

1.0 GENERAL

1.1 DESIGN SPECIFICATIONS – CAN/CSA-S6-14 (MODIFIED)

CODES REFERENCED IN THESE NOTES SHALL BE THE VERSION LISTED IN S6-14.

1.2 DESIGN

LIVE LOAD: 4.8 KPa, MAINTENANCE VEHICLE AS PER S6

DESIGN TEMPERATURE RANGE: MAXIMUM 26°C, MINIMUM -9°C

DESIGN LIFE: 20 YEAR SERVICE LIFE EXTENSION OF EXISTING STRUCTURE.

1.3 READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND DOCUMENTS. REPORT ANY CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.

1.4 VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.

1.5 ALL DIMENSIONS ARE IN MILLIMETRES AND ALL ELEVATIONS ARE IN METRES.

1.6 REVIEWS

NOTIFY STRUCTURAL ENGINEER 48 HOURS IN ADVANCE FOR REVIEW AS FOLLOWS:

– PRIOR TO ALL CONCRETE POURS ON SITE.

NOTIFY THE GEOTECHNICAL ENGINEER 48 HOURS IN ADVANCE FOR REVIEW AS FOLLOWS:

- WHEN GEOTEXTILE IS INSTALLED BUT NOT YET COVERED BY RIP RAP.
- RIP RAP INSTALLATION.
- WHEN PIER FOUNDATION EXCAVATION IS COMPLETE.

1.7 CONTRACTOR'S RESPONSIBILITY: THESE DRAWINGS SHOW COMPLETED STRUCTURAL COMPONENTS OF THE BRIDGE. THE REQUIRED TEMPORARY BRACING AND SHORING TO PERFORM THE WORK SAFELY IS THE RESPONSIBILITY OF THE CONTRACTOR.

1.8 ENVIRONMENTAL WORK PROCEDURES, TIMING, AND SPECIAL PRECAUTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND LIMITATIONS OF THE FEDERAL DEPARTMENT OF FISHERIES AND OCEANS, AND THE PROVINCIAL MINISTRY OF WATER, LAND AND AIR PROTECTION.

1.9 SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION.

1.10 NO SURVEY HAS BEEN PERFORMED. FOR THIS PROJECT, THE BENCH MARK FOR THE PROJECT DATUM SHALL ASSUME THE TOP OF TIMBER CROSS TIES TO BE AT AN ELEVATION OF 100.0 METRES.

2.0 DEMOLITION

2.1 ALL MATERIAL FROM EXISTING BRIDGE TO BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

2.2 DEMOLITION OF EXISTING STRUCTURE TO BE CARRIED OUT IN ACCORDANCE WITH CSA S350, CODE OF PRACTICE FOR SAFETY IN DEMOLITION OF STRUCTURES.

3.0 PRECAST CONCRETE

3.1 PRECAST MEMBERS SHALL BE MANUFACTURED IN ACCORDANCE WITH CSA A23.4-06 "PRECAST CONCRETE – MATERIALS AND CONSTRUCTION".

3.2 FIRMS MUST BE CERTIFIED IN ACCORDANCE WITH CSA A251-06 "QUALIFICATION CODE FOR ARCHITECTURAL AND STRUCTURAL PRECAST CONCRETE PRODUCTS".

3.3 COMPRESSIVE STRENGTH OF CONCRETE SHALL BE CAN3 A23.1 CLASS 35 MPa @ 28 DAYS.

3.4 REINFORCING STEEL SHALL CONFORM TO CSA SPECIFICATION G30.18, GRADE 400. REINFORCING STEEL SHALL HAVE 60mm MINIMUM COVER, UNLESS NOTED OTHERWISE. IF 400R GRADE REINFORCEMENT IS USED, IT SHALL HAVE A MINIMUM ELONGATION AT RUPTURE OF 12%, FOR A 200mm GAUGE LENGTH.

3.5 REINFORCEMENT MARKED "ME" IS EPOXY COATED.

3.6 LAP OF BARS FOR SPLICES TO BE AS FOLLOWS, UNLESS NOTED OTHERWISE: 10M BARS – 450mm 10ME BARS – 600mm. BARS TO BE STAGGERED SO THAT NOT MORE THAN EVERY THIRD BAR IS SPLICED AT ANY CROSS SECTION.

3.7 LIFTING DEVICES SATISFACTORY TO THE ENGINEER SHALL BE PROVIDED. ONLY VERTICAL LIFTS SHALL BE PERMITTED. CARE SHALL BE TAKEN TO PREVENT SUDDEN IMPACT LOAD ON LIFTED COMPONENTS.

3.8 THE CONTRACTOR SHALL ENSURE THAT ALL PRECAST MEMBERS ARE CHECKED FOR SHIPPING AND HANDLING STRESSES.

3.9 SLABS SHALL BE SUPPORTED ONLY AT POINTS DIRECTLY BELOW LIFTING INSERTS WHILE BEING STORED OR TRANSPORTED.

3.10 PROVIDE A 20mm CHAMFER ON ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE.

3.11 TOP OF SLABS TO HAVE TRANSVERSE BROOM FINISH.

4.0 CAST-IN-PLACE CONCRETE

4.1 ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA A23.1 AND A23.2.

4.2 CONCRETE MIXES SHALL CONFORM TO CAN/CSA A23.1 AND A23.2 AND SHALL HAVE THE FOLLOWING PROPERTIES:

CLASS	28 DAY STRENGTH	MAXIMUM AGGREGATE SIZE	SLUMP	AIR CONTENT	EXPOSURE
PIER FOUNDATION	35 MPa	25mm	75mm	4% TO 7%	C-1

4.3 CONCRETE TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA A23.1 AND A23.2. THE MINIMUM NUMBER OF TESTS PERFORMED SHALL BE AS PER CSA A23.2. ADDITIONAL TESTING SHALL BE PERFORMED AT THE DIRECTION OF THE STRUCTURAL ENGINEER. CONTRACTOR SHALL PROVIDE TESTING AGENCY WITH ADEQUATE NOTICE TO PROVIDE TESTING AS REQUIRED.

4.4 REINFORCING STEEL TO CONFORM TO CSA SPECIFICATION G30.18M, GRADE 400.

4.5 REINFORCING STEEL MARKED "ME" IS EPOXY COATED.

4.6 LAP OF BARS FOR SPLICES TO BE 40 x BAR DIAMETER, UNLESS NOTED OTHERWISE.

4.7 PROVIDE A 20mm CHAMFER ON ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE.

4.8 CONCRETE FINISHES SHALL BE IN ACCORDANCE WITH CAN/CSA A23.1.

4.9 ALL CONCRETE CURING SHALL BE IN ACCORDANCE WITH CAN/CSA A23.1. SPECIAL PRECAUTIONS SHALL BE TAKEN AS NOTED IN CSA A23.1 FOR PLACING AND CURING CONCRETE ABOVE 27° C AND BELOW 5° C.

4.10 MINIMUM CONCRETE COVER TO REINFORCING SHALL BE 75mm, UNLESS NOTED OTHERWISE.

4.11 UNDERSIDE OF ABUTMENTS TO BE CARRIED DOWN TO ELEVATIONS SHOWN OR TO SUCH LOWER ELEVATIONS AS MAY BE ORDERED BY THE ENGINEER.

5.0 STEEL

5.1 ALL FABRICATED AND MISCELLANEOUS METAL TO BE GRADE 300W, GALVANIZED.

5.2 BOLTED CONNECTIONS SHALL UTILIZE ASTM A325 GALVANIZED BOLTS COMPLETE WITH NUTS AND WASHERS, UNLESS OTHERWISE SHOWN ON DRAWINGS.

5.3 WHERE WELD SIZE NOT SHOWN, USE MINIMUM 6mm FILLET.

5.4 ALL WELDING SHALL BE IN ACCORDANCE WITH CSA W59 AND SHALL BE PERFORMED BY FABRICATORS APPROVED BY THE CANADIAN WELDING BUREAU UNDER CSA W55.3. FABRICATING SHOP TO HAVE A MINIMUM DIVISION 2.1 CERTIFICATION BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA W47.1 AND CSA W55.3 FOR RESISTANCE WELDING OF STRUCTURAL COMPONENTS. THE FABRICATOR SHALL SUBMIT PROOF OF CERTIFICATION PRIOR TO START OF WORK.

6.0 TIMBER

6.1 ALL NEW TIMBER TO CONFORM TO CSA-0141 "SOFTWOOD LUMBER" TIMBER GRADES AND SPECIES AS FOLLOWS:

MEMBER	(FINISH)	SPECIES	GRADE
CROSS MEMBERS (ROUGH)		DOUGLAS FIR	GROUP A No. 1, OR BETTER
DECKING	(S1S)	DOUGLAS FIR	GROUP A No. 1, OR BETTER

(NOTE FOR DECKING: SURFACED SIDE=CUP SIDE=U/S OF DECK)

6.2 ALL TIMBER CONSTRUCTION, DETAILS AND FASTENINGS SHALL CONFORM FULLY TO CSA 086, CURRENT EDITION.

6.3 ALL MATERIAL TO BE CUT TO LENGTH AND DRESSED, CHAMFERED AND ROUTERED EDGES TO BE FACTORY MILLED PRIOR TO PRESSURE TREATMENT.

6.4 PRE-DRILL ALL BOLT AND LAG SCREW SHANK HOLES (BUT NOT LEAD HOLES). BOLT HOLES SHOULD BE FULL LENGTH AND SIZE FOR MACHINE BOLTS. SWAB ALL HOLES THOROUGHLY WITH PRESERVATIVE TREATMENT FLUID. LEAD HOLES FOR LAG SCREWS DO NOT REQUIRE TREATMENT, BUT MUST BE PRE-DRILLED 5mm LESS THAN NOMINAL SCREW DIAMETER.

6.5 PRESSURE TREAT ALL TIMBER TO CSA 080.14 IN AN APPROVED WOOD PRESSURE TREATMENT FACILITY, USING ACZA TREATMENT FLUID. THE AVERAGE NET RETENTION OF FLUID SHALL BE 6.4 KG/M3 AS DETERMINED BY ASSAY.

7.0 BRIDGE END FILL

7.1 BRIDGE END FILL (BEF) MATERIAL SHALL BE CLEAN, INORGANIC GRANULAR MATERIAL APPROVED BY GEOTECHNICAL ENGINEER AND SHALL MEET THE FOLLOWING GRADATION:

SIEVE SIZE (mm)	BEF
75	100
50	30 – 100
37.5	–
25	–
19	20 – 100
12.5	–
9.5	–
6.3	–
4.75	10 – 60
2.36	–
1.18	6 – 32
0.600	–
0.300	4 – 15
0.075	0 – 5

7.2 BRIDGE END FILL SHALL BE PLACED IN SUCCESSIVE HORIZONTAL LAYERS NOT EXCEEDING 250mm IN LOOSE THICKNESS. EACH LAYER SHALL BE COMPACTED TO 100% OF THE LABORATORY DENSITY OBTAINED BY THE CURRENT ASTM TEST METHOD D698.

8.0 RIP RAP

8.1 ROCK SHALL BE HARD, DURABLE AND ANGULAR QUARRY ROCK OF A QUALITY THAT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR THE ATMOSPHERE. THE GRADATION OF ROCK SIZES SHALL CONFORM TO THE FOLLOWING TABLE:

CLASS OF RIP RAP (KG)	ROCK GRADATION PERCENTAGE SMALLER THAN GIVEN ROCK MASS (KG)		
	15%	50%	85%
250	25	250	750

8.2 THE GRADATION OF ROCKS SHALL BE WELL-GRADED, APPROXIMATELY THE SPECIFIED OR DIRECTED SIZES AND INDIVIDUAL ROCKS MINIMUM DIMENSION SHALL BE GREATER THAN ONE-THIRD ITS MAXIMUM DIMENSION AND NONE SHALL HAVE A MASS GREATER THAN FIVE TIMES THAT OF THE SPECIFIED RIP RAP.

8.3 TO PROVIDE A STABLE FOUNDATION AND PROTECTION AGAINST ANY UNDERCUTTING, THE RIP RAP SHALL BE THICKENED AT THE TOE, LAID HORIZONTALLY TO FORM AN APRON AND/OR KEYED INTO THE BED OF THE WATERCOURSE ALL AS INDICATED ON THE DRAWINGS.

8.4 THE ROCK SHALL BE MANIPULATED AS NECESSARY TO PROVIDE MASS STABILITY AND A REGULAR SURFACE WITH A MINIMUM OF VOIDS.

9.0 ENVIRONMENTAL CONSTRUCTION REQUIREMENTS

9.1 SECTION 9 NOTIFICATION AND DFO APPROVAL REQUIRED.

9.2 CONDITIONS OF MELP AND DFO APPROVALS TO BE FOLLOWED.

9.3 EROSION AND SEDIMENT CONTROL PLAN TO BE PROVIDED AT PRE-CONSTRUCTION MEETING AND IN PLACE PRIOR TO CONSTRUCTION.

9.4 CONSTRUCTION DISTURBANCE TO BE MINIMIZED NEAR OR ADJACENT TO TREED AREAS.

9.5 ENVIRONMENTAL MONITOR SHALL BE ENGAGED BY OWNER AND WILL ATTEND SITE PERIODICALLY.

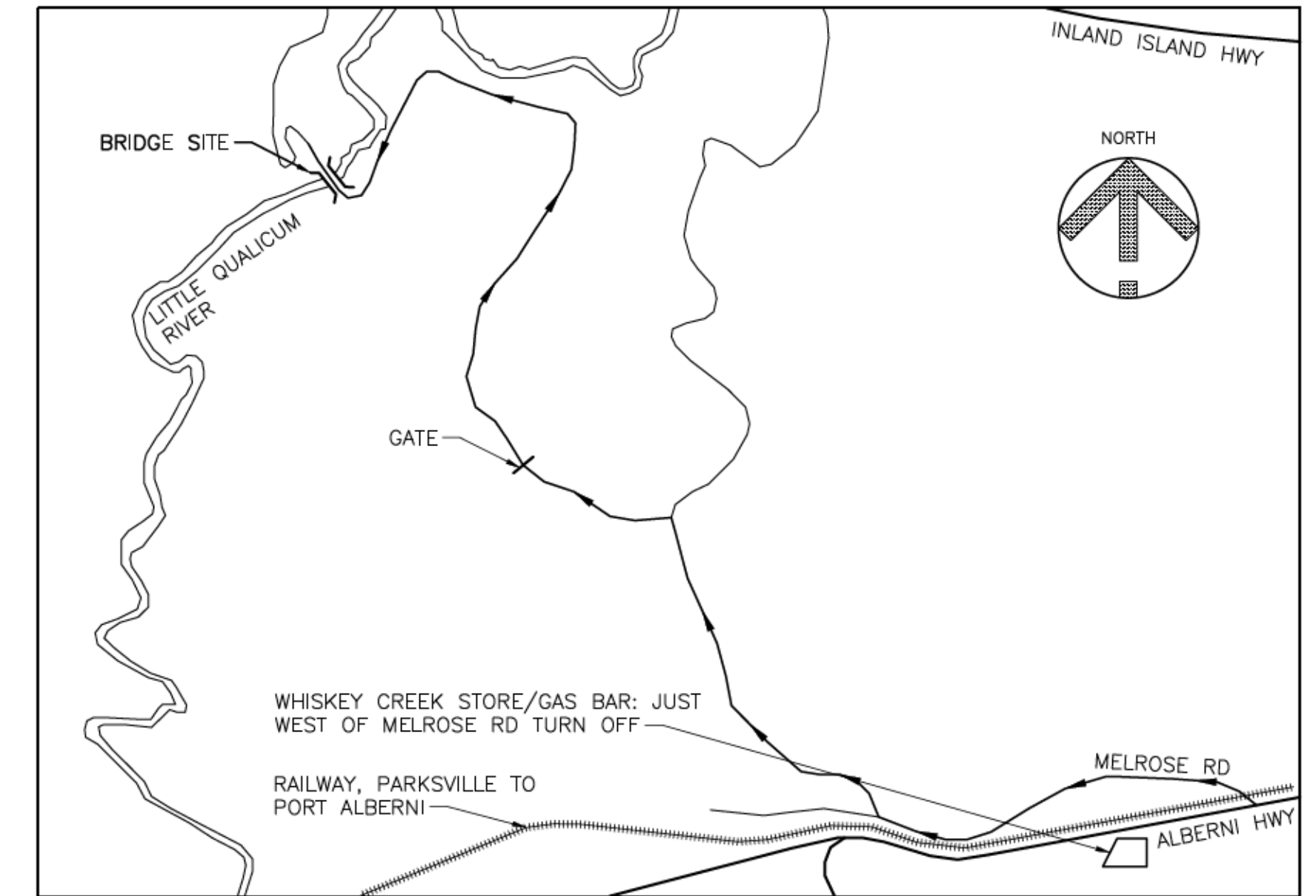
9.6 ALL TREES AND ROOTS TO BE PRESERVED WHERE POSSIBLE. ALL DISTURBED AREAS TO BE RESEEDING WITH NATIVE GRASS MIX. ANY SHRUBS OR TREES REMOVED MUST BE REPLACED AND THE AREA IS TO BE COVERED IN STRAW MULCH UPON COMPLETION.

9.7 IN-STREAM WORK TO OCCUR DURING DRY WEATHER WITHIN FISHERIES WINDOW (JULY 15TH THROUGH SEPTEMBER 15TH).

9.8 ALL MACHINERY TO BE CLEAN, FREE OF LEAKS AND IN GOOD MECHANICAL CONDITION.

9.9 REFUELLING OF ALL MACHINES TO BE DONE OUTSIDE OF THE 30 METER SETBACK.

9.10 AS CEMENT AND CONCRETE ARE TOXIC TO AQUATIC ORGANISMS, ESPECIALLY FISH, ALL CONCRETE WORK MUST BE ISOLATED FROM WATER FOR A MINIMUM OF 48 HOURS. ALL EQUIPMENT SHALL BE CLEANED OFF SITE AWAY FROM THE RIVER.



KEY PLAN
N.T.S.

DRAWING LIST

DRAWING NUMBER	DESCRIPTION
0837-038-S01	GENERAL NOTES AND DRAWING LIST
0837-038-S02	EXISTING SITE PLAN
0837-038-S03	GENERAL ARRANGEMENT
0837-038-S04	PRECAST CONCRETE MEMBERS
0837-038-S05	PRECAST CONCRETE SLABS
0837-038-S06	DETAILS – SHEET 1
0837-038-S07	DETAILS – SHEET 2

PROJECT: 0837-038-001 - RIVER PEDESTRIAN BRIDGE UPGRADE, PARKSVILLE BC V9P 2X4
 DRAWING: 0837-038-S07 - GENERAL ARRANGEMENT
 DATE: 2017.05.15
 DRAWN BY: J. J. [Name]
 CHECKED BY: [Name]
 PROJECT MANAGER: [Name]
 CLIENT: REGIONAL DISTRICT OF NANAIMO
 PROJECT LOCATION: PARKSVILLE BC V9P 2X4
 PROJECT NO: 0837-038-001
 DRAWING NO: 0837-038-S07
 DATE: 2017.05.15
 SCALE: AS SHOWN
 SHEET NO: 7 OF 7
 PROJECT MANAGER: [Name]
 CLIENT: REGIONAL DISTRICT OF NANAIMO

ISSUES					
No.	DATE	ISSUED FOR	No.	DATE	ISSUED FOR
A	2017.05.15	CLIENT REVIEW			
B	2017.06.07	TENDER			

SUB CONSULTANT	

DRAFTED JUMC
 DRAFTING REVIEW
 DESIGNED SJS/SPS
 DESIGN REVIEW

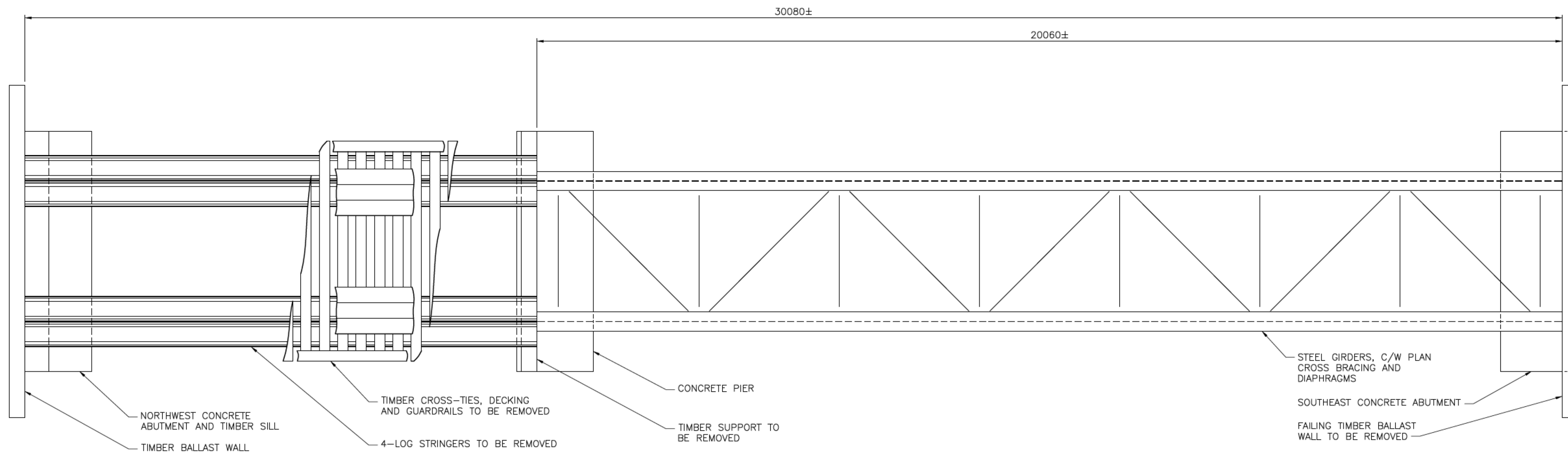
3701 Shenton Rd, Nanaimo, BC V9T 2H1
 Tel: 250-751-8558 Fax: 250-751-8559
 Email: mail@heroldengineering.com

ENGINEERS SEAL

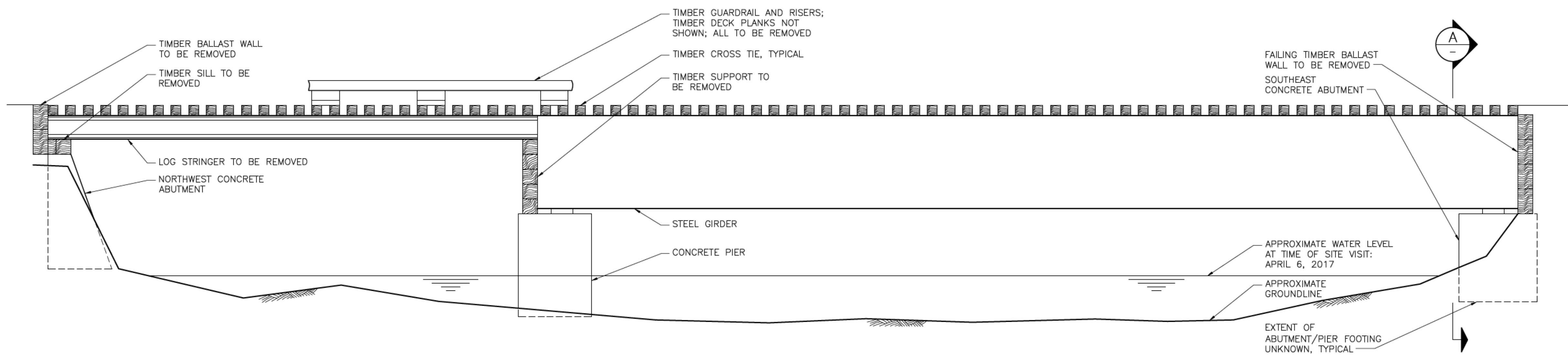
GENERAL NOTES AND DRAWING LIST

LITTLE QUALICUM
 RIVER PEDESTRIAN BRIDGE UPGRADES
 RECREATION & PARKS PARKSVILLE BC V9P 2X4
 REGIONAL DISTRICT OF NANAIMO

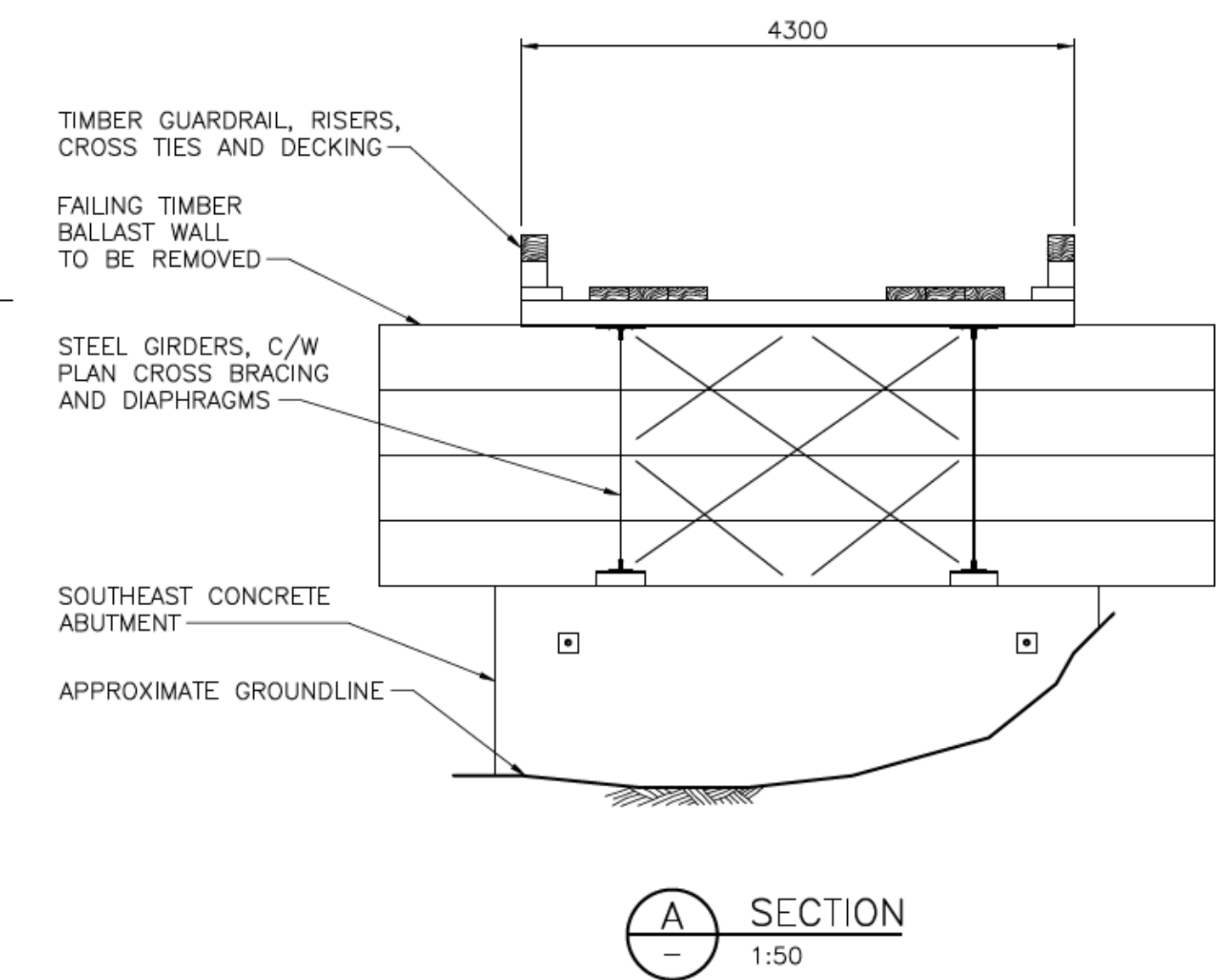
HEL PROJECT No.	CLIENT DWG. No.
0837-038	N/A
SCALE	PERMIT No.
AS SHOWN	N/A
HEL DRAWING No.	REVISION
S01	B



PLAN
1:50



ELEVATION
1:50



A SECTION
1:50

NOTES:
1. FOR GENERAL NOTES, SEE DWG. S01.

ISSUES					
No.	DATE	ISSUED FOR	No.	DATE	ISSUED FOR
A	2017.05.15	CLIENT REVIEW			
B	2017.06.07	TENDER			

SUB CONSULTANT	

DRAFTED
JUMC

DRAFTING REVIEW

DESIGNED
SJS/SPS

DESIGN REVIEW

HEROLD ENGINEERING

3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250-751-8558 Fax: 250-751-8559
Email: mail@heroldengineering.com

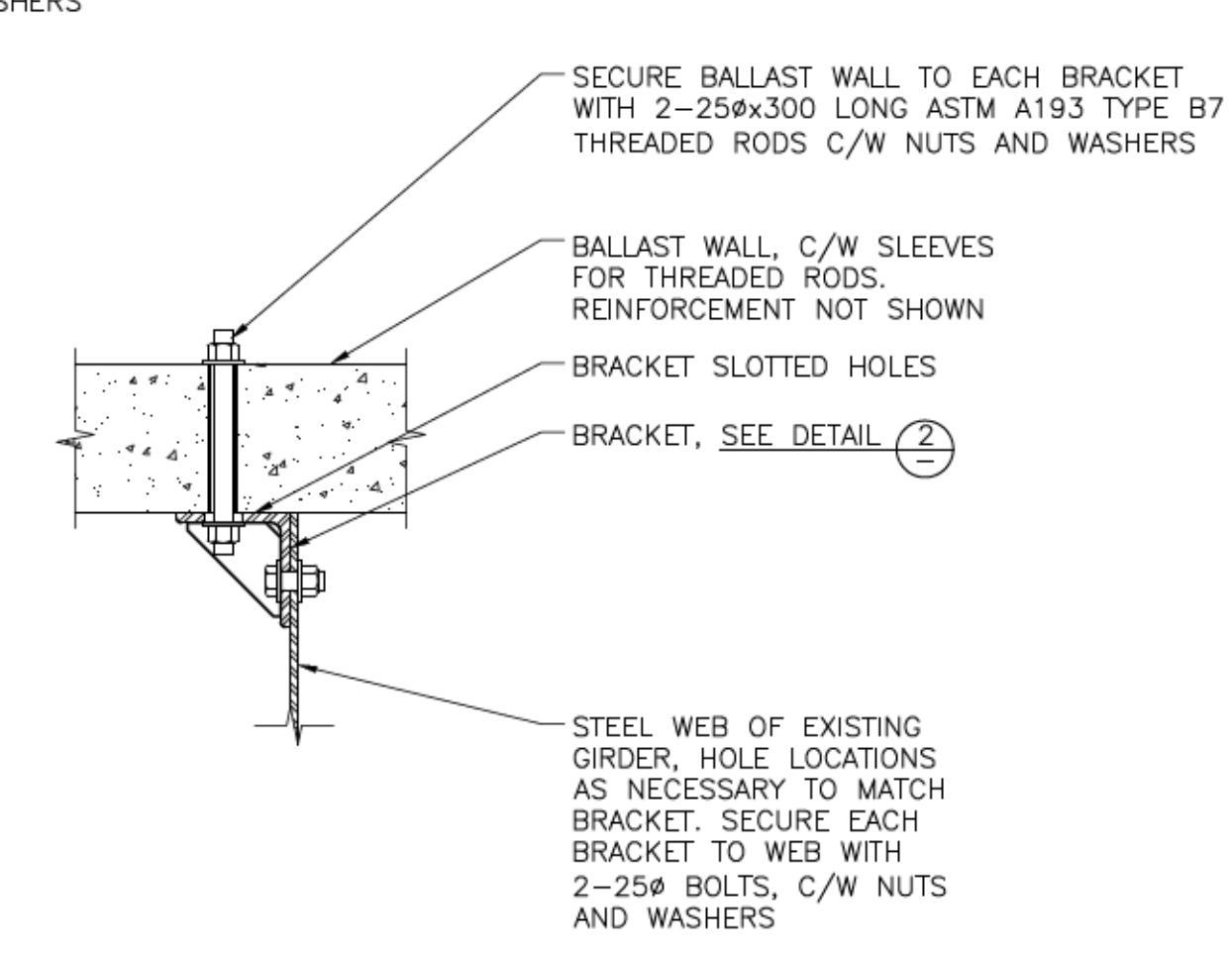
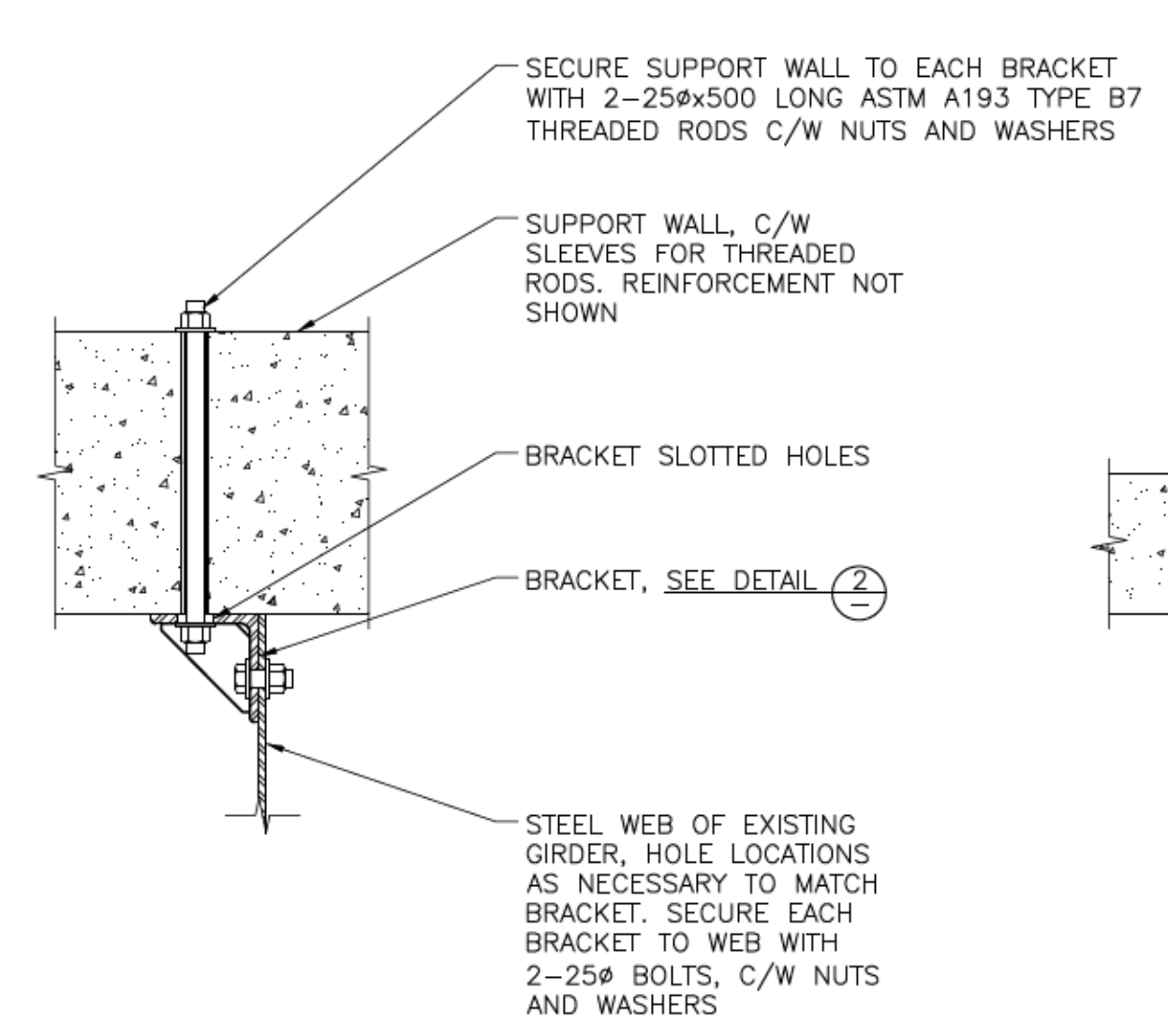
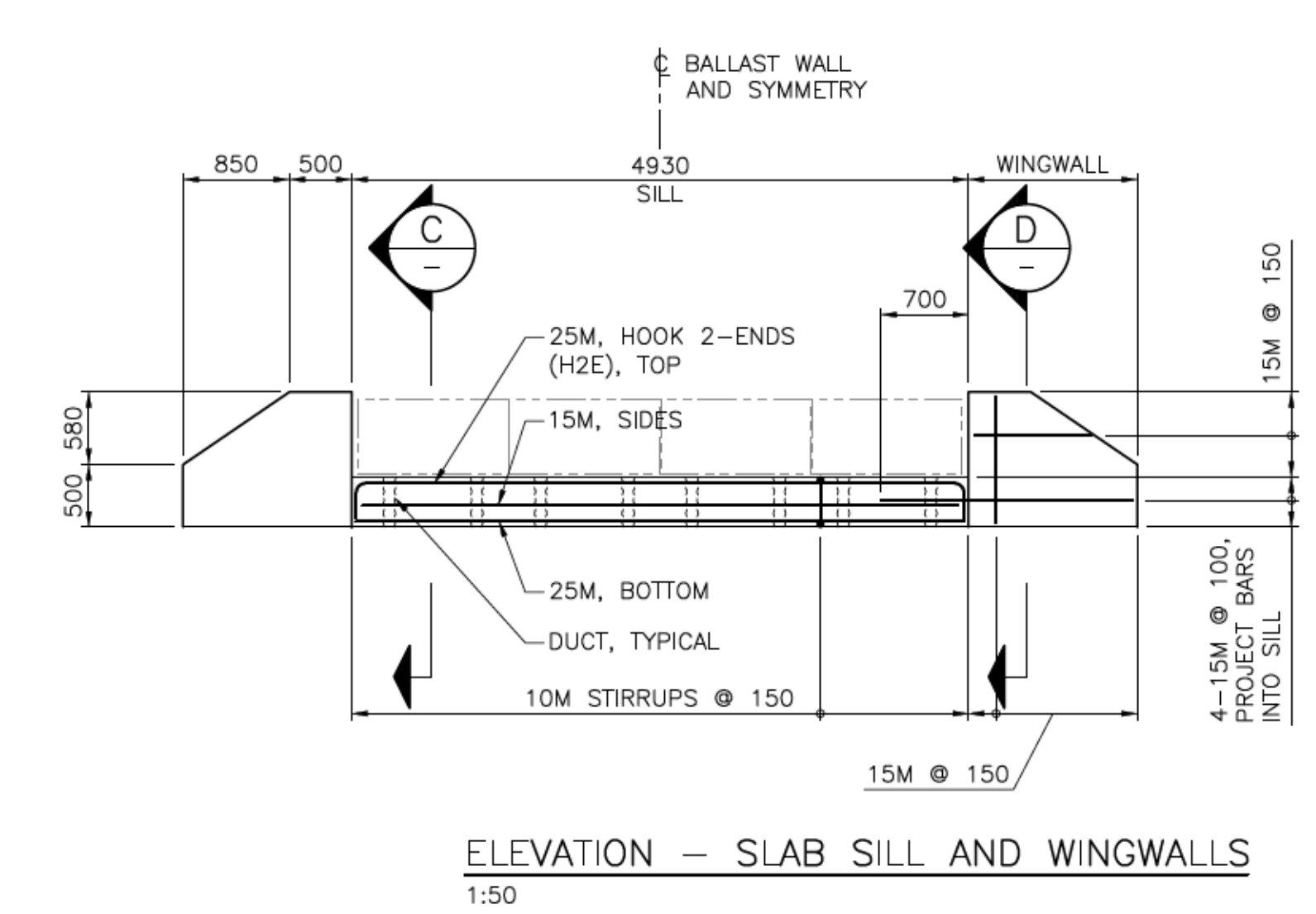
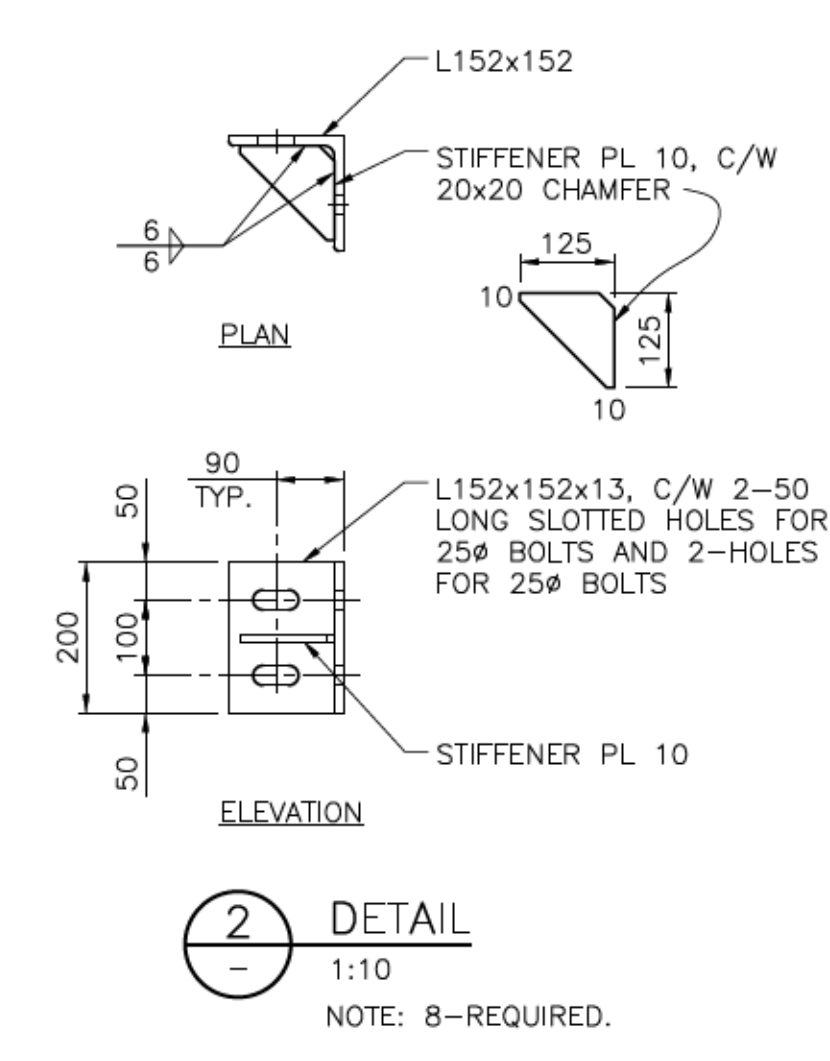
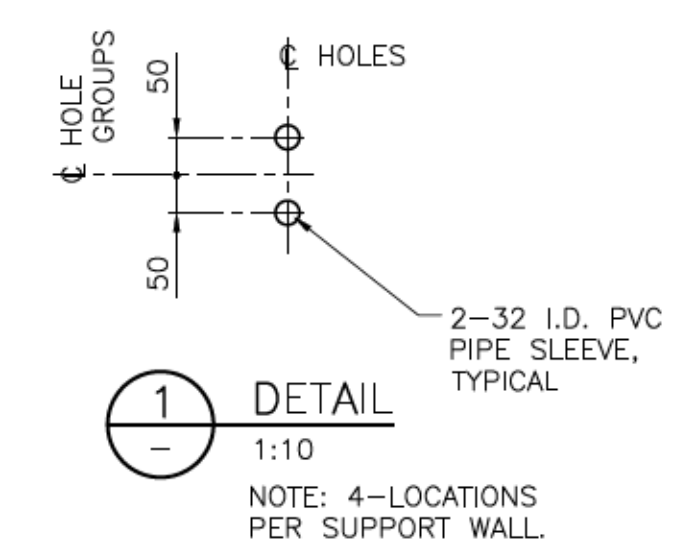
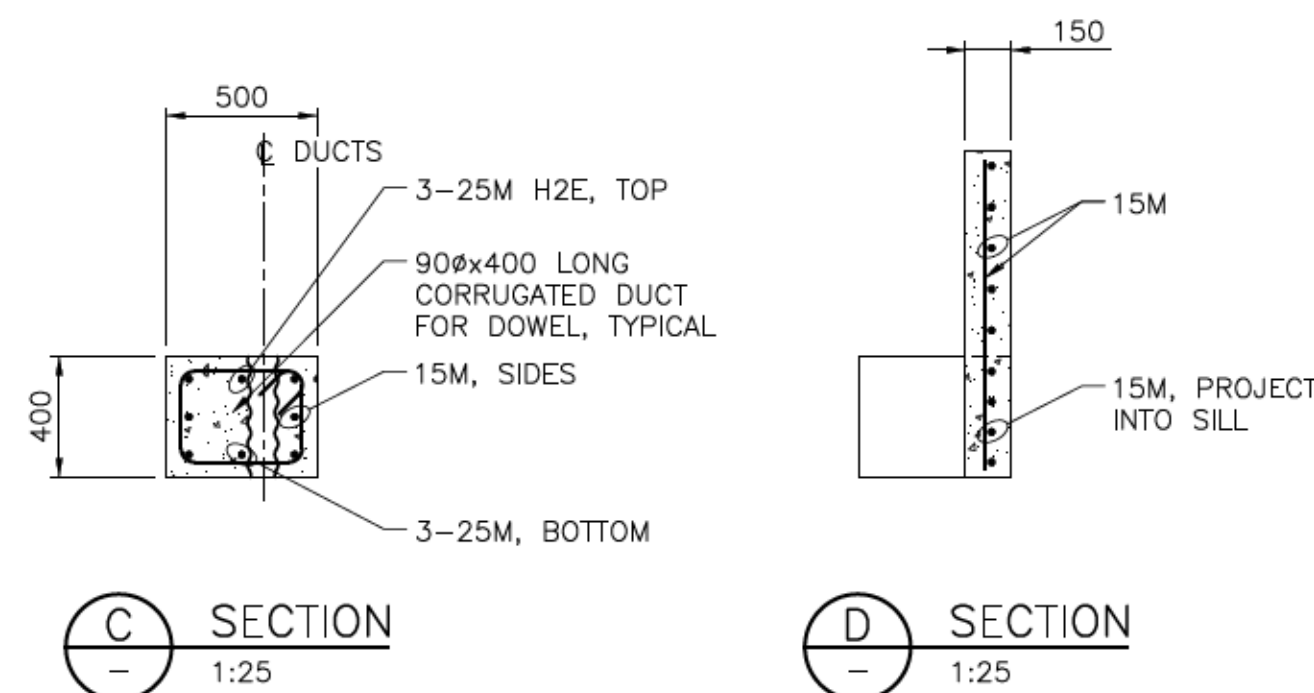
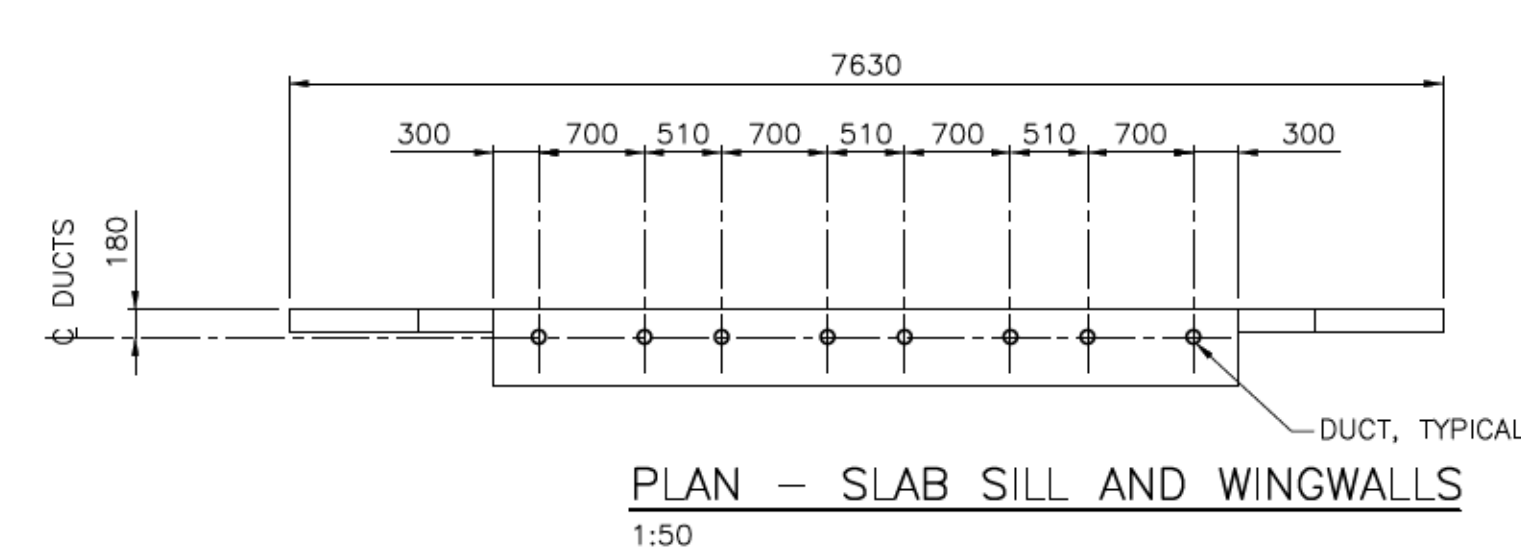
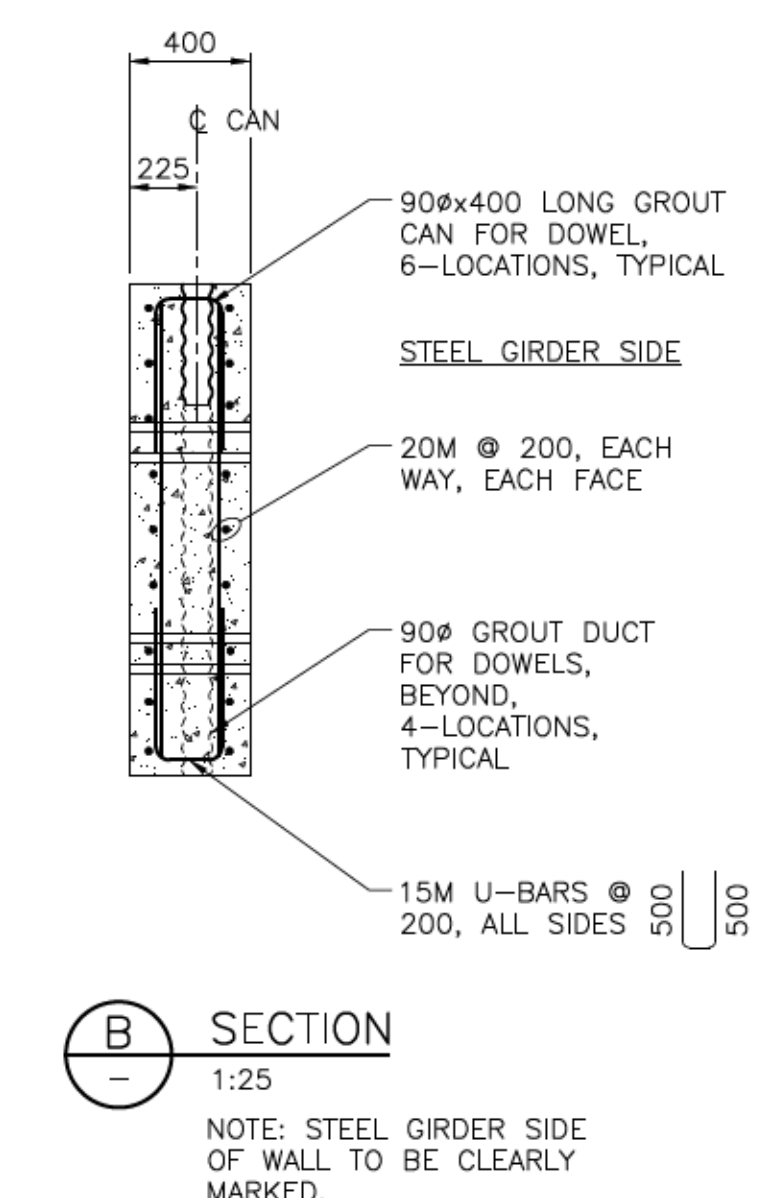
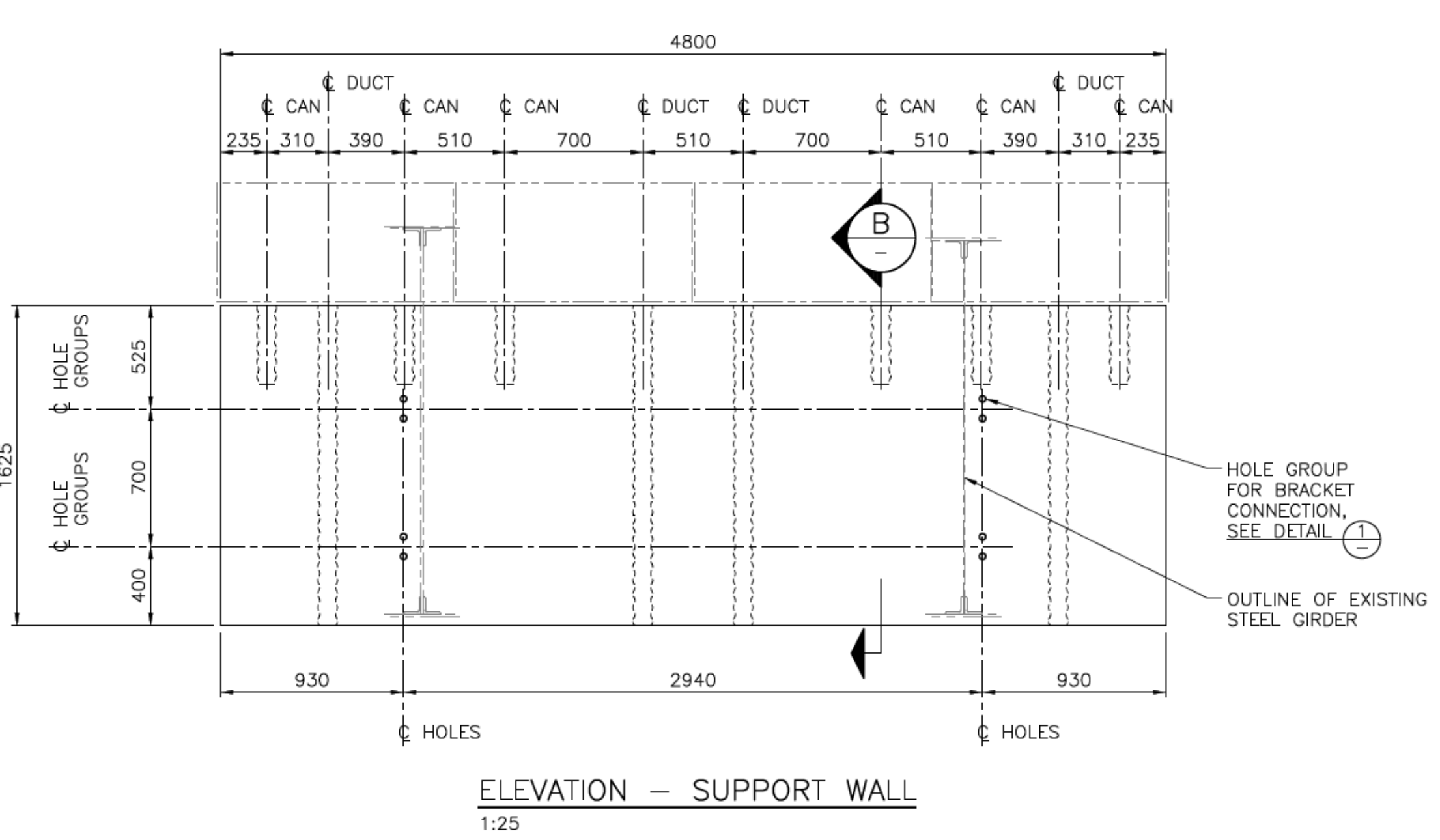
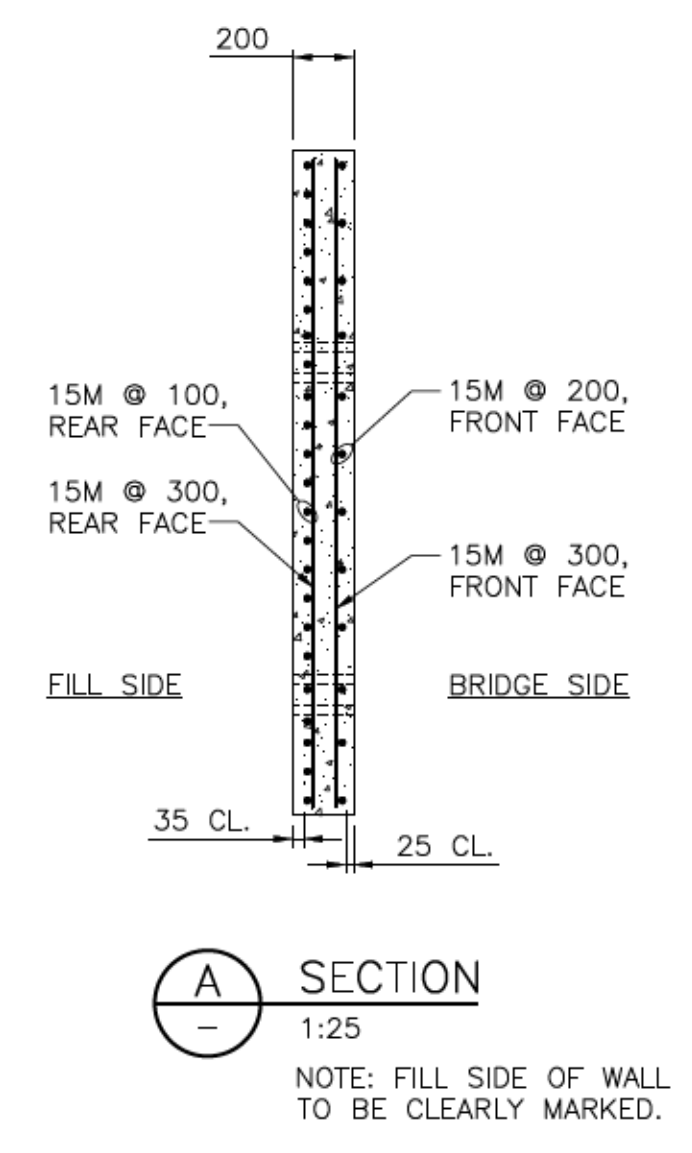
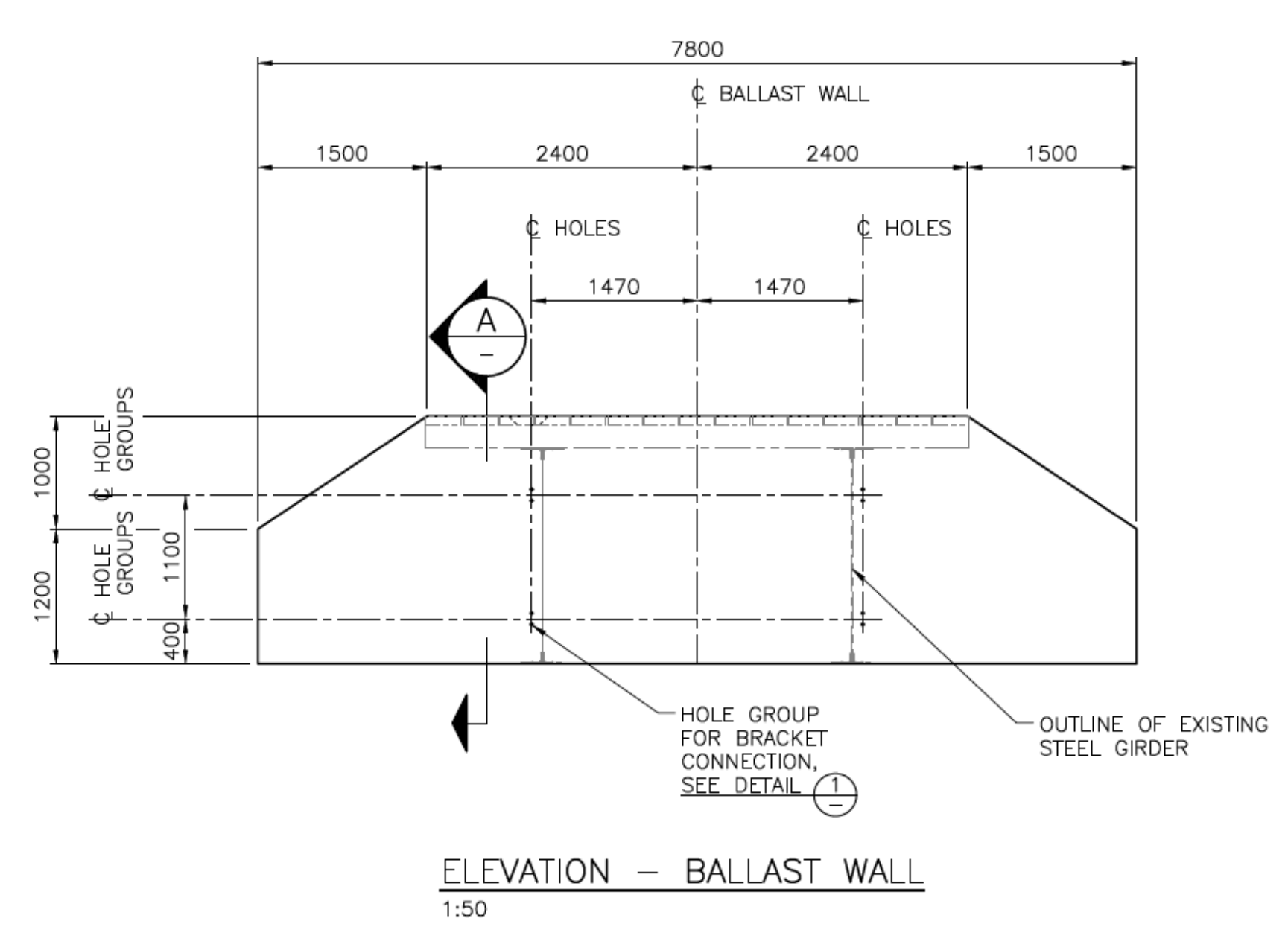
ENGINEERS SEAL

EXISTING SITE PLAN

LITTLE QUALICUM RIVER PEDESTRIAN BRIDGE UPGRADES
RECREATION & PARKS PARKSVILLE BC V9P 2X4
REGIONAL DISTRICT OF NANAIMO

HEL PROJECT No. 0837-038	CLIENT DWG. No. N/A
SCALE AS SHOWN	PERMIT No. N/A
HEL DRAWING No. S02	REVISION B

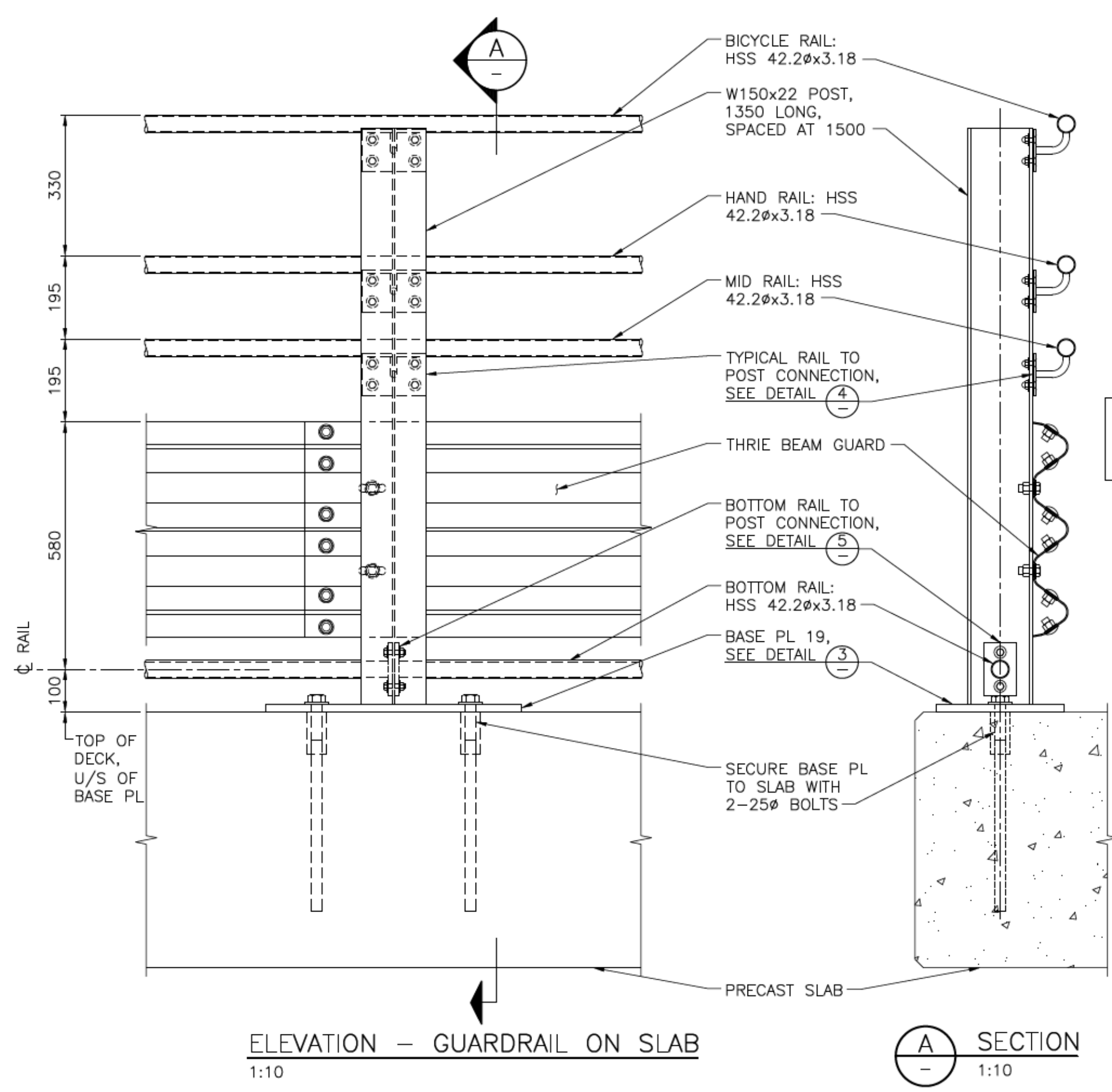
ARCHITECTURAL Dwg - 1:50
 No. DATE ISSUED FOR
 A 2017.05.15 CLIENT REVIEW
 B 2017.06.07 TENDER
 © Copyright reserved. This drawing remains the exclusive property of Herold Engineering Limited and may not be reused or reproduced without written consent of Herold Engineering Limited.
 DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION



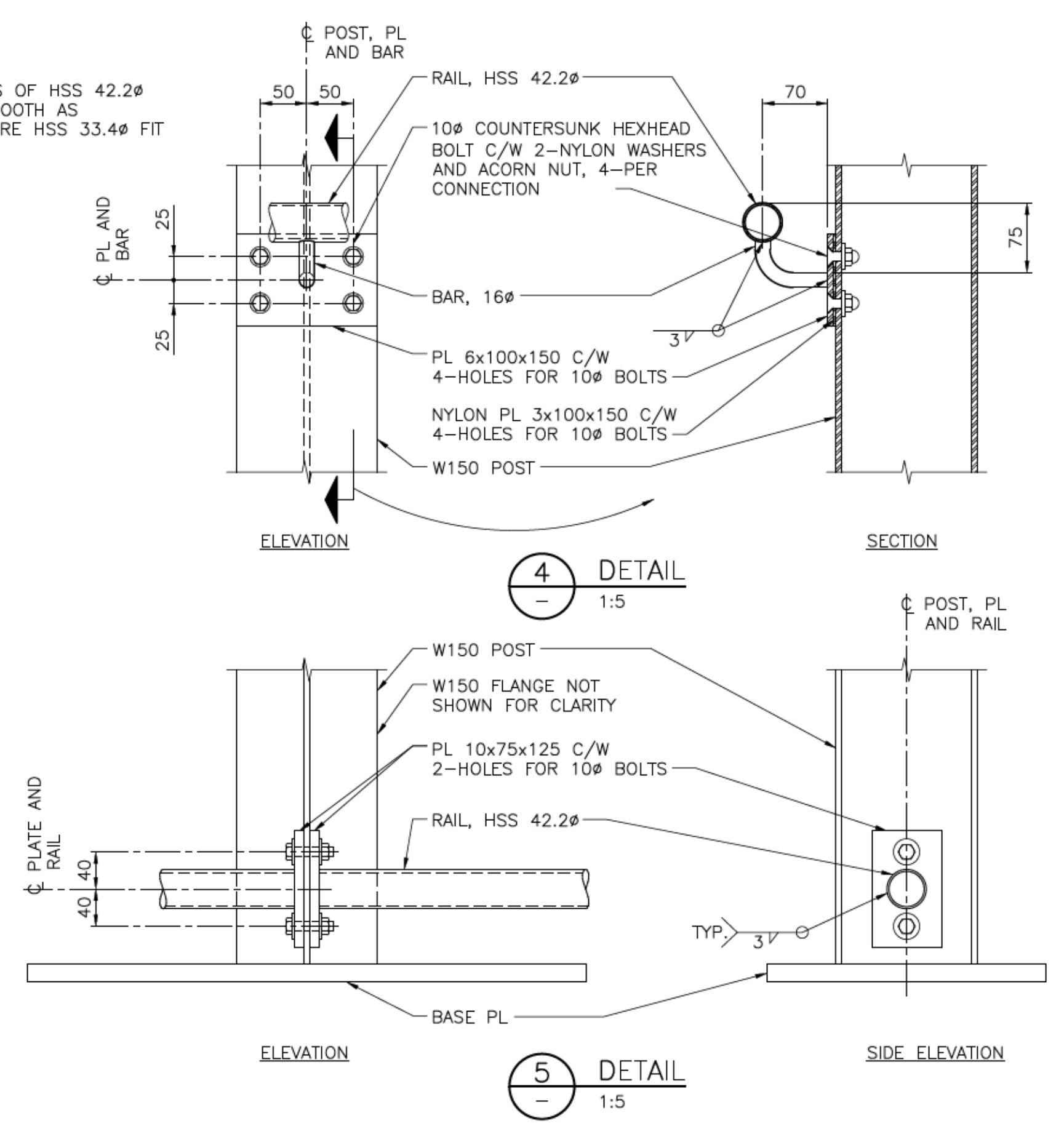
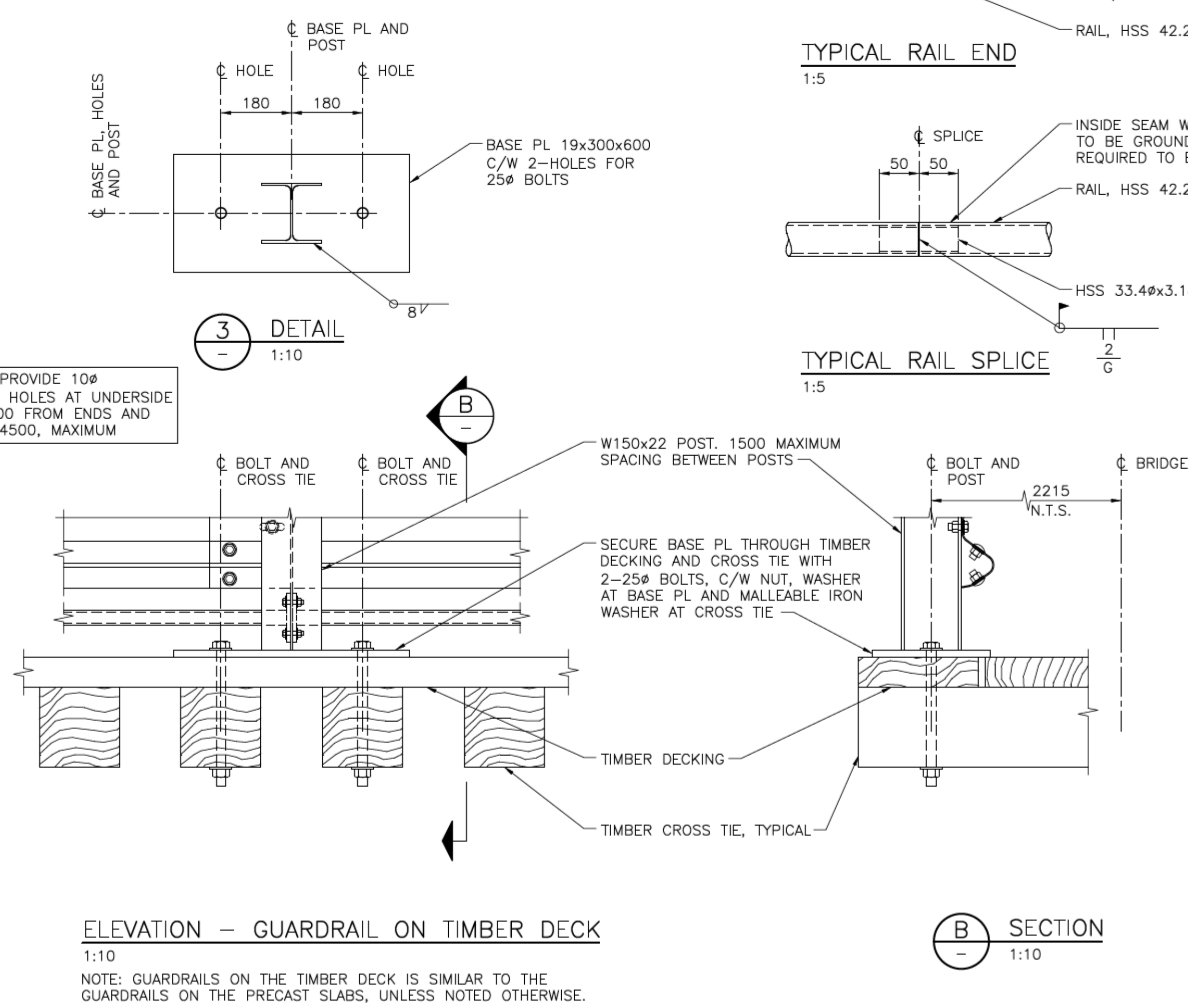
NOTES:
 1. FOR GENERAL NOTES, SEE DWG. S01.
 2. LIFTING DESIGN BY PRE-CAST CONTRATOR AS PER CSA A23.4.

ISSUES				SUB CONSULTANT				DRAFTED JMC		ENGINEERS SEAL		PRECAST CONCRETE UNITS		LITTLE QUALICUM RIVER PEDESTRIAN BRIDGE UPGRADES RECREATION & PARKS PARKSVILLE BC V9P 2X4 REGIONAL DISTRICT OF NANAIMO		REL PROJECT No. 0837-038		CLIENT DWG. No. N/A	
No.	DATE	ISSUED FOR	No.	DATE	ISSUED FOR	No.	DATE	ISSUED FOR											
A	2017.05.15	CLIENT REVIEW																	
B	2017.06.07	TENDER																	
<p>HEROLD ENGINEERING 3701 Shenton Rd, Nanaimo, BC V9T 2H1 Tel: 250-751-8558 Fax: 250-751-8559 Email: mail@heroldengineering.com</p>																REL DRAWING No. S04		REVISION B	

ARCHITECTURAL Dwg No. 17 448 PM User: jay@herold.com
 The file path is: \\herold.com\Projects\2017\0837-038\Drawings\Arch\0837-038-010.dwg, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.



ALL RAILS: PROVIDE 10φ VENT/ DRAIN HOLES AT UNDERSIDE OF PIPE, 100 FROM ENDS AND SPACED @ 4500, MAXIMUM



NOTES:
1. FOR GENERAL NOTES, SEE DWG. S01.

ISSUES					
No.	DATE	ISSUED FOR	No.	DATE	ISSUED FOR
A	2017.06.07	TENDER			

SUB CONSULTANT	

DRAFTED JUMC
DRAFTING REVIEW
DESIGNED SJS/SPS
DESIGN REVIEW

HEROLD ENGINEERING

3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250-751-8558 Fax: 250-751-8559
Email: mail@heroldengineering.com

ENGINEERS SEAL

DETAILS - SHEET 2

LITTLE QUALICUM
RIVER PEDESTRIAN BRIDGE UPGRADES
RECREATION & PARKS PARKSVILLE BC V9P 2X4
REGIONAL DISTRICT OF NANAIMO

HEL PROJECT No. 0837-038	CLIENT DWG. No. N/A
SCALE AS SHOWN	PERMIT No. N/A
HEL DRAWING No. S07	REVISION A