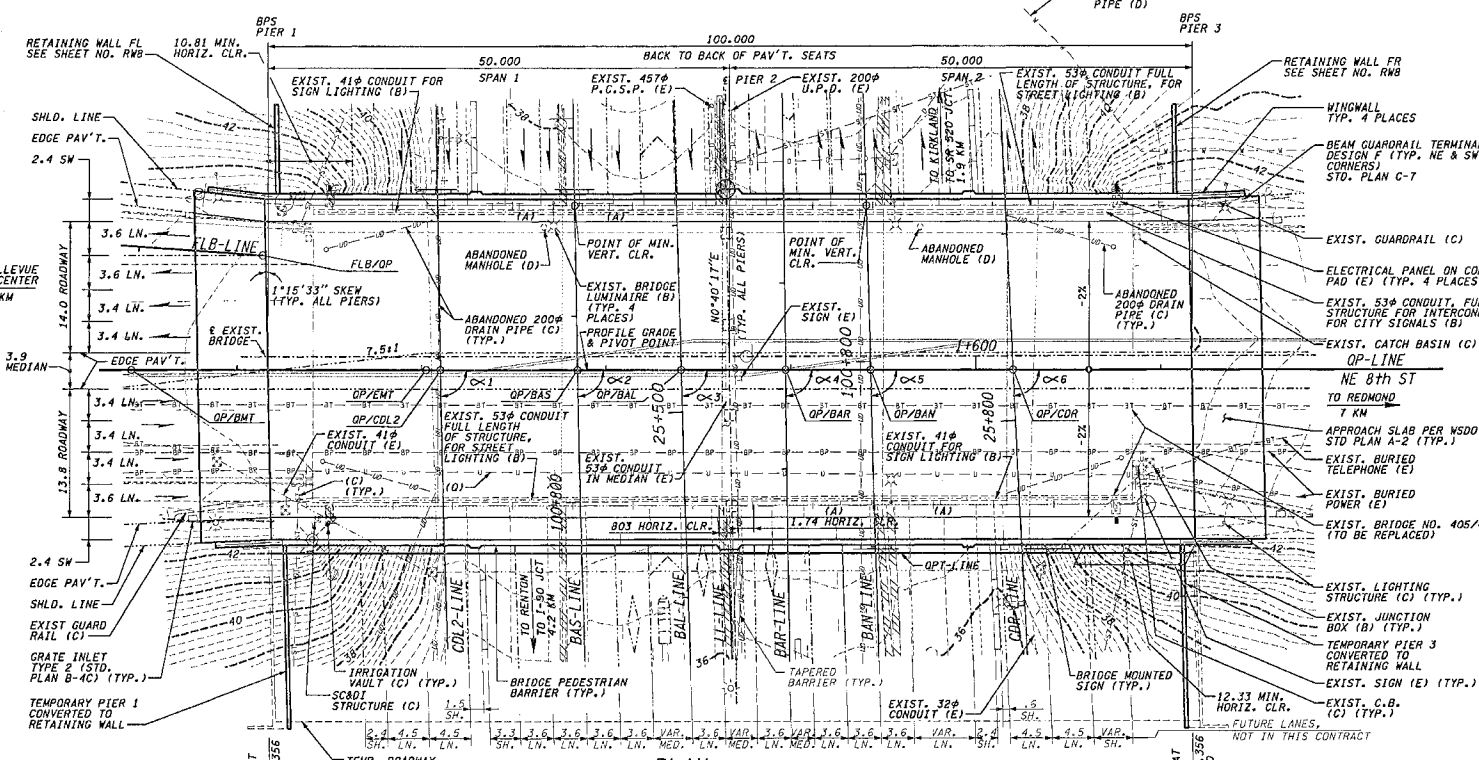


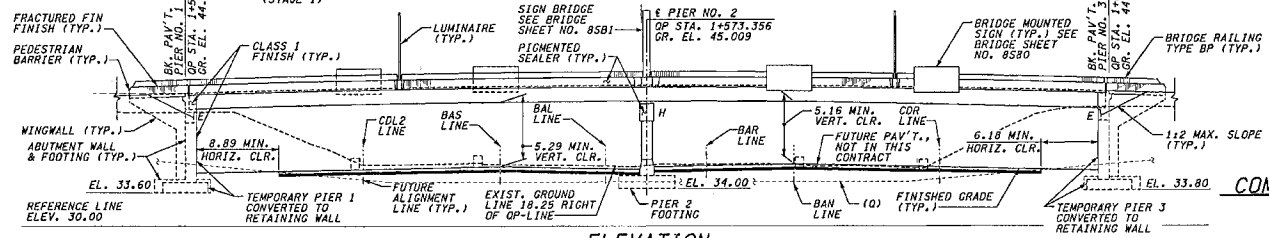
SEC. 29 & 32 T. 25N., R. 5E. W.M.



- NOTES:**
- (A) EXIST. BRIDGE MOUNTED SIGNS TO BE REMOVED.
 - (B) TO BE REMOVED AND REPLACED ON THE NEW STRUCTURE.
 - (C) TO BE REMOVED.
 - (D) TO REMAIN.
 - (E) TO BE RELOCATED.
 - (G) EXISTING CONCRETE ENCASED WEST UTILITIES.
1. HORIZONTAL AND VERTICAL CLEARANCE SHOWN IN REFERENCE TO FUTURE ALIGNMENT.
 2. FOR LOCATIONS OF JUNCTION BOXES IN BRIDGE PEDESTRIAN BARRIER SEE BRIDGE SHEET NO. 8573.



PLAN



ELEVATION

GRADE ELEVATIONS SHOWN ARE FINISH GRADES AT TOP OF ROADWAY SLAB ON OP-LINE AND ARE EQUAL TO PROFILE GRADE.

FOR "AS CONSTRUCTED PLANS" ONLY

COMPOSITE STEEL PLATE GIRDERS
 LOADING: HS-25
 OR
 TWO 107 KN AXLES @ 1.220 CTR'S

POINT OF MIN. VERT. CLEARANCE:
 OVER STA. 100+83.0, P.C.D. 117+580 LT.,
 OVER STA. 100+83.0, P.O.V. 117+580 LT.,
 OVER STA. 100+83.0, P.O.T. 117+580 LT.,
 OVER STA. 1+556.913 P.O.T. (17+580 LT.)
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BRIDGE WITH APPROACH FILLS
 SHALL BE CONSTRUCTED WITH
 1. 8" MAXIMUM DEEP COMPOSITE CONCRETE/STEEL & GIRDER SUPERSTRUCTURE
 2. DECK PROTECTIVE SYSTEM 1 (EPOXY COATED REBAR)
 3. CAST-IN-PLACE CONCRETE SHALL BE 28 MPa

I 405 JOB NO. SHEET 02/11/2002 03:22:19 PM tkeller

BRIDGE DESIGN ENGR.		REVISION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR		10	WASH	
DESIGNED BY J.H. SZYMCEK	02/02			
ENTERED BY M.J. BENSON	02/02			
CHECKED BY S.K. AISAKA	02/02			
PROD. ENGR. D. CIERI	02/02			
REGIONAL ADM. D. DYE	02/02			
DATE	DATE	REVISION	BY	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXPIRES: 02/01/02

Washington State
Department of Transportation

HDR
ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	851
PLAN AND ELEVATION	SHEET 02/02/02 416

C.S. 1745 ~ PROJ. NO. XL1271 ~ NORTH WEST REGION ~ NE 8th ST. ~ I 405 ~ BRIDGE NO. 405/43 REPL.

GENERAL NOTES

1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION - METRIC, DATED 2000, AND AMENDMENTS.
2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES SIXTEENTH EDITION - 1996 AND INTERIMS THROUGH 2000. ALL STRUCTURAL ELEMENTS ARE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS FOR LOAD FACTOR DESIGN. SEISMIC DESIGN OF THIS STRUCTURE HAS BEEN DONE USING AN ACCELERATION COEFFICIENT OF 0.30 AND SOIL PROFILE TYPE II.
3. THE CONCRETE IN THE ROADWAY DECK SHALL BE CLASS 280. THE CONCRETE IN THE PIER 2 COLUMNS AND CROSSBEAM SHALL BE CLASS 35. ALL OTHER CAST-IN-PLACE CONCRETE SHALL BE CLASS 28.
4. THE MAXIMUM DESIGN SOIL PRESSURE IS 120 kPa AT PIERS 1 2 AND 3.
5. FALSEWORK SHALL BE CAREFULLY RELEASED TO PREVENT IMPACT OR UNDUE STRESS IN THE STRUCTURE.
6. UNLESS OTHERWISE SHOWN IN THE PLANS, THE CONCRETE COVER MEASURED FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING STEEL SHALL BE 65mm AT THE TOP OF THE ROADWAY DECK, 25mm AT THE BOTTOM OF THE ROADWAY DECK, 75mm AT THE BOTTOM OF FOOTING, 50mm AT THE TOP OF FOOTING AND 40mm AT ALL OTHER LOCATIONS.
7. ALL DIMENSIONS SHOWN WITH DECIMALS ARE IN METERS AND WITHOUT DECIMALS ARE IN MILLIMETERS.

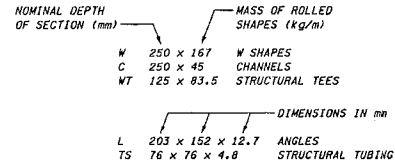
STRUCTURAL STEEL NOTES

1. ALL PLATE GIRDER WEBS SHALL BE STRUCTURAL LOW ALLOY STEEL AASHTO M 270M GRADE HPS 345W. ALL PLATE GIRDER FLANGES SHALL BE STRUCTURAL HIGH STRENGTH STEEL AASHTO M 270M GRADE 485W. ALL OTHER STRUCTURAL STEEL SHALL BE STRUCTURAL LOW ALLOY STEEL AASHTO M 270M GRADE 345W, EXCEPT AS NOTED OTHERWISE.
2. AASHTO M 270M GRADE 345W SHALL BE USED FOR ALL FILLER AND SPLICE PLATES, EXCEPT THAT ASTM A 115 MAY BE USED FOR FILLER PLATES LESS THAN 6mm THICKNESS.
3. ALL FIELD AND SHOP CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS, WITH THE BOLT HEADS TOWARD THE OUTSIDE AND UNDERSIDE OF THE BRIDGE. HIGH STRENGTH BOLTS SHALL BE AASHTO M 164M TYPE 3, AND SHALL BE 40% DIAMETER. NUTS AND WASHERS SHALL CONFORM TO SECTION 9-06.5(1). THE MINIMUM CENTER-TO-CENTER DIMENSION SHALL BE 75mm UNLESS SHOWN OTHERWISE. THE DISTANCE FROM THE CENTER OF A STANDARD HOLE TO THE EDGE OF METAL SHALL BE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES SIXTEENTH EDITION - 1996 AND INTERIMS THROUGH 2000. ALL CONNECTIONS SHOWN ARE FOR FIELD BOLTING. SHOP BOLTING MAY BE USED WHERE APPROVED IN THE SHOP PLANS. \oplus = BOLT LOCATION.
4. ALL WELDING SHALL BE DONE TO MINIMIZE DISTORTION. THE WELDING SEQUENCES AND PROCEDURES TO BE USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF WELDING. TOP FLANGES, BOTTOM FLANGES AND WEBS SHALL BE FABRICATED TO FULL LENGTH BETWEEN FIELD SPLICES PRIOR TO WELDING FLANGES TO WEBS. WELDING SEQUENCE SHALL BE: (1) FLANGE AND WEB SPLICES, (2) FLANGES TO WEB, (3) STIFFENERS TO WEB AND FLANGES, AND (4) GUSSET PLATES TO WEB.
5. ONE BUTT SPLICE WILL BE PERMITTED FOR FLANGE AND WEB PLATES EXCEEDING 18.000m IN LENGTH. A PERMISSIBLE LOCATION IS SHOWN IN THE PLANS. ANY PROPOSED BUTT SPLICE SHALL BE SHOWN IN THE SHOP DRAWINGS SUBMITTED FOR APPROVAL.
6. INTERMEDIATE TRANSVERSE STIFFENERS, WEB SPLICES, AND ALL INTERMEDIATE CROSS FRAMES SHALL BE NORMAL TO THE FLANGES. BEARING AND JACKING STIFFENERS SHALL BE VERTICAL IN THEIR FINAL POSITIONS (AFTER DEFLECTION DUE TO ENTIRE SUPERSTRUCTURE).
7. ALL DIMENSIONS ARE HORIZONTAL AND VERTICAL UNLESS OTHERWISE SHOWN.
8. ALL WELDED SHEAR CONNECTORS SHALL BE 22mm DIAMETER.
9. MEMBERS MARKED $\textcircled{1}$ ARE MAIN LOAD CARRYING TENSILE MEMBERS OR TENSION COMPONENTS OF FLEXURAL MEMBERS AND SHALL MEET THE LONGITUDINAL CHARNY V-NOTCH TESTS AS DESCRIBED IN SECTION 6-03.2.
10. \otimes DENOTES TENSION BUTT WELD FOR FLANGES OR WEBS.
11. GALVANIZING SHALL BE IN ACCORDANCE WITH AASHTO M 111 OR AASHTO M 232 AS APPLICABLE.
12. BOLT HOLES REMAINING IN GIRDER WEBS UPON REMOVAL OF DECK FORMWORK AND TEMPORARY BRACING SHALL BE TREATED IN ACCORDANCE WITH SECTION 6-02.3(17)K.
13. THE CONTRACTOR SHALL PROVIDE, AS REQUIRED, TEMPORARY BRACING AND/OR WEB STIFFENING AT LOCATIONS WHERE SLAB FORMS ARE ATTACHED TO UNBRACED OR UNSTIFFENED WEBS.
14. ALL STRUCTURAL STEEL SHALL BE PAINTED EXCEPT AS NOTED OTHERWISE.

LEGEND

- \textcircled{A} SECTION, VIEW OR DETAIL TAKEN OR SHOWN ON THE SAME SHEET.
- \textcircled{B} SECTION, VIEW OR DETAIL TAKEN OR SHOWN ON BRIDGE SHEET NO. 15.

LEGEND FOR METRIC ROLLED SHAPES



FOR 'AS CONSTRUCTED PLANS' ONLY

L:\405_JOB NO. SHEET 02/11/2002 03:22:25 PM Ikelier

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMCZEK	02/02				
ENTERED BY M.J. BENSON	02/02				
CHECKED BY S.K. AITAKA	02/02				
PROJ. ENGR. D. CTERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

GENERAL NOTES

BRIDGE SHEET NO. 852

SHEET 224 OF 416 SHEETS

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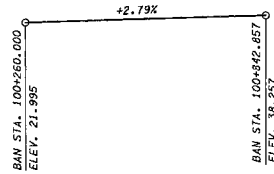
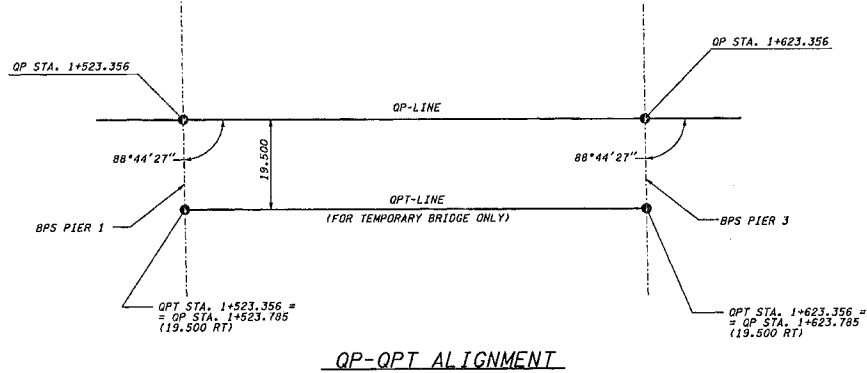
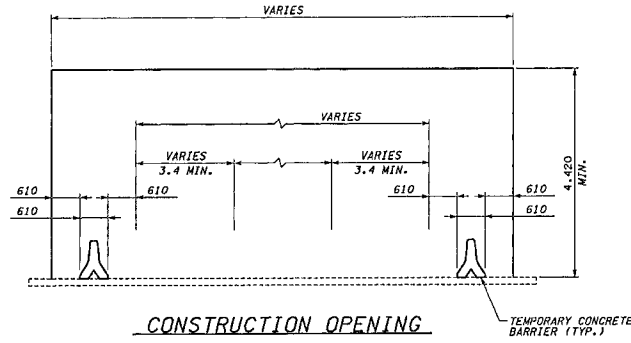
CURVE DATA					
P.T. STATION	DELTA	RADIUS	TANGENT	LENGTH	BK. TAN. BRG.
BAS 100+900.059	2°51'02"RT	4,487.200	115.561	231.070	NO°17'07"E
CDL2 1+944.598	2°56'54"RT	4,502.050	115.863	231.674	NO°17'14"E

LINE INTERSECTION STATIONS AND ANGLES			
NOTATION	STATIONS	ANGLE	
OP/CDL2	OP STA. 1+542.059 P.O.T. = CDL2 STA. 1+958.668 P.O.C.	∠1 = 88°44'15"	
OP/BAS	OP STA. 1+556.912 P.O.T. = BAS STA. 100+814.165 P.O.C.	∠2 = 88°44'01"	
OP/BAL	OP STA. 1+568.144 P.O.T. = BAL STA. 25+504.536 P.O.T.	∠3 = 88°12'24"	
OP/BAR	OP STA. 1+579.451 P.O.T. = BAR STA. 25+570.653 P.O.T.	∠4 = 89°11'43"	
OP/BAN	OP STA. 1+588.826 P.O.T. = BAN STA. 100+799.082 P.O.T.	∠5 = 88°21'17"	
OP/CDR	OP STA. 1+604.017 P.O.T. = CDR STA. 25+805.460 P.O.T.	∠6 = 87°08'14"	

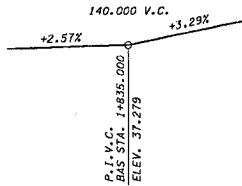
FL-LINE DATA	
NOTATION	STATIONS AND OFFSET
FL/OP	BEGIN FL-LINE FL STA. 1+000.000 P.I. = OP STA. 1+523.356 P.O.T. (12.254 LT)

MEDIAN TAPER DATA	
NOTATION	STATION AND OFFSET
QP/BMT	BEGIN MEDIAN TAPER OP STA. 1+608.518 P.O.T. (1.745 RT)
QP/ENT	END MEDIAN TAPER OP STA. 1+640.517 P.O.T. (1.855 LT)

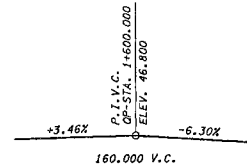
LINE BEARING DATA	
LINE	BEARING
BAN-LINE	NO°17'07"E
BAL-LINE	NO°08'14"E
BAR-LINE	NI°07'33"E
CDR-LINE	NO°55'56"W
FL-LINE	N84°42'05"E
OP-LINE	S88°04'10"E
OPT-LINE	S88°04'10"E



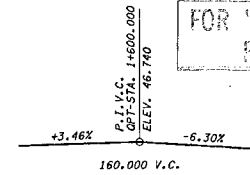
BAN-LINE PROFILE
(NOT IN THIS CONTRACT)



BAS-LINE PROFILE
(NOT IN THIS CONTRACT)



QP-LINE PROFILE



OPT-LINE PROFILE
(FOR TEMPORARY BRIDGE ONLY)

FOR "AS CONSTRUCTED" PLANS ONLY

BRIDGE DESIGN ENGR.	DATE	REVISION	BY
SUPERVISOR			
DESIGNED BY J.H. SZYMECZEK	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. D. DYE	02/02		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

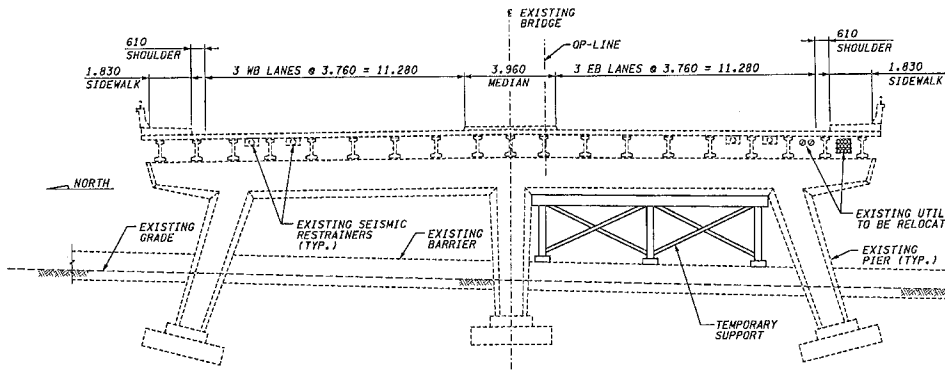
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

GEOMETRIC DATA

BRIDGE SHEET
853
SHEET
230
SHEETS
416

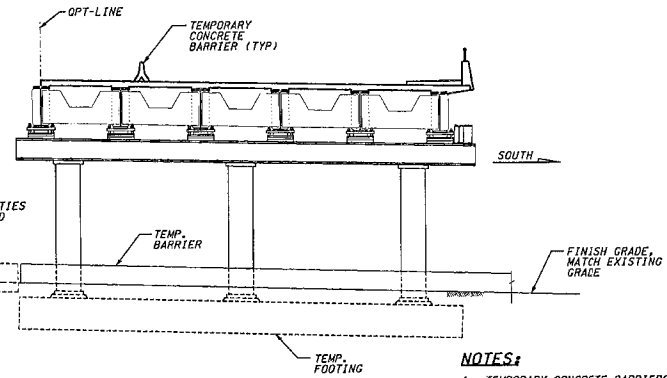
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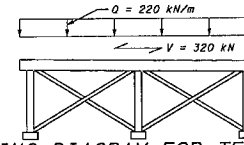
CONSTRUCTION SEQUENCE - STAGE 1

1. CONSTRUCT TEMPORARY PIERS 1, 2 AND 3.
2. CONSTRUCT SOUTH HALF OF NEW BRIDGE SUPERSTRUCTURE ON TEMPORARY PIERS.
3. INSTALL TEMPORARY SUPPORTS @ EXISTING PIERS 2 THRU 6.

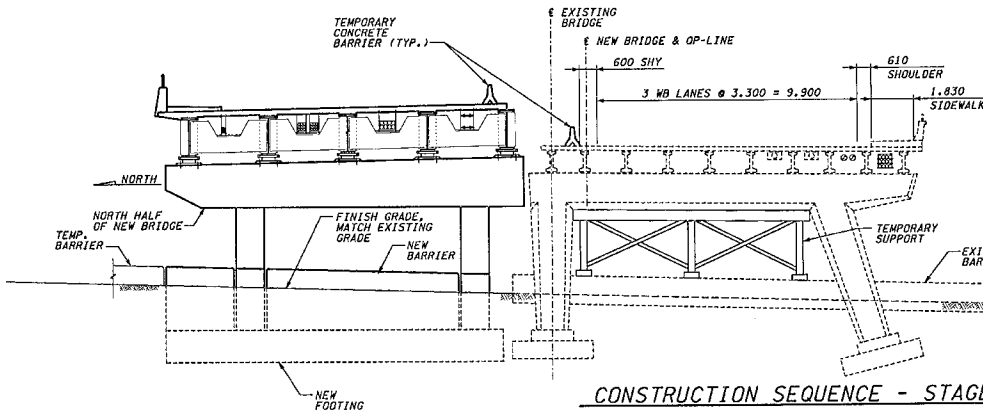


NOTES:

1. TEMPORARY CONCRETE BARRIERS FOR BOTH THE EXISTING AND NEW STRUCTURES SHALL BE CONCRETE BARRIER TYPE 2. SEE STANDARD PLAN C-9. BARRIERS SHALL BE ANCHORED TO THE BRIDGE DECK PER STANDARD PLAN C-9e.
2. TEMPORARY SUPPORTS @ EXISTING PIERS 2 THRU 6 SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR - SEE SPECIAL PROVISIONS.

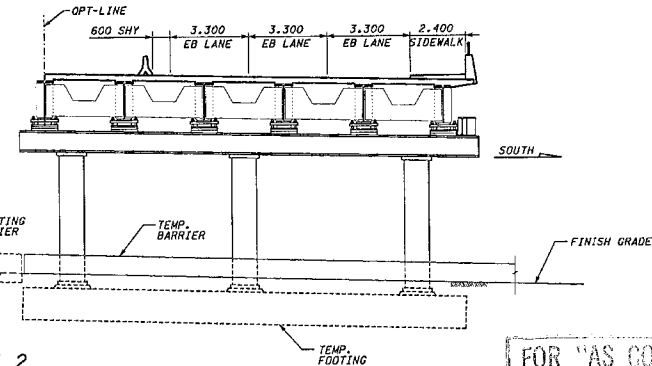


LOADING DIAGRAM FOR TEMPORARY SUPPORTS @ EXISTING PIERS 2 THRU 6



CONSTRUCTION SEQUENCE - STAGE 2

1. MOVE 3 EB LANES ONTO TEMPORARY STRUCTURE.
2. MOVE 3 WB LANES TO SOUTH HALF OF EXISTING BRIDGE.
3. DEMOLISH NORTH HALF OF EXISTING BRIDGE, CENTER COLUMNS & FOOTINGS @ EXISTING PIERS 2 THRU 6 SHALL REMAIN IN ENTIRETY.
4. CONSTRUCT NORTH HALF OF NEW BRIDGE.
5. RELOCATE UTILITIES FROM EXISTING STRUCTURE TO NEW BRIDGE.



FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZAK	02/02				
ENTERED BY M.J. BENSON	02/02				
CHECKED BY S.K. ALSAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

FED. AID PROJ. NO.	
10 WASH	
JOB NUMBER	01A053
CONTRACT NO.	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

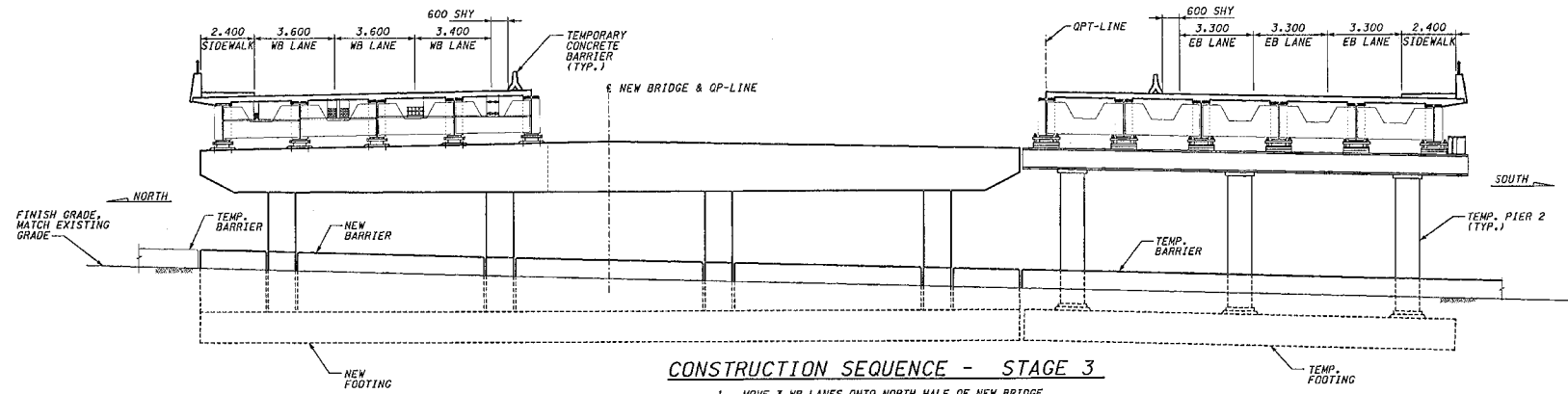
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

CONSTRUCTION SEQUENCE - 1

BRIDGE SHEET NO. 854

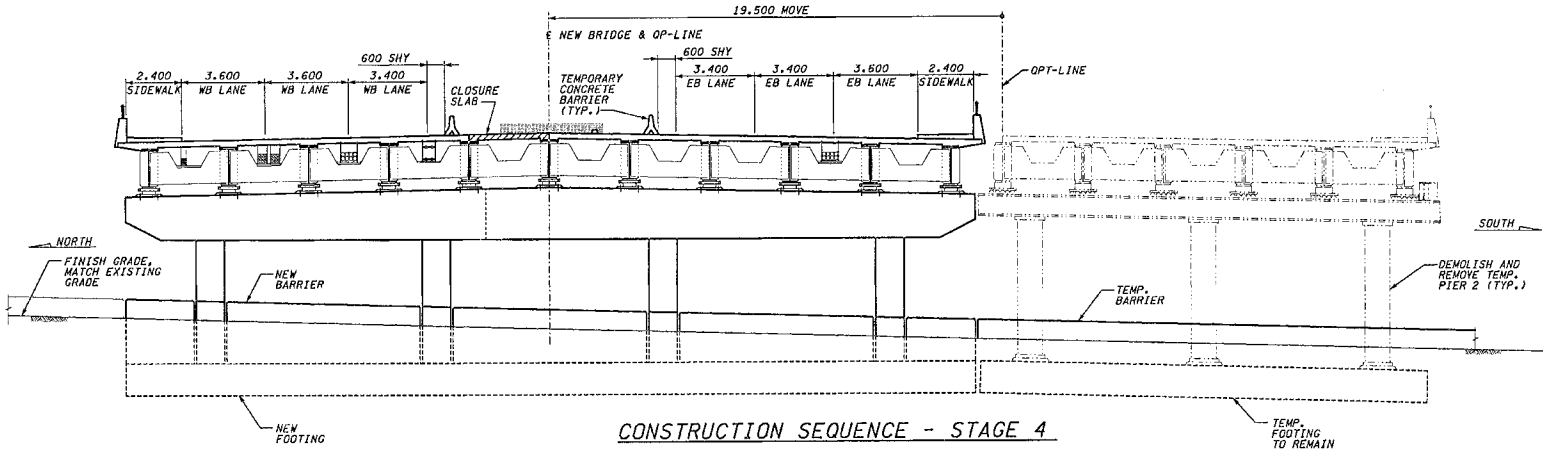
SHEET 231 OF 416 SHEETS

I 405 JOB NO. SHEET
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CONSTRUCTION SEQUENCE - STAGE 3

1. MOVE 3 WB LANES ONTO NORTH HALF OF NEW BRIDGE.
2. DEMOLISH SOUTH HALF OF EXISTING BRIDGE.
3. CONSTRUCT SOUTH HALF OF NEW PIERS 1, 2 AND 3



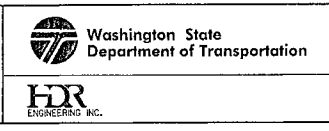
CONSTRUCTION SEQUENCE - STAGE 4

1. RAISE SOUTH HALF OF NEW BRIDGE SUPERSTRUCTURE AND PLACE ON ROLLERS.
2. RELOCATE SOUTH HALF OF NEW BRIDGE SUPERSTRUCTURE ONTO NEW PIERS.
3. RAISE THE SUPERSTRUCTURE AND REMOVE ROLLERS, LOWER THE SUPERSTRUCTURE INTO FINAL ALIGNMENT.
4. CAST CLOSURE SLAB.
5. ~~CONSTRUCT CURB~~
6. REMOVE TEMPORARY CONCRETE BARRIERS.
7. DEMOLISH AND REMOVE TEMPORARY PIER 2 AND PARTIALLY REMOVE AND MODIFY TEMPORARY PIERS 1 AND 3.

FOR "AS CONSTRUCTED PLANS" ONLY

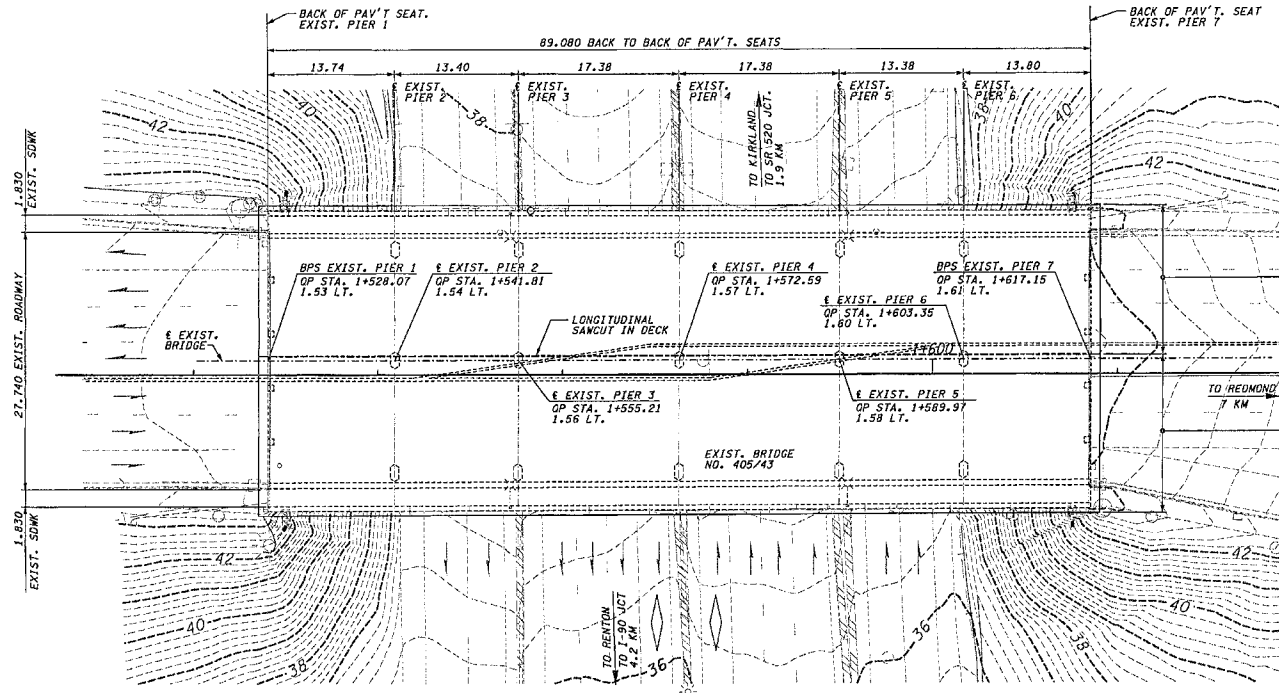
BRIDGE DESIGN ENGR.					REGION STATE	FED.AID PROJ.NO.
SUPERVISOR					10	WASH
DESIGNED BY J.H. SZYMECZEK	02/02				JOB NUMBER	01A053
ENTERED BY M.J. BENSON	02/02				CONTRACT NO.	
CHECKED BY S.K. ALSARA	02/02					
PROJ. ENGR. D. CIERI	02/02	03/19/02	REMOVED MEDIAN			
REGIONAL ADM. D. DYE	02/02					
	DATE	DATE	REVISION	BY		

ENVIRONMENTAL AND ENGINEERING
 SERVICE CENTER
 WASHINGTON STATE
 DEPARTMENT OF TRANSPORTATION
 3/10/02



I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING		BRIDGE SHEET NO. 855
CONSTRUCTION SEQUENCE - 2		SHEET 232 OF 416 SHEETS

SEC. 29 & 32 T. 25N., R. 5E. W.M.

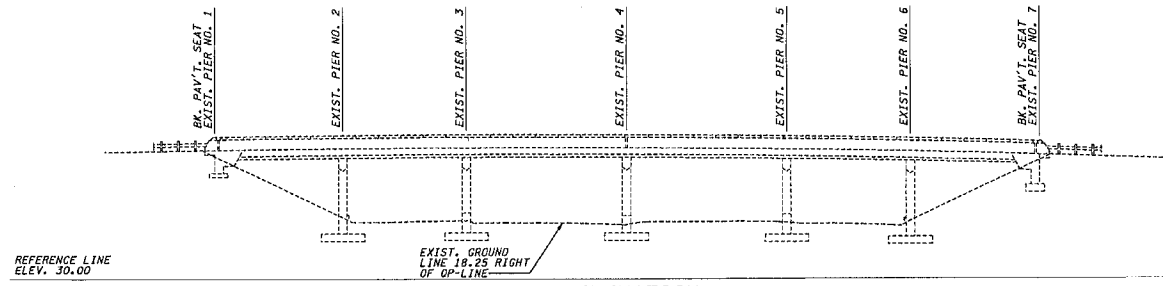


- NOTES:**
1. THE DIMENSIONS AND ELEVATIONS ARE BASED ON ORIGINAL CONSTRUCTION RECORDS TOGETHER WITH FIELD SURVEY DATA. THESE DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD.
 2. FOR UTILITY LOCATION AND CALL OUTS, AND MISSING INFORMATION REFER TO BRIDGE SHEET NO. 851.

- Ⓐ DEMOLISH AND REMOVE NORTH "HALF" OF EXISTING BRIDGE, CONSTRUCTION SEQUENCE - STAGE 2
- Ⓑ DEMOLISH AND REMOVE SOUTH "HALF" OF EXISTING BRIDGE, CONSTRUCTION SEQUENCE - STAGE 3



PLAN



ELEVATION

FOR "AS CONSTRUCTED PLANS" ONLY

I 405 JOB NO. SHEET 02/11/2002 03:22:52 PM ikeller

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY M.J. BENSON	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. OYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
O1A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

2/14/02

EXPRES. 01/01/02

Washington State Department of Transportation

HDR ENGINEERING INC.

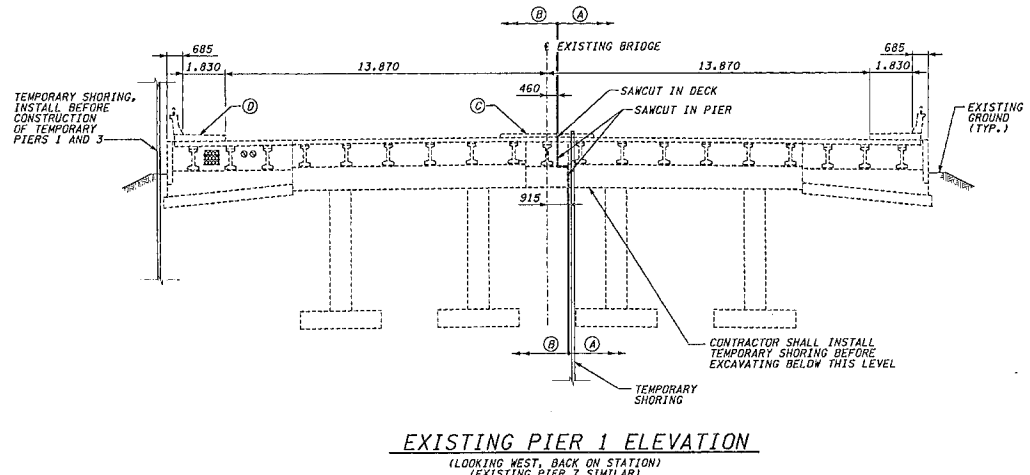
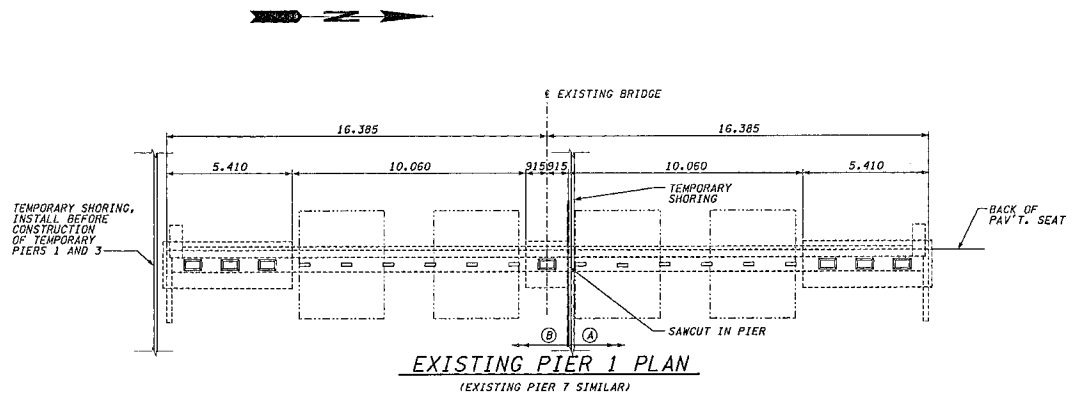
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

DEMOLITION SEQUENCE - 1

BRIDGE SHEET NO.	856
SHEET NO.	233
TOTAL SHEETS	46

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1486 JOB NO. SHEET
 jkeller 03/13/2002 09:09:53 AM



NOTES:
 1. THE CONTRACTOR SHALL INSTALL TEMPORARY SHORING AS SHOWN ON PLANS. ADDITIONAL TEMPORARY SHORING SHALL BE INSTALLED IN ADJACENT AREAS AS REQUIRED TO PREVENT DAMAGE TO REMAINING ROADWAYS AND STRUCTURES.
 2. FOR REMAINING NOTES SEE BRIDGE SHEET NO. 856.

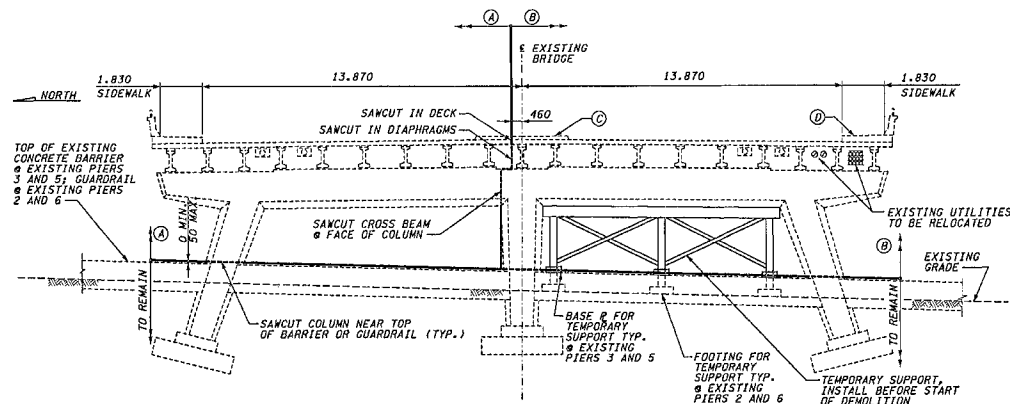
- LEGEND:**
- (A) DEMOLISH AND REMOVE NORTH "HALF" OF EXISTING BRIDGE CONSTRUCTION SEQUENCE - STAGE 2
 - (B) DEMOLISH AND REMOVE SOUTH "HALF" OF EXISTING BRIDGE CONSTRUCTION SEQUENCE - STAGE 3
 - (C) REMOVE MEDIAN AS REQUIRED DURING CONSTRUCTION SEQUENCE - STAGE 2
 - (D) CONTRACTOR MAY ELECT TO USE SIDEWALK FOR STAGING AREA DURING CONSTRUCTION SEQUENCE - STAGE 1

FOR "AS CONSTRUCTED" PLANS ONLY

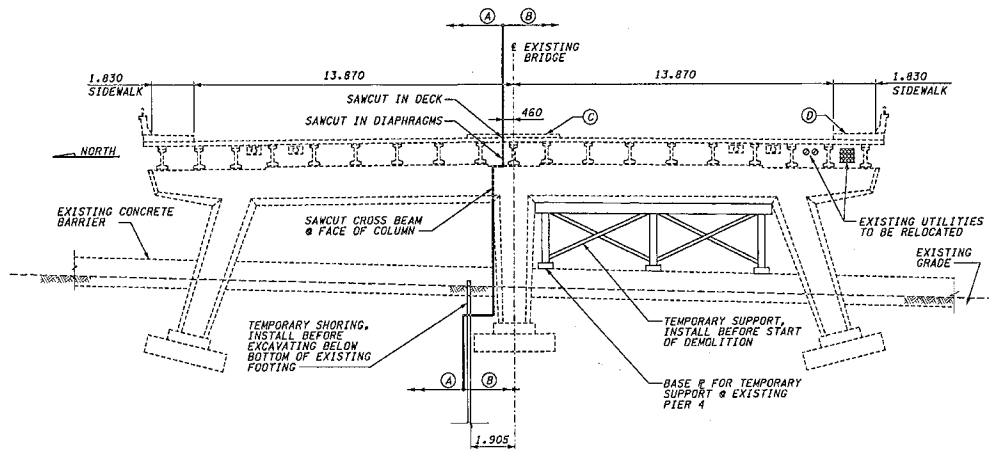
BRIDGE DESIGN ENGR.		REGION STATE		FED. AID PROJ. NO.				I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO. 857
SUPERVISOR		10 WASH							
DESIGNED BY	02/02								
ENTERED BY	02/02								
CHECKED BY	02/02								
PROJ. ENGR.	02/02								
REGIONAL ADM.	02/02	03/19/02	REVISED NOTE	JHS	CONTRACT NO.				
DATE	DATE	DATE	REVISION	BY					

NOTES:

1. FOR NOTES AND LEGEND SEE BRIDGE SHEET NO'S. 856 AND 857.






EXISTING PIERS 2, 3, 5 AND 6 ELEVATION

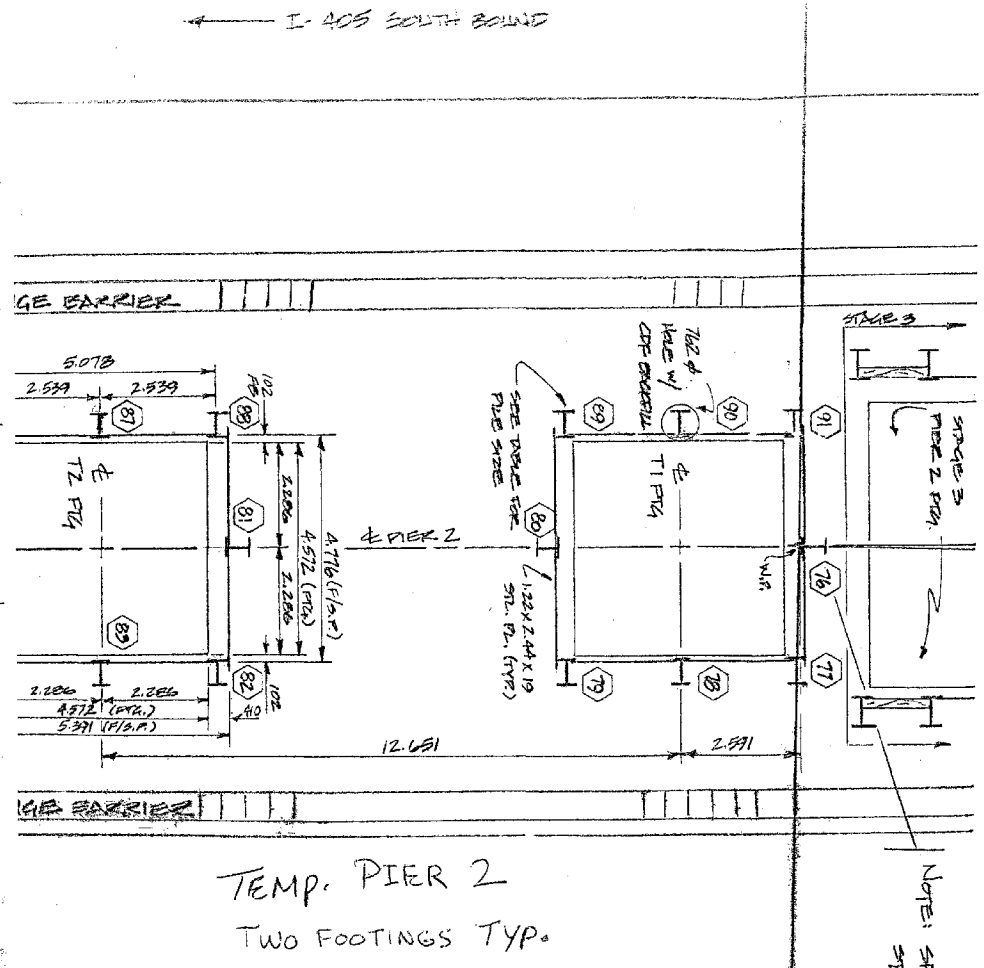
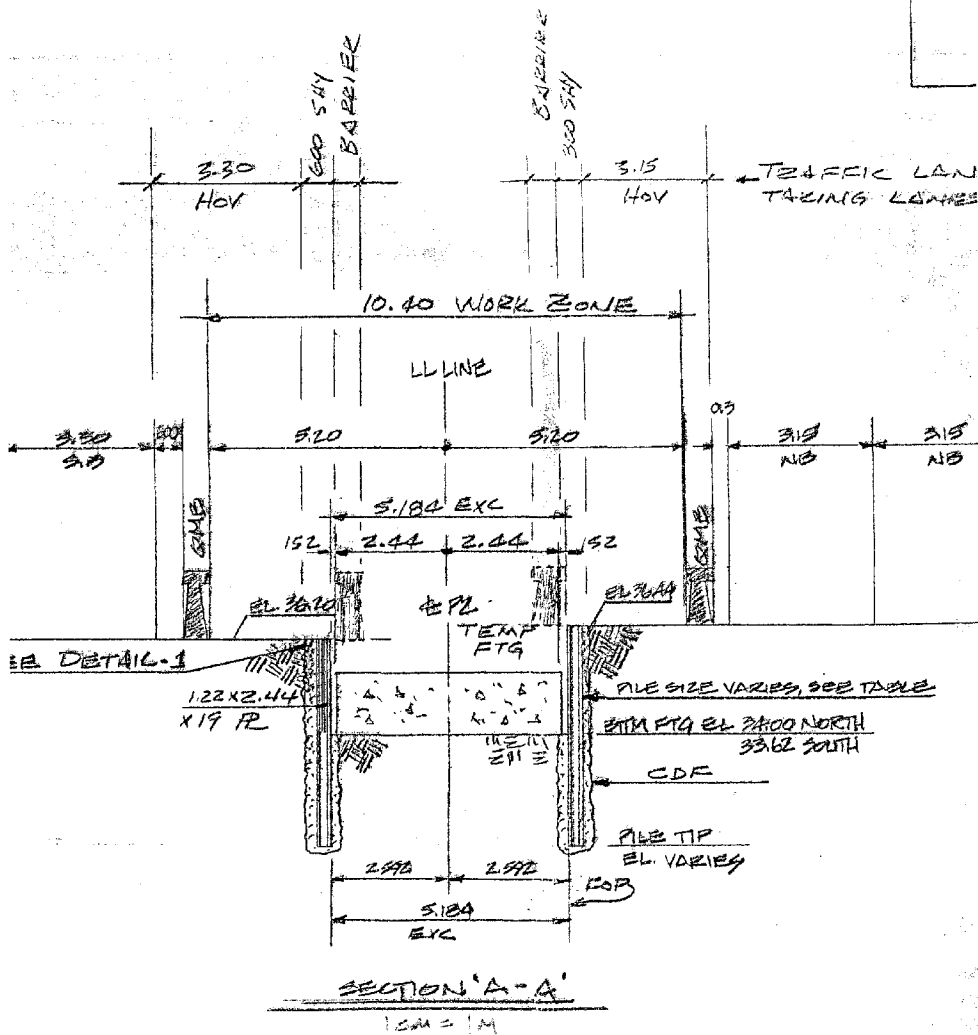


EXISTING PIER 4 ELEVATION

FOR "AS CONSTRUCTED PLANS" ONLY

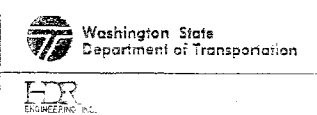
I:\temp\dms00357\85008_C1.dgn
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 Ikelter

BRIDGE DESIGN ENGR.				REGION NO.	STATE	FED.AID PROJ.NO.	 ENVIRONMENTAL AND ENGINEERING SERVICE CENTER	 Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO.
SUPERVISOR				10	WASH					858
DESIGNED BY J.H. SZYMCEK	02/02			JOB NUMBER			 HDR ENGINEERING INC.	DEMOLITION SEQUENCE - 3	SHEET	
ENTERED BY M.J. BENSON	02/02			01A053					235	
CHECKED BY S.K. AISAKA	02/02			CONTRACT NO.					416	
PROJ. ENGR. D. CIERI	02/02								SHEETS	
REGIONAL ADM. D. DYE	02/02								416	
	DATE	DATE	REVISION	BY						



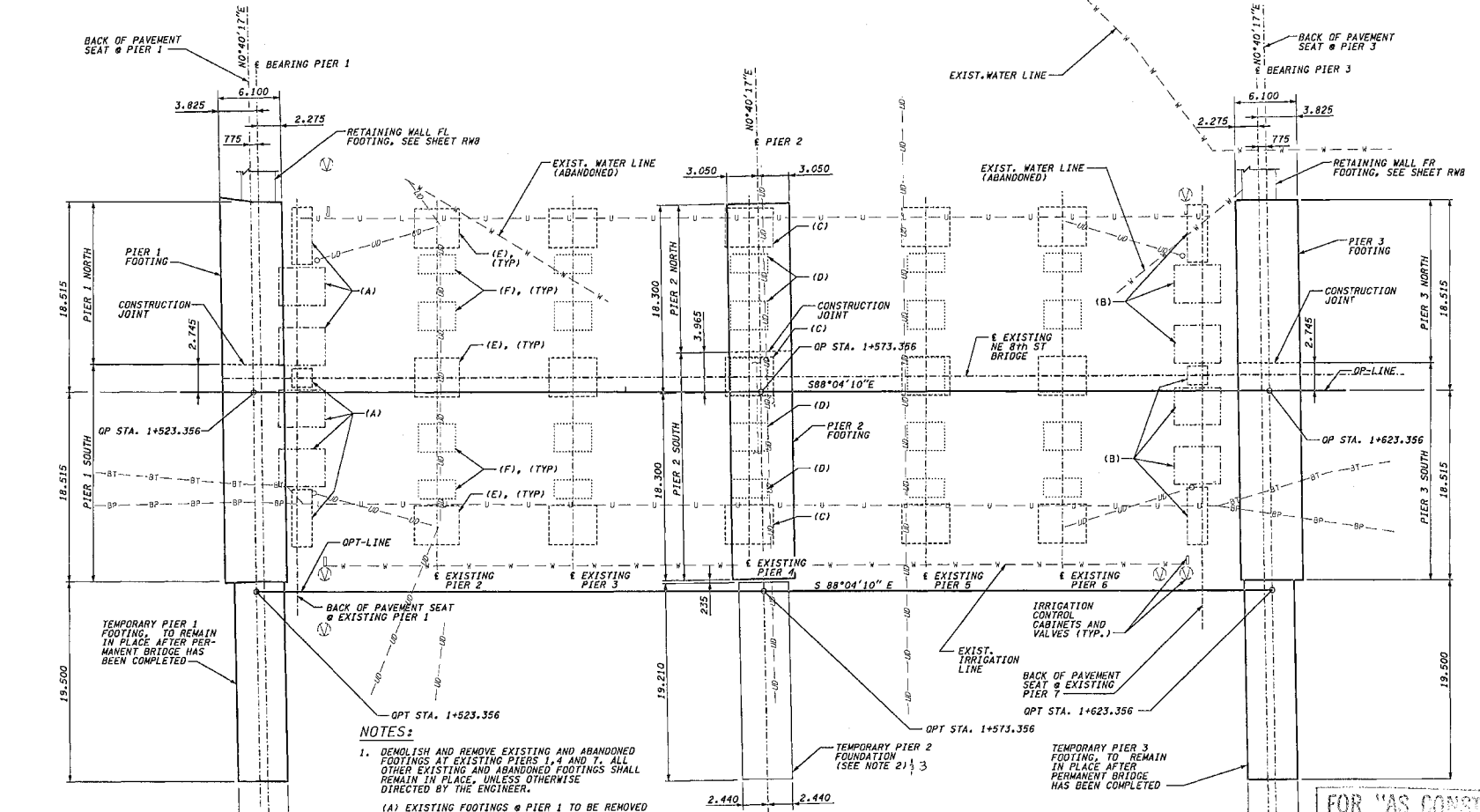
NOTE: SEE PLAN T1 & T2

DRIVING DESIGN COUNT		NO.
SUPERVISOR		10 WASH
DESIGNED BY J.N. SZYMIECZEK	02/02	
ENTERED BY L.D. KELLEP	02/02	
CHECKED BY S.K. AISAKA	02/02	JOB NUMBER
PROJ. ENGR. D. DIER	02/02	01A053
REGIONAL ADM. D. DYE	02/02	DATE



I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING
FOUNDATION PLAN

859A
236
T/C



FOUNDATION PLAN

NOTES:

- DEMOLISH AND REMOVE EXISTING AND ABANDONED FOOTINGS AT EXISTING PIERS 1, 4 AND 7. ALL OTHER EXISTING AND ABANDONED FOOTINGS SHALL REMAIN IN PLACE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 - (A) EXISTING FOOTINGS @ PIER 1 TO BE REMOVED
 - (B) EXISTING FOOTINGS @ PIER 7 TO BE REMOVED
 - (C) EXISTING FOOTINGS @ PIER 4 TO BE REMOVED
 - (D) ABANDONED FOOTINGS @ PIER 4 TO BE REMOVED
 - (E) EXISTING FOOTINGS @ PIERS 2, 3, 5 AND 6 TO REMAIN
 - (F) ABANDONED FOOTINGS @ PIERS 2, 3, 5 AND 6 TO REMAIN
- TEMPORARY PIER 2 FOUNDATION SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR - SEE SPECIAL PROVISIONS. FOUNDATION SHOWN ON THIS SHEET IS FOR INFORMATION ONLY AND DOES NOT NECESSARILY SIGNIFY SPREAD FOOTING TYPE OF FOUNDATION.
 - 3. TEMPORARY PIER 2 Footings, Partial Columns and U-Piles REMAIN
 - 4. PIER 2 NORTH AND SOUTH SHORING U-PILES REMAIN

FOR 'AS CONSTRUCTED' PLANS ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMOCZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXPRES. 01/09/02

Washington State Department of Transportation

ENGINEERING INC.

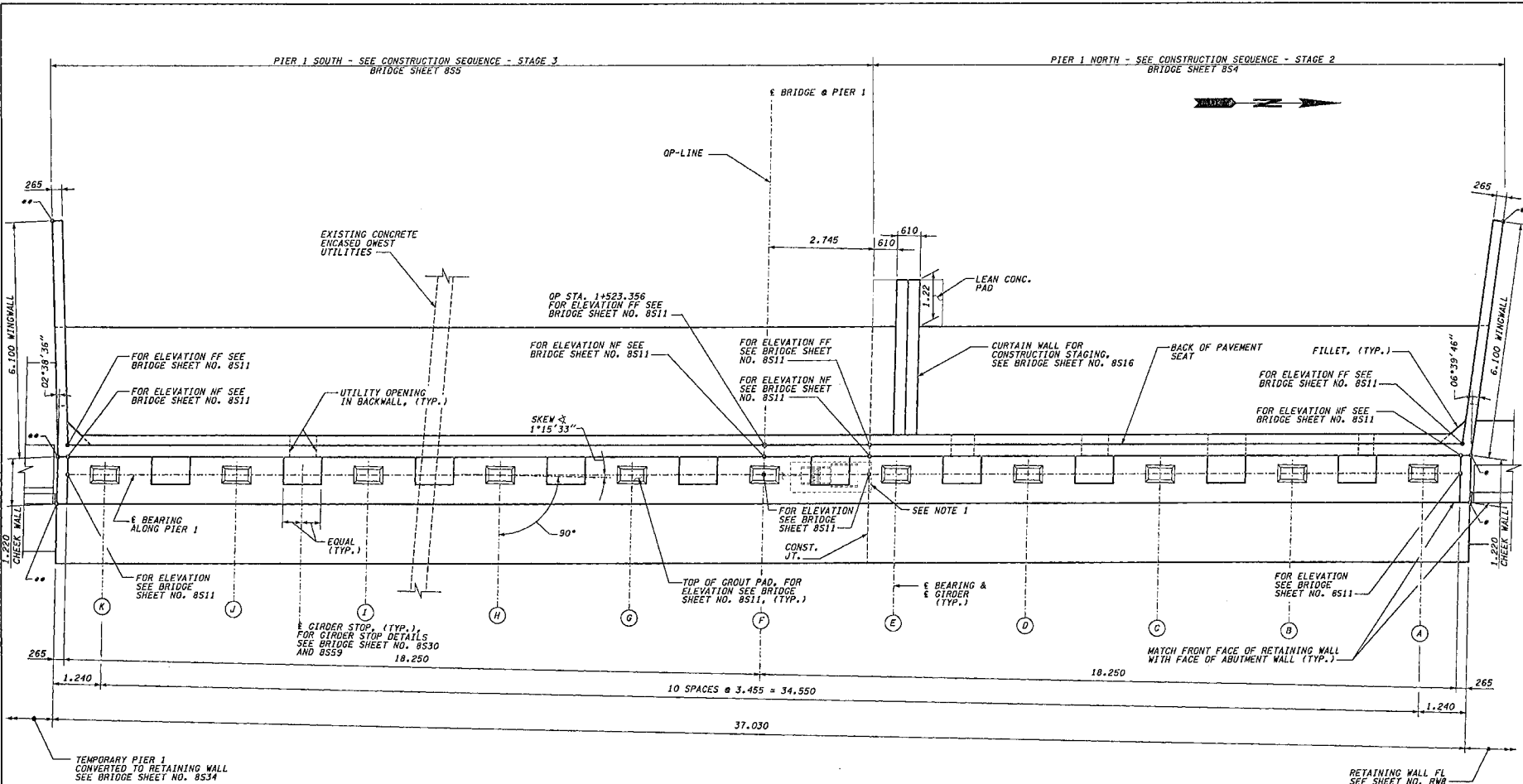
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

FOUNDATION PLAN

BRIDGE SHEET NO. 859

SHEET 236 OF 416 SHEETS

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PIER 1 PLAN

NOTE:
 1. PROPOSED LOCATION OF MECHANICAL EQUIPMENT (WINCHES, PULLEYS, BLOCKS, ETC.) USED FOR SUPERSTRUCTURE RELOCATION. PROVIDE BLOCKOUTS OR EMBED ANCHORS FOR EQUIPMENT ATTACHMENT @ THE TIME OF PIER CONSTRUCTION - ALSO SEE NOTES ON BRIDGE SHEET NO. 8589, SIMILAR.

* FOR TOP OF NORTH WINGWALL AND CHEEK WALL ELEVATIONS SEE BRIDGE SHEET NO. 8517

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

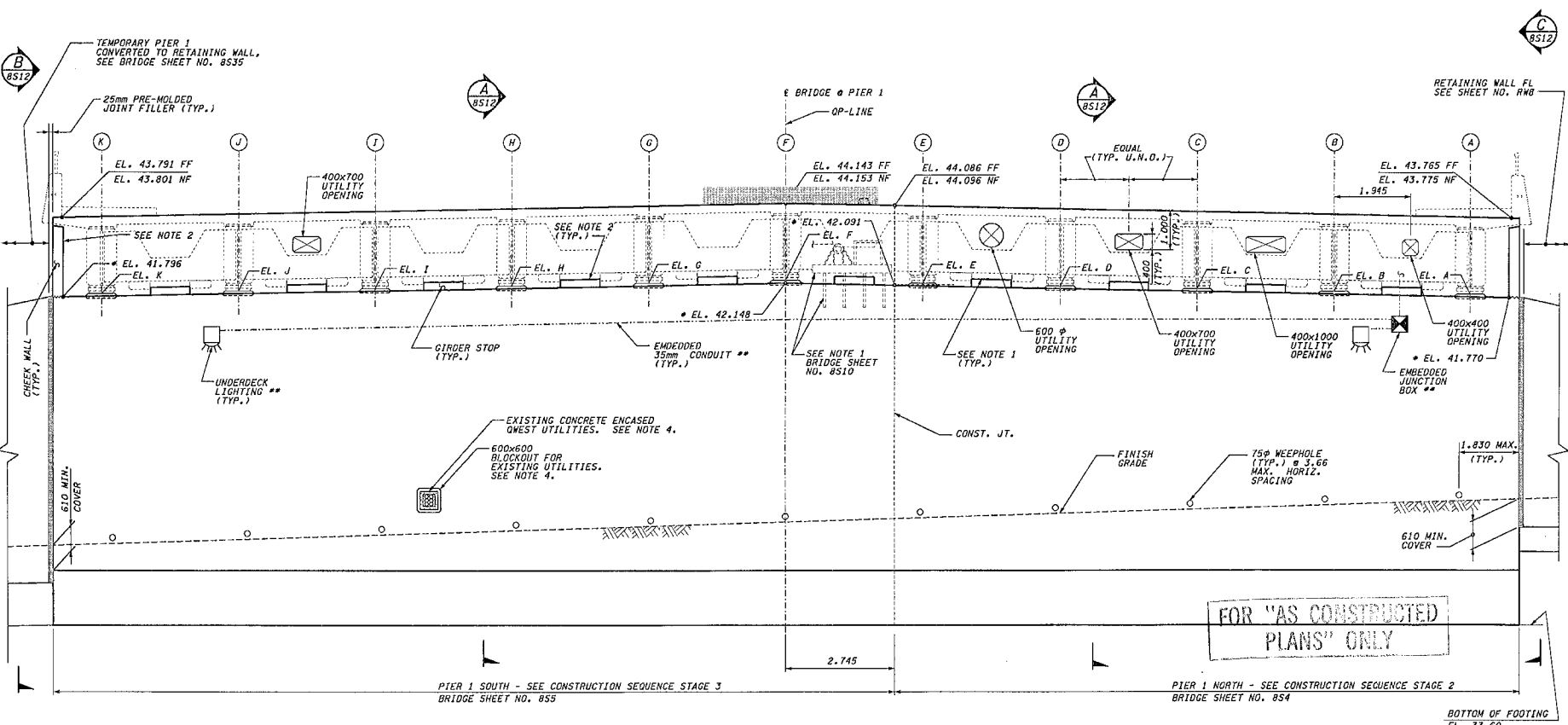
PIER 1 PLAN

BRIDGE SHEET NO.	8510
SHEET	237
	416
SHEETS	

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** FOR LOCATION AND INFORMATION SEE SHEET NO. 1LD1.
 • ELEVATIONS TAKEN @ E BEARING

PIER 1 ELEVATION
 (LOOKING WEST, BACK ON STATION)

- NOTES:**
- GIRDER STOPS AT PIER 1 NORTH SHALL BE CONSTRUCTED AFTER THE NORTH SUPERSTRUCTURE HAS BEEN ERECTED.
 - GIRDER STOPS AND CHEEK WALL AT PIER 1 SOUTH SHALL BE CONSTRUCTED AFTER THE SOUTH SUPERSTRUCTURE HAS BEEN RELOCATED INTO ITS FINAL POSITION.
 - RECTANGULAR UTILITY OPENINGS SHALL BE CHAMFERED 50mm AT EACH CORNER.
 - BLOCKOUT DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND LOCATION OF CONCRETE ENCASED WEST UTILITIES AND ADJUST THE BLOCKOUT AS REQUIRED. FOR LOCATION OF WEST UTILITIES REFER ALSO TO UTILITY DRAWINGS. BLOCKOUT SHALL BE FILLED WITH GROUT AFTER UTILITIES HAVE BEEN RELOCATED.
 - PIGMENTED SEALER SHALL BE APPLIED TO ALL EXPOSED SURFACES, EXTENDING DOWN TO AT LEAST 300mm BELOW FINISH GRADE.

TOP OF GROUT PAD ELEVATIONS @ PIER 1										
LOCATION	K	J	I	H	G	F	E	D	C	A
ELEVATION	41.855	41.922	41.980	42.055	42.122	42.188	42.117	42.045	41.974	41.831

BRIDGE DESIGN ENGR.										
SUPERVISOR										
DESIGNED BY J.H. SZYMIECZEK	02/02									
ENTERED BY L.O. KELLER	02/02									
CHECKED BY S.K. AISAKA	02/02									
PROJ. ENGR. D. CIERI	02/02									
REGIONAL ADM. D. DYE	02/02	03/19/02	REMOVED	MEDIAN						
DATE	DATE	REVISION	BY							

REC'D STATE FED.AID PROJ.NO.
 10 WASH
 JOB NUMBER
 01A053
 CONTRACT NO.
 BY

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

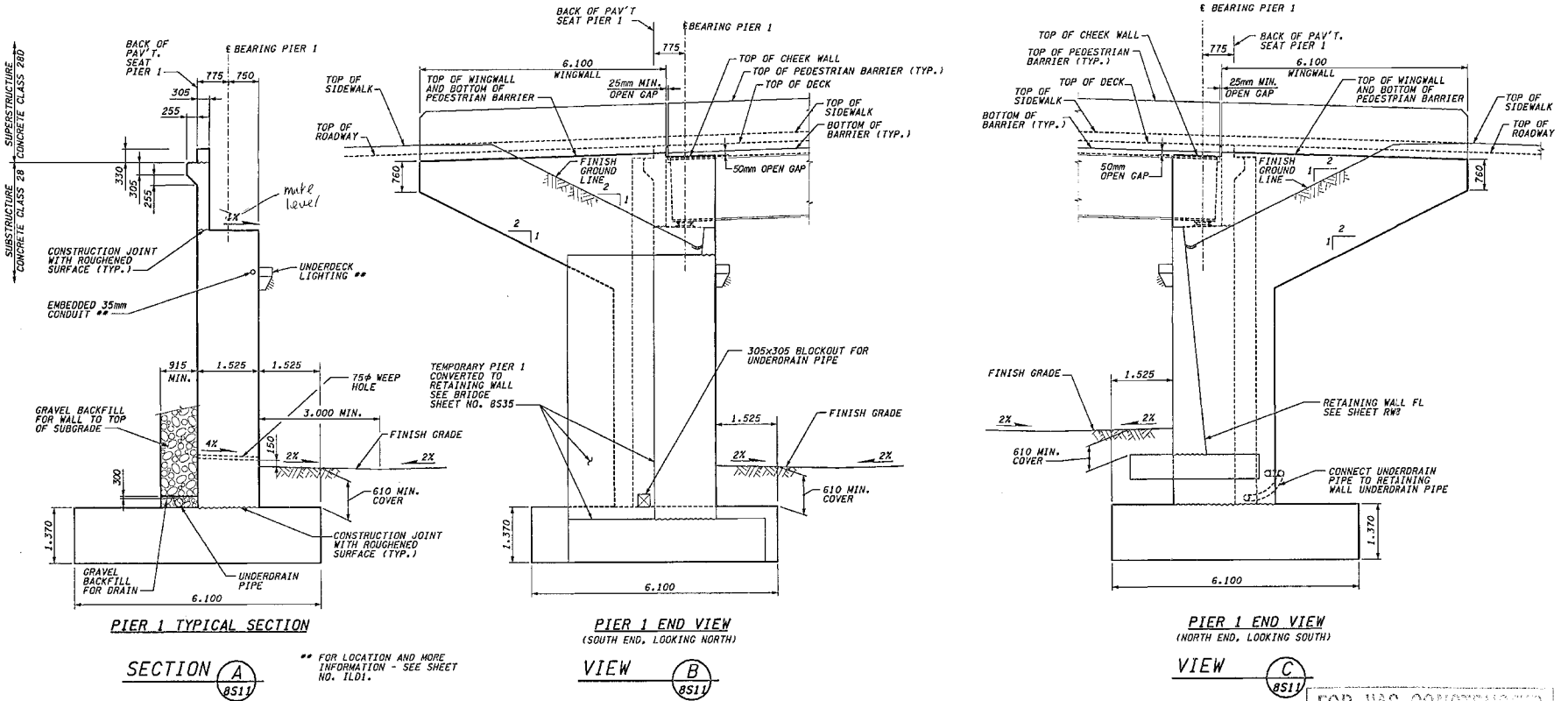
I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING
 PIER 1 ELEVATION

BRIDGE PROJ. 8511
 SHEET 238 of 410 SHEETS

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L 405 JOB NO. SHEET 02/11/2002 03:23:21 PM

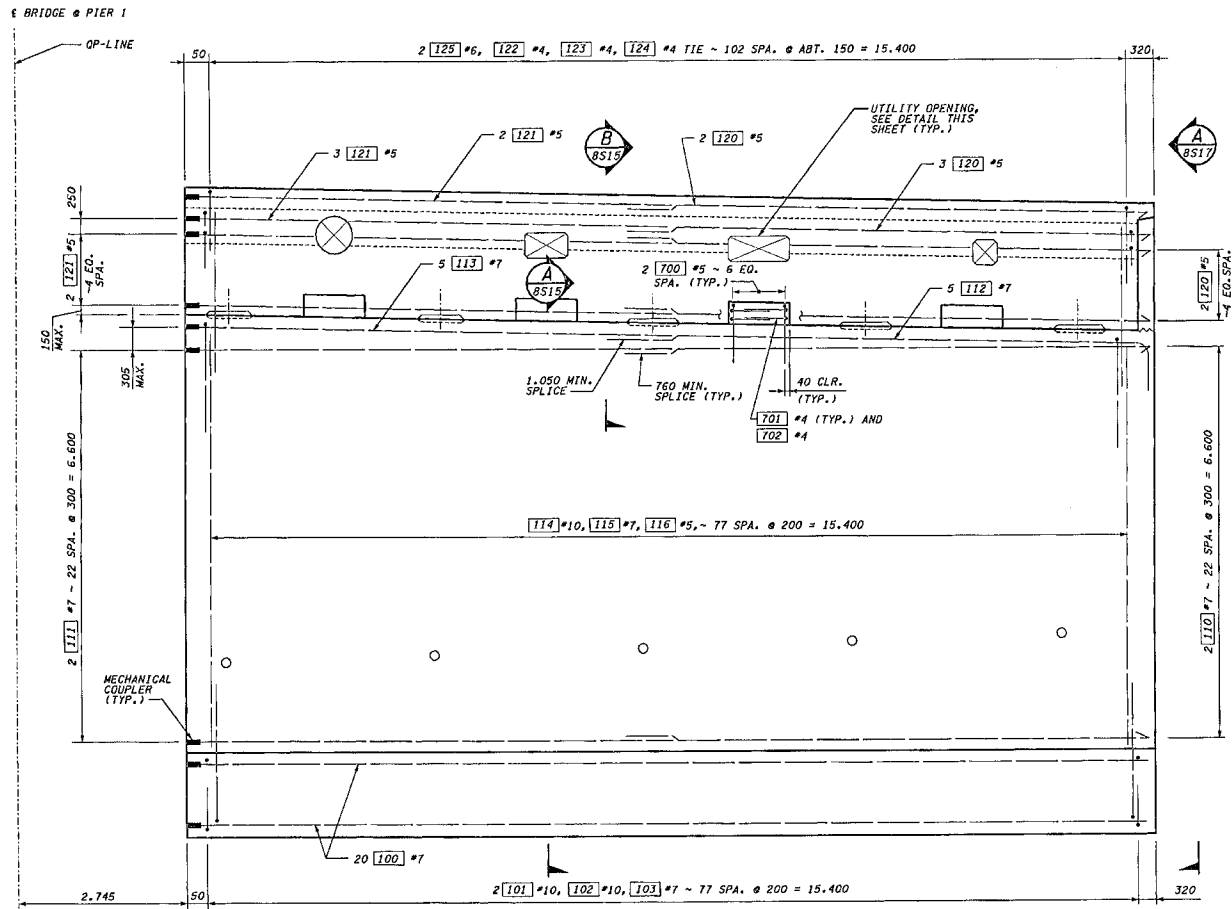
Ike Iler



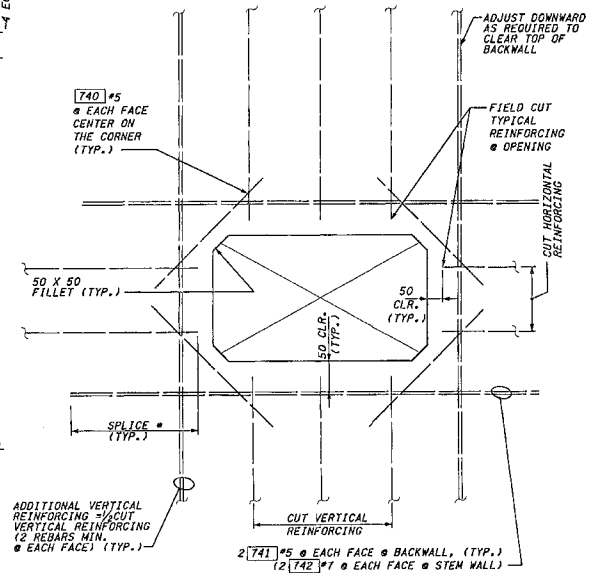
FOR "AS CONSTRUCTED" PLANS ONLY

BRIDGE DESIGN ENGR.		REGION NO.		STATE	FED. AID PROJ. NO.			I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO.
SUPERVISOR		10	WASH						8512
DESIGNED BY J.H. SZYMOCZEK	02/02	JOB NUMBER		CONTRACT NO.			PIER 1 TYPICAL SECTIONS		
ENTERED BY L.D. KELLER	02/02	01A053					SHEET		
CHECKED BY S.K. AITAKA	02/02						239		
PROJ. ENGR. D. CIERI	02/02					PIER 1 TYPICAL SECTIONS		416	
REGIONAL ADM. D. DYE	02/02							SHEETS	
DATE	DATE	REVISION	BY					416	

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 keller
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* SPLICE = 610 MIN. FOR #5 BARS
 760 MIN. FOR #7 BARS



PIER 1 NORTH
 (LOOKING WEST, BACK ON STATION)
 CONSTRUCTION SEQUENCE - STAGE 2

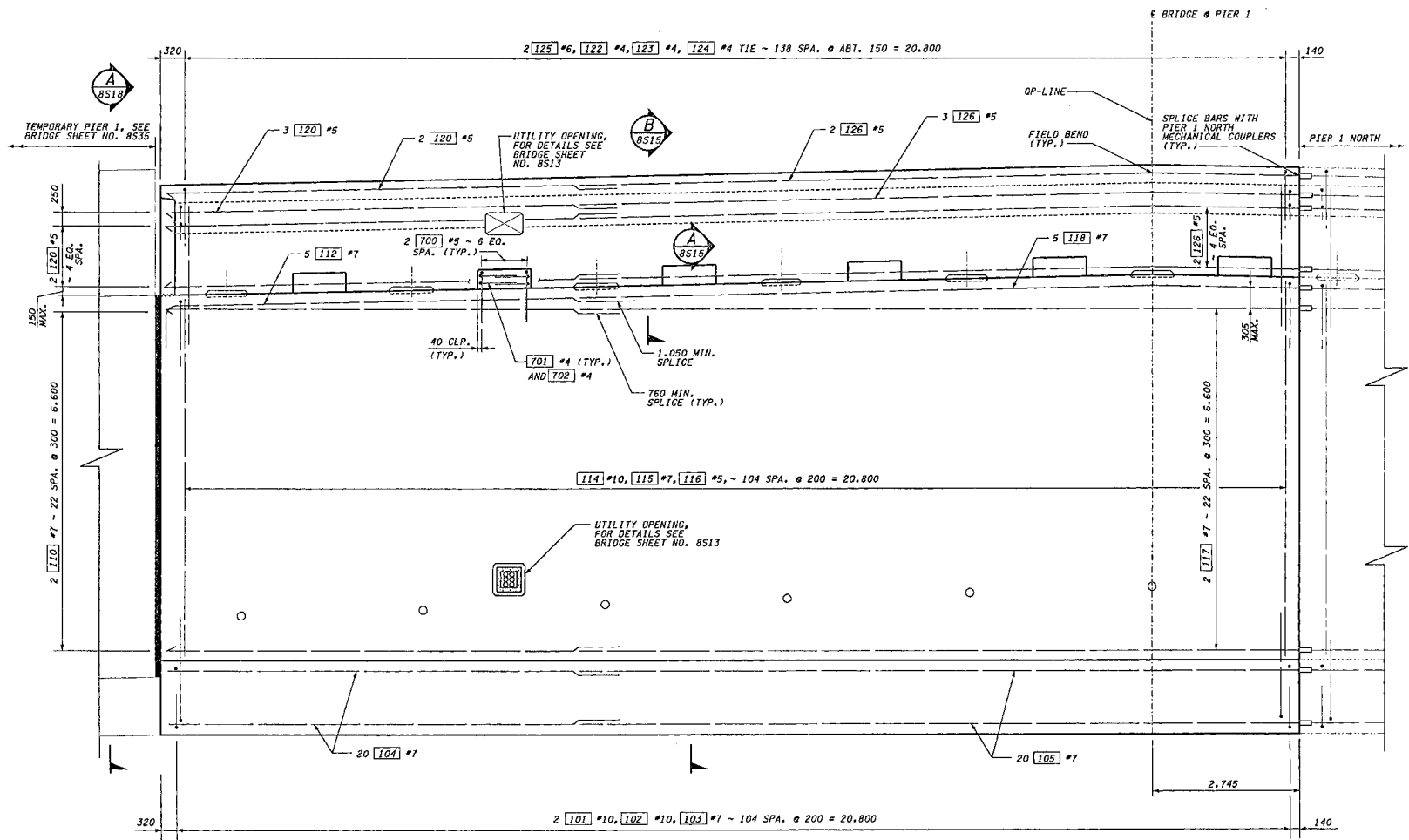
UTILITY OPENING DETAIL
 RECTANGULAR OPENING SHOWN.
 REINFORCING FOR CIRCULAR OPENING SIMILAR.

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.		REGION/STATE		FED. AID PROJ. NO.		ENVIRONMENTAL AND ENGINEERING SERVICE CENTER		Washington State Department of Transportation		BRIDGE SHEET NO. 8S13	
SUPERVISOR		10 WASH				 EXP. 03/25/02				I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	
DESIGNED BY J.H. SZYMECZEK	02/02									240 OF 416 SHEETS	
ENTERED BY L.O. KELLER	02/02										
CHECKED BY S.K. AISAKA	02/02										
PROJ. ENGR. D. CIERI	02/02										
REGIONAL ADM. D. DYE	02/02										
DATE	DATE	REVISION	BY	CONTRACT NO. 01A053							

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FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.									
SUPERVISOR									
DESIGNED BY J.H. SZYMECZEK	02/02								
ENTERED BY L.D. KELLER	02/02								
CHECKED BY S.K. AISAKA	02/02								
PROJ. ENGR. D. CIERI	02/02								
REGIONAL ADM. D. DYE	02/02								
DATE	DATE	REVISION	BY						

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

DATE: 02/02/02

Washington State Department of Transportation

ENGINEERING INC.

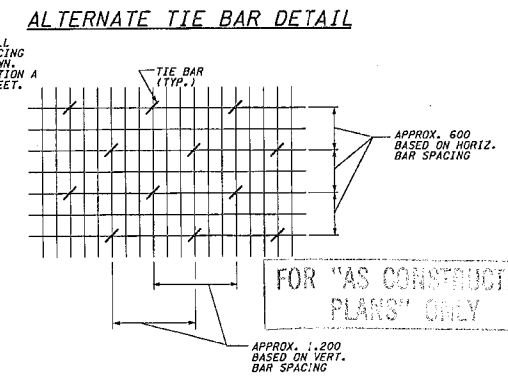
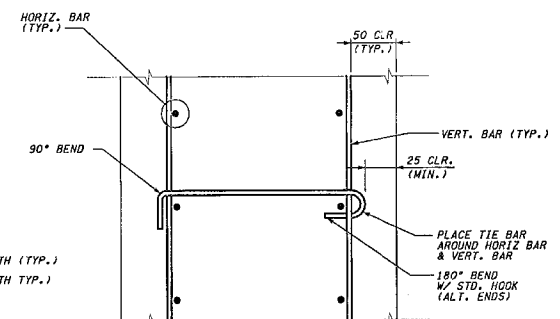
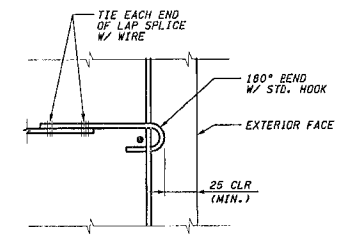
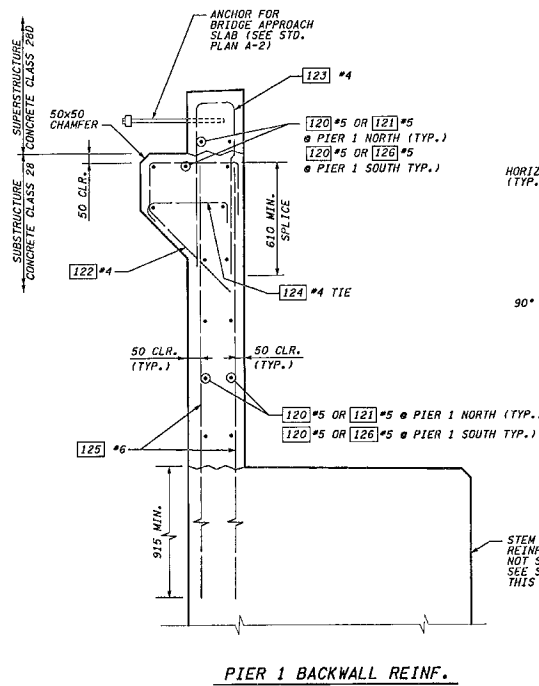
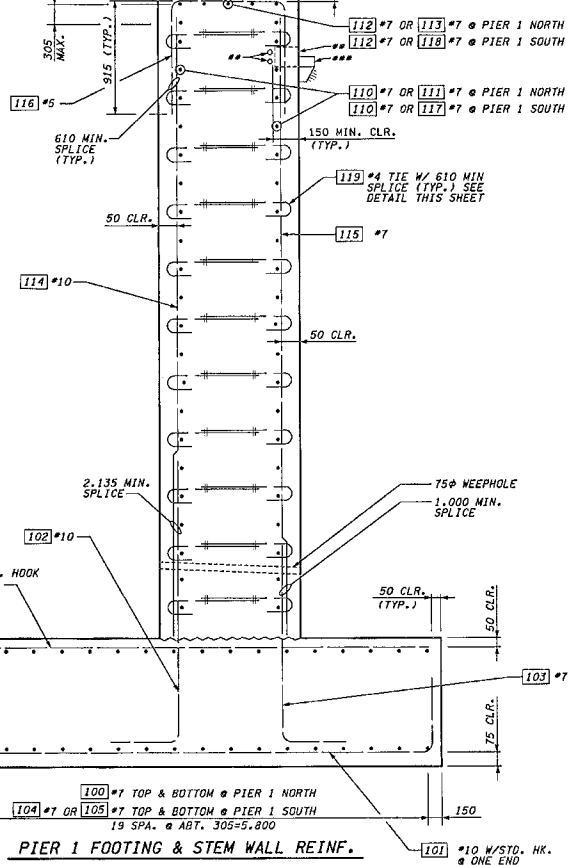
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

PIER 1 SOUTH DETAILS

BRIDGE SHEET NO.	8514
SHEET	241
SHEETS	416

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 SHEET
 L 405 JOB NO. IREll.ec

BACKWALL REINF. NOT SHOWN, SEE SECTION B
 BRG. PIER 1
 GIRDER STOP REINF. NOT SHOWN, SEE DETAIL C
 ** EMBEDDED CONDUITS AND JUNCTION BOX - SEE SHEET NO. ILO1.
 *** UNDERDECK LIGHTING - SEE SHEET NO. ILO1.



BRIDGE DESIGN ENGR.				REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR				10	WASH	
DESIGNED BY J.H. SZYMECZEK	02/02			JOB NUMBER		
ENTERED BY L.D. KELLER	02/02			01A053		
CHECKED BY S.K. AISAKA	02/02			CONTRACT NO.		
PROJ. ENGR. D. CIERI	02/02					
REGIONAL ADM. D. OYE	02/02					
DATE	DATE	REVISION	BY			

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

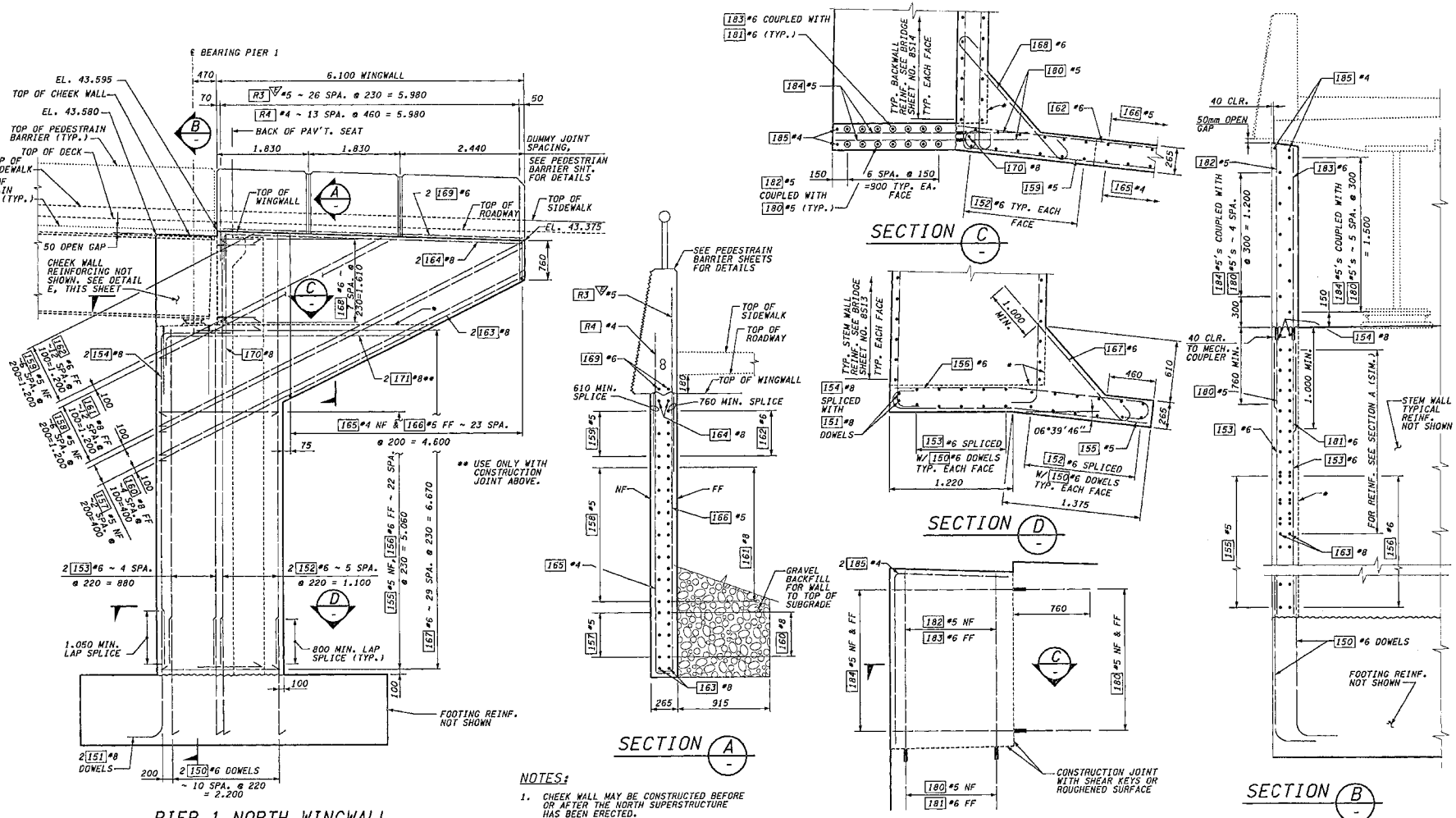
EXPRESS 02/09/02

Washington State Department of Transportation

HDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO. 8S15
PIER 1 NORTH & SOUTH DETAILS	SHEET 242 OF 416 SHEETS

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 SHEET
 keller
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- NOTES:**
- CHEEK WALL MAY BE CONSTRUCTED BEFORE OR AFTER THE NORTH SUPERSTRUCTURE HAS BEEN ERRECTED.
 - PIGMENTED SEALER SHALL BE APPLIED TO ALL EXPOSED SURFACES, EXTENDING DOWN TO AT LEAST 300mm BELOW FINISHED GRADE.
 - OPTIONAL CONSTRUCTION JOINT WITH SHEAR KEYS OR ROUGHENED SURFACE.

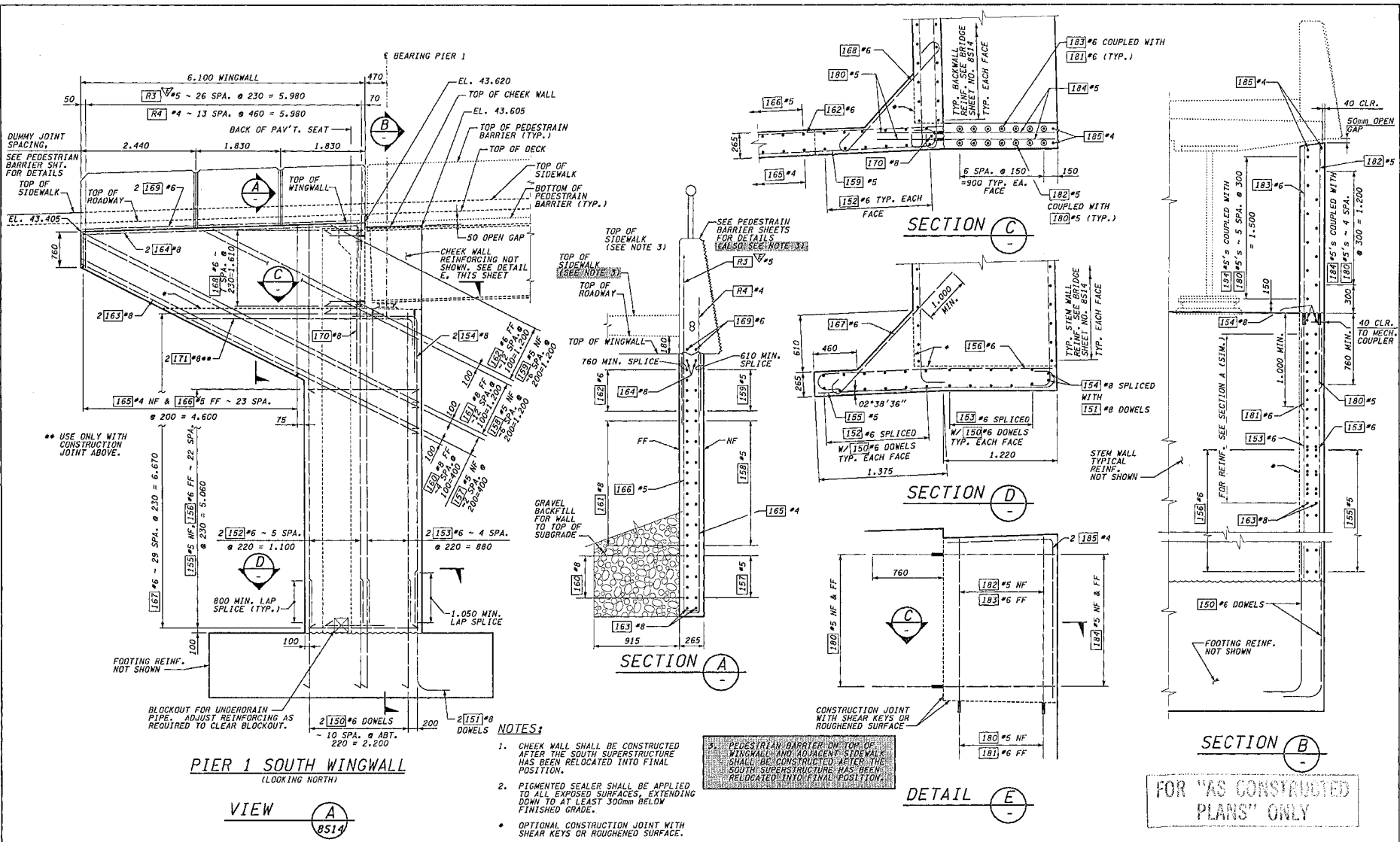
FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.		REVISION		STATE		FED. AID PROJ. NO.		ENVIRONMENTAL AND ENGINEERING SERVICE CENTER		Washington State Department of Transportation		I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING		BRIDGE SHEET NO. 8517	
SUPERVISOR		DATE		10 WASH						HDR ENGINEERING INC.		PIER 1 NORTH WINGWALL		SHEET 244 OF 416	
DESIGNED BY J.H. SZYMECZEK		02/02													
ENTERED BY L.O. KELLER		02/02													
CHECKED BY S.K. AISAKA		02/02													
PROJ. ENGR. D. CIERI		02/02													
REGIONAL ADM. D. DYE		02/02													
DATE	DATE	REVISION	BY												

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SHEET



PIER 1 SOUTH WINGWALL (LOOKING NORTH)

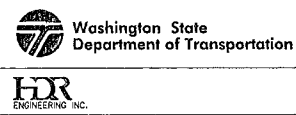
VIEW A 8514

- NOTES:**
- CHEEK WALL SHALL BE CONSTRUCTED AFTER THE SOUTH SUPERSTRUCTURE HAS BEEN RELOCATED INTO FINAL POSITION.
 - PIGMENTED SEALER SHALL BE APPLIED TO ALL EXPOSED SURFACES, EXTENDING DOWN TO AT LEAST 300mm BELOW FINISHED GRADE.
 - OPTIONAL CONSTRUCTION JOINT WITH SHEAR KEYS OR ROUGHENED SURFACE.

PEDESTRIAN BARRIER ON TOP OF WINGWALL AND ADJACENT SIDEWALK SHALL BE CONSTRUCTED AFTER THE SOUTH SUPERSTRUCTURE HAS BEEN RELOCATED INTO FINAL POSITION.

FOR "AS CONSTRUCTED" PLANS ONLY

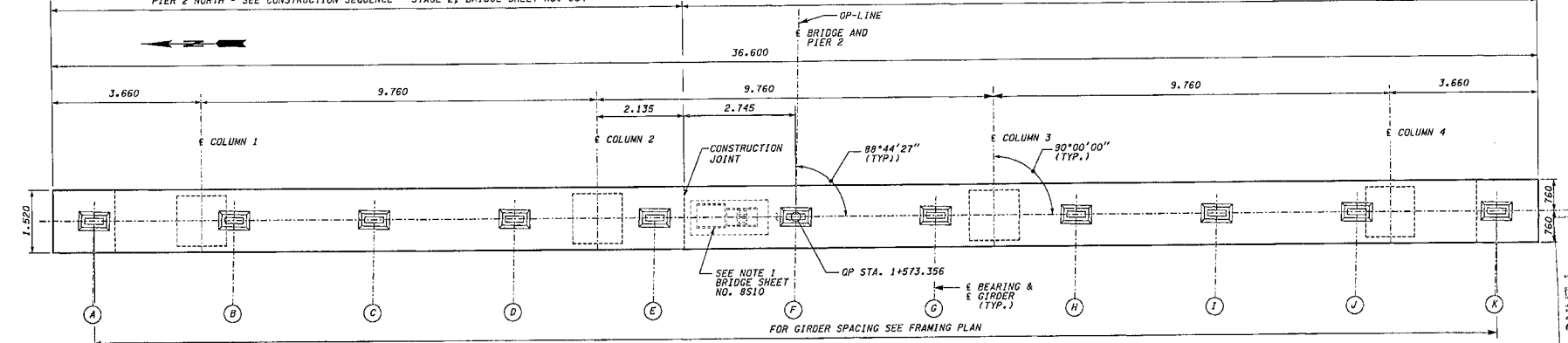
BRIDGE DESIGN ENGR.		REGION STATE	FED. AID PROJ. NO.	 Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING PIER 1 SOUTH WINGWALL	BRIDGE SHEET NO.	8518
SUPERVISOR		10 WASH				SHEET	245
DESIGNED BY J.H. SZYMECZEK	02/02	JOB NUMBER	01A053	ENGINEERING INC.	416	SHEETS	
ENTERED BY L.D. KELLER	02/02	CONTRACT NO.					
CHECKED BY S.K. AISAKA	02/02						
PROJ. ENGR. D. CIERI	02/02						
REGIONAL ADM. D. DYE	02/02						
DATE	03/19/02	ADDED NOTE					
DATE		REVISION					
		BY					



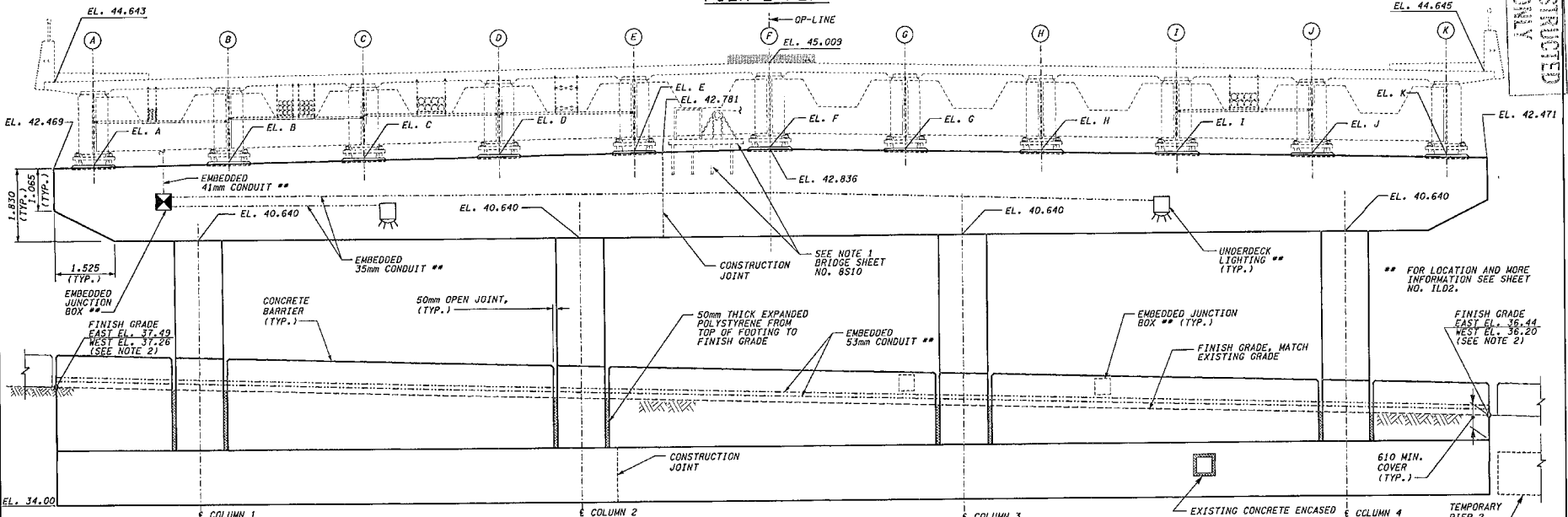
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PIER 2 NORTH - SEE CONSTRUCTION SEQUENCE - STAGE 2, BRIDGE SHEET NO. 854

PIER 2 SOUTH - SEE CONSTRUCTION SEQUENCE - STAGE 3, BRIDGE SHEET NO. 855



PIER 2 PLAN



TOP OF GROUT PAD ELEVATIONS @ PIER 2

LOCATION	A	B	C	D	E	F	G	H	I	J	K
ELEVATION	42.530	42.599	42.668	42.738	42.807	42.876	42.807	42.738	42.669	42.600	42.531

PIER 2 ELEVATION

- NOTE:**
- PIER ELEVATIONS SHOWN @ BEARINGS PIER 2.
 - THE CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS.
 - PIGMENTED SEALER SHALL BE APPLIED TO ALL EXPOSED SURFACES, EXTENDING DOWN TO AT LEAST 300mm BELOW FINISH GRADE.

BRIDGE DESIGN ENGR.											
SUPERVISOR											
DESIGNED BY J.H. SZYMECZEK	02/02										
ENTERED BY L.D. KELLER	02/02										
CHECKED BY S.K. AISAKA	02/02										
PROJ. ENGR. D. CIERI	02/02										
REGIONAL ADM. D. DYE	02/02										
DATE	DATE	REMOVED	MEDIA	REVISION	BY						

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	CONTRACT NO.	
01A053		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

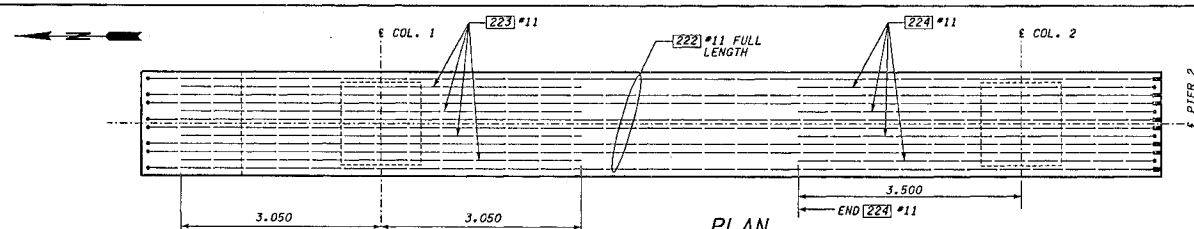
PIER 2 PLAN AND ELEVATION

BRIDGE SHEET NO. 8519

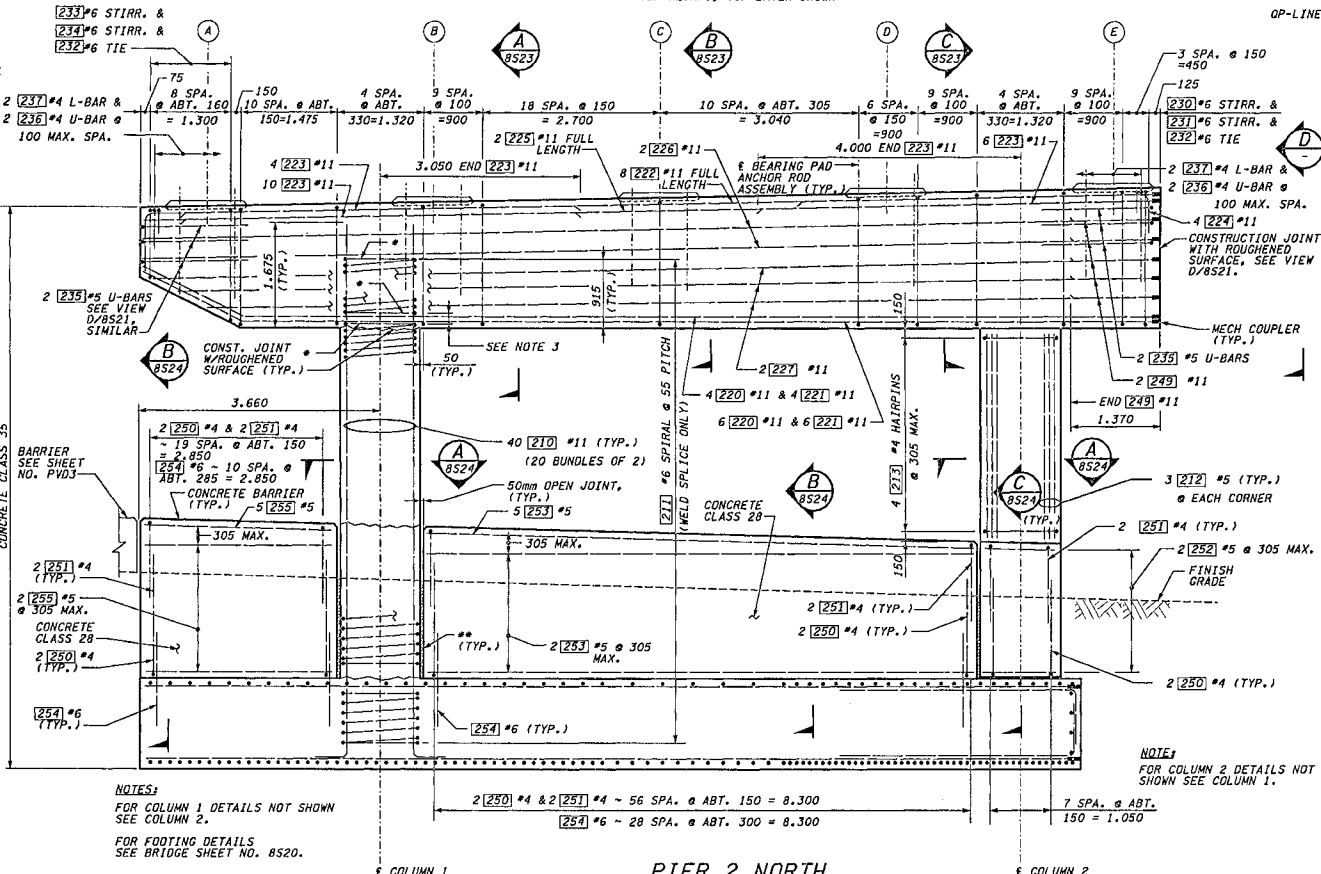
SHEET 240 OF 410 SHEETS

FOR "AS CONSTRUCTED" PLANS ONLY

L 405 JOB NO. SHEET 02/11/2002 04:23:28 PM ikeller



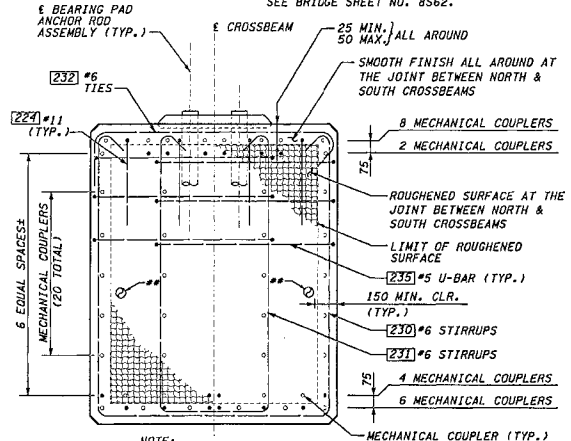
PLAN
TOP REINF., TOP LAYER SHOWN



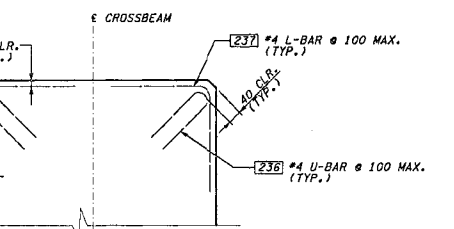
PIER 2 NORTH
CONSTRUCTION SEQUENCE - STAGE 2

- NOTES:
FOR COLUMN 1 DETAILS NOT SHOWN SEE COLUMN 2.
FOR FOOTING DETAILS SEE BRIDGE SHEET NO. 8520.
* SEE "TERMINUS DETAIL" BRIDGE SHEET NO. 8524
** 50mm THICK EXPANDED POLYSTYRENE-FROM TOP OF FOOTING TO FINISH GRADE.

- NOTES:
1. THERE SHALL BE NO SPLICES IN COLUMN LONGITUDINAL REINFORCING.
2. ALL COLUMN CONSTRUCTION SHALL OCCUR IN DRY CONDITIONS.
3. 150 MAX. VERTICAL BREAK IN SPIRAL TO ALLOW FOR PLACEMENT OF CROSS-BEAM BOTTOM REINFORCING. WELD SPIRAL BACK ONTO ITSELF AT TERMINATION.
4. FOR BEARING PAD ANCHOR ROD DETAILS SEE BRIDGE SHEET NO. 8562.



VIEW D



DETAIL H

- NOTE:
FOR REINFORCING NOT CALLED OUT SEE SECTION C/8523. TOP OF CROSSBEAM CORNER BARS NOT SHOWN - SEE DETAIL H.
** EMBEDDED 35mm CONDUIT. FOR MORE INFORMATION SEE SHEET 1D2.
- NOTE:
ONLY CORNER BARS SHOWN. FOR REMAINING REINFORCING SEE SECTIONS A THRU G, BRIDGE SHEET NO. 8523.
- FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR. SUPERVISOR	DESIGNED BY J.H. SZYMCEK	02/02	REVISION	BY	CONTRACT NO.
	ENTERED BY L.D. KELLER	02/02			
	CHECKED BY S.K. AISAKA	02/02			
	PROJ. ENGR. D. CIERI	02/02			
	REGIONAL ADM. D. OYE	02/02			
	DATE	DATE	REVISION	BY	

REGION NO. 10
STATE WASH
FED. AID PROJ. NO. 01A053

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXPRESS 02/02/02

Washington State Department of Transportation

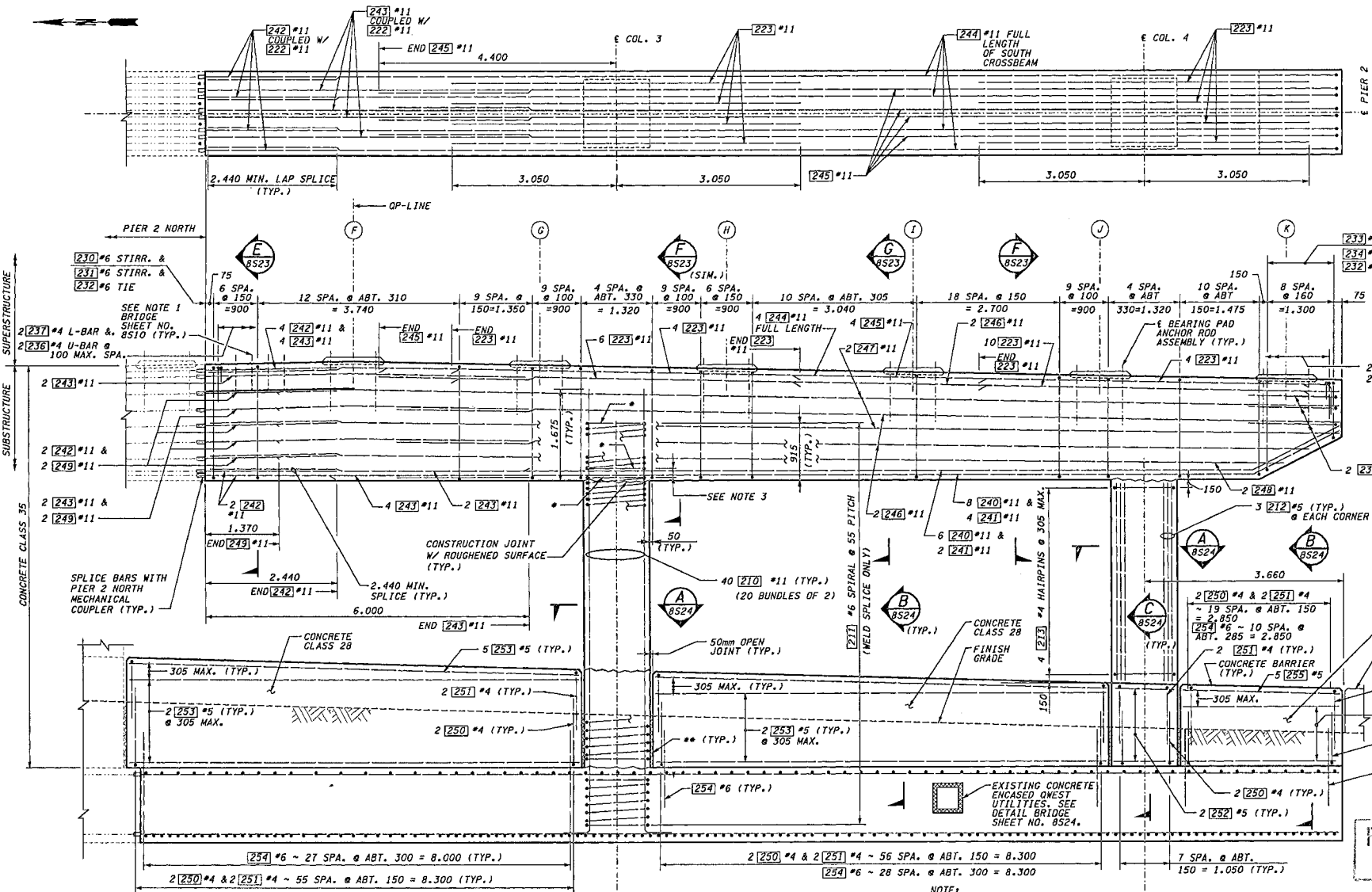
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

BRIDGE SHEET NO. 8521

SHEET 248 OF 416 SHEETS

PIER 2 NORTH DETAILS

- NOTES:**
1. FOR NOTES SEE BRIDGE SHEET NO. 8521.
 2. FOR FOOTING DETAILS SEE BRIDGE SHEET NO. 8520.
 3. 150 MAX. VERTICAL BREAK IN SPIRAL TO ALLOW FOR PLACEMENT OF CROSS-BEAM BOTTOM REINFORCING. WELD SPIRAL BACK ONTO ITSELF AT TERMINATION.
 4. FOR BEARING PAD ANCHOR ROD DETAILS SEE BRIDGE SHEET NO. 8562.



PIER 2 SOUTH
CONSTRUCTION SEQUENCE - STAGE 3

* SEE "TERMINUS DETAIL" BRIDGE SHEET NO. 8524.

** 50mm THICK EXPANDED POLYSTYRENE-FROM TOP OF FOOTING TO FINISH GRADE.

NOTE:
FOR COLUMN 3 DETAILS NOT SHOWN SEE COLUMN 4.

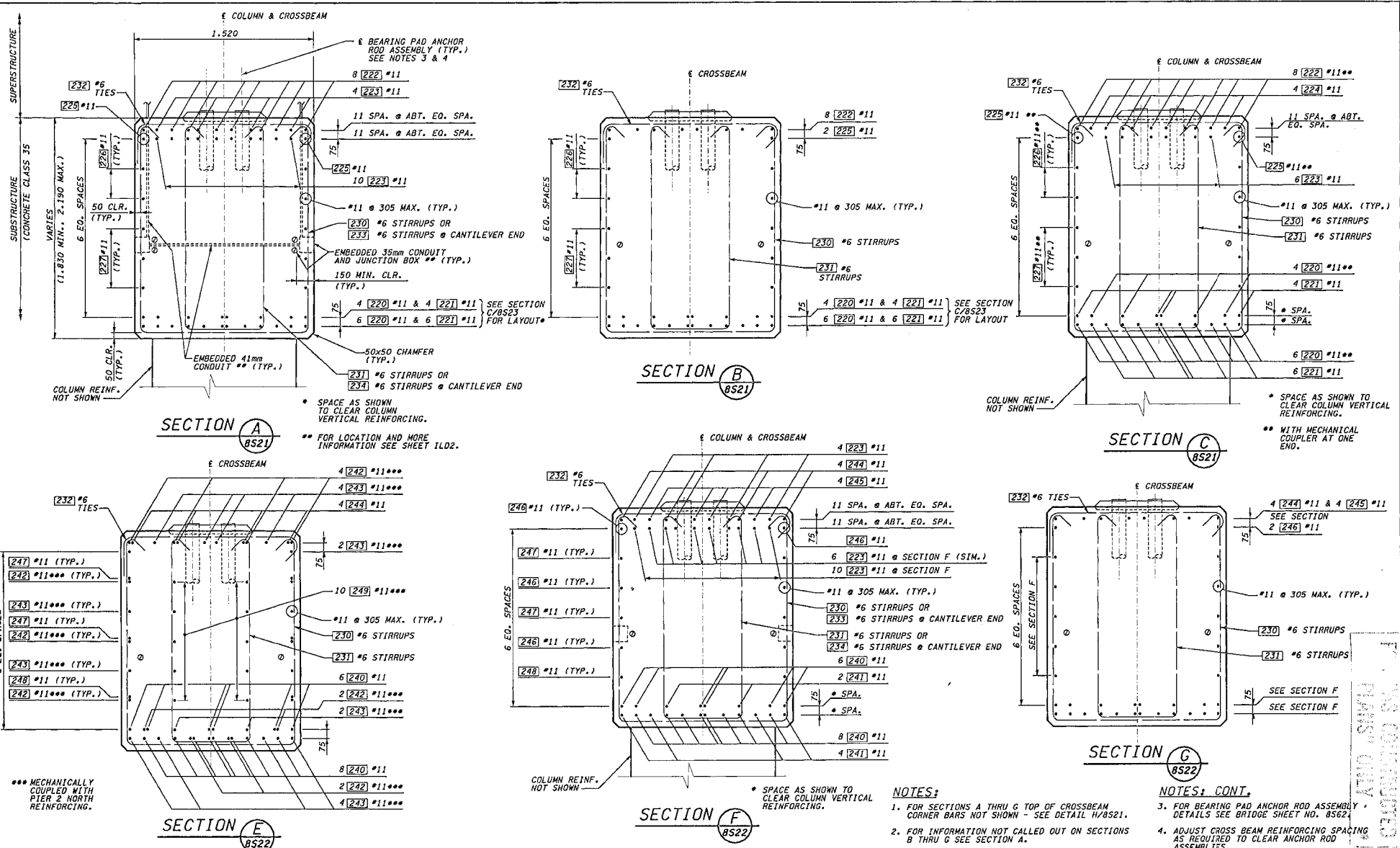
NOTE:
FOR COLUMN 4 DETAILS NOT SHOWN SEE COLUMN 3.

FOR "AS CONSTRUCTED PLANS" ONLY




BRIDGE DESIGN ENGR. SUPERVISOR		REGION NO.	STATE	FED. AID PROJ. NO.		ENVIRONMENTAL AND ENGINEERING SERVICE CENTER 	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING PIER 2 SOUTH DETAILS	BRIDGE SHEET NO. 8522 SHEET 249 OF 416 SHEETS
DESIGNED BY J.H. SZYMECZEK	02/02	10	WASH					
ENTERED BY L.D. KELLER	02/02							
CHECKED BY S.K. AISAKA	02/02							
PROJ. ENGR. D. CIERI	02/02							
REGIONAL ADM. D. DYE	02/02							
DATE	REVISION	BY						

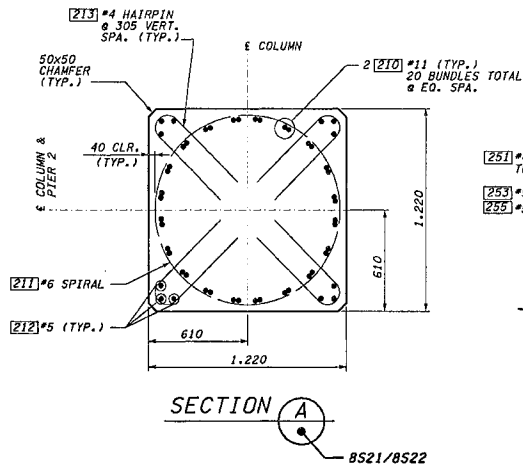
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L 405 JOB NO. SHEET 02/11/2002 05:22:00 PM keller



- NOTES:**
1. FOR SECTIONS A THRU G TOP OF CROSSBEAM CORNER BARS NOT SHOWN - SEE DETAIL H/8521.
 2. FOR INFORMATION NOT CALLED OUT ON SECTIONS B THRU G SEE SECTION A.
 3. FOR BEARING PAD ANCHOR ROD ASSEMBLY DETAILS SEE BRIDGE SHEET NO. 85621
 4. ADJUST CROSS BEAM REINFORCING SPACING AS REQUIRED TO CLEAR ANCHOR ROD ASSEMBLIES.
- NOTES: CONT.**

BRIDGE DESIGN ENGR.		REGION	STATE	FED. AID PROJ. NO.	 ENVIRONMENTAL AND ENGINEERING SERVICE CENTER  Washington State Department of Transportation  HDR ENGINEERING INC.	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING PIER 2 CROSSBEAM DETAILS	BRIDGE SHEET NO. 8523 SHEET 250 OF 416 SHEETS
SUPERVISOR		10	WASH				
DESIGNED BY J.H. SZYMCEK	02/02						
ENTERED BY L.O. KELLER	02/02						
CHECKED BY S.K. AITAKA	02/02						
PROJ. ENGR. D. CIERI	02/02						
REGIONAL ADM. D. DYE	02/02						
DATE	DATE	REVISION	BY	CONTRACT NO.			

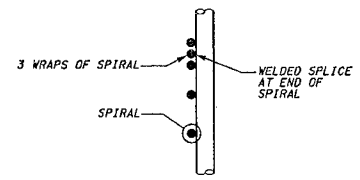


SECTION A

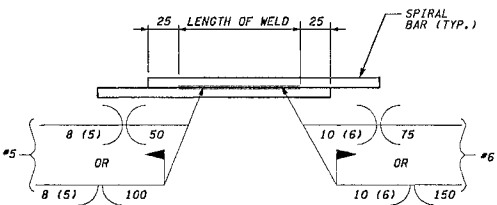
8521/8522

ALTERNATES TO DEFORMED BAR FOR SPIRALS:

DEFORMED BAR FOR SPIRALS	PLAIN STEEL BAR AASHTO M 31 OR 60	COLD DRAWN WIRE AASHTO M 32	DEFORMED WIRE AASHTO M 225
#6	19φ	M44	D44

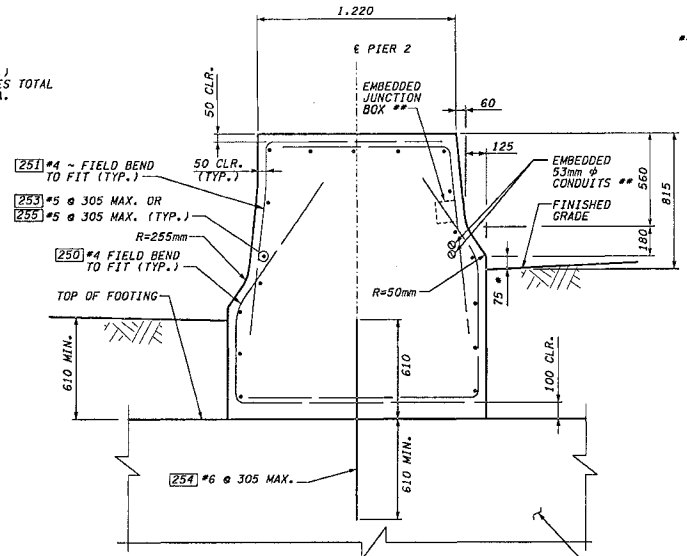


TERMINUS DETAIL



WELD SPLICE DETAIL

WELDING SHALL MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24)E

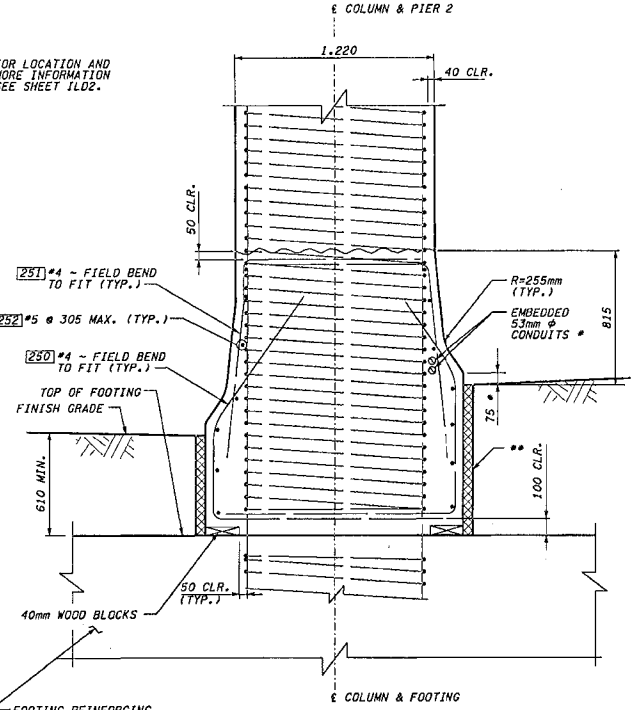


SECTION B

8521/8522

* TOE HEIGHT MAY VARY FROM 50mm MIN. TO 100mm MAX.

** FOR LOCATION AND MORE INFORMATION SEE SHEET 1L02.

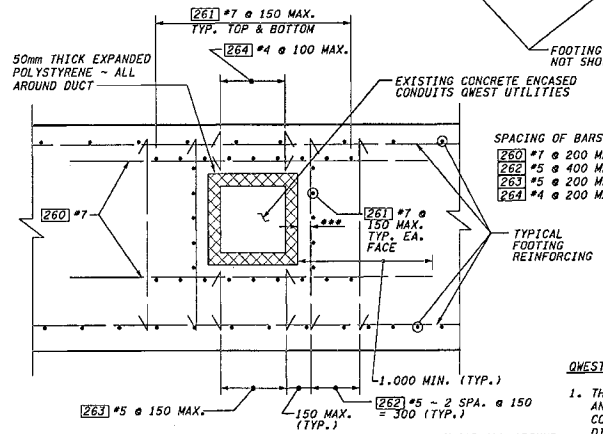


SECTION C

8521/8522

FOR INFORMATION NOT SHOWN SEE SECTION B THIS SHEET.

** 50mm THICK EXPANDED POLYSTYRENE FROM TOP OF FOOTING TO FINISH GRADE.



QWEST UTILITIES DETAIL

QWEST UTILITIES NOTES:

1. THE CONTRACTOR SHALL FIELD VERIFY DUCT LOCATION AND DIMENSIONS AND SUBMIT SURVEY DATA TO THE ENGINEER. IF REQUIRED, THE CONTRACTOR SHALL REVISE REINFORCING AROUND THE DUCT AS DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL PROVIDE CONTINUOUS SUPPORT FOR THE DUCT AND AVOID ANY DAMAGE TO THE DUCT DURING FOOTING CONSTRUCTION.

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.	REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR	10	WA	
DESIGNED BY J.H. SZYMCEK	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. D. DYE	02/02		
DATE	DATE	REVISION	BY

REGION NO.	STATE	FED. AID PROJ. NO.
10	WA	
JOB NUMBER	01A053	
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

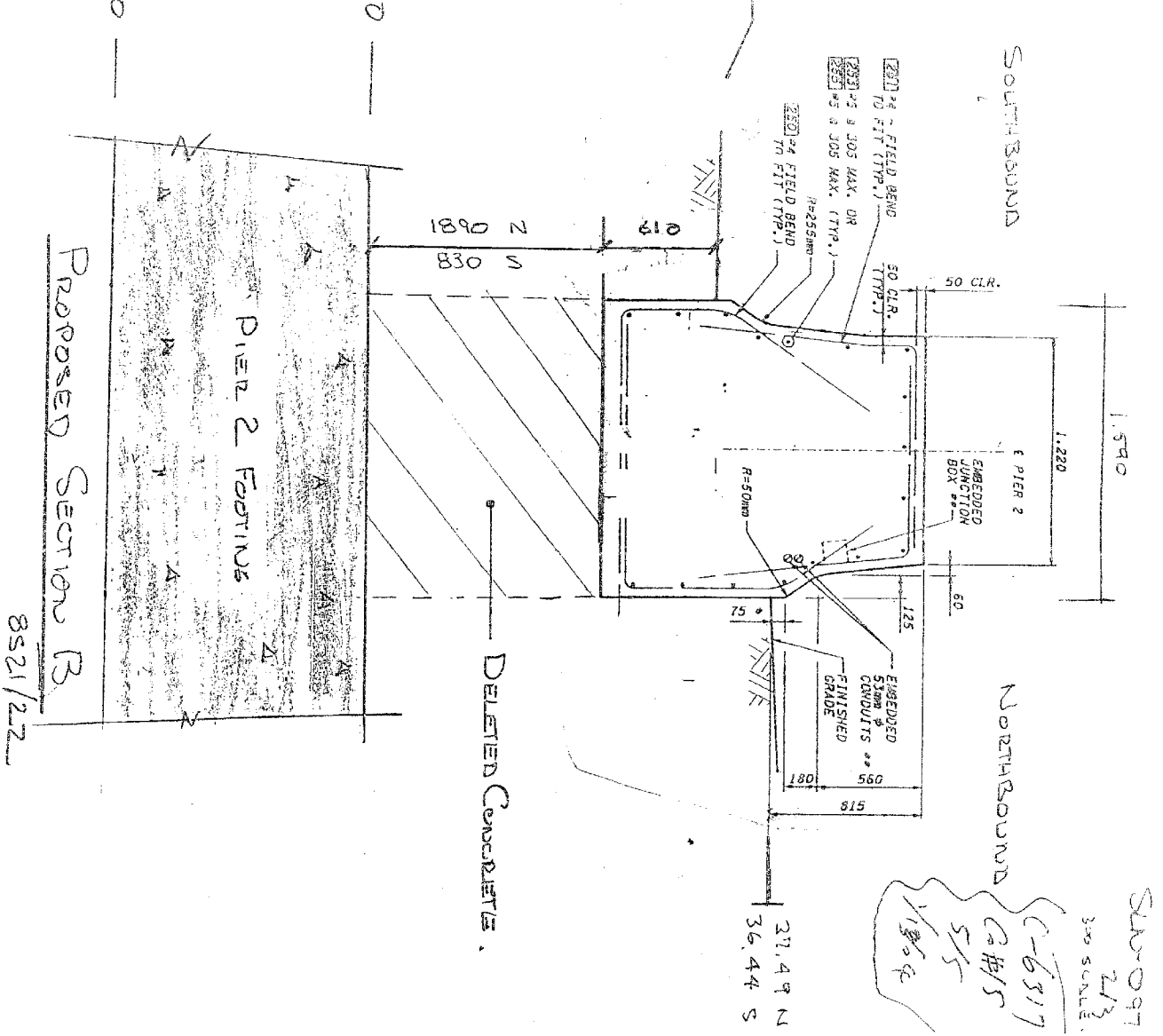
02/23/02

Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

PIER 2 COLUMN & MISC. DETAILS

BRIDGE SHEET NO.	8524
SHEET	251
SHEETS	416



SLW-097
2/3
300 SCALE

C-6317
C#15
5/5
1/8/04

EMBEDDED
 $36.600 - 4(1.22) = 31.72$
 $VE = (1.39 + 330) \frac{1}{2} = 1.36$
 1.0774
 1.59
 VOL: $\frac{68.6}{M^3}$

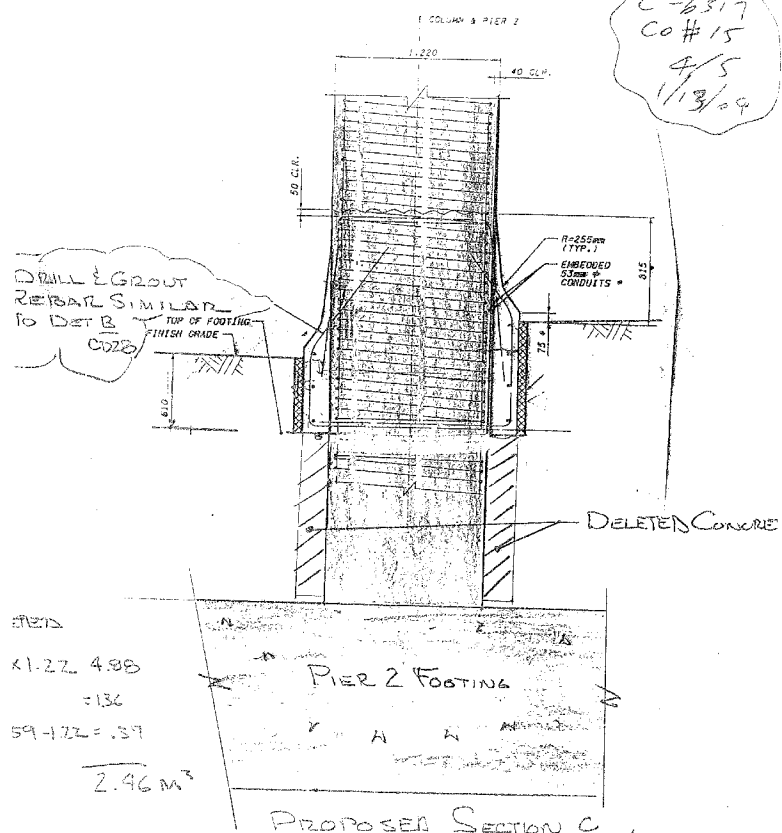
C-6317

REF SHEET 8524

sheet
251A
of
416

Jm

SLN 0977
 1/3
 C-6317
 Co #15
 4/5
 1/13/09



PIER 2
 $1.22 \times 4.88 = 5.96$
 $5.96 \times 1.36 = 8.11$
 $8.11 - 5.15 = 2.96 \text{ m}^3$

PROPOSED SECTION C
 BS21/22

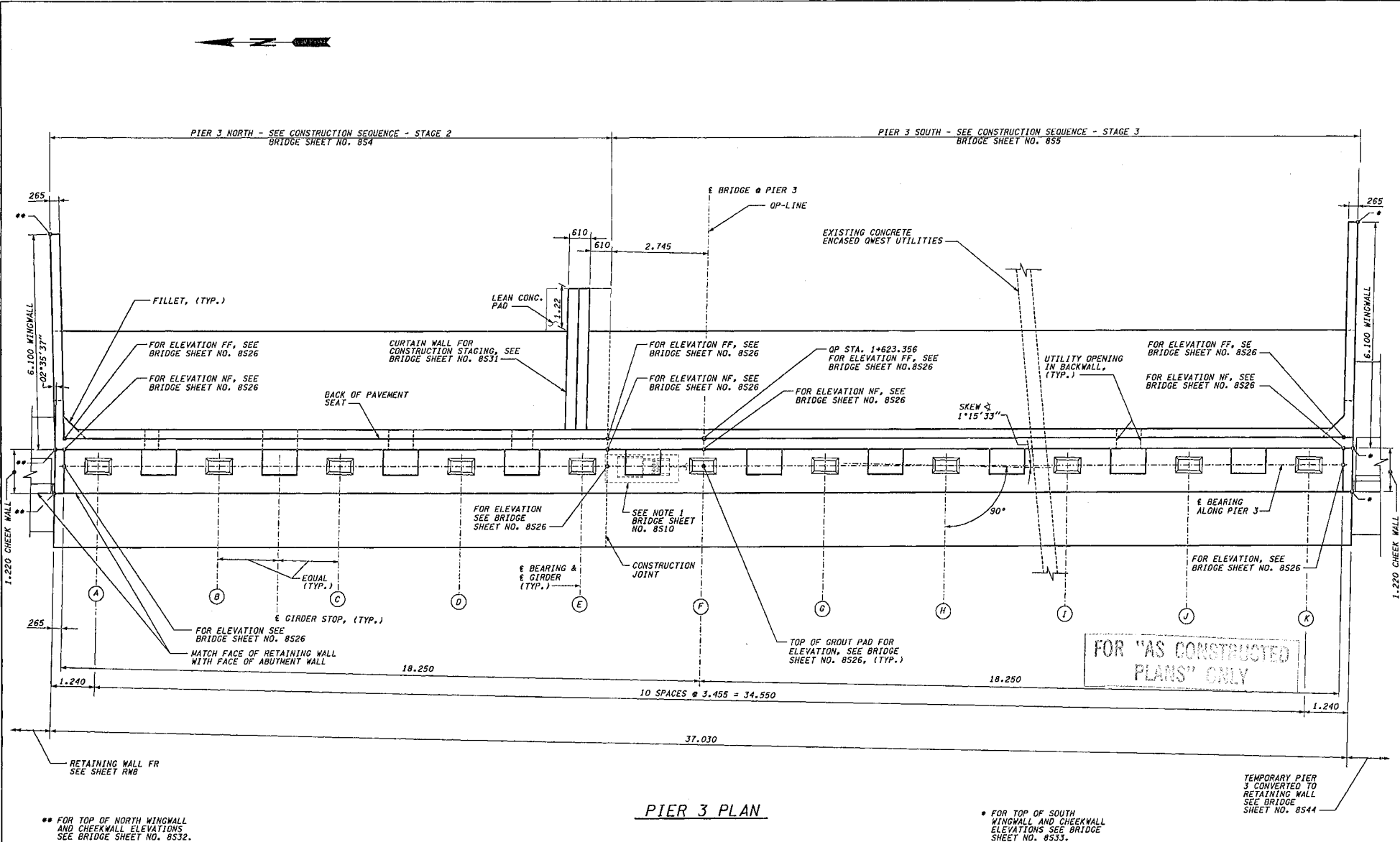
C-6317
 sheet
 251 B
 of
 416

REF BS24

Jnn

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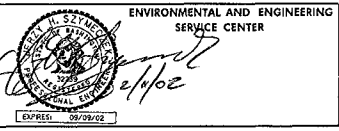
I_405 JOB NO. SHEET 02/11/2002 03:24:38 PM [keller]



PIER 3 PLAN

BRIDGE DESIGN ENGR.		REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR		10	WASH	
DESIGNED BY J.H. SZYMECZEK	02/02	JOB NUMBER	01A053	
ENGINEERED BY L.D. KELLER	02/02	CONTRACT NO.		
CHECKED BY S.K. AISAKA	02/02			
PROJ. ENGR. D. CIERI	02/02			
REGIONAL ADM. D. DYE	02/02			
DATE	DATE	REVISION	BY	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER
Washington State Department of Transportation
HR ENGINEERING INC.
EXPIRES: 02/02/02



Washington State Department of Transportation

HR ENGINEERING INC.

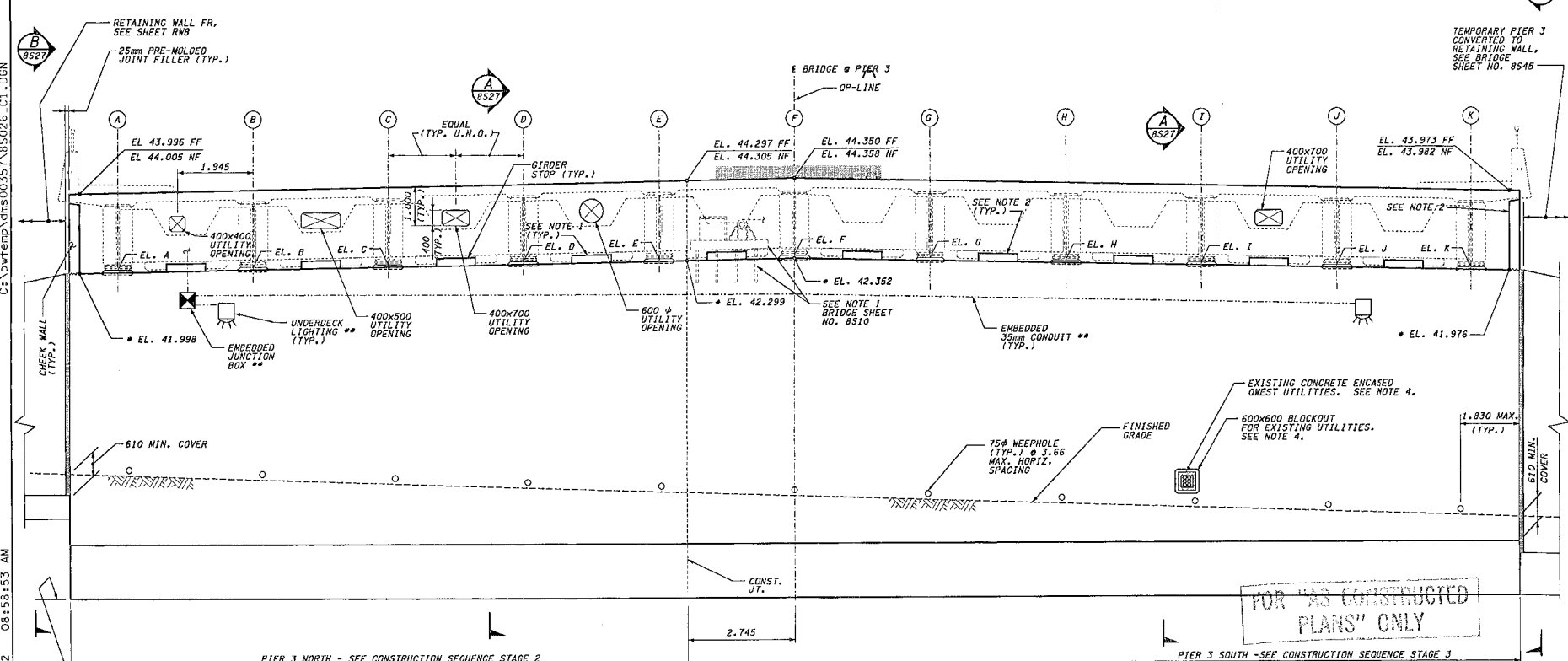
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

PIER 3 PLAN

BRIDGE SHEET NO.	8525
SHEET NO.	252
OF SHEETS	416

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 03/13/2002 08:58:53 AM
 SHEET
 1 Keller

C
 8527



PIER 3 ELEVATION

NOTES:

- GIRDER STOPS AT PIER 3 NORTH SHALL BE CONSTRUCTED AFTER THE NORTH SUPERSTRUCTURE HAS BEEN ERRECTED.
- GIRDER STOPS AND CHEEK WALL AT PIER 3 SOUTH SHALL BE CONSTRUCTED AFTER THE SOUTH SUPERSTRUCTURE HAS BEEN RELOCATED INTO ITS FINAL POSITION.
- RECTANGULAR UTILITY OPENINGS SHALL BE CHAMFERED 50mm AT EACH CORNER.
- BLOCKOUT DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND LOCATION OF CONCRETE ENCASED GUEST UTILITIES AND ADJUST THE BLOCKOUT AS REQUIRED. FOR LOCATION OF GUEST UTILITIES REFER ALSO TO UTILITY DRAWINGS. BLOCKOUT SHALL BE FILLED WITH GROUT AFTER UTILITIES HAVE BEEN RELOCATED.
- PIGMENTED SEALER SHALL BE APPLIED TO ALL EXPOSED SURFACES, EXTENDING DOWN TO AT LEAST 300mm BELOW FINISHED GRADE.

* ELEVATIONS TAKEN @ & BEARING
 ** FOR LOCATION AND MORE INFORMATION SEE SHEET NO. 1LD1

TOP OF GROUT PAD ELEVATIONS @ PIER 3

LOCATION	A	B	C	D	E	F	G	H	I	J	K
ELEVATION	42.057	42.124	42.191	42.258	42.325	42.392	42.321	42.249	42.178	42.107	42.036

BRIDGE DESIGN ENGR.											
SUPERVISOR											
DESIGNED BY J.H. SZYMIECZEK	02/02										
ENTERED BY L.D. KELLER	02/02										
CHECKED BY S.K. AISAKA	02/02										
PROJ. ENGR. D. CIERI	02/02										
REGIONAL ADM. D. DYE	02/02	03/19/02	REMOVED	MEDIAN							
		DATE	REVISION	BY							

REGION NO.	STATE	FED. AID PROJ. NO.	ENVIRONMENTAL AND ENGINEERING SERVICE CENTER
10	WASH		
JOB NUMBER	01A053		
CONTRACT NO.			
ISSUED	03/02/02		

Washington State Department of Transportation

FDR ENGINEERING, INC.

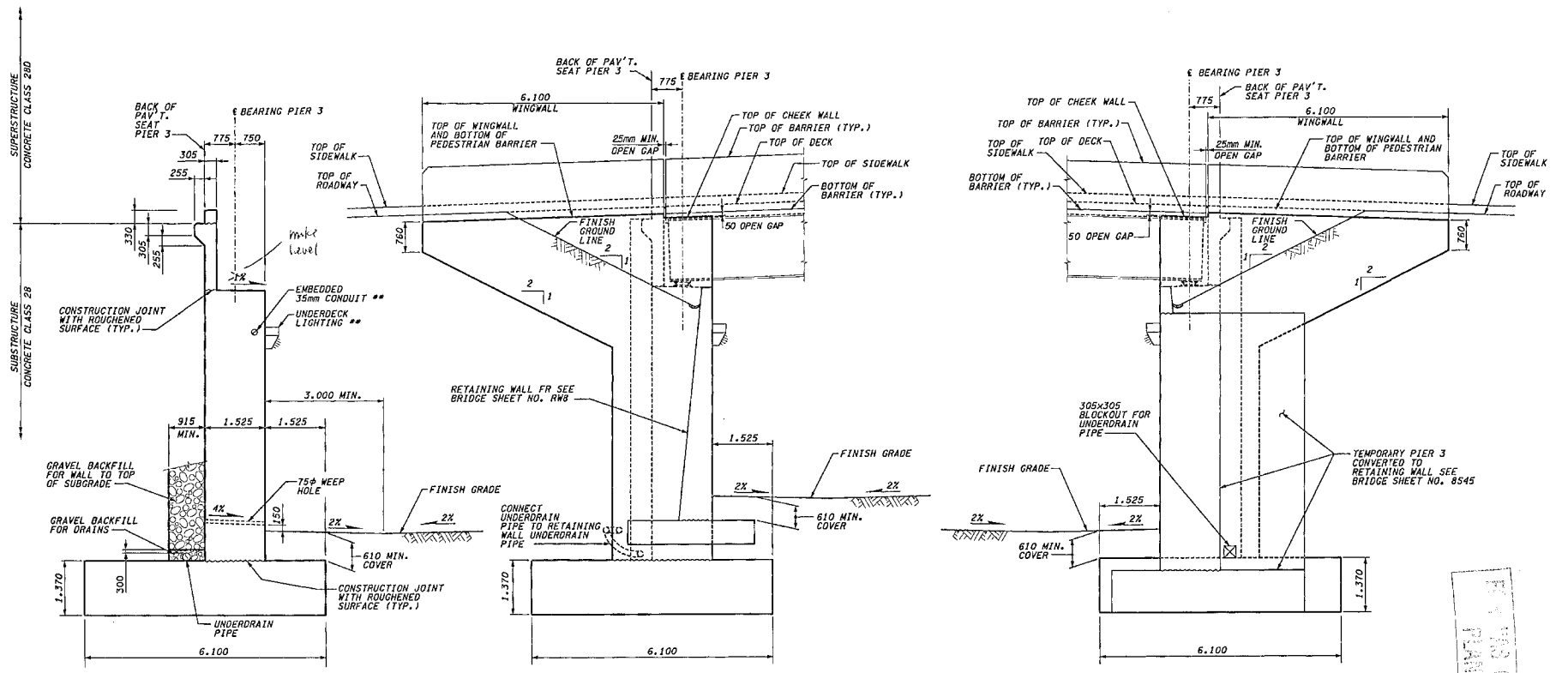
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

PIER 3 ELEVATION

BRIDGE SHEET NO. 8526

SHEET 253 of 416 SHEETS

L 405 JOB NO. SHEET 02/11/2002 03:24:50 PM
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 Ikellet



PIER 3 TYPICAL SECTION

** FOR LOCATION AND MORE INFORMATION SEE SHEET NO. 1LD1.

PIER 3 END VIEW
(NORTH END, LOOKING SOUTH)

PIER 3 END VIEW
(SOUTH END, LOOKING NORTH)

SECTION **A**
8526

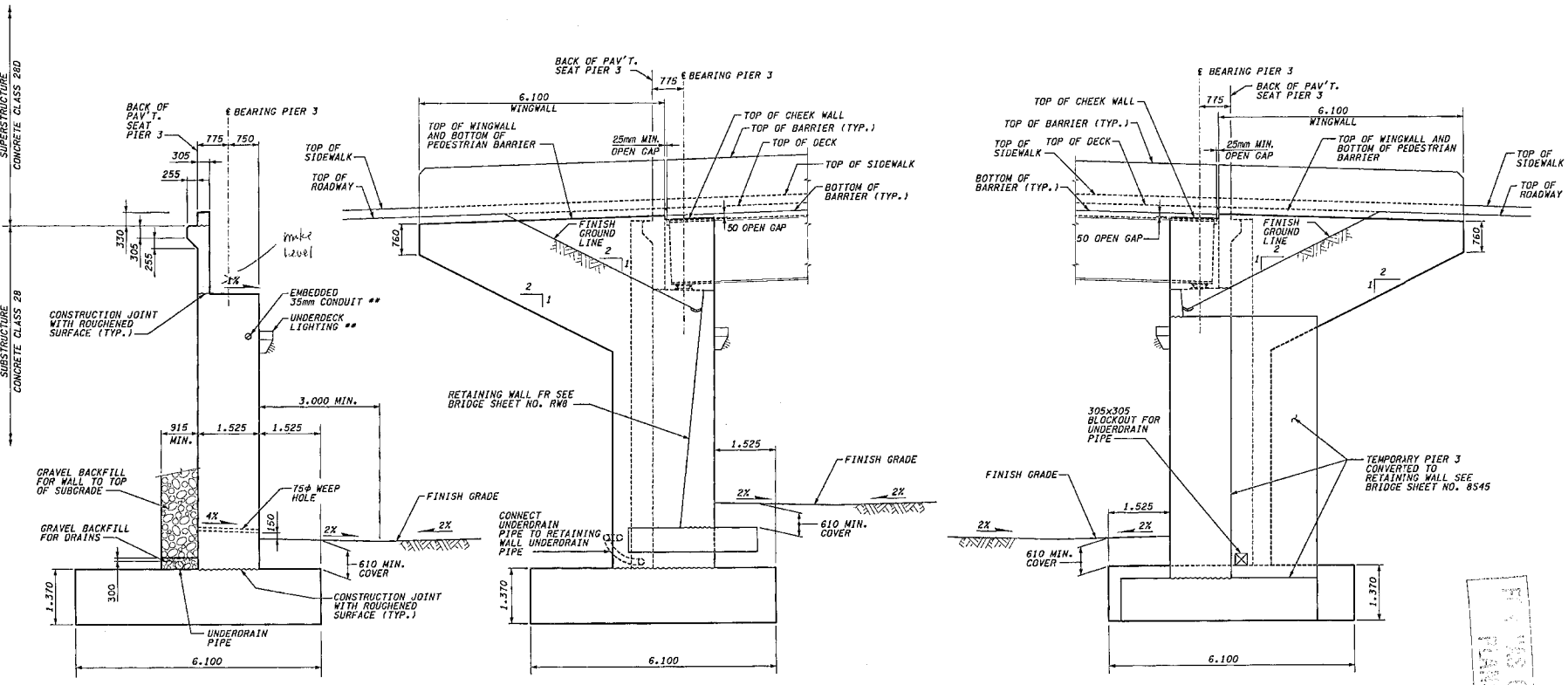
VIEW **B**
8526

VIEW **C**
8526

THIS PIER WAS CONSTRUCTED AND PASSED ONLY

BRIDGE DESIGN ENGR.		REGION NO.		STATE	FED. AID PROJ. NO.	ENVIRONMENTAL AND ENGINEERING SERVICE CENTER		 Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING PIER 3 TYPICAL SECTIONS	BRIDGE SHEET NO.
SUPERVISOR		10	WASH			 HDR ENGINEERING INC.				8527
DESIGNED BY J.H. SZYMECZEK		02/02				 D. CIERI			SHEET	
ENTERED BY L.D. KELLER		02/02				EXP. 02/02			254	
CHECKED BY S.K. AITAKA		02/02							416	
PROJ. ENGR. D. CIERI		02/02							SHEETS	
REGIONAL ADM. D. DYE		02/02							416	
DATE	DATE	REVISION	BY	CONTRACT NO.						

I 405 - JOB NO. 02/11/2002 03:24:50 PM
 SHEET Keller
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 SUPERSTRUCTURE CONCRETE CLASS 280
 SUBSTRUCTURE CONCRETE CLASS 28



PIER 3 TYPICAL SECTION
 ** FOR LOCATION AND MORE INFORMATION SEE SHEET NO. 1101.

PIER 3 END VIEW
 (NORTH END, LOOKING SOUTH)

PIER 3 END VIEW
 (SOUTH END, LOOKING NORTH)

SECTION **A**
 8526

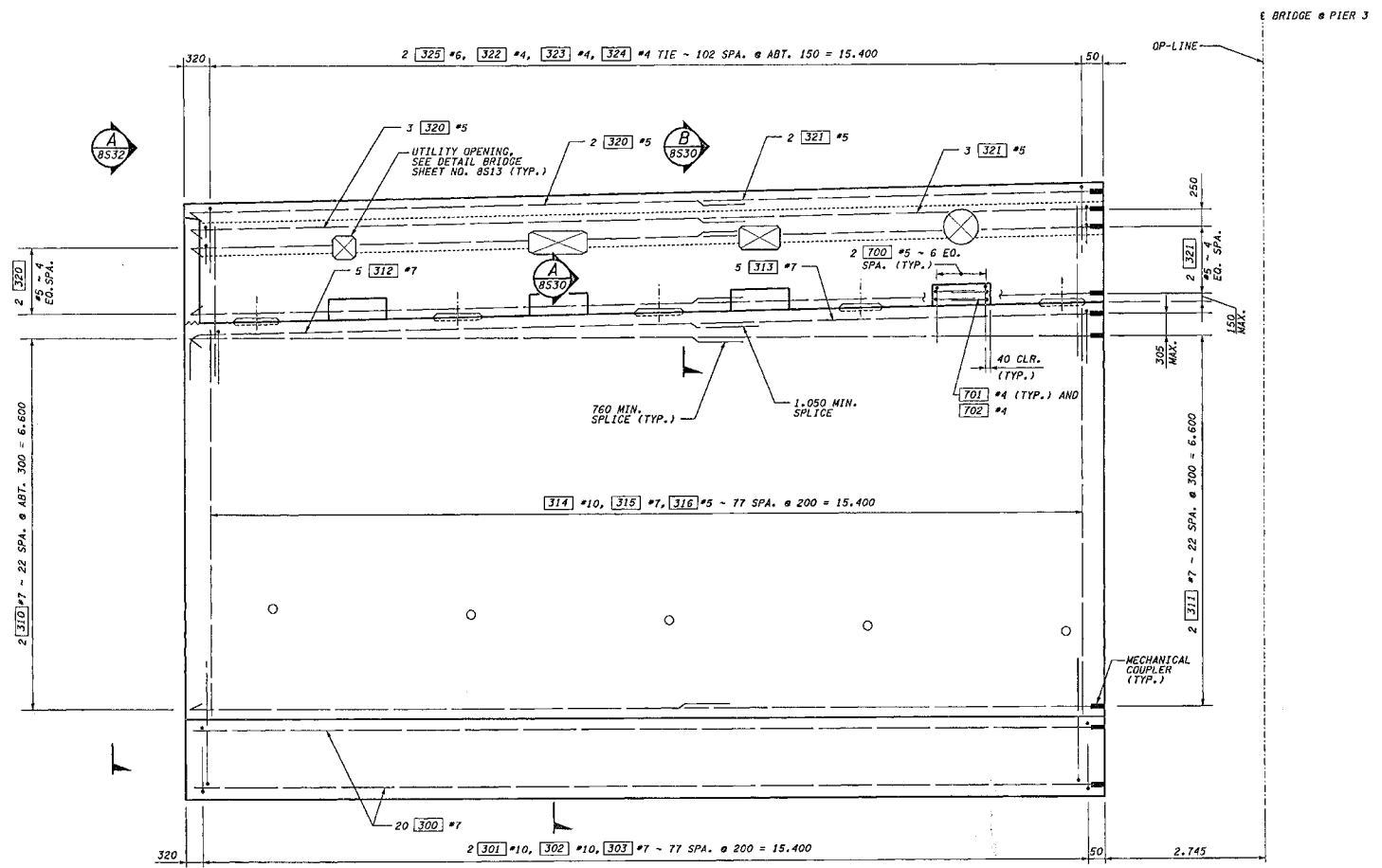
VIEW **B**
 8526

VIEW **C**
 8526

PIER 3 CONSTRUCTION
 PLANS ONLY

BRIDGE DESIGN ENGR.		REGION STATE	FED. AID PROJ. NO.		ENVIRONMENTAL AND ENGINEERING SERVICE CENTER	Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO.
SUPERVISOR		10 WASH						8S27
DESIGNED BY J.H. SZYMECZEK	02/02				HR ENGINEERING INC.	PIER 3 TYPICAL SECTIONS	SHEET NO.	
ENTERED BY L.D. KELLER	02/02						294	
CHECKED BY S.K. AISAKA	02/02						416	
PROJ. ENGR. D. CIERI	02/02						SHEETS	
REGIONAL ADM. D. DYE	02/02							
DATE	DATE	REVISION	BY	CONTRACT NO.				

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PIER 3 NORTH
 CONSTRUCTION SEQUENCE - STAGE 2

FOR "AS CONSTRUCTED
 PLANS" ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. OYE	02/02				
DATE	DATE	REVISION	BY		

REGION STATE	FED. AID PROJ. NO.
10 WASH	
JOB NUMBER	
01A053	
CONTRACT NO.	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

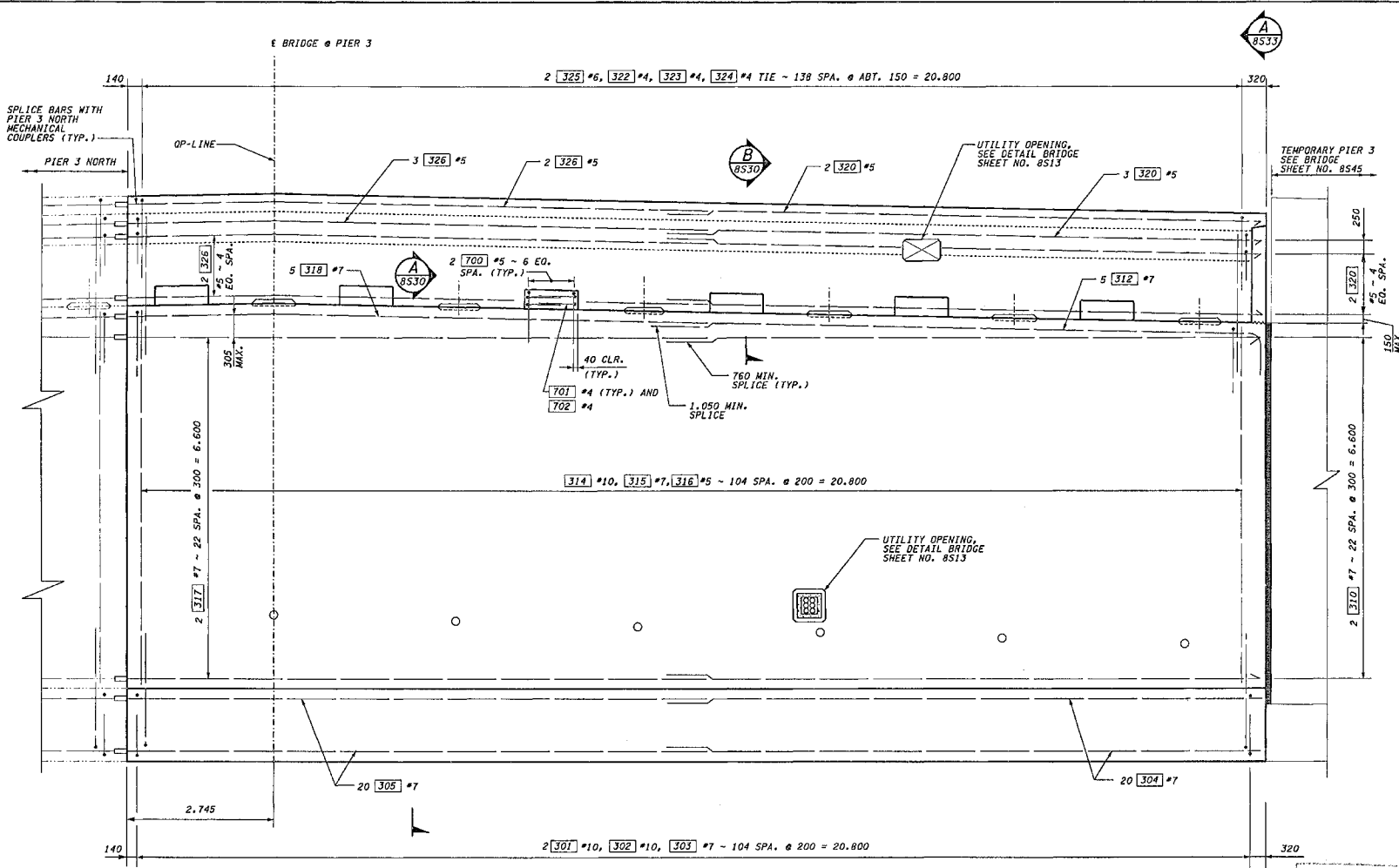
Washington State Department of Transportation

I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

PIER 3 NORTH DETAILS

BRIDGE SHEET NO. 8528
 SHEET 255 OF 416
 DATE 02/02

L 405 - JOB NO. 02/11/2002 03:25:02 PM
 ikeller
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PIER 3 SOUTH
CONSTRUCTION SEQUENCE - STAGE 3

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.	DATE	REVISION	BY
SUPERVISOR			
DESIGNED BY J.H. SZYMIECZAK	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. D. DYE	02/02		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
		JOB NUMBER
		01A053
		CONTRACT NO.

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXPIRES: 09/09/02

Washington State Department of Transportation

HDR ENGINEERING INC.

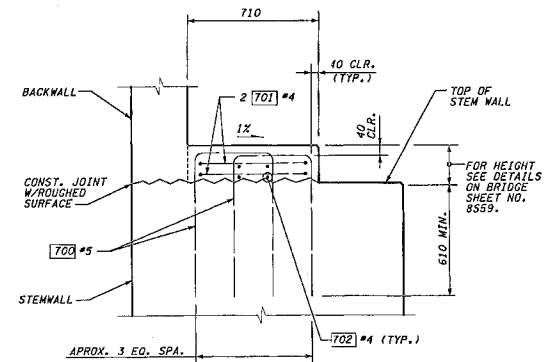
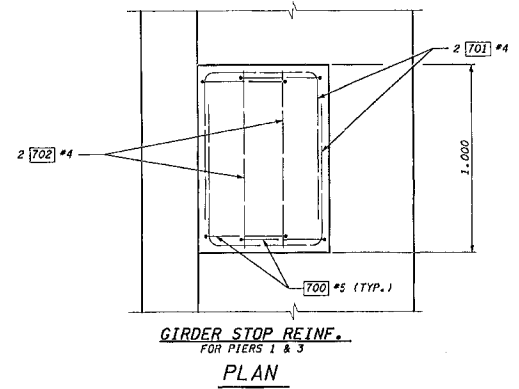
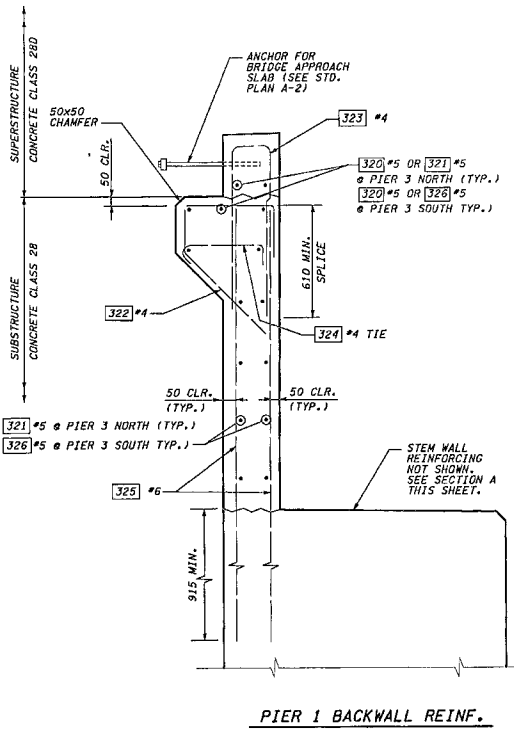
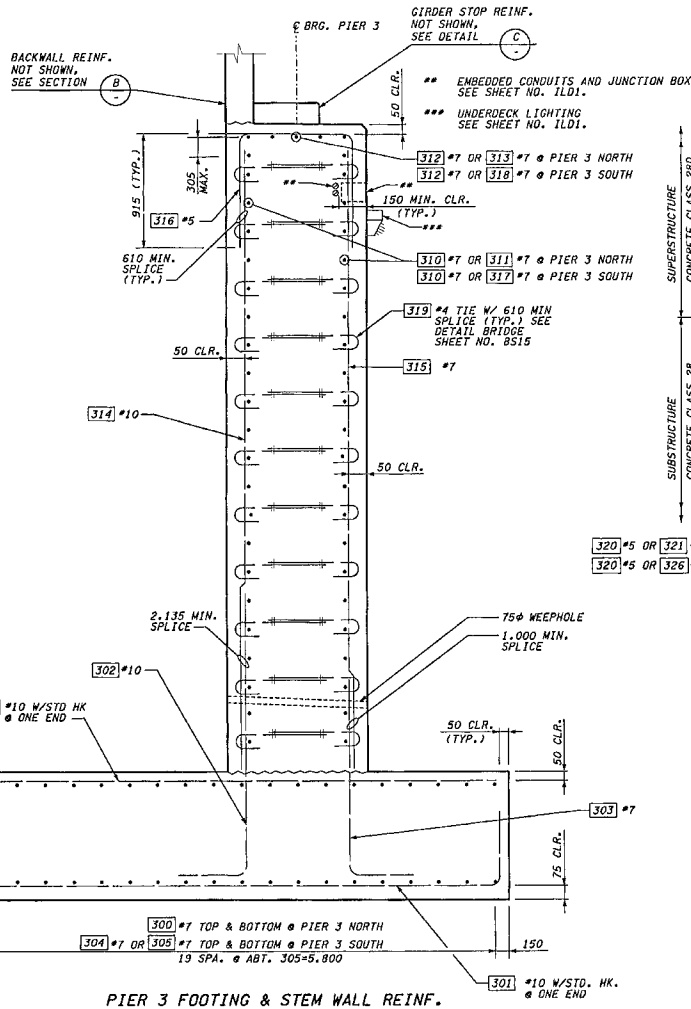
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

PIER 3 SOUTH DETAILS

BRIDGE SHEET NO.
8529
SHEET
256
416

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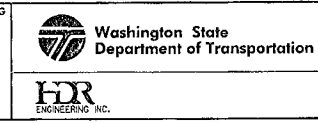
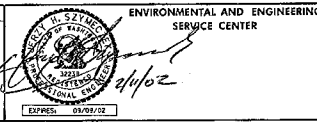


NOTE:
BACKWALL AND STEM WALL REINF. NOT SHOWN FOR CLARITY.

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		



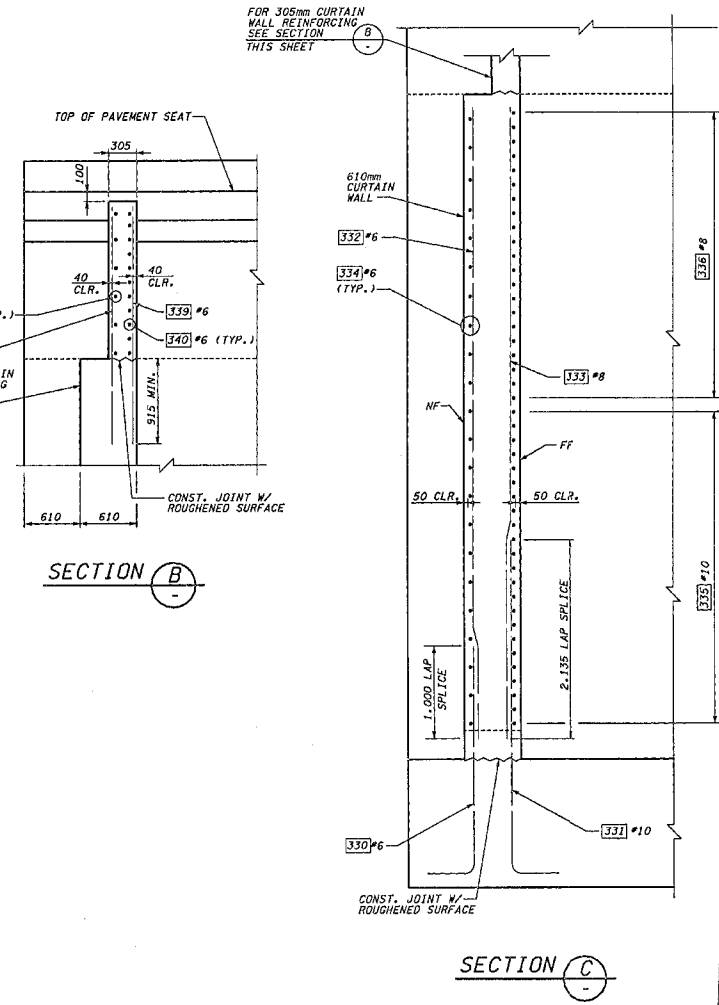
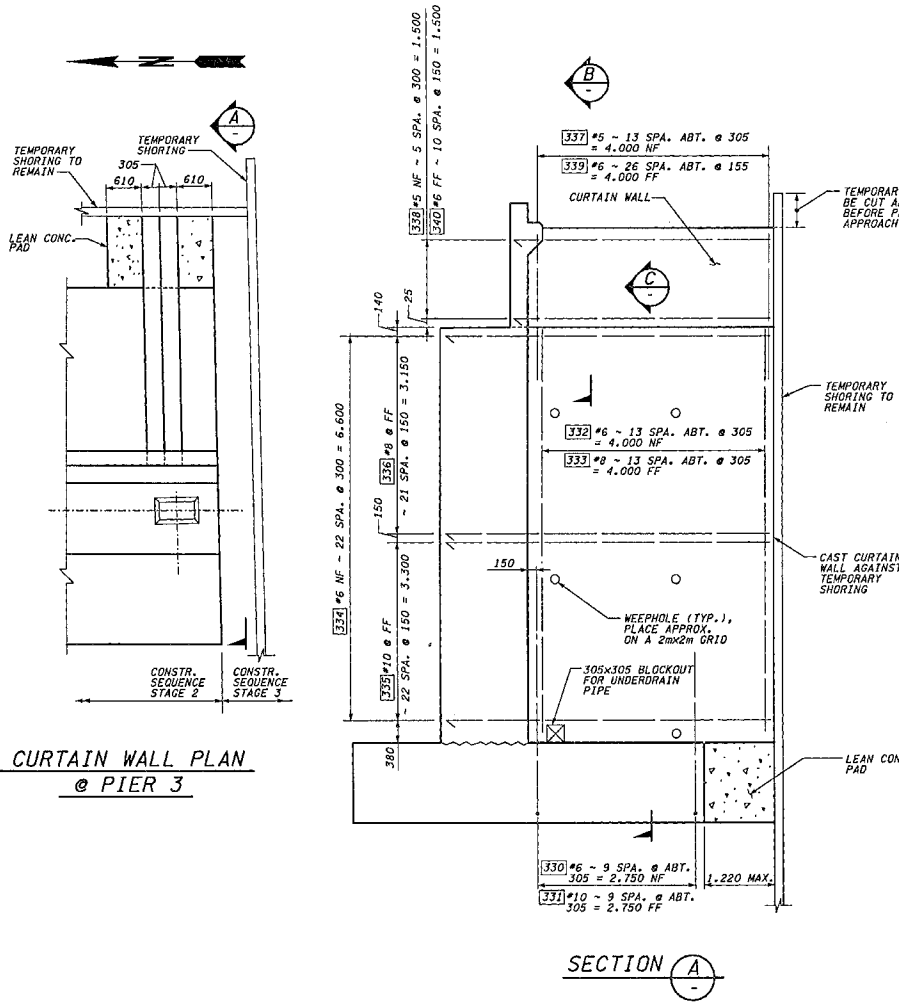
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING
PIER 3 NORTH & SOUTH DETAILS

BRIDGE SHEET NO. 8530
SHEET 251 OF 416 SHEETS

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L 405 JOB NO. SHEET 02/11/2002 03:25:14 PM
lkeller

CURTAIN WALL PLAN @ PIER 3



NOT TO BE CONSTRUCTED UNLESS PLANS ONLY

BRIDGE DESIGN ENGR.					REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR					10	WASH	
DESIGNED BY J.H. SZYMECZEK	02/02						
ENTERED BY L.D. KELLER	02/02						
CHECKED BY S.K. AISAKA	02/02						
PROJ. ENGR. D. CIERI	02/02						
REGIONAL ADM. D. OYE	02/02						
DATE	DATE	REVISION	BY				

JOB NUMBER	01A053
CONTRACT NO.	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

2/1/02

EXPRES. 02/29/02

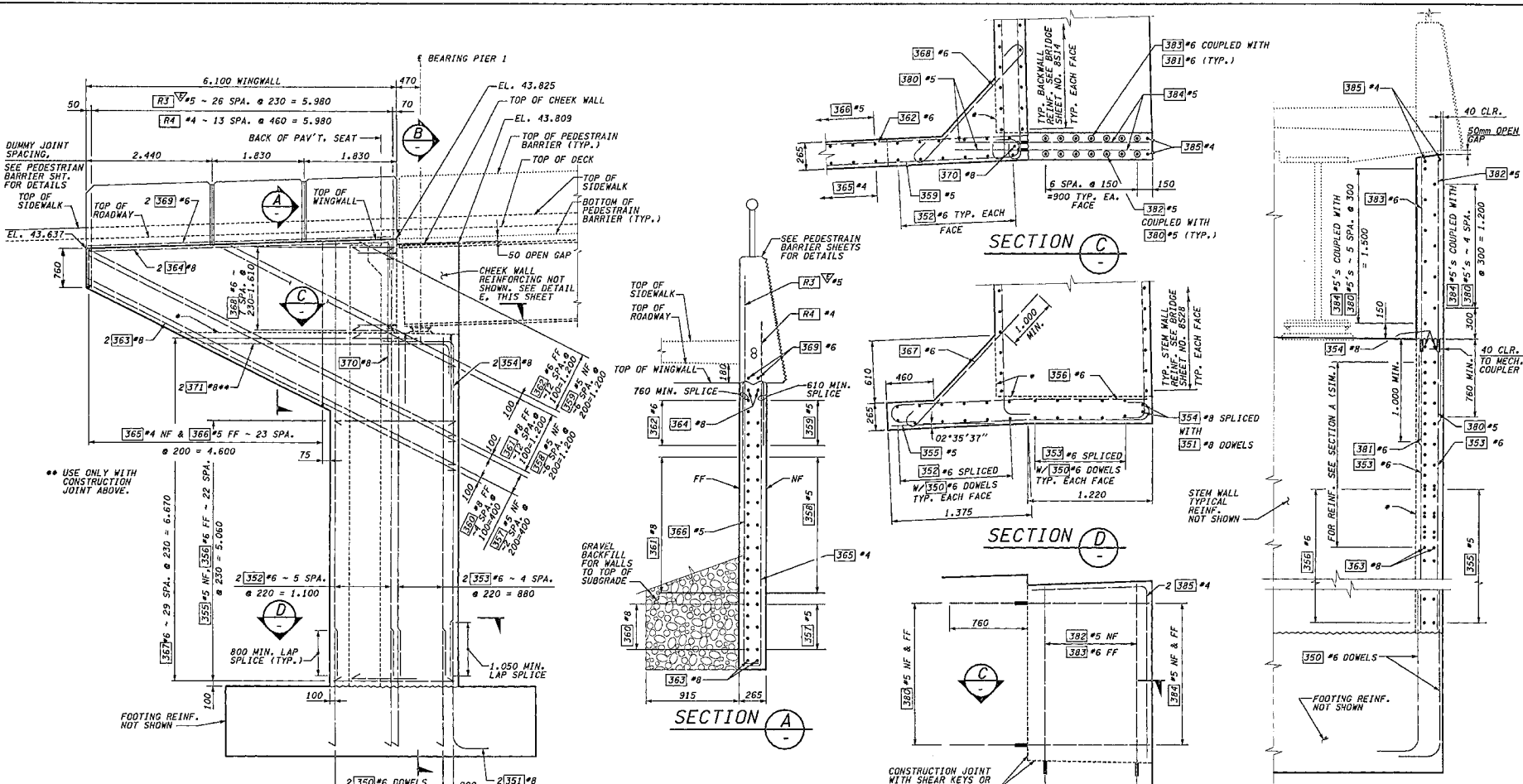
Washington State Department of Transportation

HR ENGINEERING INC.

I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING
PIER 3 CURTAIN WALL

BRIDGE SHEET NO.	8531
SHEET	258
DRAWN	4/16

L-405 JOB NO. SHEET 02/11/2002 03:25:20 PM
 keller
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PIER 3 NORTH WINGWALL
(LOOKING SOUTH)

VIEW **A**
8528

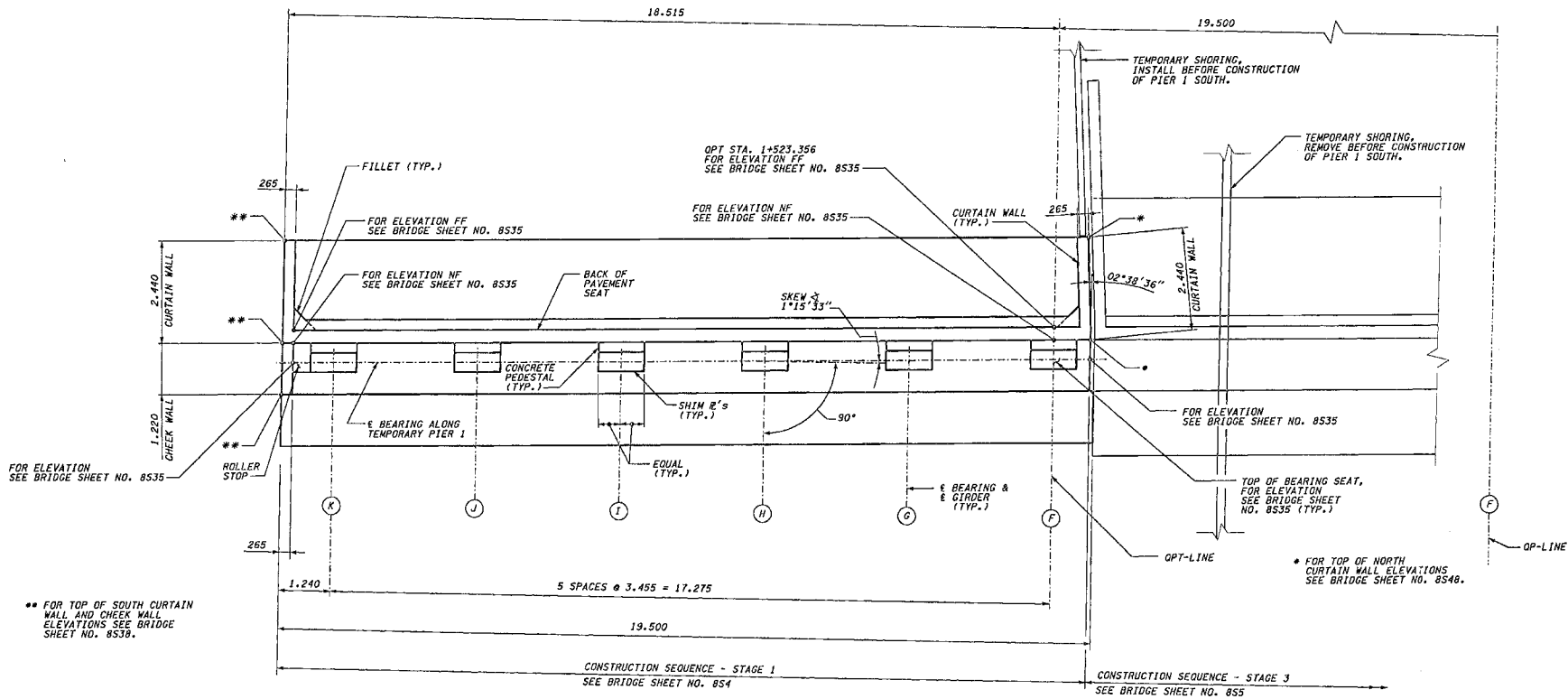
- NOTES:**
- CHEEK WALL MAY BE CONSTRUCTED BEFORE OR AFTER THE NORTH SUPERSTRUCTURE HAS BEEN ERECTED.
 - PIGMENTED SEALER SHALL BE APPLIED TO ALL EXPOSED SURFACES, EXTENDING DOWN TO AT LEAST 300mm BELOW FINISHED GRADE.
 - OPTIONAL CONSTRUCTION JOINT WITH SHEAR KEYS OR ROUGHENED SURFACE.

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.		STATE		FED. AID PROJ. NO.		ENVIRONMENTAL AND ENGINEERING SERVICE CENTER		WASHINGTON STATE Department of Transportation		BRIDGE SHEET NO. 8532	
SUPERVISOR		10 WASH						I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING		SHEET 259 OF 416 SHEETS	
DESIGNED BY J.H. SZYMECZAK 02/02								PIER 3 NORTH WINGWALL			
ENTERED BY L.D. KELLER 02/02											
CHECKED BY S.K. AISAKA 02/02											
PROJ. ENGR. D. CIERI 02/02											
REGIONAL ADM. D. DYE 02/02											
DATE	DATE	REVISION	BY	CONTRACT NO. 01A053		EXPRESS DIVISION					

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Keller



TEMPORARY PIER 1 PLAN

FOR 'AS CONSTRUCTED PLANS' ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

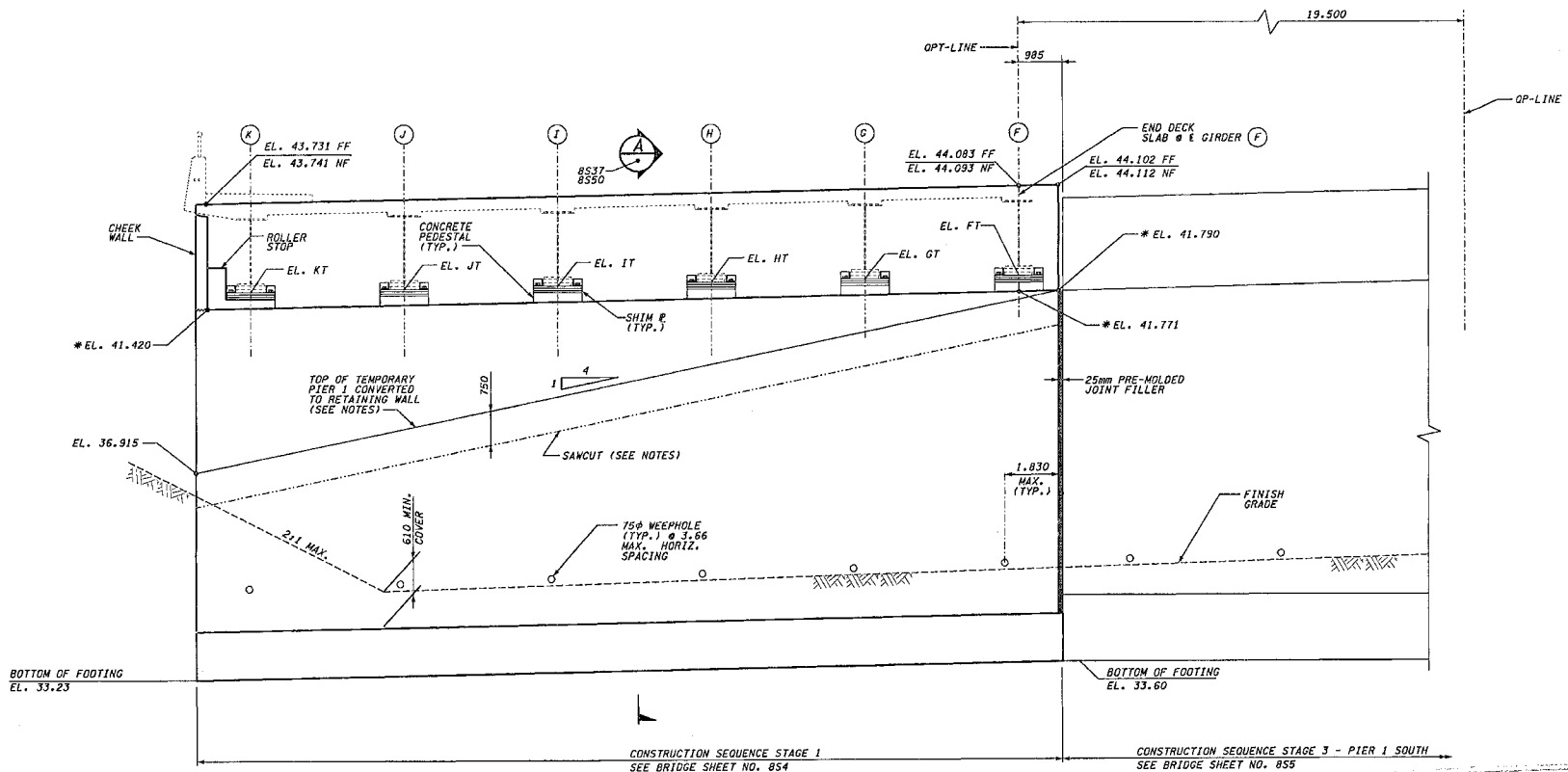
ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

TEMPORARY PIER 1 PLAN

BRIDGE SHEET NO.	8534
SHEET NO.	261
TOTAL SHEETS	416



TEMPORARY PIER 1 ELEVATION
(LOOKING WEST, BACK ON STATION)

* ELEVATIONS TAKEN @ ± BEARING

TOP OF BEARING SEAT ELEVATION @ TEMPORARY PIER 1						
LOCATION	KT	JT	IT	HT	GT	FT
ELEVATION	41.795	41.862	41.928	41.995	42.062	42.128

NOTES:

1. AFTER THE SOUTH SUPERSTRUCTURE HAS BEEN RELOCATED INTO FINAL POSITION, REMOVE PORTIONS OF TEMPORARY PIER 1 ABOVE SAWCUT LINE AND CONSTRUCT COPING AS SHOWN ON SHEET 8550.
2. AFTER CONSTRUCTION OF COPING, POINTED SEALER SHALL BE APPLIED TO ALL EXPOSED SURFACES, EXTENDING DOWN TO AT LEAST 300mm BELOW GRADE.

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.	DATE	DATE	REVISION	BY
SUPERVISOR				
DESIGNED BY J.H. SZYMCEK	02/02			
ENTERED BY L.D. KELLER	02/02			
CHECKED BY S.K. AISAKA	02/02			
PROJ. ENGR. D. CIERI	02/02			
REGIONAL ADM. D. DYE	02/02			

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXPRESSES 02/03/02

Washington State Department of Transportation

HDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

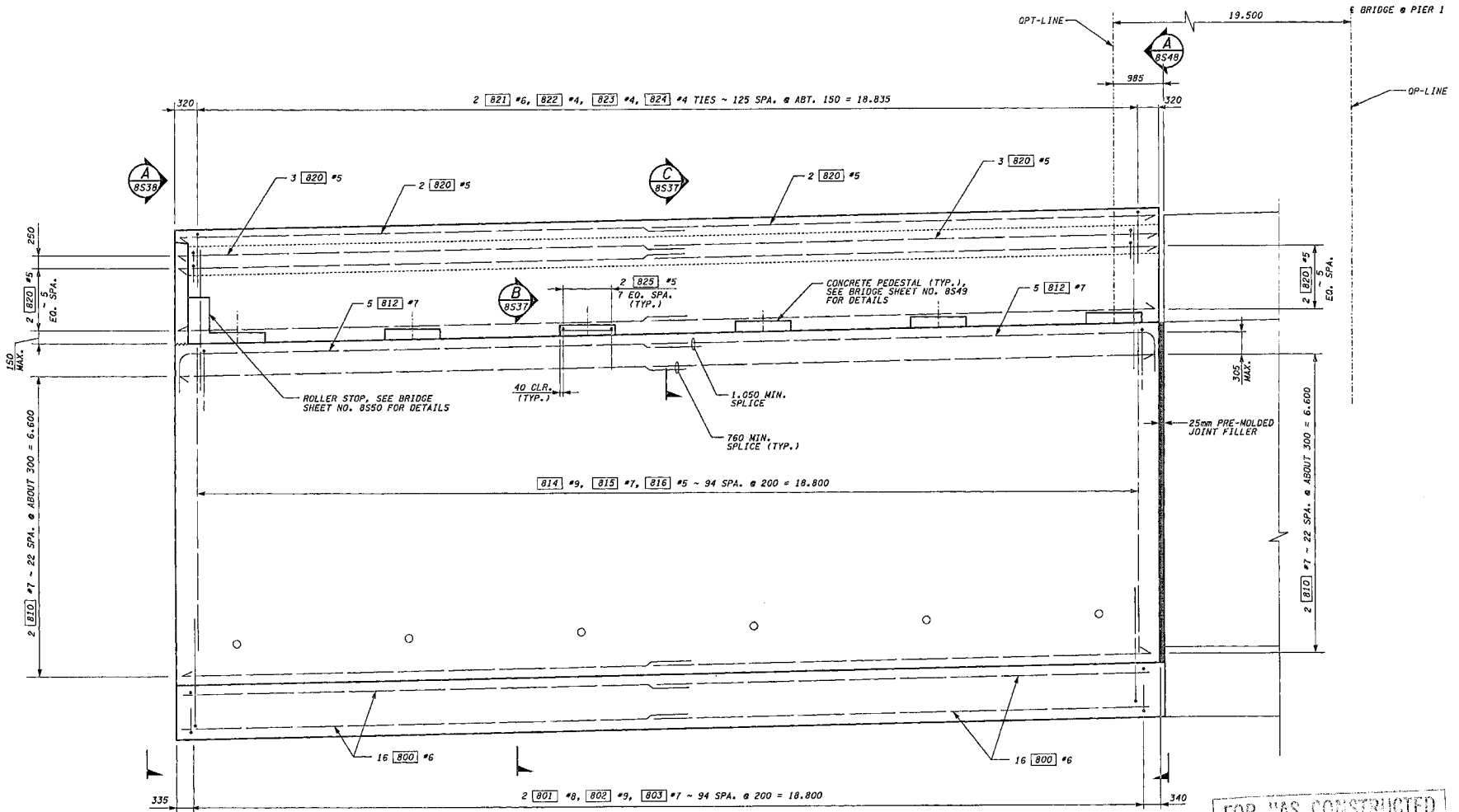
TEMPORARY PIER 1 ELEVATION

BRIDGE SHEET OF	8S35
SHEET	262
OF	416
SHEET	

C:\pvt\temp\dms00357\85036-C1.DGN

I 405 JOB NO. SHEET 02/11/2002 03:25:45 PM

Ike Heller



FOR "AS CONSTRUCTED
PLANS" ONLY

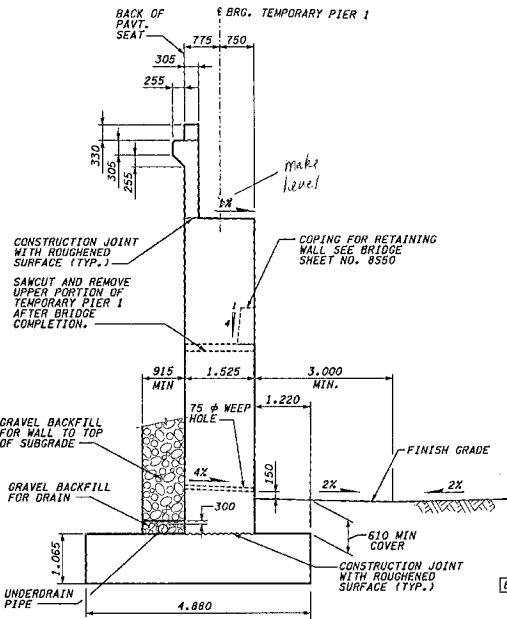
TEMPORARY PIER 1 DETAILS

(LOOKING WEST, BACK ON STATION)
CONSTRUCTION SEQUENCE - STAGE 1

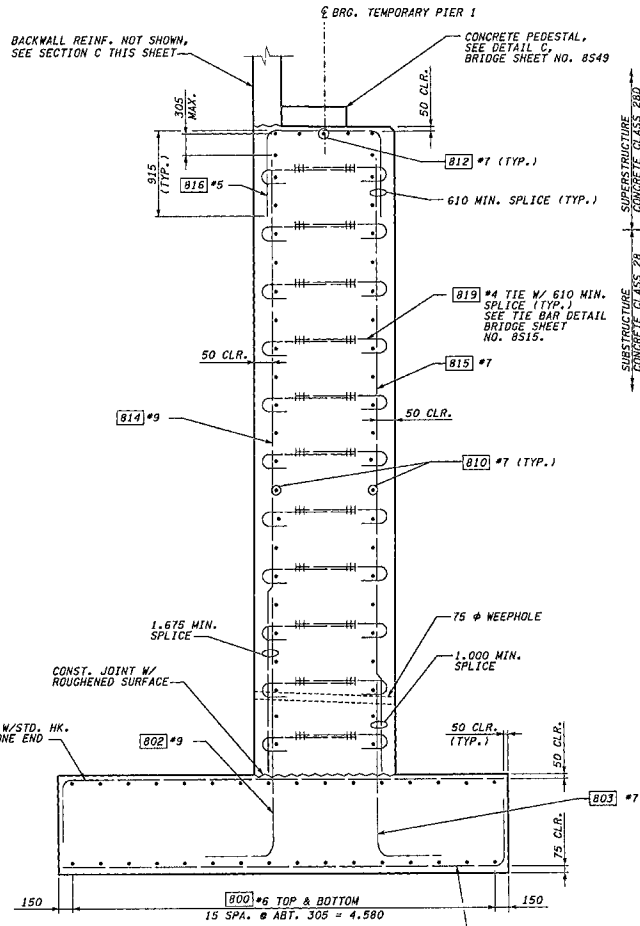
BRIDGE DESIGN ENGR.		REGION STATE		FED. AID PROJ. NO.		ENVIRONMENTAL AND ENGINEERING SERVICE CENTER		Washington State Department of Transportation		I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING		BRIDGE SHEET OF 8536	
SUPERVISOR		10 WASH								TEMPORARY PIER 1 DETAILS		SHEET OF 416 SHEETS	
DESIGNED BY	J.H. SZYMECZEK	DATE	02/02	JOB NUMBER	01A053	CONTRACT NO.		DATE		REVISION	BY		
ENTERED BY	L.D. KELLER	DATE	02/02										
CHECKED BY	S.K. AISAKA	DATE	02/02										
PROJ. ENGR.	D. CIERI	DATE	02/02										
REGIONAL ADM.	D. OYE	DATE	02/02										

C:\pwt\temp\dms00357\85037_C1.dgn

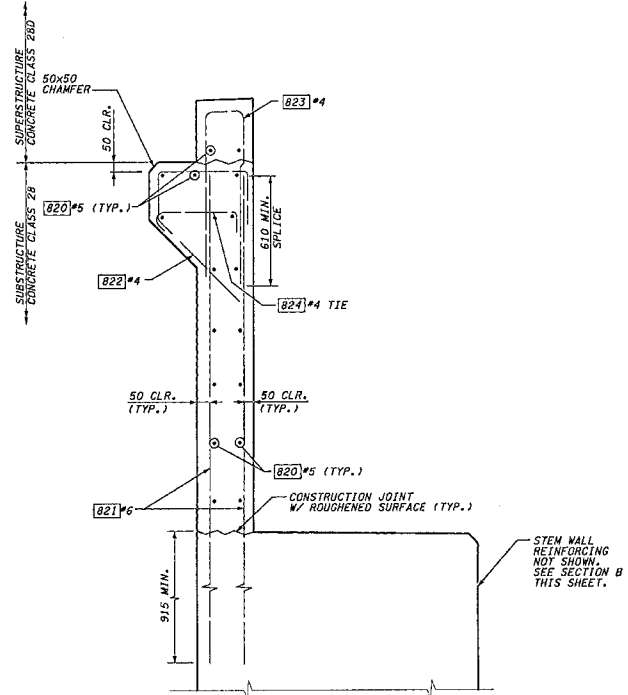
L-405 - JOB NO. 02/11/2002 03:25:51 PM
Ikel Ter SHEET



TEMPORARY PIER 1
TYPICAL SECTION
SECTION **A**
8535



TEMPORARY PIER 1
FOOTING & STEM WALL REINF.
SECTION **B**
8536

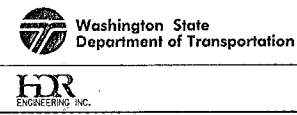
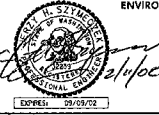


TEMPORARY PIER 1
BACKWALL REINF.
SECTION **C**
8536

FOR "AS CONSTRUCTED
PLANS" ONLY

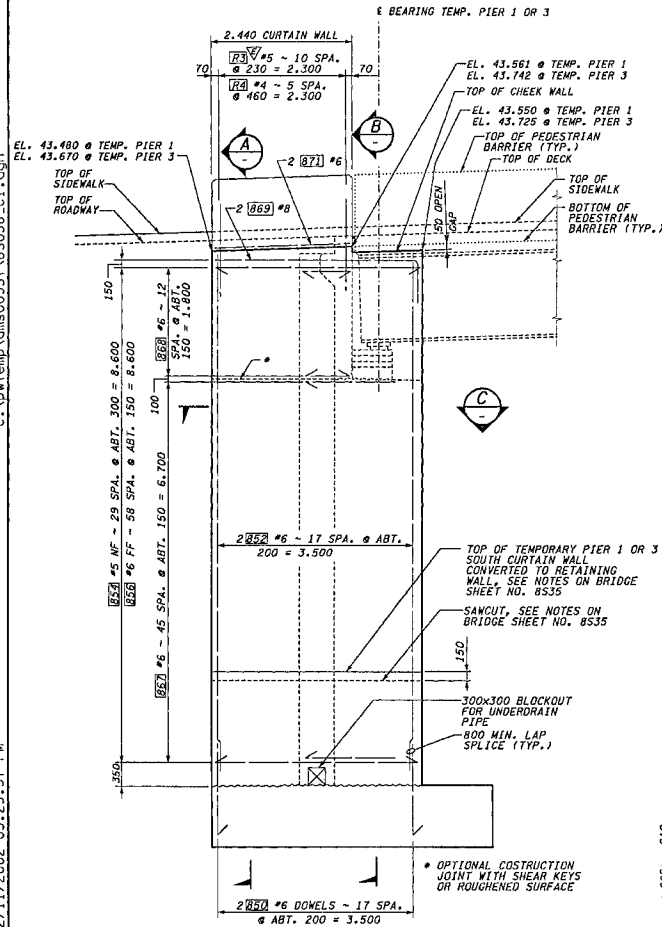
BRIDGE DESIGN ENGR.		REGION	STATE	FED. AID PROJ. NO.
SUPERVISOR		10	WASH	
DESIGNED BY J. H. SZYMECZEK	02/02			
ENTERED BY L. D. KELLER	02/02			
CHECKED BY S. K. AISAKA	02/02			
PROJ. ENGR. D. CIERI	02/02			
REGIONAL ADM. D. DYE	02/02			
DATE	DATE	REVISION	BY	CONTRACT NO.

REGION	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		



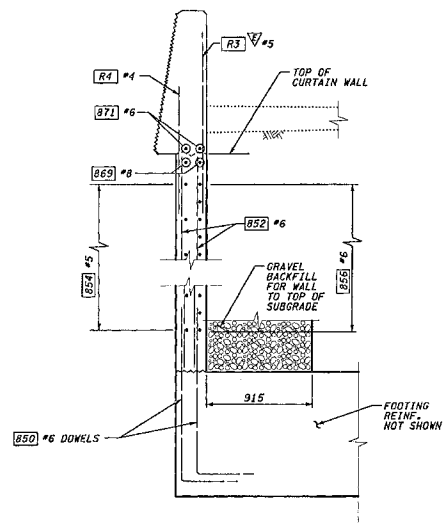
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET
	8S37
TEMP. PIER 1 SECTIONS & DETAILS	SHEET
	264 416 DIEHT

I 405 JOB NO. 02/11/2002 03:25:57 PM
 SHEET
 I KELLER
 C:\pvt\temp\jms00351\SS038.C1.dgn

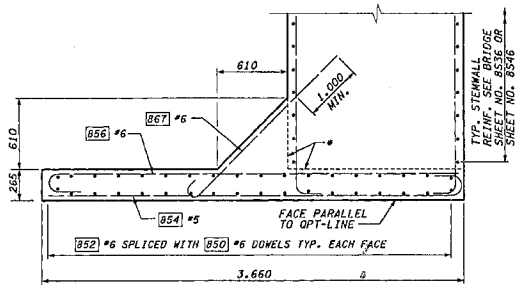


TEMPORARY PIER 1 SOUTH CURTAIN WALL
 (TEMPORARY PIER 3 SOUTH CURTAIN WALL SIMILAR-OPPOSITE HAND)

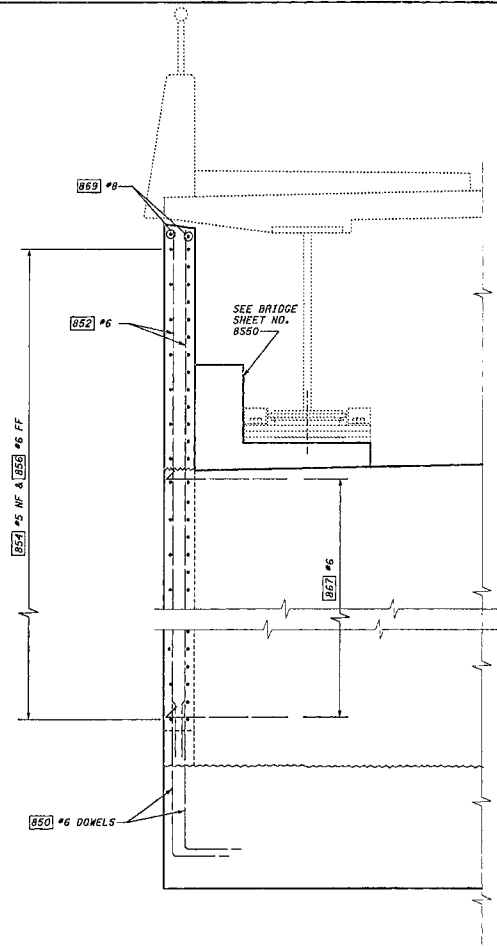
VIEW **A**
 8536, 8546



SECTION **A**



SECTION **C**



SECTION **B**

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.		REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR		10	WASH	
DESIGNED BY J.H. SZYMECZK	02/02	JOB NUMBER	01A053	
ENTERED BY L.D. KELLER	02/02	CONTRACT NO.		
CHECKED BY S.K. AISAKA	02/02	DATE	DATE	REVISION
PROJ. ENGR. D. CIERI	02/02			
REGIONAL ADM. D. DYE	02/02			

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXP. 09/30/02

Washington State Department of Transportation

HR ENGINEERING INC.

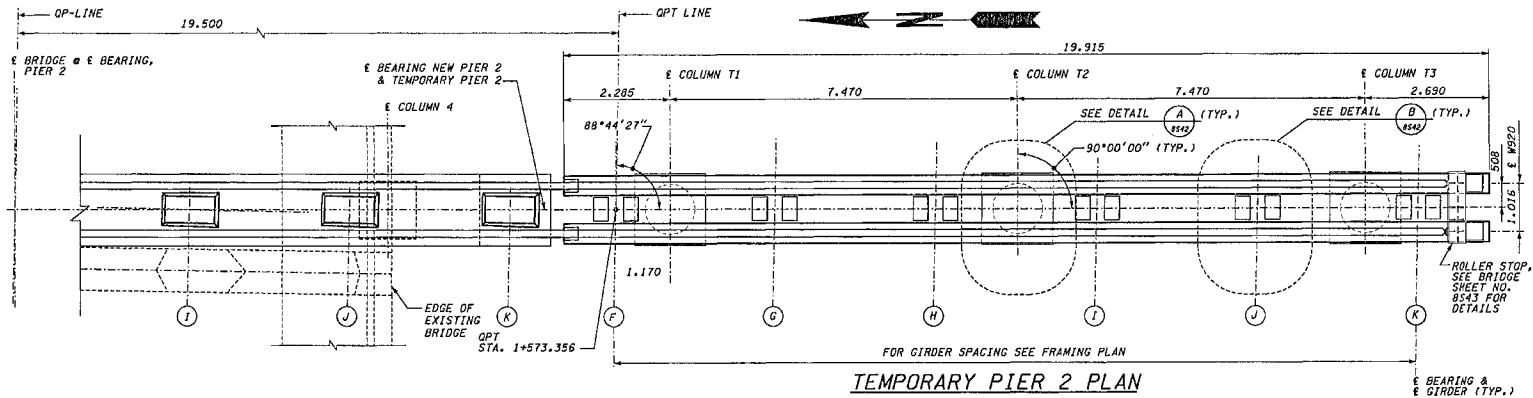
I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING
 TEMPORARY PIER 1 AND 3 SOUTH CURTAIN WALLS

BRIDGE SHEET NO.	8538
SHEET NO.	295
TOTAL SHEETS	416

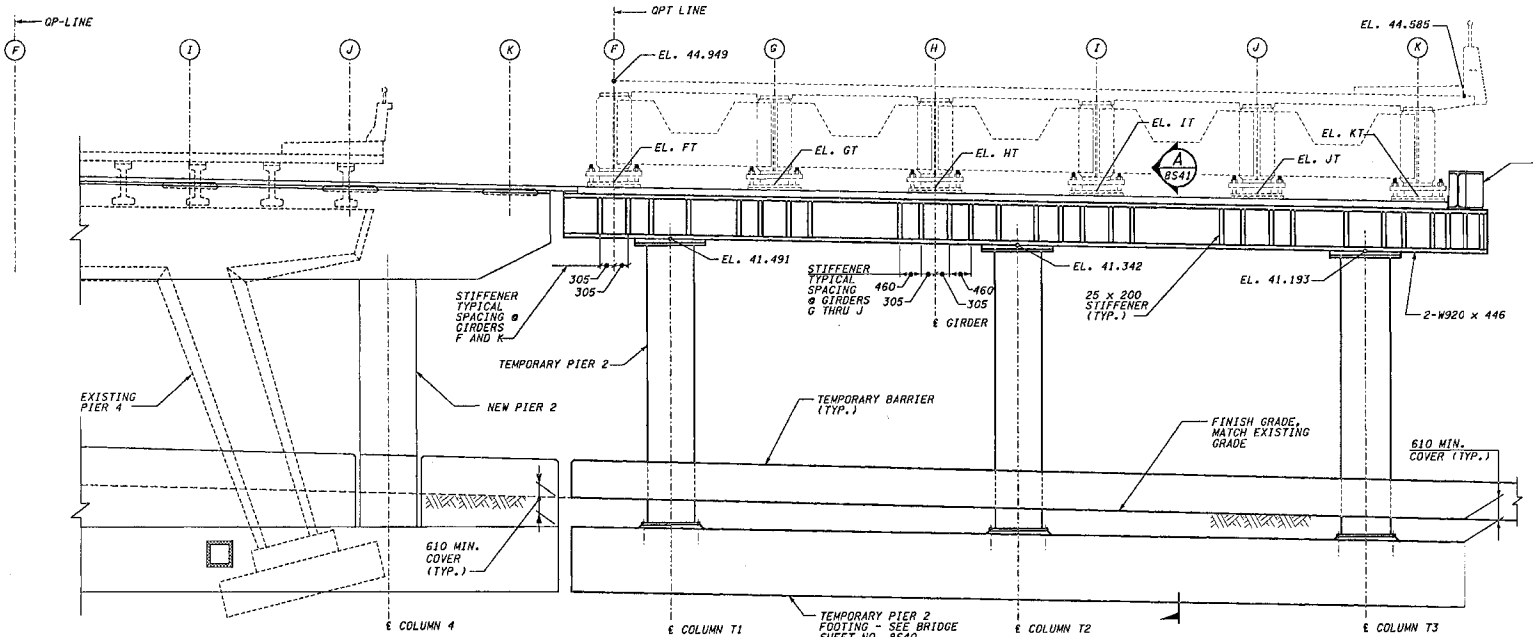
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I_405 JOB NO. SHEET 02/12/2002 08:48:27 AM

l.keller



TEMPORARY PIER 2 PLAN



TEMPORARY PIER 2 ELEVATION
CONSTRUCTION SEQUENCE - STAGE 1

NOTE: ALL ELEVATIONS TAKEN @ BEARING TEMPORARY PIER 2.

TOP OF BEARING SEAT ELEVATION @ TEMPORARY PIER 2						
LOCATION	FT	GT	HT	IT	JT	KT
ELEVATION	42.816	42.747	42.678	42.609	42.540	42.471

NOTE: 1. TEMPORARY PIER 2 SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR-SEE SPECIAL PROVISIONS.

FOR "AS CONSTRUCTED" PLAN ONLY

BRIDGE DESIGN ENGR.									
SUPERVISOR									
DESIGNED BY J.H. SZYMECZEK	02/02								
ENTERED BY L.D. KELLER	02/02								
CHECKED BY S.K. AISAKA	02/02								
PROJ. ENGR. D. CIERI	02/02								
REGIONAL ADM. D. DYE	02/02								
DATE	DATE	REVISION	BY	CONTRACT NO.					

STATE 10 WASH
FED. AID PROJ. NO.
JOB NUMBER 01A053
CONTRACT NO.

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXP. 03/02/02

Washington State Department of Transportation

FDR ENGINEERING, INC.

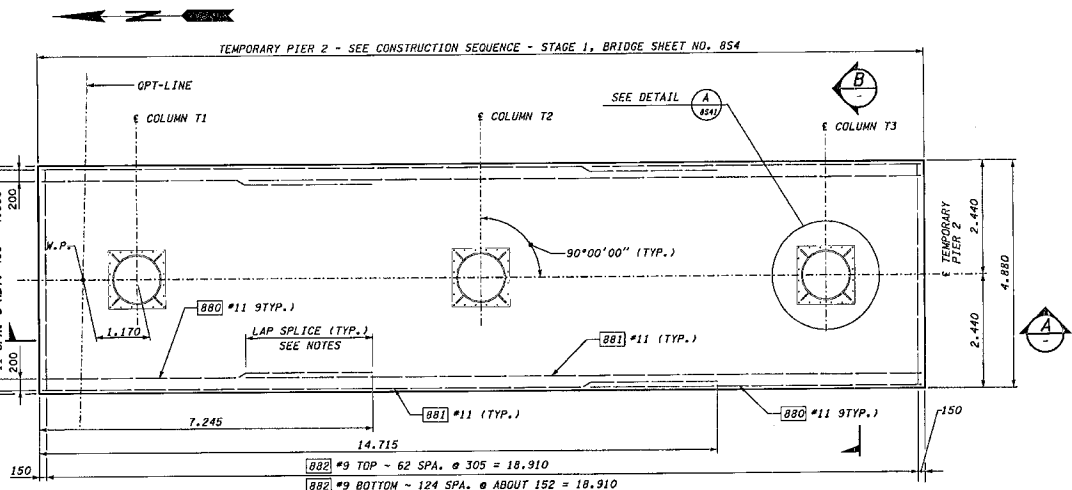
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

TEMP. PIER 2 PLAN AND ELEVATION

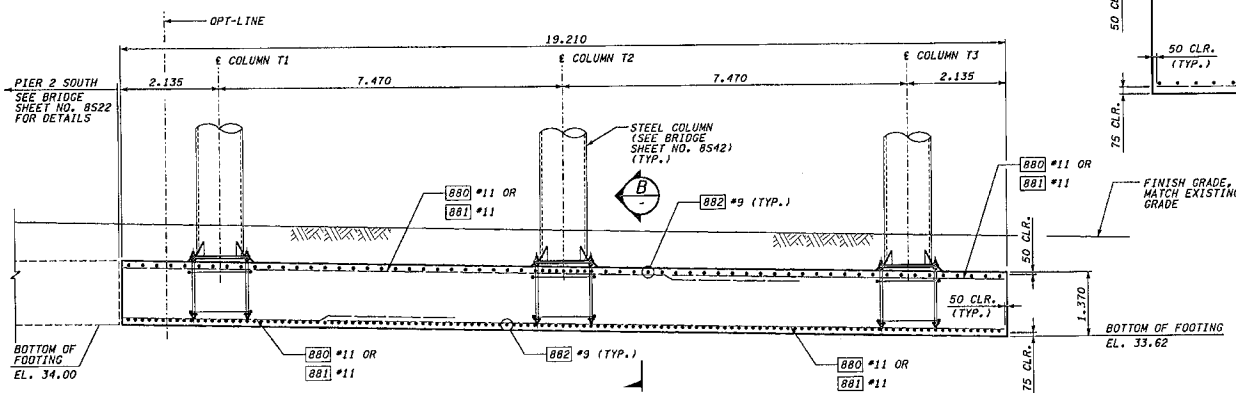
BRIDGE SHEET NO. 8S39
SHEET 206 OF 416 SHEETS

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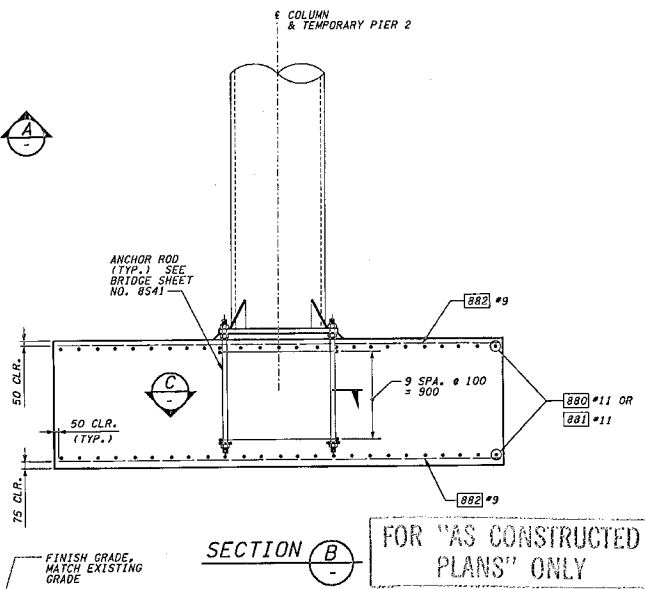
L 405 - JOB NO. 02/11/2002 03:26:09 PM
Keller



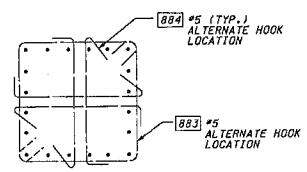
TEMPORARY PIER 2 FOOTING PLAN



SECTION A



SECTION B FOR "AS CONSTRUCTED PLANS" ONLY



SECTION C

NOTES:

1. TEMPORARY PIER 2 FOUNDATION SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR. FOOTING SHOWN ON THIS SHEET IS FOR INFORMATION ONLY. THE CONTRACTOR MAY SELECT DIFFERENT FOUNDATION TYPE AT TEMPORARY PIER 2.
2. LONGITUDINAL #11 TOP & BOTTOM BARS SHALL HAVE A 2.750m MIN. LAP SPLICE.
3. ADJUST REBAR SPACING AS REQUIRED AT COLUMNS TO CLEAR ANCHOR RODS.
4. ALTERNATE #11 LAP SPLICES EVERY OTHER BAR AS SHOWN.

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXPRESS 09/29/02

Washington State Department of Transportation

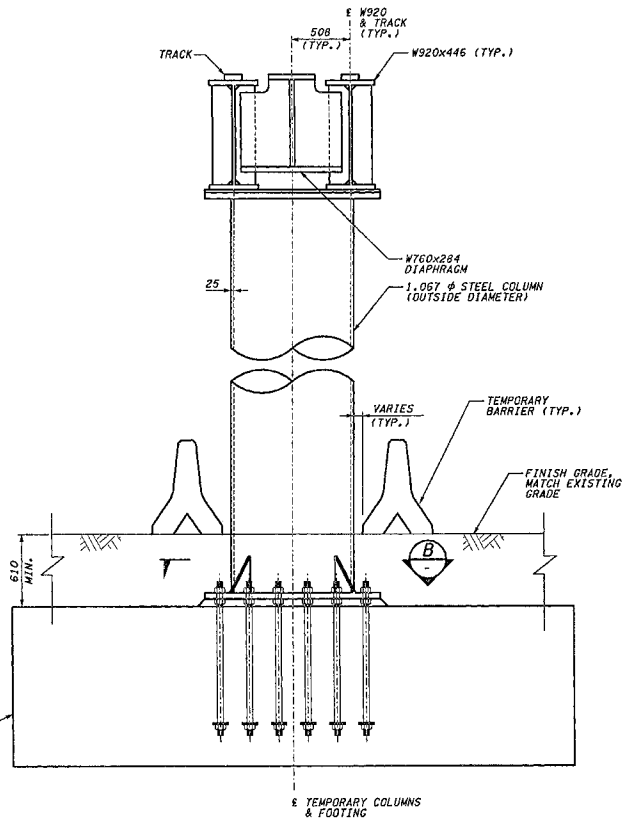
HDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

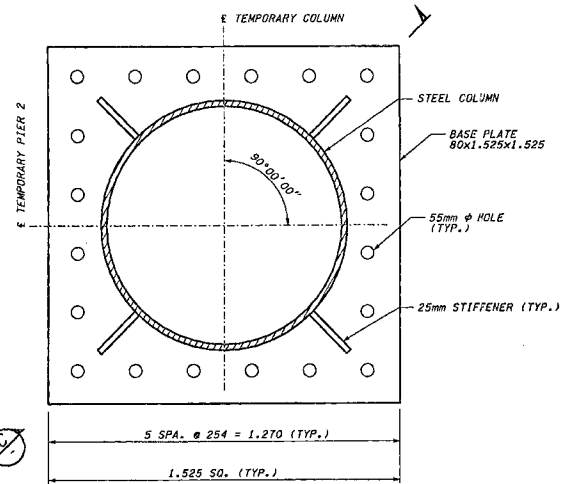
TEMPORARY PIER 2 FOOTING

BRIDGE SHEET NO. 8540

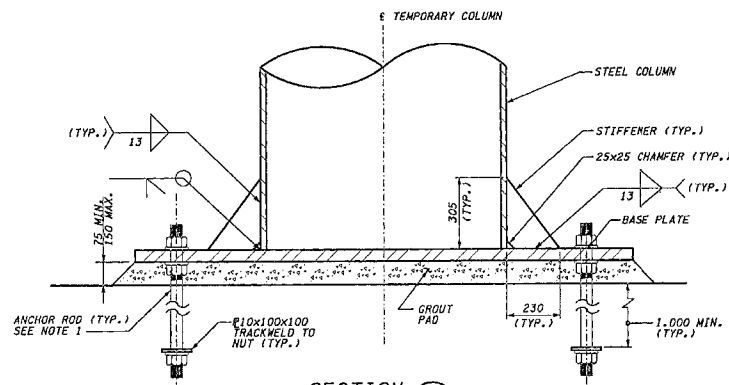
SHEET 267 OF 416 SHEETS



SECTION A
 8539



PLAN
 SECTION B



SECTION C

FOR "AS CONSTRUCTED" PLANS ONLY

NOTES:

- ANCHOR RODS SHALL BE 50.8mm (2" ENGLISH) DIAMETER ASTM A354 GRADE B0, WITH HEAVY HEX NUTS, AND THREADED 8 THREADS PER 25.4mm (1 INCH).

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	CONTRACT NO.	
01A053		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

DATE: 09/29/02

Washington State Department of Transportation

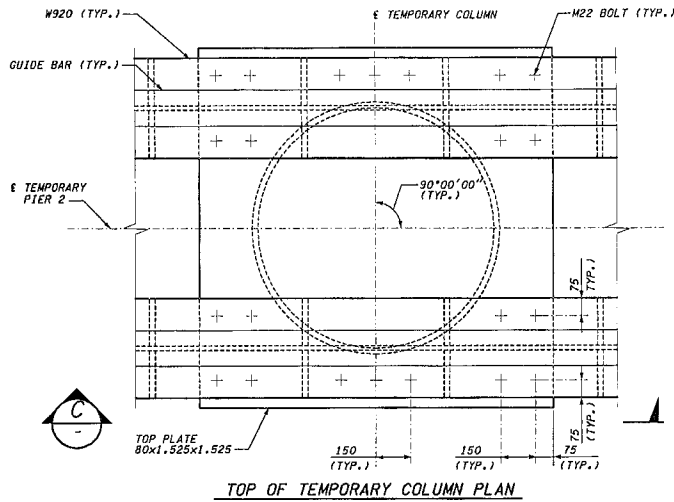
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

TEMP. PIER 2 SECTIONS & DETAILS

BRIDGE SHEET NO.	8541
SHEET NO.	268
SHEET TOTAL	416

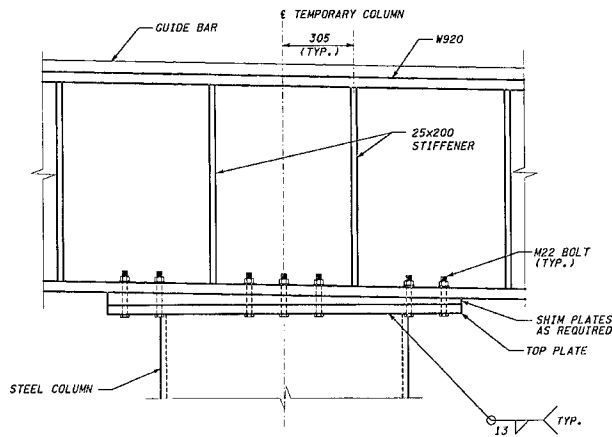
C:\pwrtemp\dms00357\85042_C1.DGN

I 405 JOB NO. SHEET
Keller 02/11/2002 04:49:11 PM

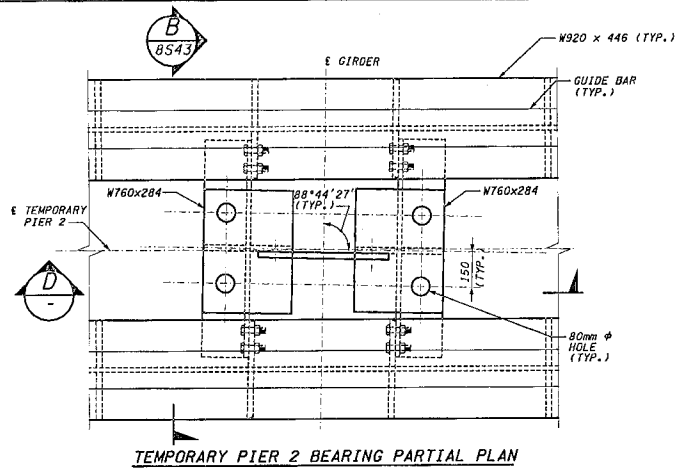


TOP OF TEMPORARY COLUMN PLAN

DETAIL A 8539

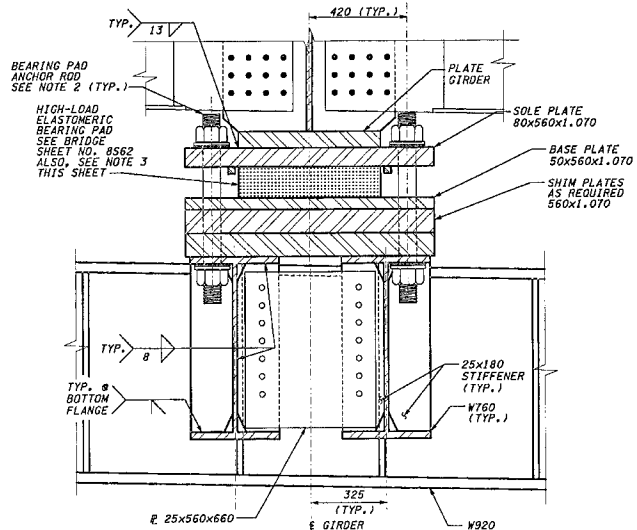


SECTION C



TEMPORARY PIER 2 BEARING PARTIAL PLAN

DETAIL B 8539



SECTION D

NOTES:

- SOLE PLATES SHALL BE SHOP WELDED TO GIRDERS BOTTOM FLANGES. FOR MISSING INFORMATION SEE BRIDGE SHEET NO. 8562
- BEARING PAD ANCHOR RODS SHALL BE 76.2mm ϕ 3" ENGLISH) ASTM A354 GRADE B0 WITH HEAVY HEX NUTS AND THREADED B THREADS PER 25.4mm (1 INCH) CHARPY TESTS SHALL BE PERFORMED ON THE ANCHOR RODS FOR A MINIMUM 33 NEWTON-METERS ϕ 5" C. DETERMINE REQUIRED LENGTH FROM PLANS.
- HIGH-LOAD ELASTOMERIC BEARING PADS SHALL NOT BE BONDED TO SOLE OR BASE PLATES AT TEMPORARY PIER 2.

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.				REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR				10	WASH	
DESIGNED BY J.H. SZYMCEK	02/02			JOB NUMBER		
ENTERED BY L.D. KELLER	02/02			01A053		
CHECKED BY S.K. AUSAKA	02/02			CONTRACT NO.		
PROJ. ENGR. D. CIERI	02/02					
REGIONAL ADM. D. DYE	02/02					
DATE	DATE	REVISION	BY			

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXPRES 02/27/02

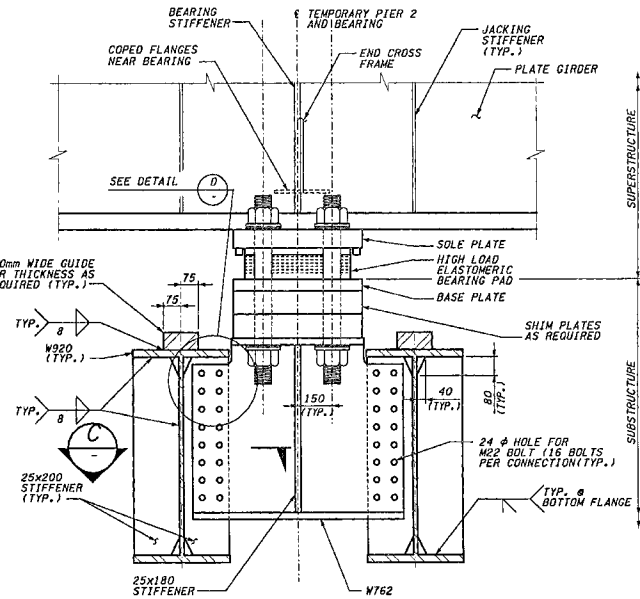
Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

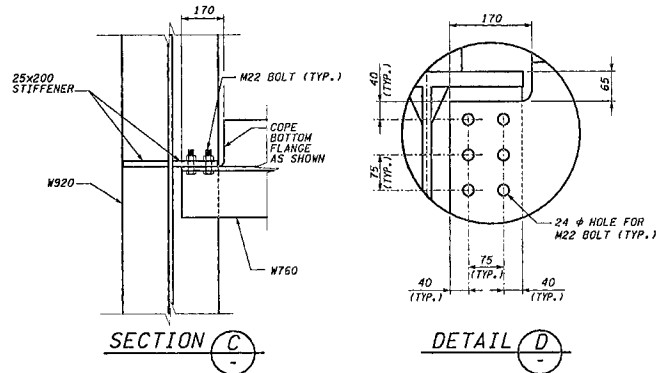
TEMPORARY PIER 2 DETAILS - 1

BRIDGE SHEET NO. 8542

SHEET 269 OF 416 SHEETS

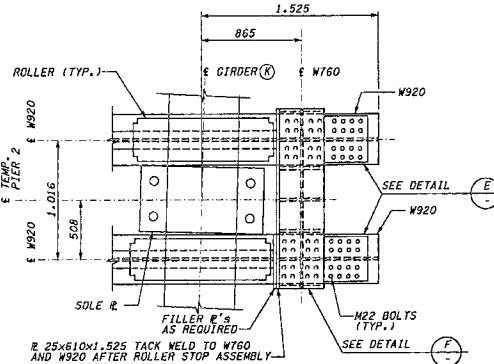


SECTION B
8542

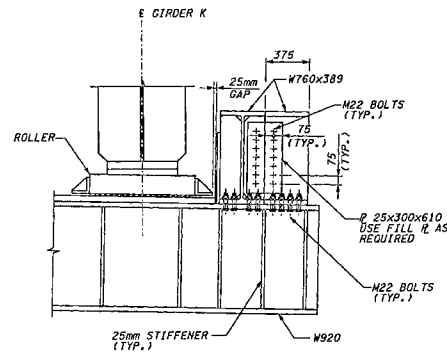


SECTION C

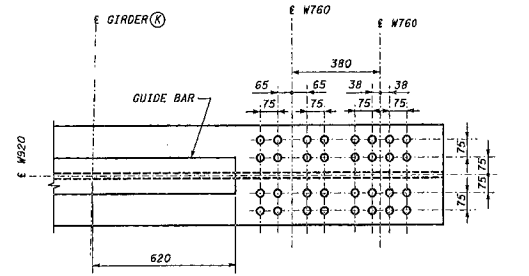
DETAIL D



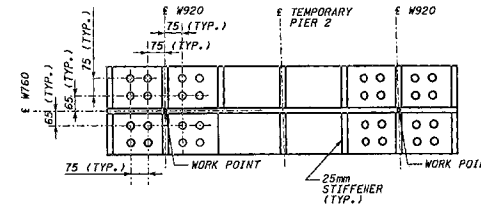
PLAN



ELEVATION
ROLLER STOP



DETAIL E



DETAIL F

FOR "AS CONSTRUCTED
PLANS" ONLY

BRIDGE DESIGN ENGR.		REGION	STATE	FED. AID PROJ. NO.
SUPERVISOR		NO.		
DESIGNED BY C.C. BOYO	12/01	10	WASH	
ENTERED BY L.D. KELLER	12/01			
CHECKED BY S.K. AISAKA	12/01			
PROJ. ENGR. D. CIERI	12/01			
REGIONAL ADM. D. DYE	12/01			
DATE	DATE	REVISION	BY	

	ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

2/1/02

EXPRES 02/03/02

Washington State
Department of Transportation

HDR
ENGINEERING INC.

I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

TEMPORARY PIER 2 DETAILS - 2

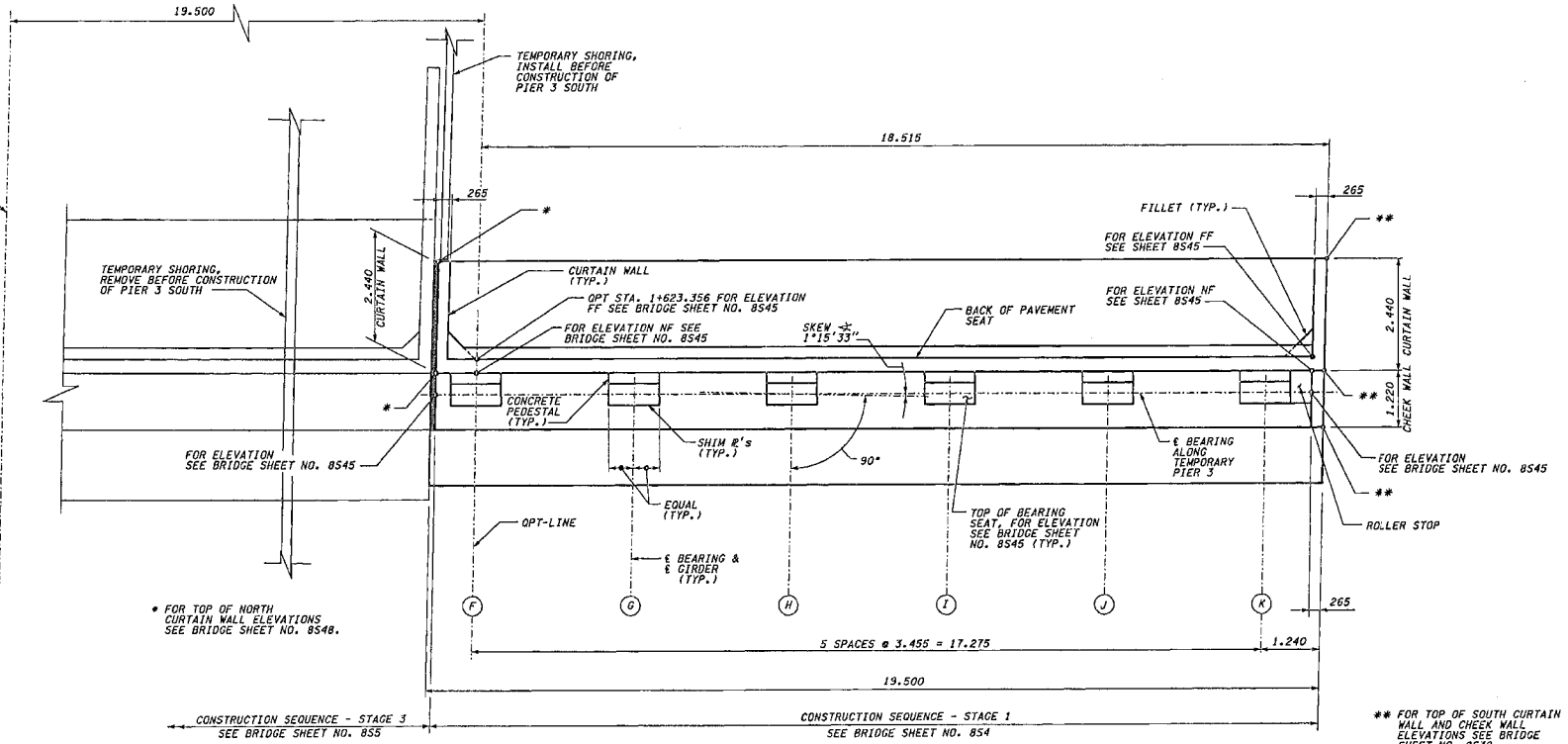
BRIDGE SHEET NO. 8543

SHEET 270 OF 410 SHEETS

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L 405 JOB NO. SHEET 02/11/2002 03:26:34 PM

OP-LINE



* FOR TOP OF NORTH CURTAIN WALL ELEVATIONS SEE BRIDGE SHEET NO. 8548.

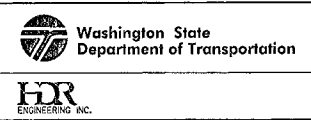
** FOR TOP OF SOUTH CURTAIN WALL AND CHEEK WALL ELEVATIONS SEE BRIDGE SHEET NO. 8538.

TEMPORARY PIER 3 PLAN

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.									
SUPERVISOR									
DESIGNED BY J.H. SZYMCEK	02/02								
ENTERED BY L.D. KELLER	02/02								
CHECKED BY S.K. AISAKA	02/02								
PROJ. ENGR. D. CIERI	02/02								
REGIONAL ADM. D. DYE	02/02								
	DATE	DATE	REVISION	BY					

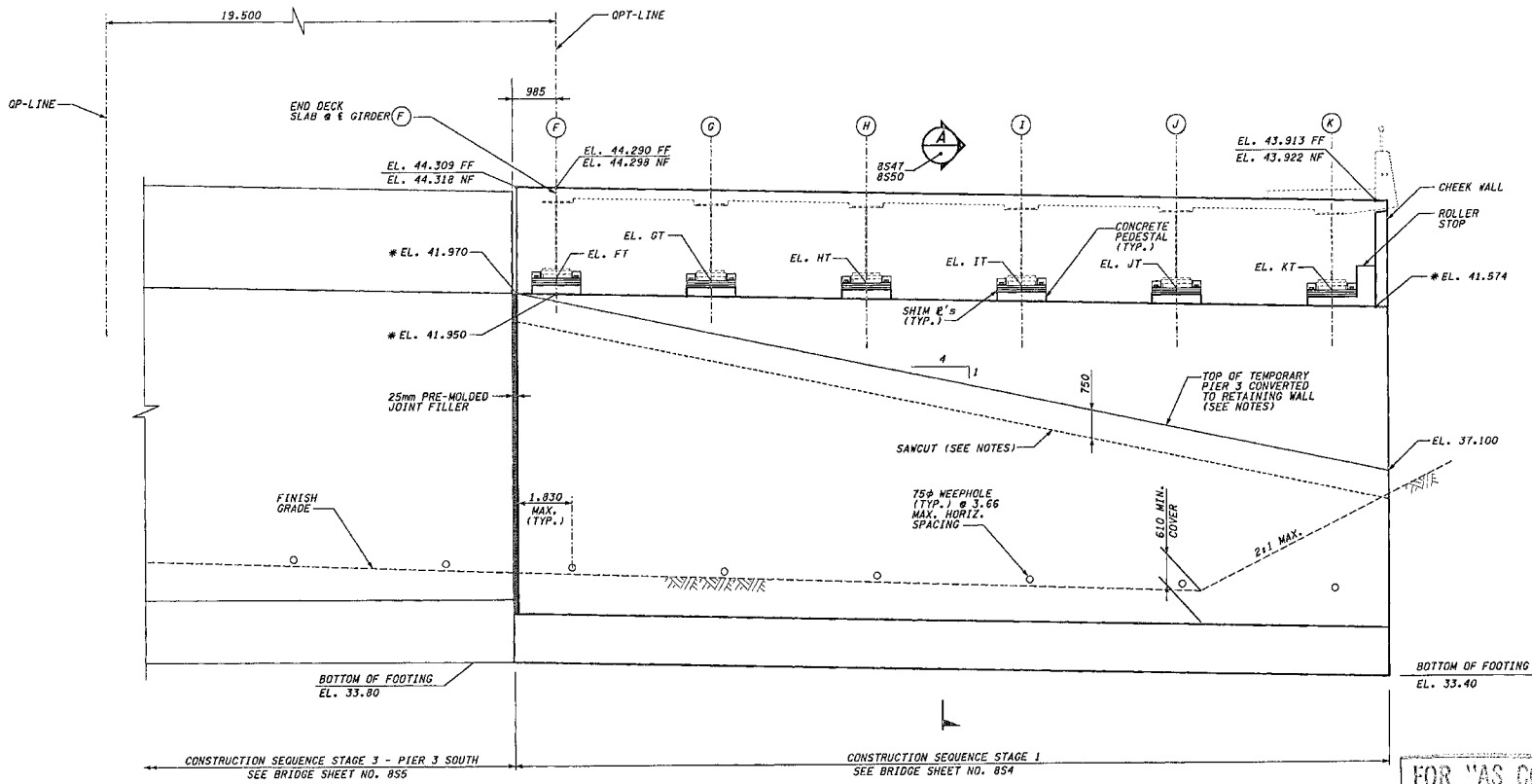
REGION STATE FED.AID PROJ.NO.
10 WASH
JOB NUMBER 01A053
CONTRACT NO.



I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING
TEMPORARY PIER 3 PLAN

BRIDGE SHEET NO. 8544
SHEET 2 of 4
416

L:\405 JOB NO. SHEET 02/11/2002 03:26:40 PM
 keller



FOR 'AS CONSTRUCTED
 PLANS' ONLY


TEMPORARY PIER 3 ELEVATION


* ELEVATIONS TAKEN @ E BEARING

TOP OF BEARING SEAT ELEVATION @ TEMPORARY PIER 3						
LOCATION	FT	GT	HT	IT	JTJJ	KT
ELEVATION	42.332	42.261	42.189	42.118	42.047	41.976

- NOTES:**
1. AFTER THE SOUTH SUPERSTRUCTURE HAS BEEN RELOCATED INTO FINAL POSITION, REMOVE PORTIONS OF TEMPORARY PIER 3 ABOVE SAWCUT LINE AND CONSTRUCT COPING AS SHOWN ON BRIDGE SHEET NO. 8550.
 2. AFTER CONSTRUCTION OF COPING, PITCHED SEALER SHALL BE APPLIED TO ALL EXPOSED SURFACES, EXTENDING DOWN TO AT LEAST 300mm BELOW FINISHED GRADE.

BRIDGE DESIGN ENGR.		REGION NO.	STATE	FED. AID PROJ. NO.					
SUPERVISOR		10	WASH						
DESIGNED BY J.H. SZYMECZEK	02/02								
ENTERED BY L.D. KELLER	02/02								
CHECKED BY S.K. AISAKA	02/02								
PROJ. ENGR. D. CIERI	02/02								
REGIONAL ADM. D. DYE	02/02								
	DATE	DATE	REVISION	BY					

ENVIRONMENTAL AND ENGINEERING
 SERVICE CENTER


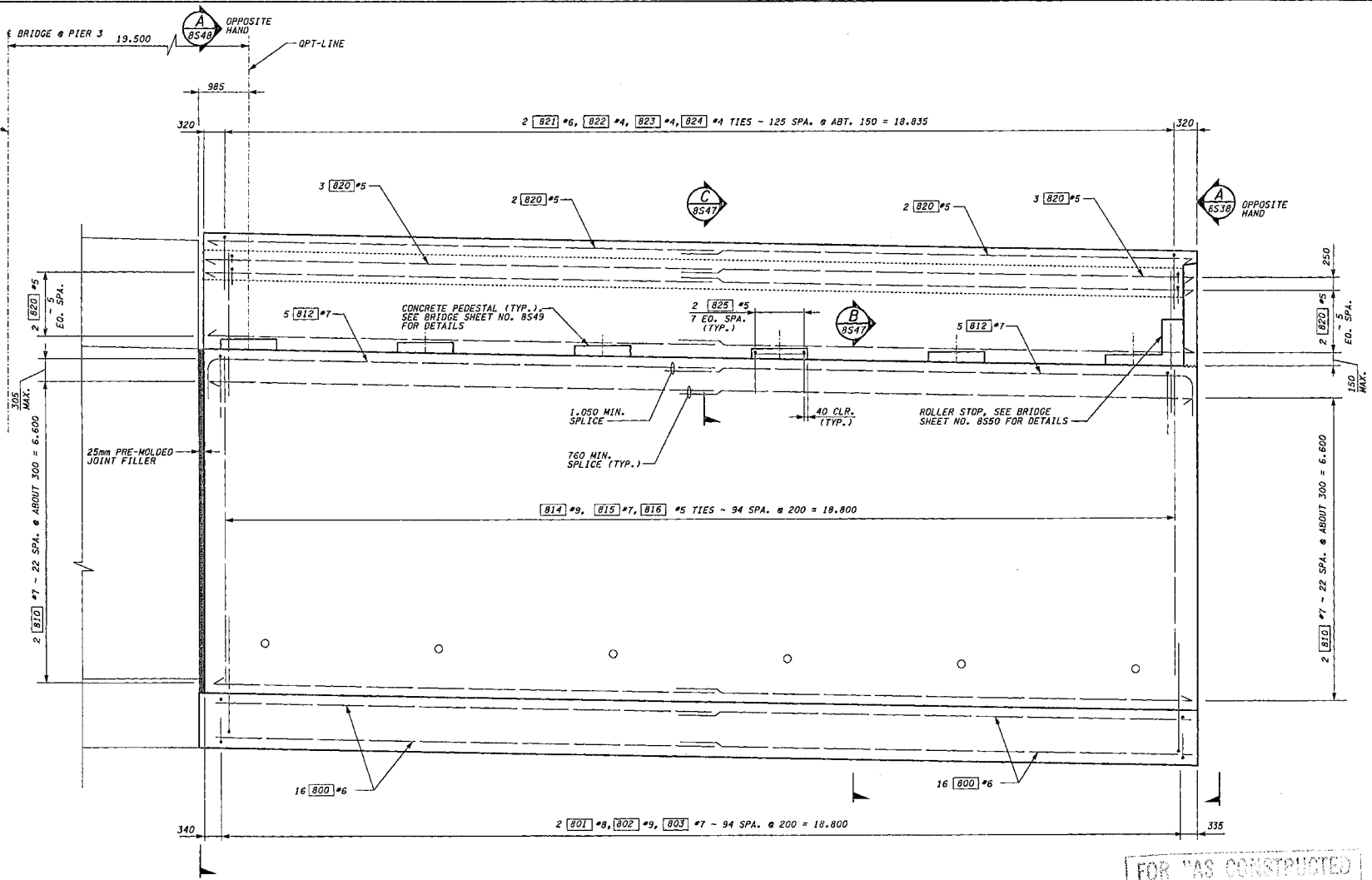
Washington State
 Department of Transportation


**I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING**

TEMPORARY PIER 3 ELEVATION

BRIDGE SHEET
8545
 SHEET
272
 OF
416
 SHEETS

I_405 JOB NO. SHEET
 ikeller 02/11/2002 03:26:47 PM
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TEMPORARY PIER 3 DETAILS
 CONSTRUCTION SEQUENCE - STAGE 1

FOR "AS CONSTRUCTED
 PLANS" ONLY

BRIDGE DESIGN ENGR.				REGION	STATE	FED.AID PROJ.NO.
SUPERVISOR				10	WASH	
DESIGNED BY J.H. SZYMCEK	02/02			JOB NUMBER		
ENTERED BY L.D. KELLER	02/02			01A053		
CHECKED BY S.K. AJSKA	02/02			CONTRACT NO.		
PROJ. ENGR. D. CIERI	02/02					
REGIONAL ADM. D. DYE	02/02					
DATE	DATE	REVISION	BY			

ENVIRONMENTAL AND ENGINEERING
 SERVICE CENTER

Washington State
 Department of Transportation

HDR
 ENGINEERING INC.

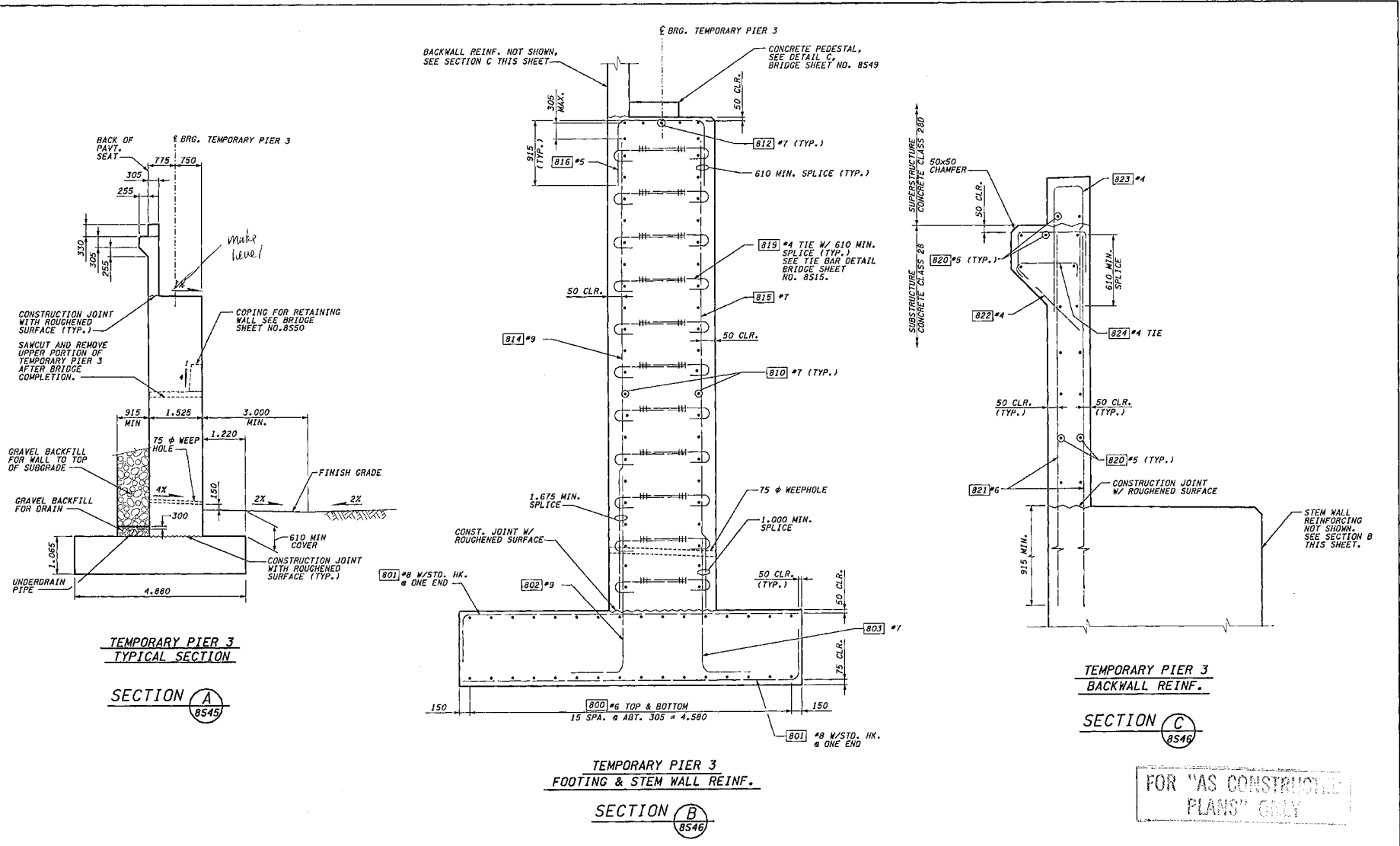
I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

TEMPORARY PIER 3 DETAILS

BRIDGE SHEET NO.
 8546

SHEET
 213
 416
 SHEETS

L:\405 JOB NO. SHEET 02/11/2002 03:26:53 PM
 keller

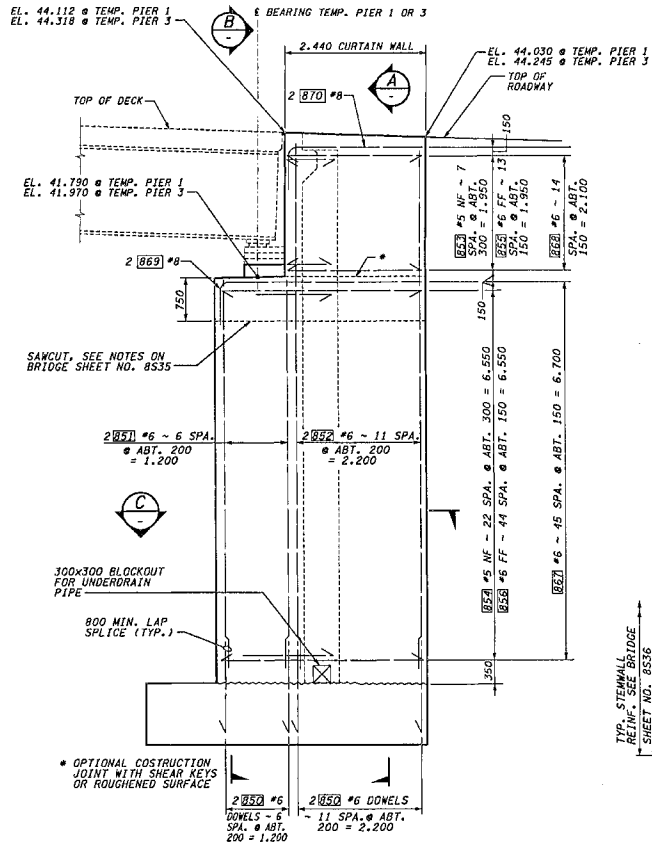


FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR. SUPERVISOR DESIGNED BY J.H. SZYMIECZAK ENTERED BY L.D. KELLER CHECKED BY S.K. AISAKA PROJ. ENGR. D. CIERI REGIONAL ADM. D. DYE	02/02 02/02 02/02 02/02 02/02				REGION NO. STATE 10 WASH	FED.AID PROJ.NO. CONTRACT NO. 01A053	ENVIRONMENTAL AND ENGINEERING SERVICE CENTER 	 Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO. 8547 SHEET 274 OF 416 SHEETS
DATE DATE REVISION BY				TEMP. PIER 3 SECTIONS & DETAILS						

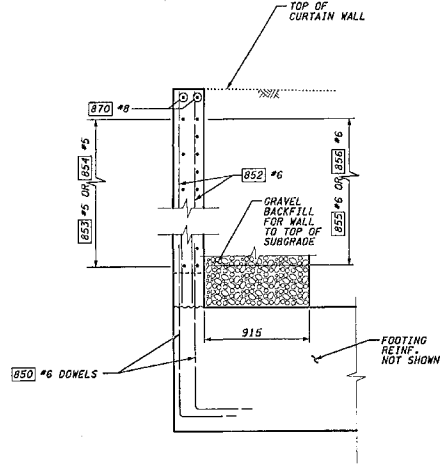
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L 405 JOB NO. SHEET
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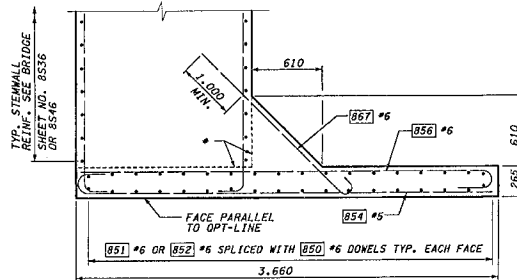


TEMPORARY PIER 1 NORTH CURTAIN WALL
 (TEMPORARY PIER 3 NORTH CURTAIN WALL SIMILAR-OPPOSITE HAND)

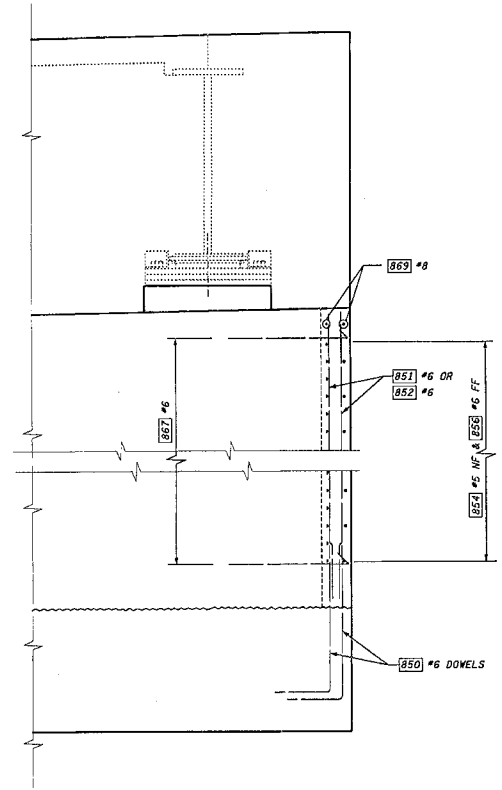
VIEW **A**
 8536, 8546



SECTION **A**



SECTION **C**



SECTION **B**

FOR "AS CONSTRUCTED
 PLANS" ONLY

BRIDGE DESIGN ENGR.	DATE	REVISION	BY
SUPERVISOR			
DESIGNED BY J.H. SZYMECZEK	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. D. OYE	02/02		

REGION	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

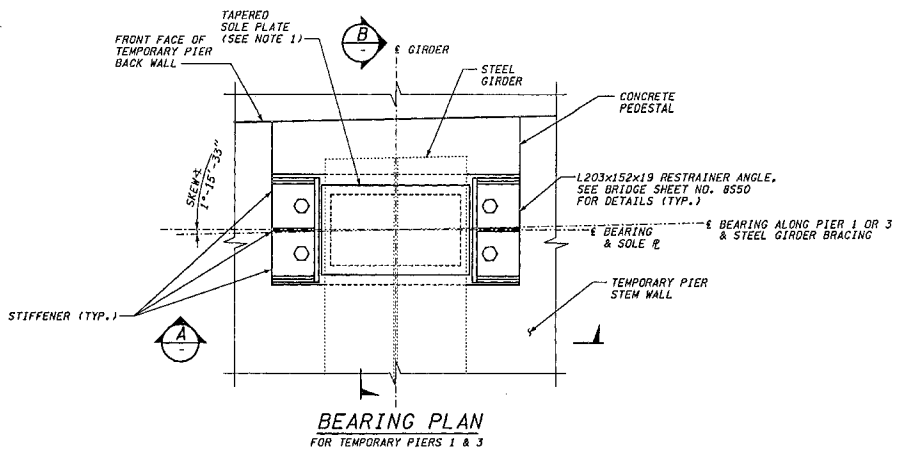
Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

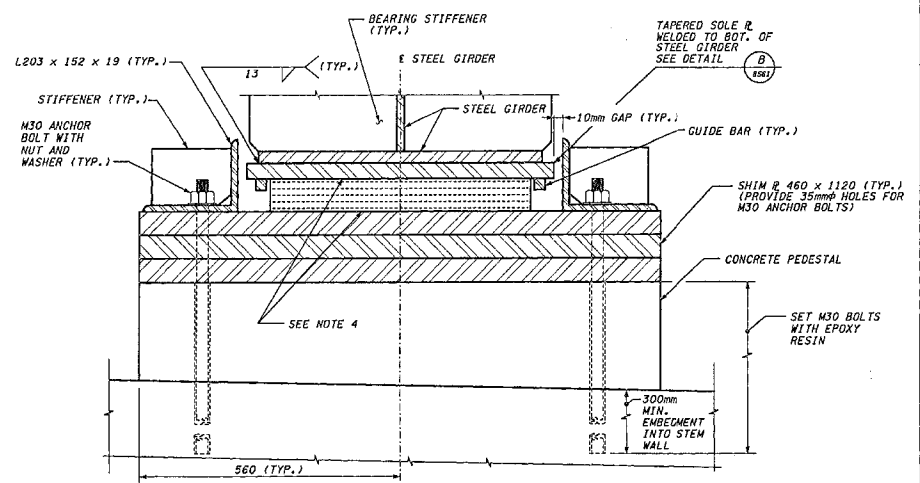
TEMPORARY PIER 1 AND 3 NORTH CURTAIN WALLS

BRIDGE SHEET NO.
8548
SHEET
275
SHEETS
416

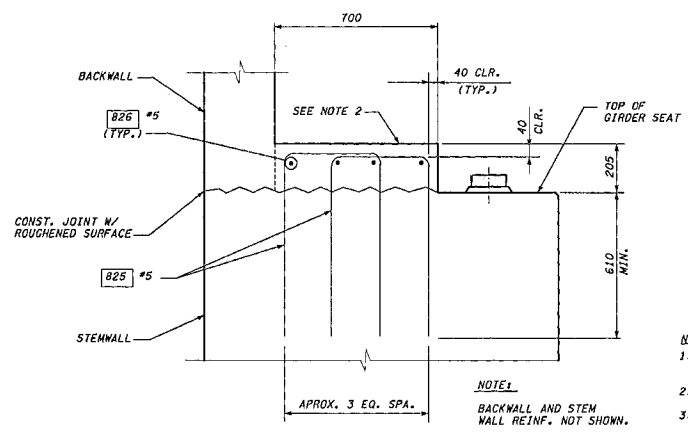
L 405 JOB NO. SHEET 02/13/2002 11:27:13 AM
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 ikeller



BEARING PLAN
FOR TEMPORARY PIERS 1 & 3



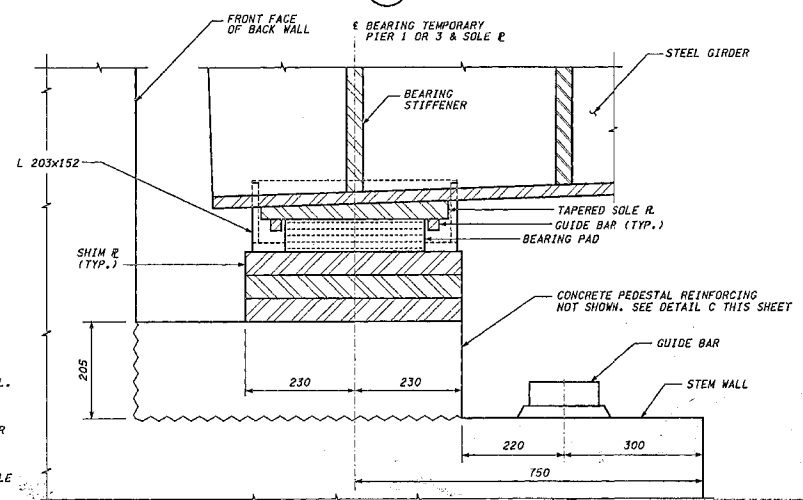
SECTION A



CONCRETE PEDESTAL REINF.
FOR TEMPORARY PIERS 1 & 3

DETAIL C
8537
8547

- NOTES:**
- FOR TAPERED SOLE PLATE AND BEARING PAD DETAILS SEE BRIDGE SHEET NO. 8561.
 - TOP OF CONCRETE PEDESTAL SHALL BE LEVEL.
 - RESTRAINER ANGLES SHALL BE REMOVED IMMEDIATELY BEFORE BRIDGE RELOCATION. SHIM PLATES SHALL BE REMOVED AND ANCHOR BOLTS BURNT OFF BEFORE LOWERING SUPERSTRUCTURE ONTO ROLLERS.
 - BEARING PADS SHALL NOT BE BONDED TO SOLE OR SHIM PLATES AT TEMPORARY PIERS.

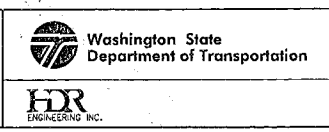


SECTION B

FOR "AS CONSTRUCTED" PLANS ONLY

BRIDGE DESIGN ENGR. SUPERVISOR	DESIGNED BY C.C. BOYD	02/02				REGIST. NO.	STATE	FED. AID PROJ. NO.										
ENTERED BY L.D. KELLER	CHECKED BY S.K. AISAKA	02/02				10	WASH											
PROJ. ENGR. D. CIERI	REGIONAL ADM. D. OYE	02/02																
		DATE	DATE	REVISION	BY													

JOB NUMBER	01A053
CONTRACT NO.	



I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

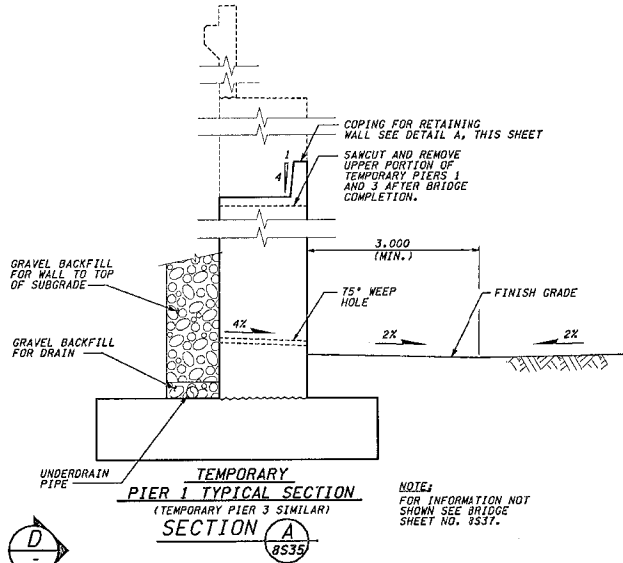
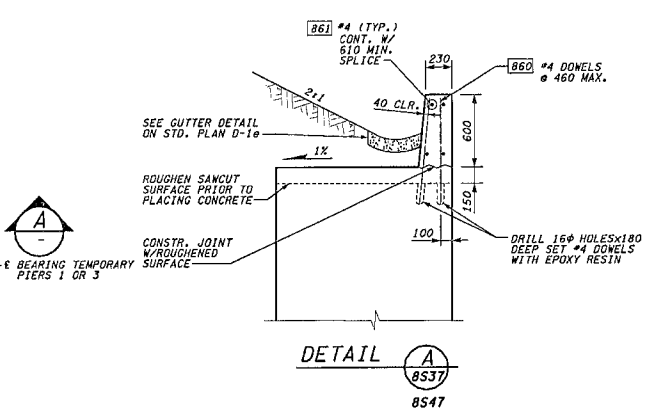
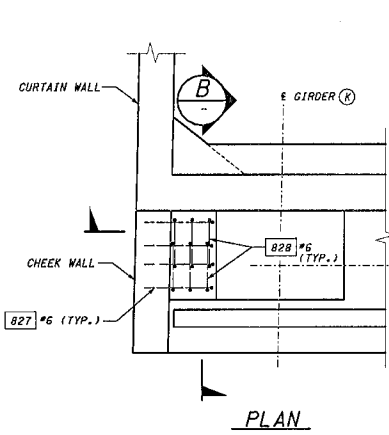
TEMPORARY PIERS 1 & 3 DETAILS-1

BRIDGE SHEET NO. 8549
SHEET 276 OF 410 SHEETS

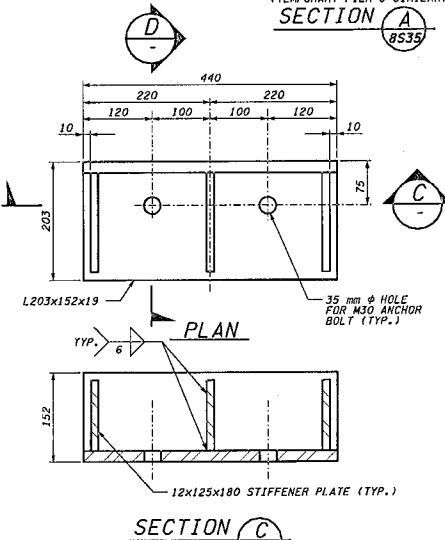
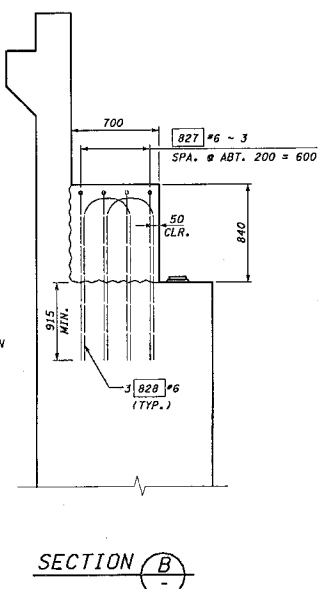
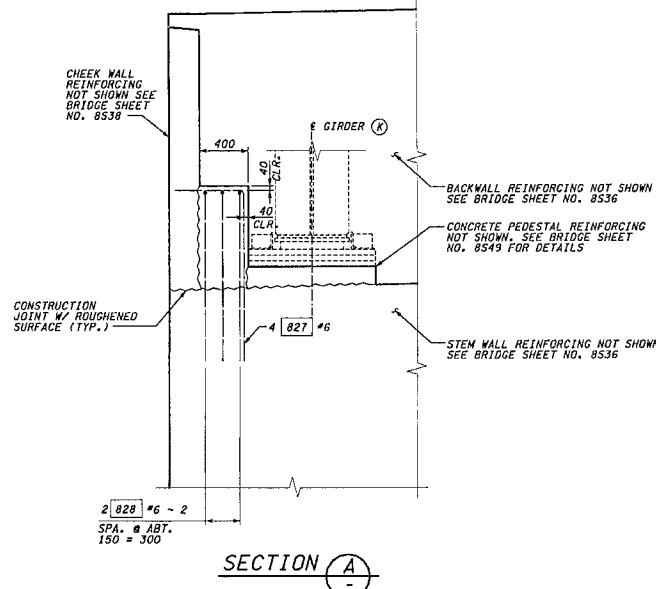
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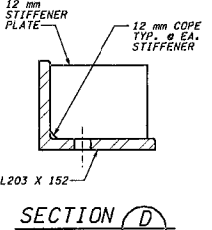
ikeller



NOTE:
FOR INFORMATION NOT
SHOWN SEE BRIDGE
SHEET NO. 8537.



FOR "AS CONSTRUCTED
PLANS" ONLY

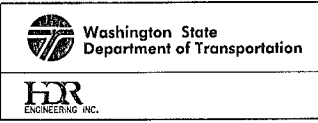
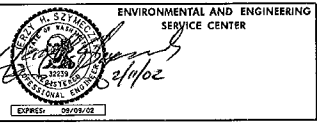


ROLLER STOP
TEMPORARY PIER 1 SHOWN
(TEMPORARY PIER 3 SIMILAR)

RESTRAINER ANGLE

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		



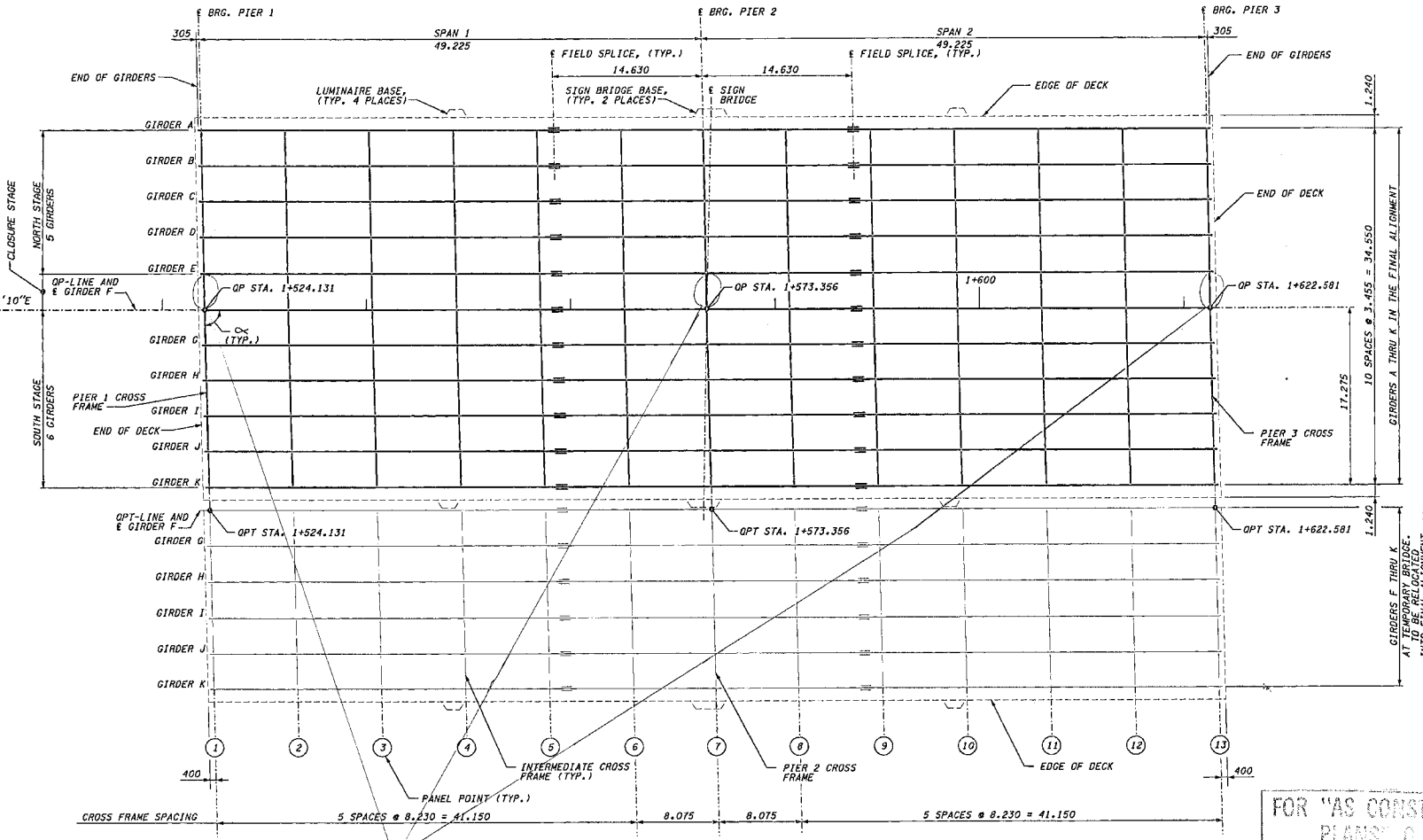
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

TEMPORARY PIER 1 & 3 DETAILS - 2

BRIDGE SHEET NO.	8550
SHEET	277
SHEETS	416

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L:\05_JOB NO. SHEET
 1keller 02/11/2002 03:27:17 PM



Deleted: pier 1,2,3 Cross Frame

GIRDER FRAMING PLAN

FOR "AS CONSTRUCTED" PLANS ONLY

- NOTE:**
1. ANGLE \angle SHALL BE 88°44'21" FOR ALL CROSS FRAMES AT ALL PIERS AND ALL PANELS.
 2. GIRDER FRAMING SHOWN IN THE FINAL STAGE OF CONSTRUCTION.

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.D. HIROSE	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. JOYE	02/02				
DATE	DATE	REVISION	BY		

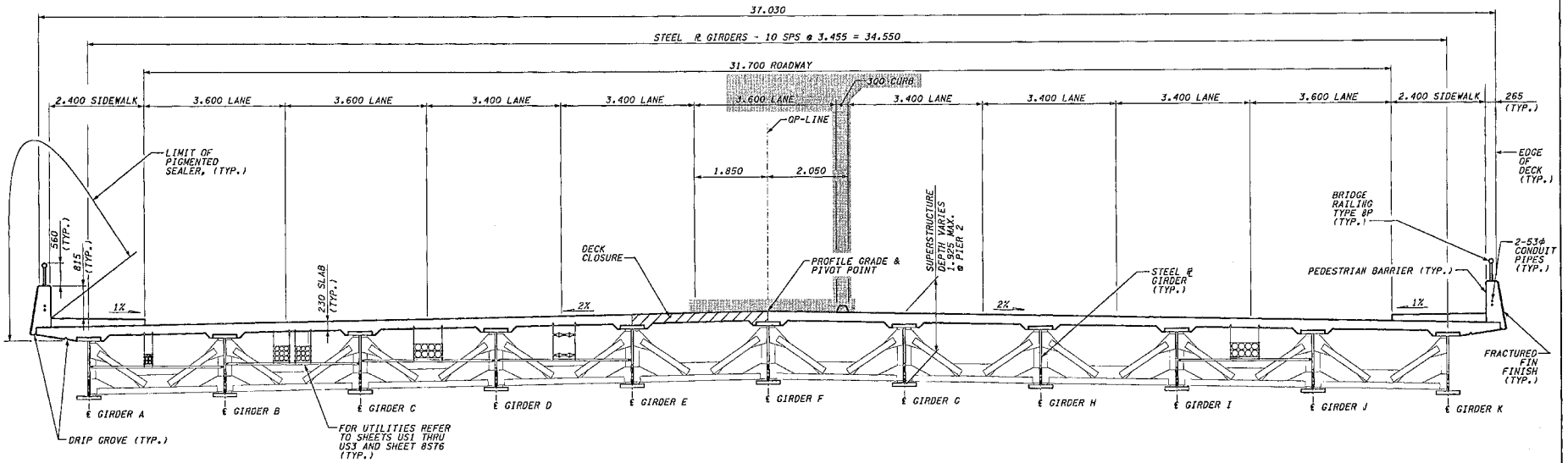
REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	CONTRACT NO.	
01A053		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING
 GIRDER FRAMING PLAN

BRIDGE SHEET NO.	8551
SHEET	270
SHEETS	416



ROADWAY TYPICAL SECTION
~ SPANS 1 & 2

NOTE:
FOR MEDIAN DETAILS REFER TO SHEET PY02.

FOR 'AS CONSTRUCTED
PLANS' ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY M.J. BENSON	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02	03/19/02	REMOVED MEDIAN	JHS	
DATE	DATE	REVISION		BY	

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	CONTRACT NO.	
01A053		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

DATE: 02/21/02

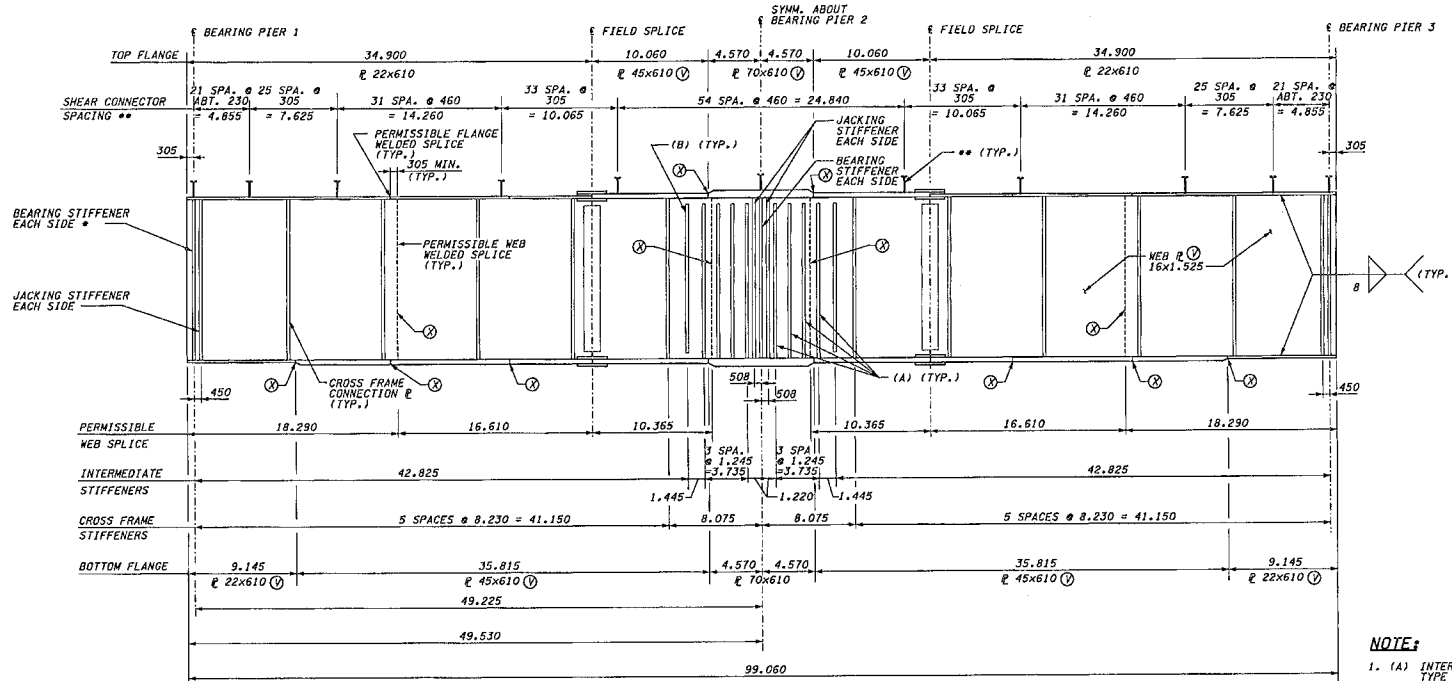
Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO. 8552
ROADWAY TYPICAL SECTION	SHEET 279 OF 410 SHEETS

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SHEET
02/11/2002 03:27:30 PM

L-405_JOB NO.
Keller



INTERIOR GIRDER ELEVATION
GIRDER IS SYMMETRICAL ABOUT BEARING PIER 2

NOTE:

- 1. (A) INTERMEDIATE STIFFENER TYPE "A" EACH SIDE SEE BRIDGE SHEET NO. 8556
- (B) INTERMEDIATE STIFFENER TYPE "B" EACH SIDE SEE BRIDGE SHEET NO. 8556
- BEARING STIFFENERS SHALL BE PLACED AT BEARINGS
- ** 4 STUDS EACH LOCATION SEE BRIDGE SHEET NO. 8556

FOR "AS CONSTRUCTED" PLANS ONLY

BRIDGE DESIGN ENGR.	DATE	REVISION	BY
SUPERVISOR			
DESIGNED BY J.D. HIROSE	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. U. DYE	02/02		

REGION	STATE	FED. AID PROJ. NO.
10	WASH	

JOB NUMBER: 01A053
CONTRACT NO.:
EXPIRES: 03/02/02

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

U. Dye
Professional Engineer

Washington State Department of Transportation

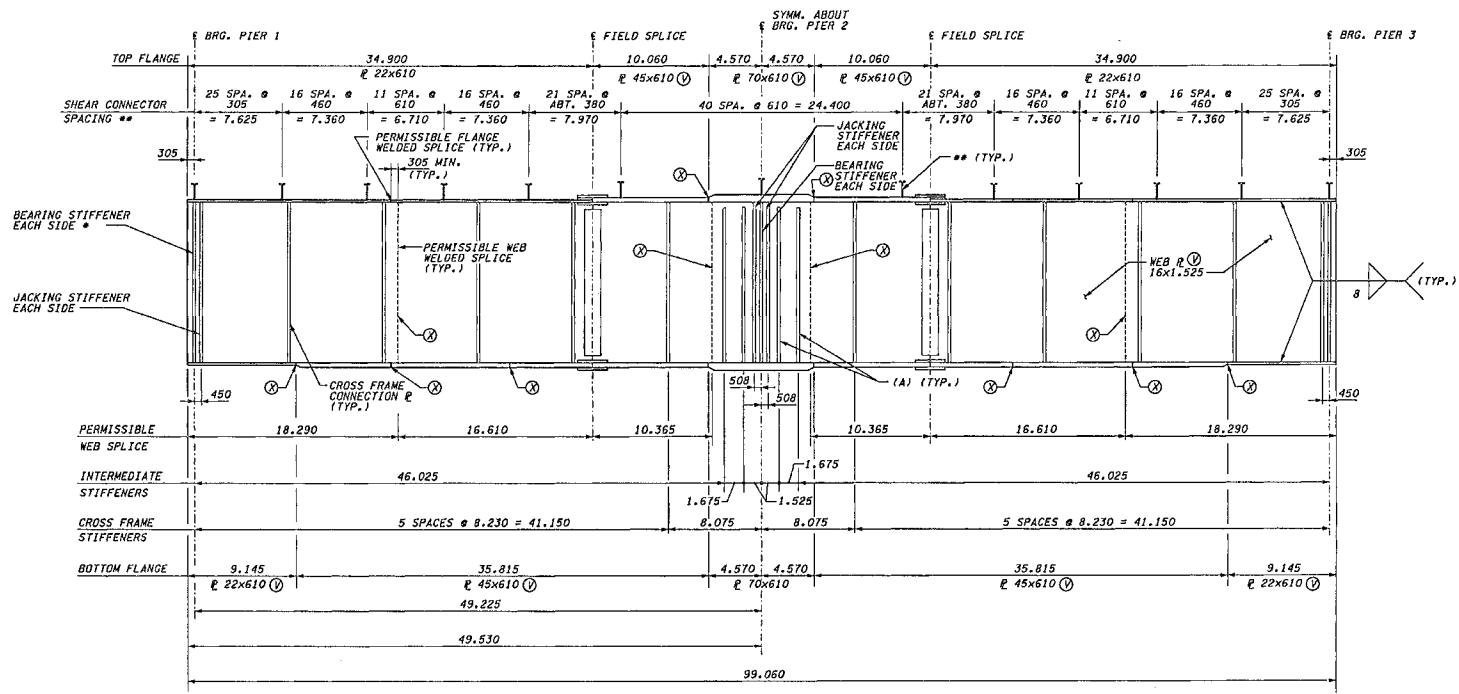
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

INTERIOR GIRDER ELEVATION

BRIDGE SHEET NO.	8553
SHEET	280
SHEET	416

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L 405 JOB NO. SHEET 02/11/2002 03:27:36 PM
lkel/er



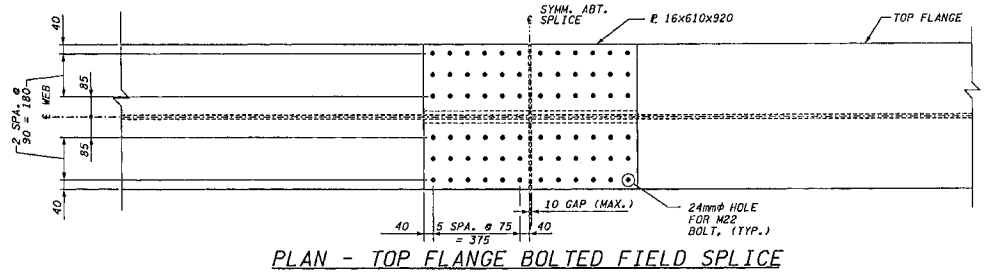
EXTERIOR GIRDER ELEVATION
GIRDER IS SYMMETRICAL ABOUT € BEARING PIER 2

NOTE:
FOR NOTES SEE BRIDGE SHEET NO. 8553.

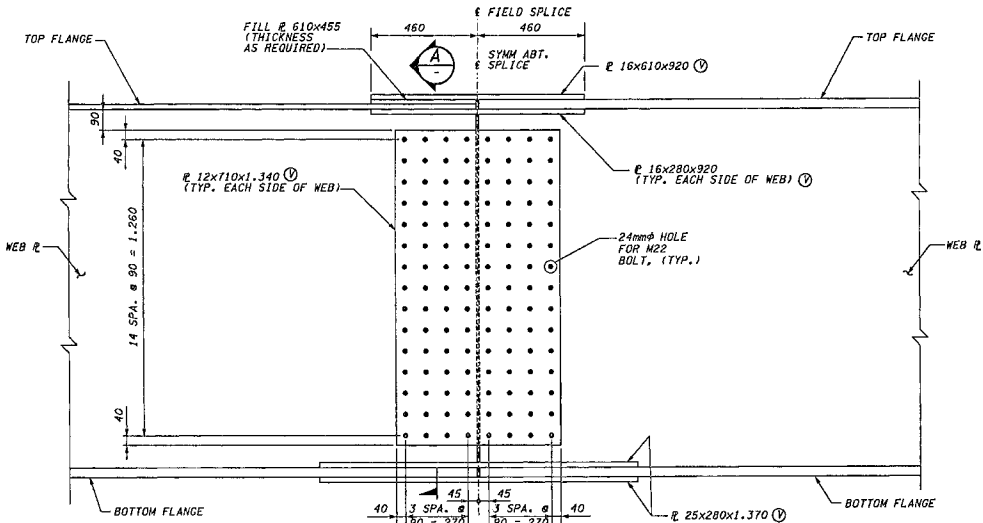
FOR "AS CONSTRUCTED
PLANS" ONLY

BRIDGE DESIGN ENGR. SUPERVISOR		REGION NO. STATE		FED. AID PROJ. NO.		ENVIRONMENTAL AND ENGINEERING SERVICE CENTER		Washington State Department of Transportation		BRIDGE NO. 8S54	
DESIGNED BY J.D. HIROSE	02/02	10	WASH							I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	
ENTERED BY L.D. KELLER	02/02	JOB NUMBER 01A053		SHEET 281							
CHECKED BY S.K. AISAKA	02/02	CONTRACT NO.		416							
PROJ. ENGR. D. CIERI	02/02			SHEETS							
REGIONAL ADM. D. DYE	02/02							EXTERIOR GIRDER ELEVATION		416	
DATE	DATE	REVISION	BY								

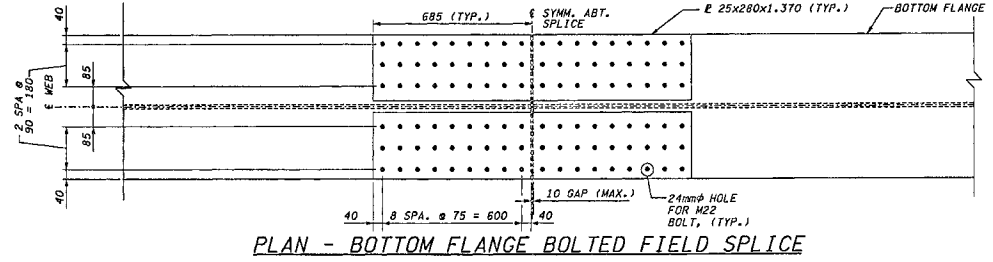
L 405 JOB NO. SHEET 02/11/2002 06:22:11 PM
 keller



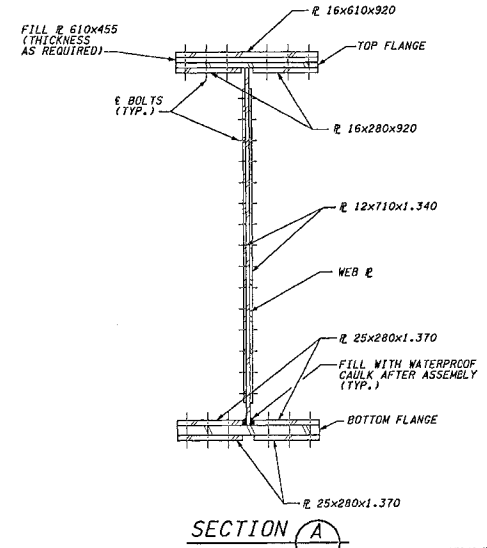
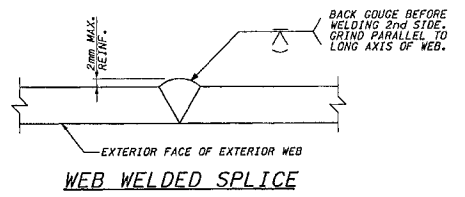
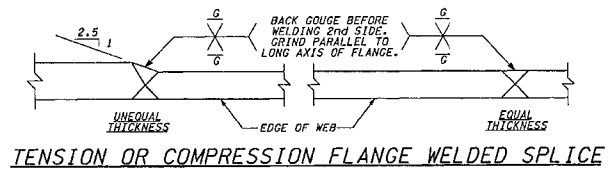
PLAN - TOP FLANGE BOLTED FIELD SPLICE



ELEVATION - WEB BOLTED FIELD SPLICE



PLAN - BOTTOM FLANGE BOLTED FIELD SPLICE



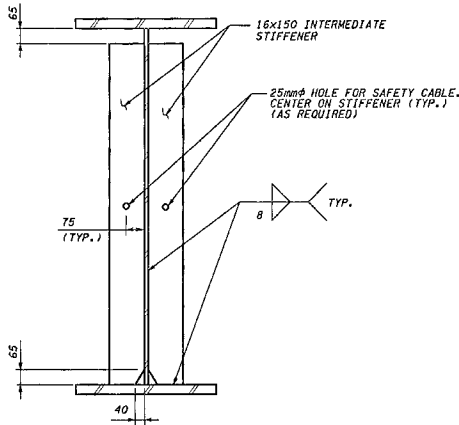
FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR. SUPERVISOR		DESIGNED BY J.D. HIROSE 02/02		ENTERED BY L.D. KELLER 02/02		CHECKED BY S.K. AISAKA 02/02		PROJ. ENGR. D. CIERI 02/02		REGIONAL ADM. D. DYE 02/02		DATE		REVISION		BY		CONTRACT NO.		 Washington State Department of Transportation		I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING		BRIDGE SHEET NO. 8555 SHEET 282 OF 416 SHEETS	
		STATE 10 WASH		FED. AID PROJ. NO.		 ENVIRONMENTAL AND ENGINEERING SERVICE CENTER		 FDR ENGINEERING INC.		GIRDER SPLICES AND DETAILS															

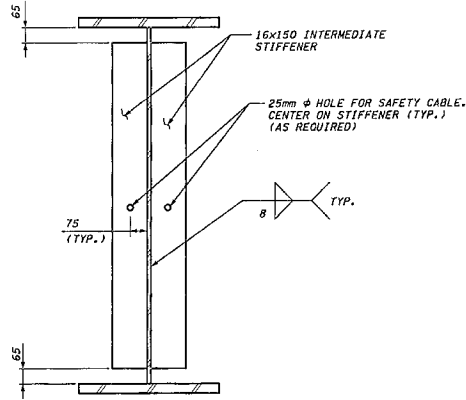
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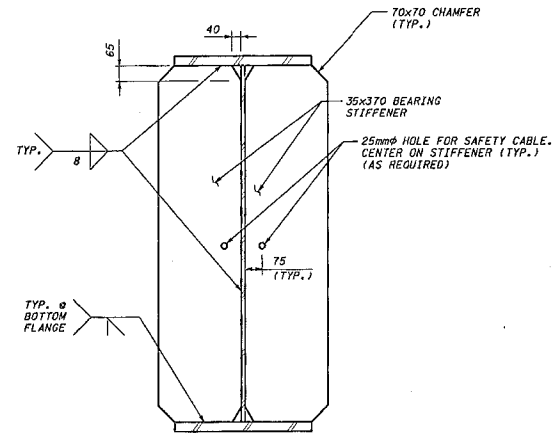
L 405 JOB NO. SHEET
Keller



INTERMEDIATE STIFFENER - TYPE A

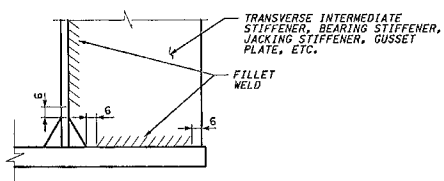


INTERMEDIATE STIFFENER - TYPE B

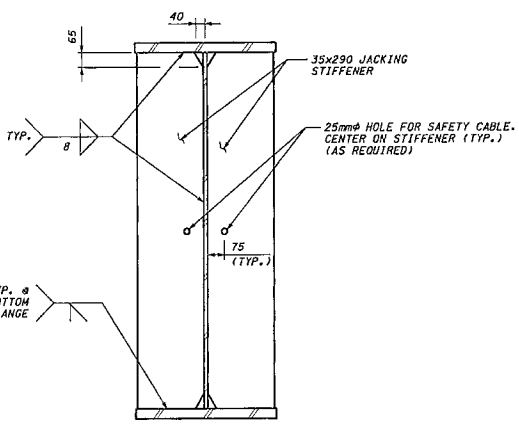


BEARING STIFFENER

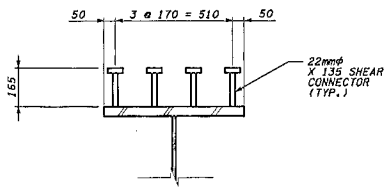
LOCATION OF BOLT HOLES FOR END CROSS FRAME, NOT SHOWN - SEE BRIDGE SHEET NO. 8557



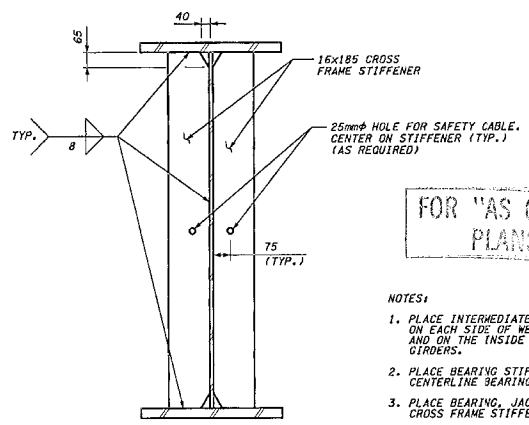
FILLET WELD TERMINATION DETAIL



JACKING STIFFENERS



SHEAR CONNECTOR DETAIL



CROSS FRAME STIFFENERS

LOCATION OF BOLT HOLES FOR INTERMEDIATE CROSS FRAME NOT SHOWN - SEE SHEET 8557

FOR "AS CONSTRUCTED PLANS" ONLY

- NOTES:
1. PLACE INTERMEDIATE STIFFENERS TYPE 'A' & 'B' ON EACH SIDE OF WEB FOR INTERIOR GIRDERS AND ON THE INSIDE FACE ONLY FOR EXTERIOR GIRDERS.
 2. PLACE BEARING STIFFENERS PLUMB, AND AT CENTERLINE BEARINGS.
 3. PLACE BEARING, JACKING, AND INTERMEDIATE CROSS FRAME STIFFENERS PARALLEL TO SKEW.
 4. FOR SAFETY CABLE DETAILS SEE BRIDGE SHEET NO. 8560.

BRIDGE DESIGN ENGR.				REGION	STATE	FED. AID PROJ. NO.
SUPERVISOR				10	WASH	
DESIGNED BY J.D. HIROSE	02/02					
ENTERED BY L.D. KELLER	02/02					
CHECKED BY S.K. AITAKA	02/02					
PROJ. ENGR. D. CIERI	02/02					
REGIONAL ADM. D. DYE	02/02					
DATE	DATE	REVISION	BY			

JOB NUMBER	01A053
CONTRACT NO.	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

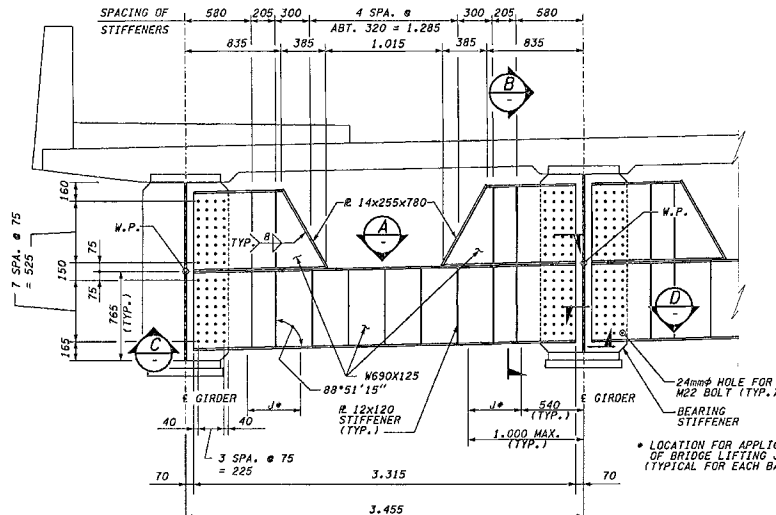
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

GIRDER STIFFENERS & DETAILS

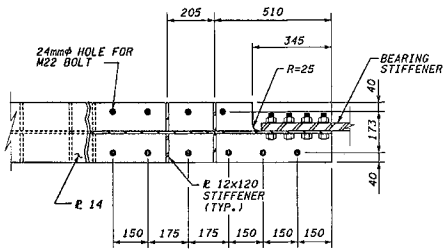
BRIDGE SHEET NO. 8556
SHEET 283 OF 416 SHEETS

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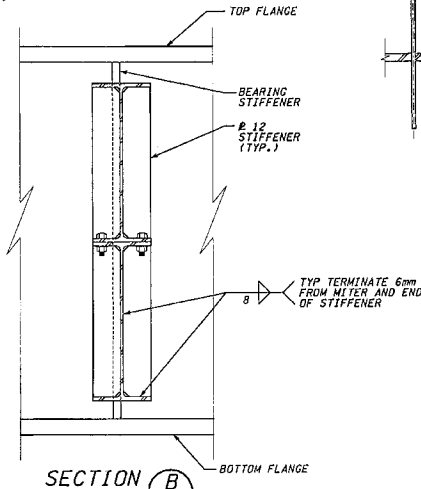
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lkeller



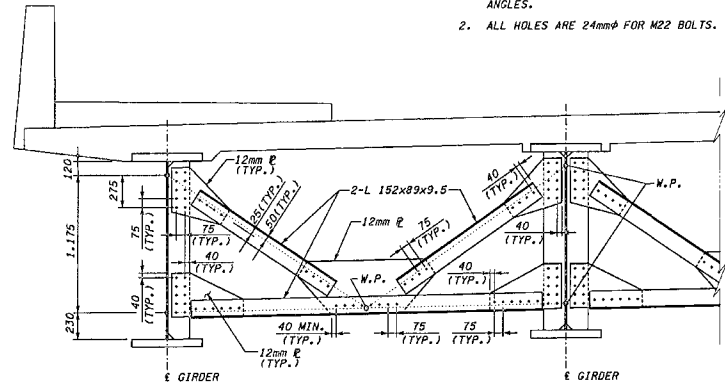
END CROSS FRAME @ PIERS 1 THRU 3
PIER 1 & 3 SHOWN, PIER 2 SIMILAR



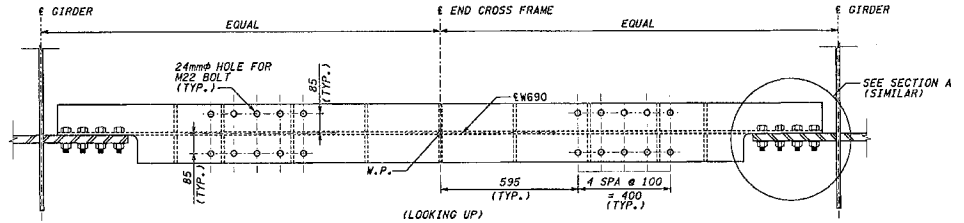
SECTION A



SECTION B

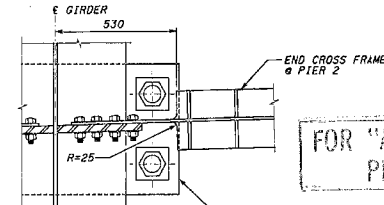


INTERMEDIATE CROSS FRAME
LOOKING PERPENDICULAR TO CROSS FRAME



SECTION C

SECTION APPLICABLE TO PIERS 1 AND 3 ONLY



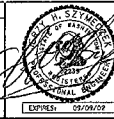
SECTION D

SECTION APPLICABLE TO PIER 2 ONLY

- NOTE:
1. USE FILL PLATES TO MAINTAIN 25 mm CLEARANCE BETWEEN ANGLES.
 2. ALL HOLES ARE 24mmϕ FOR M22 BOLTS.

BRIDGE DESIGN ENGR.	DATE	REVISION	BY
SUPERVISOR			
DESIGNED BY J.D. HIROSE	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERTI	02/02		
REGIONAL ADM. D. DYE	02/02		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
O1A053		
CONTRACT NO.		



ENVIRONMENTAL AND ENGINEERING SERVICE CENTER



Washington State
Department of Transportation



HDR
ENGINEERING INC.

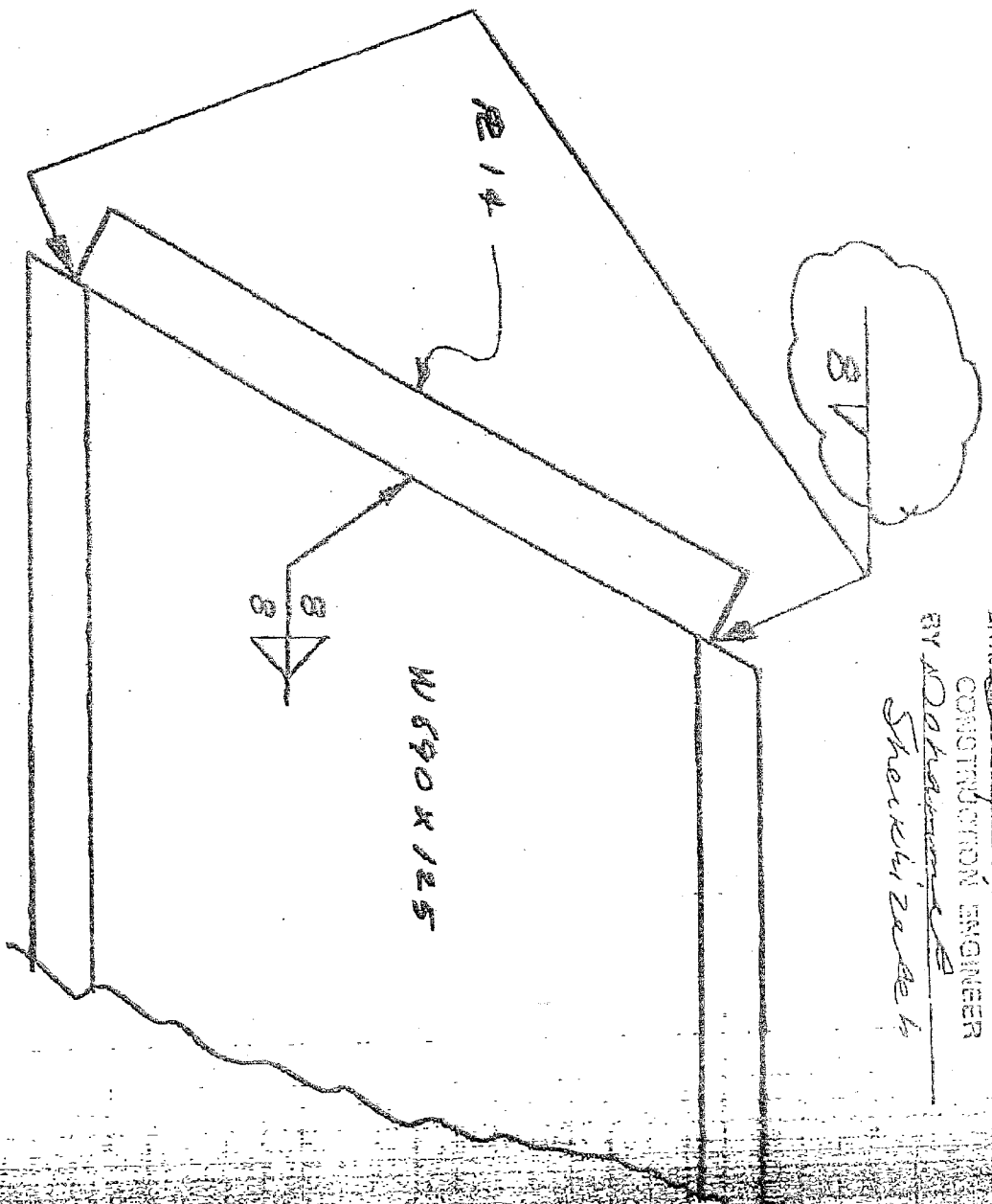
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING
GIRDER CROSS FRAMES

BRIDGE SHEET NO.
8557
SHEET
209
SHEETS
416

AS NOTED
WASHINGTON STATE

DEPARTMENT OF TRANSPORTATION
DATE July 7, 02

CONSTRUCTION ENGINEER
BY *Dothman*
Shelby 2026



REF. SHEET 284 OF 416 - END CROSS SECTION
@ PIERS 1 THROUGH 3

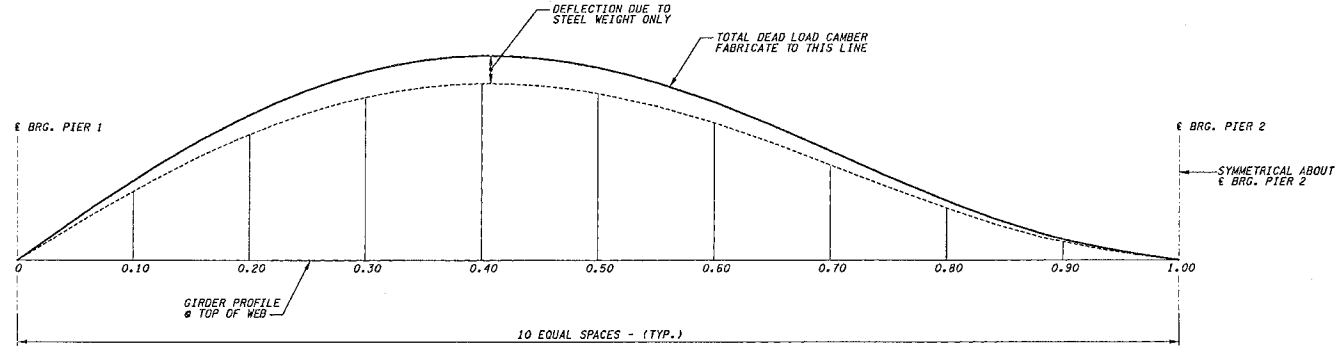
C-6317
I 405 Bellevue Direct Access
NE 8th St. Undercrossing
Sheet 284A

C-6317
Co # 23
4/4
11/17/02

L: 405 - JOB NO. SHEET 03/11/2002 01:44:51 PM
 I: Keller

NOTES:

1. THE CAMBER DIAGRAM SHOWN HAS BEEN CALCULATED BASED ON ONE CONTINUOUS ROADWAY SLAB PLACEMENT SEQUENCE. IF DIFFERENT ROADWAY SLAB PLACEMENT SEQUENCE IS SELECTED, THE CONTRACTOR SHOULD PRIOR TO GIRDER FABRICATION, SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL THE PROPOSED PLACEMENT SEQUENCE ALONG WITH REVISED CAMBER DIAGRAM.



DEAD LOAD CAMBER DIAGRAM
TENTH POINTS MEASURED ALONG & GIRDER

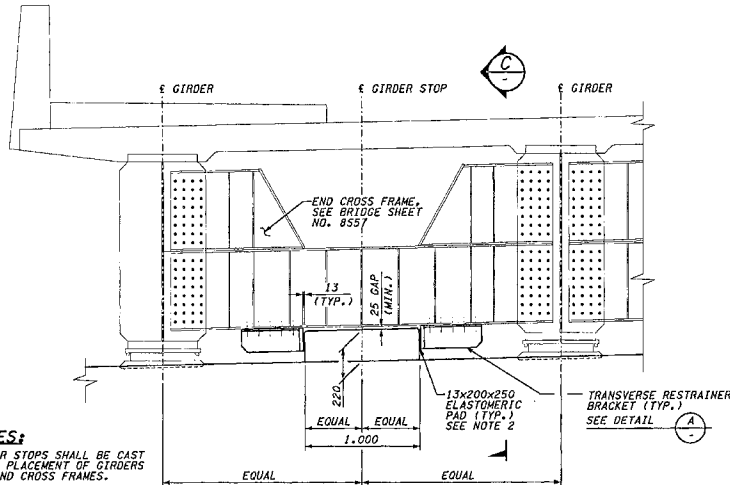
GIRDER A THRU K

SPAN POINT	0	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
SELF WEIGHT	0	10	17	22	24	22	18	12	6	2	0
NON-COMPOSITE DEAD LOAD	0	53	96	123	134	125	102	69	34	9	0
COMPOSITE DEAD LOAD	0	8	15	19	20	20	17	13	8	2	0
TOTAL CAMBER	0	71	128	164	178	167	137	94	48	13	0

GIRDER CAMBER INFORMATION
CAMBER SHOWN IN MILLIMETERS

FOR "AS CONSTRUCTED PLANS" ONLY

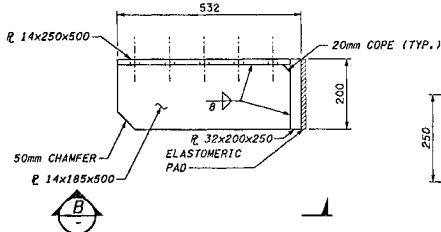
BRIDGE DESIGN ENGR. SUPERVISOR				REGION NO. STATE	10 WASH	FED. AID PROJ. NO.		ENVIRONMENTAL AND ENGINEERING SERVICE CENTER	Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO. 8558
DESIGNED BY J.H. SZYMCEK	02/02			JOB NUMBER	01A053	CONTRACT NO.		Washington State Department of Transportation			SHEET 285
ENTERED BY M.J. BENSON	02/02			DATE	03/19/02	ADDED NOTE		Washington State Department of Transportation			416
CHECKED BY S.K. AISAKA	02/02			REVISION				Washington State Department of Transportation			SHEETS
PROJ. ENGR. D. CIERI	02/02			BY				Washington State Department of Transportation			
REGIONAL ADM. D. DYE	02/02							Washington State Department of Transportation			



NOTES:

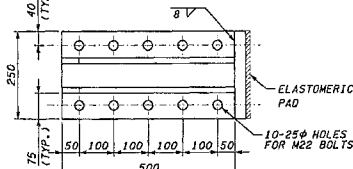
1. GIRDER STOPS SHALL BE CAST AFTER PLACEMENT OF GIRDERS AND END CROSS FRAMES.
2. ELASTOMERIC PADS SHALL BE COATED WITH RUBBER CEMENT AND ATTACHED TO BRACKET PRIOR TO INSTALLATION.

TRANSVERSE RESTRAINERS @ END CROSS FRAME @ PIERS 1 & 3

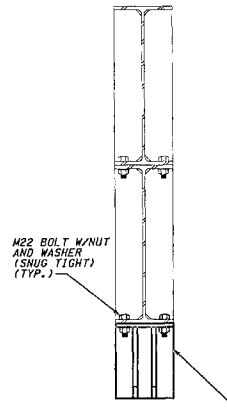


TRANSVERSE RESTRAINER BRACKET - DETAIL

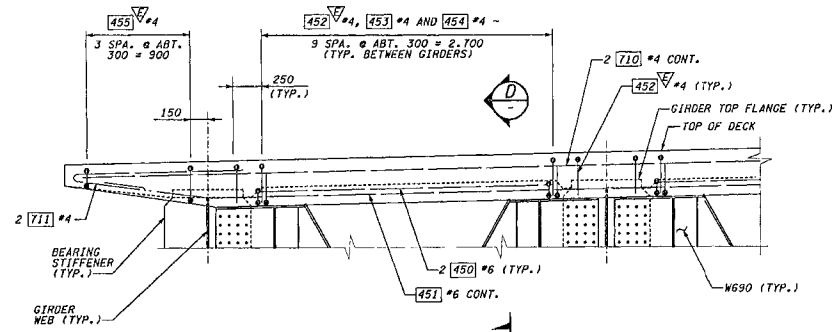
40 ASSEMBLIES REQUIRED
(20 ASSEMBLIES PER PIER)



VIEW B

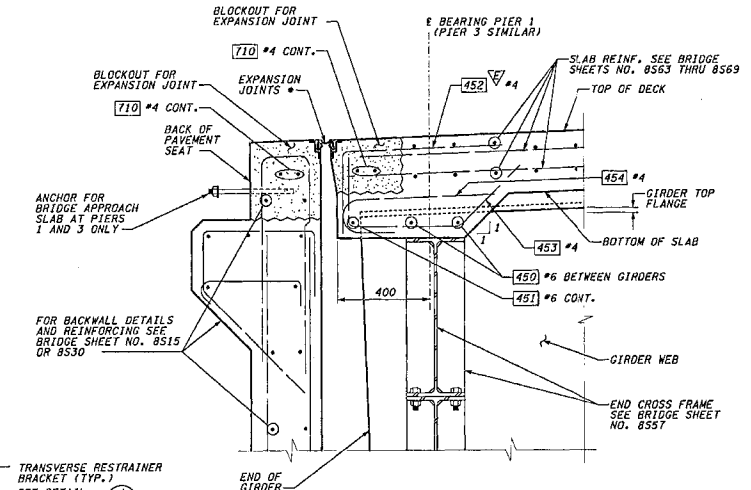


SECTION C



DECK DETAIL @ PIERS 1 & 3

THIS DETAIL ALSO APPLICABLE TO TEMPORARY PIERS 1 AND 3



SECTION D

THIS SECTION ALSO APPLICABLE TO TEMPORARY PIERS 1 AND 3, EXCEPT THERE SHALL NOT BE ANCHORS FOR BRIDGE APPROACH SLAB @ TEMPORARY PIERS 1 AND 3.

* FOR EXPANSION JOINT DETAILS AND BLOCKOUT DIMENSIONS SEE BRIDGE SHEET NO. 8570

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.D. HIROSE	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.R. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		

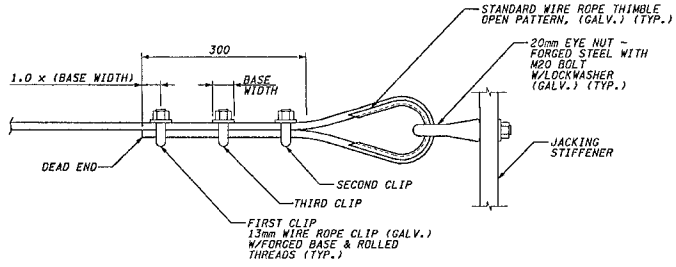
ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

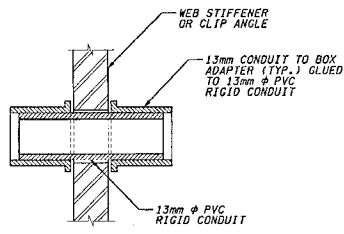
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

MISCELLANEOUS DETAILS

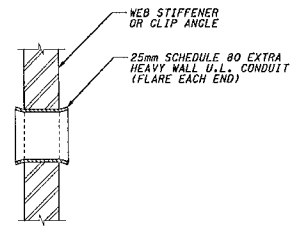
BRIDGE SHEET	8559
SHEET	286
SHEETS	416



WIRE ROPE CLIP



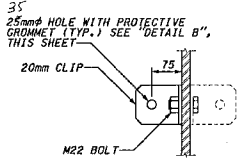
DETAIL B OPTION 1



DETAIL B OPTION 2

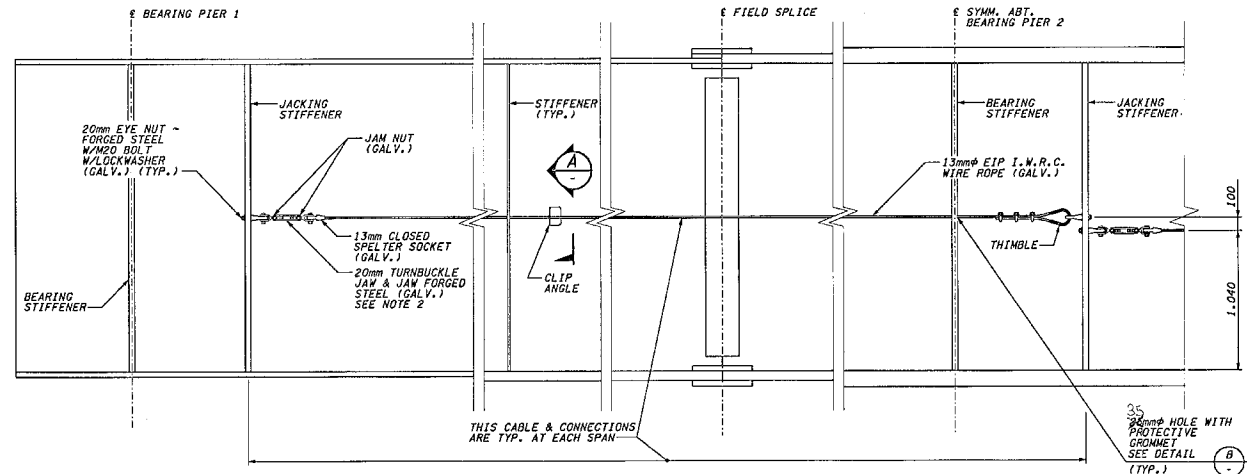
NOTES:

1. THE SAFETY CABLE SHALL BE STRETCHED TAUT TO MINIMIZE DEFLECTION.
2. TURNBUCKLE TAKE UP BODY LENGTH SHALL BE AS REQUIRED TO PRODUCE TAUT SAFETY CABLE CONDITION.
3. TURN BACK ROPE TO 300mm FROM THE THIMBLE.
4. ATTACH FIRST CLIP ONE BASE WIDTH FROM DEAD END OF ROPE. CAUTION: U-BOLT OVER DEAD END OF ROPE SADDLE OR BASE BEARS ON LIVE END. TIGHTEN NUTS TO RECOMMENDED TORQUE.
5. ATTACH SECOND CLIP AS CLOSE TO THIMBLE AS POSSIBLE. TIGHTEN NUTS FIRMLY, BUT NOT COMPLETELY TIGHT.
6. ATTACH THIRD CLIP EQUALLY SPACES BETWEEN THE TWO CLIPS APPLIED PREVIOUSLY. TIGHTEN NUTS - TAKE UP ANY ROPE SLACK - UNIFORMLY TIGHTEN ALL NUTS TO 88 NEWTON-METERS TORQUE.
7. CHECK AND TIGHTEN CLIP ATTACHMENTS REGULARLY TO COMPENSATE FOR ROPE DIAMETER REDUCTION OR POSSIBLE SLIPPAGE.
8. CABLES SHALL ALTERNATE BETWEEN 1.140 METERS AND 1.040 METERS FROM THE BOTTOM FLANGE.
9. FOR HOLE LOCATIONS IN STIFFENERS SEE BRIDGE SHEET NO. 8556.



SECTION A

USE CLIP ANGLES MIDWAY BETWEEN X-FRAMES. OMIT WHERE STIFFENERS EXIST OR WHERE X-FRAME SPACING IS LESS THAN 3.650 METERS. PLACE CLIP ANGLES AT APPROXIMATELY 3.650 METERS O.C. ON OUTSIDE FACE OF EXTERIOR GIRDERS.



GIRDER ELEVATION

CABLES REQUIRED ON BOTH SIDES OF ALL GIRDERS EXCEPT EXTERIOR SIDE OF GIRDER A AND GIRDER K

FOR "AS CONSTRUCTION PLANS" ONLY

BRIDGE DESIGN ENGR.						REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR						10	WASH	
DESIGNED BY J.H. SZYMECZK	02/02					JOB NUMBER		
ENTERED BY L.W. KELLER	02/02					01A053		
CHECKED BY S.K. ALSAKA	02/02					CONTRACT NO.		
PROJ. ENGR. D. CIERI	02/02							
REGIONAL ADM. D. DYE	02/02							
	DATE	DATE	REVISION	BY				

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

DATE: 02/02/02

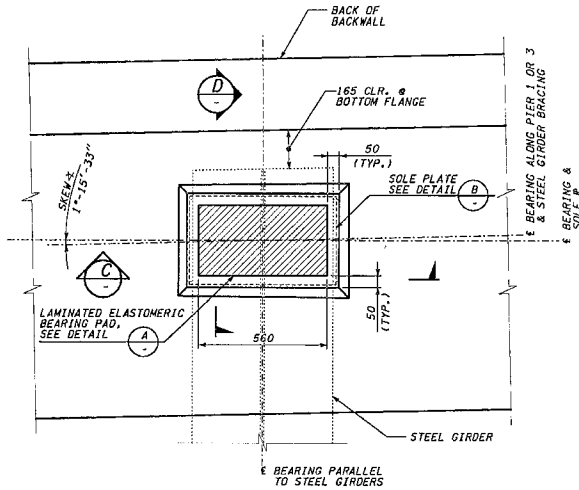
Washington State Department of Transportation

HDR ENGINEERING INC.

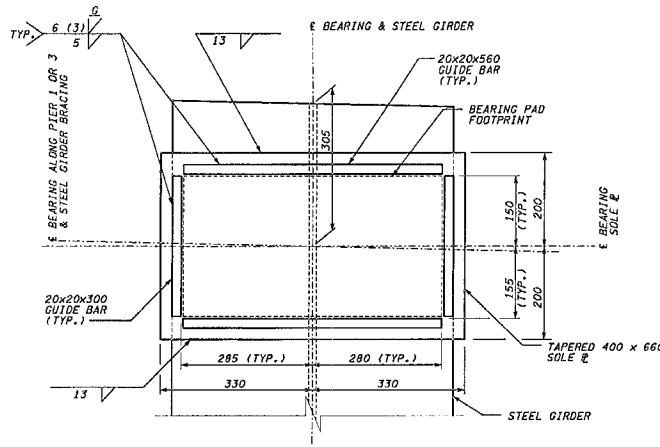
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

GIRDER SAFETY CABLES

BRIDGE SHEET	8560
SHEET	287
OF	416
SHEETS	



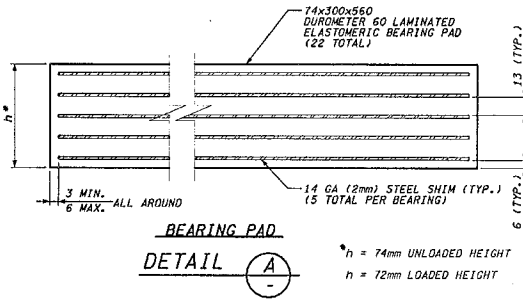
GRout PAD PLAN @ PIERS 1 & 3



SOLE PLATE
 LOOKING UP
 DETAIL (B)

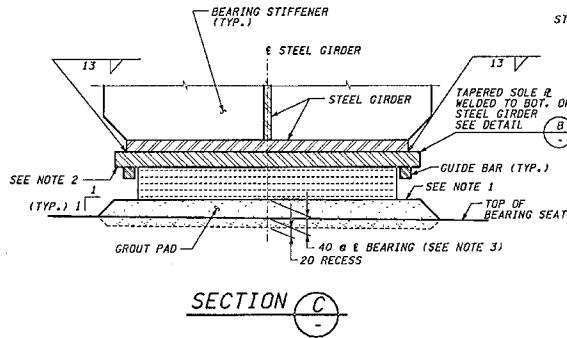
NOTES:

1. TOP OF GROUT PAD SHALL BE LEVEL.
2. BOTTOM OF SOLE PLATE SHALL BE LEVEL AFTER BRIDGE DECK HAS BEEN POURED AND SIDEWALK AND BARRIERS INSTALLED.
3. MINIMUM DIMENSION AT C BEARING. INCREASE AS REQUIRED TO ATTAIN SPECIFIED GROUT PAD ELEVATIONS. MAXIMUM DIMENSION SHALL NOT EXCEED 75.
4. SOLE PLATES SHALL BE SHOP WELDED TO GIRDERS BOTTOM FLANGES.

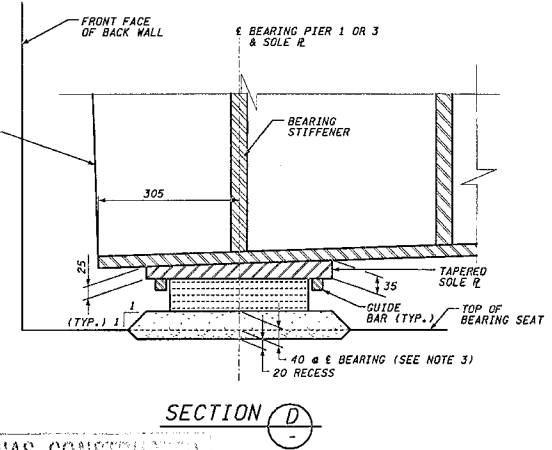


BEARING PAD
 DETAIL (A)

$h = 74\text{mm UNLOADED HEIGHT}$
 $h = 72\text{mm LOADED HEIGHT}$



SECTION C



SECTION D

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.				REGION	STATE	FED. AID PROJ. NO.
SUPERVISOR				10	WASH	
DESIGNED BY J.H. SZYWCZEK	02/02			JOB NUMBER		
ENTERED BY L.D. KELLER	02/02			O1A053		
CHECKED BY S.K. AITAKA	02/02			CONTRACT NO.		
PROJ. ENGR. D. CIERI	02/02					
REGIONAL ADM. D. OYE	02/02					
DATE	DATE	REVISION	BY			

REGION	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
O1A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

HR ENGINEERING INC.

EXPIRES: 03/01/02

Washington State Department of Transportation

HR ENGINEERING INC.

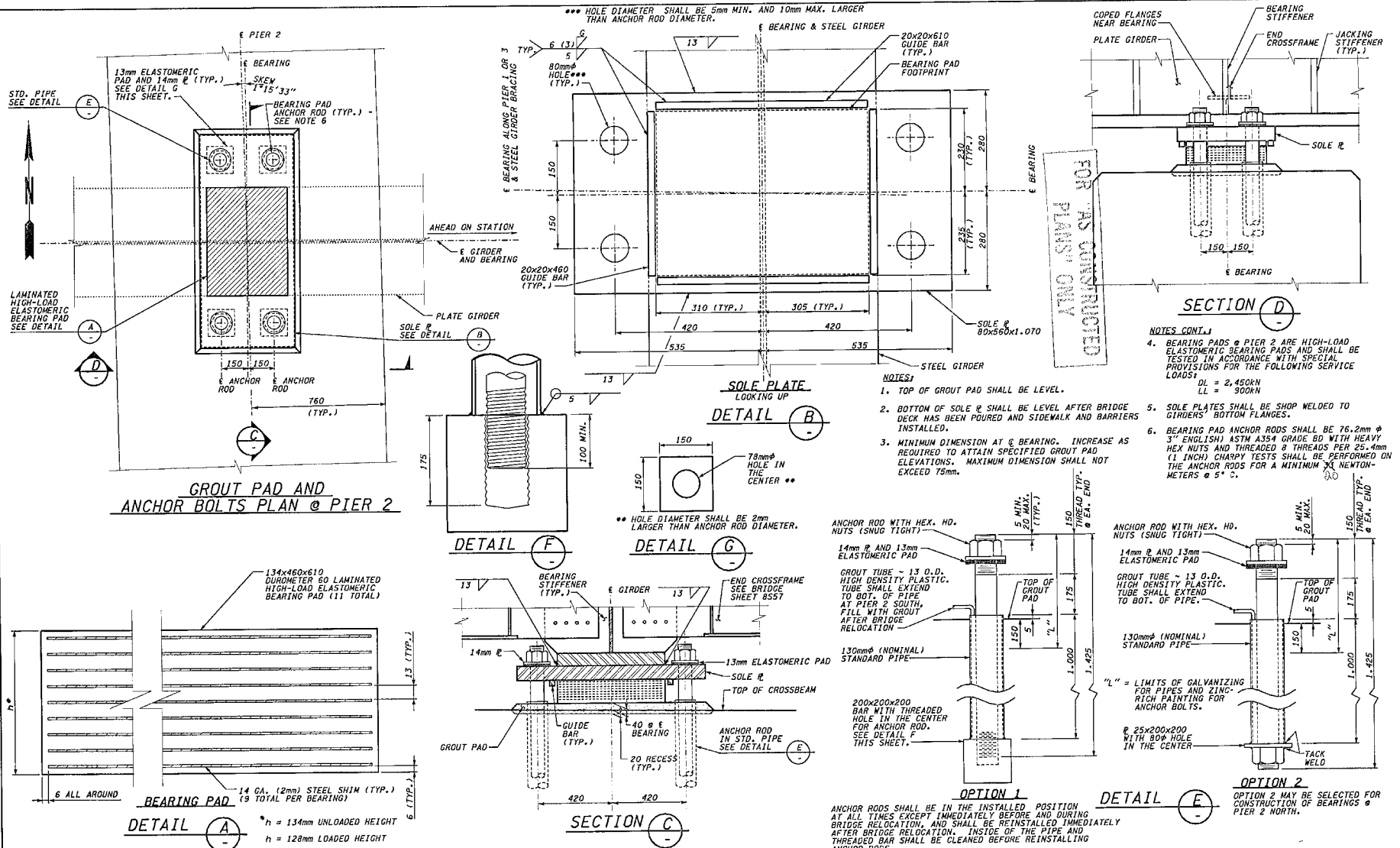
I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

EXPANSION BEARING DETAILS
 AT PIERS 1 AND 3

BRIDGE SHEET NO.	8S61
SHEET NO.	288
SHEET TOTAL	416

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L 495 JOB NO. SHEET
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 Keller



BRIDGE DESIGN ENGR. SUPERVISOR					
DESIGNED BY J.H. SZYMCEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION STATE FED.AID PROJ.NO.

10 WASH

JOB NUMBER 01A053

CONTRACT NO.

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

1 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

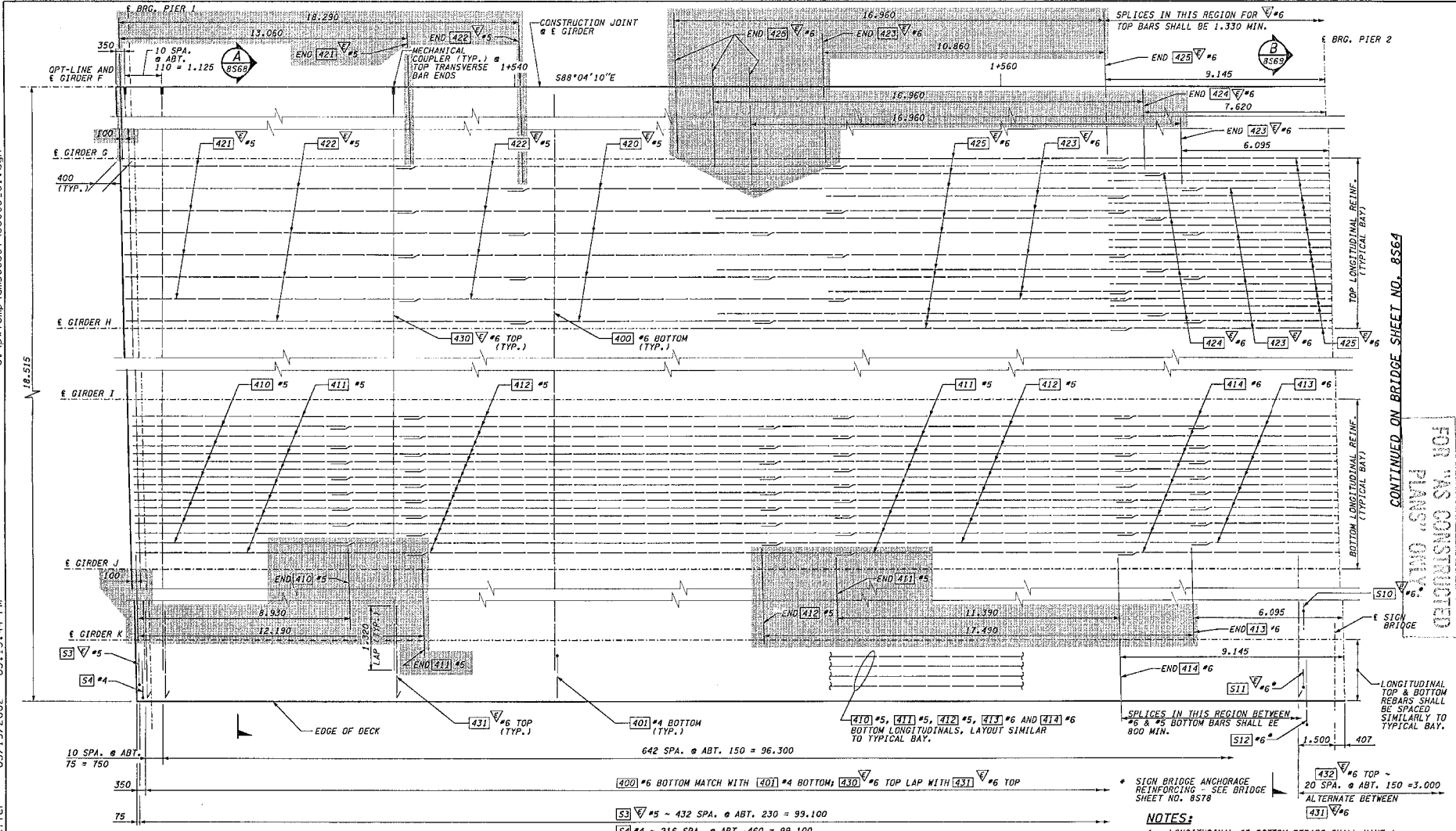
HIGH-LOAD ELASTOMERIC BEARING PADS AND FIXED BEARING DETAILS AT PIER 2

BRIDGE SHEET NO. 8562

SHEET 289 OF 416 SHEETS

DATE 05/09/02

1:405 JOB NO. 05/19/2002 05:13:44 PM
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ROADWAY SLAB REINFORCEMENT - PARTIAL PLAN

CONSTRUCTION SEQUENCE - STAGE 1

- NOTES:**
- 1. LONGITUDINAL #5 BOTTOM REBARS SHALL HAVE A 610mm MIN. LAP SPLICE, UNLESS NOTED OTHERWISE.
 - 2. LONGITUDINAL #5 TOP REBARS SHALL HAVE A 865mm MIN. LAP SPLICE, UNLESS NOTED OTHERWISE.
- * SIGN BRIDGE ANCHORAGE REINFORCING - SEE BRIDGE SHEET NO. 8578

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

03/14/02

Washington State Department of Transportation

HDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS NE 8TH ST. UNDERCROSSING

ROADWAY SLAB REINFORCEMENT - 1

BRIDGE SHEET NO. 8563

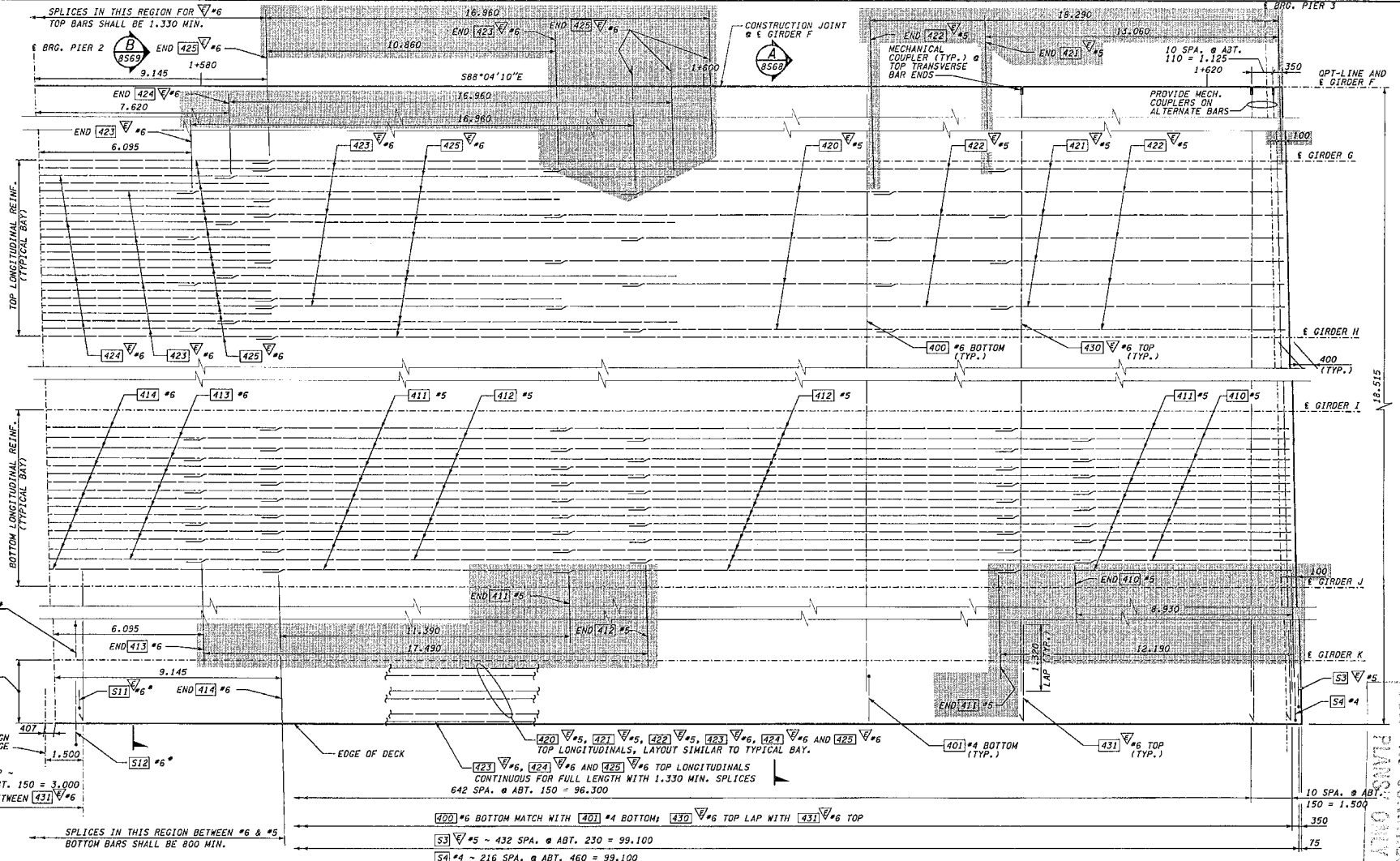
SHEET 290 OF 416 SHEETS

BRIDGE DESIGN ENGR.		REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR		10	WASH	
DESIGNED BY J.D. HIROSE	02/02	JOB NUMBER O1A053		
ENTERED BY L.D. KELLER	02/02	CONTRACT NO.		
CHECKED BY J.H. SZYMCEK	02/02			
PROJ. ENGR. D. CIEMI	02/02			
REGIONAL ADM. D. DYE	02/02			
DATE	03/19/02	DIMENSIONED REBARS BY JHS		
		REVISION		

CONTINUED ON BRIDGE SHEET NO. 8564

I 405 JOB NO. 03/19/2002 08:02:59 PM SHEET 1 of 1
 Like: Keller C:\pwt\temp\cms00357\85064_C1.dgn

MATCH TO BRIDGE SHEET NO. 8563



ROADWAY SLAB REINFORCEMENT - PARTIAL PLAN
 CONSTRUCTION SEQUENCE - STAGE 1 (CONTINUED)

NOTES:
 1. FOR NOTES SEE BRIDGE SHEET NO. 8563.

* SIGN BRIDGE ANCHORAGE REINFORCING - SEE BRIDGE SHEET NO. 8578

BRIDGE DESIGN ENGR.		REVISION	STATE	FED. AID PROJ. NO.
SUPERVISOR		NO.		
DESIGNED BY J.D. WROSE	02/02	10	WASH	
ENTERED BY L.D. KELLER	02/02			
CHECKED BY J.H. SZYMCZEK	02/02	JOB NUMBER		
PROJ. ENGR. D. CIERI	02/02	01A053		
REGIONAL ADM. D. DYE	02/02	DATE		
	03/19/02	CONTRACT NO.		
		BY		

DATE	REVISION	BY

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
 EXPRESSES 03/09/02

Washington State Department of Transportation

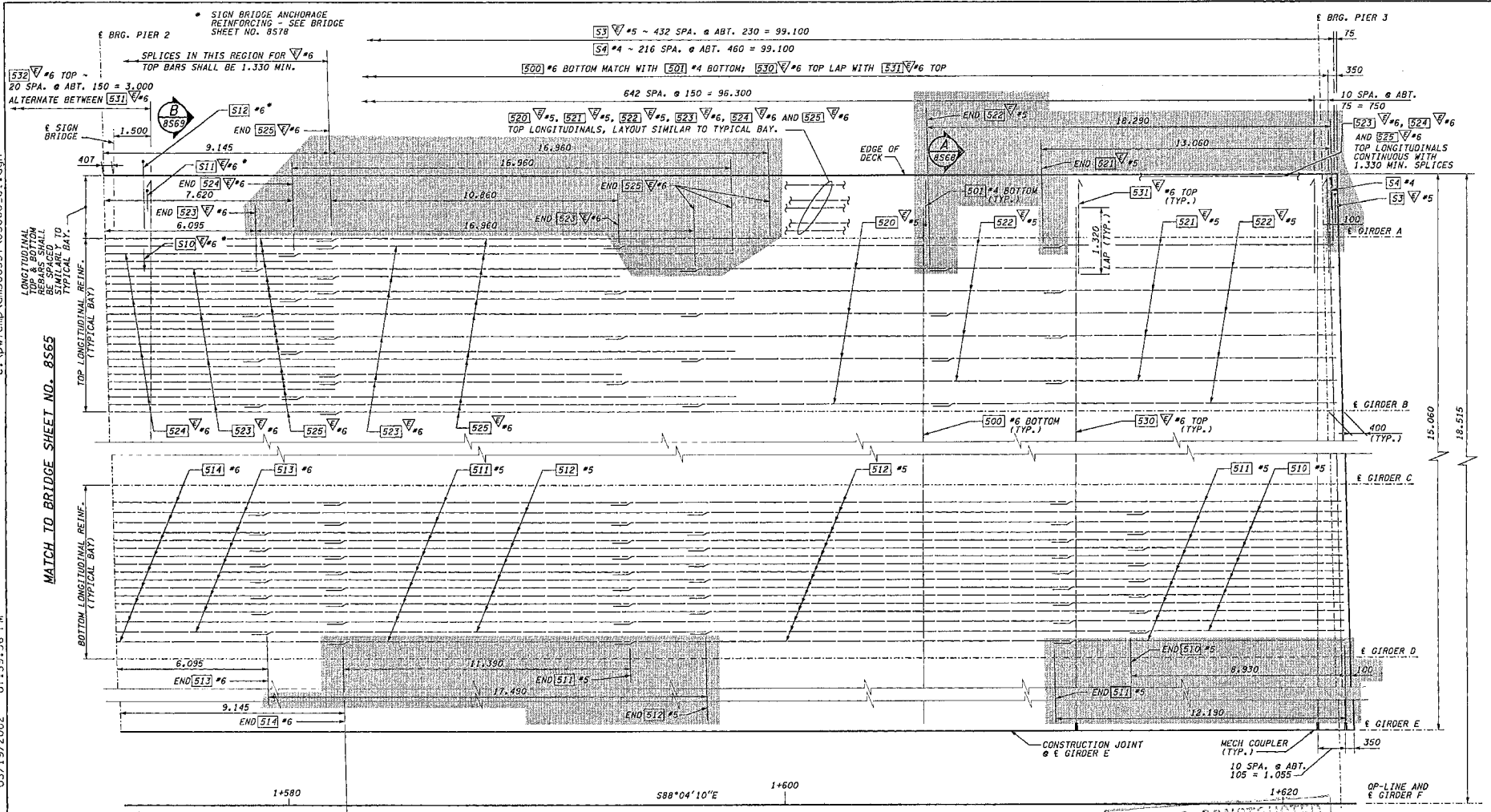
 HDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING
 ROADWAY SLAB REINFORCEMENT - 2

BRIDGE SHEET NO. 8564
 SHEET 291 OF 416

FOR "AS CONSTRUCTED" PLANS ONLY

L:\05_JOB NO. SHEET 03/19/2002 07:59:36 PM
 keller
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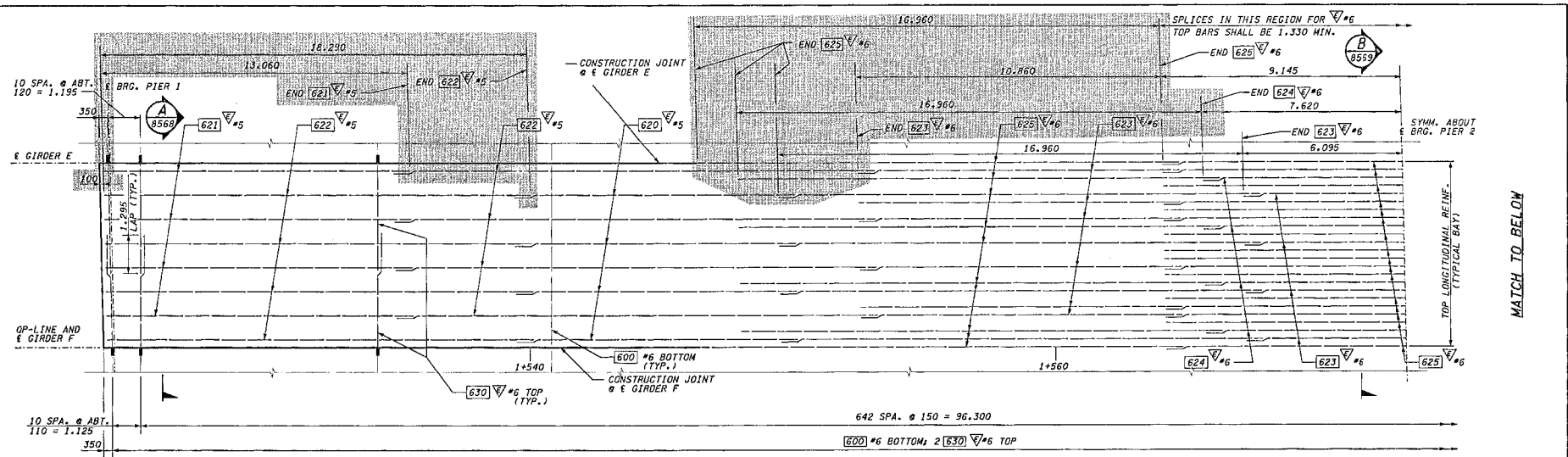
ROADWAY SLAB REINFORCEMENT - PARTIAL PLAN
 CONSTRUCTION SEQUENCE - STAGE 2 (CONTINUED)

FOR "AS CONSTRUCTED PLANS" ONLY
 NOTES:
 1. FOR NOTES SEE BRIDGE SHEET 8503.

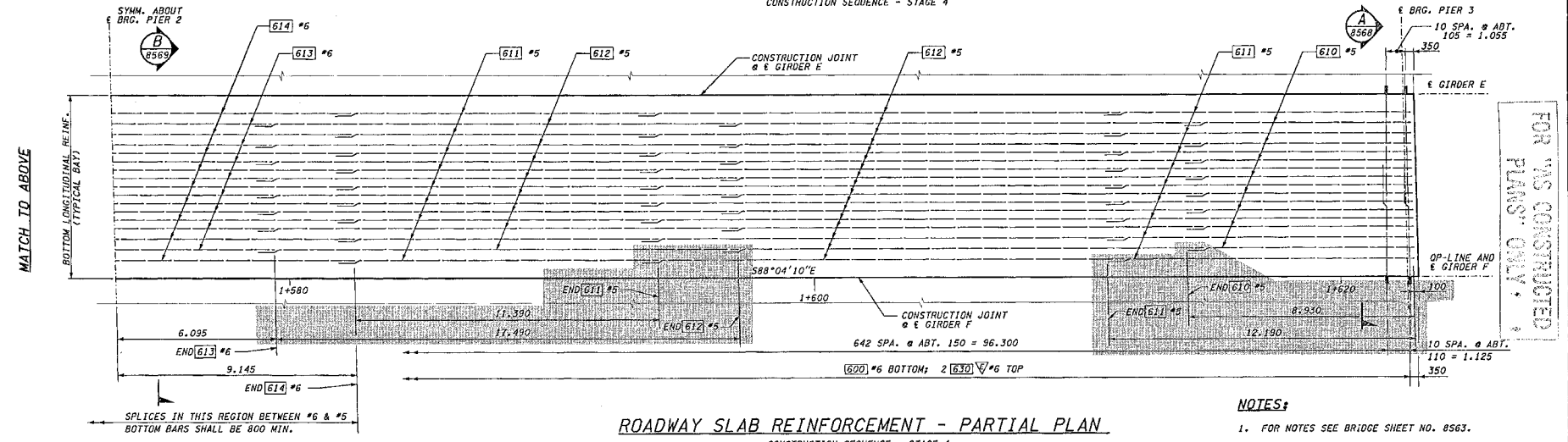
BRIDGE DESIGN ENGR.		REGION	STATE	FED. AID PROJ. NO.	 Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	SHEET 293 OF 416 SHEETS
SUPERVISOR		10	WASH				
DESIGNED BY	J.D. HIRGSE	02/02			 HDR ENGINEERING INC.	ROADWAY SLAB REINFORCEMENT - 4	BRIDGE SHEET 8566
ENTERED BY	L.D. KELLER	02/02					
CHECKED BY	J.H. SZWEDZIK	02/02					
PROJ. ENGR.	D. CLERT	02/02					
REGIONAL ADM.	D. OYE	02/02					
DATE	03/19/02	DIMENSIONED REBAR	DATE	03/14/02			

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 SHEET Keller



ROADWAY SLAB REINFORCEMENT - PARTIAL PLAN
 CONSTRUCTION SEQUENCE - STAGE 4



NOTES:
 1. FOR NOTES SEE BRIDGE SHEET NO. 8563.

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.D. HIROSE	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY J.H. SZYMCEK	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	DIMENSIONED	REBAR	QHS	BY

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	CONTRACT NO.	
01A053		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

3/14/02

Washington State Department of Transportation

HDR ENGINEERING INC.

I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

BRIDGE SHEET NO. 8567

SHEET 294 OF 416 SHEETS

ROADWAY SLAB REINFORCEMENT - 5

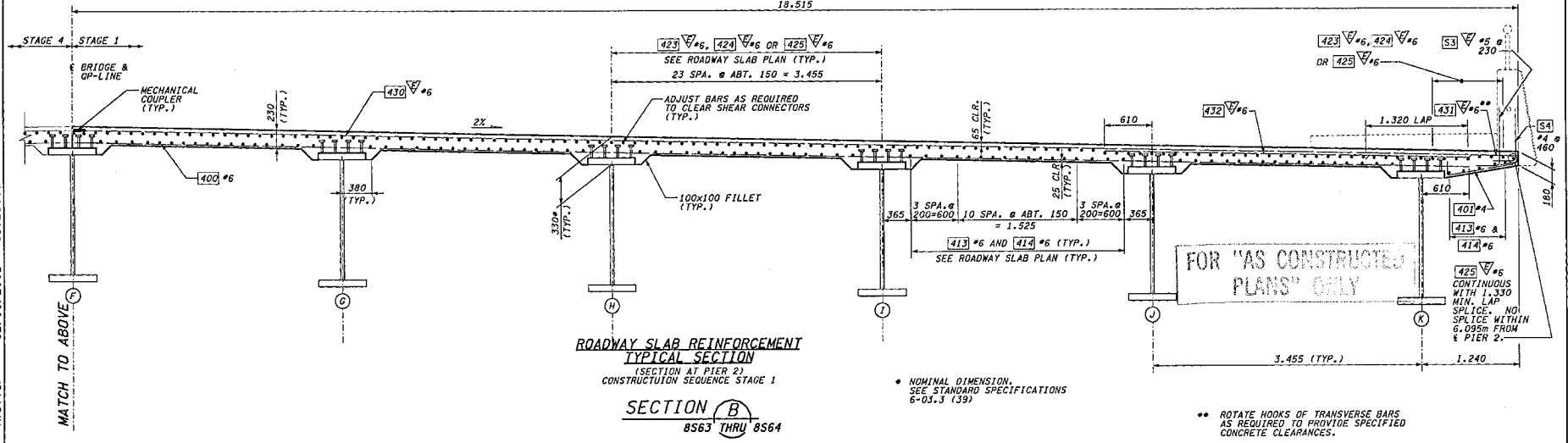
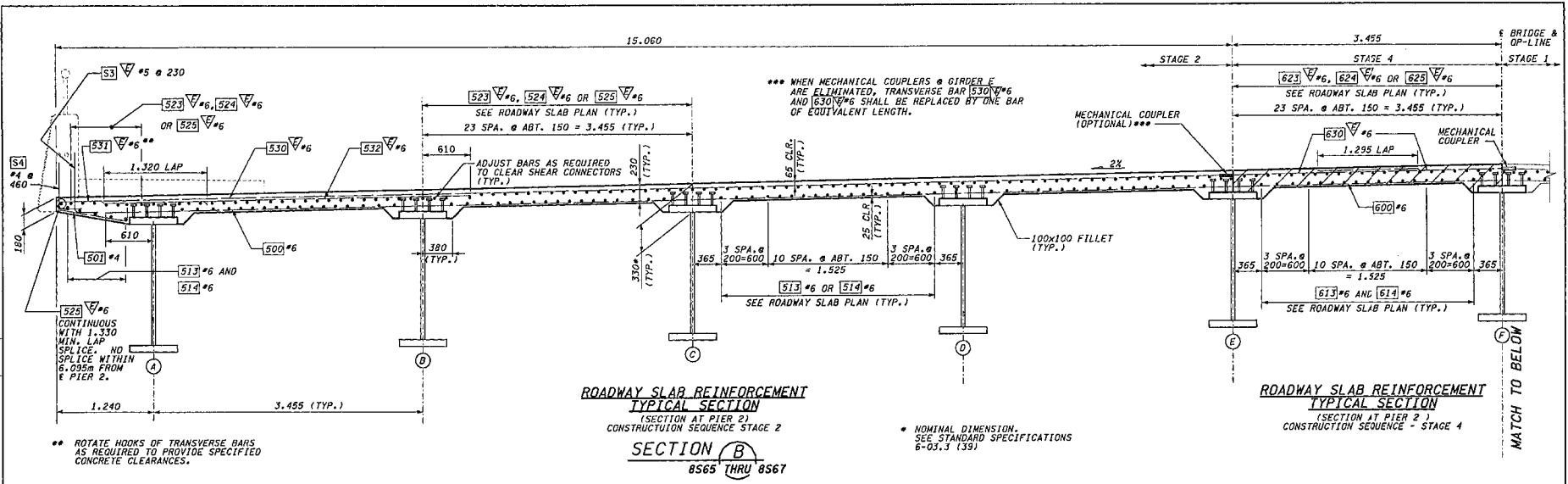
MATCH TO BELOW

MATCH TO ABOVE

FOR THIS CONSTRUCTION PLAN, ONLY.

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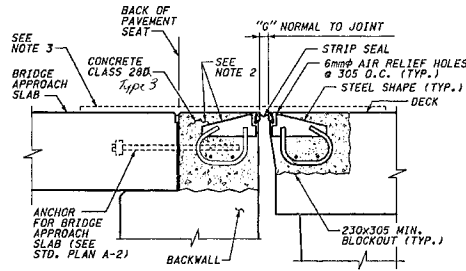
L 405 JOB NO. 02/11/2002 03:29:06 PM
 SHEET
 Ikeiler



BRIDGE DESIGN ENGR.				REGIONAL STATE	FED. AID PROJ. NO.	 Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO.
SUPERVISOR				10 WASH				8569
DESIGNED BY	J.D. HIROSE	02/02		JOB NUMBER	01A053	 HDR ENGINEERING INC.	ROADWAY SLAB TYPICAL SECTIONS-2	SHEET
ENTERED BY	L.D. KELLER	02/02		CONTRACT NO.				296
CHECKED BY	J.H. SZYMESZK	02/02		DATE				416
PROJ. ENGR.	D. CIERI	02/02		REVISION				
REGIONAL ADM.	D. DYE	02/02		BY				

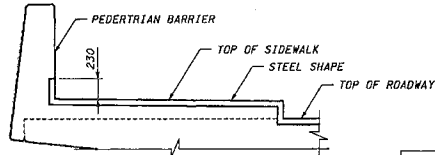


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 ikeller
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STRIP SEAL

EXTEND DECK AND BACKWALL REINFORCING INTO THE BLOCKOUT - SEE BRIDGE SHEET NO. 8559. EXTEND BLOCKOUT TO EDGE OF DECK.



SECTION A
FOR STRIP SEAL

NOTES:

1. EXPANSION JOINT DETAILS SHOWN ON THIS SHEET SHALL BE APPLICABLE TO BOTH THE FINAL AND THE TEMPORARY STRUCTURES, EXCEPT THAT THERE SHALL NOT BE BRIDGE APPROACH SLAB AT TEMPORARY PIERS.
2. AT PIERS 1 SOUTH AND 3 SOUTH, INSTALL ASSEMBLY AND CAST CONCRETE AFTER SOUTH SUPERSTRUCTURE HAS BEEN RELOCATED INTO FINAL ALIGNMENT.
3. IMMEDIATELY AFTER SOUTH SUPERSTRUCTURE RELOCATION, THE JOINT SHALL BE PROTECTED WITH STEEL PLATES UNTIL CONCRETE @ BACKWALL JOINT HAS BEEN CAST AND CURED.

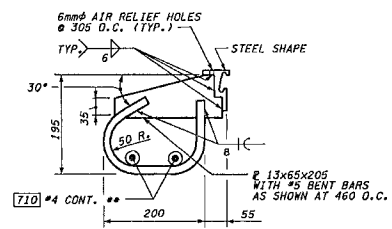
75MM MOTION RANGE

MANUFACTURER	ITEM NAME	OPENING "G" NORMAL TO JT.		MIN. INSTALLATION WIDTH NORMAL TO JOINT	OPENING "G" NORMAL TO JOINT			STEEL SHAPE TYPE
		MIN.	MAX.		84°C	81°C	82°F	
D. S. BROWN	DSB STRIP SEAL APR	15	90	40	50	40	35	SSCH2
WATSON BOWMAN ACME	WABO STRIP SEAL SE300	0	75	40	50	40	35	M,R
R.J. WATSON, INC.	R.J. STRIP SEAL 300	0	75	40	50	40	35	RJM
HEXCEL FYFE CO.	STRIP J200-C E5500	6	140	40	50	40	35	C

STEEL SHAPE TYPES

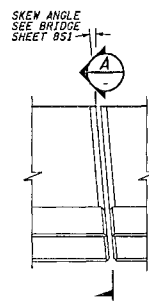
MANUFACTURER	ITEM NAME	S			V			X		
		T	S	T	T	V	T	V	T	V
D. S. BROWN	DSB STRIP SEAL	SSCH2	32	95	SSCH2	32	50	SSCH2	32	38
WATSON BOWMAN ACME	WABO STRIP SEAL	M,R	70	83	A	32	50	E	38	38
R.J. WATSON, INC.	R.J. STRIP SEAL	RJM	70	83	RJA	32	50	RJE	32	38
HEXCEL FYFE CO.	STRIP J200-C	C	63	76	A	32	50	F	32	38

* TRIM OUTSTANDING LEGS OF SSCM2 SHAPE FOR USE IN PEDESTRIAN BARRIER



ANCHORAGE DETAIL

** PLACED AFTER EXPANSION JOINT IS IN POSITION. THREAD INTO PLACE FROM THE ENDS.

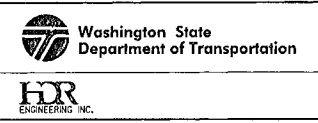
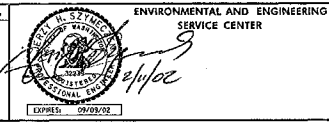


PLAN ~ EXPANSION JOINT

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR. SUPERVISOR	DESIGNED BY	DATE	REGION NO.	STATE	FED. AID PROJ. NO.	CONTRACT NO.
J.H. SZYMIECZEK	L.D. KELLER	02/02	10	WASH		
S.K. AITAKA	D. CIERI	02/02				
D. DYE						

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER



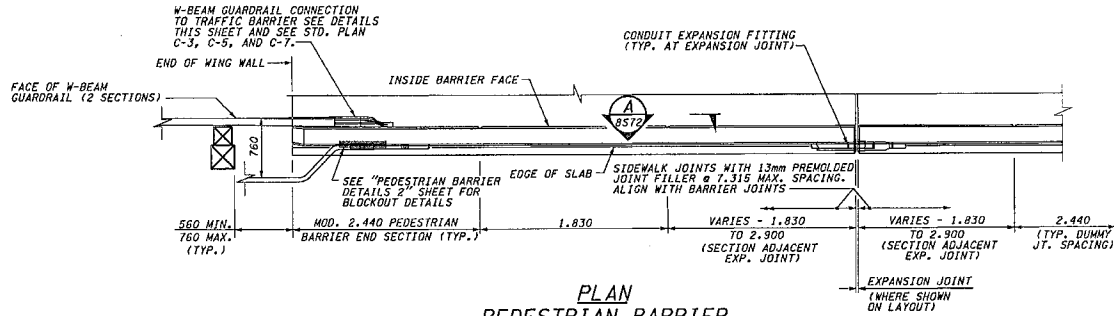
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING
EXPANSION JOINT DETAILS

BRIDGE NO. 8570
SHEET 297 OF 416 SHEETS

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L 405 JOB NO. SHEET 02/11/2002 03:29:19 PM

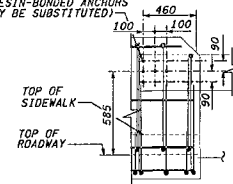
lkeller



PLAN PEDESTRIAN BARRIER

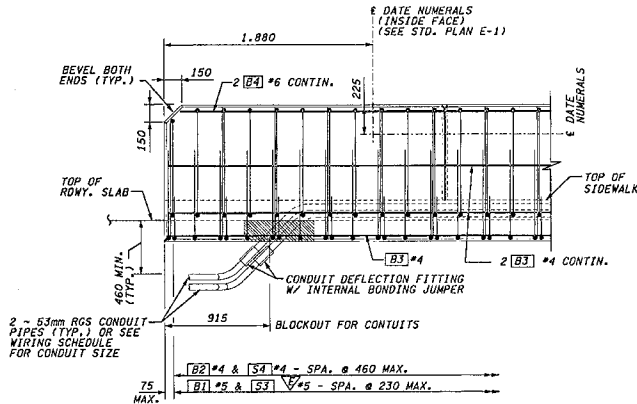
BARRIER CONTINUOUS BETWEEN ROADWAY EXPANSION JOINTS. CONSTRUCTION JOINTS WITH SHEAR KEYS ARE PERMISSIBLE AT DUMMY JOINT LOCATIONS. FORM JOINTS BETWEEN DUMMY JOINTS SHALL NOT BE PERMITTED.

PROVIDE 5 - M22 ROCKET/KOHLER F-50, LANCASTER MALLEABLE, DAYTON/RICHMOND F-62 PLATED 1/2" IN SLAB FERRULE INSERTS, OR APPROVED EQUAL. (RESIN-BONDED ANCHORS MAY BE SUBSTITUTED)

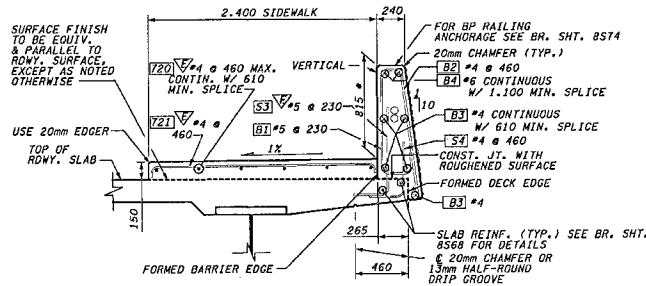
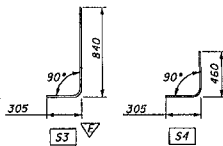


OUTSIDE ELEVATION PEDESTRIAN BARRIER GUARDRAIL CONNECTION

(WHERE SHOWN ON LAYOUT)



OUTSIDE ELEVATION END OF MODIFIED PEDESTRIAN BARRIER



TYPICAL SECTION PEDESTRIAN BARRIER

* MIN. HEIGHT, PEDESTRIAN BARRIER HEIGHT MAY VARY IF REQUIRED TO PROVIDE A SMOOTH PROFILE.

FOR "AS CONSTRUCTED" PLANS ONLY

BRIDGE DESIGN ENGR.				REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR				10	WASH	
DESIGNED BY J.H. SZYMECZEK	02/02			JOB NUMBER		
ENTERED BY L.D. KELLER	02/02			01A053		
CHECKED BY S.K. AISAKA	02/02			CONTRACT NO.		
PROJ. ENGR. D. CIERI	02/02					
REGIONAL ADM. D. DYE	02/02					
	DATE	DATE	REVISION	BY		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

PEDESTRIAN BARRIER DETAILS - 1

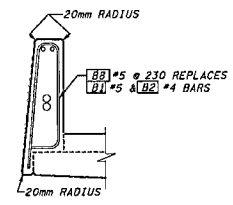
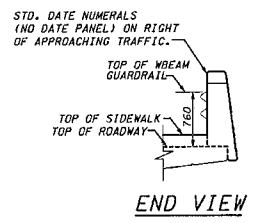
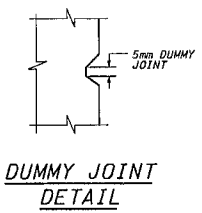
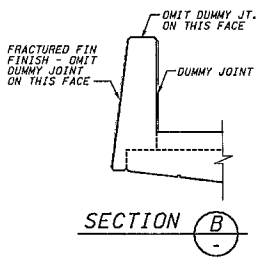
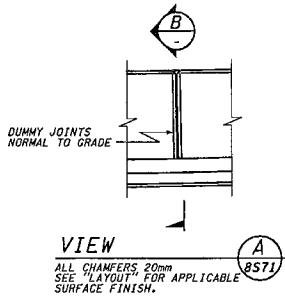
BRIDGE SHEET NO. 8571

SHEET 298 of 416 SHEETS

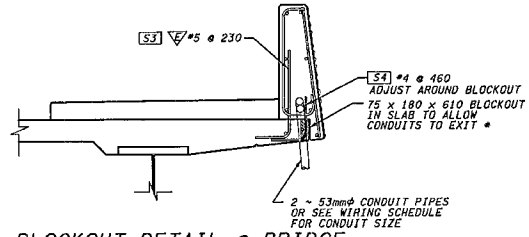
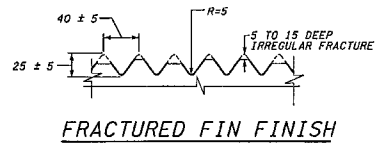
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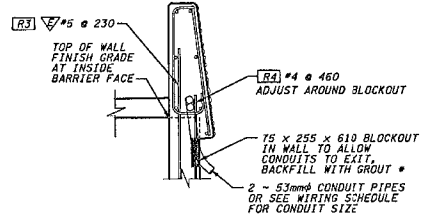
1.405 JOB NO. SHEET
Ikeller 02/11/2002



NOTE:
THE CONTRACTOR IS ADVISED THAT THE SLIPFORM CONSTRUCTION METHOD IS A PATENTED PROPRIETARY PROCESS FOR BARRIERS WITH A FRACTURED FIN FINISH.



FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION" AND "TYPICAL SECTION - PEDESTRIAN BARRIER"



FOR WINGWALL REINFORCING NOT SHOWN SEE WINGWALL PLAN. FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION" AND "TYPICAL SECTION - PEDESTRIAN BARRIER"

* BLOCKOUT WIDTH MAY BE INCREASED TO 150 TO ALLOW CONDUITS OF A LARGER DIAMETER THAN 53mm TO EXIT BARRIER OR WALL WITHOUT REBAR STEEL CONFLICT

PEDESTRIAN BARRIER BAR LIST

ALL REINFORCING SHALL BE AASHTO M 31, GR. 60.

BENDING DIAGRAM (ALL DIMENSIONS ARE OUT TO OUT)

MARK	SIZE	LENGTH	STR.
B1	5	(a)	
B2	4	(a)	STR.
B3	4	(a)	STR.
B3a	4	1.830	STR.
B4	6	(a)	STR.
B8	5	(a)	

FOR S1 #4 & S2 #4 BARS SEE BRIDGE BARLIST. (a) DETERMINE FROM PLANS

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.	DATE	DATE	REVISION	BY
SUPERVISOR				
DESIGNED BY J.H. SZYMIECZEK	02/02			
ENTERED BY L.D. KELLER	02/02			
CHECKED BY S.K. AISAKA	02/02			
PROJ. ENGR. D. CIERI	02/02			
REGIONAL ADM. D. DYE	02/02			

REGIONAL STATE FED. AID PROJ. NO.

10 WASH

JOB NUMBER 01A053

CONTRACT NO.

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

HDR ENGINEERING INC.

EXPIRES: 09/02/02

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

PEDESTRIAN BARRIER DETAILS - 2

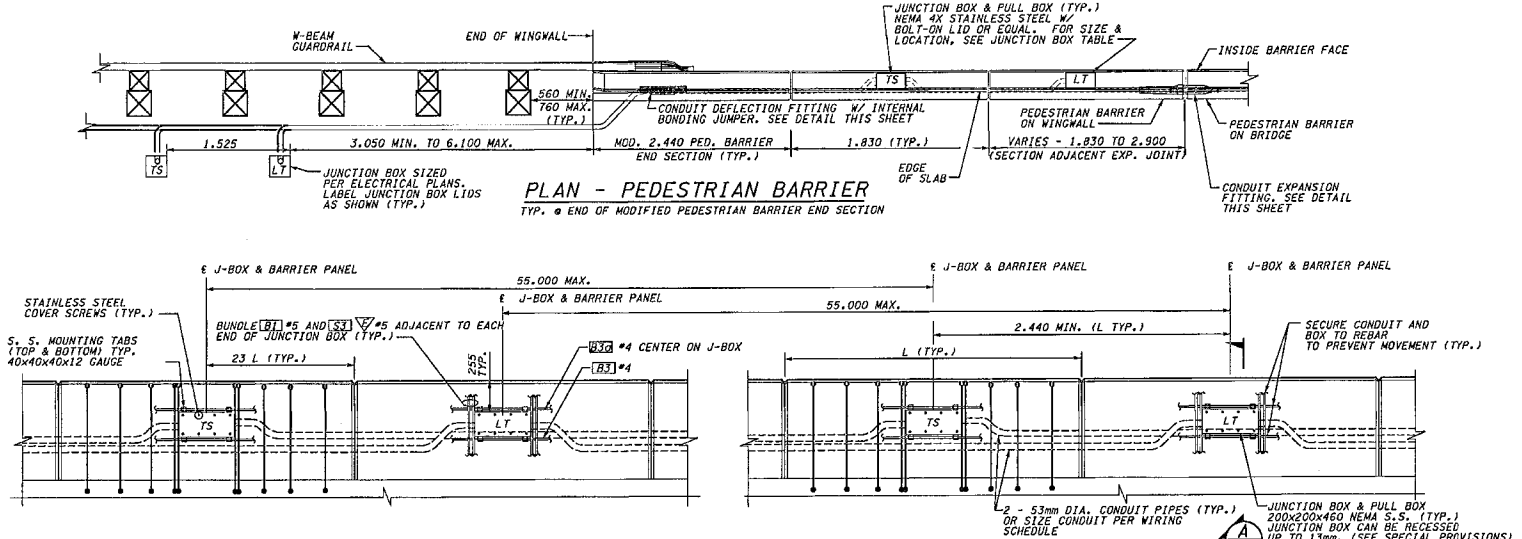
BRIDGE SHEET NO. 8572

SHEET 299 OF 416 SHEETS

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02/11/2002 03:29:32 PM

SHFEEL
L_405 JOB NO. 85073
Ike Keller

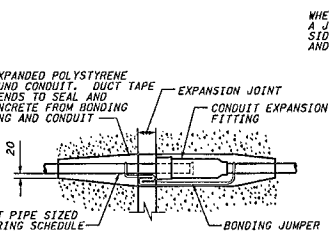


JUNCTION BOX LOCATIONS

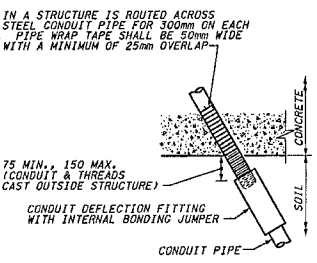
NORTH PEDESTRIAN BARRIER		SOUTH PEDESTRIAN BARRIER	
STATION/OP-LINE	TYPE	STATION/OP-LINE	TYPE
1+528.73 LT	TS	1+529.56 RT	TS
1+531.17 LT	LT	1+532.00 RT	LT
1+543.35 LT	LT	1+542.37 RT	LT
1+565.18 LT	LT	1+575.76 RT	TS
1+575.56 LT	TS	1+586.56 RT	LT
1+596.09 LT	LT	1+605.00 RT	LT
1+614.04 LT	LT	1+615.63 RT	LT
1+617.28 LT	TS	1+618.07 RT	TS

ELEVATION - CONDUITS & J-BOX IN PEDESTRIAN BARRIER

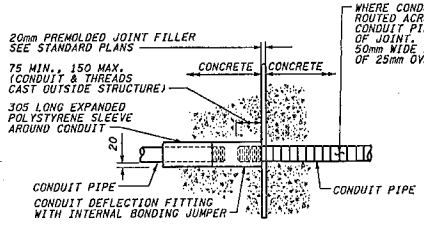
LABEL JUNCTION BOX COVER IN ACCORDANCE WITH STANDARD PLAN J-11A AND SPECIAL PROVISIONS. ADJACENT JUNCTION BOXES ARE SHOWN CENTERED BETWEEN ADJACENT DUMMY JOINTS. IF THE DISTANCE BETWEEN ADJACENT DUMMY JOINTS IS 4,880 OR GREATER, PLACE ADJACENT JUNCTION BOXES SYMMETRICALLY ON EITHER SIDE OF THE CENTER OF ONE DUMMY PANEL WHILE MAINTAINING 2,440 MINIMUM BETWEEN CENTER LINES OF THE JUNCTION BOXES.



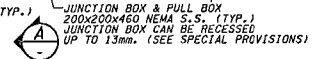
CONDUIT EXPANSION FITTING
CONDUIT FITTING - TYPE AX FOR MOVEMENT OF ± 50mm AT BRIDGE EXPANSION JOINTS



CONDUIT DEFLECTION FITTING A
CONDUIT FITTING - TYPE BX FOR DEFLECTION OF 30° AND 20mm MOVEMENT. PLACE AT CONDUIT PIPE EXIT FROM STRUCTURE



CONDUIT DEFLECTION FITTING B
CONDUIT FITTING - TYPE DX FOR DEFLECTION OF 30° AND 20mm MOVEMENT. CONDUIT PIPES PLACED THROUGH RETAINING WALL TRAFFIC BARRIER SHALL BE FITTED WITH DEFLECTION FITTINGS AT A MAXIMUM SPACING OF 36.5m. THE DEFLECTION FITTINGS SHALL BE PLACED AT THE TRAFFIC BARRIER OPEN JOINT THAT COINCIDES WITH THE RETAINING WALL STEM EXPANSION JOINT NEAREST TO THE TRANSVERSE CONSTRUCTION JOINT IN THE WALL FOOTING.



FOR "AS CONSTRUCTED PLANS" ONLY

SECTION A

BRIDGE DESIGN ENGR.	REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR	10	WASH	
DESIGNED BY J.W. SZYMECZAK	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. D. DYE	02/02		
DATE	DATE	REVISION	BY

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

HDR ENGINEERING INC.

I 405
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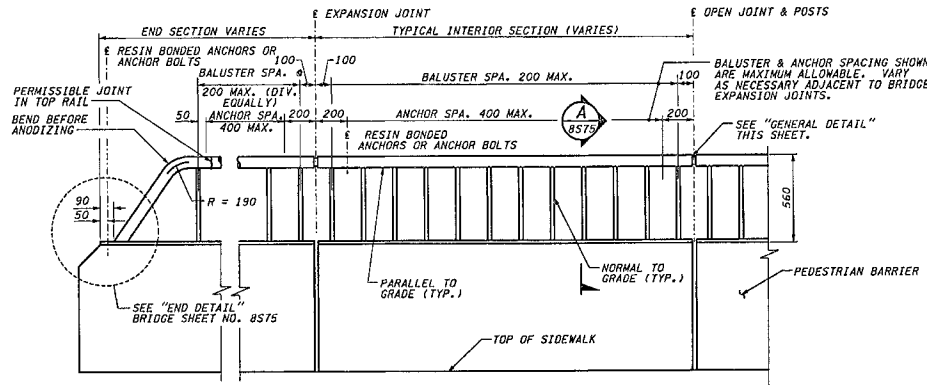
PEDESTRIAN BARRIER DETAILS - 3

BRIDGE SHEET NO. 8573

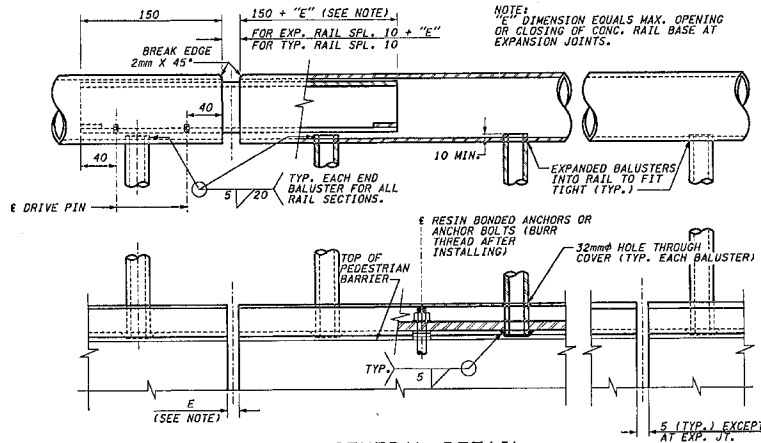
SHEET 380 OF 416 SHEETS

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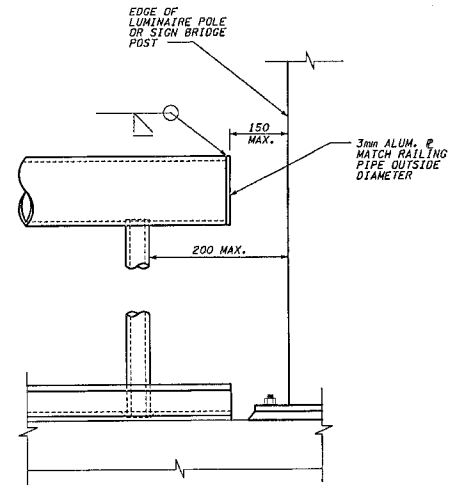
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ELEVATION
BALUSTER AND BEAM GUARDRAIL
ATTACHMENT DETAILS NOT SHOWN.



GENERAL DETAIL



FOR "AS CONSTRUCTED
PLANS" ONLY

NOTES:

PIPE RAILING, PIPE RAILING SPLICES, COVER PLATES AND BOTTOM EXTRUDED CHANNELS SHALL BE BENT TO THE HORIZONTAL CURVE WHERE THE RADIUS OF CURVATURE IS LESS THAN 60m.

SHOP DRAWINGS OF RAILING SHALL BE SUBMITTED FOR APPROVAL SHOWING COMPLETE DIMENSIONS AND DETAILS OF FABRICATION AND INCLUDING AN ERECTION DIAGRAM. MATERIAL BEING USED SHALL BE SPECIFIED IN THE SHOP DRAWINGS.

ALL ALUMINUM PARTS SHALL BE GIVEN A BRONZE ANODIC COATING AT LEAST 0.015mm THICK, AND SHALL BE SEALED TO MEET THE REQUIREMENTS OF ASTM B 136 AND SHALL HAVE A UNIFORM FINISH.

PIPE RAILING, PIPE RAILING SPLICES, COVER PLATES AND BOTTOM EXTRUDED CHANNELS MAY BE HEATED TO NOT MORE THAN 200°C FOR A PERIOD NOT TO EXCEED 30 MIN. TO FACILITATE FORMING OR BENDING.

CUTTING SHALL BE DONE BY SAWING OR MILLING AND ALL CUTS SHALL BE TRUE AND SMOOTH. FLAME CUTTING WILL NOT BE PERMITTED.

PIPE RAILING, PIPE BALUSTERS, PIPE RAILING SPLICES, COVER PLATES AND BOTTOM EXTRUDED CHANNELS SHALL BE ADEQUATELY WRAPPED TO INSURE SURFACE PROTECTION DURING HANDLING AND TRANSPORTATION TO THE JOB SITE.

WELDING OF ALUMINUM SHALL BE IN ACCORDANCE WITH SECTION 5 OF THE LATEST AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.W. SZYMCZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AITAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

DATE: 02/02/02

Washington State Department of Transportation

HDR ENGINEERING INC.

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BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

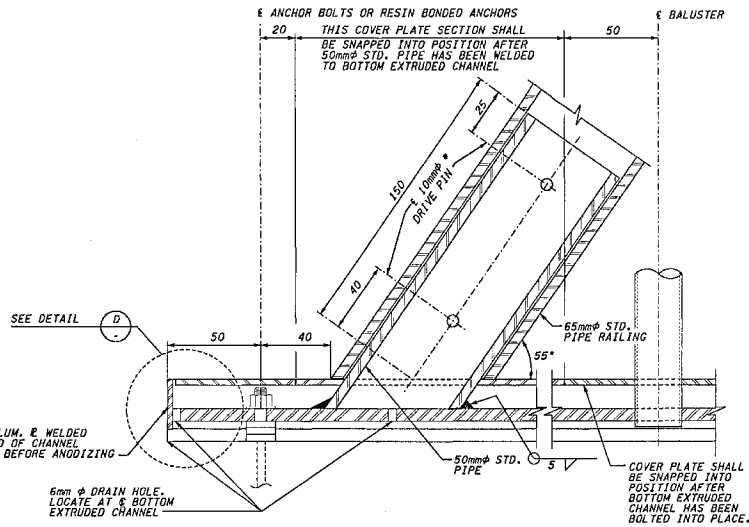
BRIDGE RAILING TYPE BP DETAILS - 1

BRIDGE SHEET NO.	8S74
SHEET NO. OF SHEETS	301 OF 416

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L 405 JOB NO. SHEET 02/11/2002 03:29:44 PM

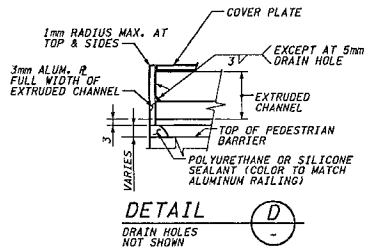
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END DETAIL

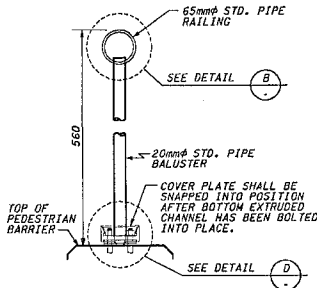
SEE DETAIL D
3mm ALUM. R WELDED TO END OF CHANNEL W/ELD BEFORE ANODIZING
6mm Ø DRAIN HOLE. LOCATE AT R BOTTOM EXTRUDED CHANNEL

COVER PLATE SHALL BE SNAPPED INTO POSITION AFTER BOTTOM EXTRUDED CHANNEL HAS BEEN BOLTED INTO PLACE.

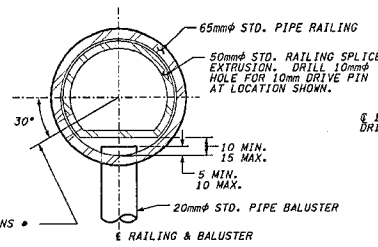


DETAIL D

PART	MATERIAL SPECIFICATION
PIPES	ASTM B241 OR B429 ALLOY 6063-T6 SCHEDULE 40 (STD. PIPE)
ALUMINUM MAT'L EXTRUDED CHANNELS & COVER PLATES	ASTM B221 ALLOY 6063-T6
STEEL ANCHOR BOLTS, NUTS & WASHERS	AASHTO M164 (GALVANIZE IN ACCORDANCE WITH AASHTO SPECIFICATION M232)
PLATES	ASTM A 36M
DRIVE PINS	ASTM A-276 TYPE 300 STAINLESS STEEL

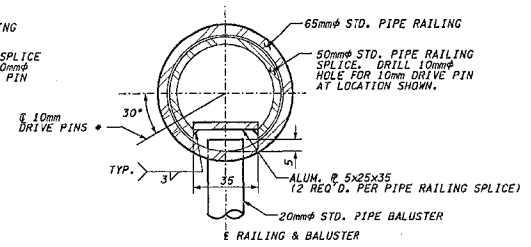


SECTION A
ASTA



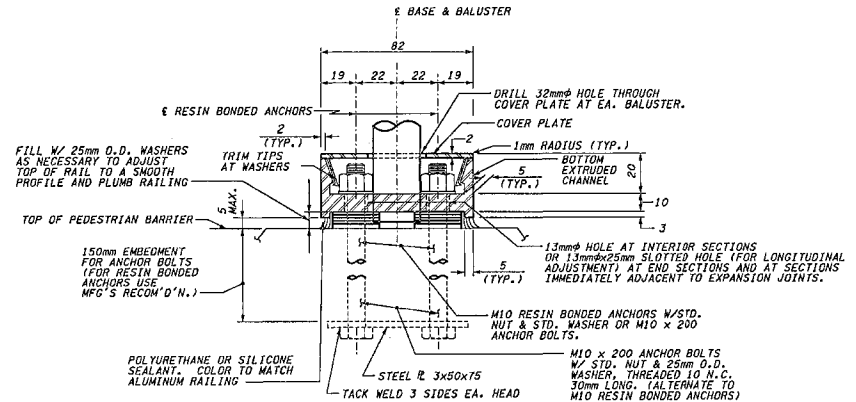
DETAIL B
OPTION #1

LOCATE ON OPPOSITE SIDE OF TRAFFIC. DRIVE PINS SHALL BE DRIVEN FLUSH WITH THE OUTSIDE FACE OF THE RAILING.



DETAIL B
OPTION #2

LOCATE ON OPPOSITE SIDE OF TRAFFIC. DRIVE PINS SHALL BE DRIVEN FLUSH WITH THE OUTSIDE FACE OF THE RAILING.



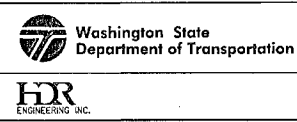
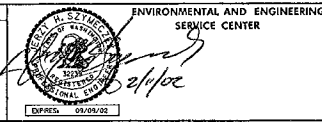
DETAIL C

ANCHOR BOLTS SHALL BE POSITIONED IN A JIG DURING WELDING.

FOR "AS CONSTRUCTED PLANS" ONLY

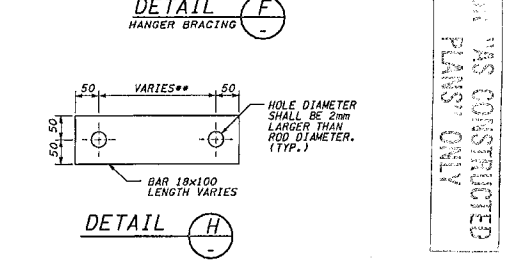
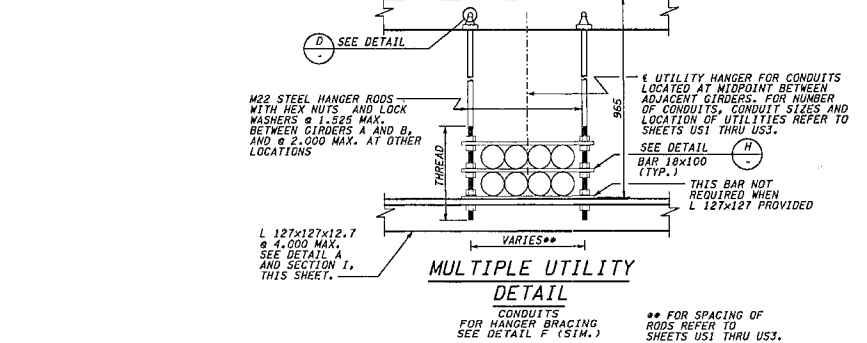
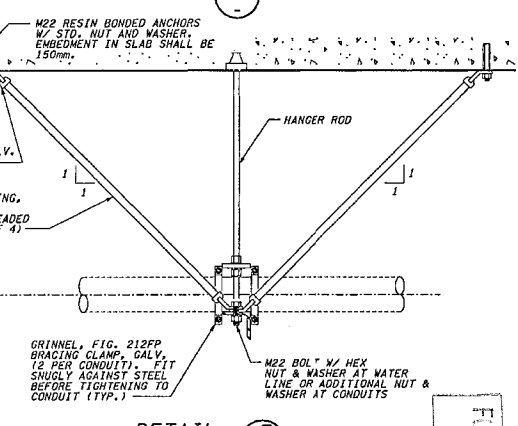
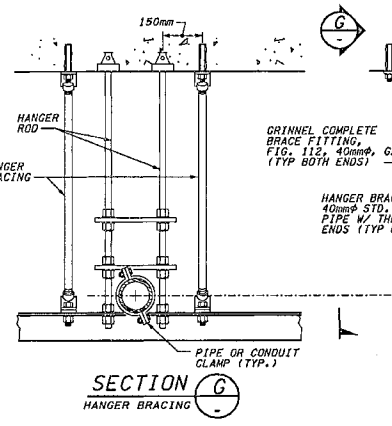
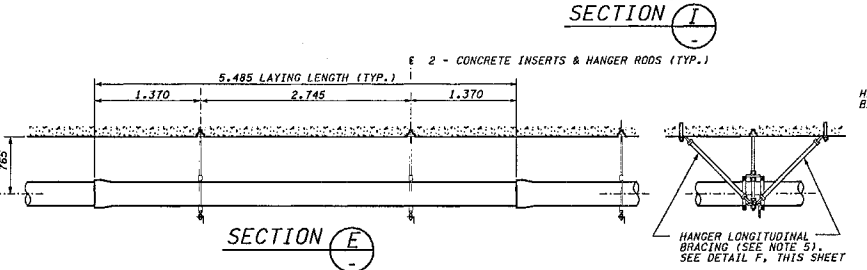
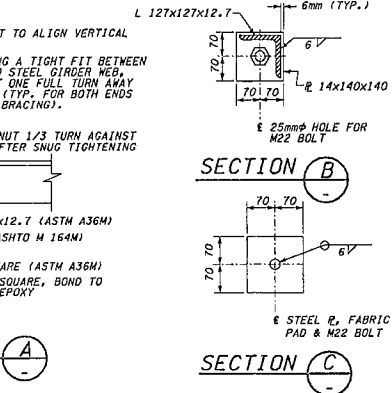
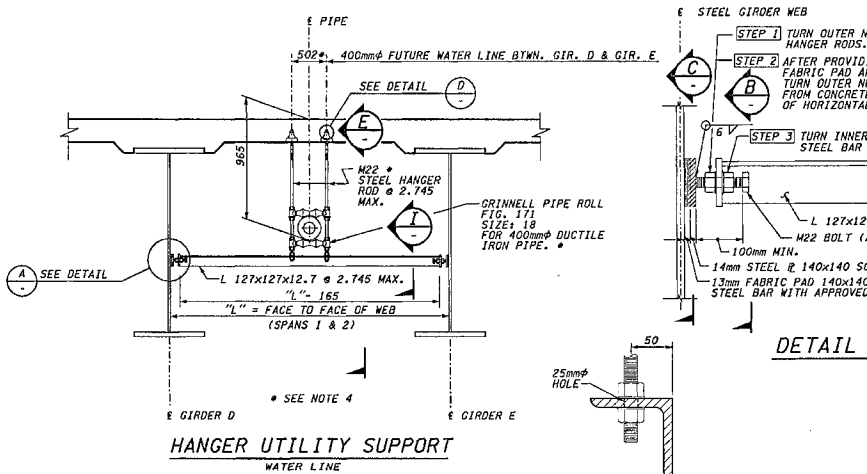
BRIDGE DESIGN ENGR.	DATE	REVISION	BY
SUPERVISOR			
DESIGNED BY J.H. SZYMECZEK	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AUSAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. D. DYE	02/02		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		



I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING
BRIDGE RAILING TYPE BP DETAILS - 2

BRIDGE SHEET
8575
SHEET 302
416 SHEETS



- NOTES:**
- ALL HARDWARE, INCLUDING INSERTS, SHALL BE PROVIDED BY THE CONTRACTOR.
 - ALL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION PER AASHTO M 111 OR AASHTO M 232 EXCEPT GRINNELL PIPE ROLL.
 - PAINT ROLLERS WITH THREE COATS OF GALVANIZING REPAIR PAINT. SEE STD. SPEC. 9-08.2.
 - CONTRACTOR SHALL VERIFY WITH THE MANUFACTURERS OF GRINNELL PIPE ROLLS, STEEL HANGER RODS AND CONCRETE INSERTS THE COMPATIBILITY OF ALL HARDWARE FOR PROPER FIT AND ADEQUACY FOR SUPPORT OF 400mm Ø (NOMINAL SIZE) DUCTILE IRON PIPE.
 - HANGER LONGITUDINAL BRACING SHALL BE INSTALLED AT MIDPOINT BETWEEN EXPANSION COUPLINGS. AS A MINIMUM, THERE SHALL BE ONE SET OF HANGER LONGITUDINAL BRACING IN THE VICINITY OF PIER 2.

FOR AS CONSTRUCTED PER PLAN ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMIECZK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AITSARA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

RESUB. NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

J.H. Szymieczk

EXPIRES 05/05/02

Washington State Department of Transportation

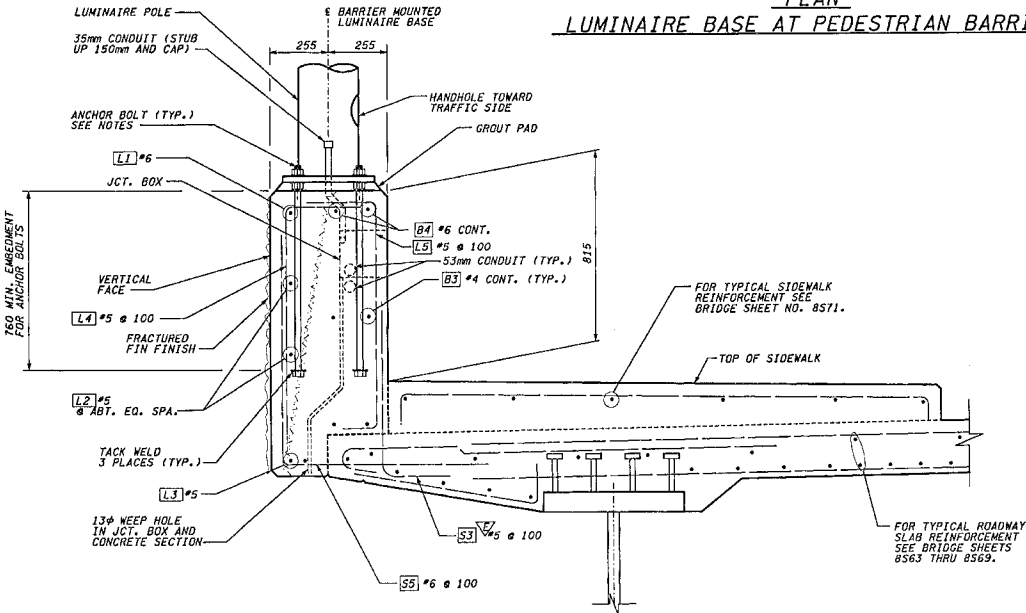
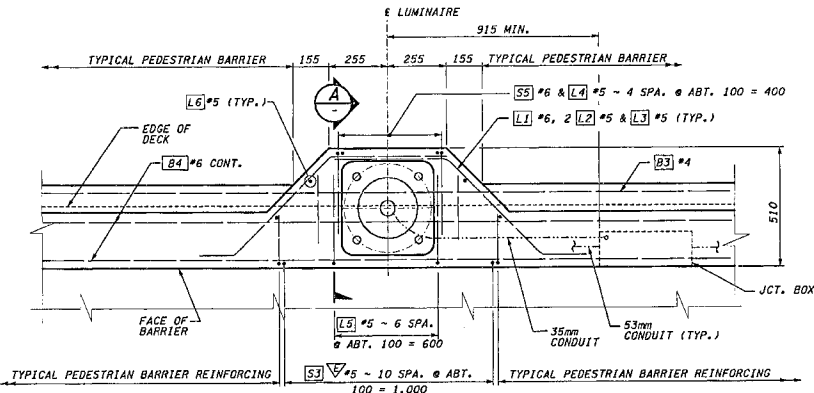
HDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

UTILITY HANGER DETAILS

BRIDGE SHEET NO.	8576
SHEET	303
416	
SHEETS	

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 SHEET
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NOTES:

- FOR LOCATION AND DETAILS OF LUMINAIRE ON THE BRIDGE REFER TO ILLUMINATION PLANS.
- MATERIAL SPECIFICATIONS:
ANCHOR BOLTS SHALL CONFORM TO THE SPECIFICATIONS OF THE LUMINAIRE POLE MANUFACTURER'S PRE-APPROVED DRAWING.

LUMINAIRE ANCHORAGE BAR LIST
(PER 1 LOCATION)
ALL REINFORCING SHALL BE AASHTO M 31, GR. 60.
EPOXY COATED

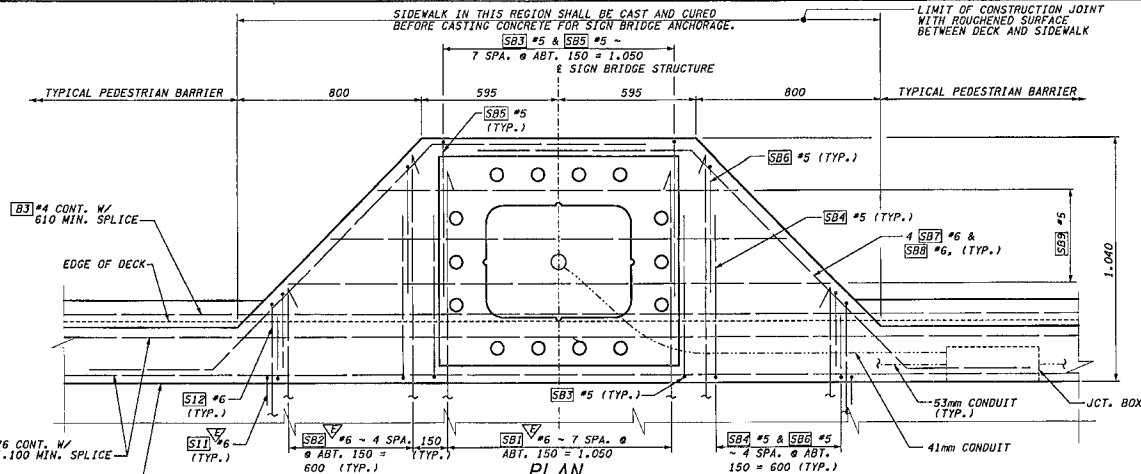
MARK	SIZE	NO.	REQ'D.	LENGTH	BENDING DIAGRAM (ALL DIMENSIONS ARE OUT TO OUT)
L1	#6	2	1,500		
L2	#5	4	1,500		
L3	#5	2	750		
L4	#5	5	1,450		
L5	#5	7	1,525		
L6	#5	2	1,120 STR.		

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.		REGION NO.		STATE	FED. AID PROJ. NO.	ENVIRONMENTAL AND ENGINEERING SERVICE CENTER			I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO. 8577
SUPERVISOR		10		WASH						
DESIGNED BY	J. H. SZYMECZEK	02/02				JOB NUMBER	01A053			
ENTERED BY	L. D. KELLER	02/02				CONTRACT NO.				
CHECKED BY	S. K. AITAKA	02/02								
PROJ. ENGR.	D. CIERI	02/02								
REGIONAL ADM.	D. DYE	02/02								
DATE	DATE	REVISION	BY							

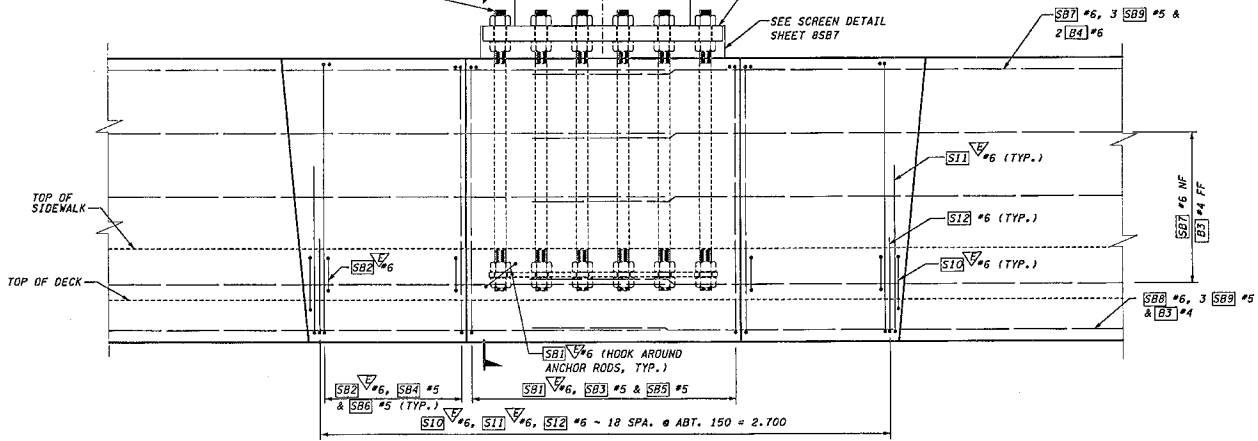
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 [keller]



**PLAN
 SIGN BRIDGE ANCHORAGE**

ANCHOR ROD - 50mm x 1.200 LONG
 THREADED ROD WITH 4 WASHERS
 AND 4 HEAVY HEX NUTS (TYP.).
 THREAD EACH END 200mm. GALVANIZE
 EXPOSED ANCHOR ROD END
 FOR 300mm MIN.



**OUTSIDE ELEVATION
 SIGN BRIDGE ANCHORAGE**

NOTES:

1. FOR LOCATION AND DETAILS OF SIGN BRIDGE ON THE BRIDGE REFER TO BRIDGE SHEET NO. 8563 THRU 8566.
2. MATERIAL SPECIFICATIONS:
 PLATES SHALL BE ASTM A36M
 ANCHOR RODS - SEE BRIDGE SHEET NO. 85B1
3. ALL EXPOSED STEEL PLATES, ANCHOR BOLTS AND ACCESSORIES RELATED HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111 OR AASHTO M232 AS APPLICABLE.
4. CONTRACTOR SHALL COORDINATE ANCHORAGE DETAILS WITH THE SUPPLIER OF SIGN BRIDGE.

FOR "AS CONSTRUCTED
 PLANS" ONLY

BRIDGE DESIGN ENGR.				
SUPERVISOR				
DESIGNED BY B.T. AKESSON	02/02			
ENTERED BY L.D. KELLER	02/02			
CHECKED BY J.H. SZYMECZEK	02/02			
PROJ. ENGR. D. CIERI	02/02			
REGIONAL ADM. D. DYE	02/02			
DATE	DATE	REVISION	BY	

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING
 SERVICE CENTER

2/11/02

EXPIRES: 02/08/02

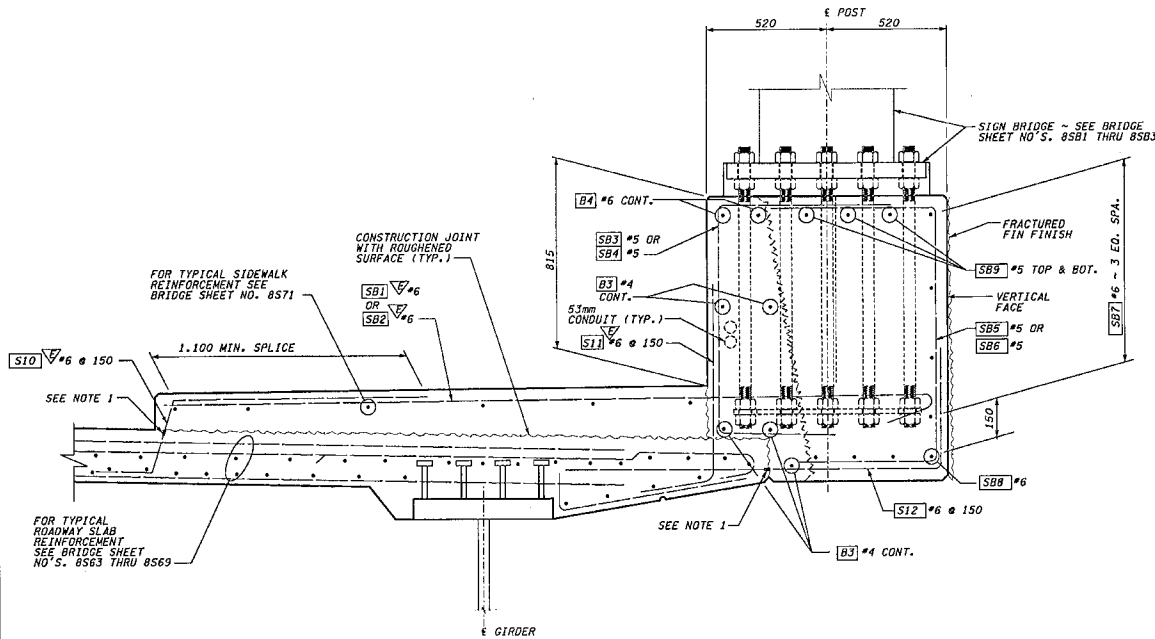
Washington State
 Department of Transportation

HR
 ENGINEERING INC.

I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

SIGN BRIDGE ANCHORAGE DETAILS-1

BRIDGE SHEET NO.	8578
SHEET	305
SHEETS	416



SECTION A
8579

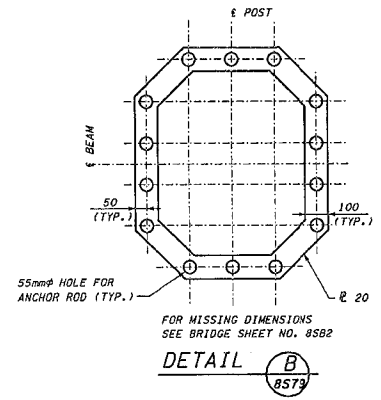
NOTES:
 1. OPTIONAL MECHANICAL COUPLERS: BARS [S10] #6 AND [S12] #6 MAY BE REPLACED WITH EQUIVALENT BARS MECHANICALLY SPLICED AS SHOWN.

SIGN BRIDGE ANCHORAGE BAR LIST (AT 1 POST)
 ALL REINFORCING SHALL BE AASHTO M 31, GR. 60.
 ▽ = EPOXY COATED

MARK	SIZE	NO.	REQ'D	LENGTH	BENDING DIAGRAM
S10	#6	8	3,400		(ALL DIMENSIONS ARE OUT TO OUT)
S12	#6	10	2,800 TO 3,450		
S11	#6	8	2,000		
S12	#6	10	1,400 TO 1,900		
S11	#6	8	2,450		
S12	#6	10	1,600 TO 2,450		
S11	#6	8	2,780		
S12	#6	2	1,650		
S11	#6	6	1,500 TO 2,300	SYM.	

MARK	SIZE	NO.	REQ'D	LENGTH	BENDING DIAGRAM
S10	#6	8	3,400		
S12	#6	10	2,800 TO 3,450		
S11	#6	8	2,000		
S12	#6	10	1,400 TO 1,900		
S11	#6	8	2,450		
S12	#6	10	1,600 TO 2,450		
S11	#6	8	2,780		
S12	#6	2	1,650		
S11	#6	6	1,500 TO 2,300	SYM.	

FOR [S10], [S11] & [S12] BARS, SEE BAR LIST ON BRIDGE SHEET NO. 8592

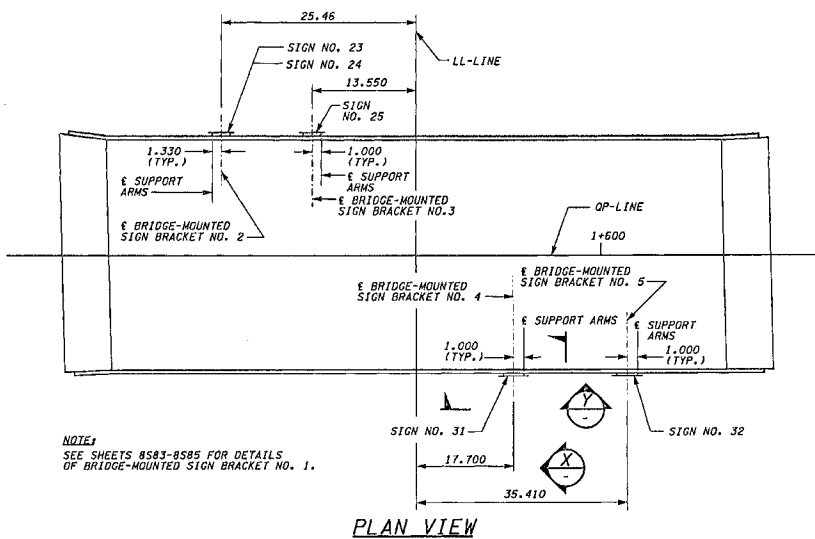


FOR "AS CONSTRUCTED" PLANS ONLY

BRIDGE DESIGN ENGR.		REGION STATE	FED.AID PROJ.NO.	ENVIRONMENTAL AND ENGINEERING SERVICE CENTER	Washington State Department of Transportation	I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO. 8579
SUPERVISOR		10 WASH					
DESIGNED BY B.T. AKESSON	02/02						
ENTERED BY L.D. KELLER	02/02						
CHECKED BY J.H. SZYMECZEK	02/02						
PROJ. ENGR. D. CIERI	02/02						
REGIONAL ADM. D. DYE	02/02						
DATE	DATE	REVISION	BY	CONTRACT NO. 01A053	EXPRES 01/09/02	SIGN BRIDGE ANCHORAGE DETAILS-2	SHEET 306 OF 416 SHEETS

C:\pwrtemp\dms0357\85080_C1.DGN

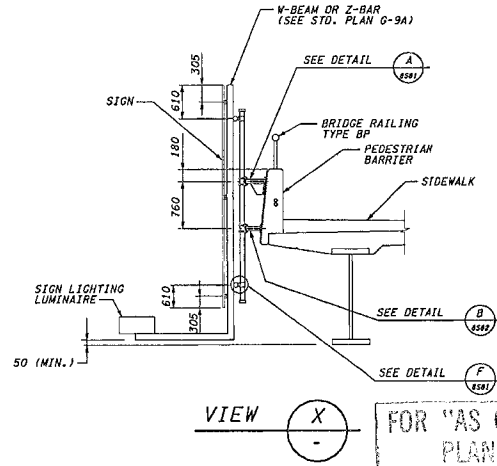
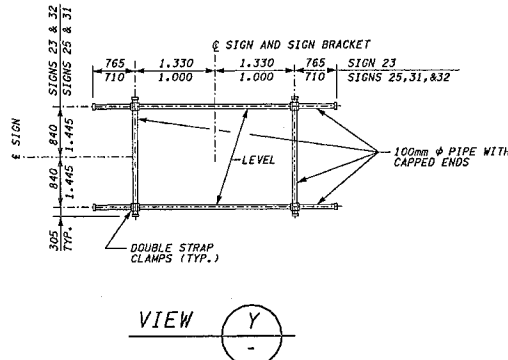
I 405 - JOB NO. SHEET 02/08/2002 10:49:56 AM
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NOTE:
 SEE SHEETS 8583-8585 FOR DETAILS
 OF BRIDGE-MOUNTED SIGN BRACKET NO. 1.

SIGN BRACKET GENERAL NOTES:

- ALL MATERIAL AND WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (METRIC) DATED 2000 AND AMENDMENTS.
- MATERIAL SPECIFICATIONS:
 PLATES & BARS: ASTM A 36 M
 PIPES: ASTM A53 GRADE B OR ASTM A 500 GRADE B
 U-BOLTS, NUTS & WASHERS: ASTM F593M AND F594M TYPE 304
 BOLTS: ASTM A307
 UNLESS OTHERWISE NOTED
- ALL PARTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 AFTER FABRICATION BOLTS AND HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
- SIZE OF FILLET WELDS SHALL BE 6mm MINIMUM EXCEPT WHERE NOTED.
- SEE STD. PLAN G-9a AND SIGN PLANS FOR DIMENSIONS AND DETAILS NOT SHOWN.



FOR "AS CONSTRUCTED" PLANS ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY K.J. WILLIAMS	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISHAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION STATE	FED.AID PROJ.NO.
10 WASH	
JOB NUMBER	CONTRACT NO.
01A053	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

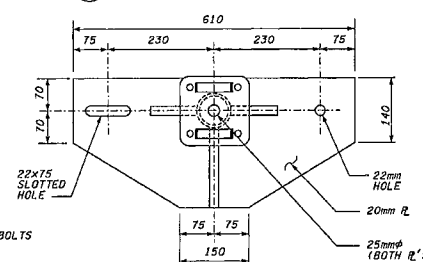
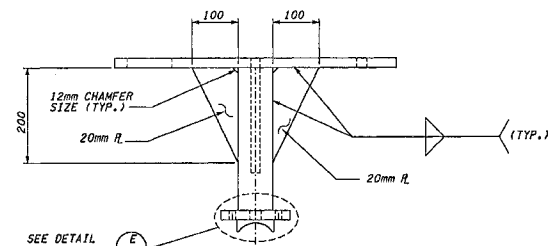
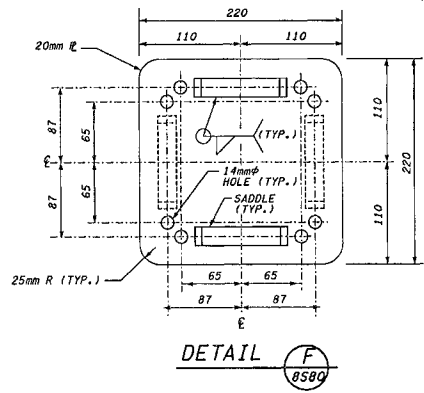
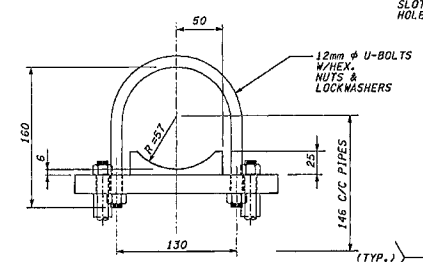
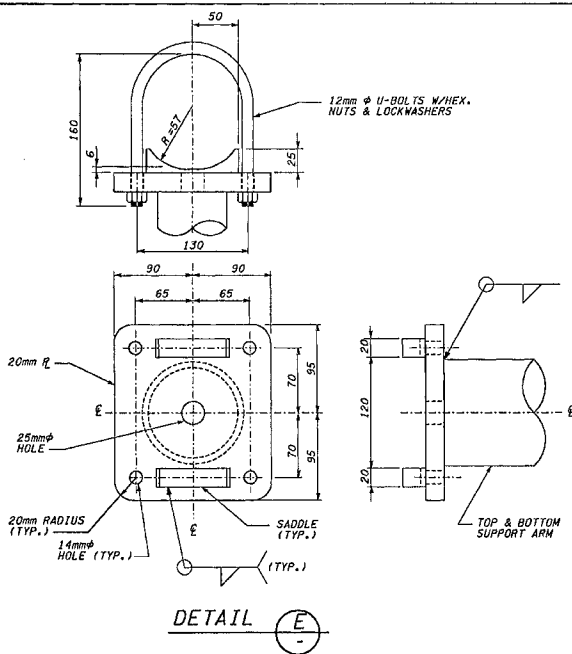
Washington State Department of Transportation

I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

SIGN BRACKET DETAILS - 1

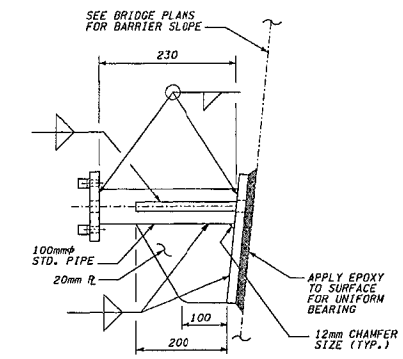
BRIDGE SHEET	8580
SHEET	307
DRAWN	416
CHECKED	

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 I_405_JOB NO. SHEET
 02/08/2002 10:50:00 AM
 lkeller



TOP SUPPORT ARM

DETAIL A
 8580



FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY K.J. WILLIAMS	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AUSAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

2-3-02

EXPRESS: 06/23/03

Washington State Department of Transportation

HDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

SIGN BRACKET DETAILS - 2

BRIDGE SHEET NO. 8S81

SHEET 308

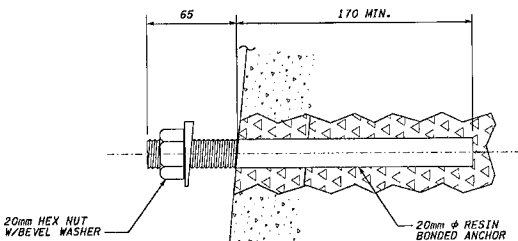
4/16

SHEET

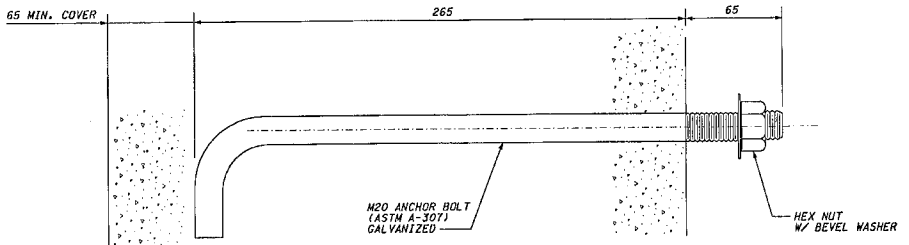
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SHEET
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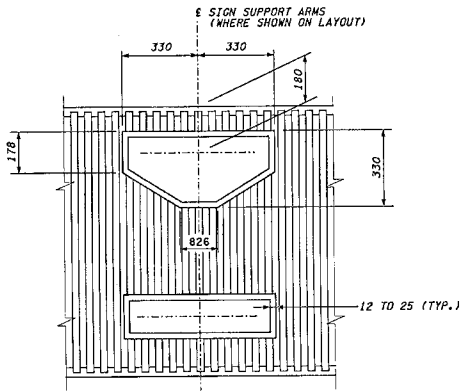


ANCHOR BOLT DETAIL

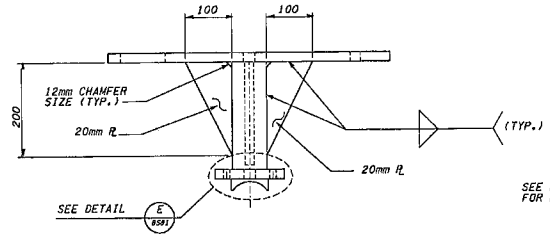


ALTERNATE ANCHOR BOLT DETAIL

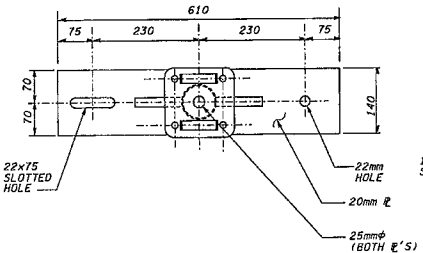
MAY BE USED ONLY WHERE MIN. COVER CAN BE PROVIDED



ELEVATION ~ SIGN SUPPORT BRACKET BLOCKOUT

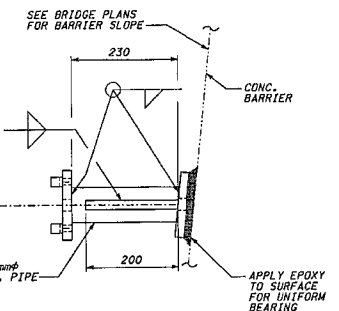


SEE DETAIL (A)



BOTTOM SUPPORT ARM

DETAIL (B)



SEE BRIDGE PLANS FOR BARRIER SLOPE

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.				REGION NO.	STATE	FED. AID PROJ. NO.
SUPERVISOR				10	WASH	
DESIGNED BY K.J. WILLIAMS	02/02			JOB NUMBER		
ENTERED BY L.O. KELLER	02/02			01A053		
CHECKED BY S.K. AISAKA	02/02			CONTRACT NO.		
PROJ. ENGR. D. CIERI	02/02					
REGIONAL ADM. O. DYE	02/02					
DATE	DATE	REVISION	BY			

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER
Washington State Department of Transportation

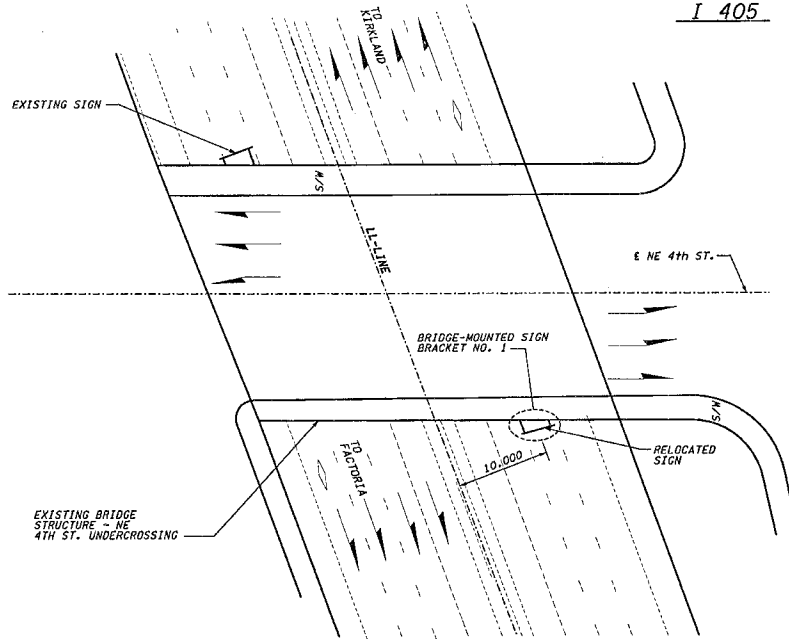
I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

SIGN BRACKET DETAILS - 3

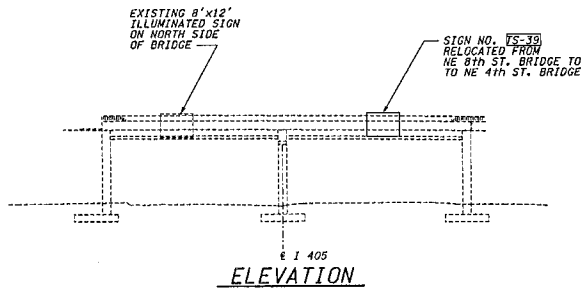
BRIDGE SHEET NO.	8582
SHEET	309
SHEETS	416

SEC. 32 T. 25N., R. 5E. W.M.

I 405



PLAN



ELEVATION

FOR "AS CONSTRUCTED PLANS" ONLY

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 I:\keller

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY K.J. WILLIAMS	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. OYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

2-8-02

Washington State Department of Transportation

HR ENGINEERING INC.

I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

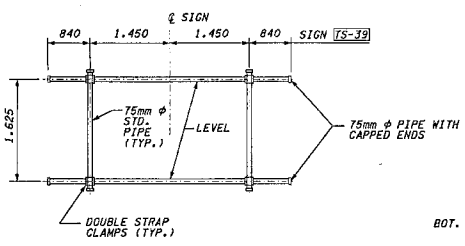
SIGN RELOCATION TO NE 4th STREET

BRIDGE SHEET NO.	8583
SHEET NO.	310
SHEETS	476

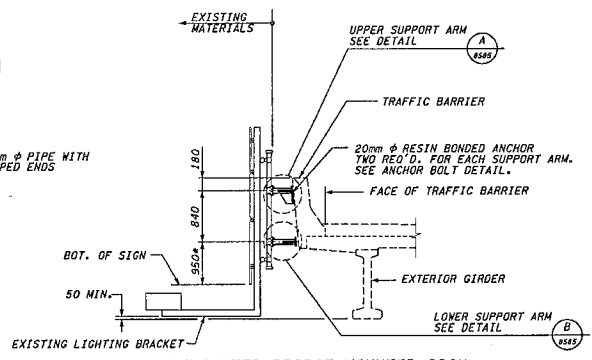
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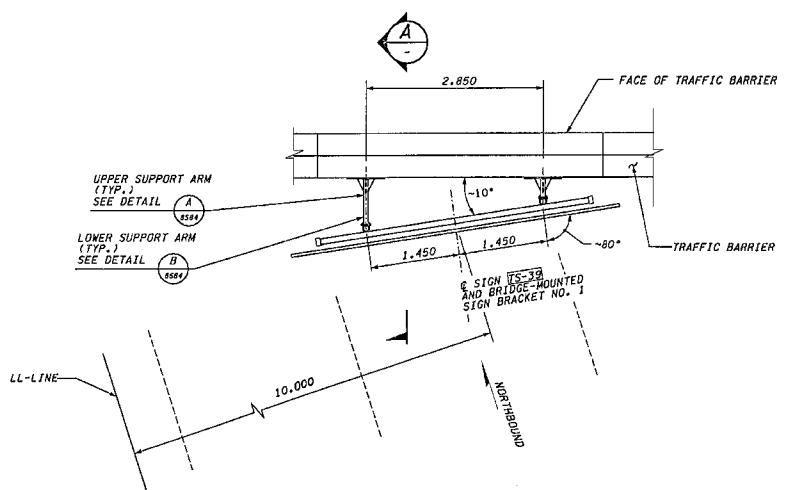


EXISTING TRUSS DETAIL



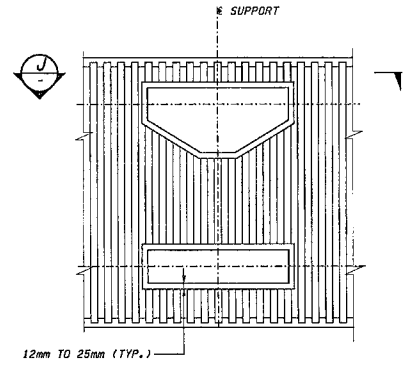
RELOCATED BRIDGE MOUNTED SIGN

SECTION A

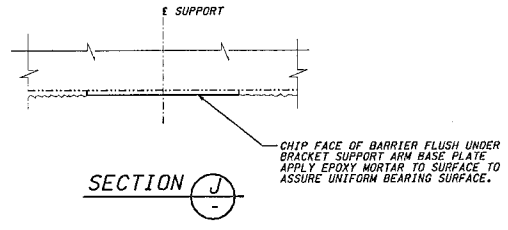


RELOCATED BRIDGE MOUNTED SIGN

PLAN



ANCHORAGE IN EXISTING FRACTURE FIN AREA



ANCHOR BOLT DETAIL

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY K.J. WILLIAMS	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION STATE	FED. AID PROJ. NO.
10 WASH	
JOB NUMBER	
O1A053	
CONTRACT NO.	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

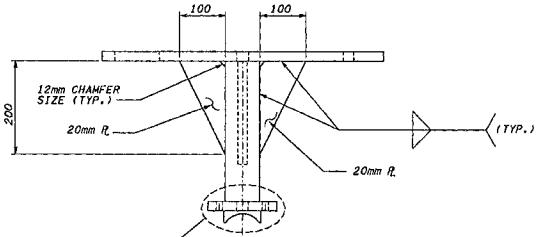
Washington State Department of Transportation

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

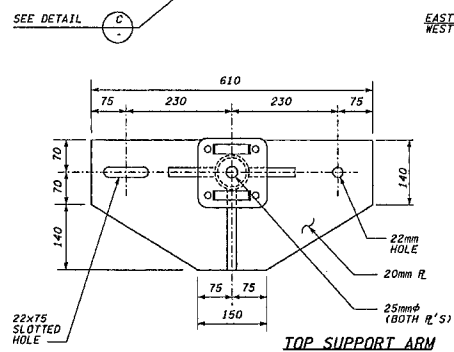
NE 4th STREET SIGN DETAILS - 1

BRIDGE SHEET NO.	8584
SHEET	311
SHEET	476

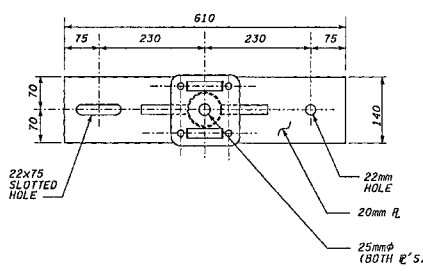
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 keller



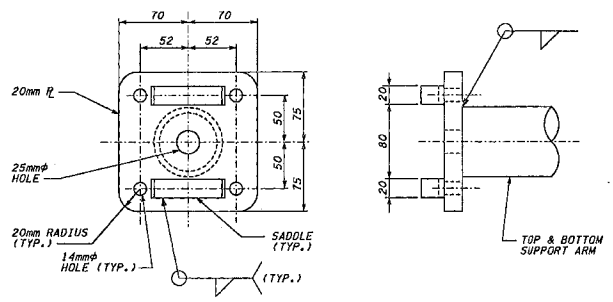
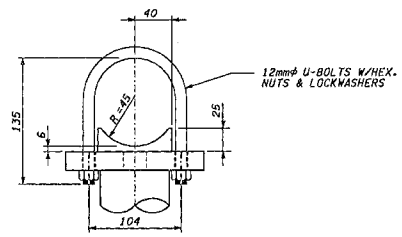
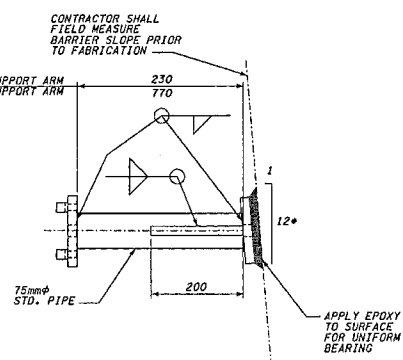
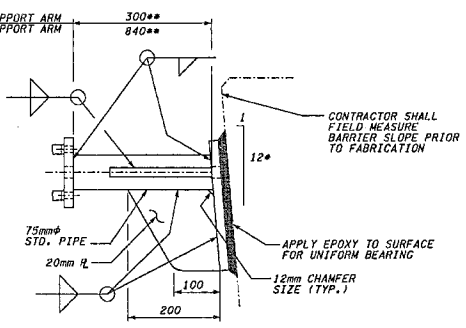
* - TAKEN FROM PLANS OF EXISTING STRUCTURE.
 CONTRACTOR SHALL FIELD VERIFY.
 ** - ADJUST LENGTH AS NECESSARY AFTER
 FIELD MEASURING BARRIER SLOPE.



TOP SUPPORT ARM
DETAIL A
8584



BOTTOM SUPPORT ARM
DETAIL B
8584



DETAIL C

FOR "AS CONSTRUCTED PLANS" ONLY

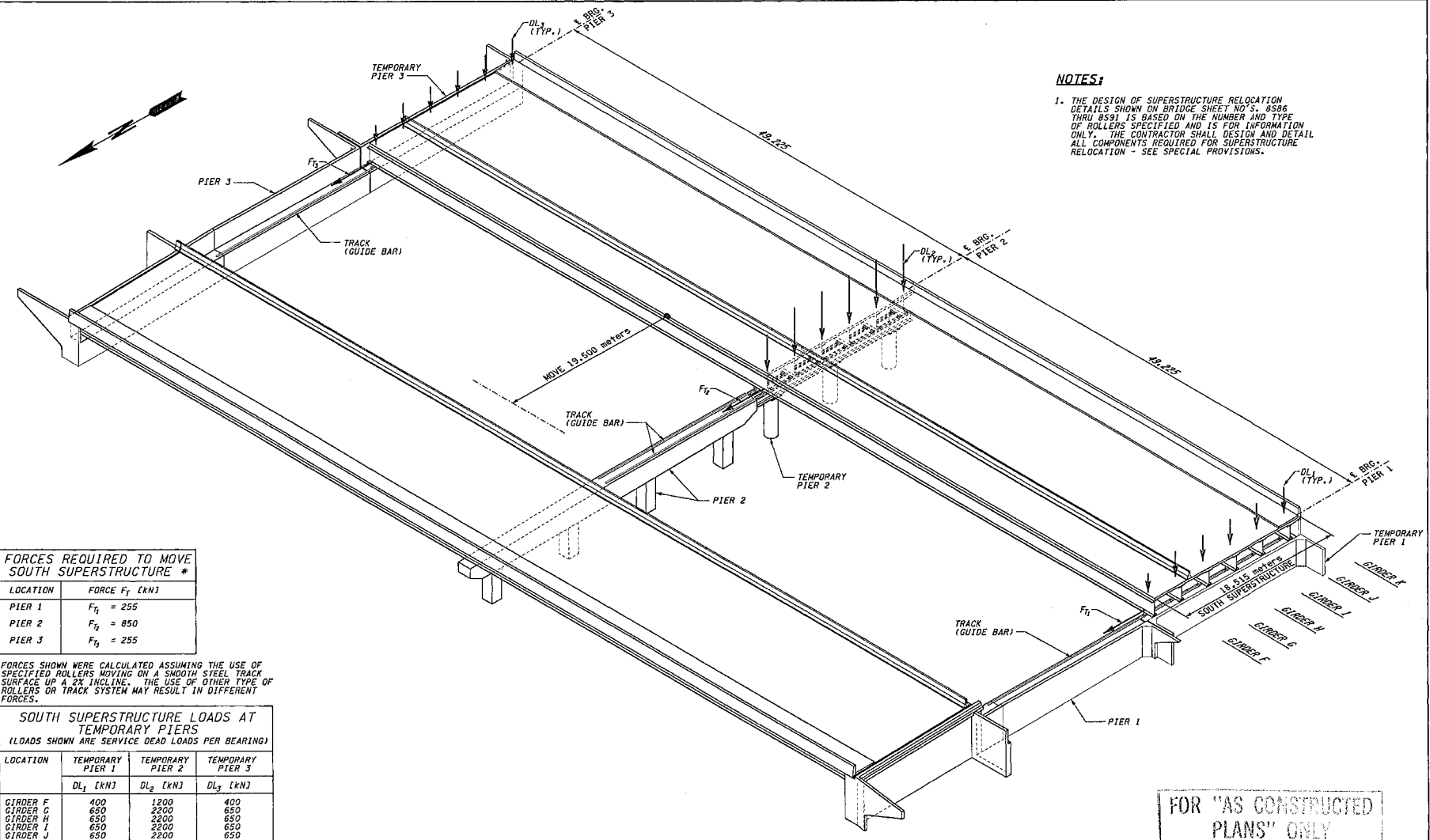
BRIDGE DESIGN ENGR.		REGIONAL STATE		FED. AID PROJ. NO.			ENVIRONMENTAL AND ENGINEERING SERVICE CENTER		I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING	BRIDGE SHEET NO. 8S85
SUPERVISOR		10 WASH								
DESIGNED BY	K.J. WILLIAMS	02/02								
ENTERED BY	L.D. KELLER	02/02								
CHECKED BY	S.K. AISAKA	02/02								
PROJ. ENGR.	D. CIERI	02/02								
REGIONAL ADM.	D. DYE	02/02								
DATE	DATE	REVISION	BY	CONTRACT NO.						

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NOTES:

1. THE DESIGN OF SUPERSTRUCTURE RELOCATION DETAILS SHOWN ON BRIDGE SHEET NO'S. 8586 THRU 8591 IS BASED ON THE NUMBER AND TYPE OF ROLLERS SPECIFIED AND IS FOR INFORMATION ONLY. THE CONTRACTOR SHALL DESIGN AND DETAIL ALL COMPONENTS REQUIRED FOR SUPERSTRUCTURE RELOCATION - SEE SPECIAL PROVISIONS.



FORCES REQUIRED TO MOVE SOUTH SUPERSTRUCTURE *

LOCATION	FORCE F_i [KN]
PIER 1	$F_{11} = 255$
PIER 2	$F_2 = 850$
PIER 3	$F_3 = 255$

* FORCES SHOWN WERE CALCULATED ASSUMING THE USE OF SPECIFIED ROLLERS MOVING ON A SMOOTH STEEL TRACK SURFACE UP A 2% INCLINE. THE USE OF OTHER TYPE OF ROLLERS OR TRACK SYSTEM MAY RESULT IN DIFFERENT FORCES.

SOUTH SUPERSTRUCTURE LOADS AT TEMPORARY PIERS
 (LOADS SHOWN ARE SERVICE DEAD LOADS PER BEARING)

LOCATION	TEMPORARY PIER		
	PIER 1	PIER 2	PIER 3
	DL_1 [KN]	DL_2 [KN]	DL_3 [KN]
GIRDER F	400	1200	400
GIRDER G	650	2200	650
GIRDER H	650	2200	650
GIRDER I	650	2200	650
GIRDER J	650	2200	650
GIRDER K	650	2200	650

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.			
SUPERVISOR			
DESIGNED BY J.H. SZYMECZEK	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. D. DYE	02/02		
DATE	DATE	REVISION	BY

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	CONTRACT NO.	
01A053		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

02/11/02

Washington State Department of Transportation

HDR ENGINEERING INC.

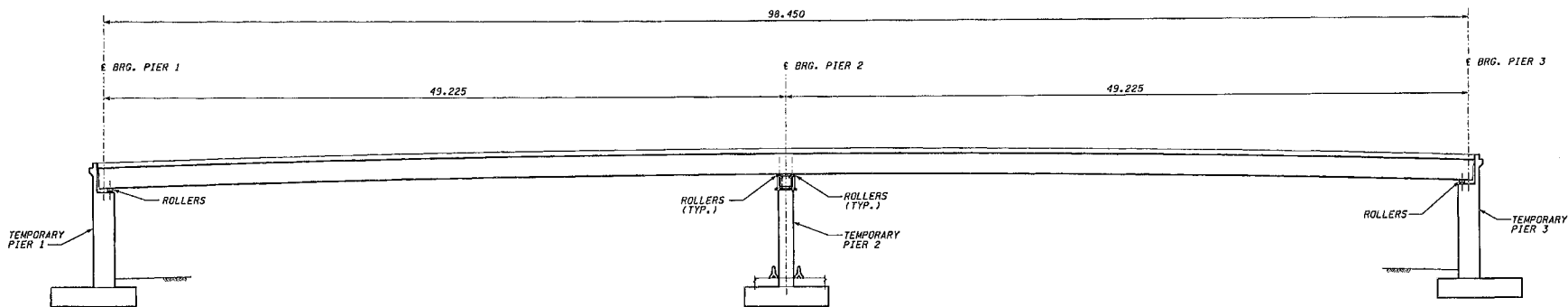
I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

SUPERSTRUCTURE RELOCATION - 1

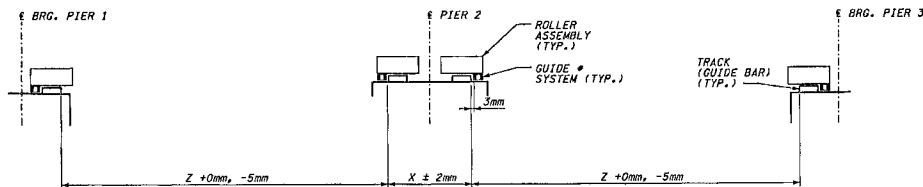
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SHEET	313
SHEETS	416

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Keller



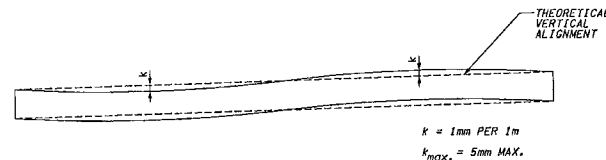
LONGITUDINAL SECTION
(SOUTH SIDE, LOOKING NORTH)



TRACK HORIZONTAL ALIGNMENT TOLERANCES
(SOUTH SIDE, LOOKING NORTH)

• MINIMUM GUIDE SYSTEM SHOWN. THE CONTRACTOR MAY ELECT TO PROVIDE ADDITIONAL GUIDE SYSTEM THAT IS COMPATIBLE WITH TRACK TOLERANCES.

X AND Z ARE THE THEORETICAL DIMENSIONS PER PLANS.



TRACK VERTICAL ALIGNMENT TOLERANCES

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.									
SUPERVISOR									
DESIGNED BY J.H. SZYMCEK	02/02								
ENTERED BY L.D. KELLER	02/02								
CHECKED BY S.K. AITAKA	02/02								
PROJ. ENGR. D. CIERI	02/02								
REGIONAL ADM. D. DYE	02/02								
	DATE	DATE	REVISION	BY					

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
	JOB NUMBER	
	01A053	
	CONTRACT NO.	

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

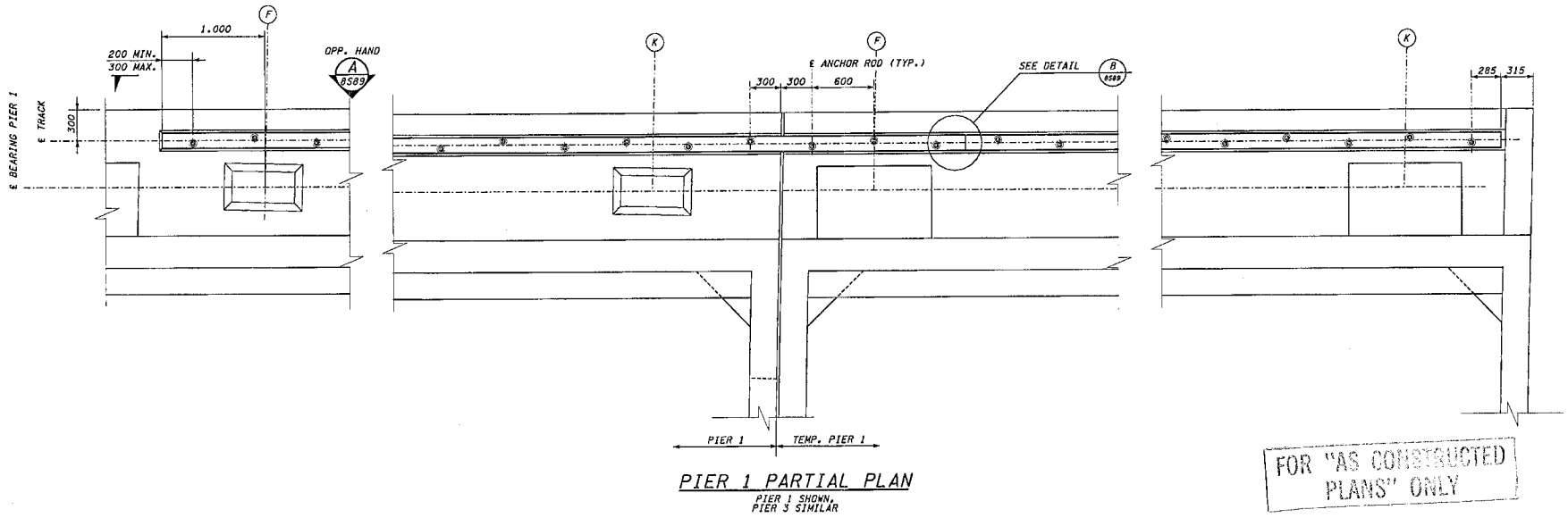
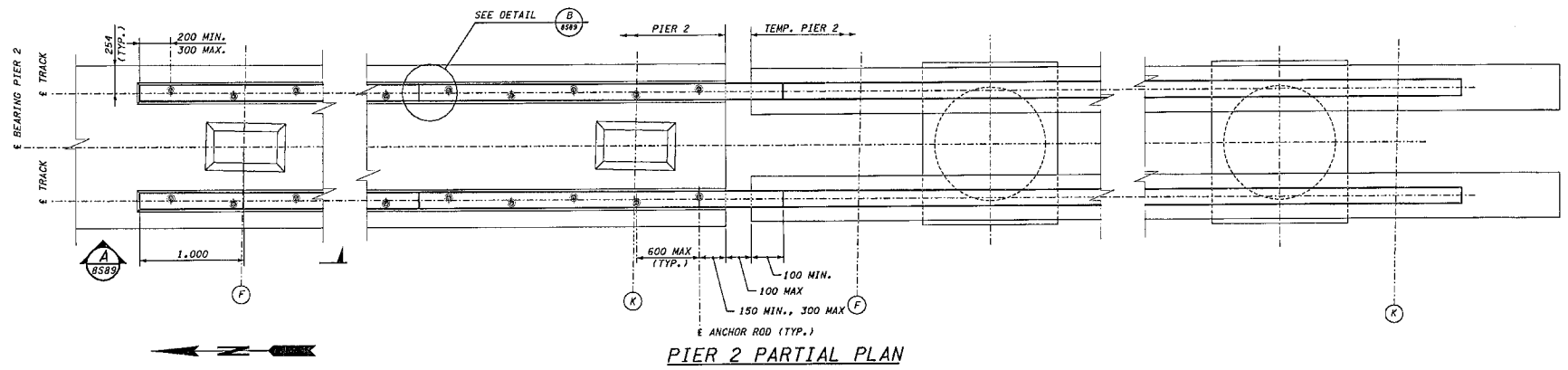
FDR ENGINEERING INC.

I 405
BELLEVUE DIRECT ACCESS
NE 8th ST. UNDERCROSSING

SUPERSTRUCTURE RELOCATION - 2

BRIDGE SHEET NO.	8S87
SHEET	314
SHEETS	416

L 405 JOB NO. SHEET 02/11/2002 03:31:03 PM
 l.keller



FOR "AS CONSTRUCTED PLANS" ONLY

BRIE DESIGN ENGR.							
SUPERVISOR							
DESIGNED BY J.H. SZYMECZEK	02/02						
ENTERED BY L.D. KELLER	02/02						
CHECKED BY S.K. AISAKA	02/02						
PROJ. ENGR. D. CIERI	02/02						
REGIONAL ADM. D. DYE	02/02						
DATE	DATE	REVISION	BY				

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER		
01A053		
CONTRACT NO.		

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

EXPRES 02/02/02

Washington State Department of Transportation

HDR ENGINEERING INC.

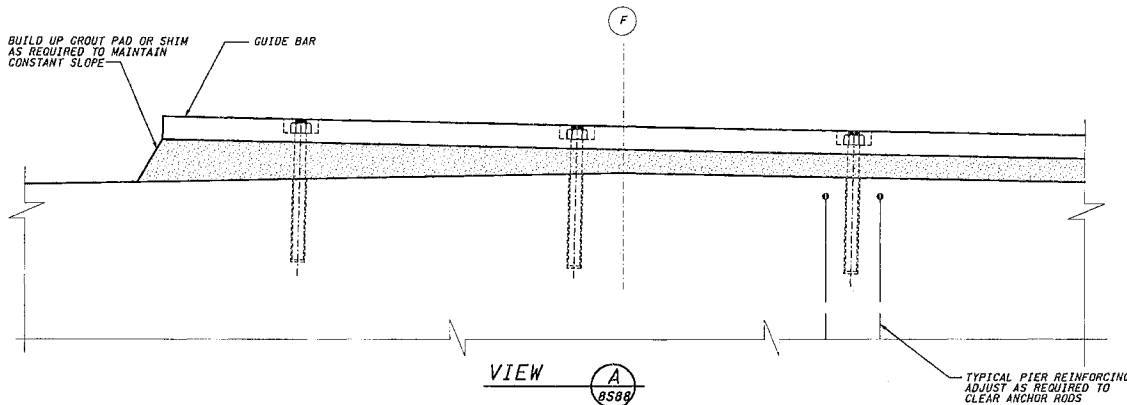
I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

SUPERSTRUCTURE RELOCATION -
 TRACK PLANS @ PIERS 1 & 2

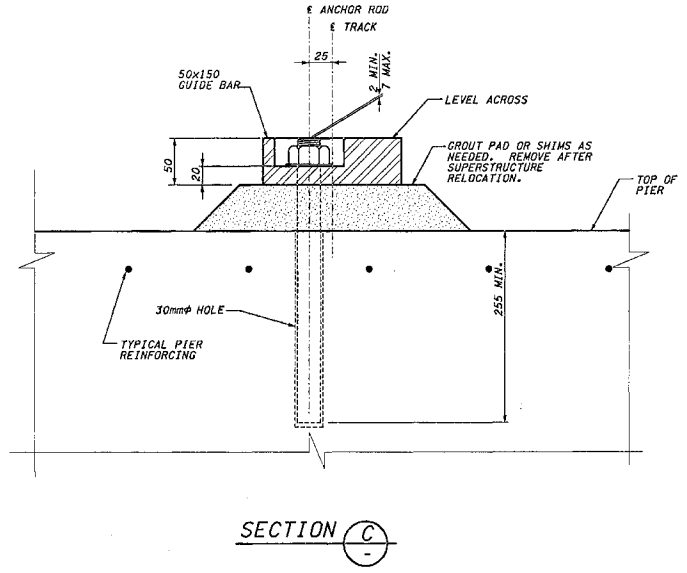
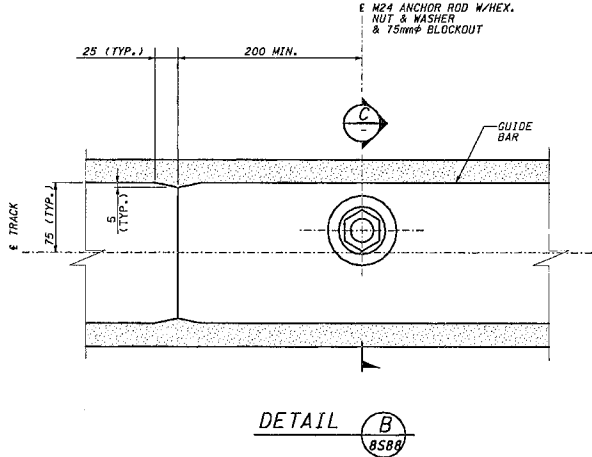
BRIDGE SHEET NO. 8588
 SHEET 3/5 OF 416 SHEETS

C:\p\temp\dms00357\85089_C1.DGN

I 405 JOB NO. SHEET
 ikeller 02/11/2002 03:31:09 PM



- NOTES:**
1. STAGGER SPACING OF ANCHOR RODS ABOUT ϵ TRACK.
 2. ANCHOR RODS SHALL BE ANCHORED WITH EPOXY RESIN FOR THE FULL DEPTH OF THE HOLE.
 3. ANCHOR RODS LOCATION SHALL BE APPROXIMATELY DETERMINED DURING PIER CONSTRUCTION AND PIER REINFORCING ADJUSTED AS REQUIRED. DRILLING THRU PIER REINFORCING SHALL NOT BE ALLOWED DURING ANCHOR RODS INSTALLATION.
 4. AFTER SUPERSTRUCTURE RELOCATION, GROUT PAD OR SHIMS SHALL BE REMOVED AND TOP OF PIERS SHALL BE RESTORED TO FINAL CONDITION. ANCHOR RODS SHALL BE BURNT OFF DOWN TO AT LEAST 40mm BELOW TOP OF PIER AND FILLED WITH GROUT (THIS REQUIREMENT SHALL NOT APPLY TO TEMPORARY PIERS 1 THRU 3).



FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.	DATE	DATE	REVISION	BY
SUPERVISOR				
DESIGNED BY J.H. SZYMECZEK	02/02			
ENTERED BY L.D. KELLER	02/02			
CHECKED BY S.K. AITAKA	02/02			
PROJ. ENGR. D. CIERI	02/02			
REGIONAL ADM. D. DYE	02/02			

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
		JOB NUMBER 01A053
		CONTRACT NO.

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

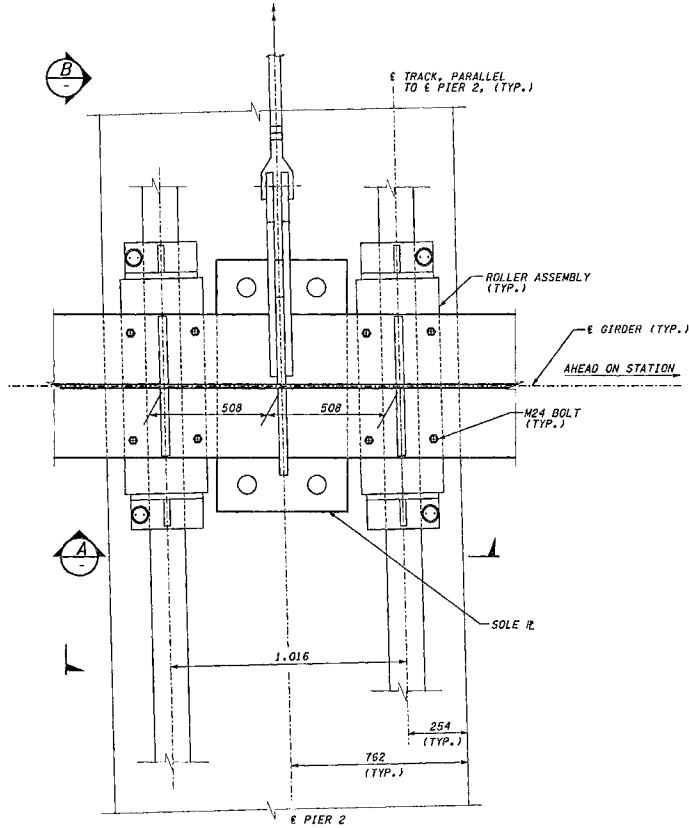
Signature: *David J. Keller* 2/1/02

EXPRES: 09/09/22

Washington State Department of Transportation

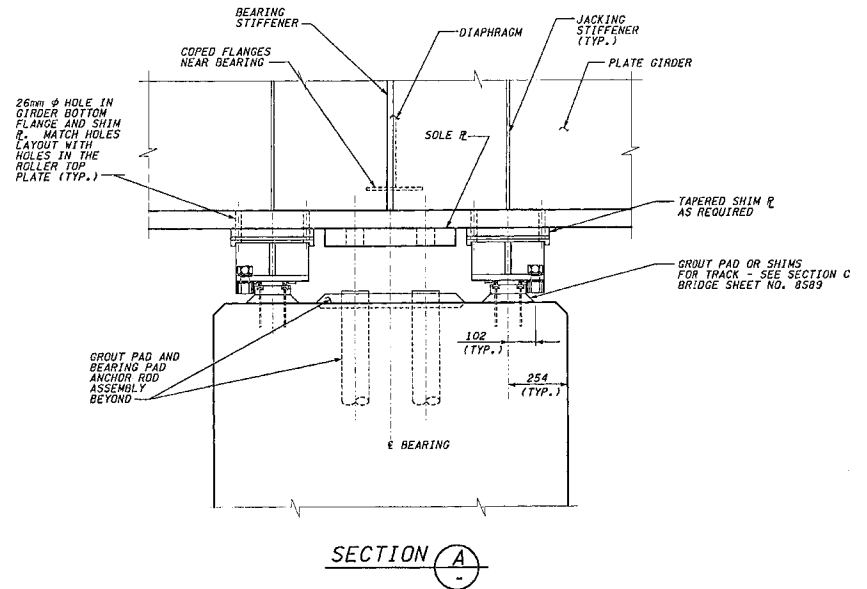
I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING
 SUPERSTRUCTURE RELOCATION
 TRACK DETAILS

BRIDGE SHEET NO.
8589
 SHEET
316
 OF
416
 SHEETS

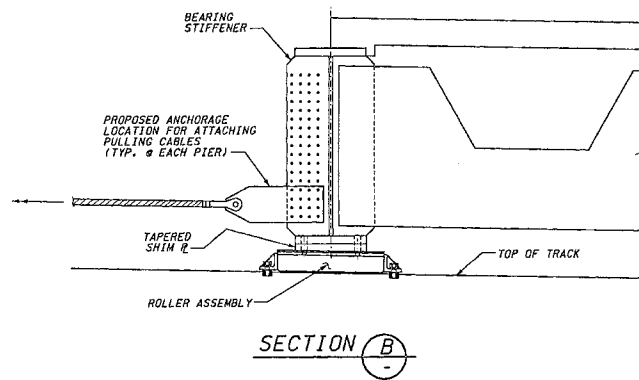


PARTIAL PLAN @ PIER 2 DURING RELOCATION

(PIERS 1 AND 3 SIMILAR, EXCEPT THERE SHALL BE 1 ROLLER ASSEMBLY PER GIRDER)



SECTION A



SECTION B

FOR "AS CONSTRUCTED PLANS" ONLY

BRIDGE DESIGN ENGR.					
SUPERVISOR					
DESIGNED BY J.H. SZYMECZEK	02/02				
ENTERED BY L.D. KELLER	02/02				
CHECKED BY S.K. AISAKA	02/02				
PROJ. ENGR. D. CIERI	02/02				
REGIONAL ADM. D. DYE	02/02				
DATE	DATE	REVISION	BY		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	CONTRACT NO.	
01A053		

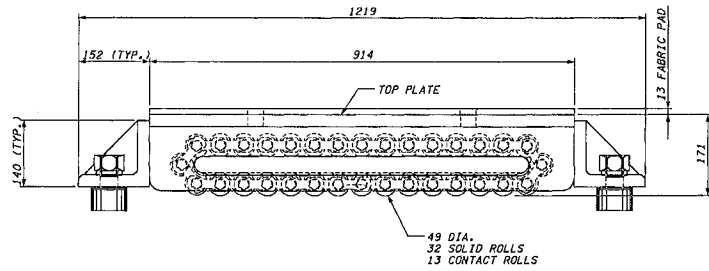
ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

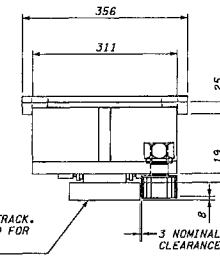
I 405
 BELLEVUE DIRECT ACCESS
 NE 8th ST. UNDERCROSSING

SUPERSTRUCTURE RELOCATION-DETAILS

BRIDGE SHEET NO.	8590
SHEET NO.	317
TOTAL SHEETS	416



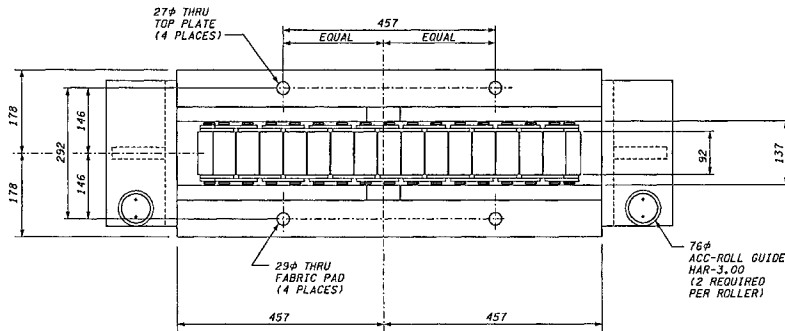
ELEVATION



END VIEW

150mm WIDE FLAT BAR USED FOR TRACK. THICKNESS SHALL BE AS REQUIRED FOR TOLERANCES AND ELEVATIONS (50mm MIN. THICKNESS).

3 NOMINAL CLEARANCE (50mm MIN. THICKNESS).



PLAN (BOTTOM VIEW)

NOTES:

- ROLLER DIMENSIONS AND DETAILS SHOWN ARE FOR INFORMATION ONLY. ACTUAL DIMENSIONS AND DETAILS MAY VARY. THE CONTRACTOR MAY SELECT DIFFERENT TYPE OF ROLLERS THAT MEET OR EXCEED LOADING CAPACITIES SHOWN BELOW. IF DIFFERENT TYPE OF ROLLERS ARE SELECTED, THE CONTRACTOR SHALL REVISE ALL RELOCATION DETAILS AS REQUIRED TO ACCOMMODATE THE CONTRACTORS SELECTED SYSTEM. ALL REVISIONS SHALL BE SHOWN IN THE CONTRACTORS "SUPERSTRUCTURE RELOCATION PLAN"
- ROLLERS SHOWN ARE MODIFIED ROLLER MODEL 200-XOTL-01140 MANUFACTURED BY HILLMAN, INC. 12 TIMBER LANE, MARLBORO, NEW JERSEY 07746, (732-462-6277).
- CONTRACTOR SHALL VERIFY ROLLERS DIMENSIONS AND DETAILS BEFORE DRILLING HOLES IN THE PLATE GIRDERS, AND BEFORE INSTALLATION OF ALL COMPONENTS FOR BRIDGE RELOCATION.

FOR "AS CONSTRUCTED PLANS" ONLY

MODEL 200-XOTL-01140 (MODIFIED):

DIMENSIONS IN MILLIMETERS
 CAPACITY: 200 TONS
 LATERAL CAPACITY: 20 TONS
 WEIGHT: 258 KG
 RE: I-405 & NE 8TH INTERCHANGE
 ACCU-ROLL CAPACITY DESIGNED FOR 10% OF DEAD LOAD CAPACITY
 NUMBER REQUIRED: 24

BRIDGE DESIGN ENGR.	DATE	REVISION	BY
SUPERVISOR			
DESIGNED BY J.H. SZYMCEK	02/02		
ENTERED BY L.D. KELLER	02/02		
CHECKED BY S.K. AISAKA	02/02		
PROJ. ENGR. D. CIERI	02/02		
REGIONAL ADM. O. DYE	02/02		

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	
JOB NUMBER	01A053	
CONTRACT NO.		



ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

FDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS NE 8th ST. UNDERCROSSING

SUPERSTRUCTURE RELOCATION - ROLLER DETAILS

BRIDGE SHEET NO.
8S91
SHEET
318
SHEETS
410

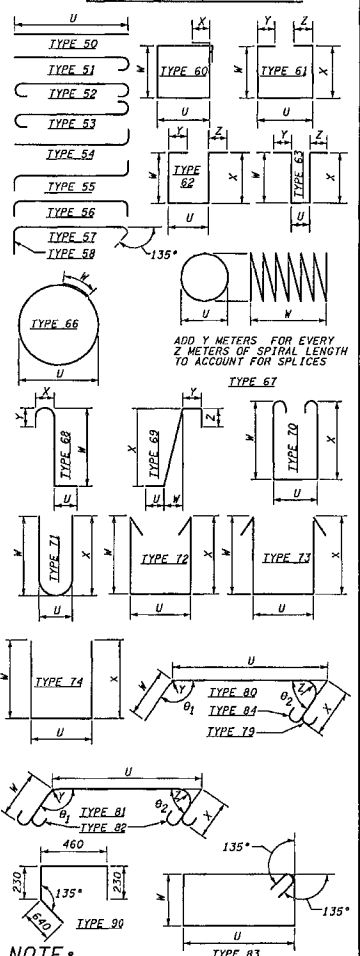
S = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES
L = LUMP SUM QUANTITY

E = BAR IS TO BE EPOXY COATED
V = BAR DIMENSIONS VARY BETWEEN DIMENSIONS SHOWN ON THIS LINE AND FOLLOWING LINE.

S = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES
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BENDING DIAGRAMS



NOTE:

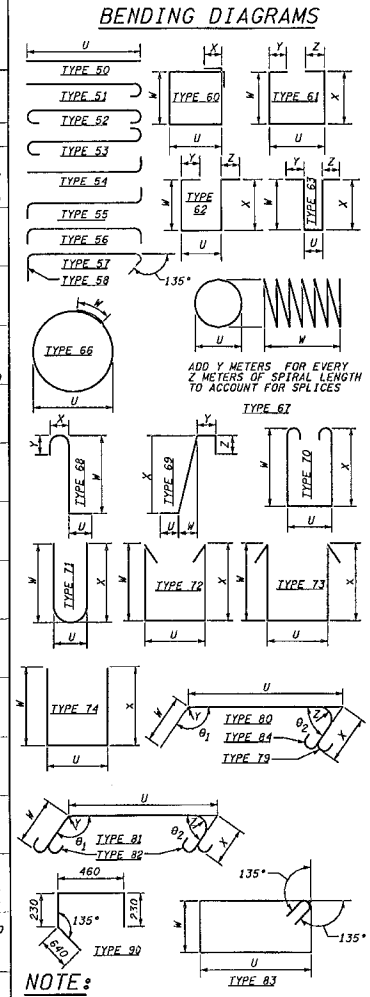
1. ALL REINFORCING BARS ON THIS SHEET SHALL BE AASHTO M-31 UNLESS SHOWN OTHERWISE.
2. REINFORCING FOR PEDESTRIAN BARRIERS NOT SHOWN IN THE BAR LIST. SEE PEDESTRIAN BARRIER LIST.
3. BEND FOR TRANSVERSE BARS DUE TO ROADWAY CROWN CONDITIONS HAS NOT BEEN SHOWN. THESE BARS SHALL BE BENT AS REQUIRED TO CONFORM TO THE CONFIGURATION OF THE STRUCTURE.
4. NUMBER AND LENGTH OF BARS TO BE DETERMINED BY THE CONTRACTOR FROM PLANS.

L 405 JOB NO. 02/13/2002 SHEET 319 of 416

MARK NO.	LOCATION	SIZE	NO. REB'D	REB TYPE	THE DR. STIP.	START CHIT	NO. EACH	DIMENSIONS (OUT TO OUT)					LENGTH		WEIGHT	MARK NO.	LOCATION	SIZE	NO. REB'D	REB TYPE	THE DR. STIP.	START CHIT	NO. EACH	DIMENSIONS (OUT TO OUT)					LENGTH		WEIGHT			
								U	W	X	Y	Z	θ1	θ2	METERS	KG.								U	W	X	Y	Z	θ1	θ2	METERS	KG.		
800	TEMPORARY PIER 1 - STAGE 1		6	64	80			10.080							10.080	1442	850	TEMP. PIER 3 N-CW - STAGE 1	6	38	54										1.790		2,048	174
801	Footng		9	190	54			4.780							5.123	3867	851	Curtain Wall	6	14	50									7.040		7,040	229	
802	Footng Dowel		9	95	54			2.670							3.074	1478	852	Curtain Wall	6	24	50									5.300		9,300	499	
803	Footng Dowel		7	95	54			1.990							2.290	862	853	Curtain Wall	6	8	51									2.340		2,515	31	
810	Stemwall		7	10	54			10.070							10.370	2902	854	Curtain Wall	6	23	51									3.560		3,735	133	
812	Stemwall		9	95	50			6.900							10.520	320	855	Curtain Wall	6	14	51									2.340		2,430	80	
814	Stemwall		9	95	50			6.900							6.900	3317	856	Curtain Wall	6	45	51								3.560		3,770	379		
815	Stemwall		7	95	50			6.900							6.900	1994	867	Curtain Wall	6	46	51								2.230		2,440	251		
816	Stemwall		9	95	50			6.900							3.175	468	868	Curtain Wall	6	15	52								1.530		1,530	65		
819	Stemwall Tie		4	442	51			0.915	0.915						1.050	519	869	Curtain Wall	6	2	54								3.903		31			
820	Backwall		6	30	54			10.070							10.285	479	870	Curtain Wall	8	2	54								2.340		2,693	21		
821	Backwall		6	252	50			2.860							2.860	1611																		
822	Backwall		4	126	30			0.205	0.940	0.940					2.021	253	850	Curtain Wall	6	36	54								1.790		2,048	165		
824	Backwall		4	126	30			0.205	0.940	0.940					2.021	253	851	Curtain Wall	6	30	51								3.560		3,735	174		
825	Concrete Pedestal		5	96	74			0.420	0.780	0.780					1.900	283	856	Curtain Wall	6	59	51								3.560		3,770	497		
826	Concrete Pedestal		5	24	50			1.000							1.000	31	857	Curtain Wall	6	36	50								9.160		9,160	137		
827	Roller Stop		6	4	74			1.460							2.002	18	867	Curtain Wall	6	46	51								2.230		2,440	251		
828	Roller Stop		6	6	74			0.450	2.330	2.330					5.014	67	868	Curtain Wall	6	13	52								1.530		1,530	57		
	TEMPORARY PIER 3 - STAGE 1		6	64	80			10.080							10.080	1442	869	Curtain Wall	8	2	54								3.560		3,903	31		
800	Footng		9	190	54			4.780							5.123	3867	871	Curtain Wall	6	14	50								1.620		1,620	28		
802	Footng Dowel		9	95	54			2.670							3.074	1478	874	Curtain Wall	4	6	50								1.160		1,160	7		
803	Footng Dowel		7	95	54			1.990							2.290	862																		
810	Stemwall		7	10	54			10.070							10.370	2902	100	Footng	7	40	50								15.720		15,720	1313		
812	Stemwall		9	95	50			6.900							10.520	320	101	Footng	10	156	54								6,000		6,454	6448		
814	Stemwall		7	10	54			6.900							6.900	3317	102	Footng Dowel	10	10	54								3,430		3,430	1940		
815	Stemwall		9	95	50			6.900							6.900	1994	103	Footng Dowel	7	78	50								2,300		2,600	617		
816	Stemwall		9	95	50			6.900							6.900	3317	104	Footng Dowel	7	78	50								5,780		10,080	1410		
819	Stemwall Tie		4	442	51			0.915	0.915						1.182	519	111	Stemwall	7	46	50								6,700		6,700	338		
820	Backwall		6	30	54			10.070							10.285	479	112	Stemwall	7	15	54								10.070		10,370	156		
821	Backwall		6	252	50			2.860							2.860	1611	113	Stemwall	7	5	50								6,700		6,700	102		
822	Backwall		4	126	30			0.205	0.940	0.940					2.021	253	114	Stemwall	10	78	50								6,750		6,750	3372		
824	Backwall		4	126	30			0.205	0.940	0.940					2.021	253	115	Stemwall	7	79	50								6,750		6,750	1602		
825	Concrete Pedestal		5	96	74			0.420	0.780	0.780					1.900	283	116	Stemwall Tie	4	38	51							1.000	1.000	1,425		3,945	405	
826	Concrete Pedestal		5	24	50			1.000							1.000	31	120	Backwall	5	15	51								1,244		1,244	415		
827	Roller Stop		6	4	74			1.460							2.002	18	121	Backwall	5	15	51								9,955		9,955	232		
828	Roller Stop		6	6	74			0.450	2.330	2.330					5.014	67	122	Backwall	5	15	50								6,700		6,700	156		
	TEMP. PIER 1 N-CW - STAGE 1		6	38	54			1.790							2.048	174	123	Backwall	4	103	74								0.205	0.940	0.940	2,021	207	
850	Curtain Wall		6	24	50			1.000							1.000	31	116	Backwall	4	103	74								0.510		0,711	73		
851	Curtain Wall		6	38	54			1.790							2.048	174	124	Backwall	6	206	50								2,940		2,940	1189		
852	Curtain Wall		6	24	50			1.000							1.000	31	117	Curtainwall	6	10	54								2,300		2,300	57		
853	Curtain Wall		6	24	50			1.000							1.000	31	118	Curtainwall	10	10	54								3,430		3,884	249		
854	Curtain Wall		5	8	51			2.340							2.515	31	132	Curtainwall	6	14	50								7,070		7,070	221		
855	Curtain Wall		5	24	51			3.560							3,735	133	133	Curtainwall	8	14	50								7,070		7,070	393		
856	Curtain Wall		6	24	51			2.340							2,550	80	134	Curtainwall	6	23	51								5,900		5,900	303		
857	Curtain Wall		6	46	51			3.560							3,770	379	135	Curtainwall	10	23	51								5,630		6,114	301		
867	Curtain Wall		6	46	51			2.230							2,440	251	136	Curtainwall	8	28	51								5,630		5,369	322		
868	Curtain Wall		6	15	52			1.530							1,530	65	137	Curtainwall	5	14	50								2,500					

S = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES
L = LUMP SUM QUANTITY
T = TRANSVERSE OR S = SEISMIC
E = BAR IS TO BE EPOXY COATED
V = BAR DIMENSIONS VARY BETWEEN DIMENSIONS SHOWN ON THIS LINE AND FOLLOWING LINE.

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V = BAR DIMENSIONS VARY BETWEEN DIMENSIONS SHOWN ON THIS LINE AND FOLLOWING LINE.



MARK NO.	LOCATION	SIZE	NO. REQ'D	BAR TYPE	LUMP SUM	DIMENSIONS (OUT TO OUT)					LENGTH METERS	WEIGHT KG.	MARK NO.	LOCATION	SIZE	NO. REQ'D	BAR TYPE	LUMP SUM	DIMENSIONS (OUT TO OUT)					LENGTH METERS	WEIGHT KG.
						U	W	X	Y	Z									B1 DEG	B2 DEG	U	W	X		
118	PIER 1 S-STAGE 3 - CONT.											233	PIER 2 S-STAGE 3 - CONT.												
119	Stemwall Tie	7	50	S		12,190					185	233	Cross Beam Stirr	6	9	70	S								
120	Backwall	4	456	51	S	1,030					1,244	564													
121	Backwall	4	151	51	S	9,780					3,955	264													
122	Backwall	4	139	90	T	1,560					216	234	Cross Beam Stirr	6	9	70	S								
123	Backwall	4	139	74	T		0.205	0.340	0.340		2,021	219	235	Cross Beam U-Bars	5	6	74	T							
124	Backwall	4	139	59	T		0.510				98	236	Cross Beam U-Bars	4	4	20	T								
125	Backwall	6	278	50	T		2,540				1578	237	Cross Beam U-Bars	4	4	20	T								
126	Backwall	5	150	50	T		12,190				284	240	Cross Beam	11	14	69	S								
170	Girder Stop	5	84	74	T		0.475	0.790	0.790		1,975	258	241	Cross Beam	11	14	69	S							
701	Girder Stop	4	24	74	T		0.630	0.770	0.770		2,106	50	242	Cross Beam	11	14	50	S							
702	Girder Stop	4	24	50	T		0.920				92	243	Cross Beam	11	14	50	S								
740	UTILITY OPENINGS	4	16	50	T		0.915				23	244	Cross Beam	11	4	54	S								
741	UTILITY OPENINGS	5	8	50	T		2,020				25	245	Cross Beam	11	4	54	S								
742	UTILITY OPENINGS	7	8	50	T		2,220				54	246	Cross Beam	11	4	54	S								

FOR "AS CONSTRUCTED PLANS" ONLY

STEEL REINFORCING BAR QUANTITIES NOT INCLUDED IN THIS BAR LIST

PEDESTRIAN BARRIER	
BRIDGE GRATE INLETS	
RETAINING WALL	

L-405 JOB NO. SHEET 02/13/2002 08:36:50 AM Keller

BRIDGE DESIGN ENGR.				REVISION	DATE	BY
SUPERVISOR	DESIGNED BY L.D. KELLER	02/02				
	ENTERED BY L.D. KELLER	02/02				
	CHECKED BY C.G. BOYD	02/02				
	PROJ. ENGR. D. CIERI	02/02				
	REGIONAL ADM. D. DYE	02/02				

FED. AID PROJ. NO.	STATE	BRIDGE NO.
	10 WASH	8593
JOB NUMBER	01A053	SHEET
CONTRACT NO.		416

ENVIRONMENTAL AND ENGINEERING SERVICE CENTER

Washington State Department of Transportation

HDR ENGINEERING INC.

I 405 BELLEVUE DIRECT ACCESS NE 8TH ST. UNDERCROSSING

BRIDGE NO. 8593

SHEET 320

416 SHEETS

BAR LIST - 2

S = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES L = LUMP SUM QUANTITY T = TRANSVERSE OR S = SEISMIC															E = BAR IS TO BE EPOXY COATED V = BAR DIMENSIONS VARY BETWEEN DIMENSIONS SHOWN ON THIS LINE AND FOLLOWING LINE.															S = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES L = LUMP SUM QUANTITY T = TRANSVERSE OR S = SEISMIC															E = BAR IS TO BE EPOXY COATED V = BAR DIMENSIONS VARY BETWEEN DIMENSIONS SHOWN ON THIS LINE AND FOLLOWING LINE.														
MARK NO.	LOCATION	SIZE	NO. REQ'D	BAR TYPE	BEND TYPE	SUBSTRUCTURE QUANTITY	LUMP SUM	NO. EACH	DIMENSIONS (OUT TO OUT)					LENGTH METERS	WEIGHT KG.	MARK NO.	LOCATION	SIZE	NO. REQ'D	BAR TYPE	BEND TYPE	SUBSTRUCTURE QUANTITY	LUMP SUM	NO. EACH	DIMENSIONS (OUT TO OUT)					LENGTH METERS	WEIGHT KG.																												
									U	W	X	Y	Z												Ø1	Ø2	U	W	X			Y	Z	Ø1	Ø2																								
301	PIER 3 S-STAGE 3 Footing	10	210 54	S					6,000				6.454	8680	157	PIER 1 S-WINGWALL - STAGE 3 - CONT.	5	3 51	S							8.070				8.245	38																												
302	302 Footing Dowel	10	105 54	S					3,430				3.884	2612	158	Wingwall	5	7 51	S	V						5,230				5,405	74																												
303	303 Footing Dowel	7	105 54	S					2,300				2,600	830	159	Wingwall	6	7 51	S							8,030				8,205																													
304	304 Footing	7	46 50	S					9,780				9,780	1190	160	Wingwall	6	7 51	S							0,750				0,925																													
305	305 Footing	7	40 50	S					12,190				12,190	1483	161	Wingwall	6	7 51	S							3,630				3,805																													
310	310 Stemwall	7	46 50	S					9,780				10,080	1410	162	Wingwall	6	7 51	S	V						8,070				8,149																													
312	312 Stemwall	5	54	S					10,010				10,370	130	163	Wingwall	6	7 51	S	V						5,250				5,425																													
314	314 Stemwall	10	105 50	S					6,750				6,750	4639	164	Wingwall	6	7 51	S	V						8,030				8,309																													
315	315 Stemwall	7	105 50	S					6,750				6,750	2156	165	Wingwall	6	7 51	S	V						0,750				0,960																													
316	316 Stemwall	5	105 74	S					1,425	1,000	1,000		3,345	545	166	Wingwall	6	7 51	S	V						3,630				3,840																													
317	317 Stemwall	7	46 50	S					12,190				12,190	1706	167	Wingwall	6	7 51	S	V						8,070				8,149																													
318	318 Stemwall	7	46 50	S					12,190				12,190	185	168	Wingwall	6	7 51	S	V						6,000				6,343																													
319	319 Stemwall Tie	4	456 51	S					1,030				1,244	564	169	Wingwall	4	24 51	S	V						0,680				0,832																													
320	320 Backwall	5	15 51	S					9,780				9,955	232	170	Wingwall	5	24 51	S	V						3,150				3,302																													
321	321 Backwall	5	139 96	S					1,200				1,560	276	171	Wingwall	5	24 51	S	V						6,000				6,255																													
322	322 Backwall	4	139 74	S					0,205	0,340	0,940		2,021	279	172	Wingwall	6	30 51	S							3,150				3,325																													
324	324 Backwall	4	139 58	T					0,510				0,711	99	173	Wingwall	6	30 51	S							2,230				2,440																													
325	325 Backwall	6	272 50	S					2,540				2,540	1578	174	Wingwall	6	30 51	S						1,550				1,760																														
326	326 Backwall	6	272 50	S					12,190				12,190	294	175	Wingwall	6	2 50	S							6,000				6,200																													
700	700 Girder Stop	5	874	S					0,475	0,790	0,790		1,975	250	176	Wingwall	6	1 50	S							2,940				2,940																													
701	701 Girder Stop	4	24 74	S					0,630	0,770	0,770		2,106	50	177	Wingwall	6	2 54	S							4,900				5,243																													
702	702 Girder Stop	4	24 50	S					0,320				0,320	23	180	Cheek Wall	6	2 54	S							1,700				1,700																													
740	740 UTILITY OPENINGS	5	16 50	S					0,915				0,915	23	181	Cheek Wall	6	2 50	S							1,000				1,000																													
741	741 UTILITY OPENINGS	5	16 50	S					2,020				2,020	25	182	Cheek Wall	5	7 50	S							1,700				1,700																													
742	742 UTILITY OPENINGS	8	8 50	S					2,220				2,220	54	183	Cheek Wall	6	7 50	S							1,700				1,700																													
150	PIER 1 N-WINGWALL - STAGE 2 Wingwall Dowel	6	22 54	S					2,100				2,358	116	83	Wingwall	5	27 50	S	E						1,170				2,858																													
151	151 Wingwall Dowel	6	2 54	S					2,350				2,635	21	84	Wingwall	4	14 50	S							1,160				1,160																													
152	152 Wingwall	6	10 50	S					8,570				8,570	230	151	PIER 3 N-WINGWALL - STAGE 2 Wingwall Dowel	6	22 54	S							2,100				2,358																													
153	153 Wingwall	6	10 50	S					6,740				6,740	65	350	Wingwall Dowel	6	2 54	S							6,350				6,570																													
154	154 Wingwall	6	2 74	S					6,740	1.475			6,740	35	351	Wingwall	6	12 50	S							6,740				6,740																													
155	155 Wingwall	5	23 51	S					2,490				2,665	95	352	Wingwall	6	23 51	S							2,490				2,665																													
156	156 Wingwall	5	23 51	S					1,200				1,200	141	353	Wingwall	6	10 50	S							6,740				6,740																													
157	157 Wingwall	5	3 51	S					8,070				8,245	38	354	Wingwall	6	10 50	S							1,475				1,475																													
158	158 Wingwall	5	7 51	S	V				5,230				5,405	74	355	Wingwall	6	2 74	S							6,740				6,740																													
159	159 Wingwall	5	7 51	S	V				8,205				8,205	23	356	Wingwall	6	23 51	S							2,490				2,665																													
160	160 Wingwall	6	7 51	S	V				3,805				3,805	26	357	Wingwall	5	3 51	S							8,070				8,070																													
161	161 Wingwall	6	13 51	S	V				8,070				8,349	166	358	Wingwall	5	7 51	S	V						5,230				5,405																													
162	162 Wingwall	6	13 51	S	V				5,500				5,500	86	359	Wingwall	5	7 51	S	V						8,030				8,205																													
163	163 Wingwall	6	2 51	S					8,103				8,103	357	360	Wingwall	6	2 50	S							0,750				0,925																													
164	164 Wingwall	6	13 51	S	V				0,960				0,960	70	361	Wingwall	6	7 51	S	V						3,630				3,805																													
165	165 Wingwall	6	13 51	S	V				3,840				3,840	70	362	Wingwall	6	7 51	S	V						8,070				8,149																													
166	166 Wingwall	6	13 51	S	V				6,343				6,343	50	363	Wingwall	6	13 51	S	V						8,030				8,309																													
167	167 Wingwall	4	24 51	S	V				0,832				0,832	49	364	Wingwall	6	13 51	S	V						0,750				0,960																													
168	168 Wingwall	5	24 51	S	V				3,150				3,302	49	365	Wingwall	8	2 51	S							3,630				3,940																													
169	169 Wingwall	6	30 51	S	V				0,680				0,680	78	366	Wingwall	6	2 54	S							8,070				8,149																													
170	170 Wingwall	6	30 51	S	V				3,325				3,325	78	367	Wingwall	4	24 51	S	V						6,000				6,343																													
171	171 Wingwall	6	30 51	S	V				2,230				2,440	164	368	Wingwall	4	24 51	S	V						0,680				0,832																													
180	180 Cheek Wall	6	8 52	S					1,950				1,950	35	369	Wingwall	5	24 51	S	V						3,150				3,302																													
181	181 Cheek Wall	5	7 50	S					6,000				6,000	27	370	Wingwall	5	24 51	S	V						0,680				0,832																													
182	182 Cheek Wall	6	1 50	S					2,940				2,940	12	371	Wingwall	6	1 50	S							3,150				3,325																													
183	183 Cheek Wall	6	2 54	S					4,900				5,243	42	372	Wingwall	6	30 51	S							2,440				2,440																													
184	184 Cheek Wall	5	18 50	S					0,760				0,760																																														

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MARK NO.	LOCATION	SIZE	NO. REIN'D	BAR TYPE	TIE OR BR. TYPE	LUMPS	LUMPS	LUMPS	DIMENSIONS (OUT TO OUT)										LENGTH METERS	WEIGHT KG.		
									U					M							θ ₁	θ ₂
									U	M	X	Y	Z	U	M	X	Y	Z				
PIER 3 S-WINGWALL - STAGE 3																						
350	Wingwall Dowel	6	22 54	E	S				2.100							2.358	116					
351	Wingwall Dowel	6	2 54	E	S				2.350							2.693	21					
352	Wingwall Dowel	6	12 50	E	S				8.570							8.570	230					
353	Wingwall Dowel	6	10 50	E	S				6.740							6.740	151					
354	Wingwall	8	2 74	E	S				6.740	1.475						8.151	65					
355	Wingwall	8	23 51	E	S				2.490							2.665	55					
356	Wingwall	6	23 51	E	S				2.490							2.700	139					
357	Wingwall	8	2 74	E	S				8.070							8.070	38					
358	Wingwall	5	7 51	E	S				5.230							5.405	55					
ROWY SLAB NORTH HALF - STAGE 2																						
523	Longitudinal Top	6	70 50	E	S				12.190							12.190	1907					
524	Longitudinal Top	6	23 50	E	S				15.240							15.240	1783					
525	Longitudinal Top	6	146 50	E	S				18.288							18.288	5960					
526	Longitudinal Top	6	65 50	E	S				14.430							14.430	2152					
527	Transverse Top	6	65 51	E	S				1.300							1.300	217					
528	Transverse Top	6	21 51	E	S				5.260							5.470	257					
529	Transverse Top	5	445 74	E	S				0.305	0.840						1.105	763					
530	Transverse Top	4	21 74	E	S				0.305	0.460						0.753	158					
531	Sign Bridge	6	10 74	E	S				0.710							1.162	39					
532	Sign Bridge	6	19 69	E	S				1.100	0.100	0.290	1.100				2.484	104					
533	Sign Bridge	6	19 69	E	S				0.305	0.840						1.037	47					
534	Sign Bridge	6	19 74	E	S				1.630	0.520						2.102	89					
ROWY SLAB CLOSURE DECK - STAGE 2																						
600	Transverse Bottom	6	663 50	E	S				3.250							3.350	4964					
601	Longitudinal Bottom	5	16 50	E	S				8.930							8.930	222					
602	Longitudinal Bottom	5	36 50	E	S				12.190							12.190	601					
603	Longitudinal Bottom	5	50 50	E	S				18.288							18.288	1419					
604	Longitudinal Bottom	5	9 50	E	S				12.190							12.190	218					
605	Longitudinal Bottom	6	9 50	E	S				18.288							18.288	368					
606	Longitudinal Top	5	8 50	E	S				10.010							10.010	124					
607	Longitudinal Top	5	9 50	E	S				13.060							13.060	162					
608	Longitudinal Top	5	16 50	E	S				18.288							18.288	484					
609	Longitudinal Top	6	16 50	E	S				12.190							12.190	436					
610	Longitudinal Top	6	15 50	E	S				15.240							15.240	136					
611	Longitudinal Top	6	30 50	E	S				18.288							18.288	1228					
612	Transverse Top	6	1326 50	E	S				2.300							2.300	7053					
EXPANSION JOINT																						
120	Pier 1W Backwall	5	2 51	E	S				9.780							9.955	31					
121	Pier 1W Backwall	5	2 50	E	S				6.700							6.700	21					
122	Pier 1S Backwall	5	2 51	E	S				9.780							9.955	31					
123	Pier 1S Backwall	5	2 50	E	S				12.190							12.190	39					
124	Pier 1W Backwall	5	2 51	E	S				9.780							9.955	31					
125	Pier 1S Backwall	5	2 50	E	S				6.700							6.700	21					
126	Pier 1S Backwall	5	2 51	E	S				9.780							9.955	31					
127	Pier 1S Backwall	5	2 50	E	S				12.190							12.190	36					
128	Pier 1S Backwall	5	2 50	E	S				2.600							2.600	232					
129	Expansion Joint Blockout	6	2 89	E	S				38.150	0.610						38.150	171					
420	Expansion Joint Blockout	4	240 74	E	S				0.230	0.700	0.230	0.500	0.230			0.898	274					
421	Expansion Joint Blockout	4	200 59	E	S				0.670	0.230	0.230	0.500	0.230			1.030	205					
422	Expansion Joint Blockout	4	200 51	E	S				0.670	0.230	0.230	0.500	0.230			0.892	163					
423	Expansion Joint Blockout	4	16 74	E	S				0.230	0.700	0.230	0.500	0.230			0.898	89					
424	Expansion Joint Blockout	4	16 74	E	S				0.100	0.700	0.100	0.500	0.100			0.768	13					
710	Expansion Joint Blockout	4	8 83	E	S				36.930	0.610	0.600	0.060	1.170			36.930	368					
711	Expansion Joint Blockout	4	8 80	E	S				10.070							2.399	19					
820	Temp Pier 1 Backwall	5	4 51	E	S				10.070							10.245	64					
821	Temp Pier 3 Backwall	5	4 51	E	S				10.070							10.245	64					
RETAINING WALL CAP																						
860	Temp P1 Ret Wall Cap	4	86 50	E	S				0.830							0.830	76					
861	Temp P1 Ret Wall Cap	4	8 51	E	S				10.300							10.452	82					
862	Temp P3 Ret Wall Cap	4	86 50	E	S				0.830							0.830	76					
863	Temp P3 Ret Wall Cap	4	8 51	E	S				10.300							10.452	83					
SIDEWALK																						
720	Sidewalk	4	12 89	E	S				99.150	0.610	0.100					104.020	1241					
721	Sidewalk	4	434 74	E	S				2.300							2.436	1051					
ROWY SLAB NORTH HALF - STAGE 2																						
500	Transverse Bottom	6	663 50	E	S				14.380							14.380	21308					
501	Transverse Bottom	4	663 54	E	S				0.830							1.001	860					
502	Longitudinal Bottom	5	88 50	E	S				8.930							8.930	342					
503	Longitudinal Bottom	5	152 50	E	S				12.190							12.190	2876					
504	Longitudinal Bottom	5	212 50	E	S				18.288							18.288	6017					
505	Longitudinal Bottom	6	34 50	E	S				12.190							12.190	325					
506	Longitudinal Bottom	6	38 50	E	S				18.288							18.288	1553					
520	Longitudinal Top	5	36 50	E	S				10.010							10.010	559					
521	Longitudinal Top	5	34 50	E	S				13.060							13.060	689					
522	Longitudinal Top	5	70 50	E	S				18.288							18.288	1987					

MARK NO.	LOCATION	SIZE	NO. REIN'D	BAR TYPE	TIE OR BR. TYPE	LUMPS	LUMPS	LUMPS	DIMENSIONS (OUT TO OUT)										LENGTH METERS	WEIGHT KG.		
									U					M							θ ₁	θ ₂
									U	M	X	Y	Z	U	M	X	Y	Z				
ROWY SLAB NORTH HALF - STAGE 2																						
523	Longitudinal Top	6	70 50	E	S				12.190							12.190	1907					
524	Longitudinal Top	6	23 50	E	S				15.240							15.240	1783					
525	Longitudinal Top	6	146 50	E	S				18.288							18.288	5960					
526	Longitudinal Top	6	65 50	E	S				14.430							14.430	2152					
527	Transverse Top	6	65 51	E	S				1.300							1.300	217					
528	Transverse Top	6	21 51	E	S				5.260							5.470	257					
529	Transverse Top	5	445 74	E	S				0.305	0.840						1.105	763					
530	Transverse Top	4	21 74	E	S				0.305	0.460						0.753	158					
531	Sign Bridge	6	10 74	E	S				0.710							1.162	39					
532	Sign Bridge	6	19 69	E	S				1.100	0.100	0.290	1.100				2.484	104					
533	Sign Bridge	6	19 69	E	S				0.305	0.840						1.037	47					
534	Sign Bridge	6	19 74	E	S				1.630	0.520						2.102	89					
ROWY SLAB CLOSURE DECK - STAGE 2																						
600	Transverse Bottom	6	663 50	E	S				3.250							3.350	4964					
601	Longitudinal Bottom	5	16 50	E	S				8.930							8.930	222					
602	Longitudinal Bottom	5	36 50																			