

 JAYA CM	DATA TEKNIS PROYEK	Nomor : Halaman : Tanggal :
BIRO ENGINEERING	TRANSPORTASI	

NAMA PROYEK	: BANDAR UDARA
PEMILIK	: Angkasa Pura
JENIS PROYEK	: Pembangunan Apron Selatan dan Apron Timur Beserta Fasilitas Penunjangnya
LOKASI	: Maros - Sulawesi Selatan
PERIODE PELAKSANAAN	: 2019 - 2021

NO	DESKRIPSI	VOLUME/ Qty	SATUAN	Biaya Konstruksi		KETERANGAN
1	UMUM					
	URAIAN					
	Luas area	: 199.846,00	m2			Luas sesuai kontrak
	Perencanaan	1,00	ls	Rp 3.658.550.000		
	Persiapan	1,00	ls	Rp 20.122.930.572		
	Perbaikan Tanah + Galian	126.306,08	m2	Rp 74.332.650.918		
	Apron (Rigid Pavement)	: 126.306,08	m2	Rp 148.034.895.426		
	Apron Service Road (Rigid Pavement)	: 15.413,52	m2	Rp 18.014.804.795		
	Jumlah Parking Stand					
	Narrow Body	33,00	Pesawat			
	Wide Body	3,00	Pesawat			memuat pesawat tipe narrow dan wide body
	Konstruksi GSE Road (Rigid Pavement)	: 2.754,70	m2	Rp 3.354.325.041		
	Saluran (drainase)	: 2.412,82	m1	Rp 25.314.326.278		
	Apron Flood Light (AFL)	:				
	Pengadaan Baru	13,00	Unit	Rp 5.047.957.844		
	Relokasi dan Modifikasi	10,00	Unit	Rp 144.043.011		
	Pengadaan AFL Temporary	12,00	Unit	Rp 131.583.050		
	Spot Number Light (SNL)	27,00	Unit	Rp 669.291.114		
	Sistem elektrik	1,00	ls	Rp 3.067.697.975		
	Infrastruktur Penunjang	1,00	ls	Rp 6.177.693.802		
	Perlengkapan	1,00	ls	Rp 4.158.026.000		
	Fasilitas penunjang					
	Jalan Akses Pertamina	1.188,70	m2	Rp 982.337.784		
	Pos Jaga + Kanopi	211,51	m2	Rp 369.350.282		
	Jet Blast Deflector	1,00	ls	Rp 5.057.354.307		
	Pagar	: 863,65	m'	Rp 2.000.779.282		
	Rumput	: 15.414,97	m2	Rp 954.094.339		

2.	KONSTRUKSI GSE - GROUND SUPPORT EQUIPMENT (Rigid Pavement)					
	Tebal urugan P-154 (Non crushed agregat)	: 413,21	m3			
	Tebal	: 15	cm			
	Type	: Non Plastis				
	Quarry	: Bili - bili				
	Density	: > 20	%			
	Tebal urugan P-209 (crushed agregat)	: 819,33	m3			
	Tebal	: 30	cm			
	Type	: Non Plastis				
	Quarry	: Bili - bili				
	Density	: > 80	%			
	Tebal urugan P-304 (CTB)	: 413,21	m3			
	Tebal	: 15	cm			
	Type	: Non Plastis				
	Merek	: WBP				
	Density	: 100 - 150	%			
	Mutu Besi (rebar/stek dowel/wiremesh)	: 240, 550	Mpa			
	Besi dowel (ukuran / diameter)	: 32	mm			
	Type	: -				
	Merek	: Krakatau Steel				
	Besi wiremesh (ukuran / diameter)	: 6	mm			
	Type	: M6				
	Merek	: Togo Mesh				
	Mutu Beton perkerasan (Kuat tekan fc')	: 35	Mpa			
	Mutu Beton perkerasan (Flextural strength fs)	: 4,28	Mpa			
	Dimensi/tebal perkerasan	: 500	mm			
	Type	: Cast in Site				
	Merek	: WBP, Wika Beton, Bosowa, Varia				
	Material marka (tipe/jenis)	:				
	Type	: Jotaline Paint				
	Merek	: Jotun Paint				
	Sealant (tipe/jenis)	: 1	cm			
	Type	: thioflex 600				
	Merek	: Fosroc				

3.	Perbaikan Tanah					
	Tanah timbunan pilihan	: 221.063,76	m3			
	Density	: 6	%			
	Quarry	: Gowa				
	Mini Pile	3.276,00				
	Type	: 25x25x300 cm				
	Merek	: Kalla Beton				
	Gabion Wall	136,70				
	Type	: Kawat galvanish dia 3-4 mm, kuat tarik 41-53 kg/mm2				
	Quary	: Mccaferry				
	CCSP	774,00				
	Type	: Tipe W350 dg moment crack 17 tonm				
	Quary	: Wika Beton				

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	Geotextil	:	222.417,43	m2		
	Tebal :		3	mm		
	Type :		Non Woven 38 KN/m			
	Merek :		Ecomat			

4. APRON (Rigid Pavement)						
	Tebal urugan P-154 (Non crushed agregat)	:	10.711,41	m3		
	Tebal :		15	cm		
	Type :		Non Plastis			
	Merek :		Bili - bili			
	Density :		> 20	%		
	Tebal urugan P-209 (crushed agregat)	:	36.173,03	m3		
	Tebal :		30	cm		
	Type :		Non Plastis			
	Merek :		Bili - bili			
	Density :		> 80	%		
	Tebal urugan P-304 (CTB)	:	18.086,52	m3		
	Tebal :		15	cm		
	Type :		Non Plastis			
	Merek :		WBP			
	Density :		100 - 150	%		
	Mutu Besi (rebar/stek dowel/wiremesh)	:	240, 550	Mpa		
	Besi dowel (ukuran / diameter)	:	32	mm		
	Type :		-			
	Merek :		Krakatau Steel			
	Besi wiremesh (ukuran / diameter)	:	6	mm		
	Type :		M6			
	Merek :		Togo Mesh			
	Mutu Beton perkerasan (Kuat tekan fc')	:	35	Mpa		
	Mutu Beton perkerasan (Flextural strength fs)	:	4,28	Mpa		
	Dimensi/tebal perkerasan	:	500	mm		
	Type :		Cast in Site			
	Merek :		WBP, Wika Beton, Bosowa, Varia			
	Material marka (tipe/jenis)	:				
	Type :		Jotaline Paint			
	Merek :		Jotun Paint			
	Sealant (tipe/jenis)	:	1	cm		lebar
	Type :		thioflex 600			
	Merek :		Fosroc			

5. APRON SERVICE ROAD (Rigid Pavement)						
	Tebal urugan P-154 (Non crushed agregat)	:	2.312,05	m3		
	Tebal :		15	cm		
	Type :		Non Plastis			
	Merek :		Bili - bili			
	Density :		> 20	%		
	Tebal urugan P-209 (crushed agregat)	:	4.624,04	m3		
	Tebal :		30	cm		
	Type :		Non Plastis			
	Merek :		Bili - bili			
	Density :		> 80	%		
	Tebal urugan P-304 (CTB)	:	2.312,05	m3		
	Tebal :		15	cm		
	Type :		Non Plastis			
	Merek :		WBP			
	Density :		100 - 150	%		
	Mutu Besi (rebar/stek dowel/wiremesh)	:	240, 550	Mpa		
	Besi dowel (ukuran / diameter)	:	32	mm		
	Type :		-			
	Merek :		Krakatau Steel			
	Besi wiremesh (ukuran / diameter)	:	6	mm		
	Type :		M6			
	Merek :		Togo Mesh			
	Mutu Beton perkerasan (Kuat tekan fc')	:	35	Mpa		
	Mutu Beton perkerasan (Flextural strength fs)	:	4,28	Mpa		
	Dimensi/tebal perkerasan	:	500	mm		
	Type :		Cast in Site			
	Merek :		WBP, Wika Beton, Bosowa, Varia			
	Material marka (tipe/jenis)	:				
	Type :		Jotaline Paint			
	Merek :		Jotun Paint			
	Sealant (tipe/jenis)	:	1	cm		lebar
	Type :		thioflex 600			
	Merek :		Fosroc			

6. Saluran (Drainase)						
	Box culvert (dimensi)	:	4300x2600	mm		
	Type :		SD1			
	Box culvert (dimensi)	:	2450x1500	mm		
	Type :		SD2			
	Split gully (dimensi)	:	1200 x (1000 - 1400)	mm		
	Type :					
	U- shape (dimensi)	:	1200 x (1350 - 1750)	mm		
	Type :					
	Steel Grating Galvanized (dimensi)	:	200x600	mm		
	Type :		-			

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Merek :	local				

7. ELEKTRIKAL

Outgoing Medium Voltage Panel, MCSG 24 kV Outgoing (VCB 630 A/CT/ES)	:	N/A	unit			
Merek :		N/A				
Tegangan :		N/A	kV			
Frekuensi :		N/A	Hz			
Peak Current :		N/A	kA			
Kabel tegangan menengah	:	N/A	m'			
Merek :		N/A				
Type :		N/A				
Apron Distribution Panel	:	N/A	unit			
Merek :		N/A				
Trafo :		N/A	kVA			
Frekuensi :		N/A	Hz			
Panel Main Distribution Panel (MDP)	:	2	unit			Zone 3 dan Zone 2
Panel Sub Distribution Panel (SDP)		4	Unit			Zone 1, Zone 2, Zone 3 dan Zone 4
Panel Flood Light (P-FL)		17	Unit			Zone 2 12 Unit, Zone 3 1 Unit, Zone 4 4 Unit
Merek		Schneider				
Type		Outdoor				
Tiang Flood Light						
Height :		15	m			17 Unit zone 2 dan zone 4
		22	m			4 Unit Zone 3
Type :		High Mast Pole				
Merek :		PT.Helory				
Lighting LED						
Type :		EWO F- System 555 W				
Merek :		ADB				
Lumen Output :		60.232	lm			
Luminous Efficacy :		108,5	lm/W			
Lumens :		20	Lux			pada jarak 2 m diatas lantai
Origin :		Belgium				
Obstruction Lamp						
Type :		Obstivision LED XGP500				7 Watt
Merek :		ADB				
Light Color :		Red				
Penangkal Petir						
Type :		R.16				
Merek :		FURSE				
Spot Number Light (SNL)	:	30	set			
Type :						
Merek :		Lokal				
Apron Edge Light Inset	:	N/A	set			
Type :		N/A				
Merek :		N/A				
Isolating Transformer :		N/A				
Primary Connector :		N/A				
Secondary Connector :		N/A				
Apron Edge Light (AEL)	:	N/A	unit			
Type :		N/A				
Merek :		N/A				
Isolating Transformer :		N/A				
Primary Connector :		N/A				
Secondary Connector :		N/A				
Taxiway Guidance Sign (TGS)	:	N/A	unit			
Type :		N/A				
Merek :		N/A				
Isolating Transformer :		N/A				
Primary Connector :		N/A				
Secondary Connector :		N/A				
Airfield Lighting Control & Monitoring	:	N/A	unit			
Type :		N/A				
Merek :		N/A				
Lampu Perimeter	:	On Progress Approval	unit			Desain belum ada
Type :		On Progress Approval				
Merek :		Philips				
Sistem CCTV (Apron Barat)	:	On Progress Approval	unit			
Type :		On Progress Approval				
Merek :		On Progress Approval				
- Kabel FO		900	m'			
Type :		12 Core				
Merek :		Belden				
- Panel CCTV		On Progress Approval				
Type :		On Progress Approval				
Merek :		On Progress Approval				
- Media Converter		On Progress Approval				
Type :		On Progress Approval				
Merek :		On Progress Approval				

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	- Kabel		On Progress Approval			
	Type :		On Progress Approval			
	Merek :		On Progress Approval			
	- Pathcord FO		On Progress Approval			
	Type :		On Progress Approval			
	Merek :		On Progress Approval			
	- FSFP		On Progress Approval			
	Type :		On Progress Approval			
	Merek :		On Progress Approval			
	Sistem CCTV (Perimeter)	:	N/A	unit		
	Type :		N/A			4 unit
			N/A			6 unit
	Merek :		N/A			
	- Kabel FO		N/A			
	Type :		N/A			
	Merek :		N/A			
	-Tiang CCTV		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Panel CCTV		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Kabel		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Obstruction Lamp		N/A			
	Type :		N/A			
	Merek :		N/A			
	Video Management System		N/A	set		
	- Core Media Gateway		N/A			
	Type :		N/A			
	Merek :		N/A			
	- WS Operation Centre		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Enhance Decoder		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Network Storage		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Outdoor Smartrack		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Din Rail		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Industrial Media Conventer		N/A			
	Type :		N/A			
	Merek :		N/A			
	- SPF Transeiver Module		N/A			
	Type :		N/A			
	Merek :		N/A			
	- PoE + Injector Power Supply		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Swicth Hub		N/A			
	Type :		N/A			
	Merek :		N/A			
	- OTB 48 port Rackmount		N/A			
	Type :		N/A			
	Merek :		N/A			
	- OTB 12 port Rackmount		N/A			
	Type :		N/A			
	Merek :		N/A			
	- Pathcord FO		N/A			
	Type :		N/A			
	Merek :		N/A			
	Penerangan Jalan Umum (PJU) service road	:	18	unit		Zone 3 13 Unit dan Zone 4 5 Unit
	Type :		TYPE AIO 41W			
	Merek :		Philips			

