

Summary of 2023 Updates to AML Construction Specifications & General Conditions

By W. J. Greenlees, P.E. -- May 5, 2023

This document summarizing and highlighting the 2023 updates to AML specifications and the General Conditions is provided in lieu of distributing documents showing tracked changes. Should this summary inspire one's need to review the documents with tracked changes shown, said documents will be available upon request.

SECTION 02000 – SUBSURFACE INVESTIGATION

- Minor formatting; no significant updates

SECTION 02010 – FIELD ENGINEERING

- Added language in 3.7 stating preference for UAV data collection of As-built survey data
- Added language in 3.9 for Preservation of Land Survey Monuments

Commentary: Additional language is added to the specification to make contractors aware of requirements stipulated in the Iowa Code 355.6a, 355.7a, and 355.11 for restoration of three types of land survey monuments. The language requires the Contractor's surveyor to be knowledgeable of the documentation necessary when restoring a particular land survey monument. To prevent surprises and unwanted change order requests from Contractors, Engineers should exercise reasonable diligence to determine whether any land survey monumentation exists within or along the edge of an AML site and thus inform prospective Contractors during the pre-bid and pre-construction meetings. Reasonable diligence may include a review of plats of survey or section corner certificates in the vicinity of the proposed reclamation. It is rare that land survey monumentation will be found intact within a highly disturbed mined area, but two property pins associated with a 2002 plat of survey were discovered on spoil piles early in design of a recent AML project.

SECTION 02100 -- MOBILIZATION

(Some changes shown in tracked changes document were made in the 2020 update)

- Added clarifying language concerning SWPPP documentation in 1.1
- Added minor adjustments to language in 1.2 concerning trees and added a new URL resource for tree protection
- Minor clarifying language revisions concerning site access in 3.1
- Added reference to 1.2 C in 3.3, B., 1.
- Added language concerning electronic SWPPP in 3.5
- Changed title of 3.9 to include "AND JOB POSTER DISPLAY"
- Added language in 3.9 B. to address Job Poster Display boards pursuant to Davis Bacon requirements
- Minor clarifying language adjustments in 3.10 concerning access routes

SECTION 02110 -- IMPOUNDMENTS

(Some changes shown in tracked changes document were made in the 2020 update)

- Added details for neutralization and discharge plan to 1.5 SUBMITTALS
- Minor revisions to language in 3.3 B.
- Added constraining language in 3.6 A regarding presence of ice on the water surface
- Added clarifications in 3.9 A. and B.

SECTION 2120 – SEDIMENT & EROSION CONTROL

- Added language in 1.1 A. which allows practices to be declared permanent or temporary.
- Added language in 1.1 A. 3. concerning time frame for removal of sediment and erosion control BMP's

Commentary: Temporary BMPs often get installed near the end of the project...about the time of seeding depending upon the type of product or practice. Shortly after seeding there seems to be a strong motivation to certify substantial completion and close the Construction contract. To begin closing the contract, all work must be declared complete, but all work cannot be complete if removal of temporary BMPs is a required payable work item. This creates a motivation to remove any remaining BMPs that may have been in place only an abbreviated time, reducing the usefulness of the BMP. When these situations arise, one may question why the BMPs are installed at all. The opposing view suggests there is no motivation for the Contractor to remove the practices if it is not a pay item. This dilemma has been discussed many times among Iowa AML program staff. To reach a workable solution, this version of the specification specifies that removal of BMPs is incidental to installation, but it specifies a time period for the BMP removal; that being on or after the 90-day greenup inspection, but before the Contractor's guarantee period closes. This period should maximize the usefulness of the temporary BMPs. In the substantial completion letter required by General Conditions, Doc N, Engineers should clearly stipulate that the project completion is subject to removal of the indicated BMPs. The removal of the BMPs will be enforced by Contractor's bond or the withholding of retainage payment subject to the discretion of the Division.

- Removed the "." From the RECP Types. Where formerly "1.A" was indicated it is now simply "1A" and etc.
- Revised language for tied block mat roll width and length in 2.1, I, 9 & 10
- Changed "Rebar Staples" to "Rebar U-Anchors" or "U-Anchors" in 2.1, I, 12
- 3.3 A., 2. Added language to say surface roughening is accomplished by deep disking associated with subgrade preparation.
- 3.3, I.,3. Added language...Filter socks shall be embedded into the soil surface...
- 3.3, J.,2. Added language to prohibit vertical joints in wattles but allow horizontal wattles subject to engineer approval.
- Added language in 3.4 to indicate BMP removal is incidental to installation and re-iterates time frame for removal of BMP.
- Also added language in 3.4 which gives Engineer responsibility to identify "critical BMPs" where one half is paid on installation and the remaining one-half is paid upon removal.

Commentary: "critical BMPs" may include practices like silt fence, which must be removed in a timely fashion after serving out its usefulness. The removal of critical BMPs, like silt fence, may be intensive. If critical practices like silt fence are not removed, future maintenance of the site becomes hazardous due to the steel posts used. This means that it will be the Engineer's responsibility to recommend a contract remain open longer to allow removal after the practice has served out its usefulness. In contrast, items like straw wattle or filter sock need not necessarily be considered critical since methods to secure those practices are typically short wooden stakes and because their removal is not necessarily as intensive as the removal of silt fence.

- Added language to indicate that surface roughening shall not be considered a separate pay item when it is accomplished as a part of subgrade preparation.

SECTION 02200 – EARTHWORK, ROUGH GRADING

- Added definitions in 1.3, A. for Access Route, Grading limits, Project Boundary, Substantial Earthwork, Large Rocks, and Excessively large rocks. (These changes made in 2020)
- Added language in 1.3, D to address Original Ground lines and Revisions to Original Ground Lines (made in 2020)
- Removed Language in 3.8 to prohibit use of explosives, as a last resort.
- Added language in 3.8, G. to address situations where coal seams are encountered... (made in 2020)

SECTION 02220 – EARTHWORK, DAMS

- Minor formatting and language changes in 2020

SECTION 02230 – EARTHWORK, SHAFTS

- Minor language adjustments to 1.3, A.
- Future revision to 2.2 and 3.6 is likely...see commentary below

Commentary: An alternative style, method of fabricating, and installing a site marker was recently developed, but those details were not ready in time for this cycle of spec revisions. Should a there be a need to mark a mine shaft that will be closed during reclamation, Contact the Division for further up-to-date details for a site marker.

SECTION 02250 – EARTHWORK, SELECT BORROW

- Only minor formatting throughout

SECTION 02300 – DRAINAGE SYSTEMS, GENERAL

- Added language in 3.6, B. 6 which requires granular bedding to be encased in filter fabric
- Added language in 3.6, B. 7 which allows pipe straps to be used in lieu of a concrete collar on PVC outlet connections if there are provisions to keep the pipe strap from slipping off the PVC pipe
- Added language in 3.9, B. requiring riprap and erosion stone to be placed over a six-inch (6”) lift of macadam stone
- Added language in 3.9, C. prohibiting use of filter fabric under riprap in drainage ditches.
- Added “Yard” in “Square Yard” to description of filter Fabric quantity in 3.11, K.

SECTION 02310 – DRAINAGE SYSTEMS, DAMS & STRUCTURES

- Added 1.2 D.,2 which includes NRCS Conservation Practice Standard, Pond (387)
- Added 2.2, G. which includes discussion of RCP joints and ties
- Added “AND FILTER DIAPHRAGMS” TO title of 2.3 and added specification for filter (or drainage) diaphragms.
- Added reference to filter diaphragms in 3.8, D.

SECTION 02320 – DRAINAGE SYSTEMS, SEPTIC

- Added 1.1, B. which includes language to refer the reader to IAC 567, Chapter 69 “Private Sewage Disposal Systems”

SECTION 02400 – SUBGRADE PREPARATION, WITHOUT COVER MATERIAL

- Updated URL website address for ISU Extension tree protection document

SECTION 02410 – SUBGRADE PREPARATION WITH COVER MATERIAL

(Several changes shown on tracked changes document were made in the 2020 update.)

- No additional changes or updates made during the 2023 revision.

SECTION 02500 -- FENCING

- Added language in 2.2, A.,2. which indicates creosote posts are acceptable.
- Added specifications in 2.4 A., for gates...also added provision that double gates may be longer than twelve feet in situations where a gate overlap or wider opening is desired...see 2.4, A., 3.
- 3.1, E. added clarification indicating “outward face” of posts at “along” curves
- 3.1, J. added specifications for placement of gates and added stipulation that gates posts be part of a brace assembly. Also added specification for acceptable gate overlap when gates are closed.
- Added clarifying language in 3.2, C. for double gates.

SECTION 02700 – SEEDING

- Corrected required sample depth when sampling soil for seeding lime and fertility recommendations. Sample depth now specifies six to eight (6”-8”) where it had indicated twelve inches (12”) before.
- Added requirement in 3.5, A. that the seeding season should be determined in consultation with Engineer and Division.

GENERAL CONDITIONS – DOCUMENT N

- Modified Table of Contents, renumbering and pagination throughout
- Added to list in 1-02 to include additional forms
- Defined “Engineer Designee” in 1-05
- Defines “Final Payment” and “Retainage Payment” in 1-26
- Adds some additional clarification to “Final Acceptance” in 1-26 M.
- Added 1-28, definition/description of BABA
- Added 1-29, definition of “Certified Payroll”
- Added 1-30, description of Davis-Bacon and related Acts
- 3-02, D. Preconstruction Meeting...added item 4 requirement to cover Davis-Bacon Discussion and modified item 9 to include project job board requirements
- 3-05,3 includes stipulation that Contractor cannot not suspend work when Division delays payment while waiting for certain submittals as discussed in 7-05
- 3-20 added language which requires Contractor to bind all Subcontractors to Davis-Bacon and BABA requirements
- 3-25, B., 4. Added Certified Payroll requirements
- 7-04, C. Added minor clarifications concerning Payment Applications.
- Added 7-04, F. concerning Delay of Payment with referral to 7-05
- Added language to 7-05 concerning delays in payment
- 7-13, A. Added language which requires Evidence that all Davis-Bacon payroll reporting requirements have been met
- 7-13, B. Adds Davis-Bacon Checklist to Engineer’s responsibility prior to Final Acceptance and Final Payment
- 7-13, C. Small modifications to language regarding publication of Notice of Completion
- Added SECTION 8 – DAVIS-BACON AND RELATED ACTS PROVISIONS, 8-01 through 8-12