



Florida Department of Transportation

JEB BUSH
GOVERNOR


605 Suwannee Street
Tallahassee, Florida 32399-0450
July 22, 1999

THOMAS F. BARRY, JR.
SECRETARY

THIS MEMO IS EXPIRED

MEMORANDUM NO: 22-99

TO: DISTRICT CONSTRUCTION ENGINEERS

FROM: 
Greg Xanders, State Construction Engineer

COPIES: Bill Deyo, Bill Albaugh, Charles Goodman, Archie Montgomery, Jim Johnson,
Area Engineers

SUBJECT: **CONTRACT CHANGE CODING IN CARS AND CARS - AN INITIAL
ASSESSMENT REPORT**

Purpose: As part of the State Construction Office Strategic Plan, I have completed an initial assessment of our cost and time overrun tracking systems for input problems including accuracy and ease of use. The purpose of that assessment was to determine if the State Construction Office tracking system for cost and time overruns is adequate, effective, comprehensive and, wherever possible, to suggest improvements. I would like your responses with comments on the findings and recommendations of this report by **August 6th, 1999** so I can review them before issuing my final report on this subject. Based on your inputs and another sample of data from each district, we'll set or change our policies in these areas.

Method: From May 3rd to May 11th, a representative from my office visited 4 Districts. At each district visited, an attempt was made to check 15 Supplemental Agreements, 15 Time Extensions and 15 Time Suspensions which had been done between April 30th, 1998 and April 29th 1999. We asked to see the documents and the supporting paperwork for each contract change. Some districts were unable to provide the 15 examples requested because 15 examples had not occurred in the district during the one year time frame studied. At each district a comparison was made between the documents provided and the 6 character coding information shown in the construction office CARS tracking programs and the information shown for Supplemental agreements in the CRS system.

The 6 character coding in the CARS system consists of 4 parts. The first part is a 3 digit number called a reason code which is used to describe the root cause of the contract change rather than describing the work. The remaining 3 parts are single character codes used to denote avoidability, cost recovery and claim settlements or project limit extensions (see lists of available choices at end of this memo). A subset of these codes is used on time extensions and time suspensions.

At each District, a separate discussion was held with the District Construction Engineer, the Engineer in charge of the administrative aspects of contract changes and the individual responsible

for data entry. During these discussions the district personnel were assured that the report resulting from his visit would not cite specific districts or projects. This was done to get access to the widest sample of data and elicit the most candid suggestions for improvement during the brief time available for these visit to the districts. For this reason statistics on the individual districts have been anonymously tabulated under the headings Dist. A through Dist. D.

Statistical Summary of Findings

Reporting Period 04/30/98 to 04/30/99

SUPPLEMENTAL AGREEMENTS	<u>Dist. A</u>	<u>Dist. B</u>	<u>Dist. C</u>	<u>Dist. D</u>	<u>4 Dist.'s</u>
# Supplemental Agreements Checked	15	15	15	15	60
# Coded Correctly in CRS	14	15	13	10	52
% Coded Correctly in CRS	93.3%	100.0%	86.7%	66.7%	86.7%
# Coded Correctly in CARS	9	10	11	14	44
% Coded Correctly in CARS	60.0%	66.7%	73.3%	93.3%	73.3%

TIME EXTENSIONS	<u>Dist. A</u>	<u>Dist. B</u>	<u>Dist. C</u>	<u>Dist. D</u>	<u>4 Dist.'s</u>
# Time Extensions Checked	15	5	15	15	50
# Coded Correctly on document backup	11	5	13	13	42
% Coded Correctly on document backup	73.3%	100.0%	86.7%	86.7%	84.0%
# Coded Correctly in CARS	4	4	13	13	34
% Coded Correctly in CARS	26.7%	80.0%	86.7%	86.7%	68.0%

TIME SUSPENSIONS	<u>Dist. A</u>	<u>Dist. B</u>	<u>Dist. C</u>	<u>Dist. D</u>	<u>4 Dist.'s</u>
# Time Suspensions Checked	15	15	15	7	52
# Coded Correctly on document backup	11	11	14	6	42
% Coded Correctly on document backup	73.3%	73.3%	93.3%	85.7%	80.8%
# Coded Correctly in CARS	8	10	12	6	36
% Coded Correctly in CARS	53.3%	66.7%	80.0%	85.7%	69.2%

SAMPLE SIZE DATA	<u>Dist. A</u>	<u>Dist. B</u>	<u>Dist. C</u>	<u>Dist. D</u>	<u>4 Dist.'s</u>
(no data on tot. # SAs in current reports)					
Total # Time Susp., Ext. & Weather Letters	521	138	402	51	1112
Total # Weather Letters	<u>427</u>	<u>66</u>	<u>229</u>	<u>21</u>	<u>743</u>
# Time Susp. & Ext.	94	72	173	30	369
# Time Susp. & Ext. Checked	30	20	30	22	102
% Time Ssp. & Ext. Checked	31.91%	27.78%	17.34%	73.33%	27.64%

Findings and Recommendations:

- 1) One district was entering data into the CARS system 5 to 6 months after the execution of the contract changes.

Policy will be established detailing a reasonable interval after the execution of a contract change during which that change should be entered in the CARS tracking program. Fourteen calendar days after the execution of an SA or grant of a time extension or time suspension should be adequate for data entry.

- 2) There was a general confusion over when a claim settlement code should be used and if the 3 digit reason code "851" for claim settlement should be used in lieu of the last single character code "C" which also indicates a claim settlement. The claim settlement is overused because "claim settlement" needs a definition different from "negotiated settlement"

Give a uniform definition of claim settlement to all districts. (Note this has already been done). The reason code "851" for claim settlement should be deleted. Provision should be made, in the tracking programs, to use the same set of reason codes and the same codes for denoting avoid ability, cost recovery and claim settlements / project limit extensions for all SA's, time extensions and time suspensions. Provision should also be made for the recording of premium costs when they are known to be associated with time extensions or time suspensions (example, home office overhead). To accomplish this a cost recovery field will need to be added to the time extension input screens. Recognizing that known premium costs associated with time changes are rare. . . the default value of these should be set to zero. Provision must also be made to display the full set of codes including the 3 single digit codes for avoid ability, cost recovery and claim settlements with associated premium costs in the report options for time suspensions and extensions.

- 3) There was confusion over entering reason codes for multiple issues on time extensions. The current version of Construction System User's Guide contains no instructions on using multiple segments to enter various reason codes for multiple issues covered on a single time extension. The tracking program currently supports this capability but the available report options display only the reason codes for the first segment and the total time.

Instructions on using multiple segments to enter various reason codes for multiple issues covered on a single time extension should be added to the Construction System User's Guide and the reporting options should be adjusted to display multiple segments of a single time extension when they are entered.

Findings and Recommendations . . . continued

- 4) There was also a general belief that it was acceptable to issue time suspensions for multiple reasons. This is a view not held by the State Construction Office.

Policy on using time suspensions for multiple issues will be stated clearly by the State Construction Office. If this is allowed both the tracking program and the report options must be modified. My office currently wants a single issue on each time suspension for the following reason. A suspension for multiple overlapping reasons might have a single beginning and end, but if the time required for the various issues failed to be consecutive or overlapping then multiple starts and stops would be needed for a single suspension.

- 5) There was confusion as to the meaning of "Date Granted" in the report options dealing with time suspensions.

In the report options dealing with time suspensions, the date shown under the heading "date granted" is actually the first day of the time suspension. This heading should be changed to "start date" when used for time suspensions.

- 6) Negative time extensions were being used.

Negative time extensions should not be used. This policy should be clearly stated by the State Construction Office because the CPAM is silent on this issue. Some districts have interpreted that silence as licence to use negative time extensions. A time extension letter which reduces the contract time without providing any consideration to the contractor in return would likely be unenforceable. Where a time extension letter is only used to grant time... it's hard to see how a contractor would willingly allow the reduction of contract time without some reason which should properly be covered in an SA or SA work order. Now that Contingency SA work orders will also be used to change contract time, a minor contract time reduction involving only minor compensation for the contractor can be handled quicker than a major reduction requiring an SA. To avoid data input errors, we should block the input of negative days into the time extension/suspension tracking system by having an error message displayed if the user attempts to enter anything except a positive integer number of days.

- 7) Time reports often showed a blank field for the number of days. Several District staffers also complained that there is no way to delete an incorrect a record once it has been created.

Before accepting a data entry, the tracking program should require a positive integer in the field for the number of days for a non-weather time extension or a time suspension. The tracking program should allow a way to delete an incorrect time suspension or time extension entry after it has been created. This method should be shown in the Construction System User's Guide. Several district staff noted time suspensions could be suppressed in the reports by changing the data record for the 3 digit reason code to a blank space. If appropriate, show this method in the Construction System User's Guide.

Findings and Recommendations. . . continued

- 8) The report options for time changes did not include separate totals for all time extensions exclusive of weather time extensions and all time suspensions.

The report options for time changes should include separate overall totals for 3 sections of the report,

- a)--- for all time extensions exclusive of weather time extensions*
- b)--- for all weather time extensions*
- c)--- for all time suspensions.*

- 9) When a letter informing the contractor that no days are being granted for weather delays during a specific period is sent out, several districts were uncertain if this needed to be entered in the CARS tracking system. Some felt it would demonstrate that weather days had been considered... but entering a zero only produced an entry on that date showing a blank for number of days.

Zero day weather time extension letters should be entered and should display a zero in the report formats when a zero has been entered .

- 10) Requiring a date on a pending SA in CARS leads to problems when the certification of funds occurs after the assumed date of the pending SA... and... the district staff does not change the date on the pending SA before approving it in CARS to match the date actually used on the paper SA document and in CARS.

As we are unlikely to get any program change in the CARS system, the Construction System User's Guide should contain instructions to the district staff on how to change the date of a pending SA and who to call to change the date of an approved SA in the CARS system. Programming in the CARS system should be changed so that the date of an SA is read from the CARS system without the opportunity for change by the user. Any attempt, by a user, to change the SA date shown in the CARS system should generate an automated message to the user instructing the user that the date must be changed in the CARS system first.

- 11) In current contract change reports there is no way to distinguish between federal aid and non federal aid jobs... and... consequently no way to determine what percent of contract changes on federal aid projects are federal aid participating.

In order to determine what percent of contract changes on federal aid projects are federal aid participating, report options showing only federal aid projects are required .

Findings and Recommendations. . . continued

- 12) There is no current report option which will display only all those contract changes containing a specific reason code... on at least one the work orders in an SA... or ...on at least one segment of a time extension. This results in an inability to display the total costs or additional contract time associated with a specific reason code.

We need a report option capable of showing only those SA's having a work order/issue for a particular reason code. . . this report should sum up the total costs and days attributed to the portion of those SAs represented by the work order/ issues for the particular reason code being studied. Note that where SAs contain multiple work orders/issues for various reason codes. . . the costs and time for a particular reason code will only be a fraction of the total SAs costs and time. We need a similar report for time extensions which can also be granted for multiple reasons listed on individual time extension segments.

The time suspension report as currently written provides this information because it sums up the information by reason code. Each suspension is intended to cover only one issue and therefore contains only one reason code. . . that portion of the current report dealing only with the reason code of interest. . . should be appended to the time extension report summing up the total of all portions of time extensions granted for a specific reason code.

- 13) For most of our customers, the length of project time is seen as the duration of disruption between... the time the construction ahead signs go up... and the time they come down. The use of time suspensions to prevent an increase the number of contract days... is an arbitrary device which confuses the issue of contract time for both the public and other branches of Florida's government. As the need to avoid contract delays has focused attention on this area... the use of time suspensions in lieu of time extensions has dramatically increased in some parts of the state. This slows the increase of contract days... which the FDOT measures as delay... without preventing the increase in project durations... which the public perceives as delay.

We should stop using time suspensions. A suspension is still needed when we prevent the contractor from working to avoid slowing traffic during special events or heavy traffic congestion . . . but we should be suspending work . . . not contract time. On current time extension issues . . . the cause of delay is the key to granting the contractor additional contract time. Work suspensions should be handled the same way . . . by granting the contractor additional time, with a time extension, when the delay is not the contractor's fault. The payment of home office overhead during periods of increased contract duration is now arbitrarily specified depending on the use of a time suspension or extension. To avoid inequity, exceptions are often justified by stating the payment of overhead was made because the delay was not caused by the contractor. The payment of overhead costs... should also be based solely on the determination of the cause of the delay .

Available Choices for Single Digit Codes

Avoid ability Codes

- 0 - Unavoidable; no remedial action required
- 1 - Avoidable: design consultant
- 2 - Avoidable: in house designer
- 3 - Avoidable: CEI consultant
- 4 - Avoidable: in house CEI
- 5 - Avoidable: 3rd party

Cost Recovery Codes

- Y - Initiated
- N - No action recommended
- C - Action Closed
- P - Recovery Pursued
- R - Action recommended
- \$ - Closed/recovery received

Claim/Extended Limits Codes

- C - Claim settlement
- N - Neither
- E - Extend Project Limits

Conclusion:

I'm looking forward to reviewing your comments on these issues. Once again, these issues are the findings and recommendations of an initial assessment report. The need to set or change policy in these areas, concerned me enough that I have asked each Area Engineer to research and report on their district's time suspension use by August 15th, 1999. I would like you to quickly provide them with copies of any time suspensions and back up documents they request so they can complete this task on time. Your candid comments and insights on this initial assessment are also very important to me. **Again, I would like your response with comments on these issues by August 6th, 1999** so I can review them before I read the Area Engineer's individual reports. Based on these inputs we'll set or change our policies in these areas.

GX/bc
Attachments

SUPPLEMENTAL AGREEMENT DESCRIPTION REASON CODES (January 1998 Edition)

Code	Description/Reason Note: Entries/codes selected should be specific to <u>root cause</u> of contract modification and not describe resulting change. Determining the root cause is extremely important in the coding process as the root cause creating the SA is what we need to determine to prevent future occurrences.	These following are for general avoidable determination guidance only and do not reflect all cases or circumstances:				These are for general premium existence guidance only and do not reflect all situations:		
		Generally avoidable(A)	Generally unavoidable(U)	Could be A or U	Premium Likely	Premium Unlikely	Premium ????????	
001	Subsurface material or feature encountered not shown in plans -assuming reasonable engineering judgement/processes used in plans preparation (ie.muck, old piling, boulders, artesian springs, abandoned utility lines, etc.).		X			X		
103	Incorrect/insufficient subsoil information in plans (included in plans but not adequate). This differs from 001 in that information is in plans but incorrect or inadequate.			X				X
104	Incorrect method of measurement or payment shown for earthwork items (ex..two jobs are combined, one has earthwork paid by tonnage the other has it in another item).	X			X			
003	Harmonize project with adjacent projects, features or adjacent R/W after plans have been completed.			X				X
117	Access management issues.			X				X
004	Design standard, specification change, policy/program change (implemented as a Department directive) occurring after letting.			X			X	
005	Utility adjustments delaying contract work schedules caused by Utility Companies with no JPA involved (should be all Premium and 3rd party charged)	X					X	
015	Changes required to project modifying original Utility Joint Project Agreement (JPA) (should be at no cost to DOT).			X			X	
106	Inaccurate location, size, identification, conflict resolution etc. of an existing or proposed utility (no JPA Involved).			X			X	
007	Work added or deleted resulting from agreements with other parties (non-DOT)to address concerns within projects limits not in original scope (not permit related)			X				X
108	Plans do not adequately describe scope of work (use a specific reason code if possible)			X				X
008	Project modifications at R/W's request for parcel settlement conditions (litigation, negotiation, court ordered, etc.).			X				X

116	Inadequate R/W provided to construct features/components as shown in plans.	X							X
009	Permit related issues.							X	
128	Inaccurate or inadequate survey information used in plans preparation.							X	
010	Additional items, overruns, or plans modifications due to weather causes (ex..repair of damage caused by hurricane such as excessive erosion or wind damage).				X				X
012	Deterioration/damage (not weather related) sustained on project subsequent to design.				X				X
107	Modification of approved MOT plan to accommodate various modes of transportation (i.e..peds, boats, cars, bikes, etc..).						X		X
122	Bike, pedestrian, ADA or other public transit features not properly addressed (not MOT related).			X					X
019	Conflicts between Contractors resulting from overlapping projects, work limits, pay items, activities, etc.			X				X	
105	Conflicts resulting from discrepancies, inconsistencies, etc. between plans notes, details, pay items, standard indexes, or specifications.			X				X	
101	Necessary pay item(s) not included.			X				X	
700	Overrun of existing pay items when original contract amount is exceeded by over 5%.							X	
208	No specification provided for item of work.			X					
126	Computation Error.			X					
112	Project phasing or plans components not constructable as shown.							X	
113	Modification to pavement design required.							X	
115	Drainage modifications required due to grade differentials, structure omissions, problems with pond designs, offsite flow not handled, incorrect elevations of structures, improper hydraulic design, etc.							X	
118	Inadequate/improper signing, signalization/pavement marking design or features.							X	
119	Revisions required related to major structural component changes.							X	
120	Hazardous materials encountered requiring plans changes.							X	
123	Landscaping issues not adequately addressed.							X	

131	Architectural feature related issue (generally for building modifications)				X				X
016	Material/Suppliers no longer available or other conditions as found in Article 8-7.3.2 (2) of the Standard Specs.			X					X
725	Defective Materials (should be negative SA)			X					X
018	Special Events or Excessive Traffic Congestion impacting contract.			X					X
013	Test features not included prior to letting.				X				X
130	Indecision or delayed response causing contract delay.				X		X		
300	Value Engineering Change Proposal (VECP) (should be negative SA)			X					X
325	Partnering (should be overrun only)			X					X
502	Inaccurate directions given during construction		X				X		
503	Change resulting from engineering decision (use specific code when possible)								X
850	Contingency Supplemental Agreement				X				X
851	Claims Settlement (to be used only when project issues have been grouped and a final settlement is issued to cover all included---specific items should be broken out individually when possible and where tracking is warranted)				X		X		