GWADAR – LASBELA
LIVELIHOODS SUPPORT PROJECT – PHASE II

WORKING DRAWING

CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI

PLAN & PROFILE RD 0+000 TO 1+291.150 (MAIN ROAD)
PLAN & PROFILE RD 0+000 TO 0+350.765(ALIGMENT -2)
PLAN & PROFILE RD 0+000 TO 0+246.032(ALIGMENT -3)
PLAN & PROFILE RD 0+000 TO 0+118.345(ALIGMENT -4)
PLAN & PROFILE RD 0+000 TO 0+49.315(ALIGMENT -5)

LINK ROAD

CAMEOS
CONSULTANTS
CONSULTING ENGINEERS ARCHITECTS & PLANNERS.
44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA.
CONSULTING ENGINEERS ARCHITECTS & PLANNERS, AGRICULTURE, SOCIAL DEVELOPMENT & HRD CONSULTANTS

Infrastructure Specialist
Gwadar-Lasbela
Livelihoods Support
Project, Gwadar

QUETTA OFFICE
CONSULTING ENGINEERS ARCHITECTS & PLANNERS.
44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA.
Phone: + 92-81-2848777
Phone: + 92-81-2864112

S.No	E	N	EL	REMARKS
1	270762.4	2779759.8	1000	BM1
2	270759.384	2779760.799	1000.739	BM2
3	270768.772	2779747.852	1000.554	BM3
4	270789.512	2779793.184	1000.754	BM4
5	270678.892	2779838.457	1000.104	BM5
6	270538.142	2780003.734	1000.165	BM6
7	270538.474	2779990.92	1000.226	BM7
8	270898.613	2779909.557	1000.537	BM8
9	270879.202	2779891.305	1000.437	BM9
10	270850.691	2779876.296	1000.453	BM10
11	270629.15	2779501.213	1013.238	BM11
12	270634.992	2779489.784	1010.893	BM12
13	270706.332	2779406.352	1013.939	BM13
14	270720.438	2779398.781	1013.387	BM14
15	270797.187	2779315.562	1015.712	BM15
16	270928.203	2779163.035	1018.175	BM16
17	270940.402	2779156.723	1018.136	BM17
18	270973.228	2779111.776	1020.309	BM18
19	271106.827	2778985.73	1021.182	BM19
20	271121.893	2778967.855	1021.483	BM20
21	271146.854	2778974.823	1021.536	BM21
22	271127.725	2778962.496	1021.678	BM22

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Livelihoods Support
Project, Gwadar

CLIENT: GLLSP-II

CONSULTANTS: CAMEOS CONSULTANTS
CONSULTING ENGINEERS, ARCHITECTS & PLANNERS
44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA.

PROJECT: GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II
CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI

DRAWING TITLE:- BM -LIST

NOTES:
ALL LEVELS AND DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE.

DRAWN BY: [illegible] REHMAN
CHECKED BY: [illegible] ULLAH JAN
[illegible] PATH
[illegible]-2020-RW-D
DRAWING NO:
DESIGNED BY: FARIA
SCALE: AS SHOWN
DATE: 2022
PLOT DATE: 2022

MATERIAL REQUIREMENTS

EMBANKMENT CONSTRUCTION

Minimum CBR: =

The material for embankment, except the top thirty (30cm), shall have a minimum soaked CBR value of five (5) % unless otherwise stated on the Drawings.

Material having a C.B.R value less than 7% determined according to AASHTO T-193, for the embankment depth of 30 cm below sub-grade.

Compaction: = The Material shall have a CBR value of at least 95%

Material required: =

The Contractor shall use AASHTO Class A-1, A-2, A-3, A-4 soil as specified in AASHTO M 145 or other material as defined in AASHTO Soil Classification System Table given before.

%age of maximum dry density as Determine by AASHTO T-180

Depth in centimetres below sub-grade level	Percent of Maximum Dry Density as Determined by
0 to 30	95
30 to 75	93
Over 75	90

SUB BASE CONSTRUCTION

Minimum CBR: =

The Material shall have a CBR value of at least 50%

Compaction: =

Density corresponding to Ninety eight (98) percent of the maximum dry density determined according to AASHTO T-180 Method-D.

Grading specifications : =

The sub-base material shall have a gradation curve within the limits for grading A, Band C given below.

Grading Requirements for Sub-base Material			
Sieve designation Standard / Alternate	Mass Percent Passing Grading		
(mm.) / inches	A	B	C
60.0(2 ½ inches)	100	-	-
50.0(2 inches)	90-100	100	-
25.0(1 inch)	50-80	55-85	100
9.5(3/8 inch)	-	40-70	50-85
4.75 (No. 4)	35-70	30-60	35-65
2.0 (No. 10)	-	20-50	25-50
0.425 (No. 40)	-	10-30	15-30
0.075 (No. 200)	5-15	5-15	5-15

BASE CONSTRUCTION

Minimum CBR: =

The material passing the 19 mm sieve shall have a CBR value of a minimum eighty (80) percent, tested according to the AASHTO T-193.

Compaction: =

The CBR value shall be obtained at the maximum 100% dry density determined according to AASHTO T-180, Method D.

Grading required: =

The gradation curve of the material shall be smooth and within the envelope limits' for Grading (A or B) given below:

Sieve designation Standard/ Alternate mm / (inches)	Mass Percent Passing Grading	
	A	B
50.0 (2 inches)	10	100
25.0 (1 inch)	7	75-95
9.5 (3/8 inch)	30-65	40-75
4.75 (No. 4)	25-55	30-60
2.0 (No. 10)	15-40	20-50
0.425 (No. 40)	8-20	12-25
0.075 (No. 200)	2-8	5-10

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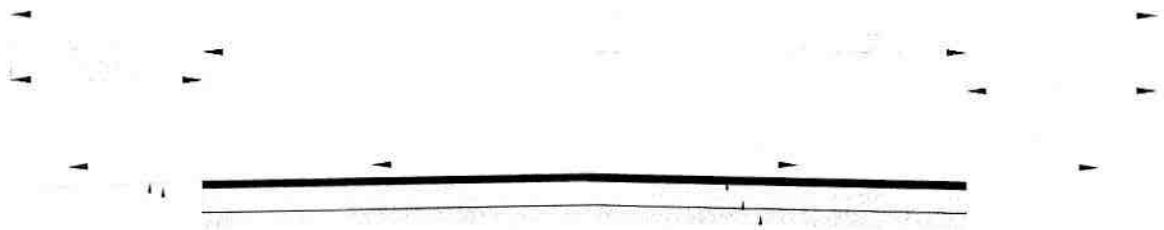


CLIENT:

GLLSP-II

CONSULTANTS:

CAMEOS
CONSULTANTS
CONSULTING ENGINEERS,ARCHITECTS & PLANNERS.
27-A, STREET. NO. 28 F-10/1 ISLAMABAD.
44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA.

PROJECT:

GWADAR-LASBELA LIVELIHOODS
SUPPORT PROJECT PHASE-II

CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO
MAIN ROAD GADANI

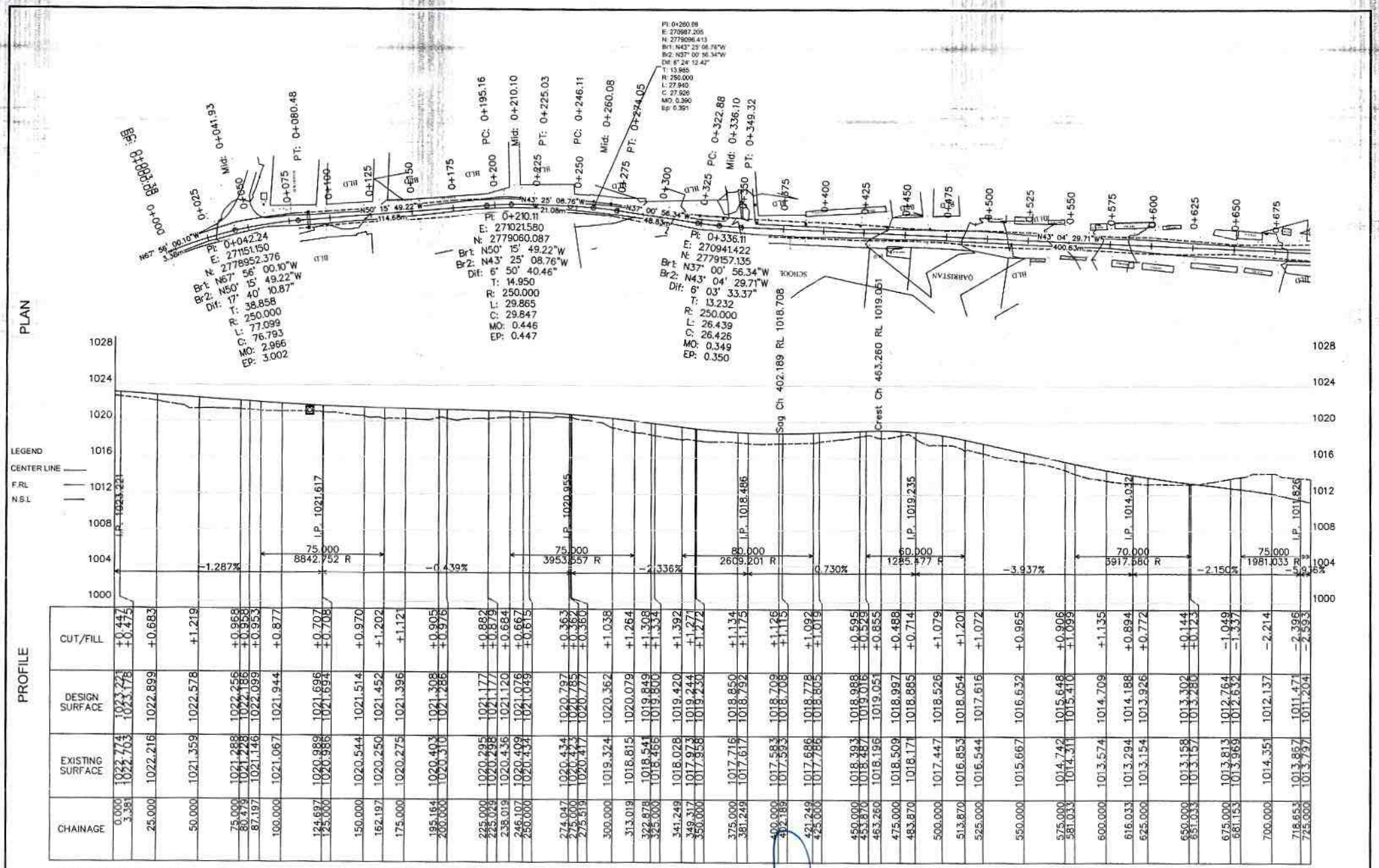
DRAWING TITLE:-

TYPICAL SECTION OF ROAD

NOTES:
ALL LEVELS ARE IN M
UNLESS INDICATED OTHERWISE

Infrastructure Specialist
Gwadar-Lasbela
Livelihoods Support
Project, Gwadar

DRAWN BY:	HABIB UR REHMAN	DESIGNED BY:	FARIA
CHECKED BY:	A SADULLAH JAN	SCALE:	AS SHOWN
FILE PATH:	D:\DATA	DATE:	2022
DRAWING NO:	00	SHEET:	0



CLIENT: GLLSP-II

CONSULTANTS: CAMEOS CONSULTANTS
CONSULTING ENGINEERS ARCHITECTS & PLANNERS
44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA

PROJECT: GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II

CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI

DRAWING TITLE: LONGITUDINAL PROFILE

Infrastructure Specialist
Gwadar-Lasbela Livelihoods Support Project, Gwadar

NOTES:
ALL LEVELS AND DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE.

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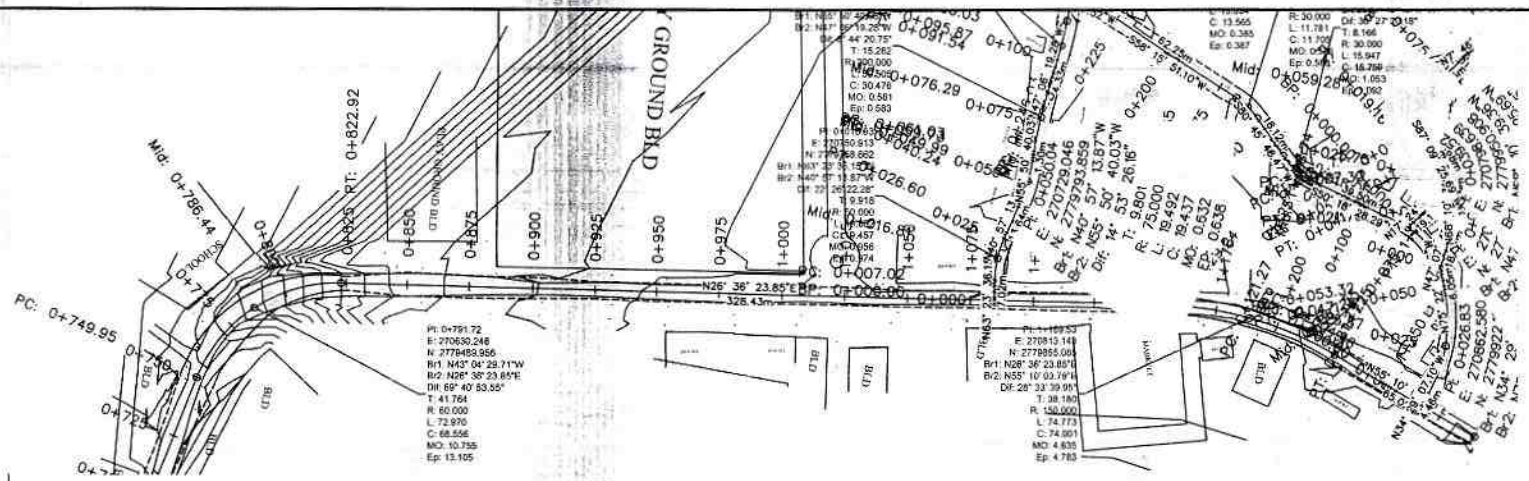
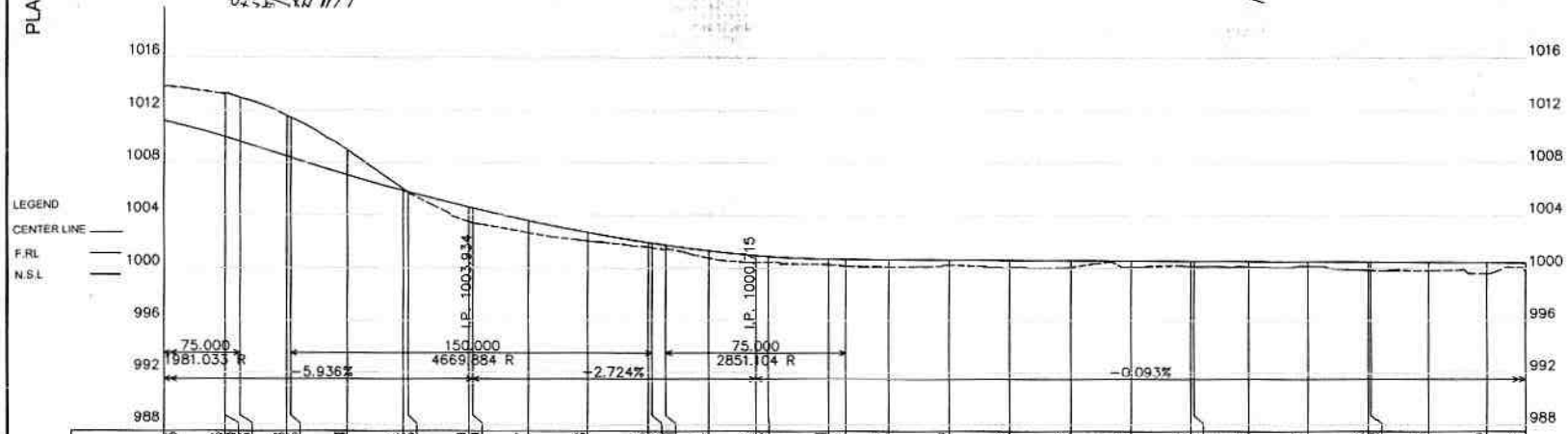
CHECKED BY:	ASADULLAH JAN	SCALE:	AS SHOWN
FILE PATH:	2022-D-GLLSP-II	DATE:	2022
DRAWING NO:		PLOT DATE:	2022

PLAN





PROFILE

CHAINAGE	CUT/FILL	DESIGN SURFACE	EXISTING SURFACE
725.000	-2.593	1011.204	1013.797
749.952	-3.303	1009.958	1013.261
750.000	-3.309	1009.955	1013.264
756.153	-3.366	1009.599	1012.965
775.000	-3.108	1008.481	1011.589
776.594	-3.066	1008.386	1011.452
800.000	-1.911	1007.055	1008.966
822.922	-0.134	1005.866	1006.000
825.000	+0.043	1005.764	1005.721
850.000	+1.120	1004.606	1003.486
851.594	+1.150	1004.536	1003.386
875.000	+0.907	1003.581	1002.674
900.000	+0.648	1002.691	1002.043
925.000	+0.343	1001.935	1001.592
926.594	+0.342	1001.891	1001.549
932.263	+0.274	1001.737	1001.466
950.000	+0.544	1001.309	1000.765
969.763	+0.512	1000.962	1000.450
972.000	+0.439	1000.893	1000.454
1000.000	+0.411	1000.696	1000.285
1007.263	+0.504	1000.680	1000.176
1025.000	+0.552	1000.663	1000.111
1050.000	+0.379	1000.640	1000.261
1075.000	+0.579	1000.617	1000.038
1100.000	+0.512	1000.593	1000.081
1125.000	+0.517	1000.570	1000.053
1150.000	+0.427	1000.547	1000.120
1151.553	+0.424	1000.545	1000.122
1175.000	+0.406	1000.523	1000.117
1200.000	+0.337	1000.500	1000.163
1225.000	+0.626	1000.476	999.850
1226.126	+0.631	1000.475	999.844
1250.000	+0.625	1000.453	999.828
1275.000	+0.840	1000.430	999.590
1291.150	+0.632	1000.415	999.783

LONGITUDINAL SECTION — Alignment -1 Ch 725.000 to Ch 1291.150 — SCALES: HORIZONTAL 1:1100 VERTICAL 1:200

CLIENT: G L L S P -II

CONSULTANTS: CAMEOS CONSULTANTS
CONSULTING ENGINEERS ARCHITECTS & PLANNERS
44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA

PROJECT: GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II
CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI

DRAWING TITLE: PLAN & PROFILE

NOTES: ALL LEVELS AND DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE.

Infrastructure Specialist Gwadar-Lasbela Livelihoods Support Project, Gwadar

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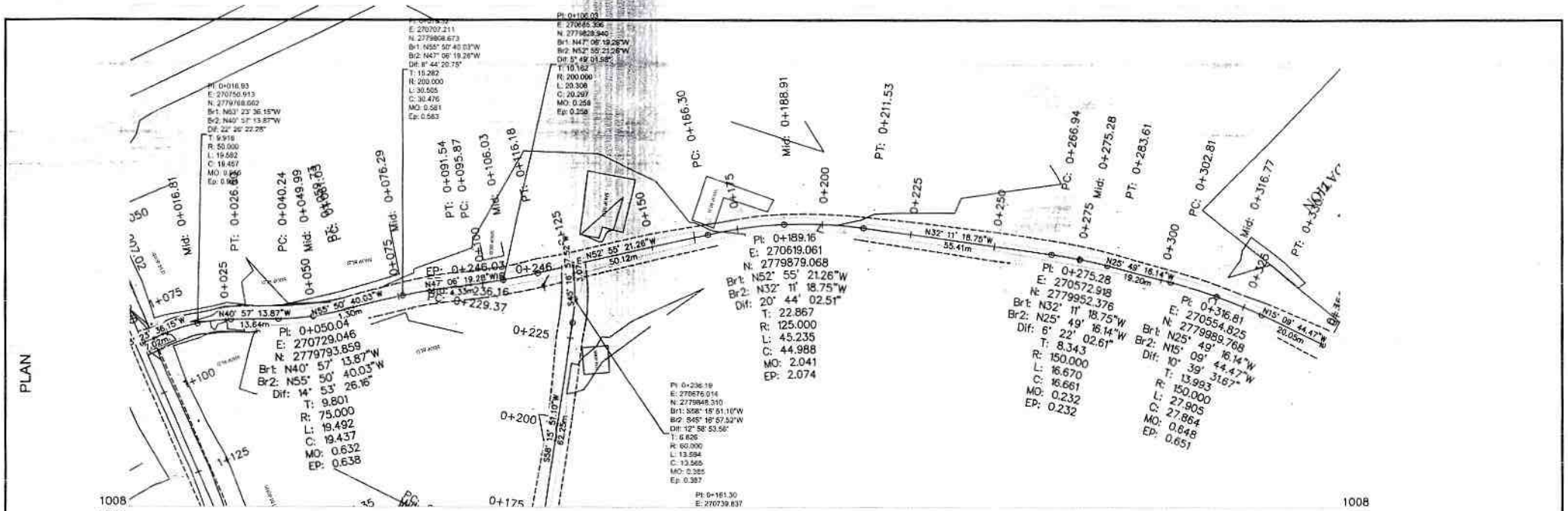
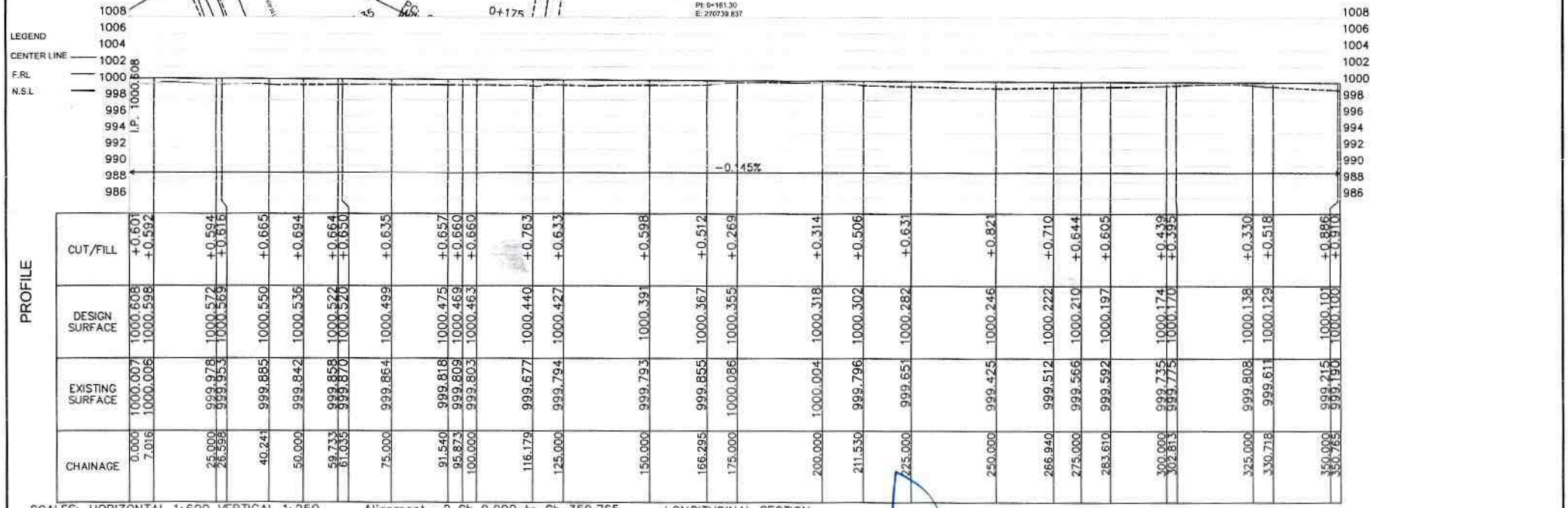
CHECKED BY:	ASADULLAH JAN	SCALE:	AS SHOWN
FILE PATH	2022-D-GLLSP-II	DATE:	2022
DRAWING NO:		PLOT DATE:	2022

PLAN



PROFILE

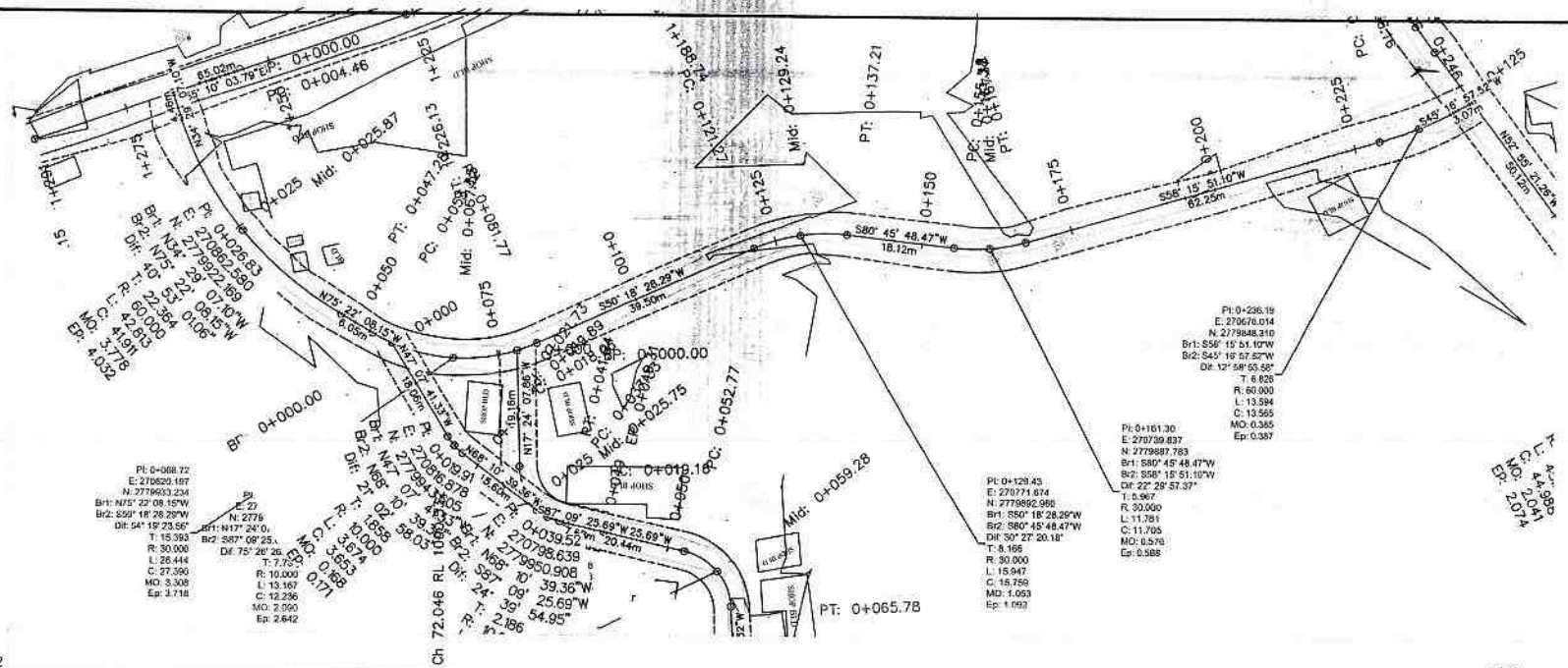


SCALES: HORIZONTAL 1:600 VERTICAL 1:250 Alignment -2 Ch 0.000 to Ch 350.765 LONGITUDINAL SECTION

CLIENT: G L L S P -II	CONSULTANTS: CAMEOS CONSULTANTS, CONSULTING ENGINEERS ARCHITECTS & PLANNERS, 44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA.	PROJECT: GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II	DRAWING TITLE: CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI	NOTES: ALL LEVELS AND DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE.	DRAWN BY: HABIB UR REHMAN; DESIGNED BY: FAHIA; CHECKED BY: ASADULLAH JAN; SCALE: AS SHOWN; FILE PATH: 2022-D-GLLSP-II; DATE: 2022; DRAWING NO: ; PLOT DATE: 2022

Infrastructure Specialist
Gwadar-Lasbela
Livelihoods Support
Project, Gwadar

PLAN

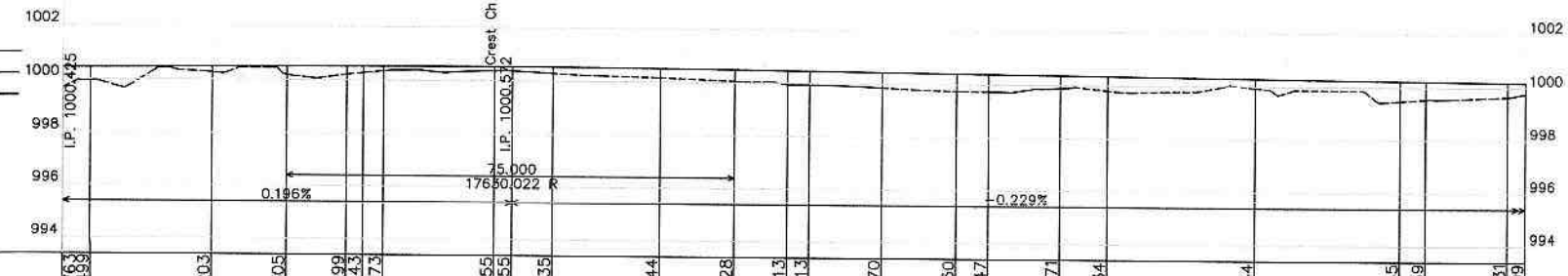


LEGEND

CENTER LINE

F.RL

N.S.L



PROFILE

CHAINAGE	CUT/FILL	DESIGN SURFACE	EXISTING SURFACE
0.000	+0.763	1000.425	999.662
4.463	+0.493	1000.434	999.935
25.000	+0.203	1000.474	1000.271
37.500	+0.305	1000.498	1000.193
47.276	+0.299	1000.515	1000.216
50.000	+0.243	1000.519	1000.276
53.324	+0.173	1000.522	1000.349
72.046	+0.155	1000.532	1000.377
75.000	+0.155	1000.532	1000.377
81.768	+0.235	1000.530	1000.295
100.000	+0.344	1000.510	1000.166
112.500	+0.428	1000.486	1000.058
121.268	+0.513	1000.466	999.953
125.000	+0.513	1000.457	999.944
137.215	+0.570	1000.429	999.859
150.000	+0.650	1000.400	999.750
155.336	+0.647	1000.388	999.741
167.117	+0.471	1000.361	999.890
175.000	+0.534	1000.342	999.808
200.000	+0.344	1000.285	999.941
225.000	+0.745	1000.228	999.483
229.366	+0.669	1000.218	999.549
242.961	+0.531	1000.187	999.656
246.032	+0.409	1000.180	999.771

Alignment –3 Ch 0.000 to Ch 246.032

SCALES: HORIZONTAL 1:450 VERTICAL 1:100

LONGITUDINAL SECTION

CLIENT: GLLSP-II

CONSULTANTS: CAMEOS CONSULTANTS
CONSULTING ENGINEERS ARCHITECTS & PLANNERS.
44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA.

PROJECT: GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II

CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI

DRAWING TITLE:- PLAN & PROFILE

Infrastructure Specialis Gwadar-Lasbela Livelihoods Support Project, Gwadar

NOTES: ALL LEVELS AND DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE.

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CHECKED BY:	ASADULLAH JAN	SCALE:	AS SHOWN
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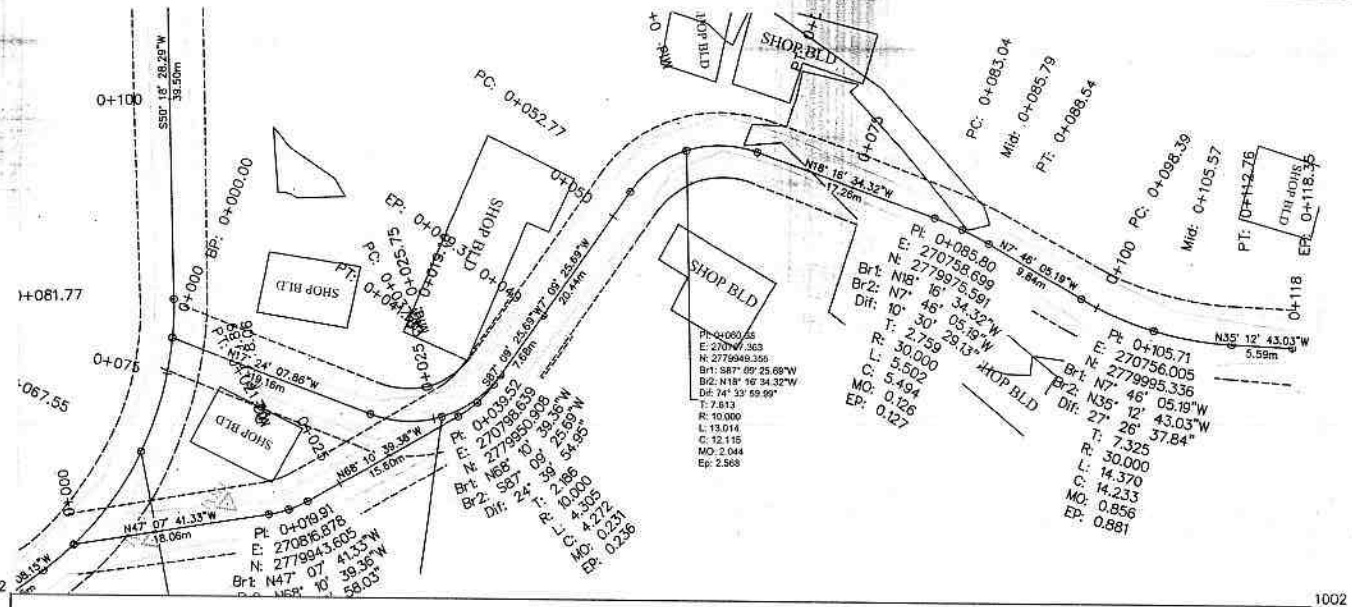
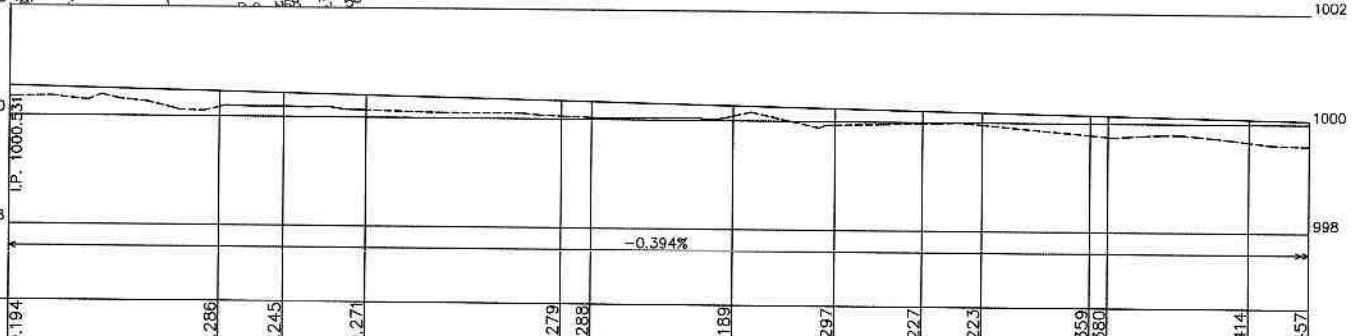
DRAWING NO:		PLOT DATE:	2022

PLAN



PROFILE



LEGEND

CENTER LINE

F.RL

N.S.L

CHAINAGE	CUT/FILL	DESIGN SURFACE	EXISTING SURFACE
0.000	+0.194	1000.531	1000.337
19.162	+0.286	1000.456	1000.170
25.000	+0.245	1000.433	1000.188
32.329	+0.271	1000.404	1000.133
50.000	+0.279	1000.334	1000.055
52.775	+0.288	1000.323	1000.035
65.785	+0.189	1000.272	1000.083
75.000	+0.297	1000.236	999.939
83.042	+0.227	1000.204	999.977
88.544	+0.223	1000.182	999.959
98.388	+0.359	1000.144	999.785
100.000	+0.380	1000.137	999.757
112.758	+0.414	1000.087	999.673
118.345	+0.457	1000.065	999.608

Alignment -4 Ch 0.000 to Ch 118.345

LONGITUDINAL SECTION

SCALES: HORIZONTAL 1:250 VERTICAL 1:50

CLIENT: GLLSP-II

CONSULTANTS: CAMEOS CONSULTANTS
CONSULTING ENGINEERS ARCHITECTS & PLANNERS
44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA

PROJECT: GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II

CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI

DRAWING TITLE: PLAN & PROFILE

NOTES:
ALL LEVELS AND DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE

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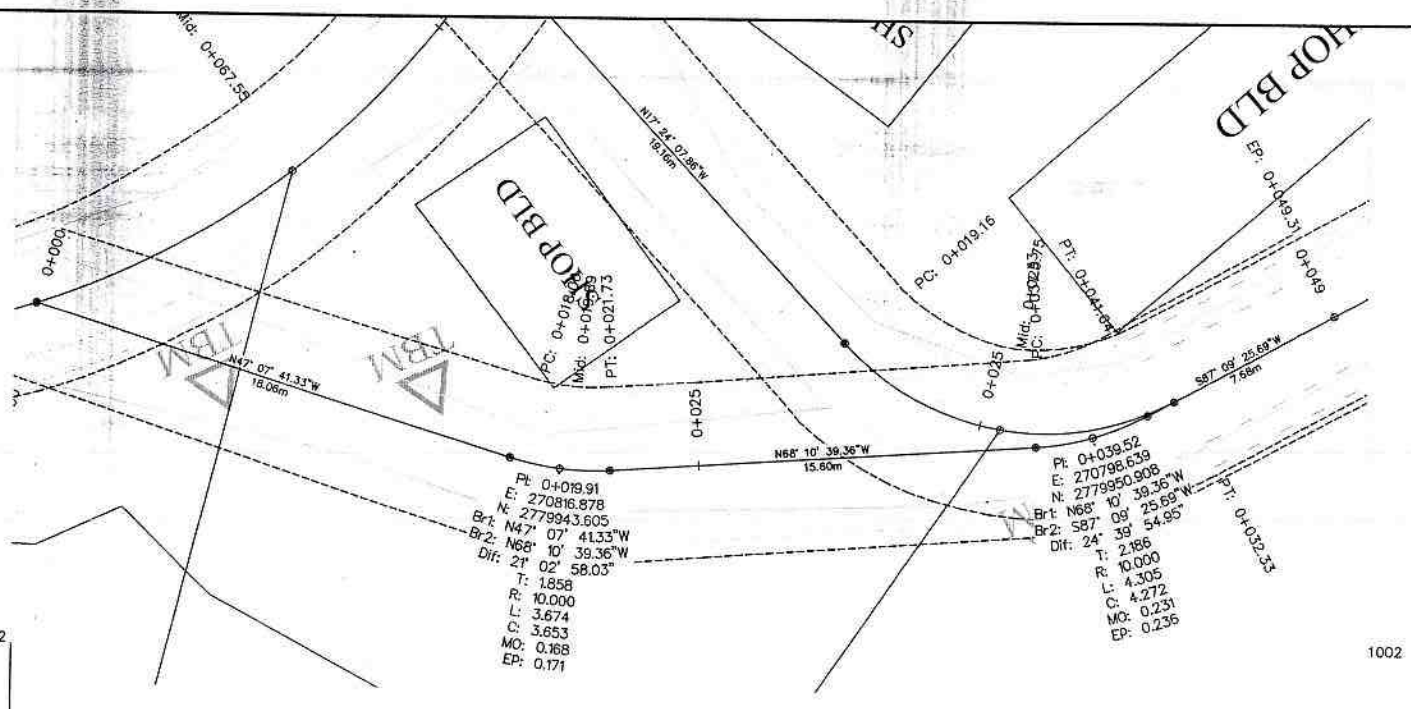
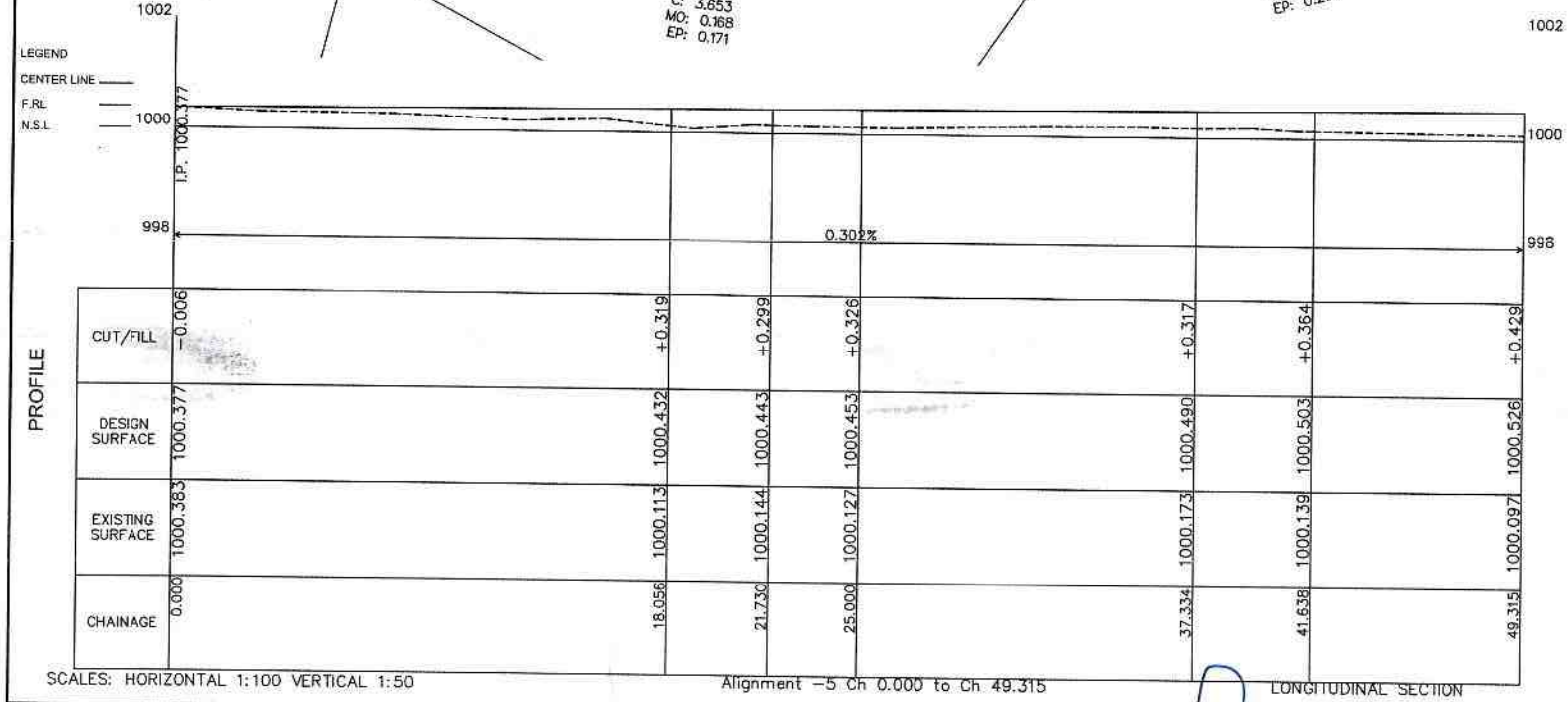
CHECKED BY:	ASADULLAH JAN	SCALE:	AS SHOWN
FILE PATH:	2022-D-GLLSP-II	DATE:	2022
DRAWING NO:		PLOT DATE:	2022

Infrastructure Specialist
Gwadar-Lasbela
Livelihoods Support
Project, Gwadar

PLAN



PROFILE



SCALES: HORIZONTAL 1:100 VERTICAL 1:50

Alignment –5 Ch 0.000 to Ch 49.315

LONGITUDINAL SECTION

CLIENT:	CONSULTANTS:	PROJECT:	DRAWING TITLE:	NOTES:				
GLLSP-II	CAMEOS CONSULTANTS CONSULTING ENGINEERS ARCHITECTS & PLANNERS. 44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA	GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI	PLAN & PROFILE	ALL LEVELS AND DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE.	DRAWN BY: HABIB UR REHMAN	DESIGNED BY: FARIA		
					CHECKED BY: ASADULLAH JAN	SCALE: AS SHOWN		
					FILE PATH: 2022-D-GLLSP-II	DATE: 2022		
					DRAWING NO:	PLOT DATE: 2022		

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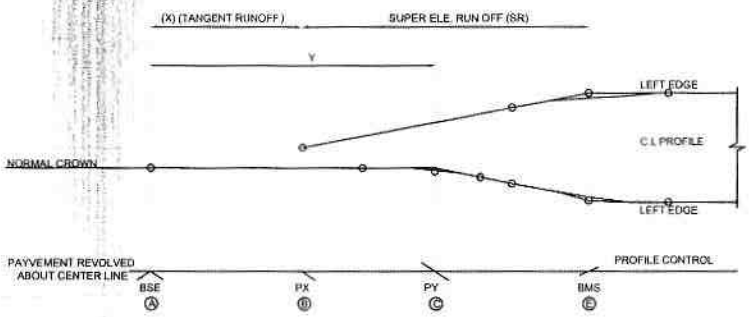
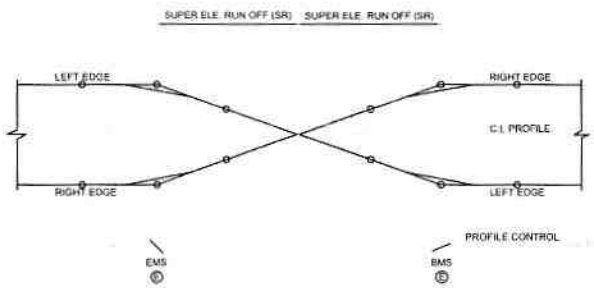
Project, Gwadar



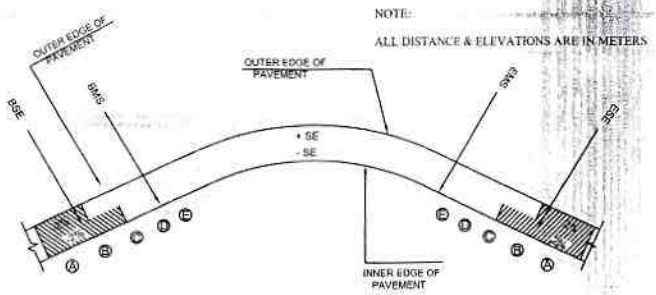
TYPICAL SUPER ELEVATION DIAGRAM



TYPICAL SUPER ELEVATION DIAGRAM ON REVERSE CURVES

NOTE:

ALL DISTANCE & ELEVATIONS ARE IN METERS



PLAN OF TYPICAL SUPER ELEVATION TRANSITIONS

SHOULDER	PAVEMENT	PAVEMENT (F.G.L)	SHOULDER
-4%	-2%	-2%	-4%
-4%	0%	-2%	-4%
-3%	+1%	-2%	-4%
-2%	+2%	-2%	-4%
-1%	+3%	-3%	-4%
0%	+4%	-4%	-4%
+1%	+5%	-5%	-5%
+2%	+6%	-6%	-6%

SECTION OF TYPICAL DISTRIBUTION OF SUPERELEVATION

$$\text{PAVEMENT S.E} = \left[\frac{\text{MSE \%} \quad \text{BSE \%}}{\text{MSE STA} - \text{BSE STA}} \times \text{REQUIRED DISTANCE} \right] - 2\%$$

LEGEND

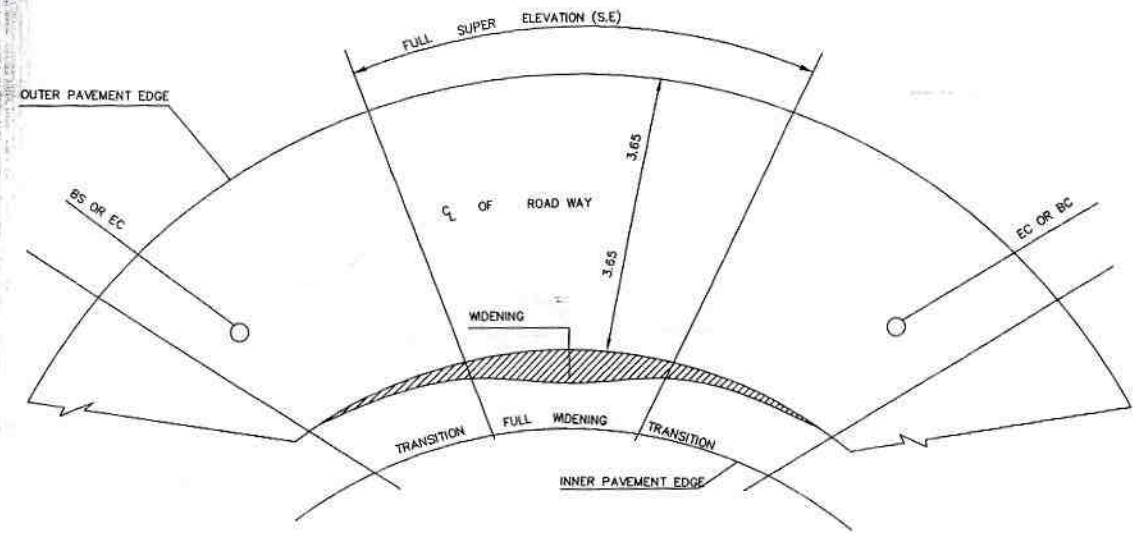
BSE BEGINING OF SUPER ELEVATION
PX POINT AT DISTANCE X AFTER BS
PY POINT AT DISTANCE Y AFTER BS
BMS (in) POINT AT WHICH MAXIMUM SUPER ELEVATION BEGINS
EMS (out) POINT AT WHICH MAXIMUM SUPER ELEVATION ENDS
PY POINT AT DISTANCE Y BEFORE ES
PX POINT AT DISTANCE X BEFORE ES
ESE END OF SUPERELEVATION
- MSE CROSS SLOPE AT MAXIMUM SUPERELEVATION
- SR (DISTANCE FROM PX TO WHERE MAXIMUM SUPER ELEVATION IS ACHIVED)

Infrastructure Specialist
Gwadar-Lasbela
Livelihoods Support
Project, Gwadar

CLIENT: GLLSP-II	CONSULTANTS: CAMEOS CONSULTANTS, CONSULTING ENGINEERS, ARCHITECTS & PLANNERS, 44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA	PROJECT: GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II — CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI	DRAWING TITLE: SUPER ELEVATION DIAGRAM

NOTES:
ALL LEVELS AND DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE.

DRAWN BY:	HABIB UR REHMAN	DESIGNED BY:	FARIA
CHECKED BY:	DATE: 2021	SCALE:	AS SHOWN
FILE PATH	EN-2020-RW-D	DATE:	2022
DRAWING NO:		PLOT DATE:	2022



ROADWAY WIDENING

TYPICAL PAVEMENT WIDENING AT CURVES				
RADIUS (M)	UP TO 20	21 - 30	31 - 40	41 - ABOVE
INCREASE IN PAVEMENT WIDTH (M)	1.0	0.7	0.5	0.3

NOTE:-

BC (BEGINING OF CURVE)

EC (END OF CURVE)

BS (BEGINING OF SUPER ELEVATION)

ES (END OF SUPER ELEVATION)

** WIDENING SHALL BE PROVIDED ONLY INSIDE OF THE CURVE*

** WIDENING SHALL BE PROVIDED ONLY TO CURVES UP TO 100 METERS RADIUS*

Infrastructure Specialist
Gwadar-Lasbela
Livelihoods Support
Project, Gwadar

NOTES:
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CLIENT:	CONSULTANTS:	PROJECT:					
GLLSP-II	CAMEOS CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS & PLANNERS 44-A CHAMAN HOUSING SCHEME AIRPORT ROAD QUETTA	GWADAR-LASBELA LIVELIHOODS SUPPORT PROJECT PHASE-II CONSTRUCTION OF B/T ROAD FROM LANDING SITE TO MAIN ROAD GADANI	DRAWING TITLE: SUPER ELEVATION DIAGRAM	DRAWN BY: HABIB UR REHMAN CHECKED BY: DATE: 2021 FILE PATH: E-N-7020-KW-D DRAWING NO:	DESIGNED BY: FARIA SCALE: AS SHOWN DATE: 2022 PLOT DATE: 2022		