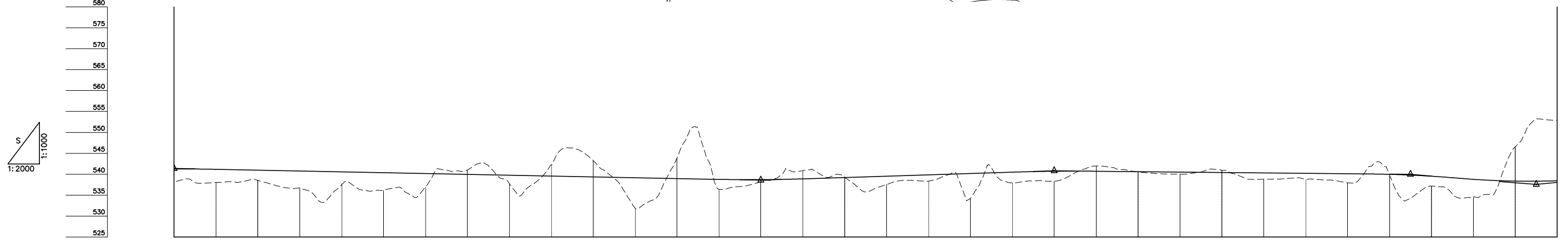


DEPARTMENT OF ROADS
 Ministry of Physical Planning and Works, FDR/ Nepal
 THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD
 (Section III)

PLAN AND PROFILE
 STA. 26+400 - STA. 27+060

Drawing No. B-54

Date: July, 2009 Scale: 1:2000
 Designed by: *H. Dalgin* Approved by:
 NIPPON KOEI CO., LTD, Consulting Engineers, Japan



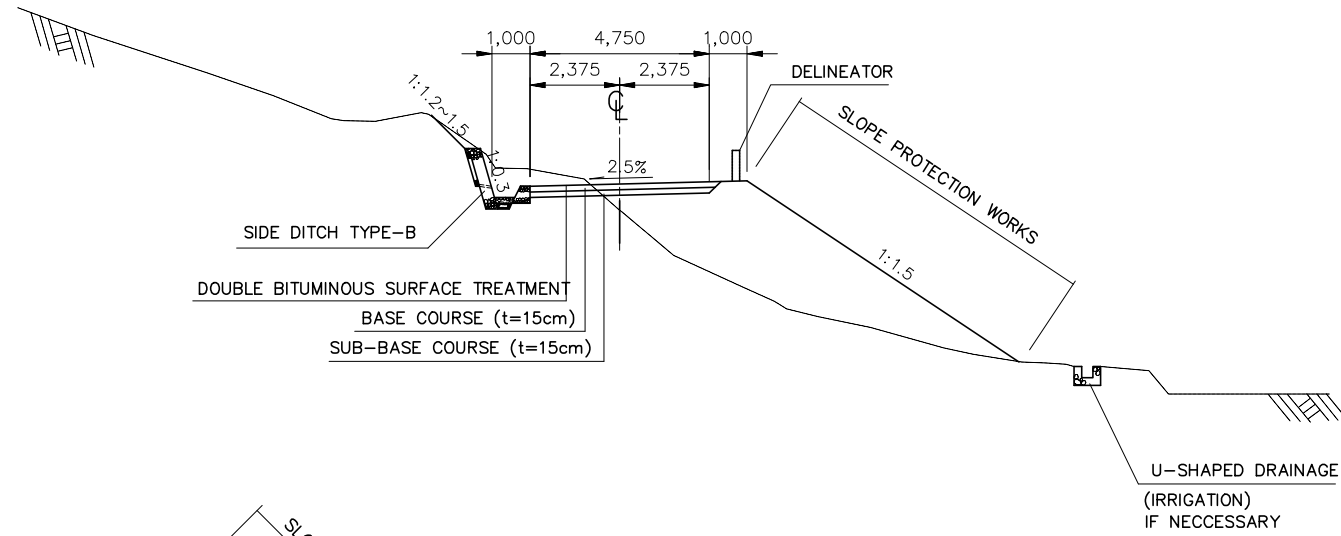
VCL = 40m VCR = 1481m VCL = 40m VCR = 1538m VCL = 40m VCR = 1905m VCL = 40m VCR = 1143m VCL = 70m VCR = 795m

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|------------------|------------------|------------------|-------------------|----------|------------------|----------|------------------|------------------|----------|------------------|------------------|------------------|----------|-------------------|----------|------------------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|--|--|
| GRADE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PROPOSED HEIGHT | 26+400 | 26+420 | 26+440 | 26+460 | 26+480 | 26+500 | 26+520 | 26+540 | 26+560 | 26+580 | 26+600 | 26+620 | 26+640 | 26+660 | 26+680 | 26+700 | 26+720 | 26+740 | 26+760 | 26+780 | 26+800 | 26+820 | 26+840 | 26+860 | 26+880 | 26+900 | 26+920 | 26+940 | 26+960 | 26+980 | 27+000 | 27+020 | 27+040 | 27+060 | | | |
| GROUND HEIGHT | 538.198 | 538.034 | 538.541 | 536.660 | 537.519 | 536.140 | 536.952 | 540.997 | 537.774 | 542.233 | 543.268 | 531.909 | 543.846 | 536.370 | 538.221 | 540.860 | 539.357 | 537.529 | 538.359 | 534.241 | 537.963 | 538.324 | 541.959 | 540.575 | 540.021 | 540.939 | 538.796 | 538.793 | 537.948 | 539.825 | 537.158 | 534.598 | 546.568 | 552.841 | | | |
| CURVE ELEMENT | R=80 L=28.440 | R=70 L=45.249 | R=70 L=47.933 | R=140 L=41.601 | L=24.435 | R=25 L=43.300 | L=14.281 | R=60 L=29.231 | R=40 L=27.066 | L=36.688 | R=90 L=36.607 | R=50 L=49.161 | R=30 L=42.948 | L=28.064 | R=250 L=39.916 | L=43.218 | R=30 L=38.869 | L=56.458 | L=40.601 | | | | | | | | | | | | | | | | | | |
| SUPER ELEVATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WIDENING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DESIGN SPEED | 30 Km/h | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

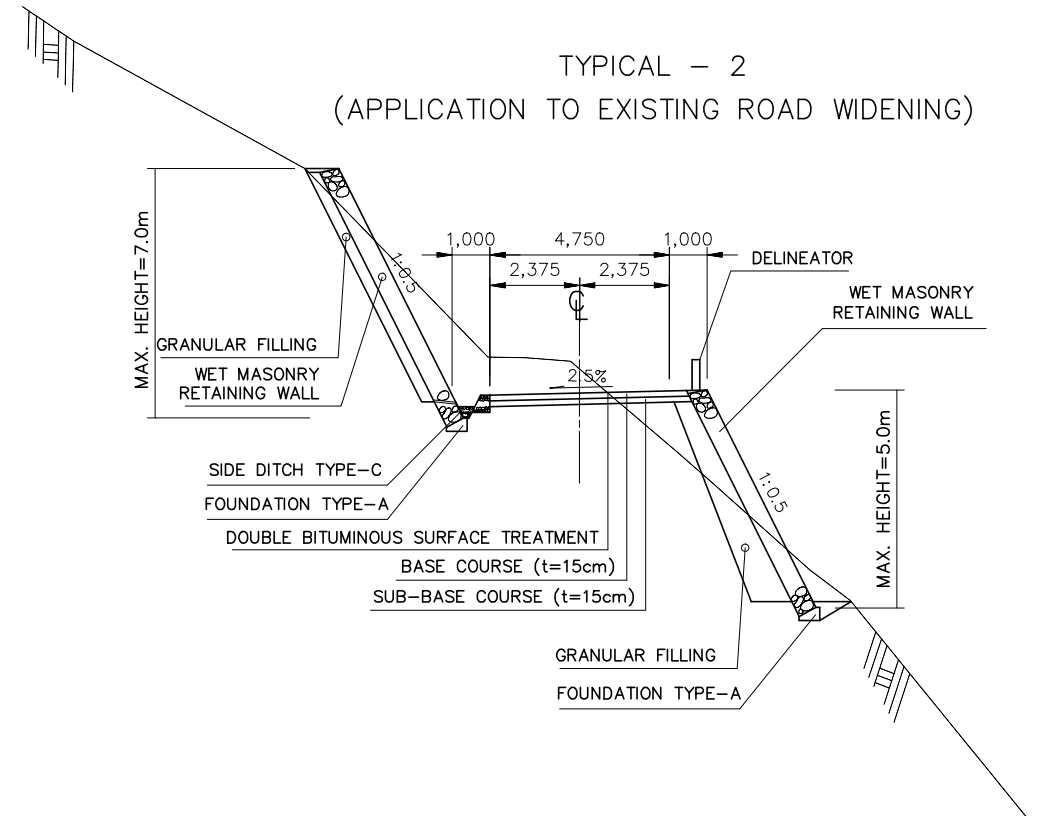
TYPICAL CROSS SECTIONS (1)

SCALE 1:200

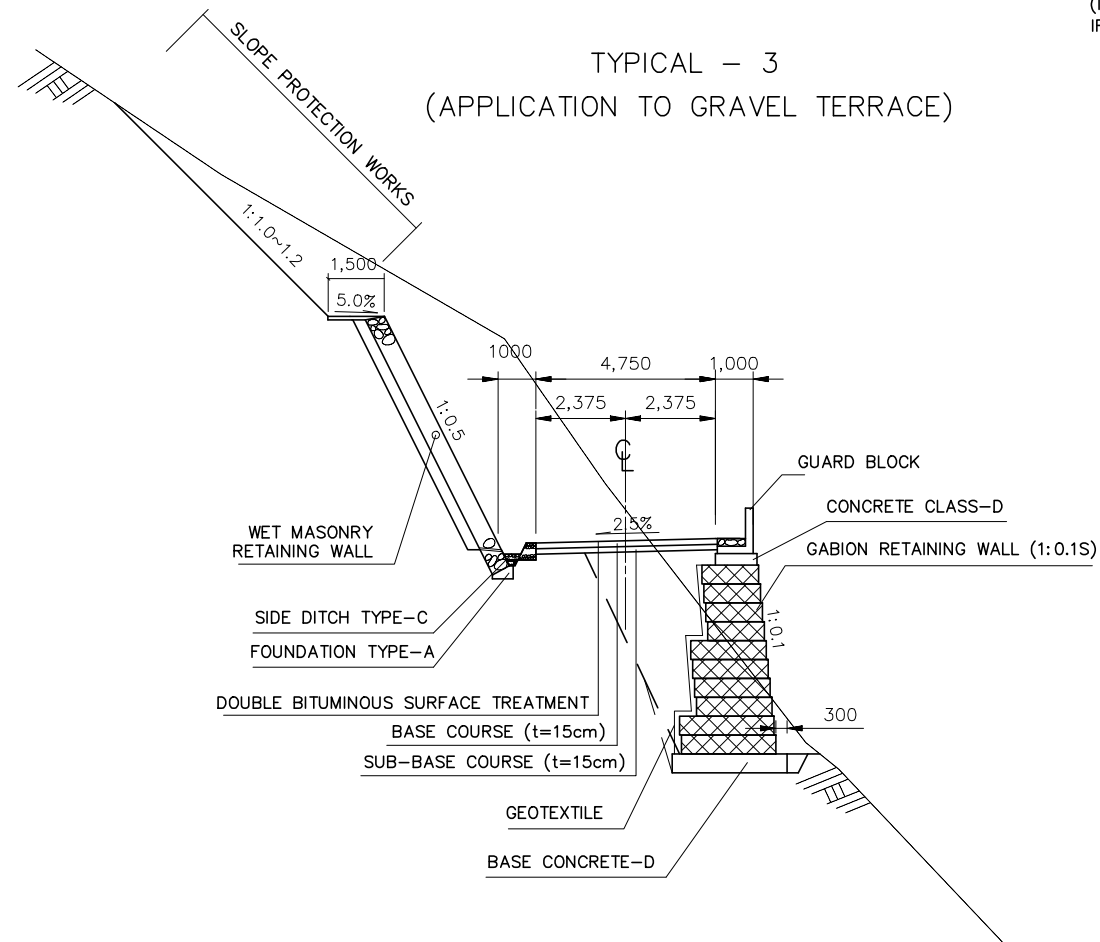
TYPICAL - 1
(APPLICATION TO AGRICULTURAL LAND)



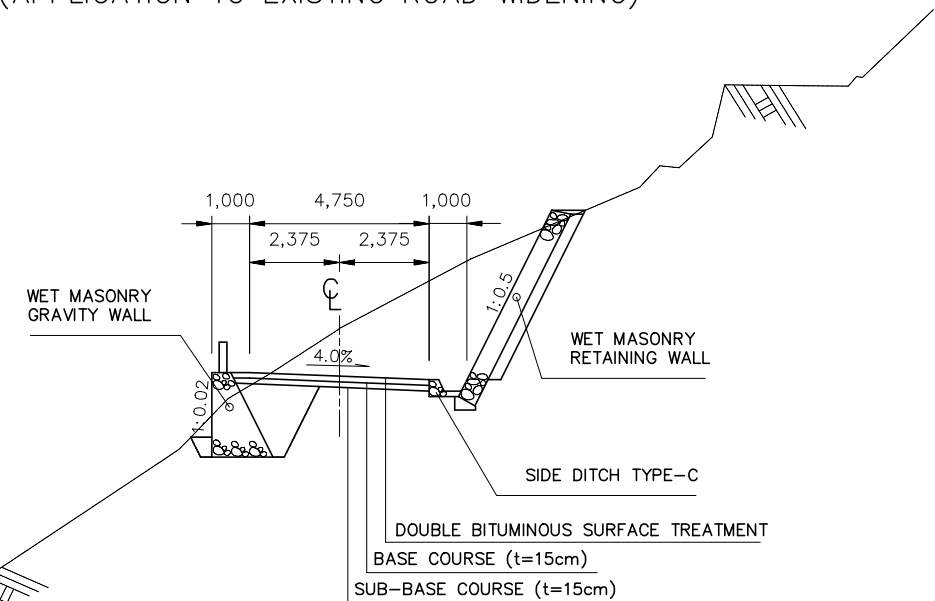
TYPICAL - 2
(APPLICATION TO EXISTING ROAD WIDENING)



TYPICAL - 3
(APPLICATION TO GRAVEL TERRACE)



TYPICAL - 4
(APPLICATION TO EXISTING ROAD WIDENING)

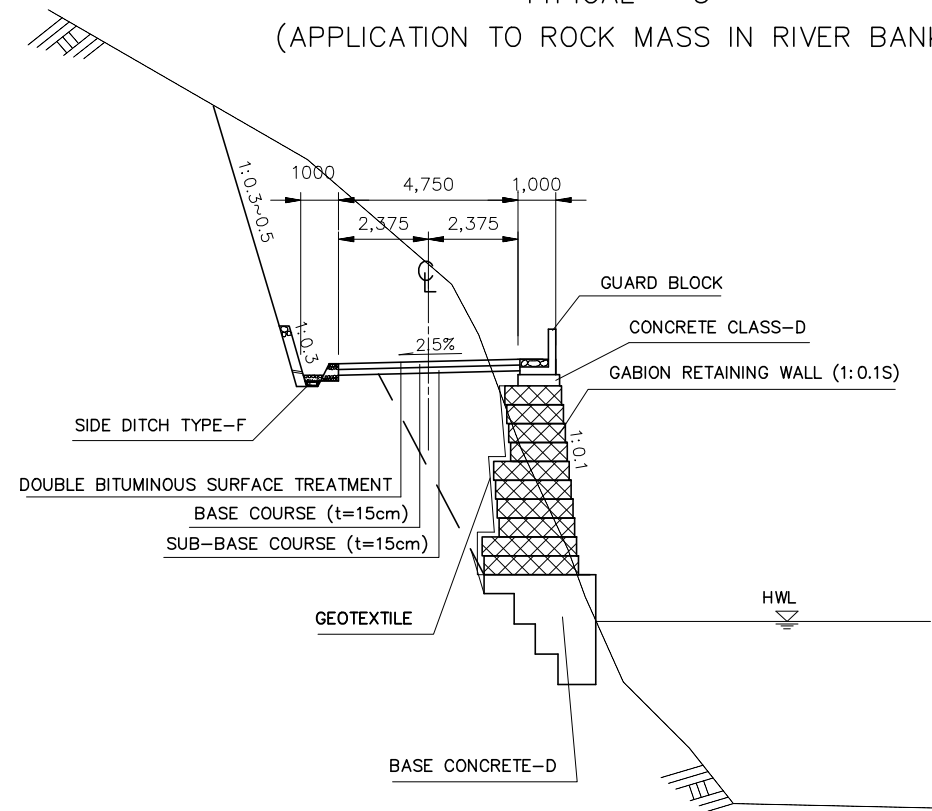


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| DEPARTMENT OF ROADS Ministry of Physical Planning and Works, FDR/ Nepal | |
| THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III) | |
| TYPICAL CROSS SECTION (1) | Drawing No. TX-01 |
| Date: July, 2009 | Scale: 1:200 |
| Designed by: <i>H. Subyama</i> | Approved by: |
| NIPPON KOEI CO., LTD, Consulting Engineers, Japan | |

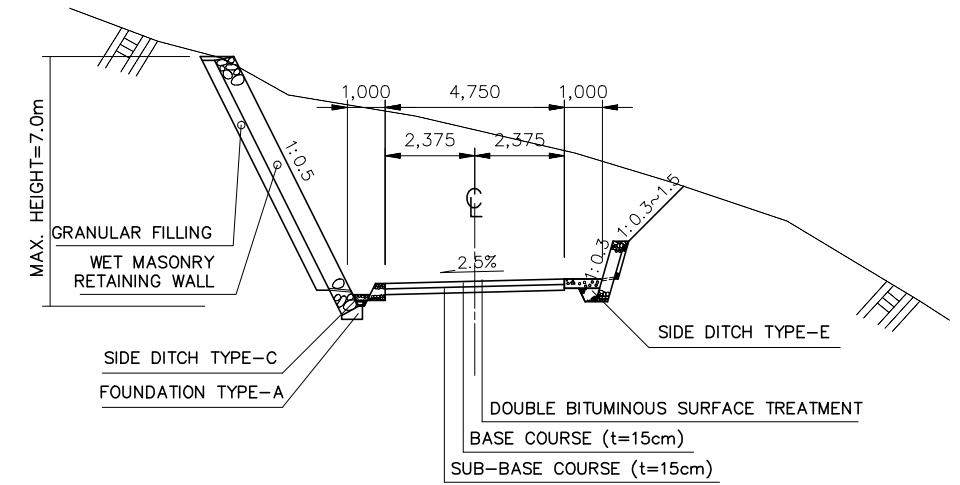
TYPICAL CROSS SECTIONS (2)

SCALE 1:200

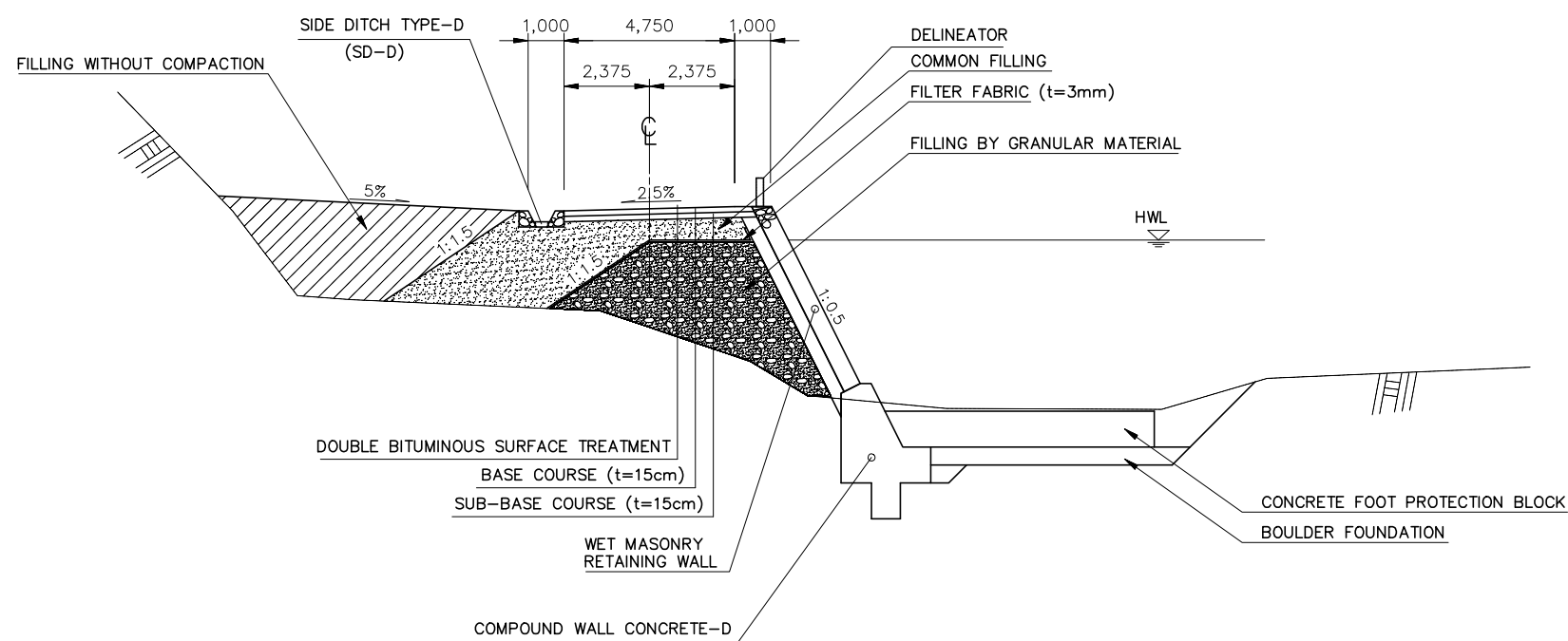
TYPICAL - 5
(APPLICATION TO ROCK MASS IN RIVER BANK)



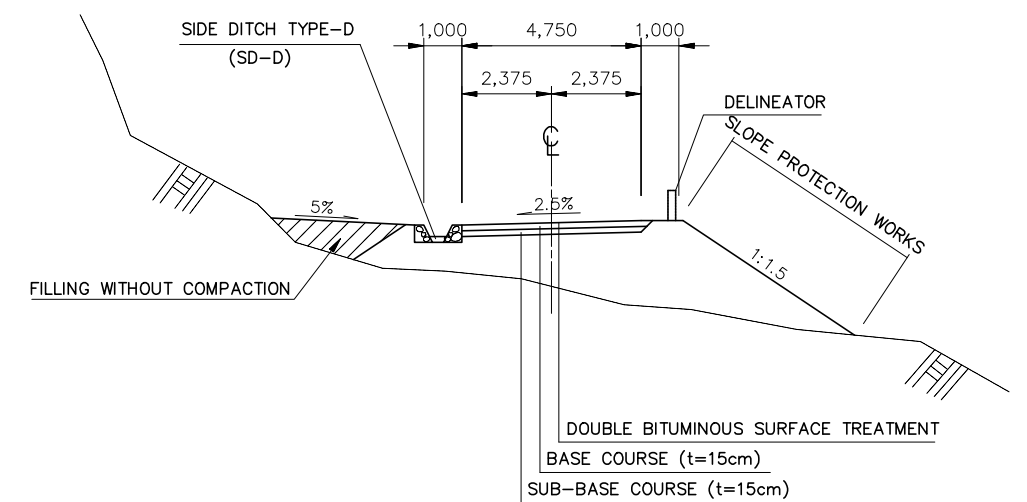
TYPICAL - 6
(APPLICATION TO OPEN CUT SECTION)



TYPICAL - 7
(APPLICATION TO EMBANKMENT ON RIVERBED)



TYPICAL - 8
(APPLICATION TO FULL EMBANKMENT SECTION)

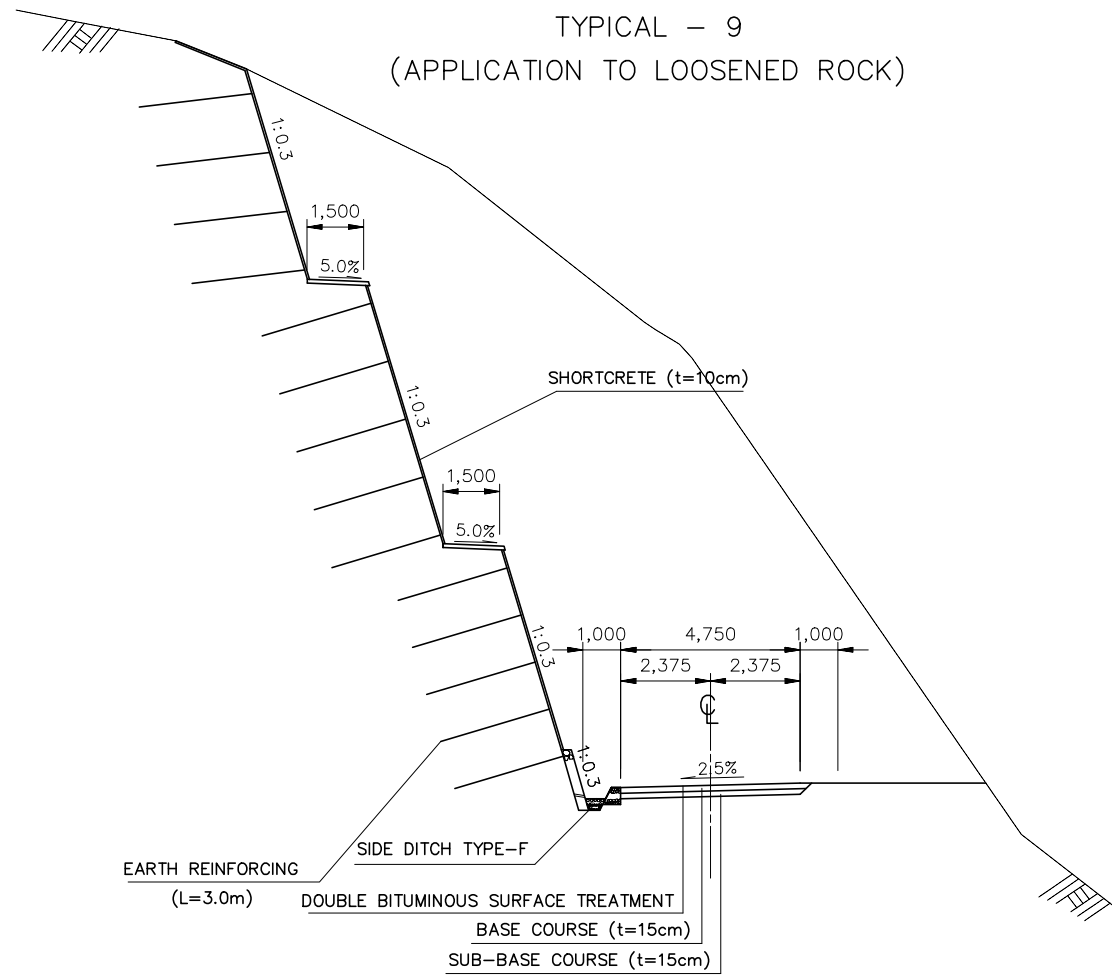


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| DEPARTMENT OF ROADS Ministry of Physical Planning and Works, FDR/ Nepal | |
| THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III) | |
| TYPICAL CROSS SECTION (2) | Drawing No. TX-02 |
| Date: July, 2009 | Scale: 1:200 |
| Designed by: <i>[Signature]</i> | Approved by: |
| NIPPON KOEI CO., LTD, Consulting Engineers, Japan | |

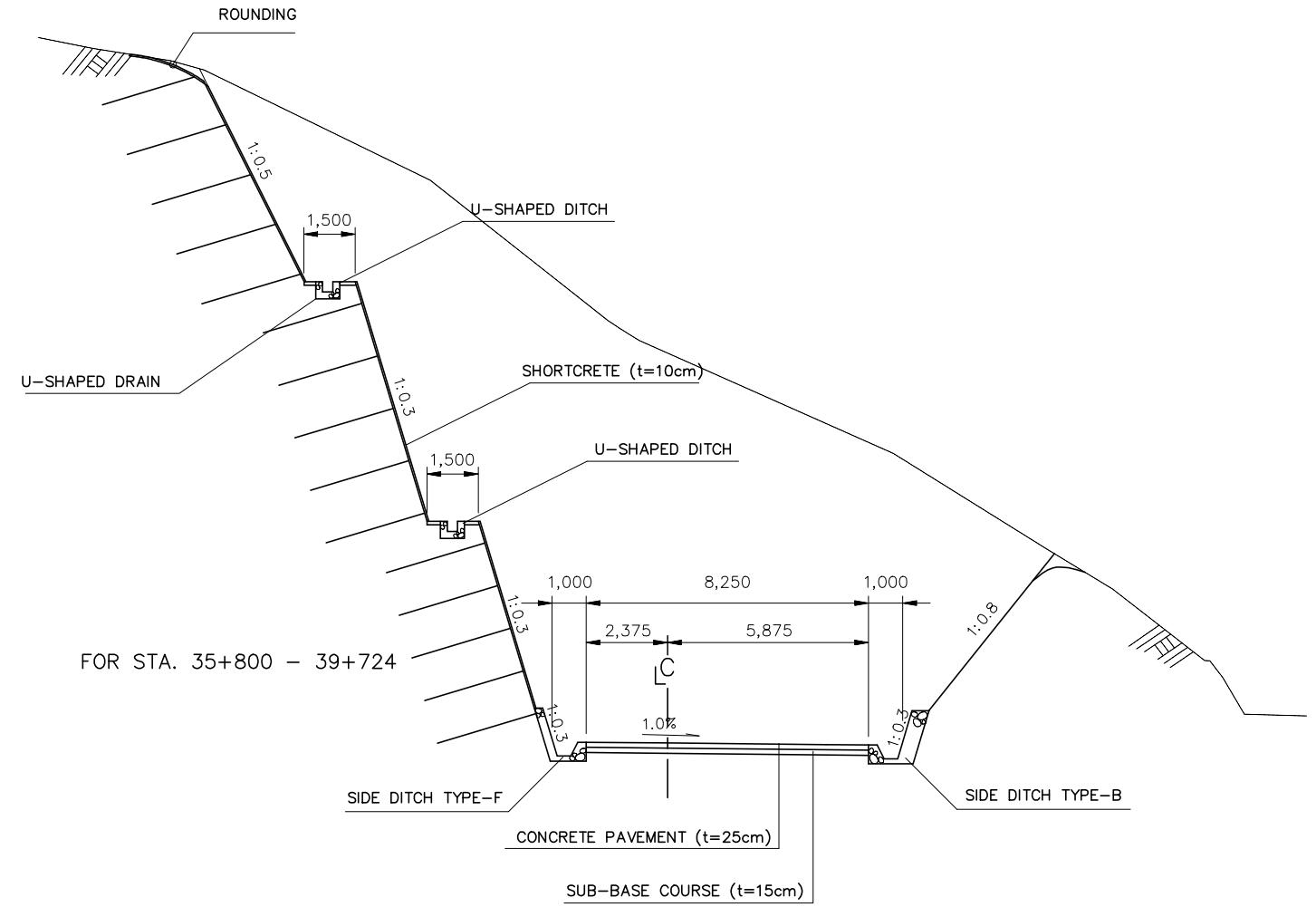
TYPICAL CROSS SECTIONS (3)

SCALE 1:200

TYPICAL - 9
(APPLICATION TO LOOSENEED ROCK)



TYPICAL10
(APPLICATION TO LOOSENEED ROCK)



FOR STA. 35+800 - 39+724

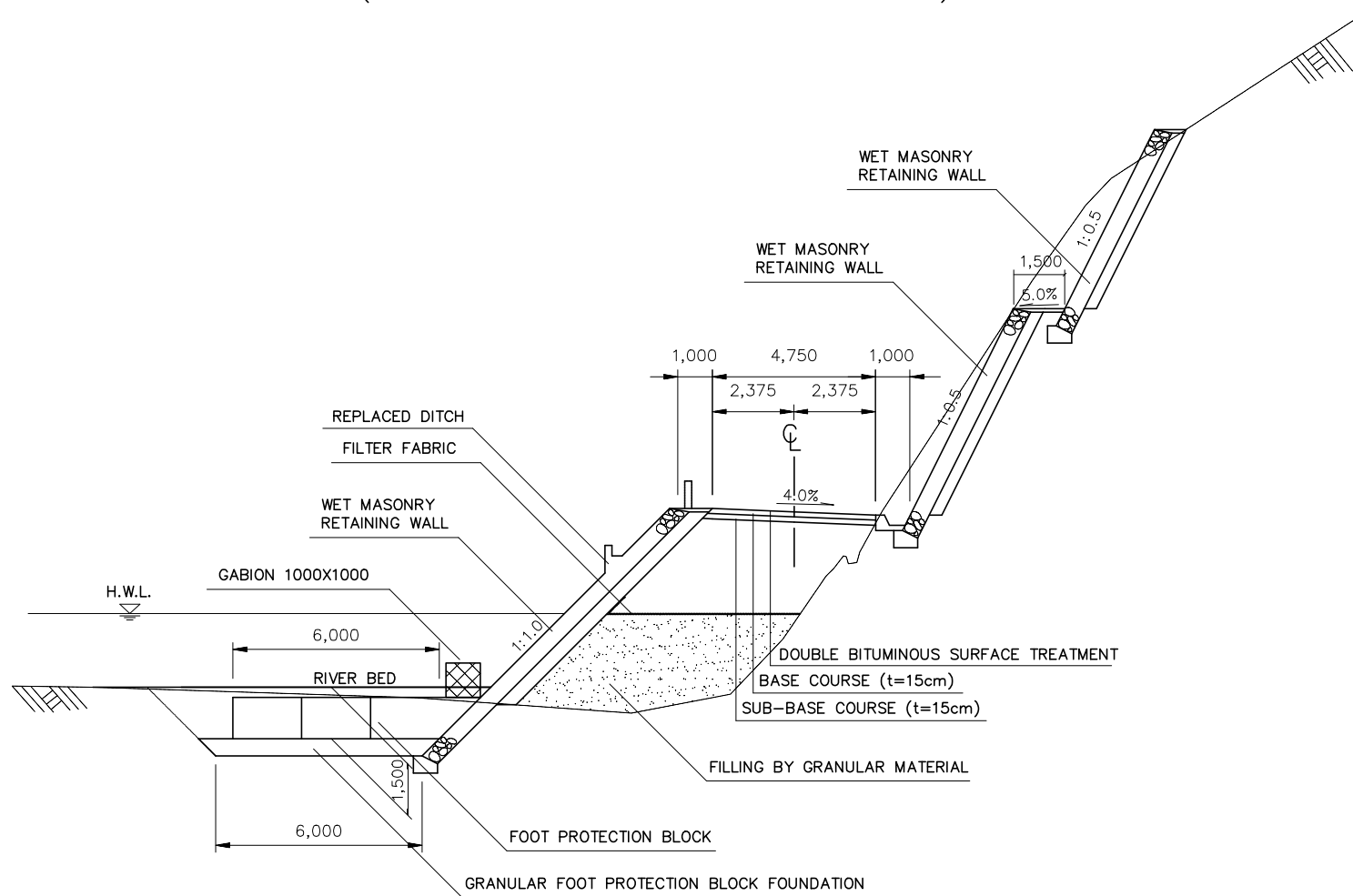
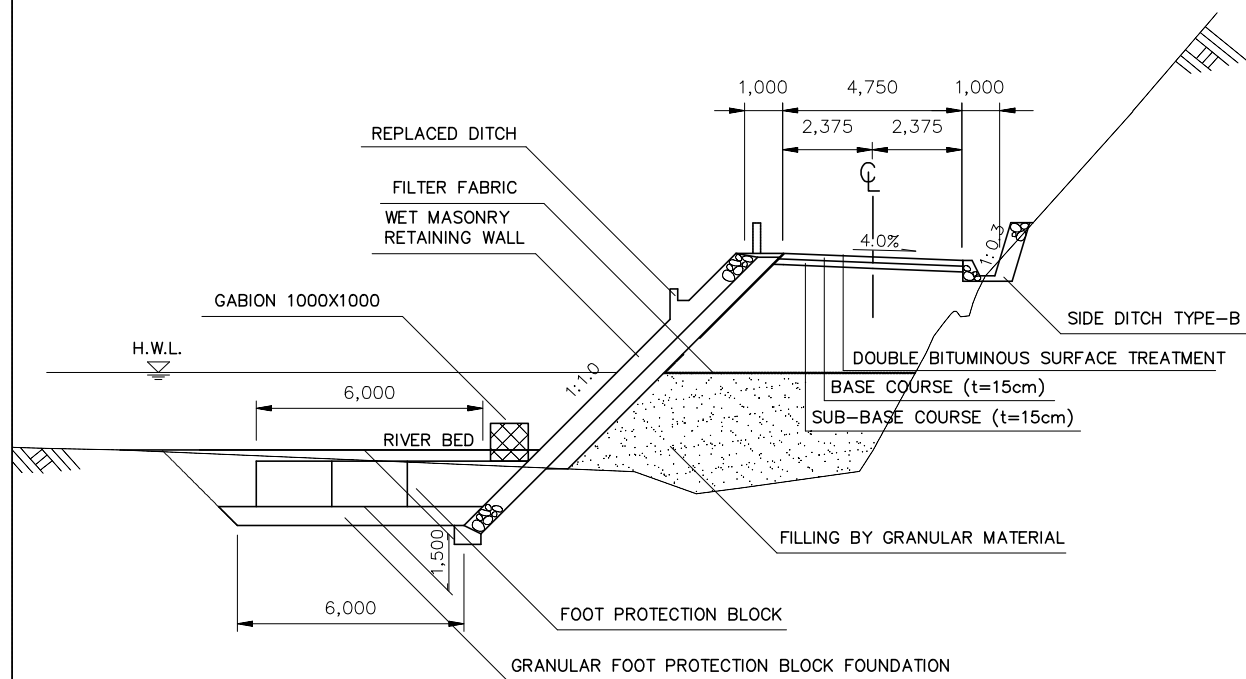
| | |
|--|----------------------|
| DEPARTMENT OF ROADS Ministry of Physical Planning and Works, FDR/ Nepal | |
| THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III) | |
| TYPICAL CROSS SECTION (3) | Drawing No. TX-03 |
| Date: July, 2009 | Scale: 1:200 |
| Designed by: <i>H. Subedi</i> | Approved by: |
| NIPPON KOEI CO., LTD, Consulting Engineers, Japan | |

TYPICAL CROSS SECTIONS (4)

SCALE 1:200

TYPICAL - 11
(APPLICATION TO SUNKOSHI RIVER SECTION)

TYPICAL - 12
(APPLICATION TO SUNKOSHI RIVER SECTION)



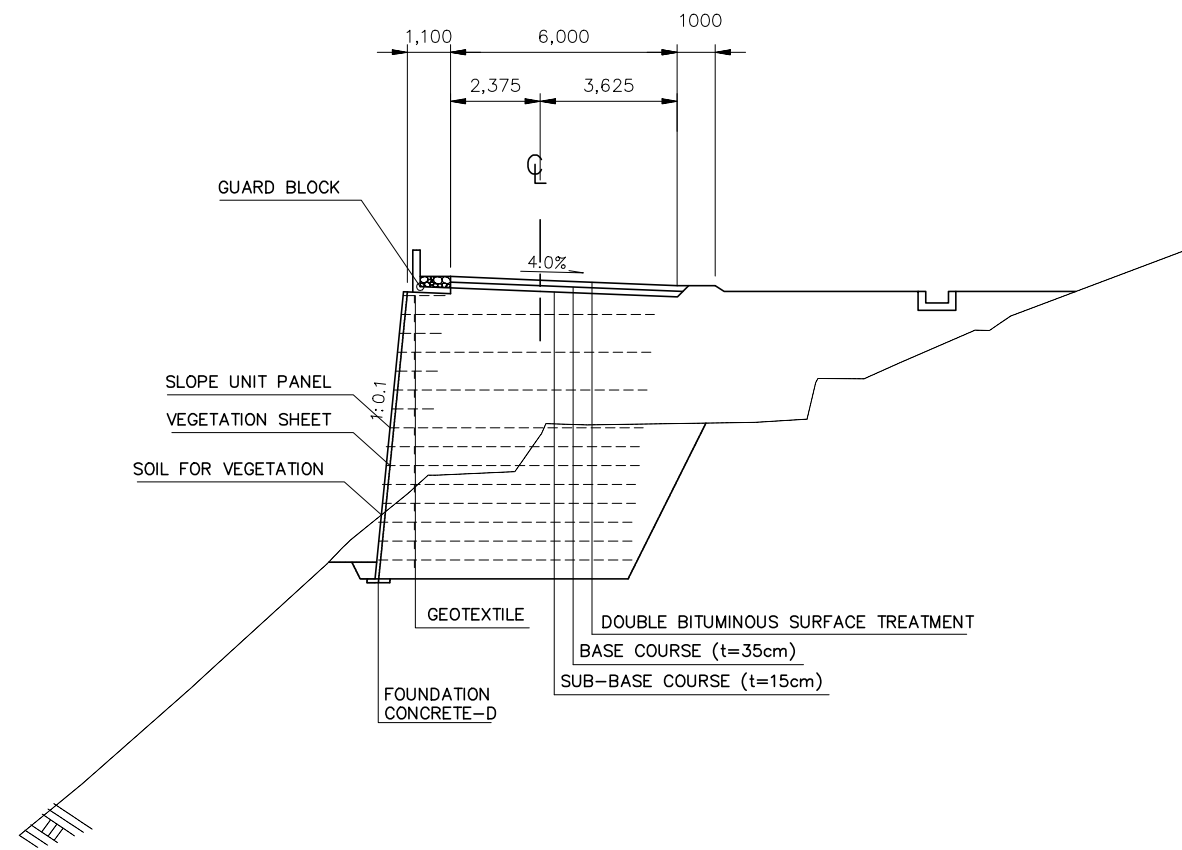
300-TX-04

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| DEPARTMENT OF ROADS Ministry of Physical Planning and Works, FDR/ Nepal | |
| THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III) | |
| TYPICAL CROSS SECTION (4) | Drawing No. TX-04 |
| Date: July, 2009 | Scale: 1:200 |
| Designed by: <i>A. Saha</i> | Approved by: |
| NIPPON KOEI CO., LTD, Consulting Engineers, Japan | |

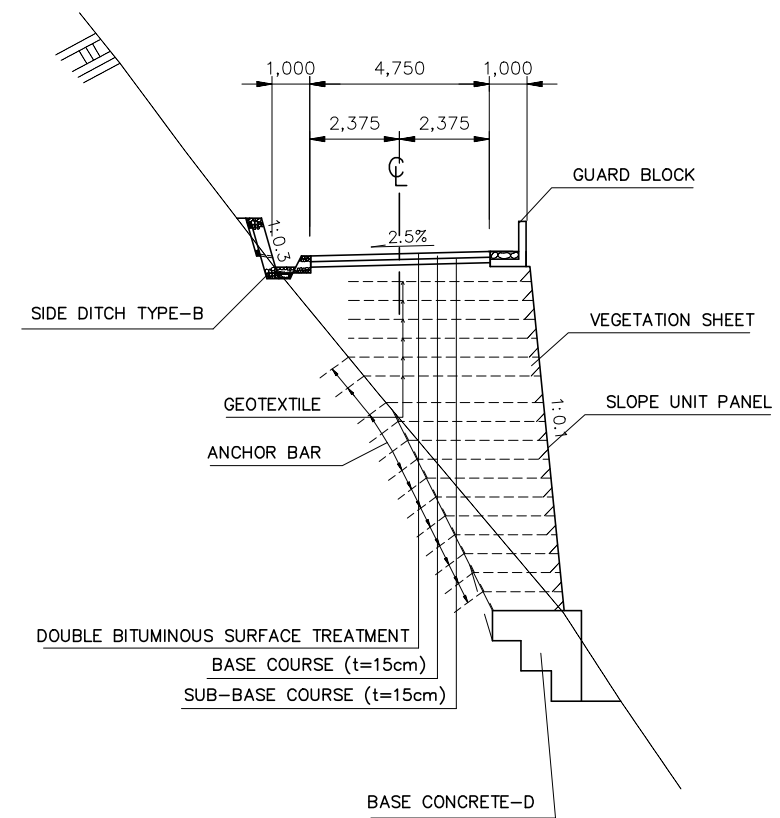
TYPICAL CROSS SECTIONS (5)

SCALE 1:200

TYPICAL - 13
(APPLICATION TO HIGH EMBANKMENT)



TYPICAL - 14
(APPLICATION TO HIGH EMBANKMENT FOR STA. 35+500 - 39+724)



300-TX-05

| | |
|--|----------------------|
| DEPARTMENT OF ROADS Ministry of Physical Planning and Works, FDR/ Nepal | |
| THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III) | |
| TYPICAL CROSS SECTION (5) | Drawing No. TX-05 |
| Date: July, 2009 | Scale: 1:200 |
| Designed by: <i>M. Subyoshi</i> | Approved by: |
| NIPPON KOEI CO., LTD, Consulting Engineers, Japan | |

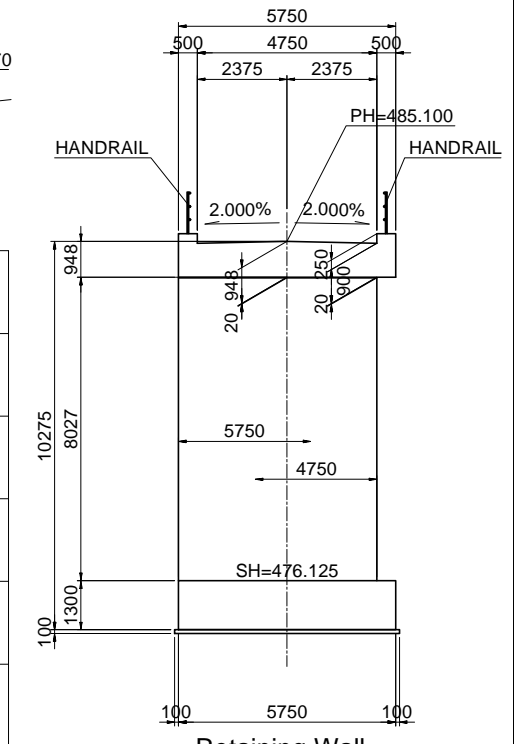
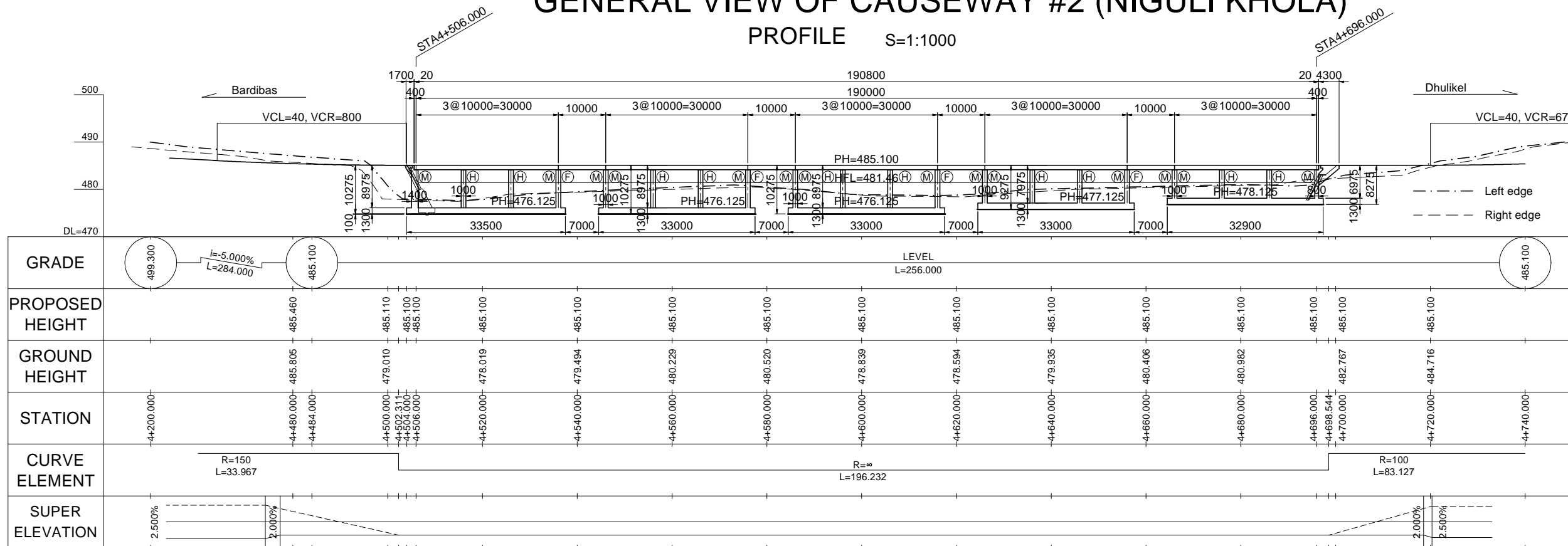
GENERAL VIEW OF CAUSEWAY #2 (NIGULI KHOLA)

PROFILE S=1:1000

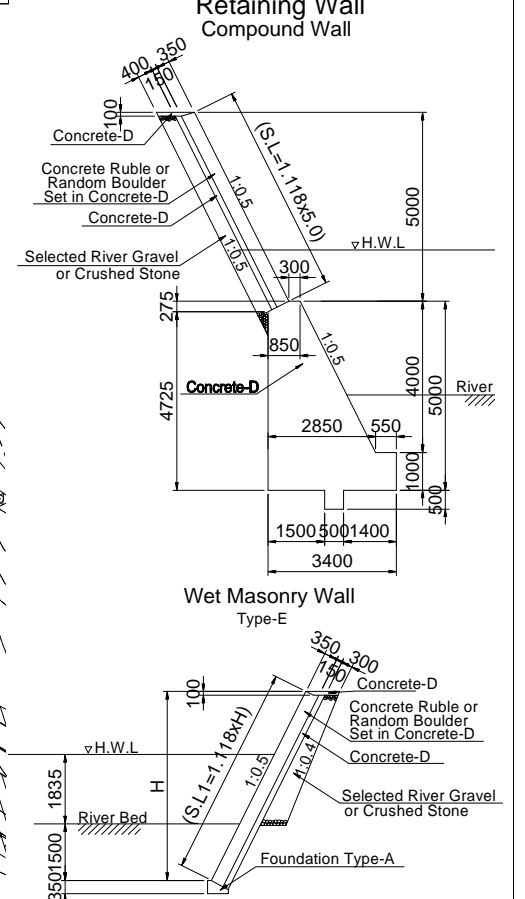
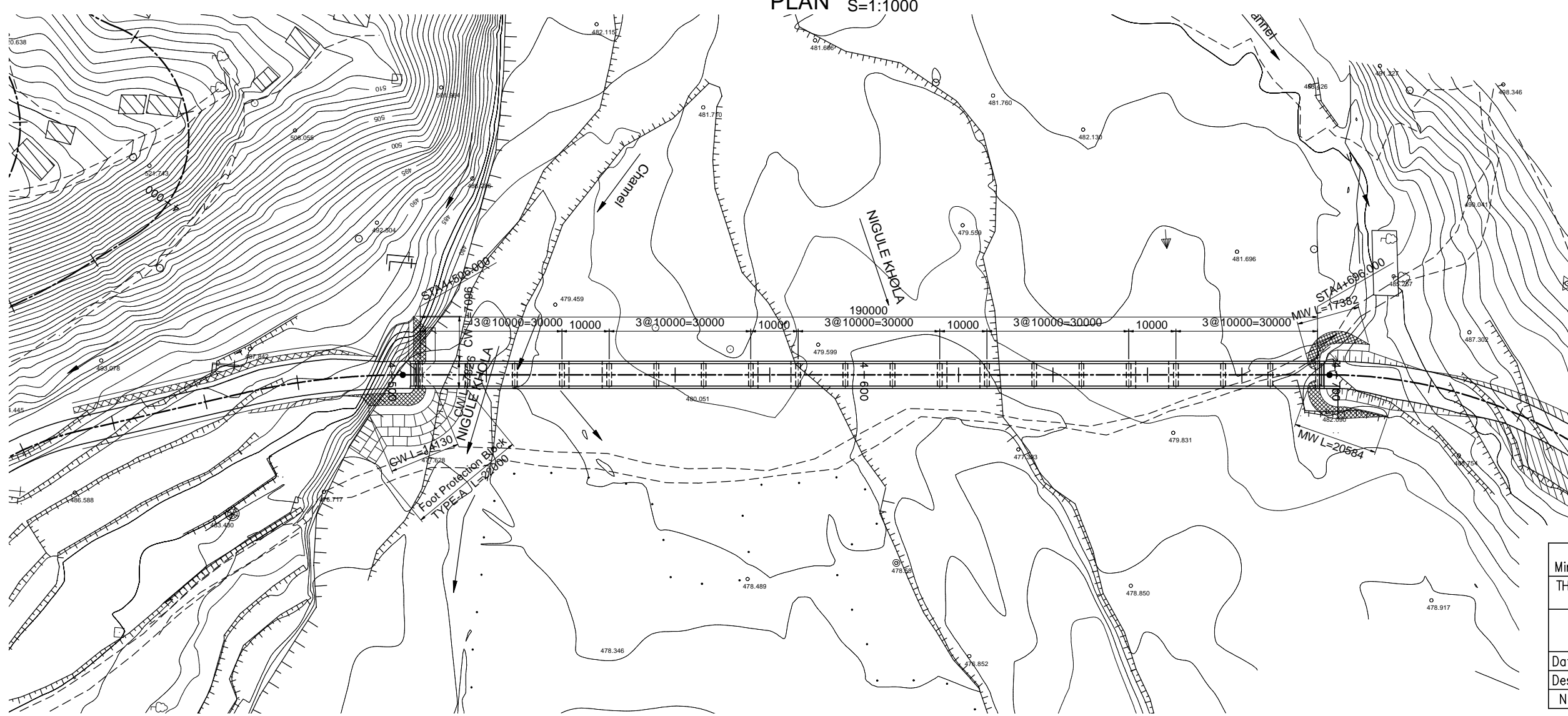
TYPICAL CROSS SECTION S=1:200

S=1:200

Side wall (Abutment) Intermediate wall (Pier)



PLAN S=1:1000



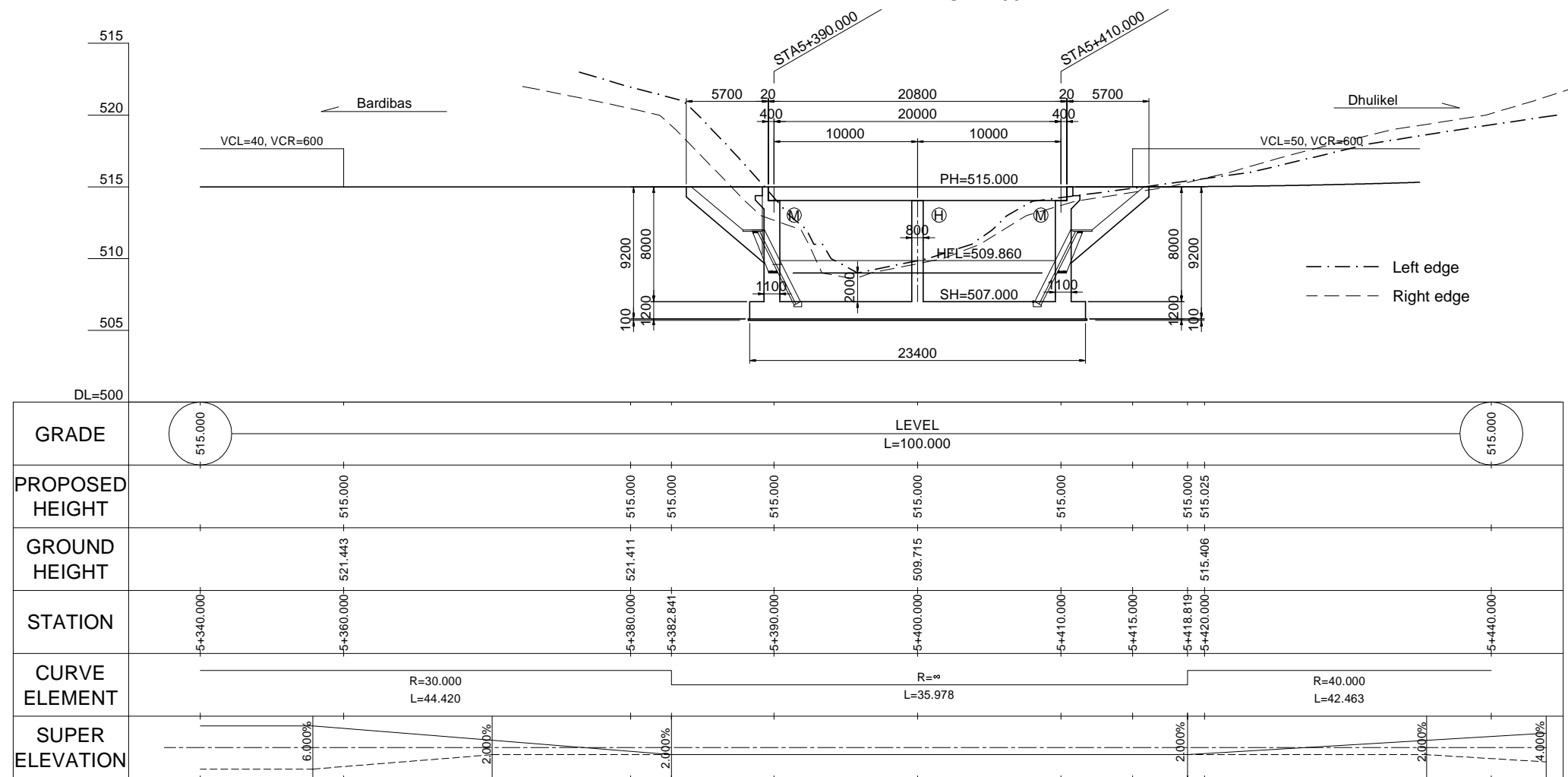
DEPARTMENT OF ROADS
Ministry of Physical Planning and Works, FDR/ Nepal
THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III)

GENERAL VIEW OF CAUSEWAY #2 (NIGULI KHOLA) Drawing No. E-#2-01

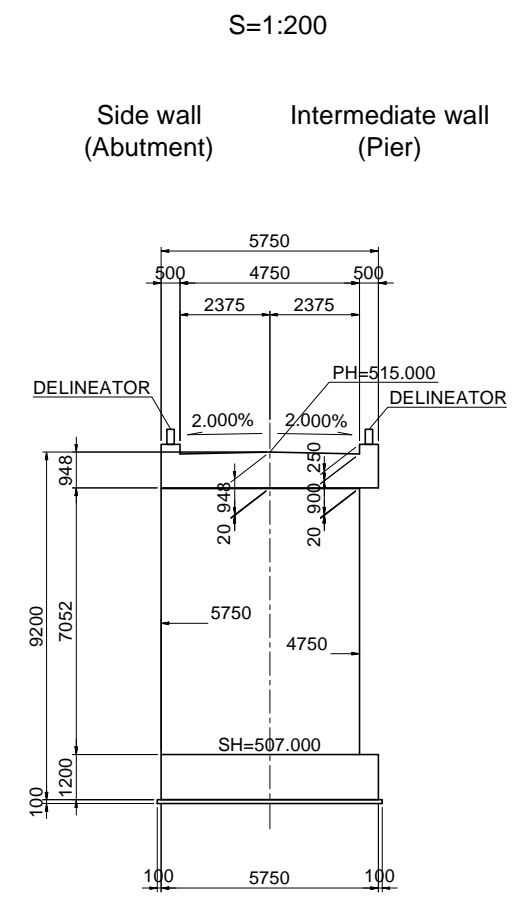
Date: July, 2009 Scale: As Shown
Designed by: *[Signature]* Approved by: *[Signature]*
NIPPON KOEI CO., LTD, Consulting Engineers, Japan

GENERAL VIEW OF CAUSEWAY #3 (GADAULE KHOLA)

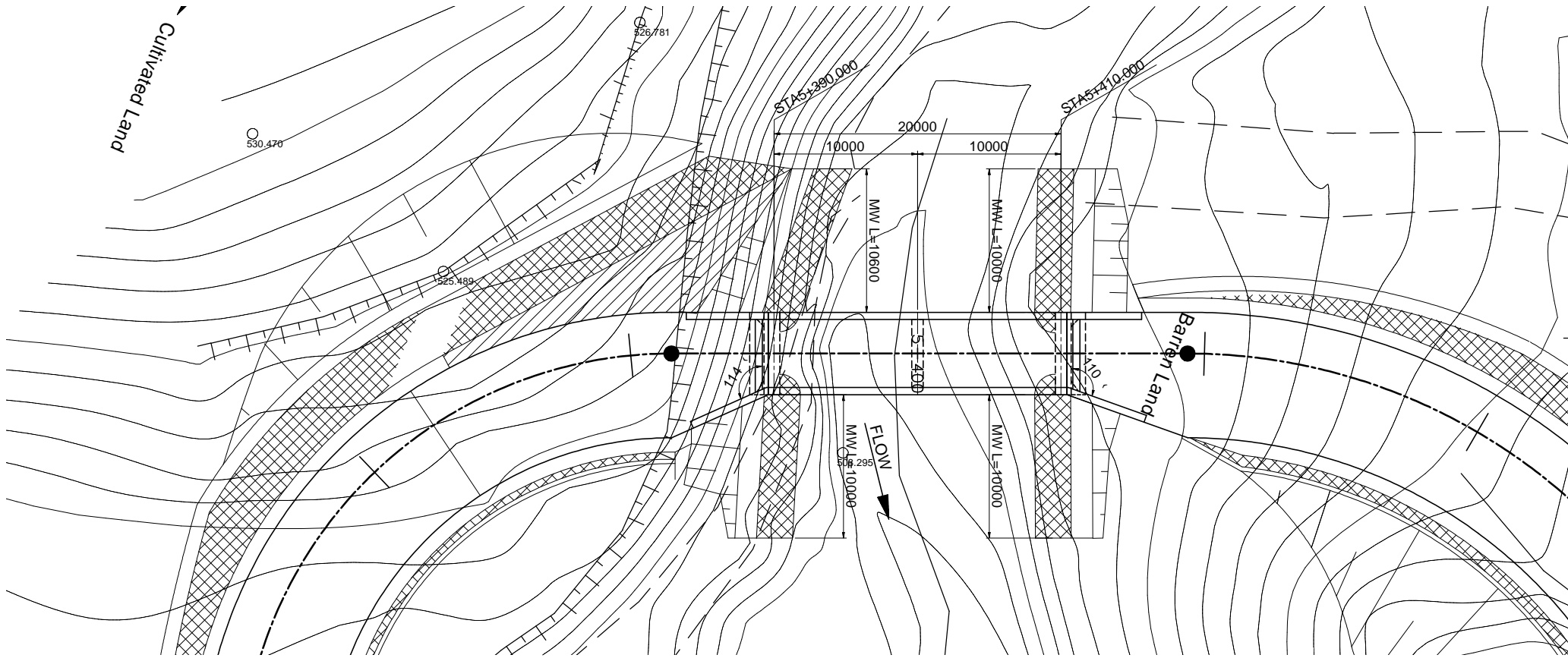
PROFILE S=1:400



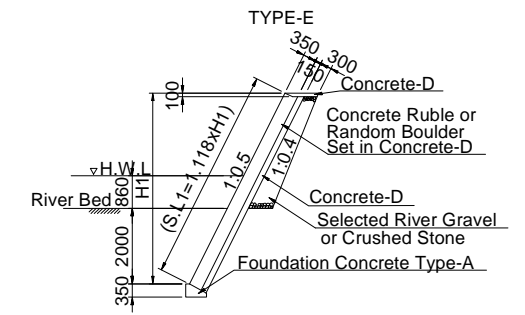
TYPICAL CROSS SECTION S=1:200



PLAN S=1:400



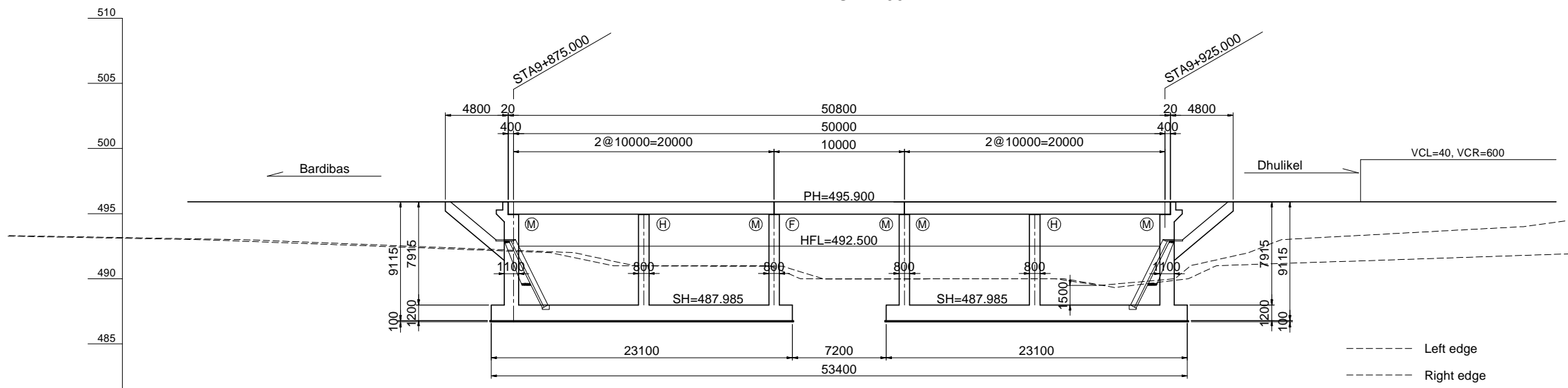
Retaining Wall (Wet Masonry Wall) TYPE-E



| | |
|--|---------------------------------|
| DEPARTMENT OF ROADS Ministry of Physical Planning and Works, FDR/ Nepal THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III) | |
| GENERAL VIEW OF CAUSEWAY #3 (GADAULE KHOLA) | Drawing No. E-#3-01 |
| Date: July, 2009 | Scale: As Shown |
| Designed by: <i>[Signature]</i> | Approved by: <i>[Signature]</i> |
| NIPPON KOEI CO., LTD, Consulting Engineers, Japan | |

GENERAL VIEW OF CAUSEWAY #4 (CHAINPUR KHOLA)

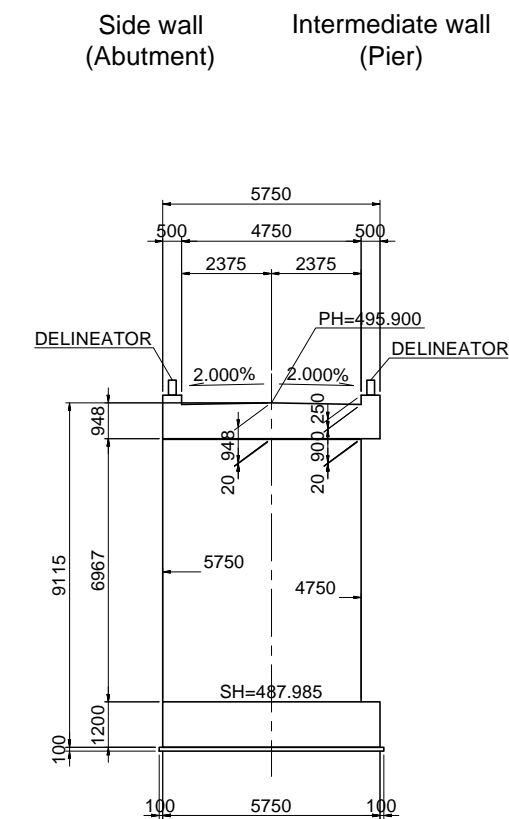
PROFILE S=1:400



| | | | | | | | | |
|-----------------|------------------|--------------------|----------|----------|----------|----------|----------|---------|
| GRADE | 495.900 | LEVEL L=189.250 | | | | | | 495.900 |
| PROPOSED HEIGHT | | 495.900 | 495.900 | 495.900 | 495.900 | 495.900 | 495.900 | |
| GROUND HEIGHT | | 492.548 | 491.595 | 490.087 | 489.402 | 491.718 | | |
| STATION | +770.750 | +860.000 | +875.000 | +900.000 | +920.000 | +940.000 | +960.000 | |
| CURVE ELEMENT | R=∞ L=144.939 | | | | | | | |
| SUPER ELEVATION | 2.000% | | | | | | 2.000% | |

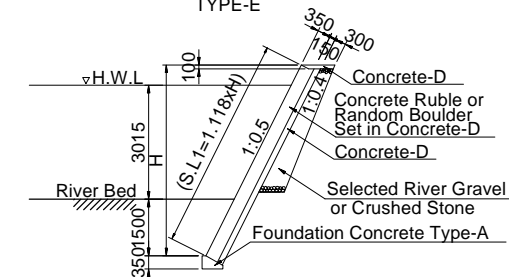
TYPICAL CROSS SECTION

S=1:200

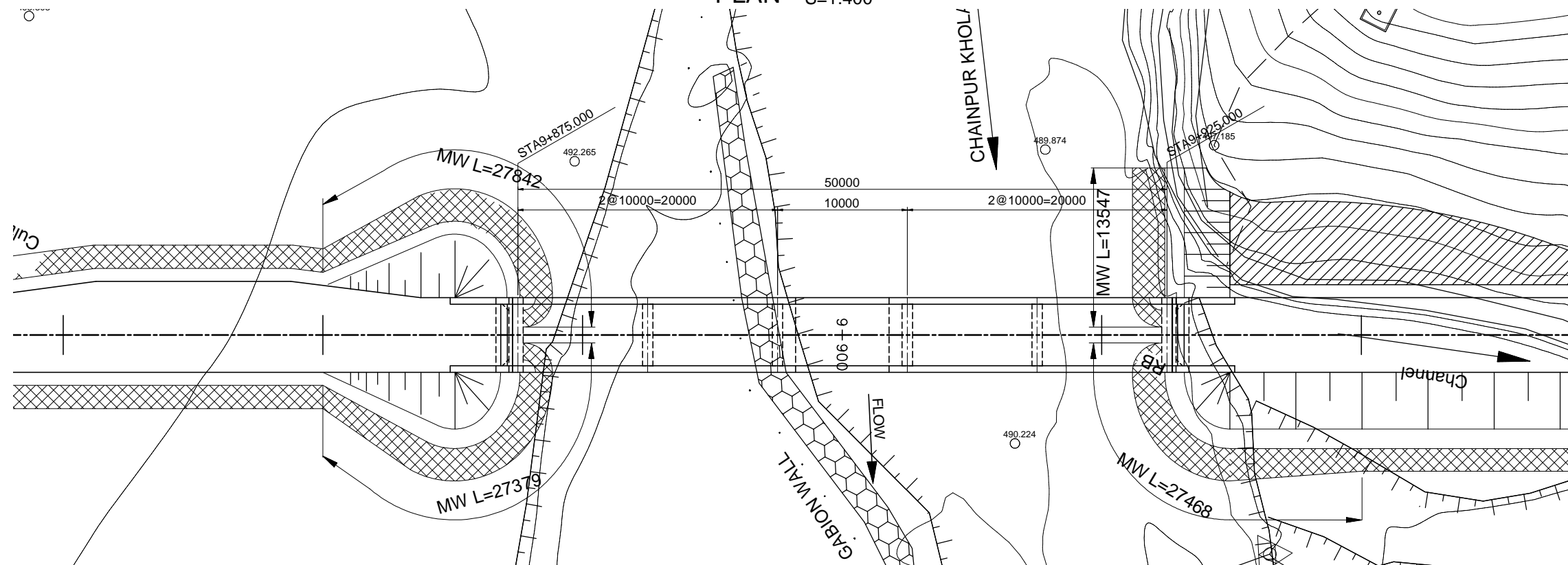


Retaining Wall (Wet Masonry Wall)

TYPE-E



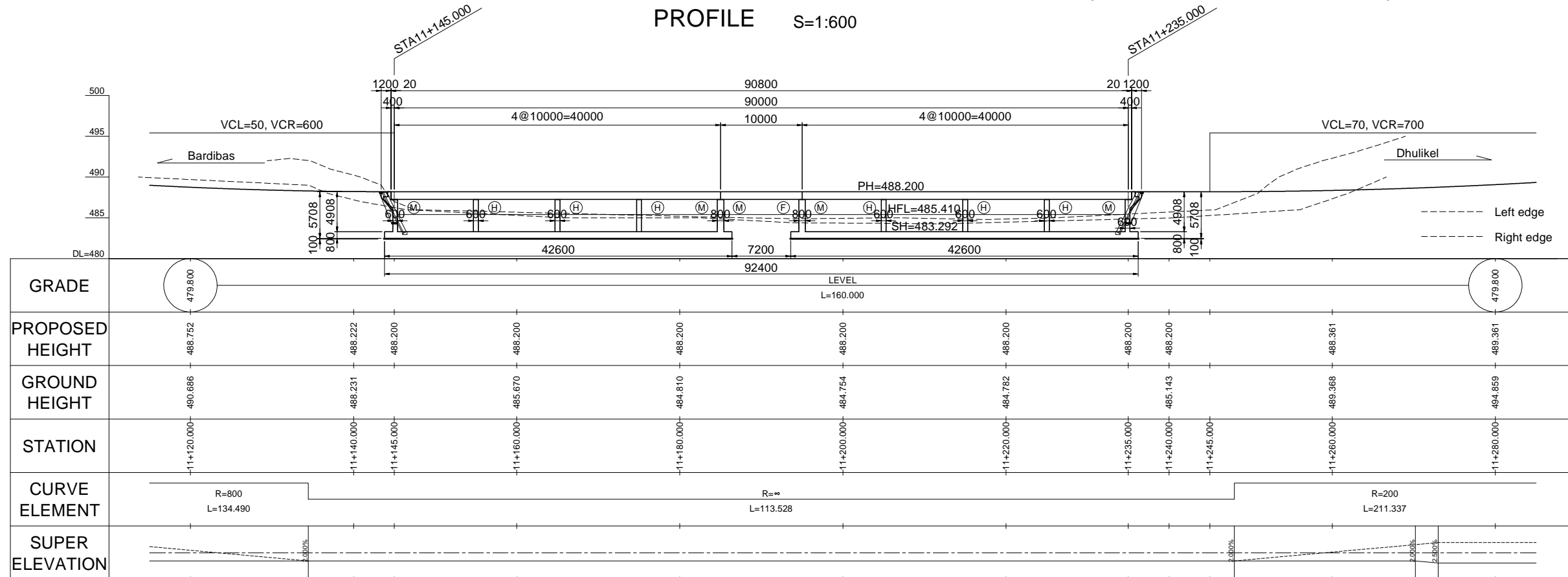
PLAN S=1:400



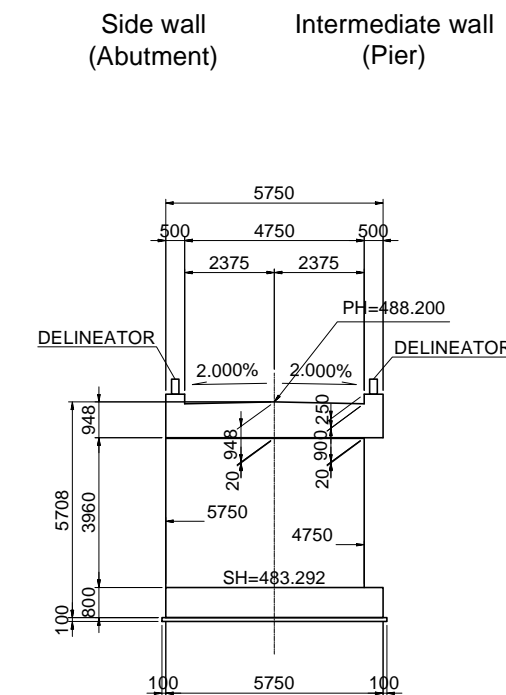
| | |
|--|------------------------|
| DEPARTMENT OF ROADS Ministry of Physical Planning and Works, FDR/ Nepal THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III) | |
| GENERAL VIEW OF CAUSEWAY #4 (CHAINPUR KHOLA) | Drawing No. E-#4-01 |
| Date: July, 2009 | Scale: As Shown |
| Designed by: <i>H. Rajan</i> | Approved by: |
| NIPPON KOEI CO., LTD, Consulting Engineers, Japan | |

GENERAL VIEW OF CAUSEWAY #5 (KHAHARE KHOLA)

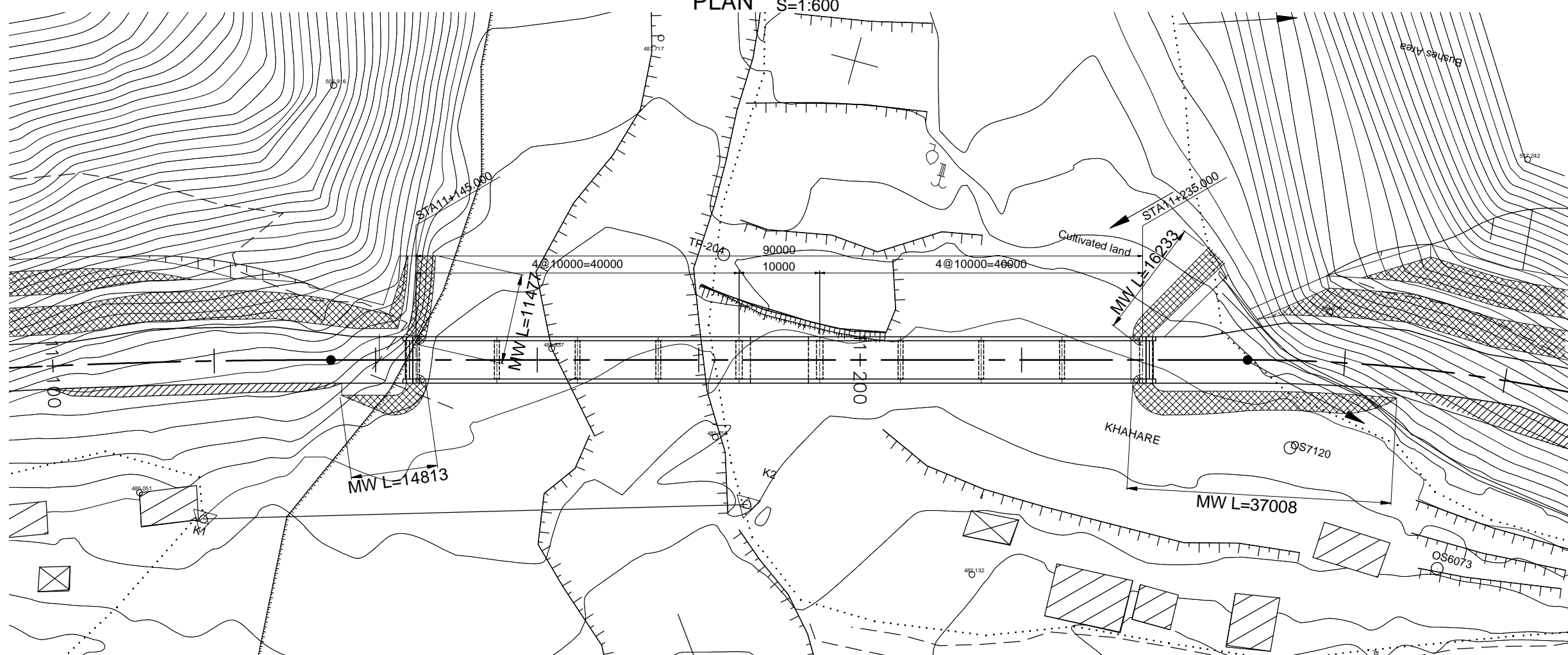
PROFILE S=1:600



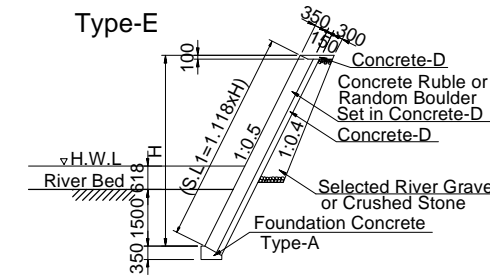
TYPICAL CROSS SECTION S=1:200



PLAN S=1:600



Retaining wall (Wet Masonry Wall)

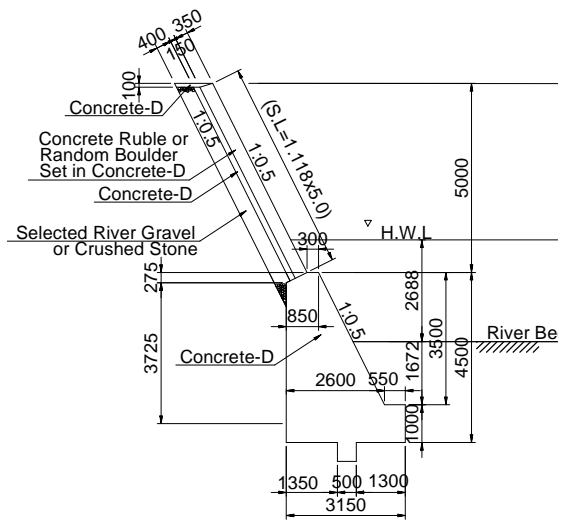
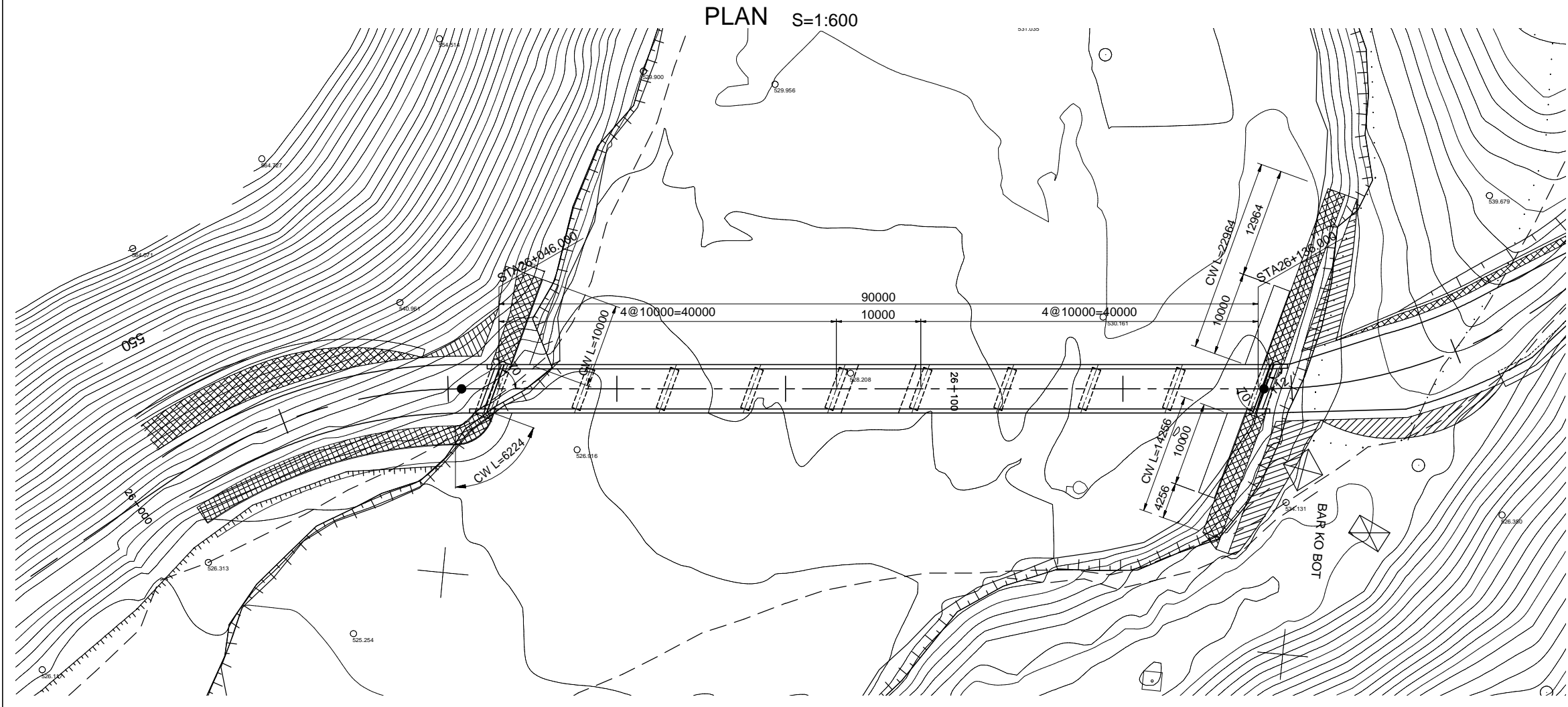
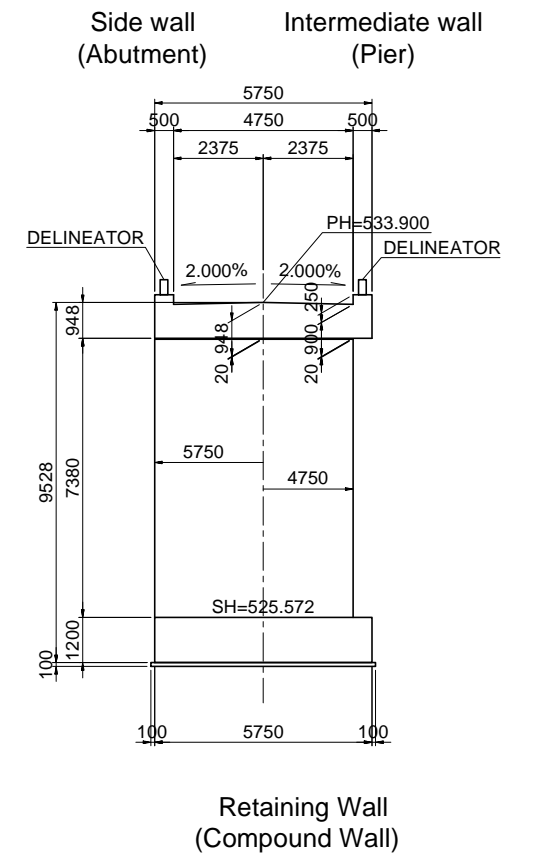
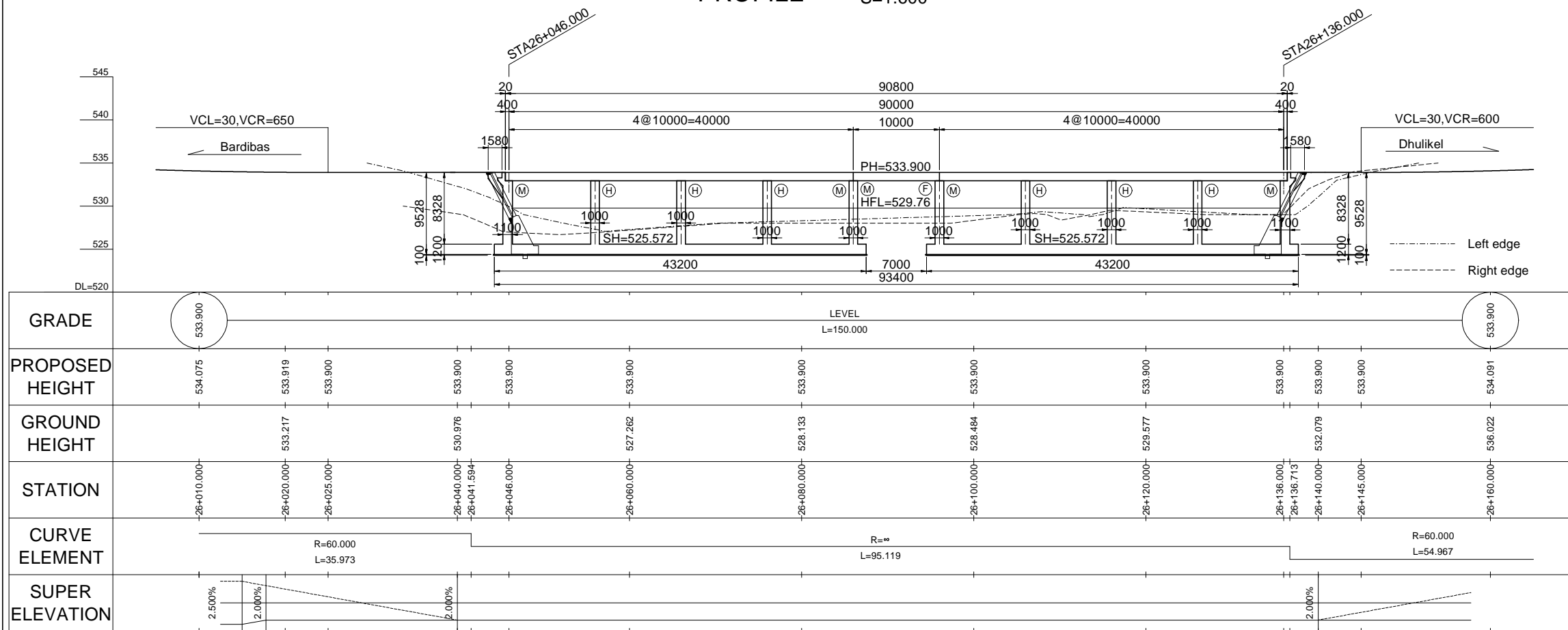


| | |
|--|---------------------------------|
| DEPARTMENT OF ROADS Ministry of Physical Planning and Works, FDR/ Nepal THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD (Section III) | |
| GENERAL VIEW OF CAUSEWAY #5 (KHAHARE KHOLA) | Drawing No. E-#5-01 |
| Date: July, 2009 | Scale: As Shown |
| Designed by: <i>[Signature]</i> | Approved by: <i>[Signature]</i> |
| NIPPON KOEI CO., LTD, Consulting Engineers, Japan | |

GENERAL VIEW OF CAUSEWAY #9 (SADHI KHOLA)

PROFILE S=1:600

TYPICAL CROSS SECTION S=1:200



DEPARTMENT OF ROADS
Ministry of Physical Planning and Works, FDR/ Nepal
THE PROJECT FOR CONSTRUCTION OF SINDHULI ROAD
(Section III)

GENERAL VIEW OF
CAUSEWAY #9 (SADHI KHOLA)

Date: July, 2009
Designed by: *H. Rajan*
NIPPON KOEI CO., LTD, Consulting Engineers, Japan

Drawing No.
E-#9-01
Scale: As Shown
Approved by: