ROSHAN COLONY

Diyal Road, Dera Ismail Khan

General Environmental Approval (GEA) Assessments
Roshan Colony, Diyal Road, Dera Ismail Khan

Prepared by:

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AK-W Engineering and Management Consulting

21 March 2024

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Engineering and Management Consulting

Environmental Assessment Checklist

Section I: Project Description

File No.	
Date	

General Information

1	Project Name or Title	Roshan Colony
2	Project Proponent	[redacted]
3	Address	[redacted]
4	Telephone	0330 985 1821
5	Fax	Not Available
6	E-mail	abdulrehmankhan@gmail.com
7	Representative of the Proponent	Self-Represented
8	Designation	[redacted]
9	Name of the person who conducted this assessment	Abdul Rehman Khan
10	Designation	Engineering and Management Consultant
11	Qualifications	• BSc Civil Engineering • MSc Water and Waste Engineering • Master of Business Administration • Professional Engineer, Pakistan Engineering Council • Licensed Professional Engineer, Canada

Project Information

12	Project Location	Diyal Road, D.I.Khan
13	Cost of the Project	Rs. 60 million
14	Period of construction (start and end dates)	2024-2025
15	Scheme type	Private
16	The developer will provide the following.	Housing Plots
17	Number of housing units in the proposed scheme	Ninety-nine (99)
18	Brief Project Description Please attach a map of the proposed project area.	The proposed development is a small colony with affordable (mostly 5 marla) plots. The development aims to provide a secure, compact and sustainable development to meet the housing needs in the area. The Google map of the area is provided in Appendix 1.

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19	Area of the housing scheme	Total:	15,376.28 m2
		Proposed Covered	Not Applicable
		Open Space	4320.48 m2 (Roads + SW Site)
20	Indicate what facilities will be provided in the scheme and the land use	Housing units	10,845.02 m2
		Mosque	127.53 m2
		Paved roads	4194.13 m2
		Unpaved roads	Nil
		Parking lots	Nil
		Community Center	Nil
		Shopping areas	92.63 m2
		Parks	Nil
		Other	126.35 m2 (SW Site)
21	The total construction material that will be used?	Concrete: 2000 m3 (Roads, Pipes and Manholes)	
22	Land Acquisition	• 100% of the land is owned by the proponents through inheritance, and no land acquisition is involved. • The land has become barren due to housing development around the site. As development occurred around the site over the years, the irrigation water to the site became contaminated with sewage and it was deemed inappropriate and immoral to grow food with sewage. Trees were subsequently planted, but they dried out and did not grow for a multitude of reasons, including theft, contaminated irrigation water, vandalism, etc.	
23	In case of state land, are there any squatter settlements on the land?	Not applicable.	
24	Is construction work during the night planned?	No.	
25	How many trees will be removed for the construction of the scheme?	There are no trees on site; some wasteful vegetation and weeds will be removed.	
26	How many new trees will be planted?	No new trees will be planted through development. The prospective owners of the plots will plant trees as they deem fit.	
27	Will the developer undertake landscaping and plant grass and ornamental plants for the entire scheme?	Ornamental plants will be planted on the commercial lot and the mosque by the developer.	
28	Number and type of major equipment and vehicle that will be used	Construction equipment including excavators, earth moving, concrete batching, rollers and trucks will be used at the site during construction works.	

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29	Number and type of staff that will work on the project	All the construction activity will be sub-contracted to Local Government licensed contractors. It is expected that about 2000 labor hours will be required to complete the civil works. There will be one non-resident sales agent who would deal with all the marketing and sales aspects of the development.
30	Describe the proposed sewerage disposal scheme:	A piped sewage system will be provided in the development. The designs were provided to the Tehsil Municipal Authority (TMA) and are consistent with the prevalent LG&RD and TMA standards. The total sewage volume generated by the development would be 40,000 Liters per day or an average flow of 0.5 L/sec and a maximum flow of 2.5 L/s. Each plot will have a 75 mm diameter service connection to the 150 mm diameter tertiary sewers in the street, which will deliver sewage to the 450 mm diameter secondary sewer on the main road. The 450 mm diameter sewer will connect to the existing 900 mm diameter trunk sewer on the main Diyal Road. The 75-mm diameter service connections will be HDPE and the sewer pipes will be made of sulfate resistant concrete and will slope at 1:200 to consistently achieve self-cleaning velocities. The total lengths of the 150 mm diameter tertiary sewers will be approximately 500 mm and the 450 mm secondary sewer will be approximately 110 m. Manholes will be provided at intersections and remote ends with center-to-center spacing less than 100 m for cleaning and servicing. The sewage from the site will be disposed of to the existing trunk sewer on Diyal Road, which is part of the City's collection system to deliver sewage to the main treatment plant for the city being planned under the KPCIP project by the LG&RD Department.
31	What will be the source of water for the scheme	There will be no centralized water supply system. The lot owner will drill hand pump / wells onsite, as is a common practice in the DIK City.
32	Will natural gas be supplied	Natural gas connections are not provided by SNGPL at this time.

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Section II: Screening

Is the proposed housing scheme or part of the proposed scheme located in an ecologically sensitive area?	No. The site is not located in any ecologically sensitive area.
Is the number of housing units in the scheme 100 or more?	There will be fewer than 100 housing units in the development.

Section III: Environmental Profile

1	Describe the terrain of the proposed site of the housing scheme:	The site is flat / level with a slope less than 3%
2	Is there any surface water body (river, canal, stream, lake, wetland) within 1,000 m of the proposed scheme?	There is no water body within 1000 m of the proposed housing development. There are some small local irrigation watercourses in the vicinity. The watercourses are heavily contaminated with sewage that is disposed into them by the housing development in the area.
3	Is there any site of cultural importance (graveyard, shrine, mosque, archeological site) within 1,000 m of the proposed scheme?	There is no cultural site of importance in the vicinity or 1000 m of the proposed development. There are, however, some small local / neighborhood mosques in the area.
4	Are there signs of soil erosion or landslide anywhere within 500 m of the project area?	The site is flat and there are no soil erosion or landslides within 500 m of the project area.
5	Is there any groundwater well on the proposed site of the scheme or within 500 m of the proposed terminal site?	There are private groundwater wells in almost every house / plot in the area. These are typical 35-50 mm wells that are equipped with hand pumps or increasingly electrical pumps. The wells are often about 50-75 feet deep. Well water is used for domestic uses and there is an abundance of groundwater in the area.
6	What is the present land use in the vicinity (roughly a radius of 500 m) of the proposed housing scheme? (Please attach a map of the proposed project site and indicate roughly the area that you have considered for this evaluation)	Almost 80% of the area within the 500 m radius of the site is residential development, mostly 5-10 marla housing stock. There are some empty lots in the area along with few lots that are used to grow animal feed. There are few residential shops in the neighborhood along Diyal Road. There are also many private offices and schools in the vicinity. The map is provided in Appendix-2.

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7	Please provide the traffic count for all main roads adjacent to the proposed scheme or roads that will provide access to the scheme. The count should be based on data collected, for both directions, on at least three typical working days.	Diyal Road is 40 feet wide and designated to serve local development in the area. The typical capacity of a 4-lane roadway is 2400-3000 vehicles per hour. Assuming that all the housing in the development will have vehicles and will make two trips a day in the 12 daylight hours, the total additional traffic contribution to the Diyal Road will be 16 vehicles per day, which is less than 1% of the road capacity. Given the minimalistic impact of the proposed development, traffic counts are not warranted and therefore not completed.
8	Based on the interview of the surrounding population or a wildlife expert, is any form of wildlife found on, or around the proposed site of the housing scheme?	There is no wildlife in the area, as all the area in the vicinity has already developed.
9	For any agricultural farmland on the proposed site and a radius of 500 m around it, provide the following information:	There are some small plots within the 500 m radius of the site. • Main Crop: Mostly animal fodder • Source of irrigation water: Watercourses with significant wastewater contribution • Waterlogging and salinity issues: No problems in the area.

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Section IV: Impact Assessment

Potential Negative Environmental Impacts	Tick, if relevant	Mitigation Measures	Tick, if proposed	Monitoring
Loss of environmentally important land (forests, wetlands, habitats)	Not Relevant (NR)	Ecologically sensitive areas have been avoided	Not Applicable (NA)	
		Steep slopes have been avoided		
		Prime agriculture areas have been avoided		
Land and asset	NR	All landowners have been identified and a price negotiated, the satisfaction of both parties	NA	
		Compensation for all assets on the land will be paid at acceptable market rates	NA	
Water pollution	NR	Wastewater will be treated before disposal	NA	
	NR	Disposal of waste material in the water bodies will be prohibited	NA	
	Relevant (R)	Lined sewer system will be constructed to avoid seepage to the ground		A proper sewerage system will be provided and connected to the City's Trunk Sewerage Infrastructure.
	R	Material piles will be covered with plastic sheeting to prevent runoff		During construction, the contractor will follow all LG&RD standards and specifications. The service connections will be capped and silt entry into the sewerage network will be prevented.

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Potential Negative Environmental Impacts	Tick, if relevant	Mitigation Measures	Tick, if proposed	Monitoring
Air pollution	R	Water will be sprinkled to avoid dust dispersion		During construction, the contractor will follow all LG&RD standards and specifications and will comply with dust suppression requirements.
		Material piles will be covered with plastic sheeting to prevent runoff		
Solidwaste	R	Solid waste will not be disposed in open		Solid waste will be collected by TMA. A solid waste site is provided in the development and will be transferred to TMA according to the applicable rules.
	R	Solidwaste collection system will be developed		
		Solidwaste produced during the construction will be collected and disposed off at a landfill		During construction, the contractor will follow all LG&RD standards and specifications and comply with standards and requirements for construction and demolition waste management.
Erosion and siltation	NR	Steep slopes will be stabilized with vegetation		
	NR	Work will be managed in a way to avoid siltation of water bodies		
	NR	Temporary check dams will be constructed		
	R	Natural drainage patterns will be preserved and used, as much as possible, for storm water discharge		The site is graded so that the drainage flow is diverted to the trunk sewer on the Diyal Road.

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Potential Negative Environmental Impacts	Tick, if relevant	Mitigation Measures	Tick, if proposed	Monitoring
	NR	Permeable pavement will be used to allow percolation of water back into the soil		The streets will be concrete paved according to the LG&RD / TMA standards
Removal of vegetation	R	Vegetation cutting and damaging will be avoided as much as possible		Most of the existing vegetation is overgrown grass and weeds and will be cleared. There are creepers on the fence line and they will be maintained wherever practically possible and achievable.
	NR	Recovered plants and local flora will be replanted as soon as possible		
	NR	Trees will be planted by the developer		
Noise	R	Mufflers will be used on construction equipment to minimize noise		The contractor will be directed to comply with all applicable provincial and federal legislations and standards for noise minimization.
	R	Work timings will be scheduled in order to avoid nuisance to the communities		No work will be completed at night.
Congestions of the existing roads and access points/Increased traffic	R	Access to the housing scheme is planned to minimize impact on existing traffic		The access is a 30 ft wide road and is provided according to the LG&RD / TMA standards and guidelines.
	NR	Existing access road will be widened		
	NR	Access ramp and merge lanes will be provided on the main road		

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Potential Negative Environmental Impacts	Tick, if relevant	Mitigation Measures	Tick, if proposed	Monitoring
Shortages and wasteful exploitation of natural resources	R	Workers will be trained about the efficient use of the raw materials to avoid wastages		The contractor will be directed to comply with all applicable provincial and federal legislations and standards for waste minimization.
Construction of houses	NR	Temporary sanitation facility will be provided for workers		
	NR	Construction material will not be dumped on streets		
	R	Construction work will be avoided during the night		The contractor will not complete construction at night.
Labor	R	Use of local labor will be maximized		The contractor will be directed to comply with all applicable provincial and federal laws and standards and maximize the use of local labor.

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Section V: Undertaking

I, Abdul Rehman Khan, [redacted] as proponent of Roshan Colony, Diyal Road, Dera Ismail Khan, hereby solemnly affirm and declare:

1. The information on the proposed project and the environment provided in Forms I, II, and III is correct to the best of my knowledge

2. I fully understand and accept the conditions contained in the KP EPA Environmental Assessment Checklists and Guidelines for Small Housing Schemes Ver: B Dated: 21 May 2004.

3.

4. 3. I undertake to design, construct, and operate the project strictly in accordance with the project described in Form I, submitted with this undertaking.

5.

6. 4. I undertake to implement all mitigation measures and undertake the monitoring stated on Form IV, submitted with this undertaking.

Abdul Rehman Khan
Project Proponent, Roshan Colony
21 March 2024

Witnesses:

Signature	Name	Address

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Appendix-1

Location Plan

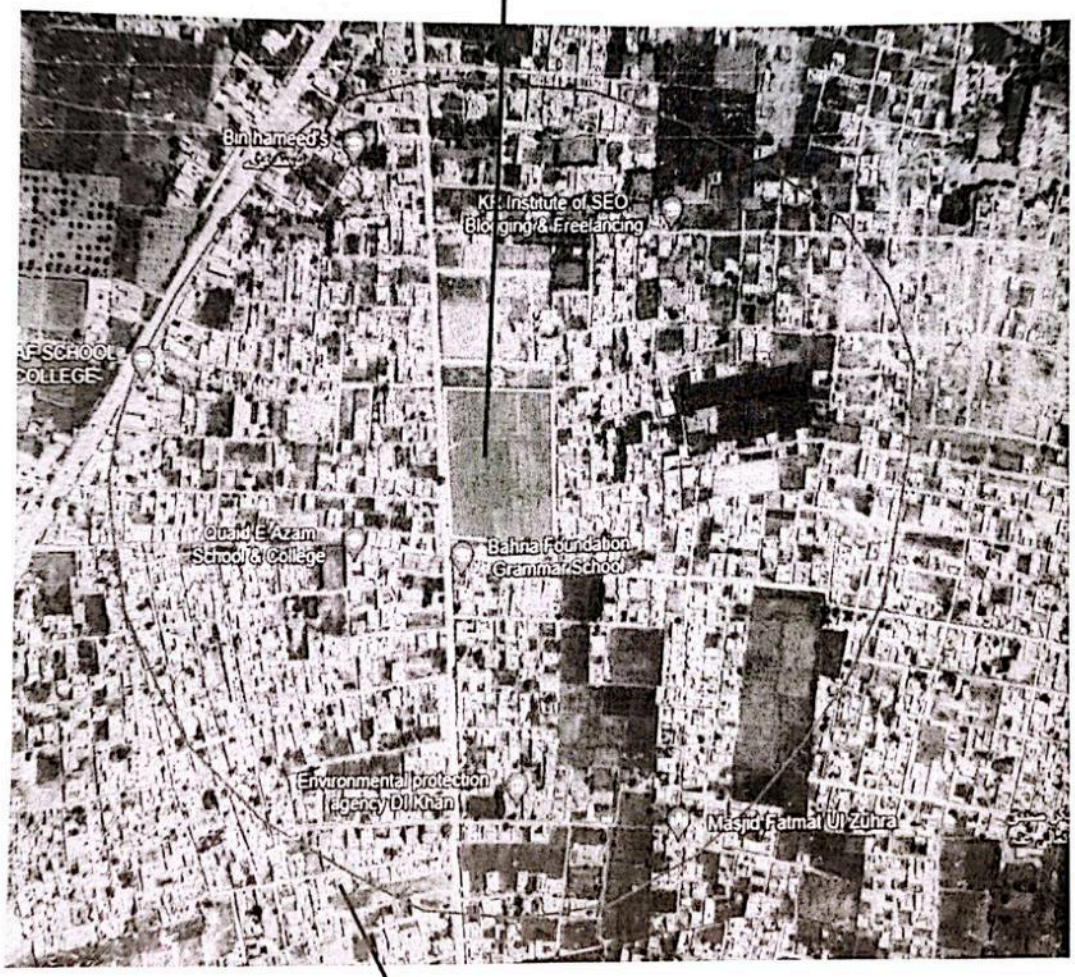
Google Map



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Appendix-2



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