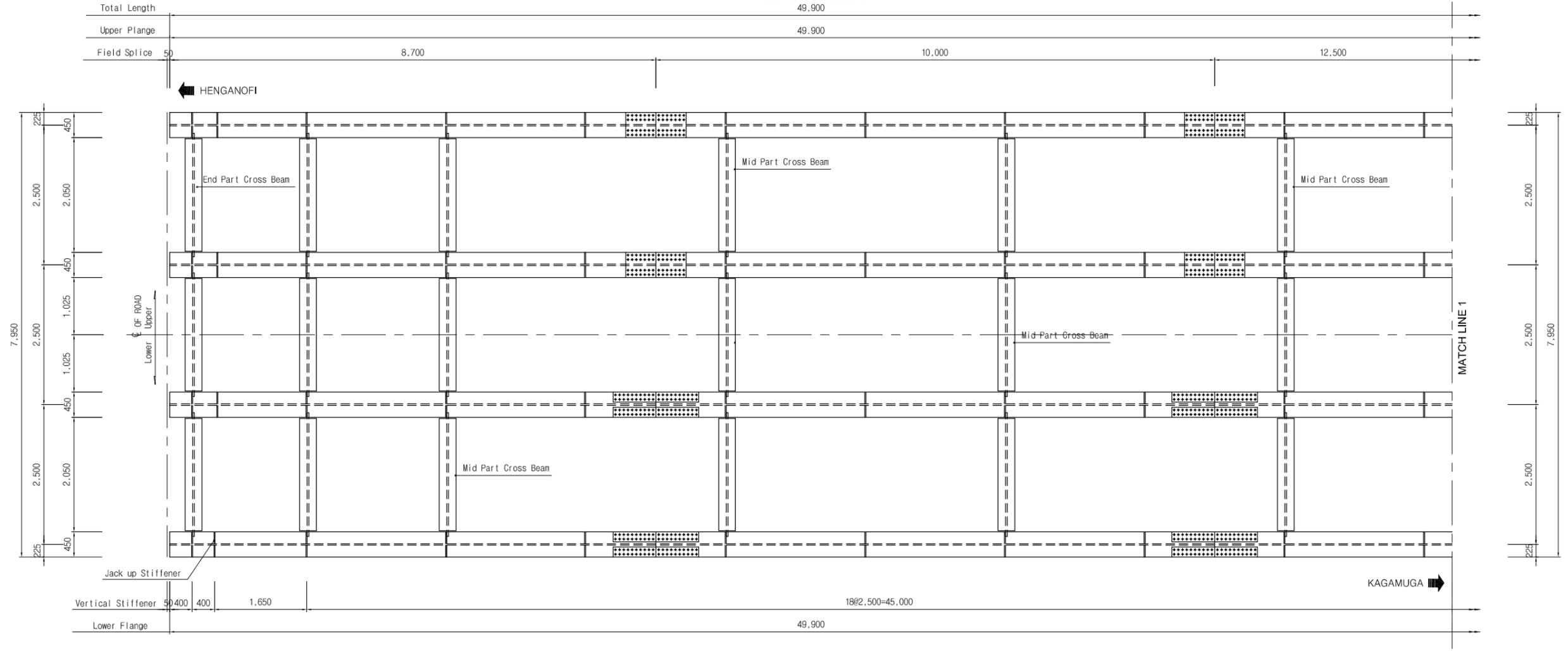
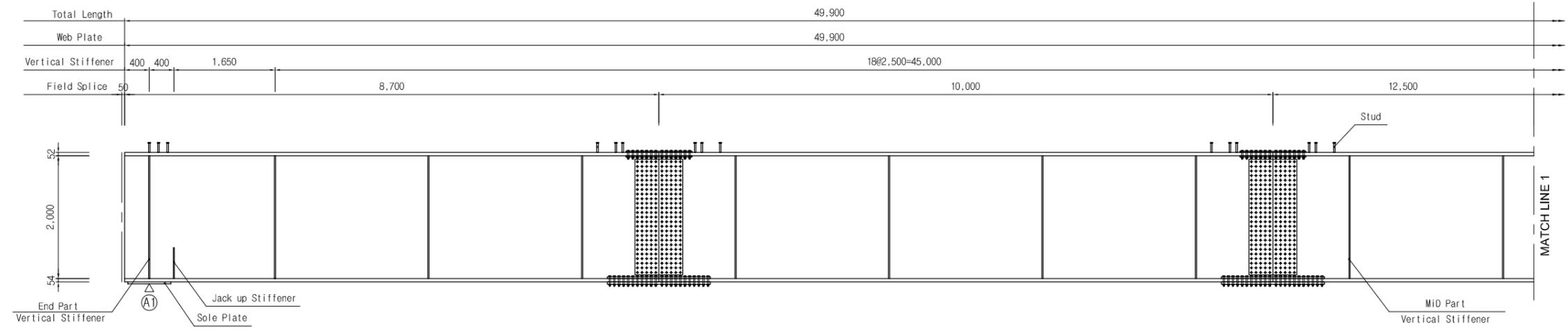


PLAN VIEW

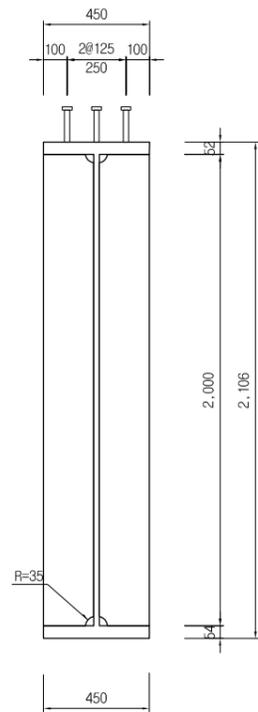


LONGITUDINAL SECTION



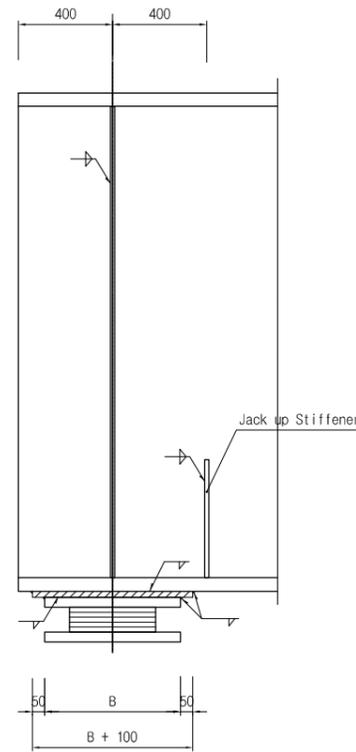
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|------|------------|----|-------|-----------------|--------------------|--------------------------|-----------------------|-------------|----------------|--|--|---|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:40 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE STEEL GIRDER - GENERAL LAYOUT(1) |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | APPROVED | PROJECT No. | AUTOCAD No. | DRAWING No. DEPARTMENT OF WORKS A1/ NB205 | |
| | | | | SURVEY BOOK Nos | CHECKED E.J. Oh | | EXECUTIVE ENGINEER | | | | SECRETARY | SHEET OF |

STEEL GIRDER DETAIL

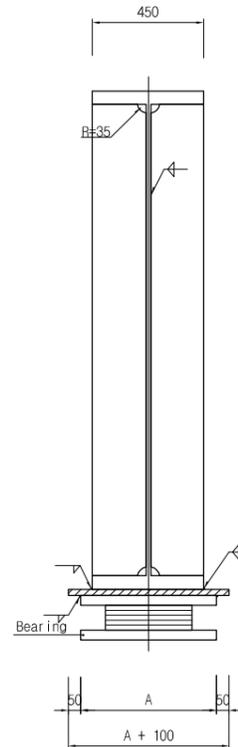


(Per Iea)
 PL-450X52X49,900X1EA (SM420) - MAIN GIRDER UPP. FLANGE
 PL-2,000X24X49,900X1EA (SM420) - MAIN GIRDER WEB
 PL-450X54X49,900X1EA (SM420) - MAIN GIRDER LOW. FLANGE

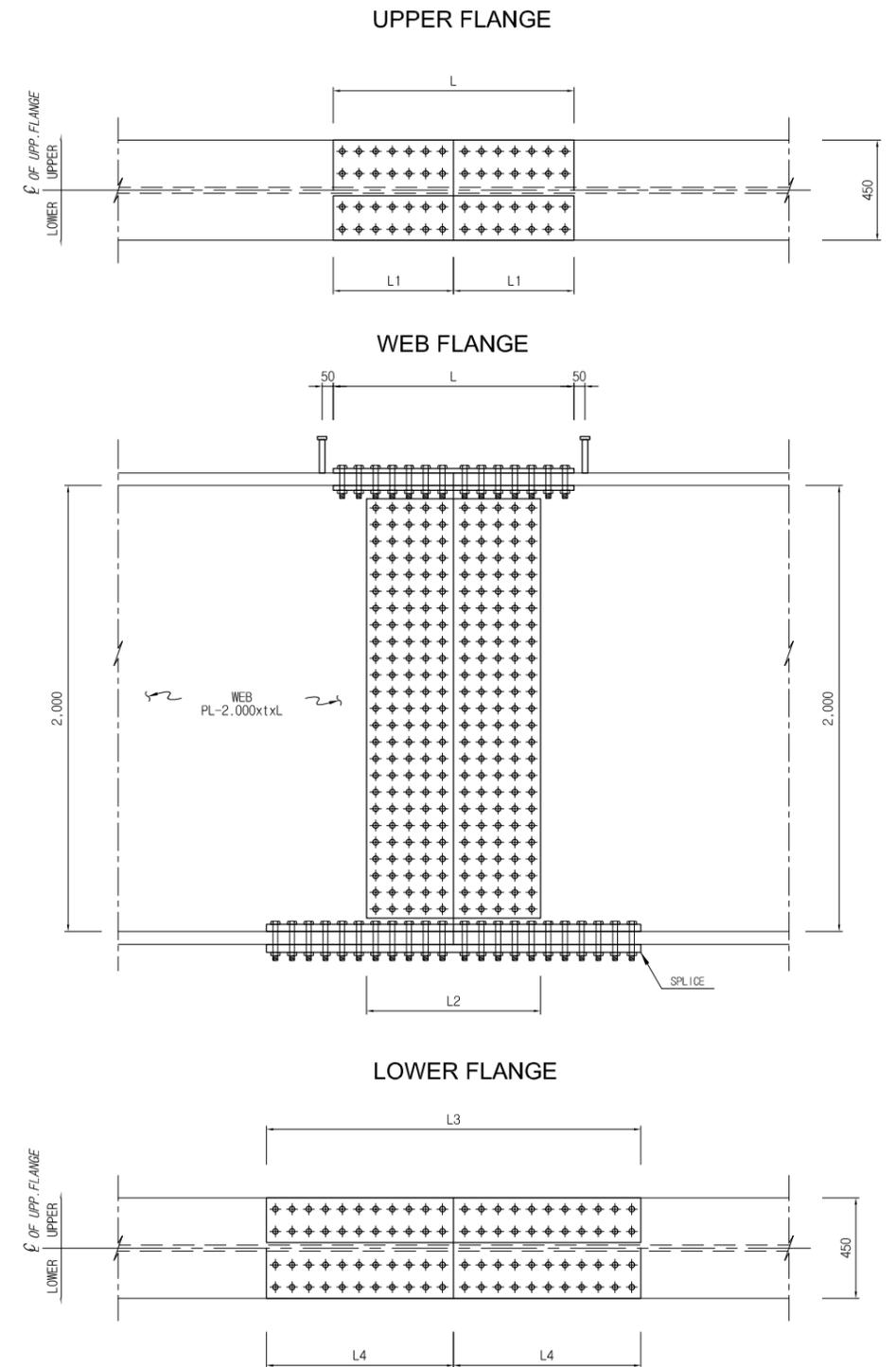
END PART DETAIL



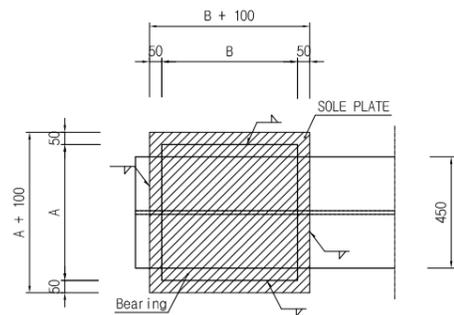
SECTION A-A



SPLICE DETAILS

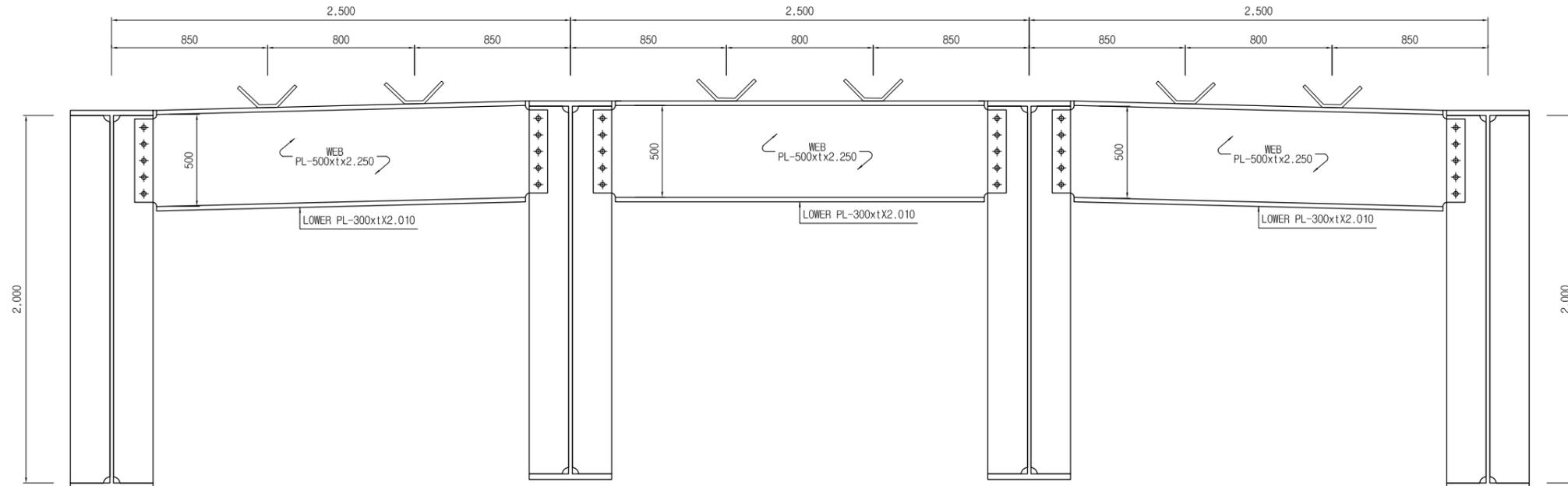


END PART PLAN VIEW

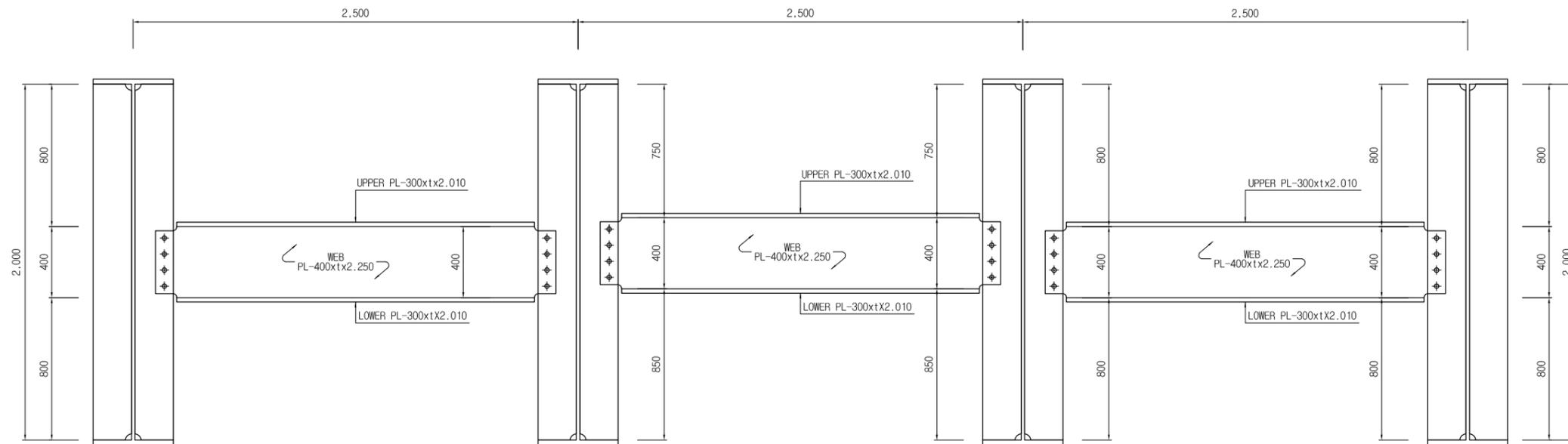


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|------|------------|----|-------|-----------------|------------------------|--------------------------|-----------------------|-------------|----------------|---|--------------------|---------------------------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:15 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE STEEL GIRDER DETAILS |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | APPROVED | SHEET OF | PROJECT No. | AUTOCAD No. | PAPUA NEW GUINEA |
| | | | | SURVEY BOOK Nos | CHECKED E.J. Oh | | EXECUTIVE ENGINEER | | | | | SECRETARY |

END CROSS BEAM AT ABUTMENT



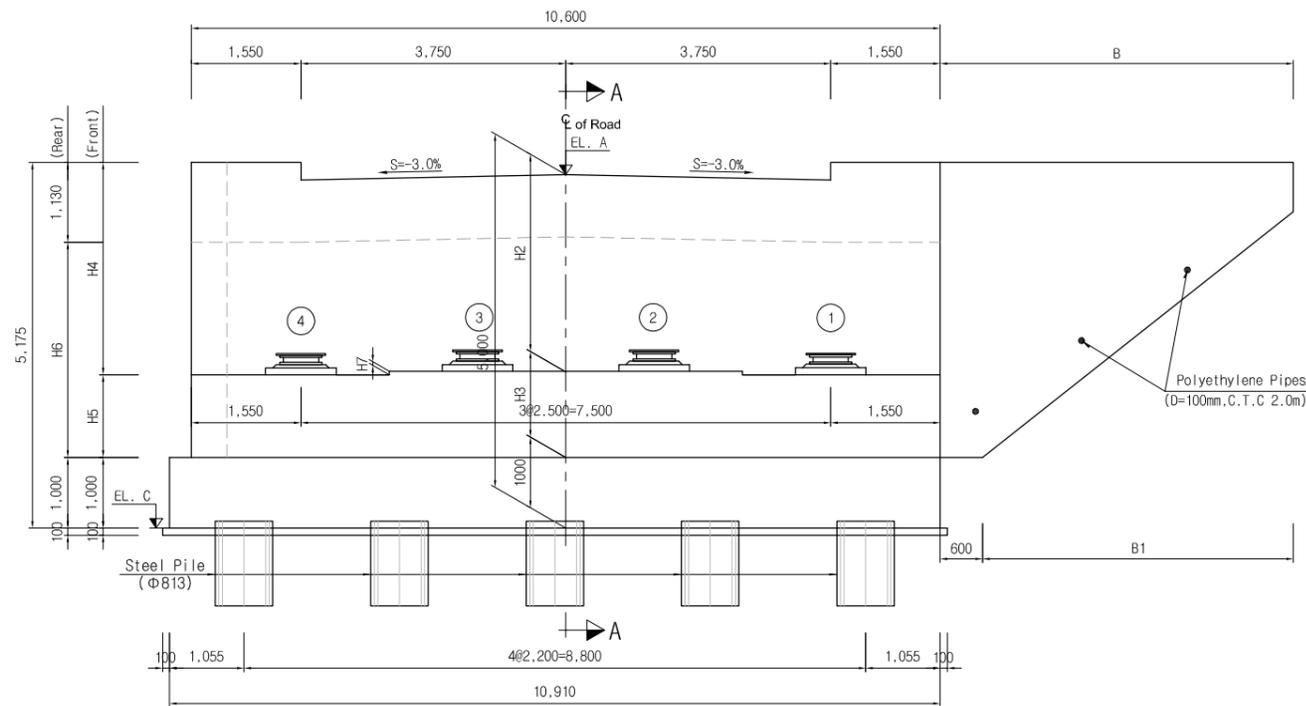
TYPICAL INTERMEDIATE CROSS BEAM DETAILS



| | | | | | | | | | | | | |
|------|------------|----|-------|-----------------|------------------------|---|-----------------------|-------------|----------------|--|--|------------------------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:15 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE DIAPHRAGM DETAILS |
| | | | | | HORIZONTAL DATUM |  | DESIGNED I.H. Jang | APPROVED | PROJECT No. | AUTOCAD No. | DRAWING No. DEPARTMENT OF WORKS A1/ NB208 | |
| | | | | SURVEY BOOK Nos | PRINCIPAL Date | | CHECKED E.J. Oh | | | | EXECUTIVE ENGINEER | SECRETARY |

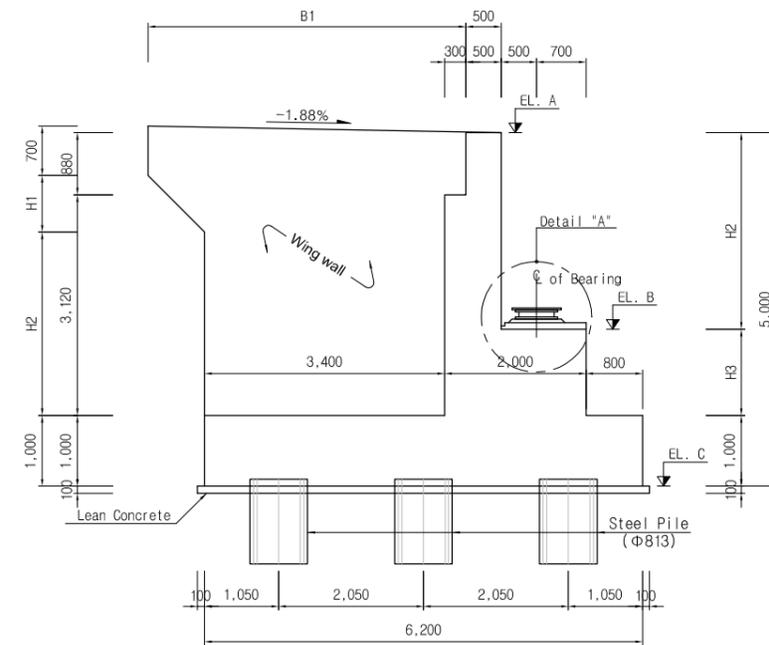
FRONT VIEW

S=1:50



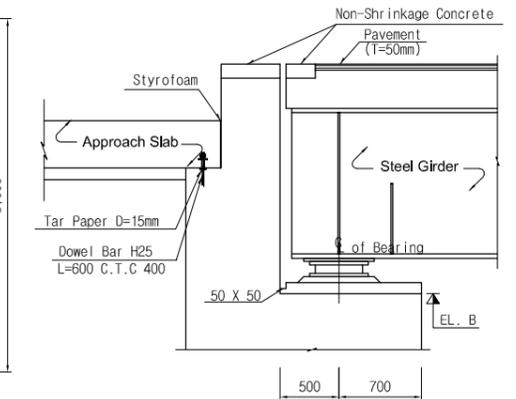
SECTION A-A

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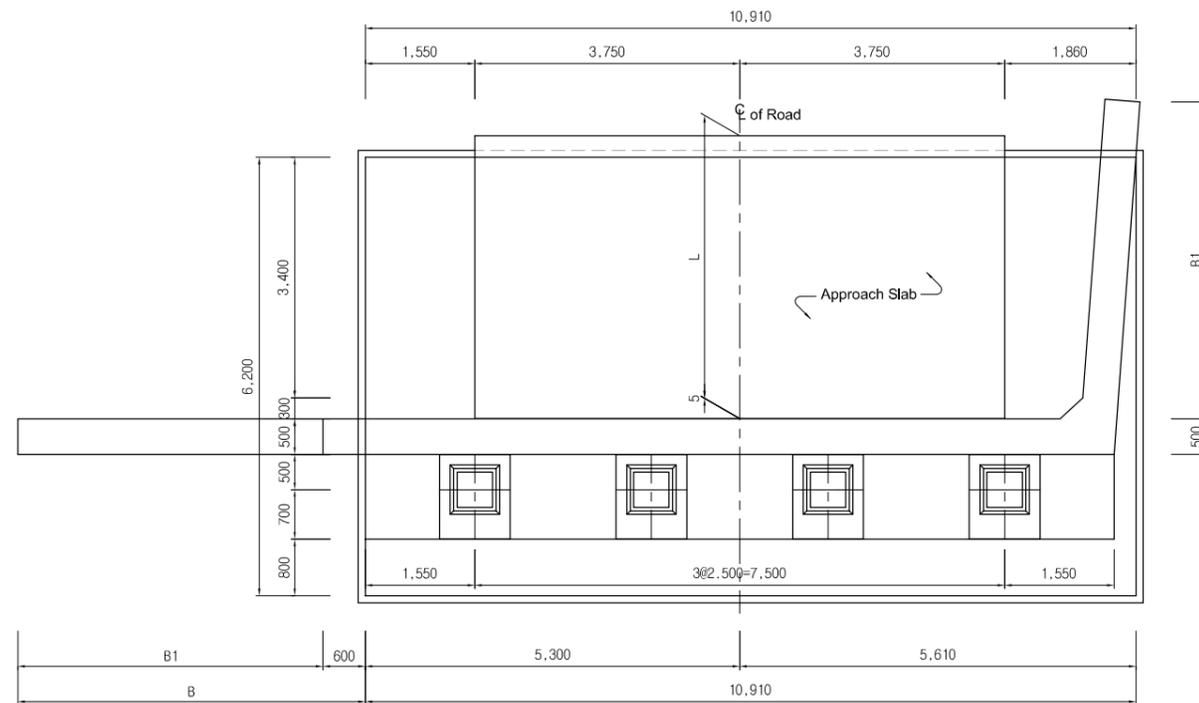
DETAIL "A"

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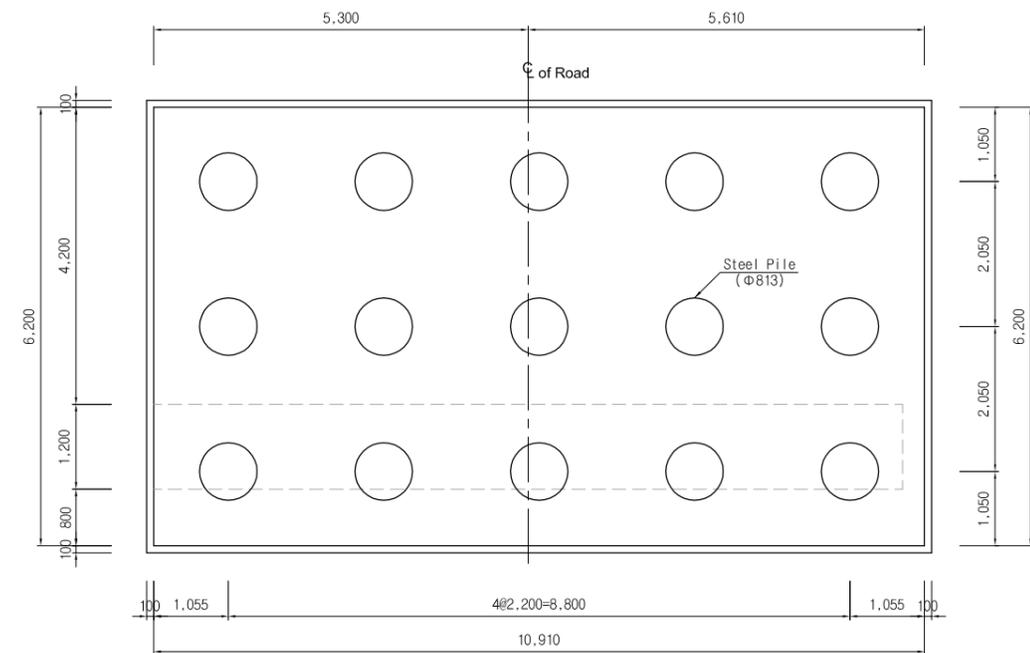
PLAN VIEW

S=1:50



FOUNDATION PLAN VIEW

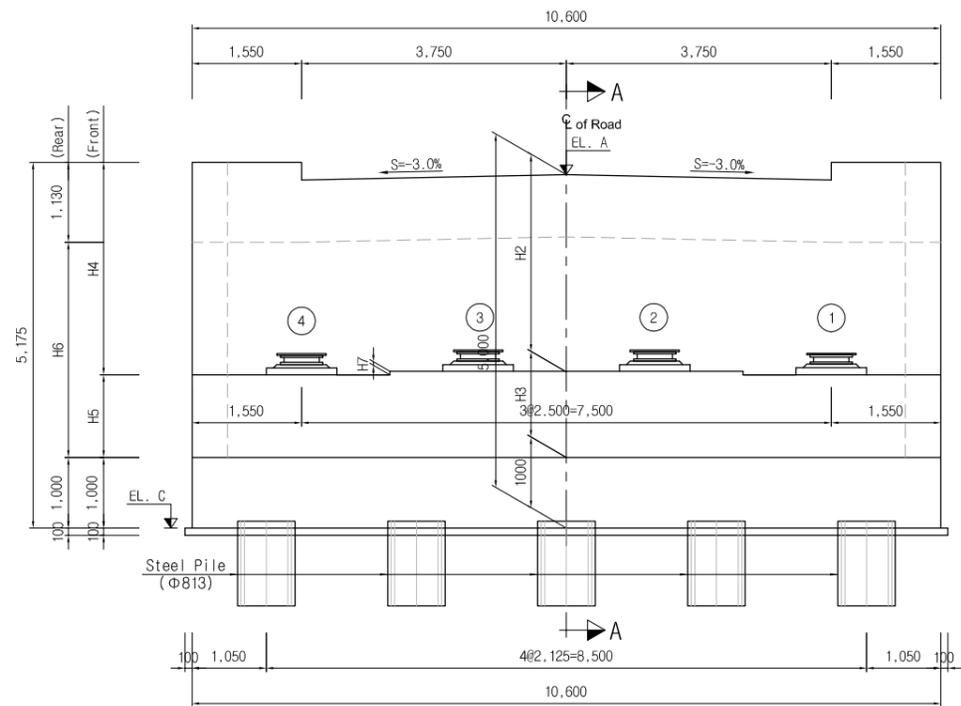
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| | | | | | | | | | | | | | | | | | |
|------|------------|----|-------|------|------------------|--------------------------|-----------------------|-------------|---------------------------|---|--|-----------|----|-------------|-------------|------------------|---------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES AS SHOWN | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | | | | | | |
| | | | | | VERTICAL DATUM | | CHECKED Y.J. Kim | | | PRINCIPAL ENGINEER | DRAWING TITLE ABUTMENT - GENERAL LAYOUT (A1) | | | | | | |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | | | | EXECUTIVE ENGINEER | SHEET | OF | PROJECT No. | AUTOCAD No. | PAPUA NEW GUINEA | DRAWING No. |
| | | | | | SURVEY BOOK Nos | | CHECKED E.J. Oh | | | PRINCIPAL | | SECRETARY | | | | | DEPARTMENT OF WORKS |

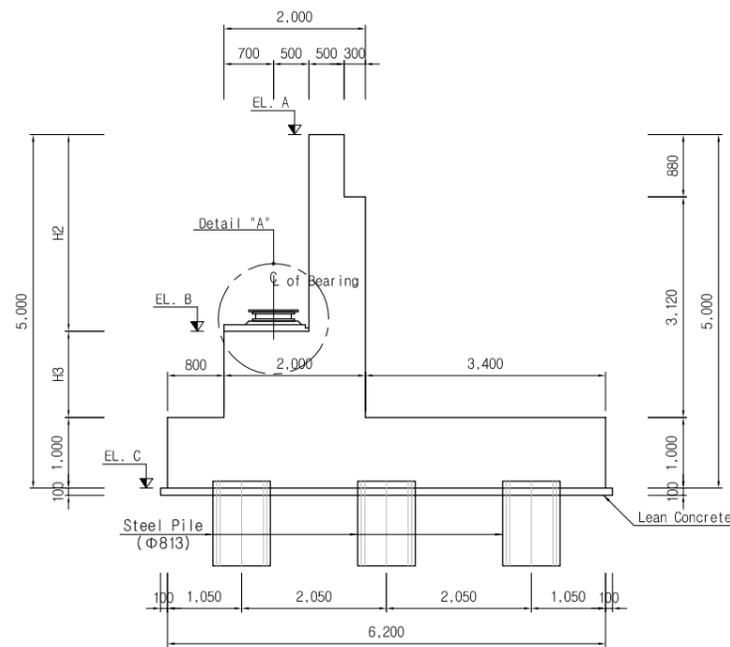
FRONT VIEW

S=1:50



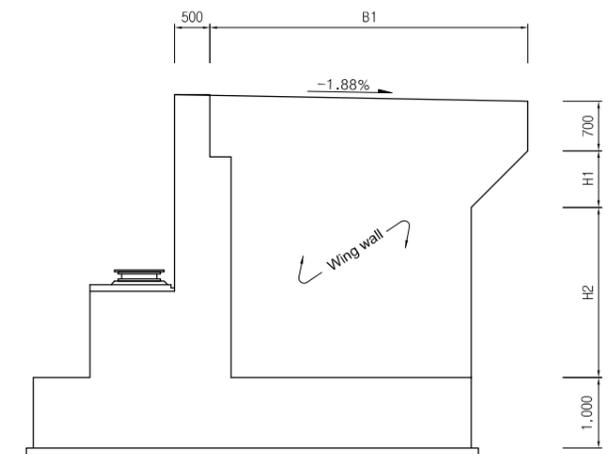
SECTION A-A

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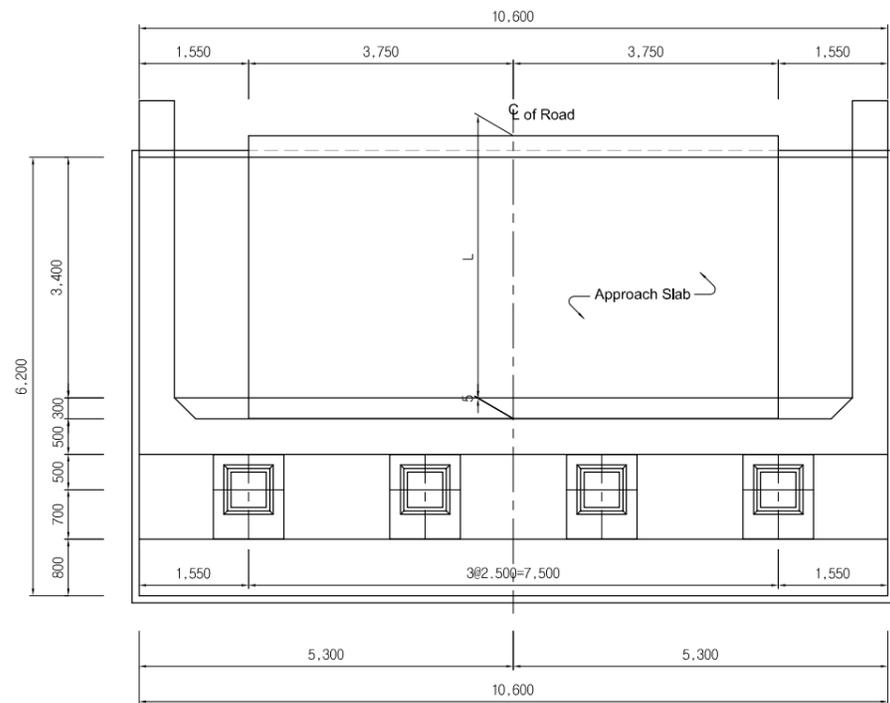
WING WALL SECTION

S=1:50



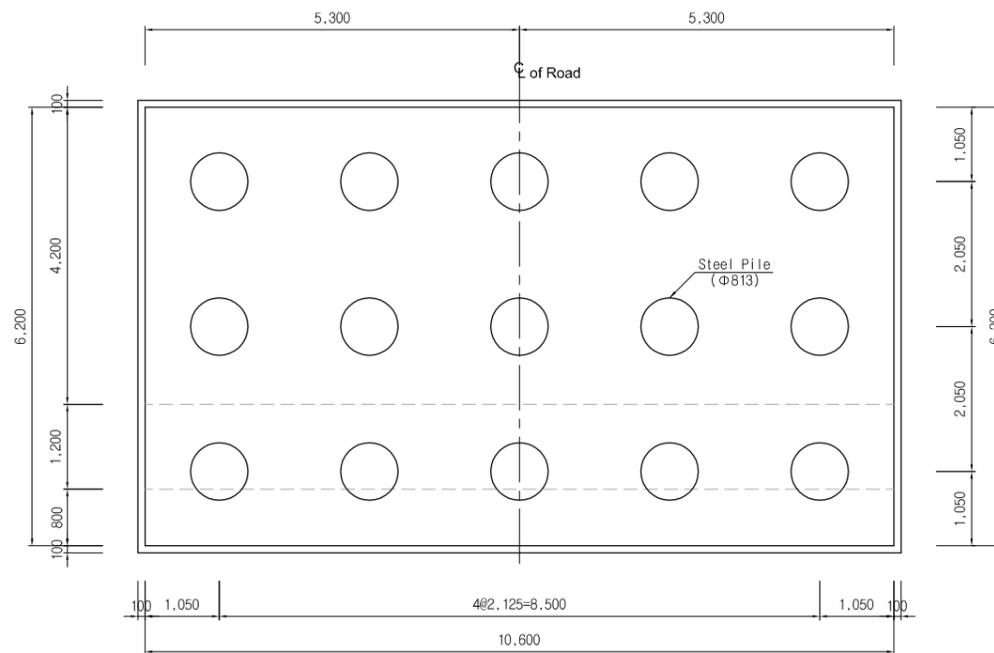
PLAN VIEW

S=1:50



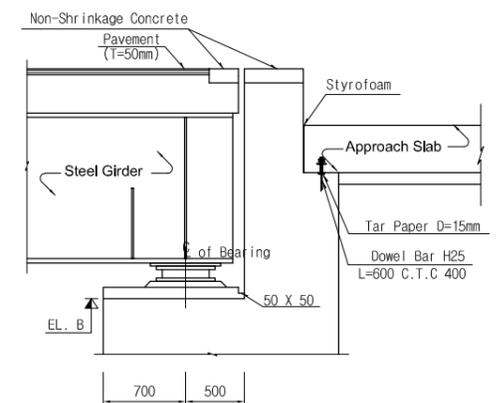
FOUNDATION PLAN VIEW

S=1:50



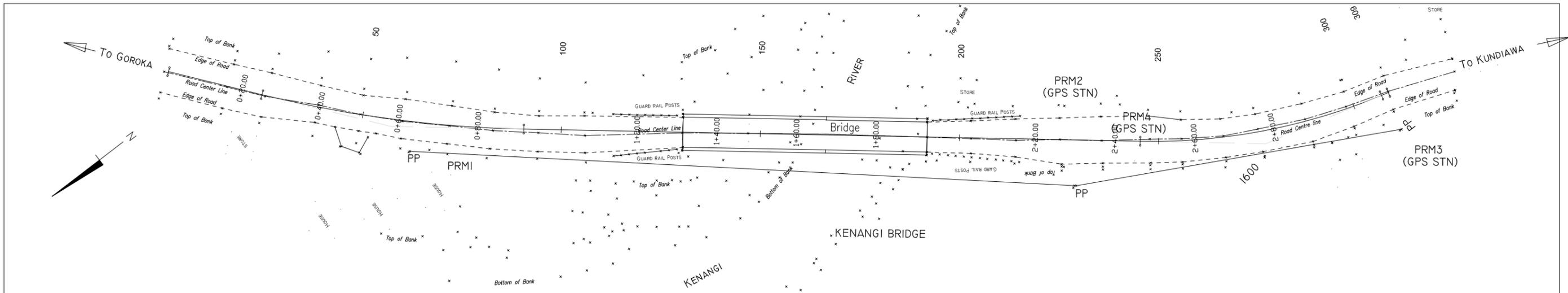
DETAIL "A"

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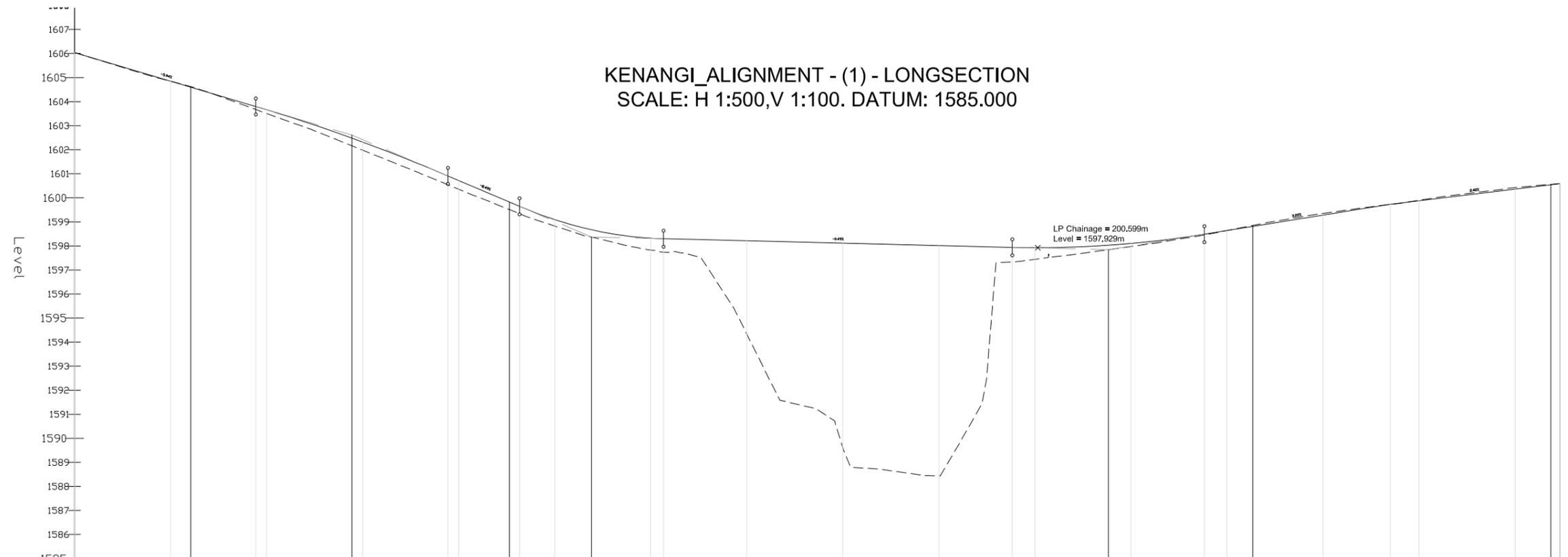


| | | | | | | | | | | | | |
|------|------------|----|-------|-----------------|------------------------|--------------------------|-----------------------|-------------|---------------------------|---|----------------------------------|------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES AS SHOWN | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | | | |
| | | | | | HORIZONTAL DATUM | PRINCIPAL | DESIGNED I.H. Jang | APPROVED | PROJECT No. | AUTOCAD No. | DRAWING No. PA1/ NB210 | |
| | | | | SURVEY BOOK Nos | CHECKED E.J. Oh | | EXECUTIVE ENGINEER | | | | SECRETARY | REV. |

53. Kenangi River Bridge



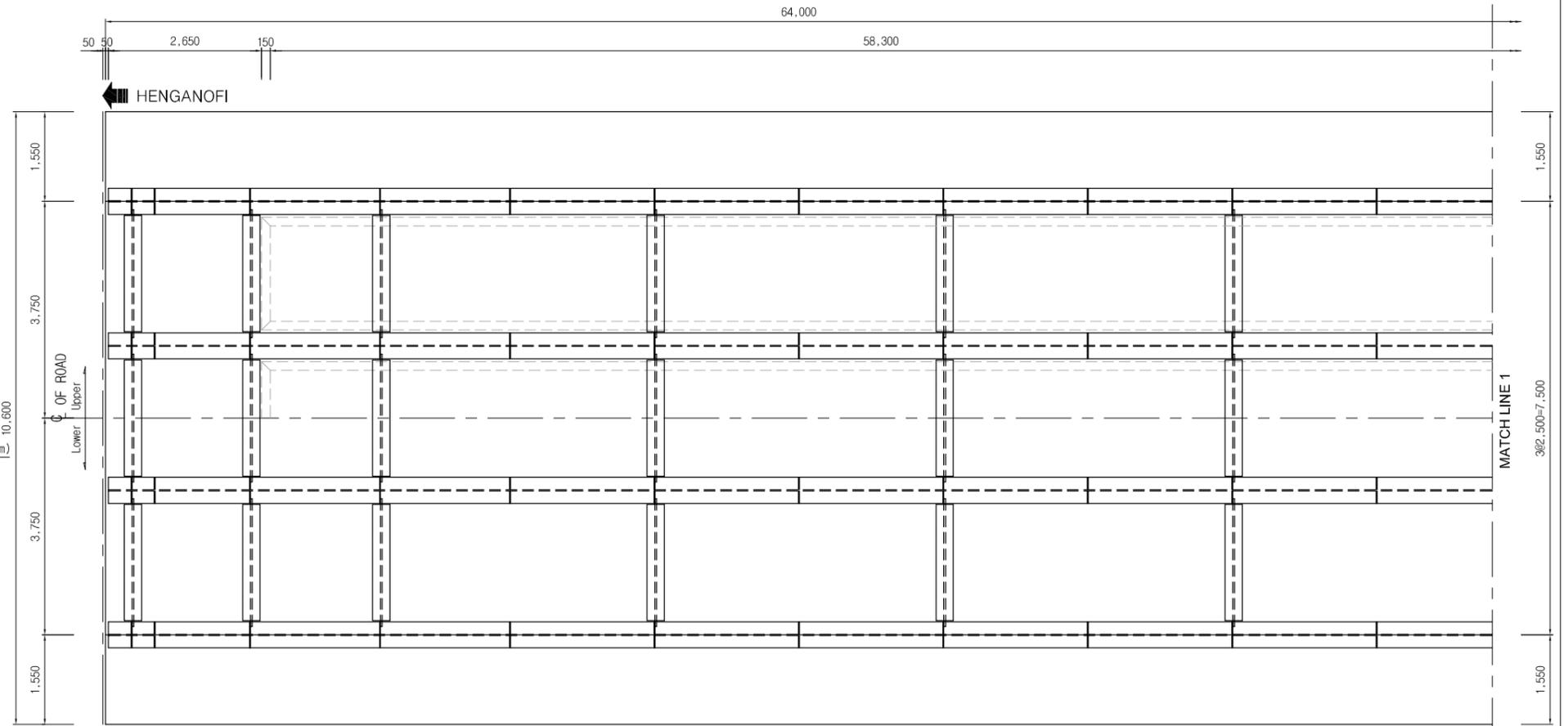
KENANGI_ALIGNMENT - (1) - LONGSECTION
 SCALE: H 1:500, V 1:100. DATUM: 1585.000



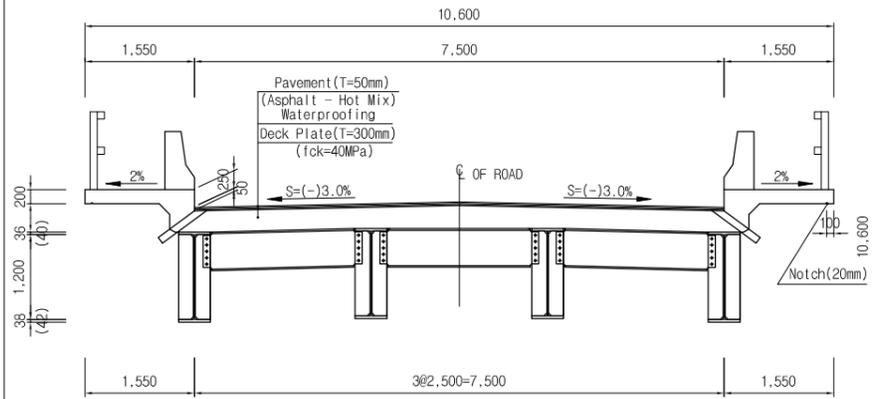
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|---------------------|------------|----------|-------------------------|----------|----------|----------|----------|----------|-------------|----------|----------|----------|----------|----------|-------------------------|----------|-----------|----------|----------|----------|
| Proposed Levels | 1606.041 | 1604.849 | 1603.504 | 1602.789 | 1601.978 | 1600.357 | 1598.827 | 1597.823 | 1594.333 | 1591.437 | 1589.611 | 1588.437 | 1597.442 | 1597.974 | 1596.640 | 1599.024 | 1599.350 | 1599.898 | 1600.425 | 1600.586 |
| Existing Levels | 1606.041 | 1604.849 | 1603.504 | 1602.789 | 1601.978 | 1600.357 | 1598.827 | 1597.823 | 1594.333 | 1591.437 | 1589.611 | 1588.437 | 1597.442 | 1597.974 | 1596.640 | 1599.024 | 1599.350 | 1599.898 | 1600.425 | 1600.586 |
| Chainage | 00.000 | 20.000 | 40.000 | 50.000 | 60.000 | 80.000 | 100.000 | 120.000 | 140.000 | 150.000 | 160.000 | 180.000 | 200.000 | 220.000 | 240.000 | 250.000 | 260.000 | 280.000 | 300.000 | 309.316 |
| Horizontal Geometry | L = 24.173 | | R: 300.000 L: 66.407 | | | | | | L = 154.800 | | | | | | R: 150.000 L: 62.081 | | L = 1.855 | | | |

| | | | | | | | | | | | | | |
|------------------|--------------------|----------|----------|---------------|-----------------|------------|--------------------|-------------|----------|---------------------|--|--------------------------------------|--|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT | DRAWN | RECOMMENDED | SCALES | PROJECT TITLE | | | |
| | | | | | VERTICAL DATUM | | D. VALLIKAY | | | H 1:1000 V 1:200 | ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| HORIZONTAL DATUM | PRINCIPAL ENGINEER | A. WAZOB | APPROVED | DRAWING TITLE | | | | | | | | | |
| | | | | | SURVEY BOOK Nos | PRINCIPAL | EXECUTIVE ENGINEER | SECRETARY | SHEET OF | PROJECT No. | AUTOCAD No. | PLAN AND PROFILE SHEET - KENANGI | |
| | | | | | | Date | I. JANG | | | | | PAPUA NEW GUINEA DEPARTMENT OF WORKS | |
| | | | | | | | | | | | | DRAWING No. A1/ ARO35 | |

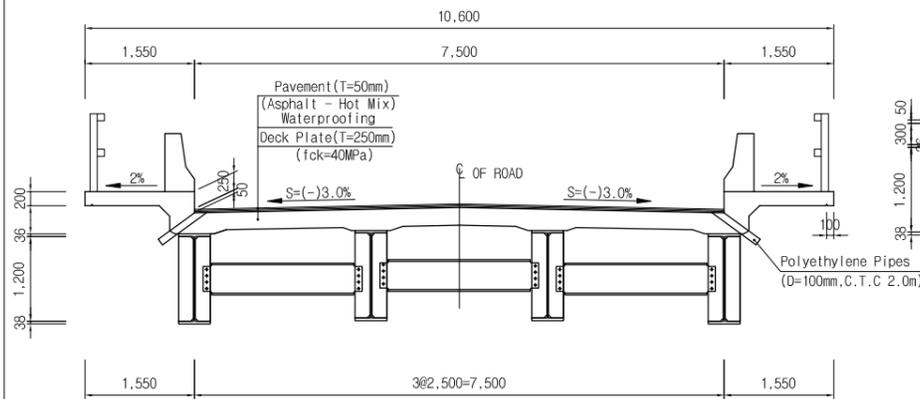
PLAN VIEW



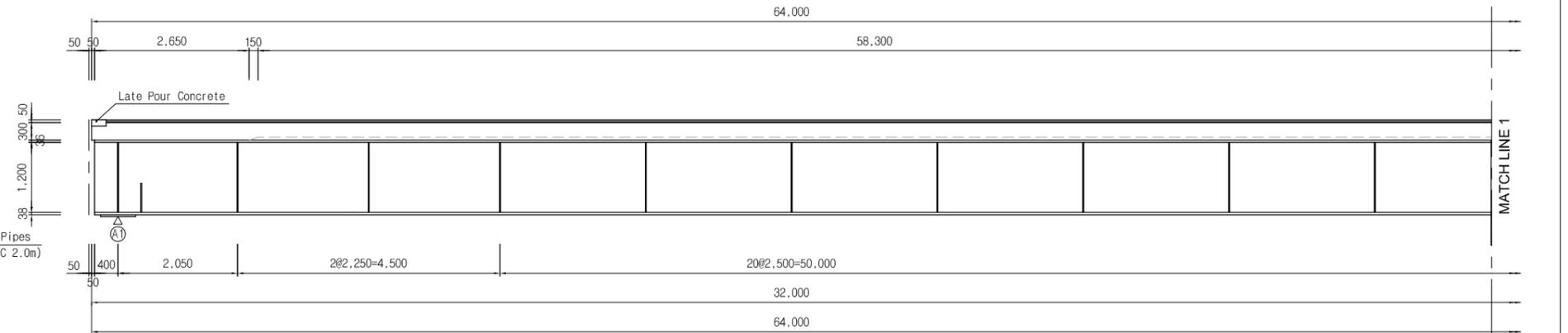
END PART SECTION



MID PART SECTION

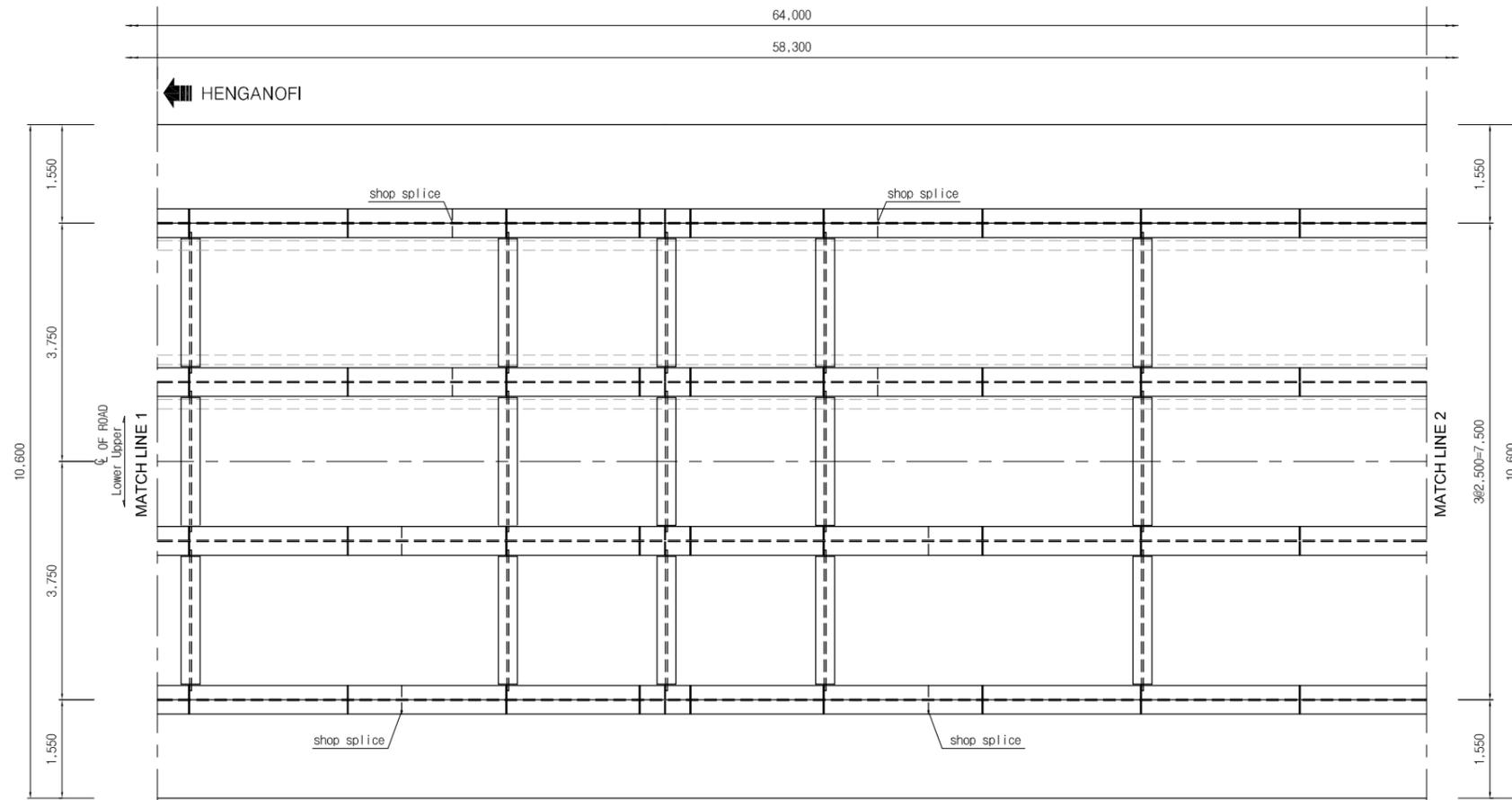


LONGITUDINAL SECTION

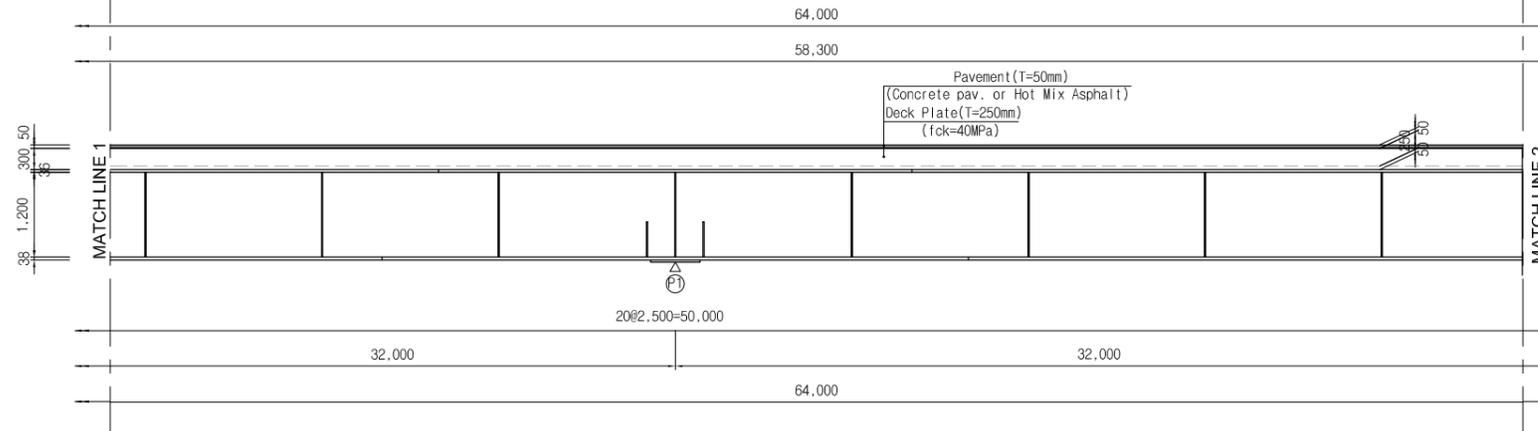


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|------|------------|----|-------|-----------------|------------------------|--------------------------|-----------------------|-------------|------------------|---|--------------------|---|--------------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1 : 50 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE SLAB-GENERAL LAYOUT(1) | |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | APPROVED | | SHEET OF | PROJECT No. | AUTOCAD No. | DRAWING No. A1/ NB212 |
| | | | | SURVEY BOOK Nos | PRINCIPAL | | DATE | | | | | | |

PLAN VIEW

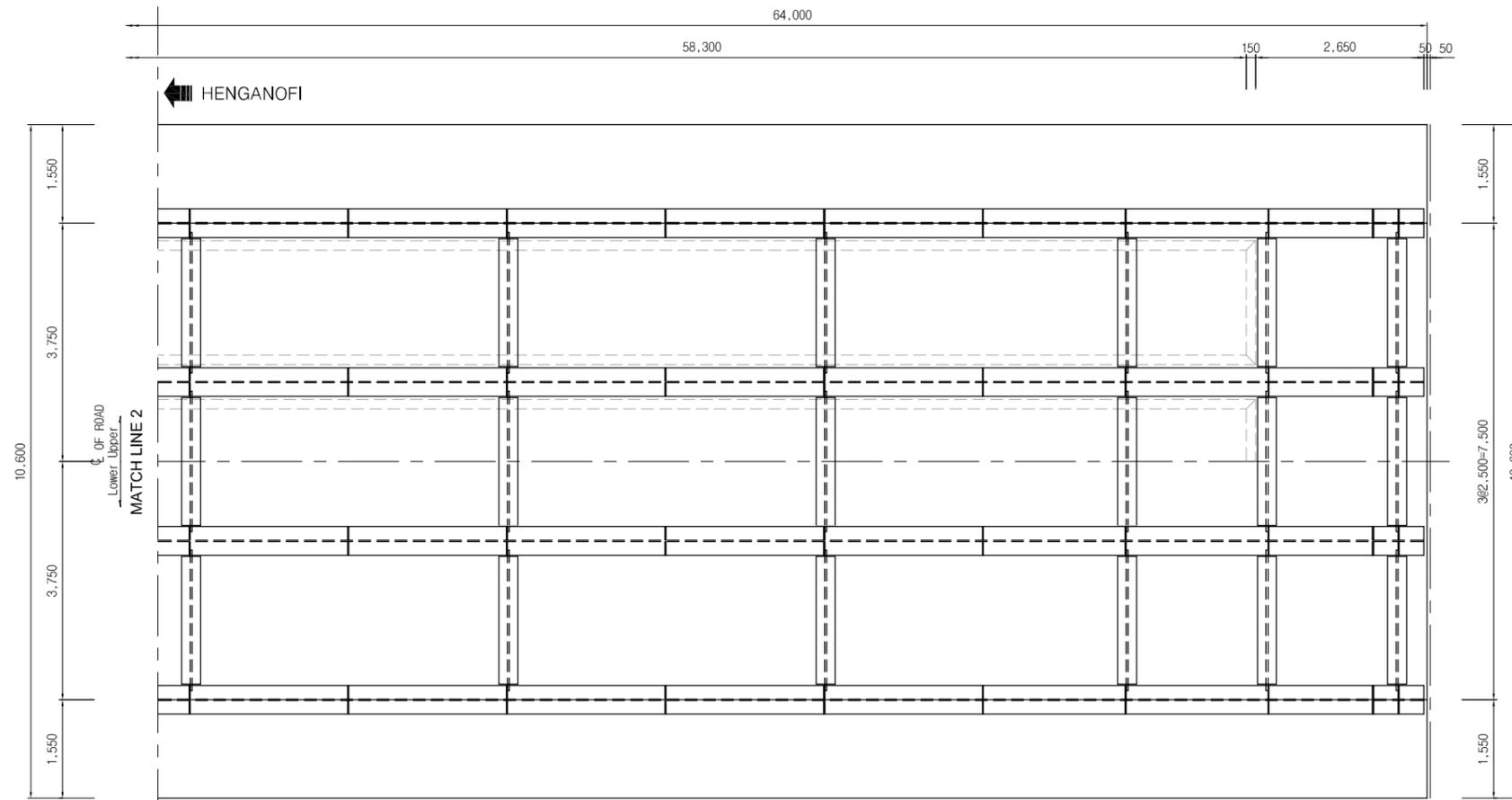


LONGITUDINAL SECTION

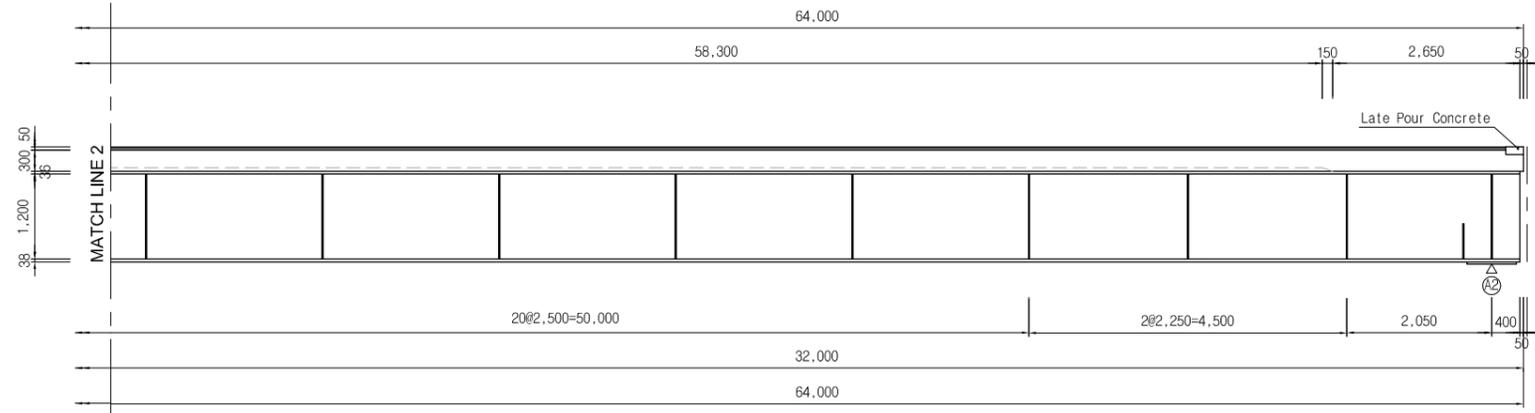


| | | | | | | | | | | | | |
|------|------------|----|-------|------|------------------------|--------------------------|-----------------------|--------------------|--------------------|---|--|---|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1 : 50 | | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE SLAB-GENERAL LAYOUT(2) | | |
| | | | | | HORIZONTAL DATUM | PRINCIPAL Date | DESIGNED I.H. Jang | APPROVED | SHEET OF | PROJECT No. | AUTOCAD No. | PAPUA NEW GUINEA DEPARTMENT OF WORKS |
| | | | | | SURVEY BOOK Nos | | CHECKED E.J. Oh | EXECUTIVE ENGINEER | SECRETARY | | | |

PLAN VIEW

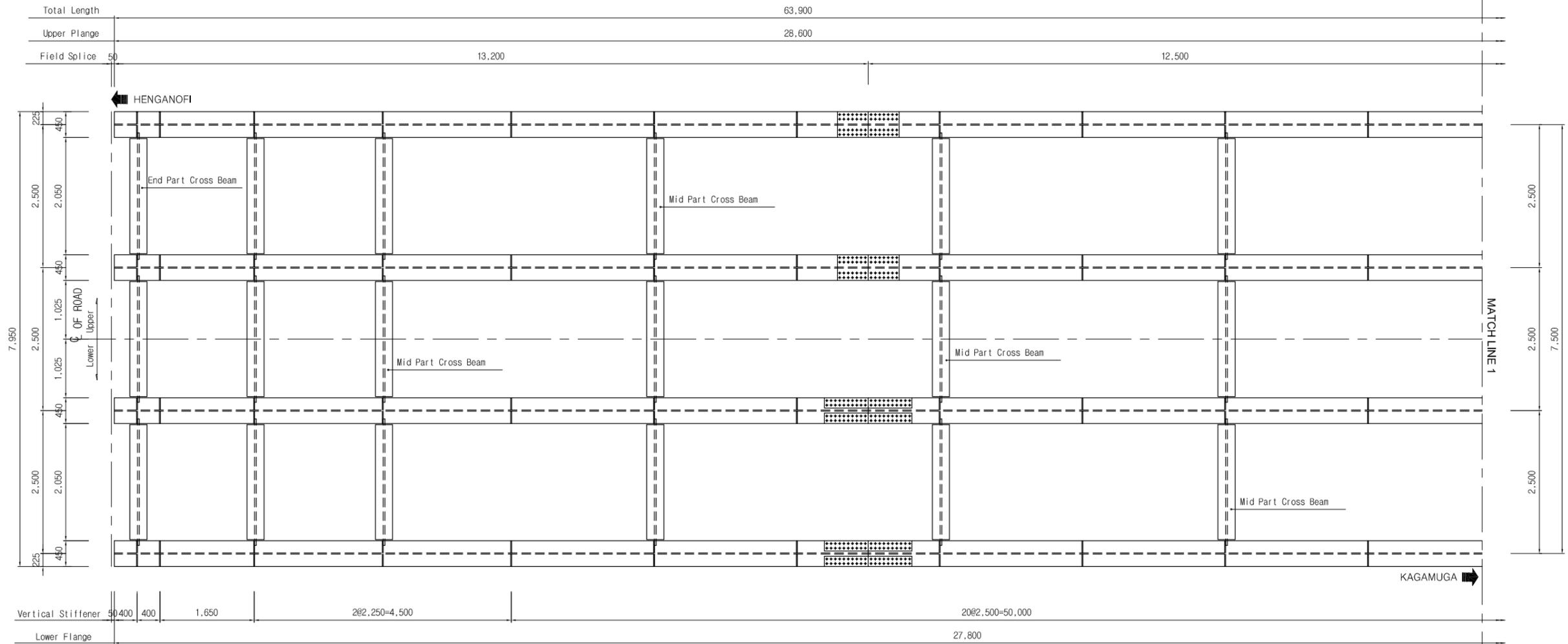


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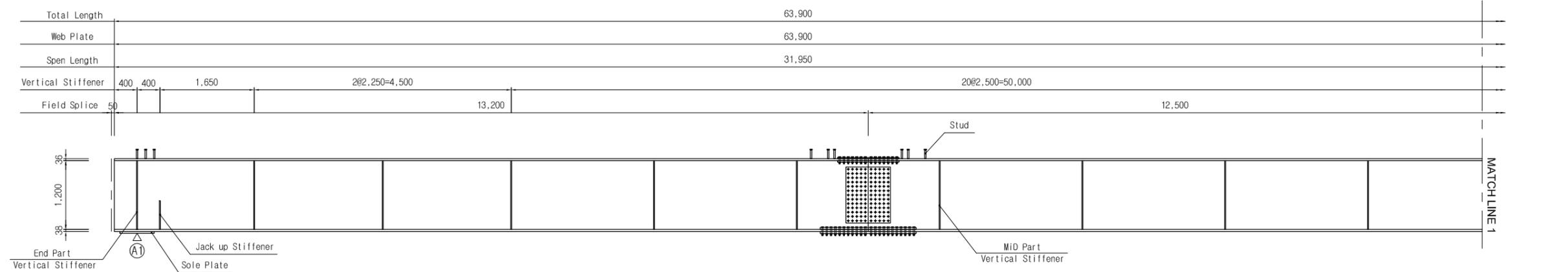


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|------|------------|----|-------|-----------------|------------------------|--------------------------|-----------------------|-------------|------------------|--|--------------------|---|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1 : 50 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE SLAB-GENERAL LAYOUT(3) |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | APPROVED | SHEET OF | PROJECT No. | AUTOCAD No. | PAPUA NEW GUINEA |
| | | | | SURVEY BOOK Nos | PRINCIPAL | | CHECKED E.J. Oh | | | | | EXECUTIVE ENGINEER |

PLAN VIEW

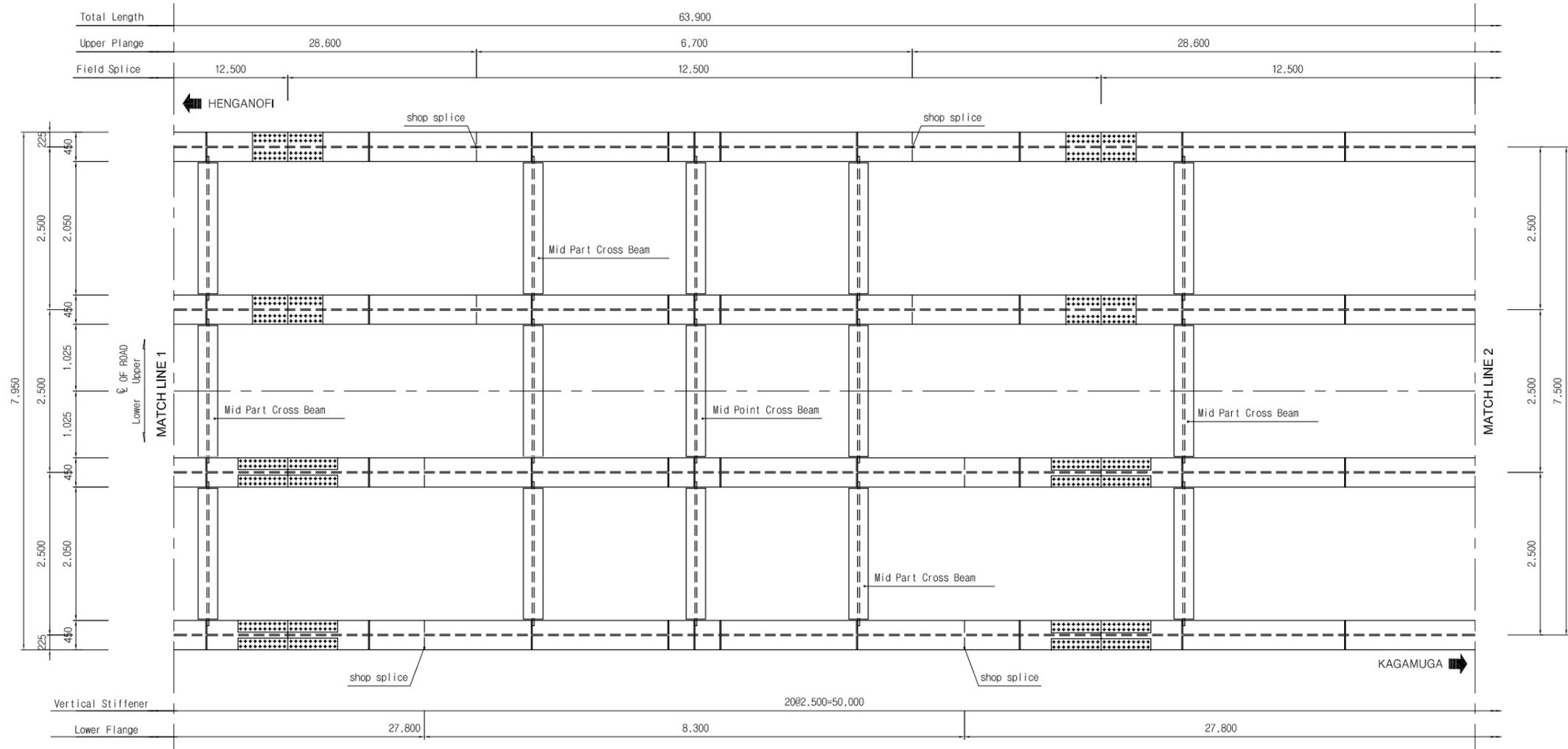


LONGITUDINAL SECTION

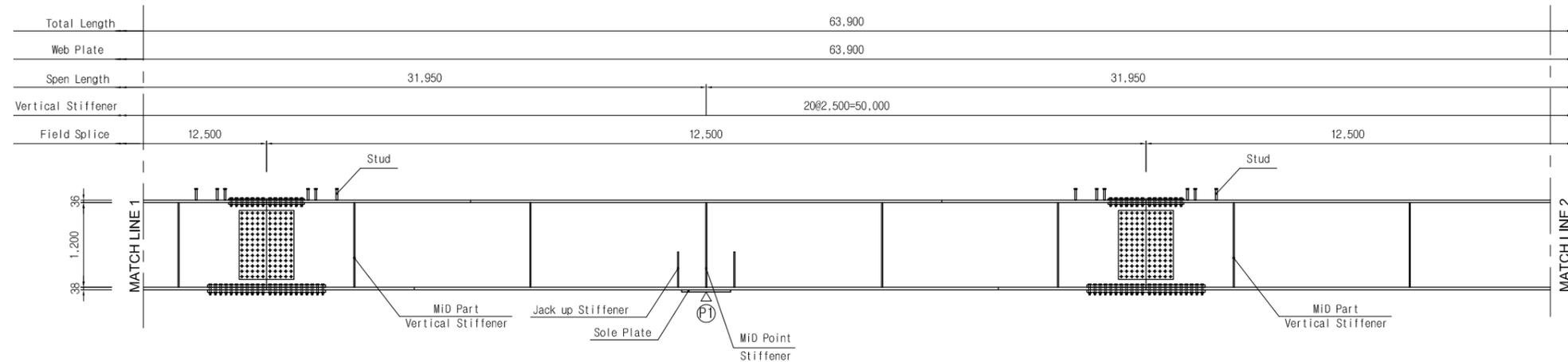


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|------|------------|----|-------|------------------|--------------------|--------------------------|-----------------------|--------------------|----------------|--|-------------|---------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:40 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | Date | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | APPROVED | PRINCIPAL ENGINEER |
| | | | | | VERTICAL DATUM | Date | DESIGNED I.H. Jang | EXECUTIVE ENGINEER | SHEET OF | PROJECT No. | AUTOCAD No. | PAPUA NEW GUINEA |
| | | | | HORIZONTAL DATUM | CHECKED E.J. Oh | | SECRETARY | | | | | DEPARTMENT OF WORKS |

PLAN VIEW

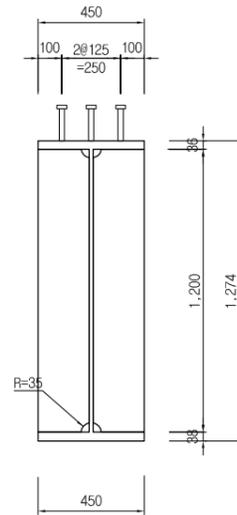


LONGITUDINAL SECTION



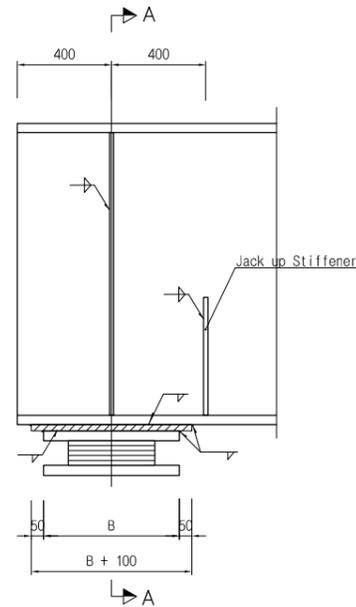
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| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:40 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | | DESIGNED I.H. Jang |
| | | | | | HORIZONTAL DATUM | PRINCIPAL Date | CHECKED E.J. Oh | APPROVED | SHEET OF | PROJECT No. AUTOCAD No. | PAPER No. DRAWING No. DEPARTMENT OF WORKS A1/ NB216 |
| | | | | | SURVEY BOOK Nos | | EXECUTIVE ENGINEER | SECRETARY | | | REV. |

STEEL GIRDER DETAIL(MIDSPAN)

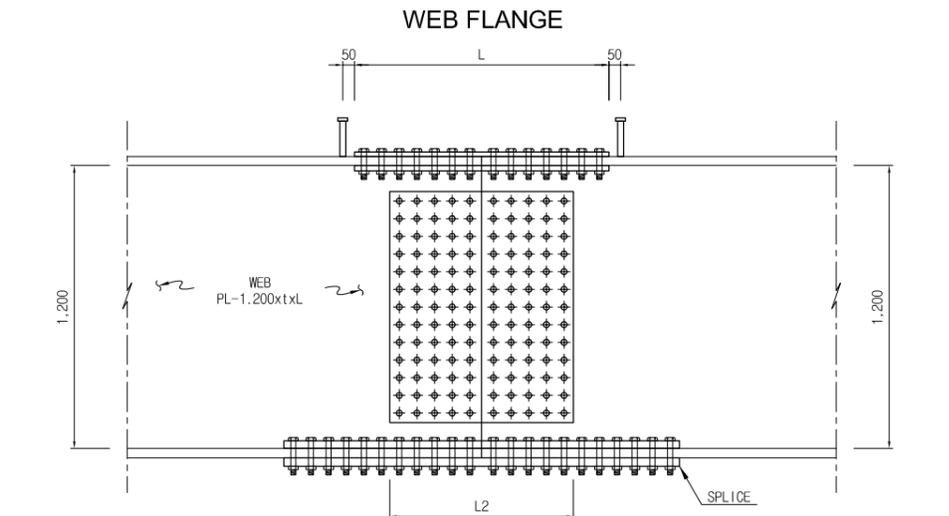
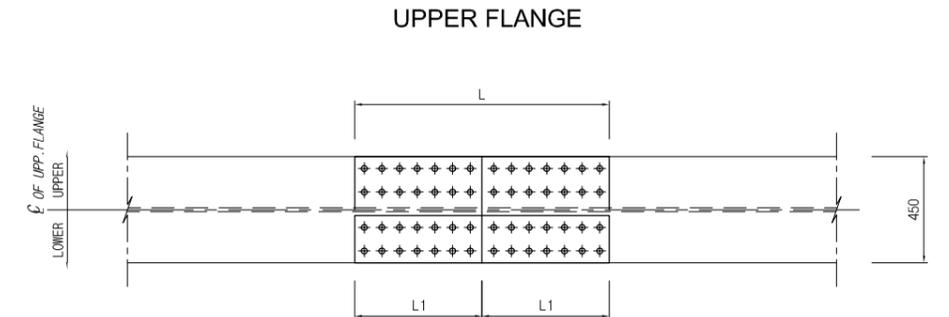


(Per 1ea)
 PL-450X36X28,600X2EA (SM420) - MAIN GIRDER UPP. FLANGE
 PL-1,200X20X28,600X2EA (SM420) - MAIN GIRDER WEB
 PL-450X38X27,800X2EA (SM420) - MAIN GIRDER LOW. FLANGE

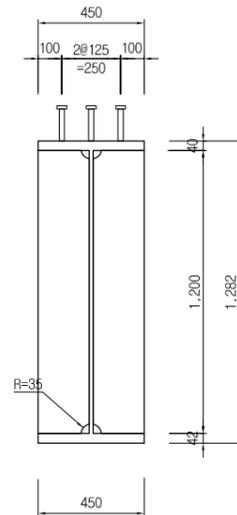
END PART DETAIL



SPLICE DETAILS

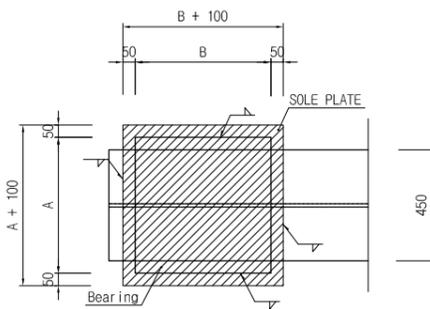


STEEL GIRDER DETAIL(SUPPORT)

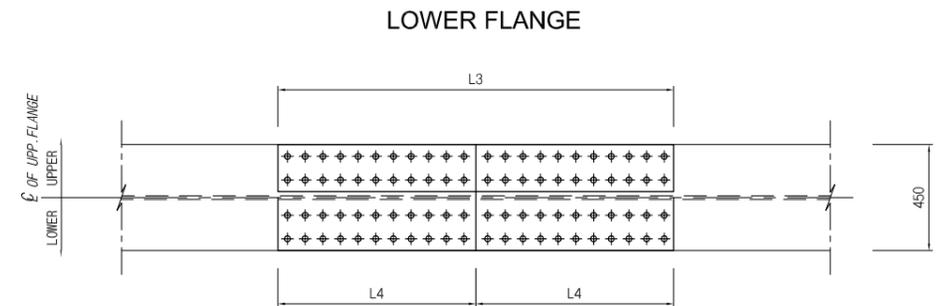
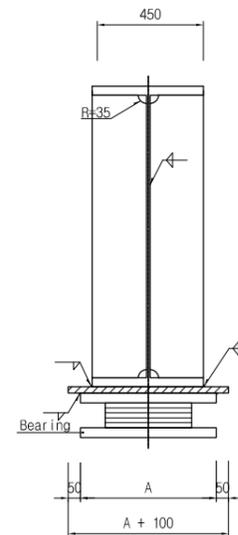


(Per 1ea)
 PL-450X40X6,700X1EA (SM420) - MAIN GIRDER UPP. FLANGE
 PL-1,200X20X6,700X1EA (SM420) - MAIN GIRDER WEB
 PL-450X42X8,300X1EA (SM420) - MAIN GIRDER LOW. FLANGE

END PART PLAN VIEW

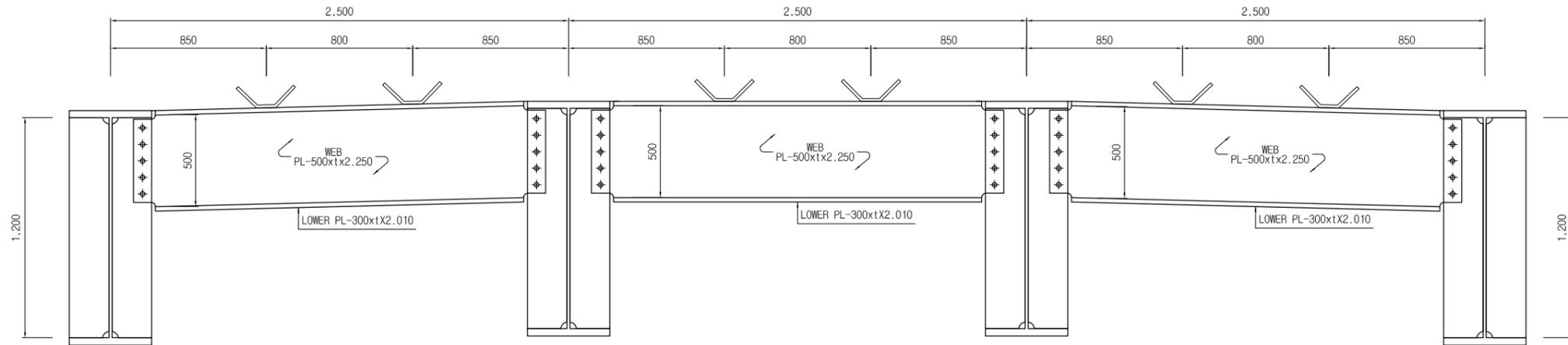


SECTION A-A

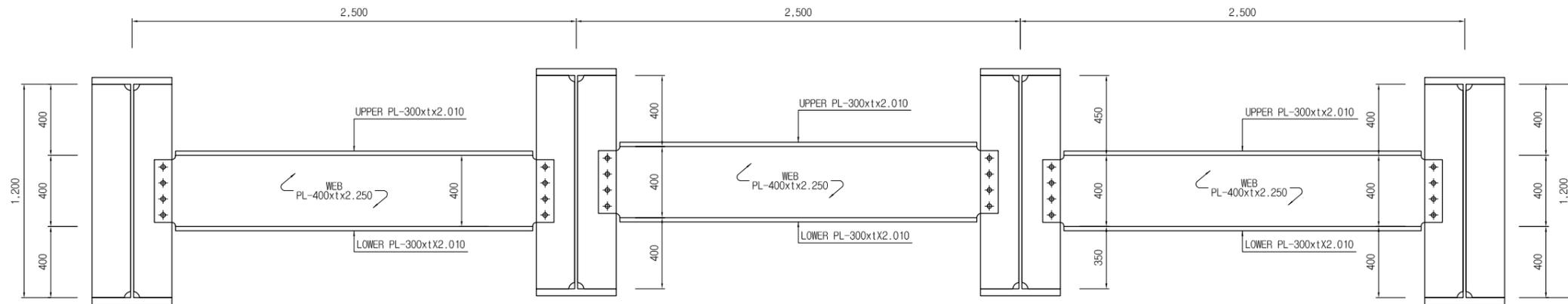


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|------|------------|--|--|----|-------|------|------------------|------------|--------------------|-------------|-----------|---|---------------------------------------|--------------------|-------------|
| REV. | AMENDMENTS | | | BY | APP'D | DATE | SURVEY | CONSULTANT | DRAWN | RECOMMENDED | SCALES | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | | |
| | | | | | | | VERTICAL DATUM | | M.M. Kim | | 1:15 | | DRAWING TITLE STEEL GIRDER DETAILS | | |
| | | | | | | | HORIZONTAL DATUM | | | Y.J. Kim | | PROJECT ENGINEER | | PRINCIPAL ENGINEER | |
| | | | | | | | SURVEY BOOK Nos | PRINCIPAL | I.H. Jang | APPROVED | SECRETARY | SHEET OF | PROJECT No. | AUTOCAD No. | DRAWING No. |
| | | | | | | | PRINCIPAL | E.J. Oh | EXECUTIVE ENGINEER | | | PAPUA NEW GUINEA | DEPARTMENT OF WORKS | A1/ NB218 | |

END CROSS BEAM AT ABUTMENT



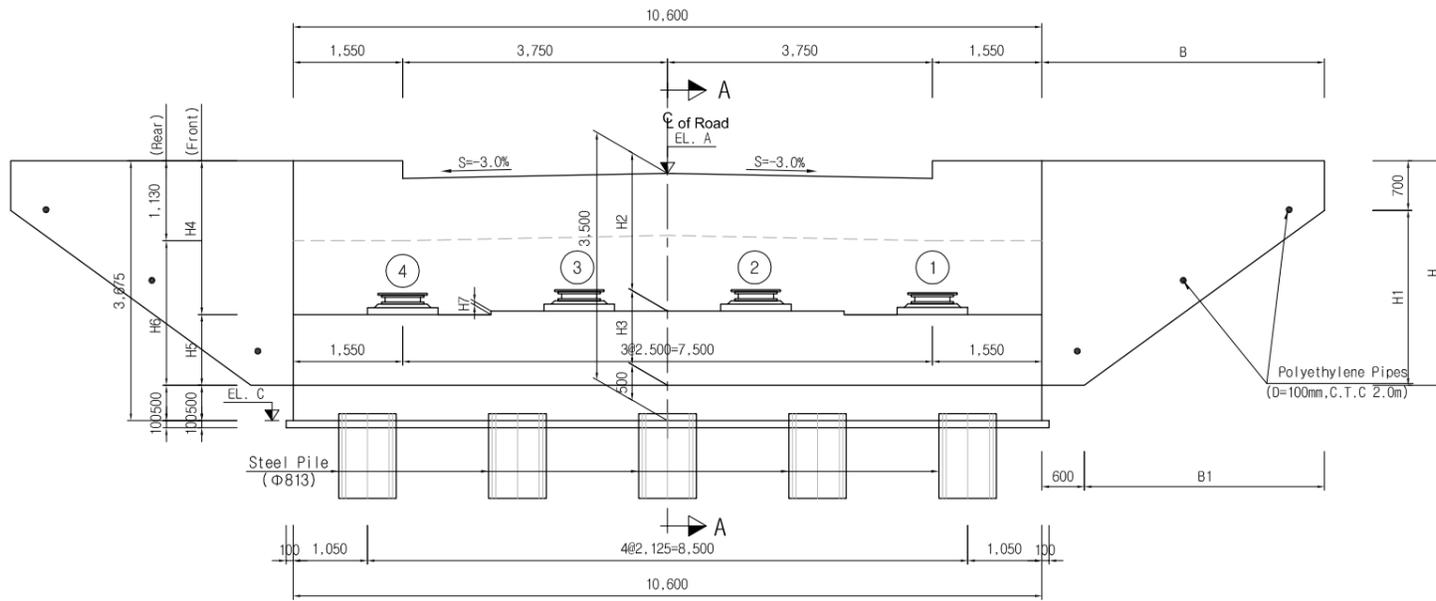
TYPICAL INTERMEDIATE CROSS BEAM DETAILS



| | | | | | | | | | | | | |
|------|------------|----|-------|-----------------|------------------------|--------------------------|-----------------------|-------------|----------------|---|---|------------------------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:15 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE DIAPHRAGM DETAILS |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | APPROVED | PROJECT No. | AUTOCAD No. | DRAWING No. PAPUA NEW GUINEA DEPARTMENT OF WORKS A1/ NB219 | |
| | | | | SURVEY BOOK Nos | PRINCIPAL Date | | CHECKED E.J. Oh | | | | EXECUTIVE ENGINEER | SECRETARY |

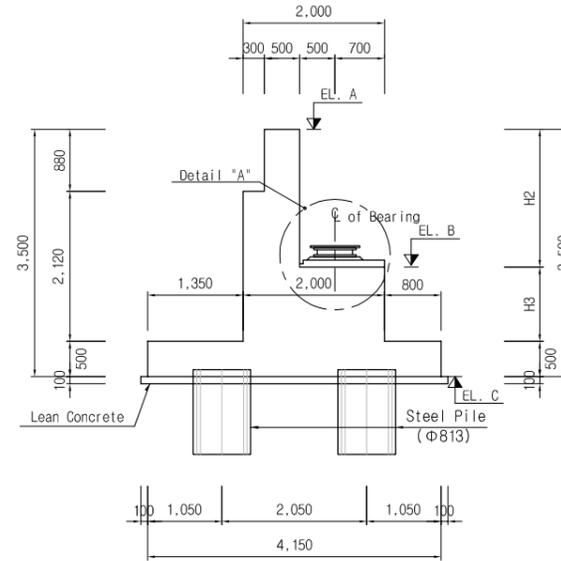
FRONT VIEW

S=1:50



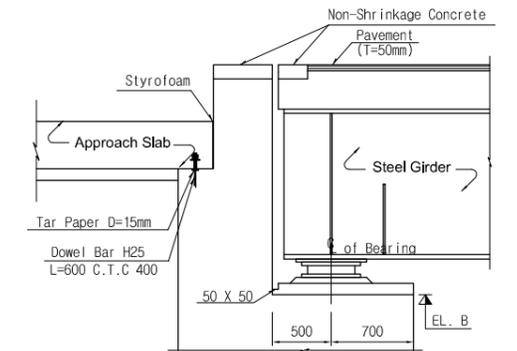
SECTION A-A

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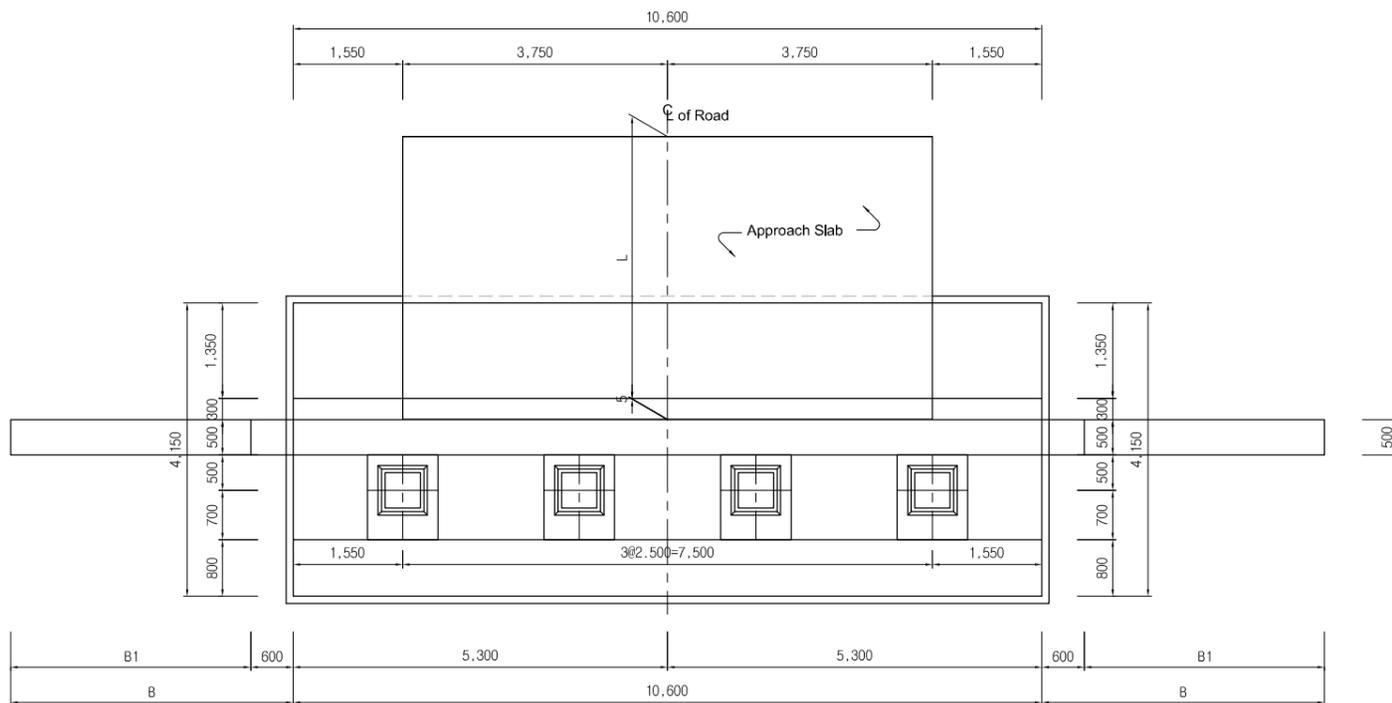
DETAIL "A"

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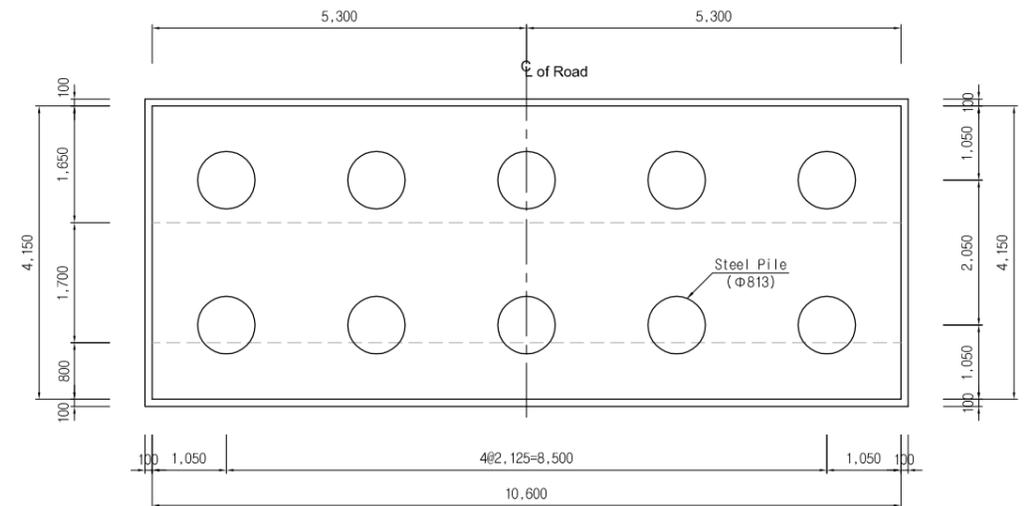
PLAN VIEW

S=1:50



FOUNDATION PLAN VIEW

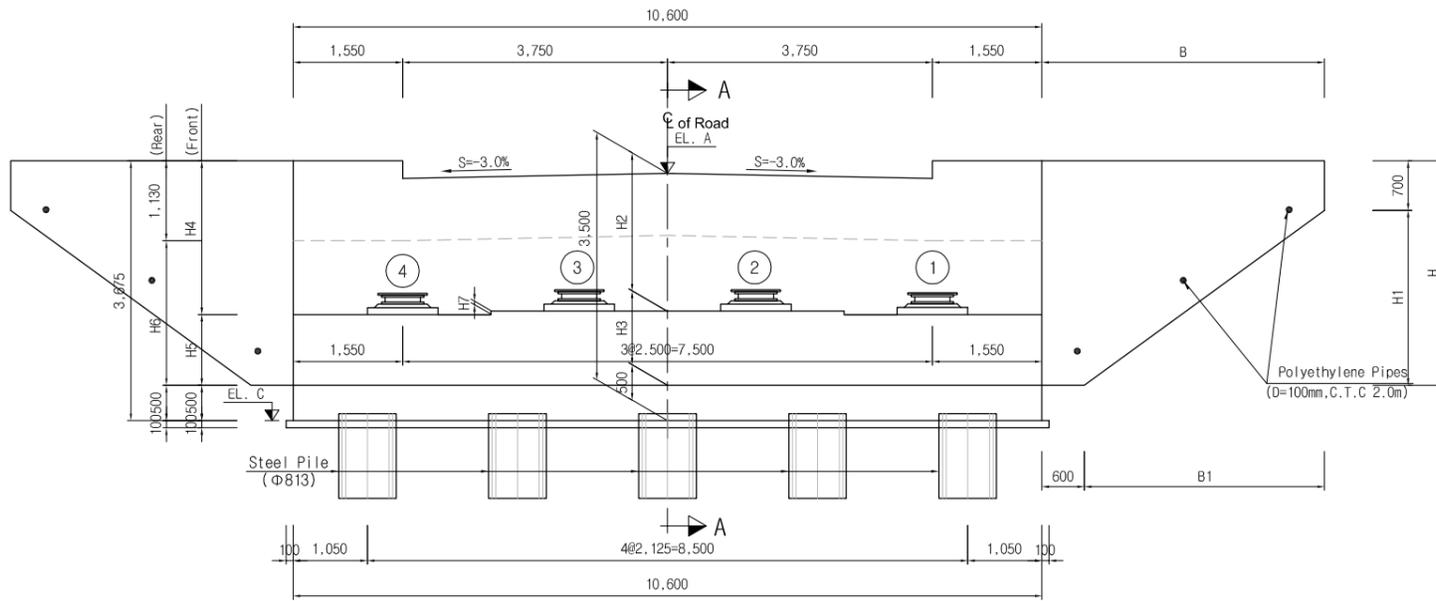
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|------|------------|-------|-----------------|-----------|------|--------------------------|-------------------|------------------|-------------|--------------------|--|---|---|--------------------------|------|-----------------------|--------------------|-------|----|-------------|-------------|
| REV. | AMENDMENTS | | | SURVEY | Date | CONSULTANT PEC | DRAWN M.M. Kim | PROJECT ENGINEER | RECOMMENDED | SCALES AS SHOWN | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | DRAWING TITLE ABUTMENT - GENERAL LAYOUT (A1) | PAPUA NEW GUINEA DEPARTMENT OF WORKS | DRAWING No. A1/ NB220 | REV. | | | | | | |
| | BY | APP'D | DATE | | | | | | | | | | | | | DESIGNED I.H. Jang | APPROVED | SHEET | OF | PROJECT No. | AUTOCAD No. |
| | | | | | | | | | | | | | | | | CHECKED Y.J. Kim | PRINCIPAL ENGINEER | | | | |
| | | | | | | | | | | | | | | | | HORIZONTAL DATUM | EXECUTIVE ENGINEER | | | | |
| | | | SURVEY BOOK Nos | PRINCIPAL | Date | CHECKED E.J. Oh | SECRETARY | | | | | | | | | | | | | | |

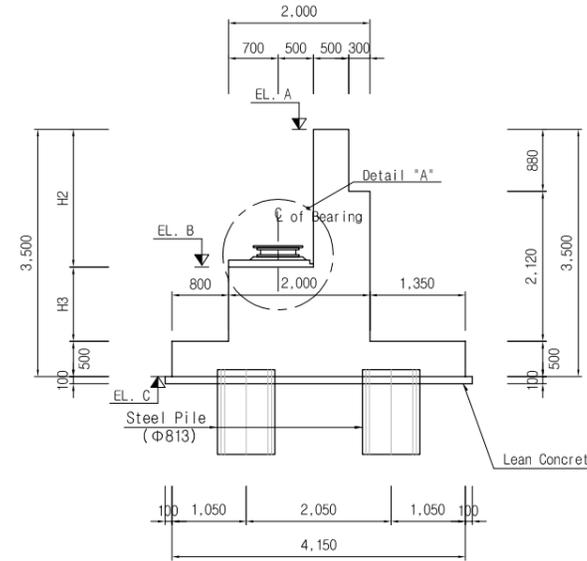
FRONT VIEW

S=1:50



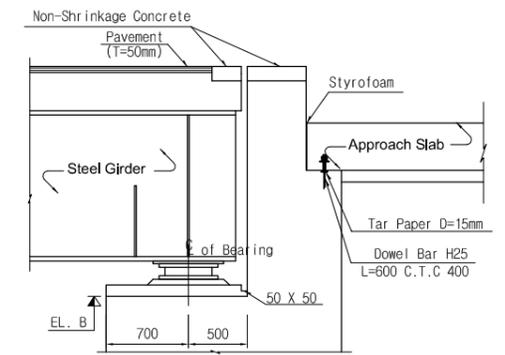
SECTION A-A

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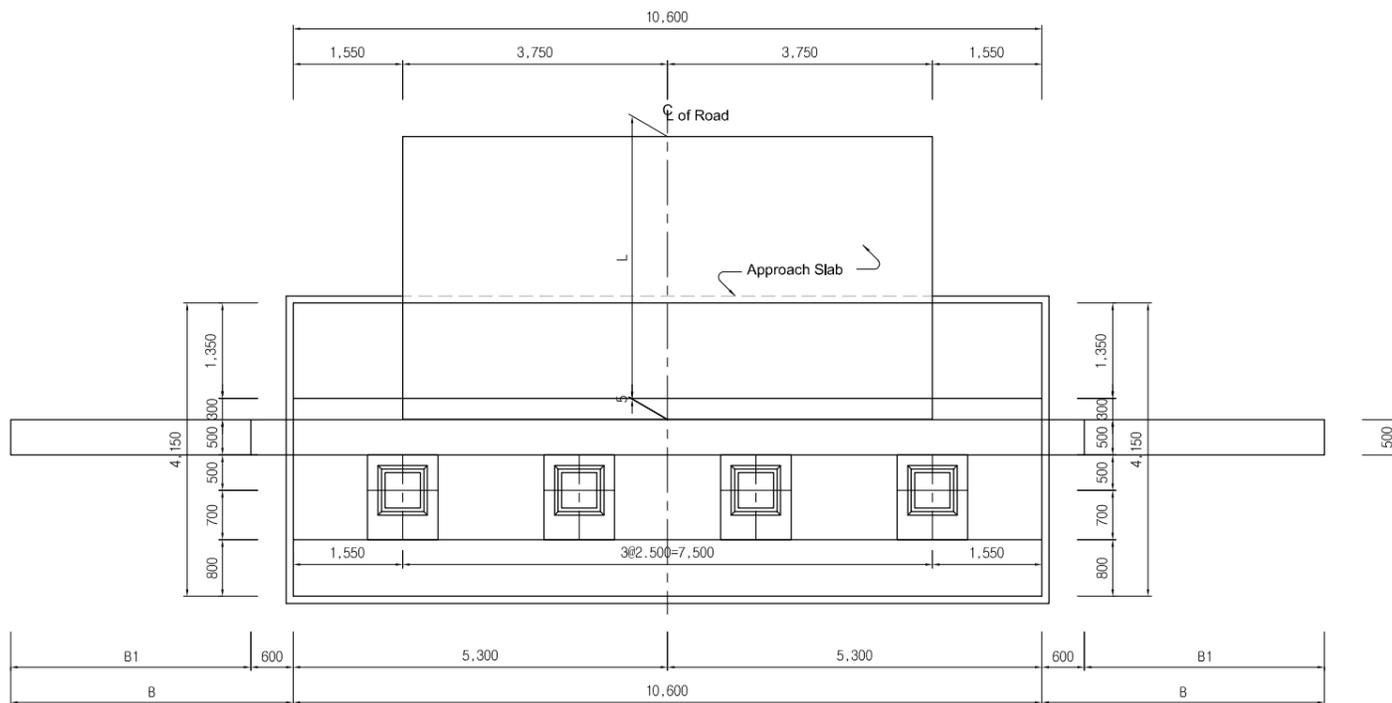
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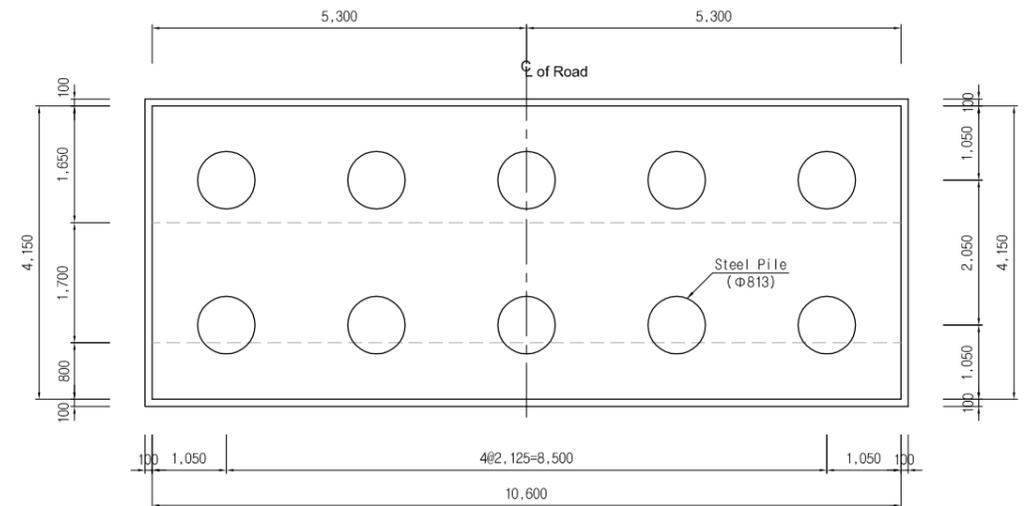
PLAN VIEW

S=1:50



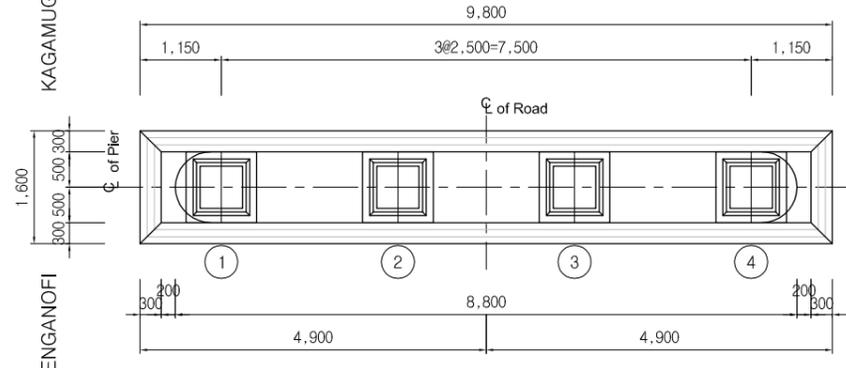
FOUNDATION PLAN VIEW

S=1:50

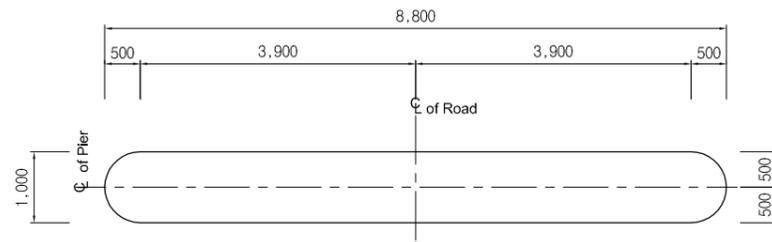


| | | | | | | | | | | | | | |
|------|------------|----|-------|------|------------------|--------------------------|-----------------------|-------------|--------------------|---|---|---------------------|-------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES AS SHOWN | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | | |
| | | | | | VERTICAL DATUM | | CHECKED Y.J. Kim | | | PRINCIPAL ENGINEER | DRAWING TITLE ABUTMENT - GENERAL LAYOUT (A2) | | |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | | | | EXECUTIVE ENGINEER | PAPUA NEW GUINEA | DRAWING No. |
| | | | | | SURVEY BOOK Nos | | CHECKED E.J. Oh | | | SECRETARY | | DEPARTMENT OF WORKS | A1/ NB221 |

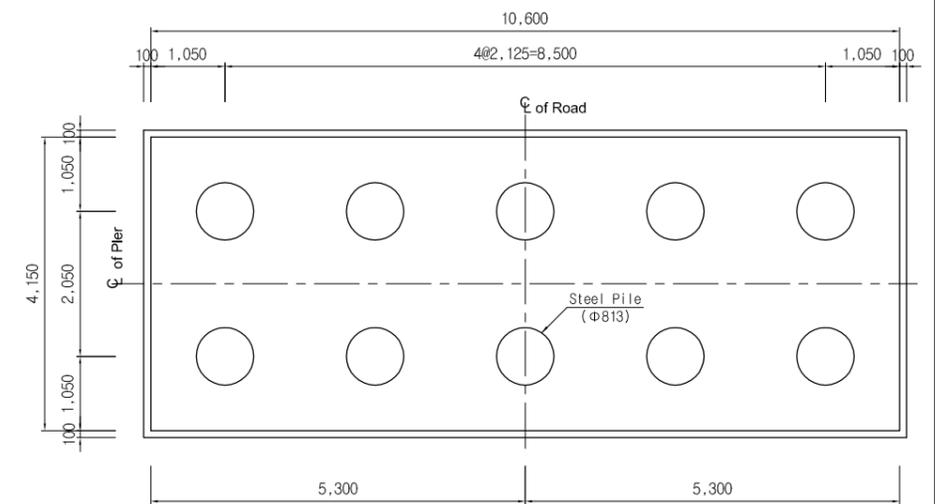
PLAN VIEW
S=1:50



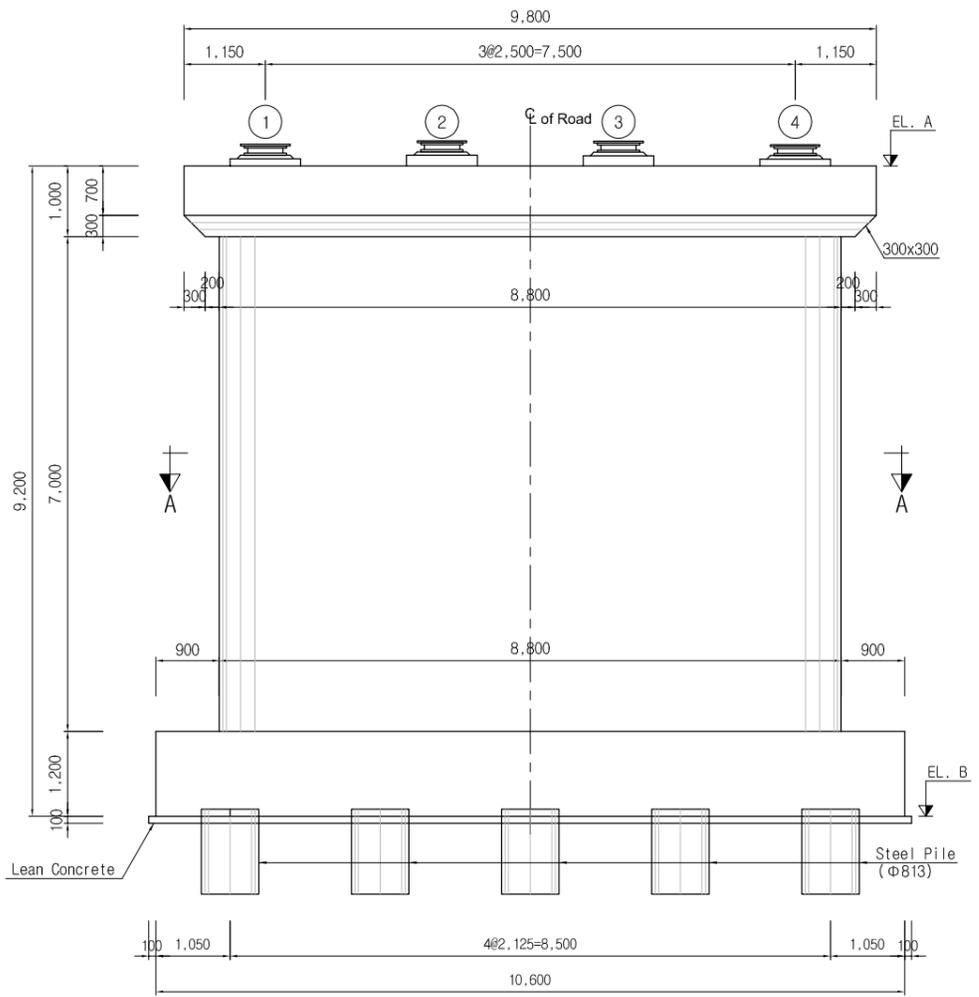
SECTION A-A
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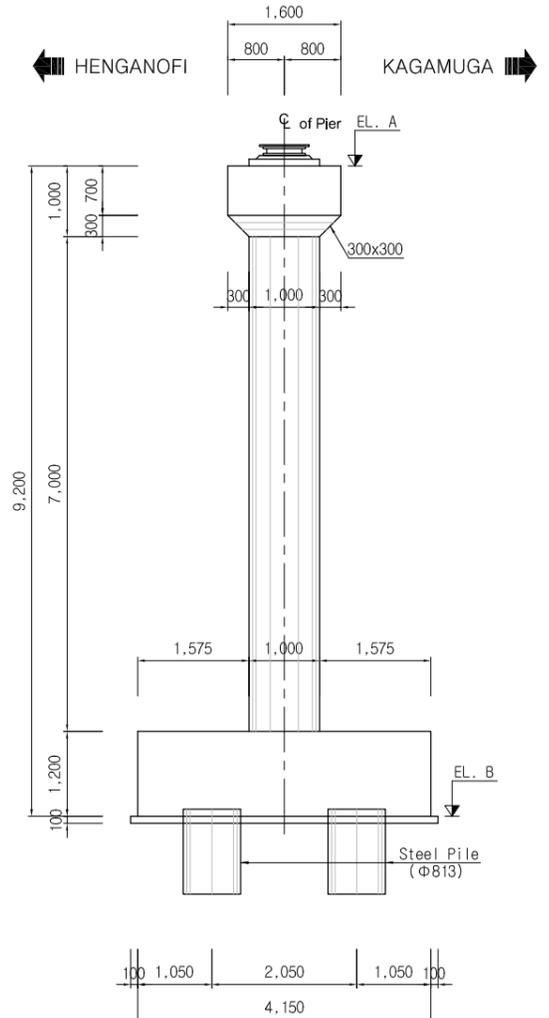
FOUNDATION PLAN VIEW
S=1:50



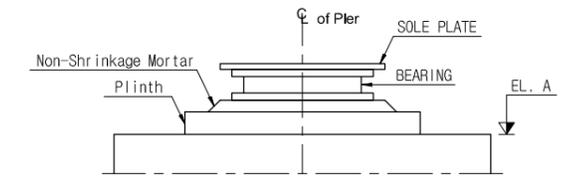
FRONT ELEVATION VIEW
S=1:50



SIDE SECTION VIEW
S=1:50



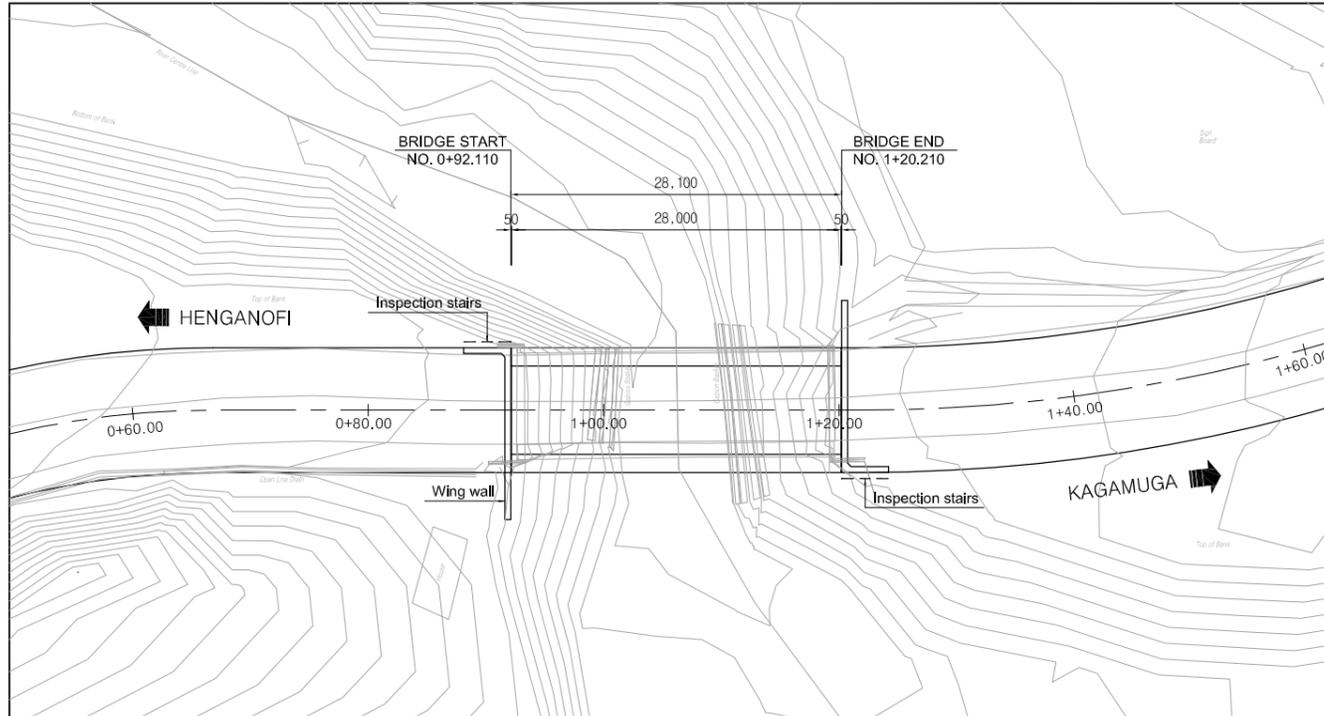
BEARING DETAIL VIEW
S=1:15



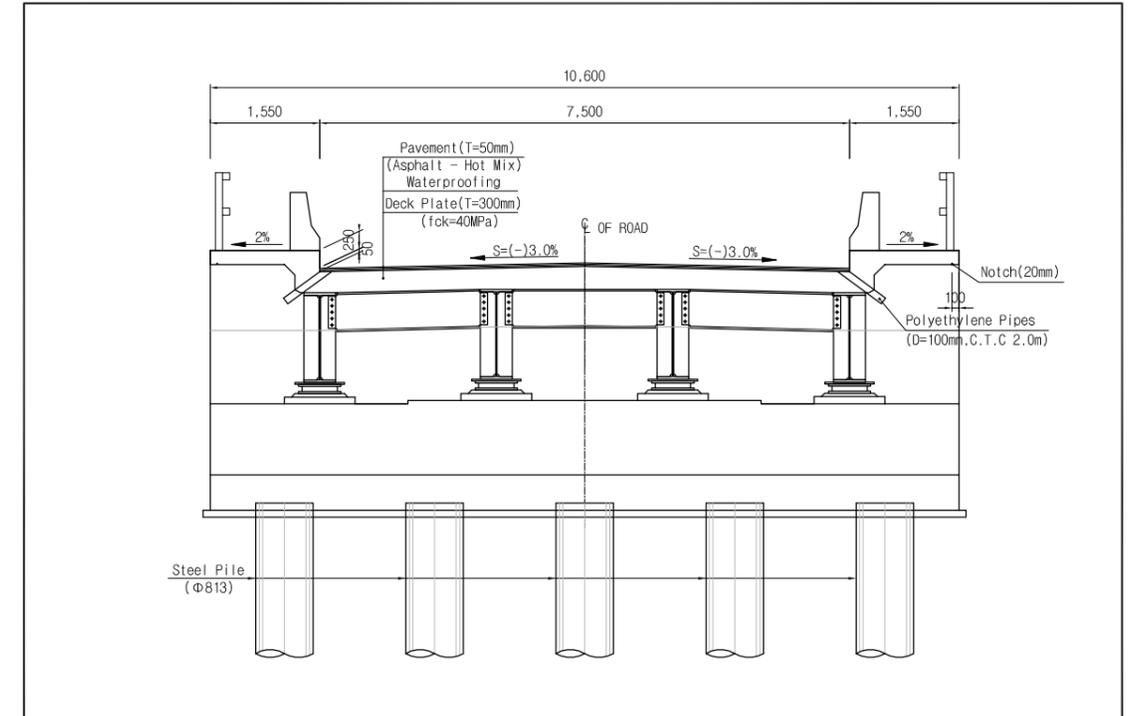
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|------|------------|--|--|----|-------|-----------------|------------------|------------|--------------------|--------------------|-----------|---------|-------------|---|--------------------------------------|--|--------------------------------------|
| REV. | AMENDMENTS | | | BY | APP'D | DATE | SURVEY | CONSULTANT | DRAWN | CHECKED | DESIGNED | CHECKED | RECOMMENDED | APPROVED | SCALES | PROJECT TITLE | |
| | | | | | | | Date | | M.M. Kim | Y.J. Kim | I.H. Jang | E.J. Oh | | | AS SHOWN | ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | |
| | | | | | | | VERTICAL DATUM | | PROJECT ENGINEER | PRINCIPAL ENGINEER | | | | | | | DRAWING TITLE |
| | | | | | | | HORIZONTAL DATUM | | EXECUTIVE ENGINEER | SECRETARY | | | | | | | PIER - GENERAL LAYOUT (PIER. TYPE 1) |
| | | | | | | SURVEY BOOK Nos | PRINCIPAL | | | | | | | PAPER No. PROJECT No. AUTOCAD No. DRAWING No. | | | |
| | | | | | | | Date | | | | | | | | PAPUA NEW GUINEA DEPARTMENT OF WORKS | A1/ NB222 | |

54. Baikabai River Bridge

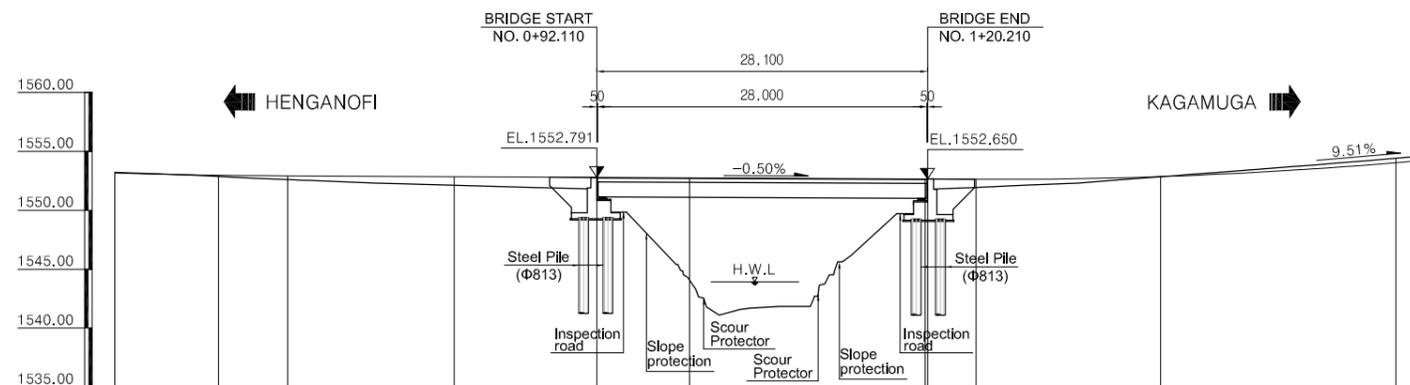
LAYOUT PLAN
S=1:300



CROSS SECTION
S=1:50



LONGITUDINAL ELEVATION
S=1:300



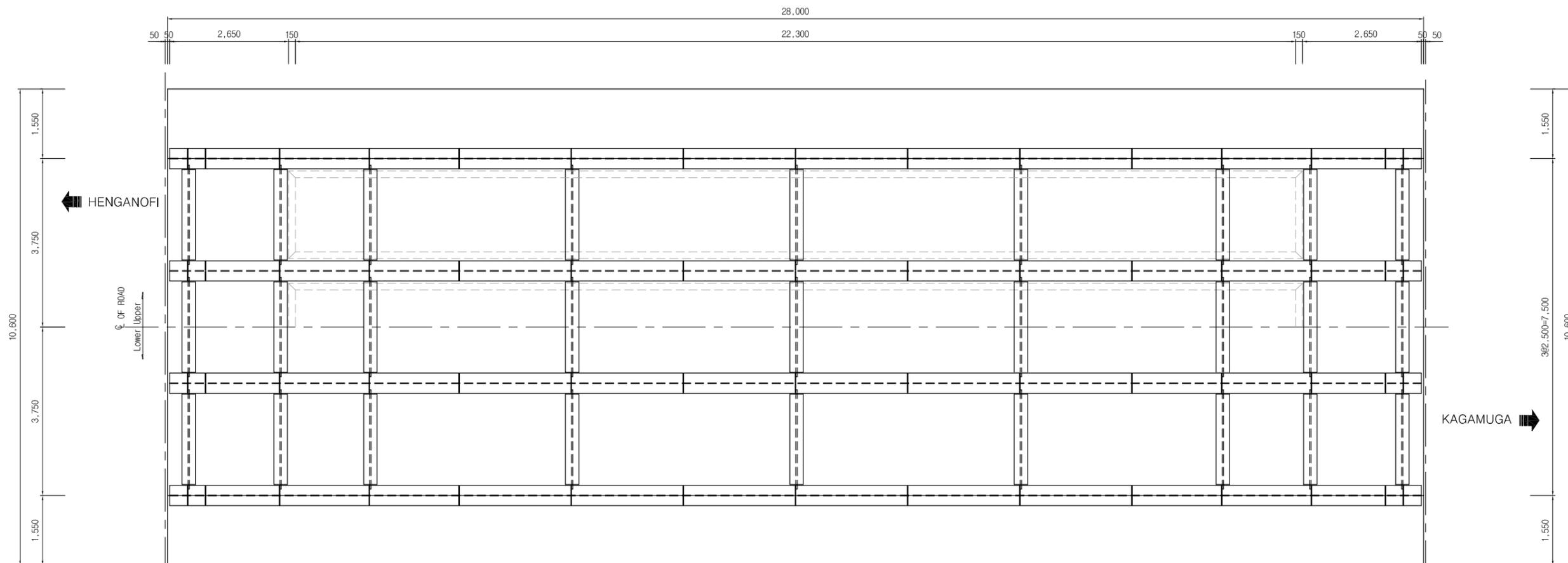
| | | | | | | | | | | |
|------------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| VERTICAL ALIGNMENT | S=-0.5000% | | | | | | | | | |
| | H=0.292, L=58.479 | | | | | | | | | |
| ELEVATION DESIGN LEVEL | 1552.98 | 1552.92 | 1552.85 | 1552.79 | 1552.75 | 1552.65 | 1552.65 | 1552.63 | 1552.86 | 1554.04 |
| GROUND LEVEL | 1552.86 | 1552.60 | 1552.12 | 1551.81 | 1544.06 | 1551.76 | 1551.77 | 1551.94 | 1552.85 | 1554.41 |
| STATION | 0+60.00 | 0+65.86 | 0+80.00 | 0+92.11 | 1+00.00 | 1+20.00 | 1+20.21 | 1+24.34 | 1+40.00 | 1+60.00 |

NOTE

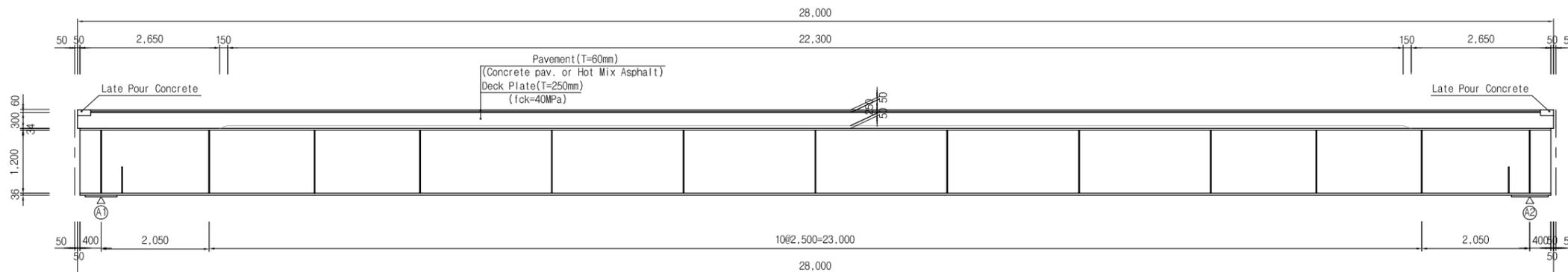
1. The design level of bridge profile standardizes the top level of the bridge pavement.
2. The main materials should be approved by the supervision consultant and/or PMO/DOW before construction.
3. Foundation depth including pile length should be rechecked by contractor with one or more borehole geotechnical investigation in each foundation for proper bearing force. It shall be confirmed by the supervision consultant.
4. Foundation ground field condition should be checked by geotechnical engineers and the supervision consultants for satisfying a proper bearing capacity requirement with plate bearing tests.
5. Contractor to construct exact bridge structure described in the drawings should establish the detailed construction plan and temporary structure design for the supervision consultant's approval.
6. Bridge inspection stairs should be installed for the easy maintenance work of girder, bearing and substructure.
7. Foundation scour protection and slope protection in front of abutments should be installed for keeping the foundation stability.
8. Drainage outlet distance should be determined based on the hydrological review detailed including climate change as increasing intensive heavy raining for the durability extension of bridge deck and pavement.
9. Bridge walkway widths at both sides are determined as 1.55m to be considered for the future utilization increase.
10. The designed elevation of bearings and expansion joints should be rechecked with real applied products for accurate construction.

| | | | | | | | | | | |
|------|------------|----|-------|-----------------|------------------|--------------------------|---------------------|-------------|--------------------|--|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES AS SHOWN | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK |
| | | | | | VERTICAL DATUM | | CHECKED Y.J. Kim | | | |
| | | | | | HORIZONTAL DATUM | DESIGNED I.H. Jang | CHECKED E.J. Oh | APPROVED | SHEET OF | PROJECT No. |
| | | | | SURVEY BOOK Nos | PRINCIPAL | | EXECUTIVE ENGINEER | SECRETARY | | |

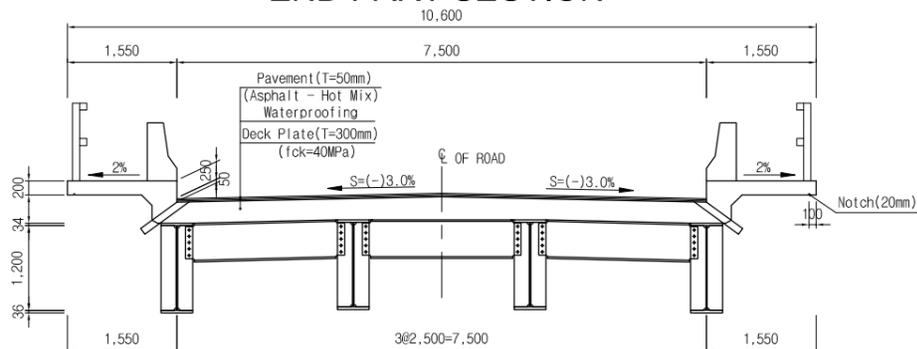
PLAN VIEW



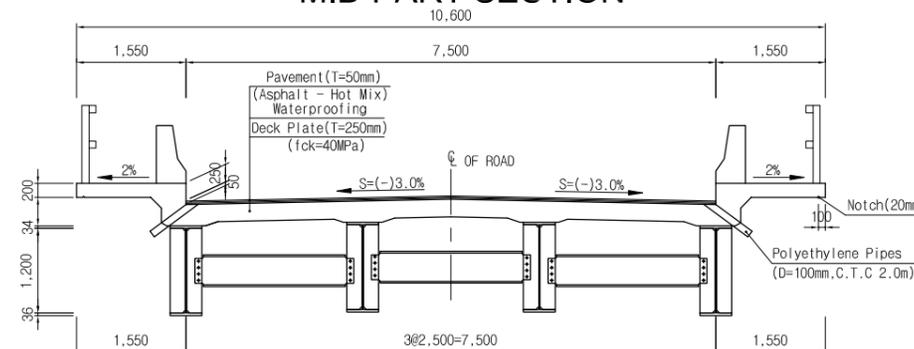
LONGITUDINAL SECTION



END PART SECTION

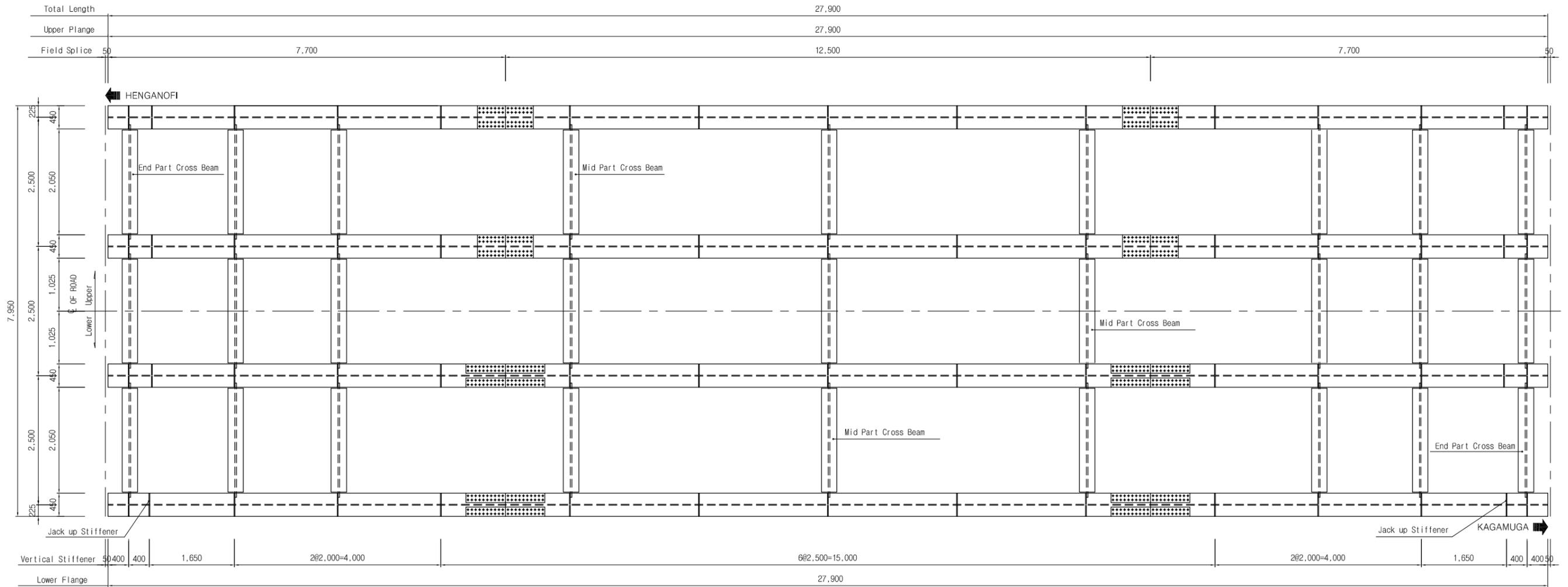


MID PART SECTION

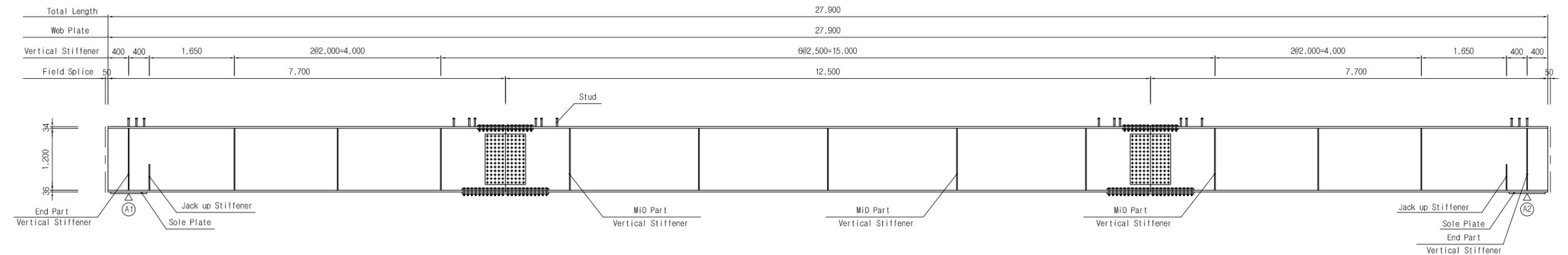


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| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT | | DRAWN | RECOMMENDED | SCALES | PROJECT TITLE | DRAWING TITLE | | | | |
| | | | | | VERTICAL DATUM | | | | | | | | PROJECT ENGINEER | 1 : 50 | ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | SLAB-GENERAL LAYOUT |
| | | | | | DATE | | | CHECKED | APPROVED | SHEET OF | PROJECT No. | AUTOCAD No. | | | | |
| | | | | HORIZONTAL DATUM | | | | PRINCIPAL ENGINEER | | | | | PAPUA NEW GUINEA | DRAWING No. | | |
| | | | | SURVEY BOOK Nos | PRINCIPAL | Date | | EXECUTIVE ENGINEER | SECRETARY | | | | PAPUA NEW GUINEA | DEPARTMENT OF WORKS | A/1/ NB224 | REV. |

PLAN VIEW

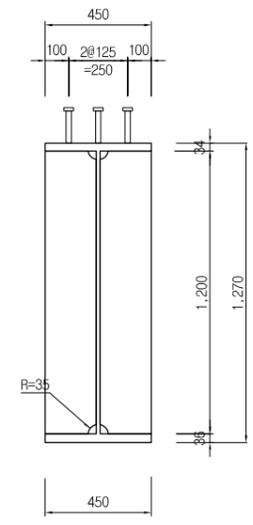


LONGITUDINAL SECTION



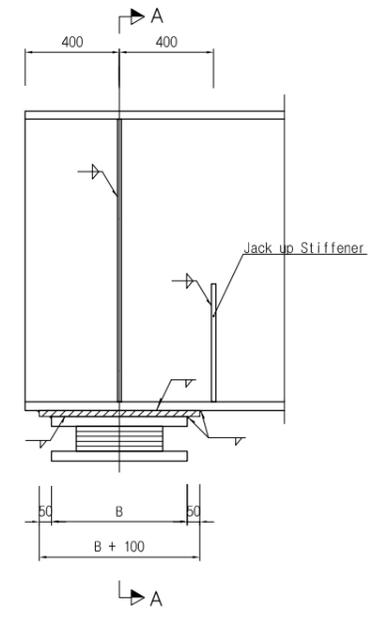
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| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:40 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE STEEL GIRDER - GENERAL LAYOUT |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | APPROVED | PROJECT No. | AUTOCAD No. | DRAWING No. PAPUA NEW GUINEA DEPARTMENT OF WORKS A1/ NB225 | |
| | | | | SURVEY BOOK Nos | CHECKED E.J. Oh | | EXECUTIVE ENGINEER | | | | SECRETARY | SHEET OF |

STEEL GIRDER DETAIL

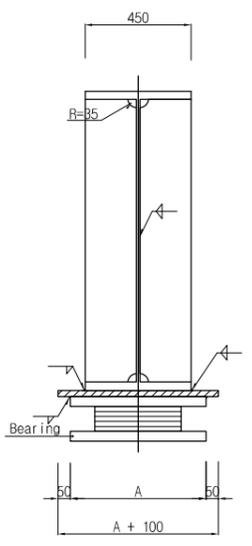


(Per 1ea)
 PL-450X34X27,900X1EA (SM420) - MAIN GIRDER UPP. FLANGE
 PL-1,200X16X27,900X1EA (SM420) - MAIN GIRDER WEB
 PL-450X36X27,900X1EA (SM420) - MAIN GIRDER LOW. FLANGE

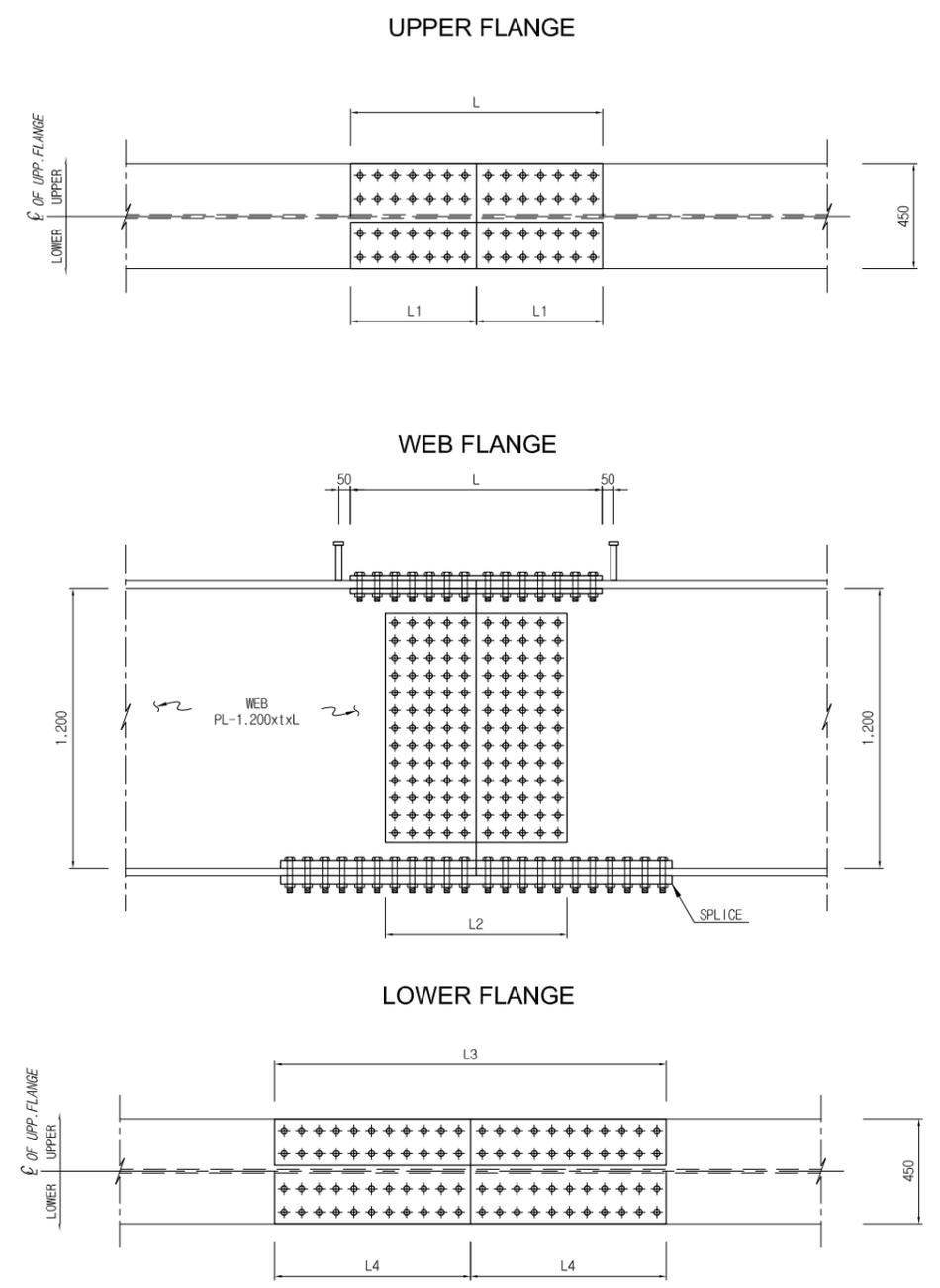
END PART DETAIL



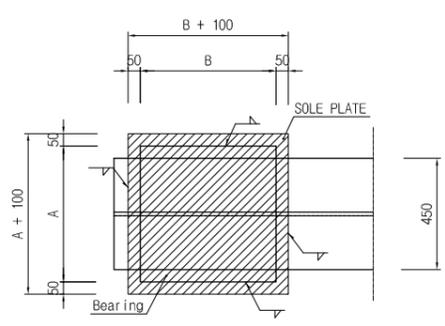
SECTION A-A



SPLICE DETAILS

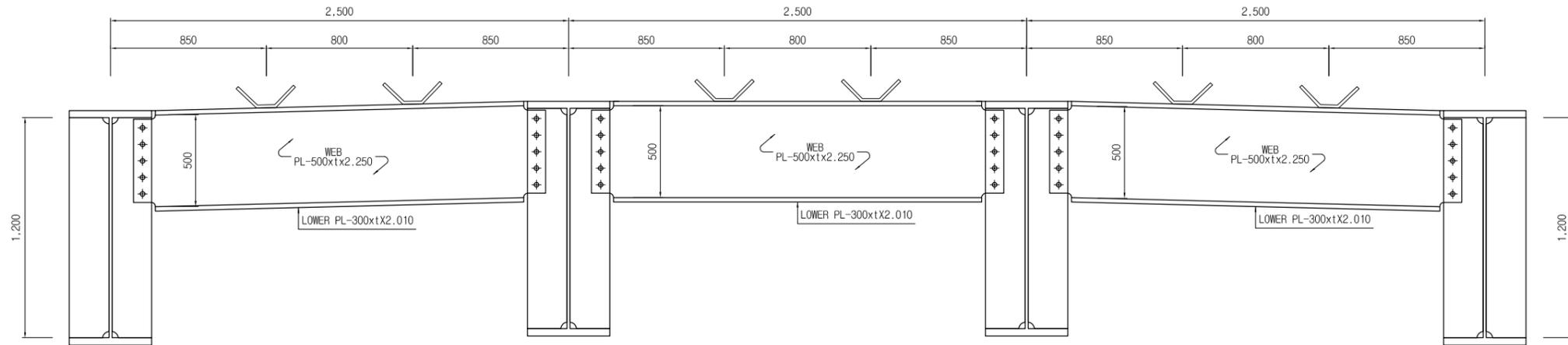


END PART PLAN VIEW

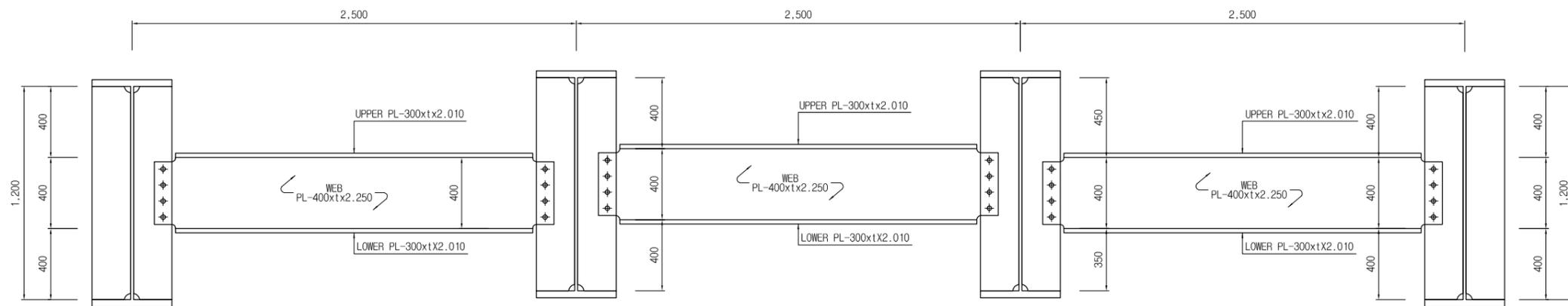


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|------|------------|----|-------|------|------------------------|--------------------------|-----------------------|-------------|----------------|---|--------------------|---------------------------------------|---|-----------|----------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:15 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | | | | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE STEEL GIRDER DETAILS | | | |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | | | EXECUTIVE ENGINEER | APPROVED | SECRETARY | DRAWING No. PAPUA NEW GUINEA DEPARTMENT OF WORKS A1/ NB226 | | |
| | | | | | SURVEY BOOK Nos | | CHECKED E.J. Oh | | | | | | EXECUTIVE ENGINEER | SECRETARY | SHEET OF |

END CROSS BEAM AT ABUTMENT



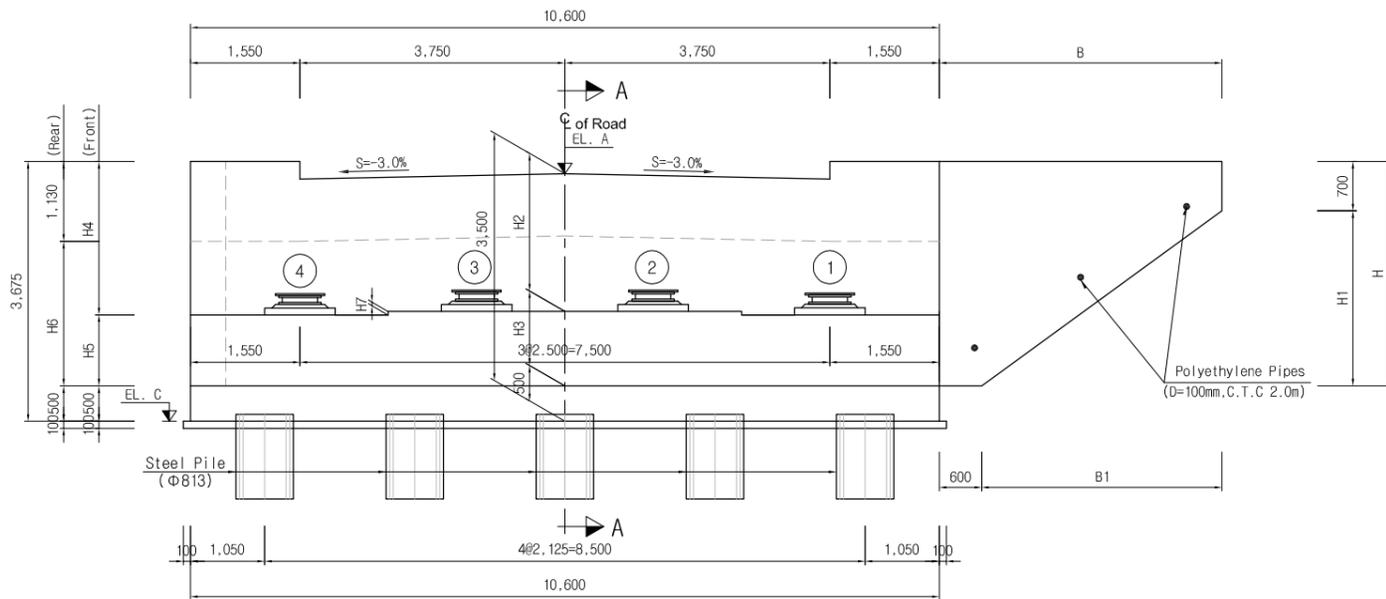
TYPICAL INTERMEDIATE CROSS BEAM DETAILS



| | | | | | | | | | | | | |
|------|------------|----|-------|-----------------|------------------------|--------------------------|-----------------------|-------------|----------------|--|---|------------------------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES 1:15 | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM Date | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE DIAPHRAGM DETAILS |
| | | | | | HORIZONTAL DATUM | PRINCIPAL | DESIGNED I.H. Jang | APPROVED | PROJECT No. | AUTOCAD No. | DRAWING No. PAPUA NEW GUINEA DEPARTMENT OF WORKS A1/ NB227 | |
| | | | | SURVEY BOOK Nos | DATE | | CHECKED E.J. Oh | | | | EXECUTIVE ENGINEER | SECRETARY |

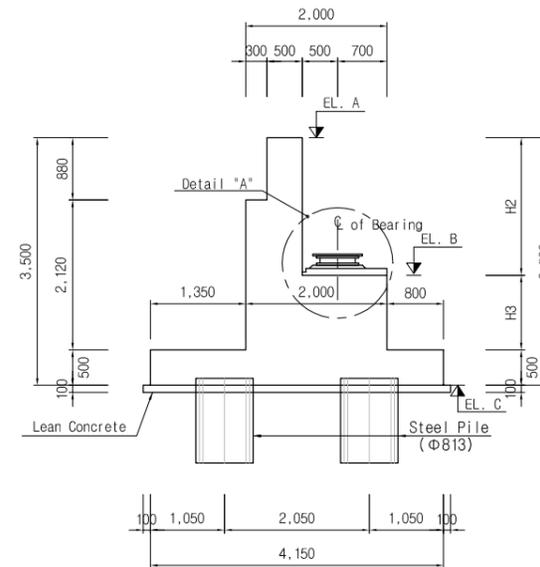
FRONT VIEW

S=1:50



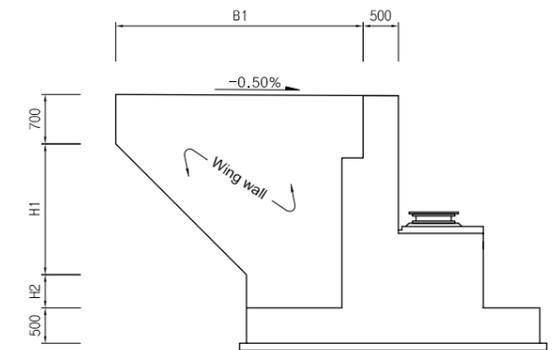
SECTION A-A

S=1:50



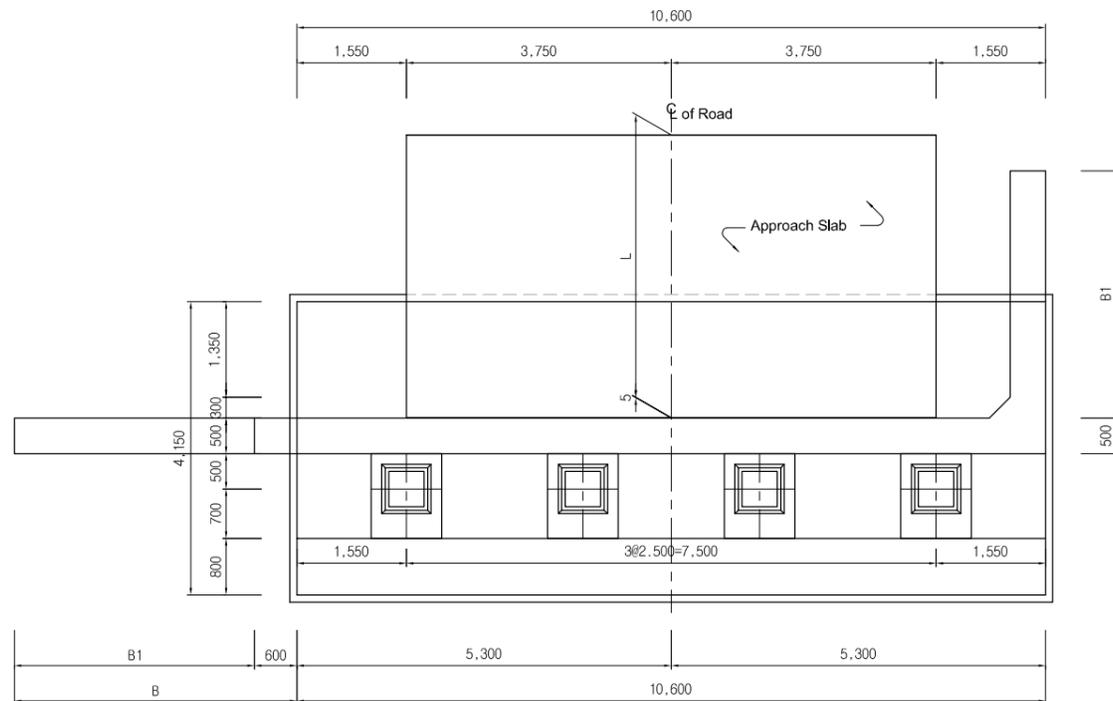
WING WALL SECTION

S=1:50



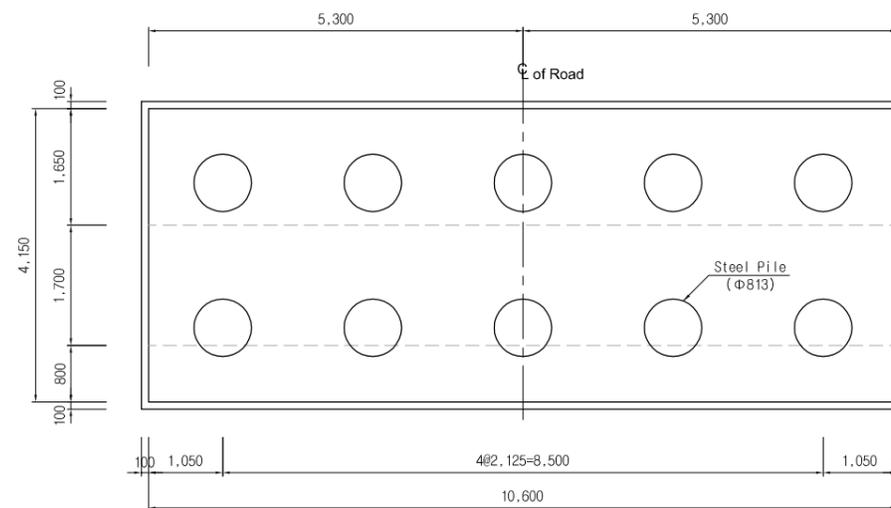
PLAN VIEW

S=1:50



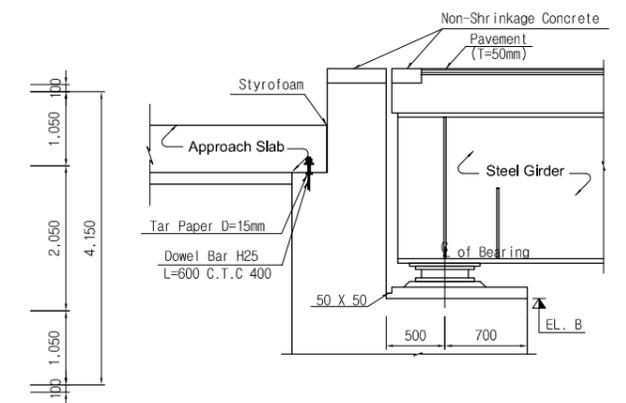
FOUNDATION PLAN VIEW

S=1:50



DETAIL "A"

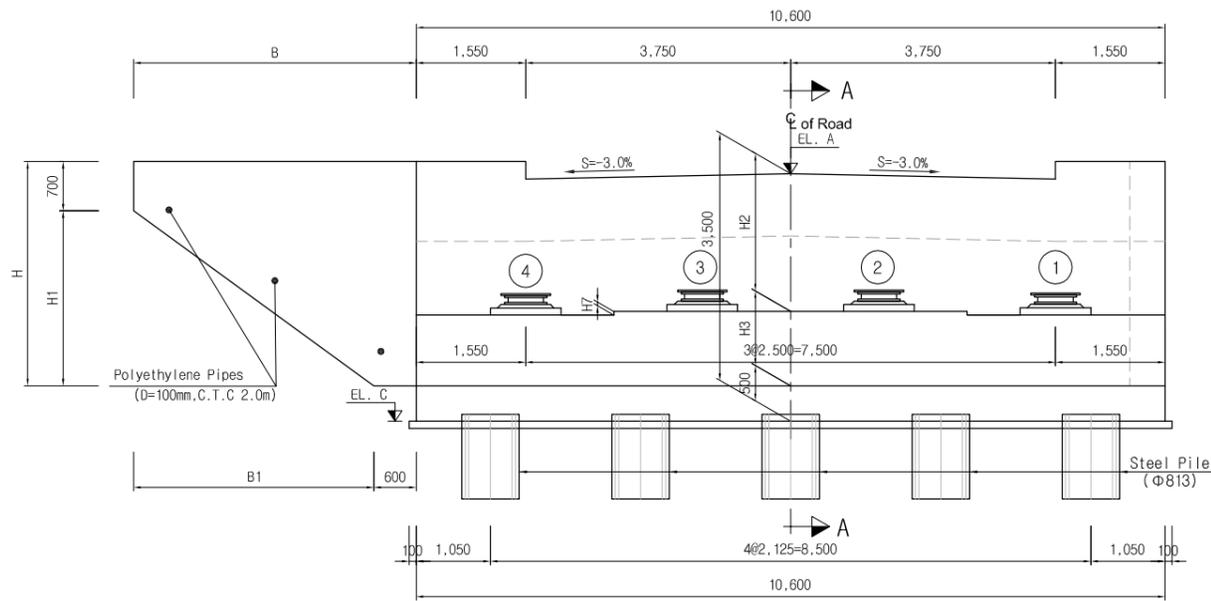
S=NONE



| | | | | | | | | | | | | | |
|------|------------|----|-------|-----------------|--------------------|--------------------------|-----------------------|-------------|---------------------------|---|--------------------|--|---------------------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES AS SHOWN | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | | |
| | | | | | VERTICAL DATUM | | CHECKED Y.J. Kim | | | PROJECT ENGINEER | PRINCIPAL ENGINEER | DRAWING TITLE ABUTMENT - GENERAL LAYOUT (A1) | |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | APPROVED | | SHEET OF | PROJECT No. | AUTOCAD No. | DRAWING No. A1/ NB228 |
| | | | | SURVEY BOOK Nos | CHECKED E.J. Oh | | EXECUTIVE ENGINEER | | | | SECRETARY | PAPUA NEW GUINEA | DEPARTMENT OF WORKS |

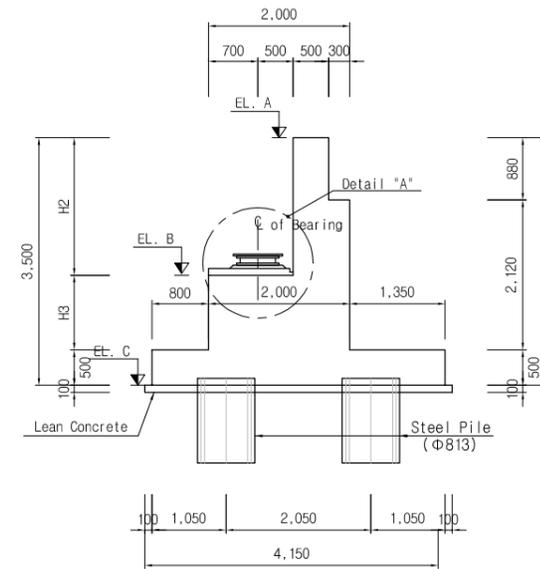
FRONT VIEW

S=1:50



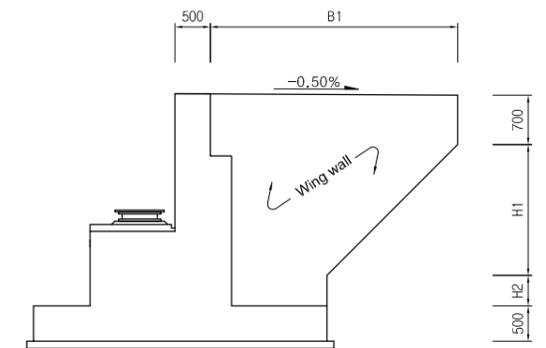
SECTION A-A

S=1:50



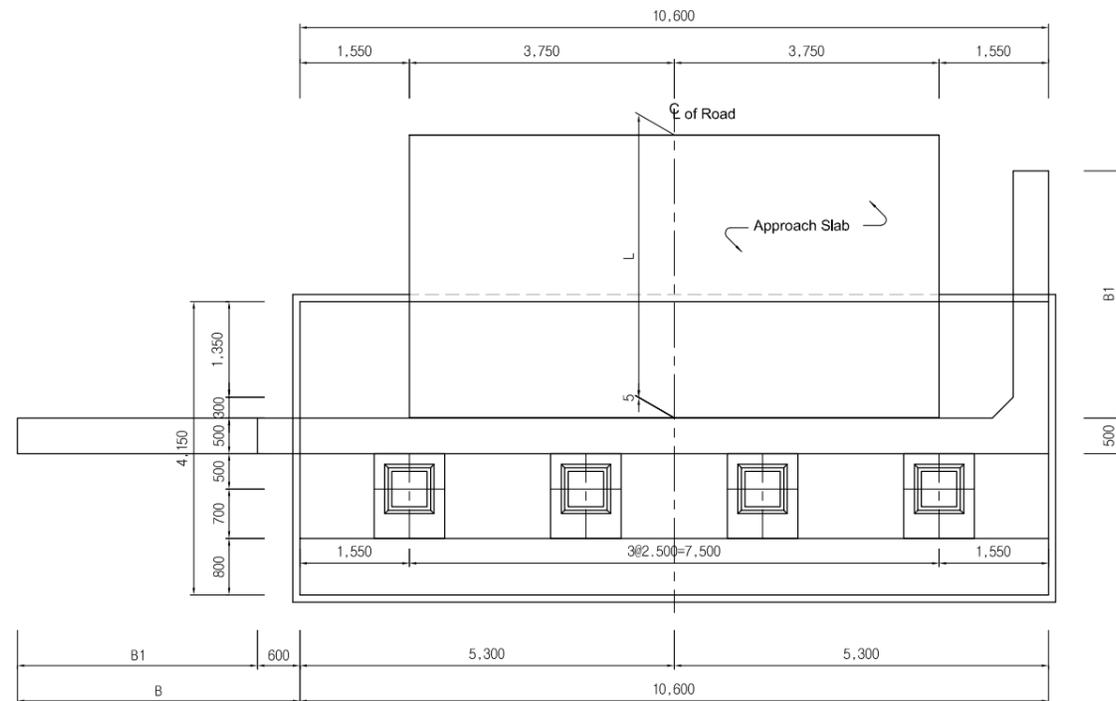
WING WALL SECTION

S=1:50



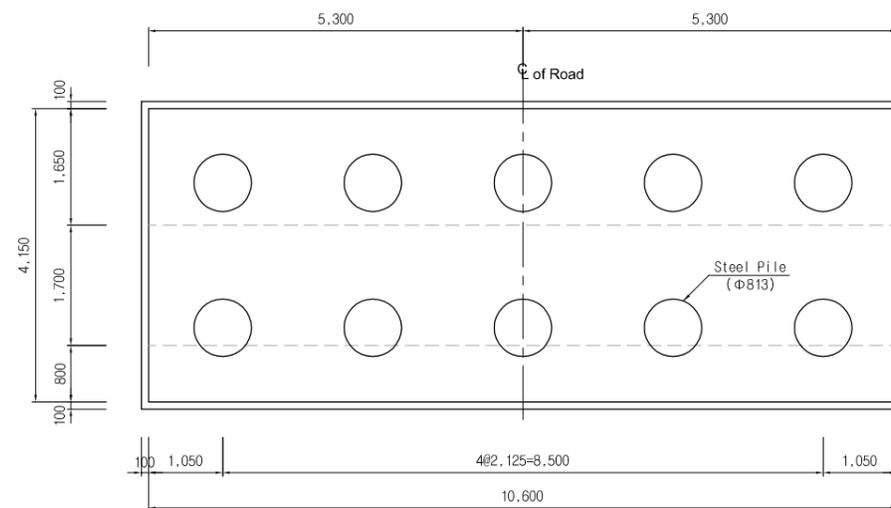
PLAN VIEW

S=1:50



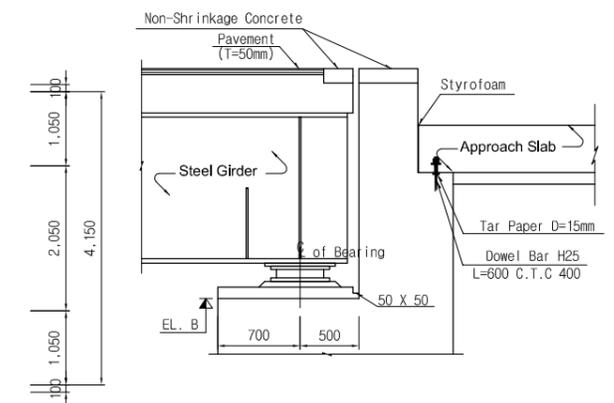
FOUNDATION PLAN VIEW

S=1:50



DETAIL "A"

S=NONE



| | | | | | | | | | | | | |
|------|------------|----|-------|-----------------|--------------------|--------------------------|-----------------------|-------------|---------------------------|---|--|---------------------------------|
| REV. | AMENDMENTS | BY | APP'D | DATE | SURVEY | CONSULTANT PEC | DRAWN M.M. Kim | RECOMMENDED | SCALES AS SHOWN | PROJECT TITLE ADB LOAN 3547, 3548 AND GRANT 0538-PNG-SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (SHIP) - TRANCHE 1 - CSTB 3747 - REVISED ADDITIONAL SCOPE OF WORK | | |
| | | | | | VERTICAL DATUM | | CHECKED Y.J. Kim | | | PRINCIPAL ENGINEER | DRAWING TITLE ABUTMENT - GENERAL LAYOUT (A2) | |
| | | | | | HORIZONTAL DATUM | | DESIGNED I.H. Jang | APPROVED | | PROJECT No. | AUTOCAD No. | DRAWING No. A1/ NB229 |
| | | | | SURVEY BOOK Nos | CHECKED E.J. Oh | | EXECUTIVE ENGINEER | | | | | |