

5700000 RESPONSE TO INDUSTRY REVIEW COMMENTS

Bob Graham (Internal Review)

COMMENTS:

There needs to be two pay items. One for sod and one for hydroseeding/BFM. I have previously submitted these comments but the department continues down the same old wornout path. Industry needs to take a firm position against this spec.

RESPONSE: This change has been made in the pay item process to have two pay items. One for performance turf – sod and one for performance turf – other.

David O’Hagan (Internal Review)

COMMENTS:

570:

- 1: Are there any of these methods restricted to a maximum slope inclination? If so, where is this information found?
- 2: Should there be a reference here and/or elsewhere to 987 (Finish Soil Layer Materials)?
- 3.3: Are there any restrictions on composition of sod pegs?
- 5: I **never** have understood why anything is measured in square yards. It's always first calculated in square feet from measurements/calculations in feet. Forcing someone to then convert to square yards just introduces an unnecessary chance for human error.

RESPONSE: 1. These methods would be restricted only if indicated in the plans. As is presently intended, sod would be used in the locations presently called for in the plans and any of the other turf types, including sod, would be used elsewhere.

2. Section 987 is referenced in spec 570-3.2

3. I don’t disagree with you on this. I’ll see if I can determine the background on the use of the square yards.

Janna Glenn (Internal Review)

COMMENTS:

Can we refer to a Natural resources Conservation Service Conservation Practice Standard Code 450 ("Anionic Polyacrylamide Erosion Control)? My only problem is that the federal-level standard is not as good as Wisconsin standard (which specifies no application of cationic acrylamide). Also, there is good information on safety (do not spray on pavement, provide toxicity testing, etc.).

Here is a link to Wisconsin's Code: <http://sand.nwisrl.ars.usda.gov/wiconstd.htm>

I have attached the federal Code 450 in pdf format.

If you'd prefer a statement, how about this:

"If polyacrylamide is used for erosion control, or as a part of hydroseeding mix, only anionic polymer formulations with free acrylamide monomer residual content of less than 0.05% are allowed. Cationic polyacrylamide shall not be used at any concentration. The maximum application rate of polyacrylamide active ingredient shall not exceed four pounds per acre per application event. Do not spray polyacrylamide-containing mixtures onto pavement, to avoid creating slippery conditions."

Let me know what you think.

RESPONSE: I will add the second statement to the specification as you have drafted. Frances – suggest this be added to section 570-3.1 since it applies to both sections 570-3.4 and 570-3.5.

Jennifer Taylor

COMMENTS:

I do have comments on 5700000.D02 Performance Turf.

570-3.3 This request for certification is hand written by the truck delivery driver for the sod cut ticket. So which contractor will certify the sod being cut within the 48 hours, the supplier, placement or prime?

The mowing needs to include all the grassed areas included any turf areas with in the right of way limits not just the areas of placement of turf.

570-3.34 The use of hydro seeding in sandy soils does not work. There is nothing noted about what type of soils this procedure should be used?

RESPONSE: 570-3.3 does not require certification. If mowing is desired beyond the limits of the turf locations provided as part of the contract, the contract documents would have to note this and indicate that those additional areas were to be included in the cost of the turf.

As for hydroseeding and use in sandy soils, the spec is written that the contractor will have responsibility for the performance criteria as outlined in section 570-4. If the hydroseeding is the method chosen and it does not perform, the contractor would be required to correct so that 570-4 criteria is met.

Frank O'Dea

COMMENTS:

The spec goes into much detail about the maintenance of SOD in 570-3.3, but not with the other types of turf options.

"Maintain the sodded areas in a satisfactory condition until final acceptance of the project. Include in such maintenance the filling, leveling, and repairing

of any washed or eroded areas, as may be necessary. The Department will pay for resodding necessary due to factors determined by the Department to be beyond the control of the Contractor. Mow the sodded areas when competing vegetation height exceeds 20 inches in height. Monitor placed sod....."

RESPONSE: This is covered in 570-4 under turf establishment that filling, leveling, repairing washouts as necessary. Will review spec to make sure all turf selections are covered.

Ronda Daniel

COMMENTS:

I do have comments on 5700000.D02 Performance Turf.

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RESPONSE: 570-3.3 does not require certification. If mowing is desired beyond the limits of the turf locations provided as part of the contract, the contract documents would have to note this and indicate that those additional areas were to be included in the cost of the turf.

As for hydroseeding and use in sandy soils, the spec is written that the contractor will have responsibility for the performance criteria as outlined in section 570-4. If the hydroseeding is the method chosen and it does not perform, the contractor would be required to correct so that 570-4 criteria is met.

Ken Weldon

COMMENTS:

This re-written section (particularly 570) could present some Utility problems. Plus I have a pet peeve to share so I will start with it first.

1. I fail to see anything that instructs the contractor to make sure that new sod does not project above the pavement edge. In the past we have taken a credit or accepted this poor installation method then Maintenance ends up letting a shoulder reworking contract a few years down the road. I don't think we should take a credit. I think the contractor should be penalized or they must replace it right.

2. By Law / Rule, Utilities are only required to restore sod / turf, etc and can not be held literally to this spec. There should be an exclusion or addressed somehow.

3. By Law / Rule, you can not oblige the Utility Industry to participate in a process such as the DRB. I'm not suggesting they wouldn't like it in some cases. The section addressing the DRB process is not a spec and should not be included in this spec. If it is to be included it should be located in the legal premises up front in the spec book anyway.

RESPONSE: 1. Sod details are outlined in the Roadway Design Standards and show placement of the sod 1 inch below the edge of pavement. Projects should not be accepted with the sod above the edge of pavement.

2. Any exclusion for a utility should be addressed in the UAM or appropriate rule. Part of the restoration of the turf is assurance that it grows.

3. Disagree. This is standard language that has been used for the performance based specifications that have been developed over the past several years. As for utilities participating in DRB process, they have been invited.

Pat McCann

COMMENTS:

1. This spec. change needs to be compared to spec. 580. The one year warranty period in 580 include grassing. The proposed 570 requires maintenance only until Final Acceptance. Even if this is the intent, it is not feasible to have the maintaining entity take over maintenance of grass while our contractor is still maintaining adjacent landscaped areas.

2. Mowing responsibilities should be clarified. 570-3.3 says to mow sodded areas when the weeds are 20" high. What about the sod itself, don't we want to control how tall it gets before mowing? In section 570-4, third paragraph, it states that we are not to mow lower than 6" high, but I can't tell if this is for wildflowers or turf in general.

RESPONSE: 1. Maintenance of the turf duration is determined by performance of the turf. Once the turf has attained required performance measures and is accepted by the Department, the contractor is released from responsibility for it. This can occur after final acceptance of the project. As for projects with the 580 Landscape Installation spec, if mowing of the project in areas other than where turf is placed is desired, that would have to be shown in the contract documents.

2. Deleted mowing requirement from subarticle 570-3.3 and included as part of 570-4 turf establishment. As for mowing of wildflower areas, 570-4 addresses this.

Ed Kestory

COMMENTS:

The following comments are from our Estimates Section regarding the Performance Turf Spec Revision.

1. It appears that the mowing pay item will become obsolete (pay item 104-4). If the mowing pay item is obsolete and combined with turf pay items, the cost history for pricing purposes of future projects will become invalid. The price for sod, which now will include fertilizer and water, will become indistinguishable to the mowing price by the size of the project and the difference in units, sodding is in square yards and mowing is in acres.

RESPONSE: Understood.

J.C. Miseroy

COMMENTS:

This proposed specification uses the term 'due to factors determined by the Department' five times and 'sole discretion' two times. This leaves too much to the discretion of the CEI. This will lead to numerous disputes. FDOT seems to understand this, since they have intentionally added the DRB paragraph to this specification. During dry spells the Contractor will be responsible for establishing the sod through extensive watering, and will have to pay for replacement of dead sod. Contractors will need to add dollars to their bids for the replacement sod. This spec adds risk to Contractors which will be reflected in increased costs.

570-3.3 covers pegging of sod. Will all pegging be considered as Unforeseeable Work? It could be interpreted from the wording that the Contractor should know which areas will need pegging, for establishment of sod. The application of fertilizer, the mowing of sod and litter pick up are now incidental to the price of performance sod. This type of change tends to catch contractors who have been used to the old way of payment. What about existing sod? Will the Contractor still be paid separately for mowing and litter pick up in those areas?

RESPONSE: Each of the uses of “due to factors determined by the Department” have to do with whether or not the contractor gets reimbursed for replacement of failed turf. This is in line with other performance specifications where the contractor has the responsibility to the quality of the product without owner specifying means and methods.

As for the use of “sole,” the first instance is where the Department will exercise its discretion on whether or not it chooses to treat sod for noxious weeds if they show up after the timeframes shown in the 570-3.3. The spec does need to be corrected to state “after” instead of “during.”

Pegging of sod when directed by the Engineer will be paid as extra work. Other pegging done by a contractor would not be compensated as extra work.

To avoid being caught, the contract is going to have to be read to understand the incidental items.

As for mowing and litter pickup in existing areas, mowing and litter pickup would be required in these areas and would be paid as part of the performance turf requirements.

Jason Bates

COMMENTS:

I have concerns with the bidding process. If the Department is going to indentify on the plans areas that will be sodded and areas that are left to the Contractor to determine how they want to establish turf, why not keep two pay items: sod and "other"? The Department will in a sense be turning all construction jobs into lump sum jobs as far as the grassing is concerned. With a single turf pay item, a quantity take-off will have to be done on every job to determine a sod quantity and the "other" quantity. Some kind of weighted average unit price will have to be determined for the single "turf" pay item. I believe you will see increased costs with a single pay item because many contractors are going to bid the turf pay item at sod prices, not seed or hydroseed prices. Sod instantly meets the specification requirements and ends the contractor's responsibility much sooner and allows them to get the job sold. On every job there are problem areas that are not specified on the plans to be sodded. These may be erosion areas or environmentally sensitive areas, etc. On a unit price job, inspectors will tend to sod these areas and simply pay for the sod under the sodding pay item. Under the new proposal, there will be no sod pay item and the contractor is not going to sod areas that he did not figure on sodding in the bid. I do not see why you can't encompass all of the grassing under a single specification but still have two pay items.

I would like to see the mowing remain a separate pay item. It is never known when a job will begin or how many mowing cycles will be performed. A mowing quantity take-off will have to be done on every job and somehow a weighted average price will have to be determined for the turf pay item that encompasses the litter pick-up, weed-eating, mowing, sodding, seeding, mulching and watering. I do not see how this is feasible.

I think getting rid of hay or straw as an acceptable mulch material is a mistake. In our 25 years of experience, hay works best in Florida sand as erosion control, hydromulch does not. Many farmers count on hay, as well as sod, for a cash crop. Sod and hay help Florida companies and farms, hydromulch and BFM's help companies outside of Florida.

RESPONSE: There will be two pay items as has been suggested by industry. The mowing cycles will have to be determined by the contractor as well as frequency of litter pick and included in the bid price for the performance turf. As for elimination of hay, we disagree on its performance. Additionally, it often introduces noxious weeds onto FDOT rights-of-way that become future maintenance problems.

Rick MacCalla

COMMENTS:

Subarticle 570-3.4 Hydroseeding has a metric reference in the second paragraph. To be consistent with the removal of all metric references, “[4 mm]” that should probably be deleted.

RESPONSE: Will be corrected.

Richard Newsome

COMMENTS:

Section 570 is Performance Turf, Section 575 is the sodding and is deleted.

The new pay item Performance Turf is a single Square Yard pay item replacing Mowing, seeding, mulch material, fertilizer, water, grass seed(Quick Grow), wildflower seed and sodding.

This new composite pay item calls for sodding where designated and seeding & Mulch or Hydroseed at all other locations. Historically the designers have not been very good at designating where we need sodding and Project Administrators tend to overrun the sod quantities during actual construction to prevent erosion and future maintenance problems. Sodding provides some top soil and an initial good stand of grass in sandy soils with very few nutrients to promote a healthy growing environment for seed.

Once a contractor has bid the above composite pay item they will be very reluctant to change the planned percentage of sodding vs seeding show or indicated on the plans without additional compensation.

I suggest we have two Square Yard pay items:

- Performance Turf - Sodding
- Performance Turf – Other

RESPONSE: There will be two pay items as suggested. As for sandy soil areas, the specifications as they exist today require a 6 inch finish soil layer that is intended to provide necessary growth medium.

Bob Dion

COMMENTS:

570-3.3 mentions "mow the sodded areas when competing vegetation height exceeds 20" ".Suggest this be deleted. Mowing turf is addressed in 570-4.

Change the article numbers of 576-4 thru 576-7 to 570-5, 570-6 and 570-7.
Change article 570-5 to 570-8 and 570-6 to 570-8.

RESPONSE: Spec has been revised by moving mowing requirements to 570-4. Agree that numbering of articles and subarticles need correcting.

Anthony Walsh

COMMENTS:

Section 570-1, Description

Third Sentence: Suggest changing to read: “Maintain turf areas until final acceptance of all other contract work in accordance with Section 5-11.”

RESPONSE: Agree, will make the change to read, “Maintain turf areas until final acceptance of all contract work in accordance with Section 5-11.”

Section 570-3, Construction Methods

Second Paragraph: Suggest changing to read: “Install turf materials per the plan typical sections, plan and profile sheets and Design Standard Index No’s. 104 and 281”.

RESPONSE: Will revise to read, “Shape the areas to be planted to the plan typical sections and line and grade shown in the contract documents.”

Third Paragraph: Suggest deleting Engineer and insert Contract Plans in the following: “Except in the areas where the Contract Plans requires specific types of grass to match adjoining property”. (These areas should be identified in the plans prior to bid in order to avoid price differentials for differing turf materials and subsequent claims for additional compensation)

RESPONSE: Agree, will make the change to Contract Documents.

Suggest adding the word final in the following: “All of the permanent grassing material shall be in place prior to final acceptance”.

RESPONSE: Agree.

Last Paragraph: Suggest deleting the end of the sentence which states "unless the friction course is to be placed directly on a non-asphalt base". (The general consensus in this office is to always place the grassing first to avoid damage to the final friction course by the sod delivery/placement equipment)

RESPONSE: Agree.

Section 570.3.2, Seeding

First Paragraph: Suggest deleting reference to the Engineer and changing to “At the contractor’s option, wildflower seed may be incorporated in the turf seeding operation or performed separately from areas designated for seeding”. (The Engineer should not direct means or methods since a subsequent failure will lead to a claim)

RESPONSE: Agree.

Section 570-3.3, Sod

The introduction of this performance specification is the appropriate time to re-write this section and direct the Contractor as the responsibility party for placing sod on steep slopes instead of the

Engineer. Continuing to have the engineer direct means and methods places the Department in a liable position in case of sod placement failure.

RESPONSE: Agree, hope that the rewrite will accomplish just that.

Third Paragraph: This paragraph directs the sod to be pegged at intervals as directed by the Engineer and paid for as unforeseeable work. I would suggest re-writing as “The Contractor should anticipate pegging sod on all slopes designated a grade of 2:1 or greater. The work for materials to perform the pegging shall be included in the unit price for square yards of Performance Turf”.

RESPONSE: Will leave as written. If the spec is changed as suggested, then any Engineer directed additions of sod anywhere on the project would have some amount of pegging cost included. If we have steep areas that need to be pegged, direct this work and pay as work order.

Sixth Paragraph: The term competing vegetation is too broad. I would suggest changing to read “Mow the sodded areas when turf height exceeds 20” and/or impairs the bottom 1/3 visibility of any maintenance of traffic device”.

RESPONSE: Will leave as written. Have moved this requirement to 570-4.

Seventh Paragraph: This entire paragraph regarding noxious weeds and pest plants is confusing. Since Specification 7-1.3, Introduction or Release of Prohibited Aquatic Plants, Plant Pests, or Noxious Weeds, will still be in the contract, I would suggest simplifying by changing to read “Monitor turf placed for growth of pest plants and/or noxious weeds in accordance with article 7-1.3. All installed turf must be free of pest plants and or noxious weeds before final acceptance in accordance with 5-11.

RESPONSE: Will leave as written. This was included to account for situations where weed seed is introduced by means other than being brought in with the sod. It allows the Department discretion on whether or not to treat as part of the active contract.

Section 570-3.4, Hydroseeding

Second Paragraph: This notes mixing fertilizer as required into the hydroseeding slurry. Suggest re-writing as “Mix fertilizer into the hydroseeding slurry as required per section 162 soil testing and at application rates specified in section 982.

RESPONSE: Will leave as written. The idea here is to have the contractor responsible for the product without FDOT directed means and methods.

Section 570-4, Turf Establishment

Fifth Paragraph: Suggest re-writing to change the word the to all as follows “If at the time that all other work on the project is completed, but all turf areas have not met the requirements for established turf set forth in 570-4, continuously maintain all turf areas until the requirements for

established turf set forth in 570-4 have been met for final acceptance in accordance with section 5-11”.

RESPONSE: Agree.

Section 576-4, Change to Section 570-5, Responsible Party

Second Paragraph: This paragraph states that the contract can be final accepted, terminated, in accordance with Section 5-11 even though the turf is not established and is therefore an incomplete item. How would you handle the offer of final payment when the turf item is incomplete? If you pay the Square Yards in full, you are in effect accepting as a finished product. I don't see how you can have it both ways, final but with an exception. Even with a performance bond, we have required all work to be complete. I don't think we should put the Department in the position of partial acceptance and the additional CEI costs associated with continued inspections and Dispute Reviews occurring after final acceptance.

RESPONSE: Agree to renumbering of sections. As for the responsibility of the contractor after final acceptance, this is the same process that is used for Landscaping. Project is final accepted and has responsibility for the survival of the plantings for the duration of the establishment period, or in this case, until the turf complies with the requirements of 570-4. The failure to perform is the leverage with the contractor for this. The Department would final accept the project, not partial accept it, and then monitor on periodic basis while turf establishes itself.

Section 576-6, Change to Section 570-6, Disputes Resolution

RESPONSE: Agree to renumbering of sections.

Section 576-7, Change to Section 570-7, Failure to Perform

RESPONSE: Agree to renumbering of sections.

First Sentence: Suggest removing the part referring to establish within a one-year of the final acceptance of the contract in accordance with 5-11. I don't think it's in the Department's best interests to advocate a one year period, post final acceptance and payment, allowing the Contractor to provide an established turf in accordance with 570-4. All the costs of the Disputes Review Board and the suspension, revocation or denial of the Contractor's certificate of qualification and additional CEI expenses could be avoided by requiring all work to be complete and acceptable at the time of final acceptance per 5-11.

RESPONSE: The objective is for the contractor to place turf as early as possible so that establishment can begin as early as possible. The Department has used this method with success in past projects.

Section 570-5, Change to Section 570-8, Method of Measurement

RESPONSE: Agree to renumbering of sections.

Section 570-6, Change to Section 570-9, Basis of Payment

RESPONSE: Agree to renumbering of sections.

Jeff Caster

COMMENTS:

To help with the Phosphorous issue, section 570-3.7 of the proposed Performance Spec could be modified to discourage use of phosphorous. read,

For bid purposes, base estimated quantities on an initial application of 265 lbs/acre, and one subsequent application of 135 lbs/acre of 16-0-8.

RESPONSE: Agree, will make the change.

We also could add a line, that *use of phosphorus must be approved by the engineer.*

Frances Thomas/CO/FDOT

06/26/2006 09:21 AM

To Jeff Caster/CO/FDOT@FDOT

cc Brian A Blanchard/CO/FDOT@FDOT, David Sadler/CO/FDOT@FDOT, Tim

Allen/CO/FDOT@FDOT

bcc

Subject Re: Fw: Grassing FDOT Fertilizer

No, I don't think so. I will add the comments to the Industry Review and we can talk about a change, if necessary. It may need to be in 104, as well. Wouldn't there be something in the SWPPP?

Thanks.

Jeff Caster/CO/FDOT

06/26/2006 08:39 AM To Brian A Blanchard/CO/FDOT@FDOT

cc Frances Thomas/CO/FDOT@FDOT, Tim Allen/CO/FDOT@FDOT, David

Sadler/CO/FDOT@FDOT

Subject Re: Fw: Grassing FDOT Fertilizer

Brian,

On line, please find in the work book is a new improved 982 Fertilizer material spec

<http://www.dot.state.fl.us/specificationsoffice/July06WB/9820000SS.pdf> In a new 570

Performance Turf spec (replaces old grassing spec). There is no prohibition on the use of

Phosphorus, but use of any fertilizer must be justified by soil test. This new spec is nearly done and ready for publication. I think it will satisfy the concern.

If prohibition on use of P is appropriate, we can make that change.

Frances, have I missed anything important.?

Brian A Blanchard/CO/FDOT

06/26/2006 07:52 AM To Jeff Caster/CO/FDOT@FDOT

cc

Subject Fw: Grassing FDOT Fertilizer

second try. I will call Cled back, but just wondering if this issue has come up before.

----- Forwarded by Brian A Blanchard/CO/FDOT on 06/26/2006 07:52 AM -----

To: "Weldon, Cledwyn" <cweldon@sfwmd.gov>

cc: David Sadler/CO/FDOT@FDOT, jeff castor

Date: 02:54:23 PM Yesterday

Subject: Re: Grassing FDOT Fertilizer

I was in a meeting in Naples on Friday. I'll check into this Monday morning and call you.

"Weldon, Cledwyn" <cweldon@sfwmd.gov>

To <brian.blanchard@dot.state.fl.us>

cc

Subject Grassing FDOT Fertilizer

Hey Brian

Can you review these messages and call me ASAP?? 561-719-7573.

Thanks

Cled

Cledwyn R. Weldon, PE

Director, Engineering & Construction

561-682-6282

SFWMD Wireless Email Solutions

-----Original Message-----

From: Wehle, Carol

To: Olliff, Thomas; Adams, John; Carter, Larry CC: Maloy, John; Weldon, Cledwyn; Horne, George; Thayer, Daniel; Remen, Fred; Damian, Radu; Arrieta, Joel

Sent: Fri Jun 23 08:49:56 2006

Subject: Re: Fertilizer

I have a call into Secretary Stutler to have DOT change their specs!

Carol Ann Wehle

Executive Director

South Florida Water Management District

Sent from my BlackBerry Wireless Handheld

SFWMD Wireless Email Solutions

-----Original Message-----

From: Olliff, Thomas

To: Adams, John; Carter, Larry

CC: Wehle, Carol; Maloy, John; Weldon, Cledwyn; Horne, George; Thayer, Daniel; Remen, Fred; Damian, Radu; Arrieta, Joel
Sent: Fri Jun 23 08:04:34 2006
Subject: RE: Fertilizer
You guys are good.
TWO.

-----Original Message-----

From: Adams, John
Sent: Friday, June 23, 2006 7:31 AM
To: Carter, Larry
Cc: Wehle, Carol; Olliff, Thomas; Maloy, John; Weldon, Cledwyn; Horne, George; Thayer, Daniel; Remen, Fred; Damian, Radu; Arrieta, Joel
Subject: RE: Fertilizer
Larry,

I checked with Cled and found that we are utilizing DOT specifications for grassing canal bank side slopes for erosion control. That spec also calls for the use of p fertilizer. Cled was already aware of this and had contacted the U.S. Department of Agriculture to find an alternative. The USDA is recommending we switch to ammonium sulfate or ammonium nitrate. I have discussed this with Cled and have passed along Carols request to cease using p fertilizer and to continue to look for alternatives that are not obnoxious in the environment. Cled is addressing the contract specifications.

Thanks,

John

-----Original Message-----

From: Carter, Larry
Sent: Thursday, June 22, 2006 2:19 PM
To: Adams, John
Subject: Fw: Fertilizer?

Larry

Sent from my BlackBerry Wireless Handheld
SFWMD Wireless Email Solutions

-----Original Message-----

From: Wehle, Carol
To: Olliff, Thomas; Carter, Larry; Maloy, John Sent: Thu Jun 22 08:43:29 2006
Subject: Fertilizer

I learned at the cattleman's meeting that sFWmD has a practice of using phosphorus fertilizer on the banks of our canals when we have contractors doing work for us. Please investigate. We need to be using no P time release nitrogen and lead the way!

Carol Ann Wehle

Executive Director

South Florida Water Management District

Sent from my BlackBerry Wireless Handheld

SFWMD Wireless Email Solutions

Don Evans

COMMENTS:

After reading your proposed changes to the grassing specs for DOT work, I do have some concerns. The main one is the bidding process. I think you need three pay items: sodding, seeding and mowing. The quantity of sod needs to be separate and the quantity specified. One reason being if it is changed on some jobs, and it will be, you have unit prices. If sod other than that in Section 981 is required to match existing private property, then it should be noted in the plans so it can be bid as to what will be used.

The mowing needs to be separate because as a sub, we do not know when the work will be done and if you will even mow or how many times you will mow.

Another concern is if a job is finished in the late fall or winter it will not be accepted until the next spring when permanent grass germinates and becomes established. There needs to be a provision made for this to be inspected as the work is being done and accepted then.

From my experience, hay or straw mulch works better in our soil than hydromulch. I think DOT needs to stay with hay except on areas you can't put a tractor that is not going to be sodded. Watering should only be done on sod and not seeded areas. It is not feasible to try to water seeded areas on roadsides.

We have been in the grassing business for a long time and have seen a lot of changes. Some have been good, some not. Please review your proposal. We are all working for a better finished project.

RESPONSE: There will be two pay items on which to bid; Performance Turf – Sod and Performance Turf – Other. As for mowing and litter pickup in existing areas, mowing and litter pickup would be required in these areas and would be paid as part of the performance turf requirements.

Inspection is to be done as the work is performed or shortly thereafter but acceptance will occur until the turf meets the requirements of 570-4.

As for elimination of hay, we disagree on its performance. Additionally, it often introduces noxious weeds onto FDOT rights-of-way that become future maintenance problems.

Jason Bates

COMMENTS:

I have read the proposed changes to Performance Turf. The main concern I had with the changes proposed back in September of last year is the same concern I have with the new proposal and that is with the bidding process. I see on the new proposal where the plans will specifically indicate sod and then leave the other turf establishment method up to the Contractor, but if the Department is going to identify sod on the plans, why not make two pay items: sod and "other"? The Department will in a sense be turning all construction jobs into lump sum jobs as far as the grassing is concerned. With a single pay item, a quantity take-off will have to be done on every job to determine a sod quantity and the "other" quantity. Some kind of weighted average unit price will have to be determined for the single turf pay item. I believe you will see increased costs with a single pay item because a lot of Contractors will be bidding turf at sod prices, not seed or hydroseed prices. Sod will instantly meet the specification requirements and allow the Contractor to end their responsibility much sooner and get the job accepted. A single turf pay item on a unit price job will also limit the field inspector's judgment. On every job, there will be "problem" areas that on the plans are not specified to be sodded. These areas may be erosion problems or environmentally sensitive that an inspector may decide to sod in lieu of seed and mulch and simply pay for the additional sod under the sod pay item. Under the new proposal, there will be no sod pay item and the Contractor is not going to sod areas that he did not figure on sodding in the bidding process. Again, every job will literally be lump sum as far as the grassing is concerned. I don't see why you can't encompass all of the grassing under a single specification but still have two pay items. This will put everyone on somewhat of an even playing field when bidding.

I would like to see the mowing remain a separate pay item. I would not even begin to know how to incorporate the cost of mowing into a single turf pay item. It is never clear when a project will begin or how many mowing cycles will be performed. A mowing quantity take-off will have to be performed on every set of plans and somehow a weighted average price will have to be determined for the turf pay item that encompasses the litter pick-up, weed-eating, mowing, sodding, seeding, mulching and watering. I do not see how this is feasible.

Sod is an agricultural product that a lot of farmers have spent time and money on establishing as a cash crop. Farmers also produce hay that is used as mulch material on DOT projects. The proposed changes would do away with hay or straw which I see as a mistake. In our 25 years of experience, hay or straw is far better than hydromulch for erosion control in Florida sand. Sod and hay help Florida, hydromulch and BFM's help companies outside of Florida. Sod is plentiful and cheap in Florida and it can be harvested and installed year round. I can assure you that if the rest of the country enjoyed those luxuries, so much time and effort would not be spent trying to come up with alternative methods of establishing turf and there would not be a hydroseeding industry.

Please consider my suggestions. Suwannee Valley Grassing, Inc. has been our family business for over 20 years and we are ready for another 20.

RESPONSE: Answered above.

Larry Johns

COMMENTS:

I have read your proposed changes to "Performance Turf" and would like to voice a few of my concerns from a grassing superintendent's view point.

While I can appreciate the Department's efforts to simplify the pay items in the grassing area of the construction process, I believe that the changes proposed are too broad. Identifying areas on the plans where you know sod will be placed is fine, but I have been on many jobs where the plans said to use seed and mulch, but because of the severity of the terrain or looking at how much water will be sheet flowing across a slope, the engineer on the job changed those areas to sod. If you had one pay item for performance turf and the grassing contractor bid those areas as seed and mulch, they are not going to change it to sod. The prices are too far apart. Then you will have an issue with erosion and will have to pay for re-dressing and re-grassing as "unforeseeable work beyond the control of the contractor."

Another issue I see a problem with is trying to lump mowing, litter pick-up, etc. into a sod / seed and mulch price. How would you even begin to bid how many times the Department would require you to mow a project that lasts 300+ days?

I also notice the specifications are leaning very strongly to hydromulching. I am an advocate of this process in its place, but I do not believe that hydromulching is a good alternative to seed and mulch and certainly not as good as sod. For erosion protection, if you ask any contractor what they would rather have after they final dress a job to stop it from eroding away, they will almost always tell you that sod is the absolute cheapest thing you can put on a job. While I understand that in some other states you do not have

the availability to sod year-round as we do here in Florida and you have to come up with other methods, but given the choice, I don't know a single contractor that would rather use hydromulch or seed and mulch in lieu of sod.

In my opinion, I don't believe it would be very hard to separate the aspects of what we do into 3 pay items I have listed below.

- 1.) Sodding – to include sodding, fertilizer and watering
- 2.) Seed and mulch / hydromulch – contractor can choose whatever method they think is best; to include labor and materials in one price per square yard
- 3.) Mowing, weed-eating, litter pick-up per acre per cycle

Our company has been grassing jobs for the Department for a long time and we see in the field what works and what doesn't and I think you should really consider my suggestions in coming up with a revised specification.

RESPONSE: There will be two pay items on which to bid; Performance Turf – Sod and Performance Turf – Other. As for mowing and litter pickup in existing areas, mowing and litter pickup would be required in these areas and would be paid as part of the performance turf requirements.

There is no particular leaning towards hydromulching over any of the other methods. The intent is to allow the installation of turf products to be up to the contractor with the exception of areas designated to be sod. If sod is the absolute cheapest and best way to do the job, then the expectation is that this is what would be bid.

Mark Swick

COMMENTS:

I have some issues and concerns about the proposed changes to the grassing specs for FDOT work. In bidding, the sod, seed and mulch and mowing need to be kept separate. This will keep the bidding accurate and save the FDOT money because companies will know exactly what and how much they are bidding on. Classifying everything under "Turf" is too broad of a category. It needs to be more specific.

Another major concern is the use of hydromulch in place of hay or straw seed and mulch. There are many areas where hydromulch is not feasible and is not the best choice for a good stand of grass. Hydromulch is also not a good choice to keep erosion at a minimum. This is an issue with contractors who have to keep re-dressing the soil. Seed and mulch germinates faster since it is drilled into the soil and the hay helps reduce erosion. As grassing contractors, we are required to guarantee a good stand of grass. With our many years of experience, results have always been better with seed and mulch over hydromulch.

The issue of requiring seed and mulch to be watered is also not feasible or needed. Many of the areas are extremely large which makes watering not feasible. The seed is in the ground and will grow when the climate is right. Sod, however, does need to be watered or it will die.

This company has had many years of experience in grassing. We know what it takes to grow a good stand of grass. What is needed and what is not. We don't need to be wasteful for our sake or FDOT's. We want to have many more years of providing our services to our contractors and our state.

RESPONSE: There will be two pay items on which to bid; Performance Turf – Sod and Performance Turf – Other. As for mowing and litter pickup in existing areas, mowing and litter pickup would be required in these areas and would be paid as part of the performance turf requirements.

Regarding turf products or method used, except for locations designated as sod, the choice is up to the contractor.

The determination of whether or not any of the areas need to be watered or fertilized is up to the contractor. FDOT will be looking for a healthy, growing stand of turf meeting the requirements of 570-4.