



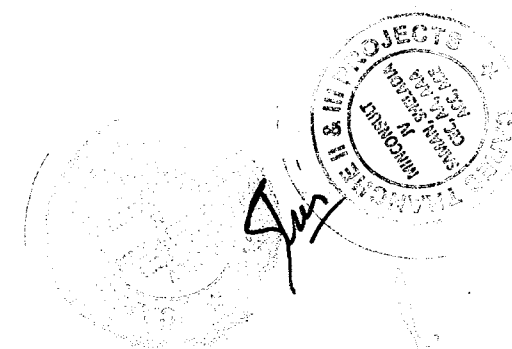
**GOVERNMENT OF PAKISTAN
MINISTRY OF COMMUNICATION
NATIONAL HIGHWAY AUTHORITY**

Ref: No. 3905/103/JUH/01/17447

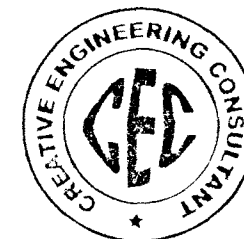
Dated: 15-05-2024

**CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT
PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 Km) OF N-55**

**TENDER DRAWINGS
TYPICAL DRAWINGS**

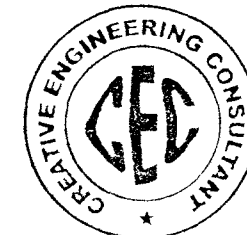
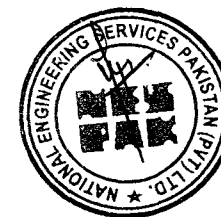


MINCONSULT. SDN BHD
JOINT VENTURE



7/4
15/5/24

GENERAL



LIST OF DRAWINGS

GENERAL

| SR. NO. | DRAWING TITLE | REFERENCED DRAWING |
|---------|------------------------|---------------------|
| 01 | LIST OF DRAWINGS | CAREC/T-III/TD/S/01 |
| 02 | GENERAL NOTES | CAREC/T-III/TD/S/01 |
| 03 | SYMBOLS & ABBREVIATION | CAREC/T-III/TD/S/01 |
| | | |

TYP. CROSS SECTIONS & DETAILS

| SR. NO. | DRAWING TITLE | REFERENCED DRAWING |
|---------|--------------------|------------------------|
| 01 | TYP. CROSS SECTION | CAREC/T-III/TD/S/01-03 |

ROAD SIGNS LINEAR PLAN

| SR. NO. | DRAWING TITLE | REFERENCED DRAWING |
|---------|--------------------|------------------------|
| 01 | TYPICAL ROAD SIGNS | CAREC/T-III/TD/S/01-07 |
| 02 | GANTRY SIGNS | CAREC/T-III/TD/S/01-06 |

MISCELLANEOUS DETAILS

| SR. NO. | DRAWING TITLE | REFERENCED DRAWING |
|---------|--------------------------|------------------------|
| 01 | PAVEMENT MARKING | CAREC/T-III/TD/S/01-02 |
| 02 | DELINEATOR AND REFLECTOR | CAREC/T-III/TD/S/01 |
| 03 | GUARD RAIL | CAREC/T-III/TD/S/01 |

SCHEDULE OF STRUCTURE

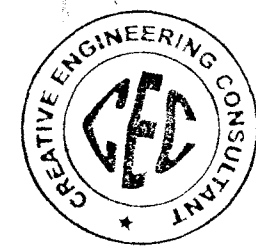
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| 01 | SCHEDULE OF STRUCTURE | CAREC/T-III/TD/S/01-16 |

INTERCHANGES

| SR. NO. | DRAWING TITLE | REFERENCED DRAWING |
|---------|--------------------------|------------------------|
| 01 | INTERCHANGES LAYOUT PLAN | CAREC/T-III/TD/S/01-21 |

PLAN & PROFILE

| SR. NO. | DRAWING TITLE | REFERENCED DRAWING |
|---------|------------------------------------|-------------------------|
| 01 | PLAN & PROFILE SECTION-1 PACKAGE 1 | CAREC/T-III/TD/S/01-92 |
| 02 | PLAN & PROFILE SECTION-1 PACKAGE 2 | CAREC/T-III/TD/S/01-98 |
| 03 | PLAN & PROFILE SECTION-2 PACKAGE 1 | CAREC/T-III/TD/S/01-170 |
| 04 | PLAN & PROFILE SECTION-2 PACKAGE 2 | CAREC/T-III/TD/S/01-156 |



NOTES

1:- ALL DIMENSIONS AND ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.70 KM) OF N-55

CLIENT:
 NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT. SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

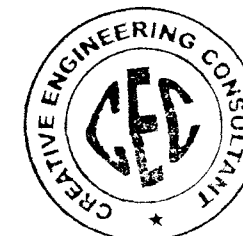
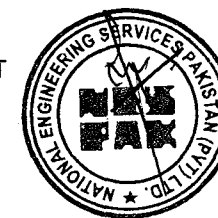
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LIST OF DRAWINGS

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| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CAREC/T-III/TD/01

GENERAL NOTES:

1. TOPOGRAPHIC SURVEY FOR THE SECTION OF ROAD WAS CONDUCTED IN DECEMBER 2017. GRID COORDINATES & ELEVATIONS ARE BASED ON UNIVERSAL TRANSVERSE MERCATOR (UTM WGS840).
2. EACH DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER DRAWINGS.
3. NOTES GIVEN ON DRAWINGS ADJACENT TO A SECTION OR DETAIL PERTAIN TO THAT PARTICULAR DETAIL ONLY UNLESS STATED OTHERWISE.
4. WHERE DUALIZATION IS BEING CARRIED OUT ALONG EXISTING CARRIAGEWAY, EXISTING DRAINAGE STRUCTURES ARE TO BE EXTENDED HAVING SAME DIMENSIONS AS BEFORE. THE CONTRACTOR MAY PROPOSE ALTERNATIVE DIMENSIONS SUBJECT TO THE FOLLOWING.
 - (I) PIPES OF THE SAME DIMENSIONS ARE NOT AVAILABLE.
 - (II) THE CONDITION OF EXISTING STRUCTURE IS DECLARED TO BE UNSATISFACTORY BY THE ENGINEER AFTER EXPOSING THE SAME.
 - (III) THE EXISTING STRUCTURE AT THE GIVEN INVERT LEVEL SEEMS NOT TO PERFORM EFFICIENTLY, ALL SUCH CHANGES SHALL ALSO BE NOTIFIED TO NHA AND CONSULTANTS DESIGN OFFICE PRIOR TO ENGINEER'S APPROVAL.
5. TENDER DRAWINGS ARE INDICATIVE ONLY. CONSTRUCTION DRAWINGS SHALL BE ISSUED IN DUE COURSE OF TIME, AS THE CONSTRUCTION PROCEEDS. THE CONTRACTOR SHALL PREPARE ALL SHOP/WORKING DRAWING FOR ENGINEER'S APPROVAL PRIOR TO START OF CORRESPONDING CONSTRUCTION ACTIVITY, AT NO EXTRA COST TO THE EMPLOYER.
6. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE DRAWINGS IN CO-RELATION WITH BILL OF QUANTITIES (BOQ). ANY MISSING DETAIL IN DRAWING OR ANY MISSING ITEM IN BOQ PERTAINING TO WORKS SHOWN ON DRAWINGS SHALL NOT ENTITLE THE CONTRACTOR TO ANY ADDITIONAL COST. ALL SUCH ITEMS OF WORKS SHALL BE CONSIDERED SUBSIDIARY AND SHALL NOT BE PAID SEPARATELY.
7. LOCATION OF UNDERGROUND CABLES/UTILITIES SHOWN ON PLANS ARE APPROXIMATE. EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR AT NO EXTRA COST TO THE EMPLOYER.
8. THE CONTRACTOR SHALL ENDEAVOR MAXIMUM TO MAINTAIN UNINTERRUPTED FLOW OF TRAFFIC ON EXISTING ROAD AND ITS ADJOINING CROSS ROADS. THE CONTRACTOR SHALL BE RESPONSIBLE TO CARE FOR ALL TEMPORARY TRAFFIC DIVERSION DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER INCLUDING DETOUR ROAD AND ITS MAINTENANCE, SPRINKLING OF WATER, GRADING AND COMPACTION WHEN AND WHERE REQUIRED WITHOUT ANY EXTRA COST TO EMPLOYER.
9. ANY DAMAGE CAUSED TO THE EXISTING UTILITIES DURING EXCAVATION/EXECUTION FOR WORK SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF CORRESPONDING UTILITY OPERATOR. AT NO EXTRA COST OF THE EMPLOYER.
10. CONTRACTOR SHALL BE PREPARED AND SUBMIT, FOR ENGINEER'S APPROVAL, SHOP DRAWINGS FOR STRUCTURES, PAVEMENT MARKING (LOCATION, TYPE AND SIZE), ROAD SIGNS ETC. BEFORE EXECUTION OF RELATED WORKS WITHOUT ANY EXTRA COST TO THE EMPLOYER.
11. SERVICE DUCTS SHALL BE PROVIDED AT JUNCTION LOCATIONS OR AT LOCATIONS DIRECTED BY THE ENGINEER.
12. STRUCTURES SHOWN ON PLAN ARE SYMBOLIC. THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS OF EACH STRUCTURE LOCATIONS WITH THE REQUIRED SKEW ANGLES AS PER SITE REQUIREMENTS AND SHALL SUBMIT THE SAME TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION/EXECUTION OF THESE STRUCTURES.
13. ROADWAY EXCAVATION MATERIAL SHALL BE UTILIZED IN MOST EFFECTIVE MANNER IN THE CONSTRUCTION OF EMBANKMENT EVEN IF BLENDING/MIXING THE SUPERIOR MATERIAL IS REQUIRED (WITHOUT ANY EXTRA COST). ROADWAY/STRUCTURAL EXCAVATION SHALL NOT BE DISPOSED OFF OUTSIDE RIGHT OF WAY WITHOUT WRITTEN APPROVAL OF THE EMPLOYER.



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D11 KHAN (329.7 KM) OF N-55

CLIENT:



NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:



MINCONSULT SDN BHD
In Joint Venture With



SAMAN CORPORATION



SHELADIA ASSOCIATES



CEC



AAA



ACE



AA



ACC

DRAWING TITLE:

GENERAL NOTES

| | |
|--------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:

CEC-CAREC-III-HW-GN-

SYMBOLS

| | |
|-----------------------------|--|
| DESIGN CENTER LINE | |
| RIGHT OF WAY | |
| LAND ACQUISITION | |
| TREES | |
| BUSHES | |
| MOSQUE | |
| PERMANENT HOUSE / TEMPORARY | |
| GRAVES / GRAVE YARD | |
| TELEPHONE POLE | |
| ELECTRIC & T&T LINE | |
| EARTHEN TRACK | |
| METALLED ROAD | |
| ELECTRIC POLE | |
| GRID NORTH | |
| TRAVERSE /BM POINTS | |
| POINT OF INTERSECTION | |
| FENCE | |
| SUI GAS PIPE LINE | |
| WATER PIPE LINE | |
| TUBE WELL | |
| BOUNDARY LINE | |
| MANHOLE | |

| | |
|---------------------------------|--|
| NULLAH (STREAM) | |
| CULVERT | |
| PTCL BOX | |
| HAND PUMP | |
| CANAL / DRAIN | |
| WATER COURSE | |
| GRID LINE | |
| SHRINE | |
| SPOT LEVEL (TYP.) | |
| ROAD SIGN (IN PLAN) | |
| EXISTING GROUND LEVEL (PROFILE) | |
| FINISHED GRADE LINE | |
| BRIDGE | |
| FLYOVER | |
| BOX CULVERT | |
| PIPE CULVERT | |
| OPTIC FIBER CABLE | |
| GUARD RAIL | |
| DYKES AND CHUTES | |

| | |
|-----------|---|
| A | AREA |
| ALIG. | ALIGNMENT |
| B | BREADTH |
| B.C | BOX CULVERT |
| B.M | BENCH MARK |
| B.N | BOLT & NUT |
| BOP | BEGINNING OF PROJECT |
| C | CHORD LENGTH |
| C.B.R | CALIFORNIA BEARING RATIO |
| C/C | CENTER TO CENTER |
| CD | CULVERT OVER DRAIN |
| CHD. | CHECKED |
| C/L/C | CENTER LINE |
| CM/cm | CENTIMETER |
| CONC. | CONCRETE |
| CONST/JT | CONSTRUCTION JOINT |
| CS | CURVE TO SPIRAL |
| CUL | CULVERT |
| Cu.m | CUBIC METER |
| CURVE LEN | VERTICAL CURVE LENGTH |
| D | DEPTH |
| Da | DEGREE OF CURVE (BY ARC) |
| Dc | DEGREE OF CURVE (BY CHORD) |
| DEG | DEGREE |
| DIA. | DIAMETER |
| DIM. | DIMENSION |
| D/S | DOWNSTREAM |
| D.S.T | DOUBLE SURFACE TREATMENT |
| DRG. | DRAWING |
| E | EASTING, EAST, EXTERNAL DISTANCE (SHIFT) |
| ELEV./EL | ELEVATION |
| EOP | END OF PROJECT |
| EXP/JT | EXPANSION JOINT |
| G.I | GALVANIZED IRON |
| H/HOR. | HORIZONTAL |
| H.T/L.T | HIGH TENSION/LOW TENSION |
| HF | HEIGHT OF FILL |
| HFL | HIGH FLOOD LEVEL |
| HWY. | HIGHWAY |
| I | DEFLECTION ANGLE (HORIZONTAL CURVE) |
| Ic | CIRCULAR DEFLECTION ANGLE |
| I.L | INVERT LEVEL |
| IS | SPIRAL DEFLECTION ANGLE |
| K | ABSCISSA OF PC OF SHIFTED CIRCULAR CURVE REFERRED TO STRAIGHT END OF SPIRAL |
| Kg. | KILOGRAM |
| KM/Km | KILOMETER |
| L | LENGTH OF HORIZONTAL CURVE/SPIRAL |
| LIN.M | LINEAR METER |
| LHS. | LEFT HAND SIDE |
| LT. | LEFT |
| LT | LONG TANGENT |
| M/m | METER |
| M | MIDDLE ORDINATE |
| MAX. | MAXIMUM |
| M.H | MAN HOLE |
| MIN. | MINIMUM |
| mm | MILLIMETER |
| 0°09'49" | ANGULAR DIMENSION (0 deg, 9 min 49 sec) |

| | |
|----------|---|
| LWC | LINED WATER COURSE |
| N.S.L | NATURAL SURFACE LEVEL (E.G.L) |
| N | NORTHING, NORTH |
| NO. | NUMBER |
| N.T.S | NOT TO SCALE |
| P | OFFSET OF TANGENT LINE TO PC OF SHIFTED CIRCLE CURVE |
| PC | POINT OF HORIZONTAL CURVATURE (START OF HORIZONTAL CURVE) |
| P.C. | REINFORCED CONCRETE PIPE CULVERT |
| PGL | PROFILE GRADE LINE |
| P.I. | PLASTICITY INDEX |
| PI | POINT OF HORIZONTAL INTERSECTION |
| PL | PLATE |
| PR | POINT OF ROTATION |
| PT | POINT OF HORIZONTAL TANGENCY (END OF HORIZONTAL CURVE) |
| R | RADIUS OF HORIZONTAL CURVE |
| R.C | REINFORCED CONCRETE |
| REINF. | REINFORCEMENT |
| REV. | REVISION |
| RHS. | RIGHT HAND SIDE |
| R.O.W | RIGHT OF WAY |
| RU | ROAD UNDERPASS |
| RT. | RIGHT |
| R/W | RETAINING WALL |
| RWC | RELOCATED WATER COURSE |
| S | SLOPE GRADIENT (PERCENT) |
| SE | SUPERELEVATION |
| S.B.P | SHOULDER BREAK POINT |
| S.C. | SLAB CULVERT |
| SC | SPIRAL TO CURVE |
| SHLD | SHOULDER |
| Sq.m | SQUARE METER |
| S.T. | SHORT TANGENT |
| ST | SPIRAL TO TANGENT |
| STA./STA | STATION (CHAINAGE) |
| STRUCT | STRUCTURE |
| SUPEREL. | SUPERELEVATION |
| S'WALK | SIDE WALK |
| SW | SUBWAY |
| T | TANGENT LENGTH OF HORIZONTAL CURVE |
| TS | TANGENT TO SPIRAL |
| T.S.T | TRIPPLE SURFACE TREATMENT |
| TAN. | TANGENT |
| TH | THICKNESS |
| TR | TRANSITION |
| TYP. | TYPICAL |
| U/S | UPSTREAM |
| V | VERTICAL |
| VAR. | VARIABLE |
| VER. | VERIFIED |
| VPC | VERTICAL POINT OF CURVATURE (START OF VERTICAL CURVE) |
| VPI | VERTICAL POINT OF INTERSECTION OF PROFILE GRADE. |
| VPT | VERTICAL POINT OF TANGENCY (END OF VERTICAL CURVE) |
| W. | WEST, WIDTH OF ROADWAY |
| W.B.M | WATER BOUND MACADAM |
| WC | WATER COURSE |
| WCC | WATER COURSE CULVERT |
| X | DISTANCE, PERPENDICULAR TO THE TANGENT, FROM BEGINNING TO THE END OF SPIRAL |
| Y | DISTANCE, PERPENDICULAR TO THE TANGENT, FROM BEGINNING TO THE END OF SPIRAL |
| θ | SKEW ANGLE |

ABBREVIATIONS

NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

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| 0 | REV. | REVISION/ISSUE | DATE |
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PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

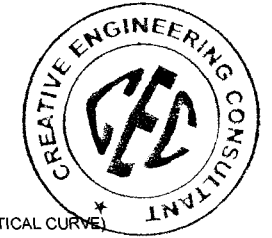
CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

| | |
|--|--|
| | MINCONSULT. SDN BHD In Joint Venture With |
| | SAMAN CORPORATION |
| | SHELADIA ASSOCIATES |
| | CEC |
| | AAA |
| | ACE |
| | AA |
| | ACC |

DRAWING TITLE:
SYMBOLS AND ABBREVIATIONS

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| DESIGN BY: S.M | SHEET NO: 00 |
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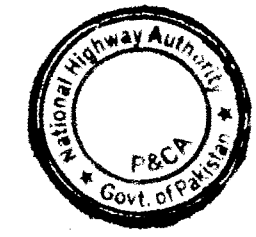
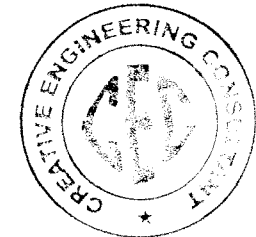
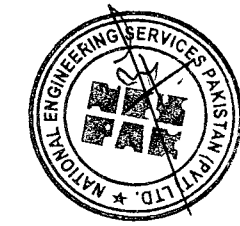
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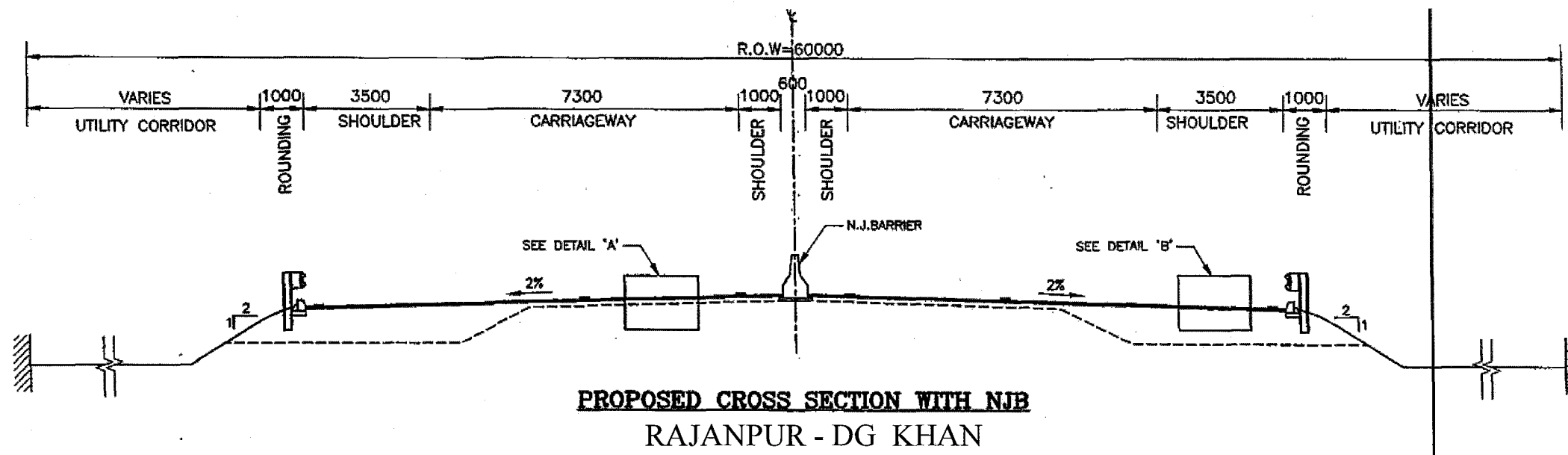


TYPICAL CROSS SECTIONS

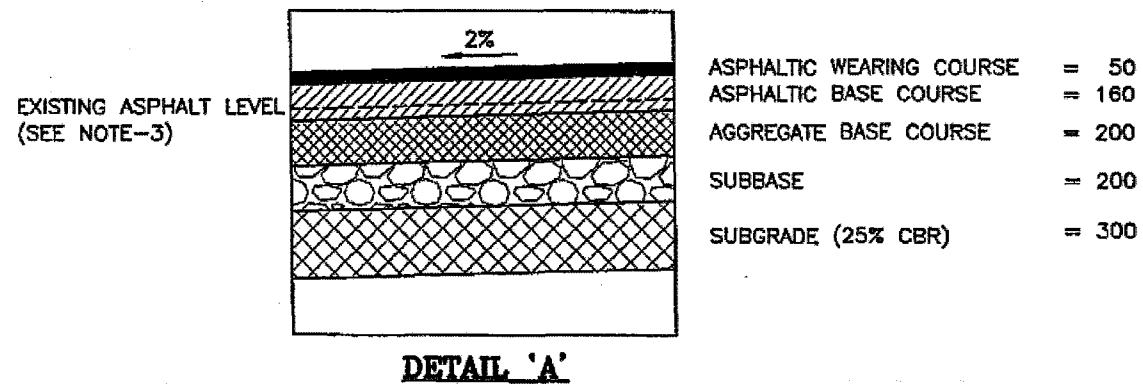


Jus

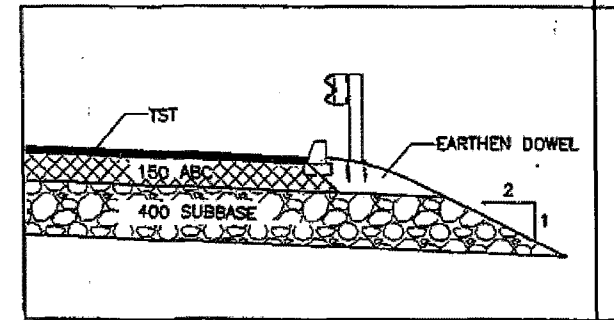




PROPOSED CROSS SECTION WITH N.J.B.
RAJANPUR - DG KHAN



DETAIL 'A'



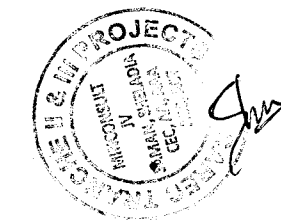
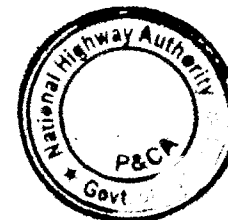
DETAIL 'B'

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. IMPROVED SUBGRADE MATERIAL SHALL HAVE A MINIMUM SOAKED C.B.R OF 25% AT 95% M.D.D.
3. EXISTING PAVEMENT STRUCTURE SHALL BE DISMANTLED UP TO THE BOTTOM OF SUBGRADE LEVEL. THE ASPHALTIC MATERIAL SHALL BE DISPOSED OFF TO THE LOCATION AS DESIGNATED BY THE ENGINEER. THE RETRIEVED GRANULAR MATERIAL (AGGREGATE BASE COURSE/SUBBASE COURSE) SHALL BE STOCKPILED IN NEARBY LOCATION AND SHALL BE RE-USED AS SUBBASE/PROPOSED EMBANKMENT.
4. FOR WIDENING ALONG EXISTING PAVEMENT, THE EXISTING SHOULDERS SHALL BE REMOVED UP TO BOTTOM OF SUBGRADE LEVEL. THE WIDENING PORTION SHALL BE PREPARED UPTO BOTTOM OF SUBGRADE LEVEL. SUBGRADE LAYERS SHALL BE PREPARED IN FULL WIDTH IN TWO LAYERS AS PER SPECIFICATIONS.
5. ASPHALTIC LAYERS SHALL BE PAID VERTICALLY.

METHODOLOGY WHERE FLEXIBLE PAVEMENT

- STEP-1** REMOVE ASPHALT LAYERS COMPLETELY IN FULL WIDTH OF CARRIAGEWAY.
- STEP-2** REMOVE FLEXIBLE/GRANULAR LAYERS UP TO BOTTOM OF SUBGRADE.
(SAME MATERIAL SHALL BE USED AS SUBBASE/PROPOSED EMBANKMENT)
- STEP-3** REPLACE SUBGRADE WITH IMPROVED MATERIAL QUALIFYING SOAKED CBR 25% AT 95% MDD.
- STEP-4** LAY PROPOSED PAVEMENT STRUCTURE AS PER THE SPECIFICATIONS.



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

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| REV. | REVISION/ISSUE | DATE |

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CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

- CONSULTANTS:**
- MINCONSULT SDN BHD In Joint Venture With SAMAN CORPORATION
 - SHELADIA ASSOCIATES
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DRAWING TITLE: GENERAL DESIGN REQUIREMENTS & CRITERIA

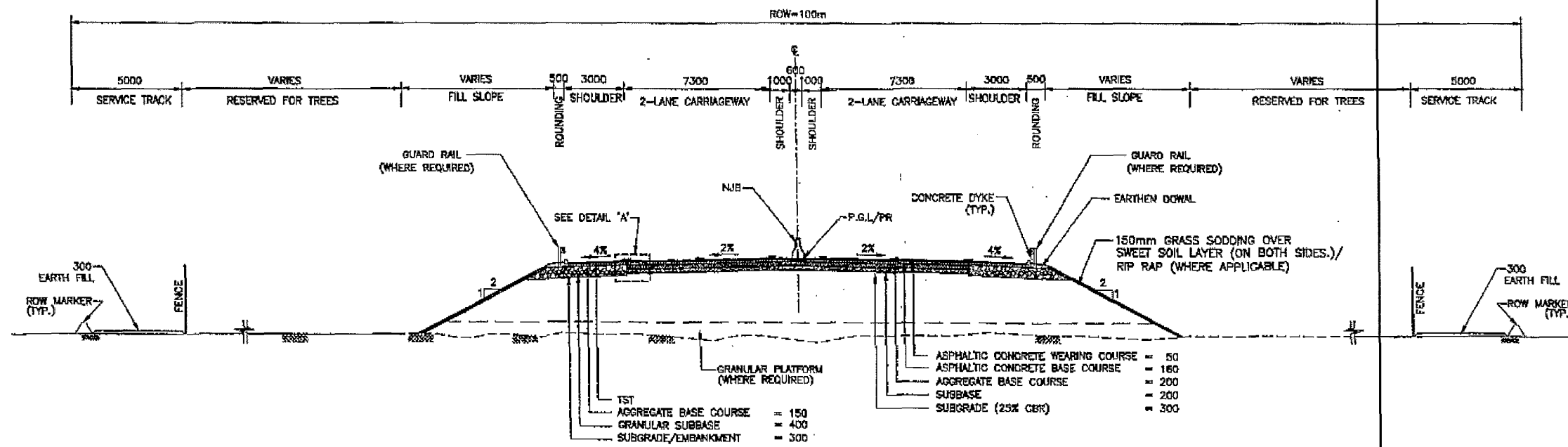
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| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC-CAREC-III-HW-TS-01

NOTES

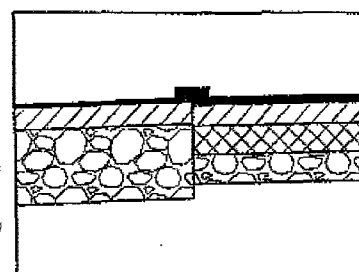
1:- ALL DIMENSIONS ARE IN METERS.

LEGEND



**TYPICAL CROSS SECTION
RAJANPUR - DG KHAN**

TST
AGGREGATE BASE COURSE = 150
GRANULAR SUBBASE = 400
SUBGRADE/EMBANKMENT (25% CBR) = 300



DETAIL 'A'

ASPHALTIC CONCRETE WEARING COURSE = 50
ASPHALTIC CONCRETE BASE COURSE = 160
AGGREGATE BASE COURSE = 200
SUBBASE = 200
SUBGRADE (25% CBR) = 300



NOTES:-
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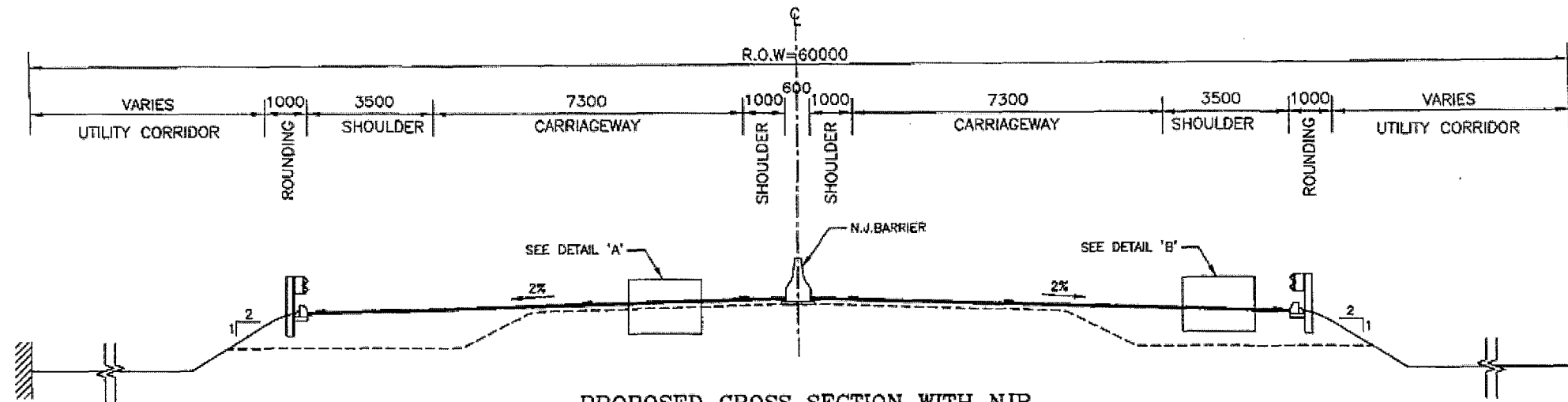
CLIENT:
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- CONSULTANTS:
- MINCONSULT SDN BHD
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 - ACC

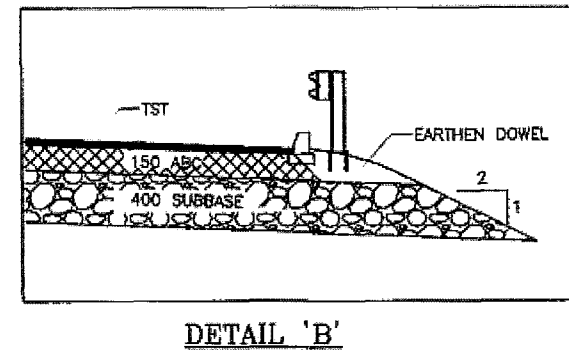
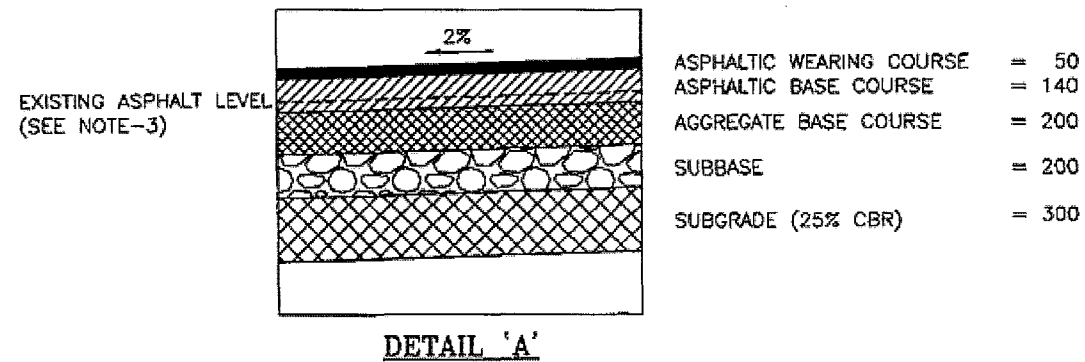
DRAWING TITLE: **GENERAL DESIGN REQUIREMENTS & CRITERIA**

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| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC-CAREC-THH-HW-TS-02



PROPOSED CROSS SECTION WITH N.J.B
DG KHAN - DI KHAN

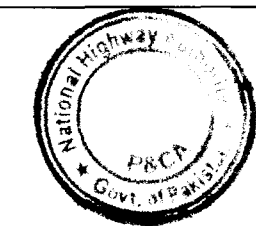
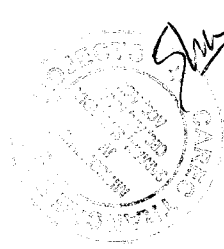


NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. IMPROVED SUBGRADE MATERIAL SHALL HAVE A MINIMUM SOAKED C.B.R OF 25% AT 95% M.D.D.
3. EXISTING PAVEMENT STRUCTURE SHALL BE DISMANTLED UP TO THE BOTTOM OF SUBGRADE LEVEL. THE ASPHALTIC MATERIAL SHALL BE DISPOSED OFF TO THE LOCATION AS DESIGNATED BY THE ENGINEER. THE RETRIEVED GRANULAR MATERIAL (AGGREGATE BASE COURSE/SUBBASE COURSE) SHALL BE STOCKPILED IN NEARBY LOCATION AND SHALL BE RE-USED AS SUBBASE/PROPOSED EMBANKEMENT.
4. FOR WIDENING ALONG EXISTING PAVEMENT, THE EXISTING SHOULDERS SHALL BE REMOVED UP TO BOTTOM OF SUBGRADE LEVEL. THE WIDENING PORTION SHALL BE PREPARED UPTO BOTTOM OF SUBGRADE LEVEL. SUBGRADE LAYERS SHALL BE PREPARED IN FULL WIDTH IN TWO LAYERS AS PER SPECIFICATIONS.
5. ASPHALTIC LAYERS SHALL BE PAID VERTICALLY.

METHODOLOGY WHERE FLEXIBLE PAVEMENT

- STEP-1** REMOVE ASPHALT LAYERS COMPLETELY IN FULL WIDTH OF CARRIAGEWAY.
- STEP-2** REMOVE FLEXIBLE/GRANULAR LAYERS UP TO BOTTOM OF SUBGRADE.
(SAME MATERIAL SHALL BE USED AS SUBBASE/PROPOSED EMBANKEMENT)
- STEP-3** REPLACE SUBGRADE WITH IMPROVED MATERIAL QUALIFYING SOAKED CBR 25% AT 95% MDD.
- STEP-4** LAY PROPOSED PAVEMENT STRUCTURE AS PER THE SPECIFICATIONS.



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| | | |
|------|----------------|------|
| REV. | REVISION/ISSUE | DATE |
| 0 | | |

PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

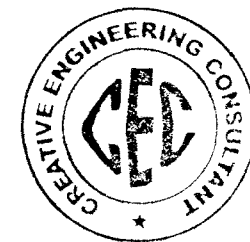
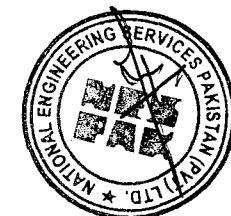
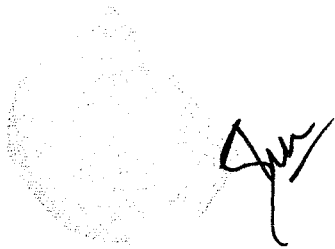
- CONSULTANTS:**
- MINCONSULT. SDN BHD
In Joint Venture With
 - SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
 - ACE
 - AA
 - ACC

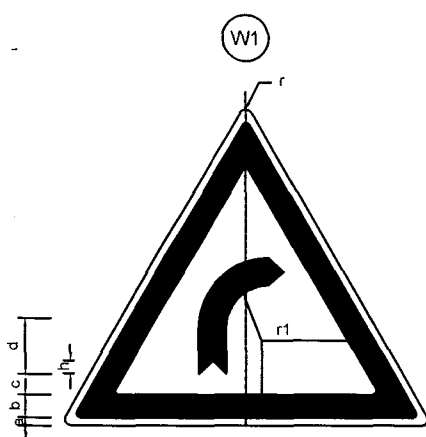
DRAWING TITLE: GENERAL DESIGN REQUIREMENTS & CRITERIA

| | |
|--------------------|-------------------------------|
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| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC-CAREC-III-HW-TS-03

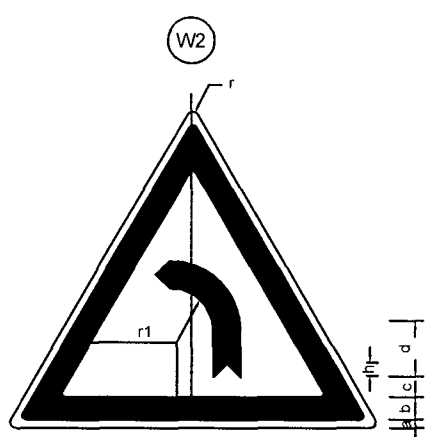
ROAD SIGNS





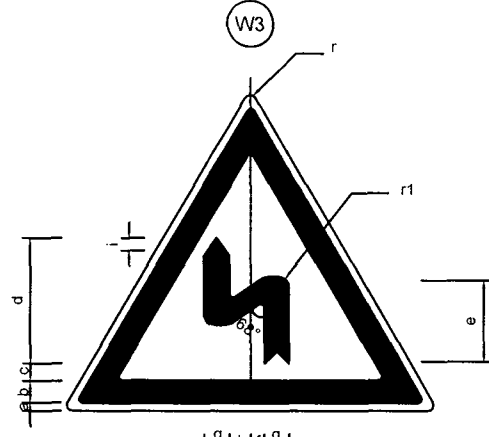
W1
CURVE TOWARDS RIGHT
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 4.0 | 4.7 |
| d | 11.5 | 13.4 |
| e | 8.5 | 9.9 |
| f | 7.0 | 8.2 |
| g | 6.0 | 7.0 |
| h | 3.5 | 4.1 |
| r1 | 12.5 | 14.6 |



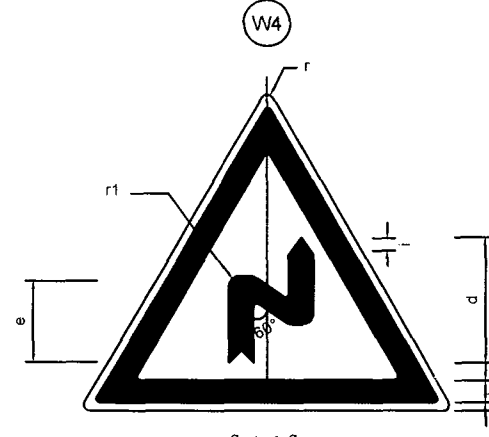
W2
CURVE TOWARDS LEFT
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 4.0 | 4.7 |
| d | 11.5 | 13.4 |
| e | 8.5 | 9.9 |
| f | 7.0 | 8.2 |
| g | 6.0 | 7.0 |
| h | 3.5 | 4.1 |
| r1 | 12.5 | 14.6 |



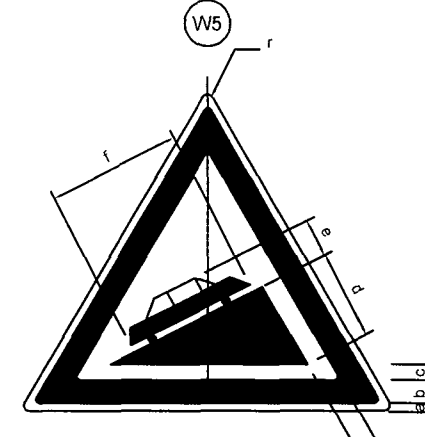
W3
MULTIPLE CURVES (FIRST TO LEFT)
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 33.0 | 38.5 |
| e | 14.0 | 16.3 |
| f | 8.0 | 9.3 |
| g | 7.0 | 8.2 |
| h | 2.0 | 2.3 |
| i | 3.5 | 4.1 |
| r1 | 4.5 | 5.2 |



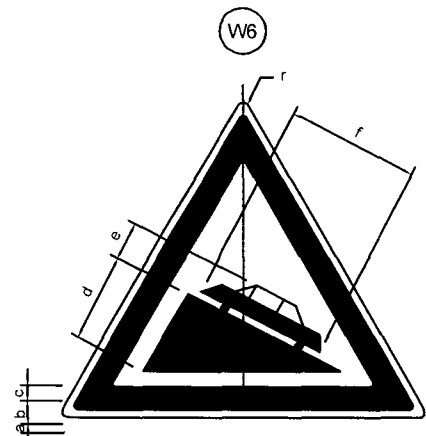
W4
MULTIPLE CURVES (FIRST TO RIGHT)
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 33.0 | 38.5 |
| e | 14.0 | 16.3 |
| f | 8.0 | 9.3 |
| g | 7.0 | 8.2 |
| h | 2.0 | 2.3 |
| i | 3.5 | 4.1 |
| r1 | 4.5 | 5.2 |



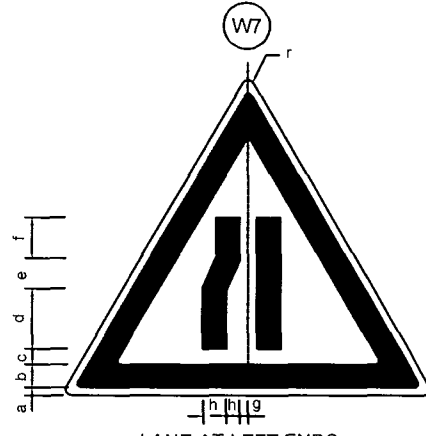
W5
UP-GRADE SIGN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.5 | 4.1 |
| d | 23.5 | 27.4 |
| e | 11.5 | 13.4 |
| f | 33.0 | 38.5 |



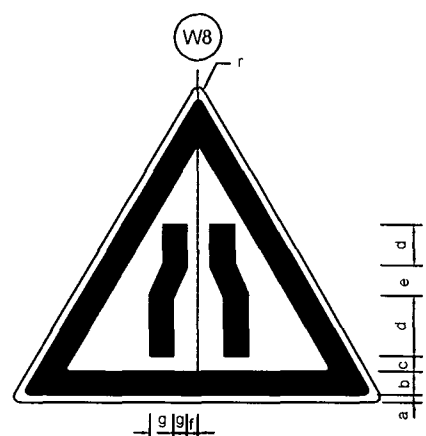
W6
DOWN GRADE SIGN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.5 | 4.1 |
| d | 23.5 | 27.4 |
| e | 11.5 | 13.4 |
| f | 33.0 | 38.5 |



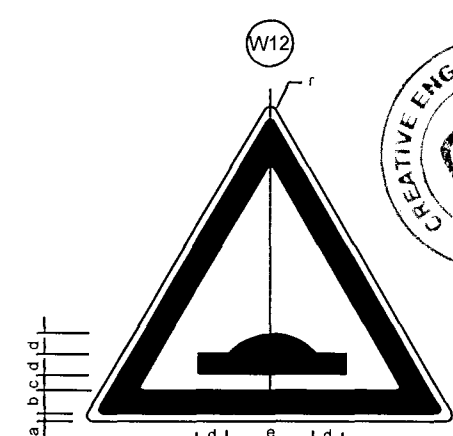
W7
LANE AT LEFT ENDS
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 14.0 | 16.3 |
| e | 7.2 | 8.4 |
| f | 11.3 | 13.2 |
| g | 3.5 | 4.1 |
| h | 5.0 | 5.8 |



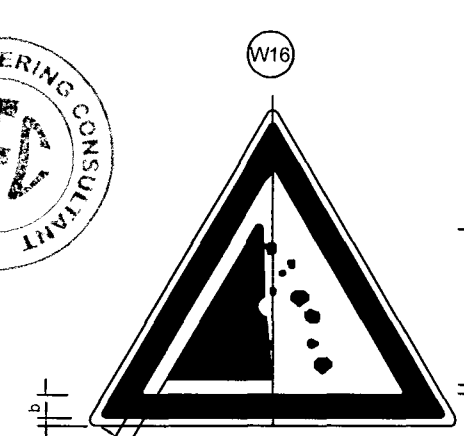
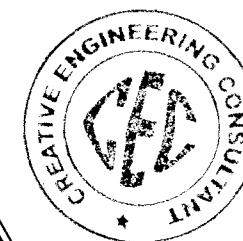
W8
ROADWAY NARROWS
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.5 | 4.1 |
| d | 10.0 | 11.7 |
| e | 14.0 | 16.3 |
| f | 2.5 | 2.9 |
| g | 5.0 | 5.8 |



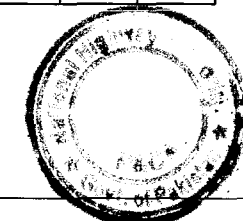
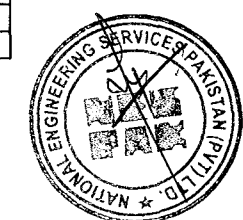
W12
HUMP RIDGE
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105CM |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 4.0 | 4.7 |
| d | 7.0 | 8.2 |
| e | 32.0 | 37.3 |



W16
FALLING ROCKS
DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105CM |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.5 | 4.1 |
| d | 28.0 | 44.3 |
| e | 12.0 | 14.0 |



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |
| | | |

PROJECT:

CENTRAL ASIA REGIONAL ECONOMIC
COOPERATION CORRIDOR DEVELOPMENT
INVESTMENT PROGRAM (CAREC)
TRANCHE-III PROJECTS
FROM RAJANPUR TO DI KHAN
(329.7 KM) OF N-55

CLIENT:



NATIONAL HIGHWAYS
AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT. SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

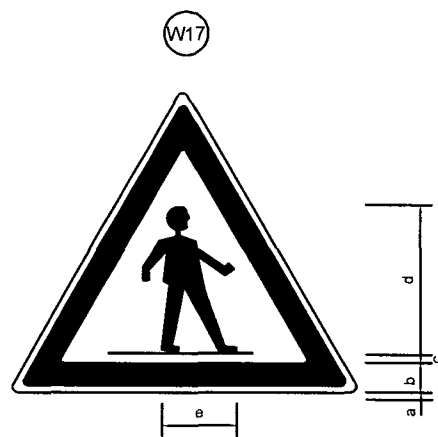
DRAWING TITLE:

TYPICAL ROAD SIGN

| | |
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| DESIGN BY: S.N. | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

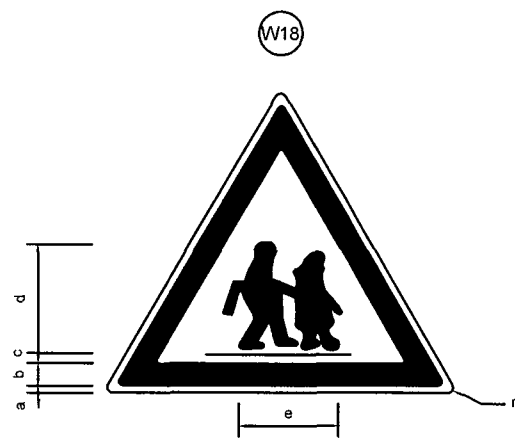
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CEC-CAREC-III-HW-GN-01



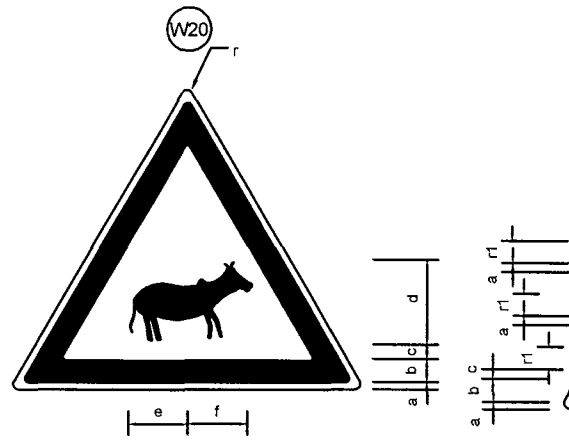
PEDESTRIAN CROSSING SIGN DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 2.5 | 2.9 |
| d | 43.0 | 50.2 |
| e | 23.0 | 26.8 |



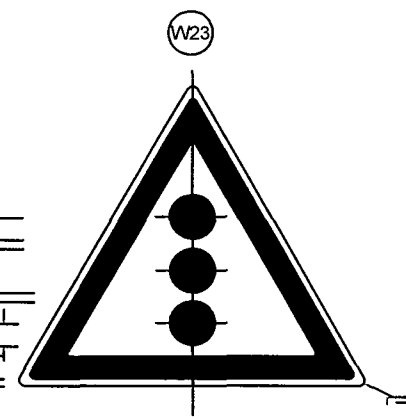
CHILDREN CROSSING SIGN DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 4.5 | 5.3 |
| d | 28.5 | 33.3 |
| e | 37.5 | 43.8 |



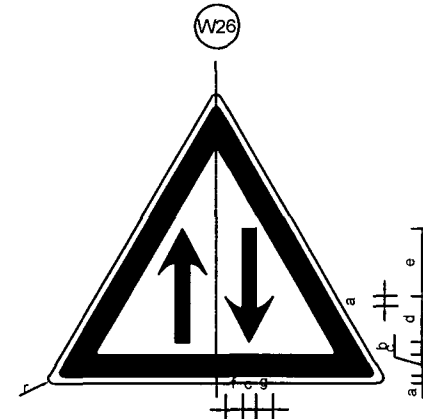
CATTLE CROSSING SIGN DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 2.0 | 2.3 |
| d | 22.0 | 25.7 |
| e | 18.5 | 21.6 |
| f | 17.5 | 20.4 |



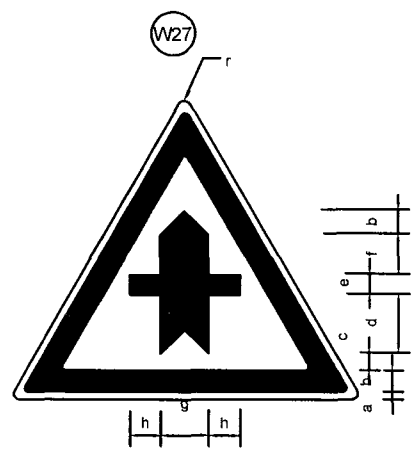
SIGNAL AHEAD SIGN DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 2.5 | 2.9 |
| r1 | 6.5 | 7.6 |



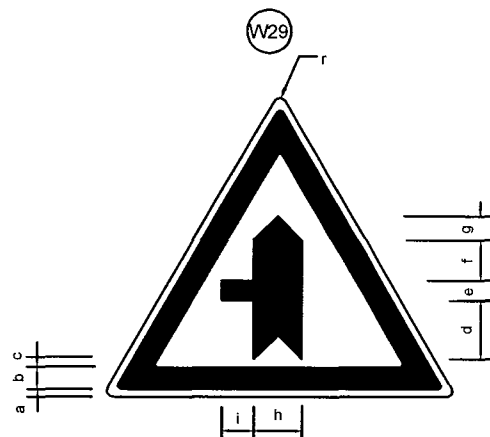
TWO-WAY TRAFFIC SIGN DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 120cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 4.0 | 4.7 |
| d | 9.0 | 10.5 |
| e | 19.0 | 22.2 |
| f | 5.0 | 5.8 |
| g | 3.5 | 4.1 |



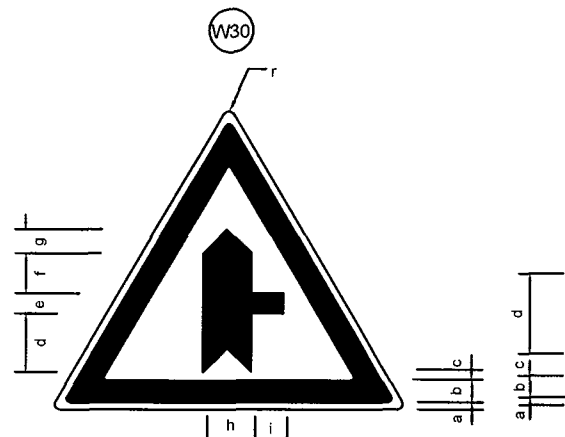
DIMENSION(cm)
MINOR ROAD CROSSING AT RIGHT ANGLE

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 4.0 | 4.7 |
| d | 15.0 | 17.5 |
| e | 6.0 | 7.0 |
| f | 11.0 | 12.8 |
| g | 13.5 | 15.7 |
| h | 8.5 | 9.9 |



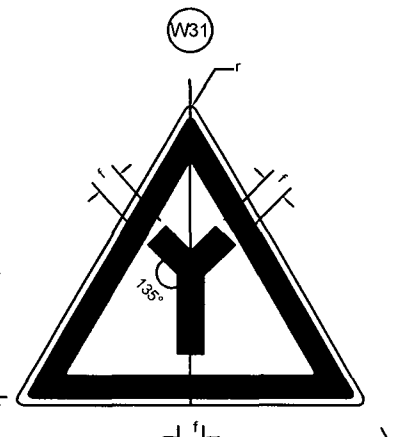
MINOR ROAD ON LEFT SIDE ONLY DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 13.5 | 15.8 |
| e | 5.5 | 6.4 |
| f | 15.0 | 17.5 |
| g | 7.0 | 8.2 |
| h | 14.0 | 16.3 |
| i | 10.5 | 12.3 |



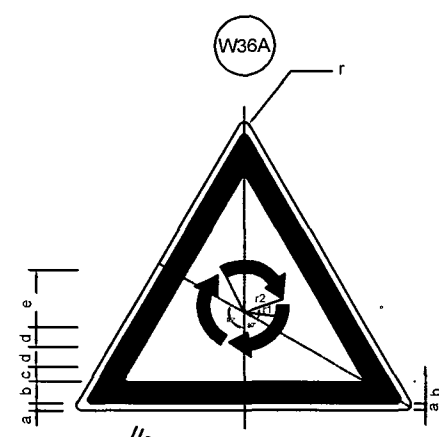
MINOR ROAD ON RIGHT SIDE ONLY DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 13.5 | 15.8 |
| e | 5.5 | 6.4 |
| f | 15.0 | 17.5 |
| g | 7.0 | 8.2 |
| h | 14.0 | 16.3 |
| i | 10.5 | 12.3 |



JUNCTION SIGN DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 17.0 | 19.8 |
| e | 13.0 | 15.2 |
| f | 7.0 | 8.2 |



ROUND ABOUT AHEAD SIGN DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 9.0 | 10.5 |
| r1 | 12.0 | 14.0 |
| r2 | 16.0 | 18.7 |

NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV | REVISION/ISSUE | DATE |
|-----|----------------|------|
| 0 | | |

PROJECT:

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I.KHAN (329.7 KM) OF N-55

CLIENT:

NIA NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:

TYPICAL ROAD SIGN

DESIGN BY:

S.M

SHEET NO:

00

DRAWN BY:

S.M

SCALE: H = 1:1
V = 1:10

CHECKED BY:

A.S

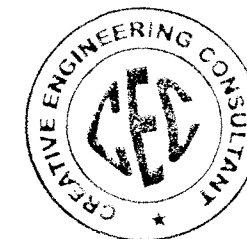
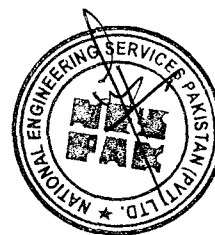
DATE: APRIL-20
24

APPROVED BY:

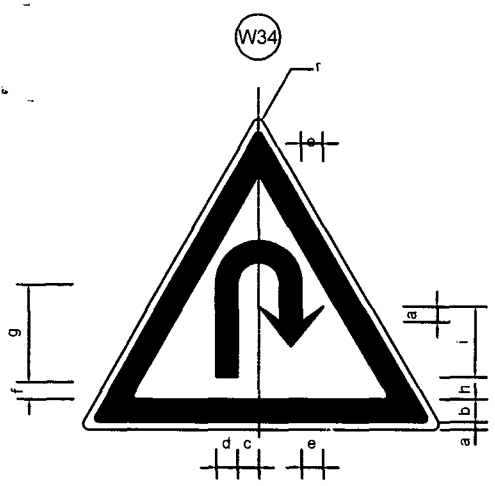
REVISION:

CAD FILE NAME:

CEC-CAREC-III-HW-GN-02



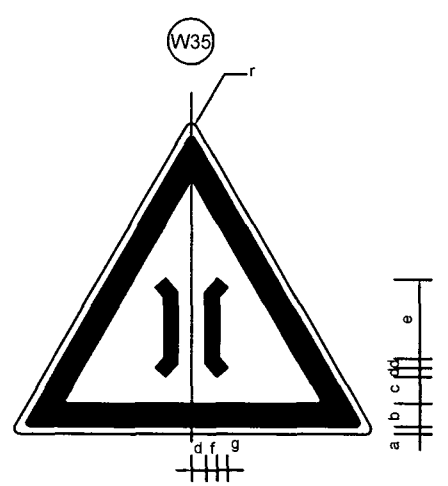
Handwritten signature



U-TURN SIGN

DIMENSION(cm)

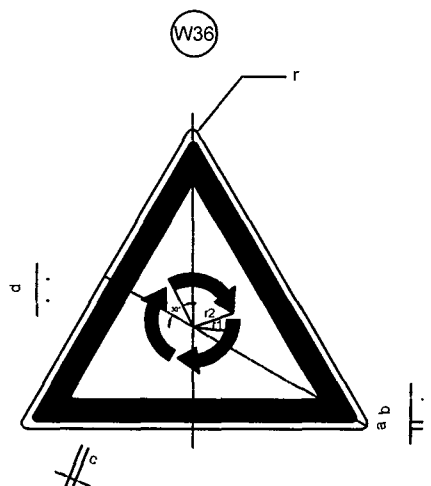
| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 5.5 | 6.4 |
| d | 7.0 | 8.2 |
| e | 5.0 | 5.8 |
| f | 2.5 | 2.9 |
| g | 23.0 | 26.8 |
| h | 7.5 | 8.8 |
| i | 12.0 | 14.0 |



NARROW BRIDGE SIGN

DIMENSION(cm)

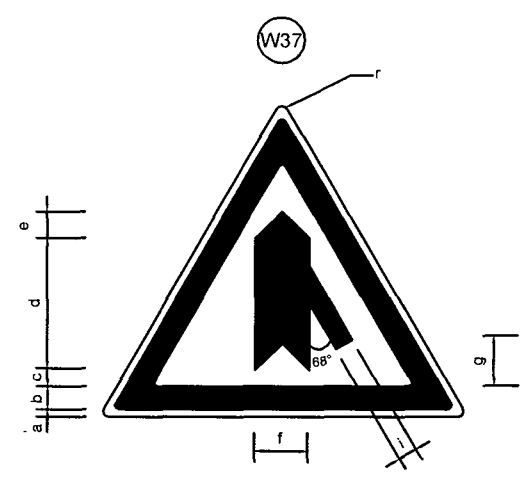
| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 6.0 | 7.0 |
| d | 2.5 | 2.9 |
| e | 15.0 | 17.5 |
| f | 4.0 | 4.7 |
| g | 3.0 | 3.5 |



ROUND ABOUT SIGN

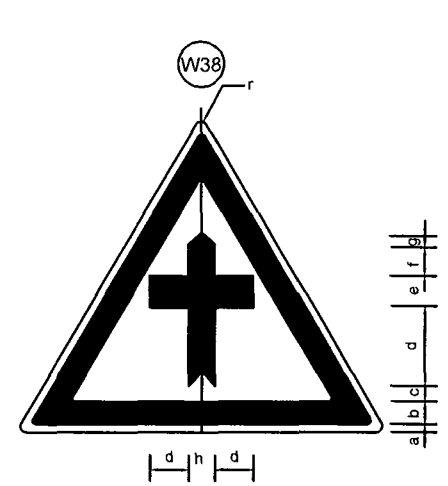
DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 9.0 | 10.5 |
| r1 | 12.0 | 14.0 |
| r2 | 16.0 | 18.7 |



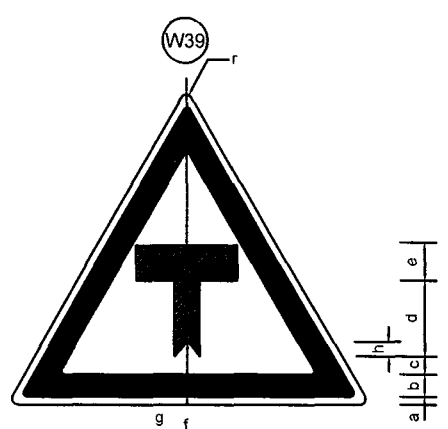
MERGE SIGN
DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.5 | 4.1 |
| d | 33.0 | 38.5 |
| e | 7.0 | 8.2 |
| f | 14.0 | 16.3 |
| g | 15.0 | 17.5 |
| h | 3.0 | 3.5 |
| i | 5.5 | 6.4 |



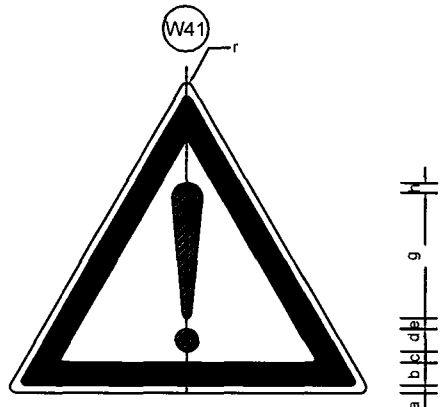
MAJOR CROSS ROAD AHEAD
DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 13.0 | 15.2 |
| e | 7.0 | 8.2 |
| f | 10.0 | 11.7 |
| g | 2.5 | 2.9 |
| h | 5.0 | 5.8 |



MAJOR ROAD AHEAD SIGN
DIMENSION(cm)

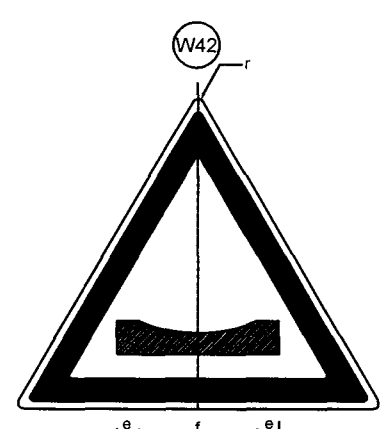
| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 15.5 | 18.1 |
| e | 7.0 | 8.2 |
| f | 5.0 | 5.8 |
| g | 11.0 | 12.8 |
| h | 2.5 | 2.9 |



OTHER DANGER WARNING SIGN

DIMENSION(cm)

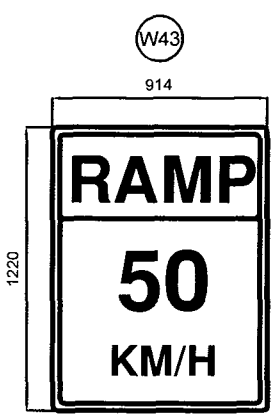
| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 2.5 | 2.9 |
| d | 10.0 | 11.7 |
| e | 2.0 | 2.3 |
| f | 1.7 | 2.0 |
| g | 25.0 | 29.2 |
| h | 5.0 | 5.8 |



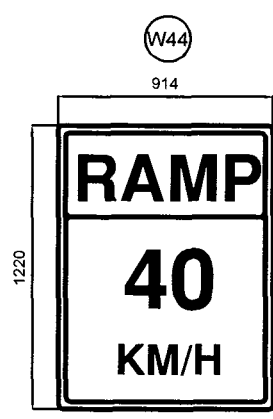
DIP SIGN

DIMENSION(cm)

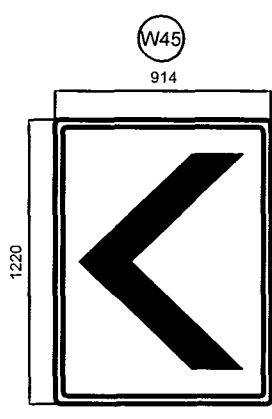
| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| r | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 6.0 | 7.0 |
| d | 5.0 | 5.8 |
| e | 7.0 | 8.2 |
| f | 26.0 | 30.3 |



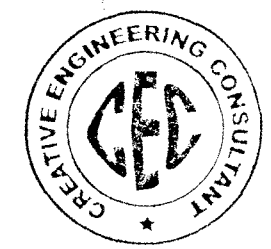
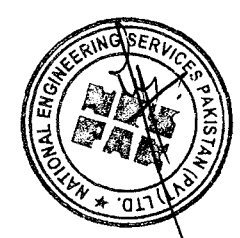
FOR RAMP



FOR RAMP



FOR CHEVRON
(AT CURVE)



NOTES

1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

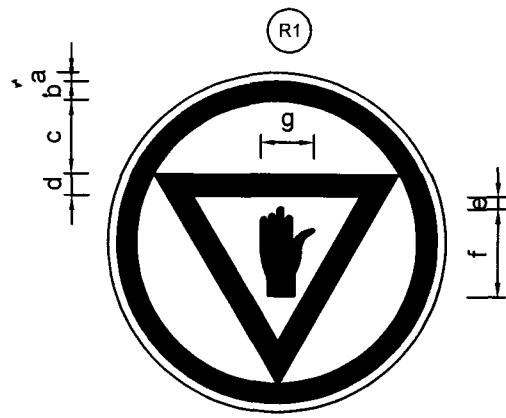
CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

- CONSULTANTS:
- MINCONSULT SDN BHD In Joint Venture With SAMAN CORPORATION
 - SHELDIA ASSOCIATES
 - CEC
 - AAA
 - ACE
 - AA
 - ACC

DRAWING TITLE:
TYPICAL ROAD SIGN

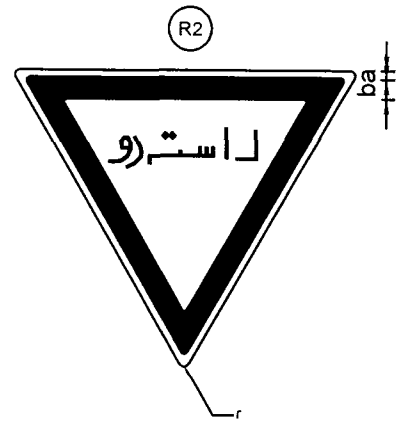
| | |
|--------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC-CAREC-TIII-HW-GN-03



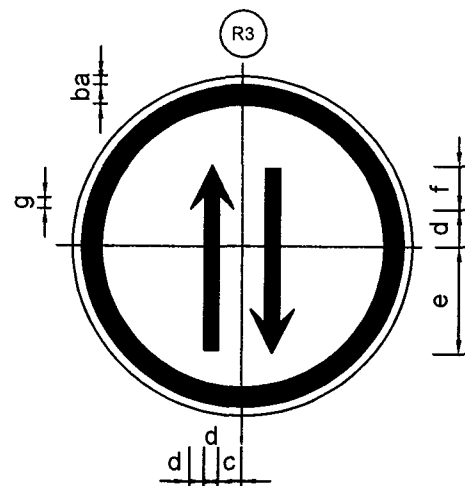
STOP SIGN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 16.0 | 18.7 |
| d | 5.5 | 6.4 |
| e | 3.5 | 4.1 |
| f | 30.0 | 35.0 |
| g | 18.5 | 21.6 |



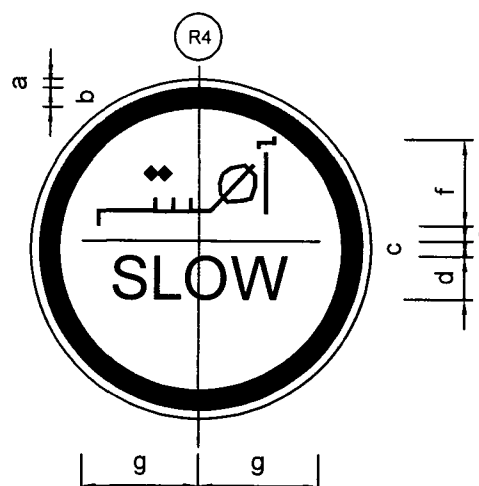
GIVEWAY SIGN
DIMENSION(cm)

| PARTS | Sign Size | |
|-------|-----------|-------|
| | 90cm | 105cm |
| f | 3.5 | 4.1 |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |



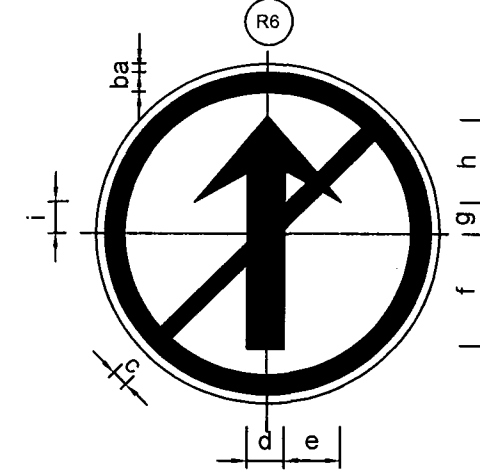
PRIORITY ROAD
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 5.5 | 6.4 |
| d | 8.0 | 9.3 |
| e | 9.0 | 10.5 |
| f | 30.5 | 35.6 |
| g | 7.0 | 8.2 |
| h | 23.5 | 27.4 |
| | 4.5 | 5.2 |



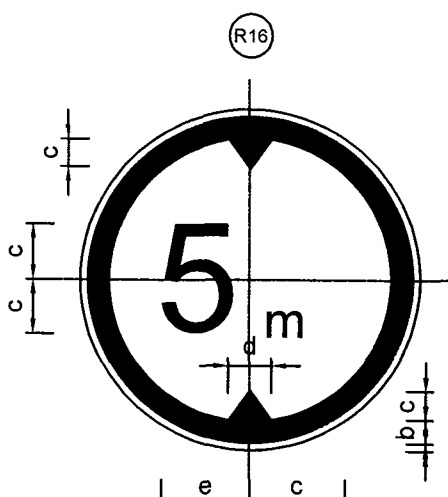
SLOW SIGN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm(C4) | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 4.0 | 4.7 |
| d | 14.5 | 16.9 |
| e | 2.0 | 2.3 |
| f | 24.5 | 28.6 |
| g | 27.6 | 31.5 |



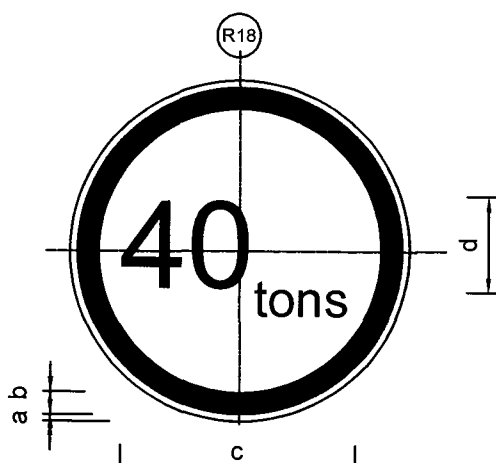
NO ENTRY SIGN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 5.5 | 6.4 |
| d | 8.0 | 9.3 |
| e | 9.0 | 10.5 |
| f | 30.5 | 35.6 |
| g | 7.0 | 8.2 |
| h | 23.5 | 27.4 |
| i | 4.5 | 5.2 |



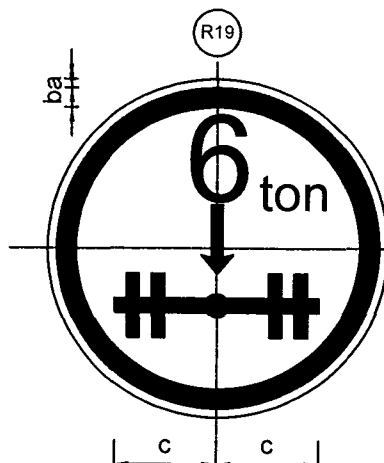
HEIGHT LIMIT SIGN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 16.5 | 19.2 |
| d | 26.0 | 30.3 |
| e | 20.0 | 23.3 |



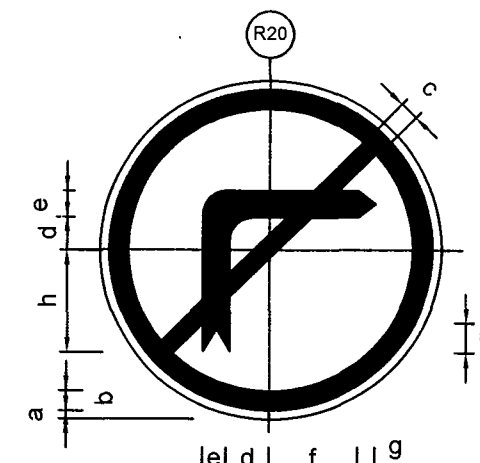
GROSS WEIGHT LIMIT SIGN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 49.0 | 57.2 |
| d | 40.0 | 46.7 |



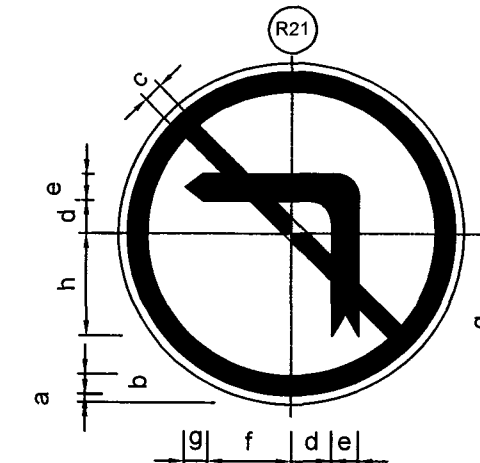
AXLE WEIGHT LIMIT SIGN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 28.0 | 32.7 |
| d | 23.0 | 26.8 |
| e | 32.0 | 37.3 |



NO RIGHT TURN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 5.5 | 6.4 |
| d | 6.0 | 7.0 |
| e | 10.0 | 11.6 |
| f | 25.0 | 29.2 |



NO LEFT TURN
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 5.5 | 6.4 |
| d | 6.0 | 7.0 |
| e | 10.0 | 11.6 |
| f | 25.0 | 29.2 |

NOTES
1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

CLIENT:
NHA NATIONAL HIGHWAYS AUTHORITY (NHA)

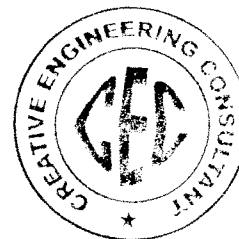
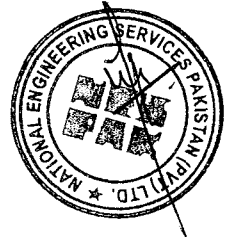
CONSULTANTS:

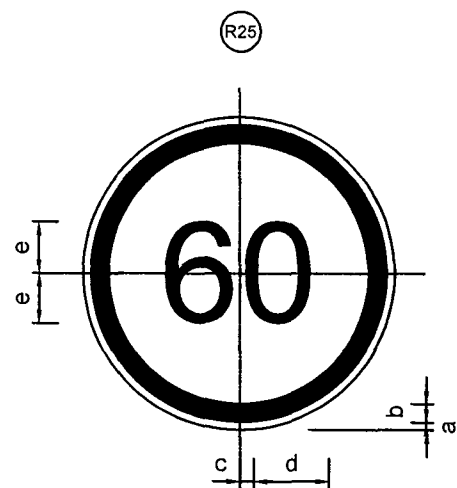
- MINCONSULT SDN BHD In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:
TYPICAL ROAD SIGN

| | |
|--------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

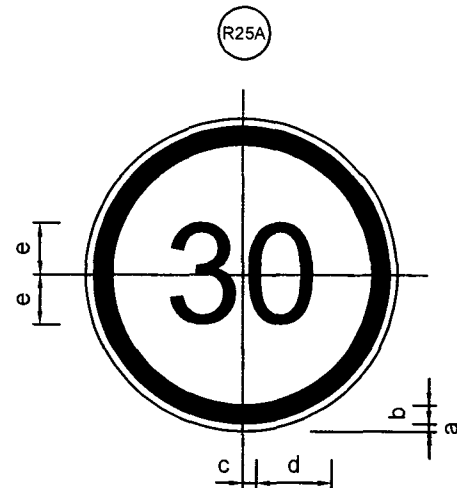
CAD FILE NAME:
CEC-CAREC-III-HW-GN-04





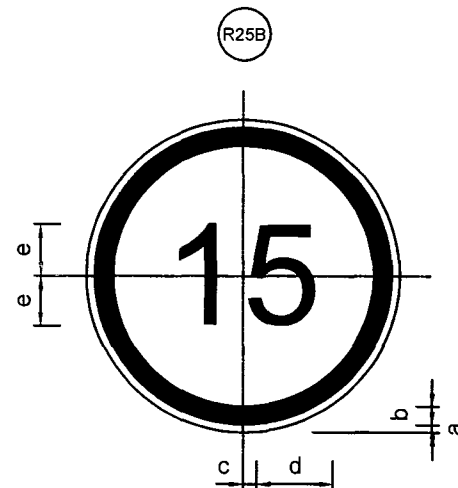
SPEED LIMIT
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 23.0 | 26.8 |
| e | 20.0 | 23.3 |



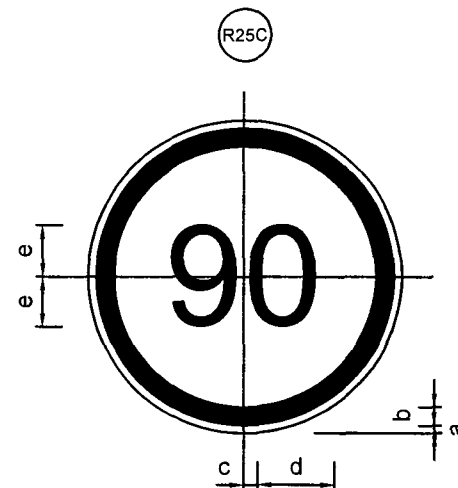
SPEED LIMIT
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 23.0 | 26.8 |
| e | 20.0 | 23.3 |



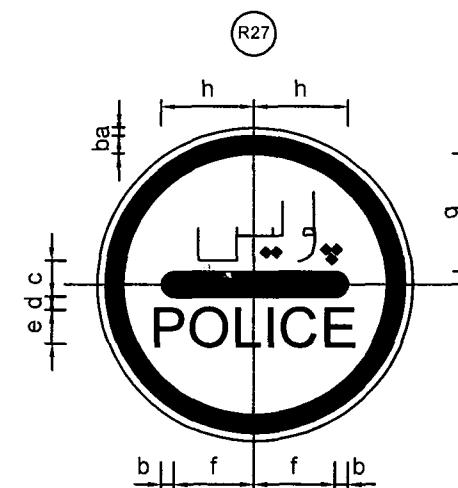
SPEED LIMIT
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 23.0 | 26.8 |
| e | 20.0 | 23.3 |



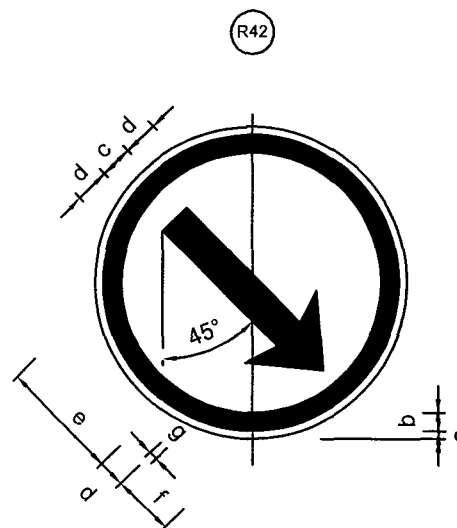
SPEED LIMIT
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 3.0 | 3.5 |
| d | 23.0 | 26.8 |
| e | 20.0 | 23.3 |



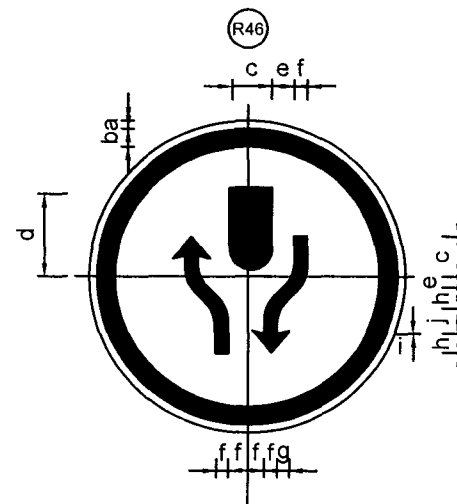
POLICE CHECK
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 6.5 | 7.6 |
| c | 7.5 | 8.8 |
| d | 3.0 | 3.5 |
| e | 10.0 | 11.7 |
| f | 27.5 | 32.1 |
| g | 29.0 | 33.8 |
| h | 28.0 | 32.7 |



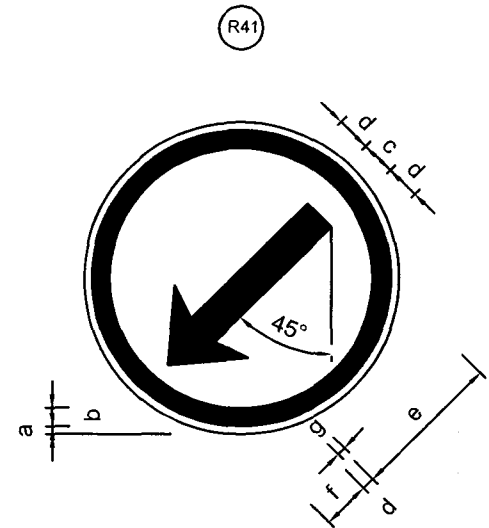
KEEP RIGHT
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 4.0 | 4.7 |
| c | 8.0 | 9.3 |
| d | 9.0 | 10.5 |
| e | 32.0 | 37.3 |
| f | 23.0 | 26.8 |
| g | 4.5 | 5.2 |



DIVIDED HIGHWAY BEGINS SIGN
DIMENSION(cm)

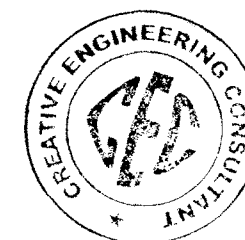
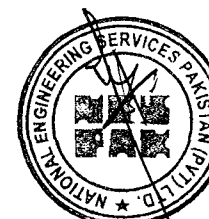
| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 4.0 | 4.7 |
| c | 14.0 | 16.3 |
| d | 31.0 | 36.2 |
| e | 8.0 | 9.3 |
| f | 7.0 | 8.2 |
| g | 6.0 | 7.0 |
| h | 13.0 | 15.2 |
| i | 1.5 | 1.7 |
| j | 5.0 | 4.5 |



KEEP LEFT
DIMENSION(cm)

| PARTS | SIGN SIZE | |
|-------|-----------|-------|
| | 90cm | 105cm |
| a | 1.0 | 1.2 |
| b | 4.0 | 4.7 |
| c | 8.0 | 9.3 |
| d | 9.0 | 10.5 |
| e | 32.0 | 37.3 |
| f | 23.0 | 26.8 |
| g | 4.5 | 5.2 |

Signature



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

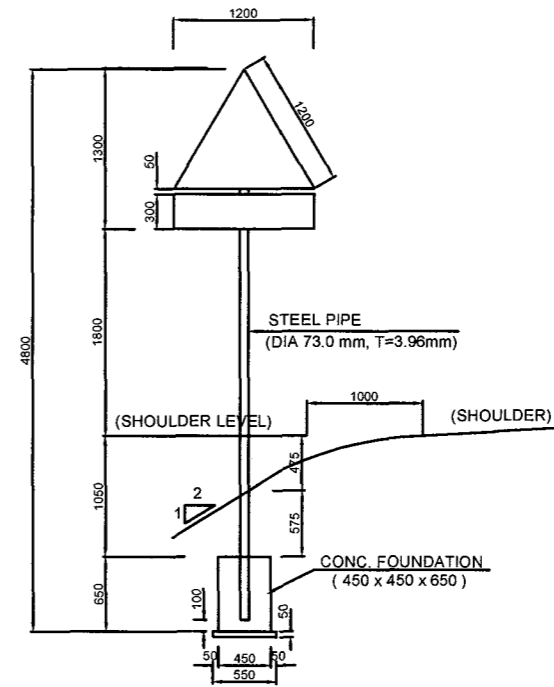
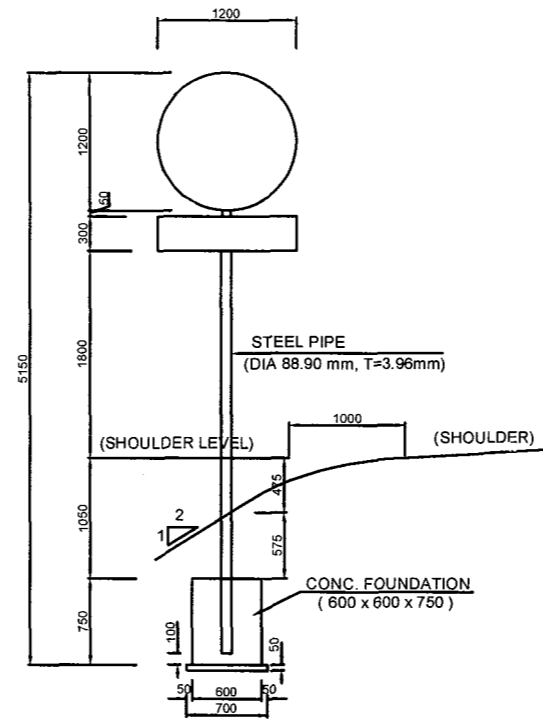
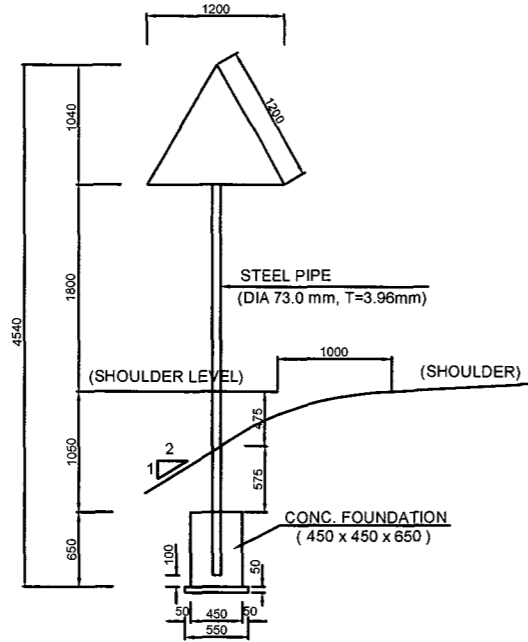
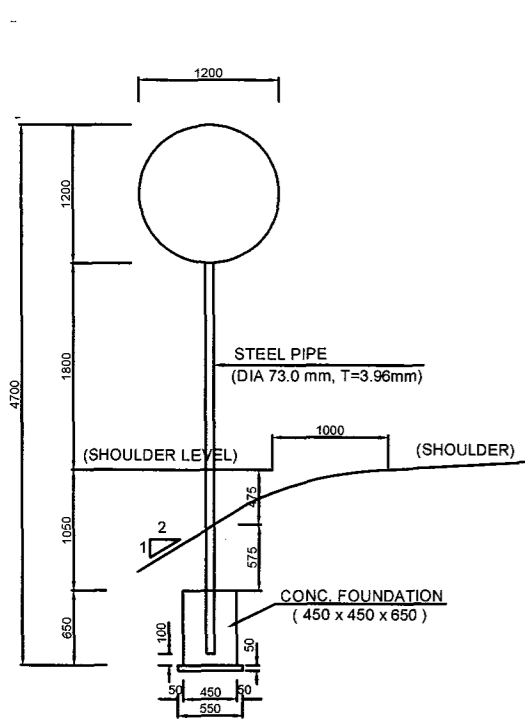
CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

- CONSULTANTS :**
- MINCONSULT SDN BHD In Joint Venture With SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
 - ACE
 - AA
 - ACC

DRAWING TITLE:
TYPICAL ROAD SIGN

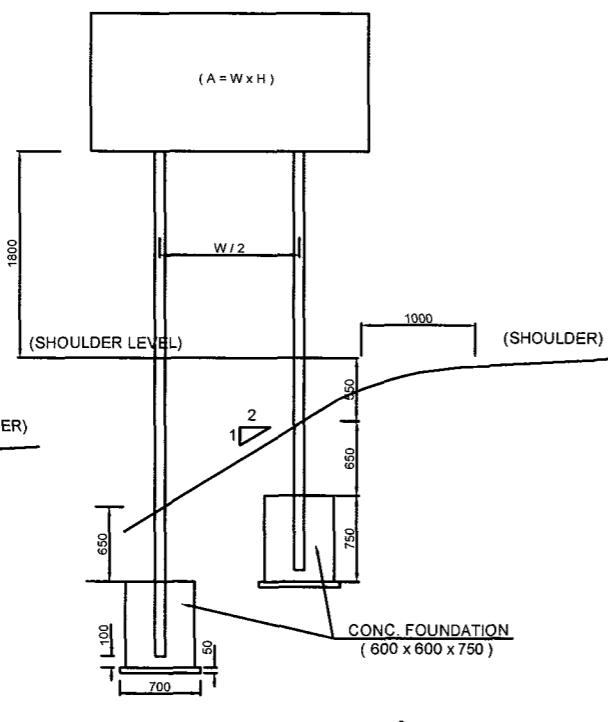
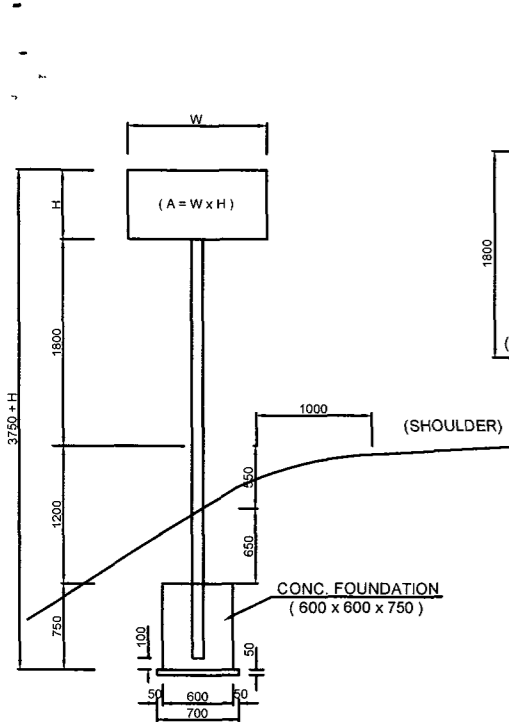
| | |
|--------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC-CAREC-TIII-HW-GN-05



SINGLE SIGNS

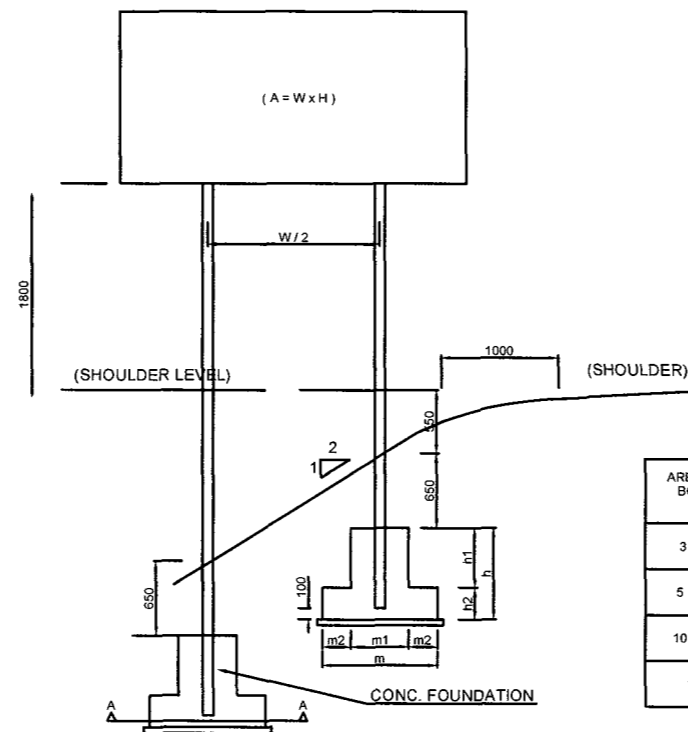
WARNING / REGULATORY (RECTANGULAR / CIRCULAR) SIGNS



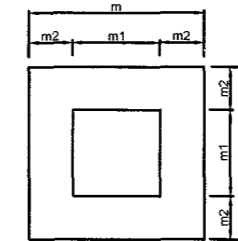
SINGLE POST ($A \leq 1M^2$)

INFORMATION (RECTANGULAR) SIGNS

DOUBLE POST ($A \leq 3M^2$)



DOUBLE POST ($A > 3M^2$)



SECTION A - A

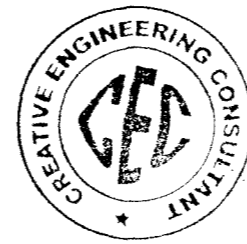
LIST OF FOUNDATION SIZE

| AREA OF SIGN BOARD "A" (M ²) | FOUNDATION DIMENSIONS (m) | | | | | | REMARKS |
|--|---------------------------|-----|------|------|-----|------|---------|
| | m1 | m2 | m | h1 | h2 | h | |
| 3 < A ≤ 5 | 450 | 325 | 1100 | 600 | 400 | 1000 | |
| 5 < A ≤ 10 | 600 | 400 | 1400 | 750 | 450 | 1200 | |
| 10 < A ≤ 15 | 700 | 450 | 1600 | 900 | 500 | 1400 | |
| 15 < A | 800 | 500 | 1800 | 1050 | 550 | 1600 | |

NOTES

1. CONCRETE FOR THE FOUNDATION BLOCKS SHALL BE IN-SITU CLASS 'A'.
2. SIGN PANELS SHALL BE MADE OF ENAMELLED STEEL OR ALUMINIUM ALLOY PLATES OF 3MM THICKNESS.
3. ALL POSTS FOR INFORMATION SIGNS SHALL USE WIDE FLANGES OF 10 CM x 10 CM METAL POSTS OR TABULAR STEEL POSTS WITH MINIMUM INTERNAL AND EXTERNAL DIAMETERS OF 63MM AND 75MM RESPECTIVELY CONFORMING TO ASTM A 501.

Handwritten signature



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

CLIENT:

NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT SDN BHD In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

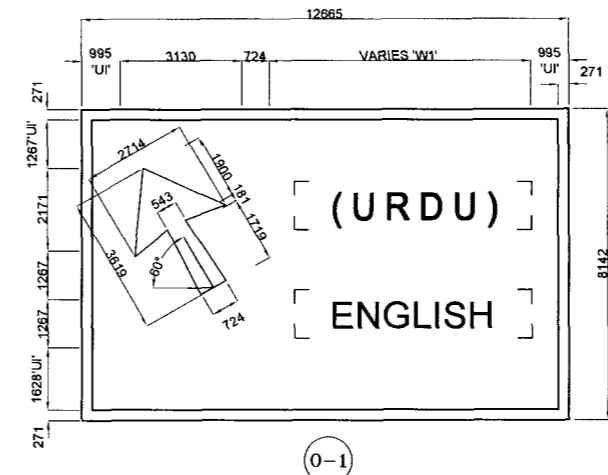
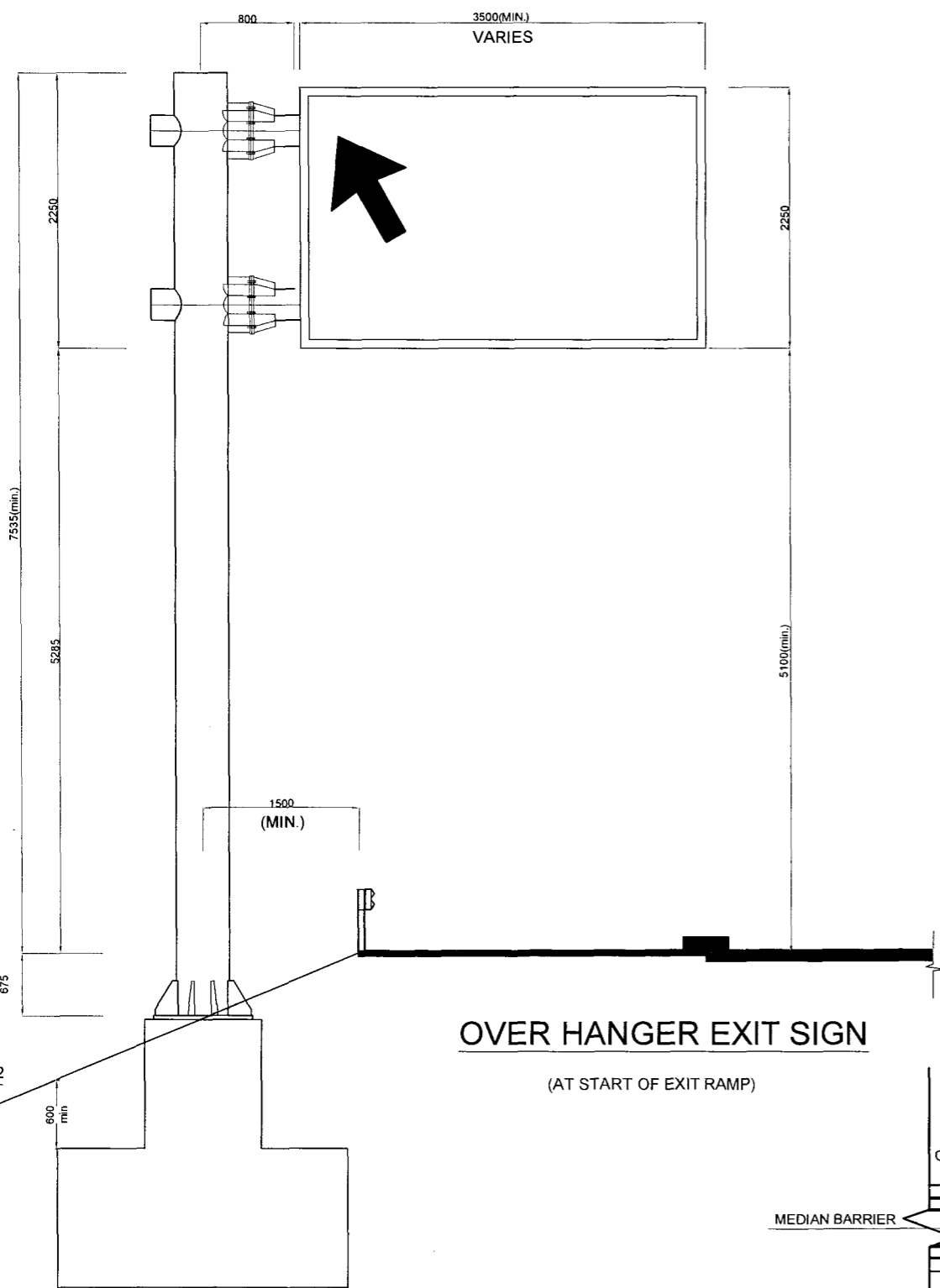
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TYPICAL ROAD SIGN

| | |
|--------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

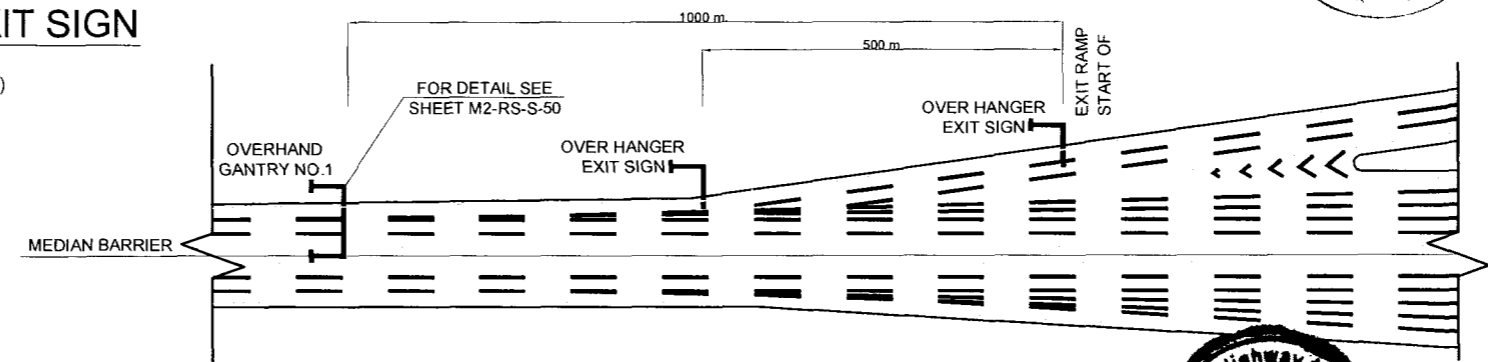
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CEC-CAREC-TIII-HW-GN-07



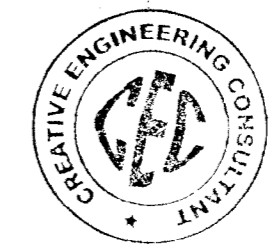
OVERHANGER EXIT SIGN
(At Start of exit ramp)

OVER HANGER EXIT SIGN
(AT START OF EXIT RAMP)



TYPICAL PLACEMENT OF OVERHEAD SIGNS AT EXIT RAMP

Signature



NOTES:-

- 1 - ALL DIMENSIONS ARE IN MILLIMETERS.
- 2 - GANTRY DIMENSIONS SHOWN IN THIS DRAWING ARE FOR NORMAL LOCATIONS WITH CROSS SLOPE OF 2%. EXACT DIMENSIONS SHALL BE WORKED AT KEEPING IN VIEW THE ACTUAL ROAD CROSS SECTION AT THE PROPOSED LOCATION TO ENSURE MINIMUM CLEARANCES AS SHOWN.

NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I.KHAN (329.7 KM) OF N-55

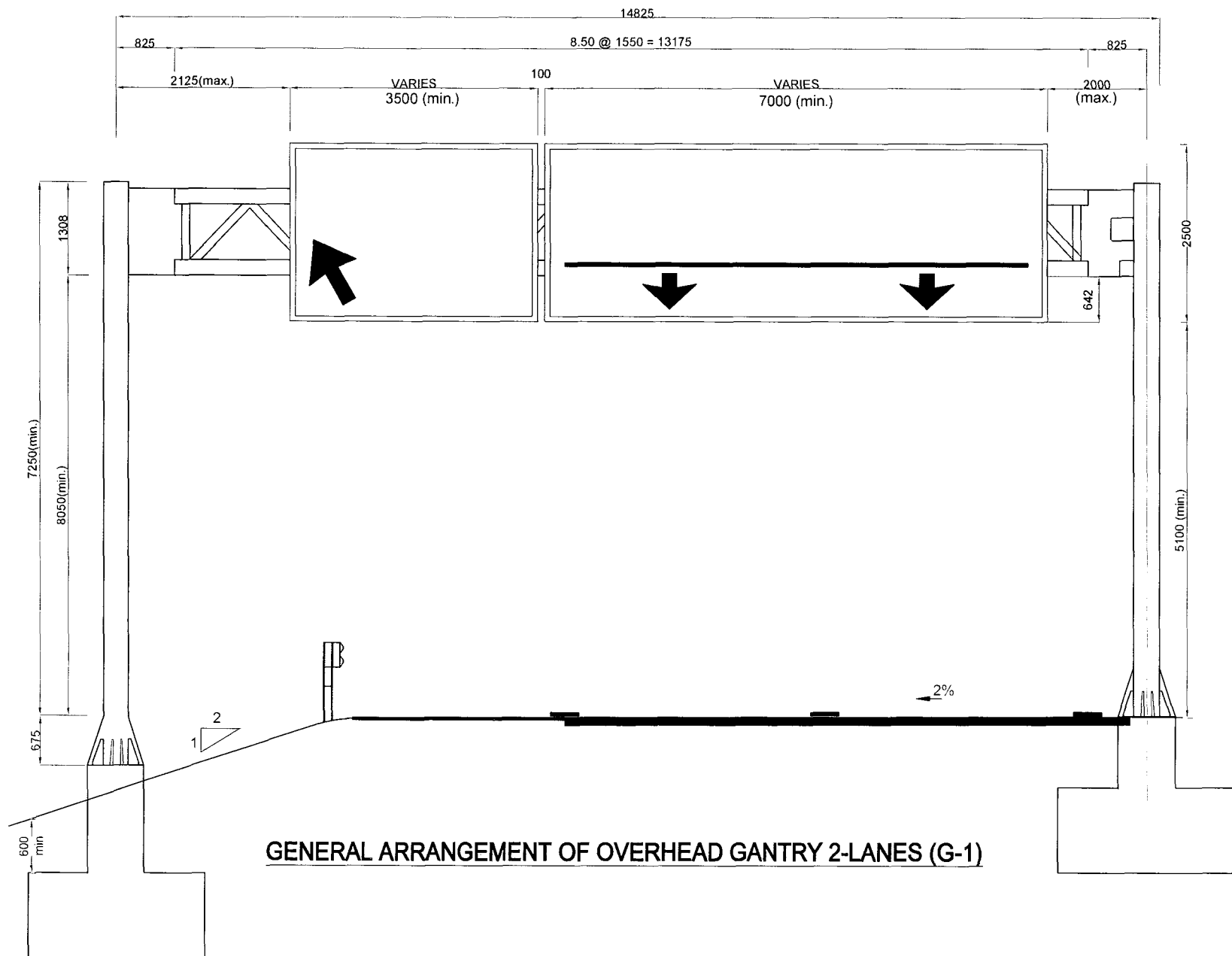
CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

- CONSULTANTS:**
- MINCONSULT. SDN BHD In Joint Venture With SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
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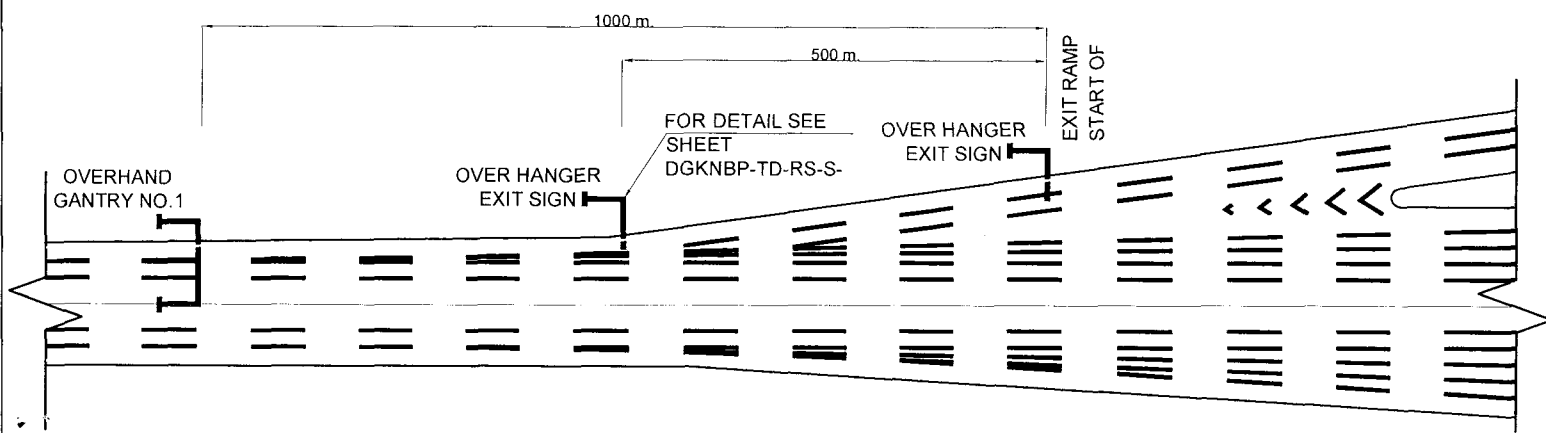
DRAWING TITLE:
OVERHEAD HANG EXIT SIGN

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|--------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC-CAREC-III-HW-GN-01



GENERAL ARRANGEMENT OF OVERHEAD GANTRY 2-LANES (G-1)



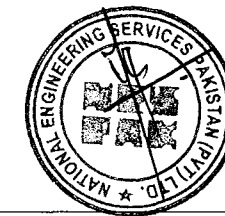
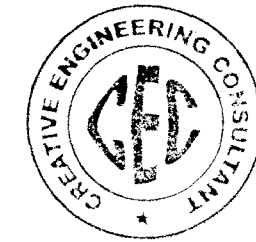
TYPICAL PLACEMENT OF OVERHEAD SIGNS AT EXIT RAMP

MEDIAN BARRIER

NOTES:-

- 1 - ALL DIMENSIONS ARE IN MILLIMETERS.
- 2 - GANTRY DIMENSIONS SHOWN IN THIS DRAWING ARE FOR NORMAL LOCATIONS WITH CROSS SLOPE OF 2%. EXACT DIMENSIONS SHALL BE WORKED AT KEEPING IN VIEW THE ACTUAL ROAD CROSS SECTION AT THE PROPOSED LOCATION TO ENSURE MINIMUM CLEARANCES AS SHOWN.

Signature



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

CLIENT:



NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:



MINCONSULT SDN BHD In Joint Venture With



SAMAN CORPORATION



SHELADIA ASSOCIATES



CEC



AAA



ACE



AA



ACC

DRAWING TITLE:

OVERHEAD GANTRY SIGN

DESIGN BY:

S.M

SHEET NO:

00

DRAWN BY:

S.M

SCALE:

H = 1:1

V = 1:10

CHECKED BY:

A.S

DATE:

APRIL-20

24

APPROVED BY:

REVISION:

CAD FILE NAME:

CEC-CAREC-THI-HW-GN-04

TABLE - 1

TILE WIDTHS AND CLEARANCES OF LETTERING
(EXPRESSED AS RATIO OF THE X-HEIGHT)

| LETTER | LATERAL CLEARANCE | | | LETTER WIDTH |
|--------|-------------------|------|------|--------------|
| | "W" | "H1" | "H2" | |
| A | 1.36 | 0.08 | 0.08 | 1.20 |
| B | 1.46 | 0.25 | 0.15 | 1.06 |
| C | 1.48 | 0.14 | 0.14 | 1.20 |
| D | 1.54 | 0.25 | 0.15 | 1.14 |
| E | 1.32 | 0.25 | 0.20 | 0.87 |
| F | 1.19 | 0.25 | 0.12 | 0.82 |
| G | 1.55 | 0.14 | 0.20 | 1.21 |
| H | 1.60 | 0.25 | 0.25 | 1.10 |
| I | 0.73 | 0.25 | 0.25 | 0.46 |
| J | 0.93 | 0.02 | 0.25 | 0.64 |
| K | 1.38 | 0.25 | 0.06 | 1.07 |
| L | 1.07 | 0.25 | 0.04 | 0.78 |
| M | 1.64 | 0.25 | 0.25 | 1.14 |
| N | 1.68 | 0.25 | 0.25 | 1.18 |
| O | 1.56 | 0.15 | 0.15 | 1.26 |
| P | 1.30 | 0.25 | 0.10 | 0.95 |
| Q | 1.58 | 0.15 | 0.15 | 1.28 |
| R | 1.41 | 0.25 | 0.15 | 1.01 |
| S | 1.37 | 0.13 | 0.15 | 1.09 |
| T | 1.09 | 0.04 | 0.04 | 1.01 |
| U | 1.54 | 0.25 | 0.25 | 1.04 |
| V | 1.30 | 0.10 | 0.10 | 1.10 |
| W | 1.83 | 0.12 | 0.12 | 1.59 |
| X | 1.28 | 0.12 | 0.12 | 1.04 |
| Y | 1.23 | 0.05 | 0.06 | 1.12 |
| Z | 1.19 | 0.12 | 0.12 | 0.95 |

| | | | | |
|---|------|------|------|------|
| 1 | 0.79 | 0.11 | 0.23 | 0.45 |
| 2 | 1.20 | 0.10 | 0.16 | 0.94 |
| 3 | 1.27 | 0.11 | 0.18 | 0.98 |
| 4 | 1.32 | 0.06 | 0.10 | 1.16 |
| 5 | 1.22 | 0.12 | 0.12 | 0.98 |
| 6 | 1.26 | 0.15 | 0.15 | 0.96 |
| 7 | 1.04 | 0.05 | 0.05 | 0.94 |
| 8 | 1.30 | 0.16 | 0.16 | 0.98 |
| 9 | 1.28 | 0.14 | 0.14 | 1.00 |
| 0 | 1.33 | 0.13 | 0.13 | 1.07 |
| - | 0.66 | 0.10 | 0.10 | 0.46 |
| (| 1.05 | 0.13 | 0.24 | 0.66 |
|) | 1.05 | 0.24 | 0.13 | 0.66 |

| LETTER | LATERAL CLEARANCE | | | LETTER WIDTH |
|--------|-------------------|------|------|--------------|
| | "W" | "H1" | "H2" | |
| a | 1.11 | 0.07 | 0.12 | 0.92 |
| b | 1.17 | 0.13 | 0.12 | 1.03 |
| c | 1.03 | 0.06 | 0.08 | 0.77 |
| d | 1.19 | 0.08 | 0.18 | 1.01 |
| e | 1.09 | 0.08 | 0.12 | 0.89 |
| f | 0.75 | 0.06 | 0.06 | 0.68 |
| g | 1.14 | 0.08 | 0.18 | 0.88 |
| h | 1.12 | 0.13 | 0.18 | 0.81 |
| i | 0.54 | 0.13 | 0.18 | 0.23 |
| j | 0.58 | 0.02 | 0.18 | 0.38 |
| k | 1.08 | 0.13 | 0.06 | 0.89 |
| l | 0.62 | 0.13 | 0.12 | 0.37 |
| m | 1.64 | 0.13 | 0.18 | 1.33 |
| n | 1.12 | 0.13 | 0.18 | 0.81 |
| o | 1.18 | 0.08 | 0.15 | 0.95 |
| p | 1.18 | 0.13 | 0.15 | 0.90 |
| q | 1.18 | 0.08 | 0.18 | 0.92 |
| r | 0.73 | 0.13 | 0.07 | 0.53 |
| s | 0.97 | 0.05 | 0.12 | 0.80 |
| t | 0.81 | 0.07 | 0.07 | 0.67 |
| u | 1.15 | 0.13 | 0.18 | 0.84 |
| v | 0.98 | 0.06 | 0.06 | 0.86 |
| w | 1.47 | 0.06 | 0.06 | 1.35 |
| x | 1.04 | 0.04 | 0.04 | 0.96 |
| y | 0.98 | 0.04 | 0.04 | 0.90 |
| z | 0.97 | 0.08 | 0.08 | 0.81 |

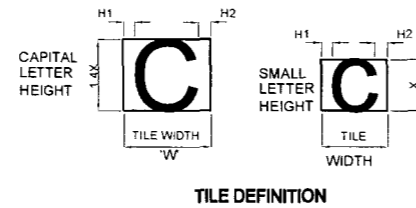


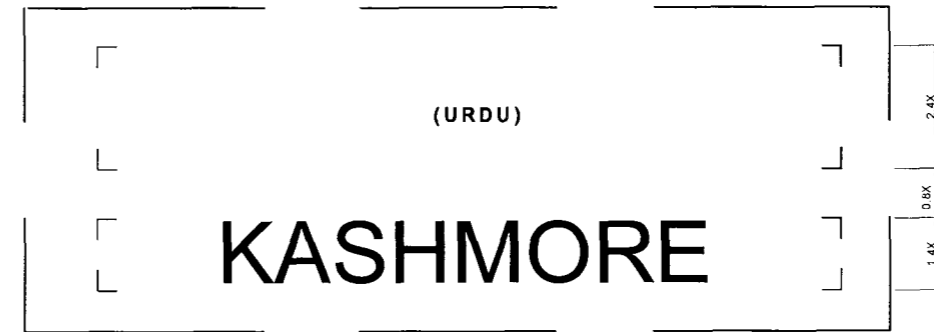
TABLE - 2
LETTERING HEIGHTS & THICKNESSES

| FACILITY | SMALL LETTER HEIGHT (x-Height) mm | LETTERING THICKNESS (0.25 x) mm |
|--------------------------------|-----------------------------------|---------------------------------|
| SERVICE ROAD | 100 | 25 |
| APPROACH RAMPS AND CROSS ROADS | 180 | 45 |
| MOTORWAY | 250 | 60 |

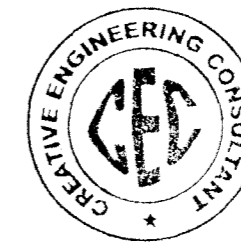
EXAMPLE - 1



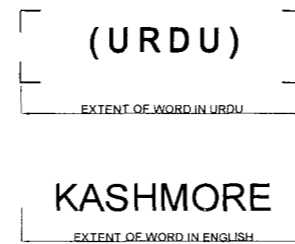
EXAMPLE - 2



OVER HEAD GANTRY SIGN FOR THROUGH TRAFFIC
2Km/1Km Short of exit ramp



EXAMPLES ILLUSTRATING VERTICAL CLEARANCES



LATERAL EXTENTS OF URDU & ENGLISH LETTERING TO PREFERABLY COINCIDE



NOTES :-

- 1- THE X-HEIGHT DENOTES THE SMALL LETTER (LOWER CASE) HEIGHT.
- 2- THE CAPITAL LETTER (UPPER CASE) HEIGHT = 1.4x
- 3- THE STROKE WIDTH (LETTERING THICKNESS) FOR THE ENGLISH LETTERING = 0.25x
- 4- FOR ALL GROUND MOUNTED SIGNS EXCEPT DISTANCE SIGN, ENGLISH WORDS TO BE WRITTEN IN LOWER CASE (SMALL LETTERS) EXCEPT BEGINNING OF WORD WHICH IS TO BE WRITTEN IN UPPER CASE UNLESS NOTED OTHERWISE.
- 5- FOR OVER-HEAD SIGNS, ALL LETTERS SHALL BE UPPER CASE EXCEPT WHERE DIRECTED BY ENGINEER.
- 6- ALL URDU WRITING SHALL BE IN PERSIAN SCRIPT.

NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

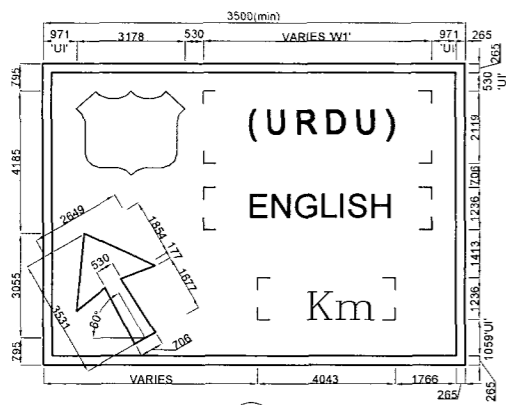
CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

- CONSULTANTS:**
- MINCONSULT. SDN BHD In Joint Venture With
 - SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
 - ACE
 - AA
 - ACC

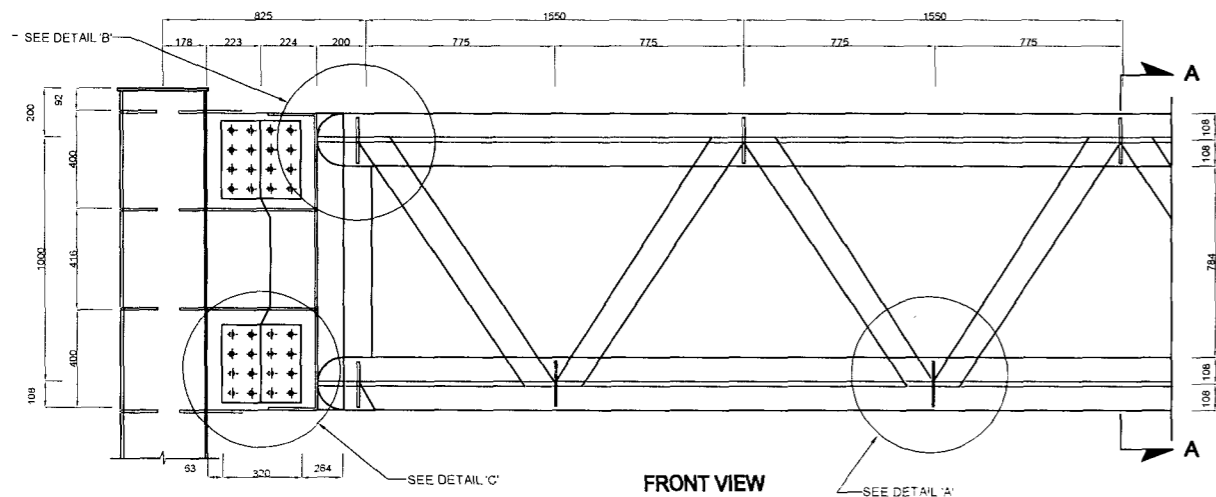
DRAWING TITLE: OVERHEAD GANTRY SIGN LETTERING DETAILS

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| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

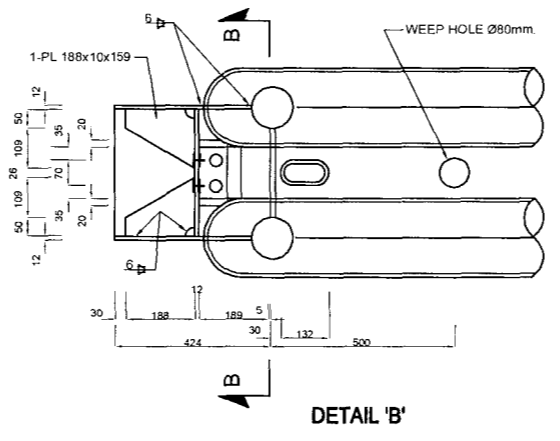
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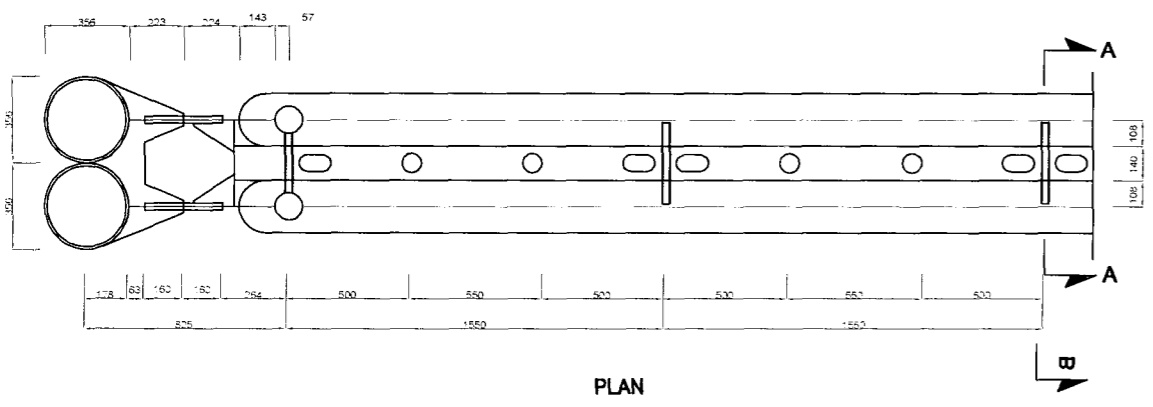
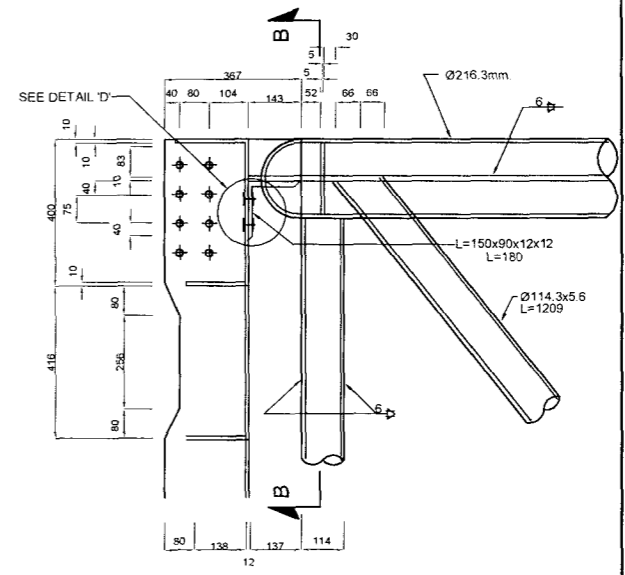
OVER HEAD EXIT SIGN AT GANTRY
2Km/1Km Short of exit ramp



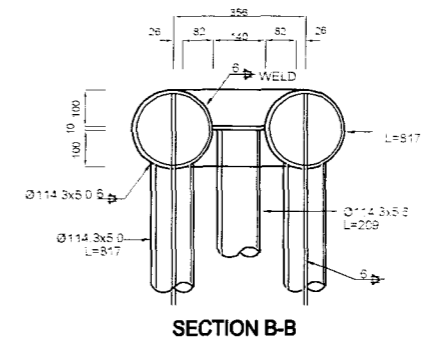
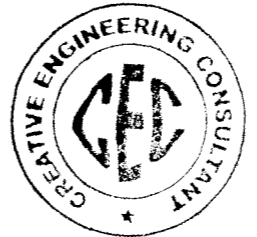
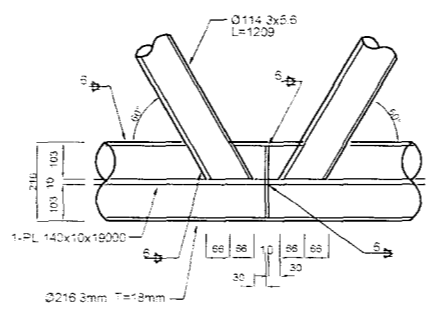
FRONT VIEW



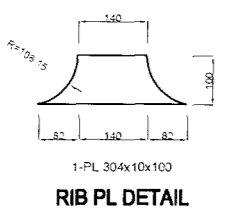
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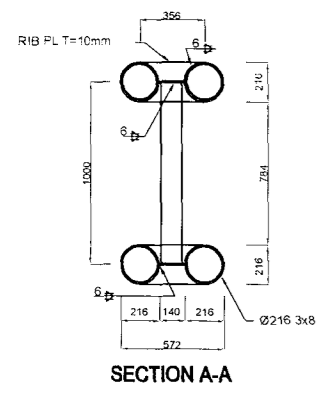
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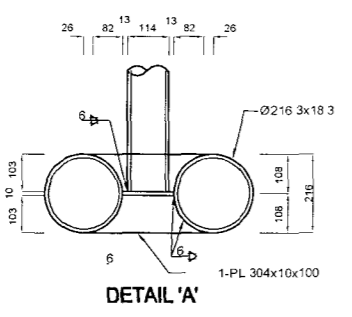
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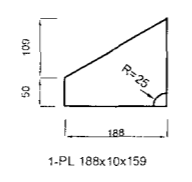
RIB PL DETAIL



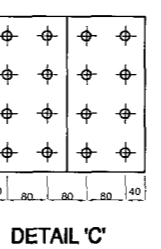
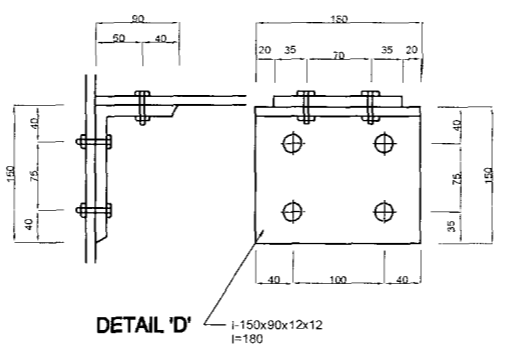
SECTION A-A



DETAIL 'A'

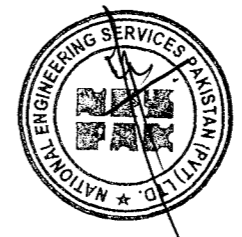


DETAIL 'D'



DETAIL 'C'

NOTES:-
 1- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2- ALL WELDS SHALL BE 6mm THICK.



NOTES

1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:
 CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

CLIENT:
 NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

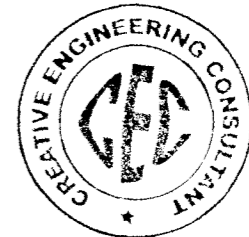
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|--|---|
| | MINCONSULT SDN BHD In Joint Venture With |
| | SAMAN CORPORATION |
| | SHELADIA ASSOCIATES |
| | CEC |
| | AAA |
| | ACE |
| | AA |
| | ACC |

DRAWING TITLE: OVERHEAD GANTRY SIGN TRUSS DETAILS

| | |
|--------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
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| APPROVED BY: | REVISION: |

CAD FILE NAME:
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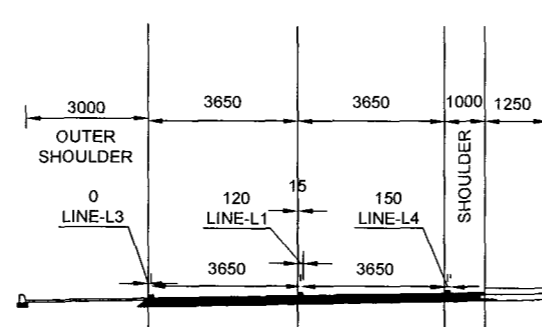
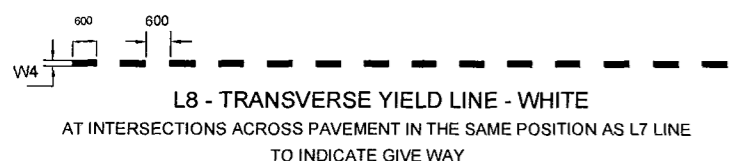
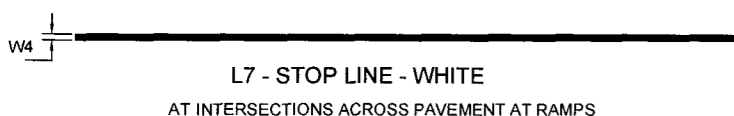
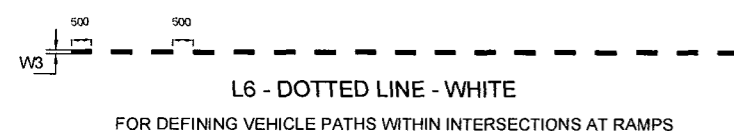
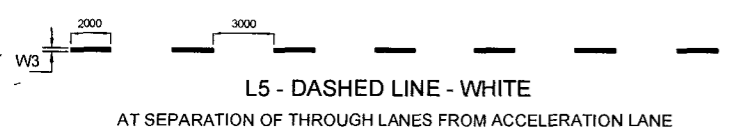
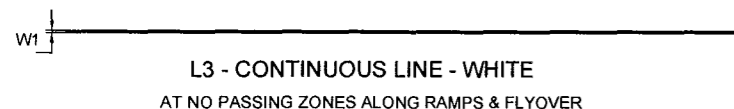
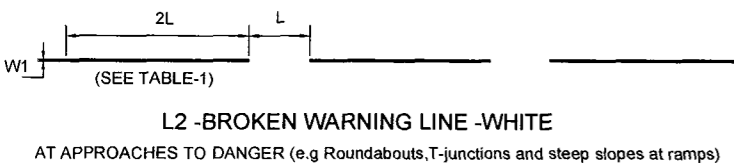
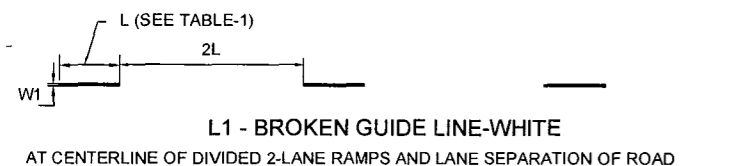
MISCELLANEOUS DETAILS



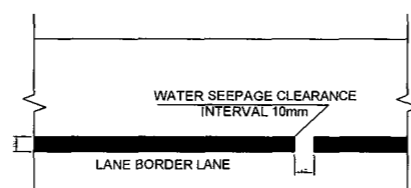
Handwritten signature

PAVEMENT MARKING LINES

FOR DIMENSIONS L & W1 TO W5, SEE TABLE-1

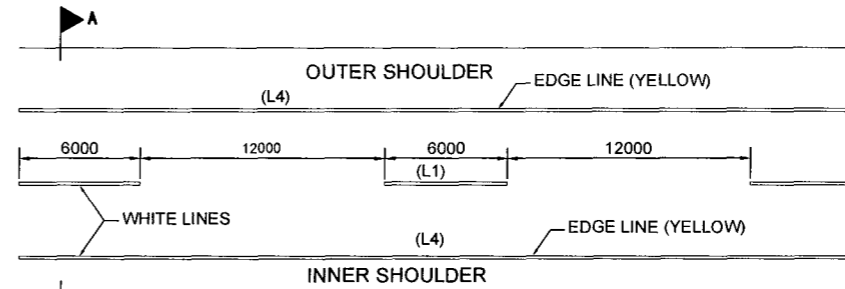


SECTION A-A

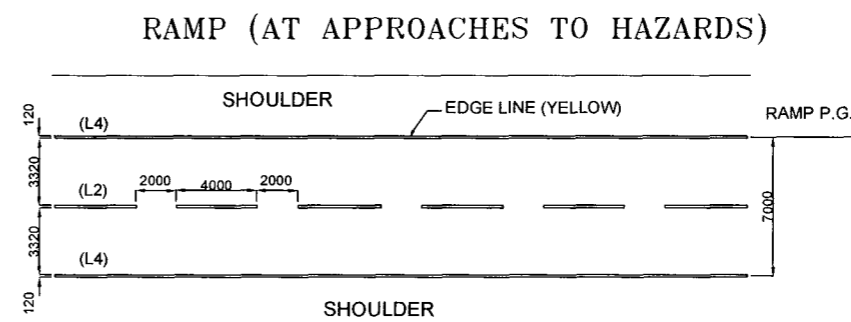


DETAIL - A

TYPICAL MARKING AT ROAD



TYPICAL MARKING AT TWO LANE RAMP (AT APPROACHES TO HAZARDS)



TYPICAL MARKING AT ONE WAY RAMPS (SINGLE LANE)

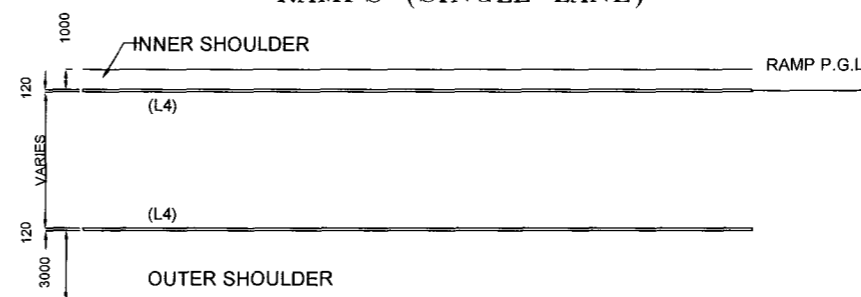
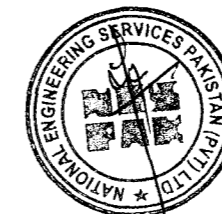
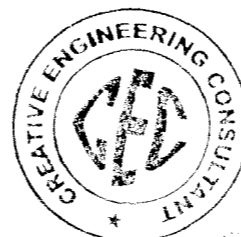


TABLE - 1

| ROADWAY TYPE | L (mm) | W1 | W2 | W3 | W4 | W5 |
|----------------|--------|-----|-----|-----|-----|-----|
| SERVICE ROAD | 2000 | 100 | 100 | 100 | 300 | 100 |
| FLYOVER/ RAMPS | 4000 | 120 | 120 | 150 | 300 | 100 |
| ROAD | 6000 | 120 | 150 | 450 | - | - |



NOTE :-

1- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

NOTES

1- ALL DIMENSIONS ARE IN METERS.

LEGEND

PROJECT:

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

CLIENT:

NHA NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

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- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:

PAVEMENT MARKING

DESIGN BY:

S.M

SHEET NO:

00

DRAWN BY:

S.M

SCALE:

H = 1:1

V = 1:10

CHECKED BY:

A.S

DATE:

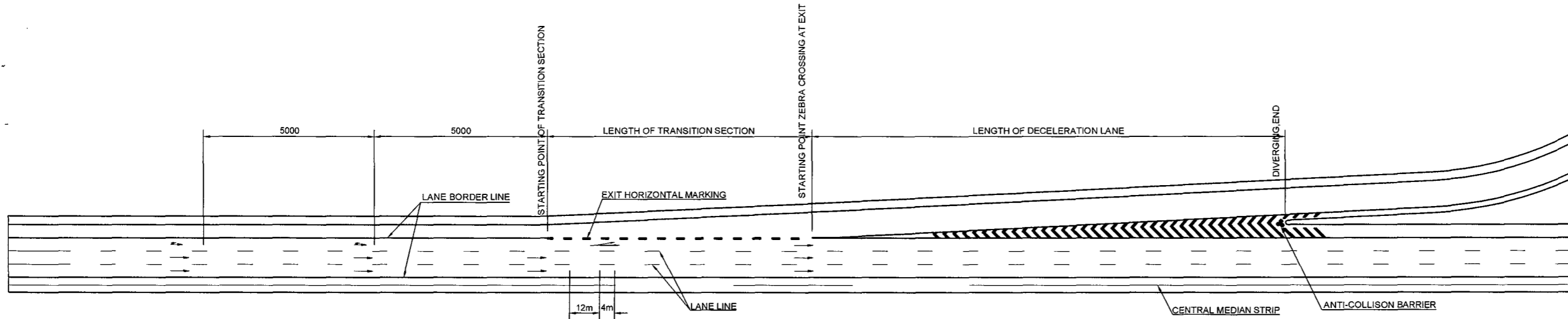
APRIL-20 24

APPROVED BY:

REVISION:

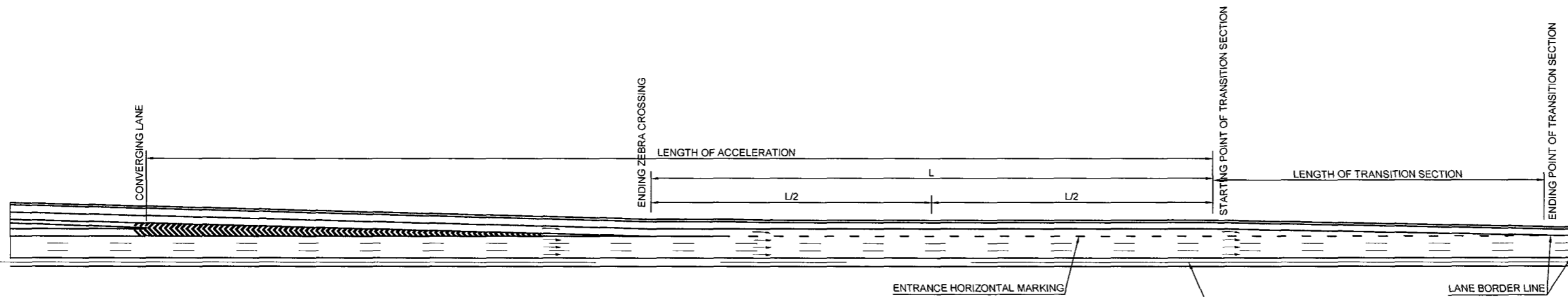
CAD FILE NAME:

CEC-CAREC-TIII-HW-GN- 01



DETAIL OF ZEBRA CROSSING

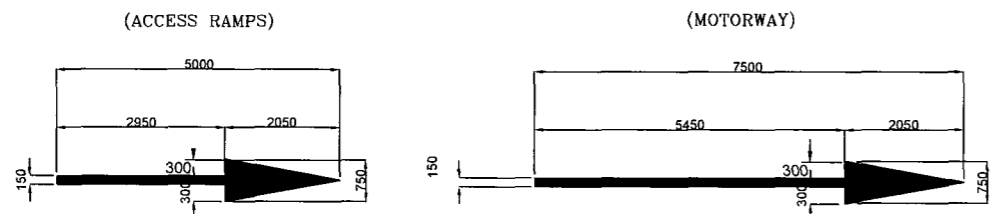
SCALE 1:250



ENTRANCE MARKING LAYOUT

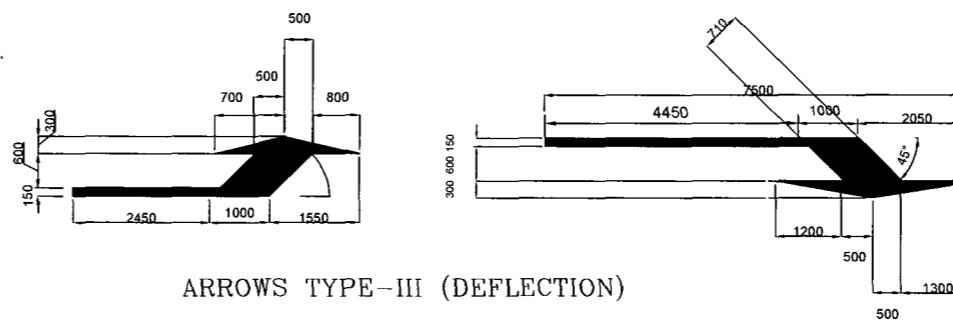
SCALE 1:200

LANE SELECTION ARROWS - WHITE

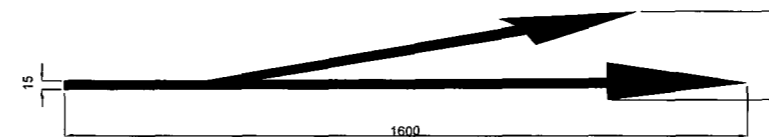


ARROWS TYPE-I (STRAIGHT)

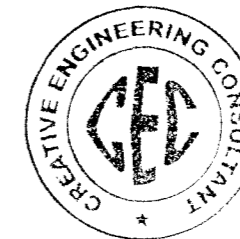
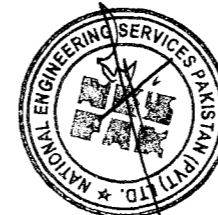
ARROWS TYPE-II (COMBINED)



ARROWS TYPE-III (DEFLECTION)



ORIENTATION ARROW



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV | REVISION/ISSUE | DATE |
|-----|----------------|------|
| 0 | | |

PROJECT:

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D.I KHAN (329.7 KM) OF N-55

CLIENT:

NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:

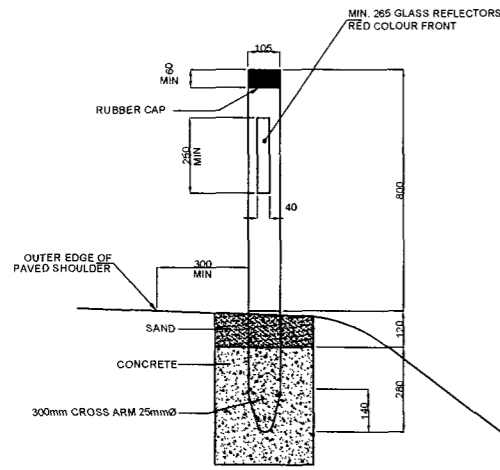
PAVEMENT MARKING

| | |
|--------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO: 00 |
| DRAWN BY: S.M | SCALE: H = 1:1 V = 1:10 |
| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

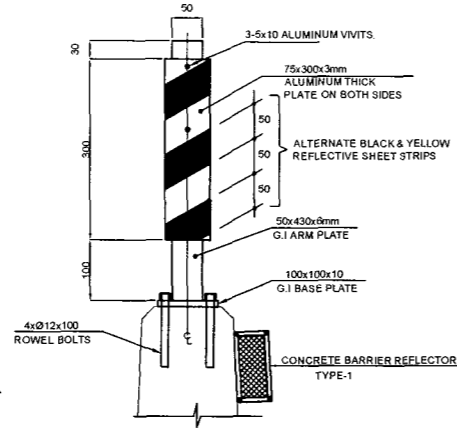
CAD FILE NAME:

CEC-CAREC-TIII-HW-GN-02

DELINEATORS

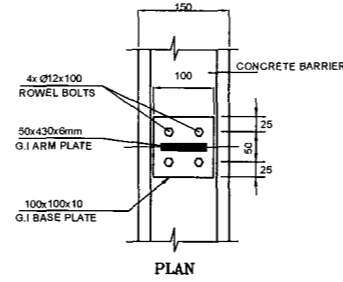


CURVE DELINEATOR (TYPE-1)
(FLEXIBLE TYPE)
(ALONG SHOULDER EDGES WHEN NO RAIL OR BARRIER IS FIXED)

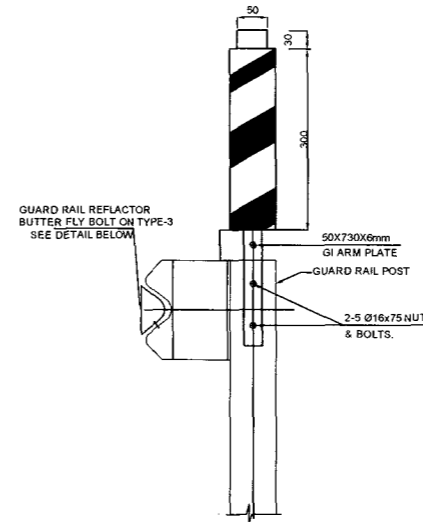


CURVE DELINEATOR TYPE-2 (RIGID TYPE)

REFLECTING SIDE
ONE REFLECTING SIDE FOR HIGHWAY AND ONE WAY RAMP/TWO REFLECTING SIDE FOR FLYOVERS AND TWO WAY RAMP.



CURVE DELINEATOR TYPE-2 (RIGID TYPE)

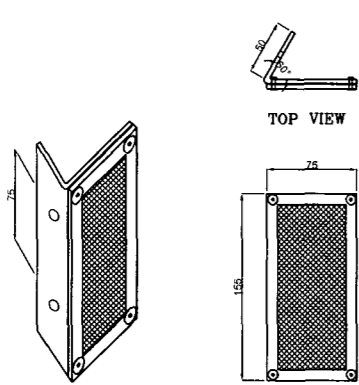


CURVE DELINEATOR TYPE-3 GUARD RAIL TYPE MOUNTED

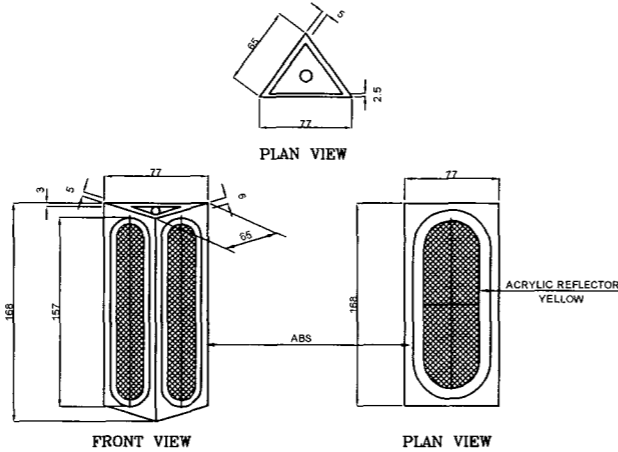
NOTE FOR DELINEATORS

- FOR SHORT STRETCHES PROVIDE DELINEATOR AT EACH END PLUS MIN. TWO INTERMEDIATE SPANS.
- FOR TYPICAL DELINEATOR INSTALLATION ON HORIZONTAL CURVES REFER TO DETAIL-1.
- DELINEATOR TYPE-1 SHALL BE FIXED AT OUTER EDGE OF C/WAY WHERE NO RAIL OR BARRIER IS FIXED.
- DELINEATORS TYPE-2 SHALL BE FIXED AT MEDIAN BARRIER ALONG CURVES AT BARRIER ALONG BRIDGES INCLUDING 100m APPROACH AND AT OTHER HAZARDOUS LOCATIONS AS DIRECTED AT EACH END BY THE ENGINEER.
- SPACING OF DELINEATOR TYPE-2 & 3 SHALL BE SAME AS THAT OF TYPE-1.

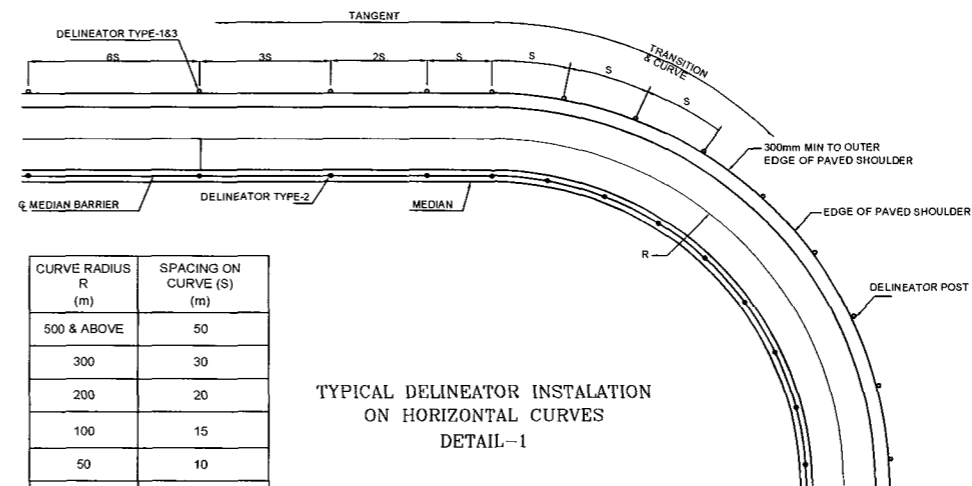
REFLECTORS



CONCRETE BARRIER REFLECTOR (TYPE-1)
(TO BE FIXED WITH CONCRETE BARRIER USE 2xØ10x75 ROWEL BOLTS)



CONCRETE BARRIER REFLECTOR (TYPE-2)
(TO BE FIXED WITH CONCRETE BARRIER USE 2xØ10x75 ROWEL BOLTS)



| CURVE RADIUS R (m) | SPACING ON CURVE (S) (m) |
|--------------------|--------------------------|
| 500 & ABOVE | 50 |
| 300 | 30 |
| 200 | 20 |
| 100 | 15 |
| 50 | 10 |
| 25 | 8 |

TYPICAL DELINEATOR INSTALLATION ON HORIZONTAL CURVES DETAIL-1

NOTES

1 - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| 0 | | |

PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO DI KHAN (329.7 KM) OF N-55

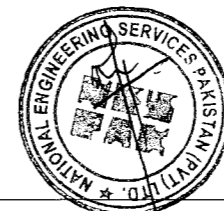
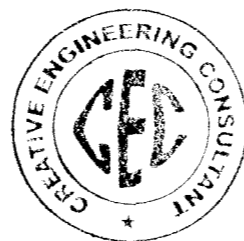
CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

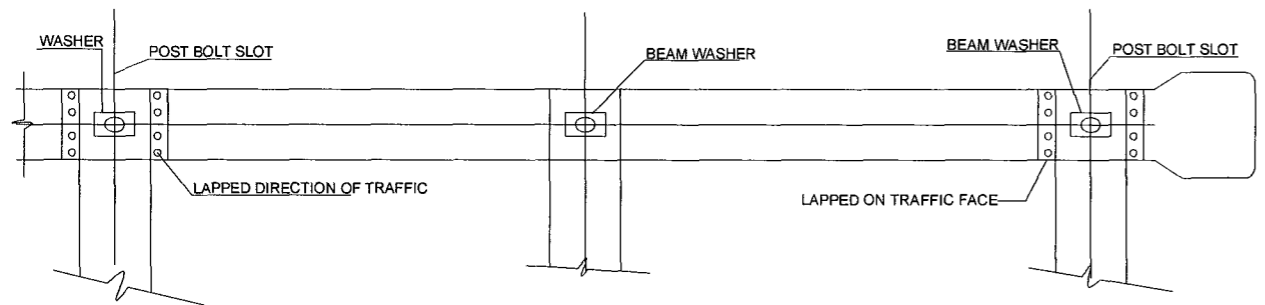
- CONSULTANTS:**
- MINCONSULT SDN BHD In Joint Venture With SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
 - ACE
 - AA
 - ACC

DRAWING TITLE:
DELINEATOR AND REFLECTOR

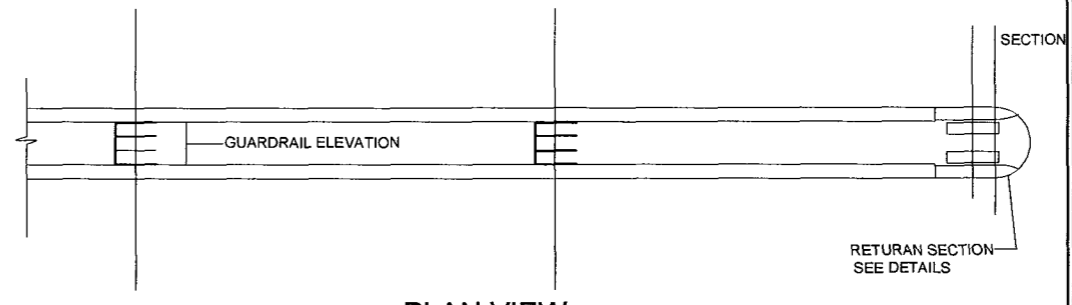
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| DESIGN BY: S.M | SHEET NO: 00 |
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| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC-CAREC-III-HW-GN-02

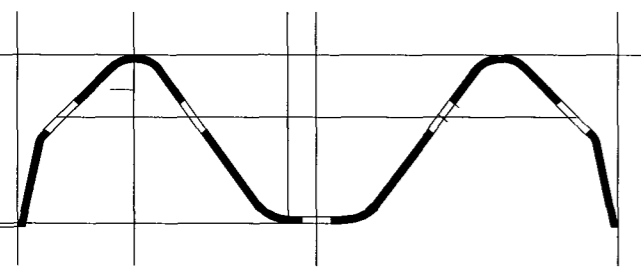




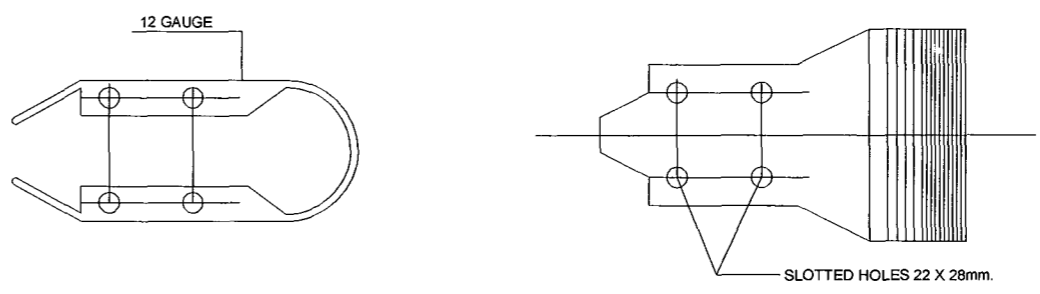
PLAN VIEW



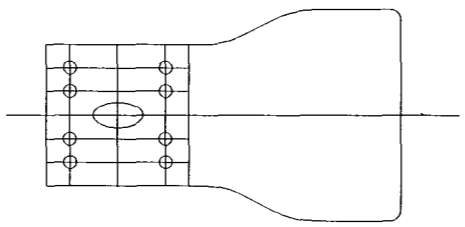
PLAN VIEW



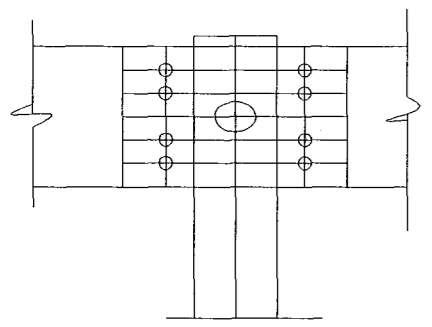
SECTION THRU BEAM



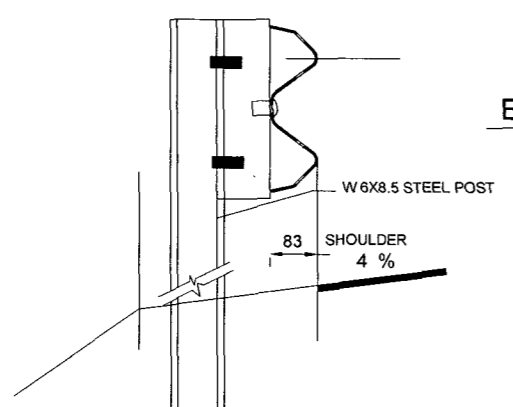
RETURN SECTION TERMINAL



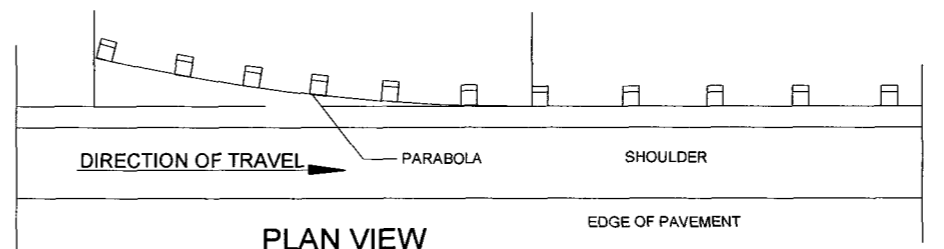
END SECTION



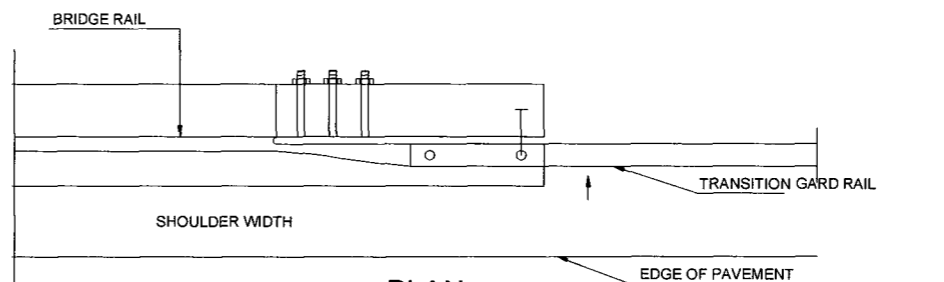
BEAM SPLICE



LOCATION OF GUARD RAIL

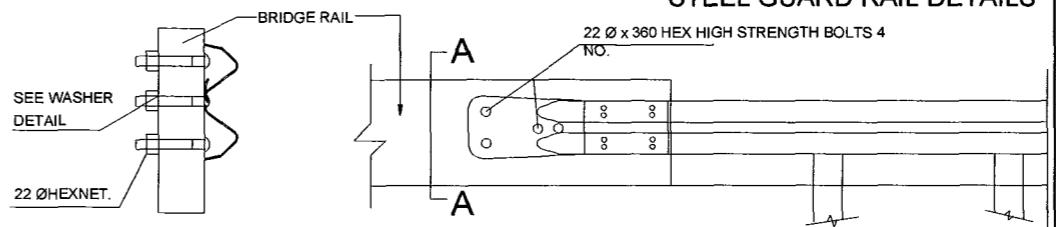


PLAN VIEW



PLAN

STEEL GUARD RAIL DETAILS

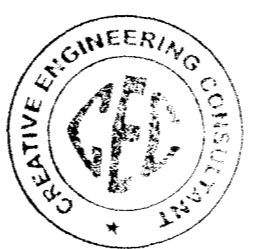


SEC. A - A

ELEVATION

BEAM WASHER

(15.875mm) PCST OR SPLICE BOLT AND NET.



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDOR DEVELOPMENT INVESTMENT PROGRAM (CAREC) TRANCHE-III PROJECTS FROM RAJANPUR TO D1 KHAN (329.7 KM) OF N-55

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

- CONSULTANTS:
- MINCONSULT SDN BHD In Joint Venture With
 - SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
 - ACE
 - AA
 - ACC

DRAWING TITLE:
GUARD RAIL DETAILS

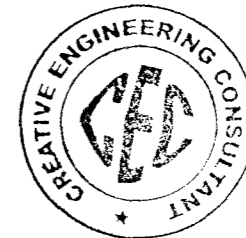
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| CHECKED BY: A.S | DATE: APRIL-20 24 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC-CAREC-III-HW-GN-02

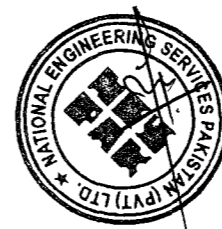
SCHEDULE OF STRUCTURE



H



Jus



| S.NO | CHAINAGE | TYPE | No. OF CELLS | Width (m) | Depth (m) | Adequacy |
|------|----------|---------|--------------|-----------|-----------|--------------------|
| 1 | 0+092 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 2 | 0+465 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 3 | 0+792 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 4 | 1+046 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 5 | 1+209 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 6 | 1+731 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 7 | 2+022 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 8 | 2+335 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 9 | 2+648 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 10 | 4+093 | EXISTNG | 1 | 2.5 | 2.2 | Okay |
| 11 | 4+342 | EXISTNG | 2 | 3 | 1.5 | Not Okay & Upsized |
| 12 | 4+585 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 13 | 4+648 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 14 | 4+740 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 15 | 4+887 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 16 | 4+978 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 17 | 5+128 | EXISTNG | 1 | 2.5 | 1.2 | Not Okay & Upsized |
| 18 | 5+355 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 19 | 5+775 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 20 | 5+878 | EXISTNG | 1 | 2 | 1.5 | Not Okay & Upsized |
| 21 | 5+925 | EXISTNG | 1 | 2 | 1.5 | Not Okay & Upsized |
| 22 | 6+105 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 23 | 6+455 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 24 | 6+688 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 25 | 6+875 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 26 | 7+100 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 27 | 7+827 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 28 | 7+895 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 29 | 8+033 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 30 | 8+203 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 31 | 8+704 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 32 | 9+575 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 33 | 10+063 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 34 | 10+515 | EXISTNG | 1 | 1 | 1 | Okay |
| 35 | 10+626 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 36 | 11+510 | EXISTNG | 1 | 1.5 | 1.5 | Okay |
| 37 | 11+713 | EXISTNG | 1 | 1 | 1 | Okay |
| 38 | 12+028 | EXISTNG | 1 | 1 | 1 | Okay |
| 39 | 12+232 | EXISTNG | 1 | 2.5 | 1.5 | Not Okay & Upsized |
| 40 | 12+593 | EXISTNG | 1 | 2.5 | 1.5 | Not Okay & Upsized |

| S.NO | CHAINAGE | TYPE | No. OF CELLS | Width (m) | Depth (m) | Adequacy |
|------|----------|---------|--------------|-----------|-----------|--------------------|
| 41 | 12+800 | EXISTNG | 1 | 2.5 | 1.5 | Not Okay & Upsized |
| 42 | 13+425 | EXISTNG | 2 | 2.5 | 1.5 | Not Okay & Upsized |
| 43 | 14+015 | EXISTNG | 2 | 2.5 | 2 | Not Okay & Upsized |
| 44 | 16+215 | EXISTNG | 4 | 3 | 2 | Not Okay & Upsized |
| 45 | 16+625 | EXISTNG | 3 | 3 | 1.5 | Not Okay & Upsized |
| 46 | 17+005 | EXISTNG | 1 | 1 | 1 | Okay |
| 47 | 17+207 | EXISTNG | 1 | 1 | 1 | Okay |
| 48 | 17+390 | EXISTNG | 1 | 1.5 | 1.5 | Okay |
| 49 | 17+455 | EXISTNG | 1 | 1 | 1 | Okay |
| 50 | 17+626 | EXISTNG | 3 | 2.5 | 1.5 | Okay |
| 51 | 18+219 | EXISTNG | 1 | 1 | 1 | Okay |
| 52 | 18+555 | EXISTNG | 1 | 1 | 1 | Okay |
| 53 | 18+838 | EXISTNG | 1 | 1.5 | 1.5 | Okay |
| 54 | 19+320 | EXISTNG | 1 | 1 | 1 | Okay |
| 55 | 19+903 | EXISTNG | 3 | 3 | 2 | Not Okay & Upsized |
| 56 | 20+215 | EXISTNG | 4 | 3 | 2 | Not Okay & Upsized |
| 57 | 20+980 | EXISTNG | 7 | 3 | 2 | Not Okay & Upsized |
| 58 | 21+375 | EXISTNG | 4 | 3 | 2 | Not Okay & Upsized |
| 59 | 21+970 | EXISTNG | 2 | 3 | 2 | Not Okay & Upsized |
| 60 | 23+420 | EXISTNG | 1 | 1 | 1 | Okay |
| 61 | 24+177 | EXISTNG | 1 | 3 | 1.5 | Not Okay & Upsized |
| 62 | 26+285 | EXISTNG | 1 | 5 | 2 | Okay |
| 63 | 26+710 | EXISTNG | 1 | 2.8 | 1 | Okay |
| 64 | 27+020 | EXISTNG | 1 | 1 | 2 | Okay |
| 65 | 27+426 | EXISTNG | 1 | 0.7 | 0.5 | Okay |
| 66 | 28+242 | EXISTNG | 1 | 1.5 | 1.5 | Okay |
| 67 | 29+870 | EXISTNG | 1 | 3 | 1.5 | Not Okay & Upsized |
| 68 | 30+210 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 69 | 30+355 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 70 | 30+913 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 71 | 30+982 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 72 | 31+192 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 73 | 31+680 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 74 | 31+954 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 75 | 32+528 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 76 | 32+595 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 77 | 32+820 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 78 | 33+385 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 79 | 33+560 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 80 | 33+755 | EXISTNG | 1 | 1.5 | 1.2 | Okay |

NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| | | |
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| | | |
| | | |
| | | |
| | | |

| | | |
|------|----------------|------|
| REV. | REVISION/ISSUE | DATE |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-1 PACKAGE-1 (Km 0+000 TO Km 57+500)

CLIENT:
NATIONAL HIGHWAY AUTHORITY (NH&M)

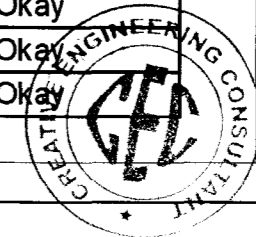
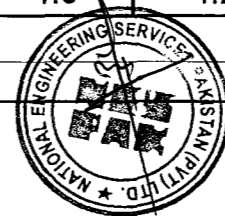
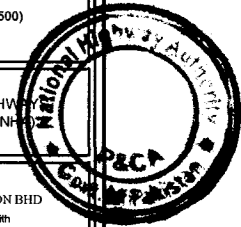
CONSULTANTS:

- MINCONSULT SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 01 OF 03 |
| DRAWN BY: .M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO: CAREC/T-III/TD/001



Handwritten signature

| S.NO | CHAINAGE | TYPE | No. OF CELLS | Width (m) | Depth (m) | Adequacy |
|------|----------|---------|--------------|-----------|-----------|--------------------|
| 81 | 33+935 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 82 | 34+180 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 83 | 34+240 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 84 | 34+425 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 85 | 34+556 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 86 | 34+603 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 87 | 34+910 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 88 | 34+970 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 89 | 35+045 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 90 | 35+155 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 91 | 35+275 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 92 | 35+400 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 93 | 35+525 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 94 | 36+100 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 95 | 36+138 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 96 | 38+382 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 97 | 39+375 | EXISTNG | 1 | 2.5 | 1.5 | Okay |
| 98 | 39+792 | EXISTNG | 1 | 2 | 1.5 | Okay |
| 99 | 40+753 | EXISTNG | 1 | 3 | 1.5 | Not Okay & Upsized |
| 100 | 41+522 | EXISTNG | 3 | 6 | 2 | Not Okay & Upsized |
| 101 | 41+660 | EXISTNG | 3 | 3 | 1.5 | Okay |
| 102 | 41+770 | EXISTNG | 4 | 3 | 1.5 | Not Okay & Upsized |
| 103 | 42+100 | EXISTNG | 4 | 3 | 1.7 | Okay |
| 104 | 42+345 | EXISTNG | 3 | 3 | 2 | Okay |
| 105 | 42+505 | EXISTNG | 1 | 1.2 | 1 | Okay |
| 106 | 42+565 | EXISTNG | 4 | 3 | 2 | Not Okay & Upsized |
| 107 | 42+855 | EXISTNG | 4 | 3 | 2 | Okay |
| 108 | 42+965 | EXISTNG | 2 | 3 | 1.5 | Not Okay & Upsized |
| 109 | 43+097 | EXISTNG | 1 | 1.5 | 1.5 | Okay |
| 110 | 43+377 | EXISTNG | 2 | 3 | 1.5 | Not Okay & Upsized |
| 111 | 44+230 | EXISTNG | 1 | 1.5 | 1.5 | Okay |
| 112 | 44+915 | EXISTNG | 1 | 3 | 1.5 | Okay |
| 113 | 45+145 | EXISTNG | 1 | 1 | 1 | Okay |
| 114 | 48+353 | EXISTNG | 2 | 2.5 | 2.5 | Not Okay & Upsized |
| 115 | 48+588 | EXISTNG | 2 | 2.5 | 2 | Not Okay & Upsized |
| 116 | 48+750 | EXISTNG | 2 | 2.8 | 2 | Not Okay & Upsized |
| 117 | 48+942 | EXISTNG | 1 | 3 | 2 | Not Okay & Upsized |
| 118 | 49+150 | EXISTNG | 1 | 3.5 | 1.5 | Okay |
| 119 | 49+595 | EXISTNG | 2 | 3.7 | 2 | Okay |
| 120 | 49+815 | EXISTNG | | 1.5 | 1.2 | Okay |

| S.NO | CHAINAGE | TYPE | No. OF CELLS | Width (m) | Depth (m) | Adequacy |
|------|----------|---------|--------------|-----------|-----------|--------------------|
| 121 | 49+956 | EXISTNG | 4 | 3 | 2.9 | Okay |
| 122 | 50+705 | EXISTNG | 3 | 3 | 1.5 | Not Okay & Upsized |
| 123 | 51+185 | EXISTNG | 1 | 2 | 1.7 | Okay |
| 124 | 51+465 | EXISTNG | 1 | 2 | 1.7 | Okay |
| 125 | 51+690 | EXISTNG | 1 | 2 | 1.7 | Okay |
| 126 | 51+918 | EXISTNG | 1 | 2 | 1.7 | Okay |
| 127 | 52+108 | EXISTNG | 1 | 2 | 1.7 | Okay |
| 128 | 52+338 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 129 | 52+776 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 130 | 53+653 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 131 | 53+718 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 132 | 53+778 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 133 | 53+838 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 134 | 54+322 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 135 | 54+565 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 136 | 54+625 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 137 | 55+050 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 138 | 55+242 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 139 | 55+306 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 140 | 55+420 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 141 | 55+580 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 142 | 55+720 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 143 | 55+800 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 144 | 55+850 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 145 | 55+889 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 146 | 56+070 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 147 | 56+209 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 148 | 56+350 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 149 | 56+621 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 150 | 56+767 | EXISTNG | 1 | 1.5 | 1.2 | Okay |
| 151 | 57+221 | EXISTNG | 1 | 3 | 1.2 | Not Okay & Upsized |

NOTES









1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-1 PACKAGE-1 (Km 0+000 TO Km 57+500)

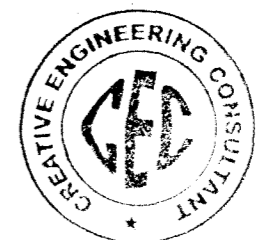
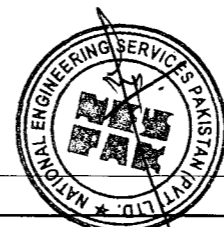
CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:
 MINCONSULT SDN BHD
 In Joint Venture With
 SAMAN CORPORATION
 SHELADIA ASSOCIATES
 CEC
 AAA
 ACE
 AA
 ACC

DRAWING TITLE:
LIST OF PROPOSED CULVERTS

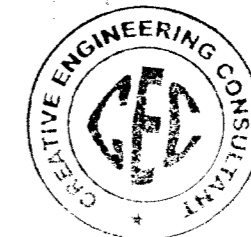
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|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 02 OF 03 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/002



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| SR. NO. | CHAINAGE | TYPE | No. OF CELLS | SIZE | |
|---------|----------|----------|--------------|-----------|-----------|
| | | | | Width (m) | Depth (m) |
| 1 | 2+903 | PROPOSED | 1 | 2.5 | 2 |
| 2 | 3+555 | PROPOSED | 1 | 1.5 | 1.2 |
| 3 | 5+203 | PROPOSED | 1 | 2 | 1.5 |
| 4 | 5+814 | PROPOSED | 1 | 1.5 | 1.2 |
| 5 | 7+369 | PROPOSED | 1 | 1.5 | 1.2 |
| 6 | 9+044 | PROPOSED | 1 | 1.5 | 1.2 |
| 7 | 10+917 | PROPOSED | 1 | 1 | 1 |
| 8 | 14+478 | PROPOSED | 1 | 1.5 | 1.5 |
| 9 | 16+838 | PROPOSED | 1 | 2 | 1.2 |
| 10 | 17+502 | PROPOSED | 1 | 1.5 | 1.5 |
| 11 | 20+312 | PROPOSED | 3 | 3 | 2 |
| 12 | 20+697 | PROPOSED | 2 | 2 | 1.5 |
| 13 | 21+275 | PROPOSED | 3 | 3 | 2 |
| 14 | 21+480 | PROPOSED | 3 | 3 | 2 |
| 15 | 21+810 | PROPOSED | 2 | 2.5 | 1.5 |
| 16 | 22+151 | PROPOSED | 1 | 3 | 1.5 |
| 17 | 28+753 | PROPOSED | 1 | 1.5 | 1.5 |
| 18 | 29+454 | PROPOSED | 1 | 1.5 | 1.5 |
| 19 | 32+231 | PROPOSED | 1 | 1.5 | 1.5 |
| 20 | 34+542 | PROPOSED | 1 | 1.5 | 1.5 |
| 21 | 35+782 | PROPOSED | 1 | 1.5 | 1.5 |
| 22 | 36+180 | PROPOSED | 1 | 1.5 | 1.2 |
| 23 | 36+845 | PROPOSED | 1 | 2.5 | 1.5 |
| 24 | 37+382 | PROPOSED | 1 | 1.5 | 1.2 |
| 25 | 37+760 | PROPOSED | 1 | 2 | 1.5 |
| 26 | 40+250 | PROPOSED | 1 | 2 | 1.5 |
| 27 | 41+092 | PROPOSED | 2 | 2.5 | 1.5 |
| 28 | 41+922 | PROPOSED | 3 | 3 | 1.5 |
| 29 | 42+637 | PROPOSED | 4 | 3 | 2 |
| 30 | 43+824 | PROPOSED | 1 | 1.5 | 1.5 |
| 31 | 46+500 | PROPOSED | 1 | 1.5 | 1.5 |
| 32 | 47+122 | PROPOSED | 1 | 2.5 | 1.5 |
| 33 | 49+012 | PROPOSED | 2 | 2.5 | 1.5 |
| 34 | 49+412 | PROPOSED | 1 | 1.5 | 1.5 |
| 35 | 52+573 | PROPOSED | 1 | 1.5 | 1.5 |
| 36 | 53+129 | PROPOSED | 1 | 1.5 | 1.2 |
| 37 | 54+164 | PROPOSED | 1 | 1.5 | 1.2 |
| 38 | 54+745 | PROPOSED | 1 | 2 | 1.5 |
| 39 | 56+698 | PROPOSED | 1 | 1.5 | 1.2 |



NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-1 PACKAGE-1 (Km 0+000 TO Km 57+500)

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

- CONSULTANTS:
- MINCONSULT SDN BHD In Joint Venture With
 - SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
 - ACE
 - AA
 - ACC

DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 01 OF 03 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/001

| S.NO | CHAINAGE | TYPE | No. OF CELLS | Width (m) | Depth (m) | Adequacy |
|------|----------|----------|--------------|-----------|-----------|--------------------|
| 152 | 57+526 | Existing | 2 | 2.5 | 1.5 | Not Okay & Upsized |
| 153 | 57+720 | Existing | 2 | 2.5 | 1.5 | Not Okay & Upsized |
| 154 | 57+957 | Existing | 1 | 1.4 | 1.3 | Okay |
| 155 | 58+436 | Existing | 2 | 2.5 | 1.5 | Not Okay & Upsized |
| 156 | 58+630 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 157 | 59+060 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 158 | 59+811 | Existing | 2 | 2.5 | 2 | Not Okay & Upsized |
| 159 | 59+913 | Existing | 2 | 2 | 1.5 | Not Okay & Upsized |
| 160 | 59+953 | Existing | 2 | 2 | 2 | Not Okay & Upsized |
| 161 | 60+637 | Existing | 2 | 2.5 | 1.5 | Not Okay & Upsized |
| 162 | 60+880 | Existing | 4 | 3 | 1.5 | Not Okay & Upsized |
| 163 | 61+103 | Existing | 2 | 3 | 1.5 | Okay |
| 164 | 61+453 | Existing | 2 | 1.5 | 1.5 | Not Okay & Upsized |
| 165 | 62+244 | Existing | 1 | 1.3 | 1.3 | Okay |
| 166 | 63+267 | Existing | 1 | 3 | 1.5 | Okay |
| 167 | 63+372 | Existing | 1 | 3 | 1.5 | Okay |
| 168 | 63+934 | Existing | 1 | 3 | 1.5 | Okay |
| 169 | 64+408 | Existing | 2 | 3 | 1.5 | Okay |
| 170 | 64+838 | Existing | 3 | 2 | 1.5 | Okay |
| 171 | 65+096 | Existing | 1 | 3 | 1.5 | Okay |
| 172 | 65+602 | Existing | 2 | 2 | 2 | Not Okay & Upsized |
| 173 | 66+816 | Existing | 1 | 1.3 | 1.5 | Okay |
| 174 | 66+832 | Existing | 2 | 2 | 1.5 | Not Okay & Upsized |
| 175 | 67+290 | Existing | 2 | 2 | 2 | Not Okay & Upsized |
| 176 | 68+424 | Existing | 2 | 3 | 1 | Not Okay & Upsized |
| 177 | 69+660 | Existing | 1 | 1.5 | 1.2 | Okay |
| 178 | 70+440 | Existing | 1 | 1.5 | 1.2 | Okay |
| 179 | 70+808 | Existing | 1 | 1.5 | 1.2 | Okay |
| 180 | 71+054 | Existing | 1 | 1.5 | 1.2 | Okay |
| 181 | 71+240 | Existing | 1 | 1.5 | 1.2 | Okay |
| 182 | 71+577 | Existing | 1 | 1.5 | 1.2 | Okay |

| S.NO | CHAINAGE | TYPE | No. OF CELLS | Width (m) | Depth (m) | Adequacy |
|------|----------|----------|--------------|-----------|-----------|--------------------|
| 183 | 72+071 | Existing | 1 | 1.5 | 1.2 | Okay |
| 184 | 72+258 | Existing | 1 | 1.5 | 1.2 | Okay |
| 185 | 72+410 | Existing | 1 | 1.5 | 1.2 | Okay |
| 186 | 72+760 | Existing | 1 | 1.5 | 1.2 | Okay |
| 187 | 74+567 | Existing | 1 | 1.5 | 1.2 | Okay |
| 188 | 74+838 | Existing | 1 | 1.5 | 1.2 | Okay |
| 189 | 78+800 | Existing | 1 | 1.5 | 1.2 | Okay |
| 190 | 78+950 | Existing | 1 | 1.5 | 1.2 | Okay |
| 191 | 79+580 | Existing | 1 | 1.5 | 1.2 | Okay |
| 192 | 79+662 | Existing | 1 | 1.5 | 1.2 | Okay |
| 193 | 79+717 | Existing | 1 | 1.5 | 1.2 | Okay |
| 194 | 79+887 | Existing | 1 | 1.5 | 1.2 | Okay |
| 195 | 79+966 | Existing | 1 | 1.5 | 1.2 | Okay |
| 196 | 80+789 | Existing | 1 | 1.5 | 1.2 | Okay |
| 197 | 80+821 | Existing | 1 | 1.5 | 1.2 | Okay |
| 198 | 83+738 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 199 | 84+359 | Existing | 1 | 2 | 1.2 | Not Okay & Upsized |
| 200 | 84+359 | Existing | 1 | 1.5 | 1.2 | Okay |
| 201 | 85+850 | Existing | 1 | 1.5 | 1.2 | Okay |
| 202 | 89+124 | Existing | 1 | 1.5 | 1.2 | Okay |
| 203 | 89+905 | Existing | 1 | 1.5 | 1.2 | Okay |
| 204 | 90+024 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 205 | 90+403 | Existing | 1 | 1.5 | 1.2 | Okay |
| 206 | 91+241 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 207 | 91+964 | Existing | 1 | 1.5 | 1.2 | Okay |
| 208 | 92+515 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 209 | 92+894 | Existing | 1 | 1.5 | 1.2 | Okay |
| 210 | 93+907 | Existing | 1 | 1.5 | 1.2 | Okay |
| 211 | 93+953 | Existing | 1 | 1.5 | 1.2 | Okay |
| 212 | 94+564 | Existing | 1 | 1.5 | 1.2 | Okay |

NOTES

1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
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| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
SECTION-1 PACKAGE-2
(Km 57+500 TO Km 121)

CLIENT:
NATIONAL HIGHWAYS
AUTHORITY
P&D
Govt. of Pakistan

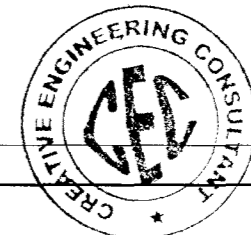
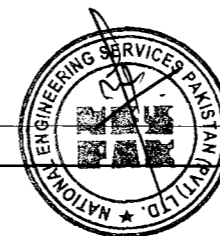
CONSULTANTS:
MINCONSULT. SDN BHD
In Joint Venture With
SAMAN CORPORATION
SHELADIA ASSOCIATES
CEC
AAA
ACE
AA
ACC

DRAWING TITLE:
LIST OF PROPOSED
CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 01 OF 04 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/002

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| S.NO | CHAINAGE | TYPE | No. OF CELLS | Width (m) | Depth (m) | Adequacy |
|------|----------|----------|--------------|-----------|-----------|----------|
| 213 | 94+628 | Existing | 1 | 1.5 | 1.2 | Okay |
| 214 | 94+692 | Existing | 1 | 1.5 | 1.2 | Okay |
| 215 | 95+316 | Existing | 1 | 1.5 | 1.2 | Okay |
| 216 | 95+546 | Existing | 1 | 1.5 | 1.2 | Okay |
| 217 | 95+632 | Existing | 1 | 1.5 | 1.2 | Okay |
| 218 | 95+718 | Existing | 1 | 1.5 | 1.2 | Okay |
| 219 | 95+963 | Existing | 1 | 1.5 | 1.2 | Okay |
| 220 | 96+040 | Existing | 1 | 1.5 | 1.2 | Okay |
| 221 | 96+120 | Existing | 1 | 1.5 | 1.2 | Okay |
| 222 | 96+402 | Existing | 1 | 1.5 | 1.2 | Okay |
| 223 | 99+868 | Existing | 1 | 1.5 | 1.5 | Okay |
| 224 | 100+540 | Existing | 1 | 1.5 | 1.5 | Okay |
| 225 | 101+110 | Existing | 1 | 1.5 | 1.5 | Okay |
| 226 | 102+013 | Existing | 1 | 1.5 | 1.2 | Okay |
| 227 | 102+371 | Existing | 1 | 1.5 | 1.2 | Okay |
| 228 | 102+568 | Existing | 1 | 1.5 | 1.2 | Okay |
| 229 | 102+804 | Existing | 1 | 1.5 | 1.2 | Okay |
| 230 | 104+407 | Existing | 1 | 1.5 | 1.2 | Okay |
| 231 | 104+686 | Existing | 1 | 1.5 | 1.2 | Okay |
| 232 | 105+018 | Existing | 1 | 1.5 | 1.2 | Okay |
| 233 | 105+180 | Existing | 1 | 1.5 | 1.2 | Okay |
| 234 | 105+318 | Existing | 1 | 1.5 | 1.2 | Okay |
| 235 | 105+871 | Existing | 1 | 1.5 | 1.2 | Okay |
| 236 | 105+871 | Existing | 1 | 1.5 | 1.2 | Okay |
| 237 | 107+012 | Existing | 1 | 1.5 | 1.2 | Okay |
| 238 | 108+193 | Existing | 1 | 1.5 | 1.2 | Okay |
| 239 | 109+061 | Existing | 1 | 1.5 | 1.2 | Okay |
| 240 | 109+185 | Existing | 1 | 1.5 | 1.2 | Okay |
| 241 | 109+442 | Existing | 1 | 1.5 | 1.2 | Okay |
| 242 | 109+995 | Existing | 1 | 1.5 | 1.2 | Okay |

| S.NO | CHAINAGE | TYPE | No. OF CELLS | Width (m) | Depth (m) | Adequacy |
|------|----------|----------|--------------|-----------|-----------|----------|
| 243 | 110+122 | Existing | 1 | 1.5 | 1.2 | Okay |
| 244 | 110+930 | Existing | 1 | 1.5 | 1.2 | Okay |
| 245 | 110+982 | Existing | 1 | 1.5 | 1.2 | Okay |
| 246 | 111+101 | Existing | 1 | 1.5 | 1.2 | Okay |
| 247 | 111+263 | Existing | 1 | 1.5 | 1.2 | Okay |
| 248 | 111+597 | Existing | 1 | 1.5 | 1.2 | Okay |
| 249 | 111+764 | Existing | 1 | 1.5 | 1.2 | Okay |
| 250 | 112+139 | Existing | 1 | 1.5 | 1.2 | Okay |
| 251 | 112+158 | Existing | 1 | 1.5 | 1.2 | Okay |
| 252 | 112+219 | Existing | 1 | 1.5 | 1.2 | Okay |
| 253 | 112+242 | Existing | 1 | 1.5 | 1.2 | Okay |
| 254 | 112+588 | Existing | 1 | 1.5 | 1.2 | Okay |
| 255 | 112+932 | Existing | 1 | 1.5 | 1.2 | Okay |
| 256 | 113+120 | Existing | 1 | 1.5 | 1.2 | Okay |
| 257 | 113+321 | Existing | 1 | 1.5 | 1.2 | Okay |
| 258 | 113+514 | Existing | 1 | 1.5 | 1.2 | Okay |
| 259 | 113+594 | Existing | 1 | 1.5 | 1.2 | Okay |
| 260 | 113+905 | Existing | 1 | 1.5 | 1.2 | Okay |
| 261 | 114+058 | Existing | 1 | 1.5 | 1.2 | Okay |
| 262 | 114+748 | Existing | 1 | 1.5 | 1.2 | Okay |
| 263 | 114+796 | Existing | 1 | 1.5 | 1.2 | Okay |
| 264 | 116+420 | Existing | 1 | 1.5 | 1.2 | Okay |
| 265 | 116+811 | Existing | 1 | 1.5 | 1.2 | Okay |
| 266 | 117+664 | Existing | 1 | 1.5 | 1.2 | Okay |
| 267 | 118+292 | Existing | 1 | 1.5 | 1.2 | Okay |
| 268 | 119+071 | Existing | 1 | 1.5 | 1.2 | Okay |
| 269 | 120+172 | Existing | 1 | 1.5 | 1.2 | Okay |
| 270 | 120+849 | Existing | 1 | 1.5 | 1.2 | Okay |
| 271 | 121+069 | Existing | 1 | 1.5 | 1.2 | Okay |
| 272 | 121+184 | Existing | 1 | 1.5 | 1.2 | Okay |



NOTES









1- ALL DIMENSIONS ARE IN METERS

LEGEND

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| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-1 PACKAGE-2 (Km 57+500 TO Km 121+500)

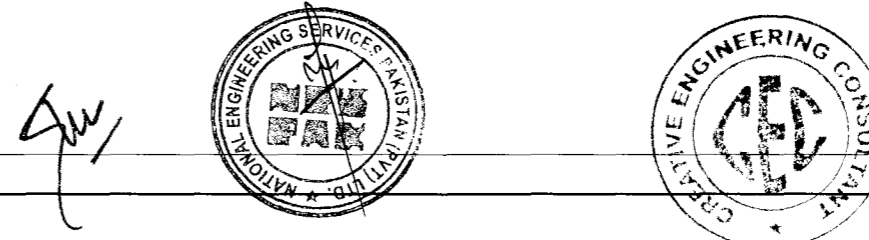
CLIENT:
 NATIONAL HIGHWAYS AUTHORITY (NH&A)
 GOVT. OF PUNJAB

CONSULTANTS:
 MINCONSULT, SDN BHD
In Joint Venture With
 SAMAN CORPORATION
 SHELDIA ASSOCIATES
 CEC
 AAA
 ACE
 AA
 ACC

DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 02 OF 04 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/002



| SR. NO. | CHAINAGE | TYPE | No. OF CELLS | SIZE | |
|---------|----------|----------|--------------|-----------|-----------|
| | | | | Width (m) | Depth (m) |
| 1 | 2+903 | PROPOSED | 1 | 2.5 | 2 |
| 2 | 3+555 | PROPOSED | 1 | 1.5 | 1.2 |
| 3 | 5+203 | PROPOSED | 1 | 2 | 1.5 |
| 4 | 5+814 | PROPOSED | 1 | 1.5 | 1.2 |
| 5 | 7+369 | PROPOSED | 1 | 1.5 | 1.2 |
| 6 | 9+044 | PROPOSED | 1 | 1.5 | 1.2 |
| 7 | 10+917 | PROPOSED | 1 | 1 | 1 |
| 8 | 14+478 | PROPOSED | 1 | 1.5 | 1.5 |
| 9 | 16+838 | PROPOSED | 1 | 2 | 1.2 |
| 10 | 17+502 | PROPOSED | 1 | 1.5 | 1.5 |
| 11 | 20+312 | PROPOSED | 3 | 3 | 2 |
| 12 | 20+697 | PROPOSED | 2 | 2 | 1.5 |
| 13 | 21+275 | PROPOSED | 3 | 3 | 2 |
| 14 | 21+480 | PROPOSED | 3 | 3 | 2 |
| 15 | 21+810 | PROPOSED | 2 | 2.5 | 1.5 |
| 16 | 22+151 | PROPOSED | 1 | 3 | 1.5 |
| 17 | 28+753 | PROPOSED | 1 | 1.5 | 1.5 |
| 18 | 29+454 | PROPOSED | 1 | 1.5 | 1.5 |
| 19 | 32+231 | PROPOSED | 1 | 1.5 | 1.5 |
| 20 | 34+542 | PROPOSED | 1 | 1.5 | 1.5 |
| 21 | 35+782 | PROPOSED | 1 | 1.5 | 1.5 |
| 22 | 36+180 | PROPOSED | 1 | 1.5 | 1.2 |
| 23 | 36+845 | PROPOSED | 1 | 2.5 | 1.5 |
| 24 | 37+382 | PROPOSED | 1 | 1.5 | 1.2 |
| 25 | 37+760 | PROPOSED | 1 | 2 | 1.5 |
| 26 | 40+250 | PROPOSED | 1 | 2 | 1.5 |
| 27 | 41+092 | PROPOSED | 2 | 2.5 | 1.5 |
| 28 | 41+922 | PROPOSED | 3 | 3 | 1.5 |
| 29 | 42+637 | PROPOSED | 4 | 3 | 2 |
| 30 | 43+824 | PROPOSED | 1 | 1.5 | 1.5 |
| 31 | 46+500 | PROPOSED | 1 | 1.5 | 1.5 |
| 32 | 47+122 | PROPOSED | 1 | 2.5 | 1.5 |
| 33 | 49+012 | PROPOSED | 2 | 2.5 | 1.5 |
| 34 | 49+412 | PROPOSED | 1 | 1.5 | 1.5 |
| 35 | 52+573 | PROPOSED | 1 | 1.5 | 1.5 |
| 36 | 53+129 | PROPOSED | 1 | 1.5 | 1.2 |
| 37 | 54+164 | PROPOSED | 1 | 1.5 | 1.2 |
| 38 | 54+745 | PROPOSED | 1 | 2 | 1.5 |
| 39 | 56+698 | PROPOSED | 1 | 1.5 | 1.2 |


NOTES

1- ALL DIMENSIONS ARE IN METERS.









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| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
SECTION-1 PACKAGE-1
(Km 0+000 TO Km 57+500)

CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

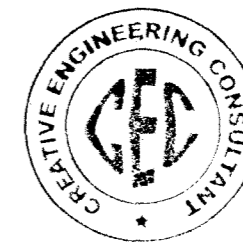
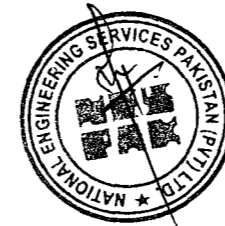
CONSULTANTS:

-  MINCONSULT SDN BHD
In Joint Venture With
-  SAMAN CORPORATION
-  SHELADIA ASSOCIATES
-  CEC
-  AAA
-  ACE
-  AA
-  ACC

DRAWING TITLE:
LIST OF PROPOSED
CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 01 OF 03 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/001



Signature

| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-----------------------|-----------------|------------------------|------------------------|--------------------|
| 1 | 122+207 | Existing | 1 | 2 | 1.5 | Not Okay & Upsized |
| 2 | 122+820 | Existing | 1 | 2 | 1.5 | Not Okay & Upsized |
| 3 | 123+418 | Existing | 1 | 2 | 1.2 | Not Okay & Upsized |
| 4 | 124+170 | Existing | 1 | 2 | 1 | Not Okay & Upsized |
| 5 | 124+520 | Existing | 1 | 2.5 | 1.2 | Not Okay & Upsized |
| 6 | 124+968 | Existing | 1 | 1.5 | 1.5 | Not Okay & Upsized |
| 7 | 125+218 | Existing | 1 | 3 | 1.5 | Okay |
| 8 | 125+569 | Existing | 1 | 1.5 | 1.5 | Okay |
| 9 | 125+916 | Existing | 1 | 2 | 1 | Okay |
| 10 | 126+368 | Existing | 1 | 2 | 1.5 | Okay |
| 11 | 126+819 | Existing | 1 | 2 | 1 | Okay |
| 12 | 127+218 | Existing | 1 | 1 | 1.2 | Okay |
| 13 | 127+520 | Existing | 1 | 3 | 1.5 | Okay |
| 14 | 127+717 | Existing | 1 | 1.85 | 1.5 | Okay |
| 15 | 128+087 | Existing | 1 | 1.5 | 1.5 | Okay |
| 16 | 128+558 | Existing | 1 | 2 | 1 | Okay |
| 17 | 128+826 | Existing | 2 | 2 | 1.2 | Okay |
| 18 | 130+355 | Existing | 3 | 3 | 2 | Not Okay & Upsized |
| 19 | 132+279 | Existing | 1 | 1.5 | 1.5 | Okay |
| 20 | 132+805 | Existing | 1 | 3 | 1.5 | Okay |
| 21 | 134+028 | Existing | 1 | 2 | 1.5 | Okay |
| 22 | 134+128 | Existing | 3 | 3.5 | 2 | Not Okay & Upsized |
| 23 | 134+457 | Existing | 2 | 1.5 | 1.5 | Okay |
| 24 | 134+770 | Existing | 1 | 1.5 | 1.5 | Okay |
| 25 | 134+997 | Existing | 2 | 2.5 | 2.5 | Okay |
| 26 | 135+480 | Existing | 1 | 1.5 | 1.5 | Okay |
| 27 | 136+220 | Existing | 1 | 1.5 | 1.5 | Okay |
| 28 | 137+426 | Existing | 1 | 3 | 1.5 | Okay |
| 29 | 137+951 | Existing | 2 | 2.5 | 1.5 | Okay |
| 30 | 138+737 | Existing | 1 | 1.5 | 1.5 | Okay |
| 31 | 139+103 | Existing | 2 | 3.5 | 2 | Okay |
| 32 | 139+962 | Existing | 1 | 3 | 1.5 | Okay |
| 33 | 141+197 | Existing | 1 | 1.5 | 1 | Okay |
| 34 | 143+437 | Existing | 2 | 2.5 | 1.5 | Not Okay & Upsized |
| 35 | 143+829 | Existing | 1 | 1.5 | 1.5 | Okay |
| 36 | 144+708 | Existing | 1 | 1.5 | 1.2 | Okay |

| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-----------------------|-----------------|------------------------|------------------------|--------------------|
| 37 | 144+928 | Existing | 1 | 1.5 | 1 | Okay |
| 38 | 145+258 | Existing | 1 | 1.5 | 0.9 | Okay |
| 39 | 145+916 | Existing | 1 | 1.5 | 1 | Okay |
| 40 | 146+283 | Existing | 1 | 1.5 | 1.2 | Okay |
| 41 | 146+395 | Existing | 1 | 1.5 | 1.2 | Okay |
| 42 | 146+550 | Existing | 1 | 1.5 | 1.2 | Okay |
| 43 | 146+580 | Existing | 1 | 1.5 | 1.2 | Okay |
| 44 | 146+817 | Existing | 1 | 1.5 | 1.2 | Okay |
| 45 | 147+069 | Existing | 1 | 1.5 | 1.2 | Okay |
| 46 | 147+321 | Existing | 1 | 1.5 | 1.2 | Okay |
| 47 | 147+610 | Existing | 1 | 1.5 | 1.2 | Okay |
| 48 | 147+927 | Existing | 1 | 1.5 | 1.2 | Okay |
| 49 | 148+295 | Existing | 1 | 1.5 | 1.2 | Okay |
| 50 | 148+478 | Existing | 1 | 1.5 | 1.2 | Okay |
| 51 | 148+537 | Existing | 1 | 1.5 | 1.5 | Okay |
| 52 | 149+467 | Existing | 1 | 1.5 | 1.2 | Okay |
| 53 | 149+718 | Existing | 1 | 2.5 | 2.5 | Okay |
| 54 | 150+119 | Existing | 1 | 1.5 | 1.2 | Okay |
| 55 | 152+248 | Existing | 1 | 3 | 1.5 | Okay |
| 56 | 152+877 | Existing | 1 | 2 | 1 | Okay |
| 57 | 153+924 | Existing | 1 | 2 | 1.5 | Okay |
| 58 | 155+116 | Existing | 1 | 1.5 | 1.5 | Okay |
| 59 | 156+479 | Existing | 3 | 2.4 | 1 | Okay |
| 60 | 156+882 | Existing | 2 | 2.5 | 1.5 | Okay |
| 61 | 157+357 | Existing | 1 | 3 | 1 | Okay |
| 62 | 157+923 | Existing | 1 | 2.5 | 1 | Okay |
| 63 | 158+118 | Existing | 1 | 3 | 1 | Okay |
| 64 | 158+442 | Existing | 1 | 3.2 | 1 | Okay |
| 65 | 159+200 | Existing | 2 | 3.5 | 1 | Not Okay & Upsized |
| 66 | 159+246 | Existing | 2 | 3.5 | 1 | Not Okay & Upsized |
| 67 | 159+795 | Existing | 1 | 1.5 | 1.2 | Okay |
| 68 | 159+886 | Existing | 1 | 1.5 | 1.2 | Okay |
| 69 | 160+379 | Existing | 1 | 1.5 | 1.2 | Okay |
| 70 | 161+067 | Existing | 1 | 1.5 | 1.2 | Okay |
| 71 | 161+380 | Existing | 1 | 1.5 | 1.2 | Okay |
| 72 | 161+470 | Existing | 1 | 1.5 | 1.2 | Okay |

NOTES
1- ALL DIMENSIONS ARE IN METERS

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-95 AS 4-LANE HIGHWAY
SECTION-2 PACKAGE-1
(Km 121+500 TO Km 233+200)

CLIENT:
NATIONAL HIGHWAY
AUTHORITY (NH
A)

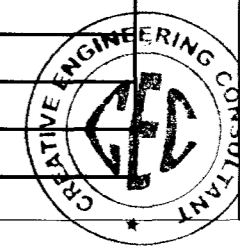
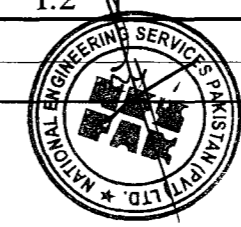
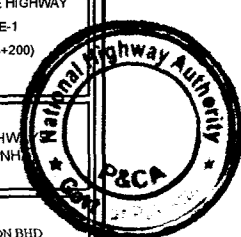
CONSULTANTS:

- MINCONSULT. SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACB
- AA
- ACC

DRAWING TITLE:
LIST OF PROPOSED
CULVERTS

| | |
|---------------------------|-------------------------------|
| DESIGN BY: S.M | SHEET NO.: 01 OF 06 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO.:
CAREC/T-III/TD/001



Handwritten signature


| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-----------------------|-----------------|------------------------|------------------------|--------------------|
| 73 | 161+505 | Existing | 1 | 1.5 | 1.2 | Okay |
| 74 | 161+636 | Existing | 1 | 1.5 | 1.2 | Okay |
| 75 | 161+725 | Existing | 1 | 1.5 | 1.2 | Okay |
| 76 | 161+903 | Existing | 1 | 1.5 | 1.2 | Okay |
| 77 | 162+045 | Existing | 1 | 1.5 | 1.2 | Okay |
| 78 | 162+670 | Existing | 1 | 3 | 1 | Okay |
| 79 | 164+070 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 80 | 164+572 | Existing | 2 | 2.5 | 1.5 | Okay |
| 81 | 164+779 | Existing | 2 | 2 | 1.5 | Okay |
| 82 | 165+372 | Existing | 1 | 3 | 1 | Okay |
| 83 | 165+568 | Existing | 1 | 1 | 1 | Okay |
| 84 | 165+854 | Existing | 1 | 3 | 1 | Okay |
| 85 | 167+358 | Existing | 2 | 2 | 1.5 | Okay |
| 86 | 168+670 | Existing | 1 | 1.5 | 1.2 | Okay |
| 87 | 168+864 | Existing | 1 | 1.5 | 1.2 | Okay |
| 88 | 169+018 | Existing | 1 | 2 | 1.2 | Okay |
| 89 | 169+092 | Existing | 1 | 2 | 1.2 | Okay |
| 90 | 169+146 | Existing | 1 | 1.5 | 1.2 | Okay |
| 91 | 169+238 | Existing | 1 | 2 | 1.2 | Okay |
| 92 | 169+386 | Existing | 1 | 1.5 | 1.2 | Okay |
| 93 | 169+463 | Existing | 1 | 2 | 1.5 | Not Okay & Upsized |
| 94 | 169+950 | Existing | 1 | 1.5 | 1.5 | Not Okay & Upsized |
| 95 | 170+405 | Existing | 1 | 1.5 | 1.2 | Okay |
| 96 | 170+500 | Existing | 1 | 1.5 | 1.2 | Okay |
| 97 | 170+784 | Existing | 1 | 1.5 | 1.2 | Okay |
| 98 | 171+143 | Existing | 1 | 1.5 | 1.2 | Okay |
| 99 | 171+300 | Existing | 1 | 2 | 1.2 | Not Okay & Upsized |
| 100 | 171+505 | Existing | 1 | 1.5 | 1.2 | Okay |
| 101 | 171+719 | Existing | 1 | 2 | 1.2 | Okay |
| 102 | 171+846 | Existing | 1 | 1.5 | 1.2 | Okay |
| 103 | 171+890 | Existing | 1 | 2 | 1.2 | Okay |
| 104 | 171+967 | Existing | 1 | 1.5 | 1.2 | Okay |
| 105 | 172+160 | Existing | 1 | 1.5 | 1.2 | Okay |
| 106 | 172+803 | Existing | 5 | 3.5 | 3 | Not Okay & Upsized |
| 107 | 173+890 | Existing | 1 | 1.5 | 1.2 | Okay |
| 108 | 174+080 | Existing | 1 | 1.5 | 1.2 | Okay |
| 109 | 174+810 | Existing | 1 | 2.5 | 1.5 | Not Okay & Upsized |
| 110 | 174+940 | Existing | 1 | 2.5 | 1.5 | Not Okay & Upsized |

NOTES
1. ALL DIMENSIONS ARE IN METERS.









LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
SECTION-2 PACKAGE-1
(Km 121+500 TO Km 233+200)

CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

CONSULTANTS:

-  MINCONSULT, SDN BHD
In Joint Venture With
-  SAMAN CORPORATION
-  SHELADIA ASSOCIATES
-  CEC
-  AAA
-  ACE
-  AA
-  ACC

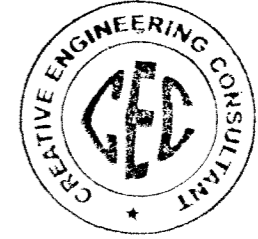
DRAWING TITLE:
LIST OF PROPOSED
CULVERTS

| | |
|---------------------------|------------------------------|
| DESIGN BY: S.M | SHEET NO: 02 OF 06 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/002



Signature



| Sr.No | RDs | Existing/Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-------------------|--------------|------------------|------------------|--------------------|
| 1 | 176+534 | Existing | 4 | 2 | 1.2 | Not Okay & Upsized |
| 2 | 177+078 | Existing | 2 | 2.5 | 1.5 | Not Okay & Upsized |
| 3 | 178+009 | Existing | 2 | 2 | 1 | Okay |
| 4 | 178+824 | Existing | 2 | 2 | 1 | Okay |
| 5 | 180+396 | Existing | 1 | 2 | 1 | Okay |
| 6 | 180+685 | Existing | 1 | 3 | 1 | Okay |
| 7 | 181+368 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 8 | 183+415 | Existing | 1 | 2.5 | 1.5 | Okay |
| 9 | 184+998 | Existing | 1 | 1 | 1 | Okay |
| 10 | 186+133 | Existing | 6 | 3 | 1.5 | Okay |
| 11 | 186+207 | Existing | 7 | 3 | 1.5 | Okay |
| 12 | 186+313 | Existing | 3 | 1.5 | 1.2 | Okay |
| 13 | 186+360 | Existing | 4 | 1.5 | 1.2 | Okay |
| 14 | 186+722 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 15 | 186+820 | Existing | 3 | 2.5 | | Okay |
| 16 | 187+106 | Existing | 5 | 2.5 | 1.5 | Not Okay & Upsized |
| 17 | 187+175 | Existing | 2 | 2.5 | 1.2 | Not Okay & Upsized |
| 18 | 187+280 | Existing | 5 | 3 | 1.5 | Not Okay & Upsized |
| 19 | 187+410 | Existing | 5 | 3 | 1.5 | Not Okay & Upsized |
| 20 | 188+041 | Existing | 4 | 3 | 1.5 | Not Okay & Upsized |
| 21 | 188+621 | Existing | 3 | 1.5 | 1.2 | Okay |
| 22 | 188+946 | Existing | 3 | 1.5 | 1.2 | Okay |
| 23 | 189+711 | Existing | 2 | 2.5 | 1.25 | Not Okay & Upsized |
| 24 | 190+090 | Existing | 3 | 2.5 | 1.5 | Not Okay & Upsized |
| 25 | 190+390 | Existing | 3 | 2 | 1.5 | Not Okay & Upsized |
| 26 | 190+846 | Existing | 4 | 3 | 1.5 | Not Okay & Upsized |
| 27 | 191+190 | Existing | 5 | 1.5 | 1.2 | Okay |
| 28 | 191+401 | Existing | 5 | 3 | 2 | Not Okay & Upsized |
| 29 | 192+116 | Existing | 3 | 3 | 1 | Okay |
| 30 | 192+348 | Existing | 3 | 3 | 1 | Okay |
| 31 | 192+806 | Existing | 4 | 3 | 1.2 | Okay |
| 32 | 192+940 | Existing | 7 | 3 | 1.2 | Okay |
| 33 | 193+150 | Existing | 4 | 1.5 | 1.2 | Okay |
| 34 | 194+307 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 35 | 208+877 | Existing | 2 | 2 | 1.5 | Okay |
| 36 | 210+603 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 37 | 211+518 | Existing | 6 | 3 | 1.5 | Not Okay & Upsized |
| 38 | 212+563 | Existing | 5 | 3 | 1.5 | Okay |
| 39 | 212+891 | Existing | 3 | 3 | 2 | Not Okay & Upsized |
| 40 | 213+145 | Existing | 3 | 3.5 | 2 | Okay |

| Sr.No | RDs | Existing/Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-------------------|--------------|------------------|------------------|--------------------|
| 41 | 213+418 | Existing | 2 | 3 | 2 | Not Okay & Upsized |
| 42 | 213+456 | Existing | 3 | 3.5 | 2 | Okay |
| 43 | 213+477 | Existing | 3 | 3.5 | 2 | Okay |
| 44 | 213+924 | Existing | 2 | 2.5 | 1.5 | Okay |
| 45 | 214+163 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 46 | 214+413 | Existing | 2 | 2.5 | 2 | Okay |
| 47 | 214+822 | Existing | 4 | 2.5 | 1.5 | Okay |
| 48 | 215+064 | Existing | 6 | 3 | 2 | Okay |
| 49 | 215+459 | Existing | 4 | 3 | 2 | Okay |
| 50 | 215+539 | Existing | 6 | 3 | 2 | Okay |
| 51 | 215+600 | Existing | 5 | 3 | 2 | Not Okay & Upsized |
| 52 | 215+661 | Existing | 4 | 3 | 2 | Okay |
| 53 | 215+865 | Existing | 1 | 1.5 | 1.5 | Okay |
| 54 | 216+185 | Existing | 7 | 3 | 2.5 | Okay |
| 55 | 216+205 | Existing | 7 | 3 | 2.5 | Not Okay & Upsized |
| 56 | 216+684 | Existing | 6 | 3 | 2.25 | Not Okay & Upsized |
| 57 | 216+870 | Existing | 7 | 3 | 2 | Not Okay & Upsized |
| 58 | 217+024 | Existing | 7 | 3 | 2 | Not Okay & Upsized |
| 59 | 217+249 | Existing | 2 | 2 | 1.75 | Not Okay & Upsized |
| 60 | 217+346 | Existing | 7 | 3 | 1.75 | Not Okay & Upsized |
| 61 | 217+430 | Existing | 7 | 3 | 1.75 | Not Okay & Upsized |
| 62 | 217+588 | Existing | 2 | 3 | 2 | Not Okay & Upsized |
| 63 | 217+749 | Existing | 7 | 3 | 2 | Not Okay & Upsized |
| 64 | 218+000 | Existing | 4 | 2.5 | 1.5 | Not Okay & Upsized |
| 65 | 219+705 | Existing | 2 | 3 | 2 | Not Okay & Upsized |
| 66 | 219+750 | Existing | 2 | 3 | 2 | Not Okay & Upsized |
| 67 | 220+676 | Existing | 4 | 3 | 2 | Okay |
| 68 | 220+743 | Existing | 6 | 3 | 2 | Not Okay & Upsized |
| 69 | 220+849 | Existing | 4 | 2 | 1 | Okay |
| 70 | 221+465 | Existing | 1 | 1 | 1 | Okay |
| 71 | 221+680 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 72 | 222+017 | Existing | 4 | 3 | 1.5 | Not Okay & Upsized |
| 73 | 222+430 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 74 | 224+157 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 75 | 225+591 | Existing | 5 | 3 | 1 | Okay |
| 76 | 225+740 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 77 | 226+137 | Existing | 2 | 2.5 | 1 | Okay |
| 78 | 228+125 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 79 | 229+560 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 80 | 230+817 | Existing | 4 | 3 | 1.5 | Not Okay & Upsized |
| 81 | 231+863 | Existing | 2 | 3 | 1.5 | Okay |

NOTES
1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-65 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-1 (Km 121+500 TO Km 233+200)

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

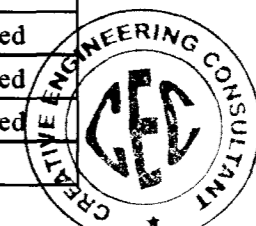
CONSULTANTS:

- MINCONSULT. SDN BHD In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 03 OF 06 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/002



Ans

| Sr.No | RDs | Existing/Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) |
|-------|---------|-------------------|--------------|------------------|------------------|
| 1 | 122+731 | Proposed | 1 | 2 | 1.5 |
| 2 | 122+948 | Proposed | 1 | 2 | 1.5 |
| 3 | 123+056 | Proposed | 1 | 2 | 1.5 |
| 4 | 123+323 | Proposed | 1 | 2 | 1.5 |
| 5 | 123+890 | Proposed | 1 | 2 | 1.25 |
| 6 | 125+077 | Proposed | 1 | 1.5 | 1.5 |
| 7 | 125+658 | Proposed | 1 | 1.5 | 1.5 |
| 8 | 127+090 | Proposed | 1 | 1.5 | 1.2 |
| 9 | 128+875 | Proposed | 1 | 1.5 | 1.5 |
| 10 | 128+975 | Proposed | 1 | 1.5 | 1.5 |
| 11 | 129+183 | Proposed | 1 | 1.5 | 1.5 |
| 12 | 129+422 | Proposed | 1 | 1.5 | 1.5 |
| 13 | 129+620 | Proposed | 1 | 1.5 | 1.5 |
| 14 | 129+645 | Proposed | 1 | 1.5 | 1.5 |
| 15 | 129+910 | Proposed | 1 | 1.5 | 1.5 |
| 16 | 130+200 | Proposed | 1 | 1.5 | 1.5 |
| 17 | 130+480 | Proposed | 1 | 1.5 | 1.5 |
| 18 | 130+540 | Proposed | 1 | 1.5 | 1.5 |
| 19 | 130+755 | Proposed | 1 | 1.5 | 1.5 |
| 20 | 131+462 | Proposed | 1 | 1.5 | 1.5 |
| 21 | 131+624 | Proposed | 1 | 1.5 | 1.5 |
| 22 | 131+940 | Proposed | 1 | 1.5 | 1.5 |
| 23 | 133+044 | Proposed | 1 | 2 | 1.5 |
| 24 | 133+628 | Proposed | 1 | 1.5 | 1.5 |
| 25 | 135+085 | Proposed | 1 | 1.5 | 1.5 |
| 26 | 135+797 | Proposed | 1 | 2 | 1.5 |
| 27 | 136+928 | Proposed | 1 | 1.5 | 1.5 |
| 28 | 137+766 | Proposed | 1 | 1.5 | 1.5 |
| 29 | 139+510 | Proposed | 1 | 1.5 | 1.5 |
| 30 | 139+927 | Proposed | 1 | 1.5 | 1.5 |
| 31 | 140+805 | Proposed | 1 | 2 | 1.5 |
| 32 | 142+190 | Proposed | 1 | 1.5 | 1 |
| 33 | 143+756 | Proposed | 1 | 1.5 | 1.5 |
| 34 | 144+275 | Proposed | 1 | 1.5 | 1.2 |
| 35 | 145+662 | Proposed | 1 | 1.5 | 1 |
| 36 | 146+855 | Proposed | 1 | 1.5 | 1.5 |
| 37 | 147+403 | Proposed | 1 | 1.5 | 1.2 |
| 38 | 147+800 | Proposed | 1 | 1.5 | 1.2 |
| 39 | 148+617 | Proposed | 1 | 1.5 | 1.5 |
| 40 | 148+733 | Proposed | 1 | 1.5 | 1.5 |
| 41 | 149+218 | Proposed | 1 | 1.5 | 1.5 |
| 42 | 149+872 | Proposed | 1 | 1.5 | 1.2 |
| 43 | 150+047 | Proposed | 1 | 1.5 | 1.2 |

| Sr.No | RDs | Existing/Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) |
|-------|---------|-------------------|--------------|------------------|------------------|
| 44 | 150+210 | Proposed | 1 | 1.5 | 1.5 |
| 45 | 155+188 | Proposed | 1 | 1.5 | 1.5 |
| 46 | 155+728 | Proposed | 1 | 1.5 | 1.5 |
| 47 | 156+758 | Proposed | 1 | 1.5 | 1.5 |
| 48 | 157+644 | Proposed | 1 | 1.5 | 1.5 |
| 49 | 158+518 | Proposed | 1 | 1.5 | 1.2 |
| 50 | 158+690 | Proposed | 1 | 1.5 | 1.2 |
| 51 | 159+374 | Proposed | 1 | 2 | 1.5 |
| 52 | 160+119 | Proposed | 1 | 2 | 1.5 |
| 53 | 161+160 | Proposed | 1 | 1.5 | 1.5 |
| 54 | 161+266 | Proposed | 1 | 1.5 | 1.5 |
| 55 | 161+459 | Proposed | 1 | 1.5 | 1.5 |
| 56 | 161+717 | Proposed | 1 | 1.5 | 1.5 |
| 57 | 162+438 | Proposed | 1 | 2 | 1 |
| 58 | 162+760 | Proposed | 1 | 1 | 1 |
| 59 | 163+935 | Proposed | 1 | 1 | 1 |
| 60 | 164+234 | Proposed | 1 | 2 | 1.5 |
| 61 | 165+047 | Proposed | 1 | 2 | 1.5 |
| 62 | 165+980 | Proposed | 1 | 1.5 | 1.2 |
| 63 | 166+593 | Proposed | 1 | 1.5 | 1.2 |
| 64 | 167+082 | Proposed | 1 | 1.5 | 1.2 |
| 65 | 167+665 | Proposed | 1 | 1.5 | 1.2 |
| 66 | 167+726 | Proposed | 1 | 1.5 | 1.2 |
| 67 | 168+077 | Proposed | 1 | 1.5 | 1.2 |
| 68 | 168+352 | Proposed | 1 | 1.5 | 1.2 |
| 69 | 168+895 | Proposed | 1 | 1.5 | 1.2 |
| 70 | 169+256 | Proposed | 1 | 1.5 | 1.5 |
| 71 | 169+466 | Proposed | 1 | 1.5 | 1.5 |
| 72 | 169+738 | Proposed | 1 | 1.5 | 1.5 |
| 73 | 170+128 | Proposed | 2 | 3 | 1.5 |
| 74 | 171+105 | Proposed | 1 | 1.5 | 1.2 |
| 75 | 172+680 | Proposed | 1 | 2 | 1.5 |
| 76 | 172+840 | Proposed | 1 | 2 | 1.5 |
| 77 | 173+580 | Proposed | 1 | 2 | 1.5 |
| 78 | 174+100 | Proposed | 1 | 2 | 1.5 |
| 79 | 174+724 | Proposed | 1 | 2 | 1.5 |
| 80 | 175+066 | Proposed | 1 | 2 | 1.5 |
| 81 | 175+553 | Proposed | 1 | 2 | 1.5 |
| 82 | 175+648 | Proposed | 1 | 2 | 1.5 |
| 83 | 175+840 | Proposed | 1 | 2 | 1.5 |
| 84 | 175+935 | Proposed | 1 | 2 | 1.5 |
| 85 | 176+155 | Proposed | 1 | 2 | 1.5 |
| 86 | 176+375 | Proposed | 1 | 3 | 1.5 |



NOTES
1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-1 (Km 121+500 TO Km 233+200)

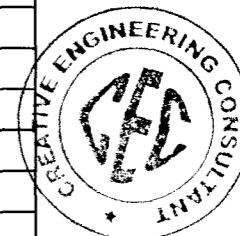
CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:
MINCONSULT SDN BHD
In Joint Venture With
SAMAN CORPORATION
SHELADIA ASSOCIATES
CEC
AAA
ACE
AA
ACC

DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 04 OF 06 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/001



| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|
| 1 | 176+610 | Proposed | 1 | 2 | 1.5 |
| 2 | 176+920 | Proposed | 1 | 2 | 1.5 |
| 3 | 177+182 | Proposed | 1 | 2 | 1.5 |
| 4 | 177+371 | Proposed | 1 | 2 | 1.5 |
| 5 | 177+642 | Proposed | 1 | 2 | 1.5 |
| 6 | 177+941 | Proposed | 1 | 2 | 1.5 |
| 7 | 178+280 | Proposed | 1 | 2 | 1.5 |
| 8 | 178+673 | Proposed | 1 | 2 | 1.5 |
| 9 | 178+890 | Proposed | 1 | 2 | 1.5 |
| 10 | 179+146 | Proposed | 1 | 2 | 1.5 |
| 11 | 179+462 | Proposed | 1 | 2 | 1.5 |
| 12 | 180+042 | Proposed | 1 | 2 | 1.5 |
| 13 | 180+862 | Proposed | 1 | 3 | 1.5 |
| 14 | 181+155 | Proposed | 1 | 2 | 1.5 |
| 15 | 181+544 | Proposed | 1 | 2 | 1.5 |
| 16 | 182+444 | Proposed | 1 | 3 | 1.5 |
| 17 | 182+774 | Proposed | 1 | 2 | 1.5 |
| 18 | 183+212 | Proposed | 1 | 2 | 1.5 |
| 19 | 183+670 | Proposed | 1 | 2 | 1.5 |
| 20 | 184+166 | Proposed | 1 | 3 | 1.5 |
| 21 | 184+621 | Proposed | 1 | 2 | 1.5 |
| 22 | 185+082 | Proposed | 1 | 1.5 | 1.5 |
| 23 | 185+712 | Proposed | 1 | 1.5 | 1.5 |
| 24 | 185+874 | Proposed | 1 | 1.5 | 1.5 |
| 25 | 186+064 | Proposed | 1 | 3 | 1 |
| 26 | 186+262 | Proposed | 2 | 2.5 | 1.5 |
| 27 | 186+549 | Proposed | 2 | 2.5 | 1.5 |
| 28 | 187+540 | Proposed | 2 | 2.5 | 1.5 |
| 29 | 187+825 | Proposed | 2 | 2.5 | 1.5 |
| 30 | 189+960 | Proposed | 2 | 2.5 | 1.5 |

| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|
| 31 | 191+049 | Proposed | 2 | 2.5 | 1.5 |
| 32 | 191+813 | Proposed | 2 | 2.5 | 1.5 |
| 33 | 192+190 | Proposed | 2 | 2.5 | 1.5 |
| 34 | 192+490 | Proposed | 2 | 2.5 | 1.5 |
| 35 | 193+080 | Proposed | 2 | 2.5 | 1.5 |
| 36 | 193+865 | Proposed | 1 | 3 | 1.5 |
| 37 | 194+105 | Proposed | 1 | 3 | 1.5 |
| 38 | 194+825 | Proposed | 4 | 3 | 2 |
| 39 | 194+985 | Proposed | 2 | 2.5 | 2 |
| 40 | 195+280 | Proposed | 1 | 2.5 | 1.5 |
| 41 | 195+648 | Proposed | 1 | 2.5 | 1.5 |
| 42 | 195+865 | Proposed | 1 | 2.5 | 1.5 |
| 43 | 196+215 | Proposed | 1 | 3 | 1.5 |
| 44 | 196+400 | Proposed | 1 | 3 | 1.5 |
| 45 | 196+700 | Proposed | 1 | 3 | 1.5 |
| 46 | 197+035 | Proposed | 2 | 2.5 | 1.5 |
| 47 | 197+355 | Proposed | 1 | 3 | 1.5 |
| 48 | 197+715 | Proposed | 1 | 2.5 | 1.5 |
| 49 | 197+928 | Proposed | 1 | 3 | 1.5 |
| 50 | 198+040 | Proposed | 2 | 2.5 | 1.5 |
| 51 | 198+165 | Proposed | 1 | 2 | 1.5 |
| 52 | 198+700 | Proposed | 1 | 2 | 1.5 |
| 53 | 199+115 | Proposed | 2 | 3 | 1.5 |
| 54 | 199+532 | Proposed | 2 | 2 | 1.5 |
| 55 | 199+730 | Proposed | 1 | 2 | 1.5 |
| 56 | 199+920 | Proposed | 1 | 3 | 1.5 |
| 57 | 200+235 | Proposed | 2 | 3 | 2 |
| 58 | 201+067 | Proposed | 1 | 3 | 2 |
| 59 | 201+242 | Proposed | 1 | 3 | 2 |
| 60 | 201+468 | Proposed | 1 | 3 | 1.5 |

NOTES

1- ALL DIMENSIONS ARE IN METERS

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
SECTION-2 PACKAGE-1
(Km 121+500 TO Km 233+200)

CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT, SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

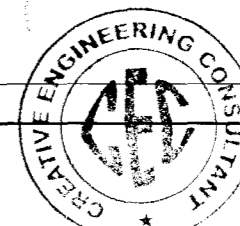
DRAWING TITLE:
LIST OF PROPOSED
CULVERTS

| | |
|---------------------------|------------------------------|
| DESIGN BY: S.M | SHEET NO: 05 OF 06 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/002



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| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|
| 61 | 201+628 | Proposed | 1 | 3 | 1.5 |
| 62 | 201+858 | Proposed | 1 | 2.5 | 1.5 |
| 63 | 202+210 | Proposed | 1 | 2.5 | 1.5 |
| 64 | 202+345 | Proposed | 1 | 3.5 | 1.5 |
| 65 | 202+574 | Proposed | 1 | 3 | 1.5 |
| 66 | 203+063 | Proposed | 2 | 3 | 1.5 |
| 67 | 203+407 | Proposed | 1 | 3 | 1.5 |
| 68 | 203+576 | Proposed | 1 | 3 | 1.5 |
| 69 | 203+890 | Proposed | 2 | 2.5 | 1.5 |
| 70 | 204+485 | Proposed | 1 | 3 | 1.5 |
| 71 | 204+940 | Proposed | 1 | 3 | 1.5 |
| 72 | 205+117 | Proposed | 1 | 3 | 1.5 |
| 73 | 205+491 | Proposed | 1 | 3 | 1.5 |
| 74 | 205+612 | Proposed | 1 | 3 | 1.5 |
| 75 | 205+991 | Proposed | 2 | 2 | 1.5 |
| 76 | 206+084 | Proposed | 1 | 3 | 1.5 |
| 77 | 206+232 | Proposed | 2 | 2.5 | 1.5 |
| 78 | 207+178 | Proposed | 3 | 3 | 1.5 |
| 79 | 207+480 | Proposed | 2 | 3 | 1.5 |
| 80 | 207+632 | Proposed | 2 | 3 | 1.5 |
| 81 | 207+940 | Proposed | 1 | 3.5 | 1.5 |
| 82 | 208+125 | Proposed | 1 | 3 | 1.5 |
| 83 | 209+078 | Proposed | 1 | 2 | 1.5 |
| 84 | 209+178 | Proposed | 1 | 2 | 1.5 |
| 85 | 209+630 | Proposed | 1 | 2 | 1.5 |
| 86 | 209+985 | Proposed | 1 | 2 | 1.5 |
| 87 | 211+068 | Proposed | 1 | 2 | 1.5 |
| 88 | 211+460 | Proposed | 1 | 2 | 1.5 |
| 89 | 211+830 | Proposed | 1 | 3 | 1.5 |
| 90 | 212+190 | Proposed | 2 | 3 | 1.5 |

| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|
| 91 | 212+628 | Proposed | 1 | 2 | 1.5 |
| 92 | 213+080 | Proposed | 2 | 3 | 1.5 |
| 93 | 213+800 | Proposed | 3 | 3 | 2 |
| 94 | 215+942 | Proposed | 1 | 3 | 1.5 |
| 95 | 217+870 | Proposed | 3 | 2.5 | 1.5 |
| 96 | 217+950 | Proposed | 3 | 2.5 | 1.5 |
| 97 | 218+840 | Proposed | 3 | 2.5 | 1.5 |
| 98 | 220+150 | Proposed | 2 | 2.5 | 1.5 |
| 99 | 220+932 | Proposed | 2 | 2.5 | 1.5 |
| 100 | 221+060 | Proposed | 2 | 2.5 | 1.5 |
| 101 | 222+440 | Proposed | 2 | 2.5 | 1.5 |
| 102 | 223+350 | Proposed | 2 | 2.5 | 1.5 |
| 103 | 225+290 | Proposed | 1 | 3 | 1.5 |
| 104 | 226+300 | Proposed | 1 | 2 | 1.5 |
| 105 | 226+838 | Proposed | 1 | 2 | 1.5 |
| 106 | 227+660 | Proposed | 1 | 2 | 1.5 |
| 107 | 228+280 | Proposed | 1 | 3 | 1.5 |
| 108 | 228+695 | Proposed | 1 | 3 | 1.5 |
| 109 | 229+125 | Proposed | 1 | 3 | 1.5 |
| 110 | 230+947 | Proposed | 1 | 3 | 1.5 |
| 111 | 231+183 | Proposed | 1 | 3 | 1.5 |
| 112 | 231+343 | Proposed | 2 | 3 | 1.5 |
| 113 | 231+518 | Proposed | 1 | 3 | 1.5 |
| 114 | 231+550 | Proposed | 3 | 3 | 1.5 |
| 115 | 231+735 | Proposed | 1 | 3 | 1.5 |
| 116 | 232+086 | Proposed | 1 | 3 | 1.5 |
| 117 | 232+500 | Proposed | 2 | 3 | 1.5 |

NOTES

1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV | REVISION/ISSUE | DATE |
|-----|----------------|------|
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-1 (Km 121+500 TO Km 233+200)

CLIENT:
 NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT. SDN BHD In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

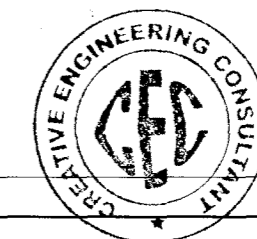
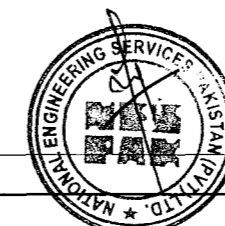
DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 06 OF 06 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO: CAREC/T-III/TD/002



Handwritten signature



| Sr.No | RDs | Existing/Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-------------------|--------------|------------------|------------------|--------------------|
| 1 | 233+022 | Existing | 5 | 3 | 1.5 | Not Okay & Upsized |
| 2 | 233+360 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 3 | 234+107 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 4 | 234+887 | Existing | 2 | 1.5 | 1.2 | Okay |
| 5 | 235+286 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 6 | 235+510 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 7 | 236+215 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 8 | 236+467 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 9 | 236+662 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 10 | 236+716 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 11 | 236+897 | Existing | 2 | 2.5 | 1.5 | Not Okay & Upsized |
| 12 | 236+952 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 13 | 236+969 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 14 | 237+451 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 15 | 237+780 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 16 | 237+832 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 17 | 237+956 | Existing | 5 | 3 | 2.5 | Not Okay & Upsized |
| 18 | 238+036 | Existing | 3 | 1.5 | 1 | Okay |
| 19 | 238+069 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 20 | 238+204 | Existing | 4 | 2.5 | 1.5 | Okay |
| 21 | 238+315 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 22 | 238+732 | Existing | 5 | 3 | 1.5 | Not Okay & Upsized |
| 23 | 239+145 | Existing | 1 | 1.5 | 1 | Okay |
| 24 | 239+207 | Existing | 2 | 2.5 | 1.2 | Not Okay & Upsized |
| 25 | 239+352 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 26 | 239+455 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 27 | 239+645 | Existing | 2 | 3 | 1.2 | Not Okay & Upsized |
| 28 | 239+894 | Existing | 3 | 3 | 1.2 | Not Okay & Upsized |
| 29 | 240+018 | Existing | 3 | 2.5 | 2.5 | Okay |

| Sr.No | RDs | Existing/Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-------------------|--------------|------------------|------------------|--------------------|
| 30 | 240+250 | Existing | 5 | 2.5 | 2.5 | Not Okay & Upsized |
| 31 | 240+422 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 32 | 240+500 | Existing | 3 | 2.5 | 2.5 | Okay |
| 33 | 241+255 | Existing | 1 | 2.5 | 2.5 | Okay |
| 34 | 241+491 | Existing | 1 | 2.5 | 2.5 | Okay |
| 35 | 241+771 | Existing | 1 | 2.5 | 2.5 | Okay |
| 36 | 242+671 | Existing | 5 | 3 | 2.5 | Not Okay & Upsized |
| 37 | 242+920 | Existing | 3 | 2.5 | 2.5 | Okay |
| 38 | 243+766 | Existing | 1 | 1.5 | 1.5 | Okay |
| 39 | 243+832 | Existing | 4 | 3 | 2 | Not Okay & Upsized |
| 40 | 243+862 | Existing | 1 | 1.5 | 1.5 | Okay |
| 41 | 244+020 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 42 | 244+067 | Existing | 6 | 3 | 2.5 | Not Okay & Upsized |
| 43 | 244+112 | Existing | 4 | 3 | 1.2 | Not Okay & Upsized |
| 44 | 244+271 | Existing | 2 | 1 | 1.2 | Not Okay & Upsized |
| 45 | 244+348 | Existing | 4 | 3 | 2 | Not Okay & Upsized |
| 46 | 244+494 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 47 | 244+596 | Existing | 1 | 2 | 1.5 | Okay |
| 48 | 244+693 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 49 | 244+926 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 50 | 245+025 | Existing | 4 | 3 | 1.5 | Okay |
| 51 | 245+259 | Existing | 4 | 1.5 | 3 | Okay |
| 52 | 245+892 | Existing | 1 | 1.5 | 1 | Okay |
| 53 | 246+027 | Existing | 3 | 2.5 | 1.5 | Okay |
| 54 | 246+126 | Existing | 1 | 1.5 | 1 | Okay |
| 55 | 246+261 | Existing | 3 | 2.5 | 1.5 | Okay |
| 56 | 246+449 | Existing | 6 | 2.5 | 2 | Not Okay & Upsized |
| 57 | 246+513 | Existing | 7 | 3 | 1.5 | Not Okay & Upsized |
| 58 | 246+705 | Existing | 7 | 3 | 1.5 | Not Okay & Upsized |

NOTES
1- ALL DIMENSIONS ARE IN METERS

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-2 (Km 233+200 TO Km 329+445)

CLIENT:
NHA NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:
MINCONSULT SDN BHD In Joint Venture With SAMAN CORPORATION
SHELADIA ASSOCIATES
CEC
AAA
ACE
AA
ACC

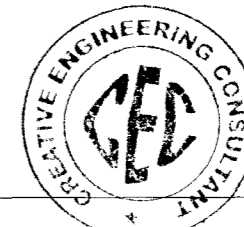
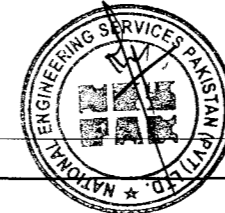
DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 01 OF 08 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/001



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| Sr.No | RDs | Existing/P roposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|--------------------|
| 59 | 247+082 | Existing | 3 | 3 | 1.5 | Okay |
| 60 | 247+211 | Existing | 1 | 2 | 1.5 | Okay |
| 61 | 247+555 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 62 | 247+466 | Existing | 1 | 2.5 | 1.5 | Okay |
| 63 | 248+602 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 64 | 248+875 | Existing | 1 | 1 | 1 | Okay |
| 65 | 248+988 | Existing | 1 | 2 | 1.5 | Okay |
| 66 | 249+221 | Existing | 2 | 2.5 | 1.5 | Okay |
| 67 | 249+590 | Existing | 1 | 2 | 1.5 | Okay |
| 68 | 249+821 | Existing | 1 | 2 | 1 | Okay |
| 69 | 250+583 | Existing | 2 | 3.5 | 1.5 | Not Okay & Upsized |
| 70 | 250+682 | Existing | 1 | 1 | 3.5 | Okay |
| 71 | 251+074 | Existing | 1 | 2 | 1.5 | Okay |
| 72 | 251+837 | Existing | 1 | 1 | 1 | Okay |
| 73 | 252+125 | Existing | 5 | 3 | 2 | Not Okay & Upsized |
| 74 | 253+186 | Existing | 5 | 2.5 | 1.5 | Not Okay & Upsized |
| 75 | 253+386 | Existing | 5 | 3 | 1.5 | Not Okay & Upsized |
| 76 | 253+425 | Existing | 5 | 3 | 1.5 | Not Okay & Upsized |
| 77 | 253+471 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 78 | 253+815 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 79 | 253+233 | Existing | 1 | 1 | 1 | Okay |
| 80 | 254+462 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 81 | 254+926 | Existing | 1 | 1 | 1 | Okay |
| 82 | 255+444 | Existing | 1 | 1 | 1 | Okay |
| 83 | 255+504 | Existing | 2 | 1.5 | 1 | Okay |
| 84 | 255+626 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 85 | 255+819 | Existing | 3 | 2.5 | 1.5 | Okay |
| 86 | 255+864 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 87 | 255+945 | Existing | 4 | 2.5 | 1.5 | Okay |

| Sr.No | RDs | Existing/P roposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|--------------------|
| 88 | 256+192 | Existing | 2 | 2.5 | 2.5 | Okay |
| 89 | 256+287 | Existing | 4 | 2.5 | 1 | Okay |
| 90 | 256+309 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 91 | 256+338 | Existing | 1 | 3 | 1.5 | Okay |
| 92 | 256+639 | Existing | 2 | 2.5 | 1.5 | Okay |
| 93 | 256+740 | Existing | 1 | 3 | 1.5 | Okay |
| 94 | 256+825 | Existing | 1 | 3 | 1 | Okay |
| 95 | 256+953 | Existing | 2 | 3 | 2 | Okay |
| 96 | 258+262 | Existing | 2 | 2 | 1 | Okay |
| 97 | 259+209 | Existing | 3 | 2.5 | 1.5 | Okay |
| 98 | 259+540 | Existing | 1 | 2.5 | 1.5 | Okay |
| 99 | 259+700 | Existing | 3 | 2.5 | 1.5 | Okay |
| 100 | 259+904 | Existing | 1 | 1 | 1 | Okay |
| 101 | 259+920 | Existing | 2 | 2.5 | 1.5 | Okay |
| 102 | 260+140 | Existing | 2 | 3 | 1 | Not Okay & Upsized |
| 103 | 260+460 | Existing | 1 | 2.5 | 1.5 | Okay |
| 104 | 260+761 | Existing | 1 | 1.5 | 1.5 | Okay |
| 105 | 260+857 | Existing | 1 | 1 | 1 | Okay |
| 106 | 260+984 | Existing | 2 | 1.5 | 1 | Okay |
| 107 | 261+084 | Existing | 2 | 1.5 | 1 | Okay |
| 108 | 261+321 | Existing | 3 | 2.5 | 1.5 | Okay |
| 109 | 262+027 | Existing | 5 | 3 | 2 | Not Okay & Upsized |
| 110 | 262+164 | Existing | 1 | 1 | 1 | Okay |
| 111 | 262+390 | Existing | 1 | 2 | 1 | Okay |
| 112 | 262+558 | Existing | 1 | 2 | 1 | Okay |
| 113 | 262+876 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 114 | 262+777 | Existing | 1 | 2 | 1 | Okay |
| 115 | 262+903 | Existing | 1 | 2.5 | 1.5 | Okay |
| 116 | 263+264 | Existing | 2 | 2.5 | 2.5 | Not Okay & Upsized |

NOTES

1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| | | |
|------|----------------|------|
| REV. | REVISION/ISSUE | DATE |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-2 (Km 233+200 TO Km 329+445)

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

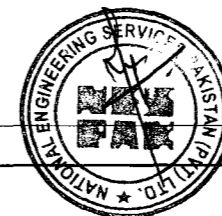
DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 02 OF 08 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO: CAREC/T-III/TD/001



A.S



| Sr.No | RDs | Existing/Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-------------------|--------------|------------------|------------------|--------------------|
| 117 | 264+093 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 118 | 264+113 | Existing | 4 | 3 | 1.5 | Not Okay & Upsized |
| 119 | 264+780 | Existing | 2 | 2.5 | 1.5 | Okay |
| 120 | 264+943 | Existing | 3 | 2.5 | 1.5 | Okay |
| 121 | 264+973 | Existing | 3 | 3 | 2 | Not Okay & Upsized |
| 122 | 265+029 | Existing | 3 | 2.5 | 1.5 | Okay |
| 123 | 265+837 | Existing | 1 | 2.5 | 1 | Not Okay & Upsized |
| 124 | 268+007 | Existing | 1 | 2 | 1.5 | Okay |
| 125 | 268+123 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 126 | 268+345 | Existing | 1 | 1 | 1 | Okay |
| 127 | 268+643 | Existing | 1 | 1.5 | 1.5 | Okay |
| 128 | 268+859 | Existing | 1 | 1 | 1 | Okay |
| 129 | 269+202 | Existing | 1 | 2 | 1.5 | Okay |
| 130 | 269+718 | Existing | 1 | 2 | 1.5 | Okay |
| 131 | 270+336 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 132 | 270+447 | Existing | 1 | 1.5 | 1.5 | Okay |
| 133 | 271+497 | Existing | 1 | 1 | 1 | Okay |
| 134 | 272+045 | Existing | 1 | 1 | 1 | Okay |
| 135 | 272+455 | Existing | 1 | 2 | 1.5 | Okay |
| 136 | 272+496 | Existing | 1 | 1.5 | 1.5 | Okay |
| 137 | 272+400 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 138 | 272+615 | Existing | 4 | 3 | 2 | Not Okay & Upsized |
| 139 | 272+914 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 140 | 273+160 | Existing | 1 | 2 | 1.5 | Okay |
| 141 | 273+254 | Existing | 1 | 2 | 1.5 | Okay |
| 142 | 273+548 | Existing | 1 | 1.5 | 1.5 | Okay |
| 143 | 273+855 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 144 | 274+180 | Existing | 1 | 1.5 | 1 | Okay |
| 145 | 274+401 | Existing | 1 | 1 | 1 | Okay |

| Sr.No | RDs | Existing/Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-------------------|--------------|------------------|------------------|--------------------|
| 146 | 274+410 | Existing | 2 | 3 | 1 | Okay |
| 147 | 274+510 | Existing | 1 | 1 | 1 | Okay |
| 148 | 274+508 | Existing | 1 | 1 | 1 | Okay |
| 149 | 274+509 | Existing | 1 | 1 | 1 | Okay |
| 150 | 274+640 | Existing | 1 | 2.5 | 2.5 | Okay |
| 151 | 274+939 | Existing | 2 | 2 | 1.5 | Okay |
| 152 | 275+194 | Existing | 1 | 2.5 | 1.5 | Okay |
| 153 | 275+828 | Existing | 1 | 1.5 | 1.2 | Okay |
| 154 | 275+931 | Existing | 1 | 1.5 | 1.2 | Okay |
| 155 | 276+453 | Existing | 1 | 1.5 | 1.2 | Okay |
| 156 | 276+686 | Existing | 1 | 1.5 | 1.2 | Okay |
| 157 | 276+880 | Existing | 1 | 1.5 | 1.2 | Okay |
| 158 | 276+989 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 159 | 277+202 | Existing | 1 | 2.5 | 1.5 | Not Okay & Upsized |
| 160 | 277+310 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 161 | 277+535 | Existing | 1 | 1.5 | 1.2 | Okay |
| 162 | 277+762 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 163 | 277+853 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 164 | 278+517 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 165 | 279+233 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 166 | 279+382 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 167 | 279+927 | Existing | 1 | 1.5 | 1.2 | Okay |
| 168 | 280+046 | Existing | 1 | 1 | 2.5 | Okay |
| 169 | 280+381 | Existing | 1 | 1 | 2 | Okay |
| 170 | 280+426 | Existing | 1 | 2.5 | 1.5 | Okay |
| 171 | 280+990 | Existing | 2 | 2.5 | 1.5 | Not Okay & Upsized |

NOTES

1- ALL DIMENSIONS ARE IN METERS.


LEGEND

| | | |
|------|----------------|------|
| REV. | REVISION/ISSUE | DATE |
| | | |
| | | |
| | | |


PROJECT:


CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-2 (Km 233+200 TO Km 329+445)


CLIENT:


 NATIONAL HIGHWAYS AUTHORITY (NHA)


CONSULTANTS:


 MINCONSULT SDN BHD
In Joint Venture With


 SAMAN CORPORATION


 SHELADIA ASSOCIATES

 CEC

 AAA

 ACE

 AA

 ACC

DRAWING TITLE:

LIST OF PROPOSED CULVERTS

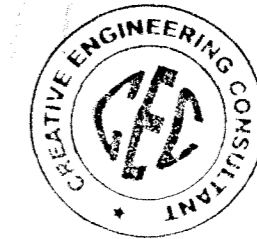
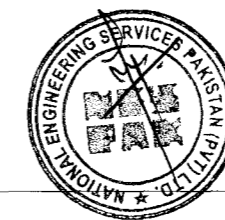
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|--------------|------------|
| DESIGN BY: | SHEET NO: |
| S.M | 03 OF 08 |
| DRAWN BY: | SCALE: |
| S.M | NTS |
| CHECKED BY: | DATE: |
| A.S | APRIL-2024 |
| APPROVED BY: | REVISION: |
| | |

DWG NO:

CAREC/T-III/TD/001



Signature



| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|
| 1 | 235+392 | Proposed | 1 | 3 | 1.5 |
| 2 | 237+190 | Proposed | 2 | 2.5 | 1.5 |
| 3 | 238+900 | Proposed | 3 | 3 | 1.5 |
| 4 | 241+100 | Proposed | 2 | 3 | 1.5 |
| 5 | 250+315 | Proposed | 1 | 3 | 1.5 |
| 6 | 253+300 | Proposed | 4 | 3 | 1.5 |
| 7 | 259+390 | Proposed | 1 | 3 | 1.5 |
| 8 | 264+900 | Proposed | 3 | 3 | 1.5 |
| 9 | 265+350 | Proposed | 3 | 3 | 1.5 |
| 10 | 265+740 | Proposed | 3 | 3 | 1.5 |
| 11 | 276+330 | Proposed | 1 | 2 | 1.5 |
| 12 | 277+060 | Proposed | 1 | 3 | 1.5 |
| 13 | 277+460 | Proposed | 1 | 3 | 1.5 |
| 14 | 278+800 | Proposed | 1 | 2.5 | 1.5 |
| 15 | 279+040 | Proposed | 1 | 2.5 | 1.5 |
| 16 | 279+550 | Proposed | 1 | 2.5 | 1.5 |
| 17 | 280+130 | Proposed | 1 | 3 | 1.5 |

NOTES









1:- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
SECTION-2 PACKAGE-2
(Km 233+200 TO Km 329+445)

CLIENT:
NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:
-  MINCONSULT SDN BHD
In Joint Venture With
 -  SAMAN CORPORATION
 -  SHELADIA ASSOCIATES
 -  CEC
 -  AAA
 -  ACE
 -  AA
 -  ACC

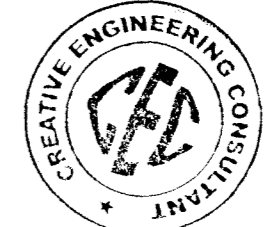
DRAWING TITLE:
LIST OF PROPOSED
CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 04 OF 08 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/001



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| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|--------------------|
| 1 | 281+593 | Existing | 1 | 1.5 | 1 | Okay |
| 2 | 282+333 | Existing | 2 | 2 | 1 | Okay |
| 3 | 282+597 | Existing | 1 | 2 | 1 | Okay |
| 4 | 282+083 | Existing | 1 | 2 | 1.5 | Okay |
| 5 | 283+194 | Existing | 1 | 1 | 1 | Okay |
| 6 | 283+942 | Existing | 3 | 3 | 1 | Not Okay & Upsized |
| 7 | 285+380 | Existing | 6 | 3 | 2 | Not Okay & Upsized |
| 8 | 285+477 | Existing | 6 | 3 | 2 | Okay |
| 9 | 285+528 | Existing | 6 | 3 | 2 | Okay |
| 10 | 285+680 | Existing | 4 | 3 | 2 | Okay |
| 11 | 285+655 | Existing | 4 | 3 | 2 | Okay |
| 12 | 286+044 | Existing | 1 | 3 | 1.5 | Okay |
| 13 | 286+209 | Existing | 6 | 3 | 2 | Not Okay & Upsized |
| 14 | 286+340 | Existing | 6 | 3 | 1.5 | Not Okay & Upsized |
| 15 | 286+488 | Existing | 3 | 2.5 | 2 | Okay |
| 16 | 286+763 | Existing | 3 | 2.5 | 2 | Okay |
| 17 | 286+969 | Existing | 3 | 2.5 | 2 | Okay |
| 18 | 287+055 | Existing | 3 | 2.5 | 2 | Okay |
| 19 | 287+264 | Existing | 1 | 2.5 | 2 | Okay |
| 20 | 287+445 | Existing | 1 | 2.5 | 2 | Okay |
| 21 | 287+888 | Existing | 3 | 2.5 | 2 | Okay |
| 22 | 287+918 | Existing | 3 | 3 | 2 | Not Okay & Upsized |
| 23 | 288+054 | Existing | 2 | 2.5 | 2 | Okay |
| 24 | 288+172 | Existing | 2 | 2.5 | 2 | Okay |
| 25 | 288+429 | Existing | 2 | 2.5 | 2 | Okay |
| 26 | 288+811 | Existing | 1 | 2.5 | 2 | Okay |
| 27 | 289+200 | Existing | 2 | 2.5 | 2 | Okay |
| 28 | 289+484 | Existing | 4 | 3 | 2 | Not Okay & Upsized |
| 29 | 289+712 | Existing | 3 | 3 | 2 | Not Okay & Upsized |
| 30 | 290+001 | Existing | 3 | 3 | 2 | Not Okay & Upsized |
| 31 | 290+543 | Existing | 2 | 2.5 | 2 | Okay |
| 32 | 290+883 | Existing | 2 | 2.5 | 2 | Okay |
| 33 | 291+151 | Existing | 1 | 2.5 | 2 | Okay |

| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|--------------------|
| 34 | 291+376 | Existing | 2 | 2.5 | 2 | Okay |
| 35 | 291+407 | Existing | 2 | 3 | 2 | Not Okay & Upsized |
| 36 | 292+661 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 37 | 292+322 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 38 | 292+460 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 39 | 292+860 | Existing | 4 | 3 | 1.5 | Not Okay & Upsized |
| 40 | 293+191 | Existing | 3 | 3 | 2 | Okay |
| 41 | 293+430 | Existing | 1 | 2 | 1.5 | Okay |
| 42 | 293+574 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 43 | 293+846 | Existing | 3 | 2 | 1.5 | Okay |
| 44 | 294+329 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 45 | 294+816 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 46 | 295+733 | Existing | 2 | 3 | 1.5 | Not Okay & Upsized |
| 47 | 296+236 | Existing | 2 | 2.5 | 1.5 | Okay |
| 48 | 297+260 | Existing | 1 | 2 | 2 | Okay |
| 49 | 297+891 | Existing | 3 | 3 | 2 | Not Okay & Upsized |
| 50 | 298+249 | Existing | 1 | 3.5 | 1.5 | Not Okay & Upsized |
| 51 | 298+908 | Existing | 1 | 2.5 | 1 | Okay |
| 52 | 299+642 | Existing | 2 | 3 | 1 | Okay |
| 53 | 300+973 | Existing | 1 | 3 | 2 | Not Okay & Upsized |
| 54 | 301+519 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 55 | 301+772 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 56 | 302+165 | Existing | 1 | 3 | 2 | Okay |
| 57 | 302+414 | Existing | 2 | 3 | 1 | Okay |
| 58 | 303+034 | Existing | 1 | 1 | 1 | Okay |
| 59 | 303+342 | Existing | 3 | 3 | 1.5 | Not Okay & Upsized |
| 60 | 303+868 | Existing | 1 | 1 | 1 | Okay |
| 61 | 304+170 | Existing | 2 | 2 | 2 | Okay |
| 62 | 304+444 | Existing | 1 | 1 | 1 | Okay |
| 63 | 305+809 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 64 | 306+259 | Existing | 1 | 1.5 | 1.5 | Okay |
| 65 | 307+147 | Existing | 1 | 1.5 | 1 | Okay |
| 66 | 308+458 | Existing | 1 | 3 | 2 | Okay |

NOTES

1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| | | |
|------|----------------|------|
| REV. | REVISION/ISSUE | DATE |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-2 (Km 233+200 TO Km 329+445)

CLIENT:
 NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT. SDN BHD In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CBC
- AAA
- ACE
- AA
- ACC

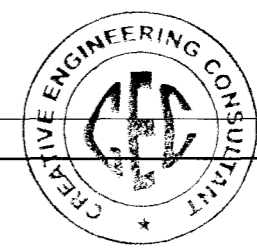
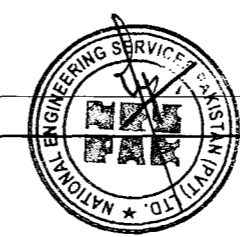
DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|--------------------|-----------------------|
| DESIGN BY: S.M | SHEET NO: 05 OF 08 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/001



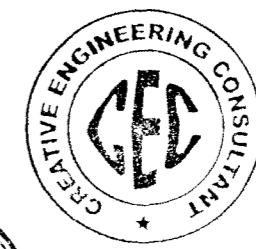
Signature



| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) | Adequacy |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|--------------------|
| 67 | 309+133 | Existing | 1 | 2 | 1 | Okay |
| 68 | 309+380 | Existing | 1 | 1.5 | 1.5 | Okay |
| 69 | 309+756 | Existing | 2 | 2 | 1 | Okay |
| 70 | 309+812 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 71 | 311+293 | Existing | 1 | 3 | 1.5 | Okay |
| 72 | 311+620 | Existing | 1 | 2.5 | 1.5 | Okay |
| 73 | 311+990 | Existing | 1 | 3 | 1.5 | Okay |
| 74 | 312+322 | Existing | 2 | 1.5 | 1.5 | Okay |
| 75 | 312+675 | Existing | 3 | 2 | 1.5 | Okay |
| 76 | 313+439 | Existing | 1 | 2 | 1.5 | Okay |
| 77 | 314+331 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 78 | 315+685 | Existing | 1 | 2 | 1 | Okay |
| 79 | 315+778 | Existing | 1 | 2 | 1 | Okay |
| 80 | 316+881 | Existing | 4 | 2.5 | 1 | Okay |
| 81 | 317+418 | Existing | 2 | 3 | 1 | Okay |
| 82 | 318+097 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 83 | 318+250 | Existing | 1 | 1.5 | 1 | Okay |
| 84 | 318+440 | Existing | 1 | 1.5 | 1 | Okay |
| 85 | 318+580 | Existing | 1 | 1 | 1 | Okay |
| 86 | 318+840 | Existing | 12 | 3.5 | 2 | Not Okay & Upsized |
| 87 | 319+694 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 88 | 321+222 | Existing | 3 | 3 | 2 | Okay |
| 89 | 321+335 | Existing | 4 | 3 | 2 | Not Okay & Upsized |
| 90 | 321+587 | Existing | 2 | 2.5 | 1.5 | Okay |
| 91 | 321+726 | Existing | 4 | 3 | 2 | Not Okay & Upsized |
| 92 | 322+667 | Existing | 1 | 1.5 | 1.5 | Okay |
| 93 | 323+185 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 94 | 324+545 | Existing | 1 | 3 | 1 | Not Okay & Upsized |
| 95 | 327+284 | Existing | 1 | 5 | 1 | Okay |
| 97 | 328+249 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |
| 98 | 328+780 | Existing | 1 | 3 | 1.5 | Not Okay & Upsized |
| 99 | 329+067 | Existing | 1 | 3 | 1.2 | Not Okay & Upsized |



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NOTES
1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-2 (Km 233+200 TO Km 329+445)

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

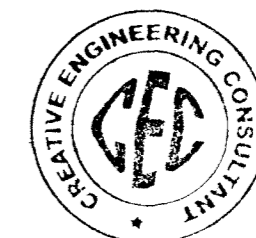
- MINCONSULT SDN BHD In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| DESIGN BY: | SHEET NO: |
|--------------|------------|
| S.M | 06 OF 08 |
| DRAWN BY: | SCALE: |
| S.M | NTS |
| CHECKED BY: | DATE: |
| A.S | APRIL-2024 |
| APPROVED BY: | REVISION: |
| | |

DWG NO: CAREC/T-III/TD/001

| Sr.No | RDs | Existing/ Proposed | No. of Boxes | Clear span W (m) | Clear span H (m) |
|-------|---------|-----------------------|-----------------|---------------------|---------------------|
| 1 | 281+835 | Proposed | 1 | 3 | 1.5 |
| 2 | 282+815 | Proposed | 1 | 3 | 1.5 |
| 3 | 283+630 | Proposed | 1 | 2.5 | 1.5 |
| 4 | 284+840 | Proposed | 1 | 3 | 1.5 |
| 5 | 285+180 | Proposed | 3 | 3 | 1.5 |
| 6 | 286+850 | Proposed | 3 | 3 | 2 |
| 7 | 287+580 | Proposed | 3 | 3 | 2 |
| 8 | 289+310 | Proposed | 2 | 2.5 | 2 |
| 9 | 291+285 | Proposed | 1 | 3 | 2 |
| 10 | 294+470 | Proposed | 1 | 3 | 1.5 |
| 11 | 296+840 | Proposed | 2 | 3 | 2 |
| 12 | 297+480 | Proposed | 1 | 3 | 2 |
| 13 | 300+115 | Proposed | 1 | 3 | 2 |
| 14 | 305+150 | Proposed | 2 | 3 | 2 |
| 15 | 303+140 | Proposed | 2 | 3 | 1.5 |
| 16 | 303+595 | Proposed | 2 | 3 | 1.5 |
| 17 | 305+460 | Proposed | 2 | 3 | 1.5 |
| 18 | 309+015 | Proposed | 1 | 3 | 2 |
| 19 | 312+900 | Proposed | 1 | 3 | 1.5 |
| 20 | 313+870 | Proposed | 1 | 3 | 1.5 |
| 21 | 314+780 | Proposed | 1 | 3 | 1.5 |
| 22 | 316+510 | Proposed | 1 | 3 | 1.5 |
| 23 | 317+520 | Proposed | 1 | 3 | 1.5 |
| 24 | 320+250 | Proposed | 1 | 3 | 1.5 |
| 25 | 321+050 | Proposed | 1 | 3 | 1.5 |
| 26 | 323+825 | Proposed | 1 | 3 | 1.5 |
| 27 | 326+180 | Proposed | 1 | 3 | 1.5 |
| 28 | 326+960 | Proposed | 1 | 3 | 1.5 |
| 29 | 327+780 | Proposed | 1 | 4 | 1.5 |
| 30 | 328+105 | Proposed | 1 | 3 | 1.5 |
| 31 | 328+635 | Proposed | 1 | 3 | 1.5 |
| 32 | 329+380 | Proposed | 1 | 3 | 1.5 |



NOTES

1. ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
| | | |
| | | |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-2 (Km 233+200 TO Km 329+445)

CLIENT:
 NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:

- MINCONSULT SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELDIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:
LIST OF PROPOSED CULVERTS

| | |
|---------------------------|------------------------------|
| DESIGN BY: S.M | SHEET NO: 07 OF 08 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO:
CAREC/T-III/TD/001

| No. | Stationing | Span | Condition | Remarks |
|-----|------------|----------|--------------|--|
| 1 | 139+250 | 1 X 30 | Adequate | Nil |
| 2 | 146+350 | 1 X 30 | Adequate | Nil |
| 3 | 157+010 | 3 X 30 | Adequate | Nil |
| 4 | 159+670 | 1 X 25 | Adequate | Nil |
| 5 | 163+575 | 2 X 25 | Adequate | Nil |
| 6 | 167+964 | 1 X 30 | Adequate | Nil |
| 7 | 170+569 | 2 X 15 | Adequate | Nil |
| 8 | 174+227 | 1 X 20 | Adequate | Nil |
| 9 | 174+518 | 10 X 30 | Adequate | Nil |
| 10 | 184+310 | 3 X 20 | Adequate | Nil |
| 11 | 186+920 | 3 X 25 | Not Adequate | Raising the HFL by 1.25 m of proposed structure by NESPAK |
| 12 | 193+460 | 1 X 25 | Not Adequate | Adding 1 additional span of 10 m to the existing structure & raising HFL by 1 m The bridge location has been revised. |
| 13 | 199+550 | 10 X 30 | Not Adequate | No of Span x Span Length: 18 x 30 & HFL is 9.5 Meters from Bed |
| 14 | 200+680 | 18 X 30 | Adequate | Nil |
| 15 | 205+950 | 2 X 30 | Adequate | Nil |
| 16 | 206+750 | 2 X 30 | Adequate | Nil |
| 17 | 208+460 | 3 X 20 | Not Adequate | Raising the HFL by 1.5 m of proposed structure by NESPAK |
| 18 | 221+900 | 2 X 25 | Adequate | Nil |
| 19 | 229+00 | 2 X 30 | Not Adequate | Raising the HFL by 1.0 m of proposed structure by NESPAK |
| 20 | 237+629 | 2 X 51.4 | Adequate | Nil |
| 21 | 246+782 | 3 X 20 | Not Adequate | Raising the HFL by 1.25 m of proposed structure by NESPAK |
| 22 | 257+405 | 13 X 30 | Adequate | Nil |
| 23 | 261+881 | 3 X 30 | Not Adequate | Raising the HFL by 1.25 m of proposed structure by NESPAK |
| 24 | 265+569 | 3 X 30 | Not Adequate | Raising the HFL by 1.25 m of proposed structure by NESPAK |
| 25 | 271+656 | 3 X 25 | Adequate | Nil |
| 26 | 275+380 | 1 X 25 | Adequate | Nil |
| 27 | 279+702 | 1 X 25 | Adequate | Nil |
| 28 | 281+193 | 3 X 30 | Adequate | Nil |
| 29 | 289+800 | 4 X 30.8 | Adequate | Nil |
| 30 | 299+100 | 5 X 30.8 | Adequate | Nil |
| 31 | 304+880 | 3 X 30.6 | Adequate | Nil |
| 32 | 310+860 | 5 X 30.5 | Adequate | Nil |
| 33 | 315+210 | 2 X 30.7 | Adequate | Raising the HFL by 1.5 m of proposed structure by NESPAK |
| 34 | 322+660 | 2 X 30.8 | Not Adequate | Adding 1 additional span of 10 m to the existing structure & raising HFL by 1 m |
| 35 | 325+340 | 2 X 30.8 | Not Adequate | Adding 1 additional span of 10 m to the existing structure & raising HFL by 1.5 m |
| 36 | 213+145 | 1 X 25 | Adequate | Existing Culvert upgraded into Bridge |
| 37 | 245+259 | 1 X 25 | Adequate | Existing Culvert upgraded into Bridge |









NOTES
1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY SECTION-2 PACKAGE-2 (Km 233+200 TO Km 329+445)

CLIENT:
NIA NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:
 MINCONSULT SDN BHD In Joint Venture With
 SAMAN CORPORATION
 SHELADIA ASSOCIATES
 CEC
 AAA
 ACE
 AA
 ACC

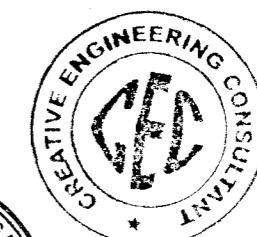
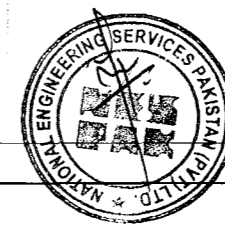
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| DESIGN BY: S.M | SHEET NO. 08 OF 08 |
| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

DWG NO.
CAREC/T-III/TD/001



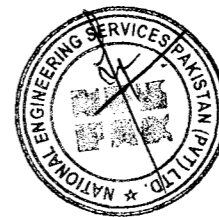
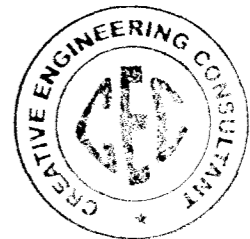
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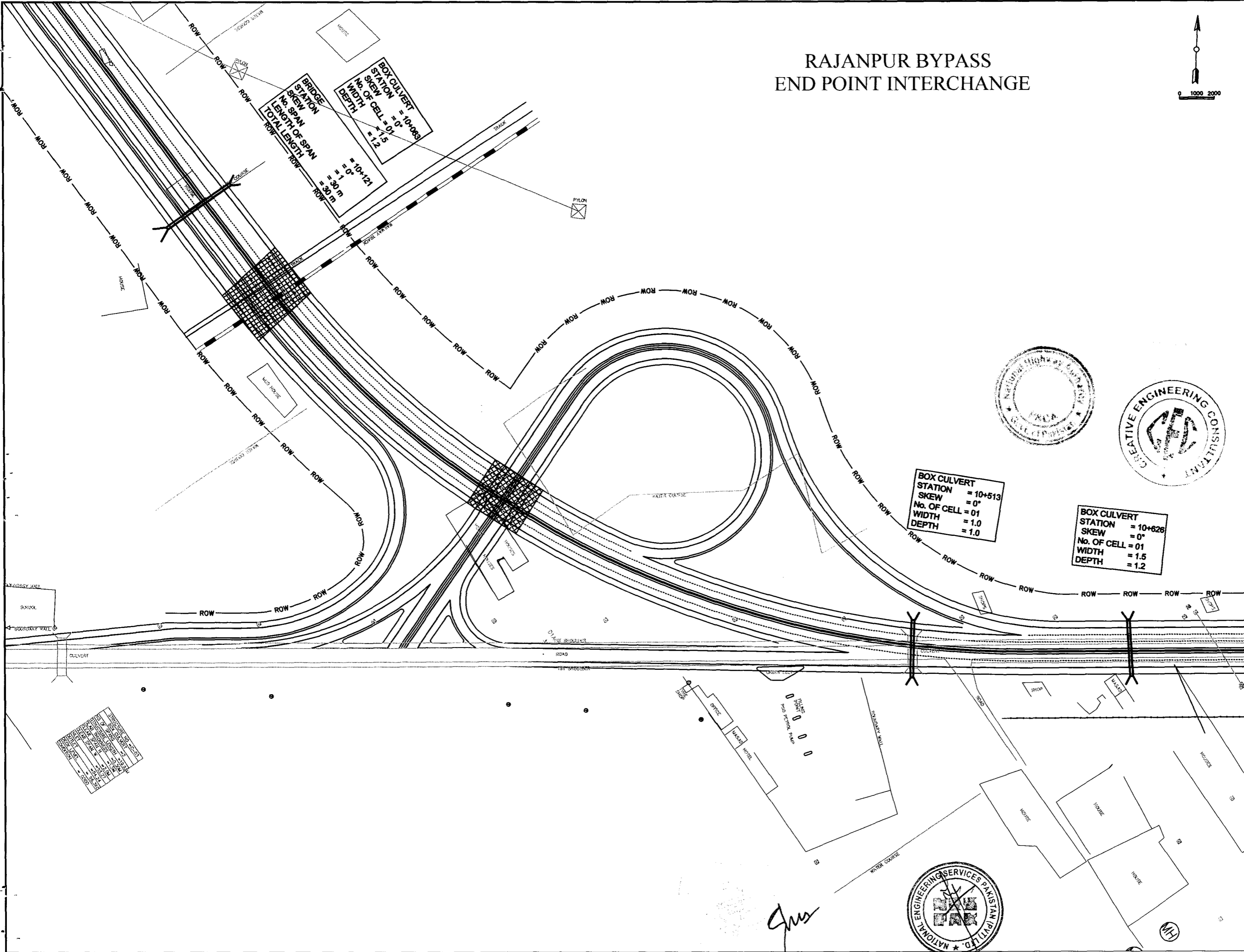
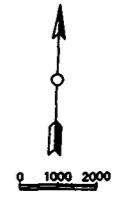
INTERCHANGES



Signature



RAJANPUR BYPASS END POINT INTERCHANGE



NOTES
1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY (121.50 Km)
PACKAGE-1
(Km 0+000 TO Km 57+500)

CLIENT:
NHA NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:
MINCONSULT SDN BHD In Joint Venture With
SAMAN CORPORATION
SHELADIA ASSOCIATES
CEC
AAA
ACE
AA
ACC

DRAWING TITLE:
RAJANPUR BYPASS
END POINT INTERCHANGE

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| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

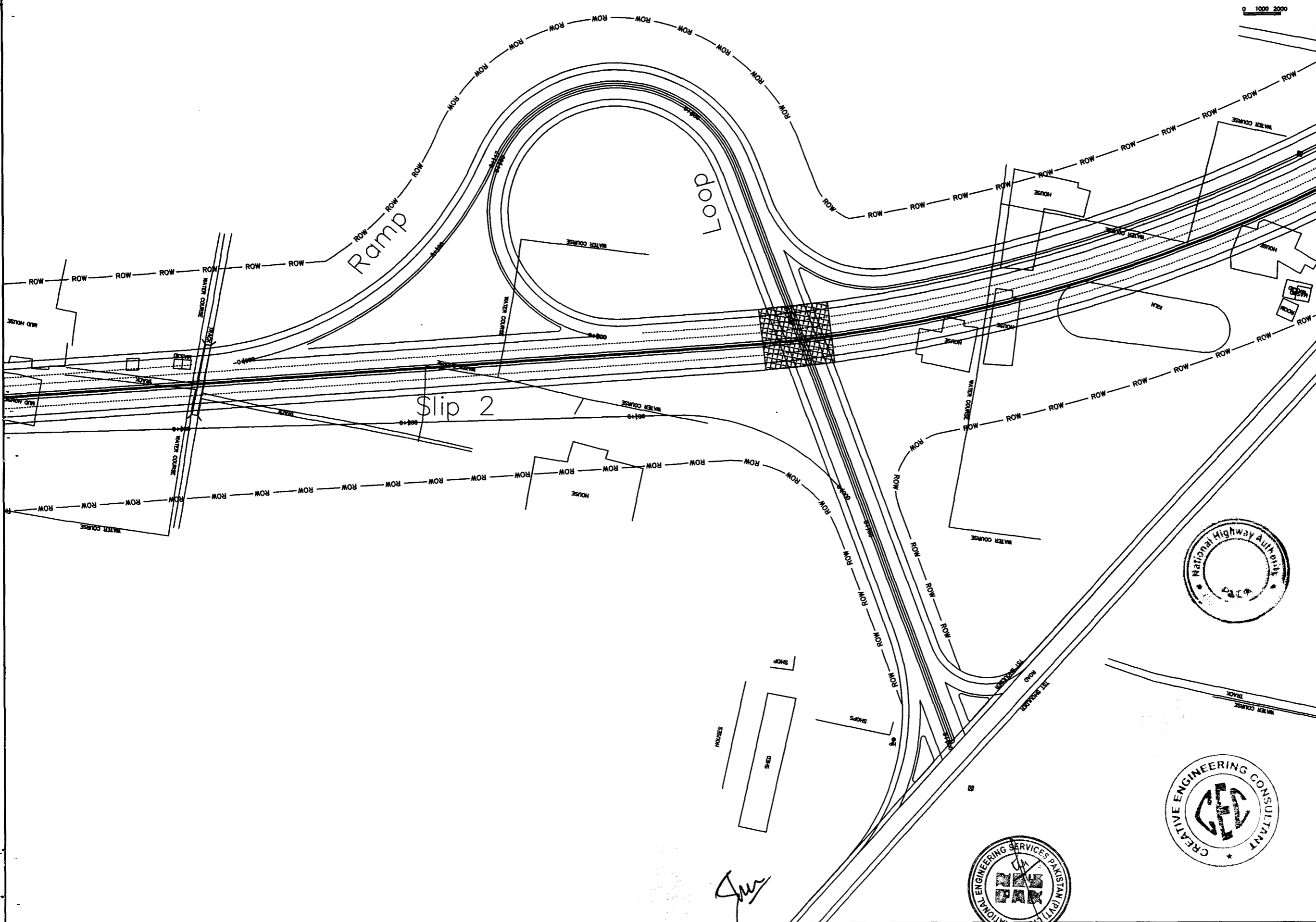
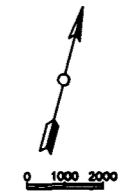
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| 10 | | |

FAZILPUR BYPASS
START POINT INTERCHANGE



NOTES









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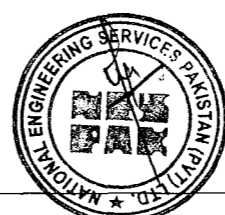
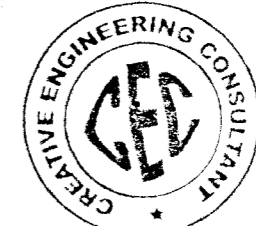
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
(121.50 km)
PACKAGE-1
(Km 0+000 TO Km 57+500)

CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:
-  MINCONSULT, SDN BHD
In Joint Venture With
 -  SAMAN CORPORATION
 -  SHELADIA ASSOCIATES
 -  CEC
 -  AAA
 -  ACE
 -  AA
 -  ACC



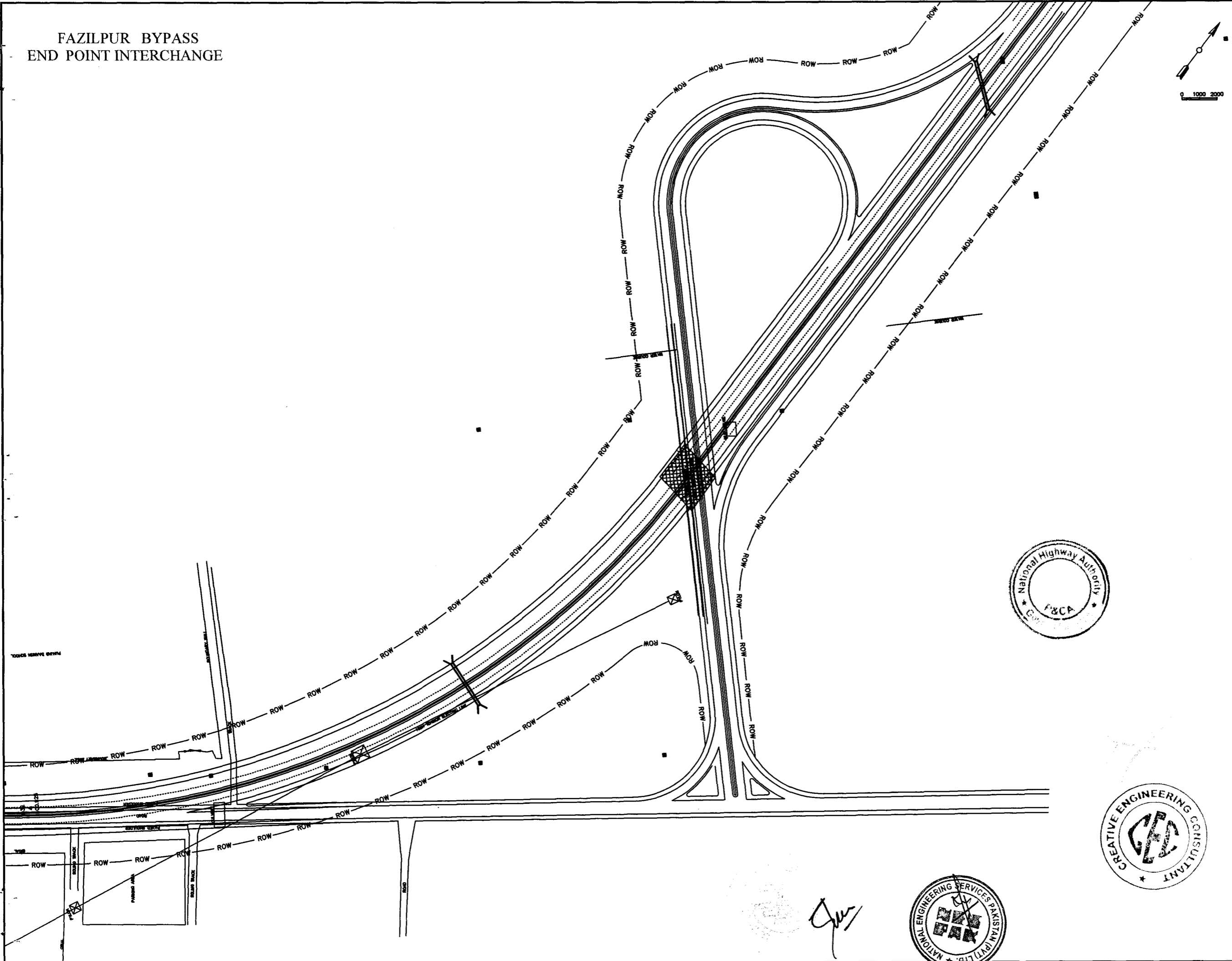
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START POINT INTERCHANGE

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| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CAREC/T-III/TD/003

Signature

FAZILPUR BYPASS
END POINT INTERCHANGE



NOTES









1- ALL DIMENSIONS ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|-----------------------|----------|
| 0 | CONSTRUCTION DRAWINGS | 25-03-24 |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
(121.50 km)
PACKAGE-1
(Km 0+000 TO Km 57+500)

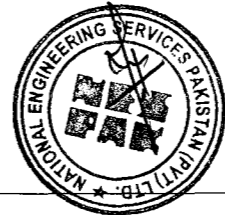
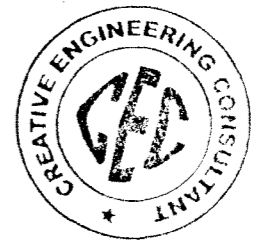
CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:
-  MINCONSULT SDN BHD
In Joint Venture With
 -  SAMAN CORPORATION
 -  SHELADIA ASSOCIATES
 -  CEC
 -  AAA
 -  ACE
 -  AA
 -  ACC

DRAWING TITLE:
FAZILPUR BYPASS
END POINT INTERCHANGE

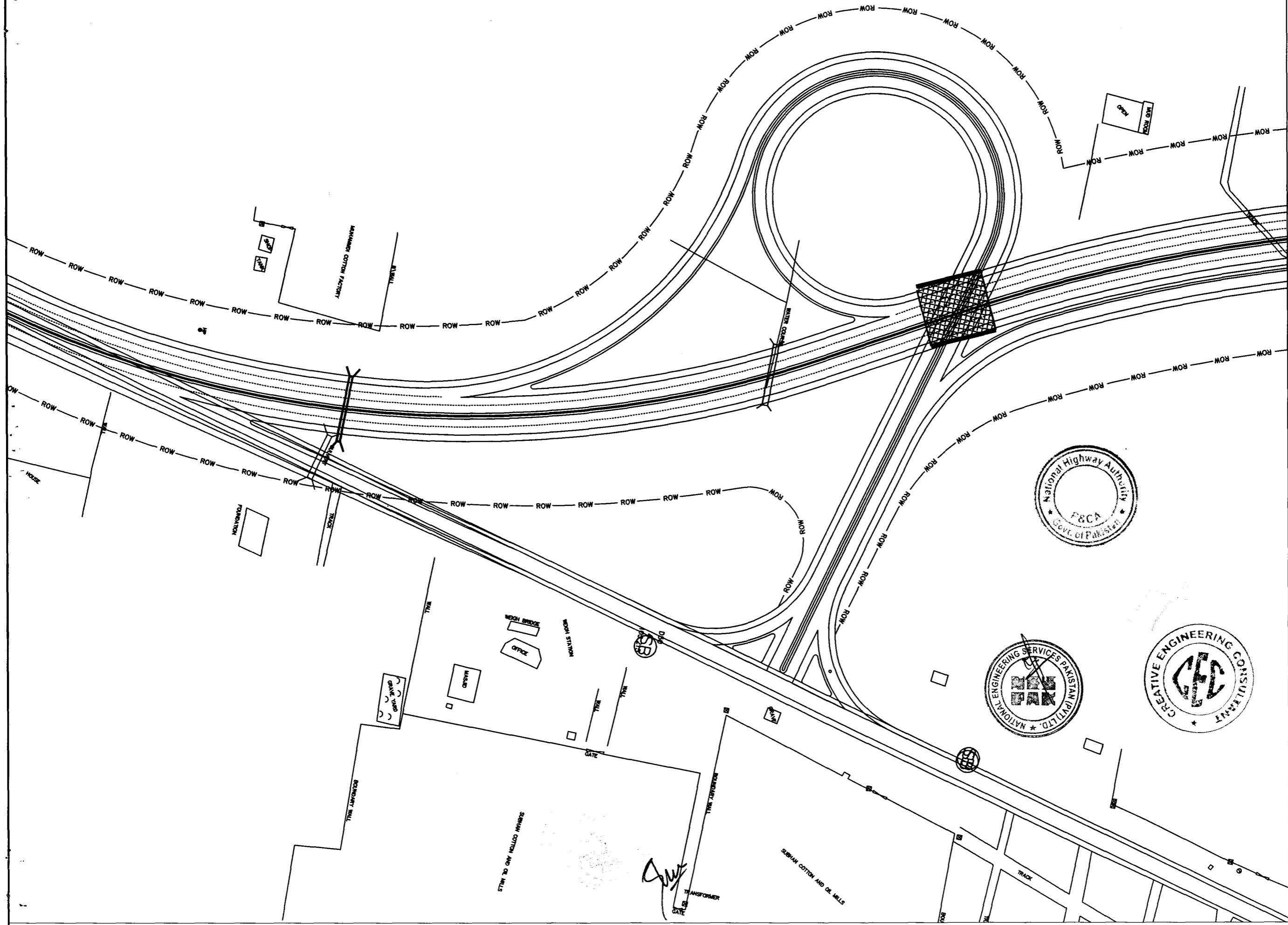
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| CHECKED BY: A.S | DATE: APRIL-2024 |
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CAD FILE NAME:
CAREC/T-III/TD/004



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MUHAMMAD PUR BYPASS
START POINT INTERCHANGE




NOTES









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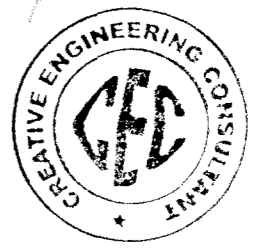
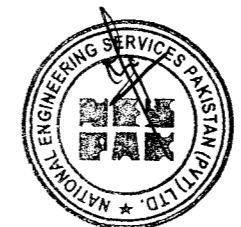
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| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
(121.50 km)
PACKAGE-1
(Km 0+000 TO Km 57+500)

CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:
-  MINCONSULT SDN BHD
In Joint Venture With
 -  SAMAN CORPORATION
 -  SHELADIA ASSOCIATES
 -  CEC
 -  AAA
 -  ACE
 -  AA
 -  ACC

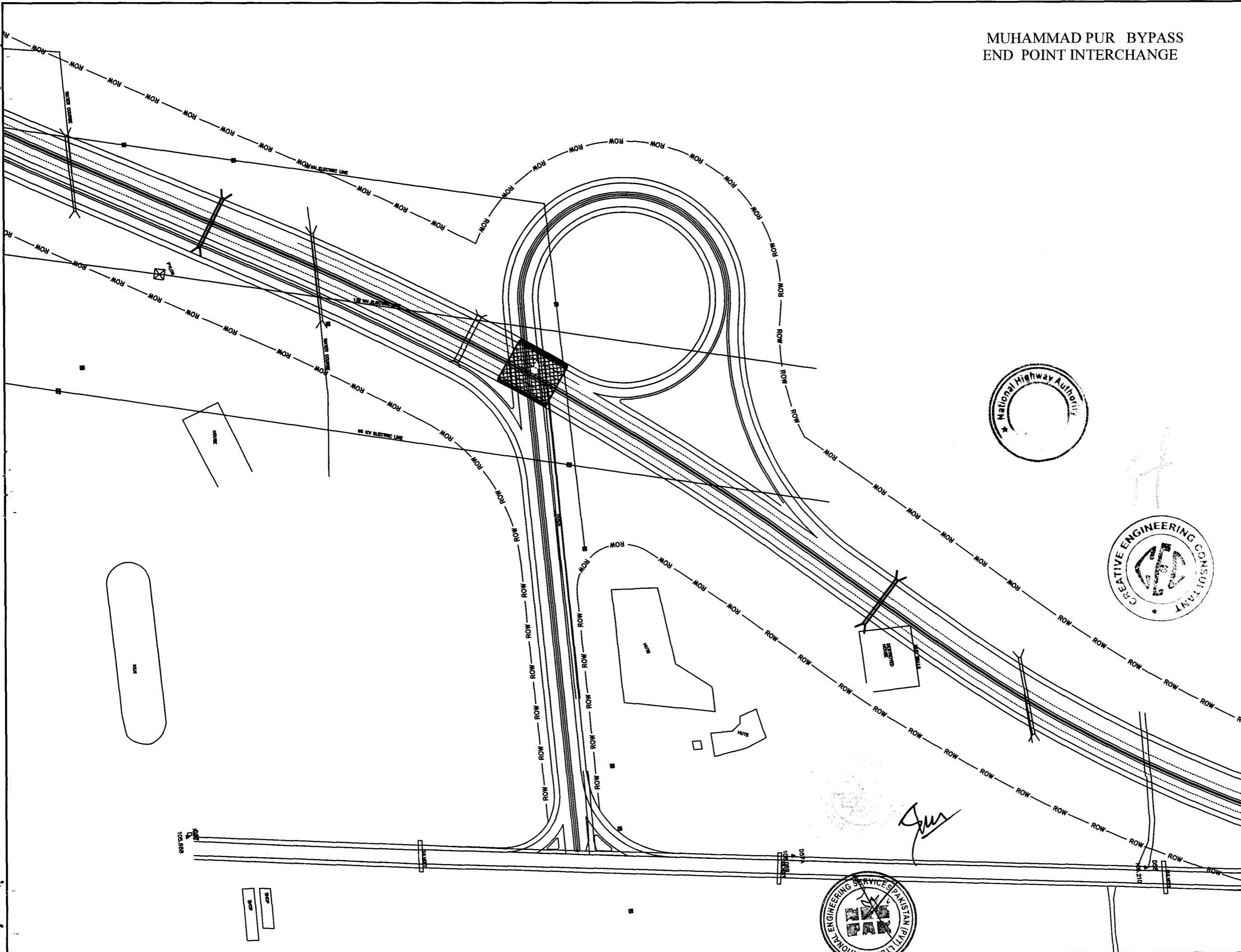











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MUHAMMAD PUR BYPASS
START POINT INTERCHANGE

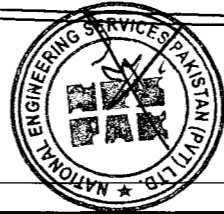
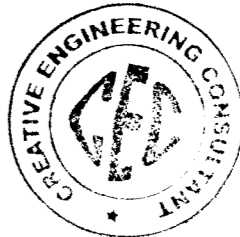
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| DRAWN BY: S.M | SCALE: NTS |
| CHECKED BY: A.S | DATE: APRIL-2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CAREC/T-III/TD/005

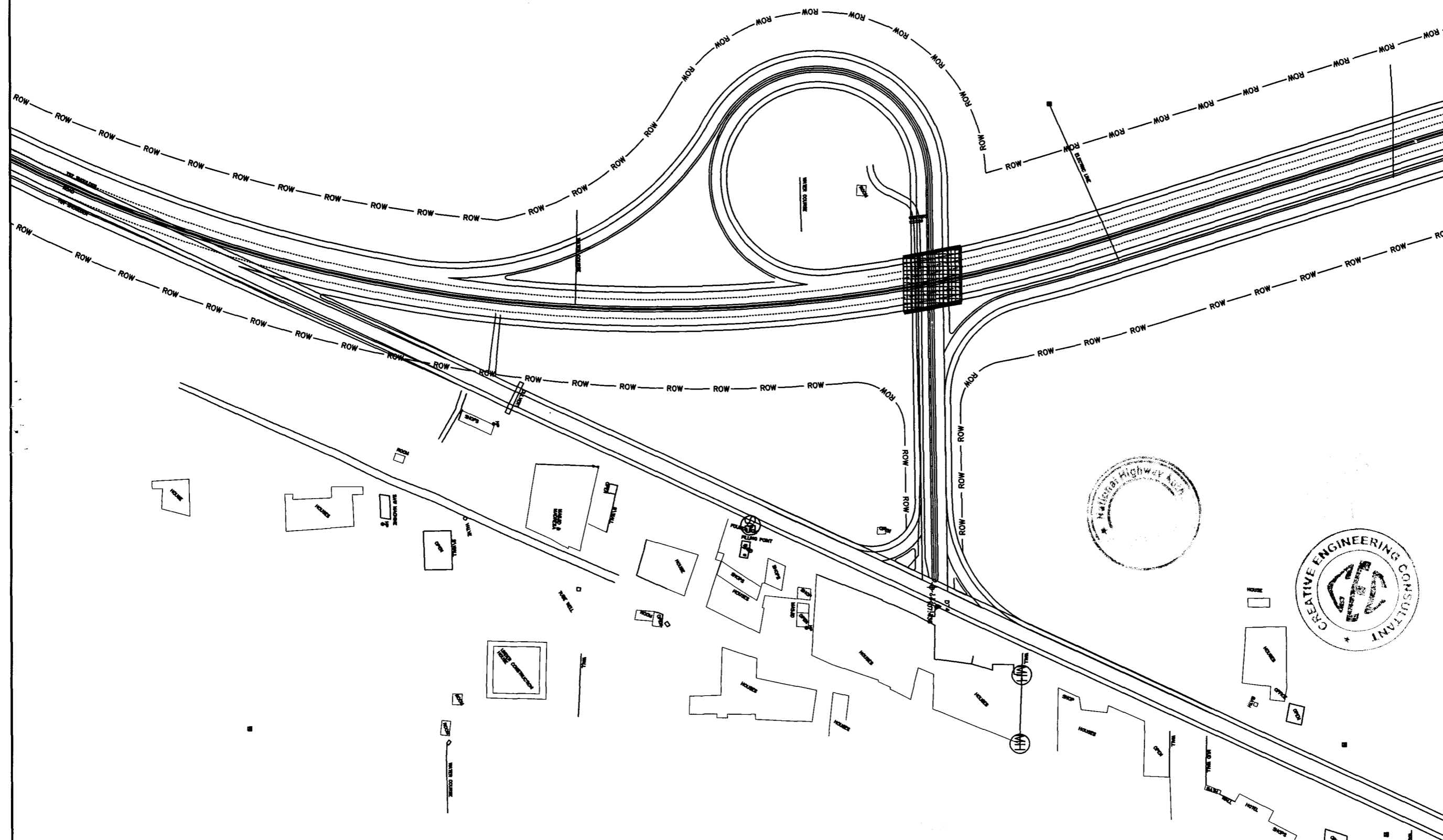
MUHAMMAD PUR BYPASS
END POINT INTERCHANGE



| NOTES | | |
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| 1:- ALL DIMENSIONS ARE IN METERS. | | |
| LEGEND | | |
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| REV | REVISION/ISSUE | DATE |
| | | |
| PROJECT: | | |
| CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY (121.50 km) PACKAGE-1 (Km 0+000 TO Km 57+500) | | |
| CLIENT: | | |
|  NATIONAL HIGHWAYS AUTHORITY (NHA) | | |
| CONSULTANTS: | | |
|  MINCONSULT. SDN BHD In Joint Venture With  SAMAN CORPORATION  SHELADIA ASSOCIATES  CEC  AAA  ACE  AA  ACC | | |
| DRAWING TITLE: | | |
| MUHAMMAD PUR BYPASS END POINT INTERCHANGE | | |
| DESIGN BY: | SHEET NO: | |
| S.M | 02 OF 02 | |
| DRAWN BY: | SCALE: | |
| S.M | NTS | |
| CHECKED BY: | DATE: | |
| A.S | APRIL-2024 | |
| APPROVED BY: | REVISION: | |
| CAD FILE NAME: | | |
| CAREC/T-III/TD/006 | | |



JAMPUR BYPASS START POINT INTERCHANGE




NOTES









1:- ALL DIMENSIONS AND ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
PACKAGE-I
(Km 121+500 TO Km 233+200)

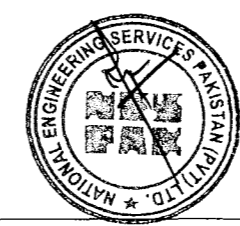
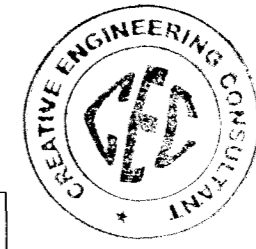
CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:**
-  MINCONSULT. SDN BHD
In Joint Venture With
 -  SAMAN CORPORATION
 -  SHELADIA ASSOCIATES
 -  CEC
 -  AAA
 -  ACE
 -  AA
 -  ACC

DRAWING TITLE:
JAMPUR BYPASS
START POINT INTERCHANGE

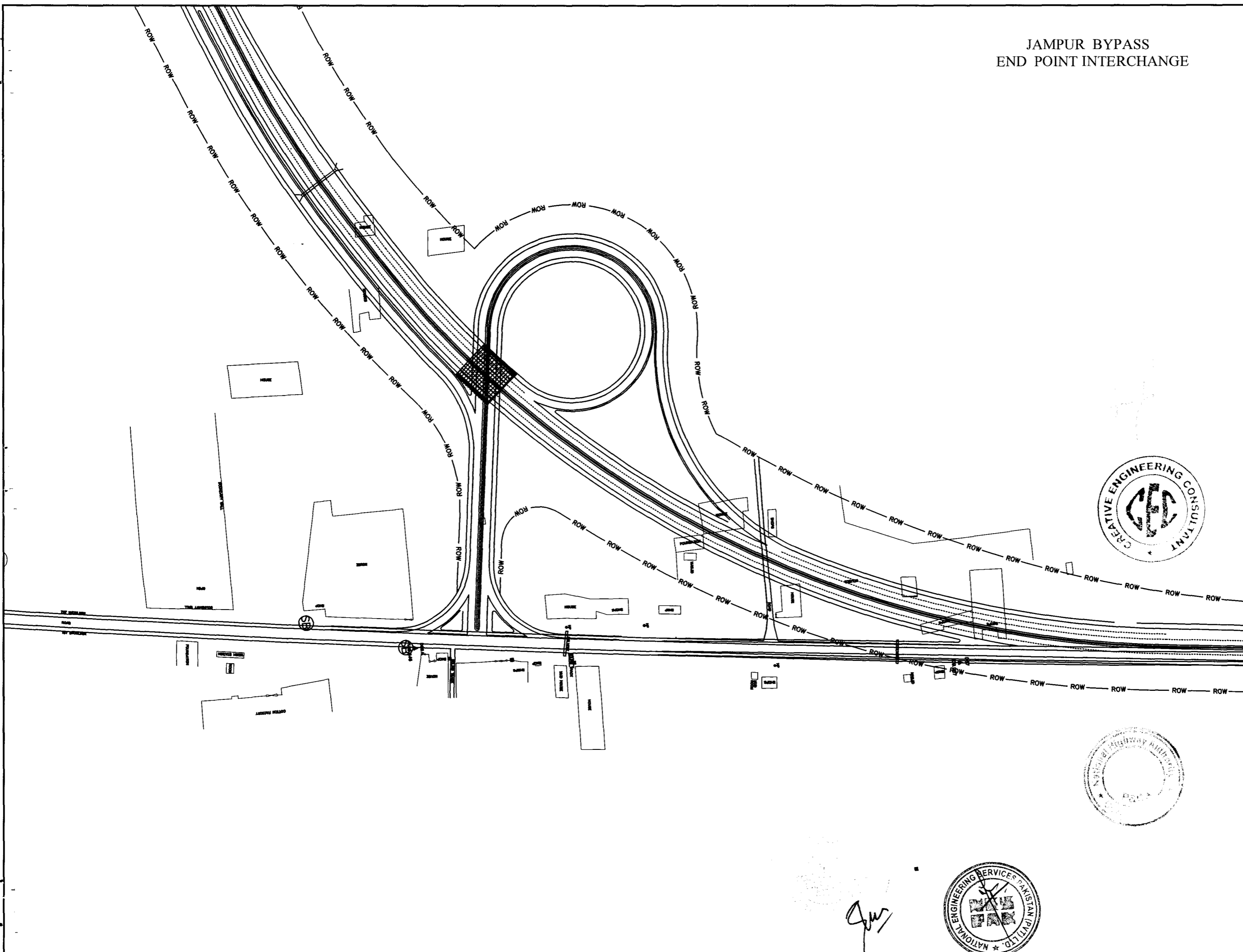
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| DESIGN BY: A.S | SHEET NO: 01 OF 02 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |










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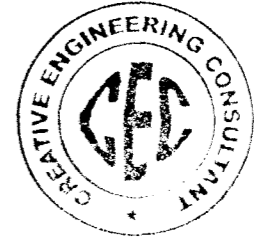


Signature

JAMPUR BYPASS END POINT INTERCHANGE

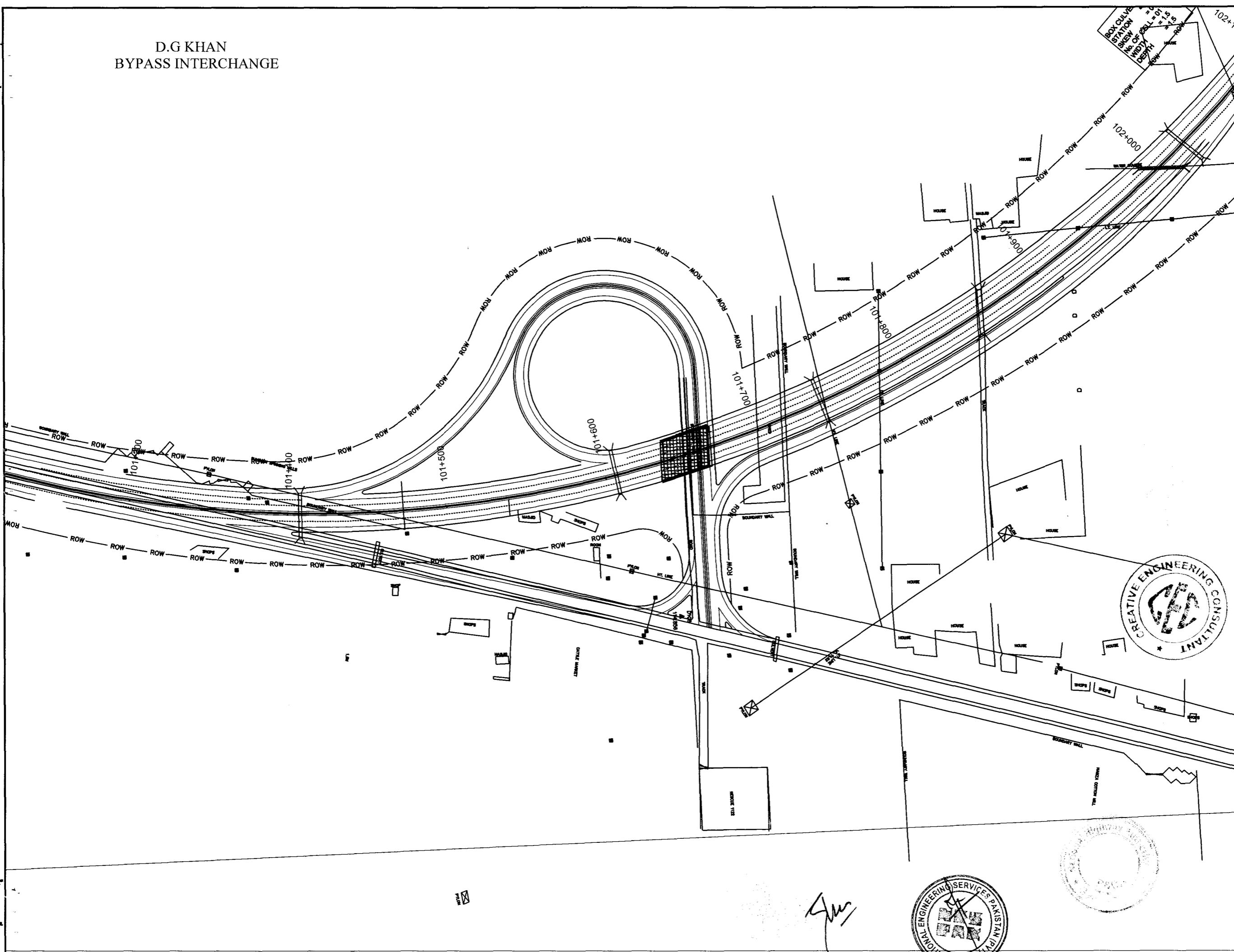


| NOTES | | |
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| 1: ALL DIMENSIONS AND ARE IN METERS. | | |
| LEGEND | | |
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| TENDER DRAWINGS | | |
| REV. | REVISION/ISSUE | DATE |
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| PROJECT: | | |
| CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY PACKAGE-2 (Km 121+500 TO Km 233+200) | | |
| CLIENT: | | |
|  NATIONAL HIGHWAYS AUTHORITY (NHA) | | |
| CONSULTANTS: | | |
|  MINCONSULT. SDN BHD In Joint Venture With  SAMAN CORPORATION  SHELADIA ASSOCIATES  CEC  AAA  ACE  AA  ACC | | |
| DRAWING TITLE: | | |
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| DESIGN BY: | SHEET NO: | |
| A.S | 02 OF 02 | |
| DRAWN BY: | SCALE: | |
| S.A | NTS | |
| CHECKED BY: | DATE: | |
| A.S | MAR, 2024 | |
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| CAD FILE NAME: | | |
| CEC/CAEC/T/III/01 | | |



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D.G KHAN
BYPASS INTERCHANGE



NOTES
1- ALL DIMENSIONS AND ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY PACKAGE-2 (Km 121+500 TO Km 233+200)

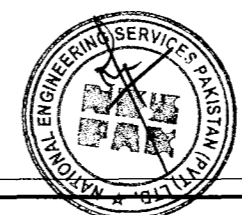
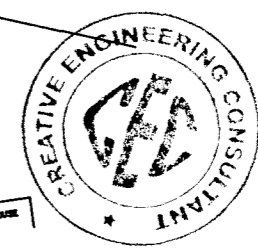
CLIENT:
NHA NATIONAL HIGHWAYS AUTHORITY (NHA)

CONSULTANTS:
 MINCONSULT SDN BHD In Joint Venture With
 SAMAN CORPORATION
 SHELADIA ASSOCIATES
 CEC
 AAA
 ACE
 AA
 ACC

DRAWING TITLE:
D.G KHAN BPASS INTERCHANGE

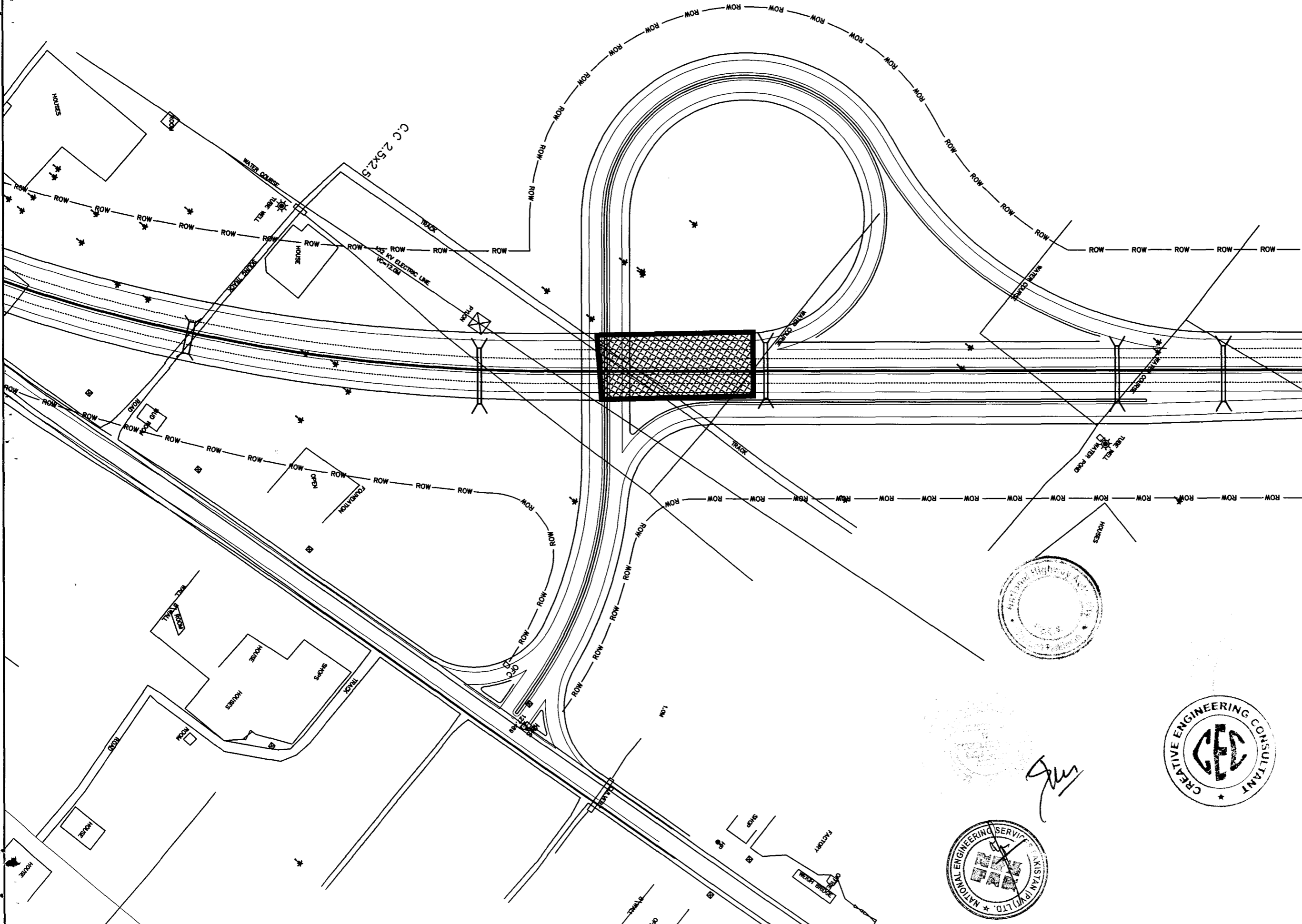
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| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/T/III/01



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SHAH SADAR DIN BYPASS START POINT INTERCHANGE



NOTES
1:- ALL DIMENSIONS AND ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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TENDER DRAWINGS

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY PACKAGE-1 (Km 121+500 TO Km 233+200)

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

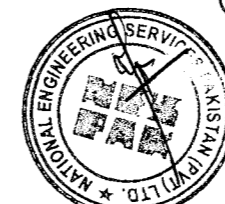
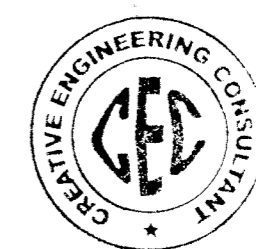
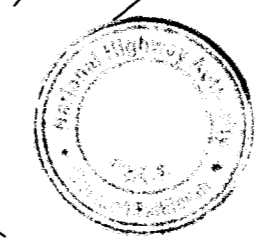
CONSULTANTS:

- MINCONSULT SDN BHD In Joint Venture With SAMAN CORPORATION
- SHELDIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:
SHAH SADAR DIN BYPASS START POINT INTERCHANGE

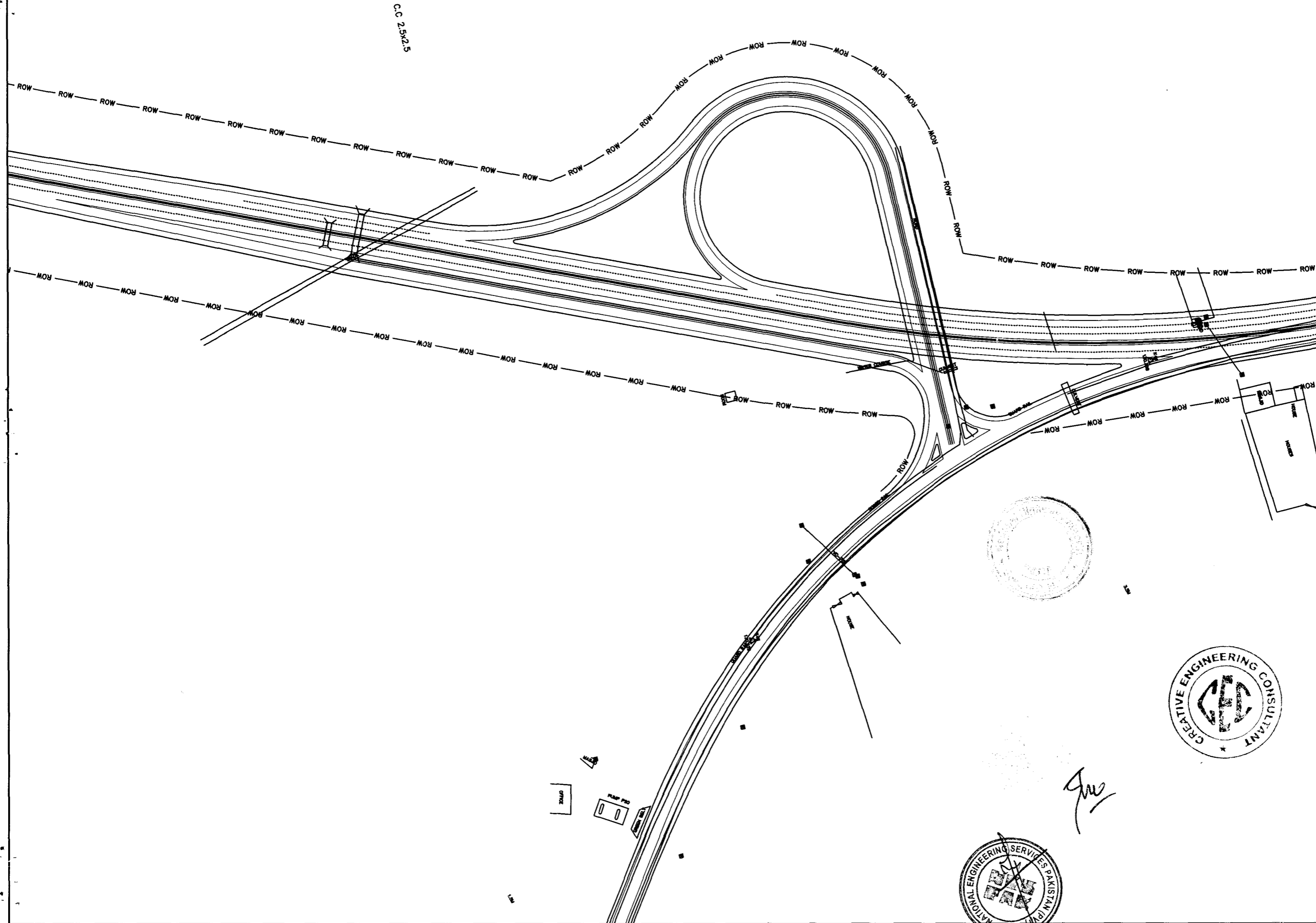
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| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
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SHAH SADAR DIN BYPASS END POINT INTERCHANGE



NOTES









1- ALL DIMENSIONS AND ARE IN METERS

LEGEND

| TENDER DRAWINGS | | |
|-----------------|----------------|------|
| REV. | REVISION/ISSUE | DATE |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
PACKAGE-1
(Km 121+500 TO Km 233+200)

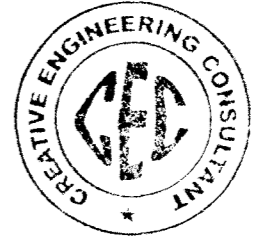
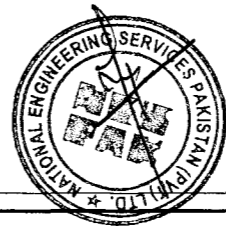
CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:**
-  MINCONSULT SDN BHD
In Joint Venture With
 -  SAMAN CORPORATION
 -  SHELADIA ASSOCIATES
 -  CEC
 -  AAA
 -  ACE
 -  AA
 -  ACC

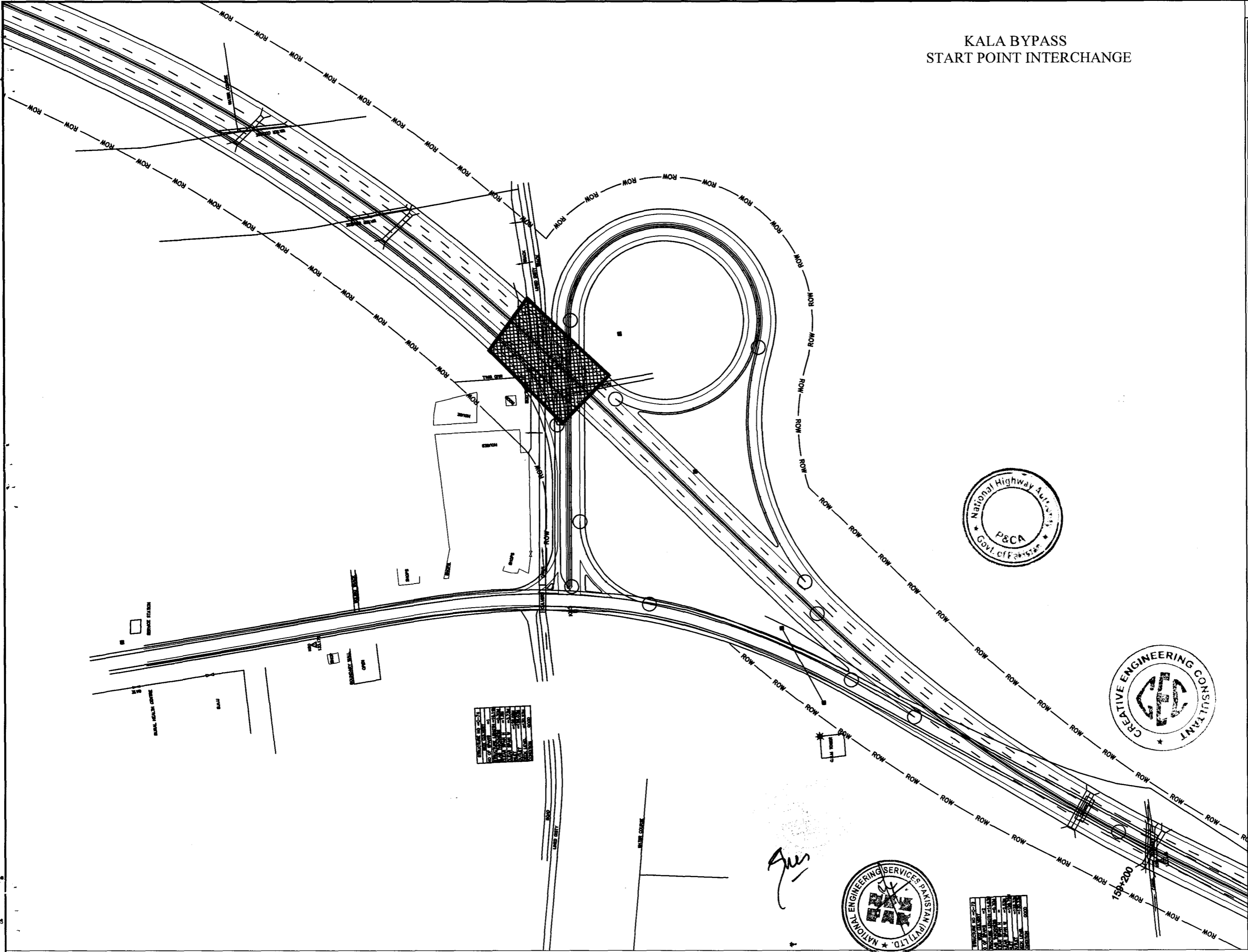
DRAWING TITLE:
SHAH SADAR DIN BYPASS
END POINT INTERCHANGE

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| DESIGN BY: A.S | SHEET NO: 02 OF 02 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR. 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/III/08



KALA BYPASS START POINT INTERCHANGE



NOTES

1- ALL DIMENSIONS AND ARE IN METERS.

LEGEND

| TENDER DRAWINGS | | |
|-----------------|----------------|------|
| REV. | REVISION/ISSUE | DATE |
| | | |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
PACKAGE-1
(Km 121+500 TO Km 233+200)

CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

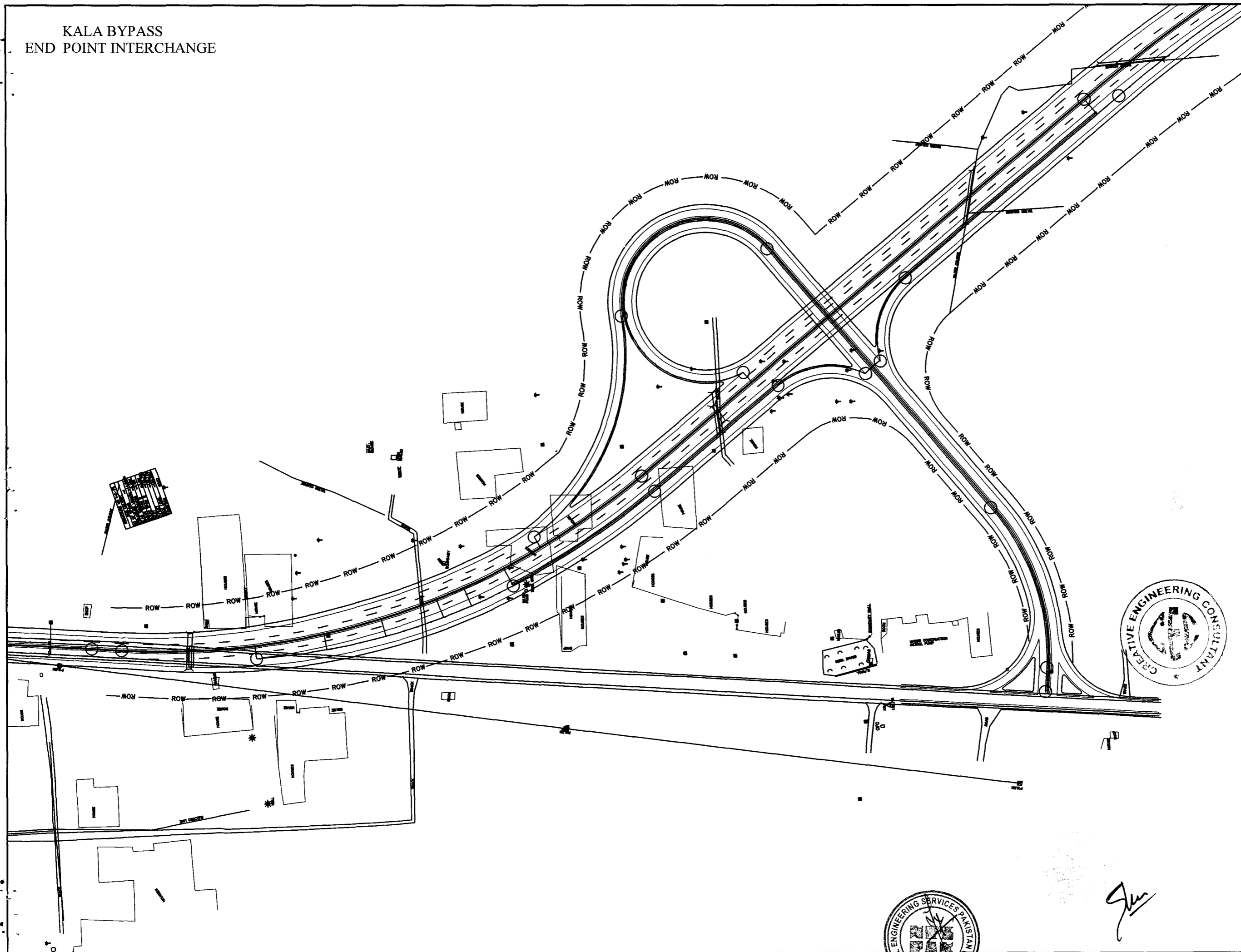
- CONSULTANTS:**
- MINCONSULT SDN BHD
In Joint Venture With
 - SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
 - ACE
 - AA
 - ACC

DRAWING TITLE:
KALA BYPASS
START POINT INTERCHANGE

| | |
|--------------------|-----------------------|
| DESIGN BY: A.S | SHEET NO: 01 OF 01 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/III/01

KALA BYPASS
END POINT INTERCHANGE



NOTES
1- ALL DIMENSIONS AND ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
PACKAGE-1
(Km 121+500 TO Km 233+200)

CLIENT:
NATIONAL HIGHWAYS
AUTHORITY (NHA)

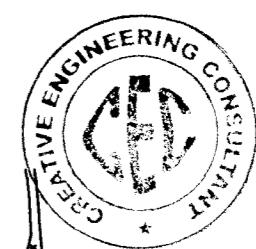
CONSULTANTS:

- MINCONSULT SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:
KALA BYPASS
END POINT INTERCHANGE

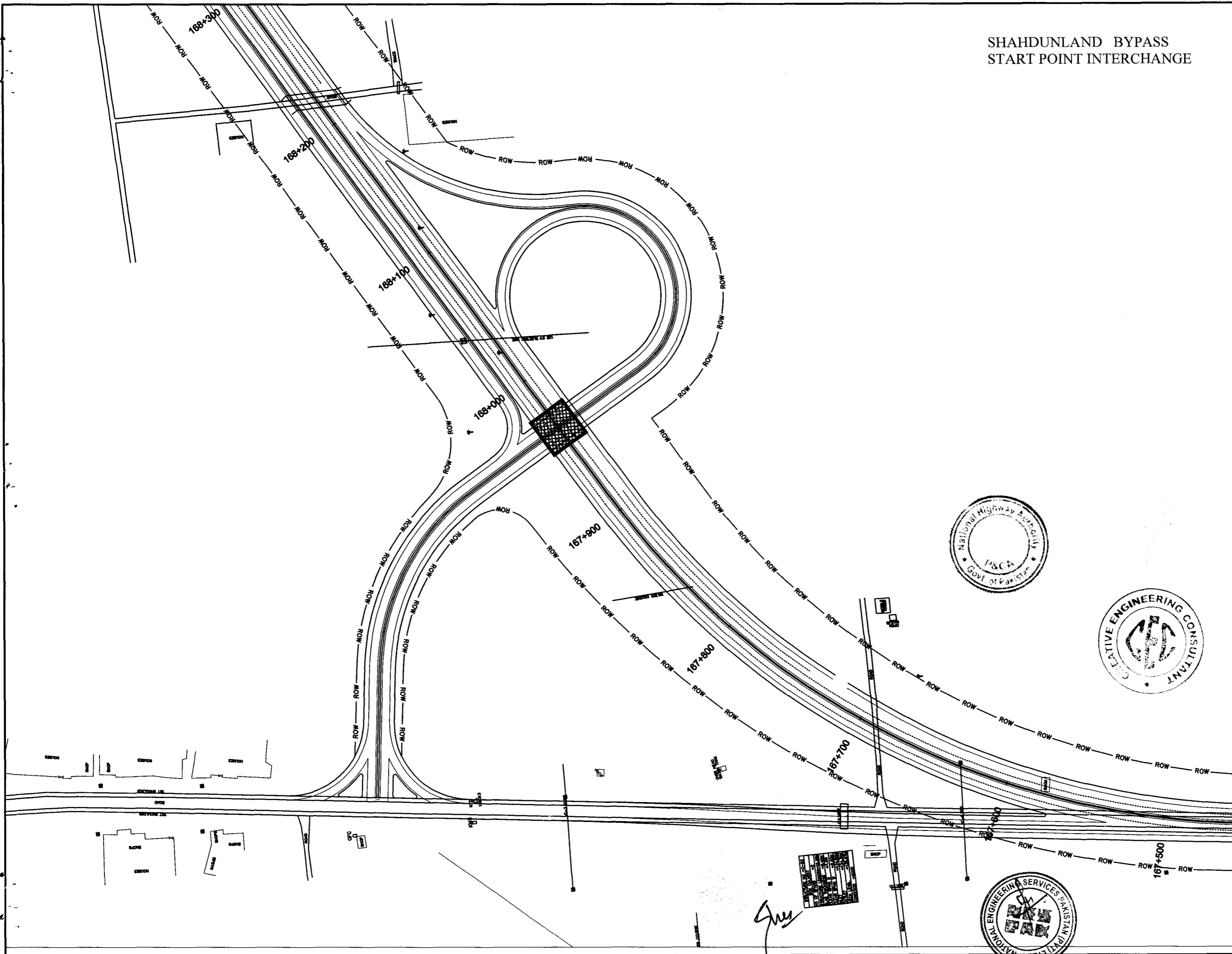
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| DESIGN BY: A.S | SHEET NO: 02 OF 02 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/TH/01



Signature

SHAHDUNLAND BYPASS START POINT INTERCHANGE



NOTES
1:- ALL DIMENSIONS AND ARE IN METERS

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY
PACKAGE-1
(Km 121+500 TO Km 233+200)

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

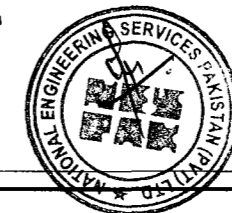
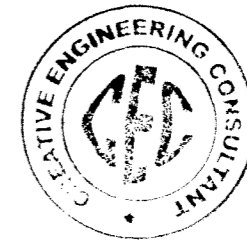
CONSULTANTS:

- MINCONSULT SDN BHD
In Joint Venture With
- SAMAN CORPORATION
- SHELADIA ASSOCIATES
- CEC
- AAA
- ACE
- AA
- ACC

DRAWING TITLE:
SHAHDUNLAND BYPASS
START POINT INTERCHANGE

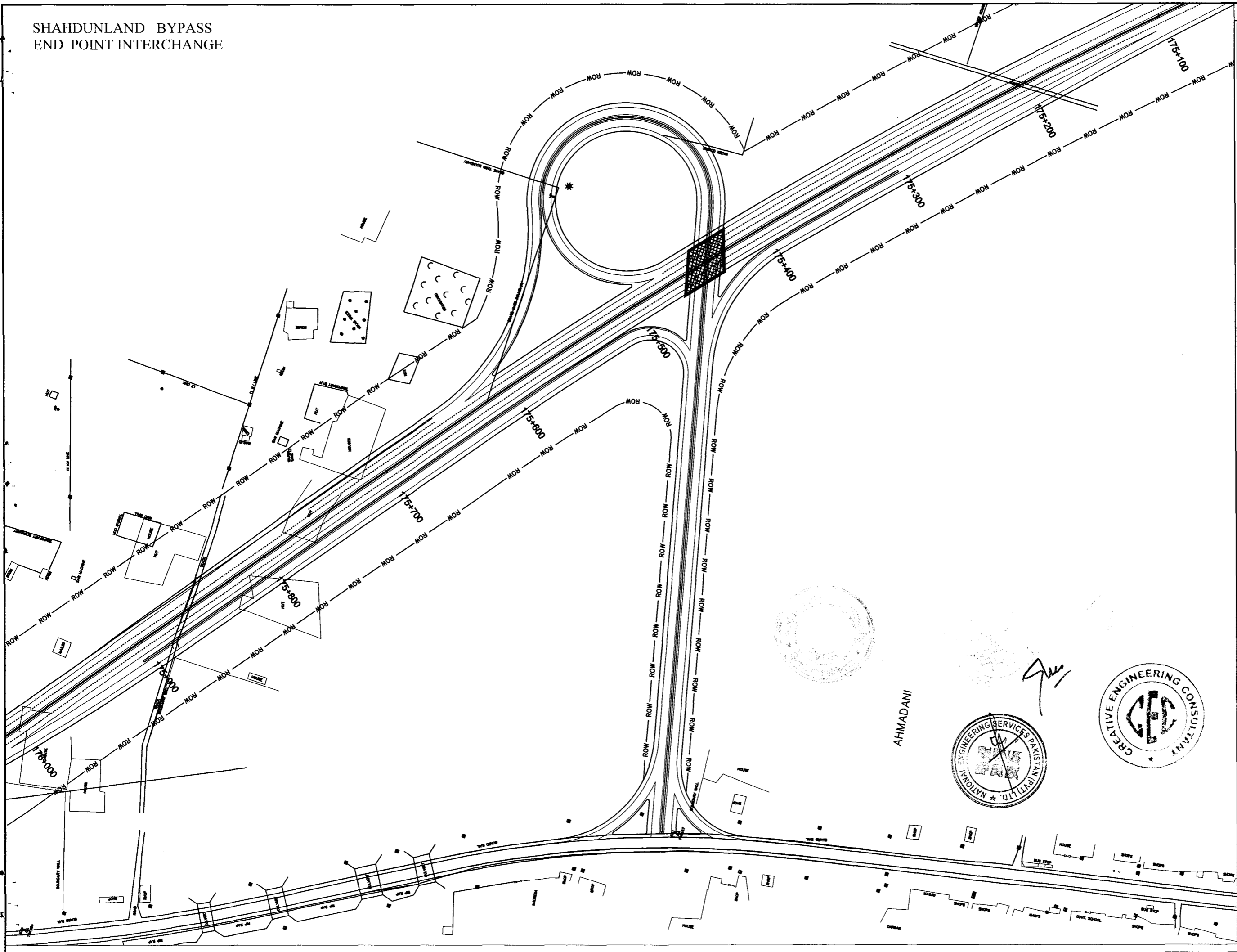
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| DESIGN BY: A.S | SHEET NO: 01 OF 02 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/TH/01



Signature

SHAHDUNLAND BYPASS
END POINT INTERCHANGE



NOTES









1- ALL DIMENSIONS AND ARE IN METERS

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
PACKAGE-1
(Km 121+500 TO Km 233+200)

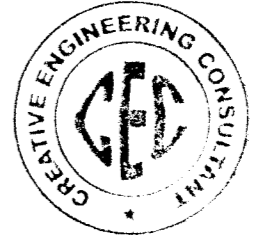
CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:
-  MINCONSULT, SDN BHD
In Joint Venture With
 -  SAMAN CORPORATION
 -  SHELDIA ASSOCIATES
 -  CEC
 -  AAA
 -  ACE
 -  AA
 -  ACC

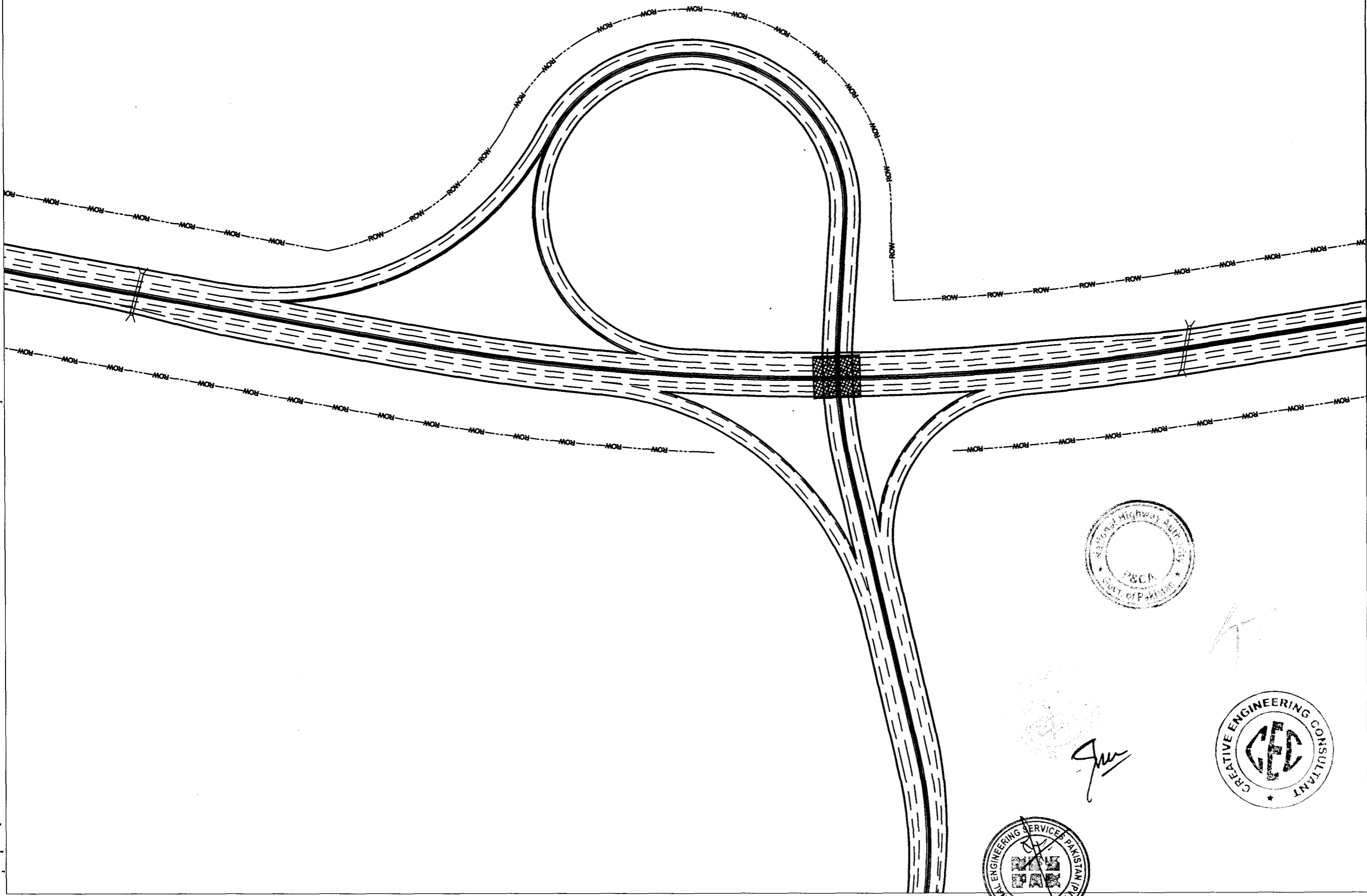
DRAWING TITLE:
SHAHDUNLUND BYPASS
END POINT INTERCHANGE

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|--------------------|-----------------------|
| DESIGN BY: A.S | SHEET NO. 02 OF 02 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/TIII/01



TAUNSA BYPASS END POINT INTERCHANGE



NOTES









1- ALL DIMENSIONS AND ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
PACKAGE-1
(Km 121+500 TO Km 233+200)

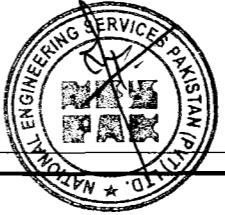
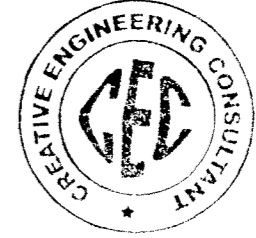
CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:**
-  MINCONSULT SDN BHD
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 -  SAMAN CORPORATION
 -  SHELADIA ASSOCIATES
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DRAWING TITLE:
TAUNSA BYPASS
END POINT INTERCHANGE

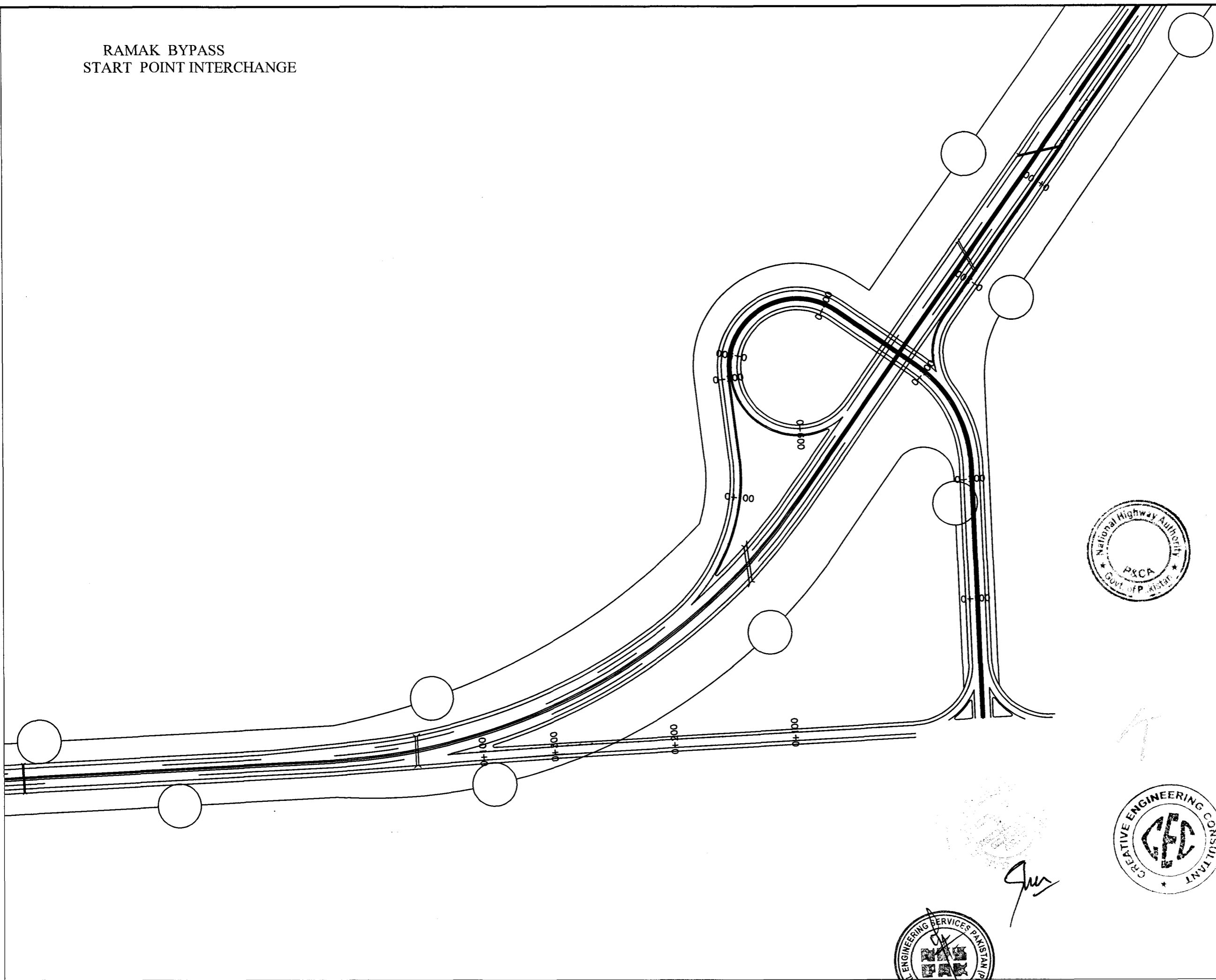
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| DESIGN BY: A.S | SHEET NO: 02 OF 02 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/TIII/01



Signature

RAMAK BYPASS
START POINT INTERCHANGE



NOTES

1- ALL DIMENSIONS AND ARE IN METERS.









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| TENDER DRAWINGS | | |
| REV. | REVISION/ISSUE | DATE |

PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN
SECTION OF N-55 AS 4-LANE HIGHWAY
PACKAGE-1
(Km 121+500 TO Km 233+200)

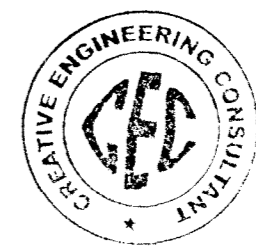
CLIENT:
 NATIONAL HIGHWAYS
AUTHORITY (NHA)

- CONSULTANTS:
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DRAWING TITLE:
RAMAK BYPASS
START POINT INTERCHANGE

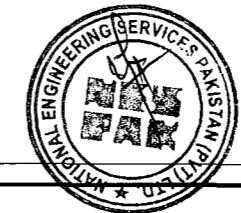
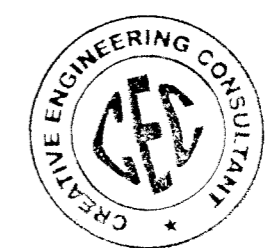
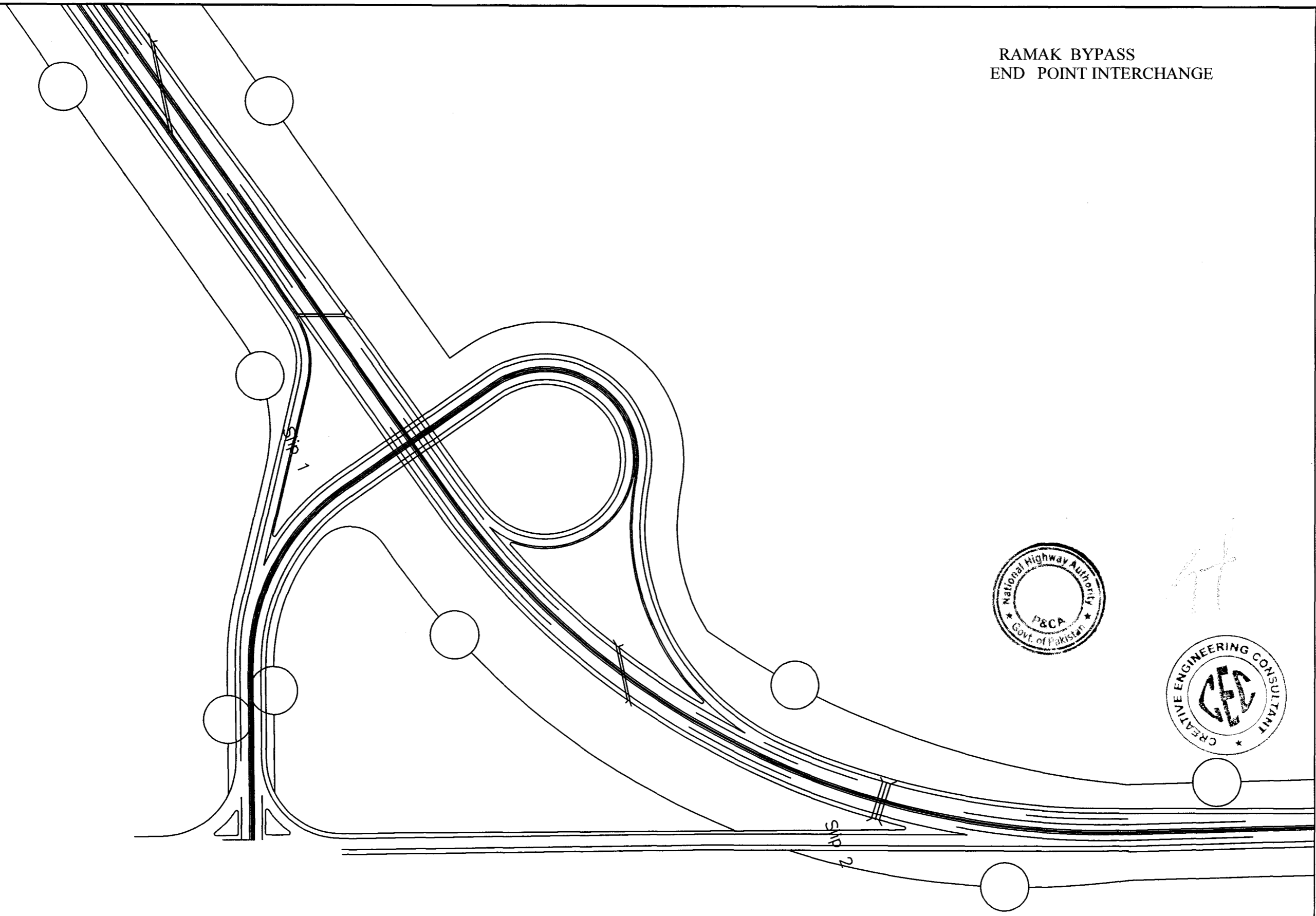
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| DESIGN BY: A.S | SHEET NO: 01 OF 02 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/III/01



Signature

RAMAK BYPASS END POINT INTERCHANGE



Handwritten signature or initials.

Handwritten signature.

NOTES

1:- ALL DIMENSIONS AND ARE IN METERS.

LEGEND

| REV. | REVISION/ISSUE | DATE |
|------|----------------|------|
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PROJECT:
CONSTRUCTION OF RAJANPUR-DG KHAN SECTION OF N-55 AS 4-LANE HIGHWAY PACKAGE-1 (Km 121+500 TO Km 233+200)

CLIENT:
NATIONAL HIGHWAYS AUTHORITY (NHA)

- CONSULTANTS:**
- MINCONSULT SDN BHD
In Joint Venture With
 - SAMAN CORPORATION
 - SHELADIA ASSOCIATES
 - CEC
 - AAA
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DRAWING TITLE:
RAMAK BYPASS
END POINT INTERCHANGE

| | |
|---------------------------|------------------------------|
| DESIGN BY: A.S | SHEET NO: 02 OF 02 |
| DRAWN BY: S.A | SCALE: NTS |
| CHECKED BY: A.S | DATE: MAR, 2024 |
| APPROVED BY: | REVISION: |

CAD FILE NAME:
CEC/CAREC/III/01