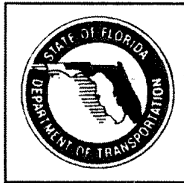


CHAD

DISTRICT THREE DESIGN

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

NEWS



LETTER

DISTRICT THREE DESIGN FLORIDA DEPARTMENT OF TRANSPORTATION

If you are interested in
obtaining a copy of this free
quarterly newsletter, contact
Brian Blanchard, District Design
Engineer.

(904) 638-0250 X-425
FAX (904) 638-6148

INSIDE:

New Ideas.....	1
Earthwork.....	1
Bituminous Material.....	2
January 1996- Roadway and Traffic Design Standards Implementation.....	2
Traffic Barrier Safety Policy Implementation For NHS..	3
Partnering During Design.....	3
Supplemental Agreement Report January.....	4
Supplemental Agreement Report February.....	5

New Ideas

Brian Blanchard, P.E.
District Design Engineer

We are continuing to develop new ideas to improve plans quality and reduce Supplemental Agreements. Some of the new ideas we have implemented recently are:

- Partnering meetings during design.
- Public workshops for major design projects.
- Reimbursable utility clearing and grubbing projects prior to roadway construction.
- Monthly Supplemental agreement reports, etc.

We are encouraging designers to avoid utilities up - front. Designers should think about "utility avoidance" early in the design phase as long as the costs are reasonable.

We are working with the utility companies to lessen the impact of utility relocation on contract time. The public wants projects built as fast as possible with as little impact to the motoring public, business and environment as possible.

We are designing our construction sequences so that contractors are limited to working in one phase at a time.

We never pass up the opportunity to learn from others. We always try to find value in new approaches. We always welcome your comments or suggestions for future topics.

Earthwork

Eugene Toole,
Project Analyst

When using the pay item for embankment, the plans must include adequate cross sections to verify the original and final computations.

When using the pay item for embankment, there should be no pay item for regular excavation in the plans.

Designers need to be more consistent in how Standard Index 105 is applied.

Index number 105 Type R-1 and R-3 are methods of adding sod strips to the edges of pavement where no other shoulder work is needed for the resurfaced roadway. District Three requires a 800 mm sod strip rather than the 400 mm shown in the Plans Preparation Manual. Type R-2 is two methods of reworking the shoulder where additional fill material is being added to the shoulder.

The "shoulder reworking method" can be used when the added fill depth varies from 0 to 4+ inches.

The additional material is added to the existing topsoil sufficiently to form a good seedbed.

Metric Projects - Lettings **AFTER** July 1, 1997:

The 1996 Standards shall be applied to all metric projects to be let **AFTER** July 1, 1997. No projects with the 1995 Standards transmitted to Tallahassee for letting **AFTER** July 1, 1997 can be processed. As stated above, this is necessary to assure consistency with the implementation of changes to Specifications and Pay Items that will occur July 1, 1997.

Many changes have been made in the 1996 Standards, but these should involve minor efforts to update plans. The most significant changes in the 1996 Standards that potentially affect plans include curb ramp designations (Index 304), guardrail end treatments (Index 400), and muck removal on projects with wide medians (Index 500). Another significant change accompanying the 1996 Standards involves the requirement that plans show the class of concrete pipe and metal pipe gages, since no default class and gages will be covered by specification beginning July 1, 1997. Most other changes in the 1996 Standards involve changes to construction details that are not normally covered in the plans.

English Projects:

The 1994 Standards and subsequent revisions shall continue to be applied to all english projects.

Traffic Barrier Safety Policy Implementation For NHS

Freddie Simmons,
Director, Office of Design

After our survey earlier in the year on end terminal deficiencies on the NHS was complete, we found that we could not meet our original dates to FHWA for replacements. As a result, we recently requested from FHWA approval for extension to September 29, 1997 for replacement on the interstate system of all approach blunt ends, all unconnected bridge approach rails, and all guardrail with 12'6" post spacing. They agreed to this on November 25, 1996 and in the same letter they also encouraged using only those devices meeting NCHRP 350 criteria in our replacement contracts / activities. As this will be a requirement in August 1998, we decided it would be in our best interest to proceed with implementing 350 requirements on new construction and routine maintenance

activities as described below. We then asked for their concurrence in such a policy and they agreed to this on December 9, 1996.

Presently there are three devices that meet NCHRP 350 criteria. They are the ET 2000, the SRT 350, and the BEST system. As you recall we had received a mandate from FHWA to go to the MELT applications. They made this decision assuming the MELT would pass 350 testing and it has not as yet done so. The MELT that we are now using does not meet the 350 requirements nor will it ever. There is a new MELT system being tested and it is expected to eventually pass. Assuming it will pass, there will have to be a new index developed, so it will be some time before we have such a standard ready. In the interim, FHWA understands that we are very limited on the number of devices that are available. Our standard is to use the flared end treatment when possible. This limits use to the SRT 350 as the only device currently having met NCHRP 350 criteria that uses a flared end design. When there is not sufficient room to construct the flared end, the ET 2000 or the BEST can be used.

Our policy thus becomes that meeting NCHRP 350 testing criteria is required on all high speed (HS) roads. Device meeting NCHRP 230 are still acceptable for lower speed (LS) facilities (BCT or MELT). This policy is to be implemented immediately as follows:

1. **Projects for which design has not begun** - use 350 devices on all HS facilities. Other facilities (LS) may use 230 devices. (50 mph or greater is considered high speed)
2. **Projects already under design** - change to 350 devices where change will not delay meeting production deadlines.
3. **Projects under construction** - use what is in contract/no change required.

Partnering During Design

Brian Blanchard, P.E.
District Design Engineer

During a meeting on October 28, 1996, I distributed information on partnering and how the process will be used for design projects. Additional copies of this process are available in my office.

The following was agreed to during our meeting.

- 1) Partnering will occur on new and multilane

survey information necessary to build the project. The majority of this S.A. is not attributable to consultant design errors. It is coded as avoidable. Conflicts with utilities continue to cause delays. Utility Locate Services are now part of every design contract. Partnering meetings on multi-lane projects are now a requirement. All affected parties are invited. The Department is actively working with the utility companies to fund clearing and grubbing contracts so utilities can be relocated prior to roadway construction.

During negotiations to the settlement, the Department and Contractor recognized impacts and delays associated with these issues. It was mutually agreed to incorporate an incentive/disincentive provision in the contract to achieve early completion.

Description Code 004: Design standard or specification change occurring after letting.

Of Total S.A. = 6.9%

Amount = \$68,296

Reason: Plans called for the bridge to be widened and painted with a 3-coat system. Hazardous material removal was not incorporated in the plans for the existing bridge. The settle was for delays to the contractor for FDOT testing of paint adhesion and lead content. The Department revised the plans to allow maintenance painting of the existing bridge with spot cleaning.

Response: The S.R. 261 bridge over I-10 was widened under this contract. The plans were updated by FDOT after 6 years on the shelf. Lead content of the existing paint was not determined during design. This claim was avoidable. Since completion of this project, all bridges in District Three have been tested for lead content. The Environmental Management Office reviews every project for hazardous materials.

Supplemental Agreement Report- February

Brian Blanchard, P.E.
District Design Engineer

This is the supplemental Agreement Report for the month

of February, 1997. The percent of total supplemental agreements (S.A.) for each category indicate there were no serious problems areas. However, the top two supplemental agreements are the following:

Description Code 107: Modification of Approved MOT Plan

% of Total S.A. = 42.6%

Amount = \$15,000

Reason: The proposed beautification features included construction of brick paved crosswalks at certain intersections. It was necessary for the contractor's personnel to work in close proximity of passing motorists. The Department and contractor recognized a need for additional safety precautions during construction. The Department determined an off-duty law enforcement officer would be utilized.

Response: The current specifications have been changed to encourage use of variable message signs in lieu of off-duty law enforcement officers. Designers will be encouraged through the newsletter and with input from the Construction Department to use off-duty law enforcement officers in cases where additional safety for project personnel and the travel public is necessary. The S.A. was not considered a design error or avoidable.

Description Code 012: Deterioration/Damage Sustained on Project Subsequent to Design

% of Total S.A. for the month = 41.6%

Amount = \$14,660.00

Reason: The contract provided for rehabilitation of a dolphin for a bridge on S.R. 30. The contract plans provided specific location and lengths of steel sheet piling to be removed and replaced. During attempts to make pile splices, an investigation revealed damage existed below the original cut-off elevation making it difficult to align the new piling with the existing. A decision was made to remove additional portions of piling as required. Splices were added to prefabricated piling to achieve the required lengths.

Response: The S.A. was not considered a design error and was coded unavoidable. Under water damage to the dolphin was evaluated prior to the contract by bridge inspection personnel. The exact limits of damage could not be determined until rehabilitation began.