

INTISARI

Proyek renovasi Pendopo Balai Desa Mojosari, Kecamatan Kauman, Tulungagung tergolong proyek bangunan sederhana, namun jika tidak dilakukan manajemen konstruksi yang baik, akan berpotensi menimbulkan kerugian yang terakumulasi dikemudian hari.

Penelitian ini bertujuan untuk menyusun jadwal proyek renovasi Pendopo Balai Desa Mojosari dengan mengkolaborasikan metode *Precedence Diagram Method* (PDM) dengan penerapan *Building Information Modeling* (BIM) sehingga penjadwalan proyek dapat divisualisasikan dalam model 4D. Selain untuk mengetahui durasi pekerjaan, penelitian ini juga bertujuan untuk mengetahui jalur kritis pada proyek dan untuk membuat pemodelan 4D.

Dari penelitian didapatkan hasil durasi rencana proyek renovasi pendopo Balai Desa Mojosari membutuhkan waktu 108 hari dengan beberapa jalur kritis antara lain: pekerjaan pembongkaran bangunan lama, pembersihan lahan, pengukuran dan pemasangan *bouwplank*, mobilisasi peralatan, galian tanah fondasi *foot plat*, galian tanah *tie beam*, urugan kembali bekas galian, urugan pasir bawah fondasi *foot plat*, lantai kerja fondasi *foot plat*, fondasi *foot plat*, kolom pedestal, *tie beam*, sloof, kolom, balok, plat lantai dasar beton bertulang, timbunan tanah bawah lantai utama, urugan pasir bawah lantai ruangan, keramik lantai utama, keramik lantai selasar, rangka atap baja profil, plafond *gypsum board*, rangka plafond, pembersihan akhir. Pemodelan 4D pada Tekla Structures memungkinkan untuk menampilkan gambaran kemajuan pekerjaan sesuai tanggal proyek yang dimasukkan.

Kata Kunci: Penjadwalan, *Precedence Diagram Method*, Model 4D

ABSTRACT

The pavilion renovation project at the Mojosari Village Hall, Kauman District, Tulungagung is classified as a simple building project, but if proper construction management is not carried out, it will have the potential to cause accumulated losses in the future.

This study aims to compile a schedule for the pavilion renovation project at the Mojosari Village Hall by collaborating the Precedence Diagram Method (PDM) method with the Building Information Modeling (BIM) method so that project scheduling can be visualized in a 4D model. In addition to knowing the duration of the work, this study also aims to determine critical activities on the project and to make a 4D modeling.

From the research, it was found that the duration of the Mojosari Village Hall renovation project plan took 108 days with several critical activities including: demolition of old buildings, land clearing, measurement and installation of bouwplank, equipment mobilization, excavation of foot plate foundation soil, tie beam excavation, backfilling of excavated ex-excavation, sand filling under the foundation foot plate, foot plate foundation work floor, reinforced concrete foot plate foundation, pedestal column, tie beam reinforced concrete, sloof, column, beam, reinforced concrete base floor plate, subsoil on main floor, underground sand piling room, main floor ceramic, floor tile, steel profile roof frame, gypsum board ceiling, ceiling frame, final cleaning. Tekla Structures' 4D modeling makes it possible to display an overview of the progress of the work according to the project date entered.

Keywords: Scheduling, Precedence Diagram Method, 4D Model