**Construction Management Academy**

**(CMA)**

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**Agenda, course description, and other pertinent information.**

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**Construction Management Academy (CMA)**

**Summary *(Draft)***

The Kentucky Transportation Cabinet has long addressed technical issues with various courses, but has in the last few years put more emphasis on it leadership. As a recent FHWA report mentions, the Cabinet has a long history of mentoring to train project engineer in their trade with many engineers being in the construction crews as EIT’s before they become the project engineer of a crew. The Cabinet has a PDA (Project Development Academy) to educate new employees on the Cabinet’s processes with emphasis on the background of getting a project to letting. The CMA’s intent is to educate a project engineer on his responsibilities as the supervisor of a construction crew in the District and as the Project Engineer of record of a construction project.

The purpose of the CMA is :

*To provide a Project Engineer with the skill needed to administer a construction project and manage a crew of inspectors thus providing a statewide consistency while minimizing claims & change orders.*

An academy is not a new idea. A recent conference for AASHTO Subcommittee on Construction reported that 58% of states have some sort of formal project engineer training while 36% require it to hold the position. Although the type and length of training may vary, these statistics demonstrate that there is a need for a competent project administrator.

KYTC’s training will encompass 6 days of course work to be given at 2 days per month for a 3 month period. It is suggested to leave the months of November and December free due to holidays. Thus a class offering of twice a year. Class size is 18 individuals thus 36 per year and in 2 years could cover everyone with the responsibility of Section Engineer in the state. With the large turnover of engineers in the Cabinet and including EITs which will move up to be Section Engineers (or otherwise Project Engineers) it is expected that the course would be taught regularly. Course instructors would be from all Divisions and District of the Cabinet as well as ‘outside’ the Cabinet such as FHWA and KAHC.

**Construction Management Academy (CMA)**

**Course Outline *(Draft)***

**DAY 1:**

The first day is of course an introduction to the academy with an overview/history of the Division. The regulations and KRS which constitutes the authority that the Division of Construction operates under are explained along with various successes (such as the Natcher Bridge) and hardships (Kennedy Bridge Painting) as examples. Emphasis will also be on the Division of Contract Procurement and the letting process followed by the various resources available to the project engineer.

**DAY 2:**

This date would cover the nuts and bolts of the construction crew itself and how they work together from day to day. Then the Contract, which is the direct and prime responsibility of the Division of Construction, is fully explained it along with how changes are made.

**DAY 3:**

Explanations would be given concerning the roles of various functions, such as the precon meeting, that insure Contract conformance and documentation. Other project start-up functions such as dealing with the public and material sampling are also mentioned.

**DAY 4:**

Inspection of the contract can make or break the final product thus this date will go over the inspector’s responsibility and determine how the project engineer can direct and influence good work. His responsibility concerning inspection is explained along with how C.O. Construction reviews projects for compliance.

**DAY 5:**

The biggest headaches for any project engineer is when good plans go bad. Discussion this date covers the various conflicts that arise during the work and methods to mitigate them. Students are left with at least some ideas of how to deal with issues, but also how every utility or property owner is different. Also a considerable discussion of Claims and their use by the contractor. Sitemanager is the overriding program used by Construction to document the project, but this date will not focus on program training. The discussions this date will be into the use of the program and more importantly the correct use of it such as an acceptable DWR and the review of the engineer. Then other odd topics will be discussed.

**DAY 6:**

Many project engineers are very familiar with technical issues, but this day’s discussions cover a side many never want to see – legal issues. Many of the legal issues and how the Cabinet deals with the Contract when lawyers are involved are discussed. It is suggested to have mock depositions/hearings. Since this is the last day of the Academy, the close out of the class will be accomplished by delving deeply into the closeout of the project. All the necessary headaches to call a project complete the shepherd it to payoff and the archives is discusses. Essentially when does the project engineer’s responsibility ends?