

4). DAFTAR PEKERJAAN YANG DISUBKONTRAKKAN

Sesuai dengan RKS nama sub kontraktor akan ditentukan dalam masa pelaksanaan pekerjaan.

5). DAFTAR PEKERJAAN YANG DIKERJAKAN OLEH APLIKATOR

Sesuai dengan RKS nama Aplikator akan ditentukan dalam masa pelaksanaan pekerjaan.

6). DAFTAR SPESIFIKASI BAHAN DAN MATERIAL

| NO                        | URAIAN PEKERJAAN         | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK   |
|---------------------------|--------------------------|--|--|
| <b>PEKERJAAN STRUKTUR</b> |                          |  |  |
|                           | Pekerjaan Beton Struktur | <ul style="list-style-type: none"> <li>• Beton Ready Mix mutu f'c 25 MPa untuk kolom, balok, dan sloof dan f'c 28 MPa untuk pilecap dan borpile</li> <li>• Diiijinkan menggunakan bahan additive</li> <li>• Fly ash/ abu diperkenankan dengan nilai maksimal 15 %</li> <li>• Slump 8-12cm (normal)</li> <li>• Slump 12-16cm (concretepump)</li> <li>• Slump 16-20cm (borepile atau standar lainnya)</li> <li>• Nilai slump beton setelah pencampuran waterproofing integral menjadi sebesar 16 cm ± 2 cm</li> <li>• Tahu beton menggunakan mutu yang sama dengan mutu beton rencana atau bahan lainnya yang memiliki mutu setara</li> <li>• Untuk pekerjaan yang terkait dengan kekedapan terhadap air tidak boleh dilakukan secara parsial/zonasi/segmental, harus dilakukan secara menerus/kontinyu</li> </ul> | Solusi Bangun Beton (Semen Dynamix), Varia Usaha Beton (Semen Gresik), |
|                           |                          | Baja Tulangan, mutu: <ul style="list-style-type: none"> <li>• Tulangan Ulir; mutu BJTS-420B (420 Mpa) harus baja tegangan tarik tinggi. tegangan leleh <math>f_e = \text{antara } 420 &lt; f_y &lt; 545 \text{ Mpa}</math>.</li> <li>• Tulangan polos; mutu BJTP-280 harus baja lunak dengan tegangan leleh 280 MPa.</li> </ul>  | Krakatau Steel (KS), Master Steel (MS), Interworld Steel (IS)          |
|                           | Pekerjaan Bekisting      | <ul style="list-style-type: none"> <li>• Bekisting multipleks lapis tego film minimal tebal 12 mm</li> <li>• Bekisting menggunakan batako untuk pondasi, sloof, atau yang tertanam dalam tanah</li> <li>• Rangka kayu/besi/pipa/scaffolding</li> <li>• Batako atau bata (untuk fondasi, sloof, atau yang tertanam dalam tanah)</li> </ul>  | Lokal  |
|                           | Pekerjaan Angkur         | Mechanical anchors (spesifikasi sesuai perhitungan aplikator/produsen anchor) <ul style="list-style-type: none"> <li>• Heave duty anchors</li> </ul>   | Hilti, Mr. Safety, Ramset  |

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|---|-----------------------------|--|---------------------------|
|   |                             | <ul style="list-style-type: none"> <li>• Anchor : HDA-T, HDA-TF, HDA-TR</li> <li>• Drilling</li> <li>• Drilling Hammer</li> <li>• Setting tools</li> </ul>   |                           |
|   | Pekerjaan Baja Konvensional | <p><b>Mutu Sesuai SNI 1729-2020</b></p> <p>Koneksi Terhadap Beton</p> <ul style="list-style-type: none"> <li>• Angkur Baut ASTM A36 + Ring (Washer)</li> </ul> <p>Tipe Ring yang dapat ditekan Mutu ASTM F959</p> <p>Sambungan Antar Baja</p> <ul style="list-style-type: none"> <li>• Baut Mutu ASTM A325</li> <li>• Mur Baut ASTM A563 + Ring (Washer)</li> <li>• Tipe Ring yang dapat ditekan Mutu ASTM F959</li> </ul> <ul style="list-style-type: none"> <li>• Pemasangan angkur dilakukan sebelum dilakukan pengecoran</li> <li>• Angkur di las pada tulangan beton</li> </ul> | Hilti, Mr. Safety, Ramset |
| <p><b>Mutu Bjp41 SNI 1729-2020</b></p> <ul style="list-style-type: none"> <li>• Profile IWF</li> <li>• H-Beam</li> <li>• dimensi sesuai dengan gambar perencanaan</li> </ul>  |                             | Gunung Raja Paksi, Krakatau Baja Konstruksi  |                           |
| <p><b>Mutu A36 SNI 1729-2020</b></p> <ul style="list-style-type: none"> <li>• Plat Rib</li> <li>• Plat Koneksi</li> <li>• Plat Sambung</li> <li>• Plat Stiffner</li> <li>• Plat plendes</li> <li>• Cleat Plate CTP-200</li> <li>• dimensi sesuai dengan gambar perencanaan</li> </ul> |                             | Gunung Raja Paksi, Krakatau Baja Konstruksi  |                           |
| <p><b>Mutu A36 SNI 1729-2020</b></p> <ul style="list-style-type: none"> <li>• Gording dan Nok Lipped Channel</li> <li>• Jurai Double Lipped Channel</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> </ul>  |                             |  |                           |

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|----|-----------------------------|--|--|
|    |                             | <ul style="list-style-type: none"> <li>• Sagrod</li> <li>• Tierod</li> <li>• Trekstang Siku L</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> </ul>   | Krakatau Steel, Master Steel, Inter World Steel  |
|    | Pekerjaan Pengelasan        | Mutu FE 360 atau E6013 sesuai dengan JIS   | Nikko Steel, Kobe Steel  |
|    | Pekerjaan Baja Ringan       | <ul style="list-style-type: none"> <li>• Usuk / Kaso, Spesifikasi; G 550 tebal C-75.75 (BMT 0,75mm) , Tegangan maksimum 550 Mpa, pelindung AZ 150.</li> <li>• Reng, Spesifikasi ; Profil U dengan ukuran TS 40.45 (BMT 0,45mm) atau TS 35.45 (BMT 0,45mm)</li> <li>• Spesifikasi Baut (screw), Sekrup khusus berlapis galvanis untuk struktur baja ringan dengan kelas ketahanan korosi tingkat 2 berlapis zinc.</li> </ul>  | Bluescope Lysaght (Smartruss Truecore), Taso Premium   |
|    | Pekerjaan Perkuatan Plafond | <ul style="list-style-type: none"> <li>• Double Siku</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> <li>• Plat Baja</li> <li>• Lipped Channel</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> </ul>   | Gunung Raja Paksi, Krakatau Baja Konstruksi  |
|    | Pekerjaan Kanopi            | <p>Plat Plendes<br/>Plat Besi<br/>Lipped Channel<br/>Dimensi sesuai dengan gambar perencanaan</p> <p>Perkuatan Kanopi</p> <ul style="list-style-type: none"> <li>• Pipa Baja sesuai standar JIS G3444</li> <li>• Dimensi mengikuti gambar perencanaan</li> </ul> <p>Atap Metal Galvalum Color Interlock</p> <ul style="list-style-type: none"> <li>• Thickness (BMT) <math>\pm 0,45</math> mm</li> <li>• Grade baja min. G550</li> <li>• Finishing coat min. 20 <math>\mu</math>m</li> <li>• Minimum roof slope 2°</li> <li>• Warna ditentukan kemudian</li> </ul> <ul style="list-style-type: none"> <li>• GRC Cetak</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> </ul> <p>Insulasi galvalume sheet</p> | <p>Gunung Raja Paksi, Krakatau Baja Konstruksi</p> <p>Spindo, Bakrie</p> <p>Bluescope, Spanroof</p> <p>Karya Perdana Abadi, Usaha Mandiri Claustra</p> <p>Sadar Jaya, Sun Hardware</p> |

| NO                          | URAIAN PEKERJAAN                                    | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK  |
|-----------------------------|---|---|---|
|                             | Pekerjaan Penutup Atap                              | Genteng Keramik Berglazur <ul style="list-style-type: none"> <li>• Warna : merah maroon</li> <li>• Penyerapan air : maksimal 10%</li> <li>• Bending strength : min 150 kgf</li> <li>• Include : nok dan bubungan 3 arah</li> </ul>  | Kanmuri (Espanica), Mclass, KIA                                       |
|                             |   | <ul style="list-style-type: none"> <li>• Insulasi : Galvalume roll</li> <li>• Ketebalan mengikuti gambar perencanaan</li> </ul>   | Sadar Jaya, Sun Hardware  |
|                             |   | Lisplang Papan Fiber Semen (GRC)<br>Dimensi sesuai dengan gambar perencanaan  | GRC Board, Kalsi Board, Royal Board                                   |
|                             | Pekerjaan Waterproofing                             | <b>Waterproofing Cementitious coating</b> <ul style="list-style-type: none"> <li>• Berat jenis setelah pencampuran Kurang lebih 1.5 Kg/dm<sup>2</sup></li> <li>• Kuat rekat (TS EN 14891) : <math>\geq 1.0</math> N/mm<sup>2</sup></li> <li>• Daya sebar : Min. 3-3,5 kg/m<sup>2</sup> untuk tebal 2 mm</li> </ul>  | Fosroc (Brushbond), MU (SS-10), Ultrachem                             |
|                             |   | <b>Waterproofing Integral/ Campuran Beton (Basement &amp; GWT)</b> <ul style="list-style-type: none"> <li>• Konsumsi 1,5-2 liter/m<sup>3</sup></li> </ul>   | Fosroc (Conplast WP421), Sika (Viscocrete-1003), Ultrachem (Integral) |
|                             | Pekerjaan Waterstop                                 | <b>PVC Waterstop Fleksibel</b> <ul style="list-style-type: none"> <li>• Elongation at break minimum 300%</li> <li>• Compound Tensile Strength minimum 2000 psi</li> <li>• Tebal <math>\pm 300</math> mm</li> </ul>  | Fosroc (Supercast), Sika (greenstreak)                                |
|                             | Pekerjaan Anti Rayap                                | <ul style="list-style-type: none"> <li>• Bahan anti rayap yang digunakan harus mematuhi kode terkait dan standar praktik SNI 2404-2015</li> <li>• Jaminan garansi minimum 5 (lima) tahun.</li> <li>• Obat anti rayap yang digunakan tidak kadaluarsa.</li> <li>• Tanah urugan kembali harus ditreatment dengan anti rayap, dengan dosis sesuai petunjuk pabrikan</li> </ul> | Stealth (BASF), Permise (Bayer), Agenda                               |
|                             | Pekerjaan Screeding                                 | Semen Instan untuk screeding  | MU (440), Grand Elephant (610), Ultrachem (Crete RM)                  |
| <b>PEKERJAAN ARSITEKTUR</b> |   |   |   |
|                             | Pekerjaan Beton Non Struktural dan Non Semen Instan | Semen PC type I sesuai SNI 15-2049-2004   | Gresik, Dynamix, Tiga Roda  |

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|----|-----------------------------------|---|---|
|    |                                   | Batu Kali   | Lokal   |
|    |                                   | Pasir (sesuai SNI 03-6820-2002)   | Lokal   |
|    |                                   | Split (sesuai SNI 03-2834-2000)   | Lokal   |
|    |                                   | Air<br>Harus bersih dan bebas dari unsur-unsur yang merusak seperti alkali. Asam, garam, dan bahan anorganik lainnya  | Lokal   |
|    | Pekerjaan Baja Tulangan Fabrikasi | Khusus Pekerjaan Non Struktural <ul style="list-style-type: none"> <li>• Ulir/Deform/Sirip: fy 420 MPa (BjTS 420 B)</li> <li>• Polos/Plain: fy 280 MPa (BjTP 280)</li> <li>• Semua Baja Tulangan harus sesuai SNI 2052:2017</li> </ul>  | Krakatau Steel, Master Steel. Inter World Steel |
|    | Pekerjaan Pasangan Bata           | Bata Ringan <ul style="list-style-type: none"> <li>• Dimensi ±600 x 200 x 100 mm. Toleransi dimensi maks. 2%</li> <li>• Type AAC (Autoclaved Aerated Concrete)</li> </ul>   | Grand Elephant, Citicon                         |
|    |                                   | Semen Instan Perekat Bata Ringan  | GE (100/110), MU (382)                          |
|    |                                   | Semen Instan Plasteran  | GE (200/210), MU (100)                          |
|    |                                   | Semen Instan Acian  | GE (300/310), MU (200/207)                      |
|    | Pekerjaan Sealant                 | <b>Sealant</b> <ul style="list-style-type: none"> <li>• Non stain</li> <li>• Weather resistance</li> <li>• Ultraviolet and Ozone Resistance</li> <li>• Polyurethane</li> <li>• Non Asam</li> </ul>  | Dowsil, GE, Ika Seal                            |
|    | Pekerjaan Kusen                   | <b>Kusen Aluminium</b> <ul style="list-style-type: none"> <li>• Aluminium Alloy 6063, harus asli (tidak terbuat dari bahan serap/sisa)</li> <li>• Warna: putih</li> <li>• Sistem Pewarnaan: Anodyze (tahan terhadap hujan dan UV) 18 micron dan Powder coating 60 mikron</li> <li>• Semua pekerjaan kusen jendela menggunakan finish good</li> <li>• Klem metal dudukan engsel pintu</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> </ul> | YKK AP (Madel, Store Front), Schüco             |
|    |                                   | <b>Kusen Lipped Channel</b> <ul style="list-style-type: none"> <li>• Dimensi sesuai dengan gambar perencanaan</li> <li>• Finishing cat anti karat dan cat besi</li> </ul>   | Gunung Raja Paksi, Krakatau Steel               |

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|--|------------------|---|-----------------------|
|  | Pekerjaan Pintu  | <p><b>Engineering Door</b><br/>Full Core</p> <p>Spesifikasi:</p> <ul style="list-style-type: none"> <li>• Kelembaban bahan rangka daun pintu 12%-14%.</li> <li>• Rangka : Kayu meranti, pengisi laminated wood tebal 30 mm</li> <li>• Finishing : Plywood lapis HPL 0,7 mm</li> <li>• Lem kayu (waterbase) yang bermutu baik.</li> <li>• Pada sekeliling tepi daun pintu diberi Edging PVC</li> <li>• Semua permukaan rangka kayu harus diserut halus rata, lurus dan siku.</li> <li>• Frame menggunakan FJL (Finger Joint Laminated) dengan bahan hard rubber wood.</li> <li>• Warna ditentukan kemudian</li> <li>• Ukuran dan desain harus sesuai Gambar Kerja.</li> <li>• Aksesoris</li> </ul> | Pika, Sampoerna Kayoe |
| <p><b>Pintu Shaft</b></p> <ul style="list-style-type: none"> <li>• Door Frame : Ketebalan plate 1,00 mm</li> <li>• Door Leaf : Ketebalan plate 0,5 mm</li> <li>• Insulation kertas honeycomb</li> <li>• Include kusen, engsel, dan pengunci</li> </ul> |                  | Kuppe, Lion door, Bostinco  |                       |
| <p><b>Pintu Darurat</b></p> <ul style="list-style-type: none"> <li>• Material : Plat besi</li> <li>• Finishing: Powder coating</li> <li>• Memiliki sertifikat lulus uji tahan api</li> </ul>   |                  | Kuppe, Lion door, Bostinco  |                       |
| <p><b>Pintu Besi</b></p> <ul style="list-style-type: none"> <li>• Material : Plat Besi double</li> <li>• Rangka Hollow Besi</li> <li>• Finishing cat anti karat</li> </ul>   |                  | Kuppe, Lion door, Bostinco  |                       |
| <p><b>Pintu Kobo Wudhu</b></p> <ul style="list-style-type: none"> <li>• Material : Alumunium</li> <li>• Powder coating 80 mikron</li> <li>• Warna putih</li> </ul>   |                  | YKK, Indal, Schüco  |                       |

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|----|--------------------------|--|--|
|    |                          | <p><b>Aksesoris daun pintu Darurat</b><br/>Panic Exit</p> <p><b>Aksesoris daun pintu lainnya</b></p> <ul style="list-style-type: none"> <li>• Engsel</li> <li>• Door closer</li> <li>• Flush bolt</li> <li>• Patch fitting</li> <li>• Floor hinge</li> <li>• Slide rail</li> </ul> <p><b>Aksesoris daun jendela</b></p> <ul style="list-style-type: none"> <li>• Friction stay top hung</li> <li>• Casement handle: Putih</li> <li>• Kapasitas sesuai gambar kerja</li> </ul> <p><b>Kunci</b><br/>Master key 2 layer untuk setiap lantai</p> <p>Jenis dan dimensi aksesoris pintu dan jendela sesuai dengan gambar perencanaan</p> | <p>Kend (59011-10), Cisa (59001)</p> <p>Kend, Cisa</p> |
|    | Pekerjaan Louver         | <ul style="list-style-type: none"> <li>• Type Louvre Alumunium</li> <li>• U Jalusi</li> <li>• Menggunakan sealer pad</li> <li>• Weather strip</li> <li>• Tebal minimal lapisan anodize minimal 18 micron atau powder coating 60 micron</li> </ul>  | YKK AP (Store Front), Indal, Schüco                    |
|    | Pekerjaan Cubicle Toilet | <ul style="list-style-type: none"> <li>• Material Phenolic Board</li> <li>• Profil Aluminium : Head Rail; Profil U; Door Stopper</li> <li>• Aksesoris : Engsel Kupu Tembus, pedestal (kaki), Kunci bulat, door stopper/gantungan tas, karet bulat</li> </ul>   | Spot (Matrix), Arkamaya. Arin                          |

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|----|--|--|--|
|    | Pekerjaan Meja Laboratorium            | <ul style="list-style-type: none"> <li>• Material : Phenolic Resin Board</li> <li>• Chemical resistant</li> </ul>  | Hakka, Trespa, Fundermax                     |
|    | Pekerjaan Kaca                         | <ul style="list-style-type: none"> <li>• Kaca bening</li> <li>• Syarat mutu sesuai dengan SNI 15-0047-2005 tentang kaca lembaran</li> <li>• Dimensi dan ketebalan kaca yang digunakan sesuai dengan gambar kerja</li> </ul>  | Asahimas, Mulia, Saint Gobain                |
|    |  | <ul style="list-style-type: none"> <li>• Kaca tempered bening</li> <li>• Kaca process untuk eksterior</li> <li>• Ketebalan dan dimensi mengikuti gambar kerja</li> </ul>   | Matahari Silverindo, Matahari Glass, Magi    |
|    | Pekerjaan partisi                      | <p>Partisi Lipat</p> <ul style="list-style-type: none"> <li>• Surface Material : MDF Board</li> <li>• Insulation 60 kg/m<sup>3</sup></li> <li>• Panel Edging : Alumunium Profile</li> <li>• Panel Interlocking : Rubber Seal</li> <li>• Panel Frame : Hollow</li> <li>• Dimensi mengikuti gambar kerja</li> <li>• Tebal per panel ±65 mm</li> <li>• Ketahanan kedap suara</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> </ul> | Arin (AP65), Kenari Djaja (320)              |
|    |  | <ul style="list-style-type: none"> <li>• Partisi gypsum board</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> </ul>   | Jayaboard (sheetrock) , Knauf (plasterboard) |
|    |  | Rangka partisi metal stud/track<br>Dimensi sesuai dengan gambar perencanaan  | Jayaboard, Knauf                             |
|    | Pekerjaan Finishing Lantai dan Dinding | <ul style="list-style-type: none"> <li>• Homogeneous Tile (Polished)</li> <li>• Homogeneous Tile (Unpolished)</li> <li>• Homogeneous Tile motif tekstur kayu</li> <li>• Homogeneous Tile Matte</li> <li>• Plint Curving/ Hospital Plint</li> <li>• Plint HT</li> <li>• Stepnosing</li> <li>• Dimensi dan warna mengikuti gambar kerja</li> </ul>   | Indogress , Valentino, Venus, Niro           |

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|----|--------------------------|--|--|
|    |                          | Perekat HT   | MU (400), Sika (TileFix), Ultrachem (402)                      |
|    |                          | Perekat HT Dinding   | MU (420 Creafix), Sika (TileFix), Ultrachem (402)              |
|    |                          | Perekat Batu Alam  | MU (400), Sika (TileFix)                                       |
|    |                          | Pengisi naat   | MU (408), Sika (tile grout), Lemkra (FS Nat)                   |
|    |                          | <ul style="list-style-type: none"> <li>• Semen Epoxy Barrier</li> <li>• Epoxy mortar (lab)</li> <li>• Pre-treatment: subtrat cleaning</li> <li>• Ketebalan sesuai dengan gambar perencanaan</li> </ul>   | Ultrachem (Floor Epoxy), Propan, Fosroc (Nitrofloor)           |
|    | Pekerjaan Floor Hardener | Floor hardener aplikasi dengan penggunaan light sebanyak 3kg/m <sup>2</sup>  | Ultrachem (FloorHardener), Propan, Fosroc (Nitrofloor Hardtop) |
|    | Pekerjaan Plafond        | Rangka plafond metal furring full system <ul style="list-style-type: none"> <li>• Connector</li> <li>• Ceilling batten</li> <li>• Top cross rail</li> <li>• Suspension clip</li> <li>• Suspension bracket</li> <li>• Hanger: besi</li> <li>• Alumunium trimming</li> <li>• Dimensi dan ketebalan sesuai dengan gambar perencanaan</li> </ul> | Jayaboard, Knauf   |
|    |                          | <ul style="list-style-type: none"> <li>• Plafond gypsum, tebal 9 mm</li> <li>• Termasuk compound dan tape</li> </ul>   | Jayaboard (sheetrock), Knauf (standard Shield)                 |
|    |                          | List plafond shadow line <ul style="list-style-type: none"> <li>• Bahan: Galvanized</li> <li>• Tebal: 0.4 mm (BMT)</li> </ul>  | Jayaboard, Knauf   |
|    |                          | Plafond Water Resistant Gypsum <ul style="list-style-type: none"> <li>• Edge Type : Tapered Edge</li> <li>• Dimensi mengikuti gambar perencanaan</li> </ul> Ceiling System <ul style="list-style-type: none"> <li>• UFC</li> </ul>   | Jaya Board, (wet-area optimum), Knauff (Moistureshield)        |

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|----|-----------------------------------|---|--|
|    |                                   | <ul style="list-style-type: none"> <li>• UFC Clip</li> <li>• UFC Bracket</li> </ul> <p>Drywall System</p> <ul style="list-style-type: none"> <li>• C-Stud</li> <li>• U-Channel</li> </ul>                                       |  |
|    |                                   | <p>Perkuatan Plafond</p> <ul style="list-style-type: none"> <li>• Lipped Channel</li> <li>• Plat Plendes</li> <li>• Plat Sambung</li> <li>• Atau ukuran lainnya sesuai dengan gambar kerja</li> </ul>                           | Gunung Raja Paksi, Krakatau Steel  |
|    |                                   | <p>Plafon PVC</p> <ul style="list-style-type: none"> <li>• Dimensi mengikuti gambar perencanaan</li> <li>• Motif dan warna ditentukan kemudian</li> </ul>   | Indofone, Sundha Plafond, Plafonesia   |
|    |                                   | <p>Rangka Plafond PVC</p> <ul style="list-style-type: none"> <li>• Rangka Hollow</li> <li>• Penggantung Hollow Galvalum</li> <li>• Rangka hollow galvalume</li> <li>• dimensi lainnya mengikuti gambar perencanaan</li> </ul>   | Lokal  |
|    |                                   | <p>Maintenance Hole</p> <ul style="list-style-type: none"> <li>• Bahan gypsum</li> <li>• Dimensi mengikuti gambar perencanaan</li> </ul>  | Jayabord (Jaya Access), Knauf (ALU Star)   |
|    | Pekerjaan Fiber Semen (GRC Cetak) | <p>Rangka GRC</p> <ul style="list-style-type: none"> <li>• Pekuatan Lipped Channel</li> <li>• Plat Besi</li> <li>• Dimensi sesuai gambar kerja</li> </ul>   | Gunung Raja Paksi, Krakatau Steel  |
|    |                                   | <ul style="list-style-type: none"> <li>• Rangka - Besi siku (finish cat anti karat + cat besi)</li> </ul>   | Lokal  |
|    |                                   | <ul style="list-style-type: none"> <li>• Fiber semen cetak Fiber Semen (GRC Cetak)</li> </ul>   | KaryaPerdana Abadi, Usaha Mandiri Claustra   |
|    | Pekerjaan Pengecatan              | <p>Cat dinding dalam</p> <p>Akrilik termodifikasi, cat berbahan dasar air/waterbased, rendah VOC, bebas APEO dan bahan berbahaya</p> <p>Cat dasar sesuai rekomendasi produsen</p>   | Jotun (Majestic True Beauty) , Mowilex (Emulsion), Dulux Professional (Interior A1000) |
|    |                                   | <p>Cat dinding luar</p> <p>Cat Weather resistance/perlindungan terhadap cuaca, 100% cat akrilik, cat berbahan dasar air/waterbased, perlindungan terhadap UV, anti Jamur, menurunkan temperature dengan merefleksikan sinar</p> | Jotun (Jotashield) , Mowilex (weathercoat), Dulux Professional (Exterior E1000)        |

| NO | URAIAN PEKERJAAN  | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK   |
|----|-------------------|--|--|
|    |                   | matahari menjauh dan menghentikan pembentukan panas. Performa warna 8 tahun  |  |
|    |                   | Cat Dinding Anti Bakterial   | Jotun, Mowilex (Emulsion Anti Bakteri), Dulux Professional (Interior Anti Bacteria)          |
|    |                   | Cat Plafond  | Jotun (Majestic True Beauty), Mowilex (Emulsion), Dulux Professional (Interior A1000)        |
|    |                   | Cat besi   | Jotun (gardex), Mowilex (kayu dan besi), Dulux Professional (Metal and Wood)                 |
|    |                   | Cat Anti Karat   | Jotun (Jotun QD Primer), Mowilex (pre coat zinchromate), Dulux Professional (Metal and Wood) |
|    |                   | Cat Tekstur  | Dulux Professional (Texture), Nippon, Addstone   |
|    |                   | Skim Coat  | Propan, MU, Lemkra   |
|    |                   | Cat Epoxy  | Propan, Sika, Basf   |
|    | Pekerjaan Railing | <ul style="list-style-type: none"> <li>• Pipa stainless steel SS304</li> <li>• Dimensi dan ketebalan sesuai dengan gambar perencanaan</li> </ul>   | Blue Star, Spindo, Star  |
|    | Pekerjaan Railing | <ul style="list-style-type: none"> <li>• Hollow Stainless Steel</li> <li>• Dimensi dan ketebalan sesuai dengan gambar perencanaan</li> </ul>   | Baja Nusantara, Blue Star  |
|    | Pekerjaan Railing | <ul style="list-style-type: none"> <li>• Plat Stainless</li> <li>• Besi Siku</li> <li>• Dimensi dan ketebalan sesuai dengan gambar perencanaan</li> </ul>                                  | Baja Nusantara, Blue Star  |
|    | Pekerjaan Railing | Glass fitting stainless steel 304  | Kend, Cisa   |
|    | Pekerjaan Railing | <ul style="list-style-type: none"> <li>• Pipa BS</li> <li>• Koneksi dilas penuh</li> <li>• Termasuk Aksesoris</li> <li>• Dimensi dan ketebalan sesuai dengan gambar perencanaan</li> </ul> | Spindo, Bakrie, Krakatau Steel, Star   |
|    | Pekerjaan Railing | <ul style="list-style-type: none"> <li>• Handrail kayu solid tebal 20 mm</li> </ul>  | Lokal  |

| NO                          | URAIAN PEKERJAAN           | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK                                 |
|-----------------------------|----------------------------|--|--------------------------------------|
|                             | Pekerjaan Identitas Gedung | <ul style="list-style-type: none"> <li>• Font Arial (Bold)</li> <li>• Plat Galvalum 0.8 mm finishing cat powder coating</li> <li>• Embose 100 mm</li> </ul>  | Custom                               |
|                             | Pekerjaan Batu Alam        | <ul style="list-style-type: none"> <li>• Batu Andesit Bakar</li> <li>• Dimensi mengikuti gambar perencanaan</li> </ul>   | Lokal                                |
|                             | Pekerjaan Backdrop         | <ul style="list-style-type: none"> <li>• HPL</li> <li>• Warna Serat Kayu</li> <li>• Dimensi mengikuti gambar perencanaan</li> </ul>  | Taco, Greenlam, Carta                |
|                             |                            | Plywood<br>Dimensi mengikuti gambar perencanaan  | Lokal                                |
|                             |                            | Panel akustik<br>Dimensi mengikuti gambar perencanaan  | Jayaboard (Jayabell), Knauf (cleano) |
|                             |                            | Plint Alumunium  | Lokal                                |
| <b>PEKERJAAN ELEKTRIKAL</b> |                            |  |                                      |
|                             | Pekerjaan Panel Listrik    | Box panel tebal plat <ul style="list-style-type: none"> <li>• Wall Mounting Type &amp; Free standing</li> <li>• Protection degree IP30</li> <li>• Segregation: Form 2A (wall mounted), 3B (free standing)</li> <li>• Finishing powder coating</li> <li>• Busbar Tembaga (99.9%)</li> </ul> | Nata Ultima Enggal, Global Technindo |
|                             |                            | Breaker <ul style="list-style-type: none"> <li>• MCCB</li> <li>• MCB</li> </ul> Karakteristik mengikuti Gambar Kerja   | Schneider, ABB                       |
|                             |                            | Digital Power Meter <ul style="list-style-type: none"> <li>• PM 2220</li> <li>• PM 5560</li> </ul>   | Terasaki, Schneider                  |

| NO  | URAIAN PEKERJAAN            | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK                                       |
|---|-----------------------------|---|--|
|   |                             | Aksesoris <ul style="list-style-type: none"> <li>• Pilot Lamp 220 VAC (<i>Red, Yellow, Green</i>)</li> <li>• STI (Fuse Carrier)</li> <li>• Tabung Sekering (Fuse Catridge)</li> <li>• Current Transformer</li> <li>• Surge Arrester</li> <li>• Contactor</li> <li>• Emergency stop, push button</li> <li>• Motor mechanism</li> <li>• Relay &amp; Socket relay</li> <li>• Selector switch</li> <li>• Shunt trip</li> <li>• Busbar sisir</li> <li>• Timer</li> <li>• Under voltage release</li> </ul> Karakteristik mengikuti Gambar Kerja | Schneider, ABB                             |
|   | MCB Box                     | Bahan plastik tahan api ( IEC 60439-3 (EN 60-439-3)   | Schneider, ABB, Legrand, Broco             |
|   | Pekerjaan Instalasi Listrik | <ul style="list-style-type: none"> <li>• NYM (300/500 V)               <ul style="list-style-type: none"> <li>- SNI 04-6629.4/IEC 60332-1</li> </ul> </li> <li>• NYY (0.6/1 kV)               <ul style="list-style-type: none"> <li>- SNI IEC 60502-1 : 2009</li> </ul> </li> <li>• NYA (450/750 V)               <ul style="list-style-type: none"> <li>- SNI 04-6629.3 : 2006</li> </ul> </li> <li>• NYFGbY (0.6/1 kV)               <ul style="list-style-type: none"> <li>- SNI IEC 60502-1 : 2009</li> </ul> </li> </ul>            | Supreme, Kabel Metal Indonesia, Sumi Kabel |
|   | Pekerjaan Solar Panel       | <ul style="list-style-type: none"> <li>• PV Module               <ul style="list-style-type: none"> <li>- Type Monocrystalline Cell</li> <li>- Efficiency min. 20%</li> </ul> </li> </ul>   | Go Power, Sankeindo, Solterra              |
| <ul style="list-style-type: none"> <li>• Inverter               <ul style="list-style-type: none"> <li>- On grid</li> <li>- AC Max Output min.20 kw</li> <li>- RS485</li> <li>- IP65</li> </ul> </li> </ul> |                             | Huawei, SMA, Hicell   |  |
| <ul style="list-style-type: none"> <li>• DC Combiner</li> </ul>   |                             | Huawei, SMA, Hicell   |  |

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|----|-----------------------------|--|---|
|    |                             | <ul style="list-style-type: none"> <li>- Halogen Free box</li> <li>- GRP IP 66</li> <li>- Impact Resistance IK10</li> <li>- Surge Arrester</li> <li>- Fuse</li> <li>- DC Disconnecter</li> <li>- Sesuai standart IEC 61439-1-2, EN 62208</li> </ul>  |   |
|    |                             | <ul style="list-style-type: none"> <li>• DC Cable               <ul style="list-style-type: none"> <li>- Mechanical UL854 Impact Resistance</li> <li>- Halogen Free</li> <li>- For Outdoor Use</li> <li>- Heat and Cold Resistance</li> <li>- UV Resistance</li> <li>- Sesuai standart EN 50618, IEC 50228 class 5, EN 50618, EN50396, IEC 60332-1-2, IEC 60754-1</li> </ul> </li> </ul> | <p>Supreme, Kabel Metal Indonesia, Sumi Kabel</p> |
|    |                             | <ul style="list-style-type: none"> <li>• AC Combiner Box               <ul style="list-style-type: none"> <li>- Box Panel</li> <li>- MCCB Input</li> <li>- MCCB Output</li> <li>- Surge Arrester AC</li> <li>- Pilot Lamp</li> <li>- Power Meter</li> <li>- Zero Export System</li> </ul> </li> </ul>  | <p>Nata Ultima Enggal, Global Technindo</p>       |
|    | <p>Pekerjaan Kabel Tray</p> | <ul style="list-style-type: none"> <li>• Tebal Plat BMT (Base Material Thickness) 1.5 mm + Hot dip Galvanized 0.3 mm</li> <li>• Kabel tray</li> <li>• Elbow tray</li> <li>• Tee tray</li> <li>• Ladder Tray</li> <li>• Outside Riser Tray</li> <li>• Inside Riser Tray</li> <li>• Bonding Tape</li> </ul>  | <p>Delta Jaya, Three star, Tri Abadi</p>          |

| NO  | URAIAN PEKERJAAN              | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL |                            |                        |                       | MERK                         |  |  |  |  |  |        |  |
|---|-------------------------------|--|----------------------------|------------------------|-----------------------|------------------------------|--|--|--|--|--|--------|--|
|   | Pekerjaan Penerangan dan Daya | Jenis                                    | Flux Luminous min. (Lumen) | Efficacy (Lumen/ Watt) | Color Temperature (K) | Philips, Panasonic, Artolite |  |  |  |  |  |        |  |
| LED Panel 60x60 cm  |                               | 3800                                     | 110                        | 6500                   |                       |                              |  |  |  |  |  |        |  |
| Downlight Inbow 650 lumen 6500K   |                               | 650                                      | 108                        | 6500                   |                       |                              |  |  |  |  |  |        |  |
| Downlight Inbow 1300 lumen 6500K  |                               | 1300                                     | 108                        | 6500                   |                       |                              |  |  |  |  |  |        |  |
| Downlight Inbow 2100 lumen 6500K  |                               | 2100                                     | 110                        | 6500                   |                       |                              |  |  |  |  |  |        |  |
| Downlight Outbow 1300 lumen 6500K   |                               | 1300                                     | 108                        | 6500                   |                       |                              |  |  |  |  |  |        |  |
| Downlight Outbow 2100 lumen 6500K   |                               | 2100                                     | 110                        | 6500                   |                       |                              |  |  |  |  |  |        |  |
| LED Strip Indoor <ul style="list-style-type: none"> <li>• Flux Luminous : 380 Lumen / Meter</li> <li>• Color Temperature : 3000 K</li> <li>• Driver 12 VDC 30 Watt</li> </ul>   |                               |  |                            |                        |                       |                              |  |  |  |  |  |        |  |
| Exit Lamp LED <ul style="list-style-type: none"> <li>• Dimensi min. 360 x 25 x 145 mm</li> <li>• Bahan : akrilik dan metal</li> <li>• Input voltage : 220 - 240 Volt</li> <li>• Menyala otomatis saat listrik padam</li> <li>• Emergency Time : 3 jam atau lebih</li> </ul> |                               |  |                            |                        |                       |                              |  |  |  |  |  | Custom |  |

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|----|-------------------------|---|-------------------------------|
|    |                         | Saklar Dinding<br>Kotak kontak dinding single 16 A<br>Kotak kontak lantai 3 modul 16 A<br>Kotak kontak 3 phase 5 pin 16 A   | Schneider, Panasonic, Legrand |
|    |                         | Conduit (PVC High Impact Ø 20 mm)<br>Standards IEC 61386-1 and IEC 61386-21   | Legrand, Westpex, Boss        |
|    | Pekerjaan IP Cam (CCTV) | <p><b>Dome Fixed IP Camera</b></p> <ul style="list-style-type: none"> <li>• Image Sensor: 1/3" Progressive Scan CMOS</li> <li>• Max. Resolution: 2560 × 1440 (min)/ 4MP</li> <li>• Min. Illumination: Color: 0.001 Lux @. 0 Lux with light</li> <li>• Shutter Time 1/3 s to 1/100,000 s</li> <li>• Wide Dynamic Range (WDR): 120 dB</li> <li>• SNR ≥ 52 dB</li> <li>• Day/Night Switch: Day, Night, Auto, Schedule</li> <li>• Image Enhancement BLC, HLC, 3D DNR</li> <li>• Built-in memory card slot, support microSD/microSDHC/microSDXC card</li> <li>• Protection: IP67: IEC 60529-2013; IK08: IEC 62262:2002</li> </ul> <p><b>Bullet Fixed IP Camera</b></p> <ul style="list-style-type: none"> <li>• Image Sensor: 1/3" Progressive Scan CMOS</li> <li>• Max. Resolution: 2560 × 1440 (min)/ 4MP</li> <li>• Min. Illumination: Color: 0.001 Lux @. 0 Lux with light</li> <li>• Shutter Time 1/3 s to 1/100,000 s</li> <li>• Wide Dynamic Range (WDR): 120 dB</li> <li>• SNR ≥ 52 dB</li> <li>• Day/Night Switch: Day, Night, Auto, Schedule</li> <li>• Image Enhancement BLC, HLC, 3D DNR</li> <li>• Built-in memory card slot, support microSD/microSDHC/microSDXC card</li> <li>• Protection: IP67: IEC 60529-2013</li> </ul> | Hikvision, Bosch, Honey Well  |

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|----|------------------|---|------------------------------|
|    |                  | <ul style="list-style-type: none"> <li>• LED TV 43" Full HD, HDMI, LAN Terminal'<br/>Include kabel HDMI Male to Male 1,5 Meter</li> <li>• LED TV 50" Full HD, HDMI, LAN Terminal<br/>Include kabel HDMI Male to Male 1,5 Meter</li> </ul>   | Samsung, Sony, LG            |
|    |                  | <p>Mini PC</p> <ul style="list-style-type: none"> <li>• Intel® Core™ i3-1115G4 Processor<br/>3.0GHz ( 6M Cache, up to 4.1GHz )</li> <li>• Intel® UHD Graphics for 11th Gen Intel® Processors</li> <li>• RAM 2 x 4 Gb DDR4 3200 Mhz</li> <li>• SSD 128 Gb</li> <li>• Bluetooth 5.0, Intel® Wi-Fi 6</li> <li>• 2.5G LAN, Intel I225V</li> <li>• HDMI Port, Mini Display Port, VGA Port</li> <li>• 1x USB 3.2 Gen2 Type-C, 1 x USB 3.2 Gen2, 1 x Audio Jack (Line out/ Mic in/ Headphone out)</li> <li>• 19 VDC, 4.74A, 90W Power Adapter</li> <li>• Dimension 120 x 130 x 58 mm</li> <li>• OS Windows Home 11 Original</li> </ul> | Asus, Lenovo                 |
|    |                  | <ul style="list-style-type: none"> <li>• Mouse Keyboard Wireless</li> </ul>   |                              |
|    |                  | <p><b>NVR (Network Video Recorder)</b></p> <ul style="list-style-type: none"> <li>• H.265+/H.265/H.264+/H.264 video formats</li> <li>• 256 Mbps incoming bandwidth</li> <li>• Kapasitas decoding 32x1080p</li> </ul>  | Hikvision, Honey Well, Bosch |
|    |                  | <p>Hard disk<br/>3.5" 6TB SATA Purple NV Surveillance</p>   | WD, Seagate, Toshiba         |
|    |                  | <p>Instalasi CCTV menggunakan kabel UTP Cat.6</p>   | Supreme, Commscope, Belden   |
|    |                  | <p>Conduit (PVC High Impact Ø 20 mm)</p>  | Legrand, Westpex, Boss       |
|    | Pekerjaan LAN    | <p><b>Switch</b><br/>Core switch:</p>   | Cisco                        |

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|----|------------------|--|-------------------------|
|    |                  | <ul style="list-style-type: none"> <li>• C9500-24Y4C-A</li> <li>• Include Smartnet 1 tahun dan DNA</li> </ul> <p>Switch 8-port POE, dengan spesifikasi :</p> <ul style="list-style-type: none"> <li>• C9200CX-8P-2X2G-E</li> <li>• Include Smartnet 1 tahun dan DNA</li> </ul> <p>Switch 16-Port POE, dengan spesifikasi:</p> <ul style="list-style-type: none"> <li>• (16) GbE, PoE+ and 24V passive PoE RJ45 ports</li> <li>• (2) 1G SFP ports</li> <li>• 122W total PoE supply</li> </ul> <p>Switch 24-Port POE, dengan spesifikasi :</p> <ul style="list-style-type: none"> <li>• C9200L-24P-4X-E</li> <li>• Include Smartnet 1 tahun dan DNA</li> </ul> <p>Switch 48-Port POE, dengan spesifikasi :</p> <ul style="list-style-type: none"> <li>• C9200L-48P-4X-E</li> <li>• Include Smartnet 1 tahun dan DNA</li> </ul> |                         |
|    |                  | <p><b>Ceiling Access Point</b></p> <ul style="list-style-type: none"> <li>• C9115AXI-F</li> <li>• Wi-Fi 6 Access Point</li> <li>• Powered with PoE</li> <li>• Include Smartnet 1 Tahun dan License DNA</li> </ul>  | Cisco                   |
|    |                  | <p><b>Optical Terminal Box</b></p> <p>1U SC Duplex SM Adapter and Spicer</p>   | Corning, Netviel        |
|    |                  | <p><b>Small Form-Factor Pluggable (SFP) Module</b></p>   | Cisco                   |
|    |                  | <p>Wallmount rack 8U</p> <ul style="list-style-type: none"> <li>• Tipe : Single door wallmount rack</li> </ul> <p>Komponen pendukung :</p> <ul style="list-style-type: none"> <li>• Glass front door &amp; 2 side door with lock</li> <li>• Power distribution unit 6 outlet with switch</li> <li>• Single fan 220 VAC</li> </ul>  | Indorack, ABBA, Fortuna |

| NO | URAIAN PEKERJAAN  | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK                          |
|----|-------------------|--|-------------------------------|
|    |                   | Standing Rack 42U<br>• Tipe : Perforated door close rack<br>Komponen pendukung :<br>• Perforated front door, steel rear door & 2 side door with lock<br>• Power distribution unit 8 outlet with switch<br>• Modular fan  |                               |
|    |                   | Connector RJ45   | AMP, Comscope,                |
|    |                   | Pipa Conduit & Sock<br>Dimensi sesuai gambar perencanaan   | Legrand, Westpex, Boss        |
|    |                   | Wall Outlet RJ 45<br>Kotak kontak lantai data  | Schneider, Panasonic, Legrand |
|    |                   | Instalasi LAN menggunakan kabel UTP Cat.6  | Supreme, Comscope, Belden     |
|    |                   | • Fiber Optic single mode 12 core<br>• Fiber Optic single mode 24 core   | Commscope, Netviel            |
|    |                   | Material Bantu (Klem,Support , Baut, dll)  | Lokal                         |
|    |                   | UPS:<br>• Tipe : Perforated door close rack<br>Komponen pendukung :  |                               |
|    | Pekerjaan Telepon | Internet Protocol Private Branch Exchange (IP PBX)<br>• Max Users 200 user<br>• Concurrent call: 60<br>• Analog Ports: max. 8 FXS/FXO ports<br>• BRI Ports: max. 8 BRI ports<br>• E1/T1 Ports: max. 1 E1/T1 ports<br><br>O2 Module<br>• 2 FXO Ports<br><br>Expansion Board<br>• 8 RJ11 interfaces.<br>• Support 4 module (S2, O2, SO, BRI) | Yealink, Yeastar, Panasonic   |
|    |                   | IP Phone (Operator)<br>• 480 x 272-pixel color display with backlight<br>• 2x Gigabit LAN Ports (PoE)<br>• SIP Accounts: 16  | Yealink, Yeastar, Panasonic   |

| NO | URAIAN PEKERJAAN              | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK                          |
|----|-------------------------------|--|-------------------------------|
|    |                               | <ul style="list-style-type: none"> <li>• N-way Conferencing: 10-way Conferencing</li> </ul> IP Phone (staff) <ul style="list-style-type: none"> <li>• 2 SIP accounts, 132 x 64-pixel graphical LCD,</li> <li>• HD Voice: HD Codec, HD speaker, HD handsetXML/LDAP Phonebook, 2xLAN ports, Headset, with PSU, PoE</li> </ul>  |                               |
|    |                               | VoIP GATEWAY <ul style="list-style-type: none"> <li>• Analog ports : 16 FXO ports</li> <li>• Protocol: SIP and IAX2</li> <li>• Codec:G.711 G.722 G.726 G.729A, GSM,</li> </ul>   | Yealink, Yeastar, Panasonic   |
|    |                               | Instalasi mengikuti pekerjaan LAN  | Belden, Kabelmetal, Supreme   |
|    |                               | Conduit (PVC High Impact Ø 20 mm)<br>Standards IEC 61386-1 and IEC 61386-21  | Legrand, Westpex, Boss        |
|    | Pekerjaan Instalasi Proyektor | <b>Proyektor</b> <ul style="list-style-type: none"> <li>• 3700 Lumens</li> <li>• Contraste ratio ± 20000:1</li> <li>• Manual Focus</li> <li>• 16W Speaker</li> <li>• Connections Digital Input</li> <li>• HDMI x1 (HDCP compliant)</li> <li>• Analogue Input : 15-pin Mini-D-Sub x 2, RCA Jack x 1</li> <li>• Video Output : 15 pin Mini D-Sub x 1</li> <li>• Audio Input : RCA Jack (L/R) x 1</li> <li>• Audio Output : 3.5mm Stereo Mini Jack x 1</li> <li>• Power : Power Supply AC ±220V – 240V (50/60Hz)</li> <li>• Operating Power Consumption ±280W</li> <li>• Standby Power Consumption &lt; 0.35W</li> <li>• Filter Life (Hours) : 10000</li> </ul> | Maxell, Sony, Epson           |
|    |                               | Bracket Proyektor Gantung Universal  | Brite, Keystone, Benq         |
|    |                               | Screen Proyektor Wall Mounted  | Brite, Keystone, Benq         |
|    |                               | Outlet HDMI Dinding  | Schneider, Panasonic, Legrand |

| NO                          | URAIAN PEKERJAAN            | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK                        |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
|-----------------------------|-----------------------------|---|-----------------------------|-----------------------------|-------------------|-----------|-------|-------------|---------|-------------|--------|---------------|-------------|-------------|--------|---------------|-------------|-------------|--------|----------------|-------------|-------------|--------|----------------|-------------|-------------|--------|----------------|-------------|-------------|--------|----------------|-------------|------------|------------------|---|-------------|-------------|-------------------|
|                             |                             | Instalasi Kabel HDMI  | Vention, Bafo, Brite        |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
|                             | Instalasi Tata Udara        | <p><b>Wall Mounted R32</b></p> <table border="1" data-bbox="524 443 1075 1020"> <thead> <tr> <th>Kapasitas (PK)</th> <th>Kapasitas Pendingin (Btu/h)</th> <th>Konsumsi Daya (W)</th> <th>EER (W/W)</th> </tr> </thead> <tbody> <tr> <td>0,5PK</td> <td>2,630-6,500</td> <td>190-550</td> <td>4,83 - 3,47</td> </tr> <tr> <td>¾ PK</td> <td>2,860 - 8,530</td> <td>190 - 720</td> <td>4.42 - 3.47</td> </tr> <tr> <td>1 PK</td> <td>2,860 - 9,310</td> <td>190 - 830</td> <td>4.42 - 3.29</td> </tr> <tr> <td>1,5 PK</td> <td>3,140 - 13,000</td> <td>220 - 1,150</td> <td>4.18 - 3.30</td> </tr> <tr> <td>2 PK</td> <td>3,750 - 19,800</td> <td>290 - 1,710</td> <td>3.79 - 3.39</td> </tr> <tr> <td>2,5</td> <td>3,820 - 23,500</td> <td>330 - 2.200</td> <td>3.39 - 3.14</td> </tr> <tr> <td>3 PK</td> <td>7,200 - 25,600</td> <td>400 - 2,625</td> <td>3.18</td> </tr> </tbody> </table> | Kapasitas (PK)              | Kapasitas Pendingin (Btu/h) | Konsumsi Daya (W) | EER (W/W) | 0,5PK | 2,630-6,500 | 190-550 | 4,83 - 3,47 | ¾ PK   | 2,860 - 8,530 | 190 - 720   | 4.42 - 3.47 | 1 PK   | 2,860 - 9,310 | 190 - 830   | 4.42 - 3.29 | 1,5 PK | 3,140 - 13,000 | 220 - 1,150 | 4.18 - 3.30 | 2 PK   | 3,750 - 19,800 | 290 - 1,710 | 3.79 - 3.39 | 2,5    | 3,820 - 23,500 | 330 - 2.200 | 3.39 - 3.14 | 3 PK   | 7,200 - 25,600 | 400 - 2,625 | 3.18       | Panasonc, Daikin |   |             |             |                   |
| Kapasitas (PK)              | Kapasitas Pendingin (Btu/h) | Konsumsi Daya (W)   | EER (W/W)                   |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 0,5PK                       | 2,630-6,500                 | 190-550   | 4,83 - 3,47                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| ¾ PK                        | 2,860 - 8,530               | 190 - 720   | 4.42 - 3.47                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 1 PK                        | 2,860 - 9,310               | 190 - 830   | 4.42 - 3.29                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 1,5 PK                      | 3,140 - 13,000              | 220 - 1,150   | 4.18 - 3.30                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 2 PK                        | 3,750 - 19,800              | 290 - 1,710   | 3.79 - 3.39                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 2,5                         | 3,820 - 23,500              | 330 - 2.200   | 3.39 - 3.14                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 3 PK                        | 7,200 - 25,600              | 400 - 2,625   | 3.18                        |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
|                             |                             | <p><b>Single System 4 Way Cassette R32</b></p> <table border="1" data-bbox="524 1346 1075 1791"> <thead> <tr> <th colspan="2">Kapasitas Pendingin (rated)</th> <th>Konsumsi Daya</th> <th>EER</th> </tr> <tr> <th>Btu/h</th> <th>PK</th> <th>kW</th> <th>W/W</th> </tr> </thead> <tbody> <tr> <td>17.100</td> <td>2</td> <td>0,38 - 1,70</td> <td>4,2-4,4</td> </tr> <tr> <td>20.500</td> <td>2,5</td> <td>0,38 - 2,10</td> <td>3,51-3,85</td> </tr> <tr> <td>24.200</td> <td>3</td> <td>0,30 - 2,6</td> <td>3,57 - 3,78</td> </tr> <tr> <td>29.000</td> <td>3,5</td> <td>0,28 - 3,33</td> <td>3,37-3,35</td> </tr> <tr> <td>34.100</td> <td>4</td> <td>0,61 - 3,73</td> <td>3.10 - 3.62</td> </tr> <tr> <td>42.700</td> <td>5</td> <td>0,63 - 4,7</td> <td>3.34 - 2,9</td> </tr> <tr> <td>47.800</td> <td>6</td> <td>0,63 - 5,90</td> <td>2,90 - 2,60</td> </tr> </tbody> </table>         | Kapasitas Pendingin (rated) |                             | Konsumsi Daya     | EER       | Btu/h | PK          | kW      | W/W         | 17.100 | 2             | 0,38 - 1,70 | 4,2-4,4     | 20.500 | 2,5           | 0,38 - 2,10 | 3,51-3,85   | 24.200 | 3              | 0,30 - 2,6  | 3,57 - 3,78 | 29.000 | 3,5            | 0,28 - 3,33 | 3,37-3,35   | 34.100 | 4              | 0,61 - 3,73 | 3.10 - 3.62 | 42.700 | 5              | 0,63 - 4,7  | 3.34 - 2,9 | 47.800           | 6 | 0,63 - 5,90 | 2,90 - 2,60 | Panasonic, Daikin |
| Kapasitas Pendingin (rated) |                             | Konsumsi Daya   | EER                         |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| Btu/h                       | PK                          | kW  | W/W                         |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 17.100                      | 2                           | 0,38 - 1,70   | 4,2-4,4                     |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 20.500                      | 2,5                         | 0,38 - 2,10   | 3,51-3,85                   |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 24.200                      | 3                           | 0,30 - 2,6  | 3,57 - 3,78                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 29.000                      | 3,5                         | 0,28 - 3,33   | 3,37-3,35                   |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 34.100                      | 4                           | 0,61 - 3,73   | 3.10 - 3.62                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 42.700                      | 5                           | 0,63 - 4,7  | 3.34 - 2,9                  |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |
| 47.800                      | 6                           | 0,63 - 5,90   | 2,90 - 2,60                 |                             |                   |           |       |             |         |             |        |               |             |             |        |               |             |             |        |                |             |             |        |                |             |             |        |                |             |             |        |                |             |            |                  |   |             |             |                   |

| NO | URAIAN PEKERJAAN     | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK                                       |
|----|----------------------|--|--|
|    |                      | Pipa Drain AC PVC AW Class<br>Fitting pipa: memiliki kelas tekanan yang sama dengan pipanya  | Rucika, Wavin, Power                       |
|    |                      | Pipa Refrigerant AC  | Kembla, DSP, Muller                        |
|    |                      | Insulasi<br>• Memenuhi ketentuan ASTM C 177, ASTM C 518 or EN ISO 8497<br>• Ukuran menyesuaikan diameter pipa refrigerant  | Armaflex, Insultube, Insuflex              |
|    |                      | Material bantu (Klem,Support, Fisher, Baut, dll)<br>Perlengkapan (Fitting, Sealtape, dll)  | Lokal                                      |
|    | Pekerjaan Fire Alarm | Installation menggunakan kabel FRC & FRC AWG 16 STP  | Pyrotec, Radox, Vitalink                   |
|    |                      | Instalasi detector & call point - Kabel NYA 2x1.5 mm2  | Supreme, Kabel Metal Indonesia, Sumi Kabel |
|    |                      | <i>Conduit</i> menggunakan PVC <i>High Impact</i> Ø 20 mm sesuai standards IEC 61386-1 and IEC 61386-21  | Legrand, Westpex, Boss                     |
|    |                      | <b>Master Control Fire Alarm (MCFA)</b><br>• Kapasitas 1 loop Addressable<br>• Mempunyai pintu panel dengan jendela penglihat<br>• Power Supply & Battery 220/50Hz<br>• LCD Display<br><br><b>Annunciator</b><br>• 10 zone | Honey well, Notifier, Simplex              |
|    |                      | <b>Photoelectric/Optical Smoke Detector</b><br><b>Konvensional Rate of Rise Heat Detector</b><br><b>Konvensional Manual Call Point</b><br>• Approvals : UL, FM, CSFM   | Honey well, Notifier, Simplex              |
|    |                      | Fire Alarm setelah terpasang harus diuji/test commisioning dan mendapat izin dari Disnaker setempat  |  |

| NO | URAIAN PEKERJAAN     | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK                           |
|----|----------------------|---|--------------------------------|
|    |                      | <b>Horn Strobe</b> <ul style="list-style-type: none"> <li>• Nominal Voltage <math>\pm 24</math> VDC</li> <li>• Strobe Flash Rate : 1 flash per detik</li> <li>• Horn Rated : &lt; 105 dBA</li> <li>• Approvals : <b>UL S4011, CE</b></li> </ul>   |                                |
|    |                      | <b>Addressable Zone Module</b><br><b>Addressable Control Module</b><br><b>Addressable Monitor Module</b> <ul style="list-style-type: none"> <li>• Approvals : <b>UL, FM, CSFM</b></li> </ul>  | Honey well, Notifier, Simplex  |
|    | Pekerjaan Tata Suara | <b>Multimedia player</b> <ul style="list-style-type: none"> <li>• Power Source 220-240V AC,</li> <li>• 50/60 Hz</li> <li>• Power Consumption 15 W</li> </ul> <b>Paging Microphone</b> <ul style="list-style-type: none"> <li>• Type : Moving coil microphone</li> <li>• Directivity : Unidirectional</li> </ul> <b>Ceiling Speaker</b><br>6 W dapat setting 3 Watt<br><b>Wall Speaker 6 W</b><br>6 W dapat setting 3 Watt<br><b>Paging Microphone</b> <ul style="list-style-type: none"> <li>• Type : Moving coil microphone</li> <li>• Directivity : Unidirectional</li> </ul> <b>Ceiling Speaker</b><br>6 W dapat setting 3 Watt<br><b>Attenuator</b> <ul style="list-style-type: none"> <li>• Input Capacity <math>\pm 30</math>W</li> <li>• Material : ABS Resin</li> </ul> | TOA (GALVA), Bosch, Honey well |

| NO | URAIAN PEKERJAAN | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK                                       |
|----|------------------|--|--|
|    |                  | <p><b>Mixer Pre Amplifier</b></p> <ul style="list-style-type: none"> <li>• For Emergency Public Address System</li> <li>• Input MIC 1-4: 600 Ω, -60/-20 dB (selectable),</li> <li>• Paging : -60/-20 dB (selectable), 600 Ω</li> </ul> <p><b>Emergency Message Panel</b></p> <ul style="list-style-type: none"> <li>• Emergency broadcast operating section</li> <li>• Emergency Announcement: Alert (repeated continuously), Evacuation (repeated continuously), False (repeated continuously), and Clear (repeated continuously)</li> <li>• Emergency Warning Language: Indonesian</li> <li>• Control Input: Fire Alarm Input</li> </ul> |  |
|    |                  | <p><b>Power Amplifier</b></p> <ul style="list-style-type: none"> <li>• Rated Output: 240W</li> </ul>   |  |
|    |                  | <p><b>Selector Switch</b></p> <ul style="list-style-type: none"> <li>• Voltage Source ±24V DC</li> <li>• Current Consumption: 0.4 A DC</li> <li>• Control switch: 5 individual speaker selector switch</li> <li>• Input: 5 Inputs Zone, 1 Emergency Override</li> <li>• Outputs: 5 Outputs Zone, each output max. 480W</li> </ul>  |  |
|    |                  | Sound Terminal Box   | Delta Jaya, Saka                           |
|    |                  | Cabinet Rack tata Suara<br>Dimensi sesuai gambar perencanaan   | Indorack, ABBA, Fortuna , Samson           |
|    |                  | Instalasi Speaker NYMHY 2 X 1.5 mm <sup>2</sup><br>Instalasi Attenuator NYMHY 3 X 1.5 mm <sup>2</sup>  | Supreme, Kabel Metal Indonesia, Sumi Kabel |

| NO  | URAIAN PEKERJAAN         | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL                               | MERK                   |
|---|--------------------------|--|------------------------|
|   |                          | Pipa Conduit<br>Dimensi sesuai gambar perencanaan                      | Legrand, Westpex, Boss |
|   | Pekerjaan Lift           | <b>Passenger Elevator</b>  | Mitsubishi, Schindler  |
| Capacity (kg)   |                          | 825  |                        |
| Speed   |                          | 60 MPM   |                        |
| Type  |                          | <i>Machine Room-less</i>   |                        |
| Operation   |                          | Simplex  |                        |
| Floor/stop  |                          | 5/5  |                        |
| Door Operation  |                          | 2 Panel Center Opening   |                        |
| <b>Power Supply</b>   |                          |  |                        |
| Main  |                          | 3Ph, 380V, 50Hz  |                        |
| Light   | 1 ph, 220v, 50 hz        |  |                        |
|   | Pekerjaan Proteksi Petir | Proteksi Petir Elektrostatis Radius 150M Early Streamer Emission (ESE) | Kurn, Erico, Pulsar    |
| Down conductor: NYY 1 x 70mm <sup>2</sup>   |                          | Supreme, Kabel Metal Indonesia, Sumi Kabel                             |                        |
| Conduit (PVC AW Class 1"-1/2" mm)   |                          | Westpex, Rucika, Wavin   |                        |
| Pipa Galvanis 2" med A dan dudukan untuk air terminal   |                          | Spindo, Bakrie, PII  |                        |
| Copper rod Ø 5, 8" lengkap dengan driving stud, clamp, dan coupler  |                          | Lokal  |                        |
| Penangkal petir setelah terpasang harus diuji/test <i>commisioning</i> dan mendapat izin dari Disnaker setempat |                          |  |                        |

| NO                                  | URAIAN PEKERJAAN               | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK                    |
|-------------------------------------|--------------------------------|---|-------------------------|
| <b>PEKERJAAN MEKANIKAL PLAMBING</b> |                                |   |                         |
|                                     | Pekerjaan Katup/Valve Plambing | Katup-katup peralatan pipa: Safety Reliev Valve, Main Control Valve, Check Valve, Gate Valve, Butterfly Valve, Ball Valve, Branch Control Valve, Landing Valve, Strainer, Inspector test Valve<br>Size: DN25~DN600<br>Body: Brass/iron<br>Nominal pressure: PN10<br>Temperature: 0~80oC<br>Suitable for: water and natural liquids<br>Disertai surat dukungan dari <i>principal</i> | Kitz, Fivalco, Toyo     |
|                                     |                                | Foot Valve 10K/PN10   | Mizu, Fivalco           |
|                                     |                                | Floating valve  | San-ei, Onda            |
|                                     |                                | Meteran air   | Itron, Onda             |
|                                     | Pekerjaan Instalasi Plambing   | Pipa Air Kotor, Air Bekas, Pipa air hujan menggunakan PVC AW Class 10 kg/cm <sup>2</sup><br>Fitting pipa memiliki kelas tekanan yang sama dengan pipanya  | Westpex, Rucika, Wavin  |
|                                     |                                | Pipa Vent menggunakan PVC D Class 5 kg/cm <sup>2</sup><br>Fitting pipa memiliki kelas tekanan yang sama dengan pipanya  | Westpex, Rucika, Wavin  |
|                                     |                                | Pipa Air Bersih menggunakan pipa PPR-PN 10<br>Fitting pipa memiliki kelas tekanan yang sama dengan pipanya  | ATP Toro, Rucika, Wavin |
|                                     |                                | <ul style="list-style-type: none"> <li>• Material Bantu (Klem,Support, Baut, dll)</li> <li>• Perlengkapan</li> </ul>  | Lokal                   |
|                                     |                                | <ul style="list-style-type: none"> <li>• Grease trap portable bahan stainless SUS 304</li> </ul>  | Lokal                   |

| NO | URAIAN PEKERJAAN    | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK  |
|----|---------------------|---|---|
|    | Pekerjaan APAR      | Portable Fire Extinguisher Dry Chemical Agent, kelas ABC: 3,5 kg<br>Thermatic Fire Extinguisher 5 Kg<br>Uji Laboratorium Dinas Pemadam<br>Uji Laboratorium Lemigas<br>Uji Laboratorium BPPT<br>Sertifikat Standard Mutu ISO 9001 : 2008   | Ocean Fire, Onefire, Yamato,  |
|    | Pekerjaan Pompa Air | <p><b>Transfer Pump</b></p> <ul style="list-style-type: none"> <li>• Tipe : Vertical multistage pump</li> <li>• Total head : 39.3 m</li> <li>• Debit : 2 x 278.3 L / Menit</li> <li>• Include control panel</li> </ul> <p><b>Packaged Booster Pump</b></p> <ul style="list-style-type: none"> <li>• Tipe : Horizontal multistage pump</li> <li>• Total head : 12 m</li> <li>• Debit : 2 x 90 L / Menit</li> <li>• Aksesoris pendukung pompa booster, meliputi :               <ul style="list-style-type: none"> <li>• Control panel in steel cabinet</li> <li>• Manifold made of Galvanize pipe</li> <li>• Non return valve</li> <li>• Unit isolating valve</li> <li>• Pressure switch</li> <li>• Pressure tank</li> <li>• Galvanized base frame</li> <li>• Panel indoor type</li> </ul> </li> </ul> <p><b>Pompa Sumpit</b></p> <ul style="list-style-type: none"> <li>• Tipe : Pompa sewage with cutter</li> <li>• Total head : 12 m</li> <li>• Debit : 20 m<sup>3</sup>/jam</li> </ul> | <p>Grundfos, Wilo, Wasser</p> <p>Grundfos, Wilo, Wasser</p> <p>Grundfos, Wilo, Wasser</p> |



| NO | URAIAN PEKERJAAN | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK                                   |
|----|------------------|---|--|
|    |                  | <b>Pressure Gauge</b>   | Claval, Progard, Watts, VPG            |
|    |                  | <b>Pressure Reducing Valve</b><br>Tekanan inlet max: 300 psig (min)   | Tyco, Victaulic, Viking                |
|    |                  | <b>Pressure Relief Valve/ Safety Relief Valve</b>   | Tyco, Victaulic, Viking                |
|    |                  | <b>Automatic Air Vent</b>   | Tyco, Victaulic, Viking                |
|    |                  | Pekerjaan Instalasi Pemipaan<br>Pipa menggunakan Black Steel Pipe (BSP), SCh.40<br>Termasuk pelapisan Zinkchromate dan finishing Cat  | Spindo, Bakrie, Krakatau Steel, Star   |
|    |                  | <b>Grooved Joint</b><br>Untuk Pipa ukuran 50 mm ke atas   | Tyco, Victaulic, Hooseki               |
|    |                  | <b>Outdoor Hydrant Box complete with :</b> <ul style="list-style-type: none"> <li>• Outdoor hydrant box, uk. 950 (H) x 660 (W) x 200 (D) mmm</li> <li>• Fire hose Ø2.5" x30 meter</li> <li>• Hose Nozzle Ø2.5"</li> </ul> <b>Indoor Hydrant Box complete with :</b> <ul style="list-style-type: none"> <li>• Rubber Fire Hose Ø1.5" x 30m</li> <li>• Hose Nozzle Ø1.5"</li> <li>• Hydrant Valve Ø1.5" dan Ø2.5"</li> </ul> <b>Hydrant Pillar, 2 way, Machino</b> <ul style="list-style-type: none"> <li>• Pillar hydrant two ways 10 bar</li> <li>• Gate valve Ø 4"</li> <li>• Flange Ø 4" ANSI 150 c/w gasket</li> </ul> | Ocean Fire, Onefire, Protector         |
|    |                  | <b>Sprinkler Head</b> <ul style="list-style-type: none"> <li>• ½" NPT</li> <li>• Type: Pendent, Recessed Mounting</li> <li>• K factor : 5.6</li> <li>• Glass Bulb temperature setting : 68 derajat Celcius</li> </ul>   | Ocean Fire, Onefire, Victaulic, Viking |

| NO | URAIAN PEKERJAAN | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK   |
|----|------------------|--|--|
|    |                  | <ul style="list-style-type: none"> <li>Material : Chrome</li> </ul>  |  |
|    |                  | <b>Siamese connection</b> <ul style="list-style-type: none"> <li>Gate valve</li> <li>Check valve</li> <li>Flange ANSI 150 c/w gasket</li> </ul>  | Ocean Fire, Onefire, Protector               |
|    |                  | <b>Alarm Check Valve/ Main Control Valve</b> <ul style="list-style-type: none"> <li>Trim Set</li> </ul> Lengkap dengan: <ul style="list-style-type: none"> <li>Water Motor Alarm/ alarm gong</li> <li>Retard Chamber</li> <li>Pressure Switch</li> </ul> | Tyco, Victaulic, Viking                      |
|    |                  | <b>Foot Valve</b>  | Mizu, Gala, Yuta                             |
|    |                  | <b>Flexible Joint</b><br>Class: PN-16/ tekanan kerja 300 psig  | Tozen, Toyo, Kitz                            |
|    |                  | <b>Check Valve</b> <ul style="list-style-type: none"> <li>Class: PN-16/ tekanan kerja 300 psig</li> </ul>  | Fivalco, Kitz, Toyo, Tyco, Viking, Victaulic |
|    |                  | <b>Gate Valve</b> <ul style="list-style-type: none"> <li>Tipe OS&amp;Y</li> <li>Class: PN-16 / tekanan kerja 300 psig</li> </ul>   | Fivalco, Kitz, Toyo, Tyco, Viking, Victaulic |
|    |                  | <b>Butterfly Valve</b> <ul style="list-style-type: none"> <li>Tekanan Kerja: 300 psig</li> <li>Body Material : Ductile Iron</li> <li>Disc : Ductile Iron, EPDM encapsulated</li> </ul>   | Fivalco, Kitz, Toyo, Tyco, Viking, Victaulic |
|    |                  | <b>Ball Valve</b> <ul style="list-style-type: none"> <li>Tekanan kerja: 300 psig</li> <li>Material : Bronze</li> <li>Screwed PN-16 Ø1/2"</li> </ul>  | Fivalco, Kitz, Toyo, Tyco, Viking, Victaulic |

| NO | URAIAN PEKERJAAN  | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK   |
|----|-------------------|--|--|
|    |                   | <b>Branch Control Valve</b> <ul style="list-style-type: none"> <li>• Butterfly valve wafer c/w tamper switch type flange end 300 psi</li> <li>• Water flow detector</li> <li>• Inspector Test Valve + Sight Glass</li> </ul>                   | Fivalco, Tyco, Viking                                |
|    |                   | <b>Pressure Switch</b><br>Working Pressure : 250 psig  | Victaulic, Tyco, VPG, Potter Electric                |
|    |                   | <b>Flow Switch</b><br>Working Pressure : 450 psig  |  |
|    |                   | <b>Test &amp; Drain Valve</b> <ul style="list-style-type: none"> <li>• Tekanan Kerja: 175 psig</li> <li>• Material : Cast iron dengan dua lensa glass pada body</li> <li>• Dilengkapi dengan dual ball valve dan K 5.6 test orifice</li> </ul> | Fivalco, Kitz, Toyo, Tyco, Viking, Victaulic         |
|    |                   | <b>Flow Meter</b> <ul style="list-style-type: none"> <li>• Type : Venturi</li> <li>• Tekanan Kerja : 275 psig (19 bar)</li> <li>• PN-16 Ø1/2"</li> </ul>   | Victaulic, Rapidrop, GVI                             |
|    |                   | <b>Instalasi Pipa Hanger</b> <ul style="list-style-type: none"> <li>• Riser pipa BS Ø 6"</li> <li>• Pipa BS medium Ø1- Ø4"</li> </ul>  | Spindo, Bakrie, Krakatau Steel, Star                 |
|    |                   | <b>Instalasi Drain Sprinkler</b> <ul style="list-style-type: none"> <li>• Pipa Black Steel Sch. 40 ASTM A53</li> <li>• Cat : Merah, RAL 3000</li> <li>• Dimensi sesuai gambar</li> </ul>   | Spindo, Bakrie, Krakatau Steel                       |
|    | Pekerjaan Saniter | Kran Ø1/2"   | Toto (TX 130 L), Grohe (20238000)                    |
|    |                   | Kran Wastafel  | Toto (TLS04301B), Roca (Escuadra A5A4220C0V), Kohler |

| NO | URAIAN PEKERJAAN | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL   | MERK  |
|----|------------------|--|---|
|    |                  | Kran Sink Ø1/2"  | Toto (TX 609 K), Roca (Escuadra A5A7920C0V)                   |
|    |                  | P-Trap sink  | Toto (THX1A-3N), Roca (A50640413)                             |
|    |                  | Kloset duduk + accessories<br>Dual flush min. 3L/4.5L<br>Tipe flush : siphonic   | Toto (C 704L/SW 784 JP), Roca (Debba) , Kohler (3991ID)       |
|    |                  | Kloset duduk difabel + accessories   | Toto (CW660NPJ / SW660J) , Roca (Debba) , Kohler (3991ID)     |
|    |                  | Kloset Jongkok   | Toto (CE9/TV150NWW12J) , Roca (Wasser CT 120/121)             |
|    |                  | Jet washer + valve   | Toto (TX 403 SMCRB), Roca (Health Faucet Be Fresh A5B9D30C00) |
|    |                  | Kitchen Zink   | Modena, Nayati, Austindo                                      |
|    |                  | Wastafel meja + accessories + Keran  | Toto (LW530J), Roca (Coral), Kohler (K-96118T-0)              |
|    |                  | Urinoir type Muslim + accessories<br>• Instalasi Wall Mounted<br>• Tipe Flush : Wash Down dengan Bidet Nozzle                    | Toto (U57), Roca (Bana A35945Z00D), Kohler (K-4991K-MET-0)    |
|    |                  | Pegangan stainless   | Toto (TX3A2), Roca (Access A816928001)                        |
|    |                  | Floor drain stainless steel Ø4"  | Toto (TX1EB), Roca (Decorum A5A029C0N)                        |
|    |                  | Lab Sink<br>• Bahan : High Grade Polypropylene (PP) SPP1W<br>• Warna : putih<br>• Accessories : PP Overflow, filter, dan stopper | Lab sistems, Relica, Boka lab                                 |
|    |                  | Emergency Shower   | Unicare, Korayen  |
|    |                  | Roof drain Ø 4" bahan cast iron  | Lokal   |

| NO                       | URAIAN PEKERJAAN                    | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK                   |
|--------------------------|-------------------------------------|---|------------------------|
|                          |                                     | Clean Out bahan stainless steel   | San-Ei, Rucika, Onda   |
|                          |                                     | Cermin 5 mm ( 600 x 900 mm) + bracket   | Custom                 |
|                          |                                     | <ul style="list-style-type: none"> <li>• Rooftank bahan Stainless steel + kaki</li> <li>• Water level control</li> <li>• Kapasitas 2000 Liter</li> </ul>  | Penguin, Tirta, Profil |
|                          |                                     | Meteran Air<br>Sesuai dengan standart PDAM  | Onda, Kemball          |
|                          | Pekerjaan Exhaust Fan dan Instalasi | <ul style="list-style-type: none"> <li>• Exhaust Fan Sirocco 10" 180 CMH 19W</li> <li>• Wall exhaust fan 2010 CMH 75 W</li> <li>• Axial Fan 2306.4 CMH</li> <li>• Exhaust air grille 200x200 dan 200x200</li> <li>• Fresh Air Grill 400x400</li> </ul>    | Conexa, KDK, Panasonic |
|                          |                                     | <ul style="list-style-type: none"> <li>• Exhaust Fan Centrifugal <ul style="list-style-type: none"> <li>- Power 750 W</li> <li>- Speed 1450 Rpm</li> <li>- Voltage 380 V</li> <li>- Air Volume 2500 CMH</li> <li>- Pressure 380 Pa</li> </ul> </li> </ul> |                        |
|                          |                                     | Pipa ven/ ducting<br>Dimensi sesuai gambar perencanaan  | Rucika, Wavin, Power   |
|                          |                                     | Air terminal: grille, diffuser, louvre  | Primawangi, AMT        |
|                          |                                     | Ducting BJLS 0,6 mm   | Fumira, Kemasu, Lokfom |
|                          |                                     | Material Bantu (Klem,Support, Fisher, Baut, dll)<br>Perlengkapan (Fitting, Sealtape, dll)   | Lokal                  |
| <b>PEKERJAAN LANSKAP</b> |                                     |   |                        |
|                          | Pekerjaan Softscape                 | <ul style="list-style-type: none"> <li>• Rumput gajah mini</li> <li>• Pohon Tanjung</li> <li>• Pohon Bungur</li> </ul>  | Lokal                  |
|                          | Pekerjaan Hardscape                 | <ul style="list-style-type: none"> <li>• Paving Holland K-300 tebal 80 mm</li> <li>• Kansteen K250</li> <li>• Grass block</li> </ul>  | Diamond Baru, Mutiara  |

| NO | URAIAN PEKERJAAN                | DESKRIPSI BAHAN / SPESIFIKASI / MATERIAL  | MERK                             |
|----|---------------------------------|---|----------------------------------|
|    |                                 | <ul style="list-style-type: none"> <li>• Pondasi Batu Kali 1pc : 8 ps</li> </ul>                                | Custom                           |
|    | Pekerjaan Saluran               | <ul style="list-style-type: none"> <li>• U-Ditch</li> <li>• Dimensi sesuai dengan gambar perencanaan</li> </ul> | ADP, KH-Beton, Varia Usaha Beton |
|    | Pekerjaan Penerangan Jalan Umum | <ul style="list-style-type: none"> <li>• Flux Luminous : 6500 Lumen</li> <li>• Power 50W</li> </ul>             | Philips, Panasonic               |

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