

An aerial perspective of a circular urban development. At the center is a large mosque with a prominent dome. Radiating from this center are several concentric rings of residential buildings, interspersed with green spaces and trees. A network of roads and walkways connects the different levels of the city. The overall design is symmetrical and highly organized.

KAMPUNG SAKINAH

DETAILED ENGINEERING DESIGN

KONSEPTUAL / BASIS DESAIN

Kawasan Hunian Terintegrasi 100 Hektare - Tasikmalaya
Islamic Green Smart Circular City

Status dan Batas Penggunaan Dokumen

STATUS: DED KONSEPTUAL / BASIS DESAIN

Dokumen ini adalah basis teknis multi-disiplin untuk pengembangan masterplan. Belum dapat digunakan langsung sebagai gambar konstruksi, tender final atau PBG final sebelum tapak, topografi, geoteknik, hidrologi, tata ruang dan perhitungan engineer berizin tersedia.

- Seluruh dimensi, kapasitas, elevasi, diameter, ketebalan, ukuran struktur dan kuantitas bersifat awal/provisional.
- Setiap disiplin wajib dikembangkan dan ditandatangani penanggung jawab teknis bersertifikat.
- Perizinan, standar dan persyaratan instansi harus diverifikasi pada tanggal desain final.

Atribut	Isi
Proyek	Kampung Sakinah
Lokasi	Kabupaten Tasikmalaya - lokasi final belum ditetapkan
Luas acuan	100 ha / 1.000.000 m²
Dokumen	DED Konseptual / Basis Desain
Nomor	KS-DED-001
Revisi	01
Tanggal	16 Juli 2026
Status	For Owner Review

Rev	Tanggal	Keterangan	Status
00	16 Juli 2026	Struktur awal DED	Internal
01	16 Juli 2026	Paket teknis lengkap dan visualisasi	For Owner Review

Ringkasan Eksekutif

Kampung Sakinah adalah kota hunian Islam terpadu berbentuk konsentris dengan masjid sebagai pusat spiritual, civic ring untuk pendidikan dan kesehatan, ring hunian landed, green commons dan outer business ring. Dokumen ini menetapkan basis teknis untuk survey, basic design, perizinan, gambar konstruksi, BOQ, tender dan operasional.



Visualisasi keseluruhan circular eco-city Kampung Sakinah.

Parameter	Basis Rev.01
Luas	100 ha
Radius teoritis	564,2 m
Populasi	10.000; ultimate 12.000
Hunian	±2.000 unit
Masjid Raya	3.000 jamaah indoor
Rumah sakit	100-150 tempat tidur
Air bersih	2,3 MLD rata-rata; WTP 3,5 MLD
Air limbah	IPAL 3,0 MLD
Listrik	9,9 MW peak; sistem 12,5 MW
Renewable	4 MWp solar + BESS 8 MWh
Sampah	MRF 12 ton/hari
RTH efektif	Minimum 35%

Daftar Isi

1. Basis Proyek dan Sasaran DED
2. Parameter Perencanaan
3. Geometri dan Zonasi
4. Survei dan Investigasi
5. Grading dan Earthwork
6. Jalan dan Mobilitas
7. Drainase dan Banjir
8. Air Bersih dan Fire Water
9. Air Limbah dan IPAL
10. Persampahan
11. Kelistrikan dan Energi
12. ICT dan Smart City
13. Landscape dan Ekologi
14. Arsitektur
15. Struktur dan Geoteknik
16. MEP Bangunan
17. Fire and Life Safety
18. Aksesibilitas
19. DED Zona A
20. DED Zona B
21. DED Zona C
22. DED Zona D
23. DED Zona E
24. Fasilitas Umum
25. Prototipe Hunian
26. Spesifikasi Material
27. Tahapan Konstruksi
28. Preliminary BOQ
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30. Drawing Register
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32. Lampiran Perhitungan
33. Lampiran Visualisasi
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1. Basis Proyek dan Sasaran DED

Level	Tujuan	Output
Masterplan	Struktur ruang dan kapasitas	Land use, zoning, mobility, phasing
DED Konseptual	Basis teknis lintas disiplin	Parameter, preliminary sizing, register gambar
Basic Design	Desain berbasis data tapak	Layout, calculation, cost plan
IFC	Dokumen pelaksanaan	Gambar final, BOQ, approval engineer
Shop Drawing	Detail kontraktor	Fabrication, installation, as-built

- Menjaga circular city tetap konsisten pada seluruh disiplin.
- Memastikan setiap tahap dapat beroperasi mandiri.
- Mencegah konflik jalan, utilitas, landscape, bangunan dan akses darurat.

2. Parameter Perencanaan dan Asumsi

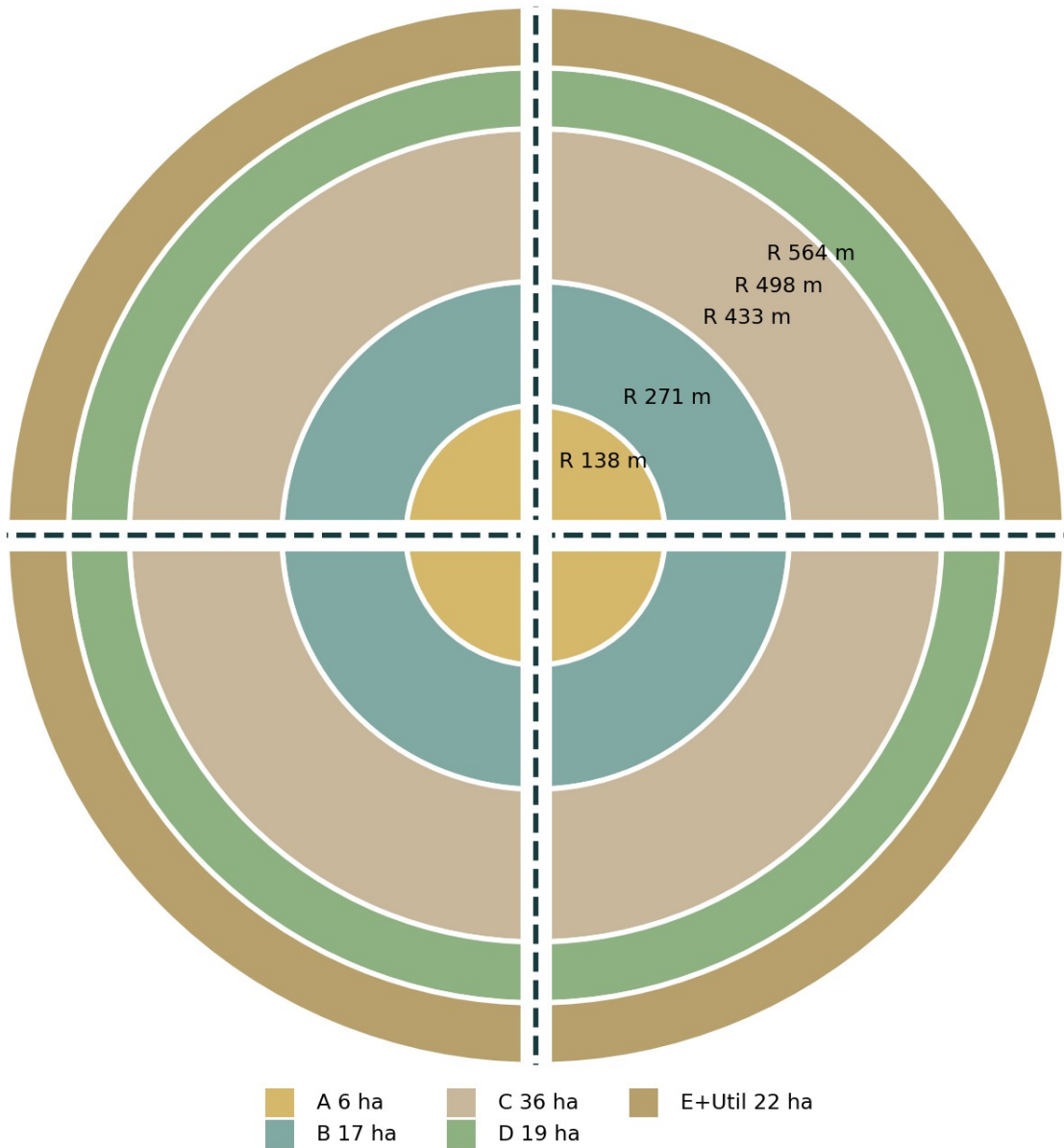
Parameter	Nilai Awal	Validasi
Luas bruto	1.000.000 m ²	Survey boundary/BPN
Bentuk	Lingkaran/segmented circle	Kontur dan bidang aktual
Populasi	10.000; ultimate 12.000	Market dan program fasilitas
Unit	1.700-2.200; basis 2.000	Product mix
Occupancy	4,5 orang/unit	Data target market
Kepadatan bruto	100-120 orang/ha	Final area schedule
Iklim	Tropis basah	BMKG/microclimate
Umur desain	25-50 tahun	Per disiplin
Kecepatan internal	10-30 km/jam	Andalalin
Walking radius	400-800 m	Accessibility audit

ASUMSI TAPAK IDEAL

Perhitungan memakai lingkaran teoritis 100 ha. Ring dapat berubah menjadi oval atau segmented circle sepanjang masjid, empat radial axis dan hierarki fungsi tetap terbaca.

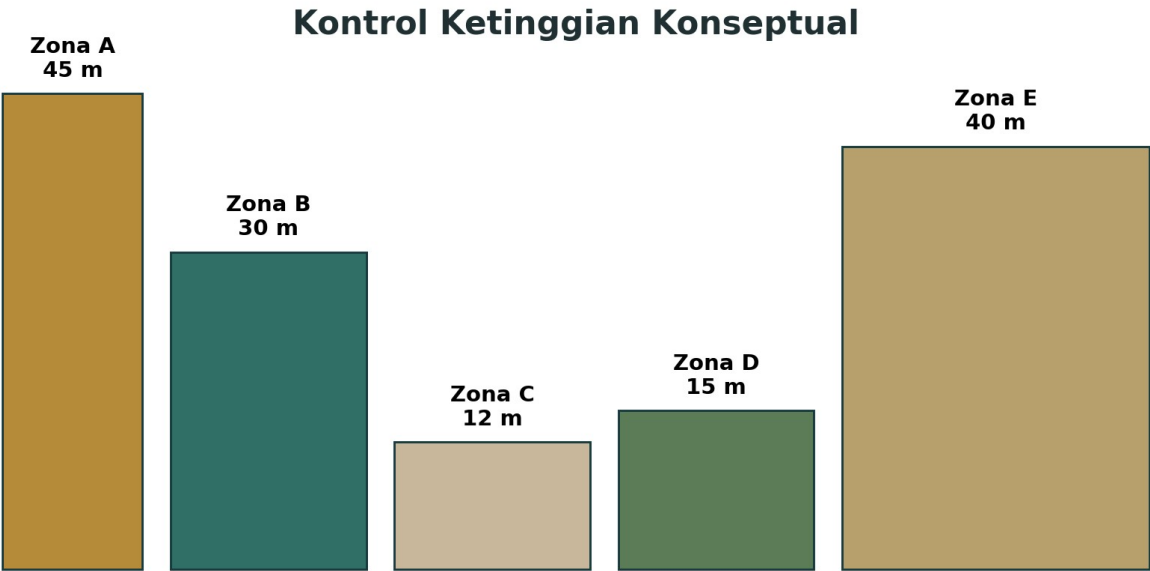
3. Geometri, Zonasi dan Development Control

Geometri Acuan 100 Hektare



DED-URB-001 - Geometri acuan dan radius batas zona.

Zona	Luas	Radius kumulatif	Fungsi
A	6 ha	138 m	Spiritual core
B	17 ha	271 m	Pendidikan, kesehatan, civic
C	36 ha	433 m	Hunian landed
D	19 ha	498 m	Green commons
E + utilitas	22 ha	564 m	Bisnis 14 ha + utilitas/jalan 8 ha



DED-URB-002 - Kontrol ketinggian konseptual.

Zona	KDB	KLB	KDH	Tinggi
A	20-30%	0,4-0,8	50%	Masjid 45 m; minaret 60 m
B	35-50%	1,2-2,5	30%	4-6 lantai / 30 m
C	45-60%	0,8-1,2	30%	2 lantai / 12 m
D	10-20%	0,2-0,5	65%	2-3 lantai / 15 m
E	50-65%	2,0-4,0	20%	4-8 lantai / 40 m

4. Data Dasar, Survei dan Investigasi

Survei	Cakupan	Output
Cadastral	Boundary, patok, sertifikat, easement	Peta 1:1.000 dan land register
Topografi	Grid, breakline, saluran, pohon, spot level	DTM, contour 0,5 m, CAD/GIS
Geoteknik	Boring, SPT, CPT, groundwater, lab	Geotechnical design report
Hidrologi	Catchment, IDF, banjir, outlet	Flood model/drainage criteria
Traffic	Count, OD, peak, public transport	Andalalin
Utilities	GPR/trial pit dan konfirmasi instansi	Composite utility map
Environment	Flora-fauna, air, noise, water, social	Baseline lingkungan
Microclimate	Sun, wind, rain, temperature	Passive strategy

- Base map menjadi single source of truth untuk CAD, GIS dan BIM.
- Tidak ada cut-fill atau pondasi final sebelum topografi dan geoteknik disetujui.

5. Grading, Earthwork dan Stabilitas

Elemen	Kriteria
Platform bangunan	Slope 0,5-2%; di atas flood level + freeboard
Jalan	Longitudinal ideal 0,5-6%; crossfall 2-2,5%
Cut-fill	Target balance on-site; topsoil disimpan
Slope	Vegetated $\leq 1V:3H$; lebih curam dianalisis geoteknik
Retaining wall	Diminimalkan; desain stabilitas penuh
Settlement	Soil improvement bila perlu
Erosion	Silt fence, sediment basin, staged clearing

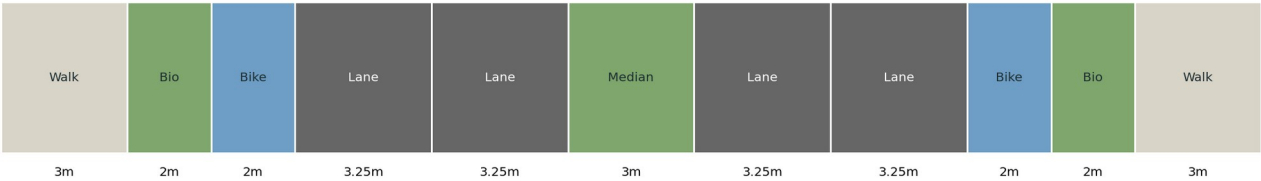
VOLUME EARTHWORK BELUM FINAL

Kuantitas harus dihitung dari DTM existing-versus-proposed dan mass-haul diagram. Tidak boleh dipakai untuk tender.

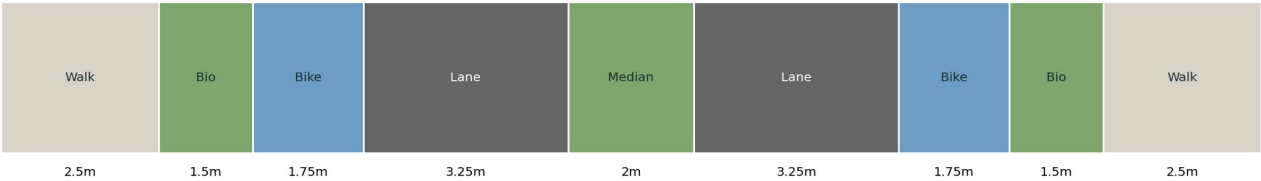
6. Jalan, Mobilitas dan Parkir

Tipikal Penampang Jalan

Outer Ring 30 m



Radial 24 m



Residential Ring 20 m



Cluster Street 12 m



DED-CIV-001 - Penampang tipikal hierarki jalan.

Hierarki	ROW	Kecepatan	Fungsi
Outer ring	30 m	40 km/jam	Regional, bisnis, logistik
Radial	24 m	30 km/jam	Empat poros dan trunk utility
Residential ring	20 m	30 km/jam	Antarcluster
Cluster street	12 m	20 km/jam	Akses rumah
Living street	8-10 m	10-15 km/jam	Shared space
Emergency	6 m clear	Darurat	Pemadam/ambulans

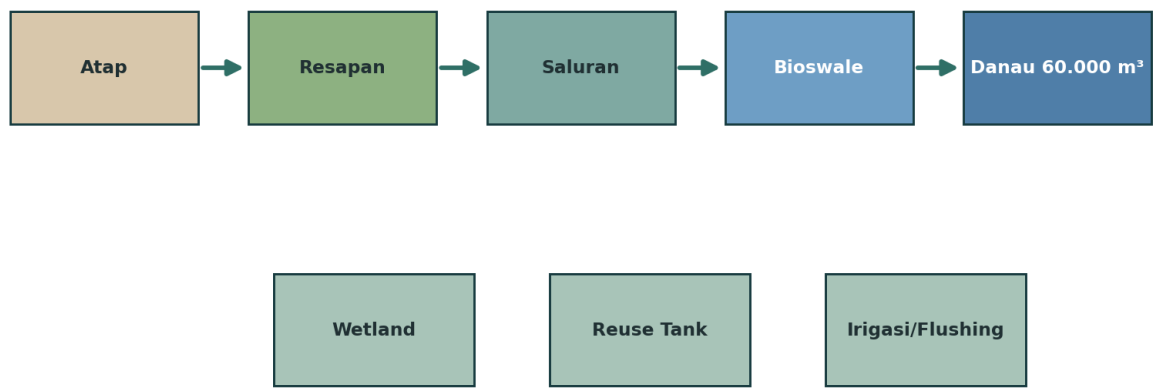
Kuantitas awal	Nilai
Jalan total	±25 km
Carriageway	±190.000 m ²
Pedestrian/jogging	≥12 km

Cycle network	≥10 km
Streetlights	±900 titik
SPKLU	Outer ring + cluster charging

- Swept path wajib untuk bus, ambulans, mobil pemadam dan truk sampah.
- Drop-off sekolah, rumah sakit dan masjid dipisahkan dari pedestrian utama.

7. Drainase, Banjir dan Green-Blue Infrastructure

Drainase dan Green-Blue Infrastructure



DED-CIV-002 - Hirarki air hujan, retensi dan reuse.

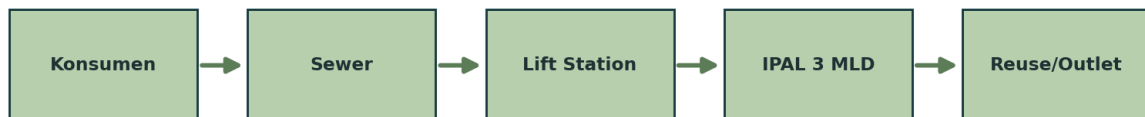
Sistem	Basis
Minor drainage	Inlet, gutter, bioswale, pipe
Major flow	Overland route ke green commons/lake
Lake	5-6 ha; active storage awal 60.000 m³
Freeboard	0,5 m provisional
Water quality	Forebay, wetland, sediment trap
FFL	Flood level + freeboard
Reuse	Irigasi, flushing, water feature
Monitoring	Rain/level/water-quality sensor

WAJIB MODEL HIDROLOGI

Volume dan elevasi final memerlukan IDF hujan, DTM, koefisien limpasan, kondisi outlet dan target no-adverse-impact.

8. Air Bersih dan Fire Water

Air Bersih, Fire Water, Air Limbah dan Reuse



DED-MEP-001 - Sistem air bersih, fire water dan wastewater.

Parameter	Nilai Awal
Domestik	1,50 MLD
Non-domestik	0,45 MLD
Loss/allowance	0,35 MLD
Average day	2,30 MLD
Peak day	3,10 MLD
WTP	3,50 MLD modular
Reservoir	2 x 2.000 m³
Distribusi	Ring main + DMA
Hydrant	±100 m provisional

- Sumber air wajib memiliki izin, yield dan kualitas.
- Hospital, masjid dan command centre memiliki cadangan lokal.
- Smart meter dan leak detection per cluster/fasilitas.

9. Air Limbah, Greywater dan IPAL

Parameter	Basis
Average flow	±2,1 MLD termasuk allowance
Design plant	3,0 MLD modular
Network	Gravity; lift station bila terpaksa
Reuse	30-40% untuk flushing/irigasi
Sludge	Dewatering dan offtake berizin
Odour	Enclosure dan green buffer
Monitoring	Flow, energy, effluent sampling

SISTEM TERPISAH

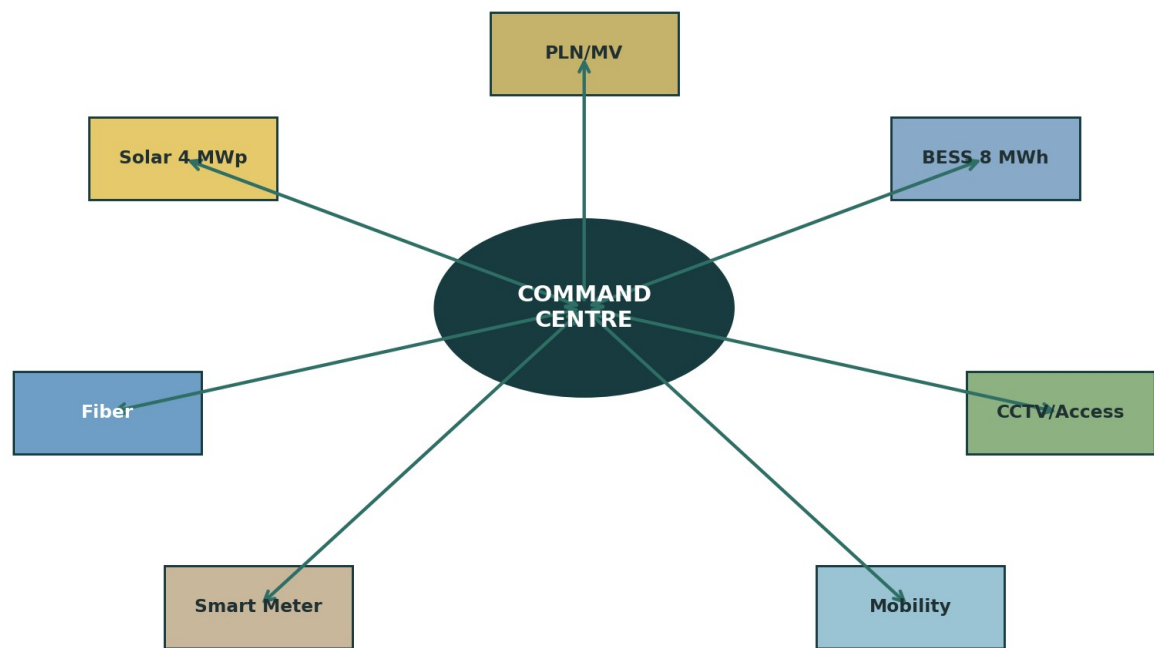
Stormwater dan sanitary sewer wajib terpisah. Grease trap untuk food areas; limbah medis memiliki pre-treatment dan sistem khusus.

10. Persampahan dan Material Recovery

Stream	Kapasitas/Strategi
Timbulan	±10 ton/hari
MRF	12 ton/hari modular
Organik	5-6 ton/hari compost/biodigester
Recyclable	Sorting, baling, offtake
Residual	Compactor dan transporter resmi
B3 rumah tangga	Drop box
Medis	Secure/cold storage dan transporter berizin
Digital	Bank sampah dan tracking

11. Kelistrikan, Energi Terbarukan dan PJU

Energi, ICT dan Smart City



DED-MEP-002 - Arsitektur energi, ICT dan command centre.

Beban	Peak
Hunian	3,6 MW
Pendidikan/universitas	2,0 MW
Rumah sakit	1,5 MW
Komersial/hotel	2,0 MW
Public/utilities	0,8 MW
Total	9,9 MW
Design capacity	12,5 MW
Solar	4 MWp
BESS	8 MWh

Sistem	Basis
MV	Ring main
Critical load	Hospital, command, WTP, IPAL, masjid emergency
Backup	Generator + UPS + BESS
PJU	LED smart dimming dan dark-sky
Metering	Smart meter unit/tenant
EV	Managed charging

12. ICT, Smart City dan Security

Layer	Lingkup
Backbone	Dual-path fiber, duct bank, data centre
IoT	Meter, level, air quality, light, leak, waste
Mobility	Shuttle, e-bike, parking, gate
Safety	CCTV zonal, call point, access control
Resident app	Billing, booking, health, school, mosque
Cybersecurity	Segmentation, IAM, logging, backup
Privacy	Minimisation, consent, retention
Operations	GIS/BIM asset and work-order

- Facial recognition tidak menjadi default.
- CCTV tidak mengarah ke ruang privat.
- Seluruh sistem memiliki manual fallback.

13. Landscape, Public Realm dan Urban Ecology

Komponen	Target
Canopy	≥40% corridor pedestrian saat mature
Planting	Dominan lokal/adaptif
Greenways	Empat radial + ecological ring
Public space	Pocket park dan garden setiap cluster
Heat	Shade, pergola, cool pavement
Biodiversity	Wetland, pollinator, habitat
Irrigation	Reuse, drip, moisture sensor
Maintenance	Nursery, compost, replacement



Karakter public realm: air, jogging, sepeda, naungan dan keluarga.

14. Basis Arsitektur dan Bangunan

Prinsip	Penerapan
Islamic medieval modern	Arch, courtyard, screen, hierarchy tanpa replika literal
Tropical	Overhang, ventilation, rain protection
Material	Stone/finish lokal, wood, metal screen, efficient glass
Privacy	Guest-family zoning dan buffer
Passive	Orientation, daylight, cross ventilation
Modularity	Grid, wet core dan facade module
Maintenance	Roof/gutter/facade accessible
Universal	Step-free route, toilet dan wayfinding



Bahasa arsitektur hunian Kampung Sakinah.

15. Basis Struktur dan Geoteknik

Item	Basis
Acuan	SNI gempa, beban, beton dan material yang berlaku
Sistem	RC frame/shear wall; steel long-span
Pondasi	Spread/raft/pile sesuai geoteknik
Seismic	Site class dan spectrum lokasi final
Hospital	Essential facility criteria
Dome/minaret	Analisis independen dan peer review
Durability	Exposure, cover, waterproofing
Joint	Thermal/differential settlement

UKURAN STRUKTUR TIDAK FINAL

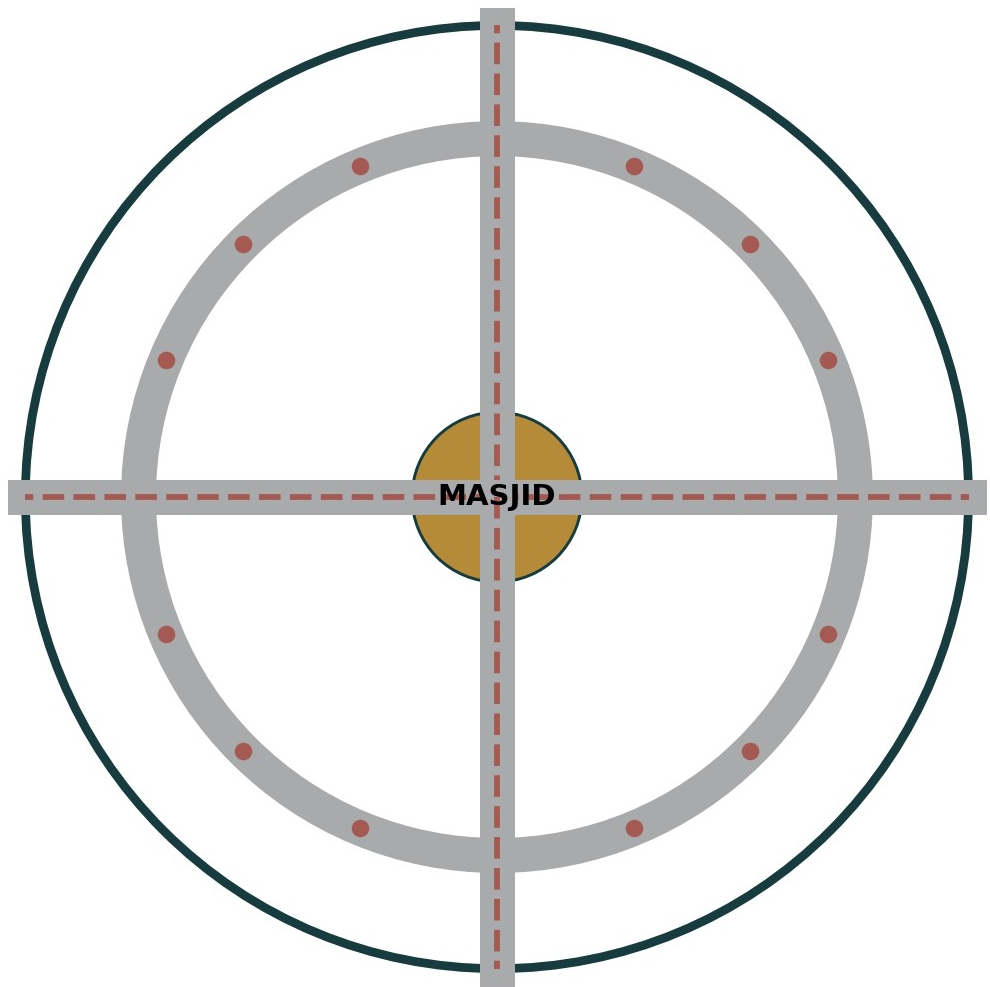
Kolom, balok, pelat, pondasi dan tulangan baru boleh diterbitkan setelah laporan geoteknik dan model analisis engineer struktur.

16. Basis MEP Bangunan

Disiplin	Kriteria
HVAC	Mixed mode; dedicated system untuk critical rooms
Plumbing	Water balance, hot water, rainwater, grease
Electrical	Load, SLD, earthing, lightning, emergency
Lighting	Daylight, LED, control, emergency
Fire	Alarm, hydrant, sprinkler, smoke control
Lift	Accessible/stretchers sesuai fungsi
BMS	Fasilitas besar ke central monitoring
Acoustic	Masjid, kelas, hall, hospital
Kitchen/laundry	Dedicated utility dan exhaust

17. Fire and Life Safety

Akses Darurat dan Hydrant Ring



DED-FLS-001 - Akses darurat dan hydrant ring.

Komponen	Basis
Fire access	6 m clear provisional
Clear height	4,5 m provisional
Hydrant	±100 m preliminary
Compartment	Menurut occupancy/area
Egress	Occupant load, travel, exit width
Assembly	Crowd management
Hospital	Defend-in-place and essential power
Water	Dedicated fire reserve/pump redundancy
Command	PA and command centre integration

18. Universal Design dan Aksesibilitas

Elemen	Basis
Accessible route	Drop-off/parking ke seluruh entrance
Ramp	Prefer 1:20; final sesuai ketentuan
Door	Clear width dan maneuvering
Lift	Public multi-storey buildings
Toilet	Setiap bangunan publik
Tactile/contrast	Crossing, stair, platform
Audio/visual	Alarm dan informasi
Wheelchair seating	Masjid, hall, sports
Elderly	Rest point, shade, shuttle

19. DED Zona A - Spiritual Core



Zona A - Masjid Raya dan pedestrian sanctuary.

Komponen	Parameter
Luas	6 ha
Masjid GFA	±12.500 m ²
Kapasitas	3.000 indoor + overflow
Footprint	±7.000 m ²
Dome	±45 m
Minaret	±60 m
Plaza	≥20.000 m ²
Parkir	Ring B + shuttle
Ancillary	Library, dakwah, museum, baitul mal
Landscape	Quran garden dan water court



Karakter plaza Masjid Raya.

- Pisahkan jamaah, servis, pemulasaraan, VIP dan darurat.
- Wudhu hemat air, anti-slip dan greywater reuse.
- Akustik speech intelligibility menjadi kriteria utama.

20. DED Zona B - Civic Ring



Zona B - Pendidikan, kesehatan dan innovation centre.

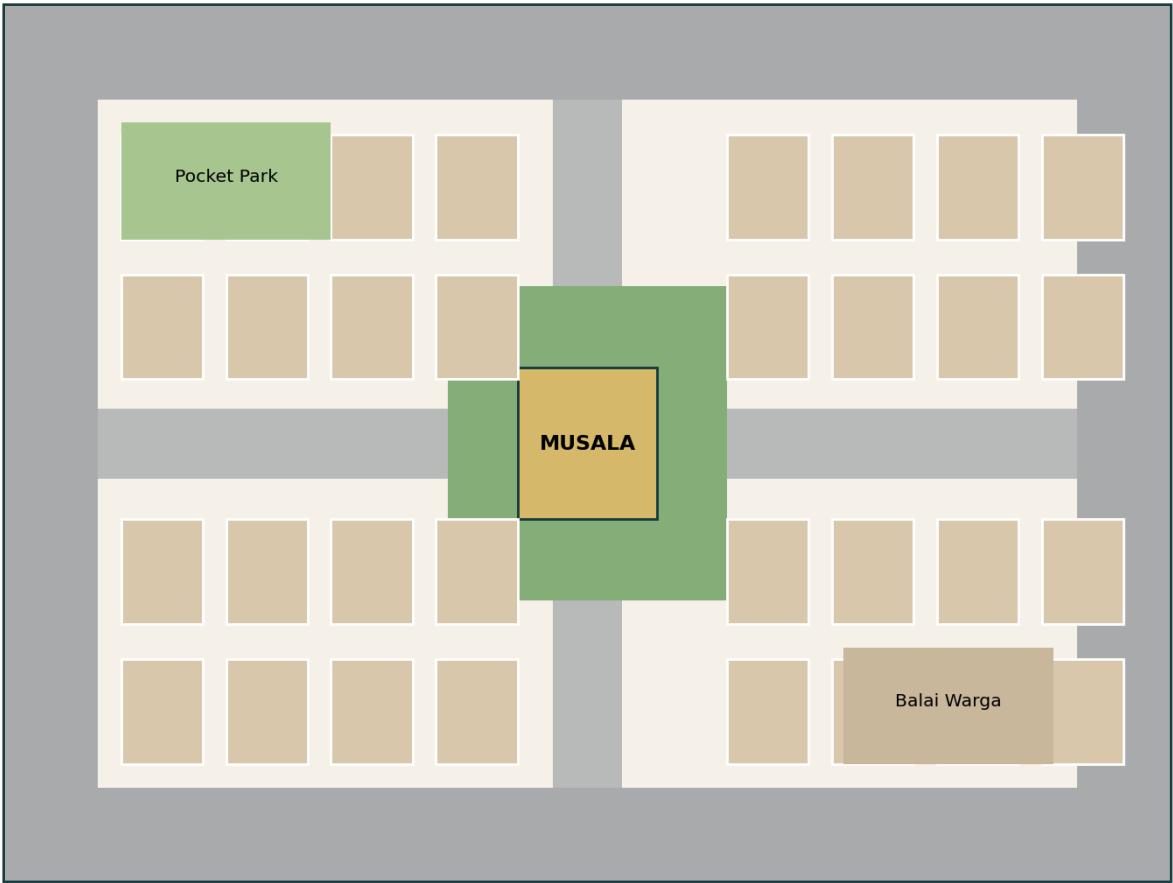
Fasilitas	Lahan/GFA	Catatan
PAUD	0,5 ha / 2.500 m ²	Play garden
SD	1,5 ha / 10.000 m ²	Indoor-outdoor
SMP	1,5 ha / 8.000 m ²	Shared sports
SMA/SMK	2 ha / 10.000 m ²	Lab/vocational
Pesantren	1,5 ha / 15.000 m ²	Gender zoning
Universitas 1	3 ha / 45.000 m ²	Expandable
Rumah sakit	5 ha / 35-45.000 m ²	100-150 bed
Innovation	2 ha / 18.000 m ²	Cowork/lab/auditorium



Civic boulevard dengan pedestrian, sepeda dan shuttle.

21. DED Zona C - Residential Ring

Tipikal Neighbourhood Cluster



DED-URB-003 - Tipikal neighbourhood cluster.

Tipe	Tanah	GFA	Proporsi	Karakter
Compact	72-84 m ²	60-85 m ²	30%	2-3 kamar
Family	90-120 m ²	90-130 m ²	40%	3-4 kamar
Garden	140-180 m ²	130-180 m ²	20%	Garden/guest zoning
Courtyard	200-300 m ²	180-280 m ²	10%	Premium courtyard

Fasilitas cluster	Basis
Musala	±450 m ²
Balai warga	±600 m ²
Pocket park	1.500-3.000 m ²
Community garden	500-1.000 m ²
Shuttle	≤300 m walking
Emergency	2 access bila memungkinkan



Ring hunian dengan musala, taman dan kebun komunal.

22. DED Zona D - Green Commons



Zona D - Green commons, lake, sports and farming.

Fasilitas	Basis
Lake	5-6 ha; 60.000 m³ active
Jogging	3,5-4 km outer loop
Cycle	Protected route
Sports	Football, multisport, tennis/padel, archery
Sports hall	±12.000 m²
Aquatic	Family + women privacy
Therapeutic	Elderly/rehab/wellness
Urban farming	Plot, greenhouse, nursery
Ecology	Wetland and habitat

23. DED Zona E - Business Ring



Zona E - Business boulevard dan smart mobility.

Program	Basis
Retail/ruko	Shaded arcade dan controlled signage
Halal market	Fresh, food court, cold/service
Office/cowork	Flexible floorplate
Hotel	100-150 keys
Convention	1.500-2.000 orang
UMKM	Production, display, training
Visitor centre	Sales/exhibition
Transit	Shuttle, e-bike, SPKLU
Parking	Shared outer-edge parking



Pasar halal dan food court.

24. Fasilitas Umum Prototipe

Community Library

Ruang baca, makerspace, courtyard dan kelas.



Visualisasi konseptual Community Library.

PAUD & Learning Garden

Play garden aman dan outdoor classroom.



Visualisasi konseptual PAUD & Learning Garden.

Family Clinic

Klinik, farmasi, maternal-child dan healing garden.



Visualisasi konseptual Family Clinic.

Women Aquatic Center

Kolam semi-private dan wellness courtyard.



Visualisasi konseptual Women Aquatic Center.

Smart Shuttle Hub

Shuttle, e-bike, charging dan waiting canopy.



Visualisasi konseptual Smart Shuttle Hub.

Sports Center

Indoor hall, courts dan family recreation.



Visualisasi konseptual Sports Center.

Balai Warga

Community hall, plaza dan amphitheater.



Visualisasi konseptual Balai Warga.

Urban Farming Park

Greenhouse, nursery dan education plots.



Visualisasi konseptual Urban Farming Park.

25. Prototipe Hunian dan Pedoman Unit

Aspek	Kriteria
Orientation	Kurangi panas barat; cross ventilation
Guest zoning	Tamu tidak melewati family core
Prayer	Qibla dan storage jelas
Wet core	Stacked dan maintainable
Courtyard	Light, privacy dan family activity
Facade	Controlled palette dan shade
Roof	High-rainfall detailing
Smart home	Meter, smoke/gas, leak, panic
Expansion	Lokasi ekspansi terkendali
Parking	Permeable dan EV-ready

26. Spesifikasi Material Utama

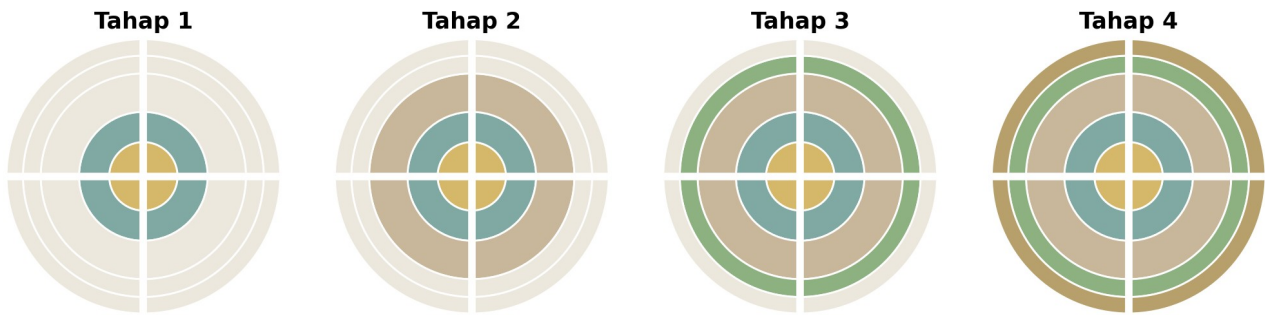
Work	Performance
Earthwork	Approved fill dan compaction testing
Road	Pavement berdasar geoteknik dan traffic
Paving	Slip-resistant dan accessible
Drainage	Watertight dan maintainable
Water pipe	Potable pressure-rated
Sewer	Watertight/corrosion resistant
Concrete	Strength/exposure by design
Steel	Certified dan traceable
Facade	Mock-up dan water test
Roof	Flood test dan warranty
Landscape	Soil, irrigation, establishment
PJU	LED, surge and smart control
ICT	Outdoor-rated and labelled

WAJIB MOCK-UP

Fasad, rumah tipe, pedestrian, landscape, signage, toilet, waterproofing dan MEP riser harus dibuat mock-up sebelum produksi massal.

27. Tahapan Konstruksi dan Enabling Works

Phasing Pengembangan



DED-PHS-001 - Phasing empat tahap.

Tahap	Lingkup	Operasional
0 Enabling	Access, temporary drain, trunk utility, lake 1	Belum dihuni
1 Founding	Masjid 1, 300-400 rumah, PAUD/SD, clinic	Mandiri minimum
2 Community	500-600 rumah, SMP/SMA, market, sports, hospital 1	Komunitas aktif
3 Education/Health	University, hospital full, innovation, housing	Regional destination
4 Completion	Remaining housing, business, hotel, convention	Complete city

28. Preliminary BOQ dan Quantity Schedule

ESTIMASI CLASS 4-5

Kuantitas adalah order-of-magnitude. Harga satuan dan volume earthwork harus diperbarui QS berdasarkan lokasi, desain final dan tanggal tender.

Package	Quantity	Remark
Land clearing	100 ha	Selective
Road	±190.000 m ²	Excl. parking
Pedestrian	±120.000 m ²	All zones
Cycle/jogging	±40.000 m ²	10-12 km
Storm drain/bioswale	±28 km	Minor/major
Water/fire pipe	±30 km	Ring/branch
Sewer	±28 km	Gravity
Electrical ducts	±35 km	MV/LV
Fiber	±35 km	Redundant
PJU	±900	Smart LED
Trees	±8.000	Major trees
Lake/wetland	5-6 ha	60.000 m ³ active
WTP	3,5 MLD	Modular
Reservoir	4.000 m ³	2 cells
IPAL	3,0 MLD	Modular
MRF	12 t/day	Organics included
Solar	4 MWp	Roof/canopy
BESS	8 MWh	Staged
Residential GFA	±220.000 m ²	2.000 units
Nonresidential GFA	±250.000 m ²	Civic/business

29. Procurement, Quality, HSE dan Commissioning

Workstream	Dokumen
Procurement	Packaging, PQ, RFP, evaluation, contract, bonds
Design	Basis, calculation, review, clash, revision
Quality	PQP, ITP, approval, mock-up, NCR
HSE	SMKK, risk, PTW, emergency, public safety
Environment	RKL-RPL, erosion, waste, noise, water
Commissioning	Plan, checklist, integrated test, training
Handover	As-built, O&M, warranty, spares, assets
Readiness	SOP, staffing, drill, resident communication

30. Drawing Register dan Deliverable Matrix

No.	Title	Stage
URB-001	Overall masterplan	Concept/Basis
URB-002	Zoning	Concept/Basis
URB-003	Block plan	Concept/Basis
URB-004	Height control	Concept/Basis
URB-005	Phasing	Concept/Basis
CIV-001	Existing survey	Concept/Basis
CIV-002	Grading	Concept/Basis
CIV-003	Cut-fill	Concept/Basis
CIV-004	Road alignment	Concept/Basis
CIV-005	Road profile	Concept/Basis
CIV-006	Cross section	Concept/Basis
CIV-007	Swept path	Concept/Basis
CIV-008	Parking	Concept/Basis
DRN-001	Catchment	Concept/Basis
DRN-002	Minor drainage	Concept/Basis
DRN-003	Major flow	Concept/Basis
DRN-004	Lake/wetland	Concept/Basis
DRN-005	Details	Concept/Basis
WAT-001	Water balance	Concept/Basis
WAT-002	WTP/reservoir	Concept/Basis
WAT-003	Ring main	Concept/Basis
WAT-004	Hydraulic details	Concept/Basis
SWR-001	Wastewater catchment	Concept/Basis
SWR-002	Sewer profile	Concept/Basis
SWR-003	IPAL	Concept/Basis
SWR-004	Reuse	Concept/Basis
ELE-001	Load/SLD	Concept/Basis
ELE-002	MV/LV	Concept/Basis
ELE-003	Substation	Concept/Basis
ELE-004	PJU	Concept/Basis
ELE-005	Solar/BESS	Concept/Basis
ICT-001	Fiber	Concept/Basis
ICT-002	CCTV/access	Concept/Basis
ICT-003	Command centre	Concept/Basis

LAN-001	Landscape	Concept/Basis
LAN-002	Planting	Concept/Basis
LAN-003	Irrigation	Concept/Basis
LAN-004	Public realm	Concept/Basis
FLS-001	Fire access	Concept/Basis
FLS-002	Evacuation	Concept/Basis
ARC-001	Zone A	Concept/Basis
ARC-002	Zone B	Concept/Basis
ARC-003	Residential	Concept/Basis
ARC-004	Green buildings	Concept/Basis
ARC-005	Business	Concept/Basis
STR-001	Structural criteria	Concept/Basis
MEP-001	Building MEP criteria	Concept/Basis
BIM-001	Federated model/clash	Concept/Basis

31. Checklist Persetujuan DED Konseptual

- ☐ Polygon dan cadastral map
- ☐ Topografi/DTM
- ☐ Geotechnical report
- ☐ Flood/IDF/outlet
- ☐ KKPR constraints
- ☐ Area schedule
- ☐ Population/demand model
- ☐ Road/emergency access
- ☐ Utility capacities
- ☐ Lake reservation
- ☐ Program Zona A-E
- ☐ Residential mix
- ☐ Height controls
- ☐ Phasing independence
- ☐ Preliminary budget
- ☐ Drawing register
- ☐ Permit strategy
- ☐ Basis Design Freeze

Lampiran A - Perhitungan Awal

Boundary	Area kumulatif	Formula	Radius
A	60.000 m ²	$\sqrt{(A/\pi)}$	138,2 m
A+B	230.000 m ²	$\sqrt{(A/\pi)}$	270,6 m
A+B+C	590.000 m ²	$\sqrt{(A/\pi)}$	433,4 m
A+B+C+D	780.000 m ²	$\sqrt{(A/\pi)}$	498,3 m
Total	1.000.000 m ²	$\sqrt{(A/\pi)}$	564,2 m

Water	Calculation	Result
Domestic	10.000 x 150 L/day	1,50 MLD
Non-domestic	Facilities	0,45 MLD
Allowance	Loss/uncertainty	0,35 MLD
Average	Sum	2,30 MLD
Peak	x 1,35	3,10 MLD
WTP	Peak + margin	3,50 MLD

Energy	Peak
Residential	3,6 MW
Education	2,0 MW
Hospital	1,5 MW
Commercial	2,0 MW
Public	0,8 MW
Total	9,9 MW
Capacity	12,5 MW

Lampiran B - Visualisasi Desain



B-01 Overall masterplan



B-02 Masjid Raya



B-03 Civic ring



B-04 Residential ring



B-05 Green commons



B-06 Business ring



B-07 Library



B-08 PAUD



B-09 Clinic



B-10 Aquatic



B-11 Mobility



B-12 Market



B-13 Sports



B-14 Community



B-15 Urban farming

Lampiran C - Referensi dan Acuan

Acuan final wajib diverifikasi kembali oleh konsultan dan penanggung jawab teknis pada tanggal penerbitan IFC.

Acuan	Kegunaan
PP 16/2021	Penyelenggaraan bangunan gedung, PBG dan SLF
PP 28/2025	Perizinan berusaha berbasis risiko
SNI 1726:2019	Ketahanan gempa
SNI 1727:2020	Beban desain minimum
SNI 2847:2019	Beton struktural
Standar disiplin lainnya	Dipilih engineer sesuai lingkup dan versi berlaku
RTRW/RDTR Tasikmalaya	Diperiksa pada koordinat final
Lingkungan/Andalalin	Input desain dan perizinan

LANGKAH KRITIS BERIKUTNYA

Tetapkan polygon tapak, lakukan survey topografi dan geoteknik, lalu kembangkan dokumen ini menjadi Basic Design dan tiga alternatif layout berbasis kondisi nyata.