



MINISTRY OF ROAD TRANSPORT & HIGHWAYS  
GOVERNMENT OF INDIA

Consultancy Services for Preparation of Detailed Project Report (DPR) for New  
Construction of Major bridge at Ch 77+600 on NH -35  
(Old NH-76) in the State of Uttar Pradesh.



DETAILED PROJECT REPORT  
(DRAWING VOLUME)

CLIENT:



MINISTRY OF ROAD TRANSPORT & HIGHWAYS  
GOVERNMENT OF INDIA

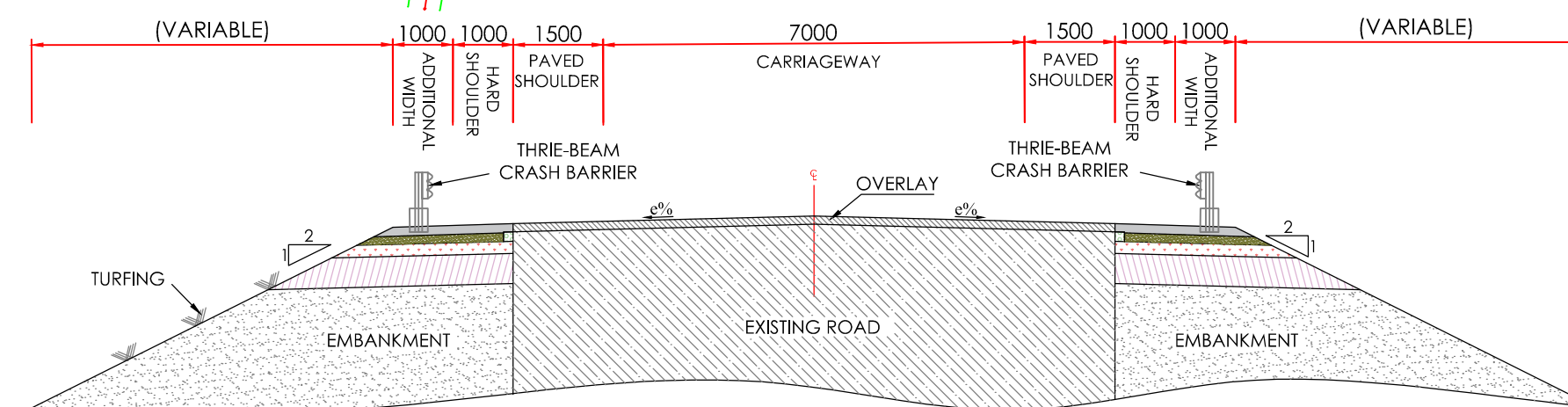
CONSULTANT:



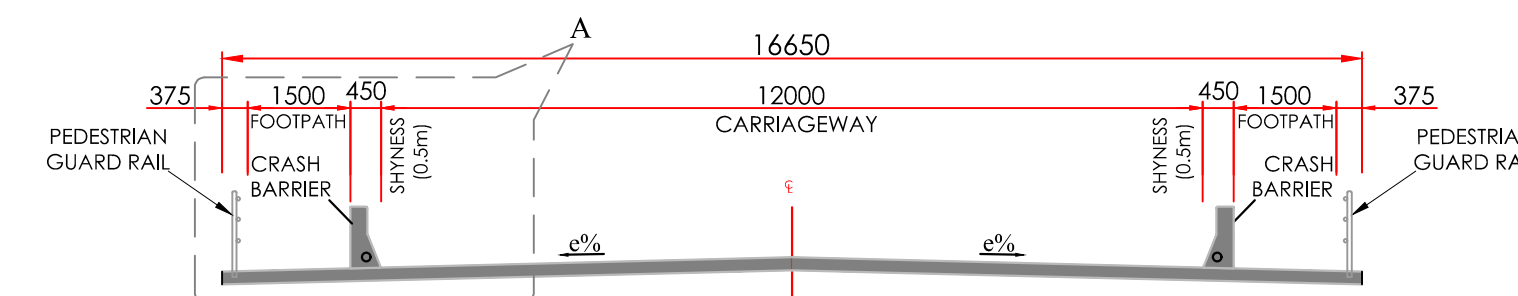
Technocrats Advisory Services Private Limited  
68, Ajanta Apartment, 36, I.P.Extension  
Patparganj Delhi-110092

PLAN & PROFILE ►

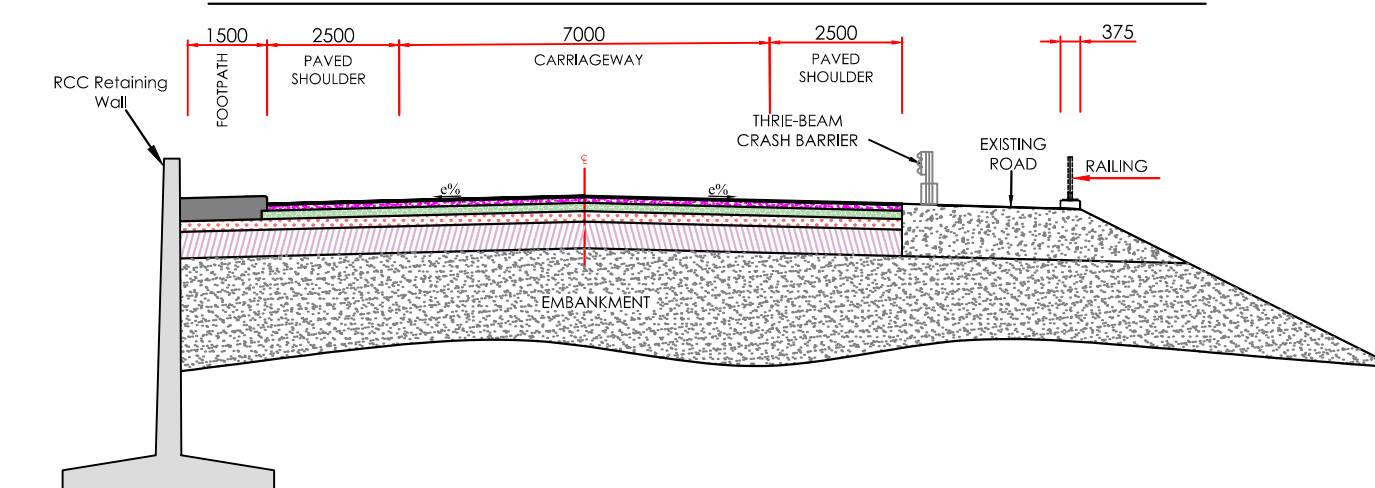
TO CHITRAKOOT ➡



**TCS-1 : TWO LANE + PAVED SHOULDER IN OPEN LAND (EXISTING ROAD)**



**TCS-2 : TWO LANE + PAVED SHOULDER WITH FOOTPATH FOR BRIDGE**



**TCS-3 : NEW TWO LANE + PAVED SHOULDER IN OPEN LAND WITH ONE SIDE RETAINING WALL**

|                 |
|-----------------|
| Project Title:- |
|-----------------|

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridge at Ch 77+600 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT  
& HIGHWAYS

|                 |
|-----------------|
| Drawing Title:- |
|-----------------|

## Plan & Profile

### Bridge at Km 77+600

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/77+600/GAD/01

Scale :- NOT TO SCALE

Drn

|      |  |
|------|--|
| Dgn. |  |
|------|--|

|      |
|------|
| Appd |
|------|

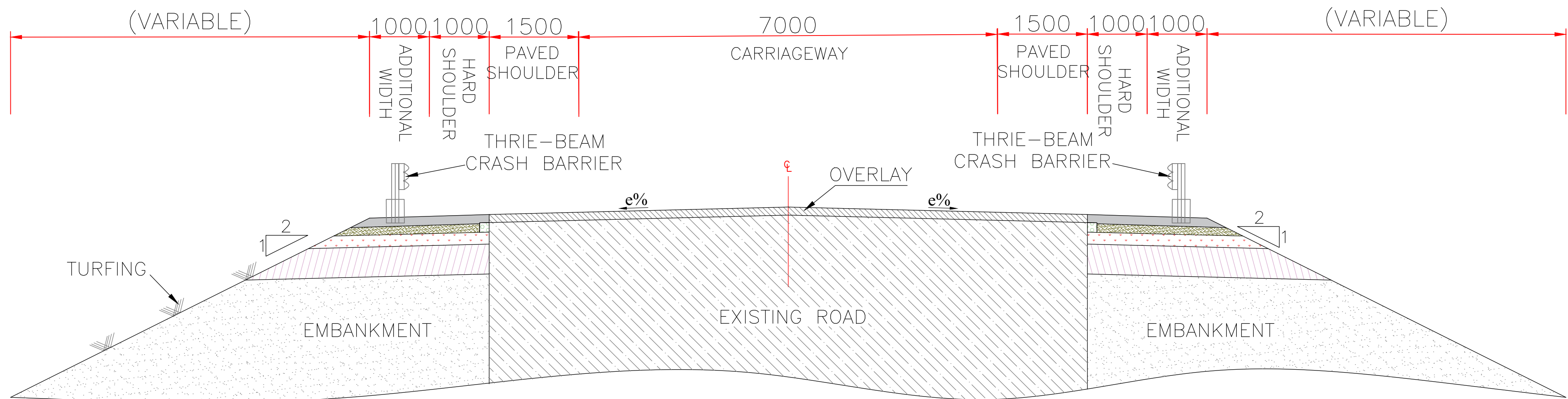
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|--------------|
| CONSULTANT:- |
|--------------|



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Patparganj, Delhi-110092

TYPICAL CROSS SECTION ►



### TCS-1 : TWO LANE + PAVED SHOULDER IN OPEN LAND (EXISTING ROAD)

| S.No  | From (km) | To (km) | Length (m) | Type  |
|-------|-----------|---------|------------|-------|
| 1     | 77+400    | 77+447  | 47         | TCS-1 |
| 2     | 77+964    | 78+074  | 110        | TCS-1 |
| Total |           |         | 157        |       |

REF. –  
 1. CIRCULAR DATED–04.06.2025  
 2. IRC:73–2023 PAGE–123(FIG.4.1)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridges at Ch 77+600 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



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Drawing Title:-

TYPICAL CRSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

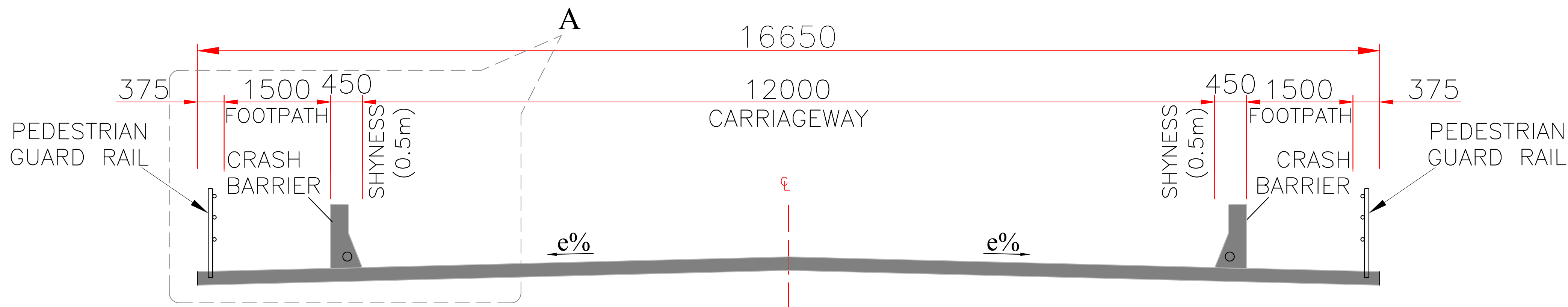
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| Drn    | Dgn.         | Appd         | Sheet :  |
| Manish | Mahesh Dixit | S.K.Upadhyay | 01 OF 02 |

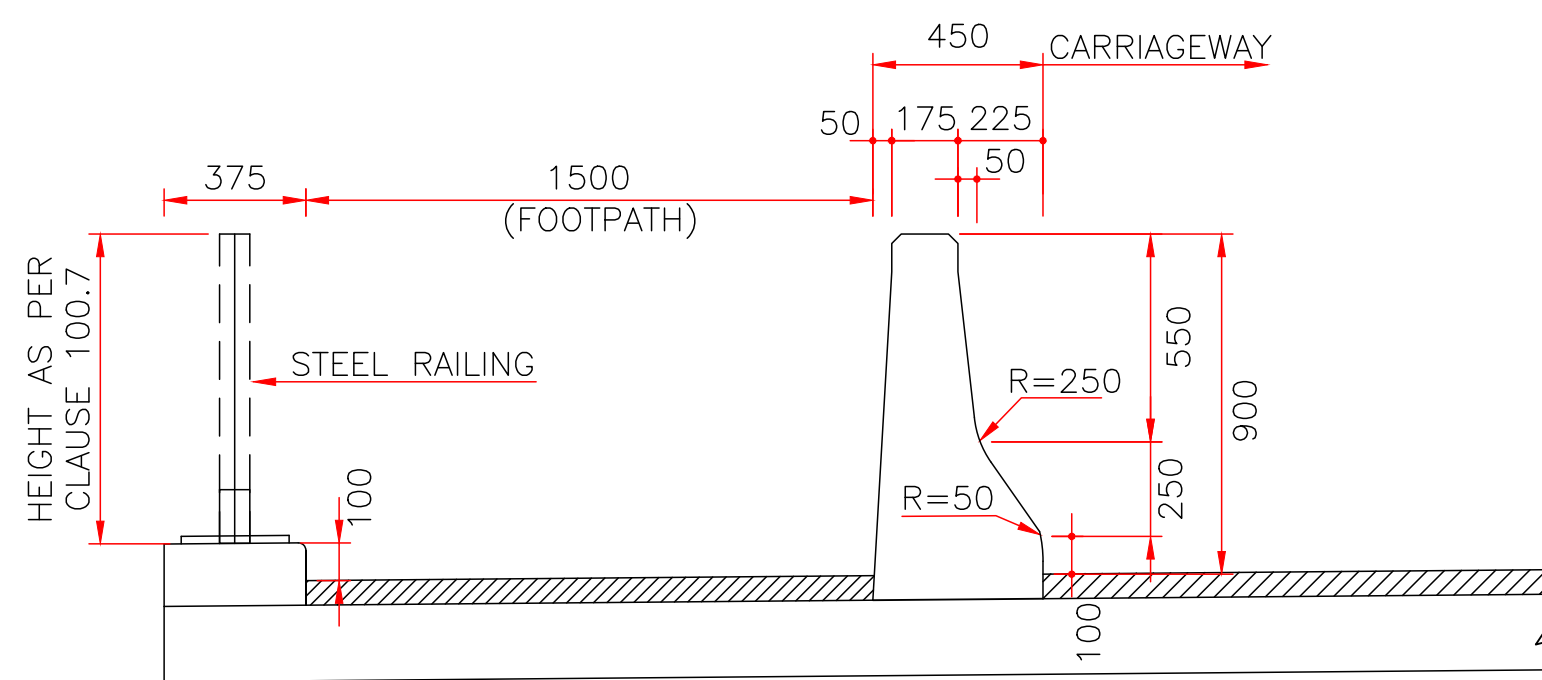
CONSULTANT:-



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## TCS-2 : TWO LANE + PAVED SHOULDER WITH FOOTPATH FOR BRIDGE



**STEEL RAILING OVER BRIDGES WITH FOOTPATHS  
DETAIL -A**

| S.No  | From (km) | To (km) | Length (m) | Type  |
|-------|-----------|---------|------------|-------|
| 1     | 77+487    | 77+884  | 397        | TCS-2 |
| Total |           |         | 397        |       |

REF. –

1. CIRCULAR DATED – 04.06.2025 (CLAUSE 5)
2. IRC.SP.73 – 2018 (FIG.7.6)
3. IRC.5.2024 PAGE – 4 FIG.1(B)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridges at Ch 77+600 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL CRSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

Scale :- NOT TO SCALE

Drn

Manish

Dgn.

Mahesh Dixit

Appd

S.K.Upadhyay

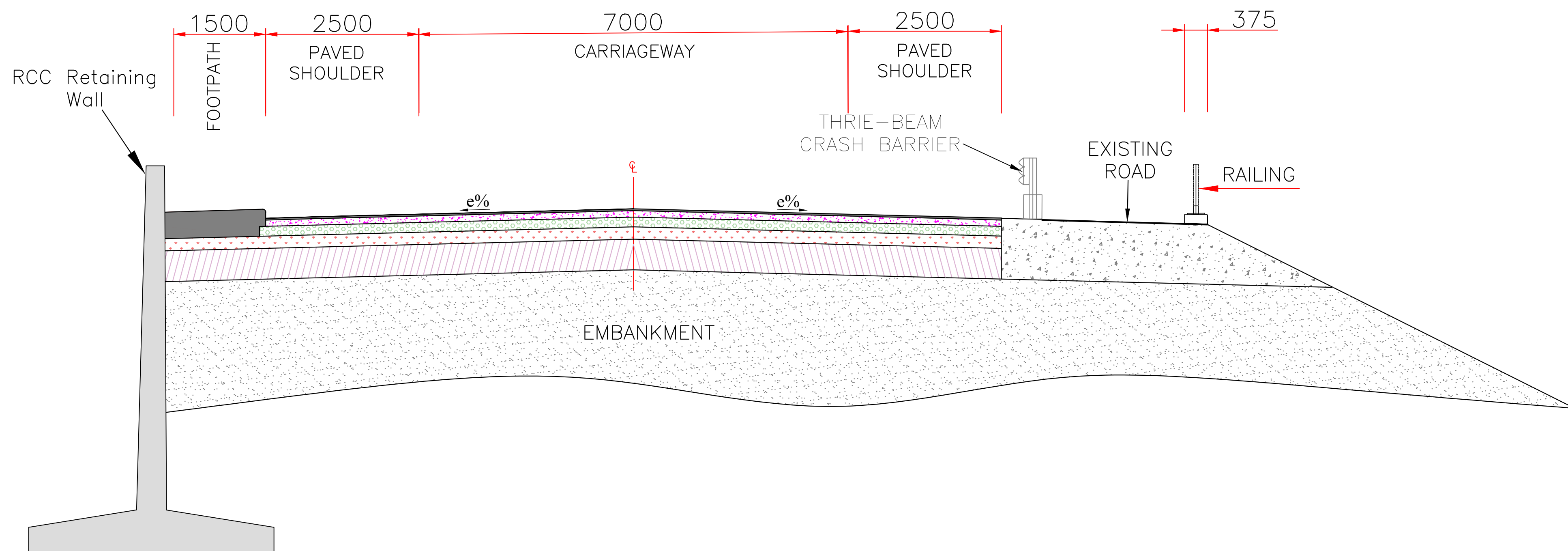
Sheet :

02 OF 02

CONSULTANT:-



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### TCS-3 : NEW TWO LANE + PAVED SHOULDER IN OPEN LAND WITH ONE SIDE RETAINING WALL

| S.No  | From (km) | To (km) | Length (m) | Type  |
|-------|-----------|---------|------------|-------|
| 1     | 77+447    | 77+487  | 40         | TCS-3 |
| 2     | 77+884    | 77+964  | 80         | TCS-3 |
| Total |           |         | 120        |       |

REF. –  
 1. CIRCULAR DATED–04.06.2025  
 2. IRC:73–2023 PAGE–123(FIG.4.1)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridges at Ch 77+600 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL CRSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

Scale :- NOT TO SCALE

| Drn    | Dgn.         | Appd         | Sheet :  |
|--------|--------------|--------------|----------|
| Manish | Mahesh Dixit | S.K.Upadhyay | 03 OF 03 |

CONSULTANT:-



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GENERAL ARRANGEMENT DRAWING  
{MAJOR BRIDGE}



# NOTES:-

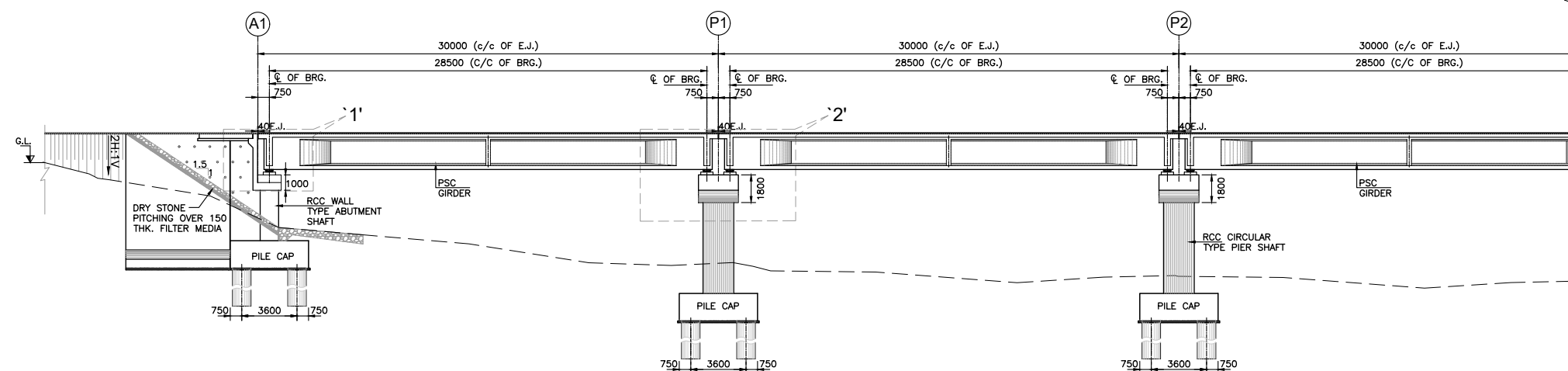
- ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
- NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCEPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
- CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
- THE REINFORCEMENT SHALL BE HYSZ BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786-2008.
- CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
 

|                         |     |
|-------------------------|-----|
| a.RCC DECK SLAB         | M40 |
| b.RCC ABUT. & ABUT. CAP | M35 |
| c.RCC CRASH BARRIER     | M40 |
| d.RCC APPROACH SLAB     | M30 |
| e.PCC LEVELING COURSE   | M15 |
- CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:-
 

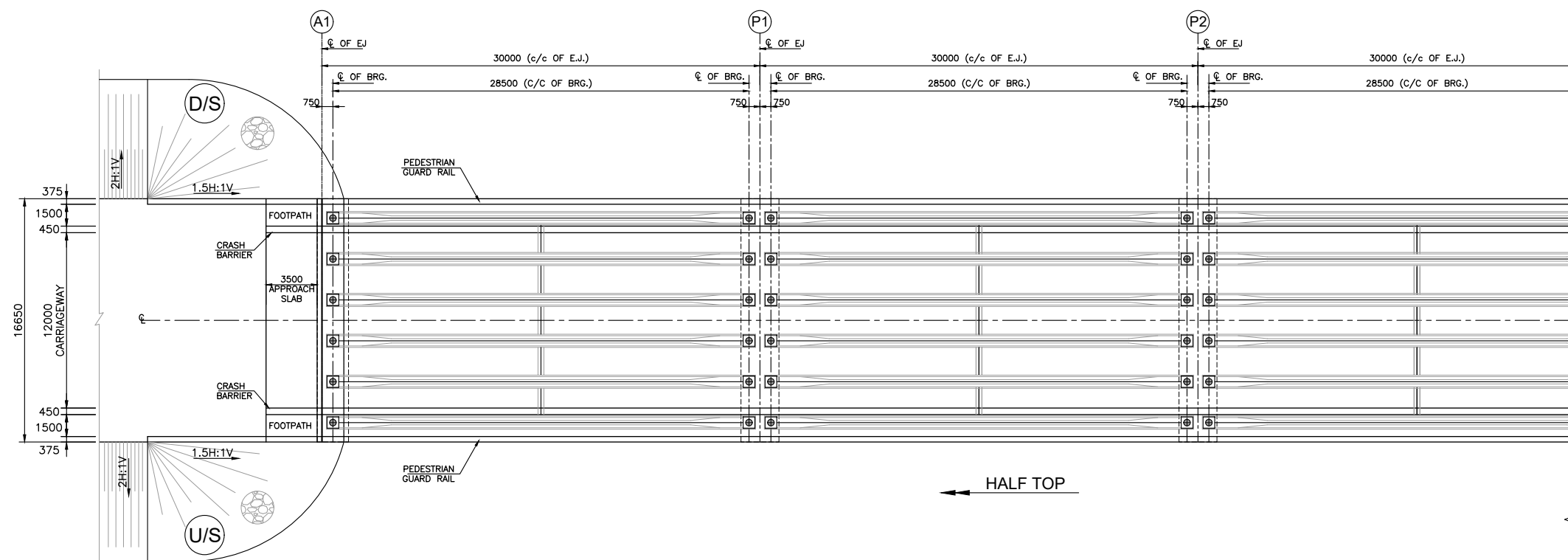
|                             |      |
|-----------------------------|------|
| a.SUPERSTRUCTURE            | 40MM |
| b.RCC ABUT. STEM EARTH SIDE | 75MM |
| c.RCC ABUT. OUTER SIDE      | 40MM |
| d.RCC ABUT. CAP             | 40MM |
| e.CRASH BARRIER             | 40MM |
- 65MM THICK WEARING COURSE COMPRISING OF BITUMINOUS CONCRETE 40MM THICK OVERLAID WITH 25MM THICK BITUMEN MASTIC ASPHALTIC SHALL BE PROVIDED AS PER SECTION 500 OF MORTH SPECIFICATION.
- DRAINAGE SPOUT 100MM DIA SPACED 5000MM C/C SHALL BE PROVIDED IN SUPERSTRUCTURE.
- CONDITION OF EXPOSURE IS SEVERE.
- THIS STRUCTURE LIES IN SEISMIC ZONE II.
- THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6-2017 INCLUDING SPECIAL VEHICLE (SV) LOADING.
- 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALLS.
- ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEEP HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.

## LEGEND:-

|     |   |                     |
|-----|---|---------------------|
| FRL | - | FINISHED ROAD LEVEL |
| GL  | - | GROUND LEVEL        |
| LVL | - | LEVEL               |
| FDN | - | FOUNDATION.         |
| EJ  | - | EXPANSION JOINT     |
| LBL | - | LOWEST BED LEVEL    |
| HFL | - | HIGHEST FLOOD LEVEL |
| EG  | - | EXPANSION GAP       |
| BRG | - | BEARING             |



|             |         |         |         |
|-------------|---------|---------|---------|
| FRL         | 123.010 | 123.430 | 123.726 |
| GROUND LVL. | 119.175 | 115.741 | 115.521 |
| CHAINAGE    | 77+490  | 77+520  | 77+550  |



Project Title:-

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CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- GENERAL ARRANGEMENT DRAWING OF MAJOR BRIDGE AT D.CH. 77+600

Drawing No. :-TASPL/MORTH/DPR/BRIDGE/77+600/GAD/01

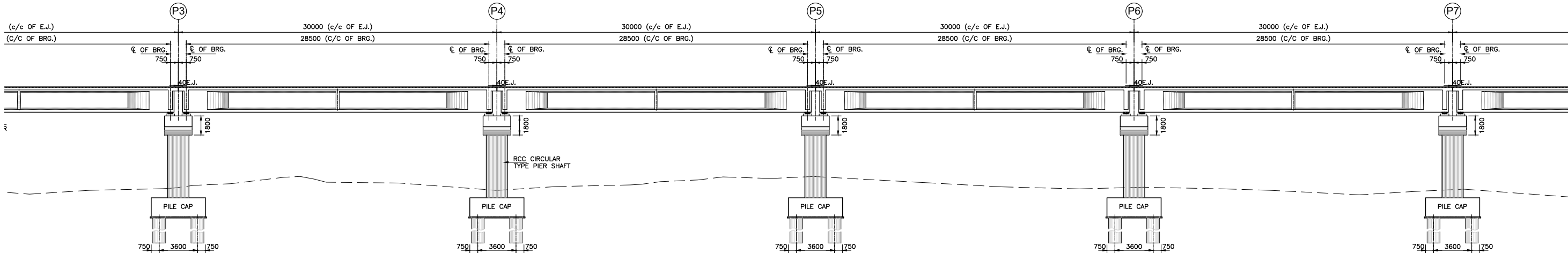
Scale :- AS SHOWN

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| Drn    | Dgn.         | Appd         | Sheet :  |
| Manish | Maresh Dixit | S.K.Upadhyay | 01 OF 04 |

CONSULTANT:-

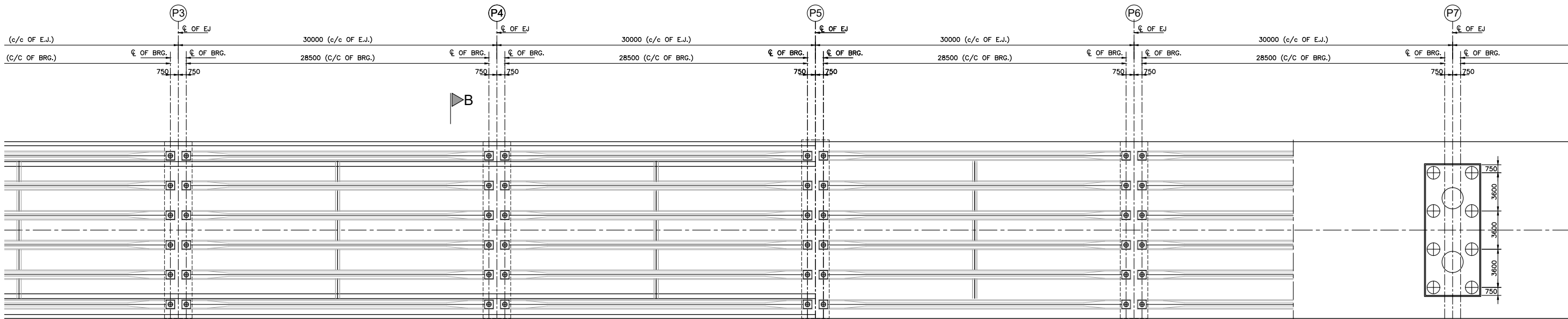


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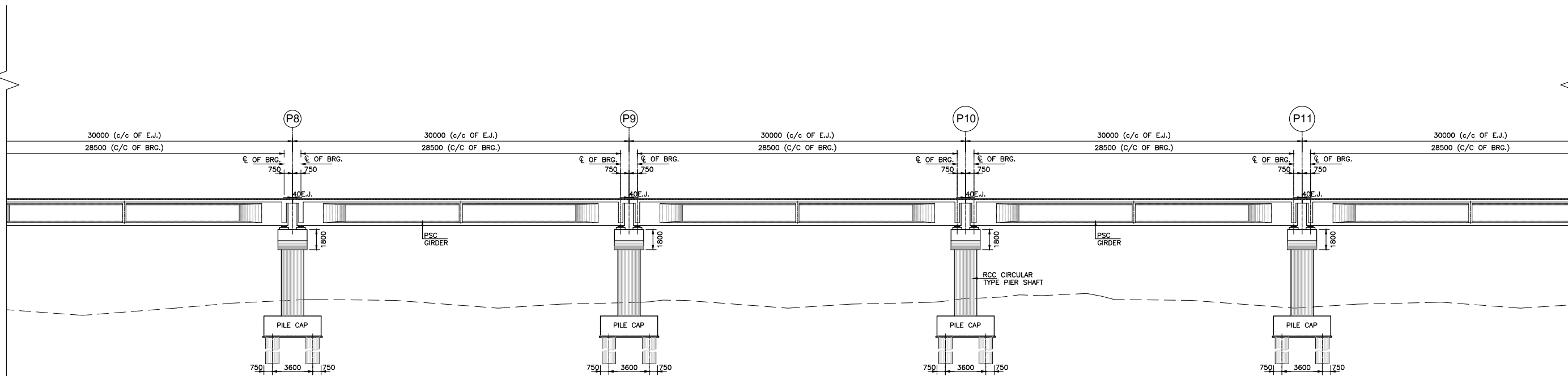


LONGITUDINAL ELEVATION  
(SCALE 1:200)

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 123.922 | 123.993 | 124.000 | 124.000 | 124.000 |
| 115.730 | 108.295 | 103.604 | 103.160 | 103.163 |
| 77+580  | 77+610  | 77+640  | 77+670  | 77+700  |

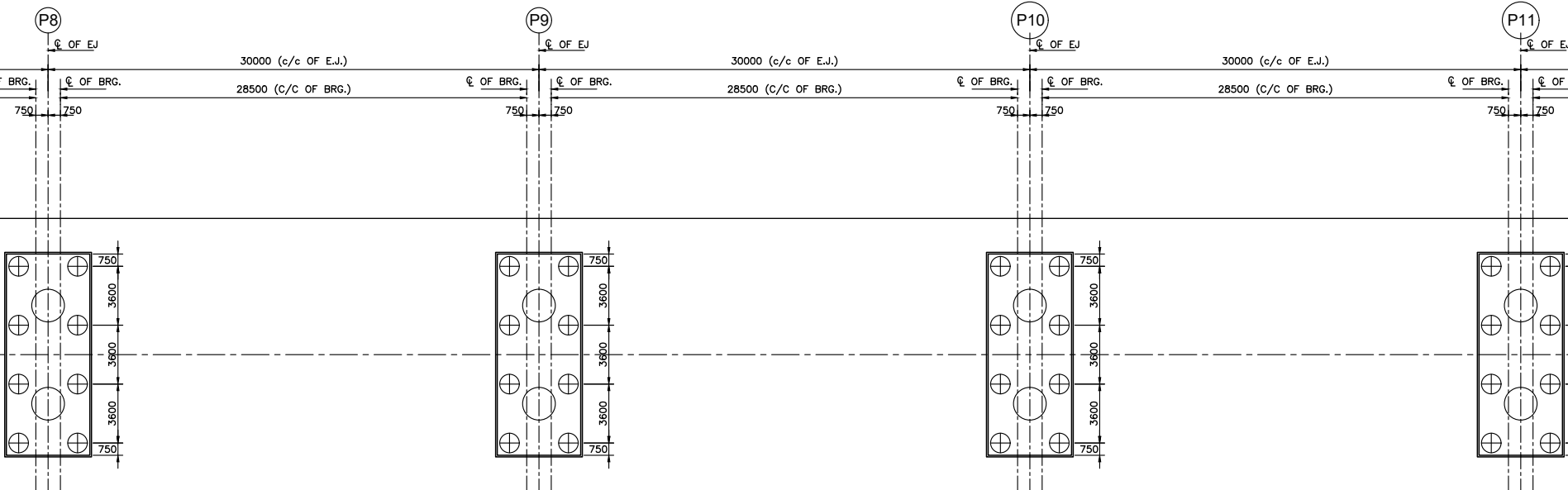


HALF TOP HALF BOTTOM  
PLAN  
(SCALE 1:200)



LONGITUDINAL ELEVATION  
(SCALE 1:200)

|         |         |         |         |
|---------|---------|---------|---------|
| 124.000 | 124.000 | 124.000 | 124.000 |
| 105.953 | 106.990 | 108.893 | 111.211 |
| 77+730  | 77+760  | 77+790  | 77+820  |



Project Title:-

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(DPR) for New Construction of Minor bridge at Ch 77+600 on  
NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- GENERAL ARRANGEMENT DRAWING OF  
MAJOR BRIDGE AT D.CH. 77+600

Drawing No. :-TASPL/MORTH/DPR/BRIDGE/77+600/GAD/01

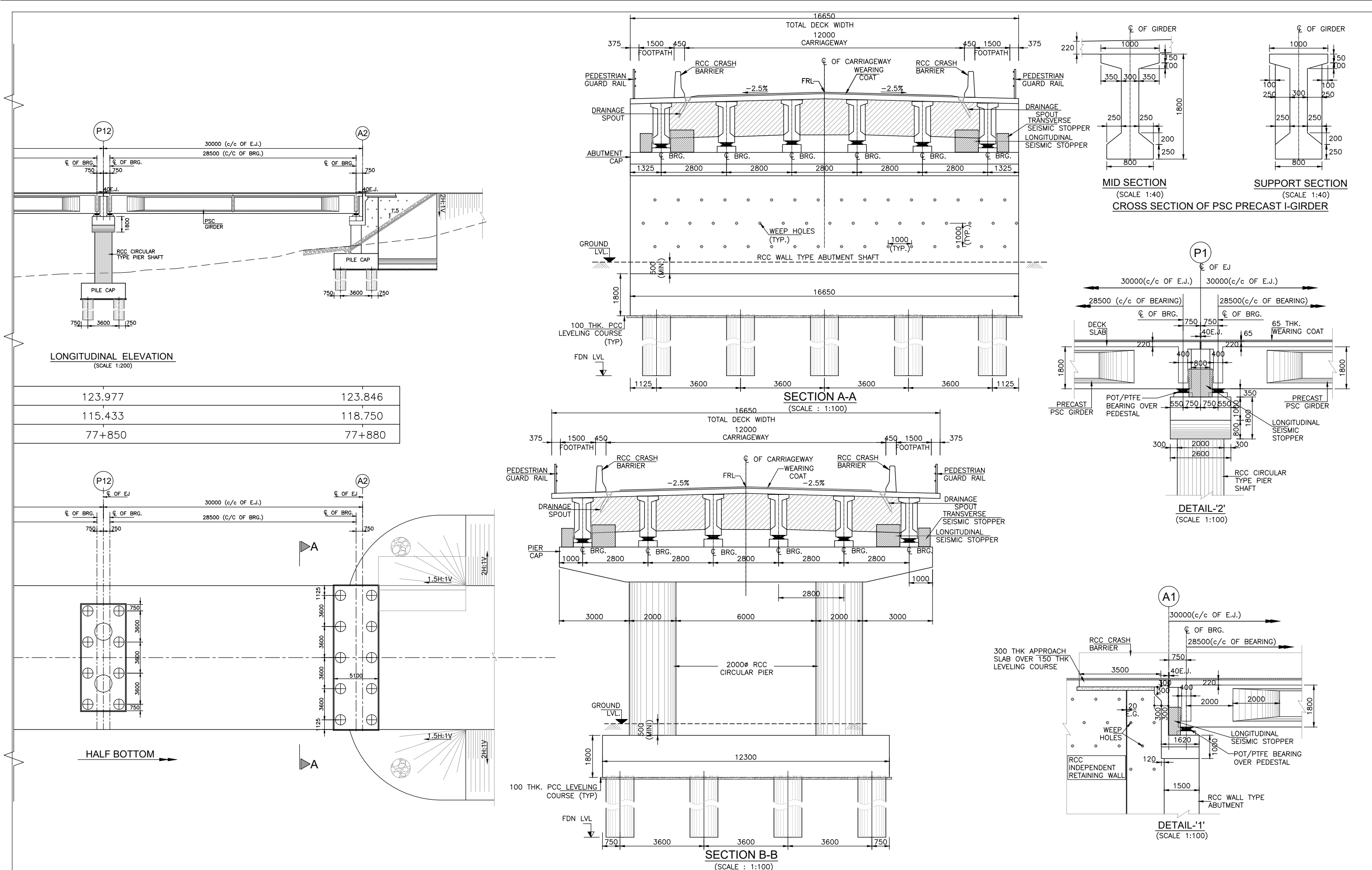
Scale :- AS SHOWN

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|--------|--------------|--------------|----------|
| Drn    | Dgn.         | Appd         | Sheet :  |
| Manish | Mahesh Dixit | S.K.Upadhyay | 03 OF 04 |

CONSULTANT:-



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Apartment,36, I.P.Extension Patparganj, Delhi-110092



Project Title:-  
Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Minor bridge at Ch 77+600 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

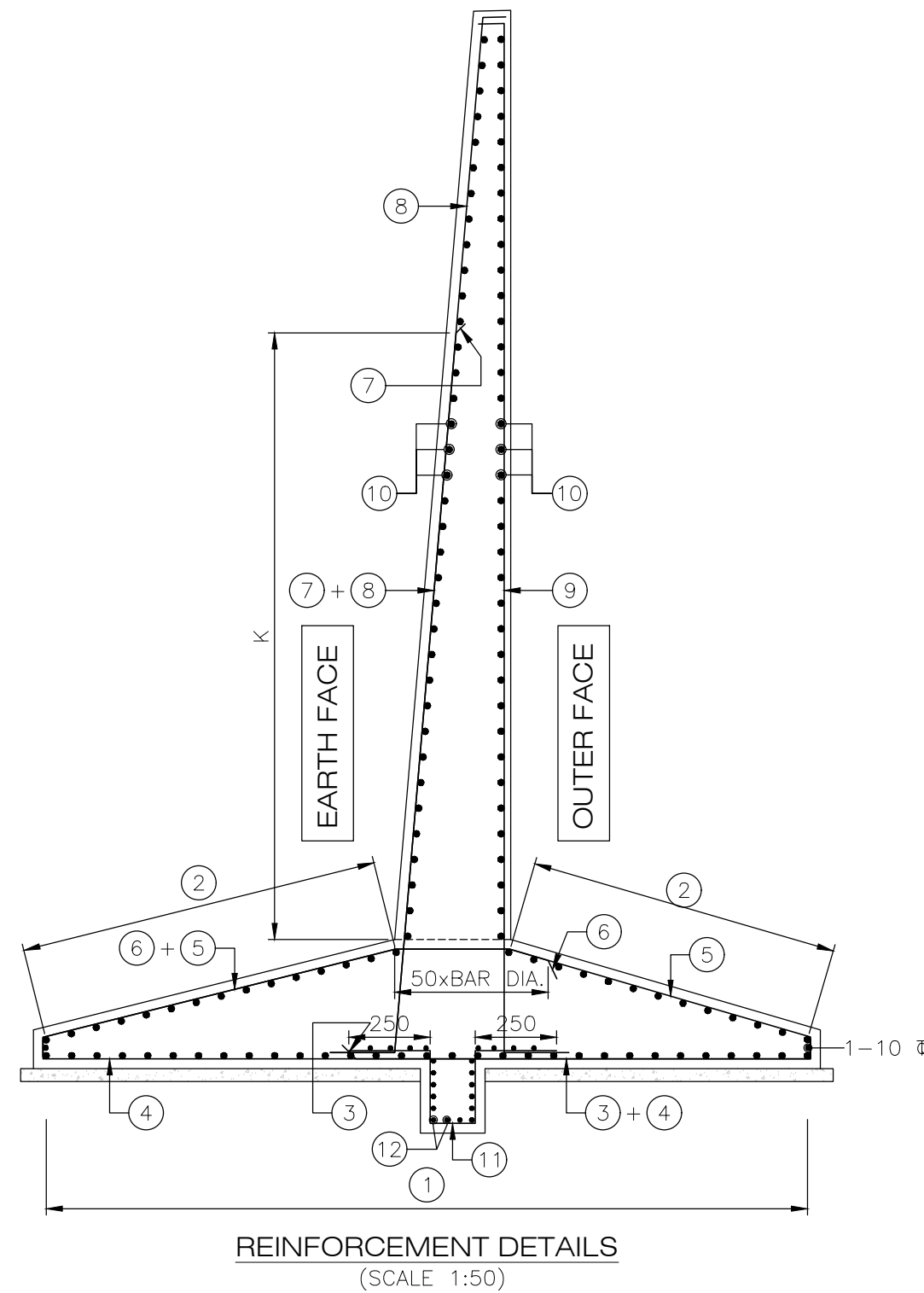
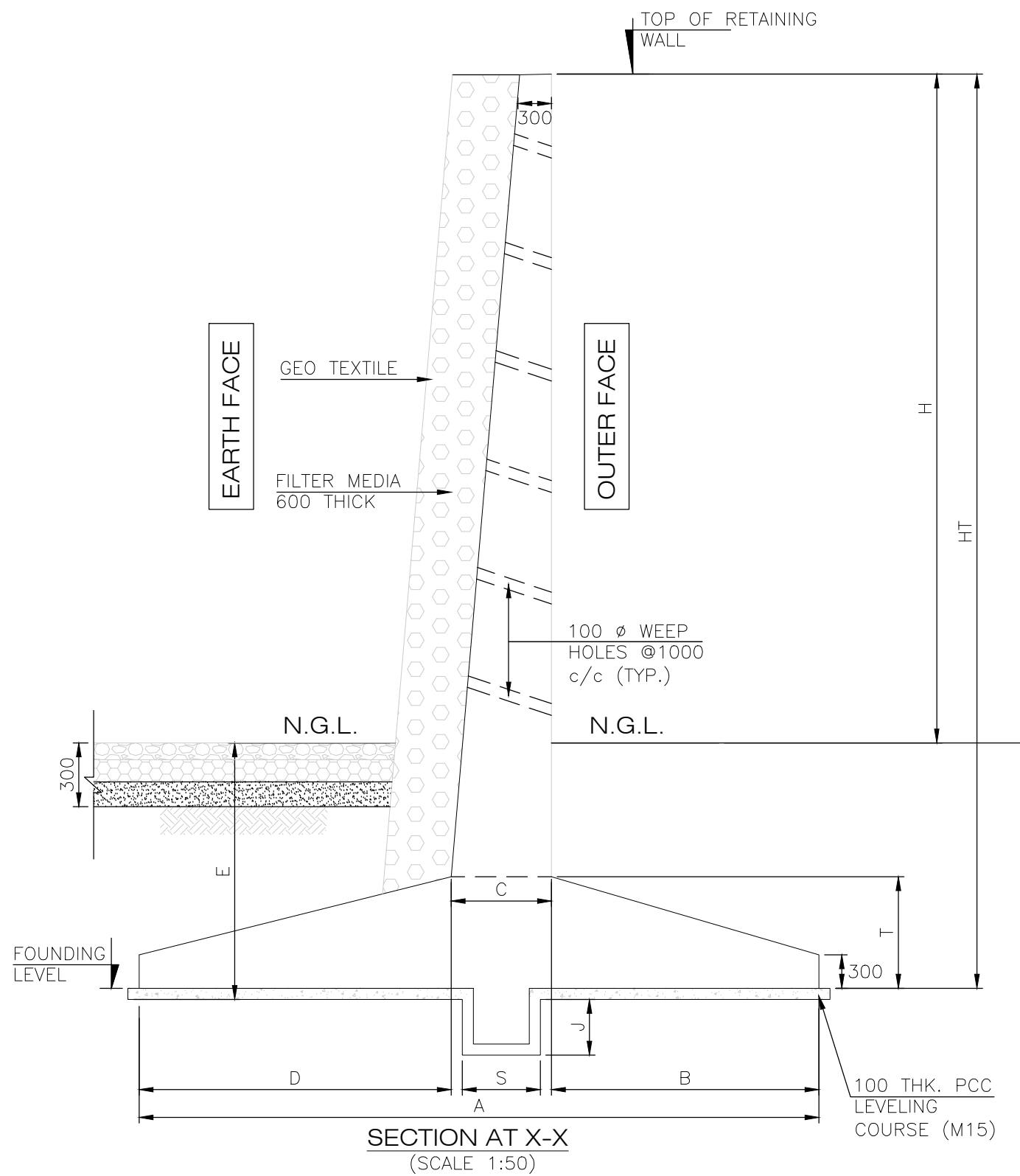
CLIENT:-  
  
सत्यमेव जयते  
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- GENERAL ARRANGEMENT DRAWING OF MAJOR BRIDGE AT D.CH. 77+600  
Drawing No. :-TASPL/MORTH/DPR/BRIDGE/77+600/GAD/01  
Scale :- AS SHOWN  
Drn Dgn Appd Sheet :  
Manish Mahesh Dixit S.K.Upadhyay 04 OF 04

CONSULTANT:-  
  
Technocrats Advisory Services Pvt. Ltd. 68, Ajanta Apartment,36, I.P.Extension Patparganj, Delhi-110092

RETAINING WALL





## NOTES:-

- ALL DIMENSIONS ARE IN 'MILLIMETERS' UNLESS NOTED OTHERWISE. ONLY WRITTEN DIMENSIONS AND REINF. DETAILS SHALL BE FOLLOWED. NO DIMENSION SHALL BE SCALED.
- GRADE OF CONCRETE IS TO BE M30.
- THE REINFORCEMENT SHALL BE OF HYSD BARS (GRADE Fe-500D CONFORMING TO IS:1786).
- CLEAR COVER TO OUTERMOST STEEL SHALL BE AS BELOW:-  
IN EARTH FACE ..... 75mm  
IN OPEN FACE ..... 50mm  
IN FOUNDATION ..... 75mm
- SAFE BEARING CAPACITY SHOULD NOT BE LESS THAN THAT GIVEN IN DETAILED DRAWING. IN CASE ALLOWABLE SOIL BEARING CAPACITY IS FOUND TO BE LESS THAN THE REQUIRED BEARING CAPACITY, THE SOIL SHOULD BE STABILISED TO ACHIEVE THE SAME. FOR THIS PURPOSE THE WEAK SOIL LAYER SHALL BE REMOVED & REFILLED WITH COMPACTED GRAVEL.
- 100 DIA WEEP HOLES WITH SLOPE 1 IN 20 SHALL BE PROVIDED AT SPACING OF 1000 C/C BOTH HORIZONTALLY AND VERTICALLY (STAGGERED) IN FULL HEIGHT OF THE RETAINING WALL WITH BOTTOM MOST ROW 150mm ABOVE G.L.
- BACK FILLING AND FILTER MEDIA BEHIND THE RETAINING WALL SHALL BE PROVIDED WITH SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2014 HAVING PROPERTIES  $\phi=38^\circ, c=0$
- TO COUNTER FOR THE DEFLECTION RETAINING WALL SHALL BE CONSTRUCTED TILTED BACK BY 1 IN 100.
- MINIMUM LAP LENGTH FOR REINFORCEMENT SHALL BE 63 TIMES THE DIA OF BARS
- FILLER JOINT SHOULD BE PROVIDED AT 18-METER INTERVAL.

## REINFORCEMENT DETAILS OF RCC RETAINING WALL:-

| BAR MARKED | TOTAL HEIGHT 6. M |
|------------|-------------------|
| 1          | 10 $\Phi$ @200c/c |
| 2          | 10 $\Phi$ @200c/c |
| 3          | 12 $\Phi$ @200c/c |
| 4          | 12 $\Phi$ @200c/c |
| 5          | 16 $\Phi$ @200c/c |
| 6          | 12 $\Phi$ @200c/c |
| 7          | 16 $\Phi$ @200c/c |
| 8          | 16 $\Phi$ @200c/c |
| 9          | 12 $\Phi$ @200c/c |
| 10         | 10 $\Phi$ @200c/c |
| 11         | 08 $\Phi$ @275c/c |
| 12         | 10 $\Phi$ @225c/c |

## DIMENSION DETAILS OF RCC RETAINING WALL:-

| S.NO. | TOTAL HEIGHT (HT)                                    | 6.0 M |
|-------|------------------------------------------------------|-------|
| 1     | H                                                    | 4.50  |
| 2     | A                                                    | 4.30  |
| 3     | B                                                    | 1.40  |
| 4     | C                                                    | 0.70  |
| 5     | D                                                    | 2.20  |
| 6     | E                                                    | 2.50  |
| 7     | K                                                    | 3.00  |
| 8     | S                                                    | 0.30  |
| 9     | T                                                    | 0.70  |
| 10    | J                                                    | 0.30  |
| 11    | MAX. BASE PRESSURE (t/m <sup>2</sup> )—AS PER DESIGN | 14    |

(DIMENSIONS GIVEN IN THE TABLE ARE IN METRES)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New construction of Minor bridge at Ch 77+600 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

CONCRETE & REINFORCEMENT  
DETAILS OF RETAINING WALL

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/77+600/RW

Scale :- AS SHOWN

| Drn    | Dgn.         | Appd         | Sheet :  |
|--------|--------------|--------------|----------|
| Manish | Mahesh Dixit | S.K.Upadhyay | 01 OF 01 |

CONSULTANT:-

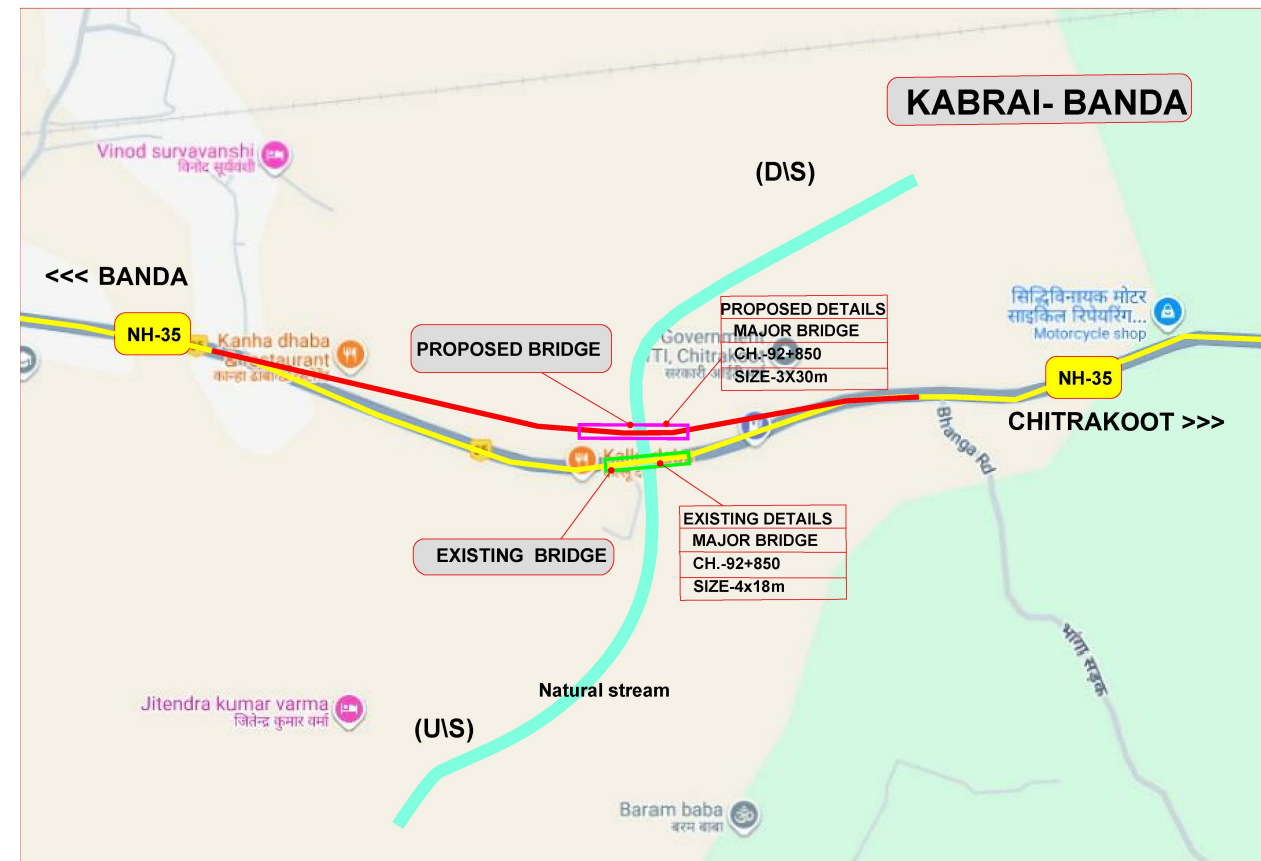


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MINISTRY OF ROAD TRANSPORT & HIGHWAYS  
GOVERNMENT OF INDIA

“Consultancy Services for Preparation of Detailed Project Report  
(DPR) for New construction of Major Bridge at Ch. 92+850 on  
NH -35 (Old NH-76) in the State of Uttar Pradesh.



DETAILED PROJECT REPORT  
(DRAWING VOLUME)

CLIENT:



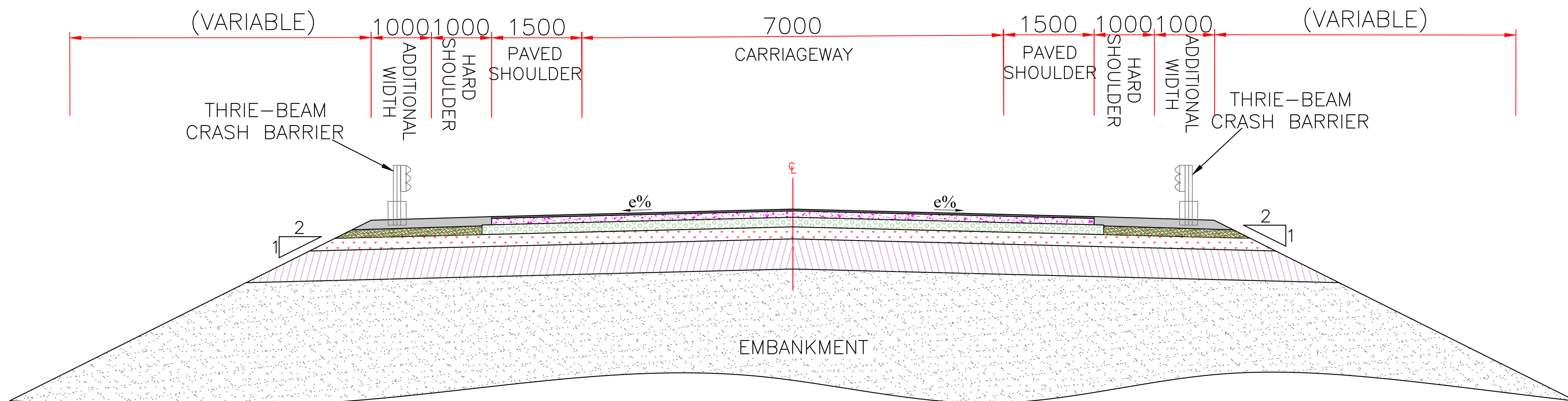
MINISTRY OF ROAD TRANSPORT & HIGHWAYS  
GOVERNMENT OF INDIA

CONSULTANT:



Technocrats Advisory Services Private Limited  
68, Ajanta Apartment, 36, I.P.Extension  
Patparganj Delhi-110092

TYPICAL CROSS SECTION ►



### TCS-1 : NEW TWO LANE + PAVED SHOULDER IN OPEN LAND

| S.No  | From (km) | To (km) | Length (m) | Type  |
|-------|-----------|---------|------------|-------|
| 1     | 92+550    | 92+679  | 129        | TCS-1 |
| 2     | 92+980    | 93+148  | 168        | TCS-1 |
| Total |           |         | 297        |       |

REF. –  
 1. CIRCULAR DATED – 04.06.2025  
 2. IRC:73-2023 PAGE – 123 (FIG.4.1)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridges at Ch 92+850 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL CRSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

Scale :- NOT TO SCALE

Drn

Dgn.

Appd

Sheet :

Manish

Mahesh Dixit

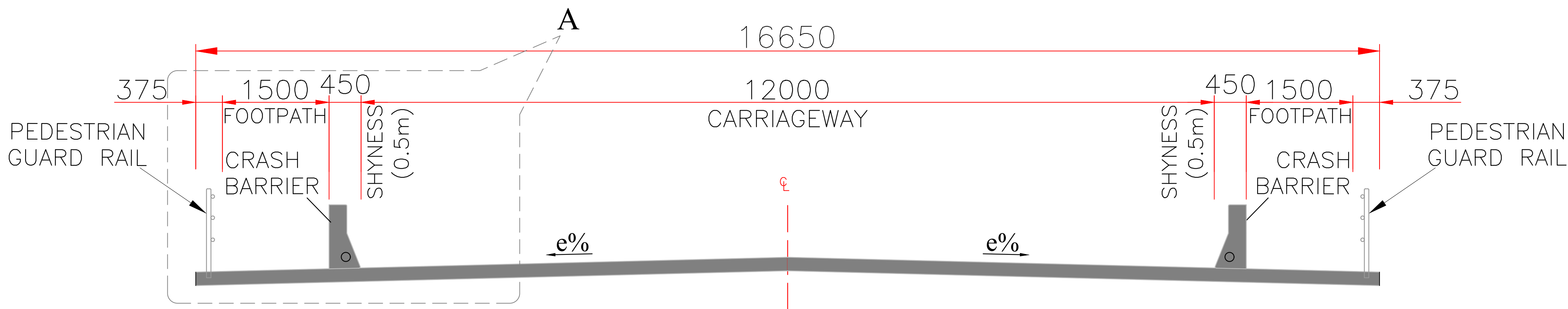
S.K.Upadhyay

03 OF 03

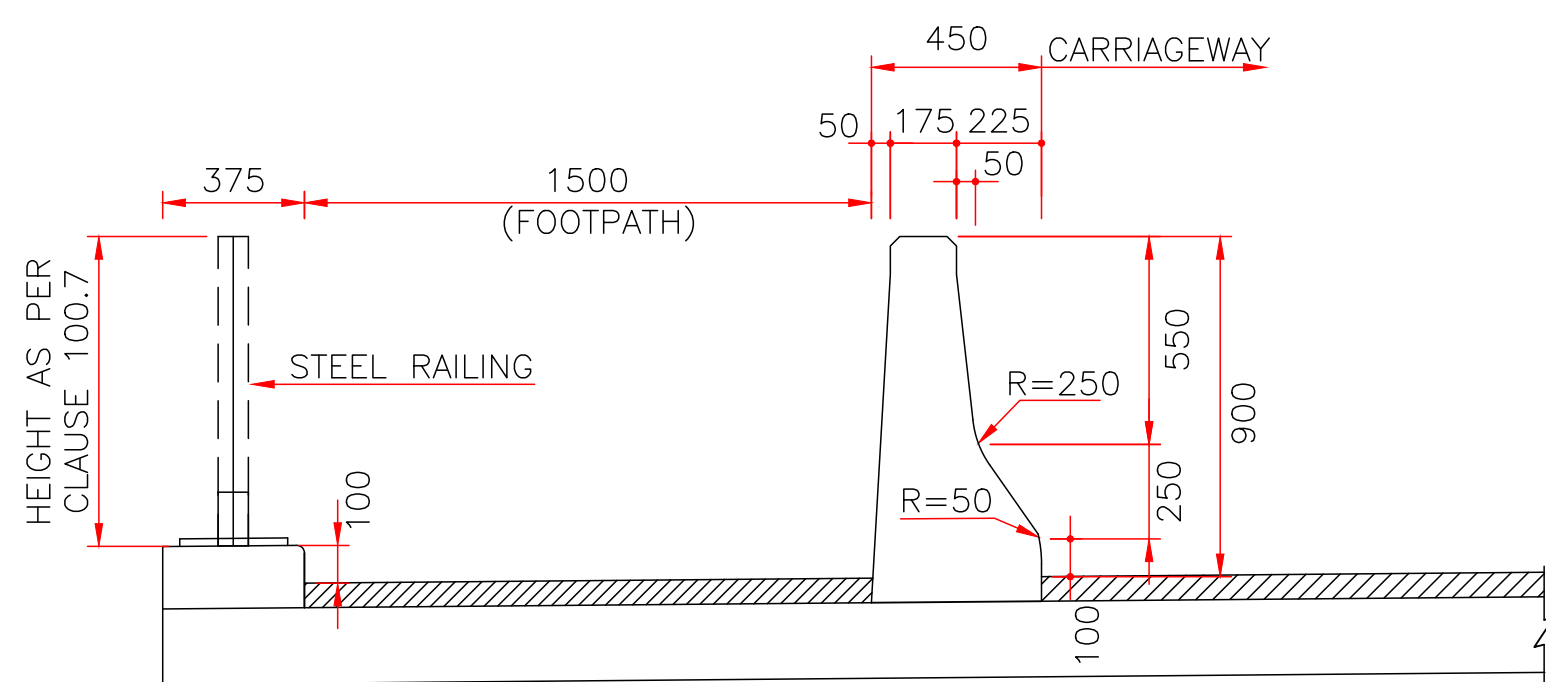
CONSULTANT:-



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## TCS-2 : TWO LANE + PAVED SHOULDER WITH FOOTPATH FOR BRIDGE



STEEL RAILING OVER BRIDGES WITH FOOTPATHS  
DETAIL -A

| S.No  | From (km) | To (km) | Length (m) | Type  |
|-------|-----------|---------|------------|-------|
| 1     | 92+801    | 92+898  | 97         | TCS-2 |
| Total |           |         | 97         |       |

REF. -

1. CIRCULAR DATED-04.06.2025(CLAUSE 5)
2. IRC.SP.73-2018 (FIG.7.6)
3. IRC.5.2024 PAGE-4 FIG.1(B)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridges at Ch 92+850 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL CRSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

Scale :- NOT TO SCALE

Drn

Manish

Dgn.

Mahesh Dixit

Appd

S.K.Upadhyay

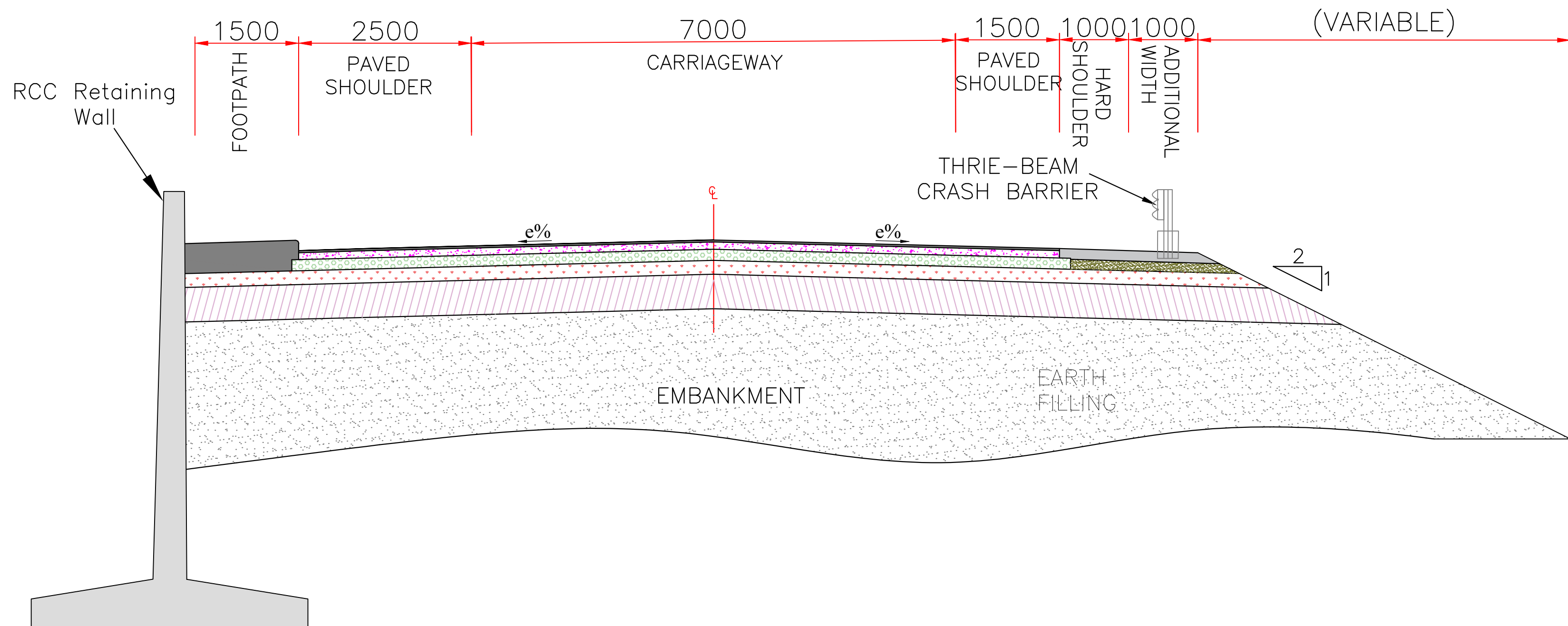
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02 OF 03

CONSULTANT:-



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### TCS-3 : NEW TWO LANE + PAVED SHOULDER IN OPEN LAND WITH ONE SIDE RETAINING WALL

| S.No  | From (km) | To (km) | Length (m) | Type  |
|-------|-----------|---------|------------|-------|
| 1     | 92+679    | 92+801  | 122        | TCS-3 |
| 2     | 92+898    | 92+980  | 82         | TCS-3 |
| Total |           |         | 204        |       |

REF.-  
 1. CIRCULAR DATED-04.06.2025  
 2. IRC:73-2023 PAGE-123(FIG.4.1)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridges at Ch 92+850 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL CRSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

Scale :- NOT TO SCALE

Drn

Dgn.

Appd

Sheet :

Manish

Mahesh Dixit

S.K.Upadhyay

01 OF 03

CONSULTANT:-

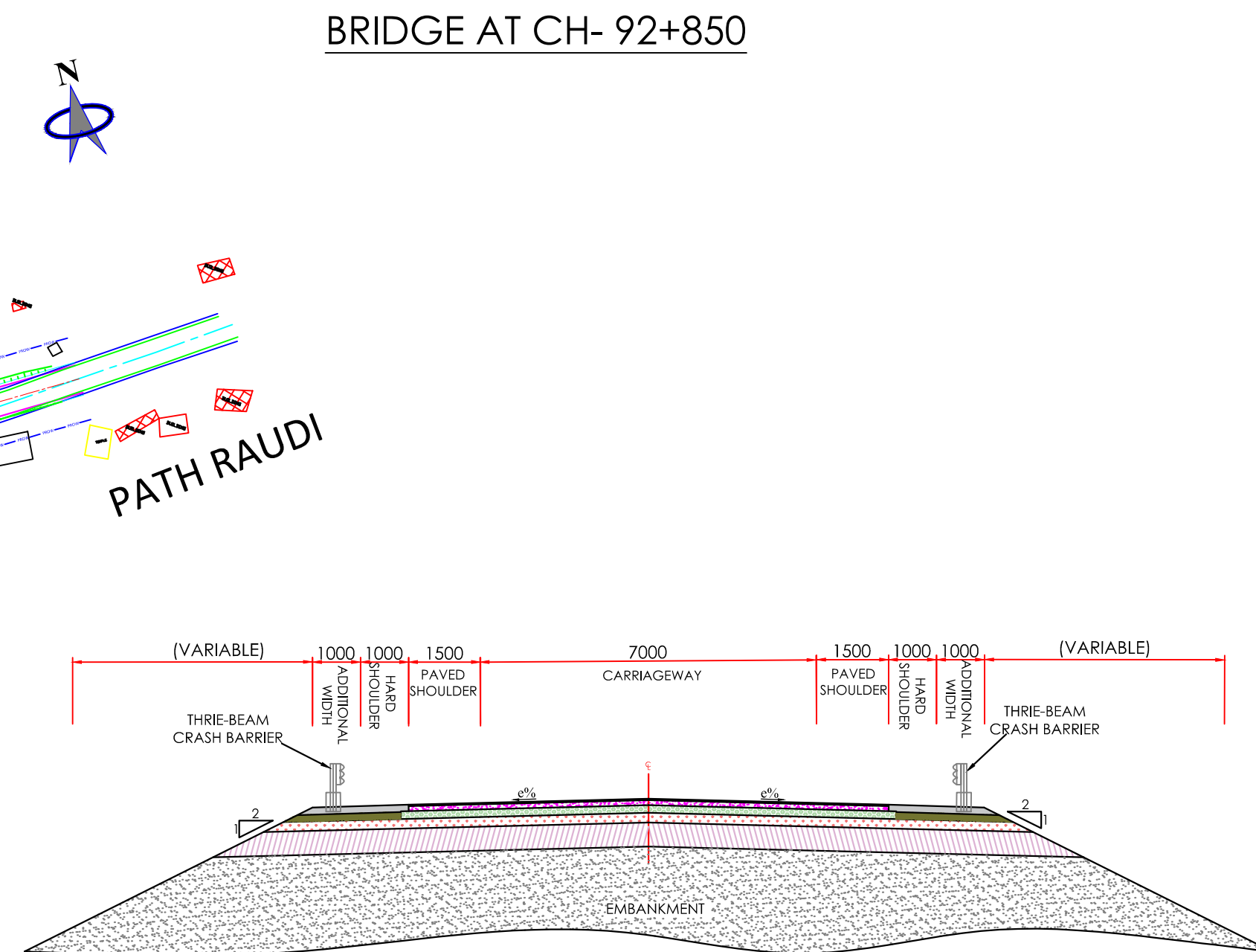
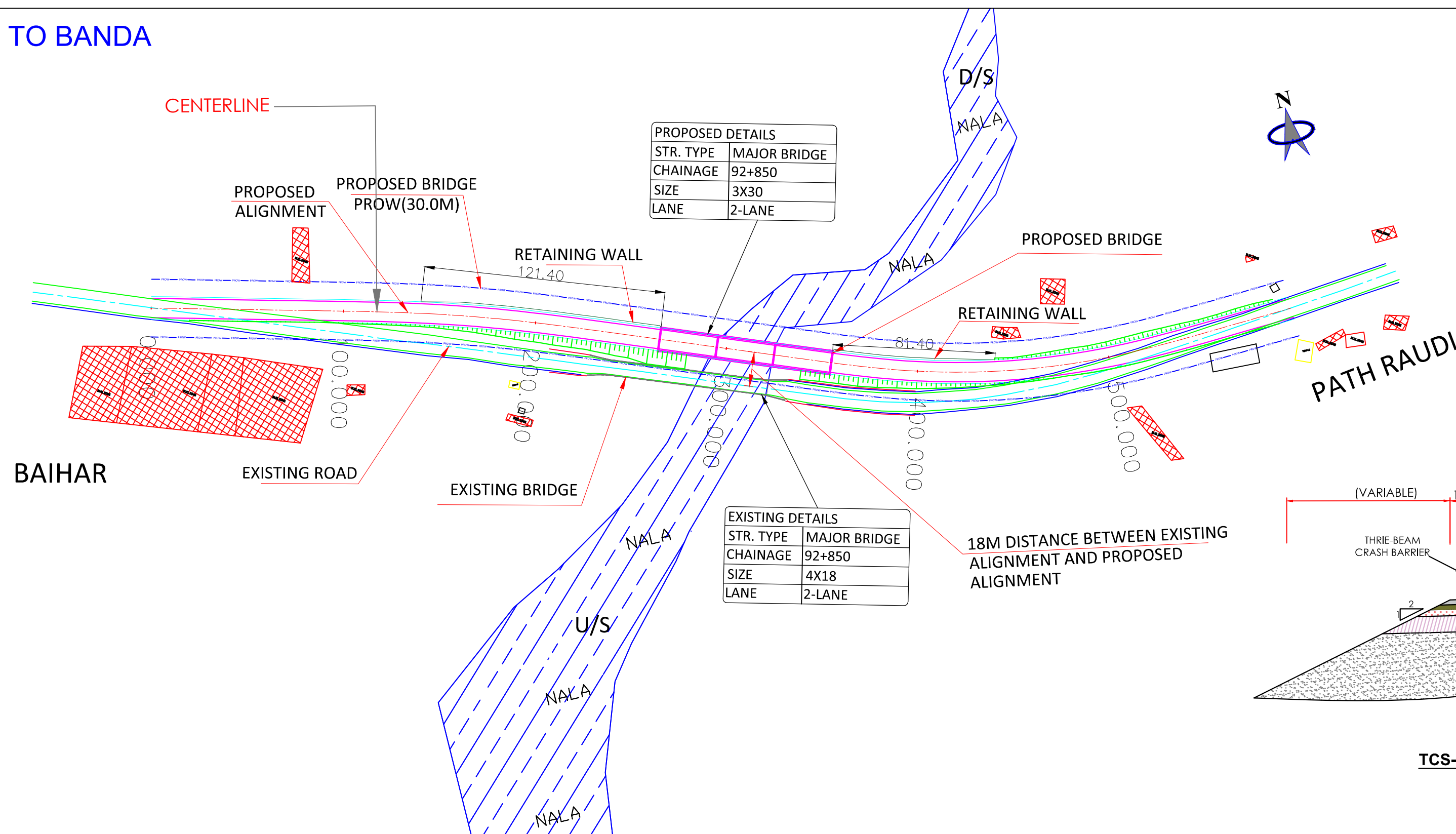


Technocrats Advisory Services Pvt. Ltd. 68, Ajanta Apartment,36, I.P.Extension Patparganj, Delhi-110092

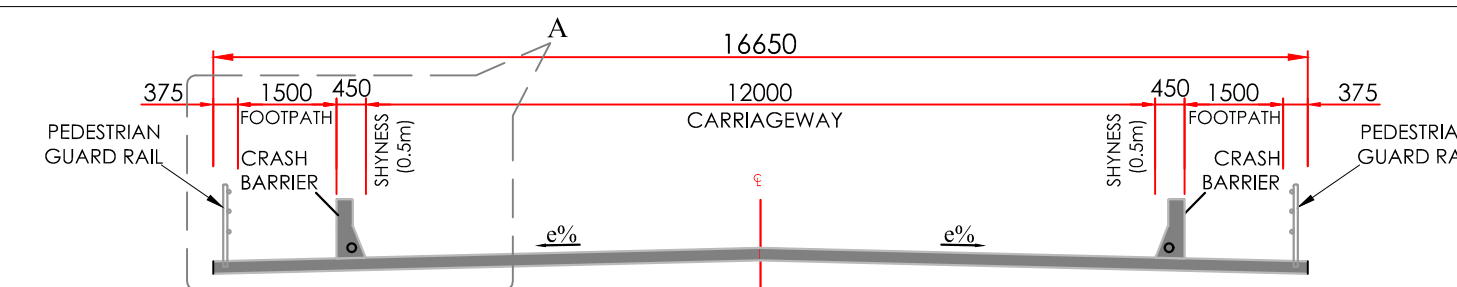
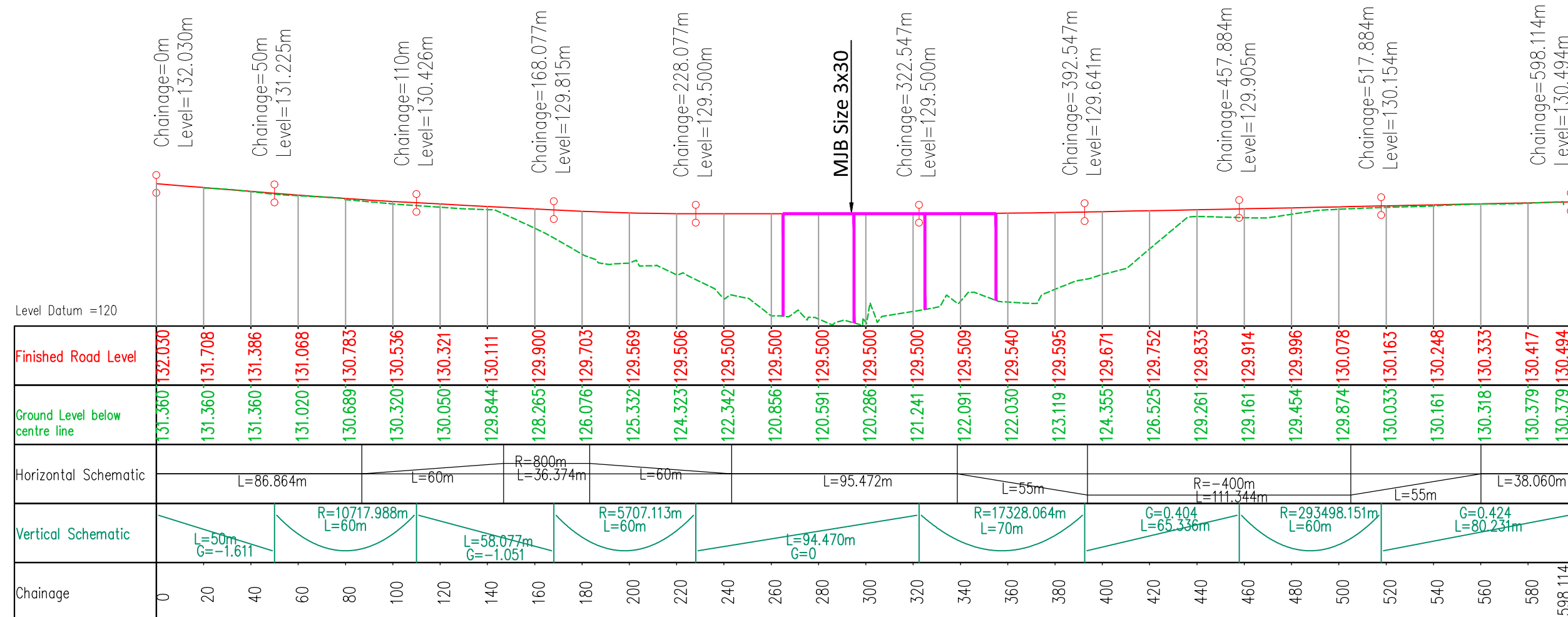
PLAN & PROFILE ►

← TO BANDA

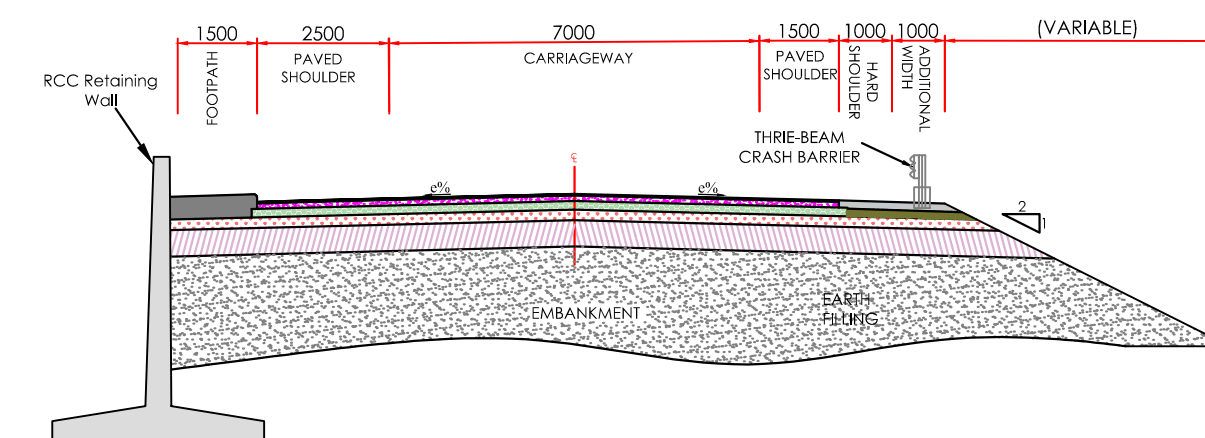
TO CHITRAKOOT ➡



**TCS-1 : NEW TWO LANE + PAVED SHOULDER IN OPEN LAND**



**TCS-2 : TWO LANE + PAVED SHOULDER WITH FOOTPATH FOR BRIDGE**



**TCS-3 : NEW TWO LANE + PAVED SHOULDER IN OPEN LAND WITH ONE SIDE RETAINING WALL**

| Legend:-             |   |                                                                                     |
|----------------------|---|-------------------------------------------------------------------------------------|
| Center Line          | ● |  |
| Carriageway          | ● |  |
| Existing Center Line | ● |  |
| U/S                  | ● | Up-Stream                                                                           |
| D/S                  | ● | Down-Stream                                                                         |
| Building             | ● |  |
| Temple               | ● |  |

Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New construction of Major bridge at Ch. 92+850 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT  
& HIGHWAYS

|                 |
|-----------------|
| Drawing Title:- |
|-----------------|

## Plan & Profile

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/92+850/P&P/KB

Scale :- 1:2000

|        |
|--------|
| Drn    |
| Manish |

|          |
|----------|
| Dgn.     |
| Mahesh D |

|  |                 |
|--|-----------------|
|  | Appd            |
|  | S. K. Upadhavay |

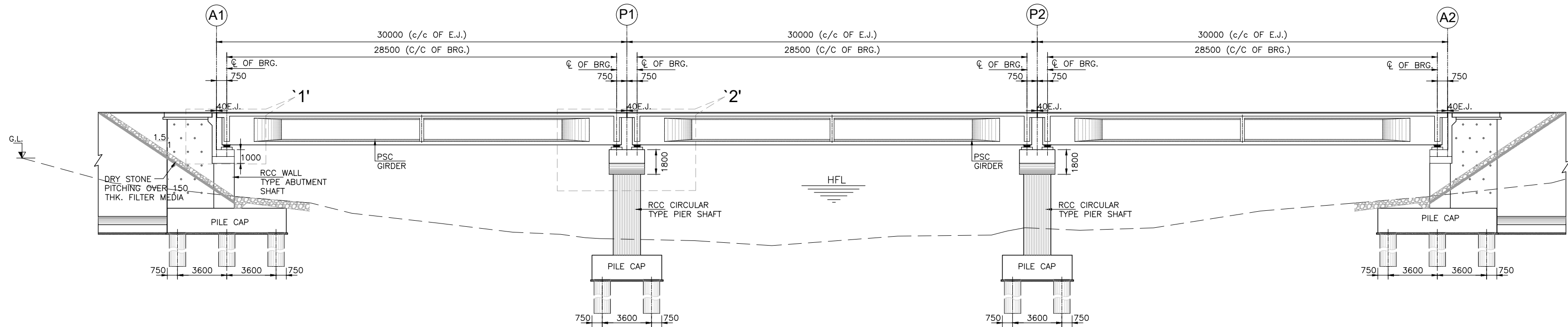
|              |
|--------------|
| CONSULTANT:- |
|--------------|



Technocrats Advisory Services Pvt. Ltd.  
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Patparganj, Delhi-110092

GENERAL ARRANGEMENT DRAWING  
{MAJOR BRIDGE}





LONGITUDINAL ELEVATION  
(SCALE 1:200)

|             |         |         |         |         |       |
|-------------|---------|---------|---------|---------|-------|
| FRL         | 129.500 | 129.500 | 129.500 | 129.530 |       |
| GROUND LVL. | 120.838 | 120.266 | 121.402 | 122.168 |       |
| CHAINAGE    | 0+265   | 0+295   | 0+310   | 0+325   | 0+355 |

#### NOTES:-

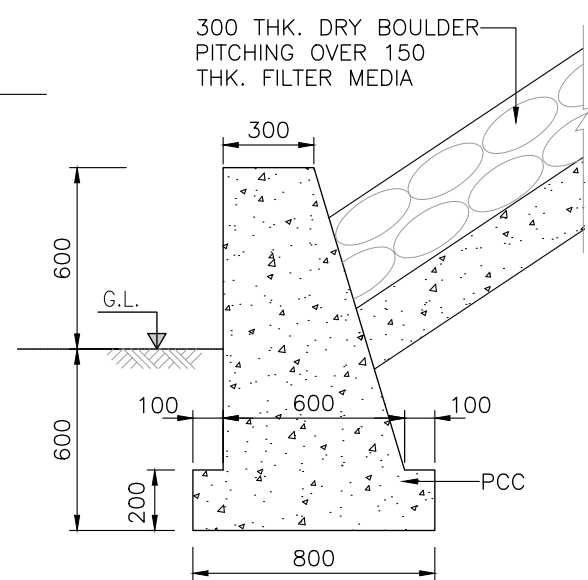
- ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
- NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCEPANIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
- CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
- THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786-2008.
- CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
 

|                         |     |
|-------------------------|-----|
| a.RCC DECK SLAB         | M40 |
| b.RCC ABUT. & ABUT. CAP | M35 |
| c.RCC CRASH BARRIER     | M40 |
| d.RCC APPROACH SLAB     | M30 |
| e.PCC LEVELING COURSE   | M15 |
- CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:-
 

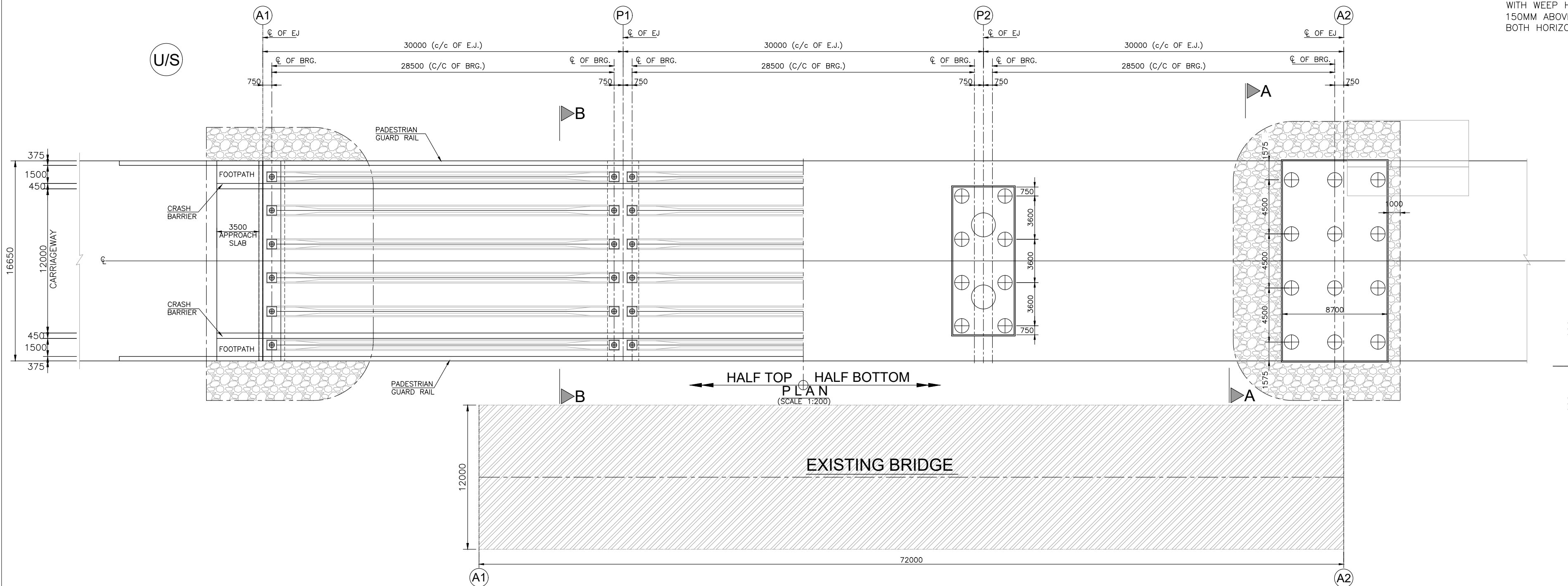
|                             |      |
|-----------------------------|------|
| a.SUPERSTRUCTURE            | 40MM |
| b.RCC ABUT. STEM EARTH SIDE | 75MM |
| c.RCC ABUT. OUTER SIDE      | 40MM |
| d.RCC ABUT. CAP             | 40MM |
| e.CRASH BARRIER             | 40MM |
- 65MM THICK WEARING COURSE COMPRISING OF BITUMINOUS CONCRETE 40MM THICK OVERLAID WITH 25MM THICK BITUMEN MASTIC ASPHALTIC SHALL BE PROVIDED AS PER SECTION 500 OF MORTH SPECIFICATION.
- DRAINAGE SPOUT 100MM DIA SPACED 5000MM C/C SHALL BE PROVIDED IN SUPERSTRUCTURE.
- CONDITION OF EXPOSURE IS SEVERE.
- THIS STRUCTURE LIES IN SEISMIC ZONE II.
- THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6-2017 INCLUDING SPECIAL VEHICLE (SV) LOADING.
- 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALLS.
- ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEEP HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.

#### LEGEND:-

|      |   |                     |
|------|---|---------------------|
| FRL  | - | FINISHED ROAD LEVEL |
| GL.  | - | GROUND LEVEL        |
| LVL. | - | LEVEL               |
| FDN  | - | FOUNDATION.         |
| EJ   | - | EXPANSION JOINT     |
| LBL  | - | LOWEST BED LEVEL    |
| HFL  | - | HIGHEST FLOOD LEVEL |
| EG   | - | EXPANSION GAP       |
| BRG  | - | BEARING             |



TYPICAL DETAIL  
OF TOE WALL  
SCALE 1:25



EXISTING BRIDGE



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridges at Ch 92+850 onNH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

GENERAL ARRANGEMENT DRAWING OF  
MAJOR BRIDGE AT D.CH. 92+850

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/92+850/GAD/01

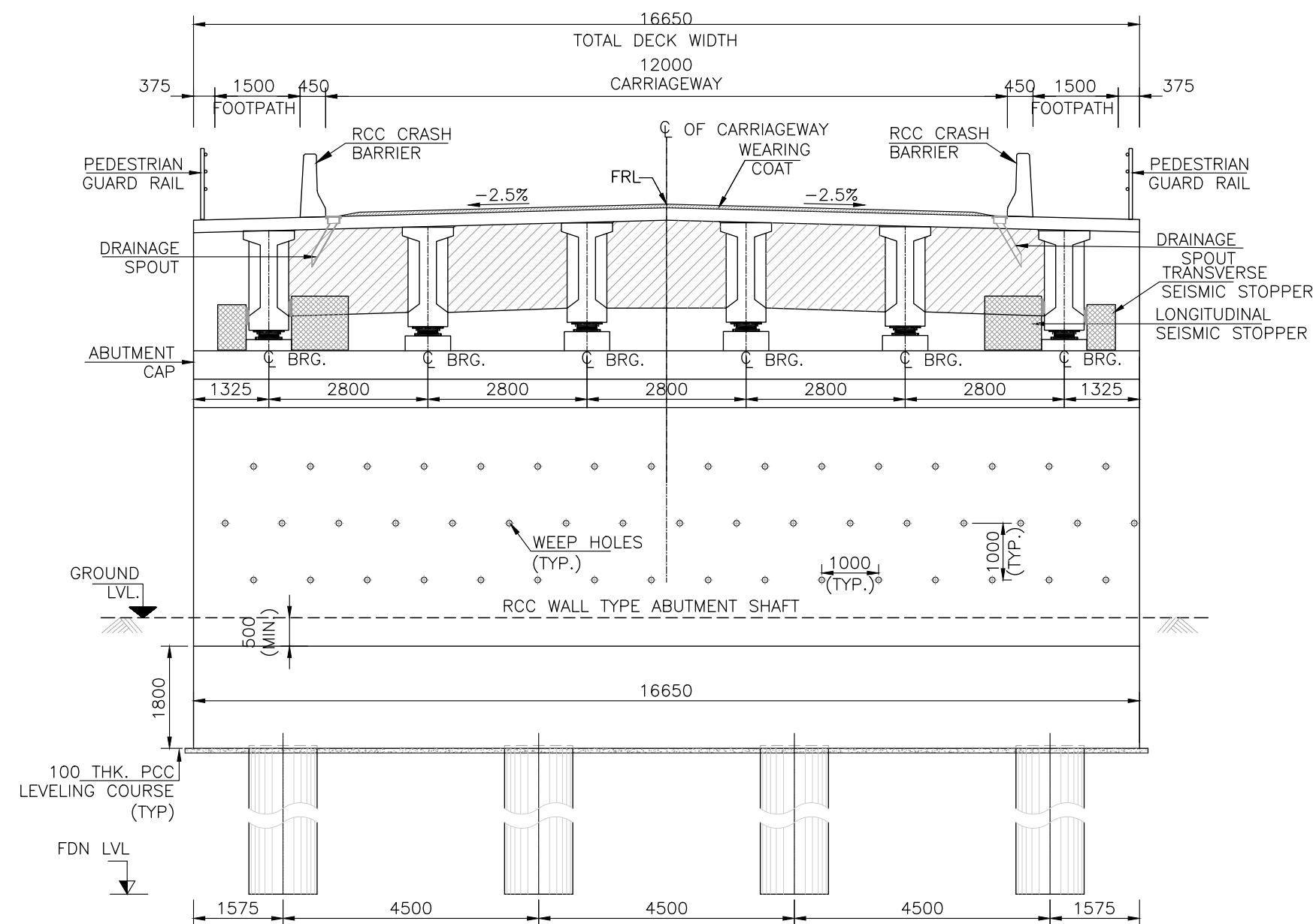
Scale :- AS SHOWN

|        |              |              |          |
|--------|--------------|--------------|----------|
| Drn    | Dgn.         | Appd         | Sheet :  |
| Manish | Maresh Dixit | S.K.Upadhyay | 01 OF 02 |

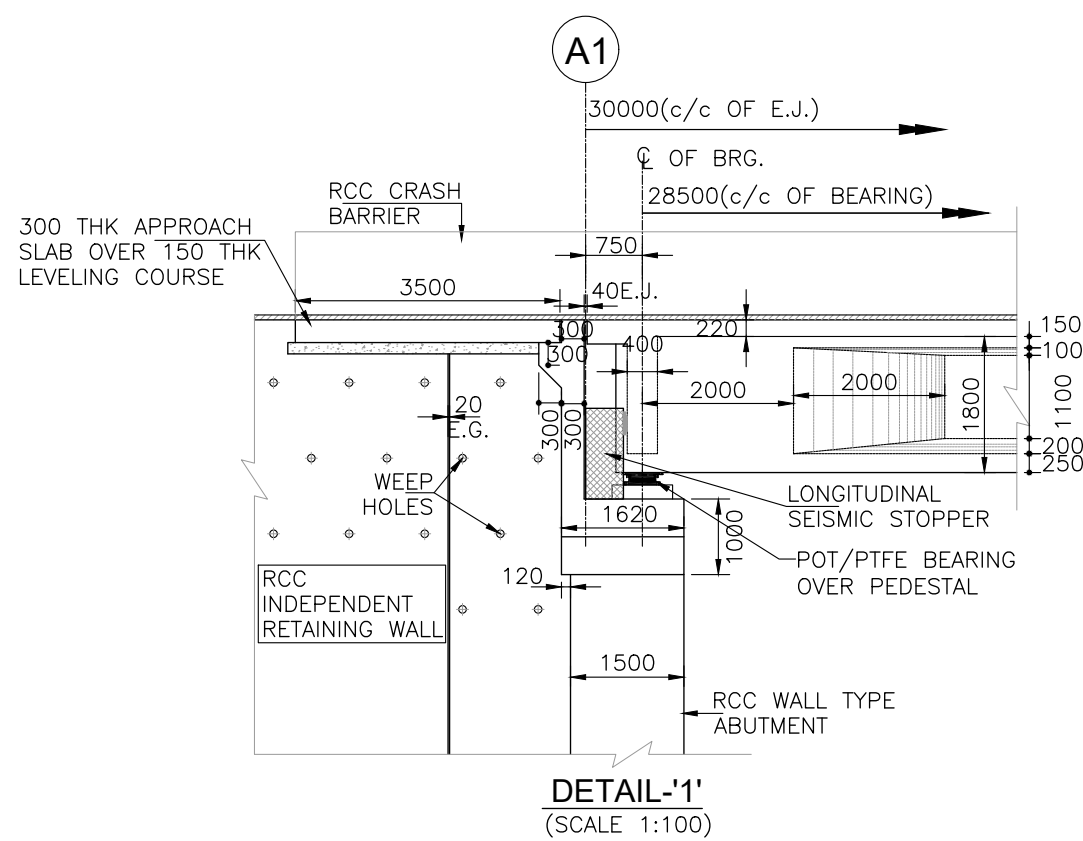
CONSULTANT:-



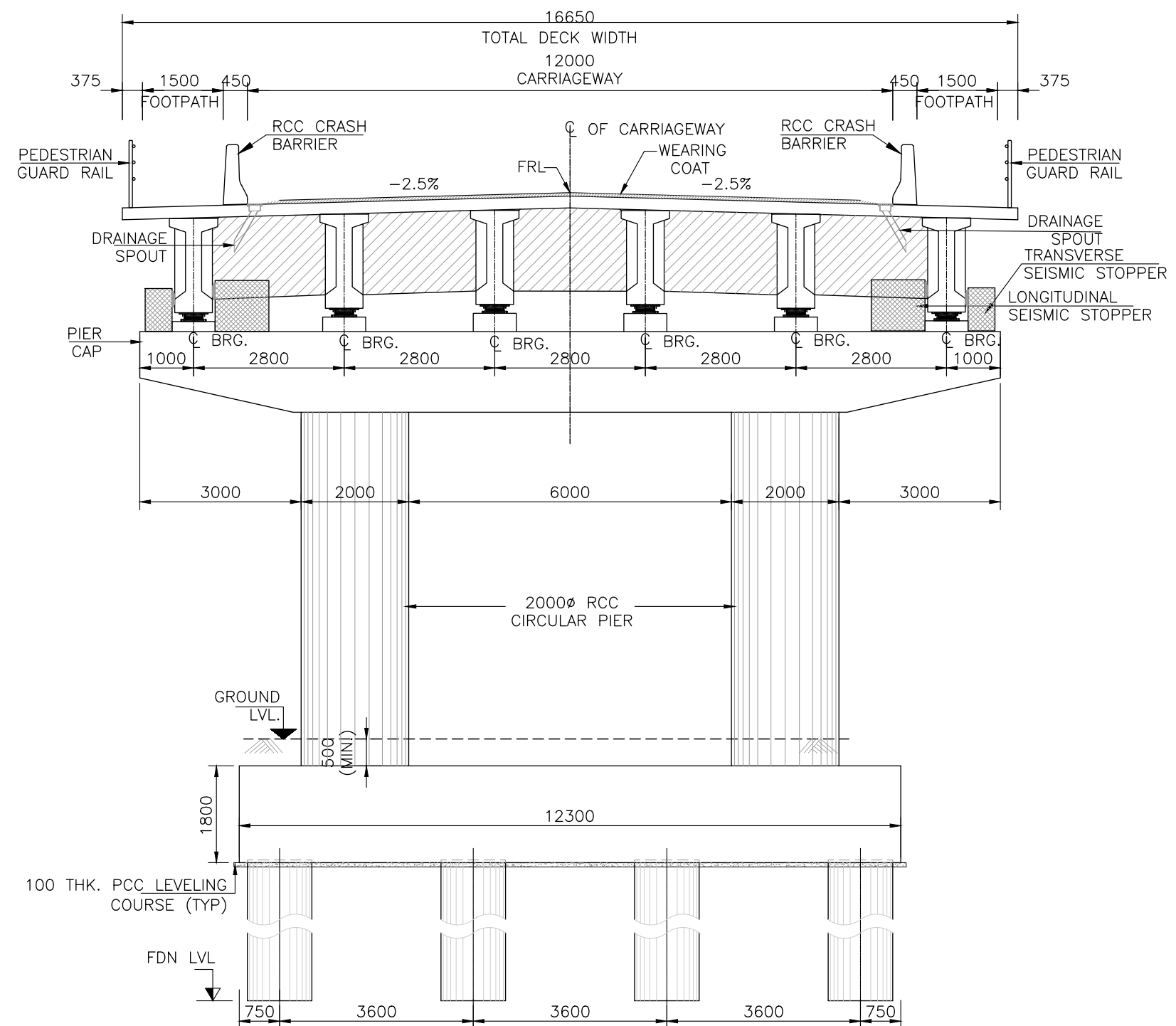
Technocrats Advisory Services Pvt. Ltd. 68, Ajanta Apartment,36, I.P.Extension Patparganj, Delhi-110092



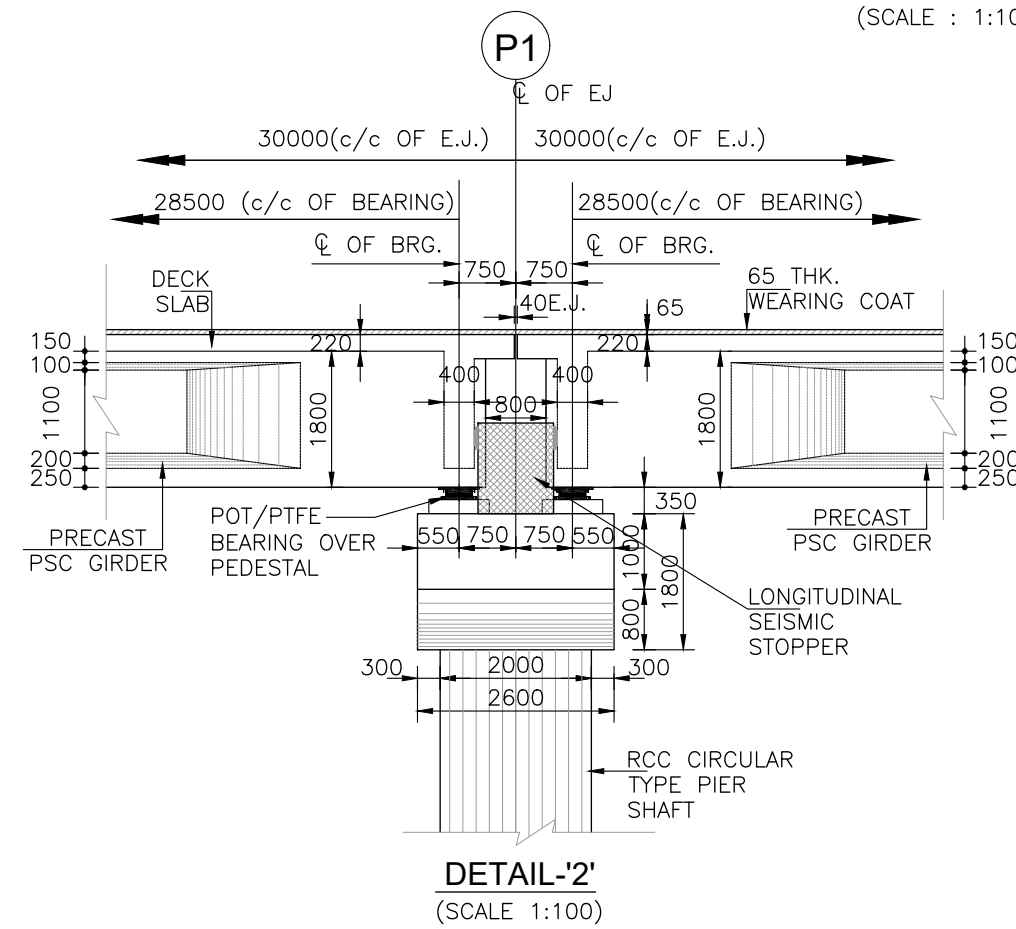
**SECTION A-A**  
(SCALE : 1:100)



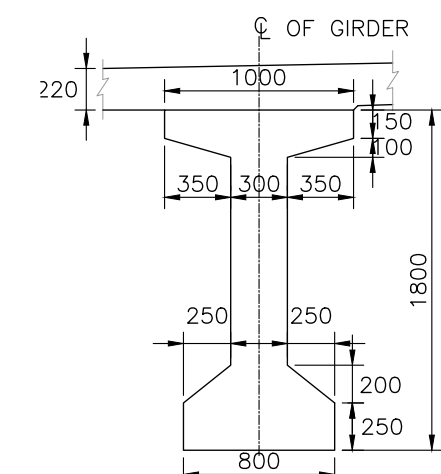
**DETAIL-'1'**  
(SCALE 1:100)



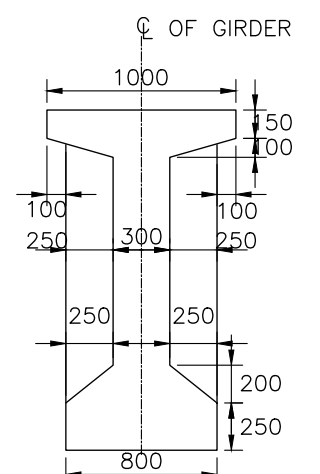
**SECTION B-B**  
(SCALE : 1:100)



DETAIL-'2'  
(SCALE 1:100)



MID SECTION  
(SCALE 1:40)



**SUPPORT SECTION**  
(SCALE 1:40)  
**PRECAST I-GIRDER**



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for New Construction of Major bridges at Ch 92+850 onNH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

|                 |
|-----------------|
| Drawing Title:- |
|-----------------|

GENERAL ARRANGEMENT DRAWING OF  
MAJOR BRIDGE AT D.CH. 92+850

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/92+850/GAD/01

Scale :- AS SHOWN

Drn

Dan.

|      |
|------|
| Appd |
|------|

Sheet :

Manish

Mabesh Dixit

S K Upadhyay

02 OF 02

CONSULTANT:-



Technocrats Advisory Services Pvt. Ltd. 68, Ajanta  
Apartment, 36, I.P. Extension Patparganj, Delhi-110092

RETAINING WALL

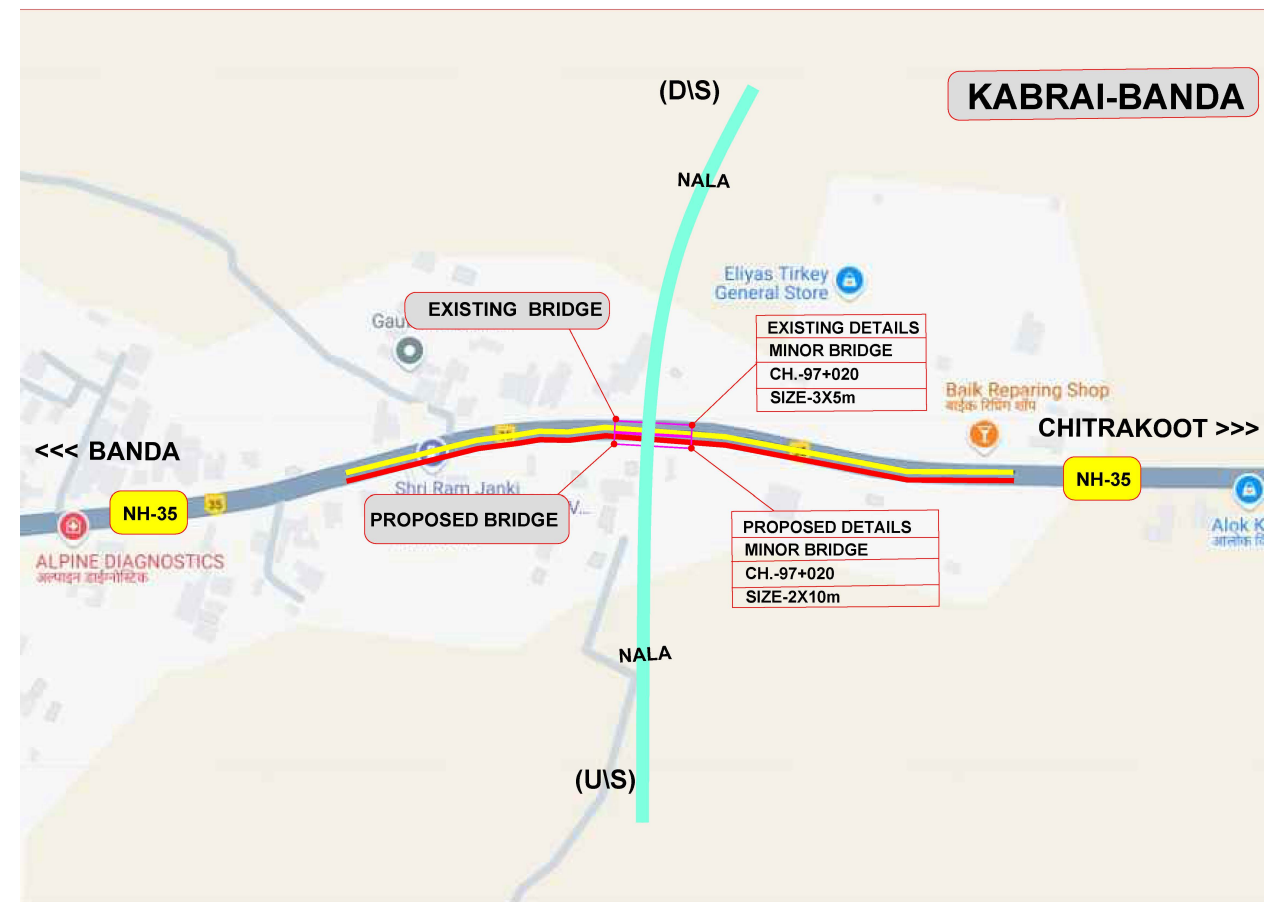






MINISTRY OF ROAD TRANSPORT & HIGHWAYS  
GOVERNMENT OF INDIA

“Consultancy Services for Preparation of Detailed Project Report  
(DPR) for Reconstruction of Minor Bridge at Ch. 97+020 on  
NH -35 (Old NH-76) in the State of Uttar Pradesh.



DETAILED PROJECT REPORT  
(DRAWING VOLUME)

CLIENT:



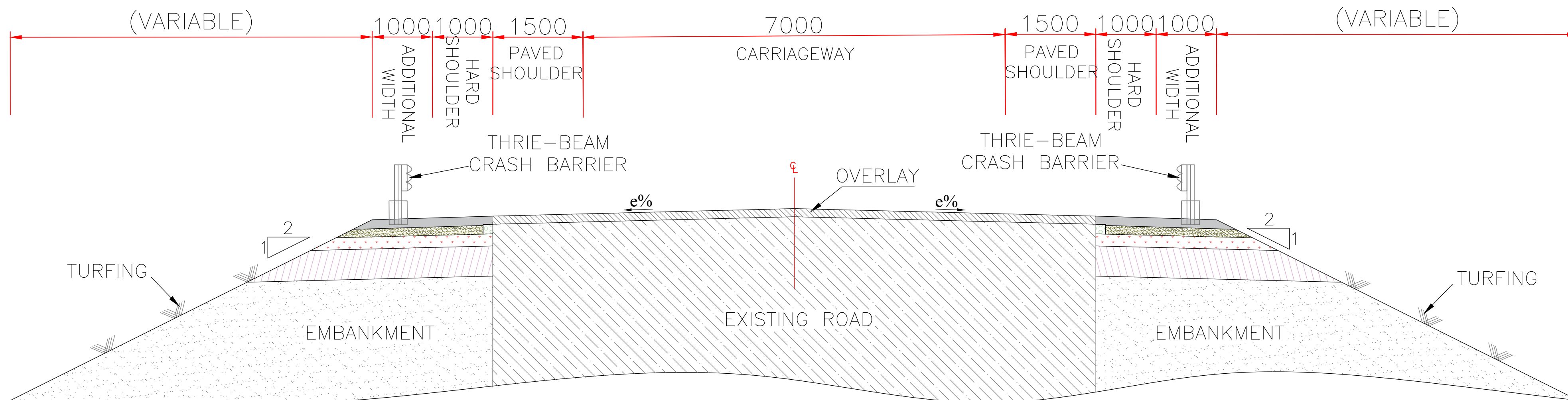
MINISTRY OF ROAD TRANSPORT & HIGHWAYS  
GOVERNMENT OF INDIA

CONSULTANT:



Technocrats Advisory Services Private Limited  
68, Ajanta Apartment, 36, I.P.Extension  
Patparganj Delhi-110092

TYPICAL CROSS SECTION ►



### TCS-1 : TWO LANE + PAVED SHOULDER IN OPEN LAND (EXISTING ROAD)

| S.No  | From(km) | To (km) | Length(m) | TCS   |
|-------|----------|---------|-----------|-------|
| 1     | 96+680   | 97+006  | 326       | TCS-1 |
| 2     | 97+035   | 97+220  | 185       | TCS-1 |
| Total |          |         | 511       |       |

REF.—  
 1. CIRCULAR DATED—04.06.2025(CLAUSE 5)  
 2. IRC:73—2023 PAGE—123(FIG.4.1)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for Reconstruction of Minor bridge at Ch 97+020 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL CROSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

Scale :- NOT TO SCALE

Drn

Manish

Dgn.

Mahesh Dixit

Appd

S.K.Upadhyay

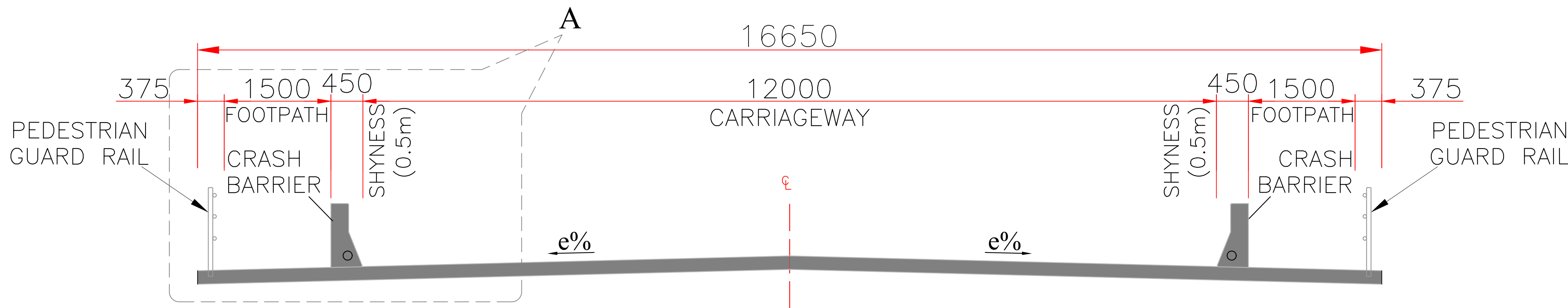
Sheet :

01 OF 03

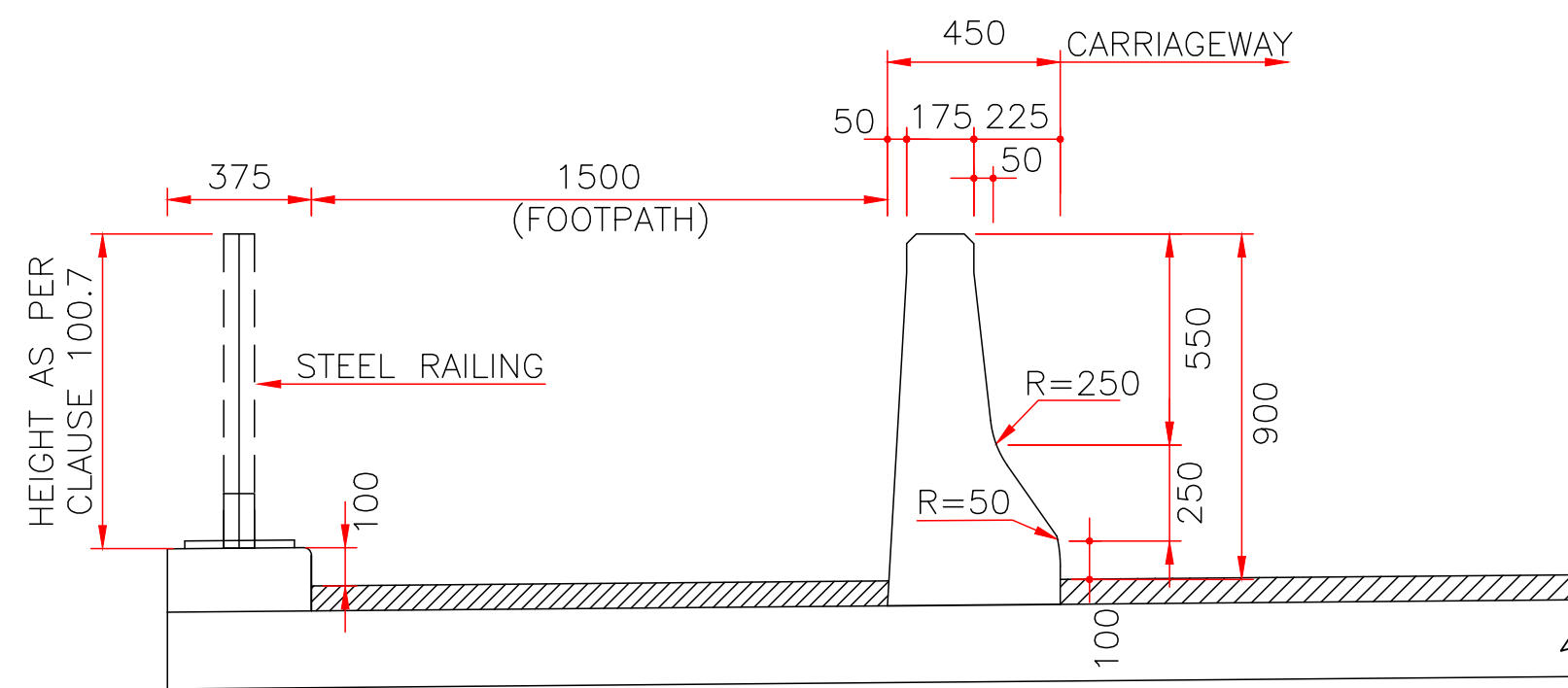
CONSULTANT:-



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## TCS-2 : TWO LANE + PAVED SHOULDER WITH FOOTPATH FOR BRIDGE



**STEEL RAILING OVER BRIDGES WITH FOOTPATHS  
DETAIL -A**

| S.No | From(km)     | To (km) | Length(m) | TCS   |
|------|--------------|---------|-----------|-------|
| 1    | 97+006       | 97+035  | 29        | TCS-2 |
|      | <b>Total</b> |         | 29        |       |

REF. –

1. CIRCULAR DATED – 04.06.2025 (CLAUSE 5)
2. IRC.SP.73 – 2018 (FIG.7.6)
3. IRC.5.2024 PAGE – 4 FIG.1(B)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for Reconstruction of Minor bridge at Ch 97+020 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL CROSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

Scale :- NOT TO SCALE

Drn

Dgn.

Appd

Sheet :

Manish

Mahesh Dixit

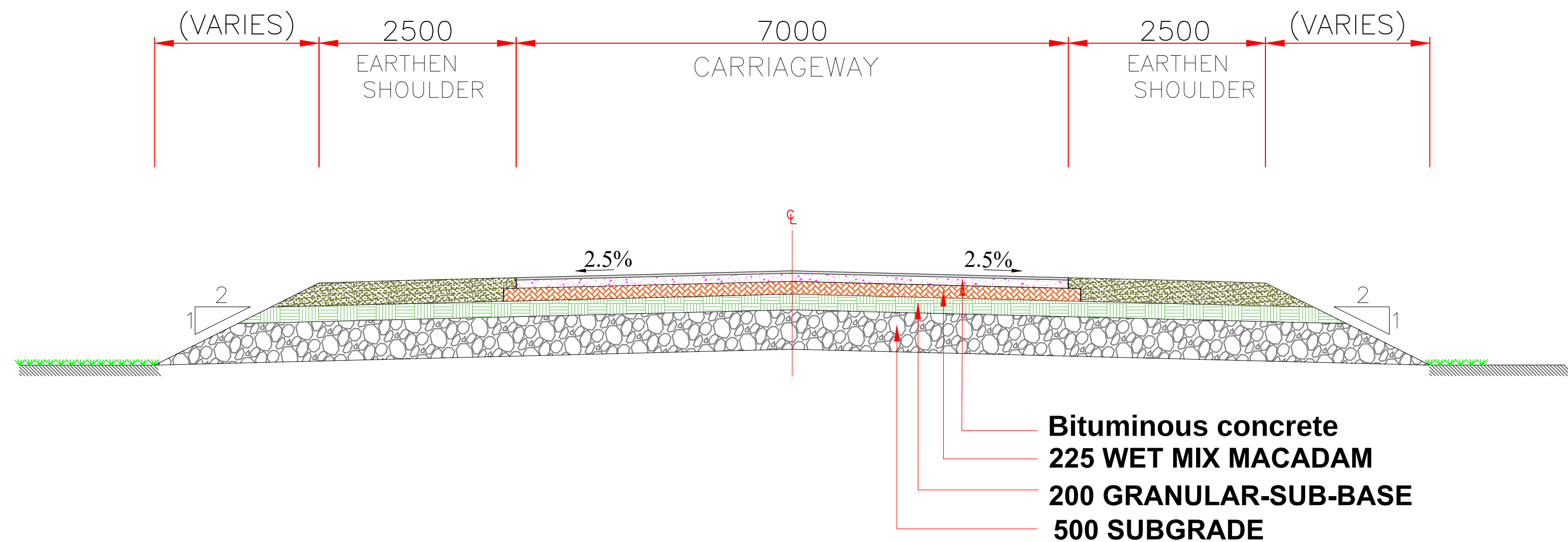
S.K.Upadhyay

02 OF 03

CONSULTANT:-



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### TCS- 4 TWO LANE + EARTHEN SHOULDER IN OPEN LAND (FOR TEMPORARY DIVERSION)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for Reconstruction of Minor bridge at Ch 97+020 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL CROSS SECTION

Drawing No. :- TASPL/MORTH/DPR/TCS

Scale :- NOT TO SCALE

Drn

Dgn.

Appd

Sheet :

Manish

Mahesh Dixit

S.K.Upadhyay

3 OF 03

CONSULTANT:-

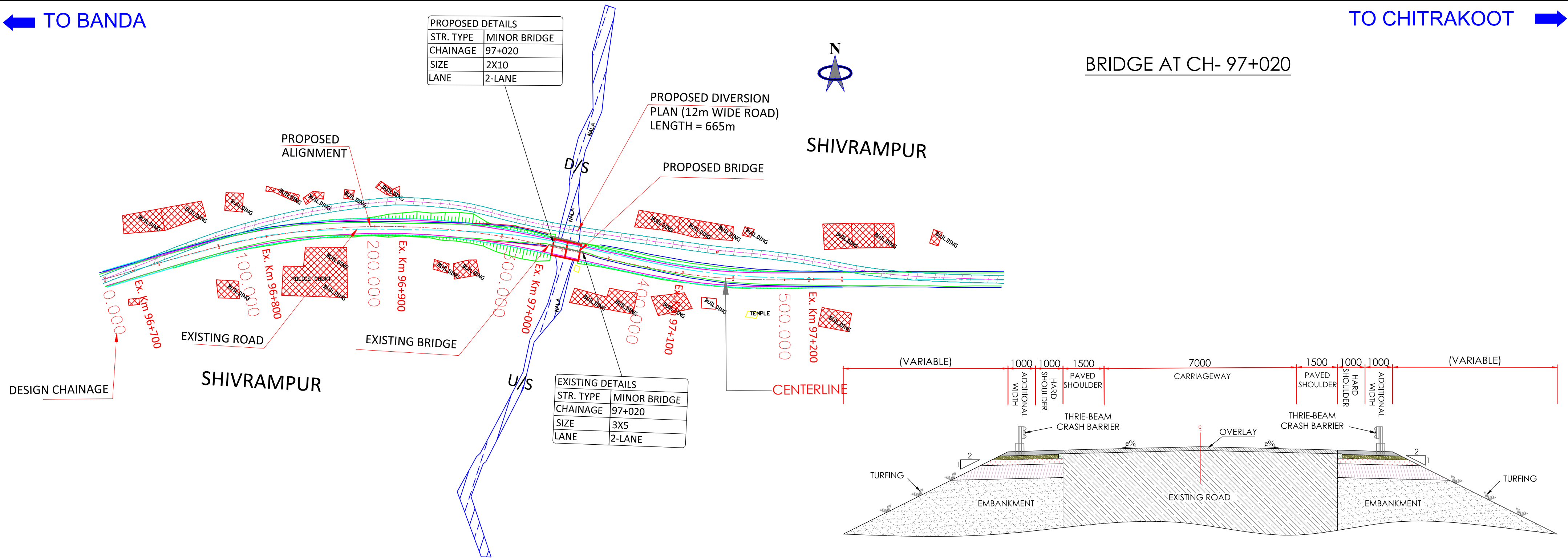


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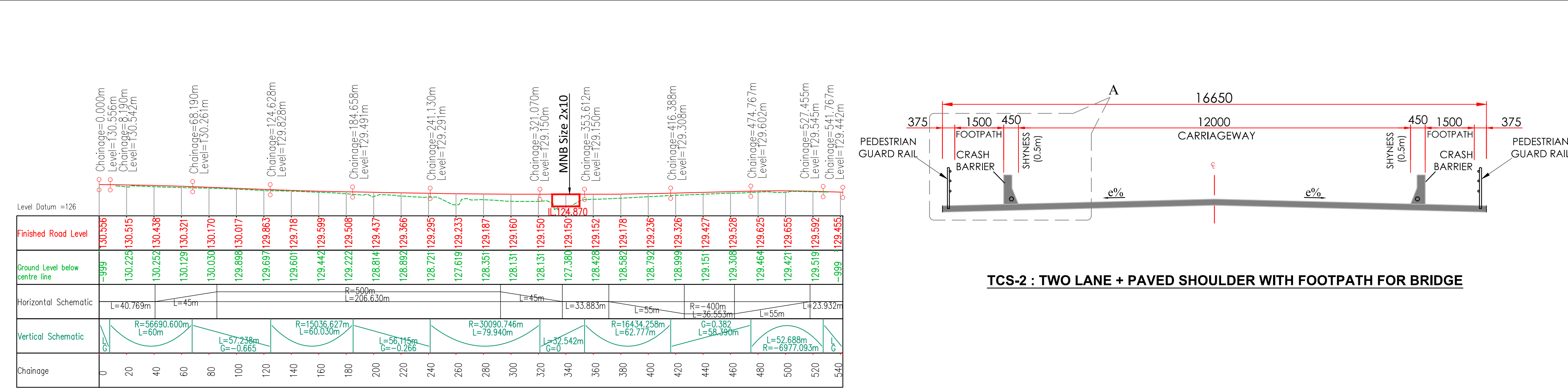
PLAN & PROFILE ►

← TO BANDA

TO CHITRAKOOT →



TCS-1 : TWO LANE + PAVED SHOULDER IN OPEN LAND (EXISTING ROAD)



Legend:-

- Center Line
- Carriageway
- Existing Center Line
- U/S
- D/S
- Building
- Temple

Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for Reconstruction of Minor bridge at Ch. 97+020 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

Plan & Profile

Bridge at Km 97+020

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/97+020/GAD/01

Scale :- 1:2000

Drm

Dgn.

Appd

Sheet :

Manish

Mahesh Dixit

S. K. Upadhayay

01 OF 01

CONSULTANT:-

TASPL

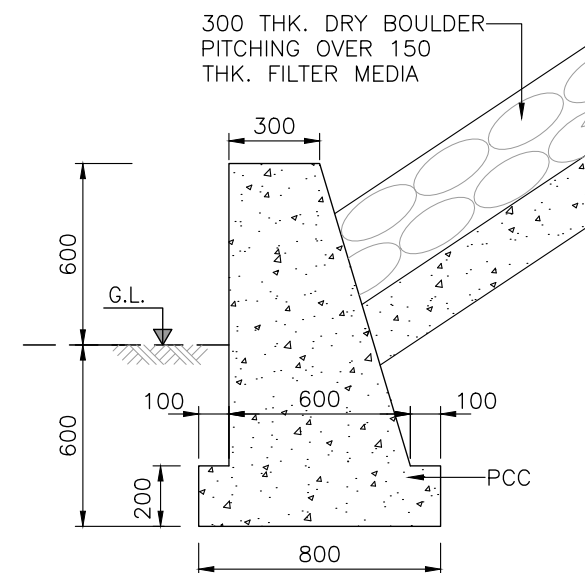
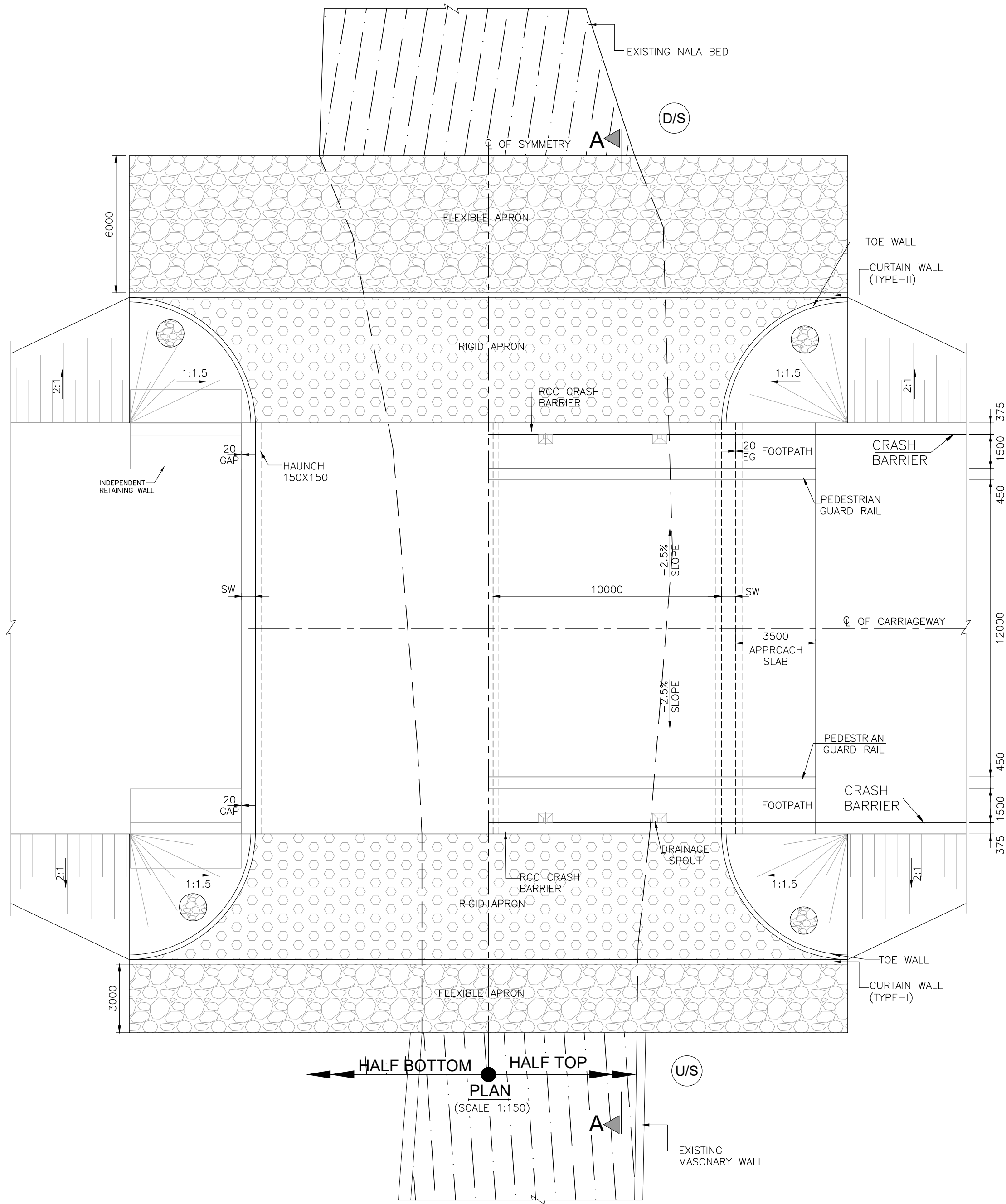
Technocrats Advisory Services Pvt. Ltd.

68, Ajanta Apartment, 36, I.P.Extension

Patparganj, Delhi-110092

GENERAL ARRANGEMENT DRAWING  
{MINOR BRIDGE}





TYPICAL DETAIL  
OF TOE WALL  
SCALE 1:25

NOTES:-

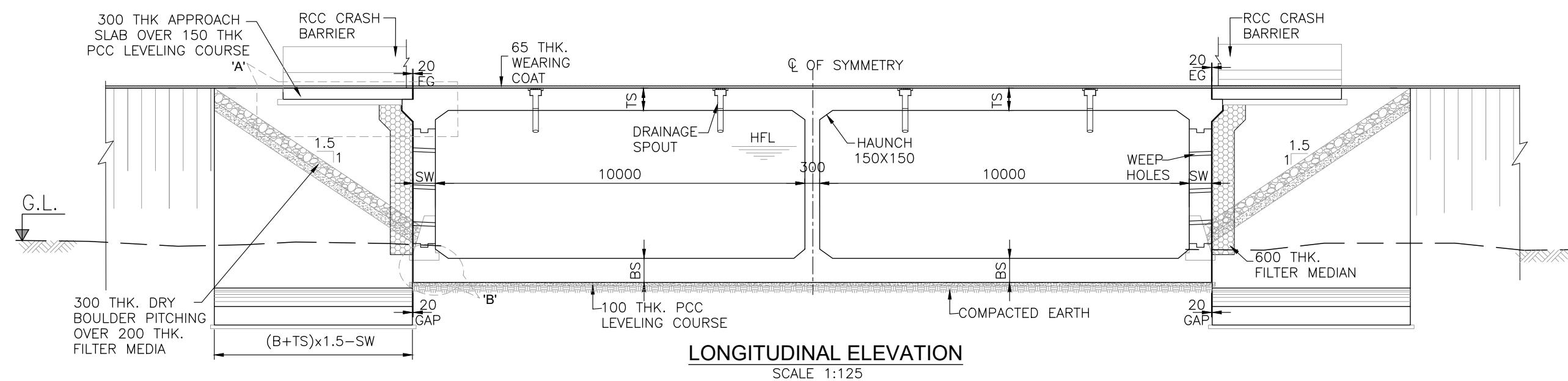
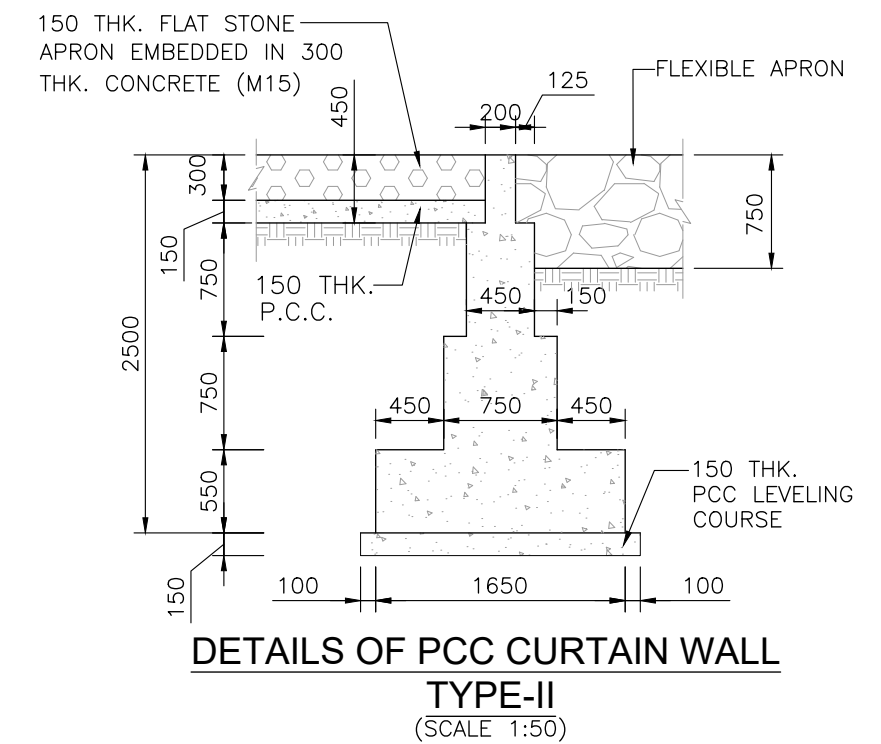
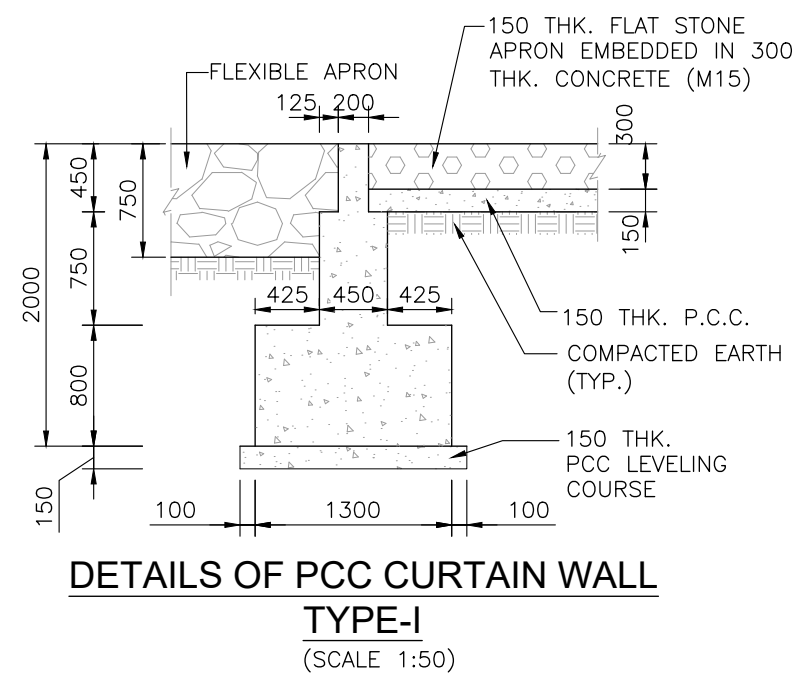
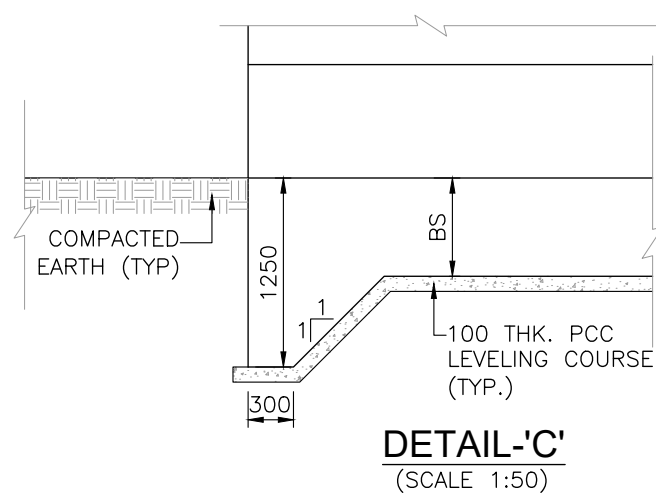
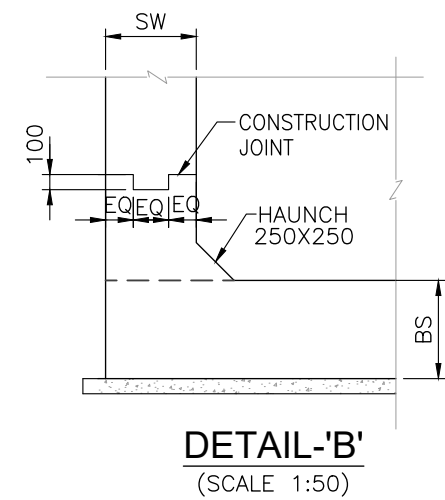
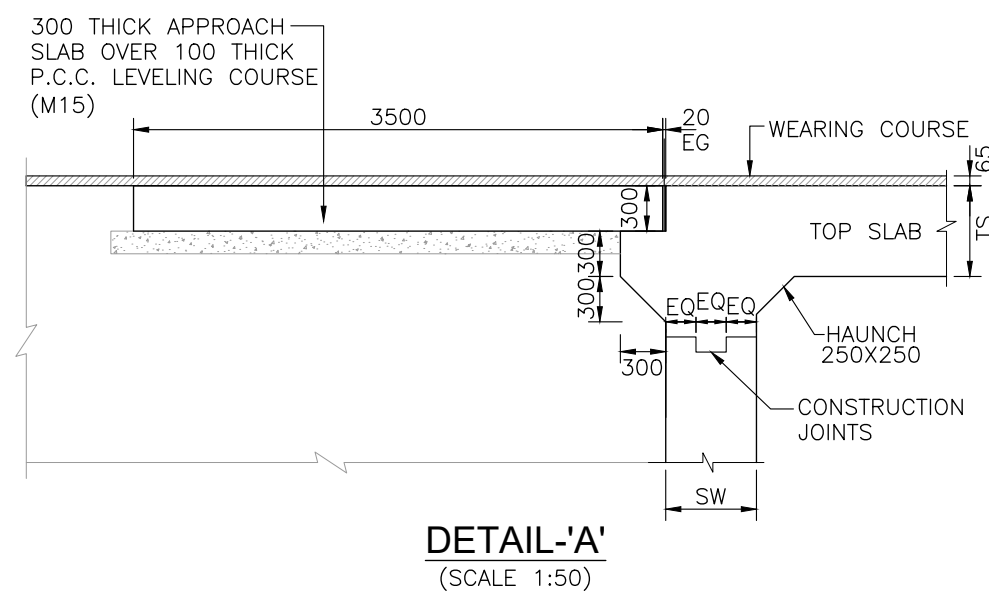
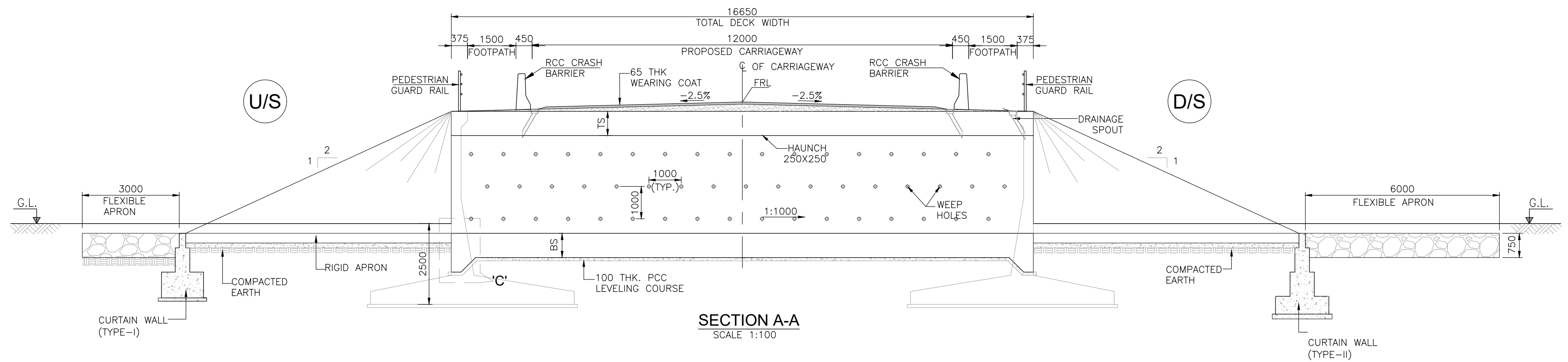
1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCREPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
4. CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
5. THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786-2008.
6. CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:  
a. RCC BOX STRUCTURE - M35  
b. PCC LEVELING COURSE - M15
7. CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:-  
a. SUPERSTRUCTURE 40MM  
b. VERTICAL FACE IN CONTACT WITH EARTH 75MM  
c. VERTICAL FACE NOT IN CONTACT WITH EARTH 40MM  
d. FOUNDATION 75MM
8. BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2014 HAVING PROPERTIES C=0,  $\phi \geq 30^\circ$ ,  $\gamma = 2.0t/cu.m.$
9. FORMATION LEVEL SHOWN IS AT MEDIAN EDGE.
10. THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6-2017.
11. THE TOP OF BOTTOM RAFT SHALL BE KEPT MIN. 300MM BELOW LOWEST BED LEVEL. HOWEVER, CHANGE IN CLEAR HEIGHT OF RCC BOX SHALL NOT BE MORE THAN 500MM.
12. ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEEP HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.
13. 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALL.
14. CONDITION OF EXPOSURE IS MODERATE.
15. ROAD FURNITURE SHALL BE PROVIDED AS PER HIGHWAY DRAWINGS.
16. THE STRUCTURE LIES IN SEISMIC ZONE-II.

LEGEND:-

- FRL - FINISHED ROAD LEVEL  
THK - THICKNESS  
U/S - UPSTREAM  
D/S - DOWNSTREAM  
HFL - HIGHEST FLOOD LEVEL

SCHEDULE FOR MINOR BRIDGE

| S.No. | DESIGN CH. | SKEW | PROPOSAL      | PROPOSED STRUCTURE | PROPOSED SPAN (NOS. x L) | FRL     | OGL     | IL      | SPAN (m) | TS  | BS  | SW  |
|-------|------------|------|---------------|--------------------|--------------------------|---------|---------|---------|----------|-----|-----|-----|
| 1     | 97+020     | 0°   | NEW STRUCTURE | BOX MINOR BRIDGE   | 2 x 10                   | 129.150 | 127.380 | 124.870 | 10.00    | 900 | 950 | 900 |



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for Construction of Major bridge at Ch 92+850 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

GENERAL ARRANGEMENT DRAWING OF BOX MNB AT D.CH. 97+020

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/97+020/GAD/01

Scale :- AS SHOWN

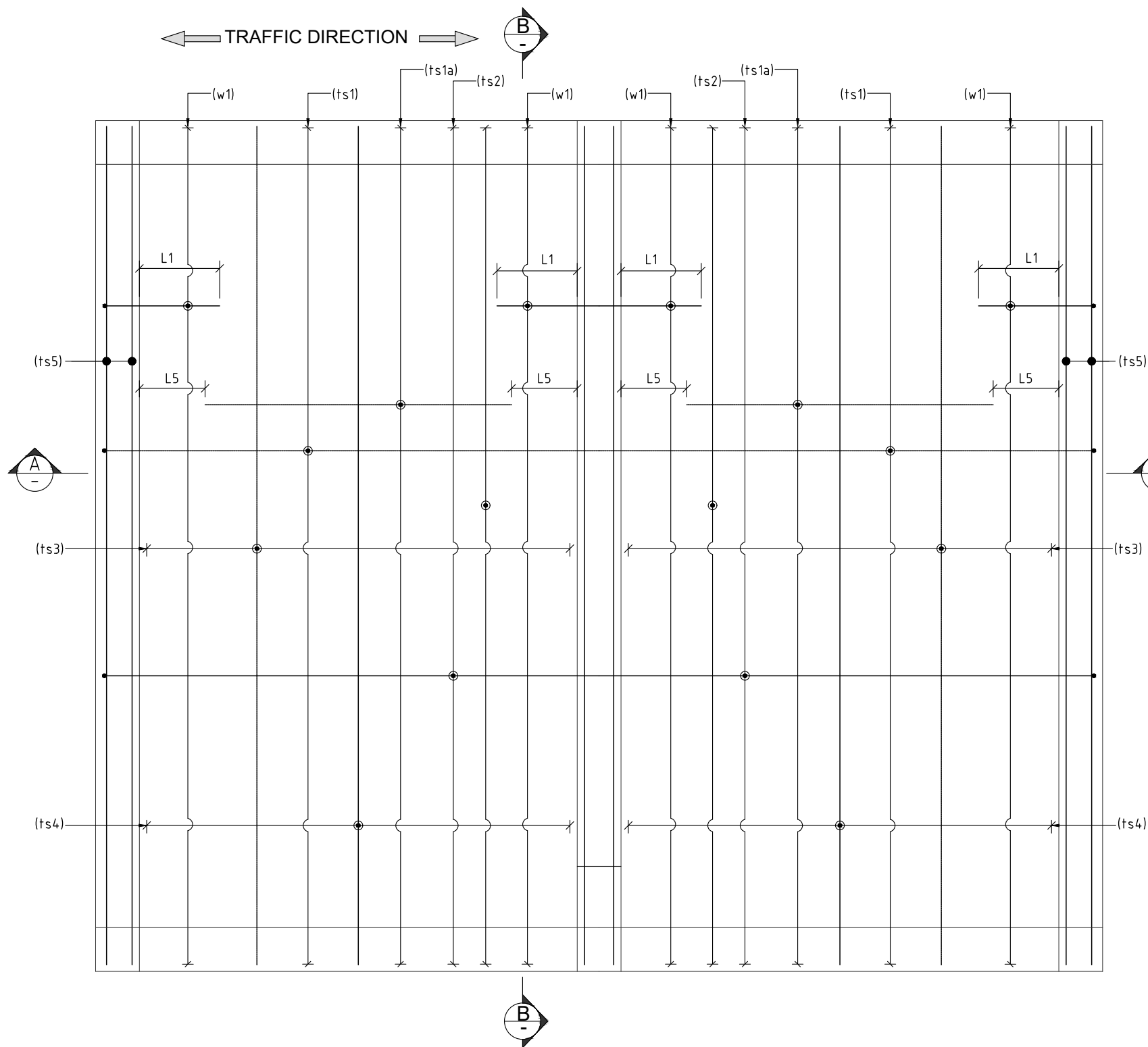
| Drn    | Dgn.         | Appd         | Sheet :  |
|--------|--------------|--------------|----------|
| Manish | Maresh Dixit | S.K.Upadhyay | 02 OF 02 |

CONSULTANT:-

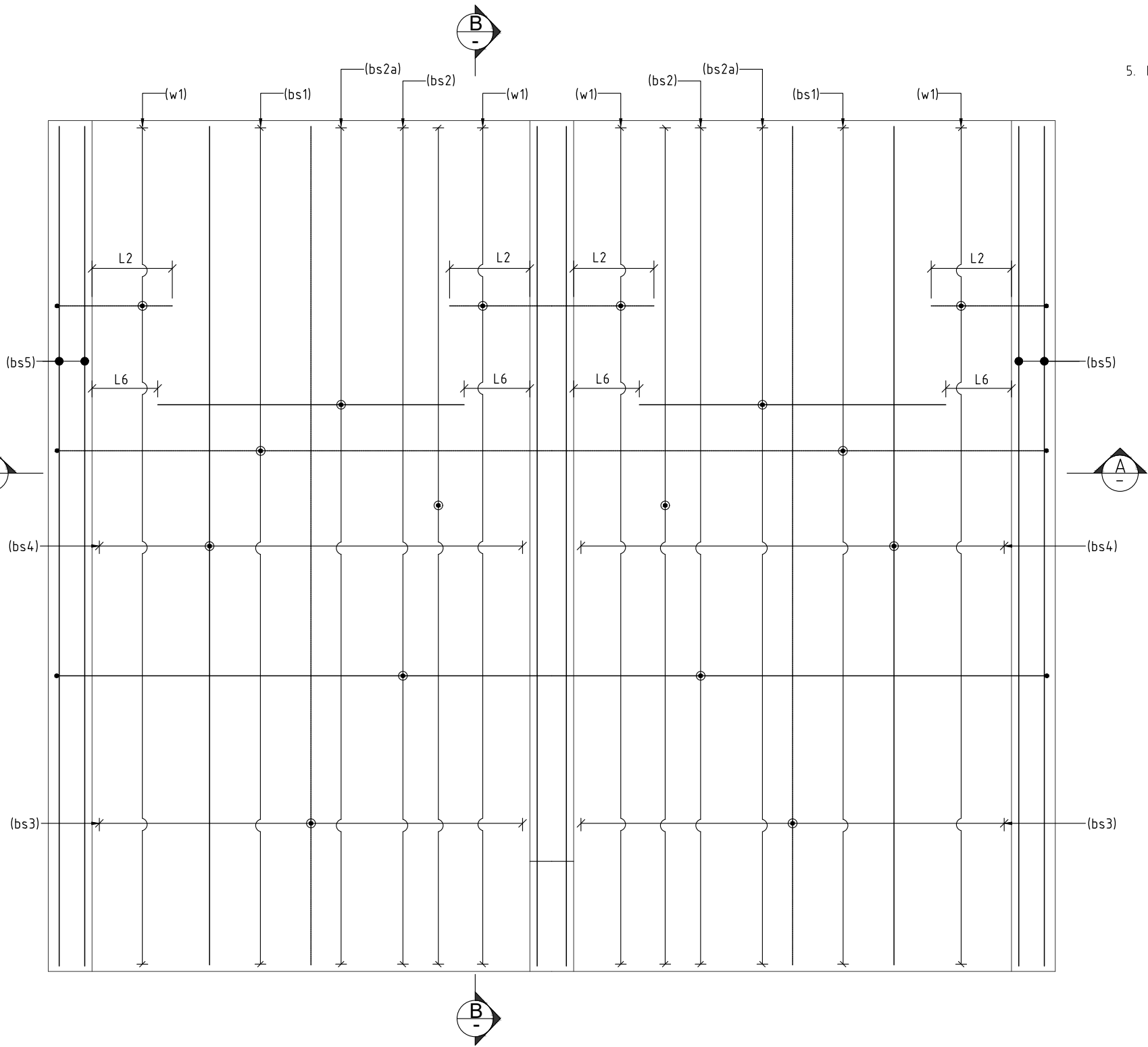


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- NOTES:-
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
  - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
  - THE REINFORCEMENT SHALL BE HYSD. BARS (GRADE DESIGNATION Fe-500) CONFORMING TO IS:1786-2008. HAVING MIN. ELONGATION OF 16% AS PER TABLE:18.1 OF IRC:112-2011.
  - MINIMUM CLEAR COVER TO OUTERMOST REINFORCEMENT SHALL BE AS FOLLOWS:-
    - TOP SLAB - 45mm
    - BOTTOM SLAB - 75mm
    - SIDE WALL (OUTER FACE) - 75mm
    - SIDE WALL (INNER FACE) - 45mm
  - FOR SCHEDULE OF LAP LENGTH & DEVELOPMENT LENGTH PLEASE FOLLOW:-



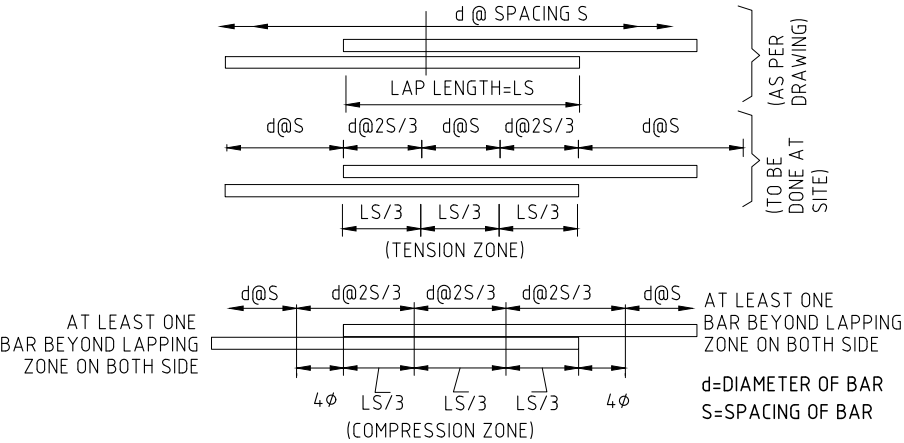
REINFORCEMENT DETAIL OF TOP SLAB  
(SHEAR KEY & HAUNCH BAR NOT SHOWN IN PLAN FOR CLARITY)  
SCALE-1:30



REINFORCEMENT DETAIL OF BOTTOM SLAB  
(SHEAR KEY & HAUNCH BAR NOT SHOWN IN PLAN FOR CLARITY)  
SCALE-1:30

| SCHEDULE OF LAP LENGTH FOR REINFORCEMENT                                                                                                                                                                                      |                |      |      |      |                  |      |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------|------|------|------------------|------|------|------|
| CONCRETE GRADE<br>%OF<br>LAPPED BAR                                                                                                                                                                                           | FAVORABLE BOND |      |      |      | UNFAVORABLE BOND |      |      |      |
|                                                                                                                                                                                                                               | M25            | M30  | M35  | M40  | M25              | M30  | M35  | M40  |
| <25%                                                                                                                                                                                                                          | 47xφ           | 40xφ | 36xφ | 34xφ | 68xφ             | 58xφ | 52xφ | 49xφ |
| 25-33%                                                                                                                                                                                                                        | 55xφ           | 46xφ | 42xφ | 40xφ | 79xφ             | 66xφ | 61xφ | 58xφ |
| 33-50%                                                                                                                                                                                                                        | 66xφ           | 56xφ | 51xφ | 48xφ | 95xφ             | 81xφ | 73xφ | 69xφ |
| >50%                                                                                                                                                                                                                          | NOT ALLOWED    |      |      |      |                  |      |      |      |
| FOR DETAILS FAVORABLE BOND AND UNFAVORABLE BOND<br>CONDITION REFER CLAUSE 15.2.3. OF IRC:112-2011.<br>THIS TABLE IS USED FOR UP TO 32mm BAR<br>FOR φ>32mm IB, SHOULD BE INCREASED BY MULTIPLYING FACTOR $(\frac{100}{132-a})$ |                |      |      |      |                  |      |      |      |

| SCHEDULE OF DEVELOPMENT LENGTH FOR REINFORCEMENT                                                   |                |      |      |      |                  |      |      |      |
|----------------------------------------------------------------------------------------------------|----------------|------|------|------|------------------|------|------|------|
| DESCRIPTION                                                                                        | FAVORABLE BOND |      |      |      | UNFAVORABLE BOND |      |      |      |
|                                                                                                    | M25            | M30  | M35  | M40  | M25              | M30  | M35  | M40  |
| ANCHOR LENGTH                                                                                      | 71xφ           | 60xφ | 54xφ | 51xφ | 102xφ            | 86xφ | 78xφ | 73xφ |
| FOR DETAILS FAVORABLE BOND AND UNFAVORABLE BOND<br>CONDITION REFER CLAUSE 15.2.3. OF IRC:112-2011. |                |      |      |      |                  |      |      |      |



LEGEND:

- NEAR FACE  
- - - FAR FACE



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for Construction of Major bridge at Ch 97+020 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

REINFORCEMENT DETAIL OF  
BOX MNB AT D.CH. 97+020

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/97+020/REINF/01

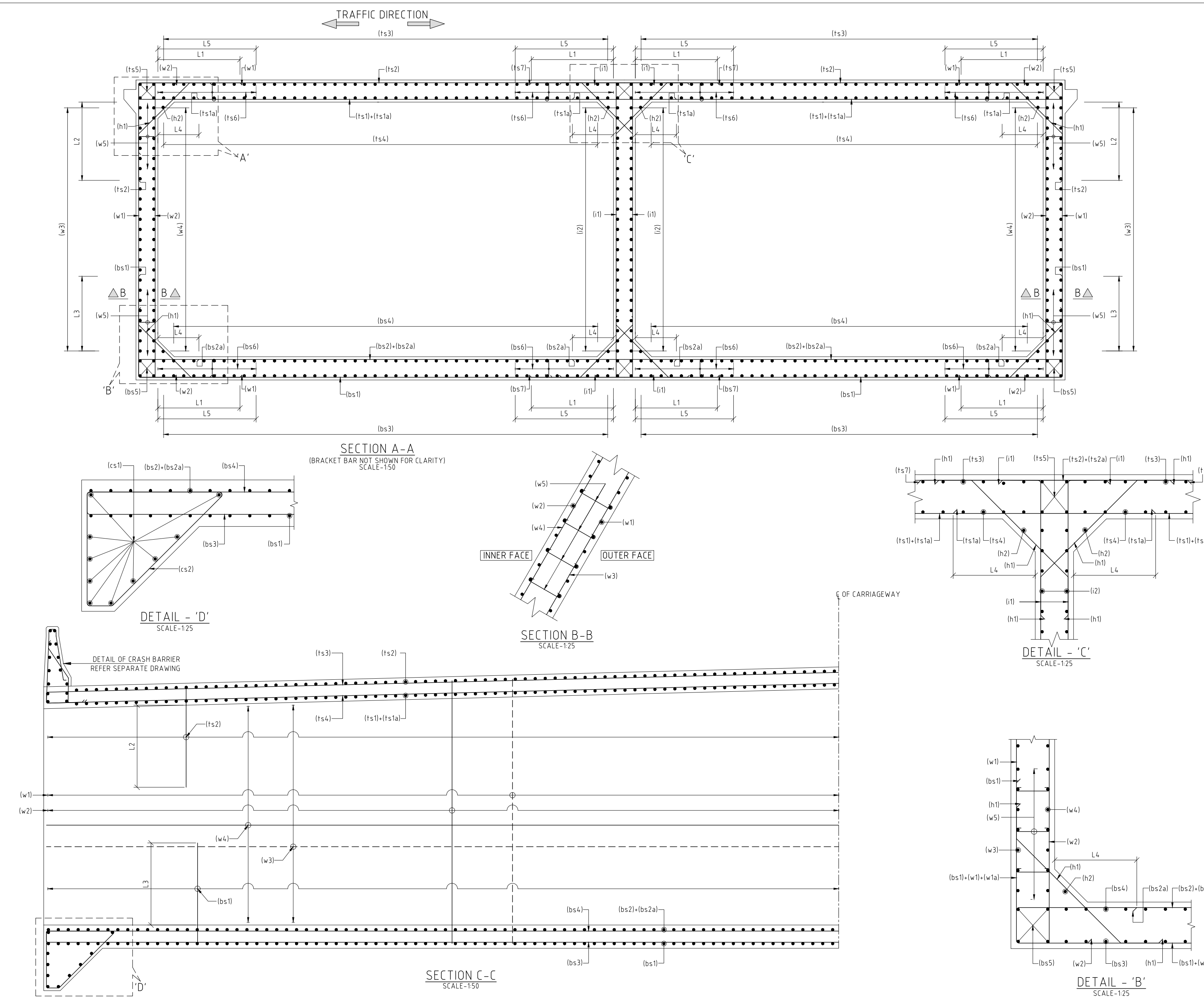
Scale :- AS SHOWN

| Drn    | Dgn.         | Appd         | Sheet :  |
|--------|--------------|--------------|----------|
| Manish | Mahesh Dixit | S.K.Upadhyay | 01 OF 02 |

CONSULTANT:-



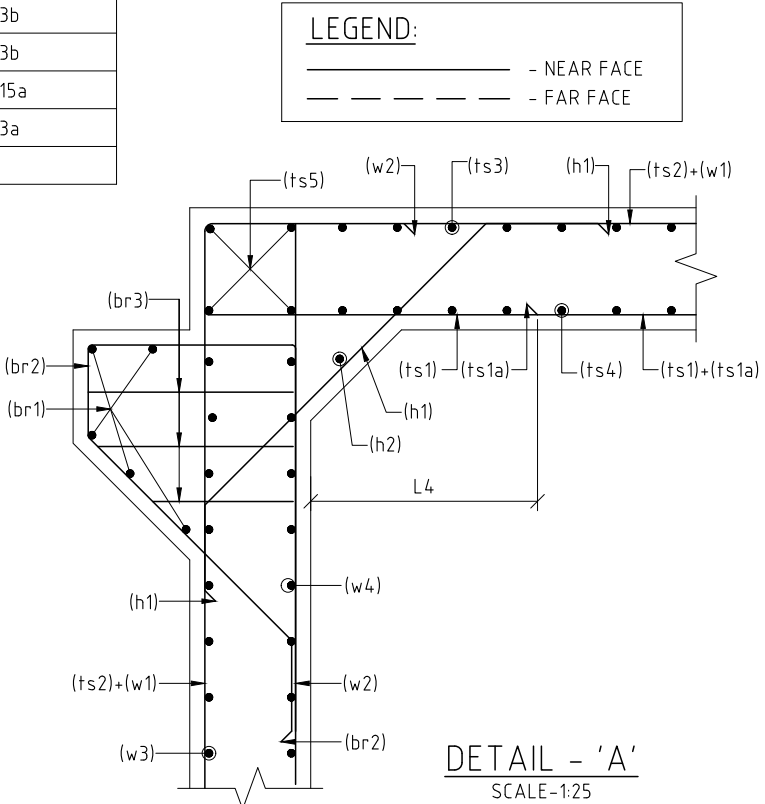
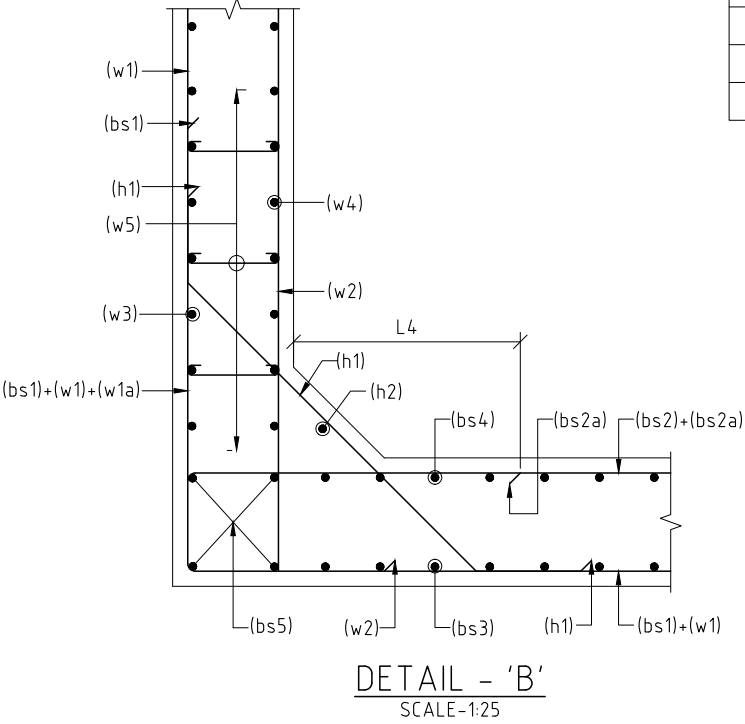
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| REINFORCEMENT DETAIL |                              |               |                    |                                 |                   |
|----------------------|------------------------------|---------------|--------------------|---------------------------------|-------------------|
| Bar Mark             | Shape of Bars (Not to Scale) | Bar Dia in mm | Spacing & Numbers  | REMARKS                         | LOCATION          |
| ts1                  |                              | 16            | 150 c/c            |                                 | TOP SLAB          |
| ts1a                 |                              | 16            | 150 c/c            |                                 |                   |
| ts2                  |                              | 20            | 150 c/c            |                                 |                   |
| ts2a                 |                              | NOT IN USE    |                    |                                 |                   |
| ts3                  |                              | 12            | 140 c/c            |                                 |                   |
| ts4                  |                              | 12            | 140 c/c            |                                 |                   |
| ts5                  |                              | 16            | 3 nos.             | 3 LOCATIONS                     |                   |
| ts6                  |                              | 10            | (LxT)<br>(140x150) |                                 | BOTTOM SLAB       |
| ts7                  |                              | 20            | 150 c/c            |                                 |                   |
| bs1                  |                              | 20            | 150 c/c            |                                 |                   |
| bs2                  |                              | 16            | 150 c/c            |                                 |                   |
| bs2a                 |                              | 16            | 150 c/c            |                                 |                   |
| bs3                  |                              | 12            | 140 c/c            |                                 |                   |
| bs4                  |                              | 12            | 140 c/c            |                                 |                   |
| bs5                  |                              | 16            | 4 nos.             | 3 LOCATIONS                     | EXTERNAL WALL     |
| bs6                  |                              | 10            | (LxT)<br>(140x150) |                                 |                   |
| bs7                  |                              | 16            | 150 c/c            |                                 |                   |
| w1                   |                              | 16            | 150 c/c            |                                 |                   |
| w1a                  |                              | NOT IN USE    |                    |                                 |                   |
| w2                   |                              | 16            | 150 c/c            |                                 | INTERMEDIATE WALL |
| w3                   |                              | 12            | 140 c/c            |                                 |                   |
| w4                   |                              | 12            | 150 c/c            |                                 |                   |
| w5                   |                              | NOT IN USE    |                    |                                 |                   |
| i1                   |                              | 16            | 150 c/c            |                                 |                   |
| i2                   |                              | 12            | 140 c/c            |                                 | HAUNCH            |
| h1                   |                              | 12            | 150 c/c            |                                 |                   |
| h2                   |                              | 16            | 1 nos.             | 4 LOCATIONS                     |                   |
| cs1                  |                              | 12            | 10 nos.            | 2 LOCATIONS                     | SHEAR KEY         |
| cs2                  |                              | 12            | 150 c/c            |                                 |                   |
| br1                  |                              | 12            | 5 nos.             | 2 LOCATIONS                     | DIRT WALL         |
| br2                  |                              | 12            | 150 c/c            |                                 |                   |
| br3                  |                              | 12            | 300 c/c            | HORIZONTAL STIRRUPS IN 3 LAYERS |                   |

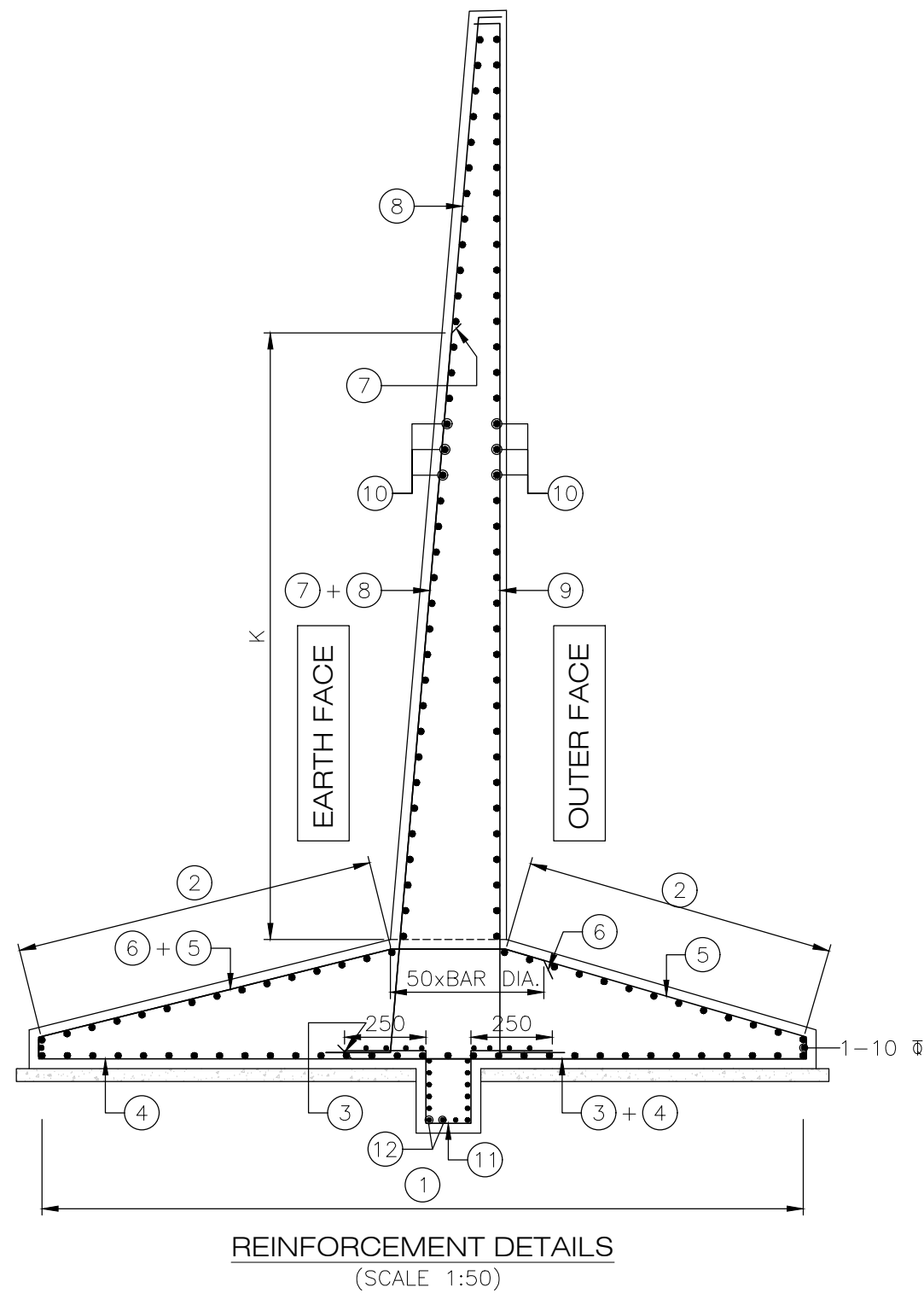
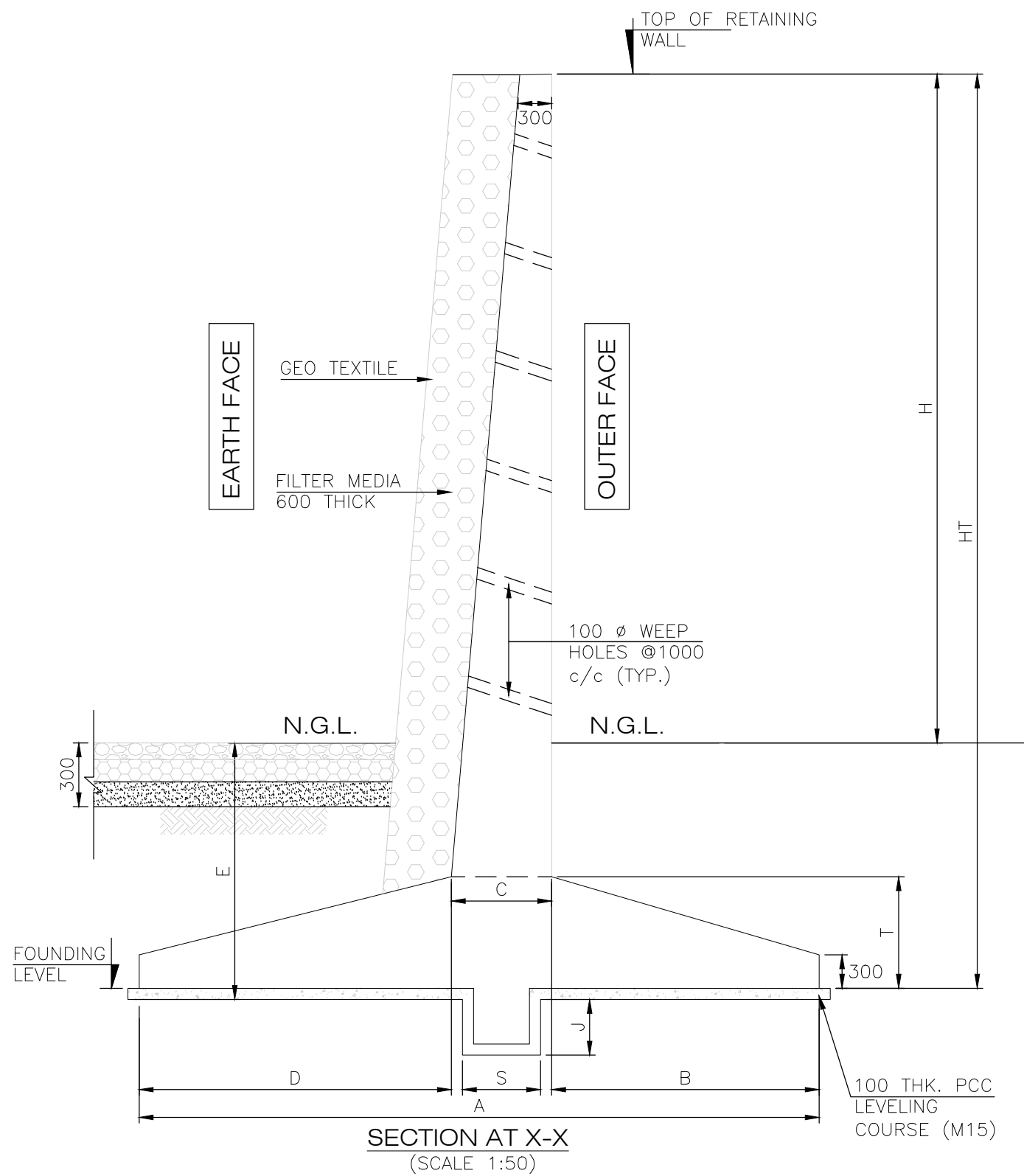
| BAR CURTAILMENT SCHEDULE TYPE |       |
|-------------------------------|-------|
| L1                            | 0.3 a |
| L2                            | 0.3b  |
| L3                            | 0.3b  |
| L4                            | 0.15a |
| L5                            | 0.3a  |
| L6                            | -     |

LEGEND:  
- - - - - NEAR FACE  
- - - - - FAR FACE



RETAINING WALL





## NOTES:-

- ALL DIMENSIONS ARE IN 'MILLIMETERS' UNLESS NOTED OTHERWISE. ONLY WRITTEN DIMENSIONS AND REINF. DETAILS SHALL BE FOLLOWED. NO DIMENSION SHALL BE SCALED.
- GRADE OF CONCRETE IS TO BE M30.
- THE REINFORCEMENT SHALL BE OF HYSD BARS (GRADE Fe-500D CONFORMING TO IS:1786).
- CLEAR COVER TO OUTERMOST STEEL SHALL BE AS BELOW:-  
IN EARTH FACE ..... 75mm  
IN OPEN FACE ..... 50mm  
IN FOUNDATION ..... 75mm
- SAFE BEARING CAPACITY SHOULD NOT BE LESS THAN THAT GIVEN IN DETAILED DRAWING. IN CASE ALLOWABLE SOIL BEARING CAPACITY IS FOUND TO BE LESS THAN THE REQUIRED BEARING CAPACITY, THE SOIL SHOULD BE STABILISED TO ACHIEVE THE SAME. FOR THIS PURPOSE THE WEAK SOIL LAYER SHALL BE REMOVED & REFILLED WITH COMPACTED GRAVEL.
- 100 DIA WEEP HOLES WITH SLOPE 1 IN 20 SHALL BE PROVIDED AT SPACING OF 1000 C/C BOTH HORIZONTALLY AND VERTICALLY (STAGGERED) IN FULL HEIGHT OF THE RETAINING WALL WITH BOTTOM MOST ROW 150mm ABOVE G.L.
- BACK FILLING AND FILTER MEDIA BEHIND THE RETAINING WALL SHALL BE PROVIDED WITH SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2014 HAVING PROPERTIES  $\phi=38^\circ, c=0$
- TO COUNTER FOR THE DEFLECTION RETAINING WALL SHALL BE CONSTRUCTED TILTED BACK BY 1 IN 100.
- MINIMUM LAP LENGTH FOR REINFORCEMENT SHALL BE 63 TIMES THE DIA OF BARS
- FILLER JOINT SHOULD BE PROVIDED AT 18-METER INTERVAL.

## REINFORCEMENT DETAILS OF RCC RETAINING WALL:-

| BAR MARKED | TOTAL HEIGHT 6.0 M |
|------------|--------------------|
| 1          | 10 $\Phi$ @200c/c  |
| 2          | 10 $\Phi$ @200c/c  |
| 3          | 12 $\Phi$ @200c/c  |
| 4          | 12 $\Phi$ @200c/c  |
| 5          | 16 $\Phi$ @200c/c  |
| 6          | 12 $\Phi$ @200c/c  |
| 7          | 16 $\Phi$ @200c/c  |
| 8          | 16 $\Phi$ @200c/c  |
| 9          | 12 $\Phi$ @200c/c  |
| 10         | 10 $\Phi$ @200c/c  |
| 11         | 08 $\Phi$ @275c/c  |
| 12         | 10 $\Phi$ @225c/c  |

## DIMENSION DETAILS OF RCC RETAINING WALL:-

| S.NO. | TOTAL HEIGHT (HT)                                    | 6.0 M |
|-------|------------------------------------------------------|-------|
| 1     | H                                                    | 4.50  |
| 2     | A                                                    | 4.30  |
| 3     | B                                                    | 1.40  |
| 4     | C                                                    | 0.70  |
| 5     | D                                                    | 2.20  |
| 6     | E                                                    | 2.50  |
| 7     | K                                                    | 3.00  |
| 8     | S                                                    | 0.30  |
| 9     | T                                                    | 0.70  |
| 10    | J                                                    | 0.30  |
| 11    | MAX. BASE PRESSURE (t/m <sup>2</sup> )—AS PER DESIGN | 14    |

(DIMENSIONS GIVEN IN THE TABLE ARE IN METRES)



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for Reconstruction of Minor bridge at Ch 97+020 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

CONCRETE & REINFORCEMENT  
DETAILS OF RETAINING WALL

Drawing No. :- TASPL/MORTH/DPR/BRIDGE/97+020/RW

Scale :- AS SHOWN

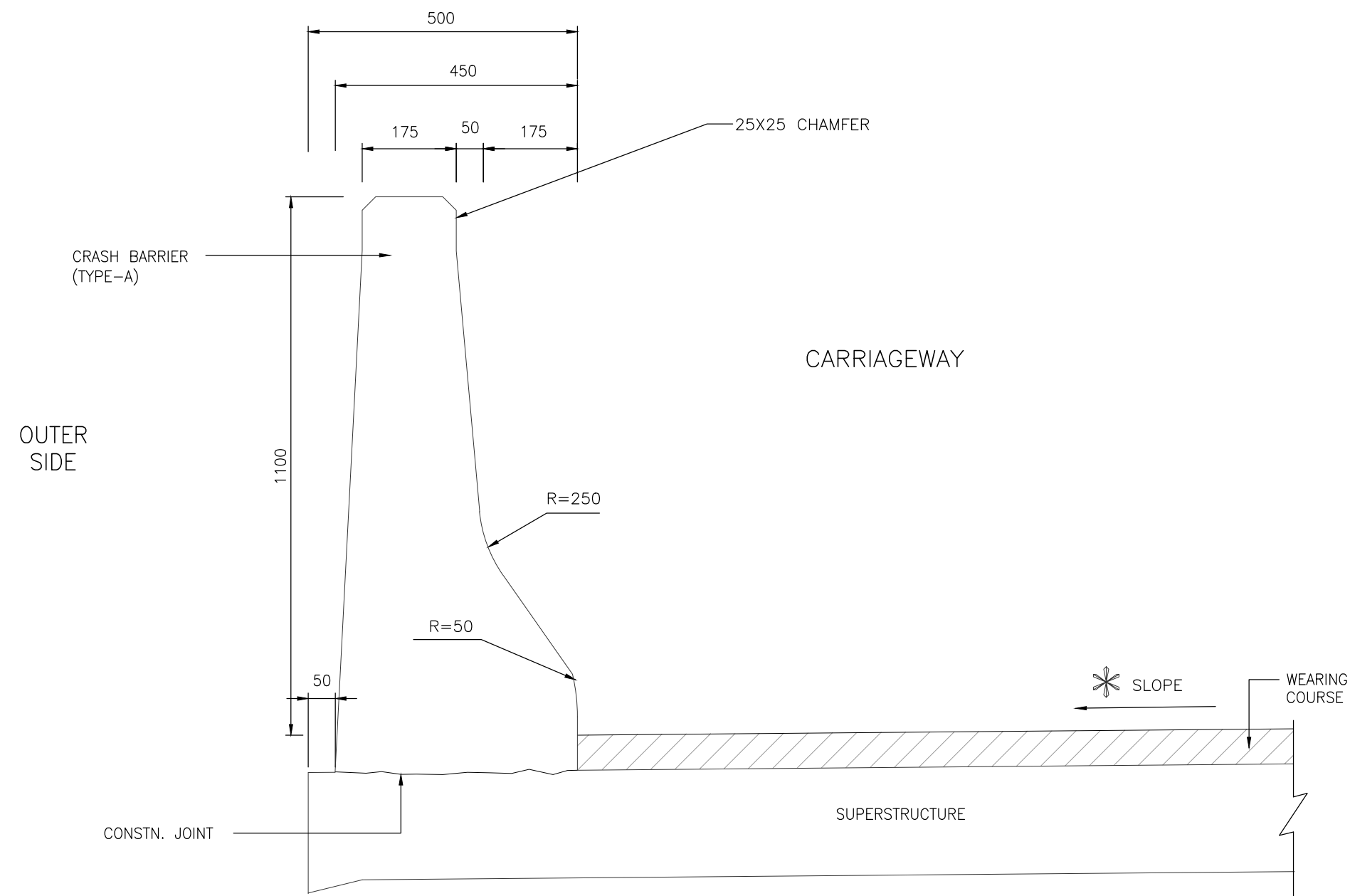
| Drn    | Dgn.         | Appd         | Sheet :  |
|--------|--------------|--------------|----------|
| Manish | Mahesh Dixit | S.K.Upadhyay | 01 OF 01 |

CONSULTANT:-



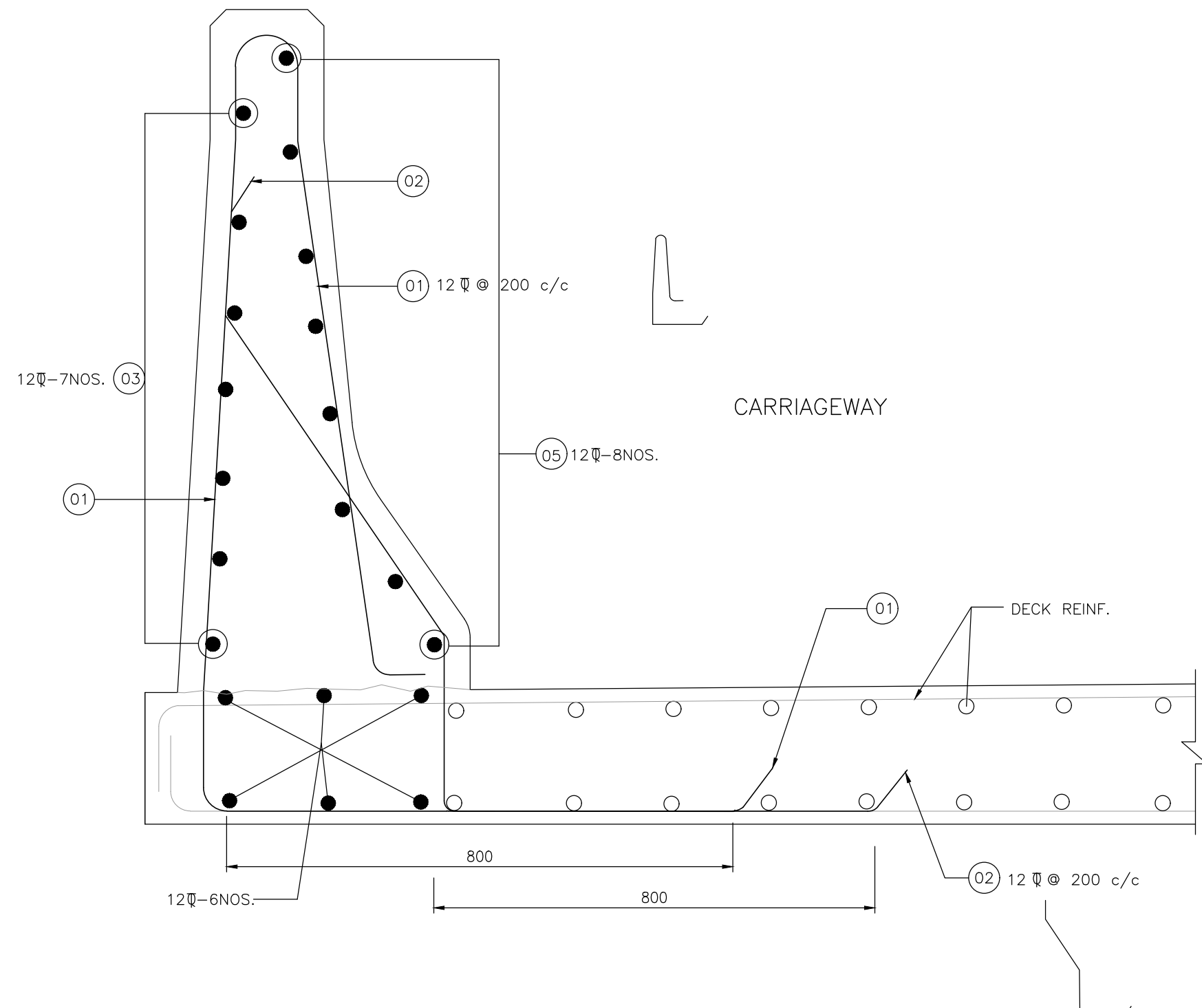
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CRASH BARRIER DETAILS ►



**CRASH BARRIER OVER BRIDGES WITHOUT FOOTPATHS**  
**(DIMENSIONAL DETAILS)**

(SCALE 1:10)



**REINFORCEMENT DETAILS OF CRASH BARRIER WITHOUT FOOTPATH**  
**(DIMENSIONAL DETAILS)**

(SCALE 1:20)

**NOTES:**

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
2. THE CRASH BARRIER DESIGN HAS BEEN ADOPTED AS PER CLAUSE 109.6.3 OF IRC:5-2015.
3. THE CONCRETE GRADE SHALL BE M40.
4. THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 550D CONFORMING TO IS:1786-2008.
5. CLEAR COVER TO OUTERMOST STEEL IS 40MM.
6. DOWEL BARS OF THE CRASH BARRIER SHALL BE PROPERLY ANCHORED INTO THE DECK SLAB.
7. SUITABLE REFLECTIVE (LUMINOUS) DEVICES SHALL BE PROVIDED ON THE TRAFFIC FACE OF THE BARRIER AT SUITABLE INTERVALS TO ENSURE ADEQUATE VISIBILITY DURING NIGHT AND FOGGY CONDITIONS.
8. PAINTING SHALL BE DONE ON CRASH BARRIER INCLUDING ZEBRA MARKS.
9. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE RESPECTIVE BRIDGE DRAWINGS.

\*AS PER BRIDGE/PLAN & PROFILE DRAWINGS.



Project Title:-

Consultancy Services for Preparation of Detailed Project Report (DPR) for rConstruction of Major bridge at Ch 97+020 on NH -35 (Old NH-76) in the State of Uttar Pradesh.

CLIENT:-



MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

DIMENSIONAL & REINFORCEMENT  
DETAIL OF CRASH BARRIER

Drawing No. :- TASPL/MORTH/DPR/KABRAI-BANDA/CB

Scale :- AS SHOWN

| Drn    | Dgn.         | Appd         | Sheet :  |
|--------|--------------|--------------|----------|
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