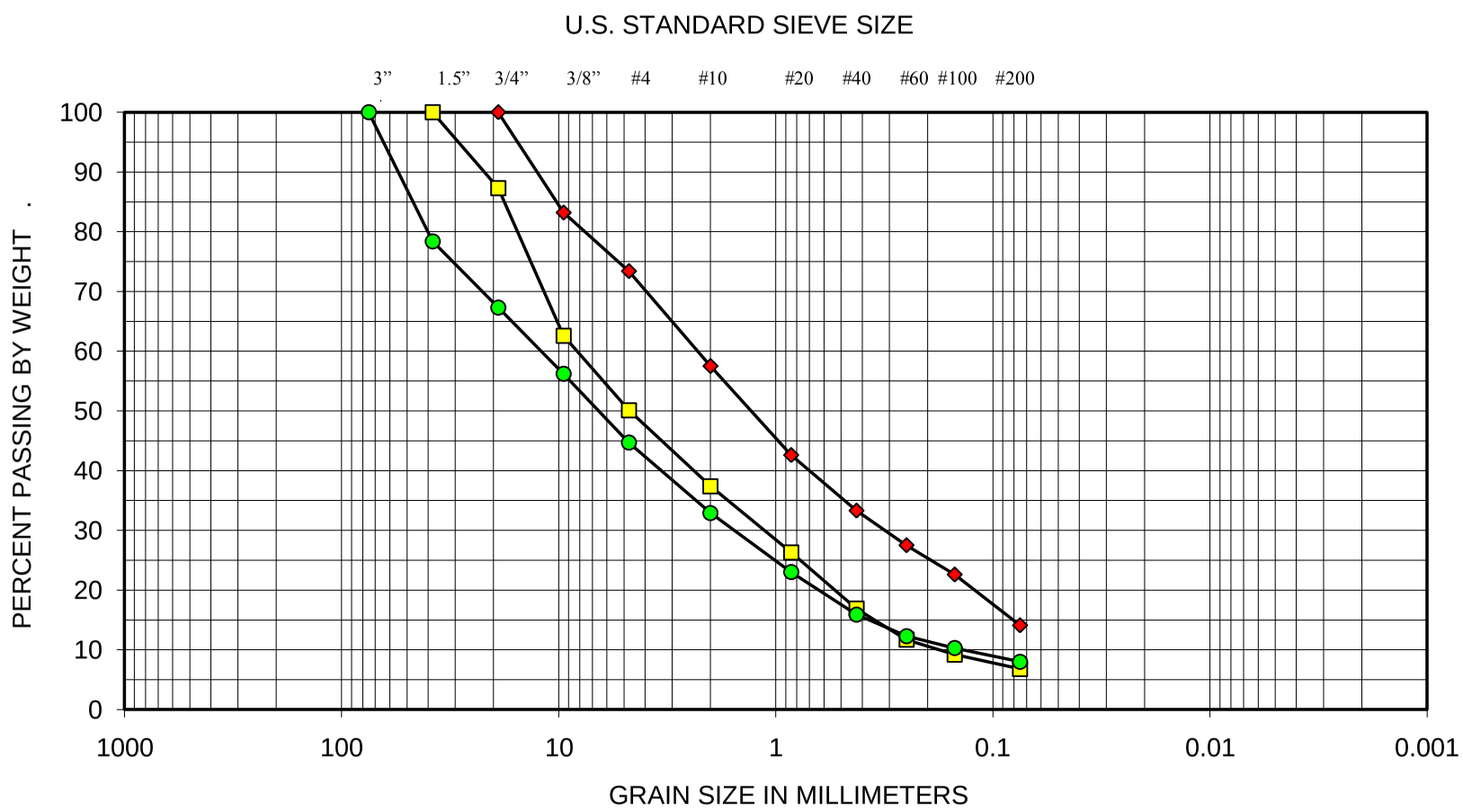
FIGURE B-4

SIEVE ANALYSIS RESULTS



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SYMBOL	EXPLORATION NUMBER	DEPTH (ft)	SOIL CLASSIFICATION
◆	B-8	7.5	Brown silty fine to medium sand with gravel (SM)
□	B-9	5	Brown fine gravel with silt and sand (GP-GM)
○	B-9	7.5	Brown fine to coarse gravel with silt and sand (GW-GM)

APPENDIX C
Report Limitations and Guidelines for Use

APPENDIX C
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This attachment provides information to help you manage your risks with respect to the use of this report.

Geotechnical Services Are Performed For Specific Purposes, Persons and Projects

This report has been prepared for the exclusive use of The city of Arlington, HDR Engineering, Inc. and their authorized agents. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, a geotechnical or geologic study conducted for a civil engineer or architect may not fulfill the needs of a construction contractor or even another civil engineer or architect that are involved in the same project. Because each geotechnical or geologic study is unique, each geotechnical engineering or geologic report is unique, prepared solely for the specific client and project site. Our report is prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted geotechnical practices in this area at the time this report was prepared. This report should not be applied for any purpose or project except the one originally contemplated.

A Geotechnical Engineering Or Geologic Report Is Based On A Unique Set Of Project-Specific Factors

This report has been prepared for the proposed 67th Avenue Phase III Improvement project in Arlington, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

For example, changes that can affect the applicability of this report include those that affect:

- the function of the proposed structure;
- elevation, configuration, location, orientation or weight of the proposed structure;
- composition of the design team; or
- project ownership.

---

[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Subsurface Conditions Can Change

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying a report to determine if it remains applicable.

Most Geotechnical And Geologic Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ, sometimes significantly, from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Geotechnical Engineering Report Recommendations Are Not Final

Do not over-rely on the preliminary construction recommendations included in this report. These recommendations are not final, because they were developed principally from GeoEngineers' professional judgment and opinion. GeoEngineers' recommendations can be finalized only by observing actual subsurface conditions revealed during construction. GeoEngineers cannot assume responsibility or liability for this report's recommendations if we do not perform construction observation.

Sufficient monitoring, testing and consultation by GeoEngineers should be provided during construction to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should the conditions revealed during the work differ from those anticipated, and to evaluate whether or not earthwork activities are completed in accordance with our recommendations. Retaining GeoEngineers for construction observation for this project is the most effective method of managing the risks associated with unanticipated conditions.

A Geotechnical Engineering Or Geologic Report Could Be Subject To Misinterpretation

Misinterpretation of this report by other design team members can result in costly problems. You could lower that risk by having GeoEngineers confer with appropriate members of the design team after submitting the report. Also retain GeoEngineers to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering or geologic report. Reduce that risk by having GeoEngineers participate in pre-bid and preconstruction conferences, and by providing construction observation.

Do Not Redraw The Exploration Logs

Geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering or geologic report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

Give Contractors A Complete Report And Guidance

Some owners and design professionals believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering or geologic report, but preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with GeoEngineers and/or to conduct additional study to obtain the specific types of information they need or prefer. A pre-bid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might an owner be in a position to give contractors the best information available, while requiring them to at least share the financial responsibilities stemming from unanticipated conditions. Further, a contingency for unanticipated conditions should be included in your project budget and schedule.

Contractors Are Responsible For Site Safety On Their Own Construction Projects

Our geotechnical recommendations are not intended to direct the contractor's procedures, methods, schedule or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and to adjacent properties.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering or geology) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Geotechnical, Geologic And Environmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If Client desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

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APPENDIX C

EXCERPT OF CITY OF ARLINGTON DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS, WSDOT STANDARD PLANS, and SNOHOMISH COUNTY STANDARD PLANS

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CITY OF ARLINGTON

APPROVED BY	DATE	REF STD SPEC
L. OLIVE	07/31/2008	

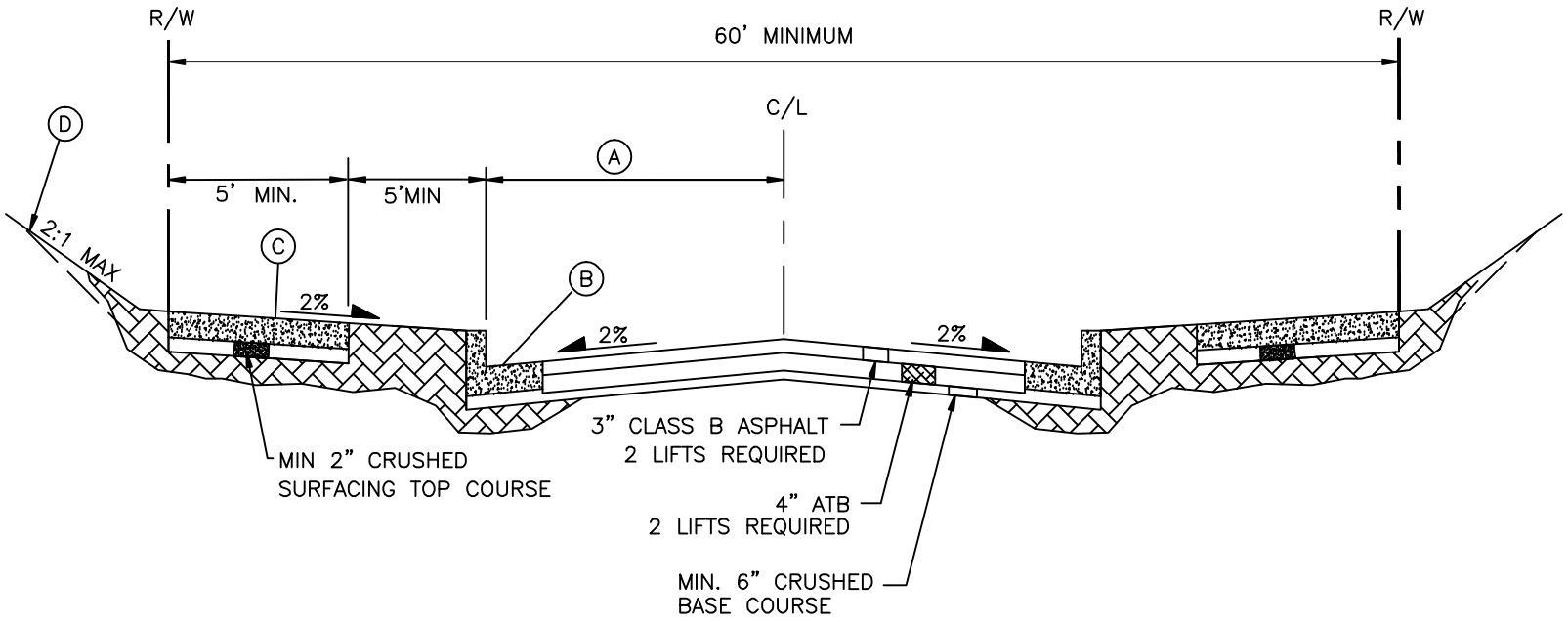
DEPARTMENT OF PUBLIC WORKS

STANDARD DETAILS

TYPICAL ROADWAY SECTION
ARTERIAL & INDUSTRIAL ACCESS

STANDARD DETAIL NUMBER

R-020



STANDARD ROADWAY SECTION:

(A) PAVEMENT WIDTH
24' MINIMUM (VARIES)

(B) CONCRETE CURB AND GUTTER TYPE 1
SEE STD DETAIL R-180

(C) CEMENT CONCRETE SIDEWALK
SEE STD DETAIL R-170

(D) CONSTRUCTION EASEMENT REQUIRED

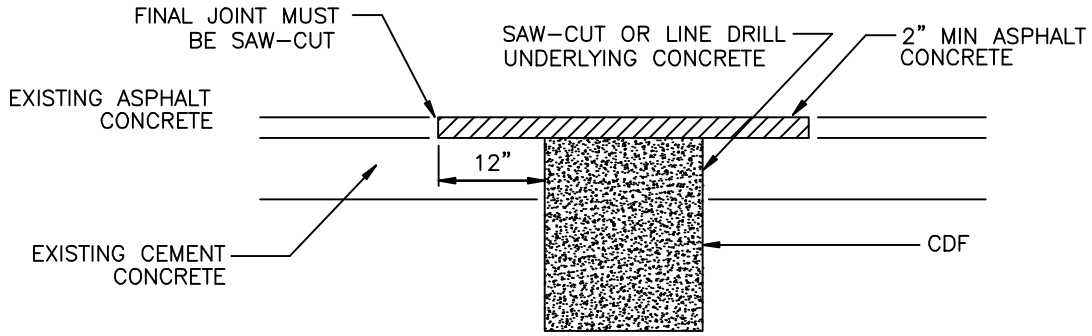
NOTES:

1. IN WIDENING AREAS, THE EXISTING PAVEMENT EDGE SHALL BE SAW-CUT TO LEAVE A JOIN POINT. ANY TRAFFIC STRIPING REMOVED OR DAMAGED DURING WIDENING WORK SHALL BE REPLACED IN KIND OR AS DIRECTED BY THE CITY ENGINEER.

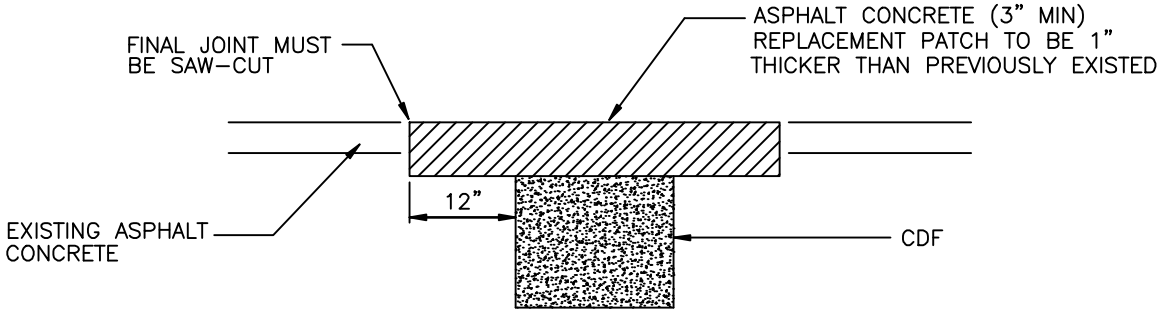
2. COMPACTION TESTS ON SUBGRADE AND SURFACING SHALL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ON BOTH SUBGRADE AND SURFACING.

3. ADJUSTMENT OF CATCH BASIN LIDS OR GRATES, MONUMENTS CASES, VALVE BOXES, MANHOLE COVERS, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER AS REQUIRED.

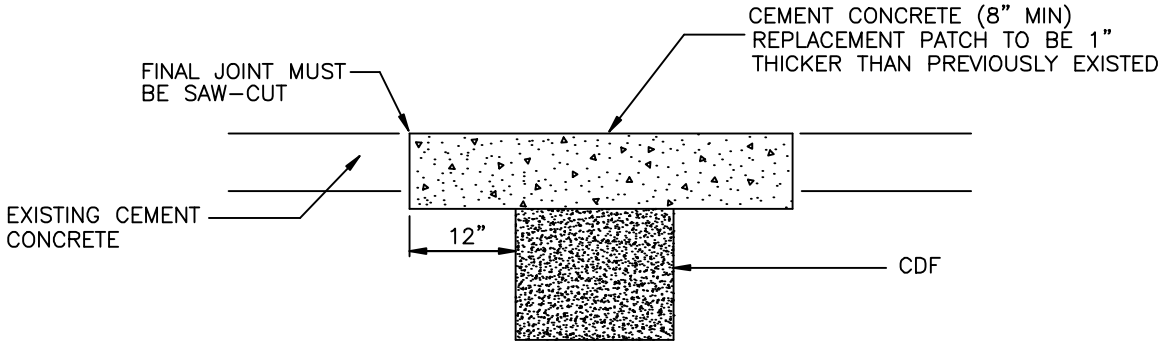
4. ROADWAY SECTION MAY BE ADJUSTED WITH THE APPROVAL OF THE CITY ENGINEER UPON SUBMISSION OF SUBSTANTIATING ENGINEERING DATA (CBR, ETC) TO SUPPORT THE ADJUSTMENT. FOR DESIGN PURPOSES, THE MINIMUM THICKNESS OF CLASS B ASPHALT SHALL BE 3" COMPACTED DEPTH. COMPACTION SHALL BE AN AVERAGE OF 91% OF DRY DENSITY, WSDOT TEST METHOD 705.



EXISTING ASPHALT CONCRETE OVER CEMENT CONCRETE



EXISTING ASPHALT CONCRETE OVER PREPARED GRADE



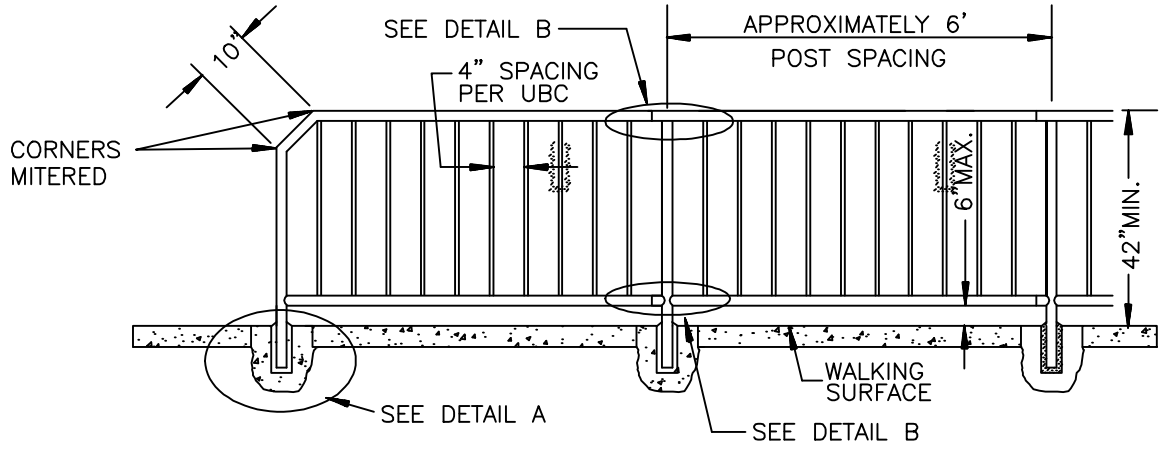
EXISTING CEMENT CONCRETE OVER PREPARED GRADE

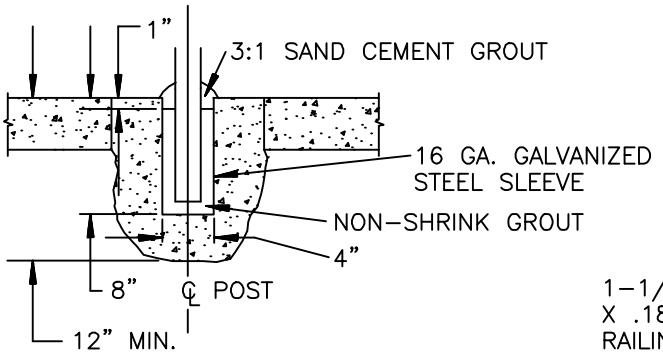
NOTES:

1. ALL TRENCHES IN ROADWAY AREAS SHALL BE BACKFILLED AND PATCHED WITH TEMPORARY ASPHALT AT THE END OF EACH WORK DAY, UNLESS PERMISSION IS GRANTED TO DO OTHERWISE BY THE CITY ENGINEER.

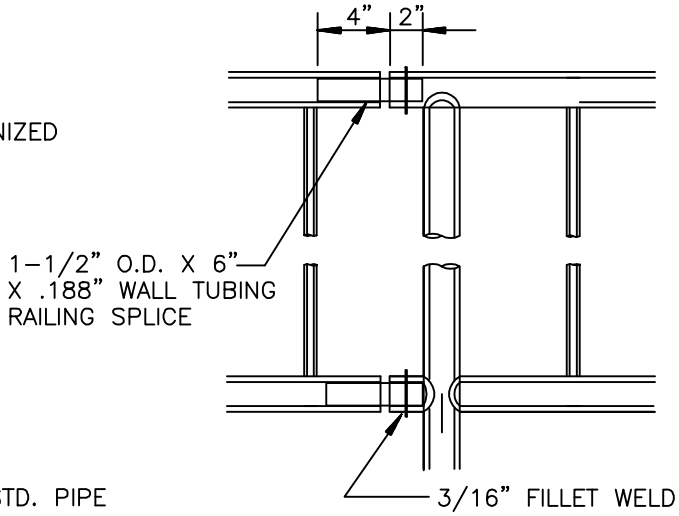
2. ALL TEMPORARY PATCHES ON TRENCHES SHALL BE PERMANENTLY PATCHED WITHIN 2 WEEKS OF COMPLETION OF WORK WITHIN THE ROADWAY AREA.

CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS	STANDARD DETAIL NUMBER
	DATE	07/31/2008		
	REF STD SPEC		PAVEMENT PATCH	R–140

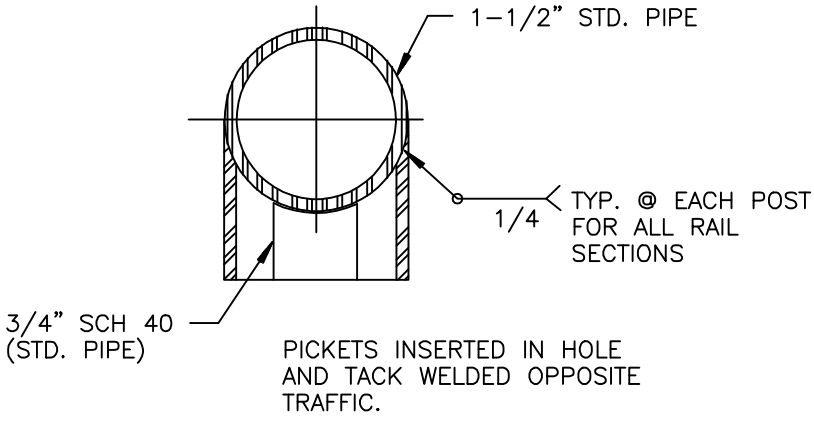




DETAIL A



DETAIL B



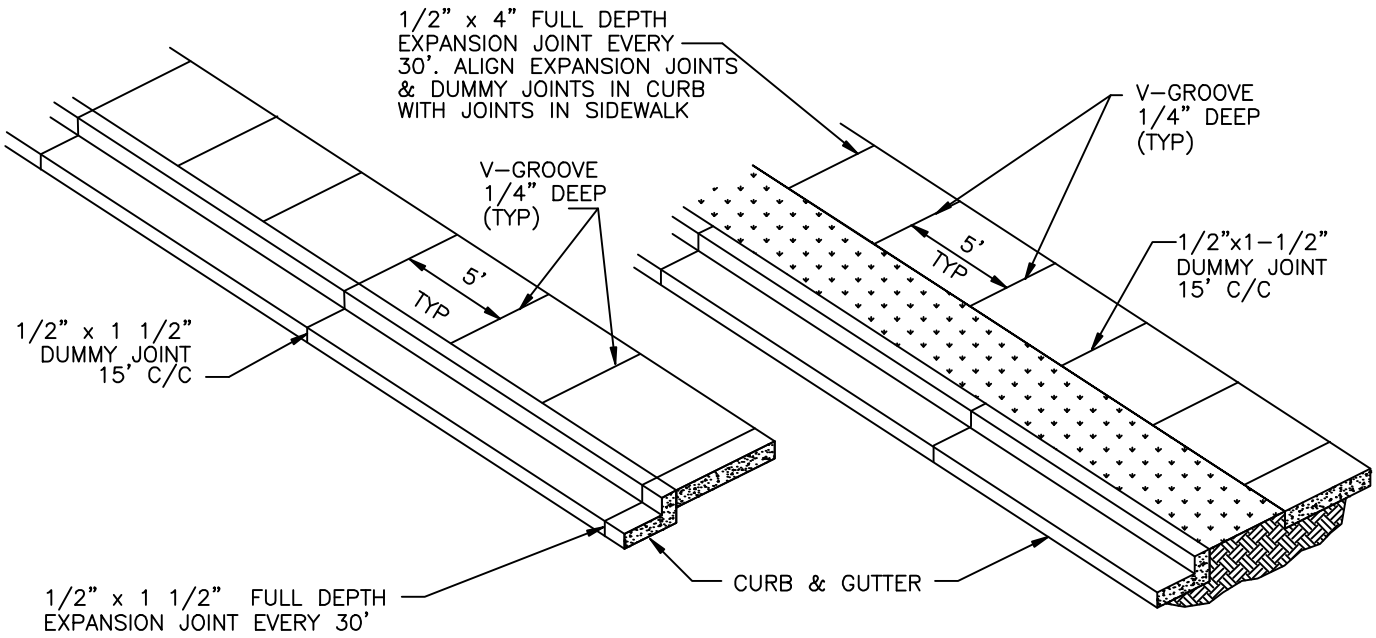
NOTES:

MATERIAL FOR PEDESTRIAN HANDRAIL SHALL BE STEEL (ASTM A120) OR ALUMINUM (ASTM B241 OR B429 ALLOY 6061-T6).

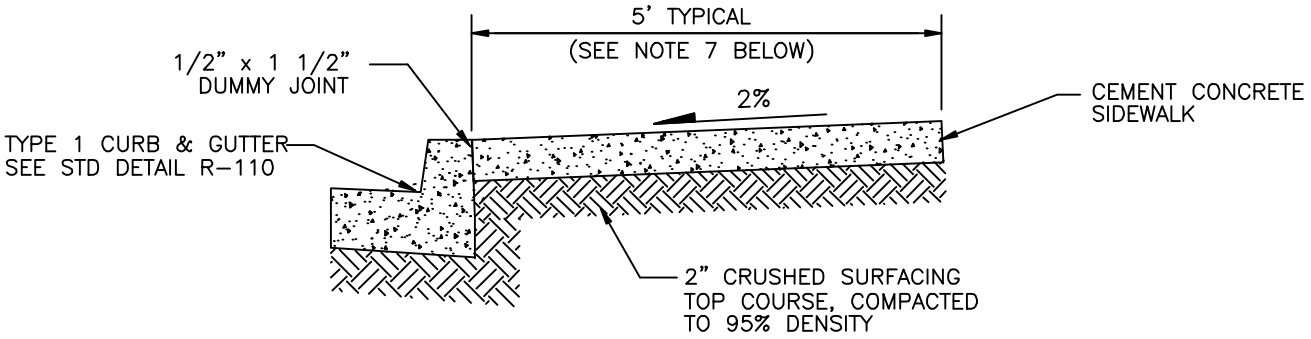
CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS
	DATE	07/31/2008	
	REF STD SPEC		PEDESTRIAN HANDRAIL DETAILS

STANDARD DETAIL NUMBER

R-160



PLAN VIEWS

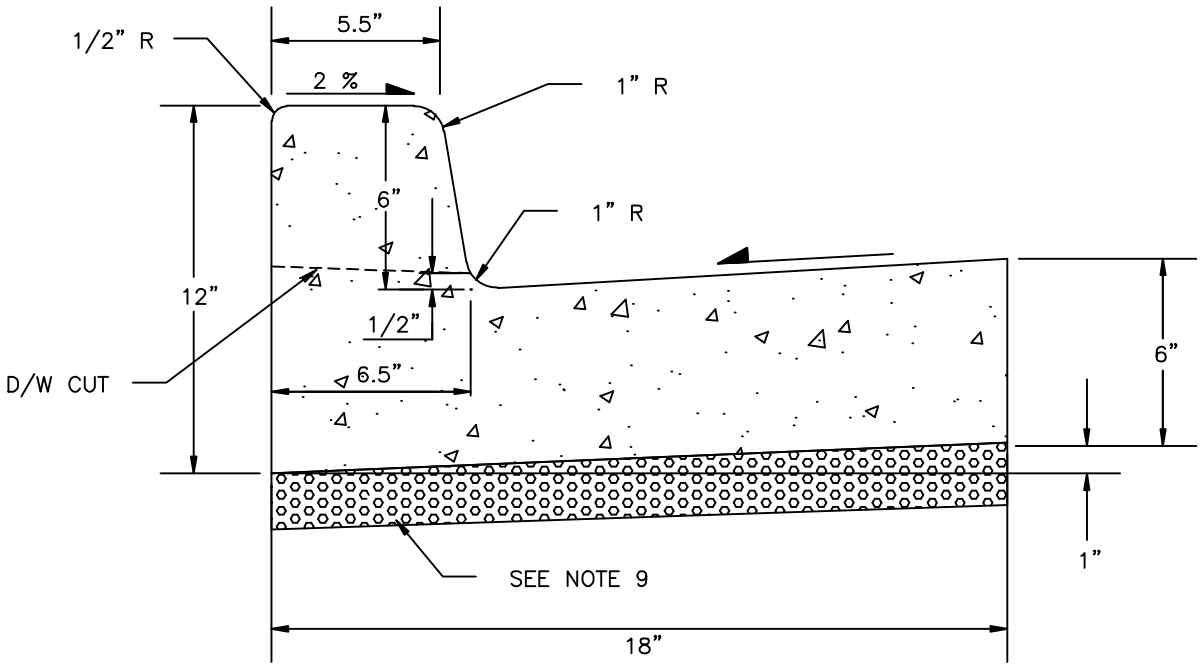


TYPICAL SECTION

NOTES:

1. SIDEWALKS SHALL BE A MINIMUM OF 4" THICK, AND SHALL BE CLASS 3000 CEMENT CONCRETE, WITH AIR ENTRAINMENT (MIN 4.5% – MAX 6.5%).
2. FULL EXPANSION JOINTS SHALL GENERALLY BE PLACED TO MATCH THOSE PLACED IN ADJACENT CURB & GUTTER, WITH MAXIMUM SPACING OF 30 FEET, FINAL SPACING DETERMINATION SHALL BE DECIDED BY THE INSPECTOR IN THE FIELD.
3. SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DENSITY.
4. SIDEWALK SHALL BE AT LEAST 6" THICK IN DRIVEWAYS.
5. THE FINISHED SIDEWALK SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND COVERED BY WATERPROOF PAPER OR PLASTIC SHEETING IN THE EVENT OF RAIN OR OTHER INCLEMENT WEATHER. CURING TIME SHALL BE FOR A MINIMUM OF 72 HOURS.
6. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 1/4" RADIUS.
7. SIDEWALKS ARE TYPICALLY 5' WIDE, WIDER SIDEWALK MAY BE REQUIRED BY THE CITY.

CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STD SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS CEMENT CONCRETE SIDEWALK	STANDARD DETAIL NUMBER R-170

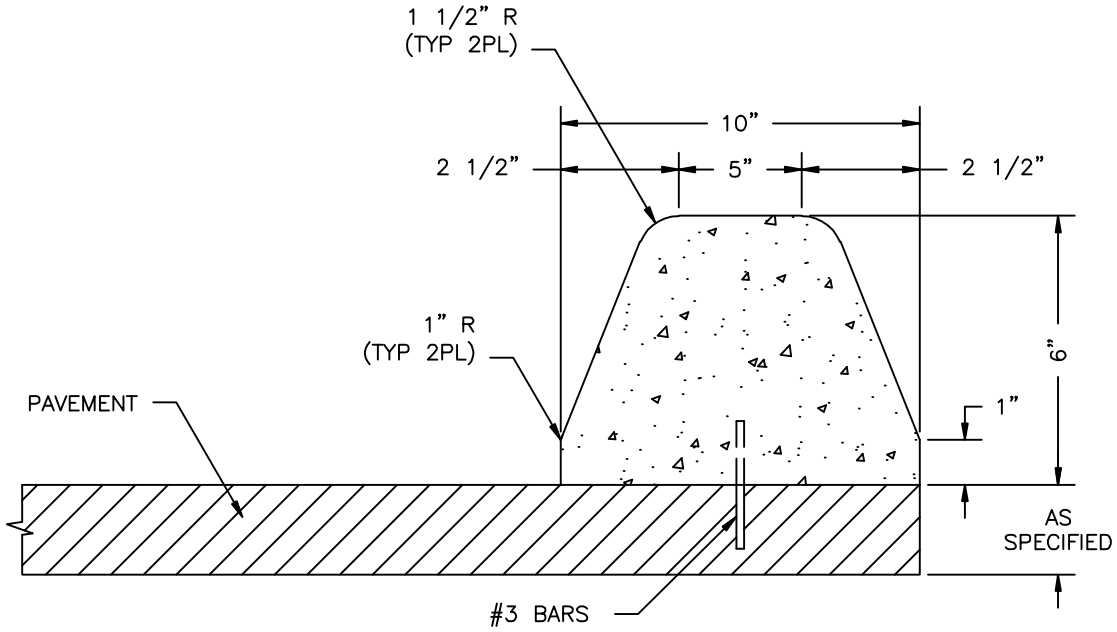


TYPICAL SECTION

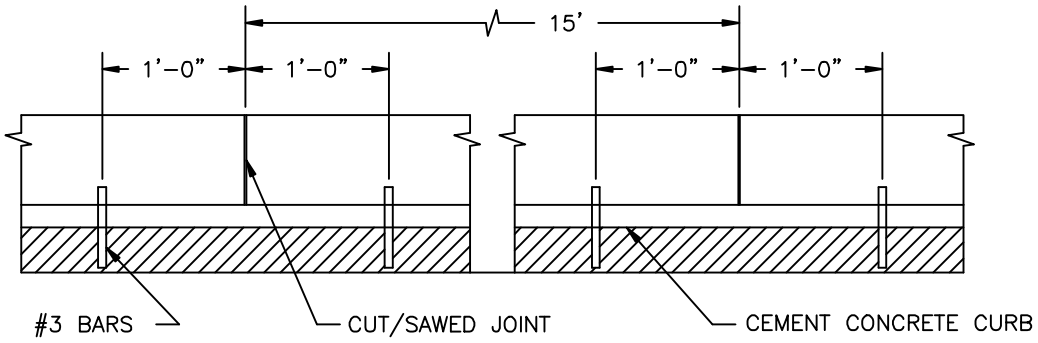
NOTES:

1. FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED.
2. DUMMY JOINTS SHALL BE PLACED 15 FEET ON CENTERS. DUMMY JOINTS SHALL BE 1/2" x 1–1/2".
3. THRU JOINTS SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS AND AT POINTS OF TANGENCY ON STREETS, ALLEY AND DRIVEWAY RETURNS. MAXIMUM SPACING SHALL BE 30 FT. PRE–MOLDED JOINT FILLER SHALL BE 1/2" WIIDE AND CONFORM TO AASHTO DESIGN M213.
4. ALL JOINTS SHALL BE CLEAN AND EDGED.
5. CONCRETE SHALL BE CEMENT CONCRETE, CLASS 3000.
6. STEEL FORMS ONLY SHALL BE USED ON TANGENT SECTIONS. WOOD FORMS MAY BE USED ON CURVED SECTIONS.
7. FINISH SHALL BE LIGHT BROOM FINISH.
8. THE FINISHED CURB SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND AND COVERED BY WATERPROOF PAPER OR PLASTIC MEMBRANE IN THE EVENT OF RAIN OR OTHER INCLEMENT WEATHER. CURING TIME SHALL BE A MINIMUM OF 72 HOURS.
9. ALL CURB AND GUTTER SHALL BE PLACED ON A MIN OF 2" OF CRUSHED SURFACING TOP COURSE.
10. DUMMY JOINT 1/2" x 1 1/2" BETWEEN TYPE 1 CURB AND GUTTER AND THE SIDEWALK.

CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS	STANDARD DETAIL NUMBER
	DATE	07/31/2008		
	REF STD SPEC		CEMENT CONCRETE CURB AND GUTTER TYPE 1	R–180



EXTRUDED CEMENT CONCRETE CURB

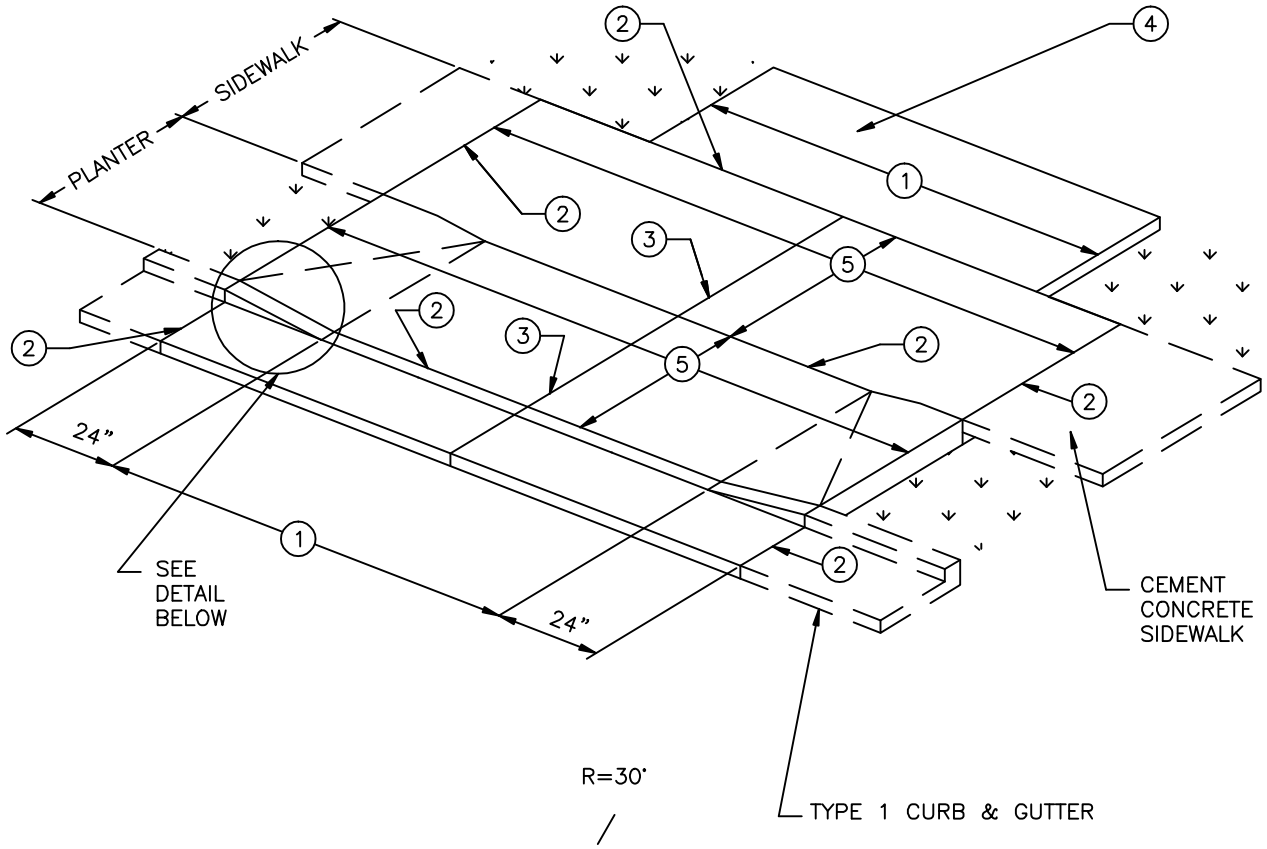


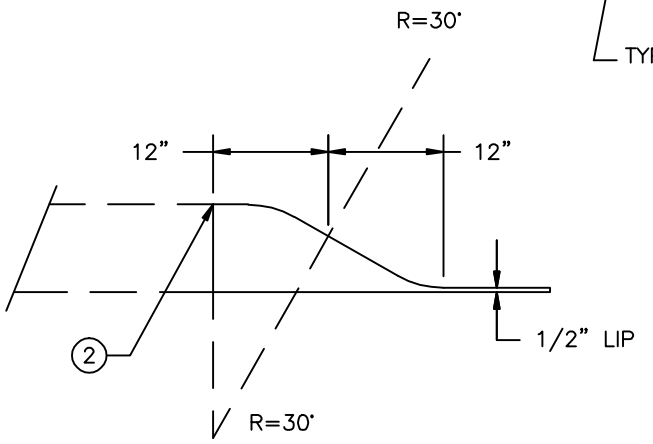
SPACING OF ANCHOR BARS

NOTES:

1. DUMMY JOINTS SHALL BE PLACED NOT TO EXCEED 15' ON CENTER. THRU JOINTS SHALL BE PLACED ONLY AT POINTS OF TANGENCY ON STREET ALLEY AND DRIVEWAY RETURNS AND WHERE THRU JOINTS OCCUR IN THE PAVEMENT SLAB.
2. CONCRETE SHALL BE CLASS 3000 OR COMMERCIAL WITH AIR-ENTRAINMENT.
3. AT THE CONTRACTOR'S OPTION CONCRETE CURBS MAY BE ANCHORED TO THE SIDE OF EVERY JOINT, OR BY USING AN ADHESIVE. THE ADHESIVE SHALL MEET THE REQUIREMENTS OF SECTION 9-20 OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR TYPE II EPOXY RESIN.

CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STD SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS EXTRUDED CONCRETE CURB	STANDARD DETAIL NUMBER R-200





CURB TRANSITION DETAIL

NOTES:

(1) WIDTH OF DRIVEWAY AT PROPERTY LINE.

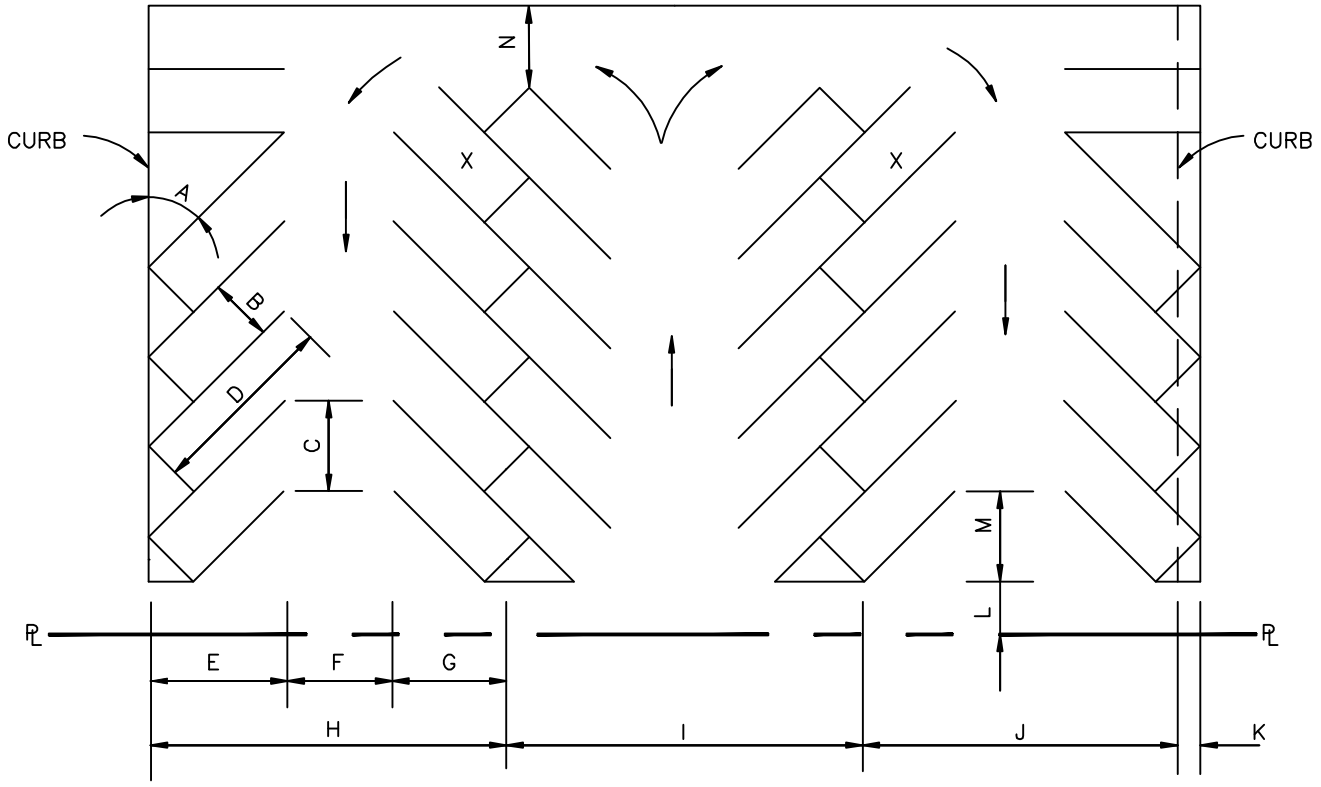
(2) 1/2" WIDE FULL DEPTH EXPANSION JOINT.

(3) FULL DEPTH EXPANSION JOINT IF (1) IS 15' OR GREATER

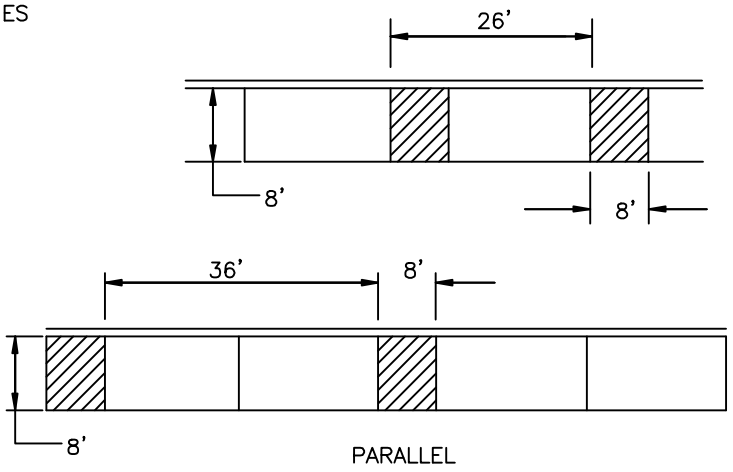
(4) DRIVEWAY TO BE SURFACED WITH ASPHALT OR CONCRETE.

(5) DRIVEWAY CEMENT CONCRETE SHALL BE A MIN OF 6" THICK IN RESIDENTIAL AREAS, 8" THICK IN COMMERCIAL AREAS, AND IS TO BE PLACED ON A MINIMUM OF 2" CRUSHED SURFACING TOP COURSE COMPACTED TO 95% MAXIMUM DENSITY.

CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STD SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS CEMENT CONCRETE DRIVEWAY APPROACH TYPE 1	STANDARD DETAIL NUMBER R-220



A = PARKING ANGLE
B = STALL WIDTH, PERPENDICULAR TO STALL LINES
C = STALL WIDTH, PARALLEL TO AISLE
D = LENGTH OF STALL LINE
E = STALL DEPTH, PERPENDICULAR TO AISLE
F = AISLE WIDTH, BETWEEN STALL LINES
G = STALL DEPTH, INTERLOCKING
H = MODULE, WALL TO INTERLOCK
I = MODULE, INTERLOCK TO INTERLOCK
J = MODULE, INTERLOCK TO CURB
K = BUMPER OVERHANG
L = OFFSET
M = SETBACK
N = CROSS AISLE, ONE WAY
N = CROSS AISLE, TWO WAY
X = STALL NOT ACCESSIBLE IN CERTAIN LAYOUTS.



PARALLEL

CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS
	DATE	07/31/2008	
	REF STD SPEC		TYPICAL PARKING LAYOUT

STANDARD DETAIL NUMBER

R-240

PARKING STALL GEOMETRY DETAIL

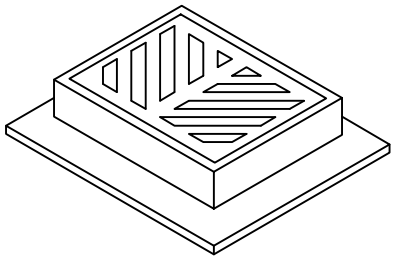
SEE STD PLAN NO. R-210 FOR TYPICAL PARKING LAYOUT.

PARKING ANGLE (DEGREES) A		STALL WIDTH PERPENDICULAR TO STALL LINES B	STALL WIDTH PARALLEL TO AISLE C	LENGTH OF STALL LINE D	STALL DEPTH PERPENDICULAR TO AISLE E	AISLE WIDTH BETWEEN STALL LINES (SEE NOTE 1) F	STALL DEPTH INTERLOCKING G	MODULE, WALL TO INTERLOCK H	MODULE, INTERLOCK TO INTERLOCK I	MODULE, INTERLOCK TO CURB J	BUMPER, OVERHANG (TYPICAL) K	OFFSET L	SETBACK M	CROSS AISLE (ONE WAY) N	CROSS AISLE (TWO WAY) N
45°		9.0	12.7	27.5	19.5	12	16.5	48.0	45	46.0	2.0	6.4	13.1	14	24
		9.5	13.4	27.5	19.5	11	16.5	47.0	44	45.0	2.0	6.4	13.1	14	24
	C	8.0	11.3	22.5	16.0	11					2.0			14	24
	H	13.0	18.3	27.5	19.5	11					2.0			14	24
	V	16.0	22.5	32.0	22.6	12					2.0			14	24
60°		9.0	10.4	23.7	20.5	16	18.5	55.0	53	53.7	2.3	2.6	9.3	14	24
		9.5	11.0	23.7	20.5	15	18.5	54.0	52	51.7	2.3	2.6	9.3	14	24
	C	8.0	9.3	19.5	16.7	14					2.3			14	24
	H	13.0	15.0	23.7	20.5	15					2.3			14	24
	V	16.0	18.5	26.9	23.3	16					2.3			14	24
75°		9.0	9.3	20.9	20.0	23	19.0	62.0	61	59.5	2.5	.6	4.8	14	24
		9.5	9.8	20.9	20.0	22	19.0	61.0	60	58.5	2.5	.6	4.8	14	24
	C	8.0	8.3	17.0	16.3	18					2.5			14	24
	H	13.0	13.5	20.9	20.0	22					2.5			14	24
	V	16.0	16.6	23.2	22.4	24					2.5			14	24
90°		9.0	9.0	19.0	19.0	26	19.0	66	66	66	2.5	0	0	14	24
		9.5	9.5	19.0	19.0	25	19.0	63	63	63	2.5	0	0	14	24
	C	8.0	8.0	15.0	15.0	22					2.5		0	14	24
	H	13.0	13.0	18.5	18.5	25					2.5		11	14	24
	V	16.0	16.0	20.0	20.0	24					2.5			14	24

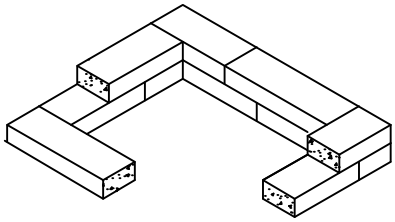
NOTES:

1. AISLE WIDTH MAY BE REQUIRED TO BE WIDER IF MULTIPLE UTILITY LINES ARE LOCATED WITHIN THE AISLE CORRIDOR.
2. C = COMPACT SPACE. EACH SPACE SHALL BE IDENTIFIED BY PAINTING "COMPACT" ON PAVEMENT.
3. H = HANDICAP SPACE, SEE WASHINGTON STATE REGULATIONS FOR BARRIER FREE FACILITIES.
4. V = HANDICAP VAN ACCESSIBLE SPACE, SEE WASHINGTON STATE REGULATIONS FOR BARRIER FREE FACILITIES.

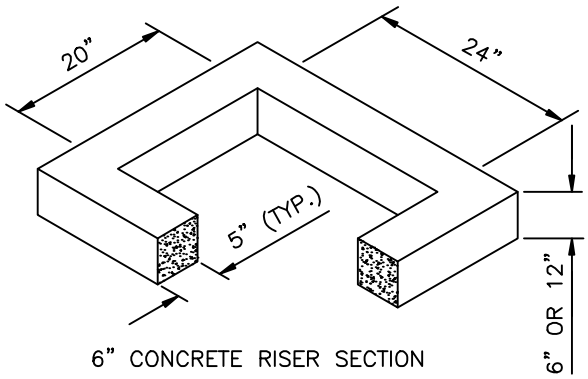
CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STD SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS PARKING LOT DETAIL	STANDARD DETAIL NUMBER R-250



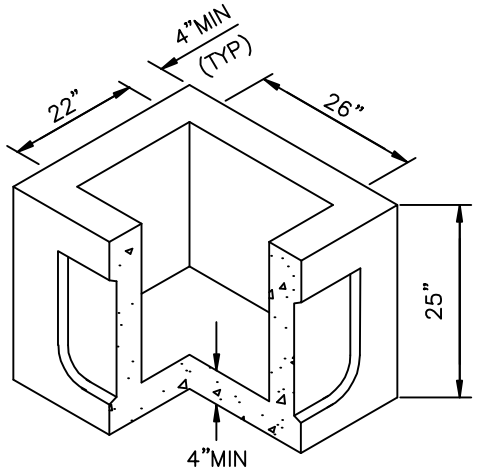
FRAME AND GRATE, SEE APPLICABLE STANDARD DETAILS



2"X4"X8" SOLID BRICK USED FOR FINAL ADJUSTMENT TO GRADE, 6" HIGH MAX.



6" CONCRETE RISER SECTION

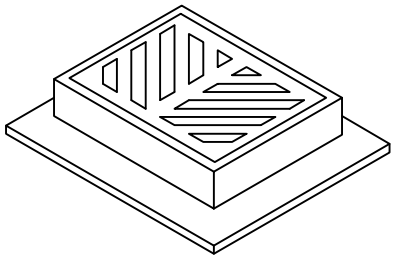


PRE-CAST BASE SECTION
(MEASUREMENT AT THE TOP OF THE BASE)

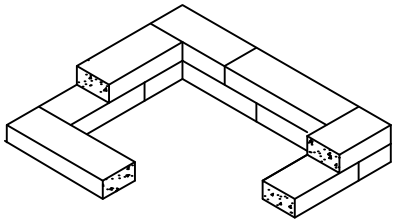
NOTES:

1. CONCRETE INLET TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 & C890 UNLESS OTHERWISE SHOWN ON THE PLANS OR NOTED IN THE STANDARD SPECIFICATIONS. ALL CONCRETE SHALL BE CLASS 4000.
2. REINFORCING SHALL BE EQUIVALENT TO WELDED WIRE FABRIC (WWF) HAVING A MINIMUM AREA OF 0.12 SQUARE INCH PER FOOT. WWF SHALL COMPLY TO ASTM A497. WWF SHALL NOT BE PLACED IN KNOCKOUTS.
3. THE BOTTOM OF THE PRE-CAST BASE SECTION MAY BE ROUNDED.
4. PRE-CAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTSIDE DIAMETER PLUS CONCRETE INLET WALL THICKNESS. KNOCKOUTS MAY BE ROUND OR "D" SHAPED AND MAY BE ON ALL 4 SIDES WITH MAXIMUM DIAMETER OF 17".
6. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
7. THE TAPER ON THE SIDES OF THE PRE-CAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FOOT.
8. FRAME AND GRATE SHALL BE IN ACCORDANCE WITH WSDOT/APWA SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
9. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.

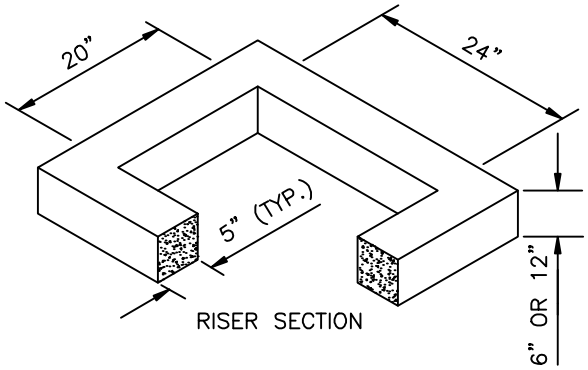
CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STAN SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL CONCRETE INLET	STANDARD DETAIL NUMBER SD-010



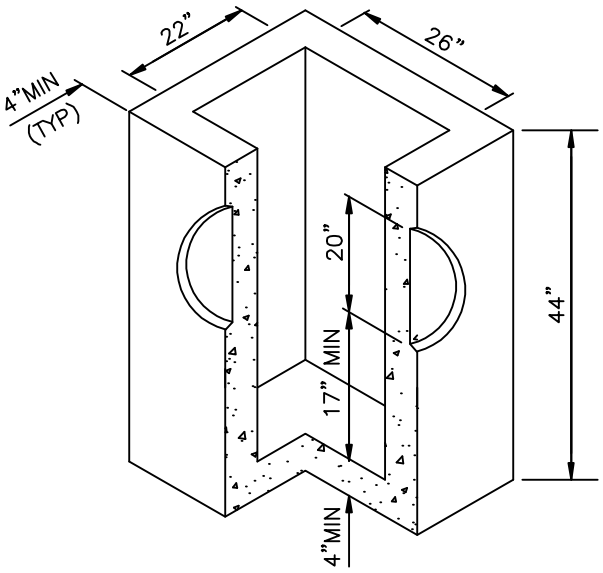
FRAME AND GRATE (OR SOLID COVER), SEE APPLICABLE STANDARD DETAILS



2"X4"X8" SOLID BRICK USED FOR FINAL ADJUSTMENT TO GRADE, 6" HIGH MAX.



RISER SECTION

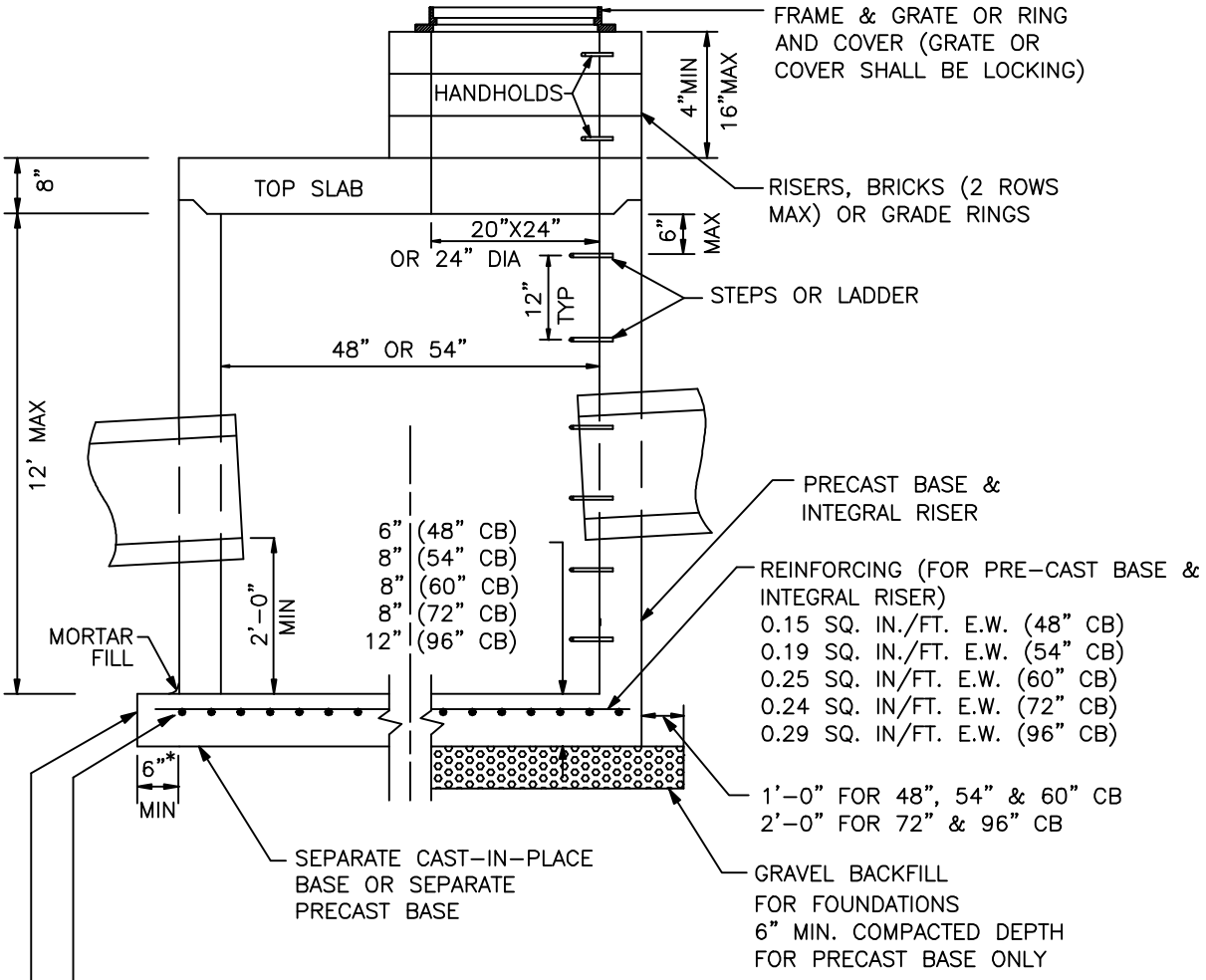


PRE-CAST BASE SECTION
(MEASUREMENT AT THE TOP OF THE BASE)

NOTES:

1. CONCRETE INLET TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 & C890 UNLESS OTHERWISE SHOWN ON THE PLANS OR NOTED IN THE STANDARD SPECIFICATIONS. ALL CONCRETE SHALL BE CLASS 4000.
2. REINFORCING SHALL BE EQUIVALENT TO WELDED WIRE FABRIC (WWF) HAVING A MINIMUM AREA OF 0.12 SQUARE INCH PER FOOT. WWF SHALL COMPLY TO ASTM A497. WWF SHALL NOT BE PLACED IN KNOCKOUTS.
3. THE BOTTOM OF THE PRE-CAST BASE SECTION MAY BE ROUNDED.
4. PRE-CAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTSIDE DIAMETER PLUS CATCH BASIN WALL THICKNESS. KNOCKOUTS MAY BE ROUND OR "D" SHAPED AND MAY BE ON ALL 4 SIDES WITH MAXIMUM DIAMETER OF 20".
6. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
7. THE TAPER ON THE SIDES OF THE PRE-CAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2" PER FOOT.
8. FRAME AND GRATE SHALL BE IN ACCORDANCE WITH WSDOT/APWA SPECIFICATIONS. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
9. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
10. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.

CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STAN SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL CATCH BASIN TYPE 1	STANDARD DETAIL NUMBER SD-020

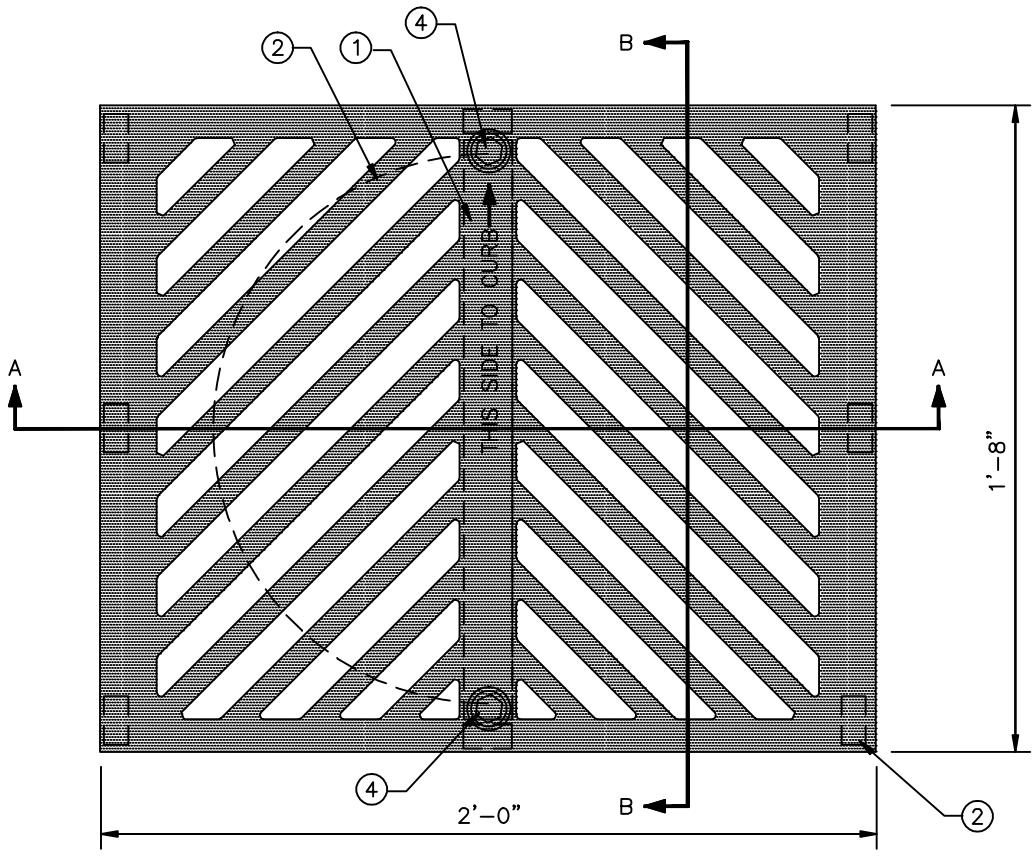


PRECAST BASE JOINT

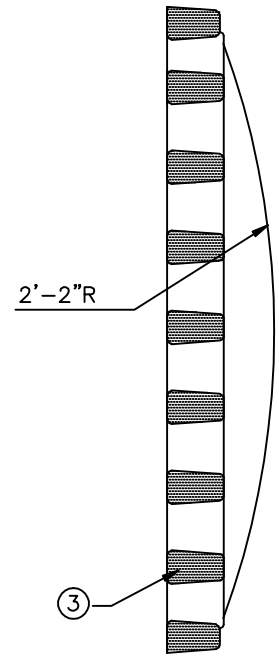
NOTES:

1. HANDHOLDS IN RISER OR ADJUSTMENT SECTION SHALL HAVE A 3" MINIMUM CLEANANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MINIMUM CLEANANCE. NO STEPS ARE REQUIRED WHEN "B" IS 4' OR LESS. HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MINIMUM OF ONE HANDHOLD BETWEEN THE LAST STEP AND TOP OF THE FINISHED GRADE.
2. MINIMUM SOIL BEARING STRENGTH SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT.
3. MORTAR SHALL BE PLACED BETWEEN EACH LEVEL OF ADJUSTING RINGS. TOP OF TOP SLAB, AND BOTTOM OF IRON RING.
4. SEE THE STANDARD SPECIFICATIONS FOR MORE REQUIREMENTS.

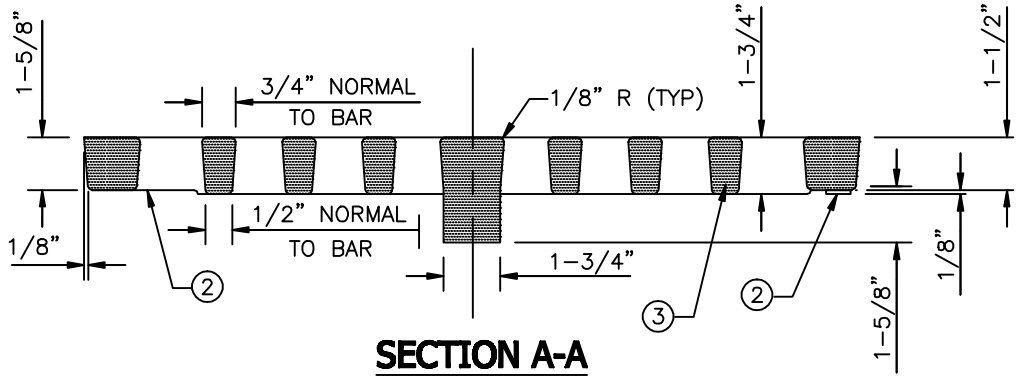
CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STAN SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL CATCH BASIN TYPE 2 48", 54", 60", 72" & 96"	STANDARD DETAIL NUMBER SD-040



PLAN



SECTION B-B

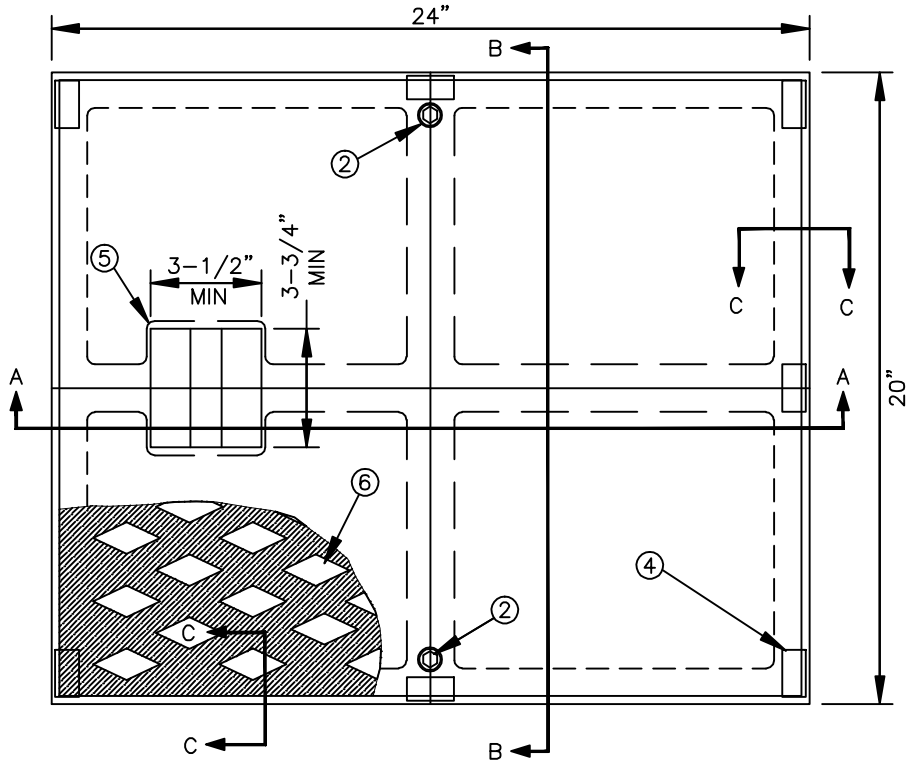


SECTION A-A

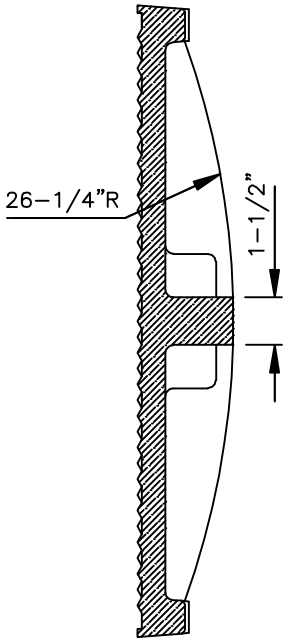
NOTES:

1. FOUNDRY NAME, THIS SIDE TO CURB W/ARROW AND (DI) FOR DUCTILE IRON SHALL BE EMBOSSED ON TOP OF GRATE WITH 1/16" RECESSED LETTERS.
2. SEATING OF GRATE SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING: A. 8 INTEGRALLY CAST PADS (1-1/2"x3/4"x1/8"). B. MACHINE BOTTOM SURFACE OUTSIDE A 17" DIA.
3. MATERIAL USED SHALL BE DUCTILE IRON PER ASTM-A536, GRADE 80-55-06. ALL CASTINGS SHALL HAVE A BITUMINOUS COATING.
4. LOCKING GRATE CASTED HOLES SHALL BE CASTED TO ALLOW FOR TWO 5/8" DIA STAINLESS STEEL SOCKET HEAD CAP SCREWS SO THAT NO PART OF HEAD PROTRUDES ABOVE TOP OF CASTING.
5. GRATE TO BE USED WITH FRAME SHOWN IN STANDARD DETAIL SD-090.

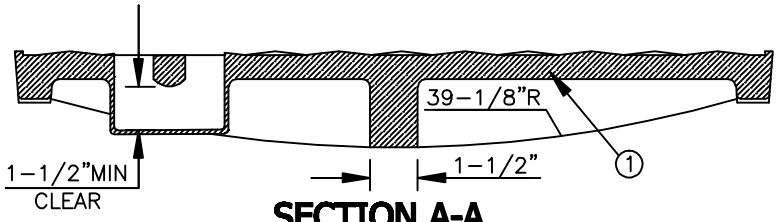
CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL	STANDARD DETAIL NUMBER
	DATE	07/31/2008		
	REF STAN SPEC		STANDARD GRATE CATCH BASIN INLET	SD-060



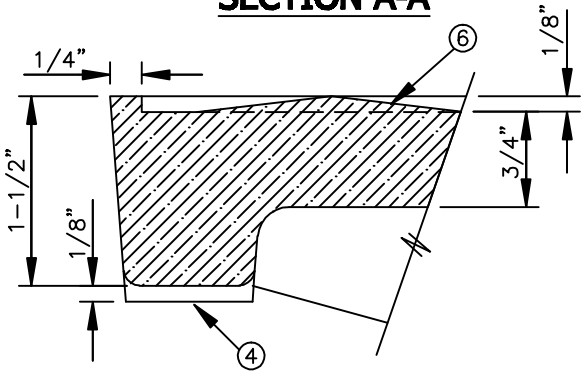
TOP VIEW



SECTION B-B



SECTION A-A

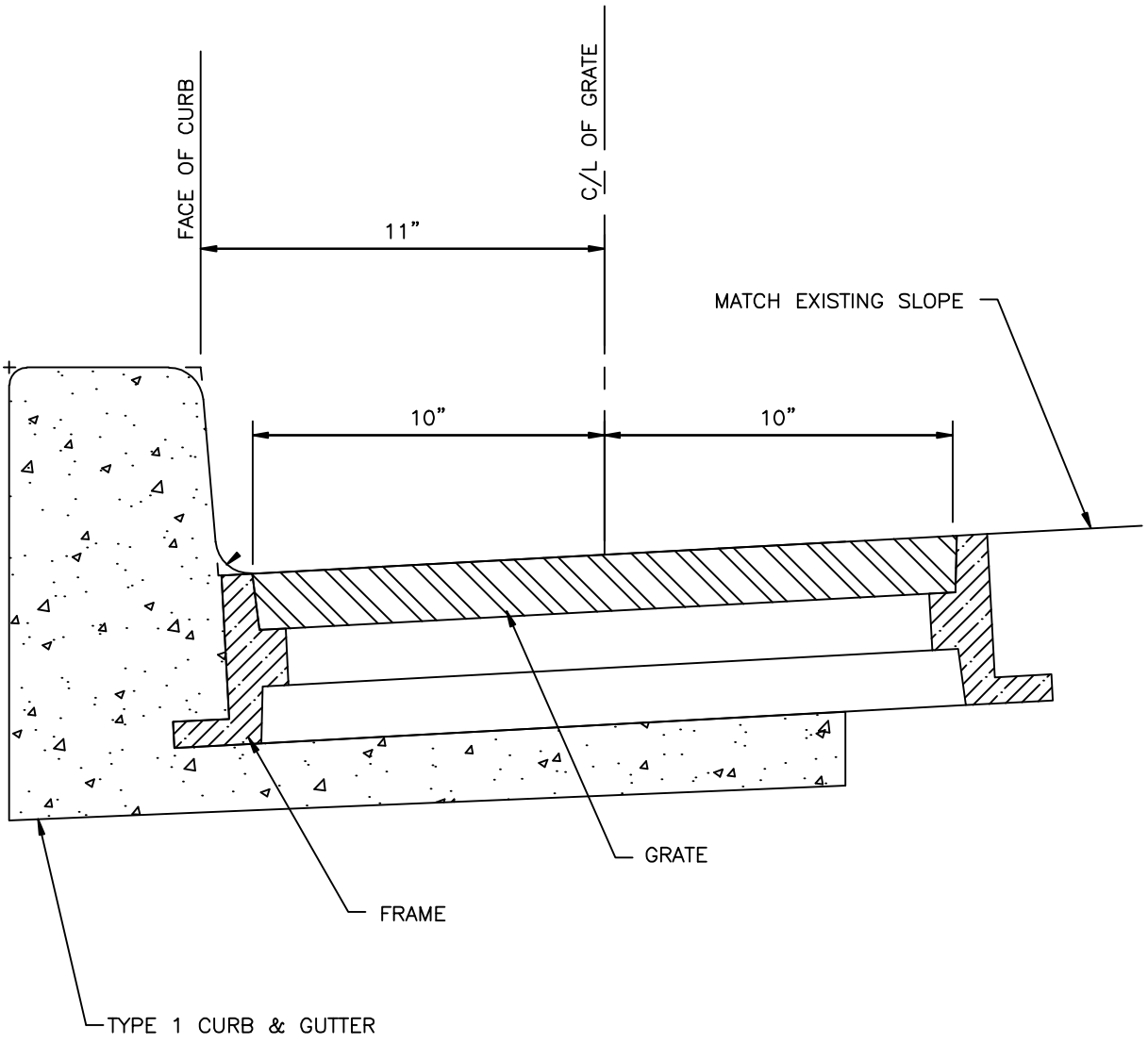


SECTION C-C

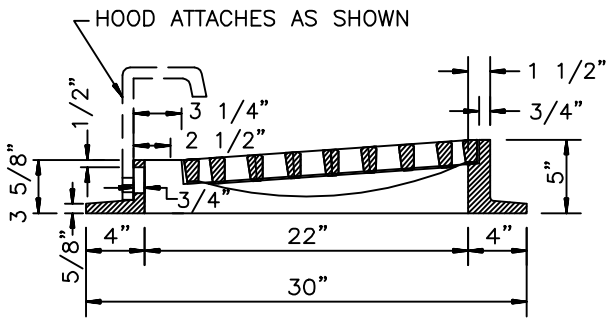
NOTE:

1. MATERIAL USED SHALL BE DUCTILE IRON PER ASTM-A536, GRADE 80-55-06, WITH BITUMINOUS COATING.
2. LOCKING HOLES TO BE PROVIDED IN CASTING TO ALLOW FOR TWO 5/8" DIA STAINLESS STEEL, SOCKET HEAD CAP SCREWS. NO PART OF SCREW WILL PROTRUDE ABOVE GRATE.
3. GRATE TO BE USED WITH FRAME SHOWN IN STD DETAIL SD-090.
4. GRATE SEATING: 8 INTEGRALLY CAST PADS.
5. CAST POCKET LIFT HANDLE.
6. NON-SKID DIAMOND PATTERN APPROX 2-1/2"x1"x1/8" HIGH

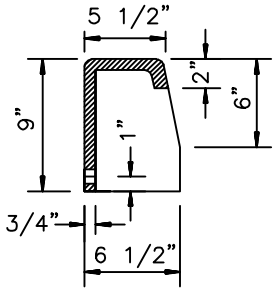
CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STAN SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL SOLID COVER	STANDARD DETAIL NUMBER SD-080



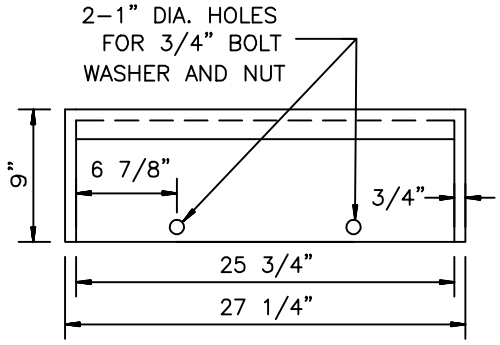
CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL	STANDARD DETAIL NUMBER
	DATE	07/31/2008		
	REF STAN SPEC		TYPICAL FRAME AND GRATE INSTALLATION	SD-090



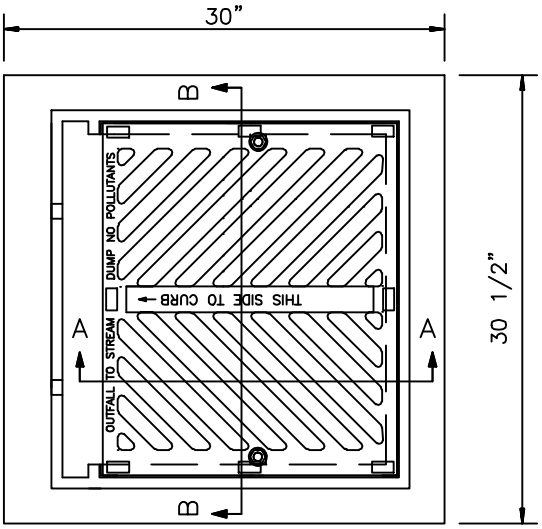
SECTION A-A



HOOD DETAIL - SECTION

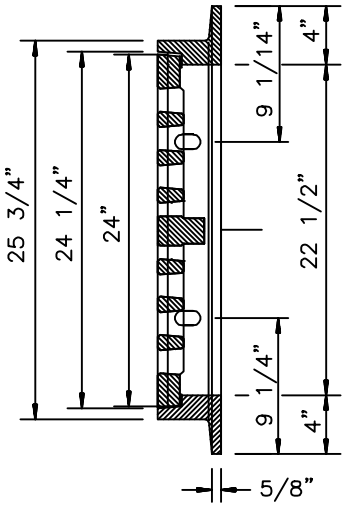


HOOD DETAIL - FRONT



NOTES:

1. GRATE SHALL EITHER BE STANDARD GRATE OR VANED GRATE.
2. GRATE SHALL BE LOCKED DOWN WITH (2) 5/8" STAINLESS STEEL SOCKET HEAD CAP SCREWS.
3. LEVELING PADS 1 1/2"X 3/4"X 1/8" SHALL BE USED.
4. FRAME SHALL BE CAST IRON ASTM A48 CL. 30.
5. INSTALL 3/16" NON–SKID DIAMOND PATTERN ON TOP SURFACE OF HOOD.
6. BOLT, WASHER, AND NUT SHALL BE GALVANIZED OR CORROSION RESISTANT.
7. FOR INSTALLATION ON ARTERIALS. FOR NON–ARTERIALS, ALTERNATE THROUGH CURB INLET FRAMES FOR 18" X 24" GRATES MAY BE INSTALLED.

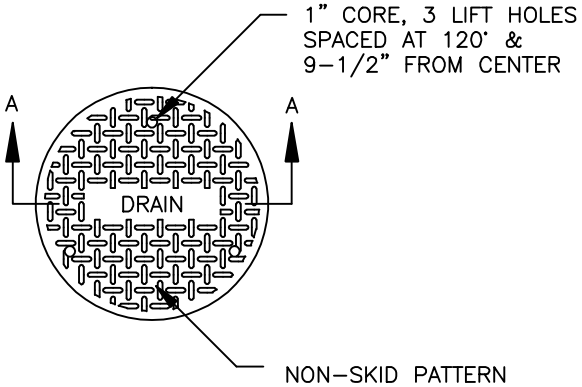


SECTION B-B

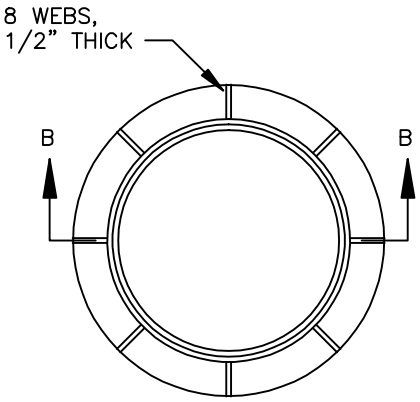
CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL
	DATE	07/31/2008	
	REF STAN SPEC		THROUGH CURB INLET FRAME

STANDARD DETAIL NUMBER

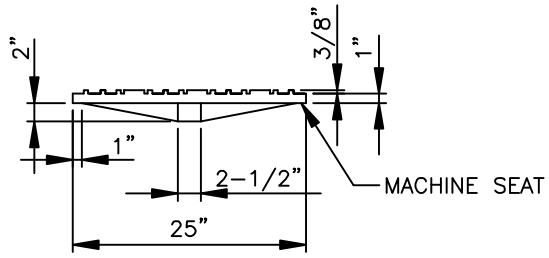
SD–100



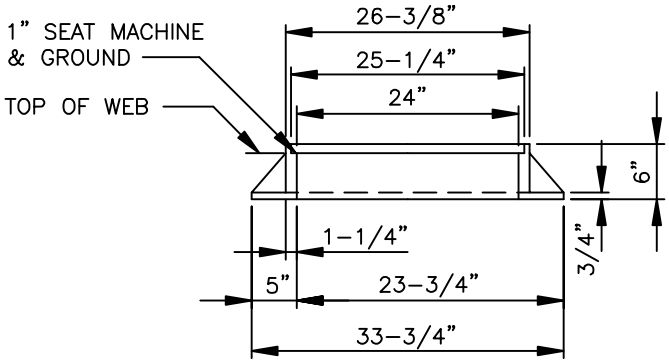
PLAN



FRAME PLAN



SECTION A-A



SECTION B-B

COVER NOTES:

1. USE WITH THREE LOCKING BOLTS 5/8"DIA STAINLESS STEEL TYPE 304 SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG. DRILL HOLES SPACED 120° TO MATCH HOLES IN RING.
2. COVER MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
3. APPROXIMATE WEIGHT OF COVER IS 150 LBS.
4. TRAFFIC RATING: H-20.

RING NOTES:

1. DRILL THREE 5/8" HOLES THROUGH RING SPACED AT 120°.
2. RING MATERIAL IS GREY IRON, ASTM A-48 CLASS 30.
3. APPROXIMATE WEIGHT OF RING IS 215 LBS.
4. TRAFFIC RATING: H-20.

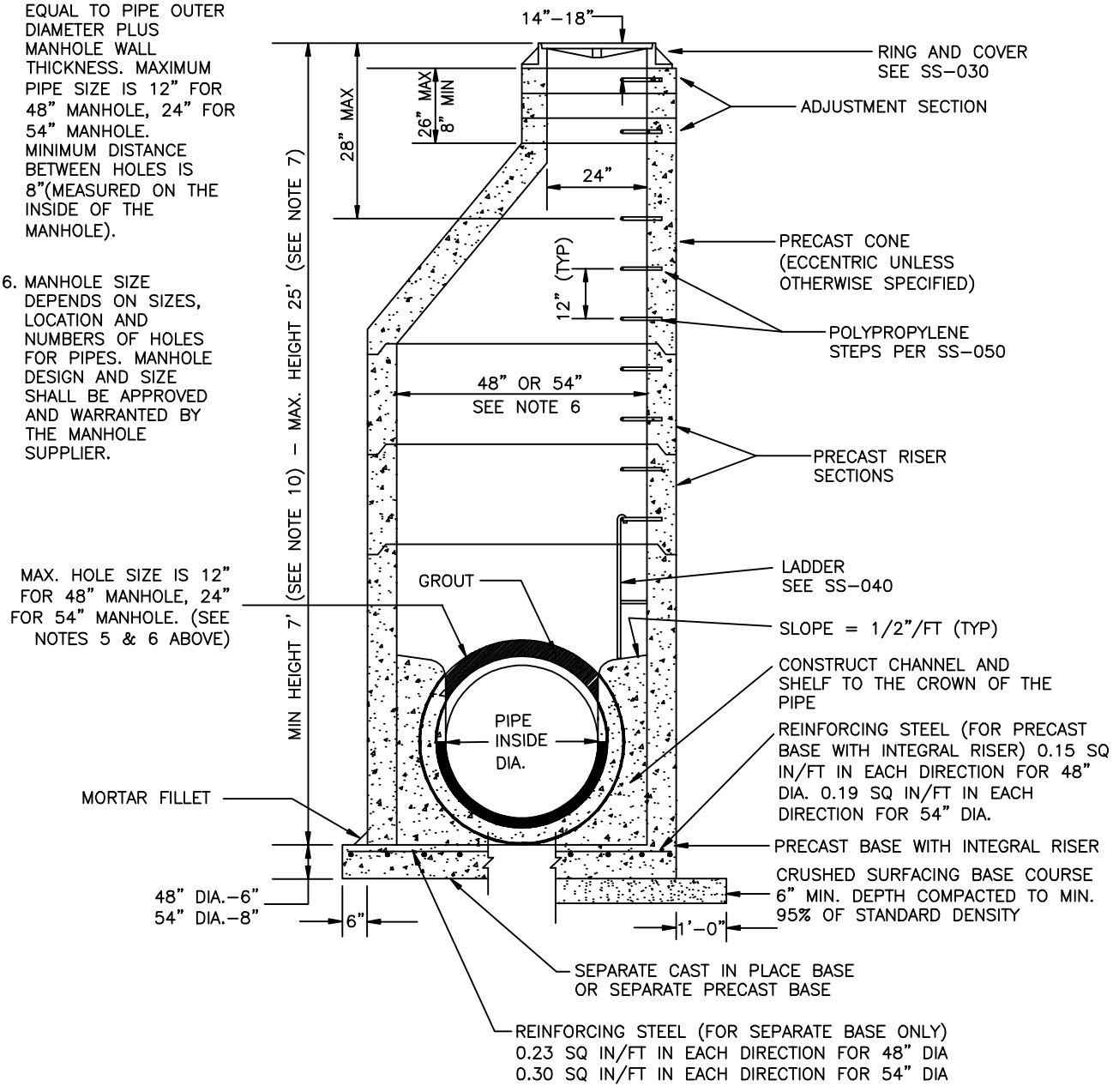
CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL
	DATE	07/31/2008	
	REF STAN SPEC		24" BOLT-LOCKING MANHOLE RING & COVER

STANDARD DETAIL NUMBER

SD-110

NOTES:

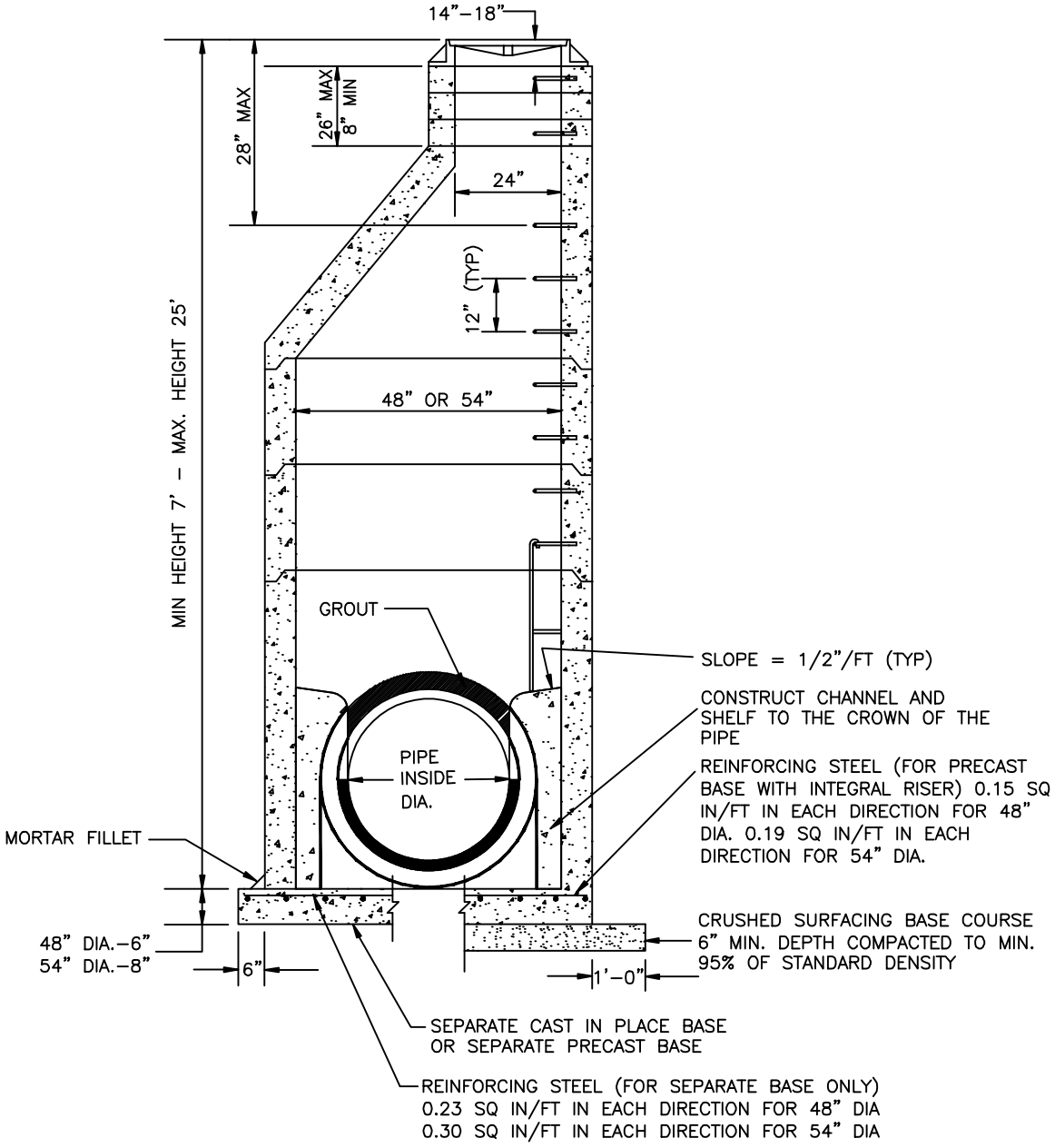
1. MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M–199 (ASTM C 478) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN STANDARD SPECIFICATIONS.
2. ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON–REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
3. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS.
4. ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.
5. CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE WALL THICKNESS. MAXIMUM PIPE SIZE IS 12" FOR 48" MANHOLE, 24" FOR 54" MANHOLE. MINIMUM DISTANCE BETWEEN HOLES IS 8"(MEASURED ON THE INSIDE OF THE MANHOLE).
6. MANHOLE SIZE DEPENDS ON SIZES, LOCATION AND NUMBERS OF HOLES FOR PIPES. MANHOLE DESIGN AND SIZE SHALL BE APPROVED AND WARRANTED BY THE MANHOLE SUPPLIER.
7. FOR DEPTHS OVER 25' MANHOLE BASE SLAB DESIGN SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
8. ALL INTERIOR AND EXTERIOR JOINTS TO BE GROUTED (SEE GROUT SPECIFICATIONS). GROUT TO BE 1/2" THICK MINIMUM AND 3" EACH SIDE OF JOINT MINIMUM. THEY MUST BE INSPECTED PRIOR TO BACKFILL.
9. CORE DRILLING ONLY, HAMMERING KNOCKOUTS WILL NOT BE ALLOWED. KOR–N–SEAL FACTORY INSTALLED BOOTS ARE ALLOWED.
10. MANHOLES 5'–7' DEEP MUST BE FLAT TOPS.



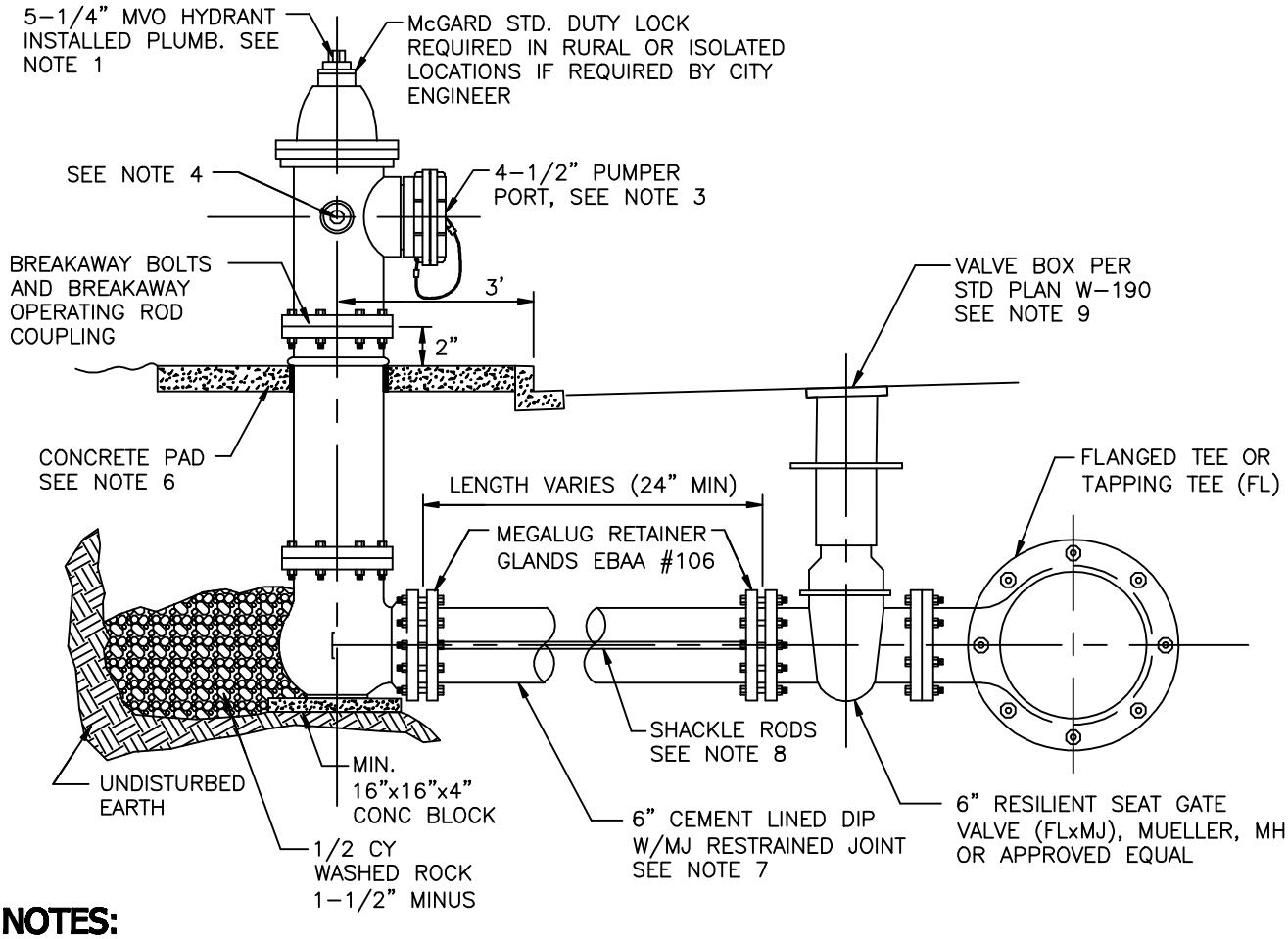
CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL
	DATE	07/31/2008	
	REF STAD SPEC		MANHOLE TYPE I
			STANDARD DETAIL NUMBER SS–010

NOTES:

1. SADDLE MANHOLE MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING SEWER LINE. SIZE, LOCATION, AND ANGLE MUST BE AS REQUIRED BY PLANS.
2. OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED PIPE.
3. CONSTRUCT BENCH AND INVERT TO ALLOW SMOOTH TRANSITION OF FLOW FROM NEW SEWER TO EXISTING SEWER.
4. ALL NOTES ON SS-010 AND SS-015 ALSO APPLY TO THIS DETAIL.



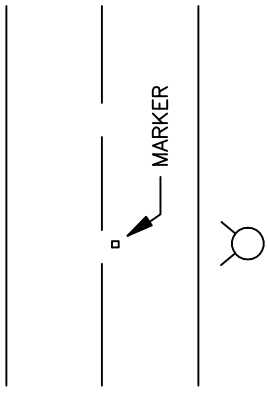
CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAIL
	DATE	07/31/2008	
	REF STAD SPEC		SADDLE MANHOLE
			STANDARD DETAIL NUMBER SS-020

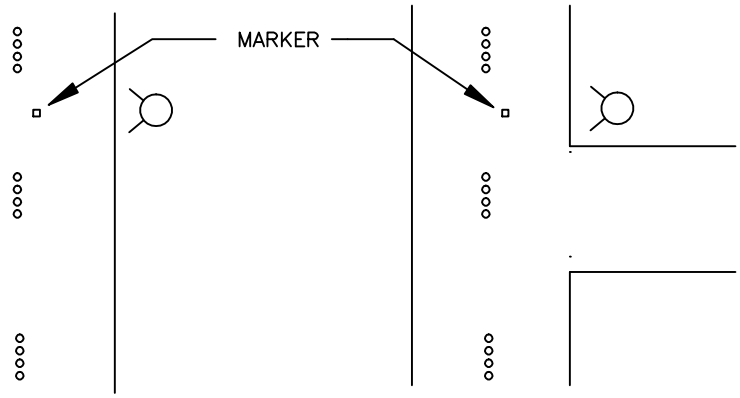


NOTES:

1. HYDRANTS AND ALL MATERIALS SHALL CONFORM TO AWWA STANDARDS AND SHALL BE OF STANDARD MANUFACTURE (M&H 929 RELIANT OR MUELLER SUPER CENTURION 250 ONLY).
2. THE CENTER OF THE HYDRANT SHALL BE 3' FROM FACE OF CURB. IF THERE IS NO CURB, THE CENTER OF HYDRANT SHALL BE 3' FROM RIGHT–OF–WAY AND A MINIMUM OF 5' FROM TRAVELED LANE.
3. ONE 5" TO 4–1/2" PUMPER PORT W/N.S.T. AND STORZ ADAPTER ASSEMBLY. PUMPER PORT TO BE FACING STREET OR ROADWAY FOR THE FIRE ENGINE ACCESS.
4. TWO 2–1/2" HOSE PORTS W/N.S.T. AND 1–1/4" OPERATING NUTS.
5. PROVIDE GUARD POSTS FOR VEHICULAR TRAFFIC PROTECTION IF REQUIRED BY CITY ENGINEER PER STD. DETAIL W–030.
6. INSTALL 3'x3'x4" CONCRETE PAD (3000 PSI) AROUND HYDRANT IN UNPAVED AREAS INCLUDING PLANTER STRIPS. COMPLETELY SURROUND HYDRANT W/FULL DEPTH OF CONCRETE PAD WITH 1/4" JOINT MATERIAL BEFORE PLACING CONCRETE.
7. HYDRANT RUN TO BE 6" CEMENT LINED DUCTILE IRON PIPE CLASS 52 WITH RESTRAINED JOINTS (MEGALUG OR APPROVED EQUAL). HYDRANT RUN LONGER THAN 50 FEET SHALL BE 8" DIA. OR LARGER.
8. ¾" GALV. SHACKLE RODS WITH THE EYE BOLTS AT BOTH ENDS REQUIRED FROM VALVE TO HYDRANT.
9. FIRE HYDRANTS SHALL BE PAINTED WITH TWO COATS OF HIGH GLOSS EQUIPMENT YELLOW "RUST–OLEUM" TYPE PAINT.
10. INSTALL 24"x24"x4" CONCRETE PAD (3000 PSI) AROUND VALVE BOX AND 48"x48"x4" FOR MULTIPLE VALVE BOXES IN UNPAVED AREA.

CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS	STANDARD DETAIL NUMBER
	DATE	07/31/2008		
	REF STAD SPEC		FIRE HYDRANT ASSEMBLY	W–010



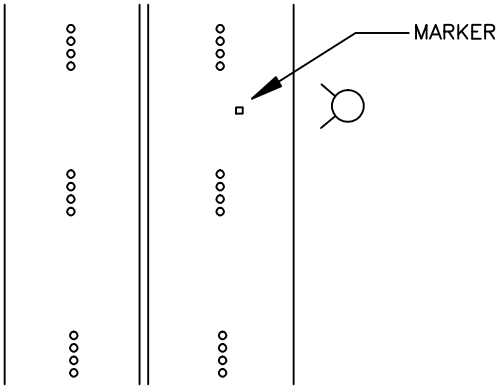


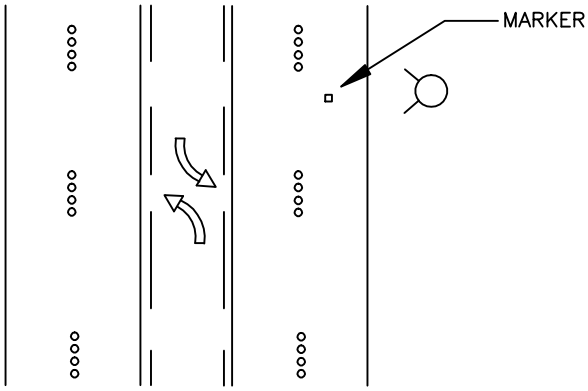
TWO LANE ROAD

OFFSET MARKER TO INDICATE WHICH SIDE OF STREET HYDRANT IS ON. MARKER TO BE PLACED 4" TO 6" OFF OF CENTERLINE

ON SIDE STREETS

WHERE THE HYDRANT IS WITHIN 20' OF THE MAIN TRAVELED STREET, THE MARKER IS TO BE INSTALLED ON THAT MAIN STREET AND 4" TO 6" OFF THE CENTERLINE.





FOUR LANE ROAD

OFFSET MARKER TO INDICATE WHICH SIDE OF STREET HYDRANT IS ON. MARKER TO BE PLACED 4" TO 6" OFF OF DOTS OR PAINTED LANE DIVIDER.

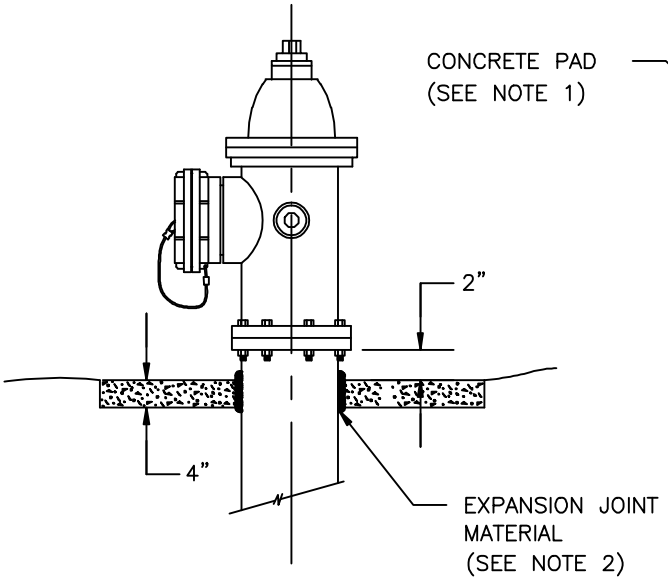
FIVE LANE ROAD

OFFSET MARKER TO INDICATE WHICH SIDE OF STREET HYDRANT IS ON. MARKER TO BE PLACED 4" TO 6" OFF OF DOTS OR PAINTED LANE DIVIDER.

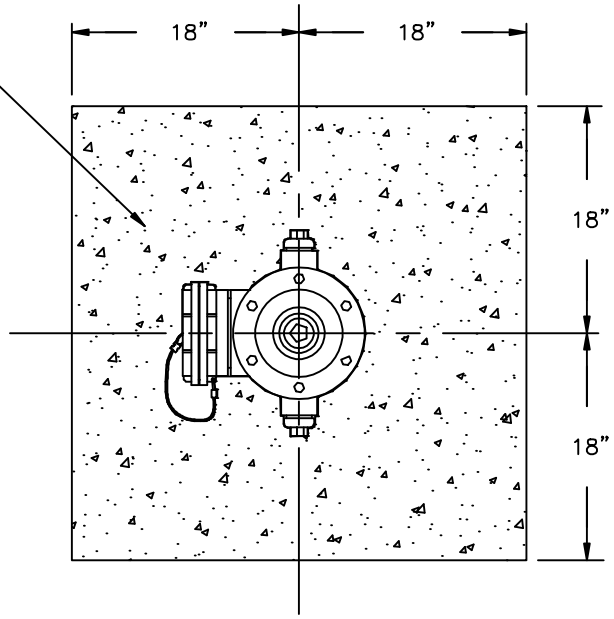
NOTE:

MARKER: TYPE 88 AB STIMSONITE TWO WAY (BLUE)

CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS	STANDARD DETAIL NUMBER
	DATE	07/31/2008		
	REF STAD SPEC		FIRE HYDRANT MARKER	W-015



ELEVATION



PLAN

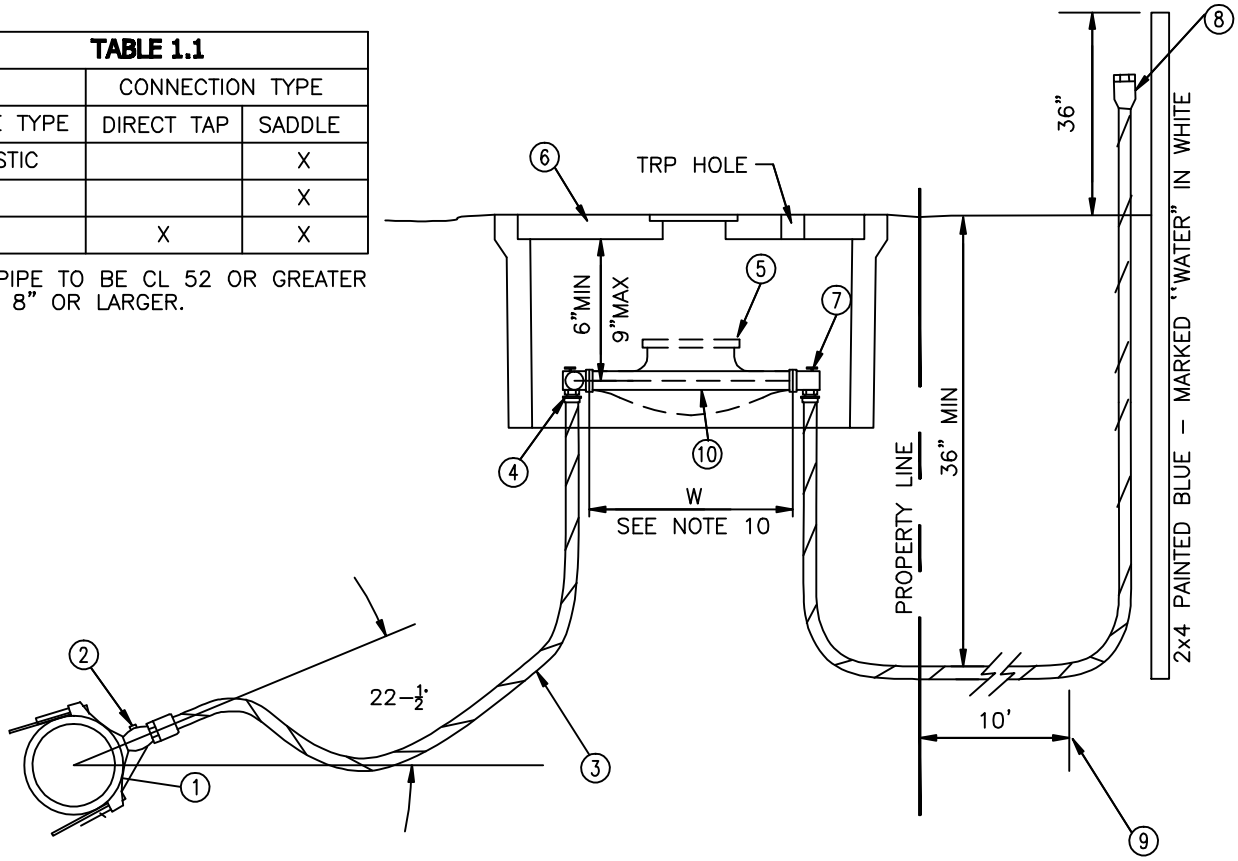
NOTES:

1. CONCRETE SHALL BE CLASS 3000 PSI MIN.
2. INSTALL 1/4" EXPANSION JOINT MATERIAL WITH FULL DEPTH OF CONCRETE PAD AROUND HYDRANT.

CITY OF ARLINGTON	APPROVED BY: L. OLIVE DATE: 07/31/2008 REF STAD SPEC:	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS FIRE HYDRANT CONCRETE PAD	STANDARD DETAIL NUMBER W-020

TABLE 1.1		
	CONNECTION TYPE	
PIPE TYPE	DIRECT TAP	SADDLE
PLASTIC		X
AC		X
DI *	X	X

* DI PIPE TO BE CL 52 OR GREATER AND 8" OR LARGER.



NOTES AND MATERIALS:

① 1" CC SERVICE SADDLE W/DOUBLE STAINLESS STEEL STRAP OR DIRECT TAP CC THREAD CORP SEE TABLE 1.1 ABOVE.

② 1" BALL VALVE CORPORATE STOP CC X COMPRESSION WITH KEY FACING UP, MUELLER OR FORD ONLY.

③ 1" HDPE CTS CLASS 200 HIGH SERVICE PIPE (200 PSI RATING) WITH STAINLESS STEEL STIFFENER AND 10 GAUGE COATED COPPER TRACER WIRE WRAPPED AROUND THE PIPE AND ATTACHED ON BOTH ENDS.

④ FOR 5/8"X3/4" METER, A 1" COMPRESSION ANGLE METER BALL VALVE x 5/8" METER IS REQUIRED. FOR 1" METER, A 1" COMPRESSION ANGLE METER BALL VALVE x 1" METER IS REQUIRED. BALL VALVES ARE LOCKABLE.

⑤ METER SHALL BE INSTALLED BY CITY UTILITIES DIVISION AT OWNER'S EXPENSE.

⑥ METER BOX SHALL BE MIDSTATES PLASTICS 1324–12 W/SOLID DI LID WITH 1 3/4" HOLE FOR TOUCH READ PAD (TRP).

⑦ 5/8" x 3/4" METERS REQUIRE A 3/4" ANGLE METER CHECK COUPLING x 5/8" METER WITH A 3/4" MIPT x 1" COMPRESSION ADAPTER. 1" METER REQUIRES A 1" ANGLE METER CHECK COUPLING x 1" METER.

⑧ 1" COMPRESSION x FIPT ADAPTER WITH 1" PLASTIC PLUG.

⑨ EXTEND SERVICE PIPE 10' BEYOND PROPERTY LINE AND AN ADDITIONAL 5' BEYOND EASEMENT LINE.

⑩ METER LENGTH BLANK STUB.

APPROVED BY	L. OLIVE	
DATE	07/31/2008	
REF STAD SPEC		

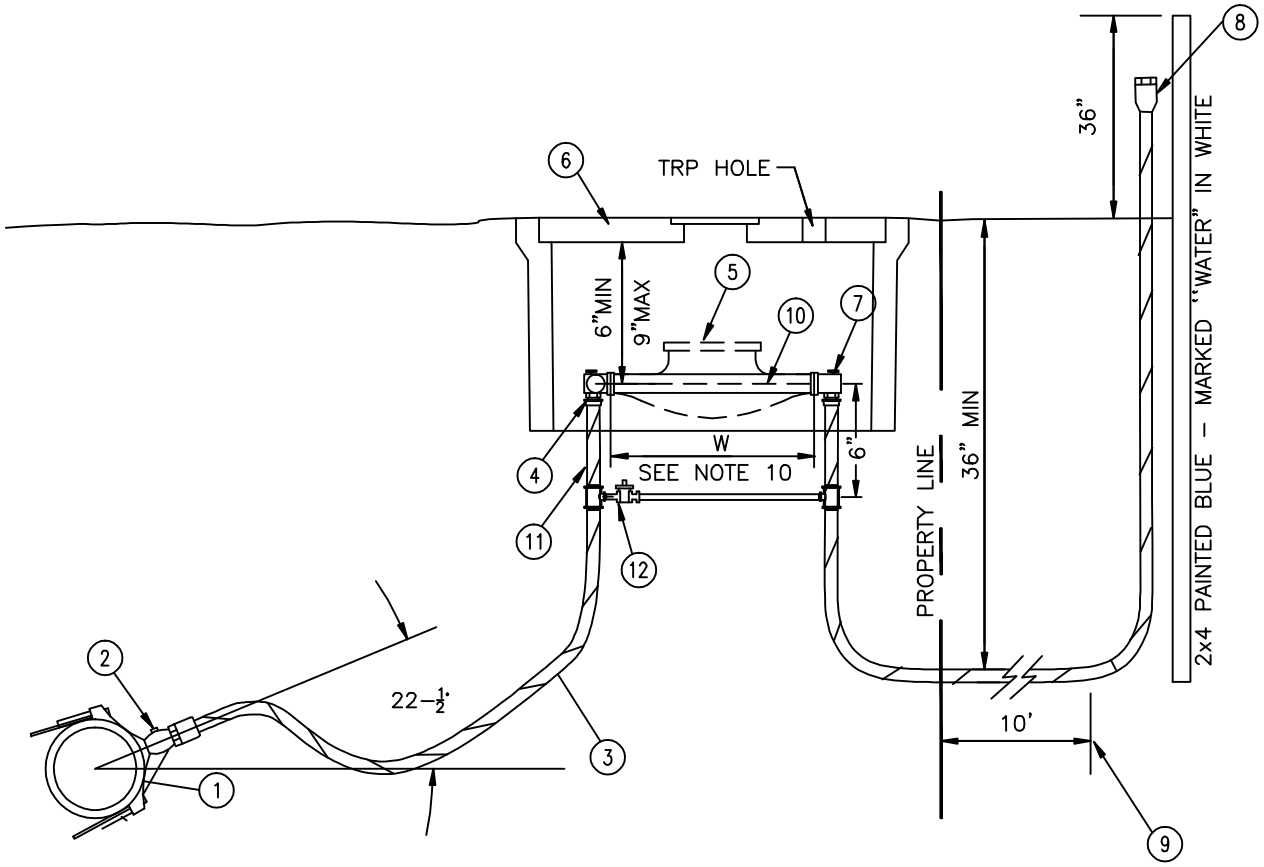
DEPARTMENT OF PUBLIC WORKS

STANDARD DETAILS

5/8" x 3/4" & 1"
RESIDENTIAL WATER SERVICE

STANDARD DETAIL NUMBER

W–040



NOTES AND MATERIALS:

(1) 2" CC SERVICE SADDLE W/DOUBLE STAINLESS STEEL STRAP.

(2) 2" BALL VALVE CORPORATE STOP COMPRESSION WITH KEY FACING UP, MUELLER OR FORD ONLY.

(3) 2" HDPE CTS CLASS 200 HIGH SERVICE PIPE (200 PSI RATING) WITH STAINLESS STEEL STIFFENER AND 10 GAUGE COATED COPPER TRACER WIRE WRAPPED AROUND THE PIPE AND ATTACHED ON BOTH ENDS.

(4) 2" COMPRESSION ANGLE METER BALL VALVE (LOCKABLE).

(5) METER (SIZE AS SHOWN IN PLAN) SHALL BE INSTALLED BY CITY UTILITIES DIVISION AT OWNER'S EXPENSE. CITY WILL INSTALL ADAPTERS AT BOTH ENDS OF METER IF THE METER IS NOT 2".

(6) METER BOX SHALL BE MIDSTATES PLASTICS (1730-18) W/SOLID DI LID WITH 1 3/4" HOLE FOR TOUCH READ PAD (TRP).

(7) 2" ANGLE METER CHECK COUPLING (LOCKABLE).

(8) COMPRESSION x FIPT ADAPTER WITH PLASTIC PLUG.

(9) EXTEND SERVICE PIPE 10' BEYOND PROPERTY LINE AND AN ADDITIONAL 5' BEYOND EASEMENT LINE.

(10) METER LENGTH BLANK STUB FOR A 2" METER, W=17-1/4".

(11) 2" METER SETTER, FORD OR MUELLER.

(12) BYPASSES MUST BE HIGH BYPASS OR SIDE-BY SIDE WITH THE METER.

APPROVED BY	L. OLIVE	
DATE	07/31/2008	
REF STAD SPEC		

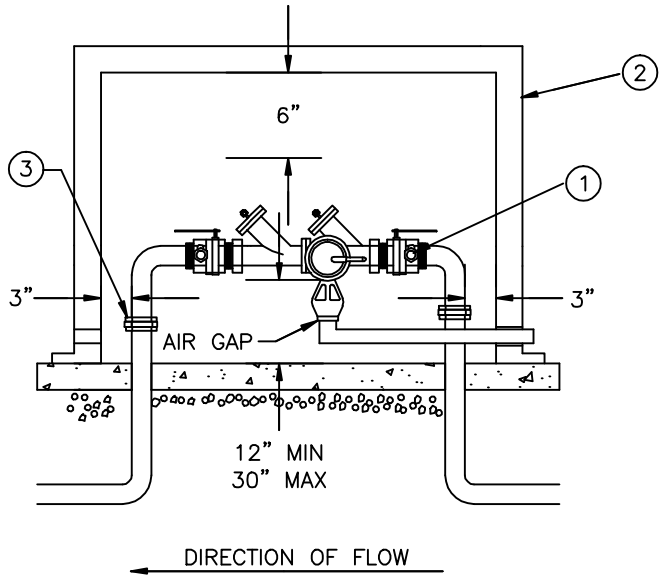
DEPARTMENT OF PUBLIC WORKS

STANDARD DETAILS

2" AND SMALLER
NON-RESIDENTIAL WATER SERVICE

STANDARD DETAIL NUMBER

W-050



ELEVATION

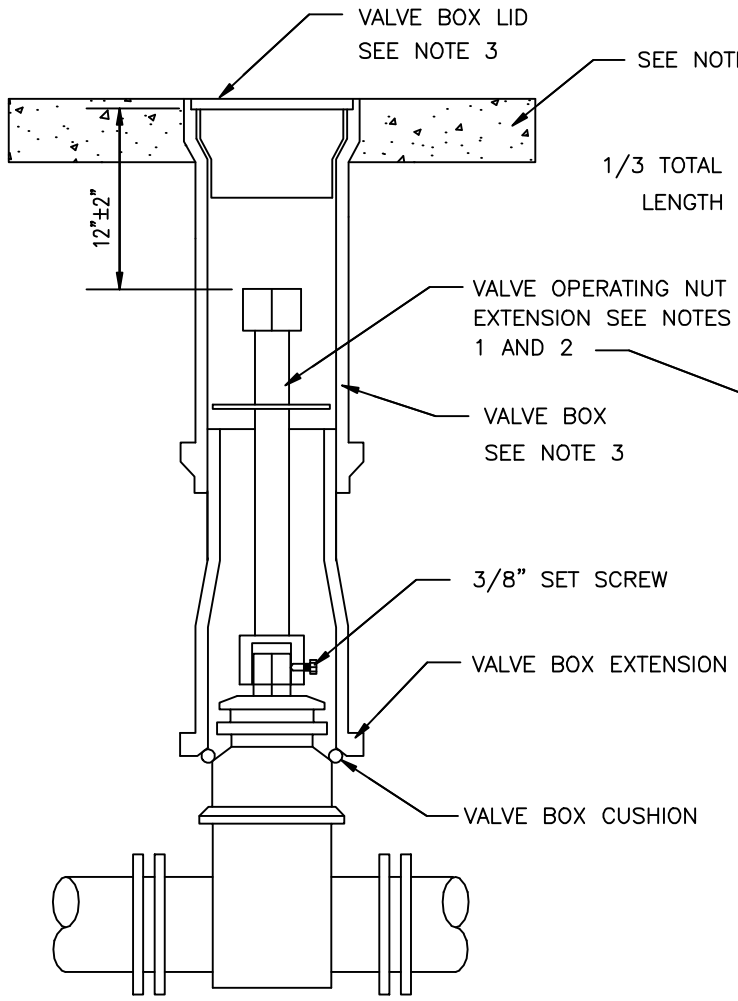
MATERIAL LIST:

1. UL–FM LISTED WASHINGTON STATE APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY INCLUDING TWO BALL VALVES, AND TESTS COCKS.
2. INSULATED PROTECTIVE ENCLOSURE (HOT BOX) REQUIRED FOR OUTSIDE INSTALLATIONS. THE PROTECTIVE ENCLOSURE MUST BE PROVIDED WITH DRAINS AT BOTH ENDS OF THE BOTTOM SUFFICIENTLY SIZED TO PROVIDED FREE GRAVITY DRAINAGE OF MAXIMUM DISCHARGE OF RELIEF VALVE PORT (2" MIN).
3. 90° ELBOW WITH A CLOSE NIPPLE AND UNION ON VERTICAL.

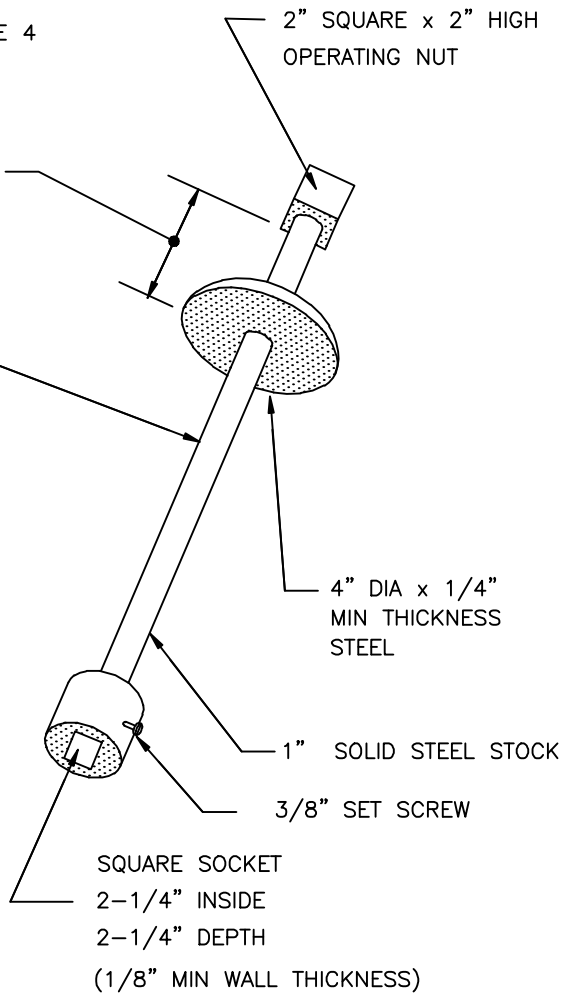
NOTES:

1. ASSEMBLY REQUIRES CERTIFICATION UPON INSTALLATION AND RECERTIFICATION ANNUALLY, BY OWNER.
2. THE ENCLOSURE MUST BE INSTALLED ON A 4" THICK CONCRETE PAD.
3. AN ELECTRICAL OUTLET MUST BE PROVIDED.
4. GUARD POSTS SHALL BE INSTALLED IF LOCATED IN A TRAFFIC AREA.
5. ALL BRANCH CONNECTIONS SHALL BE LOCATED ON THE DOWNSTREAM SIDE OF THE ASSEMBLY.

CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS	STANDARD DETAIL NUMBER
	DATE	07/31/2008		
	REF STAD SPEC		REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) 2" AND SMALLER	W–130



VALVE BOX AND EXTENSION

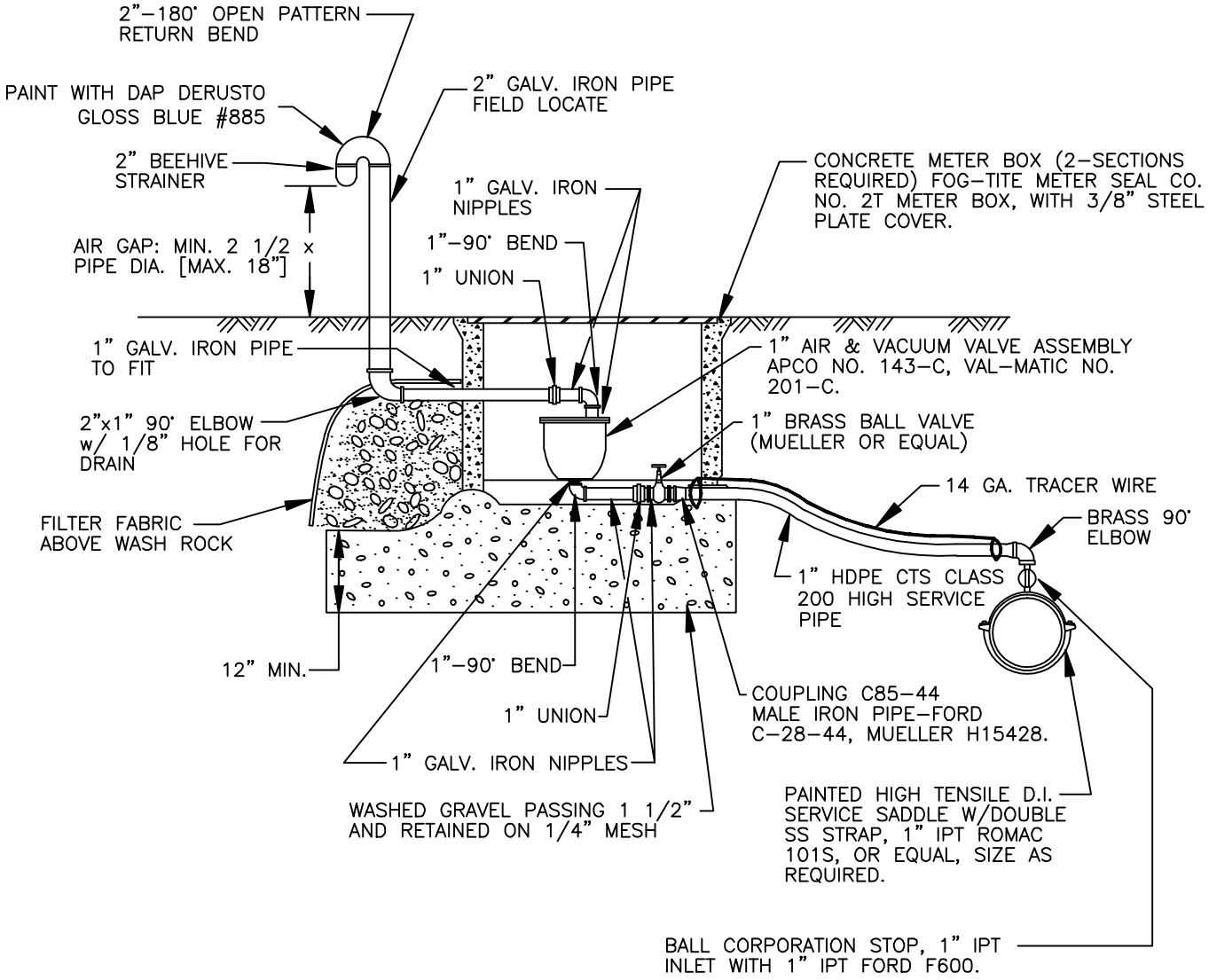


VALVE OPERATING NUT EXTENSION

NOTES:

1. VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN THREE (3) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG. ONLY ONE EXTENSION WILL BE ALLOWED PER VALVE.
2. ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO (2) COATS OF METAL PAINT.
3. VALVE BOXES SHALL BE CAST IRON, TWO PIECE UNITS, DESIGNED WITH DEEP SKIRT (2") LIDS W/LUGS, EQUAL TO "RICH NO. 940" AS MANUFACTURED BY RICH OR SATHER.
4. 4" THICK CONCRETE PAD AROUND VALVE BOXES OUTSIDE OF PAVED AREAS. 2'x2' SQUARE AROUND SINGLE VALVE BOXES AND 4'x4' AROUND MULTIPLE VALVE BOXES.

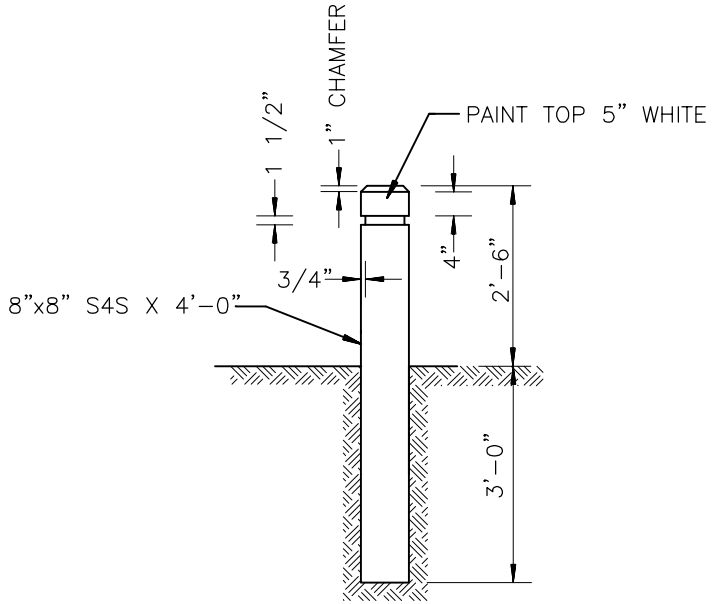
CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS
	DATE	07/31/2008	
	REF STAD SPEC		VALVE BOX AND OPERATING NUT EXTENSION
			STANDARD DETAIL NUMBER W–190



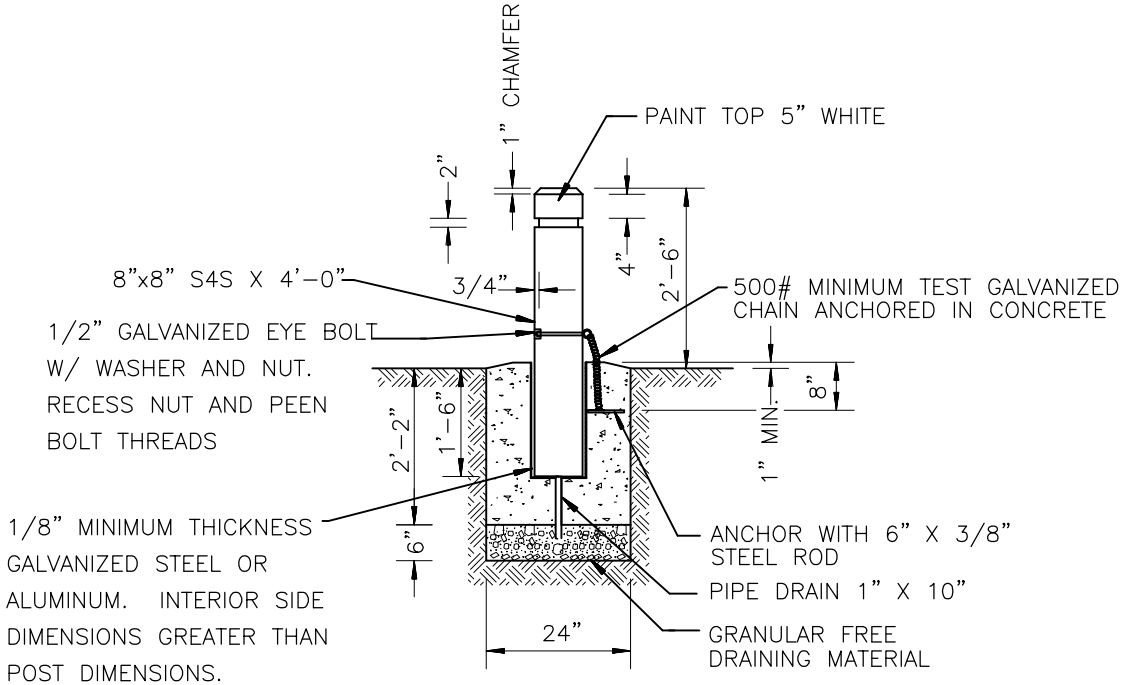
NOTES:

1. ALL FITTINGS TO BE BRASS OR COPPER FROM WATER MAIN TO 1" AIR & VACUUM ASSEMBLY.
2. AIR & VACUUM RELEASE VALVE ASSEMBLY MUST BE INSTALLED AT THE HIGHEST POINT OF THE LINE. IF THE HIGH POINT FALLS IN A LOCATION WHERE ASSEMBLY CANNOT BE INSTALLED, PROVIDE ADDITIONAL DEPTH OF LINE TO CREATE HIGH POINT AT A LOCATION WHERE ASSEMBLY CAN BE INSTALLED.

CITY OF ARLINGTON	APPROVED BY	L. OLIVE	*DEPARTMENT OF PUBLIC WORKS* STANDARD DETAILS	STANDARD DETAIL NUMBER
	DATE	07/31/2008		
	REF STAD SPEC		1" COMBINATION AIR VALVE ASSEMBLY	W–260



FIXED BOLLARD



REMOVABLE BOLLARD

NOTES:

1. ALL WOOD SHALL BE PRESSURE TREATED.
2. STEEL TUBE SHALL CONFORM TO ASTM A53 OR ASTM A53 GRADE A.
3. NUTS, BOLTS & WASHERS SHALL CONFORM TO ASTM A307.
4. ALL STEEL PARTS SHALL BE GALVANIZED.
5. COMMERCIAL CLASS CONCRETE SHALL BE USED.
6. FOR ACCEPTABLE ALTERNATE BOLLARD DESIGNS, SEE WSDOT/APWA PLANS H-13 AND H-13A.

SEE TEXT SECTION 4-11

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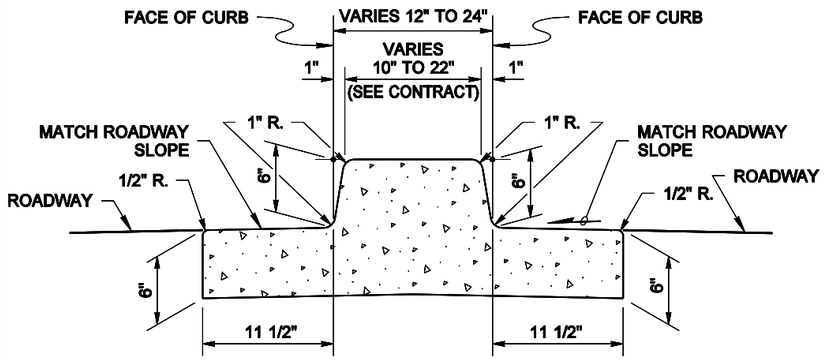
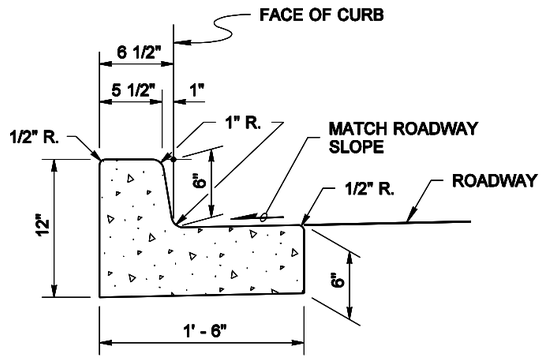
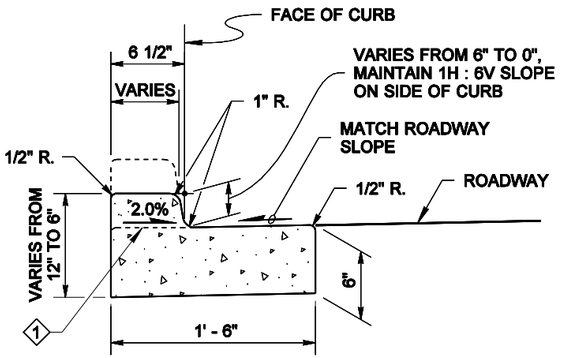
	SNOHOMISH COUNTY PUBLIC WORKS	APPROVED BY:
	4-170 BOLLARDS	COUNTY ROAD ENGINEER DATE



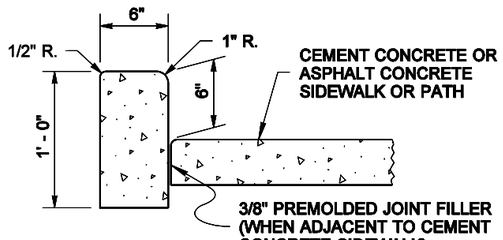
DUAL-FACED CEMENT CONCRETE TRAFFIC CURB AND GUTTER



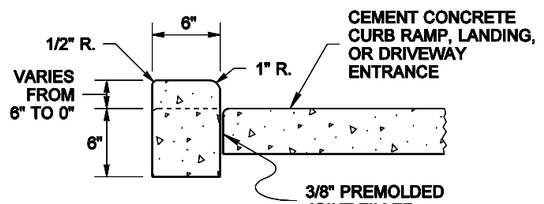
CEMENT CONCRETE TRAFFIC CURB AND GUTTER



DEPRESSED CURB SECTION
AT CURB RAMPS AND DRIVEWAY ENTRANCES



CEMENT CONCRETE PEDESTRIAN CURB



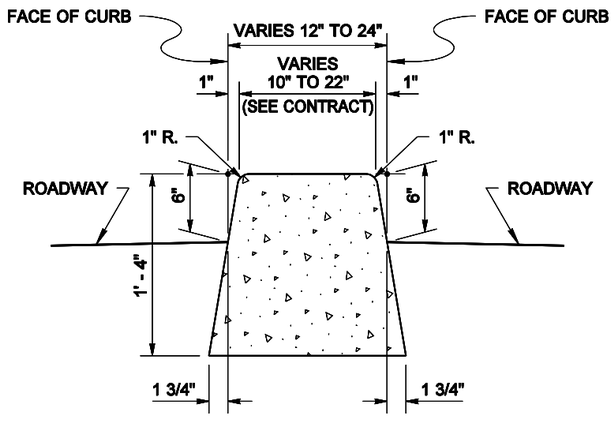
CEMENT CONCRETE PEDESTRIAN CURB
AT CURB RAMPS, LANDINGS, AND DRIVEWAY ENTRANCES

NOTE

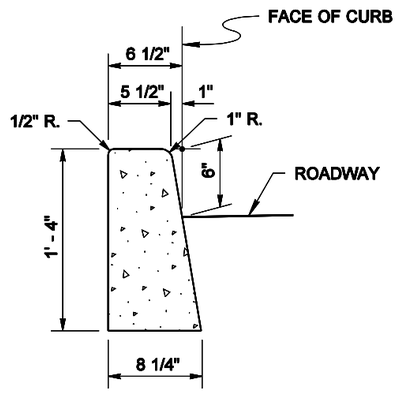
1. See **Standard Plan F-30.10** for Curb Expansion and Contraction Joint spacing.

1 FLUSH WITH GUTTER PAN AT CURB RAMP ENTRANCE ~ 1/2" VERTICAL LIP AT DRIVEWAY ENTRANCE

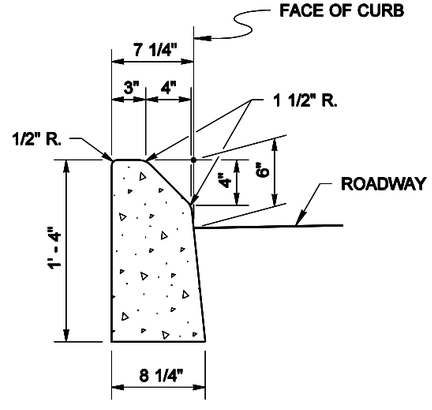
DRAWN BY: FERN LIDDELL



DUAL-FACED CEMENT CONCRETE TRAFFIC CURB



CEMENT CONCRETE TRAFFIC CURB



MOUNTABLE CEMENT CONCRETE TRAFFIC CURB

CEMENT CONCRETE CURBS

STANDARD PLAN F-10.12-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Pasco Bakotich III — STATE DESIGN ENGINEER

06-16-11 — DATE

Washington State Department of Transportation