

FINAL ASSIGNMENT

**STABILIZATION AGGREGATE USING BUTON NATURAL ROCK
ASPHALT FOR HOT MIX ASPHALT MIXTURE**

**Proposed to Fulfill Academic Requirement For
Civil Engineering Degree in Faculty
of Engineering of UNISSULA**



Drafted By:

KURNIA ADI PRASETYO N

MAULANA ONY KUSUMA

NIM :30201303508

NIM : 30201303522

DEPARTMENT OF CIVIL ENGINEERING

FACULTY OF ENGINEERING

UNIVERISTAS ISLAM SULTAN AGUNG SEMARANG

2017



**YAYASAN BADAN WAKAF SULTAN AGUNG
UNIVERSITAS ISLAM SULTAN AGUNG (UNISSULA)
FAKULTAS TEKNIK**

Jalan Raya Kaligawe KM. 4 Po. BOX 1054 Telp. (024) 6583584 Ext. 507 Semarang 50112

APPROVAL PAGE

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NIM : 30201303508

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Have been agreed at, August , 2017

Supervisor

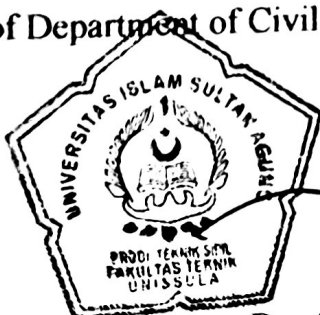
Co - Supervisor

Ir. H. Gatot Rusbintardjo, M.R. Eng MSc., Ph.D

Ir. H. Djoko Susilo Adhy, M.T.

Approved By,

Head of Department of Civil Engineering, Faculty of Engineering UNISSULA


Dr. Abdul Rochim, S.T., M.T.



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**BERITA ACARA BIMBINGAN TUGAS AKHIR
Nomor: 21 / A.2 / SA-T / VIII / 2017**

Pada hari ini, Jumat tanggal 11 Agustus 2017 berdasarkan Surat Keputusan Rektor Universitas Islam Sultan Agung (UNISSULA) Semarang perihal penunjukan Dosen Pembimbing I dan Dosen Pembimbing II :

1. Nama : Ir. H. Gatot Rusbintardjo, M.R.Eng MSc., Ph.D
Jabatan Akademik : Dosen Fakultas Teknik Unissula
Jabatan : Lektor
2. Nama : Ir.H. Djoko Susilo Adhy, M.T.
Jabatan Akademik : Dosen Fakultas Teknik Unissula
Jabatan : Dosen Pembimbing II

Dengan ini menyatakan bahwa mahasiswa yang tersebut dibawah ini telah menyelesaikan bimbingan Tugas Akhir :

1. Nama : Kurnia Adi Prasetyo Negoro
NIM : 30.2013.03.508
Jurusan : Teknik Sipil
2. Nama : Maulana Ony Kusuma
NIM : 30.2013.03.522
Jurusan : Teknik Sipil

Judul : Stabilization Aggregate Using Buton Natural Rock Asphalt For Hot Mix Asphalt Mixture. Dengan tahapan sebagai berikut :

No.	Tahapan	Tanggal	Keterangan
1	Penunjukan Dosen Pembimbing	2 April 2017	-
2	Pengajuan Judul TA	4 April 2017	-
3	Penelitian/Pengumpulan Data	12 April 2017	-
4	Analisis Data	29 Mei 2017	-
5	Penyusunan Laporan	9 Juni 2017	-
6	Selesai Laporan	8 Agustus 2017	ACC

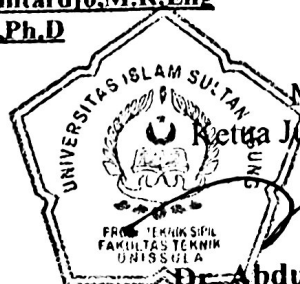
Demikian Berita Acara Bimbingan Tugas Akhir ini dibuat untuk diketahui dan dipergunakan seperlunya oleh pihak – pihak yang berkepentingan.

Dosen Pembimbing I

Ir. H. Gatot Rusbintardjo, M.R.Eng
MSc., Ph.D

Dosen Pembimbing II

Ir.H. Djoko Susilo Adhy, M.T.



Mengetahui,
Ketua Jurusan Teknik Sipil

Dr. Abdul Rochim, ST., MT

PERNYATAAN

Yang bertanda tangan di bawah ini :

Nama : 1. Kurnia Adi Prasetyo N (30201303508)

2. Maulana Ony Kusuma (30201303522)

Jurusan : Teknik Sipil

Dengan ini menyatakan bahwa Tugas Akhir/Skripsi saya yang berjudul : STABILIZATION AGGREGATE USING BUTON NATURAL ROCK ASPHALT FOR HOT MIX ASPHALT MIXTURE adalah karya ilmiah yang bebas dari plagiat jika kemudian hari terbukti terdapat plagiat dalam Tugas Akhir/Skripsi ini maka saya bersedia menerima sanksi sesuai dengan peraturan yang berlaku.

Semarang, 7 September 2017

Oleh :

Penyusun I



Kurnia Adi Prasetyo N

NIM . 3020130308

Penyusun II




Maulana Ony Kusuma

NIM . 30201303522

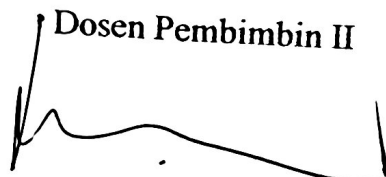
Disetujui :

Dosen Pembimbing I



(Ir. H. Gatot Rusbintardjo, M.R.Eng MSc., Ph.D)

Dosen Pembimbing II



(Ir.H. Djoko Susilo Adhy, M.T.)

*“I’m dedicated this final assignment to the knowledge of highway engineering as
my worship to Allah Subhana wa Ta’ala*

ACKNOWLEDGEMENTS

Alhamdulillahirabbil'alamiin, Innalhamdalillah nahmaduhu wa nasta-'inyuhu. Upon *Ridho* and *Rahmat Allah Subhana wa Ta'ala* this research and final assignment report can be completed.

In preparing this report, I was in contact with many people, researchers, academicians, and practitioners. They have contributed towards my understanding and thoughts. In particular, I wish to express my sincere appreciation to my main research and thesis supervisor, Ir. Gatot Rusbintardjo, M.R.Eng.Sc., Ph.D., for his encouragement, guidance, criticism, and friendship. I am also very thankful to my co-supervisor Ir. H. Djoko Susilo Adhy, MT. for his guidance, advice and motivation. Without their continued support and interest, this final assignment report would not have been the same as presented here.

My special thanks are addressed to Dean of the engineering Faculty of UNISSULA Bapak Ir. H. Prabowo Setiawan, M.T., Ph.D. and Head of Department of Civil Engineering, Faculty of Engineering UNISSULA Bapak Dr. Abdul Rochim, S.T., M.T., for permission, to take final assignment as the requirement for reaching Bachelor Degree in Civil Engineering in Faculty of Engineering UNISSULA.

I would also like to thank to all technicians in Road Research Laboratory of Faculty of Engineering of UNISSULA for their help and cooperation.

Very special thanks are given to my beloved parents Mr. Masyhudi Sutjipto and Mrs. Murtini, my brothers Kurnia Agung Oktavianta and Lintang Dewi Maharani. Their patience, prayers and understanding during this study were always a blessing.

MOTTO AND DEDICATION

MOTTO :

“On this day every soul be rewarded with what it earned, no one harmed today.
Allah is swift at reckoning”.

(QS. Al Ghafir : 17)

“Behold along with the difficulty there is relief. Therefore when you're done (do something else). And hope to the Lord.

(QS. Al Insyirah : 6-8)

“Everything went well even though everything seems to go wrong at all if you are honest with yourself. Instead, everything is not good for you even if everything looks right, if you are not honest with yourself”.

(Mahatma Gandhi)

“Humans are given the ability by God for hope and expect, till then he hopes to take the negligence of his eyelids, so as to witness the true self. And who see the truth of real life for himself, for all human beings and the universe”

(Kahlil Gibran)

DEDICATION:

◆ Kurnia Adi Prasetyo N

I dedicate this final project to:

- ❖ Both of my parents, Mr. Masyhudi Sutjipto and Mrs. Murtini, my brother Kurnia agung oktavianta, and Lintang Dewi Maharani, and and my big family that has provided material and spiritual encouragement.
- ❖ UNISSULA Lecturers Faculty of Engineering Department of Civil Engineering who have shared their knowledge.
- ❖ Maulana Ony Kusuma as colleagues who have worked hard, fought together to resolve this Final.
- ❖ Friends UNISSULA Force Civil Engineering 2013, Putri Sanggita, Latashifalul, Widya Ayu P, Boim, and other comrades who could not mention who have helped the completion of this final report.

◆ Maulana Ony Kusuma

I dedicate this final project to:

- ❖ Both of my parents, Mr. Kusmadji and Mrs. Ponirah, my sisters Indriani Kusuma, Lely Kusuma Dewi, and my big family that has provided material and spiritual encouragement.
- ❖ UNISSULA Lecturers Faculty of Engineering Department of Civil Engineering who have shared their knowledge.
- ❖ Kurnia Adi Prasetyo as colleagues who have worked hard, fought together to resolve this Final.
- ❖ Friends UNISSULA Force Civil Engineering 2013, Putri Sanggita, Latashifalul, Widya Ayu P, Boim, and my special friends Indra K, and Adrian Halis, Chepy N and other comrades who could not mention who have helped the completion of this final report.