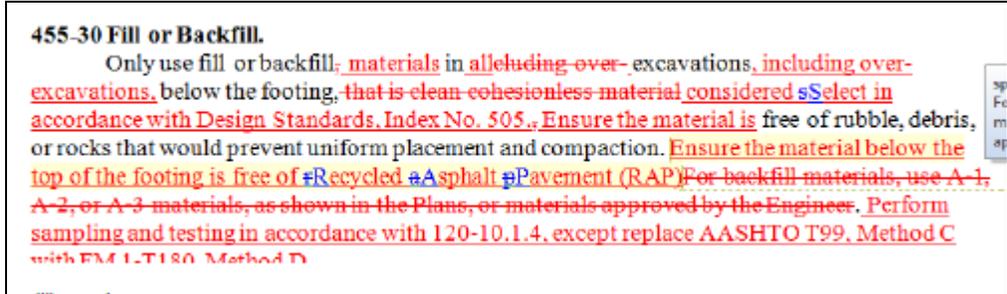


4550000 STRUCTURES FOUNDATIONS
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Willie Henderson
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Comment:(6-10-13)



Can RAP be used in backfill?

Response:

Karen Byram
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Comment: (6-18-13):

1. It states in 455-5.11.3 Temporary Piles: "Submit for the Engineers review, an analysis signed and sealed by a Specialty Engineer which establishes the pile lengths for temporary piles, and submit for the Engineers approval, a Wave Equation analysis signed and sealed by a Specialty Engineer which establishes the driving criteria for temporary piles at least five working days prior to driving temporary production piles." This sentence seems to be redundant. Can the sentence be simplified to "submit to the Engineer for approval the following...."?

Response:

2. In states in 455-30 Fill or Backfill. "Only use fill or backfill materials in excavations, including over-excavations, below the footing, considered Select in accordance with Design Standards, Index No. 505." This sentence doesn't make sense. Punctuation needs to be corrected.

Response:

Juan Castellanos
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Comment: (6-28-13)

In 455-11.2.3 and 455-11.8, the language of measurement and payment of build-ups does not seem correct regarding the cost of the extra length. Please consider the following changes (delete highlighted text):

1. In 455-11.2.3: Delete "in excess of 2 feet" to make it look as follows:

455-11.2.3 Build-ups: The lengths of pile build-ups ~~in excess of 2 feet,~~ authorized by the Engineer, measured from the plane of cutback or the joint between the sections, to head of build-up, will be included in the quantities of piling.

Response:

2. In 455-11.8 second paragraph: Delete "and reinforcing steel and concrete used for build-up" to make it look as follows:

For concrete piles and test piles, where the *build-up is 5 feet or less in length, the head of the pile to be spliced is not more than 2 feet below the elevation of cut off, the pile build-up may be cast with the cap. The reinforcing steel and pile dimensions shall generally conform in every respect to a standard splice.* The quantity to be paid for will be 9 feet of prestressed concrete piling under Pay Item No. 455-34 as compensation for drilling and grouting the dowels and ~~reinforcing steel and concrete used for build-up and~~ all other costs for which provision has not otherwise been made.

Response:

Scott Alfele
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Comment: (7-16-13) 455-43 Definition of a LOT has changed from 50 CY to 1 day of pile placement. It is typical for my crew to install over 100 CY of sound wall augercast pile grout in 1 day of production so previously there would have been 3 ea. LOT's or sets of 4 cylinders per day. To only have 4 cylinders for an entire day of installation (126 CY typical day) is risky and short sighted.

If there is a LOT that does not meet strength requirements then the entire day's production (18 piles +/-) is at risk. EAR may resolve the issue but we all know that "remove and replace the LOT" is not practical with auger cast pile grout installed to typically 25' below grade.

Also, it appears that 2 ea. 7 day breaks have been eliminated from the testing protocol. It is crucial to have 7 day breaks so that contractor and supplier can verify the grout is hitting expected strengths at that time frame. We typically have entire sound wall projects installed in 28 days or less so we would not know there was a strength issue until the job was done.

I feel these proposed changes will create huge issues should a LOT break low. The number of samples and frequency of testing are well below industry standard and may be a huge problem if implemented.

Delete ", whichever is less deviation from the specified minimum strength," of the following sentence which is a proposed add to this spec section. "When a cement grout acceptance strength test falls more than 500 psi below the specified minimum strength, whichever is less deviation

from the specified minimum strength, perform one of the following:" I beleive this was included previously because 10% low break was also a criteria.

Response:

Katie Bettman
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Comment: (7-16-13) 455-43 requires the Contractor to make 4 cylinders for every LOT of concrete. The requirement should be 3 cylinders for every LOT of concrete not verified by VT. 4 cylinders should only be required on the randomly selected LOT to be verified.

Response:

2. 455-43, top page 67: Paragraph/sentence beginning with “When grout acceptance strength fails more than 500 psi below the specified, “ “ whichever is less deviation from the specified minimum” This second part can be removed, no longer applies, since it relates to -10% of the F’C.

Response:

Teleconference with Mike Bergin Donnie Bagwell & David Horhota (SMO)
and Juan Castellanos (SCO)

Comment: (11-06-13) 455-42 Inserted text “Reject loads with efflux of less than 21 seconds.” has been deleted. This language needs to be retained.

Response:.

Comment: (11-06-13) 455-42 For clarity, please revise items 6 & 7 to:

“6. Use a positive displacement piston type grout pump, equipped with a pressure gauge, capable of developing displacing pressures at the pump up to 350 psi.

7. Accurately monitor the volume and pressure of the grout flow. ...”

Response:.

Comment: (11-06-13) 455-43 For clarity, please move the 1st sentence in Paragraph 4 to Paragraph 1 sentence 3, and revise this sentence to:

Test the cylinders at 28 days, in accordance with ASTM C39. The Engineer will also cast three verification cylinders and one “hold” cylinder from one of every four consecutive lots, randomly selected.

Response:.

Delete text remaining in Paragraph 4 this is already covered in Section 346.

Response:.

Comment: (11-06-13) 455-43 Combine Paragraph 2 & Paragraph 3.

Response:.
