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Research on Command Center Design for Districts and Cities in West Java

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Abstract: This study examines the design of Command Centers for Regencies and Cities in West Java as a control and coordination center in handling emergency situations and decision making. The design of the Command Center includes various supporting facilities such as a reception area, main room, meeting room, equipment room, pantry, rest room, prayer room, and toilet, which are designed to support effective and efficient operations. Using advanced technology in visualization and telecommunications, this Command Center is expected to increase the capacity of local government response to crises that occur, by facilitating better communication and coordination between various stakeholders. This study also considers the specific needs of each region and compliance with applicable standards, so that the resulting design is not only functional but also adaptive to technological developments and future needs.

Keywords: Command Center, Design, Regency, City, West Java, Coordination, Visualization Technology, Crisis Management.

INTRODUCTION

importance of implementing Information Technology (IT) in government, especially in West Java Province, to improve effectiveness, efficiency, transparency, and accountability. One of the efforts made is the construction of a Command Center at the provincial level and 27 districts/cities.

This Command Center functions as a control center that allows decision-making, monitoring, evaluation, and response to various development problems quickly and accurately. This project starts from 2019 to 2022, with detailed planning prepared in the form of Detailed Engineering Design (DED).

The location of the first phase of development planned for 2019 covers 9 areas, namely Bogor Regency, Bandung Regency, Kuningan Regency, Sukabumi Regency, Sumedang Regency, Tasikmalaya Regency, Cianjur Regency, Cimahi City, and Tasikmalaya City.

This development is not only important to support the vision of "West Java Champion Born and Inner with Innovation and Collaboration," but also to support the duties of the Governor of West Java in monitoring and evaluating the implementation of government in his region, in

accordance with Government Regulation Number 33 of 2018.

Command Center

In general, a Command Center can be interpreted as a place or location to provide orders, coordination, and quick decision-making in supporting or responding to important events. The Command Center is one of the facilities needed in carrying out Crisis Management or Operation Continuity Management.

The Command Center is a location complete with the necessary infrastructure, where a Leader together with the Team can hold meetings, make decisions, assign, coordinate, monitor and control all actions needed in response to the crisis faced, including: emergency response actions, action plans for repair and recovery, planning steps, monitoring the implementation of tasks, and steps to provide public information.

METHOD

Data collection is a process of procuring primary data for design purposes. The data collected can also be secondary data, which means that the data is not obtained from the results of one's own research, but is data collected by others; and reprocessed by the designer. Data collection is a very important step in scientific, social and economic methods because in general, the data collected will be used as a basis for the planning that is formulated. The data collected must be valid enough to be used. Data collection is a systematic and standard procedure for obtaining the required data. There is always a relationship between the method of collecting data and the problem to be solved. In general, data collection methods can be divided into several groups, namely:

1. • direct observation method,
2. • method using questions, and
3. • special methods, such as comparative studies

This quantitative data is needed to test whether there is a relationship and feedback to previous data. The implementation of data collection according to its use or processing (analysis), in general, can be grouped into two groups of data, namely:Data that can be analyzed directly, namely: geodetic data, soil mechanics data, environmental and climatological conditions and data on land types and characteristics. 4. Data that in the process requires a discussion and approval stage, both in terms of criteria, methods and approaches. The purpose of collecting this group of data is to better understand the spatial system so that an optimal design can be produced. For this reason, in this data collection stage, the consultant will carry out the following activities:Literature study covers all aspects related to this task such as including a contextual approach to the appearance of buildings that are in harmony with the architecture in each city district.Conducting interviews and discussions with users and project owners regarding the needs of facilities and special equipment to be used.

Description of Research Object

Explanation of the research object in general can be conveyed as follows:
Building function: Command Center
Location: West Java.
Building area: 1120.13 m2

Facilities & Infrastructure

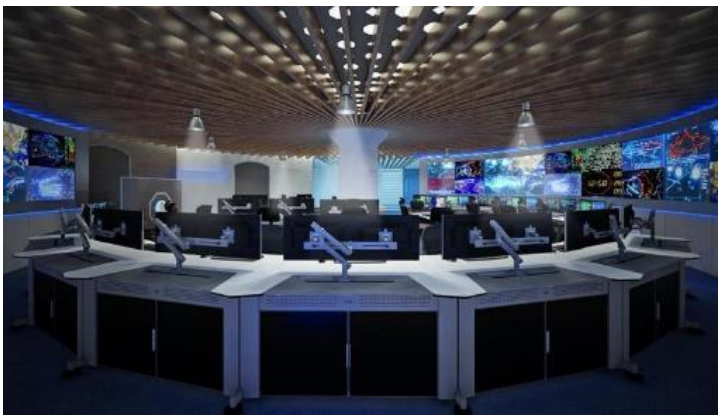
Functional Facility Planning:
• Reception Area
• Viewing Area
• Main Hall

• Leadership Meeting Area
• Equipment Area/Room
• Pantry Area, Rest Area and Prayer Room
• Toilet

Related Regulations

- Law No. 24 of 2007 concerning Disaster Management
- Law No. 14 of 2008 concerning Public Information Disclosure
- Government Regulation No. 82 of 2012 concerning the Implementation of Electronic Systems and Transactions
- Regulation of the Minister of Communication and Informatics No. 4 of 2016 concerning the Information Security Management System
- Regulation of the Minister of Public Works and Public Housing No. 22/PRT/M/2018 concerning the Construction of State Buildings
- Indonesian National Standard (SNI) 03-1733-2004 concerning Procedures for Planning the Work Environment in Buildings
- Presidential Regulation No. 95 of 2018 concerning the Electronic-Based Government System (SPBE)
- Regulation of the Minister of Environment and Forestry No. P.8/MENLHK-SETJEN/2019 on Green Building Criteria and Certification
- West Java Provincial Regulation No. 9 of 2018 on the Implementation of Communication and Informatics
- Regulation of the Minister of Home Affairs No. 56 of 2010 on the Governance of Regional Government Data and Information, which regulates the provision and management of data centrally at the Command Center.
- Government Regulation No. 24 of 2018 on Public Services, which requires each regional government to provide supporting facilities in managing public information, including through the Command Center

RESULTS AND DISCUSSION



Gambar 2.1 Contoh Command Center

Command Center is a central room for data visualization and integration, whether obtained online, offline, internal or external, presented simultaneously on a large video wall screen. One of the well-known functions of the command center is as a monitoring room. Inaugurated directly by the former Governor of West Java H. Ahmad Heryawan at the end of his term (2013-2018) on May 11, 2018.

One of the well-known functions of the command center is as a monitoring room. But not only that, the command center is very helpful in facilitating meetings and coordination between fields. The command center can also help ensure that every important decision, response and action taken is as accurate as possible according to the available data.

Command Center Room Standards

A. Reception Area

This area functions as the main lobby where visitors are received by the receptionist. Dimensions and technical specifications of the room:

• The area is adjustable
• There is a reception counter, equipped with 1 computer unit connected to the network
• Guest chairs/benches are available
• Visual aids are available

B. Viewing Area

This area functions as a Command Center showroom where guests/visitors/reviewers can directly witness the Command Center operations directly through the glass partition or through the display screen.

• The area is adjustable
• Has good visibility to the Main Hall through the glass partition
• Equipped with visual aids connected to the Main Area
• Equipped with a sound system connected to the Main Area
• If possible, equipped with visitor chairs/benches with theater style placement

C. Main Hall

The Main Area is where visualization equipment, workstation devices, telecommunications equipment are placed as well as the workplace of the Command Center operators.

- Minimum Dimensions

Item	Provinsi	Kab/Kota
Luas Ruangan	8m x 12m	6m x 8m
Ketinggian Bersih dari raised floor terendah ke plafon / drop ceiling	3.2 m	3m
Ketinggian raised floor terendah	20cm	15cm
Jarak terdekat operator ke peralatan visual sektor utama	3m	2m

Tabel 2.1 Standar Dimensi

• Equipped with operator desk
• Equipped with control desk
• Equipped with Visualization equipment and its structure
• Equipped with Video Conference equipment
• Equipped with telecommunications equipment
• Equipped with sound system
• Equipped with Workstation equipment
• If adopting a theater model design (steps), the difference in height of each row is at least 15 cm.

D. Area Rapat Pimpinan

Area Rapat Pimpinan adalah area dimana terdapat fasilitas meja rapat bagi unsur pimpinan untuk melakukan upaya-upaya kordinasi dalam penanganan insiden.

• Adjusted area size
• Has good visibility to the visualization equipment in the Main Hall
• Equipped with a meeting table with a capacity of at least 6 (six) people
• Equipped with Video Conference equipment
• Equipped with supporting meeting equipmente.

E. Equipment Area/Room

Equipment Area/Room is where all server equipment, telecommunications and network equipment, supporting visualization equipment, electrical panels and backup power supplies

(UPS) are placed.
• The area is adjusted
• Located not far from the Main Area (Main Hall)
• Raised floor with a minimum height of 20 cm
• Drop ceiling for cable installation placement
• Must have enough space to place all devices
• Must have enough space for device mobilization
• Equipped with electronic access control
• Equipped with appropriate and adequate APAR

F. Pantry Area, Rest Area and Prayer Room

The Pantry Area and rest area are used by officers to rest/eat and drink. This area provides locker facilities, water dispenser, refrigerator, microwave oven, wash basin/sink and electric stove.
• The area is adjusted
• Has an adequate network of clean and dirty water pipes and the network does not go through the Main Area
• Equipped with a wash basin/sink
• Equipped with a storage cabinet (locker)
• Equipped with a cupboard/cabinet for storing food ingredients
• Equipped with a dining table for at least 4 (four) people
• Equipped with a cold and hot water dispenser, refrigerator, microwave oven and electric stove
• Equipped with a sound system connected to the Main Area (Main Hall) to find out if there is an incoming call
• Equipped with appropriate and adequate APAR

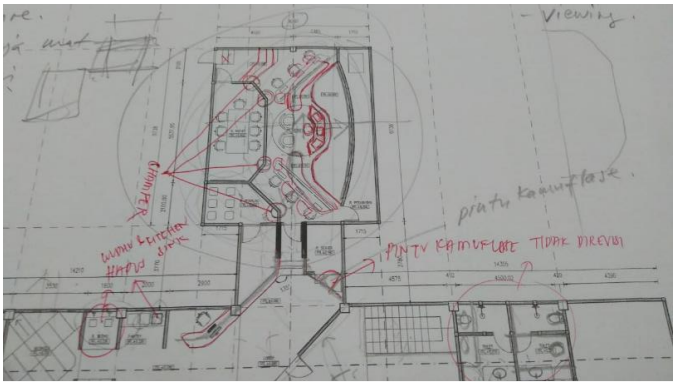
G. Toilets/Restrooms

Toilets/restrooms must be available in the Command Center. It is better to separate the toilets for men and women. Considering the operational hours of the Command Center, it is recommended that the toilets/restrooms also be equipped with shower facilities.
• Equipped with closet and urinal facilities
• Equipped with wash basin
• Equipped with shower
• Equipped with a sound system connected to the Main Hall to find out if there is an incoming call

Kabupaten Bandung

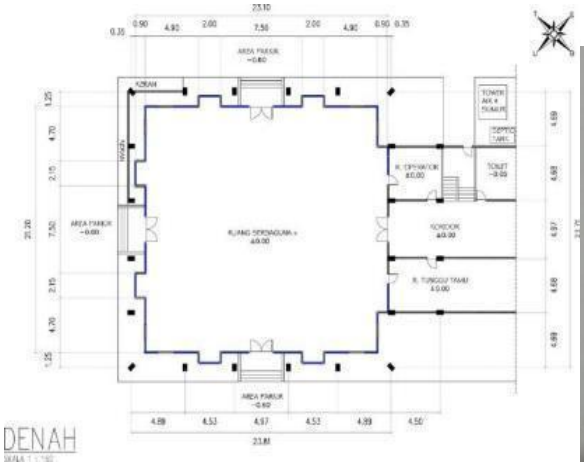
Jl. Raya Soreang No.17, Pamekaran, Kec. Soreang, Bandung, Jawa Barat 40912

Gambar 2.2 Denah Eksisting

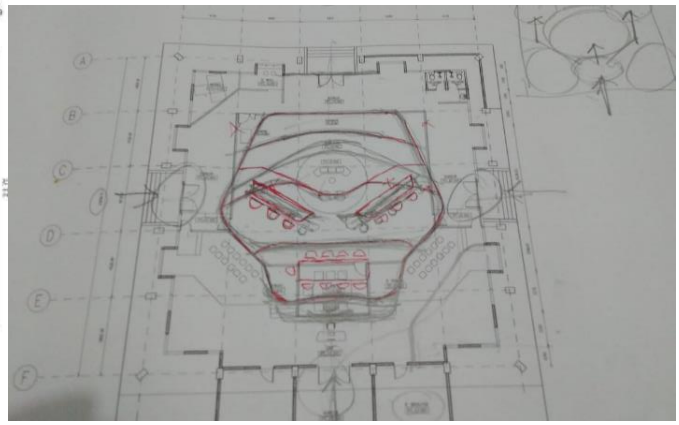


Gambar 2.3 Catatan Revisi Denah CC

Kabupaten Bogor
Jalan Raya Tegar Beriman, Tengah, Cibinong, Tengah, Cibinong, Bogor, Jawa Barat 16915

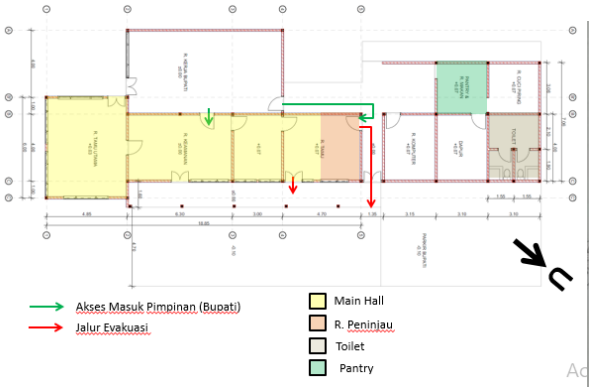


Gambar 2.4 Denah Eksisting

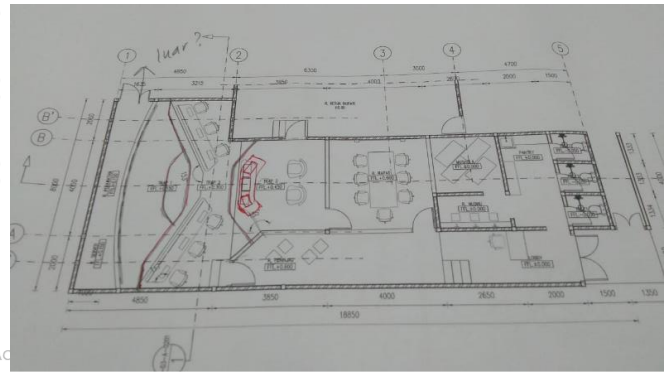


Gambar 2.5 Catatan Revisi Denah CC

Kabupaten Kuningan
Jl. Siliwangi No.88, Purwawinangun, Kec. Kuningan, Kabupaten Kuningan, Jawa Barat 45512
Koordinat : S 6°58’34.49” E 108°28’58.96”.

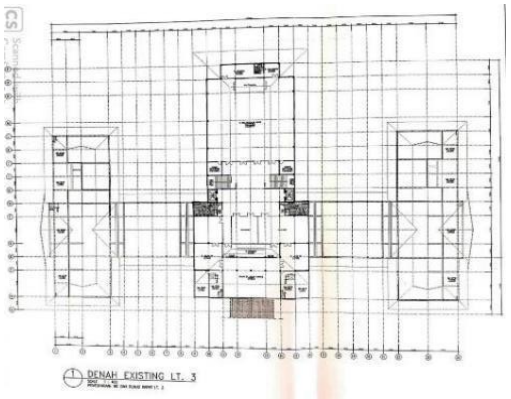


Gambar 2.6 Denah Eksisting

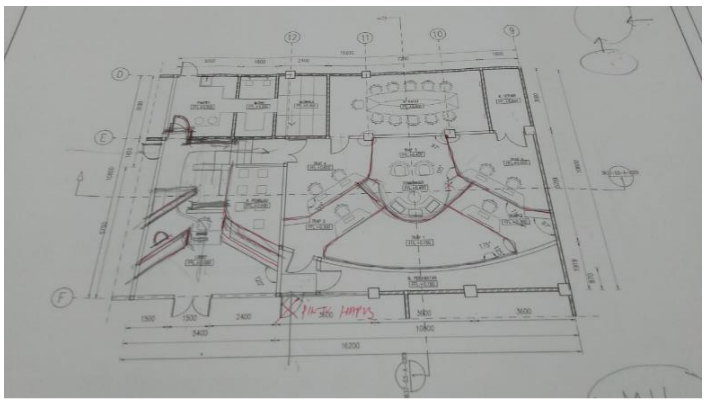


Gambar 2.7 Catatan Revisi Denah CC

Kabupaten Kuningan
Gedung Induk Pusat Pemerintahan (IPP) Kabupaten Sumedang Lantai 3 Alamat: Jl. Prabu Gajah Agung No. 9 Sumedang RT 4 RW 2, Kelurahan Situ, Kec. Sumedang Utara, Kabupaten Sumedang, Jawa Barat 45621
Koordinat : S 6°51’41.18” E 107°55’14.08”

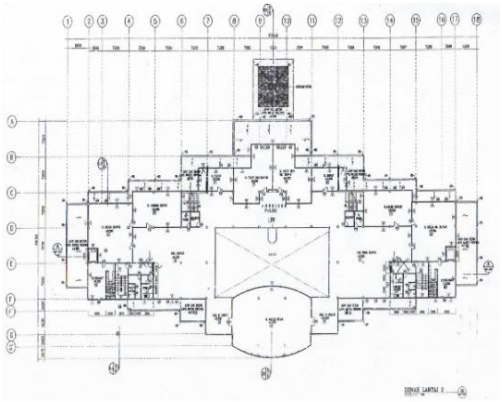


Gambar 2.8 Denah Eksisting

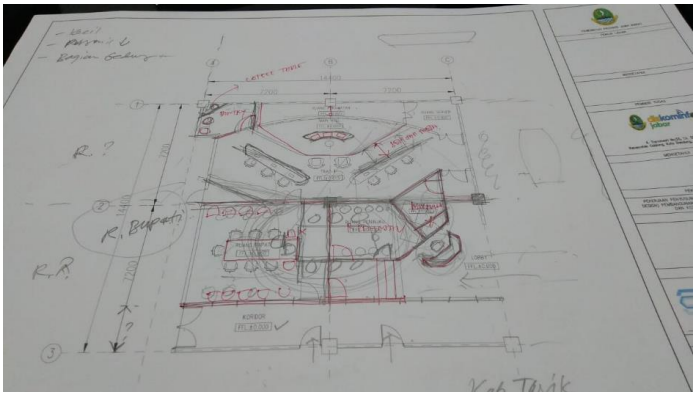


Gambar 2.9 Catatan Revisi Denah CC

Kabupaten Tasikmalaya
Jl.Sukapura III Komplek Perkantoran Sukapura, Bojongkoneng, Kec. Singaparna, Tasikmalaya, Jawa Barat 46462

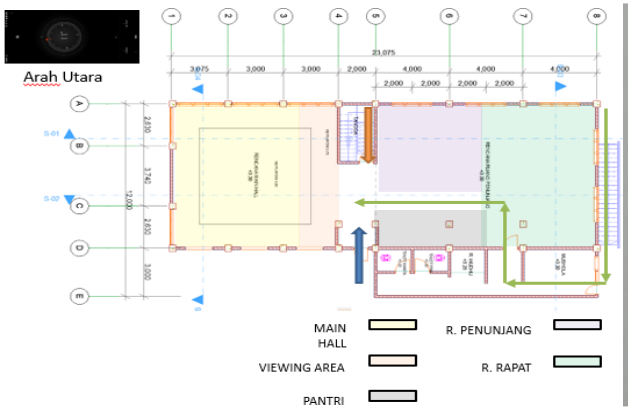


Gambar 2.10 Denah Eksisting Lt. 2

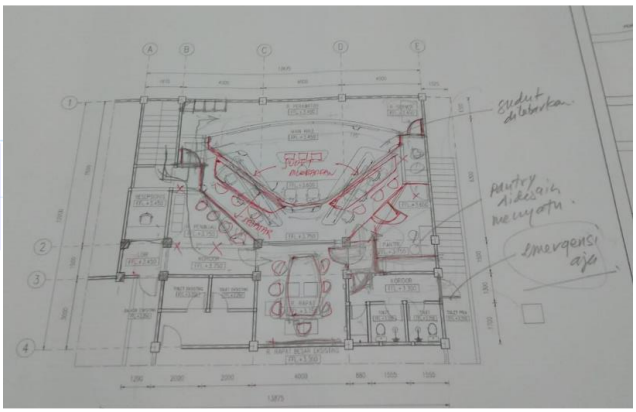


Gambar 2.11 Catatan Revisi Denah CC

Kabupaten Tasikmalaya
Pamoyanan, Kec. Cianjur, Kabupaten Cianjur, Jawa Barat 43211

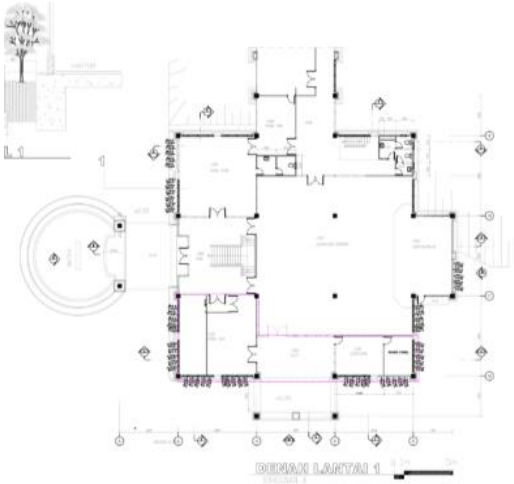


Gambar 2.12 Denah Eksisting

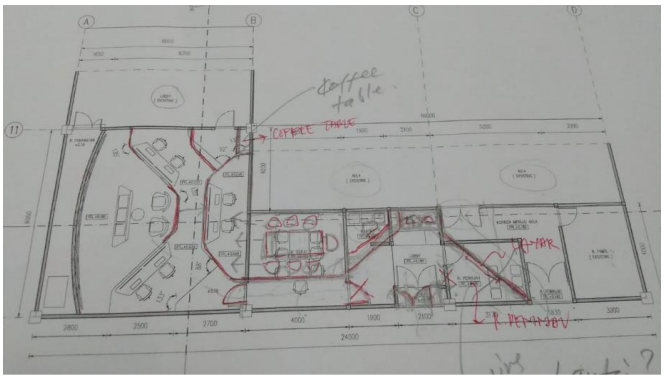


Gambar 2.13 Catatan Revisi Denah CC

Kota Cimahi
Jl. Rd. Demang Hardjakusumah Blok Jati, Cihanjuang, Cibabat, Kec. Cimahi Utara, Kota Cimahi, Jawa Barat 40513



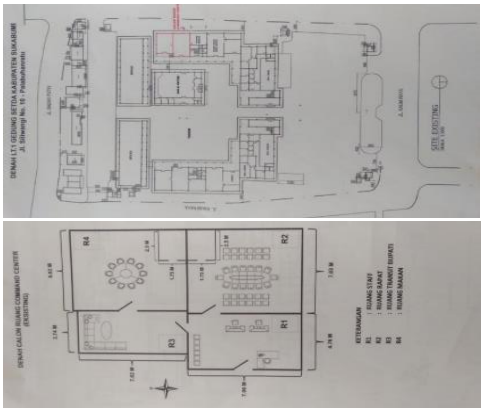
Gambar 2.14 Denah Eksisting



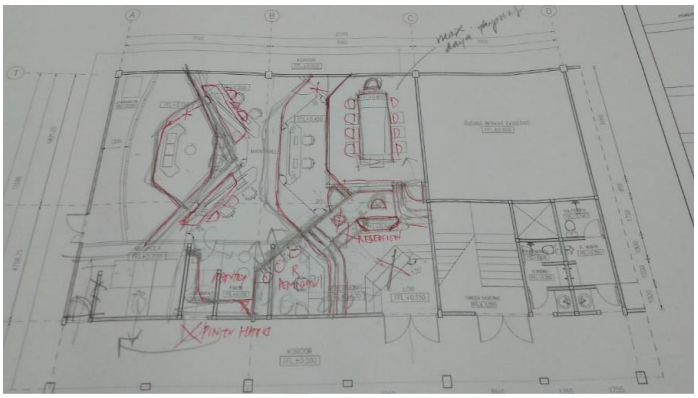
Gambar 2.15 Catatan Revisi Denah CC

Kabupaten Sukabumi

Gedung Setda Kabupaten Sukabumi Jl. Siliwangi No.10 Palabuhanratu



Gambar 2.16 Denah Eksisting

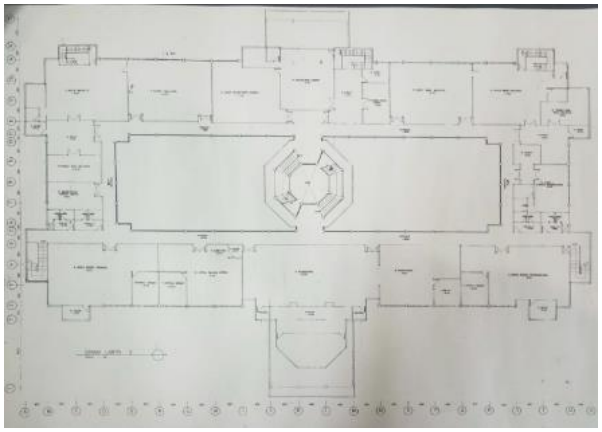


Gambar 2.17 Catatan Revisi Denah CC

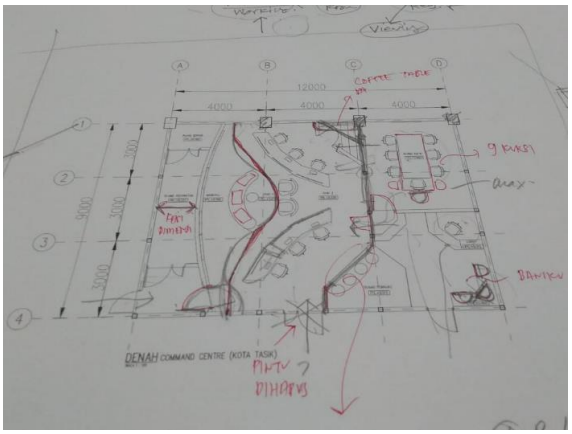
Kota Tasikmalaya

Alamat : Jl. Letnan Harun, Sukarindik, Kec. Bungursari, Tasikmalaya, Jawa Barat

Koordinat : -7.316594,108.196776



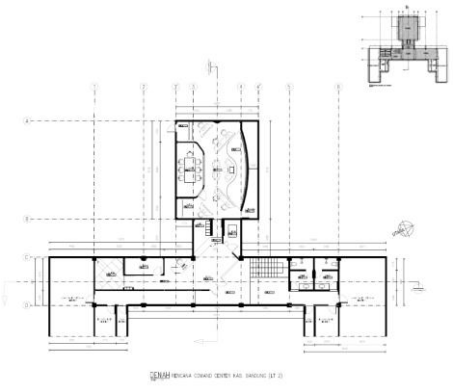
Gambar 2.18 Denah Eksisting



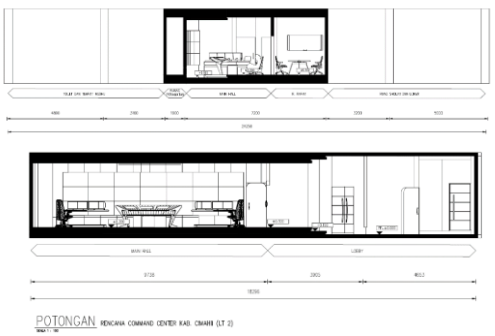
Gambar 2.19 Catatan Revisi Denah CC

Pada bagian kesimpulan penelitian ini ditampilkan hasilnya dalam bentuk Desain Rehabilitasi Bangunan Kantor.

Kabupaten Bandung



Gambar 3.1 Denah Command Center

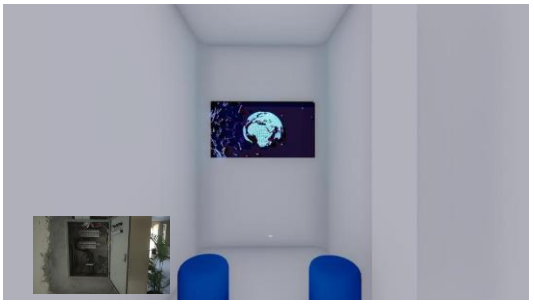


Gambar 3.2 Potongan Command Center

Gambar 3.3 Perspektif Lobby CC

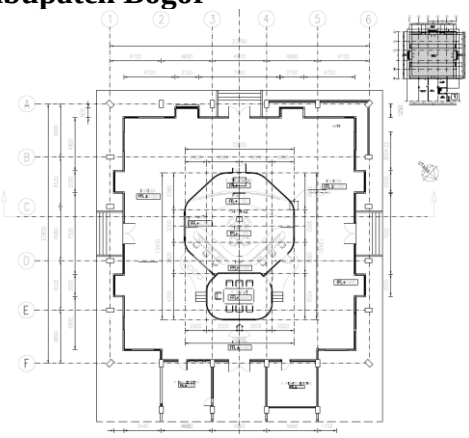
Gambar 3.4 Perspektif Main Hall 1 CC

Gambar 3.5 Perspektif Ruang Rapat

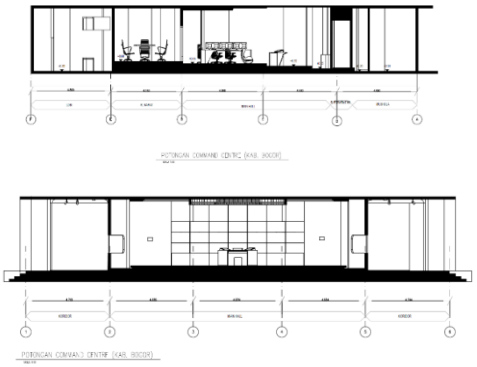


Gambar 3.6 Perspektif Ruang Peninjau

Kabupaten Bogor



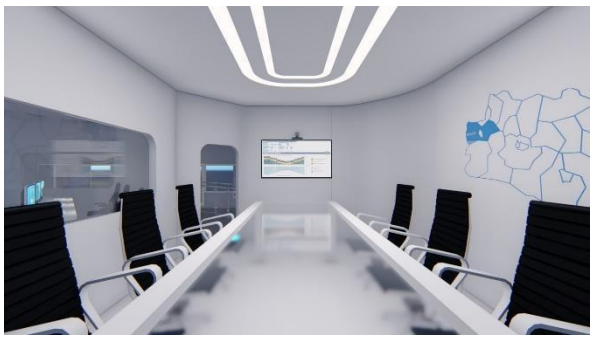
Gambar 3.7 Denah Command Center Kab. Bogor



Gambar 3.8 Potongan Command Center

Gambar 3.9 Perspektif Lobby

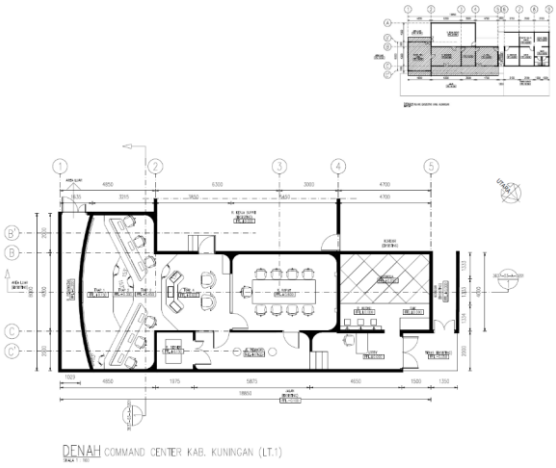
Gambar 3.10 Perspektif Main Hall



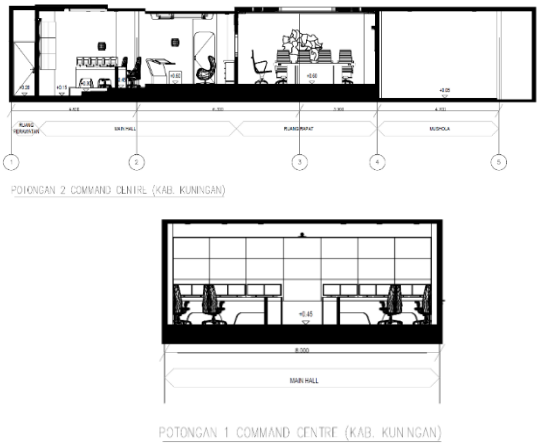
Gambar 3.11 Perspektif Ruang Rapat

Gambar 3.12 Perspektif Ruang Peninjau

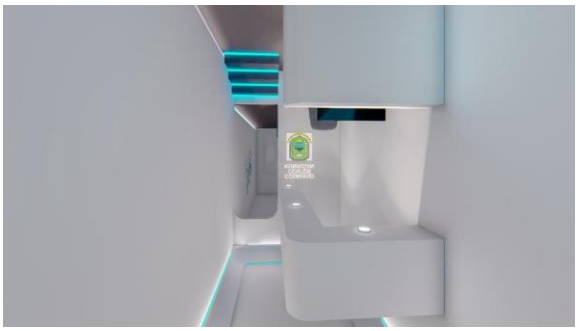
Kabupaten Kuningan



Gambar 3.13 Denah Command Center

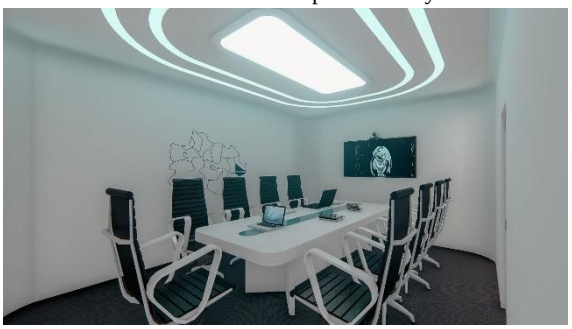


Gambar 3.14 Potongan Command Center



Gambar 3.15 Perspektif Lobby

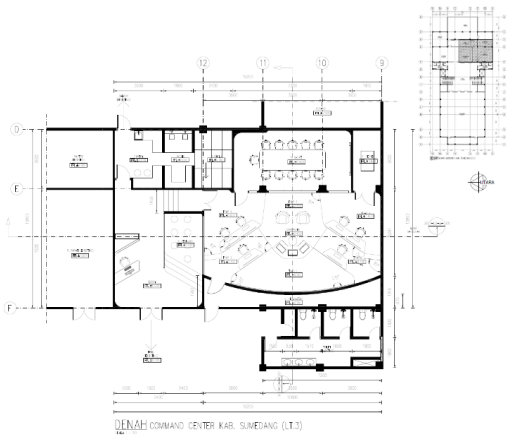
Gambar 3.16 Perdpektif Main Hall



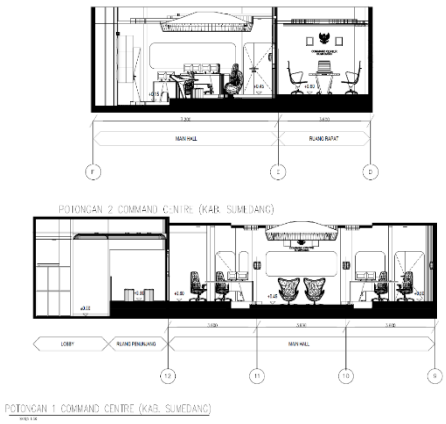
Gambar 3.17 Perspektif Ruang Rapat

Gambar 3.18 Perspektif Ruang Peninjau

Kabupaten Sumedang



Gambar 3.19 Denah Command Center



Gambar 3.20 Potongan Command Center

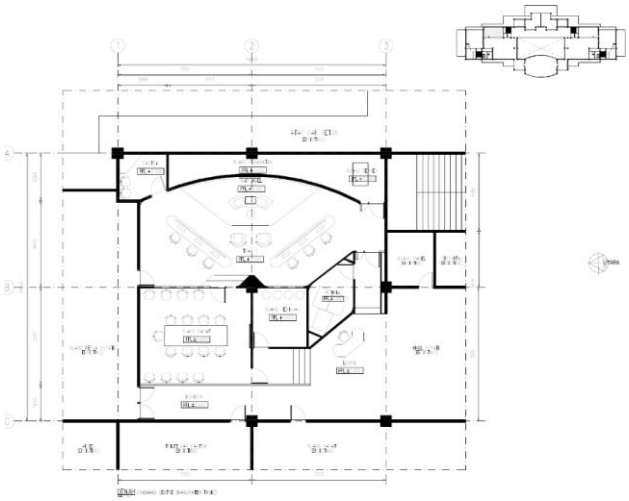
Gambar 3.21 Perspektif Lobby

Gambar 3.22 Perspektif Main Hall

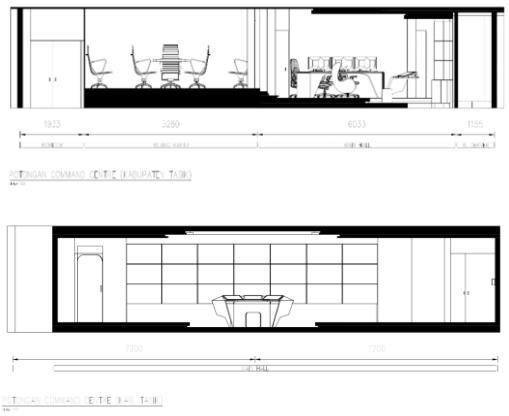
Gambar 3.23 Perspektif Ruang Rapat

Gambar 3.24 Perspektif Ruang Peninjau

Kabupaten Tasikmalaya



Gambar 3.25 Denah Command Center



Gambar 3.26 Potongan Command Center

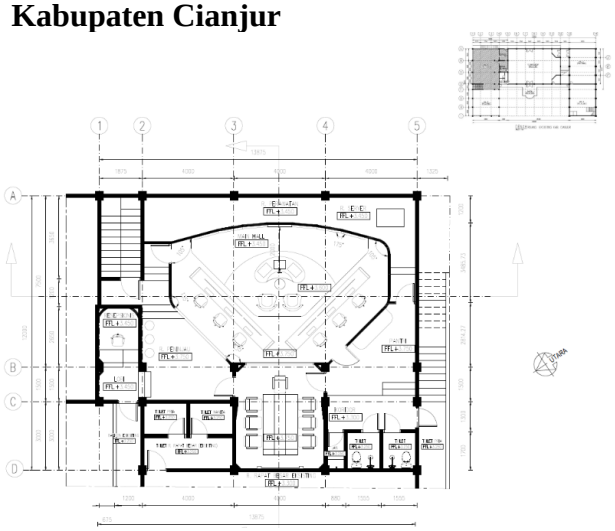
Gambar 3.27 Perspektif Lobby

Gambar 3.28 Perspektif Main Hall

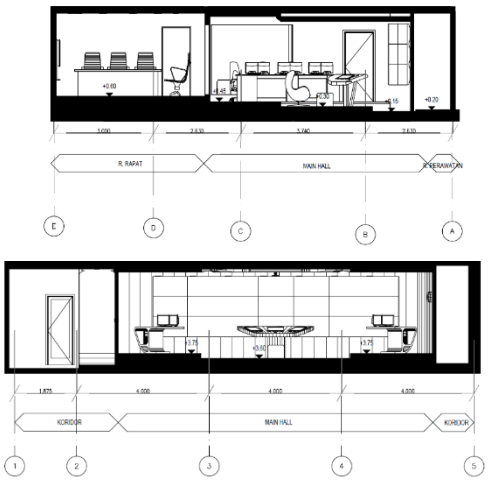
Gambar 3.29 Perspektif Ruang Rapat

Gambar 3.30 Perspektif Ruang Peninjau

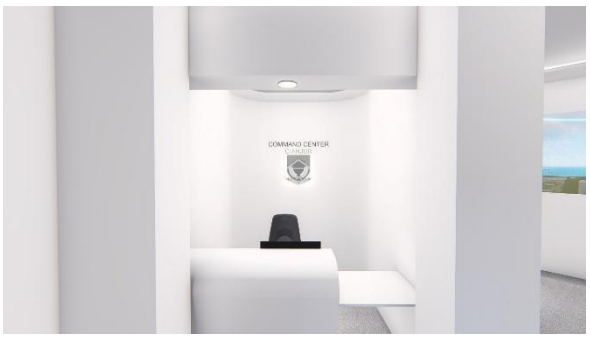
Kabupaten Cianjur



Gambar 3.31 Denah Command Center

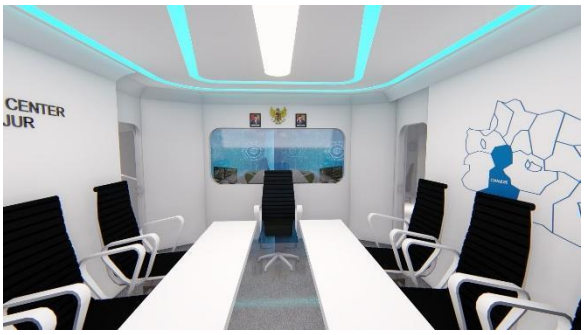


Gambar 3.32 Potongan Command Center



Gambar 3.33 Perspektif Lobby

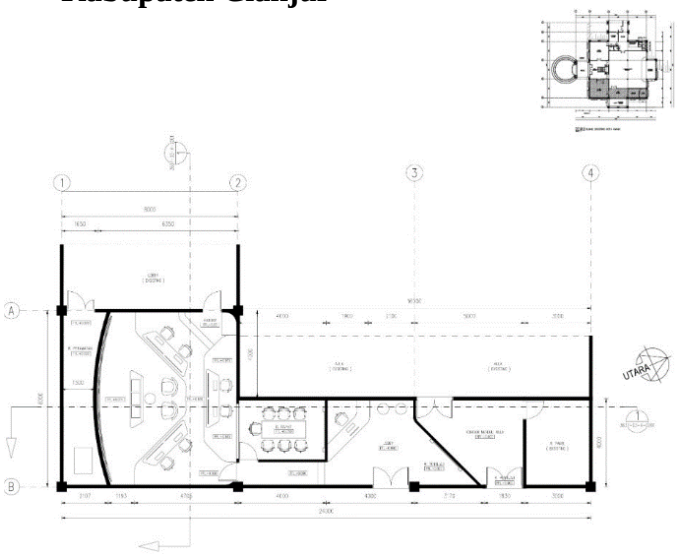
Gambar 3.34 Perspektif Main Hall



Gambar 3.35 Ruang Rapat

Gambar 3.36 Perspektif Ruang Peninjau

Kabupaten Cianjur



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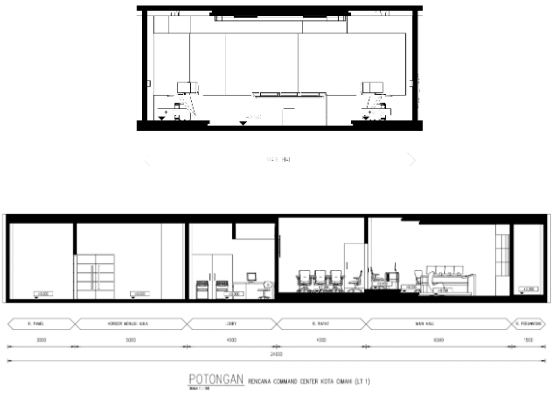
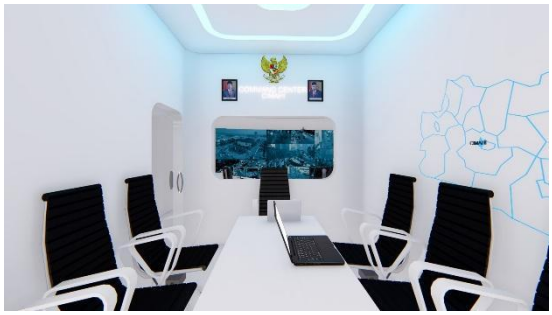


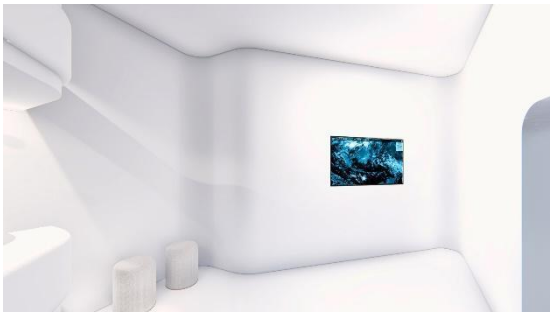
Gambar 3.38 Potongan Command Center

Gambar 3.39 Perspektif Lobby

Gambar 3.40 Perspektif Main Hall

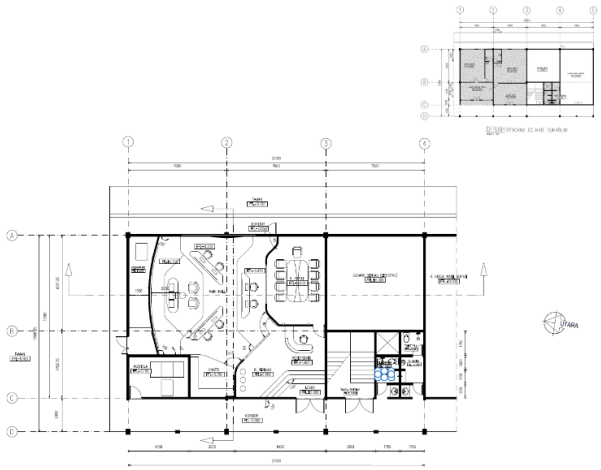


Gambar 3.41 Ruang Rapat

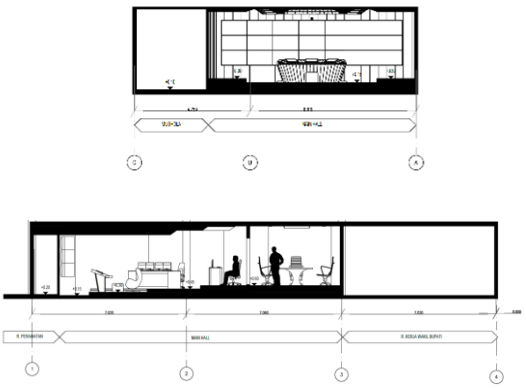


Gambar 3.42 Perspektif Ruang Peninjau

Kabupaten Sukabumi



Gambar 3.43 Denah Command Center



Gambar 3.44 Potongan Command Center

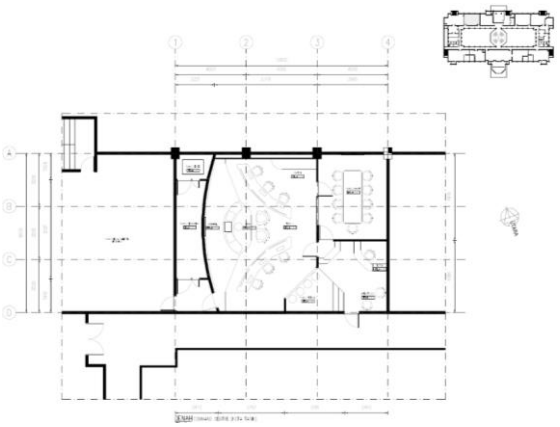
Gambar 3.45 Perspektif Lobby

Gambar 3.46 Perspektif Main Hall

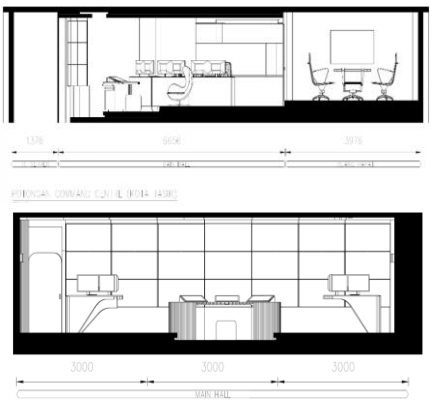
Gambar 3.47 Ruang Rapat

Gambar 3.48 Perspektif Ruang Peninjau

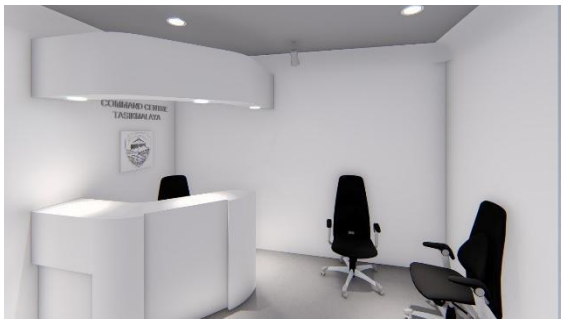
Kota Tasikmalaya



Gambar 3.49 Denah Command Center

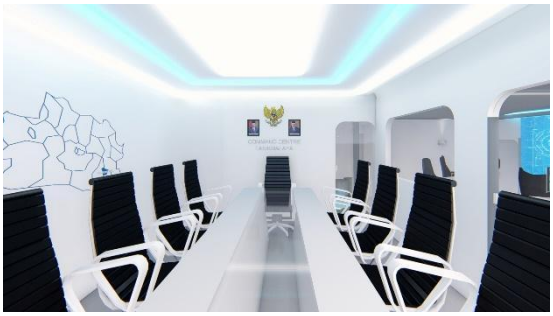


Gambar 3.50 Potongan Command Center



Gambar 3.51 Perspektif Lobby

Gambar 3.52 Perspektif Main Hall



Gambar 3.53 Ruang Rapat

Gambar 3.54 Perspektif Ruang Peninjau

CONCLUSION

Technology Improvement

It is recommended to continuously update the hardware and software used in the Command Center, considering the rapid development of information and communication technology.

User Training

Continuous training is needed for officers who will operate the Command Center so that they are able to utilize all available facilities optimally.

Inter-Regional Cooperation

It is recommended that each Command Center have an integrated system between districts/cities to facilitate coordination in handling regional crises.

Provision of Adequate Budget

Local governments need to ensure the availability of sufficient budget to support the operation and maintenance of the Command Center so that it can function optimally.

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