

August 1, 2008

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION  
DEPARTMENT OF TRANSPORTATION  
RHODE ISLAND CONTRACT NO.2008-CH-042  
FEDERAL-AID PROJECT NO. FAP Nos: STPG-RESF(125), STP-RESF(124)

**Improvements to Fruit Hill Avenue C-1**

College Road (STA 24+59.20) to Vineyard Lane (STA 70+05.77)  
CITY/TOWN OF North Providence, Providence  
COUNTY OF PROVIDENCE

NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 3 Prospective bidders and all concerned are hereby notified of the following changes in the Plans, Specifications, Proposal and Distribution of Quantities for this contract. These changes shall be incorporated in the Plans, Specifications, Proposal and Distribution of Quantities, and shall become an integral part of the Contract Documents.

**A. Contract Documents**

1. Specification/Job Specific
  - a. Delete index page JS-i in it entirety and replace with revised index page JS-i (R-1) attached to this Addendum #3. The index has been revised.
  - b. Insert new pages JS-8 to JS-20 attached to this Addendum #3. Specification 108.03 has been added.

  

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RI Department of Transportation  
Chief Engineer

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**JOB SPECIFIC  
R.I. CONTRACT NO. 2008-CH-042**

**CODE 108.03  
PROSECUTION AND PROGRESS**

**a. General Requirements.**

**1. Project Schedule Program**

All construction Projects require an integrated schedule management and controls program that the Contractor shall comply with through completion. A Critical Path Method (CPM) Schedule must be developed and maintained for all Projects. The Contractor shall be required to participate in Schedule Development meetings facilitating knowledge-sharing and updating of Schedules. An integrated stepped Schedule Development process will begin once the Apparent Low Bidder letter is sent to the Contractor. The level of detail and Schedule Submission requirements will be based on the Schedule Level A, B, or C, which shall be defined in the Special Provisions of the Contract Documents.

- Schedule Level A Projects with a high level of complexity, impact to the motoring public or community, and/or larger size Projects.
- Schedule Level B Projects of average to moderate complexity, moderate impact to the motoring public or community, and/or average size.
- Schedule Level C Smaller projects with minimal to no complexity, and minimal impact to the community. Typical examples would be resurfacing, maintenance, and landscaping projects.

The CPM Schedule shall be the Contractor's primary tool to organize and communicate their plan for the timely completion of the Project. The Schedule will be used to assess progress, delays, projection of time required, Contractor and RIDOT resources requirements, and any mitigation if necessary. The Schedule shall include all the work to be performed/required by the Primary Contractor, Subcontractors, equipment vendors, suppliers, Utility Companies, regulatory agencies, owner review and other work that is interrelated to the Contractor's work. The CPM Schedule shall accurately portray the work planned and executed and shall reflect coordination of work.

The following Schedule Submittals are required for all Projects:

- (A.) PRELIMINARY PROJECT SCHEDULE**
- (B.) BASELINE PROJECT SCHEDULE**
- (C.) STATUS SCHEDULE UPDATES**

Recovery Schedules will be required if requested by RIDOT.

The Project Schedules shall be used by the Engineer and Contractor for the following purposes as well as those stated in these Specifications:

- To identify the Critical Path and its specific activities.

- To identify any changes in proposed work that differs from the Specifications or the Plans (i.e., alternate phasing, Value Engineering Proposals).
- To document the actual progress of work and evaluate the time impact of changes in the work.
- Allow the Department the opportunity to mitigate the impact of unforeseen events.
- To enable the Engineer to track and prioritize the review of Shop Drawings and Submittals. To evaluate resource requirements of the Contractor and the Engineer (Level A).
- To coordinate the work of 3<sup>rd</sup> party contractors into the sequencing of the Contractor's work where necessary.

Having a timely Schedule/Schedule Update affects the Engineer's decision making. The Department shall not be liable for delays to the Contractor's work when the Contractor has failed to provide a Schedule Update in accordance with the requirements of the Contract Documents. Progress payments may be withheld if the Contractor fails to submit required Schedule Submissions. This includes, but is not limited to Schedule Development, Schedule Updates, and Recovery Schedule Submissions.

#### **Additional Requirements for Schedule Level A**

The Contractor shall retain a scheduler(s) dedicated to the Project, with a minimum of three (3) years experience on Projects similar in size and scope. The scheduler shall be responsible for developing, updating, and maintaining the Schedule. The Contractor shall submit the resume of the proposed scheduler(s) to the Engineer for acceptance within 3 days of receiving the "Apparent Low Bidder" Letter. Determination of the scheduler(s) acceptability is made at the discretion of the Engineer. The scheduler shall be present at all required meetings, including but not limited to the Schedule Development, Schedule Update, and any other meetings which may affect the Project's Schedule.

## **2. Software**

The software used to generate the CPM Schedule shall be capable of producing schedules in accordance with the requirements of the Contract Documents and fully compatible with software utilized by the Engineer: currently Primavera Project Planner (P3). The Contractor shall purchase and maintain a valid software maintenance agreement for each license of software necessary to produce and maintain the Project Schedules. Unless specified elsewhere in the Contract Documents, the Contractor shall comply with the terminology defined by the Primavera Project Management Manual.

### **b. Schedule Development.**

#### **1. Schedule Development Submittals**

The scheduling requirements and Submittals will be based on the defined schedule level. The Schedule Development Process will commence on the date that the Apparent Low Bidder letter is mailed to the Contractor, which will be considered Day 1 for all Scheduling Submittals. The table below details the required Submissions and their corresponding Submission due dates for each schedule level.

STEP	STEP DESCRIPTION	SCHEDULE LEVEL			ENGINEER REVIEW DEADLINE (After receipt of submission)
		A	B	C	
Step 1	Scheduler's Resume	Day 3		-	3 days
Step 2	Initial Schedule Framework	Day 7	-	-	4 days
Step 3	Complete Schedule Framework	Day 14	Day 14	-	5 days
Step 4	Preliminary Schedule	Day 28	Day 28	Day 28	7 days
Step 5	Baseline Schedule	Day 42	Day 42	Day 42	7 days
Step 6	Bid Item Loaded Baseline Schedule	*Day 70	*Day 70	*Day 70	7 days
Step 7	Resource Loaded Schedule	Day 84	-	-	7 days
Step 8	Finalized Baseline	Day 98	Day 98	Day 98	7 days
*Required by Day 70 but no earlier than 10 Days after NTP		<i>All days are calendar days</i>			

Refer to Section D for Technical Scheduling Requirements; refer to the Special Provisions for project specific information, including Project Groups, ID Standards, Milestones and Activity Data.

The requirements for each Schedule Development Submission are listed below. Meetings will be held on a weekly basis, or as necessary, to facilitate the schedule development. Each Submission shall incorporate the accepted components, and address the comments from the previous Submission(s). If any Schedule Development Step Submission does not conform to Specification and is therefore Unacceptable, the Contractor shall revise and resubmit this for acceptance prior to proceeding to the next step. Each Submission shall include three (3) paper and (2) two electronic files (in their corresponding format).

Step 1: Scheduler's Resume

Step 2: Initial Schedule Framework Submittal:

- a) Work Breakdown Structure (WBS)
- b) Activity Codes: All Contractor defined activity code values.
- c) Calendars: All Contractor defined calendars
- d) Contractor's Submittal List (including all required Contractor Submittals)
- e) Potential Value Engineering or alternate sequencing/methods.

Step 3: Complete Schedule Framework Submittal:

- a) All requirements of Step 2 with prior comments addressed.
- b) Activity Data for all Milestones, Submittals, Procurement and Work by Others. Data includes (1) Activity ID, (2) WBS ID, (3) Responsibility Code, (4) Activity Type, and (5) Calendar IDs.
- c) Resource Definitions (Levels A Only): labor resources, work types, and equipment resources detailed by crews, incorporating all Engineer comments to date.

Step 4: Preliminary Schedule Submittal:

- a) All requirements of Step 3 with prior comments addressed.
- b) Activity Data, including all logic, for all work required to be performed within the first 120 days after the NTP.
- c) All work after the first 120 days from NTP shall be shown in summary activities (summary activities shall not have durations greater than 30 days).
- d) Narrative explaining the sequence of the work and all critical Submittals and activities.

Step 5: Baseline Schedule Submittal:

- a) All requirements of Step 4 with prior comments addressed.
- b) Completed Schedule showing all work activities and logic for the complete Contract.
- c) Narrative Report.

Step 6: Bid Item Loaded Schedule Submittal:

- a) All requirements of Step 5 with prior comments addressed.
- b) Complete Bid Item Loaded Schedule.
- c) Schedule Narrative which shall explain the use of resources and an explanation of all logic changes since the Baseline Schedule Submittal.

Step 7: Resource Loaded Schedule Submittal (Level A Only):

- a) All requirements of Step 6 with prior comments addressed.
- b) Resource loading completed for all activities in the Schedule for the entire Project
- c) Schedule Narrative which shall explain the use of resources and an explanation of all logic changes made since the Baseline Schedule Submittal.

Step 8: Finalized Baseline Schedule Submittal:

The Contractor shall revise the original Baseline Schedule Submittal until the Schedule conforms to the Plans and Specifications. No additional changes shall be made. The revised Baseline Schedule Submittal shall be revised and resubmitted until accepted by the Engineer.

**2. Review and Acceptance of Project Schedule Submittals**

The Engineer shall review Schedule Submittals for conformance with the requirements of the Contract Documents. The planning, scheduling, and execution of the work and the accuracy of any Project Schedule shall remain the responsibility of the Contractor. The Contractor is also responsible for errors in any previously accepted Project Schedule, including but not limited to activity durations, relationships between activities, resource allocation, or any float suppression techniques.

Schedules that do not accurately reflect the work may be identified at any time. Once identified, they shall be addressed by the Contractor at no additional cost to the State. The acceptance of any Project Schedule by the Engineer does not constitute acceptance or approval of any change to the requirements of the Contract Documents including but not limited to any mandated construction sequences. Such acceptance shall not relieve the Contractor of any responsibility under the Contract for the successful completion of the work.

**c. Project Schedule Updates.**

Schedule Update Meetings shall be held every two weeks from Notice to Proceed to the completion of the Project. The Contractor shall be required to attend each meeting with all their update information (data as of the data date) compiled in advance. The Contractor shall have a complete and accurate report of the current progress and depiction of how future work plans shall meet the contract completion dates. Failure to attend meetings or submit Schedule Updates may result in Progress Payments being withheld. The Contractor shall provide a sufficient number of copies of the Updated Schedules at the meetings. The format of this update form shall be provided by the Engineer at the Schedule Development Meeting.

Schedule Update Submittals shall be submitted to the Engineer every two weeks on the scheduled meeting dates or no later than two (2) working days after the Project Schedule Update Meeting. If a meeting is not held, Updates shall still be submitted. The Engineer's review period for the Schedule Update Submittal is five (5) working days. Three copies of the Schedule Updates shall be submitted to the Engineer with the following components:

1. A Schedule Narrative detailing the current Milestone Status, Critical Path, and all changes made to the Schedule, including Actual Dates, Calendar and Duration changes, and logic revisions as defined in section E-3, of this specification.

2. Activity Column/Bar Chart Diagram utilizing the layouts provided by the Department at the first Schedule development meeting. This will highlight the past period progress and be utilized for the Update information.

3. Copies of the current RFI and Submittal Logs.

4. Any other documents and/or reports requested by the Engineer.

5. Computer Disk(s) with record schedule incorporating all submitted Schedule Update Data (UXXX).

All Schedule data, logic or duration changes, or any modifications to the Schedule shall be addressed and discussed with the Engineer at the Project Schedule Update Meeting. This shall be done prior to the Contractor submitting their final Schedule Updates.

Changes to the accepted Baseline Schedule shall be detailed in the Schedule Update Narrative. The acceptance and inclusion of these changes shall not be the sole basis of acceptance or entitlement to any time extension(s) or cost(s).

Schedule Update Submittals shall never be used as the sole basis for any adjustment in the Contract Time(s), regardless of any acceptance or approval by the Engineer. Any acceptance or approval of the Schedule Update Submittal by the Engineer, either expressed or implied, shall only apply to the issue of progress and not to any issue of acceptability or accuracy of the Schedule Update Submittal for use as a basis for measuring adjustments in Contract Time(s).

**d. Technical Schedule Requirements.**

For the purpose of enabling both the Engineer and the Contractor to readily evaluate CPM Schedules, including derived data and reports, the Schedules shall be developed and maintained in

accordance with the following requirements. The Contractor will have access to templates of these requirements during Schedule Development.

All CPM Schedules shall utilize a Work-Breakdown Structure (WBS) which shall be developed by the Contractor, during Schedule Development. The following is the basic dictionary for the WBS which may be appended, with Engineer's acceptance, when further detail is required. Title Case shall be utilized in the development of the WBS descriptions. The WBS will be the primary code for displaying and organizing the graphical output schedules utilized for the project, unless otherwise directed by the Engineer.

**1. Basic Structure for WBS:**

<u>XX</u> .00	Contract Name	<u>XX</u> are contract specific, alpha-numeric characters that will be defined by the Engineer.
<u>XX</u> .10	Milestones	
<u>XX</u> .15	Summary Activities	
<u>XX</u> .30	Procurement/Shop Drawings	
<u>XX</u> .40	Utility/RR & Work by Others	
<u>XX</u> .60	Construction	

**2. Project Naming Standards:**

Preliminary Project Schedule: PS00  
 Baseline Schedule: BL00  
 Bi-Weekly Status Schedules: Uxxx  
 Recovery Schedule: Rxxx

**3. Project Milestones**

The Contractor shall include Milestones as specified in the Special Provisions of the Contract Documents. Late Finish Constraints shall be assigned to the Milestones where applicable.

**4. Activity ID**

The Activity IDs shall be coded in accordance with the following convention:

<u>XX</u>	<u>-----</u>	<u>-----</u>
Project Specific (Alpha-numeric)	WBS Code (Levels 2-5)	Contractor Specific (Alpha-numeric)
Example: XX	1000	1000
Project Specific (Alpha-numeric)	WBS Code (Levels 2-5)	Contractor Specific (Alpha-numeric)
Example: XX10001000		

The first two characters shall be contract specific, provided by the Engineer: "XX"

Next characters: WBS codes levels 2 through 5 (two to six digits) assigned to the activity, without the decimal points.

Last two characters: unique alpha numeric characters as designated by the Contractor.

All 10 characters shall be used in the activity ID.

## 5. Activity Codes

The CPM Schedules shall contain activity code classifications and code values. The Contractor shall propose a coding structure for the Engineer's review and acceptance. The activity code structure combined with the activity identification number shall provide the capability to organize information by location, road or ramp, structure, work type, Subcontractor, discipline, etc., as deemed necessary by the Engineer. The Contractor shall reserve three (3) code classifications (fields) and a minimum of six (6) characters for the Engineer's use.

RESP code will be utilized for identification of responsible party. RESP values shall be discussed at the Schedule Development Meetings

## 6. Activity Descriptions

Each activity description shall have a narrative description consisting of verb or work function (i.e. form, pour, excavate, etc.), object (i.e. slab, footing, wall, etc.), and location (i.e. STA, bridge, pier, or retaining wall number, street, ramp, etc.). There shall be no two activities with the same activity description. For example, an acceptable description would be, "Pour Footing Ramp Rt -Sta. 42+00 to 42+50". The word(s) "Miscellaneous" or "Misc" or other non-specific terminology shall not be used in the activity's description. Any abbreviations used in the activity descriptions shall be consistent with the abbreviations used throughout the Contract Documents, and should be listed therein. The formatting of the activity description in the software shall be left-justified and capitalized.

## 7. Activity Durations

The CPM Schedule shall have a minimal number of activities with durations less than two (2) (a short duration) and more than twelve (12) (a long duration) working days. The Contractor may request permission from the Engineer to assign durations greater than twelve (12) working days. If the Engineer accepts the Contractor's request to use a long duration, the reason for the request shall be detailed in the Preliminary and Baseline Schedule Narratives.

## 8. Activity Type

The following types of activities are required for use in the Schedule:

(a) Milestone Activities – Only Milestones that are defined in the Contract's Special Provisions shall utilize these activity types.

(b) Summary (Hammock) Schedule Activities –The Contractor shall maintain a summary schedule of hammock activities. These schedule activities must remain in all of the Schedule Submittals. The Hammock's predecessors and successors may be modified to include all those activities that are entered into the Schedule and considered part of the respective hammock activity's scope of work.

(c) Task Activities – This is the primary activity type. All activities other than Milestone and Summary as defined above shall be task activities.

## 9. Activity Dates

Activity Early and Late Start and Finish dates shall be calculated for each activity based upon the schedule data date, actual dates, schedule logic, schedule constraints, calendars, and original duration or remaining duration in accordance with the scheduling parameters defined in this section. Actual dates shall be agreed upon by the Engineer.

## 10. Cash Flow/Activity Bid Item Loading

The Contractor shall allocate the quantity for all bid items listed in the proposal pages. Each bid item will be associated with the corresponding schedule activity(ies). Each bid item shall be allocated to an activity or distributed to a group of activities. This shall be done through the use of Primavera's resources dictionary and resource assignment. The summed value of that portion of the activities allocated to each bid item shall equal the total value of the corresponding bid item. The bid item loading will identify the quantity of the bid item(s) associated with each schedule activity. The result of this Bid Item Loading will be an accurate portrayal of the owner's cash flow requirements for the project.

## 11. Calendars

The following calendars shall be used in the Contractor's Schedule. The Contractor may request permission from the Engineer to create additional calendars, however, use of these calendars is by Engineer's acceptance. Additionally, the Contractor may not schedule work during the winter shutdown period unless the Contract specifically states that work will be performed at this time or it is later agreed to and documented. It is the responsibility of the Contractor to schedule their work during the time allotted in the Contract. The following calendars are:

- Calendar 1- 5-day workweek (includes Holidays and Winter Shut Down)
- Calendar 2- Procurement
- Calendar 3- 6-day workweek (includes Holidays and Winter Shut Down)
- Calendar 4- 7-day workweek (includes Holidays and Winter Shut Down)
- Calendar 5- 5-day workweek (includes Holidays and No Winter Shut Down)
- Calendar 6- 6-day workweek (includes Holidays and No Winter Shut Down)
- Calendar 7- 7-day workweek (includes Holidays and No Winter Shut Down)
- Calendar 8- Interstate 5-day workweek (includes Holidays & Winter Shut Down)
- Calendar 9- Interstate 6-day workweek (includes Holidays & Winter Shut Down)
- Calendar A - Seeding
- Calendar B - Wetland Seeding
- Calendar C- Plants B&B

## 12. Data Date

The following are the definitions of the data dates for the CPM Schedules:

- Preliminary CPM Schedule –Date of Bid Opening
- Baseline CPM Schedule –Date of Bid Opening
- Status Update Schedules –TBD at Schedule Development Meeting

## 13. Logic

The logic in the Schedules shall represent the progression of time and the sequence of work performed within the contract time. The CPM Schedules shall conform to the following requirements:

Every activity shall have logically assigned predecessors and successors. Unless otherwise specified, the activity "Bid Opening" shall be the only activity without a predecessor, "Contract Completion" and each Contract Milestone shall be the only activities without successors.

The use of activity constraints is limited to the use of Start-No-Earlier-Than and Finish-No-Later-Than, for access restraints and Completion Milestone(s). The Contractor may request

permission from the Engineer to use these constraints for other activities but acceptance is required for incorporation in the CPM Schedule. The use of Zero Free Float, Start On, Expected Finish, Mandatory Start or Mandatory Finish is strictly prohibited.

Activity lag durations shall not have a negative value unless the Contractor can convince the Engineer that it best represents realistic conditions. Activity lags shall not be used in lieu of logic relationships.

Redundant ties to preceding activities in a sequential series of activities will not be permitted. For example:

- Activity C is a successor in a Finish-Start relationship to B
- Activity B is a successor in a Finish-Start relationship to A
- Activity shall not have redundant Finish-Start relations to C

A tie representing a different constraint will not be considered redundant. For example, a logic tie showing the completion of the work scope of a predecessor is required before the successor can start is different from a logic tie representing a resource limitation and will not be considered redundant.

The Critical Path for a project shall be defined as the longest continuous series of activities progressing toward a Contractual Milestone or Contract Completion.

Out-of-sequence logic shall not be permitted to be included in a submitted CPM Schedule. The Contractor is responsible for identifying, correcting, and updating any out-of-sequence logic in a Schedule.

Float is not for the exclusive use or benefit of either the Engineer or the Contractor. It is an expiring resource available to all parties, acting in good faith, as needed to meet any Contract Milestone(s).

#### **14. Schedule Layout Requirements**

The Engineer will provide the Contractor with the required layouts for the Schedule.

#### **15. Schedule Calculations**

Performing scheduling calculations requires the following settings:

- Turn off automatic scheduling and leveling.
- When scheduling activities, apply retained logic.
- Calculate the start-to-start lag from early start.
- Schedule durations as: contiguous.
- Show open ends as: non-critical.
- Calculate total float as: finish float.
- Summary calculations shall use Calendar No. 1 and the weighting factor for determining percent complete shall be duration.
- Set the auto-inserting option on automatic with a minimum increment of three (3).
- Initially set critical activities using defined critical as: total float less than one (1). This option may be changed at the direction of the Engineer.
- Set language for output as: U.S. English.

#### **16. Submittals and Procurement**

All Submittals and Shop Drawings will be represented in the Contractor's Submittal List (CSL) and shall be cross referenced in the Project Schedule utilizing the Item Codes from the Specifications. At a minimum, each submittal in the CSL will have a corresponding submittal preparation activity in the Schedule. Each submittal activity will have corresponding review and approval activity. Each submittal item will also have a corresponding procurement activity identifying the duration for the procurement of the corresponding materials, equipment, etc. The accuracy and completeness will be the responsibility of the Contractor. The Contractor is responsible for any delays due to inaccuracies in identifying Shop Drawings, Submittals, and Procurement Requirements.

**e. Schedule Submission Narratives.**

**1. Preliminary Schedule Narrative**

The Preliminary Schedule Narrative shall contain the following information:

- (a.) Identification of the data date and schedule file name.
- (b.) A description of the planned flow of work, identifying all key or driving activities/resources for the first 120 days in detail and remaining project in summary. Summary activities shall not be greater than 30 calendar days in duration.
- (c.) Identify any alternates or substitutions.
- (d.) Response to all the owner's comments. The identification and explanation of all changes made to the schedule submission.

**Additional Requirements for Schedule Level A**

- (e.) A summary of planned labor utilization for the Project for the first 120 days in detail. This shall identify the average and maximum number of workers by craft designation on site each month based on the resource loaded Project Schedules and the shifts to be worked. Identify actual and potential labor resource limitations.
- (f.) A summary of planned equipment utilization for the Contract for the first 120 days in detail, identifying each type of operated equipment to be used in the work, the planned quantity of each type of operated equipment utilized each month, and the criteria for mobilizing and demobilizing each piece of equipment to and from the site. Identify actual and potential labor resource limitations.
- (g.) Key constraints and potential problems affecting the Contractor's work must be identified: construction interfaces with existing plant operations, third parties at the project site, temporary contractor plants, facilities or fixed equipment planned for use whether within the contract ROW, contract easement, or off-site. Include length of time the plant is to be used, any planned moves, and any potential conflicts that could arise if the plan is not followed.

**2. Baseline Schedule Narrative**

The Baseline Schedule Narrative shall contain the following information:

- (a.) Identification of the data date and schedule file name.

(b.) A description of the planned flow of work identifying all key or driving resources.

(c.) Identify any alternates or substitutions.

(d.) Response to all of the owner's comments and the identification and explanation of all changes made to the schedule submission.

(e.) An explanation of how adverse weather has been addressed in the Baseline Schedule. Identify any and all activities that contain contingency days for adverse weather. Lack of preparation for normal adverse weather is unacceptable.

#### **Additional Requirements for Schedule Level A**

(f.) A summary of planned labor utilization for the Project identifying the average and maximum number of workers by craft designation on site each month based on the resource loaded Project Schedules and the shifts to be worked.

(g.) Identify actual and potential labor resource limitations.

(h.) Key constraints and potential problems affecting the Contractor's work must be identified: construction interfaces with existing plant operations, third parties at the project site, temporary Contractor plants, facilities or fixed equipment planned for use whether within the contract ROW, contract easement, or off-site. Include length of time the plant is to be used, any planned moves, and any potential conflicts that could arise if the plan is not followed.

### **3. Schedule Update Narrative**

The Schedule Update Narrative shall contain the following information:

(a.) Identification of the Update Period, the data date, and the schedule file name.

(b.) Narrative of work accomplished in the past two weeks and work planned for the next two weeks. Identify what planned work was not accomplished and why.

(c.) Narrative of the current critical path to each contractual completion Milestone.

(d.) Identify any alternates or substitutions.

(e.) Response to all of the owner's comments, and the identification and explanation of all changes made to the Schedule Submission.

(f.) Elective Change: An elective change is defined as a revision to logic or duration(s) by the Contractor to effectively use labor and resources which have no adverse effect on the owner or Contract. The Engineer may use this as a request to a change in the Schedule. Mutual agreement on the change must be attained to implement either request. The Elective Change Narrative shall contain the following information:

(1.) Identification of the activities changed.

(2.) A description of the scope of the elective change and identification of the advantages and disadvantages of implementing the change. Identify all driving resources, if any.

Identify key constraints influencing the Contractor's approach to the work.

**Additional Requirements for Schedule Level A**

(g.) Identification of activities with critical or near critical float (within ten (10) Working Days of the Critical Path) that were planned to occur during the Update Period, but did not occur or occurred later than the scheduled late start or late finish date, and an explanation of these delays. Identification of delays to activities taking place off the project site, e.g., Submittal preparation, fabrication, and delivery activities.

(h.) Provide a listing of all activities which have surpassed their planned duration by more than twenty (20) percent and any justification for maintaining original planned durations for future activities of like work.

(i.) A summary of any changed plans for labor utilization for the Project, identifying the average and maximum number of workers on site each month. Identify actual and potential labor resource limitations. A summary of the actual labor utilization used over the past month.

(j.) A summary of any changed plans for equipment utilization for the project, identifying each type of operated equipment to be used on the Work, the planned quantity of each type of operated equipment utilized each month, and all changes to the criteria for mobilizing and demobilizing each piece of equipment to and from the site. Identify actual and potential equipment resource problems. A summary of the actual equipment utilized over the past month.

**f. Progress Delays.**

The Contractor shall identify and promptly report to the Engineer all schedule and progress delays during the prosecution of the work. The Contractor shall promptly take appropriate action to develop a Recovery Schedule in the form of a revised Baseline Schedule whenever the actual physical progress is behind schedule, as compared to the Current Baseline Schedule, or whenever requested by the Engineer.

At a minimum, the Contractor shall submit a Recovery Schedule whenever the Project Schedule Update becomes thirty (30) or more Days late to any Milestone(s) designated in section 108.03, Milestones. The Proposed Baseline Schedule Revision shall be in accordance with corresponding section contained herein. The development and submission of a Recovery Schedule does not relieve the Contractor from continuing with the submission of the Project Status Schedule Submittals.

The submission of the Recovery Schedule shall be at no cost to the Engineer and shall be submitted within (30) days of the Project Schedule Update. The Recovery Schedule shall demonstrate a clear procedure for bringing the Project into compliance with a time line acceptable to the Engineer.

The Department may request a Recovery Schedule due to a delay that is not the fault of the Contractor. Cost associated with the development of these Schedules will be considered a reimbursable expense. Normal adverse weather shall be anticipated by, and planned for by the Contractor. Delays due to such weather events are unacceptable. Failure to submit such a Recovery Plan shall provide a basis for future Payment Application withholdings, either in whole, or in part, by the Engineer.

**g. Baseline Schedule Revisions.**

In the event of a significant delay, or changes to the Project's Schedule as determined by the Engineer, or any situation where time needs to be recovered, a Revised Baseline Schedule may be required.

Baseline Schedule Revision Submittals shall include a comprehensive listing of all activities added to or deleted from the Current Baseline Schedule of Record as well as a complete listing of all logic and activity relationship changes which have been made. All changes in the schedule must be fully described in an accompanying narrative. No Baseline Schedule Revision Submittal will be accepted unless it satisfies the following requirements:

- Any out-of-sequenced logic is corrected or explained to the satisfaction of the Engineer.
- Start and Finish dates are verified for accuracy.
- The Schedule accurately reflects the Contractor's plan (including accurate logic and durations) for completing the remaining work.

All changes from the accepted Baseline Schedule to the proposed Revised Baseline Schedule must be identified and accepted by the Engineer prior to incorporation into the Revised Schedule. Any proposed changes and/or revisions to the Current Baseline Schedule accepted by the Engineer pursuant to its review of a Proposal Schedule (definition required) submitted by the Contractor shall be incorporated into the Current Baseline Schedule and submitted as a Baseline Schedule Revision Submittal. A Baseline Schedule Revision Submittal shall be due within 5 days following the Engineer's acceptance of the proposed schedule changes and/or revisions, as submitted in a Proposal Schedule, and shall consist of the requirements of the Baseline Schedule, as supplemented below. The Baseline Schedule Revision shall include a cost distribution for added work and/or costs for review and acceptance by the Engineer.

Once a Baseline Schedule Revision Submittal is accepted by the Engineer it shall become the Current Baseline Schedule Revision of Record (and be used for subsequent Schedule Update Submittals), and shall be referred to by its revision number.

Except as otherwise designated by Change Order, no Current Baseline Schedule Revision that extends performance beyond any Contract Time and/or Contract Milestone(s) shall qualify as a Current Baseline Schedule Revision of Record that would allow it to be used to demonstrate entitlement to a Time Extension. In no case shall a Schedule Update be construed as a Baseline Schedule Revision of Record unless it is specifically submitted and accepted as such by the Engineer.