

**MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE GWALIOR**  
(A govt. Aided Autonomous Institute under RGPV, Bhopal (M.P) Established in 1957)  
**INTERNSHIP REPORT**  
**ON**

# "PAVEMENT QUALITY CONCRETE ROAD

IN PARTIAL COMPLETION OF THE REQUIREMENTS FOR AWARDING THE DEGREE OF

**BACHELOR of TECHNOLOGY**  
**In**  
**CIVIL ENGINEERING**



Submitted By-

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**Madhav Institute of Technology & Science, Gwalior**  
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to R.G.P.V. Bhopal)



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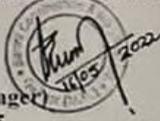
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This is to certify that Mr. Rajeev Singh Kandil (Enrollment No. 0901CE181080) S/o Mr. Keshav Singh Kandil, R/o Morar Kheda Gwalior, (M.P.) 474006 student of VIII<sup>th</sup> semester B. Tech. (Civil) at Madhav Institute of Technology & Science, Gwalior (M.P.) has undergone his internship training under Mr. Manish Agnihotri (Civil Engineer) at Rewa-Sitapur- Panni Road Project District-Rewa (M.P.) since 19<sup>th</sup> January 2022 to 14<sup>th</sup> May 2022.

During his tenure we find him hardworking athletic.

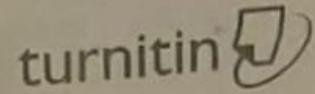
I wish him success for his future endeavors.

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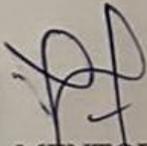
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## RECOMMENDATION

It is hereby recommended that the internship report entitled— **PAVEMENT QUALITY CONCRETE ROAD** which is being submitted by **RAJEEV SINGH KANDIL** completed under the guidance of Prof. A K Dwivedi may be accepted in the partial fulfillment of the award of the degree of Bachelor of Engineering in Civil Engineering.



MENTOR NAME:

Prof A K Dwivedi

Civil Engineering Department

## ACKNOWLEDGEMENT

I don't have words to express my gratitude and acknowledge someone's support and assistance, when the support offered is so devoted and dedicated.

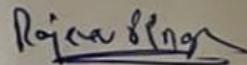
I am very grateful to my acclaimed guide, **Prof A.K Dwivedi**, Associate Professor of Civil Engineering Department, MITS Gwalior.

Also, I would like to thank Head of Civil Engineering Department, MITS Gwalior, and all other academics and staff members of MITS Gwalior's Civil Engineering Department for their unwavering support throughout the project.

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I take great pleasure in my institute **Sarathi Construction&Infra PVT.LTD, Gwalior (M.P)** for providing the opportunities.

For me, the work environment has been a tremendous learning experience. It has allowed us to learn at our own speed in a discipline of our choice. I'd want to express my gratitude to everyone who assisted me with this project at various stages.



RAJEEV SINGH KANDIL

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DEPARTMENT OF CIVIL ENGINEERING  
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## ABSTRACT

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Concrete roads are classified as high quality average cement concrete roads. These pavements can be placed directly over a well- compacted soil subgrade, with or without a sub-base/base course. They are strong because of their flexural strength, which allows them to sustain traffic wheel loads and bridge any weak spots in the layer over which they are put.

A sub-base/base course beneath cement concrete pavements, on the other hand, will significantly improve their performance. As a result, a well-designed and well-constructed cement concrete pavement is a rigid pavement capable of providing a trouble-free, high-quality riding surface for high-volumes and heavy traffic loads for up to 50 years. The durability of Portland cement concrete is widely recognised.

## ABSTRACT (In Hindi)

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कंक्रीट की सड़कें उच्च गुणवत्ता/औसत से बेहतर सीमेंट कंक्रीट सड़कों की श्रेणी में आती हैं। इन फुटपाथों में उप-आधार/आधार पाठ्यक्रम हो सकते हैं या नहीं, और इन्हें सीधे एक अच्छी तरह से संकुचित मिट्टी के उप-वर्ग पर बनाया जा सकता है। वे अपनी लचीली ताकत से अपनी ताकत प्राप्त करते हैं, जो उन्हें ट्रैफिक व्हील लोड का समर्थन करने और उस परत में किसी भी कमजोर जगह को पुल करने की अनुमति देता है जिस पर वे स्थापित होते हैं।

दूसरी ओर, सीमेंट कंक्रीट फुटपाथों के तहत एक सब-बेस/बेस कोर्स, उनके प्रदर्शन में काफी सुधार करेगा; इस प्रकार, एक अच्छी तरह से डिजाइन और अच्छी तरह से निर्मित सीमेंट कंक्रीट फुटपाथ एक कठोर फुटपाथ है जो 50 वर्षों तक उच्च मात्रा और भारी यातायात भार के लिए परेशानी मुक्त, उच्च गुणवत्ता वाली सवारी सतह प्रदान करने में सक्षम है। पोर्टलैंड सीमेंट कंक्रीट अपने स्थायित्व के लिए प्रसिद्ध है।

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# CHAPTER 1

## INTRODUCTION

### **1.1 Background**

The Public Work Department and Project Implementation Unit is Madhya Pradesh's prime organisation for planning, designing, building, and maintaining government infrastructure such as roads, bridges, ROBs, flyovers, and buildings.

The PWD (B&Rkey)'s responsibilities include the construction, upgrade, and maintenance of highways, district roads, other roads, village roads, and bridges, flyovers, and ROBs throughout the state. PWD's road network is approximately 61,616.00 kilometres long.

PWD opened the tender for Rewa sitapur panni road in 2018. and the Upgradation of Raipur - Sitapur - Panni Road, Km.1/2 to 55/2 Total Length 54.20 Km. under Subdivision Mangawan was taken by sarthi construction &infra pvt. Ltd. The road to be constructed was a pavement quality concrete road.

### **1.2 Site Location**



**Fig 1.1 location map**

On basis of structural behaviour roads can be classified into two types:

Flexible pavement

Rigid pavement

Bituminous road and its other types are classified in flexible road, whereas cement concrete are treated as rigid pavement due to its rigidity.

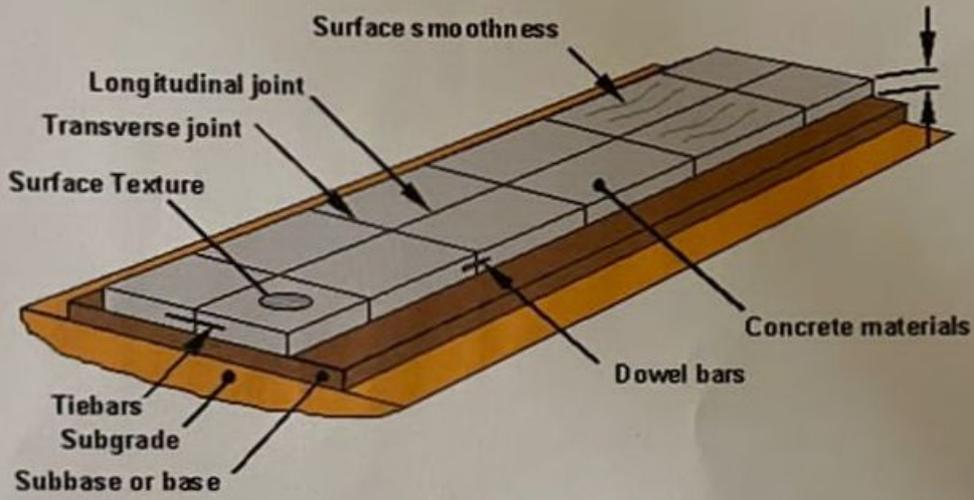


Fig 1.2 Structure of concrete road

### 1.3 Comparison

SNO	ITEM	BITUMINOUS ROAD	CONCRETE ROAD
1	Compaction	By rolling	By vibrators
2	Curing	Not needed	needed
3	Maintenance	High	low
4	Traffic open	24hours	15-20 days

5	Life	Short	more
6	Surface wear	More	less
7	Utility	Less durable	More durable

**Table 1.1**

## CHAPTER 2

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### OBJECTIVES

- Upgradation of Raipur-Sitapur -Panni Road, Total Length 54.20 Km. under Sub Division Mangawan.
- Feeder road improvements, longitudinal open-drain construction, and road safety improvement
- Construction of R.C.C. retaining walls for retaining earth of the high embankment.
- To reduce the distance between Sitapur and panni.
- Keeping urban and rural roads and highways in good repair and up to date.
- Examining the impact of automobiles, traffic conditions, and road user costs.
- Investigating the social and environmental consequences of business ventures.
- Considering long-term issues that arise throughout the resource life cycle.

## CHAPTER 3

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### LITERATURE REVIEW

- 1 'Uma Kapila's edited book, 'Indian Economy Since Independence,' provides a variety of content and evaluations on various aspects of the Indian economy. The definition and significance of a well-developed road network in India were also learned through several articles in this book.
- 2 We feel that a country with limited resources, like India, will never be able to meet the needs of large-scale system projects. As a result, the government must actively encourage private sector investment in this area by simplifying projects, improving regulatory and clearance processes, and limiting externalities. We attempted to formulate some recommendations based on the lessons acquired from the cases and other resources, which could serve as a springboard for long-term private-public collaborations. (Raghuram, Prof.)<sup>3</sup> Jannathul Thasni. P, JouharShareef, (2018), have summarised studies on water absorbing pavement by porous concrete in this publication. They explore solutions for low ground water levels, agriculture issues, and storm water runoff management.
- 3 In this publication, Jannathul Thasni. P, JouharShareef, (2018) summarised studies on water absorbing pavement by porous concrete. They look at ways to deal with low ground water levels, agriculture difficulties, and storm water runoff.

## CHAPTER 4

### MATERIALS

#### 3.1 CEMENT

The following types of cement can be used to achieve the design strength with the engineer's permission:

- IS:269, 33-grade ordinary Portland cement
- Ordinary Portland Cement, Grade 43 (IS:8112)

For large-scale structures, bulk cement may be preferable.

Small-scale applications can benefit from bagged cement. Bag splitters for small bags that can separate paper bag fragments and dispose of them correctly are available if cement in paper bags is to be used.

Components	Composition (%)
SiO <sub>2</sub>	24.12
Al <sub>2</sub> O <sub>3</sub>	5.21
Fe <sub>2</sub> O <sub>3</sub>	3.83
CaO	61.73
MgO	1.58
LoI	1.02

Table 4.1

#### 3.2 ADMIXTURES

Admixtures that meet IS:6925 and IS:9103 specifications may be used to increase the workability of concrete or lengthen the setting time if appropriate proof exists that they will not have an unfavourable effect on the strength, volume change, durability, or steel bar corrosion of the concrete.

### **3.3 AGGREGATES**

Natural aggregates that fulfil IS:383 but have a Los Angeles Value of less than 35% are required for pavement concrete. The limitations of harmful materials must not exceed the IS:383 specifications.

The aggregates must be free of chert, flint, chalcedony, or silica that can react with the cement's alkalis.

### **3.4 WATER**

Water used for concrete mixing and curing must be clean and free of harmful amounts of oil, salt, acid, or other substances that could harm the finished concrete. It must meet the requirements of IS:456. For mixing and curing, potable water is generally regarded as adequate.

### **3.5 STEEL**

As appropriate, these must meet the standards of IS:432, Dowel bars and tie bars must comply with GRADE S 240 and S 425, respectively. For corrosion prevention, the steel should be painted with epoxy paint.

### **3.6 JOINT SEALING**

The joint sealing compound must be a hot poured, elastomeric type, a cold chemical based polysulphide, or a single chemical based silicone type with flexibility, durability, and age hardening resistance. If the sealer is hot poured, it must be rubberized bitumen and meet AASHTO M282 or ASTM:D 3406 standards.

## CHAPTER 5

### PREPARATORY WORK & TESTS

#### 5.1 PROPORTIONING OF CONCRETE

Because the stresses created in concrete pavements are mostly flexural, it is preferable to design them using concrete's flexural strength.

According to IS:51696,

Grade of Concrete	Standard Deviation for different degrees of control, $hPa$ (Compressive Strength)		
	Very good	Good	Fair
M 30	5.0	6.0	7.0
M 35	5.3	6.3	7.3
M 40	5.6	6.6	7.6
M 45	6.0	7.0	8.0
M 50	6.4	7.4	8.4

Table 5.1

The flexural strength of the paving quality concrete should ideally be designed in the laboratory and monitored in the field.

If this is not practicable, the correlation between flexural and compressive strengths should be demonstrated first using actual testing on additional samples of beams and cubes created specifically for the purpose when the laboratory mix was designed.

## 5.2 WATER CONTENT AND WORKABILITY

The water content of the concrete shall be the bare minimum required to provide the agreed workability for full compaction to the specified density, which should be determined through laboratory and field experiments of the mix.



Fig 5.1 Slump Cone Test

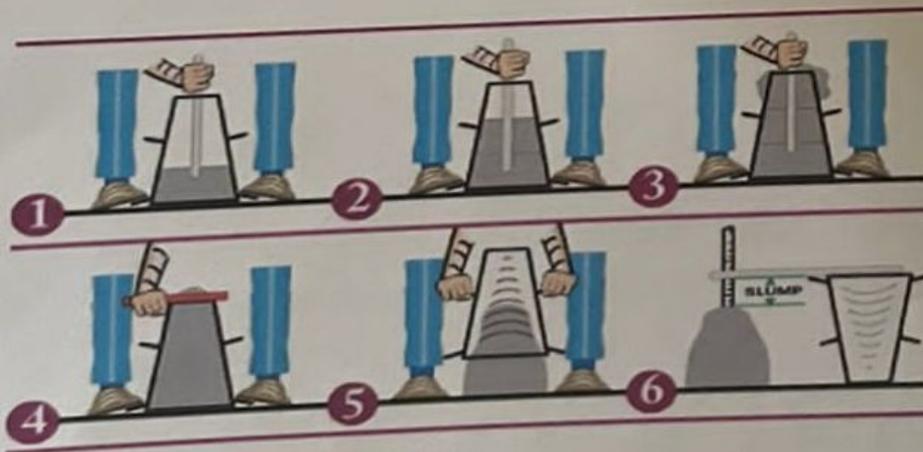


Fig 5.2 Procedure

## COMPACTION FACTOR TEST

The compressive strength of PQC was measured using 150 x 150 x 150 mm cube specimens, with the average of three results utilised as the investigation's outcome.

According to IS: 5161959 [22], a motorised compression testing apparatus with a loading rate of 2.5 kN/s [23] was employed, as shown in Fig.4.

The compressive strength test was done after 3, 7, and 28 days of cure.



**Fig 5.3 Compressive strength test**

### ***PROCEDURE***

The cubes used in this test are mostly 150mm \* 150mm \* 150mm. Clean the moulds completely before applying oil to the cube frame. Concrete should be poured into the moulds in 50mm thick layers.

Compact each layer with at least 35 strokes using a tamping rod (steel bar 16mm diameter and 600 mm long, )



**Table 5.3**

## **SAND REPLACEMENT METHOD**

To evaluate the dry density of soil in situ, the sand replacement test method is utilised.

This test's techniques, materials, equipment, and standards are based on Indian Standard (IS 2720 part 28).

This is an extremely important test that has been widely employed in numerous construction projects.

The field density of natural soil is essential for the assessment of soil bearing capacity, evaluation of stresses on underlying strata, settlement computation, and natural slope stability study.

**Fig 5.4 Sand replacement method**



UPGRADATION OF RAIPUR, SITAPUR, PANNI ROAD LENGTH-54.2 KM						
NAME OF CONTRACTOR-ANS CONSTRUCTION PVT LTD						
NAME OF CLIENT - PUBLIC WORK DEPARTMENT DIVISON - REWA M.P.						
FIELD DRY DENSITY OF SOILS IN PLACE (SAND REPLACEMENT METHOD)						
IS : 2720 (Part 2B)1974						
Date of testing		Date of testing				
Type of Material		Type of Material				
Lab. Moisture in %		Lab. Moisture in %				
Lab. DMC in %		Lab. DMC in %				
Wt. of sand in cone (g)		Wt. of sand in cone (g)				
Description		Test 1	Test 2	Test 3	Test 4	Test 5 Test 6
Preparatory test/average						
Weight of material from hole (W <sub>1</sub> ) gm		1500	1461	1560	1540	1540
Weight of sand x cylinder before pouring (W <sub>2</sub> ) gm		2000	2000	2000	2000	2000
Weight of sand x cylinder after pouring (W <sub>3</sub> ) gm		2115	2051	2110	2070	2070
Weight of sand in hole W <sub>4</sub> = W <sub>1</sub> - W <sub>2</sub> + W <sub>3</sub>		2115	2051	2110	2070	2070
Bulk density of materials $\rho = (W_4/W_2) \times \gamma_s$ gm/cc		2.057	2.025	2.055	2.035	2.035
Relative water content in %		2.05	2.05	2.05	2.05	2.05
Dry Density $\rho_d = \rho / (1 + w/100)$		2.012	1.975	1.995	1.975	1.975
Compaction obtained		98.10	96.12	97.87	97.20	97.54
Compaction Obtained (%)				98.12		

Table 5.4

UPGRADATION OF RAIPUR, SITAPUR, PANNI ROAD LENGTH-54.2 KM						
NAME OF CONTRACTOR-ANS CONSTRUCTION PVT LTD						
NAME OF CLIENT - PUBLIC WORK DEPARTMENT DIVISON - REWA M.P.						
FIELD DRY DENSITY OF SOILS IN PLACE (SAND REPLACEMENT METHOD)						
IS : 2720 (Part 2B)1974						
Date of testing		Date of testing				
Type of Material		Type of Material				
Lab. Moisture in %		Lab. Moisture in %				
Lab. DMC in %		Lab. DMC in %				
Wt. of sand in cone (g)		Wt. of sand in cone (g)				
Description		Test 1	Test 2	Test 3	Test 4	Test 5 Test 6
Preparatory test/average						
Weight of material from hole (W <sub>1</sub> ) gm		1545	1512	1540	1520	1520
Weight of sand x cylinder before pouring (W <sub>2</sub> ) gm		2000	2000	2000	2000	2000
Weight of sand x cylinder after pouring (W <sub>3</sub> ) gm		2115	2070	2110	2070	2070
Weight of sand in hole W <sub>4</sub> = W <sub>1</sub> - W <sub>2</sub> + W <sub>3</sub>		2115	2070	2110	2070	2070
Bulk density of materials $\rho = (W_4/W_2) \times \gamma_s$ gm/cc		2.057	2.035	2.055	2.035	2.035
Relative water content in %		2.05	2.05	2.05	2.05	2.05
Dry Density $\rho_d = \rho / (1 + w/100)$		2.012	1.995	2.012	1.995	1.995
Compaction obtained		98.10	97.87	97.87	97.20	97.54
Compaction Obtained (%)			98.12			

Table 5.5

## CHAPTER 6

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### CONSTRUCTION

Concrete roads are divided into two types: high-quality/above-average cement concrete roads and low-quality/below-average cement concrete roads.

These pavements can be installed without or with a sub-base/base course directly over a well-compacted soil subgrade.

#### **Roads Made of Cement and Concrete:**

The following are the steps involved in the construction of cement concrete roads:

##### **6.1 Preparation of subgrade/sub-base**

Granular-Sub-base is a common pavement subbase layer. This layer's primary function is to distribute load equally throughout the subgrade. The subbase should be made up of a consistent combination of granular material that has been deposited on a subgrade, evenly moistened, shaped, and compacted in accordance with the contract terms. Laying and compacting well-graded materials on a prepared and certified sub-grade must be the task. Materials should be put in one or more layers in accordance with the drawing's line and level, grade, and cross section, as well as clause 401 of the MORT&H standard.





The cement composition of the concrete subbase course must be at least 150 kg/cum of concrete.



**Fig 6.1 Sitapur Road**

**GRADATION OF RAIPUR, SITAPUR, PANNI ROAD**  
**LENGTH-54.3 KM**  
**CLIENT - PUBLIC WORK DEPARTMENT DIVISION - REWA**  
**CONTRACTOR-ANS CONSTRUCTION PVT LTD**  
**IMMEDIATE GRADATION FOR DRY LEAN CONCRETE (DLC) MORTH**  
**TABLE NO - 600 - 1**

Sieve Size (mm)	Actual Weight (gms)	Cumulative Weight (gms)	% of Retention	TOTALS	
				Actual Value	Specified Limits as per MORTH Table 600-1
75	4	4	4	100	100
150	114	118	11.8	62.60	75-95
300	1482	1599	15.99	87.60	80-90
475	1807	1987	19.87	97.60	90-95
750	234	2221	22.21	95.36	95-98
900	472	1749	17.49	97.88	98-99
1060	204	1545	15.45	98.92	99-100
1190	103	1442	14.42	99.95	99.5-100
1375	634	788	7.88	100	100

Checked by \_\_\_\_\_  
Checked by \_\_\_\_\_

Table 6.5

**UPGRADATION OF RAIPUR, SITAPUR, PANNI ROAD**  
**LENGTH-54.2 KM**  
**CLIENT - PUBLIC WORK DEPARTMENT DIVISION - REWA**  
**CONTRACTOR-ANS CONSTRUCTION PVT LTD**  
**AGGREGATE GRADATION FOR DRY LEAN CONCRETE (DLC) MORTH**  
**TABLE NO - 600 - 1**

Project/Location		DT		Source	
No. of Material		DT		Date of sampling	
No. of Sample		DT		Date of testing	
Sieve Size in mm	Retained Wt (gms)	Comp. Retained Wt (gms)	% of Retained	% of Pass	Specified Limits as per MORTH Table 600-11
75.0	0	0	0	100	100
150	75.1	75.1	13.24	86.76	75-95
300	153.2	153.2	26.21	73.79	50-70
475	271.5	271.5	47.42	52.58	30-55
750	411.7	411.7	72.42	27.58	17-42
1000	533.2	533.2	93.26	6.74	8-22
1500	574	574	100	0	7-17
2000	635	635	111.11	-11.11	2-12
			111.11	-11.11	0-10

Tested by \_\_\_\_\_ Checked by \_\_\_\_\_

**Table 6.6**

### PLACING OF FORMS

Once the base has been completed, the formwork for the concrete slab is laid.

Shapes made of steel or wood can be employed.

depth of the form work should be equal to the slab thickness.

Formwork should be securely fastened and put well ahead of where the concrete mix will be deposited.

It should well greased from inside and examined for line and grade.

- The shapes be made of either steel or wood.

The steel form are made of steel channel sections and have a depth to the pavement thickness.

- Forms are braced and anchored in place.

- Forms are lubricated before being filled with concrete.

Shapes made of steel or wood can be employed. The depth of the form work should be equal to the slab thickness. Formwork should be securely fastened and put well ahead of where the concrete mix will be deposited. It should be well greased from the inside and examined for line and grade.

- The forms are properly braced and anchored in place.



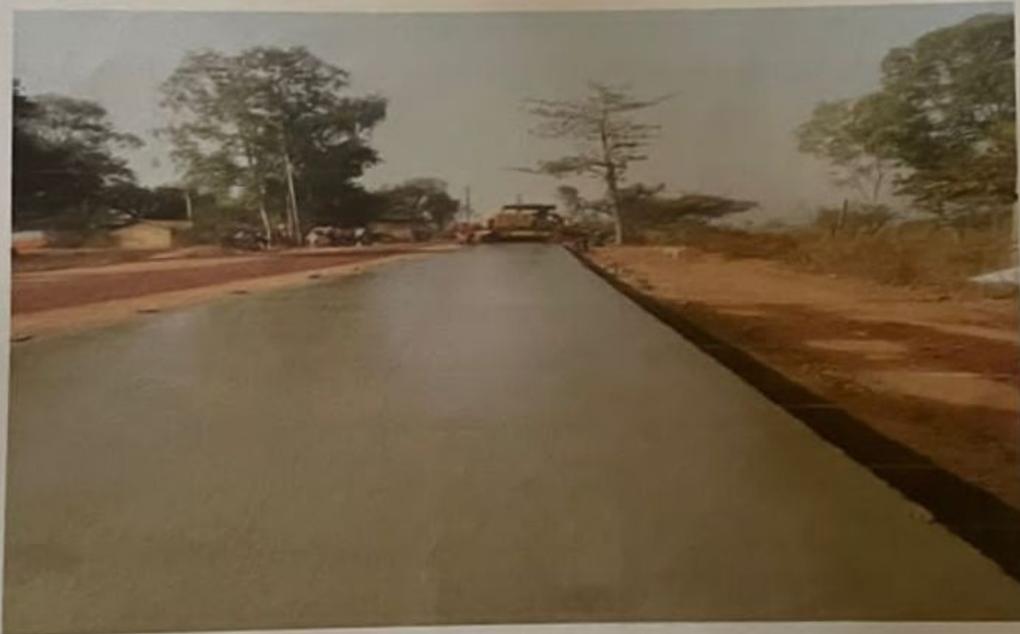
**Fig 6.2 Sitapur Road**

### **COMPACTION AND FINISHING**

- After concrete been put, it should be pulled in appropriate position using heavy screed or tamper supplied with adequate handles.

- The wooden tamper is atleast 75 mm broad and its underside is contoured to the completed crosssection of the slab.

- It should be strong enough to keep its form under all operating situations.
- It has a length equivalent to the Length of the bay plus 60 mm.
- The underside of the tamper is supplied by a 5 mm thick metal plate.
- Concrete is also compressed using a power-driven compactor.
  - 12.5 cm thickness of slab screedvibrators alone can be used for compaction.
- For more thickness, immersing vibrator is used.



**Fig 6.3 Concrete Road**



**Fig 6.6 Sitapur Road**



**Fig 6.7 Sitapur Road**

#### **Curing Process**

- The initial cure period is 24 hours.
- The following processes are used for final curing:
  1. Ponding Technique.
  2. Cover the slab with a layer of damp sand or dirt 4 to 8 cm deep.
  3. Applying an appropriate chemical to the concrete surface, such as sodium or calcium chloride.

## CHAPTER 7

### CONCLUSION

After completing this project at Raipur Sitapur Panni Road, we I concluded that it requires further development due to a lack of facilities and a lack of proper priorities.

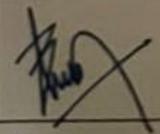
As a result, we want to provide extremely useful facilities and a pleasant healthy environment to the people who live in the Sitapur and Panni areas, as well as a very heavenly experience of living with the most hygienic facilities.

So we decided to provide very useful road network with very smooth surfaces and providing network of drainage system with proper output and standard able channels. So all drain water get well existing and people get beautiful and smooth surface of road.

FORMAT

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Rajeev Singh Kondil		Department	Civil Engr	
Industry/Organization	Sarthi Construction		Date/Duration	19/01/2022 to 12/02/2022	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work	-	-	✓	-	-
Learning capacity/Knowledge up gradation	-	-	✓	-	-
Performance/Quality of work	-	-	✓	-	-
Behaviour/Discipline/Team work	-	-	-	✓	-
Sincerity/Hard work	-	-	✓	-	-
Comment on nature of work done/Area/Topic	During the Internship he found goal achiever.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Sarthi Construction & Infra Pvt. Ltd.				
<u>Signature of Industry Mentor</u>					

Receiving Date	19/01/2022	Name of Faculty Mentor	Neesaj Rudala	Sign	
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→ Prof. A.K. Durivedi

FORMAT

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Rajeev Singh Kandi		Department	Civil Engg	
Industry/Organization	Sasthi Construction		Date/Duration	13/02/2022 to 28/02/22	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work	-	-	✓	-	-
Learning capacity/Knowledge up gradation	-	-	✓	-	-
Performance/Quality of work	-	-	✓	-	-
Behaviour/Discipline/Team work	-	-	✓	-	-
Sincerity/Hard work	-	-	✓	-	-
Comment on nature of work done/Area/Topic	N.A.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Sasthi Construction & Infra Pvt Ltd.				
<u>Signature of Industry Mentor</u>					

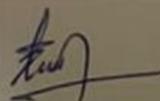
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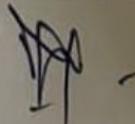
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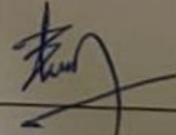
Name of student	Rajeev Singh Khandel		Department	Civil Engg	
Industry/Organization	Sarthi Construction		Date/Duration	01/03/2022 to 14/03/22	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work	-	-	✓	-	-
Learning capacity/Knowledge up gradation	-	-	✓	-	-
Performance/Quality of work	-	-	✓	-	-
Behaviour/Discipline/Team work	-	-	✓	-	-
Sincerity/Hard work	-	-	✓	-	-
Comment on nature of work done/Area/Topic	N.A.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Sarthi Construction of Indira Pvt. Ltd.				
<u>Signature of Industry Mentor</u>					

Receiving Date 19/01/2022	Name of Faculty Mentor Neeraj Purohit	Sign 
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↳ Prof. A.K. Durvedi 

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FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

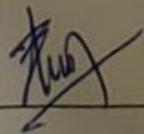
Name of student	Rajeev Singh Kandel		Department	Civil Engrg	
Industry/Organization	Sathi Construction		Date/Duration	15/03/2022 to 30/3/22	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work			✓		
Learning capacity/Knowledge up gradation			✓		
Performance/Quality of work			✓		
Behaviour/Discipline/Team work			✓		
Sincerity/Hard work			✓		
Comment on nature of work done/Area/Topic	N.A				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Sathi Construction & Infra Pvt Ltd				
<u>Signature of Industry Mentor</u>					
Receiving Date	19/01/2022	Name of Faculty Mentor	Neesaj Kudale	Sign	

By Prof. A.K. Durvedi

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FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Rajeev Singh Kondil		Department	Civil Engineering	
Industry/Organization	Sarthi Construction		Date/Duration	01/01/22 to 14/04/22	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work	—	—	✓	—	—
Learning capacity/Knowledge up gradation	—	—	✓	—	—
Performance/Quality of work	—	—	✓	—	—
Behaviour/Discipline/Team work	—	—	✓	—	—
Sincerity/Hard work	—	—	✓	—	—
Comment on nature of work done/Area/Topic	N.A.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Sarthi Construction & Infra Pvt. Ltd				
<u>Signature of Industry Mentor</u>					

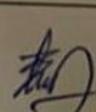
Receiving Date		Name of Faculty Mentor	Sign
19/01/22		Neeraj Rudale	

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FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Rajeev Singh Kandel		Department	Civil Engg.	
Industry/Organization	Sasthi Construction		Date/Duration	15/04/2022 to 30/4/22	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work	—	—	✓	—	—
Learning capacity/Knowledge up gradation	—	—	✓	—	—
Performance/Quality of work	—	—	✓	—	—
Behaviour/Discipline/Team work	—	—	✓	—	—
Sincerity/Hard work	—	—	✓	—	—
Comment on nature of work done/Area/Topic	N/A				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Sasthi Construction & Infra Pvt. Ltd.				
<u>Signature of Industry Mentor</u>					

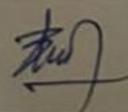
Receiving Date	09/01/2022	Name of Faculty Mentor	Neesaj Khandel	Sign	
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Prof. A.K. Durvedi 

FORMAT

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Rajeev Singh Khandel		Department	Civil Engg	
Industry/Organization	Sasthi Construction		Date/Duration	30/4/2022 to 14/5/22	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work			✓		
Learning capacity/Knowledge up gradation			✓		
Performance/Quality of work			✓		
Behaviour/Discipline/Team work			✓		
Sincerity/Hard work			✓		
Comment on nature of work done/Area/Topic	N/A				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Sasthi Construction & Infra Pvt Ltd				
<u>Signature of Industry Mentor</u>					

Receiving Date	19/01/2022	Name of Faculty Mentor	Neeraj Rudra	Sign	
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