



JUL 01 2016

Memorandum

DATE: June 9, 2016

TO: Derek Case
Assistant Construction Engineer
Headquarters, Mail Stop 47354

THRU: ^{DB} Dave Becher
Program Director, SR 520 Program, Mail Stop NB82-99

FROM: Brian Dobbins, ^{BD}
Construction Manager, West Approach Bridge North Project,
Mail Stop TB-93, (206) 770-3518

PROJECT: C-8625 SR 520 West Approach Bridge North Project

SUBJECT: CO # 81 – Delete Facility M

Requested Action:

Review Review and Region Execution Review and HQ Execution

Change Approval

Project Engineer Change Approval:	Brian Dobbins	2/25/2016
Region Change Approval:	Dave Becher	2/25/2016
HQ Construction Change Approval:	Derek Case	2/25/2016
FHWA Change Approval:	Anthony Sarhan	2/29/2016

Description of the Change

This WSDOT initiated change order deletes a portion of the West Approach Bridge North (WABN) stormwater system to improve coordination of this Contract with future stages of the SR 520 Corridor construction. The full build out of the ultimate design stormwater system will be constructed in those future projects. This change addresses the following issues:

1. This Contract includes Constructed Stormwater Treatment Wetland (CSTW) Facility M located southeast of East Park Drive E and north of SR520 mainline. This change order deletes this facility and allows continued use of that location for construction staging by two additional SR 520 Program corridor projects, West Approach Bridge South (WABS) and Montlake Lid. These projects will begin immediately after the completion of the West Approach Bridge North (WABN) Project. Stormwater will continue to be treated temporarily by other means until the permanent facility is constructed.
2. This change eliminates the blocks placed in the drainage scuppers in the concrete bridge barrier. As originally designed, the concrete barriers running along the WABN structure would have scupper blocks in place, as

drainage scuppers are not needed for the three-lane, one direction configuration. In the four lane (two-lane, two way operation) configuration needed during construction of the WABS structure, the scuppers need to be open to allow a portion of this runoff to spill out and reduce the amount of water “ponding” on the roadway surface.

3. As a result of the deletion of the CSTW, other modifications being made to Pier 1 in Change Order 103, and construction staging for future projects, Retaining Wall 9 no longer needs to be constructed. That wall is deleted from the Contract in this change order.

Current Contract landscaping, soil preparation and irrigation work are also impacted as a result of these follow-on projects but have been addressed through a separate change order.

Evolution of the Change

During the design phase of the WABN Project, funding for the remainder of the SR 520 corridor projects had not yet been obtained. The landscaping, irrigation, soil preparation and CSTW plans were prepared under the assumption that they would need to remain in place for an unknown period of time. Structural plans focused on opening of the WABN to traffic in the final configuration with three lanes, going in one direction.

After the WABN Project was awarded, funding was obtained for the other two projects. Evaluations then began to determine areas of overlap between WABN, WABS and the Montlake Lid in order to realize efficiencies in design and construction of these three projects, reducing costs and avoiding re-work. As a result, SR 520 Program directed the Project Engineer’s Office (PEO) to proceed with a change order to delete the CSTW Facility M and modify other work as detailed above. Plan sheets were revised, deleted and added as needed to modify the work along with revisions to the Special Provisions. This change order incorporates these modifications.

Change Approvals were obtained as noted above.

Payment

In accordance with Standard Specifications 1-04.4, the Contractor is entitled to compensation for the additional cost of the labor, material and equipment as a result of this change through the creation of two new lump sum pay items:

1. Catch Basin Type 2 72 In. Diam. (\$10,605)
2. CO# 81 Other Costs (\$143,113).

Pay item CO# 81 Other Costs compensates the Contractor for costs realized as a result of this WSDOT directed change which modifies the the nature of the Work performed from that of the Work included in the original Plans as follows:

- Decrease in quantity of 21 bid items, with over 40% of the bid items being reduced by greater than 50%, and delete in their entirety 10 others.

- Deletion of some bid items and significant reduction in others required re-sequencing of work, modifications to construction access(es) and reduced productivity of remaining items.
- Increased complexity of remaining work due to deletion or reduction of simpler, easier to perform work.
- Reallocation of project fixed costs for supervision, safety, environmental, tools, and other items due to quantity deletions.

Renegotiating new unit prices on the remaining work for a significant number of items causes unnecessary and unfair risk to the State and the Contractor when most of the quantities for those items remain estimated and could vary greatly from that which the new prices would be based. Rather than renegotiating unit prices for 21 bid items that had been decreased in quantity (9 of which had been decreased greater than 50%) an agreement was reached on a lump sum amount to compensate the Contractor for costs realized due to the factors noted above.

In addition, this change order increases and decreases existing bid item quantities. With the new pay item and these price adjustments, this change order results in a net decrease in estimated Contract total in the amount of \$603,000. The Engineer's Independent Estimate was based on cost information provided by unit bid prices, industry sources and historical cost data. See Attachment B.

Time

Contract time is not affected by this change order.

DBE Statement

DBE participation is not impacted by this change order.

Attachments

CCIS Change Order Document (72 pages)
Change Order Checklist (2 pages)
Change Approval Emails (Attachment A)
Engineer's Estimate (Attachment B)

File: CO Files: CO 081; ProjectWise: 16.05.81

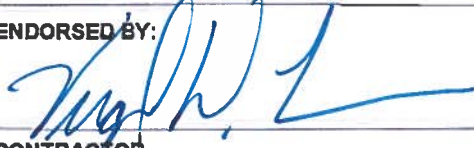
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CONTRACT NO: 008625 FEDERAL AID NO: BR-NHPP-0520 (053)
 CONTRACT TITLE: SR 520, MONTLAKE TO EVERGREEN PT. BRIDGE WEST APPR
 CHANGE ORDER NO: 81 DELETE FACILITY M


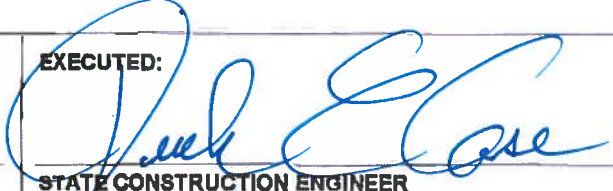
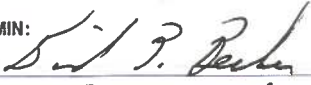
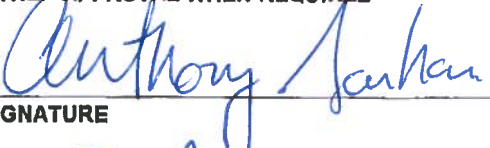
PRIME CONTRACTOR: SW0178155 FLATIRON WEST, INC
 18702 NORTH CREEK PARKWAY #202
 BOTHELL WA 98011-8019

Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications
 Change proposed by Contractor

ENDORSED BY:  _____ CONTRACTOR 5/26/2016 _____ DATE	SURETY CONSENT: _____ ATTORNEY IN FACT _____ DATE
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ORIGINAL CONTRACT AMOUNT: 199,537,370.50
 CURRENT CONTRACT AMOUNT: 202,365,839.00
 ESTIMATED NET CHANGE THIS ORDER: -603,000.00
 ESTIMATED CONTRACT TOTAL AFTER CHANGE: 201,762,839.00

Approval Required: Region Olympia Service Center Local Agency

<input checked="" type="checkbox"/> APPROVAL RECOMMENDED  PROJECT ENGINEER 6.9.16 _____ DATE	<input type="checkbox"/> EXECUTED EXECUTED:  STATE CONSTRUCTION ENGINEER 7/6/16 _____ DATE
<input checked="" type="checkbox"/> APPROVAL RECOMMENDED REGIONAL ADMIN:  BY: SR 520 Director of Construction June 22, 2016 _____ DATE	<input type="checkbox"/> EXECUTED OTHER APPROVAL WHEN REQUIRED  6/28/16 SIGNATURE FHWA _____ REPRESENTING

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All work, materials, and measurements to be in accordance with the provisions of the Standard Specifications and Special Provisions for the type of construction involved.

This contract is revised as follows:

Description:

This change order deletes the Constructed Stormwater Treatment Wetland (CSIW) Facility M located southeast of East Park Drive E and north of SR 520 mainline and provides modified details for this area.

This change order also eliminates Wall 9 and the scupper blocks for concrete barriers on WAEN.

Total COA DBE Subcontracting Goal for the Project is not changed or affected by this change order.

Construction Criteria:

Contract Provisions Volume 1 of 2, Special Provisions is modified as follows:

Division 2 Earthwork, ROADWAY EXCAVATION AND EMBANKMENT, Section 2-03.3 Construction Requirements, Subsection Common Borrow Including Haul for Stormwater Facilities is deleted in its entirety.

Division 6 Structures, CONCRETE BARRIER is modified as follows:

- Section 6-10.2 Materials, Subsection Scupper Blocks for Barriers is deleted in its entirety.
- The following is deleted from Section 6-10.3(2) Construction Requirements, Subsection Cast-In-Place Concrete Barrier:

"Scupper blocks for barriers shall be placed and spaced as shown in the Plans. The concrete surfaces of the scupper blocks shall be coated with a bond breaker as approved by the Project Engineer just prior to casting the traffic barrier and traffic pedestrian barrier encapsulating the blocks."

Division 7 Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Conduits, MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS is modified as follows:

- Section 7-05.2 Materials, Subsection Debris Cages is deleted in its entirety.
- The following line of Section 7-05.4 Measurement is deleted:

"Measurement for debris cage will be per each."

- The following lines of Section 7-05.5 Payment are deleted:

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"Debris Cage", per each.

The unit Contract price per each for "Debris Cage" shall be full pay for furnishing and installing the debris cage. All costs associated with furnishing and installing the mounting hardware shall be included in the unit Contract price for the item installed."

Contract Provisions Volume 2 of 2, Special Provisions is modified as follows:

Division 7 Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Conduits, VALVES FOR WATER MAINS is modified as follows:

- The following line of Section 7-12.1 Description is deleted:

"This Work also includes furnishing and installing gate valves on drain pipes and storm sewers where indicated in the Plans."

- The following items of Section 7-12.2 Materials are deleted:

"Gate valves for drain pipes and storm sewers shall have a minimum pressure rating of 10 psi at 70 degrees Fahrenheit. Gate valves shall have a minimum vacuum service rating of 12 psi. Gate valves shall be gate, paddle or plug type.

Hubs, bodies, and bonnets for gate valves for drain pipes and storm sewers shall be manufactured of PVC conforming to ASTM D1784 with a cell classification of 12454 or 12454A.

Gates, paddles or plugs shall be Type 304 Stainless Steel conforming to ASTM A240 and A666 or polypropylene conforming to ASTM D4101 with a cell classification of PP0210B67272.

Shafts, handles, air cylinder bolts, nuts, and washers, shall be manufactured from Type 304 Stainless Steel conforming to ASTM A240 and A666. Stems shall be PVC or stainless steel meeting the material requirements for other PVC or stainless steel components.

Operators shall be a pull-up handle, a handle with a non-rising stem, or a 2-inch square operating nut with a non-rising stem. Handles shall be stainless steel or polypropylene meeting the material requirements for other stainless steel or polypropylene components.

Seals, gaskets, and O-rings shall be ethylene propylene diene monomer (EPDM) rubber or a thermoplastic vulcanizate (TPV) thermoplastic elastomer (TPE) conforming to the following:

ASTM D412: Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers Tension

Tensile Strength: 375 - 1,500 psi

Ultimate (breaking) Elongation: 200 percent, minimum

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ASTM D2240: Standard Test Method for Rubber Property Durometer Hardness
Hardness, Shore A, points: 40 - 75

ASTM D573: Standard Test Method for Rubber Deterioration in an Air Oven
Temperature: 302 degrees Fahrenheit
Time: 70 hours, minimum
Change in Tensile Strength: -20 percent, maximum
% Change in Elongation: -20 percent, maximum
Change in Hardness: +10 points, maximum

ASTM D395: Standard Test Methods for Rubber Property Compression Set
Temperature: 212o Fahrenheit, minimum
Time: 22 hours
Method B: 25 - 45 percent

The ends of the valves shall be either slip-on joints or flanged joints. Slip-on joints shall be compatible for solvent-welding to PVC schedule 40 pipe that conforms to ASTM D2665 and ASTM F1866 or flanged ends. Cement for solvent welding shall be in accordance with the manufacturer's requirements. Bolt spacing for flanges shall conform to ANSI Class 150 and ASME B16.5.

Transition pipe sections between slip-on joint gate valves and the drain pipes and storm sewers shall be PVC Schedule 40 pipe that conforms to ASTM D2665. The end that connects to the gate valve shall be a plain end for solvent welding to the gate valve slip-on joint. The end that connects to the drain pipe or storm sewer shall conform to the dimensional requirements for the coupling.

Transition pipe sections between flanged joint gate valves and the drain pipes and storm sewers shall include a section of flanged pipe that extends beyond the outside face of the catch basin wall or a plain-end-to-flange adapter with the adapter located inside the catch basin. The connection to the flange pipe or the plain-end-to-flange adapter shall not be located within the catch basin wall. Flanged PVC pipe shall be PVC Schedule 40 conforming to ASTM D2665. Flanged Ductile Iron pipe shall conform to Section 9-30.1(1).

Couplings and adapters between gate valves, transition pipe sections and drain pipes and storm sewers shall provide a joint that can meet the testing requirements of the Special Provision Storm Sewers. Coupling and adapter materials shall have the minimum strength requirements of the drain pipe or storm sewer pipe material that is being joined.

Grout shall conform to Section 9-04.3.

Valve boxes and valve marker posts are not required for gate valves for drain pipes and storm sewers."

- The following items of Section 7-12.3 Construction Requirements, Subsection Adjust Valve Box are deleted:

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"The drain pipes and storm sewers on which gate valves are installed shall be tested in accordance with Section 7-04 and the Special Provision Storm Sewers. The gate valves shall be installed prior to pipe testing. Gate valves shall be temporarily supported until the pipe has been tested and test results accepted by the Engineer. After the test results have been accepted, the knockout around the pipe shall be completely filled with grout for the full catch basin wall thickness. Grout shall be flush with the catch basin wall. After the grout has cured, the temporary support shall be removed unless otherwise approved by the Engineer. The transition pipe section between the gate valve and the drain pipe or storm sewer shall not exceed 5-ft. For gate valves with solvent weld end joints, the face of the gate valve body adjacent to the wall shall not extend more than 2-inches from the interior face of the catch basin wall. For gate valves with flange end joints, the flange adjacent to the wall or the outside of the adapter shall not extend more than 4-inches from the interior face of the catch basin wall.

Disinfecting gate valves for drain pipes and storm sewers is not required."

- The following item of Section 7-12.5 Payment is deleted:

"The unit Contract price per each for "Gate Valve ___ In." for drain pipes and storm sewers shall be full pay for all Work to furnish and install the valve complete in place at the end of the storm drain pipe inside of the catch basin, including temporary supports, grout, jointing, transition pipe sections, and couplings."

Division 8 Miscellaneous Construction, EROSION CONTROL AND WATER POLLUTION CONTROL is modified as follows:

- Section 8-01.2 Materials, Subsection Geosynthetic Clay Liner (GCL) is deleted in its entirety.

- Section 8-01.3 Construction Requirements, Subsection Geosynthetic Clay Liner is deleted in its entirety.

- The following is deleted from Section 8-01.4 Measurement:

"Measurement for geosynthetic clay liner will be per square yard of completed GCL in place. Measurement on slopes will include the actual area of the slope covered. The area of GCL on slopes will be computed on the basis of measurements taken by projecting the area of the slope onto a horizontal plane. No separate measurement will be made for GCL or granular bentonite for longitudinal or end-of-roll seams, materials for patches, materials for sealing penetrations, or materials placed in the anchor trench."

- The following is deleted from Section 8-01.5 Payment:

"Geosynthetic Clay Liner," per square yard.

The unit Contract price per square yard for "Geosynthetic Clay Liner" shall be full pay for furnishing and installing the liner; preparing the subgrade;

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providing for penetrations through the liner and sealing of the penetrations; patching; constructing and sealing of longitudinal and end-of-roll seams; and providing temporary cover and BMPs for protecting the cover soil and GCL. The unit Contract price per square yard shall also be full pay for furnishing and installing all equipment, tools, labor, granular bentonite and all other materials to provide a complete installation. >

The cover soil and vegetation shall be paid for under other Bid items specified for the project."

Division 8 Miscellaneous Construction, PRESETTLING CELL CONCRETE LINER is deleted in its entirety.

Contract Plans Volume 1 of 10 is modified as follows:

Add the following Plan Sheets included as pages 18 and 20 of this change order:

- SP02A titled "Site Preparation Plan".
- RP14A titled "Roadway Profile".

Delete Plan Sheet RP14 titled "Roadway Profile".

Delete the following Plan Sheets and replace with page 11 through 17 of this change order:

- RS05 and RS08 both titled "Roadway Sections"
- SU34, SU38 and SU45 all titled "Construction Staging Plan"
- SP01 and SP02 both titled "Site Preparation Plan"

Contract Plans Volume 2 of 10 is modified as follows:

Add Plan Sheet DP11 titled "Drainage Profile" included as page 21 of this change order.

Delete Plan Sheets SW01, SW02, SW05, SW06 and SW07 all titled "Stormwater Facilities".

Delete the following Plan Sheets and replace as shown on pages 22 through 49 of this change order:

- NI12, NI13, NI14, NI16, NI17, NI18, NI19, NI20, NI21, NI22, NI23, NI24, and NI25 all titled "Structure Notes Drainage"
 - DR02 titled "Drainage Plan"
 - DP06, DP07, and DP08 all titled "Drainage Profile"
 - DD02, DD10 and DD11 all titled "Drainage Details"
 - SW03 and SW04 both titled "Stormwater Facilities"
 - DB108 titled "Bridge Drainage Details".
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Contract Plans Volume 3 of 10 is modified as follows:

Add the following Plan Sheets included as pages 52, 55 and 57 of this change order:

- CN02A titled "Interchange Grading Plan".
- PV02A titled "Paving Plan".
- PV14A titled "Paving Details".

Delete the following Plan Sheets:

- WR10 titled "Wall 9 Layout"
- WR23 titled "Wall 9 Section"
- WR55 titled "Presettling Cell Details 1 of 4"
- WR56 titled "Presettling Cell Details 2 of 4"
- WR57 titled "Presettling Cell Details 3 of 4"
- WR58 titled "Presettling Cell Details 4 of 4".

Delete the following Plan Sheets and replace as shown on pages 50-51, 53-54, 56 and 58-59 of this change order:

- CN01 and CN02 both titled "Interchange Grading Plan"
- PV015 titled "Quantity Tabulation Paving"
- PV02 titled "Paving Plan"
- PV14 and PV15 both titled "Paving Details"
- IWR01 titled "Retaining Wall Sheet Index"

Delete the following sheet from the Contract Plans Volume 6 of 10 and replace with page 66 of this change order:

- IBA05 titled "WARN Structural Sheet Index 5"

Delete the following sheets from the Contract Plans Volume 9 of 10 and replace with page 67 of 72 of this change order:

- BA543 titled "Barrier Plan"
- BA544 titled "Barrier Scupper Block"
- BA546 titled "Traffic Pedestrian Barrier Details 2 of 4"
- BA547 titled "Traffic Pedestrian Barrier Details 3 of 4"
- BA548 titled "Traffic Pedestrian Barrier Details 4 of 4"
- BA549 titled "Traffic Barrier Details 1 of 4"

Measurement and Payment:

The following existing bid items are reduced:

- Bid Item 038 Roadway Excavation Incl. Haul is reduced by 10,500 C.Y.
- Bid Item 042 Embankment Compaction is reduced by 6,140 C.Y.
- Bid Item 043 Ditch Excavation Incl. Haul is reduced by 240 C.Y.
- Bid Item 047 Streambed Cobbles is reduced by 130 Ton.

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- Bid Item 049 Quarry Spalls is reduced by 30 Tons.
- Bid Item 050 Underdrain Pipe 6 In. Diam. Is reduced 393 L.F.
- Bid Item 052 Drain Pipe 12 In. Diam. is reduced by 528 L.F.
- Bid Item 053 Schedule A Culv. Pipe 18 In. Diam. is reduced by 150 L.F.
- Bid Item 054 Debris Cage is decreased by 2 Each.
- Bid Item 062 Catch Basin Type 2 54 In. Diam. is reduced by 3 Each.
- Bid Item 063 Catch Basin Type 2 60 In. Diam. is reduced by 1 Each.
- Bid Item 069 Schedule A Storm Sewer Pipe 8 In Diam. is reduced 12 L.F.
- Bid Item 073 Schedule A Storm Sewer Pipe 24 In. Diam. is reduced by 84 L.F.
- Bid Item 078 Sewer Cleanout is reduced by 12 Each.
- Bid Item 108 Gate Valve 8 In. is decreased by 1 Each.
- Bid Item 109 Gate Valve 12 In. is decreased by 2 Each.
- Bid Item 124 Structure Excavation Class A Incl. Haul is reduced by 110 C.Y.
- Bid Item 180 Prefabricated Drainage Mat is reduced by 1,090 S.Y.
- Bid Item 184 Structural Earth Wall is reduced by 510 S.F.
- Bid Item 189 Crushed Surface Base Course is reduced by 130 Tons.
- Bid Item 196 HMA Cl. In. PG 64-22 is reduced by 178 Tons.
- Bid Item 205 Geosynthetic Clay liner is reduced by 2,170 S.Y.
- Bid Item 285 Concrete Liner is reduced by 1,280 S.Y.
- Bid Item 291 Gravel Backfill for Drain is reduced by 233 C.Y.
- Bid Item 305 Coated Chain Link Fence Type 3 is reduced by 370 L.F.
- Bid Item 306 Coated End, Gate, Corner, Pullpost for Chain Link Fence is reduced by 11 Each.
- Bid Item 307 Double 14 FT. Coated Chain Link Gate is reduced by 1 Each.
- Bid Item 327 Construction Geotextile for Underground Drain is reduced by 28 S.Y.
- Bid Item 329 Construction Geotextile for Permanent Erosion Control is reduced by 122 S.Y.
- Bid Item 331 Gravel Backfill for Structural Earth Wall is reduced by 95 C.Y.
- Bid Item 350 On-Land Contam. Soil Excavation, Handling & Disposal is reduced by 1780 Ton.

The following existing bid items are increased:

- Bid Item 048 Light Loose Riprap is increased by 50 Tons.
- Bid Item 051 Drain Pipe 6 In. Diam is increased by 11 L.F.
- Bid Item 061 Catch Basin Type 2 48" Diam. is increased by 1 Each.
- Bid Item 065 Testing Storm Sewer Pipe is increased by 148 L.F.
- Bid Item 066 Cl. III Reinf. Conc. Storm Sewer Pipe 30 In. Diam. is increased 166 L.F.
- Bid Item 070 Schedule A Storm Sewer Pipe 12 In. Diam. is increased by 78 L.F.
- Bid Item 289 Structure Excavation Class B Incl. Haul is increased by 150 C.Y.
- Bid Item 290 Shoring or Extra Excavation Class B is increased by 810 S.F.

The new item "Catch Basin Type 2 72 In. Diam.", in the amount of \$10,605 each, shall be full payment for all additional costs for equipment, labor, tools, materials, engineering, indirect, overhead, and other costs realized by Flatiron West, Inc. and its subcontractors, consultants, and suppliers to

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install the catch basin as shown in this change order.

The new item "CO# 81 Other Costs", in the amount of \$143,113, shall be full payment for all other costs realized by Flatiron West, Inc. and its subcontractors, consultants, and suppliers for the work modified by this change order.

Time:

Contract time is not affected by this change order.

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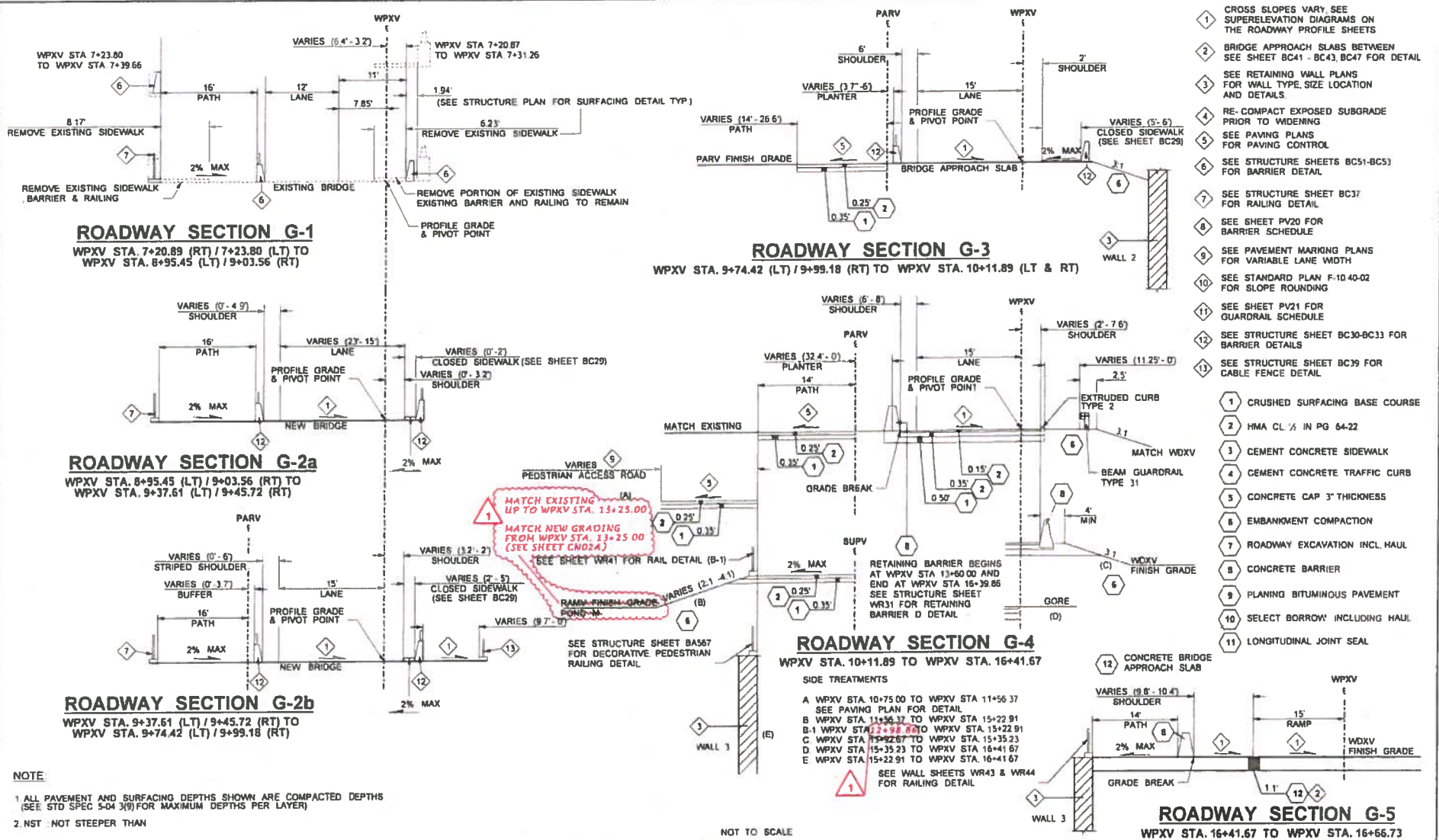
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ITEM NO	GROUP NO	STD ITEM	ITEM DESCRIPTION	UNIT MEASURE	UNIT PRICE	EST QTY CHANGE	EST AMT CHANGE
0038	01	0310	ROADWAY EXCAVATION INCL. H.H.L.	C.Y.	31.00	-10,500.00	-325,500.00
0042	01	0470	EMBANKMENT COMPACTION	C.Y.	3.00	-6,140.00	-18,420.00
0043	01	1030	DITCH EXCAVATION INCL. HAUL	C.Y.	49.00	-240.00	-11,760.00
0047	01	1094	STREAMBED COBBLES	TON	65.00	-130.00	-8,450.00
0048	01	1073	LIGHT LOOSE RIPRAP	TON	55.00	50.00	2,750.00
0049	01	1086	QUARRY SPALLS	TON	70.00	-70.00	-2,100.00
0050	01	1160	UNDERDRAIN PIPE 6 IN. DIAM.	L.F.	19.00	-393.00	-7,467.00
0051	01	1170	DRAIN PIPE 6 IN. DIAM.	L.F.	25.00	11.00	275.00
0052	01	1173	DRAIN PIPE 12 IN. DIAM.	L.F.	40.00	-528.00	-21,120.00
0053	01	1182	SCHEDULE A CULV. PIPE 18 IN. DIAM.	L.Y.	56.00	-150.00	-8,400.00
0054	01		DEERIS CAGE	EACH	810.00	-2.00	-1,620.00
0061	01	3105	CATCH BASIN TYPE 2 48 IN. DIAM.	EACH	3,300.00	1.00	3,300.00
0062	01	3106	CATCH BASIN TYPE 2 54 IN. DIAM.	EACH	3,800.00	-3.00	-11,400.00
0063	01	3109	CATCH BASIN TYPE 2 60 IN. DIAM.	EACH	5,150.00	-1.00	-5,150.00
0065	01	3151	TESTING STORM SEWER PIPE	L.F.	3.50	146.00	518.00
0066	01	3436	CL. III REINF. CONC. STORM SEWER PIPE 30	L.F.	125.00	166.00	20,750.00
0069	01		SCHEDULE A STORM SEWER PIPE 8 IN. DIAM.	L.F.	37.00	-12.00	-444.00
0070	01	3541	SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	L.F.	35.00	78.00	2,730.00
0073	01	3543	SCHEDULE A STORM SEWER PIPE 24 IN. DIAM.	L.F.	168.00	-84.00	-9,072.00
0078	01	3640	SEWER CLEANOUT	EACH	625.00	-12.00	-7,500.00
0108	01	6160	GATE VALVE 8 IN.	EACH	1,450.00	-1.00	-1,450.00
0109	01	6165	GATE VALVE 12 IN.	EACH	1,350.00	-2.00	-2,700.00
0124	01	4006	STRUCTURE EXCAVATION CLASS A INCL. HAUL	C.Y.	31.00	-110.00	-3,410.00
0180	01	4482	PREFABRICATED DRAINAGE MAT	S.Y.	11.00	-1,090.00	11,990.00
0184	01	7169	STRUCTURAL EARTH WALL	S.F.	33.00	-510.00	-26,800.00
0189	01	5100	CRUSHED SURFACING BASE COURSE	TON	30.00	-130.00	-3,900.00
0196	01	5767	H&A CL. 1 2 IN. PG 64-22	TON	68.00	-178.00	-15,664.00
0205	01		GEOSYNTHETIC CLAY LINER	S.Y.	13.50	-2,170.00	-29,295.00
0285	01		CONCRETE LINER	S.Y.	75.00	-1,280.00	-96,000.00
0289	01	7006	STRUCTURE EXCAVATION CLASS B INCL. HAUL	C.Y.	50.00	150.00	7,500.00
0290	01	7005	SHORING OR EXTRA EXCAVATION CLASS B	S.F.	1.00	810.00	810.00
0291	01	7014	GRAVEL BACKFILL FOR DRAIN	C.Y.	40.00	-233.00	-9,320.00
0305	01	7085	COATED CHAIN LINK FENCE TYPE 3	L.F.	16.00	-370.00	-5,920.00
0306	01	7098	COATED FND, GATR, CORNER, PULLPOST FOR CH	EACH	255.00	-11.00	-2,805.00
0307	01	7103	DOUBLE 14 FT. COATED CHAIN LINK GATE	EACH	2,100.00	-1.00	-2,100.00
0327	01	7550	CONSTRUCTION GEOTEXTILE FOR UNDERGROUND D	S.Y.	3.50	-28.00	-98.00
0329	01	7554	CONSTRUCTION GEOTEXTILE FOR PERMANENT ERO	S.Y.	3.00	-122.00	-366.00
0331	01	7567	GRAVEL BORROW FOR STRUCTURAL EARTH WALL 1	C.Y.	40.00	-95.00	-3,800.00
0350	01		ON-LAND CONTAM. SOIL EXCAVATION, HANDLING	TON	85.00	-1,780.00	-151,300.00
1033	01	3107	CATCH BASIN TYPE 2 72 IN. DIAM.	EACH	10,605.00	1.00	10,605.00
1034	01		CO#81 OTHER COSTS	L.S.	143,113.00	1.00	143,113.00

-503,000.00



- 1 CROSS SLOPES VARY, SEE SUPERELEVATION DIAGRAMS ON THE ROADWAY PROFILE SHEETS
 - 2 BRIDGE APPROACH SLABS BETWEEN SEE SHEET BC41 - BC43, BC47 FOR DETAIL
 - 3 SEE RETAINING WALL PLANS FOR WALL TYPE, SIZE LOCATION AND DETAILS
 - 4 RE-COMPACT EXPOSED SUBGRADE PRIOR TO WIDENING
 - 5 SEE PAVING PLANS FOR PAVING CONTROL
 - 6 SEE STRUCTURE SHEETS BC51-BC53 FOR BARRIER DETAIL
 - 7 SEE STRUCTURE SHEET BC37 FOR RAILING DETAIL
 - 8 SEE SHEET PV20 FOR BARRIER SCHEDULE
 - 9 SEE PAVEMENT MARKING PLANS FOR VARIABLE LANE WIDTH
 - 10 SEE STANDARD PLAN F-10 40-02 FOR SLOPE ROUNDING
 - 11 SEE SHEET PV21 FOR GUARDRAIL SCHEDULE
 - 12 SEE STRUCTURE SHEET BC30-BC33 FOR BARRIER DETAILS
 - 13 SEE STRUCTURE SHEET BC39 FOR CABLE FENCE DETAIL
- 1 CRUSHED SURFACING BASE COURSE
 - 2 HMA CL 1/2 IN PG 64-22
 - 3 CEMENT CONCRETE SIDEWALK
 - 4 CEMENT CONCRETE TRAFFIC CURB
 - 5 CONCRETE CAP 3" THICKNESS
 - 6 EMBANKMENT COMPACTION
 - 7 ROADWAY EXCAVATION INCL. HAUL
 - 8 CONCRETE BARRIER
 - 9 PLANING BITUMINOUS PAVEMENT
 - 10 SELECT BORROW' INCLUDING HAUL
 - 11 LONGITUDINAL JOINT SEAL

NOTE

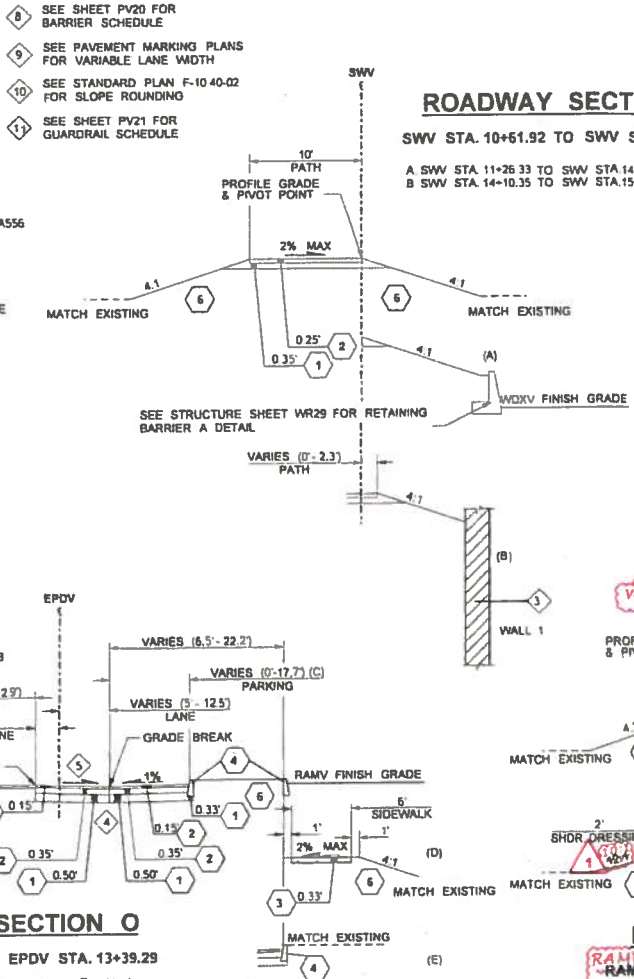
1 ALL PAVEMENT AND SURFACING DEPTHS SHOWN ARE COMPACTED DEPTHS (SEE STD SPEC 5-04 3(f) FOR MAXIMUM DEPTHS PER LAYER)

2 NST = NOT STEEPER THAN

NOT TO SCALE

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DESIGNED BY: C. LEE	ENTERED BY: S. SHARPE	PROJ. ENGR: D. EDWARDS	REGIONAL ADM: J. MEREDITH	PARSONS BRINCKERHOFF		Parametrix	
REVISION		DATE	BY	ROADWAY SECTIONS			

- 1 CROSS SLOPES VARY SEE SUPERELEVATION DIAGRAMS ON THE ROADWAY PROFILE SHEETS
- 2 NO BRIDGE APPROACH SLAB IN THIS SHEET
- 3 SEE RETAINING WALL PLANS FOR WALL TYPE, SIZE, LOCATION AND DETAILS
- 4 RE-COMPACT EXPOSED SUBGRADE PRIOR TO WIDENING
- 5 SEE PAVING PLANS FOR PAVING CONTROL
- 6 SEE STRUCTURE SHEETS BA543 - BA556 FOR BARRIER DETAIL
- 7 SEE STRUCTURE SHEET BC37 FOR RAILING DETAIL
- 1 CRUSHED SURFACING BASE COURSE
- 2 HMA CL. 1/2 IN PG 64-22
- 3 CEMENT CONCRETE SIDEWALK
- 4 CEMENT CONCRETE TRAFFIC CURB
- 5 CONCRETE CAP 3" THICKNESS
- 6 EMBANKMENT COMPACTION
- 7 ROADWAY EXCAVATION INCL HAUL
- 8 CONCRETE BARRIER
- 9 PLANNING BITUMINOUS PAVEMENT
- 10 SELECT BORROW INCLUDING HAUL
- 11 LONGITUDINAL JOINT SEAL
- 12 CONCRETE BRIDGE APPROACH SLAB

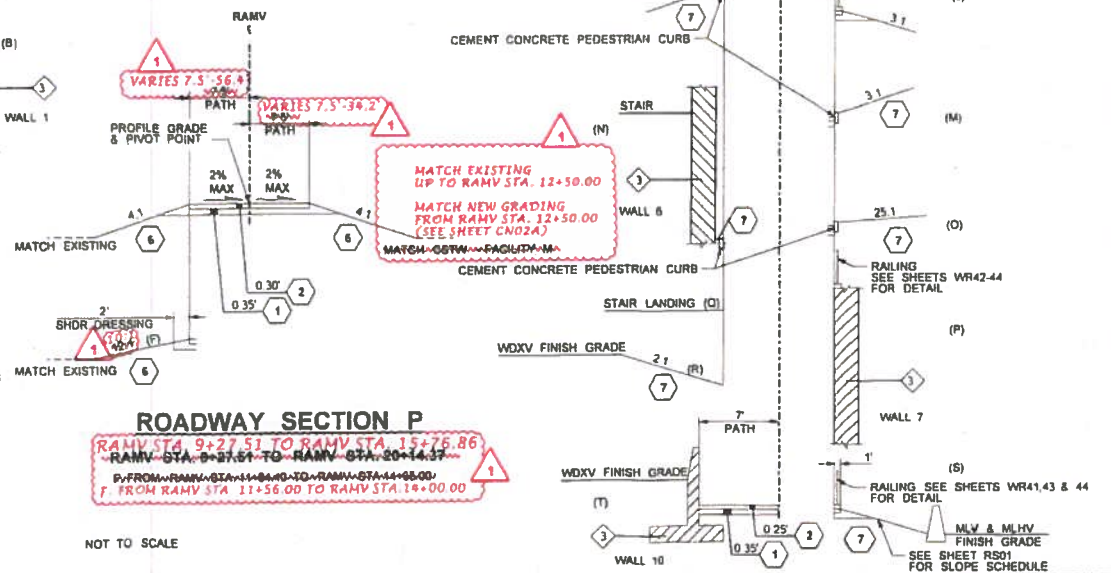


ROADWAY SECTION N

ROADWAY SECTION Q

TRV STA. 10+34.04 TO TRV STA. 17+95.94

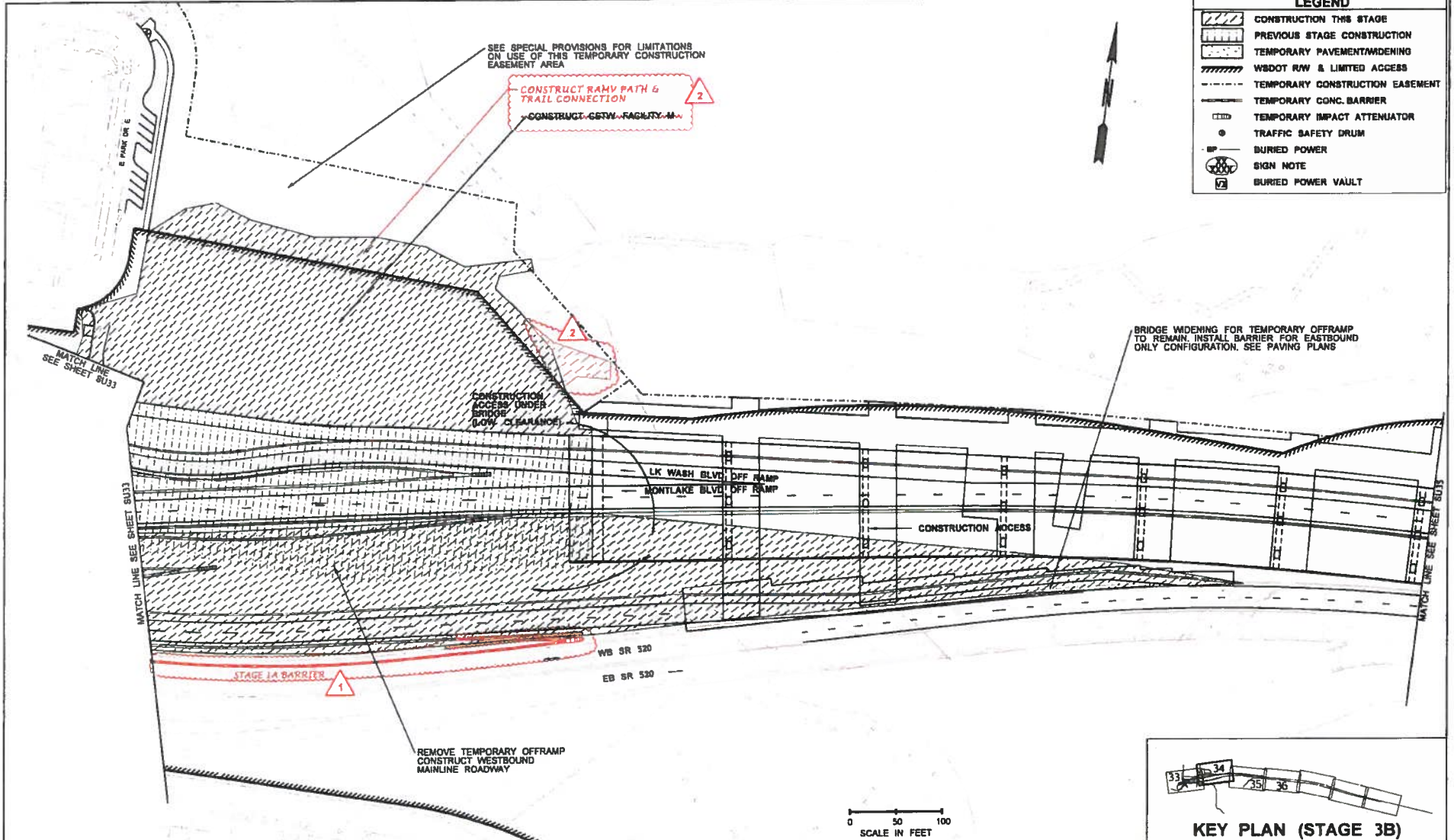
- SIDE TREATMENTS
- G TRV STA. 10+34.04 TO TRV STA. 10+76.16
 - H TRV STA. 10+34.04 TO TRV STA. 11+83.65
 - I TRV STA. 10+76.16 TO TRV STA. 11+52.98
 - J TRV STA. 11+52.98 TO TRV STA. 11+69.93
 - K TRV STA. 11+83.65 TO TRV STA. 12+79.50
 - L TRV STA. 12+79.50 TO TRV STA. 14+51.21
 - M TRV STA. 11+69.93 TO TRV STA. 13+16.94
 - N TRV STA. 14+51.21 TO TRV STA. 15+09.63
 - O TRV STA. 13+16.94 TO TRV STA. 13+19.38
 - P TRV STA. 13+19.38 TO TRV STA. 13+84.55
 - Q TRV STA. 15+09.63 TO TRV STA. 15+29.42
 - R TRV STA. 15+29.42 TO TRV STA. 17+39.69
 - S TRV STA. 13+84.55 TO TRV STA. 17+95.94
 - T TRV STA. 17+39.69 TO TRV STA. 17+95.94



NOTE
1 ALL PAVEMENT AND SURFACING DEPTHS SHOWN ARE COMPACTED DEPTHS (SEE STD SPEC 5-04.3(9) FOR MAXIMUM DEPTHS PER LAYER)
2 NST NOT STEEPER THAN

NOT TO SCALE

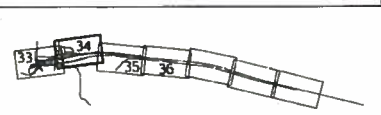
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DATE: 3/10/2016	DESIGNED BY: S. SHARPE	ENTERED BY: P. MERRELL	PROJ. ENGR. D. EDWARDS	REGIONAL ADM. J. MEREDITH	REVISION CO#81 - DELETE FACILITY M	DATE: 12/23/2015 BY: CL	ROADWAY SECTIONS	



LEGEND

	CONSTRUCTION THIS STAGE
	PREVIOUS STAGE CONSTRUCTION
	TEMPORARY PAVEMENT/WIDENING
	WSDOT RW & LIMITED ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	TEMPORARY CONC. BARRIER
	TEMPORARY IMPACT ATTENUATOR
	TRAFFIC SAFETY DRUM
	BURIED POWER
	SIGN NOTE
	BURIED POWER VAULT

BRIDGE WIDENING FOR TEMPORARY OFFRAMP TO REMAIN. INSTALL BARRIER FOR EASTBOUND ONLY CONFIGURATION. SEE PAVING PLANS

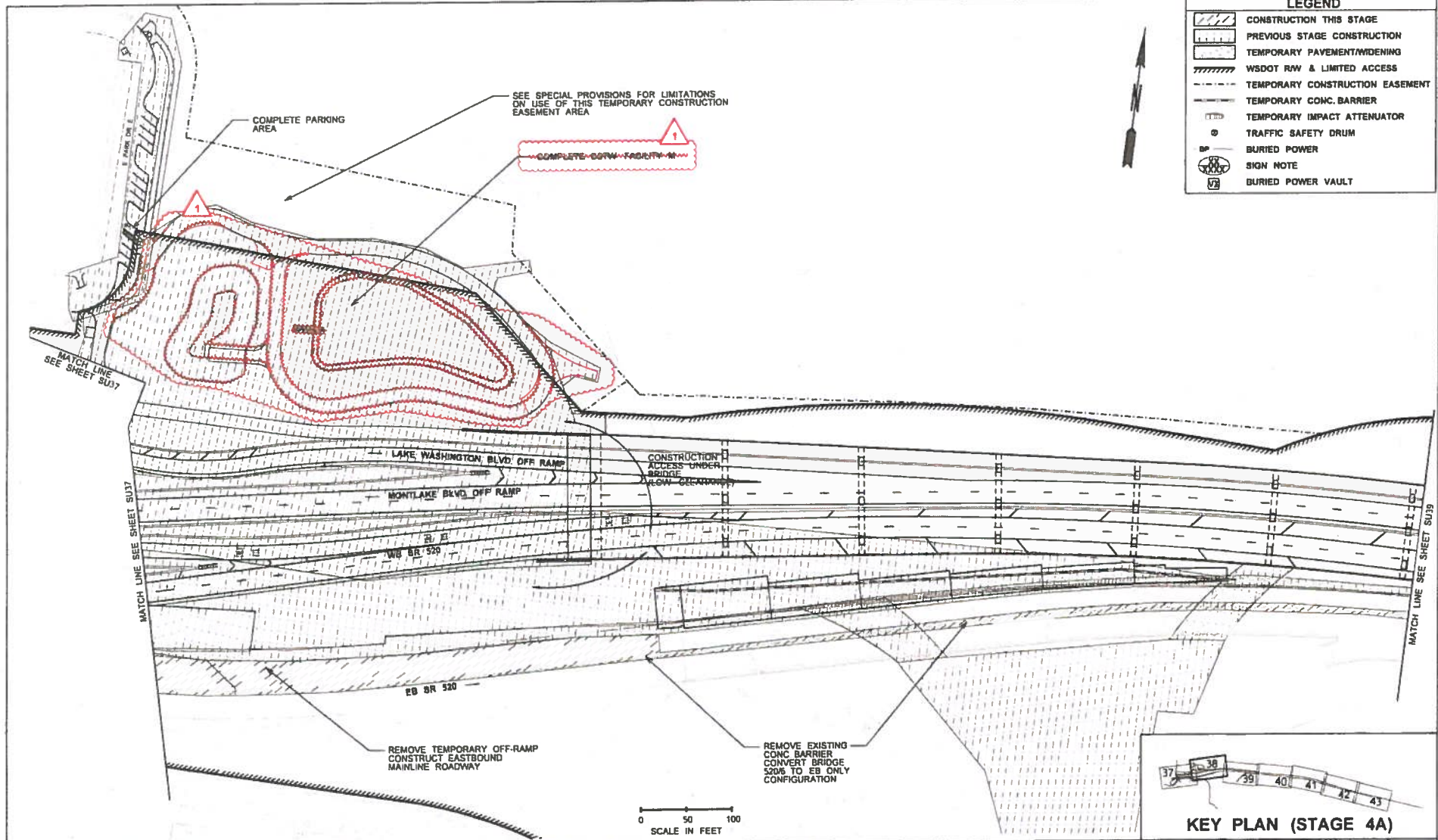


KEY PLAN (STAGE 3B)

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DATE: 3/18/2016				
DESIGNED BY: Y. CHANG				
ENTERED BY: S. SHARPE				
CHECKED BY: P. MERRELL		12/8/2015	PW	
PROJ. ENGR.: D. EDWARDS		7/8/15	PM	
REGIONAL ADM.: J. MEREDITH				

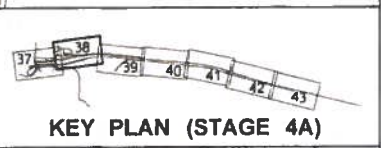
CO#81 - DELETE FACILITY M
STAGING ATTENUATOR RELOCATION

FED.AID PROJ.NO.	HR ENGINEERING INC.		Washington State Department of Transportation	Contract 8625 Change Order 81 Page 13 of 72	LAB REF. NO. SU34
LOCATION NO.			PARSONS BRINCKERHOFF	CONSTRUCTION STAGING PLAN	DWGT 82 OF 1797 SHEETS



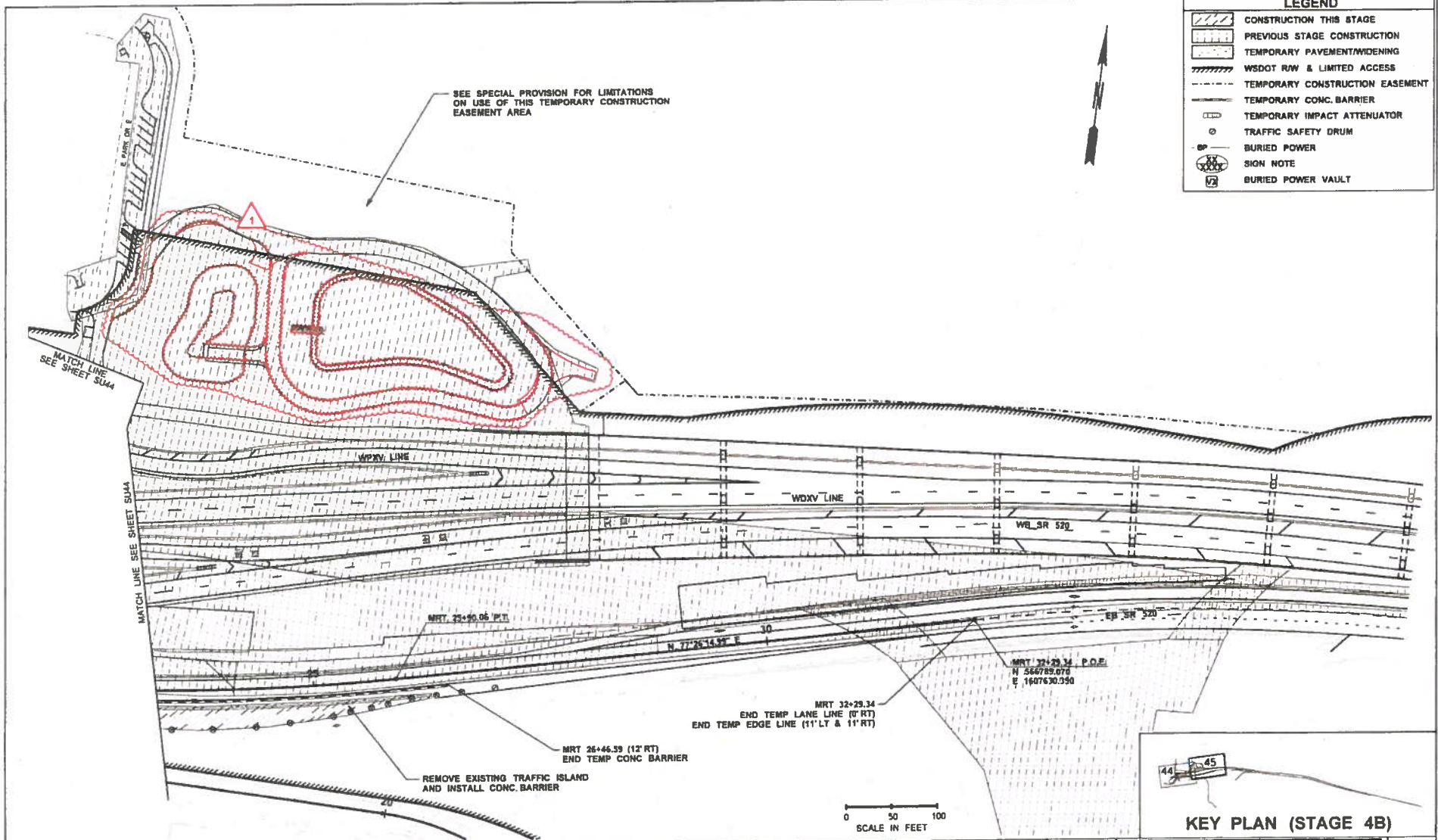
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	CONSTRUCTION THIS STAGE
	PREVIOUS STAGE CONSTRUCTION
	TEMPORARY PAVEMENT/WIDENING
	WSDOT RW & LIMITED ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	TEMPORARY CONC. BARRIER
	TEMPORARY IMPACT ATTENUATOR
	TRAFFIC SAFETY DRUM
	BURIED POWER
	SIGN NOTE
	BURIED POWER VAULT



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DATE	3/10/2016		
PLOTTED BY	SancheA		
DESIGNED BY	Y. CHANG		
ENTERED BY	S. SHARPE		
CHECKED BY	P. MERRELL		
PROJ. ENGR.	D. EDWARDS		
REGIONAL ADM.	J. MEREDITH		
	CO#81 - DELETE FACILITY M	12/8/2015	PW
	REVISION	DATE	BY

FEDERAL AID PROJ. NO. 10 WASH JOB NUMBER 13A012 CONTRACT NO.	 HR ENGINEERING INC.	 DATE 3/6/16	 Washington State Department of Transportation	Contract 8625 Change Order 81 Page 14 of 72	PLAN REV. NO. SU38 SHEET 86 OF 1797 SHEETS
PARSONS BRINCKERHOFF			Parametrix	CONSTRUCTION STAGING PLAN	



LEGEND	
	CONSTRUCTION THIS STAGE
	PREVIOUS STAGE CONSTRUCTION
	TEMPORARY PAVEMENT/WIDENING
	WSDOT RW & LIMITED ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	TEMPORARY CONC. BARRIER
	TEMPORARY IMPACT ATTENUATOR
	TRAFFIC SAFETY DRUM
	BURIED POWER
	SIGN NOTE
	BURIED POWER VAULT

KEY PLAN (STAGE 4B)

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PLOTTED BY: SancheA	DESIGNED BY: Y. CHANG	CHECKED BY: P. MERRELL	PROJ. ENGR.: D. EDWARDS	REGIONAL ADM.: J. MERREDITH	JOB NUMBER: 13A012	CONTRACT NO.	LOCATION NAME	DATE: 12/8/2015 BY: PW
REMOVE EXISTING TRAFFIC ISLAND AND INSTALL CONC. BARRIER		CO#81 - DELETE FACILITY M		REVISION		CONSTRUCTION STAGING PLAN		

GENERAL NOTES:

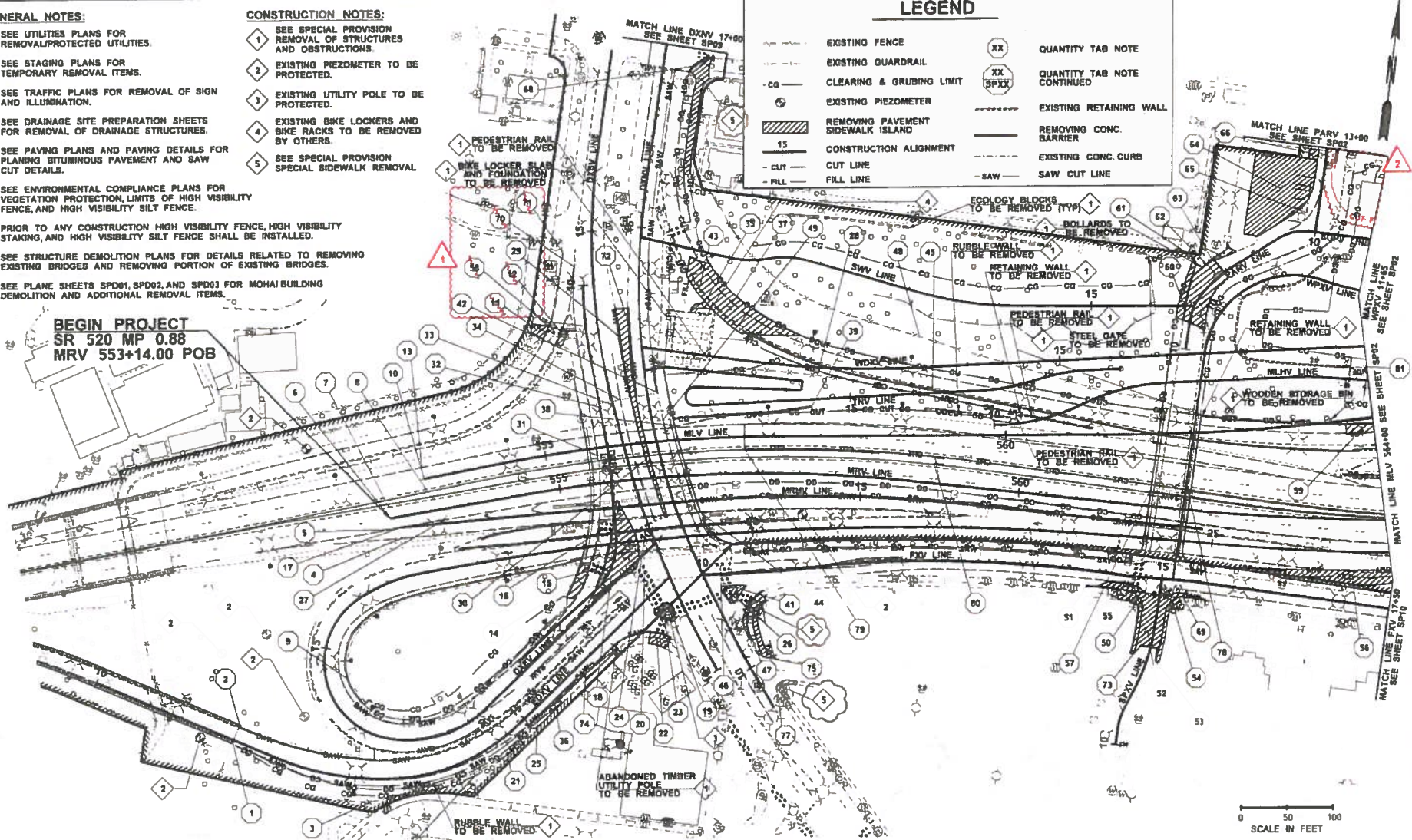
- SEE UTILITIES PLANS FOR REMOVAL/PROTECTED UTILITIES.
- SEE STAGING PLANS FOR TEMPORARY REMOVAL ITEMS.
- SEE TRAFFIC PLANS FOR REMOVAL OF SIGN AND ILLUMINATION.
- SEE DRAINAGE SITE PREPARATION SHEETS FOR REMOVAL OF DRAINAGE STRUCTURES.
- SEE PAVING PLANS AND PAVING DETAILS FOR PLANNING BITUMINOUS PAVEMENT AND SAW CUT DETAILS.
- SEE ENVIRONMENTAL COMPLIANCE PLANS FOR VEGETATION PROTECTION, LIMITS OF HIGH VISIBILITY FENCE, AND HIGH VISIBILITY SILT FENCE.
- PRIOR TO ANY CONSTRUCTION HIGH VISIBILITY FENCE, HIGH VISIBILITY STAKING, AND HIGH VISIBILITY SILT FENCE SHALL BE INSTALLED.
- SEE STRUCTURE DEMOLITION PLANS FOR DETAILS RELATED TO REMOVING EXISTING BRIDGES AND REMOVING PORTION OF EXISTING BRIDGES.
- SEE PLANE SHEETS SP001, SP002, AND SP003 FOR MOHAI BUILDING DEMOLITION AND ADDITIONAL REMOVAL ITEMS.

CONSTRUCTION NOTES:

- SEE SPECIAL PROVISION REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
- EXISTING PIEZOMETER TO BE PROTECTED.
- EXISTING UTILITY POLE TO BE PROTECTED.
- EXISTING BIKE LOCKERS AND BIKE RACKS TO BE REMOVED BY OTHERS.
- SEE SPECIAL PROVISION SPECIAL SIDEWALK REMOVAL

LEGEND

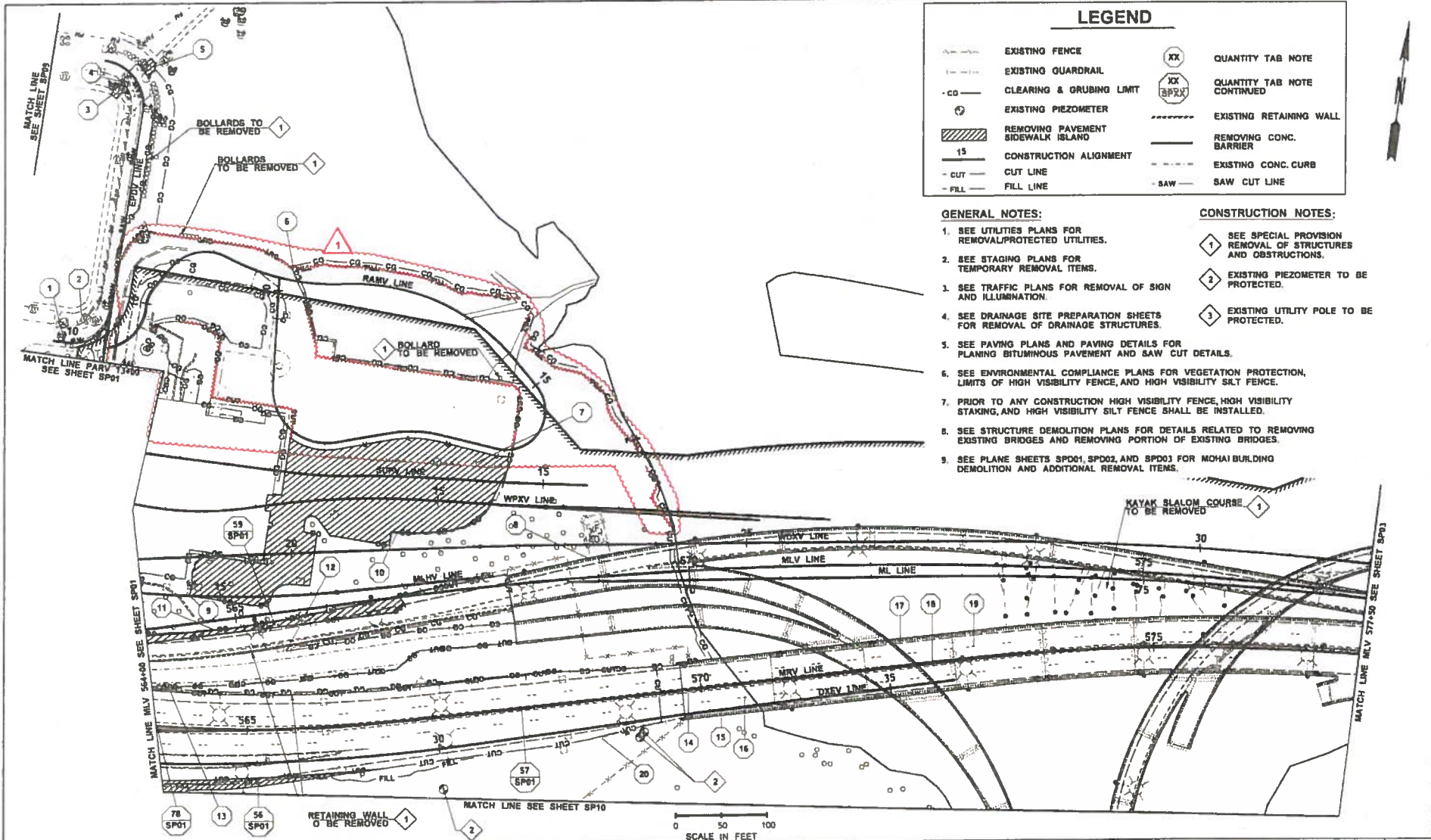
- EXISTING FENCE
- EXISTING GUARDRAIL
- CG CLEARING & GRUBING LIMIT
- EXISTING PIEZOMETER
- REMOVING PAVEMENT SIDEWALK ISLAND
- 15 CONSTRUCTION ALIGNMENT
- CUT CUT LINE
- FILL FILL LINE
- XX QUANTITY TAB NOTE
- XX QUANTITY TAB NOTE CONTINUED
- EXISTING RETAINING WALL
- REMOVING CONC. BARRIER
- EXISTING CONC. CURB
- SAW SAW CUT LINE



BEGIN PROJECT
 SR 520 MP 0.88
 MRV 553+14.00 POB

0 50 100
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PLOTTED BY: SanchezA DESIGNED BY: M. ASRES ENTERED BY: M. ASRES CHECKED BY: P. MERRELL PROJ. ENGR.: D. EDWARDS REGIONAL ADM.: J. MEREDITH		Copied - DELETE FACILITY M AS-BUILT REVISIONS AD5 - DEL QT NOTES & ADD CN NOTES AD4 - BLOCKS & GATE TO BE REMOVED AD3 - ADD CN NOTE 4		REVISION				Department of Transportation BRUNCKERHOFF	Parametrix	SITE PREPARATION PLAN



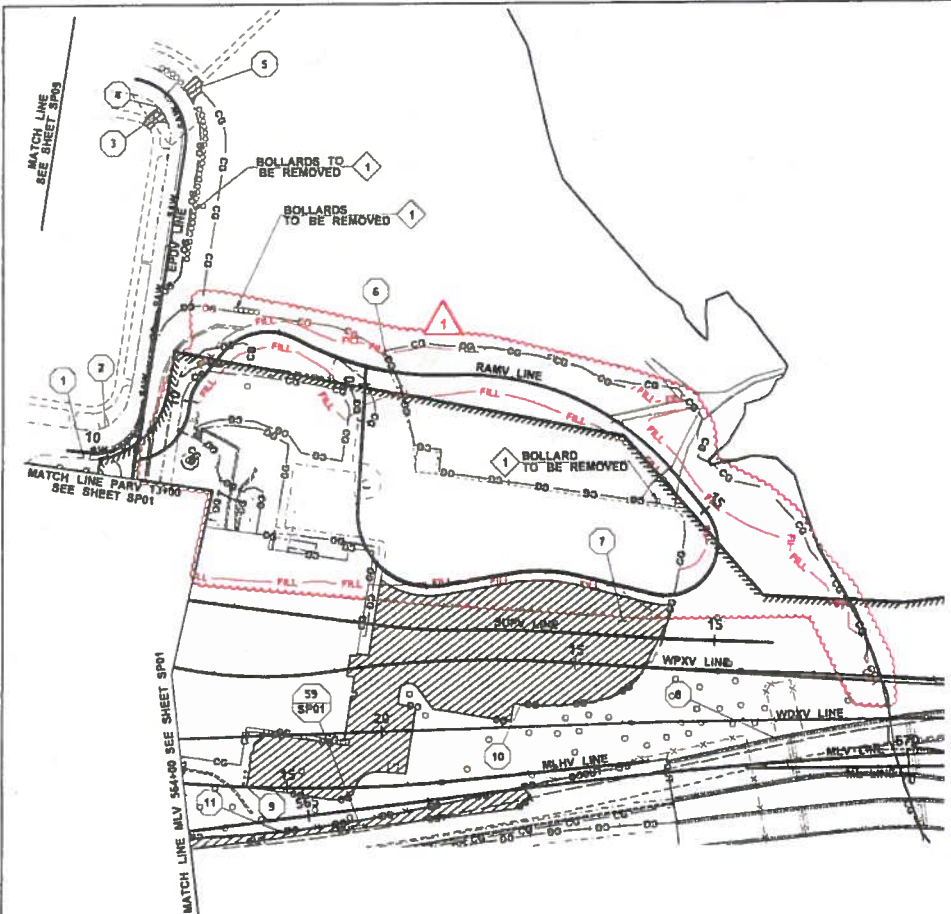
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	EXISTING PIEZOMETER		REMOVING CONC. BARRIER
	REMOVING PAVEMENT SIDEWALK ISLAND		EXISTING CONC. CURB
	CONSTRUCTION ALIGNMENT		SAW CUT LINE
	CUT LINE		
	FILL LINE		

- GENERAL NOTES:**
- SEE UTILITIES PLANS FOR REMOVAL/PROTECTED UTILITIES.
 - SEE STAGING PLANS FOR TEMPORARY REMOVAL ITEMS.
 - SEE TRAFFIC PLANS FOR REMOVAL OF SIGN AND ILLUMINATION.
 - SEE DRAINAGE SITE PREPARATION SHEETS FOR REMOVAL OF DRAINAGE STRUCTURES.
 - SEE PAVING PLANS AND PAVING DETAILS FOR PLANING BITUMINOUS PAVEMENT AND SAW CUT DETAILS.
 - SEE ENVIRONMENTAL COMPLIANCE PLANS FOR VEGETATION PROTECTION, LIMITS OF HIGH VISIBILITY FENCE, AND HIGH VISIBILITY SILT FENCE.
 - PRIOR TO ANY CONSTRUCTION HIGH VISIBILITY FENCE, HIGH VISIBILITY STAKING, AND HIGH VISIBILITY SILT FENCE SHALL BE INSTALLED.
 - SEE STRUCTURE DEMOLITION PLANS FOR DETAILS RELATED TO REMOVING EXISTING BRIDGES AND REMOVING PORTION OF EXISTING BRIDGES.
 - SEE PLANE SHEETS SP001, SP002, AND SP003 FOR MOHAI BUILDING DEMOLITION AND ADDITIONAL REMOVAL ITEMS.
- CONSTRUCTION NOTES:**
- SEE SPECIAL PROVISION REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
 - EXISTING PIEZOMETER TO BE PROTECTED.
 - EXISTING UTILITY POLE TO BE PROTECTED.

0 50 100
SCALE IN FEET

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DESIGNED BY: Banetha	ENTERED BY: M. ASRES	JOB NUMBER: 13A012	CONTRACT NO:	DATE: 12/8/2015 BY: FW		SITE PREPARATION PLAN	
CHECKED BY: P. MERRELL	PROJ. ENGR. D. EDWARDS	REGIONAL ADM. J. MEREDITH	REVISION: CO#81 - DELETE FACILITY M				



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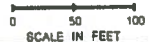
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	REMOVING PAVEMENT SIDEWALK ISLAND		EXISTING CONC. CURB
	CONSTRUCTION ALIGNMENT		SAW CUT LINE
	CUT LINE		
	FILL LINE		

GENERAL NOTES:

- SEE UTILITIES PLANS FOR REMOVAL/PROTECTED UTILITIES.
- SEE STAGING PLANS FOR TEMPORARY REMOVAL ITEMS.
- SEE TRAFFIC PLANS FOR REMOVAL OF SIGN AND ILLUMINATION.
- SEE DRAINAGE SITE PREPARATION SHEETS FOR REMOVAL OF DRAINAGE STRUCTURES.
- SEE PAVING PLANS AND PAVING DETAILS FOR PLANING BITUMINOUS PAVEMENT AND SAW CUT DETAILS.
- SEE ENVIRONMENTAL COMPLIANCE PLANS FOR VEGETATION PROTECTION, LIMITS OF HIGH VISIBILITY FENCE, AND HIGH VISIBILITY SILT FENCE.
- PRIOR TO ANY CONSTRUCTION HIGH VISIBILITY FENCE, HIGH VISIBILITY STAKING, AND HIGH VISIBILITY SILT FENCE SHALL BE INSTALLED.
- SEE STRUCTURE DEMOLITION PLANS FOR DETAILS RELATED TO REMOVING EXISTING BRIDGES AND REMOVING PORTION OF EXISTING BRIDGES.
- SEE PLANE SHEETS SP01, SP02, AND SP03 FOR MOHAI BUILDING DEMOLITION AND ADDITIONAL REMOVAL ITEMS.

CONSTRUCTION NOTES:

- SEE SPECIAL PROVISION REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
- EXISTING PIEZOMETER TO BE PROTECTED.
- EXISTING UTILITY POLE TO BE PROTECTED.



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DESIGNED BY	M. ASRES	CONTRACT NO.	
ENTERED BY	M. ASRES	LOCATION NO.	
CHECKED BY	P. MERRELL		
PROJ. ENGR.	D. EDWARDS	DATE	12/02/2015
REGIONAL ADM.	J. MEREDITH	BY	PW

CO#81 - DELETE FACILITY M



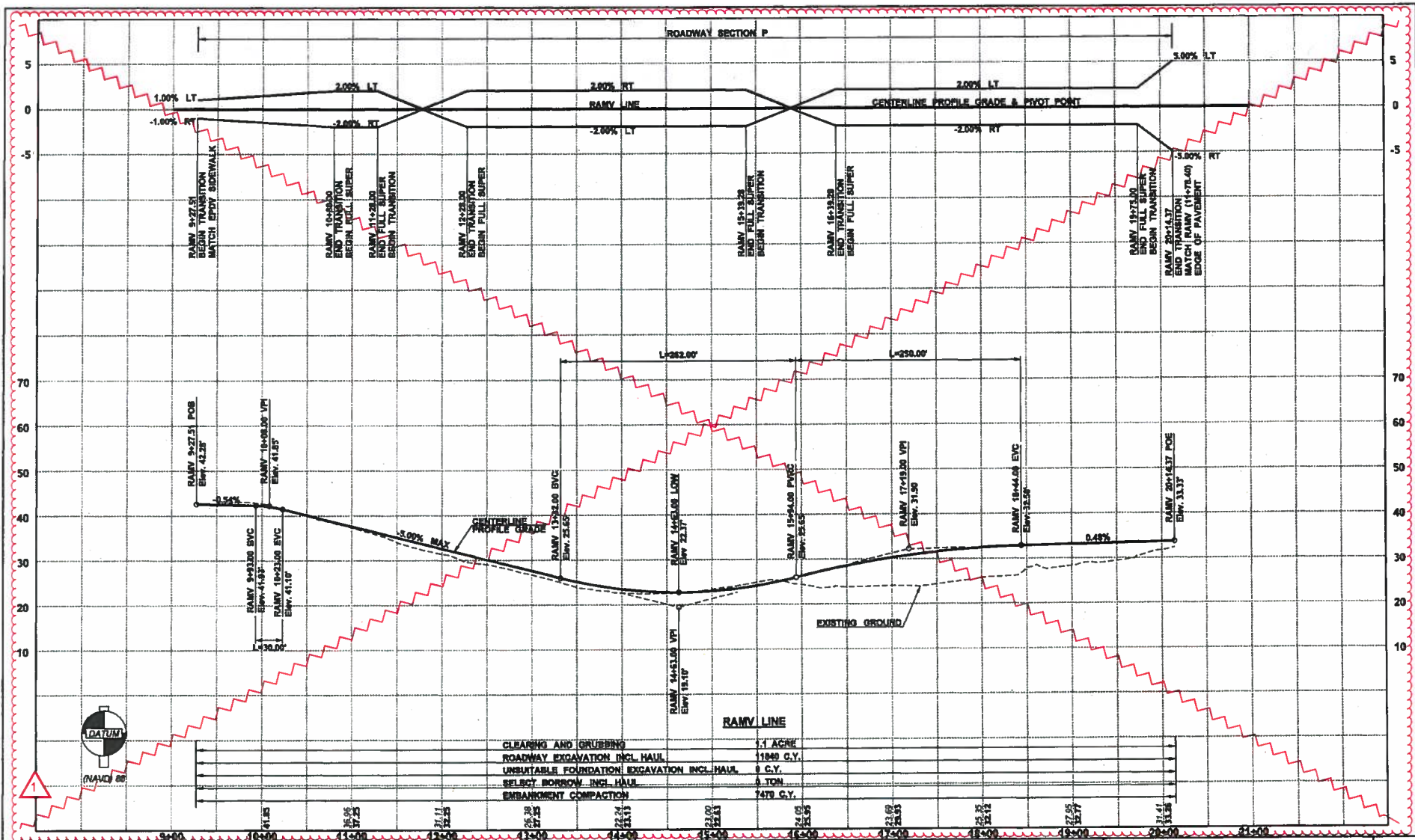
Contract 8625
Change Order 81
Page 18 of 72

SITE PREPARATION PLAN

PLAN REF. NO.
SP02A

SHEET
127a
OF
1797
SHEETS





CLEARING AND GRUBBING	1.1 ACRES
ROADWAY EXCAVATION INCL HAUL	11849 G.Y.
UNREQUITABLE FOUNDATION EXCAVATION INCL HAUL	8 G.Y.
SELECT BORROW INCL HAUL	4 TON
EMBANKMENT COMPACTION	7479 G.Y.

FILE NAME	PA1CADO07\FW\1300\CA00PS234\1300\PA1CADO07P2344_WARM PS RP 14.dwg
TIME	10:18:33 AM
DATE	4/4/2014
PLOTTED BY	deyuma
DESIGNED BY	C. LEE
ENTERED BY	S. SHARPE
CHECKED BY	P. MERRELL
PROJ. ENGR.	D. EDWARDS
REGIONAL ADM.	J. MEREDITH

REVISION	DATE	BY
10	12/8/15	J.C.
13A012		

FED.AID PROJ.NO.

10 WASH

CONTRACT NO.

13A012

LOCATION NO.



Washington State Department of Transportation

PARAMON ENGINEERS

Parametrix

Contract 8625

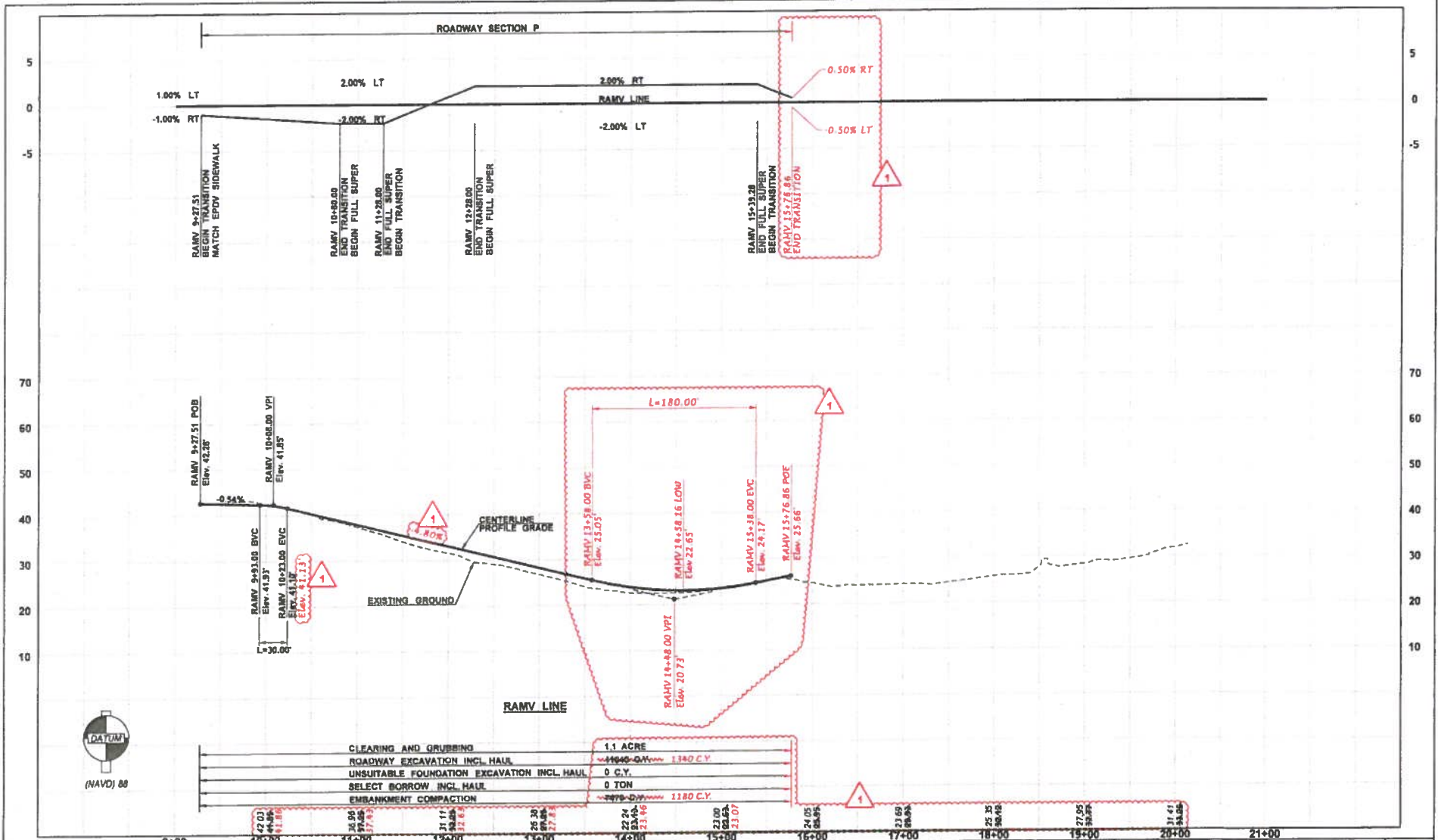
Change Order 81

Page 19 of 72

ROADWAY PROFILE

PLAN REF. NO. RP14

SHEET 180 OF 1797



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PLOTTED BY	Sancha		
DESIGNED BY	C. LEE		
ENTERED BY	S. SHARPE		
CHECKED BY	P. MERRELL		
PROJ. ENGR.	D. EDWARDS		
REGIONAL ADM.	J. MEREDITH		
REVISION	DATE	BY	
1	12/8/2015	PW	

FED.AID PROJ. NO.

10 WASH
JOB NUMBER
13A012

CONTRACT NO.

LOCATION NO.

HR
ENGINEERING INC.

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

PARSONS
BRINCKERHOFF

DATE

PARAMETRIX

Contract 8625
Change Order 81
Page 20 of 72

ROADWAY PROFILE

PLAN REF NO.
RP14A

SHEET
160a
OF
1797
SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.		COS INLET, TYPE 250B	COS PIPE, SD, D.I., CL 50, 8 IN			CATCH BASIN TYPE 1L	CATCH BASIN TYPE 1	CATCH BASIN TYPE 2 48 IN. DIAM.		CATCH BASIN TYPE 2 54 IN. DIAM.	CATCH BASIN TYPE 2 60 IN. DIAM.	SMALL CATCH BASIN	CATCH BASIN TYPE 2 72 IN. DIAM.	TESTING STORM SEWER PIPE	CL. III REINF. CONC. STORM SEWER PIPE 30 IN. DIAM.	CL. IV REINF. CONC. STORM SEWER PIPE 12 IN. DIAM.	SEE GENERAL NOTES	GENERAL NOTES:	
																		CODE	LOCATION
DR01-56	FXV 15+40.14 (11.93'LT, STK PT) - FXV 14+81.23 (0.07'RT, STR)		86															39, 40, 41, 45	14. SEE SPECIAL PROVISION, "MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS". SEE SHEET DD11 FOR SMALL CATCH BASIN ELEVATIONS.
DR01-57	FXV 14+24.85 (17.17'RT, STK PT) - FXV 14+61.23 (0.07'RT, STR)		40															39, 40, 41, 45	
DR01-58	DXEV 14+45.14 (21.67' RT) - DXEV 14+45.14 (16.78' LT)						1							38				1,3,7,8,29,38A	15. SEE SPECIAL PROVISION, "MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS".
DR01-59	EDXV 15+91.56 (10.88'RT) - EDXV 14+49.12 (15.02'RT)						1							145				1,3,7,8,38A,48	
DR01-60	EDXV 14+49.12 (15.02'RT) - EDXV 14+49.12 (20.32'LT)						1							35				1,3,7,8,29,38A	16. SEE CLEANOUT DETAIL ON SHEET DD06. SEE CLEANOUT LOCATION SCHEDULE ON DD11. SEE SHEET SW06 FOR PRESETTLING CELL CLEANOUT LOCATION SCHEDULE.
DR01-61	EDXV 14+49.12 (20.32' LT) - EDXV 13+84.00 (19.86'LT)													58				1, 26, 29, 38A	17. SEE BARRIER UNDERDRAIN DETAIL ON SHEET DD08.
DR01-62	EDXV 13+84.00 (19.86'LT) - EDXV 12+96.24 (19.92'LT)						1							80				1, 3, 7, 8, 38A	18. SEE RETAINING BARRIER UNDERDRAIN DETAIL ON SHEET DD08.
DR01-63	EDXV 12+96.24 (19.92'LT) - EDXV 12+01.84 (15.83'LT)						1							89				1, 3, 7, 8, 38A	19. SEE WABN BRIDGE ABUTMENT UNDERDRAIN DETAIL ON SHEET DD07.
DR01-64	EDXV 12+01.84 (15.83'LT) - DXEV 14+45.14 (16.78' LT)				1									62				1,4,7,8,29,38A	20. SEE 24TH AVE E BRIDGE FOOTING UNDERDRAIN DETAIL ON SHEET DD07.
DR01-65	EDXV 12+96.24 (15.00'RT) - EDXV 12+96.24 (19.92'LT)						1							36				1,3,7,8, 30, 38A	21. SEE WALL UNDERDRAIN DETAILS ON SHEETS DD08 & DD09. CONTRACTOR SHALL SUBMIT DETAILED WORKING DRAWINGS ADDRESSING POTENTIAL UNDERDRAIN CONFLICTS.
DR02-01	EPDV 13+27.77 (12.32' RT)																	29	22. SEE SIDEWALK UNDERDRAIN DETAIL ON SHEET DD09.
DR02-02	EPDV 13+17.11 (10.77' RT)																	29	23. SEE CONCRETE GUTTER DETAIL ON SHEET DD10.
DR02-03	EPDV 13+01.92 (12.21' RT)																	29	24. CONCRETE GUTTER SHALL EXTEND TO THE 24TH UNDERCROSSING TO INTERCEPT DRAINAGE FROM THE SUPERSTRUCTURE. SEE BC SHEETS FOR ADDITIONAL INFORMATION.
DR02-05	SUPV 12+47.81 (4.53'LT STR, 5.43'LT GRT) - SIPV 12+43.36 (50.59'LT STR, 51.72'LT GRT)							1						46				1, 5, 7, 8, 49	25. SEE SPECIAL PROVISION, "STORM SEWERS". ALL PIPE JOINTS SHALL BE RESTRAINED.
DR02-06	SUPV 15+13.17 (8.00'LT STR, 8.90'LT GRT) - SUPV 12+47.81 (4.53'LT STR, 5.43'LT GRT)							1						265				1, 5, 7, 8	26. SEE SPECIAL PROVISION, "CONNECTIONS TO EXISTING DRAINAGE STRUCTURES AND STORM SEWER PIPE".
DR02-07	WPXV 12+51.32 (3.08'RT) - WPXV 12+78.77 (2.60'RT STR, 3.16'RT GRT)						1							26				1, 3, 7, 8	
DR02-08	WPXV 12+78.77 (2.60'RT STR, 3.16'RT GRT) - SIPV 11+36.98 (36.33'LT STR, 37.23'LT GRT)							1						93				1, 5, 9, 11, 49	
DR02-09	WPXV 13+03.78 (2.19'RT STR, 3.09'RT GRT) - WPXV 12+78.77 (2.60'RT STR, 3.16'RT GRT)							1						27				1, 5, 7, 8	
DR02-10	WPXV 13+06.14 (2.19'RT STR, 3.09'RT GRT) - WPXV 13+03.78 (2.19'RT STR, 3.09'RT GRT)							1						62				1, 5, 7, 8	
DR02-11	WDXV 20+30.62 (31.19'LT STR, 32.09'LT GRT) - WPXV 13+06.14 (2.19'RT STR, 3.09'RT GRT)							1						24				1, 5, 7, 8, 30	
DR02-12	WDXV 20+33.78 (2.18'RT STR, 3.08'RT GRT) - WDXV 20+30.62 (31.19'LT STR, 32.09'LT GRT)							1						34				1, 5, 7, 8	
DR02-13	WDXV 21+20.00 (3.08'RT) - WDXV 20+33.78 (2.18'RT STR, 3.08'RT GRT)							1						86				1, 3, 7, 8	
DR02-14	WDXV 21+80.00 (3.08'RT) - WDXV 21+20.00 (3.08'RT)							1						60				1, 3, 7, 8	
DR02-15	WDXV 22+10.00 (3.08'RT) - WDXV 21+80.00 (3.08'RT)							1						30				1, 3, 7, 8	
SHEET TOTAL			126			1	10	7						1296					

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Change Order 81
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NT 12
SHEET
219
OF
1797
SHEETS



DESIGNED BY	R. NAIDU	09/23/13				REGION NO.	STATE	FED. AID PROJ. NO.											
ENTERED BY	R. NAIDU	12/09/13				10	WASH												
CHECKED BY	J.COOP	02/12/14				JOB NUMBER													
PROJ. ENGR.	D. EDWARDS					13A012													
REGION ADM.	J. MEREDITH					CONTRACT NO.													
		DATE	DATE																

12/01/15 ▲ COW#1 - DELETE FACILITY M
REVISION JV BY

STRUCTURE NOTES - DRAINAGE

STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.		CL. V REINF. CONC. STORM SEWER PIPE 12 IN. DIAM.	SCHEDULE A STORM SEWER PIPE 8 IN. DIAM.	SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	SCHEDULE A STORM SEWER PIPE 15 IN. DIAM.	SCHEDULE A STORM SEWER PIPE 18 IN. DIAM.	SCHEDULE A STORM SEWER PIPE 24 IN. DIAM.	CASING PIPE, 24 IN. DIAM.	COS MAINT HOLE, TYPE 204B	COS CATCH BASIN, TYPE 240A	COS CATCH BASIN, TYPE 242B	SEWER CLEANOUT	DUCTILE IRON SEWER PIPE 12 IN. DIAM.	SEE GENERAL NOTES	GENERAL NOTES:
CODE	LOCATION ∇ \ UNIT OF MEASURE >	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	EACH	L.F.			
DR01-68	FXV 15+40.14 (11.93'LT, STK PT) - FXV 14+81.23 (0.07'RT, STR)									1				39, 40, 41, 45	27. CATCH BASIN AND GRATE SHALL BE INSTALLED AT THE STATION AND OFFSETS SHOWN ON THESE PLANS. THIS WILL CAUSE THE EXISTING PIPE ENTERING AND LEAVING THE CATCH BASIN TO BE OFFSET FROM THE CENTER OF THE STRUCTURE. THE KNOCKOUT PROVIDED FOR THIS CATCH BASIN SHALL ACCOMMODATE THIS SITUATION. CONTRACTOR SHALL SUBMIT DETAILED WORKING DRAWINGS.
DR01-67	FXV 14+24.65 (17.17'RT, STK PT) - FXV 14+81.23 (0.07'RT, STR)									1				39, 40, 41, 45	
DR01-58	DXEV 14+45.14 (21.67' RT) - DXEV 14+45.14 (16.78' LT)		38											1,3,7,8,26,38A	
DR01-59	EDXV 15+91.56 (10.88'RT) - EDXV 14+49.12 (15.02'RT)		145											1,3,7,8,38A,48	
DR01-90	EDXV 14+49.12 (15.02'RT) - EDXV 14+49.12 (20.32'LT)		35											1,3,7,8,26,38A	
DR01-61	EDXV 14+49.12 (20.32'LT) - EDXV 13+84.00 (19.66'LT)		58											1, 26, 29, 38A	
DR01-62	EDXV 13+84.00 (19.66'LT) - EDXV 12+96.24 (19.92'LT)		80											1, 3, 7, 8, 38A	
DR01-63	EDXV 12+96.24 (19.92'LT) - EDXV 12+01.84 (15.83'LT)		89											1, 3, 7, 8, 38A	
DR01-64	EDXV 12+01.84 (15.83'LT) - DXEV 14+45.14 (16.78'LT)		62											1,4,7,8,26,38A	
DR01-65	EDXV 12+96.24 (15.90'RT) - EDXV 12+96.24 (19.92'LT)		36											1,3,7,8, 30, 38A	
DR02-01	EPDV 13+27.77 (12.32' RT)													29	28. ROTATE EXISTING MANHOLE OR TYPE 2 CATCH BASIN TOP SLAB AS NECESSARY TO POSITION FRAME AND GRATE ADJACENT TO THE BARRIER. REPLACE TOP SLAB, ADJUSTMENT SECTIONS, AND FRAME AND GRATE AS NECESSARY TO PROVIDE A RECTANGULAR FRAME (REVERSIBLE) AND RECTANGULAR VANED GRATE IN ACCORDANCE WITH STANDARD PLANS B-30.10-01 AND B-30.30-01. CONTRACTOR SHALL SUBMIT DETAILED WORKING DRAWINGS.
DR02-02	EPDV 13+17.11 (10.77' RT)													29	
DR02-03	EPDV 13+01.92 (12.21' RT)													29	
DR02-05	SUPV 12+47.61 (4.53'LT STR, 5.43'LT GRT) - SUPV 12+93.36 (50.59'LT STR, 51.72'LT GRT)						46							1, 5, 7, 8, 49	29. ADJUST STRUCTURE TO GRADE. SEE SHEET DD11 FOR STRUCTURE ADJUSTMENT ELEVATIONS. FOR COS STRUCTURES, SEE SPECIAL PROVISION "ADJUSTMENT OF NEW AND EXISTING COS SEWER STRUCTURES TO FINISH GRADE". 30. CONNECT NEW PIPE(S) TO CATCH BASIN. 31. AT THE UPSTREAM END OF THE UNDERDRAIN SYSTEM, INSTALL FITTINGS AS NECESSARY TO POSITION THE CLEANOUT OUTSIDE THE BARRIER FOOTPRINT AND WITHIN THE PAVEMENT AREA. 32. CONNECT DRAIN PIPE TO THE CABLE VAULT VIA THE KNOCKOUT IN THE VAULT BOTTOM. 33. FOR GATE VALVE REQUIREMENTS, SEE SPECIAL PROVISION "VALVES FOR WATER MAINS". 34. CONTRACTOR SHALL FURNISH AND INSTALL ALL FITTINGS NECESSARY TO CONSTRUCT THE UNDERDRAIN SYSTEM. A SWEEPING/LONG RADIUS 90 DEGREE BEND OR A 45 DEGREE BEND IN COMBINATION WITH A WYE MAY BE SUBSTITUTED WHERE TWO 45 DEGREE BENDS ARE SHOWN ON THESE PLANS.
DR02-08	SUPV 15+13.17 (6.00'LT STR, 6.90'LT GRT) - SUPV 12+47.61 (4.53'LT STR, 5.43'LT GRT)						265							1, 5, 7, 8	
DR02-07	WPXV 12+51.32 (3.08'RT) - WPXV 12+76.77 (2.60'RT STR, 3.16'RT GRT)			26										1, 3, 7, 8	
DR02-06	WPXV 12+76.77 (2.60'RT STR, 3.16'RT GRT) - SUPV 11+36.98 (36.33'LT STR, 37.23'LT GRT)			93										1, 5, 9, 11, 49	
DR02-09	WPXV 13+03.78 (2.19'RT STR, 3.09'RT GRT) - WPXV 12+76.77 (2.60'RT STR, 3.18'RT GRT)			27										1, 5, 7, 8	
DR02-10	WPXV 13+86.14 (2.19'RT STR, 3.08'RT GRT) - WPXV 13+03.78 (2.19'RT STR, 3.09'RT GRT)			62										1, 5, 7, 8	
DR02-11	WDXV 20+30.62 (31.19'LT STR, 32.09'LT GRT) - WPXV 13+86.14 (2.19'RT STR, 3.09'RT GRT)			24										1, 5, 7, 8, 30	
DR02-12	WDXV 20+33.78 (2.18'RT STR, 3.08'RT GRT) - WDXV 20+30.62 (31.19'LT STR, 32.09'LT GRT)			34										1, 5, 7, 8	
DR02-13	WDXV 21+20.00 (3.08'RT) - WDXV 20+33.78 (2.18'RT STR, 3.08'RT GRT)			86										1, 3, 7, 8	
DR02-14	WDXV 21+80.00 (3.08'RT) - WDXV 21+20.00 (3.08'RT)			60										1, 3, 7, 8	
DR02-15	WDXV 22+10.00 (3.08'RT) - WDXV 21+80.00 (3.08'RT)			30										1, 3, 7, 8	
SHEET TOTAL			543	442						2					
						REGION NO.	STATE	FED. AID PROJ. NO.							
DESIGNED BY	R. NAIDU	09/23/13			10	WASH									Contract 8625
ENTERED BY	R. NAIDU	12/09/13			JOB NUMBER										Change Order 81
CHECKED BY	J.COOP	02/12/14			13A012										Page 23 of 72
PROJ. ENGR.	D. EDWARDS				CONTRACT NO.										STRUCTURE NOTES - DRAINAGE
REGION ADM.	J. MEREDITH		12/01/15	△ CO#81 - DELETE FACILITY M REVISION	JV	BY									SHEET 220 OF 1797 SHEETS



STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.																	GENERAL NOTES:		
		COS SEWER CLEANOUT, 8 IN	GATE VALVE 8 IN.	GATE VALVE 12 IN.			PREFABRICATED DRAINAGE MAT *	GEOSYNTHETIC CLAY LINER	CONCRETE LINER		STRUCTURE EXCAVATION CLASS B INCL. HAUL **	SHORING OR EXTRA EXCAVATION CLASS B ***	GRAVEL BACKFILL FOR DRAIN	COS ADJUST EXISTING INLET	CONNECTION TO DRAINAGE STRUCTURE	ADJUST MANHOLE **	ADJUST CATCH BASIN	SEE GENERAL NOTES	
CODE	LOCATION & UNIT OF MEASURE >	EACH	EACH	EACH		S.Y.	S.Y.	S.Y.		C.Y.	S.F.	C.Y.	EACH	EACH	EACH	EACH			
DR01-56	FXV 15+40.14 (11.83'LT, STK PT) - FXV 14+81.23 (0.07'RT, STR)																	39, 40, 41, 45	35. UNDERDRAIN TO BE LOCATED IN RIGHT-OF-WAY.
DR01-57	FXV 14+24.65 (17.17'RT, STK PT) - FXV 14+81.23 (0.07'RT, STR)																	39, 40, 41, 45	36. UNLESS OTHERWISE SPECIFIED, DRAIN PIPE SHALL BE 6" DIAMETER INSTALLED AT 1% MINIMUM SLOPE WITH 1' MINIMUM COVER. SEE SHEET DD11 FOR DRAIN PIPE ELEVATIONS AT KEY LOCATIONS. CONTRACTOR SHALL FURNISH AND INSTALL ALL FITTINGS NECESSARY TO CONSTRUCT THE DRAIN PIPE SYSTEM. A SWEEPING/LONG RADIUS 90 DEGREE BEND OR A 45 DEGREE BEND IN COMBINATION WITH A WYE MAY BE SUBSTITUTED WHERE TWO 45 DEGREE BENDS ARE SHOWN ON THESE PLANS. SEE SHEET DD11 FOR STRUCTURE STATION AND OFFSET LOCATION INFORMATION.
DR01-58	DDEV 14+45.14 (21.67' RT) - DDEV 14+45.14 (16.76' LT)									40	290			1				1, 3, 7, 8, 26, 38A	
DR01-59	EDXV 15+91.56 (10.88'RT) - EDXV 14+49.12 (15.02'RT)									80	640							1, 3, 7, 8, 38A, 48	
DR01-60	EDXV 14+49.12 (15.02'RT) - EDXV 14+49.12 (20.32'LT)									20	150			1				1, 3, 7, 8, 26, 38A	
DR01-61	EDXV 14+49.12 (20.32'LT) - EDXV 13+84.00 (19.86'LT)									30	280			1		1		1, 28, 29, 38A	
DR01-62	EDXV 13+84.00 (19.86'LT) - EDXV 12+96.24 (19.92'LT)									50	390							1, 3, 7, 8, 38A	
DR01-63	EDXV 12+96.24 (19.92'LT) - EDXV 12+01.84 (15.83'LT)									50	410							1, 3, 7, 8, 38A	
DR01-64	EDXV 12+01.84 (15.83'LT) - DDEV 14+45.14 (16.76'LT)									60	460			1				1, 4, 7, 8, 26, 38A	
DR01-65	EDXV 12+96.24 (15.90'RT) - EDXV 12+96.24 (19.92'LT)									20	160							1, 3, 7, 8	
DR02-01	EPDV 13+27.77 (12.32' RT)												1					29	37. CONTRACTOR'S SCHEDULE TO REFLECT SEQUENCING OF PERMANENT STORM DRAIN SYSTEM IN CONJUNCTION WITH TEMPORARY OFF-RAMPS AND TEMPORARY OFF-RAMP DRAINAGE SYSTEMS.
DR02-02	EPDV 13+17.11 (10.77' RT)												1					29	
DR02-03	EPDV 13+01.92 (12.21' RT)												1					29	
DR02-05	SUPV 12+47.61 (4.53'LT STR, 5.43'LT GRT) - SUPV 12+93.36 (50.59'LT STR, 51.72'LT GRT)									60								1, 5, 7, 8, 49	38. IF CONSTRUCTION SEQUENCING OF THE TEMPORARY WPXT OFF-RAMP INCLUDES INSTALLATION OVER PERMANENT STORM SEWER PIPE, USE OF CL. V REINF. CONC. STORM SEWER PIPE IS REQUIRED.
DR02-06	SUPV 15+13.17 (6.00'LT STR, 6.90'LT GRT) - SUPV 12+47.61 (4.53'LT STR, 5.43'LT GRT)									180								1, 5, 7, 8	38A. SEE SPECIAL PROVISION "STORM SEWERS" FOR ALLOWABLE PIPE MATERIALS.
DR02-07	WPXV 12+51.32 (3.08'RT) - WPXV 12+76.77 (2.60'RT STR, 3.16'RT GRT)									20								1, 3, 7, 8	38B. SEE SHEET DD11 FOR DRAIN PIPE ELEVATIONS AT KEY LOCATIONS.
DR02-08	WPXV 12+76.77 (2.60'RT STR, 3.16'RT GRT) - SUPV 11+36.98 (36.33'LT STR, 37.23'LT GRT)									50								1, 5, 9, 11, 44	
DR02-09	WPXV 13+03.76 (2.19'RT STR, 3.09'RT GRT) - WPXV 12+76.77 (2.60'RT STR, 3.16'RT GRT)									20								1, 5, 7, 8	38C. CASING SHALL HAVE END SEALS AND THE ANNULAR SPACE SHALL BE FILLED WITH BLOWN SAND. SEE SPECIAL PROVISION "STORM SEWERS".
DR02-10	WPXV 13+03.76 (2.19'RT STR, 3.09'RT GRT) - WPXV 13+03.76 (2.19'RT STR, 3.09'RT GRT)									40								1, 5, 7, 8	
DR02-11	WDXV 20+30.62 (31.19'LT STR, 32.09'LT GRT) - WPXV 13+03.76 (2.19'RT STR, 3.09'RT GRT)									20								1, 5, 7, 8	
DR02-12	WDXV 20+33.78 (2.18'RT STR, 3.08'RT GRT) - WDXV 20+30.62 (31.19'LT STR, 32.09'LT GRT)									20								6, 30	
DR02-13	WDXV 21+20.00 (3.08'RT) - WDXV 20+33.78 (2.18'RT STR, 3.08'RT GRT)									50								1, 3, 7, 8	
DR02-14	WDXV 21+20.00 (3.08'RT) - WDXV 21+80.00 (3.08'RT)									30								1, 3, 7, 8	
DR02-15	WDXV 22+10.00 (3.08'RT) - WDXV 21+80.00 (3.08'RT)									20								1, 3, 7, 8	
SHEET TOTAL										860	2760		2	4		1			

Contract 8625 Change Order 81 Page 24 of 72	NT 14 SHEET 221 OF 1797 SHEETS
STRUCTURE NOTES - DRAINAGE	



DESIGNED BY	R. NAIDU	09/23/13	REGION NO.	10	STATE	WASH	FED. AID PROJ. NO.	
ENTERED BY	R. NAIDU	12/09/13	JOB NUMBER	13A012				
CHECKED BY	J.COOP	02/12/14	CONTRACT NO.					
PROJ. ENGR.	D. EDWARDS							
REGION ADM.	J. MEREDITH							
	DATE	12/01/15	REVISION	CO#81 - DELETE FACILITY M		JV		
	DATE					BY		

STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.		DITCH EXCAVATION INCL C.Y.	CONCRETE INLET EACH	GRATE INLET TYPE 2 EACH	CEMENT CONC. GUTTER L.F.	STREAMBED COBBLES TON	QUARRY SPALLS TON	UNDERDRAIN PIPE 6 IN. DIAM. L.F.	DRAIN PIPE 6 IN. DIAM. L.F.	DRAIN PIPE 12 IN. DIAM. L.F.	SCHEDULE A CULV. PIPE 18 IN. DIAM. L.F.	DEBRIS CAGE EACH	TRIUM GRATE EACH	SEE GENERAL NOTES	GENERAL NOTES:	
																CODE
DR02-16	WDXV 22+50.00 (3.28'RT) - WDXV 22+10.00 (3.08'RT)													1, 3, 7, 8	1. SEE PIPE ZONE BEDDING AND BACKFILL - STANDARD PLAN B-55.20-00 FOR STORM SEWER, CULVERT, AND DRAIN PIPES. SEE PV SHEETS FOR ROADWAY RESTORATION ASSOCIATED WITH TRENCHING ACTIVITIES. 2. SEE CONCRETE INLET - STANDARD PLAN B-25.60-00. SEE SHEET DD11 FOR CONCRETE INLET ELEVATIONS. 3. SEE CATCH BASIN TYPE 1 - STANDARD PLAN B-5.20-01 4. SEE CATCH BASIN TYPE 1L - STANDARD PLAN B-5.40-01 5. SEE CATCH BASIN TYPE 2 - STANDARD PLAN B-10.20-01. 6. SEE GRATE INLET TYPE 2 - STANDARD PLAN B-35.40-00. 7. SEE RECTANGULAR FRAME (REVERSIBLE) - STANDARD PLAN B-30.10-01. 8. SEE RECTANGULAR VANED GRATE - STANDARD PLAN B-30.30-01. 9. SEE RECTANGULAR BI-DIRECTIONAL VANED GRATE - STANDARD PLAN B-30.40-01. 10. SEE RECTANGULAR SOLID METAL COVER - STANDARD PLAN B-30.20-02. 11. SEE COMBINATION INLET - STANDARD PLAN B-25.20-01 12. SEE WELDED GRATES FOR GRATE INLET, GRATE "B" - STANDARD PLAN B-40.20-00. 13. SEE BEVELED END SECTIONS (FOR CULVERTS 30" DIAMETER OR LESS) - STANDARD PLAN B-70.20-00. 13A. SEE TYPE 2 SAFETY BARS FOR CULVERT PIPE OR PIPE ARCH (ON CROSS ROAD) - STANDARD PLAN B-75.60-00	
DR02-17	WDXV 22+89.87 (2.99'RT STR, 3.89'RT GRT) - SUPV 15+13.17 (6.00'LT STR, 6.90'LT GRT)													1, 5, 7, 8		
DR02-18	WDXV 22+89.87 (2.99'RT STR, 3.89'LT GRT) - WDXV 23+27.72 (1.38'RT)													1, 25		
DR02-19	MLHV 14+14.12 (20.59'LT) - MLHV 13+85.97 (16.76'LT)													1, 3, 7, 9		
DR02-20	MLHV 14+33.81 (22.08'LT) - MLHV 14+14.12 (20.59'LT)													1, 3, 7, 9		
DR02-21	MLHV 14+86.38 (22.08'LT) - MLHV 14+33.81 (22.08'LT)													1, 3, 7, 8		
DR02-22	MLHV 16+15.99 (22.08'LT) - WDXV 20+33.78 (2.18'RT STR, 3.08'RT GRT)													1, 4, 7, 8, 30		
DR02-23	MLV 568+51.57 (15.98'RT STR, 16.88'RT GRT) - WDXV 22+89.87 (2.99'RT STR, 3.89'LT GRT)													1, 5, 7, 8		
DR02-24	MLV 568+51.57 (15.98'RT STR, 16.88'RT GRT) - MLV 568+90.68 (18.27'RT)													1, 25		
DR02-25	MRV 564+18.48 (40.50'LT) - MRV 564+34.15 (40.44'LT STR)													1, 13		
DR02-26	MRV 564+34.15 (40.44'LT STR) - DXEV 27+24.00 (17.23'LT STR, 18.13'LT GRT)													1, 5, 7, 10		
DR02-27	MRV 566+50.89 (40.47'LT) - DXEV 29+43.39 (16.78'LT)			1										1, 6, 12		
DR02-28	MRV 568+60.00 (45.61'LT) - MRV 566+50.89 (40.47'LT)			1										1, 6, 12		
DR02-29	DXEV 26+93.67 (17.09'LT STR, 17.99'LT GRT) - DXEV 27+24.00 (17.23'LT STR, 18.13'LT GRT)													1, 5, 7, 8		
DR02-30	DXEV 27+24.00 (17.23'LT STR, 18.13'LT GRT) - DXEV 28+81.79 (17.16'LT STR, 18.06'LT GRT)													1, 5, 7, 8		
DR02-31	DXEV 28+81.79 (17.16'LT STR, 18.06'LT GRT) - DXEV 28+91.64 (12.59'RT)													1, 5, 7, 8, 26		
DR02-32	DXEV 29+43.39 (16.78'LT) - DXEV 28+81.79 (17.16'LT STR, 18.06'LT GRT)													1, 5, 7, 8		
DR02-33	DXEV 29+81.00 (17.25'LT) - DXEV 29+43.39 (16.78'LT)													1, 3, 7, 8		
DR02-34	DXEV 28+91.64 (12.59'RT)													29		
DR02-35	DXEV 31+41.85 (4.83'RT)													29		
DR02-36	RAMV 10+10.70 (20.00'LT) - RAMV 10+10.60 (44.00'RT)										0			13		
DR02-37	SUPV 11+36.48 (36.33'LT STR, 37.23'LT GRT) - SUPV 12+43.36 (50.54'LT STR, 51.72'LT GRT)											0		1, 5, 7, 10		
DR02-38	SUPV 12+43.36 (50.54'LT STR, 51.72'LT GRT) - SUPV 14+37.09 (38.16'LT STR, 36.17'LT GRT)													1, 5, 7, 10		
DR02-39	RAMV 10+10.10 (34.00'RT) - RAMV 10+10.02 (9)											0		1, 5, 13, 33, 49		
DR02-40	SUPV 14+37.09 (38.16'LT STR, 36.17'LT GRT) - WPXV 17+04.71 (58.67'LT)											0	0	1, 5, 7, 8, 13, 13a		
SHEET TOTAL				2								0	0			

DESIGNED BY	R. NAIDU	09/23/13
ENTERED BY	R. NAIDU	12/09/13
CHECKED BY	J.COOP	02/12/14
PROJ. ENGR.	D. EDWARDS	
REGION ADM.	J. MEREDITH	
DATE	12/01/15	
DATE		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
13A012		
CONTRACT NO.		



Washington State
Department of Transportation

Contract 8625 Change Order 81 Page 25 of 72	NT 16 SHEET 223 OF 1797 SHEETS
STRUCTURE NOTES - DRAINAGE	

1. COW#1 - DELETE FACILITY M REVISION

JV BY

STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.		COS SEWER CLEANOUT, 8 IN	GATE VALVE 8 IN.	GATE VALVE 12 IN.		PREFABRICATED DRAINAGE MAT *	GEOSYNTHETIC CLAY LINER	CONCRETE LINER		STRUCTURE EXCAVATION CLASS B INCL HAUL ***	SHORING OR EXTRA EXCAVATION CLASS B ***	GRAVEL BACKFILL FOR DRAIN	COS ADJUST EXISTING INLET	CONNECTION TO DRAINAGE STRUCTURE	ADJUST MANHOLE **	ADJUST CATCH BASIN	SEE GENERAL NOTES	GENERAL NOTES:	
																			CODE
DR02-16	WDXV 22+50.00 (3.28'RT) - WDXV 22+10.00 (3.08'RT)									20								1, 3, 7, 8	35. UNDERDRAIN TO BE LOCATED IN RIGHT-OF-WAY.
DR02-17	WDXV 22+89.87 (2.99'RT STR, 3.89'LT GRT) - SUPV 15+13.17 (6.00'LT STR, 6.80'LT GRT)									60								1, 5, 7, 8	
DR02-18	WDXV 22+89.87 (2.99'RT STR, 3.89'LT GRT) - WDXV 23+27.72 (1.38'RT)									20								1, 25	36. UNLESS OTHERWISE SPECIFIED, DRAIN PIPE SHALL BE 6" DIAMETER INSTALLED AT 1% MINIMUM SLOPE WITH 1' MINIMUM COVER. SEE SHEET DD11 FOR DRAIN PIPE ELEVATIONS AT KEY LOCATIONS. CONTRACTOR SHALL FURNISH AND INSTALL ALL FITTINGS NECESSARY TO CONSTRUCT THE DRAIN PIPE SYSTEM. A SWEEPING/LONG RADIUS 90 DEGREE BEND OR A 45 DEGREE BEND IN COMBINATION WITH A WYE MAY BE SUBSTITUTED WHERE TWO 45 DEGREE BENDS ARE SHOWN ON THESE PLANS. SEE SHEET DD11 FOR STRUCTURE STATION AND OFFSET LOCATION INFORMATION.
DR02-19	MLHV 14+14.12 (20.59'LT) - MLHV 13+85.97 (16.76'LT)									30	200							1, 3, 7, 9	
DR02-20	MLHV 14+33.81 (22.08'LT) - MLHV 14+14.12 (20.59'LT)									20	130							1, 3, 7, 8	
DR02-21	MLHV 14+66.38 (22.08'LT) - MLHV 14+33.81 (22.08'LT)									20	180							1, 3, 7, 8	
DR02-22	MLHV 16+15.99 (22.08'LT) - WDXV 20+33.78 (2.18'RT STR, 3.08'RT GRT)									10								1, 4, 7, 8, 30	
DR02-23	MLV 568+51.57 (15.98'RT STR, 16.88'RT GRT) - WDXV 22+89.87 (2.99'RT STR, 3.89'LT GRT)									40								1, 5, 7, 8	
DR02-24	MLV 568+51.57 (15.98'RT STR, 16.88'RT GRT) - MLV 568+90.88 (18.27'RT)									20								1, 25	
DR02-25	MRV 584+18.48 (40.50'LT) - MRV 584+34.15 (40.44'LT STR)									10								1, 13	
DR02-26	MRV 584+34.15 (40.44'LT STR) - DXEV 27+24.00 (17.23'LT STR, 18.13'LT GRT)									60	440							1, 5, 7, 10	
DR02-27	MRV 586+50.89 (40.47'LT) - DXEV 28+43.39 (16.78'LT)									90	660							1, 6, 12	
DR02-28	MRV 588+00.00 (45.61'LT) - MRV 586+50.89 (40.47'LT)									270	2110							1, 6, 12	
DR02-29	DXEV 28+93.67 (17.09'LT STR, 17.99'LT GRT) - DXEV 27+24.00 (17.23'LT STR, 18.13'LT GRT)									40	260							1, 5, 7, 8	
DR02-30	DXEV 27+24.00 (17.23'LT STR, 18.13'LT GRT) - DXEV 28+81.79 (17.16'LT STR, 18.06'LT GRT)									180	1320							1, 5, 7, 8	
DR02-31	DXEV 28+81.79 (17.16'LT STR, 18.06'LT GRT) - DXEV 28+81.84 (12.59'RT)									50	350			1				1, 5, 7, 8, 26	
DR02-32	DXEV 28+81.84 (12.59'RT) - DXEV 28+43.39 (16.78'LT) - DXEV 28+81.79 (17.16'LT STR, 18.06'LT GRT)									60	460							1, 5, 7, 8	
DR02-33	DXEV 29+91.00 (17.25'LT) - DXEV 29+43.39 (16.78'LT)									30	260							1, 3, 7, 8	
DR02-34	DXEV 28+81.84 (12.59'RT)														1			29	
DR02-35	DXEV 31+41.85 (4.83'RT)															1		29	
DR02-36	RAMV 18+18.70 (23.30'LT) - RAMV 18+18.59 (14.89'RT)																	13	
DR02-37	SUPV 11+36.48 (36.33'LT STR, 37.23'LT GRT) - SUPV 12+93.36 (50.54'LT STR, 51.72'LT GRT)									80	610							1, 5, 7, 10	
DR02-38	SUPV 12+93.36 (50.54'LT STR, 51.72'LT GRT) - SUPV 14+37.09 (38.16'LT STR, 36.17'LT GRT)									200	1010							1, 5, 7, 10	
DR02-39	RAMV 18+18.10 (14.06'RT) - RAMV 18+18.02 (14.06'RT)									0	0							1, 5, 13, 33, 49	
DR02-40	SUPV 14+37.09 (38.16'LT STR, 36.17'LT GRT) - WPXV 17+04.71 (58.67'LT)									180	850							1, 5, 7, 8, 13, 13a	
SHEET TOTAL										1490	8840			1		1	1		

Contract 8625 Change Order 81 Page 28 of 72	SHEET 228 OF 1797 SHEETS
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DESIGNED BY	R. NAIDU	09/23/13		REGION NO.	10	STATE	WASH	FED. AID PROJ. NO.	
ENTERED BY	R. NAIDU	12/09/13		JOB NUMBER	13A012				
CHECKED BY	J. COOP	02/12/14		CONTRACT NO.					
PROJ. ENGR.	D. EDWARDS								
REGION ADM.	J. MEREDITH								
		DATE	12/01/15	REVISION	△	CO#81 - DELETE FACILITY M			
		DATE							

STRUCTURE NOTES - DRAINAGE

STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.																				GENERAL NOTES:
CODE	LOCATION	UNIT OF MEASURE	DITCH EXCAVATION INCL. HAUL	CONCRETE INLET	GRATE INLET TYPE 2	CEMENT CONC. GUTTER	STREAMBED COBBLES	QUARRY SPALLS	UNDERDRAIN PIPE 6 IN. DIAM.	DRAIN PIPE 6 IN. DIAM.	DRAIN PIPE 12 IN. DIAM.	SCHEDULE A CULV. PIPE 18 IN. DIAM.	DEBRIS CAGE	TRIUM GRATE	SEE GENERAL NOTES	1. SEE PIPE ZONE BEDDING AND BACKFILL - STANDARD PLAN B-55-20-00 FOR STORM SEWER, CULVERT, AND DRAIN PIPES. SEE PV SHEETS FOR ROADWAY RESTORATION ASSOCIATED WITH TRENCHING ACTIVITIES. 2. SEE CONCRETE INLET - STANDARD PLAN B-25-60-00. SEE SHEET DD11 FOR CONCRETE INLET ELEVATIONS. 3. SEE CATCH BASIN TYPE 1 - STANDARD PLAN B-5-20-01 4. SEE CATCH BASIN TYPE 1L - STANDARD PLAN B-5-40-01. 5. SEE CATCH BASIN TYPE 2 - STANDARD PLAN B-10-20-01. 6. SEE GRATE INLET TYPE 2 - STANDARD PLAN B-35-40-00. 7. SEE RECTANGULAR FRAME (REVERSIBLE) - STANDARD PLAN B-30-10-01. 8. SEE RECTANGULAR VANED GRATE - STANDARD PLAN B-30-30-01. 9. SEE RECTANGULAR BI-DIRECTIONAL VANED GRATE - STANDARD PLAN B-30-40-01. 10. SEE RECTANGULAR SOLID METAL COVER - STANDARD PLAN B-30-20-02. 11. SEE COMBINATION INLET - STANDARD PLAN B-25-20-01 12. SEE WELDED GRATES FOR GRATE INLET, GRATE "B" - STANDARD PLAN B-40-20-00. 13. SEE BEVELED END SECTIONS (FOR CULVERTS 30" DIAMETER OR LESS) - STANDARD PLAN B-70-20-00. 13A. SEE TYPE 2 SAFETY BARS FOR CULVERT PIPE OR PIPE ARCH (ON CROSS ROAD) - STANDARD PLAN B-75-60-00.				
L.F.	L.F.	L.F.	L.F.	EACH	EACH	L.F.	TON	TON	L.F.	L.F.	L.F.	L.F.	EACH	EACH	L.F.					
			30				76													
DR02-41	WPXV 17+09.70 (58.90' LT) - WPXV 17+35.52 (57.95' LT)								142	8					1,16,18,34,36					
DD01-01	WDXV 11+83.04 (31.11' LT) - WDXV 13+10.16 (29.59' LT)								128	8					1,16,18,34,36					
DD01-02	WDXV 13+13.27 (37.14' LT) - WDXV 14+42.00 (32.06' LT)								387	20					1,16,17,34,36					
DD01-03	MLV 557+17.87 (27.16' LT) - MLHV 11+42.05 (16.53' LT)								195	4					1,16,17,34,35,36					
DD01-04	EDXV 12+96.24 (15.90' RT) - EDXV 14+89.04 (16.89' RT)																			
DD02-01	WPXV 15+24.20 (36.74' LT) WPXV 17+04.64 (56.23' LT)								299	59					1,16,18,21,32,34,36					
DD02-02	WDXV 14+47.29 (33.72' LT) - WDXV 16+91.41 (32.08' LT)								304	9					1,16,20,21,31,34,36					
DD02-02A	WDXV 16+90.60 (50.23' LT) - WDXV 20+27.09 (37.14' LT)								330	12					1,16,18,21,34,36					
DD02-03	WDXV 20+30.62 (31.19' LT) - WDXV 21+44.68 (40.71' LT)								109	7					1,16,18,34,36					
DD02-04	WDXV 14+85.62 (0.75' RT) - MLHV 12+85.00 (10.18' LT)								293	10					1,16,20,21,34,36					
DD02-05	MLHV 13+36.42 (14.68' LT) - MLHV 16+13.74 (25.61' LT)								288	6					1,16,17,34,36					
DD02-06	MLHV 16+15.99 (22.08' LT) - MLHV 17+35.85 (25.37' LT)								119	6					1,16,17,34,36					
DD02-07	MLHV 11+89.21 (6.67' RT) - MLV 562+51.04 (14.24' LT)								112	38					1,16,20,34,36					
DD02-08	MLV 562+19.79 (18.15' LT) - MLV 564+13.89 (21.53' LT)								192	7					1,16,17,34,36					
DD02-09	RAMV 18+08.78 (0.15' LT) RAMV 18+28.66 (2.04' LT)										0				33,36,38B					
DD02-10	RAMV 18+07.41 (7.40' LT) TO RAMV 15+03.00 (76.81' LT)										0				1,16,36,38B					
DD02-11	FACM 10+00 (0) TO FACM 10+85.17 (0)																			
DD02-12	RAMV 10+82 (20.0' LT) - RAMV 10+80 (02.0' LT)														16,34					
DD02-13	RAMV 10+77 (42.64' LT) - RAMV 15+42.02 (36.14' RT)										0									
TDR01-1	WPXT 14+38.96 (22.08' LT) TO WDXV 19+95.28 (25.06' LT)														1,4,7,8					
TDR01-2	WPXT 14+59.72 (22.08' LT) TO WPXT 14+38.96 (22.08' LT)														1,3,7,9					
TDR01-3	WPXT 15+08.36 (22.08' LT) TO WPXT 14+59.72 (22.08' LT)														1,3,7,8					
TDR01-4	WDXV 18+42.44 (29.08' LT) TO WDXV 19+09.85 (29.08' LT)														1,3,7,8					
TDR01-5	WDXV 19+09.85 (29.08' LT) TO WDXV 19+42.44 (29.08' LT)														1,3,7,9					
TDR01-6	WDXV 19+42.44 (29.08' LT) TO WDXV 19+95.28 (25.06' LT)														1,3,7,9					
TDR01-7	WDXV 19+95.28 (25.06' LT) TO WDXV 20+02.04 (28.31' RT)														1,4,7,8,26					
SHEET TOTAL			30				76	0	2876	192	0									
PROJECT TOTAL			30	2	2		264	76	0	3344	798	0		4						

DESIGNED BY	R. NAIDU	09/23/13
ENTERED BY	R. NAIDU	12/09/13
CHECKED BY	J. COOP	02/12/14
PROJ. ENGR.	D. EDWARDS	
REGION ADM.	J. MEREDITH	
DATE	12/01/15	DATE

REGION NO.	10	STATE	WASH	FED. AID PROJ. NO.	
JOB NUMBER	13A012				
CONTRACT NO.					



Washington State
Department of Transportation

Contract 8625
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STRUCTURE NOTES - DRAINAGE

NT 21
SHEET 228 OF 1797 SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.		COS INLET, TYPE 250B	COS PIPE, SD, D.I., CL 50, 8 IN	CATCH BASIN TYPE 1L	CATCH BASIN TYPE 1	CATCH BASIN TYPE 2 48 IN. DIAM.	CATCH BASIN TYPE 2 54 IN. DIAM.	CATCH BASIN TYPE 2 60 IN. DIAM.	SMALL CATCH BASIN	CATCH BASIN TYPE 2 72 IN. DIAM.	TESTING STORM SEWER PIPE	CL. III REINF. CONC. STORM SEWER PIPE 30 IN. DIAM.	CL. IV REINF. CONC. STORM SEWER PIPE 12 IN. DIAM.	SEE GENERAL NOTES	GENERAL NOTES:
CODE	LOCATION \ UNIT OF MEASURE >	EACH	L.F.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	L.F.		
DR02-41	WPKV 17+09.70 (58.40' LT) - WPKV 17+35.52 (57.95' LT)														14. SEE SPECIAL PROVISION, "MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS". SEE SHEET DD11 FOR SMALL CATCH BASIN ELEVATIONS.
DD01-01	WDXV 11+83.04 (31.11' LT) - WDXV 13+10.18 (29.58' LT)													1,16,18,34,38	
DD01-02	WDXV 13+13.27 (37.14' LT) - WDXV 14+42.00 (32.08' LT)													1,16,18,34,38	
DD01-03	MLV 557+17.87 (27.16' LT) - MLHV 11+42.05 (16.53' LT)													1,16,17,34,38	
DD01-04	EDXV 12+56.24 (15.90' RT) - EDXV 14+89.04 (18.89' RT)													1,16,17,34,38,38	15. SEE SPECIAL PROVISION, "MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS".
DD02-01	WPKV 15+24.20 (36.74' LT) WPKV 17+04.64 (56.23' LT)													1,16,19,21, 32,34,38	16. SEE CLEANOUT DETAIL ON SHEET DD06. SEE CLEANOUT LOCATION SCHEDULE ON DD11. SEE SHEET SW06 FOR PRESETTLING CELL CLEANOUT LOCATION SCHEDULE.
DD02-02	WDXV 14+47.29 (33.72' LT) - WDXV 18+81.41 (32.08' LT)													1,16,18, 31,34,38	17. SEE BARRIER UNDERDRAIN DETAIL ON SHEET DD08.
DD02-02A	WDXV 18+90.80 (50.23' LT) - WDXV 20+27.09 (37.14' LT)													1,16,18, 21,34,38	18. SEE RETAINING BARRIER UNDERDRAIN DETAIL ON SHEET DD08.
DD02-03	WDXV 20+30.82 (31.10' LT) - WDXV 21+44.88 (40.71' LT)													1,16,18, 34,38	19. SEE WABN BRIDGE ABUTMENT UNDERDRAIN DETAIL ON SHEET DD07.
DD02-04	WDXV 14+85.82 (0.75' RT) - MLHV 12+85.00 (10.18' LT)													1,16,20, 21,34,38	20. SEE 24TH AVE E BRIDGE FOOTING UNDERDRAIN DETAIL ON SHEET DD07.
DD02-05	MLHV 13+36.42 (14.68' LT) - MLHV 18+13.74 (25.61' LT)													1,16,17, 34,38	21. SEE WALL UNDERDRAIN DETAILS ON SHEETS DD08 & DD09. CONTRACTOR SHALL SUBMIT DETAILED WORKING DRAWINGS ADDRESSING POTENTIAL UNDERDRAIN CONFLICTS.
DD02-06	MLHV 16+15.99 (22.08' LT) - MLHV 17+35.85 (25.37' LT)													1,16,17,34,38	22. SEE SIDEWALK UNDERDRAIN DETAIL ON SHEET DD09.
DD02-07	MLHV 11+89.21 (6.67' RT) - MLV 562+51.04 (14.24' LT)													1,16,20,34,38	23. SEE CONCRETE GUTTER DETAIL ON SHEET DD10.
DD02-08	MLV 562+19.79 (18.15' LT) - MLV 564+13.89 (21.53' LT)													1,16,17,34,38	24. CONCRETE GUTTER SHALL EXTEND TO THE 24TH UNDERCROSSING TO INTERCEPT DRAINAGE FROM THE SUPERSTRUCTURE. SEE BC SHEETS FOR ADDITIONAL INFORMATION.
DD02-09	RAMV 18+08.76 (9.14' LT) - RAMV 18+20.55 (8.04' LT)													1,7,10,16, 33,38,38B	25. SEE SPECIAL PROVISION, "STORM SEWERS". ALL PIPE JOINTS SHALL BE RESTRAINED.
DD02-10	RAMV 18+27.47 (7.21' LT) TO RAMV 16+59.90 (70.94' LT)													1,16,38,38B	26. SEE SPECIAL PROVISION, "CONNECTIONS TO EXISTING DRAINAGE STRUCTURES AND STORM SEWER PIPE".
DD02-11	FACM 10+00 (0) TO FACM 10+88.17 (8)													16,34	
SW02-01	RAMV 15+03 (59.0' LT) - RAMV 16+00 (59.0' LT)														
SW02-02	RAMV 15+77 (45.84' LT) - RAMV 16+42.62 (26.1' RT)														
TDR01-1	WPXT 14+38.98 (22.08' LT) TO WDXT 19+95.28 (25.86' LT)			1							70			1,4,7,8	
TDR01-2	WPXT 14+59.72 (22.08' LT) TO WPXT 14+38.98 (22.08' LT)				1						21			1,3,7,8	
TDR01-3	WPXT 15+08.36 (22.08' LT) TO WPXT 14+59.72 (22.08' LT)				1						46			1,3,7,8	
TDR01-4	WDXT 18+42.44 (29.08' LT) TO WDXT 19+09.85 (29.08' LT)				1						67			1,3,7,8	
TDR01-5	WDXT 19+09.85 (29.08' LT) TO WDXT 19+42.44 (29.08)				1						32			1,3,7,8	
TDR01-6	WDXT 19+42.44 (29.08) TO WDXT 19+95.28 (25.86' LT)				1						53			1,3,7,8	
TDR01-7	WDXT 19+95.28 (25.86' LT) TO WDXT 20+02.04 (28.31 RT)										55			1,4,7,8,28	
SHEET TOTAL					2	5					344				
PROJECT TOTAL		1	187		11	42	24		1	1	2	1	5214	347	28

DESIGNED BY	R. NAIDU	09/23/13		REGION NO.	10	STATE	WASH	FED. AID PROJ. NO.	
ENTERED BY	R. NAIDU	12/09/13		JOB NUMBER	13A012	 Washington State Department of Transportation			
CHECKED BY	J.COOP	02/12/14		CONTRACT NO.					
PROJ. ENGR.	D. EDWARDS								
REGION ADM.	J. MEREDITH	DATE	12/01/15	REVISION	COM#81 - DELETE FACILITY M	JV			

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Page 31 of 72

STRUCTURE NOTES - DRAINAGE

NT 22

SHEET 229 OF 1797 SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.			GENERAL NOTES:													
CODE	LOCATION	UNIT OF MEASURE	COS SEWER CLEANOUT, 8 IN	GATE VALVE 6 IN.	GATE VALVE 12 IN.	PREFABRICATED DRAINAGE MAT	GEOSYNTHETIC CLAY LINER	CONCRETE LINER	STRUCTURE EXCAVATION CLASS B INCL. HAUL ***	SHORING OR EXTRA EXCAVATION CLASS B ***	GRAVEL BACKFILL FOR DRAIN	COS ADJUST EXISTING INLET	CONNECTION TO DRAINAGE STRUCTURE	ADJUST MANHOLE **	ADJUST CATCH BASIN	SEE GENERAL NOTES
			EACH	EACH	EACH	S.Y.	S.Y.	S.Y.	C.Y.	S.F.	C.Y.	EACH	EACH	EACH	EACH	
DR02-41	WPKV 17+09.70 (58.90' LT) - WPKV 17+35.52 (57.95' LT)															
DD01-01	WDXV 11+83.04 (31.11' LT) - WDXV 13+10.16 (29.59' LT)										60					1, 16, 18, 34, 36
DD01-02	WDXV 13+13.27 (37.14' LT) - WDXV 14+42.00 (32.08' LT)										55					1, 16, 17, 34, 36
DD01-03	MLV 557+17.87 (27.16' LT) - MLHV 11+42.05 (16.53' LT)										52					1, 16, 17, 34, 36, 38
DD01-04	EDXV 12+96.24 (15.97' RT) - EDXV 14+89.04 (16.87' RT)										32					1, 16, 17, 34, 36, 38
DD02-01	WPKV 15+24.20 (36.74' LT) WPKV 17+04.64 (56.23' LT)										43					1, 16, 19, 21, 32, 34, 36
DD02-02	WDXV 14+47.29 (33.72' LT) - WDXV 16+91.41 (32.08' LT)										87					1, 16, 20, 21, 31, 34, 36
DD02-02A	WDXV 16+90.80 (50.23' LT) - WDXV 20+27.09 (37.14' LT)										106					1, 16, 18, 21, 34, 36
DD02-03	WDXV 20+30.62 (31.19' LT) - WDXV 21+44.68 (40.71' LT)										46					1, 16, 18, 34, 36
DD02-04	WDXV 14+65.62 (0.75' RT) - MLHV 12+65.00 (10.18' LT)										112					1, 16, 20, 21, 21, 34, 36
DD02-05	MLHV 13+36.42 (14.68' LT) - MLHV 16+13.74 (25.61' LT)										52					1, 16, 17, 34, 36
DD02-06	MLHV 16+15.99 (22.08' LT) - MLHV 17+35.85 (25.37' LT)										23					1, 16, 17, 34, 36
DD02-07	MLHV 11+89.21 (6.67' RT) - MLV 562+51.04 (14.24' LT)										42					1, 16, 20, 34, 36
DD02-08	MLV 562+19.79 (18.15' LT) - MLV 564+13.89 (21.53' LT)										11					1, 16, 17, 34, 36
DD02-09	RAMV 18+08.76 (3.14' LT)			0												1, 7, 10, 16, 33, 36, 38B
DD02-10	RAMV 18+38.66 (3.04' LT)															1, 16, 36, 38B
DD02-10	RAMV 18+07.41 (2.90' LT) TO RAMV 16+50.89 (26.84' LT)															
SW02-01	FACM 10+00 (0) TO FACM 10+88.17 (0)					0	0	0								16, 34
SW02-02	RAMV 10+83 (30.0' LT) - RAMV 18+80 (32.0' LT)															
SW02-03	RAMV 10+77 (43.54' LT) - RAMV 15+42.62 (36.41' RT)															
TDR01-1	WPKT 14+38.96 (22.08' LT) TO WDXT 18+95.28 (25.86' LT)								150	1090						1, 4, 7, 8
TDR01-2	WPKT 14+50.72 (22.08' LT) TO WPKT 14+38.96 (22.08' LT)								40	280						1, 3, 7, 9
TDR01-3	WPKT 15+06.36 (22.08' LT) TO WPKT 14+50.72 (22.08' LT)								120	860						1, 3, 7, 8
TDR01-4	WDXT 16+42.44 (29.08' LT) TO WDXT 19+09.85 (29.08' LT)								70	520						1, 3, 7, 8
TDR01-5	WDXT 19+09.85 (29.08' LT) TO WDXT 19+42.44 (29.08' LT)								60	400						1, 3, 7, 8
TDR01-6	WDXT 19+42.44 (29.08' LT) TO WDXT 19+95.28 (25.86' LT)								120	900						1, 3, 7, 9
TDR01-7	WDXT 19+95.28 (25.86' LT) TO WDXT 20+02.04 (28.31' RT)								90	660		1				1, 4, 7, 8, 26
SHEET TOTAL					0		0	0	650	4710	721		1			
PROJECT TOTAL			2	0	0		0	0	6600	40430	786	2	12	3	4	

35. UNDERDRAIN TO BE LOCATED IN RIGHT-OF-WAY.
36. UNLESS OTHERWISE SPECIFIED, DRAIN PIPE SHALL BE 6" DIAMETER INSTALLED AT 1% MINIMUM SLOPE WITH 1' MINIMUM COVER. SEE SHEET DD11 FOR DRAIN PIPE ELEVATIONS AT KEY LOCATIONS. CONTRACTOR SHALL FURNISH AND INSTALL ALL FITTINGS NECESSARY TO CONSTRUCT THE DRAIN PIPE SYSTEM. A SWEEPING/LONG RADIUS 90 DEGREE BEND OR A 45 DEGREE BEND IN COMBINATION WITH A WYE MAY BE SUBSTITUTED WHERE TWO 45 DEGREE BENDS ARE SHOWN ON THESE PLANS. SEE SHEET DD11 FOR STRUCTURE STATION AND OFFSET LOCATION INFORMATION.
37. CONTRACTOR'S SCHEDULE TO REFLECT SEQUENCING OF PERMANENT STORM DRAIN SYSTEM IN CONJUNCTION WITH TEMPORARY OFF-RAMPS AND TEMPORARY OFF-RAMP DRAINAGE SYSTEMS.
38. IF CONSTRUCTION SEQUENCING OF THE TEMPORARY WPKT OFF-RAMP INCLUDES INSTALLATION OVER PERMANENT STORM SEWER PIPE, USE OF CL. V REINF. CONC. STORM SEWER PIPE IS REQUIRED.
- 38A. SEE SPECIAL PROVISION "STORM SEWERS" FOR ALLOWABLE PIPE MATERIALS.
- 38B. SEE SHEET DD11 FOR DRAIN PIPE ELEVATIONS AT KEY LOCATIONS.
- 38C. CASING SHALL HAVE END SEALS AND THE ANNUAL SPACE SHALL BE FILLED WITH BLOWN SAND. SEE SPECIAL PROVISION "STORM SEWERS".
39. SEE THE COS STANDARD PLANS AND SPECIAL PROVISION "COS STORM DRAINS AND SANITARY SEWERS". FOR PIPE, TELEVISION INSPECTION AND "COS SFTY TRICH EXCAV MIN BID=\$0.80".
40. SEE PIPE BEDDING SEWER/STORM DRAIN - COS STANDARD PLAN 285. SEE SPECIAL PROVISION "COS STORM DRAINS AND SANITARY SEWERS".

DESIGNED BY	R. NAIDU	09/23/13		REGION NO.	10	STATE	WASH	FED. AID PROJ. NO.	
ENTERED BY	R. NAIDU	12/06/13							
CHECKED BY	J. COOP	02/12/14							
PROJ. ENGR.	D. EDWARDS								
REGION ADM.	J. MEREDITH								
DATE	12/01/15	DATE		REVISION	CO#81 - DELETE FACILITY M				
				BY	JV				

Washington State
Department of Transportation

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STRUCTURE NOTES - DRAINAGE

NT 24

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OF
1797
SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE: THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.		COS ADJUST MAINTENANCE HOLE OR CATCH BASIN			CONSTRUCTION GEOTEXTILE FOR UNDERGROUND DRAINAGE	CONSTRUCTION GEOTEXTILE FOR PERMANENT EROSION CONTROL	COS SIFTY TRCH EXCAV MIN BID=\$0.80	COS RELOCATE INLET	COS BEDDING, CL D, & IN PIPE	COS TELEVISION INSPECTION				SEE GENERAL NOTES	GENERAL NOTES:	
																CODE
DR02-41	WPXV 17+09.70 (18.40' LT) - WPXV 17+15.52 (17.95' LT)					60										41. NO ACCEPTABLE ALTERNATIVES FOR PIPE MATERIAL.
DD01-01	WDXV 11+83.04 (31.11' LT) - WDXV 13+10.16 (29.59' LT)				63									1, 16, 18, 34, 36	42. SEE COS CLEANOUT DETAIL ON SHEET DD14. CLEANOUT FRAME AND COVER, CONCRETE PAD, 12" DIA DIP, FIBER JOINT PACKING, AND MINERAL AGGREGATE PER COS STANDARD PLAN 280. SEE SPECIAL PROVISION "COS CLEANOUTS".	
DD01-02	WDXV 13+13.27 (37.14' LT) - WDXV 14+42.00 (32.08' LT)				57									1, 16, 18, 34, 36	43. SEE TYPE 204B MAINTENANCE HOLE - COS STANDARD PLAN 204B. SEE SPECIAL PROVISION "COS MAINTENANCE HOLES, CATCH BASINS AND INLETS".	
DD01-03	MLV 557+17.87 (27.16' LT) - MLHV 11+42.05 (16.53' LT)				172									1, 16, 17, 34, 36	44. SEE TYPE 240 CATCH BASIN - COS STANDARD PLAN 240. SEE SPECIAL PROVISION "COS MAINTENANCE HOLES, CATCH BASINS AND INLETS".	
DD01-04	EDXV 12+86.24 (15.80' RT) - EDXV 14+89.04 (16.89' RT)				87									1, 16, 17, 34, 36, 38	45. SEE TYPE 242 CATCH BASIN - COS STANDARD PLAN 242. SEE SPECIAL PROVISION "COS MAINTENANCE HOLES, CATCH BASINS AND INLETS".	
DD02-01	WPXV 15+24.20 (36.74' LT) WPXV 17+04.64 (56.23' LT)				288									1, 16, 18, 21, 32, 34, 36	46. SEE TYPE 250 INLET - COS STANDARD PLAN 250. SEE SPECIAL PROVISION "COS MAINTENANCE HOLES, CATCH BASINS AND INLETS".	
DD02-02	WDXV 14+47.29 (33.72' LT) - WDXV 18+91.41 (32.08' LT)				212									1, 16, 20, 21, 31, 34, 36	47. RELOCATE EXISTING NEARBY INLET (FXV 11+85.62, 15.49' LT)	
DD02-02A	WDXV 16+90.60 (50.23' LT) - WDXV 20+27.09 (37.14' LT)				191									1, 16, 18, 21, 34, 36	48. PRESERVE EXISTING DRIVEWAY RAMP IN ACCORDANCE WITH PV SHEETS.	
DD02-03	WDXV 20+30.82 (31.19' LT) - WDXV 21+44.88 (40.71' LT)				48									1, 16, 18, 34, 36	49. SEE SHEET SW05 FOR DEBRIS CAGE DETAIL.	
DD02-04	WDXV 14+85.82 (0.75' RT) - MLHV 12+65.00 (10.18' LT)				165									1, 16, 20, 21, 34, 36	** FOR ADDITIONAL ADJUST MANHOLE QUANTITIES, SEE STRUCTURE NOTES - UTILITIES.	
DD02-05	MLHV 13+36.42 (14.68' LT) - MLHV 16+13.74 (25.81' LT)				118									1, 16, 17, 34, 36	*** FOR ADDITIONAL STRUCTURE EXCAVATION CLASS B INCL HAUL AND SHORING OR EXTRA EXCAVATION CLASS B QUANTITIES, SEE QTDSP SHEETS.	
DD02-06	MLHV 16+15.99 (22.08' LT) - MLHV 17+35.85 (25.37' LT)				53									1, 16, 17, 34, 36		
DD02-07	MLHV 11+89.21 (6.67' RT) - MLV 562+51.04 (14.24' LT)				50									1, 16, 20, 34, 36		
DD02-08	MLV 562+19.79 (18.15' LT) - MLV 564+13.89 (21.53' LT)				85									1, 16, 17, 34, 36		
DD02-09	RAMV 18+08.76 (0.14' LT)															
DD02-10	RAMV 18+20.55 (2.04' LT)															
DD02-11	RAMV 18+37.41 (7.40' LT) TO RAMV 15+20.00 (7.00' LT)															
GW02-04	FACM 10+00 (0) TO FACM 10+68.17 (0)															
GW02-05	RAMV 10+82 (20.0' LT) - RAMV 18+80 (03.0' LT)													18, 34		
GW02-06	RAMV 10+77 (43.84' LT) - RAMV 15+42.62 (36.14' RT)															
TDR01-1	WPXT 14+38.96 (22.08' LT) TO WDXV 19+95.28 (25.86' LT)													1, 4, 7, 8		
TDR01-2	WPXT 14+59.72 (22.08' LT) TO WPXT 14+38.96 (22.08' LT)													1, 3, 7, 9		
TDR01-3	WPXT 15+06.36 (22.08' LT) TO WPXT 14+59.72 (22.08' LT)													1, 3, 7, 8		
TDR01-4	WDXV 18+42.44 (29.08' LT) TO WDXV 19+09.85 (29.08' LT)													1, 3, 7, 8		
TDR01-5	WDXV 19+09.85 (29.08' LT) TO WDXV 19+42.44 (29.08' LT)													1, 3, 7, 8		
TDR01-6	WDXV 19+42.44 (29.08' LT) TO WDXV 19+95.28 (25.86' LT)													1, 3, 7, 9		
TDR01-7	WDXV 19+95.28 (25.86' LT) TO WDXV 20+02.04 (28.31' RT)													1, 4, 7, 8, 26		
SHEET TOTAL					1589	60										
PROJECT TOTAL					1	1929	60	860	1			187	187			

DESIGNED BY	R. NAIDU	09/23/13	
ENTERED BY	R. NAIDU	12/09/13	
CHECKED BY	J. COOP	02/12/14	
PROJ. ENGR.	D. EDWARDS		
REGION ADM.	J. MEREDITH	12/01/15	△ CO#81 - DELETE FACILITY M REVISION
		DATE	DATE

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		CONTRACT NO.
13A012		

Washington State
Department of Transportation

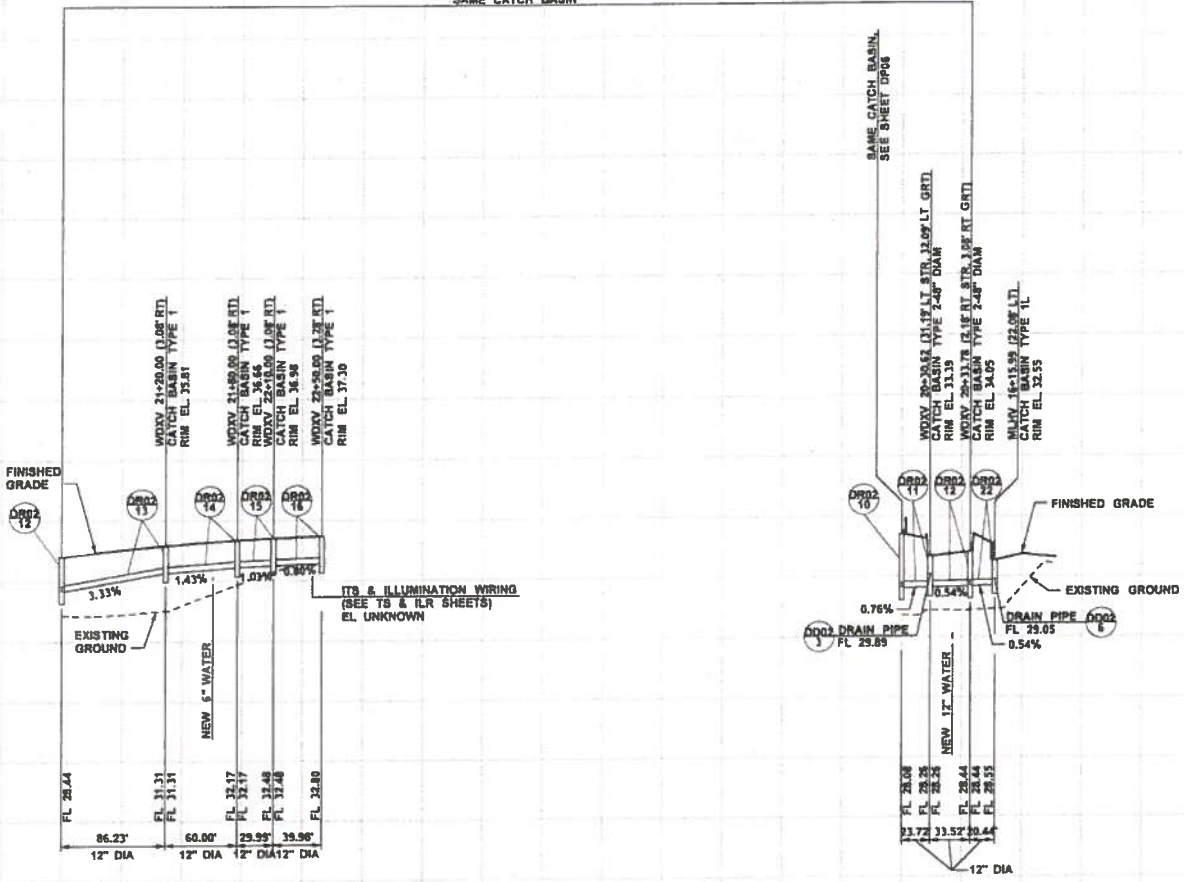
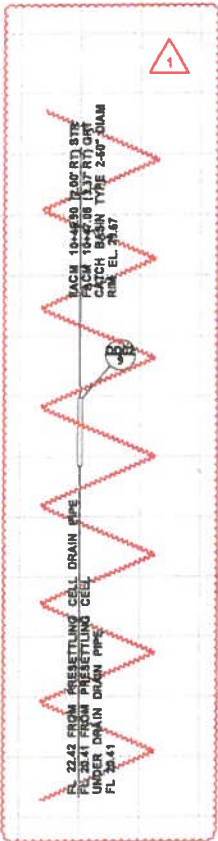
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Page 34 of 72

STRUCTURE NOTES - DRAINAGE

NT 25

SHEET
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OF
1797
SHEETS

SAME CATCH BASIN



- NOTES:
1. NEW ILLUMINATION, BRIDGE CONTROL, FIBER OPTIC AND ITS CROSSINGS ARE NOT SHOWN IN THESE PROFILES.
 2. IN THE CATCH BASIN STATION AND OFFSET INFORMATION, ABBREVIATION STR DENOTES CENTER OF STRUCTURE, AND ABBREVIATION GRT DENOTES CENTER OF GRATE.



FILE NAME	PW:\Program\Design-Bld-Bulk\Contract 008625 WABN02.0 Contract Documents\2.03 Contract Plans\13.05.02 As-Built\As-Built DGN's\W02\34) C8625 PE DP_07_R1.dgn		
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DATE	3/10/2016		
PLOTTED BY	SancheA		
DESIGNED BY	J. VANIER		
ENTERED BY	Y. JIANG		
CHECKED BY	J. COOP		
PROJ. ENGR.	D. EDWARDS		
REGIONAL ADM.	J. MEREDITH		
REVISION	CO#81 - DELETE FACILITY M	12/1/15	JLC
DATE			BY

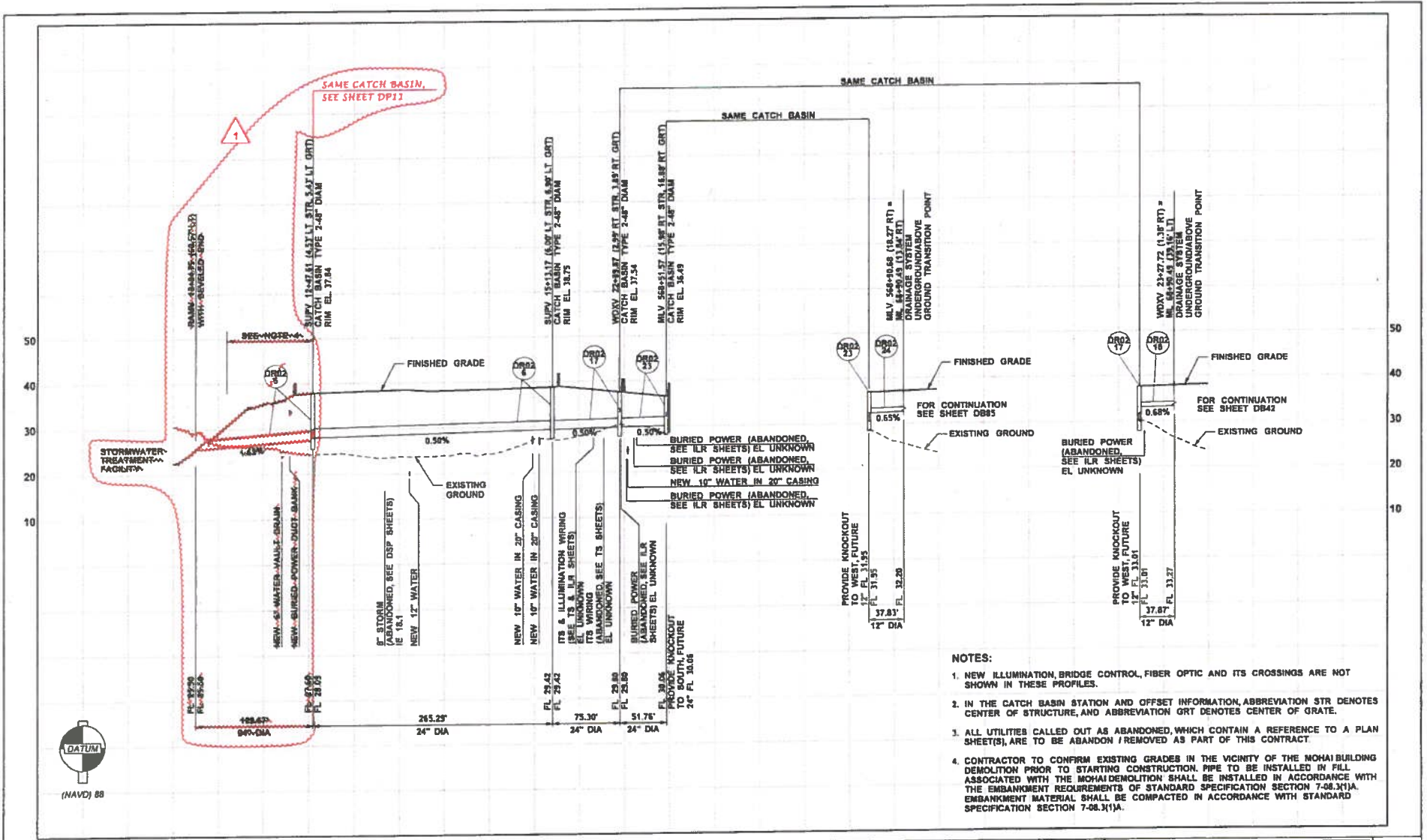
FED.AID PROJ.NO.



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DRAINAGE PROFILE

PLAN SHEET NO
DP07
SHEET
243
OF
1797
DATE



- NOTES:**
1. NEW ILLUMINATION, BRIDGE CONTROL, FIBER OPTIC AND ITS CROSSINGS ARE NOT SHOWN IN THESE PROFILES.
 2. IN THE CATCH BASIN STATION AND OFFSET INFORMATION, ABBREVIATION STR DENOTES CENTER OF STRUCTURE, AND ABBREVIATION CRT DENOTES CENTER OF GRATE.
 3. ALL UTILITIES CALLED OUT AS ABANDONED, WHICH CONTAIN A REFERENCE TO A PLAN SHEET(S), ARE TO BE ABANDON / REMOVED AS PART OF THIS CONTRACT.
 4. CONTRACTOR TO CONFIRM EXISTING GRADES IN THE VICINITY OF THE MOHAI BUILDING DEMOLITION PRIOR TO STARTING CONSTRUCTION. PIPE TO BE INSTALLED IN FILL ASSOCIATED WITH THE MOHAI DEMOLITION SHALL BE INSTALLED IN ACCORDANCE WITH THE EMBANKMENT REQUIREMENTS OF STANDARD SPECIFICATION SECTION 7-08.3(1)A. EMBANKMENT MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 7-08.3(1)A.

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DATE	3/19/2016		
PLOTTED BY	SanehaA		
DESIGNED BY	J. VANIER		
ENTERED BY	Y. JIANG		
CHECKED BY	J. COOP		
PROJ. ENGR.	D. EDWARDS		
REGIONAL ADM.	J. MEREDITH		
REVISION	CO#81 - DELETE FACILITY M	DATE	12/1/15 JLC

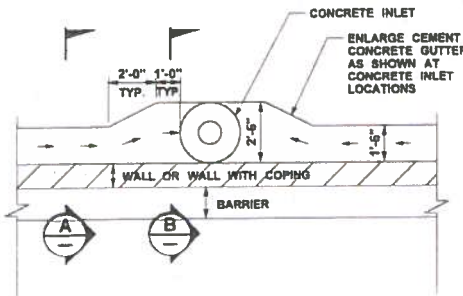
SECTION NO.	10	STATE	WASH
JOB NUMBER	13A012		
CONTRACT NO.		LOCATION NO.	



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Change Order 81
Page 38 of 72

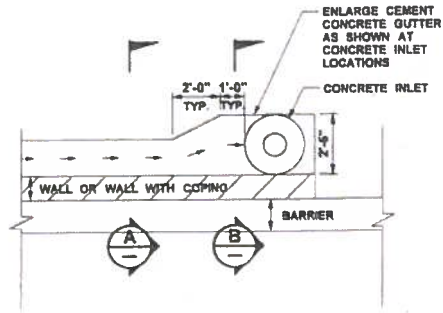
PLAN REF. NO.	DP08
SHEET	244
OF	1797
SHEETS	

DRAINAGE PROFILE



NOTE:
1. WALL FEATURES (SHAPE AND PROPORTION) SHOWN FOR GENERAL PRESENTATION PURPOSES ONLY. SEE WR SHEETS FOR ACTUAL SHAPE AND DESIGN INFORMATION.

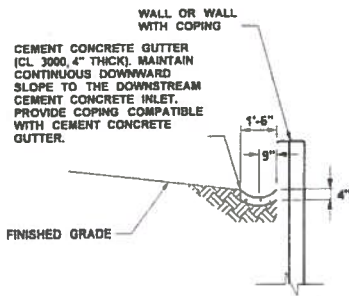
CASE 1 - BIDIRECTIONAL CEMENT CONCRETE GUTTER FLOW



NOTE:
1. WALL FEATURES (SHAPE AND PROPORTION) SHOWN FOR GENERAL PRESENTATION PURPOSES ONLY. SEE WR SHEETS FOR ACTUAL SHAPE AND DESIGN INFORMATION.

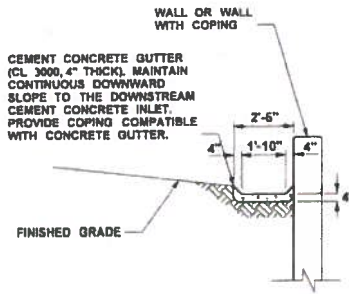
CASE 2 - UNIDIRECTIONAL CEMENT CONCRETE GUTTER FLOW

PLAN



NOTE:
1. WALL FEATURES (SHAPE AND PROPORTION) SHOWN FOR GENERAL PRESENTATION PURPOSES ONLY. SEE WR SHEETS FOR ACTUAL SHAPE AND DESIGN INFORMATION.

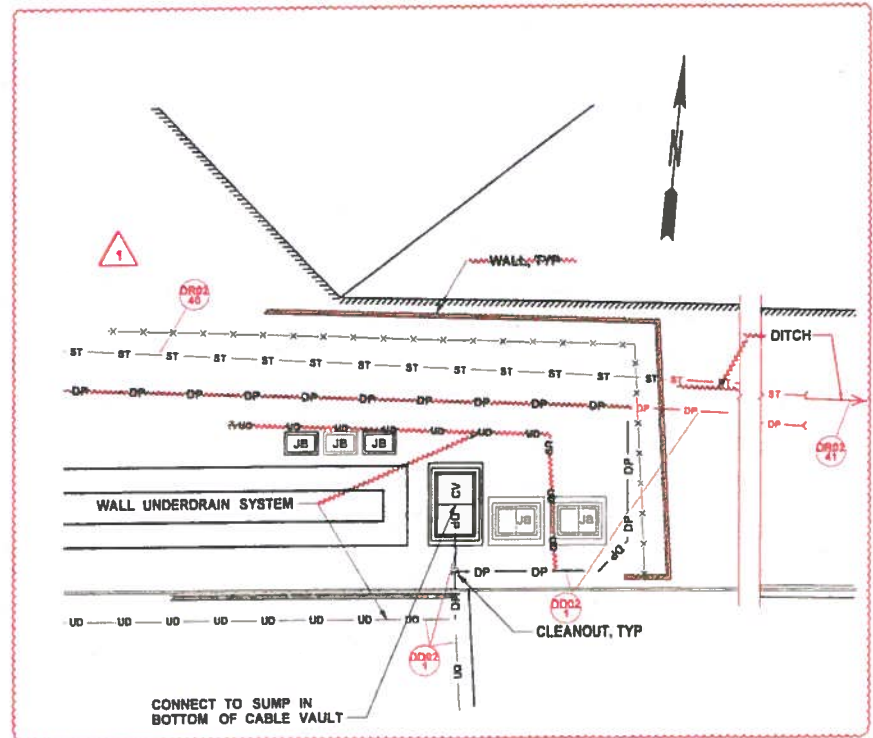
SECTION A



NOTE:
1. WALL FEATURES (SHAPE AND PROPORTION) SHOWN FOR GENERAL PRESENTATION PURPOSES ONLY. SEE WR SHEETS FOR ACTUAL SHAPE AND DESIGN INFORMATION.

SECTION B

CEMENT CONCRETE GUTTER
N.T.S.



NOTES:
1. SEE SHEETS DD01 AND DD02 FOR THE UNDERDRAIN SYSTEMS, AND SHEETS DR01 AND DR02 FOR THE CATCH BASIN, CONCRETE INLET AND STORM DRAIN SYSTEMS.

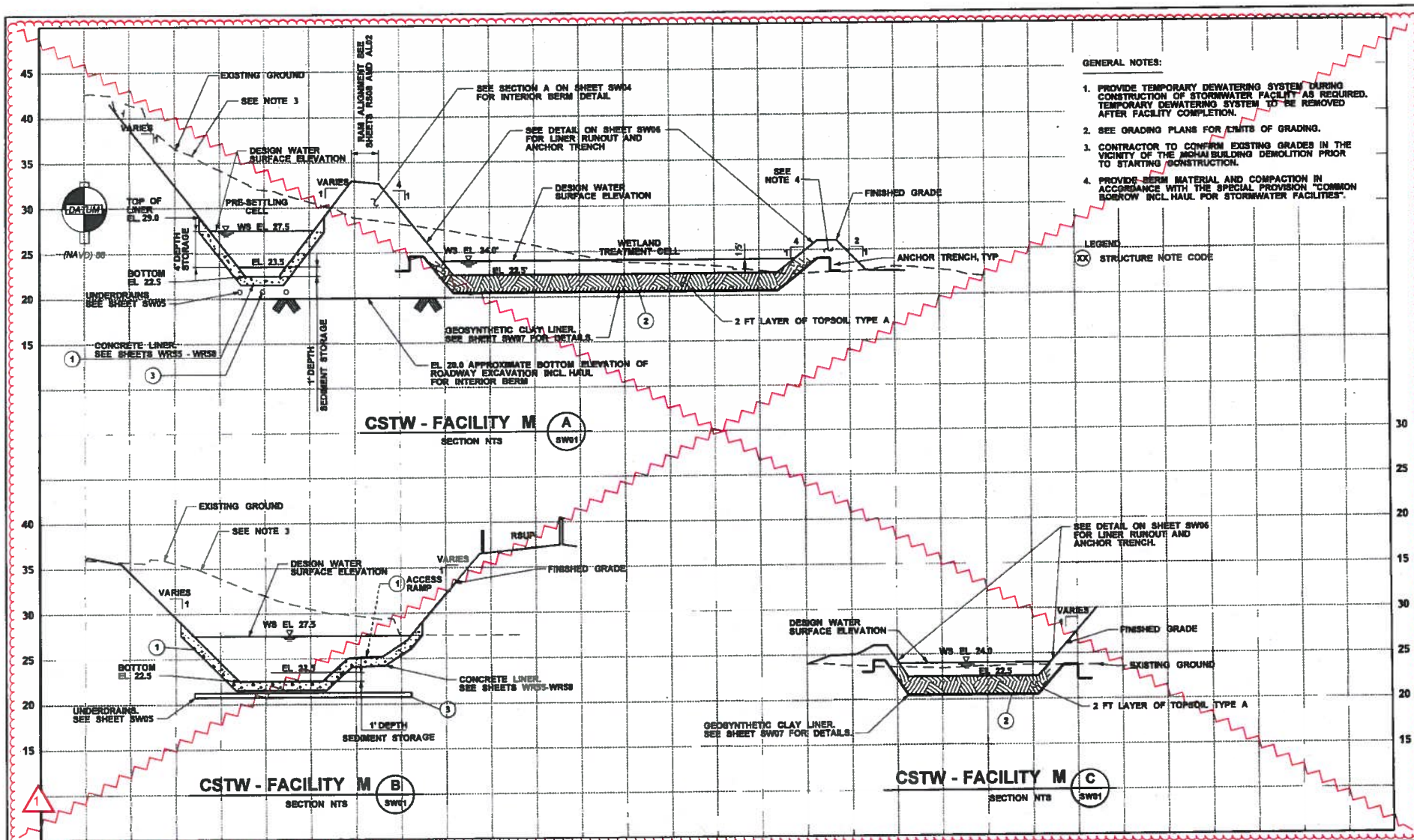
2. SEE WR SHEETS FOR WALL TYPES AND RETAINING BARRIER LOCATIONS.

ENLARGED VIEW



FILE NAME	PW:\Program\Design-Bld-Build\Contract_006625_WASH02.0 Contract Documents\2.05 Contract Plans\2.05.02 As-Built\As-Built DGN\1402256_C8625_PC_DD_10_R1.dgn			REGION	STATE	FED.AID PROJ.NO.				Contract 8625 Change Order 81 Page 40 of 72	PLAN REF NO.
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DATE	3/10/2016			JOB NUMBER	13A012					SHEET	
PLOTTED BY	SancheA			CONTRACT NO.						256	
DESIGNED BY	J. VANIER			LOCATION NO.						OF	
ENTERED BY	Y. JIANG									1797	
CHECKED BY	J. COOP									SHEETS	
PROJ. ENGR.	D. EDWARDS										
REGIONAL ADM.	J. MEREDITH										
				DATE	12/1/15		JLC				
	REVISION										

DRAINAGE DETAILS



- GENERAL NOTES:**
1. PROVIDE TEMPORARY DEWATERING SYSTEM DURING CONSTRUCTION OF STORMWATER FACILITY AS REQUIRED. TEMPORARY DEWATERING SYSTEM TO BE REMOVED AFTER FACILITY COMPLETION.
 2. SEE GRADING PLANS FOR LIMITS OF GRADING.
 3. CONTRACTOR TO CONFIRM EXISTING GRADES IN THE VICINITY OF THE MOHAI BUILDING DEMOLITION PRIOR TO STARTING CONSTRUCTION.
 4. PROVIDE BERM MATERIAL AND COMPACTION IN ACCORDANCE WITH THE SPECIAL PROVISION "COMMON BORROW INCL HAUL FOR STORMWATER FACILITIES".

LEGEND
 (XX) STRUCTURE NOTE CODE

CSTW - FACILITY M (A)
 SECTION NTS
 SW01

CSTW - FACILITY M (B)
 SECTION NTS
 SW01

CSTW - FACILITY M (C)
 SECTION NTS
 SW01

FILE NAME	PRM\CAD\Proj\Wetlands\CAD\DWG\SWWASHPZ134_WASB_PS_SW_02.dwg
TIME	1:59:43 PM
DATE	4/4/2014
PLOTTED BY	dfguzma
DESIGNED BY	J. COOP
ENTERED BY	D. NGUYEN
CHECKED BY	J. COOP
PROJ. ENGR.	D. EDWARDS
REGIONAL ADM.	J. MEREDITH

REVISION	DATE	BY
1	12/9/15	JLC
CORR1 - DELETE FACILITY M		

STATE	FED. AID PROJ. NO.
10 WASH	
CONTRACT NO.	13A012
CONTRACT DEL.	
LOCATION NO.	

HR ENGINEERING INC.

Washington State Department of Transportation

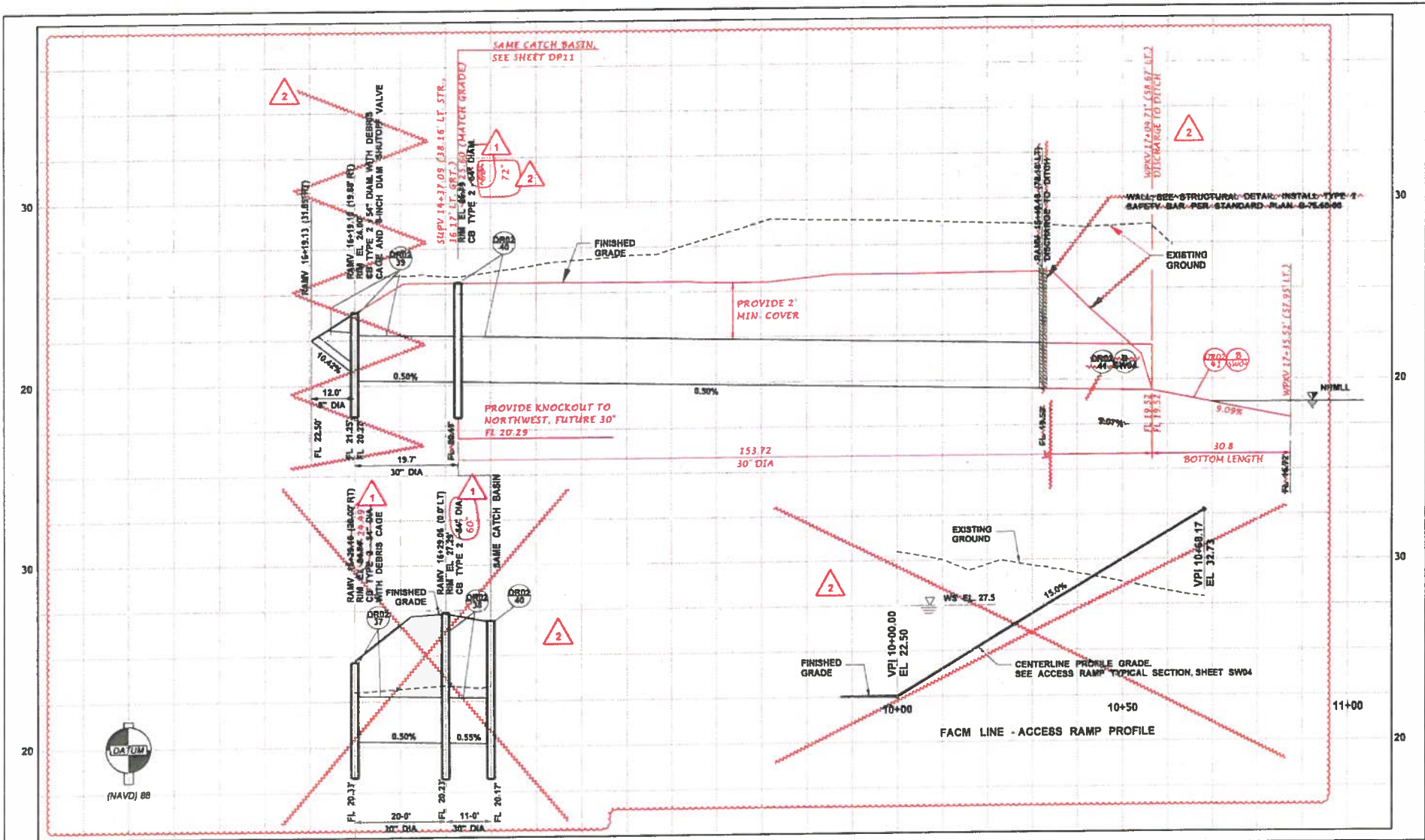
PARSONS BRINCKERHOFF Parametrix

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STORMWATER FACILITIES

PLAN SHEET
SW02

SHEET
 252
 OF
 1797
 SHEETS



FILE NAME	PW:\Program\Design-Bid-Build\Contract 809625 WABN02.0 Contract Documents\2.05 Contract Plans\2.05.02 As-Built\As-Built DGN's\W0203_C8625_PS_SW_03_R1.dgn			REGION NO.	10	STATE	WASH	FED.AID PROJ.NO.	
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PLOTTED BY	sanchez			ENTERED BY	J. BEAN	REGIONAL ADM.	J. MEREDITH	REVISION	
DESIGNED BY	J. COOP			12/15	JLC	CO#01 - DELETE FACILITY M			
ENTERED BY	J. BEAN			2/17/15	JC	CO#18 - CATCH BASIN REV			
CHECKED BY	J. COOP			DATE	BY				



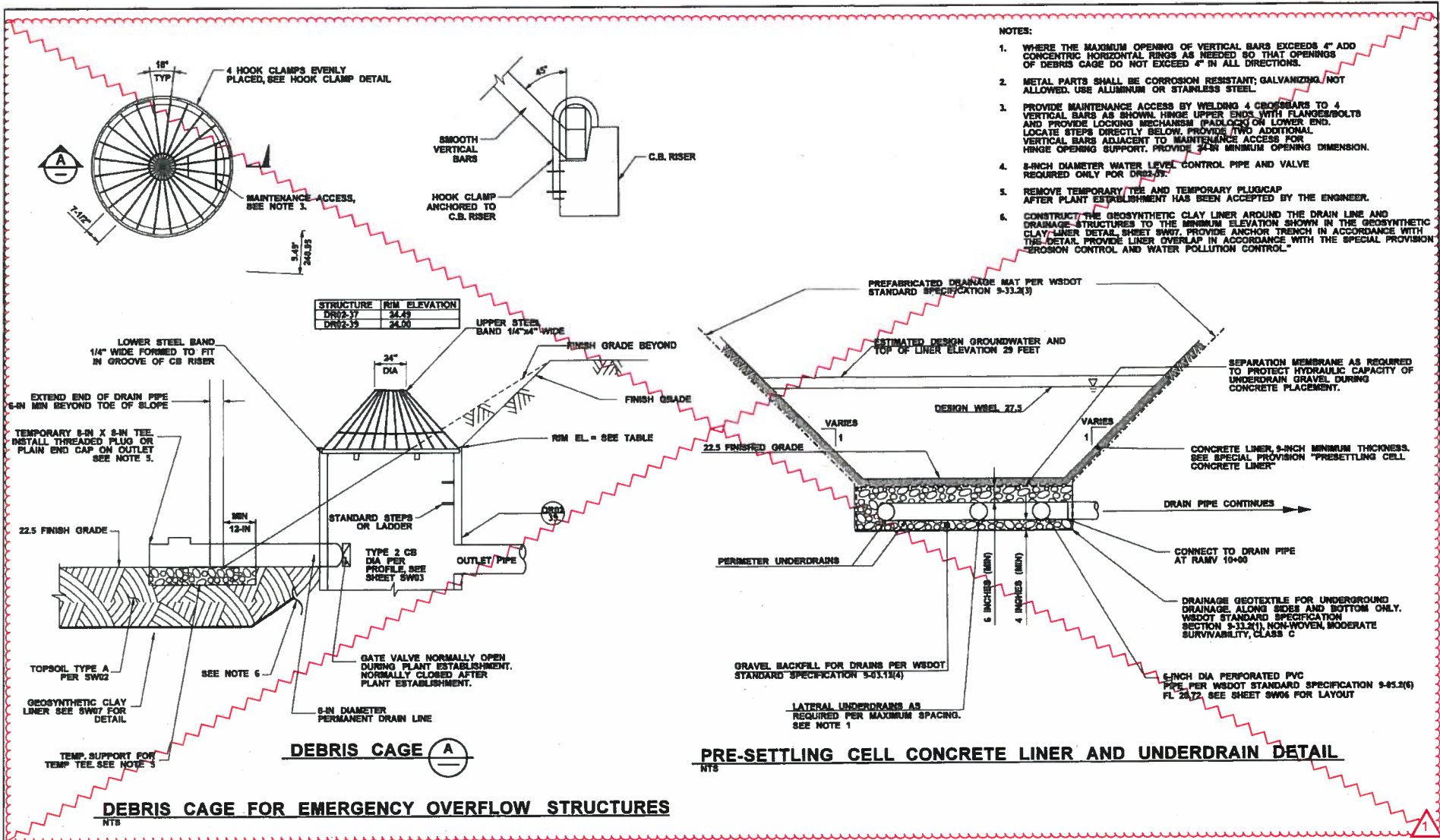
Contract 8625
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Page 44 of 72

PARSONS BRINCKERHOFF Parametrix

STORMWATER FACILITIES

PLAN REF. NO.
SW03

SHEET
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OF
1797
SHEETS



DEBRIS CAGE FOR EMERGENCY OVERFLOW STRUCTURES

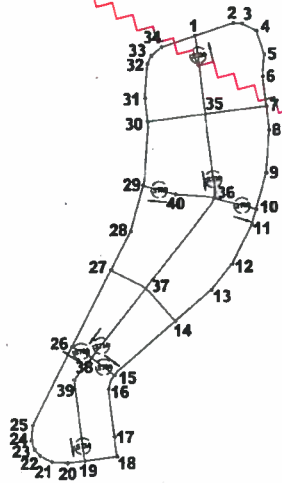
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DATE	4/4/2014	DATE BY	12/2/15	J.C.			
PLOTTED BY	deguzma	REVISION	CO#91 - DELETE FACILITY M				
DESIGNED BY	J. COOP						
ENTERED BY	J. BEAN						
CHECKED BY	J. COOP						
PROJ. ENGR.	D. EDWARDS						
REGIONAL ADM.	J. MEREDITH						

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Change Order 81
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STORMWATER FACILITIES

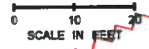
PLAN REF. NO. SW05

SHEET 265 OF 1797



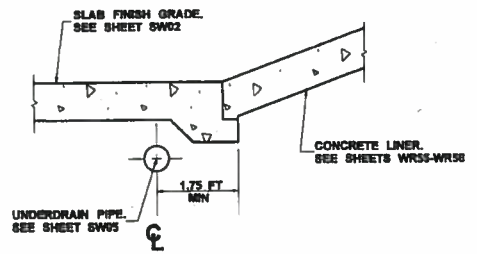
PRESETTLING CELL UNDERDRAIN LAYOUT

CLEANOUT DIRECTION



POINT	NORTHING	EASTING	CROSS	TEE	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	CLEANOUT	NOTE
1	567,046.572	1,606,762.776		1				1	1	1
2	567,048.688	1,606,769.164					1			3
3	567,048.579	1,606,770.645					1			3
4	567,047.366	1,606,773.060				1				3
5	567,043.901	1,606,774.340					1			3
6	567,039.879	1,606,774.076						1		3
7	567,034.916	1,606,774.691		1						1
8	567,030.956	1,606,773.178						1		3
9	567,023.866	1,606,774.657						1		3
10	567,017.780	1,606,772.977		1					1	1
11	567,015.328	1,606,772.301						1		3
12	567,008.696	1,606,768.968						1		3
13	567,004.315	1,606,765.955						1		3
14	566,999.095	1,606,759.479		1						1
15	566,990.085	1,606,749.340		1				1	1	1
16	566,987.734	1,606,748.328						1		3
17	566,979.768	1,606,749.316		1						1
18	566,976.526	1,606,749.718			1					2
19	566,975.859	1,606,744.350		1						1
20	566,975.515	1,606,741.576						1		3
21	566,975.704	1,606,738.991					1	1		3
22	566,976.722	1,606,736.966					1	1		4
23	566,977.749	1,606,736.978					1	1		4
24	566,979.287	1,606,735.969					1	1		4
25	566,981.812	1,606,735.753					1	1		3
26	566,994.836	1,606,742.308		1					1	1
27	567,007.660	1,606,748.741		1						1
28	567,014.179	1,606,752.017						1		3
29	567,021.867	1,606,754.138		1				1	1	1
30	567,032.462	1,606,754.912						1		1
31	567,036.270	1,606,754.440						1		3
32	567,041.973	1,606,754.856						1		3
33	567,043.241	1,606,755.494						1		3
34	567,044.732	1,606,752.220						1		3
35	567,033.657	1,606,744.542		1						1
36	567,019.734	1,606,745.934		1			2		1	1
37	567,004.588	1,606,754.535		1				2		1
38	566,995.036	1,606,754.553		1				1		1
39	566,989.345	1,606,742.677			1					3
40	567,028.371	1,606,759.558						1		3

- NOTES:
1. THE COORDINATES ARE AT THE INTERSECTION POINT OF THE PIPE CENTERLINE AT THE CROSS OR TEE. NO SEPARATE COORDINATES PROVIDED FOR BEND CONNECTED TO CROSSES OR TEES
 2. THE COORDINATES ARE AT THE PIPE CENTERLINE AT THE ANGLE POINT FOR 90° BENDS. NO SEPARATE COORDINATES PROVIDED FOR BENDS CONNECTED TO 90° BENDS.
 3. THE COORDINATES ARE AT THE PIPE CENTERLINE AT THE ANGLE POINT FOR BENDS LOCATED SEPARATELY FROM CROSSES, TEES, OR 90° BENDS.
 4. THE COORDINATES ARE AT THE PIPE CENTERLINE AT THE ANGLE POINT FOR THE BEND WITH THE LARGEST ANGLE WHERE MULTIPLE BENDS CONNECT.



PRESETTLING CELL UNDERDRAIN LOCATION

NTS

- NOTES:
1. GENERAL LOCATION. SEE TABLE FOR FITTING COORDINATES.

FILE NAME	P:\W\CADD\Proj\W\wstokr\CADD\PSAEB\wstokr\SW\WASH\PE21344 WASH PS SW 04.dgn
TIME	3:18:29 PM
DATE	4/4/2014
PLOTTED BY	dequstra
DESIGNED BY	J. COOP
ENTERED BY	D. NGUYEN
CHECKED BY	J. COOP
PROJ. ENGR.	D. EDWARDS
REGIONAL ADM.	J. MEREDITH

REVISION	DATE	BY
10 WASH		
13A012		JLC
CONTRACT NO.		
LOCATION NO.		



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Page 47 of 72

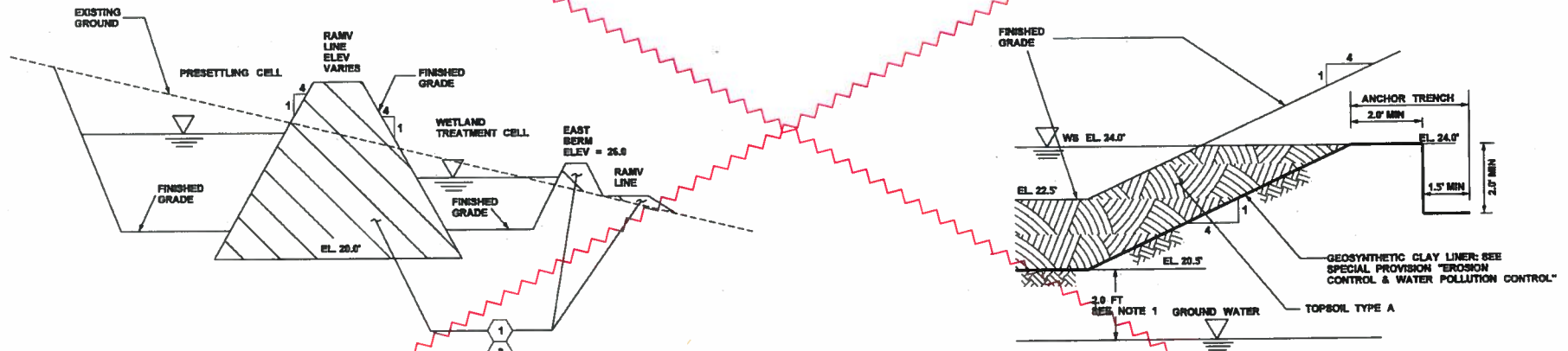
PARSONS BRINCKERHOFF Parametrix

PLAT NO. SW06
SHEET 266
1797
DATE

STORMWATER FACILITIES

- NOTES:
1. BOTTOM OF ROADWAY EXCAVATION INCL. HAUL BELOW PRESETTLINGS CELL SHALL BE TO THE ELEVATIONS REQUIRED TO CONSTRUCT THE CONCRETE LINER, DRAINAGE MAT AND UNDERDRAIN SYSTEM
 2. BOTTOM OF ROADWAY EXCAVATION INCL. HAUL BELOW THE WETLAND TREATMENT CELL SHALL BE AS REQUIRED TO CONSTRUCT THE GEOSYNTHETIC CLAY LINER AND TOPSOIL LAYER.
 3. COMMON BORROW TO BE IN ACCORDANCE WITH THE SPECIAL PROVISION "COMMON BORROW" INCL. HAUL FOR STORMWATER FACILITIES" FROM RAMV STA 13+27 TO RAMV STA 15+85 FOR EAST BERM AND FROM RAMV STA 18+55 TO RAMV STA 19+85 FOR RAMV LINE.

- 1 COMMON BORROW INCL. HAUL
SEE NOTE 3.
- 2 EMBANKMENT COMPACTION
SEE NOTE 1.



FILL AND COMPACTION

NTS

GEOSYNTHETIC CLAY LINER

NTS

- NOTES:
1. PROVIDE TEMPORARY DEWATERING AS REQUIRED TO MAINTAIN 2 FT MINIMUM SEPARATION BETWEEN GEOSYNTHETIC CLAY LINER AND GROUND WATER DURING INSTALLATIONS SEE SPECIAL PROVISION "TEMPORARY CONSTRUCTION DEWATERING".

**STORMWATER FACILITY EARTHWORK
QUANTITY SCHEMATIC FOR POND RAMV LINE**

FILE NAME	P:\CADD\Proj\Wash\86\CADD\PS&ES\2015\WY\WASH\PEX344_WASH_PS_SW_07.dgn	REGION	10	STATE	WASH	FED.AID PROJ.NO.				Contract 8625 Change Order 81 Page 48 of 72	PLAN REF. NO. SW07
TIME	2:16:14 PM	JOB NUMBER	13A012	CONTRACT NO.		LOCATION NO.					
DATE	4/4/2014	DESIGNED BY	J. COOP	CHECKED BY	J. COOP	PROJ. ENGR.	D. EDWARDS	REGIONAL ADM.	J. MEREDITH	REVISION	CO#81 - DELETE FACILITY M
PLOTTED BY	degeerna	DATE	12/8/15	BY	JLC						

SUMMARY OF BRIDGE DRAINAGE SYSTEM QUANTITIES

ITEM	GROUP 1 UP TO MILEPOST 1.63 / ML STA 93+01.51		GROUP 2 BEYOND MILEPOST 1.63 / ML STA 93+01.51		TOTAL (GROUP 1 + GROUP 2)	
	MEASUREMENT	AMOUNT	MEASUREMENT	AMOUNT	MEASUREMENT	AMOUNT
CLASS 53 DUCTILE IRON STORM SEWER PIPE 8-IN. DIAM.	LF	54	LF	84	LF	138
CLASS 53 DUCTILE IRON STORM SEWER PIPE 10-IN. DIAM.	LF	630	LF	923	LF	1,553
CLASS 53 DUCTILE IRON STORM SEWER PIPE 12-IN. DIAM.	LF	3,292	LF	2,286	LF	5,578
GROOVED END COUPLING 8-IN. DIAM.	EA	53	EA	97	EA	156
GROOVED END COUPLING 10-IN. DIAM.	EA	232	EA	133	EA	370
GROOVED END COUPLING 12-IN. DIAM.	EA	293	EA	211	EA	504
GROOVED END FLANGE ADAPTER 8-IN. DIAM.	EA	6	EA	21	EA	27
GROOVED END FLANGE ADAPTER 10-IN. DIAM.	EA	53	EA	20	EA	73
GROOVED END FLANGE ADAPTER 12-IN. DIAM.	EA	57	EA	33	EA	90
GROOVED END FLANGE ADAPTER 14-IN. DIAM.	EA	8	EA	6	EA	14
BEVELED FLANGE FILLER 8-IN. DIAM.	EA	1	EA	4	EA	5
BEVELED FLANGE FILLER 10-IN. DIAM.	EA	30	EA	9	EA	39
45 DEG. ELBOW 8-IN. DIAM.	EA	28	EA	30	EA	78
45 DEG. LATERAL 8-IN. DIAM.	EA	1	EA	1	EA	2
CAP 8-IN. DIAM.	EA	1	EA	1	EA	2
11-1/4 DEG. ELBOW 10-IN. DIAM.	EA	0	EA	1	EA	1
45 DEG. ELBOW 10-IN. DIAM.	EA	112	EA	37	EA	149
45 DEG. LATERAL 10-IN. DIAM.	EA	8	EA	12	EA	20
CAP 10-IN. DIAM.	EA	4	EA	5	EA	9
22-1/2 DEG. ELBOW 12-IN. DIAM.	EA	2	EA	0	EA	2
45 DEG. ELBOW 12-IN. DIAM.	EA	4	EA	7	EA	11
45 DEG. LATERAL 12-IN. DIAM.	EA	24	EA	18	EA	42
45 DEG. REDUCING LATERAL 10-IN. DIAM. X 8-IN. DIAM.	EA	0	EA	2	EA	2
45 DEG. REDUCING LATERAL 12-IN. DIAM. X 8-IN. DIAM.	EA	9	EA	14	EA	23
45 DEG. REDUCING LATERAL 12-IN. DIAM. X 10-IN. DIAM.	EA	3	EA	8	EA	11
CONCENTRIC REDUCER 12-IN. DIAM. X 10-IN. DIAM.	EA	1	EA	1	EA	2
ECCENTRIC REDUCER 14-IN. DIAM. X 10-IN. DIAM.	EA	2	EA	2	EA	4
ECCENTRIC REDUCER 14-IN. DIAM. X 12-IN. DIAM.	EA	6	EA	4	EA	10
CAP 12-IN. DIAM.	EA	24	EA	18	EA	42
DOUBLE-BALL FLEXIBLE EXPANSION JOINT 14-IN. DIAM.	EA	2	EA	3	EA	5
SINGLE-BALL FLEXIBLE EXPANSION JOINT 14-IN. DIAM.	EA	4	EA	0	EA	4
FLEXIBLE RESTRAINED JOINT 10-IN. DIAM.	EA	1	EA	0	EA	1
FLEXIBLE RESTRAINED JOINT 12-IN. DIAM.	EA	12	EA	1	EA	13
CLEANOUT	EA	2	EA	7	EA	9
FLAP GATE 8-IN. DIAM.	EA	7	EA	9	EA	16
FLAP GATE 10-IN. DIAM.	EA	0	EA	1	EA	1
NEENAH BRIDGE DRAIN R-3923	EA	34	EA	9	EA	43
NEENAH ADJUSTABLE BRIDGE DRAIN R-3923	EA	9	EA	7	EA	16
RECTANGULAR FRAME AND VANED GRATE	EA	7	EA	10	EA	17
MODULAR MECHANICAL PIPE SEAL	EA	2	EA	0	EA	2
CATCH BASIN	EA	7	EA	10	EA	17
HANGERS, BRACES, AND SUPPORTS	LS	1	LS	1	LS	2

NOTE: THE QUANTITIES LISTED ON THIS SHEET ARE FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE UTILIZED SOLELY AT THE CONTRACTOR'S DISCRETION. PROVIDE ALL QUANTITIES AS REQUIRED FOR A COMPLETE INSTALLATION.

BRIDGE DRAINAGE SYSTEM GENERAL NOTES:

- BRIDGE DRAINAGE PIPING SHALL BE DUCTILE IRON CL. 53 WITH CEMENT-MORTAR LINING IN CONFORMANCE WITH SPECIAL PROVISION "STORM SEWERS".
- PIPE FITTINGS SHALL CONSIST OF THE SAME MATERIAL AS THE PIPE. SEE THE SPECIAL PROVISION "STORM SEWERS" FOR ADDITIONAL INFORMATION.
- PIPE JOINTS SHALL BE RADIUS CUT FLEXIBLE GROOVED END, UNLESS OTHERWISE NOTED ON THESE PLANS. GAPS AT ALL FLEXIBLE GROOVED END CONNECTIONS SHALL BE SET AS SPECIFIED IN THE DETAIL ON SHEET DB107.
- ALL FITTINGS SHALL BE RADIUS CUT RIGID GROOVED END.
- CONNECTION OF PIPES AND FITTINGS SHALL BE WITH GROOVED END TYPE COUPLINGS, UNLESS OTHERWISE SHOWN ON THESE PLANS (BY CALLOUT OR SYMBOL).
- WHERE SHOWN ON THE PLANS (BY CALLOUT OR SYMBOL), FLANGE END CONNECTIONS ON FITTINGS SHALL BE GROOVED END WITH FLANGE ADAPTERS.
- WHERE SHOWN ON THE PLANS (BY CALLOUT OR SYMBOL), FLANGE END CONNECTIONS FOR PIPES SHALL BE SHOP-FABRICATED FLANGED JOINT PIPE, UNLESS OTHERWISE NOTED. SHOP-FABRICATED FLANGES SHALL NOT BE REMOVED OR REASSEMBLED IN THE FIELD.
- BOLT HOLES ON FLANGES SHALL BE ALIGNED IN CONFORMANCE WITH SPECIAL PROVISION "STORM SEWERS".
- FLEXIBLE RESTRAINED JOINTS SHALL BE PUSH-ON OR MECHANICAL AND SHALL INCLUDE A FACTORY-APPLIED WELDED-ON DUCTILE IRON RETAINER RING ON THE PIPE SPIGOT. ALL WELDING SHALL BE PERFORMED AT THE PLACE OF PIPE MANUFACTURING. THE JOINT SHALL HAVE A 5 DEGREE MINIMUM DEFLECTION CAPABILITY. SEE SPECIAL PROVISION "STORM SEWERS" FOR ADDITIONAL INFORMATION.
- PIPE, FITTINGS, AND COUPLINGS SHALL BE DELIVERED TO THE JOB SITE WITH EXTERIOR COATING IN ACCORDANCE WITH THE SPECIAL PROVISION "STORM SEWERS".
- SCUPPER BLOCKS ARE REQUIRED IN THE BARRIERS, SEE BA SHEETS FOR DETAILS. THESE BLOCKS CAN BE REMOVED TO PROVIDE SCUPPER OPENINGS IN THE BARRIER DURING THE FUTURE TEMPORARY TWO-WAY TRAFFIC CONFIGURATION WHEN WABS IS UNDER CONSTRUCTION. THE SCUPPERS WILL ACCOMMODATE DRAINAGE WHEN SHOULDERS ARE TEMPORARILY REDUCED DURING THIS FUTURE CONSTRUCTION STAGE. THE SCUPPERS CAN BE PERMANENTLY PLUGGED ONCE WABS IS CONSTRUCTED AND THE ORIGINAL WABS CHANNELIZATION IS RESTORED.
- TO ACCOMMODATE FUTURE LIGHT RAIL EXTENSION OF THE BRIDGE DRAINAGE SYSTEM MAY BE NECESSARY. KNOCKOUTS ARE PROVIDED IN GIRDERS AT POTENTIAL CROSSING LOCATIONS. THESE GIRDERS INCLUDE 9L, 10K, 10L, 11K, 11L, 14J, 14K, 15H, 15J, 16H, 16J, 29F, 29G, 30F, 30G, 31F, 31G, 32F, 32G, 33F, 33G, 34F, 34G, 35B, 36B, 37B, 38B, AND 39B (SEE BA SHEETS FOR GIRDER KNOCKOUT INFORMATION).
- THE BRIDGE DRAINAGE SYSTEM ALIGNMENT MAY REQUIRE FIELD ADJUSTMENT TO ACCOMMODATE CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL POSITION THE TRUNK MAIN WITHIN THE BLOCKOUTS TO PROVIDE 1.5" MINIMUM CLEARANCE AT EXPANSION DIAPHRAGMS AND 1" MINIMUM CLEARANCE AT ALL OTHER BLOCKOUT LOCATIONS. MAINTAIN THE EXPANSION AND CONTRACTION MOVEMENT, AND PROVIDE POSITIVE DRAINAGE FLOW (0.30% MINIMUM SLOPE FOR 12" DIAMETER, 0.39% MINIMUM SLOPE FOR 10" DIAMETER, AND 0.51% MINIMUM SLOPE FOR 8" DIAMETER).
- THE CONTRACTOR SHALL SUBMIT DETAILED WORKING DRAWINGS. ANY PROPOSED ALTERATIONS TO THE DESIGN SHALL BE SHOWN ON THE WORKING DRAWINGS.
- THERE SHALL BE NO PIPE JOINTS WITHIN DIAPHRAGMS OR BETWEEN DIAPHRAGMS AND THE ADJACENT HANGER OR SUPPORT.

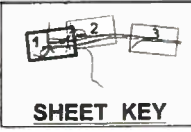
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SCUPPERS SELECT

GENERAL NOTES AND QUANTITIES

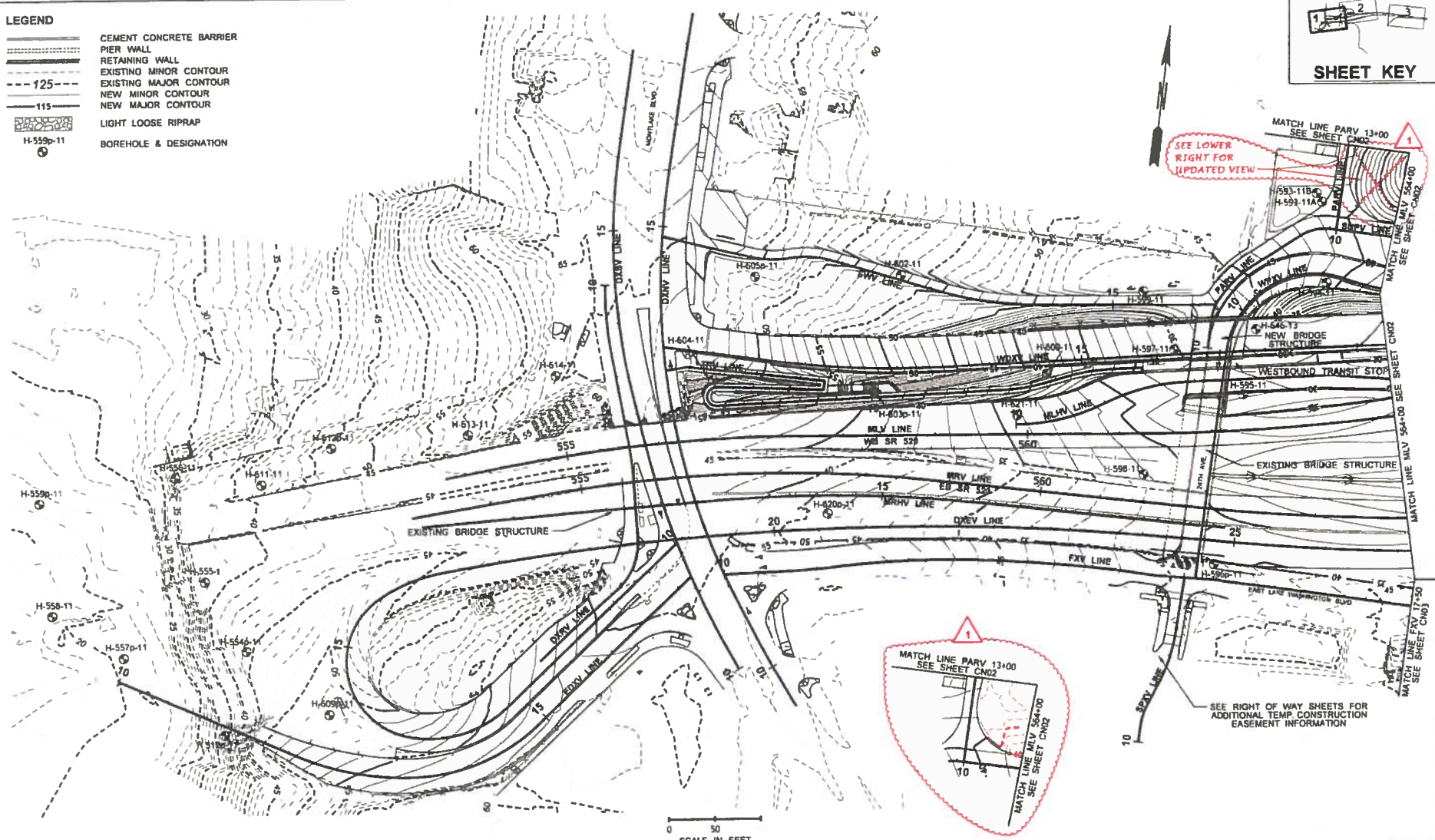
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CO#81 - DELETE FACILITY M REVISION DATE BY JLC											PARSONS BRINCKERHOFF	Parametrix	BRIDGE DRAINAGE DETAILS		

LEGEND

- CEMENT CONCRETE BARRIER
- PIER WALL
- RETAINING WALL
- - - - - EXISTING MINOR CONTOUR
- - - - - EXISTING MAJOR CONTOUR
- - - - - NEW MINOR CONTOUR
- - - - - NEW MAJOR CONTOUR
- LIGHT LOOSE RIPRAP
- H-559p-11 BOREHOLE & DESIGNATION



SHEET KEY



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DATE	3/10/2016		
PLOTTED BY	SancheA		
DESIGNED BY	C. LEE		
ENTERED BY	C. LEE		
CHECKED BY	P. MERRELL		
PROJ. ENGR.	D. EDWARDS		
REGIONAL ADM.	J. MEREDITH		
REVISION	DATE BY		
	12/23/2015 CL		
	10 WASH		
	JOB NUMBER 13A012		
	CONTRACT NO.		
	LOCATION NO.		

FED.AID PROJ.NO.



Washington State
Department of Transportation

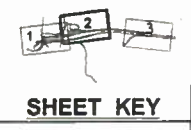
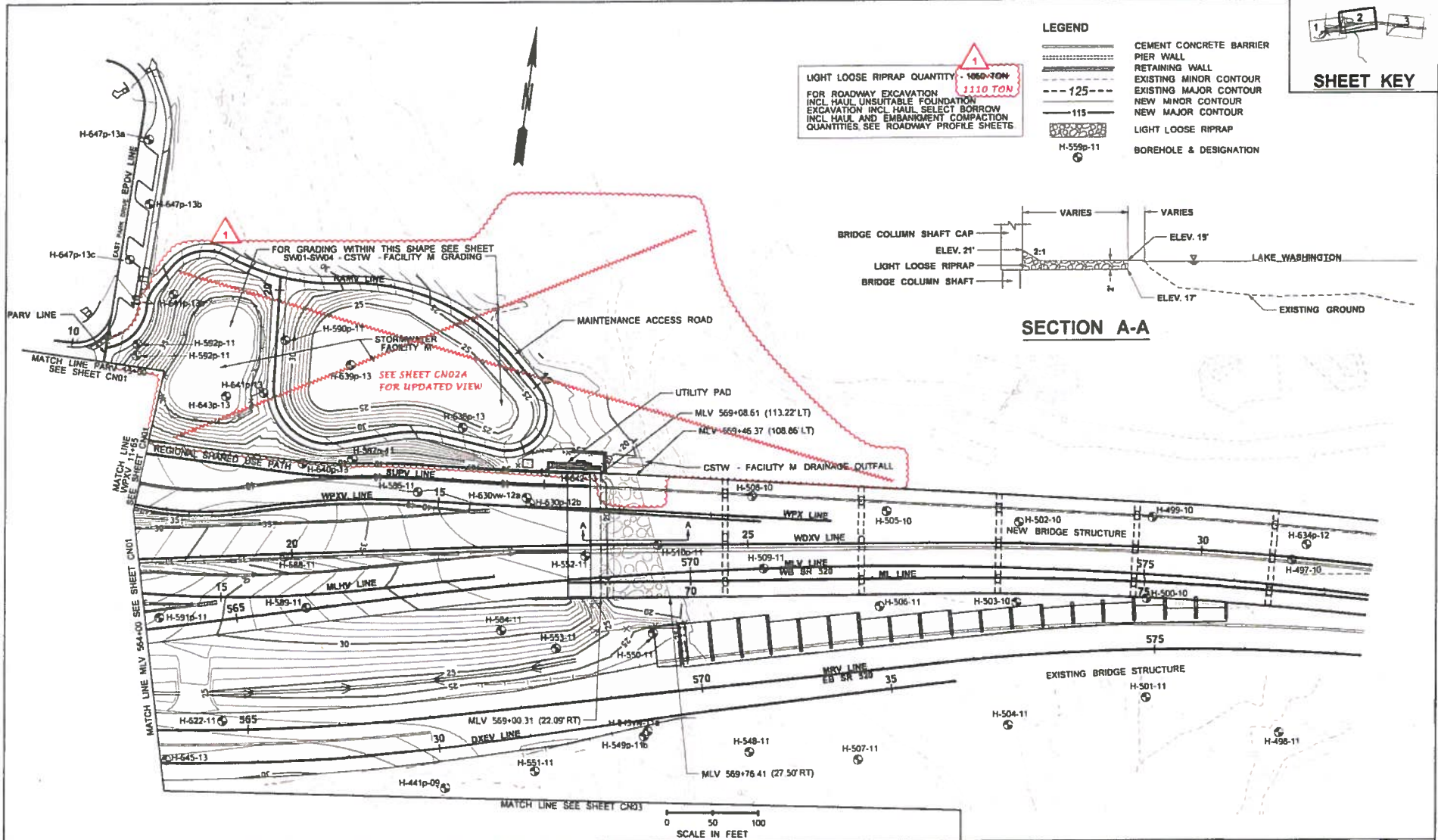


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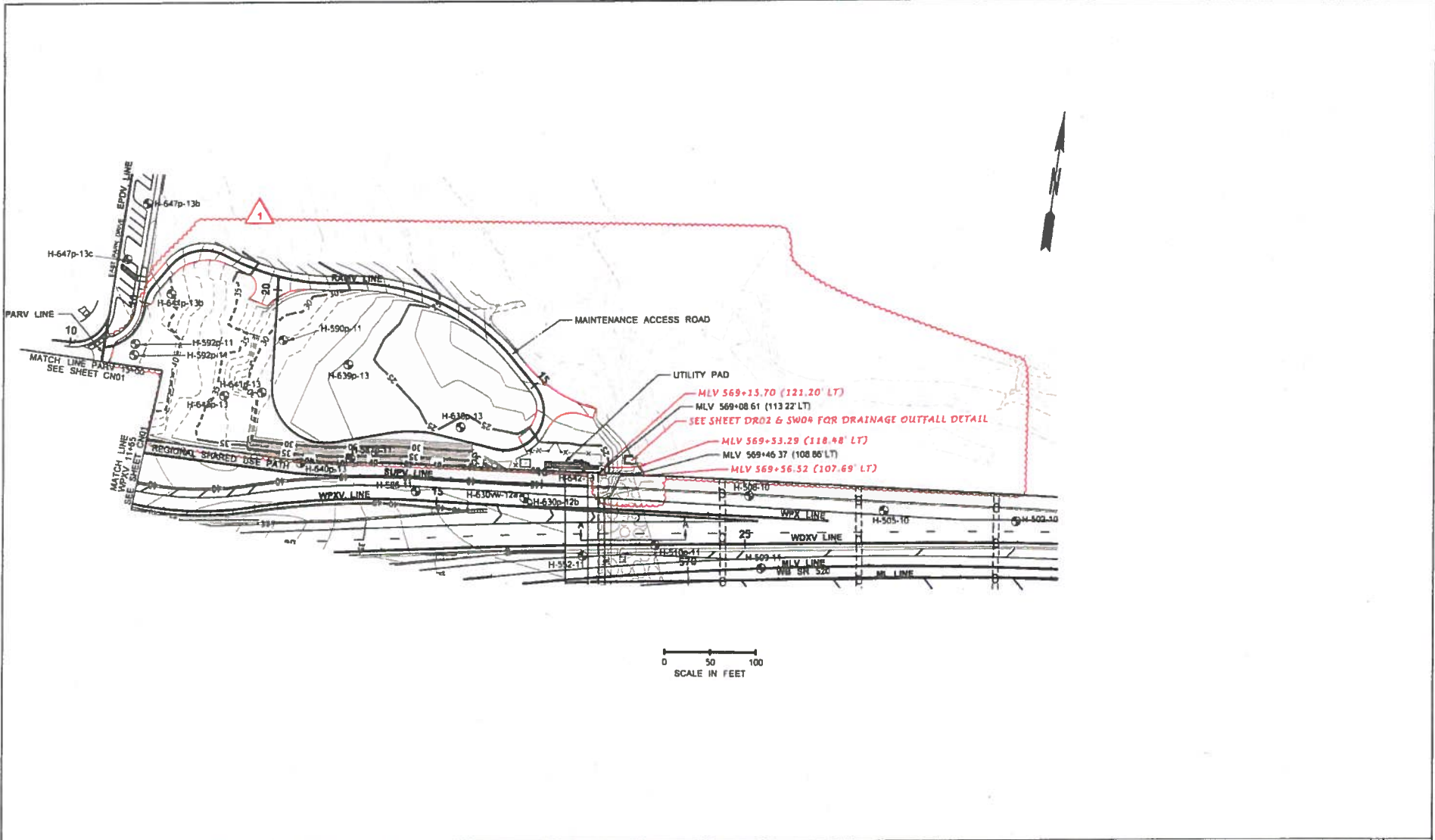
PLAN REF. NO.
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SHEET
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SHEETS

INTERCHANGE GRADING PLAN



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TIME 1:58:34 PM	DATE 3/18/2016	DESIGNED BY SANCHEA	ENTERED BY C. LEE	10 WASH JOB NUMBER 13A012	LOCATION NO.				
CHECKED BY P. MERNELL	PROJ. ENGR. D. EDWARDS	REGIONAL ADM. J. MEREDITH	CA#81 - DELETE FACILITY M REVISION	12/23/2015 DATE	CL BY	INTERCHANGE GRADING PLAN			



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CO#81 - DELETE FACILITY M REVISION				12/23/2015 CL								

QUANTITY TABULATION - PAVING

NOTE: THE FIRST NUMBER OF THE "CODE" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE CONSTRUCTION FEATURE. THE SECOND NUMBER REFERS TO THE CONSTRUCTION FEATURE FOUND ON THAT SHEET.			CEMENT CONC. SIDEWALK	CONCRETE CAP	CEMENT CONC. DRIVEWAY ENTRANCE TYPE 3	CEMENT CONC. CURB RAMP TYPE PERPENDICULAR A	CEMENT CONC. CURB RAMP TYPE PERPENDICULAR B	CEMENT CONC. CURB RAMP TYPE SINGLE DIRECTION A	CEMENT CONC. CURB RAMP TYPE PARALLEL B	DETECTABLE WARNING S.F. SURFACE	COATED CHAIN LINK FENCE TYPE 3	COATED END, GATE, CORNER, PULLPOST FOR CHAIN LINK FENCE	DOUBLE 14 FT. COATED CHAIN LINK GATE	SEE GENERAL NOTES	GENERAL NOTES:
CODE	LOCATION	UNIT OF MEASURE	S.Y.	S.F.	S.Y.	EACH	EACH	EACH	EACH	S.F.	L.F.	EACH	EACH		
PV13-2	TRV 11+77.94 (4' RT) TO TRV 13+19.38 (4' RT)													2	26. SEE SPECIAL PROVISION FOR TEXTURED CEMENT CONCRETE PAVEMENT DETAIL. 27. SEE STD PLAN A-40.10-02 FOR CEMENT CONCRETE PAYMENT JOINTS DETAIL.
PV13-3	TRV 12+79.50 (4' LT) TO TRV 15+09.63 (4' LT)													2	
PV13-4	MLHV 11+47.80 (16.19' LT) TO MLHV 13+35.05 (12.00' LT)		200							380				2,14,15	
PV13-5	TRV 14+50.75 (6.05' LT) TO TRV 14+81.20 (6.51' LT)		9											15	
PV13-6	TRV 15+09.63 (4' LT) TO MRV 15+29.42 (4' LT)		17											15	
PV14-1	PARV 10+42.65 (5.62' RT) TO PARV 10+73.00 (0' RT)													4	
PV14-2	PARV 10+83+16 (38.21' LT) TO PARV 11+17.94 (28.84' LT)													2	
PV14-3	PARV 12+85.93 (9' LT) TO PARV 13+11.38 (14.08' LT)		18											15	
PV14-4	RAMV 18+86.04 (25.04' LT) TO RAMV 18+96.34 (23.84' LT)									0	0	0		3	
PV14-5	RAMV 18+86.04 (25.04' LT) TO RAMV 18+96.34 (23.84' LT)										0	0	0	18	
PV15-1	EPDV 10+13.29 (5' RT) TO EPDV 10+43.38 (5' RT)			20						49				2,13,14,16	
PV15-2	EPDV 10+19.71 (20.86' LT) TO EPDV 10+71.01 (14.43' LT)					1								2,16,17	
PV15-3	EPDV 10+43.38 (5.50' RT) TO EPDV 10+88.95 (22.7' RT)													2	
PV15-4	EPDV 10+88.95 (22.7' RT) TO EPDV 11+03.95 (22.7' RT)									10				14	
PV15-5	EPDV 11+03.95 (22.7' RT) TO EPDV 13+20.02 (12.50' RT)													2	
PV15-6	EPDV 10+12.48 (6.05' LT) TO EPDV 13+27.28 (27.29' RT)		190											15	
PV15-7	EPDV 13+20.02 (12.5' RT) TO EPDV 13+32.28 (12.5' RT)						1							2,16,17	
PV15-8	EPDV 13+14.18 (12.57' LT) TO 13+28.80 (12.49' LT)						1							2,16,17	
PV15-9	EPDV 10+35.35 (7.49' LT) TO EPDV 10+62.50 (28.39' LT)		4											15	
PV15-10	RAMV 9+36.33 (11.06' LT) TO EPDV 11+13.74 (22.70' RT)													2	
PV15-11	EPDV 9+94.44 (5' RT) TO EPDV 10+13.30 (5.5' RT)													2	
PV15-12	EPDV 10+24.18 (9.50' RT)													21	
PV15-13	EPDV 10+29.04 (9.50' RT)													21	
PV15-14	EPDV 10+33.90 (9.50' RT)													21	
PV15-15	EPDV 13+09.14 (28.25' LT) TO EPDV 13+25.85 (30.69' LT)		7											15	
PV15	EPDV 9+94.44 (18.87' LT) TO EPDV 13+32.29 (12.75' LT)														
PV16-1	DXSV 10+83.48 (21.5' LT)									30				5,14,22	
PV16-2	DXNV 10+82.50 (18.9' RT)									30				5,14,22	
PV17-1	DXRV 12+63.17 (13.77' RT) TO DXRV 12+77.09 (17.07' RT)					1				8				6,14,17	
PV17-2	DXRV 12+67.09 (1' LT) TO DXRV 12+80.99 (1' LT)					1				8				6,14,17	
PV17-3	DXSV 11+47.22 (35.27' LT) TO DXSV 11+55.07 (23.73' LT)					1				8				6,14,17	
PV17-4	DXNV 11+97.21 (11.11' LT) TO DXNV 13+97.48 (12.88' LT)													11	
PV17-5	DXNV 12+97.48 (12.88' LT) TO DXNV 13+20.29 (12.88' LT)													5	
PV17-6	DXSV 12+91.02 (22.00' RT) TO DXSV 13+14.37 (22.00' RT)													5	
SHEET TOTAL			445		20	3	3			523	0	0	0		
PROJECT TOTAL			1391	1434	20	10	5	2	1	610	1546	25	1		

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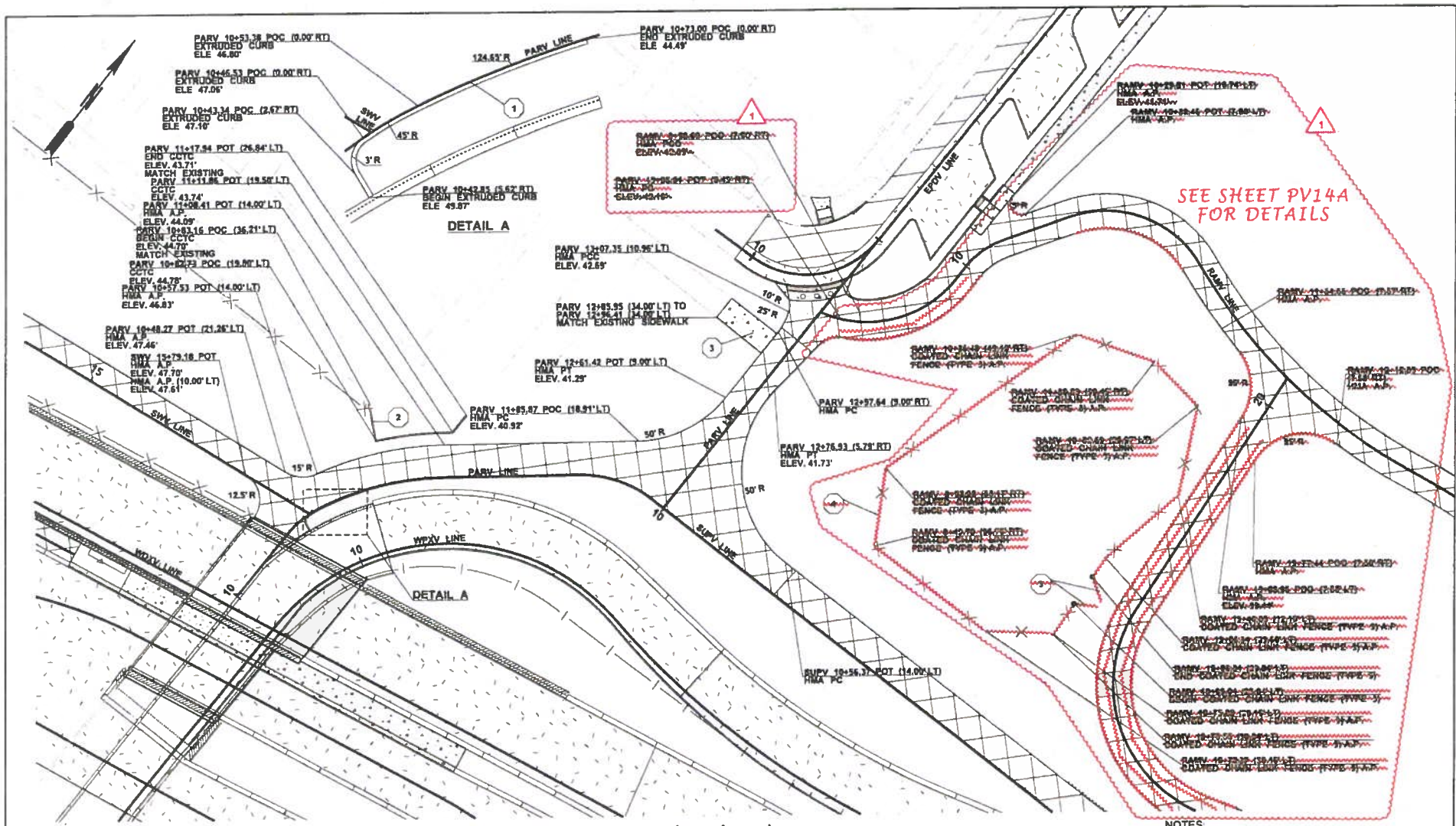


PVQ 15
SHEET 458 OF 1797 SHEETS

QUANTITY TABULATION - PAVING

DESIGNED BY	C. LEE		
ENTERED BY	C. LEE		
CHECKED BY	P. MERRELL		
PROJ. ENGR.	D. EDWARDS	12/21/15	CO#81 - DELETE FACILITY M
REGION ADM.	J. MEREDITH	06/09/14	AD4 - QUANTITY CHANGE
	DATE	DATE	REVISION

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
13A012		
CONTRACT NO.		



SEE SHEET PV14A
FOR DETAILS

NOTES
1 SEE SHEET PV00 FOR LEGEND AND GENERAL NOTES.

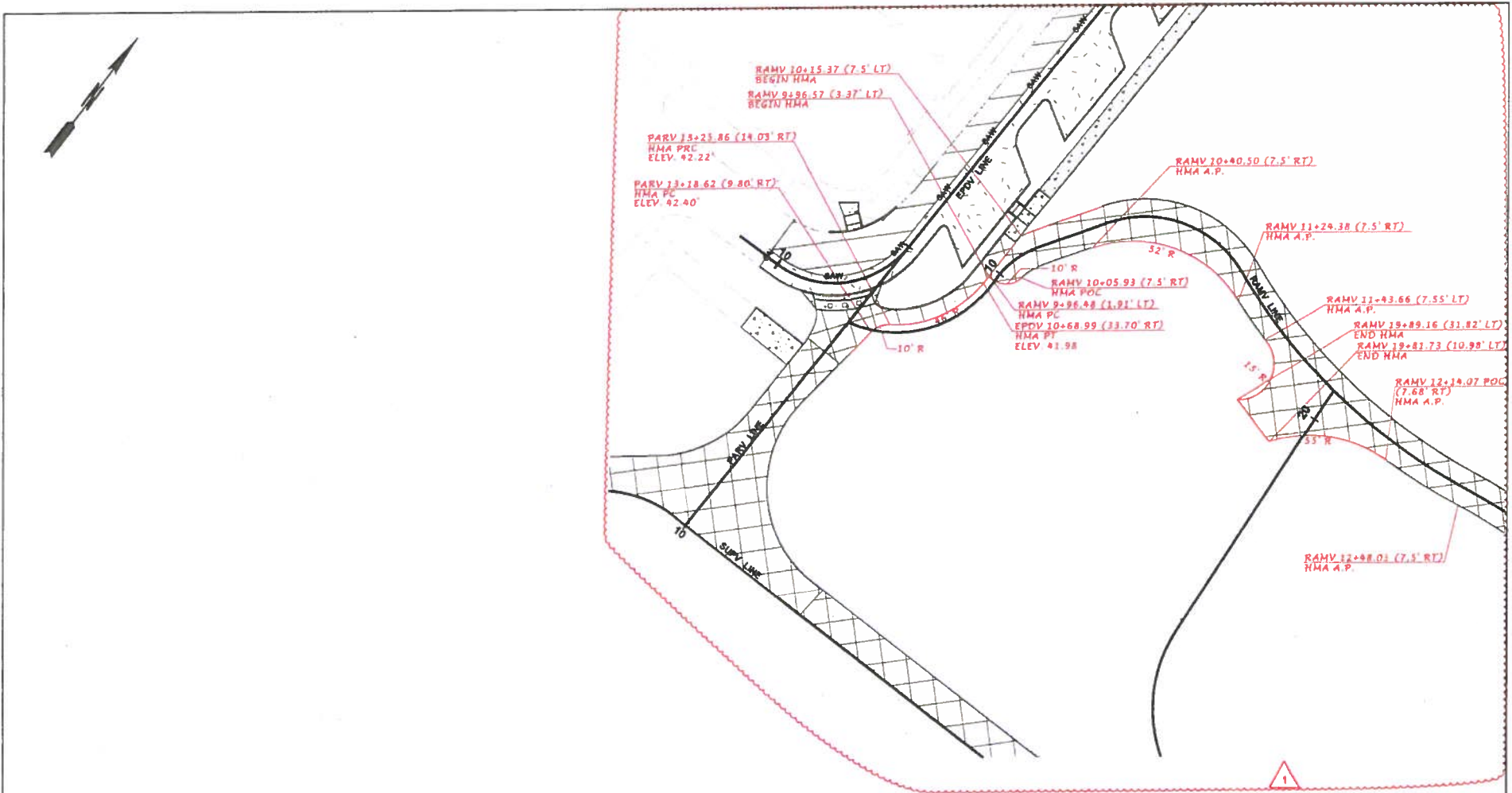
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TIME	8:42:17 AM		
DATE	3/11/2016		
PLOTTED BY	sanchez		
DESIGNED BY	K. PRIHAR		
ENTERED BY	S. SHARPE		
CHECKED BY	P. MERRELL		
PROJ. ENGR.	D. EDWARDS		
REGIONAL ADM.	J. MEREDITH		
	REGION NO.	STATE	FED.AID PROJ.NO.
	10	WASH	
	JOB NUMBER		
	13A012		
	CONTRACT NO.	LOCATION NO.	



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Change Order 81
Page 56 of 72
PAVING DETAILS

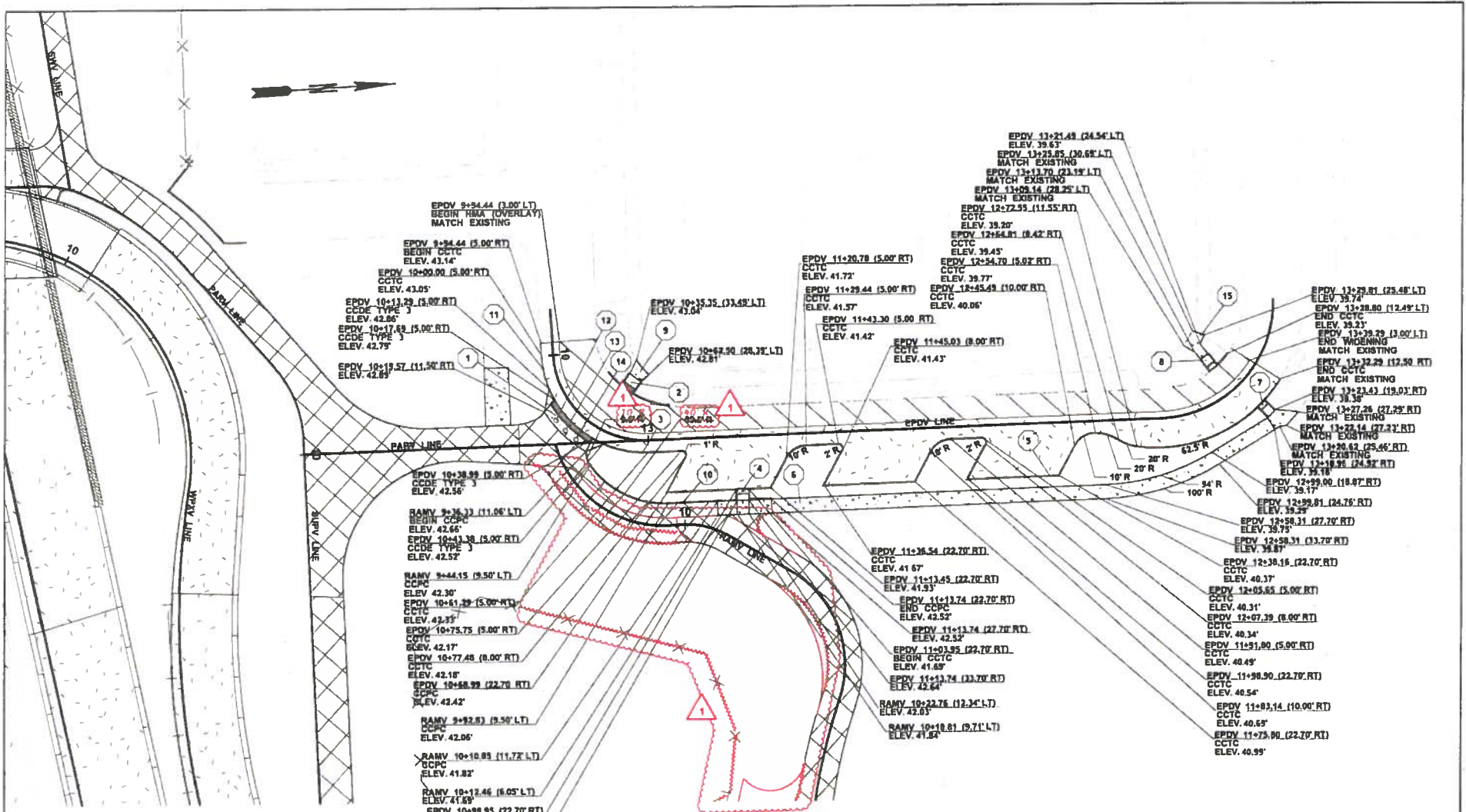
PLAN SET NO.
PV14
SHEET
474
OF
1797
SHEETS

CO#81 - DELETE FACILITY M
REVISION
12/02/15
DATE
PW
BY



NOTES:
1. SEE SHEET PVOO FOR LEGEND AND GENERAL NOTES

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PLOTTED BY	SancheA			CONTRACT NO.						474a	
DESIGNED BY	K. PRITHAR			LOCATION NO.						OF	
ENTERED BY	S. SHARPE									1797	
CHECKED BY	P. MERRELL									SHEETS	
PROJ. ENGR.	D. EDWARDS										
REGIONAL ADM.	J. MEREDITH										
	CO#81 - DELETE FACILITY M REVISION			DATE	BY					PAVING DETAILS	



NOTES
 1. SEE SHEET PV00 FOR LEGEND AND GENERAL NOTES

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ENTERED BY	S. SHARPE	LOCATION NO.	
CHECKED BY	P. MERRELL	DATE	1/12/2015
PROJ. ENGR.	D. EDWARDS	BY	PW
REGIONAL ADM.	J. MEREDITH	REVISION	



Contract 8625 Change Order 81 Page 58 of 72	PLAN REF NO PV15
PAVING DETAILS	SHEET 475 OF 1797 PAGES

SR 520
MONTLAKE TO EVERGREEN PT. BRIDGE
WEST APPROACH BRIDGE NORTH

MONTLAKE VICINITY RETAINING WALLS,
TRAFFIC ISLAND AND WALL MODIFICATIONS

BRIDGE SHEET NO.	SHEET TITLE
IWR01	RETAINING WALL SHEET INDEX
WR00	WALL KEY PLAN
WR01	WALL 1 LAYOUT
WR02	WALL 1 SCHEDULE
WR03	WALL 2 LAYOUT
WR04	WALL 3 LAYOUT
WR05	WALL 4 LAYOUT
WR06	WALL 5 LAYOUT
WR07	WALL 6 LAYOUT
WR08	WALL 7 LAYOUT
WR09	WALL 8 LAYOUT
WR10	WALL 9 LAYOUT 1
WR11	WALL 10 LAYOUT
WR12	SOLDIER PILE/TIEBACK WALL DETAILS 1 OF 2
WR13	SOLDIER PILE/TIEBACK WALL DETAILS 2 OF 2
WR14	SOLDIER PILE/TIEBACK WALL FASCIA PANEL DETAILS
WR15	SOLDIER PILE/TIEBACK WALL PERMANENT GROUND ANCHOR DETAILS
WR16	WALL 2 SECTION
WR17	WALL 3 SECTION
WR18	WALL 4 SECTION
WR19	WALL 5 SECTION
WR20	WALL 6 SECTION
WR21	WALL 7 SECTION
WR22	WALL 8 SECTION
WR23	WALL 9 SECTION 1
WR24	WALL 10 SECTION
WR25	CIP CONCRETE WALL SCHEDULE 1
WR26	CIP CONCRETE WALL SCHEDULE 2
WR27	STAIR DETAILS 1 OF 2
WR28	STAIR DETAILS 2 OF 2

BRIDGE SHEET NO.	SHEET TITLE
WR29	RETAINING BARRIERS A & B
WR30	RETAINING BARRIER C
WR31	RETAINING BARRIER D
WR32	LT. WA. BLVD. WALL MODIFICATION LAYOUT
WR33	LT. WA. BLVD. WALL MODIFICATION DETAILS 1 OF 2
WR34	LT. WA. BLVD. WALL MODIFICATION DETAILS 2 OF 2
WR35	MONTLAKE VICINITY KEY PLAN
WR36	TRAFFIC ISLAND PLAN
WR37	TRAFFIC ISLAND DETAILS 1 OF 3
WR38	TRAFFIC ISLAND DETAILS 2 OF 3
WR39	TRAFFIC ISLAND DETAILS 3 OF 3
WR40	RAILING VICINITY KEY PLAN
WR41	BRIDGE RAILING MOMENT SLAB ON GRADE
WR42	BRIDGE RAILING MOMENT SLAB ON WALL
WR43	SR. RAILING TYPE VERTICAL BAR PED. DETAILS 1 OF 2
WR44	SR. RAILING TYPE VERTICAL BAR PED. DETAILS 2 OF 2
WR45	SR. RAILING TYPE MOMENT SLAB PED. DETAILS
WR46	CABLE FENCE
WR47	TRAFFIC BARRIER DETAILS 1 OF 2
WR48	TRAFFIC BARRIER DETAILS 2 OF 2
WR49	LUMINAIRE ANCHORAGE DETAILS
WR50	LUMINAIRE BASE DETAILS
WR51	PEDESTRIAN PLATFORM DETAILS
WR52	POLE FOUNDATION DETAILS 1 OF 2
WR53	POLE FOUNDATION DETAILS 2 OF 2
WR54	GROUND IMPROVEMENT PLAN
WR55	RETAINING WALL DETAILS 1 OF 2
WR56	RETAINING WALL DETAILS 2 OF 2
WR57	RETAINING WALL DETAILS 3 OF 2 1
WR58	RETAINING WALL DETAILS 4 OF 2
WR59	RAILING CURB RAMP DETAILS
WR60	GUARDRAIL ATTACHMENT DETAILS

SR 520 FILE NO. 7151 SHEET IWR01
 ProjectWise Vault: V03

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Supervisor	JELLYN, A.	
Designed By	AKESSON, B.	
Checked By	JELLYN, A.	
Detailed By	JELLYN, A.	
Bridge Project Engr.		
Proj. Plan By		
Architect/Specialist		
DATE	12/11/15	COMBO - DELETE FACILITY M
REVISION		
BY	BA	GDK
APPD		
REGION NO.	18	STATE
FED. AID PROJ. NO.		WASH
SHEET NO.	510	TOTAL SHEETS
	1797	
JOB NUMBER	ISA012	

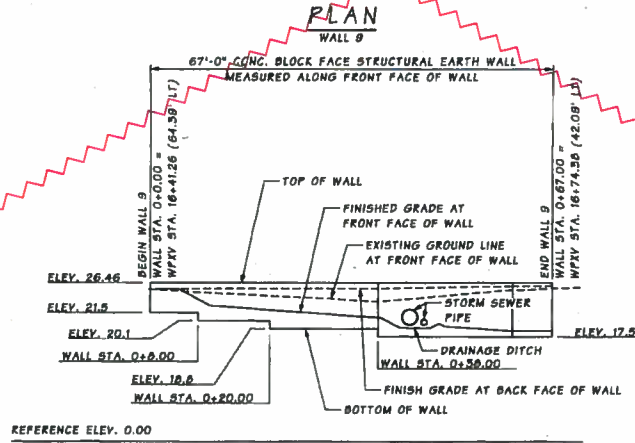
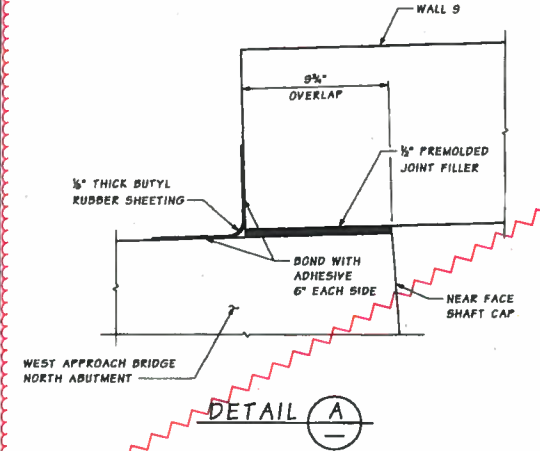
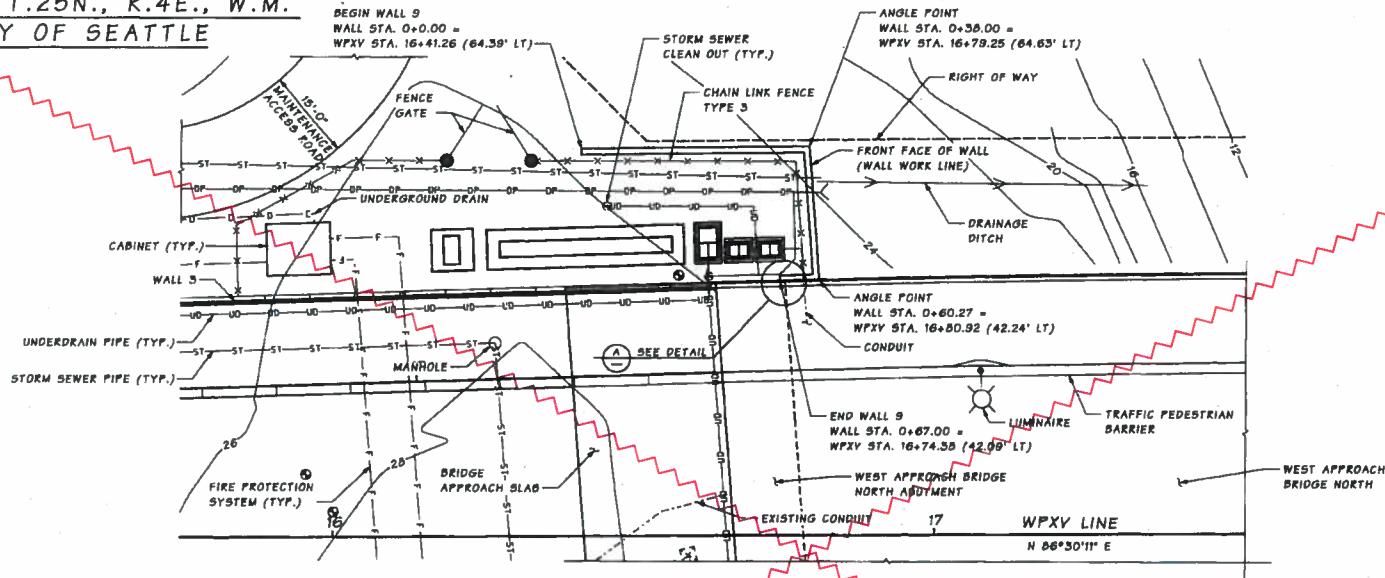


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SEC. 21, T.25N., R.4E., W.M.
CITY OF SEATTLE

SR 520

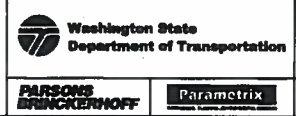


- NOTES:**
- FOR LOCATIONS AND DETAILS OF STORM SEWER PIPES, UNDERDRAIN PIPES, CATCH BASINS, CONCRETE INLETS, DRAIN PIPES, AND CONCRETE BUTTERS SEE DRAINAGE PLANS AND DETAILS.
 - FOR LUMINAIRE DETAILS SEE ILLUMINATION PLANS.
 - NOT ALL EXISTING UTILITIES ARE SHOWN. SEE EXISTING UTILITY PLANS.
 - SEE SHEET WR25 FOR WALL 9 TYPICAL SECTION.

BR 520 FILE NO. 7051 SHEET WR10

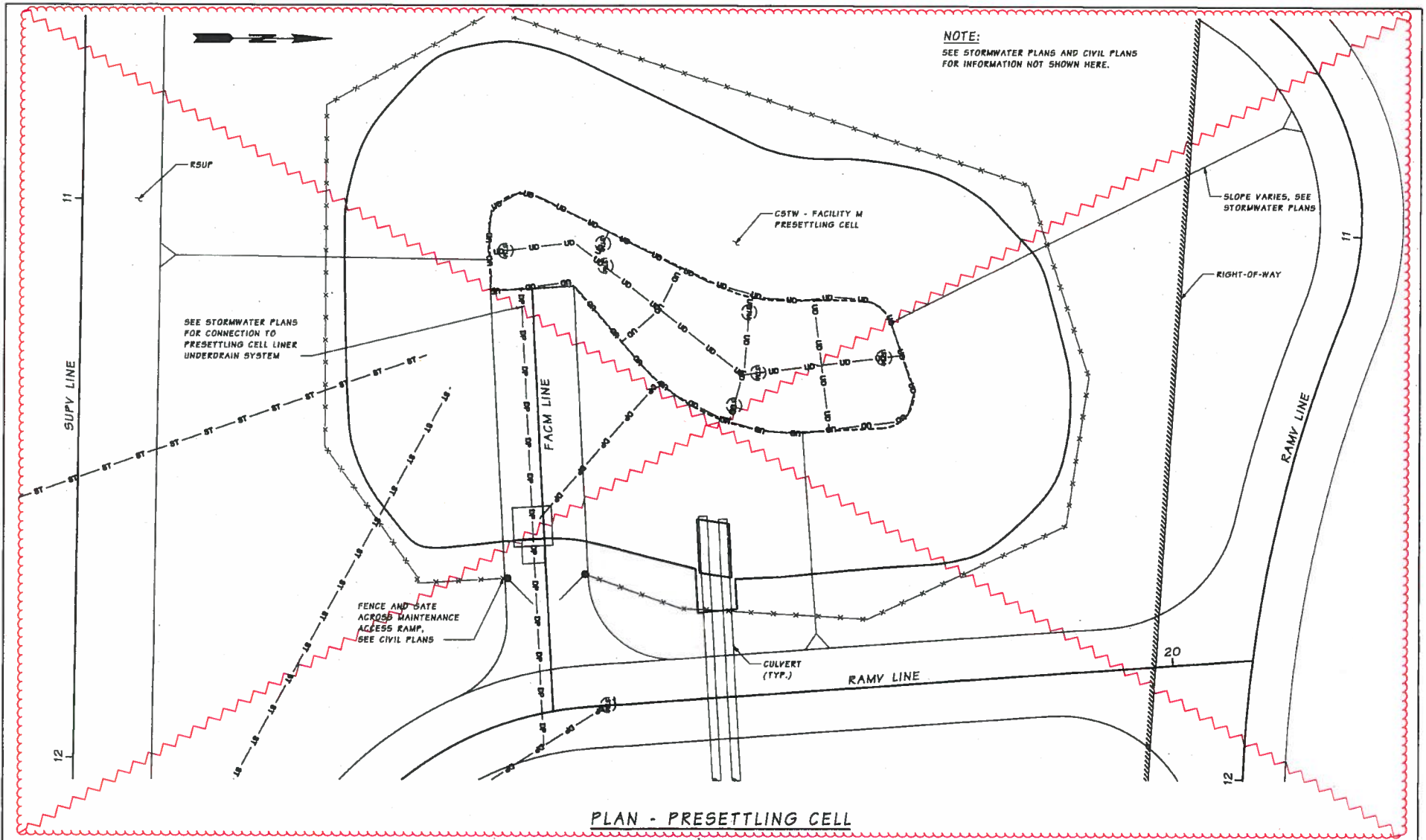
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Designed By	JELIN, A.	DATE	12/01/15
Checked By	ANDERSON, B.	STATUS	COMB - DELETE FACILITY M
Drawn By	JELIN, A.	JOB NUMBER	134012
Bridge Projects Eng.		DATE	12/01/15
Project Plans By		BY	APPD
Architect/Engineer		DATE	12/01/15



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WALL 9 LAYOUT

WR10
521
1797



PLAN - PRESETTLING CELL

Bridge Designer:	DOTY, P.
Supervisor:	ZALLER, D.
Designed By:	REUTSCH, G.
Checked By:	WYPLE, M.
Bridge Projects Eng.:	
Profile Plan By:	12/8/19
Architect/Inspector:	

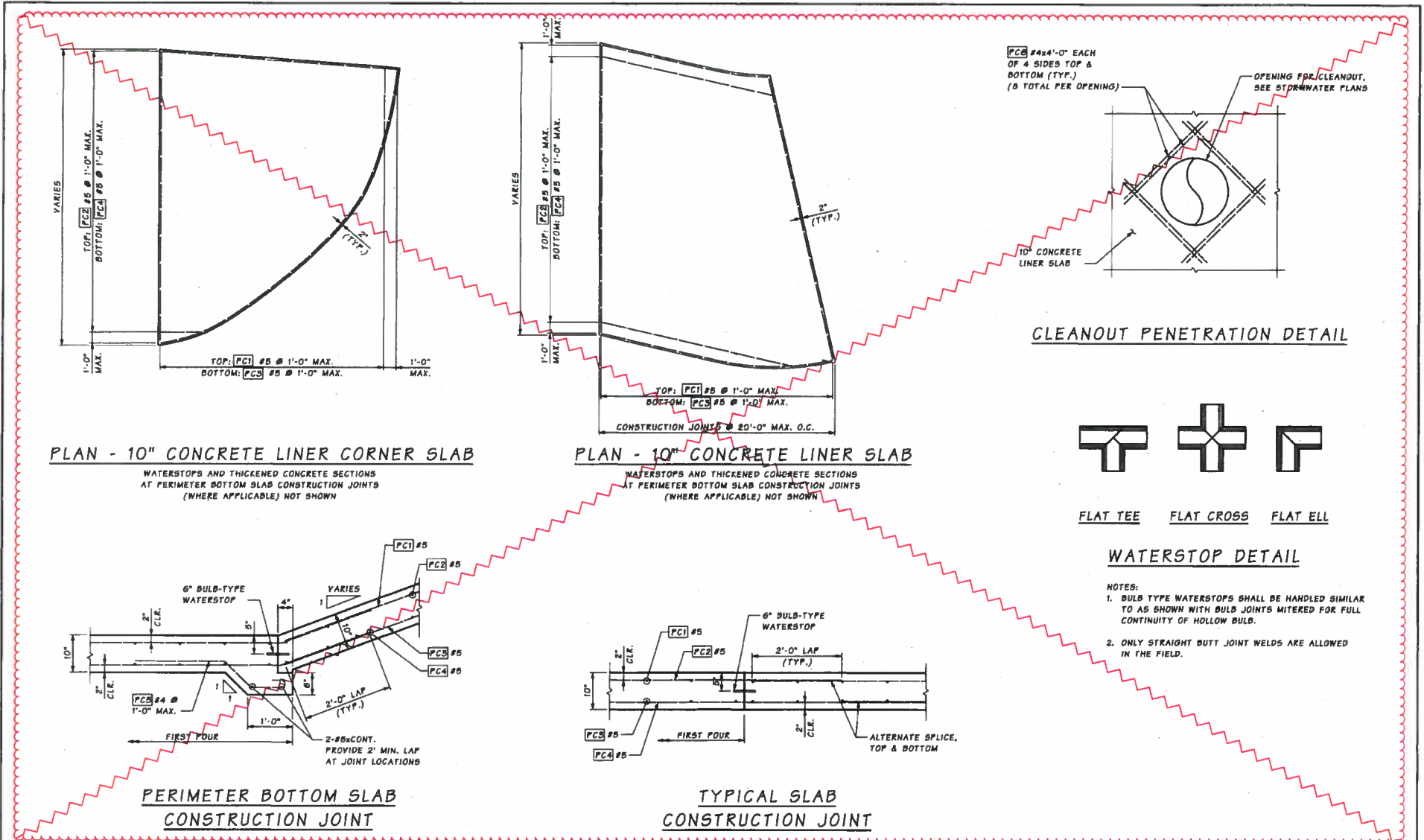
PROJECT NO.	13A-012
STATE	WA
FED. AID PROJ. NO.	966 1797
DATE	12/8/19
REVISION	COM - DELETE FACILITY M
BY	APPD



Washington State Department of Transportation
PARSONS BRINCKERHOFF
Paramatrix

Contract 8625 Change Order 81 Page 62 of 72 PRESETTLING CELL DETAILS 1 OF 4

SHEET NO. WR55
SHEET 586 OF 1797

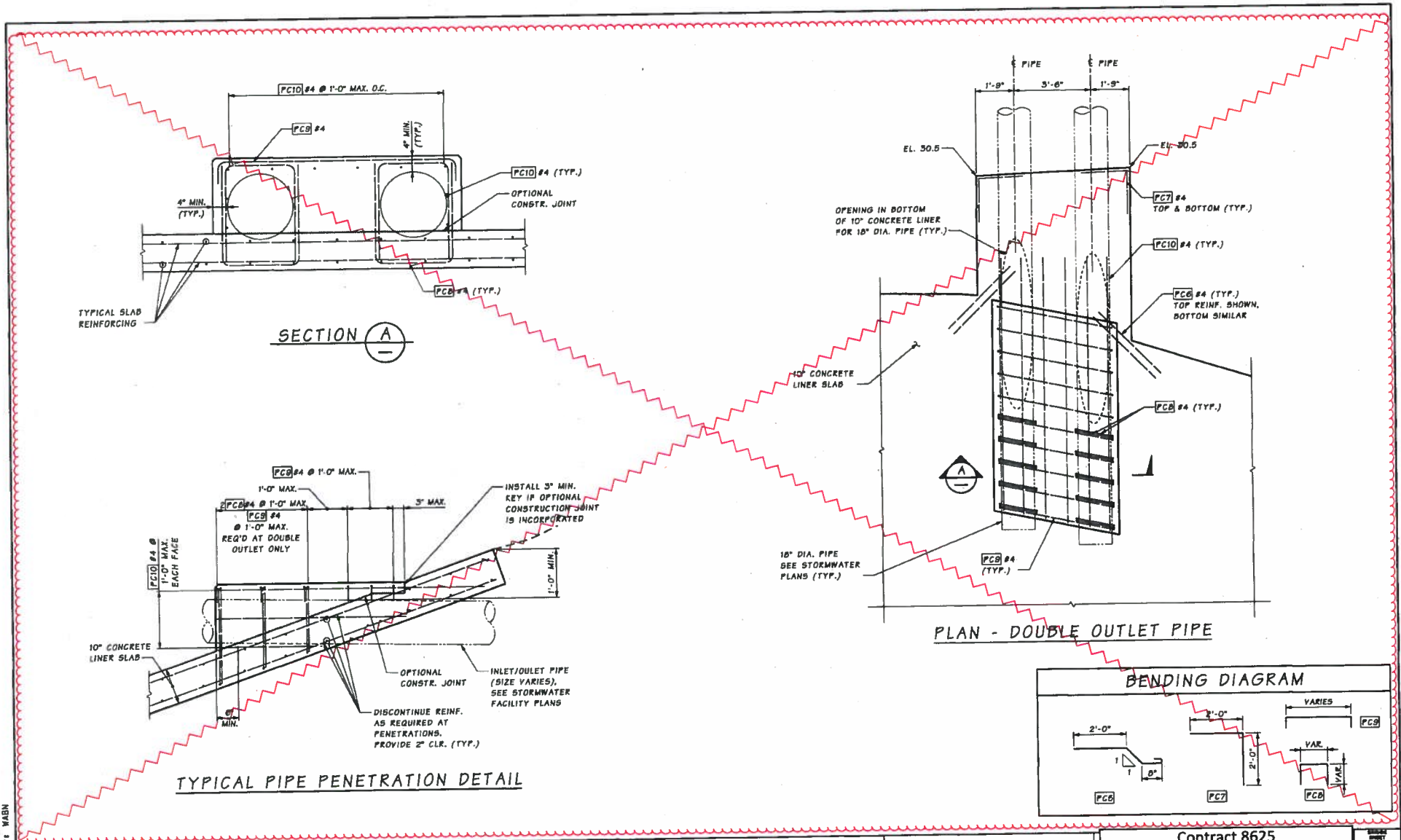


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Supervisor	BOTT, P.		10	WABN		560	1797
Designed By	ZAHLLER, D.						
Checked By	JOHNSON, G.						
Drawn By	WYREL, M.						
Bridge Projects Eng.							
Project Plan By	12/8/15	COM1 - DELETE FACILITY M	DA	OSK			
Architect/Inspector	DATE	REVISION	BY	APPD			



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PRESETTLING CELL
DETAILS 3 OF 4

WR57
500
1797



Bridge Design Eng.	PHCADDP	12/18/15	COB81 - DELETE FACILITY M	BA	GGK
Supervisor	BOTT, P.				
Designed By	ZANGLER, D.				
Checked By	KHUTSON, G.				
Detailled By	VYPLEL, M.				
Bridge Prebuilt Eng.					
Project Plan By					
Architect/Engineer					

REVISION	DATE	BY	APPD

HR ENGINEERING INC.
 4-8-14

Washington State Department of Transportation
PARSONS BRINCKERHOFF
Parametrix

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 PRESETTING CELL
 DETAILS 4 OF 4

SHEET NO. **WRSB**
 OF **560**
 SHEETS **1797**

SHEET INDEX 5

WEST APPROACH BRIDGE - NORTH		
BRIDGE SHEET NO.	SHEET TITLE	VOLUME NO.
BA475	BRIDGE DECK REINFORCEMENT PLAN - PIER 28 BOTTOM MAT	8 OF 10
BA476	BRIDGE DECK REINFORCEMENT PLAN - PIER 29 TOP MAT	8 OF 10
BA477	BRIDGE DECK REINFORCEMENT PLAN - PIER 29 BOTTOM MAT	8 OF 10
BA478	BRIDGE DECK REINFORCEMENT PLAN - PIER 29 TOP MAT	8 OF 10
BA479	BRIDGE DECK REINFORCEMENT PLAN - PIER 30 BOTTOM MAT	8 OF 10
BA480	BRIDGE DECK REINFORCEMENT PLAN - PIER 30 TOP MAT	8 OF 10
BA481	BRIDGE DECK REINFORCEMENT PLAN - PIER 31 BOTTOM MAT	8 OF 10
BA482	BRIDGE DECK REINFORCEMENT PLAN - PIER 31 TOP MAT	8 OF 10
BA483	BRIDGE DECK REINFORCEMENT PLAN - PIER 32 BOTTOM MAT	8 OF 10
BA484	BRIDGE DECK REINFORCEMENT PLAN - PIER 32 TOP MAT	8 OF 10
BA485	BRIDGE DECK REINFORCEMENT PLAN - PIER 33 BOTTOM MAT	8 OF 10
BA486	BRIDGE DECK REINFORCEMENT PLAN - PIER 33 TOP MAT	8 OF 10
BA487	BRIDGE DECK REINFORCEMENT PLAN - PIER 34 BOTTOM MAT	8 OF 10
BA488	BRIDGE DECK REINFORCEMENT PLAN - PIER 34 TOP MAT	8 OF 10
BA489	BRIDGE DECK REINFORCEMENT PLAN - PIER 35 BOTTOM MAT	8 OF 10
BA490	BRIDGE DECK REINFORCEMENT PLAN - PIER 35 TOP MAT	8 OF 10
BA491	BRIDGE DECK REINFORCEMENT PLAN - PIER 36 BOTTOM MAT	8 OF 10
BA492	BRIDGE DECK REINFORCEMENT PLAN - PIER 36 TOP MAT	8 OF 10
BA493	BRIDGE DECK REINFORCEMENT PLAN - PIER 37 BOTTOM MAT	8 OF 10
BA494	BRIDGE DECK REINFORCEMENT PLAN - PIER 37 TOP MAT	8 OF 10
BA495	BRIDGE DECK REINFORCEMENT PLAN - PIER 38 BOTTOM MAT	8 OF 10
BA496	BRIDGE DECK REINFORCEMENT PLAN - PIER 38 TOP MAT	8 OF 10
BA497	BRIDGE DECK REINFORCEMENT PLAN - PIER 39 BOTTOM MAT	8 OF 10
BA498	BRIDGE DECK REINFORCEMENT PLAN - PIER 39 TOP MAT	8 OF 10
BA499	BRIDGE DECK REINFORCEMENT PLAN - PIER 40 BOTTOM MAT	8 OF 10
BA500	BRIDGE DECK REINFORCEMENT PLAN - PIER 40 TOP MAT	8 OF 10
BA501	BRIDGE DECK REINFORCEMENT PLAN - SPAN 40 BOTTOM MAT	8 OF 10
BA502	BRIDGE DECK REINFORCEMENT PLAN - SPAN 40 TOP MAT	8 OF 10
BA503	BRIDGE DECK REINFORCEMENT SECTION - SPANS 18 THRU 40	8 OF 10
BA504	BRIDGE DECK REINFORCEMENT PLAN - SPAN 41 BOTTOM MAT	8 OF 10
BA505	BRIDGE DECK REINFORCEMENT PLAN - SPAN 41 TOP MAT	8 OF 10
BA506	BRIDGE DECK REINFORCEMENT SECTION - SPAN 41	8 OF 10
BA507	PIER 42 VICINITY PLAN	8 OF 10
BA508	BRIDGE DECK REINF. PLANS - TRANSITION SPAN	8 OF 10
BA509	BRIDGE DECK REINF. SECTIONS - TRANSITION SPAN	8 OF 10
BA510	BRIDGE DECK REINF. DETAILS - TRANSITION SPAN	8 OF 10
BA511	BRIDGE DECK REINFORCEMENT DETAILS - AT DRAINS 1	8 OF 10
BA512	BRIDGE DECK REINFORCEMENT DETAILS - AT DRAINS 2	8 OF 10
BA513	BRIDGE DECK REINFORCEMENT DETAILS - AT DRAINS 3	8 OF 10
BA514	BRIDGE DECK REINFORCEMENT DETAILS - AT DRAINS 4	8 OF 10

WEST APPROACH BRIDGE - NORTH		
BRIDGE SHEET NO.	SHEET TITLE	VOLUME NO.
BA515	BRIDGE DECK REINFORCEMENT DETAILS - AT CLEANOUTS 1	8 OF 10
BA516	BRIDGE DECK REINFORCEMENT DETAILS - AT CLEANOUTS 2	8 OF 10
BA517	BRIDGE DECK REINFORCEMENT DETAILS - AT CLEANOUTS 3	8 OF 10
BA518	CATCH BASINS - DETAILS 1	8 OF 10
BA519	CATCH BASINS - DETAILS 2	8 OF 10
BA520	BRIDGE DECK REINFORCEMENT DETAILS - AT CATCH BASINS 1	8 OF 10
BA521	BRIDGE DECK REINFORCEMENT DETAILS - AT CATCH BASINS 2	8 OF 10
BA522	CATCH BASINS - DETAILS 3	8 OF 10
BA523	CATCH BASINS - DETAILS 4	8 OF 10
BA524	BRIDGE DECK REINFORCEMENT DETAILS - AT CATCH BASINS 3	8 OF 10
BA525	BRIDGE DECK REINFORCEMENT DETAILS - AT CATCH BASINS 4	8 OF 10
BA526	MODULAR EXPANSION JOINT - ELEVATIONS 1	9 OF 10
BA527	MODULAR EXPANSION JOINT - ELEVATIONS 2	9 OF 10
BA528	MODULAR EXPANSION JOINT PLAN - PIER 1	9 OF 10
BA529	MODULAR EXPANSION JOINT SECTION - PIER 1	9 OF 10
BA530	MODULAR EXPANSION JOINT PLAN - PIER 3	9 OF 10
BA531	MODULAR EXPANSION JOINT PLAN - PIERS 18, 27, 34	9 OF 10
BA532	MODULAR EXPANSION JOINT SECTION - PIERS 9, 18, 27, 34	9 OF 10
BA533	MODULAR EXPANSION JOINT PLAN - PIER 41	9 OF 10
BA534	MODULAR EXPANSION JOINT SECTION - PIER 41	9 OF 10
BA535	MODULAR EXPANSION JOINT PLAN - PIER 42	9 OF 10
BA536	MODULAR EXPANSION JOINT SECTION - PIER 42	9 OF 10
BA537	MODULAR EXPANSION JOINT DETAILS 1	9 OF 10
BA538	MODULAR EXPANSION JOINT DETAILS 2	9 OF 10
BA539	MODULAR EXPANSION JOINT PLAN - RSUP COVER PLATE	9 OF 10
BA540	SEISMIC RESTRAINER DETAILS 1	9 OF 10
BA541	SEISMIC RESTRAINER DETAILS 2	9 OF 10
BA542	ELASTOMERIC PAD DETAILS 1	9 OF 10
BA543	BARRIER PLAN	9 OF 10
BA544	BARRIER SCUPPER	9 OF 10
BA546	TRAFFIC PEDESTRIAN BARRIER - DETAILS 1 OF 4	9 OF 10
BA546	TRAFFIC PEDESTRIAN BARRIER - DETAILS 2 OF 4	9 OF 10
BA547	TRAFFIC PEDESTRIAN BARRIER - DETAILS 3 OF 4	9 OF 10
BA548	TRAFFIC PEDESTRIAN BARRIER - DETAILS 4 OF 4	9 OF 10
BA549	TRAFFIC BARRIER - DETAILS 1 OF 4	9 OF 10
BA550	TRAFFIC BARRIER - DETAILS 2 OF 4	9 OF 10
BA551	TRAFFIC BARRIER - DETAILS 3 OF 4	9 OF 10
BA552	TRAFFIC BARRIER - DETAILS 4 OF 4	9 OF 10
BA553	MEDIAH TRAFFIC BARRIER - DETAILS 1 OF 2	9 OF 10
BA554	MEDIAH TRAFFIC BARRIER - DETAILS 2 OF 2	9 OF 10

WEST APPROACH BRIDGE - NORTH		
BRIDGE SHEET NO.	SHEET TITLE	VOLUME NO.
BA555	BARRIER DETAILS 1 - JUNCTION BOX LOCATIONS	9 OF 10
BA556	BARRIER DETAILS 2 - BARRIER ELEVATIONS	9 OF 10
BA557	HOSE OUTLET DETAILS - TRAFFIC PEDESTRIAN BARRIER	9 OF 10
BA558	HOSE OUTLET DETAILS - TRAFFIC BARRIER	9 OF 10
BA559	LUMINAIRE BASE DETAILS - TRAFFIC PEDESTRIAN BARRIER	9 OF 10
BA560	LUMINAIRE ATTACHMENT DETAILS - TRAFFIC BARRIER	9 OF 10
BA561	CCTV CAMERA ATTACHMENT DETAILS - TRAFFIC BARRIER	9 OF 10
BA562	BARRIER EXPANSION JOINT DETAILS 1	9 OF 10
BA563	BARRIER EXPANSION JOINT DETAILS 2	9 OF 10
BA564	BARRIER EXPANSION JOINT DETAILS 3	9 OF 10
BA565	BARRIER EXPANSION JOINT DETAILS 4	9 OF 10
BA566	BARRIER EXPANSION JOINT DETAILS 5	9 OF 10
BA567	SR. RAILING TYPE DECORATIVE PED. - TYPICAL DETAILS 1	9 OF 10
BA568	SR. RAILING TYPE DECORATIVE PED. - TYPICAL DETAILS 2	9 OF 10
BA569	SR. RAILING TYPE DECORATIVE PED. - TYPICAL DETAILS 3	9 OF 10
BA570	SR. RAILING TYPE DECORATIVE PED. - PIER 1 DETAILS	9 OF 10
BA571	SR. RAILING TYPE DECORATIVE PED. - PIERS 9, 18, 27, 34 DETAILS	9 OF 10
BA572	SR. RAILING TYPE DECORATIVE PED. - PIER 41 DETAILS	9 OF 10
BA573	SR. RAILING TYPE DECORATIVE PED. - PIER 42 DETAILS	9 OF 10
BA574	SR. RAILING TYPE DECORATIVE PED. - EXPANSION DETAILS	9 OF 10
BA575	SR. RAILING TYPE DECORATIVE PED. - BELVEDERE DETAILS 1	9 OF 10
BA576	SR. RAILING TYPE DECORATIVE PED. - BELVEDERE DETAILS 2	9 OF 10
BA577	SR. RAILING TYPE DECORATIVE PED. - BELVEDERE DETAILS 3	9 OF 10
BA578	SIGN BRIDGE GENERAL NOTES	9 OF 10
BA579	SIGN BRIDGE LAYOUT 1	9 OF 10
BA580	SIGN BRIDGE LAYOUT 2	9 OF 10
BA581	SIGN BRIDGE LAYOUT 3	9 OF 10
BA582	SIGN BRIDGE LAYOUT 4	9 OF 10
BA583	SIGN BRIDGE LAYOUT 5	9 OF 10
BA584	SIGN BRIDGE LAYOUT 6	9 OF 10
BA585	SIGN BRIDGE LAYOUT 7	9 OF 10
BA586	SIGN BRIDGE MONOTUBE SCHEDULE	9 OF 10
BA587	SIGN BRIDGE DETAILS 1	9 OF 10
BA588	SIGN BRIDGE DETAILS 2	9 OF 10
BA589	SIGN BRIDGE DETAILS 3	9 OF 10
BA590	SIGN BRIDGE SUPPORT DETAILS 1	9 OF 10
BA591	SIGN BRIDGE SUPPORT DETAILS 2	9 OF 10
BA592	SIGN MOUNTING AT EXISTING TRUSS - DETAILS 1	9 OF 10
BA593	BRIDGE DRAINAGE SYSTEM LAYOUT - FRAME 1	9 OF 10
BA594	BRIDGE DRAINAGE SYSTEM LAYOUT - FRAME 2	9 OF 10

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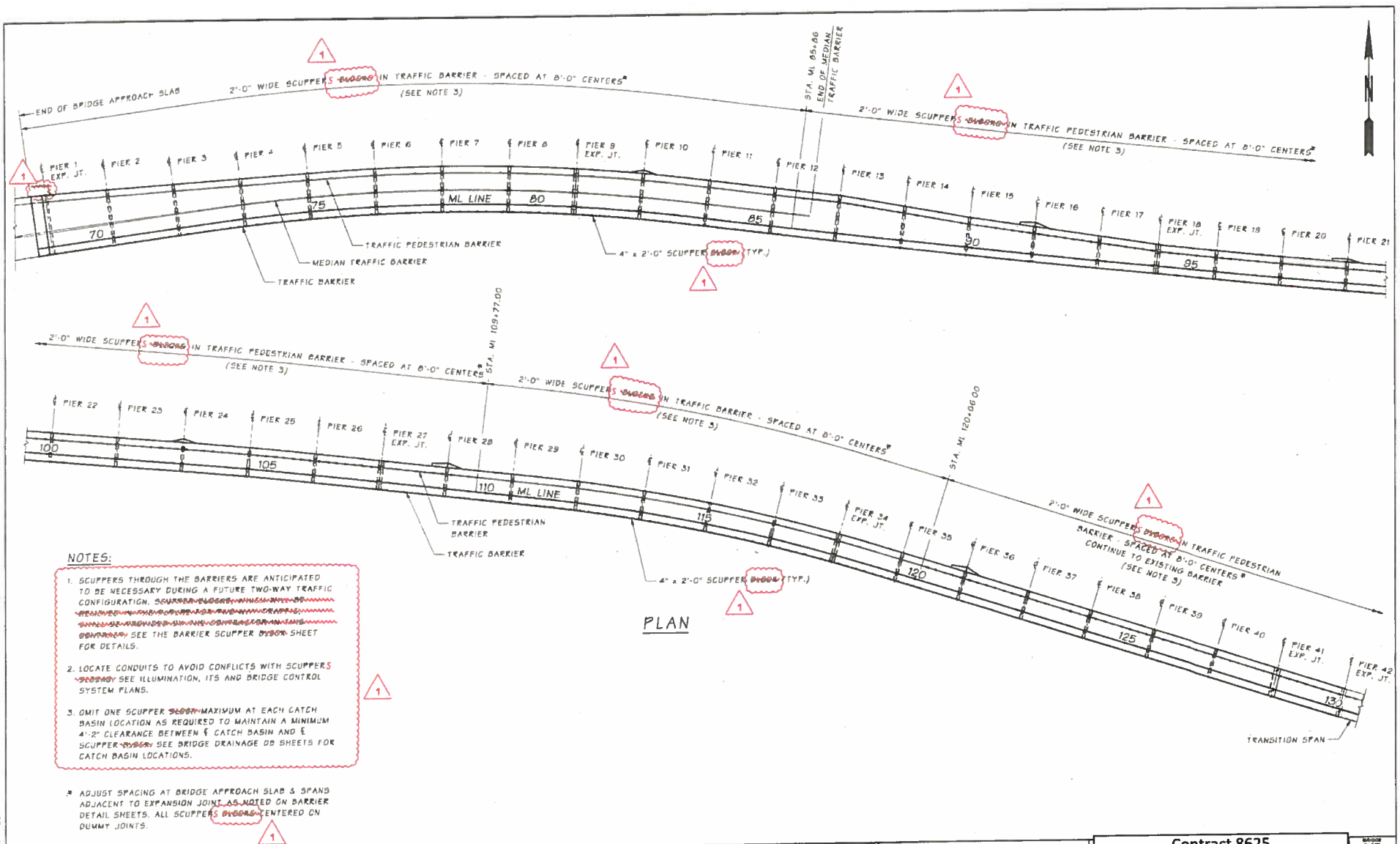
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Designed By		JOB NUMBER	929 1797
Checked By		DATE	12/11/11
Designed By		REVISION	COMB1 - DELETE FACILITY M
Drawn By		BY	BA ECK
Architect/Engineer		APPD	



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WABN STRUCTURAL SHEET INDEX 5

SHEET NO.
18A05
 OF
 1797
 SHEET

SH. 520. FILE NO. 7051. SHEET. B.A.543
 PROJECT NO. 103111103



- NOTES:**
- SCUPPERS THROUGH THE BARRIERS ARE ANTICIPATED TO BE NECESSARY DURING A FUTURE TWO-WAY TRAFFIC CONFIGURATION. ~~SCUPPERS THROUGH THE BARRIERS ARE ANTICIPATED TO BE NECESSARY DURING A FUTURE TWO-WAY TRAFFIC CONFIGURATION. SEE THE BARRIER SCUPPER DETAILED SHEET FOR DETAILS.~~
 - LOCATE CONDUITS TO AVOID CONFLICTS WITH SCUPPERS ~~SEE ILLUMINATION, ITS AND BRIDGE CONTROL SYSTEM PLANS.~~
 - OMIT ONE SCUPPER ~~SHOWN~~ MAXIMUM AT EACH CATCH BASIN LOCATION AS REQUIRED TO MAINTAIN A MINIMUM 4'-2" CLEARANCE BETWEEN CATCH BASIN AND SCUPPER ~~SEE BRIDGE DRAINAGE DD SHEETS FOR CATCH BASIN LOCATIONS.~~

PLAN

Bridge Design Engr.	03/12	Pw Upgrade Design-Bid-Solicit Contract, 888823, WASHNET 3 Contract Plan#2 88 82 As-built/As-Built (08/17/14) 79 03023 29.8A 843.01.01		REVISION	DATE	BY	APPD
Supervisor	BOTT, P.	08/12		18	WASH		
Designed By	AKERSON, B.	08/12					
Checked By	CHEN, G.						
Detailled By	VYFLEL, M.	08/12					
Bridge Projects Engr.							
Project Files By							
Architect/Specifier							

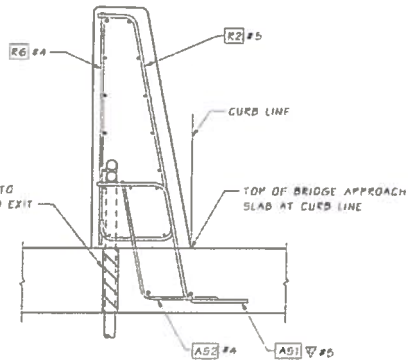


Washington State
 Department of Transportation

 PARSONS BRINCKERHOFF

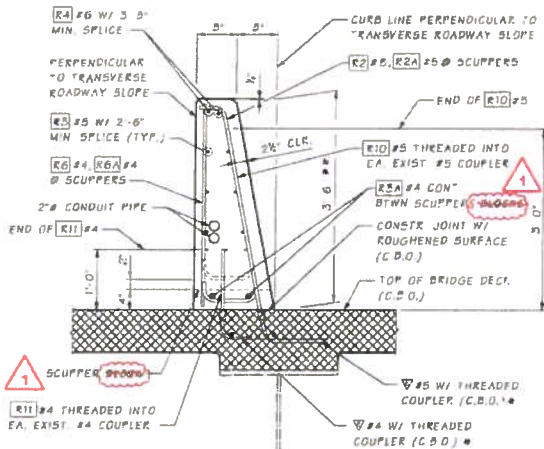
 Parametrix

Contract 8625 Change Order 81 Page 67 of 72 BARRIER PLAN	SHEET 1479 OF 1797 B.A.543
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SECTION A BRIDGE APPROACH SLAB

FOR DETAILS NOT SHOWN, SEE SECTION A 'W/ SCUPPER' ON DR. SHT. BA546

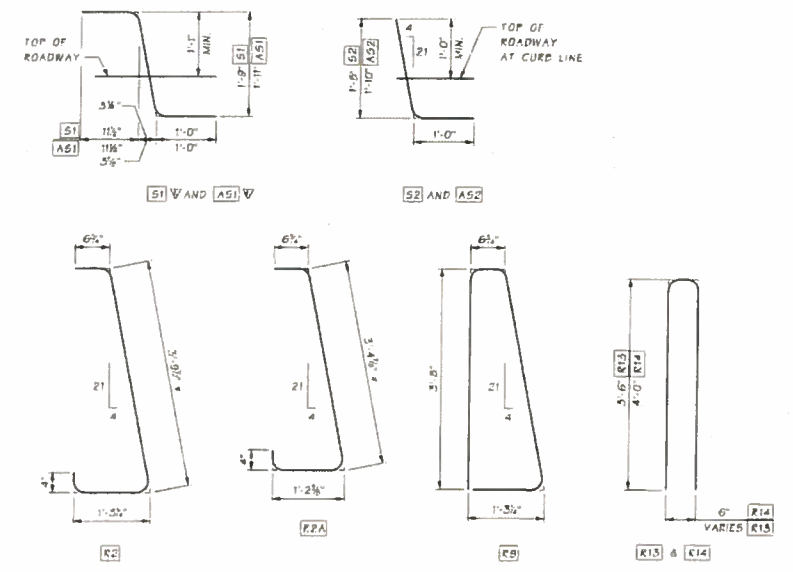


SECTION B ON EXISTING BRIDGE DECK

* CONTRACTOR SHALL FIELD VERIFY SIZE, LOCATION, AND SPACING OF EXISTING COUPLERS PRIOR TO BARRIER REBAR FABRICATION, AND REPORT DISCREPANCIES TO THE ENGINEER
 ** HEIGHT MAY VARY IF REQUIRED TO PROVIDE A PROFILE PLEASING TO THE EYE

BENDING DIAGRAM

ALL DIMENSIONS ARE OUT TO OUT.
 * DIMENSIONS TO POINTS OF INTERSECTION



NOTE:
 BAR DIMENSIONS SHOWN ARE FOR TYPICAL TRAFFIC PEDESTRIAN BARRIER SECTION VARY BAR DIMENSIONS AS NECESSARY AT SPAN #1 & TRANSITION SPAN

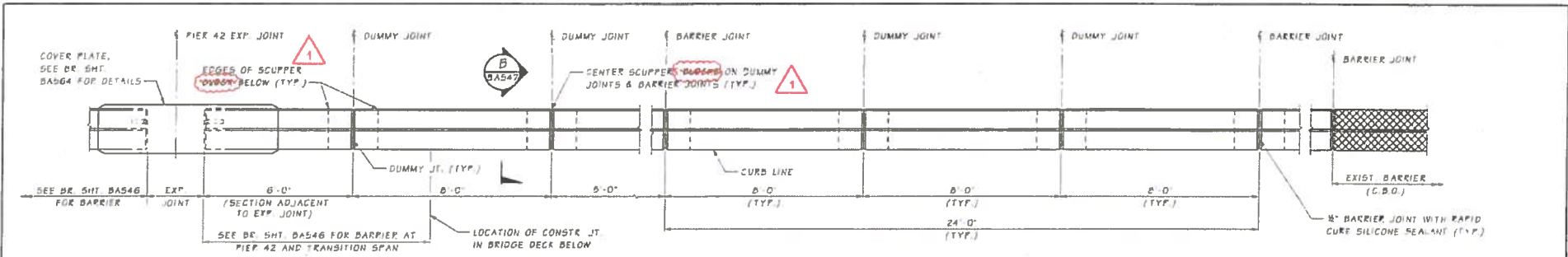
SH 520, FILE NO 7051, SHEET BA547, PLOT DATE 11/11/08

Bridge Design Engr	PW/Prop and Design/Std/Build/Contract	08823, WASH02 @ Contract	Dist/Assess/2.93	Contract	Plan/02.02	As-Built/As-Built	DDP/viv	11481, 08623, 22, 00, 047, R1	sign
Supervisor	BOTT, P								
Designed By	AKESSON, B								
Checked By	CHEN, G								
Detailed By	VYPLEL, M								
Bridge Project Engr									
Prin. Plan By	12/11/08	COMB1	DELETE FACILITY #1	BA	OKK				
Architect/Consultant	DATE	REVISION	BY	APPD					



Contract 8625
 Change Order 81
 Page 70 of 72
 TRAFFIC PEDESTRIAN BARRIER
 DETAILS 3 OF 4

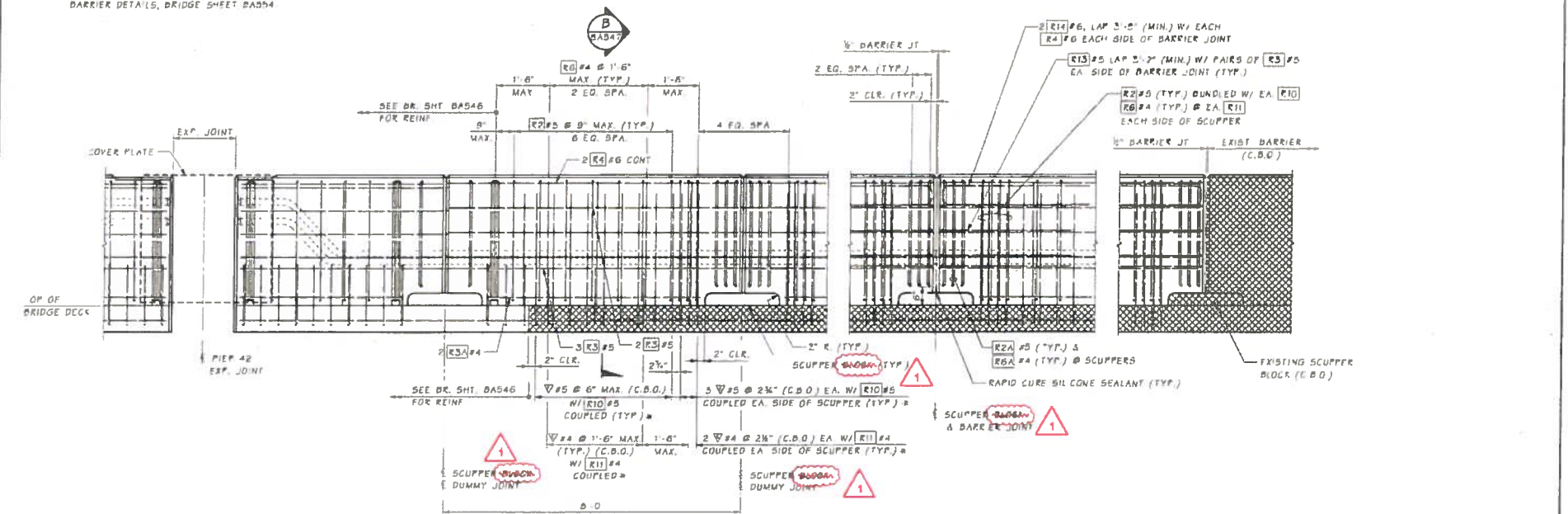
Sheet No: BA547
 Date: 11/11/08
 of 1797



PLAN - TRAFFIC PEDESTRIAN BARRIER

BARRIER CONTINUOUS BETWEEN ROADWAY EXPANSION JOINTS.
CONSTRUCTION JOINTS WITH SHEAR KEYS ARE PERMISSIBLE AT DUMMY JOINT LOCATIONS.
FORM JOINTS BETWEEN DUMMY JOINTS SHALL NOT BE PERMITTED.

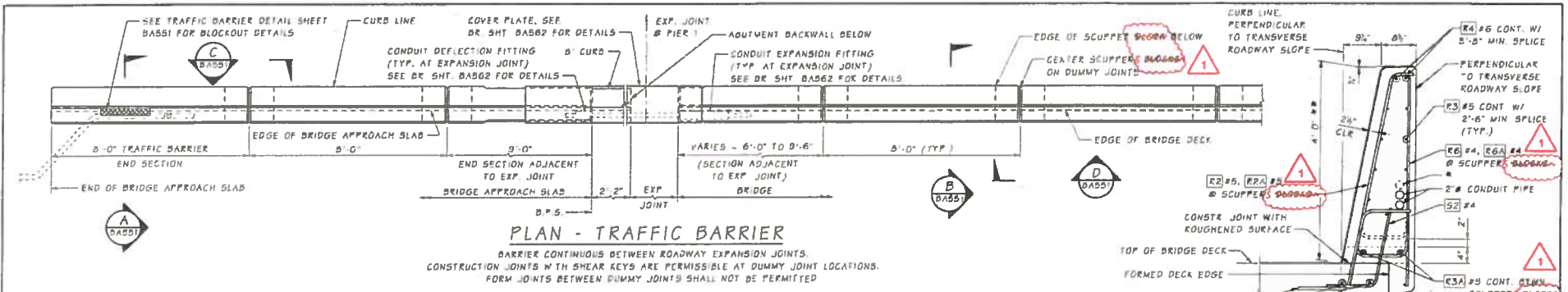
FOP DUMMY JOINT DETAILS, SEE MEDIAN BARRIER DETAILS, BRIDGE SHEET BA544.



ELEVATION - TRAFFIC PEDESTRIAN BARRIER ON TRANSITION SPAN

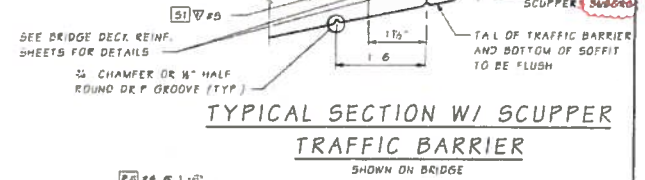
SR 520 FILE NO 7051 SHEET BA548 PROJ EC1W156 VOL 11 V03

Bridge Design Engr. Supervisor: BOTT, P. Designed By: AKESSON, B. Checked By: CHEN, G. Drawn By: VYPLEL, M. Bridge Projects Engr. Profile, Plan By: 12/11/11 Architect/Inspector: DATE		Proj/Program/Design-Bid-Build/Contract: 088270 WAPWEE 9 Contract Documents: 2.28 Contract Plans: 63, 67, A-2, 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100		COUNTY: 18 STATE: WASH JOB NUMBER: 15A012 DATE: 12/11/11	FEDERAL AID PROJ. NO.: COUNTY NO.: FEDERAL DISTRICT NO.: SHEET NO.: 1404 TOTAL SHEETS: 1727	 Washington State Department of Transportation Parsons BRINCKERHOFF Parametrix	Contract 8625 Change Order 81 Page 71 of 72 TRAFFIC PEDESTRIAN BARRIER DETAILS 4 OF 4	SHEET NO.: BA548 DATE: 11/04 OF: 1727 SHEETS: 10021
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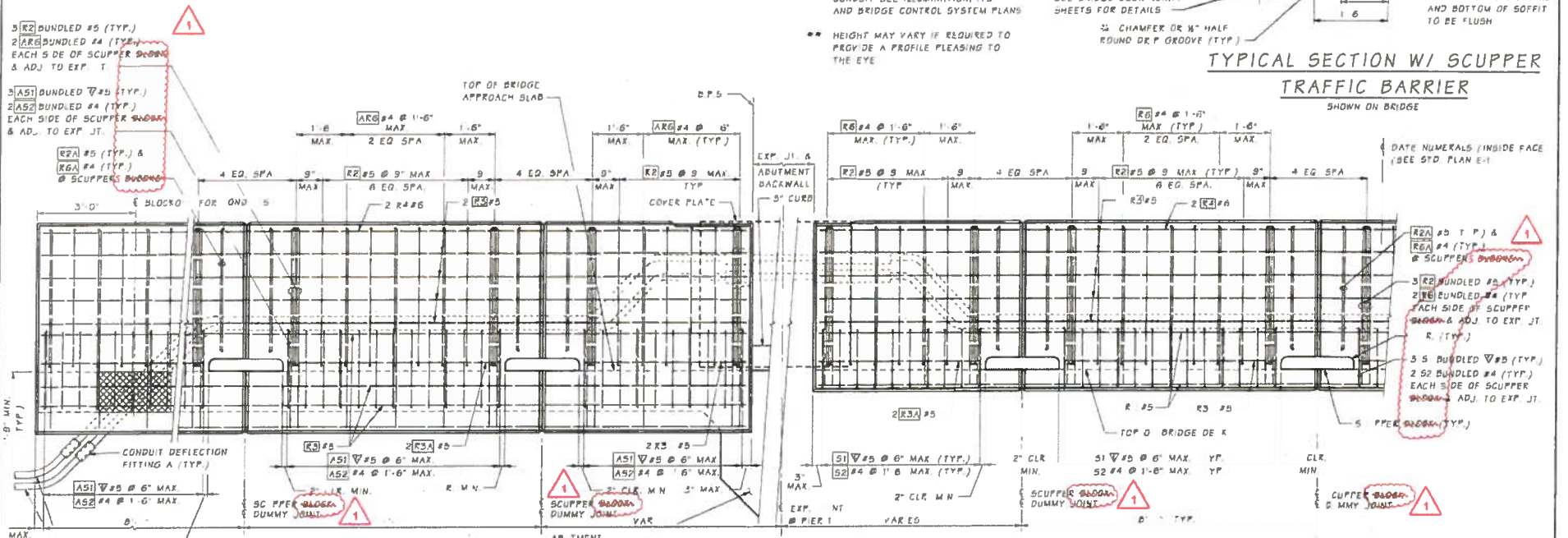
PLAN - TRAFFIC BARRIER

BARRIER CONTINUOUS BETWEEN ROADWAY EXPANSION JOINTS.
CONSTRUCTION JOINTS WITH SHEAR KEYS ARE PERMISSIBLE AT DUMMY JOINT LOCATIONS.
FORM JOINTS BETWEEN DUMMY JOINTS SHALL NOT BE PERMITTED



TYPICAL SECTION W/ SCUPPER
SHOWN ON BRIDGE

- * FOR LOCATIONS WITH ADDITIONAL CONDUIT SEE ILLUMINATION, ITS AND BRIDGE CONTROL SYSTEM PLANS
- ** HEIGHT MAY VARY IF REQUIRED TO PROVIDE A PROFILE PLEASING TO THE EYE



OUTSIDE ELEVATION
END OF TRAFFIC BARRIER

NOTE:
1. UNLESS NOTED OTHERWISE

SHEET BASS-49

Bridge Design Eng	PW Program Design - Site Suite Contract, 000029, WABN02.8 Contract Documents 2.01, Contract Plans 02 06 02, As-built/As-Built Drawings 1480, C8823, 72 02, 040, R1.dgn	REVISION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	BOTT, P	10	WASH		1405	1707
Designed By	AKERSSON, B					
Checked By	CHEN, G					
Detalled By	VYPLEL, M					
Bridge Projects Eng.						
Proj. Plan By	12/1/15	DATE	REVISION	BY	APPD	
Architect/Engineer	COMB1 - DELETE FACILITY M					



Contract 8625 Change Order 81 Page 72 of 72 TRAFFIC BARRIER DETAILS 1 OF 4	PROJECT NO. BA549 SHEET 1483 OF 1797 SHEETS
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