

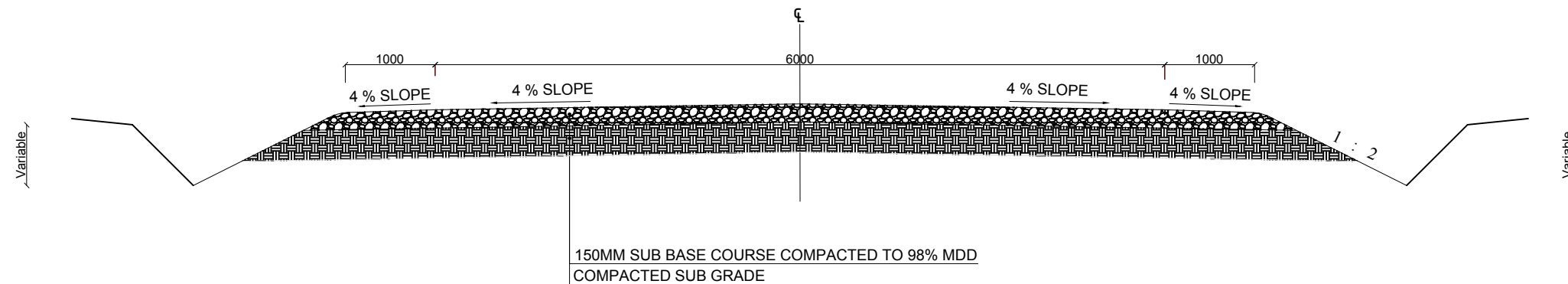


RURAL ACCESS IMPROVEMENT PROJECT (RAIP IV)  
IN 4 NORTHERN PROVINCES, AFGHANISTAN

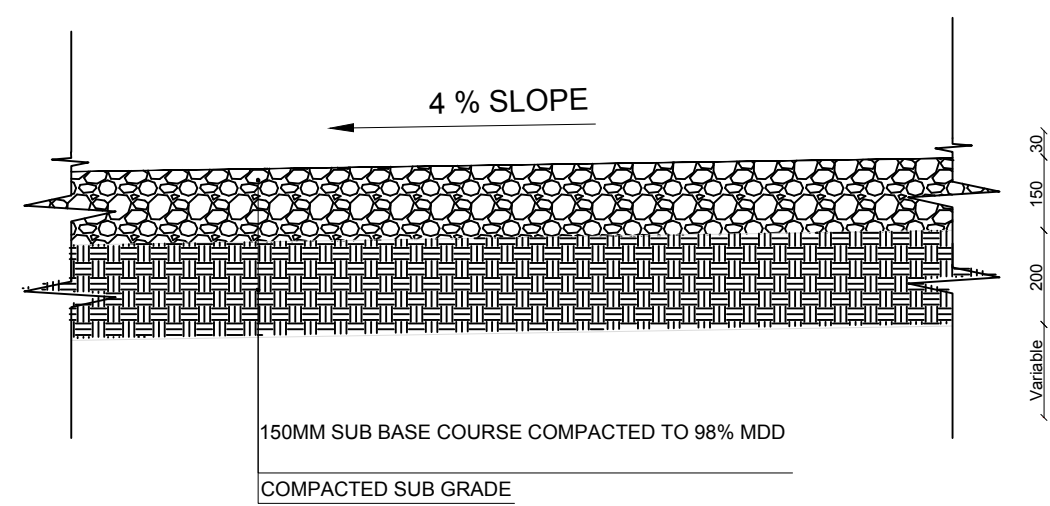
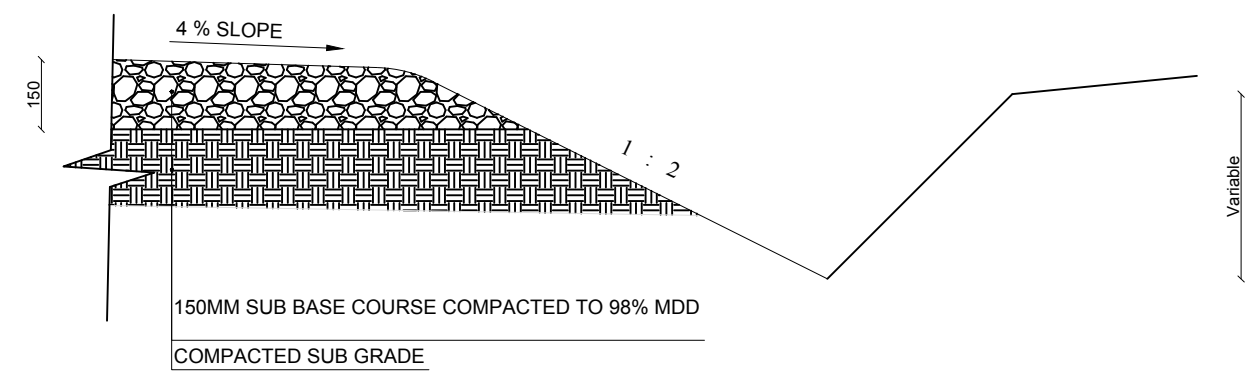
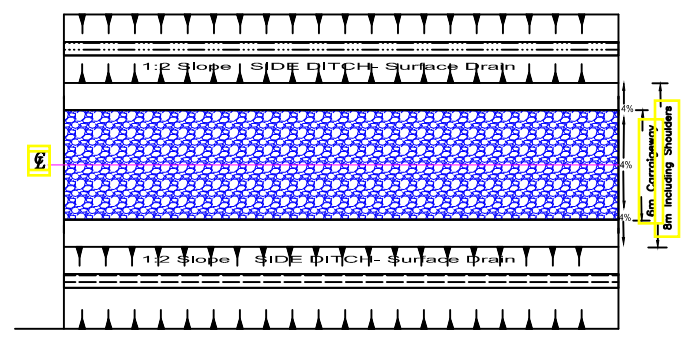
Periodic Maintenance of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

ITB NO.: SIDA/RAIP IV/NTH/SMN/001/C2/003

April-2017



SEGMENT PLAN OF TYPICAL SEAL COAT STANDARD ROAD



- NOTES**
1. All dimensions are in "mm" unless otherwise specified
  2. In general, the side slope shown on the typical drawing shall be applied only for small cut and fill areas. the side slopes should be determined based on the result of detailed soil survey and approval of UNOPS authority

Revision

Date	Description



**Project Title:**  
Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

**Approved By:**  
Shekhar Kumar Shrestha  
Acting Project Manager

**Checked By:**  
Noorullah Hakimy  
Senior Engineer

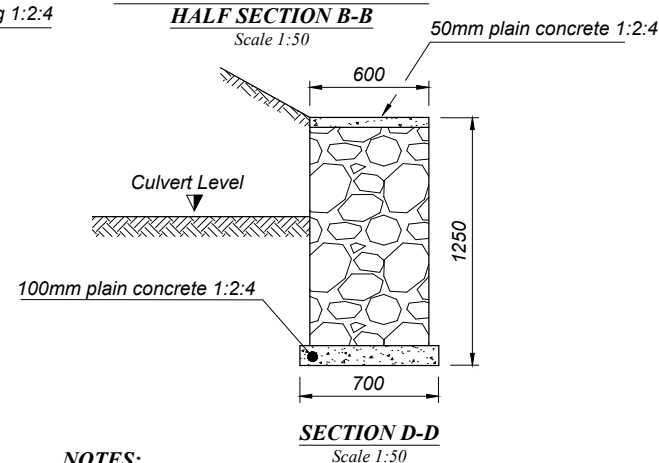
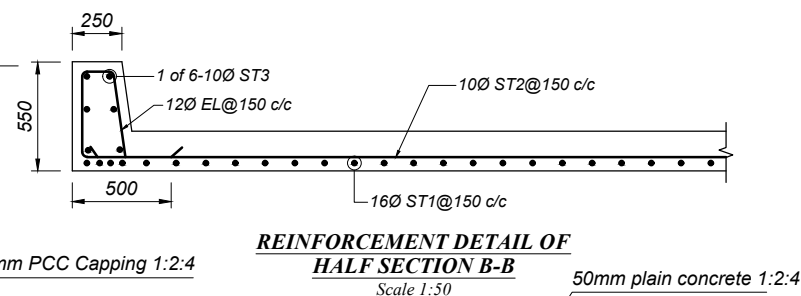
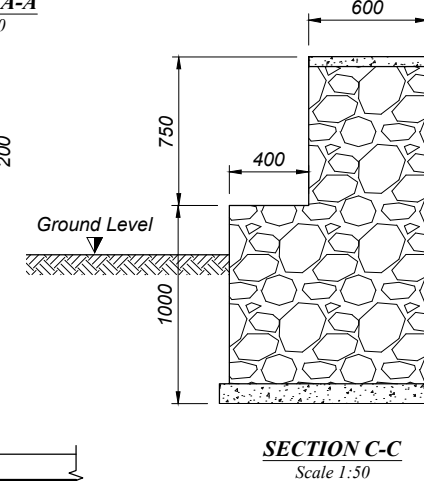
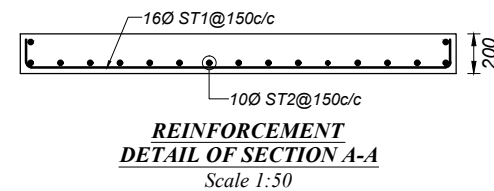
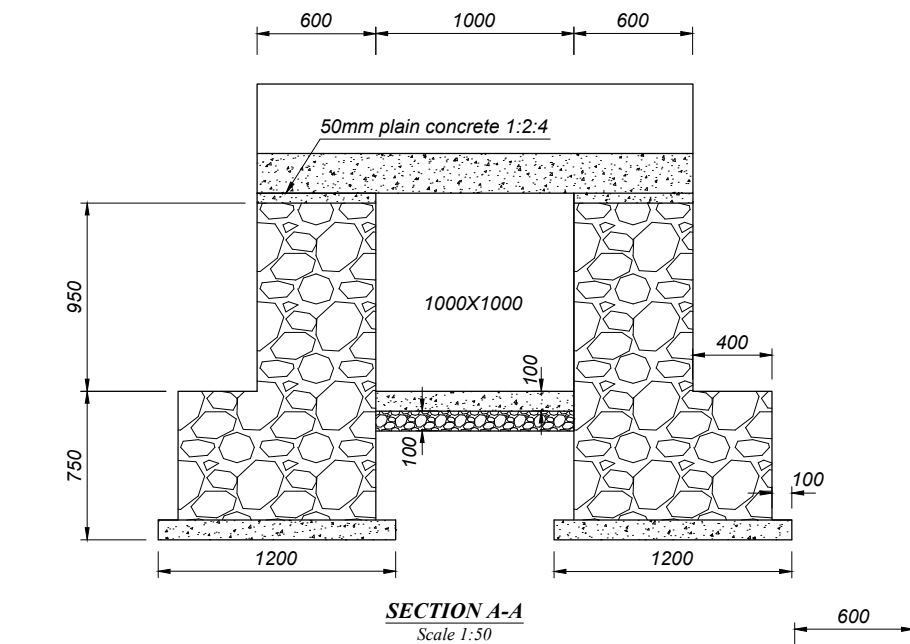
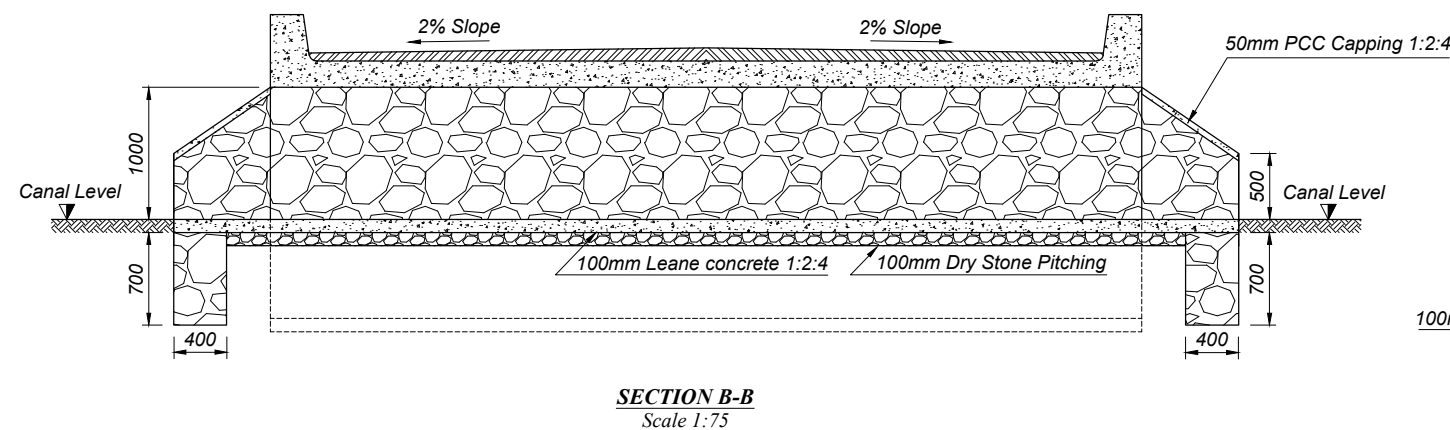
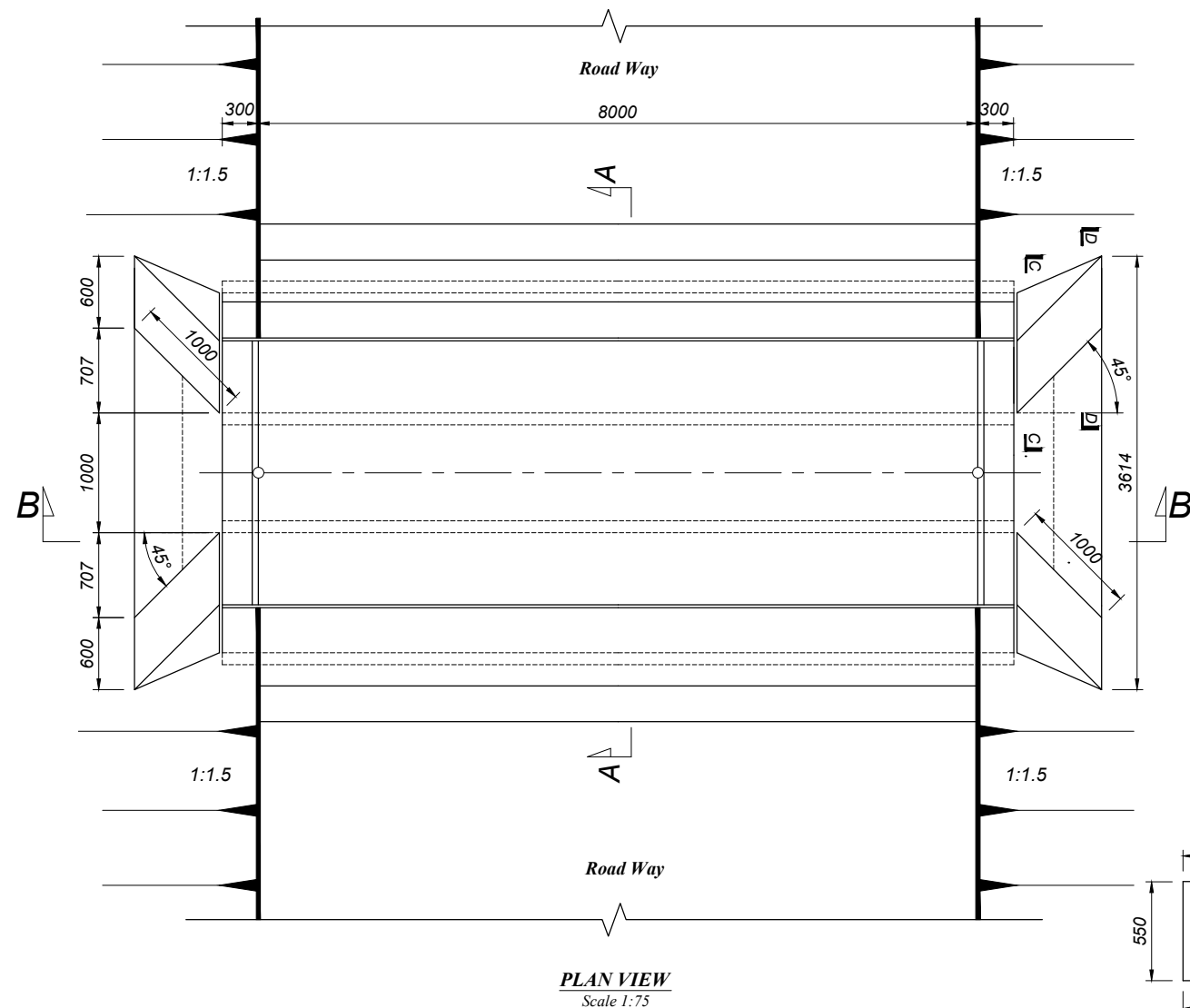
**Drawn By:**  
Wahidullah Mohebi  
Associate Engineer

Scale	Drawing Title	
Variable	Typical Cross Section in cut & fill sections	
Drawing No	Sheet No	Date
SMNI-001-C2-003	1/1	Apr-2017



United Nations Office for Project Services




	Name of Region: North	Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.				
	Name of Province: Samangan					
	Name of District: Hazrati Sultan and Darai Suf Payin					
#	Chainage	Proposed structure type and dimension				Remarks
		Type of structure	Dimension in meter			
			Length	Width	Height	
1	9+200	Embankment/boulder filling				
2	54+000	Culvert	8.6	1	1	
3	56+100	Culvert	8.6	1	1	
4	56+300	Culvert	8.6	1	1	
5	56+300	Retaining wall	40		8	
6	57+200	Culvert	8.6	1	1	
7	57+500	Culvert	8.6	1	1	
8	64+000	Culvert	8.6	1	1	
9	66+500		8.6	1	1	



#### NOTES:

- All dimensions are in "mm" unless otherwise specified
- If rounded stone from a river or other source is used, it shall not comprise of more than 30% of the total volume of stone and shall be evenly distributed through out the wall.
- All masonry work should be pointed.
- Concrete foundations should be reinforced for earthquake zones.
- Angle and length of wing walls to be adjusted by the Engineer as per site conditions.
- Refer to the bar schedule for the length and shape of reinforcement.
- Concrete mix shall be proportioned by volume with a water/cement ratio of not more than 0.45.
- Concrete with a recorded slump value greater than 100mm shall be rejected by the Engineer.
- The culvert should be constructed with a fall of 2-4%.
- Bearing capacity at fundation level should be 1.65kg/cm<sup>2</sup>.

#### SCHEDULE AND QUANTITIES OF REINFORCEMENT FOR SLAB CULVERT

SHAPE CODE	BAR SHAPE	COMPONENT	BAR MARK	BAR DIA (mm)	BAR LENGTH (mm)	NO.OF MEMBER	NO. OF BAR IN EACH MEMBER	TOTAL NO. OF BAR	TOTAL LENGTH (m)	UNIT WEIGHT OF BAR (Kg/m)	TOTAL WEIGHT (Kg)	SHAPE CODE	DIMENSIONS (mm)			
													A	B	C	D
38		TOP SLAB	ST1	16	2400	1	57	57	136.80	1.58	226.95		2100	150	150	
			ST2	10	8500	1	16	16	136.00	0.62	88.54		8500			
20			ST3	10	2100	2	6	12	25.20	0.62	16.41		2100			
99h			EL1	12	1900	2	16	32	60.80	0.89	56.82		200	500	700	500
TOTAL+5%LOSSES											388.7200					

#### Revision

Date	Description



**Project Title:**  
Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

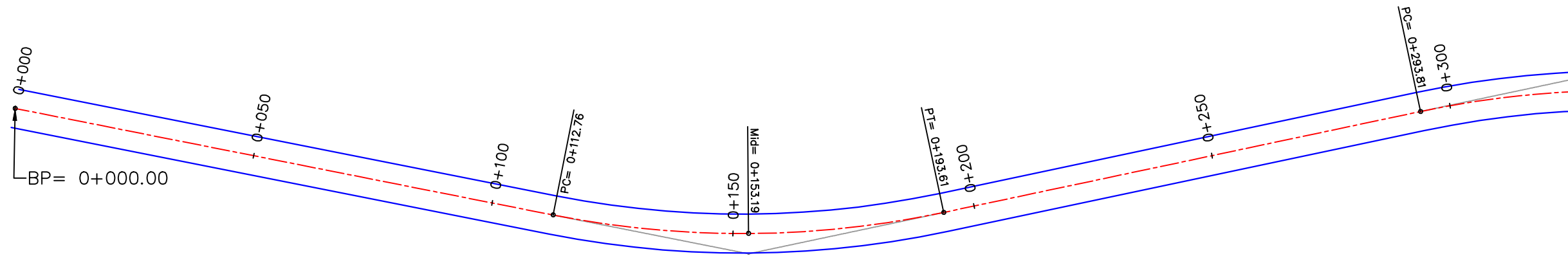
Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale 1:50, 1:75, 1:100	Drawing Title Plan & Sections
Drawing No SMN-001-C2-003	Sheet No CV-01
	Date Apr-2017





Revision

Date	Description



**Project Title:**  
Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

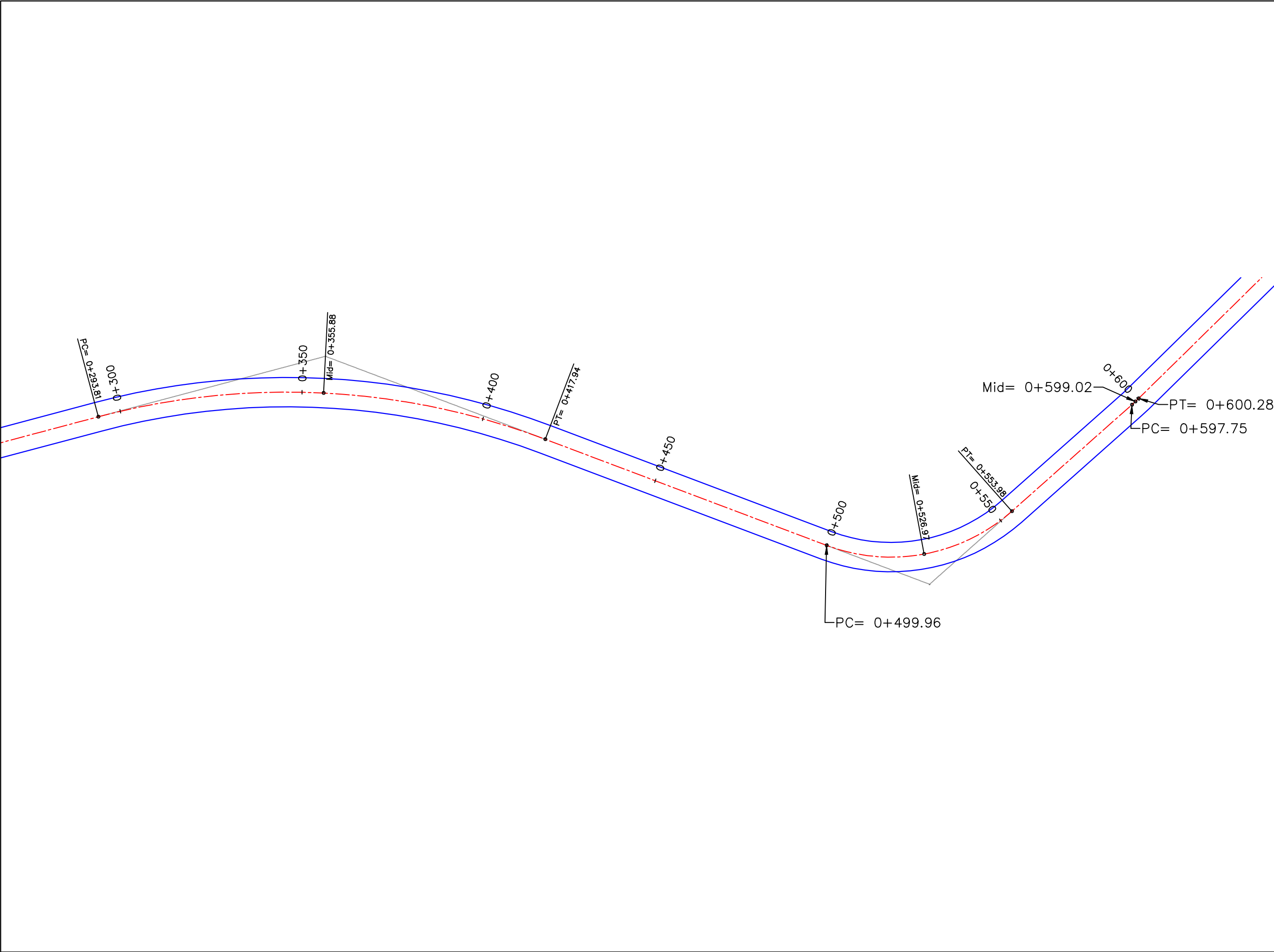
Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

Checked By:  
Noorullah Hakimy  
Senior Engineer

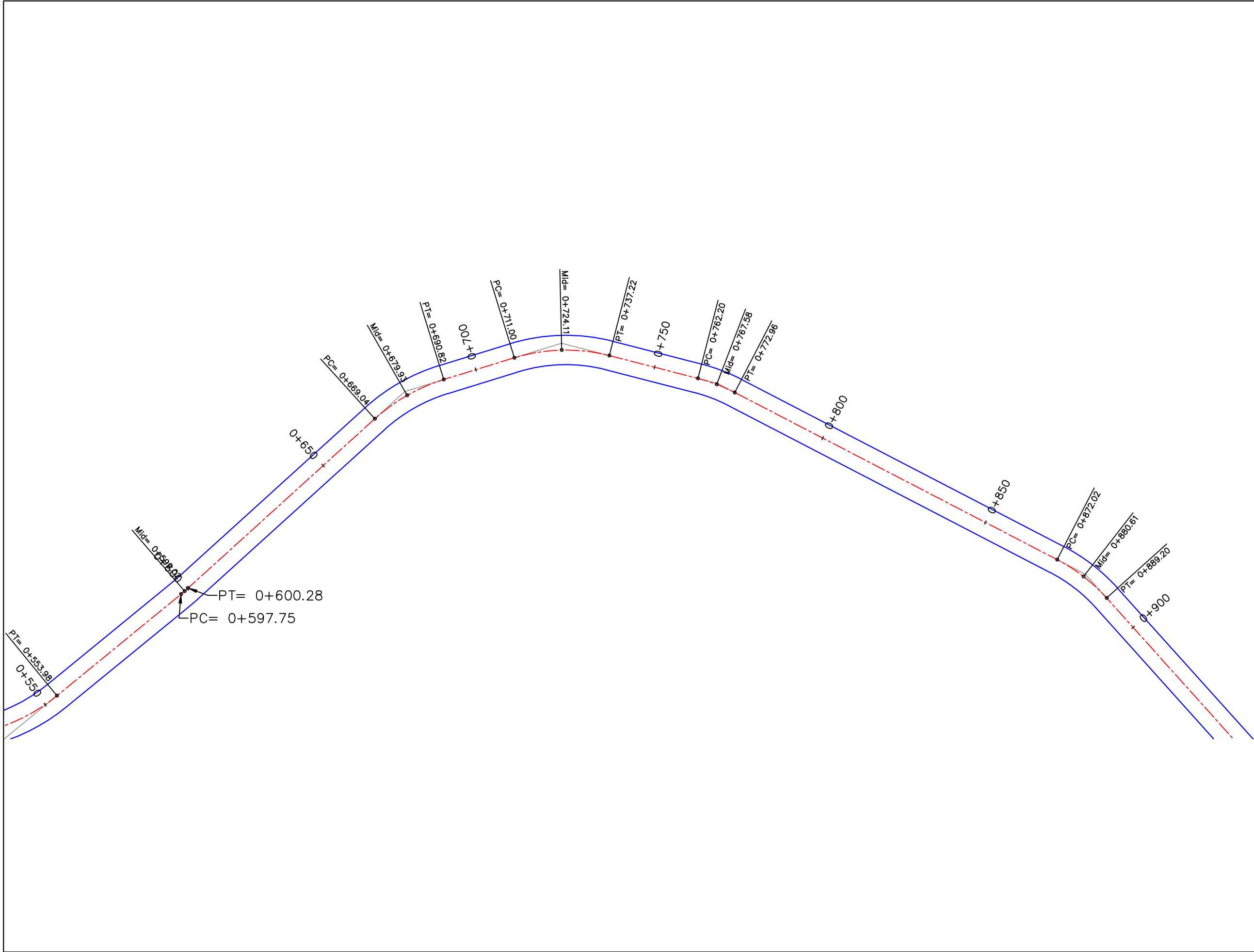
Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale	Drawing Title
1:1000	Plan & Profile

Drawing No	Sheet No	Date
SMN-001-C2-003	P & P-1	Apr-2017



Revision		
Date	Description	
<div></div>		
<p><b>Project Title:</b> Periodic Maintenance of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</p>		
<p><b>RAIP-IV</b> <b>Mazar—e—Sharif</b></p>		
<p>Approved By: Shekhar Kumar Shrestha Acting Project Manager</p>		
<p>Checked By: Noorullah Hakimy Senior Engineer</p>		
<p>Drawn By: Wahidullah Mohebi Associate Engineer</p>		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No  SMN-001-C2-003	Sheet No  P & P-2	Date  Apr-2017



Revision

Date	Description



**Project Title:**  
Periodic Maintanace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

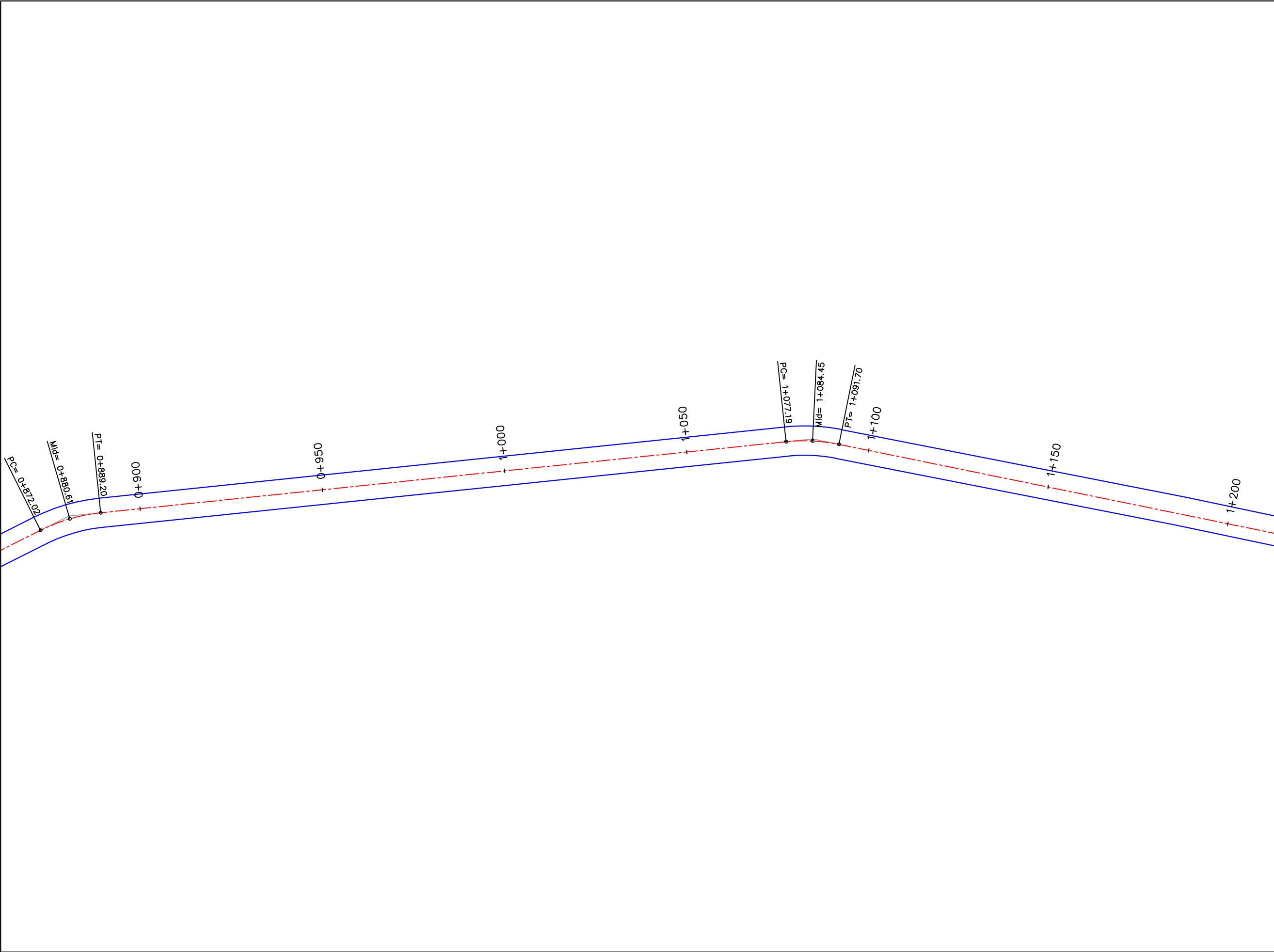
**RAIP-IV**  
**Mazar-e-Sharif**

Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

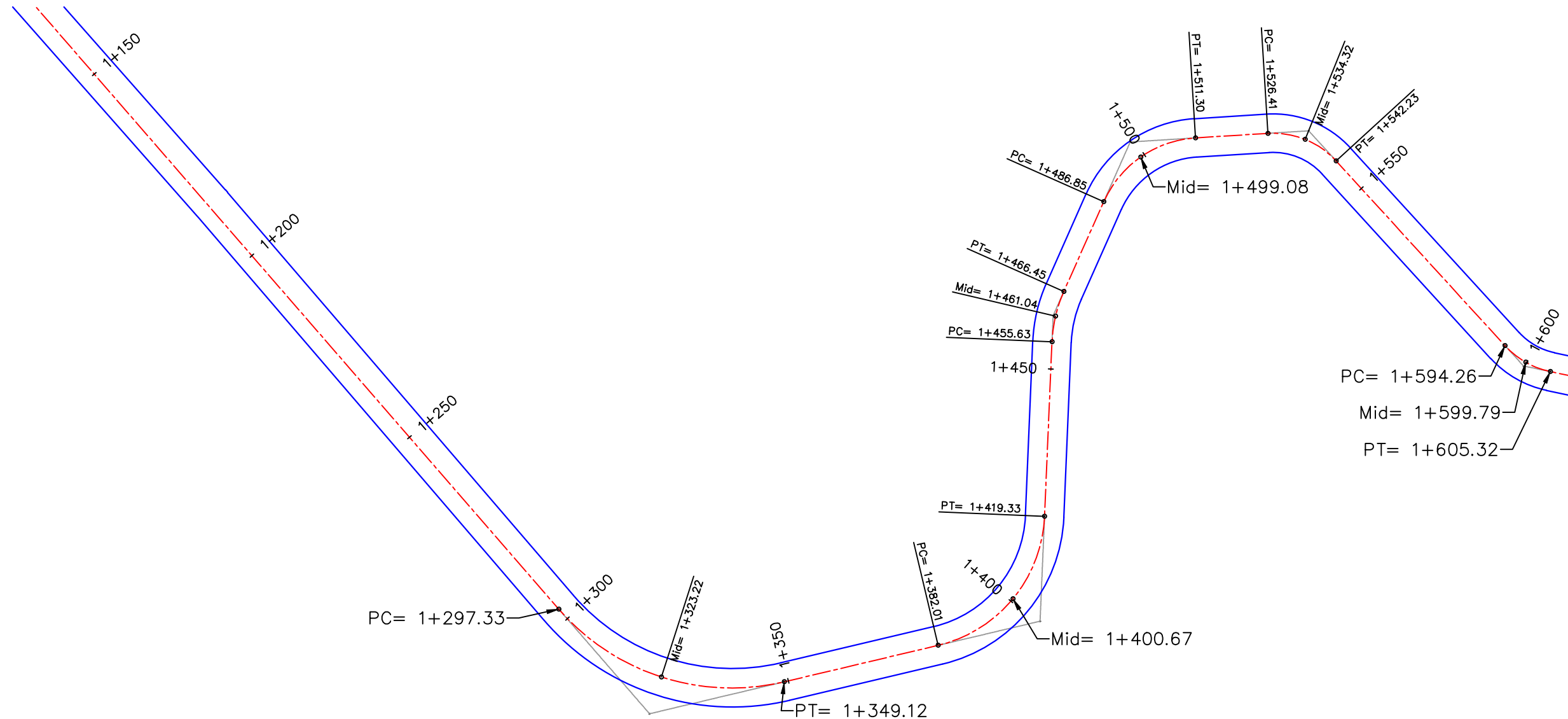
Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale	Drawing Title	
1:1000	Plan & Profile	
Drawing No	Sheet No	Date
SMN-001-C2-003	P & P-3	Apr-2017



Revision		
Date	Description	
<div>UNOPS AFGHANISTAN</div>		
<b>Project Title:</b> Periodic Maintenance of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.		
<div>RAIP-IV</div> <div>Mazar—e—Sharif</div>		
Approved By: Shekhar Kumar Shrestha Acting Project Manager		
Checked By: Noorullah Hakimy Senior Engineer		
Drawn By: Wahidullah Mohebi Associate Engineer		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No  SMN-001-C2-003	Sheet No  P & P-4	Date  Apr-2017



Revision	
Date	Description



**Project Title:**  
Periodic Maintence of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

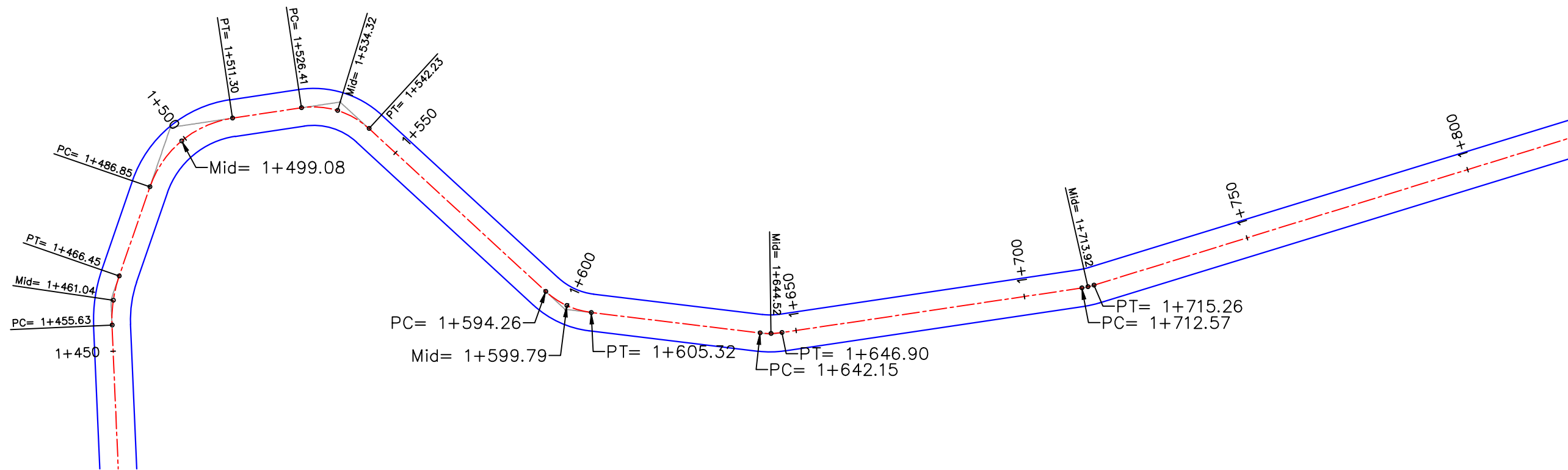
**RAIP-IV**  
**Mazar-e-Sharif**

Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale	Drawing Title	
1:1000	Plan & Profile	
Drawing No	Sheet No	Date
SMN-001-C2-003	P & P-5	Apr-2017



Revision

Date	Description



**Project Title:**  
Periodic Maintenance of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

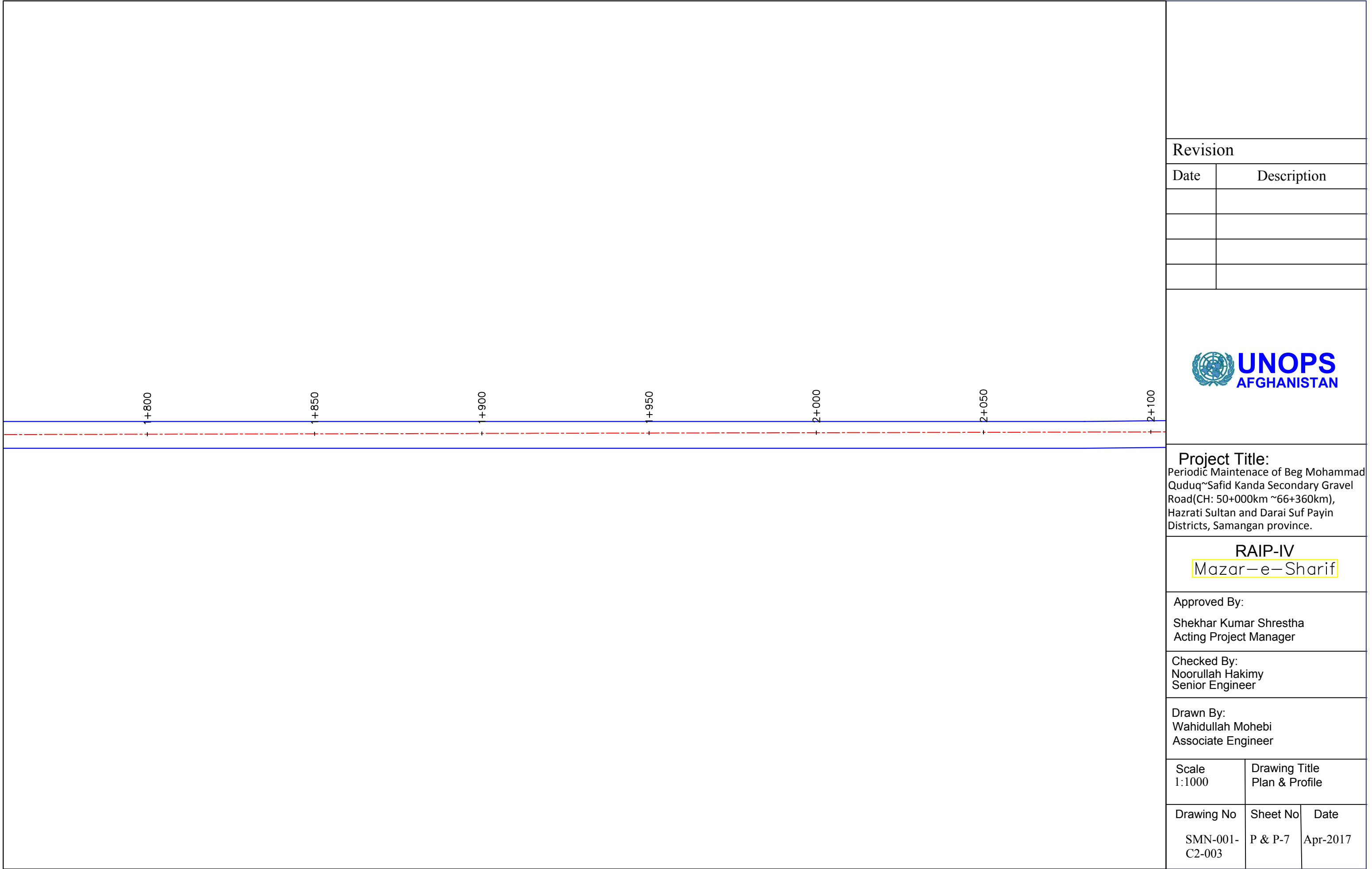
Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

Checked By:  
Noorullah Hakimy  
Senior Engineer

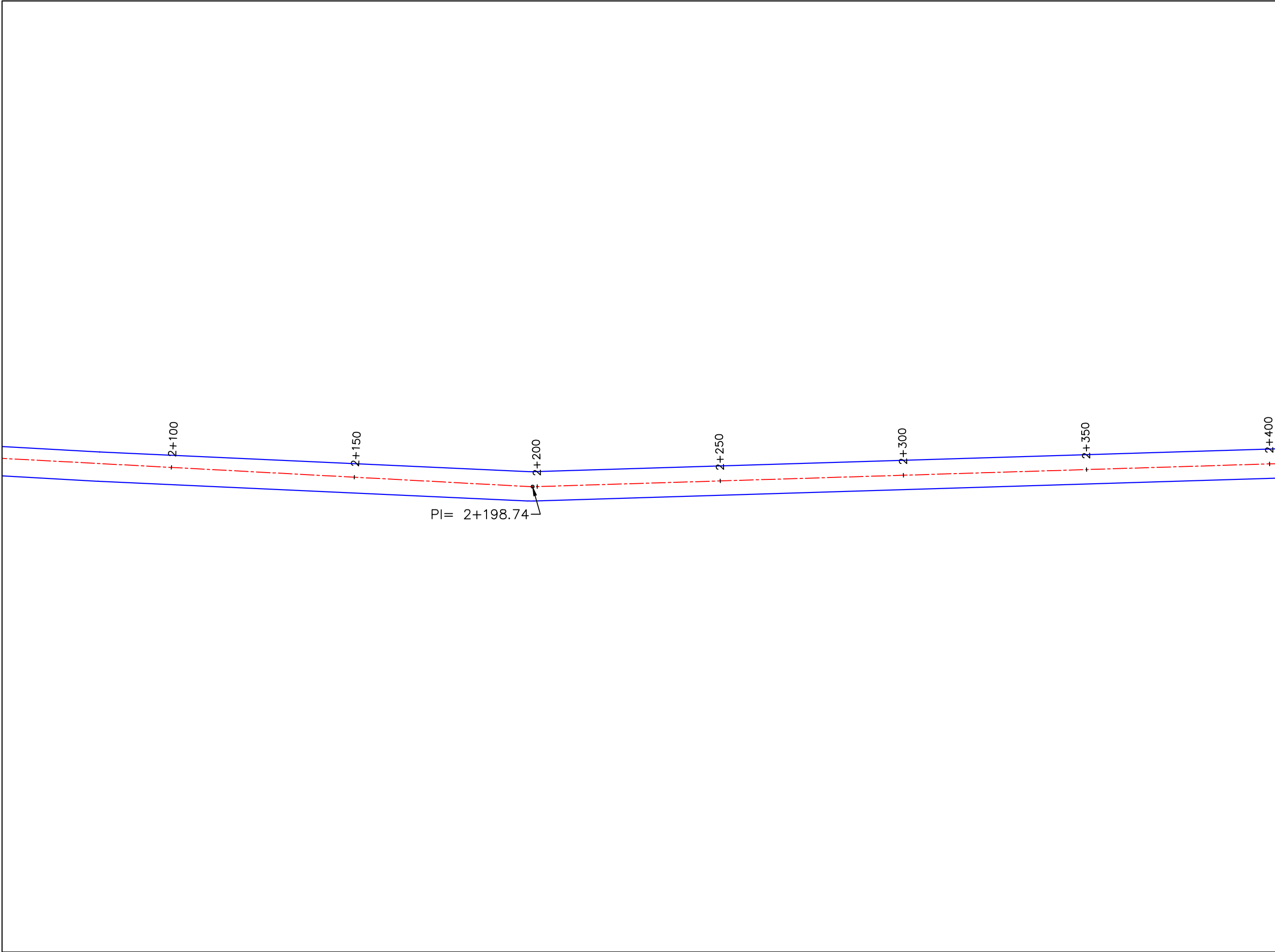
Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale	Drawing Title
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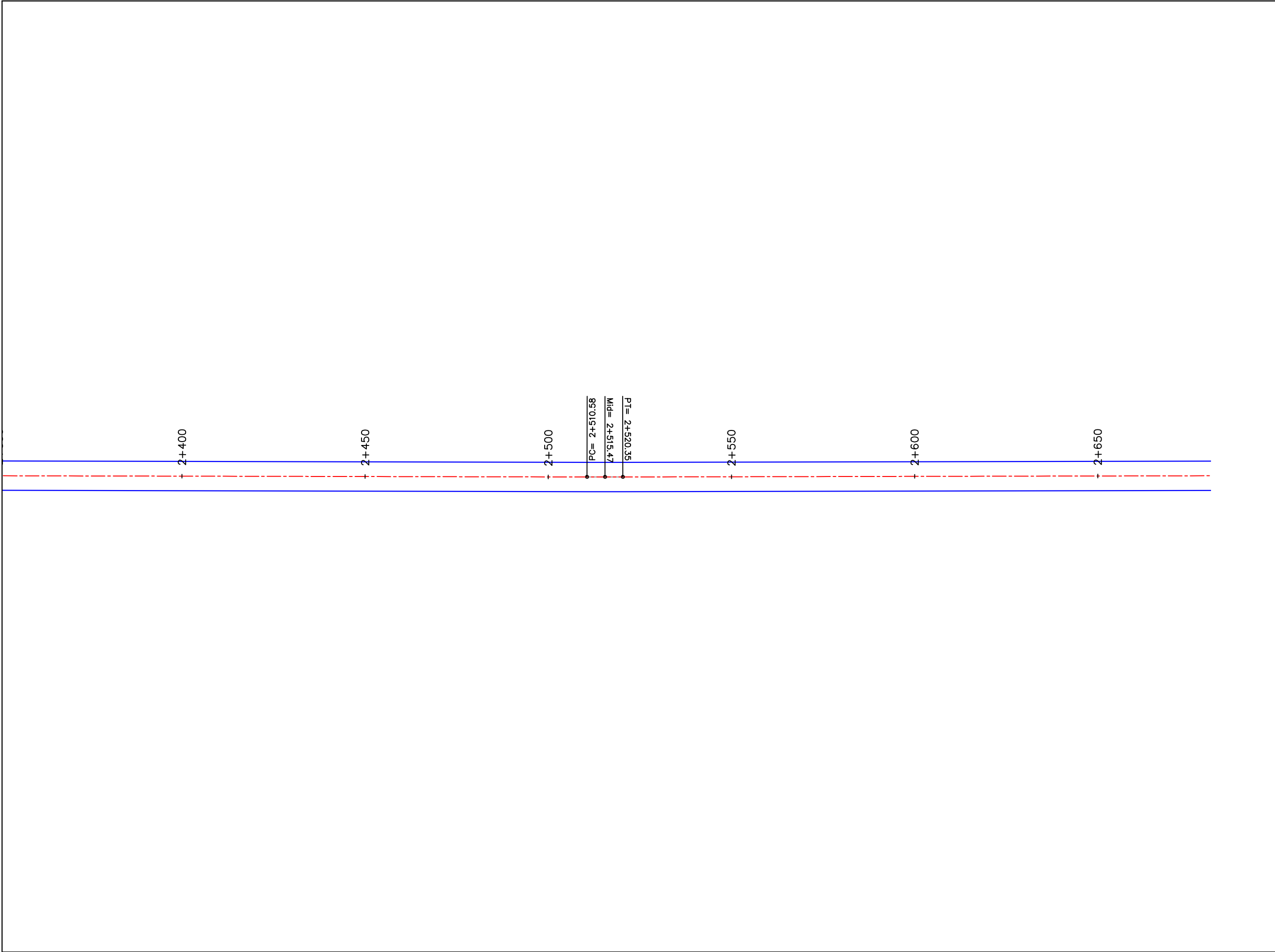
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SMN-001-C2-003	P & P-6	Apr-2017



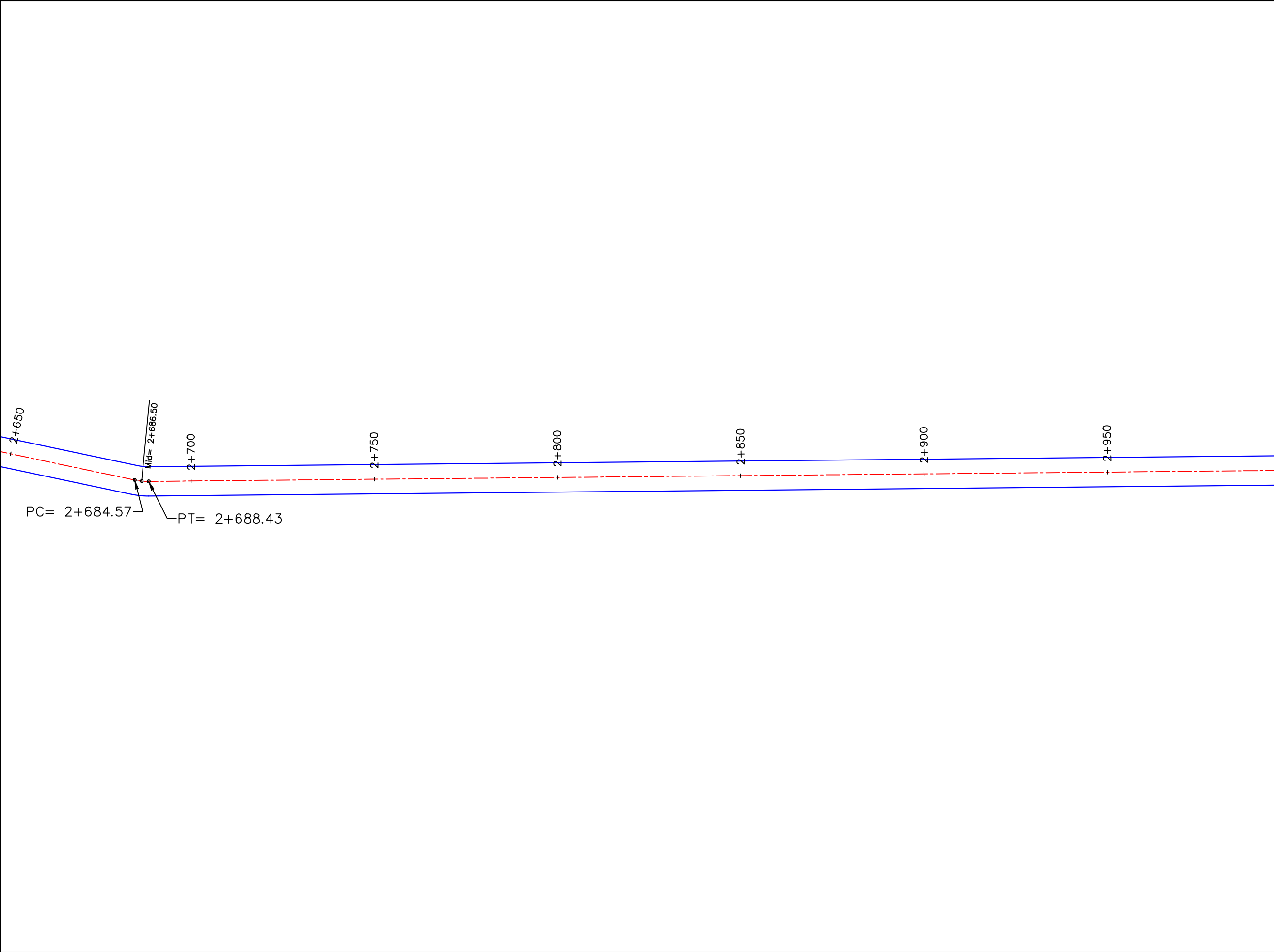




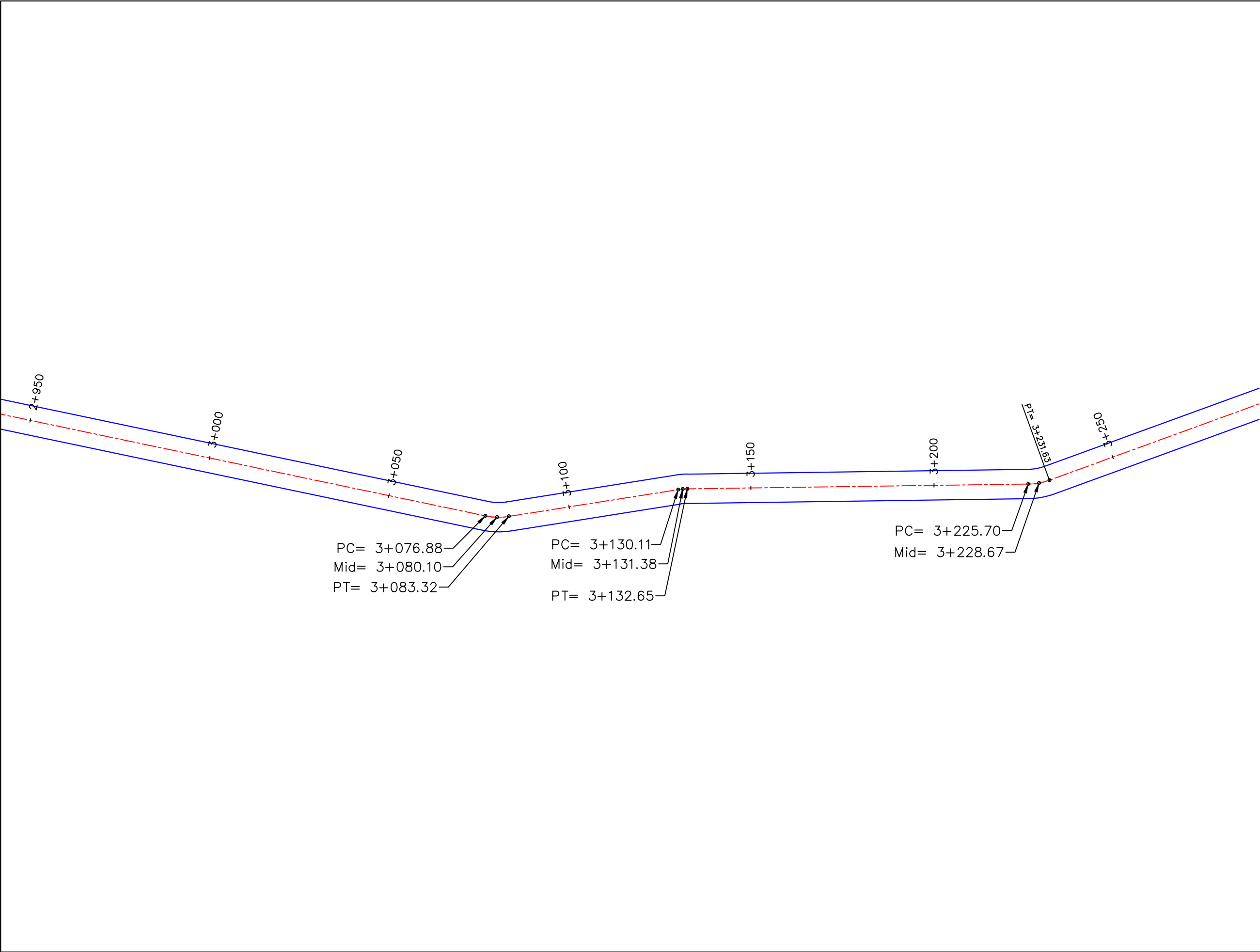
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Date	Description	
<div>UNOPS AFGHANISTAN</div>		
<b>Project Title:</b> Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.		
<div>RAIP-IV</div> <div>Mazar—e—Sharif</div>		
Approved By: Shekhar Kumar Shrestha Acting Project Manager		
Checked By: Noorullah Hakimy Senior Engineer		
Drawn By: Wahidullah Mohebi Associate Engineer		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No  SMN-001- C2-003	Sheet No  P & P-8	Date  Apr-2017



Revision		
Date	Description	
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<div>Project Title: Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</div>		
<div>RAIP-IV Mazar—e—Sharif</div>		
<div>Approved By: Shekhar Kumar Shrestha Acting Project Manager</div>		
<div>Checked By: Noorullah Hakimy Senior Engineer</div>		
<div>Drawn By: Wahidullah Mohebi Associate Engineer</div>		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No  SMN-001-C2-003	Sheet No  P & P-9	Date  Apr-2017



Revision		
Date	Description	
<div> <b>UNOPS</b> AFGHANISTAN</div>		
<b>Project Title:</b> Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.		
<div><b>RAIP-IV</b> <b>Mazar—e—Sharif</b></div>		
Approved By: Shekhar Kumar Shrestha Acting Project Manager		
Checked By: Noorullah Hakimy Senior Engineer		
Drawn By: Wahidullah Mohebi Associate Engineer		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No  SMN-001-C2-003	Sheet No  P & P-10	Date  Apr-2017



Revision

Date	Description



**Project Title:**  
Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

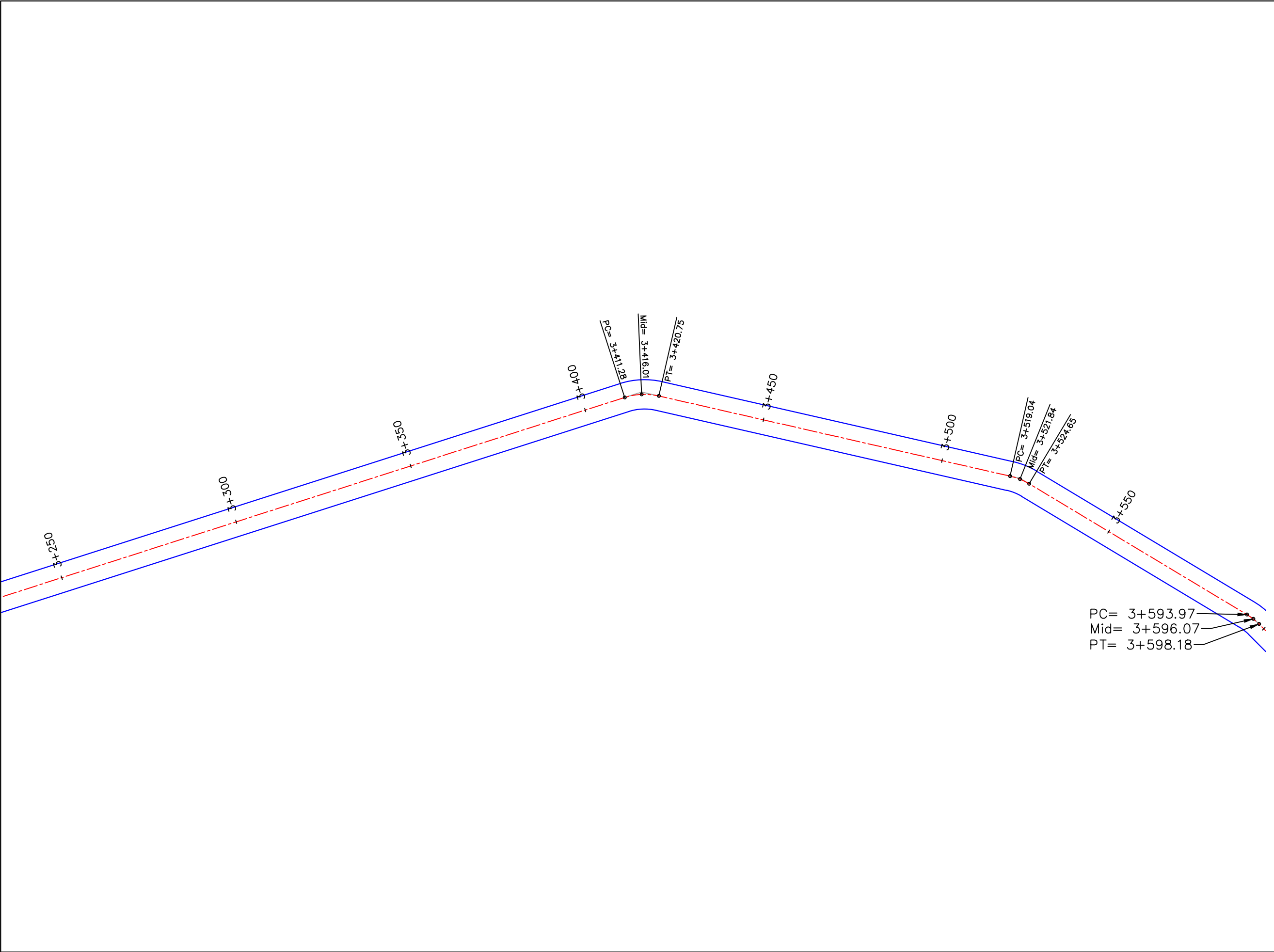
**RAIP-IV**  
**Mazar-e-Sharif**

Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

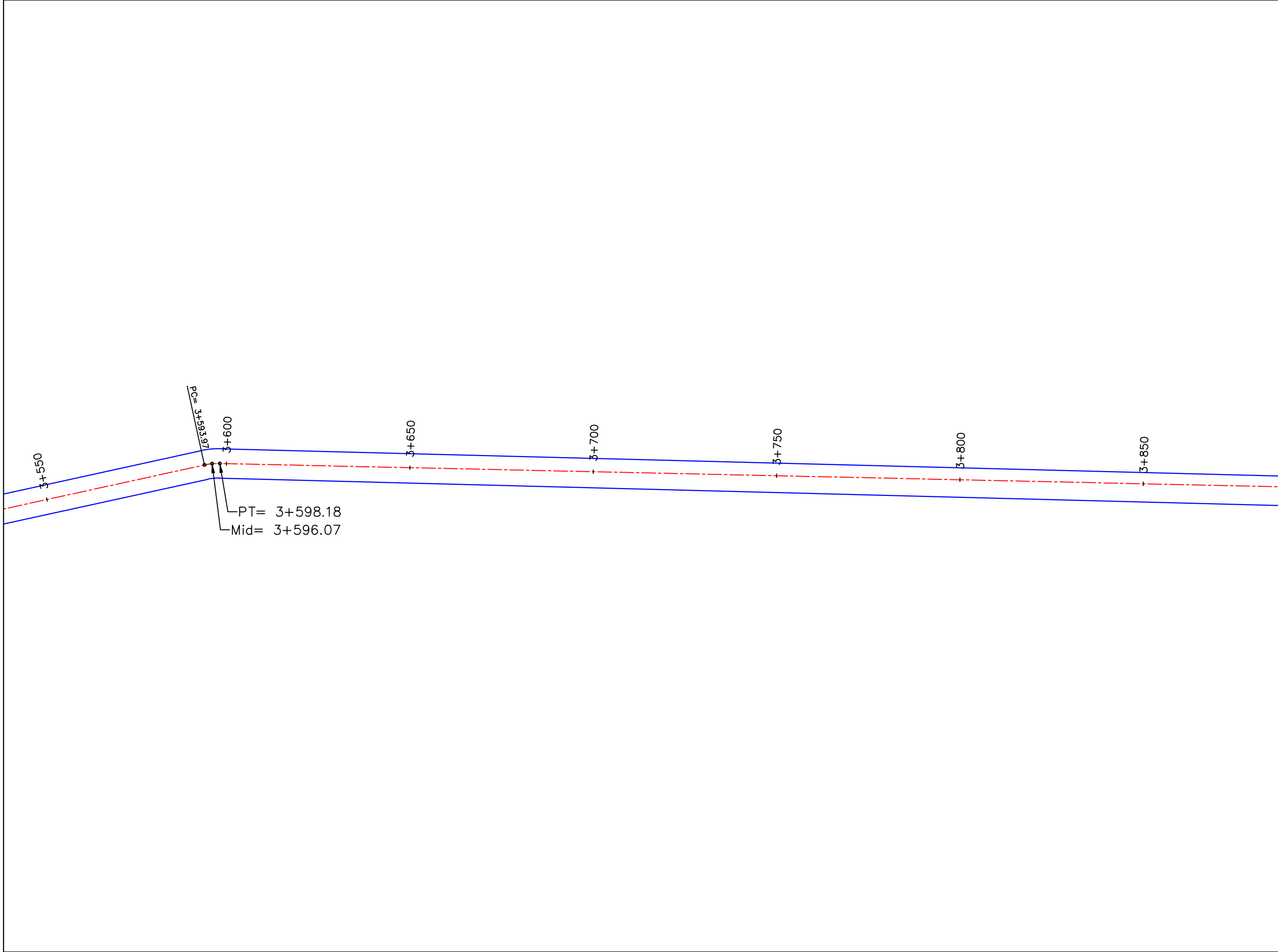
Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

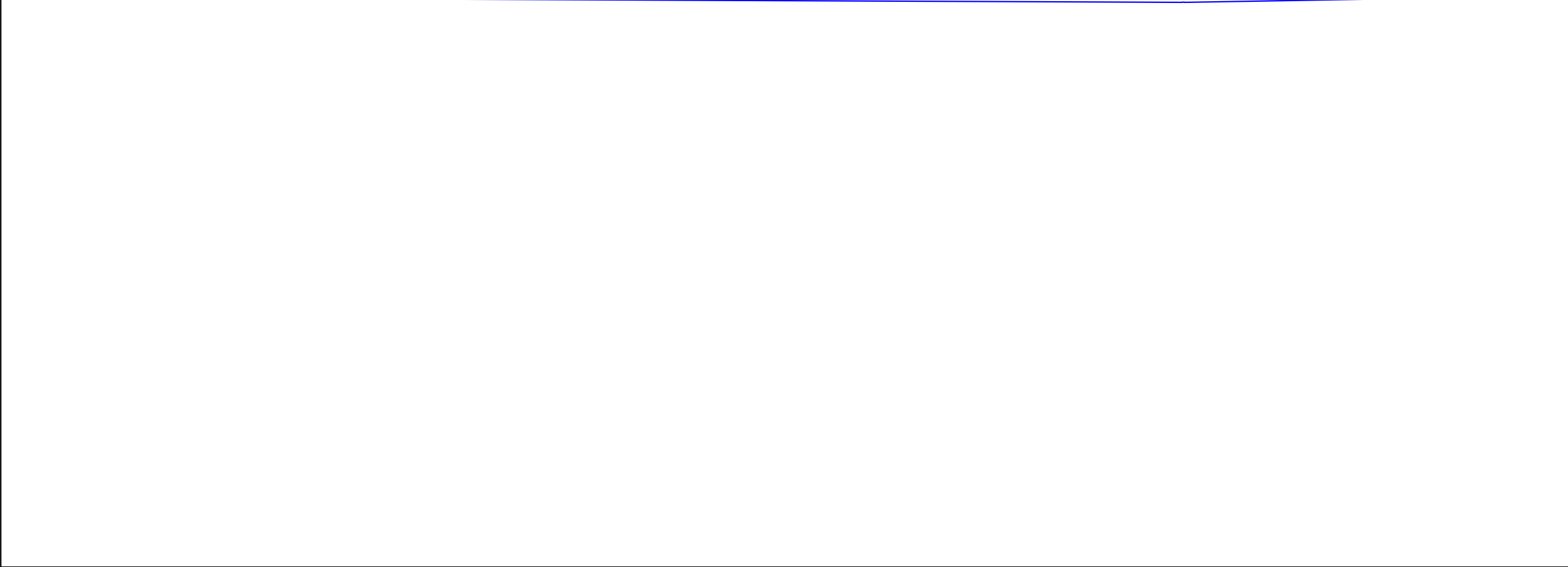
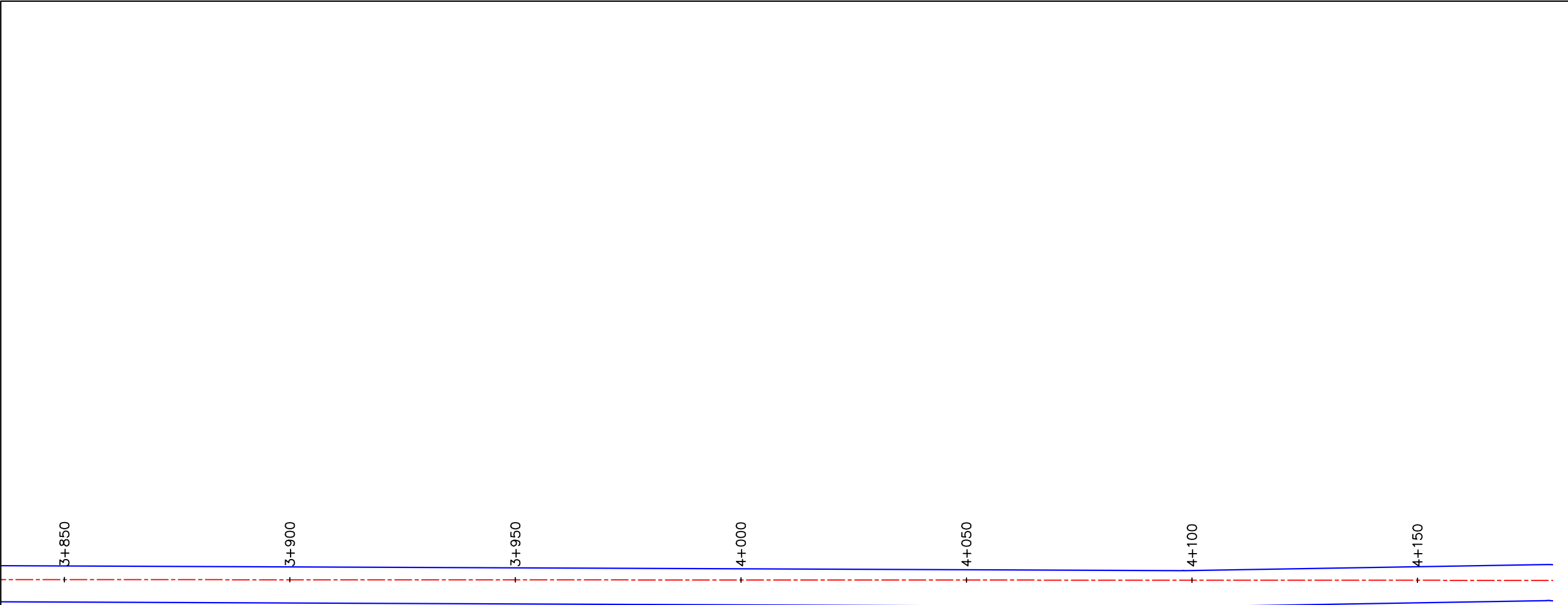
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Revision		
Date	Description	
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<div>Project Title: Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</div>		
<div>RAIP-IV Mazar—e—Sharif</div>		
<div>Approved By: Shekhar Kumar Shrestha Acting Project Manager</div>		
<div>Checked By: Noorullah Hakimy Senior Engineer</div>		
<div>Drawn By: Wahidullah Mohebi Associate Engineer</div>		
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Drawing No SMN-001-C2-003	Sheet No P & P-12	Date Apr-2017

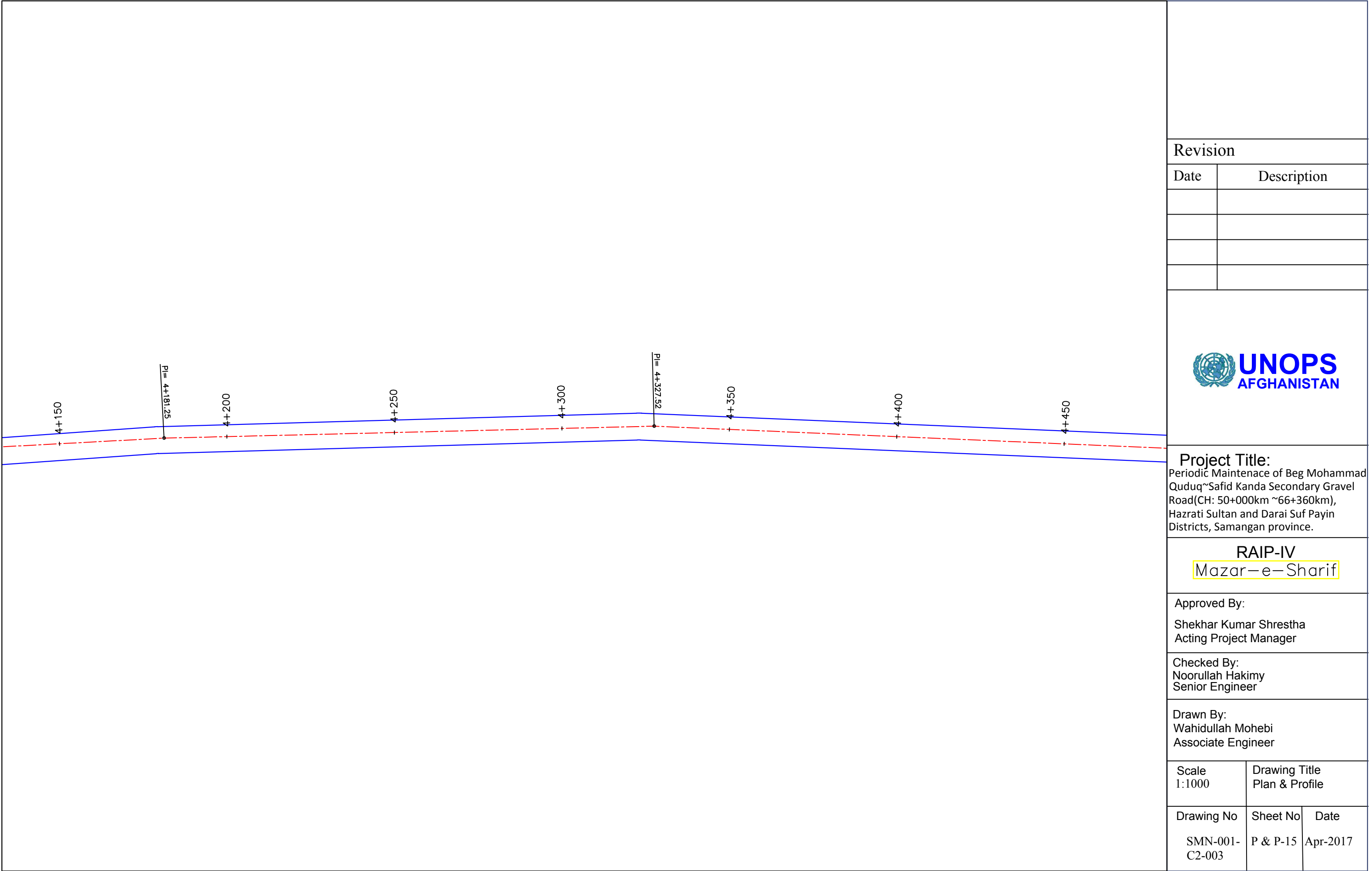


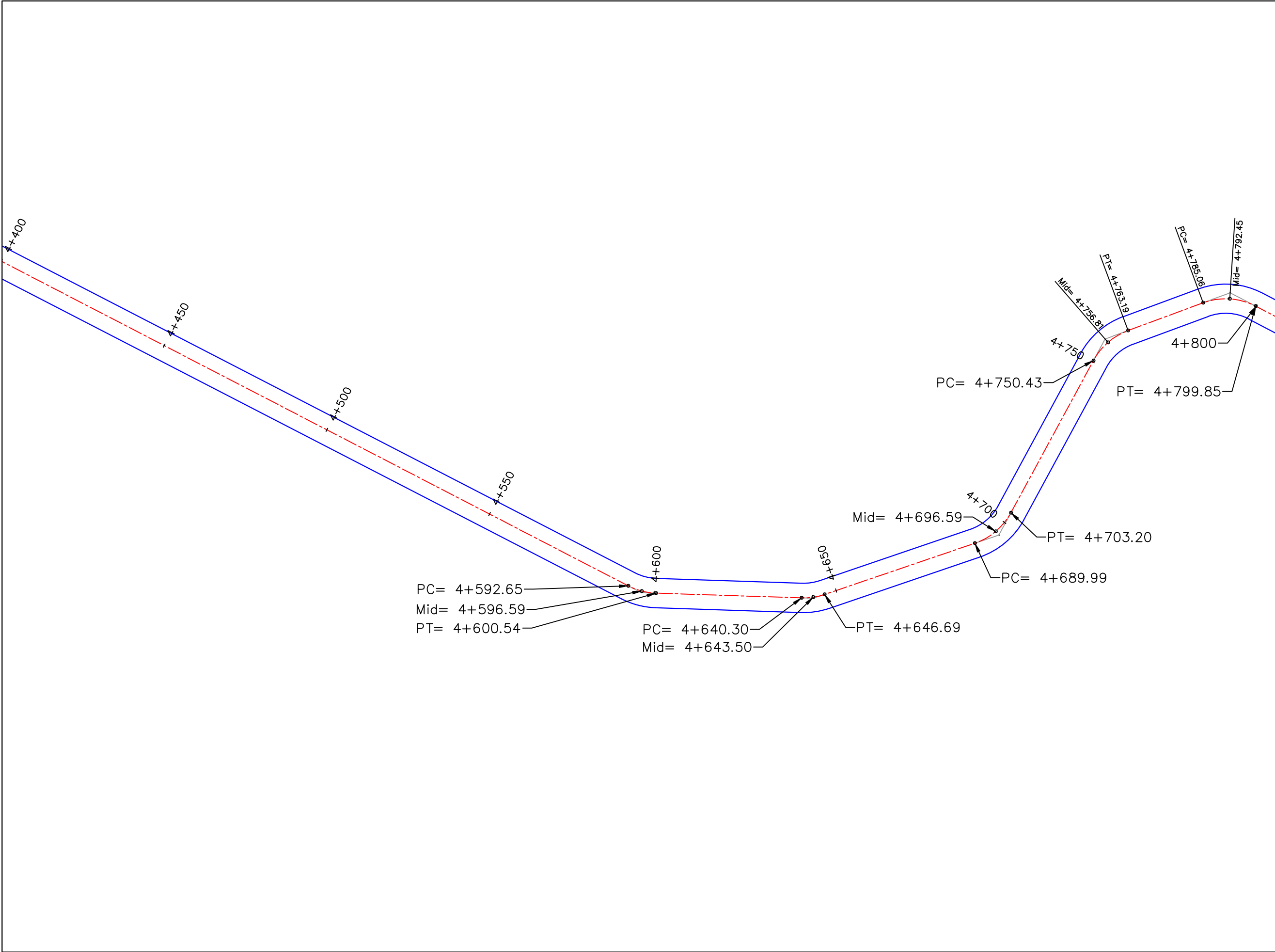
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<div>Project Title: Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</div>		
<div>RAIP-IV Mazar–e–Sharif</div>		
<div>Approved By: Shekhar Kumar Shrestha Acting Project Manager</div>		
<div>Checked By: Noorullah Hakimy Senior Engineer</div>		
<div>Drawn By: Wahidullah Mohebi Associate Engineer</div>		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No  SMN-001-C2-003	Sheet No  P & P-13	Date  Apr-2017



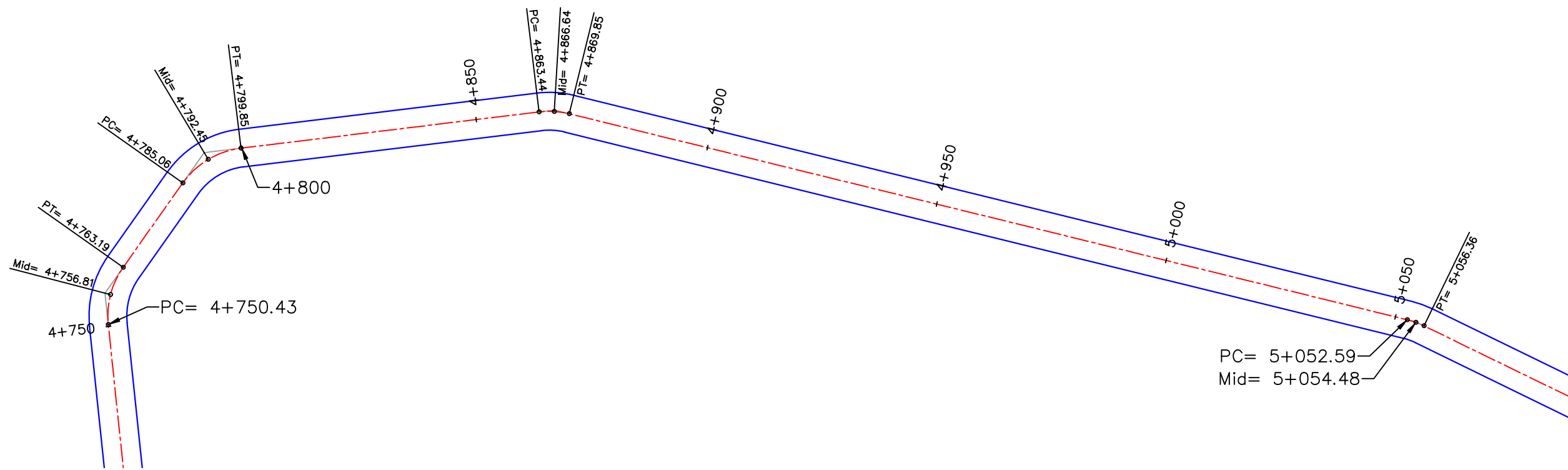
Revision		
Date	Description	
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<div>Project Title: Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</div>		
<div>RAIP-IV Mazar—e—Sharif</div>		
<div>Approved By: Shekhar Kumar Shrestha Acting Project Manager</div>		
<div>Checked By: Noorullah Hakimy Senior Engineer</div>		
<div>Drawn By: Wahidullah Mohebi Associate Engineer</div>		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No  SMN-001- C2-003	Sheet No  P & P-14	Date  Apr-2017







Revision		
Date	Description	
<div>UNOPS AFGHANISTAN</div>		
<p><b>Project Title:</b> Periodic Maintanace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</p>		
<p><b>RAIP-IV</b> <b>Mazar—e—Sharif</b></p>		
<p>Approved By: Shekhar Kumar Shrestha Acting Project Manager</p>		
<p>Checked By: Noorullah Hakimy Senior Engineer</p>		
<p>Drawn By: Wahidullah Mohebi Associate Engineer</p>		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No SMN-001-C2-003	Sheet No P & P-16	Date Apr-2017



Revision

Date	Description



**Project Title:**  
Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

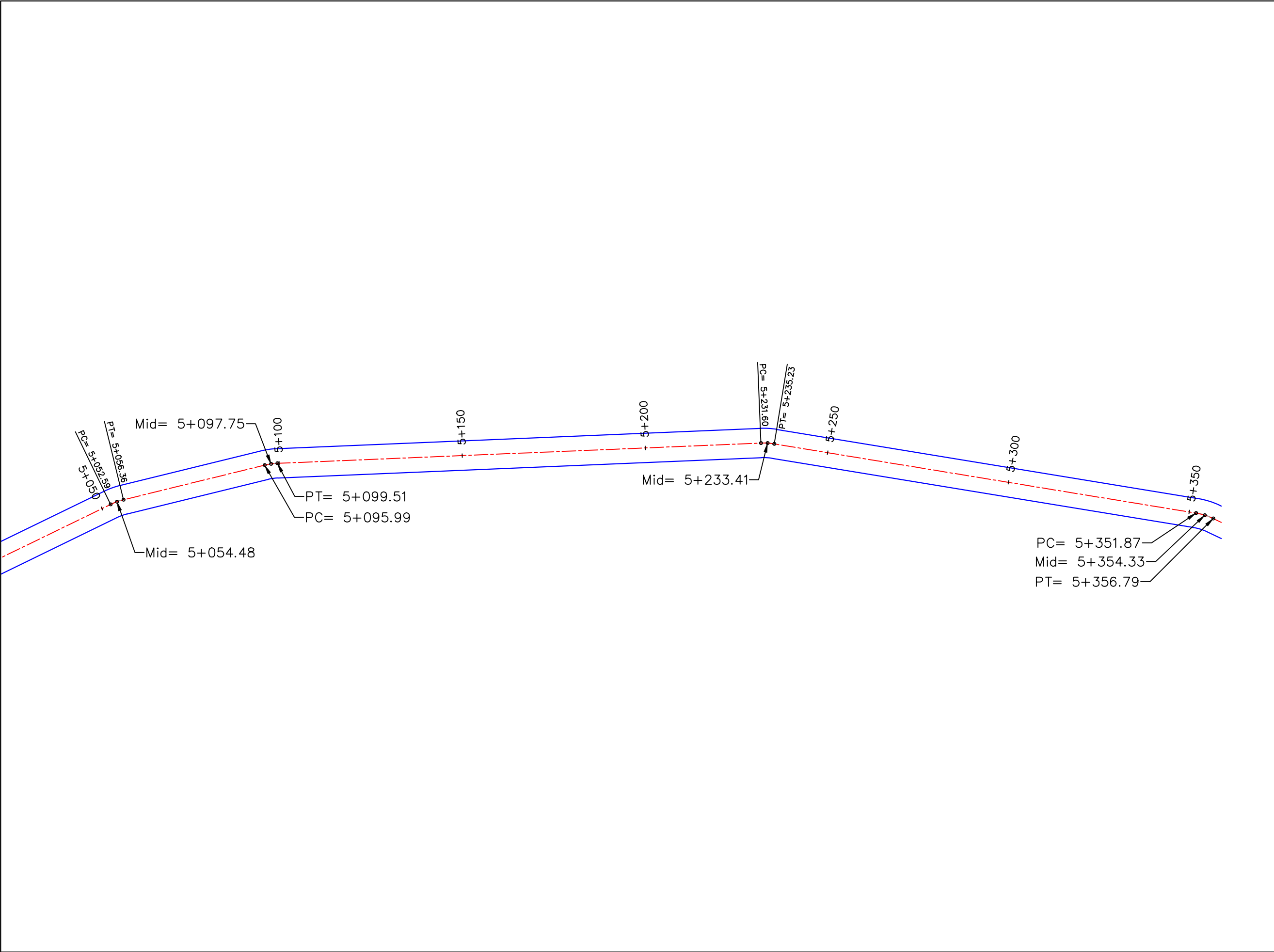
Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

Checked By:  
Noorullah Hakimy  
Senior Engineer

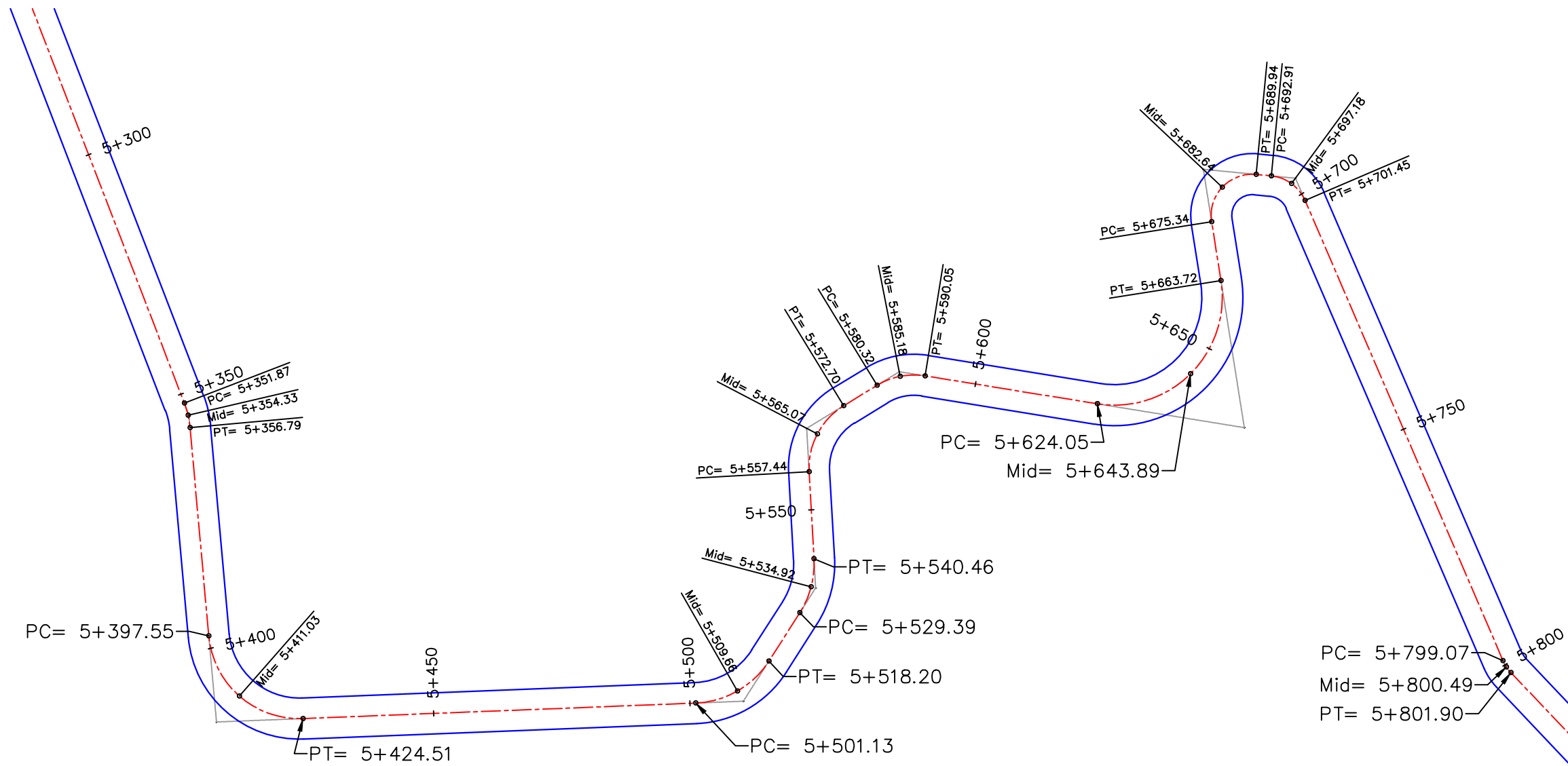
Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale	Drawing Title
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Drawing No	Sheet No	Date
SMN-001-C2-003	P & P-17	Apr-2017



Revision		
Date	Description	
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<div>Project Title: Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</div>		
<div>RAIP-IV Mazar—e—Sharif</div>		
<div>Approved By: Shekhar Kumar Shrestha Acting Project Manager</div>		
<div>Checked By: Noorullah Hakimy Senior Engineer</div>		
<div>Drawn By: Wahidullah Mohebi Associate Engineer</div>		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No  SMN-001-C2-003	Sheet No  P & P-18	Date  Apr-2017



Revision

Date	Description



**Project Title:**  
Periodic Maintenance of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

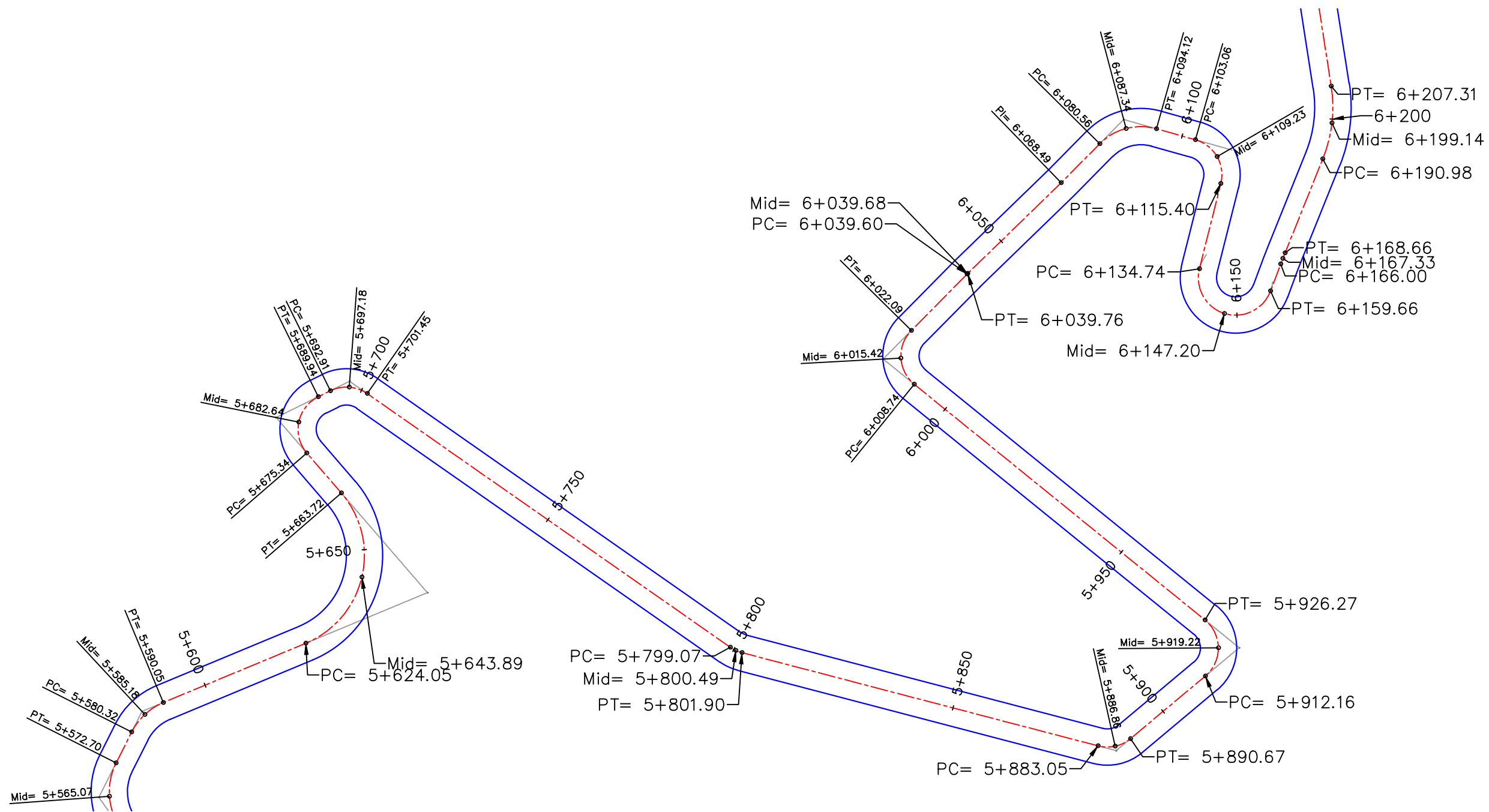
Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale	Drawing Title
1:1000	Plan & Profile

Drawing No	Sheet No	Date
SMN-001-C2-003	P & P-19	Apr-2017



### Revision

Date	Description



**Project Title:**  
Periodic Maintenance of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

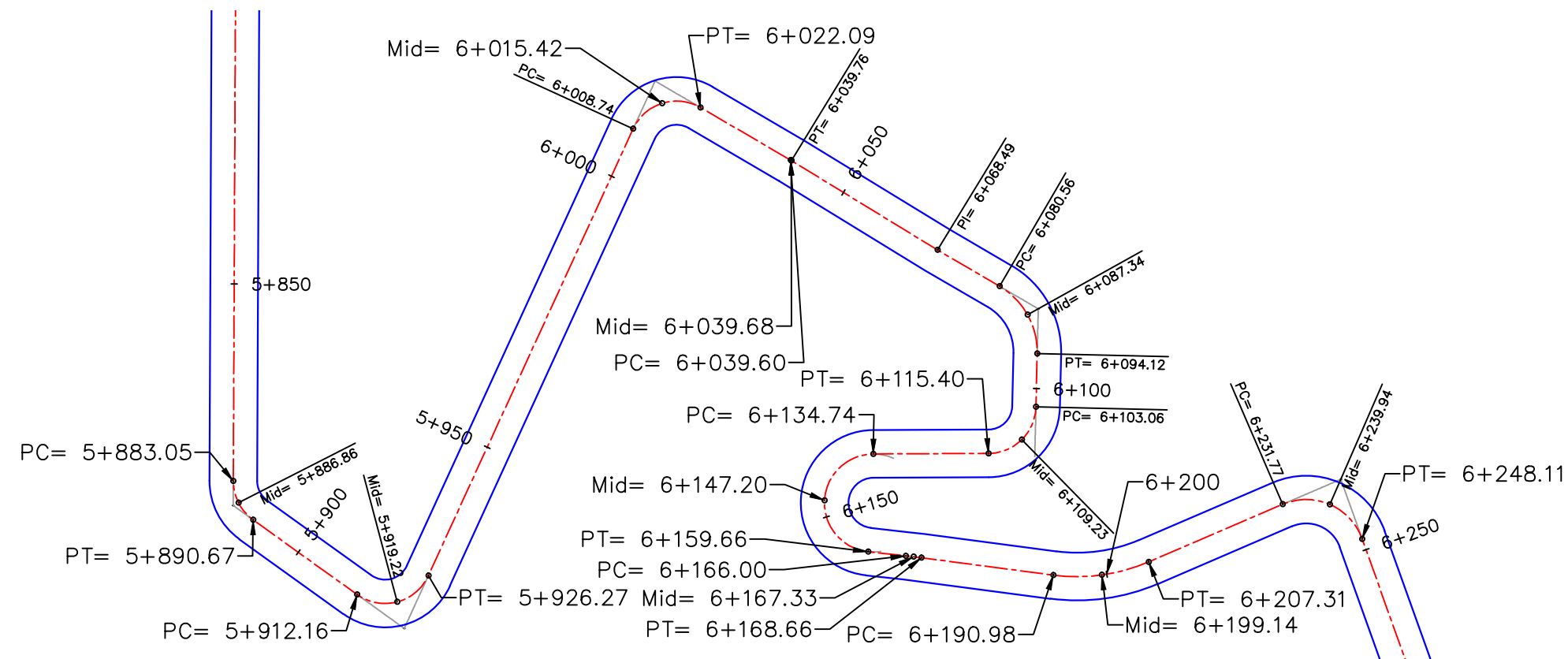
Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale 1:1000	Drawing Title Plan & Profile
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Drawing No SMN-001-C2-003	Sheet No P & P-20	Date Apr-2017
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## Revision

Date	Description



**Project Title:**  
Periodic Maintenance of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

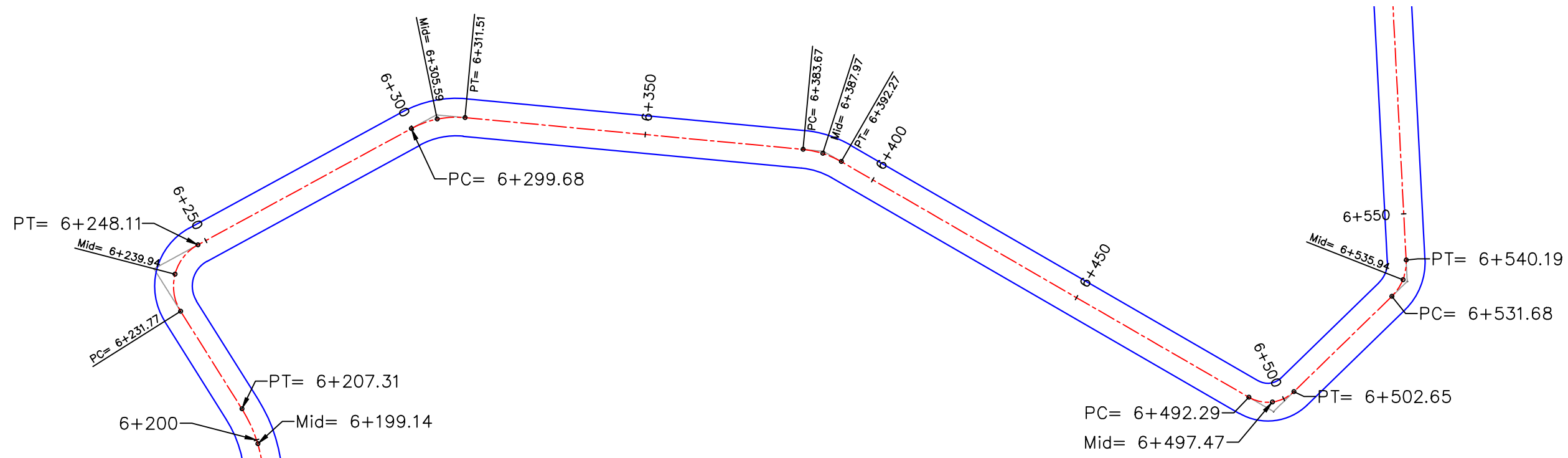
Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale	Drawing Title
1:1000	Plan & Profile

Drawing No	Sheet No	Date
SMN-001-C2-003	P & P-21	Apr-2017





#### Revision

Date	Description



**Project Title:**  
Periodic Maintenance of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

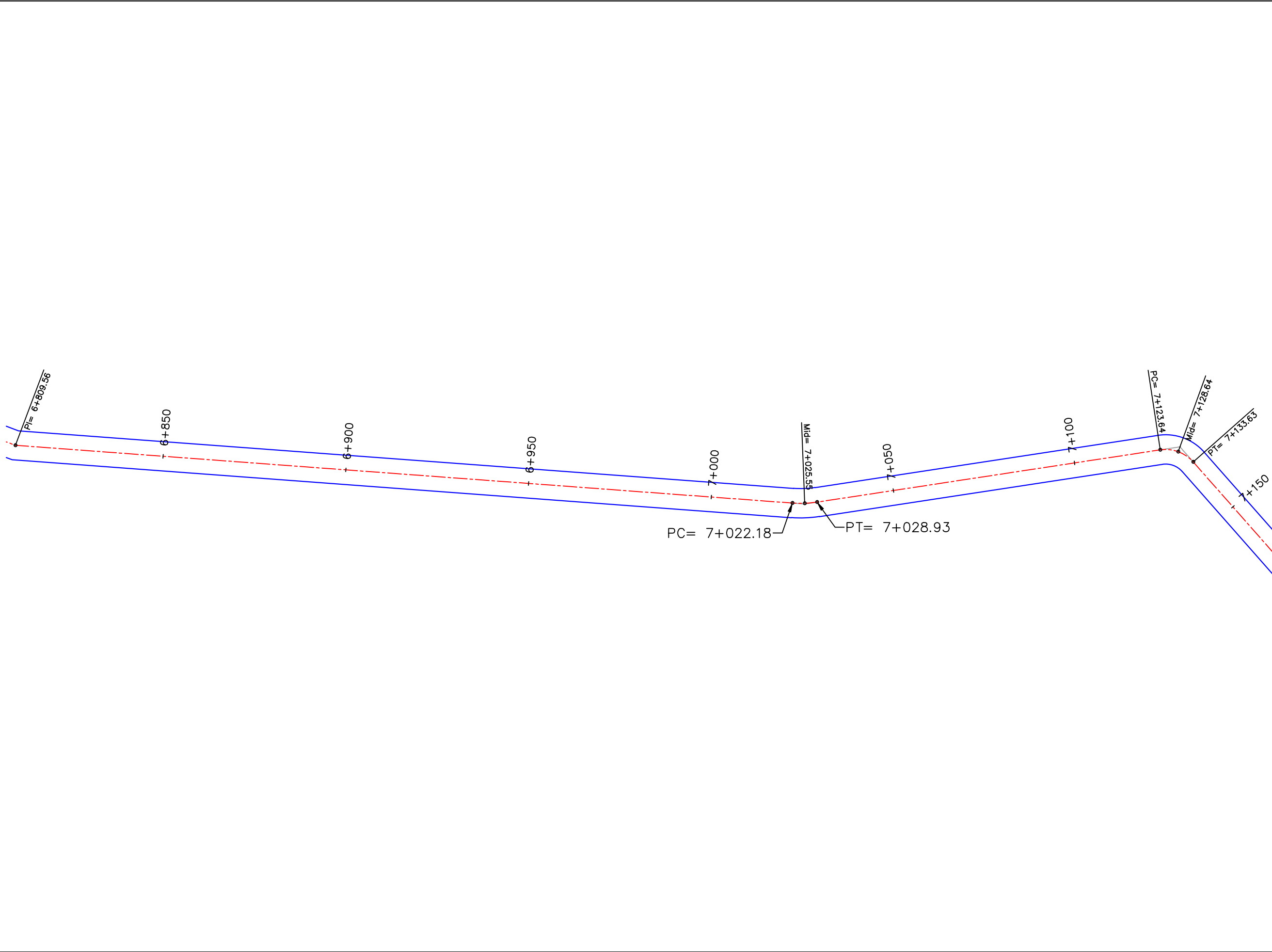
Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

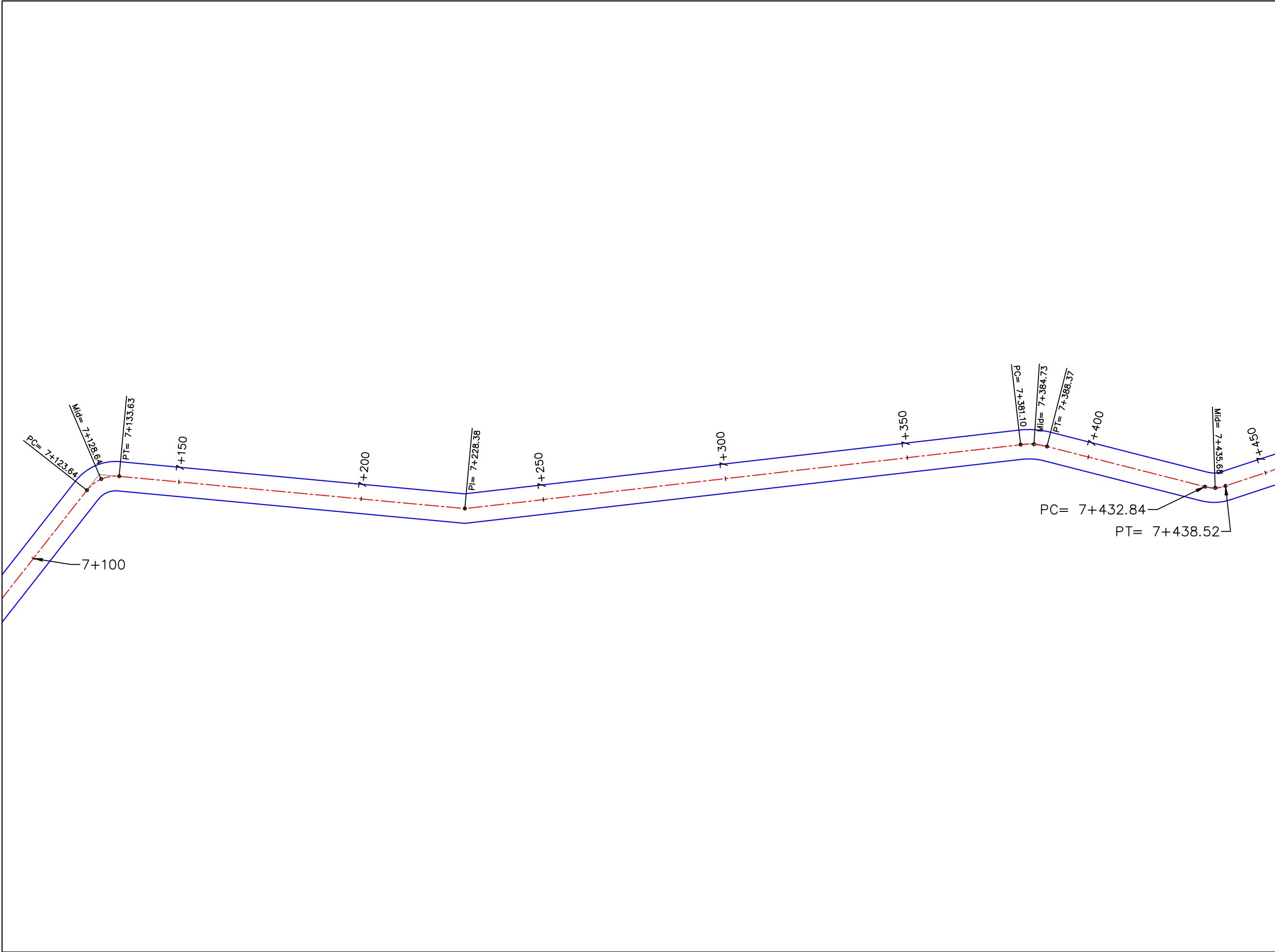
Scale 1:1000	Drawing Title Plan & Profile
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Drawing No SMN-001-C2-003	Sheet No P & P-22	Date Apr-2017
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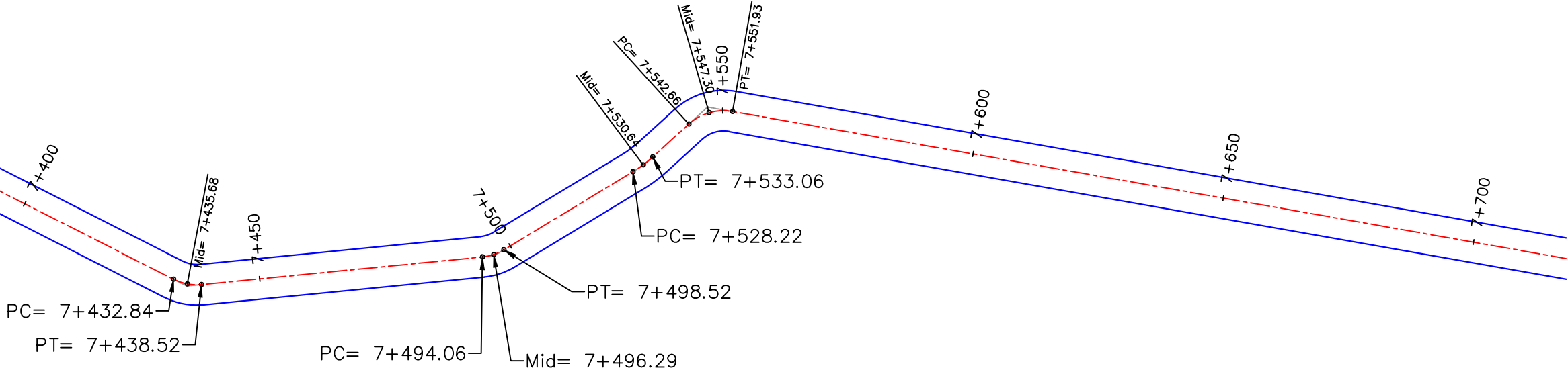




Revision		
Date	Description	
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<div>Project Title: Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</div>		
<div>RAIP-IV Mazar—e—Sharif</div>		
<div>Approved By: Shekhar Kumar Shrestha Acting Project Manager</div>		
<div>Checked By: Noorullah Hakimy Senior Engineer</div>		
<div>Drawn By: Wahidullah Mohebi Associate Engineer</div>		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No SMN-001-C2-003	Sheet No P & P-24	Date Apr-2017



Revision		
Date	Description	
<div>UNOPS AFGHANISTAN</div>		
<p><b>Project Title:</b> Periodic Maintanace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.</p>		
<p><b>RAIP-IV</b> <b>Mazar—e—Sharif</b></p>		
<p>Approved By: Shekhar Kumar Shrestha Acting Project Manager</p>		
<p>Checked By: Noorullah Hakimy Senior Engineer</p>		
<p>Drawn By: Wahidullah Mohebi Associate Engineer</p>		
Scale 1:1000	Drawing Title Plan & Profile	
Drawing No SMN-001-C2-003	Sheet No P & P-25	Date Apr-2017



Revision

Date	Description



**Project Title:**  
Periodic Maintenace of Beg Mohammad Quduq~Safid Kanda Secondary Gravel Road(CH: 50+000km ~66+360km), Hazrati Sultan and Darai Suf Payin Districts, Samangan province.

**RAIP-IV**  
**Mazar-e-Sharif**

Approved By:  
Shekhar Kumar Shrestha  
Acting Project Manager

Checked By:  
Noorullah Hakimy  
Senior Engineer

Drawn By:  
Wahidullah Mohebi  
Associate Engineer

Scale 1:1000	Drawing Title Plan & Profile
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Drawing No SMN-001-C2-003	Sheet No P & P-26	Date Apr-2017
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