

# **FINAL PROJECT**

**ANALYSIS OF ROAD CONDITION VALUE ON THE  
NATIONAL ROAD TEUKU UMAR TUBAN (1.9 Km)  
USING BINA MARGA METHOD**



**By :**

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**CIVIL ENGINEERING STUDY PROGRAM  
FACULTY OF ENGINEERING  
UNIVERSITAS 17 AGUSTUS 1945 SURABAYA**

**2022**

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**Prepared as a Requirement for Obtaining a Bachelor of Engineering**  
**Degree (S.T)**

**Universitas 17 Agustus 1945 Surabaya**



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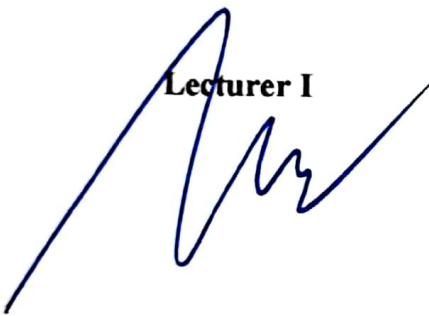
**Departmen : Civil Engineering**

**Faculty : Engineering**

**Tittle : "ANALYSIS OF ROAD CONDITION VALUE ON THE  
NATIONAL ROAD TEUKU UMAR TUBAN (1.9 Km)  
USING BINA MARGA METHOD"**

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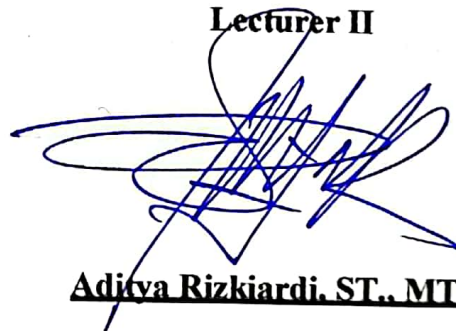
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## **PREFACE**

**Assalamu'alaikum Wr. Wb.**

Thank God almighty, for his grace, favors, blessings, and inayah the author can complete the completion of this Final Task Report without any significant obstacles.

The preparation of this Final Task in addition to being one of the requirements that must be met to complete undergraduate education at the Faculty of Civil Engineering Study Program at the Universitas 17 Agustus 1945 Surabaya is also intended to be able to add insight in the field of Road Damage Level Analysis, in addition the preparation of this report is also intended to provide input to related agencies.

On this occasion the author would like to express his gratitude and respect for all the help and support that has been given to the author so as to complete this Final Task Report in a timely manner, namely to the author :

1. My Parents who have given moral and material encouragement and support and prayers offered to Allah SWT for the author.
2. Mrs. Faradlillah Saves, ST., MT. As Head of Civil Engineering Study Program of The Universitas 17 Agustus 1945 Surabaya.
3. Ir. Herry Widhiarto, M.Sc as lecturer of Guidance I and Aditya Riskiardi, ST., MT as Lecturer of Guidance II who has deigned to provide knowledge and guidance in every problem faced in fulfilling this Final Task Report.
4. Dr. Mulyanto Nugroho, MM, CMA., CPAI, as Rector of the Universitas 17 Agustus 1945 Surabaya.
5. All Lecturers of the University 17 Agustus 1945 Surabaya who have provided knowledge and knowledge during the process of teaching and learning activities in the lecture.
6. To my brother, sister and all the rest of the family who have given their encouragement and support.
7. Riskiya Nurul Jannah, who has helped and encouraged the author in completing this Final Task Report.



The author realizes that the Final Task that the author makes is far from perfect because there are still many shortcomings due to the limited knowledge and experience possessed by the author. Therefore, the author expects constructive advice and input from those who reflect this Final Task report. Hopefully this Final Task can provide benefits for readers and other parties, especially in the field of Civil Engineering.

Surabaya, 23th June 2022

A handwritten signature in blue ink, consisting of several overlapping, stylized strokes that form a complex, abstract shape.

(Richo Ardidarmawan Mintiya)

# **ANALYSIS OF ROAD CONDITION VALUE ON THE NATIONAL ROAD TEUKU UMAR TUBAN (1.9 Km) USING BINA MARGA METHOD**

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## **ABSTRAK**

Jalan merupakan suatu titik penting dalam suatu sistem distribusi, ekonomi dan sosial budaya. Dengan begitu perlu adanya suatu akses jalan yang mampu mencukupi kebutuhan penggunaannya, dikatakan mampu adalah jika jalan mampu digunakan dengan baik tanpa adanya kerusakan yang dapat mengganggu kenyamanan pengguna jalan bahkan bisa menyebabkan kecelakaan bagi pengguna jalan.

Penilaian awal yang dapat dilakukan adalah dengan cara melakukan survei yang dilakukan secara visual untuk mengidentifikasi kerusakan yang terjadi. Tujuan utama dari pada penelitian ini adalah untuk mengetahui tingkat kerusakan yang terjadi mengacu pada metode Bina Marga dan bagaimana langkah yang paling tepat yang digunakan sebagai alternatif metode perbaikan.

Survei kerusakan jalan dilakukan di jalan Nasional Teuku Umar secara visual dengan menggunakan alat yang sederhana dan membagi jalan tersebut menjadi 19 segment dimana dalam satu segment memiliki ukuran 11 meter x 100 meter. Dari perhitungan yang dilakukan didapatkan beberapa kerusakan yang terjadi diantaranya cracking (55.3%), patholes (0.012%), patching (37.18%), Reveling (6.35%), Depression (1.0%), dan Rutting (0.1%) dengan begitu Jalan Nasional Teuku Umar masuk dalam category kerusakan *Medium*.

**Kata Kunci : Bina Marga, Kerusakan Jalan**

# **ANALYSIS OF ROAD CONDITION VALUE ON THE NATIONAL ROAD TEUKU UMAR TUBAN (1.9 Km) USING BINA MARGA METHOD**

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## **ABSTRACT**

Roads are an important point in a distribution, economic and socio-cultural system. That way there is a need for an access road that is able to meet the needs of its users, it is said that it is capable of being able to be used properly without any damage that can interfere with the comfort of road users and can even cause accidents for road users.

The initial assessment that can be done is by conducting a survey that is carried out visually to identify the damage that occurred. The main purpose of this study is to find out the extent of damage that occurs referring to the Bina Marga method and how the most appropriate steps are used as alternative repair methods.

The survey of road damage was carried out on the Teuku Umar National road visually using a simple tool and divided the road into 19 segments where in one segment it has a size of 11 meters x 100 meters. From the calculations carried out, several damages were obtained, including cracking (55.3%), potholes (0.012%), patching (37.18%), Revealing (6.35%), Depression (1.0%), and Rutting (0.1%) so that the Teuku Umar National Road was included in the Medium damage category.

**Keyword : Bina Marga, Road Damage**

# TABLE OF CONTENTS

<b>APPROVAL SHEET</b> .....	ii
<b>AFFIDAVIT</b> .....	iii
<b>PUBLICATION APPROVAL STATEMENT SHEET</b> .....	iv
<b>PREFACE</b> .....	v
<b>ABSTRAK</b> .....	vii
<b>ABSTRACT</b> .....	viii
<b>TABLE OF CONTENTS</b> .....	ix
<b>List OF FIGURE</b> .....	xi
<b>LIST OF TABLE</b> .....	xii
<b>CHAPTER I</b> .....	1
<b>INTRODUCTION</b> .....	1
<b>1.1. Background</b> .....	1
<b>1.2 Problem Formula</b> .....	2
<b>1.3 Problem Limitation</b> .....	2
<b>1.4 Purpose of The Research</b> .....	2
<b>CHAPTER II</b> .....	5
<b>RESEARCH REVIEW</b> .....	5
<b>2.1 Previous Research</b> .....	5
<b>2.2 Definition of Road</b> .....	12
<b>2.3 Road Classification</b> .....	12
<b>2.3.1 Classification of Roads by Function</b> .....	12
<b>2.3.2 Classification of Roads by Street Class</b> .....	14
<b>2.3.3 Classification of Roads by Road Terrain</b> .....	14
<b>2.3.4 Classification of Roads According to Road Construction Authority</b> .....	15
<b>2.4 Road Pavement</b> .....	15
<b>2.4.1 Types and Functions of Road Pavement Layers</b> .....	15
<b>2.4.2 Types of Road Pavement Damage</b> .....	16
<b>2.4.3 Causes of Road Damage</b> .....	16

2.4.4	Flexible Pavement Layer Structure .....	17
2.4.5	Types of Flexible Pavement Damage .....	18
2.5	Traffic Volume .....	22
2.6	Road Maintenance .....	23
2.7	Pavement Condition Assessment System According to Bina Marga .....	24
2.8	Repairing Method .....	28
<b>CHAPTER III .....</b>		<b>33</b>
<b>RESEARCH METHODOLOGY .....</b>		<b>33</b>
3.1	Flowchart .....	33
3.2	Location of Research .....	35
3.3	Preliminary Survey Tools and Implementation .....	35
<b>CHAPTER IV .....</b>		<b>39</b>
<b>RESULTS AND DISCUSSIONS .....</b>		<b>39</b>
4.1	Overview .....	39
4.2	Road Geometric .....	39
4.2.1	Longitudinal Pieces .....	40
4.3	Data Analysis .....	41
4.3.1	Analysis of Highway .....	41
4.3.2	Calculation of the Percentage of Road Pavement Damage. ....	42
4.3.4	Handling Assessment Priority .....	107
<b>CHAPTER V .....</b>		<b>111</b>
<b>CONCLUSION AND SUGGESTION .....</b>		<b>111</b>
5.1	Conclusion .....	111
5.2	Suggestion .....	111
<b>BIBLIOGRHAPY .....</b>		<b>113</b>
<b>ATTACHMENT I .....</b>		<b>115</b>
<b>ATTACHMENT II .....</b>		<b>119</b>
<b>ATTACHMENT III .....</b>		<b>121</b>



## **List OF FIGURE**

Figure 3. 1 Flow Chart .....	34
Figure 3. 2 Research Location.....	35
Figure 4. 1 Longitudinal Pieces Seen Over Teuku Umar Tuban Road .....	40
Figure 4. 2 Transverse pieces Image Seen Over Teuku Umar Tuban Road .....	40
Figure 4. 3 Diagram van about percentage of damage.....	87
Figure 4. 4 Graphic of Road Condition Value .....	107
Figure 4. 5 Priority Order.....	110
Figure A 1 Aligator Cracking.....	115
Figure A 2 Transversal Cracking .....	115
Figure A 3 Patholes .....	116
Figure A 4 Depression .....	116
Figure A 5 Ravelling .....	117
Figure A 6 Patching .....	117
Figure A 7 Random Cracking .....	118
Figure A 8 Patholes Measurement Area .....	119
Figure A 9 Measurement of Road Damage Length .....	119
Figure A 10 Calculation Area of Crocodile Cracking.....	120
Figure A 11 Calculation Area of Damage.....	120