SECTION 108.00 – PROSECUTION, PROGRESS, AND TERMINATION

108.01 Subletting of Contract.

General. When a Contractor subcontracts a portion of a contract, the Contractor must submit an ITD-0315 Request to Subcontract to the Resident Engineer form. The Resident Engineer reviews and approves the request if the request is correct. The Contractor will be notified in writing by the District when approval is granted. One approved copy of the Request to Subcontract is returned to the Contractor and one is retained in the project files. Refer to Figure 108.01.1 for an example of the approval letter with the distribution. Number the ITD-0315 consecutively, beginning with number 1 for each subcontract. Refer to "Subletting of Work by Subcontractors" for the numbering of Requests to Sub-subcontract.

Change-ordered work, if subcontracted, requires approval through an ITD-0315. This work type is not considered in determining the percentage subcontracted. Handle subcontracted change-order work the same as sub-subcontracted or specialty items on the ITD-0315.

The Contractor must submit a copy of the completely negotiated subcontract agreement to the Engineer for approval. The Engineer should check for required physical inclusions stated in the contract to ensure that they are included in the subcontracted work as shown on the ITD-0315. Verify that the total dollar amount subcontracted equates to the "total dollar value of the subcontract or sub-subcontract" shown on the back of the ITD-0315, and that both parties have signed the subcontract. When the Resident Engineer approves the subcontract, the ITD-0315 is signed and dated, and a copy returned to the Contractor. The Engineer will also forward a copy of the signed and dated ITD-0315 to ITD's Office of Civil Rights at CivilRights@itd.idaho.gov.

The Resident Engineer files a copy of the transmittal letter to the Contractor, a copy of the ITD-0315, and a copy of the approved subcontract agreement. The required physical inclusions are:

- US Department of Labor (DOL) wage determination
- FHWA-1273 and addendum
- Civil Rights Special Provisions
- Training Special Provisions (if included in the contract)
- Special Provisions State Aid (SP-SA) as applicable.

The ITD-0315 and the subcontract may be submitted together or separately, but **both must have the** required written approvals before start of the work by the subcontractor.

Figures <u>108.01.2</u> and <u>3.108.01.3a</u> show the method of listing the required information on the <u>ITD-0315</u>. If more than one sheet is required, sheets may be stubbed and the items continued on succeeding sheets.

Firms operating plants (e.g., batch plants, crushing plants, central mixing plants) that set up primarily for the contract, must be considered as subcontractors and covered by a subcontract agreement. These firms cannot be considered as material suppliers unless the source has a history of similar product sales before advertisement. Firms providing support services (e.g., providing and cleaning portable toilets) do not require a subcontract unless they are directly working on a bid item. If questions arise, consult with the Construction/Materials Section.

Delivery vs. Application. Generally, a subcontract is not needed if the material is delivered or picked up. Examples of delivery are:

- Material delivered to the project site, but not applied.
- Material delivered to the project site and transferred to a holding tank (e.g., an oil truck delivers oil into a standing tank and then leaves the site).
- Material delivered to the project site and applied (e.g., concrete pump trucks) but the delivery employee(s) are on the project site less than 20% of the work week (<u>Davis Bacon de minimis</u>). See also <u>CA Manual 112.03.</u>

A subcontract is needed if material is applied onsite. Examples of application are:

- Delivery to the site and application of material (e.g., oil truck delivers tack oil and distributes oil on the pavement)
- Any work performed onsite (as defined in 29 CFR § 5.2(I)(1)).

Requests to subcontract plumbing, electrical, heating, and air conditioning work must be submitted even though the subcontractors are named in the proposal. Per <u>Idaho Code 54-1902</u>, all subcontractors and lower tier subcontractors are required to have public works licenses of the proper class. Additional guidance regarding public works licensing can be obtained from the <u>Idaho Division of Building Safety</u>. Subcontractors named in the proposal must be adequately licensed at the time of bid opening on state-funded projects. Federally-funded projects require licensure before award. The subcontractor named should be the one performing the plumbing, electrical, heating, and air conditioning work.

Idaho Code and Federal Regulations establish the minimum amounts of work that will be accomplished by the Contractor's own organization. These minimum amounts are measured by percentage of dollar amounts of the original contract cost. The original contract cost (or amount, shown on the ITD-0315) is the sum of the contract bid items plus the estimated costs of stipulated price items and invoice price items not on the bid schedule, minus any identified specialty items.

Typical stipulated price items include salvaged materials delivered to the state at a cost stipulated in the contract. Typical invoice items may be asphalt products. The estimated cost per unit from the detailed estimate may be used in computing the total contract cost if precise price quotes on invoice items are not known at the time subcontract approval is requested.

Determination of Value of Work to be Subcontracted. Contract bid prices (not subcontract unit prices) will always be listed in the column "Contract Unit Bid Price" to determine the value of work to be subcontracted. If the Contractor wishes to sublet an entire item, the contract bid price will be used to determine the value of the work, not the subcontractor's price, even though their price may be more or less than the contract bid price. If the Contractor proposes to sublet only a portion of an item (split an item), a value must be listed by the Contractor and approved by the Engineer as a "split item unit price" for that parties item is to be subcontracted and the

for that portion of the item to be subcontracted. When the entire item is to be subcontracted and the subcontractor's price is different than the contract bid price, the subcontractor's unit price will not be shown in the split item column.

The only time the split item column is used is when more than one contractor is performing work for one pay item. The contract unit bid price will be used as a basis for establishing a "split item unit price." Provide a brief description following the pay item indicating the nature of the work being performed as a split item. This is necessary before request approval can be made.

Submit a separate <u>ITD-0315</u> for change-order work when a subcontractor, who is not pre-approved, performs the work.

Splitting of Items and Materials Costs. The materials cost for purchases by the Contractor from a supplier or commercial source may be deducted or split from any item to be subcontracted. However, when a firm both sells material to a Contractor and performs the work of incorporating the materials into the project, the material cost must be included in the subcontracted item value.

Splitting of an item is when the Contractor and/or subcontractor perform portions of the work required to complete the item. If another subcontractor completes the item, the subcontractor must be allocated the remainder of the unit bid price. One example of permissible splitting of items is the crushing, hauling, mixing, and placing of base and surfacing items. Any of these operations may be subcontracted as long as a percentage is assigned to that portion of the item to be subcontracted.

Item work units may also be split by using the contract bid price as the split item price. A case where this might be encountered would be a paving project that includes a chip seal coat. The prime may subcontract the chip seal coat, including the traffic control for the chip seal coat. The prime must show a reasonable number of hours at the contract bid price for the traffic control being performed by the subcontractor. The proper accounting method on the ITD-0315 for this situation is illustrated in Figure 108.01.2.

Subcontracting Specialty Items. When specialty items are subcontracted, submit an ITD-0315 form. However, the contract amount for these items is not charged to the amount subcontracted. Specialty items are designated in the contract bid schedule and are not to be confused with "SP" items.

Although the dollar amount of specialty items is not used to calculate percent subcontracted, the specialty items should be tracked. The way to handle specialty items is to show zero (0) dollars in the amount column and carry the specialty item amount on the "Sub-subcontract and/or Specialty Item Total \$_____" line as illustrated in Figure 108.01.3.

Disadvantaged Business Enterprise (DBE) Subcontract Requirements. See <u>CA Manual 110.04</u>, Disadvantaged Business Enterprise (DBE).

DBE Regulations as stated in <u>49 CFR 26.11(c)</u> requires the Department to create and maintain a comprehensive Bidders List, consisting of all firms bidding on prime contracts and quoting/bidding subcontracts.

During the <u>ITD-0315</u> review process, check the Department's <u>Bidders List</u> to ensure that the subcontractor or sub-subcontractor is included. If the firm is not listed, they can be added to the Bidders List by following the bidders registration process on the Department's Bidders List website.

This requirement also applies to supply companies that provide materials that are permanently incorporated into Department (or LHTAC) projects.

The ITD-0315 form should not be approved until the firm is included on the Bidders List.

Subletting of Work by Subcontractors. The standard specifications permit subcontractors to sublet any of the work assigned to them under their subcontracts with the Contractor and upon approval by the Engineer.

If the subcontractor desires to sublet any of the work contracted, the Contractor must submit a request in the same manner as prescribed for requesting permission to subcontract a portion of its own work. The items, quantities, unit bid prices, and extended amounts must be shown, and the total value of the work shown to determine whether or not the sub-subcontractor holds the proper Contractor's license to perform that amount of work. However, the amount need not be carried below the sub-subcontract and/or specialty item Total \$ _____ line, and the percentage need not be calculated as is done on a regular request to subcontract. The percentage has already been charged against the prime Contractor in the subcontract of the first subcontractor. Requests to sub-subcontract must have the same number as the subcontractor, with an alpha designator added, starting with the letter A (refer to Figure <u>108.01.3</u>).

The Contractor must complete the back of ITD-0315. The Contractor and the subcontractor (not the sub-subcontractor) need to sign. However, the dollar value of the sub-subcontractor agreement must be placed in the area provided for the first subcontractor's agreement.

Enforcement of Specifications Governing Subcontracts. The Engineer is responsible for enforcing the requirements governing subcontracts and ensures work not being performed by the Contractor's forces is either covered by an approved subcontract or is being done by personnel added to the Contractor's payroll. See <u>CA Manual 110.04</u> for special DBE requirements.

Requests to subcontract are generally submitted at the preconstruction conference. The Contractor must submit the request in sufficient time to obtain approval before starting subcontract work.

Use the <u>ITD-0025</u>, Construction Diary to document the day the subcontractor begins working on the project.

Occasionally, the Contractor decides to perform planned subcontract work with the Contractor's own workforces. Whenever this occurs, the subcontract records should be updated to reflect this change.

Checking the ITD-315, Request to Subcontract. The <u>ITD-0315</u> form is used to determine the percentage of work being subcontracted. The dollar values of each item, as determined by the Contractor's bid, are used to perform the mathematical computations shown in Figures <u>108.01.2</u> and <u>108.01.3a</u>.

If a Contractor unbalances the bid on an item, the split unit price must carry a similar imbalance to properly reflect the percent of the work being done by the subcontractor with respect to the total cost of the project. For example, if a Contractor bid \$12.00 per ton on one project for plant mix pavement, \$33.00 per ton on another project, and subcontracted the crushing of the aggregate on both projects, the split item unit price should be \$4.00 on the first and \$11.00 on the second (33% of the work in each case) even though the subcontracts themselves show the subcontractor is doing the crushing for both contracts for \$4.00 per ton.

Check entries on the ITD-0315 form and mark with a "tick" mark if correct. If an entry is incorrect, it should be struck through with a single line, a corrected entry placed above or below, and initialed. The columns headed Item Number, Quantity, Item, and Unit Bid Price should read exactly as they read in the contract. Split quantities should then be shown in the Quantity column with an asterisk referring to a comment explaining the portion of the work to be performed by the subcontractor. Similarly, split item unit prices are to be marked and explained. Figures <u>108.01.2</u> and <u>108.01.3</u> illustrate these procedures.

A box at the bottom of the ITD 0315 form identifies the request approval by the Resident Engineer.

06/17

Contract Administration

August 25, 1998 Idaho Construction Company, Inc. 3779 N. 3400 E. Kimberly, ID 83341-9801 Project No.: DPC-BR-0031 Key No.: 5696 Location: Monte Vista Underpass, Pocatello Contract No.: 5866 Your request to subcontract certain items of work on the captioned project has been submitted to this office for approval. Our records indicate the following subcontractor(s) holds the proper Idaho Public Works Contractor's license and is / are approved to perform the work. NAME OF SUBCONTRACTOR REQUEST NO. SUBCONTRACT AMOUNT \$103,498.45 Pacific Ready-Mix, Inc. #2 This is 4.07 percent of the total contract amount requested to be subcontracted to date, less specialty items. One complete copy of the subcontract agreement with the proper forms attached, as indicated on the ITD-315, must be submitted to the Resident Engineer and his approval obtained before any work by the named subcontractor can commence on the project. Sincerely, ED BALA, P.E. **District 5 Engineer** State Tax Commission Bcc: cco Resident Engineer

Figure 108.01.1

ITD - 315 8-98 REQUES	ат то	x	SUBCONTRACT	OR		SUB-	SUBCONTRACT		
Date:	June	e 9, 1998					REQUEST	NO.:	2
To: DISTR IDAHO P.O. Bo	TRANSPORTA			KE LC	ROJECT NO EY NO.: DCATION: DNTRACT N	569 MO	NTE VISTA U'PASS		LO
From: (Name	and Address)								
PRIME CONT	RACTOR	3779 N. 34	struction Company, Inc. 400 E. D 83341-9801						
SUBCONTRA Pacific Ready- 4956 East "A"	Mix	DBE		SU	JB-SUBCON	ITRACT	OR: DI	3E	
Idaho Falls, ID									
License Numb	er: <u>1234-</u> A	AA-4(4, 9,	10, 47)	Lic	ense Numbe	er:			
Contract Item	Contract		Contract Item		Contract L	Jnit Bid	Split Item Unit	Amo	ount
502-A-6 502-A-7 511-A	221 CY 326 CY 613 SY	* (Supply C	Class 40-A Class 40-B f Membrane* Dnly) Total Amount Total Amount Total Contract	: of this Red Amount (Le	\$184 \$184 \$8.5	4 4 0	* \$ 4.65 \$	\$40,6 \$59,9 * \$ 28	64.00 84.00 50.45 103,498.45 769,345.28
A		1	Percent of Tota		000.40	T I 1	% <u> </u>		1.18
subcontracted	viously approve to date \$ Specialty Items.	d requests i	s \$ 357, <u>196.63</u> , w	/hich is	4.01 <u>4.01</u>		quest will make the t percent of the total		
Checked by:		Resident E	ngineer	Signed	d:		(Contractor)		
Approved:		District Er		Title:			()		
Date:				-					

Figure108.01.2a

ITD - 315 8-98 (Reverse Side)

Contractor's Statement and Acknowledgment

The prime contractor on the above contract, whose signature appears below, certifies that the following provisions of this contract will be physically incorporated into and made a part of the Subcontract Agreement and that the Agreement will be submitted

Check applicable contract provisions: (See requirements listed in contract.)

	x	U.S.DOT Form FHWA-1273	x	SP-Training	x	Civil Rights Special Provision	IS
	x	Department of Labor Wage Determination		State Aid Special Provisions (SP-SA)		Other	
The total dollar value of the Subcontract or Sub-Subcontract							103,498.45
Signed:		Signature	<u>,</u> this		day	of	, 19
		Title			(Name of Prime Contractor)		

The subcontractor whose signature appears below also acknowledges his responsibility under the subcontract for including these clauses in any lower tier subcontract awarded by him (required only for Sub-Subcontracts).

Signed		day of	, 19
	Signature		
	Title	(Name of Subcontractor)	
	Instructions to 0	Contractor	
1.	Address request to District Engineer having jurisdiction	on of project.	
2.	Subcontractor's or Sub-Subcontractor's name and ad License.	dress must be the same as shown on the S	State
3.	Fill in all columns using Contract Item Numbers and column headed "Split Item Unit Price" only if splitting		se
4.		g permissible bid item splitting and determir uding a specialty item, a description of work	
5.		n ITD-315 for a Sub-Subcontract, leave blar	nk all
6.			
7.	If the Prime Contractor is requesting to subcontract, Subcontractor is requesting to Sub-Subcontract, che		
8.	Check DBE box only if Subcontractor or Sub-Subcon Transportation Department. If DBE goals have not a DBE participation must accompany this subcontract	Iready been met, the good faith effort to obt	ain
	Complete "Contractor's Statement and Acknowledgn	nent" section.	
10.	 All copies of all "Requests to Subcontract or Sub-Sub Prime Contractor. Submit original and one copy thro 	, s	the

Figure 108.01.2b

SUBCONTR/ A-1 Minority Rt. 4, Box 17 Blackfoot, ID License Num	3-A 83221	DBE AA(1,2,3)	Acı 564 Tw	B-SUBCONTRAG me Inc. 17 W. E Street in Falls, ID 8340 ense Number:		
Contract	Contract	Contract Item		Contract Unit	Split Item Unit	Amount
656-A	1 LS	Traffic Signal Installation "SPECIALITY ITEM" *(Install Loop Detectors Only)		\$58,000	* \$12,000	
205-A 284,078 CY Excavation *1619 CY *(Sub-Sub performing rock excava near Sta. 705 only.)			ation	\$1.35	* \$1.35	* \$ 2185.65
Sub-Subcontract a	nd/or Specialty Item	(Do not include this amount in any total below) T	OTAL \$	\$1 [,]	4,185.65	
		Total Amount of Total Contract Ar Percent of Total (nount	(Less Specialty It	ems)	
Amount of pr subcontracte amount, less	d to date \$	oved requests is \$, which , which ns.	is	This re	equest will make percent of the to	
Checked by:		Resident Engineer	Signeo	l:	(Contractor)	
Approved:			Title:			
Date:		District Engineer				

Figure 108.01.3a

ITD - 315 8-98 (Reverse Side)

Contractor's Statement and Acknowledgment



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The prime contractor on the above contract, whose signature appears below, certifies that the following provisions of this contract will be physically incorporated into and made a part of the Subcontract Agreement and that the Agreement will be submitted to the Resident Engineer for review and made available for compliance reviews by Idaho Transportation Department personnel.

Check applicable contract provisions: (See requirements listed in contract.)

	x	U.S.DOT Form FHWA-1273	x	SP-Training	x	Civil Rights Special Provisions
	x	Department of Labor Wage Determination		State Aid Special Provisions (SP-SA)		Other
The total	l dolla	r value of the Subcontract or S	Sub-Sub	ocontract is \$	\$14.1	85.65
Signed:		Signature	, this		_ day	of , 19
		Title	_			(Name of Prime Contractor)

The subcontractor whose signature appears below also acknowledges his responsibility under the subcontract for including these clauses in any lower tier subcontract awarded by him (required only for Sub-Subcontracts).

Signed:	,	this	day of	, 19
	Signature			
	Title		(Name of Subcontractor)	

Instructions to Contractor

- 1. Address request to District Engineer having jurisdiction of project.
- 2. Subcontractor's or Sub-Subcontractor's name and address must be the same as shown on the State License.
- 3. Fill in all columns using Contract Item Numbers and Contract Items as shown in the Contract. Use column headed "Split Item Unit Price" only if splitting of items is allowed.
- 4. Contact Resident Engineer for information concerning permissible bid item splitting and determination of "Split Item Unit Price." When splitting an item, including a specialty item, a description of work being split out of the item must appear in the column headed "Contract Item."
- 5. When "Specialty Items" are listed, or when using form ITD-315 for a Sub-Subcontract, leave blank all total and percentage lines below "Sub-Subcontract or Specialty Item Total" line.
- 6. Carry percentages to two decimal places. Be sure your figures are accurate before submitting request.
- 7. If the Prime Contractor is requesting to subcontract, check the box next to "Subcontract." If the Subcontractor is requesting to Sub-Subcontract, check the box next to "Sub-Subcontract."
- Check DBE box only if Subcontractor or Sub-Subcontractor is certified as a DBE with the Idaho Transportation Department. If DBE goals have not already been met, the good faith effort to obtain DBE participation must accompany this subcontract request.
- 9. Complete "Contractor's Statement and Acknowledgment" section.
- 10. All copies of all "Requests to Subcontract or Sub-Subcontract" must be signed and submitted by the Prime Contractor. Submit original and one copy through the Resident Engineer.

Figure 108.01.3b

108.02 Contract Time. Contract time Starts 20 calendar days after contract award or as stated in the bid proposal. No work shall begin on the project until the contract has been fully executed.

WINCAPS Projects. The specifications for working day contracts require an accounting of elapsed contract time be provided to the Contractor monthly. Prepare the <u>ITD-2242</u>, Elapsed Time and Work Status Statement, for this purpose on all WINCAPS projects. This form should also be used for time accounting on a calendar day or fixed completion date project to account for work suspensions that may have occurred. The Contractor must sign the ITD-2242 and return it to the Engineer.

An ITD-2242 must be completed for every month of the project, beginning with the month containing the starting date as set in the Notice of Award or the month work is started, whichever represents the earliest date. When the entire project is suspended or being carried through a non-chargeable time period (e.g., winter months), the ITD-2242 does not need to be completed, but the reason for no work must be noted. Where days are not charged, explain clearly in the space provided. (See Figure 108.02.1)

During winter suspensions, supplement the ITD-2242 with a statement specifying what measures the Contractor should take to protect the work during the suspension period. (See <u>ITD Standard</u> <u>Specifications For Highway Construction (SSHC) 107.11</u>.)

If work is remaining by state forces and/or local public agency forces after contract completion of a project, the final contract ITD-2242 must include a note concerning the status or planned completion of the non-contract part of work remaining. When state or local forces accomplish the pending work, complete the <u>ITD-1996</u>, Final Inspection and Review of Final Estimate and Records form.

A copy of the ITD-2242 must be sent to FHWA on FHWA Projects of Interest.

108

WORKING DAY CONTRACT WITH LIQUIDATED DAMAGES

		ime and \ aho Transpo			s Statement	t	I	TD 2242 (Rev. 1	
Date Con	tractor					Report Num	nber	Final	
01/01/2014 Jon		4							
				k Authority Location					
A111(1*		P123456							
Type of Time 🛛 Wo		endar Days			pletion Date				
Contract Award Date	Date Work Commenced 07/06/2011	on This Projec	t		d of Time Covered 09/15/2011	To 10/1			
03/20/2011	07700/2011			FIOI	109/10/2011	10 10/1	1120	11	
Contract Time Acco	unting								
			Da	ays Al	lowed (Contrac	ct)	_	55	
			Da	ay Adj	justments (Cha	inge Order	-)	14	
			Тс	otal Da	ays Allowed			69	
Fotal Days Possible		12	_						
Total Days Not Charg	Contraction of the second states of the	3	- 0						
Fotal Days Charged		9							
Days Previously Cha	rged	61							
				Total Days Charged to Date				70	
		Date		otal Da	ays Remaining		Date	-1	
⊠ Work has been su	bstantially completed	10/18/2011		⊠ Wo		8/2011			
Percent of Work Com	plete 100 %	Perc	ent of Tim	ne Ela	psed 101.4	%			
Effective Date of Suspe	struction Operations			~					
Reason for Suspension									
Items of Work Suspend	led								
To Resume Cons	truction Operations	Which Were	Suspen	ded					
Effective Date of Resur	nption								
Items of Work Resume	d								
Resident Engineer's Signa	ature								
John Smith PE									
	pt – Return one sign	ed copy to							
Contractor Name			Date	Receiv	ved				
Signature	Title	Title							
f Disagree, Specify Reas	on(s)								
istribution: Public Affa District En			VA (full ove Records Ir		projects only) or Contracto	r (2 copies)			

Page 1 of 1

Figure 108.02.1

SiteManager Projects. Time accounting input is performed in the SiteManager project diaries by either the Project Coordinator or the RE. Time accounting output can be viewed in SiteManager under the project progress estimate located under Contract Payments, Reports, and Estimate Summary by Project. Separate <u>ITD-2242</u>s are not required for SiteManager projects.

108.03 Project Schedule.

General. Unless otherwise specified in the contract, the Contractor is required to provide the Engineer with a Critical Path Method (CPM) Schedule including a time-scaled logic diagram, predecessor and successor report, and bar chart printout at or before the preconstruction conference.

The Engineer will independently review the initial schedule and then meet with the Contractor for a joint review and make necessary corrections and adjustments. The specifications require this meeting take place within 10 calendar days of the initial schedule submission. After this meeting, but within 10 calendar days, the Contractor makes the necessary changes and then resubmits the schedule to the Engineer. Repeat this process, if necessary.

The schedule must show contract milestones, intermediate completion dates, substantial completion date, and the contract completion date.

Should the work progress be discontinued or changed for any reason, the contract specifications require the Contractor to notify the Engineer at least two days in advance of the change in schedule. Throughout the life of the project, the Engineer should verify that activities, durations, and start/finish dates shown on the schedule represent the actual work status.

The Engineer may request a written supplemental schedule if the actual work progress differs significantly from that represented on the schedule. The Contractor must provide the requested supplemental schedule within 7 calendar days and at no additional cost to the Department.

Hold project site progress meetings monthly or as specified to update the schedule. Review progress to verify actual start and finish dates of completed activities, remaining duration, and completion percentage of uncompleted activities, and discuss proposed schedule revisions. It is the Contractor's responsibility to provide the Engineer with activities status at the progress meetings and prepare schedule updates based on this information once it has been verified and agreed upon. Include a written narrative describing the schedule status, the critical path, schedule revisions, and how anticipated weather days have been incorporated with the updated schedule. The Contractor may be required to resubmit the updated schedule if it does not contain the agreed upon information.

The Engineer must have a schedule that accurately represents the progress of work and activities at all times. A current schedule is essential for evaluating contract time adjustment requests and determining how delays, extra work, interruptions, and suspensions, will impact the contract completion date or the Contractor's scheduled completion date for incentive/disincentive contracts. The Engineer may withhold progress payments if the Contractor fails to provide the schedules and updates as provided in <u>SSHC 109.05</u>.

Bar Chart Printout. The Gantt (Bar) chart provides a graphical representation of the project plan that includes the activities that make up the project, estimated activity duration, and the planned activity performance sequence. Total float must be identified as developed from the CPM schedule.

Critical Path Method (CPM) Schedule. A CPM schedule is one that forecasts the amount of time required from project start to finish by arranging project activities in their logical sequence and

calculating possible path lengths through the project. CPM schedules are used to ensure adequate project planning and provide a tool to quickly and accurately evaluate project changes. The CPM schedule may also be used to determine when and what activities need to be accelerated to meet contract milestones and completion dates.

The ITD Standard Specifications require the Contractor to submit one electronic copy and two printed copies of the Time-Scaled Logic Diagram, Predecessor and Successor Report, and a Gantt Chart Printout.

The Time-Scaled Logic Diagram requirements are specified in <u>SSHC 108.03</u>.

The Predecessor and Successor Report should completely define the schedule logic. It will clearly indicate all logical relationships and constraints. This can be complimented with a Program Evaluation and Review Technique (PERT) chart which may graphically show the activity sequence and dependency.

The Gantt Chart Printout must be sorted by activity number and must provide the following information for each activity: activity number, activity description, activity calendar, original duration, remaining duration, percent complete, early or actual start and finish dates, late start and finish dates, and total float.

Schedule Terminology. This section provides an overview of some of the terminology used in the scheduling specifications. It is not intended to provide a complete resource for project scheduling. Refer to CPM and other project scheduling textbooks or guidelines for additional assistance when reviewing and approving schedule submittals.

The schedule calendar defines how many days per week each activity will be performed. There are typically several calendars on each schedule.

A constraint is a restriction imposed on an activity start or finish date. Constraints are usually contractual or resource driven. For example, contract provisions limiting the Contractor's access to the river on a bridge project would be a contractual constraint. Start or finish dates for pile driving, based on crane availability, is an example of a resource constraint. The contract specifications require the Contractor to identify all constraints in the schedule. For CPM schedules, all constraints must be identified in the Predecessor and Successor Report.

On fixed completion date contracts, the contract completion date is specified in the contract. On calendar day contracts, the contract completion date is determined based on the date contract time accounting begins and the number of calendar days allowed for work completion specified in the contract. On working day contracts, the completion date is projected based on the date contract time accounting begins, the number of working days specified, and non-chargeable time (e.g., weekends, holidays, non-chargeable winter months). The projected completion date of a working day contract may change over the life of the project due to unexpected non-chargeable periods(e.g., bad weather).

A milestone is an event that has no schedule duration (e.g., an approval or an interim completion date). Milestones are often set as markers to represent certain progress stages. Contract milestones are targets established by the contract or requirements of the contract and are usually constrained to a specific date.

Total float is defined as the total number of days that a scheduled activity can be delayed without affecting an interim or contract completion date.

Free float is the number of days that an activity can be delayed without delaying the early start of a successor activity, (i.e., an activity that follows the activity in question).

As specified in the contract, float before substantial completion is not for the exclusive use or benefit of either the Contractor or the Department, but is available for use by either party as needed on a first-come, first-served basis. Float after substantial completion is owned by the Contractor and therefore is not available for free consumption by the Department when adjusting Contract Time for changes or excusable delays.

Contract time extensions will not be considered until the available float in the schedule is consumed (see <u>SSHC 108.07</u>). In other words, the Engineer may delay an activity without a contract time extension if the delay is no longer than the available float.

On contracts containing incentive/disincentive provisions, the Engineer may consume float without a contract time adjustment only to the extent that it does not impact the Contractor's scheduled completion date. Once a delay impacts the Contractor's scheduled completion date, a time adjustment must be considered (see SSHC 108.07).

The critical path, at any point in time, is the logical series of activities in a schedule that will take the longest total time to achieve substantial completion. Therefore, at any point in time, the critical path will typically be the path with the least float to substantial completion. The critical path can change as the project changes, and is only defined at a particular point in time. As the project progresses and the schedule updated with the actual activity durations and sequences, the critical path may change. The critical path does not have to have zero float. The critical path is typically located by finding the activity with the least float at each point in time.

For CPM schedules, the contract specifications require the Contractor to clearly identify all logical relationships in the Predecessor and Successor Report. Finish-to-start (FS), start-to-start (SS), and finish-to-finish (FF) are logical relationships between two activities. Any relationship involves two linked activities, a predecessor, and a successor. The start or finish of the predecessor activity controls the start or finish of the successor activity.

When the finish of the predecessor controls the start of the successor, the relationship is known as finish-to-start. An example of an FS relationship would be girder placement following abutment cure. The start of girder placement cannot begin until the finish of abutment cure. Finish-to-start is the most common activity relationship.

When the start of the predecessor controls the start the successor the, relationship is known as a startto-start relationship. When the finish of the predecessor controls the finish of the successor, the relationship is known as a finish-to-finish relationship. An example of SS and FF relationships is excavation for pile driving (predecessor) and pile driving (successor). Excavation must start before pile driving can start (SS), and excavation must finish before pile driving can finish (FF). However, the activities can be going on at the same time. Lag is defined as a delay or offset time in a relationship. For example, if three days of lag is specified for a finish-to-start relationship, the successor activity starts three days after the predecessor finishes. If three days of lag is specified for a start-to-start relationship, the successor starts three days after the predecessor starts. For CPM schedules, the contract specifications require the Contractor to clearly identify all lags in the Predecessor and Successor Report. Lags are not allowed without approval of the Engineer.

Early start is the earliest date an activity can be started after predecessors to the activity are completed. Early finish is the earliest possible date an activity can finish, or the early start date plus the activity duration.

Late start is the last day that an activity can start without delaying the project as a whole or without delaying an interim completion date. The late start date for an activity is the late finish date minus the activity duration.

108.04 Preconstruction and Preoperational Conferences. Soon after the Notice of Award is received in the District, the Engineer will write a letter to the Contractor setting up a preconstruction conference. List the suggested date, time, and place of the preconstruction conference and request date confirmation from the Contractor. The preconstruction conference will usually be held in the District office, but can be held in the Engineer's office or the Contractor's office if more convenient. Provide copies of the letter to the District Engineer, and in the case of FHWA Projects of Interest involvement, the FHWA. Provide copies of the letter to the local sponsor's representative along with copies of the plans and contract from the District Engineer for the sponsor's use and files.

Notify and invite the emergency response agencies (e.g., fire department, law enforcement, emergency medical services) that are responsible for service within project limits. Notify other interested parties (e.g., utility companies, irrigation districts, school districts, US Postal Service). A representative from the Office of Communication should be invited to facilitate preparation of news releases concerning the upcoming construction for those contracts not already involving the Public Involvement Coordinator. At the option of the district, additional specialists may attend (e.g., the District Traffic Engineer if a signalization contract). Also at the district's option, Digline may be invited to participate (1-800-342-1585).

Include in the letter instructions for the Contractor to submit subcontract requests, an initial progress schedule, a list of materials suppliers, and a preliminary <u>WH-5 (Public Works Contract Report)</u> form. The Contractor should provide a list of materials fabricated or manufactured off the project, including the item number and source. If the source is a supply house or distributor, then the origin must also be listed.

If it is known that the Contractor is contemplating a materials source change, the department Archaeologist should be invited.

The Contractor should be prepared to discuss, among other subjects, the progress schedule, the overall project operation plan, requests to subcontract, materials source(s), erosion and pollution control

measures, traffic control plan, and safety program. The Engineer is strongly encouraged to hold the preconstruction meeting before any work begins on the project.

Conduct of Meeting. The District Engineer, Engineering Manager, or the Engineer should moderate the meeting. The Contractor should be represented by the owner or an officer of the firm, the superintendent who will be on the job, representatives of major subcontractors, and anyone else the Contractor wishes to invite.

As soon as possible after bids are opened and before the preconstruction conference, the Engineer should hold a staff meeting with all personnel who will be working on the project. These people should review the contract documents before the meeting and discuss those features that are unclear or confusing. The subjects for discussion are established by the Engineer. However, the Engineer should make it clear the degree of authority and responsibility each member of the staff is to have, who the supervisor of each person is, who may and how to suspend any portion of the work, and remind personnel to review the contract documents. An agenda of items to be discussed with the Contractor at the preconstruction conference should also be prepared and meeting minutes recorded.

Preconstruction Conference Outline. Use the following outline to prepare the agenda to ensure that all appropriate items are considered.

- 1) Conference participants' names, addresses, phone numbers, email addresses.
- 2) Notice of Award date (letter).
- 3) Date for contract time to begin (generally 20 days after the notice of award date).
- 4) CPM schedules.
- 5) Contractor's plan of operation.
- 6) Utilities, including railroads, and utility move status, including operation plan for utility moves and expected completion date. Any conflicts between the utility moves and Contractor's schedule should be identified. The Contractor should advise the Engineer of any problems as soon as apparent. Representatives of the utilities may be excused from the meeting at this point unless they desire to attend the full meeting.
- 7) Coordination between the Department, the Contractor, and the emergency response agencies should be made to best facilitate potential response to and/or through the project (e.g., location of access roads, emergency contact information, temporary accommodations for emergency traffic). Other participants who are not involved in the full meeting should also be heard from at this point to allow them to leave early if they choose to.
- 8) Establish time for notice (<u>SSHC 104.03</u>) to be given before work changes.
- 9) Correspondence to go to Engineer's office (give name and address).
- 10) Correspondence to Contractor (give name and address).

- 11) Subcontracts: Name subcontractor and items to be subcontracted. Submit request to subcontract if at all possible. Requests to subcontract must be approved by the District Engineer before the subcontractor begins work and the Engineer must have signed off on the subcontract itself.
- 12) Name and contact information of Contractor's superintendent.
- 13) Names of Department's project engineer/chief and project inspectors.
- 14) Names of Contractor's people authorized to sign pay estimates and change orders.
- 15) Cutoff date for progress estimate preparation. Determine if there will be one or two estimates per month. Consent of surety for 100% progress payments. Prompt payment to subcontractors including submission of certification of payment forms.
- 16) ITD-2242, Elapsed Time and Work Status Statement: starts, suspensions, and completions.
- 17) Claims: Early discussion of problems to avoid claims. Review claim procedures.
- 18) Materials supplier lists submitted to date. (Is materials supplier list in conformance with DBE plan?) A copy of the materials suppliers list must be sent to the HQ MC Section.
- 19) Discuss items requiring certification (e.g., steel, cement, bearing pads, guardrail).
- 20) Discuss items requiring shop drawings, including time required for Department reviews.
- 21) Discuss catalog data and manufacturer's details where required.
- 22) Partial or complete state-furnished lists given to the Contractor (e.g., pipe, guardrail, signposts, or other) with dates furnished.
- 23) Materials Sources specified:
 - a) Special requirements such as haul roads, access, royalties, archaeological findings, and source reclamation.
 - b) Change of Source: Time required and cost of testing. Archaeological clearance before disturbance.
 - c) Source releases.
- 24) Construction surveying including any staking provided by the Engineer.
- 25) Traffic Control:
 - a) Signing, detours, speed zones, road closures, delays, flagging, piloting, haul operations, bid item payment.
 - b) Names and contact information of Contractor and Engineer's representatives who are responsible for checking traffic control daily, including those responsible for traffic control maintenance after work hours.
 - c) Flagger and project site traffic control supervisor certification requirements.

- 26) Permits: e.g., NPDES, Army Corps of Engineers (404), DEQ, Stream Alteration. Areas of concern: Hot plants, crushers, materials sources, staging areas, waste sites, washing operations, haul routes, erosion control, work in or adjacent to water or wetlands, discovery of underground storage tanks.
 - a) NPDES Review SWPP Plan. If a permit is required, the Contractor, the local agency (if a local project), and the Department (or LHTAC) submit NOIs. No ground-disturbing activities are allowed until all NOIs are posted on the EPA website and the 14-day waiting period is over (refer to <u>SSHC 107.17</u> and CA Manual 107.17 for details).
 - b) Review all other permit requirements in the contract.
 - c) Temporary and permanent erosion control work schedule submission.
 - d) Limitation of disturbance of erodible material.
 - e) Winter shut-down period if applicable.
- 27) Water and Air Pollution: Hot plants, crushers, washing operations, staging areas, waste sites, erosion control, work in or adjacent to water or wetlands, discovery of underground storage tanks.
 - a) Temporary and permanent erosion control work schedule submission.
 - b) Limitation of area of erodible material without approval.
- 28) Safety: Federal Safety & Health Regulations, first-aid training, emergency services, safety equipment, safety meetings, posting emergency phone numbers.
- 29) Labor Compliance:
 - a) Who signs certified payroll?
 - b) Payroll period.
 - c) Employee classifications must be complete (not just group number) copy of code with first payroll.
 - d) One copy of payroll to Engineer within seven days. If no work, <u>WH-347</u> only.
- 30) Bulletin Board Requirements. A list of bulletin board requirements, including links where current required posters can be viewed and downloaded can also be obtained on the ITD external <u>website</u> under "Business-> Click for More Topics->Construction Resources" OR "Inside ITD-> Click for More Topics-> Construction/Materials." http://apps.itd.idaho.gov/apps/manuals/ca/Project Poster Checklist Links.pdf
 - a) Required Federal and State posters
 - b) Emergency phone numbers
 - c) Contractor's EEO policy statement and EEO officer for the project
 - d) Davis-Bacon wage rates.

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- 31) Provide copies of <u>ITD-0086</u>, Contractor EEO Compliance Report and <u>FHWA 1391</u>, Federal-Aid Highway Construction Contractors Annual EEO Report.
- 32) Civil Rights Provisions/EEO Obligations:
 - a) No employment discrimination on the project.
 - b) Policy statements and posters displayed appropriately.
 - c) Obtain letter from Contractor identifying project EEO officer, by name. Place in project file.
 - d) Obtain record of Contractor's meeting with employees (held before work commences) explaining EEO requirements. Place in project file.
 - e) Employment goal for minorities _____, females _____. Contractor compliance is enforced by the U.S. Department of Labor.
 - f) Contractor's employee records indicate race, sex, craft, work status (trainee, apprentice level, helper, or journeyman) and hours worked in each craft. Information should be available in summary form when requested by the Department.
 - g) EEO employment provisions apply to all subcontracts over \$10,000. Provisions must be included in **ALL** contracts.
 - h) The Department may perform compliance review. The U.S. Department of Labor may also perform independent compliance reviews.
 - Penalties for noncompliance include withheld payments, declaring the Contractor ineligible to bid for one year, suspending the contract until compliance is obtained, terminating the contract or assessment of administrative penalties in an amount equal to 10 percent of the contract or \$7,700, whichever is less.
 - j) Contractor submits <u>FHWA 1391</u> in July.

33) Training Special Provisions:

- A primary purpose of the program is to train minorities and women in highway construction crafts in which they are underrepresented. The program also assists the Contractor in meeting EEO goals. The Contractor will be reimbursed \$0.80 per hour of training under approved program.
- b) Contract requires ______slots; each slot = _____hours, project specific as specified in the Training Special Provisions.
- c) Training program and trainees/apprentices have to be approved by the Engineer.
- d) The Contractor can request to use additional trainees with reimbursement, but must maintain the required ratio of journeymen to apprentices/trainees. The Contractor may also assign positions to subcontractor, if approved. (Number of positions specified in contract relates to contract, not the Contractor.)
- e) The Contractor provides trainee/apprentice certificate at training completion.

- f) Trainees/apprentices must be identified on payrolls.
- 34) DBE Obligations
 - a) Contract requires _____% be subcontracted to DBE(s).
 - b) Contractor must use DBE(s) identified on the <u>ITD-2396</u> form. If designated DBE(s) are unable or unwilling to perform, the Contractor will proactively reestablish DBE participation at a level to meet the original contract goal or demonstrate a good faith effort to do so.
 - c) Revised DBE participation plans must be accepted and approved by the Engineer and the EEO Contract Compliance Officer.
 - d) Sanctions for failure to meet goal(s) or perform good faith effort include withheld payments, suspension, termination of the contract, or assessment of administrative penalties per the ITD Disadvantaged Business Enterprise Plan, Section VII.D
 (http://apps.itd.idaho.gov/apps/ocr/civil/pdf/dbeplan.pdf).
 - e) DBE(s) must perform a commercially useful function (CUF). Failure of DBE(s) to perform a CUF will result in reduction of amount creditable toward prime Contractor's goal. An <u>ITD-1701</u> form must be completed for projects whether or not they have a specified DBE goal.
- 35) Work acceptance, approval, and payment of.
- 36) Policy prohibiting gratuities.
- 37) Discuss any questions involving clarification of the plans, specifications, special provisions, or other project-related concerns.
- 38) Discuss qualification requirements for samplers/testers and laboratories, including field labs.

Preconstruction Conference Meeting Minutes. A qualified note keeper should be used at the meeting to record the discussion as verbatim as possible. After the notes are reviewed, prepare a report to itemize the major points of discussion. The conference moderator and Engineer will review the narrative report and finalize it in written form for the Engineer's signature. Send copies to the following:

- Contractor (2)
- District Engineer
- Engineer
- Local Sponsor, if applicable.

A cover letter to the Contractor should accompany the report and contain the following wording:

"Enclosed for your review is a copy of the minutes and attendance sheet from the Preconstruction conference. Please notify this office within 10 days if there are additions or corrections. If we do not hear from you, the attached minutes will become part of the project record." **Pre-Operational Meetings.** Pre-operational meetings with the Contractor are sometimes a contract requirement. The Engineer should consider conducting pre-operational meetings, even when not a contract requirement, just before the start of major or complex construction operations on a project.

Hold the pre-operational conference onsite just before the Contractor begins work to discuss construction procedures, personnel, material, and equipment (including trucking) to be used and other pertinent elements (e.g., impacts to the traffic control plan). Those attending should include:

- Contractor representatives: the project manager, the superintendent, and other onsite supervisors and foremen in charge.
- Department District representatives: the Engineer, the project coordinator, the project inspector, and key inspection personnel. Attendance by the project designer(s), including consultants, should also be considered when warranted.
- Department Headquarters representatives: Bridge (whenever a structure is involved). Consider attendance by representatives of Construction/Materials, Environmental, and Design/Traffic when warranted.
- If the Contractor's key personnel changes or if the Contractor proposes a significant operations revision, an additional conference to discuss the changes should be held before further work is performed.

108.07 Extension of Contract Time

Substantially Complete. Whether the contract time is on a working day, calendar, or completion date basis, time will cease to be counted after the project is substantially complete. See <u>SSHC 101.04</u> for the definition of substantially complete. The fact that the project is substantially complete must be evidenced in writing by the Engineer on the <u>ITD-2242</u> Elapsed Time and Work Status Statement.

Restart time counting if the Contractor does not diligently continue to bring the project to completion. The Contractor should be advised by an <u>ITD-2055</u>, Avoid Verbal Order on the date time count will start.

When changes or extra work are to be performed after substantial completion, specify a method of time accounting to control the work duration in the change order. Time added after substantial completion is not subject to the time extension change order approval authority requirements in <u>Table 104.02.1</u> in the 104 section of the CA Manual.

In similar manner, specify liquidated damages on the change order for work added after substantial completion. The liquidated damages associated with the change-order work may be less than the liquidated damages stated in the contract, depending on the value of the added work. Assess the liquidated damages amount for work added after substantial completion in accordance with <u>460.02 of the Roadway Design Manual</u>.

Work Suspension and Resumption. The Engineer has the authority to suspend work for any condition or reason considered to be in the Department's interest as provided in <u>SSHC 105.01</u>.

Contract Time Extension. The contract specifies what the Contractor is to submit in its request for a time extension.

Time extension requests from the Contractor must be in writing and directed to the Engineer. Requests must meet the requirements of <u>SSHC 108.07.A</u> in order to be considered. Time extensions must be authorized by change order.

108.08 Failure to Complete on Time. When a change order is initiated, contract time must be addressed through a schedule analysis. As events occur on a project that requires contract time to be adjusted, a review of the current project schedule is normally required.

When the Engineer does not adjust contract time, for contract changes or events which affect contract time, the Contractor must follow <u>SSHC 108.07</u>, Extension of Contract Time, to provide notice and submit a request and analysis for a contract time adjustment.

When the contract time expires, liquidated damages are to be charged on a working day basis for those days required to substantially complete the contract. The Engineer will retain the liquidated damages amount from subsequent progress payments.

For contracts that include an accelerated project completion clause (incentive/disincentive, or A + B), the Engineer will retain the disincentive amount from subsequent progress estimates.

For each of the issues described in this section, the Engineer should immediately notify the Contractor that any liquidated damages and/or disincentives incurred will be retained from future progress estimates.

Change orders initiated after the project is substantially complete should clearly identify that any additional days provided by the change order will apply only to the work identified in the change order.

108.09 Default and Termination of Contract. Districts contemplating termination of construction contracts through default of the contract should contact and discuss with Legal before implementing the contract termination process.

108.10 Termination for Convenience of the Department. Districts contemplating termination of construction contracts for the convenience of the Department should contact and discuss with Legal before implementing the contract termination process.