

**TEMPLATE FOR RURAL/FARM-TO-MARKET ROADS**

Name of Road: Rehabilitation of New Visayas – Binancian FMR  
 Location: Brgy. Binancian,  
 Implementing LGU: Province of Davao del Norte  
 Estimated number of beneficiaries: 410 household.  
 New or Rehab: Concreting  
 Estimated Total Cost: P 78,855,773.16

Issue (Potential Impact)	Assessment (Sample assessments)	Mitigation Measure	Schedule/ Duration of the Mitigation Measures	Instrument of Implementation (POW, Contract, IDP, or O&M Plan)*	Responsible Unit
1. Temporary increase in sedimentation during construction	[V ] Topography of the road alignment necessitate massive earthmoving and cutting of clayey or loose topsoil [ ] Cut materials will consist mainly of hard rocks and are unlikely to generate significant sediments	[V ] Earthmoving/ cutting of slopes to be done during dry months [V ] Proper disposal and compaction of spoils [ ] No measures required	During Sub grade preparations (BAR CHART/S-Curve)	POW/DED	Contractor
2. Potential contamination of surface and groundwater with oil/grease	[ v ] Waste oil and grease from equipment could contaminate surface water [ ] There will be no or insignificant amount of waste oil/grease	[ v ] Proper handling and disposal of waste oil and grease	Before Start of the SP	Contract	Contractor
3. Potential contamination with human waste	[ v ] Construction workers would be temporarily housed in a base camp [V ] Workers would be mostly locals and are expected to go home to their respective houses after works	[ v ] Set up adequate latrine/toilet facility at the base camp	Before start of the SP	Contract	Contractor
4. Potential disruption of traffic flow	[V ] The access road and/or segments to be rehabilitated need is vital to daily activities of the residents and farmers and need to be kept open to traffic during construction [ ] The construction will not affect daily movement of residents and farmers	[V ] Keep the road open to traffic flow and minimize disruptions along the access road and/or construction area; Provide adequate warning signs and traffic personnel when necessary; [V ] Undertake regular maintenance measures on the passable portions of the roads [ ] No measures needed	During the implementations of SP	Contract	Contractor

<p>5. Potential dust/mud nuisance during construction</p>	<p>Roads could become powdery during dry days and muddy during rainy days of the construction period  <input type="checkbox"/> Access road and/or the construction/ rehabilitation works passes through a populated area</p> <p><input checked="" type="checkbox"/> Access road and/or construction/ rehabilitation does not pass through any populated area</p>	<p><input type="checkbox"/> Undertake sprinkling of road (including access roads) during dry days, and filling up of potholes during rainy days, especially in residential areas</p> <p><input checked="" type="checkbox"/> Set up speed limits for vehicles, especially within residential areas</p> <p><input type="checkbox"/> No measures needed</p>	<p>During sub grade and aggregate sub base course preparation (BAR CHART/S-Curve)</p>	<p>POW /DED</p>	<p>contractor</p>																																																																																																																																				
<p>6. Landslide/ erosion of exposed road sides resulting in sedimentation of waterways</p>	<p><input type="checkbox"/> The road will traverse a mountainous area necessitating deep cuts on mountainsides, particularly</p> <table border="1" data-bbox="379 725 496 1780"> <thead> <tr> <th>Station</th> </tr> </thead> <tbody> <tr><td>5 + 830.00</td></tr> <tr><td>5 + 840.00</td></tr> <tr><td>5 + 860.00</td></tr> <tr><td>5 + 880.00</td></tr> <tr><td>5 + 890.00</td></tr> <tr><td>6 + 230.00</td></tr> <tr><td>6 + 240.00</td></tr> <tr><td>6 + 260.00</td></tr> <tr><td>6 + 280.00</td></tr> <tr><td>6 + 290.00</td></tr> <tr><td>6 + 300.00</td></tr> <tr><td>6 + 320.00</td></tr> <tr><td>6 + 340.00</td></tr> <tr><td>6 + 360.00</td></tr> <tr><td>6 + 380.00</td></tr> <tr><td>6 + 400.00</td></tr> <tr><td>6 + 410.00</td></tr> <tr><td>6 + 420.00</td></tr> <tr><td>6 + 440.00</td></tr> <tr><td>6 + 450.00</td></tr> <tr><td>6 + 460.00</td></tr> <tr><td>6 + 480.00</td></tr> <tr><td>6 + 490.00</td></tr> <tr><td>6 + 670.00</td></tr> <tr><td>6 + 680.00</td></tr> <tr><td>6 + 690.00</td></tr> <tr><td>6 + 700.00</td></tr> <tr><td>6 + 720.00</td></tr> <tr><td>6 + 740.00</td></tr> <tr><td>6 + 760.00</td></tr> <tr><td>6 + 780.00</td></tr> <tr><td>6 + 790.00</td></tr> </tbody> </table> <p>between station:</p>	Station	5 + 830.00	5 + 840.00	5 + 860.00	5 + 880.00	5 + 890.00	6 + 230.00	6 + 240.00	6 + 260.00	6 + 280.00	6 + 290.00	6 + 300.00	6 + 320.00	6 + 340.00	6 + 360.00	6 + 380.00	6 + 400.00	6 + 410.00	6 + 420.00	6 + 440.00	6 + 450.00	6 + 460.00	6 + 480.00	6 + 490.00	6 + 670.00	6 + 680.00	6 + 690.00	6 + 700.00	6 + 720.00	6 + 740.00	6 + 760.00	6 + 780.00	6 + 790.00	<p><input checked="" type="checkbox"/> Include slope protection works at the following stations:  <input checked="" type="checkbox"/> <b>Bioengineering with geomat and cover crop</b></p> <table border="1" data-bbox="652 696 949 1751"> <thead> <tr> <th>Station</th> <th>Side slope Length (R)</th> <th>Side slope Length (L)</th> </tr> </thead> <tbody> <tr><td>5 + 830.00</td><td>5.00</td><td>5.00</td></tr> <tr><td>5 + 840.00</td><td>7.05</td><td>7.70</td></tr> <tr><td>5 + 860.00</td><td>9.10</td><td>6.90</td></tr> <tr><td>5 + 880.00</td><td>7.05</td><td>5.10</td></tr> <tr><td>5 + 890.00</td><td>5.00</td><td>5.00</td></tr> <tr><td>6 + 230.00</td><td>5.00</td><td>5.00</td></tr> <tr><td>6 + 240.00</td><td>8.86</td><td>8.86</td></tr> <tr><td>6 + 260.00</td><td>7.72</td><td>7.72</td></tr> <tr><td>6 + 280.00</td><td>10.22</td><td>9.1</td></tr> <tr><td>6 + 290.00</td><td>10.96</td><td>5.00</td></tr> <tr><td>6 + 300.00</td><td>11.89</td><td></td></tr> <tr><td>6 + 320.00</td><td>8.98</td><td></td></tr> <tr><td>6 + 340.00</td><td>10.93</td><td></td></tr> <tr><td>6 + 360.00</td><td>16.80</td><td></td></tr> <tr><td>6 + 380.00</td><td>17.00</td><td></td></tr> <tr><td>6 + 400.00</td><td>17.00</td><td></td></tr> <tr><td>6 + 410.00</td><td>14.43</td><td>5.72</td></tr> <tr><td>6 + 420.00</td><td>11.86</td><td>11.45</td></tr> <tr><td>6 + 440.00</td><td>10.57</td><td>8.84</td></tr> <tr><td>6 + 450.00</td><td>10.08</td><td>6.59</td></tr> <tr><td>6 + 460.00</td><td>9.6</td><td></td></tr> <tr><td>6 + 480.00</td><td>7.42</td><td></td></tr> <tr><td>6 + 490.00</td><td>5</td><td></td></tr> <tr><td>6 + 670.00</td><td>5.00</td><td></td></tr> <tr><td>6 + 680.00</td><td>8.01</td><td></td></tr> <tr><td>6 + 690.00</td><td>6.06</td><td>6.36</td></tr> <tr><td>6 + 700.00</td><td>9.36</td><td>8.72</td></tr> <tr><td>6 + 720.00</td><td>11.06</td><td>13.28</td></tr> <tr><td>6 + 740.00</td><td>8.5</td><td>8.6</td></tr> <tr><td>6 + 760.00</td><td>7.5</td><td>7.54</td></tr> <tr><td>6 + 780.00</td><td>4.7</td><td>5.6</td></tr> <tr><td>6 + 790.00</td><td>4.2</td><td>5.6</td></tr> </tbody> </table>	Station	Side slope Length (R)	Side slope Length (L)	5 + 830.00	5.00	5.00	5 + 840.00	7.05	7.70	5 + 860.00	9.10	6.90	5 + 880.00	7.05	5.10	5 + 890.00	5.00	5.00	6 + 230.00	5.00	5.00	6 + 240.00	8.86	8.86	6 + 260.00	7.72	7.72	6 + 280.00	10.22	9.1	6 + 290.00	10.96	5.00	6 + 300.00	11.89		6 + 320.00	8.98		6 + 340.00	10.93		6 + 360.00	16.80		6 + 380.00	17.00		6 + 400.00	17.00		6 + 410.00	14.43	5.72	6 + 420.00	11.86	11.45	6 + 440.00	10.57	8.84	6 + 450.00	10.08	6.59	6 + 460.00	9.6		6 + 480.00	7.42		6 + 490.00	5		6 + 670.00	5.00		6 + 680.00	8.01		6 + 690.00	6.06	6.36	6 + 700.00	9.36	8.72	6 + 720.00	11.06	13.28	6 + 740.00	8.5	8.6	6 + 760.00	7.5	7.54	6 + 780.00	4.7	5.6	6 + 790.00	4.2	5.6	<p>After construction of the road segment (BAR CHART/S-Curve)</p>	<p>DED/POW</p>	<p>contractor</p>
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STATION LIMITS	
FROM	TO
0 + 608.00	0 + 622.28
1 + 033.10	1 + 053.98
1 + 120.00	1 + 171.65
1 + 246.45	1 + 257.43
2 + 266.27	2 + 310.25
2 + 462.00	2 + 482.88
2 + 522.97	2 + 576.85
2 + 571.17	2 + 592.05
2 + 827.50	2 + 854.98
6 + 560.00	6 + 650.00
6 + 560.00	6 + 660.00
6 + 920.00	7 + 170.00

The exposed slopes will likely consist of highly erodible loose materials  
 The cut slopes will be hard materials that would resist erosion  
 The road passes through a relatively benign terrain, cuts will be minimal  
 The rehabilitation work does not involve additional road cuts

- Fast growing shrub species
- Riprap
- Gabions
- Terracing
- Concrete protection wall

Others **Guard railings**

STATION LIMITS		LOCATION	TOTAL LENGTH (m)
FROM	TO		
0 + 608.00	0 + 622.28	RIGHT SIDE	14.28
1 + 033.10	1 + 053.98	LEFT SIDE	20.88
1 + 120.00	1 + 171.65	RIGHT SIDE	51.65
1 + 246.45	1 + 257.43	RIGHT SIDE	10.98
2 + 266.27	2 + 310.25	RIGHT SIDE	43.98
2 + 462.00	2 + 482.88	LEFT SIDE	20.88
2 + 522.97	2 + 576.85	LEFT SIDE	53.88
2 + 571.17	2 + 592.05	RIGHT SIDE	20.88
2 + 827.50	2 + 854.98	LEFT SIDE	27.48
6 + 560.00	6 + 650.00	RIGHT SIDE	90.00
6 + 560.00	6 + 660.00	LEFT SIDE	100.00
6 + 920.00	7 + 170.00	BOTH SIDE	250.00

7. Inadequate drainage resulting in flooding or ponding	<input checked="" type="checkbox"/> The road will block runoff, resulting in flooding on one side of the road during rainy days. <input type="checkbox"/> Drainage issues unlikely	<input checked="" type="checkbox"/> Installation of cross drain between stations: <b>RCPC</b> <table border="1" data-bbox="635 188 756 835"> <tr><td>0+307.00</td></tr> <tr><td>0+518.95</td></tr> <tr><td>0+758.30</td></tr> <tr><td>0+860.50</td></tr> <tr><td>1+395.45</td></tr> <tr><td>1+518.00</td></tr> <tr><td>1+780.50</td></tr> <tr><td>1+917.50</td></tr> <tr><td>2+047.74</td></tr> <tr><td>3+400.50</td></tr> <tr><td>4+238.50</td></tr> <tr><td>4+308.80</td></tr> <tr><td>4+508.28</td></tr> <tr><td>4+805.00</td></tr> <tr><td>5+205.40</td></tr> <tr><td>5+934.00</td></tr> <tr><td>6+655.00</td></tr> <tr><td>7+840.50</td></tr> <tr><td>2+710.00</td></tr> </table>	0+307.00	0+518.95	0+758.30	0+860.50	1+395.45	1+518.00	1+780.50	1+917.50	2+047.74	3+400.50	4+238.50	4+308.80	4+508.28	4+805.00	5+205.40	5+934.00	6+655.00	7+840.50	2+710.00	(BAR CHART/S-Curve)	DED/POW	Contractor
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8. Potential increase use of pesticides due to intensification of cash crop production in the area	<input checked="" type="checkbox"/> There is an ongoing IPM program of DA in the service area  <input type="checkbox"/> Farmers in the service area have not been trained on IPM	<input checked="" type="checkbox"/> DA to continue to support IPM program <input type="checkbox"/> LGU to Coordinate with DA on IPM training		Capacity Building Plan O&M Plan; Capacity Building Plan	DA PLGU/LGU /BLGU																			
9. Potential acceleration of denudation of the upland/hilly areas due to intensification of crop production	<input checked="" type="checkbox"/> The proposed road will connect to the market an upland/hilly area where farmers are currently practicing erosive farming techniques. The road could help accelerate the denudation of the upland/hillsides rendering them unproductive in a few years. <input type="checkbox"/> The road connects only lowland farms to the market	<input checked="" type="checkbox"/> DA to coordinate with LGU for the introduction of sustainable upland farming systems in the area  <input type="checkbox"/> No measure required		O&M Plan; Capacity Building Plan	DA PLGU/LGU /BLGU																			
10. Potential increased in encroachments of human activities into the nearby public forest	<input type="checkbox"/> The proposed road will improve human access to the nearby public forest, resulting in increased slash and burn cultivation, illegal logging and poaching. <input checked="" type="checkbox"/> The proposed road does not improve access to a public forest	<input type="checkbox"/> Coordinate with DENR for the enactment of ordinance deputizing the local community to enforce forestry laws <input checked="" type="checkbox"/> No measure required																						
11. Local employment	<input checked="" type="checkbox"/> Construction will provide local employment opportunities	<input checked="" type="checkbox"/> Hiring priority shall be given to qualified local residents; Implement RI Manual on local hiring	During the Implementation of the SP	Contract	Contractor and BLGU																			
	<input type="checkbox"/> Construction does not provide any local employment opportunities	<input type="checkbox"/> No measures required																						

12. Conversion of Land-use/natural habitat due to quarry	[ ] the proposed quarry site is within a private land and need to convert existing land-use [x] Quarry site is existing and proven as a good source of quarry materials	[x] Quarry materials will be procured to existing quarry sites (Brgy. Saug and Brgy. Magdum)	During the Implementation of the SP		Contractor
13. Potential damage to existing road due to hauling of quarry materials	[x] source of quarry materials is <u>20</u> km. (Item 201 and Item 200) Transportation of quarry materials from source to FMR will not cause damage to existing FMR	[x] regular maintenance and repair of existing road	During the Implementation of the SP		Contractor
14. Low project performance due to unresolved community issues and grievance	[/] community/project affected person is no aware of the PRDP Grievance Redress Mechanism.  [ ] Community / Project affected person is already informed of the PRDP Grievance Redress Mechanism.	[/] Establish /adapt the grievance redress mechanism of the PRDP  [/] conduct community consultations / training to publicize the Grievance Redress Mechanism of the PRDP	[ /] During the implementation of the Sub projects.		LGU Government Unit
15. chance find of archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance resources	[/] mitigation plan should include provisions for managing chance finds	[ /] Adoption of the Chance Find Procedure.	During the implementation of the Sub Projects		Contractor/ PLGU/ MLGU and BLGU

Prepared by:

  
**MS. MARIA LOURDES D. LAURON, MSLRG**  
SES Focal Person

Noted by:

  
**ENGR. JOSIE JEAN R. RABANOZ, MPA**  
PPMIU Head