

SECTION 203 EXCAVATION & EMBANKMENT

I-15
8/02

MATERIAL		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
		TESTED BY		METHOD		CONTAINER	DISTR.			
EMBANKMENT, CUT & FILL AREAS	Density	203.12 Contractor	Quality Control	Contractor TR 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met. DOTD TR 415 or TR 418 will be completed by the Department for each section/lift as needed for optimum moisture content and determining % compaction.
		203.07 203.08 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	½ hr.	
		Dist. Lab	I A	Dist. Lab TR 401	SEE INDEPENDENT ASSURANCE PROGRAM S 701.					
	Embankment Lift (Uncompacted Thickness) or Subgrade Preparation	203.12 Contractor	Quality Control	Contractor	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 203.08 Proj. Engr.	Accept.	*	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	-----	*Proj. Engr. to check lift thickness during placement & thickness of top layer during preparation.
	Moisture Content @ time of compaction	203.12 Contractor	Quality Control	Contractor TR 403	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 203.08 Proj. Engr.	Accept.	Proj. Engr. TR 403	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	1 hr.	Test taken during or just prior to compaction operation.
	Soil or Cut Slope (for PH and PI)	203.06 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 lin ft/ slope/soil type	1 full sample sack	-----	-----	5 days	To determine the need for plastic soil blanket or soil modification option.

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		TESTED BY		METHOD		CONTAINER	DISTR.			
GEOTEXTILE FABRIC		203.11 1019.01 Mat. Lab	Prelim. Source Approval	Dist. Lab	1/type/lot/ source/ shipment	3 lin ft/roll width of fabric*	-----	-----	10 days	*Sample a minimum of 18 ft ² .
		203.11 1019.01 Mat. Lab	Accept.	Proj. Engr. S 601	1/type/ shipment/ source	3 lin ft/roll width of fabric*	CD** 1 & 7	150 yd ²	10 days	(QPL 61) Visually inspect seams & UV damage. Seams other than 401 or "J" shall be approved by the Materials & Testing Section. See the QA Manual. *Sample a minimum of 18 ft ² . **Sample when not accompanied by a CD or questionable.
LIME	Agricultural	203.06(f)(3) 1018.17 Mat. Lab	Accept.	Proj. Engr. S 102	SEE SECTION 718 OF THIS MANUAL.					
	Hydrated or Quick Lime	203.06(e) 1018.03	Accept./ Verif./Prelim. Source Approval	SEE SECTION 304 OF THIS MANUAL.						
NON-PLASTIC EMBANKMENT	Density	203.12 Contractor	Quality Control	Contractor TR 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	½ hr.	-----
		203.07 Dist. Lab	I A	Dist. Lab TR 401	SEE INDEPENDENT ASSURANCE PROGRAM S 701.					

I-16

8/02

SECTION 203 EXCAVATION & EMBANKMENT (Cont'd)

MATERIAL		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUAN.	TYPICAL HAND. TIME	REMARKS
		TESTED BY		METHOD		CONTAINER	DISTR.			
NON-PLASTIC EMBANKMENT (Cont'd)	Embankment Lift (Uncompacted Thickness)	203.12 Contractor	Quality Control	-----	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 Proj. Engr.	Accept.	Proj. Engr. *	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	-----	*Check lift thickness during placement.
	Moisture Content @ Time of Compaction	203.12 Contractor	Quality Control	Contractor TR 403	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 Proj. Engr.	Accept.	Proj. Engr. TR 403	1/1000 lin ft/ 2-lane rdwy/ lift	1 gal Friction top can	-----	-----	1 hr.	-----
	Blended Calcium Sulfate	203.09 1003.09(d) Mat. Lab	Prelim. Source Approval	Dist. Lab	1/source/ blend	6 full sample sacks	-----	-----	4 weeks	-----
		203.12 Contractor	Quality Control	Contractor S 101	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.09 Dist. Lab	Accept.	Proj. Engr. S 101	1/2000 yd ³	1 full sample sack	-----	500 yd ³	4 days	Source shall be approved by the Material and Testing Lab prior to use.
		203.09 Dist. Lab	IA	Dist. Lab S 101	SEE INDEPENDENT ASSURANCE PROGRAMS S 701.					
	Sand	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.09 Dist. Lab	Accept.	Proj. Engr. S 401	1/2000 yd ³	1 full sample sack	-----	500 yd ³	4 days	*The Dist. Lab will sample if material is in borrow pit.
		203.09 Dist. Lab	IA	Dist. Lab S 401	SEE INDEPENDENT ASSURANCE PROGRAM S 701.					
	Shell or Stone	203.12 Contractor	Quality Control	Contractor S 101	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.09 Dist. Lab	Accept.	Proj. Engr. S 101	1/2000 yd ³	1 full sample sack	-----	500 yd ³	4 days	Shall be from QPL 2.
		Dist. Lab	IA	Dist. Lab S 101	SEE INDEPENDENT ASSURANCE PROGRAM S 701.					
PLASTIC SOIL BLANKET	Thickness (Compacted)	203.10 Contractor	Quality Control	Contractor	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.10 Proj. Engr.	Accept.	Proj. Engr.	1/1000 lin ft/ slope	-----	-----	-----	-----	Proj. Engr. to check lift thickness after compaction.

I-17

8/02

SECTION 203 EXCAVATION & EMBANKMENT (Cont'd)

MATERIAL		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
		TESTED BY		METHOD		CONTAINER	DISTR.			
PLASTIC SOIL BLANKET (Cont'd)	Plastic Soil	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	* Shall check sufficient to ensure specifications are met.
		203.10 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 yd ³ *	1 full sample sack	-----	300 yd ³	5 days	* Not required if tested & approved as excavation or borrow pit material. Pit approval allowed if identifiable strata can be isolated.
SELECTED SOIL	In-place on Roadway	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	* Shall check sufficient to ensure specifications are met.
		203.06 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 full sample sack	-----	-----	5 days	-----
	Stockpile	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	* Shall check sufficient to ensure specifications are met.
		203.06 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 yd ³	-----	-----	-----	5 days	-----
USABLE SOIL	Borrow Pits	203.12 Contractor	Quality Control	Contractor S 401	1 boring/ acre*	-----	-----	-----	-----	* Results shall be submitted to Dist. Lab with boring request.
		203.06 Dist. Lab	Accept.	Dist. Lab S 401	1 boring/acre for first 2 acres 1 boring/2 acres there after.	½ sample sack *	-----	100 yd ³	6 days	* Min. 10 lb required for test. May be sampled on the roadway if questionable.
	Excavation	203.12 Contractor	Quality Control	Contractor S 401	As required*	1 full sample sack	-----	-----	-----	May be accepted by subgrade soil survey upon approval of the District Lab. * Sample full depth of excavation.
		203.06 Dist. Lab	Accept.	Dist. Lab S 401	As required*	1 full sample sack	-----	100 yd ³	5 days	
	Stockpile	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	* Shall check sufficient to ensure specifications are met.
		203.06 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 yd ³	1 full sample sack	-----	100 yd ³	5 days	Will be approved in stockpile before placing on project.
WATER		1018.01 Mat. Lab	Accept.	Proj. Engr. S 303	1/source	1 qt Plastic bottle	-----	-----	21 days	Visual inspection by P.E. Sample only if questionable.

I-18

8/02