MILLER CONSTRUCTION, INC.

P.O. BOX 86 ASCUTNEY BLVD WINDSOR, VERMONT 05089-0086
TELEPHONE (802) 674-5525 / FAX (802) 674-5245

TRANSMITTAL

TO: Kristin M. Higgins, PE Project Manager Vermont Agency of Transportation	DATE	PROJECT NO.
	6/4/2014	Barnard ER BRF 0241 (39)

XX WE ENCLOSE THE FOLLOWING: _____ UNDER SEPARATE COVER WE ARE SENDING THE FOLLOWING

COPIES	NUMBER	DESCRIPTION	CODE
1		Schedule Narrative - Rev 5 - June	H
1		Schedule Dated 06/04/14	H

CODE:

A FOR INITIAL APPROVAL
B FOR FINAL APPROVAL
C APPROVED AS NOTED-RESUBMISSION REQUIRED
D APPROVED AS NOTED-RESUBMISSION NOT REQUIRED
E DISAPPROVED-RESUBMIT
F QUOTATION REQUESTED
G APPROVED
H FOR APPROVAL
I AS REQUESTED OR REQUIRED
J FOR USE IN ERECTION
K LETTER FOLLOWS
L FOR FIELD CHECK
M FOR YOUR USE

BY: Paul [illegible]

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06/04/14

Barnard ER BRF 0241 (39) – Schedule Narrative – Revision 5

Project Overview:
The Barnard ER BRF 0241 (39) Project involves the replacement of Bridge 25 with related approach and channel work. The project location is in the Town of Barnard, VT on Vermont Route 12, beginning at Mile Post 7.0195 and ending at Mile Post 7.0535. The new structure will be approximately 88 feet in length with 97 feet of roadway work.

The intent of the Project is to have the bridge closure period (BCP) be as short a duration as possible. The allowable BCP is 28 consecutive calendar days. During the BCP, work will be allowed on the bridge 24 hours per day, 7 days per week, including holiday periods.

The Contract Completion Date is August 29, 2014. The BCP shall begin on or after June 20, 2014.

Monthly Updates:
Work performed during the previous Monthly Period is as follows:

Re-Submission of Precast Structure Erection Plan – 5/7/14
Setup of Engineer's Office Trailer – 5/7/14 – 5/23/14
Line Striping of North Road Detour – 5/8/14
Pre-Installation of Detour Signage – 5/12/14 – 5/14/14
Installation of PDF and Silt Fence – 5/13/14 – 5/14/14
Approval of CPM Schedule Update: May – 5/14/14
Approval of Precast Structure Erection Plan – 5/14/14
Submission of CPM Schedule Update: June – 6/4/14

Schedule:
The Miller Construction, Inc. approach in preparing the Preliminary Project Baseline Schedule is to sequence activities as logically and efficiently as possible. All activities comprise of basic bridge building concepts with finish-start relationships.

Pre-Construction:
Pre-Construction activities include the submission and subsequent approval of all required submittals. There are (12) twelve required submittals for the project and status of each is as follows:

CPM Schedule Software Request – Approved
Bearing Device Assembly – Approved
Rail Box Beam – Approved
CPM Schedule – Approved
Precast Structure Design – Approved
EPSC Plan – Approved

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Reinforcing Steel – Approved
Traffic Control Plan – Approved
HPC Rapid Set Mix – Approved
Piling Information / WEAP – Approved
Lighting Plan – Approved
Precast Structure Erection Plan – Approved

Pre-Construction activities also include the procurement of material. The status of material with significant lead time is as follows:

Bearing Device Assembly – Stockpiled at Miller Construction, Inc.
Piling – Stockpiled at Miller Construction, Inc.
Bridge & Approach Rail – Ordered and will be stockpiled at F.R. Lafayette
Level II Reinforcing Steel – Stockpiled at Miller Construction, Inc.
Precast Concrete – Stockpiled at J.P. Carrara & Sons, Inc.

A potential conflict that exists is the cost of stockpiling material. Due to the short duration of the project, material must be on hand well before the start of construction. Because stockpile payments are not allowed for items with Contract bid amount less than $25,000, several items (Piling, Bearing Device Assembly, Reinforcing Steel, and certain Rail Items) must be paid for up front by Miller Construction Inc. with no payment for said items being received until the months of July and August. Additionally, no Raw Material Stockpile Payment or exception to the 75% Cap on Stockpiled Materials has been authorized for the project.

Pre-Construction activities also include the submission and subsequent approval of all proposed subcontracts. Currently, all anticipated subcontracts for the project have been submitted and approved.

Pre-Closure:
Pre-Closure activities include the Resident Engineer's trailer setup, building inspection of the property located at 8354 VT Rt. 107/12, detour signage installation, and equipment mobilization.

Resident Engineer's Trailer Setup:
The Engineer's Trailer is currently set up with Power, Phone, and Internet.

Building Inspection:
Continental Placer, Inc. will perform a building inspection of the property located at 8354 VT Rt. 12/107 prior to the BCP.

Detour Signage Installation:
Detour signage is installed and covered. Covers shall remain in place until Route 12 is closed and the detour is opened.

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Equipment Mobilization:
Other projects and commitments have been scheduled so that maintenance and mobilization of equipment can occur during the second week in June.

Closure:
Closure activities include the removal of the existing temporary bridge and subsequent construction of the new structure. All work up to, and including the membrane, base course of pavement on the approaches, and line striping targets is required to open the bridge to two-way traffic.

One potential conflict that exists is the piling operation. It is assumed that piles can be driven unobstructed to the required minimum tolerance, depth, and resistance. Piling falls on the critical path, so any unforeseen issues and/or inefficiencies will be detrimental to schedule and to the project.

A second potential conflict that exists is weather. As with any project, it is possible to experience conditions to include, but not limited to, extreme heat, rain, flood, and wind. The contract states that that the BCP is absolutely fixed and will not be changed for any Act of God, omission, improper action, direction of the Engineer, or any other reason unless done so by the Secretary and only under extreme conditions as determined by the Secretary. Every effort shall be made to work though extreme conditions in a safe and productive manner.

Post-Closure:
Post-Closure activities include the removal of the detour signage and traffic control devices, demobilization, and subsequent removal of the Engineer's Trailer.

All contract items may not be complete at the time of releasing traffic onto Route 12. Such remaining items include, but are not limited to, final pavement, line striping, and site reclamation. If required, such work shall be performed with full time, certified flaggers and the schedule adjusted accordingly.

Resources:
It is assumed that two crews will be working extended hours over a seven-day workweek during the BCP. At this time, no night work is anticipated, but it shall be implemented should it be deemed necessary.

Crew fatigue is a major concern for the project. Safety and productivity will need to be monitored on a continuous basis and crew adjustments made accordingly.

Duration Justification:
Channel Excavation and Stone Fill activities exceed the 12 Hr. task limit during the BCP. None of these activities with the exception of work at Abutment 1 within the bridge limit fall on the Critical Path. All efforts shall be made to expedite the Stone Fill activity at Abutment 1.

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Removing Rail & Deck and Hauling of the Temporary Bridge both exceed the 12 Hr. task limit during the BCP. The hauling operation is independent of all other activities after the removal of the Temporary Bridge but falls on the Critical Path because it takes resources away from the project. Should it negatively affect the schedule, bridge components shall be stored and then hauled after the BCP has ended.

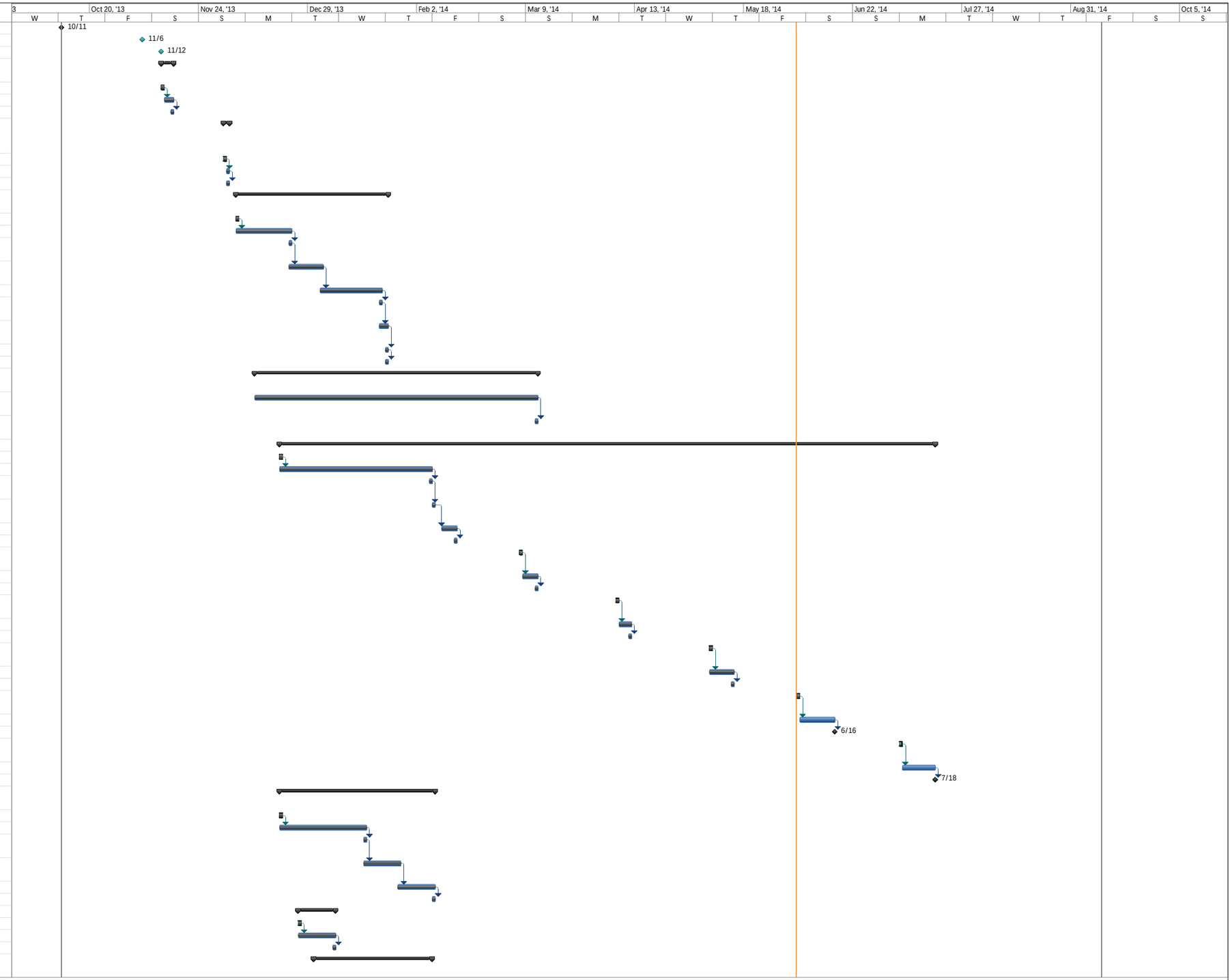
Forming of the Backwalls exceeds the 12 Hr. task limit during the BCP. Formwork around the NEXT Beam stems account for the long duration. All efforts shall be made to prefabricate forms in order to expedite the activity.

Critical Path:
The Critical Path task bars are colored red, and Critical Path items highlighted yellow.

Milestone Dates are as follows:
10/11/13 Bid Date
11/06/13 Date of Contract
11/12/13 Notice to Proceed
02/19/14 Pre-Construction Meeting
06/20/14 Begin BCP
07/09/14 Superstructure Set
07/18/14 End BCP
08/28/14 Project Completion

BCP duration is 28 consecutive calendar days.

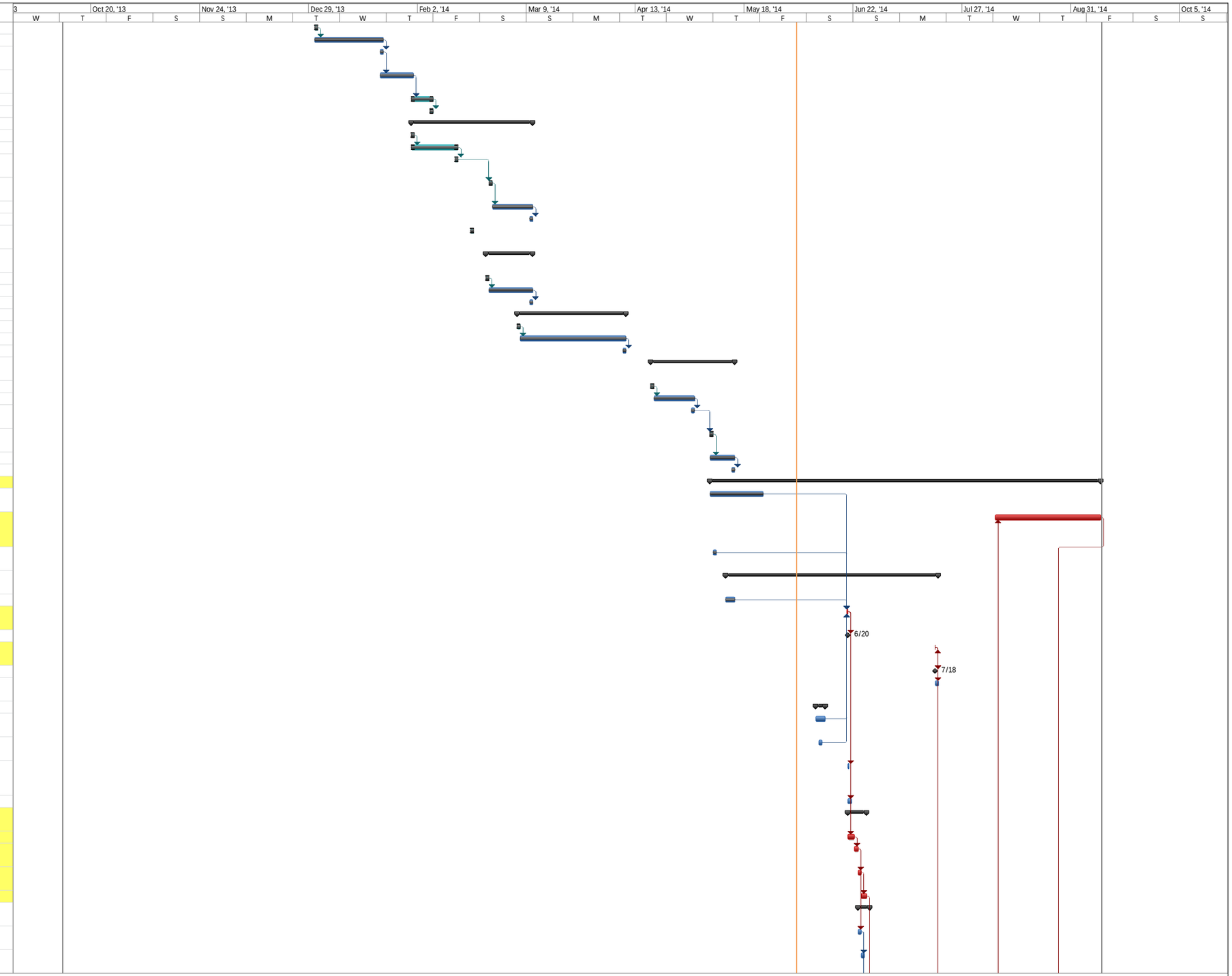
ID		Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	✓		Bid Date	0 days	Fri 10/11/13	Fri 10/11/13		
2	✓		Date of Contract	0 days	Wed 11/6/13	Wed 11/6/13		
3	✓		Notice to Proceed	0 days	Tue 11/12/13	Tue 11/12/13		
5	✓		CPM Schedule Software Request	4 days	Tue 11/12/13	Fri 11/15/13		
6	✓		Submit for Approval	1 day	Tue 11/12/13	Tue 11/12/13		
7	✓		Review Period	3 days	Wed 11/13/13	Fri 11/15/13	6	
8	✓		Return Approval	1 day	Fri 11/15/13	Fri 11/15/13	7	
9	✓		Bearing Device Assembly Shop Drawings	2 days	Mon 12/2/13	Tue 12/3/13		
10	✓		Submit for Approval	1 day	Mon 12/2/13	Mon 12/2/13		
11	✓		Review Period	1 day	Tue 12/3/13	Tue 12/3/13	10	
12	✓		Return Approval	1 day	Tue 12/3/13	Tue 12/3/13	11	
13	✓		Bridge and Approach Rail Shop Drawings	45.15 days	Fri 12/6/13	Thu 1/23/14		
14	✓		Submit for Approval	1 day	Fri 12/6/13	Fri 12/6/13		
15	✓		Review Period	16.35 days	Fri 12/6/13	Mon 12/23/13	14	
16	✓		Return Revise & Re-Submit	1 day	Mon 12/23/13	Mon 12/23/13	15	
17	✓		Submit Rev 1 for Approval	10.45 days	Mon 12/23/13	Thu 1/2/14	16	
18	✓		Review Period	18.35 days	Thu 1/2/14	Tue 1/21/14	17	
19	✓		Return Revise & Re-Submit	1 day	Tue 1/21/14	Tue 1/21/14	18	
20	✓		Submit Rev 2 for Approval	3 days	Tue 1/21/14	Thu 1/23/14	19	
21	✓		Review Period	1 day	Thu 1/23/14	Thu 1/23/14	20	
22	✓		Return Approval	1 day	Thu 1/23/14	Thu 1/23/14	21	
70	✓		HPC Rapid Set Mix Design	83.85 days	Thu 12/12/13	Wed 3/12/14		
71	✓		Trial Batch / Testing	83.85 days	Thu 12/12/13	Wed 3/12/14		
72	✓		Mix Design Approval	1 day	Wed 3/12/14	Wed 3/12/14	71	
23			CPM Schedule Submittal	194.05 days	Fri 12/20/13	Fri 7/18/14		
24	✓		Submit for Approval	1 day	Fri 12/20/13	Fri 12/20/13		
25	✓		Review Period	45.15 days	Fri 12/20/13	Thu 2/6/14	24	
26	✓		Return Revise & Re-Submit	1 day	Thu 2/6/14	Thu 2/6/14	25	
27	✓		Submit Rev 1 for Approval	1 day	Fri 2/7/14	Fri 2/7/14	26	
28	✓		Review Period	5 days	Mon 2/10/14	Fri 2/14/14	27	
29	✓		Return Approval	1 day	Fri 2/14/14	Fri 2/14/14	28	
30	✓		Submit Rev 2 for Approval - March	1 day	Fri 3/7/14	Fri 3/7/14		
31	✓		Review Period	4.45 days	Sat 3/8/14	Wed 3/12/14	30	
32	✓		Return Approval	1 day	Wed 3/12/14	Wed 3/12/14	31	
33	✓		Submit Rev 3 for Approval - April	1 day	Mon 4/7/14	Mon 4/7/14		
34	✓		Review Period	4 days	Tue 4/8/14	Fri 4/11/14	33	
35	✓		Return Approval	1 day	Fri 4/11/14	Fri 4/11/14	34	
36	✓		Submit Rev 4 for Approval - May	1 day	Wed 5/7/14	Wed 5/7/14		
37	✓		Review Period	7.45 days	Wed 5/7/14	Wed 5/14/14	36	
38	✓		Return Approval	1 day	Wed 5/14/14	Wed 5/14/14	37	
39	✓		Submit Rev 5 for Approval - June	1 day	Wed 6/4/14	Wed 6/4/14		
40			Review Period	10 days	Thu 6/5/14	Mon 6/16/14	39	
41			Return Approval	0 days	Mon 6/16/14	Mon 6/16/14	40	
42			Submit Rev 6 for Approval - July	1 day	Mon 7/7/14	Mon 7/7/14		
43			Review Period	10 days	Tue 7/8/14	Fri 7/18/14	42	
44			Return Approval	0 days	Fri 7/18/14	Fri 7/18/14	43	
45	✓		Precast Detail and Design Submittal	46.15 days	Fri 12/20/13	Fri 2/7/14		
46	✓		Submit for Approval	1 day	Fri 12/20/13	Fri 12/20/13		
47	✓		Review Period	25.8 days	Fri 12/20/13	Thu 1/16/14	46	
48	✓		Return Revise & Re-Submit	1 day	Thu 1/16/14	Thu 1/16/14	47	
49	✓		Submit Rev 1 for Approval	10.9 days	Thu 1/16/14	Mon 1/27/14	48	
50	✓		Review Period	11.45 days	Mon 1/27/14	Fri 2/7/14	49	
51	✓		Return Approval	1 day	Fri 2/7/14	Fri 2/7/14	50	
52	✓		EPSC Plan Submittal	10.9 days	Thu 12/26/13	Mon 1/6/14		
53	✓		Submit for Approval	1 day	Thu 12/26/13	Thu 12/26/13		
54	✓		Review Period	10.9 days	Thu 12/26/13	Mon 1/6/14	53	
55	✓		Return Approved	1 day	Mon 1/6/14	Mon 1/6/14	54	
56	✓		Reinforcing Steel Submittal	35.25 days	Tue 12/31/13	Thu 2/6/14		



Project: Barnard ER BRF 0241 (39
Date: Wed 6/4/14

Task | Milestone | Project Summary | External Milestone | Inactive Milestone | Manual Task | Manual Summary Rollup | Start-only | Deadline | Critical Split
Split | Summary | External Tasks | Inactive Task | Inactive Summary | Duration-only | Manual Summary | Finish-only | Critical | Progress

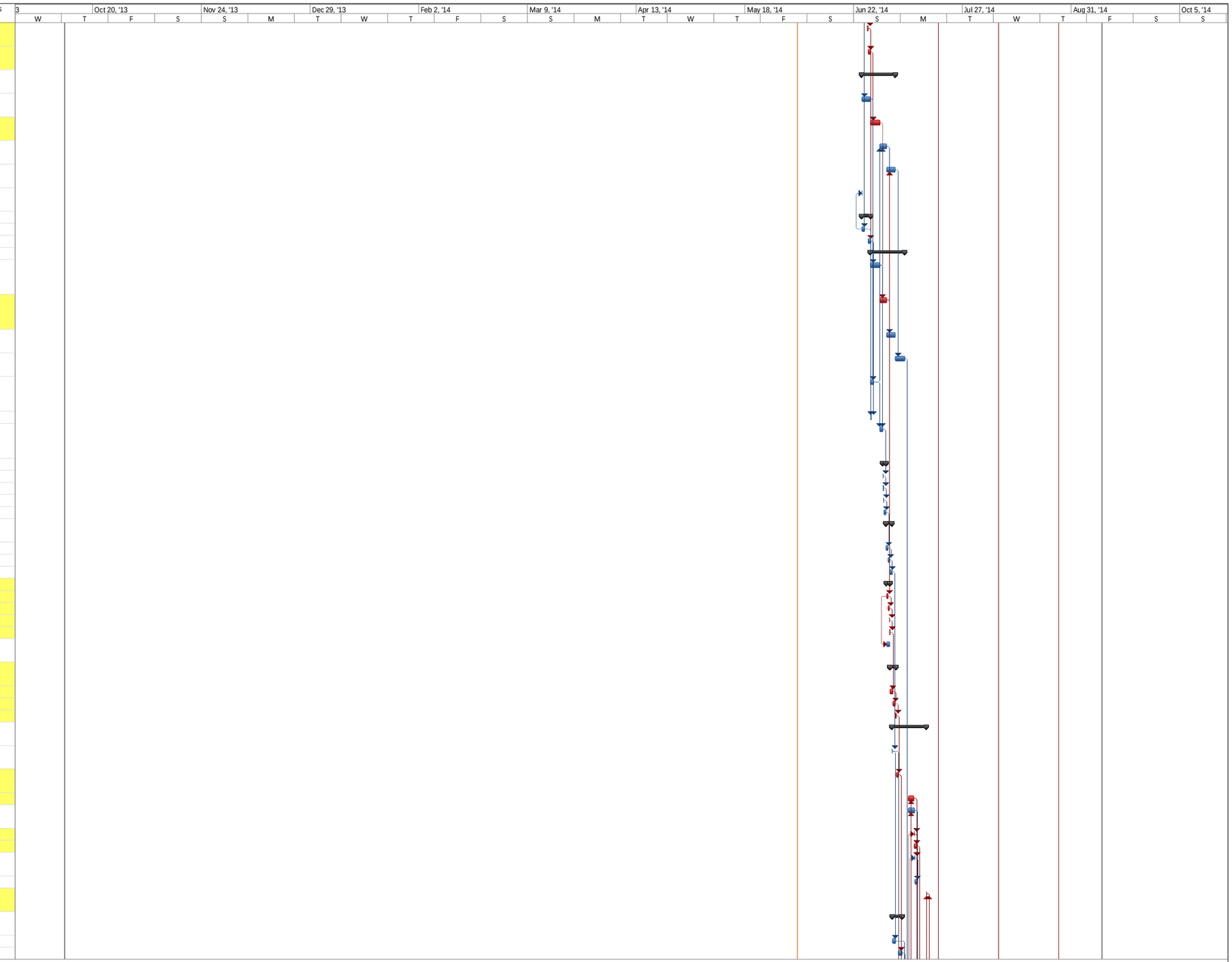
ID		Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
57	✓		Submit for Approval	1 day	Tue 12/31/13	Tue 12/31/13		
58	✓		Review Period	20.35 days	Tue 12/31/13	Tue 1/21/14	57	
59	✓		Return Revise & Re-Submit	1 day	Tue 1/21/14	Tue 1/21/14	58	
60	✓		Submit Rev 1 for Approval	10.35 days	Tue 1/21/14	Fri 1/31/14	59	
61	✓		Review Period	6.45 days	Fri 1/31/14	Thu 2/6/14	60	
62	✓		Return Approval	1 day	Thu 2/6/14	Thu 2/6/14	61	
63	✓		Traffic Control Submittal	35.7 days	Fri 1/31/14	Mon 3/10/14		
64	✓		Submit for Approval	1 day	Fri 1/31/14	Fri 1/31/14		
65	✓		Review Period	13.9 days	Fri 1/31/14	Fri 2/14/14	64	
66	✓		Return Revise & Re-Submit	1 day	Fri 2/14/14	Fri 2/14/14	65	
67	✓		Submit Rev 1 for Approval	1 day	Tue 2/25/14	Tue 2/25/14	66	
68	✓		Review Period	11.9 days	Wed 2/26/14	Mon 3/10/14	67	
69	✓		Return Approval	1 day	Mon 3/10/14	Mon 3/10/14	68	
4	✓		Pre-Contruction Meeting	1 day	Wed 2/19/14	Wed 2/19/14		
73	✓		Piling Information Submittal	13.9 days	Mon 2/24/14	Mon 3/10/14		
74	✓		Submit for Approval	1 day	Mon 2/24/14	Mon 2/24/14		
75	✓		Review Period	12.9 days	Tue 2/25/14	Mon 3/10/14	74	
76	✓		Return Approval	1 day	Mon 3/10/14	Mon 3/10/14	75	
77	✓		Lighting Plan Submittal	32.25 days	Thu 3/6/14	Wed 4/9/14		
78	✓		Submit for Approval	1 day	Thu 3/6/14	Thu 3/6/14		
79	✓		Review Period	31.25 days	Fri 3/7/14	Wed 4/9/14	78	
80	✓		Return Approval	1 day	Wed 4/9/14	Wed 4/9/14	79	
81	✓		Precast Erection Plan Submittal	24.8 days?	Fri 4/18/14	Wed 5/14/14		
82	✓		Submit for Approval	1 day	Fri 4/18/14	Fri 4/18/14		
83	✓		Review Period	11.9 days	Sat 4/19/14	Thu 5/1/14	82	
84	✓		Return Revise & Re-Submit	1 day	Thu 5/1/14	Thu 5/1/14	83	
85	✓		Submit Rev 1 for Approval	1 day	Wed 5/7/14	Wed 5/7/14	84	
86	✓		Review Period	7.45 days	Wed 5/7/14	Wed 5/14/14	85	
87	✓		Return Approval	1 day?	Wed 5/14/14	Wed 5/14/14	86	
161			Field Office, Engineers	115.7 days	Wed 5/7/14	Tue 9/9/14		
162	✓		Set up Engineer's Trailer	15.9 days	Wed 5/7/14	Fri 5/23/14		
163			Breakdown and Removal of Engineer's Trailer	31 days	Wed 8/6/14	Tue 9/9/14	167	
170	✓		4 Inch Yellow Line - Detour	10 hrs	Thu 5/8/14	Thu 5/8/14		
199			Traffic Control, All-Inclusive	63.25 days	Mon 5/12/14	Sat 7/19/14		
200	✓		Set up Detour Signage	3 days	Mon 5/12/14	Wed 5/14/14		
202			Close VT12/Open Detour	1 hr	Fri 6/20/14	Fri 6/20/14	200,162,166,17(	
201			Bridge Closed	0 days	Fri 6/20/14	Fri 6/20/14	202	
203			Open VT12/Close Detour	1 hr	Fri 7/18/14	Fri 7/18/14	168	
204			Bridge Open	0 days	Fri 7/18/14	Fri 7/18/14	203	
205			Remove Detour Signage	1 day	Fri 7/18/14	Sat 7/19/14	203	
164			Mobilization	3 days	Tue 6/10/14	Thu 6/12/14		
166			Mobilize Equipment and Job Trailer	3 days	Tue 6/10/14	Thu 6/12/14		
165			Building Inspection - 8354 VT Rte. 107/12	1 day	Wed 6/11/14	Wed 6/11/14		
88			Clearing and Grubbing, Including Individual Trees and Stumps	8 hrs	Fri 6/20/14	Fri 6/20/14	202	
172			EPSC Plan	15 hrs	Fri 6/20/14	Sat 6/21/14	202	
194			Removal of Temporary Bridge and Approaches	5.5 days	Fri 6/20/14	Thu 6/26/14		
195			Remove Rail & Deck	20 hrs	Fri 6/20/14	Sun 6/22/14	202	
196			Delaunch Temp. Bridge	10 hrs	Sun 6/22/14	Mon 6/23/14	195	
197			Dismantle Temp. Bridge	10 hrs	Mon 6/23/14	Tue 6/24/14	196	
198			Haul Temp. Bridge	15 hrs	Tue 6/24/14	Thu 6/26/14	197	
126			Partial Removal of Structure	3.5 days	Mon 6/23/14	Fri 6/27/14		
127			Demo Existing Abutment 2	10 hrs	Mon 6/23/14	Tue 6/24/14	196	
128			Haul Existing Abutment 2 Rubble	10 hrs	Tue 6/24/14	Wed 6/25/14	127	



Project: Barnard ER BRF 0241 (39
Date: Wed 6/4/14

Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Deadline | Critical | Critical Split | Progress

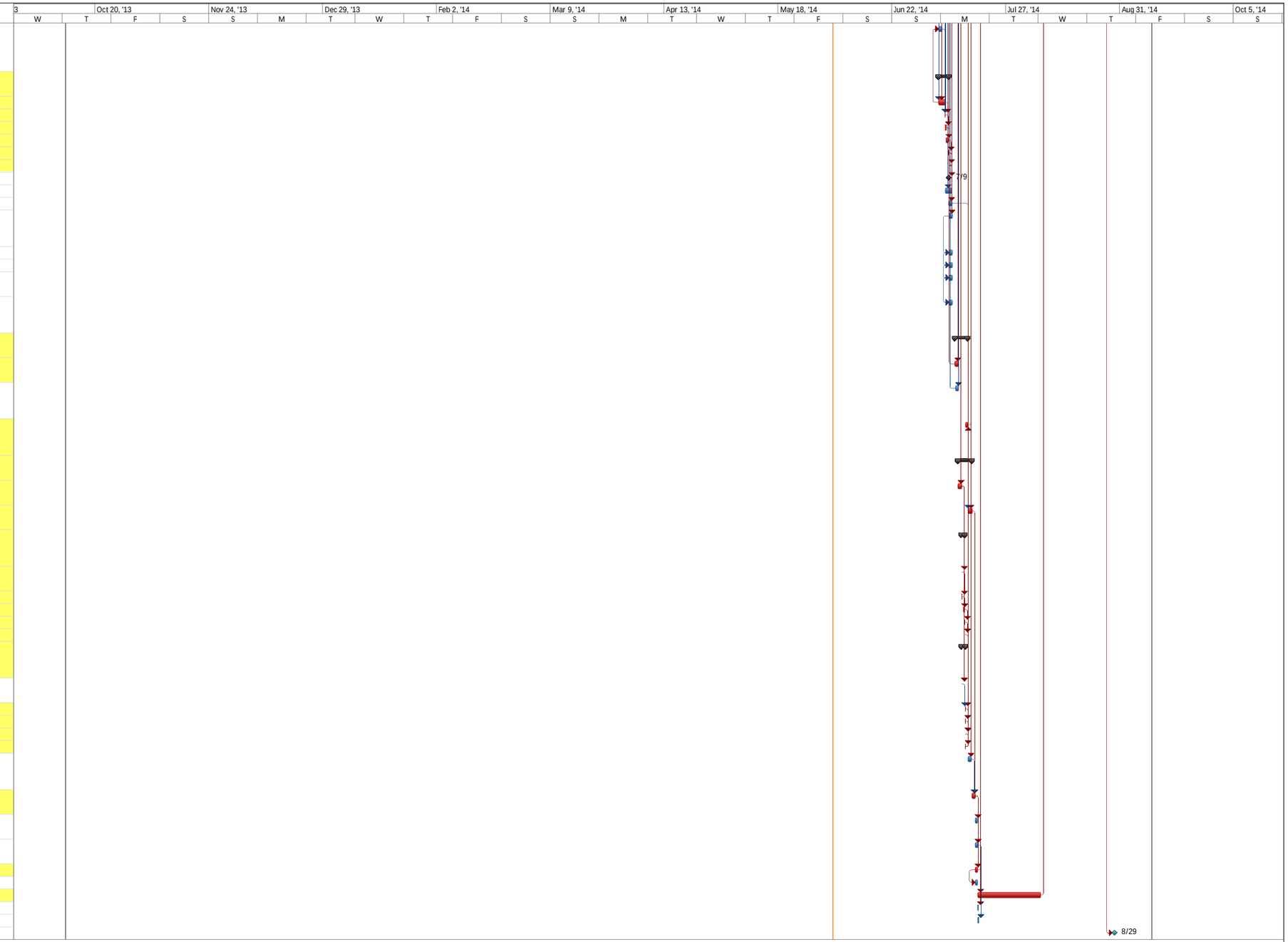
ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
129		Demo Existing Abutment 1	5 hrs	Thu 6/26/14	Thu 6/26/14	198	
130		Haul Existing Abutment 1 Rubble	5 hrs	Thu 6/26/14	Fri 6/27/14	129	
91		Unclassified Channel Excavation	10 days	Tue 6/24/14	Sat 7/5/14		
92		Abutment 2 within Bridge Limits	25 hrs	Tue 6/24/14	Fri 6/27/14	127	
93		Abutment 1 within Bridge Limits	25 hrs	Fri 6/27/14	Mon 6/30/14	130	
94		Abutment 2 Outside Bridge Limits	25 hrs	Mon 6/30/14	Wed 7/2/14	184,153	
95		Abutment 1 Outside Bridge Limits	25 hrs	Wed 7/2/14	Sat 7/5/14	154	
96		Trench Excavation of Earth	2 hrs	Tue 6/24/14	Tue 6/24/14	98SS	
97		Structure Excavation	2.8 days	Tue 6/24/14	Fri 6/27/14		
98		Abutment 2	8 hrs	Tue 6/24/14	Wed 6/25/14	127	
99		Abutment 1	8 hrs	Thu 6/26/14	Fri 6/27/14	129	
152		Stone Fill, Type IV	10 days	Fri 6/27/14	Tue 7/8/14		
153		Abutment 2 to Elev. 870.00 within Bridge Limits	25 hrs	Fri 6/27/14	Mon 6/30/14	92	
154		Abutment 1 to Elev. 875.00 within Bridge Limits	25 hrs	Mon 6/30/14	Wed 7/2/14	93	
155		Abutment 2 Outside Bridge Limits	25 hrs	Wed 7/2/14	Sat 7/5/14	94	
156		Abutment 1 Outside Bridge Limits	25 hrs	Sat 7/5/14	Tue 7/8/14	95	
184		Pre-Excavation of Integral Abutment Piles, Earth	10 hrs	Fri 6/27/14	Sat 6/28/14	92	
90		Solid Rock Excavation	3 hrs	Fri 6/27/14	Fri 6/27/14	98,99	
185		Pre-Excavation of Integral Abutment Piles, Rock	10 hrs	Mon 6/30/14	Tue 7/1/14	184,153	
107		Steel Piling, HP 10 X 57	1 day	Tue 7/1/14	Wed 7/2/14		
108		Set Pile P1	2.5 hrs	Tue 7/1/14	Tue 7/1/14	185	
109		Set Pile P2	2.5 hrs	Tue 7/1/14	Tue 7/1/14	108	
110		Set Pile P3	2.5 hrs	Tue 7/1/14	Tue 7/1/14	109	
111		Set Pile P4	2.5 hrs	Tue 7/1/14	Wed 7/2/14	110	
136		Precast Concrete Structure (Abutment 2)	2 days	Wed 7/2/14	Fri 7/4/14		
137		Prep for Abutment 2	8 hrs	Wed 7/2/14	Wed 7/2/14	111	
138		Set Abutment 2-1	6 hrs	Thu 7/3/14	Thu 7/3/14	137	
139		Set Abutment 2-2	6 hrs	Thu 7/3/14	Fri 7/4/14	138	
112		Steel Piling, HP 12 X 74	1.2 days	Wed 7/2/14	Thu 7/3/14		
113		Drive Pile P1	3 hrs	Wed 7/2/14	Wed 7/2/14	154	
114		Drive Pile P2	3 hrs	Thu 7/3/14	Thu 7/3/14	113	
115		Drive Pile P3	3 hrs	Thu 7/3/14	Thu 7/3/14	114	
116		Drive Pile P4	3 hrs	Thu 7/3/14	Thu 7/3/14	115	
117		Dynamic Pile Loading Test	10 hrs	Wed 7/2/14	Thu 7/3/14	113SS	
132		Precast Concrete Structure (Abutment 1)	2 days	Thu 7/3/14	Sat 7/5/14		
133		Prep for Abutment 1	8 hrs	Thu 7/3/14	Fri 7/4/14	116	
134		Set Abutment 1-1	6 hrs	Fri 7/4/14	Sat 7/5/14	133	
135		Set Abutment 1-2	6 hrs	Sat 7/5/14	Sat 7/5/14	134	
174		High Performance Concrete, Rapid Set	10 days	Fri 7/4/14	Tue 7/15/14		
175		Place Pile Cavities - Abutment 2	2 hrs	Fri 7/4/14	Fri 7/4/14	139	
176		Place Pile Cavities - Abutment 1	2 hrs	Sat 7/5/14	Sun 7/6/14	135	
177		Form Backwalls	15 hrs	Wed 7/9/14	Fri 7/11/14	192	
178		Form Next Beam Closure Pours	20 hrs	Wed 7/9/14	Fri 7/11/14	192	
179		Place Backwalls	2 hrs	Fri 7/11/14	Fri 7/11/14	177,119SS	
181		Strip Backwalls	8 hrs	Fri 7/11/14	Sat 7/12/14	179	
180		Place Next Beam Closure Pours	2 hrs	Fri 7/11/14	Fri 7/11/14	179,178,120SS	
183		Strip Closure Pours	8 hrs	Fri 7/11/14	Sat 7/12/14	180	
182		Place Approach Slab Closure Pours	2 hrs	Tue 7/15/14	Tue 7/15/14	151,121	
100		Granular Backfill for Structures	2.7 days	Fri 7/4/14	Mon 7/7/14		
101		Abutment 2	10 hrs	Fri 7/4/14	Sat 7/5/14	175	
102		Abutment 1	10 hrs	Sun 7/6/14	Mon 7/7/14	176	



Project: Barnard ER BRF 0241 (39
Date: Wed 6/4/14

Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Deadline | Critical | Critical Split | Progress

ID		Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
131			Bearing Device Assembly, Steel Reinforced Elastomeric Pad	5 hrs	Sun 7/6/14	Mon 7/7/14	187SS	
186			Prestressed Concrete Next D Beams	3 days	Sun 7/6/14	Wed 7/9/14		
187			Install Slider Beam	15 hrs	Sun 7/6/14	Tue 7/8/14	176,175	
188			Set Next - 2	3 hrs	Tue 7/8/14	Tue 7/8/14	187,101,102,13	
189			Set Next - 3	3 hrs	Tue 7/8/14	Tue 7/8/14	188	
190			Set Next - 4	3 hrs	Tue 7/8/14	Wed 7/9/14	189	
191			Remove Slider Beam	3 hrs	Wed 7/9/14	Wed 7/9/14	190	
192			Set Next - 1	3 hrs	Wed 7/9/14	Wed 7/9/14	191	
193			Superstructure Set	0 days	Wed 7/9/14	Wed 7/9/14	192	
171			Grubbing Material	20 hrs	Tue 7/8/14	Thu 7/10/14	156	
89			Common Excavation	10 hrs	Wed 7/9/14	Thu 7/10/14	191	
125			Bridge Railing, Galvanized 3 Rail Box Beam	10 hrs	Wed 7/9/14	Thu 7/10/14	192	
157			Yielding Marker Posts	10 hrs	Wed 7/9/14	Thu 7/10/14	125SS	
158			Box Beam Guardrail	10 hrs	Wed 7/9/14	Thu 7/10/14	157SS	
159			Manufactured Terminal Section, Tangent	10 hrs	Wed 7/9/14	Thu 7/10/14	158SS	
160			Guardrail Approach Section, Galvanized 3 Rail Box Beam	10 hrs	Wed 7/9/14	Thu 7/10/14	159SS	
118			Reinforcing Steel, Level II	3.4 days	Fri 7/11/14	Tue 7/15/14		
119			Backwall Level II Reinforcement	10 hrs	Fri 7/11/14	Sat 7/12/14	177	
120			Next Beam Closure Pour Level II Reinforcement	8 hrs	Fri 7/11/14	Sat 7/12/14	178	
121			Approach Slab Closure Pour Level II Reinforcement	4 hrs	Mon 7/14/14	Tue 7/15/14	151	
103			Subbase of Dense Graded Crushed Stone	4.1 days	Sat 7/12/14	Wed 7/16/14		
105			DGCS within Approach Slab Limit	10 hrs	Sat 7/12/14	Sun 7/13/14	181	
104			DGCS outside Approach Slab Limit	15 hrs	Tue 7/15/14	Wed 7/16/14	182,89	
140			Precast Concrete Structure (Approach Slab 1)	0.6 days	Sun 7/13/14	Mon 7/14/14		
141			Prep for Approach Slab 1	2 hrs	Sun 7/13/14	Sun 7/13/14	105	
142			Set Approach Slab 1-1	1 hr	Sun 7/13/14	Sun 7/13/14	141	
143			Set Approach Slab 1-2	1 hr	Mon 7/14/14	Mon 7/14/14	142	
144			Set Approach Slab 1-3	1 hr	Mon 7/14/14	Mon 7/14/14	143	
145			Set Approach Slab 1-4	1 hr	Mon 7/14/14	Mon 7/14/14	144	
146			Precast Concrete Structure (Approach Slab 2)	1 day	Sun 7/13/14	Mon 7/14/14		
147			Prep for Approach Slab 2	2 hrs	Sun 7/13/14	Sun 7/13/14	105	
148			Set Approach Slab 2-1	1 hr	Mon 7/14/14	Mon 7/14/14	147,145	
149			Set Approach Slab 2-2	1 hr	Mon 7/14/14	Mon 7/14/14	148	
150			Set Approach Slab 2-3	1 hr	Mon 7/14/14	Mon 7/14/14	149	
151			Set Approach Slab 2-4	1 hr	Mon 7/14/14	Mon 7/14/14	150	
123			Membrane Waterproofing, Spray Applied	10 hrs	Tue 7/15/14	Wed 7/16/14	182	
206			Bituminous Concrete Pavement	10 hrs	Wed 7/16/14	Thu 7/17/14	123,104	
106			Aggregate Shoulders, In Place	3 hrs	Thu 7/17/14	Fri 7/18/14	206	
122			Bridge Expansion Joint, Asphaltic Plug	6 hrs	Thu 7/17/14	Fri 7/18/14	206	
168			4 Inch White Line	3 hrs	Thu 7/17/14	Fri 7/18/14	206	
169			4 Inch Yellow Line	3 hrs	Thu 7/17/14	Fri 7/18/14	168SS	
167			Demobilization	18 days	Fri 7/18/14	Wed 8/6/14	203	
173			Traffic Signs, Type A	4 hrs	Fri 7/18/14	Fri 7/18/14	203	
124			Joint Sealer, Hot Poured	4 hrs	Fri 7/18/14	Fri 7/18/14	122	
207			Project Completion	0 days	Fri 8/29/14	Fri 8/29/14	163	



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