

March 2026

PORTFOLIO

SHIFA NADYA PUTRI

Environmental Engineering Fresh Graduate from
Bandung Institute of Technology (**ITB**)





TABLE OF CONTENTS

GET TO KNOW ME

→ Page 3

PROJECTS

→ Page 4

WORK EXPERIENCES

→ Page 18

ORGANIZATION
EXPERIENCES

→ Page 21

CERTIFICATES

→ Page 25



HELLO, I'M SHIFA NADYA!

Fresh graduate from environmental engineering with hands-on experience in **environmental compliance, regulatory monitoring, and sustainability reporting.**

Skilled in **supporting environmental audits**, managing compliance document, and ensuring adherence to environmental regulations such as **PROPER.**

Ready to **learn and grow** through new journey and experiences in the future.



#1 FINAL PROJECT RESEARCH

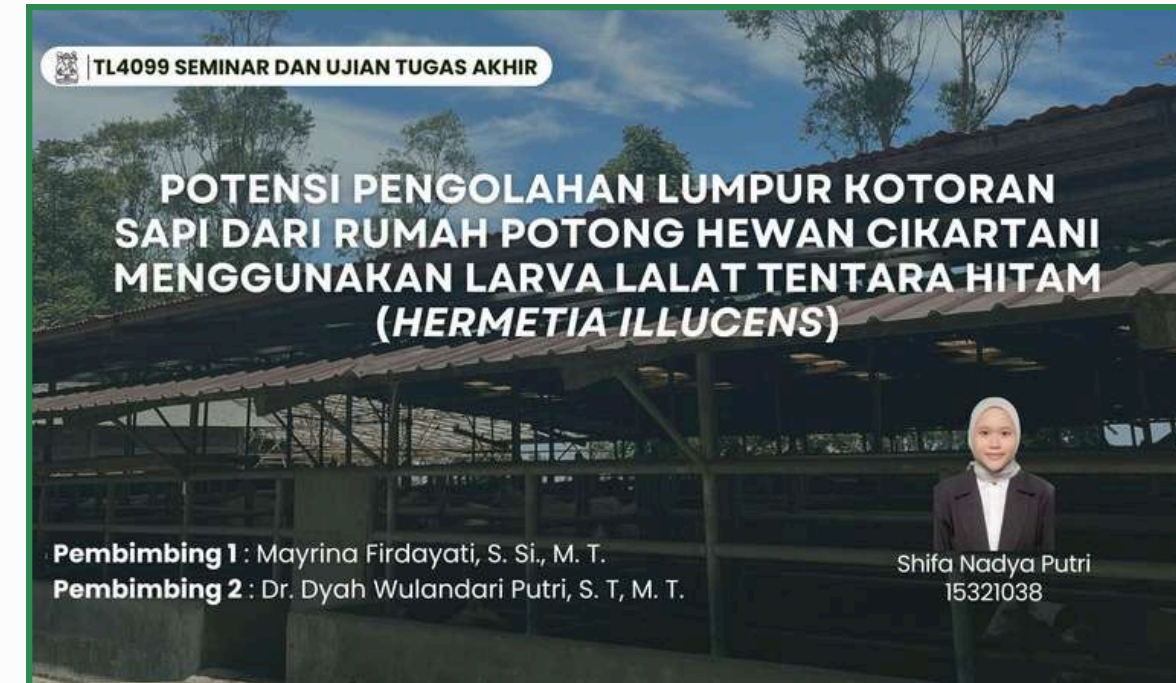
“The Potential of Processing Cattle Manure Sludge from Cikartani Slaughterhouse Using Black Soldier Fly Larvae (*Hermetia illucens*)”

Analyzing the effects of nutritional (adding cattle blood) and fermentation variations on BSF larvae growth based on **parameters.**

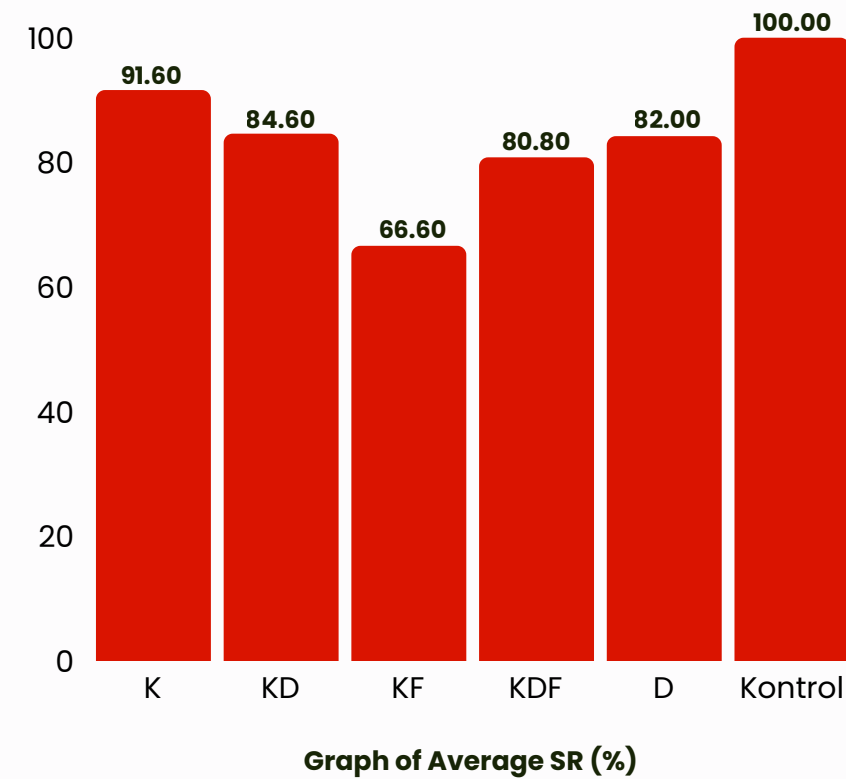
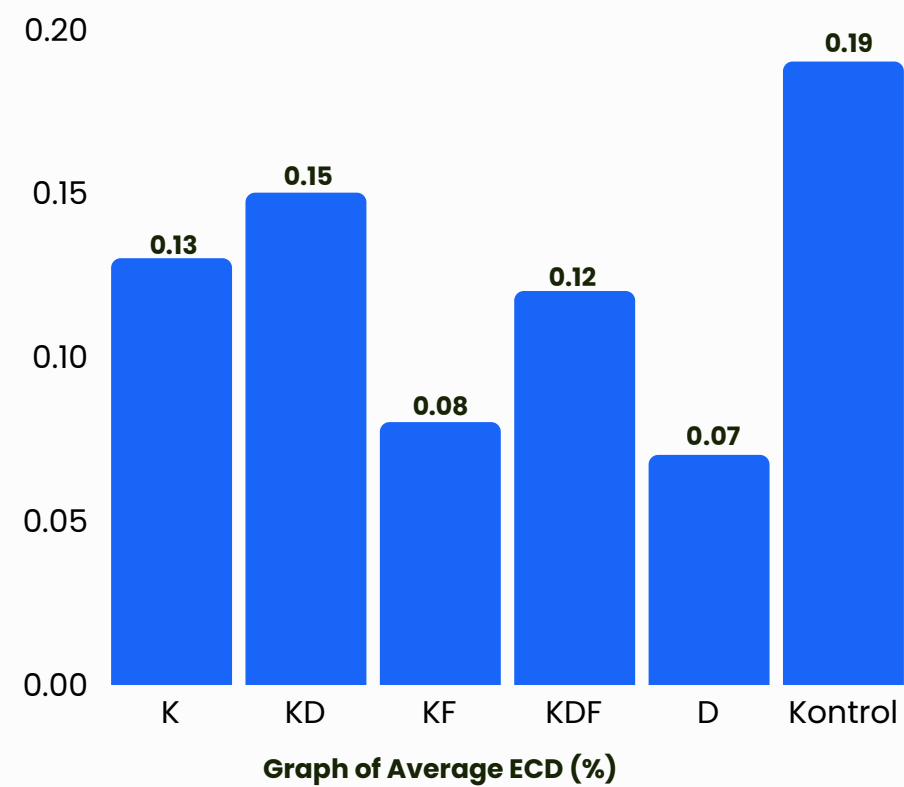
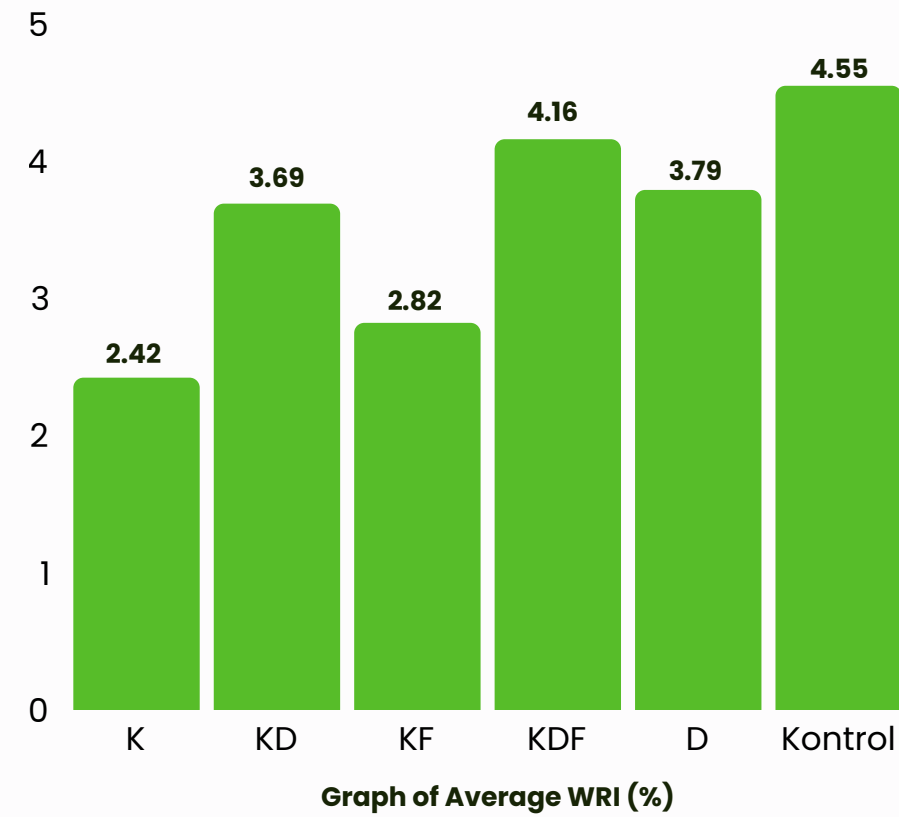
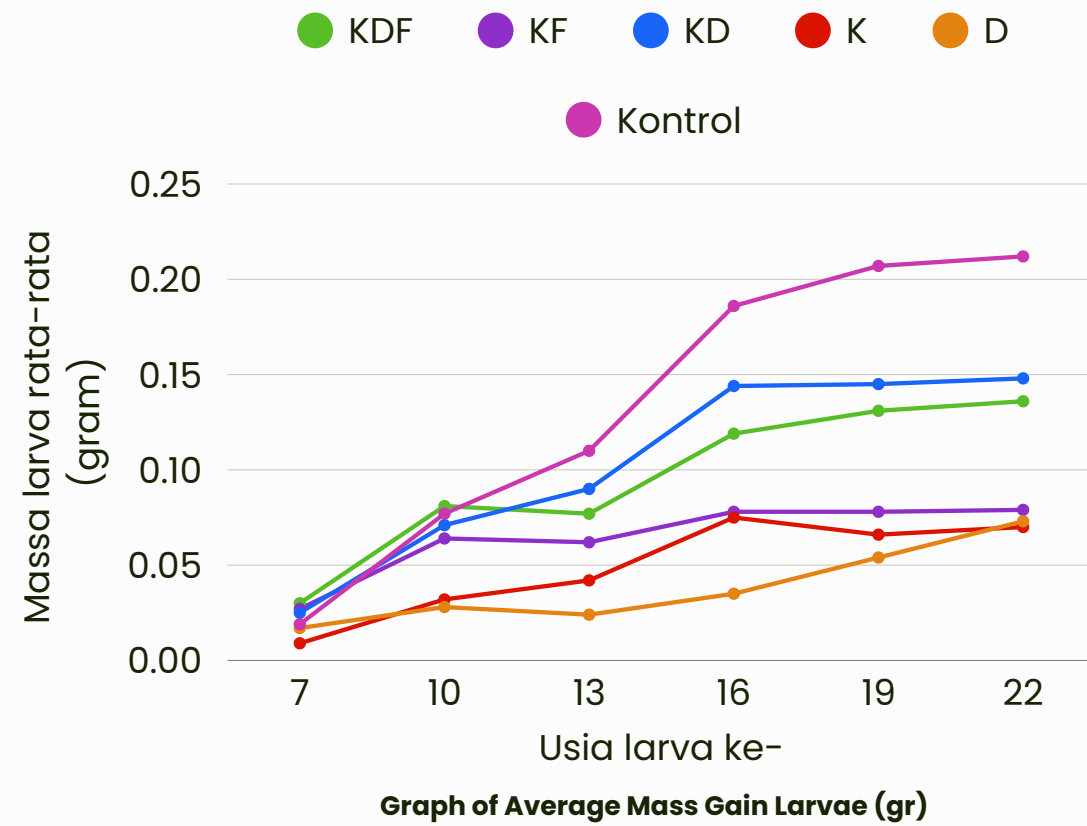
- Larval weight gain
- Waste reduction index (WRI)
- Efficiency of conversion of digested food (ECD)
- Survival rate (SR)

Assessing the potential of BSF larvae as a supplement in cattle feed and residue as a component of solid organic fertilizer based on **regulations**

- RSNi 3148.2:2024 about specifications for fattening cattle feed
- SNI 7763:2018 about specifications for solid organic fertilizer



PERPUSTAKAAN DIGITAL ITB	
POTENSI PENGOLAHAN LUMPUR KOTORAN SAPI DARI RUMAH POTONG HEWAN CIKARTANI MENGGUNAKAN LARVA LALAT TENTARA HITAM (HERMETIA ILLUCENS)	
50 views Save At List	
Penulis :	Shifa Nadya Putri (15321038)
Kontributor / Dosen Pembimbing :	Dr. Mayrina Firdayati, S.Si., M.T. Dr. Dyah Wulandari Putri, S.T, M.T.
Jenis Koleksi :	Tugas Akhir
Tahun Terbit :	2025
Penerbit :	Teknik Lingkungan
Fakultas :	Fakultas Teknik Sipil dan Lingkungan
Subjek :	Sanitary & municipal engineering
Kata Kunci :	darah sapi, fermentasi, kotoran sapi, larva BSF, RPH
Sumber :	
Staf Input/Edit :	Dr. Nugri Nugraha
File :	2 file
Tanggal Input :	15 Agu 2025



Statistical analysis revealed that blood supplementation improved larval growth and WRI, while fermentation enhanced larval growth, ECD, and survival rate.

Larvae showed no direct potential as cattle feed, while the residue demonstrated potential as an organic fertilizer component.



#2 ENVIRONMENTAL ENGINEERING DESIGN

“Uprating of Cisarua Water Treatment Plant Perumda Tirta Raharja”

Evaluated treatment units (coagulation, flocculation, sedimentation, filtration, disinfection, and reservoir) at Cisarua WTP – Perumda Tirta Raharja.

Developed detailed design of treatment units (coagulation, flocculation, sedimentation, filtration, disinfection, and reservoir)

Preparing the Budget Plan (RAB) for the uprating of the drinking water treatment plant at the Cisarua Water Treatment Plant of Perumda Tirta Raharja.

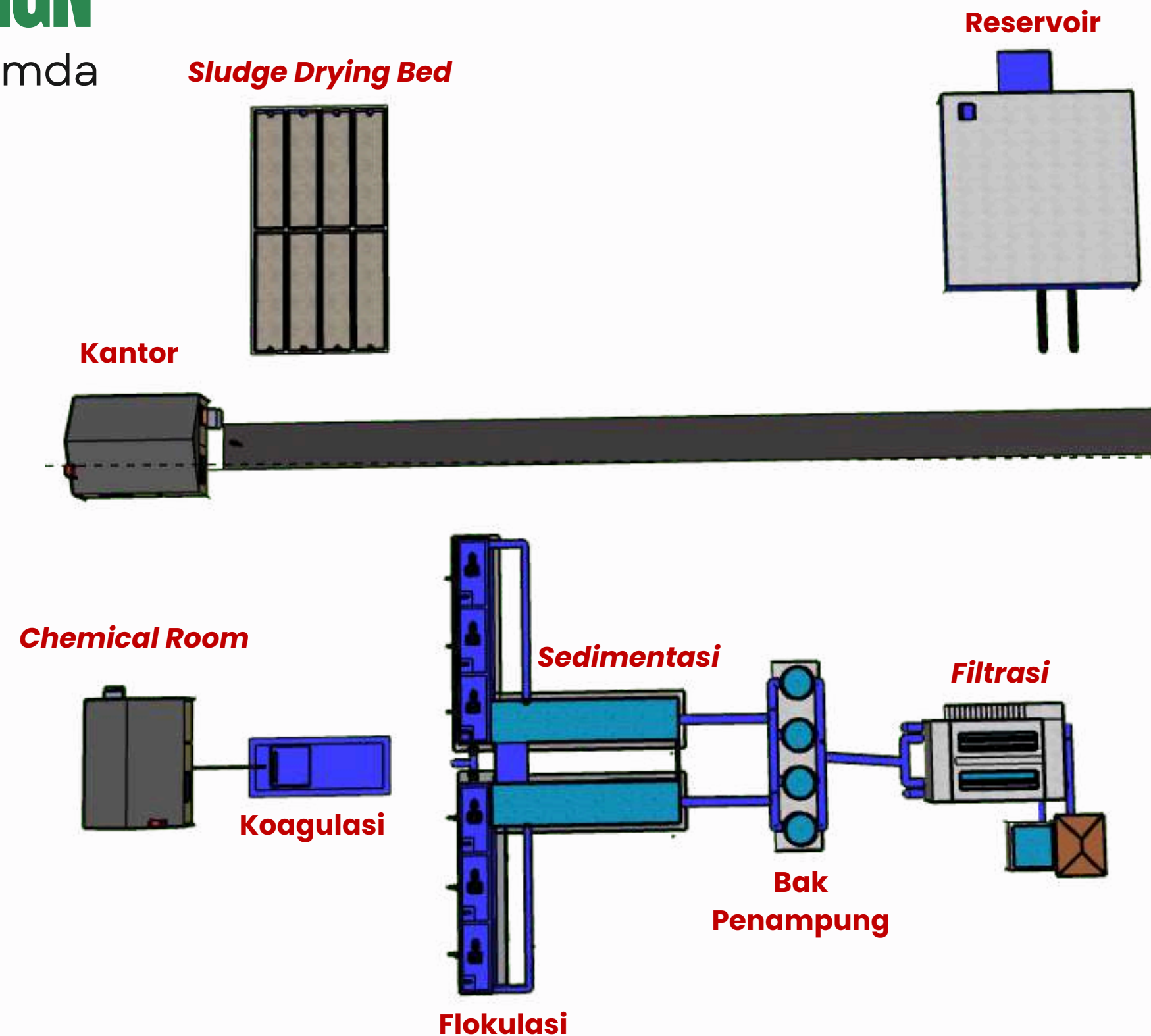


Figure of 3D Layout Design Result



Design of Cisarua Water Treatment Plant after uprating calculation:

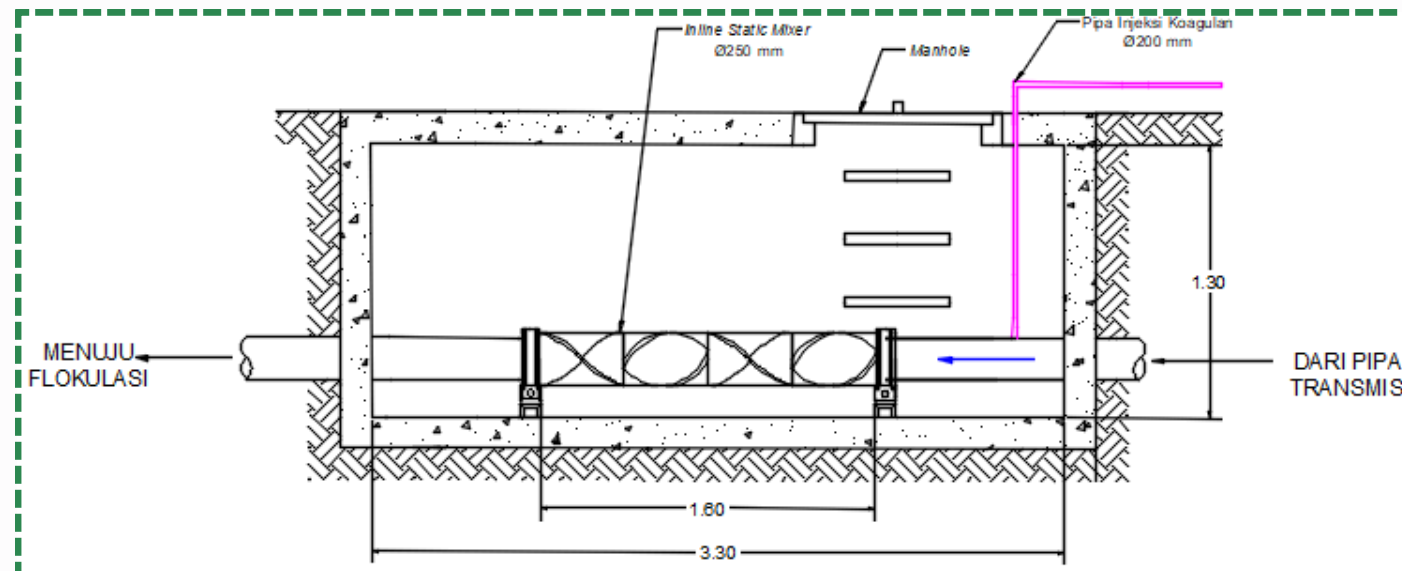


Figure of Coagulation Design

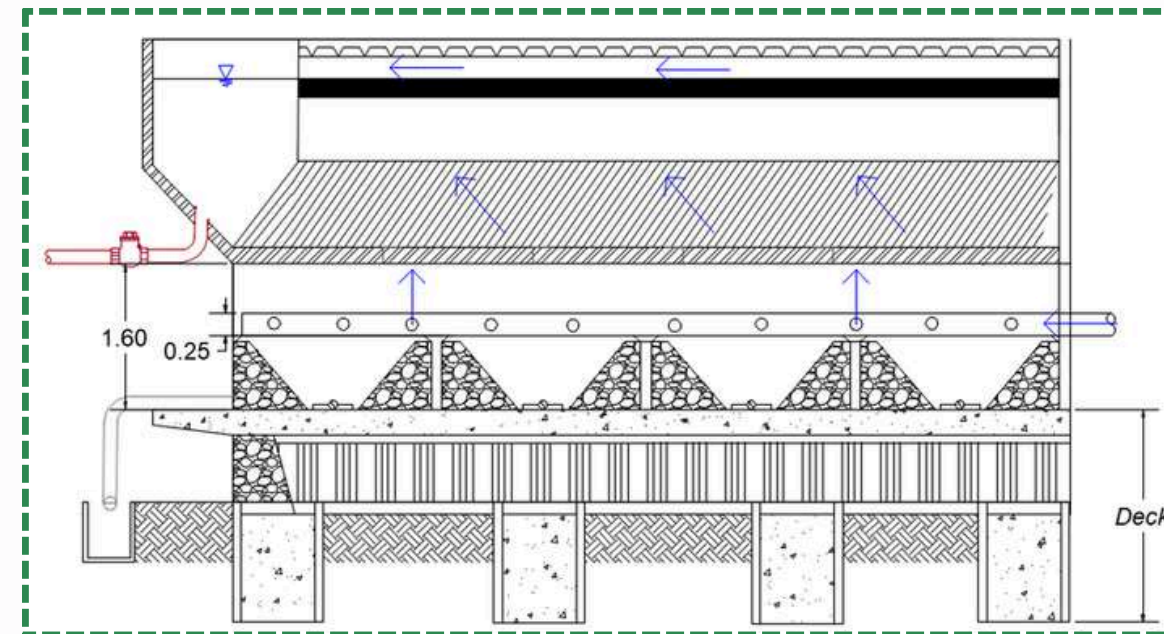


Figure of Sedimentation Design

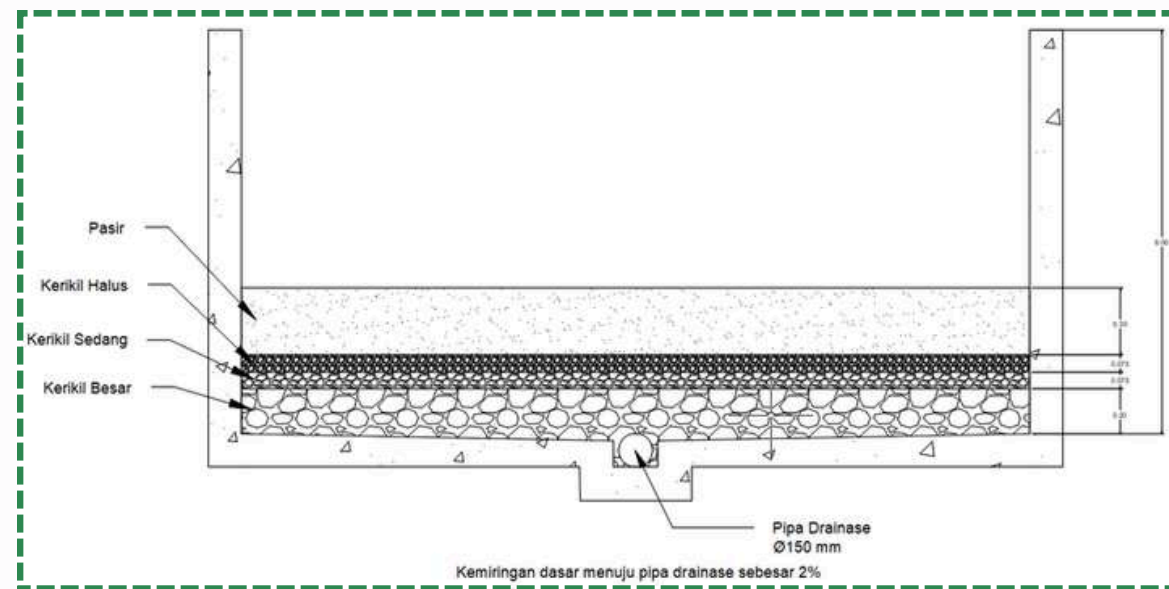


Figure of Sludge Drying Bed Design

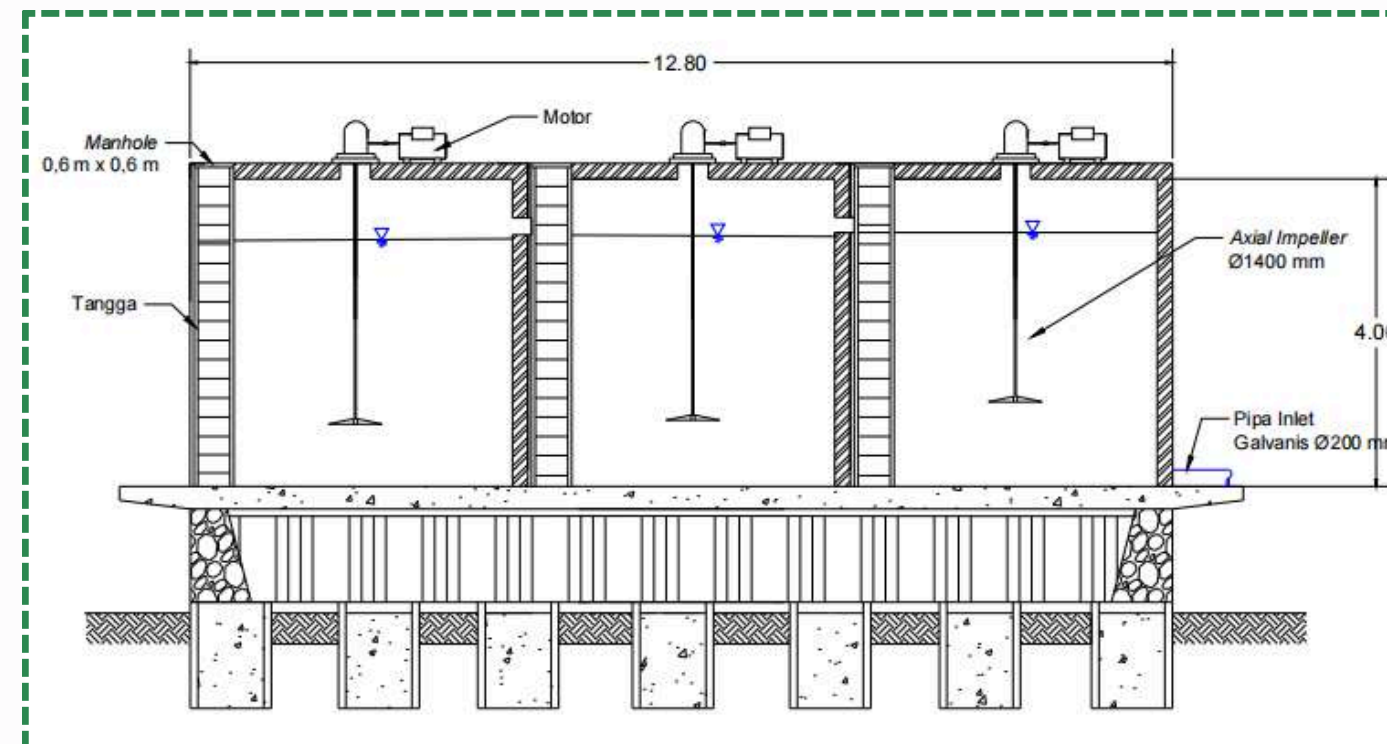


Figure of Flocculation Design

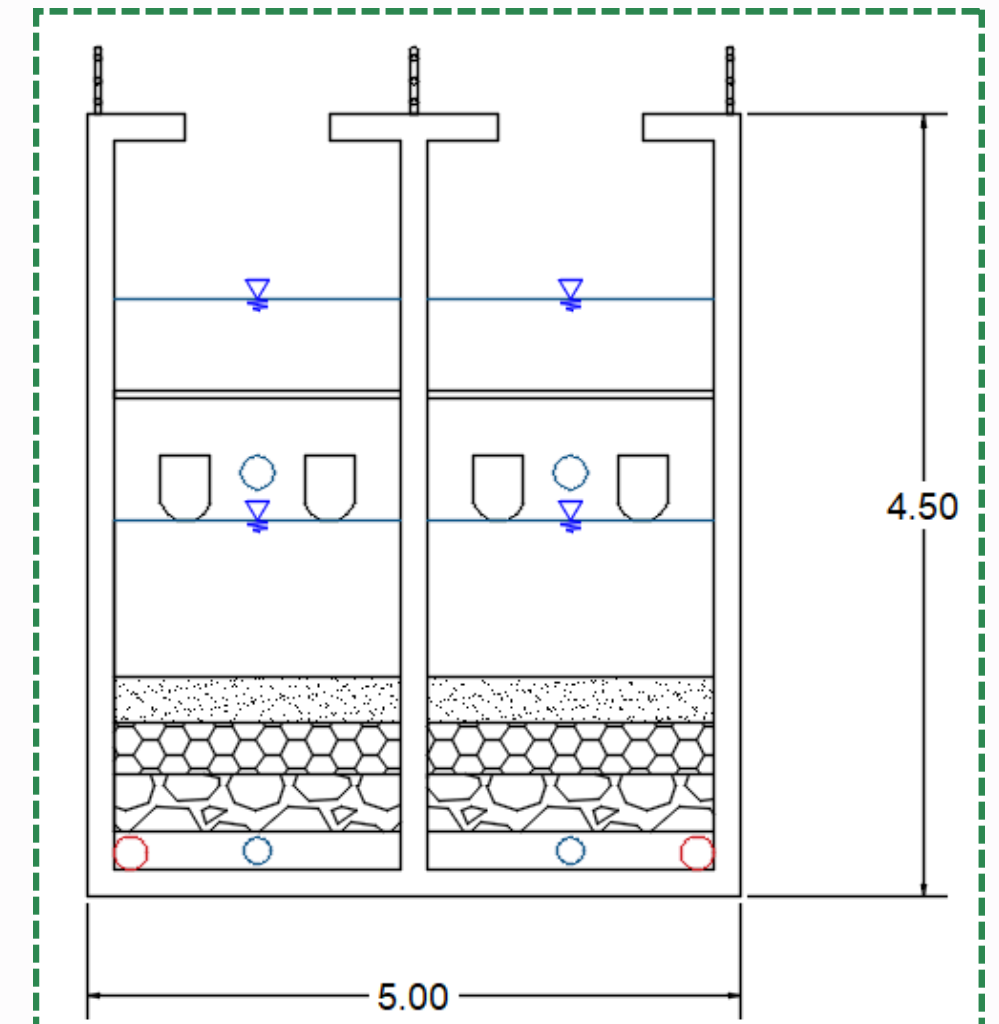


Figure of Filtration Design



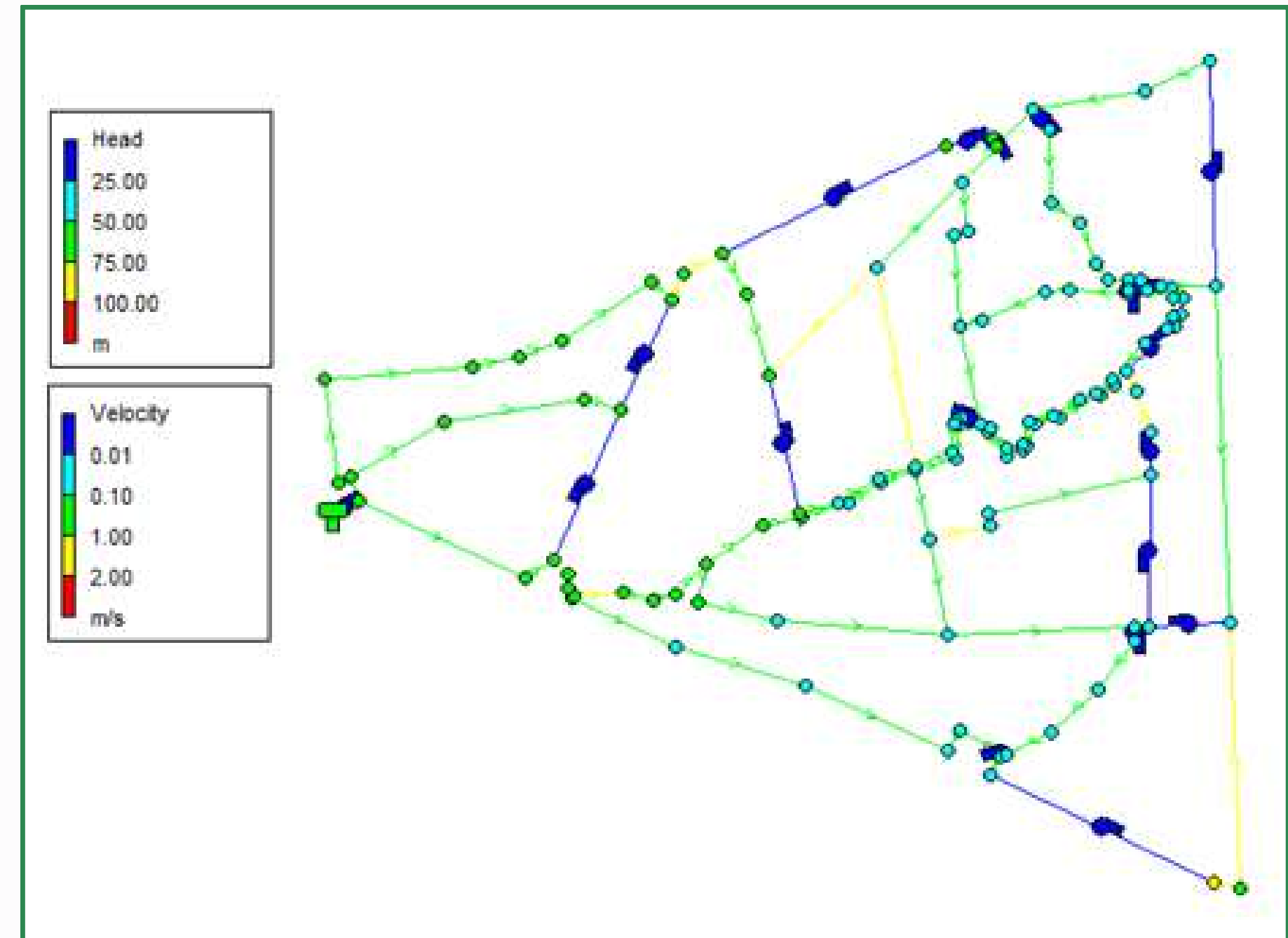
#3 COURSES PROJECT - WATER SUPPLY ENGINEERING

At Semarang Tengah District - PDAM Tirta Moedal

Estimated domestic and non-domestic water demand for the next 20 years, reaching over 3,000 m³/day.

Designed pipelines and fittings (bends, tees, flanges, valves) for water distribution across 15 subdistricts serving 34,000+ residents.

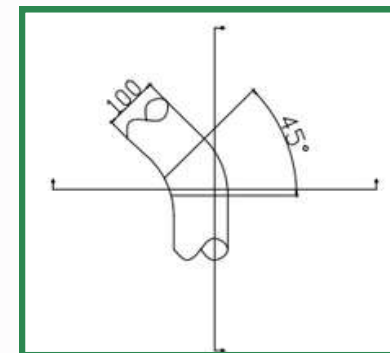
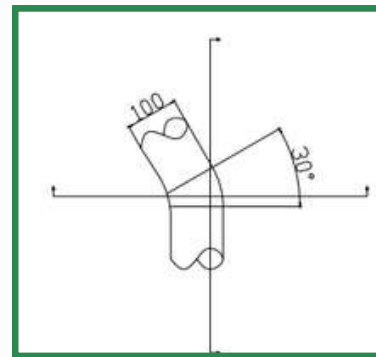
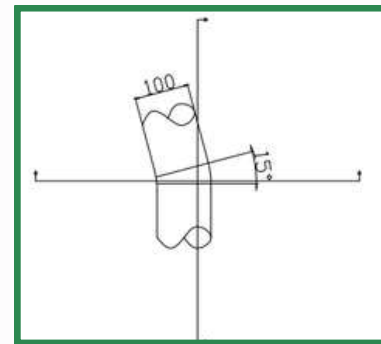
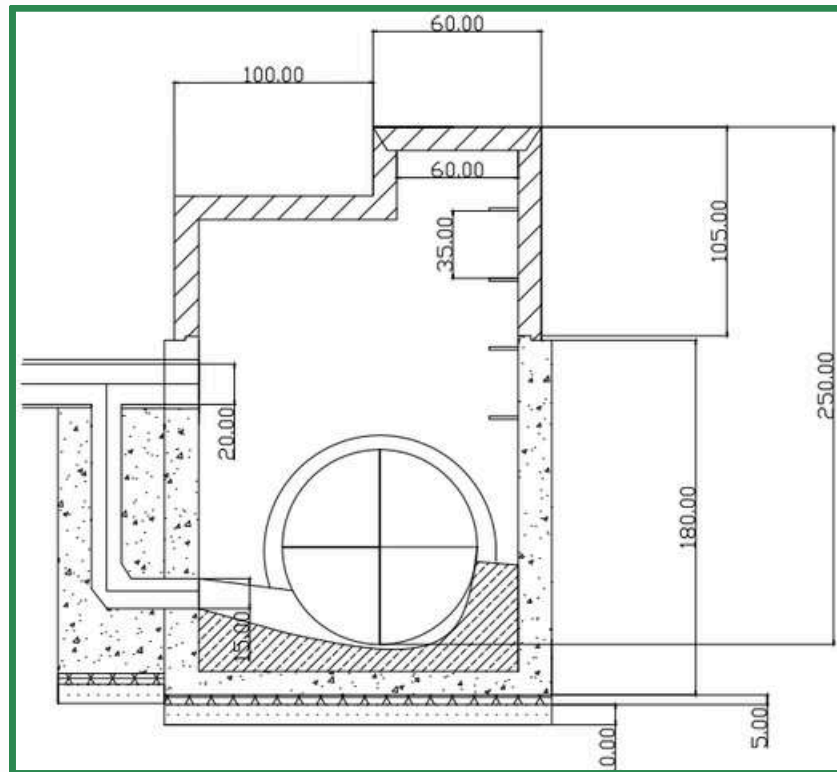
Simulated and evaluated water flow and distribution using EPANET 2.0 software.





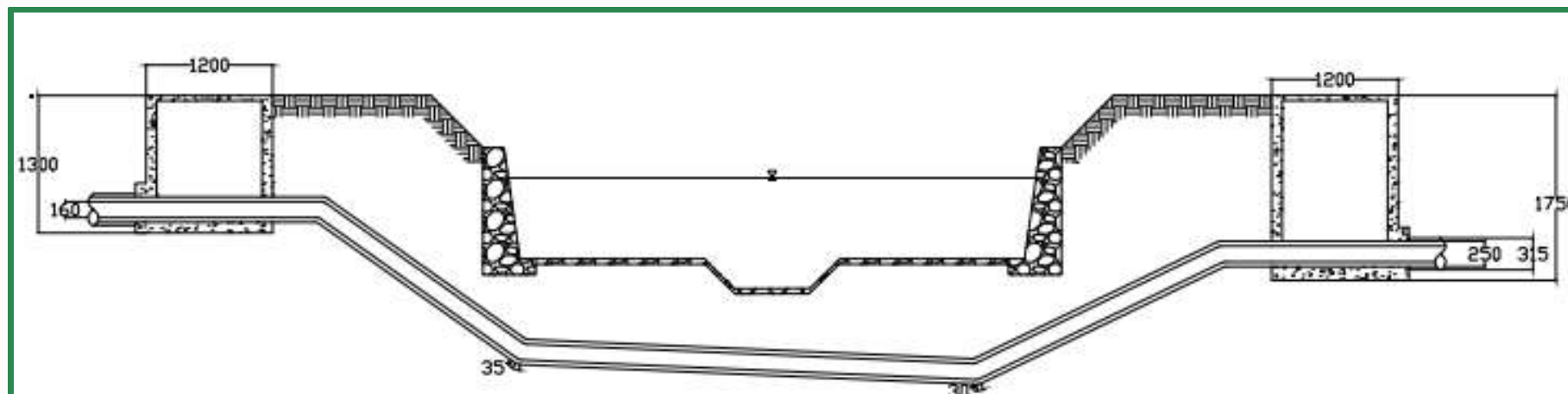
#4 COURSES PROJECT - SEWERAGE AND DRAINAGE SYSTEMS

- Sewerage System at Bandung Wetan District, Bandung



Projected domestic and non-domestic wastewater generation for the next 20 years, exceeding 3,000 m³/day.

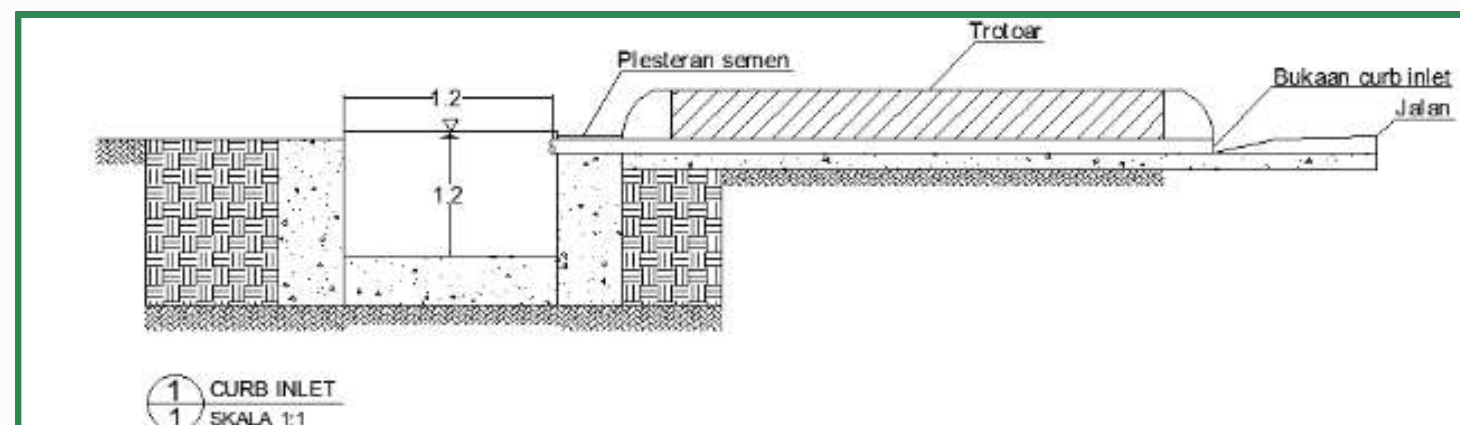
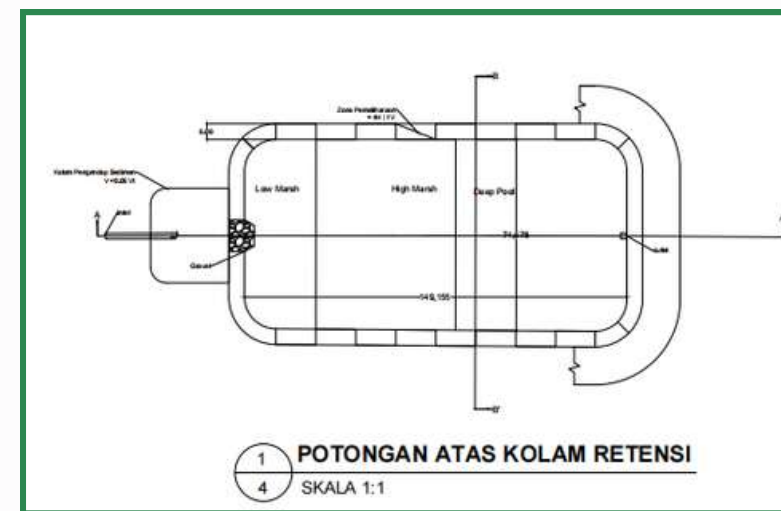
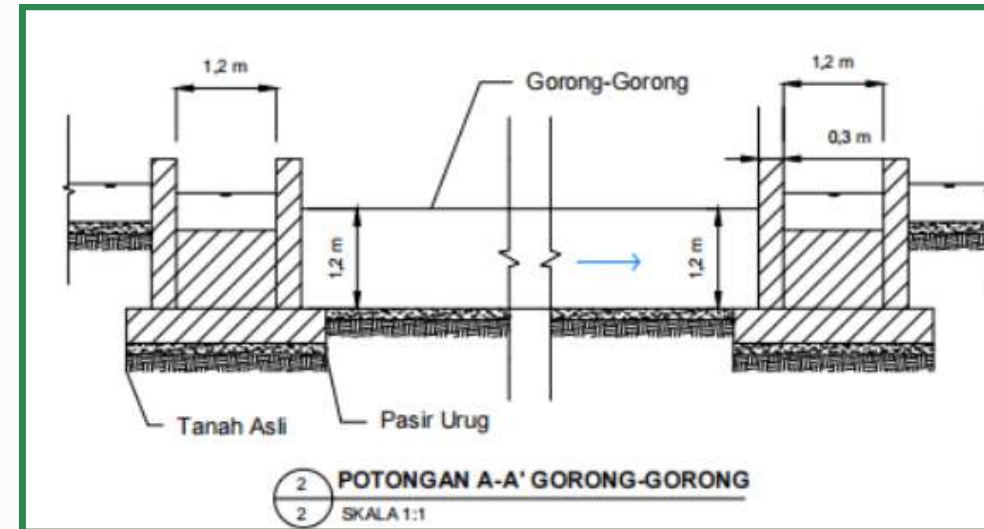
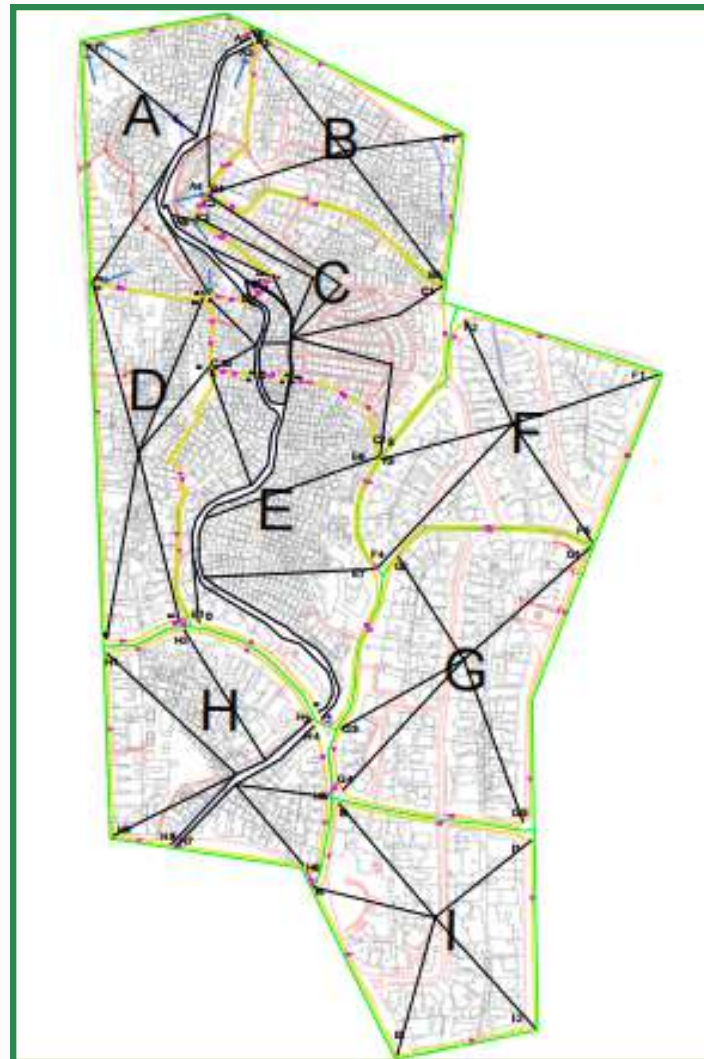
Designed the sewer pipeline and accessories (bends, junctions, manholes, siphon) for a system serving 24,000+ residents across 11 subdistricts.



Ensured compliance of the sewerage system design with Ministry of Public Works and Housing Regulation No. 4/2017.



- Drainage System at Bandung Wetan District, Bandung



Assessed rainfall intensity and runoff across 58 catchments in 9 subdistricts serving 24,000+ residents.

Designed the urban drainage pipeline and accessories (culverts, street inlet, retention pond, infiltration well).

Ensured compliance of the drainage system design with Ministry of Public Works and Housing Regulation No. 12/2014.



Simulated and evaluated stormwater flow and distribution using SWMM modeling software.



#5 COURSES PROJECT - CLEANER PRODUCTION

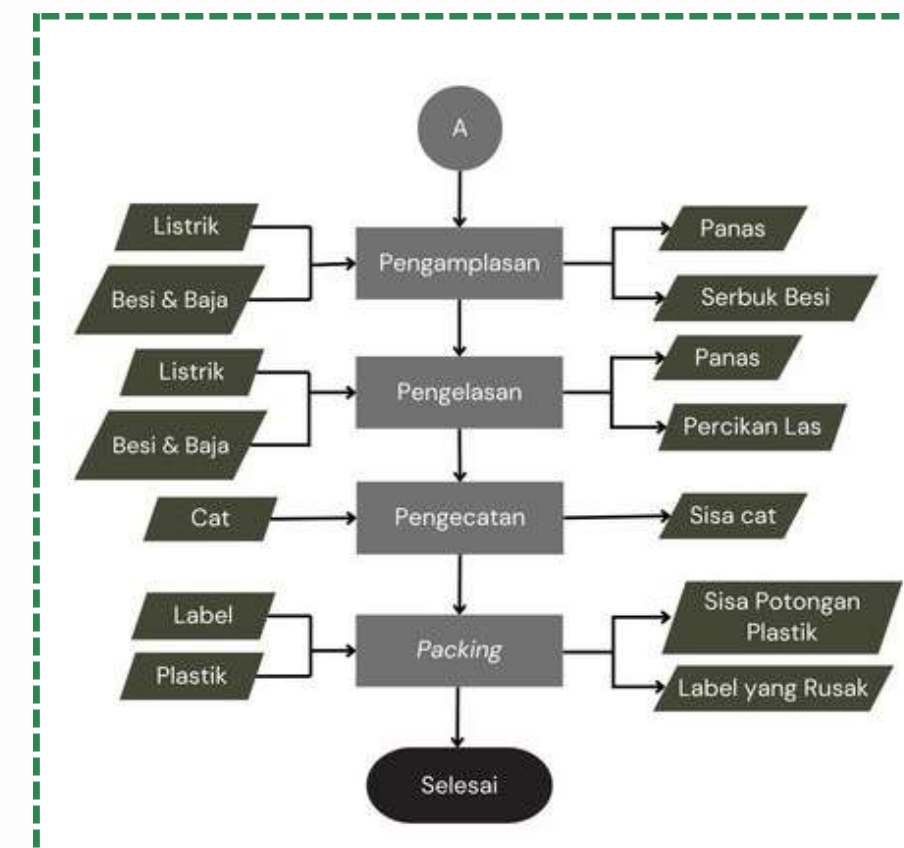
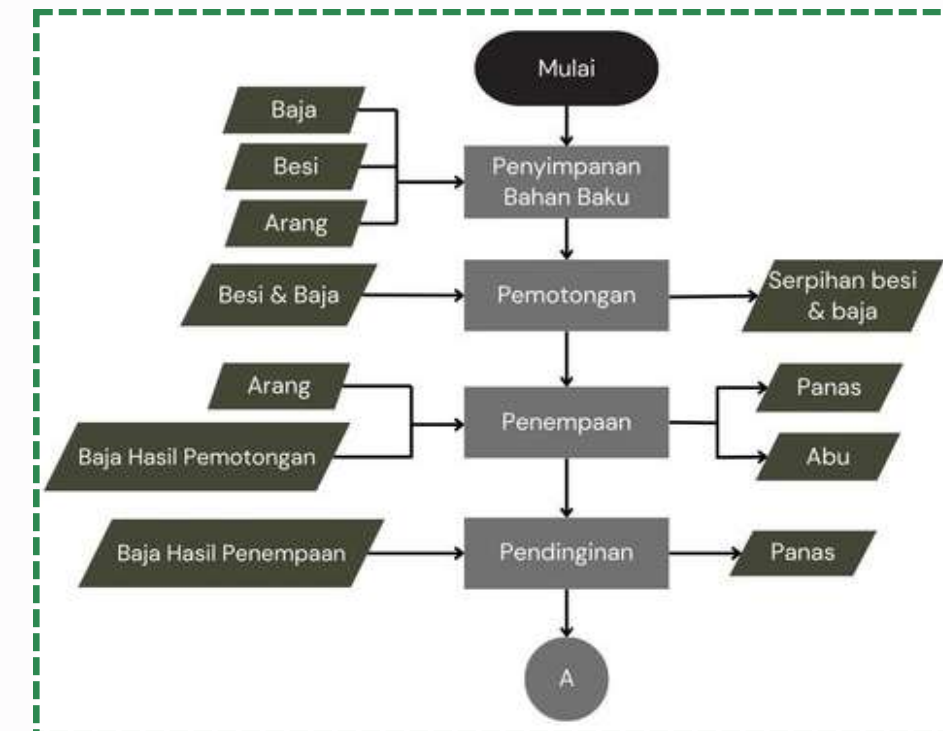
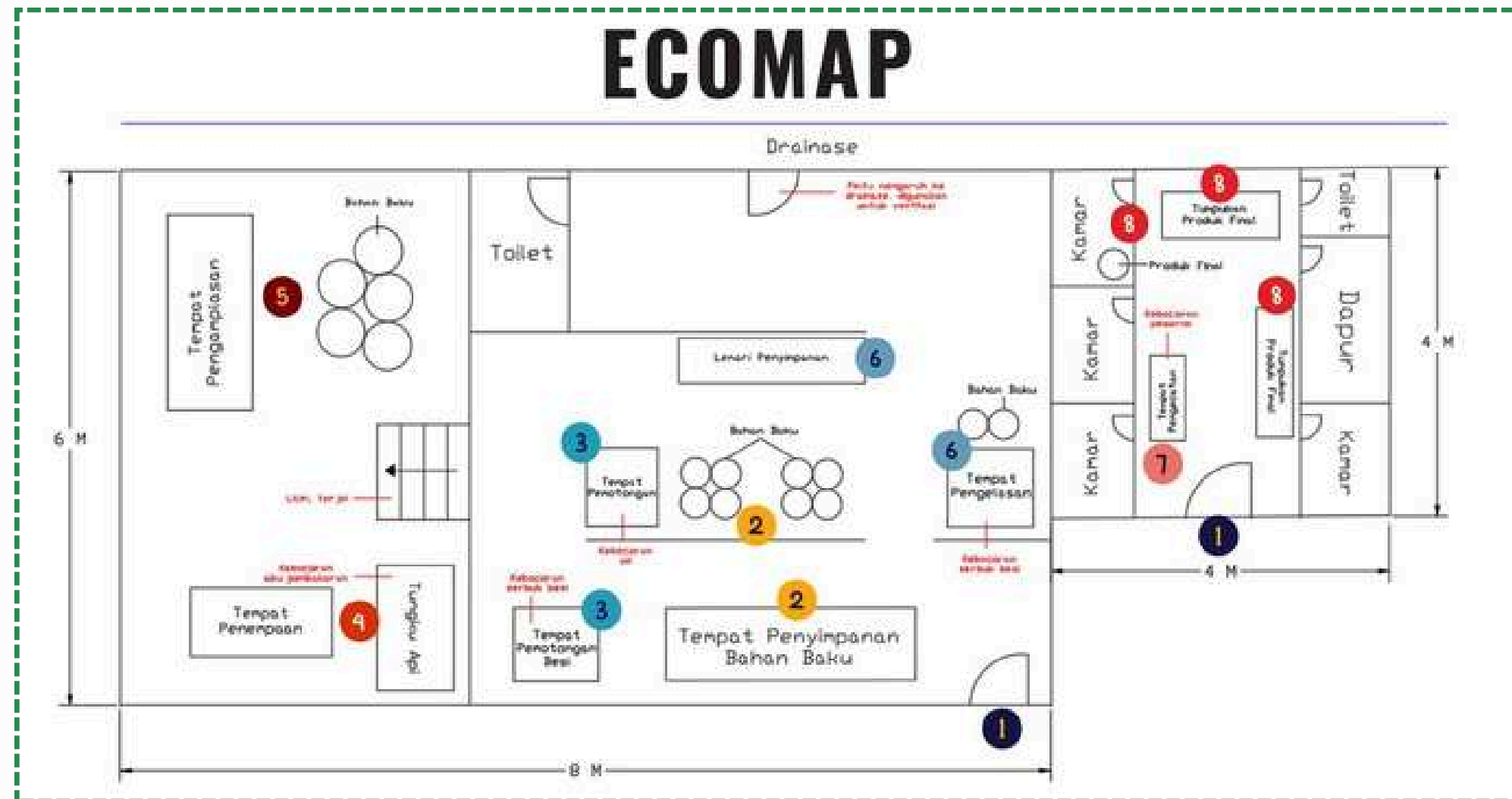
Case study of Kampung Pandai Besi | Owner: Aep Saepudin

Conducted field survey, eco-mapping, and mass balance analysis to identify waste and inefficiencies in the blacksmith production process.

Diagnosed root causes of environmental and safety issues, then proposed clean production strategies through good housekeeping and process control.

Recommended feasible solutions such as organized material storage, exhaust fan installation, PPE provision, and by-product utilization.





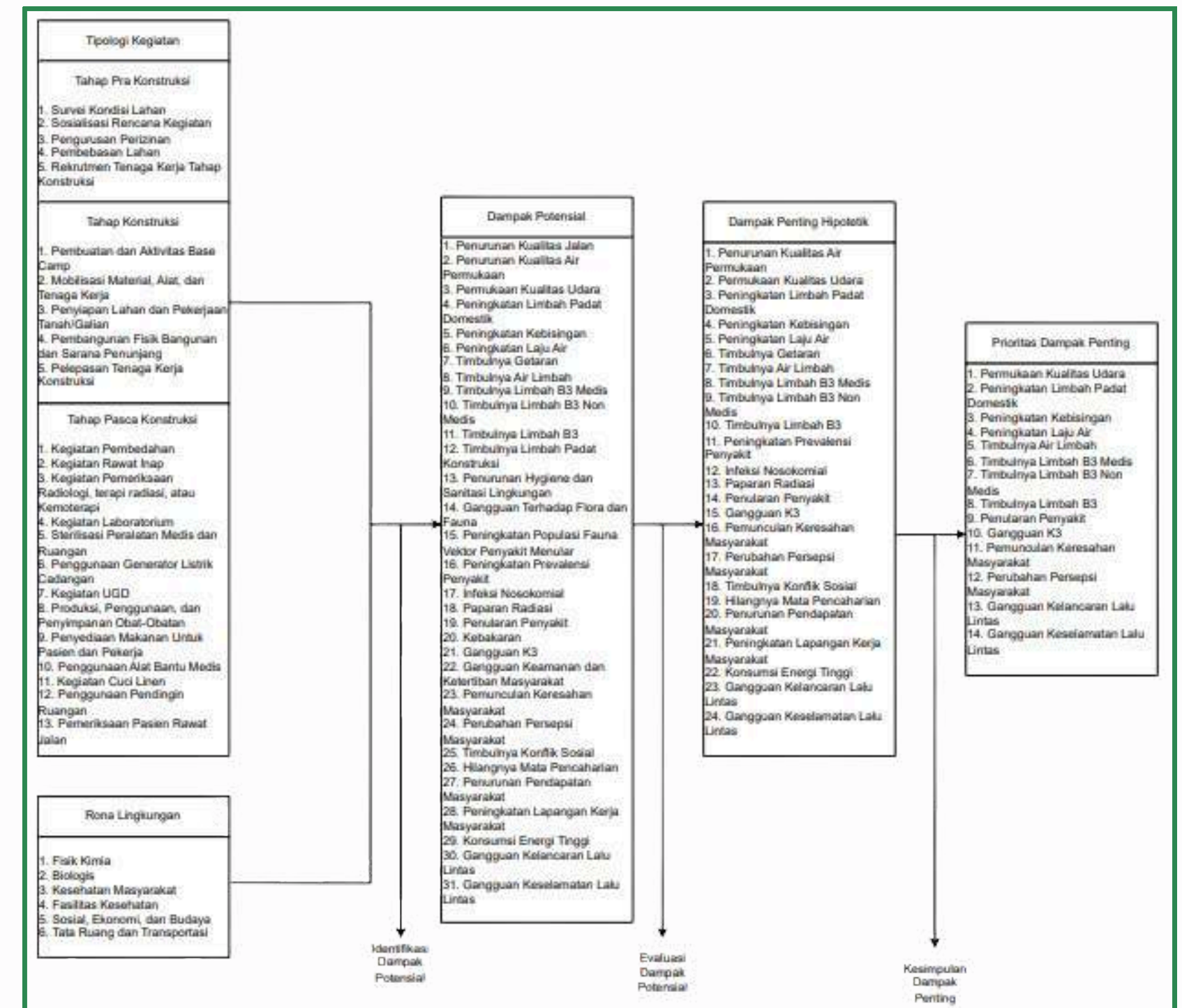
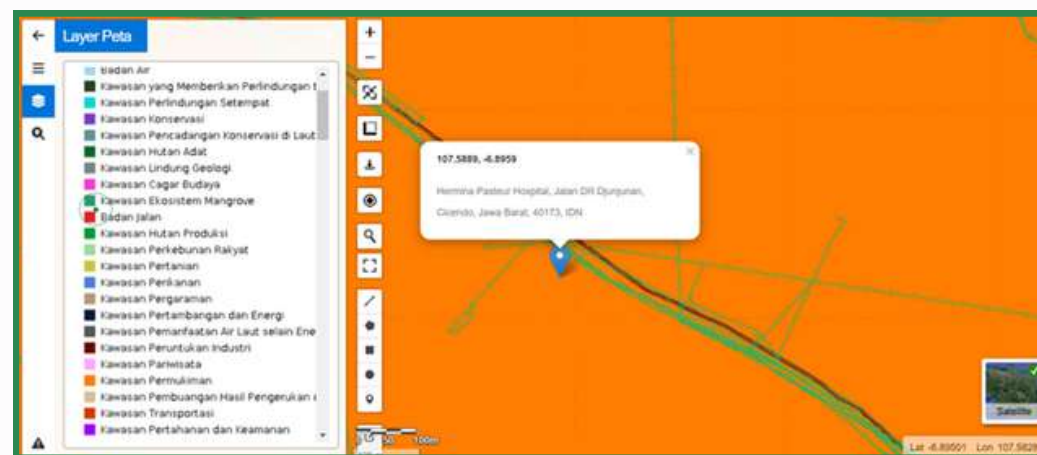


#6 COURSES PROJECT - ENVIRONMENTAL IMPACT ASSESMENT

Case study of Hermina Pasteur Hospital

Identified and evaluated the hypothetical significant impact matrix, study boundaries, and time frame for all phases of Hermina Hospital.

Assessed significant impacts of the construction phase, particularly on air quality and management aspects.





#7 COURSES PROJECT - CHARACTER EDUCATION

Project Community Engagement Camp at Cilengkrang District, Kabupaten Bandung

Identified waste management issues and conducted waste sorting awareness in Cilengkrang Village, RW 05.

Conducted a training workshop on BSF larva cultivation for organic waste management.

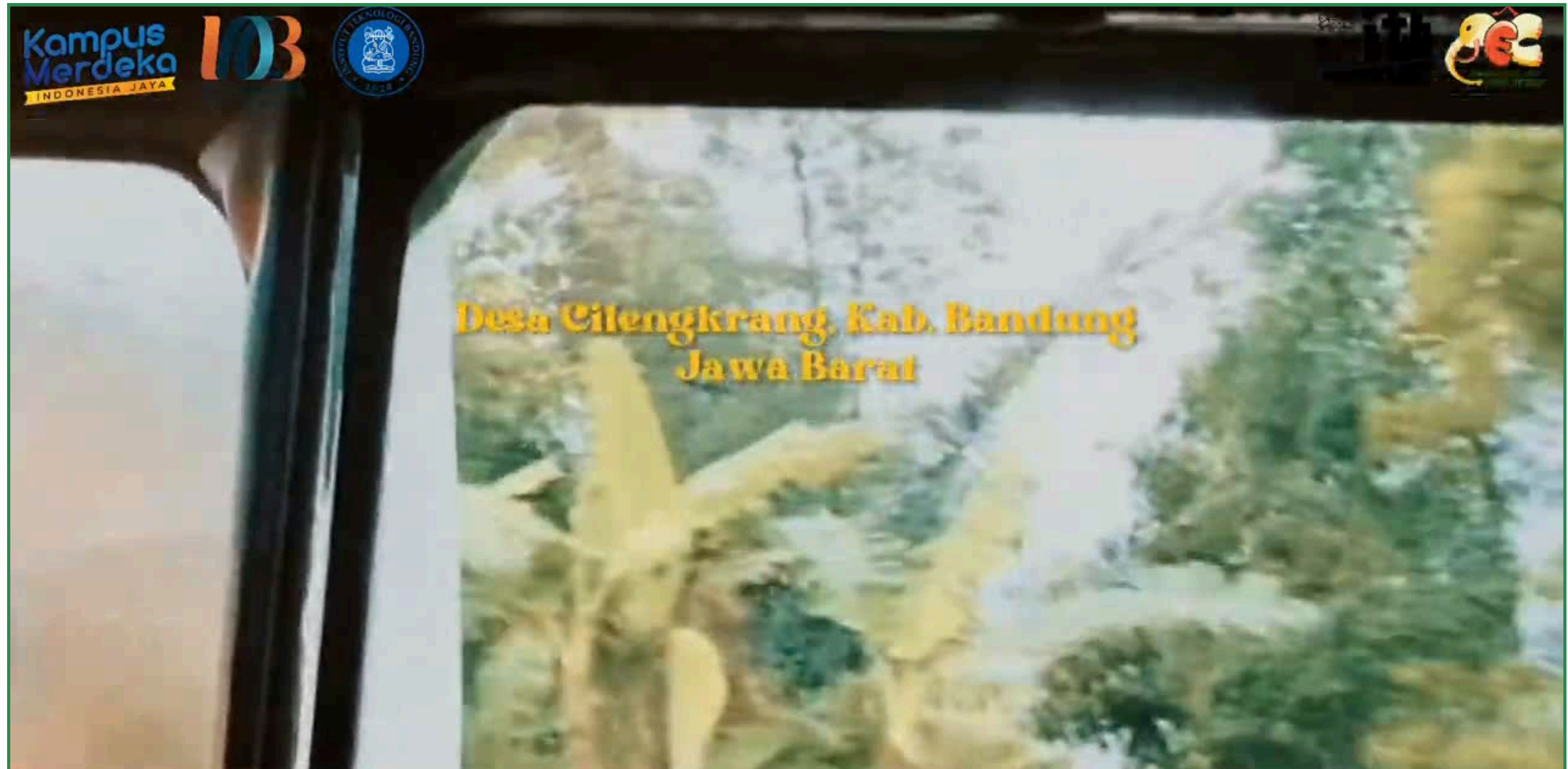
Procured 20 pairs of waste bins (organic and non-organic) for RW 05.

Assisted local residents in Cilengkrang Village with community activities.





After movie of the project: [link](#)



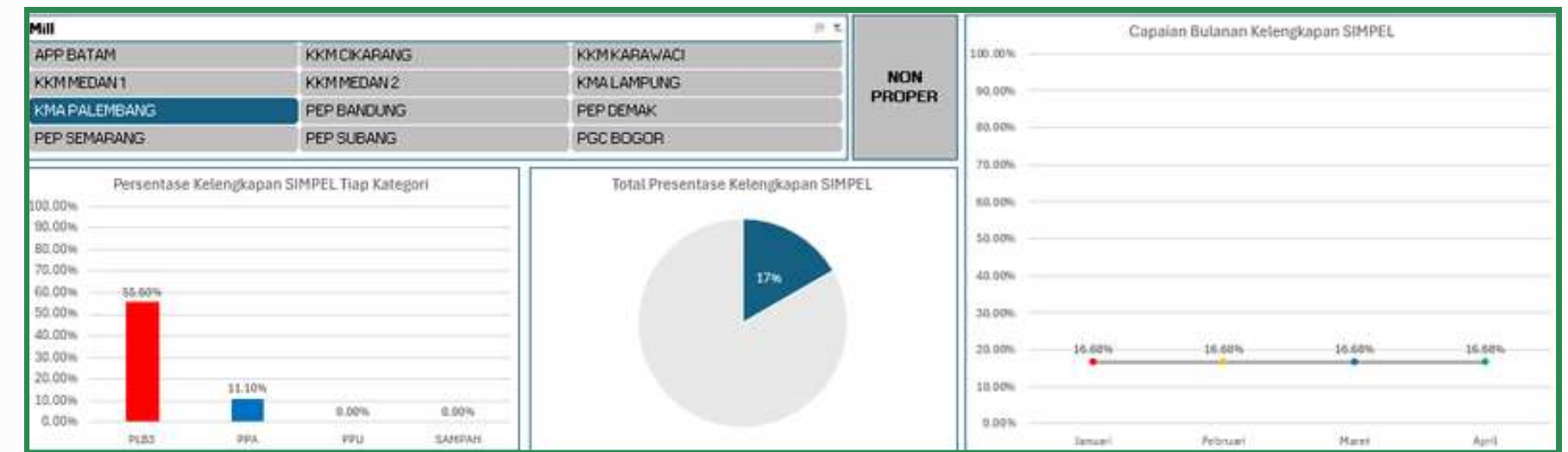
#1 ENVIRONMENTAL OFFICER (INTERN) AT PT KATI KARTIKA MURNI (APP GROUP)

Supported environmental administration activities for BU17, including documentation and data management.

Assisted in preparing, organizing, and compiling environmental compliance reports related to PROPER, including auditing and monitoring activities.

Involved in CSR environmental initiatives, including organic waste management and sustainability programs.

Coordinated with internal teams to support environmental reporting and program implementation.





#2 HRGA INTERN AT PT SARAKAMANDIRI SEMESTA

Assisted in daily facility and operational support, including office supplies, logistics, and general coordination.

Conducted routine HSE monitoring and inspections, ensuring PPE compliance, safe work practices, and proper housekeeping.

Supported WWTP (IPAL) monitoring and waste management, including operational recording, regulatory compliance, documentation, and coordination with licensed vendors.

Handled basic HR administration, including organizing employee MCU results and updating personnel records.





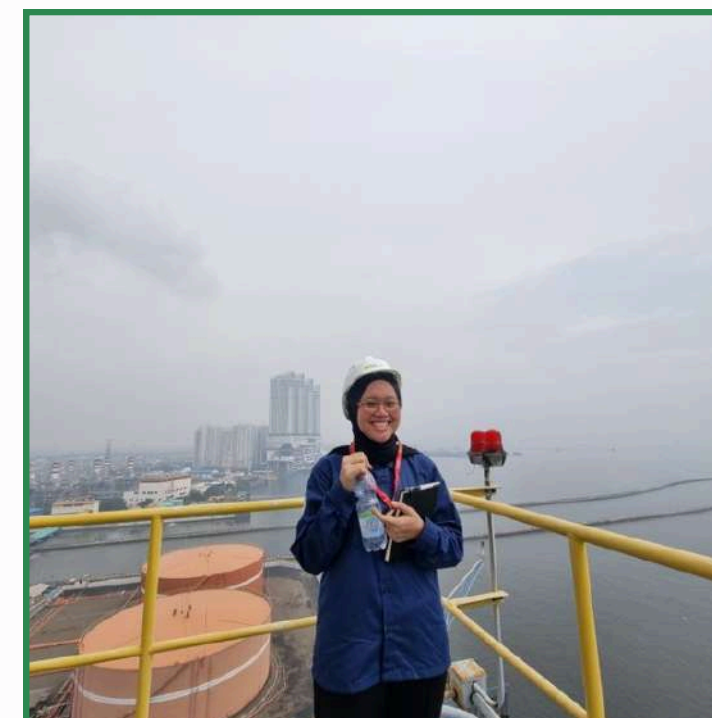
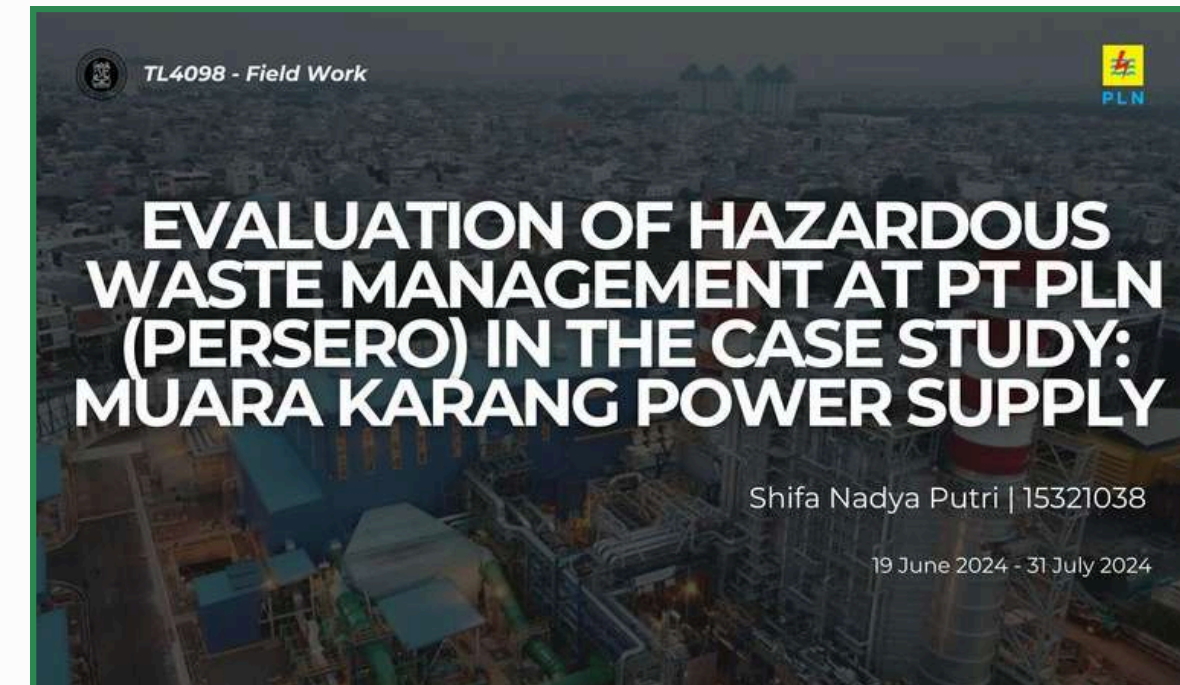
#3 HSE INTERN AT PT PLN (PERSERO)

“Evaluation of Hazardous Waste Management At PT PLN (Persero) in The Case Study: Muara Karang Power Supply”

Identification and evaluation of compliance of the hazardous waste management system at Muara Karang Power Supply with regulations.

Evaluation the management of hazardous waste at Muara Karang Power Supply using the Material Flow Analysis method.

Provided recommendations to improve the hazardous waste management system at Muara Karang Power Supply.



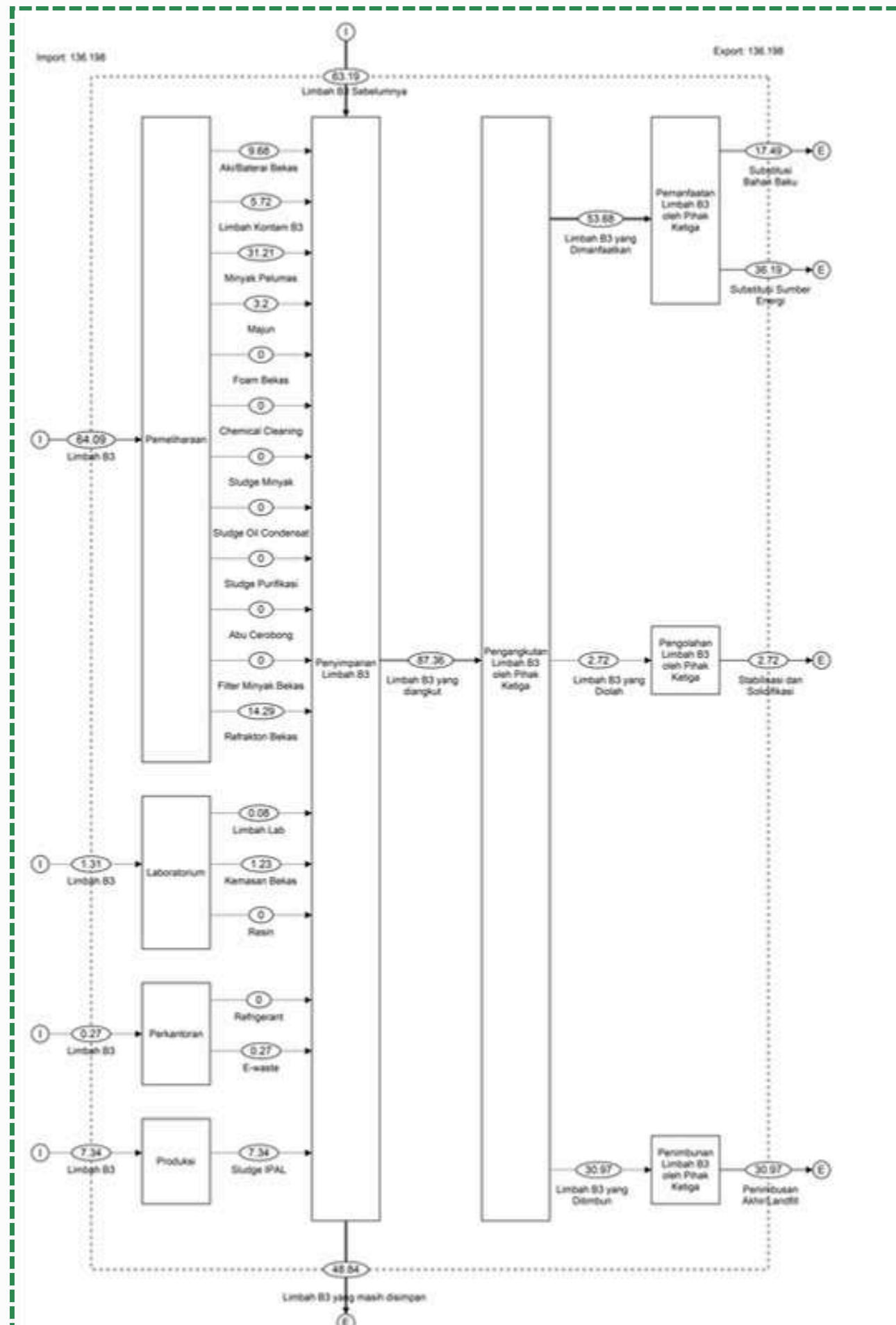
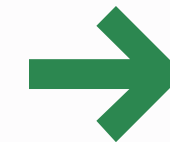


Figure of Material Flow Analysis

Tabel IV.6 Kesesuaian syarat fasilitas penyimpanan limbah B3 UP Muara Karang terhadap Permen LHK No 6 Tahun 2021

No	Aspek (Permen LHK No 6/2021)	Kondisi Aktual	Kesesuaian
1	Tempat penyimpanan dilengkapi dengan fasilitas bongkar muat.	TPS limbah B3 terdapat <i>forklift</i> , rak penyimpanan, <i>pallet</i> , dan jalanan menurun di depan TPS limbah B3.	Sesuai
2	Tempat penyimpanan dilengkapi dengan peralatan penanganan tumpahan.	TPS limbah B3 terdapat saluran drainase, bak penampung, dan <i>oil spill kit</i> .	Sesuai
3	Tempat penyimpanan dilengkapi dengan fasilitas pertolongan pertama.	TPS limbah B3 terdapat <i>safety shower</i> dan <i>eye shower</i> serta kotak P3K.	Sesuai
4	Terdapat sistem pendeteksi dan peralatan pemadam kebakaran atau alat penanggulangan keadaan darurat lain yang sesuai.	TPS limbah B3 terdapat <i>sprinkler</i> dan APAR.	Sesuai

Tabel IV.9 Kesesuaian syarat pengemasan dasar limbah B3 UP Muara Karang terhadap Permen LHK No 6 Tahun 2021

No	Aspek (Permen LHK No 6/2021)	Kondisi Aktual	Kesesuaian
1	Menggunakan kemasan yang terbuat dari bahan logam atau plastik yang dapat mengemas limbah B3 sesuai dengan karakteristik limbah B3.	Menggunakan <i>drum</i> logam dan <i>jumbo bag</i> .	Sesuai
2	Kemasan mampu mengukung limbah B3 untuk tetap berada dalam kemasan.	Seluruh kemasan dapat mengisolasi limbah B3 agar tetap berada didalam kemasan.	Sesuai
3	Kemasan memiliki penutup yang kuat untuk mencegah terjadinya tumpahan saat dilakukan penyimpanan, pemindahan, dan/atau pengangkutan.	Seluruh kemasan memiliki penutup yang kuat sehingga terhindar dari tumpahan limbah B3.	Sesuai
4	Kemasan berada dalam kondisi tidak bocor, tidak berkarat, dan tidak rusak.	Terdapat beberapa <i>jumbo bag</i> berada dalam kondisi robek dibagian atasnya.	Sebagian Sesuai

Recommendation:

- Developed innovations to enhance hazardous waste reduction programs.
- Digitalized labeling information to ensure accessibility and accuracy.
- Conducted routine inspection and maintenance of hazardous waste storage, containers, and labeling to ensure regulatory compliance.



#4 COURSE ASSISTANT FOR MAJOR PROJECTS

- Water Supply Engineering

Guided 10 students in the design, analysis, and reporting of drinking water supply systems

- Sewerage and Drainage Systems

Assisted 10 students with practical assignments on the design and optimization of sewerage and drainage systems.

- Solid Waste Management

Mentored students in waste characterization, treatment planning, and sustainable disposal practices



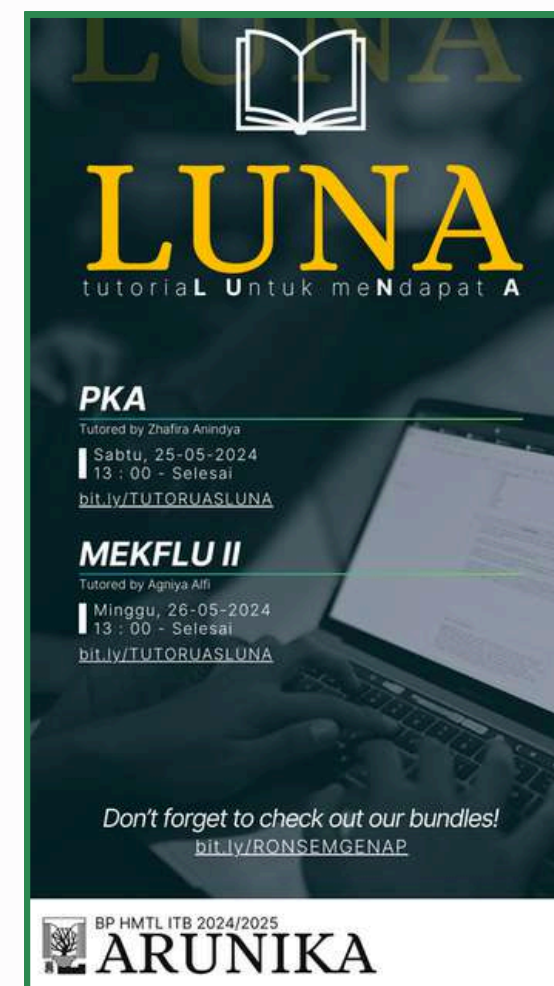
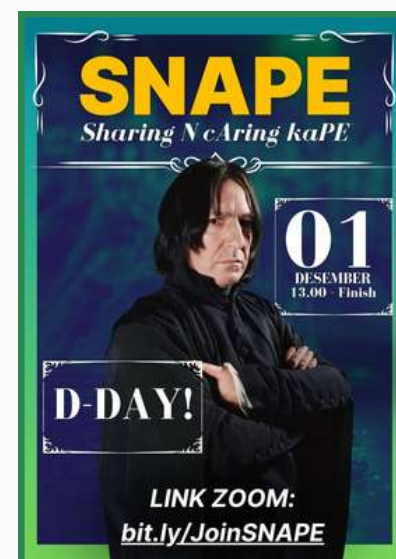
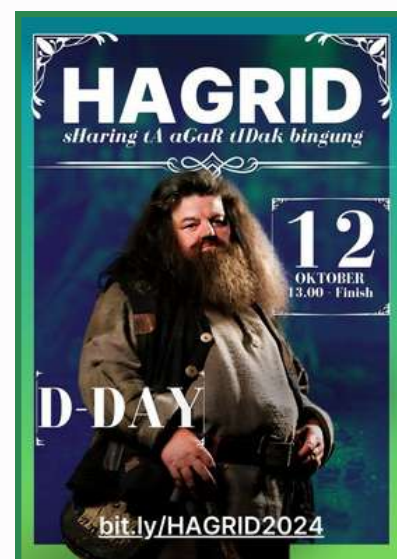
#1 ENVIRONMENTAL ENGINEERING STUDENT ASSOCIATION (HMTL)

- **Head** of Academic Division Department Internal

Organized tutorials for final exams and prepared past exam questions and semester reviews.

Provided academic guidance and mentorship to members struggling with coursework.

Conducted knowledge-sharing sessions on internships, final projects, and academic updates.





- **Mentor** of HMTL Cadre Program

Guided prospective 10 members throughout the cadre program and offered tips for successful academic and campus life in Environmental Engineering.





#2 ITB DORMITORY

- **Academic Tutor**

Tutored first-year students in chemistry and provided mentoring to support their development and well-being.





#3 ITB VOLUNTEER CORPS (PMD)

- **Vice Head** of Social and Community Service Division

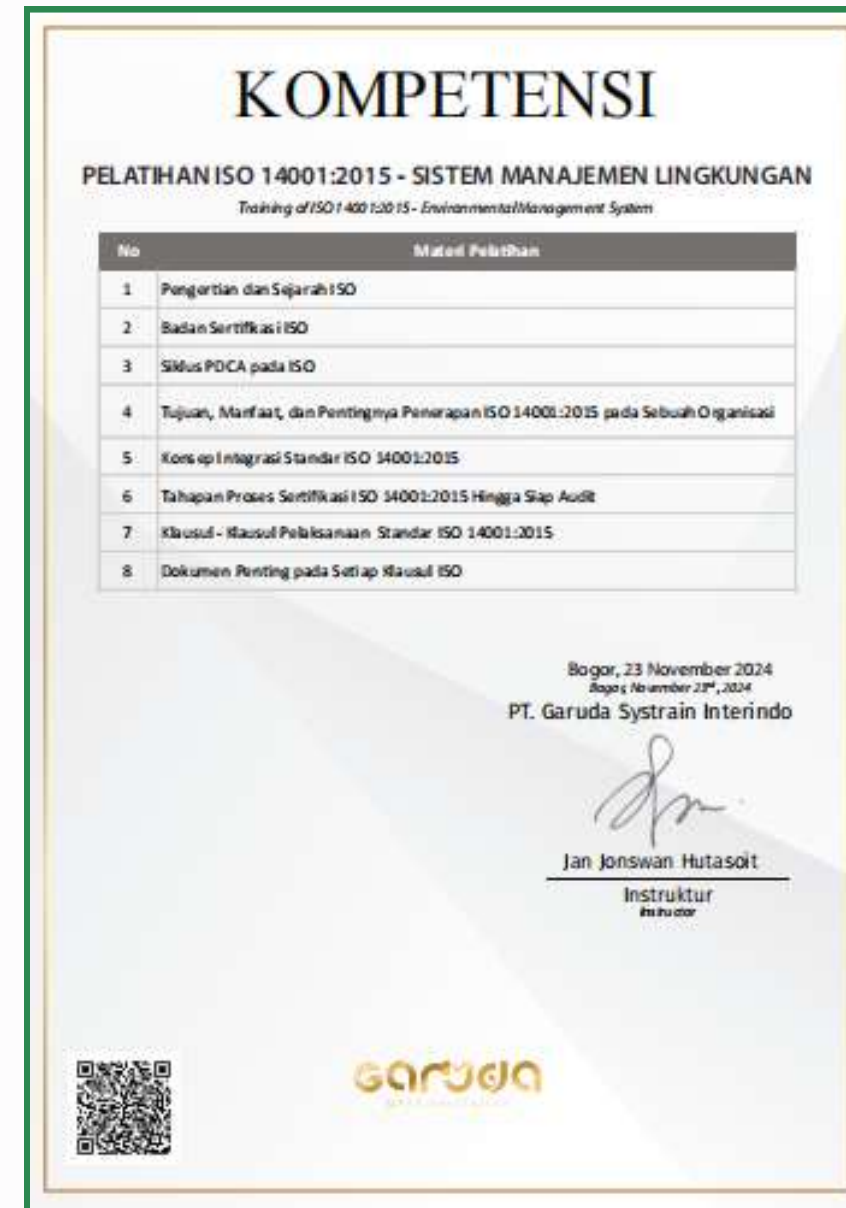
Organized medical assistance and social support activities, including blood donation drives and distribution of essential goods to communities in need.



SERTIFICATES

#1 ISO 14001:2015

Environmental Management System Training





#2 ISO 45001

Occupational, Health, and Safety Management System Training



KATALIS
TALENTA INDONESIA

SERTIFIKAT PELATIHAN

NOMOR 55/ISO.1/KTLS/XI/2025

DIBERIKAN KEPADA

SHIFA NADYA PUTRI

Sebagai Peserta Pelatihan Pada:
PELATIHAN HMTL ITB: ISO 45001 TAHUN 2025

29 - 29 November 2025


KATALIS
Ichwan Rahmawan Widodo
Direktur Utama



MATERI PELATIHAN:
PELATIHAN HMTL ITB: ISO 45001 TAHUN 2025

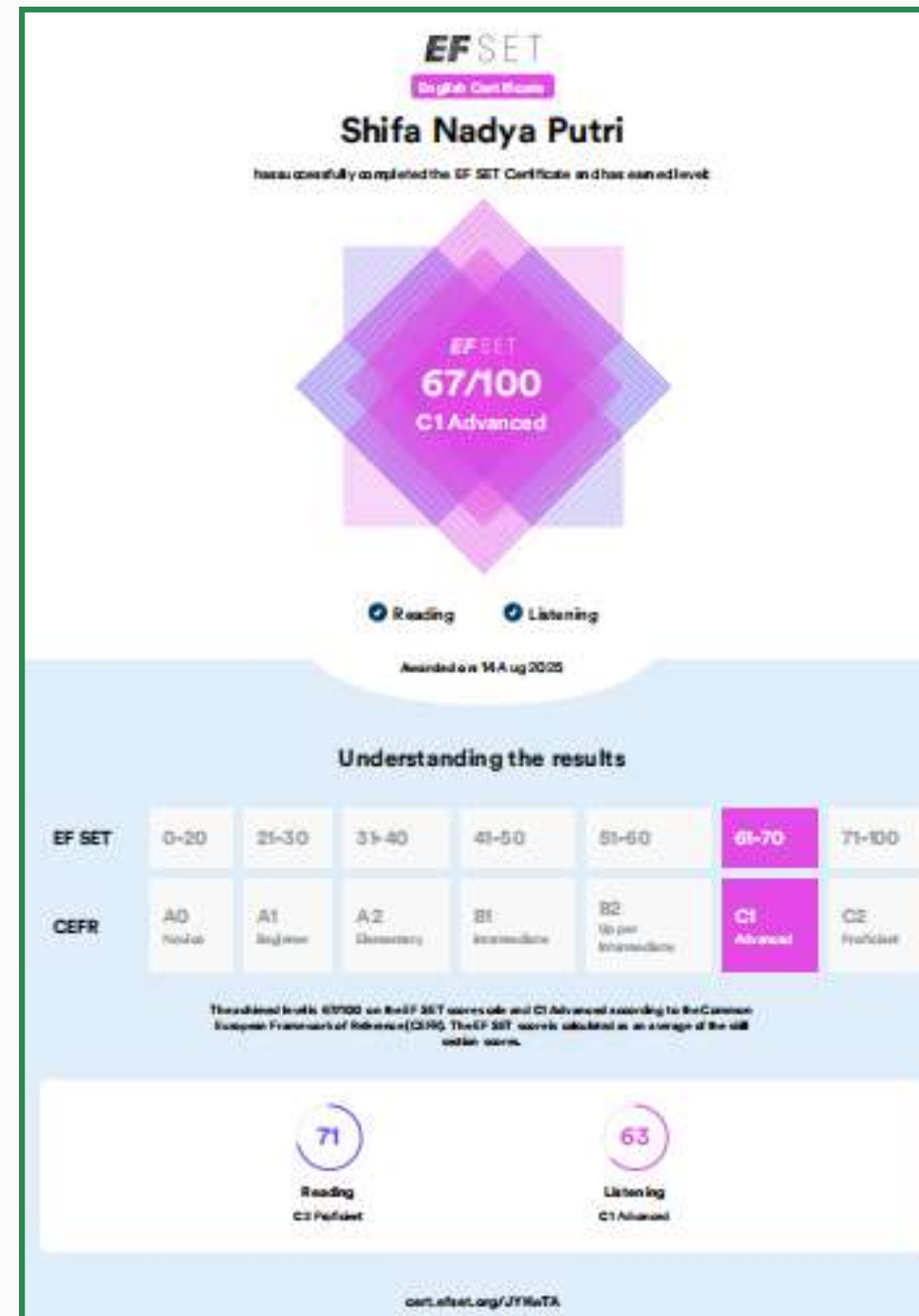
No.	Materi Pelatihan	Durasi
1	Materi 1 - Pelatihan Pemahaman ISO 45001 SISTEM MANAJEMEN K3 (Keselamatan dan Kesehatan Kerja)	2 JP
2	Materi 2 - Pelatihan Pemahaman ISO 45001 SISTEM MANAJEMEN K3 (Keselamatan dan Kesehatan Kerja)	2 JP
3	Materi 3 - Pelatihan Pemahaman ISO 45001 SISTEM MANAJEMEN K3 (Keselamatan dan Kesehatan Kerja)	2 JP

Keterangan:
1 JP (Jam Pelajaran) : 45 menit materi, 15 menit latihan soal



#3 TOEFL PREDICTION

67/100 | C1 Advanced





#4 ENVIRONMENT OFFICER TRAINING

PROPER, UKL-UPL, Hazardous Waste Management, Environmental Audit




THANK YOU!



Let's Work Together !!

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