

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Inter-Departmental Memorandum

TO: Design Team Leaders

DATE: May 27, 2004

FROM: Steven W. Reeves
Quality Control Engineer

SUBJECT OR PROJECT NO: Grassing Pay Items

INFORMATION COPY TO:

COUNTY:

Roadway Design Division Engineer (Pickering)
Assistant Roadway Design Division Engineer (Purvis)
Special Projects Engineer (Boteler)
Roadway Design Section Engineers
Construction Division (Lewis & Funchess)
District Engineers
Active Consultants
FHWA
Files

Starting with the July 2004 letting, pay items for temporary erosion control items will be included in plans. Plans will include permanent erosion control items, temporary erosion control items and temporary erosion control items for detours when detour roads are part of the plans. The acreage for temporary erosion control items will be estimated as half (1/2) the acreage estimated for permanent measures. Pay item numbers and descriptions are shown below. Example calculations and example Summary of Quantity sheets are attached.

INDIVIDUAL PAY ITEM METHOD

PERMANENT EROSION CONTROL ITEMS

212-B STANDARD GROUND PREPARATION
213-A AGRICULTURAL LIMESTONE
213-B COMBINATION FERTILIZER (13-13-13)
213-C SUPERPHOSPHATE
214-A SEEDING (BERMUDAGRASS) *
214-A SEEDING (TALL FESCUE) *
214-A SEEDING (CRIMSON CLOVER) *
214-A SEEDING (BAHIAGRASS) *
215-A VEGETATIVE MATERIALS FOR MULCH
220-A INSECT PEST CONTROL

* AS PER VEGETATION SCHEDULE

TEMPORARY EROSION CONTROL ITEMS

212-A LIGHT GROUND PREPARATION
213-B COMBINATION FERTILIZER (13-13-13)
214-A SEEDING (BROWN TOP MILLET)
214-A SEEDING (RYE GRASS)
214-A SEEDING (OATS)
215-A VEGETATIVE MATERIAL FOR MULCH

TEMPORARY EROSION CONTROL ITEMS FOR DETOURS

- 212-B STANDARD GROUND PREPARATION
- 213-B COMBINATION FERTILIZER (13-13-13)
- 214-A SEEDING (BERMUDAGRASS)
- 214-A SEEDING (TALL FESCUE)
- 215-A VEGETATIVE MATERIAL FOR MULCH

GRASSING PAY ITEM METHOD

PERMANENT EROSION CONTROL ITEMS

- 213-C SUPERPHOSPHATE
- 220-A INSECT PEST CONTROL
- 225-A GRASSING

TEMPORARY EROSION CONTROL ITEMS

- 226-A TEMPORARY GRASSING

TEMPORARY EROSION CONTROL ITEMS FOR DETOURS

- 225-A GRASSING

EXAMPLE CALCULATIONS

FROM PLANS

- STANDARD GROUND PREPARATION-----150600 SY
- AREA FOR DETOUR ROAD APPLICATION-----40600 SY

FROM VEGETATION SCHEDULE

EROSION CONTROL ITEMS	RATES
AGRICULTURAL LIMESTONE-----	2 TONS/ACRE
COMB. FERTILIZER (13-13-13)-----	1000 LBS/ACRE
SUPERPHOSPHATE-----	0.5 TONS/ACRE
1 SEEDING (BERMUDAGRASS)-----	20 LBS/ACRE
1 SEEDING (TALL FESCUE)-----	25 LBS/ACRE
2 SEEDING (BAHIAGRASS)-----	25 LBS/ACRE
2 SEEDING (CRIMSOM CLOVER)-----	20 LBS/ACRE
VEGETATIVE MATERIAL FOR MULCH-----	2 TONS/ACRE
2 INSECT PEST CONTROL-----	PER ACRE

- 1 PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 100% OF THE ACREAGE WILL BE SEEDED.
- 2 PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 50% OF THE ACREAGE WILL BE SEEDED.

TEMPORARY EROSION CONTROL ITEMS	RATES
COMBINATION FERTILIZER (13-13-13)-----	0.25 TONS/ACRE
SEEDING (BROWN TOP MILLET)-----	20 LBS/ACRE
SEEDING (RYE GRASS)-----	25 LBS/ACRE
SEEDING (OATS)-----	90 LBS/ACRE
VEGETATIVE MATERIAL FOR MULCH-----	1 TON/ACRE

TEMPORARY EROSION CONTROL ITEMS FOR DETOURS	RATES
COMBINATION FERTILIZER (13-13-13)-----	500 LBS/ACRE
SEEDING (BERMUDAGRASS)-----	10 LBS/ACRE
SEEDING (TALL FESCUE)-----	20 LBS/ACRE
VEGETATIVE MATERIAL FOR MULCH-----	2 TONS/ACRE

CALCULATIONS (INDIVIDUAL PAY ITEM METHOD)

212-A	LIGHT GROUND PREPARATION	$150600/2 = 75300$ SY
212-B	STANDARD GROUND PREPARATION	$150600 + 40600 = 191200$ SY
213-A	AGRICULTURAL LIMESTONE	$(150600/4840) \times 2 = 62.23$ TONS USE 62
213-B	COMBINATION FERTILIZER (13-13-13)	$(150600/4840) \times 0.5 = 15.56$ TONS USE 16 $((150600/4840)/2) \times .25 = 3.89$ TONS USE 4 $((40600/4840) \times .50 = 4.19$ TONS USE 4 TOTAL----24 TONS
213-C	SUPERPHOSPHATE	$(150600/4840) \times 0.5 = 15.56$ TONS USE 16
214-A	SEEDING (BERMUDAGRASS)	$(150600/4840) \times 20 = 622.31$ LBS USE 622 $(40600/4840) \times 10 = 83.88$ LBS USE 84 TOTAL-----706 LBS
214-A	SEEDING (TALL FESCUE)	$(150600/4840) \times 25 = 777.89$ LBS USE 778 $(40600/4840) \times 20 = 167.77$ LBS USE 168 TOTAL----- 946 LBS
214-A	SEEDING (BAHIAGRASS)	$((150600/4840)/2) \times 25 = 388.95$ LBS USE 389
214-A	SEEDING(CRIMSOM CLOVER)	$((150600/4840)/2) \times 20 = 311.15$ LBS USE 311
214-A	SEEDING (BROWN TOP MILLET)	$((150600/4840)/2) \times 20 = 311.15$ LBS USE 311

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214-A SEEDING (RYE GRASS) $((150600/4840)/2) \times 25 = 388.89$ LBS USE 389

214-A SEEDING (OATS) $((150600/4840)/2) \times 90 = 1400.21$ LBS USE 1400

215-B VEGETATIVE MATERIAL FOR MULCH

$(150600/4840) \times 2 = 62.23$ TONS USE 62

$((150600/4840)/2) \times 1 = 15.56$ TONS USE 16

$((40600/4840) \times 2 = 16.78$ TONS USE 17

TOTAL----95 TONS

220-A INSECT PEST CONTROL $(150600/4840)/2 = 15.56$ ACRES USE 16

CALCULATIONS (GRASSING PAY ITEM METHOD)

213-C SUPERPHOSPHATE $(150600/4840) \times 0.5 = 15.56$ TONS USE 16

220-A INSECT PEST CONTROL $(150600/4840)/2 = 15.56$ ACRES USE 16

225-A GRASSING $(150600/4840) = 31.12$ USE 31 ACRES

$(40600/4840) = 8.39$ USE 8 ACRES

TOTAL--- 39 ACRES

226-A TEMPORARY GRASSING

$(150600/4840)/2 = 15.56$ ACRES USE 16

If you have any questions, please advise.

SWR/swr

