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## 1. Purpose

The Northeast Ohio Regional Sewer District (District) is committed to delivering quality, cost-effective infrastructure to its customers in a timely manner. One of the most important

tools the District uses to achieve this goal is accurate, updated, current schedules for its capital projects. Accurate and updated schedules allow the District to effectively track and manage its projects both in aggregate (at the program or District-wide level) and project-by-project.

The District's goal is to take every reasonable step to ensure that projects finish on time and within budget. Project schedules are the fundamental building blocks to planning and executing projects efficiently and on time. These schedules are best prepared by those closest to the work. Because the vast majority of capital project delivery at the District is performed by contractors and consultants, it is critical that contractors and consultants prepare schedules as part of performing their work for the District.

This Schedule Guidance Document is designed to guide contractors and consultants in preparing and submitting acceptable schedules for use by the District.

## 2. Applicability and Basic Requirements

Contractors and consultants are responsible for preparing schedules as defined herein and as required in their contracts and agreements. A waiver allowing a contractor or consultant not to prepare a schedule in accordance with this Schedule Guidance Document may only be granted by the Districts' Director of Engineering and Construction or designee.

There are three (3) basic elements to schedule submittals.

1. **Baseline Schedule.** Initial schedule submitted before work begins that will serve as the baseline for measuring progress and departures from the schedule.
2. **Progress Schedule.** Monthly submittal of a progress schedule documenting progress on the project and any changes anticipated.
3. **Schedule Narrative.** Concise narrative that highlights changes in the schedule, expected delays, key schedule issues, etc., along with a cash flow graph or summary table.

The **Baseline Schedule** is prepared by the contractor or consultant at the beginning of the project and submitted to the District for review and approval.

The **Progress Schedule** is prepared monthly by the contractor or consultant and submitted to the District.

The **Schedule Narrative** is submitted to the District monthly in conjunction with the Progress Schedule.

The schedules required herein will be prepared using the following software (or saved down in the following version) in order to be compatible with the District's schedule system, unless prior permission to use another software is requested and granted by the District.

Primavera Project Planner (now owned by Oracle) version 6.7

## 3. Baseline Schedule

### 3.1. General

The contractor or consultant will develop a cost loaded Schedule using the software version required in Section 2 and the Critical Path Method (CPM).

The District will inform the contractor or consultant of the Project Code (Oracle Number) for the Project. The file naming convention is demonstrated in the examples below.

#### Baseline

Format. ProjectCode(oracle number)\_ACRONYM\_DocumentType\_Date\_

Example. 1701\_NOKPI\_ScheduleBaseline\_08162011\_.XER

#### Monthly Update

Format. ProjectCode(oracle number)\_ACRONYM\_DocumentType\_Date\_

Example. 1701\_NOKPI\_ScheduleUpdate\_09162011\_.XER

#### Monthly Schedule Narrative

Format. ProjectCode(oracle number)\_ACRONYM\_DocumentType\_Date\_

Example. 1701\_NOKPI\_ScheduleNarrative\_09162011\_.DOC

The approved Baseline Schedule is a part of the contract or agreement by reference. The contractor or consultant has the sole responsibility to correct any latent defects in its Baseline Schedule and perform to the subsequently revised schedule.

The contractor or consultant will use the Baseline Schedule to coordinate and monitor the work (including the activities of subcontractors, equipment vendors and suppliers).

The contractor or consultant must keep a copy of the approved baseline schedule.

### 3.2. Schedule Work Breakdown Structure and Activities

#### 3.2.1. Work Breakdown Structure (WBS)

The District's Work Breakdown Structure (WBS) is designed to meet the basic reporting needs for the District's financial and tracking systems. The consultant and/or contractor's project-specific WBS should work within this basic framework and provide additional detail to efficiently deliver and track the work.

WBS elements that are definitely not a part of the scope of services need not be included in the schedule. Note that as many subtasks and activities as desired may be included underneath the WBS elements.

#### 3.2.2. Activities

Activities are the discrete elements of work that make up the schedule. They should be organized underneath the umbrella of the WBS as described in Exhibit A.

The following information should be provided for each activity:

**3.2.2.1. Activity ID Number**

- Use a four-digit number left justified in the activity I.D. field.
- Alphanumeric activity numbers are NOT acceptable.

**3.2.2.2. Activity Description**

- Activity descriptions should adequately describe the activity and in some cases the extent of the activity. Examples of acceptable descriptions might include “install pipeline between Avenue A and Avenue B”, “water line route layout”, etc.).

**3.2.2.3. Activity Durations (Applies to Contractor Schedules Only)**

- The activity duration will be based upon the physical amount of work that is to be performed for the stated activity and are limited to 20 working days. If work is to exceed 20 days, then break the work down so the work will be completed within a 20 day time frame.

**3.2.2.4. Activity Durations (As Applied to Consultant Schedules Only)**

- Activities should be selected that adequately describe the work to be performed. In selecting activities to complete the schedule, activities generally should be either
  - 30 days in duration or less, or
  - \$50,000 in value or less, or
  - a clear example of a level of effort activity over its duration (e.g., CA support during construction), or
  - an intense task of duration greater than 30 days, but less than 180 days, that is amenable to accurately estimating percent complete monthly (e.g., 30% design plan preparation – statused based on percent of 30% plan sheets completed each month).
- The intent of this requirement is to ensure that the activities are segmented sufficiently to adequately track progress.

**3.2.2.5. Activity Start and Finish Dates**

- Activity start and finish dates will only be accepted if calculated by the software.
- Actual activity start and finish dates may not be assigned in a baseline. However they must accurately be assigned in the working version of the schedule (see Section 4 Progress Schedule).

**3.2.2.6. Activity Dependencies**

All activities will be logically tied with a predecessor and a successor. The only exception to this rule will be for the project start and project finish milestones.

**3.2.3. Milestone Activities**

The following milestone activities (i.e., important events on a project that mark critical points in time) are of particular interest to the District and should be reflected in the Project Schedule for all phases of work, as applicable.

**3.2.3.1. Consultant Schedule (Engineering Design Example)**

- Notice to Proceed
- Basis of Design Report Submittal

- 30 percent Plans and Specification Submittal
- 60 percent Plans and Specification Submittal
- 90 percent Plans and Specification Submittal
- Design Complete
- Specific/General Allowance – Note: District controls staff can provide a custom curve for allowance spending for the baseline schedule, if the consultant does not have a planned time to utilize the allowance funding. Normally, a backload curve (30% 30% and 40% usage for 90% 95% and 100% complete) is used.

### 3.2.3.2. Contractor Schedule

- Notice to Proceed (Construction)
- Draft Baseline Schedule submittal
- Preparation and submission of shop drawings, submittals, and any required re-submittals (if applicable)
- Mobilization
- Fabrication and delivery of equipment and materials (if applicable)
- Substantial Completion
- Construction Complete
- Specific/General Allowance – Note: District controls staff can provide a custom curve for allowance spending for the baseline schedule, if the contractor does not have a planned time to utilize the allowance funding. Normally, a backload curve (30% 30% and 40% usage for 90% 95% and 100% complete) is used.

## 3.3. Baseline Schedule Development

The contractor or consultant will designate an authorized representative (Project Scheduler) responsible for developing and updating the schedule and preparing reports. It is recommended that a qualified scheduler develop the baseline schedule.

The contractor's or consultant's initial schedule submittal will contain NO progress and represent the planned work for the duration of the project. Once approved by the District, this schedule will become the baseline against which all future variance analysis will be performed.

The use of activity external constraint dates and lags on relationships is discouraged unless specified or approved by the District. An example of an external constraint date is "concrete placement will begin no later than January 1." The reason for this requirement is that it creates an artificial (rather than calculated) critical path.

The baseline Schedule will consider delivery lead times, construction and access constraints and the coordination of construction with District operations.

### 3.3.1. Safety Requirements

Schedule performance should never take precedence over safety. Project schedules must allow work to be performed in a safe manner.

The contractor or consultant cannot reduce safety or worker protection in order to shorten schedules, recover lost time or accelerate the work.

### 3.3.2. Inclement Weather

Refer to climatology data for anticipating work that can be affected by inclement weather. Historical rain days can be reviewed from the following web site:

[www.srh.noaa.gov/ewx/html/climate.htm](http://www.srh.noaa.gov/ewx/html/climate.htm).

## 3.4. Changes to Approved Baseline Schedule

The approved baseline schedule is the basis for measuring progress on the project (see Section 4, Progress Schedule). As such, the contractor or consultant should develop the baseline schedule considering the realistic delivery of the work tasks and likely constraints.

Changes to the approved baseline schedule may only be considered under limited circumstances. If warranted, any changes will require PRIOR approval by the District Project Manager, District Design Manager and District Deputy Director of Engineering and Construction. Project circumstances that could be considered by the District as potentially warranting re-baselining include the following.

- Modifications to the contract or agreement affecting the scope of the work to be performed and associated schedule
- District-directed significant changes in schedule to meet District needs
- Significant delays, well beyond customary review times and coordination, caused by District or by acts of God

## 4. Progress Schedule

As described in Section 3, the baseline schedule is used to coordinate and monitor the work. The contractor or consultant is required to keep a copy of the approved baseline schedule.

The Progress Schedule is simply a copy of the approved baseline schedule that will be statused monthly. In other words, progress on the project will be shown monthly as an update of the schedule that will be compared to the approved baseline schedule.

Note that the Progress Schedule will be statused (data date) through month end, although the submittal date must comply with Section 6.2 of this document.

### 4.1. Progress Updates

The contractor or consultant should show on the progress schedule update the following:

- The actual dates that activities start
- The actual dates that activities finish
- The remaining duration of activities in progress
- The percent complete of all activities on the schedule (0 percent to 100 percent complete).

## 4.2. Schedule Narrative

The progress schedule will be accompanied monthly by a concise schedule narrative that explains the submitted schedule. The purpose of the schedule narrative is to:

- Speed review time
- Explain variances from baseline on critical path activities
- Explain to the District logic changes and potential schedule conflicts related to dependences.
- Concisely summarize the projected cash flow for the project based on the stated schedule.

If the project is on schedule, and no significant issues related to schedule exist, then the schedule narrative is extremely brief. On the other hand, if the project is falling behind, and/or there are significant conflicts and obstacles to meeting the baseline schedule, then the schedule narrative should describe these issues and what steps will be necessary for the project to recover. Sharing this information ensures that the entire project team will be aware of the issues and have opportunity to assist where applicable.

The cash flow graph/table summarizes the past and future projected costs, by month, of delivering the work.

## 5. Additional Guidance Applicable to Contractor Schedules Only

In addition to the requirements in Sections 1-4 of this Schedule Guidance Document, the contractor's schedule will include the following.

### 5.1.1. Schedule of Value Pay Items

Schedule of Values Pay Items (Work) shall be loaded into the scheduling software using the labor, materials, and equipment resource types showing the quantity of work to be done along with the corresponding value of the work measured in dollars. It is intended that Earned Value will be calculated as the schedule resources are progressed.

## 6. Submittal of Schedules

### 6.1. Submittal File Formats

Every time that a schedule or report is submitted (baseline and monthly progress) the following file formats are required.

#### 6.1.1. Baseline Schedule

Submit the schedule in native file format (see below)

Also submit a .pdf of the bar chart schedule consisting of the following columns:

- Activity ID

- Activity Name
- Duration
- Start Date
- Finish Date
- Float
- Cost

### 6.1.2. Progress Schedule

Submit the schedule in native file format (see below).

Also submit a .pdf of the bar chart schedule consisting of the following columns:

- Activity ID
- Activity Name
- Physical Percent Complete
- Duration
- Start Date
- Finish Date
- Total Float
- Remaining Total Cost

### 6.1.3. Schedule Narrative

Submit the schedule narrative in .doc format with each progress schedule update.

### 6.1.4. Native Schedule File Formats

The native file structure is to save the schedule as follows:

In Primavera 6

- Save the file as an xer file.

## 6.2. Monthly Progress Schedule Submittal Requirements

### 6.2.1. General Submittal Requirements

All schedules must be submitted in their native format (.xer file) as well as in a PDF format. The District will review, accept or reject the schedule within five (5) days of receipt of the baseline or monthly progress submittal.

### 6.2.2. Baseline Schedules for Professional Service Contracts

Baseline schedules for design contracts shall be uploaded directly to the *Project Library (for Designer and District use)* on the project SharePoint site. Draft project baseline schedules must be submitted within thirty (30) calendar days after the formal notice to proceed from the District or as required by the Professional Services Agreement. Final, approved baseline schedules shall be completed within 45 days of the Notice To Proceed.

### 6.2.3. Monthly Progress Updates for Professional Service Contracts

Design consultants are required to submit progress schedule updates no later than the last Friday of the month. Monthly progress updates must be statused (data date), including projections of progress for all activities, through the end of the current month. Subsequent monthly invoices shall be based on the same data date to establish the projects current



earned value, and submitted no later than the 20<sup>th</sup> of the subsequent month. All monthly schedule updates shall be submitted using the *Schedule Reviews* workflow on the project SharePoint site and shall be provided each month for the duration of the contract. Updates shall include all the requirements of section 4. *Progress Updates* (of this document) and are a required part of the Consultant invoice review and approval process. Failure to provide timely monthly schedule updates will stop or delay approval and payment of submitted invoices.

#### **6.2.4. Baseline Schedules for Construction Contracts**

Baseline schedules for construction contracts shall be submitted using the *Submittal Reviews* workflow on the project SharePoint site. Draft project baseline schedules must be submitted within thirty (30) calendar days after the formal Notice To Proceed from the District, and final, approved baseline schedules shall be completed within 90 days of the Notice to Proceed (or as specified in the Contract Documents).

#### **6.2.5. Monthly Progress Updates for Construction Contracts**

Construction contractors are required to submit progress schedule updates no later than the than 20<sup>th</sup> day of each month (or as required by the Contract). Monthly progress updates must be statused (data date), including projections of progress for all activities, through the end of the current month. Monthly updates shall be submitted using the *Schedule Reviews* workflow on the project SharePoint site and shall be submitted each month for the duration of the contract. Updates shall include all the requirements of section 4. *Progress Updates* (of this document) and are a required part of the pay application review and approval process. Failure to provide timely monthly progress updates will stop or delay approval and payment of submitted pay requests.

## Exhibit A – District Work Breakdown Structure

WBS shown in **gray** are reserved for the **District**. WBS shown in **blue** are reserved for **Contractor**. Unshaded WBS items are reserved for Consultants.

WBS Number	Name
<b>7.1</b>	<b>Planning</b>
7.1.1	Project Planning & Development
7.1.3	District Labor
7.1.4	Other Cost
<b>7.2</b>	<b>Procurement</b>
7.2.1	RFP Development
7.2.1.1	District Review Process & Consultant Negotiations
7.2.1.2	Consultant Selection
7.2.3	District Labor
7.2.4	Other Cost
<b>7.3</b>	<b>Project Design</b>
7.3.1	Task 1 – Pre-Design
7.3.2	Task 2 - Design
7.3.2.01	Subtask 2.1 - 30 Percent Design
7.3.2.02	Subtask 2.2 - 60 Percent Design
7.3.2.03	Subtask 2.3 - 90 Percent Design
7.3.2.04	Subtask 2.4 – Final Design
7.3.3	Task 3 - Bidding
7.3.4	Task 4 – Construction CA/RE
7.3.5	Task 5 - Closeout
7.3.6	Task 6 - Allowances
7.3.6.01	Subtask 6.1 – Specific Allowance
7.3.6.02	Subtask 6.2 – General Allowance
<b>7.4</b>	<b>Bidding</b>
7.4.1	Bid and Award
7.4.2	Task 3 - Consultant Services during Bidding
7.4.3	District Labor
7.4.4	Other Cost
<b>7.5</b>	<b>Project Construction</b>
7.5.1	Payment and Performance Bond
7.5.2	Construction Services
7.5.2.01	Task 1
7.5.2.02	Task 2
7.5.2.03	Task 3
7.5.2.04	Task 4
7.5.2.05	Task 5
7.5.2.06	Task 6
7.5.2.07	Task 7

WBS Number	Name
7.5.2.08	Task 8
7.5.2.09	Task 9
7.5.2.10	Task 10
7.5.3	District Labor
7.5.4	Other Cost
7.5.5	Retainage
7.5.6	Inspection Services During Construction
7.5.7	Allowance
7.5.7.01	General Allowance During Construction
7.5.7.02	Specific Allowance During Construction
7.5.7.04	Deduct Orders During Construction
7.5.7.05	Final Deduct Order
7.5.8	Testing Services During Construction
7.5.9	PMO During Construction
7.5.10	SBE During Construction
<b>7.6</b>	<b>Close-Out</b>
7.6.1	Close-Out
7.6.1.01	Task 5 - Engineering Services during Closeout
7.6.1.02	Contractor Work during Closeout
7.6.3	District Labor
7.6.4	Other Cost
7.6.7	Allowance
7.6.7.05	Final Deduct Order

### Exhibit B - Example Baseline Consultant Schedule

Activity ID	Activity Name	Original Duration	Physical % Complete	Performance % Complete	Start	Finish	Budgeted Total Cost	2011												2012												2013												2014											
								Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb													
<b>Consultant Schedule - Baseline</b>																																																							
<b>Project Design</b>																																																							
<b>TASK 1 - Pre-Design</b>																																																							
1000	NTP	0	0%	0%	20-Apr-11	05-Mar-14	\$2,375,390.00																																																
1005	Planning / Field Engineering	25	0%	0%	20-Apr-11	14-May-11	\$35,735.00																																																
1010	Field investigation	27	0%	0%	15-May-11	10-Jun-11	\$95,500.00																																																
1015	Analysis / TM / Prepare preliminary geotechnical rep	29	0%	0%	27-May-11	24-Jun-11	\$48,280.00																																																
1020	Design Report	28	0%	0%	25-Jun-11	22-Jul-11	\$45,216.00																																																
1025	Basis of Design Report Submittal	0	0%	0%	22-Jul-11		\$0.00																																																
1030	District Review	10	0%	0%	23-Jul-11	01-Aug-11	\$0.00																																																
1035	Review meeting	1	0%	0%	02-Aug-11	02-Aug-11	\$3,000.00																																																
1040	Final Basis of Design Report	1	0%	0%	13-Aug-11	13-Aug-11	\$1,000.00																																																
<b>TASK 2 - Design</b>																																																							
<b>Subtask 2.1 - 30% Design</b>																																																							
1100	Surveying	50	0%	0%	20-Apr-11	08-Jun-11	\$33,000.00																																																
1105	Final Geotechnical Investigation	43	0%	0%	09-Jun-11	21-Jul-11	\$46,284.00																																																
1115	Prepare geotechnical reports	45	0%	0%	28-Jun-11	11-Aug-11	\$35,690.00																																																
1120	30% initial plan preparation (status on % of 30% she	90	0%	0%	14-Aug-11	11-Nov-11	\$150,000.00																																																
1125	30% internal plan review	5	0%	0%	12-Nov-11	16-Nov-11	\$30,000.00																																																
1130	30% revised plans (status on % of 30% sheets com	5	0%	0%	17-Nov-11	21-Nov-11	\$29,000.00																																																
1135	30% Initial specifications	60	0%	0%	13-Sep-11	11-Nov-11	\$130,000.00																																																
1140	30% Internal specification review	5	0%	0%	12-Nov-11	16-Nov-11	\$20,000.00																																																
1145	30% revised specifications	5	0%	0%	17-Nov-11	21-Nov-11	\$10,000.00																																																
1150	30% Plans and specifications submittal	0	0%	0%	21-Nov-11		\$0.00																																																
1155	District 30% review	10	0%	0%	22-Nov-11	01-Dec-11	\$0.00																																																
1160	Review meeting & technical review form	1	0%	0%	02-Dec-11	02-Dec-11	\$3,000.00																																																
1165	Consultant response to technical review comments	1	0%	0%	13-Dec-11	13-Dec-11	\$5,000.00																																																
<b>Subtask 2.2 - 60% Design</b>																																																							
1200	60% plans incorp. District comments (status on % c	60	0%	0%	14-Dec-11	11-Feb-12	\$130,000.00																																																
1205	60% internal plan review	5	0%	0%	12-Feb-12	16-Feb-12	\$50,000.00																																																
1215	60% revised plans (status on % of 60% sheets com	5	0%	0%	17-Feb-12	21-Feb-12	\$33,000.00																																																
1220	60% specifications (incl District comments)	30	0%	0%	13-Jan-12	11-Feb-12	\$37,000.00																																																
1225	60% Internal specification review	5	0%	0%	12-Feb-12	16-Feb-12	\$30,000.00																																																
1230	60% revised specifications	5	0%	0%	17-Feb-12	21-Feb-12	\$120,000.00																																																
1235	60% Plans and specifications submittal	0	0%	0%	21-Feb-12		\$0.00																																																
1240	District 60% review	10	0%	0%	22-Feb-12	02-Mar-12	\$0.00																																																
1245	Review meeting & technical review form	1	0%	0%	03-Mar-12	03-Mar-12	\$3,000.00																																																
1250	Consultant response to technical review comments	1	0%	0%	14-Mar-12	14-Mar-12	\$5,000.00																																																
<b>Subtask 2.3 - 90% Design</b>																																																							
1300	90% plans incorp. District comments (status on % c	45	0%	0%	15-Mar-12	28-Apr-12	\$70,000.00																																																
1305	90% internal plan review	5	0%	0%	29-Apr-12	03-May-12	\$50,000.00																																																
1315	90% revised plans (status on % of 90% sheets com	5	0%	0%	04-May-12	08-May-12	\$20,000.00																																																
1320	90% specifications (incl District comments)	25	0%	0%	04-Apr-12	28-Apr-12	\$10,000.00																																																
1325	90% Internal specification review	5	0%	0%	29-Apr-12	03-May-12	\$20,000.00																																																
1330	90% revised specifications	5	0%	0%	04-May-12	08-May-12	\$20,000.00																																																
1335	90% Percent Plans and Specification Submittal	0	0%	0%	08-May-12		\$0.00																																																
1340	District 90% review	10	0%	0%	09-May-12	18-May-12	\$0.00																																																
1345	Review meeting & technical review form	1	0%	0%	19-May-12	19-May-12	\$3,000.00																																																
1350	Consultant response to technical review comments	1	0%	0%	30-May-12	30-May-12	\$5,000.00																																																
<b>Subtask 2.4 - Final Design</b>																																																							
1400	Final plans incorp. District comments (status on % c	42	0%	0%	31-May-12	11-Jul-12	\$40,000.00																																																
1405	Final Plans internal plan review	5	0%	0%	11-Jul-12	16-Jul-12	\$20,000.00																																																
1410	Final revised plans (status on % of total sheets com	5	0%	0%	16-Jul-12	21-Jul-12	\$15,000.00																																																
1415	Final specifications (incl District comments)	21	0%	0%	10-Jun-12	30-Jun-12	\$20,000.00																																																
1420	Final internal specification review	5	0%	0%	30-Jun-12	05-Jul-12	\$13,000.00																																																
1425	Final revised specifications	5	0%	0%	05-Jul-12	10-Jul-12	\$8,000.00																																																
1430	Final Plans and specifications submittal	0	0%	0%	21-Jul-12		\$0.00																																																
1435	District Final Plan review	7	0%	0%	21-Jul-12	28-Jul-12	\$0.00																																																
1440	Review meeting & technical review form	1	0%	0%	31-Jul-12	01-Aug-12	\$3,000.00																																																
1445	Consultant response to technical review comments	1	0%	0%	11-Aug-12	12-Aug-12	\$5,000.00																																																
1450	Final Bid documents for distribution	5	0%	0%	12-Aug-12	17-Aug-12	\$20,000.00																																																
1455	Design Complete	0	0%	0%	17-Aug-12		\$0.00																																																
<b>Task 3 - Bidding</b>																																																							
1500	Bidding Effort,	90	0%	0%	17-Aug-12	15-Nov-12	\$17,000.00																																																
<b>Task 4 - Construction CA/RE</b>																																																							
1600	Submittal / RFI / Schedule Submittals	240	0%	0%	15-Nov-12	13-Jul-13	\$100,000.00																																																
1605	CA Support during the Project	355	0%	0%	15-Dec-12	05-Dec-13	\$307,200.00																																																
<b>Task 5 - Closeout</b>																																																							
1700	Closeout	90	0%	0%	05-Dec-13	05-Mar-14	\$12,000.00																																																
<b>Task 6 - Allowances</b>																																																							
<b>Subtask 6.1 - Specific Allowance</b>																																																							
2100	Valve Engineering	269	0%	0%	14-Aug-11	08-May-12	\$98,785.00																																																
2120	Specific Allowance	1051	0%	0%	20-Apr-11	05-Mar-14	\$78,000.00																																																
2140	Specific Allowance	1051	0%	0%	20-Apr-11	05-Mar-14	\$68,000.00																																																
2160	Specific Allowance	1051	0%	0%	20-Apr-11	05-Mar-14	\$70,000.00																																																
<b>Subtask 6.2 - General Allowance</b>																																																							
2200	General Allowance	813	0%	0%	14-Dec-11	05-Mar-14	\$153,700.00																																																

█ Actual Work    
 █ Critical Remaining Work    
  Baseline Schedule  
█ Remaining Work    
 ◆ Milestone



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M									
<b>BASELINE-Sample</b>							475	16-Jun-11	10-Apr-13	0	\$3,839,000.00	▶ 10-Apr																											
<b>BASELINE-Sample</b>							475	16-Jun-11	10-Apr-13	0	\$3,839,000.00	▶ 10-Apr																											
A0100	Notice To Proceed	0	16-Jun-11*		0	\$0.00	◆ Notice To Proceed																																
A0110	General Submittals	45	16-Jun-11	17-Aug-11	0	\$0.00	■ General Submittals																																
A0120	Manhole Submittals	20	18-Aug-11	14-Sep-11	69	\$0.00	■ Manhole Submittals																																
A1600	Substantial Complete (Feb. 4, 2013)	0		04-Feb-13*	0	\$0.00	◆ Substantial Complete (Feb. 4, 2013)																																
A1480	Final Complete (April 10, 2013)	0		10-Apr-13*	0	\$0.00	◆ Final Complete (April 10, 2013)																																
<b>Payment and Performance Bond</b>							462	16-Jun-11	22-Mar-13	0	\$28,453.40	▶ 22-Mar-13, Performanc																											
A1570	Performance Bond	462	16-Jun-11	22-Mar-13	0	\$28,453.40																																	
<b>Task 1-Misc Items</b>							462	16-Jun-11	22-Mar-13	0	\$316,000.00	▶ 22-Mar-13, Insurance Mobilization																											
A1580	Insurance	462	16-Jun-11	22-Mar-13	0	\$131,000.00																																	
A1590	Mobilization	462	16-Jun-11	22-Mar-13	0	\$185,000.00																																	
<b>Task 2-Phase I</b>							119	18-Aug-11	31-Jan-12	0	\$731,645.00	▶ 31-Jan-12, Task 2-Phase I																											
<b>Inspection</b>							29	18-Aug-11	27-Sep-11	78	\$279,415.00	▶ 27-Sep-11, Inspection																											
A1000	Inspection of Sewers CSO002-CSO028	5	18-Aug-11	24-Aug-11	0	\$39,580.00	■ Inspection of Sewers CSO002-CSO028																																
A1010	Inspection of Sewers CSO035	8	25-Aug-11	05-Sep-11	78	\$84,365.00	■ Inspection of Sewers CSO035																																
A1020	Inspection of Sewers CSO036	8	06-Sep-11	15-Sep-11	78	\$72,180.00	■ Inspection of Sewers CSO036																																
A1540	Inspection of Sewers CSO039-CSO040	8	16-Sep-11	27-Sep-11	78	\$83,290.00	■ Inspection of Sewers CSO039-CSO040																																
<b>Sewer Cleaning</b>							102	25-Aug-11	13-Jan-12	0	\$163,160.00	▶ 13-Jan-12, Sewer Cleaning																											
A1040	Sewer Cleaning	102	25-Aug-11	13-Jan-12	0	\$163,160.00	■ Sewer Cleaning																																
<b>Repair / Rehabilitation / Post Inspection</b>							119	18-Aug-11	31-Jan-12	0	\$289,070.00	▶ 31-Jan-12, Repair / Rehabilitation / Post Inspection																											
A1070	CSO 002 Root Removal	2	18-Aug-11	19-Aug-11	117	\$2,500.00	■ CSO 002 Root Removal																																
A1060	Repairs / Rehabilitation	114	25-Aug-11	31-Jan-12	0	\$286,570.00	■ Repairs / Rehabilitation																																
<b>Task 3-Phase II</b>							99	01-Feb-12	18-Jun-12	0	\$665,063.00	▶ 18-Jun-12, Task 3-Phase II																											
<b>Inspection</b>							26	01-Feb-12	07-Mar-12	63	\$253,797.00	▶ 07-Mar-12, Inspection																											
A1120	Inspection of Sewers CSO050-CSO057	8	01-Feb-12	10-Feb-12	0	\$84,588.00	■ Inspection of Sewers CSO050-CSO057																																
A1130	Inspection of Sewers CSO058	10	13-Feb-12	24-Feb-12	63	\$90,492.00	■ Inspection of Sewers CSO058																																
A1140	Inspection of Sewers CSO059-CSO067	8	27-Feb-12	07-Mar-12	63	\$78,717.00	■ Inspection of Sewers CSO059-CSO067																																
<b>Sewer Cleaning</b>							81	13-Feb-12	04-Jun-12	0	\$148,240.00	▶ 04-Jun-12, Sewer Cleaning																											
A1160	Sewer Cleaning	81	13-Feb-12	04-Jun-12	0	\$148,240.00	■ Sewer Cleaning																																
<b>Repair / Rehabilitation / Post Inspection</b>							91	13-Feb-12	18-Jun-12	0	\$263,026.00	▶ 18-Jun-12, Repair / Rehabilitation / Post Inspection																											
A1200	Repairs / Rehabilitation	91	13-Feb-12	18-Jun-12	0	\$263,026.00	■ Repairs / Rehabilitation																																
<b>Task 4-Phase III</b>							96	19-Jun-12	30-Oct-12	0	\$613,277.00	▶ 30-Oct-12, Task 4-Phase III																											
<b>Inspection</b>							23	19-Jun-12	19-Jul-12	73	\$239,633.00	▶ 19-Jul-12, Inspection																											
A1210	Inspection of Sewers CSO069-CSO080	5	19-Jun-12	25-Jun-12	0	\$95,540.00	■ Inspection of Sewers CSO069-CSO080																																
A1220	Inspection of Sewers CSO081-CSO084	3	26-Jun-12	28-Jun-12	73	\$24,943.00	■ Inspection of Sewers CSO081-CSO084																																
A1230	Inspection of Sewers CSO086	5	29-Jun-12	05-Jul-12	73	\$46,549.00	■ Inspection of Sewers CSO086																																
A1240	Inspection of Sewers CSO087-CSO088	2	06-Jul-12	09-Jul-12	73	\$12,465.00	■ Inspection of Sewers CSO087-CSO088																																
A1250	Inspection of Sewers CSO092-CSO096	3	10-Jul-12	12-Jul-12	73	\$23,300.00	■ Inspection of Sewers CSO092-CSO096																																
A1260	Inspection of Sewers CSO097-CSO201	5	13-Jul-12	19-Jul-12	73	\$36,836.00	■ Inspection of Sewers CSO097-CSO201																																
<b>Sewer Cleaning</b>							85	26-Jun-12	22-Oct-12	0	\$139,960.00	▶ 22-Oct-12, Sewer Cleaning																											
A1270	Sewer Cleaning	85	26-Jun-12	22-Oct-12	0	\$139,960.00	■ Sewer Cleaning																																
<b>Repair / Rehabilitation / Post Inspection</b>							91	26-Jun-12	30-Oct-12	0	\$233,684.00	▶ 30-Oct-12, Repair / Rehabilitation / Post Inspection																											
A1280	Repairs / Rehabilitation	91	26-Jun-12	30-Oct-12	0	\$233,684.00	■ Repairs / Rehabilitation																																
<b>Task 5-Phase IV</b>							103	31-Oct-12	22-Mar-13	0	\$686,171.00	▶ 22-Mar-13, Inspection																											
<b>Inspection</b>							26	31-Oct-12	05-Dec-12	42	\$262,455.00	▶ 05-Dec-12, Inspection																											
A1390	Inspection of Sewers CSO202-CSO205	10	31-Oct-12	13-Nov-12	0	\$94,642.00	■ Inspection of Sewers CSO202-CSO205																																

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
A1400	Inspection of Sewers CSO206-CSO224	8	14-Nov-12	23-Nov-12	42	\$87,852.00																								
A1410	Inspection of Sewers CSO230-CSO240	8	26-Nov-12	05-Dec-12	42	\$79,961.00																								
<b>Sewer Cleaning</b>		<b>83</b>	<b>14-Nov-12</b>	<b>08-Mar-13</b>	<b>0</b>	<b>\$153,065.00</b>																								
A1420	Sewer Cleaning	83	14-Nov-12	08-Mar-13	0	\$153,065.00																								
<b>Repair / Rehabilitation / Post Inspection</b>		<b>93</b>	<b>14-Nov-12</b>	<b>22-Mar-13</b>	<b>0</b>	<b>\$270,651.00</b>																								
A1430	Repairs / Rehabilitation	93	14-Nov-12	22-Mar-13	0	\$270,651.00																								
<b>Task 6-Manhole Repairs</b>		<b>150</b>	<b>15-Sep-11</b>	<b>11-Apr-12</b>	<b>247</b>	<b>\$429,250.00</b>																								
A1490	CSO002-CSO035 Manhole Repairs	30	15-Sep-11	26-Oct-11	69	\$85,850.00																								
A1500	CSO036-CSO040 Manhole Repairs	30	27-Oct-11	07-Dec-11	247	\$90,144.00																								
A1510	CSO051-CSO084 Manhole Repairs	30	08-Dec-11	18-Jan-12	247	\$72,972.00																								
A1520	CSO087-CSO205 Manhole Repairs	30	19-Jan-12	29-Feb-12	247	\$81,560.00																								
A1530	CSO206-CSO234 Manhole Repairs	30	01-Mar-12	11-Apr-12	247	\$98,724.00																								
<b>General Allowance</b>		<b>462</b>	<b>16-Jun-11</b>	<b>22-Mar-13</b>	<b>0</b>	<b>\$344,140.60</b>																								
A1550	General Allowance	462	16-Jun-11	22-Mar-13	0	\$344,140.60																								
<b>Specific Allowance (Utility Allowance)</b>		<b>462</b>	<b>16-Jun-11</b>	<b>22-Mar-13</b>	<b>0</b>	<b>\$25,000.00</b>																								
A1560	Utility Allowance	462	16-Jun-11	22-Mar-13	0	\$25,000.00																								







**NMES Monthly Project Cash Flow by Activity**

Activity ID	Start	Finish	Budgeted Total Cost	Actual Total Cost	Remaining Total Cost 01-Jan-11 - 31-Mar-12	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
9MB2 9 Mile Creek Baseline Schedule V01 - Accepted	1-Mar-11	1-Mar-12	\$0.00	\$0.00											
9MB2.1234.5.2.01 Site Work - Clearing & Grubbing, Earthwork, Grading, Aggregate	5-Apr-11	17-Nov-11	\$195,000.00	\$0.00			\$57,585.38	\$39,878.62				\$17,705.73	\$74,630.27	\$5,200.00	
9MB2.1234.5.2.02 Site Work - Construction & Post Construction Sedimentation & Water Control Measures	12-Apr-11	31-May-11	\$71,700.00	\$0.00			\$14,225.00	\$57,475.00							
9MB2.1234.5.2.03 Site Work -Oil/Water Separator System Complete	25-Jul-11	26-Jul-11	\$69,300.00	\$0.00						\$69,300.00					
9MB2.1234.5.2.04 Concrete Work - Excavation, Equipment Foundations, Backfilling & Compaction	31-Mar-11	10-Aug-11	\$279,000.00	\$0.00		\$50.00	\$950.00		\$76,418.33	\$84,191.67	\$117,390.00				
9MB2.1234.5.2.05 Concrete Work - Drilled Shaft Foundations Components	19-May-11	8-Jun-11	\$152,600.00	\$0.00				\$91,560.00	\$61,040.00						
9MB2.1234.5.2.06 Electrical Work - Labor, Bulk Materials and Components	5-Apr-11	3-Nov-11	\$214,000.00	\$0.00			\$2,320.00	\$18,032.00	\$121,340.00	\$36,000.00		\$10,138.40	\$25,694.00	\$475.60	
9MB2.1234.5.2.07 Electrical Work - Procured Major Equipment	1-Mar-11	31-Dec-11	\$3,190,000.00	\$0.00		\$50,815.70	\$82,565.64	\$145,950.67	\$297,110.67	\$172,919.64	\$1,613,855.03	\$695,077.34	\$54,260.44	\$60,242.97	\$17,201.90
9MB2.1234.5.2.08 Electrical Work - Grounding System Complete	18-Aug-11	21-Sep-11	\$37,900.00	\$0.00							\$15,160.00	\$22,740.00			
9MB2.1234.5.2.09 Electrical Work - Fabricated Structures Complete	13-Jul-11	20-Oct-11	\$289,000.00	\$0.00						\$225,200.00	\$19,526.67	\$39,401.33	\$4,872.00		
9MB2.1234.1 Bond	1-Mar-11	1-Mar-11	\$38,500.00	\$0.00		\$38,500.00									
9MB2.1234.5.7.01 General Allowance	27-Oct-11	21-Dec-11	\$449,850.00	\$0.00									\$33,738.75	\$247,417.50	\$168,693.75
<b>Total</b>	<b>1-Mar-11</b>	<b>1-Mar-12</b>	<b>\$4,986,850.00</b>	<b>\$0.00</b>		<b>\$89,365.70</b>	<b>\$157,646.02</b>	<b>\$352,896.29</b>	<b>\$555,909.00</b>	<b>\$587,611.31</b>	<b>\$1,765,931.70</b>	<b>\$785,062.80</b>	<b>\$193,195.46</b>	<b>\$313,336.07</b>	<b>\$185,895.65</b>