

Lewis County
Department of Public Works
Engineering Division

**CONTRACT
PROVISIONS AND PLANS
FOR CONSTRUCTION OF:**

LEWIS COUNTY WATER DISTRICT NO. 1
PHASE II WATER SYSTEM IMPROVEMENT
PROJECT

OCTOBER, 2009

Lewis County Public Works
2025 NE Kresky Ave.
Chehalis, WA 98532-2626



BOARD OF COUNTY COMMISSIONERS

Ron Averill, District No. 1
P.W. Schulte, District No. 2
F. Lee Grose, District No. 3

TABLE OF CONTENTS

1		
2		
3	TABLE OF CONTENTS	2
4	INTRODUCTION	24
5	SECTION 1-03, AWARD AND EXECUTION OF CONTRACT APRIL 7, 2008	24
6	<i>1-03.1 Consideration of Bids</i>	<i>24</i>
7	1-03.1(1) Tied Bids	24
8	SECTION 1-04, SCOPE OF THE WORK APRIL 7, 2008.....	24
9	<i>1-04.4(1) Minor Changes.....</i>	<i>24</i>
10	<i>1-04.5 Procedure and Protest by the Contractor</i>	<i>24</i>
11	SECTION 1-05, CONTROL OF WORK APRIL 7, 2008.....	25
12	<i>1-05.1 Authority of the Engineer</i>	<i>25</i>
13	<i>1-05.12 Final Acceptance.....</i>	<i>25</i>
14	SECTION 1-06, CONTROL OF MATERIALS AUGUST 3, 2009	25
15	<i>1-06.2(2)A General.....</i>	<i>25</i>
16	<i>1-06.2(2)D Quality Level Analysis</i>	<i>36</i>
17	1-06.2(2)D1 General	36
18	1-06.2(2)D2 Hot Mix Asphalt.....	36
19	1-06.2(2)D3 Other Materials	36
20	1-06.2(2)D4 Quality Level Calculation	36
21	<i>1-06.6 Sieves for Testing.....</i>	<i>37</i>
22	1-06.6 Vacant.....	37
23	SECTION 1-07, LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC	
24	AUGUST 3, 2009.....	37
25	<i>1-07.2(2) State Sales Tax: Work on State-Owned or Private Land.....</i>	<i>38</i>
26	<i>1-07.5(1) General</i>	<i>38</i>
27	<i>1-07.5(2) State Department of Fish and Wildlife.....</i>	<i>38</i>
28	<i>1-07.5(3) State Department of Ecology</i>	<i>38</i>
29	<i>1-07.8 High Visibility Apparel.....</i>	<i>38</i>
30	1-07.8(1) Traffic Control Personnel	38
31	1-07.8(2) Non-Traffic Control Personnel	39
32	<i>1-07.9(1) General</i>	<i>39</i>
33	Listing Recovery Act (and Other) New Hire Opportunities With the Employment Security	
34	Department.....	39
35	<i>1-07.15 Temporary Water Pollution/Erosion Control</i>	<i>39</i>
36	<i>1-07.15(1) Spill Prevention, Control and Countermeasures Plan</i>	<i>40</i>
37	Implementation Requirements	40
38	SPCC Plan Element Requirements	41
39	Payment.....	43
40	<i>1-07.16(2) Vegetation Protection and Restoration.....</i>	<i>44</i>
41	1-07.16(2)A Wetland and Sensitive Area Protection	44
42	<i>1-07.16(4) Archaeological and Historical Objects</i>	<i>44</i>
43	1-07.16(4)A Inadvertent Discovery of Human Skeletal Remains	44

1 1-07.17(2) Utility Construction, Removal or Relocation by Others..... 45

2 1-07.23 Public Convenience and Safety 45

3 1-07.23(1) Construction Under Traffic..... 45

4 1-07.23(2) Construction and Maintenance of Detours..... 45

5 **SECTION 1-08, PROSECUTION AND PROGRESS AUGUST 3, 2009..... 45**

6 1-08.1 Subcontracting..... 45

7 1-08.3(2)A Type A Progress Schedule..... 46

8 1-08.4 Prosecution of Work..... 46

9 1-08.5 Time for Completion..... 46

10 1-08.6 Suspension of Work..... 46

11 1-08.7 Maintenance During Suspension..... 46

12 **SECTION 1-09, MEASUREMENT AND PAYMENT APRIL 7, 2008..... 47**

13 1-09.9 Payments 47

14 1-09.9(1) Retainage 47

15 **SECTION 1-10, TEMPORARY TRAFFIC CONTROL AUGUST 3, 2009 47**

16 1-10.1(2) Description 47

17 1-10.2(1) General 48

18 1-10.2(1)B Traffic Control Supervisor 48

19 1-10.2(2) Traffic Control Plans..... 48

20 1-10.2(3) Conformance to Established Standards..... 48

21 1-10.3(1) Traffic Control Labor 49

22 1-10.3(1)A Flaggers and Spotters..... 49

23 1-10.3(2)B Rolling Slowdown..... 49

24 1-10.3(2)C Lane Closure Setup/Takedown..... 49

25 1-10.3(2)D Mobile Operations 50

26 1-10.3(3)A Construction Signs 50

27 1-10.3(3)B Sequential Arrow Signs 50

28 1-10.3(3)C Portable Changeable Message Sign 51

29 1-10.3(3)D Barricades..... 51

30 1-10.3(3)E Traffic Safety Drums..... 51

31 1-10.3(3)G Traffic Cones..... 51

32 1-10.3(3)G Traffic Cones and Tall Channelizing Devices..... 51

33 1-10.3(3)J Truck-Mounted Attenuator..... 51

34 1-10.3(3)K Portable Temporary Traffic Control Signal 51

35 1-10.4(2) Item Bids with Lump Sum for Incidentals..... 52

36 1-10.5(1) Lump Sum Bid for Project (No Unit Items)..... 52

37 1-10.5(2) Item Bids with Lump Sum for Incidentals..... 52

38 **SECTION 2-01, CLEARING, GRUBBING, AND ROADSIDE CLEANUP APRIL 7, 2008**

39 **..... 52**

40 2-01.3(1) Clearing 52

41 2-01.3(2) Grubbing..... 53

42 **SECTION 2-02, REMOVAL OF STRUCTURES AND OBSTRUCTIONS APRIL 7, 2008**

43 **..... 53**

44 2-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters..... 53

45 **SECTION 2-03, ROADWAY EXCAVATION AND EMBANKMENT JANUARY 7, 2008 53**

46 2-03.1 Description..... 53

1	2-03.3(3) <i>Excavation Below Grade</i>	53
2	2-03.3(3) <i>Excavation Below Subgrade</i>	53
3	2-03.3(14) <i>M Excavation of Channels</i>	53
4	2-03.3(14) <i>M Excavation of Channels and Ditches</i>	53
5	2-03.4 <i>Measurement</i>	54
6	2-03.5 <i>Payment</i>	54
7	SECTION 2-10, DITCH EXCAVATION JANUARY 7, 2008	54
8	2-10 <i>VACANT</i>	55
9	SECTION 5-01, CEMENT CONCRETE PAVEMENT REHABILITATION AUGUST 3,	
10	2009	55
11	5-01.2 <i>Materials</i>	55
12	5-01.3(1) <i>A Concrete Mix Design for Concrete Patching Materials</i>	55
13	5-01.3(1) <i>A Concrete Mix Designs</i>	55
14	5-01.3(1) <i>A1 Concrete Patching Materials</i>	55
15	5-01.3(1) <i>A2 Portland Cement Concrete</i>	55
16	5-01.3(1) <i>B Equipment</i>	55
17	5-01.3(2) <i>A Concrete Patching Material</i>	55
18	5-01.3(2) <i>B Portland Cement Concrete</i>	56
19	5-01.3(2) <i>B1 Rejection of Concrete</i>	56
20	5-01.3(3) <i>Subsealing</i>	56
21	5-01.3(3) <i>Vacant</i>	56
22	5-01.3(4) <i>Replace Portland Cement Concrete Panel</i>	56
23	5-01.3(5) <i>Partial Depth Spall Repair</i>	57
24	5-01.3(6) <i>Dowel Bar Retrofit</i>	57
25	5-01.3(10) <i>Pavement Smoothness</i>	57
26	5-01.4 <i>Measurement</i>	57
27	5-01.5 <i>Payment</i>	58
28	SECTION 5-02, BITUMINOUS SURFACE TREATMENT AUGUST 3, 2009	58
29	5-02.3(3) <i>Application of Asphalt Emulsion and Aggregate</i>	58
30	5-02.3(4) <i>Change in Grades of Asphalt Emulsion</i>	60
31	5-02.3(4) <i>Vacant</i>	60
32	5-02.3(10) <i>Unfavorable Weather</i>	60
33	SECTION 5-04, HOT MIX ASPHALT AUGUST 3, 2009	60
34	5-04.1 <i>Description</i>	60
35	5-04.2 <i>Materials</i>	60
36	5-04.3(1) <i>HMA Mixing Plant</i>	61
37	5-04.3(3) <i>Hot Mix Asphalt Pavers</i>	61
38	5-04.3(3) <i>A Material Transfer Device/Vehicle</i>	61
39	5-04.3(4) <i>Rollers</i>	61
40	5-04.3(5) <i>A Preparation of Existing Surfaces</i>	61
41	5-04.3(5) <i>C Crack Sealing</i>	61
42	5-04.3(5) <i>E Pavement Repair</i>	62
43	5-04.3(6) <i>Heating of Asphalt Binder</i>	62
44	5-04.3(6) <i>Vacant</i>	62
45	5-04.3(7) <i>A Mix Design</i>	62
46	5-04.3(7) <i>A1 General</i>	62

1	5-04.3(7)A2 Statistical or Nonstatistical Evaluation	62
2	5-04.3(7)A3 Commercial Evaluation.....	63
3	5-04.3(8) <i>Mixing</i>	63
4	5-04.3(8)A <i>Acceptance Sampling and Testing - HMA Mixture</i>	63
5	5-04.3(8)A1 General.....	63
6	5-04.3(8)A2 Aggregates	64
7	5-04.3(8)A3 Sampling	64
8	5-04.3(8)A4 Definition of Sampling Lot and Sublot.....	64
9	5-04.3(8)A5 Test Results	65
10	5-04.3(8)A6 Test Methods.....	65
11	5-04.3(8)A7 Test Section - HMA Mixture	65
12	5-04.3(9) <i>Spreading and Finishing</i>	65
13	5-04.3(10)A <i>General</i>	65
14	5-04.3(10)B <i>Control</i>	66
15	5-04.3(10)B1 General	66
16	5-04.3(10)B2 Cyclic Density	66
17	5-04.3(10)B3 Longitudinal Joint Density.....	66
18	5-04.3(10)B4 Test Results	67
19	5-04.3(11) <i>Reject HMA</i>	67
20	5-04.3(11) Reject Work	67
21	5-04.3(11)A General	67
22	5-04.3(11)B Rejection by Contractor	67
23	5-04.3(11)C Rejection Without Testing	67
24	5-04.3(11)D Lots and Sublots.....	68
25	5-04.3(11)D1 A Partial Sublot.....	68
26	5-04.3(11)D2 An Entire Sublot.....	68
27	5-04.3(11)D3 A Lot in Progress	68
28	5-04.3(11)D4 An Entire Lot	68
29	5-04.3(12)A <i>Transverse Joints</i>	68
30	5-04.3(12)B <i>Longitudinal Joints</i>	69
31	5-04.3(16) <i>Weather Limitations</i>	69
32	5-04.3(19) <i>Sealing of Pavement Surfaces</i>	69
33	5-04.3(21) <i>Asphalt Binder Revision</i>	69
34	5-04.3(21) Vacant	70
35	5-04.4 <i>Measurement</i>	70
36	5-04.5 <i>Payment</i>	70
37	5-04.5(1) <i>Quality Assurance Price Adjustments</i>	70
38	5-04.5(1)B <i>Price Adjustments for Quality of HMA Compaction</i>	70
39	SECTION 5-05, CEMENT CONCRETE PAVEMENT AUGUST 3, 2009	71
40	5-05.2 <i>Materials</i>	71
41	5-05.3(1) <i>Concrete Mix Design for Paving</i>	71
42	5-05.3(3) <i>Equipment</i>	72
43	5-05.3(3)C <i>Finishing Equipment</i>	72
44	5-05.3(4)A <i>Acceptance of Portland Cement Concrete Pavement</i>	72
45	5-05.3(8) <i>Joints</i>	74
46	5-05.3(8)A <i>Contraction Joints</i>	74

1	5-05.3(8)B Sealing Sawed Contraction Joints.....	75
2	5-05.3(8)D Isolation Joints	75
3	5-05.3(10) Tie Bars and Dowel Bars.....	75
4	5-05.3(10) Tie Bars and Corrosion Resistant Dowel Bars	75
5	5-05.3(11) Finishing	76
6	5-05.3(12) Surface Smoothness	76
7	5-05.3(22) Repair of Defective Pavement Slabs.....	76
8	5-05.4 Measurement	77
9	5-05.5 Payment	78
10	SECTION 6-01, GENERAL REQUIREMENTS FOR STRUCTURES AUGUST 3, 2009..	78
11	6-01.10 Utilities Supported by or Attached to Bridges.....	78
12	SECTION 6-02, CONCRETE STRUCTURES AUGUST 3, 2009.....	78
13	6-02.2 Materials.....	78
14	6-02.3(2)A Contractor Mix Design.....	78
15	6-02.3(2)B Commercial Concrete.....	79
16	6-02.3(6)D Protection Against Vibration	79
17	6-02.3(10) Roadway Slabs and Bridge Approach Slabs.....	79
18	6-02.3(10) Bridge Decks and Bridge Approach Slabs.....	79
19	6-02.3(10)A Preconstruction Meeting	80
20	6-02.3(10)B Screed Rail Supports	80
21	6-02.3(10)C Finishing Equipment	80
22	6-02.3(10)D Concrete Placement, Finishing, and Texturing.....	81
23	6-02.3(10)E Sidewalk	83
24	6-02.3(10)F Bridge Approach Slab Orientation and Anchors.....	83
25	6-02.3(12) Construction Joints.....	84
26	6-02.3(12)A Construction Joints in New Construction	84
27	6-02.3(12)B Construction Joints between Existing and New Construction	85
28	6-02.3(14) Finishing Concrete Surfaces.....	85
29	6-02.3(14)C Pigmented Sealer for Concrete Surfaces.....	85
30	6-02.3(17)N Removal of Falsework and Forms	86
31	6-02.3(17)O Early Concrete Test Cylinder Breaks	86
32	6-02.3(20) Grout for Anchor Bolts and Bridge Bearings.....	86
33	6-02.3(20) Grout for Anchor Bolts and Bridge Bearings	86
34	6-02.3(24)B Protection of Materials.....	86
35	6-02.3(24)E Welding Reinforcing Steel.....	86
36	6-02.3(25) Prestressed Concrete Girders.....	86
37	6-02.3(25)B Casting.....	87
38	6-02.3(25)C Prestressing.....	87
39	6-02.3(25)G Protection of Exposed Reinforcement.....	87
40	6-02.3(25)J Horizontal Alignment.....	87
41	6-02.3(25)K Girder Deflection	88
42	6-02.3(25)L Handling and Storage.....	88
43	6-02.3(25)N Prestressed Concrete Girder Erection.....	88
44	6-02.3(26)E Ducts.....	88
45	Vents, Grout Injection Ports, Drains and Caps.....	89
46	Leak Tightness Testing.....	90

1	6-02.3(26) <i>F Prestressing Reinforcement</i>	91
2	6-02.3(26) <i>H Grouting</i>	91
3	6-02.5 <i>Payment</i>	92
4	SECTION 6-03, STEEL STRUCTURES APRIL 6, 2009	92
5	6-03.3(33) <i>Bolted Connections</i>	92
6	6-03.3(33) <i>A Pre-Erection Testing</i>	93
7	6-03.3(38) <i>Placing Superstructure</i>	93
8	6-03.4 <i>Measurement</i>	93
9	SECTION 6-05, PILING DECEMBER 1, 2008	93
10	6-05.3(11) <i>A Tolerances</i>	93
11	6-07, PAINTING AUGUST 3, 2009	93
12	6-07.1 <i>Description</i>	93
13	6-07.2 <i>Materials</i>	93
14	6-07.3 <i>Construction Requirements</i>	94
15	6-07.3(1) <i>Work Force Qualifications</i>	94
16	6-07.3(1) <i>A Work Force Qualifications for Shop Application of Paint</i>	94
17	6-07.3(1) <i>B Work Force Qualifications for Field Application of Paint</i>	94
18	6-07.3(2) <i>Submittals</i>	94
19	6-07.3(2) <i>A Work Force Qualifications Submittal Component</i>	94
20	6-07.3(2) <i>B Contractor's Quality Control Program Submittal Component</i>	95
21	6-07.3(2) <i>C Paint System Manufacturer and Paint System Information Submittal</i>	
22	<i>Component</i>	95
23	6-07.3(2) <i>D Hazardous Waste Containment, Collection, Testing and Disposal Submittal</i>	
24	<i>Component</i>	96
25	6-07.3(2) <i>E Cleaning and Surface Preparation Equipment Submittal Component</i>	96
26	6-07.3(2) <i>F Paint Application Equipment and Operations Submittal Component</i>	97
27	6-07.3(2) <i>G Painting Plan Meeting</i>	97
28	6-07.3(3) <i>Quality Control and Quality Assurance</i>	97
29	6-07.3(3) <i>A Quality Control and Quality Assurance for Shop Application of Paint</i>	97
30	6-07.3(3) <i>B Quality Control and Quality Assurance for Field Application of Paint</i>	97
31	6-07.3(4) <i>Paint System Manufacturer's Technical Representative</i>	99
32	6-07.3(5) <i>Pre-Painting Conference</i>	99
33	6-07.3(6) <i>Paint Containers, Storage and Handling</i>	99
34	6-07.3(6) <i>A Paint Containers</i>	99
35	6-07.3(6) <i>B Paint Storage</i>	100
36	6-07.3(7) <i>Paint Sampling and Testing</i>	100
37	6-07.3(8) <i>Equipment</i>	100
38	6-07.3(8) <i>A Paint Film Thickness Measurement Gages</i>	100
39	6-07.3(9) <i>Painting New Steel Structures</i>	100
40	6-07.3(9) <i>A Paint System</i>	101
41	6-07.3(9) <i>B Paint Color</i>	101
42	6-07.3(9) <i>C Mixing and Thinning Paint</i>	101
43	6-07.3(9) <i>D Coating Thickness</i>	101
44	6-07.3(9) <i>E Surface Temperature Requirements Prior to Application of Paint</i>	102
45	6-07.3(9) <i>F Shop Surface Cleaning and Preparation</i>	102
46	6-07.3(9) <i>G Application of Shop Primer Coat</i>	102

1	6-07.3(9)H Containment for Field Coating	102
2	6-07.3(9)I Application of Field Coatings	102
3	6-07.3(10) Painting Existing Steel Structures.....	103
4	6-07.3(10)A Containment.....	103
5	6-07.3(10)B Bird Guano, Fungus and Vegetation Removal.	104
6	6-07.3(10)C Dry Cleaning.....	104
7	6-07.3(10)D Surface Preparation prior to Overcoat Painting.....	104
8	6-07.3(10)E Surface Preparation - Full Paint Removal.....	105
9	6-07.3(10)F Collecting, Testing and Disposal of Containment Waste.....	105
10	6-07.3(10)G Treatment of Pack Rust and Gaps.....	106
11	6-07.3(10)H Paint System.....	107
12	6-07.3(10)I Paint Color.....	107
13	6-07.3(10)J Mixing and Thinning Paint	107
14	6-07.3(10)K Coating Thickness.....	108
15	6-07.3(10)L Environmental Condition Requirements Prior to Application of Paint	109
16	6-07.3(10)M Steel Surface Condition Requirements Prior to Application of Paint	109
17	6-07.3(10)N Field Coating Application Methods.....	109
18	6-07.3(10)O Applying Field Coatings.....	110
19	6-07.3(10)P Field Coating Repair.....	111
20	6-07.3(10)Q Cleanup	112
21	6-07.3(11) Painting or Powder Coating of Galvanized Surfaces.....	112
22	6-07.3(11)A Painting of Galvanized Surfaces	112
23	Environmental Conditions	112
24	6-07.3(11)B Powder Coating of Galvanized Surfaces	112
25	6-07.3(12) Painting Ferry Terminal Structures	115
26	6-07.3(13) Painting Timber Structures	115
27	6-07.4 Measurement	115
28	6-07.5 Payment	115
29	SECTION 6-09, MODIFIED CONCRETE OVERLAYS AUGUST 3, 2009.....	116
30	6-09.3(1)B Rotary Milling Machines.....	117
31	6-09.3(1)C Hydro-Demolition Machines.....	117
32	6-09.3(1)D Shot Blasting Machines.....	117
33	6-09.3(5)A General.....	117
34	6-09.3(5)E Rotomilling	117
35	6-09.3(6) Further Deck Preparation	117
36	6-09.3(6)B Deck Repair Preparation	117
37	6-09.3(6)C Placing Deck Repair Concrete.....	118
38	6-09.3(8)A Quality Assurance for Microsilica Modified and Fly Ash Modified Concrete Overlays.....	118
39	6-09.3(8)B Quality Assurance for Latex Modified Concrete Overlays	118
40	6-09.3(10) Overlay Profile and Screed Rails	118
41	6-09.3(10)A Survey of Existing Bridge Deck Prior To Scarification	119
42	6-09.3(10)B Establishing Finish Overlay Profile	120
43	6-09.3(11) Placing Concrete Overlay	120
44	6-09.3(12) Finishing Concrete Overlay	121
45	6-09.5 Payment	121
46		

1	SECTION 6-11, REINFORCED CONCRETE WALLS AUGUST 4, 2008	121
2	6-11.3(3) <i>Precast Concrete Wall Stem Panels</i>	<i>121</i>
3	6-11.3(5) <i>Backfill, Weepholes and Gutters.....</i>	<i>121</i>
4	SECTION 6-13, STRUCTURAL EARTH WALLS AUGUST 3, 2009	122
5	6-13.3(2) <i>Submittals.....</i>	<i>122</i>
6	6-13.3(9) <i>SEW Traffic Barrier and SEW Pedestrian Barrier.....</i>	<i>122</i>
7	SECTION 6-14, GEOSYNTHETIC RETAINING WALLS AUGUST 3, 2009.....	122
8	6-14.3(7) <i>Geosynthetic Retaining Wall Traffic Barrier and Geosynthetic Retaining Wall</i>	
9	<i>Pedestrian Barrier</i>	<i>122</i>
10	SECTION 6-15, SOIL NAIL WALLS AUGUST 3, 2009	122
11	6-15.3(8) <i>Soil Nail Testing and Acceptance</i>	<i>122</i>
12	6-15.3(8)A <i>Verification Testing</i>	<i>123</i>
13	6-15.3(8)B <i>Proof Testing</i>	<i>123</i>
14	6-15.4 <i>Measurement</i>	<i>123</i>
15	6-15.5 <i>Payment</i>	<i>124</i>
16	SECTION 6-16, SOLDIER PILE AND SOLDIER PILE TIEBACK WALLS APRIL 6,	
17	2009	124
18	6-16.3(2) <i>Submittals</i>	<i>124</i>
19	6-16.3(4) <i>Installing Soldier Piles.....</i>	<i>124</i>
20	6-16.3(6) <i>Installing Timber Lagging and Permanent Ground Anchors.....</i>	<i>124</i>
21	6-16.3(6) <i>Designing and Installing Lagging, and Installing Permanent Ground Anchors</i>	
22	<i>.....</i>	<i>124</i>
23	6-16.3(6)A <i>Soil Classification</i>	<i>124</i>
24	Soil Type 1.....	<i>125</i>
25	Soil Type 2.....	<i>125</i>
26	Soil Type 3.....	<i>125</i>
27	Exclusions.....	<i>125</i>
28	6-16.3(6)B <i>Temporary Lagging.....</i>	<i>126</i>
29	6-16.3(6)C <i>Permanent Lagging</i>	<i>127</i>
30	6-16.3(6)D <i>Installing Lagging and Permanent Ground Anchors.....</i>	<i>127</i>
31	6-16.3(7) <i>Prefabricated Drainage Mat</i>	<i>128</i>
32	6-16.4 <i>Measurement</i>	<i>128</i>
33	6-16.5 <i>Payment</i>	<i>128</i>
34	SECTION 6-17, PERMANENT GROUND ANCHORS JANUARY 7, 2008	128
35	6-17.3(8)B <i>Performance Testing</i>	<i>128</i>
36	6-17.3(8)C <i>Proof Testing.....</i>	<i>128</i>
37	SECTION 7-02, CULVERTS DECEMBER 1, 2008	129
38	7-02.2 <i>Materials.....</i>	<i>129</i>
39	SECTION 7-04, STORM SEWERS DECEMBER 1, 2008.....	129
40	7-04.2 <i>Materials</i>	<i>129</i>
41	SECTION 7-05, MANHOLES, INLETS, CATCHBASINS, AND DRYWELLS AUGUST 3,	
42	2009	129
43	7-05.2 <i>Materials.....</i>	<i>129</i>
44	SECTION 7-07, CLEANING EXISTING DRAINAGE STRUCTURES AUGUST 3, 2009	
45	129
46	7-07.3 <i>Construction Requirements</i>	<i>129</i>

1	SECTION 8-01, EROSION CONTROL AND WATER POLLUTION CONTROL	
2	AUGUST 3, 2009	130
3	8-01.1 Description	130
4	8-01.2 Materials.....	130
5	8-01.3(1) General	130
6	8-01.3(1)A Submittals.....	131
7	8-01.3(1)C Water Management.....	131
8	8-01.3(1)D Dispersion/Infiltration	131
9	8-01.3(2)D Mulching	131
10	8-01.3(2)E Tacking Agent and Soil Binders	131
11	8-01.3(6)D Wattle Check Dam	131
12	8-01.3(12) Compost Sock.....	132
13	8-01.3(13) Temporary Curb.....	132
14	8-01.4 Measurement	132
15	8-01.5 Payment	132
16	SECTION 8-02, ROADSIDE RESTORATION APRIL 7, 2008	132
17	8-02.3(3) Planting Area Weed Control.....	132
18	SECTION 8-04, CURBS, GUTTERS, AND SPILLWAYS JANUARY 7, 2008	132
19	8-04.5 Payment	132
20	SECTION 8-07, PRECAST TRAFFIC CURB AND BLOCK TRAFFIC CURB AUGUST 3,	
21	2009	133
22	8-07.2 Materials.....	133
23	SECTION 8-08, RUMBLE STRIPS AUGUST 3, 2009	133
24	8-08.3 Construction Requirements	133
25	8-08.4 Measurement	133
26	8-08.5 Payment	133
27	SECTION 8-11, GUARDRAIL AUGUST 3, 2009	133
28	8-11.3(1)C Erection of Rail	133
29	8-11.3(4) Removing Guardrail and Guardrail Anchor	133
30	8-11.3(5) Raising Guardrail.....	134
31	SECTION 8-12, CHAIN LINK FENCES AND WIRE FENCE AUGUST 3, 2009	134
32	8-12.3(1)A Posts	134
33	8-12.3(1)C Tension Wire	134
34	8-12.3(1)C Tension Wire and Tension Cable	134
35	8-12.3(1)D Chain Link Fabric.....	134
36	8-12.3(1)E Chain Link Gates.....	135
37	SECTION 8-14, CEMENT CONCRETE SIDEWALKS AUGUST 3, 2009	135
38	8-14.3(3) Placing and Finishing Concrete	135
39	SECTION 8-15, RIPRAP APRIL 7, 2008	135
40	8-15.3(1) Excavation for Riprap.....	135
41	8-15.4 Measurement	135
42	8-15.5 Payment	135
43	SECTION 8-20, ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, AND ELECTRICAL	
44	AUGUST 3, 2009	136
45	8-20.1 Description.....	136
46	8-20.3(1) General	136

1 8-20.3(4) Foundations 136

2 8-20.3(5) Conduit..... 136

3 8-20.3(6) Junction Boxes, Cable Vaults, and Pull boxes 142

4 8-20.3(8) Wiring 142

5 8-20.3(9) Bonding, Grounding 143

6 8-20.3(13)A Light Standards 144

7 8-20.3(13)D Sign Lighting..... 144

8 8-20.3(13)E Sign Lighting Luminaires 144

9 8-20.4 Measurement 144

10 8-20.5 Payment 144

11 **SECTION 8-21, PERMANENT SIGNING AUGUST 3, 2009 144**

12 8-21.3(4) Sign Removal 144

13 8-21.3(9)F Bases..... 145

14 8-21.3(9)F Foundations..... 145

15 8-21.3(9)G Identification Plates 147

16 8-21.3(10) Vacant 147

17 8-21.3(10) Sign Attachment..... 147

18 8-21.3(12) Steel Sign Posts 147

19 **SECTION 8-22, PAVEMENT MARKING APRIL 6, 2009..... 147**

20 8-22.3(2) Preparation of Roadway Surfaces 147

21 8-22.3(3) Marking Application..... 148

22 8-22.3(3)A Marking Colors 148

23 8-22.3(3)B Line Patterns..... 148

24 8-22.3(3)C Line Surfaces..... 148

25 8-22.3(3)D Line Applications..... 149

26 8-22.3(3)E Installation 149

27 8-22.3(3)F Application Thickness..... 150

28 8-22.3(3)A Glass beads..... 152

29 8-22.3(3)G Glass Beads 152

30 8-22.3(4) Tolerances for Lines 152

31 8-22.3(5) Plastic Installation Instructions..... 153

32 8-22.3(5) Installation Instructions..... 153

33 **SECTION 8-23, TEMPORARY PAVEMENT MARKINGS April 6, 2009..... 153**

34 8-23.3(2) Beading and Tolerances 153

35 8-23.3(2) Marking Application..... 153

36 8-23.3(2)A Temporary Pavement Marking Paint 153

37 8-23.3(2)B Temporary Pavement Marking Tape..... 153

38 8-23.3(2)C Temporary Raised Pavement Markers 153

39 8-23.3(2)D Tolerance for Lines 153

40 **SECTION 8-25, GLARE SCREEN JANUARY 7, 2008 154**

41 8-25.3(1) Glare Screen Fabric 154

42 8-25.3(5) Tension Cables..... 154

43 8-25.3(6) Fittings, Attachments and Hardware 154

44 **SECTION 9-00, DEFINITIONS AND TESTS AUGUST 3, 2009 154**

45 9-00 Definitions and Tests 154

46 9-00.4 Sieve Analysis of Aggregate 155

1	9-00 Sieves for Testing Purposes.....	155
2	SECTION 9-02, BITUMINOUS MATERIALS AUGUST 3, 2009.....	155
3	9-02.1 Asphalt Material, General.....	155
4	9-02.1(4)A Quality Control Plan.....	155
5	9-02.1(4)A Vacant.....	155
6	9-02.5 Warm Mix Asphalt (WMA) Additive.....	155
7	SECTION 9-03, AGGREGATES AUGUST 3, 2009.....	155
8	9-03 Aggregates.....	155
9	9-03.1(1) General Requirements.....	155
10	9-03.1(5)B Grading.....	156
11	9-03.4(2) Grading and Quality.....	156
12	9-03.6(3) Test Requirements.....	157
13	9-03.8(2) HMA Test Requirements.....	157
14	9-03.8(3)B Gradation - Recycled Asphalt Pavement and Mineral Aggregate.....	157
15	9-03.8(7) HMA Tolerances and Adjustments.....	157
16	9-03.17 Foundation Material Class A and Class B.....	158
17	9-03.20 Test Methods for Aggregates.....	158
18	9-03.21(1) General Requirements.....	159
19	9-03.21(1)A Recycled Hot Mix Asphalt.....	160
20	9-03.21(1)B Recycled Portland Cement Concrete Rubble.....	160
21	9-03.21(1)C Recycled Glass Aggregates.....	160
22	9-03.21(1)D Recycled Steel Furnace Slag.....	160
23	9-03.21(2) Recycled Hot Mix Asphalt.....	161
24	9-03.21(3) Recycled Portland Cement Concrete Rubble.....	162
25	9-03.21(4) Recycled Glass Aggregates.....	162
26	9-03.21(5) Steel Furnace Slag.....	162
27	SECTION 9-04, JOINT AND CRACK SEALING MATERIALS DECEMBER 1, 2008....	162
28	9-04.1(2) Premolded Joint Filler for Expansion Joints.....	162
29	9-04.2(1) Hot Poured Joint Sealants.....	162
30	SECTION 9-05, DRAINAGE STRUCTURES, CULVERTS, AND CONDUITS AUGUST 3,	
31	2009.....	162
32	9-05.50 Precast Concrete Drainage Structures.....	162
33	9-05.50(1) Fabrication Tolerances and requirements.....	162
34	9-05.50(2) Manholes.....	163
35	9-05.50(3) Precast Concrete Catch Basins.....	163
36	9-05.50(4) Precast Concrete Inlets.....	164
37	9-05.50(5) Precast Concrete Drywells.....	164
38	9-05.50(6) vacant.....	164
39	9-05.50(7) vacant.....	164
40	9-05.50(8) vacant.....	164
41	9-05.50(9) Synthetic Fibers for Precast Units.....	164
42	9-05.50(10) Synthetic Structural Fibers for Precast Units.....	164
43	SECTION 9-06, STRUCTURAL STEEL AND RELATED MATERIALS AUGUST 3, 2009	
44	165
45	9-06.5(3) High Strength Bolts.....	165
46	9-06.13 Copper Seals.....	165

1	9-06.13 Vacant.....	166
2	9-06.16 Roadside Sign Structures.....	166
3	SECTION 9-07, REINFORCING STEEL AUGUST 3, 2009.....	167
4	9-07.1(2) Bending.....	167
5	9-07.1(3) Lengths.....	167
6	9-07.3 Epoxy Coated Steel Reinforcing Bars.....	167
7	9-07.5 Dowel Bars (For Cement Concrete Pavement).....	168
8	9-07.5(1) Epoxy Coated Dowel Bars (For Cement Concrete Pavement).....	168
9	9-07.5(2) Corrosion Resistant Dowel Bars (For Cement Concrete Pavement).....	168
10	9-07.6 Tie Bars (For Cement Concrete Pavement).....	168
11	9-07.10 Prestressing Reinforcement Strand.....	169
12	9-07.11 Prestressing Reinforcement Bar.....	169
13	SECTION 9-08, PAINTS AUGUST 3, 2009.....	169
14	9-08 PAINTS AND RELATED MATERIALS.....	169
15	9-08.1 Paint.....	169
16	9-08.1(1) Description.....	169
17	9-08.1(2) Paint Types.....	170
18	9-08.1(2)A Vinyl Pretreatment.....	170
19	9-08.1(2)B Galvanizing Repair Paint, High Zinc Dust Content.....	170
20	9-08.1(2)C Inorganic Zinc Rich Primer.....	170
21	9-08.1(2)D Organic Zinc Rich Primer.....	170
22	9-08.1(2)E Epoxy Polyamide.....	170
23	9-08.1(2)F Primer, Zinc Filled Single Component, Moisture-Cured Polyurethane.....	170
24	9-08.1(2)G Intermediate and Stripe Coat, Single Component, Moisture-Cured	
25	Polyurethane.....	170
26	9-08.1(2)H Top Coat Single Component, Moisture-Cured Polyurethane.....	171
27	9-08.1(2)I Rust Penetrating Sealer.....	171
28	9-08.1(2)J Black Enamel.....	171
29	9-08.1(2)K Orange Equipment Enamel.....	171
30	9-08.1(2)L Exterior Acrylic Latex Paint-White.....	171
31	9-08.1(3) Working Properties.....	171
32	9-08.1(4) Storage Properties.....	171
33	9-08.1(5) Fineness of Grinding.....	172
34	9-08.1(6) Test Methods.....	172
35	9-08.1(7) Acceptance.....	172
36	9-08.1(8) Standard Colors.....	172
37	9-08.2 Powder Coating Materials for Coating Galvanized Surfaces.....	172
38	9-08.3 Pigmented Sealer Materials for Coating of Concrete Surfaces.....	173
39	9-08.4 Abrasive Blast Materials.....	174
40	9-08.4(1) Abrasive Blast Media.....	174
41	9-08.4(2) Lead Abatement Additive.....	174
42	9-08.5 Surface Cleaning Materials.....	174
43	9-08.5(1) Bird Guano Treatment.....	174
44	9-08.5(2) Fungicide Treatment.....	174
45	9-08.5(3) Water.....	174
46	9-08.6 Filter Fabric.....	174

1	9-08.7 Single Component Urethane Sealant.....	175
2	9-08.8 Foam Backer Rod.....	175
3	SECTION 9-09, TIMBER AND LUMBER JANUARY 7, 2008	175
4	9-09.1 General Requirements.....	175
5	9-09.2 Grade Requirements.....	175
6	9-09.2(1) Surfacing and Seasoning.....	176
7	9-09.2(1) Structures.....	176
8	9-09.2(2) Vacant.....	176
9	9-09.2(2) Guardrail Posts and Blocks.....	176
10	9-09.2(3) Inspection.....	177
11	9-09.2(3) Sign Posts, Mileposts, Sawed Fence Posts, and Mailbox Posts.....	177
12	SECTION 9-12, MASONRY UNITS AUGUST 3, 2009	177
13	9-12.4 Precast Concrete Manholes.....	177
14	9-12.4 Vacant.....	177
15	9-12.5 Precast Concrete Catch Basins.....	177
16	9-12.5 Vacant.....	177
17	9-12.6 Precast Concrete Inlets.....	177
18	9-12.6 Vacant.....	177
19	9-12.7 Precast Concrete Drywells.....	177
20	9-12.7 Vacant.....	177
21	SECTION 9-14, EROSION CONTROL AND ROADSIDE PLANTING AUGUST 3, 2009	178
22	178
23	9-14.4(4) Vacant.....	178
24	9-14.4(4) Wood Strand Mulch.....	178
25	9-14.4(8) Compost.....	178
26	9-14.4(8)A Compost Approval.....	179
27	9-14.4(8)B Compost Acceptance.....	180
28	9-14.5 Erosion Control Devices.....	180
29	9-14.5(8) High Visibility Fencing.....	180
30	9-14.5(1) Polyacrylamide (PAM).....	180
31	9-14.5(3) Clear Plastic Covering.....	180
32	9-14.5(7) Coir Log.....	180
33	SECTION 9-16, FENCE AND GUARDRAIL DECEMBER 1, 2008.....	180
34	9-16.1(1)A Post Material for Chain Link Fence.....	180
35	9-16.1(1)B Chain Link Fence Fabric.....	181
36	9-16.1(1)C Tension Wire.....	181
37	9-16.1(1)C Tension Wire and Tension Cable.....	181
38	9-16.1(1)D Fittings and Hardware.....	181
39	9-16.1(1)E Chain Link Gates.....	181
40	9-16.2(1)A Steel Post Material.....	181
41	9-16.3(2) Posts and Blocks.....	182
42	9-16.3(3) Galvanizing.....	182
43	9-16.3(4) Hardware.....	182
44	9-16.3(5) Anchors.....	182
45	9-16.4(2) Wire Mesh.....	182
46	9-16.6(2) Glare Screen Fabric.....	182

1 9-16.6(3) Posts..... 182

2 9-16.6(5) Cable..... 183

3 9-16.6(6) Cable and Tension Wire Attachments..... 183

4 9-16.6(9) Fabric Bands and Stretcher Bars 183

5 9-16.6(10) Tie Wire..... 183

6 9-16.6(10) Tie Wire and Hog Rings 183

7 9-16.8(1) Rail and Hardware 183

8 **SECTION 9-19, PRESTRESSED CONCRETE GIRDERS APRIL 6, 2009..... 184**

9 9-19.1 Aggregates and Proportioning 184

10 **SECTION 9-23, CONCRETE CURING MATERIALS AND ADMIXTURES APRIL 6,**

11 **2009 184**

12 9-23.6 Admixture for Concrete 184

13 9-23.6 Chemical Admixtures for Concrete..... 184

14 9-23.6(1) Air Entraining Admixtures 184

15 9-23.6(2) Type A Water-Reducing Admixtures 184

16 9-23.6(3) Type B Retarding Admixtures 184

17 9-23.6(4) Type C Accelerating Admixtures 185

18 9-23.6(5) Type D Water-Reducing and Retarding Admixtures..... 185

19 9-23.6(6) Type E Water-Reducing and Accelerating Admixtures 185

20 9-23.6(7) Type F Water-Reducing, High Range Admixtures..... 185

21 9-23.6(8) Type G Water-Reducing, High Range and Retarding Admixtures 185

22 9-23.6(9) Type S Specific Performance Admixtures..... 185

23 9-23.7 Air Entraining and Chemical Admixtures for Precast Prestressed Concrete 185

24 9-23.7 Vacant..... 185

25 9-23.9 Fly Ash..... 185

26 **SECTION 9-25, WATER APRIL 6, 2009 185**

27 9-25.1 Water for Concrete..... 185

28 **SECTION 9-27, CRIBBING AUGUST 3, 2009..... 186**

29 **SECTION 9-28, SIGNING MATERIALS AND FABRICATION APRIL 6, 2009 186**

30 9-28.8 Sheet Aluminum Signs 186

31 9-28.9(1) Mechanical Properties..... 186

32 9-28.14(2) Steel Structures and Posts..... 186

33 **SECTION 9-29, ILLUMINATION, SIGNAL, ELECTRICAL AUGUST 3, 2009..... 186**

34 9-29.1 Conduit, Innerduct, and Outerduct..... 186

35 9-29.1(1) Rigid Metal Conduit, Galvanized Steel Outerduct, and Fittings 187

36 9-29.1(2) Rigid Metal Conduit Fittings and Appurtenances 187

37 9-29.1(2)A Expansion Fittings, Deflection Fittings, and Combination

38 Expansion/Deflection Fittings 187

39 9-29.1(3) Flexible Metal Conduit 188

40 9-29.1(3)A Flexible Metal Conduit Appurtenances 188

41 9-29.1(4) Non-Metallic Conduit 188

42 9-29.1(4)A Rigid PVC Conduit 188

43 9-29.1(4)B HDPE Conduit 188

44 9-29.1(5) Innerduct and Outerduct 188

45 9-29.1(5)A Rigid Galvanized Steel Outerduct with PVC or PE Innerduct 189

46 9-29.1(5)B Rigid PVC Outerduct with PVC or PE Innerduct 189

1	9-29.1(5)C Innerduct for Straight Sections of Galvanized Steel Outerduct or PVC	
2	Outerduct.....	189
3	9-29.1(5)D Conduit with Innerducts Fittings and Appurtenances.....	190
4	9-29.1(5)D1 Bends for 4-inch PVC Conduit with Innerducts or Galvanized Steel Conduit	
5	with Innerducts.....	190
6	9-29.1(5)D2 Prefabricated Fixed and Flexible Bends (for Innerducts).....	190
7	9-29.1(6) Detectable Underground Warning Tape.....	190
8	9-29.1(7) Steel Casings.....	191
9	9-29.1(8) Drilling Fluid.....	191
10	9-29.2(1) Standard Duty and Heavy Duty Junction Boxes.....	191
11	9-29.2(1)A Standard Duty Junction Boxes.....	191
12	9-29.2(1)C Testing Requirements.....	191
13	9-29.2(2) Standard Duty and Heavy Duty Cable Vaults and Pull Boxes.....	191
14	9-29.3 Conductors, Cable.....	192
15	9-29.3 Fiber Optic Cable, Electrical Conductors, and Cable.....	192
16	9-29.3(1)A Singlemode Fiber Optic Cable.....	192
17	9-29.3(2) Twisted-Pair (TWP) Copper Cable.....	192
18	9-29.3(2) Electrical Conductors and Cable.....	192
19	9-29.3(2)A Single Conductor.....	192
20	9-29.3(2)A1 Single Conductor Current Carrying.....	192
21	9-29.3(2)A2 Grounding Electrode Conductor.....	193
22	9-29.3(2)A3 Equipment Grounding and Bonding Conductors.....	193
23	9-29.3(2)A4 Location Wire.....	193
24	9-29.3(2)B Multi-Conductor Cable.....	193
25	9-29.3(2)C Aluminum Cable Steel Reinforced.....	193
26	9-29.3(2)D Pole and Bracket.....	193
27	9-29.3(2)E Two-Conductor Shielded.....	193
28	9-29.3(2)F Detector Loop Wire.....	193
29	9-29.3(2)G Four-Conductor Shielded Cable.....	193
30	9-29.3(2)H Three-Conductor Shielded Cable.....	194
31	9-29.3(2)I Twisted Pair Communications Cable.....	194
32	9-29.6 Light and Signal Standards.....	194
33	9-29.10 Luminaires.....	194
34	9-29.10(2) Decorative Luminaires.....	194
35	9-29.10(3) High Mast Luminaires and Post Top Luminaires.....	194
36	9-29.16(2)E Painting Signal Heads.....	195
37	9-29.20 Pedestrian Signals.....	195
38	SECTION 9-30, WATER DISTRIBUTION MATERIALS DECEMBER 1, 2008.....	195
39	9-30.3(1) Gate Valves (3-inches to 16-inches).....	195
40	SECTION 9-32, MAILBOX SUPPORTS AUGUST 3, 2009.....	195
41	9-32.1 Steel Posts.....	195
42	SECTION 9-33, CONSTRUCTION GEOSYNTHETIC AUGUST 3, 2009.....	195
43	SECTION 9-34, PAVEMENT MARKING MATERIAL AUGUST 3, 2009.....	195
44	9-34.2(1) High VOC Solvent Based Paint.....	195
45	9-34.2(2) Low VOC Solvent Based Paint.....	195
46	9-34.2(3) Low VOC Waterborne Paint.....	195

1	9-34.2(4) Temporary Pavement Marking Paint.....	196
2	9-34.5 Temporary Pavement Marking Tape.....	196
3	9-34.6 Temporary Raised Pavement Markers	196
4	SECTION 9-35, TEMPORARY TRAFFIC CONTROL MATERIALS AUGUST 3, 2009	196
5	9-35.2 Construction Signs	196
6	9-35.14 Portable Temporary Traffic Control Signal.....	196
7	SPECIAL PROVISIONS	197
8	1-01, DESCRIPTION OF WORK	197
9	1-02, BID PROCEDURES AND CONDITIONS.....	198
10	1-02.2 Plans and Specifications.....	198
11	1-02.6 Preparation of Proposal.....	198
12	1-02.13 Irregular Proposals	198
13	1-02.12 Public Opening of Proposal	198
14	Date of Opening Bids.....	198
15	1-02.14, Disqualification of Bidders.....	199
16	1-02.15, Pre Award Information.....	199
17	1-03, AWARD AND EXECUTION OF CONTRACT	200
18	1-03.1 Consideration of Bids.....	200
19	1-04, SCOPE OF THE WORK	200
20	1-04.9 Use of Buildings or Structures	200
21	1-05, CONTROL OF WORK.....	200
22	1-05.4 Conformity With and Deviations from Plans and Stakes	200
23	1-05.7 Removal of Defective and Unauthorized Work.....	201
24	1-06, CONTROL OF MATERIAL.....	201
25	Buy America.....	201
26	1-06.1 Approval of Materials Prior to Use.....	203
27	1-06.1(2) Request for Approval of Material (RAM)	203
28	1-06.2 Acceptance of Materials	204
29	1-06.2(1) Samples and Tests for Acceptance	204
30	1-06.5 Owners Manuals and Operating Instructions	205
31	1-07, LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC	205
32	1-07.1 Laws to Be Observed	205
33	1-07.2 State Taxes.....	205
34	1-07.4 Sanitation.....	205
35	1-07.6 Permits and Licenses	205
36	1-07.9 Wages.....	206
37	1-07.9(1) General.....	206
38	1-07.9(2) Posting Notices	206
39	1-07.11 Requirements for Nondiscrimination.....	206
40	Disadvantaged Business Enterprise Participation.....	212
41	DBE Goals.....	213
42	Affirmative Efforts to Solicit DBE Participation	213
43	DBE Eligibility (for reporting purposes only).....	213
44	Selection of DBEs:.....	213
45	Counting DBE Participation For Reporting Race Neutral Accomplishments	213

1	DBE Prime Contractor.....	214
2	Joint Venture.....	214
3	Commercially Useful Function	214
4	Trucking.....	215
5	Expenditures paid to other DBEs	216
6	Manufacturer	216
7	Regular Dealer.....	216
8	Materials or Supplies Purchased from a DBE.....	217
9	Procedures Between Award and Execution.....	217
10	Procedures After Execution.....	217
11	Reporting.....	217
12	Payment	217
13	<i>1-07.12 Federal Agency Inspection</i>	<i>218</i>
14	<i>1-07.16 Protection and Restoration of Property</i>	<i>218</i>
15	1-07.16(1) Private/Public Property	218
16	<i>1-07.17 Utilities and Similar Facilities</i>	<i>218</i>
17	<i>1-07.18 Public Liability and Property Damage Insurance</i>	<i>219</i>
18	<i>1-07.18 Public Liability and Property Damage Insurance</i>	<i>219</i>
19	1-07.18(1) General Requirements.....	219
20	1-07.18(2) Additional Insured	220
21	1-07.18(3) Subcontractors.....	220
22	1-07.18(4) Evidence of Insurance.....	220
23	1-07.18(5) Coverages and Limits	221
24	1-07.18(5)A Commercial General Liability	221
25	1-07.18(5)B Automobile Liability.....	221
26	1-07.18(5)C Workers' Compensation	221
27	1-08, PROSECUTION AND PROGRESS.....	222
28	<i>1-08.0 Preliminary Matters</i>	<i>222</i>
29	<i>1-08.1 Subcontracting.....</i>	<i>223</i>
30	<i>1-08.3 Progress Schedule</i>	<i>223</i>
31	1-08.3(1) General Requirements.....	223
32	<i>1-08.5 Time For Completion.....</i>	<i>224</i>
33	1-09, MEASUREMENT AND PAYMENT.....	224
34	<i>1-09.9 Payments.....</i>	<i>224</i>
35	<i>1-09.11 Disputes and Claims.....</i>	<i>225</i>
36	1-09.11(3) Time Limitations and Jurisdiction	225
37	<i>1-09.13 Claims Resolution.....</i>	<i>225</i>
38	1-09.13(1) General.....	225
39	1-09.13(3) Claims \$250,000 or Less.....	226
40	1-09.13(4) Claims in Excess of \$250,000.....	226
41	4-04, BALLAST AND CRUSHED SURFACING	227
42	<i>4-04.4 Measurement</i>	<i>227</i>
43	<i>4-04.5 Payment</i>	<i>227</i>
44	5-04, HOT MIX ASPHALT	227
45	<i>5-04.3 Construction Requirements</i>	<i>227</i>
46	5-04.3(7)A Mix Design.....	227

1 5-04.3(8)A Acceptance Sampling and Testing-HMA Mixture 228

2 5-04.3(8)A Acceptance Sampling and Testing-HMA Mixture 229

3 5-04.3(8)A Acceptance Sampling and Testing-HMA Mixture 229

4 5-04.5(1)A Price Adjustments for Quality of HMA Mixture 229

5 5-04.5(1)B Price Adjustments for Quality of HMA Compaction..... 230

6 **6-02, CONCRETE STRUCTURES..... 231**

7 6-02.1 Description 231

8 6-02.2 Materials..... 231

9 6-02.3 Construction 231

10 6-02.4 Measurement 231

11 6-02.5 Payment 231

12 **PUMP HOUSE BUILDING..... 232**

13 Description..... 232

14 Materials..... 232

15 Construction..... 232

16 Measurement..... 232

17 Payment..... 233

18 **7-09, WATER MAINS..... 233**

19 7-09.2 Materials..... 233

20 7-09.3 Construction Requirements 235

21 7-09.3(12) General Pipe Installation..... 235

22 7-09.3(13) Handling of Pipe 235

23 7-09.3(20) Detectable Marking Tape..... 236

24 7-09.3(21) Concrete Thrust Blocking..... 236

25 7-09.3(23) Hydrostatic Pressure Test 236

26 7-09.3(24) Disinfection of Water Mains..... 237

27 7-09.5 Payment 237

28 **7-12, VALVES FOR WATER MAINS..... 237**

29 7-12.1 Description 237

30 7-12.2 Materials..... 237

31 7-12.3 Construction 238

32 7-12.3(1) Installation of Valve Marker Post..... 239

33 7-12.5 Payment 239

34 **PITLESS UNIT SYSTEM..... 239**

35 Description..... 239

36 Materials..... 239

37 1. Pitless Unit..... 240

38 2. Well Cap and Vent..... 240

39 3. Upper Casing 240

40 4. Spool 241

41 5. Discharge Body..... 241

42 6. Water Sampler 241

43 7. Sounding Tube..... 242

44 8. Hold-Down, Lift-Out Mechanisms..... 242

45 9. Check Valves 242

46 Construction Requirements..... 242

1	<i>Measurement</i>	242
2	<i>Payment</i>	242
3	PUMPS	243
4	<i>Description</i>	243
5	<i>Materials</i>	243
6	1. Submersible Turbine Well Pump.....	243
7	2. Centrifugal Booster Pumps	245
8	<i>Construction</i>	246
9	1. Pumps, Motors and Drives.....	246
10	2. Disinfection of Equipment and Well	247
11	3. Acceptance Testing	247
12	<i>Measurement</i>	247
13	<i>Payment</i>	247
14	CHEMICAL INJECTION SYSTEM	248
15	<i>Description</i>	248
16	<i>Materials</i>	248
17	1. Solenoid Diaphragm Metering Pump	248
18	2. System Accessories.....	249
19	<i>Construction Requirements</i>	250
20	<i>Measurement</i>	250
21	<i>Payment</i>	250
22	8-01, EROSION CONTROL AND WATER POLLUTION CONTROL	251
23	<i>8-01.3 Construction</i>	251
24	8-01.3(2)B Seeding and Fertilizing.....	251
25	8-01.3(9)D Inlet Protection.....	251
26	8-12, CHAIN LINK FENCE AND WIRE FENCE	251
27	<i>8-12.3 Construction</i>	251
28	8-20, ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, AND ELECTRICAL	251
29	<i>8-20.1 Description</i>	251
30	<i>8-20.2 Materials</i>	252
31	<i>8-20.3 Construction Requirements</i>	252
32	<i>8-20.4 Measurement</i>	252
33	<i>8-20.5 Payment</i>	252
34	PROJECT SIGN	252
35	<i>Description</i>	252
36	<i>Materials</i>	252
37	<i>Construction</i>	253
38	<i>Measurement</i>	253
39	<i>Payment</i>	253
40	9-29, ILLUMINATION, SIGNAL ELECTRICAL	253
41	9-30, WATER DISTRIBUTION MATERIALS	253
42	<i>9-30.1 Pipe</i>	253
43	9-30.1(1) Ductile Iron Pipe	253
44	<i>9-30.2 Fittings</i>	254
45	9-30.2(1) Ductile Iron Pipe	254
46	9-30.2(2) Restrained Flange Adaptor	254

1	9-30.2(6) Restrained Joints	254
2	9-30.2(8) Flexible Coupling.....	254
3	9-30.3 Valves.....	255
4	9-30.3(1) Gate Valves (3-inches to 16-inches).....	255
5	Insertion Gate Valve Assembly	255
6	Check Valves	255
7	Pump Column Check Valves.....	256
8	Surge Anticipating Valves	256
9	Air Release Valves.....	256
10	Ball Valves.....	256
11	Pressure Gages	256
12	Flowmeters.....	257
13	POWER EQUIPMENT.....	257
14	BOND.....	257
15	APPENDICES.....	258
16	STANDARD PLANS AUGUST 3, 2009	258
17	APPENDIX A	265
18	WASHINGTON STATE PREVAILING WAGE RATES	265
19	APPENDIX B	267
20	FEDERAL CONTRACT PROVISIONS.....	267
21	APPENDIX C	269
22	BID PROPOSAL DOCUMENTS.....	269
23	<i>NOTICE TO CONTRACTORS.....</i>	<i>271</i>
24	<i>PROPOSAL.....</i>	<i>273</i>
25	<i>NON-COLLUSION DECLARATION</i>	<i>275</i>
26	<i>PROPOSAL - SIGNATURE PAGE.....</i>	<i>276</i>
27	<i>POWER EQUIPMENT LIST.....</i>	<i>277</i>
28	<i>EVIDENCE OF EXPERIENCE & CONTACT INFORMATION.....</i>	<i>278</i>
29	<i>ARRA SECTION 1605 CERTIFICATION</i>	<i>285</i>
30	APPENDIX D	287
31	CONTRACT DOCUMENTS.....	287
32	<i>CONTRACT</i>	<i>289</i>
33	<i>PERFORMANCE BOND FOR Bond No.....</i>	<i>291</i>
34	<i>ARRA CONTRACT REQUIREMENTS.....</i>	<i>294</i>
35	APPENDIX E	297
36	ELECTRICAL, HEATING AND VENTILATION, AND CONTROL SYSTEM	
37	TECHNICAL SPECIFICATIONS	297
38	APPENDIX F.....	299
39	CONTRACT PLANS	299
40	APPENDIX G	301

1 **PRODUCT CUT SHEETS..... 301**
2 **APPENDIX H..... 303**
3 **MISCELLANEOUS 303**
4
5