

# GOVERNMENT OF THE PUNJAB PLANNING AND DEVELOPMENT BOARD (ROAD SECTION)

## **WORKING PAPER**

## **PART A**

Date of receipt of PC-I in P&D Board: 27-03-2025

## **PROJECT PROFILE:**

1. Project Title: CONSTRUCTION OF FLYOVER AT KHAWAJA

CORPORATION AT ADYALA ROAD, DISTRICT

RAWALPINDI.

2. Location: District Rawalpindi

3. Sponsoring Agency: Communication & Works Department

4. Executing Agency: Punjab Highway Department5. Operation & Maintenance Punjab Highway Department

6. Name of the RelevantCommunication & Works Department, Finance Department Department (s) /Pre-PDWP meeting was held on **18.04.2024** under the Stakeholder(s) invited in chairmanship of Member (ID)

Pre-PDWP

 Name of the Sector'sP&DB Road Sector, Economic Wing specialist / consultants / advisor / expert / invited

in Pre-PDWP

8. Cost:

(Rs. in million)

Original	1 <sup>st</sup> Revised	Increase
Rs. 2113.612	Rs. 3736.927	1623,315
(26.08.2024)	(Proposed)	1023.315

9. Source of Financing Provincial ADP 2024-25 reflected at G. Sr. No. 1723

10. Allocation (2024-25) Rs. 2113.000 Million

## 11. **BRIEF DESCRIPTION OF THE PROJECT:**

The proposed road project has been reflected in the Annual Development Programme (ADP) for the fiscal year 2024-25 at GS No. 1723. The scheme was approved by PDWP in its 21st meeting held on 26.08.2024 and administrative approval was issued by Secretary, Government of Communication Works the Punjab, & Department, Lahore, vide order No.SOH-II(C&W)2-12/2023 dated 30-08-2024, for an amount of Rs. 2,113.612 million. Subsequently, technical sanction was accorded by the Chief Engineer (North Zone), Punjab Highway Department, Lahore, vide Memo No. ADP-1723-2024-25/Rawalpindi/561/Plg dated 15-10-2024.

The project scope includes the construction of a flyover located at Km No. 4 of Adiala Road, which originates from Katchery Chowk Rawalpindi (Mile 170 of G.T. Road). The alignment traverses several settlements, including Gorakhpur, Adyala, Khalsa Khurd, Khasala Kalan, Dhalla, Jarrar Camp, Dhoke Awan, and Village Sangral, and connects to Rawalpindi–Chakri Road near

Village Ladian. This corridor is of strategic importance as it serves as a vital link between Rawalpindi and the Chakri Interchange (M-2), providing access to District Chakwal. The total length of Adiala Road is approximately 39 kilometers.

Upon completion of the proposed flyover at Khawaja Corporation Chowk, improved accessibility will be ensured for traffic bound to and from Jarrar Camp, the Rawalpindi Ring Road, and Jourian. The project is expected to significantly reduce travel time and alleviate chronic congestion at this critical junction, thereby enhancing overall traffic flow.

A substantial increase in the project cost has occurred due to several factors, including actual demand notices received from various service departments related to utility shifting, the requirement of land acquisition, and modifications in the design prepared by M/s NESPAK. These developments have necessitated financial adjustments to accommodate the revised scope and ensure timely implementation of the scheme.

Now, the C&W Department has submitted the revised PC-I / cost estimate amounting to **Rs. 3736.927 Million** for consideration of PDWP.

## **REASONS OF REVISION:**

- i. Due to change in cost of flyover due to increase in ramp retaining walls height, decrease in depth of piles, addition of pier and steel as per detailed drawings issued by consultant.
- ii. Due to provision of retaining walls along side service roads and dismantled sub structure.
- iii. Due to provision of granular backfill material (better filled) in pockets created due to demolishing of substructure of buildings demolished.
- iv. Due to increase in length of approach roads from 50 meter to 250 meter.
- v. Due to increase in width of service roads from 22 ft to varying from 22 ft to 28 ft.
- vi. Due to addition of slip roads on Caltex and School roads.
- vii. Due to increase in land acquisition area measuring 03 K 10 M for slip roads on Caltex and School roads.
- viii. Due to provisions for rehabilitation of Rah-e-Aman road (L = 1.50 Km).
- ix. Due to provision of drain on both sides, pipe culverts and construction of bridge over drain at School road.
- x. Due to construction of boundary walls, main gates, mosque, rooms and washrooms of Askari-7 demolished.
- xi. Due to provision for construction of retaining wall along Askari-7 (East Side)
- xii. Due to provision of box culverts at start and near point of flyover.
- xiii. Due to increase in length of drain and change in specification of drain from brick masonry to RCC.
- xiv. Due to increase in cost of Land Acquisition & Building Compensation as per demand notice received from LAC and due to additional proposed land measuring 03 K 10 M.
- xv. Due to increase in cost provision of shifting of services as per demand notices received from concerned line agencies.
- xvi. Due to provision of horticulture charges.
- xvii. Due to provision of Architectural and Aesthetic work over Flyover.

## **DESIGN & SCOPE:**

i. Length of Bridgeii. Widthiii. No of Spans1915 Rft52 ftiii. No of Spans

iv. Width of Service Road 28 ft (Both Sides)

v. Sub Base 08 inch vi. Base Course 08 inch

vii. Asphalt on road & Approaches 3.5 inch (2" ABC + 1.5" AWC)

viii. Asphalt on bridge 02 inch (AWC) ix. Land to be acquired 5.60 Kanal x. Total Traffic at Intersection 79,425 VPD xi. Conflicting Traffic 56,791 VPD xii. Proposed Flyover Traffic 32,810 VPD

## 12. a) Sector Issues

Insufficient availability of funds against the ever-increasing demand of road infrastructure, resulting in generation of excessive throw forward

## b) Sector Strategy

The provincial sectoral strategy envisages construction of a high quality infrastructure as planning, constructing and maintaining road network in public sector under need driven and cost effective regimes aiming at providing best possible means of communication to the general public

**13.** Relationship of the project with the Sectoral policy / Growth Strategy, 2023. Project is aligned with the growth strategy, 2023

## **14.** Alignment with the Punjab Spatial Strategy, 2047(Comments of urban unit) N/A

## 15. Other major ongoing projects in the Sector

i. CONSTRUCTION OF FLYOVER AT KHAWAJA CORPORATION AT ADYALA ROAD, DISTRICT RAWALPINDI (REVISED).

## 16. BREAK DOWN OF THE CAPITAL COST

(Rs. in Million)

	(KS: III Fillion)			
Sr. No.	Items	As per Approved PC-I	As per Revised PC-I	Difference
1.	Road Work	140.510	304.190	163.680
2.	Structures (Flyover)	1063.352	1003.681	-59.671
3.	Structures (RCC Walls for Flyover)	110.948	246.028	135.080
4.	Drainage & Erosion Works	78.418	300.136	221.718
5.	Allied Development Work	0.000	200.576	200.576
6.	Ancillary Works/Road Furniture	27.582	239.981	212.399
7.	Electrical Works	38.808	47.856	9.048
8.	Reconstruction of Rah-e-Aman Road	0.000	54.034	54.034
9.	Architectural Features / Aesthetics Works	0.000	50.000	50.000
10.	Shifting of Services	90.000	389.169	299.169
11.	Soil Investigation, Design Charges and Environmental Report	5.000	5.000	0.000
12.	Land Acquisition + Building Compensation	420.331	639.395	219.064
13.	Horticulture Charges	0.000	24.465	24.465
14.	2% Contingency	29.192	48.930	19.738
15.	0.5% Design Charges	7.298	12.232	4.934
16.	2% Consultancy	29.192	48.930	19.738
17.	5% PST Charges	72.981	122.324	49.343

Total	2113.612	3736.927	1623.315
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#### **17**. **UNIT COST**

Rs.16,044 per SFT

#### 18. PERIOD OF IMPLEMENTATION

24 Months (Till June 2026)

#### **19**. **ANNUAL RECURRING EXPENDITURE**

Rs.1.600 Million

#### 20. **ANNUAL INCOME AFTER COMPLETION**

N/A

#### 21. REQUIREMENT OF VEHICLES/STAFF/CONSULTANCY (WITH JUSTIFICATION) N/A

#### 22. **EXISTING FACILITIES**

## PART - B

#### 23. **TECHNICAL APPRAISAL**

(Comments of R&B)

Pre-PDWP meeting was held on 18.04.2025 under the chairmanship of Member (ID), wherein project's salient features, design & scope was discussed. Imperative discussion was made on reasons of revision of this PC-1, Physical & financial progress of the scheme

and details of price variations. Point wise discussion is listed as under:

Sr. No	Observation	Reply of the Department	Recommendations of pre-PDWP
1.	RD wise pictorial evidences of road and drone video may be provided in view of guidelines issued by P&D Board vide No. 12(14)PO(COORD-II)P&D/2022 dated 11.09.2023	Compliance has been made.	Noted
2.	Justification for increase in provision of earthwork (from borrow area) from 510,021 CFT to 1,521,939 CFT with a cost impact of Rs. 28.236 million and earthwork (from project area) from 102428 CFT to 239,470 CFT with a cost impact of Rs. 1.573 million is to be provided along with cogent reason for increase.  Layout plan of area and EGL & PGL may also be provided in lieu of making this provision.	The quantity of the borrow area has increased on a/c of increase in the height of ramp along with extension of requisite extension involving the location of boundary walls at Askari-VII side to achieve the serviceable width of service roads.  The increase in earthwork from project area on account of reuse of reclaimed earth from structure excavation of retaining walls and pile caps.	Not Accepted The original estimate submitted by the sponsoring agency was based on the detailed design; therefore, the height of the ramps, the width of the service roads, and the depth determined by the difference between the road level and the existing ground level (EGL) should have been finalized at the time of the initial approval.
3.	The sponsoring agency shall provide a detailed technical justification for the inclusion of the newly proposed item, namely selective granular backfill material, which has been	The provision of granular backfill material has been taken from Pier 3 till retaining wall of abutment 1 due to dismantling of acquired property, the pockets in the areas of	Not Accepted After thorough deliberations and examination of photographic evidence depicting the formation of pockets

	incorporated in the	service road has developed	following the
	estimate over a length of 575 feet on both sides of the carriageway, with a width of 23 feet and a depth of 11.5 feet, amounting to Rs. 41.800 million. The justification must include site-specific requirements necessitating this provision and confirmation that no alternative or less costly option is feasible. The rationale must also clarify whether the said provision is in compliance with standard design guidelines and is essential for achieving the required stability and performance of subgrade at the identified location.	needs to be filled with granular fill material.	demolition of the substructure at multiple levels, it was concluded that backfilling with engineered fill may not be warranted, as it would represent an uneconomical solution. Furthermore, retaining walls at some locations along dismantled substructure were also proposed wherein backfilling with engineered fill is not required. The executing agency may proceed with conventional backfilling practices or explore other cost-effective alternatives deemed technically feasible.
4.	Justification for increase in quantity provision of item i.e. dismantling of road metalling and road pavement structure proposed in revised estimate is to be provided.  Pavement evaluation report duly recommended by RR&MTI is to be provided in lieu of making this provision.	Due to Correction of Length as per project area, originally 630 m Flyover area was taken, while the at grade start and end portion was erroneously neglected, while during excavation 03 layers of asphalt has been encountered. Rectification resulted impact of 9.7 M.	The sponsor is required to justify the rationale behind the increase in the length of the approaches from 50 meters to 250 meters. Furthermore, the pavement evaluation report, duly recommended by the RR&MTI, is to be provided to substantiate the increase in the depth of the pavement structure reflected in the estimate.
5.	It has been observed that the quantities of Sub-Base, Base Course and asphalt course have increased significantly in the revised estimate. The sponsoring agency is required to provide a detailed technical justification for this substantial variation, clearly outlining the factors contributing to the	Due to correction of number of lanes at grade portion, slip roads length have increased from 50m to 250m, increase in width of cross roads as per land acquisition done at site, pavement design has been kept same.	Not Accepted The increase in the length of the approach roads is not justified. Furthermore, the service road, initially conceived as 22 feet wide and now varying between 22 feet and 28 feet for the provision of auxiliary lanes and slip roads at the Caltex

	increase, such as changes in pavement design, cross-sectional geometry, or site-specific conditions.		Road and the School Road, on additionally proposed land to be acquired measuring 03 Kanal and 10 Marla, should have been included in the original estimate.
6.	Sponsor to elucidate the reasons in detail behind change in cost of flyover structure with cost impact of Rs. 75.409 million.	Due to decrease in length of piles and decrease in length of flyover portion by 10 m, while increase in height of Ramp has resulted in the net impact of Rs75.409 M	Noted The Chief Engineer (Concerned) shall obtain the recommendations of the Bridge Directorate for the validation of the design of the bridge.
7.	Sponsor to provide detailed drawings of flyover provided by consultant.	Compliance has been made.	Noted
8.	The sponsor to specify which design parameters/inputs have been changed in the design provided by the consultant, compared to the initial assumptions made at the time of approval, that have resulted in the increased cost of the flyover.	Changes observed in  Decrease in length of Pile  Change in Length of one span  Decrease in length of Flyover  Increase in height of ramps retaining wall  Retaining walls section and steel has increased as per final decision.  Item wise comparison is already attached in PC-1 submitted	Noted The Chief Engineer (Concerned) shall obtain the recommendations of the Bridge Directorate for the validation of the design of the bridge.
9.	Sponsor may also share the detailed comparison of items affected by the design change, indicating the incurred modifications.	-do-	-do-
10.	Sponsor to justify the increase in length of drain from 5710 Rft to 10,000 Rft with a cost impact of Rs. 97.077 million.  Layout plan duly marked on google image along with disposal point in lieu of increase in this provision is to be provided.	As per correction the length has been rationalised to 9000 Rft, correction has been made as per actual length of roads in the project area. Disposal Plan Attached.	The increase in the drain length due to the provision of drains on both sides of the School Road is not justified. The sponsor may opt for the disposal of stormwater into the existing drain at this specified location.
11.	It has been observed that unit rate of drain is	Change in unit rate of drain is due to depressed nature	Not Accepted Provision of RCC drain

	increased from Rs. 13,733.37/RFT to Rs. 17,549.50/Rft in instant estimate which is to be justified and rate analysis of item may also be provided.	of drains in significant length under road way, dictating the need of RCC drain instead of Brick Masonary.	instead of brick masonry is to be deleted.
12.	Sponsor to justify the new provision of following items made under Drainage and Erosion work:  • 02 No Box Culverts with a cost impact of Rs. 28.756 million  • Dismantling of PCC & RCC with a cost impact of Rs. 32.628 million  • Disposal of unusable material with a cost impact of Rs. 15.081 million	As per disposal plan one box culvert is needed 0+025 to connect the new proposed drain with existing drainage on other side of the road.  While provision of second box culvert has been made at between Pier 1 and Abutment 1, as existing culvert is depleted needs replacement.  Dismantling of existing road drains and removal of basement walls in result of acquisition.  Disposal of building material/ debris from site in result of acquisition.	The location of the existing culvert near the start point and the crossing of the stone masonry nullah near the end point, where box culverts are now being proposed, should have been identified during the initial survey and estimation of the project in the original PC-I.
13.	Justification for new provision of construction of submersible bridge over nullah at School road taken in estimate at cost of Rs. 26.600 million is to be provided.	The school road has been used as part of diversion plan having a small bridge on it, the said bridge already in depleted condition has been proposed to be reconstructed.	Not Accepted The inclusion of scope in the estimate pertaining to the School Road, including the provision of drains along both sides, reconstruction of the boundary wall of Askari-7, construction of a bridge over the drain, and the provision of pipe culverts, is not warranted under the scope of the instant scheme and should be deleted.
14.	Justification for new provision of construction of 4ft span culvert and 48" dia pipe culvert at School road taken in estimate at cumulative cost of Rs. 9.231 million is to be provided.	As a allied structure of the bridge at school road, the provision of 4ft span culvert and 48 inch dia pipe has is also required.	-do-
15.	It has been observed that new item of works related to earthwork, construction of boundary wall and structure are	construction of boundary	-do-

		L' CACKADI : I	Т
	taken under Drainage	separation of ASKARI side.	
	works head at School		
	road with cost impact of		
	Rs. 16.211 million which		
	is to be justified.		
16.	Layout plan of all items	Compliance has been made.	-do-
	proposed to be taken at	•	
	School road duly marked		
	on google image is to be		
	provided.		
17	It has been observed that	At the start of the project	Not Assented
17.			-
	new provisions pertaining	the Askari Colony Phase 7	After detailed
	to allied development	•	deliberations, it was
	works—including	while the requisite width of	concurred that if the
	dismantling of the	service was not available, in	sponsor had planned
	existing boundary wall,	result of coordination it was	the use of Askari-7
	drain, main gates,	decided that land will be	land for the provision
	mosque, rooms, and	provided by them without	=
1	washrooms, as well as	any cost, while the	the associated costs
1	the reconstruction of	establishments/	related to the
		•	reconstruction of the
1	these components—have	components disturbed will	
	been incorporated in the	reconstructed. Resultantly	boundary wall,
	cost estimate at a	the provision of RCC Wall,	retaining wall, and the
	cumulative cost of Rs.	, , ,	area of structure
	200.576 million. These	and guard room has been	required to be
	provisions require	taken up with the	demolished should
	detailed justification.	accumulative cost of Rs.	have been included in
		200.576 m.	the original estimate.
	Accordingly, the		
	sponsoring agency is		
	requested to provide		
	•		
	evidence and		
	corresponding layout		
	plans for each component		
	of the allied development		
	works, along with clear		
	and cogent technical		
	grounds for their		
	inclusion in the estimate.		
	The justification should		
	demonstrate the		
	necessity of these works		
1	1		
1	in relation to the overall		
1	scope and functionality of		
	the scheme.		
18.	Increase in provisions of	New item Jotashield paint,	Painting on surface of
	road furniture items with	vision barriers, pipe	flyover with jota shield
	a cost impact of Rs.		paint and provision of
1	212.399 million is to be	barriers, angle reflectors on	·
1	justified.	side barriers, increase in	of instant PC-I is not
	Justinea.	tuff pavers & Kerb stone	justified and be
1	DD wise linear alex	-	-
1	RD wise linear plan	quantity due to increase in	deleted.
	depicting location of	project length, minor	
	proposed traffic	variation in quantity of	
1	informatory, regulatory		
1	and directional sign	caused this time cost impact	

	boards may be shared		
19.	and annexed with PC-I.  Sponsor to justify new provisions i.e. vision barrier and jotashield paint in instant estimate is to be provided.	Provision of Vision Barrier is due to high priority individuals residing in Askari Area.  Jotashield paint is to enhance the aesthetic appearance of exposed concrete work.	-do-
20.	It has been observed that provision for construction of inauguration monument amounting to Rs. 5.250 million is taken in instant estimate which is not justified and may be deleted.	Inauguration of this flag ship project is expected at the end of this fiscal year by CM Punjab, for which this provision has been incorporated.	Not Accepted Provision is to be deleted from instant estimate.
21.	The sponsoring agency is required to justify the provision of Rs. 54.034 million for the reconstruction of Rah-e-Aman Road (L = 1.50 Km) as reflected in the instant estimate.  In this regard, the layout plan, linear plan, and Z-section of the subject road must be furnished. Additionally, clear and cogent reasons shall be provided to substantiate the inclusion of this road in the current scope, along with an explanation of its functional relevance and connectivity to the main project area. The justification	The said road was used as a traffic diversion, has undergone deterioration. Resultantly been incorporated in this project.	Not Accepted The inclusion of scope pertaining to the rehabilitation of Rah- e-Aman road is not justified and does not fall within the scope of the current PC-I. This work should be excluded as it is not aligned with the objectives or requirements of the project at hand.
	establish the necessity of this reconstruction within the context of the overall scheme.		
22.	The sponsoring agency is required to justify the lump sum provision of Rs. 50.000 million earmarked for architectural features and aesthetic works as reflected in the instant estimate.  In this regard, detailed information must be provided, including the	The flyover is in the urban area, to enhance the aesthetic value of the under portion of the flyover portion, the L.S provision has been incorporated. Upon approval the actual item wise detail will be made part of TS estimate.	Not Accepted The sponsor should have prepared the estimate based solely on basis of BOQ rather than taking lump sum provision. Additionally, the inclusion of work related to architectural and aesthetic features is not warranted

	scope of work and an		under the scope of
	item-wise cost		the current PC-I.
	breakdown, to		
	substantiate the cost		
23.	provision.  Justification for increase	Number of poles has been	Dravician is subject to
25.	in quantity provision of	increased on account of	the approval of
	electrical items with a	increase in project area	increase in length of
	cost impact of Rs. 9.048	length.	approach roads as
	million is to be provided.		discussed above.
24.	Sponsor to justify the	Compliance has been made.	Noted
	increase in cost provision		
	of shifting of utility		
	services charges (IESCO, SNGPL, PTCL etc) from		
	Rs. 90.000 million to		
	389.169 million by		
	providing demand notices		
	received from concerned		
	line agency.		!
25.	Increase in provision of	Compliance has been made.	Initially, land
	land acquisition and building compensation		measuring 09 K 01 M was identified for land
	charges may be justified		acquisition and now
	by providing following;		additional area of land
	<ul> <li>Demarcation of area</li> </ul>		measuring 03 K 10 M
	(Demarcation plan)		was proposed to be
	marked on google		acquired for slip roads
	image along with area		at Caltex road and Slip
	statement be provided.		road. (Cumulative Land Area: 12 K 11 M)
	<ul> <li>Demand of LAC</li> </ul>		It has been observed
	<ul> <li>Minutes of DPAC</li> </ul>		that Section-04
	<ul> <li>Assessment of</li> </ul>		notified on 02.09.2024
	Buildings by concerned		indicates land
	Building Division.		measuring 16 K 11 M
			and Section-04
			notified on 10.02.2025 indicates land area of
			03 K 10 M
			(Cumulative Land
			Area: 20 K 01 M)
			which requires
			justification.
			Furthermore, cost
			basis of additional
			proposed land measuring 03 K 10 M
			was based on lump
			sum basis and no
			demand notice from
			LAC has been
			provided to justify this
26	Change to instife and	Drovision Island Corre	cost provision.
26.	Sponsor to justify new provision of horticulture	-	Not Accepted The provision for
	charges at cost of Rs.	_	horticulture charges in
	and geo at cost of NS.	a.ii iiicibecdon nab been	calcule charges III

		<del>_</del>	
	24.465 million in estimate.  Furthermore, Horticulture charges taken in estimate based on lump sum basis is not justified and must be based on actual estimate/DN of concerned PHA for tree plantation on or along instant road as per PDWP decision.  Additionally, the sponsor	developed to beautify the area. The Provision of 1% as per policy has been incorporated, if agreed the payment to relevant agency will be made as per Demand Notice.	road schemes pertains to tree plantation and horticultural works along the road, contingent on the availability of the ROW, demand notice from the concerned Forest Division, along with a detailed horticulture plan, which has not been attached to the PC-I and be provided for further consideration.
	must provide comments on whether the ROW is available for tree plantation along this road or not.		Tararer consideration.
27.	Increase in cost provision of contingency charges in instant estimate is not justified and must be freezed to original approval	Agreed. Will be rationalised.	Noted
28.	Lump sum provision of consultancy and design charges in revised estimate is not justified and must be actualized based on actual agreement with consultants.	Project is in running position, upon submission of final approval for Price Variation, the provision of consultancy that is on man month basis will be rationalised.	Not Accepted Provision is to be rationalized/ freezed to original approval.
29.	Sponsor to provide revised economic analysis based on proposed revised cost of scheme and must also be vetted from Pⅅ of CWD.	Agreed, will be provided before PDWP/	Not provided Sponsor must provide revised economic analysis before PDWP meeting.
30.	Sponsor to share financial and physical progress of scheme.	Brief showing physical and financial Progress attached	Noted

## PART - C

## 24. ECONOMIC / FINANCIAL APPRAISAL

(Comments of Economic Appraisal Section and Finance Department)

## PART - D

## 25. ENVIRONMENTAL APPRAISAL.

(Comments of Environment Department)

## 26. CONSIDERATION BY PRE-PDWP

The scheme is submitted by the C&W Department for revised approval at a cost of **Rs.3736.927 Million**.

## 27. RECOMMENDATIONS

The scheme is placed before PDWP for consideration.