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- NOTES:**
- For General Notes & Estimate of Quantities see SITE PLAN.
 - Stationing and Elevations are in meters, all other dimensions are in millimeters.

DESIGNED BY: <i>Loren Gehring, P.E.</i>	CHECKED: <i>Travis Arndt</i>	LAYOUT BY: <i>Loren Gehring</i>	CHECKED BY: <i>T. Arndt</i>
DRAWN BY: <i>C. Anderson</i>	CHECKED: <i>T. Arndt</i>	SPECIFICATIONS BY: <i>L. Gehring</i>	PLANS & SPEC. COMPARED: <i>T. Arndt</i>
QUANTITIES BY: <i>Loren Gehring</i>	CHECKED: <i>T. Arndt</i>	APPROVAL RECOMMENDED BY: <i>Richard Pratt, P.E.</i>	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION



"C" STREET UNDERCROSSING—EASTBOUND
O'MALLEY ROAD
GENERAL LAYOUT

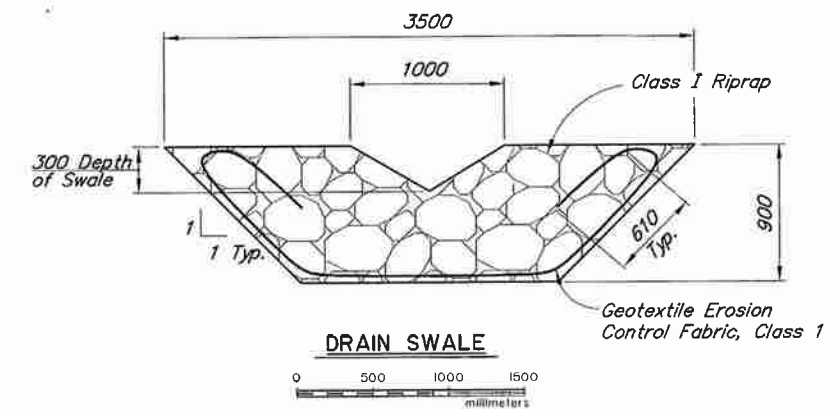
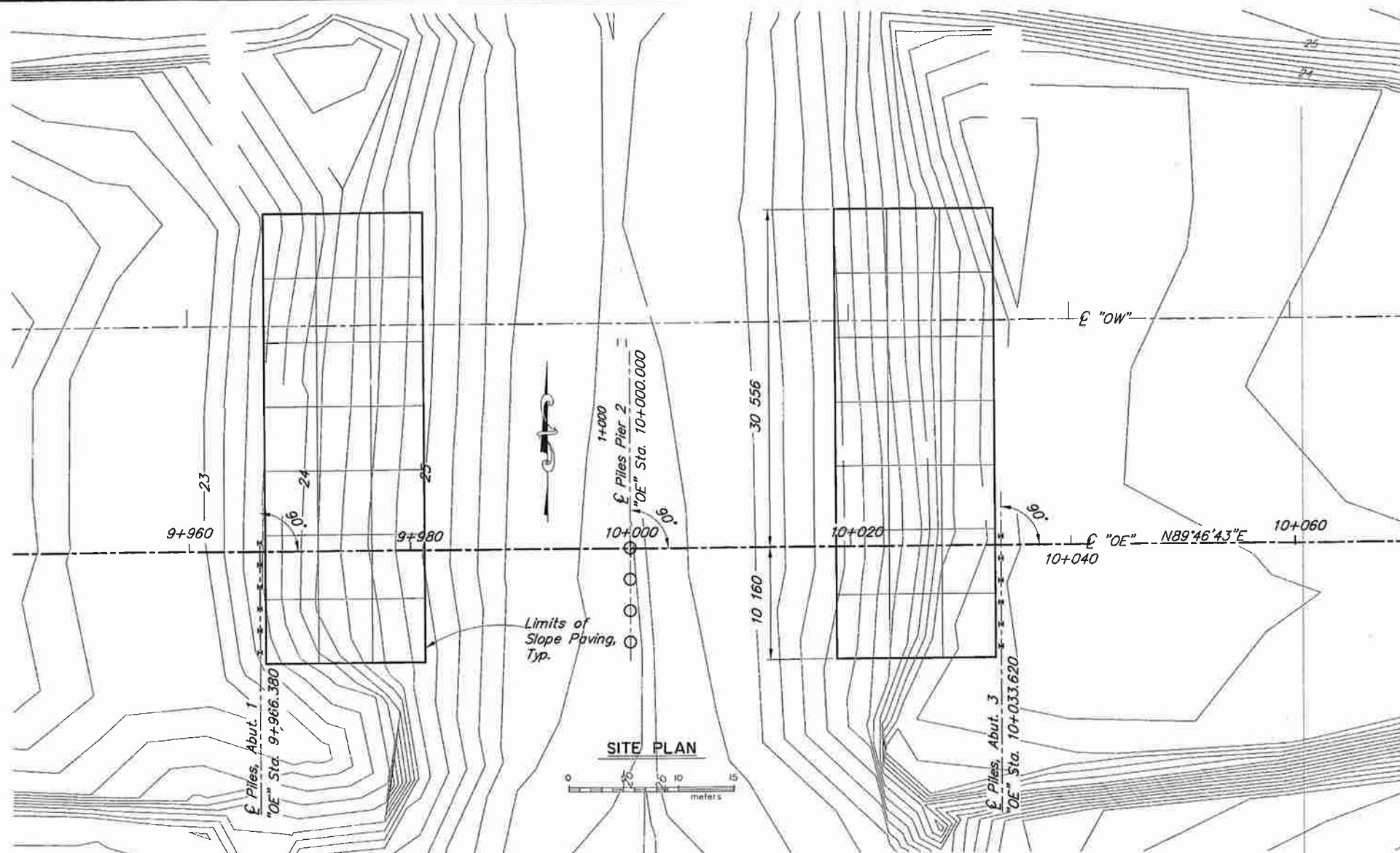
BRIDGE NO. 2081
DWG. NO. 1

GENERAL NOTES

- DESIGN:**AASHTO LRFD Bridge Design Specifications, 1998 edition, with latest Interim Specifications.
- CONSTRUCTION:**.....State of Alaska DOT/PF Standard Specifications for Highway Construction, 1998, with Special Provisions.
- LIVE LOAD:**.....HL-93
- DEAD LOAD:**.....Includes 2.23 kPa for all wearing surfacing.
- SEISMIC PARAMETERS:**.....Acceleration Coefficient, $a = 0.45g$
 Site Coefficient, $s = 1.2$
 Liquefaction Potential = High
 AASHTO 90% probability of not being exceeded in 50 years
- REINFORCED CONCRETE:**.....ASTM A706M, $F_y = 420$ MPa
 Class A, $f'_c = 28$ MPa
 50 Clear to all reinforcing unless otherwise noted.
- PRESTRESSED CONCRETE:**.....See "GIRDERS" Dwg.
- STRUCTURAL STEEL:**.....ASTM A709M, Grade 250.
 Galvanize all structural steel unless otherwise noted.
- PILING:**.....H-Piles: ASTM A709M, Grade 345 W/ Supplemental Impact Test requirements for Non Fracture Critical Zone 2.
 Pipe Piles: API(5L) PSL2, Grade X52.
 Pile Tip Protection required. See Special Provisions.

LOCATION	PILE TYPE	MINIMUM TIP ELEV.	DESIGN LOAD kN	ULTIMATE LOAD kN	ULTIMATE UPLIFT kN
ABUTMENT 1	HP 360x174	5.3	700	1575	475
PIER 2	1067Øx22 wall pipe	7.7	1540	5980	1313
ABUTMENT 3	HP 360x174	5.3	700	1575	475

NOTE:
 Min. Tip Elevation required for lateral & vertical capacity.



ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	SUBST.	SUPERST.	TOTAL
501(1)	Class A Concrete	LS-m ³	120.9	69.6	190.5
501(7)	Slope Paving	LS-m ²	1250		1250
502(1)	Prestressed Concrete Structural Member (34 metersx1.372 deep deck Bulb Tee Girders)	LS-Ea		12	12
503(1)	Reinforcing Steel	LS-kg	15 915		15 915
503(2)	Epoxy Coated Reinforcing Steel	LS-kg		7040	7040
505(5A)	Furnish Structural Steel Piles (1067 dia. x 22 wall Pipe Piles)	LS-M	92		92
505(5B)	Furnish Structural Steel Piles (HP360 x 174 Piles)	LS-M	308		308
505(6A)	Drive Structural Steel Piles (1067 dia. x 22 wall Pipe Piles)	Ea	4		4
505(6B)	Drive Structural Steel Piles (HP360 x 174)	Ea	12		12
507(1)	Steel Bridge Railing	LS-m		159.2	159.2
508(1)	Waterproofing Membrane	LS-m ²		876	876
606(12)	Guardrail/Bridge Rail Connection	Ea		4	4
611(1)	Riprap, Class I	M ³	60		60
631(2)	Geotextile, Erosion Control, Class I	M ²	141		141

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

DESIGNED BY: Lorin Gehring	CHECKED: T. Arndt	HYDRAULICS BY: N/A	CHECKED BY: N/A
DRAWN BY: C. Anderson	CHECKED: Lorin Gehring	FOUNDATIONS REVIEWED BY: N/A	
QUANTITIES BY: Lorin Gehring	CHECKED: T. Arndt		

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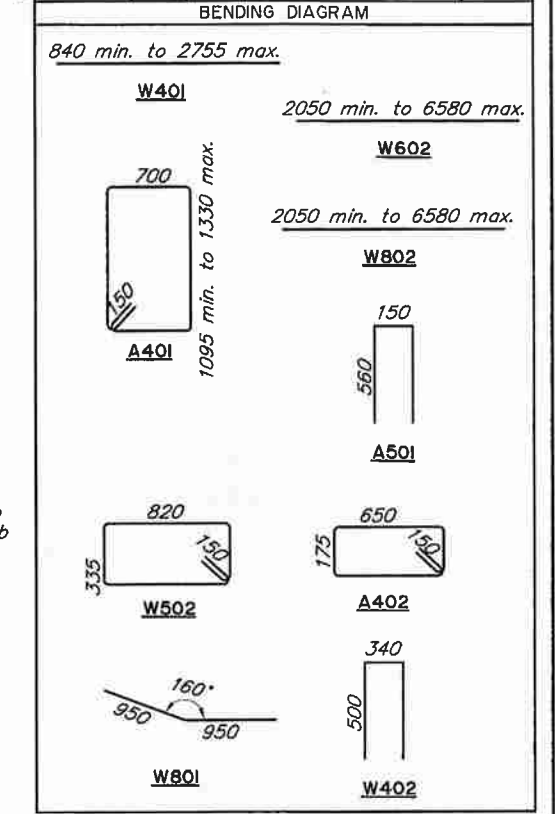


"C" STREET UNDERCROSSING—EASTBOUND
 O'MALLEY ROAD
 SITE PLAN



BRIDGE NO. 2081
 DWG. NO. 2

REINFORCING STEEL ONE ABUTMENT				
MARK	SIZE	NO.	LENGTH	TYPE
A401	4	86	Varies	Bent
A402	4	20	1950	Bent
A501	5	25	1270	Bent
A601	6	18	11 814	-
A801	8	16	1830	-
W401	4	76	Varies	-
W402	4	38	1340	Bent
W403	4	12	5675	-
W502	5	14	2340	Bent
W601	6	4	5820	-
W602	6	24	Varies	-
W801	8	8	1900	Bent
W802	8	24	Varies	-

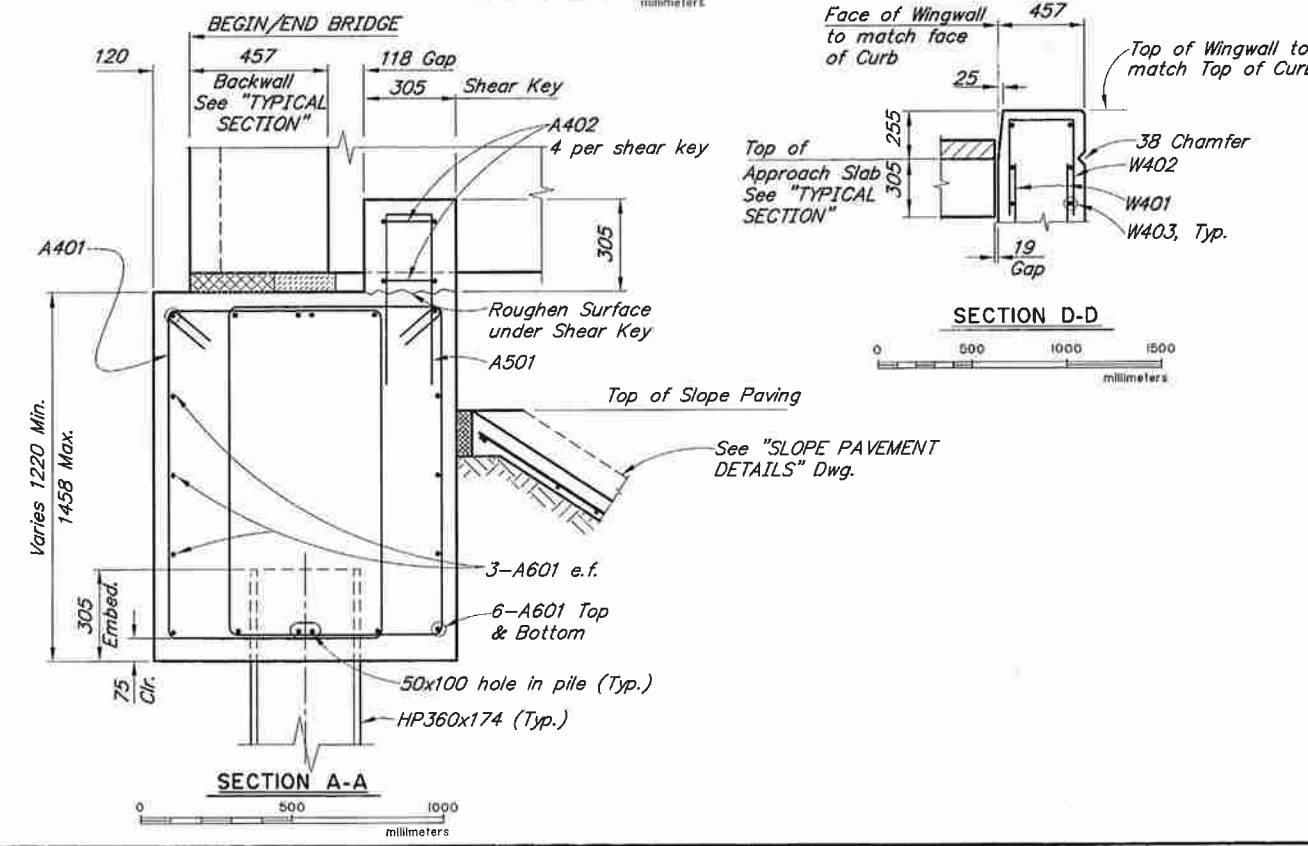
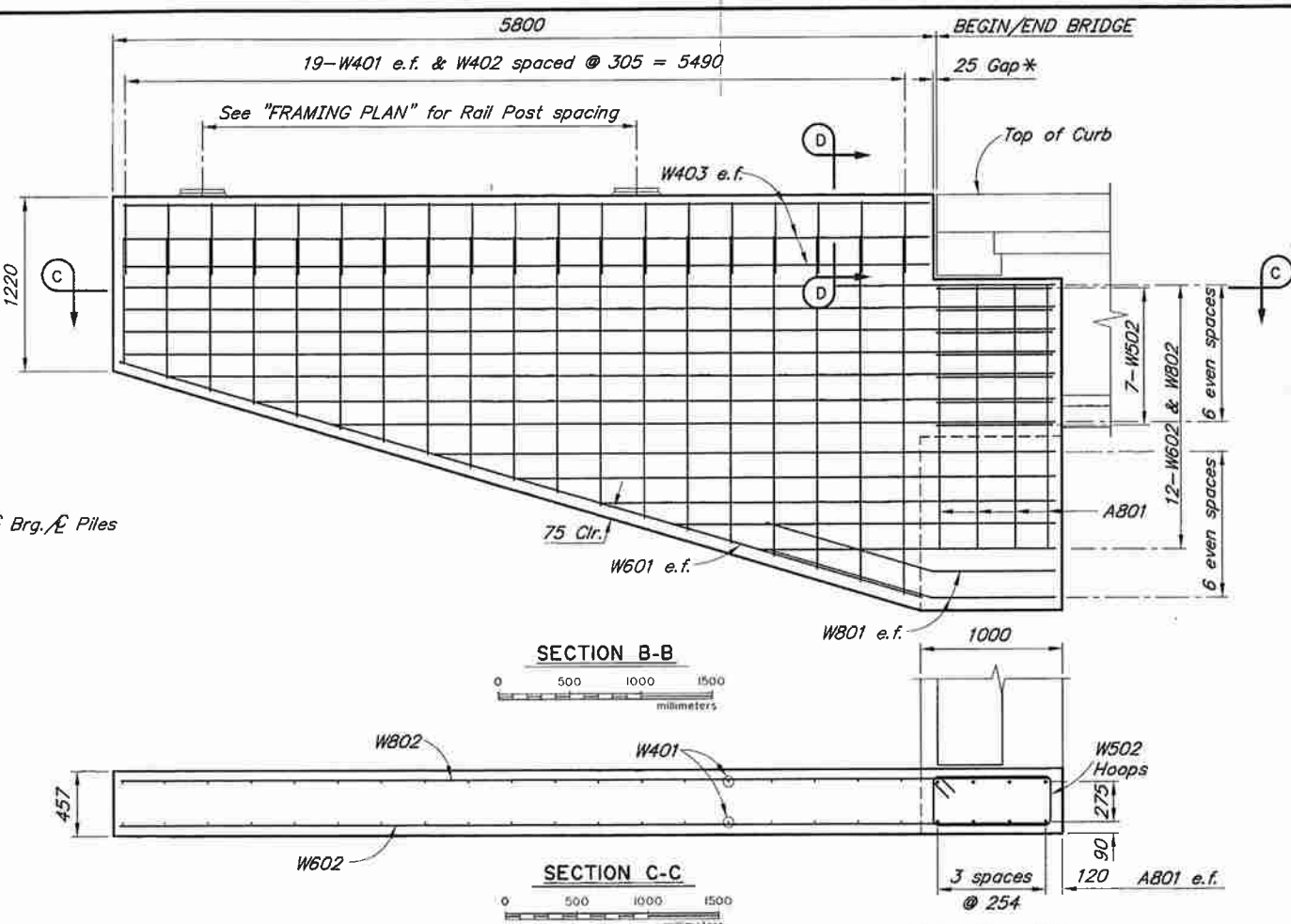
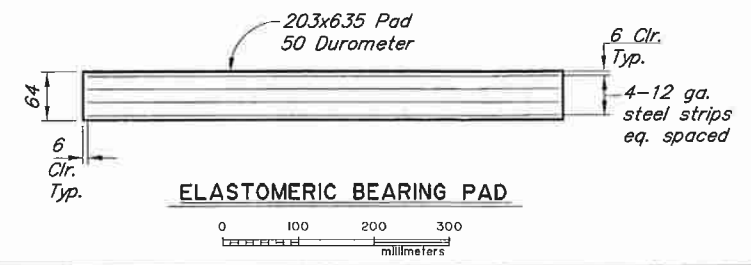
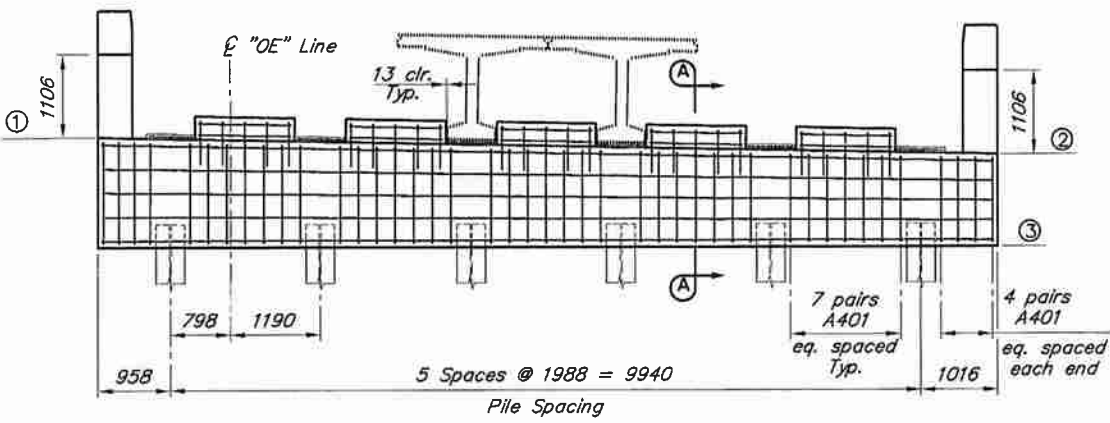
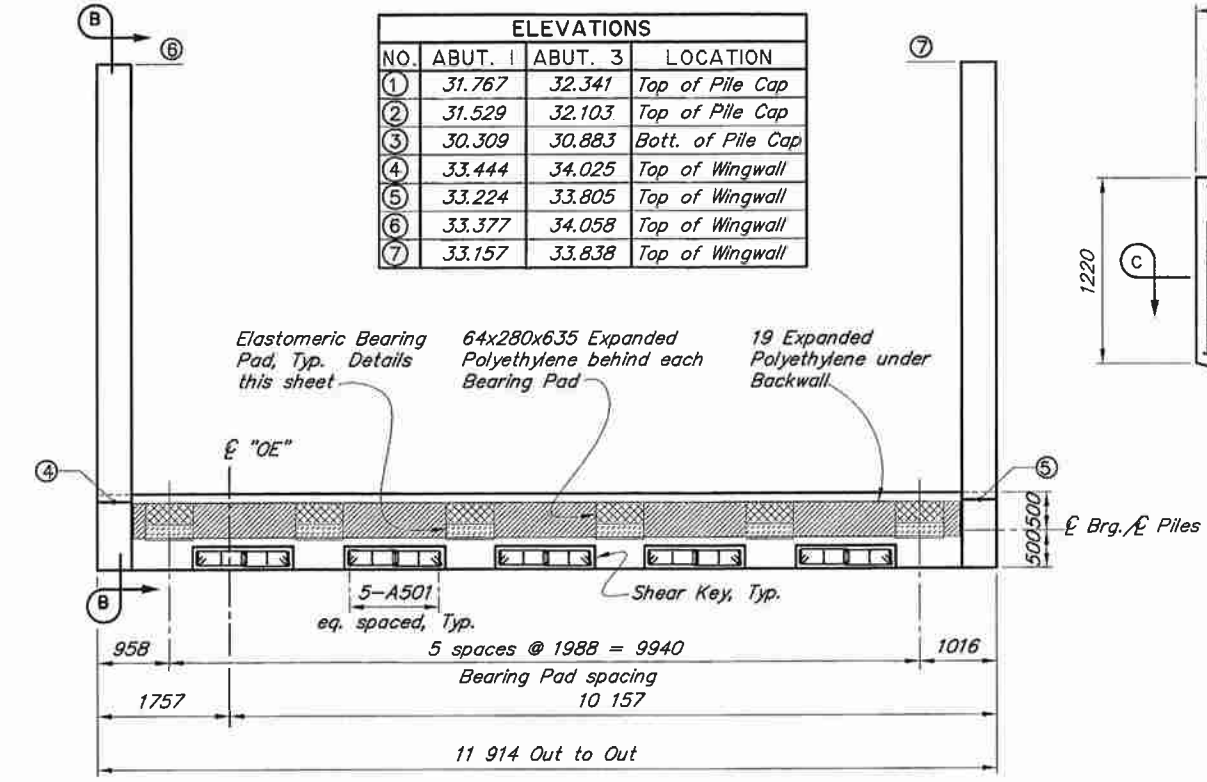


a - Length does not include splices. Minimum lap splice length is 305 for no. 4 bar, 1000 for no. 6 bar, 1300 for no. 8 bar.

e.f. denotes each face

* Fill gap at face and top of curb with pourable bridge deck expansion joint seal per approved products list, or approved equal.

ELEVATIONS			
NO.	ABUT. 1	ABUT. 3	LOCATION
①	31.767	32.341	Top of Pile Cap
②	31.529	32.103	Top of Pile Cap
③	30.309	30.883	Bott. of Pile Cap
④	33.444	34.025	Top of Wingwall
⑤	33.224	33.805	Top of Wingwall
⑥	33.377	34.058	Top of Wingwall
⑦	33.157	33.838	Top of Wingwall



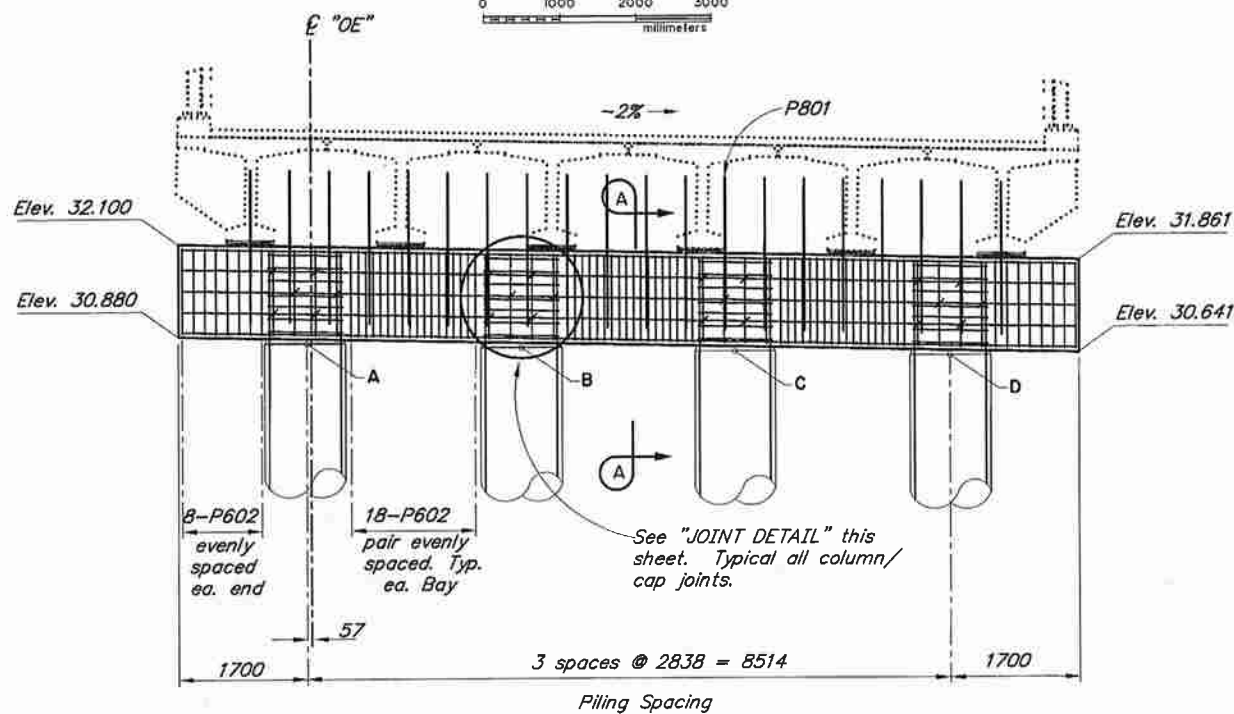
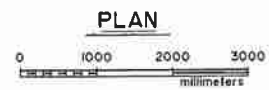
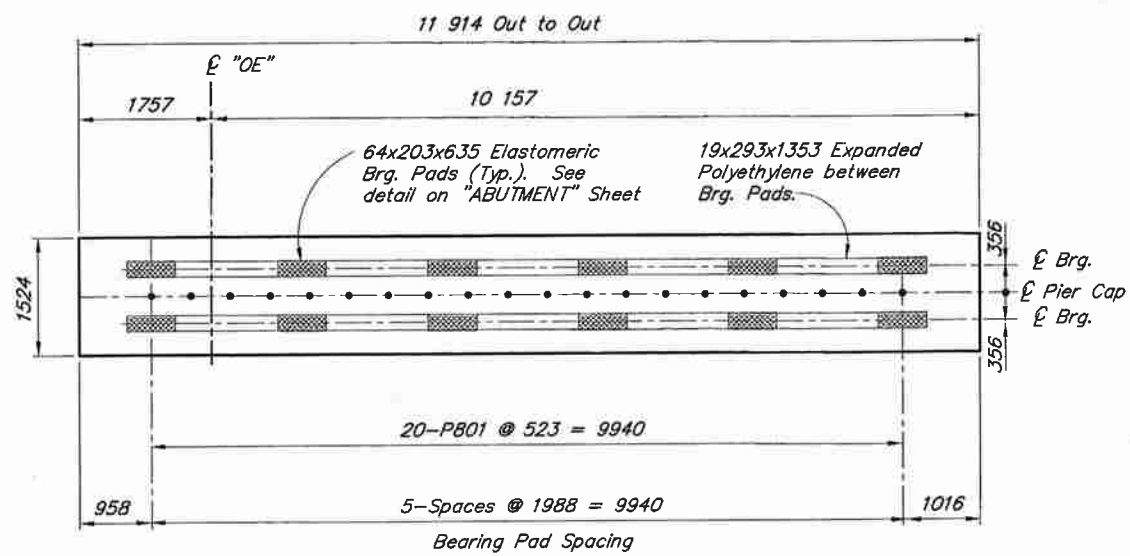
DESIGNED BY: Loren K. Gehring, P.E.	CHECKED: T. Arndt
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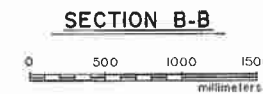
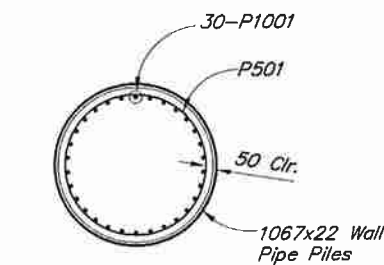
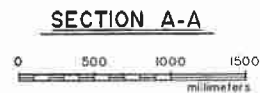
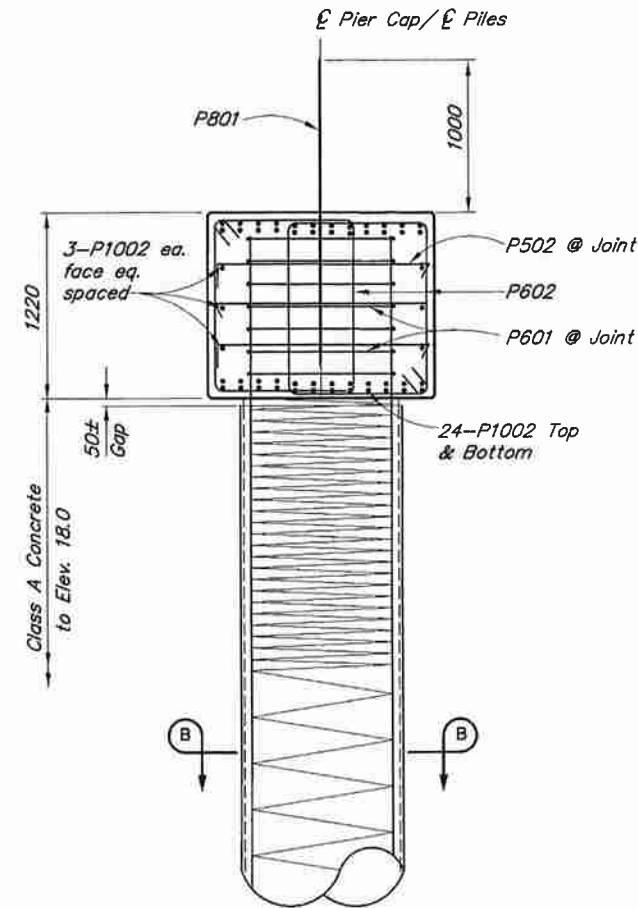


"C" STREET UNDERCROSSING - EASTBOUND
O'MALLEY ROAD
ABUTMENTS

BRIDGE NO. 2081
DWG. NO. 3

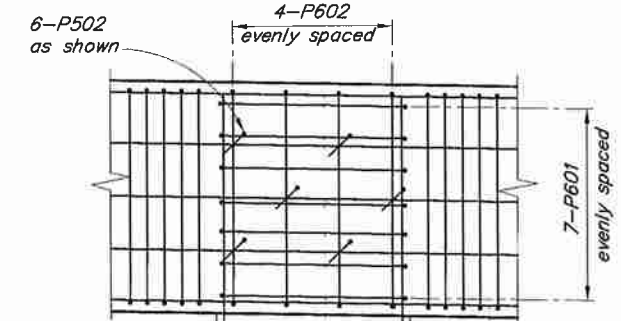


TOP OF PILE CUTOFF	
PILE	ELEVATION
A	30.79
B	30.73
C	30.68
D	30.62

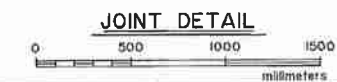


REINFORCING STEEL ONE PIER				
MARK	SIZE	NO.	LENGTH	TYPE
P501	5	4	111 000	Spiral
P502	5	24	1700	Bent
P601	6	28	3227	Bent
P602	6	172	4370	Bent
P801	8	20	2000	-
P1001	10	120	6095	-
P1002	10	54	11 814	-

a - Length does not include splices. Lap Splice length for No. 10 bar is 2210.



All Field and shop splices



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"C" STREET UNDERCROSSING-EASTBOUND
O'MALLEY ROAD
PIER

BRIDGE NO. 2081
DWG. NO. 4